OUR 99TH ANNIVERSARY

WASHERS
2018 CATALOG

AS9100
ISO9001
CERTIFIED

BOKER'S, INC.
WASHERS, SPACERS & SHIMS
SINCE 1919

32,000 SIZES • 2,000 MATERIALS • ENDLESS POSSIBILITIES • FAST DELIVERY

bokers.com is Your Complete Resource for Made-to-Order Washers, Spacers and Shims

This complete catalog of washers and spacers is also available by accessing our website at **bokers.com**. This valuable resource makes finding the right size washer or spacer faster and easier than ever. Key in the desired size range by OD or ID and get an immediate display of all available sizes in inch or millimeter measurements. There's nothing easier! Visit our **mobile-friendly** website today!

Choose from a wide variety of sizes and materials with no tooling charges when you order non-standard flat washers and spacers from Boker's 2018 Catalog. With outside diameters of 0.080" to 5.140" and a wide variety of inside diameters and thicknesses as well as material variations, you have endless possibilities. In the 1.000" OD size alone, there are over 250 options available.

Special Shapes and Sizes

As the photo shows, Boker's can make special washer shapes and sizes, up to 12" in outside diameter. These custom items are made with very low tooling costs. They can be easily quoted by mailing, faxing or emailing us your print. Tell us what you need, and we'll make it to your exact specifications.

Metric Sizes No Problem!

All Boker's washer sizes are also available in metric measurements and searchable at **bokers.com**. To specify a specific metric size, simply send us your prints or call toll-free at (800) 927-4377.

Fast Delivery

At Boker's, fast delivery is the standard practice. Boker's can also meet your delivery and stocking requirements with flexible "Just-In-Time" (J.I.T.) and "Dock-to-Stock" programs. In case of an urgent requirement, your order can also be expedited for even faster delivery.

Minimum Quantity

Orders require a minimum production run of 100 pieces, though deliveries of lesser quantities can be arranged. Per-unit costs rapidly decrease as the quantity increases.

High-Volume Orders

Increased washer production capacity and enhanced technology allow Boker's quality non-standard washers to be manufactured quickly, well into the millions.

New Tools Continually Added! **For the most up-to-date list of washer sizes, please visit** bokers.com

Over 2,000 Materials

To expedite your order and shorten delivery time, Boker's has immediate access to over 2,000 commonly specified and hard-to-find materials including low carbon, cold rolled strip and sheet steel; SAE 1050, 1075, and 1095 spring steel, blue and black temper spring steel, low alloy steel sheets, brass, copper, nickel silver, beryllium copper, phosphor bronze, stainless steel, aluminum; and several non-metallic materials such as acetal, PTFE, polyester, nylon, fiber, polyethylene, and NEMA grade laminates. Plus varieties of wrought cobalt, iron and nickel-base superalloys for demanding, high-performance applications. Certificates of Compliance or chemical/physical analysis are available upon request. Whatever your needs, if it can be stamped, Boker's can turn it into your washer or spacer.

Non-Metallic Washers and Spacers

The thickness ranges stated in this catalog are minimum and maximum values for metallic washers and spacers but may be suitable for non-metallic pieces as well. For easy reference, tools listed in **BOLD TYPE** can be considered for non-metallic items from .005" to .125" thick.

When determining the proper sized tool for your washer or spacer, the outside diameter (O.D.) listed in the catalog typically remains the same for both the metallic and non-metallic part. The inside diameter (I.D.), however, may shrink by as much as ten percent of the material thickness depending on the material used and its thickness.

Boker's estimates of these shrinkage factors are as follows:

MATERIAL	FACTOR %	MATERIAL	FACTOR %
Polycarbonate	10-12	Polypropylene	5-10
Nylon	10	PTFE	5
Polyethylene	10	Polyester	5
Acetal	10	Linen Phenolic	5
PVC	10	Vulcanized Fiber	0-5
A.B.S.	10	FR-4	0-5
MD Nylon	10	G-10	0-5

For assistance in determining the actual tool to be used, please contact one of our estimators at (800) 927-4377.

Secondary Operations

Boker's provides the secondary operations you require including deburring, tapping, counterboring, reaming, and spotfacing to name a few. Boker's also has approved vendors for heat treating, grinding and plating. See page 63 for a full list of equipment and capabilities.

Precision Fabrication

It's important for you to know that the washers and spacers you get from Boker's are going to meet your specifications. From the first part to the last... Those are not just words at Boker's, but the goal of the quality-conscious personnel who produce your precision parts with tolerances as close as the specifications demand, and sometimes even closer. Metallic washers and spacers are flat, tumble deburred, and can be heat treated or plated. As a final check, your parts are sent to the inspection department before your order is shipped.

AS9100/ISO9001 Certified

Boker's takes their manufacturing practices very seriously and maintains AS9100/ISO9001 certified status. This means when you purchase products from Boker's you will have the confidence our processes are efficient and effective.

Quality Assurance and Certification

- ✔ C of C
- ✔ PPAP
- ✔ DFARS
- ✔ RoHS
- ✔ S.P.C.
- ✔ F.A.I.
- ✔ AS9102
- ✔ Dock-To-Stock
- ✔ Conflict Materials Compliant
- ✔ CA Proposition 65
- ✔ Latex-Free
- ✔ REACH
- ✔ ITAR

Boker's Environmental Compliance Statement

Boker's, Inc. is committed to responsible business practices that portray our dedication to our employees, customers and country. Boker's sources conflict-free material and services, in addition to materials that do not contain regulated or hazardous substances, from validated suppliers. These include, but are not limited to, tin, tantalum, tungsten and gold. It is important that our suppliers adhere to the laws put in place to ensure our values and commitments are reflected in our customer offering.

Though this catalog's primary focus is to provide you with thousands of non-standard, round flat washer sizes that are available without tool charges, there are many specific applications that demand a more specialized washer type. Following is an overview of just some of the many washer styles Boker's produces, and what they are optimally designed for. To review Boker's complete Optimal Washer Solution guide, visit **bokers.com/washerguide**.

Flat: Most common washer category generally used for load disbursement. Internal and external shape may be round, symmetrically square, hexagonal or rectangular.

Tab: A type of lock washer designed with one or more tabs or notches to effectively lock a part into place, generally used where heat or heavy vibrations are a factor.

Lock: Designed to secure fasteners that have a tendency to rotate or lose friction. Often paired with a flat washer to evenly disburse load without deforming the assembly.

Cylindrically Curved: They offer the most uniform spring constant of any of the spring washer types.

Finishing: Also referred to as "countersunk" washers, finishing washers are often found on consumer products and used as an appearance part where the washer catches the head of a fastener, allowing it to sit flush with it's surrounding surface.

Shoulder: Shoulder washers, also known as "step" or "flange" washers, have an appearance of a low-crowned top hat and an integral cylindrical sleeve. The sleeve is designed to mate with a cutout and segregates the fastener from the material it is secured to.

Wave: These washers are ideal for obtaining loads when the load is static or the working range is small and the amount of axial space is limited.

Belleville: Deliver the highest load capacity of all the spring washers and are very common in thermal expansion applications.

Fender: Fender washers have an outside diameter that is much larger in proportion to the center hole to distribute a load evenly across a large surface area.

Shim Stacks: Ideal for simple and complex applications as they offer exact dimensions for precise spacing.

Visit **bokers.com/washerguide** for more information.

| Flat | Tab | Lock | Cylindrically Curved | Finishing |

| Shoulder | Wave | Belleville | Fender | Shim Stacks |
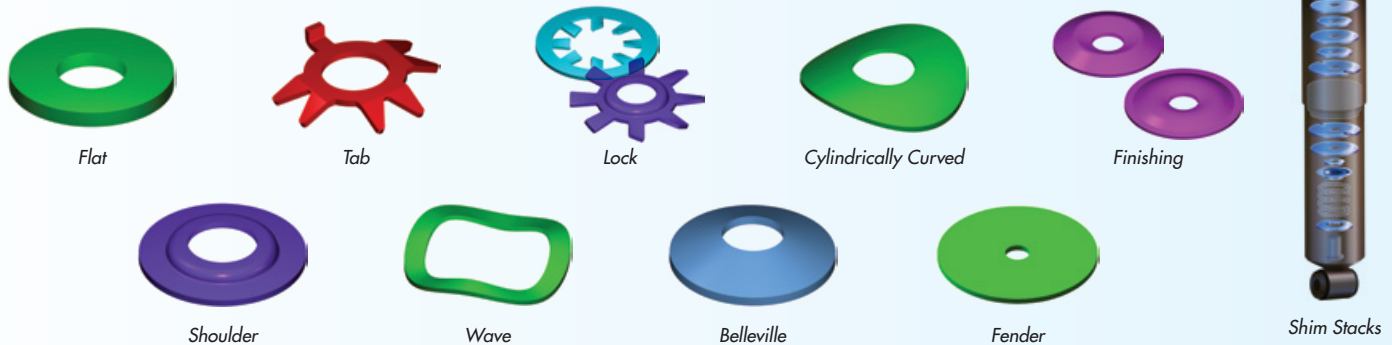
Edge Conditions for Stampings and Washers

Burrs are a normal by-product of the metal stamping blank and piercing process. They can have ragged, sharp and uneven edges.

For more information, please contact one of our estimators for assistance at **800-927-4377**.

Feature Size: This is to be measured only in cut portion of the hole and cut portion of the outside diameter.

Shear or Burnished Land: This is a burnished area which is approximately one third of the material thickness.

Break: This is an area which is tapered about three degrees. This area has a rougher surface than the shear area.

Roll Over: This area is a natural consequence of the punching process and the mechanical properties of the material being punched and the die application techniques employed.

DETAIL CLOSE-UP

MATERIAL THICKNESS	WHEN DEBURRING IS NOT SPECIFIED	WHEN DEBURRING IS SPECIFIED SUCH AS "MUST BE BURR FREE"
.010" or less	.001"	**.0005"**
.011" – .039"	.002"	**.001"**
.040" – .079"	.003"	**.002"**
.080" – .125"	.004"	**.003"**
.126" or more	.006"	**.004"**

Boker's maximum burr on metallic washers and stampings

WASHER CROSS-SECTION

We're the industry leader in *custom manufacturing*.
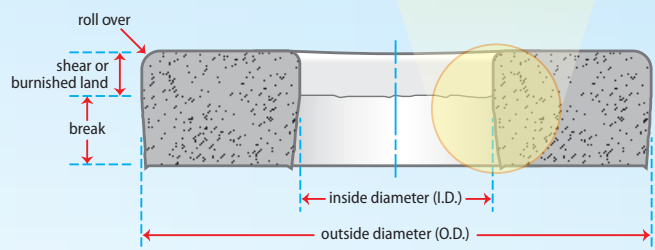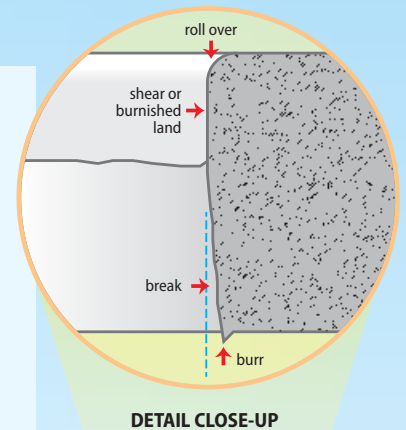
Boker's 3D Printing Prototyping Services

PROTOTYPES   FINAL PRODUCTS

Boker's now offers additive manufacturing (3D printing) to provide customers with 3D prototypes. With our Stratasys 3D Printer, you'll be able to see how your product will turn out in advance. No more guess work or uncertainty. Only precision. This service allows customers to test parts for form, fit and function prior to production of the actual stamped part. Make sure to take advantage of our capabilities next time you work with us.

The Widest Range of Disks Available

All of Boker's 32,000 flat washer sizes are available without the I.D. hole. Disks, commonly referred to as discs, circles, plates and/or slugs, are typically round washers with or without a center hole. Functional uses of disks include providing a precise space between components or materials as well as load disbursement.

Boker's disks are offered with outside diameters ranging from 0.030" to 12" and with material thickness options ranging from 0.005" to 0.134". Boker's produces disks in more than 2,000 commonly specified and difficult-to-find materials.

Approaching 100 Years of Dependability and Service

Boker's, Inc. has been a privately-held, owner-operated company dedicated to providing quality washers and stampings since 1919. Over the last 99 years Boker's has built a broad customer base spanning the globe. Our diversity in a variety of industries adds to our strength. We will continue to work hard to meet or exceed our customer's expectations, providing quality products on time. You can rest assured that we are here now and will be in the future.

STAY IN THE LOOP WITH BOKER'S *BULLETIN*
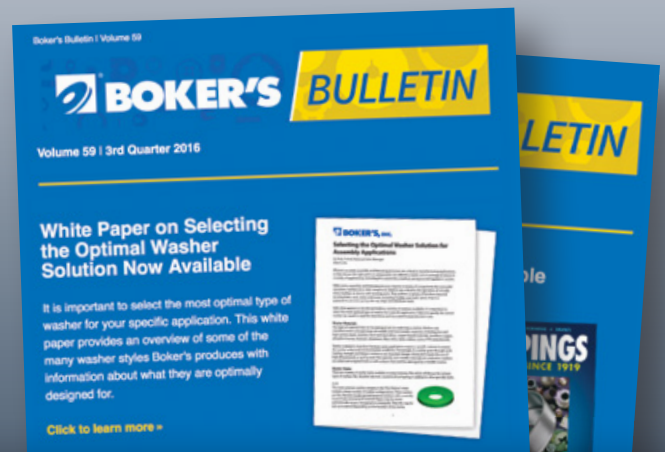
Your FREE online source for the latest stamping news and offerings from Boker's. This electronic newsletter is sent out on a quarterly basis and contains industry news as well as other metal forming industry information. Subscribe today by going to bokersbulletin.com

When your needs go beyond washers and spacers, Boker's is there to help you with full stamping capabilities. With over 99 years of experience in the stamping business, Boker's has developed the expertise necessary to produce the more complicated stampings with the same precision that goes into every one of your washers and spacers.

Boker's has specialized in producing high-quality metal stampings for over nine decades. Our precision manufacturing covers a complete range of sizes up to 12" x 12" (flat) with thicknesses from .005" to .134" and draws of up to 3" deep and 8" in diameter.

At Boker's, we utilize the latest stamping technologies and manufacturing concepts to continually provide you with stampings of the highest quality. This diligent effort to achieve and retain the highest quality possible in our metal stamping processes goes back to 1919.

Our process begins with our in-house tool department, where wire EDM-produced tooling provides the dimensional tolerances you require. Complete Statistical Process Control (S.P.C.) is available upon request to further assure accuracy throughout the manufacturing process. Our "Dock-to-Stock" capability saves you inspection time and is another example of our commitment to customer service. Boker's World Class Manufacturing also means we can meet your delivery requirements with flexible Just-In-Time (J.I.T.) programs.

Draws up to 3" deep and 8" in diameter

Complex metal forming from .005" to .134" thick

Flat blanking and piercings up to 12" by 12"
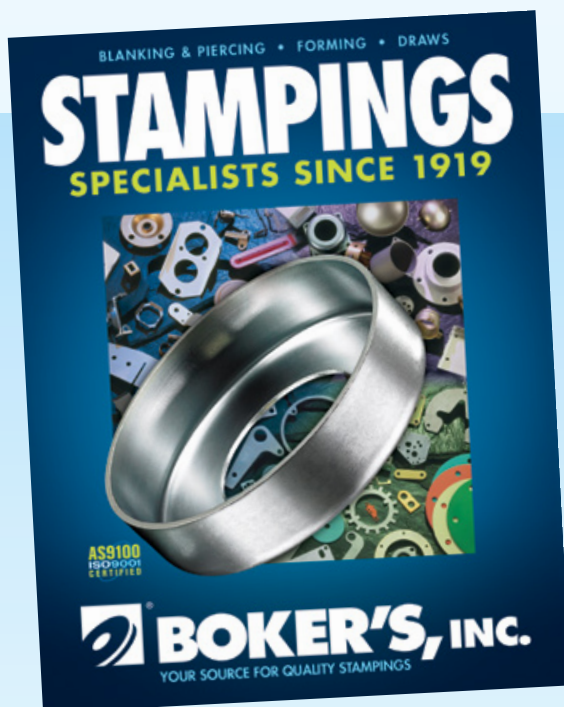
Stampings Brochure

Our new 2018 Boker's Stampings Brochure offers eight pages of useful metal forming, flat blanking, piercing and draw capabilities information to help you make the most of our products. Inside, you'll find a useful gauge decimal equivalent chart, base elements index, and a comprehensive glossary of stamping terms that will help broaden your understanding of stampings. Contact your Boker's representative for a copy today.

Boker's can produce your most complex metal stamping needs in short, medium and long runs.

Boker's Non-Standard Washers and Spacers

This is our list of stock tools from which our washers are made to your order in any quantity without a tooling charge. We do NOT carry any washers in stock. You can choose an exact thickness for metal washers within the tool range indicated. For easy reference, tools in **BOLD TYPE** can be considered for non-metallic items from .005" to .125" thick. For the most up-to-date list of sizes, please visit **bokers.com**

O.D.	I.D.	Choose Any Thickness* From - To
.080	.049	.005 - .010
.081	.033	.005 - .010
.084	.043	.005 - .010
.084	.048	.012 - .020
.084	.065	.005 - .010
.085	.040	.005 - .010
.085	.043	.005 - .010
.085	.048	.010 - .015
.086	.027	.010 - .020
.086	.036	.005 - .008
.086	.045	.005 - .010
.086	.048	.010 - .015
.087	.025	.005 - .010
.087	.043	.015 - .030
.088	.032	.005 - .010
.088	.066	.005 - .015
.089	.044	.005 - .010
.089	.065	.005 - .015
.090	.030	.010 - .015
.090	.050	.010 - .015
.090	.054	.010 - .015
.090	.064	.008 - .012
.091	.031	.005 - .010
.091	.065	.005 - .010
.092	.027	.010 - .015
.092	.041	.008 - .012
.092	.043	.010 - .020
.092	.044	.005 - .010
.092	.047	.005 - .010
.092	.060	.005 - .010
.092	.068	.005 - .010
.093	.036	.010 - .020
.093	.049	.010 - .020
.093	.051	.005 - .020
.094	.062	.010 - .015
.095	.024	.010 - .015
.095	.043	.005 - .010
.095	.049	.005 - .010
.095	.052	.005 - .010
.095	.056	.015 - .020
.097	.060	.005 - .010
.097	.074	.005 - .010
.098	.040	.005 - .010
.098	.064	.010 - .020
.098	.065	.005 - .010
.099	.050	.005 - .010
.100	.026	.010 - .015
.100	.035	.005 - .010
.100	.040	.005 - .010
.100	.055	.020 - .030
.100	.062	.005 - .010
.100	.065	.005 - .020
.100	.067	.015 - .025
.101	.036	.015 - .025
.101	.045	.005 - .030
.101	.049	.015 - .020
.101	.050	.005 - .010
.102	.040	.020 - .030
.102	.053	.020 - .030
.104	.044	.020 - .030
.105	.030	.005 - .015
.105	.037	.015 - .025
.105	.044	.005 - .010
.105	.047	.005 - .010
.105	.056	.015 - .025
.105	.057	.005 - .010
.105	.063	.010 - .020
.106	.065	.010 - .020
.106	.069	.005 - .012
.106	.077	.005 - .012
.107	.055	.005 - .012
.108	.055	.005 - .020
.109	.047	.012 - .020
.109	.058	.010 - .020
.109	.067	.008 - .018
.110	.032	.010 - .015
.110	.054	.005 - .010
.110	.055	.010 - .020
.110	.073	.005 - .010
.111	.061	.010 - .020
.111	.067	.015 - .025
.111	.082	.005 - .010
.112	.039	.005 - .010
.112	.044	.012 - .020
.112	.059	.015 - .025
.112	.061	.005 - .010
.112	.062	.015 - .025
.112	.067	.015 - .025
.112	.073	.005 - .010
.113	.052	.005 - .010
.113	.074	.005 - .010
.114	.040	.030 - .040
.114	.044	.005 - .010
.114	.066	.005 - .010
.114	.073	.005 - .010
.115	.031	.010 - .020
.115	.033	.005 - .010
.115	.061	.005 - .010
.115	.079	.005 - .015
.116	.037	.005 - .010
.116	.055	.010 - .020
.116	.066	.015 - .025
.116	.067	.005 - .010
.116	.073	.005 - .010
.117	.032	.005 - .010
.117	.035	.005 - .012
.117	.056	.010 - .015
.118	.058	.010 - .020
.118	.073	.005 - .020
.118	.075	.005 - .015
.118	.080	.005 - .012
.118	.091	.005 - .010
.120	.039	.010 - .020
.120	.040	.010 - .020
.120	.041	.005 - .010
.120	.050	.005 - .010
.120	.062	.010 - .020
.120	.063	.015 - .030
.120	.065	.005 - .010
.120	.070	.015 - .030
.120	.073	.005 - .010
.120	.080	.010 - .016
.121	.043	.005 - .012
.121	.047	.005 - .010
.121	.054	.010 - .025
.121	.062	.010 - .020
.121	.072	.005 - .010
.121	.092	.005 - .010
.122	.049	.010 - .020
.122	.056	.005 - .010
.122	.066	.020 - .030
.122	.073	.005 - .010
.122	.076	.010 - .020
.122	.095	.008 - .015
.123	.032	.005 - .020
.123	.034	.020 - .030
.123	.035	.010 - .020
.123	.036	.005 - .010
.123	.052	.020 - .040
.123	.058	.005 - .010
.123	.080	.010 - .020
.123	.082	.010 - .020
.124	.028	.005 - .010
.124	.063	.005 - .010
.124	.065	.015 - .025
.124	.066	.015 - .030
.124	.073	.005 - .010
.125	.049	.005 - .010
.125	.052	.005 - .012
.125	.054	.015 - .025
.125	.055	.020 - .030
.125	.060	.015 - .030
.125	.062	.010 - .020
.125	.063	.005 - .020
.125	.064	.010 - .020
.125	.065	.005 - .030
.125	.066	.005 - .030
.125	.067	.015 - .025
.125	.068	.010 - .032
.125	.069	.005 - .010
.125	.072	.012 - .020
.125	.076	.020 - .025
.125	.078	.005 - .010
.126	.042	.008 - .032
.126	.050	.005 - .012
.126	.052	.008 - .025
.126	.057	.025 - .032
.126	.062	.008 - .040
.126	.064	.005 - .010
.126	.065	.005 - .015
.126	.068	.005 - .010
.126	.073	.005 - .010
.126	.080	.005 - .010
.126	.095	.005 - .015
.126	.096	.005 - .010
.127	.039	.020 - .032
.127	.042	.010 - .020
.127	.047	.015 - .030
.127	.065	.012 - .020
.127	.067	.010 - .020
.127	.077	.015 - .025
.127	.083	.015 - .030
.127	.093	.010 - .015
.127	.094	.008 - .015
.128	.056	.015 - .025
.128	.073	.005 - .010
.128	.076	.015 - .030
.128	.078	.005 - .010
.128	.089	.005 - .010
.128	.103	.005 - .010
.129	.083	.010 - .020
.130	.061	.010 - .020
.130	.063	.020 - .030
.130	.073	.005 - .010
.131	.059	.005 - .012
.132	.073	.005 - .010
.133	.052	.005 - .010
.133	.088	.005 - .010
.133	.096	.010 - .020
.134	.041	.005 - .010
.134	.070	.010 - .020
.134	.071	.005 - .010
.134	.073	.005 - .010
.134	.095	.005 - .010
.135	.035	.005 - .010
.135	.059	.005 - .010
.135	.060	.005 - .010
.135	.066	.005 - .010
.135	.072	.005 - .015
.135	.085	.005 - .010
.136	.064	.015 - .030
.136	.073	.005 - .010
.136	.090	.005 - .010
.136	.095	.012 - .020
.137	.049	.005 - .010
.137	.066	.012 - .025
.137	.077	.020 - .030
.137	.091	.008 - .016
.138	.049	.010 - .020
.138	.070	.005 - .010
.138	.073	.005 - .010
.138	.075	.015 - .030
.138	.088	.005 - .010
.138	.102	.005 - .010
.139	.047	.005 - .010
.139	.053	.005 - .012
.139	.056	.010 - .020
.139	.057	.005 - .012
.139	.063	.005 - .010
.139	.066	.015 - .030
.139	.095	.010 - .020
.139	.097	.005 - .010
.140	.062	.005 - .010
.140	.073	.005 - .010
.140	.082	.005 - .032
.140	.090	.005 - .010
.140	.095	.005 - .010
.140	.109	.010 - .015
.141	.061	.005 - .010
.141	.065	.015 - .025
.141	.067	.010 - .016
.141	.076	.005 - .010
.141	.079	.015 - .025
.141	.092	.015 - .025
.142	.038	.015 - .030
.142	.073	.005 - .010
.142	.076	.005 - .010
.142	.078	.005 - .010
.142	.083	.005 - .010
.142	.089	.020 - .030
.142	.098	.010 - .015
.143	.052	.005 - .010
.143	.083	.015 - .025
.143	.095	.010 - .020
.143	.097	.005 - .015
.144	.065	.005 - .010
.144	.073	.005 - .010
.144	.076	.010 - .020
.145	.056	.005 - .010
.145	.068	.005 - .012
.145	.090	.005 - .010
.145	.097	.005 - .010
.145	.116	.005 - .010
.146	.046	.010 - .020
.146	.065	.005 - .010
.146	.073	.005 - .010
.146	.107	.005 - .010
.147	.067	.020 - .032
.147	.111	.010 - .025
.148	.068	.010 - .020
.148	.073	.005 - .010
.148	.077	.010 - .020
.149	.036	.005 - .010
.149	.079	.005 - .010
.149	.086	.005 - .010
.149	.095	.005 - .010
.149	.097	.015 - .025
.150	.033	.005 - .010
.150	.035	.010 - .020
.150	.041	.005 - .030
.150	.044	.005 - .010
.150	.046	.005 - .010
.150	.056	.015 - .020
.150	.057	.010 - .020
.150	.059	.005 - .010
.150	.065	.005 - .010
.150	.066	.006 - .010
.150	.073	.005 - .010
.150	.077	.010 - .020
.150	.083	.010 - .020
.150	.087	.010 - .015
.150	.088	.005 - .010
.150	.089	.015 - .025
.150	.090	.015 - .030
.150	.091	.005 - .012
.150	.099	.020 - .025
.150	.116	.016 - .020
.151	.056	.015 - .025
.151	.069	.005 - .010
.151	.073	.005 - .010
.151	.077	.015 - .020
.151	.078	.010 - .020
.151	.083	.025 - .030
.152	.094	.020 - .025
.152	.095	.015 - .025
.152	.098	.005 - .010
.152	.100	.005 - .010
.153	.056	.010 - .020
.153	.061	.005 - .010
.153	.062	.005 - .010
.153	.073	.015 - .025
.153	.077	.025 - .035
.153	.078	.005 - .015
.153	.081	.020 - .035
.153	.095	.020 - .030
.153	.100	.010 - .025
.154	.073	.020 - .040
.154	.095	.005 - .010
.154	.101	.005 - .010
.154	.110	.020 - .030
.154	.115	.005 - .010
.155	.064	.015 - .030
.155	.066	.005 - .010
.155	.069	.005 - .015
.155	.072	.020 - .040
.155	.076	.010 - .020
.155	.078	.008 - .012
.155	.081	.005 - .010
.155	.084	.005 - .010
.155	.094	.015 - .025
.155	.111	.005 - .010
.155	.124	.010 - .020
.156	.044	.015 - .035
.156	.049	.005 - .015
.156	.052	.010 - .032
.156	.053	.005 - .012
.156	.062	.020 - .040
.156	.064	.016 - .025
.156	.065	.020 - .040
.156	.066	.020 - .035
.156	.067	.008 - .018
.156	.068	.010 - .040
.156	.070	.010 - .020
.156	.071	.005 - .020
.156	.077	.015 - .035
.156	.078	.005 - .010
.156	.080	.025 - .035
.156	.088	.006 - .015
.156	.094	.010 - .015
.156	.095	.005 - .010
.156	.098	.010 - .020
.156	.100	.016 - .025
.156	.103	.015 - .030
.156	.106	.005 - .010
.156	.115	.005 - .010
.157	.043	.020 - .030
.157	.057	.005 - .025
.157	.061	.010 - .020
.157	.064	.005 - .010
.157	.066	.010 - .020
.157	.086	.005 - .010
.157	.088	.005 - .010
.157	.091	.010 - .020
.157	.092	.010 - .020
.157	.094	.020 - .030
.157	.096	.005 - .030
.157	.120	.005 - .010
.157	.127	.005 - .010
.158	.040	.010 - .020
.158	.046	.012 - .025
.158	.050	.020 - .035
.158	.057	.010 - .020
.158	.060	.020 - .030
.158	.089	.020 - .032
.158	.094	.025 - .035
.158	.095	.005 - .010
.158	.098	.005 - .015
.158	.100	.015 - .020
.158	.101	.005 - .010
.158	.119	.015 - .025
.159	.077	.005 - .010
.159	.081	.005 - .010
.159	.095	.005 - .010
.159	.100	.010 - .025
.159	.110	.005 - .012
.160	.060	.005 - .015
.160	.088	.010 - .020
.160	.090	.025 - .040
.160	.095	.025 - .040
.161	.063	.015 - .030
.161	.069	.010 - .020
.161	.076	.015 - .030
.162	.061	.005 - .020
.162	.077	.012 - .020
.162	.086	.020 - .032
.162	.097	.010 - .020
.162	.112	.005 - .010
.163	.082	.015 - .030
.163	.110	.015 - .020
.163	.128	.005 - .010
.163	.129	.005 - .010
.164	.081	.010 - .020
.164	.087	.005 - .010
.164	.100	.005 - .012
.164	.114	.010 - .020
.165	.040	.005 - .010
.165	.045	.015 - .030
.165	.051	.010 - .015
.165	.061	.025 - .040
.165	.071	.005 - .010
.165	.073	.005 - .015
.165	.075	.005 - .010
.165	.080	.015 - .025
.165	.083	.005 - .010
.165	.090	.005 - .010
.165	.096	.015 - .030
.165	.100	.015 - .025
.165	.125	.005 - .010
.165	.126	.015 - .025
.166	.062	.005 - .010

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For a size NOT listed, send specs or phone for quote — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To
.166	.073	.010 - .020	.177	.122	.015 - .020	.185	.136	.010 - .025	.188	.129	.020 - .030	.197	.077	.005 - .010	.203	.063	.005 - .032
.166	.075	.005 - .010	.177	.125	.005 - .010	.185	.145	.005 - .010	.188	.131	.020 - .030	.197	.091	.020 - .040	.203	.072	.015 - .040
.166	.081	.005 - .010	.177	.127	.005 - .010	.186	.028	.006 - .010	.188	.164	.010 - .020	.197	.099	.005 - .010	.203	.091	.010 - .040
.166	.108	.010 - .020	.178	.050	.030 - .040	.186	.035	.005 - .010	.189	.043	.025 - .040	.197	.103	.005 - .010	.203	.092	.030 - .040
.166	.125	.005 - .010	.178	.077	.015 - .030	.186	.038	.005 - .010	.189	.053	.030 - .040	.197	.116	.005 - .010	.203	.093	.040 - .060
.166	.129	.005 - .010	.178	.113	.005 - .015	.186	.046	.010 - .020	.189	.064	.010 - .050	.197	.121	.005 - .010	.203	.107	.005 - .010
.167	.031	.005 - .010	.178	.119	.030 - .042	.186	.064	.008 - .020	.189	.094	.040 - .060	.197	.122	.020 - .040	.203	.114	.015 - .040
.167	.065	.010 - .020	.178	.123	.005 - .010	.186	.075	.015 - .025	.189	.095	.025 - .045	.197	.129	.005 - .010	.203	.123	.005 - .010
.167	.078	.005 - .010	.178	.137	.010 - .020	.186	.079	.015 - .040	.189	.102	.005 - .010	.197	.139	.030 - .040	.203	.124	.010 - .020
.167	.085	.010 - .020	.178	.139	.005 - .010	.186	.086	.005 - .010	.189	.108	.010 - .020	.197	.147	.015 - .025	.203	.128	.015 - .025
.167	.108	.010 - .020	.179	.039	.005 - .010	.186	.088	.015 - .025	.189	.109	.005 - .010	.198	.088	.010 - .020	.203	.137	.020 - .040
.168	.082	.005 - .010	.179	.101	.010 - .020	.186	.093	.015 - .030	.189	.119	.005 - .010	.198	.092	.010 - .030	.203	.170	.005 - .020
.168	.096	.025 - .040	.179	.103	.005 - .010	.186	.094	.025 - .035	.189	.136	.010 - .020	.198	.095	.015 - .030	.203	.175	.005 - .010
.168	.130	.005 - .010	.179	.113	.005 - .010	.186	.096	.005 - .010	.190	.030	.005 - .010	.198	.097	.005 - .010	.203	.176	.005 - .010
.169	.115	.015 - .025	.179	.115	.025 - .030	.186	.098	.012 - .025	.190	.048	.005 - .010	.198	.102	.020 - .030	.204	.044	.005 - .010
.170	.034	.005 - .010	.180	.081	.020 - .035	.186	.099	.005 - .010	.190	.091	.005 - .010	.198	.114	.005 - .010	.204	.075	.025 - .040
.170	.064	.015 - .032	.180	.089	.005 - .032	.186	.103	.005 - .010	.190	.095	.040 - .060	.198	.116	.005 - .010	.204	.100	.005 - .010
.170	.067	.010 - .020	.180	.090	.010 - .020	.186	.108	.010 - .020	.190	.113	.010 - .020	.198	.126	.020 - .030	.204	.105	.030 - .040
.170	.070	.020 - .030	.180	.094	.010 - .025	.186	.118	.030 - .040	.190	.128	.010 - .015	.198	.131	.020 - .040	.204	.125	.025 - .040
.170	.089	.015 - .025	.180	.096	.005 - .010	.186	.119	.005 - .010	.190	.130	.015 - .030	.198	.147	.005 - .010	.204	.143	.020 - .030
.170	.097	.005 - .010	.180	.100	.025 - .040	.186	.124	.020 - .030	.190	.132	.005 - .010	.199	.050	.005 - .010	.204	.157	.010 - .020
.170	.109	.025 - .035	.180	.114	.020 - .040	.186	.125	.010 - .030	.191	.038	.005 - .010	.199	.088	.030 - .050	.205	.038	.015 - .025
.170	.121	.005 - .010	.180	.115	.005 - .010	.186	.126	.005 - .010	.191	.039	.010 - .020	.199	.105	.030 - .050	.205	.050	.030 - .040
.171	.065	.005 - .010	.180	.118	.005 - .010	.186	.127	.010 - .015	.191	.063	.010 - .016	.199	.122	.010 - .020	.205	.079	.020 - .030
.171	.086	.030 - .050	.180	.128	.005 - .010	.186	.129	.020 - .040	.191	.065	.025 - .050	.199	.154	.005 - .015	.205	.094	.010 - .020
.171	.087	.015 - .030	.180	.141	.005 - .010	.186	.136	.010 - .020	.191	.069	.025 - .040	.199	.158	.015 - .020	.205	.097	.010 - .020
.171	.090	.005 - .030	.181	.071	.005 - .010	.186	.155	.005 - .010	.191	.075	.040 - .060	.200	.026	.005 - .010	.205	.112	.010 - .020
.171	.098	.007 - .015	.181	.078	.007 - .016	.187	.042	.015 - .030	.191	.077	.005 - .030	.200	.053	.005 - .010	.205	.115	.015 - .025
.171	.101	.010 - .020	.181	.087	.005 - .010	.187	.074	.015 - .030	.191	.092	.032 - .050	.200	.057	.005 - .010	.205	.131	.010 - .020
.171	.128	.010 - .020	.181	.093	.005 - .010	.187	.077	.020 - .040	.191	.104	.020 - .030	.200	.066	.005 - .010	.205	.137	.025 - .040
.171	.129	.010 - .020	.181	.095	.010 - .016	.187	.078	.025 - .050	.191	.119	.010 - .020	.200	.072	.020 - .030	.205	.147	.025 - .030
.171	.130	.005 - .010	.181	.116	.015 - .030	.187	.080	.005 - .010	.191	.142	.005 - .010	.200	.078	.020 - .030	.206	.051	.005 - .015
.172	.036	.005 - .010	.181	.127	.015 - .025	.187	.081	.005 - .010	.191	.151	.005 - .010	.200	.079	.010 - .020	.206	.094	.005 - .010
.172	.074	.005 - .020	.181	.128	.005 - .025	.187	.082	.005 - .042	.191	.162	.015 - .020	.200	.086	.025 - .040	.206	.154	.005 - .010
.172	.080	.015 - .025	.182	.052	.010 - .020	.187	.084	.005 - .010	.192	.091	.020 - .040	.200	.087	.025 - .040	.206	.161	.005 - .010
.172	.081	.020 - .030	.182	.057	.012 - .020	.187	.086	.030 - .050	.192	.118	.005 - .010	.200	.090	.010 - .020	.207	.112	.005 - .010
.172	.096	.020 - .032	.182	.068	.010 - .020	.187	.089	.010 - .030	.192	.120	.020 - .040	.200	.092	.005 - .010	.207	.127	.015 - .025
.172	.103	.010 - .020	.182	.083	.040 - .050	.187	.090	.025 - .040	.192	.125	.005 - .010	.200	.095	.015 - .025	.207	.132	.020 - .030
.172	.109	.020 - .040	.182	.094	.015 - .030	.187	.091	.015 - .025	.192	.133	.005 - .010	.200	.096	.005 - .010	.207	.133	.020 - .030
.172	.128	.005 - .010	.182	.110	.010 - .020	.187	.095	.005 - .010	.192	.149	.015 - .025	.200	.097	.015 - .030	.207	.144	.010 - .020
.173	.065	.015 - .030	.182	.130	.005 - .016	.187	.096	.010 - .025	.193	.075	.015 - .030	.200	.098	.015 - .025	.207	.147	.005 - .010
.173	.070	.020 - .030	.182	.134	.005 - .010	.187	.098	.015 - .025	.193	.095	.020 - .040	.200	.100	.040 - .050	.208	.099	.010 - .020
.173	.079	.020 - .030	.183	.067	.012 - .025	.187	.100	.005 - .010	.193	.103	.010 - .020	.200	.101	.005 - .040	.208	.120	.005 - .060
.173	.088	.005 - .010	.183	.090	.010 - .020	.187	.104	.032 - .042	.193	.111	.005 - .010	.200	.102	.005 - .030	.208	.127	.015 - .025
.173	.092	.020 - .035	.183	.096	.020 - .030	.187	.106	.015 - .040	.193	.123	.015 - .030	.200	.105	.010 - .025	.208	.128	.040 - .050
.173	.096	.020 - .040	.183	.097	.005 - .010	.187	.108	.005 - .010	.193	.130	.005 - .010	.200	.110	.025 - .035	.208	.129	.020 - .030
.173	.100	.010 - .020	.183	.101	.020 - .036	.187	.115	.015 - .032	.193	.133	.005 - .010	.200	.116	.010 - .020	.208	.130	.005 - .010
.173	.102	.010 - .020	.183	.105	.005 - .010	.187	.116	.010 - .020	.193	.162	.010 - .012	.200	.124	.020 - .036	.208	.147	.005 - .010
.173	.104	.016 - .025	.183	.106	.010 - .020	.187	.122	.005 - .010	.194	.065	.020 - .030	.200	.125	.005 - .010	.208	.155	.005 - .010
.173	.114	.010 - .020	.183	.118	.015 - .030	.187	.124	.020 - .030	.194	.068	.040 - .060	.200	.126	.020 - .036	.208	.163	.010 - .015
.173	.117	.005 - .025	.183	.120	.005 - .010	.187	.125	.005 - .010	.194	.094	.005 - .010	.200	.128	.025 - .040	.209	.078	.005 - .010
.174	.044	.020 - .030	.183	.131	.015 - .025	.187	.126	.005 - .010	.195	.032	.005 - .010	.200	.143	.015 - .030	.209	.090	.015 - .030
.174	.077	.010 - .020	.183	.132	.005 - .010	.187	.127	.010 - .020	.195	.075	.020 - .030	.200	.153	.005 - .010	.209	.114	.005 - .010
.174	.093	.040 - .060	.183	.141	.005 - .020	.187	.128	.005 - .010	.195	.076	.015 - .030	.200	.160	.020 - .030	.209	.116	.025 - .040
.174	.095	.020 - .032	.183	.143	.008 - .012	.187	.129	.005 - .012	.195	.078	.005 - .008	.200	.163	.005 - .010	.209	.117	.005 - .010
.174	.097	.025 - .040	.184	.062	.010 - .020	.187	.135	.005 - .010	.195	.099	.030 - .050	.200	.177	.010 - .020	.209	.128	.015 - .030
.174	.106	.005 - .010	.184	.065	.005 - .010	.188	.030	.020 - .032	.195	.100	.020 - .035	.201	.038	.005 - .010	.209	.143	.012 - .020
.174	.137	.010 - .020	.184	.086	.015 - .030	.188	.031	.005 - .010	.195	.102	.020 - .040	.201	.067	.010 - .020	.209	.146	.015 - .025
.175	.056	.005 - .025	.185	.070	.025 - .050	.188	.046	.005 - .010	.195	.108	.015 - .030	.201	.078	.005 - .010	.209	.151	.005 - .010
.175	.077	.005 - .010	.185	.075	.020 - .030	.188	.054	.030 - .050	.195	.126	.005 - .020	.201	.082	.020 - .040	.210	.102	.005 - .010
.175	.089	.015 - .030	.185	.076	.025 - .040	.188	.060	.020 - .040	.195	.128	.005 - .030	.201	.083	.020 - .030	.210	.128	.005 - .010
.175	.090	.005 - .030	.185	.078	.015 - .030	.188	.061	.025 - .040	.195	.145	.015 - .040	.201	.086	.005 - .010	.210	.155	.010 - .020
.175	.092	.005 - .030	.185	.080	.005 - .010	.188	.063	.010 - .015	.196	.050	.010 - .020	.201	.096	.020 - .040	.210	.162	.020 - .040
.175	.099	.005 - .010	.185	.083	.015 - .030	.188	.071	.005 - .015	.196	.055	.025 - .040	.201	.115	.015 - .025	.211	.084	.015 - .030
.175	.102	.020 - .030	.185	.086	.008 - .020	.188	.075	.030 - .050	.196	.075	.010 - .020	.201	.126	.020 - .032	.211	.088	.005 - .010
.175	.121	.010 - .020	.185	.089	.015 - .030	.188	.077	.010 - .015	.196	.086	.025 - .035	.201	.134	.005 - .010	.211	.091	.020 - .040
.175	.123	.030 - .040	.185	.092	.005 - .035	.188	.083	.025 - .040	.196	.090	.005 - .010	.201	.141	.005 - .010	.211	.104	.005 - .010
.175	.124	.025 - .030	.185	.093	.020 - .035	.188	.087	.010 - .020	.196	.102	.005 - .010	.201	.148	.005 - .012	.211	.106	.020 - .040
.175	.127	.005 - .010	.185	.095	.005 - .025	.188	.093	.005 - .010	.196	.104	.005 - .010	.201	.161	.005 - .010	.211	.111	.010 - .020
.175	.128	.015 - .020	.185	.097	.010 - .020	.188	.094	.005 - .020	.196	.105	.015 - .030	.202	.057	.010 - .020	.211	.112	.005 - .010
.176	.053	.005 - .010	.185	.098	.005 - .010	.188	.095	.005 - .010	.196	.117	.008 - .015	.202	.066	.015 - .025	.211	.120	.005 - .010
.176	.081	.005 - .010	.185	.110	.020 - .030	.188	.102	.005 - .015	.196	.122	.010 - .020	.202	.067	.005 - .015	.211	.129	.015 - .030
.176	.119	.010 - .020	.185	.118	.015 - .030	.188	.103	.020 - .030	.196	.128	.005 - .010	.202	.101	.015 - .025	.211	.133	.020 - .035
.177	.053	.005 - .010	.185	.119	.015 - .030	.188	.106	.010 - .020	.196	.129	.005 - .025	.202	.116	.015 - .020	.211	.142	.025 - .035
.177	.070	.005 - .010	.185	.126	.020 - .030	.188	.113	.020 - .040	.196	.130	.010 - .020	.202	.120	.015 - .032	.211	.158	.005 - .010
.177	.081	.005 - .010	.185	.127	.005 - .010	.188	.118	.015 - .025	.196	.140	.010 - .020	.202	.126	.005 - .010	.211	.163	.020 - .032
.177	.094	.007 - .015	.185	.128	.010 - .020	.188	.119	.005 - .012	.196	.142	.005 - .010	.202	.128	.005 - .010	.211	.167	.005 - .010
.177	.099	.005 - .015	.185	.129	.005 - .015	.188	.121	.010 - .025	.196	.145	.005 - .012	.202	.134	.005 - .010	.212	.084	.005 - .010
.177	.113	.005 - .015	.185	.131	.005 - .010	.188	.122	.005 - .010	.197	.055	.015 - .025	.202	.136	.020 - .032	.212	.093	.015 - .030
.177	.119	.030 - .042	.185	.134	.005 - .010	.188	.128	.005 - .036	.197	.062	.030 - .050	.203	.056	.005 - .010	.212	.120	.010 - .020

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Call BOKER'S for precision stamping, assembly, and secondary operations.

O.D.	I.D.	Choose Any Thickness* From – To	O.D.	I.D.	Choose Any Thickness* From – To	O.D.	I.D.	Choose Any Thickness* From – To	O.D.	I.D.	Choose Any Thickness* From – To	O.D.	I.D.	Choose Any Thickness* From – To	O.D.	I.D.	Choose Any Thickness* From – To
.212	.124	.005 - .010	.218	.137	.005 - .010	.223	.155	.005 - .010	.233	.124	.010 - .020	.238	.143	.005 - .010	.246	.094	.010 - .020
.212	.131	.005 - .010	.218	.138	.020 - .040	.223	.191	.005 - .010	.233	.127	.005 - .010	.238	.146	.030 - .040	.246	.122	.025 - .040
.212	.135	.005 - .015	.218	.140	.015 - .025	.224	.075	.025 - .040	.233	.130	.005 - .015	.238	.181	.020 - .030	.246	.128	.005 - .010
.212	.137	.015 - .025	.218	.141	.025 - .036	.224	.139	.005 - .012	.233	.147	.005 - .010	.239	.068	.008 - .016	.246	.131	.005 - .010
.212	.138	.005 - .012	.218	.143	.015 - .030	.224	.141	.005 - .010	.233	.155	.005 - .010	.239	.094	.005 - .010	.246	.134	.005 - .010
.212	.158	.015 - .025	.218	.169	.015 - .025	.224	.147	.005 - .010	.233	.163	.010 - .015	.239	.131	.032 - .050	.246	.142	.015 - .030
.213	.043	.005 - .012	.219	.070	.020 - .030	.225	.063	.005 - .010	.233	.170	.020 - .030	.239	.141	.015 - .030	.246	.170	.005 - .010
.213	.066	.025 - .040	.219	.085	.005 - .010	.225	.090	.015 - .030	.233	.173	.005 - .010	.239	.142	.015 - .030	.246	.180	.010 - .020
.213	.077	.015 - .030	.219	.090	.005 - .010	.225	.092	.005 - .010	.233	.191	.005 - .010	.239	.148	.005 - .010	.246	.182	.020 - .030
.213	.100	.005 - .010	.219	.103	.010 - .020	.225	.101	.015 - .030	.234	.039	.005 - .010	.239	.161	.030 - .050	.246	.197	.015 - .025
.213	.108	.005 - .010	.219	.106	.005 - .020	.225	.111	.015 - .030	.234	.066	.042 - .062	.239	.163	.030 - .040	.247	.051	.010 - .020
.213	.110	.010 - .020	.219	.124	.020 - .040	.225	.113	.005 - .010	.234	.096	.042 - .060	.239	.181	.005 - .010	.247	.063	.030 - .050
.213	.130	.025 - .040	.219	.126	.010 - .030	.225	.125	.015 - .032	.234	.121	.005 - .020	.239	.190	.005 - .015	.247	.080	.010 - .040
.213	.154	.005 - .010	.219	.127	.030 - .040	.225	.129	.030 - .050	.234	.126	.015 - .025	.240	.024	.005 - .010	.247	.090	.020 - .030
.213	.160	.010 - .025	.219	.129	.010 - .015	.225	.135	.005 - .015	.234	.128	.015 - .030	.240	.072	.005 - .010	.247	.091	.030 - .050
.213	.162	.020 - .030	.219	.130	.015 - .030	.225	.141	.005 - .015	.234	.129	.005 - .010	.240	.090	.020 - .030	.247	.095	.040 - .060
.214	.050	.005 - .010	.219	.142	.005 - .010	.225	.144	.015 - .030	.234	.134	.020 - .030	.240	.102	.010 - .020	.247	.097	.005 - .020
.214	.062	.015 - .030	.219	.147	.025 - .040	.225	.147	.025 - .040	.234	.135	.030 - .050	.240	.105	.010 - .020	.247	.100	.005 - .010
.214	.089	.010 - .020	.219	.156	.010 - .020	.225	.150	.005 - .010	.234	.138	.010 - .020	.240	.108	.025 - .040	.247	.118	.005 - .020
.214	.098	.010 - .020	.219	.161	.005 - .035	.225	.164	.005 - .010	.234	.140	.005 - .010	.240	.109	.005 - .010	.247	.119	.025 - .040
.214	.100	.015 - .025	.219	.171	.005 - .010	.226	.087	.005 - .010	.234	.142	.035 - .050	.240	.125	.025 - .060	.247	.125	.020 - .032
.214	.109	.020 - .030	.219	.173	.005 - .010	.226	.098	.015 - .050	.234	.192	.010 - .020	.240	.131	.005 - .010	.247	.126	.023 - .032
.214	.126	.005 - .010	.220	.040	.005 - .010	.226	.108	.020 - .030	.235	.048	.005 - .010	.240	.135	.005 - .030	.247	.127	.025 - .042
.214	.163	.010 - .020	.220	.051	.025 - .035	.226	.114	.025 - .040	.235	.068	.010 - .050	.240	.136	.005 - .010	.247	.132	.020 - .030
.214	.166	.005 - .010	.220	.063	.010 - .020	.226	.129	.005 - .030	.235	.086	.020 - .030	.240	.139	.005 - .010	.247	.138	.005 - .010
.214	.169	.010 - .015	.220	.065	.020 - .032	.226	.175	.005 - .010	.235	.088	.020 - .030	.240	.151	.005 - .010	.247	.140	.005 - .010
.214	.180	.005 - .010	.220	.069	.005 - .010	.226	.193	.005 - .010	.235	.090	.005 - .010	.240	.160	.015 - .040	.247	.141	.020 - .032
.215	.034	.010 - .030	.220	.070	.020 - .030	.227	.050	.010 - .020	.235	.099	.005 - .010	.240	.188	.005 - .010	.247	.144	.005 - .010
.215	.063	.005 - .010	.220	.090	.005 - .010	.227	.127	.005 - .010	.235	.102	.015 - .030	.241	.103	.005 - .010	.247	.147	.005 - .010
.215	.073	.030 - .040	.220	.091	.005 - .040	.227	.153	.020 - .032	.235	.108	.030 - .050	.241	.119	.020 - .035	.247	.158	.030 - .040
.215	.088	.010 - .015	.220	.099	.005 - .010	.228	.051	.020 - .030	.235	.114	.010 - .030	.241	.128	.015 - .030	.247	.159	.010 - .020
.215	.090	.042 - .062	.220	.106	.005 - .015	.228	.091	.005 - .010	.235	.126	.030 - .050	.241	.148	.005 - .010	.247	.164	.005 - .010
.215	.091	.010 - .025	.220	.108	.010 - .020	.228	.096	.010 - .020	.235	.130	.015 - .030	.241	.162	.005 - .010	.247	.169	.020 - .030
.215	.100	.010 - .050	.220	.109	.005 - .010	.228	.106	.020 - .035	.235	.131	.025 - .040	.241	.180	.005 - .010	.247	.185	.005 - .010
.215	.104	.010 - .020	.220	.113	.032 - .048	.228	.118	.010 - .050	.235	.134	.020 - .035	.242	.072	.005 - .010	.247	.190	.010 - .020
.215	.106	.005 - .015	.220	.114	.010 - .020	.228	.121	.010 - .020	.235	.138	.015 - .025	.242	.100	.005 - .010	.247	.205	.005 - .010
.215	.112	.020 - .040	.220	.117	.025 - .042	.228	.129	.020 - .030	.235	.139	.025 - .040	.242	.118	.010 - .020	.247	.206	.005 - .010
.215	.123	.015 - .035	.220	.122	.025 - .040	.228	.131	.015 - .030	.235	.152	.020 - .032	.242	.128	.005 - .010	.248	.052	.035 - .050
.215	.127	.005 - .012	.220	.125	.020 - .030	.228	.148	.005 - .010	.235	.156	.010 - .020	.242	.129	.015 - .025	.248	.063	.015 - .025
.215	.137	.010 - .015	.220	.127	.025 - .048	.228	.167	.005 - .010	.235	.161	.005 - .010	.242	.145	.010 - .015	.248	.065	.015 - .030
.215	.138	.020 - .030	.220	.128	.005 - .050	.229	.096	.010 - .020	.235	.164	.010 - .020	.242	.146	.005 - .010	.248	.067	.015 - .030
.215	.144	.030 - .050	.220	.129	.020 - .035	.229	.139	.015 - .025	.235	.167	.020 - .036	.242	.147	.010 - .020	.248	.078	.015 - .030
.215	.162	.005 - .010	.220	.140	.010 - .020	.229	.149	.005 - .010	.235	.202	.005 - .010	.242	.163	.025 - .035	.248	.087	.005 - .015
.215	.164	.005 - .010	.220	.144	.025 - .035	.229	.166	.010 - .020	.236	.055	.020 - .040	.242	.172	.025 - .040	.248	.089	.020 - .035
.215	.166	.005 - .010	.220	.147	.015 - .025	.230	.038	.020 - .030	.236	.061	.005 - .010	.242	.192	.012 - .020	.248	.091	.030 - .040
.215	.168	.010 - .020	.220	.159	.005 - .010	.230	.050	.020 - .030	.236	.070	.010 - .020	.242	.194	.005 - .010	.248	.092	.005 - .015
.215	.170	.005 - .010	.220	.166	.015 - .020	.230	.073	.015 - .030	.236	.078	.005 - .010	.243	.095	.015 - .025	.248	.093	.005 - .030
.216	.054	.015 - .032	.220	.177	.042 - .062	.230	.094	.042 - .062	.236	.080	.020 - .030	.243	.130	.010 - .050	.248	.094	.040 - .060
.216	.055	.005 - .010	.220	.179	.005 - .010	.230	.097	.010 - .020	.236	.082	.015 - .030	.243	.133	.005 - .010	.248	.098	.005 - .010
.216	.057	.020 - .030	.221	.061	.050 - .060	.230	.108	.005 - .010	.236	.091	.020 - .030	.243	.136	.005 - .010	.248	.100	.015 - .030
.216	.110	.010 - .020	.221	.065	.005 - .010	.230	.120	.005 - .010	.236	.094	.015 - .030	.243	.145	.010 - .020	.248	.106	.060 - .080
.216	.120	.010 - .020	.221	.084	.020 - .035	.230	.121	.010 - .020	.236	.097	.015 - .030	.243	.146	.010 - .020	.248	.118	.015 - .032
.216	.126	.005 - .010	.221	.099	.020 - .030	.230	.130	.005 - .060	.236	.098	.030 - .048	.243	.162	.020 - .035	.248	.120	.025 - .040
.216	.148	.005 - .010	.221	.106	.010 - .020	.230	.145	.010 - .040	.236	.107	.020 - .030	.243	.170	.010 - .020	.248	.122	.015 - .032
.216	.162	.010 - .020	.221	.117	.005 - .010	.230	.152	.010 - .020	.236	.118	.005 - .010	.243	.188	.005 - .010	.248	.123	.020 - .030
.217	.080	.020 - .030	.221	.122	.020 - .035	.230	.160	.010 - .020	.236	.127	.005 - .010	.243	.198	.005 - .020	.248	.128	.005 - .040
.217	.084	.015 - .030	.221	.125	.020 - .035	.230	.167	.005 - .010	.236	.129	.005 - .010	.244	.070	.020 - .030	.248	.129	.030 - .050
.217	.100	.030 - .050	.221	.126	.020 - .035	.230	.176	.005 - .010	.236	.130	.015 - .030	.244	.088	.005 - .010	.248	.130	.005 - .010
.217	.106	.015 - .030	.221	.130	.030 - .042	.230	.180	.005 - .010	.236	.131	.005 - .010	.244	.106	.015 - .030	.248	.133	.015 - .030
.217	.116	.008 - .016	.221	.135	.005 - .010	.231	.046	.005 - .010	.236	.155	.005 - .010	.244	.119	.005 - .010	.248	.135	.015 - .025
.217	.118	.050 - .070	.221	.144	.005 - .010	.231	.068	.020 - .030	.236	.160	.005 - .010	.244	.127	.010 - .015	.248	.152	.030 - .050
.217	.120	.025 - .040	.221	.156	.020 - .030	.231	.096	.050 - .070	.236	.161	.005 - .010	.244	.147	.005 - .015	.248	.155	.005 - .010
.217	.161	.015 - .030	.222	.050	.010 - .020	.231	.116	.040 - .060	.236	.182	.005 - .010	.244	.150	.015 - .030	.248	.158	.025 - .042
.217	.166	.005 - .010	.222	.093	.020 - .030	.231	.120	.035 - .048	.236	.192	.005 - .010	.244	.191	.015 - .030	.248	.176	.010 - .020
.217	.191	.005 - .010	.222	.095	.008 - .012	.231	.130	.010 - .020	.236	.210	.005 - .010	.244	.192	.005 - .010	.248	.208	.010 - .020
.218	.069	.015 - .025	.222	.114	.010 - .020	.231	.146	.005 - .010	.237	.070	.010 - .020	.244	.195	.005 - .010	.249	.075	.015 - .030
.218	.078	.025 - .042	.222	.116	.025 - .045	.231	.155	.010 - .020	.237	.108	.040 - .060	.244	.205	.010 - .020	.249	.100	.020 - .032
.218	.090	.015 - .030	.222	.129	.020 - .030	.231	.160	.010 - .015	.237	.112	.005 - .010	.245	.032	.010 - .015	.249	.103	.005 - .010
.218	.095	.010 - .050	.222	.134	.040 - .050	.231	.173	.005 - .010	.237	.127	.005 - .030	.245	.045	.005 - .010	.249	.112	.010 - .018
.218	.097	.012 - .025	.222	.140	.005 - .010	.232	.060	.030 - .050	.237	.130	.005 - .020	.245	.055	.005 - .010	.249	.116	.020 - .040
.218	.101	.020 - .030	.222	.142	.010 - .020	.232	.120	.015 - .025	.237	.148	.030 - .050	.245	.097	.025 - .040	.249	.121	.015 - .025
.218	.105	.005 - .032	.223	.059	.015 - .040	.232	.133	.005 - .010	.237	.157	.025 - .036	.245	.127	.010 - .030	.249	.123	.015 - .030
.218	.106	.020 - .032	.223	.100	.005 - .010	.232	.134	.010 - .020	.237	.162	.005 - .010	.245	.128	.005 - .010	.249	.124	.005 - .010
.218	.108	.008 - .020	.223	.102	.025 - .035	.232	.136	.005 - .010	.237	.164	.008 - .035	.245	.136	.025 - .040	.249	.127	.010 - .050
.218	.113	.025 - .040	.223	.118	.005 - .015	.232	.155	.005 - .010	.237	.193	.010 - .020	.245	.141	.005 - .010	.249	.128	.020 - .035
.218	.116	.005 - .020	.223	.127	.025 - .042	.232	.159	.006 - .016	.237	.194	.010 - .020	.245	.159	.005 - .010	.249	.135	.005 - .010
.218	.119	.005 - .008	.223	.130	.005 - .010	.233	.040	.005 - .010	.238	.071	.015 - .030	.245	.185	.005 - .010	.249	.137	.025 - .050
.218	.127	.005 - .010	.223	.132	.025 - .035	.233	.060	.010 - .025	.238	.115	.040 - .060	.245	.204	.010 - .020	.249	.139	.005 - .040
.218	.128	.005 - .020	.223	.135	.010 - .020	.233	.110	.005 - .010	.238	.126	.030 - .050	.246	.055	.005 - .012	.249	.143	.015 - .030
.218	.132	.008 - .015	.223	.139	.015 - .025	.233	.118	.020 - .040	.238	.127	.005 - .010	.246	.080	.005 - .010	.249	.144	.030 - .050

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

New tools added continually. Call for sizes not listed — (800) 927-4377, Fax (800) 321-3462.

Group 1

O.D.	I.D.	Choose Any Thickness From	To
.249	.152	.005	.010
.249	.158	.020	.030
.249	.160	.020	.040
.249	.170	.025	.040
.249	.172	.010	.020
.249	.186	.005	.010
.249	.189	.015	.032
.249	.190	.005	.008
.249	.193	.008	.012

.250

O.D.	I.D.	Choose Any Thickness From	To
.250	.027	.005	.010
.250	.039	.005	.025
.250	.044	.005	.015
.250	.052	.005	.012
.250	.063	.005	.010
.250	.072	.005	.012
.250	.077	.012	.025
.250	.082	.005	.010
.250	.083	.015	.020
.250	.085	.005	.030
.250	.091	.020	.030
.250	.093	.062	.083
.250	.094	.005	.025
.250	.095	.007	.040
.250	.097	.030	.080
.250	.098	.010	.025
.250	.099	.032	.050
.250	.100	.025	.040
.250	.102	.015	.060
.250	.103	.015	.060
.250	.105	.005	.035
.250	.106	.030	.050
.250	.108	.005	.010
.250	.110	.005	.030
.250	.116	.020	.040
.250	.117	.020	.040
.250	.120	.030	.050
.250	.122	.005	.060
.250	.124	.010	.032
.250	.125	.010	.050
.250	.126	.005	.020
.250	.127	.007	.050
.250	.128	.005	.062
.250	.129	.010	.050
.250	.130	.005	.042
.250	.131	.005	.060
.250	.132	.032	.052
.250	.134	.005	.010
.250	.135	.030	.048
.250	.136	.005	.010
.250	.140	.005	.060
.250	.146	.010	.020
.250	.147	.005	.050
.250	.150	.005	.015
.250	.153	.010	.020
.250	.154	.015	.025
.250	.157	.025	.040
.250	.158	.015	.030
.250	.159	.020	.036
.250	.161	.005	.010
.250	.162	.032	.042
.250	.164	.010	.020
.250	.165	.010	.020
.250	.166	.005	.010
.250	.167	.010	.045
.250	.172	.005	.010
.250	.173	.025	.040
.250	.175	.005	.010
.250	.176	.025	.040
.250	.183	.020	.040
.250	.186	.010	.020
.250	.189	.010	.020
.250	.190	.010	.020
.250	.191	.010	.020

Group 2

O.D.	I.D.	Choose Any Thickness From	To
.250	.192	.025	.030
.251	.036	.010	.020
.251	.057	.005	.012
.251	.059	.005	.010
.251	.063	.025	.040
.251	.074	.025	.050
.251	.076	.005	.010
.251	.093	.005	.010
.251	.101	.025	.040
.251	.108	.020	.040
.251	.113	.030	.050
.251	.115	.040	.060
.251	.122	.035	.050
.251	.125	.010	.020
.251	.127	.010	.025
.251	.130	.015	.030
.251	.131	.005	.050
.251	.136	.005	.010
.251	.138	.005	.010
.251	.145	.015	.048
.251	.146	.015	.030
.251	.149	.040	.050
.251	.151	.025	.040
.251	.157	.040	.060
.251	.158	.005	.015
.251	.160	.005	.010
.251	.162	.025	.042
.251	.187	.010	.020
.251	.188	.005	.008
.251	.190	.005	.015
.251	.192	.005	.010
.251	.195	.005	.010
.251	.200	.015	.025
.251	.205	.007	.015
.251	.214	.005	.010
.252	.078	.060	.072
.252	.099	.005	.010
.252	.103	.015	.025
.252	.120	.010	.020
.252	.127	.030	.050
.252	.128	.005	.010
.252	.141	.020	.040
.252	.146	.008	.016
.252	.159	.025	.040
.252	.191	.010	.040
.252	.195	.012	.020
.252	.197	.020	.030
.252	.205	.005	.010
.253	.048	.040	.050
.253	.053	.010	.020
.253	.056	.025	.040
.253	.096	.025	.040
.253	.115	.005	.012
.253	.116	.005	.012
.253	.125	.040	.060
.253	.127	.020	.030
.253	.132	.025	.040
.253	.145	.025	.040
.253	.166	.020	.040
.253	.190	.020	.040
.253	.191	.020	.040
.253	.192	.005	.010
.253	.197	.005	.010
.254	.051	.030	.050
.254	.117	.010	.020
.254	.127	.025	.040
.254	.159	.005	.010
.254	.160	.025	.042
.254	.194	.025	.042
.254	.201	.005	.010
.254	.205	.005	.010
.255	.097	.005	.010
.255	.101	.030	.050
.255	.105	.025	.040
.255	.109	.010	.020
.255	.135	.015	.030
.255	.149	.040	.050
.255	.164	.035	.050
.255	.167	.005	.010
.255	.195	.040	.060

Group 3

O.D.	I.D.	Choose Any Thickness From	To
.256	.119	.040	.060
.256	.164	.025	.042
.257	.067	.015	.030
.257	.078	.025	.040
.257	.095	.005	.010
.257	.191	.010	.020
.257	.213	.005	.010
.258	.067	.015	.030
.258	.095	.015	.025
.258	.149	.005	.010
.258	.154	.005	.010
.258	.163	.015	.030
.258	.169	.020	.030
.258	.177	.005	.015
.259	.116	.005	.010
.259	.160	.005	.010
.259	.213	.005	.010
.260	.089	.010	.020
.260	.108	.015	.030
.260	.113	.015	.030
.260	.120	.020	.060
.260	.121	.007	.015
.260	.128	.040	.060
.260	.129	.025	.040
.260	.144	.020	.040
.260	.148	.005	.012
.260	.158	.005	.020
.260	.163	.020	.040
.260	.167	.005	.010
.260	.170	.040	.060
.260	.173	.020	.040
.260	.175	.005	.010
.260	.176	.020	.040
.260	.188	.005	.015
.260	.190	.010	.020
.260	.205	.010	.020
.261	.104	.050	.070
.261	.110	.005	.010
.261	.111	.030	.050
.261	.201	.005	.010
.261	.206	.005	.010
.262	.062	.020	.030
.262	.117	.015	.030
.262	.129	.005	.010
.262	.142	.005	.010
.262	.156	.015	.030
.262	.178	.015	.030
.262	.188	.025	.040
.262	.192	.020	.030
.262	.199	.020	.040
.263	.061	.005	.010
.263	.091	.025	.040
.263	.129	.010	.020
.263	.158	.030	.050
.263	.191	.005	.010
.263	.193	.005	.010
.263	.195	.005	.010
.263	.199	.010	.025
.264	.108	.025	.040
.264	.139	.015	.025
.264	.147	.005	.010
.264	.162	.025	.040
.264	.168	.015	.025
.264	.174	.050	.060
.264	.240	.005	.010
.265	.093	.060	.080
.265	.101	.020	.040
.265	.115	.040	.050
.265	.122	.020	.040
.265	.125	.005	.010
.265	.126	.020	.040
.265	.129	.005	.010
.265	.141	.005	.010
.265	.143	.040	.062
.265	.153	.005	.010
.265	.160	.005	.010
.265	.161	.010	.030
.265	.166	.010	.015
.265	.183	.025	.040
.265	.189	.005	.010

Group 4

O.D.	I.D.	Choose Any Thickness From	To
.266	.082	.015	.030
.266	.090	.005	.010
.266	.106	.005	.010
.266	.110	.010	.020
.266	.121	.020	.040
.266	.123	.031	.048
.266	.131	.036	.060
.266	.134	.025	.040
.266	.168	.025	.040
.266	.171	.020	.035
.266	.179	.020	.030
.266	.185	.015	.025
.266	.202	.005	.010
.266	.218	.005	.010
.267	.059	.010	.020
.267	.100	.030	.050
.267	.125	.005	.010
.267	.140	.015	.030
.267	.143	.010	.025
.267	.144	.020	.030
.267	.168	.005	.010
.267	.170	.030	.050
.267	.178	.025	.040
.267	.190	.005	.008
.267	.205	.015	.030
.267	.211	.020	.030
.268	.109	.015	.030
.268	.124	.015	.030
.268	.147	.032	.050
.268	.173	.005	.010
.268	.179	.005	.010
.268	.199	.010	.020
.268	.202	.005	.015
.268	.213	.010	.020
.269	.139	.020	.030
.269	.156	.015	.025
.269	.158	.010	.020
.269	.160	.015	.030
.269	.161	.048	.062
.269	.179	.025	.040
.269	.190	.005	.010
.269	.213	.005	.010
.270	.079	.005	.010
.270	.096	.005	.025
.270	.099	.020	.030
.270	.109	.015	.030
.270	.113	.005	.010
.270	.132	.025	.035
.270	.135	.031	.042
.270	.148	.010	.020
.270	.160	.005	.010
.270	.180	.005	.010
.270	.207	.005	.010
.270	.210	.020	.040
.271	.127	.015	.025
.271	.130	.008	.015
.271	.138	.005	.040
.271	.146	.005	.010
.271	.175	.030	.050
.271	.190	.015	.025
.271	.199	.015	.025
.271	.221	.020	.030
.272	.032	.010	.020
.272	.093	.025	.042
.272	.095	.015	.030
.272	.120	.005	.010
.272	.121	.020	.040
.272	.132	.015	.030
.272	.156	.030	.048
.272	.169	.032	.042
.272	.192	.015	.032
.272	.194	.010	.020
.272	.220	.005	.010
.273	.104	.005	.010
.273	.108	.015	.030
.273	.118	.015	.030
.273	.141	.015	.025
.273	.144	.005	.010
.273	.148	.005	.010
.273	.149	.020	.030

Group 5

O.D.	I.D.	Choose Any Thickness From	To
.273	.163	.020	.040
.273	.173	.005	.010
.273	.203	.020	.030
.274	.032	.005	.010
.274	.052	.005	.010
.274	.093	.005	.040
.274	.095	.005	.010
.274	.121	.005	.010
.274	.127	.030	.060
.274	.132	.025	.035
.274	.170	.030	.050
.274	.172	.040	.060
.274	.174	.035	.050
.274	.175	.040	.050
.274	.191	.005	.020
.274	.211	.005	.010
.274	.237	.005	.010
.275	.071	.010	.020
.275	.079	.010	.020
.275	.081	.020	.040
.275	.091	.020	.040
.275	.096	.005	.010
.275	.098	.030	.050
.275	.115	.005	.010
.275	.118	.020	.040
.275	.122	.020	.040
.275	.126	.010	.020
.275	.135	.005	.012
.275	.143	.010	.020
.275	.144	.040	.050
.275	.163	.015	.025
.275	.166	.020	.030
.275	.170	.032	.048
.275	.180	.020	.040
.275	.189	.030	.050
.275	.190	.005	.010
.275	.192	.005	.010
.275	.200	.005	.010
.275	.203	.030	.050
.275	.242	.010	.020
.276	.081	.005	.010
.276	.091	.015	.025
.276	.109	.015	.040
.276	.112	.030	.050
.276	.114	.040	.060
.276	.122	.008	.016
.276	.126	.020	.030
.276	.133	.005	.010
.276	.141	.040	.060
.276	.142	.005	.010
.276	.143	.015	.030
.276	.146	.005	.015
.276	.153	.020	.035
.276	.159	.030	.050
.276	.161	.005	.015
.276	.162	.010	.020
.276	.167	.005	.010
.276	.190	.020	.040
.276	.192	.030	.040
.276	.196	.005	.010
.276	.200	.010	.020
.276	.209	.010	.020
.277	.088	.005	.010
.277	.092	.010	.020
.277	.108	.005	.010
.277	.126	.005	.010
.277	.127	.005	.008
.277	.129	.050	.070
.277	.132	.015	.025
.277	.140	.020	.030
.277	.143	.005	.010
.277	.146	.050	.070
.277	.161	.015	.030
.277	.163	.015	.025
.277	.166	.005	.008
.277	.170	.015	.030
.277	.195	.005	.010
.277	.201	.010	.020
.278	.087	.005	.010
.278	.103	.005	.010

Group 6

O.D.	I.D.	Choose Any Thickness From	To
.278	.135	.040	.062
.278	.141	.010	.020
.278	.142	.025	.040
.278	.145	.005	.010
.278	.151	.005	.030
.278	.155	.005	.010
.278	.183	.005	.010
.278	.190	.005	.010
.278	.191	.015	.032
.278	.224	.010	.020
.278	.236	.005	.010
.279	.045	.005	.015
.279	.103	.005	.010
.279	.116	.010	.020
.279	.129	.010	.015
.279	.139	.032	.048
.279	.140	.030	.040
.279	.144	.025	.040
.279	.156	.020	.030
.279	.170	.015	.025
.279	.195	.005	.040
.279	.197	.015	.030
.279	.217	.015	.030
.279	.232	.005	.010
.279	.247	.010	.015
.280	.067	.005	.015
.280	.079	.030	.050
.280	.105	.015	.032
.280	.115	.015	.030
.280	.118	.010	.020
.280	.122	.025	.048
.280	.126	.020	.030
.280	.127	.005	.010
.280	.128	.010	.032
.280	.133	.020	.040
.280	.134	.005	.010
.280	.135	.020	.035
.280	.145	.032	.050
.280	.148	.005	.010
.280	.155	.025	.045
.280	.156	.040	.060
.280	.161	.015	.030
.280	.169	.005	.015
.280	.193	.010	.015
.280	.201	.005	.010
.280	.202	.025	.040
.280	.217	.020	.030
.280	.236	.010	.032
.281	.052	.010	.020
.281	.067	.032	.050
.281	.094	.040	.060
.281	.096	.005	.010
.281	.112	.040	.050
.281	.117	.025	.040
.281	.122	.010	.020
.281	.126	.005	.010
.281	.132	.005	.010
.281	.134	.040	.060
.281	.142	.010	.030
.281	.143	.005	.010
.281	.156	.005	.010
.281	.159	.015	.030
.281	.162	.010	.050
.281	.170	.016	.032
.281	.173	.005	.010
.281	.185	.015	.030
.281	.186	.005	.010
.281	.187	.015	.030
.282	.082	.030	.040
.282	.089	.075	.093
.282	.096	.015	.025
.282	.123	.005	.015
.282	.126	.015	.025
.282	.127	.040	.060
.282	.130	.005	.010
.282	.173	.025	.040
.282	.176	.005	.010
.282	.180	.025	.040
.282	.184	.006	.016
.282	.187	.040	.050

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For non-metallic materials, contact BOKER'S — (800) 927-4377, Fax (800) 321-3462.

BOKER'S METAL WASHERS ARE FLAT AND TUMBLE DEBURRED

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.282	.191	.025 - .040	.290	.209	.025 - .040	**.298**	**.155**	**.005 - .010**	.302	.198	.015 - .030	**.308**	**.254**	**.005 - .010**	.311	.147	.080 - .090
.282	.197	.010 - .020	.291	.032	.010 - .020	.298	.158	.008 - .016	.302	.205	.030 - .050	.309	.031	.010 - .020	.311	.155	.015 - .050
.282	.223	.007 - .015	.291	.078	.015 - .030	**.302**	**.252**	**.005 - .015**	.309	.070	.015 - .025	**.311**	**.159**	**.005 - .025**
.283	**.095**	**.005 - .010**	.291	.125	.040 - .060	.298	.161	.025 - .040	**.303**	**.114**	**.005 - .010**	.309	.094	.010 - .020	.311	.160	.010 - .020
.283	.096	.015 - .030	.291	.159	.040 - .060	.298	.164	.030 - .050	**.303**	**.128**	**.005 - .010**	.309	.109	.025 - .040	.311	.166	.040 - .062
.283	.098	.032 - .062	.291	.176	.020 - .040	.298	.180	.015 - .030	.303	.171	.020 - .040	.309	.147	.010 - .020	**.311**	**.167**	**.005 - .015**
.283	.111	.010 - .020	.291	.184	.008 - .015	.298	.181	.030 - .050	.303	.181	.030 - .050	**.309**	**.159**	**.005 - .030**	**.311**	**.177**	**.005 - .010**
.283	.140	.025 - .042	.291	.190	.025 - .050	.298	.193	.015 - .025	.303	.191	.025 - .040	**.309**	**.160**	**.005 - .010**	.311	.183	.042 - .062
.283	.143	.010 - .015	**.291**	**.195**	**.005 - .010**	**.298**	**.200**	**.005 - .010**	.303	.197	.030 - .050	.309	.161	.040 - .062	.311	.187	.025 - .042
.283	.165	.008 - .015	**.291**	**.232**	**.005 - .010**	**.298**	**.205**	**.005 - .010**	**.303**	**.198**	**.005 - .010**	.309	.172	.020 - .035	**.311**	**.188**	**.005 - .050**
.283	**.166**	**.005 - .010**	.291	.244	.015 - .025	**.298**	**.241**	**.005 - .010**	**.303**	**.200**	**.005 - .010**	.309	.176	.020 - .030	.311	.190	.015 - .030
.283	.168	.025 - .040	**.291**	**.250**	**.005 - .010**	.299	.105	.030 - .040	.303	.220	.030 - .050	.309	.191	.030 - .050	.311	.191	.008 - .040
.283	.173	.030 - .040	.292	.114	.040 - .060	.299	.116	.010 - .020	**.303**	**.225**	**.005 - .010**	.309	.194	.025 - .040	**.311**	**.195**	**.005 - .010**
.283	**.184**	**.005 - .010**	.292	.145	.025 - .040	.299	.145	.010 - .030	**.303**	**.234**	**.005 - .010**	.309	.195	.050 - .070	**.311**	**.204**	**.005 - .020**
.283	.190	.008 - .015	**.292**	**.146**	**.005 - .010**	**.299**	**.202**	**.005 - .010**	.303	.240	.020 - .030	.309	.202	.030 - .050	**.311**	**.215**	**.005 - .010**
.283	.200	.010 - .020	.292	.148	.020 - .040	.300	.045	.025 - .040	.303	.251	.010 - .020	.309	.210	.010 - .020	.311	.217	.020 - .040
.283	**.216**	**.005 - .030**	.292	.149	.030 - .040	**.300**	**.056**	**.005 - .010**	.304	.083	.025 - .040	**.309**	**.247**	**.005 - .010**	.311	.219	.020 - .035
.283	**.217**	**.005 - .010**	.292	.165	.050 - .060	**.300**	**.065**	**.008 - .040**	.304	.163	.010 - .020	.309	.251	.015 - .030	.311	.231	.025 - .040
.283	**.218**	**.005 - .025**	**.292**	**.171**	**.005 - .010**	**.300**	**.074**	**.005 - .010**	**.304**	**.174**	**.005 - .010**	.309	.254	.010 - .030	**.311**	**.238**	**.005 - .010**
.283	**.240**	**.005 - .010**	.292	.192	.010 - .015	**.300**	**.081**	**.005 - .010**	.304	.217	.030 - .050	.309	.255	.015 - .030	**.312**	**.039**	**.005 - .012**
.283	**.250**	**.005 - .010**	.292	.193	.020 - .030	.300	.095	.010 - .020	.304	.241	.010 - .020	.310	.047	.025 - .035	.312	.045	.025 - .035
.284	.095	.015 - .025	.292	.197	.040 - .050	.300	.097	.016 - .090	.304	.245	.015 - .020	.310	.060	.010 - .025	**.312**	**.054**	**.005 - .010**
.284	.119	.025 - .040	**.292**	**.236**	**.005 - .010**	**.300**	**.100**	**.005 - .015**	.304	.250	.020 - .030	**.310**	**.071**	**.005 - .010**	.312	.062	.015 - .030
.284	**.125**	**.005 - .015**	.293	.034	.015 - .025	.300	.116	.020 - .040	.305	.087	.025 - .040	.310	.076	.020 - .040	.312	.066	.010 - .020
.284	.191	.010 - .018	.293	.124	.010 - .020	.300	.117	.025 - .040	.305	.105	.030 - .050	.310	.088	.015 - .025	**.312**	**.072**	**.005 - .010**
.284	.200	.010 - .020	**.293**	**.129**	**.005 - .010**	**.300**	**.119**	**.005 - .010**	**.305**	**.125**	**.005 - .010**	.310	.090	.012 - .025	.312	.073	.015 - .025
.284	**.212**	**.005 - .010**	**.293**	**.147**	**.005 - .010**	**.300**	**.128**	**.005 - .060**	.305	.129	.010 - .020	.310	.093	.025 - .040	.312	.090	.025 - .050
.285	**.079**	**.005 - .010**	.293	.188	.030 - .050	.300	.130	.030 - .050	.305	.140	.032 - .060	.310	.095	.025 - .035	**.312**	**.093**	**.005 - .062**
.285	**.088**	**.005 - .010**	.293	.192	.040 - .050	**.300**	**.135**	**.005 - .010**	.305	.153	.015 - .025	**.310**	**.096**	**.005 - .010**	.312	.094	.020 - .030
.285	.107	.020 - .032	**.293**	**.219**	**.005 - .010**	.300	.138	.020 - .060	.305	.156	.010 - .020	.310	.102	.015 - .030	.312	.095	.032 - .042
.285	.115	.015 - .030	.294	.086	.015 - .030	.300	.144	.015 - .030	.305	.160	.025 - .040	.310	.104	.020 - .040	.312	.096	.015 - .025
.285	.117	.010 - .020	.294	.089	.015 - .030	**.300**	**.145**	**.005 - .012**	.305	.162	.015 - .030	.310	.106	.025 - .050	.312	.098	.060 - .070
.285	.127	.010 - .035	.294	.122	.015 - .030	.300	.157	.020 - .030	.305	.169	.025 - .040	.310	.116	.030 - .040	.312	.099	.050 - .060
.285	.128	.010 - .035	.294	.126	.015 - .030	.300	.162	.025 - .040	.305	.188	.010 - .020	.310	.119	.025 - .050	.312	.100	.050 - .060
.285	**.131**	**.005 - .010**	.294	.177	.040 - .060	**.300**	**.166**	**.005 - .010**	**.305**	**.197**	**.005 - .010**	.310	.120	.030 - .060	**.312**	**.104**	**.005 - .008**
.285	.147	.030 - .050	.294	.187	.030 - .050	.300	.167	.030 - .042	.305	.204	.025 - .048	.310	.122	.025 - .035	.312	.105	.015 - .025
.285	**.161**	**.005 - .010**	**.294**	**.192**	**.005 - .012**	.300	.169	.015 - .030	.305	.205	.025 - .042	**.310**	**.124**	**.005 - .010**	.312	.112	.010 - .020
.285	.165	.015 - .030	**.294**	**.224**	**.005 - .010**	.300	.175	.025 - .040	**.305**	**.221**	**.005 - .010**	.310	.127	.020 - .075	**.312**	**.116**	**.005 - .010**
.285	.175	.025 - .048	.295	.079	.050 - .060	**.300**	**.176**	**.005 - .010**	.305	.225	.010 - .020	.310	.130	.030 - .050	.312	.122	.015 - .030
.285	.192	.020 - .035	.295	.106	.008 - .016	.300	.177	.010 - .020	.306	.045	.010 - .025	.310	.132	.015 - .030	**.312**	**.126**	**.005 - .090**
.285	**.194**	**.005 - .010**	.295	.127	.025 - .040	.300	.180	.015 - .025	.306	.127	.025 - .040	.310	.134	.015 - .030	.312	.127	.010 - .020
.285	.204	.010 - .020	.295	.130	.010 - .040	**.300**	**.182**	**.005 - .010**	.306	.138	.020 - .040	.310	.140	.015 - .025	.312	.128	.020 - .040
.285	.207	.020 - .030	.295	.138	.015 - .030	.300	.185	.010 - .020	**.306**	**.140**	**.005 - .010**	**.310**	**.147**	**.005 - .010**	.312	.129	.010 - .030
.285	.239	.010 - .015	.295	.148	.030 - .040	**.300**	**.192**	**.005 - .010**	.306	.190	.015 - .030	.310	.152	.015 - .025	**.312**	**.130**	**.005 - .015**
.286	.125	.032 - .048	.295	.162	.020 - .040	**.300**	**.200**	**.005 - .010**	.306	.194	.030 - .050	.310	.155	.030 - .042	.312	.132	.010 - .025
.286	.150	.032 - .050	.295	.167	.025 - .040	.300	.203	.010 - .020	**.306**	**.203**	**.005 - .015**	.310	.158	.050 - .070	.312	.134	.010 - .015
.286	**.163**	**.005 - .010**	**.295**	**.169**	**.005 - .010**	.300	.216	.016 - .025	.306	.228	.016 - .025	**.310**	**.161**	**.005 - .010**	**.312**	**.139**	**.005 - .008**
.286	.170	.010 - .020	.295	.170	.040 - .050	.300	.220	.015 - .025	**.306**	**.243**	**.005 - .010**	.310	.162	.030 - .040	.312	.142	.006 - .030
.286	.186	.010 - .020	.295	.173	.030 - .050	.300	.230	.010 - .020	**.307**	**.080**	**.005 - .010**	.310	.171	.010 - .020	**.312**	**.143**	**.005 - .012**
.286	**.188**	**.005 - .010**	.295	.174	.020 - .032	.300	.248	.015 - .030	.307	.081	.060 - .080	.310	.174	.010 - .020	**.312**	**.144**	**.005 - .020**
.286	**.195**	**.005 - .010**	.295	.177	.010 - .020	**.300**	**.260**	**.005 - .012**	.307	.095	.020 - .040	.310	.188	.030 - .050	.312	.146	.008 - .016
.286	**.211**	**.005 - .010**	.295	.179	.050 - .060	.301	.109	.025 - .040	.307	.130	.080 - .100	.310	.189	.010 - .020	.312	.148	.040 - .060
.287	**.118**	**.005 - .010**	**.295**	**.187**	**.005 - .010**	.301	.127	.015 - .025	.307	.143	.025 - .080	.310	.190	.012 - .025	.312	.150	.020 - .040
.287	**.183**	**.005 - .010**	**.295**	**.192**	**.005 - .040**	.301	.128	.010 - .020	.307	.159	.030 - .050	**.310**	**.191**	**.005 - .010**	**.312**	**.154**	**.005 - .060**
.287	.195	.006 - .012	.295	.193	.015 - .030	.301	.130	.015 - .030	**.307**	**.161**	**.005 - .010**	.310	.193	.025 - .040	.312	.156	.016 - .080
.287	**.196**	**.005 - .020**	**.295**	**.195**	**.005 - .010**	**.301**	**.132**	**.005 - .010**	**.307**	**.166**	**.005 - .010**	**.310**	**.195**	**.005 - .010**	**.312**	**.157**	**.005 - .035**
.288	.128	.030 - .050	.295	.199	.020 - .030	.301	.142	.060 - .080	**.307**	**.174**	**.005 - .010**	.310	.199	.030 - .050	**.312**	**.158**	**.005 - .020**
.288	.131	.025 - .040	.295	.210	.010 - .020	.301	.144	.020 - .040	.307	.177	.015 - .025	.310	.201	.032 - .050	.312	.160	.040 - .060
.288	.197	.015 - .030	.296	.119	.015 - .030	**.301**	**.146**	**.005 - .010**	**.307**	**.189**	**.005 - .020**	.310	.213	.030 - .050	.312	.165	.020 - .040
.289	.037	.020 - .030	.296	.120	.020 - .030	.301	.152	.020 - .030	.307	.203	.025 - .042	.310	.214	.010 - .020	.312	.167	.015 - .025
.289	**.046**	**.005 - .010**	**.296**	**.122**	**.005 - .010**	.301	.161	.025 - .040	.307	.204	.025 - .040	**.310**	**.232**	**.005 - .010**	.312	.171	.040 - .060
.289	**.084**	**.005 - .010**	.296	.130	.030 - .050	.301	.165	.005 - .015	**.307**	**.207**	**.005 - .010**	**.310**	**.235**	**.005 - .010**	.312	.172	.020 - .030
.289	.090	.075 - .090	.296	.144	.025 - .040	.301	.167	.040 - .060	.307	.254	.010 - .020	.310	.242	.010 - .040	**.312**	**.173**	**.005 - .010**
.289	.091	.060 - .075	**.296**	**.173**	**.005 - .010**	.301	.168	.040 - .060	**.308**	**.043**	**.005 - .012**	**.310**	**.250**	**.005 - .020**	.312	.182	.010 - .020
.289	**.123**	**.005 - .010**	.296	.188	.015 - .030	.301	.185	.020 - .030	.308	.099	.010 - .020	.310	.254	.015 - .030	.312	.188	.020 - .040
.289	**.126**	**.005 - .030**	.296	.189	.015 - .030	**.301**	**.190**	**.005 - .020**	**.308**	**.108**	**.005 - .015**	**.310**	**.255**	**.005 - .020**	**.312**	**.189**	**.005 - .062**
.289	.175	.025 - .040	.296	.190	.015 - .025	.301	.203	.015 - .030	.308	.121	.015 - .030	.310	.256	.010 - .020	**.312**	**.190**	**.005 - .030**
.289	.189	.040 - .050	.296	.198	.025 - .042	**.301**	**.215**	**.005 - .010**	**.308**	**.131**	**.005 - .010**	**.310**	**.257**	**.005 - .030**	.312	.191	.008 - .020
.289	.192	.010 - .020	**.296**	**.258**	**.005 - .015**	**.301**	**.225**	**.005 - .010**	**.308**	**.136**	**.005 - .010**	**.310**	**.258**	**.005 - .010**	**.312**	**.192**	**.005 - .035**
.289	.193	.040 - .060	.297	.062	.015 - .025	**.301**	**.245**	**.005 - .010**	**.308**	**.140**	**.005 - .015**	**.310**	**.260**	**.005 - .010**	.312	.193	.005 - .010
.290	.091	.030 - .050	**.297**	**.086**	**.005 - .010**	.301	.255	.010 - .016	.308	.143	.015 - .030	**.311**	**.103**	**.005 - .010**	.312	.194	.025 - .040
.290	**.103**	**.005 - .010**	.297	.120	.050 - .070	**.301**	**.268**	**.005 - .010**	.308	.145	.020 - .030	.311	.118	.050 - .075	.312	.195	.020 - .035
.290	**.126**	**.005 - .030**	.297	.135	.020 - .035	.302	.125	.070 - .090	.308	.148	.030 - .050	**.311**	**.125**	**.005 - .010**	**.312**	**.199**	**.005 - .020**
.290	.128	.015 - .030	.297	.159	.030 - .050	.302	.130	.050 - .070	.308	.175	.040 - .060	.311	.126	.030 - .050	.312	.200	.040 - .060
.290	.137	.010 - .020	.297	.190	.010 - .020	.302	.131	.040 - .060	.308	.188	.040 - .060	.311	.127	.012 - .025	**.312**	**.204**	**.005 - .050**
.290	**.139**	**.005 - .010**	.297	.203	.020 - .040	**.302**	**.141**	**.005 - .010**	**.308**	**.199**	**.005 - .010**	.311	.128	.060 - .080	.312	.206	.010 - .020
.290	.151	.032 - .042	**.297**	**.209**	**.005 - .010**	**.302**	**.151**	**.005 - .010**	.308	.204	.020 - .040	.311	.129	.025 - .048	**.312**	**.208**	**.005 - .010**
.290	.170	.010 - .020	**.297**	**.255**	**.005 - .010**	.302	.167	.035 - .050	**.308**	**.205**	**.005 - .025**	**.311**	**.130**	**.005 - .025**	.312	.216	.010 - .020
.290	.199	.015 - .030	.298	.062	.010 - .020	.302	.168	.015 - .025	.308	.209	.015 - .025	.311	.137	.030 - .050	.312	.219	.015 - .030
.290	.201	.030 - .040	**.298**	**.139**	**.005 - .010**	**.302**	**.190**	**.005 - .040**	.308	.210	.015 - .025	.311	.142	.040 - .070	**.312**	**.221**	**.005 - .010**

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O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.312	.223	.005 - .042	.315	.147	.020 - .030	.322	.128	.010 - .020	.328	.273	.005 - .010	.336	.118	.040 - .060	.343	.134	.007 - .016
.312	.227	.030 - .042	.315	.157	.005 - .015	.322	.145	.015 - .030	.329	.030	.010 - .020	.336	.138	.032 - .048	.343	.138	.040 - .060
.312	.228	.030 - .050	.315	.160	.005 - .010	.322	.206	.005 - .010	.329	.100	.025 - .040	.336	.191	.030 - .050	.343	.161	.005 - .008
.312	.231	.025 - .040	.315	.162	.020 - .030	.322	.224	.010 - .020	.329	.108	.005 - .010	.336	.197	.005 - .010	.343	.167	.010 - .020
.312	.251	.005 - .010	.315	.163	.005 - .010	.322	.228	.025 - .040	.329	.111	.010 - .020	.336	.218	.005 - .010	.343	.193	.005 - .060
.312	.252	.025 - .042	.315	.170	.020 - .040	.322	.241	.010 - .020	.329	.206	.005 - .010	.336	.230	.010 - .020	.343	.194	.060 - .078
.312	.254	.015 - .030	.315	.181	.005 - .010	.322	.242	.025 - .040	.329	.209	.030 - .050	.336	.257	.020 - .040	.343	.195	.006 - .070
.313	.062	.005 - .010	.315	.190	.005 - .010	.322	.287	.010 - .020	.329	.221	.005 - .010	.336	.270	.005 - .010	.343	.196	.010 - .020
.313	.082	.005 - .010	.315	.195	.040 - .060	.323	.094	.010 - .020	.329	.245	.020 - .040	.336	.275	.005 - .010	.343	.197	.025 - .040
.313	.096	.075 - .090	.315	.223	.030 - .050	.323	.099	.020 - .040	.329	.253	.005 - .010	.336	.306	.005 - .010	.343	.217	.040 - .050
.313	.100	.008 - .042	.315	.224	.005 - .010	.323	.124	.005 - .010	.329	.288	.005 - .010	.337	.129	.005 - .012	.343	.219	.032 - .050
.313	.101	.040 - .060	.315	.238	.010 - .020	.323	.130	.025 - .042	.330	.093	.005 - .010	.337	.165	.015 - .025	.343	.225	.020 - .030
.313	.105	.008 - .020	.315	.240	.005 - .010	.323	.160	.005 - .025	.330	.124	.020 - .032	.337	.252	.020 - .030	.343	.229	.005 - .010
.313	.110	.008 - .015	.315	.250	.005 - .020	.323	.166	.020 - .030	.330	.140	.042 - .062	.337	.253	.005 - .010	.343	.230	.025 - .035
.313	.120	.005 - .010	.316	.098	.030 - .050	.323	.171	.015 - .030	.330	.143	.020 - .040	.337	.277	.015 - .030	.343	.245	.005 - .010
.313	.123	.050 - .070	.316	.105	.025 - .048	.323	.180	.042 - .090	.330	.193	.005 - .010	.337	.285	.015 - .030	.343	.261	.010 - .020
.313	.126	.020 - .040	.316	.124	.060 - .075	.323	.196	.005 - .010	.330	.205	.040 - .060	.338	.115	.005 - .010	.343	.274	.020 - .040
.313	.129	.005 - .010	.316	.134	.005 - .010	.323	.200	.020 - .032	.330	.206	.005 - .015	.338	.168	.072 - .090	.344	.102	.005 - .010
.313	.130	.025 - .040	.316	.138	.020 - .040	.323	.211	.020 - .030	.330	.217	.005 - .010	.338	.170	.010 - .020	.344	.152	.025 - .045
.313	.133	.015 - .030	.316	.140	.005 - .010	.323	.213	.005 - .010	.330	.229	.025 - .040	.338	.201	.050 - .060	.344	.165	.015 - .030
.313	.135	.030 - .050	.316	.153	.005 - .010	.323	.223	.005 - .010	.330	.250	.005 - .010	.338	.238	.005 - .010	.344	.167	.015 - .025
.313	.138	.025 - .040	.316	.157	.005 - .010	.324	.035	.005 - .010	.330	.251	.005 - .020	.338	.251	.015 - .030	.344	.172	.035 - .050
.313	.140	.040 - .060	.316	.167	.005 - .010	.324	.099	.005 - .010	.330	.253	.020 - .040	.338	.253	.010 - .020	.344	.184	.025 - .040
.313	.147	.030 - .050	.316	.180	.020 - .030	.324	.126	.020 - .040	.330	.257	.020 - .036	.339	.150	.010 - .020	.344	.189	.015 - .025
.313	.151	.005 - .010	.316	.199	.030 - .050	.324	.145	.010 - .020	.330	.261	.005 - .010	.339	.151	.005 - .010	.344	.190	.005 - .008
.313	.156	.040 - .050	.316	.201	.005 - .050	.324	.162	.060 - .080	.331	.067	.010 - .025	.339	.157	.005 - .010	.344	.196	.020 - .060
.313	.157	.005 - .010	.316	.207	.005 - .010	.324	.165	.060 - .080	.331	.124	.020 - .030	.339	.176	.020 - .040	.344	.252	.025 - .040
.313	.158	.015 - .030	.316	.209	.005 - .010	.324	.190	.005 - .010	.331	.129	.005 - .010	.339	.206	.005 - .010	.344	.267	.025 - .040
.313	.160	.006 - .030	.316	.239	.005 - .010	.324	.200	.010 - .020	.331	.140	.030 - .050	.339	.223	.005 - .010	.344	.290	.010 - .020
.313	.162	.005 - .010	.316	.252	.005 - .010	.324	.204	.040 - .060	.331	.158	.005 - .010	.340	.085	.015 - .030	.344	.291	.005 - .010
.313	.170	.060 - .080	.316	.255	.006 - .010	.324	.206	.040 - .060	.331	.167	.020 - .030	.340	.150	.015 - .025	.345	.043	.005 - .010
.313	.173	.025 - .050	.317	.095	.008 - .020	.324	.207	.020 - .030	.331	.196	.005 - .010	.340	.158	.020 - .040	.345	.125	.020 - .032
.313	.179	.005 - .025	.317	.100	.006 - .030	.324	.242	.025 - .042	.331	.198	.015 - .030	.340	.164	.030 - .060	.345	.132	.032 - .048
.313	.185	.005 - .010	.317	.114	.005 - .010	.324	.254	.005 - .010	.331	.200	.040 - .060	.340	.189	.012 - .020	.345	.135	.032 - .048
.313	.187	.005 - .010	.317	.132	.005 - .010	.325	.118	.005 - .010	.331	.236	.015 - .030	.340	.190	.005 - .010	.345	.150	.030 - .042
.313	.190	.010 - .015	.317	.148	.050 - .070	.325	.125	.015 - .025	.331	.237	.020 - .030	.340	.191	.025 - .050	.345	.159	.005 - .010
.313	.200	.010 - .020	.317	.205	.010 - .020	.325	.130	.015 - .025	.331	.254	.005 - .008	.340	.194	.005 - .010	.345	.170	.005 - .010
.313	.206	.030 - .050	.317	.229	.005 - .010	.325	.140	.040 - .060	.331	.279	.005 - .010	.340	.196	.020 - .040	.345	.189	.005 - .010
.313	.207	.020 - .040	.317	.240	.025 - .035	.325	.142	.008 - .018	.332	.164	.005 - .010	.340	.197	.005 - .035	.345	.192	.005 - .075
.313	.208	.005 - .010	.317	.281	.005 - .010	.325	.164	.015 - .030	.332	.175	.050 - .075	.340	.204	.036 - .050	.345	.193	.025 - .060
.313	.224	.020 - .040	.318	.094	.005 - .010	.325	.169	.005 - .010	.332	.192	.016 - .030	.340	.207	.030 - .050	.345	.205	.005 - .010
.313	.230	.005 - .015	.318	.097	.005 - .010	.325	.200	.005 - .050	.332	.213	.005 - .008	.340	.210	.030 - .050	.345	.216	.005 - .010
.313	.232	.005 - .015	.318	.125	.010 - .020	.325	.235	.005 - .010	.332	.236	.005 - .030	.340	.212	.020 - .040	.345	.223	.010 - .050
.313	.242	.005 - .010	.318	.132	.010 - .020	.325	.236	.025 - .040	.333	.123	.020 - .080	.340	.222	.025 - .062	.345	.228	.015 - .030
.313	.253	.020 - .030	.318	.143	.008 - .020	.325	.244	.015 - .025	.333	.173	.032 - .048	.340	.233	.050 - .060	.345	.252	.010 - .020
.313	.255	.015 - .025	.318	.159	.020 - .040	.325	.254	.015 - .025	.333	.175	.020 - .050	.340	.240	.030 - .050	.345	.276	.015 - .030
.314	.039	.010 - .020	.318	.174	.015 - .030	.325	.256	.005 - .010	.333	.212	.020 - .036	.340	.257	.010 - .020	.345	.277	.005 - .010
.314	.043	.005 - .010	.318	.191	.010 - .020	.326	.138	.005 - .010	.333	.225	.010 - .020	.340	.283	.015 - .025	.346	.044	.015 - .030
.314	.088	.015 - .035	.318	.198	.030 - .060	.326	.150	.030 - .050	.333	.257	.015 - .025	.341	.052	.025 - .040	.346	.046	.025 - .040
.314	.103	.025 - .045	.318	.228	.008 - .016	.326	.180	.005 - .010	.334	.039	.015 - .025	.341	.061	.005 - .010	.346	.084	.030 - .050
.314	.111	.010 - .025	.318	.237	.005 - .010	.326	.181	.005 - .010	.334	.040	.005 - .010	.341	.090	.060 - .080	.346	.116	.005 - .010
.314	.114	.032 - .050	.319	.140	.015 - .030	.326	.189	.050 - .070	.334	.046	.005 - .010	.341	.093	.020 - .040	.346	.128	.050 - .070
.314	.122	.025 - .048	.319	.146	.020 - .030	.326	.196	.005 - .010	.334	.122	.005 - .010	.341	.120	.005 - .010	.346	.143	.040 - .060
.314	.128	.005 - .015	.319	.178	.005 - .010	.326	.256	.005 - .010	.334	.127	.005 - .010	.341	.131	.070 - .090	.346	.149	.075 - .090
.314	.139	.040 - .060	.319	.228	.010 - .020	.327	.113	.025 - .042	.334	.160	.015 - .030	.341	.141	.080 - .090	.346	.152	.005 - .010
.314	.148	.025 - .062	.320	.061	.005 - .010	.327	.120	.025 - .040	.334	.196	.005 - .010	.341	.158	.025 - .040	.346	.158	.005 - .025
.314	.152	.035 - .050	.320	.067	.030 - .042	.327	.130	.030 - .050	.334	.197	.032 - .048	.341	.161	.015 - .035	.346	.163	.006 - .015
.314	.158	.060 - .080	.320	.078	.005 - .010	.327	.190	.030 - .050	.334	.220	.005 - .050	.341	.164	.010 - .025	.346	.166	.005 - .010
.314	.161	.040 - .060	.320	.084	.030 - .040	.327	.194	.010 - .020	.334	.226	.025 - .040	.341	.202	.015 - .030	.346	.172	.040 - .090
.314	.162	.040 - .060	.320	.093	.042 - .060	.327	.217	.030 - .050	.334	.242	.010 - .020	.341	.281	.025 - .035	.346	.180	.005 - .010
.314	.176	.030 - .050	.320	.113	.005 - .010	.327	.250	.050 - .060	.334	.258	.020 - .030	.342	.092	.005 - .020	.346	.196	.005 - .010
.314	.189	.015 - .032	.320	.122	.015 - .030	.327	.258	.010 - .025	.334	.260	.005 - .010	.342	.118	.032 - .048	.346	.207	.030 - .060
.314	.219	.030 - .050	.320	.124	.005 - .010	.327	.262	.005 - .010	.334	.275	.005 - .010	.342	.145	.005 - .008	.346	.210	.040 - .060
.314	.220	.015 - .030	.320	.131	.005 - .010	.328	.105	.005 - .010	.334	.295	.010 - .015	.342	.156	.005 - .010	.346	.216	.020 - .030
.314	.225	.015 - .025	.320	.145	.025 - .042	.328	.162	.040 - .060	.335	.034	.010 - .020	.342	.162	.030 - .050	.346	.219	.010 - .020
.314	.236	.005 - .010	.320	.146	.015 - .030	.328	.175	.030 - .050	.335	.129	.015 - .025	.342	.164	.015 - .030	.346	.253	.005 - .010
.314	.242	.010 - .020	.320	.149	.005 - .010	.328	.177	.005 - .010	.335	.159	.060 - .075	.342	.193	.005 - .050	.346	.289	.005 - .010
.314	.256	.010 - .020	.320	.170	.015 - .025	.328	.179	.015 - .030	.335	.169	.015 - .030	.342	.198	.015 - .030	.347	.157	.020 - .030
.315	.025	.006 - .010	.320	.178	.010 - .020	.328	.192	.030 - .050	.335	.172	.010 - .020	.342	.201	.025 - .040	.347	.174	.030 - .050
.315	.030	.005 - .015	.320	.182	.050 - .070	.328	.197	.025 - .040	.335	.196	.025 - .040	.342	.206	.015 - .030	.347	.203	.025 - .040
.315	.068	.010 - .020	.320	.220	.040 - .050	.328	.200	.005 - .015	.335	.200	.020 - .040	.342	.212	.015 - .025	.347	.220	.015 - .030
.315	.087	.020 - .040	.320	.221	.050 - .062	.328	.214	.010 - .032	.335	.204	.005 - .040	.342	.255	.020 - .030	.347	.234	.040 - .060
.315	.092	.045 - .065	.321	.062	.005 - .010	.328	.219	.030 - .050	.335	.215	.030 - .050	.343	.062	.050 - .070	.347	.253	.016 - .025
.315	.095	.032 - .062	.321	.077	.020 - .030	.328	.222	.010 - .025	.335	.235	.010 - .020	.343	.087	.030 - .050	.347	.256	.006 - .016
.315	.097	.005 - .030	.321	.135	.020 - .035	.328	.225	.005 - .040	.335	.257	.010 - .030	.343	.088	.060 - .075	.347	.263	.005 - .010
.315	.124	.050 - .060	.321	.147	.010 - .020	.328	.245	.007 - .016	.335	.258	.005 - .010	.343	.092	.005 - .010	.347	.287	.005 - .010
.315	.127	.050 - .070	.321	.203	.005 - .010	.328	.252	.020 - .031	.335	.259	.005 - .015	.343	.094	.025 - .040	.348	.168	.020 - .040
.315	.129	.030 - .050	.321	.226	.010 - .020	.328	.253	.005 - .010	.336	.045	.005 - .010	.343	.097	.010 - .020	.348	.172	.005 - .010
.315	.138	.060 - .080	.321	.253	.020 - .030	.328	.256	.010 - .020	.336	.048	.005 - .010	.343	.110	.025 - .040	.348	.173	.010 - .042
.315	.140	.020 - .040	.322	.050	.005 - .010	.328	.260	.020 - .040	.336	.117	.040 - .060	.343	.116	.015 - .030	.348	.174	.005 - .010

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Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For a size NOT listed, send specs or phone for quote — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.348	.225	.025 - .042	.354	.061	.015 - .025	.359	.293	.005 - .015	.366	.218	.016 - .032	.370	.218	.040 - .060	.373	.192	.010 - .060
.349	.123	.010 - .020	.354	.070	.015 - .025	.360	.038	.005 - .010	.366	.219	.015 - .030	.370	.220	.015 - .030	.373	.193	.005 - .060
.349	.176	.010 - .015	.354	.099	.010 - .020	.360	.080	.005 - .010	.366	.225	.020 - .040	.370	.252	.005 - .010	.373	.196	.005 - .010
.349	.191	.035 - .050	.354	.114	.060 - .080	.360	.095	.005 - .010	.366	.253	.005 - .015	.370	.254	.020 - .040	.373	.200	.005 - .010
.349	.192	.015 - .030	.354	.119	.040 - .060	.360	.102	.015 - .030	.366	.254	.005 - .030	.370	.256	.015 - .030	.373	.210	.005 - .010
.349	.197	.020 - .030	.354	.125	.005 - .070	.360	.115	.030 - .040	.366	.268	.030 - .050	.370	.261	.005 - .010	.373	.222	.015 - .030
.349	.220	.015 - .030	.354	.128	.025 - .040	.360	.126	.005 - .010	.366	.272	.025 - .035	.370	.269	.040 - .060	.373	.238	.030 - .050
.349	.252	.015 - .030	.354	.144	.030 - .050	.360	.136	.005 - .020	.366	.274	.010 - .020	.370	.300	.020 - .030	.373	.253	.040 - .060
.349	.285	.020 - .030	.354	.145	.020 - .040	.360	.164	.020 - .032	.366	.294	.005 - .012	.370	.330	.005 - .010	.373	.256	.042 - .060
.349	.290	.005 - .010	.354	.147	.020 - .035	.360	.171	.025 - .040	.366	.305	.016 - .025	.371	.099	.025 - .040	.373	.269	.005 - .010
.349	.297	.005 - .010	.354	.152	.060 - .080	.360	.175	.005 - .020	.366	.312	.015 - .025	.371	.129	.050 - .070	.373	.317	.010 - .020
.350	.060	.005 - .010	.354	.161	.010 - .020	.360	.177	.050 - .070	.367	.098	.030 - .050	.371	.130	.050 - .075	.373	.318	.005 - .010
.350	.089	.005 - .010	.354	.162	.010 - .020	.360	.185	.005 - .010	.367	.105	.015 - .025	.371	.131	.020 - .030	.374	.049	.005 - .010
.350	.090	.005 - .010	.354	.178	.010 - .020	.360	.186	.040 - .060	.367	.125	.090 - .125	.371	.150	.005 - .010	.374	.083	.036 - .050
.350	.121	.010 - .020	.354	.204	.040 - .060	.360	.188	.015 - .030	.367	.176	.050 - .062	.371	.176	.005 - .010	.374	.099	.005 - .010
.350	.122	.005 - .010	.354	.226	.005 - .010	.360	.190	.030 - .050	.367	.186	.005 - .010	.371	.184	.010 - .020	.374	.120	.040 - .060
.350	.154	.005 - .010	.354	.237	.010 - .020	.360	.192	.060 - .090	.367	.258	.050 - .060	.371	.195	.050 - .070	.374	.130	.010 - .020
.350	.167	.015 - .030	.354	.238	.005 - .040	.360	.193	.005 - .015	.367	.260	.015 - .030	.371	.201	.040 - .060	.374	.138	.005 - .015
.350	.168	.030 - .050	.354	.245	.005 - .010	.360	.203	.030 - .042	.367	.264	.005 - .010	.371	.206	.060 - .083	.374	.149	.010 - .015
.350	.171	.005 - .010	.354	.279	.005 - .010	.360	.207	.050 - .062	.367	.272	.020 - .040	.371	.222	.030 - .050	.374	.157	.025 - .040
.350	.181	.025 - .040	.355	.070	.015 - .030	.360	.230	.010 - .020	.367	.273	.005 - .010	.371	.233	.005 - .010	.374	.168	.025 - .040
.350	.194	.005 - .010	.355	.083	.030 - .050	.360	.245	.005 - .010	.368	.061	.005 - .010	.371	.245	.050 - .075	.374	.172	.040 - .060
.350	.195	.060 - .080	.355	.103	.070 - .080	.360	.260	.025 - .042	.368	.063	.005 - .010	.371	.250	.005 - .032	.374	.173	.040 - .060
.350	.203	.032 - .042	.355	.131	.050 - .078	.360	.277	.005 - .010	.368	.080	.020 - .030	.371	.252	.035 - .050	.374	.175	.040 - .060
.350	.213	.020 - .030	.355	.158	.025 - .042	.360	.312	.015 - .025	.368	.122	.025 - .042	.371	.253	.015 - .030	.374	.180	.020 - .080
.350	.223	.010 - .020	.355	.159	.040 - .060	.361	.243	.025 - .040	.368	.124	.040 - .050	.371	.255	.005 - .012	.374	.185	.015 - .030
.350	.231	.015 - .030	.355	.160	.040 - .060	.361	.281	.005 - .010	.368	.154	.005 - .010	.371	.256	.005 - .010	.374	.191	.005 - .060
.350	.252	.005 - .020	.355	.175	.040 - .060	.361	.296	.005 - .010	.368	.168	.025 - .040	.371	.260	.005 - .020	.374	.194	.005 - .010
.350	.253	.005 - .010	.355	.185	.005 - .010	.362	.121	.005 - .010	.368	.193	.020 - .040	.371	.269	.005 - .010	.374	.196	.025 - .040
.350	.255	.025 - .040	.355	.198	.030 - .050	.362	.143	.015 - .030	.368	.194	.050 - .070	.371	.281	.020 - .030	.374	.199	.005 - .010
.350	.276	.025 - .040	.355	.201	.020 - .040	.362	.220	.005 - .010	.368	.195	.070 - .090	.371	.283	.010 - .020	.374	.200	.005 - .010
.350	.291	.020 - .045	.355	.203	.020 - .050	.362	.221	.010 - .020	.368	.199	.015 - .050	.371	.314	.005 - .010	.374	.202	.025 - .040
.351	.064	.005 - .010	.355	.226	.008 - .016	.362	.235	.040 - .060	.368	.223	.060 - .080	.372	.060	.010 - .020	.374	.206	.005 - .010
.351	.091	.030 - .050	.355	.230	.005 - .010	.362	.247	.015 - .030	.368	.226	.007 - .015	.372	.071	.020 - .040	.374	.221	.010 - .020
.351	.094	.005 - .010	.355	.236	.005 - .010	.362	.257	.030 - .050	.368	.256	.005 - .010	.372	.083	.040 - .060	.374	.222	.005 - .010
.351	.097	.005 - .010	.355	.255	.010 - .020	.362	.267	.025 - .040	.368	.257	.020 - .040	.372	.097	.040 - .060	.374	.224	.005 - .010
.351	.130	.005 - .020	.355	.260	.030 - .040	.362	.283	.005 - .010	.368	.263	.005 - .010	.372	.099	.020 - .040	.374	.225	.008 - .016
.351	.145	.005 - .010	.355	.281	.015 - .025	.363	.152	.005 - .010	.368	.265	.005 - .030	.372	.106	.025 - .040	.374	.232	.005 - .040
.351	.166	.008 - .015	.355	.282	.005 - .025	.363	.180	.050 - .070	.368	.284	.005 - .010	.372	.124	.005 - .010	.374	.236	.050 - .060
.351	.171	.005 - .015	.356	.111	.025 - .040	.363	.191	.008 - .016	.368	.287	.020 - .040	.372	.153	.025 - .042	.374	.237	.030 - .060
.351	.184	.005 - .010	.356	.198	.030 - .060	.363	.254	.010 - .040	.368	.298	.005 - .010	.372	.158	.025 - .048	.374	.252	.005 - .040
.351	.200	.025 - .050	.356	.255	.005 - .010	.363	.255	.010 - .020	.368	.323	.005 - .010	.372	.162	.020 - .040	.374	.255	.005 - .010
.351	.201	.020 - .030	.356	.282	.025 - .040	.363	.259	.010 - .020	.369	.084	.030 - .040	.372	.164	.015 - .030	.374	.257	.025 - .060
.351	.208	.030 - .060	.357	.085	.005 - .010	.363	.286	.025 - .036	.369	.117	.015 - .030	.372	.174	.025 - .040	.374	.280	.005 - .010
.351	.222	.005 - .010	.357	.093	.005 - .012	.363	.314	.005 - .010	.369	.177	.050 - .070	.372	.177	.060 - .080	.374	.307	.005 - .010
.351	.230	.040 - .060	.357	.142	.020 - .040	.364	.120	.020 - .040	.369	.181	.040 - .060	.372	.179	.015 - .030	.374	.320	.010 - .020
.351	.241	.020 - .040	.357	.150	.030 - .050	.364	.151	.090 - .110	.369	.190	.005 - .015	.372	.180	.015 - .030	.375	.041	.040 - .050
.351	.252	.010 - .020	.357	.173	.070 - .090	.364	.181	.010 - .020	.369	.194	.005 - .010	.372	.196	.062 - .080	.375	.045	.006 - .015
.351	.268	.020 - .030	.357	.191	.060 - .080	.364	.205	.015 - .030	.369	.197	.005 - .010	.372	.199	.005 - .016	.375	.059	.005 - .010
.351	.309	.010 - .020	.357	.195	.060 - .080	.364	.210	.005 - .015	.369	.205	.005 - .010	.372	.202	.015 - .030	.375	.086	.015 - .030
.352	.031	.010 - .020	.357	.260	.040 - .050	.364	.258	.015 - .030	.369	.208	.025 - .040	.372	.204	.030 - .050	.375	.091	.005 - .030
.352	.090	.010 - .015	.357	.303	.010 - .020	.365	.046	.010 - .020	.369	.215	.005 - .010	.372	.208	.015 - .030	.375	.095	.090 - .104
.352	.129	.020 - .030	.357	.318	.005 - .010	.365	.062	.005 - .010	.369	.224	.005 - .010	.372	.221	.050 - .075	.375	.100	.005 - .030
.352	.167	.030 - .050	.358	.126	.025 - .040	.365	.098	.020 - .040	.369	.257	.050 - .070	.372	.230	.015 - .030	.375	.101	.070 - .080
.352	.168	.008 - .020	.358	.127	.015 - .025	.365	.178	.005 - .010	.369	.313	.005 - .010	.372	.239	.050 - .070	.375	.103	.030 - .050
.352	.184	.015 - .030	.358	.164	.020 - .040	.365	.180	.020 - .040	.369	.324	.005 - .010	.372	.253	.010 - .020	.375	.110	.030 - .040
.352	.191	.035 - .050	.358	.170	.006 - .010	.365	.189	.007 - .015	.370	.034	.020 - .025	.372	.254	.010 - .060	.375	.111	.005 - .010
.352	.236	.030 - .050	.358	.178	.030 - .050	.365	.193	.005 - .010	.370	.088	.010 - .025	.372	.255	.005 - .010	.375	.114	.030 - .042
.352	.240	.040 - .060	.358	.203	.005 - .010	.365	.200	.005 - .010	.370	.101	.005 - .020	.372	.256	.005 - .015	.375	.120	.030 - .060
.352	.254	.005 - .010	.358	.204	.020 - .030	.365	.201	.030 - .040	.370	.110	.025 - .040	.372	.257	.020 - .030	.375	.123	.030 - .075
.352	.255	.030 - .050	.358	.213	.005 - .010	.365	.208	.020 - .040	.370	.119	.005 - .010	.372	.258	.040 - .050	.375	.125	.010 - .070
.352	.263	.010 - .020	.358	.238	.025 - .040	.365	.212	.050 - .070	.370	.125	.005 - .060	.372	.272	.005 - .010	.375	.126	.010 - .020
.353	.062	.015 - .025	.358	.252	.005 - .010	.365	.226	.005 - .010	.370	.126	.005 - .010	.372	.278	.025 - .042	.375	.129	.010 - .036
.353	.128	.020 - .040	.358	.257	.010 - .020	.365	.247	.050 - .070	.370	.140	.010 - .042	.372	.311	.015 - .030	.375	.132	.080 - .090
.353	.143	.020 - .075	.359	.069	.030 - .050	.365	.250	.005 - .020	.370	.146	.025 - .048	.372	.312	.005 - .035	.375	.133	.050 - .070
.353	.157	.015 - .030	.359	.127	.025 - .040	.365	.253	.025 - .040	.370	.158	.010 - .020	.372	.315	.005 - .010	.375	.135	.005 - .010
.353	.158	.005 - .030	.359	.137	.010 - .020	.365	.254	.005 - .010	.370	.159	.035 - .060	.373	.039	.025 - .035	.375	.143	.075 - .090
.353	.159	.030 - .050	.359	.158	.010 - .020	.365	.255	.015 - .025	.370	.160	.070 - .080	.373	.041	.010 - .020	.375	.144	.005 - .040
.353	.172	.025 - .040	.359	.159	.020 - .035	.365	.257	.015 - .030	.370	.171	.005 - .020	.373	.068	.015 - .030	.375	.145	.025 - .040
.353	.178	.005 - .010	.359	.190	.010 - .020	.365	.265	.042 - .062	.370	.173	.020 - .040	.373	.081	.040 - .062	.375	.147	.030 - .050
.353	.190	.015 - .030	.359	.195	.030 - .050	.365	.268	.005 - .010	.370	.180	.020 - .030	.373	.127	.005 - .015	.375	.148	.030 - .040
.353	.225	.032 - .050	.359	.204	.010 - .025	.365	.270	.020 - .040	.370	.189	.020 - .040	.373	.142	.062 - .078	.375	.150	.020 - .105
.353	.226	.020 - .042	.359	.210	.025 - .042	.365	.307	.005 - .010	.370	.191	.005 - .010	.373	.157	.020 - .040	.375	.152	.080 - .100
.353	.232	.020 - .040	.359	.221	.025 - .040	.365	.312	.005 - .020	.370	.196	.010 - .020	.373	.159	.020 - .040	.375	.153	.005 - .050
.353	.237	.005 - .010	.359	.240	.005 - .010	.365	.315	.005 - .010	.370	.199	.015 - .025	.373	.165	.005 - .015	.375	.156	.005 - .012
.353	.242	.015 - .025	.359	.257	.010 - .020	.366	.077	.005 - .010	.370	.202	.060 - .080	.373	.168	.010 - .020	.375	.158	.005 - .060
.353	.254	.005 - .010	.359	.258	.020 - .040	.366	.129	.015 - .025	.370	.205	.005 - .010	.373	.174	.005 - .010	.375	.160	.010 - .020
.353	.281	.005 - .010	.359	.260	.031 - .042	.366	.158	.015 - .030	.370	.206	.025 - .040	.373	.175	.050 - .078	.375	.161	.020 - .040
.354	.048	.005 - .010	.359	.267	.020 - .032	.366	.190	.040 - .060	.370	.211	.060 - .080	.373	.189	.030 - .050	.375	.162	.006 - .100
.354	.052	.030 - .050	.359	.284	.010 - .020	.366	.206	.005 - .020	.370	.212	.040 - .050	.373	.191	.030 - .072	.375	.163	.005 - .060

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

Call BOKER'S for precision stamping, assembly, and secondary operations.

O.D.	I.D.	Thickness* From - To	O.D.	I.D.	Thickness* From - To	O.D.	I.D.	Thickness* From - To	O.D.	I.D.	Thickness* From - To	O.D.	I.D.	Thickness* From - To	O.D.	I.D.	Thickness* From - To
.375	.165	.042 - .062	.376	.217	.040 - .060	.379	.164	.040 - .070	.384	.144	.030 - .050	.390	.306	.005 - .010	.395	.277	.040 - .050
.375	.169	.015 - .050	.376	.220	.020 - .032	.379	.173	.005 - .010	.384	.159	.030 - .050	.390	.314	.025 - .040	.395	.280	.040 - .060
.375	.172	.005 - .050	.376	.222	.005 - .010	.379	.198	.005 - .010	.384	.214	.030 - .050	.391	.105	.005 - .010	.395	.284	.005 - .048
.375	.173	.020 - .030	.376	.223	.005 - .042	.379	.200	.005 - .010	.384	.238	.020 - .030	.391	.132	.120 - .140	.395	.294	.036 - .050
.375	.175	.005 - .012	.376	.234	.030 - .050	.379	.221	.005 - .010	.384	.271	.015 - .020	.391	.163	.040 - .060	.395	.322	.005 - .010
.375	.177	.060 - .075	.376	.244	.032 - .050	.379	.250	.005 - .010	.384	.285	.015 - .030	.391	.177	.040 - .060	.396	.055	.010 - .020
.375	.180	.060 - .080	.376	.251	.020 - .032	.379	.252	.005 - .010	.385	.156	.020 - .032	.391	.197	.015 - .030	.396	.151	.040 - .060
.375	.188	.005 - .030	.376	.252	.040 - .050	.379	.257	.040 - .062	.385	.181	.030 - .050	.391	.226	.010 - .020	.396	.194	.010 - .015
.375	.189	.080 - .104	.376	.254	.025 - .048	.379	.297	.030 - .042	.385	.188	.025 - .040	.391	.242	.005 - .010	.396	.203	.020 - .040
.375	.190	.080 - .104	.376	.255	.040 - .060	.380	.093	.015 - .030	.385	.194	.060 - .080	.391	.271	.020 - .040	.396	.221	.005 - .015
.375	.191	.040 - .090	.376	.260	.005 - .032	.380	.095	.015 - .030	.385	.239	.005 - .010	.391	.285	.020 - .035	.396	.259	.030 - .050
.375	.192	.005 - .090	.376	.261	.010 - .020	.380	.096	.060 - .080	.385	.241	.030 - .070	.391	.306	.005 - .010	.396	.260	.030 - .050
.375	.193	.005 - .015	.376	.263	.005 - .020	.380	.097	.040 - .060	.385	.249	.025 - .048	.391	.307	.010 - .020	.396	.277	.020 - .040
.375	.194	.040 - .060	.376	.269	.005 - .010	.380	.116	.005 - .010	.385	.252	.005 - .012	.391	.314	.015 - .020	.396	.278	.020 - .040
.375	.195	.005 - .042	.376	.271	.010 - .040	.380	.126	.030 - .050	.385	.260	.005 - .010	.391	.348	.005 - .010	.396	.285	.025 - .042
.375	.196	.005 - .060	.376	.276	.040 - .060	.380	.148	.025 - .040	.385	.262	.050 - .060	.392	.129	.025 - .040	.396	.318	.005 - .010
.375	.200	.040 - .060	.376	.301	.005 - .010	.380	.149	.080 - .100	.385	.290	.010 - .020	.392	.190	.005 - .010	.396	.333	.005 - .030
.375	.202	.010 - .032	.376	.316	.005 - .010	.380	.162	.040 - .060	.385	.301	.005 - .010	.392	.207	.015 - .030	.396	.338	.005 - .008
.375	.203	.015 - .060	.377	.031	.005 - .010	.380	.173	.005 - .010	.386	.121	.030 - .050	.392	.219	.005 - .010	.397	.025	.005 - .010
.375	.204	.060 - .080	.377	.035	.015 - .025	.380	.175	.015 - .090	.386	.130	.020 - .030	.392	.280	.035 - .050	.397	.032	.005 - .010
.375	.205	.008 - .015	.377	.047	.030 - .042	.380	.180	.005 - .010	.386	.141	.010 - .020	.392	.328	.005 - .010	.397	.105	.008 - .016
.375	.209	.025 - .062	.377	.068	.030 - .042	.380	.186	.015 - .040	.386	.162	.050 - .062	.392	.337	.005 - .010	.397	.109	.005 - .015
.375	.211	.010 - .020	.377	.071	.005 - .010	.380	.190	.005 - .010	.386	.181	.040 - .060	.393	.042	.005 - .010	.397	.153	.025 - .040
.375	.213	.015 - .025	.377	.100	.015 - .030	.380	.191	.020 - .040	.386	.225	.020 - .040	.393	.103	.010 - .020	.397	.176	.005 - .010
.375	.218	.060 - .080	.377	.101	.020 - .030	.380	.192	.005 - .010	.386	.237	.040 - .050	.393	.111	.025 - .040	.397	.183	.010 - .020
.375	.220	.005 - .010	.377	.110	.020 - .030	.380	.194	.005 - .010	.386	.250	.015 - .040	.393	.120	.005 - .010	.397	.196	.010 - .015
.375	.223	.050 - .070	.377	.114	.020 - .040	.380	.195	.005 - .025	.386	.301	.020 - .040	.393	.158	.005 - .020	.397	.212	.005 - .015
.375	.225	.050 - .070	.377	.115	.005 - .010	.380	.204	.012 - .025	.386	.313	.020 - .030	.393	.196	.040 - .050	.397	.231	.005 - .010
.375	.226	.015 - .030	.377	.134	.015 - .030	.380	.215	.030 - .050	.387	.091	.030 - .050	.393	.201	.030 - .050	.397	.250	.005 - .010
.375	.235	.010 - .020	.377	.140	.005 - .010	.380	.226	.005 - .010	.387	.118	.020 - .030	.393	.209	.005 - .010	.397	.255	.070 - .090
.375	.237	.005 - .075	.377	.145	.050 - .060	.380	.242	.015 - .030	.387	.171	.060 - .090	.393	.214	.005 - .010	.397	.267	.020 - .040
.375	.238	.005 - .030	.377	.147	.010 - .020	.380	.255	.005 - .010	.387	.189	.032 - .048	.393	.217	.030 - .050	.397	.280	.040 - .050
.375	.245	.050 - .060	.377	.156	.030 - .060	.380	.262	.005 - .010	.387	.258	.020 - .040	.393	.230	.025 - .040	.397	.298	.015 - .030
.375	.248	.010 - .020	.377	.157	.070 - .090	.380	.264	.025 - .040	.387	.280	.005 - .010	.393	.237	.005 - .010	.397	.315	.032 - .042
.375	.250	.005 - .060	.377	.164	.005 - .010	.380	.276	.005 - .010	.387	.318	.008 - .020	.393	.239	.005 - .010	.397	.320	.020 - .040
.375	.252	.005 - .015	.377	.165	.020 - .030	.380	.277	.010 - .020	.387	.328	.010 - .020	.393	.240	.005 - .050	.397	.325	.015 - .025
.375	.253	.005 - .025	.377	.171	.025 - .040	.380	.280	.030 - .040	.388	.090	.015 - .025	.393	.256	.020 - .040	.398	.117	.020 - .035
.375	.254	.005 - .040	.377	.173	.030 - .050	.380	.285	.032 - .050	.388	.127	.008 - .020	.393	.277	.005 - .010	.398	.188	.005 - .010
.375	.255	.020 - .030	.377	.182	.025 - .048	.381	.094	.005 - .010	.388	.136	.005 - .010	.393	.279	.005 - .010	.398	.191	.040 - .060
.375	.257	.025 - .040	.377	.185	.010 - .020	.381	.099	.025 - .040	.388	.171	.075 - .090	.393	.285	.010 - .020	.398	.200	.070 - .080
.375	.258	.010 - .020	.377	.189	.030 - .060	.381	.114	.005 - .010	.388	.205	.025 - .040	.393	.287	.005 - .015	.398	.225	.005 - .010
.375	.267	.020 - .030	.377	.190	.015 - .030	.381	.116	.005 - .010	.388	.211	.005 - .010	.393	.314	.025 - .035	.398	.241	.040 - .060
.375	.274	.010 - .020	.377	.191	.025 - .040	.381	.124	.005 - .012	.388	.215	.040 - .060	.393	.315	.005 - .010	.398	.286	.025 - .048
.375	.280	.030 - .042	.377	.194	.025 - .060	.381	.126	.030 - .050	.388	.252	.015 - .030	.393	.316	.010 - .020	.398	.303	.005 - .010
.375	.281	.005 - .040	.377	.219	.032 - .042	.381	.131	.040 - .060	.388	.264	.025 - .040	.393	.324	.010 - .020	.398	.304	.015 - .030
.375	.282	.005 - .010	.377	.220	.020 - .040	.381	.138	.005 - .010	.388	.280	.005 - .030	.394	.083	.005 - .010	.398	.320	.020 - .040
.375	.285	.008 - .015	.377	.223	.030 - .050	.381	.148	.025 - .040	.388	.288	.015 - .030	.394	.095	.005 - .020	.399	.169	.005 - .010
.375	.292	.015 - .025	.377	.225	.015 - .030	.381	.150	.005 - .010	.389	.078	.015 - .030	.394	.157	.040 - .060	.399	.200	.020 - .040
.375	.301	.015 - .030	.377	.230	.010 - .020	.381	.153	.060 - .070	.389	.130	.020 - .035	.394	.158	.040 - .060	.399	.223	.005 - .010
.375	.303	.025 - .040	.377	.253	.015 - .060	.381	.163	.030 - .050	.389	.198	.020 - .040	.394	.168	.050 - .075	.399	.226	.050 - .070
.375	.313	.005 - .010	.377	.254	.025 - .040	.381	.175	.075 - .090	.389	.199	.015 - .030	.394	.183	.010 - .020	.399	.260	.070 - .090
.375	.316	.020 - .040	.377	.255	.040 - .062	.381	.178	.015 - .030	.389	.200	.015 - .030	.394	.196	.050 - .075	.399	.284	.010 - .020
.375	.318	.020 - .032	.377	.262	.030 - .050	.381	.182	.005 - .010	.389	.205	.005 - .012	.394	.207	.050 - .075	.399	.290	.005 - .010
.375	.382	.005 - .010	.377	.265	.005 - .010	.381	.186	.015 - .030	.389	.223	.012 - .020	.394	.208	.070 - .090	.399	.362	.005 - .010
.376	.084	.008 - .016	.377	.267	.006 - .012	.381	.195	.040 - .060	.389	.227	.005 - .010	.394	.237	.005 - .010	.400	.066	.025 - .048
.376	.117	.015 - .040	.377	.276	.010 - .020	.381	.200	.020 - .030	.389	.276	.020 - .030	.394	.239	.025 - .040	.400	.091	.005 - .010
.376	.122	.015 - .030	.377	.315	.010 - .020	.381	.203	.005 - .010	.390	.039	.005 - .010	.394	.240	.005 - .025	.400	.119	.005 - .010
.376	.126	.012 - .020	.378	.061	.005 - .010	.381	.212	.005 - .010	.390	.077	.010 - .020	.394	.243	.015 - .030	.400	.124	.005 - .010
.376	.130	.025 - .040	.378	.062	.005 - .010	.381	.255	.015 - .030	.390	.087	.020 - .030	.394	.251	.005 - .080	.400	.131	.020 - .030
.376	.141	.020 - .040	.378	.064	.015 - .025	.381	.260	.015 - .030	.390	.129	.015 - .030	.394	.255	.045 - .064	.400	.139	.020 - .035
.376	.156	.010 - .020	.378	.127	.005 - .010	.381	.290	.005 - .010	.390	.145	.015 - .080	.394	.260	.040 - .060	.400	.142	.005 - .010
.376	.157	.010 - .090	.378	.130	.010 - .020	.381	.294	.005 - .010	.390	.157	.005 - .010	.394	.319	.005 - .010	.400	.147	.025 - .048
.376	.158	.050 - .070	.378	.160	.010 - .020	.381	.300	.020 - .035	.390	.162	.020 - .030	.395	.099	.030 - .050	.400	.151	.010 - .060
.376	.159	.050 - .075	.378	.164	.010 - .030	.381	.315	.020 - .036	.390	.169	.025 - .050	.395	.165	.015 - .030	.400	.153	.005 - .010
.376	.161	.005 - .010	.378	.171	.032 - .050	.382	.132	.025 - .040	.390	.181	.030 - .050	.395	.172	.020 - .035	.400	.168	.042 - .062
.376	.169	.005 - .010	.378	.178	.005 - .010	.382	.163	.030 - .050	.390	.185	.005 - .010	.395	.174	.015 - .030	.400	.172	.005 - .010
.376	.172	.005 - .060	.378	.200	.010 - .020	.382	.175	.015 - .030	.390	.195	.020 - .050	.395	.175	.090 - .105	.400	.173	.030 - .050
.376	.174	.075 - .090	.378	.202	.015 - .030	.382	.189	.050 - .072	.390	.198	.015 - .030	.395	.186	.070 - .090	.400	.182	.016 - .032
.376	.177	.020 - .035	.378	.244	.005 - .010	.382	.195	.005 - .010	.390	.201	.070 - .090	.395	.191	.025 - .093	.400	.192	.005 - .060
.376	.182	.010 - .020	.378	.251	.020 - .030	.382	.199	.030 - .050	.390	.217	.015 - .030	.395	.195	.005 - .010	.400	.198	.015 - .050
.376	.186	.060 - .080	.378	.252	.010 - .060	.382	.204	.005 - .010	.390	.235	.050 - .080	.395	.200	.005 - .010	.400	.200	.015 - .025
.376	.187	.030 - .050	.378	.255	.015 - .025	.382	.207	.030 - .050	.390	.236	.005 - .080	.395	.210	.025 - .040	.400	.202	.005 - .010
.376	.189	.005 - .010	.378	.258	.020 - .030	.382	.225	.030 - .050	.390	.241	.060 - .080	.395	.219	.010 - .020	.400	.203	.005 - .010
.376	.190	.020 - .080	.378	.260	.005 - .010	.382	.252	.015 - .025	.390	.256	.005 - .010	.395	.220	.015 - .035	.400	.206	.050 - .070
.376	.191	.040 - .060	.378	.269	.008 - .016	.382	.300	.048 - .062	.390	.257	.015 - .030	.395	.225	.010 - .020	.400	.210	.005 - .020
.376	.194	.030 - .050	.378	.289	.012 - .025	.382	.328	.015 - .025	.390	.258	.005 - .010	.395	.236	.040 - .060	.400	.216	.005 - .010
.376	.196	.005 - .010	.378	.292	.005 - .010	.383	.099	.030 - .050	.390	.260	.005 - .020	.395	.243	.005 - .015	.400	.225	.050 - .070
.376	.197	.005 - .010	.379	.143	.050 - .070	.383	.115	.015 - .030	.390	.262	.040 - .060	.395	.246	.015 - .030	.400	.240	.015 - .020
.376	.204	.010 - .020	.379	.162	.015 - .035	.383	.155	.030 - .050	.390	.266	.025 - .040	.395	.248	.060 - .075	.400	.252	.005 - .010
.376	.205	.005 - .010	.379	.163	.020 - .035	.384	.127	.020 - .030	.390	.284	.005 - .010	.395	.251	.020 - .030			

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

New tools added continually. Call for sizes not listed — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.400	.253	.010 - .020	.405	.252	.030 - .050	.410	.306	.015 - .030	.419	.303	.005 - .010	.425	.345	.005 - .010	.431	.158	.005 - .010
.400	.254	.010 - .020	.405	.253	.025 - .040	.410	.314	.005 - .010	.419	.313	.025 - .040	.426	.140	.015 - .030	.431	.195	.005 - .010
.400	.255	.005 - .030	.405	.257	.005 - .040	.410	.317	.020 - .035	.419	.329	.005 - .025	.426	.187	.005 - .010	.431	.197	.020 - .030
.400	.260	.005 - .010	.405	.261	.010 - .020	.410	.358	.020 - .030	.419	.345	.005 - .010	.426	.215	.005 - .015	.431	.235	.005 - .012
.400	.268	.030 - .050	.405	.276	.025 - .048	.411	.091	.005 - .010	.420	.129	.020 - .030	.426	.216	.070 - .090	.431	.238	.030 - .060
.400	.273	.025 - .040	.405	.279	.050 - .060	.411	.095	.005 - .010	.420	.170	.015 - .030	.426	.219	.005 - .010	.431	.259	.005 - .030
.400	.286	.030 - .040	.405	.303	.015 - .025	.411	.127	.020 - .040	.420	.179	.005 - .010	.426	.225	.010 - .020	.431	.294	.015 - .025
.400	.288	.015 - .030	.406	.094	.005 - .010	.411	.225	.005 - .010	.420	.193	.005 - .010	.426	.234	.025 - .040	.432	.080	.005 - .010
.400	.314	.025 - .040	.406	.120	.032 - .048	.411	.258	.020 - .050	.420	.204	.030 - .050	.426	.256	.040 - .060	.432	.117	.030 - .050
.400	.347	.005 - .010	.406	.124	.020 - .040	.411	.292	.010 - .020	.420	.234	.005 - .010	.426	.257	.050 - .075	.432	.118	.015 - .030
.400	.360	.005 - .010	.406	.127	.025 - .040	.411	.310	.010 - .020	.420	.238	.020 - .030	.426	.270	.050 - .070	.432	.120	.015 - .030
.401	.102	.005 - .010	.406	.128	.015 - .030	.411	.314	.030 - .050	.420	.241	.005 - .010	.426	.272	.005 - .010	.432	.122	.030 - .050
.401	.121	.030 - .050	.406	.140	.025 - .042	.411	.315	.005 - .020	.420	.251	.030 - .040	.426	.314	.005 - .010	.432	.125	.032 - .062
.401	.125	.030 - .105	.406	.155	.050 - .075	.412	.136	.007 - .015	.420	.254	.006 - .012	.426	.320	.010 - .020	.432	.130	.010 - .020
.401	.128	.025 - .040	.406	.161	.050 - .075	.412	.161	.030 - .050	.420	.258	.005 - .010	.426	.345	.010 - .020	.432	.133	.050 - .090
.401	.130	.005 - .010	.406	.170	.010 - .025	.412	.190	.005 - .070	.420	.279	.005 - .016	.426	.354	.015 - .025	.432	.135	.040 - .060
.401	.165	.005 - .010	.406	.171	.048 - .072	.412	.196	.005 - .015	.420	.280	.010 - .025	.427	.107	.010 - .020	.432	.187	.005 - .010
.401	.169	.031 - .048	.406	.189	.012 - .020	.412	.211	.005 - .010	.420	.311	.005 - .010	.427	.134	.030 - .050	.432	.199	.005 - .010
.401	.171	.005 - .010	.406	.190	.005 - .010	.412	.222	.010 - .020	.420	.314	.030 - .050	.427	.213	.030 - .050	.432	.260	.080 - .100
.401	.202	.020 - .060	.406	.201	.050 - .070	.412	.231	.060 - .080	.420	.319	.005 - .010	.427	.230	.010 - .020	.432	.263	.015 - .025
.401	.219	.020 - .040	.406	.203	.005 - .010	.412	.236	.005 - .010	.421	.058	.005 - .010	.427	.233	.050 - .070	.432	.297	.005 - .010
.401	.221	.060 - .075	.406	.204	.030 - .050	.412	.241	.005 - .010	.421	.121	.005 - .010	.427	.260	.005 - .010	.432	.313	.020 - .048
.401	.237	.035 - .050	.406	.209	.030 - .050	.412	.290	.040 - .060	.421	.178	.020 - .040	.427	.265	.015 - .030	.432	.315	.005 - .010
.401	.241	.030 - .050	.406	.218	.025 - .040	.412	.326	.010 - .040	.421	.204	.020 - .040	.427	.279	.040 - .060	.432	.316	.040 - .060
.401	.251	.025 - .040	.406	.220	.025 - .042	.413	.169	.005 - .010	.421	.209	.005 - .010	.427	.325	.015 - .030	.432	.317	.005 - .010
.401	.258	.015 - .025	.406	.221	.010 - .020	.413	.187	.010 - .020	.421	.234	.025 - .040	.427	.347	.005 - .010	.432	.319	.030 - .050
.401	.263	.005 - .010	.406	.224	.005 - .010	.413	.212	.010 - .020	.421	.251	.015 - .030	.428	.034	.016 - .025	.432	.356	.015 - .025
.401	.298	.005 - .010	.406	.242	.062 - .080	.413	.222	.042 - .072	.421	.252	.005 - .010	.428	.101	.010 - .020	.432	.364	.005 - .010
.401	.314	.010 - .020	.406	.250	.020 - .035	.413	.223	.005 - .010	.421	.268	.025 - .040	.428	.132	.005 - .010	.433	.042	.031 - .048
.401	.328	.005 - .030	.406	.252	.050 - .070	.413	.229	.005 - .010	.421	.279	.005 - .010	.428	.143	.050 - .070	.433	.052	.015 - .030
.402	.099	.015 - .025	.406	.257	.025 - .042	.413	.269	.005 - .010	.421	.280	.005 - .010	.428	.179	.090 - .105	.433	.054	.015 - .030
.402	.145	.015 - .060	.406	.260	.005 - .010	.413	.319	.005 - .010	.421	.291	.005 - .010	.428	.187	.005 - .010	.433	.089	.020 - .040
.402	.157	.005 - .010	.406	.262	.025 - .040	.413	.326	.005 - .010	.421	.319	.020 - .030	.428	.213	.020 - .040	.433	.157	.030 - .050
.402	.162	.060 - .080	.406	.264	.036 - .050	.413	.379	.010 - .020	.421	.322	.005 - .010	.428	.220	.040 - .060	.433	.178	.105 - .125
.402	.193	.015 - .025	.406	.269	.005 - .010	.414	.081	.030 - .050	.422	.038	.020 - .036	.428	.241	.005 - .010	.433	.202	.015 - .030
.402	.235	.050 - .070	.406	.276	.042 - .062	.414	.162	.030 - .050	.422	.123	.005 - .010	.428	.299	.005 - .010	.433	.203	.005 - .030
.402	.256	.030 - .050	.406	.278	.005 - .010	.414	.166	.005 - .010	.422	.129	.010 - .025	.428	.311	.025 - .040	.433	.220	.005 - .010
.402	.270	.040 - .060	.406	.284	.020 - .040	.414	.212	.080 - .100	.422	.130	.015 - .025	.428	.316	.025 - .040	.433	.224	.005 - .010
.402	.281	.048 - .062	.406	.285	.005 - .010	.414	.236	.070 - .080	.422	.153	.005 - .010	.428	.318	.010 - .020	.433	.237	.030 - .050
.402	.300	.015 - .030	.406	.304	.005 - .010	.414	.252	.005 - .060	.422	.189	.025 - .035	.429	.135	.005 - .010	.433	.238	.005 - .010
.402	.359	.005 - .010	.407	.063	.005 - .010	.414	.261	.005 - .010	.422	.282	.040 - .060	.429	.161	.020 - .040	.433	.239	.005 - .010
.403	.144	.005 - .010	.407	.175	.005 - .010	.414	.277	.035 - .045	.422	.335	.010 - .020	.429	.189	.010 - .020	.433	.243	.020 - .050
.403	.189	.025 - .036	.407	.207	.005 - .015	.414	.282	.020 - .030	.422	.375	.005 - .010	.429	.199	.005 - .010	.433	.251	.010 - .030
.403	.192	.020 - .040	.407	.225	.020 - .040	.414	.315	.010 - .020	.423	.129	.005 - .010	.429	.257	.010 - .020	.433	.253	.008 - .070
.403	.193	.016 - .025	.407	.237	.020 - .040	.415	.092	.040 - .060	.423	.153	.005 - .015	.429	.260	.015 - .060	.433	.276	.020 - .040
.403	.203	.005 - .010	.407	.253	.010 - .015	.415	.179	.040 - .070	.423	.226	.040 - .060	.430	.111	.005 - .010	.433	.278	.005 - .010
.403	.263	.030 - .050	.407	.257	.010 - .020	.415	.192	.070 - .090	.423	.250	.020 - .035	.430	.115	.010 - .020	.433	.281	.010 - .020
.404	.100	.005 - .010	.407	.261	.008 - .016	.415	.243	.008 - .020	.423	.254	.020 - .030	.430	.120	.005 - .012	.433	.315	.005 - .030
.404	.128	.005 - .010	.407	.262	.005 - .040	.415	.250	.042 - .080	.423	.269	.060 - .078	.430	.128	.032 - .042	.433	.317	.005 - .010
.404	.173	.060 - .080	.407	.265	.015 - .036	.415	.253	.005 - .010	.423	.270	.060 - .080	.430	.130	.030 - .050	.433	.321	.035 - .050
.404	.180	.060 - .080	.407	.320	.010 - .020	.415	.265	.050 - .070	.423	.271	.050 - .070	.430	.159	.020 - .040	.433	.330	.005 - .010
.404	.189	.025 - .040	.408	.083	.020 - .050	.415	.281	.050 - .072	.423	.278	.025 - .050	.430	.161	.010 - .020	.433	.347	.015 - .030
.404	.190	.025 - .040	.408	.134	.025 - .040	.415	.285	.015 - .025	.423	.314	.010 - .020	.430	.175	.015 - .030	.433	.348	.030 - .040
.404	.195	.010 - .020	.408	.166	.015 - .040	.415	.313	.010 - .020	.423	.319	.015 - .025	.430	.180	.020 - .040	.433	.351	.015 - .030
.404	.197	.005 - .010	.408	.172	.005 - .015	.415	.324	.025 - .035	.423	.328	.030 - .042	.430	.185	.020 - .040	.434	.043	.005 - .010
.404	.210	.030 - .050	.408	.173	.005 - .010	.416	.121	.005 - .010	.423	.345	.010 - .020	.430	.187	.005 - .010	.434	.079	.030 - .050
.404	.218	.005 - .010	.408	.194	.040 - .060	.416	.128	.040 - .060	.424	.139	.030 - .050	.430	.189	.030 - .050	.434	.094	.040 - .060
.404	.220	.025 - .040	.408	.202	.030 - .040	.416	.160	.005 - .010	.424	.169	.005 - .030	.430	.190	.020 - .040	.434	.103	.040 - .060
.404	.224	.005 - .010	.408	.240	.020 - .030	.416	.180	.020 - .030	.424	.190	.005 - .020	.430	.191	.020 - .080	.434	.160	.090 - .125
.404	.246	.005 - .010	.408	.261	.005 - .015	.416	.205	.062 - .080	.424	.196	.040 - .060	.430	.200	.070 - .090	.434	.176	.020 - .040
.404	.252	.005 - .010	.408	.297	.010 - .020	.416	.218	.010 - .020	.424	.230	.015 - .025	.430	.206	.080 - .100	.434	.187	.005 - .010
.404	.260	.015 - .025	.409	.129	.015 - .030	.416	.241	.008 - .020	.424	.319	.005 - .010	.430	.215	.032 - .042	.434	.196	.005 - .010
.404	.265	.015 - .030	.409	.167	.015 - .025	.416	.251	.025 - .040	.424	.325	.005 - .010	.430	.220	.015 - .035	.434	.198	.005 - .010
.404	.280	.060 - .080	.409	.172	.020 - .040	.416	.260	.025 - .040	.425	.138	.030 - .050	.430	.230	.005 - .010	.434	.224	.005 - .010
.404	.313	.005 - .012	.409	.194	.035 - .050	.417	.251	.048 - .062	.425	.147	.020 - .030	.430	.258	.020 - .040	.434	.236	.032 - .062
.404	.320	.005 - .020	.409	.210	.060 - .083	.417	.276	.005 - .010	.425	.165	.015 - .030	.430	.265	.005 - .080	.434	.244	.040 - .050
.405	.099	.005 - .010	.409	.244	.030 - .040	.417	.356	.010 - .020	.425	.191	.060 - .080	.430	.279	.005 - .010	.434	.253	.005 - .010
.405	.107	.005 - .010	.409	.313	.015 - .030	.418	.149	.050 - .070	.425	.197	.005 - .010	.430	.285	.020 - .030	.434	.255	.005 - .010
.405	.108	.030 - .050	.409	.322	.015 - .030	.418	.190	.025 - .050	.425	.212	.005 - .010	.430	.308	.010 - .020	.434	.271	.050 - .070
.405	.137	.005 - .010	.410	.063	.005 - .010	.418	.206	.010 - .015	.425	.250	.015 - .030	.430	.314	.030 - .050	.434	.282	.005 - .010
.405	.156	.040 - .060	.410	.102	.005 - .010	.418	.251	.030 - .040	.425	.256	.050 - .070	.430	.339	.005 - .010	.434	.286	.020 - .030
.405	.162	.015 - .025	.410	.188	.030 - .040	.418	.257	.025 - .040	.425	.261	.050 - .062	.430	.343	.015 - .030	.434	.315	.005 - .010
.405	.168	.005 - .010	.410	.201	.005 - .105	.418	.289	.020 - .030	.425	.284	.030 - .050	.430	.364	.005 - .010	.434	.316	.015 - .040
.405	.175	.040 - .060	.410	.210	.040 - .060	.418	.315	.035 - .050	.425	.317	.015 - .030	.430	.372	.005 - .020	.434	.318	.005 - .010
.405	.184	.005 - .010	.410	.220	.025 - .040	.419	.125	.050 - .072	.425	.318	.005 - .010	.430	.376	.005 - .010	.434	.320	.005 - .010
.405	.201	.005 - .010	.410	.223	.010 - .020	.419	.148	.062 - .090	.425	.319	.040 - .050	.430	.379	.015 - .020	.434	.330	.015 - .020
.405	.202	.020 - .072	.410	.254	.005 - .010	.419	.173	.080 - .104	.425	.326	.020 - .030	.431	.040	.005 - .010	.434	.350	.025 - .035
.405	.204	.050 - .060	.410	.256	.030 - .042	.419	.224	.040 - .060	.425	.336	.020 - .030	.431	.126	.035 - .050	.435	.064	.035 - .062
.405	.243	.010 - .015	.410	.261	.005 - .010	.419	.260	.010 - .020	.425	.343	.020 - .040	.431	.127	.025 - .040	.435	.067	.020 - .040
.405	.250	.020 - .030	.410	.300	.005 - .010	.419	.296	.020 - .040	.425	.344	.005 - .010	.431	.157	.025 - .040	.435	.077	.005 - .010

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For non-metallic materials, contact BOKER'S — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Thickness* From - To	O.D.	I.D.	Thickness* From - To	O.D.	I.D.	Thickness* From - To	O.D.	I.D.	Thickness* From - To	O.D.	I.D.	Thickness* From - To	O.D.	I.D.	Thickness* From - To
.435	.080	.012 - .025	.437	.204	.020 - .030	**.438**	**.282**	**.005 - .075**	.441	.224	.050 - .075	.448	.223	.025 - .040	**.454**	**.228**	**.005 - .010**
.435	.082	.030 - .050	.437	.205	.020 - .035	.438	.284	.050 - .075	.441	.242	.020 - .030	**.448**	**.245**	**.005 - .020**	.454	.320	.025 - .040
.435	.112	.007 - .012	.437	.215	.020 - .040	.438	.297	.015 - .025	.441	.254	.020 - .040	.448	.248	.010 - .020	.454	.356	.020 - .030
.435	.136	.090 - .105	.437	.217	.060 - .080	.438	.313	.030 - .060	**.441**	**.255**	**.005 - .010**	.448	.251	.032 - .060	**.454**	**.390**	**.005 - .010**
.435	.149	.060 - .083	.437	.218	.015 - .062	.438	.315	.010 - .020	.441	.257	.020 - .048	.448	.271	.030 - .040	**.454**	**.421**	**.005 - .010**
.435	.160	.010 - .020	.437	.219	.008 - .016	**.438**	**.316**	**.005 - .010**	.441	.258	.030 - .050	**.448**	**.312**	**.005 - .010**	**.455**	**.080**	**.005 - .010**
.435	.166	.090 - .105	.437	.220	.040 - .060	.438	.322	.010 - .020	.441	.266	.042 - .072	.448	.323	.010 - .020	**.455**	**.145**	**.005 - .010**
.435	.174	.025 - .040	**.437**	**.222**	**.005 - .010**	.438	.323	.025 - .040	.441	.270	.025 - .040	.448	.331	.010 - .020	.455	.186	.025 - .040
.435	.178	.105 - .125	.437	.225	.032 - .062	**.438**	**.325**	**.005 - .010**	**.441**	**.273**	**.005 - .010**	.448	.367	.035 - .050	.455	.187	.025 - .035
.435	.182	.060 - .083	.437	.228	.050 - .070	.438	.328	.010 - .020	.441	.316	.040 - .060	.448	.368	.030 - .040	.455	.195	.015 - .030
.435	.190	.070 - .090	.437	.232	.030 - .042	**.438**	**.335**	**.005 - .010**	**.441**	**.319**	**.005 - .010**	**.448**	**.377**	**.005 - .010**	.455	.235	.020 - .030
.435	**.191**	**.005 - .010**	.437	.238	.006 - .016	.438	.337	.025 - .040	**.441**	**.320**	**.005 - .008**	**.449**	**.259**	**.005 - .010**	.455	.257	.020 - .032
.435	**.198**	**.005 - .072**	.437	.245	.020 - .040	.438	.339	.025 - .040	.442	.154	.030 - .040	**.449**	**.351**	**.005 - .010**	.455	.261	.007 - .016
.435	.200	.050 - .075	.437	.251	.010 - .015	**.438**	**.365**	**.005 - .015**	**.442**	**.195**	**.005 - .010**	**.449**	**.412**	**.005 - .010**	.455	.265	.015 - .030
.435	**.203**	**.005 - .008**	.437	.252	.010 - .020	.438	.381	.020 - .030	.442	.260	.010 - .020	.450	.062	.030 - .050	.455	.302	.015 - .030
.435	.214	.040 - .062	.437	.253	.035 - .050	.438	.384	.015 - .030	**.442**	**.286**	**.005 - .010**	.450	.065	.006 - .015	.455	.353	.010 - .020
.435	.223	.025 - .050	**.437**	**.254**	**.005 - .050**	.439	.118	.030 - .050	.442	.317	.040 - .060	.450	.089	.030 - .050	.455	.383	.025 - .040
.435	.237	.015 - .030	.437	.255	.010 - .020	.439	.141	.010 - .020	.443	.190	.025 - .040	.450	.114	.015 - .030	**.456**	**.074**	**.005 - .010**
.435	.250	.015 - .030	.437	.257	.008 - .016	.439	.165	.025 - .040	.443	.191	.025 - .040	.450	.120	.010 - .015	.456	.153	.025 - .040
.435	.252	.015 - .030	.437	.258	.025 - .070	.439	.173	.030 - .050	**.443**	**.223**	**.005 - .010**	**.450**	**.138**	**.005 - .015**	.456	.189	.030 - .040
.435	**.254**	**.005 - .008**	.437	.259	.050 - .070	**.439**	**.174**	**.005 - .050**	.443	.224	.040 - .060	**.450**	**.143**	**.005 - .010**	.456	.190	.025 - .062
.435	.257	.025 - .040	.437	.260	.010 - .025	.439	.185	.090 - .105	.443	.278	.020 - .040	.450	.162	.050 - .075	.456	.194	.040 - .062
.435	.261	.025 - .045	**.437**	**.261**	**.005 - .010**	.439	.189	.010 - .075	.443	.295	.016 - .025	.450	.174	.025 - .040	**.456**	**.221**	**.005 - .010**
.435	.267	.010 - .020	.437	.262	.030 - .042	.439	.190	.060 - .080	.443	.336	.040 - .060	**.450**	**.182**	**.005 - .010**	**.456**	**.235**	**.005 - .010**
.435	.268	.010 - .020	**.437**	**.265**	**.005 - .012**	**.439**	**.192**	**.005 - .010**	**.444**	**.165**	**.005 - .010**	.450	.185	.040 - .050	.456	.257	.020 - .030
.435	.284	.040 - .072	.437	.275	.020 - .040	.439	.203	.040 - .090	.444	.174	.030 - .050	**.450**	**.192**	**.005 - .010**	**.456**	**.261**	**.005 - .010**
.435	.290	.025 - .050	.437	.281	.042 - .062	.439	.207	.040 - .060	.444	.196	.015 - .030	.450	.200	.015 - .080	.456	.356	.010 - .020
.435	**.296**	**.005 - .010**	.437	.284	.015 - .030	.439	.251	.060 - .080	.444	.220	.030 - .050	**.450**	**.201**	**.005 - .010**	**.456**	**.378**	**.005 - .010**
.435	**.305**	**.005 - .010**	.437	.287	.010 - .020	.439	.252	.060 - .080	.444	.318	.030 - .050	**.450**	**.216**	**.005 - .010**	.456	.390	.010 - .020
.435	.321	.030 - .050	**.437**	**.302**	**.005 - .012**	.439	.253	.010 - .025	.444	.347	.020 - .040	.450	.223	.015 - .025	.457	.252	.050 - .075
.435	.327	.030 - .050	**.437**	**.312**	**.005 - .010**	.439	.260	.025 - .040	**.444**	**.349**	**.005 - .010**	.450	.237	.030 - .050	**.457**	**.254**	**.005 - .010**
.435	.380	.010 - .020	.437	.316	.010 - .015	.439	.264	.060 - .075	.445	.095	.030 - .050	**.450**	**.240**	**.005 - .010**	.457	.311	.030 - .040
.436	**.187**	**.005 - .010**	.437	.321	.020 - .040	**.439**	**.276**	**.005 - .010**	.445	.116	.050 - .070	**.450**	**.247**	**.005 - .010**	.457	.313	.050 - .060
.436	.188	.070 - .090	**.437**	**.325**	**.005 - .010**	.439	.313	.040 - .060	.445	.136	.010 - .020	.450	.251	.020 - .100	**.457**	**.363**	**.005 - .010**
.436	.226	.010 - .025	.437	.328	.020 - .030	**.439**	**.315**	**.005 - .010**	.445	.142	.040 - .050	**.450**	**.252**	**.005 - .020**	.457	.407	.015 - .025
.436	.241	.025 - .035	.437	.329	.040 - .060	.439	.317	.040 - .060	.445	.206	.035 - .050	.450	.254	.025 - .040	.458	.172	.062 - .090
.436	.251	.080 - .100	**.437**	**.343**	**.005 - .060**	**.440**	**.024**	**.005 - .010**	**.445**	**.212**	**.005 - .010**	.450	.256	.010 - .020	.458	.250	.040 - .062
.436	.253	.030 - .050	**.437**	**.365**	**.005 - .010**	.440	.052	.025 - .040	.445	.219	.050 - .070	.450	.260	.025 - .040	.459	.172	.050 - .075
.436	.254	.010 - .020	**.437**	**.376**	**.005 - .025**	.440	.090	.035 - .050	.445	.252	.015 - .025	.450	.264	.050 - .070	**.459**	**.173**	**.005 - .050**
.436	**.256**	**.005 - .010**	**.437**	**.380**	**.005 - .010**	**.440**	**.105**	**.005 - .010**	.445	.265	.040 - .060	.450	.280	.050 - .075	.459	.194	.040 - .050
.436	**.263**	**.005 - .010**	**.438**	**.048**	**.005 - .010**	.440	.127	.010 - .020	.445	.325	.010 - .020	.450	.284	.020 - .040	.459	.290	.060 - .080
.436	.279	.010 - .025	.438	.058	.020 - .035	.440	.129	.030 - .050	.445	.331	.030 - .050	.450	.290	.080 - .100	.459	.312	.040 - .060
.436	.282	.025 - .075	**.438**	**.093**	**.005 - .010**	.440	.140	.025 - .040	.445	.348	.020 - .040	.450	.292	.015 - .025	.459	.337	.040 - .060
.436	.283	.010 - .020	.438	.094	.025 - .040	.440	.158	.030 - .050	**.445**	**.383**	**.005 - .040**	.450	.295	.015 - .030	.459	.347	.020 - .030
.436	**.287**	**.005 - .015**	.438	.119	.015 - .030	.440	.168	.040 - .060	**.445**	**.385**	**.005 - .010**	**.450**	**.316**	**.005 - .030**	.459	.350	.020 - .030
.436	**.314**	**.005 - .010**	.438	.125	.025 - .042	.440	.170	.025 - .050	.445	.390	.010 - .015	**.450**	**.317**	**.005 - .025**	.460	.040	.010 - .020
.436	.316	.010 - .042	.438	.129	.015 - .030	**.440**	**.173**	**.005 - .010**	**.445**	**.399**	**.005 - .010**	**.450**	**.320**	**.005 - .060**	.460	.143	.020 - .040
.436	**.318**	**.005 - .010**	.438	.136	.010 - .015	.440	.190	.100 - .125	.446	.049	.010 - .020	.450	.350	.015 - .025	**.460**	**.159**	**.005 - .010**
.436	.334	.015 - .030	**.438**	**.138**	**.005 - .010**	.440	.195	.035 - .050	.446	.151	.062 - .090	.450	.368	.010 - .020	**.460**	**.194**	**.005 - .010**
.436	.375	.015 - .030	.438	.147	.030 - .050	.440	.202	.070 - .090	**.446**	**.162**	**.005 - .010**	.450	.370	.015 - .030	**.460**	**.301**	**.005 - .010**
.436	**.378**	**.005 - .010**	.438	.162	.030 - .060	.440	.210	.010 - .020	.446	.171	.040 - .060	.450	.375	.025 - .042	**.460**	**.306**	**.005 - .010**
.436	**.397**	**.005 - .010**	**.438**	**.169**	**.005 - .010**	**.440**	**.211**	**.005 - .010**	.446	.197	.010 - .020	.451	.146	.020 - .030	.460	.313	.020 - .030
.437	**.039**	**.005 - .010**	.438	.193	.050 - .070	.440	.217	.070 - .090	.446	.208	.050 - .070	.451	.188	.020 - .030	.460	.319	.020 - .040
.437	.096	.015 - .025	.438	.195	.030 - .040	**.440**	**.218**	**.005 - .020**	**.446**	**.256**	**.005 - .010**	.451	.241	.025 - .040	.460	.378	.030 - .042
.437	.120	.040 - .060	**.438**	**.196**	**.005 - .020**	.440	.228	.015 - .040	**.446**	**.270**	**.005 - .040**	.451	.267	.030 - .050	**.460**	**.380**	**.005 - .015**
.437	**.125**	**.005 - .015**	.438	.198	.025 - .035	.440	.237	.050 - .075	.446	.307	.030 - .050	**.451**	**.274**	**.005 - .010**	**.461**	**.091**	**.005 - .010**
.437	.126	.025 - .050	**.438**	**.200**	**.005 - .090**	**.440**	**.245**	**.005 - .010**	.446	.319	.032 - .060	.451	.315	.040 - .062	.461	.215	.045 - .060
.437	.127	.015 - .060	.438	.201	.025 - .050	**.440**	**.250**	**.005 - .010**	.446	.325	.032 - .060	**.451**	**.317**	**.005 - .010**	**.461**	**.334**	**.005 - .010**
.437	.128	.030 - .050	.438	.202	.020 - .040	.440	.252	.010 - .025	.447	.127	.020 - .040	.451	.334	.020 - .030	.461	.355	.015 - .025
.437	.129	.010 - .042	.438	.203	.075 - .090	**.440**	**.253**	**.005 - .010**	.447	.146	.020 - .040	.451	.344	.030 - .050	.462	.062	.030 - .050
.437	.130	.025 - .042	.438	.205	.070 - .090	.440	.260	.010 - .070	.447	.194	.030 - .050	.451	.353	.010 - .020	.462	.090	.025 - .042
.437	.133	.050 - .062	.438	.206	.020 - .030	**.440**	**.265**	**.005 - .010**	.447	.202	.025 - .050	.451	.378	.020 - .030	.462	.158	.040 - .060
.437	.141	.048 - .072	**.438**	**.207**	**.005 - .010**	.440	.275	.020 - .045	.447	.223	.025 - .050	**.451**	**.395**	**.005 - .010**	**.462**	**.165**	**.005 - .010**
.437	.142	.040 - .060	.438	.210	.042 - .060	.440	.283	.040 - .062	.447	.230	.025 - .040	.452	.036	.010 - .020	.462	.203	.010 - .030
.437	.143	.040 - .060	**.438**	**.216**	**.005 - .100**	.440	.291	.020 - .040	**.447**	**.236**	**.005 - .010**	.452	.102	.015 - .030	**.462**	**.288**	**.005 - .010**
.437	.144	.025 - .035	.438	.232	.035 - .050	.440	.304	.030 - .050	.447	.250	.020 - .040	.452	.250	.040 - .060	.462	.318	.070 - .080
.437	.147	.020 - .040	**.438**	**.236**	**.005 - .010**	.440	.314	.040 - .060	.447	.254	.010 - .020	.452	.257	.010 - .020	**.462**	**.324**	**.005 - .010**
.437	.150	.010 - .020	**.438**	**.247**	**.005 - .010**	.440	.316	.020 - .050	.447	.270	.020 - .030	**.452**	**.284**	**.005 - .010**	.462	.336	.050 - .060
.437	.157	.015 - .030	.438	.249	.050 - .075	.440	.328	.040 - .060	.447	.313	.015 - .025	.452	.328	.040 - .060	.462	.377	.015 - .025
.437	**.158**	**.005 - .010**	**.438**	**.255**	**.005 - .030**	.440	.355	.015 - .025	**.447**	**.337**	**.005 - .010**	.453	.236	.030 - .050	.463	.073	.015 - .030
.437	.166	.010 - .050	.438	.256	.025 - .050	.440	.381	.010 - .020	.447	.375	.020 - .036	.453	.243	.020 - .040	.463	.166	.015 - .030
.437	.169	.008 - .016	.438	.257	.030 - .050	**.440**	**.390**	**.005 - .010**	.447	.380	.015 - .030	.453	.275	.010 - .020	.463	.188	.060 - .080
.437	.171	.030 - .050	**.438**	**.258**	**.005 - .010**	.441	.042	.010 - .020	**.448**	**.094**	**.005 - .010**	.453	.300	.030 - .050	.463	.189	.025 - .040
.437	.183	.050 - .062	**.438**	**.259**	**.005 - .010**	**.441**	**.093**	**.005 - .020**	.448	.139	.030 - .040	.453	.330	.031 - .048	.463	.222	.025 - .040
.437	.191	.010 - .104	.438	.262	.030 - .050	**.441**	**.143**	**.005 - .020**	.448	.181	.006 - .012	.453	.354	.040 - .060	.463	.224	.010 - .020
.437	.192	.050 - .075	.438	.265	.030 - .060	.441	.151	.030 - .050	**.448**	**.189**	**.005 - .010**	.453	.378	.031 - .048	.463	.245	.030 - .060
.437	.194	.020 - .104	.438	.266	.015 - .030	.441	.168	.030 - .050	.448	.191	.030 - .048	.453	.398	.010 - .020	.463	.258	.050 - .075
.437	.197	.040 - .125	.438	.274	.015 - .030	.441	.172	.062 - .083	.448	.203	.015 - .030	**.454**	**.107**	**.005 - .010**	.463	.263	.060 - .075
.437	**.198**	**.005 - .010**	.438	.276	.030 - .050	**.441**	**.190**	**.005 - .010**	.448	.205	.030 - .060	.454	.136	.030 - .050	.463	.267	.030 - .050
.437	.199	.015 - .032	.438	.281	.060 - .080	**.441**	**.198**	**.005 - .030**	.448	.215	.020 - .040	.454	.193	.070 - .090	**.463**	**.270**	**.005 - .010**

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

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Need Disks? All O.D. sizes available with no I.D. — (800) 927-4377, Fax (800) 321-3462.

BOKER'S METAL WASHERS ARE FLAT AND TUMBLE DEBURRED

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.463	.288	.005 - .010	.468	.312	.050 - .070	.471	.223	.040 - .050	.475	.259	.010 - .030	.480	.380	.005 - .010	.486	.327	.005 - .050
.463	.313	.005 - .010	.468	.320	.005 - .010	.471	.224	.020 - .040	.475	.279	.005 - .010	.480	.391	.005 - .010	.486	.355	.005 - .010
.463	.320	.040 - .050	.468	.321	.005 - .072	.471	.254	.005 - .010	.475	.286	.005 - .010	.480	.417	.005 - .010	.486	.404	.010 - .020
.463	.321	.030 - .050	.468	.390	.015 - .030	.471	.256	.035 - .050	.475	.306	.005 - .010	.481	.089	.005 - .010	.487	.042	.025 - .042
.463	.322	.015 - .030	.468	.400	.020 - .040	.471	.259	.005 - .010	.475	.334	.040 - .060	.481	.126	.020 - .040	.487	.071	.010 - .020
.463	.333	.030 - .050	.468	.405	.005 - .010	.471	.287	.005 - .015	.475	.347	.020 - .040	.481	.161	.005 - .010	.487	.120	.005 - .010
.463	.391	.020 - .030	.469	.100	.020 - .040	.471	.296	.005 - .010	.475	.360	.005 - .010	.481	.188	.020 - .030	.487	.225	.010 - .032
.464	.129	.005 - .010	.469	.149	.080 - .104	.471	.318	.050 - .070	.475	.368	.015 - .040	.481	.245	.015 - .030	.487	.233	.040 - .060
.464	.159	.060 - .080	.469	.184	.005 - .010	.471	.319	.010 - .020	.475	.378	.005 - .010	.481	.247	.025 - .040	.487	.256	.025 - .040
.464	.160	.015 - .030	.469	.192	.005 - .030	.471	.322	.005 - .010	.475	.380	.010 - .020	.481	.256	.005 - .010	.487	.257	.010 - .020
.464	.190	.030 - .050	.469	.206	.075 - .100	.471	.337	.005 - .010	.475	.397	.020 - .030	.481	.318	.005 - .010	.487	.270	.090 - .110
.464	.210	.020 - .036	.469	.228	.010 - .020	.471	.348	.025 - .042	.475	.400	.020 - .040	.481	.336	.005 - .010	.487	.272	.005 - .010
.464	.218	.005 - .010	.469	.254	.030 - .050	.471	.378	.005 - .012	.475	.411	.010 - .020	.481	.361	.040 - .060	.487	.286	.015 - .030
.464	.237	.015 - .030	.469	.263	.030 - .050	.471	.387	.005 - .010	.475	.424	.015 - .040	.481	.383	.010 - .020	.487	.321	.040 - .060
.464	.244	.005 - .020	.469	.269	.015 - .025	.472	.097	.005 - .020	.476	.144	.032 - .060	.481	.387	.010 - .020	.487	.327	.030 - .040
.464	.252	.005 - .010	.469	.281	.005 - .020	.472	.099	.020 - .040	.476	.163	.015 - .030	.481	.390	.050 - .060	.487	.336	.025 - .040
.464	.265	.010 - .020	.469	.320	.004 - .008	.472	.125	.005 - .010	.476	.169	.070 - .080	.481	.402	.005 - .010	.487	.337	.020 - .040
.464	.318	.015 - .025	.469	.321	.005 - .010	.472	.157	.005 - .010	.476	.181	.030 - .040	.482	.173	.030 - .050	.487	.355	.005 - .020
.464	.320	.040 - .060	.469	.322	.010 - .020	.472	.160	.010 - .020	.476	.190	.015 - .030	.482	.190	.020 - .040	.487	.364	.005 - .010
.464	.367	.010 - .020	.469	.325	.020 - .035	.472	.162	.050 - .070	.476	.210	.105 - .125	.482	.315	.020 - .040	.487	.399	.005 - .010
.464	.393	.005 - .010	.469	.343	.005 - .010	.472	.165	.015 - .030	.476	.240	.010 - .025	.482	.329	.050 - .075	.487	.402	.005 - .010
.465	.062	.030 - .050	.469	.349	.010 - .020	.472	.169	.025 - .050	.476	.289	.010 - .030	.482	.332	.020 - .040	.488	.054	.025 - .040
.465	.117	.040 - .060	.469	.379	.020 - .030	.472	.196	.032 - .048	.476	.314	.010 - .020	.482	.334	.005 - .010	.488	.096	.060 - .090
.465	.134	.030 - .040	.469	.384	.010 - .020	.472	.200	.005 - .010	.476	.324	.025 - .040	.482	.359	.010 - .040	.488	.118	.080 - .104
.465	.171	.025 - .040	.470	.042	.015 - .025	.472	.211	.005 - .010	.476	.376	.010 - .020	.482	.396	.005 - .010	.488	.193	.050 - .070
.465	.188	.060 - .070	.470	.044	.020 - .030	.472	.236	.005 - .010	.476	.404	.005 - .010	.483	.033	.010 - .020	.488	.281	.032 - .062
.465	.210	.040 - .060	.470	.057	.005 - .010	.472	.237	.015 - .030	.477	.132	.030 - .040	.483	.077	.020 - .040	.488	.315	.005 - .010
.465	.211	.100 - .120	.470	.094	.005 - .015	.472	.238	.005 - .010	.477	.140	.005 - .010	.483	.149	.005 - .060	.488	.365	.010 - .020
.465	.217	.005 - .010	.470	.116	.035 - .050	.472	.239	.005 - .010	.477	.168	.005 - .010	.483	.152	.030 - .060	.488	.400	.005 - .010
.465	.221	.005 - .010	.470	.118	.025 - .042	.472	.241	.075 - .090	.477	.178	.005 - .010	.483	.202	.042 - .062	.489	.180	.030 - .050
.465	.222	.060 - .070	.470	.119	.010 - .025	.472	.245	.030 - .040	.477	.201	.020 - .030	.483	.247	.005 - .010	.489	.189	.025 - .040
.465	.229	.005 - .010	.470	.138	.015 - .025	.472	.246	.030 - .050	.477	.302	.025 - .040	.483	.360	.030 - .040	.489	.192	.020 - .030
.465	.252	.006 - .015	.470	.143	.012 - .050	.472	.265	.005 - .010	.477	.390	.010 - .020	.483	.375	.025 - .040	.489	.205	.030 - .060
.465	.261	.005 - .010	.470	.149	.005 - .010	.472	.268	.070 - .090	.478	.170	.010 - .020	.483	.379	.030 - .040	.489	.206	.040 - .060
.465	.283	.075 - .090	.470	.150	.060 - .090	.472	.270	.090 - .105	.478	.222	.025 - .040	.484	.119	.020 - .040	.489	.230	.005 - .010
.465	.285	.080 - .090	.470	.158	.050 - .070	.472	.282	.020 - .040	.478	.253	.005 - .010	.484	.143	.016 - .025	.489	.296	.010 - .020
.465	.314	.015 - .025	.470	.159	.050 - .070	.472	.289	.005 - .010	.478	.254	.015 - .030	.484	.230	.005 - .010	.489	.303	.010 - .020
.465	.345	.005 - .010	.470	.176	.060 - .080	.472	.315	.025 - .040	.478	.255	.090 - .105	.484	.257	.050 - .075	.489	.304	.020 - .040
.465	.402	.005 - .020	.470	.187	.110 - .130	.472	.317	.050 - .070	.478	.311	.005 - .010	.484	.285	.060 - .080	.489	.315	.005 - .010
.466	.125	.015 - .030	.470	.200	.005 - .010	.472	.319	.005 - .030	.478	.315	.050 - .070	.484	.313	.050 - .072	.489	.320	.040 - .060
.466	.127	.020 - .040	.470	.210	.035 - .050	.472	.376	.005 - .010	.478	.316	.025 - .040	.484	.350	.010 - .020	.489	.333	.020 - .030
.466	.189	.020 - .040	.470	.218	.010 - .040	.472	.379	.005 - .010	.478	.322	.005 - .010	.484	.370	.005 - .010	.489	.338	.035 - .050
.466	.191	.020 - .045	.470	.225	.030 - .050	.472	.387	.025 - .035	.478	.325	.050 - .070	.484	.379	.040 - .060	.490	.126	.070 - .090
.466	.198	.040 - .060	.470	.228	.010 - .020	.472	.399	.010 - .020	.478	.343	.005 - .010	.484	.398	.040 - .060	.490	.127	.025 - .040
.466	.205	.020 - .030	.470	.239	.005 - .010	.473	.039	.005 - .010	.478	.375	.050 - .062	.484	.432	.005 - .010	.490	.165	.015 - .030
.466	.210	.020 - .035	.470	.255	.047 - .085	.473	.070	.010 - .020	.479	.127	.005 - .010	.485	.115	.015 - .030	.490	.167	.020 - .030
.466	.218	.050 - .070	.470	.265	.032 - .048	.473	.157	.005 - .010	.479	.160	.050 - .075	.485	.120	.010 - .080	.490	.170	.007 - .016
.466	.251	.025 - .040	.470	.271	.010 - .020	.473	.172	.120 - .135	.479	.178	.005 - .010	.485	.162	.020 - .040	.490	.174	.030 - .050
.466	.259	.080 - .100	.470	.276	.050 - .075	.473	.205	.005 - .010	.479	.210	.025 - .036	.485	.170	.040 - .060	.490	.189	.030 - .050
.466	.264	.005 - .010	.470	.279	.005 - .010	.473	.238	.030 - .050	.479	.219	.020 - .040	.485	.200	.005 - .010	.490	.250	.005 - .010
.466	.290	.020 - .030	.470	.280	.010 - .020	.473	.240	.010 - .020	.479	.294	.005 - .010	.485	.250	.015 - .030	.490	.252	.005 - .010
.466	.293	.005 - .010	.470	.290	.015 - .030	.473	.242	.030 - .050	.479	.377	.015 - .030	.485	.257	.005 - .010	.490	.259	.090 - .110
.466	.319	.010 - .020	.470	.312	.020 - .030	.473	.243	.010 - .020	.479	.380	.005 - .008	.485	.258	.005 - .010	.490	.260	.005 - .010
.466	.321	.005 - .010	.470	.316	.005 - .010	.473	.248	.020 - .030	.479	.385	.005 - .010	.485	.260	.015 - .025	.490	.265	.005 - .010
.466	.344	.015 - .030	.470	.317	.005 - .010	.473	.262	.005 - .010	.479	.412	.005 - .010	.485	.270	.005 - .010	.490	.295	.005 - .020
.466	.380	.005 - .010	.470	.319	.015 - .030	.473	.274	.005 - .010	.479	.424	.020 - .025	.485	.281	.005 - .010	.490	.301	.005 - .010
.467	.103	.010 - .020	.470	.324	.020 - .040	.473	.284	.030 - .050	.480	.062	.020 - .040	.485	.312	.030 - .050	.490	.302	.005 - .010
.467	.189	.075 - .105	.470	.330	.020 - .030	.473	.289	.030 - .050	.480	.127	.005 - .010	.485	.313	.010 - .020	.490	.313	.015 - .030
.467	.201	.015 - .030	.470	.338	.005 - .010	.473	.315	.005 - .010	.480	.159	.005 - .010	.485	.317	.005 - .010	.490	.315	.015 - .030
.467	.204	.005 - .010	.470	.340	.005 - .012	.473	.317	.010 - .020	.480	.166	.030 - .050	.485	.319	.010 - .020	.490	.316	.015 - .020
.467	.213	.015 - .030	.470	.341	.050 - .075	.473	.318	.005 - .010	.480	.170	.005 - .010	.485	.320	.010 - .040	.490	.343	.030 - .040
.467	.218	.015 - .020	.470	.346	.010 - .020	.473	.319	.005 - .010	.480	.192	.005 - .010	.485	.328	.032 - .050	.490	.344	.005 - .010
.467	.245	.025 - .040	.470	.350	.006 - .015	.473	.320	.005 - .020	.480	.196	.040 - .060	.485	.336	.010 - .020	.490	.353	.010 - .020
.467	.251	.050 - .072	.470	.360	.005 - .010	.473	.321	.005 - .010	.480	.201	.015 - .030	.485	.347	.020 - .030	.490	.360	.020 - .040
.467	.260	.030 - .050	.470	.369	.005 - .010	.473	.397	.005 - .030	.480	.215	.030 - .050	.485	.350	.020 - .030	.490	.377	.050 - .070
.467	.294	.020 - .030	.470	.373	.020 - .035	.474	.126	.010 - .020	.480	.222	.005 - .010	.485	.354	.010 - .040	.490	.378	.010 - .042
.467	.323	.005 - .015	.470	.380	.030 - .040	.474	.238	.005 - .010	.480	.237	.040 - .060	.485	.376	.015 - .025	.490	.380	.005 - .010
.467	.380	.005 - .010	.470	.384	.015 - .025	.474	.260	.020 - .070	.480	.250	.005 - .010	.485	.385	.015 - .030	.490	.391	.016 - .025
.467	.382	.005 - .010	.470	.418	.005 - .010	.474	.261	.040 - .060	.480	.251	.030 - .050	.485	.386	.015 - .025	.490	.393	.030 - .042
.467	.420	.005 - .010	.471	.126	.040 - .060	.474	.278	.005 - .010	.480	.256	.070 - .090	.485	.402	.030 - .050	.490	.412	.005 - .010
.468	.084	.010 - .025	.471	.130	.030 - .080	.474	.279	.005 - .010	.480	.260	.015 - .030	.485	.411	.020 - .040	.490	.416	.005 - .015
.468	.128	.005 - .015	.471	.149	.005 - .010	.474	.284	.005 - .010	.480	.276	.010 - .020	.485	.412	.020 - .040	.491	.136	.020 - .040
.468	.150	.030 - .050	.471	.170	.020 - .030	.474	.317	.005 - .015	.480	.325	.010 - .020	.485	.431	.005 - .010	.491	.172	.005 - .010
.468	.222	.040 - .060	.471	.174	.005 - .010	.474	.320	.030 - .050	.480	.330	.020 - .040	.486	.062	.030 - .050	.491	.207	.020 - .030
.468	.254	.010 - .015	.471	.197	.030 - .040	.474	.381	.005 - .012	.480	.350	.020 - .040	.486	.128	.015 - .030	.491	.250	.005 - .010
.468	.257	.005 - .010	.471	.203	.115 - .135	.474	.396	.015 - .025	.480	.354	.005 - .010	.486	.220	.025 - .040	.491	.252	.100 - .134
.468	.258	.020 - .040	.471	.205	.100 - .125	.475	.147	.020 - .040	.480	.360	.015 - .030	.486	.224	.040 - .060	.491	.253	.005 - .075
.468	.259	.010 - .090	.471	.206	.005 - .010	.475	.192	.060 - .080	.480	.368	.015 - .025	.486	.230	.030 - .050	.491	.254	.050 - .075
.468	.261	.005 - .015	.471	.218	.005 - .010	.475	.196	.005 - .010	.480	.370	.015 - .030	.486	.260	.010 - .020	.491	.256	.040 - .060
.468	.287	.005 - .010	.471	.222	.020 - .030	.475	.227	.020 - .030	.480	.371	.020 - .030	.486	.315	.015 - .030	.491	.265	.090 - .105

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For a size NOT listed, send specs or phone for quote — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Thickness From – To
.491	.266	.010 - .030
.491	.267	.005 - .010
.491	.268	.005 - .010
.491	.317	.010 - .020
.491	.320	.010 - .020
.491	.338	.030 - .050
.491	.385	.015 - .030
.491	.393	.005 - .010
.492	.124	.110 - .130
.492	.193	.030 - .050
.492	.201	.040 - .050
.492	.204	.105 - .125
.492	.250	.020 - .040
.492	.254	.030 - .060
.492	.255	.030 - .050
.492	.256	.010 - .020
.492	.260	.070 - .090
.492	.276	.005 - .010
.492	.281	.030 - .050
.492	.290	.020 - .030
.492	.323	.005 - .010
.492	.328	.012 - .020
.492	.377	.030 - .050
.492	.379	.005 - .010
.492	.380	.005 - .010
.492	.393	.020 - .042
.493	.125	.015 - .030
.493	.131	.020 - .040
.493	.145	.070 - .090
.493	.181	.005 - .010
.493	.193	.075 - .090
.493	.198	.005 - .010
.493	.207	.005 - .010
.493	.244	.050 - .070
.493	.282	.050 - .075
.493	.284	.030 - .050
.493	.300	.030 - .050
.493	.316	.025 - .040
.493	.320	.060 - .080
.493	.350	.005 - .010
.493	.354	.025 - .040
.493	.369	.005 - .010
.493	.373	.005 - .010
.493	.375	.020 - .040
.493	.376	.005 - .010
.493	.388	.005 - .010
.493	.394	.025 - .040
.494	.032	.005 - .010
.494	.081	.005 - .016
.494	.131	.030 - .050
.494	.162	.020 - .030
.494	.187	.050 - .070
.494	.204	.005 - .010
.494	.211	.005 - .010
.494	.224	.005 - .010
.494	.240	.100 - .125
.494	.241	.005 - .010
.494	.261	.010 - .020
.494	.262	.025 - .040
.494	.265	.010 - .060
.494	.273	.005 - .010
.494	.274	.005 - .010
.494	.278	.010 - .020
.494	.280	.005 - .010
.494	.282	.005 - .010
.494	.314	.015 - .050
.494	.321	.010 - .020
.494	.322	.050 - .070
.494	.323	.005 - .078
.494	.325	.025 - .035
.494	.348	.030 - .050
.494	.367	.005 - .010
.494	.370	.008 - .015
.494	.373	.005 - .010
.494	.380	.005 - .010
.494	.399	.025 - .040
.494	.420	.008 - .015
.495	.034	.015 - .025
.495	.040	.005 - .010
.495	.063	.020 - .035

O.D.	I.D.	Thickness From – To
.495	.073	.040 - .062
.495	.136	.030 - .050
.495	.143	.100 - .125
.495	.158	.030 - .060
.495	.162	.048 - .075
.495	.170	.005 - .010
.495	.184	.070 - .090
.495	.190	.010 - .020
.495	.191	.020 - .030
.495	.195	.005 - .010
.495	.200	.030 - .050
.495	.203	.050 - .070
.495	.210	.025 - .040
.495	.215	.010 - .020
.495	.223	.050 - .070
.495	.225	.075 - .090
.495	.236	.010 - .020
.495	.252	.040 - .060
.495	.282	.042 - .072
.495	.285	.015 - .040
.495	.286	.015 - .040
.495	.298	.025 - .045
.495	.310	.010 - .030
.495	.312	.005 - .010
.495	.315	.040 - .060
.495	.322	.020 - .040
.495	.325	.020 - .030
.495	.327	.080 - .100
.495	.329	.015 - .030
.495	.337	.060 - .080
.495	.347	.035 - .050
.495	.361	.050 - .065
.495	.363	.040 - .060
.495	.381	.010 - .020
.495	.401	.010 - .025
.495	.440	.005 - .008
.496	.041	.030 - .042
.496	.085	.005 - .010
.496	.128	.020 - .040
.496	.130	.010 - .020
.496	.132	.060 - .080
.496	.156	.005 - .012
.496	.162	.035 - .050
.496	.170	.020 - .030
.496	.186	.070 - .090
.496	.194	.030 - .050
.496	.203	.005 - .012
.496	.205	.005 - .060
.496	.218	.005 - .010
.496	.248	.005 - .010
.496	.249	.005 - .010
.496	.252	.020 - .040
.496	.253	.020 - .070
.496	.255	.005 - .010
.496	.260	.015 - .030
.496	.262	.015 - .030
.496	.263	.015 - .030
.496	.265	.060 - .080
.496	.304	.060 - .080
.496	.318	.040 - .080
.496	.319	.005 - .010
.496	.332	.030 - .050
.496	.343	.030 - .042
.496	.346	.050 - .070
.496	.349	.050 - .075
.496	.353	.050 - .070
.496	.377	.050 - .070
.496	.380	.005 - .040
.496	.381	.015 - .075
.496	.390	.030 - .040
.496	.400	.005 - .010
.496	.433	.005 - .010
.496	.437	.005 - .010
.497	.088	.020 - .030
.497	.098	.030 - .050
.497	.137	.030 - .048
.497	.138	.030 - .048
.497	.166	.010 - .020
.497	.191	.060 - .080
.497	.193	.025 - .040

O.D.	I.D.	Thickness From – To
.497	.196	.005 - .010
.497	.215	.005 - .010
.497	.220	.020 - .070
.497	.250	.015 - .030
.497	.252	.005 - .025
.497	.253	.005 - .010
.497	.254	.015 - .060
.497	.259	.010 - .040
.497	.280	.015 - .030
.497	.287	.005 - .015
.497	.315	.005 - .012
.497	.316	.035 - .050
.497	.318	.015 - .030
.497	.319	.015 - .030
.497	.324	.005 - .010
.497	.337	.005 - .010
.497	.344	.062 - .075
.497	.347	.005 - .030
.497	.406	.005 - .010
.497	.410	.020 - .030
.497	.437	.005 - .010
.497	.442	.005 - .030
.498	.063	.050 - .062
.498	.078	.040 - .060
.498	.082	.042 - .062
.498	.096	.030 - .050
.498	.122	.020 - .040
.498	.126	.010 - .015
.498	.130	.005 - .010
.498	.134	.010 - .020
.498	.148	.060 - .080
.498	.173	.020 - .040
.498	.175	.100 - .125
.498	.184	.005 - .010
.498	.187	.015 - .030
.498	.197	.040 - .062
.498	.215	.010 - .032
.498	.216	.025 - .042
.498	.220	.050 - .072
.498	.230	.020 - .042
.498	.232	.020 - .036
.498	.239	.025 - .042
.498	.247	.015 - .030
.498	.248	.005 - .010
.498	.251	.005 - .010
.498	.252	.005 - .010
.498	.257	.010 - .020
.498	.259	.090 - .120
.498	.262	.032 - .104
.498	.265	.050 - .075
.498	.269	.050 - .070
.498	.300	.020 - .030
.498	.302	.025 - .040
.498	.315	.005 - .010
.498	.321	.010 - .020
.498	.323	.020 - .040
.498	.328	.060 - .075
.498	.337	.015 - .030
.498	.339	.020 - .035
.498	.341	.050 - .070
.498	.344	.015 - .025
.498	.377	.005 - .010
.498	.380	.010 - .015
.498	.392	.005 - .042
.498	.399	.015 - .025
.498	.408	.005 - .010
.498	.426	.005 - .010
.499	.065	.015 - .025
.499	.072	.050 - .075
.499	.090	.040 - .060
.499	.094	.042 - .062
.499	.118	.060 - .080
.499	.123	.050 - .060
.499	.125	.005 - .010
.499	.138	.005 - .010
.499	.142	.030 - .050
.499	.170	.020 - .030
.499	.175	.050 - .072
.499	.189	.010 - .020
.499	.190	.020 - .030

O.D.	I.D.	Thickness From – To
.499	.192	.005 - .030
.499	.193	.005 - .075
.499	.194	.005 - .010
.499	.201	.050 - .075
.499	.203	.080 - .100
.499	.215	.010 - .020
.499	.229	.005 - .010
.499	.239	.030 - .040
.499	.240	.048 - .070
.499	.243	.005 - .010
.499	.246	.005 - .010
.499	.254	.035 - .060
.499	.258	.015 - .030
.499	.259	.030 - .050
.499	.264	.010 - .020
.499	.265	.025 - .040
.499	.281	.080 - .100
.499	.313	.005 - .010
.499	.318	.050 - .070
.499	.323	.010 - .060
.499	.326	.030 - .050
.499	.329	.005 - .010
.499	.373	.005 - .010
.499	.377	.050 - .060
.499	.381	.005 - .060
.499	.394	.005 - .010
.499	.409	.025 - .042

.500

O.D.	I.D.	Thickness From – To
.500	.035	.005 - .008
.500	.050	.005 - .010
.500	.064	.005 - .010
.500	.070	.005 - .010
.500	.071	.005 - .010
.500	.072	.040 - .062
.500	.077	.005 - .010
.500	.082	.008 - .025
.500	.086	.005 - .010
.500	.088	.040 - .060
.500	.089	.015 - .025
.500	.093	.005 - .010
.500	.096	.005 - .010
.500	.098	.010 - .020
.500	.102	.008 - .015
.500	.105	.005 - .010
.500	.112	.030 - .050
.500	.113	.020 - .040
.500	.114	.005 - .030
.500	.116	.020 - .040
.500	.121	.005 - .012
.500	.125	.007 - .062
.500	.129	.025 - .075
.500	.131	.010 - .060
.500	.132	.040 - .060
.500	.133	.005 - .010
.500	.136	.012 - .020
.500	.140	.010 - .020
.500	.141	.008 - .016
.500	.142	.030 - .125
.500	.144	.005 - .030
.500	.145	.007 - .020
.500	.146	.035 - .050
.500	.147	.035 - .050
.500	.150	.008 - .050
.500	.153	.005 - .010
.500	.155	.100 - .125
.500	.160	.005 - .010
.500	.163	.050 - .072
.500	.167	.005 - .010
.500	.168	.025 - .075
.500	.170	.025 - .050
.500	.172	.006 - .050
.500	.173	.005 - .010
.500	.176	.050 - .070

O.D.	I.D.	Thickness From – To
.500	.177	.060 - .075
.500	.180	.025 - .040
.500	.182	.060 - .090
.500	.187	.020 - .125
.500	.188	.030 - .050
.500	.189	.005 - .125
.500	.190	.090 - .104
.500	.191	.005 - .010
.500	.194	.062 - .090
.500	.195	.005 - .010
.500	.196	.010 - .125
.500	.197	.005 - .125
.500	.197	.126 - .135
.500	.199	.035 - .050
.500	.200	.040 - .075
.500	.201	.010 - .020
.500	.202	.060 - .125
.500	.203	.012 - .020
.500	.204	.015 - .075
.500	.205	.005 - .050
.500	.209	.050 - .070
.500	.210	.010 - .025
.500	.217	.040 - .060
.500	.218	.005 - .090
.500	.220	.062 - .080
.500	.220	.090 - .105
.500	.221	.020 - .125
.500	.222	.010 - .020
.500	.226	.025 - .040
.500	.230	.032 - .048
.500	.231	.005 - .010
.500	.233	.100 - .125
.500	.234	.100 - .120
.500	.235	.005 - .010
.500	.237	.008 - .125
.500	.238	.105 - .125
.500	.245	.020 - .030
.500	.250	.010 - .134
.500	.251	.015 - .030
.500	.253	.005 - .050
.500	.254	.005 - .083
.500	.255	.005 - .030
.500	.257	.005 - .104
.500	.258	.100 - .120
.500	.259	.100 - .125
.500	.260	.005 - .020
.500	.261	.050 - .075
.500	.263	.005 - .120
.500	.264	.005 - .010
.500	.265	.005 - .104
.500	.266	.005 - .025
.500	.268	.005 - .020
.500	.269	.020 - .036
.500	.270	.005 - .090
.500	.275	.005 - .010
.500	.276	.060 - .080
.500	.280	.042 - .078
.500	.281	.005 - .040
.500	.283	.030 - .104
.500	.286	.030 - .050
.500	.288	.010 - .020
.500	.289	.015 - .030
.500	.291	.025 - .040
.500	.292	.005 - .010
.500	.295	.025 - .040
.500	.296	.010 - .025
.500	.298	.005 - .025
.500	.299	.030 - .050
.500	.300	.005 - .010
.500	.302	.060 - .070
.500	.304	.005 - .010
.500	.305	.020 - .030
.500	.309	.015 - .025
.500	.312	.015 - .030
.500	.313	.008 - .015
.500	.314	.005 - .010
.500	.315	.015 - .104
.500	.316	.010 - .050
.500	.317	.005 - .090
.500	.318	.010 - .020

O.D.	I.D.	Thickness From – To
.500	.319	.025 - .050
.500	.320	.015 - .025
.500	.321	.005 - .010
.500	.323	.005 - .010
.500	.327	.020 - .080
.500	.328	.048 - .070
.500	.332	.080 - .100
.500	.334	.010 - .020
.500	.336	.030 - .050
.500	.338	.005 - .070
.500	.348	.015 - .030
.500	.350	.040 - .060
.500	.352	.006 - .012
.500	.356	.005 - .010
.500	.360	.015 - .040
.500	.361	.050 - .060
.500	.368	.020 - .040
.500	.370	.005 - .010
.500	.373	.008 - .015
.500	.375	.040 - .075
.500	.376	.015 - .030
.500	.377	.005 - .060
.500	.378	.005 - .060
.500	.383	.030 - .050
.500	.385	.040 - .050
.500	.388	.020 - .036
.500	.390	.005 - .060
.500	.396	.005 - .030
.500	.402	.005 - .015
.500	.412	.005 - .010
.500	.415	.012 - .016
.500	.441	.010 - .020
.500	.446	.005 - .010
.500	.450	.005 - .010
.500	.452	.010 - .020
.501	.061	.010 - .020
.501	.099	.050 - .075
.501	.130	.030 - .050
.501	.131	.025 - .040
.501	.136	.005 - .020
.501	.139	.075 - .105
.501	.143	.070 - .090
.501	.158	.005 - .010
.501	.168	.045 - .060
.501	.170	.005 - .010
.501	.182	.010 - .104
.501	.191	.090 - .100
.501	.192	.020 - .040
.501	.195	.048 - .062
.501	.196	.005 - .010
.501	.199	.005 - .010
.501	.202	.005 - .010
.501	.205	.030 - .100
.501	.207	.025 - .040
.501	.208	.060 - .072
.501	.210	.100 - .125
.501	.223	.005 - .010
.501	.228	.060 - .080
.501	.230	.005 - .010
.501	.241	.080 - .100
.501	.253	.005 - .125
.501	.254	.048 - .072
.501	.255	.080 - .105
.501	.256	.020 - .090
.501	.263	.005 - .010
.501	.272	.090 - .105
.501	.281	.050 - .104
.501	.283	.010 - .100
.501	.300	.005 - .010
.501	.313	.005 - .070
.501	.318	.005 - .090
.501	.322	.020 - .040
.501	.340	.070 - .090
.501	.345	.025 - .040
.501	.370	.050 - .070
.501	.375	.016 - .030
.501	.376	.005 - .010
.501	.379	.030 - .050
.501	.380	.005 - .010
.501	.386	.010 - .020

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

Call BOKER'S for precision stamping, assembly, and secondary operations.

BOKER'S METAL WASHERS ARE FLAT AND TUMBLE DEBURRED

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.501	.397	.005 - .010	.506	.266	.005 - .010	.513	.287	.050 - .070	.520	.392	.005 - .010	.530	.066	.035 - .060	.534	.186	.070 - .090
.501	.400	.030 - .050	.506	.275	.005 - .010	.513	.313	.080 - .090	.520	.430	.010 - .020	.530	.090	.010 - .020	.534	.193	.015 - .030
.501	.402	.020 - .030	.507	.107	.005 - .010	.513	.360	.005 - .010	.520	.440	.005 - .010	.530	.099	.015 - .030	.534	.207	.030 - .050
.501	.404	.015 - .030	.507	.125	.030 - .040	.513	.373	.015 - .030	.520	.455	.005 - .010	.530	.130	.040 - .060	.534	.220	.005 - .010
.501	.409	.030 - .048	.507	.145	.005 - .010	.513	.383	.005 - .010	.521	.145	.075 - .090	.530	.153	.080 - .104	.534	.284	.060 - .083
.501	.413	.015 - .025	.507	.221	.010 - .020	.513	.396	.040 - .060	.521	.239	.040 - .050	.530	.180	.005 - .010	.534	.361	.062 - .080
.502	.124	.060 - .083	.507	.232	.060 - .078	.513	.440	.005 - .010	.521	.325	.010 - .020	.530	.191	.005 - .010	.534	.394	.030 - .050
.502	.130	.005 - .010	.507	.253	.050 - .075	.514	.194	.070 - .090	.521	.340	.072 - .090	.530	.206	.100 - .125	.534	.441	.030 - .042
.502	.131	.025 - .040	.507	.265	.060 - .070	.514	.203	.005 - .010	.521	.380	.025 - .040	.530	.222	.020 - .035	.535	.064	.012 - .020
.502	.142	.005 - .010	.507	.319	.005 - .010	.514	.210	.040 - .060	.521	.440	.005 - .010	.530	.253	.005 - .010	.535	.228	.075 - .104
.502	.161	.012 - .025	.507	.360	.005 - .010	.514	.339	.010 - .020	.522	.251	.042 - .072	.530	.254	.015 - .030	.535	.238	.010 - .020
.502	.183	.080 - .104	.507	.368	.005 - .030	.514	.392	.005 - .010	.522	.265	.005 - .010	.530	.255	.015 - .030	.535	.239	.005 - .010
.502	.185	.032 - .062	.507	.375	.010 - .020	.514	.431	.030 - .040	.522	.279	.005 - .010	.530	.270	.100 - .125	.535	.244	.015 - .030
.502	.188	.062 - .090	.507	.446	.020 - .030	.514	.454	.020 - .030	.522	.290	.040 - .050	.530	.272	.100 - .125	.535	.298	.010 - .020
.502	.189	.030 - .050	.508	.201	.020 - .030	.515	.149	.005 - .010	.522	.353	.015 - .025	.530	.273	.100 - .125	.535	.310	.025 - .042
.502	.190	.062 - .100	.508	.223	.050 - .070	.515	.163	.030 - .050	.522	.413	.030 - .050	.530	.277	.005 - .010	.535	.314	.005 - .010
.502	.194	.060 - .080	.508	.269	.010 - .020	.515	.191	.050 - .070	.522	.435	.015 - .030	.530	.281	.040 - .050	.535	.318	.005 - .010
.502	.196	.040 - .060	.508	.280	.020 - .040	.515	.206	.080 - .104	.522	.437	.005 - .010	.530	.312	.005 - .010	.535	.320	.016 - .025
.502	.245	.025 - .036	.508	.285	.015 - .025	.515	.218	.005 - .010	.523	.118	.025 - .040	.530	.314	.015 - .070	.535	.325	.010 - .020
.502	.257	.040 - .050	.508	.312	.005 - .010	.515	.227	.030 - .050	.523	.252	.070 - .090	.530	.315	.010 - .020	.535	.335	.005 - .010
.502	.262	.040 - .060	.508	.315	.005 - .010	.515	.228	.005 - .010	.523	.396	.015 - .030	.530	.316	.025 - .040	.535	.338	.025 - .040
.502	.263	.030 - .050	.508	.329	.050 - .075	.515	.253	.105 - .125	.523	.402	.005 - .010	.530	.320	.025 - .040	.535	.343	.008 - .015
.502	.303	.075 - .100	.508	.336	.005 - .010	.515	.308	.008 - .015	.523	.406	.032 - .050	.530	.344	.060 - .083	.535	.357	.005 - .010
.502	.315	.005 - .040	.508	.355	.040 - .060	.515	.310	.008 - .015	.523	.411	.040 - .060	.530	.375	.005 - .010	.535	.378	.012 - .025
.502	.329	.020 - .030	.508	.366	.005 - .010	.515	.315	.008 - .015	.523	.428	.015 - .030	.530	.377	.005 - .010	.535	.379	.010 - .020
.502	.378	.025 - .040	.508	.405	.005 - .010	.515	.316	.008 - .015	.524	.286	.030 - .048	.530	.385	.050 - .060	.535	.384	.010 - .020
.502	.386	.005 - .010	.508	.430	.030 - .040	.515	.318	.005 - .010	.524	.323	.020 - .060	.530	.388	.010 - .020	.535	.445	.005 - .010
.503	.131	.005 - .120	.509	.031	.030 - .050	.515	.322	.015 - .025	.524	.387	.015 - .025	.530	.393	.005 - .010	.536	.105	.030 - .050
.503	.142	.030 - .060	.509	.064	.030 - .050	.515	.377	.005 - .010	.524	.396	.005 - .010	.530	.397	.025 - .035	.536	.191	.075 - .090
.503	.153	.040 - .050	.509	.080	.030 - .050	.515	.378	.020 - .030	.524	.409	.010 - .020	.530	.403	.005 - .010	.536	.242	.005 - .010
.503	.157	.050 - .062	.509	.219	.025 - .042	.515	.385	.005 - .010	.524	.441	.005 - .010	.530	.417	.005 - .010	.536	.259	.100 - .125
.503	.159	.005 - .010	.509	.285	.010 - .020	.515	.388	.020 - .040	.524	.463	.025 - .040	.530	.450	.015 - .030	.536	.264	.030 - .050
.503	.205	.030 - .040	.509	.286	.010 - .020	.515	.390	.010 - .040	.525	.068	.015 - .032	.530	.468	.005 - .030	.536	.324	.025 - .040
.503	.280	.075 - .100	.509	.298	.050 - .070	.515	.391	.050 - .060	.525	.156	.090 - .105	.530	.490	.005 - .010	.536	.346	.010 - .015
.503	.281	.010 - .020	.509	.430	.020 - .035	.515	.394	.005 - .008	.525	.187	.015 - .030	.531	.143	.015 - .050	.537	.104	.016 - .025
.503	.315	.005 - .010	.510	.053	.015 - .025	.515	.397	.005 - .010	.525	.252	.005 - .010	.531	.158	.032 - .048	.537	.243	.105 - .125
.503	.316	.005 - .010	.510	.156	.025 - .042	.515	.420	.020 - .032	.525	.258	.060 - .080	.531	.180	.050 - .075	.537	.283	.105 - .125
.503	.318	.050 - .070	.510	.210	.075 - .090	.516	.156	.030 - .050	.525	.308	.005 - .010	.531	.191	.012 - .020	.537	.370	.040 - .060
.503	.363	.005 - .010	.510	.251	.020 - .040	.516	.195	.008 - .015	.525	.346	.060 - .080	.531	.200	.015 - .030	.537	.375	.005 - .010
.503	.383	.005 - .010	.510	.269	.005 - .010	.516	.239	.005 - .010	.525	.357	.005 - .010	.531	.202	.015 - .030	.537	.394	.010 - .020
.503	.387	.005 - .010	.510	.280	.040 - .075	.516	.246	.005 - .020	.525	.358	.070 - .080	.531	.206	.005 - .030	.537	.409	.025 - .040
.503	.411	.005 - .010	.510	.300	.010 - .020	.516	.315	.005 - .010	.525	.375	.005 - .010	.531	.213	.005 - .010	.538	.210	.030 - .060
.504	.125	.090 - .104	.510	.341	.042 - .062	.516	.320	.005 - .010	.525	.378	.030 - .050	.531	.230	.105 - .125	.538	.219	.005 - .010
.504	.258	.030 - .050	.510	.398	.040 - .050	.516	.387	.020 - .040	.525	.390	.060 - .080	.531	.254	.060 - .083	.538	.257	.015 - .030
.504	.269	.005 - .010	.510	.414	.007 - .020	.516	.388	.005 - .010	.525	.401	.020 - .040	.531	.257	.010 - .060	.538	.309	.010 - .020
.504	.283	.010 - .020	.511	.150	.005 - .010	.516	.438	.020 - .032	.525	.428	.005 - .015	.531	.264	.030 - .050	.538	.340	.030 - .050
.504	.321	.030 - .050	.511	.165	.040 - .060	.516	.445	.005 - .010	.526	.195	.030 - .050	.531	.271	.025 - .035	.538	.342	.040 - .060
.504	.343	.070 - .090	.511	.237	.005 - .010	.517	.331	.030 - .050	.526	.256	.030 - .050	.531	.295	.015 - .030	.538	.385	.050 - .075
.504	.361	.005 - .010	.511	.250	.005 - .072	.517	.340	.015 - .030	.526	.270	.010 - .020	.531	.317	.010 - .060	.538	.440	.005 - .010
.504	.362	.005 - .010	.511	.256	.005 - .010	.517	.341	.040 - .060	.526	.357	.005 - .010	.531	.330	.040 - .060	.538	.457	.005 - .010
.504	.379	.020 - .030	.511	.259	.010 - .020	.517	.346	.005 - .070	.526	.437	.015 - .030	.531	.335	.090 - .105	.539	.195	.025 - .050
.504	.382	.005 - .010	.511	.285	.020 - .040	.517	.402	.005 - .010	.527	.129	.015 - .025	.531	.335	.100 - .120	.539	.252	.060 - .080
.504	.390	.030 - .050	.511	.316	.005 - .010	.517	.417	.005 - .010	.527	.145	.005 - .010	.531	.346	.042 - .062	.539	.278	.015 - .030
.505	.090	.015 - .030	.511	.320	.015 - .030	.517	.438	.005 - .010	.527	.346	.040 - .060	.531	.348	.050 - .072	.539	.318	.005 - .010
.505	.101	.050 - .070	.511	.327	.020 - .040	.517	.441	.020 - .030	.527	.348	.032 - .050	.531	.350	.040 - .062	.539	.366	.005 - .010
.505	.129	.050 - .070	.511	.383	.015 - .030	.518	.175	.008 - .016	.527	.369	.005 - .010	.531	.386	.010 - .020	.539	.367	.025 - .040
.505	.149	.010 - .075	.512	.198	.050 - .070	.518	.214	.015 - .030	.527	.393	.030 - .050	.531	.406	.050 - .060	.539	.380	.025 - .042
.505	.167	.025 - .040	.512	.203	.005 - .010	.518	.253	.005 - .010	.527	.437	.010 - .020	.531	.438	.005 - .010	.539	.399	.005 - .030
.505	.194	.005 - .010	.512	.209	.010 - .020	.518	.256	.040 - .060	.527	.443	.020 - .040	.531	.463	.015 - .030	.539	.420	.005 - .010
.505	.250	.020 - .030	.512	.238	.005 - .010	.518	.338	.005 - .010	.528	.128	.010 - .020	.532	.073	.010 - .020	.539	.425	.005 - .010
.505	.254	.010 - .020	.512	.275	.040 - .060	.518	.375	.050 - .070	.528	.152	.005 - .012	.532	.166	.100 - .125	.539	.469	.007 - .015
.505	.295	.080 - .090	.512	.278	.005 - .010	.518	.438	.005 - .010	.528	.209	.010 - .020	.532	.201	.005 - .010	.540	.162	.032 - .062
.505	.300	.010 - .020	.512	.312	.010 - .020	.518	.440	.020 - .030	.528	.236	.040 - .060	.532	.207	.062 - .090	.540	.186	.060 - .070
.505	.301	.005 - .030	.512	.317	.005 - .020	.518	.447	.010 - .020	.528	.254	.005 - .010	.532	.250	.005 - .015	.540	.220	.020 - .040
.505	.324	.050 - .070	.512	.320	.005 - .010	.519	.081	.015 - .025	.528	.265	.030 - .060	.532	.329	.040 - .075	.540	.229	.030 - .050
.505	.335	.025 - .040	.512	.321	.005 - .010	.519	.103	.005 - .010	.528	.268	.040 - .060	.532	.381	.030 - .050	.540	.262	.010 - .020
.505	.341	.025 - .075	.512	.322	.005 - .080	.519	.170	.050 - .070	.528	.308	.005 - .010	.532	.451	.005 - .010	.540	.280	.030 - .060
.505	.355	.025 - .040	.512	.363	.030 - .040	.519	.290	.030 - .040	.528	.360	.025 - .040	.532	.468	.020 - .040	.540	.282	.042 - .062
.505	.386	.020 - .030	.512	.375	.050 - .070	.519	.377	.005 - .010	.528	.410	.040 - .060	.532	.490	.012 - .020	.540	.284	.015 - .030
.505	.390	.030 - .050	.512	.394	.005 - .010	.519	.397	.005 - .010	.528	.439	.010 - .020	.533	.067	.010 - .020	.540	.321	.010 - .020
.505	.396	.005 - .010	.512	.395	.015 - .025	.520	.120	.010 - .020	.528	.453	.005 - .010	.533	.201	.010 - .020	.540	.333	.015 - .025
.505	.399	.020 - .040	.512	.433	.005 - .010	.520	.194	.050 - .060	.529	.132	.005 - .010	.533	.236	.005 - .010	.540	.347	.078 - .104
.505	.401	.030 - .050	.513	.119	.040 - .060	.520	.208	.015 - .020	.529	.175	.015 - .030	.533	.240	.050 - .070	.540	.348	.015 - .030
.505	.457	.005 - .010	.513	.137	.005 - .010	.520	.224	.005 - .010	.529	.234	.070 - .090	.533	.266	.090 - .105	.540	.388	.050 - .070
.506	.053	.005 - .010	.513	.153	.040 - .060	.520	.311	.020 - .035	.529	.280	.015 - .030	.533	.274	.005 - .010	.540	.391	.030 - .050
.506	.206	.005 - .010	.513	.174	.030 - .050	.520	.324	.005 - .010	.529	.313	.030 - .048	.533	.367	.070 - .090	.540	.392	.015 - .030
.506	.220	.040 - .060	.513	.197	.015 - .030	.520	.328	.020 - .040	.529	.331	.020 - .040	.533	.389	.020 - .030	.540	.395	.005 - .010
.506	.221	.040 - .060	.513	.237	.070 - .090	.520	.333	.005 - .010	.529	.375	.050 - .075	.533	.411	.010 - .025	.540	.399	.025 - .040
.506	.257	.005 - .010	.513	.240	.030 - .050	.520	.346	.020 - .030	.529	.385	.005 - .010	.534	.039	.015 - .030	.540	.408	.015 - .025
.506	.258	.040 - .060	.513	.268	.005 - .012	.520	.380	.005 - .010	.529	.439	.015 - .030	.534	.131	.030 - .050	.540	.409	.005 - .010

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

New tools added continually. Call for sizes not listed — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.540	.413	.040 - .050	.549	.099	.005 - .010	.551	.387	.010 - .020	.557	.380	.040 - .060	.560	.384	.005 - .010	.562	.309	.005 - .010
.540	.420	.015 - .030	.549	.216	.005 - .010	.551	.394	.005 - .040	.557	.387	.025 - .040	.560	.390	.030 - .060	.562	.313	.010 - .020
.541	.152	.060 - .090	.549	.316	.005 - .010	.551	.395	.050 - .070	.557	.396	.050 - .070	.560	.392	.035 - .060	.562	.314	.080 - .104
.541	.300	.010 - .020	.549	.326	.005 - .010	.551	.399	.010 - .040	.557	.421	.010 - .020	.560	.401	.005 - .010	.562	.315	.020 - .070
.541	.306	.010 - .020	.549	.334	.025 - .040	.551	.418	.036 - .060	.557	.446	.020 - .040	.560	.410	.005 - .010	.562	.318	.005 - .075
.541	.314	.050 - .060	.549	.452	.030 - .060	.551	.443	.010 - .025	.558	.288	.005 - .010	.560	.420	.005 - .010	.562	.320	.005 - .060
.541	.319	.030 - .050	.549	.455	.010 - .020	.551	.461	.005 - .010	.558	.327	.050 - .070	.560	.421	.030 - .050	.562	.326	.005 - .030
.541	.375	.030 - .050	.549	.476	.005 - .010	.551	.472	.005 - .030	.558	.331	.020 - .050	.560	.426	.020 - .040	.562	.328	.050 - .070
.541	.378	.040 - .060	.550	.032	.010 - .020	.552	.093	.025 - .040	.558	.360	.005 - .012	.560	.459	.005 - .015	.562	.329	.025 - .040
.541	.402	.005 - .030	.550	.105	.042 - .060	.552	.094	.005 - .008	.558	.361	.036 - .060	.560	.485	.020 - .032	.562	.331	.080 - .100
.541	.407	.040 - .060	.550	.120	.005 - .060	.552	.129	.031 - .048	.558	.414	.030 - .050	.560	.500	.020 - .032	.562	.332	.020 - .040
.541	.415	.005 - .010	.550	.140	.020 - .040	.552	.160	.020 - .040	.558	.486	.005 - .030	.561	.105	.015 - .030	.562	.343	.005 - .050
.542	.172	.010 - .020	.550	.158	.005 - .010	.552	.202	.015 - .030	.559	.032	.020 - .030	.561	.127	.020 - .040	.562	.344	.060 - .080
.542	.175	.020 - .040	.550	.159	.090 - .100	.552	.212	.060 - .080	.559	.060	.015 - .025	.561	.161	.005 - .010	.562	.370	.020 - .040
.542	.178	.030 - .050	.550	.190	.020 - .030	.552	.220	.005 - .010	.559	.128	.005 - .010	.561	.166	.060 - .083	.562	.374	.005 - .010
.542	.303	.060 - .080	.550	.193	.005 - .060	.552	.237	.010 - .020	.559	.145	.015 - .030	.561	.173	.005 - .010	.562	.375	.050 - .070
.542	.395	.005 - .010	.550	.208	.048 - .062	.552	.238	.005 - .010	.559	.209	.060 - .080	.561	.174	.075 - .090	.562	.376	.005 - .062
.542	.437	.010 - .020	.550	.240	.010 - .020	.552	.240	.010 - .020	.559	.216	.020 - .040	.561	.175	.015 - .030	.562	.381	.040 - .060
.542	.453	.005 - .010	.550	.245	.020 - .040	.552	.276	.030 - .040	.559	.225	.005 - .010	.561	.189	.015 - .025	.562	.382	.040 - .060
.543	.198	.040 - .060	.550	.240	.040 - .100	.552	.286	.010 - .020	.559	.259	.010 - .040	.561	.190	.005 - .060	.562	.383	.030 - .050
.543	.316	.020 - .040	.550	.255	.020 - .032	.552	.305	.025 - .060	.559	.285	.005 - .010	.561	.192	.020 - .040	.562	.385	.015 - .070
.543	.333	.005 - .010	.550	.258	.025 - .040	.552	.319	.005 - .010	.559	.311	.005 - .010	.561	.200	.080 - .105	.562	.386	.020 - .040
.543	.346	.030 - .050	.550	.259	.005 - .030	.552	.321	.005 - .010	.559	.322	.080 - .104	.561	.202	.030 - .060	.562	.387	.040 - .060
.543	.377	.015 - .025	.550	.271	.005 - .010	.552	.387	.040 - .060	.559	.347	.025 - .042	.561	.208	.030 - .050	.562	.388	.005 - .015
.543	.433	.005 - .010	.550	.282	.035 - .125	.552	.395	.005 - .015	.559	.349	.075 - .090	.561	.255	.020 - .040	.562	.391	.075 - .090
.543	.441	.005 - .010	.550	.300	.042 - .062	.552	.396	.050 - .075	.559	.379	.030 - .050	.561	.290	.005 - .010	.562	.392	.005 - .010
.544	.189	.005 - .010	.550	.304	.030 - .060	.552	.397	.005 - .010	.559	.388	.060 - .080	.561	.298	.060 - .083	.562	.396	.025 - .040
.544	.226	.010 - .020	.550	.315	.005 - .048	.552	.398	.005 - .010	.559	.391	.030 - .050	.561	.310	.040 - .060	.562	.420	.020 - .070
.544	.227	.020 - .040	.550	.316	.005 - .030	.552	.400	.025 - .040	.559	.454	.020 - .040	.561	.314	.036 - .060	.562	.437	.015 - .075
.544	.311	.030 - .040	.550	.317	.015 - .030	.552	.401	.010 - .015	.559	.471	.005 - .030	.561	.320	.090 - .110	.562	.439	.010 - .025
.544	.324	.005 - .010	.550	.319	.005 - .010	.552	.425	.040 - .050	.559	.480	.005 - .010	.561	.331	.100 - .120	.562	.500	.005 - .010
.544	.325	.020 - .040	.550	.322	.030 - .050	.552	.434	.015 - .030	.559	.507	.005 - .010	.561	.360	.015 - .025	.562	.505	.020 - .030
.544	.385	.005 - .010	.550	.323	.008 - .020	.552	.438	.005 - .010	.560	.113	.015 - .030	.561	.367	.005 - .010	.563	.101	.025 - .040
.544	.421	.005 - .010	.550	.332	.005 - .010	.552	.478	.005 - .010	.560	.118	.016 - .030	.561	.377	.020 - .030	.563	.145	.005 - .010
.544	.449	.015 - .030	.550	.344	.060 - .083	.553	.176	.010 - .020	.560	.120	.075 - .104	.561	.381	.075 - .093	.563	.176	.025 - .040
.544	.463	.005 - .010	.550	.351	.005 - .010	.553	.212	.060 - .080	.560	.128	.015 - .030	.561	.397	.020 - .032	.563	.186	.100 - .125
.544	.502	.010 - .020	.550	.357	.040 - .062	.553	.229	.005 - .010	.560	.131	.060 - .083	.561	.407	.005 - .010	.563	.191	.020 - .030
.545	.100	.042 - .060	.550	.375	.005 - .020	.553	.237	.005 - .010	.560	.135	.050 - .070	.561	.421	.005 - .010	.563	.194	.100 - .125
.545	.187	.005 - .012	.550	.381	.040 - .060	.553	.242	.040 - .060	.560	.149	.005 - .020	.561	.435	.010 - .020	.563	.197	.030 - .050
.545	.244	.005 - .060	.550	.390	.070 - .090	.553	.320	.005 - .010	.560	.161	.040 - .062	.561	.440	.035 - .060	.563	.218	.005 - .125
.545	.260	.050 - .070	.550	.398	.005 - .010	.553	.396	.015 - .030	.560	.172	.005 - .010	.561	.459	.010 - .020	.563	.247	.020 - .030
.545	.313	.005 - .010	.550	.400	.050 - .070	.554	.154	.015 - .030	.560	.180	.005 - .015	.562	.090	.005 - .010	.563	.253	.005 - .015
.545	.319	.015 - .050	.550	.404	.020 - .040	.554	.240	.005 - .010	.560	.190	.030 - .050	.562	.130	.005 - .010	.563	.259	.030 - .050
.545	.346	.042 - .062	.550	.408	.040 - .060	.554	.258	.025 - .035	.560	.192	.008 - .016	.562	.134	.030 - .050	.563	.277	.020 - .040
.545	.378	.040 - .060	.550	.409	.060 - .075	.554	.318	.090 - .110	.560	.194	.032 - .048	.562	.146	.032 - .050	.563	.285	.100 - .125
.545	.382	.040 - .062	.550	.415	.005 - .010	.554	.330	.005 - .010	.560	.196	.015 - .025	.562	.148	.040 - .060	.563	.313	.005 - .042
.545	.385	.005 - .010	.550	.427	.025 - .042	.554	.370	.005 - .020	.560	.200	.005 - .010	.562	.152	.035 - .050	.563	.317	.010 - .040
.545	.409	.010 - .020	.550	.429	.035 - .050	.554	.379	.010 - .020	.560	.202	.032 - .050	.562	.158	.036 - .075	.563	.318	.005 - .010
.545	.410	.020 - .030	.550	.479	.005 - .010	.554	.405	.030 - .048	.560	.203	.012 - .020	.562	.165	.008 - .015	.563	.320	.015 - .030
.545	.442	.005 - .010	.550	.498	.005 - .010	.554	.468	.010 - .025	.560	.206	.005 - .010	.562	.166	.050 - .070	.563	.321	.072 - .090
.545	.445	.005 - .010	.551	.081	.005 - .010	.555	.125	.030 - .050	.560	.207	.030 - .050	.562	.169	.005 - .010	.563	.350	.015 - .025
.546	.217	.005 - .010	.551	.095	.012 - .020	.555	.131	.060 - .080	.560	.225	.006 - .010	.562	.191	.040 - .060	.563	.359	.025 - .040
.546	.259	.005 - .010	.551	.141	.005 - .010	.555	.154	.020 - .040	.560	.226	.015 - .025	.562	.193	.040 - .060	.563	.373	.015 - .030
.546	.271	.010 - .020	.551	.161	.005 - .010	.555	.173	.105 - .135	.560	.228	.060 - .083	.562	.194	.060 - .080	.563	.376	.072 - .090
.546	.305	.005 - .010	.551	.166	.030 - .105	.555	.250	.010 - .020	.560	.246	.040 - .060	.562	.195	.050 - .070	.563	.377	.010 - .020
.546	.375	.030 - .050	.551	.172	.080 - .100	.555	.253	.080 - .104	.560	.254	.100 - .120	.562	.202	.030 - .050	.563	.379	.015 - .060
.546	.378	.015 - .030	.551	.201	.005 - .010	.555	.265	.020 - .040	.560	.258	.060 - .080	.562	.204	.075 - .090	.563	.380	.015 - .090
.546	.410	.020 - .030	.551	.220	.015 - .025	.555	.318	.005 - .010	.560	.259	.048 - .060	.562	.205	.020 - .040	.563	.381	.010 - .020
.546	.435	.020 - .040	.551	.225	.070 - .090	.555	.320	.060 - .080	.560	.262	.005 - .010	.562	.207	.005 - .010	.563	.385	.020 - .030
.547	.144	.005 - .010	.551	.236	.005 - .010	.555	.328	.050 - .078	.560	.263	.010 - .050	.562	.218	.048 - .072	.563	.387	.020 - .050
.547	.160	.010 - .015	.551	.238	.005 - .020	.555	.356	.050 - .060	.560	.273	.010 - .020	.562	.222	.010 - .070	.563	.398	.030 - .050
.547	.214	.005 - .010	.551	.240	.005 - .050	.555	.360	.050 - .070	.560	.280	.040 - .060	.562	.233	.005 - .015	.563	.405	.030 - .080
.547	.256	.005 - .010	.551	.253	.005 - .010	.555	.438	.005 - .010	.560	.286	.005 - .010	.562	.240	.050 - .070	.563	.408	.020 - .030
.547	.258	.005 - .010	.551	.264	.070 - .090	.555	.440	.005 - .010	.560	.295	.005 - .010	.562	.241	.015 - .030	.563	.439	.005 - .015
.547	.293	.060 - .070	.551	.278	.005 - .010	.555	.445	.005 - .010	.560	.311	.005 - .010	.562	.251	.110 - .130	.563	.450	.005 - .010
.547	.312	.005 - .010	.551	.284	.030 - .050	.555	.475	.030 - .045	.560	.313	.062 - .120	.562	.253	.005 - .010	.563	.467	.025 - .042
.547	.317	.050 - .070	.551	.294	.012 - .025	.556	.120	.030 - .050	.560	.316	.005 - .010	.562	.257	.062 - .090	.564	.118	.005 - .010
.547	.320	.030 - .050	.551	.300	.020 - .040	.556	.123	.030 - .060	.560	.317	.040 - .060	.562	.261	.030 - .050	.564	.195	.090 - .105
.547	.365	.005 - .010	.551	.315	.005 - .010	.556	.136	.030 - .060	.560	.320	.020 - .040	.562	.263	.005 - .030	.564	.208	.040 - .050
.547	.406	.005 - .010	.551	.316	.005 - .050	.556	.172	.040 - .060	.560	.326	.005 - .010	.562	.264	.015 - .030	.564	.214	.030 - .050
.548	.095	.040 - .060	.551	.317	.005 - .010	.556	.197	.030 - .050	.560	.331	.005 - .015	.562	.265	.050 - .090	.564	.252	.075 - .090
.548	.170	.050 - .070	.551	.318	.050 - .070	.556	.200	.005 - .010	.560	.336	.005 - .010	.562	.266	.100 - .125	.564	.253	.040 - .060
.548	.211	.015 - .030	.551	.320	.005 - .010	.556	.263	.005 - .010	.560	.343	.040 - .060	.562	.269	.030 - .050	.564	.256	.020 - .040
.548	.303	.005 - .016	.551	.321	.005 - .010	.556	.281	.075 - .104	.560	.345	.090 - .110	.562	.275	.050 - .075	.564	.284	.005 - .020
.548	.325	.060 - .080	.551	.322	.005 - .010	.556	.317	.040 - .060	.560	.370	.005 - .010	.562	.281	.032 - .050	.564	.286	.015 - .030
.548	.329	.025 - .040	.551	.330	.050 - .070	.556	.327	.010 - .020	.560	.375	.050 - .070	.562	.282	.080 - .100	.564	.311	.025 - .040
.548	.397	.005 - .010	.551	.357	.015 - .030	.556	.383	.040 - .060	.560	.377	.005 - .015	.562	.289	.050 - .070	.564	.337	.010 - .020
.548	.401	.050 - .070	.551	.377	.010 - .020	.557	.242	.010 - .020	.560	.379	.020 - .040	.562	.290	.025 - .040	.564	.352	.005 - .010
.548	.452	.030 - .050	.551	.378	.010 - .100	.557	.262	.010 - .020	.560	.380	.005 - .010	.562	.297	.010 - .020	.564	.384	.005 - .010
.548	.453	.025 - .040	.551	.385	.005 - .010	.557	.317	.020 - .060	.560	.381	.015 - .060	.562	.304	.020 - .030	.564	.386	.030 - .048

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For non-metallic materials, contact BOKER'S — (800) 927-4377, Fax (800) 321-3462.

BOKER'S METAL WASHERS ARE FLAT AND TUMBLE DEBURRED

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.564	.392	.050 - .072	.570	.316	.010 - .020	.579	.188	.020 - .040	.587	.437	.010 - .020	.591	.511	.010 - .020	.597	.452	.016 - .040
.564	.445	.005 - .010	.570	.318	.015 - .030	.579	.265	.050 - .075	.587	.461	.005 - .010	.592	.147	.005 - .010	.597	.512	.020 - .030
.564	.500	.020 - .040	.570	.325	.020 - .040	.579	.318	.060 - .070	.588	.245	.015 - .030	.592	.221	.005 - .010	.597	.513	.020 - .030
.564	.504	.005 - .010	.570	.369	.005 - .010	.579	.342	.090 - .104	.588	.250	.005 - .010	.592	.236	.005 - .010	.598	.180	.005 - .010
.564	.507	.005 - .010	.570	.377	.005 - .010	.579	.374	.020 - .030	.588	.260	.040 - .060	.592	.258	.030 - .050	.598	.215	.032 - .062
.565	.066	.005 - .010	.570	.380	.010 - .020	.579	.378	.020 - .030	.588	.282	.030 - .040	.592	.315	.010 - .015	.598	.264	.010 - .020
.565	.093	.080 - .090	.570	.433	.010 - .020	.579	.407	.005 - .010	.588	.386	.010 - .020	.592	.317	.005 - .010	.598	.271	.025 - .040
.565	.120	.015 - .030	.570	.445	.025 - .040	.579	.437	.025 - .040	.588	.406	.040 - .060	.592	.322	.005 - .010	.598	.304	.025 - .040
.565	.174	.025 - .040	.570	.461	.030 - .050	.579	.502	.005 - .010	.588	.417	.040 - .060	.592	.330	.040 - .062	.598	.313	.005 - .020
.565	.186	.010 - .015	.570	.515	.005 - .010	.580	.096	.025 - .040	.589	.178	.060 - .080	.592	.332	.005 - .010	.598	.321	.010 - .020
.565	.236	.083 - .105	.571	.206	.105 - .125	.580	.196	.005 - .010	.589	.232	.070 - .090	.592	.389	.005 - .010	.598	.340	.005 - .010
.565	.240	.050 - .080	.571	.256	.030 - .050	.580	.197	.090 - .120	.589	.311	.030 - .050	.592	.394	.040 - .060	.598	.387	.025 - .040
.565	.280	.105 - .125	.571	.283	.070 - .090	.580	.213	.050 - .075	.589	.314	.005 - .015	.592	.396	.040 - .060	.598	.412	.031 - .048
.565	.310	.030 - .040	.571	.319	.050 - .070	.580	.218	.093 - .125	.589	.341	.040 - .062	.592	.397	.020 - .040	.598	.442	.025 - .040
.565	.315	.005 - .015	.571	.373	.005 - .015	.580	.250	.030 - .040	.589	.348	.040 - .060	.592	.453	.020 - .042	.598	.494	.040 - .060
.565	.316	.060 - .080	.572	.256	.005 - .008	.580	.251	.050 - .070	.589	.376	.015 - .030	.592	.472	.040 - .060	.598	.504	.005 - .010
.565	.353	.050 - .072	.572	.470	.030 - .040	.580	.255	.050 - .070	.589	.410	.062 - .078	.592	.497	.005 - .010	.598	.506	.040 - .050
.565	.453	.025 - .035	.573	.129	.050 - .070	.580	.257	.050 - .070	.589	.444	.040 - .060	.593	.082	.032 - .062	.598	.511	.005 - .015
.566	.151	.040 - .060	.573	.130	.050 - .070	.580	.258	.080 - .104	.589	.446	.020 - .030	.593	.096	.005 - .010	.598	.527	.005 - .010
.566	.201	.005 - .010	.573	.205	.050 - .070	.580	.283	.005 - .010	.589	.455	.030 - .050	.593	.129	.005 - .012	.599	.128	.060 - .080
.566	.266	.005 - .010	.573	.266	.025 - .040	.580	.324	.025 - .035	.590	.066	.005 - .010	.593	.190	.032 - .060	.599	.149	.025 - .042
.566	.270	.005 - .010	.573	.394	.040 - .060	.580	.330	.080 - .104	.590	.115	.032 - .062	.593	.195	.015 - .030	.599	.189	.010 - .020
.566	.299	.050 - .075	.573	.395	.025 - .045	.580	.346	.042 - .062	.590	.145	.005 - .010	.593	.196	.015 - .040	.599	.201	.075 - .090
.566	.321	.005 - .010	.573	.402	.050 - .060	.580	.377	.090 - .105	.590	.147	.005 - .020	.593	.261	.005 - .010	.599	.254	.080 - .090
.566	.322	.005 - .010	.573	.474	.030 - .050	.580	.379	.005 - .010	.590	.199	.060 - .080	.593	.265	.025 - .042	.599	.257	.050 - .070
.566	.328	.010 - .015	.573	.525	.015 - .025	.580	.380	.010 - .020	.590	.201	.005 - .010	.593	.301	.050 - .070	.599	.378	.030 - .050
.566	.330	.040 - .060	.574	.199	.015 - .042	.580	.398	.005 - .010	.590	.202	.030 - .050	.593	.318	.005 - .010	.599	.383	.030 - .050
.566	.334	.005 - .060	.574	.296	.015 - .030	.580	.416	.042 - .062	.590	.209	.125 - .156	.593	.392	.075 - .095	.599	.400	.035 - .050
.566	.342	.093 - .104	.574	.297	.090 - .105	.580	.417	.005 - .010	.590	.237	.005 - .010	.593	.399	.010 - .020	.599	.401	.005 - .010
.566	.378	.060 - .090	.574	.298	.005 - .010	.580	.431	.005 - .010	.590	.238	.005 - .010	.593	.407	.100 - .120	.599	.408	.005 - .060
.566	.446	.040 - .060	.574	.300	.032 - .062	.580	.432	.010 - .032	.590	.290	.040 - .060	.593	.410	.005 - .010	.599	.413	.025 - .040
.566	.447	.040 - .060	.574	.397	.005 - .010	.580	.444	.025 - .040	.590	.292	.010 - .020	.593	.437	.005 - .010	.599	.476	.050 - .070
.566	.448	.010 - .020	.574	.406	.020 - .030	.580	.450	.025 - .040	.590	.295	.005 - .010	.593	.453	.005 - .010	.599	.489	.005 - .010
.566	.450	.015 - .030	.574	.482	.070 - .090	.581	.197	.090 - .125	.590	.314	.060 - .080	.593	.464	.015 - .030	.600	.041	.015 - .025
.566	.505	.015 - .025	.575	.151	.040 - .062	.581	.223	.050 - .070	.590	.316	.005 - .010	.593	.468	.020 - .040	.600	.046	.005 - .010
.566	.507	.005 - .010	.575	.180	.010 - .020	.581	.437	.030 - .050	.590	.317	.040 - .090	.593	.472	.005 - .010	.600	.066	.020 - .035
.567	.190	.010 - .020	.575	.186	.070 - .090	.582	.063	.020 - .040	.590	.318	.030 - .050	.593	.478	.005 - .015	.600	.076	.020 - .030
.567	.227	.007 - .012	.575	.189	.080 - .100	.582	.286	.020 - .040	.590	.324	.005 - .010	.593	.497	.005 - .010	.600	.077	.005 - .010
.567	.234	.010 - .020	.575	.199	.060 - .080	.582	.400	.015 - .030	.590	.327	.050 - .075	.593	.518	.020 - .030	.600	.089	.020 - .040
.567	.260	.040 - .060	.575	.200	.025 - .042	.583	.259	.005 - .010	.590	.329	.042 - .062	.594	.061	.015 - .030	.600	.118	.015 - .030
.567	.263	.030 - .050	.575	.251	.010 - .020	.583	.344	.070 - .090	.590	.331	.010 - .020	.594	.283	.005 - .010	.600	.119	.080 - .100
.567	.301	.040 - .060	.575	.258	.005 - .030	.583	.378	.015 - .030	.590	.334	.005 - .010	.594	.312	.010 - .020	.600	.128	.032 - .048
.567	.336	.090 - .104	.575	.260	.075 - .090	.583	.410	.030 - .050	.590	.339	.035 - .060	.594	.315	.005 - .010	.600	.138	.040 - .105
.567	.379	.015 - .025	.575	.287	.005 - .010	.584	.301	.005 - .010	.590	.340	.010 - .050	.594	.325	.005 - .010	.600	.156	.025 - .040
.567	.408	.040 - .060	.575	.312	.100 - .125	.584	.327	.005 - .010	.590	.344	.032 - .050	.594	.358	.015 - .025	.600	.157	.025 - .040
.567	.409	.030 - .050	.575	.320	.020 - .040	.584	.350	.005 - .010	.590	.345	.040 - .060	.594	.375	.070 - .090	.600	.168	.070 - .090
.567	.417	.050 - .060	.575	.322	.010 - .020	.584	.358	.005 - .010	.590	.355	.005 - .010	.594	.378	.005 - .104	.600	.176	.005 - .010
.567	.504	.020 - .030	.575	.335	.016 - .025	.584	.431	.005 - .010	.590	.376	.020 - .032	.594	.383	.015 - .030	.600	.200	.005 - .010
.568	.109	.040 - .060	.575	.346	.005 - .030	.584	.446	.030 - .050	.590	.378	.005 - .010	.594	.405	.005 - .010	.600	.203	.020 - .040
.568	.138	.005 - .010	.575	.360	.025 - .042	.585	.104	.025 - .040	.590	.379	.025 - .040	.594	.423	.025 - .040	.600	.210	.075 - .090
.568	.210	.042 - .072	.575	.394	.060 - .080	.585	.183	.015 - .030	.590	.386	.005 - .010	.594	.452	.040 - .060	.600	.215	.005 - .010
.568	.224	.005 - .010	.575	.399	.060 - .090	.585	.257	.020 - .040	.590	.390	.032 - .062	.594	.506	.015 - .025	.600	.217	.050 - .075
.568	.255	.050 - .070	.575	.412	.010 - .020	.585	.264	.025 - .040	.590	.396	.005 - .012	.595	.144	.008 - .016	.600	.236	.005 - .010
.568	.305	.005 - .010	.575	.430	.010 - .020	.585	.290	.090 - .105	.590	.397	.005 - .050	.595	.186	.070 - .090	.600	.237	.040 - .060
.568	.312	.050 - .062	.575	.440	.040 - .060	.585	.327	.050 - .070	.590	.401	.005 - .010	.595	.193	.075 - .090	.600	.241	.005 - .030
.568	.317	.005 - .010	.575	.446	.010 - .030	.585	.328	.070 - .090	.590	.410	.040 - .060	.595	.195	.010 - .020	.600	.252	.005 - .010
.568	.360	.005 - .010	.575	.464	.020 - .040	.585	.364	.060 - .080	.590	.426	.070 - .080	.595	.251	.010 - .020	.600	.253	.005 - .060
.568	.378	.010 - .030	.575	.485	.005 - .040	.585	.366	.040 - .050	.590	.430	.005 - .060	.595	.253	.020 - .030	.600	.254	.015 - .030
.568	.413	.015 - .025	.576	.147	.090 - .104	.585	.372	.025 - .040	.590	.439	.005 - .010	.595	.256	.015 - .030	.600	.255	.005 - .010
.568	.414	.020 - .040	.576	.218	.030 - .040	.585	.377	.005 - .010	.590	.471	.015 - .025	.595	.320	.010 - .020	.600	.265	.010 - .020
.568	.440	.030 - .040	.576	.500	.020 - .030	.585	.380	.005 - .010	.590	.480	.005 - .020	.595	.353	.025 - .040	.600	.266	.005 - .010
.569	.205	.050 - .070	.577	.096	.012 - .025	.585	.390	.020 - .040	.590	.498	.025 - .040	.595	.413	.050 - .070	.600	.267	.005 - .010
.569	.207	.025 - .040	.577	.199	.060 - .090	.585	.397	.005 - .010	.590	.523	.005 - .008	.595	.430	.040 - .060	.600	.269	.025 - .040
.569	.243	.010 - .015	.577	.253	.050 - .070	.585	.405	.050 - .070	.591	.079	.020 - .030	.595	.436	.005 - .010	.600	.270	.005 - .010
.569	.257	.005 - .010	.577	.290	.050 - .070	.586	.132	.010 - .020	.591	.115	.020 - .040	.595	.437	.040 - .060	.600	.282	.005 - .010
.569	.324	.015 - .075	.577	.325	.042 - .062	.586	.327	.015 - .030	.591	.161	.050 - .070	.595	.495	.030 - .050	.600	.285	.005 - .010
.569	.447	.020 - .040	.577	.328	.090 - .120	.586	.415	.005 - .010	.591	.200	.040 - .060	.595	.515	.005 - .010	.600	.296	.015 - .105
.569	.470	.015 - .025	.577	.353	.025 - .040	.586	.433	.040 - .060	.591	.216	.050 - .070	.596	.099	.030 - .050	.600	.300	.005 - .010
.569	.472	.012 - .020	.577	.376	.010 - .025	.586	.447	.005 - .010	.591	.217	.015 - .025	.596	.129	.025 - .040	.600	.322	.030 - .080
.569	.474	.005 - .010	.578	.173	.025 - .042	.586	.477	.005 - .010	.591	.240	.075 - .090	.596	.401	.020 - .040	.600	.330	.080 - .090
.569	.481	.030 - .050	.578	.203	.005 - .060	.586	.484	.005 - .010	.591	.277	.005 - .010	.596	.409	.010 - .020	.600	.346	.005 - .010
.570	.170	.080 - .090	.578	.239	.080 - .090	.586	.500	.030 - .040	.591	.289	.080 - .105	.596	.443	.050 - .075	.600	.361	.015 - .030
.570	.193	.015 - .030	.578	.257	.050 - .075	.586	.525	.005 - .010	.591	.296	.050 - .070	.596	.485	.005 - .040	.600	.370	.040 - .060
.570	.206	.105 - .125	.578	.266	.020 - .060	.586	.544	.010 - .020	.591	.316	.010 - .020	.596	.503	.020 - .040	.600	.380	.015 - .090
.570	.232	.025 - .042	.578	.355	.005 - .010	.587	.195	.032 - .050	.591	.317	.010 - .020	.596	.510	.025 - .040	.600	.383	.010 - .020
.570	.233	.050 - .075	.578	.407	.050 - .070	.587	.231	.015 - .025	.591	.321	.015 - .030	.597	.130	.005 - .015	.600	.386	.005 - .010
.570	.236	.025 - .042	.578	.468	.010 - .020	.587	.345	.030 - .050	.591	.324	.040 - .060	.597	.251	.062 - .078	.600	.401	.010 - .020
.570	.277	.005 - .010	.578	.526	.010 - .020	.587	.373	.005 - .010	.591	.326	.005 - .010	.597	.305	.025 - .040	.600	.406	.020 - .030
.570	.278	.030 - .050	.579	.138	.031 - .042	.587	.400	.050 - .070	.591	.435	.050 - .070	.597	.388	.005 - .015	.600	.408	.040 - .060
.570	.282	.025 - .042	.579	.174	.020 - .040	.587	.411	.040 - .060	.591	.440	.040 - .050	.597	.406	.025 - .040	.600	.413	.010 - .020

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
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Need Disks? All O.D. sizes available with no I.D. — (800) 927-4377, Fax (800) 321-3462.

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O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.600	.421	.005 - .010	.608	.293	.040 - .060	.614	.199	.060 - .078	.618	.185	.040 - .050	.620	.420	.020 - .060	.622	.389	.060 - .075
.600	.434	.005 - .010	.608	.350	.020 - .032	.614	.200	.060 - .083	.618	.215	.005 - .010	.620	.440	.025 - .042	.622	.390	.005 - .010
.600	.440	.010 - .020	.608	.392	.030 - .050	.614	.207	.020 - .040	.618	.216	.010 - .020	.620	.442	.032 - .048	.622	.391	.050 - .105
.600	.442	.030 - .050	.608	.397	.005 - .020	.614	.268	.005 - .010	.618	.259	.040 - .060	.620	.476	.005 - .010	.622	.400	.010 - .020
.600	.450	.040 - .060	.608	.509	.010 - .025	.614	.330	.015 - .030	.618	.262	.005 - .010	.620	.484	.020 - .030	.622	.407	.006 - .016
.600	.460	.030 - .050	.609	.128	.030 - .050	.614	.354	.050 - .070	.618	.364	.005 - .078	.620	.490	.020 - .040	.622	.409	.005 - .015
.600	.498	.005 - .010	.609	.274	.005 - .010	.614	.373	.050 - .070	.618	.381	.040 - .060	.620	.500	.005 - .010	.622	.411	.025 - .040
.600	.503	.005 - .010	.609	.297	.020 - .032	.614	.388	.015 - .030	.618	.382	.020 - .040	.620	.502	.005 - .010	.622	.438	.005 - .010
.600	.505	.020 - .030	.609	.400	.040 - .060	.614	.402	.010 - .020	.618	.393	.005 - .010	.620	.503	.005 - .025	.622	.445	.015 - .030
.600	.517	.005 - .010	.609	.487	.030 - .060	.614	.434	.030 - .050	.618	.400	.080 - .104	.620	.509	.010 - .025	.622	.450	.050 - .070
.600	.550	.005 - .010	.609	.506	.020 - .030	.614	.479	.005 - .010	.618	.435	.050 - .075	.620	.515	.005 - .015	.622	.453	.005 - .010
.601	.159	.080 - .100	.609	.546	.015 - .025	.614	.482	.008 - .020	.618	.440	.005 - .010	.620	.522	.015 - .030	.622	.461	.005 - .010
.601	.165	.005 - .010	.609	.551	.015 - .025	.614	.534	.005 - .010	.618	.446	.005 - .010	.620	.530	.005 - .010	.622	.488	.050 - .070
.601	.227	.005 - .030	.610	.094	.060 - .080	.614	.540	.005 - .010	.618	.475	.005 - .010	.620	.532	.005 - .010	.622	.500	.010 - .020
.601	.228	.005 - .010	.610	.100	.040 - .060	.615	.030	.005 - .010	.618	.500	.005 - .010	.620	.550	.005 - .010	.622	.503	.005 - .030
.601	.257	.030 - .050	.610	.191	.040 - .060	.615	.041	.015 - .030	.618	.507	.005 - .010	.621	.062	.030 - .050	.622	.511	.005 - .010
.601	.313	.020 - .040	.610	.204	.010 - .030	.615	.099	.020 - .030	.618	.526	.032 - .042	.621	.075	.005 - .010	.622	.531	.010 - .020
.601	.315	.040 - .060	.610	.206	.104 - .125	.615	.110	.020 - .030	.618	.531	.005 - .010	.621	.091	.005 - .010	.622	.532	.008 - .015
.601	.357	.060 - .080	.610	.209	.104 - .125	.615	.126	.020 - .030	.618	.549	.005 - .010	.621	.125	.050 - .070	.622	.533	.005 - .015
.601	.376	.005 - .020	.610	.248	.020 - .032	.615	.137	.025 - .080	.618	.551	.015 - .025	.621	.159	.030 - .042	.622	.534	.005 - .010
.601	.377	.010 - .020	.610	.250	.020 - .040	.615	.140	.015 - .030	.618	.556	.005 - .010	.621	.161	.090 - .120	.622	.540	.005 - .010
.601	.378	.005 - .010	.610	.258	.040 - .090	.615	.153	.020 - .030	.618	.560	.015 - .025	.621	.172	.005 - .010	.623	.030	.010 - .020
.601	.391	.025 - .040	.610	.273	.005 - .010	.615	.212	.020 - .030	.619	.125	.050 - .070	.621	.182	.105 - .125	.623	.062	.015 - .030
.601	.401	.040 - .060	.610	.317	.010 - .020	.615	.240	.005 - .010	.619	.158	.100 - .125	.621	.194	.005 - .010	.623	.094	.060 - .075
.601	.428	.010 - .020	.610	.328	.050 - .075	.615	.267	.040 - .060	.619	.171	.015 - .075	.621	.253	.062 - .080	.623	.100	.040 - .060
.601	.438	.005 - .010	.610	.335	.015 - .030	.615	.298	.020 - .030	.619	.238	.030 - .050	.621	.254	.010 - .020	.623	.126	.040 - .050
.601	.461	.005 - .010	.610	.352	.020 - .040	.615	.315	.010 - .020	.619	.306	.025 - .040	.621	.283	.015 - .025	.623	.136	.080 - .104
.601	.480	.005 - .010	.610	.365	.010 - .020	.615	.321	.050 - .070	.619	.324	.020 - .030	.621	.288	.050 - .075	.623	.137	.030 - .060
.602	.101	.080 - .100	.610	.367	.020 - .030	.615	.322	.020 - .040	.619	.326	.020 - .040	.621	.336	.050 - .070	.623	.148	.030 - .050
.602	.180	.050 - .080	.610	.375	.050 - .060	.615	.341	.050 - .070	.619	.329	.070 - .090	.621	.363	.050 - .070	.623	.156	.020 - .035
.602	.254	.005 - .010	.610	.376	.060 - .125	.615	.352	.005 - .012	.619	.353	.050 - .070	.621	.368	.030 - .050	.623	.176	.050 - .070
.602	.255	.040 - .060	.610	.380	.010 - .020	.615	.359	.005 - .010	.619	.360	.005 - .010	.621	.376	.010 - .020	.623	.179	.050 - .090
.602	.407	.025 - .040	.610	.395	.015 - .030	.615	.377	.070 - .090	.619	.377	.020 - .035	.621	.378	.010 - .020	.623	.190	.010 - .125
.602	.486	.040 - .060	.610	.409	.005 - .010	.615	.386	.060 - .080	.619	.381	.105 - .135	.621	.379	.025 - .040	.623	.191	.030 - .060
.603	.227	.030 - .050	.610	.438	.050 - .070	.615	.395	.020 - .040	.619	.431	.005 - .010	.621	.380	.090 - .105	.623	.202	.050 - .090
.603	.479	.040 - .060	.610	.460	.040 - .060	.615	.408	.090 - .105	.619	.440	.005 - .040	.621	.381	.005 - .010	.623	.220	.050 - .090
.603	.498	.010 - .020	.610	.472	.050 - .075	.615	.420	.010 - .020	.619	.449	.030 - .040	.621	.410	.005 - .010	.623	.240	.050 - .090
.603	.504	.010 - .020	.610	.476	.040 - .060	.615	.441	.005 - .010	.619	.460	.080 - .100	.621	.437	.025 - .036	.623	.247	.020 - .035
.604	.252	.005 - .010	.610	.550	.005 - .010	.615	.448	.030 - .040	.619	.481	.005 - .010	.621	.438	.032 - .042	.623	.250	.005 - .010
.604	.255	.005 - .010	.611	.089	.040 - .060	.615	.460	.020 - .040	.619	.500	.005 - .020	.621	.442	.005 - .048	.623	.254	.080 - .100
.604	.307	.005 - .010	.611	.192	.020 - .030	.615	.478	.030 - .040	.619	.508	.005 - .010	.621	.471	.008 - .016	.623	.265	.005 - .075
.604	.308	.010 - .030	.611	.243	.062 - .090	.615	.492	.020 - .040	.619	.540	.005 - .010	.621	.500	.015 - .025	.623	.268	.010 - .015
.604	.340	.040 - .060	.611	.250	.062 - .090	.615	.510	.025 - .040	.619	.549	.015 - .020	.621	.504	.020 - .030	.623	.281	.012 - .075
.604	.347	.031 - .042	.611	.259	.040 - .060	.615	.520	.025 - .035	.620	.041	.040 - .060	.621	.505	.005 - .030	.623	.304	.075 - .105
.604	.381	.025 - .040	.611	.261	.005 - .010	.615	.536	.010 - .020	.620	.076	.010 - .020	.621	.506	.040 - .060	.623	.317	.050 - .075
.604	.384	.015 - .030	.611	.265	.105 - .125	.615	.537	.020 - .040	.620	.126	.015 - .030	.621	.507	.015 - .030	.623	.320	.005 - .030
.604	.407	.005 - .030	.611	.273	.005 - .010	.615	.540	.010 - .025	.620	.132	.005 - .010	.621	.533	.015 - .030	.623	.326	.040 - .060
.604	.439	.030 - .050	.611	.278	.005 - .010	.615	.551	.030 - .040	.620	.168	.050 - .072	.622	.061	.005 - .010	.623	.328	.010 - .025
.604	.502	.010 - .020	.611	.315	.050 - .010	.616	.044	.015 - .025	.620	.184	.050 - .075	.622	.147	.060 - .080	.623	.330	.050 - .090
.604	.508	.015 - .030	.611	.347	.005 - .010	.616	.160	.015 - .030	.620	.191	.025 - .040	.622	.159	.048 - .075	.623	.375	.010 - .020
.605	.163	.015 - .030	.611	.350	.030 - .050	.616	.167	.020 - .032	.620	.198	.050 - .070	.622	.166	.005 - .010	.623	.390	.050 - .070
.605	.190	.020 - .040	.611	.352	.005 - .010	.616	.192	.070 - .090	.620	.200	.005 - .010	.622	.174	.008 - .016	.623	.404	.005 - .010
.605	.313	.015 - .030	.611	.379	.025 - .040	.616	.251	.005 - .010	.620	.201	.030 - .050	.622	.175	.007 - .015	.623	.405	.030 - .050
.605	.317	.075 - .090	.611	.405	.060 - .083	.616	.256	.020 - .032	.620	.214	.050 - .070	.622	.180	.016 - .025	.623	.460	.050 - .075
.605	.359	.025 - .040	.611	.406	.080 - .090	.616	.259	.005 - .010	.620	.250	.010 - .035	.622	.190	.020 - .040	.623	.465	.012 - .020
.605	.388	.070 - .090	.611	.460	.025 - .040	.616	.268	.015 - .030	.620	.252	.020 - .040	.622	.191	.005 - .010	.623	.474	.008 - .016
.605	.416	.005 - .010	.611	.480	.050 - .070	.616	.323	.010 - .020	.620	.254	.010 - .020	.622	.196	.030 - .048	.623	.492	.005 - .010
.605	.453	.005 - .060	.611	.515	.020 - .040	.616	.328	.025 - .040	.620	.255	.015 - .020	.622	.205	.030 - .050	.623	.500	.005 - .012
.605	.566	.005 - .010	.612	.194	.100 - .125	.616	.377	.050 - .090	.620	.257	.040 - .060	.622	.206	.030 - .060	.623	.501	.010 - .020
.606	.198	.040 - .050	.612	.198	.008 - .020	.616	.384	.005 - .010	.620	.260	.005 - .010	.622	.214	.015 - .030	.623	.504	.050 - .062
.606	.203	.005 - .010	.612	.214	.030 - .050	.616	.386	.062 - .083	.620	.268	.005 - .010	.622	.220	.010 - .020	.623	.505	.005 - .010
.606	.285	.060 - .083	.612	.433	.040 - .060	.616	.410	.005 - .010	.620	.279	.005 - .010	.622	.230	.060 - .090	.623	.515	.005 - .010
.606	.312	.075 - .100	.612	.440	.042 - .062	.616	.412	.020 - .040	.620	.281	.040 - .060	.622	.250	.005 - .015	.623	.531	.010 - .020
.606	.380	.040 - .060	.612	.444	.010 - .030	.616	.456	.040 - .050	.620	.320	.105 - .125	.622	.251	.005 - .010	.623	.532	.005 - .010
.606	.389	.050 - .075	.612	.467	.005 - .010	.616	.478	.030 - .040	.620	.322	.040 - .060	.622	.258	.025 - .040	.624	.087	.010 - .020
.606	.400	.020 - .030	.612	.510	.040 - .050	.616	.480	.040 - .060	.620	.334	.050 - .070	.622	.261	.036 - .050	.624	.094	.070 - .090
.606	.462	.020 - .040	.612	.520	.005 - .010	.616	.505	.005 - .010	.620	.346	.016 - .025	.622	.284	.010 - .042	.624	.108	.005 - .010
.606	.480	.040 - .060	.613	.040	.020 - .030	.616	.524	.030 - .040	.620	.348	.050 - .070	.622	.300	.020 - .040	.624	.109	.005 - .010
.607	.247	.020 - .040	.613	.278	.050 - .070	.617	.310	.005 - .010	.620	.350	.025 - .062	.622	.302	.050 - .070	.624	.128	.025 - .040
.607	.251	.030 - .050	.613	.331	.050 - .070	.617	.318	.015 - .025	.620	.370	.015 - .025	.622	.314	.075 - .125	.624	.156	.050 - .070
.607	.333	.005 - .010	.613	.350	.050 - .070	.617	.351	.005 - .010	.620	.378	.020 - .035	.622	.315	.100 - .125	.624	.168	.060 - .080
.607	.388	.080 - .105	.613	.377	.015 - .030	.617	.359	.025 - .040	.620	.380	.080 - .100	.622	.317	.040 - .060	.624	.173	.020 - .050
.607	.461	.005 - .010	.613	.391	.025 - .040	.617	.362	.005 - .010	.620	.381	.015 - .025	.622	.320	.025 - .070	.624	.177	.010 - .020
.607	.531	.005 - .010	.613	.402	.005 - .010	.617	.385	.005 - .010	.620	.384	.100 - .125	.622	.325	.007 - .025	.624	.178	.015 - .030
.608	.204	.010 - .020	.613	.451	.030 - .050	.617	.448	.065 - .080	.620	.390	.100 - .125	.622	.343	.005 - .010	.624	.196	.032 - .042
.608	.249	.030 - .050	.613	.472	.005 - .010	.617	.496	.010 - .020	.620	.394	.010 - .020	.622	.374	.005 - .010	.624	.204	.005 - .010
.608	.252	.015 - .040	.613	.521	.020 - .042	.617	.514	.005 - .010	.620	.406	.005 - .060	.622	.376	.015 - .025	.624	.220	.005 - .010
.608	.253	.020 - .040	.614	.065	.005 - .010	.617	.560	.005 - .010	.620	.408	.030 - .050	.622	.377	.025 - .105	.624	.249	.050 - .070
.608	.254	.020 - .040	.614	.094	.040 - .060	.618	.120	.015 - .030	.620	.409	.030 - .050	.622	.378	.015 - .030	.624	.250	.050 - .075
.608	.283	.020 - .040	.614	.198	.050 - .090	.618	.124	.040 - .060	.620	.410	.080 - .105	.622	.384	.005 - .010	.624	.253	.100 - .125

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For a size NOT listed, send specs or phone for quote — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.624	.254	.005 - .010	.625	.240	.050 - .070	.625	.453	.020 - .030	.627	.283	.030 - .048	.630	.254	.025 - .040	.633	.282	.080 - .100
.624	.255	.040 - .075	.625	.251	.005 - .042	.625	.455	.020 - .030	.627	.285	.042 - .062	.630	.275	.005 - .125	.633	.346	.060 - .080
.624	.264	.050 - .070	.625	.252	.036 - .105	.625	.456	.030 - .070	.627	.313	.090 - .120	.630	.279	.005 - .010	.633	.377	.075 - .090
.624	.298	.050 - .075	.625	.253	.005 - .042	.625	.457	.010 - .040	.627	.314	.015 - .030	.630	.280	.005 - .015	.633	.439	.030 - .050
.624	.312	.005 - .010	.625	.255	.075 - .104	.625	.458	.010 - .020	.627	.323	.105 - .125	.630	.282	.050 - .070	.633	.472	.010 - .020
.624	.313	.025 - .045	.625	.259	.125 - .156	.625	.476	.040 - .060	.627	.334	.100 - .125	.630	.283	.105 - .125	.633	.501	.030 - .050
.624	.315	.100 - .125	.625	.260	.005 - .010	.625	.479	.010 - .050	.627	.335	.100 - .125	.630	.315	.005 - .010	.633	.551	.015 - .030
.624	.324	.030 - .042	.625	.261	.030 - .075	.625	.485	.005 - .008	.627	.344	.050 - .125	.630	.316	.005 - .090	.634	.116	.032 - .042
.624	.328	.050 - .070	.625	.264	.005 - .015	.625	.500	.032 - .060	.627	.349	.080 - .104	.630	.317	.010 - .020	.634	.155	.050 - .070
.624	.330	.060 - .090	.625	.265	.040 - .050	.625	.501	.020 - .030	.627	.375	.005 - .010	.630	.319	.005 - .050	.634	.194	.015 - .025
.624	.334	.030 - .050	.625	.266	.015 - .100	.625	.506	.030 - .050	.627	.376	.080 - .104	.630	.320	.005 - .010	.634	.330	.005 - .010
.624	.335	.010 - .020	.625	.268	.015 - .104	.625	.520	.040 - .050	.627	.378	.030 - .050	.630	.321	.005 - .010	.634	.354	.010 - .030
.624	.343	.105 - .125	.625	.271	.025 - .040	.625	.532	.020 - .030	.627	.379	.030 - .050	.630	.326	.060 - .080	.634	.394	.005 - .010
.624	.376	.080 - .125	.625	.273	.060 - .070	.625	.570	.015 - .030	.627	.380	.050 - .070	.630	.330	.010 - .020	.634	.459	.020 - .030
.624	.378	.005 - .010	.625	.279	.060 - .080	.626	.096	.015 - .025	.627	.385	.083 - .120	.630	.331	.105 - .125	.634	.477	.008 - .016
.624	.379	.080 - .100	.625	.280	.030 - .060	.626	.100	.015 - .030	.627	.389	.005 - .010	.630	.336	.005 - .010	.634	.478	.005 - .010
.624	.380	.105 - .125	.625	.281	.120 - .134	.626	.104	.005 - .010	.627	.392	.005 - .010	.630	.346	.040 - .060	.634	.512	.010 - .020
.624	.392	.030 - .050	.625	.283	.025 - .060	.626	.113	.030 - .050	.627	.406	.050 - .090	.630	.354	.050 - .070	.635	.167	.015 - .035
.624	.398	.020 - .040	.625	.284	.005 - .040	.626	.129	.005 - .125	.627	.442	.005 - .010	.630	.368	.050 - .075	.635	.179	.010 - .015
.624	.399	.030 - .050	.625	.290	.090 - .100	.626	.129	.126 - .130	.627	.475	.020 - .030	.630	.384	.005 - .040	.635	.200	.025 - .040
.624	.403	.030 - .050	.625	.293	.005 - .040	.626	.133	.030 - .060	.627	.486	.012 - .025	.630	.387	.010 - .020	.635	.204	.010 - .020
.624	.415	.025 - .050	.625	.298	.015 - .030	.626	.156	.020 - .035	.627	.505	.050 - .070	.630	.394	.060 - .070	.635	.312	.035 - .050
.624	.425	.035 - .050	.625	.299	.020 - .050	.626	.193	.020 - .075	.627	.510	.005 - .040	.630	.395	.005 - .020	.635	.356	.010 - .020
.624	.438	.030 - .050	.625	.301	.005 - .010	.626	.198	.025 - .040	.627	.527	.005 - .010	.630	.397	.005 - .090	.635	.375	.032 - .042
.624	.440	.010 - .020	.625	.302	.050 - .070	.626	.204	.030 - .156	.627	.547	.007 - .012	.630	.400	.025 - .090	.635	.376	.005 - .010
.624	.442	.006 - .012	.625	.311	.042 - .062	.626	.207	.050 - .070	.628	.096	.030 - .050	.630	.401	.015 - .030	.635	.410	.005 - .010
.624	.445	.050 - .070	.625	.312	.005 - .125	.626	.217	.100 - .125	.628	.125	.005 - .010	.630	.403	.005 - .010	.635	.443	.020 - .030
.624	.448	.005 - .015	.625	.314	.005 - .030	.626	.229	.005 - .010	.628	.166	.050 - .070	.630	.404	.005 - .010	.635	.470	.030 - .042
.624	.452	.031 - .048	.625	.315	.025 - .040	.626	.253	.060 - .080	.628	.191	.040 - .060	.630	.415	.080 - .105	.635	.531	.025 - .040
.624	.485	.040 - .060	.625	.316	.040 - .060	.626	.257	.015 - .030	.628	.198	.005 - .010	.630	.417	.050 - .070	.636	.179	.008 - .015
.624	.500	.005 - .010	.625	.317	.060 - .070	.626	.262	.100 - .125	.628	.201	.040 - .060	.630	.440	.070 - .090	.636	.275	.005 - .010
.624	.515	.020 - .030	.625	.318	.005 - .125	.626	.268	.020 - .060	.628	.208	.020 - .040	.630	.461	.015 - .030	.636	.381	.015 - .030
.624	.533	.005 - .010	.625	.319	.020 - .040	.626	.277	.020 - .040	.628	.232	.030 - .050	.630	.475	.010 - .020	.636	.384	.005 - .010
.624	.564	.005 - .010	.625	.320	.010 - .050	.626	.281	.005 - .020	.628	.238	.050 - .070	.630	.479	.040 - .050	.636	.393	.020 - .030
.625	.063	.005 - .010	.625	.321	.015 - .070	.626	.282	.020 - .040	.628	.261	.040 - .060	.630	.499	.005 - .010	.636	.410	.005 - .015
.625	.067	.008 - .016	.625	.322	.045 - .075	.626	.312	.035 - .050	.628	.271	.005 - .010	.630	.500	.015 - .030	.636	.454	.015 - .030
.625	.087	.005 - .010	.625	.323	.060 - .075	.626	.314	.005 - .015	.628	.287	.090 - .105	.630	.502	.015 - .030	.636	.565	.005 - .010
.625	.096	.005 - .010	.625	.324	.005 - .010	.626	.315	.040 - .060	.628	.331	.105 - .120	.630	.518	.010 - .020	.637	.244	.020 - .040
.625	.102	.020 - .040	.625	.327	.070 - .080	.626	.317	.010 - .015	.628	.375	.060 - .083	.630	.534	.005 - .010	.637	.356	.005 - .010
.625	.115	.005 - .010	.625	.328	.005 - .125	.626	.326	.020 - .030	.628	.477	.005 - .010	.630	.554	.005 - .010	.637	.381	.025 - .040
.625	.127	.010 - .020	.625	.329	.020 - .030	.626	.339	.100 - .125	.628	.483	.030 - .050	.630	.558	.005 - .020	.637	.399	.105 - .125
.625	.128	.030 - .062	.625	.330	.025 - .040	.626	.344	.025 - .040	.628	.510	.010 - .020	.631	.150	.040 - .060	.637	.425	.012 - .020
.625	.129	.020 - .040	.625	.331	.005 - .010	.626	.377	.005 - .010	.628	.511	.040 - .060	.631	.154	.050 - .070	.637	.520	.005 - .010
.625	.130	.012 - .020	.625	.336	.090 - .120	.626	.379	.005 - .010	.628	.555	.020 - .030	.631	.238	.005 - .010	.638	.156	.032 - .048
.625	.136	.080 - .104	.625	.343	.005 - .125	.626	.381	.005 - .010	.629	.095	.062 - .078	.631	.240	.010 - .020	.638	.263	.040 - .060
.625	.139	.025 - .105	.625	.343	.126 - .134	.626	.386	.005 - .075	.629	.149	.015 - .030	.631	.315	.015 - .030	.638	.410	.020 - .040
.625	.145	.020 - .032	.625	.348	.080 - .104	.626	.392	.005 - .010	.629	.177	.005 - .010	.631	.316	.005 - .010	.638	.506	.025 - .040
.625	.151	.005 - .010	.625	.349	.083 - .114	.626	.394	.015 - .030	.629	.226	.005 - .010	.631	.318	.005 - .010	.639	.199	.060 - .080
.625	.157	.100 - .125	.625	.356	.042 - .062	.626	.408	.090 - .105	.629	.290	.050 - .083	.631	.319	.005 - .010	.639	.325	.010 - .020
.625	.158	.005 - .010	.625	.372	.030 - .050	.626	.409	.020 - .030	.629	.292	.042 - .060	.631	.320	.005 - .010	.639	.394	.020 - .040
.625	.160	.075 - .104	.625	.375	.005 - .120	.626	.422	.070 - .090	.629	.316	.005 - .010	.631	.374	.105 - .125	.639	.415	.025 - .040
.625	.166	.025 - .042	.625	.376	.005 - .010	.626	.442	.005 - .025	.629	.319	.005 - .010	.631	.378	.060 - .080	.639	.438	.030 - .050
.625	.171	.015 - .125	.625	.377	.005 - .010	.626	.468	.005 - .010	.629	.351	.090 - .110	.631	.386	.060 - .080	.639	.439	.040 - .050
.625	.187	.025 - .050	.625	.378	.015 - .080	.626	.470	.005 - .010	.629	.356	.010 - .020	.631	.387	.010 - .020	.639	.453	.005 - .010
.625	.188	.005 - .010	.625	.379	.005 - .010	.626	.478	.005 - .010	.629	.391	.030 - .050	.631	.396	.005 - .010	.639	.524	.025 - .035
.625	.189	.005 - .060	.625	.380	.025 - .042	.626	.495	.040 - .060	.629	.406	.030 - .050	.631	.399	.010 - .020	.639	.550	.005 - .010
.625	.190	.060 - .090	.625	.381	.100 - .125	.626	.499	.010 - .020	.629	.407	.030 - .050	.631	.403	.060 - .080	.639	.576	.015 - .030
.625	.191	.025 - .042	.625	.382	.030 - .120	.626	.501	.010 - .020	.629	.472	.030 - .080	.631	.411	.020 - .030	.640	.036	.015 - .030
.625	.192	.025 - .070	.625	.385	.005 - .010	.626	.504	.010 - .020	.629	.473	.005 - .020	.631	.437	.005 - .010	.640	.073	.025 - .040
.625	.193	.100 - .125	.625	.386	.032 - .048	.626	.505	.005 - .010	.629	.507	.005 - .030	.631	.452	.060 - .080	.640	.168	.025 - .040
.625	.195	.090 - .125	.625	.390	.015 - .062	.626	.507	.005 - .030	.629	.512	.015 - .030	.631	.521	.040 - .060	.640	.175	.025 - .042
.625	.196	.020 - .040	.625	.392	.020 - .042	.626	.510	.010 - .025	.629	.517	.005 - .010	.632	.160	.030 - .040	.640	.186	.030 - .050
.625	.200	.030 - .040	.625	.393	.010 - .020	.626	.528	.025 - .040	.630	.128	.005 - .010	.632	.239	.005 - .010	.640	.251	.020 - .040
.625	.201	.005 - .010	.625	.394	.020 - .040	.626	.564	.005 - .010	.630	.138	.030 - .060	.632	.253	.015 - .030	.640	.256	.005 - .010
.625	.202	.050 - .075	.625	.396	.020 - .030	.626	.566	.010 - .020	.630	.140	.020 - .040	.632	.261	.020 - .040	.640	.299	.015 - .030
.625	.205	.050 - .090	.625	.397	.090 - .120	.627	.036	.025 - .035	.630	.141	.100 - .120	.632	.285	.005 - .010	.640	.334	.005 - .010
.625	.207	.005 - .015	.625	.398	.005 - .010	.627	.058	.020 - .032	.630	.158	.050 - .060	.632	.317	.005 - .010	.640	.342	.040 - .060
.625	.208	.005 - .010	.625	.399	.050 - .075	.627	.125	.020 - .040	.630	.163	.050 - .060	.632	.320	.005 - .010	.640	.361	.030 - .050
.625	.210	.100 - .125	.625	.400	.025 - .040	.627	.129	.025 - .040	.630	.174	.050 - .075	.632	.357	.005 - .010	.640	.377	.030 - .040
.625	.211	.040 - .060	.625	.401	.070 - .090	.627	.133	.040 - .060	.630	.177	.030 - .050	.632	.359	.025 - .040	.640	.390	.050 - .075
.625	.220	.005 - .010	.625	.402	.005 - .015	.627	.166	.005 - .010	.630	.188	.090 - .105	.632	.387	.020 - .060	.640	.400	.005 - .010
.625	.222	.050 - .070	.625	.406	.060 - .075	.627	.196	.050 - .070	.630	.204	.050 - .065	.632	.426	.070 - .090	.640	.406	.005 - .010
.625	.223	.005 - .010	.625	.415	.005 - .012	.627	.198	.010 - .025	.630	.209	.105 - .125	.632	.475	.040 - .060	.640	.429	.012 - .020
.625	.225	.015 - .020	.625	.425	.020 - .035	.627	.236	.100 - .125	.630	.214	.065 - .080	.632	.480	.005 - .072	.640	.441	.010 - .020
.625	.226	.032 - .042	.625	.437	.040 - .060	.627	.248	.100 - .125	.630	.236	.005 - .025	.632	.547	.010 - .020	.640	.443	.025 - .040
.625	.230	.075 - .090	.625	.440	.005 - .105	.627	.253	.005 - .010	.630	.237	.005 - .020	.633	.119	.005 - .010	.640	.444	.010 - .020
.625	.231	.005 - .010	.625	.441	.005 - .010	.627	.265	.050 - .070	.630	.238	.005 - .010	.633	.172	.015 - .035	.640	.446	.015 - .030
.625	.236	.025 - .042	.625	.442	.005 - .010	.627	.266	.030 - .050	.630	.239	.005 - .010	.633	.256	.060 - .080	.640	.451	.080 - .090
.625	.238	.005 - .072	.625	.445	.060 - .075	.627	.280	.100 - .125	.630	.241	.050 - .060	.633	.267	.032 - .050	.640	.460	.050 - .060
.625	.239	.070 - .090	.625	.449	.070 - .090	.627	.281	.100 - .120	.630	.247	.030 - .050				.640	.485	.020 - .040

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

Call BOKER'S for precision stamping, assembly, and secondary operations.

O.D.	I.D.	Choose Any Thickness* From	To	O.D.	I.D.	Choose Any Thickness* From	To	O.D.	I.D.	Choose Any Thickness* From	To	O.D.	I.D.	Choose Any Thickness* From	To	O.D.	I.D.	Choose Any Thickness* From	To	O.D.	I.D.	Choose Any Thickness* From	To
.640	.489	.040	.060	**.648**	**.521**	**.005**	**.010**	.653	.414	.050	.070	**.658**	**.572**	**.005**	**.010**	**.666**	**.537**	**.005**	**.010**	.670	.495	.040	.062
.640	.501	.015	.048	**.648**	**.551**	**.005**	**.010**	**.653**	**.442**	**.005**	**.010**	.659	.125	.015	.025	.666	.564	.010	.020	.670	.503	.020	.040
.640	.508	.015	.030	.649	.126	.020	.050	**.653**	**.542**	**.005**	**.010**	.659	.256	.100	.120	**.666**	**.579**	**.005**	**.010**	**.670**	**.545**	**.005**	**.010**
.640	**.540**	**.005**	**.010**	.649	.201	.090	.100	.654	.142	.040	.060	.659	.265	.020	.035	.667	.213	.012	.020	.670	.574	.030	.050
.640	.576	.020	.030	.649	.203	.025	.040	.654	.267	.030	.050	.659	.288	.050	.070	.667	.270	.025	.040	.671	.200	.025	.042
.640	**.579**	**.005**	**.010**	.649	.266	.125	.135	.654	.270	.005	.010	.659	.313	.020	.040	.667	.275	.025	.042	**.671**	**.239**	**.005**	**.010**
.641	**.125**	**.005**	**.010**	.649	.281	.005	.010	.654	.276	.010	.020	.659	.335	.060	.075	.667	.319	.042	.062	**.671**	**.264**	**.005**	**.010**
.641	.243	.020	.090	.649	.286	.070	.090	.654	.363	.050	.075	.659	.381	.090	.100	**.667**	**.336**	**.005**	**.010**	.671	.311	.078	.090
.641	**.265**	**.005**	**.060**	.649	.338	.030	.050	.654	.389	.025	.040	.659	.501	.015	.030	.667	.347	.015	.030	**.671**	**.315**	**.005**	**.010**
.641	**.308**	**.005**	**.010**	**.649**	**.452**	**.005**	**.010**	.654	.480	.010	.020	.660	.125	.020	.030	**.667**	**.496**	**.005**	**.010**	.671	.316	.015	.030
.641	.320	.010	.025	**.649**	**.522**	**.005**	**.010**	.654	.510	.025	.040	.660	.213	.070	.090	**.667**	**.595**	**.005**	**.010**	.671	.319	.005	.010
.641	.368	.020	.040	**.649**	**.562**	**.005**	**.010**	**.654**	**.564**	**.005**	**.012**	.660	.225	.040	.060	.668	.218	.060	.080	**.671**	**.322**	**.005**	**.010**
.641	.470	.010	.020	**.649**	**.583**	**.005**	**.010**	.654	.574	.015	.025	**.660**	**.251**	**.005**	**.010**	**.668**	**.316**	**.005**	**.010**	.671	.325	.015	.030
.641	**.475**	**.005**	**.010**	.650	.056	.005	.010	.655	.124	.015	.030	**.660**	**.261**	**.005**	**.010**	**.668**	**.317**	**.005**	**.010**	.671	.333	.010	.020
.641	.501	.031	.048	.650	.062	.020	.040	.655	.125	.040	.060	.660	.268	.050	.072	.668	.333	.050	.075	.671	.345	.020	.040
.641	.522	.020	.030	**.650**	**.076**	**.005**	**.010**	.655	.142	.015	.030	.660	.313	.020	.030	.668	.340	.035	.050	.671	.385	.070	.090
.641	.533	.030	.060	**.650**	**.161**	**.005**	**.015**	.655	.167	.030	.050	**.660**	**.314**	**.005**	**.010**	.668	.348	.010	.015	.671	.386	.100	.125
.642	.153	.030	.050	.650	.162	.040	.060	.655	.191	.010	.020	.660	.345	.015	.030	.668	.406	.040	.060	**.671**	**.391**	**.005**	**.075**
.642	.254	.015	.030	**.650**	**.212**	**.005**	**.010**	.655	.223	.080	.100	.660	.350	.050	.070	.668	.435	.020	.030	.671	.395	.020	.030
.642	**.411**	**.005**	**.010**	**.650**	**.236**	**.005**	**.010**	.655	.256	.020	.040	.660	.366	.020	.030	.668	.472	.010	.020	**.671**	**.474**	**.005**	**.010**
.642	**.449**	**.005**	**.010**	.650	.250	.020	.030	**.655**	**.318**	**.005**	**.010**	.660	.378	.020	.030	**.669**	**.031**	**.005**	**.010**	.671	.507	.008	.015
.642	.477	.070	.090	.650	.260	.042	.060	.655	.378	.030	.090	.660	.390	.040	.060	**.669**	**.114**	**.005**	**.010**	.671	.568	.010	.020
.642	.482	.020	.040	.650	.290	.015	.030	.655	.379	.010	.020	.660	.401	.020	.030	**.669**	**.138**	**.005**	**.010**	.672	.128	.100	.125
.642	.536	.007	.012	.650	.311	.075	.090	.655	.381	.020	.030	.660	.409	.040	.060	**.669**	**.163**	**.005**	**.010**	.672	.325	.015	.030
.643	**.169**	**.005**	**.010**	**.650**	**.312**	**.005**	**.120**	**.655**	**.419**	**.005**	**.010**	**.660**	**.436**	**.005**	**.010**	**.669**	**.200**	**.005**	**.010**	.672	.326	.080	.125
.643	**.174**	**.005**	**.010**	.650	.315	.010	.020	.655	.421	.050	.070	**.660**	**.472**	**.005**	**.010**	.669	.204	.020	.060	**.672**	**.346**	**.005**	**.010**
.643	.256	.010	.020	**.650**	**.316**	**.005**	**.010**	**.655**	**.465**	**.005**	**.010**	**.660**	**.507**	**.005**	**.010**	**.669**	**.237**	**.005**	**.010**	**.672**	**.362**	**.005**	**.010**
.643	.322	.015	.030	**.650**	**.317**	**.005**	**.010**	**.655**	**.488**	**.005**	**.010**	**.660**	**.512**	**.005**	**.010**	**.669**	**.316**	**.005**	**.010**	**.672**	**.375**	**.005**	**.010**
.643	**.370**	**.005**	**.010**	**.650**	**.319**	**.005**	**.010**	.655	.512	.015	.025	**.660**	**.563**	**.005**	**.010**	.669	.317	.075	.105	.672	.407	.010	.020
.643	**.502**	**.005**	**.010**	.650	.325	.050	.075	.655	.525	.040	.060	.660	.577	.020	.030	**.669**	**.319**	**.005**	**.020**	**.672**	**.415**	**.005**	**.010**
.643	.503	.015	.030	.650	.357	.015	.030	**.655**	**.528**	**.005**	**.010**	**.661**	**.241**	**.005**	**.010**	.669	.320	.010	.040	.672	.442	.030	.040
.643	**.530**	**.005**	**.010**	.650	.374	.015	.030	**.655**	**.530**	**.005**	**.010**	.661	.270	.060	.080	.669	.331	.050	.070	.672	.445	.025	.060
.644	**.171**	**.005**	**.010**	.650	.377	.020	.030	.656	.118	.030	.050	.661	.336	.020	.040	.669	.338	.080	.100	.672	.490	.050	.070
.644	.257	.050	.070	.650	.380	.050	.070	.656	.190	.075	.090	**.661**	**.341**	**.005**	**.010**	**.669**	**.397**	**.005**	**.010**	.672	.531	.030	.040
.644	.316	.020	.035	**.650**	**.397**	**.005**	**.010**	.656	.195	.050	.075	.661	.403	.040	.060	.669	.427	.030	.050	.673	.098	.020	.040
.644	.346	.015	.030	.650	.404	.040	.060	.656	.196	.020	.040	.661	.487	.040	.060	.669	.430	.010	.020	**.673**	**.283**	**.005**	**.010**
.644	.396	.025	.040	.650	.410	.080	.090	.656	.258	.030	.050	.661	.529	.015	.025	.669	.434	.070	.090	**.673**	**.408**	**.005**	**.010**
.644	.454	.025	.040	**.650**	**.424**	**.005**	**.010**	.656	.267	.050	.075	.661	.531	.010	.020	.669	.472	.030	.050	.673	.412	.100	.134
.644	.477	.020	.030	.650	.469	.050	.070	**.656**	**.278**	**.005**	**.010**	**.661**	**.551**	**.005**	**.010**	.669	.487	.006	.015	.673	.437	.010	.025
.644	.503	.020	.040	**.650**	**.500**	**.005**	**.010**	.656	.290	.070	.090	**.661**	**.583**	**.005**	**.010**	**.669**	**.515**	**.005**	**.010**	**.673**	**.446**	**.005**	**.010**
.644	.531	.030	.050	.650	.503	.015	.030	.656	.320	.025	.040	.662	.201	.050	.070	.669	.543	.015	.030	.673	.473	.010	.025
.645	.152	.030	.050	.650	.505	.020	.030	.656	.341	.030	.050	.662	.219	.050	.070	.669	.550	.015	.030	.673	.500	.020	.036
.645	.170	.035	.050	.650	.507	.010	.020	.656	.377	.015	.030	.662	.324	.010	.020	**.669**	**.552**	**.005**	**.010**	.674	.095	.010	.020
.645	.214	.010	.020	.650	.534	.025	.040	.656	.387	.030	.050	.662	.386	.020	.040	.670	.121	.060	.080	.674	.377	.025	.040
.645	.316	.020	.032	.650	.553	.010	.020	.656	.397	.015	.025	.662	.393	.040	.060	**.670**	**.123**	**.005**	**.010**	**.674**	**.391**	**.005**	**.010**
.645	.347	.025	.040	**.650**	**.562**	**.005**	**.010**	.656	.404	.080	.104	.662	.432	.060	.080	**.670**	**.130**	**.005**	**.010**	**.674**	**.395**	**.005**	**.010**
.645	.393	.050	.062	.651	.147	.042	.060	.656	.406	.090	.125	.662	.461	.030	.050	.670	.168	.040	.060	**.674**	**.441**	**.005**	**.080**
.645	.434	.032	.048	.651	.160	.020	.030	**.656**	**.453**	**.005**	**.040**	.662	.477	.010	.020	.670	.169	.040	.060	.674	.450	.040	.060
.645	.441	.060	.080	**.651**	**.229**	**.005**	**.010**	.656	.460	.025	.035	.662	.487	.060	.070	.670	.178	.030	.040	.674	.473	.025	.040
.645	**.470**	**.005**	**.010**	.651	.315	.010	.020	.656	.470	.035	.050	.662	.553	.010	.020	.670	.190	.015	.032	.674	.480	.070	.090
.645	**.510**	**.005**	**.010**	.651	.374	.010	.020	**.656**	**.489**	**.005**	**.010**	**.663**	**.140**	**.005**	**.010**	**.670**	**.208**	**.005**	**.010**	.674	.504	.075	.090
.645	.518	.040	.060	.651	.377	.030	.050	.656	.500	.030	.050	.663	.457	.050	.070	**.670**	**.234**	**.005**	**.010**	.674	.536	.040	.060
.646	.204	.060	.070	**.651**	**.379**	**.005**	**.010**	.656	.503	.010	.020	**.663**	**.504**	**.005**	**.010**	**.670**	**.237**	**.005**	**.010**	.674	.562	.020	.030
.646	.210	.060	.110	.651	.380	.015	.030	**.656**	**.510**	**.005**	**.010**	.663	.556	.010	.020	**.670**	**.239**	**.005**	**.010**	**.675**	**.095**	**.005**	**.010**
.646	.255	.020	.030	**.651**	**.394**	**.005**	**.010**	**.656**	**.511**	**.005**	**.030**	.664	.256	.100	.125	**.670**	**.240**	**.005**	**.010**	.675	.203	.020	.040
.646	.273	.020	.035	.651	.398	.005	.010	.656	.515	.015	.030	**.664**	**.259**	**.005**	**.125**	.670	.245	.020	.030	**.675**	**.224**	**.005**	**.010**
.646	**.316**	**.005**	**.012**	.651	.450	.010	.020	.656	.528	.015	.030	.664	.413	.030	.050	**.670**	**.253**	**.005**	**.010**	.675	.280	.060	.090
.646	.344	.020	.030	**.651**	**.460**	**.005**	**.010**	.656	.563	.020	.040	.664	.503	.025	.050	.670	.257	.040	.125	.675	.284	.032	.050
.646	.393	.090	.105	.651	.465	.010	.020	.656	.565	.010	.020	.664	.541	.040	.060	.670	.260	.020	.030	.675	.301	.050	.105
.646	**.409**	**.005**	**.010**	.651	.485	.040	.060	.657	.216	.060	.080	.665	.173	.050	.075	.670	.280	.010	.020	.675	.375	.010	.020
.646	**.447**	**.005**	**.010**	**.651**	**.505**	**.005**	**.010**	.657	.250	.080	.105	.665	.249	.030	.050	**.670**	**.300**	**.005**	**.010**	.675	.386	.040	.060
.646	**.539**	**.005**	**.010**	**.651**	**.551**	**.005**	**.030**	.657	.255	.015	.030	.665	.251	.075	.090	**.670**	**.315**	**.005**	**.010**	.675	.400	.010	.040
.647	**.131**	**.005**	**.010**	.652	.096	.062	.078	.657	.330	.075	.100	.665	.334	.050	.130	**.670**	**.317**	**.005**	**.010**	.675	.416	.015	.030
.647	.191	.030	.050	.652	.118	.062	.090	.657	.338	.105	.125	.665	.374	.120	.140	.670	.319	.050	.070	.675	.435	.070	.090
.647	.283	.030	.050	.652	.193	.030	.050	**.657**	**.363**	**.005**	**.010**	.665	.383	.040	.060	.670	.330	.050	.075	**.675**	**.440**	**.005**	**.010**
.647	.355	.010	.020	**.652**	**.376**	**.005**	**.010**	**.657**	**.375**	**.005**	**.010**	.665	.397	.070	.090	**.670**	**.331**	**.005**	**.010**	.675	.442	.005	.010
.647	.381	.105	.125	.652	.400	.010	.020	**.657**	**.413**	**.005**	**.010**	.665	.434	.040	.060	.670	.350	.020	.100	.675	.447	.080	.100
.647	.407	.030	.050	.652	.406	.015	.030	**.657**	**.417**	**.005**	**.010**	.665	.515	.025	.040	.670	.354	.105	.125	**.675**	**.458**	**.005**	**.010**
.647	.472	.015	.030	**.652**	**.412**	**.005**	**.010**	.657	.530	.020	.040	**.665**	**.550**	**.005**	**.012**	**.670**	**.355**	**.005**	**.010**	.675	.458	.020	.040
.647	**.492**	**.005**	**.010**	**.652**	**.435**	**.005**	**.010**	.657	.531	.040	.060	.665	.569	.020	.040	.670	.360	.040	.050	.675	.480	.010	.020
.648	**.093**	**.005**	**.010**	.652	.439	.020	.040	.657	.538	.040	.060	.665	.576	.030	.048	.670	.378	.060	.080	**.675**	**.480**	**.005**	**.060**
.648	.144	.020	.040	**.652**	**.453**	**.005**	**.010**	.657	.613	.016	.025	.666	.143	.015	.030	.670	.382	.030	.060	.675	.500	.040	.060
.648	.202	.008	.015	.652	.501	.030	.042	.658	.255	.010	.020	.666	.168	.075	.090	.670	.398	.040	.060	**.675**	**.504**	**.005**	**.010**
.648	.209	.015	.030	.652	.510	.010	.020	.658	.314	.030	.050	.666	.196	.020	.040	.670	.401	.015	.030	.675	.515	.025	.048
.648	.250	.050	.070	.653	.154	.040	.062	.658	.375	.010	.020	.666	.256	.075	.090	**.670**	**.406**	**.005**	**.010**	**.675**	**.582**	**.005**	**.010**
.648	**.266**	**.005**	**.010**	.653	.238	.040	.062	.658	.385	.050	.060	.666	.267	.040	.062	**.670**	**.421**	**.005**	**.010**	.676	.288	.010	.025
.648	.298	.050	.075	.653	.316	.010	.020	**.658**	**.437**	**.005**	**.012**	.666	.430	.020	.030	**.670**	**.439**	**.005**	**.010**	.676	.306	.050	.070
.648	**.382**	**.005**	**.012**	**.653**	**.317**	**.005**	**.010**	.658	.478	.015	.025	.666	.453	.015	.025	.670	.474	.070	.090	.676	.370	.070	.080
.648	.490	.010	.020	.653	.376	.010	.020	.658	.479	.030	.042	.666	.475	.020	.040	.670	.480	.010	.020	**.676**	**.440**	**.005**	**.010**
.648	.493	.015	.030	.653	.392	.050	.090	.658	.511	.030	.070	.666	.478	.030	.050	.670	.481	.040	.060	.676	.500	.025	.042

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
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New tools added continually. Call for sizes not listed — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.676	.515	.020 - .030	**.681**	**.440**	**.005 - .010**	.685	.487	.020 - .030	.687	.432	.050 - .070	.689	.408	.100 - .125	.694	.484	.050 - .070
.676	.565	.020 - .040	.681	.503	.015 - .030	.685	.520	.010 - .020	.687	.433	.050 - .125	**.689**	**.435**	**.005 - .010**	.695	.195	.015 - .025
.677	.168	.020 - .030	**.681**	**.515**	**.005 - .010**	.685	.533	.060 - .083	**.687**	**.438**	**.005 - .020**	**.689**	**.437**	**.005 - .010**	.695	.196	.032 - .062
.677	**.382**	**.005 - .010**	.681	.590	.010 - .020	.685	.568	.030 - .050	.687	.441	.020 - .070	.689	.468	.015 - .125	**.695**	**.264**	**.005 - .012**
.677	**.387**	**.005 - .010**	.682	.129	.015 - .025	.685	.609	.010 - .030	.687	.443	.030 - .125	**.689**	**.471**	**.005 - .010**	.695	.265	.030 - .060
.677	.441	.060 - .080	.682	.333	.070 - .090	.686	.066	.036 - .050	.687	.445	.012 - .020	.689	.472	.030 - .050	**.695**	**.282**	**.005 - .010**
.677	.458	.025 - .040	.682	.351	.050 - .070	**.686**	**.094**	**.005 - .010**	.687	.452	.010 - .020	.689	.493	.040 - .060	.695	.335	.025 - .040
.677	.468	.010 - .020	**.682**	**.365**	**.005 - .010**	.686	.135	.030 - .050	.687	.455	.050 - .100	.689	.494	.050 - .075	.695	.353	.010 - .020
.677	.476	.040 - .060	**.682**	**.395**	**.005 - .010**	.686	.136	.040 - .060	.687	.465	.080 - .100	**.689**	**.500**	**.005 - .010**	.695	.412	.080 - .104
.677	**.523**	**.005 - .010**	.682	.400	.032 - .048	.686	.147	.015 - .025	.687	.468	.040 - .060	.689	.517	.030 - .050	.695	.414	.012 - .025
.677	**.525**	**.005 - .010**	.682	.439	.025 - .040	.686	.159	.080 - .100	.687	.469	.050 - .080	.689	.564	.010 - .030	.695	.486	.060 - .070
.677	**.534**	**.005 - .010**	.682	.440	.020 - .030	**.686**	**.161**	**.005 - .010**	.687	.475	.015 - .030	.689	.565	.010 - .020	.695	.518	.030 - .040
.678	.193	.060 - .090	.682	.472	.062 - .078	.686	.167	.040 - .135	.687	.481	.050 - .070	.689	.577	.030 - .050	**.695**	**.520**	**.005 - .010**
.678	.256	.035 - .060	**.682**	**.486**	**.005 - .010**	.686	.198	.042 - .060	.687	.487	.025 - .040	.690	.076	.010 - .020	**.695**	**.557**	**.005 - .010**
.678	.384	.020 - .032	**.682**	**.503**	**.005 - .010**	.686	.202	.100 - .125	.687	.500	.010 - .050	.690	.149	.050 - .060	.695	.558	.015 - .030
.678	.405	.010 - .030	.682	.578	.015 - .030	.686	.252	.040 - .060	**.687**	**.503**	**.005 - .010**	**.690**	**.167**	**.005 - .010**	.695	.626	.015 - .025
.678	**.440**	**.005 - .010**	.682	.601	.020 - .030	.686	.253	.042 - .062	**.687**	**.506**	**.005 - .010**	.690	.173	.050 - .070	.696	.037	.007 - .015
.678	.442	.012 - .020	.683	.121	.050 - .070	.686	.269	.050 - .072	.687	.510	.050 - .060	.690	.188	.040 - .060	**.696**	**.147**	**.005 - .015**
.678	.449	.040 - .060	.683	.172	.010 - .025	**.686**	**.270**	**.005 - .010**	.687	.511	.020 - .040	.690	.190	.010 - .020	**.696**	**.156**	**.005 - .010**
.678	.504	.015 - .030	.683	.345	.070 - .090	.686	.313	.100 - .120	.687	.513	.042 - .062	.690	.192	.060 - .080	.696	.166	.062 - .090
.678	**.507**	**.005 - .010**	**.683**	**.376**	**.005 - .010**	.686	.345	.060 - .080	.687	.517	.030 - .048	.690	.202	.030 - .050	.696	.178	.062 - .078
.678	**.529**	**.005 - .007**	.683	.378	.015 - .030	.686	.346	.025 - .035	**.687**	**.564**	**.005 - .010**	.690	.206	.050 - .075	.696	.196	.050 - .070
.678	.530	.015 - .030	.683	.379	.040 - .060	.686	.360	.015 - .025	**.687**	**.566**	**.005 - .015**	.690	.220	.020 - .032	.696	.281	.090 - .120
.678	.564	.035 - .050	.683	.396	.070 - .090	.686	.377	.060 - .080	**.687**	**.603**	**.005 - .010**	.690	.250	.125 - .135	.696	.458	.025 - .042
.678	.568	.010 - .020	.683	.400	.032 - .042	.686	.379	.025 - .040	.688	.130	.050 - .060	.690	.254	.050 - .070	**.696**	**.498**	**.005 - .010**
.678	**.591**	**.005 - .010**	.683	.406	.040 - .105	.686	.381	.080 - .105	.688	.168	.050 - .060	.690	.264	.105 - .125	.696	.531	.015 - .030
.678	**.593**	**.005 - .010**	.683	.440	.015 - .030	.686	.385	.048 - .062	.688	.205	.025 - .040	.690	.265	.100 - .125	.697	.313	.090 - .110
.678	**.606**	**.005 - .010**	.683	.478	.025 - .035	.686	.390	.048 - .062	.688	.206	.040 - .060	.690	.280	.050 - .075	.697	.532	.025 - .040
.679	.111	.048 - .062	.683	.488	.080 - .104	.686	.392	.050 - .062	.688	.216	.050 - .070	.690	.281	.050 - .070	**.698**	**.231**	**.005 - .010**
.679	.206	.035 - .060	.683	.505	.050 - .070	.686	.395	.010 - .020	.688	.253	.010 - .020	.690	.317	.080 - .100	**.698**	**.361**	**.005 - .010**
.679	.221	.010 - .015	.683	.510	.030 - .062	**.686**	**.398**	**.005 - .010**	.688	.259	.040 - .060	.690	.323	.020 - .070	**.698**	**.477**	**.005 - .010**
.679	.395	.030 - .050	.683	.570	.040 - .050	**.686**	**.421**	**.005 - .125**	**.688**	**.263**	**.005 - .125**	.690	.330	.105 - .135	**.698**	**.500**	**.005 - .010**
.679	.396	.015 - .030	.683	.575	.040 - .060	.686	.437	.015 - .030	.688	.263	.126 - .190	.690	.336	.060 - .075	.698	.506	.010 - .020
.679	.403	.050 - .075	.683	.579	.015 - .025	.686	.438	.050 - .075	**.688**	**.284**	**.005 - .010**	.690	.343	.050 - .070	**.698**	**.527**	**.005 - .010**
.679	.409	.040 - .050	.684	.234	.062 - .078	.686	.483	.050 - .075	.688	.311	.010 - .040	.690	.344	.100 - .120	.698	.541	.025 - .040
.679	**.411**	**.005 - .010**	.684	.247	.050 - .075	.686	.500	.030 - .070	.688	.313	.020 - .140	**.690**	**.354**	**.005 - .010**	.698	.542	.030 - .060
.679	.441	.030 - .050	**.684**	**.279**	**.005 - .010**	.686	.502	.025 - .042	**.688**	**.316**	**.005 - .010**	**.690**	**.365**	**.005 - .010**	.698	.564	.010 - .020
.679	**.451**	**.005 - .010**	**.684**	**.303**	**.005 - .010**	**.686**	**.512**	**.005 - .010**	**.688**	**.317**	**.005 - .010**	.690	.376	.010 - .030	**.698**	**.602**	**.005 - .010**
.679	.457	.030 - .060	.684	.323	.020 - .040	.686	.520	.015 - .030	.688	.326	.015 - .030	.690	.385	.090 - .104	**.698**	**.626**	**.005 - .010**
.679	.482	.015 - .062	**.684**	**.399**	**.005 - .010**	**.686**	**.528**	**.005 - .010**	.688	.328	.080 - .105	.690	.436	.100 - .125	.699	.070	.040 - .060
.679	.501	.015 - .030	.684	.400	.015 - .030	.686	.625	.015 - .030	.688	.330	.030 - .050	.690	.475	.030 - .050	.699	.076	.015 - .025
.679	**.509**	**.005 - .010**	.684	.412	.100 - .125	.687	.119	.015 - .030	**.688**	**.334**	**.005 - .010**	.690	.494	.075 - .090	.699	.201	.040 - .060
.680	**.163**	**.005 - .010**	**.684**	**.443**	**.005 - .012**	.687	.187	.030 - .050	.688	.343	.070 - .090	.690	.503	.050 - .070	.699	.210	.060 - .080
.680	.200	.032 - .050	.684	.466	.090 - .100	.687	.189	.010 - .060	.688	.344	.070 - .090	.690	.530	.040 - .060	**.699**	**.376**	**.005 - .010**
.680	**.239**	**.005 - .010**	.684	.510	.050 - .070	**.687**	**.191**	**.005 - .010**	**.688**	**.349**	**.005 - .010**	.690	.533	.072 - .090	**.699**	**.380**	**.005 - .010**
.680	**.253**	**.005 - .030**	.684	.542	.035 - .050	.687	.194	.125 - .156	.688	.350	.050 - .070	**.690**	**.542**	**.005 - .010**	**.699**	**.483**	**.005 - .010**
.680	.256	.040 - .060	.684	.568	.025 - .045	.687	.198	.090 - .105	.688	.352	.050 - .070	.690	.566	.030 - .050	.699	.500	.010 - .020
.680	**.262**	**.005 - .010**	.684	.581	.015 - .025	.687	.199	.015 - .020	**.688**	**.376**	**.005 - .042**	.690	.569	.010 - .020	**.699**	**.502**	**.005 - .010**
.680	.270	.015 - .035	.684	.593	.030 - .040	.687	.200	.032 - .042	.688	.378	.050 - .075	.690	.575	.010 - .020	.699	.503	.070 - .090
.680	.283	.080 - .105	.684	.613	.015 - .030	.687	.219	.036 - .050	.688	.384	.050 - .070	.690	.615	.020 - .030	.699	.514	.060 - .080
.680	.300	.032 - .050	.685	.143	.040 - .060	.687	.221	.020 - .062	.688	.386	.050 - .070	.690	.625	.010 - .020	.699	.562	.040 - .060
.680	.316	.048 - .062	.685	.158	.060 - .083	**.687**	**.234**	**.005 - .010**	.688	.391	.105 - .125	**.690**	**.639**	**.005 - .010**	.700	.076	.010 - .020
.680	.317	.030 - .040	**.685**	**.225**	**.005 - .010**	**.687**	**.237**	**.005 - .010**	.688	.393	.075 - .090	.691	.163	.025 - .040	**.700**	**.077**	**.005 - .010**
.680	**.325**	**.005 - .050**	.685	.233	.010 - .020	.687	.257	.080 - .090	**.688**	**.407**	**.005 - .010**	.691	.189	.050 - .070	**.700**	**.093**	**.005 - .010**
.680	.326	.070 - .090	.685	.254	.010 - .075	**.687**	**.259**	**.005 - .010**	.688	.452	.030 - .050	.691	.192	.020 - .040	.700	.096	.050 - .062
.680	.330	.015 - .030	.685	.263	.010 - .015	.687	.267	.030 - .048	.688	.464	.080 - .100	.691	.194	.015 - .030	.700	.120	.070 - .090
.680	.369	.050 - .075	**.685**	**.264**	**.005 - .010**	.687	.296	.050 - .075	.688	.468	.020 - .040	**.691**	**.203**	**.005 - .010**	.700	.138	.010 - .020
.680	.375	.040 - .060	.685	.269	.050 - .070	.687	.306	.040 - .060	.688	.469	.015 - .030	.691	.238	.030 - .050	.700	.159	.040 - .060
.680	**.422**	**.005 - .015**	.685	.325	.090 - .120	.687	.312	.120 - .156	.688	.505	.060 - .080	.691	.258	.060 - .080	.700	.164	.010 - .020
.680	.442	.040 - .060	.685	.344	.040 - .060	.687	.316	.036 - .048	.688	.513	.050 - .075	.691	.475	.030 - .060	.700	.168	.050 - .070
.680	**.445**	**.005 - .010**	.685	.346	.070 - .105	.687	.323	.048 - .062	**.688**	**.518**	**.005 - .010**	**.691**	**.485**	**.005 - .010**	.700	.169	.040 - .060
.680	.447	.010 - .020	.685	.366	.105 - .125	**.687**	**.328**	**.005 - .012**	.688	.538	.015 - .040	.691	.511	.020 - .030	**.700**	**.176**	**.005 - .010**
.680	**.470**	**.005 - .010**	.685	.371	.100 - .125	.687	.330	.050 - .075	**.688**	**.563**	**.005 - .010**	.691	.515	.015 - .030	**.700**	**.193**	**.005 - .010**
.680	.476	.030 - .050	.685	.375	.032 - .062	.687	.339	.050 - .070	.688	.615	.015 - .030	**.691**	**.598**	**.005 - .010**	.700	.210	.050 - .070
.680	.485	.050 - .060	.685	.376	.100 - .125	**.687**	**.343**	**.005 - .010**	.689	.156	.040 - .060	.692	.286	.042 - .062	.700	.221	.075 - .090
.680	.500	.032 - .050	.685	.378	.080 - .100	.687	.350	.050 - .075	.689	.162	.100 - .120	.692	.406	.020 - .040	.700	.250	.070 - .090
.680	.504	.020 - .040	.685	.379	.010 - .048	.687	.359	.025 - .048	.689	.222	.090 - .120	**.692**	**.519**	**.005 - .010**	.700	.252	.010 - .020
.680	.514	.020 - .040	.685	.380	.025 - .060	.687	.371	.100 - .125	**.689**	**.249**	**.005 - .010**	.692	.603	.015 - .030	**.700**	**.253**	**.005 - .010**
.680	.524	.030 - .050	.685	.391	.090 - .110	.687	.376	.010 - .020	**.689**	**.273**	**.005 - .010**	**.693**	**.119**	**.005 - .012**	.700	.256	.040 - .060
.680	**.540**	**.005 - .010**	.685	.392	.090 - .110	.687	.378	.010 - .020	.689	.281	.050 - .070	**.693**	**.236**	**.005 - .010**	.700	.272	.060 - .080
.680	**.559**	**.005 - .010**	.685	.400	.105 - .125	**.687**	**.379**	**.005 - .010**	.689	.313	.020 - .040	**.693**	**.320**	**.005 - .010**	**.700**	**.291**	**.005 - .010**
.680	.564	.030 - .050	.685	.410	.060 - .078	.687	.380	.025 - .040	.689	.319	.025 - .040	.693	.396	.050 - .075	.700	.313	.010 - .020
.680	**.565**	**.005 - .050**	.685	.423	.100 - .125	.687	.384	.010 - .040	**.689**	**.320**	**.005 - .010**	.693	.410	.025 - .040	**.700**	**.317**	**.005 - .020**
.680	**.597**	**.005 - .010**	.685	.427	.032 - .042	**.687**	**.385**	**.005 - .010**	.689	.325	.040 - .060	.693	.438	.020 - .030	**.700**	**.320**	**.005 - .010**
.681	.190	.030 - .050	**.685**	**.441**	**.005 - .010**	.687	.386	.070 - .090	.689	.345	.040 - .060	**.693**	**.443**	**.005 - .010**	.700	.327	.015 - .020
.681	.251	.050 - .070	.685	.450	.008 - .020	**.687**	**.393**	**.005 - .015**	.689	.375	.010 - .020	.693	.539	.050 - .070	.700	.328	.010 - .025
.681	.264	.030 - .050	.685	.470	.050 - .070	.687	.397	.050 - .075	.689	.377	.050 - .070	.694	.275	.020 - .040	.700	.330	.100 - .125
.681	**.391**	**.005 - .010**	.685	.473	.060 - .080	.687	.406	.040 - .050	**.689**	**.398**	**.005 - .010**	.694	.370	.010 - .020	.700	.337	.050 - .070
.681	**.395**	**.005 - .050**	.685	.475	.020 - .040	.687	.407	.060 - .070	.689	.401	.015 - .030	.694	.379	.060 - .070	.700	.344	.007 - .020
.681	.401	.020 - .040	.685	.478	.015 - .030	.687	.416	.050 - .060	.689	.402	.032 - .048	.694	.478	.060 - .070	**.700**	**.356**	**.005 - .010**

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For non-metallic materials, contact BOKER'S — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.700	.357	.010 - .020	.702	.327	.105 - .125	.708	.293	.050 - .070	.710	.330	.010 - .020	.717	.290	.030 - .050	.720	.594	.050 - .075
.700	.358	.040 - .060	.702	.401	.025 - .040	**.708**	**.305**	**.005 - .010**	.710	.342	.020 - .030	.717	.293	.010 - .020	**.720**	**.612**	**.005 - .010**
.700	.360	.030 - .050	.702	.437	.090 - .105	**.708**	**.315**	**.005 - .010**	.710	.354	.008 - .020	.717	.318	.025 - .040	**.720**	**.621**	**.005 - .010**
.700	.366	.090 - .105	.702	.487	.050 - .070	**.708**	**.319**	**.005 - .070**	.710	.376	.020 - .040	.717	.322	.032 - .050	**.720**	**.639**	**.005 - .010**
.700	.376	.010 - .020	.702	.504	.012 - .025	**.708**	**.322**	**.005 - .010**	.710	.413	.050 - .072	.717	.438	.030 - .050	.720	.642	.030 - .040
.700	.377	.020 - .040	**.702**	**.505**	**.005 - .010**	.708	.335	.020 - .030	**.710**	**.454**	**.005 - .010**	.717	.440	.080 - .100	.721	.250	.050 - .075
.700	**.378**	**.005 - .030**	.702	.516	.050 - .075	**.708**	**.338**	**.005 - .010**	.710	.473	.010 - .020	**.717**	**.447**	**.005 - .010**	.721	.318	.030 - .042
.700	.380	.040 - .060	.702	.561	.015 - .030	.708	.339	.040 - .060	**.710**	**.474**	**.005 - .010**	.717	.473	.015 - .030	.721	.404	.062 - .078
.700	**.381**	**.005 - .010**	.702	.595	.025 - .040	**.708**	**.341**	**.005 - .010**	.710	.475	.015 - .030	.717	.476	.025 - .040	**.721**	**.423**	**.005 - .010**
.700	.383	.040 - .060	.703	.119	.030 - .050	**.708**	**.347**	**.005 - .010**	.710	.497	.030 - .050	**.717**	**.478**	**.005 - .010**	.721	.530	.010 - .020
.700	.385	.090 - .105	.703	.206	.025 - .040	.708	.354	.050 - .060	.710	.505	.050 - .070	.717	.515	.050 - .075	.721	.594	.016 - .025
.700	.392	.010 - .020	**.703**	**.263**	**.005 - .010**	.708	.372	.010 - .020	.710	.507	.020 - .035	**.717**	**.548**	**.005 - .010**	.721	.601	.020 - .040
.700	.394	.135 - .156	.703	.409	.010 - .020	**.708**	**.375**	**.005 - .010**	**.710**	**.525**	**.005 - .010**	**.717**	**.628**	**.005 - .010**	**.722**	**.186**	**.005 - .010**
.700	**.397**	**.005 - .010**	**.703**	**.443**	**.005 - .010**	**.708**	**.393**	**.005 - .020**	.710	.526	.010 - .025	.718	.131	.030 - .050	.722	.221	.080 - .100
.700	.405	.120 - .134	.703	.480	.030 - .050	.708	.394	.050 - .070	.710	.530	.070 - .090	.718	.160	.048 - .062	.722	.233	.050 - .070
.700	.406	.050 - .150	.703	.482	.050 - .070	.708	.395	.010 - .020	.710	.533	.050 - .070	.718	.189	.015 - .030	.722	.265	.050 - .075
.700	**.411**	**.005 - .060**	.703	.487	.040 - .050	.708	.404	.050 - .070	.710	.575	.040 - .060	**.718**	**.205**	**.005 - .010**	**.722**	**.268**	**.005 - .010**
.700	**.417**	**.005 - .020**	.703	.516	.020 - .040	.708	.413	.080 - .100	.710	.578	.040 - .060	.718	.213	.015 - .030	.722	.314	.050 - .075
.700	**.435**	**.005 - .010**	.703	.525	.030 - .050	.708	.415	.025 - .040	**.710**	**.589**	**.005 - .030**	.718	.252	.010 - .025	.722	.320	.050 - .080
.700	**.437**	**.005 - .010**	.703	.540	.040 - .060	.708	.478	.080 - .090	**.710**	**.620**	**.005 - .010**	.718	.257	.025 - .040	.722	.324	.030 - .050
.700	**.441**	**.005 - .020**	.703	.635	.010 - .020	**.708**	**.512**	**.005 - .040**	**.711**	**.160**	**.005 - .040**	.718	.262	.020 - .040	.722	.376	.100 - .125
.700	.443	.105 - .125	.704	.078	.040 - .060	.708	.550	.020 - .036	**.711**	**.168**	**.005 - .010**	.718	.282	.062 - .083	.722	.481	.050 - .060
.700	.446	.010 - .020	.704	.259	.050 - .070	.708	.551	.045 - .060	**.711**	**.320**	**.005 - .010**	.718	.313	.015 - .030	.722	.500	.072 - .090
.700	**.450**	**.005 - .080**	.704	.264	.060 - .080	.708	.575	.010 - .025	.711	.407	.020 - .050	**.718**	**.353**	**.005 - .010**	.722	.515	.010 - .020
.700	**.455**	**.005 - .010**	.704	.268	.060 - .090	**.708**	**.630**	**.005 - .010**	.711	.485	.040 - .060	.718	.375	.030 - .060	.722	.540	.078 - .090
.700	.456	.030 - .050	.704	.343	.060 - .080	**.708**	**.632**	**.005 - .010**	.711	.486	.040 - .060	.718	.378	.025 - .050	.722	.636	.010 - .020
.700	.465	.020 - .040	.704	.366	.010 - .040	.708	.636	.015 - .030	.711	.526	.015 - .025	**.718**	**.380**	**.005 - .090**	**.723**	**.221**	**.005 - .040**
.700	**.473**	**.005 - .010**	.704	.475	.010 - .025	**.708**	**.637**	**.005 - .020**	.712	.177	.020 - .032	.718	.395	.010 - .020	.723	.314	.040 - .060
.700	**.476**	**.005 - .010**	.704	.478	.040 - .060	**.708**	**.641**	**.005 - .010**	**.712**	**.200**	**.005 - .015**	**.718**	**.398**	**.005 - .010**	.723	.382	.030 - .060
.700	.478	.070 - .080	.704	.480	.015 - .030	**.709**	**.145**	**.005 - .010**	**.712**	**.234**	**.005 - .010**	**.718**	**.406**	**.005 - .010**	**.723**	**.632**	**.005 - .010**
.700	**.500**	**.005 - .010**	.704	.497	.020 - .035	.709	.149	.030 - .060	**.712**	**.236**	**.005 - .010**	.718	.408	.030 - .050	.723	.637	.010 - .020
.700	.501	.070 - .090	.704	.503	.060 - .100	**.709**	**.177**	**.005 - .010**	.712	.246	.080 - .105	.718	.418	.015 - .030	.724	.173	.030 - .050
.700	.502	.010 - .100	.704	.532	.030 - .050	.709	.181	.060 - .080	**.712**	**.252**	**.005 - .010**	.718	.438	.090 - .125	.724	.201	.020 - .040
.700	**.504**	**.005 - .030**	**.704**	**.553**	**.005 - .010**	**.709**	**.239**	**.005 - .020**	**.712**	**.505**	**.005 - .010**	**.718**	**.464**	**.005 - .010**	.724	.382	.020 - .040
.700	.506	.015 - .042	.704	.600	.020 - .040	**.709**	**.243**	**.005 - .010**	.712	.525	.040 - .060	.718	.465	.060 - .070	.724	.508	.025 - .040
.700	.510	.010 - .025	**.704**	**.626**	**.005 - .010**	.709	.253	.160 - .180	.712	.530	.030 - .050	**.718**	**.487**	**.005 - .010**	.724	.519	.020 - .040
.700	.511	.020 - .040	**.705**	**.085**	**.005 - .012**	.709	.259	.040 - .060	.712	.567	.015 - .030	.718	.518	.020 - .040	**.724**	**.570**	**.005 - .010**
.700	.514	.020 - .060	**.705**	**.098**	**.005 - .010**	**.709**	**.313**	**.005 - .110**	**.712**	**.646**	**.005 - .010**	**.718**	**.562**	**.005 - .040**	.725	.089	.062 - .078
.700	.530	.070 - .080	.705	.253	.050 - .072	**.709**	**.314**	**.005 - .010**	.713	.116	.050 - .070	**.718**	**.585**	**.005 - .010**	.725	.128	.040 - .060
.700	.531	.020 - .040	.705	.265	.020 - .040	**.709**	**.316**	**.005 - .030**	.713	.199	.015 - .030	.718	.593	.015 - .020	.725	.160	.020 - .040
.700	**.532**	**.005 - .010**	**.705**	**.274**	**.005 - .010**	**.709**	**.317**	**.005 - .010**	.713	.206	.080 - .100	**.718**	**.595**	**.005 - .010**	.725	.187	.060 - .090
.700	.533	.030 - .050	**.705**	**.311**	**.005 - .010**	**.709**	**.320**	**.005 - .010**	.713	.400	.015 - .025	.718	.600	.045 - .060	.725	.251	.015 - .030
.700	.535	.040 - .050	**.705**	**.312**	**.005 - .010**	**.709**	**.321**	**.005 - .100**	**.713**	**.410**	**.005 - .010**	.718	.638	.006 - .030	.725	.296	.100 - .125
.700	**.550**	**.005 - .010**	**.705**	**.317**	**.005 - .010**	**.709**	**.322**	**.005 - .010**	.713	.437	.060 - .075	.719	.132	.030 - .050	**.725**	**.339**	**.005 - .030**
.700	.555	.015 - .030	.705	.361	.105 - .125	.709	.327	.040 - .060	.713	.540	.040 - .060	.719	.196	.040 - .060	**.725**	**.346**	**.005 - .010**
.700	**.560**	**.005 - .030**	.705	.383	.010 - .020	.709	.347	.050 - .070	.713	.595	.010 - .020	.719	.198	.015 - .030	.725	.458	.010 - .020
.700	.564	.025 - .072	**.705**	**.438**	**.005 - .010**	.709	.352	.015 - .030	**.713**	**.672**	**.005 - .010**	**.719**	**.237**	**.005 - .010**	.725	.540	.050 - .070
.700	.565	.010 - .060	.705	.516	.025 - .040	**.709**	**.386**	**.005 - .010**	.714	.101	.020 - .030	.719	.240	.015 - .030	.725	.548	.020 - .040
.700	.566	.015 - .032	**.705**	**.531**	**.005 - .010**	.709	.392	.010 - .020	.714	.111	.020 - .030	.719	.254	.008 - .016	.726	.183	.050 - .070
.700	**.578**	**.005 - .010**	.705	.550	.030 - .050	.709	.394	.010 - .050	.714	.118	.020 - .030	.719	.324	.015 - .030	.726	.304	.010 - .020
.700	**.585**	**.005 - .010**	.705	.634	.015 - .025	**.709**	**.395**	**.005 - .020**	.714	.125	.020 - .030	.719	.329	.080 - .100	.726	.315	.020 - .030
.700	.600	.010 - .020	.706	.254	.030 - .050	**.709**	**.397**	**.005 - .020**	.714	.140	.020 - .030	.719	.374	.010 - .015	**.726**	**.325**	**.005 - .010**
.700	**.608**	**.005 - .010**	**.706**	**.347**	**.005 - .010**	.709	.399	.010 - .020	**.714**	**.182**	**.005 - .010**	**.719**	**.378**	**.005 - .010**	**.726**	**.343**	**.005 - .010**
.700	.610	.015 - .030	.706	.395	.062 - .083	**.709**	**.437**	**.005 - .050**	.714	.223	.050 - .070	.719	.380	.070 - .090	.726	.375	.105 - .125
.700	**.615**	**.005 - .010**	.706	.398	.050 - .070	.709	.455	.090 - .105	.714	.299	.020 - .030	.719	.395	.040 - .060	**.726**	**.388**	**.005 - .010**
.700	**.631**	**.005 - .010**	**.706**	**.402**	**.005 - .010**	**.709**	**.472**	**.005 - .050**	.714	.390	.048 - .072	.719	.439	.080 - .105	.726	.406	.030 - .050
.700	**.651**	**.005 - .010**	**.706**	**.420**	**.005 - .010**	.709	.474	.010 - .020	.714	.414	.040 - .060	.719	.441	.070 - .090	.726	.439	.020 - .040
.701	.130	.060 - .080	.706	.434	.025 - .040	.709	.475	.040 - .060	.714	.555	.050 - .075	.719	.453	.050 - .070	.726	.485	.015 - .030
.701	.153	.048 - .090	.706	.453	.032 - .042	**.709**	**.476**	**.005 - .010**	.715	.198	.030 - .078	.719	.468	.020 - .040	**.726**	**.632**	**.005 - .010**
.701	**.168**	**.005 - .010**	.706	.478	.040 - .060	.709	.482	.070 - .090	.715	.199	.060 - .083	.719	.543	.040 - .060	.727	.257	.020 - .040
.701	.193	.040 - .060	.706	.500	.075 - .100	**.709**	**.483**	**.005 - .010**	.715	.315	.090 - .104	.719	.555	.040 - .060	**.727**	**.397**	**.005 - .010**
.701	.204	.050 - .070	.706	.505	.010 - .060	.709	.492	.030 - .050	**.715**	**.330**	**.005 - .012**	.720	.254	.020 - .035	**.727**	**.448**	**.005 - .010**
.701	.224	.040 - .060	.707	.315	.100 - .125	.709	.503	.080 - .105	.715	.366	.020 - .040	**.720**	**.259**	**.005 - .010**	.727	.480	.040 - .050
.701	.241	.050 - .070	**.707**	**.316**	**.005 - .125**	**.709**	**.550**	**.005 - .010**	**.715**	**.379**	**.005 - .010**	.720	.281	.156 - .187	.727	.500	.015 - .030
.701	.257	.050 - .100	**.707**	**.320**	**.005 - .010**	.709	.592	.030 - .050	.715	.437	.008 - .012	**.720**	**.315**	**.005 - .010**	.727	.512	.010 - .020
.701	**.259**	**.005 - .010**	.707	.335	.020 - .040	.709	.596	.020 - .040	.715	.440	.090 - .100	.720	.321	.050 - .075	.727	.570	.040 - .060
.701	.321	.125 - .135	**.707**	**.436**	**.005 - .010**	**.710**	**.133**	**.005 - .010**	.715	.470	.060 - .105	.720	.341	.090 - .105	.727	.576	.015 - .035
.701	**.410**	**.005 - .010**	.707	.472	.015 - .030	.710	.201	.050 - .070	.715	.474	.030 - .060	.720	.360	.020 - .030	.727	.586	.015 - .030
.701	.419	.050 - .070	**.707**	**.480**	**.005 - .010**	.710	.211	.070 - .090	.715	.481	.025 - .040	.720	.380	.020 - .040	.728	.174	.020 - .040
.701	.425	.050 - .070	.708	.120	.072 - .120	**.710**	**.236**	**.005 - .010**	.715	.500	.020 - .035	**.720**	**.401**	**.005 - .015**	.728	.219	.010 - .020
.701	.438	.040 - .060	.708	.136	.040 - .060	**.710**	**.238**	**.005 - .010**	.715	.526	.015 - .025	.720	.446	.025 - .040	**.728**	**.251**	**.005 - .010**
.701	.500	.010 - .060	.708	.170	.040 - .060	.710	.252	.008 - .016	.715	.535	.025 - .040	.720	.455	.105 - .125	.728	.253	.025 - .040
.701	.521	.080 - .100	**.708**	**.218**	**.005 - .030**	**.710**	**.278**	**.005 - .010**	.716	.230	.015 - .030	.720	.463	.080 - .104	.728	.259	.025 - .040
.701	.549	.020 - .030	.708	.236	.030 - .050	**.710**	**.279**	**.005 - .010**	.716	.264	.020 - .040	**.720**	**.473**	**.005 - .010**	.728	.291	.025 - .040
.701	.561	.010 - .020	**.708**	**.238**	**.005 - .010**	.710	.288	.015 - .125	.716	.405	.025 - .042	.720	.476	.070 - .090	.728	.292	.025 - .042
.701	.614	.015 - .030	.708	.239	.030 - .050	.710	.301	.010 - .020	.716	.474	.030 - .050	.720	.502	.015 - .020	.728	.328	.025 - .040
.702	.261	.100 - .120	.708	.253	.040 - .060	.710	.308	.100 - .120	.716	.515	.040 - .062	**.720**	**.550**	**.005 - .010**	.728	.375	.060 - .090
.702	.312	.010 - .020	.708	.257	.050 - .070	**.710**	**.315**	**.005 - .010**	.716	.624	.030 - .048	.720	.564	.020 - .032	.728	.395	.010 - .020
.702	.319	.020 - .030	.708	.271	.105 - .120	**.710**	**.317**	**.005 - .010**	.717	.187	.010 - .020	.720	.566	.015 - .030	.728	.403	.010 - .020
.702	**.325**	**.005 - .010**	.708	.279	.060 - .080	.710	.318	.010 - .015	.717	.223	.050 - .070	.720	.568	.015 - .030	**.728**	**.440**	**.005 - .010**

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Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

Need Disks? All O.D. sizes available with no I.D. — (800) 927-4377, Fax (800) 321-3462.

BOKER'S METAL WASHERS ARE FLAT AND TUMBLE DEBURRED

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.728	.454	.015 - .025	.735	.321	.030 - .060	.740	.439	.005 - .010	.744	.500	.005 - .012	.746	.634	.010 - .020	.748	.634	.005 - .030
.728	.473	.025 - .042	.735	.346	.050 - .080	.740	.440	.010 - .020	.744	.504	.005 - .010	.746	.670	.005 - .010	.748	.635	.015 - .025
.728	.500	.005 - .015	.735	.369	.060 - .080	.740	.453	.020 - .040	.744	.507	.040 - .075	.747	.131	.025 - .040	.748	.644	.025 - .040
.728	.532	.020 - .040	.735	.380	.105 - .156	.740	.489	.005 - .080	.744	.525	.040 - .050	.747	.143	.030 - .050	.748	.670	.005 - .015
.728	.545	.015 - .030	.735	.385	.020 - .030	.740	.501	.008 - .015	.744	.532	.010 - .020	.747	.214	.065 - .080	.748	.693	.005 - .010
.728	.574	.005 - .010	.735	.393	.005 - .110	.740	.502	.080 - .100	.744	.561	.005 - .010	.747	.235	.005 - .010	.749	.064	.030 - .050
.728	.631	.012 - .020	.735	.401	.015 - .025	.740	.510	.040 - .060	.744	.599	.005 - .012	.747	.261	.015 - .025	.749	.087	.015 - .030
.728	.632	.005 - .010	.735	.412	.005 - .010	.740	.571	.005 - .010	.745	.095	.005 - .010	.747	.268	.005 - .010	.749	.160	.008 - .016
.729	.219	.010 - .020	.735	.451	.050 - .070	.740	.603	.005 - .010	.745	.120	.015 - .040	.747	.315	.005 - .010	.749	.161	.060 - .090
.729	.379	.005 - .010	.735	.454	.100 - .130	.740	.626	.005 - .010	.745	.126	.032 - .050	.747	.316	.030 - .040	.749	.181	.060 - .090
.729	.382	.135 - .156	.735	.500	.020 - .070	.740	.628	.005 - .010	.745	.143	.035 - .055	.747	.317	.040 - .060	.749	.190	.010 - .020
.729	.397	.025 - .040	.735	.560	.060 - .080	.740	.631	.005 - .010	.745	.184	.010 - .020	.747	.324	.020 - .030	.749	.194	.090 - .125
.729	.500	.005 - .010	.735	.627	.040 - .060	.740	.659	.005 - .010	.745	.190	.040 - .060	.747	.376	.010 - .020	.749	.200	.020 - .042
.729	.513	.007 - .016	.736	.118	.015 - .030	.740	.660	.020 - .030	.745	.191	.025 - .035	.747	.377	.010 - .015	.749	.203	.125 - .156
.729	.552	.060 - .080	.736	.159	.040 - .050	.740	.691	.005 - .010	.745	.193	.020 - .060	.747	.380	.008 - .016	.749	.204	.005 - .060
.730	.238	.060 - .080	.736	.160	.030 - .050	.740	.696	.010 - .020	.745	.200	.050 - .070	.747	.395	.010 - .020	.749	.220	.105 - .135
.730	.280	.010 - .020	.736	.268	.042 - .060	.741	.201	.015 - .025	.745	.214	.015 - .030	.747	.397	.105 - .125	.749	.221	.040 - .060
.730	.287	.050 - .075	.736	.310	.048 - .070	.741	.203	.060 - .080	.745	.234	.040 - .060	.747	.468	.030 - .050	.749	.229	.160 - .187
.730	.401	.005 - .010	.736	.313	.040 - .060	.741	.261	.156 - .187	.745	.244	.005 - .010	.747	.475	.008 - .012	.749	.237	.005 - .010
.730	.415	.005 - .010	.736	.318	.015 - .030	.741	.291	.015 - .025	.745	.255	.032 - .050	.747	.478	.005 - .015	.749	.238	.010 - .020
.730	.433	.025 - .040	.736	.380	.020 - .030	.741	.296	.015 - .030	.745	.265	.050 - .125	.747	.491	.005 - .010	.749	.252	.025 - .040
.730	.460	.010 - .020	.736	.386	.040 - .060	.741	.322	.050 - .075	.745	.316	.060 - .070	.747	.508	.100 - .125	.749	.257	.072 - .120
.730	.475	.020 - .040	.736	.467	.005 - .010	.741	.378	.050 - .080	.745	.317	.105 - .135	.747	.510	.015 - .030	.749	.258	.030 - .040
.730	.480	.050 - .070	.736	.504	.007 - .016	.741	.395	.025 - .040	.745	.320	.080 - .105	.747	.517	.010 - .020	.749	.263	.030 - .050
.730	.486	.020 - .040	.736	.516	.030 - .050	.741	.412	.080 - .105	.745	.330	.015 - .030	.747	.561	.010 - .025	.749	.268	.060 - .090
.730	.492	.030 - .050	.736	.565	.005 - .010	.741	.505	.060 - .083	.745	.389	.050 - .070	.747	.566	.050 - .070	.749	.272	.005 - .010
.730	.506	.040 - .060	.736	.578	.015 - .025	.741	.515	.040 - .060	.745	.403	.050 - .060	.747	.618	.005 - .010	.749	.286	.105 - .120
.730	.519	.050 - .070	.736	.595	.040 - .062	.741	.529	.010 - .020	.745	.422	.090 - .100	.747	.628	.005 - .010	.749	.313	.005 - .040
.730	.526	.005 - .010	.736	.601	.015 - .030	.741	.531	.050 - .070	.745	.438	.020 - .036	.747	.651	.005 - .010	.749	.315	.005 - .010
.730	.571	.005 - .010	.736	.633	.015 - .030	.741	.563	.030 - .050	.745	.451	.010 - .020	.747	.691	.015 - .025	.749	.316	.005 - .010
.730	.615	.020 - .030	.737	.318	.015 - .025	.741	.570	.020 - .040	.745	.455	.032 - .050	.748	.066	.015 - .030	.749	.322	.005 - .010
.730	.630	.030 - .042	.737	.330	.040 - .060	.741	.640	.005 - .010	.745	.468	.005 - .012	.748	.136	.031 - .042	.749	.323	.105 - .125
.731	.206	.030 - .050	.737	.364	.005 - .010	.741	.690	.005 - .010	.745	.509	.005 - .010	.748	.139	.020 - .042	.749	.330	.060 - .090
.731	.410	.070 - .090	.737	.419	.030 - .060	.742	.149	.005 - .010	.745	.510	.020 - .040	.748	.147	.062 - .075	.749	.347	.020 - .035
.731	.416	.005 - .080	.737	.436	.040 - .050	.742	.226	.075 - .100	.745	.541	.010 - .025	.748	.173	.032 - .050	.749	.350	.005 - .010
.731	.426	.010 - .020	.737	.503	.060 - .083	.742	.251	.040 - .060	.745	.558	.010 - .020	.748	.180	.008 - .016	.749	.351	.005 - .010
.731	.433	.030 - .050	.737	.505	.005 - .070	.742	.346	.020 - .030	.745	.560	.005 - .010	.748	.201	.060 - .090	.749	.364	.005 - .010
.731	.453	.100 - .120	.737	.537	.030 - .050	.742	.360	.050 - .060	.745	.562	.020 - .030	.748	.237	.005 - .010	.749	.375	.025 - .040
.731	.482	.020 - .040	.737	.546	.005 - .010	.742	.378	.080 - .104	.745	.571	.005 - .010	.748	.238	.005 - .010	.749	.379	.036 - .060
.731	.564	.005 - .010	.737	.550	.025 - .040	.742	.380	.030 - .050	.745	.576	.042 - .060	.748	.239	.050 - .070	.749	.386	.005 - .010
.731	.585	.005 - .010	.738	.342	.042 - .060	.742	.387	.100 - .135	.745	.591	.030 - .050	.748	.241	.040 - .060	.749	.387	.005 - .010
.732	.043	.010 - .020	.738	.346	.005 - .010	.742	.389	.042 - .062	.745	.599	.005 - .010	.748	.249	.050 - .075	.749	.395	.005 - .010
.732	.159	.070 - .090	.738	.511	.015 - .030	.742	.426	.050 - .070	.745	.605	.005 - .010	.748	.252	.005 - .010	.749	.397	.015 - .025
.732	.163	.015 - .030	.738	.538	.015 - .030	.742	.443	.025 - .060	.745	.626	.040 - .060	.748	.254	.060 - .090	.749	.402	.100 - .120
.732	.165	.005 - .010	.738	.540	.015 - .025	.742	.466	.060 - .075	.745	.661	.010 - .015	.748	.255	.005 - .010	.749	.403	.005 - .008
.732	.199	.042 - .080	.738	.544	.005 - .010	.742	.474	.080 - .100	.745	.693	.010 - .020	.748	.259	.008 - .016	.749	.408	.005 - .010
.732	.253	.010 - .015	.738	.594	.015 - .030	.742	.502	.060 - .070	.746	.100	.032 - .050	.748	.315	.005 - .010	.749	.424	.040 - .060
.732	.263	.040 - .062	.738	.595	.005 - .010	.742	.517	.005 - .030	.746	.125	.015 - .030	.748	.316	.005 - .125	.749	.437	.042 - .060
.732	.281	.050 - .075	.739	.222	.040 - .060	.742	.566	.025 - .040	.746	.166	.050 - .075	.748	.316	.126 - .190	.749	.438	.010 - .020
.732	.290	.005 - .010	.739	.305	.010 - .020	.742	.593	.025 - .040	.746	.200	.060 - .080	.748	.317	.005 - .010	.749	.440	.005 - .070
.732	.330	.005 - .060	.739	.333	.050 - .070	.742	.671	.010 - .020	.746	.203	.030 - .050	.748	.319	.005 - .010	.749	.445	.005 - .015
.732	.335	.020 - .040	.739	.407	.060 - .080	.743	.144	.070 - .090	.746	.204	.070 - .090	.748	.322	.005 - .010	.749	.468	.005 - .010
.732	.443	.015 - .030	.739	.431	.070 - .090	.743	.271	.050 - .075	.746	.253	.040 - .060	.748	.328	.105 - .134	.749	.471	.050 - .070
.732	.475	.008 - .015	.739	.505	.015 - .030	.743	.390	.005 - .010	.746	.260	.005 - .010	.748	.331	.015 - .030	.749	.474	.050 - .070
.732	.502	.025 - .042	.739	.519	.005 - .010	.743	.417	.005 - .010	.746	.285	.005 - .010	.748	.357	.070 - .090	.749	.499	.020 - .080
.732	.550	.040 - .050	.739	.522	.015 - .030	.743	.475	.040 - .050	.746	.316	.005 - .030	.748	.376	.005 - .010	.749	.503	.005 - .010
.733	.159	.070 - .090	.739	.565	.015 - .030	.743	.488	.060 - .080	.746	.318	.078 - .090	.748	.377	.156 - .187	.749	.504	.090 - .120
.733	.389	.010 - .020	.739	.576	.005 - .010	.743	.520	.070 - .090	.746	.319	.040 - .060	.748	.384	.020 - .040	.749	.507	.008 - .016
.733	.435	.030 - .050	.739	.605	.040 - .060	.743	.531	.005 - .010	.746	.379	.040 - .060	.748	.385	.005 - .010	.749	.517	.005 - .010
.733	.515	.050 - .070	.739	.632	.005 - .010	.743	.541	.005 - .010	.746	.386	.060 - .070	.748	.393	.060 - .080	.749	.528	.005 - .010
.733	.650	.010 - .015	.739	.634	.005 - .010	.743	.556	.005 - .008	.746	.390	.006 - .010	.748	.397	.005 - .010	.749	.531	.005 - .010
.734	.162	.015 - .030	.739	.656	.025 - .040	.743	.572	.040 - .060	.746	.393	.110 - .130	.748	.400	.005 - .010	.749	.562	.010 - .020
.734	.187	.005 - .010	.740	.143	.070 - .080	.743	.596	.005 - .010	.746	.395	.030 - .050	.748	.451	.005 - .010	.749	.563	.005 - .010
.734	.192	.080 - .125	.740	.160	.005 - .010	.743	.600	.010 - .080	.746	.405	.005 - .010	.748	.461	.010 - .020	.749	.575	.040 - .060
.734	.198	.070 - .090	.740	.200	.005 - .010	.743	.623	.010 - .020	.746	.437	.042 - .060	.748	.462	.005 - .010	.749	.594	.010 - .020
.734	.203	.040 - .080	.740	.206	.005 - .010	.743	.630	.016 - .025	.746	.438	.005 - .010	.748	.473	.005 - .015	.749	.595	.035 - .062
.734	.258	.040 - .060	.740	.250	.120 - .135	.744	.187	.100 - .120	.746	.445	.040 - .060	.748	.501	.090 - .105	.749	.599	.015 - .030
.734	.260	.032 - .050	.740	.318	.005 - .010	.744	.215	.030 - .050	.746	.455	.010 - .020	.748	.503	.010 - .040	.749	.609	.005 - .010
.734	.316	.010 - .020	.740	.330	.070 - .080	.744	.236	.010 - .020	.746	.469	.030 - .060	.748	.504	.050 - .070	.749	.620	.015 - .030
.734	.376	.030 - .050	.740	.341	.050 - .070	.744	.262	.015 - .030	.746	.480	.015 - .090	.748	.507	.020 - .036	.749	.626	.040 - .060
.734	.380	.010 - .015	.740	.344	.020 - .030	.744	.370	.015 - .030	.746	.499	.020 - .040	.748	.511	.010 - .020	.749	.633	.010 - .020
.734	.406	.050 - .125	.740	.352	.020 - .040	.744	.383	.035 - .050	.746	.500	.005 - .012	.748	.513	.070 - .090	.749	.640	.030 - .060
.734	.420	.093 - .130	.740	.377	.050 - .093	.744	.388	.005 - .010	.746	.521	.005 - .010	.748	.553	.005 - .010	.749	.644	.005 - .010
.734	.466	.060 - .075	.740	.380	.030 - .125	.744	.403	.031 - .048	.746	.531	.005 - .020	.748	.563	.015 - .030	.749	.650	.040 - .050
.734	.485	.020 - .030	.740	.386	.005 - .010	.744	.409	.050 - .070	.746	.533	.030 - .050	.748	.570	.005 - .012	.749	.669	.005 - .010
.734	.515	.030 - .042	.740	.390	.005 - .050	.744	.413	.105 - .125	.746	.565	.075 - .090	.748	.573	.012 - .020			
.734	.531	.005 - .010	.740	.391	.005 - .010	.744	.430	.005 - .010	.746	.579	.025 - .048	.748	.582	.005 - .010			
.734	.630	.032 - .048	.740	.410	.105 - .125	.744	.438	.040 - .060	.746	.608	.050 - .070	.748	.626	.040 - .060			
.735	.193	.050 - .070	.740	.412	.062 - .075	.744	.449	.060 - .080	.746	.621	.005 - .010	.748	.629	.010 - .020			
.735	.282	.050 - .070				.744	.450	.050 - .075	.746	.627	.020 - .040	.748	.632	.015 - .030			

.750

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For a size NOT listed, send specs or phone for quote — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.750	.063	.025 - .048	.750	.316	.007 - .125	.750	.505	.025 - .105	.751	.325	.015 - .030	.753	.276	.010 - .020	.761	.141	.005 - .015
.750	.069	.005 - .010	.750	.317	.005 - .030	.750	.506	.005 - .020	.751	.331	.075 - .093	.753	.318	.050 - .070	.761	.184	.005 - .015
.750	.078	.005 - .010	.750	.318	.005 - .015	.750	.509	.005 - .010	.751	.332	.005 - .010	.753	.330	.110 - .130	.761	.561	.030 - .050
.750	.090	.010 - .015	.750	.319	.040 - .100	.750	.510	.010 - .020	.751	.335	.090 - .125	.753	.337	.100 - .125	.762	.250	.005 - .010
.750	.096	.060 - .090	.750	.320	.015 - .025	.750	.511	.030 - .060	.751	.343	.025 - .040	.753	.375	.100 - .125	.762	.445	.040 - .060
.750	.102	.015 - .025	.750	.321	.005 - .010	.750	.512	.005 - .075	.751	.361	.005 - .010	.753	.381	.134 - .187	.762	.616	.005 - .010
.750	.118	.005 - .010	.750	.325	.125 - .156	.750	.513	.010 - .075	.751	.376	.005 - .015	.753	.384	.050 - .070	.763	.503	.005 - .010
.750	.125	.012 - .025	.750	.326	.025 - .040	.750	.514	.100 - .125	.751	.379	.040 - .060	.753	.405	.050 - .072	.763	.660	.005 - .010
.750	.126	.005 - .010	.750	.327	.062 - .090	.750	.517	.030 - .050	.751	.380	.005 - .020	.753	.409	.005 - .010	.764	.315	.050 - .075
.750	.128	.005 - .010	.750	.329	.070 - .090	.750	.522	.010 - .020	.751	.387	.105 - .125	.753	.472	.100 - .120	.764	.528	.060 - .080
.750	.129	.090 - .104	.750	.330	.025 - .040	.750	.524	.015 - .030	.751	.395	.020 - .030	.753	.477	.020 - .040	.764	.707	.005 - .010
.750	.133	.030 - .050	.750	.331	.005 - .010	.750	.525	.050 - .070	.751	.400	.050 - .080	.753	.484	.025 - .050	.765	.117	.040 - .062
.750	.134	.005 - .010	.750	.333	.005 - .010	.750	.528	.005 - .010	.751	.420	.110 - .130	.753	.526	.030 - .060	.765	.222	.030 - .050
.750	.143	.015 - .030	.750	.337	.042 - .072	.750	.530	.040 - .105	.751	.435	.005 - .010	.753	.527	.005 - .010	.765	.265	.100 - .125
.750	.146	.010 - .078	.750	.344	.075 - .100	.750	.531	.010 - .020	.751	.437	.005 - .010	.753	.609	.025 - .050	.765	.285	.005 - .010
.750	.147	.005 - .015	.750	.345	.005 - .125	.750	.532	.020 - .125	.751	.438	.050 - .070	.753	.627	.005 - .015	.765	.293	.040 - .060
.750	.149	.010 - .020	.750	.350	.072 - .090	.750	.533	.050 - .070	.751	.440	.050 - .070	.753	.629	.005 - .010	.765	.312	.050 - .062
.750	.150	.005 - .020	.750	.354	.005 - .010	.750	.536	.040 - .060	.751	.448	.050 - .070	.754	.253	.005 - .010	.765	.331	.025 - .040
.750	.155	.005 - .010	.750	.356	.070 - .080	.750	.540	.040 - .050	.751	.455	.010 - .020	.754	.265	.030 - .060	.765	.348	.025 - .035
.750	.156	.025 - .075	.750	.359	.015 - .125	.750	.545	.015 - .030	.751	.463	.050 - .070	.754	.393	.005 - .010	.765	.406	.005 - .010
.750	.161	.090 - .100	.750	.362	.050 - .075	.750	.549	.005 - .010	.751	.470	.075 - .090	.754	.428	.048 - .062	.765	.508	.005 - .010
.750	.165	.060 - .080	.750	.364	.005 - .010	.750	.550	.020 - .030	.751	.499	.005 - .025	.754	.460	.105 - .125	.765	.528	.050 - .060
.750	.166	.025 - .035	.750	.374	.010 - .020	.750	.551	.010 - .020	.751	.500	.050 - .070	.754	.469	.040 - .060	.765	.533	.015 - .030
.750	.171	.005 - .010	.750	.375	.005 - .010	.750	.562	.040 - .060	.751	.503	.005 - .110	.754	.509	.030 - .050	.765	.565	.010 - .020
.750	.172	.010 - .020	.750	.376	.005 - .125	.750	.563	.010 - .060	.751	.504	.010 - .080	.754	.532	.080 - .105	.765	.625	.050 - .070
.750	.184	.030 - .050	.750	.377	.005 - .010	.750	.564	.005 - .060	.751	.505	.010 - .105	.755	.222	.005 - .010	.766	.505	.030 - .050
.750	.186	.005 - .015	.750	.378	.005 - .125	.750	.565	.010 - .040	.751	.506	.015 - .025	.755	.281	.005 - .010	.766	.518	.050 - .070
.750	.188	.060 - .083	.750	.378	.126 - .187	.750	.566	.012 - .020	.751	.508	.020 - .030	.755	.335	.170 - .190	.766	.535	.080 - .100
.750	.189	.005 - .104	.750	.379	.015 - .040	.750	.569	.050 - .062	.751	.513	.090 - .120	.755	.378	.060 - .080	.766	.557	.025 - .040
.750	.190	.015 - .125	.750	.381	.048 - .062	.750	.582	.030 - .050	.751	.515	.025 - .040	.755	.385	.025 - .042	.766	.585	.015 - .030
.750	.191	.050 - .075	.750	.382	.020 - .040	.750	.584	.005 - .010	.751	.516	.008 - .060	.755	.393	.005 - .010	.766	.610	.030 - .050
.750	.192	.050 - .070	.750	.383	.060 - .083	.750	.590	.005 - .010	.751	.521	.048 - .060	.755	.513	.030 - .040	.766	.676	.005 - .010
.750	.193	.010 - .075	.750	.384	.005 - .020	.750	.595	.005 - .020	.751	.524	.005 - .010	.755	.520	.005 - .010	.767	.073	.025 - .040
.750	.194	.042 - .062	.750	.385	.005 - .010	.750	.609	.040 - .060	.751	.563	.005 - .040	.755	.532	.020 - .040	.767	.084	.015 - .030
.750	.195	.005 - .125	.750	.387	.050 - .080	.750	.625	.005 - .050	.751	.594	.010 - .020	.755	.533	.010 - .020	.767	.224	.090 - .110
.750	.197	.005 - .010	.750	.388	.025 - .040	.750	.626	.015 - .030	.751	.600	.030 - .050	.755	.552	.030 - .040	.767	.301	.100 - .125
.750	.198	.025 - .105	.750	.389	.050 - .070	.750	.630	.005 - .060	.751	.606	.005 - .010	.755	.554	.005 - .010	.767	.315	.020 - .040
.750	.200	.030 - .060	.750	.390	.007 - .105	.750	.632	.005 - .010	.751	.626	.005 - .025	.755	.586	.005 - .010	.767	.429	.005 - .010
.750	.202	.005 - .010	.750	.391	.050 - .070	.750	.634	.005 - .020	.751	.633	.005 - .020	.756	.230	.005 - .010	.767	.537	.005 - .010
.750	.203	.030 - .050	.750	.394	.100 - .125	.750	.639	.015 - .030	.751	.634	.005 - .010	.756	.258	.075 - .100	.767	.563	.020 - .040
.750	.204	.050 - .070	.750	.395	.020 - .050	.750	.640	.010 - .020	.751	.639	.010 - .015	.756	.375	.040 - .050	.767	.576	.030 - .050
.750	.206	.070 - .090	.750	.396	.060 - .070	.750	.645	.010 - .020	.751	.650	.010 - .020	.756	.395	.005 - .010	.767	.588	.015 - .030
.750	.209	.030 - .050	.750	.400	.020 - .040	.750	.650	.025 - .040	.752	.143	.090 - .120	.756	.408	.020 - .035	.767	.699	.005 - .010
.750	.213	.105 - .125	.750	.402	.042 - .060	.750	.651	.040 - .060	.752	.145	.100 - .125	.756	.500	.010 - .020	.768	.235	.040 - .060
.750	.218	.005 - .010	.750	.406	.010 - .030	.750	.679	.005 - .010	.752	.150	.090 - .105	.756	.564	.005 - .010	.768	.378	.110 - .130
.750	.223	.125 - .156	.750	.407	.120 - .134	.750	.691	.010 - .020	.752	.181	.080 - .104	.756	.570	.020 - .030	.768	.415	.050 - .070
.750	.229	.005 - .010	.750	.411	.060 - .070	.750	.692	.015 - .025	.752	.186	.005 - .010	.757	.139	.005 - .010	.768	.416	.050 - .070
.750	.232	.050 - .075	.750	.413	.005 - .015	.750	.697	.030 - .060	.752	.196	.040 - .060	.757	.243	.005 - .020	.768	.471	.010 - .020
.750	.236	.005 - .030	.750	.415	.005 - .010	.750	.700	.010 - .020	.752	.212	.030 - .060	.757	.279	.005 - .015	.768	.530	.010 - .030
.750	.242	.030 - .050	.750	.419	.080 - .100	.750	.705	.010 - .020	.752	.250	.005 - .010	.757	.387	.060 - .125	.768	.545	.020 - .040
.750	.250	.005 - .062	.750	.420	.105 - .125	.751	.105	.010 - .020	.752	.269	.100 - .135	.757	.400	.040 - .060	.768	.631	.020 - .040
.750	.251	.005 - .030	.750	.426	.005 - .010	.751	.126	.030 - .050	.752	.303	.005 - .012	.757	.468	.030 - .050	.769	.202	.050 - .070
.750	.252	.005 - .080	.750	.437	.005 - .010	.751	.129	.050 - .070	.752	.315	.104 - .135	.757	.470	.020 - .040	.769	.240	.050 - .070
.750	.253	.025 - .040	.750	.438	.040 - .062	.751	.140	.080 - .100	.752	.317	.010 - .020	.757	.563	.010 - .020	.769	.256	.005 - .035
.750	.254	.005 - .100	.750	.439	.010 - .020	.751	.168	.040 - .060	.752	.319	.005 - .030	.758	.234	.005 - .010	.769	.395	.070 - .090
.750	.256	.040 - .060	.750	.440	.080 - .104	.751	.170	.040 - .060	.752	.320	.050 - .070	.758	.310	.015 - .030	.769	.399	.135 - .156
.750	.257	.090 - .120	.750	.441	.060 - .090	.751	.184	.005 - .010	.752	.322	.005 - .010	.758	.394	.040 - .060	.770	.141	.025 - .040
.750	.259	.005 - .032	.750	.442	.005 - .090	.751	.187	.010 - .020	.752	.340	.005 - .010	.758	.608	.050 - .075	.770	.211	.040 - .060
.750	.260	.090 - .125	.750	.444	.015 - .030	.751	.188	.060 - .083	.752	.357	.050 - .070	.759	.462	.005 - .010	.770	.248	.005 - .010
.750	.261	.040 - .080	.750	.445	.030 - .050	.751	.190	.005 - .010	.752	.375	.062 - .075	.759	.606	.005 - .010	.770	.375	.040 - .060
.750	.264	.005 - .104	.750	.446	.015 - .030	.751	.194	.090 - .125	.752	.379	.090 - .110	.759	.694	.005 - .010	.770	.377	.040 - .060
.750	.265	.050 - .120	.750	.448	.005 - .010	.751	.200	.042 - .062	.752	.380	.090 - .120	.760	.032	.020 - .032	.770	.384	.020 - .040
.750	.266	.072 - .135	.750	.450	.025 - .042	.751	.204	.005 - .010	.752	.388	.050 - .070	.760	.126	.015 - .030	.770	.385	.015 - .030
.750	.267	.010 - .025	.750	.451	.036 - .050	.751	.205	.060 - .080	.752	.389	.005 - .010	.760	.150	.020 - .040	.770	.430	.030 - .050
.750	.268	.010 - .080	.750	.454	.042 - .125	.751	.206	.040 - .075	.752	.406	.060 - .083	.760	.256	.080 - .104	.770	.474	.030 - .040
.750	.270	.005 - .010	.750	.457	.070 - .090	.751	.218	.020 - .050	.752	.431	.090 - .125	.760	.260	.030 - .062	.770	.524	.040 - .060
.750	.277	.005 - .010	.750	.468	.010 - .125	.751	.229	.015 - .030	.752	.461	.008 - .012	.760	.269	.040 - .060	.770	.525	.005 - .010
.750	.281	.005 - .078	.750	.470	.020 - .040	.751	.239	.005 - .010	.752	.475	.030 - .050	.760	.322	.050 - .070	.770	.531	.050 - .060
.750	.282	.105 - .135	.750	.472	.016 - .025	.751	.242	.080 - .105	.752	.502	.008 - .012	.760	.330	.005 - .010	.770	.536	.015 - .030
.750	.283	.170 - .190	.750	.476	.060 - .080	.751	.244	.050 - .070	.752	.504	.010 - .050	.760	.385	.040 - .060	.770	.571	.025 - .040
.750	.285	.015 - .135	.750	.477	.005 - .010	.751	.250	.080 - .140	.752	.505	.015 - .030	.760	.471	.050 - .070	.770	.664	.005 - .010
.750	.288	.015 - .030	.750	.478	.100 - .125	.751	.255	.050 - .070	.752	.516	.005 - .015	.760	.482	.040 - .060	.770	.680	.035 - .045
.750	.291	.100 - .125	.750	.480	.030 - .050	.751	.257	.050 - .070	.752	.555	.040 - .070	.760	.508	.105 - .120	.770	.711	.015 - .030
.750	.293	.100 - .125	.750	.491	.015 - .030	.751	.265	.005 - .015	.752	.564	.050 - .070	.760	.565	.020 - .040	.771	.380	.005 - .010
.750	.295	.015 - .030	.750	.496	.040 - .060	.751	.266	.032 - .050	.752	.570	.010 - .020	.760	.571	.070 - .090	.771	.474	.050 - .070
.750	.299	.010 - .020	.750	.499	.100 - .125	.751	.272	.100 - .125	.752	.591	.060 - .090	.760	.579	.005 - .008	.771	.511	.105 - .125
.750	.303	.060 - .080	.750	.500	.005 - .060	.751	.296	.050 - .070	.752	.624	.050 - .070	.760	.592	.020 - .035	.771	.554	.010 - .020
.750	.312	.035 - .050	.750	.502	.005 - .100	.751	.303	.005 - .010	.752	.697	.010 - .020	.760	.624	.020 - .030	.771	.606	.005 - .010
.750	.313	.020 - .135	.750	.503	.005 - .020	.751	.315	.015 - .030	.753	.133	.075 - .090	.760	.664	.005 - .010	.771	.639	.050 - .060
.750	.315	.025 - .190	.750	.504	.015 - .025	.751	.322	.050 - .075	.753	.170	.020 - .040	.760	.675	.010 - .020	.771	.700	.005 - .010

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

Call BOKER'S for precision stamping, assembly, and secondary operations.

BOKER'S METAL WASHERS ARE FLAT AND TUMBLE DEBURRED

O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To
.772	.188	.020 - .040	.780	.267	.062 - .090	.783	.513	.025 - .040	.787	.397	.005 - .010	.790	.377	.020 - .040	.797	.413	.005 - .010
.772	.250	.040 - .060	.780	.306	.015 - .030	.783	.604	.005 - .010	.787	.398	.005 - .020	.790	.378	.040 - .050	.797	.561	.020 - .040
.772	.265	.060 - .070	.780	.380	.080 - .105	.783	.630	.060 - .080	.787	.399	.070 - .080	.790	.383	.075 - .090	.797	.691	.025 - .040
.772	.404	.005 - .010	.780	.390	.080 - .104	.783	.635	.050 - .070	.787	.400	.040 - .060	.790	.423	.025 - .040	.798	.312	.010 - .025
.772	.412	.050 - .060	.780	.391	.080 - .100	.783	.645	.005 - .020	.787	.410	.060 - .080	.790	.438	.020 - .040	.798	.351	.010 - .020
.772	.671	.010 - .020	.780	.403	.005 - .010	.783	.646	.005 - .010	.787	.424	.005 - .010	.790	.440	.010 - .020	.798	.378	.005 - .010
.773	.126	.005 - .010	.780	.408	.030 - .050	.783	.656	.048 - .062	.787	.433	.010 - .020	.790	.441	.020 - .040	.798	.487	.005 - .010
.773	.238	.062 - .080	.780	.420	.060 - .080	.784	.480	.030 - .050	.787	.453	.005 - .010	.790	.450	.030 - .042	.798	.578	.005 - .090
.773	.370	.060 - .080	.780	.422	.015 - .040	.784	.592	.015 - .030	.787	.472	.030 - .050	.790	.452	.030 - .060	.798	.624	.070 - .090
.773	.480	.015 - .030	.780	.425	.010 - .020	.784	.599	.030 - .050	.787	.473	.005 - .010	.790	.478	.025 - .045	.798	.632	.010 - .020
.773	.579	.090 - .100	.780	.460	.030 - .060	.784	.601	.030 - .050	.787	.475	.010 - .020	.790	.500	.050 - .072	.798	.656	.005 - .010
.773	.656	.020 - .040	.780	.484	.005 - .010	.784	.612	.020 - .030	.787	.477	.050 - .070	.790	.511	.125 - .135	.798	.711	.010 - .020
.773	.677	.040 - .050	.780	.498	.080 - .104	.785	.170	.042 - .062	.787	.480	.020 - .030	.790	.515	.020 - .040	.799	.252	.005 - .010
.773	.692	.005 - .010	.780	.500	.015 - .030	.785	.238	.006 - .010	.787	.490	.120 - .130	.790	.550	.030 - .042	.799	.360	.170 - .190
.774	.251	.050 - .070	.780	.503	.006 - .012	.785	.343	.005 - .010	.787	.525	.005 - .010	.790	.565	.040 - .060	.799	.397	.010 - .020
.774	.556	.050 - .070	.780	.510	.005 - .030	.785	.357	.005 - .010	.787	.530	.030 - .050	.790	.586	.015 - .025	.799	.401	.030 - .050
.774	.605	.010 - .020	.780	.511	.030 - .050	.785	.392	.110 - .130	.787	.547	.005 - .010	.790	.623	.050 - .070	.799	.439	.005 - .010
.774	.634	.010 - .020	.780	.520	.007 - .015	.785	.406	.005 - .010	.787	.551	.005 - .030	.790	.642	.010 - .040	.799	.471	.005 - .010
.774	.705	.005 - .010	.780	.527	.075 - .090	.785	.417	.050 - .070	.787	.556	.005 - .010	.790	.650	.030 - .042	.799	.472	.030 - .050
.775	.228	.050 - .072	.780	.529	.025 - .040	.785	.450	.050 - .070	.787	.577	.005 - .010	.790	.694	.040 - .060	.799	.492	.080 - .100
.775	.229	.070 - .090	.780	.552	.040 - .060	.785	.475	.015 - .050	.787	.603	.005 - .010	.790	.728	.010 - .020	.799	.500	.005 - .010
.775	.231	.042 - .062	.780	.562	.031 - .048	.785	.482	.100 - .125	.787	.610	.005 - .080	.791	.056	.015 - .030	.799	.501	.010 - .020
.775	.252	.005 - .010	.780	.566	.030 - .050	.785	.512	.060 - .080	.787	.630	.030 - .050	.791	.323	.050 - .070	.799	.505	.025 - .040
.775	.324	.100 - .125	.780	.570	.020 - .040	.785	.520	.090 - .105	.787	.631	.005 - .010	.791	.400	.010 - .020	.799	.580	.050 - .075
.775	.335	.015 - .030	.780	.579	.005 - .015	.785	.523	.005 - .020	.787	.648	.025 - .040	.791	.401	.025 - .040	.799	.596	.005 - .010
.775	.368	.080 - .090	.780	.591	.060 - .090	.785	.530	.030 - .050	.787	.661	.005 - .010	.791	.531	.010 - .020	.799	.629	.015 - .025
.775	.379	.005 - .012	.780	.593	.005 - .010	.785	.548	.042 - .062	.787	.677	.010 - .020	.791	.635	.005 - .010	.799	.653	.005 - .010
.775	.428	.025 - .040	.780	.598	.050 - .070	.785	.569	.005 - .010	.787	.680	.060 - .080	.791	.674	.010 - .020	.799	.671	.005 - .010
.775	.457	.005 - .010	.780	.627	.020 - .030	.785	.594	.005 - .010	.787	.697	.005 - .010	.792	.317	.062 - .083	.799	.673	.005 - .010
.775	.464	.048 - .070	.780	.640	.030 - .070	.785	.656	.005 - .010	.788	.128	.010 - .020	.792	.420	.020 - .030	.799	.674	.005 - .010
.775	.469	.080 - .100	.780	.658	.005 - .010	.785	.696	.010 - .020	.788	.218	.040 - .060	.792	.485	.025 - .040	.799	.694	.005 - .010
.775	.500	.075 - .090	.780	.672	.015 - .030	.786	.157	.015 - .030	.788	.227	.005 - .010	.792	.517	.010 - .020	.799	.701	.005 - .010
.775	.525	.100 - .125	.780	.684	.025 - .040	.786	.198	.015 - .030	.788	.237	.080 - .100	.792	.606	.005 - .010	.800	.076	.005 - .010
.775	.555	.020 - .030	.780	.685	.005 - .012	.786	.253	.070 - .090	.788	.243	.030 - .050	.792	.672	.010 - .020	.800	.190	.020 - .040
.775	.560	.070 - .090	.781	.111	.025 - .040	.786	.257	.005 - .010	.788	.317	.010 - .020	.792	.695	.015 - .030	.800	.194	.050 - .070
.775	.602	.005 - .010	.781	.142	.010 - .020	.786	.300	.005 - .010	.788	.322	.005 - .010	.793	.256	.010 - .020	.800	.200	.025 - .040
.775	.643	.005 - .030	.781	.172	.015 - .030	.786	.316	.090 - .135	.788	.355	.010 - .020	.793	.386	.050 - .060	.800	.222	.065 - .080
.776	.196	.015 - .030	.781	.280	.156 - .190	.786	.382	.005 - .010	.788	.376	.005 - .010	.793	.438	.080 - .100	.800	.225	.040 - .060
.776	.197	.020 - .035	.781	.316	.005 - .010	.786	.396	.040 - .060	.788	.394	.125 - .156	.793	.439	.060 - .090	.800	.250	.020 - .030
.776	.240	.025 - .040	.781	.317	.010 - .030	.786	.436	.050 - .070	.788	.395	.005 - .010	.793	.441	.020 - .040	.800	.252	.008 - .015
.776	.283	.030 - .050	.781	.335	.005 - .050	.786	.443	.100 - .120	.788	.397	.005 - .015	.793	.471	.025 - .048	.800	.253	.040 - .060
.776	.386	.005 - .010	.781	.402	.010 - .020	.786	.446	.040 - .060	.788	.403	.005 - .030	.793	.505	.025 - .040	.800	.254	.025 - .040
.776	.432	.070 - .090	.781	.430	.048 - .062	.786	.452	.010 - .020	.788	.414	.020 - .040	.793	.575	.032 - .050	.800	.256	.032 - .050
.776	.598	.050 - .070	.781	.448	.015 - .030	.786	.474	.005 - .010	.788	.440	.005 - .010	.794	.285	.005 - .010	.800	.315	.010 - .020
.776	.646	.020 - .040	.781	.485	.005 - .010	.786	.477	.005 - .010	.788	.452	.005 - .010	.794	.420	.090 - .110	.800	.316	.005 - .010
.776	.653	.040 - .050	.781	.488	.050 - .060	.786	.484	.040 - .050	.788	.473	.010 - .020	.794	.477	.135 - .160	.800	.320	.105 - .125
.777	.150	.005 - .010	.781	.501	.005 - .015	.786	.502	.010 - .020	.788	.476	.030 - .050	.794	.552	.070 - .090	.800	.327	.020 - .040
.777	.328	.156 - .187	.781	.518	.040 - .060	.786	.505	.005 - .020	.788	.478	.030 - .050	.795	.116	.005 - .010	.800	.345	.075 - .104
.777	.392	.020 - .030	.781	.531	.008 - .012	.786	.515	.010 - .020	.788	.483	.070 - .090	.795	.159	.005 - .010	.800	.370	.005 - .012
.777	.421	.025 - .040	.781	.557	.020 - .040	.786	.531	.020 - .030	.788	.487	.040 - .060	.795	.170	.090 - .125	.800	.377	.005 - .010
.777	.572	.005 - .010	.781	.600	.015 - .030	.786	.535	.005 - .030	.788	.488	.040 - .050	.795	.175	.005 - .010	.800	.378	.005 - .078
.777	.613	.050 - .070	.781	.605	.032 - .050	.786	.556	.040 - .060	.788	.512	.060 - .090	.795	.187	.030 - .050	.800	.379	.010 - .020
.778	.221	.010 - .015	.781	.621	.040 - .060	.786	.572	.050 - .070	.788	.521	.048 - .062	.795	.197	.008 - .016	.800	.380	.040 - .060
.778	.261	.060 - .070	.781	.625	.050 - .075	.786	.594	.010 - .020	.788	.545	.005 - .010	.795	.267	.048 - .062	.800	.387	.020 - .040
.778	.266	.062 - .075	.781	.627	.040 - .060	.786	.598	.030 - .050	.788	.555	.040 - .060	.795	.281	.040 - .060	.800	.397	.005 - .010
.778	.363	.070 - .090	.781	.628	.005 - .010	.786	.626	.030 - .050	.788	.566	.080 - .100	.795	.340	.005 - .012	.800	.398	.005 - .010
.778	.386	.030 - .050	.781	.629	.025 - .060	.786	.631	.030 - .050	.788	.596	.030 - .050	.795	.392	.010 - .020	.800	.411	.070 - .090
.778	.408	.020 - .040	.781	.640	.060 - .070	.786	.680	.010 - .020	.788	.697	.010 - .015	.795	.427	.090 - .105	.800	.426	.105 - .135
.778	.435	.120 - .135	.782	.368	.010 - .020	.787	.129	.030 - .050	.788	.715	.005 - .010	.795	.482	.030 - .050	.800	.437	.005 - .010
.778	.534	.062 - .078	.782	.437	.090 - .105	.787	.141	.040 - .060	.788	.716	.010 - .020	.795	.509	.030 - .060	.800	.439	.030 - .050
.779	.190	.030 - .050	.782	.440	.015 - .030	.787	.142	.030 - .060	.789	.114	.025 - .040	.795	.551	.010 - .020	.800	.440	.005 - .010
.779	.264	.025 - .040	.782	.442	.070 - .090	.787	.161	.050 - .070	.789	.221	.005 - .010	.795	.577	.090 - .105	.800	.441	.010 - .020
.779	.270	.060 - .090	.782	.482	.070 - .090	.787	.188	.020 - .040	.789	.255	.010 - .020	.795	.634	.005 - .010	.800	.442	.005 - .010
.779	.318	.050 - .070	.782	.500	.030 - .060	.787	.203	.040 - .060	.789	.262	.040 - .050	.795	.655	.030 - .040	.800	.464	.040 - .060
.779	.323	.015 - .030	.782	.513	.030 - .050	.787	.208	.070 - .080	.789	.312	.042 - .060	.795	.680	.005 - .040	.800	.490	.030 - .050
.779	.378	.090 - .105	.782	.517	.080 - .100	.787	.228	.052 - .072	.789	.316	.005 - .010	.795	.730	.025 - .035	.800	.502	.010 - .020
.779	.395	.032 - .060	.782	.530	.093 - .103	.787	.238	.005 - .010	.789	.326	.005 - .010	.795	.731	.030 - .040	.800	.504	.005 - .030
.779	.422	.030 - .050	.782	.542	.005 - .010	.787	.256	.010 - .020	.789	.354	.060 - .080	.796	.286	.005 - .010	.800	.505	.005 - .010
.779	.439	.015 - .030	.782	.546	.010 - .020	.787	.257	.025 - .060	.789	.438	.005 - .010	.796	.290	.025 - .040	.800	.508	.005 - .010
.779	.476	.100 - .125	.782	.562	.060 - .083	.787	.279	.005 - .010	.789	.478	.050 - .070	.796	.353	.030 - .040	.800	.510	.020 - .040
.779	.492	.050 - .060	.782	.563	.010 - .020	.787	.315	.005 - .020	.789	.498	.005 - .010	.796	.397	.050 - .070	.800	.528	.005 - .010
.779	.568	.010 - .020	.782	.699	.005 - .010	.787	.317	.005 - .010	.789	.543	.010 - .020	.796	.509	.040 - .060	.800	.530	.030 - .050
.779	.579	.005 - .010	.783	.062	.030 - .050	.787	.318	.005 - .010	.789	.630	.010 - .020	.796	.520	.005 - .012	.800	.544	.005 - .010
.779	.632	.030 - .060	.783	.254	.050 - .070	.787	.319	.005 - .010	.790	.175	.050 - .070	.796	.521	.030 - .060	.800	.550	.060 - .075
.779	.633	.005 - .010	.783	.270	.070 - .080	.787	.324	.015 - .030	.790	.250	.032 - .042	.796	.525	.010 - .020	.800	.551	.005 - .010
.779	.640	.040 - .060	.783	.278	.010 - .020	.787	.329	.005 - .010	.790	.319	.005 - .010	.796	.579	.040 - .060	.800	.557	.005 - .010
.779	.680	.005 - .010	.783	.320	.050 - .070	.787	.355	.135 - .156	.790	.320	.005 - .010	.796	.602	.025 - .040	.800	.558	.005 - .015
.779	.700	.010 - .020	.783	.453	.080 - .104	.787	.380	.015 - .030	.790	.341	.020 - .040	.796	.610	.005 - .070	.800	.560	.070 - .090
.780	.051	.025 - .035	.783	.488	.005 - .010	.787	.392	.005 - .010	.790	.350	.025 - .048	.796	.630	.030 - .040	.800	.574	.050 - .060
.780	.190	.040 - .060	.783	.500	.030 - .050	.787	.395	.005 - .010	.790	.375	.015 - .030	.797	.349	.005 - .010	.800	.575	.025 - .040

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

New tools added continually. Call for sizes not listed — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	From	To	O.D.	I.D.	From	To	O.D.	I.D.	From	To	O.D.	I.D.	From	To	O.D.	I.D.	From	To	O.D.	I.D.	From	To
.800	.582	.005	.010	.806	.636	.005	.010	.810	.543	.020	.040	.812	.530	.032	.042	.817	.690	.012	.020	.825	.483	.040	.060
.800	.594	.005	.010	.806	.641	.060	.083	.810	.545	.020	.040	.812	.540	.010	.020	.817	.711	.005	.010	.825	.511	.005	.010
.800	.618	.005	.010	.806	.650	.050	.070	.810	.551	.005	.010	.812	.561	.005	.030	.817	.750	.010	.020	.825	.518	.070	.080
.800	.619	.005	.010	.806	.671	.005	.010	.810	.561	.120	.140	.812	.577	.020	.040	.818	.264	.030	.040	.825	.525	.010	.020
.800	.623	.050	.075	.806	.691	.020	.040	.810	.564	.005	.015	.812	.591	.020	.030	.818	.317	.030	.040	.825	.527	.090	.125
.800	.626	.005	.010	.806	.692	.005	.010	.810	.565	.025	.050	.812	.592	.005	.050	.818	.321	.010	.020	.825	.543	.015	.030
.800	.628	.025	.080	.807	.117	.015	.030	.810	.569	.020	.040	.812	.596	.025	.040	.818	.330	.005	.010	.825	.577	.020	.040
.800	.631	.010	.020	.807	.222	.015	.030	.810	.600	.040	.060	.812	.625	.015	.025	.818	.391	.125	.156	.825	.624	.005	.015
.800	.639	.005	.010	.807	.283	.005	.010	.810	.646	.005	.010	.812	.641	.015	.080	.818	.432	.060	.080	.825	.632	.030	.040
.800	.641	.016	.025	.807	.389	.050	.070	.810	.652	.005	.010	.812	.647	.015	.025	.818	.480	.005	.010	.825	.669	.020	.030
.800	.645	.025	.040	.807	.445	.040	.060	.810	.675	.005	.010	.812	.650	.040	.060	.818	.549	.005	.010	.825	.709	.005	.010
.800	.654	.040	.060	.807	.531	.080	.090	.810	.690	.010	.020	.812	.655	.020	.030	.818	.591	.090	.110	.826	.250	.040	.050
.800	.659	.010	.020	.807	.534	.005	.010	.810	.703	.005	.010	.812	.675	.020	.040	.818	.644	.010	.020	.826	.314	.030	.050
.800	.670	.005	.020	.807	.625	.005	.010	.810	.706	.025	.042	.812	.687	.050	.070	.818	.690	.040	.060	.826	.319	.030	.050
.800	.672	.005	.010	.807	.629	.020	.040	.810	.723	.005	.010	.812	.697	.050	.062	.818	.720	.025	.040	.826	.359	.105	.125
.800	.675	.005	.010	.807	.638	.015	.030	.811	.116	.005	.015	.812	.707	.005	.010	.819	.065	.025	.040	.826	.401	.010	.020
.800	.677	.005	.010	.807	.640	.010	.020	.811	.156	.030	.050	.813	.156	.040	.060	.819	.174	.005	.010	.826	.414	.025	.040
.800	.678	.005	.010	.807	.670	.050	.070	.811	.188	.040	.060	.813	.162	.040	.060	.819	.250	.005	.010	.826	.536	.090	.105
.800	.679	.005	.010	.807	.690	.015	.030	.811	.201	.040	.060	.813	.194	.100	.125	.819	.260	.010	.020	.826	.620	.030	.050
.800	.680	.005	.010	.807	.745	.020	.031	.811	.282	.050	.070	.813	.204	.005	.010	.819	.531	.005	.010	.826	.660	.020	.040
.800	.711	.010	.040	.808	.228	.005	.015	.811	.322	.030	.050	.813	.272	.100	.134	.819	.675	.025	.040	.826	.711	.025	.040
.801	.148	.010	.020	.808	.231	.060	.080	.811	.333	.005	.010	.813	.328	.005	.010	.819	.690	.020	.035	.827	.187	.010	.020
.801	.255	.030	.060	.808	.317	.015	.030	.811	.342	.135	.187	.813	.350	.030	.050	.819	.700	.040	.060	.827	.215	.005	.010
.801	.321	.040	.050	.808	.375	.105	.125	.811	.376	.040	.060	.813	.380	.100	.125	.820	.090	.005	.010	.827	.236	.005	.010
.801	.332	.080	.104	.808	.413	.060	.080	.811	.393	.010	.020	.813	.406	.030	.125	.820	.125	.015	.030	.827	.238	.005	.010
.801	.345	.075	.102	.808	.414	.025	.040	.811	.403	.060	.070	.813	.407	.100	.125	.820	.159	.105	.135	.827	.317	.005	.125
.801	.376	.015	.030	.808	.471	.005	.010	.811	.411	.010	.020	.813	.419	.005	.010	.820	.198	.005	.010	.827	.318	.005	.010
.801	.400	.025	.040	.808	.478	.020	.040	.811	.449	.100	.125	.813	.431	.005	.010	.820	.280	.060	.075	.827	.328	.060	.080
.801	.439	.005	.010	.808	.532	.005	.010	.811	.548	.070	.090	.813	.435	.100	.125	.820	.310	.005	.010	.827	.331	.120	.135
.801	.490	.005	.010	.808	.620	.015	.030	.811	.553	.040	.060	.813	.441	.050	.070	.820	.315	.005	.010	.827	.332	.156	.187
.801	.502	.015	.025	.808	.626	.015	.030	.811	.566	.025	.050	.813	.450	.040	.060	.820	.320	.040	.060	.827	.376	.005	.010
.801	.505	.005	.010	.808	.692	.030	.050	.811	.567	.042	.062	.813	.493	.005	.010	.820	.340	.005	.010	.827	.393	.005	.010
.801	.596	.015	.025	.809	.094	.030	.050	.811	.568	.005	.010	.813	.494	.020	.040	.820	.348	.005	.010	.827	.407	.090	.120
.801	.598	.015	.030	.809	.096	.015	.032	.811	.576	.026	.052	.813	.496	.010	.020	.820	.380	.005	.010	.827	.412	.005	.010
.801	.629	.040	.060	.809	.099	.005	.015	.811	.577	.025	.042	.813	.500	.050	.083	.820	.392	.010	.020	.827	.415	.060	.080
.801	.650	.010	.020	.809	.157	.050	.070	.811	.595	.035	.060	.813	.504	.105	.135	.820	.395	.050	.075	.827	.473	.005	.010
.801	.657	.005	.010	.809	.250	.020	.030	.811	.623	.005	.010	.813	.510	.020	.040	.820	.405	.135	.160	.827	.509	.050	.075
.801	.674	.005	.010	.809	.257	.030	.050	.811	.630	.005	.010	.813	.562	.080	.100	.820	.442	.025	.040	.827	.632	.005	.010
.801	.696	.060	.070	.809	.288	.070	.090	.811	.656	.005	.010	.813	.563	.005	.020	.820	.450	.012	.025	.827	.749	.005	.010
.802	.257	.060	.080	.809	.321	.025	.042	.811	.658	.020	.030	.813	.597	.020	.040	.820	.453	.015	.025	.828	.108	.005	.010
.802	.261	.040	.062	.809	.336	.050	.070	.812	.127	.025	.040	.813	.631	.010	.020	.820	.460	.030	.040	.828	.317	.010	.015
.802	.346	.020	.035	.809	.377	.005	.010	.812	.130	.015	.030	.813	.634	.060	.080	.820	.482	.070	.090	.828	.407	.015	.030
.802	.387	.050	.075	.809	.385	.005	.010	.812	.136	.040	.060	.813	.659	.035	.048	.820	.500	.005	.010	.828	.447	.060	.080
.802	.408	.100	.110	.809	.414	.070	.090	.812	.141	.005	.040	.813	.680	.005	.030	.820	.536	.050	.070	.828	.499	.005	.008
.802	.453	.025	.040	.809	.475	.070	.090	.812	.191	.020	.040	.813	.728	.005	.010	.820	.542	.005	.010	.828	.502	.030	.040
.802	.516	.040	.060	.809	.483	.032	.042	.812	.192	.005	.010	.814	.412	.060	.080	.820	.559	.050	.075	.828	.504	.005	.020
.802	.596	.005	.010	.809	.504	.005	.010	.812	.219	.062	.075	.814	.522	.040	.060	.820	.564	.100	.125	.828	.530	.005	.010
.802	.611	.025	.040	.809	.508	.005	.010	.812	.221	.080	.100	.814	.532	.090	.105	.820	.565	.100	.125	.828	.590	.015	.030
.802	.622	.020	.030	.809	.570	.050	.070	.812	.245	.020	.036	.814	.598	.050	.075	.820	.566	.005	.010	.828	.655	.005	.010
.802	.701	.005	.010	.809	.601	.020	.040	.812	.253	.080	.104	.814	.628	.020	.030	.820	.572	.105	.125	.828	.727	.005	.010
.802	.704	.025	.040	.809	.625	.005	.010	.812	.255	.005	.010	.814	.637	.042	.062	.820	.600	.005	.010	.829	.137	.025	.048
.802	.752	.005	.008	.810	.057	.005	.010	.812	.269	.050	.070	.814	.641	.005	.010	.820	.678	.010	.020	.829	.250	.030	.050
.803	.261	.050	.075	.810	.116	.015	.032	.812	.312	.040	.060	.814	.751	.020	.030	.820	.698	.005	.030	.829	.283	.020	.030
.803	.264	.010	.020	.810	.142	.040	.060	.812	.314	.025	.042	.815	.129	.020	.040	.820	.726	.015	.025	.829	.414	.007	.090
.803	.345	.080	.105	.810	.150	.040	.060	.812	.315	.015	.030	.815	.221	.020	.030	.821	.144	.032	.048	.829	.430	.100	.125
.803	.422	.015	.030	.810	.166	.025	.040	.812	.375	.150	.180	.815	.255	.060	.075	.821	.157	.030	.040	.829	.468	.100	.125
.803	.517	.105	.125	.810	.185	.005	.010	.812	.376	.156	.190	.815	.260	.048	.062	.821	.266	.010	.020	.829	.475	.080	.104
.803	.569	.005	.010	.810	.192	.050	.062	.812	.378	.050	.083	.815	.281	.105	.120	.821	.416	.100	.125	.829	.480	.105	.135
.803	.715	.050	.072	.810	.198	.030	.050	.812	.379	.025	.032	.815	.309	.005	.010	.821	.596	.005	.030	.829	.500	.005	.030
.804	.134	.050	.072	.810	.210	.025	.042	.812	.390	.031	.060	.815	.439	.025	.040	.821	.625	.005	.010	.829	.503	.025	.040
.804	.191	.060	.080	.810	.218	.100	.125	.812	.391	.080	.100	.815	.444	.005	.012	.821	.636	.060	.080	.829	.648	.050	.070
.804	.313	.005	.010	.810	.250	.062	.078	.812	.398	.015	.135	.815	.468	.025	.036	.821	.727	.030	.048	.829	.653	.030	.060
.804	.330	.050	.072	.810	.255	.090	.125	.812	.406	.075	.090	.815	.500	.015	.030	.822	.200	.020	.030	.829	.761	.020	.030
.804	.409	.100	.125	.810	.315	.020	.040	.812	.409	.050	.090	.815	.527	.080	.104	.822	.523	.060	.080	.830	.160	.060	.090
.804	.602	.005	.010	.810	.355	.005	.050	.812	.410	.060	.070	.815	.555	.030	.050	.822	.693	.050	.070	.830	.187	.020	.040
.805	.312	.005	.010	.810	.379	.005	.090	.812	.411	.105	.125	.815	.556	.015	.025	.823	.407	.005	.010	.830	.379	.005	.035
.805	.564	.090	.110	.810	.385	.080	.105	.812	.436	.100	.125	.815	.578	.080	.100	.823	.523	.070	.090	.830	.405	.040	.060
.805	.573	.060	.080	.810	.395	.005	.010	.812	.437	.015	.030	.815	.669	.025	.040	.823	.755	.005	.020	.830	.461	.015	.030
.805	.632	.005	.010	.810	.405	.060	.080	.812	.441	.032	.048	.816	.439	.015	.030	.823	.756	.005	.010	.830	.475	.025	.040
.805	.656	.005	.010	.810	.413	.005	.012	.812	.442	.062	.075	.816	.456	.070	.090	.824	.321	.005	.010	.830	.515	.005	.010
.805	.672	.005	.010	.810	.419	.062	.078	.812	.456	.104	.125	.816	.510	.005	.012	.824	.333	.005	.010	.830	.530	.090	.120
.805	.692	.010	.020	.810	.443	.005	.010	.812	.469	.030	.050	.816	.520	.015	.025	.824	.508	.050	.070	.830	.556	.010	.025
.806	.209	.005	.010	.810	.455	.060	.093	.812	.473	.015	.020	.817	.319	.060	.083	.824	.543	.025	.040	.830	.564	.100	.125
.806	.262	.040	.060	.810	.475	.025	.042	.812	.501	.005	.020	.817	.321	.015	.030	.824	.605	.042	.062	.830	.565	.030	.050
.806	.300	.005	.010	.810	.480	.005	.010	.812	.506	.060	.080	.817	.411	.040	.060	.825	.238	.005	.010	.830	.590	.070	.090
.806	.350	.005	.010	.810	.501	.080	.100	.812	.508	.015	.025	.817	.455	.060	.090	.825	.317	.005	.010	.830	.605	.025	.040
.806	.378	.060	.083	.810	.507	.010	.025	.812	.509	.050	.075	.817	.505	.050	.070	.825	.319	.005	.020	.830	.628	.025	.040
.806	.407	.030	.050	.810	.514	.080	.125	.812	.515	.042	.060	.817	.631	.005	.010	.825	.399	.005	.010	.830	.632	.025	.040
.806	.469	.030	.050	.810	.522	.040	.060	.812	.517	.030	.040	.817	.660	.005	.010	.825	.400	.015	.030	.830	.636	.015	.030
.806	.631	.020	.040	.810	.533	.025	.050	.812	.524	.050	.070	.817	.661	.005	.010	.825	.414	.105	.125	.830	.649	.010	.020

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Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For non-metallic materials, contact BOKER'S — (800) 927-4377, Fax (800) 321-3462.

BOKER'S METAL WASHERS ARE FLAT AND TUMBLE DEBURRED

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.830	.693	.020 - .035	.840	.711	.020 - .040	.849	.151	.030 - .060	.851	.671	.040 - .060	.859	.439	.020 - .030	.863	.422	.090 - .120
.830	**.696**	**.005 - .010**	.840	.731	.030 - .050	.849	.386	.050 - .075	.852	.187	.040 - .060	**.859**	**.450**	**.005 - .020**	**.863**	**.505**	**.005 - .010**
.830	.711	.015 - .030	.840	.748	.015 - .025	.849	.401	.040 - .060	.852	.257	.062 - .090	.859	.454	.015 - .030	**.863**	**.531**	**.005 - .050**
.831	**.239**	**.005 - .010**	.841	.440	.025 - .040	**.849**	**.413**	**.005 - .010**	**.852**	**.409**	**.005 - .020**	.859	.489	.020 - .030	.863	.540	.015 - .030
.831	.584	.015 - .025	.841	.631	.030 - .050	**.849**	**.497**	**.005 - .010**	.852	.503	.020 - .030	.859	.508	.025 - .050	.863	.626	.090 - .120
.831	**.649**	**.005 - .010**	**.841**	**.651**	**.005 - .010**	**.849**	**.520**	**.005 - .010**	.852	.528	.015 - .030	.859	.515	.032 - .042	.863	.679	.040 - .062
.832	.461	.010 - .025	.841	.663	.015 - .030	**.849**	**.606**	**.005 - .010**	.852	.534	.015 - .025	.859	.606	.060 - .080	**.863**	**.680**	**.005 - .008**
.832	.520	.050 - .070	.841	.752	.010 - .020	.849	.631	.010 - .020	.852	.543	.025 - .040	.859	.628	.020 - .030	.863	.682	.010 - .020
.832	**.551**	**.005 - .010**	.842	.378	.025 - .042	**.850**	**.155**	**.005 - .010**	.852	.628	.020 - .040	**.859**	**.629**	**.005 - .010**	.863	.687	.015 - .020
.832	.574	.030 - .050	.842	.470	.050 - .070	.850	.174	.025 - .040	.852	.685	.020 - .062	.859	.646	.020 - .040	**.863**	**.688**	**.005 - .010**
.832	**.595**	**.005 - .010**	.842	.593	.080 - .095	.850	.175	.050 - .070	.853	.266	.030 - .060	.859	.650	.030 - .070	.863	.759	.015 - .050
.832	**.598**	**.005 - .010**	**.842**	**.631**	**.005 - .008**	.850	.180	.120 - .135	**.853**	**.357**	**.005 - .010**	.859	.671	.040 - .060	**.864**	**.208**	**.005 - .010**
.832	.751	.030 - .040	.842	.632	.010 - .020	.850	.200	.020 - .080	.853	.401	.040 - .060	.859	.675	.030 - .050	**.864**	**.316**	**.005 - .010**
.833	**.607**	**.005 - .010**	**.842**	**.690**	**.005 - .010**	.850	.240	.048 - .072	.853	.408	.050 - .070	**.859**	**.705**	**.005 - .010**	**.864**	**.368**	**.005 - .010**
.833	.730	.030 - .042	**.842**	**.729**	**.005 - .010**	.850	.250	.015 - .030	.853	.438	.016 - .025	**.859**	**.779**	**.005 - .010**	.864	.430	.040 - .060
.833	.770	.010 - .020	**.842**	**.764**	**.005 - .010**	.850	.251	.120 - .140	.853	.467	.010 - .020	.860	.036	.032 - .042	.864	.505	.015 - .025
.834	.462	.020 - .040	.843	.142	.010 - .020	**.850**	**.252**	**.005 - .010**	.853	.628	.040 - .060	.860	.171	.015 - .030	.864	.536	.080 - .104
.834	**.562**	**.005 - .010**	.843	.210	.040 - .060	**.850**	**.283**	**.005 - .010**	**.853**	**.632**	**.005 - .010**	.860	.192	.090 - .125	**.864**	**.551**	**.005 - .010**
.834	.590	.030 - .050	**.843**	**.260**	**.005 - .010**	.850	.301	.015 - .030	.853	.726	.030 - .050	.860	.225	.030 - .040	.864	.569	.010 - .020
.834	.596	.030 - .050	.843	.390	.070 - .090	.850	.302	.105 - .125	**.853**	**.750**	**.005 - .010**	.860	.252	.015 - .030	**.864**	**.595**	**.005 - .008**
.835	.200	.020 - .035	.843	.453	.100 - .125	.850	.316	.090 - .105	**.854**	**.077**	**.005 - .030**	.860	.261	.010 - .030	.864	.620	.010 - .020
.835	**.221**	**.005 - .010**	**.843**	**.500**	**.005 - .010**	.850	.319	.060 - .080	.854	.329	.050 - .075	.860	.265	.075 - .090	.864	.628	.050 - .070
.835	.390	.040 - .060	.843	.530	.040 - .060	.850	.330	.020 - .040	.854	.352	.100 - .125	.860	.275	.030 - .050	**.864**	**.633**	**.005 - .010**
.835	.480	.010 - .020	.843	.559	.050 - .072	**.850**	**.340**	**.005 - .010**	.854	.578	.010 - .020	.860	.314	.075 - .090	.864	.639	.042 - .062
.835	**.570**	**.005 - .050**	**.843**	**.630**	**.005 - .010**	.850	.350	.080 - .104	.854	.583	.030 - .050	.860	.321	.062 - .090	.864	.781	.010 - .020
.835	.595	.010 - .020	.843	.656	.010 - .020	.850	.351	.030 - .050	**.854**	**.605**	**.005 - .010**	.860	.324	.060 - .080	**.865**	**.205**	**.005 - .010**
.835	.685	.030 - .060	.843	.689	.030 - .040	.850	.356	.010 - .020	**.854**	**.650**	**.005 - .010**	**.860**	**.338**	**.005 - .010**	.865	.260	.020 - .040
.835	.782	.020 - .030	.843	.782	.020 - .030	**.850**	**.374**	**.005 - .010**	**.854**	**.655**	**.005 - .010**	.860	.340	.020 - .030	.865	.351	.020 - .030
.836	.416	.010 - .020	.844	.099	.025 - .040	**.850**	**.377**	**.005 - .020**	.854	.808	.015 - .020	**.860**	**.384**	**.005 - .015**	.865	.398	.020 - .040
.836	.450	.040 - .060	**.844**	**.397**	**.005 - .010**	**.850**	**.378**	**.005 - .010**	**.855**	**.078**	**.005 - .010**	.860	.428	.100 - .125	.865	.412	.060 - .080
.836	**.680**	**.005 - .060**	.844	.555	.010 - .020	.850	.380	.030 - .040	.855	.130	.060 - .080	.860	.439	.020 - .035	.865	.421	.040 - .060
.836	.705	.032 - .060	**.844**	**.578**	**.005 - .010**	**.850**	**.382**	**.005 - .125**	.855	.229	.050 - .075	.860	.458	.010 - .020	**.865**	**.434**	**.005 - .010**
.837	.527	.040 - .060	.844	.610	.030 - .060	.850	.384	.100 - .125	.855	.242	.020 - .040	.860	.488	.010 - .020	**.865**	**.471**	**.005 - .010**
.837	.530	.048 - .075	.844	.666	.070 - .090	**.850**	**.433**	**.005 - .010**	.855	.327	.048 - .072	**.860**	**.496**	**.005 - .010**	.865	.476	.020 - .040
.837	**.591**	**.005 - .010**	**.844**	**.703**	**.005 - .010**	.850	.495	.015 - .025	.855	.331	.030 - .050	**.860**	**.512**	**.005 - .010**	**.865**	**.477**	**.005 - .010**
.837	.633	.025 - .040	.844	.711	.015 - .030	**.850**	**.500**	**.015 - .025**	**.855**	**.375**	**.005 - .062**	.860	.540	.040 - .060	.865	.479	.070 - .090
.837	.679	.025 - .040	.845	.163	.010 - .020	**.850**	**.502**	**.005 - .010**	.855	.503	.010 - .080	.860	.562	.015 - .030	.865	.492	.036 - .060
.838	.281	.032 - .060	.845	.313	.015 - .090	**.850**	**.503**	**.005 - .010**	.855	.509	.070 - .080	**.860**	**.563**	**.005 - .015**	.865	.493	.010 - .020
.838	.290	.050 - .075	**.845**	**.466**	**.005 - .010**	**.850**	**.506**	**.020 - .040**	**.855**	**.512**	**.005 - .010**	**.860**	**.592**	**.005 - .010**	.865	.551	.080 - .100
.838	.376	.015 - .030	**.845**	**.482**	**.005 - .010**	**.850**	**.509**	**.005 - .010**	.855	.531	.010 - .020	**.860**	**.600**	**.005 - .010**	.865	.553	.010 - .020
.838	.482	.031 - .048	.845	.495	.020 - .030	.850	.509	.125 - .135	**.855**	**.562**	**.005 - .010**	.860	.602	.010 - .020	**.865**	**.566**	**.005 - .010**
.838	.483	.050 - .075	.845	.497	.015 - .030	**.850**	**.510**	**.005 - .012**	**.855**	**.598**	**.005 - .010**	.860	.625	.050 - .070	.865	.570	.030 - .040
.838	**.508**	**.005 - .010**	.845	.513	.015 - .030	**.850**	**.513**	**.005 - .060**	.855	.599	.105 - .135	.860	.629	.030 - .050	.865	.597	.042 - .062
.838	.563	.040 - .060	.845	.651	.030 - .050	.850	.523	.040 - .060	.855	.651	.050 - .062	.860	.634	.020 - .030	.865	.626	.040 - .060
.838	.618	.040 - .060	.845	.660	.010 - .020	.850	.535	.050 - .075	.855	.691	.050 - .070	.860	.645	.040 - .060	**.865**	**.630**	**.005 - .010**
.838	.651	.010 - .020	**.845**	**.758**	**.005 - .035**	**.850**	**.566**	**.005 - .010**	.856	.088	.010 - .020	**.860**	**.676**	**.005 - .030**	**.865**	**.634**	**.005 - .070**
.838	**.665**	**.005 - .010**	**.845**	**.782**	**.005 - .010**	.850	.574	.060 - .080	**.856**	**.123**	**.005 - .010**	**.860**	**.691**	**.005 - .010**	**.865**	**.635**	**.005 - .010**
.838	.706	.015 - .020	.846	.242	.032 - .050	.850	.585	.010 - .020	.856	.265	.048 - .062	.860	.698	.030 - .050	.865	.650	.020 - .030
.839	.316	.015 - .030	**.846**	**.273**	**.005 - .010**	.850	.595	.090 - .105	.856	.286	.050 - .070	**.860**	**.705**	**.005 - .050**	.865	.672	.010 - .015
.839	**.502**	**.005 - .010**	.846	.320	.015 - .030	.850	.600	.010 - .020	.856	.380	.010 - .020	.860	.711	.025 - .040	**.865**	**.698**	**.005 - .010**
.839	.591	.010 - .015	**.846**	**.327**	**.005 - .010**	.850	.612	.005 - .010	.856	.443	.020 - .040	.860	.742	.030 - .050	**.865**	**.714**	**.005 - .010**
.839	.628	.050 - .070	.846	.455	.030 - .060	.850	.625	.060 - .080	.856	.616	.025 - .040	.860	.750	.005 - .010	.865	.715	.032 - .042
.839	**.652**	**.005 - .010**	.846	.456	.035 - .050	**.850**	**.627**	**.005 - .010**	.856	.628	.060 - .080	**.860**	**.757**	**.005 - .010**	.865	.755	.032 - .050
.840	**.165**	**.005 - .010**	**.846**	**.639**	**.005 - .040**	.850	.630	.015 - .020	.856	.650	.010 - .020	**.860**	**.767**	**.005 - .010**	**.865**	**.756**	**.005 - .010**
.840	.246	.104 - .125	.846	.658	.032 - .050	.850	.635	.015 - .030	.856	.671	.010 - .020	**.860**	**.778**	**.005 - .010**	**.865**	**.794**	**.005 - .010**
.840	.292	.020 - .040	.846	.662	.010 - .020	.850	.650	.070 - .080	**.856**	**.688**	**.005 - .010**	.860	.785	.010 - .020	.866	.157	.020 - .030
.840	.313	.105 - .125	.846	.663	.030 - .060	**.850**	**.664**	**.005 - .030**	.856	.689	.030 - .050	.861	.499	.030 - .050	.866	.197	.080 - .100
.840	.316	.015 - .030	.846	.670	.040 - .060	.850	.673	.015 - .030	.856	.734	.010 - .020	.861	.527	.040 - .060	**.866**	**.236**	**.005 - .020**
.840	.340	.010 - .025	.846	.697	.015 - .030	**.850**	**.705**	**.005 - .010**	**.857**	**.312**	**.005 - .010**	.861	.601	.030 - .050	.866	.239	.030 - .050
.840	.384	.010 - .025	**.846**	**.757**	**.005 - .010**	.850	.711	.015 - .030	**.857**	**.409**	**.005 - .010**	.861	.620	.060 - .080	.866	.276	.030 - .040
.840	.387	.015 - .030	.847	.193	.090 - .105	.850	.731	.020 - .040	.857	.555	.015 - .025	**.861**	**.636**	**.005 - .010**	**.866**	**.299**	**.005 - .020**
.840	**.390**	**.005 - .010**	**.847**	**.253**	**.005 - .010**	**.850**	**.735**	**.005 - .030**	.857	.640	.025 - .040	.861	.638	.050 - .070	**.866**	**.315**	**.005 - .020**
.840	.470	.060 - .083	**.847**	**.323**	**.005 - .010**	.850	.750	.010 - .020	.857	.665	.010 - .020	.861	.689	.030 - .050	**.866**	**.316**	**.005 - .010**
.840	**.503**	**.005 - .010**	**.847**	**.416**	**.005 - .010**	.850	.809	.010 - .020	.857	.692	.030 - .050	.861	.749	.015 - .020	**.866**	**.317**	**.005 - .010**
.840	.515	.025 - .040	**.847**	**.422**	**.005 - .010**	**.851**	**.093**	**.005 - .010**	.858	.352	.100 - .125	**.861**	**.763**	**.005 - .010**	**.866**	**.318**	**.005 - .010**
.840	**.535**	**.005 - .010**	**.847**	**.500**	**.005 - .010**	.851	.164	.050 - .070	.858	.564	.030 - .060	.862	.256	.050 - .072	**.866**	**.319**	**.005 - .010**
.840	.545	.100 - .135	**.847**	**.522**	**.005 - .010**	**.851**	**.173**	**.005 - .010**	.858	.596	.030 - .050	.862	.295	.040 - .070	**.866**	**.322**	**.005 - .010**
.840	.556	.032 - .040	**.847**	**.536**	**.005 - .010**	.851	.184	.040 - .090	.858	.619	.050 - .070	.862	.312	.025 - .042	.866	.325	.090 - .105
.840	**.558**	**.005 - .010**	.848	.067	.010 - .020	.851	.185	.060 - .090	**.858**	**.626**	**.005 - .010**	.862	.407	.015 - .025	.866	.336	.070 - .080
.840	**.569**	**.005 - .010**	.848	.199	.025 - .040	.851	.384	.104 - .134	**.858**	**.630**	**.005 - .010**	.862	.427	.020 - .030	.866	.350	.025 - .040
.840	.575	.060 - .070	**.848**	**.317**	**.005 - .010**	.851	.385	.010 - .020	.858	.649	.030 - .050	.862	.472	.050 - .060	**.866**	**.394**	**.005 - .020**
.840	.631	.030 - .060	**.848**	**.323**	**.005 - .020**	.851	.401	.005 - .010	.858	.650	.008 - .020	.862	.518	.090 - .125	.866	.395	.010 - .020
.840	.633	.007 - .015	.848	.472	.015 - .030	.851	.421	.105 - .120	.858	.653	.025 - .040	.862	.529	.050 - .075	**.866**	**.396**	**.005 - .010**
.840	.643	.075 - .090	.848	.492	.050 - .070	.851	.450	.030 - .050	.858	.720	.030 - .050	.862	.538	.015 - .030	**.866**	**.397**	**.005 - .015**
.840	.650	.048 - .062	**.848**	**.505**	**.005 - .010**	**.851**	**.503**	**.005 - .010**	.858	.725	.040 - .060	.862	.572	.060 - .075	.866	.401	.105 - .125
.840	.674	.010 - .020	**.848**	**.510**	**.005 - .010**	.851	.513	.040 - .060	.858	.773	.010 - .020	.862	.680	.020 - .032	**.866**	**.416**	**.005 - .010**
.840	.675	.015 - .030	**.848**	**.540**	**.005 - .010**	.851	.564	.030 - .050	.859	.064	.030 - .050	.862	.692	.020 - .030	**.866**	**.439**	**.005 - .010**
.840	.676	.020 - .035	.848	.610	.010 - .020	**.851**	**.571**	**.005 - .010**	.859	.171	.010 - .020	.862	.751	.030 - .050	**.866**	**.444**	**.005 - .010**
.840	**.680**	**.005 - .010**	.848	.685	.032 - .062	**.851**	**.640**	**.005 - .010**	.859	.265	.075 - .090	.863	.272	.062 - .078	.866	.453	.030 - .040
.840	.682	.015 - .030	.848	.750	.010 - .020	**.851**	**.655**	**.005 - .010**	**.859**	**.380**	**.005 - .015**	.863	.375	.025 - .040	**.866**	**.473**	**.005 - .010**

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
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O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.866	.474	.005 - .020	.868	.719	.070 - .090	.871	.383	.060 - .070	.874	.376	.020 - .040	**.875**	**.340**	**.005 - .010**	.875	.674	.010 - .020
.866	.475	.010 - .020	.868	.736	.010 - .020	.871	.410	.030 - .050	.874	.377	.015 - .080	.875	.343	.016 - .025	.875	.687	.050 - .080
.866	.484	.070 - .090	.868	.751	.010 - .020	**.871**	**.455**	**.005 - .010**	**.874**	**.381**	**.005 - .010**	.875	.345	.110 - .130	.875	.690	.075 - .090
.866	.496	.100 - .125	.868	.760	.025 - .040	.871	.477	.060 - .090	.874	.384	.008 - .016	.875	.347	.042 - .062	.875	.691	.040 - .060
.866	.500	.010 - .020	.869	.279	.105 - .135	.871	.579	.010 - .020	.874	.392	.015 - .030	**.875**	**.354**	**.005 - .010**	.875	.693	.030 - .050
.866	.531	.025 - .040	.869	.393	.020 - .035	.871	.581	.070 - .090	.874	.398	.125 - .156	.875	.362	.012 - .020	**.875**	**.698**	**.005 - .010**
.866	.543	.030 - .060	.869	.430	.125 - .187	**.871**	**.582**	**.005 - .010**	.874	.410	.080 - .100	**.875**	**.367**	**.005 - .010**	**.875**	**.719**	**.005 - .080**
.866	.545	.020 - .040	.869	.508	.050 - .070	**.871**	**.590**	**.005 - .010**	**.874**	**.420**	**.005 - .010**	.875	.375	.100 - .125	.875	.735	.050 - .070
.866	.562	.015 - .030	.869	.539	.010 - .020	.871	.673	.010 - .020	.874	.439	.105 - .125	**.875**	**.376**	**.005 - .010**	.875	.746	.010 - .020
.866	.568	.040 - .060	**.869**	**.575**	**.005 - .010**	.871	.675	.015 - .030	.874	.446	.105 - .125	.875	.377	.010 - .020	.875	.750	.030 - .050
.866	.591	.030 - .050	.869	.628	.020 - .080	.871	.771	.025 - .040	.874	.501	.105 - .125	.875	.378	.020 - .030	**.875**	**.751**	**.005 - .015**
.866	**.592**	**.005 - .010**	.869	.667	.020 - .030	.872	.153	.040 - .060	.874	.502	.105 - .125	.875	.380	.105 - .134	.875	.755	.010 - .020
.866	.626	.040 - .060	**.870**	**.125**	**.005 - .015**	**.872**	**.189**	**.005 - .015**	.874	.505	.050 - .070	.875	.382	.015 - .030	.875	.756	.025 - .040
.866	.627	.025 - .040	.870	.170	.025 - .040	.872	.219	.060 - .083	.874	.508	.040 - .060	.875	.383	.150 - .180	.875	.760	.020 - .040
.866	.631	.010 - .020	.870	.184	.040 - .062	.872	.221	.080 - .100	.874	.509	.010 - .020	.875	.384	.008 - .016	.876	.067	.015 - .030
.866	.637	.015 - .030	**.870**	**.186**	**.005 - .010**	.872	.254	.010 - .020	.874	.510	.075 - .090	.875	.389	.040 - .060	.876	.093	.020 - .040
.866	.638	.060 - .070	**.870**	**.196**	**.005 - .015**	**.872**	**.261**	**.005 - .010**	.874	.512	.060 - .080	.875	.390	.060 - .075	.876	.127	.060 - .080
.866	**.642**	**.005 - .010**	**.870**	**.202**	**.005 - .010**	.872	.267	.030 - .050	.874	.513	.015 - .030	.875	.391	.040 - .060	**.876**	**.130**	**.005 - .010**
.866	**.643**	**.005 - .010**	**.870**	**.239**	**.005 - .010**	.872	.269	.032 - .042	**.874**	**.514**	**.005 - .010**	**.875**	**.393**	**.005 - .010**	**.876**	**.164**	**.005 - .010**
.866	.647	.015 - .030	.870	.248	.040 - .060	.872	.306	.020 - .030	.874	.526	.050 - .070	.875	.395	.090 - .125	.876	.173	.050 - .070
.866	**.670**	**.005 - .010**	.870	.264	.100 - .125	.872	.320	.042 - .062	.874	.533	.030 - .060	.875	.396	.010 - .020	.876	.282	.040 - .187
.866	.697	.015 - .025	.870	.280	.120 - .150	.872	.334	.010 - .050	.874	.535	.032 - .048	.875	.397	.050 - .070	.876	.284	.040 - .060
.866	.709	.040 - .060	.870	.307	.010 - .030	.872	.376	.010 - .020	.874	.540	.030 - .050	**.875**	**.399**	**.005 - .010**	.876	.287	.100 - .125
.866	.719	.015 - .030	.870	.312	.013 - .028	**.872**	**.394**	**.005 - .025**	.874	.579	.015 - .030	.875	.405	.100 - .120	**.876**	**.288**	**.005 - .010**
.866	.750	.015 - .030	.870	.313	.015 - .025	**.872**	**.399**	**.005 - .010**	.874	.601	.070 - .090	.875	.406	.050 - .060	.876	.317	.030 - .050
.866	**.756**	**.005 - .010**	.870	.316	.012 - .020	.872	.402	.010 - .020	**.874**	**.603**	**.005 - .010**	.875	.412	.100 - .125	**.876**	**.328**	**.005 - .125**
.866	.758	.010 - .030	.870	.320	.040 - .060	.872	.475	.060 - .083	**.874**	**.621**	**.005 - .010**	**.875**	**.413**	**.005 - .015**	.876	.328	.156 - .187
.866	**.814**	**.005 - .010**	.870	.345	.025 - .040	.872	.476	.055 - .085	.874	.624	.020 - .040	.875	.415	.060 - .083	.876	.340	.160 - .190
.867	.129	.020 - .040	**.870**	**.352**	**.005 - .010**	.872	.562	.075 - .090	.874	.625	.015 - .025	**.875**	**.430**	**.005 - .030**	.876	.343	.025 - .040
.867	.264	.070 - .090	.870	.354	.060 - .080	.872	.593	.075 - .104	.874	.627	.030 - .050	.875	.436	.060 - .080	.876	.350	.015 - .025
.867	.336	.090 - .120	.870	.381	.090 - .120	**.872**	**.605**	**.005 - .010**	.874	.645	.030 - .050	.875	.437	.050 - .080	**.876**	**.377**	**.005 - .010**
.867	.360	.020 - .040	.870	.387	.135 - .187	**.872**	**.626**	**.005 - .010**	**.874**	**.658**	**.005 - .010**	.875	.438	.010 - .020	.876	.378	.090 - .105
.867	.370	.025 - .040	.870	.393	.050 - .070	**.872**	**.687**	**.005 - .010**	.874	.660	.010 - .020	**.875**	**.439**	**.005 - .010**	.876	.397	.030 - .050
.867	.381	.030 - .060	.870	.394	.070 - .080	.872	.725	.040 - .060	.874	.688	.015 - .030	.875	.440	.015 - .125	**.876**	**.461**	**.005 - .010**
.867	**.387**	**.005 - .010**	.870	.421	.040 - .060	**.872**	**.728**	**.005 - .010**	.874	.721	.010 - .020	.875	.448	.030 - .050	.876	.471	.040 - .062
.867	.394	.010 - .020	.870	.437	.060 - .080	**.872**	**.755**	**.005 - .025**	.874	.751	.020 - .030	**.875**	**.451**	**.005 - .010**	**.876**	**.500**	**.005 - .010**
.867	**.398**	**.005 - .010**	.870	.440	.156 - .187	**.872**	**.760**	**.005 - .010**	**.875**	**.070**	**.005 - .010**	**.875**	**.452**	**.005 - .010**	**.876**	**.503**	.090 - .120
.867	.405	.090 - .105	.870	.450	.090 - .120	.872	.807	.010 - .015	**.875**	**.086**	**.005 - .010**	.875	.453	.025 - .080	.876	.506	.090 - .120
.867	**.413**	**.005 - .010**	.870	.459	.010 - .020	.873	.140	.048 - .062	.875	.087	.020 - .040	.875	.456	.090 - .125	.876	.515	.080 - .104
.867	**.452**	**.005 - .010**	.870	.461	.040 - .060	.873	.153	.050 - .075	.875	.111	.020 - .040	.875	.473	.100 - .125	.876	.516	.125 - .156
.867	.474	.090 - .110	**.870**	**.472**	**.005 - .010**	.873	.194	.070 - .090	.875	.129	.020 - .040	.875	.475	.025 - .040	.876	.519	.060 - .083
.867	.560	.040 - .060	.870	.502	.030 - .040	**.873**	**.195**	**.005 - .010**	.875	.133	.032 - .042	.875	.481	.120 - .135	.876	.522	.100 - .125
.867	**.566**	**.005 - .010**	.870	.505	.040 - .075	.873	.224	.020 - .040	.875	.140	.015 - .030	.875	.486	.020 - .040	.876	.533	.110 - .130
.867	.593	.015 - .030	.870	.506	.080 - .105	.873	.307	.007 - .016	**.875**	**.150**	**.005 - .010**	.875	.500	.040 - .090	.876	.551	.100 - .120
.867	.608	.080 - .120	.870	.508	.105 - .135	.873	.312	.030 - .050	.875	.153	.040 - .060	.875	.501	.006 - .030	**.876**	**.563**	**.005 - .010**
.867	.632	.025 - .040	**.870**	**.512**	**.005 - .010**	.873	.361	.105 - .125	**.875**	**.158**	**.005 - .010**	.875	.502	.015 - .030	.876	.565	.020 - .040
.867	.638	.012 - .020	.870	.520	.075 - .090	**.873**	**.365**	**.005 - .010**	.875	.161	.040 - .060	.875	.504	.030 - .125	.876	.591	.050 - .070
.867	.670	.015 - .030	**.870**	**.540**	**.005 - .010**	.873	.378	.040 - .060	.875	.168	.072 - .120	**.875**	**.505**	**.005 - .042**	.876	.600	.060 - .075
.867	**.688**	**.005 - .008**	.870	.541	.105 - .125	**.873**	**.381**	**.005 - .010**	.875	.172	.048 - .062	.875	.506	.090 - .125	.876	.616	.048 - .062
.867	**.690**	.010 - .020	**.870**	**.557**	**.005 - .010**	.873	.387	.015 - .025	.875	.175	.040 - .060	.875	.507	.030 - .125	.876	.622	.040 - .060
.867	.704	.025 - .040	**.870**	**.562**	**.005 - .060**	**.873**	**.388**	**.005 - .010**	.875	.180	.062 - .075	.875	.513	.032 - .135	**.876**	**.625**	**.005 - .010**
.867	**.709**	**.005 - .010**	.870	.567	.090 - .105	.873	.405	.015 - .030	.875	.184	.020 - .040	.875	.516	.060 - .080	.876	.626	.050 - .075
.867	.710	.010 - .030	.870	.578	.040 - .060	.873	.410	.105 - .135	**.875**	**.517**	**.005 - .010**	**.875**	**.517**	**.005 - .010**	.876	.632	.030 - .050
.867	.724	.040 - .060	.870	.580	.010 - .020	**.873**	**.412**	**.005 - .010**	.875	.518	.090 - .110	.875	.518	.090 - .110	.876	.633	.062 - .080
.867	**.753**	**.005 - .010**	.870	.581	.042 - .060	.873	.436	.050 - .075	.875	.192	.025 - .042	.875	.527	.032 - .048	.876	.672	.090 - .105
.867	.760	.015 - .030	.870	.608	.030 - .060	.873	.440	.105 - .135	.875	.196	.050 - .075	.875	.530	.015 - .030	.876	.675	.030 - .040
.867	.770	.030 - .050	**.870**	**.610**	**.005 - .012**	.873	.467	.015 - .030	.875	.199	.050 - .070	.875	.531	.105 - .125	.876	.681	.060 - .080
.867	**.794**	**.005 - .010**	.870	.625	.015 - .030	.873	.470	.030 - .050	.875	.203	.062 - .090	.875	.562	.050 - .072	.876	.692	.020 - .030
.868	**.237**	**.005 - .010**	.870	.628	.025 - .040	.873	.503	.015 - .070	.875	.204	.040 - .060	**.875**	**.563**	**.005 - .105**	.876	.694	.020 - .040
.868	**.238**	**.005 - .010**	**.870**	**.629**	**.005 - .010**	.873	.522	.020 - .040	**.875**	**.226**	**.005 - .010**	**.875**	**.567**	**.005 - .090**	.876	.702	.010 - .020
.868	.315	.015 - .060	.870	.632	.010 - .050	.873	.532	.170 - .190	**.875**	**.236**	**.005 - .060**	.875	.568	.020 - .048	.876	.714	.030 - .050
.868	**.317**	**.005 - .010**	**.870**	**.639**	**.005 - .010**	.873	.546	.050 - .070	.875	.246	.040 - .060	.875	.579	.050 - .060	.876	.745	.025 - .040
.868	**.442**	**.005 - .010**	.870	.640	.030 - .060	.873	.582	.100 - .125	**.875**	**.250**	**.005 - .050**	.875	.580	.015 - .030	.876	.750	.030 - .040
.868	.462	.030 - .050	**.870**	**.647**	**.005 - .010**	.873	.599	.075 - .090	.875	.252	.010 - .020	.875	.600	.090 - .105	.876	.751	.015 - .030
.868	**.473**	**.005 - .010**	.870	.649	.015 - .030	.873	.604	.025 - .040	.875	.253	.050 - .075	.875	.610	.025 - .040	.877	.128	.060 - .080
.868	**.477**	**.005 - .010**	.870	.650	.040 - .060	.873	.627	.030 - .060	.875	.257	.070 - .130	.875	.611	.050 - .070	.877	.170	.035 - .060
.868	.513	.015 - .025	.870	.682	.015 - .075	.873	.628	.105 - .125	.875	.260	.030 - .040	.875	.621	.060 - .080	.877	.173	.100 - .125
.868	.521	.100 - .134	.870	.687	.050 - .062	**.873**	**.630**	**.005 - .050**	.875	.267	.090 - .134	.875	.626	.050 - .070	.877	.250	.030 - .050
.868	.527	.010 - .020	**.870**	**.691**	**.005 - .010**	**.873**	**.632**	**.005 - .015**	**.875**	**.268**	**.005 - .010**	**.875**	**.628**	**.005 - .060**	.877	.254	.100 - .125
.868	.563	.080 - .100	**.870**	**.695**	**.005 - .010**	.873	.780	.025 - .040	**.875**	**.281**	**.005 - .010**	.875	.630	.050 - .070	.877	.281	.010 - .015
.868	.606	.015 - .030	.870	.711	.025 - .040	.874	.200	.042 - .080	.875	.282	.030 - .050	.875	.631	.015 - .030	.877	.313	.025 - .040
.868	.607	.015 - .030	**.870**	**.728**	**.005 - .010**	.874	.203	.040 - .060	.875	.315	.100 - .134	.875	.632	.100 - .125	.877	.329	.020 - .030
.868	.610	.090 - .125	**.870**	**.738**	**.005 - .010**	.874	.243	.030 - .050	.875	.318	.090 - .110	**.875**	**.635**	**.005 - .010**	.877	.377	.012 - .020
.868	**.620**	**.005 - .010**	**.870**	**.744**	**.005 - .010**	**.874**	**.259**	**.005 - .010**	.875	.320	.010 - .020	.875	.637	.010 - .104	.877	.389	.134 - .187
.868	.627	.080 - .105	**.870**	**.754**	**.005 - .012**	.874	.266	.025 - .040	.875	.324	.030 - .040	.875	.650	.100 - .125	.877	.407	.170 - .190
.868	.641	.040 - .060	.870	.755	.042 - .062	**.874**	**.312**	**.005 - .010**	.875	.325	.050 - .072	.875	.652	.031 - .048	.877	.442	.070 - .080
.868	.664	.060 - .080	.870	.761	.020 - .030	**.874**	**.316**	**.005 - .010**	.875	.327	.090 - .125	.875	.654	.075 - .100	.877	.494	.072 - .083
.868	.665	.010 - .030	.870	.810	.015 - .025	.874	.329	.060 - .083	**.875**	**.328**	**.005 - .010**	.875	.660	.062 - .078	.877	.498	.050 - .075
.868	**.687**	**.005 - .010**	.871	.211	.050 - .070	.874	.330	.025 - .040	.875	.330	.080 - .104	.875	.666	.040 - .060	.877	.507	.060 - .080
.868	**.689**	**.005 - .010**	.871	.381	.030 - .110	.874	.375	.060 - .187	.875	.337	.050 - .072	**.875**	**.670**	**.005 - .010**	.877	.593	.080 - .100

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For a size NOT listed, send specs or phone for quote — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.877	.643	.025 - .042	.880	.621	.020 - .060	.892	.273	.070 - .105	.900	.510	.015 - .030	.905	.196	.040 - .060	.908	.764	.020 - .030
.877	.693	.030 - .050	.880	.626	.062 - .078	.892	.390	.005 - .010	.900	.562	.005 - .015	.905	.238	.005 - .010	.908	.765	.020 - .040
.877	.694	.070 - .090	.880	.659	.070 - .080	.892	.514	.005 - .010	.900	.563	.040 - .060	.905	.317	.005 - .010	.909	.250	.030 - .040
.877	.755	.042 - .062	.880	.681	.005 - .012	.892	.612	.010 - .025	.900	.564	.010 - .100	.905	.330	.015 - .030	.909	.342	.050 - .075
.877	.836	.005 - .010	.880	.688	.030 - .050	.892	.632	.005 - .010	.900	.570	.005 - .070	.905	.344	.020 - .030	.909	.364	.005 - .010
.878	.125	.020 - .040	.880	.690	.060 - .070	.892	.653	.050 - .070	.900	.577	.015 - .025	.905	.392	.010 - .040	.909	.379	.005 - .010
.878	.187	.020 - .040	.880	.711	.025 - .040	.892	.726	.005 - .010	.900	.578	.070 - .090	.905	.396	.005 - .010	.909	.634	.010 - .020
.878	.219	.015 - .040	.881	.201	.005 - .010	.893	.621	.040 - .075	.900	.595	.070 - .090	.905	.398	.120 - .135	.909	.676	.007 - .015
.878	.229	.040 - .060	.881	.203	.005 - .010	.894	.195	.020 - .040	.900	.595	.080 - .090	.905	.414	.180 - .190	.909	.749	.040 - .060
.878	.264	.060 - .083	.881	.548	.030 - .050	.894	.251	.010 - .020	.900	.610	.020 - .040	.905	.451	.070 - .090	.909	.796	.005 - .010
.878	.282	.015 - .030	.881	.661	.005 - .010	.894	.501	.060 - .080	.900	.625	.025 - .040	.905	.460	.005 - .010	.910	.250	.080 - .104
.878	.285	.090 - .120	.881	.681	.010 - .015	.894	.624	.005 - .010	.900	.626	.050 - .070	.905	.473	.010 - .030	.910	.330	.030 - .040
.878	.376	.025 - .040	.881	.732	.020 - .030	.894	.762	.005 - .010	.900	.628	.005 - .010	.905	.475	.105 - .125	.910	.381	.050 - .070
.878	.387	.020 - .040	.882	.300	.005 - .010	.895	.375	.070 - .090	.900	.629	.010 - .020	.905	.481	.040 - .060	.910	.417	.010 - .020
.878	.387	.048 - .062	.882	.323	.005 - .010	.895	.390	.032 - .062	.900	.630	.120 - .135	.905	.493	.070 - .090	.910	.425	.005 - .010
.878	.402	.060 - .075	.882	.325	.005 - .010	.895	.462	.005 - .010	.900	.634	.040 - .060	.905	.520	.020 - .040	.910	.440	.005 - .010
.878	.406	.025 - .040	.882	.500	.150 - .180	.895	.574	.032 - .042	.900	.651	.005 - .010	.905	.531	.050 - .060	.910	.468	.075 - .090
.878	.437	.020 - .040	.882	.540	.090 - .110	.895	.631	.005 - .010	.900	.654	.060 - .070	.905	.558	.005 - .010	.910	.490	.130 - .156
.878	.446	.050 - .075	.882	.642	.040 - .060	.895	.661	.010 - .020	.900	.661	.070 - .090	.905	.564	.040 - .060	.910	.500	.025 - .040
.878	.473	.135 - .156	.882	.664	.005 - .010	.895	.733	.050 - .070	.900	.670	.025 - .048	.905	.585	.050 - .075	.910	.515	.100 - .125
.878	.478	.010 - .020	.883	.315	.010 - .020	.895	.795	.010 - .020	.900	.690	.010 - .050	.905	.634	.032 - .060	.910	.540	.060 - .080
.878	.501	.020 - .040	.883	.500	.050 - .075	.895	.801	.020 - .030	.900	.711	.025 - .040	.905	.637	.015 - .030	.910	.560	.110 - .130
.878	.516	.100 - .125	.883	.509	.030 - .050	.896	.215	.060 - .080	.900	.725	.020 - .040	.905	.639	.040 - .060	.910	.590	.005 - .010
.878	.518	.100 - .125	.883	.560	.050 - .070	.896	.340	.050 - .070	.900	.730	.060 - .080	.905	.643	.010 - .020	.910	.650	.005 - .015
.878	.523	.100 - .125	.883	.622	.050 - .075	.896	.772	.020 - .042	.900	.755	.010 - .020	.905	.657	.070 - .080	.910	.667	.030 - .050
.878	.531	.020 - .040	.883	.777	.010 - .020	.897	.292	.005 - .010	.900	.800	.005 - .010	.905	.672	.070 - .090	.910	.703	.030 - .040
.878	.562	.025 - .040	.884	.411	.005 - .010	.897	.407	.005 - .010	.900	.805	.005 - .010	.905	.673	.090 - .125	.910	.811	.020 - .040
.878	.570	.005 - .012	.884	.510	.015 - .030	.897	.408	.010 - .020	.900	.810	.010 - .020	.905	.674	.075 - .100	.910	.820	.005 - .010
.878	.585	.005 - .010	.885	.150	.020 - .040	.897	.409	.025 - .080	.900	.825	.005 - .010	.905	.677	.105 - .125	.911	.256	.080 - .100
.878	.593	.025 - .050	.885	.212	.010 - .020	.897	.704	.025 - .040	.900	.830	.015 - .025	.905	.682	.010 - .020	.911	.416	.062 - .090
.878	.627	.020 - .030	.885	.325	.005 - .010	.897	.748	.005 - .015	.901	.202	.030 - .050	.905	.709	.015 - .030	.911	.471	.030 - .050
.878	.628	.005 - .010	.885	.396	.005 - .010	.897	.810	.010 - .020	.901	.256	.010 - .016	.905	.728	.050 - .070	.911	.564	.030 - .050
.878	.632	.040 - .060	.885	.443	.005 - .008	.898	.250	.040 - .060	.901	.292	.040 - .060	.905	.785	.005 - .010	.911	.568	.005 - .010
.878	.648	.005 - .010	.885	.456	.005 - .020	.898	.318	.050 - .075	.901	.361	.010 - .020	.906	.316	.005 - .010	.911	.615	.005 - .010
.878	.660	.015 - .030	.885	.521	.005 - .010	.898	.343	.005 - .010	.901	.506	.005 - .020	.906	.325	.005 - .010	.911	.710	.030 - .048
.878	.689	.020 - .040	.885	.565	.015 - .032	.898	.453	.080 - .100	.901	.626	.005 - .020	.906	.394	.010 - .020	.911	.780	.005 - .010
.878	.742	.005 - .010	.885	.626	.020 - .040	.898	.510	.075 - .104	.901	.694	.075 - .093	.906	.395	.090 - .100	.911	.815	.005 - .010
.878	.826	.005 - .010	.885	.695	.005 - .010	.898	.665	.025 - .040	.901	.710	.005 - .020	.906	.396	.010 - .020	.912	.549	.070 - .105
.879	.125	.050 - .060	.885	.705	.005 - .010	.898	.726	.005 - .010	.901	.715	.010 - .020	.906	.405	.010 - .020	.912	.563	.010 - .020
.879	.172	.090 - .120	.886	.118	.030 - .050	.898	.748	.005 - .010	.902	.316	.010 - .030	.906	.474	.005 - .010	.912	.596	.005 - .010
.879	.250	.025 - .040	.886	.291	.030 - .050	.898	.812	.005 - .010	.902	.318	.005 - .010	.906	.512	.006 - .012	.912	.636	.060 - .070
.879	.327	.048 - .062	.886	.443	.005 - .040	.898	.829	.015 - .030	.902	.329	.005 - .010	.906	.519	.010 - .020	.912	.656	.105 - .120
.879	.376	.010 - .020	.886	.531	.050 - .070	.899	.121	.040 - .060	.902	.377	.005 - .010	.906	.565	.080 - .100	.912	.683	.015 - .030
.879	.399	.050 - .070	.886	.650	.070 - .090	.899	.197	.030 - .050	.902	.504	.006 - .012	.906	.592	.025 - .040	.912	.805	.005 - .010
.879	.431	.050 - .070	.887	.265	.062 - .090	.899	.479	.020 - .040	.902	.505	.005 - .010	.906	.603	.010 - .020	.913	.493	.015 - .030
.879	.515	.025 - .040	.887	.325	.035 - .050	.899	.501	.010 - .020	.902	.505	.005 - .020	.906	.609	.005 - .010	.913	.507	.020 - .030
.879	.516	.040 - .060	.887	.572	.050 - .070	.899	.535	.005 - .010	.902	.535	.005 - .010	.906	.638	.093 - .125	.913	.510	.020 - .040
.879	.593	.050 - .070	.887	.714	.020 - .040	.899	.562	.025 - .040	.902	.564	.005 - .010	.906	.657	.025 - .035	.913	.665	.080 - .100
.879	.635	.050 - .075	.887	.755	.005 - .010	.899	.563	.005 - .010	.902	.642	.005 - .010	.906	.669	.015 - .030	.913	.847	.005 - .010
.879	.636	.015 - .030	.887	.795	.005 - .010	.899	.568	.070 - .090	.902	.658	.005 - .010	.906	.728	.030 - .050	.914	.521	.005 - .010
.880	.165	.050 - .075	.888	.382	.075 - .090	.899	.789	.030 - .040	.902	.679	.030 - .050	.906	.730	.030 - .050	.914	.596	.025 - .040
.880	.170	.110 - .130	.888	.530	.005 - .010	.899	.791	.010 - .020	.902	.790	.030 - .050	.906	.750	.010 - .020	.914	.650	.015 - .030
.880	.192	.015 - .030	.888	.535	.015 - .030	.899	.810	.020 - .030	.902	.792	.005 - .010	.906	.759	.010 - .020	.915	.350	.040 - .060
.880	.219	.032 - .050	.888	.622	.005 - .010	.899	.814	.005 - .010	.903	.252	.080 - .100	.906	.769	.010 - .020	.915	.446	.015 - .025
.880	.260	.005 - .125	.888	.656	.005 - .010	.899	.841	.010 - .020	.903	.258	.060 - .080	.907	.228	.040 - .060	.915	.448	.005 - .010
.880	.260	.126 - .187	.888	.760	.010 - .020	.900	.063	.010 - .020	.903	.315	.030 - .048	.907	.293	.070 - .090	.915	.509	.050 - .070
.880	.265	.005 - .010	.889	.395	.105 - .120	.900	.079	.030 - .050	.903	.330	.015 - .030	.907	.330	.050 - .060	.915	.510	.005 - .010
.880	.302	.005 - .015	.889	.557	.005 - .010	.900	.100	.015 - .030	.903	.401	.005 - .010	.907	.380	.125 - .135	.915	.512	.020 - .040
.880	.324	.050 - .070	.889	.569	.005 - .010	.900	.154	.005 - .010	.903	.416	.100 - .125	.907	.411	.025 - .040	.915	.616	.015 - .030
.880	.333	.042 - .060	.889	.758	.025 - .040	.900	.217	.025 - .040	.903	.500	.025 - .036	.907	.469	.100 - .120	.915	.623	.030 - .060
.880	.340	.160 - .190	.889	.786	.005 - .010	.900	.252	.005 - .010	.903	.531	.160 - .180	.907	.514	.005 - .010	.915	.628	.080 - .095
.880	.357	.005 - .010	.890	.192	.050 - .072	.900	.254	.040 - .060	.903	.664	.025 - .040	.907	.603	.070 - .090	.915	.744	.005 - .010
.880	.375	.060 - .080	.890	.273	.070 - .105	.900	.376	.005 - .030	.903	.710	.010 - .020	.907	.624	.020 - .035	.916	.150	.020 - .032
.880	.376	.025 - .062	.890	.385	.090 - .105	.900	.377	.005 - .010	.903	.735	.005 - .015	.907	.645	.020 - .040	.916	.317	.100 - .120
.880	.380	.005 - .080	.890	.405	.100 - .125	.900	.378	.015 - .040	.903	.760	.015 - .030	.907	.669	.060 - .080	.916	.507	.040 - .060
.880	.381	.005 - .015	.890	.438	.030 - .040	.900	.379	.005 - .078	.903	.766	.040 - .060	.907	.672	.042 - .060	.916	.532	.040 - .060
.880	.386	.070 - .090	.890	.504	.015 - .030	.900	.380	.010 - .020	.903	.771	.005 - .050	.907	.728	.005 - .015	.916	.540	.020 - .040
.880	.406	.005 - .010	.890	.530	.010 - .030	.900	.390	.030 - .060	.903	.781	.040 - .050	.907	.740	.010 - .050	.916	.570	.050 - .090
.880	.407	.080 - .105	.890	.537	.105 - .125	.900	.400	.005 - .010	.904	.206	.040 - .060	.907	.757	.010 - .020	.916	.571	.090 - .110
.880	.426	.005 - .015	.890	.580	.005 - .008	.900	.406	.135 - .156	.904	.262	.070 - .090	.908	.332	.135 - .156	.916	.734	.020 - .040
.880	.430	.005 - .010	.890	.582	.005 - .010	.900	.437	.005 - .010	.904	.319	.005 - .020	.908	.342	.050 - .075	.916	.735	.020 - .040
.880	.455	.005 - .012	.890	.587	.005 - .010	.900	.440	.005 - .010	.904	.329	.005 - .010	.908	.379	.025 - .040	.916	.795	.010 - .020
.880	.485	.050 - .060	.890	.667	.005 - .010	.900	.441	.005 - .010	.904	.486	.025 - .042	.908	.502	.030 - .050	.916	.804	.016 - .032
.880	.495	.005 - .010	.890	.711	.025 - .040	.900	.453	.030 - .040	.904	.629	.020 - .100	.908	.555	.080 - .105	.916	.834	.005 - .010
.880	.505	.015 - .025	.890	.785	.040 - .050	.900	.455	.050 - .070	.904	.640	.030 - .040	.908	.564	.015 - .030	.917	.501	.050 - .090
.880	.518	.040 - .060	.891	.582	.005 - .010	.900	.489	.005 - .010	.904	.649	.020 - .035	.908	.616	.020 - .032	.917	.506	.020 - .040
.880	.523	.005 - .010	.891	.632	.005 - .010	.900	.500	.005 - .105	.904	.690	.015 - .030	.908	.688	.010 - .025	.917	.531	.062 - .078
.880	.530	.030 - .040	.891	.669	.010 - .020	.900	.501	.005 - .010	.904	.750	.040 - .060	.908	.705	.030 - .048	.917	.579	.050 - .060
.880	.541	.025 - .035	.891	.711	.005 - .015	.900	.503	.005 - .020	.904	.805	.005 - .040	.908	.751	.060 - .080	.917	.596	.005 - .015
.880	.604	.005 - .010	.892	.073	.025 - .036	.900	.504	.005 - .008	.905	.127	.090 - .110	.908	.753	.005 - .010	.917	.623	.040 - .060

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

Call BOKER'S for precision stamping, assembly, and secondary operations.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.918	.497	.010 - .020	.924	.727	.040 - .060	.931	.632	.105 - .125	**.936**	**.502**	**.005 - .010**	.938	.376	.048 - .062	.940	.656	.040 - .060
.918	**.596**	**.005 - .010**	.924	.746	.020 - .040	.931	.660	.020 - .030	.936	.517	.090 - .110	**.938**	**.379**	**.005 - .010**	**.940**	**.673**	**.005 - .030**
.918	**.614**	**.005 - .010**	**.925**	**.091**	**.005 - .010**	.931	.691	.040 - .060	**.936**	**.537**	**.005 - .010**	.938	.383	.105 - .125	**.940**	**.674**	**.005 - .010**
.918	.762	.025 - .035	.925	.158	.100 - .125	.931	.729	.050 - .070	**.936**	**.552**	**.005 - .010**	.938	.388	.090 - .105	.940	.686	.010 - .020
.919	.257	.070 - .090	.925	.314	.010 - .015	.931	.762	.020 - .030	.936	.627	.040 - .060	.938	.439	.042 - .062	.940	.700	.015 - .025
.919	**.366**	**.005 - .010**	.925	.322	.070 - .090	.932	.243	.050 - .070	.936	.641	.100 - .125	.938	.444	.040 - .062	.940	.701	.015 - .030
.919	**.396**	**.005 - .010**	.925	.346	.015 - .025	.932	.330	.025 - .040	.936	.645	.105 - .135	**.938**	**.458**	**.005 - .010**	.940	.704	.083 - .105
.919	**.565**	**.005 - .020**	.925	.397	.048 - .072	.932	.335	.050 - .070	.936	.650	.050 - .070	.938	.505	.030 - .050	.940	.710	.030 - .050
.919	.697	.010 - .020	.925	.438	.015 - .030	.932	.465	.090 - .110	**.936**	**.660**	**.005 - .008**	**.938**	**.507**	**.005 - .010**	.940	.721	.040 - .060
.919	**.765**	**.005 - .010**	.925	.445	.060 - .083	.932	.469	.040 - .062	.936	.687	.052 - .084	**.938**	**.521**	**.005 - .010**	**.940**	**.752**	**.005 - .010**
.919	.812	.020 - .030	.925	.450	.025 - .040	**.932**	**.563**	**.005 - .012**	.936	.718	.020 - .040	.938	.532	.105 - .125	.940	.766	.050 - .075
.920	**.048**	**.005 - .010**	.925	.474	.050 - .070	.932	.676	.015 - .030	.937	.080	.020 - .035	**.938**	**.550**	**.005 - .010**	**.940**	**.776**	**.005 - .010**
.920	**.157**	**.005 - .010**	.925	.516	.025 - .040	.932	.749	.050 - .070	.937	.092	.050 - .070	.938	.562	.030 - .050	.940	.788	.020 - .030
.920	.163	.032 - .060	.925	.526	.015 - .030	**.932**	**.775**	**.005 - .010**	.937	.110	.050 - .070	.938	.563	.015 - .030	**.940**	**.830**	**.005 - .012**
.920	**.200**	**.005 - .010**	.925	.575	.070 - .090	.937	.174	.062 - .080	.938	.570	.070 - .090	.941	.119	.030 - .060
.920	.230	.025 - .040	.925	.576	.050 - .075	**.932**	**.869**	**.005 - .020**	.937	.257	.032 - .048	**.938**	**.595**	**.005 - .010**	.941	.150	.060 - .070
.920	**.253**	**.005 - .075**	.925	.577	.050 - .075	.932	.870	.010 - .020	.937	.275	.030 - .050	**.938**	**.596**	**.005 - .010**	.941	.257	.010 - .020
.920	.265	.040 - .060	.925	.661	.025 - .040	.933	.197	.010 - .020	.937	.292	.025 - .040	.938	.636	.030 - .050	.941	.260	.050 - .070
.920	.269	.135 - .187	.925	.672	.040 - .060	.933	.415	.010 - .020	.937	.315	.080 - .100	.938	.637	.080 - .104	.941	.459	.020 - .030
.920	.316	.080 - .100	.925	.690	.010 - .020	.933	.508	.032 - .060	.937	.319	.025 - .040	.938	.690	.040 - .060	**.941**	**.484**	**.005 - .010**
.920	**.318**	**.005 - .010**	**.925**	**.719**	**.005 - .010**	.933	.624	.025 - .040	.937	.324	.030 - .060	.938	.721	.020 - .040	.941	.500	.040 - .060
.920	**.378**	**.005 - .010**	.925	.725	.010 - .020	**.933**	**.688**	**.005 - .010**	.937	.330	.156 - .187	.938	.730	.070 - .090	.941	.532	.030 - .050
.920	.456	.010 - .030	.925	.756	.010 - .020	**.933**	**.726**	**.005 - .010**	.937	.341	.050 - .075	.938	.752	.015 - .090	**.941**	**.555**	**.005 - .012**
.920	.470	.105 - .125	.925	.800	.012 - .025	.933	.775	.010 - .020	.937	.350	.020 - .030	**.938**	**.760**	**.005 - .010**	.941	.566	.020 - .040
.920	.499	.050 - .070	.925	.817	.010 - .020	**.933**	**.836**	**.005 - .010**	.937	.375	.010 - .020	.938	.761	.015 - .030	.941	.632	.030 - .060
.920	**.504**	**.005 - .010**	.925	.834	.020 - .030	**.934**	**.094**	**.005 - .010**	.937	.381	.025 - .040	.938	.766	.020 - .030	**.941**	**.675**	**.005 - .010**
.920	**.525**	**.005 - .010**	.926	.399	.080 - .105	.934	.190	.010 - .020	**.937**	**.390**	**.005 - .010**	.938	.770	.030 - .050	.941	.717	.050 - .070
.920	**.550**	**.005 - .010**	.926	.438	.045 - .060	.934	.414	.025 - .040	.937	.399	.156 - .187	.938	.784	.015 - .030	.941	.744	.006 - .012
.920	.564	.015 - .030	.926	.670	.010 - .020	.934	.508	.020 - .040	.937	.410	.015 - .030	**.938**	**.831**	**.005 - .010**	.941	.816	.028 - .040
.920	**.584**	**.005 - .010**	.926	.689	.015 - .030	**.934**	**.513**	**.005 - .010**	.937	.431	.050 - .075	.939	.040	.010 - .020	.941	.821	.010 - .020
.920	**.590**	**.005 - .010**	.926	.724	.015 - .030	.934	.563	.048 - .078	.937	.437	.156 - .187	.939	.126	.020 - .030	.941	.880	.020 - .030
.920	**.608**	**.005 - .010**	.927	.171	.100 - .125	.934	.743	.020 - .040	.937	.440	.020 - .040	.939	.189	.105 - .135	.942	.171	.025 - .040
.920	**.618**	**.005 - .010**	**.927**	**.264**	**.005 - .010**	**.934**	**.753**	**.005 - .010**	**.937**	**.444**	**.005 - .008**	.939	.195	.105 - .125	**.942**	**.407**	**.005 - .010**
.920	.628	.030 - .050	**.927**	**.397**	**.005 - .010**	**.934**	**.754**	**.005 - .020**	.937	.460	.025 - .040	.939	.218	.100 - .125	.942	.455	.030 - .120
.920	.629	.010 - .020	.927	.512	.008 - .016	.934	.757	.030 - .050	.937	.480	.015 - .030	.939	.376	.105 - .125	.942	.475	.030 - .050
.920	.630	.015 - .060	**.927**	**.627**	**.005 - .010**	.934	.770	.040 - .060	**.937**	**.487**	**.005 - .010**	**.939**	**.442**	**.005 - .030**	.942	.484	.010 - .020
.920	.687	.020 - .040	.927	.647	.042 - .060	.935	.152	.040 - .060	.937	.500	.015 - .030	.939	.457	.008 - .016	.942	.504	.030 - .050
.920	.690	.090 - .105	.927	.689	.010 - .020	.935	.216	.080 - .090	.937	.510	.020 - .110	**.939**	**.496**	**.005 - .010**	.942	.508	.090 - .120
.920	**.705**	**.005 - .010**	.927	.691	.020 - .040	.935	.273	.010 - .020	.937	.515	.030 - .050	.939	.560	.080 - .104	.942	.515	.015 - .035
.920	.720	.040 - .060	**.927**	**.819**	**.005 - .010**	.935	.310	.050 - .083	.937	.517	.105 - .125	**.939**	**.563**	**.005 - .010**	**.942**	**.530**	**.005 - .010**
.920	.778	.030 - .050	.928	.084	.050 - .062	**.935**	**.318**	**.005 - .010**	**.937**	**.518**	**.005 - .010**	.939	.610	.040 - .060	.942	.628	.060 - .080
.920	.819	.020 - .030	.928	.087	.050 - .060	**.935**	**.321**	**.005 - .010**	.937	.520	.020 - .125	.939	.628	.015 - .030	**.942**	**.693**	**.005 - .010**
.920	.853	.010 - .020	.928	.153	.060 - .080	.935	.439	.020 - .050	**.937**	**.570**	**.005 - .010**	.939	.630	.020 - .040	.942	.724	.100 - .125
.921	.314	.078 - .090	**.928**	**.383**	**.005 - .015**	.935	.455	.100 - .125	.937	.578	.080 - .104	.939	.633	.015 - .030	**.942**	**.744**	**.005 - .010**
.921	**.402**	**.005 - .010**	.928	.552	.080 - .100	.935	.481	.030 - .050	.937	.580	.030 - .050	.939	.640	.015 - .025	**.942**	**.794**	**.005 - .010**
.921	**.445**	**.005 - .010**	**.928**	**.678**	**.005 - .010**	.935	.489	.090 - .120	.937	.594	.050 - .060	.939	.656	.030 - .040	.942	.798	.020 - .030
.921	.490	.025 - .040	.929	.260	.020 - .040	.935	.501	.080 - .104	.937	.623	.020 - .040	.939	.660	.050 - .070	**.943**	**.406**	**.005 - .010**
.921	.508	.010 - .020	.929	.470	.072 - .105	.935	.523	.080 - .105	**.937**	**.625**	**.005 - .010**	.939	.678	.040 - .060	.943	.418	.120 - .140
.921	.531	.025 - .040	**.929**	**.570**	**.005 - .010**	.935	.535	.090 - .105	.937	.629	.030 - .050	**.939**	**.700**	**.005 - .010**	.943	.426	.020 - .040
.921	.587	.020 - .040	**.929**	**.575**	**.005 - .010**	.935	.565	.012 - .020	.937	.637	.025 - .042	.939	.739	.050 - .070	.943	.442	.010 - .030
.921	.630	.010 - .020	.929	.600	.050 - .075	.935	.569	.030 - .050	.937	.640	.032 - .060	.939	.783	.040 - .060	.943	.473	.075 - .090
.921	.641	.010 - .020	**.929**	**.689**	**.005 - .104**	.935	.570	.030 - .060	**.937**	**.650**	**.005 - .010**	.939	.799	.030 - .050	**.943**	**.475**	**.005 - .010**
.921	.680	.025 - .040	.929	.697	.012 - .020	.935	.581	.100 - .125	.937	.656	.032 - .060	.939	.869	.015 - .025	**.943**	**.517**	**.005 - .010**
.921	.682	.030 - .050	.930	.088	.015 - .030	.935	.624	.100 - .125	**.937**	**.672**	**.005 - .010**	.940	.186	.031 - .048	.943	.547	.030 - .050
.921	.788	.020 - .040	.930	.098	.020 - .040	.935	.681	.030 - .050	.937	.675	.060 - .075	.940	.194	.010 - .020	.943	.568	.080 - .100
.921	**.790**	**.005 - .010**	**.930**	**.199**	**.005 - .083**	**.935**	**.682**	**.005 - .010**	.937	.687	.100 - .125	**.940**	**.231**	**.005 - .010**	.943	.596	.030 - .050
.922	.316	.105 - .125	**.930**	**.270**	**.005 - .010**	.935	.683	.030 - .060	.937	.693	.015 - .020	.940	.253	.007 - .015	**.943**	**.597**	**.005 - .012**
.922	.450	.080 - .100	.930	.286	.070 - .090	.935	.685	.072 - .120	.937	.703	.010 - .020	.940	.315	.010 - .075	.943	.736	.070 - .090
.922	.608	.050 - .075	.930	.301	.015 - .030	.935	.687	.020 - .040	.937	.737	.020 - .030	.940	.400	.160 - .190	.944	.150	.040 - .060
.922	.630	.010 - .020	**.930**	**.377**	**.005 - .020**	.935	.715	.016 - .032	.937	.754	.048 - .072	.940	.407	.090 - .120	**.944**	**.238**	**.005 - .010**
.922	.640	.030 - .050	.930	.381	.040 - .060	.935	.719	.010 - .030	.937	.772	.060 - .080	**.940**	**.437**	**.005 - .010**	.944	.281	.025 - .036
.922	.670	.010 - .020	.930	.381	.105 - .125	.935	.720	.050 - .070	**.937**	**.785**	**.005 - .015**	.940	.441	.040 - .060	.944	.314	.080 - .100
.922	.687	.020 - .030	.930	.440	.020 - .040	.935	.733	.025 - .040	.937	.793	.025 - .040	.940	.481	.050 - .075	**.944**	**.317**	**.005 - .020**
.922	.755	.020 - .040	.930	.475	.040 - .060	**.935**	**.735**	**.005 - .010**	.937	.802	.015 - .040	.940	.490	.075 - .105	.944	.319	.008 - .012
.922	.758	.050 - .070	.930	.501	.025 - .062	**.935**	**.783**	**.005 - .010**	**.937**	**.813**	**.005 - .010**	.940	.502	.015 - .030	**.944**	**.394**	**.005 - .010**
.923	.265	.090 - .105	.930	.520	.020 - .040	.935	.794	.060 - .075	.937	.875	.025 - .035	.940	.508	.100 - .125	.944	.423	.156 - .187
.923	.397	.015 - .025	.930	.609	.042 - .072	.935	.796	.020 - .040	.938	.140	.048 - .062	.940	.509	.050 - .070	.944	.432	.105 - .125
.923	.502	.015 - .030	.930	.630	.010 - .025	.935	.807	.040 - .060	.938	.144	.105 - .135	.940	.518	.050 - .070	**.944**	**.442**	**.005 - .020**
.923	.506	.015 - .030	.930	.635	.080 - .104	.935	.839	.020 - .030	.938	.150	.050 - .072	.940	.520	.090 - .105	**.944**	**.473**	**.005 - .010**
.923	**.661**	**.005 - .010**	**.930**	**.645**	**.005 - .010**	.935	.860	.015 - .030	.938	.199	.048 - .062	.940	.525	.040 - .060	**.944**	**.475**	**.005 - .010**
.923	.668	.030 - .050	**.930**	**.679**	**.005 - .010**	**.935**	**.871**	**.005 - .010**	.938	.200	.030 - .060	.940	.535	.030 - .040	.944	.479	.020 - .030
.923	.678	.020 - .030	**.930**	**.700**	**.005 - .010**	.936	.266	.060 - .080	.938	.201	.100 - .120	.940	.553	.100 - .125	.944	.502	.010 - .020
.923	.754	.020 - .040	.930	.701	.015 - .030	.936	.310	.050 - .080	.938	.217	.050 - .072	.940	.590	.015 - .030	.944	.595	.020 - .040
.923	.755	.015 - .050	**.930**	**.710**	**.005 - .010**	.936	.313	.020 - .035	.938	.246	.048 - .062	.940	.591	.060 - .070	**.944**	**.633**	**.005 - .010**
.923	**.820**	**.005 - .030**	.930	.750	.025 - .040	.936	.343	.105 - .125	.938	.266	.042 - .060	.940	.607	.030 - .060	.944	.673	.015 - .025
.924	.201	.100 - .125	**.930**	**.760**	**.005 - .010**	.936	.375	.040 - .050	.938	.318	.048 - .062	.940	.610	.030 - .060	.944	.694	.040 - .060
.924	**.253**	**.005 - .010**	.930	.812	.010 - .020	.936	.390	.060 - .090	.938	.322	.035 - .060	**.940**	**.633**	**.005 - .010**	.944	.766	.020 - .040
.924	.382	.030 - .040	.931	.454	.020 - .030	.936	.406	.050 - .070	.938	.328	.104 - .134	**.940**	**.640**	**.005 - .105**	.944	.795	.015 - .030
.924	.538	.010 - .015	.931	.478	.020 - .030	.936	.480	.010 - .030	.938	.343	.048 - .062	.940	.641	.025 - .040	.945	.221	.050 - .075
			.931	.598	.035 - .060	**.936**	**.481**	**.005 - .060**				.940	.646	.060 - .080	**.945**	**.240**	**.005 - .010**

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

New tools added continually. Call for sizes not listed — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.945	.249	.060 - .125	.949	.380	.040 - .060	.958	.779	.070 - .080	.968	.634	.005 - .015	.975	.795	.005 - .012	.982	.503	.005 - .010
.945	.282	.040 - .060	.949	.503	.005 - .010	.959	.300	.015 - .025	.968	.636	.030 - .050	.975	.804	.030 - .060	.982	.504	.100 - .125
.945	.314	.005 - .010	.949	.505	.050 - .070	.959	.328	.030 - .050	.968	.655	.025 - .045	.975	.825	.005 - .010	.982	.562	.060 - .080
.945	.315	.010 - .020	.949	.507	.010 - .020	.959	.420	.030 - .050	.968	.675	.015 - .030	.975	.885	.010 - .020	.982	.620	.005 - .010
.945	.317	.005 - .070	.949	.511	.010 - .020	.959	.641	.090 - .120	.968	.687	.020 - .040	.976	.394	.035 - .050	.982	.704	.010 - .020
.945	.322	.010 - .020	.949	.592	.072 - .090	.959	.729	.020 - .040	.968	.718	.050 - .075	.976	.503	.030 - .050	.982	.752	.030 - .050
.945	.331	.070 - .090	.950	.125	.005 - .010	.960	.125	.032 - .060	.968	.729	.015 - .030	.976	.525	.010 - .020	.982	.801	.005 - .010
.945	.345	.020 - .040	.950	.131	.062 - .080	.960	.133	.010 - .025	.968	.741	.005 - .010	.976	.527	.015 - .030	.982	.875	.020 - .040
.945	.378	.050 - .070	.950	.186	.020 - .035	.960	.155	.050 - .072	.968	.869	.025 - .040	.976	.565	.005 - .010	.983	.090	.010 - .025
.945	.389	.050 - .075	.950	.189	.005 - .030	.960	.259	.005 - .010	.969	.250	.050 - .070	.976	.640	.005 - .020	.983	.242	.040 - .060
.945	.393	.030 - .050	.950	.198	.047 - .070	.960	.315	.020 - .032	.969	.391	.030 - .050	.976	.661	.005 - .010	.983	.257	.100 - .125
.945	.394	.010 - .020	.950	.204	.020 - .035	.960	.350	.032 - .050	.969	.436	.050 - .075	.976	.717	.005 - .010	.983	.280	.015 - .025
.945	.411	.005 - .010	.950	.219	.015 - .030	.960	.398	.090 - .105	.969	.559	.020 - .040	.976	.872	.010 - .020	.983	.315	.005 - .010
.945	.434	.156 - .187	.950	.234	.015 - .030	.960	.450	.032 - .050	.969	.565	.020 - .030	.977	.276	.015 - .030	.983	.319	.005 - .010
.945	.453	.156 - .187	.950	.250	.015 - .030	.960	.500	.030 - .060	.969	.582	.005 - .010	.977	.315	.015 - .040	.983	.323	.040 - .060
.945	.454	.156 - .187	.950	.328	.105 - .125	.960	.507	.080 - .104	.969	.638	.025 - .042	.977	.485	.005 - .010	.983	.381	.015 - .030
.945	.472	.005 - .010	.950	.387	.005 - .010	.960	.537	.005 - .010	.969	.641	.060 - .080	.977	.550	.020 - .030	.983	.396	.050 - .075
.945	.474	.010 - .020	.950	.395	.005 - .070	.960	.550	.032 - .050	.969	.656	.060 - .080	.977	.560	.020 - .040	.983	.398	.050 - .070
.945	.477	.005 - .010	.950	.440	.090 - .105	.960	.572	.005 - .010	.969	.661	.060 - .080	.977	.626	.070 - .090	.983	.434	.005 - .010
.945	.484	.050 - .075	.950	.500	.005 - .030	.960	.575	.005 - .010	.969	.750	.005 - .010	.977	.649	.010 - .020	.983	.471	.008 - .015
.945	.502	.005 - .010	.950	.502	.005 - .020	.960	.640	.005 - .010	.969	.770	.010 - .048	.977	.720	.010 - .040	.983	.502	.005 - .010
.945	.512	.005 - .010	.950	.503	.010 - .040	.960	.650	.032 - .050	.969	.792	.025 - .048	.977	.778	.070 - .090	.983	.659	.010 - .020
.945	.514	.180 - .190	.950	.505	.010 - .020	.960	.705	.030 - .060	.969	.802	.015 - .030	.977	.802	.015 - .030	.983	.670	.020 - .040
.945	.519	.040 - .060	.950	.512	.100 - .125	.960	.728	.040 - .060	.970	.092	.025 - .048	.978	.180	.020 - .040	.983	.678	.060 - .080
.945	.554	.010 - .020	.950	.531	.060 - .080	.960	.740	.090 - .105	.970	.262	.100 - .125	.978	.437	.050 - .075	.983	.719	.005 - .010
.945	.607	.005 - .010	.950	.567	.030 - .050	.960	.750	.030 - .060	.970	.345	.020 - .040	.978	.503	.025 - .040	.983	.753	.020 - .030
.945	.610	.060 - .080	.950	.640	.030 - .125	.960	.751	.050 - .075	.970	.380	.025 - .040	.978	.515	.005 - .120	.984	.183	.050 - .075
.945	.627	.032 - .042	.950	.645	.090 - .105	.960	.758	.005 - .010	.970	.418	.070 - .080	.978	.659	.015 - .030	.984	.238	.005 - .010
.945	.669	.050 - .125	.950	.696	.030 - .040	.960	.774	.005 - .010	.970	.440	.005 - .010	.978	.690	.010 - .020	.984	.239	.005 - .010
.945	.671	.005 - .010	.950	.747	.005 - .010	.960	.783	.020 - .030	.970	.515	.080 - .100	.979	.171	.015 - .035	.984	.257	.105 - .125
.945	.673	.015 - .030	.950	.760	.030 - .050	.960	.820	.005 - .010	.970	.550	.010 - .020	.979	.285	.015 - .030	.984	.284	.005 - .010
.945	.686	.060 - .105	.950	.775	.020 - .035	.961	.438	.050 - .070	.970	.631	.156 - .187	.979	.393	.005 - .010	.984	.355	.080 - .104
.945	.708	.060 - .080	.950	.807	.010 - .020	.961	.500	.040 - .050	.970	.670	.005 - .010	.979	.405	.005 - .010	.984	.394	.005 - .010
.945	.710	.030 - .050	.950	.815	.005 - .010	.961	.621	.005 - .010	.970	.723	.005 - .010	.979	.517	.125 - .135	.984	.395	.100 - .125
.945	.714	.060 - .080	.951	.104	.005 - .010	.961	.676	.020 - .030	.970	.754	.040 - .060	.979	.563	.070 - .090	.984	.435	.005 - .010
.945	.719	.070 - .090	.951	.156	.015 - .030	.961	.730	.005 - .010	.970	.769	.005 - .010	.979	.630	.005 - .010	.984	.469	.080 - .100
.945	.737	.005 - .010	.951	.376	.010 - .020	.961	.820	.010 - .020	.970	.802	.030 - .048	.979	.674	.005 - .010	.984	.473	.005 - .010
.945	.831	.015 - .030	.951	.377	.020 - .030	.961	.844	.010 - .020	.970	.882	.010 - .020	.979	.678	.025 - .040	.984	.481	.040 - .060
.945	.845	.005 - .015	.951	.380	.040 - .060	.961	.878	.005 - .010	.971	.345	.105 - .135	.979	.705	.005 - .010	.984	.507	.070 - .090
.946	.386	.040 - .060	.951	.388	.010 - .020	.962	.045	.015 - .025	.971	.376	.060 - .080	.979	.710	.030 - .050	.984	.513	.105 - .125
.946	.398	.010 - .020	.951	.500	.010 - .020	.962	.055	.005 - .010	.971	.408	.050 - .075	.979	.837	.010 - .030	.984	.530	.042 - .062
.946	.473	.005 - .010	.951	.586	.015 - .025	.962	.766	.005 - .010	.971	.439	.020 - .040	.979	.840	.015 - .030	.984	.531	.005 - .010
.946	.513	.105 - .125	.951	.661	.005 - .010	.962	.769	.035 - .062	.971	.444	.020 - .030	.980	.246	.015 - .030	.984	.556	.040 - .060
.946	.602	.025 - .042	.951	.741	.020 - .030	.962	.789	.020 - .030	.971	.550	.030 - .050	.980	.302	.015 - .030	.984	.572	.040 - .060
.946	.678	.005 - .010	.952	.125	.025 - .040	.963	.271	.005 - .010	.971	.605	.005 - .010	.980	.347	.005 - .010	.984	.625	.040 - .060
.946	.686	.062 - .070	.952	.166	.060 - .080	.963	.283	.030 - .050	.971	.631	.080 - .104	.980	.395	.015 - .025	.984	.628	.035 - .060
.946	.717	.060 - .080	.952	.198	.048 - .070	.963	.451	.030 - .050	.971	.720	.104 - .125	.980	.407	.100 - .125	.984	.630	.015 - .025
.946	.786	.050 - .070	.952	.213	.048 - .070	.963	.500	.010 - .020	.971	.761	.005 - .020	.980	.445	.005 - .010	.984	.641	.080 - .105
.947	.128	.005 - .010	.952	.376	.005 - .010	.963	.504	.005 - .010	.971	.837	.040 - .060	.980	.458	.020 - .030	.984	.643	.060 - .080
.947	.397	.010 - .020	.952	.470	.005 - .010	.963	.659	.080 - .100	.971	.865	.030 - .050	.980	.481	.005 - .010	.984	.648	.015 - .030
.947	.463	.060 - .070	.952	.502	.050 - .070	.963	.758	.020 - .030	.972	.335	.040 - .060	.980	.500	.010 - .020	.984	.650	.100 - .125
.947	.566	.030 - .048	.952	.555	.060 - .070	.963	.800	.030 - .050	.972	.365	.010 - .020	.980	.501	.005 - .010	.984	.689	.020 - .030
.947	.599	.042 - .060	.952	.570	.080 - .100	.963	.885	.010 - .020	.972	.570	.100 - .130	.980	.514	.005 - .010	.984	.715	.050 - .075
.947	.730	.030 - .050	.952	.627	.005 - .010	.964	.500	.015 - .030	.972	.657	.015 - .105	.980	.521	.025 - .040	.984	.716	.025 - .042
.947	.757	.010 - .025	.952	.685	.060 - .070	.964	.652	.090 - .120	.972	.746	.050 - .070	.980	.522	.005 - .010	.984	.748	.010 - .020
.947	.780	.020 - .040	.952	.687	.005 - .010	.965	.264	.020 - .040	.972	.764	.050 - .075	.980	.600	.030 - .105	.984	.749	.040 - .060
.947	.783	.048 - .062	.953	.693	.105 - .125	.965	.423	.030 - .040	.973	.110	.050 - .072	.980	.640	.007 - .015	.984	.794	.070 - .090
.947	.799	.010 - .020	.953	.710	.105 - .135	.965	.506	.060 - .075	.973	.567	.005 - .010	.980	.647	.005 - .010	.984	.795	.025 - .042
.947	.821	.005 - .010	.953	.742	.090 - .105	.965	.514	.090 - .120	.973	.595	.005 - .075	.980	.648	.050 - .070	.984	.798	.070 - .090
.948	.059	.005 - .010	.954	.322	.005 - .010	.965	.580	.032 - .060	.974	.226	.050 - .075	.980	.664	.060 - .083	.984	.799	.040 - .060
.948	.245	.005 - .072	.954	.630	.105 - .125	.965	.610	.020 - .035	.974	.260	.050 - .070	.980	.719	.040 - .060	.984	.817	.005 - .010
.948	.262	.060 - .080	.954	.670	.060 - .070	.965	.620	.025 - .040	.974	.669	.015 - .025	.980	.757	.080 - .104	.984	.880	.015 - .030
.948	.390	.005 - .010	.954	.753	.040 - .060	.965	.644	.005 - .010	.974	.699	.025 - .040	.980	.841	.030 - .050	.985	.209	.060 - .080
.948	.398	.005 - .010	.954	.826	.005 - .010	.965	.669	.080 - .105	.974	.716	.120 - .135	.980	.860	.005 - .010	.985	.215	.040 - .060
.948	.413	.005 - .010	.955	.510	.025 - .040	.965	.709	.005 - .010	.974	.755	.050 - .070	.980	.875	.005 - .010	.985	.250	.040 - .060
.948	.439	.010 - .020	.955	.733	.020 - .040	.965	.754	.020 - .040	.974	.768	.030 - .050	.981	.396	.010 - .020	.985	.276	.060 - .080
.948	.448	.060 - .070	.955	.825	.010 - .020	.965	.783	.020 - .036	.975	.440	.005 - .010	.981	.467	.020 - .030	.985	.316	.005 - .010
.948	.485	.090 - .100	.955	.848	.005 - .010	.966	.391	.040 - .060	.975	.495	.005 - .010	.981	.504	.050 - .060	.985	.331	.070 - .090
.948	.493	.062 - .080	.956	.439	.060 - .125	.966	.542	.020 - .032	.975	.503	.015 - .030	.981	.512	.005 - .010	.985	.354	.005 - .010
.948	.502	.006 - .015	.956	.635	.005 - .050	.966	.643	.080 - .105	.975	.531	.010 - .020	.981	.525	.015 - .030	.985	.395	.005 - .010
.948	.503	.005 - .010	.956	.781	.005 - .010	.966	.703	.060 - .075	.975	.532	.025 - .040	.981	.565	.005 - .010	.985	.409	.120 - .140
.948	.506	.005 - .010	.956	.820	.005 - .010	.967	.265	.005 - .030	.975	.550	.050 - .060	.981	.577	.075 - .104	.985	.440	.020 - .040
.948	.514	.050 - .075	.957	.295	.030 - .050	.967	.375	.090 - .125	.975	.570	.050 - .090	.981	.586	.005 - .015	.985	.443	.005 - .010
.948	.518	.030 - .060	.957	.626	.040 - .060	.967	.542	.015 - .030	.975	.596	.030 - .040	.981	.730	.030 - .050	.985	.450	.025 - .035
.948	.576	.005 - .010	.957	.734	.015 - .030	.967	.567	.070 - .090	.975	.630	.010 - .020	.981	.752	.020 - .040	.985	.451	.070 - .090
.948	.666	.035 - .050	.957	.812	.005 - .010	.967	.593	.050 - .075	.975	.640	.005 - .020	.981	.840	.005 - .010	.985	.475	.010 - .015
.948	.763	.005 - .010	.957	.841	.015 - .020	.967	.719	.060 - .080	.975	.687	.090 - .100	.981	.845	.005 - .015	.985	.490	.120 - .156
.948	.780	.020 - .040	.958	.442	.005 - .010	.967	.761	.050 - .075	.975	.697	.062 - .075	.982	.286	.030 - .060	.985	.500	.020 - .032
.948	.864	.025 - .040	.958	.606	.050 - .072	.968	.517	.050 - .075	.975	.699	.005 - .010	.982	.345	.060 - .080	.985	.503	.008 - .015
.949	.189	.005 - .010	.958	.639	.020 - .030	.968	.625	.050 - .070	.975	.765	.040 - .050	.982	.501	.005 - .010	.985	.506	.100 - .120
												.982	.502	.015 - .030			

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For non-metallic materials, contact BOKER'S — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
.985	.512	.030 - .050	.990	.635	.060 - .080	.995	.160	.015 - .030	.997	.718	.005 - .015	.999	.674	.100 - .134	1.000	.273	.135 - .190
.985	.535	.040 - .060	.990	.645	.005 - .010	.995	.196	.005 - .010	.997	.748	.030 - .050	.999	.675	.100 - .134	1.000	.278	.050 - .075
.985	.548	.010 - .015	.990	.661	.010 - .020	.995	.282	.025 - .050	.997	.756	.016 - .025	.999	.680	.005 - .010	1.000	.280	.040 - .060
.985	.556	.040 - .060	.990	.693	.005 - .010	.995	.297	.100 - .125	.997	.758	.005 - .010	.999	.693	.005 - .010	1.000	.281	.005 - .125
.985	.565	.062 - .105	.990	.703	.020 - .040	.995	.374	.050 - .070	.997	.769	.025 - .040	.999	.700	.020 - .030	1.000	.282	.006 - .070
.985	.587	.020 - .032	.990	.735	.030 - .050	.995	.378	.005 - .030	.998	.062	.030 - .050	.999	.715	.010 - .020	1.000	.283	.040 - .060
.985	.635	.060 - .080	.990	.758	.020 - .105	.995	.392	.050 - .070	.998	.111	.010 - .020	.999	.754	.050 - .070	1.000	.292	.005 - .010
.985	.669	.005 - .010	.990	.759	.080 - .100	.995	.410	.005 - .010	.998	.125	.040 - .060	.999	.755	.090 - .105	1.000	.293	.080 - .104
.985	.685	.100 - .125	.990	.760	.010 - .042	.995	.447	.005 - .010	.998	.131	.015 - .025	.999	.763	.005 - .010	1.000	.301	.005 - .010
.985	.700	.005 - .015	.990	.770	.020 - .030	.995	.453	.008 - .016	.998	.136	.015 - .030	.999	.787	.025 - .040	1.000	.310	.062 - .090
.985	.721	.040 - .105	.990	.780	.005 - .010	.995	.494	.005 - .010	.998	.138	.005 - .015	.999	.790	.005 - .010	1.000	.311	.150 - .180
.985	.760	.042 - .062	.990	.800	.005 - .010	.995	.500	.070 - .090	.998	.156	.050 - .075	.999	.822	.050 - .070	1.000	.315	.031 - .042
.985	.789	.005 - .025	.990	.810	.010 - .030	.995	.515	.070 - .090	.998	.190	.005 - .010	.999	.832	.025 - .040	1.000	.316	.005 - .020
.985	.790	.005 - .010	.990	.813	.005 - .010	.995	.534	.083 - .105	.998	.202	.050 - .075	.999	.840	.005 - .010	1.000	.317	.005 - .012
.985	.806	.005 - .010	.990	.820	.016 - .032	.995	.535	.062 - .120	.998	.230	.008 - .016	.999	.878	.005 - .010	1.000	.318	.050 - .105
.985	.825	.010 - .020	.990	.842	.010 - .020	.995	.538	.015 - .030	.998	.252	.005 - .020				1.000	.320	.010 - .125
.986	.220	.070 - .090	.990	.858	.025 - .040	.995	.559	.125 - .187	.998	.270	.060 - .083	**1.000**			1.000	.323	.050 - .070
.986	.337	.030 - .050	.990	.910	.015 - .025	.995	.564	.040 - .060	.998	.339	.005 - .010				1.000	.326	.090 - .120
.986	.408	.020 - .040	.991	.071	.010 - .020	.995	.566	.030 - .060	.998	.347	.100 - .125				1.000	.328	.010 - .060
.986	.516	.050 - .070	.991	.267	.060 - .080	.995	.573	.050 - .070	.998	.348	.075 - .090				1.000	.330	.105 - .125
.986	.585	.050 - .070	.991	.303	.005 - .010	.995	.630	.050 - .070	.998	.378	.080 - .105	1.000	.028	.010 - .015	1.000	.332	.005 - .010
.986	.631	.010 - .020	.991	.316	.005 - .010	.995	.657	.025 - .048	.998	.395	.010 - .030	1.000	.064	.010 - .020	1.000	.338	.100 - .125
.986	.635	.060 - .080	.991	.317	.090 - .125	.995	.665	.005 - .012	.998	.435	.020 - .030	1.000	.066	.005 - .010	1.000	.340	.032 - .048
.986	.700	.030 - .050	.991	.405	.005 - .010	.995	.666	.015 - .030	.998	.501	.040 - .060	1.000	.073	.020 - .035	1.000	.343	.050 - .070
.986	.710	.105 - .125	.991	.406	.090 - .125	.995	.694	.020 - .062	.998	.503	.030 - .125	1.000	.077	.015 - .030	1.000	.344	.010 - .020
.986	.779	.005 - .010	.991	.412	.005 - .010	.995	.700	.020 - .040	.998	.504	.030 - .060	1.000	.086	.005 - .010	1.000	.354	.100 - .125
.986	.859	.030 - .050	.991	.515	.005 - .010	.995	.717	.005 - .012	.998	.506	.005 - .125	1.000	.093	.010 - .020	1.000	.357	.010 - .020
.987	.348	.005 - .010	.991	.605	.005 - .010	.995	.720	.030 - .060	.998	.508	.090 - .110	1.000	.094	.030 - .060	1.000	.363	.005 - .010
.987	.397	.005 - .010	.991	.627	.105 - .135	.995	.740	.025 - .040	.998	.509	.005 - .010	1.000	.100	.050 - .070	1.000	.372	.010 - .020
.987	.516	.050 - .070	.991	.678	.030 - .050	.995	.750	.005 - .010	.998	.515	.080 - .100	1.000	.116	.010 - .062	1.000	.375	.060 - .187
.987	.748	.025 - .042	.991	.751	.030 - .040	.995	.763	.005 - .010	.998	.516	.005 - .010	1.000	.117	.040 - .060	1.000	.376	.005 - .010
.988	.255	.025 - .040	.991	.770	.015 - .030	.995	.766	.005 - .010	.998	.534	.030 - .050	1.000	.118	.040 - .060	1.000	.377	.005 - .010
.988	.354	.020 - .040	.991	.779	.040 - .060	.995	.873	.040 - .060	.998	.562	.015 - .020	1.000	.129	.005 - .010	1.000	.378	.005 - .050
.988	.499	.040 - .060	.991	.796	.020 - .030	.995	.938	.010 - .020	.998	.563	.075 - .100	1.000	.131	.015 - .030	1.000	.379	.042 - .134
.988	.505	.090 - .120	.991	.877	.005 - .010	.996	.120	.042 - .062	.998	.573	.050 - .070	1.000	.142	.010 - .062	1.000	.381	.005 - .020
.988	.506	.025 - .040	.991	.880	.015 - .060	.996	.170	.005 - .010	.998	.577	.005 - .010	1.000	.143	.030 - .050	1.000	.384	.060 - .090
.988	.597	.040 - .060	.991	.887	.005 - .010	.996	.255	.005 - .010	.998	.578	.010 - .020	1.000	.147	.005 - .010	1.000	.386	.050 - .075
.988	.703	.005 - .010	.992	.260	.005 - .010	.996	.283	.090 - .125	.998	.580	.157 - .187	1.000	.156	.020 - .040	1.000	.387	.007 - .016
.988	.736	.040 - .060	.992	.263	.005 - .010	.996	.318	.005 - .010	.998	.629	.005 - .010	1.000	.157	.070 - .090	1.000	.388	.005 - .010
.988	.758	.005 - .015	.992	.270	.005 - .015	.996	.323	.005 - .010	.998	.630	.010 - .020	1.000	.165	.020 - .072	1.000	.389	.048 - .075
.988	.759	.030 - .050	.992	.316	.110 - .130	.996	.395	.156 - .187	.998	.637	.040 - .060	1.000	.168	.050 - .070	1.000	.392	.075 - .125
.988	.760	.005 - .010	.992	.330	.110 - .130	.996	.396	.100 - .125	.998	.662	.050 - .070	1.000	.170	.030 - .050	1.000	.395	.010 - .020
.988	.877	.015 - .030	.992	.387	.020 - .040	.996	.441	.020 - .030	.998	.672	.005 - .012	1.000	.172	.090 - .120	1.000	.400	.010 - .020
.989	.176	.005 - .010	.992	.523	.025 - .040	.996	.463	.060 - .080	.998	.678	.032 - .042	1.000	.178	.005 - .010	1.000	.403	.105 - .125
.989	.201	.080 - .100	.992	.536	.005 - .010	.996	.511	.040 - .060	.998	.694	.020 - .040	1.000	.180	.050 - .060	1.000	.405	.042 - .100
.989	.259	.060 - .070	.992	.582	.030 - .050	.996	.578	.075 - .090	.998	.748	.035 - .060	1.000	.187	.050 - .125	1.000	.406	.020 - .030
.989	.282	.080 - .100	.992	.669	.005 - .010	.996	.630	.010 - .015	.998	.793	.005 - .010	1.000	.192	.050 - .075	1.000	.407	.156 - .187
.989	.400	.100 - .125	.992	.687	.105 - .135	.996	.666	.040 - .060	.998	.855	.005 - .010	1.000	.195	.010 - .110	1.000	.409	.120 - .134
.989	.506	.070 - .090	.992	.688	.050 - .070	.996	.692	.010 - .030	.998	.877	.015 - .030	1.000	.196	.025 - .090	1.000	.410	.005 - .010
.989	.515	.060 - .080	.992	.754	.040 - .060	.996	.740	.050 - .070	.998	.913	.005 - .010	1.000	.198	.070 - .090	1.000	.414	.100 - .125
.989	.560	.025 - .040	.992	.835	.010 - .015	.996	.758	.005 - .010	.999	.036	.005 - .010	1.000	.199	.008 - .080	1.000	.415	.025 - .040
.989	.640	.005 - .010	.993	.249	.040 - .050	.996	.785	.050 - .075	.999	.096	.010 - .020	1.000	.200	.134 - .160	1.000	.418	.050 - .070
.989	.736	.100 - .120	.993	.295	.062 - .120	.996	.788	.005 - .010	.999	.122	.005 - .010	1.000	.205	.050 - .075	1.000	.427	.110 - .120
.989	.739	.005 - .010	.993	.297	.062 - .120	.996	.798	.040 - .050	.999	.201	.050 - .070	1.000	.209	.105 - .125	1.000	.432	.005 - .010
.989	.771	.060 - .075	.993	.316	.005 - .010	.996	.808	.040 - .060	.999	.206	.005 - .010	1.000	.215	.050 - .075	1.000	.434	.104 - .125
.989	.789	.020 - .040	.993	.371	.070 - .090	.996	.812	.060 - .080	.999	.243	.030 - .050	1.000	.217	.025 - .125	1.000	.437	.050 - .125
.989	.830	.015 - .030	.993	.523	.040 - .060	.996	.813	.015 - .030	.999	.252	.030 - .045	1.000	.218	.015 - .048	1.000	.438	.020 - .040
.989	.844	.005 - .020	.993	.605	.020 - .040	.996	.823	.005 - .060	.999	.253	.005 - .010	1.000	.219	.005 - .125	1.000	.440	.005 - .010
.989	.879	.005 - .010	.993	.638	.040 - .060	.996	.859	.040 - .060	.999	.267	.105 - .125	1.000	.220	.010 - .020	1.000	.441	.100 - .120
.990	.125	.040 - .060	.993	.640	.062 - .090	.996	.864	.040 - .060	.999	.284	.005 - .010	1.000	.221	.005 - .050	1.000	.443	.135 - .170
.990	.126	.010 - .020	.993	.655	.070 - .090	.996	.877	.005 - .030	.999	.344	.080 - .104	1.000	.225	.050 - .070	1.000	.444	.005 - .010
.990	.355	.080 - .100	.993	.689	.010 - .040	.996	.880	.020 - .030	.999	.348	.080 - .104	1.000	.228	.005 - .010	1.000	.445	.060 - .080
.990	.437	.010 - .020	.994	.243	.025 - .042	.996	.881	.025 - .040	.999	.356	.005 - .010	1.000	.237	.060 - .080	1.000	.447	.010 - .020
.990	.438	.105 - .125	.994	.287	.090 - .110	.997	.152	.050 - .075	.999	.372	.030 - .060	1.000	.238	.010 - .020	1.000	.451	.005 - .010
.990	.442	.006 - .015	.994	.431	.010 - .020	.997	.171	.040 - .062	.999	.375	.010 - .060	1.000	.239	.015 - .030	1.000	.452	.010 - .020
.990	.443	.006 - .015	.994	.441	.090 - .110	.997	.250	.005 - .010	.999	.376	.005 - .010	1.000	.250	.008 - .070	1.000	.457	.100 - .125
.990	.454	.060 - .080	.994	.484	.005 - .010	.997	.312	.005 - .010	.999	.382	.030 - .050	1.000	.251	.105 - .125	1.000	.459	.005 - .010
.990	.456	.030 - .050	.994	.500	.090 - .100	.997	.315	.060 - .080	.999	.392	.030 - .050	1.000	.252	.005 - .080	1.000	.465	.030 - .050
.990	.469	.080 - .100	.994	.508	.090 - .105	.997	.327	.005 - .010	.999	.401	.040 - .060	1.000	.253	.030 - .120	1.000	.468	.100 - .125
.990	.510	.025 - .040	.994	.513	.130 - .150	.997	.456	.005 - .010	.999	.444	.030 - .050	1.000	.255	.060 - .070	1.000	.471	.050 - .070
.990	.512	.005 - .010	.994	.540	.005 - .010	.997	.466	.080 - .100	.999	.453	.060 - .070	1.000	.256	.020 - .040	1.000	.475	.020 - .040
.990	.516	.030 - .050	.994	.552	.040 - .050	.997	.503	.030 - .050	.999	.505	.005 - .010	1.000	.258	.030 - .050	1.000	.476	.100 - .125
.990	.526	.090 - .105	.994	.565	.040 - .060	.997	.508	.050 - .070	.999	.518	.040 - .060	1.000	.263	.005 - .010	1.000	.480	.005 - .125
.990	.560	.030 - .060	.994	.605	.005 - .010	.997	.533	.005 - .010	.999	.527	.090 - .105	1.000	.264	.042 - .062	1.000	.482	.005 - .010
.990	.562	.080 - .156	.994	.625	.050 - .075	.997	.537	.040 - .062	.999	.563	.015 - .030	1.000	.265	.010 - .020	1.000	.485	.040 - .135
.990	.595	.105 - .125	.994	.721	.005 - .010	.997	.549	.020 - .040	.999	.578	.010 - .020	1.000	.266	.020 - .030	1.000	.499	.005 - .010
.990	.605	.075 - .090	.994	.813	.005 - .010	.997	.563	.125 - .187	.999	.626	.020 - .134	1.000	.267	.050 - .075	1.000	.500	.005 - .062
.990	.625	.020 - .040	.994	.900	.005 - .010	.997	.622	.005 - .010	.999	.629	.050 - .070	1.000	.268	.030 - .050	1.000	.501	.030 - .105
.990	.626	.050 - .075	.995	.083	.005 - .010	.997	.640	.090 - .105	.999	.633	.005 - .010	1.000	.270	.005 - .010	1.000	.502	.005 - .125
.990	.631	.005 - .010	.995	.157	.032 - .042	.997	.689	.050 - .070	.999	.657	.080 - .100	1.000	.272	.030 - .050	1.000	.502	.126 - .187

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

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O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
1.000	.504	.010 - .110	1.000	.753	.050 - .070	1.001	.711	.080 - .090	1.006	.516	.080 - .105	1.019	.613	.015 - .030	1.025	.505	.005 - .020
1.000	.505	.030 - .050	1.000	.754	.020 - .075	1.001	.756	.025 - .050	1.006	.584	.040 - .060	1.019	.665	.030 - .050	1.025	.550	.005 - .012
1.000	.506	.010 - .020	1.000	.755	.005 - .125	1.001	.818	.080 - .105	1.006	.881	.015 - .030	1.019	.757	.005 - .010	1.025	.606	.048 - .062
1.000	.507	.020 - .187	1.000	.756	.030 - .050	1.001	.906	.005 - .010	1.007	.203	.050 - .075	1.019	.766	.010 - .030	1.025	.632	.010 - .020
1.000	.508	.005 - .015	1.000	.759	.005 - .040	1.002	.136	.050 - .070	1.007	.414	.015 - .025	1.019	.794	.010 - .020	1.025	.704	.032 - .042
1.000	.508	.180 - .190	1.000	.760	.060 - .080	1.002	.140	.042 - .060	1.007	.448	.015 - .025	1.020	.316	.050 - .075	1.025	.720	.035 - .050
1.000	.510	.060 - .083	1.000	.761	.035 - .050	1.002	.172	.010 - .025	1.007	.528	.080 - .105	1.020	.378	.015 - .030	1.025	.749	.005 - .035
1.000	.511	.032 - .060	1.000	.764	.105 - .125	1.002	.197	.005 - .010	1.007	.569	.135 - .160	1.020	.510	.135 - .160	1.025	.754	.040 - .060
1.000	.513	.140 - .160	1.000	.765	.030 - .050	1.002	.277	.010 - .020	1.007	.641	.015 - .030	1.020	.552	.134 - .156	1.025	.775	.010 - .020
1.000	.515	.005 - .125	1.000	.766	.100 - .125	1.002	.312	.135 - .160	1.007	.647	.100 - .125	1.020	.641	.005 - .010	1.025	.776	.020 - .040
1.000	.515	.126 - .187	1.000	.767	.050 - .075	1.002	.319	.060 - .080	1.007	.725	.062 - .075	1.020	.667	.010 - .020	1.025	.787	.030 - .050
1.000	.517	.005 - .010	1.000	.768	.010 - .020	1.002	.379	.005 - .010	1.007	.752	.036 - .050	1.020	.700	.005 - .008	1.025	.788	.010 - .020
1.000	.518	.015 - .125	1.000	.770	.005 - .060	1.002	.384	.090 - .125	1.007	.764	.005 - .010	1.020	.744	.010 - .020	1.025	.804	.040 - .050
1.000	.520	.100 - .125	1.000	.771	.015 - .030	1.002	.442	.050 - .070	1.008	.661	.060 - .080	1.020	.750	.040 - .060	1.025	.893	.020 - .040
1.000	.531	.120 - .140	1.000	.776	.070 - .090	1.002	.454	.025 - .042	1.008	.689	.050 - .060	1.020	.775	.050 - .070	1.025	.926	.020 - .040
1.000	.534	.050 - .070	1.000	.785	.100 - .125	1.002	.470	.005 - .075	1.008	.778	.015 - .030	1.020	.787	.030 - .048	1.026	.239	.005 - .010
1.000	.535	.010 - .060	1.000	.787	.060 - .070	1.002	.504	.100 - .125	1.008	.831	.030 - .040	1.020	.805	.060 - .075	1.026	.480	.030 - .050
1.000	.549	.100 - .125	1.000	.791	.005 - .020	1.002	.505	.005 - .010	1.008	.845	.050 - .070	1.020	.861	.025 - .048	1.026	.630	.060 - .080
1.000	.550	.030 - .110	1.000	.796	.010 - .015	1.002	.507	.010 - .020	1.009	.195	.025 - .042	1.020	.960	.015 - .030	1.026	.781	.040 - .060
1.000	.556	.025 - .040	1.000	.797	.025 - .125	1.002	.531	.035 - .090	1.009	.511	.030 - .050	1.020	.962	.005 - .020	1.026	.917	.005 - .010
1.000	.562	.050 - .075	1.000	.798	.005 - .010	1.002	.532	.005 - .010	1.010	.130	.060 - .070	1.021	.257	.050 - .075	1.027	.203	.005 - .010
1.000	.563	.005 - .020	1.000	.800	.012 - .025	1.002	.534	.025 - .040	1.010	.388	.005 - .010	1.021	.316	.040 - .060	1.027	.294	.070 - .090
1.000	.564	.030 - .050	1.000	.801	.025 - .040	1.002	.564	.062 - .083	1.010	.450	.005 - .010	1.021	.575	.005 - .010	1.027	.382	.005 - .010
1.000	.567	.010 - .020	1.000	.805	.005 - .010	1.002	.579	.015 - .030	1.010	.506	.005 - .010	1.021	.668	.015 - .020	1.027	.417	.075 - .090
1.000	.568	.005 - .010	1.000	.815	.005 - .010	1.002	.581	.050 - .070	1.010	.510	.015 - .030	1.021	.726	.005 - .010	1.027	.418	.070 - .090
1.000	.572	.005 - .080	1.000	.828	.015 - .025	1.002	.645	.015 - .030	1.010	.540	.015 - .030	1.021	.750	.025 - .040	1.027	.439	.005 - .010
1.000	.578	.100 - .125	1.000	.837	.040 - .060	1.002	.652	.015 - .030	1.010	.640	.050 - .060	1.021	.766	.015 - .030	1.027	.542	.070 - .090
1.000	.579	.020 - .040	1.000	.845	.030 - .050	1.002	.658	.100 - .125	1.010	.664	.025 - .040	1.021	.878	.020 - .030	1.027	.635	.020 - .070
1.000	.590	.020 - .125	1.000	.850	.005 - .010	1.002	.685	.060 - .083	1.010	.757	.015 - .025	1.021	.930	.015 - .030	1.027	.637	.010 - .030
1.000	.594	.156 - .187	1.000	.851	.070 - .080	1.002	.700	.125 - .135	1.011	.501	.015 - .030	1.022	.219	.005 - .010	1.027	.669	.075 - .100
1.000	.598	.060 - .070	1.000	.854	.010 - .020	1.002	.703	.050 - .070	1.012	.315	.030 - .040	1.022	.318	.005 - .010	1.027	.721	.040 - .060
1.000	.600	.005 - .010	1.000	.855	.005 - .010	1.002	.718	.020 - .040	1.012	.358	.010 - .020	1.022	.394	.005 - .010	1.027	.793	.060 - .083
1.000	.605	.010 - .020	1.000	.875	.016 - .025	1.002	.719	.062 - .083	1.012	.551	.030 - .040	1.022	.468	.030 - .050	1.027	.826	.020 - .040
1.000	.610	.005 - .120	1.000	.876	.005 - .010	1.002	.767	.020 - .040	1.012	.849	.015 - .030	1.022	.477	.010 - .050	1.027	.830	.060 - .080
1.000	.611	.030 - .060	1.000	.879	.030 - .060	1.002	.820	.020 - .040	1.012	.869	.020 - .040	1.022	.552	.005 - .010	1.027	.872	.050 - .060
1.000	.623	.030 - .050	1.000	.880	.010 - .020	1.002	.842	.030 - .050	1.012	.896	.010 - .020	1.022	.590	.015 - .030	1.028	.151	.090 - .105
1.000	.624	.005 - .125	1.000	.892	.030 - .050	1.002	.897	.025 - .040	1.013	.755	.005 - .010	1.022	.626	.030 - .050	1.028	.623	.060 - .080
1.000	.624	.126 - .187	1.000	.900	.005 - .010	1.003	.211	.010 - .020	1.013	.806	.040 - .060	1.022	.786	.100 - .125	1.028	.629	.032 - .048
1.000	.625	.015 - .030	1.000	.911	.020 - .035	1.003	.377	.005 - .015	1.013	.848	.042 - .060	1.022	.826	.030 - .050	1.028	.812	.020 - .040
1.000	.626	.050 - .075	1.000	.936	.005 - .010	1.003	.410	.005 - .020	1.014	.503	.060 - .080	1.022	.960	.030 - .042	1.028	.846	.050 - .070
1.000	.627	.105 - .125	1.000	.957	.015 - .025	1.003	.441	.030 - .050	1.014	.642	.020 - .040	1.023	.047	.020 - .030	1.029	.318	.005 - .010
1.000	.628	.005 - .030	1.000	.958	.005 - .010	1.003	.445	.010 - .020	1.014	.692	.040 - .060	1.023	.127	.005 - .010	1.029	.520	.120 - .135
1.000	.629	.005 - .010	1.001	.164	.005 - .010	1.003	.455	.062 - .080	1.014	.848	.005 - .010	1.023	.302	.030 - .040	1.029	.740	.030 - .050
1.000	.630	.030 - .060	1.001	.203	.025 - .040	1.003	.498	.005 - .015	1.014	.860	.005 - .010	1.023	.395	.005 - .010	1.029	.765	.050 - .070
1.000	.631	.134 - .156	1.001	.218	.005 - .010	1.003	.508	.005 - .010	1.014	.874	.015 - .030	1.023	.398	.005 - .015	1.030	.171	.050 - .070
1.000	.632	.090 - .110	1.001	.247	.090 - .105	1.003	.628	.045 - .060	1.014	.884	.025 - .040	1.023	.473	.020 - .030	1.030	.189	.075 - .090
1.000	.634	.025 - .060	1.001	.250	.062 - .120	1.003	.641	.005 - .012	1.015	.534	.050 - .075	1.023	.474	.005 - .010	1.030	.194	.030 - .050
1.000	.636	.060 - .075	1.001	.251	.005 - .010	1.003	.723	.025 - .040	1.015	.652	.060 - .080	1.023	.552	.060 - .080	1.030	.273	.060 - .075
1.000	.638	.100 - .125	1.001	.253	.010 - .020	1.003	.780	.010 - .020	1.015	.671	.010 - .020	1.023	.553	.005 - .010	1.030	.336	.156 - .187
1.000	.640	.020 - .080	1.001	.260	.080 - .100	1.003	.807	.030 - .048	1.015	.755	.005 - .010	1.023	.669	.060 - .080	1.030	.377	.020 - .030
1.000	.641	.005 - .125	1.001	.262	.005 - .010	1.003	.810	.005 - .010	1.015	.773	.020 - .030	1.023	.709	.010 - .020	1.030	.383	.015 - .030
1.000	.641	.126 - .156	1.001	.264	.090 - .120	1.004	.148	.080 - .105	1.015	.790	.005 - .010	1.023	.725	.050 - .070	1.030	.384	.010 - .015
1.000	.646	.040 - .080	1.001	.268	.005 - .010	1.004	.185	.005 - .010	1.015	.818	.100 - .125	1.023	.730	.005 - .010	1.030	.417	.030 - .050
1.000	.649	.005 - .010	1.001	.269	.050 - .070	1.004	.320	.020 - .040	1.015	.842	.050 - .070	1.023	.839	.005 - .010	1.030	.505	.050 - .070
1.000	.655	.030 - .050	1.001	.285	.105 - .135	1.004	.423	.005 - .010	1.015	.876	.015 - .030	1.023	.885	.010 - .020	1.030	.510	.062 - .080
1.000	.656	.005 - .010	1.001	.322	.080 - .100	1.004	.458	.050 - .070	1.016	.302	.100 - .125	1.023	.893	.015 - .030	1.030	.533	.110 - .130
1.000	.665	.050 - .070	1.001	.344	.015 - .030	1.004	.531	.005 - .010	1.016	.460	.015 - .030	1.023	.909	.005 - .010	1.030	.542	.015 - .030
1.000	.669	.005 - .032	1.001	.378	.005 - .125	1.004	.549	.005 - .010	1.016	.481	.020 - .040	1.024	.394	.010 - .020	1.030	.585	.005 - .010
1.000	.670	.105 - .125	1.001	.380	.025 - .040	1.004	.567	.100 - .125	1.016	.505	.050 - .070	1.024	.395	.005 - .010	1.030	.649	.005 - .010
1.000	.671	.060 - .090	1.001	.385	.005 - .010	1.004	.628	.062 - .120	1.016	.522	.015 - .030	1.024	.398	.005 - .010	1.030	.688	.050 - .060
1.000	.673	.080 - .100	1.001	.389	.030 - .050	1.004	.675	.100 - .125	1.016	.650	.005 - .010	1.024	.454	.040 - .060	1.030	.690	.090 - .125
1.000	.674	.100 - .125	1.001	.409	.005 - .010	1.004	.705	.040 - .060	1.016	.750	.005 - .010	1.024	.473	.005 - .010	1.030	.719	.100 - .125
1.000	.675	.005 - .030	1.001	.416	.070 - .090	1.004	.750	.090 - .105	1.016	.920	.005 - .010	1.024	.476	.005 - .010	1.030	.749	.040 - .060
1.000	.676	.020 - .030	1.001	.418	.050 - .070	1.004	.760	.090 - .125	1.016	.929	.005 - .010	1.024	.568	.050 - .070	1.030	.815	.020 - .030
1.000	.679	.050 - .070	1.001	.439	.170 - .190	1.004	.780	.010 - .020	1.017	.301	.050 - .075	1.024	.629	.005 - .010	1.030	.850	.030 - .050
1.000	.680	.005 - .125	1.001	.494	.005 - .010	1.004	.781	.005 - .010	1.017	.627	.005 - .008	1.024	.717	.070 - .090	1.030	.894	.050 - .075
1.000	.686	.030 - .060	1.001	.500	.010 - .020	1.004	.873	.050 - .070	1.017	.754	.005 - .015	1.024	.801	.030 - .050	1.030	.952	.005 - .015
1.000	.688	.008 - .016	1.001	.503	.005 - .100	1.005	.210	.030 - .042	1.017	.825	.005 - .060	1.024	.881	.010 - .020	1.030	.967	.020 - .030
1.000	.690	.025 - .048	1.001	.504	.005 - .030	1.005	.257	.100 - .125	1.017	.865	.005 - .010	1.025	.315	.005 - .010	1.031	.377	.015 - .030
1.000	.691	.005 - .010	1.001	.505	.015 - .025	1.005	.262	.010 - .020	1.017	.878	.048 - .062	1.025	.318	.005 - .010	1.031	.385	.005 - .010
1.000	.700	.005 - .060	1.001	.508	.005 - .105	1.005	.263	.100 - .125	1.018	.203	.008 - .015	1.025	.330	.020 - .040	1.031	.408	.105 - .135
1.000	.709	.015 - .030	1.001	.531	.170 - .190	1.005	.480	.060 - .075	1.018	.688	.050 - .070	1.025	.337	.060 - .080	1.031	.485	.020 - .040
1.000	.716	.005 - .010	1.001	.564	.170 - .190	1.005	.510	.025 - .040	1.018	.696	.050 - .070	1.025	.375	.030 - .040	1.031	.520	.005 - .010
1.000	.720	.010 - .020	1.001	.595	.050 - .070	1.005	.536	.100 - .125	1.018	.747	.048 - .062	1.025	.394	.010 - .020	1.031	.864	.080 - .100
1.000	.724	.040 - .060	1.001	.611	.040 - .062	1.005	.650	.080 - .100	1.018	.807	.010 - .020	1.025	.395	.005 - .010	1.031	.910	.010 - .020
1.000	.733	.025 - .040	1.001	.626	.005 - .020	1.005	.758	.005 - .010	1.018	.824	.020 - .040	1.025	.410	.036 - .060	1.031	.958	.005 - .010
1.000	.742	.005 - .010	1.001	.628	.040 - .062	1.005	.801	.010 - .020	1.018	.826	.005 - .010	1.025	.433	.050 - .070	1.032	.175	.100 - .125
1.000	.750	.005 - .125	1.001	.629	.050 - .070	1.005	.840	.005 - .010	1.018	.832	.020 - .040	1.025	.440	.090 - .110	1.032	.259	.062 - .090
1.000	.751	.100 - .125	1.001	.688	.006 - .016	1.005	.900	.005 - .010	1.019	.166	.015 - .030	1.025	.475	.005 - .010	1.032	.378	.010 - .020
1.000	.752	.040 - .105	1.001	.690	.050 - .070	1.005	.950	.005 - .010	1.019	.415	.020 - .030	1.025	.477	.005 - .010	1.032	.529	.100 - .125

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For a size NOT listed, send specs or phone for quote — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
1.032	.566	.010 - .020	1.046	.345	.070 - .090	1.052	.881	.050 - .075	1.060	.396	.025 - .048	1.062	.638	.050 - .070	1.065	.634	.075 - .090
1.032	.633	.080 - .100	1.046	.517	.035 - .050	1.053	.530	.075 - .090	**1.060**	**.429**	**.005 - .010**	1.062	.642	.060 - .080	1.065	.697	.030 - .040
1.032	.656	.100 - .125	1.046	.861	.010 - .020	1.053	.627	.070 - .090	1.060	.451	.105 - .125	1.062	.656	.075 - .090	**1.065**	**.767**	**.005 - .010**
1.032	.788	.020 - .030	**1.046**	**.908**	**.005 - .010**	1.053	.662	.025 - .050	1.060	.469	.105 - .125	1.062	.657	.075 - .090	1.065	.814	.042 - .060
1.032	.849	.070 - .090	1.046	.943	.020 - .035	1.053	.752	.110 - .130	**1.060**	**.479**	**.005 - .010**	1.062	.687	.100 - .187	1.065	.826	.040 - .060
1.032	.925	.015 - .030	**1.047**	**.287**	**.005 - .010**	**1.053**	**.893**	**.005 - .020**	1.060	.510	.020 - .035	1.062	.718	.015 - .032	1.065	.875	.010 - .025
1.032	.955	.020 - .040	**1.047**	**.480**	**.005 - .010**	**1.054**	**.503**	**.005 - .010**	1.060	.512	.156 - .188	1.062	.721	.050 - .070	1.065	.892	.030 - .050
1.033	.483	.080 - .100	1.047	.499	.006 - .015	**1.054**	**.649**	**.005 - .010**	1.060	.513	.105 - .135	1.062	.727	.060 - .080	1.065	.923	.032 - .042
1.033	**.757**	**.005 - .010**	**1.047**	**.522**	**.005 - .010**	1.054	.725	.015 - .030	1.060	.531	.010 - .020	1.062	.750	.100 - .125	**1.065**	**.967**	**.005 - .010**
1.033	.811	.050 - .075	1.047	.627	.070 - .090	**1.054**	**.749**	**.005 - .010**	1.060	.563	.015 - .030	**1.062**	**.755**	**.005 - .015**	1.066	.535	.050 - .075
1.033	.836	.015 - .030	1.047	.840	.010 - .020	1.054	.840	.008 - .012	1.060	.573	.060 - .080	1.062	.764	.100 - .125	1.066	.634	.075 - .100
1.033	.883	.015 - .030	**1.047**	**.916**	**.005 - .010**	1.054	.879	.015 - .025	1.060	.580	.062 - .120	1.062	.770	.030 - .050	**1.066**	**.664**	**.005 - .010**
1.033	.925	.032 - .050	**1.048**	**.163**	**.005 - .010**	1.055	.153	.050 - .070	1.060	.629	.015 - .050	1.062	.802	.100 - .125	1.066	.725	.020 - .030
1.034	**.130**	**.005 - .015**	1.048	.282	.090 - .105	1.055	.312	.020 - .040	1.060	.638	.090 - .105	**1.062**	**.812**	**.005 - .012**	1.066	.728	.105 - .135
1.034	.350	.020 - .040	1.048	.378	.100 - .125	1.055	.350	.030 - .050	**1.060**	**.658**	**.005 - .040**	1.062	.817	.010 - .020	1.066	.766	.030 - .060
1.034	.381	.075 - .090	1.048	.431	.042 - .062	1.055	.384	.020 - .035	1.060	.659	.035 - .060	1.062	.833	.025 - .040	1.066	.873	.030 - .060
1.034	.500	.070 - .090	1.048	.504	.006 - .012	**1.055**	**.461**	**.005 - .010**	1.060	.672	.060 - .083	1.062	.839	.025 - .042	1.066	.874	.030 - .050
1.034	**.654**	**.005 - .010**	1.048	.517	.020 - .040	1.055	.472	.010 - .025	1.060	.688	.010 - .020	1.062	.860	.010 - .020	**1.066**	**.967**	**.005 - .010**
1.034	.731	.015 - .030	1.048	.629	.008 - .015	1.055	.501	.020 - .040	**1.060**	**.702**	**.005 - .010**	1.062	.876	.010 - .080	1.067	.213	.030 - .050
1.034	**.827**	**.005 - .010**	1.048	.657	.010 - .020	1.055	.758	.010 - .020	1.060	.726	.060 - .080	1.062	.877	.020 - .040	1.067	.354	.060 - .080
1.034	**.830**	**.005 - .012**	**1.048**	**.688**	**.005 - .010**	1.055	.786	.015 - .030	1.060	.741	.025 - .040	**1.062**	**.930**	**.005 - .010**	**1.067**	**.440**	**.005 - .010**
1.035	.660	.070 - .090	**1.048**	**.882**	**.005 - .015**	**1.055**	**.791**	**.005 - .010**	**1.060**	**.752**	**.005 - .010**	1.062	.962	.010 - .030	1.067	.515	.080 - .100
1.035	.820	.020 - .030	1.048	.883	.015 - .030	**1.055**	**.856**	**.005 - .020**	1.060	.760	.020 - .030	1.062	.963	.010 - .020	1.067	.535	.050 - .075
1.035	.832	.030 - .050	1.049	.377	.010 - .020	1.055	.865	.050 - .060	1.060	.772	.060 - .080	1.062	.985	.020 - .030	1.067	.664	.010 - .020
1.035	.858	.040 - .060	1.049	.463	.060 - .090	1.055	.880	.040 - .060	1.060	.794	.080 - .105	**1.062**	**1.010**	**.005 - .010**	1.068	.205	.030 - .050
1.035	.874	.060 - .080	1.049	.562	.010 - .020	1.055	.884	.035 - .050	1.060	.819	.050 - .070	**1.062**	**1.025**	**.005 - .010**	1.068	.254	.010 - .020
1.035	.948	.010 - .020	1.049	.648	.040 - .060	1.055	.942	.020 - .035	1.060	.880	.048 - .072	1.063	.142	.090 - .105	1.068	.341	.100 - .125
1.035	.954	.020 - .030	1.049	.890	.030 - .050	1.055	.949	.010 - .020	1.060	.881	.025 - .040	**1.063**	**.190**	**.005 - .010**	1.068	.636	.090 - .105
1.036	.533	.050 - .083	**1.049**	**.950**	**.005 - .010**	1.055	.953	.010 - .020	1.060	.882	.010 - .020	1.063	.204	.075 - .090	1.068	.750	.040 - .050
1.036	**.678**	**.005 - .010**	1.050	.156	.025 - .042	**1.056**	**.205**	**.005 - .010**	1.060	.883	.010 - .020	**1.063**	**.315**	**.005 - .010**	1.068	.813	.030 - .050
1.036	.718	.090 - .105	1.050	.178	.025 - .040	1.056	.634	.050 - .075	1.060	.888	.010 - .020	**1.063**	**.317**	**.005 - .010**	**1.069**	**.153**	**.005 - .010**
1.036	.793	.075 - .090	1.050	.250	.015 - .030	**1.056**	**.659**	**.005 - .010**	1.060	.896	.010 - .020	1.063	.321	.090 - .120	**1.069**	**.390**	**.005 - .010**
1.037	.440	.015 - .030	**1.050**	**.314**	**.005 - .020**	1.056	.676	.040 - .060	1.060	.905	.040 - .060	1.063	.329	.080 - .100	1.069	.600	.170 - .190
1.037	.925	.030 - .048	1.050	.320	.170 - .190	1.056	.719	.032 - .060	1.061	.128	.010 - .020	1.063	.343	.100 - .125	1.069	.936	.025 - .040
1.038	.440	.025 - .042	1.050	.375	.062 - .120	**1.056**	**.726**	**.005 - .010**	1.061	.267	.125 - .135	**1.063**	**.394**	**.005 - .010**	1.070	.255	.105 - .125
1.038	.506	.050 - .075	**1.050**	**.376**	**.005 - .010**	**1.056**	**.841**	**.005 - .040**	**1.061**	**.316**	**.005 - .010**	**1.063**	**.437**	**.005 - .030**	1.070	.266	.020 - .030
1.038	.709	.030 - .050	1.050	.416	.020 - .030	1.056	.875	.010 - .020	1.061	.386	.080 - .100	**1.063**	**.442**	**.005 - .010**	1.070	.318	.020 - .040
1.038	.974	.010 - .020	1.050	.438	.015 - .030	1.056	.877	.015 - .030	**1.061**	**.442**	**.005 - .020**	1.063	.500	.090 - .105	1.070	.755	.030 - .040
1.038	.989	.015 - .025	**1.050**	**.500**	**.005 - .030**	**1.057**	**.350**	**.005 - .010**	1.061	.500	.050 - .070	**1.063**	**.503**	**.005 - .010**	1.070	.794	.070 - .080
1.039	.626	.030 - .060	**1.050**	**.503**	**.005 - .020**	**1.057**	**.838**	**.005 - .010**	1.061	.505	.010 - .025	1.063	.506	.062 - .083	**1.070**	**.906**	**.005 - .010**
1.039	.890	.010 - .020	**1.050**	**.504**	**.005 - .008**	**1.058**	**.251**	**.005 - .010**	1.061	.510	.070 - .090	1.063	.540	.135 - .156	1.070	.961	.020 - .035
1.040	**.138**	**.005 - .010**	**1.050**	**.564**	**.005 - .020**	1.058	.428	.040 - .050	**1.061**	**.531**	**.005 - .010**	**1.063**	**.545**	**.005 - .010**	1.071	.259	.040 - .062
1.040	**.195**	**.005 - .010**	1.050	.570	.015 - .030	1.058	.501	.010 - .020	1.061	.533	.035 - .050	1.063	.563	.015 - .030	1.071	.266	.010 - .030
1.040	**.378**	**.005 - .010**	**1.050**	**.626**	**.005 - .050**	1.058	.520	.040 - .060	**1.061**	**.562**	**.005 - .125**	**1.063**	**.573**	**.005 - .010**	**1.071**	**.626**	**.005 - .010**
1.040	.544	.090 - .120	**1.050**	**.629**	**.005 - .010**	1.058	.532	.060 - .075	**1.061**	**.574**	**.005 - .010**	1.063	.578	.060 - .075	1.071	.884	.015 - .030
1.040	.560	.030 - .050	**1.050**	**.635**	**.005 - .010**	1.058	.583	.090 - .110	1.061	.657	.170 - .190	1.063	.579	.060 - .080	**1.072**	**.256**	**.005 - .010**
1.040	.627	.020 - .040	1.050	.712	.032 - .060	**1.058**	**.601**	**.005 - .010**	1.061	.783	.025 - .040	1.063	.638	.050 - .070	**1.072**	**.381**	**.005 - .010**
1.040	.809	.012 - .025	1.050	.722	.032 - .042	**1.058**	**.626**	**.005 - .030**	1.061	.922	.025 - .040	1.063	.640	.080 - .100	**1.072**	**.712**	**.005 - .010**
1.040	.831	.025 - .035	**1.050**	**.753**	**.005 - .010**	**1.058**	**.628**	**.005 - .010**	1.061	.943	.050 - .062	1.063	.645	.025 - .040	1.072	.750	.075 - .100
1.040	.875	.025 - .040	1.050	.760	.030 - .050	1.058	.640	.050 - .070	1.061	1.004	.010 - .020	1.063	.657	.040 - .062	**1.072**	**1.001**	**.005 - .010**
1.040	.915	.010 - .020	1.050	.765	.010 - .020	**1.058**	**.676**	**.005 - .030**	1.062	.061	.015 - .020	**1.063**	**.674**	**.005 - .010**	1.073	.347	.060 - .080
1.040	.926	.020 - .030	1.050	.771	.110 - .120	1.058	.688	.105 - .125	1.062	.073	.020 - .040	1.063	.687	.040 - .060	**1.073**	**.474**	**.005 - .010**
1.041	.788	.015 - .030	1.050	.798	.025 - .048	1.058	.735	.050 - .083	1.062	.120	.010 - .020	**1.063**	**.749**	**.005 - .010**	1.073	.510	.015 - .030
1.041	**.909**	**.005 - .010**	**1.050**	**.804**	**.005 - .010**	1.058	.757	.030 - .050	1.062	.128	.048 - .062	1.063	.780	.050 - .070	1.073	.572	.070 - .090
1.041	**.919**	**.005 - .010**	1.050	.820	.030 - .050	1.058	.762	.075 - .100	1.062	.137	.080 - .100	1.063	.781	.060 - .080	1.073	.656	.040 - .060
1.042	.544	.090 - .120	**1.050**	**.826**	**.005 - .010**	1.058	.872	.050 - .070	1.062	.188	.020 - .040	1.063	.787	.050 - .070	**1.073**	**.672**	**.005 - .010**
1.042	.773	.015 - .030	**1.050**	**.828**	**.005 - .010**	1.058	.897	.060 - .080	1.062	.200	.042 - .062	1.063	.798	.030 - .050	1.073	.890	.050 - .070
1.043	.473	.105 - .135	**1.050**	**.876**	**.005 - .010**	1.059	.058	.010 - .020	1.062	.211	.050 - .083	**1.063**	**.883**	**.005 - .010**	1.074	.680	.135 - .156
1.043	.676	.070 - .090	1.050	.877	.050 - .070	1.059	.153	.015 - .030	1.062	.218	.020 - .035	**1.063**	**.889**	**.005 - .010**	1.074	.720	.020 - .040
1.044	.191	.032 - .060	1.050	.878	.010 - .090	1.059	.188	.040 - .060	1.062	.252	.030 - .040	1.064	.470	.010 - .020	1.074	.971	.015 - .025
1.044	.193	.007 - .015	**1.050**	**.896**	**.005 - .010**	1.059	.347	.060 - .070	1.062	.259	.045 - .060	**1.064**	**.512**	**.005 - .010**	**1.075**	**.350**	**.005 - .010**
1.044	.378	.020 - .040	1.050	.900	.030 - .050	1.059	.450	.090 - .120	1.062	.262	.007 - .025	**1.064**	**.563**	**.005 - .020**	1.075	.525	.100 - .120
1.044	.512	.020 - .030	1.050	.950	.030 - .040	1.059	.514	.015 - .030	1.062	.318	.008 - .016	**1.064**	**.594**	**.005 - .020**	1.075	.689	.075 - .100
1.044	.750	.100 - .125	**1.050**	**.970**	**.005 - .010**	1.059	.582	.030 - .050	1.062	.328	.040 - .060	1.064	.687	.048 - .062	1.075	.694	.050 - .060
1.044	.828	.025 - .042	**1.050**	**.984**	**.005 - .010**	1.059	.596	.050 - .070	1.062	.378	.015 - .125	1.064	.751	.010 - .020	**1.075**	**.804**	**.005 - .010**
1.044	.987	.010 - .020	1.051	.264	.090 - .110	**1.059**	**.634**	**.005 - .010**	**1.062**	**.436**	**.005 - .010**	**1.064**	**.762**	**.005 - .010**	**1.075**	**.810**	**.005 - .010**
1.045	.210	.030 - .042	1.051	.315	.008 - .015	1.059	.750	.050 - .070	1.062	.440	.080 - .104	**1.064**	**.790**	**.005 - .010**	**1.075**	**.814**	**.005 - .010**
1.045	.230	.008 - .016	1.051	.500	.010 - .020	1.059	.768	.020 - .040	1.062	.454	.020 - .040	1.064	.822	.040 - .062	1.076	.348	.050 - .075
1.045	**.252**	**.005 - .010**	1.051	.502	.015 - .030	1.059	.890	.040 - .060	**1.062**	**.472**	**.005 - .010**	1.064	.847	.060 - .070	1.076	.367	.075 - .090
1.045	.288	.030 - .042	1.051	.503	.015 - .025	1.059	.965	.015 - .025	1.062	.480	.015 - .030	1.064	.865	.010 - .020	**1.076**	**.398**	**.005 - .010**
1.045	**.300**	**.005 - .010**	**1.051**	**.504**	**.005 - .010**	1.060	.150	.060 - .080	1.062	.484	.032 - .060	1.064	.945	.030 - .040	1.076	.499	.015 - .030
1.045	.407	.030 - .050	1.051	.752	.110 - .130	1.060	.172	.010 - .020	**1.062**	**.515**	**.005 - .010**	1.064	.951	.015 - .030	1.076	.508	.083 - .104
1.045	**.465**	**.005 - .010**	1.051	.881	.060 - .080	1.060	.210	.010 - .020	**1.062**	**.521**	**.005 - .010**	1.065	.165	.025 - .040	1.076	.515	.015 - .025
1.045	.619	.010 - .020	**1.051**	**.964**	**.005 - .010**	1.060	.258	.025 - .035	1.062	.531	.100 - .125	1.065	.395	.062 - .083	1.076	.535	.060 - .080
1.045	.704	.030 - .050	**1.051**	**.988**	**.005 - .010**	1.060	.283	.156 - .187	**1.062**	**.537**	**.005 - .105**	**1.065**	**.434**	**.005 - .010**	1.076	.536	.060 - .080
1.045	**.750**	**.005 - .032**	1.052	.253	.010 - .020	1.060	.284	.040 - .062	1.062	.564	.062 - .090	**1.065**	**.444**	**.005 - .010**	1.076	.643	.075 - .090
1.045	**.830**	**.005 - .010**	**1.052**	**.595**	**.005 - .010**	**1.060**	**.318**	**.005 - .010**	**1.062**	**.580**	**.005 - .010**	1.065	.510	.015 - .036	1.076	.690	.080 - .104
1.045	.880	.025 - .040	**1.052**	**.715**	**.005 - .010**	1.060	.341	.010 - .020	1.062	.625	.020 - .030	1.065	.562	.010 - .020	1.076	.915	.015 - .025
1.045	.894	.050 - .060	1.052	.760	.105 - .125	1.060	.378	.105 - .135	1.062	.626	.048 - .062	1.065	.626	.156 - .187	1.077	.380	.060 - .080
1.046	**.138**	**.005 - .010**	1.052	.765	.060 - .070	1.060	.394	.100 - .125	1.062	.635	.100 - .156				1.077	.758	.050 - .075

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

Call BOKER'S for precision stamping, assembly, and secondary operations.

O.D.	I.D.	Choose Any Thickness* From–To	O.D.	I.D.	Choose Any Thickness* From–To	O.D.	I.D.	Choose Any Thickness* From–To	O.D.	I.D.	Choose Any Thickness* From–To	O.D.	I.D.	Choose Any Thickness* From–To	O.D.	I.D.	Choose Any Thickness* From–To
1.077	.767	.025 - .040	1.090	**.245**	**.005 - .010**	1.097	.901	.040 - .060	1.100	.718	.105 - .135	1.103	.502	.010 - .020	**1.110**	**.868**	**.005 - .010**
1.077	**.830**	**.005 - .010**	1.090	.314	.025 - .036	1.097	.949	.050 - .060	**1.100**	**.751**	**.005 - .010**	**1.103**	**.554**	**.005 - .010**	1.110	.875	.050 - .075
1.077	.870	.050 - .070	1.090	.329	.100 - .125	1.097	1.003	.010 - .030	1.100	.765	.030 - .050	1.103	.560	.015 - .030	1.110	.880	.042 - .062
1.077	.907	.020 - .050	1.090	.355	.015 - .030	**1.098**	**.220**	**.005 - .010**	1.100	.770	.010 - .020	1.103	.632	.075 - .095	1.110	.893	.083 - .105
1.078	.232	.025 - .040	1.090	.433	.030 - .060	1.098	.375	.070 - .090	1.100	.775	.032 - .042	1.103	.692	.030 - .050	**1.110**	**.940**	**.005 - .010**
1.078	.278	.010 - .020	1.090	.500	.100 - .125	1.098	.377	.010 - .020	1.100	.781	.040 - .060	**1.103**	**.811**	**.005 - .010**	1.110	.965	.042 - .062
1.078	.392	.060 - .083	1.090	.502	.040 - .060	1.098	.396	.120 - .140	1.100	.782	.020 - .040	1.103	.820	.015 - .030	1.110	1.006	.010 - .020
1.078	**.456**	**.005 - .010**	1.090	.505	.025 - .040	**1.098**	**.420**	**.005 - .010**	**1.100**	**.794**	**.005 - .080**	1.103	.827	.020 - .040	**1.110**	**1.011**	**.005 - .010**
1.078	.523	.040 - .060	1.090	.534	.030 - .060	1.098	.504	.010 - .020	1.100	.797	.015 - .035	1.103	.845	.060 - .080	1.111	.391	.050 - .070
1.078	.574	.020 - .040	1.090	.595	.090 - .120	**1.098**	**.600**	**.005 - .010**	1.100	.827	.125 - .135	1.103	.857	.010 - .020	1.111	.556	.040 - .060
1.078	.580	.040 - .060	1.090	.932	.060 - .080	1.098	.660	.105 - .125	1.100	.858	.010 - .020	1.103	.886	.010 - .020	1.111	.567	.105 - .125
1.078	.593	.050 - .075	1.091	.625	.032 - .062	**1.098**	**.671**	**.005 - .010**	1.100	.863	.030 - .042	1.103	.947	.015 - .030	1.111	.711	.020 - .030
1.078	**.616**	**.005 - .010**	1.091	.991	.015 - .030	1.098	.752	.120 - .140	**1.100**	**.875**	**.005 - .010**	1.104	.097	.060 - .090	**1.111**	**.751**	**.005 - .010**
1.078	.635	.020 - .040	**1.092**	**.070**	**.005 - .010**	1.098	.754	.120 - .156	1.100	.877	.025 - .040	1.104	.396	.060 - .070	1.111	.775	.100 - .125
1.078	**.644**	**.005 - .010**	**1.092**	**.239**	**.005 - .010**	**1.098**	**.761**	**.005 - .010**	1.100	.882	.030 - .040	**1.104**	**.496**	**.005 - .010**	1.112	.246	.060 - .090
1.078	.687	.030 - .040	1.092	.433	.040 - .105	1.098	.846	.110 - .130	1.100	.889	.015 - .030	1.104	.552	.110 - .130	1.112	.288	.070 - .090
1.078	.749	.020 - .040	1.092	.615	.020 - .030	**1.098**	**.929**	**.005 - .010**	1.100	.905	.040 - .060	1.104	.633	.110 - .130	1.112	.312	.060 - .090
1.078	.781	.031 - .042	1.092	.695	.025 - .040	**1.098**	**.939**	**.005 - .010**	1.100	.941	.015 - .030	1.104	.670	.080 - .105	1.112	.313	.080 - .100
1.078	.830	.030 - .050	1.092	.750	.015 - .025	**1.099**	**.253**	**.005 - .010**	1.100	.952	.010 - .020	1.104	.752	.050 - .075	1.112	.413	.070 - .090
1.078	.840	.010 - .020	1.092	.753	.048 - .070	**1.099**	**.318**	**.005 - .010**	**1.100**	**.961**	**.005 - .010**	**1.104**	**.826**	**.005 - .010**	1.112	.421	.025 - .040
1.079	**.114**	**.005 - .010**	1.092	.791	.010 - .020	**1.099**	**.377**	**.005 - .010**	1.100	.965	.030 - .050	1.104	.945	.010 - .020	1.112	.478	.050 - .075
1.079	.509	.030 - .050	**1.092**	**.811**	**.005 - .010**	1.099	.378	.010 - .015	**1.100**	**.987**	**.005 - .035**	**1.105**	**.126**	**.005 - .010**	1.112	.500	.060 - .090
1.079	.567	.025 - .040	1.092	.812	.015 - .030	1.099	.436	.020 - .040	1.100	.992	.030 - .050	1.105	.252	.060 - .078	1.112	.538	.070 - .090
1.079	.587	.025 - .040	1.093	.239	.012 - .020	**1.099**	**.440**	**.005 - .010**	1.100	.994	.030 - .050	1.105	.360	.100 - .134	1.112	.663	.070 - .090
1.079	.760	.025 - .040	1.093	.405	.030 - .060	**1.099**	**.500**	**.005 - .010**	**1.100**	**1.000**	**.005 - .010**	1.105	.592	.030 - .050	1.112	.760	.060 - .090
1.079	**.933**	**.005 - .010**	1.093	.421	.050 - .070	**1.099**	**.508**	**.005 - .010**	1.100	1.007	.010 - .020	1.105	.635	.010 - .020	1.112	.776	.020 - .040
1.079	**.955**	**.005 - .010**	1.093	.500	.050 - .075	1.099	.558	.010 - .020	1.100	1.010	.010 - .020	1.105	.640	.010 - .020	1.112	.890	.030 - .050
1.080	**.088**	**.005 - .010**	1.093	.641	.015 - .030	1.099	.633	.020 - .030	**1.101**	**.075**	**.005 - .010**	1.105	.703	.080 - .090	1.112	.893	.090 - .120
1.080	.276	.020 - .040	1.093	.681	.010 - .030	1.099	.650	.110 - .130	1.101	.255	.110 - .130	1.105	.749	.030 - .050	1.112	1.017	.020 - .040
1.080	.320	.040 - .060	1.093	.830	.030 - .050	1.099	.788	.010 - .050	1.101	.275	.060 - .070	1.105	.756	.030 - .050	1.113	.330	.156 - .190
1.080	.328	.015 - .030	1.093	.871	.025 - .040	1.099	.816	.015 - .025	1.101	.316	.020 - .030	1.105	.881	.070 - .090	1.113	.500	.060 - .090
1.080	.571	.070 - .090	1.093	.876	.025 - .040	1.099	.840	.015 - .025	**1.101**	**.317**	**.005 - .010**	1.105	.886	.020 - .030	1.113	.757	.015 - .025
1.080	.623	.020 - .040	1.093	.878	.050 - .075	1.099	.902	.010 - .030	1.101	.356	.015 - .030	**1.105**	**.900**	**.005 - .010**	1.113	.760	.060 - .090
1.080	.738	.060 - .080	1.093	.883	.035 - .050	**1.100**	**.128**	**.005 - .010**	**1.101**	**.473**	**.005 - .010**	**1.105**	**.916**	**.005 - .010**	1.113	.879	.020 - .040
1.080	.760	.020 - .040	**1.093**	**.957**	**.005 - .010**	1.100	.162	.030 - .042	1.101	.502	.010 - .020	**1.105**	**.954**	**.005 - .010**	1.113	.888	.010 - .020
1.080	.770	.050 - .075	**1.094**	**.313**	**.005 - .010**	**1.100**	**.253**	**.005 - .010**	1.101	.505	.015 - .025	1.105	.960	.105 - .120	1.113	.910	.042 - .060
1.080	.773	.030 - .060	1.094	.395	.040 - .060	1.100	.312	.010 - .020	1.101	.630	.020 - .040	1.106	.317	.015 - .030	1.113	.940	.010 - .020
1.080	**.780**	**.005 - .010**	1.094	.559	.020 - .030	**1.100**	**.316**	**.005 - .010**	1.101	.719	.025 - .040	1.106	.633	.078 - .105	1.113	.943	.025 - .040
1.080	.856	.020 - .035	1.094	.668	.080 - .100	1.100	.346	.050 - .070	**1.101**	**.788**	**.005 - .010**	1.106	.656	.060 - .090	1.113	1.011	.020 - .030
1.080	**.906**	**.005 - .010**	1.094	.782	.025 - .040	1.100	.354	.070 - .090	**1.102**	**.070**	**.005 - .010**	1.106	.782	.020 - .040	**1.114**	**.186**	**.005 - .010**
1.080	**.935**	**.005 - .010**	1.094	.846	.030 - .050	1.100	.377	.010 - .020	**1.102**	**.237**	**.005 - .010**	1.106	.790	.040 - .060	**1.114**	**.209**	**.005 - .010**
1.080	.973	.030 - .050	1.094	.885	.030 - .040	1.100	.378	.015 - .030	**1.102**	**.239**	**.005 - .010**	1.107	.892	.040 - .060	1.114	.312	.090 - .125
1.081	.341	.030 - .050	**1.094**	**.900**	**.005 - .010**	**1.100**	**.380**	**.005 - .010**	1.102	.245	.050 - .060	1.107	.912	.030 - .050	1.114	.436	.150 - .180
1.081	.793	.030 - .050	1.094	.993	.020 - .030	1.100	.416	.015 - .030	1.102	.251	.025 - .040	1.107	.955	.020 - .030	1.114	.551	.170 - .180
1.081	**.797**	**.005 - .010**	1.095	.375	.025 - .080	1.100	.426	.157 - .187	1.102	.276	.180 - .190	1.107	.983	.010 - .020	1.114	.665	.010 - .020
1.083	.253	.050 - .075	1.095	.405	.025 - .048	**1.100**	**.439**	**.005 - .010**	**1.102**	**.305**	**.005 - .010**	1.108	.407	.050 - .070	**1.114**	**.749**	**.005 - .010**
1.083	.475	.010 - .020	1.095	.591	.100 - .125	**1.100**	**.440**	**.005 - .020**	**1.102**	**.334**	**.005 - .010**	**1.108**	**.525**	**.005 - .015**	**1.115**	**.204**	**.005 - .010**
1.083	.670	.010 - .020	1.095	.625	.010 - .020	**1.100**	**.452**	**.005 - .010**	1.102	.335	.080 - .090	1.108	.636	.050 - .070	**1.115**	**.224**	**.005 - .010**
1.083	1.016	.020 - .030	1.095	.655	.042 - .062	1.100	.454	.050 - .125	**1.102**	**.394**	**.005 - .020**	1.108	.714	.060 - .075	1.115	.256	.015 - .030
1.084	.631	.080 - .100	1.095	.700	.060 - .090	**1.100**	**.478**	**.005 - .010**	**1.102**	**.395**	**.005 - .025**	1.108	.778	.030 - .050	1.115	.500	.075 - .090
1.084	.645	.025 - .040	1.095	.749	.040 - .060	1.100	.485	.010 - .020	**1.102**	**.396**	**.005 - .010**	1.108	.786	.015 - .030	**1.115**	**.642**	**.005 - .010**
1.084	.728	.040 - .050	1.095	.755	.040 - .050	**1.100**	**.500**	**.005 - .010**	**1.102**	**.401**	**.005 - .010**	1.108	.801	.030 - .040	1.115	.644	.015 - .030
1.084	.800	.015 - .030	1.095	.790	.060 - .080	**1.100**	**.502**	**.005 - .010**	**1.102**	**.473**	**.005 - .010**	**1.108**	**.832**	**.005 - .010**	**1.115**	**.645**	**.005 - .010**
1.084	**.848**	**.005 - .010**	1.095	.808	.015 - .030	**1.100**	**.503**	**.005 - .010**	**1.102**	**.474**	**.005 - .020**	1.108	.844	.050 - .070	**1.115**	**.663**	**.005 - .010**
1.084	**.871**	**.005 - .010**	1.095	.809	.025 - .040	**1.100**	**.504**	**.005 - .020**	**1.102**	**.476**	**.005 - .020**	1.109	.318	.010 - .020	**1.115**	**.664**	**.005 - .010**
1.084	**.926**	**.005 - .010**	1.095	.813	.105 - .135	**1.100**	**.505**	**.005 - .010**	**1.102**	**.477**	**.005 - .010**	**1.109**	**.488**	**.005 - .010**	1.115	.700	.030 - .050
1.084	.927	.010 - .020	1.095	.818	.050 - .075	**1.100**	**.506**	**.005 - .010**	1.102	.511	.160 - .190	1.109	.504	.030 - .050	**1.115**	**.760**	**.005 - .010**
1.085	.245	.030 - .050	**1.095**	**.906**	**.005 - .010**	1.100	.515	.100 - .125	1.102	.541	.015 - .030	1.109	.506	.025 - .040	1.115	.780	.050 - .070
1.085	.283	.050 - .075	1.096	.375	.030 - .060	1.100	.525	.010 - .020	1.102	.564	.100 - .120	1.109	.556	.020 - .030	**1.115**	**.807**	**.005 - .010**
1.085	**.476**	**.005 - .010**	1.096	.398	.050 - .083	**1.100**	**.560**	**.005 - .010**	1.102	.590	.090 - .105	**1.109**	**.830**	**.005 - .010**	1.115	.818	.100 - .125
1.085	.650	.015 - .030	1.096	.441	.060 - .075	1.100	.562	.040 - .060	1.102	.598	.030 - .050	1.109	.835	.010 - .020	1.115	.875	.030 - .050
1.085	**.722**	**.005 - .010**	1.096	.450	.060 - .070	1.100	.563	.015 - .035	**1.102**	**.632**	**.005 - .020**	1.109	.917	.040 - .050	1.115	.876	.050 - .075
1.085	.749	.050 - .070	1.096	.500	.070 - .090	**1.100**	**.566**	**.005 - .010**	1.102	.666	.040 - .060	**1.110**	**.094**	**.005 - .010**	1.115	.930	.030 - .040
1.085	**1.022**	**.005 - .010**	1.096	.577	.015 - .030	1.100	.578	.080 - .090	1.102	.667	.040 - .060	1.110	.097	.045 - .060	1.116	.163	.010 - .030
1.086	.643	.050 - .030	**1.096**	**.675**	**.005 - .015**	1.100	.607	.075 - .100	1.102	.670	.030 - .050	1.110	.228	.030 - .042	1.116	.381	.020 - .030
1.086	.915	.020 - .035	1.096	.690	.030 - .050	**1.100**	**.626**	**.005 - .020**	1.102	.689	.050 - .070	1.110	.238	.018 - .038	1.116	.547	.050 - .075
1.086	.948	.032 - .050	**1.096**	**.754**	**.005 - .010**	**1.100**	**.627**	**.005 - .010**	**1.102**	**.766**	**.005 - .010**	1.110	.282	.015 - .030	**1.116**	**.688**	**.005 - .010**
1.087	.281	.030 - .050	1.096	.803	.010 - .020	1.100	.629	.010 - .020	1.102	.771	.040 - .060	1.110	.326	.050 - .070	1.116	.757	.010 - .020
1.087	.562	.036 - .060	**1.096**	**.872**	**.005 - .020**	**1.100**	**.630**	**.005 - .015**	1.102	.787	.060 - .080	**1.110**	**.517**	**.005 - .010**	1.116	.782	.010 - .015
1.087	**.597**	**.005 - .010**	1.096	.922	.025 - .040	1.100	.632	.010 - .075	1.102	.827	.010 - .020	1.110	.607	.080 - .105	**1.116**	**.786**	**.005 - .010**
1.087	.740	.040 - .060	1.096	.935	.050 - .070	**1.100**	**.635**	**.005 - .010**	1.102	.849	.070 - .090	**1.110**	**.626**	**.005 - .010**	1.116	.809	.030 - .060
1.087	**.848**	**.005 - .010**	1.096	.937	.032 - .060	1.100	.641	.135 - .156	**1.102**	**.854**	**.005 - .010**	1.110	.684	.060 - .080	**1.116**	**.816**	**.005 - .016**
1.088	.194	.062 - .083	1.097	.598	.170 - .190	1.100	.643	.050 - .070	1.102	.866	.050 - .060	1.110	.700	.100 - .120	1.116	.862	.015 - .030
1.088	**.214**	**.005 - .010**	1.097	.627	.070 - .090	1.100	.672	.015 - .035	**1.102**	**.948**	**.005 - .010**	**1.110**	**.710**	**.005 - .010**	1.116	.868	.062 - .083
1.088	.306	.030 - .050	1.097	.638	.030 - .050	1.100	.675	.070 - .090	**1.103**	**.316**	**.005 - .010**	1.110	.725	.030 - .040	**1.116**	**.879**	**.005 - .010**
1.088	**.541**	**.005 - .010**	1.097	.782	.005 - .010	**1.100**	**.693**	**.005 - .010**	**1.103**	**.395**	**.005 - .020**	**1.110**	**.760**	**.005 - .008**	1.116	.883	.016 - .025
1.089	.460	.020 - .030	1.097	.830	.025 - .040	1.100	.695	.030 - .040	1.103	.396	.080 - .100	1.110	.780	.020 - .035	**1.116**	**1.002**	**.005 - .010**
1.089	.843	.050 - .070	**1.097**	**.873**	**.005 - .010**	1.100	.696	.020 - .040	1.103	.397	.010 - .020	1.110	.805	.015 - .030	1.117	.159	.105 - .125
1.089	.875	.042 - .060	**1.097**	**.883**	**.005 - .010**	1.100	.700	.040 - .060	**1.103**	**.398**	**.005 - .020**	1.110	.834	.080 - .105	1.117	.340	.005 - .015
1.090	.120	.020 - .030	1.097	.900	.030 - .050	**1.100**	**.716**	**.005 - .020**	**1.103**	**.473**	**.005 - .010**	1.110	.835	.005 - .010	1.117	.372	.050 - .075

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

New tools added continually. Call for sizes not listed — (800) 927-4377, Fax (800) 321-3462.

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O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To
1.117	.392	.050 - .070	1.120	.811	.030 - .050	1.123	.815	.030 - .060	1.125	.362	.105 - .134	1.125	.845	.005 - .050	1.130	.759	.005 - .010
1.117	.410	.156 - .187	1.120	.816	.060 - .080	1.123	.853	.005 - .010	1.125	.373	.042 - .062	1.125	.848	.062 - .083	1.130	.791	.050 - .070
1.117	.566	.025 - .040	1.120	.832	.015 - .030	1.123	.880	.030 - .050	1.125	.375	.125 - .156	1.125	.872	.100 - .125	1.130	.800	.005 - .010
1.117	.620	.100 - .125	1.120	.870	.040 - .060	1.123	.884	.090 - .105	1.125	.376	.125 - .156	1.125	.875	.032 - .060	1.130	.821	.005 - .010
1.117	.750	.100 - .125	1.120	.880	.020 - .030	1.123	.890	.080 - .090	1.125	.378	.005 - .090	1.125	.878	.005 - .010	1.130	.855	.062 - .083
1.117	.756	.050 - .060	1.120	.882	.060 - .083	1.123	.893	.020 - .030	1.125	.380	.050 - .075	1.125	.880	.010 - .020	1.130	.882	.005 - .010
1.117	.758	.135 - .156	1.120	.890	.060 - .090	1.123	.908	.005 - .030	1.125	.383	.005 - .012	1.125	.900	.040 - .060	1.130	1.001	.030 - .050
1.117	.760	.020 - .040	1.120	.920	.010 - .020	1.123	.966	.015 - .025	1.125	.390	.005 - .070	1.125	.908	.070 - .090	1.130	1.070	.005 - .010
1.117	.813	.062 - .083	1.120	.945	.015 - .030	1.123	.999	.040 - .060	1.125	.391	.100 - .125	1.125	.920	.050 - .075	1.131	.251	.050 - .070
1.117	.889	.010 - .020	1.120	.997	.005 - .010	1.123	1.013	.005 - .040	1.125	.406	.042 - .075	1.125	.935	.005 - .008	1.131	.515	.040 - .060
1.117	.896	.015 - .030	1.120	1.020	.005 - .010	1.123	1.072	.005 - .010	1.125	.407	.020 - .030	1.125	.938	.015 - .030	1.131	.664	.005 - .010
1.117	.929	.042 - .062	1.121	.160	.010 - .020	1.124	.188	.100 - .125	1.125	.408	.100 - .125	1.125	.939	.050 - .070	1.131	.751	.015 - .025
1.117	.930	.050 - .075	1.121	.260	.005 - .010	1.124	.199	.010 - .020	1.125	.410	.100 - .125	1.125	.940	.005 - .010	1.131	.758	.020 - .040
1.117	.954	.060 - .080	1.121	.275	.060 - .070	1.124	.251	.010 - .020	1.125	.421	.008 - .015	1.125	.950	.040 - .060	1.131	.855	.060 - .080
1.117	1.010	.030 - .050	1.121	.344	.005 - .010	1.124	.265	.005 - .010	1.125	.425	.013 - .135	1.125	.958	.020 - .040	1.131	.956	.025 - .042
1.118	.138	.090 - .110	1.121	.386	.050 - .070	1.124	.273	.005 - .010	1.125	.438	.100 - .125	1.125	.959	.005 - .010	1.131	1.034	.025 - .042
1.118	.506	.060 - .075	1.121	.472	.030 - .040	1.124	.317	.050 - .090	1.125	.439	.070 - .090	1.125	.967	.005 - .010	1.132	.170	.060 - .075
1.118	.679	.025 - .040	1.121	.491	.080 - .100	1.124	.319	.020 - .040	1.125	.441	.090 - .105	1.125	1.005	.010 - .025	1.132	.955	.025 - .050
1.118	.754	.010 - .020	1.121	.511	.050 - .070	1.124	.330	.005 - .010	1.125	.450	.025 - .062	1.126	.170	.050 - .075	1.133	.191	.030 - .050
1.118	.768	.005 - .010	1.121	.531	.105 - .125	1.124	.437	.060 - .080	1.125	.455	.090 - .125	1.126	.270	.025 - .040	1.133	.199	.050 - .060
1.118	.802	.005 - .010	1.121	.609	.134 - .156	1.124	.469	.015 - .030	1.125	.468	.105 - .125	1.126	.385	.050 - .070	1.133	.946	.030 - .050
1.118	.823	.110 - .130	1.121	.628	.040 - .060	1.124	.501	.005 - .010	1.125	.480	.040 - .060	1.126	.406	.100 - .130	1.133	.971	.005 - .010
1.118	.940	.005 - .010	1.121	.644	.100 - .125	1.124	.502	.005 - .010	1.125	.500	.032 - .042	1.126	.452	.005 - .010	1.134	.545	.015 - .030
1.118	1.000	.040 - .060	1.121	.664	.105 - .125	1.124	.509	.100 - .125	1.125	.503	.005 - .125	1.126	.546	.060 - .080	1.134	.555	.010 - .020
1.118	1.001	.050 - .060	1.121	.699	.005 - .010	1.124	.519	.005 - .010	1.125	.504	.015 - .025	1.126	.563	.015 - .030	1.134	.791	.050 - .070
1.119	.323	.050 - .075	1.121	.720	.005 - .010	1.124	.562	.105 - .135	1.125	.512	.005 - .125	1.126	.639	.005 - .010	1.134	.904	.040 - .060
1.119	.403	.005 - .010	1.121	.721	.010 - .020	1.124	.563	.010 - .020	1.125	.512	.126 - .187	1.126	.677	.015 - .025	1.135	.201	.050 - .060
1.119	.450	.030 - .050	1.121	.761	.020 - .040	1.124	.592	.005 - .010	1.125	.515	.040 - .050	1.126	.728	.030 - .050	1.135	.375	.010 - .020
1.119	.602	.030 - .050	1.121	.770	.050 - .070	1.124	.607	.100 - .120	1.125	.516	.020 - .040	1.126	.755	.040 - .060	1.135	.376	.015 - .030
1.119	.628	.080 - .104	1.121	.871	.020 - .030	1.124	.627	.005 - .010	1.125	.525	.120 - .135	1.126	.781	.010 - .020	1.135	.483	.005 - .050
1.119	.658	.060 - .080	1.121	.878	.005 - .010	1.124	.629	.080 - .100	1.125	.530	.006 - .012	1.126	.851	.005 - .125	1.135	.507	.090 - .120
1.119	.678	.030 - .040	1.121	.880	.005 - .010	1.124	.632	.060 - .080	1.125	.532	.156 - .187	1.126	.880	.005 - .010	1.135	.770	.020 - .040
1.119	.851	.030 - .050	1.121	.925	.005 - .010	1.124	.634	.135 - .156	1.125	.546	.060 - .080	1.126	.938	.015 - .025	1.135	.775	.040 - .060
1.119	.880	.080 - .100	1.121	.998	.020 - .040	1.124	.639	.030 - .050	1.125	.563	.005 - .010	1.126	.990	.005 - .010	1.135	.812	.100 - .125
1.119	.885	.040 - .060	1.122	.195	.005 - .010	1.124	.663	.015 - .030	1.125	.564	.080 - .104	1.127	.063	.020 - .035	1.136	.946	.030 - .050
1.119	.918	.075 - .090	1.122	.329	.030 - .040	1.124	.687	.040 - .060	1.125	.566	.005 - .010	1.127	.159	.025 - .042	1.136	.961	.060 - .075
1.119	.921	.025 - .042	1.122	.383	.030 - .050	1.124	.693	.005 - .010	1.125	.570	.060 - .080	1.127	.237	.025 - .042	1.137	.253	.125 - .135
1.119	1.041	.005 - .010	1.122	.441	.010 - .020	1.124	.704	.025 - .040	1.125	.571	.100 - .125	1.127	.253	.075 - .090	1.137	.693	.005 - .010
1.120	.100	.050 - .074	1.122	.442	.007 - .016	1.124	.753	.110 - .130	1.125	.573	.100 - .125	1.127	.267	.048 - .062	1.137	.814	.040 - .060
1.120	.132	.015 - .025	1.122	.468	.015 - .030	1.124	.755	.110 - .130	1.125	.590	.100 - .125	1.127	.375	.020 - .030	1.137	.907	.030 - .050
1.120	.158	.005 - .012	1.122	.505	.030 - .125	1.124	.789	.015 - .030	1.125	.594	.050 - .075	1.127	.410	.100 - .125	1.137	.953	.030 - .050
1.120	.160	.030 - .042	1.122	.510	.090 - .105	1.124	.794	.020 - .030	1.125	.609	.040 - .060	1.127	.438	.005 - .010	1.138	.126	.025 - .040
1.120	.220	.104 - .134	1.122	.531	.125 - .156	1.124	.860	.104 - .125	1.125	.625	.005 - .010	1.127	.507	.005 - .010	1.138	.568	.070 - .090
1.120	.255	.100 - .125	1.122	.595	.015 - .030	1.124	.870	.020 - .030	1.125	.626	.020 - .030	1.127	.521	.025 - .042	1.138	.570	.025 - .040
1.120	.313	.062 - .075	1.122	.627	.020 - .040	1.124	.879	.005 - .010	1.125	.626	.090 - .105	1.127	.531	.060 - .083	1.138	.692	.156 - .190
1.120	.359	.090 - .110	1.122	.629	.050 - .070	1.124	.891	.030 - .060	1.125	.628	.090 - .125	1.127	.626	.005 - .080	1.138	.738	.025 - .050
1.120	.380	.025 - .040	1.122	.750	.005 - .015	1.124	.905	.005 - .010	1.125	.630	.020 - .040	1.127	.643	.015 - .025	1.138	.781	.062 - .083
1.120	.390	.005 - .075	1.122	.755	.050 - .070	1.124	.914	.060 - .080	1.125	.632	.090 - .105	1.127	.695	.012 - .018	1.138	.872	.090 - .110
1.120	.391	.005 - .075	1.122	.758	.010 - .020	1.124	.916	.005 - .010	1.125	.638	.010 - .020	1.127	.773	.075 - .090	1.138	.912	.060 - .075
1.120	.420	.040 - .060	1.122	.771	.020 - .040	1.124	.961	.040 - .060	1.125	.640	.156 - .187	1.127	.885	.080 - .100	1.138	.952	.030 - .050
1.120	.439	.050 - .075	1.122	.877	.050 - .070	1.124	.967	.005 - .010	1.125	.645	.100 - .125	1.127	.931	.050 - .070	1.138	.979	.030 - .050
1.120	.450	.100 - .125	1.122	.889	.020 - .035	1.124	1.087	.005 - .010	1.125	.654	.050 - .075	1.127	.937	.050 - .070	1.138	1.042	.030 - .050
1.120	.472	.100 - .125	1.122	.890	.005 - .010	1.125	.080	.050 - .075	1.125	.656	.036 - .125	1.127	.997	.005 - .010	1.139	.320	.005 - .010
1.120	.496	.040 - .060	1.122	.891	.005 - .010	1.125	.131	.010 - .025	1.125	.669	.010 - .020	1.127	1.018	.005 - .020	1.139	.778	.015 - .030
1.120	.500	.060 - .080	1.122	.893	.015 - .030	1.125	.155	.060 - .083	1.125	.685	.008 - .016	1.128	.314	.075 - .090	1.140	.134	.060 - .075
1.120	.507	.008 - .016	1.122	1.002	.015 - .025	1.125	.156	.025 - .040	1.125	.687	.090 - .105	1.128	.347	.156 - .187	1.140	.195	.060 - .075
1.120	.512	.005 - .015	1.122	1.024	.015 - .025	1.125	.162	.015 - .030	1.125	.702	.050 - .075	1.128	.358	.156 - .187	1.140	.210	.060 - .075
1.120	.522	.100 - .125	1.123	.208	.008 - .016	1.125	.169	.042 - .062	1.125	.711	.070 - .080	1.128	.366	.048 - .062	1.140	.260	.060 - .075
1.120	.573	.005 - .050	1.123	.314	.050 - .075	1.125	.172	.125 - .135	1.125	.715	.025 - .040	1.128	.747	.005 - .010	1.140	.320	.060 - .075
1.120	.578	.040 - .060	1.123	.344	.005 - .010	1.125	.177	.025 - .040	1.125	.718	.075 - .100	1.128	.749	.025 - .040	1.140	.383	.060 - .075
1.120	.591	.050 - .060	1.123	.385	.005 - .010	1.125	.189	.090 - .125	1.125	.719	.040 - .060	1.128	.751	.005 - .010	1.140	.570	.010 - .125
1.120	.601	.060 - .080	1.123	.399	.010 - .020	1.125	.202	.090 - .120	1.125	.741	.020 - .040	1.128	.877	.010 - .020	1.140	.627	.020 - .040
1.120	.603	.010 - .050	1.123	.405	.080 - .105	1.125	.203	.040 - .125	1.125	.745	.100 - .125	1.128	.889	.050 - .070	1.140	.629	.020 - .040
1.120	.620	.120 - .156	1.123	.409	.156 - .187	1.125	.206	.015 - .040	1.125	.749	.105 - .135	1.129	.500	.080 - .105	1.140	.642	.030 - .060
1.120	.625	.010 - .020	1.123	.417	.020 - .030	1.125	.255	.005 - .060	1.125	.750	.015 - .042	1.129	.503	.090 - .105	1.140	.657	.005 - .020
1.120	.628	.005 - .010	1.123	.501	.005 - .010	1.125	.260	.048 - .125	1.125	.751	.010 - .020	1.129	.506	.050 - .070	1.140	.722	.005 - .010
1.120	.640	.016 - .025	1.123	.503	.010 - .110	1.125	.267	.100 - .125	1.125	.753	.015 - .030	1.129	.620	.100 - .125	1.140	.723	.005 - .010
1.120	.644	.100 - .125	1.123	.516	.125 - .156	1.125	.268	.005 - .010	1.125	.754	.005 - .010	1.129	.705	.105 - .135	1.140	.742	.005 - .010
1.120	.646	.030 - .050	1.123	.524	.005 - .010	1.125	.283	.062 - .083	1.125	.755	.005 - .010	1.129	.804	.060 - .080	1.140	.753	.010 - .020
1.120	.668	.090 - .120	1.123	.528	.080 - .100	1.125	.289	.060 - .083	1.125	.760	.050 - .090	1.129	.957	.005 - .010	1.140	.780	.005 - .010
1.120	.669	.015 - .025	1.123	.534	.156 - .187	1.125	.296	.020 - .040	1.125	.768	.048 - .062	1.130	.163	.005 - .010	1.140	.809	.005 - .010
1.120	.688	.048 - .062	1.123	.636	.005 - .010	1.125	.298	.060 - .090	1.125	.781	.050 - .070	1.130	.171	.050 - .070	1.140	.812	.031 - .042
1.120	.746	.005 - .015	1.123	.691	.125 - .156	1.125	.313	.020 - .040	1.125	.795	.010 - .050	1.130	.200	.060 - .070	1.140	.936	.005 - .010
1.120	.750	.005 - .010	1.123	.696	.040 - .060	1.125	.314	.008 - .015	1.125	.796	.050 - .062	1.130	.302	.020 - .040	1.140	.950	.005 - .015
1.120	.753	.030 - .050	1.123	.703	.040 - .060	1.125	.317	.083 - .120	1.125	.802	.134 - .156	1.130	.376	.005 - .010	1.140	.961	.005 - .010
1.120	.760	.015 - .032	1.123	.750	.005 - .010	1.125	.318	.005 - .010	1.125	.812	.080 - .100	1.130	.410	.060 - .080	1.140	.970	.025 - .050
1.120	.765	.005 - .012	1.123	.765	.020 - .040	1.125	.321	.005 - .020	1.125	.813	.010 - .020	1.130	.500	.040 - .060	1.140	.990	.015 - .030
1.120	.779	.025 - .042	1.123	.770	.005 - .010	1.125	.327	.062 - .090	1.125	.815	.005 - .010	1.130	.506	.100 - .125	1.140	1.010	.005 - .010
1.120	.780	.100 - .125	1.123	.784	.040 - .060	1.125	.338	.020 - .030	1.125	.823	.005 - .010	1.130	.589	.030 - .050	1.140	1.020	.005 - .010
1.120	.800	.040 - .050	1.123	.807	.005 - .010	1.125	.344	.062 - .083	1.125	.840	.105 - .125	1.130	.751	.080 - .105	1.141	.394	.005 - .010

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For non-metallic materials, contact BOKER'S — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
1.141	.395	.005 - .015	1.150	1.050	.030 - .040	1.160	.759	.030 - .050	1.171	.659	.025 - .040	1.177	.911	.050 - .070	1.181	.252	.005 - .010
1.141	.642	.090 - .105	1.151	.127	.020 - .040	1.160	.800	.050 - .062	1.171	.778	.040 - .060	1.177	.954	.060 - .080	1.181	.265	.030 - .050
1.141	.717	.015 - .025	1.151	.157	.035 - .050	1.160	.829	.060 - .080	1.171	.853	.050 - .070	1.177	.989	.070 - .090	1.181	.326	.005 - .010
1.141	.787	.005 - .010	1.151	.249	.015 - .030	1.160	.889	.025 - .040	1.171	.965	.070 - .090	1.177	.990	.025 - .040	1.181	.335	.060 - .078
1.141	.818	.105 - .125	1.151	.633	.010 - .020	1.160	.942	.050 - .075	1.171	1.005	.060 - .080	1.177	.992	.005 - .010	1.181	.379	.005 - .010
1.142	.132	.010 - .020	1.151	.700	.005 - .010	1.160	.955	.030 - .060	1.171	1.050	.005 - .010	1.177	1.000	.005 - .010	1.181	.394	.015 - .030
1.142	.472	.005 - .010	1.151	.729	.005 - .010	1.160	.989	.032 - .050	1.171	1.105	.005 - .010	1.178	.380	.090 - .125	1.181	.395	.005 - .060
1.142	.532	.080 - .100	1.151	.755	.062 - .120	1.161	.408	.005 - .030	1.172	.190	.040 - .060	1.178	.395	.100 - .125	1.181	.414	.090 - .105
1.142	.552	.005 - .010	1.151	.900	.010 - .020	1.161	.753	.060 - .080	1.172	.473	.120 - .135	1.178	.442	.060 - .080	1.181	.472	.010 - .020
1.142	.638	.030 - .040	1.151	1.046	.005 - .010	1.161	.770	.010 - .020	1.172	.523	.005 - .010	1.178	.631	.005 - .020	1.181	.473	.005 - .010
1.142	.751	.005 - .020	1.152	.305	.020 - .030	1.161	.794	.080 - .100	1.172	.600	.050 - .187	1.178	.636	.005 - .010	1.181	.474	.005 - .010
1.142	.753	.090 - .110	1.152	.380	.005 - .010	1.161	.922	.040 - .060	1.172	.628	.040 - .060	1.178	.663	.090 - .110	1.181	.477	.005 - .010
1.142	.790	.005 - .010	1.152	.563	.040 - .060	1.162	.443	.070 - .090	1.172	.632	.030 - .040	1.178	.709	.005 - .010	1.181	.482	.030 - .060
1.142	.826	.080 - .104	1.152	.673	.120 - .135	1.162	.600	.075 - .100	1.172	.694	.050 - .075	1.178	.753	.015 - .030	1.181	.512	.105 - .125
1.142	.945	.040 - .080	1.152	.781	.090 - .105	1.162	.906	.060 - .080	1.172	.800	.010 - .020	1.178	1.041	.020 - .040	1.181	.518	.135 - .156
1.143	.187	.060 - .075	1.152	1.048	.010 - .020	1.162	.955	.040 - .060	1.172	.816	.050 - .075	1.179	.170	.010 - .020	1.181	.531	.010 - .020
1.143	.206	.040 - .060	1.152	1.053	.010 - .020	1.163	.408	.010 - .020	1.172	.819	.005 - .010	1.179	.381	.170 - .190	1.181	.552	.105 - .125
1.143	.250	.060 - .075	1.153	.062	.025 - .042	1.163	.419	.135 - .156	1.172	.897	.030 - .050	1.179	.473	.010 - .020	1.181	.560	.100 - .125
1.143	.313	.060 - .075	1.153	.626	.010 - .032	1.163	.480	.040 - .060	1.172	.917	.080 - .090	1.179	.502	.005 - .010	1.181	.577	.070 - .090
1.143	.314	.062 - .080	1.153	.731	.100 - .125	1.163	.800	.030 - .042	1.172	.958	.050 - .062	1.179	.569	.030 - .060	1.181	.607	.005 - .015
1.143	.375	.060 - .075	1.153	.843	.015 - .030	1.163	.846	.040 - .060	1.172	1.000	.050 - .075	1.179	.632	.010 - .020	1.181	.627	.020 - .040
1.143	.376	.020 - .035	1.154	.159	.030 - .060	1.163	1.010	.010 - .020	1.173	.063	.015 - .025	1.179	.641	.050 - .070	1.181	.628	.025 - .083
1.143	.504	.005 - .020	1.154	.375	.100 - .125	1.164	.351	.005 - .010	1.173	.412	.130 - .150	1.179	.648	.015 - .030	1.181	.640	.090 - .125
1.143	.651	.140 - .160	1.154	.387	.005 - .008	1.164	.787	.083 - .120	1.173	.413	.156 - .190	1.179	.687	.030 - .060	1.181	.649	.160 - .190
1.143	.739	.005 - .010	1.154	.499	.050 - .075	1.164	.801	.060 - .080	1.173	.600	.090 - .105	1.179	.721	.060 - .080	1.181	.669	.070 - .090
1.143	.812	.100 - .120	1.154	.584	.030 - .060	1.164	.802	.040 - .060	1.173	.710	.005 - .010	1.179	.829	.030 - .060	1.181	.696	.010 - .020
1.143	.848	.015 - .040	1.154	.710	.005 - .010	1.164	.946	.031 - .048	1.173	.722	.005 - .010	1.179	.874	.005 - .010	1.181	.708	.005 - .010
1.143	.952	.050 - .070	1.154	.787	.090 - .100	1.165	.315	.070 - .090	1.173	.804	.030 - .050	1.179	.875	.005 - .010	1.181	.787	.135 - .160
1.145	.210	.005 - .010	1.154	.803	.030 - .050	1.165	.735	.010 - .020	1.173	.851	.025 - .040	1.179	.911	.040 - .062	1.181	.801	.005 - .010
1.145	.355	.135 - .156	1.154	.856	.025 - .040	1.165	.781	.070 - .090	1.173	.891	.020 - .030	1.179	.914	.035 - .050	1.181	.802	.025 - .040
1.145	.856	.005 - .010	1.154	.875	.010 - .020	1.165	1.010	.005 - .015	1.173	.940	.070 - .090	1.179	.931	.040 - .060	1.181	.829	.025 - .040
1.145	.896	.030 - .060	1.154	.877	.005 - .010	1.165	1.065	.005 - .010	1.173	.998	.020 - .030	1.179	.936	.040 - .060	1.181	.877	.040 - .060
1.145	1.006	.030 - .050	1.154	1.033	.005 - .010	1.165	1.100	.005 - .010	1.174	.207	.100 - .125	1.179	.996	.040 - .060	1.181	.885	.040 - .050
1.146	.289	.015 - .030	1.155	.250	.040 - .060	1.165	1.122	.005 - .010	1.174	.261	.125 - .156	1.179	1.015	.025 - .040	1.181	.891	.060 - .070
1.146	1.000	.005 - .010	1.155	.266	.050 - .075	1.166	.689	.010 - .020	1.174	.419	.090 - .105	1.179	1.041	.020 - .040	1.181	.943	.030 - .080
1.146	1.010	.005 - .020	1.155	.437	.050 - .075	1.166	.957	.025 - .035	1.174	.876	.030 - .050	1.180	.140	.016 - .032	1.181	.945	.010 - .025
1.146	1.035	.010 - .020	1.155	.501	.075 - .090	1.167	.990	.060 - .080	1.174	.891	.060 - .080	1.180	.156	.060 - .080	1.181	.950	.005 - .010
1.147	.316	.050 - .070	1.155	.510	.030 - .040	1.168	.194	.020 - .030	1.174	.921	.020 - .040	1.180	.238	.005 - .010	1.181	.965	.012 - .040
1.147	.775	.070 - .090	1.155	.567	.020 - .040	1.168	.229	.020 - .040	1.174	.963	.015 - .030	1.180	.239	.105 - .125	1.181	1.000	.010 - .020
1.148	.221	.070 - .090	1.155	.594	.080 - .105	1.168	.458	.005 - .010	1.175	.054	.020 - .040	1.180	.251	.156 - .187	1.181	1.020	.005 - .010
1.148	.251	.105 - .135	1.155	.766	.020 - .030	1.168	.600	.135 - .156	1.175	.063	.020 - .032	1.180	.315	.025 - .040	1.182	.315	.005 - .010
1.148	.630	.020 - .030	1.155	.775	.030 - .050	1.168	.697	.025 - .040	1.175	.260	.090 - .125	1.180	.317	.090 - .110	1.182	.316	.010 - .020
1.148	.809	.005 - .010	1.155	.967	.025 - .042	1.168	.704	.135 - .156	1.175	.438	.015 - .030	1.180	.319	.005 - .010	1.182	.317	.005 - .020
1.148	.941	.020 - .030	1.156	.125	.005 - .010	1.168	.750	.005 - .010	1.175	.514	.020 - .035	1.180	.331	.140 - .160	1.182	.395	.010 - .020
1.149	.187	.030 - .050	1.156	.188	.100 - .125	1.168	.843	.005 - .010	1.175	.625	.010 - .020	1.180	.354	.010 - .020	1.182	.398	.005 - .010
1.149	.313	.090 - .110	1.156	.379	.040 - .060	1.168	.922	.005 - .010	1.175	.715	.010 - .020	1.180	.357	.150 - .170	1.182	.429	.060 - .070
1.149	.383	.010 - .015	1.156	.532	.025 - .040	1.168	.985	.005 - .020	1.175	.716	.005 - .010	1.180	.383	.048 - .075	1.182	.506	.005 - .020
1.149	.632	.060 - .080	1.156	.562	.010 - .020	1.168	.996	.005 - .015	1.175	.726	.005 - .010	1.180	.398	.005 - .020	1.182	.550	.050 - .060
1.149	.851	.005 - .010	1.156	.565	.100 - .130	1.168	1.000	.005 - .010	1.175	.750	.005 - .010	1.180	.409	.005 - .010	1.182	.561	.030 - .050
1.149	.943	.030 - .050	1.156	.582	.050 - .075	1.169	.126	.010 - .025	1.175	.814	.020 - .040	1.180	.438	.050 - .070	1.182	.635	.100 - .125
1.149	.999	.040 - .060	1.156	.765	.105 - .135	1.169	.390	.060 - .083	1.175	.840	.005 - .010	1.180	.472	.005 - .010	1.182	.714	.048 - .062
1.150	.125	.062 - .083	1.156	.794	.040 - .062	1.169	.410	.070 - .090	1.175	.868	.005 - .010	1.180	.474	.005 - .010	1.182	.750	.090 - .120
1.150	.186	.062 - .083	1.156	.812	.005 - .012	1.169	.419	.090 - .125	1.175	.905	.030 - .050	1.180	.475	.005 - .010	1.182	.752	.100 - .125
1.150	.187	.030 - .050	1.156	.893	.005 - .020	1.169	.691	.090 - .110	1.175	.910	.005 - .010	1.180	.476	.025 - .040	1.182	.753	.005 - .010
1.150	.203	.062 - .083	1.156	.906	.025 - .040	1.169	.698	.030 - .050	1.175	.925	.020 - .030	1.180	.485	.010 - .020	1.182	.801	.010 - .020
1.150	.250	.062 - .083	1.156	.911	.020 - .040	1.169	.878	.080 - .100	1.175	.985	.080 - .100	1.180	.499	.015 - .025	1.182	.867	.010 - .020
1.150	.252	.005 - .010	1.156	.966	.005 - .010	1.169	.880	.040 - .060	1.175	.999	.015 - .020	1.180	.512	.005 - .010	1.182	.879	.060 - .080
1.150	.313	.062 - .083	1.156	.968	.010 - .030	1.169	.883	.005 - .010	1.175	1.031	.005 - .010	1.180	.521	.070 - .090	1.182	.906	.005 - .010
1.150	.375	.020 - .083	1.157	.378	.050 - .070	1.169	.995	.005 - .010	1.175	1.112	.010 - .020	1.180	.540	.015 - .025	1.182	.960	.005 - .010
1.150	.376	.010 - .020	1.157	.570	.020 - .040	1.169	1.119	.010 - .020	1.176	.127	.025 - .040	1.180	.563	.010 - .020	1.182	.993	.005 - .010
1.150	.377	.015 - .030	1.157	.748	.015 - .030	1.170	.224	.005 - .010	1.176	.371	.040 - .060	1.180	.635	.040 - .060	1.183	.405	.010 - .020
1.150	.381	.005 - .020	1.157	.785	.020 - .030	1.170	.256	.020 - .030	1.176	.439	.005 - .010	1.180	.638	.005 - .010	1.183	.771	.060 - .080
1.150	.382	.020 - .030	1.158	.408	.010 - .030	1.170	.440	.090 - .105	1.176	.443	.005 - .020	1.180	.671	.150 - .170	1.183	.807	.006 - .015
1.150	.383	.105 - .125	1.158	.476	.005 - .010	1.170	.524	.005 - .010	1.176	.500	.070 - .090	1.180	.694	.080 - .104	1.183	.810	.105 - .125
1.150	.450	.005 - .010	1.158	.504	.005 - .010	1.170	.611	.020 - .040	1.176	.506	.005 - .010	1.180	.714	.120 - .135	1.183	.933	.070 - .090
1.150	.503	.005 - .020	1.158	.505	.010 - .020	1.170	.675	.032 - .050	1.176	.589	.020 - .030	1.180	.747	.030 - .050	1.183	1.000	.040 - .060
1.150	.505	.005 - .010	1.158	.588	.020 - .030	1.170	.710	.005 - .010	1.176	.625	.040 - .105	1.180	.773	.015 - .030	1.184	.127	.060 - .083
1.150	.553	.005 - .010	1.158	.971	.050 - .060	1.170	.758	.050 - .070	1.176	.682	.005 - .010	1.180	.787	.010 - .020	1.184	.325	.050 - .060
1.150	.628	.005 - .010	1.158	1.052	.015 - .030	1.170	.793	.030 - .050	1.176	.756	.030 - .050	1.180	.788	.090 - .105	1.184	.585	.010 - .020
1.150	.630	.005 - .062	1.159	.298	.025 - .040	1.170	.815	.005 - .010	1.177	.271	.005 - .015	1.180	.789	.010 - .050	1.184	.626	.050 - .074
1.150	.750	.040 - .090	1.159	.393	.015 - .030	1.170	.860	.020 - .040	1.177	.445	.005 - .030	1.180	.793	.105 - .125	1.184	.635	.062 - .083
1.150	.763	.005 - .010	1.159	.687	.020 - .040	1.170	.870	.010 - .020	1.177	.759	.050 - .070	1.180	.890	.010 - .020	1.184	.730	.025 - .040
1.150	.803	.040 - .060	1.159	.901	.005 - .010	1.170	.880	.030 - .050	1.177	.782	.005 - .010	1.180	.895	.005 - .010	1.184	.753	.005 - .010
1.150	.814	.048 - .125	1.159	1.008	.015 - .025	1.170	.919	.025 - .040	1.177	.790	.030 - .050	1.180	.903	.005 - .010	1.184	.807	.005 - .010
1.150	.830	.032 - .042	1.160	.130	.025 - .035	1.170	.920	.005 - .010	1.177	.823	.093 - .125	1.180	.947	.010 - .020	1.184	.995	.005 - .010
1.150	.951	.025 - .040	1.160	.269	.035 - .050	1.170	.936	.010 - .025	1.177	.865	.062 - .090	1.180	.981	.005 - .010	1.184	1.073	.005 - .010
1.150	.986	.005 - .020	1.160	.655	.100 - .125	1.170	.985	.040 - .062	1.177	.875	.025 - .040	1.180	.995	.005 - .040	1.185	.089	.060 - .090
1.150	.988	.010 - .020	1.160	.710	.030 - .050	1.170	1.000	.020 - .032	1.177	.878	.105 - .135	1.180	1.015	.040 - .060	1.185	.252	.040 - .060
1.150	.993	.005 - .012	1.160	.750	.042 - .062	1.170	1.002	.005 - .020	1.177	.883	.105 - .120	1.180	1.029	.005 - .010	1.185	.313	.100 - .125
1.150	1.045	.005 - .010	1.160	.752	.030 - .048	1.171	.259	.010 - .015	1.177	.893	.005 - .010	1.181	.239	.005 - .010	1.185	.315	.050 - .075

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

Need Disks? All O.D. sizes available with no I.D. — (800) 927-4377, Fax (800) 321-3462.

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O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
1.185	.328	.100 - .125	1.188	.195	.040 - .062	1.194	1.002	.050 - .070	1.200	.520	.050 - .070	1.213	1.074	.015 - .025	1.221	1.094	.010 - .020
1.185	.365	.075 - .125	1.188	.240	.050 - .070	1.194	1.012	.005 - .010	1.200	.562	.005 - .020	1.214	.860	.030 - .050	1.221	1.098	.035 - .050
1.185	.375	.100 - .125	1.188	.254	.050 - .070	1.194	1.014	.060 - .080	1.200	.600	.105 - .125	1.214	.879	.015 - .025	1.222	.194	.020 - .040
1.185	.435	.100 - .125	1.188	.310	.050 - .070	1.194	1.072	.005 - .010	1.200	.626	.005 - .020	1.215	.260	.040 - .060	1.222	.836	.030 - .050
1.185	.437	.060 - .080	1.188	.312	.005 - .010	1.194	1.073	.005 - .010	1.200	.629	.010 - .020	1.215	.410	.010 - .020	1.222	1.015	.005 - .010
1.185	.568	.005 - .010	1.188	.326	.062 - .083	1.195	.057	.005 - .010	1.200	.642	.015 - .030	1.215	.474	.005 - .010	1.222	1.063	.040 - .060
1.185	.609	.030 - .040	1.188	.439	.060 - .080	1.195	.312	.005 - .010	1.200	.650	.025 - .042	1.215	.753	.030 - .050	1.222	1.079	.005 - .010
1.185	.645	.010 - .040	1.188	.508	.020 - .040	1.195	.379	.040 - .050	1.200	.751	.030 - .050	1.215	.875	.062 - .090	1.223	.252	.110 - .130
1.185	.700	.005 - .015	1.188	.515	.040 - .060	1.195	.575	.120 - .135	1.200	.755	.010 - .020	1.215	.906	.010 - .020	1.223	.385	.100 - .125
1.185	.709	.100 - .125	1.188	.530	.048 - .075	1.195	.641	.040 - .060	1.200	.760	.020 - .040	1.216	.377	.060 - .083	1.223	.386	.060 - .078
1.185	.753	.005 - .010	1.188	.563	.005 - .075	1.195	.692	.008 - .020	1.200	.761	.120 - .135	1.216	1.000	.005 - .010	1.223	.628	.008 - .015
1.185	.755	.030 - .050	1.188	.621	.080 - .100	1.195	.730	.030 - .050	1.200	.786	.080 - .090	1.216	1.029	.070 - .090	1.223	.755	.025 - .040
1.185	.768	.005 - .010	1.188	.623	.040 - .060	1.195	.795	.050 - .070	1.200	.796	.005 - .010	1.216	1.073	.005 - .010	1.223	.793	.020 - .040
1.185	.783	.050 - .125	1.188	.626	.105 - .125	1.195	.865	.015 - .030	1.200	.817	.080 - .105	1.217	.701	.005 - .010	1.223	.907	.015 - .030
1.185	.875	.050 - .083	1.188	.656	.025 - .040	1.195	.872	.005 - .010	1.200	.829	.005 - .010	1.217	.757	.005 - .010	1.223	.998	.005 - .030
1.185	.880	.012 - .025	1.188	.688	.040 - .060	1.195	.912	.010 - .020	1.200	.865	.135 - .156	1.217	.902	.005 - .015	1.223	1.020	.030 - .060
1.185	.908	.005 - .020	1.188	.759	.156 - .187	1.195	.915	.005 - .010	1.200	.935	.005 - .010	1.217	.995	.005 - .010	1.223	1.085	.005 - .010
1.185	.940	.030 - .062	1.188	.763	.005 - .105	1.195	.964	.032 - .048	1.200	.952	.030 - .040	1.217	.998	.010 - .020	1.224	.754	.070 - .090
1.185	.973	.005 - .010	1.188	.765	.070 - .090	1.195	.980	.005 - .015	1.200	.990	.005 - .020	1.217	1.001	.005 - .025	1.224	1.020	.020 - .040
1.185	.990	.080 - .104	1.188	.799	.050 - .070	1.195	.983	.010 - .020	1.200	1.000	.005 - .060	1.217	1.013	.020 - .040	1.224	1.090	.040 - .060
1.185	1.024	.040 - .060	1.188	.880	.005 - .125	1.195	1.026	.010 - .030	1.200	1.013	.015 - .030	1.218	.277	.090 - .125	1.225	.120	.015 - .030
1.185	1.048	.005 - .010	1.188	.880	.126 - .160	1.195	1.116	.010 - .020	1.200	1.048	.005 - .010	1.218	.315	.035 - .050	1.225	.375	.015 - .030
1.185	1.067	.015 - .030	1.188	.920	.010 - .020	1.195	1.120	.015 - .030	1.200	1.050	.025 - .040	1.218	.355	.040 - .060	1.225	.564	.010 - .020
1.186	.189	.105 - .125	1.188	.922	.040 - .060	1.196	.081	.005 - .010	1.200	1.073	.005 - .030	1.218	.380	.020 - .060	1.225	.640	.005 - .010
1.186	.378	.156 - .190	1.188	.940	.005 - .010	1.196	.264	.025 - .042	1.201	.257	.005 - .010	1.218	.439	.030 - .050	1.225	.826	.040 - .060
1.186	.437	.010 - .100	1.188	1.000	.062 - .089	1.196	.378	.005 - .010	1.201	.314	.030 - .050	1.218	.474	.005 - .010	1.225	.947	.010 - .020
1.186	.506	.060 - .090	1.188	1.001	.005 - .010	1.196	.859	.040 - .060	1.201	.395	.005 - .030	1.218	.565	.042 - .062	1.226	.525	.015 - .030
1.186	.559	.090 - .125	1.188	1.038	.025 - .040	1.196	1.013	.005 - .010	1.201	.562	.020 - .030	1.218	.627	.005 - .010	1.226	.750	.135 - .156
1.186	.710	.020 - .040	1.189	.140	.015 - .030	1.196	1.020	.020 - .030	1.201	.721	.050 - .070	1.218	.758	.025 - .035	1.227	.381	.005 - .010
1.186	.740	.040 - .060	1.189	.309	.025 - .040	1.197	.362	.005 - .010	1.201	.755	.005 - .010	1.218	.855	.060 - .075	1.227	.777	.005 - .010
1.186	.781	.005 - .010	1.189	.346	.030 - .050	1.197	.376	.005 - .010	1.201	.760	.050 - .070	1.218	.856	.060 - .075	1.227	.812	.005 - .010
1.186	.783	.050 - .062	1.189	.380	.110 - .130	1.197	.500	.030 - .050	1.201	.763	.050 - .075	1.218	.889	.050 - .062	1.227	.966	.010 - .020
1.186	.826	.010 - .020	1.189	.627	.160 - .190	1.197	.570	.005 - .010	1.201	.774	.025 - .040	1.218	1.038	.060 - .080	1.228	.661	.080 - .100
1.186	.852	.050 - .070	1.189	.751	.040 - .060	1.197	.637	.005 - .010	1.201	.800	.015 - .030	1.218	1.076	.025 - .040	1.228	.926	.010 - .020
1.186	1.015	.025 - .040	1.189	.798	.005 - .010	1.197	.880	.005 - .010	1.201	1.003	.010 - .020	1.219	.268	.060 - .080	1.228	1.012	.005 - .010
1.186	1.016	.030 - .050	1.189	.828	.005 - .010	1.197	1.120	.020 - .035	1.201	1.050	.050 - .062	1.219	.270	.005 - .025	1.229	.416	.005 - .010
1.186	1.063	.015 - .030	1.189	.999	.010 - .020	1.198	.398	.105 - .125	1.202	.439	.040 - .060	1.219	.315	.035 - .050	1.229	.591	.040 - .060
1.187	.142	.005 - .030	1.189	1.032	.005 - .010	1.198	.441	.010 - .020	1.202	.793	.015 - .030	1.219	.473	.005 - .010	1.229	.753	.020 - .040
1.187	.156	.050 - .062	1.190	.128	.030 - .050	1.198	.500	.005 - .010	1.202	.937	.025 - .040	1.219	.515	.050 - .075	1.229	.757	.025 - .070
1.187	.212	.040 - .062	1.190	.250	.100 - .125	1.198	.522	.005 - .010	1.202	.996	.025 - .040	1.219	.534	.050 - .075	1.229	.785	.032 - .050
1.187	.283	.080 - .104	1.190	.265	.062 - .090	1.198	.552	.025 - .040	1.202	1.057	.010 - .020	1.219	.552	.005 - .010	1.229	.861	.070 - .090
1.187	.313	.010 - .025	1.190	.317	.100 - .125	1.198	.632	.030 - .050	1.202	1.065	.010 - .020	1.219	.595	.025 - .042	1.229	.917	.025 - .042
1.187	.374	.042 - .062	1.190	.392	.090 - .110	1.198	.640	.070 - .090	1.203	.353	.060 - .080	1.219	.642	.005 - .010	1.229	.919	.005 - .010
1.187	.378	.005 - .010	1.190	.410	.010 - .020	1.198	.875	.025 - .042	1.203	.439	.050 - .075	1.219	.751	.010 - .020	1.229	.920	.010 - .020
1.187	.390	.134 - .187	1.190	.500	.032 - .050	1.198	.890	.025 - .040	1.203	.502	.100 - .125	1.219	.801	.005 - .010	1.230	.145	.050 - .070
1.187	.404	.020 - .040	1.190	.531	.050 - .070	1.198	1.053	.010 - .030	1.203	.627	.005 - .010	1.219	.890	.020 - .040	1.230	.176	.040 - .060
1.187	.477	.100 - .125	1.190	.543	.060 - .080	1.199	.187	.020 - .040	1.203	.793	.015 - .030	1.219	.940	.040 - .060	1.230	.201	.125 - .156
1.187	.512	.060 - .080	1.190	.564	.020 - .035	1.199	.379	.020 - .040	1.203	.822	.015 - .025	1.219	1.000	.020 - .075	1.230	.378	.060 - .080
1.187	.516	.065 - .080	1.190	.626	.025 - .070	1.199	.503	.005 - .010	1.203	.961	.015 - .030	1.220	.125	.015 - .030	1.230	.381	.042 - .062
1.187	.519	.010 - .020	1.190	.656	.110 - .120	1.199	.510	.005 - .010	1.203	1.004	.030 - .050	1.220	.194	.075 - .100	1.230	.501	.050 - .070
1.187	.550	.025 - .040	1.190	.738	.050 - .070	1.199	.550	.005 - .010	1.204	.757	.005 - .015	1.220	.283	.015 - .030	1.230	.612	.050 - .070
1.187	.594	.080 - .100	1.190	.752	.042 - .060	1.199	.562	.015 - .030	1.204	1.030	.005 - .010	1.220	.375	.090 - .100	1.230	.761	.005 - .010
1.187	.625	.030 - .050	1.190	.753	.015 - .040	1.199	.735	.050 - .070	1.205	.508	.040 - .060	1.220	.394	.005 - .020	1.230	.766	.050 - .134
1.187	.632	.006 - .020	1.190	.787	.080 - .104	1.199	.737	.020 - .040	1.205	.870	.005 - .090	1.220	.455	.012 - .020	1.230	.890	.030 - .050
1.187	.636	.115 - .135	1.190	.817	.048 - .062	1.199	.830	.040 - .060	1.205	.922	.015 - .030	1.220	.476	.005 - .010	1.230	.911	.015 - .025
1.187	.640	.040 - .060	1.190	.830	.040 - .125	1.199	.985	.020 - .030	1.206	.920	.025 - .040	1.220	.504	.005 - .125	1.230	.921	.025 - .040
1.187	.656	.048 - .062	1.190	.881	.025 - .040	1.199	1.012	.015 - .030	1.206	1.072	.005 - .010	1.220	.507	.110 - .134	1.230	.925	.010 - .030
1.187	.674	.090 - .120	1.190	.890	.050 - .060	1.199	1.050	.040 - .060	1.207	.258	.050 - .070	1.220	.564	.010 - .020	1.230	.981	.020 - .030
1.187	.686	.060 - .075	1.190	.918	.010 - .020	1.199	1.053	.005 - .010	1.207	.707	.005 - .010	1.220	.602	.090 - .120	1.230	.985	.010 - .020
1.187	.687	.050 - .083	1.190	1.000	.030 - .040	1.200	.086	.010 - .020	1.207	.974	.050 - .070	1.220	.640	.100 - .125	1.230	1.005	.030 - .050
1.187	.688	.060 - .080	1.190	1.125	.005 - .010	1.200	.138	.050 - .070	1.208	.259	.005 - .010	1.220	.672	.025 - .042	1.230	1.053	.020 - .040
1.187	.753	.050 - .060	1.191	.459	.010 - .020	1.200	.168	.030 - .050	1.208	.390	.010 - .050	1.220	.680	.030 - .050	1.230	1.080	.005 - .010
1.187	.755	.020 - .040	1.191	.460	.020 - .040	1.200	.186	.020 - .040	1.209	.893	.020 - .030	1.220	.699	.030 - .050	1.231	.915	.010 - .020
1.187	.757	.100 - .125	1.191	.560	.170 - .190	1.200	.213	.040 - .060	1.210	.312	.015 - .030	1.220	.799	.010 - .020	1.231	1.048	.005 - .010
1.187	.765	.025 - .083	1.191	.646	.005 - .010	1.200	.220	.005 - .010	1.210	.383	.050 - .075	1.220	.831	.060 - .080	1.232	.185	.015 - .030
1.187	.812	.062 - .083	1.191	.731	.030 - .050	1.200	.250	.080 - .100	1.210	.674	.050 - .062	1.220	.844	.050 - .070	1.232	.500	.005 - .010
1.187	.823	.032 - .120	1.191	.882	.005 - .010	1.200	.314	.005 - .020	1.210	.878	.005 - .020	1.220	.875	.062 - .090	1.232	.661	.040 - .060
1.187	.825	.005 - .010	1.191	.900	.070 - .090	1.200	.327	.010 - .020	1.210	.958	.100 - .125	1.220	.960	.050 - .083	1.232	.792	.120 - .130
1.187	.874	.010 - .020	1.191	.934	.050 - .075	1.200	.350	.005 - .010	1.210	1.038	.050 - .075	1.220	1.004	.010 - .020	1.233	1.027	.040 - .060
1.187	.880	.010 - .020	1.192	.739	.030 - .050	1.200	.376	.005 - .020	1.211	.201	.010 - .020	1.220	1.083	.005 - .010	1.233	1.028	.005 - .010
1.187	.881	.005 - .010	1.192	.778	.040 - .060	1.200	.377	.100 - .125	1.211	.403	.075 - .090	1.220	1.090	.042 - .062	1.233	1.065	.005 - .010
1.187	.882	.010 - .025	1.192	1.004	.015 - .025	1.200	.378	.005 - .125	1.211	.751	.050 - .075	1.220	1.116	.040 - .050	1.233	1.131	.020 - .030
1.187	.944	.005 - .010	1.192	1.014	.020 - .040	1.200	.383	.090 - .125	1.211	1.005	.005 - .010	1.221	.131	.015 - .030	1.234	.087	.015 - .030
1.187	.954	.005 - .010	1.193	.159	.005 - .010	1.200	.408	.050 - .070	1.211	1.035	.010 - .020	1.221	.194	.020 - .040	1.234	.392	.134 - .156
1.187	1.017	.005 - .012	1.193	.282	.050 - .060	1.200	.440	.005 - .020	1.212	.994	.030 - .050	1.221	.257	.040 - .060	1.234	.505	.070 - .090
1.187	1.025	.050 - .060	1.193	.445	.060 - .078	1.200	.500	.005 - .020	1.212	1.015	.020 - .040	1.221	.867	.020 - .040	1.234	.849	.020 - .040
1.187	1.029	.005 - .010	1.193	.640	.040 - .060	1.200	.501	.005 - .020	1.212	1.016	.020 - .040	1.221	.899	.025 - .040	1.234	.906	.105 - .120
1.187	1.031	.005 - .010	1.193	1.003	.010 - .020	1.200	.502	.005 - .020	1.212	1.042	.070 - .090	1.221	.916	.005 - .010	1.234	.950	.090 - .110
1.188	.094	.020 - .030	1.194	.760	.050 - .070	1.200	.503	.005 - .020	1.213	.894	.005 - .020	1.221	.985	.074 - .090	1.234	1.015	.008 - .016
1.188	.128	.020 - .035	1.194	.932	.030 - .050	1.200	.504	.005 - .030				1.221	.986	.020 - .040	1.234	1.025	.030 - .050

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.

Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For a size NOT listed, send specs or phone for quote — (800) 927-4377, Fax (800) 321-3462.

BOKER'S METAL WASHERS ARE FLAT AND TUMBLE DEBURRED

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
1.234	1.080	.020 - .030	1.242	.897	.015 - .030	1.246	.909	.050 - .075	**1.248**	**1.060**	**.005 - .015**	**1.250**	**.254**	**.005 - .012**	1.250	.665	.030 - .040
1.235	.500	.010 - .020	1.242	.944	.040 - .060	**1.246**	**.937**	**.005 - .010**	1.248	1.145	.040 - .060	**1.250**	**.255**	**.005 - .010**	**1.250**	**.669**	**.005 - .010**
1.235	**.626**	**.005 - .020**	1.242	1.021	.015 - .030	1.246	.952	.050 - .067	**1.249**	**.140**	**.005 - .050**	**1.250**	**.259**	**.005 - .010**	1.250	.675	.015 - .030
1.235	.628	.040 - .060	1.243	.220	.035 - .060	1.246	1.035	.075 - .090	1.249	.188	.015 - .030	1.250	.260	.040 - .060	1.250	.680	.105 - .125
1.235	.695	.090 - .100	1.243	.405	.030 - .050	1.246	1.046	.020 - .040	**1.249**	**.203**	**.005 - .105**	1.250	.262	.050 - .075	1.250	.683	.010 - .020
1.235	**.732**	**.005 - .010**	1.243	.491	.125 - .156	1.246	1.060	.020 - .040	1.249	.250	.030 - .050	1.250	.264	.010 - .020	1.250	.688	.090 - .125
1.235	.766	.010 - .020	**1.243**	**.613**	**.005 - .010**	1.247	.064	.015 - .030	**1.249**	**.253**	**.005 - .010**	1.250	.266	.120 - .134	1.250	.689	.010 - .040
1.235	**.802**	**.005 - .010**	**1.243**	**.614**	**.005 - .010**	1.247	.125	.040 - .060	1.249	.318	.170 - .190	**1.250**	**.273**	**.005 - .010**	**1.250**	**.690**	**.005 - .010**
1.235	**.882**	**.005 - .020**	**1.243**	**.699**	**.005 - .010**	1.247	.254	.060 - .080	1.249	.319	.036 - .060	1.250	.280	.062 - .083	1.250	.701	.015 - .105
1.235	.945	.010 - .020	1.243	.855	.070 - .090	1.247	.263	.050 - .075	1.249	.320	.105 - .125	1.250	.283	.060 - .083	1.250	.707	.020 - .040
1.235	.962	.010 - .020	1.243	.965	.090 - .105	1.247	.354	.100 - .125	1.249	.327	.015 - .030	1.250	.286	.050 - .075	1.250	.710	.050 - .070
1.235	**1.010**	**.005 - .020**	**1.243**	**1.012**	**.005 - .010**	**1.247**	**.378**	**.005 - .010**	1.249	.328	.090 - .125	1.250	.295	.025 - .042	**1.250**	**.711**	**.005 - .010**
1.236	**.131**	**.005 - .010**	1.243	1.025	.030 - .040	**1.247**	**.392**	**.005 - .010**	1.249	.380	.105 - .125	1.250	.311	.050 - .062	**1.250**	**.715**	**.005 - .010**
1.236	**.413**	**.005 - .010**	1.243	1.037	.015 - .030	1.247	.450	.020 - .030	1.249	.391	.042 - .060	**1.250**	**.312**	**.005 - .010**	1.250	.723	.050 - .080
1.236	**.500**	**.042 - .060**	1.243	1.100	.042 - .060	1.247	.503	.030 - .050	1.249	.401	.100 - .125	1.250	.314	.105 - .125	1.250	.750	.012 - .125
1.236	.501	.090 - .110	1.244	.150	.015 - .030	1.247	.572	.030 - .048	1.249	.427	.020 - .040	**1.250**	**.320**	**.005 - .010**	1.250	.753	.040 - .060
1.236	**.635**	**.005 - .010**	**1.244**	**.543**	**.005 - .010**	1.247	.684	.110 - .120	1.249	.444	.036 - .060	1.250	.327	.020 - .030	1.250	.754	.032 - .042
1.236	.644	.060 - .070	1.244	.768	.060 - .125	**1.247**	**.699**	**.005 - .010**	**1.249**	**.450**	**.005 - .010**	1.250	.329	.070 - .090	1.250	.755	.070 - .090
1.236	.812	.020 - .040	1.244	.770	.020 - .083	1.247	.754	.050 - .070	**1.249**	**.455**	**.005 - .010**	**1.250**	**.340**	**.005 - .010**	1.250	.758	.070 - .125
1.236	.967	.020 - .040	1.244	.782	.070 - .090	**1.247**	**.816**	**.005 - .050**	**1.249**	**.495**	**.005 - .010**	1.250	.341	.020 - .040	**1.250**	**.762**	**.005 - .070**
1.236	**1.122**	**.005 - .010**	**1.244**	**.793**	**.005 - .010**	1.247	.850	.070 - .090	1.249	.510	.070 - .090	1.250	.343	.080 - .100	**1.250**	**.763**	**.005 - .010**
1.237	.867	.030 - .050	1.244	.801	.025 - .040	1.247	.874	.015 - .030	1.249	.516	.030 - .050	**1.250**	**.354**	**.005 - .010**	1.250	.764	.040 - .060
1.237	.930	.050 - .070	1.244	.878	.105 - .135	1.247	.937	.016 - .025	1.249	.532	.156 - .187	1.250	.356	.015 - .030	1.250	.765	.104 - .134
1.238	.326	.040 - .060	1.244	.967	.080 - .100	1.247	.978	.050 - .070	**1.249**	**.549**	**.005 - .010**	1.250	.359	.060 - .090	1.250	.770	.040 - .060
1.238	.640	.070 - .090	1.244	1.000	.025 - .040	1.247	.992	.062 - .083	1.249	.578	.060 - .070	1.250	.365	.020 - .062	1.250	.771	.030 - .050
1.238	.661	.020 - .030	1.244	1.018	.070 - .090	1.247	1.011	.020 - .030	**1.249**	**.605**	**.005 - .010**	1.250	.375	.090 - .105	1.250	.781	.050 - .070
1.238	.890	.070 - .090	**1.244**	**1.178**	**.005 - .010**	1.247	1.034	.035 - .050	1.249	.623	.040 - .060	**1.250**	**.377**	**.005 - .010**	1.250	.783	.050 - .075
1.239	**.718**	**.005 - .010**	**1.245**	**.205**	**.005 - .075**	1.248	.145	.050 - .075	**1.249**	**.635**	**.005 - .010**	**1.250**	**.378**	**.005 - .030**	1.250	.784	.050 - .070
1.239	.779	.020 - .030	1.245	.315	.156 - .187	1.248	.147	.030 - .040	1.249	.650	.020 - .030	1.250	.379	.012 - .040	**1.250**	**.785**	**.005 - .060**
1.239	.879	.062 - .083	**1.245**	**.340**	**.005 - .010**	1.248	.178	.100 - .125	1.249	.651	.020 - .040	1.250	.382	.100 - .134	1.250	.789	.105 - .135
1.239	.885	.020 - .030	1.245	.501	.100 - .125	1.248	.202	.050 - .070	1.249	.660	.020 - .040	1.250	.383	.030 - .050	1.250	.791	.010 - .020
1.239	.950	.010 - .020	**1.245**	**.527**	**.005 - .010**	1.248	.219	.040 - .060	1.249	.663	.060 - .080	**1.250**	**.390**	**.005 - .080**	1.250	.795	.007 - .015
1.239	.962	.020 - .060	1.245	.528	.050 - .070	**1.248**	**.255**	**.005 - .010**	1.249	.689	.050 - .075	**1.250**	**.397**	**.005 - .010**	1.250	.796	.110 - .125
1.239	1.043	.015 - .030	1.245	.550	.015 - .035	**1.248**	**.262**	**.005 - .010**	1.249	.690	.080 - .100	1.250	.406	.100 - .187	1.250	.798	.015 - .030
1.240	.065	.030 - .040	**1.245**	**.560**	**.005 - .010**	1.248	.263	.050 - .075	1.249	.721	.030 - .050	**1.250**	**.407**	**.005 - .050**	1.250	.803	.080 - .100
1.240	.127	.090 - .105	1.245	.565	.050 - .083	1.248	.325	.030 - .050	1.249	.723	.010 - .020	1.250	.413	.100 - .120	1.250	.808	.010 - .020
1.240	.172	.010 - .020	1.245	.595	.080 - .100	1.248	.333	.050 - .070	1.249	.756	.036 - .060	1.250	.436	.100 - .125	1.250	.812	.010 - .104
1.240	.323	.062 - .083	1.245	.631	.015 - .025	1.248	.344	.042 - .060	**1.249**	**.758**	**.005 - .010**	1.250	.437	.010 - .020	1.250	.828	.020 - .030
1.240	.325	.060 - .083	1.245	.636	.050 - .070	1.248	.354	.100 - .125	1.249	.797	.030 - .050	1.250	.440	.040 - .125	1.250	.829	.090 - .120
1.240	**.378**	**.005 - .010**	1.245	.741	.015 - .025	**1.248**	**.375**	**.005 - .010**	1.249	.800	.030 - .050	**1.250**	**.441**	**.005 - .012**	1.250	.839	.120 - .135
1.240	.380	.030 - .048	1.245	.754	.050 - .075	1.248	.377	.020 - .040	1.249	.812	.050 - .070	1.250	.442	.040 - .060	**1.250**	**.843**	**.005 - .030**
1.240	**.412**	**.005 - .010**	1.245	.756	.010 - .020	1.248	.378	.042 - .062	1.249	.850	.015 - .030	1.250	.443	.105 - .135	1.250	.844	.010 - .020
1.240	.451	.015 - .030	1.245	.758	.040 - .060	**1.248**	**.451**	**.005 - .010**	1.249	.905	.015 - .030	1.250	.445	.100 - .134	1.250	.845	.020 - .080
1.240	.484	.070 - .090	1.245	.760	.060 - .080	**1.248**	**.453**	**.005 - .010**	**1.249**	**.920**	**.005 - .010**	1.250	.455	.015 - .030	1.250	.855	.040 - .060
1.240	.560	.075 - .105	1.245	.768	.015 - .025	1.248	.455	.090 - .120	1.249	.925	.105 - .125	1.250	.480	.040 - .060	1.250	.874	.090 - .105
1.240	.635	.030 - .040	**1.245**	**.773**	**.005 - .010**	**1.248**	**.471**	**.005 - .010**	**1.249**	**.951**	**.005 - .010**	**1.250**	**.500**	**.005 - .062**	1.250	.875	.120 - .135
1.240	.661	.050 - .105	1.245	.788	.025 - .040	1.248	.500	.135 - .187	1.249	.961	.007 - .015	1.250	.501	.070 - .090	1.250	.876	.030 - .050
1.240	.697	.030 - .072	1.245	.836	.030 - .050	**1.248**	**.505**	**.005 - .020**	**1.249**	**1.001**	**.030 - .050**	**1.250**	**.503**	**.005 - .020**	1.250	.878	.040 - .060
1.240	.710	.040 - .060	**1.245**	**.852**	**.005 - .010**	1.248	.508	.105 - .125	1.249	1.027	.030 - .050	1.250	.504	.006 - .015	1.250	.879	.050 - .070
1.240	.720	.020 - .040	1.245	.880	.015 - .030	**1.248**	**.510**	**.005 - .010**	1.249	1.037	.025 - .040	**1.250**	**.505**	**.005 - .020**	**1.250**	**.880**	**.005 - .030**
1.240	.749	.010 - .020	1.245	.887	.050 - .070	**1.248**	**.517**	**.005 - .125**	1.249	1.100	.075 - .090	**1.250**	**.507**	**.005 - .010**	1.250	.882	.090 - .125
1.240	.812	.025 - .040	1.245	.921	.030 - .050	**1.248**	**.532**	**.005 - .010**	1.249	1.110	.010 - .020	1.250	.508	.015 - .062	**1.250**	**.887**	**.005 - .010**
1.240	**.814**	**.005 - .010**	**1.245**	**.945**	**.005 - .020**	**1.248**	**.535**	**.005 - .010**	**1.249**	**1.134**	**.005 - .010**	1.250	.510	.090 - .120	1.250	.888	.012 - .025
1.240	.875	.030 - .125	1.245	.947	.080 - .104	1.248	.550	.050 - .070	1.249	1.156	.015 - .030	1.250	.512	.135 - .156	1.250	.889	.060 - .090
1.240	.937	.090 - .105	1.245	.948	.070 - .090	1.248	.559	.156 - .187				**1.250**	**.518**	**.005 - .010**	**1.250**	**.890**	**.005 - .090**
1.240	.938	.020 - .040	1.245	.990	.100 - .125	1.248	.627	.010 - .020				1.250	.520	.020 - .060	1.250	.893	.015 - .030
1.240	.960	.025 - .040	1.245	1.010	.020 - .105	1.248	.651	.090 - .105				1.250	.531	.135 - .156	1.250	.895	.025 - .070
1.240	1.015	.025 - .070	1.245	1.107	.010 - .020	**1.248**	**.656**	**.005 - .010**		**1.250**		1.250	.534	.036 - .090	1.250	.901	.050 - .070
1.240	1.036	.030 - .050	**1.245**	**1.123**	**.005 - .010**	1.248	.689	.050 - .070				**1.250**	**.540**	**.005 - .125**	**1.250**	**.902**	**.005 - .125**
1.240	1.062	.010 - .020	**1.245**	**1.126**	**.005 - .010**	**1.248**	**.695**	**.005 - .010**				1.250	.562	.050 - .125	1.250	.907	.040 - .060
1.240	**1.070**	**.005 - .010**	**1.245**	**1.130**	**.005 - .010**	**1.248**	**.723**	**.005 - .010**	1.250	.082	.025 - .040	**1.250**	**.563**	**.005 - .030**	1.250	.937	.100 - .125
1.240	1.075	.030 - .050	**1.245**	**1.143**	**.005 - .015**	1.248	.742	.100 - .125	1.250	.125	.050 - .075	1.250	.564	.104 - .134	1.250	.939	.100 - .125
1.240	1.120	.025 - .042	1.246	.252	.080 - .104	1.248	.749	.050 - .070	1.250	.127	.031 - .048	1.250	.571	.040 - .060	1.250	.953	.015 - .083
1.241	**.279**	**.005 - .030**	1.246	.254	.015 - .030	**1.248**	**.750**	**.005 - .010**	1.250	.140	.020 - .125	1.250	.572	.040 - .050	1.250	.962	.015 - .020
1.241	.500	.050 - .060	1.246	.261	.075 - .090	1.248	.752	.008 - .015	1.250	.148	.008 - .016	1.250	.580	.135 - .156	1.250	.986	.090 - .105
1.241	.641	.050 - .075	1.246	.384	.050 - .083	1.248	.760	.025 - .040	**1.250**	**.164**	**.005 - .010**	1.250	.586	.015 - .030	1.250	.990	.030 - .040
1.241	.750	.030 - .050	**1.246**	**.566**	**.005 - .010**	1.248	.780	.080 - .104	1.250	.165	.060 - .083	1.250	.595	.015 - .135	1.250	.995	.060 - .080
1.241	.761	.105 - .125	1.246	.701	.110 - .130	**1.248**	**.810**	**.005 - .010**	1.250	.170	.030 - .060	1.250	.625	.020 - .125	1.250	1.000	.093 - .125
1.241	.782	.110 - .130	1.246	.741	.015 - .030	1.248	.811	.040 - .100	**1.250**	**.182**	**.005 - .010**	1.250	.630	.050 - .100	1.250	1.007	.042 - .062
1.241	.788	.010 - .020	1.246	.750	.010 - .015	1.248	.813	.040 - .062	1.250	.187	.040 - .083	**1.250**	**.636**	**.005 - .010**	1.250	1.010	.010 - .020
1.241	.937	.030 - .050	1.246	.753	.050 - .070	**1.248**	**.877**	**.005 - .010**	1.250	.192	.040 - .062	**1.250**	**.637**	**.005 - .010**	**1.250**	**1.011**	**.005 - .010**
1.241	.945	.020 - .040	1.246	.754	.060 - .090	**1.248**	**.878**	**.005 - .025**	1.250	.193	.030 - .060	1.250	.640	.030 - .080	1.250	1.012	.050 - .070
1.241	.994	.020 - .030	1.246	.755	.020 - .040	1.248	.909	.010 - .015	1.250	.195	.090 - .135	1.250	.641	.100 - .125	1.250	1.015	.020 - .040
1.241	1.063	.020 - .035	1.246	.761	.070 - .090	**1.248**	**.932**	**.005 - .010**	1.250	.203	.016 - .125	**1.250**	**.646**	**.005 - .015**	1.250	1.017	.060 - .083
1.241	1.110	.050 - .070	1.246	.768	.015 - .030	1.248	.950	.030 - .050	**1.250**	**.208**	**.005 - .010**	1.250	.647	.090 - .125	1.250	1.020	.100 - .120
1.242	.436	.020 - .030	1.246	.769	.040 - .060	1.248	.984	.010 - .020	1.250	.213	.010 - .020	**1.250**	**.650**	**.005 - .010**	**1.250**	**1.033**	**.005 - .010**
1.242	.452	.020 - .030	1.246	.781	.020 - .040	1.248	1.000	.062 - .083	1.250	.217	.015 - .030	1.250	.656	.070 - .187	1.250	1.035	.050 - .070
1.242	.535	.090 - .100	1.246	.783	.020 - .040	1.248	1.004	.062 - .083	**1.250**	**.227**	**.005 - .015**	**1.250**	**.658**	**.005 - .010**	1.250	1.036	.080 - .105
1.242	.641	.062 - .090	1.246	.839	.060 - .080	**1.248**	**1.020**	**.005 - .010**	1.250	.250	.020 - .030	1.250	.660	.020 - .040	1.250	1.051	.010 - .020
1.242	.879	.042 - .062	**1.246**	**.880**	**.005 - .010**	1.248	1.045	.015 - .030	1.250	.252	.012 - .125	1.250	.662	.105 - .125	1.250	1.058	.072 - .093

1.250

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

Call BOKER'S for precision stamping, assembly, and secondary operations.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
1.250	1.061	.025 - .040	1.252	.633	.050 - .075	1.257	1.014	.005 - .010	1.261	1.063	.030 - .042	1.278	.250	.005 - .015	1.285	1.136	.005 - .010
1.250	1.115	.010 - .020	1.252	.640	.008 - .016	1.257	1.100	.005 - .015	1.262	.187	.020 - .035	1.278	.500	.100 - .125	1.286	.251	.060 - .090
1.250	1.123	.025 - .040	1.252	.725	.060 - .070	1.257	1.120	.010 - .020	1.262	.295	.020 - .040	1.278	.529	.100 - .125	1.286	.509	.156 - .187
1.250	1.140	.015 - .035	1.252	.753	.005 - .010	1.257	1.166	.025 - .040	1.262	.535	.005 - .010	1.278	.571	.005 - .010	1.286	.809	.005 - .010
1.250	1.145	.020 - .040	1.252	.755	.005 - .010	1.258	.380	.005 - .010	1.262	.951	.030 - .050	1.278	.750	.015 - .030	1.286	.811	.090 - .105
1.250	1.167	.010 - .025	1.252	.765	.005 - .010	1.258	.473	.005 - .010	1.263	.882	.105 - .135	1.278	.821	.030 - .050	1.286	.918	.010 - .020
1.250	1.180	.005 - .015	1.252	.779	.005 - .015	1.258	.474	.005 - .010	1.263	1.075	.090 - .105	1.278	.924	.005 - .010	1.287	.178	.050 - .083
1.250	1.181	.005 - .015	1.252	.789	.050 - .075	1.258	.478	.005 - .010	1.263	1.085	.010 - .020	1.279	.438	.005 - .010	1.287	.251	.060 - .090
1.250	1.187	.005 - .010	1.252	.790	.050 - .075	1.258	.538	.010 - .020	1.263	1.089	.025 - .035	1.279	.506	.005 - .010	1.287	.254	.050 - .062
1.251	.131	.050 - .070	1.252	.797	.010 - .020	1.258	.632	.015 - .030	1.264	.548	.030 - .050	1.279	.633	.050 - .060	1.287	.264	.010 - .020
1.251	.132	.070 - .090	1.252	.882	.008 - .016	1.258	.677	.030 - .050	1.265	.354	.120 - .134	1.280	.155	.005 - .015	1.287	1.142	.005 - .010
1.251	.187	.005 - .010	1.252	.932	.100 - .125	1.258	.686	.005 - .010	1.265	.376	.060 - .080	1.280	.170	.100 - .125	1.288	.614	.050 - .070
1.251	.215	.010 - .020	1.252	.961	.007 - .040	1.258	.722	.030 - .050	1.265	.504	.005 - .010	1.280	.221	.070 - .090	1.288	.761	.030 - .050
1.251	.257	.070 - .090	1.252	.965	.020 - .030	1.258	.984	.010 - .015	1.265	.533	.100 - .125	1.280	.318	.050 - .062	1.288	.777	.100 - .120
1.251	.312	.090 - .105	1.252	.998	.008 - .016	1.258	1.004	.015 - .030	1.265	.866	.080 - .100	1.280	.438	.030 - .040	1.288	.969	.005 - .010
1.251	.330	.156 - .190	1.252	1.002	.016 - .025	1.258	1.010	.010 - .020	1.265	.875	.040 - .060	1.280	.505	.010 - .020	1.288	1.023	.015 - .030
1.251	.332	.105 - .125	1.252	1.004	.025 - .040	1.258	1.116	.005 - .010	1.265	.930	.010 - .020	1.280	.515	.040 - .070	1.288	1.111	.020 - .035
1.251	.335	.020 - .040	1.252	1.015	.100 - .125	1.258	1.129	.010 - .015	1.265	.990	.100 - .125	1.280	.518	.020 - .040	1.288	1.113	.075 - .090
1.251	.378	.005 - .010	1.252	1.020	.032 - .060	1.259	.232	.020 - .040	1.265	1.000	.060 - .075	1.280	.530	.015 - .025	1.288	1.128	.040 - .060
1.251	.384	.170 - .190	1.252	1.030	.020 - .040	1.259	.239	.005 - .010	1.265	1.206	.005 - .010	1.280	.628	.040 - .060	1.288	1.150	.015 - .030
1.251	.401	.015 - .030	1.252	1.037	.050 - .070	1.259	.316	.015 - .030	1.266	.668	.070 - .090	1.280	.668	.062 - .120	1.289	1.113	.075 - .090
1.251	.410	.015 - .031	1.252	1.040	.005 - .010	1.259	.395	.010 - .020	1.266	.680	.050 - .070	1.280	.677	.030 - .050	1.290	.128	.020 - .030
1.251	.417	.135 - .160	1.252	1.092	.010 - .020	1.259	.425	.156 - .187	1.266	.761	.005 - .010	1.280	.760	.040 - .060	1.290	.231	.105 - .135
1.251	.440	.040 - .060	1.252	1.107	.005 - .010	1.259	.473	.015 - .030	1.266	.779	.050 - .075	1.280	.888	.070 - .090	1.290	.264	.005 - .010
1.251	.471	.045 - .060	1.252	1.122	.005 - .010	1.259	.475	.005 - .010	1.266	.791	.005 - .010	1.280	.893	.005 - .010	1.290	.377	.020 - .030
1.251	.480	.030 - .050	1.252	1.125	.010 - .030	1.259	.501	.005 - .010	1.266	1.047	.060 - .080	1.280	.915	.007 - .012	1.290	.627	.020 - .030
1.251	.482	.160 - .190	1.252	1.127	.005 - .010	1.259	.502	.005 - .010	1.267	.624	.016 - .032	1.280	1.000	.060 - .090	1.290	.760	.030 - .060
1.251	.500	.005 - .010	1.253	.390	.100 - .120	1.259	.566	.005 - .010	1.267	.798	.075 - .100	1.280	1.017	.025 - .040	1.290	1.000	.050 - .070
1.251	.531	.156 - .187	1.253	.410	.060 - .080	1.259	.633	.090 - .125	1.267	1.049	.075 - .090	1.280	1.020	.070 - .090	1.290	1.146	.050 - .060
1.251	.532	.120 - .135	1.253	.573	.030 - .050	1.259	.640	.125 - .135	1.267	1.120	.020 - .040	1.280	1.031	.010 - .020	1.290	1.204	.005 - .010
1.251	.551	.015 - .030	1.253	.633	.060 - .080	1.259	.679	.070 - .090	1.268	.711	.080 - .100	1.280	1.041	.040 - .050	1.291	.966	.020 - .040
1.251	.559	.105 - .125	1.253	.656	.015 - .030	1.259	.748	.005 - .010	1.268	.918	.080 - .104	1.280	1.045	.040 - .060	1.291	1.180	.005 - .010
1.251	.561	.060 - .120	1.253	.766	.156 - .187	1.259	.882	.010 - .020	1.268	.980	.060 - .080	1.280	1.066	.010 - .060	1.292	1.000	.005 - .010
1.251	.574	.010 - .020	1.253	.768	.030 - .050	1.259	.927	.040 - .050	1.268	1.155	.005 - .010	1.280	1.070	.050 - .070	1.292	1.121	.010 - .020
1.251	.579	.100 - .125	1.253	.780	.156 - .187	1.259	.991	.005 - .010	1.269	.161	.020 - .035	1.280	1.074	.030 - .050	1.292	1.132	.060 - .080
1.251	.640	.005 - .010	1.253	.782	.008 - .020	1.259	1.020	.025 - .040	1.269	.668	.060 - .080	1.280	1.139	.020 - .040	1.293	.378	.005 - .010
1.251	.658	.040 - .062	1.253	.814	.100 - .120	1.259	1.024	.015 - .020	1.269	.890	.070 - .080	1.280	1.140	.020 - .040	1.293	1.200	.005 - .010
1.251	.669	.050 - .070	1.253	.886	.050 - .070	1.259	1.114	.005 - .010	1.269	.980	.025 - .040	1.281	.248	.060 - .090	1.293	1.223	.015 - .030
1.251	.692	.090 - .110	1.253	.914	.020 - .030	1.259	1.181	.030 - .050	1.269	1.004	.005 - .010	1.281	.264	.010 - .020	1.294	1.058	.100 - .120
1.251	.695	.025 - .040	1.253	1.000	.025 - .040	1.260	.237	.005 - .010	1.270	.166	.050 - .075	1.281	.408	.005 - .030	1.294	1.135	.010 - .020
1.251	.725	.020 - .040	1.253	1.025	.030 - .050	1.260	.301	.100 - .125	1.270	.460	.135 - .156	1.281	.442	.060 - .080	1.295	.377	.010 - .020
1.251	.752	.020 - .030	1.253	1.110	.010 - .020	1.260	.319	.005 - .010	1.270	.527	.156 - .187	1.281	.530	.015 - .030	1.295	.511	.135 - .156
1.251	.755	.015 - .030	1.253	1.123	.005 - .010	1.260	.395	.005 - .010	1.270	.651	.020 - .040	1.281	.538	.010 - .020	1.295	.588	.040 - .060
1.251	.759	.105 - .135	1.254	.516	.048 - .075	1.260	.398	.005 - .020	1.270	.700	.040 - .060	1.281	.550	.156 - .187	1.295	.881	.010 - .020
1.251	.814	.075 - .100	1.254	.542	.010 - .020	1.260	.440	.005 - .010	1.270	.764	.090 - .100	1.281	.608	.020 - .030	1.295	.901	.060 - .080
1.251	.834	.005 - .010	1.254	.630	.050 - .070	1.260	.449	.010 - .020	1.270	.793	.100 - .125	1.281	.891	.080 - .100	1.295	1.015	.050 - .075
1.251	.874	.050 - .075	1.254	.748	.040 - .060	1.260	.474	.005 - .010	1.270	.976	.040 - .060	1.281	.892	.040 - .060	1.295	1.141	.005 - .010
1.251	.876	.005 - .010	1.254	.765	.050 - .075	1.260	.475	.005 - .010	1.271	.886	.005 - .010	1.281	1.012	.015 - .030	1.295	1.170	.005 - .010
1.251	.879	.005 - .010	1.254	.766	.134 - .156	1.260	.477	.005 - .010	1.271	.940	.006 - .012	1.282	.103	.005 - .010	1.295	1.228	.010 - .020
1.251	.907	.040 - .062	1.254	.840	.050 - .075	1.260	.501	.005 - .030	1.271	1.005	.025 - .040	1.282	.248	.060 - .075	1.296	1.111	.015 - .030
1.251	.928	.025 - .040	1.254	.990	.005 - .010	1.260	.503	.100 - .125	1.271	1.080	.020 - .035	1.282	.310	.075 - .090	1.297	.247	.050 - .083
1.251	.942	.090 - .105	1.254	1.069	.020 - .040	1.260	.505	.005 - .020	1.272	.525	.050 - .070	1.282	.408	.005 - .010	1.297	.736	.005 - .010
1.251	.984	.010 - .020	1.254	1.083	.030 - .050	1.260	.512	.080 - .105	1.272	.643	.090 - .120	1.282	.409	.005 - .010	1.297	.825	.010 - .020
1.251	.999	.005 - .010	1.254	1.130	.015 - .030	1.260	.553	.010 - .020	1.272	.800	.040 - .060	1.282	.580	.010 - .020	1.297	.845	.050 - .070
1.251	1.003	.005 - .010	1.255	.501	.060 - .080	1.260	.630	.005 - .010	1.273	.780	.080 - .105	1.282	.625	.005 - .010	1.297	.852	.010 - .020
1.251	1.005	.090 - .105	1.255	.656	.010 - .120	1.260	.632	.005 - .010	1.273	.907	.030 - .050	1.282	.942	.010 - .020	1.297	.860	.010 - .020
1.251	1.050	.005 - .010	1.255	.664	.090 - .105	1.260	.682	.060 - .080	1.273	.920	.020 - .030	1.282	1.020	.005 - .010	1.297	.945	.062 - .090
1.251	1.081	.070 - .090	1.255	.714	.110 - .125	1.260	.683	.060 - .080	1.274	.711	.030 - .050	1.282	1.043	.030 - .050	1.297	1.058	.090 - .105
1.251	1.082	.020 - .040	1.255	.754	.070 - .080	1.260	.689	.020 - .030	1.274	.938	.015 - .025	1.282	1.066	.040 - .060	1.297	1.150	.020 - .040
1.251	1.099	.010 - .020	1.255	.756	.020 - .040	1.260	.750	.062 - .120	1.274	.969	.080 - .105	1.282	1.162	.010 - .020	1.297	1.169	.020 - .050
1.251	1.110	.020 - .030	1.255	.843	.135 - .187	1.260	.826	.005 - .010	1.274	1.125	.005 - .010	1.282	1.164	.010 - .020	1.298	.220	.060 - .080
1.252	.268	.030 - .050	1.255	.845	.005 - .010	1.260	.827	.040 - .060	1.275	.255	.015 - .030	1.283	.104	.005 - .010	1.298	.275	.050 - .075
1.252	.280	.105 - .135	1.255	.872	.030 - .050	1.260	.984	.025 - .040	1.275	.297	.025 - .042	1.283	.375	.020 - .035	1.298	.395	.010 - .020
1.252	.316	.025 - .070	1.255	.911	.105 - .125	1.260	1.002	.080 - .100	1.275	.313	.060 - .090	1.283	.409	.010 - .020	1.298	.441	.010 - .020
1.252	.317	.135 - .156	1.255	.960	.040 - .060	1.260	1.050	.015 - .025	1.275	.409	.050 - .070	1.283	.650	.080 - .090	1.298	.479	.105 - .125
1.252	.319	.050 - .070	1.255	1.031	.020 - .030	1.260	1.055	.010 - .015	1.275	.410	.025 - .042	1.283	.671	.015 - .025	1.298	.496	.030 - .050
1.252	.329	.048 - .062	1.255	1.079	.020 - .030	1.260	1.080	.040 - .060	1.275	.411	.025 - .040	1.283	.890	.015 - .030	1.298	.504	.090 - .110
1.252	.343	.156 - .190	1.256	.139	.050 - .083	1.260	1.100	.040 - .060	1.275	.500	.075 - .090	1.283	.929	.030 - .040	1.298	.630	.005 - .010
1.252	.376	.005 - .020	1.256	.329	.075 - .100	1.260	1.130	.010 - .020	1.275	.672	.025 - .042	1.283	1.126	.040 - .060	1.298	.640	.005 - .010
1.252	.396	.040 - .060	1.256	.507	.050 - .070	1.261	.126	.010 - .012	1.275	.797	.025 - .042	1.283	1.167	.005 - .010	1.298	.880	.070 - .090
1.252	.407	.090 - .110	1.256	.519	.100 - .125	1.261	.195	.005 - .010	1.275	.980	.020 - .040	1.284	.192	.050 - .070	1.298	.906	.015 - .025
1.252	.408	.025 - .042	1.256	.613	.015 - .030	1.261	.217	.105 - .135	1.275	1.009	.090 - .110	1.284	.324	.080 - .104	1.299	.140	.020 - .040
1.252	.426	.100 - .125	1.256	.941	.125 - .156	1.261	.316	.090 - .125	1.275	1.045	.025 - .042	1.284	.787	.050 - .070	1.299	.245	.005 - .010
1.252	.437	.060 - .075	1.256	1.080	.062 - .080	1.261	.411	.090 - .104	1.275	1.060	.005 - .008	1.284	1.019	.010 - .020	1.299	.253	.030 - .040
1.252	.442	.125 - .156	1.257	.605	.005 - .010	1.261	.414	.005 - .010	1.275	1.092	.005 - .010	1.284	1.089	.015 - .030	1.299	.385	.005 - .010
1.252	.506	.005 - .010	1.257	.673	.020 - .030	1.261	.505	.070 - .090	1.276	.105	.025 - .040	1.284	1.208	.005 - .010	1.299	.395	.005 - .020
1.252	.585	.030 - .050	1.257	.787	.120 - .135	1.261	.509	.105 - .125	1.276	.821	.050 - .070	1.285	.409	.120 - .135	1.299	.396	.005 - .010
1.252	.625	.005 - .010	1.257	.933	.030 - .048	1.261	.632	.005 - .010	1.277	.657	.083 - .105	1.285	.505	.120 - .135	1.299	.471	.030 - .050
1.252	.629	.020 - .030	1.257	.941	.125 - .156	1.261	1.004	.070 - .090	1.277	.964	.020 - .030	1.285	.724	.005 - .010	1.299	.473	.005 - .010
1.252	.630	.105 - .125	1.257	.956	.005 - .010	1.261	1.016	.005 - .010	1.277	1.059	.050 - .070	1.285	1.000	.020 - .040	1.299	.553	.005 - .015

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

New tools added continually. Call for sizes not listed — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
1.299	.626	.010 - .020	**1.305**	**.080**	**.005 - .008**	1.311	**.635**	**.005 - .010**	1.314	.268	.030 - .060	1.324	1.001	.020 - .040	1.337	.440	.042 - .062
1.299	.812	.025 - .040	1.305	.255	.040 - .050	1.311	.655	.090 - .110	1.314	.341	.060 - .080	1.325	.125	.010 - .020	**1.337**	**.475**	**.005 - .010**
1.299	.922	.040 - .060	1.305	.514	.100 - .120	**1.311**	**.676**	**.005 - .010**	1.314	.392	.040 - .060	1.325	.139	.040 - .060	1.337	.500	.100 - .125
1.299	.958	.050 - .070	1.305	.705	.062 - .120	1.311	.688	.156 - .187	1.314	.439	.050 - .075	1.325	.141	.010 - .020	**1.337**	**.502**	**.005 - .020**
1.299	**.960**	**.005 - .010**	1.305	.734	.020 - .030	1.311	**.858**	**.005 - .010**	1.314	.441	.105 - .135	1.325	.157	.010 - .020	1.337	.747	.025 - .040
1.299	1.019	.025 - .042	1.305	.803	.040 - .060	1.311	.875	.020 - .040	1.314	.522	.015 - .030	**1.325**	**.171**	**.005 - .015**	1.337	.748	.010 - .020
1.299	1.030	.016 - .025	1.305	.825	.040 - .060	1.311	.884	.050 - .135	1.314	.593	.015 - .030	1.325	.172	.010 - .020	1.337	.856	.010 - .020
1.299	**1.068**	**.005 - .010**	1.305	.826	.100 - .125	1.311	.890	.030 - .050	1.314	.626	.100 - .125	1.325	.204	.010 - .020	1.337	**.884**	**.005 - .010**
1.300	.147	.080 - .104	1.305	.942	.020 - .040	1.311	.905	.020 - .040	1.314	.673	.015 - .025	1.325	.218	.010 - .020	1.337	.945	.060 - .080
1.300	.298	.020 - .030	1.305	1.006	.015 - .030	1.311	.947	.020 - .040	1.314	.827	.010 - .020	1.325	.251	.010 - .020	**1.337**	**.984**	**.005 - .040**
1.300	**.312**	**.005 - .010**	1.305	1.011	**.005 - .010**	1.311	.995	.030 - .050	1.314	.885	.070 - .100	1.325	.270	.010 - .020	1.337	1.001	.070 - .090
1.300	.316	.105 - .125	1.305	1.016	.060 - .070	**1.311**	**1.001**	**.005 - .010**	1.314	.969	.040 - .060	1.325	.281	.040 - .060	**1.337**	**1.094**	**.005 - .010**
1.300	**.318**	**.005 - .010**	1.305	1.140	.070 - .080	1.311	1.005	.030 - .048	1.314	1.062	.006 - .016	1.325	.295	.080 - .104	**1.338**	**.255**	**.005 - .010**
1.300	.368	.025 - .040	1.305	1.201	.010 - .020	1.311	1.009	.030 - .040	1.314	1.090	.042 - .062	1.325	.301	.012 - .025	**1.338**	**.259**	**.005 - .010**
1.300	**.377**	**.005 - .020**	1.305	1.205	.010 - .020	**1.311**	**1.057**	**.005 - .010**	**1.315**	**.177**	**.005 - .010**	1.325	.350	.010 - .020	**1.338**	**.320**	**.005 - .010**
1.300	**.378**	**.005 - .020**	1.306	.758	.040 - .060	**1.311**	**1.190**	**.005 - .010**	1.315	.253	.080 - .104	1.325	.381	.010 - .020	**1.338**	**.394**	**.005 - .020**
1.300	**.380**	**.005 - .020**	1.306	.970	.015 - .025	1.312	.197	.025 - .040	1.315	.522	.010 - .020	1.325	.410	.010 - .015	1.338	.396	.010 - .020
1.300	.382	.010 - .020	1.306	.996	.007 - .015	1.312	.234	.050 - .075	**1.315**	**.560**	**.005 - .010**	1.325	.440	.010 - .134	**1.338**	**.473**	**.005 - .010**
1.300	.383	.020 - .030	1.306	1.007	.050 - .090	1.312	.251	.050 - .070	1.315	.626	.100 - .125	1.325	.500	.010 - .015	1.338	.475	.010 - .020
1.300	**.394**	**.005 - .020**	1.306	1.070	.015 - .030	1.312	.314	.075 - .090	1.315	.703	.010 - .020	1.325	.600	.010 - .015	**1.338**	**.477**	**.005 - .010**
1.300	.397	.010 - .020	**1.306**	**1.167**	**.005 - .010**	1.312	.320	.030 - .050	1.315	.923	.020 - .030	1.325	.640	.010 - .015	**1.338**	**.505**	**.005 - .020**
1.300	**.437**	**.005 - .010**	**1.306**	**1.184**	**.005 - .010**	1.312	.374	.020 - .040	**1.315**	**1.177**	**.005 - .010**	1.325	.669	.040 - .060	**1.338**	**.552**	**.005 - .015**
1.300	.438	.010 - .020	1.307	.502	.010 - .020	1.312	.377	.020 - .030	**1.316**	**.655**	**.005 - .010**	1.325	.700	.010 - .015	**1.338**	**.582**	**.005 - .010**
1.300	**.440**	**.005 - .020**	**1.307**	**.655**	**.005 - .010**	1.312	.392	.030 - .060	1.316	.745	.080 - .100	1.325	.750	.010 - .015	1.338	.751	.100 - .134
1.300	.511	.010 - .020	1.307	1.068	.075 - .090	1.312	.505	.010 - .015	1.316	.881	.020 - .040	1.325	.810	.010 - .020	1.338	.867	.020 - .030
1.300	.518	.010 - .020	1.308	.125	.040 - .062	1.312	.507	.042 - .062	1.316	.885	.025 - .050	1.325	.900	.050 - .075	1.338	.937	.025 - .040
1.300	.558	.010 - .020	1.308	.220	.050 - .070	**1.312**	**.553**	**.005 - .010**	1.316	.940	.010 - .015	1.325	.920	.010 - .015	1.338	.983	.010 - .020
1.300	.628	.020 - .035	**1.308**	**.251**	**.005 - .010**	**1.312**	**.563**	**.005 - .010**	1.316	.978	.042 - .060	1.325	1.055	.080 - .104	1.338	1.121	.020 - .030
1.300	**.629**	**.005 - .030**	1.308	.619	**.005 - .010**	1.312	.564	.020 - .040	1.317	.502	.030 - .050	1.325	1.118	.015 - .030	1.339	.220	.040 - .060
1.300	.630	.050 - .075	1.308	.751	.050 - .075	1.312	.565	.090 - .110	**1.317**	**.744**	**.005 - .010**	1.325	1.179	.080 - .100	1.339	.272	.015 - .030
1.300	.635	.010 - .020	1.308	.762	.070 - .090	**1.312**	**.566**	**.005 - .010**	1.317	1.051	.010 - .020	1.326	.314	.025 - .040	1.339	.274	.010 - .020
1.300	.650	.080 - .105	**1.308**	**.902**	**.005 - .010**	1.312	.594	.075 - .090	1.317	1.115	.080 - .100	1.326	.570	.015 - .070	**1.339**	**.316**	**.005 - .010**
1.300	.677	.030 - .050	1.309	.311	.105 - .125	1.312	.625	.100 - .125	1.317	1.198	.020 - .035	1.326	.751	.010 - .020	**1.339**	**.474**	**.005 - .010**
1.300	**.681**	**.005 - .010**	**1.309**	**.377**	**.005 - .015**	1.312	.634	.040 - .062	1.317	1.250	.020 - .032	**1.326**	**1.022**	**.005 - .010**	1.339	.640	.100 - .125
1.300	.755	.010 - .030	1.309	.392	.030 - .048	1.312	.655	.015 - .030	**1.318**	**.180**	**.005 - .010**	1.327	.680	.030 - .050	**1.339**	**.762**	**.005 - .010**
1.300	.812	.015 - .030	1.309	.607	.025 - .040	1.312	.687	.025 - .035	1.318	.746	.050 - .075	1.328	.126	.016 - .025	1.339	.828	.105 - .125
1.300	**.830**	**.005 - .010**	1.309	.635	.010 - .020	1.312	.689	.050 - .060	1.318	1.005	.040 - .125	1.328	.415	.156 - .187	**1.339**	**.983**	**.005 - .010**
1.300	.887	.010 - .020	1.309	.751	.050 - .070	1.312	.703	.100 - .125	1.319	.387	.090 - .125	1.328	1.020	.025 - .040	**1.339**	**1.181**	**.005 - .010**
1.300	.900	.060 - .080	**1.309**	**.791**	**.005 - .010**	1.312	.720	.050 - .070	**1.319**	**.715**	**.005 - .010**	1.329	.175	.050 - .083	**1.339**	**1.202**	**.005 - .010**
1.300	**.905**	**.005 - .050**	1.309	.813	.020 - .035	1.312	.748	.050 - .062	**1.319**	**.716**	**.005 - .010**	1.329	.791	.105 - .125	**1.339**	**1.205**	**.005 - .010**
1.300	.960	.062 - .083	1.309	.816	.007 - .016	1.312	.755	.105 - .125	1.319	.851	.040 - .060	1.329	.900	.050 - .075	1.339	1.213	.015 - .030
1.300	.962	.010 - .020	1.309	.878	.060 - .083	1.312	.765	.090 - .120	1.319	1.070	.015 - .030	1.329	.990	.105 - .134	1.340	.250	.062 - .120
1.300	.963	.020 - .060	1.309	.883	.050 - .080	1.312	.766	.050 - .075	1.319	1.075	.050 - .070	1.329	1.001	.080 - .100	**1.340**	**.260**	**.005 - .010**
1.300	.980	.100 - .125	1.309	1.000	.020 - .040	1.312	.781	.020 - .125	1.319	1.104	.030 - .040	**1.329**	**1.142**	**.005 - .010**	**1.340**	**.261**	**.005 - .010**
1.300	.984	.050 - .070	1.309	1.031	.100 - .120	1.312	.782	.060 - .083	**1.319**	**1.130**	**.005 - .010**	1.329	1.174	.060 - .070	1.340	.284	.015 - .030
1.300	**.988**	**.005 - .015**	1.309	1.128	.030 - .050	1.312	.783	.040 - .070	**1.320**	**.183**	**.005 - .010**	**1.329**	**1.180**	**.005 - .010**	1.340	.288	.040 - .060
1.300	.996	.050 - .070	1.310	.190	.050 - .070	1.312	.812	.070 - .090	**1.320**	**.210**	**.005 - .010**	1.329	1.190	.030 - .050	**1.340**	**.289**	**.005 - .010**
1.300	1.006	.010 - .020	1.310	.205	.040 - .060	**1.312**	**.843**	**.005 - .010**	1.320	.318	.105 - .125	**1.330**	**.328**	**.005 - .010**	1.340	.630	.020 - .040
1.300	**1.012**	**.005 - .015**	1.310	.231	.080 - .100	1.312	.878	.060 - .080	1.320	.476	.010 - .020	**1.330**	**.385**	**.005 - .010**	1.340	.632	.010 - .020
1.300	1.020	.035 - .050	**1.310**	**.379**	**.005 - .010**	1.312	.890	.090 - .125	1.320	.495	.062 - .135	1.330	.391	.156 - .190	1.340	.677	.042 - .072
1.300	1.060	.006 - .016	1.310	.385	.170 - .190	1.312	.892	.020 - .040	1.320	.552	.100 - .120	1.330	.744	.030 - .060	1.340	.726	.105 - .120
1.300	1.062	.070 - .090	1.310	.407	.090 - .120	1.312	.906	.062 - .080	**1.320**	**.715**	**.005 - .010**	1.330	.851	.040 - .060	1.340	.751	.045 - .060
1.300	1.067	.050 - .060	1.310	.416	.110 - .130	**1.312**	**.938**	**.005 - .010**	**1.320**	**.753**	**.005 - .010**	1.330	.910	.025 - .040	1.340	.766	.042 - .062
1.300	1.087	.010 - .020	1.310	.505	.010 - .020	1.312	.941	.030 - .040	1.320	.758	.080 - .104	1.330	1.100	.030 - .050	1.340	1.000	.105 - .125
1.300	1.136	.030 - .040	1.310	.510	.012 - .020	1.312	.948	.070 - .090	1.320	.761	.015 - .060	1.331	.635	.070 - .090	1.340	1.004	.042 - .060
1.300	**1.182**	**.005 - .010**	1.310	.516	.040 - .060	**1.312**	**.986**	**.005 - .010**	**1.320**	**.765**	**.005 - .010**	1.331	.776	.050 - .070	**1.340**	**1.034**	**.005 - .010**
1.301	.377	.015 - .030	1.310	.529	.040 - .060	1.312	1.000	.010 - .020	**1.320**	**.849**	**.005 - .010**	**1.331**	**.910**	**.005 - .010**	1.340	1.104	.070 - .080
1.301	**.504**	**.005 - .020**	1.310	.619	.015 - .030	1.312	1.001	.080 - .105	**1.320**	**.867**	**.005 - .010**	**1.331**	**1.123**	**.005 - .010**	1.340	1.118	.050 - .083
1.301	**.698**	**.005 - .010**	1.310	.711	.015 - .030	1.312	1.008	.050 - .125	**1.320**	**.880**	**.005 - .010**	1.331	1.128	.010 - .020	**1.340**	**1.143**	**.005 - .020**
1.301	.756	.018 - .025	1.310	.751	.100 - .120	**1.312**	**1.027**	**.005 - .010**	1.320	.931	.020 - .035	1.332	.770	.125 - .156	**1.341**	**.479**	**.005 - .010**
1.301	.820	.040 - .060	1.310	.753	.105 - .125	1.312	1.031	.080 - .105	1.320	1.000	.090 - .125	1.333	.397	.040 - .060	1.341	.537	.105 - .135
1.301	.901	.080 - .110	**1.310**	**.755**	**.005 - .010**	1.312	1.190	.015 - .025	1.320	1.024	.015 - .030	**1.333**	**.950**	**.005 - .010**	1.341	.871	.010 - .020
1.301	.945	.080 - .105	1.310	.768	.040 - .060	1.312	1.251	.105 - .125	1.320	1.130	.040 - .050	1.334	.239	.015 - .030	1.341	.893	.040 - .060
1.301	.962	.105 - .125	**1.310**	**.770**	**.005 - .010**	1.313	.268	.035 - .050	1.321	.780	.050 - .070	**1.334**	**.325**	**.005 - .010**	1.342	.380	.120 - .156
1.301	1.068	.030 - .050	1.310	.812	.030 - .042	1.313	.375	.100 - .125	**1.321**	**.804**	**.005 - .010**	1.334	.771	.010 - .020	1.342	.457	.020 - .030
1.302	.441	.100 - .125	1.310	.878	.015 - .030	**1.313**	**.456**	**.005 - .010**	1.322	.758	.080 - .104	1.334	.886	.105 - .125	1.342	.876	.125 - .156
1.302	.477	.050 - .070	**1.310**	**.944**	**.005 - .010**	**1.313**	**.563**	**.005 - .030**	1.322	1.175	.040 - .060	1.334	.906	.060 - .075	1.342	.922	.040 - .060
1.302	.628	.100 - .125	**1.310**	**1.006**	**.005 - .010**	1.313	.635	.090 - .100	**1.323**	**.212**	**.005 - .010**	1.335	.380	.020 - .035	**1.342**	**1.015**	**.005 - .010**
1.302	.774	.060 - .090	**1.310**	**1.049**	**.005 - .010**	1.313	.657	.050 - .075	1.323	.244	.020 - .040	1.335	.632	.035 - .060	1.343	.630	.025 - .040
1.302	.787	.100 - .125	**1.310**	**1.130**	**.005 - .015**	1.313	.660	.090 - .125	**1.323**	**.351**	**.005 - .015**	1.335	.650	.050 - .070	1.343	.871	.050 - .075
1.302	1.007	.012 - .020	1.310	1.250	.010 - .020	1.313	.687	.105 - .125	1.323	.394	.015 - .030	1.335	.906	.020 - .035	1.343	.907	.042 - .062
1.302	**1.200**	**.005 - .010**	1.311	.189	.040 - .060	1.313	.751	.025 - .040	1.323	.551	.050 - .070	1.335	1.106	.062 - .080	1.343	1.100	.080 - .105
1.303	**.194**	**.005 - .010**	1.311	.202	.020 - .040	1.313	.759	.080 - .100	1.323	.640	.060 - .075	1.335	1.131	.050 - .075	1.343	1.126	.030 - .050
1.303	**.504**	**.005 - .010**	1.311	.261	.020 - .040	1.313	.874	.020 - .040	1.323	.666	.100 - .125	**1.335**	**1.134**	**.005 - .010**	1.343	1.150	.072 - .090
1.303	.734	.020 - .030	1.311	.335	.080 - .100	1.313	.951	.070 - .090	1.323	1.001	.015 - .030	**1.336**	**1.004**	**.005 - .010**	1.343	1.261	.020 - .040
1.303	.899	.040 - .060	1.311	.380	.030 - .050	1.313	1.015	.060 - .083	1.323	1.063	.050 - .070	1.336	1.006	.030 - .050	1.344	.258	.100 - .135
1.304	.250	.040 - .050	1.311	.389	.025 - .040	1.313	1.063	.040 - .060	1.324	.320	.010 - .020	1.336	1.038	.080 - .100	1.344	.260	.060 - .090
1.304	.470	.075 - .125	1.311	.500	.025 - .040	1.313	1.118	.015 - .035	1.324	.529	.105 - .135	1.336	1.131	.040 - .062	1.344	.376	.100 - .120
1.304	.504	.090 - .120	**1.311**	**.573**	**.005 - .010**	1.313	1.148	.020 - .030	**1.324**	**.687**	**.005 - .030**	**1.337**	**.319**	**.005 - .010**	1.344	.752	.100 - .125
1.304	**1.189**	**.005 - .016**	1.311	.593	.075 - .090	1.313	1.164	.025 - .040	1.324	.808	.105 - .125	**1.337**	**.396**	**.005 - .010**	1.344	.812	.040 - .062

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For non-metallic materials, contact BOKER'S — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
1.344	1.000	.015 - .030	1.350	1.209	.010 - .020	1.363	.941	.060 - .080	1.368	.980	.050 - .070	1.372	.564	.080 - .125	1.374	.762	.070 - .090
1.344	1.002	.050 - .075	1.351	.561	.010 - .030	1.363	1.004	.015 - .030	1.368	1.044	.030 - .050	1.372	.637	.020 - .032	1.374	.770	.040 - .060
1.344	**1.050**	**.005 - .010**	1.351	.750	.020 - .030	1.363	1.190	.030 - .050	1.368	1.069	.070 - .090	1.372	.690	.010 - .030	1.374	.800	.010 - .020
1.344	1.068	.015 - .030	1.351	1.026	.060 - .080	1.363	1.249	.015 - .025	1.368	1.072	.030 - .080	1.372	.730	.105 - .187	1.374	.807	.090 - .100
1.345	.341	.090 - .105	1.351	1.049	.010 - .020	1.364	.414	.070 - .090	1.368	1.073	.080 - .090	1.372	.750	.020 - .032	1.374	.825	.040 - .060
1.345	**.408**	**.005 - .010**	1.351	1.091	.025 - .040	1.364	.505	.025 - .040	1.368	1.112	.025 - .040	1.372	.812	.020 - .032	1.374	.829	.010 - .020
1.345	.661	.050 - .070	1.351	1.164	.015 - .030	1.364	.539	.070 - .090	1.368	1.113	.050 - .075	1.372	.891	.070 - .090	1.374	.880	.025 - .040
1.345	.818	.050 - .070	1.351	1.209	.010 - .020	**1.364**	**.664**	**.005 - .010**	1.368	1.174	.040 - .062	1.372	.908	.050 - .075	1.374	.881	.110 - .135
1.345	**.836**	**.005 - .010**	1.351	1.212	.010 - .020	1.364	.665	.070 - .090	1.369	.312	.025 - .040	1.372	.940	.030 - .050	1.374	.884	.025 - .040
1.345	.907	.060 - .090	**1.351**	**1.214**	**.005 - .010**	1.364	.701	.040 - .060	1.369	.329	.010 - .020	**1.372**	**.948**	**.005 - .010**	1.374	.901	.030 - .050
1.345	.967	.100 - .125	**1.351**	**1.253**	**.005 - .010**	1.364	.780	.135 - .156	1.369	.505	.065 - .080	1.372	.949	.090 - .125	1.374	.905	.010 - .020
1.345	1.001	.010 - .020	1.352	.670	.180 - .190	1.364	.788	.070 - .090	1.369	.670	.090 - .105	**1.372**	**.973**	**.005 - .015**	1.374	.912	.010 - .025
1.345	1.039	.025 - .040	1.352	.776	.050 - .075	1.364	.911	.070 - .090	1.369	.761	.010 - .020	1.372	.983	.025 - .040	1.374	.942	.050 - .070
1.345	1.040	.015 - .030	1.353	.988	.075 - .090	1.364	.912	.080 - .100	1.369	.803	.040 - .060	1.372	1.003	.040 - .060	1.374	.999	.025 - .040
1.345	1.173	.015 - .030	1.353	1.070	.050 - .070	1.364	1.002	.008 - .016	**1.369**	**.832**	**.005 - .010**	1.372	1.011	.105 - .120	1.374	1.011	.090 - .120
1.345	1.174	.015 - .025	1.354	.315	.020 - .040	1.364	1.011	.030 - .050	**1.369**	**.885**	**.005 - .015**	1.372	1.065	.012 - .025	**1.374**	**1.049**	**.005 - .010**
1.346	.201	.060 - .080	**1.354**	**.538**	**.005 - .010**	1.364	1.042	.080 - .100	1.369	.893	.125 - .156	1.372	1.135	.050 - .070	1.374	1.059	.030 - .050
1.346	**.443**	**.005 - .025**	1.355	.263	.090 - .120	**1.364**	**1.182**	**.005 - .010**	1.369	1.001	.015 - .030	1.372	1.145	.050 - .105	1.374	1.078	.010 - .020
1.347	**.441**	**.005 - .010**	1.355	.501	.110 - .130	**1.364**	**1.184**	**.005 - .010**	1.369	1.145	.090 - .105	1.372	1.153	.030 - .050	1.374	1.125	.050 - .075
1.347	**.500**	**.005 - .010**	1.355	.687	.015 - .025	1.364	1.191	.010 - .020	1.369	1.188	.010 - .015	1.372	1.189	.030 - .050	1.374	1.128	.010 - .020
1.347	**.502**	**.005 - .010**	1.355	.746	.015 - .030	1.364	1.193	.050 - .070	**1.369**	**1.207**	**.005 - .010**	**1.372**	**1.191**	**.005 - .010**	**1.374**	**1.145**	**.005 - .010**
1.347	1.075	.015 - .030	1.355	.795	.090 - .105	1.364	1.194	.030 - .060	1.370	.144	.030 - .050	1.372	1.210	.010 - .020	1.374	1.209	.040 - .060
1.347	1.140	.015 - .030	1.355	.899	.050 - .070	1.364	1.237	.010 - .025	1.370	.192	.030 - .050	1.372	1.213	.020 - .035	1.374	1.265	.030 - .050
1.348	**.441**	**.005 - .010**	1.355	1.010	.060 - .105	**1.364**	**1.252**	**.005 - .010**	1.370	.234	.100 - .125	1.373	.218	.040 - .062	1.375	.100	.025 - .045
1.348	**.500**	**.005 - .015**	1.355	1.064	.015 - .030	**1.364**	**1.281**	**.005 - .010**	1.370	.282	.080 - .100	1.373	.234	.105 - .125	1.375	.125	.070 - .090
1.348	.504	.006 - .012	**1.355**	**1.073**	**.005 - .010**	**1.364**	**1.282**	**.005 - .012**	1.370	.300	.075 - .125	1.373	.250	.016 - .032	1.375	.129	.015 - .030
1.348	.566	.080 - .100	1.355	1.129	.050 - .060	1.365	.281	.090 - .110	**1.370**	**.316**	**.005 - .010**	1.373	.255	.040 - .060	**1.375**	**.131**	**.005 - .010**
1.348	.677	.030 - .050	1.356	.444	.025 - .042	1.365	.354	.060 - .080	1.370	.333	.010 - .020	1.373	.380	.120 - .135	1.375	.144	.040 - .060
1.348	**.700**	**.005 - .010**	1.356	1.000	.015 - .030	1.365	.376	.100 - .120	1.370	.505	.100 - .125	**1.373**	**.409**	**.005 - .010**	1.375	.207	.040 - .062
1.348	.717	.075 - .090	1.356	1.030	.015 - .030	1.365	.435	.050 - .083	1.370	.538	.008 - .016	1.373	.410	.100 - .125	1.375	.210	.100 - .125
1.348	**.818**	**.005 - .015**	1.357	.190	.020 - .040	1.365	.562	.030 - .050	**1.370**	**.568**	**.005 - .010**	1.373	.462	.020 - .040	1.375	.250	.080 - .104
1.348	1.095	.010 - .025	**1.357**	**.350**	**.005 - .010**	1.365	.584	.030 - .060	**1.370**	**.628**	**.005 - .010**	1.373	.463	.015 - .030	1.375	.252	.040 - .060
1.348	1.145	.010 - .025	1.357	.500	.100 - .125	1.365	.585	.025 - .042	1.370	.685	.075 - .125	1.373	.500	.105 - .135	1.375	.255	.040 - .060
1.349	.471	.040 - .060	1.357	.666	.080 - .100	1.365	.595	.030 - .050	1.370	.696	.015 - .030	1.373	.563	.070 - .090	1.375	.260	.015 - .030
1.349	**.501**	**.005 - .010**	1.357	.845	.032 - .060	1.365	.808	.040 - .060	1.370	.698	.050 - .075	1.373	.568	.170 - .190	**1.375**	**.270**	**.005 - .010**
1.349	**.503**	**.005 - .020**	1.357	.890	.020 - .040	1.365	.940	.030 - .050	1.370	.751	.080 - .100	1.373	.570	.006 - .015	1.375	.281	.100 - .125
1.349	**.504**	**.005 - .010**	**1.357**	**.968**	**.005 - .010**	**1.365**	**1.131**	**.005 - .010**	1.370	.793	.020 - .030	1.373	.575	.050 - .075	1.375	.310	.062 - .080
1.349	.593	.060 - .080	1.357	1.030	.015 - .040	1.365	1.150	.050 - .075	**1.370**	**.794**	**.005 - .010**	1.373	.625	.020 - .190	1.375	.312	.050 - .083
1.349	.749	.050 - .070	1.358	.125	.030 - .050	1.365	1.160	.020 - .030	1.370	.886	.070 - .090	1.373	.627	.010 - .020	1.375	.316	.050 - .100
1.349	.984	.050 - .070	1.358	.209	.120 - .135	1.365	1.187	.025 - .040	1.370	.890	.100 - .125	1.373	.639	.040 - .050	1.375	.318	.100 - .125
1.349	1.057	.010 - .020	1.358	.601	.040 - .060	**1.365**	**1.192**	**.005 - .020**	1.370	.900	**.005 - .007**	1.373	.641	.125 - .156	1.375	.321	.060 - .080
1.349	**1.294**	**.005 - .010**	**1.358**	**.803**	**.005 - .010**	1.365	1.194	.020 - .040	1.370	.940	.080 - .100	1.373	.737	.010 - .020	1.375	.328	.025 - .070
1.350	**.089**	**.005 - .010**	1.358	1.026	.050 - .075	1.365	1.262	.020 - .030	1.370	.948	.062 - .080	**1.373**	**.749**	**.005 - .010**	1.375	.329	.105 - .134
1.350	.090	.025 - .040	1.358	1.037	.008 - .015	1.366	.070	.015 - .030	**1.370**	**.950**	**.005 - .015**	**1.373**	**.750**	**.005 - .010**	1.375	.343	.100 - .125
1.350	.240	.120 - .130	**1.358**	**1.130**	**.005 - .010**	1.366	.191	.105 - .125	1.370	.960	.032 - .050	1.373	.765	.010 - .020	1.375	.355	.070 - .100
1.350	.252	.015 - .125	**1.359**	**.689**	**.005 - .010**	1.366	.542	.025 - .050	1.370	.990	.020 - .040	**1.373**	**.785**	**.005 - .010**	1.375	.373	.100 - .125
1.350	.312	.050 - .060	1.359	.860	.130 - .150	1.366	.690	.078 - .105	1.370	1.000	.042 - .062	1.373	.890	.030 - .050	1.375	.375	.062 - .120
1.350	**.314**	**.005 - .020**	**1.359**	**.888**	**.005 - .010**	1.366	.760	.020 - .030	**1.370**	**1.056**	**.005 - .015**	**1.373**	**.906**	**.005 - .020**	1.375	.382	.050 - .075
1.350	.390	.105 - .125	1.359	1.025	.100 - .125	**1.366**	**.761**	**.005 - .010**	**1.370**	**1.065**	**.005 - .015**	1.373	.912	.040 - .090	1.375	.391	.090 - .105
1.350	.441	.010 - .020	1.359	1.028	.100 - .125	**1.366**	**.763**	**.005 - .010**	**1.370**	**1.126**	**.005 - .010**	**1.373**	**.996**	**.005 - .010**	1.375	.395	.062 - .080
1.350	**.457**	**.005 - .010**	1.359	1.126	.060 - .080	1.366	.883	.080 - .100	1.370	1.127	.040 - .060	1.373	1.000	.008 - .060	1.375	.420	.048 - .062
1.350	**.500**	**.005 - .020**	1.360	.204	.050 - .075	**1.366**	**.892**	**.005 - .020**	**1.370**	**1.130**	**.005 - .020**	1.373	1.095	.042 - .062	1.375	.422	.060 - .070
1.350	**.503**	**.005 - .025**	**1.360**	**.338**	**.005 - .010**	1.366	.997	.025 - .040	1.370	1.136	.020 - .030	1.373	1.126	.020 - .040	1.375	.439	.170 - .190
1.350	.504	.006 - .020	1.360	.344	.050 - .070	1.366	1.028	.070 - .090	1.370	1.163	.040 - .060	1.373	1.207	.025 - .040	1.375	.440	.075 - .090
1.350	.505	.006 - .015	1.360	.629	.010 - .020	1.366	1.030	.050 - .075	1.370	1.188	.060 - .070	1.373	1.209	.030 - .060	1.375	.444	.050 - .070
1.350	**.508**	**.005 - .010**	1.360	.639	.015 - .030	1.366	1.070	.030 - .105	**1.370**	**1.199**	**.005 - .010**	1.373	1.218	.040 - .060	1.375	.452	.156 - .187
1.350	**.562**	**.005 - .010**	1.360	.656	.100 - .125	1.366	1.133	.050 - .070	1.370	1.255	.010 - .015	1.373	1.236	.010 - .020	1.375	.500	.100 - .125
1.350	.564	.010 - .020	1.360	.791	.090 - .105	1.366	1.140	.020 - .030	**1.371**	**.148**	**.005 - .010**	**1.373**	**1.255**	**.005 - .020**	**1.375**	**.502**	**.005 - .060**
1.350	**.626**	**.005 - .020**	1.360	.878	.050 - .070	**1.366**	**1.144**	**.005 - .010**	1.371	.234	.090 - .125	**1.374**	**.155**	**.005 - .010**	1.375	.505	.030 - .050
1.350	.634	.020 - .040	1.360	.928	.080 - .105	1.366	1.153	.010 - .020	**1.371**	**.281**	**.005 - .010**	1.374	.190	.060 - .080	1.375	.515	.060 - .080
1.350	.669	.090 - .110	1.360	.986	.060 - .080	**1.366**	**1.221**	**.005 - .010**	1.371	.525	.020 - .030	1.374	.245	.050 - .070	1.375	.526	.070 - .090
1.350	**.675**	**.005 - .010**	**1.360**	**1.003**	**.005 - .010**	1.367	.758	.070 - .090	1.371	.595	.010 - .020	1.374	.251	.160 - .180	**1.375**	**.530**	**.005 - .075**
1.350	.700	.030 - .060	1.360	1.026	.050 - .075	1.367	.760	.110 - .130	1.371	.627	.050 - .075	1.374	.253	.083 - .104	**1.375**	**.556**	**.005 - .060**
1.350	**.750**	**.005 - .030**	1.360	1.060	.090 - .105	1.367	.763	.110 - .130	1.371	.641	.105 - .125	1.374	.318	.050 - .060	**1.375**	**.560**	**.005 - .010**
1.350	**.751**	**.005 - .010**	1.360	1.146	.030 - .060	1.367	.884	.080 - .104	1.371	.651	.030 - .050	1.374	.341	.090 - .110	1.375	.563	.120 - .135
1.350	**.760**	**.005 - .040**	1.361	.219	.060 - .080	1.367	.885	.040 - .060	1.371	.698	.040 - .062	1.374	.378	.050 - .070	1.375	.564	.010 - .020
1.350	.777	.025 - .040	1.361	.875	.075 - .125	1.367	.911	.010 - .020	1.371	.759	.100 - .125	1.374	.389	.060 - .070	1.375	.571	.060 - .070
1.350	.779	.040 - .060	1.361	.884	.075 - .100	1.367	1.010	.040 - .060	**1.371**	**.760**	**.005 - .010**	1.374	.518	.134 - .187	1.375	.590	.105 - .125
1.350	.819	.050 - .070	1.361	.890	.050 - .075	1.367	1.030	.060 - .080	1.371	.820	.008 - .040	1.374	.562	.015 - .025	1.375	.619	.020 - .040
1.350	.860	.015 - .030	**1.361**	**1.032**	**.005 - .010**	1.367	1.067	.040 - .060	**1.371**	**.886**	**.005 - .025**	**1.374**	**.563**	**.005 - .010**	**1.375**	**.630**	**.005 - .007**
1.350	**.863**	**.005 - .030**	**1.362**	**.230**	**.005 - .010**	1.367	1.112	.025 - .040	1.371	1.000	.120 - .135	**1.374**	**.568**	**.005 - .010**	1.375	.634	.005 - .010
1.350	.905	.050 - .070	1.362	.439	.015 - .030	1.367	1.153	.020 - .030	**1.371**	**1.073**	**.005 - .010**	1.374	.575	.090 - .110	1.375	.641	.157 - .187
1.350	.910	.015 - .030	1.362	.641	.062 - .090	**1.367**	**1.180**	**.005 - .015**	1.371	1.123	.020 - .040	1.374	.577	.020 - .042	**1.375**	**.644**	**.005 - .010**
1.350	.977	.036 - .048	1.362	.656	.100 - .125	**1.368**	**.498**	**.005 - .010**	1.371	1.138	.070 - .090	1.374	.641	.050 - .070	1.375	.656	.040 - .062
1.350	.978	.010 - .020	1.362	.750	.010 - .060	1.368	.510	.075 - .090	1.371	1.178	.070 - .090	1.374	.700	.156 - .187	1.375	.700	.120 - .135
1.350	1.000	.050 - .070	1.362	.762	.100 - .125	1.368	.596	.030 - .050	**1.371**	**1.212**	**.005 - .015**	**1.374**	**.701**	**.005 - .010**	1.375	.709	.050 - .070
1.350	1.054	.012 - .020	**1.362**	**1.002**	**.005 - .025**	**1.368**	**.635**	**.005 - .010**	1.372	.141	.070 - .090	**1.374**	**.710**	**.005 - .010**	1.375	.719	.010 - .020
1.350	1.067	.015 - .030	**1.362**	**1.203**	**.005 - .010**	1.368	.792	.040 - .060	1.372	.191	.070 - .090	**1.374**	**.717**	**.005 - .010**	1.375	.750	.020 - .050
1.350	1.108	.050 - .070	1.362	1.262	.015 - .030	1.368	.874	.050 - .070	1.372	.378	.030 - .050	1.374	.750	.100 - .125	1.375	.751	.050 - .060
1.350	**1.139**	**.005 - .010**				1.368	.918	.100 - .125				1.374	.756	.020 - .030	1.375	.753	.100 - .125

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

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O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
1.375	.754	.060 - .080	1.377	.336	.075 - .090	1.380	1.180	.005 - .010	1.399	.654	.010 - .020	1.409	.766	.015 - .070	1.418	.322	.010 - .020
1.375	.757	.090 - .110	1.377	.346	.100 - .125	1.380	1.186	.080 - .100	1.399	.719	.010 - .060	1.409	1.187	.005 - .010	1.418	.375	.070 - .090
1.375	.758	.048 - .062	1.377	.376	.105 - .125	1.380	1.253	.005 - .010	1.399	.890	.025 - .040	1.409	1.189	.050 - .060	1.418	.473	.005 - .010
1.375	.762	.005 - .010	1.377	.377	.080 - .105	1.381	.561	.080 - .100	1.399	.906	.050 - .070	1.409	1.333	.005 - .010	1.418	.474	.010 - .020
1.375	.763	.156 - .187	1.377	.383	.005 - .010	1.381	.689	.050 - .070	1.399	1.160	.030 - .050	1.410	.265	.060 - .080	1.418	.477	.005 - .010
1.375	.770	.005 - .010	1.377	.384	.030 - .050	1.381	1.200	.025 - .040	1.399	1.203	.005 - .010	1.410	.500	.015 - .030	1.418	.478	.100 - .120
1.375	.782	.156 - .187	1.377	.505	.005 - .020	1.382	.542	.010 - .030	1.400	.140	.020 - .040	1.410	.660	.015 - .030	1.418	.504	.005 - .010
1.375	.803	.090 - .100	1.377	.515	.050 - .075	1.382	.543	.040 - .070	1.400	.269	.050 - .070	1.410	.690	.105 - .135	1.418	.505	.010 - .020
1.375	.812	.005 - .120	1.377	.517	.060 - .080	1.382	.633	.020 - .030	1.400	.379	.080 - .100	1.410	.855	.030 - .050	1.418	.807	.080 - .104
1.375	.824	.005 - .020	1.377	.531	.100 - .125	1.382	1.093	.005 - .010	1.400	.380	.105 - .125	1.410	.897	.060 - .090	1.418	.880	.010 - .020
1.375	.827	.105 - .135	1.377	.754	.060 - .080	1.382	1.137	.060 - .080	1.400	.500	.040 - .060	1.410	1.030	.020 - .040	1.418	.886	.030 - .050
1.375	.829	.048 - .075	1.377	.756	.050 - .075	1.382	1.138	.005 - .010	1.400	.503	.005 - .015	1.410	1.110	.030 - .050	1.418	.887	.005 - .010
1.375	.860	.006 - .100	1.377	.790	.020 - .040	1.382	1.192	.020 - .040	1.400	.505	.080 - .100	1.410	1.143	.010 - .020	1.418	.889	.010 - .020
1.375	.875	.100 - .125	1.377	.895	.032 - .048	1.383	.629	.090 - .125	1.400	.549	.020 - .040	1.410	1.147	.080 - .100	1.418	.945	.030 - .050
1.375	.876	.032 - .048	1.377	.860	.005 - .010	1.383	1.000	.030 - .050	1.400	.564	.010 - .020	1.410	1.187	.005 - .010	1.418	.983	.120 - .135
1.375	.877	.005 - .020	1.377	.983	.060 - .080	1.384	.314	.090 - .110	1.400	.627	.015 - .030	1.410	1.189	.005 - .008	1.418	.985	.015 - .030
1.375	.878	.090 - .120	1.377	.985	.005 - .010	1.384	.543	.020 - .030	1.400	.696	.020 - .032	1.410	1.202	.005 - .010	1.418	1.181	.100 - .125
1.375	.883	.010 - .020	1.377	.997	.030 - .050	1.384	.758	.005 - .010	1.400	.754	.015 - .030	1.411	.836	.005 - .010	1.418	1.188	.070 - .090
1.375	.922	.015 - .030	1.377	1.001	.025 - .090	1.384	1.171	.012 - .025	1.400	.755	.005 - .010	1.411	1.265	.010 - .025	1.419	.253	.005 - .010
1.375	.936	.020 - .032	1.377	1.018	.030 - .050	1.384	1.318	.005 - .010	1.400	.756	.050 - .070	1.412	.201	.040 - .060	1.419	.407	.156 - .187
1.375	.940	.060 - .090	1.377	1.029	.040 - .060	1.385	.567	.080 - .105	1.400	.822	.005 - .010	1.412	.836	.105 - .120	1.419	.435	.160 - .180
1.375	.953	.005 - .010	1.377	1.100	.005 - .010	1.385	.578	.031 - .042	1.400	.879	.005 - .010	1.412	1.070	.040 - .060	1.419	.677	.080 - .100
1.375	.962	.035 - .060	1.377	1.241	.005 - .010	1.385	.796	.005 - .010	1.400	.885	.005 - .020	1.412	1.193	.030 - .050	1.419	.797	.005 - .010
1.375	.977	.062 - .083	1.378	.206	.050 - .075	1.385	.920	.015 - .020	1.400	.887	.010 - .020	1.412	1.246	.005 - .010	1.419	.800	.005 - .010
1.375	.995	.005 - .010	1.378	.208	.005 - .010	1.385	1.010	.030 - .060	1.400	1.000	.010 - .105	1.413	.634	.100 - .125	1.419	1.003	.005 - .010
1.375	1.000	.025 - .125	1.378	.240	.105 - .125	1.385	1.015	.075 - .090	1.400	1.017	.090 - .105	1.413	.995	.005 - .010	1.419	1.070	.090 - .125
1.375	1.005	.120 - .156	1.378	.313	.020 - .032	1.385	1.220	.005 - .010	1.400	1.050	.070 - .080	1.413	1.118	.005 - .010	1.420	.285	.110 - .135
1.375	1.006	.100 - .125	1.378	.315	.010 - .020	1.385	1.269	.005 - .010	1.400	1.076	.025 - .042	1.414	.434	.170 - .190	1.420	.380	.030 - .050
1.375	1.008	.060 - .080	1.378	.316	.005 - .010	1.385	1.339	.005 - .010	1.400	1.150	.005 - .010	1.414	.563	.160 - .190	1.420	.504	.105 - .134
1.375	1.015	.005 - .010	1.378	.324	.005 - .010	1.386	.474	.080 - .105	1.400	1.158	.005 - .010	1.414	.595	.090 - .110	1.420	.507	.012 - .020
1.375	1.022	.016 - .032	1.378	.402	.156 - .187	1.386	.655	.170 - .190	1.400	1.200	.080 - .090	1.414	.794	.005 - .010	1.420	.611	.075 - .090
1.375	1.031	.080 - .105	1.378	.492	.005 - .010	1.386	1.084	.060 - .080	1.400	1.258	.020 - .030	1.415	.319	.005 - .010	1.420	.679	.005 - .010
1.375	1.045	.025 - .040	1.378	.500	.010 - .020	1.386	1.124	.005 - .010	1.400	1.260	.030 - .042	1.415	.320	.005 - .020	1.420	.690	.050 - .070
1.375	1.065	.035 - .050	1.378	.657	.060 - .080	1.386	1.187	.030 - .045	1.401	.195	.005 - .010	1.415	.382	.040 - .062	1.420	.752	.080 - .100
1.375	1.078	.040 - .060	1.378	.660	.105 - .135	1.387	1.212	.020 - .040	1.401	.986	.045 - .060	1.415	.396	.005 - .020	1.420	.853	.050 - .060
1.375	1.110	.005 - .010	1.378	.736	.100 - .125	1.388	.662	.120 - .134	1.401	1.102	.010 - .020	1.415	.398	.005 - .010	1.420	1.004	.005 - .010
1.375	1.124	.005 - .010	1.378	.754	.005 - .010	1.388	.785	.015 - .030	1.401	1.169	.010 - .020	1.415	.477	.005 - .010	1.420	1.005	.010 - .020
1.375	1.130	.015 - .080	1.378	.780	.025 - .050	1.388	.825	.020 - .040	1.401	1.186	.015 - .025	1.415	.521	.020 - .030	1.420	1.100	.005 - .010
1.375	1.131	.005 - .010	1.378	.783	.040 - .060	1.388	1.016	.090 - .110	1.401	1.258	.005 - .030	1.415	.567	.010 - .025	1.420	1.137	.050 - .070
1.375	1.136	.050 - .070	1.378	.787	.100 - .120	1.389	.474	.080 - .105	1.401	1.295	.005 - .010	1.415	.896	.060 - .070	1.420	1.199	.080 - .100
1.375	1.146	.025 - .040	1.378	.858	.032 - .050	1.389	1.052	.030 - .050	1.402	.295	.030 - .050	1.415	1.000	.005 - .010	1.420	1.252	.030 - .050
1.375	1.154	.005 - .010	1.378	.861	.080 - .100	1.389	1.073	.005 - .010	1.402	.504	.005 - .010	1.415	1.044	.015 - .030	1.420	1.270	.010 - .020
1.375	1.159	.005 - .010	1.378	.865	.100 - .125	1.390	.368	.060 - .083	1.402	.505	.008 - .015	1.415	1.100	.010 - .020	1.420	1.271	.032 - .050
1.375	1.188	.005 - .010	1.378	.876	.090 - .125	1.390	.430	.080 - .134	1.402	.509	.105 - .135	1.415	1.122	.030 - .042	1.420	1.280	.030 - .050
1.375	1.189	.030 - .050	1.378	.878	.060 - .120	1.390	.552	.010 - .020	1.402	.518	.005 - .008	1.415	1.126	.005 - .010	1.421	.495	.080 - .100
1.375	1.195	.005 - .025	1.378	.957	.105 - .125	1.390	.780	.005 - .010	1.402	.760	.005 - .015	1.416	.169	.030 - .050	1.421	.518	.090 - .120
1.375	1.200	.020 - .032	1.378	.984	.010 - .020	1.390	1.094	.005 - .008	1.402	1.224	.050 - .070	1.416	.324	.135 - .156	1.421	1.186	.100 - .120
1.375	1.201	.025 - .040	1.378	1.060	.005 - .010	1.390	1.147	.015 - .030	1.402	1.341	.015 - .030	1.416	.473	.005 - .010	1.421	1.190	.010 - .020
1.375	1.251	.010 - .020	1.378	1.061	.012 - .020	1.390	1.187	.015 - .030	1.403	.250	.042 - .075	1.416	.474	.020 - .030	1.422	.408	.005 - .020
1.375	1.253	.005 - .030	1.378	1.075	.030 - .050	1.391	.888	.010 - .035	1.403	.430	.100 - .125	1.416	.502	.005 - .030	1.422	.697	.065 - .080
1.375	1.265	.005 - .010	1.378	1.186	.060 - .080	1.391	.983	.040 - .060	1.403	.672	.110 - .130	1.416	.505	.005 - .020	1.422	.880	.060 - .090
1.376	.258	.005 - .010	1.378	1.201	.005 - .010	1.393	.611	.060 - .080	1.403	1.022	.010 - .020	1.416	.567	.005 - .010	1.422	.945	.090 - .105
1.376	.267	.134 - .187	1.379	.203	.020 - .040	1.393	.719	.080 - .104	1.404	.128	.050 - .070	1.416	.590	.160 - .190	1.422	1.058	.042 - .060
1.376	.383	.005 - .015	1.379	.453	.010 - .040	1.393	1.281	.005 - .010	1.404	.508	.090 - .120	1.416	.629	.005 - .010	1.423	.156	.030 - .050
1.376	.406	.050 - .075	1.379	.510	.070 - .080	1.394	.654	.005 - .010	1.404	1.196	.020 - .040	1.416	.635	.050 - .070	1.423	.157	.080 - .104
1.376	.503	.090 - .125	1.379	.564	.005 - .010	1.394	.724	.070 - .090	1.405	.610	.010 - .020	1.416	.709	.040 - .060	1.423	.864	.020 - .040
1.376	.513	.005 - .010	1.379	.599	.015 - .030	1.395	.132	.025 - .035	1.405	.630	.005 - .010	1.416	.793	.005 - .010	1.423	.880	.010 - .020
1.376	.530	.156 - .187	1.379	.787	.070 - .090	1.395	.420	.105 - .125	1.405	1.008	.015 - .030	1.416	1.030	.100 - .120	1.423	.882	.005 - .030
1.376	.534	.010 - .020	1.379	.812	.005 - .010	1.395	.550	.050 - .083	1.405	1.265	.005 - .010	1.416	1.039	.040 - .060	1.423	1.000	.031 - .042
1.376	.620	.005 - .010	1.379	.835	.005 - .010	1.395	1.157	.040 - .060	1.406	.139	.030 - .048	1.416	1.111	.005 - .030	1.423	1.288	.005 - .010
1.376	.650	.100 - .125	1.379	1.069	.090 - .120	1.396	.563	.060 - .080	1.406	.390	.005 - .010	1.416	1.141	.040 - .060	1.423	1.289	.010 - .030
1.376	.657	.005 - .010	1.379	1.075	.015 - .025	1.396	.611	.105 - .125	1.406	1.010	.060 - .070	1.416	1.226	.025 - .040	1.424	.440	.060 - .070
1.376	.760	.060 - .140	1.379	1.089	.030 - .050	1.396	1.190	.015 - .025	1.406	1.091	.025 - .040	1.416	1.338	.010 - .020	1.424	.505	.005 - .010
1.376	.761	.090 - .105	1.380	.254	.040 - .060	1.396	1.220	.010 - .020	1.406	1.249	.020 - .030	1.417	.125	.010 - .020	1.424	.506	.010 - .020
1.376	.765	.090 - .105	1.380	.282	.062 - .190	1.397	.381	.115 - .130	1.407	.290	.025 - .040	1.417	.413	.060 - .080	1.425	.316	.015 - .030
1.376	.780	.110 - .130	1.380	.300	.005 - .008	1.397	.419	.060 - .125	1.407	.390	.005 - .030	1.417	.474	.010 - .020	1.425	.377	.005 - .020
1.376	.815	.060 - .080	1.380	.339	.005 - .010	1.397	.545	.005 - .010	1.407	.624	.005 - .010	1.417	.511	.105 - .125	1.425	.438	.010 - .020
1.376	.847	.005 - .010	1.380	.346	.120 - .134	1.397	.705	.060 - .090	1.407	.634	.060 - .090	1.417	.519	.080 - .104	1.425	.440	.070 - .090
1.376	.903	.025 - .040	1.380	.398	.005 - .010	1.397	.710	.050 - .075	1.407	.705	.005 - .010	1.417	.548	.050 - .070	1.425	.502	.005 - .020
1.376	.906	.030 - .060	1.380	.405	.100 - .125	1.397	.815	.005 - .020	1.407	1.112	.015 - .030	1.417	.580	.075 - .090	1.425	.504	.005 - .020
1.376	.984	.030 - .050	1.380	.596	.100 - .125	1.397	.981	.015 - .030	1.407	1.125	.005 - .010	1.417	.632	.005 - .010	1.425	.505	.010 - .020
1.376	1.003	.010 - .020	1.380	.694	.120 - .135	1.397	1.068	.005 - .030	1.407	1.188	.020 - .030	1.417	.825	.050 - .070	1.425	.515	.005 - .010
1.376	1.016	.050 - .070	1.380	.752	.020 - .030	1.398	.505	.005 - .015	1.407	1.195	.005 - .010	1.417	.912	.135 - .187	1.425	.889	.005 - .010
1.376	1.022	.005 - .010	1.380	.880	.020 - .040	1.398	.717	.005 - .010	1.408	.902	.032 - .050	1.417	.983	.060 - .080	1.425	1.155	.005 - .010
1.376	1.135	.080 - .105	1.380	.901	.005 - .010	1.398	.872	.025 - .040	1.408	1.004	.005 - .010	1.417	.997	.050 - .070	1.425	1.161	.040 - .050
1.376	1.157	.010 - .020	1.380	.902	.080 - .100	1.398	.906	.030 - .050	1.408	1.256	.040 - .060	1.417	1.006	.030 - .040	1.425	1.188	.030 - .040
1.376	1.225	.025 - .040	1.380	1.004	.005 - .010	1.398	1.160	.010 - .020	1.408	1.285	.030 - .050	1.417	1.031	.050 - .060	1.425	1.251	.060 - .075
1.376	1.247	.005 - .010	1.380	1.009	.105 - .125	1.398	1.161	.030 - .050	1.408	1.332	.005 - .010	1.417	1.070	.020 - .040	1.426	1.055	.005 - .010
1.377	.269	.040 - .060	1.380	1.021	.050 - .075	1.399	.377	.005 - .020	1.409	.502	.005 - .010	1.417	1.182	.050 - .070	1.426	1.100	.005 - .010
1.377	.318	.100 - .125	1.380	1.105	.005 - .010	1.399	.524	.005 - .060	1.409	.503	.005 - .010	1.418	.204	.040 - .060	1.426	1.110	.005 - .010

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For a size NOT listed, send specs or phone for quote — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
1.426	1.188	.025 - .040	1.436	1.134	.030 - .050	1.440	.375	.090 - .120	1.450	.531	.080 - .100	1.465	.378	.010 - .050	1.478	1.310	.025 - .042
1.426	**1.261**	**.005 - .020**	1.436	1.154	.015 - .025	**1.440**	**.392**	**.005 - .010**	1.450	.626	.010 - .020	1.465	.812	.105 - .134	1.479	.600	.020 - .030
1.426	**1.291**	**.005 - .015**	1.436	1.195	.032 - .050	**1.440**	**.395**	**.005 - .010**	**1.450**	**.630**	**.005 - .010**	1.465	1.095	.050 - .075	1.479	1.133	.015 - .030
1.427	.250	.050 - .075	**1.436**	**1.198**	**.005 - .010**	1.440	.438	.040 - .060	1.450	.650	.050 - .062	1.465	1.190	.025 - .040	**1.479**	**1.361**	**.005 - .020**
1.427	1.141	.060 - .070	1.436	1.250	.040 - .060	**1.440**	**.504**	**.005 - .020**	1.450	.760	.030 - .060	1.465	1.262	.060 - .080	1.480	.221	.062 - .080
1.427	1.218	.020 - .040	1.436	1.265	.020 - .030	**1.440**	**.610**	**.005 - .010**	1.450	.830	.020 - .040	1.465	1.306	.035 - .050	1.480	.511	.105 - .125
1.427	1.253	.075 - .093	**1.436**	**1.320**	**.005 - .010**	**1.440**	**.762**	**.005 - .010**	1.450	.952	.040 - .060	1.465	1.325	.015 - .030	1.480	.632	.100 - .125
1.427	1.257	.025 - .040	1.437	.186	.010 - .020	1.440	.891	.015 - .025	1.450	1.019	.105 - .135	1.466	.379	.030 - .050	1.480	.640	.156 - .188
1.428	1.014	.060 - .080	1.437	.206	.025 - .125	1.440	1.015	.020 - .040	1.450	1.031	.083 - .120	**1.466**	**1.064**	**.005 - .010**	**1.480**	**.677**	**.005 - .010**
1.428	1.066	.015 - .032	1.437	.297	.070 - .090	1.440	1.070	.020 - .030	1.450	1.085	.050 - .075	1.466	1.072	.030 - .050	1.480	.702	.015 - .060
1.428	**1.249**	**.005 - .010**	**1.437**	**.376**	**.005 - .025**	**1.440**	**1.083**	**.005 - .010**	**1.450**	**1.100**	**.005 - .010**	1.466	1.155	.020 - .040	1.480	.707	.090 - .105
1.429	**.418**	**.005 - .010**	1.437	.378	.015 - .035	1.440	1.120	.050 - .075	**1.450**	**1.140**	**.005 - .010**	1.466	1.268	.030 - .050	1.480	.784	.075 - .090
1.429	.783	.010 - .020	1.437	.383	.005 - .060	**1.440**	**1.137**	**.005 - .010**	1.450	1.225	.030 - .040	1.467	.841	.015 - .030	1.480	.824	.105 - .135
1.429	1.100	.020 - .030	1.437	.397	.020 - .040	1.441	.720	.050 - .083	1.450	1.265	.010 - .020	1.467	.939	.075 - .090	1.480	.984	.070 - .090
1.429	1.126	.040 - .060	**1.437**	**.410**	**.005 - .010**	1.441	1.140	.050 - .075	1.450	1.379	.010 - .020	1.467	1.038	.030 - .050	1.480	1.049	.120 - .156
1.429	1.194	.040 - .060	1.437	.420	.080 - .104	1.441	1.142	.050 - .075	**1.451**	**.503**	**.005 - .010**	1.467	1.126	.075 - .100	1.480	1.120	.010 - .020
1.430	.192	.030 - .050	1.437	.493	.156 - .187	**1.441**	**1.258**	**.005 - .010**	1.451	1.016	.050 - .070	1.468	.310	.010 - .020	1.480	1.154	.030 - .060
1.430	.376	.015 - .030	1.437	.500	.032 - .048	1.442	.411	.062 - .080	**1.451**	**1.140**	**.005 - .015**	1.468	.384	.080 - .105	**1.480**	**1.232**	**.005 - .010**
1.430	**.519**	**.005 - .010**	1.437	.504	.062 - .080	**1.442**	**.541**	**.005 - .010**	1.451	1.196	.010 - .020	1.468	.391	.050 - .070	1.480	1.269	.080 - .105
1.430	.640	.100 - .125	**1.437**	**.552**	**.005 - .015**	1.442	.881	.080 - .105	1.451	1.271	.036 - .060	1.468	.440	.010 - .020	1.481	.269	.042 - .062
1.430	**.698**	**.005 - .010**	1.437	.639	.015 - .025	1.442	1.002	.006 - .012	1.452	.266	.020 - .040	1.468	.640	.050 - .075	1.481	.622	.010 - .020
1.430	.716	.010 - .020	1.437	.680	.100 - .125	1.442	1.130	.030 - .040	1.452	.441	.010 - .020	**1.468**	**.820**	**.005 - .010**	**1.481**	**.936**	**.005 - .010**
1.430	.749	.010 - .020	1.437	.761	.105 - .125	1.443	.626	.015 - .030	**1.453**	**.104**	**.005 - .010**	**1.468**	**.988**	**.005 - .010**	1.481	1.108	.025 - .042
1.430	.755	.015 - .030	1.437	.764	.020 - .030	1.443	.880	.070 - .090	1.453	.760	.030 - .050	1.468	1.235	.010 - .020	1.482	.250	.015 - .030
1.430	.827	.010 - .020	1.437	.765	.050 - .075	1.443	.948	.040 - .060	1.454	.568	.080 - .100	1.468	1.310	.020 - .032	1.482	.632	.135 - .156
1.430	1.063	.060 - .070	1.437	.766	.015 - .025	1.443	1.179	.040 - .050	1.454	.756	.020 - .030	1.469	.665	.100 - .120	1.482	.774	.120 - .135
1.430	**1.065**	**.005 - .010**	**1.437**	**.783**	**.005 - .010**	**1.444**	**.136**	**.005 - .010**	1.454	1.014	.015 - .030	1.469	.750	.080 - .090	1.482	.882	.020 - .040
1.430	1.128	.050 - .075	1.437	.792	.100 - .125	1.444	1.006	.030 - .050	**1.454**	**1.102**	**.005 - .010**	**1.469**	**.808**	**.005 - .010**	1.482	.884	.020 - .040
1.430	1.129	.050 - .070	1.437	.795	.020 - .040	**1.444**	**1.055**	**.005 - .010**	1.454	1.282	.050 - .070	**1.470**	**.171**	**.005 - .010**	1.482	1.222	.050 - .070
1.430	1.148	.075 - .090	1.437	.850	.075 - .090	1.445	.132	.040 - .062	1.455	.475	.125 - .135	1.470	.203	.010 - .020	1.483	.755	.105 - .125
1.430	**1.186**	**.005 - .010**	1.437	.873	.156 - .190	1.445	.312	.010 - .020	1.455	.637	.040 - .050	1.470	.610	.100 - .125	1.484	.132	.015 - .030
1.431	**.716**	**.005 - .010**	1.437	.879	.070 - .090	1.445	.322	.060 - .090	1.455	.638	.085 - .100	**1.470**	**.752**	**.005 - .010**	1.484	.252	.156 - .187
1.431	1.129	.010 - .020	1.437	.886	.050 - .075	1.445	.350	.032 - .060	**1.455**	**.754**	**.005 - .010**	1.470	.782	.100 - .125	1.484	.882	.040 - .060
1.431	1.253	.060 - .080	1.437	.895	.040 - .060	1.445	.690	.090 - .120	1.455	1.000	.015 - .030	1.470	.820	.010 - .020	1.484	.889	.050 - .070
1.432	.936	.090 - .105	1.437	.950	.050 - .070	1.445	.934	.050 - .060	1.455	1.065	.040 - .060	1.470	.833	.100 - .156	**1.484**	**1.070**	**.005 - .010**
1.432	.995	.100 - .125	1.437	1.000	.030 - .040	1.445	1.044	.045 - .060	1.455	1.101	.040 - .050	1.470	1.062	.048 - .075	1.484	1.130	.020 - .030
1.432	1.045	.030 - .050	1.437	1.001	.156 - .187	**1.446**	**.179**	**.005 - .010**	1.456	.315	.020 - .030	1.470	1.094	.015 - .030	1.484	1.250	.105 - .125
1.432	1.094	.050 - .060	1.437	1.008	.075 - .104	1.446	.240	.090 - .120	1.456	.826	.105 - .135	1.470	1.111	.040 - .050	1.484	1.382	.020 - .030
1.432	1.139	.040 - .060	1.437	1.031	.050 - .070	1.446	.250	.050 - .070	1.456	1.066	.030 - .050	1.470	1.150	.025 - .042	1.485	.472	.080 - .104
1.432	1.160	.050 - .062	1.437	1.093	.035 - .048	1.446	.253	.105 - .135	1.456	1.082	.015 - .030	1.470	1.226	.040 - .060	1.485	.520	.060 - .080
1.433	**.316**	**.005 - .010**	1.437	1.103	.080 - .100	1.446	.254	.100 - .125	**1.457**	**.502**	**.005 - .010**	**1.470**	**1.375**	**.005 - .010**	1.485	.550	.100 - .125
1.433	.510	.008 - .030	**1.437**	**1.123**	**.005 - .030**	1.446	.315	.100 - .125	**1.457**	**.505**	**.005 - .020**	1.471	.688	.062 - .080	**1.485**	**.646**	**.005 - .010**
1.433	**.563**	**.005 - .010**	1.437	1.132	.030 - .050	1.446	.318	.105 - .125	1.457	.675	.050 - .070	1.471	.758	.090 - .120	1.485	.650	.100 - .125
1.433	.760	.040 - .060	**1.437**	**1.172**	**.005 - .010**	**1.446**	**1.062**	**.005 - .015**	**1.457**	**1.022**	**.005 - .010**	1.471	.759	.100 - .125	1.485	.660	.105 - .120
1.433	**1.039**	**.005 - .010**	1.437	1.185	.015 - .070	1.447	.406	.100 - .125	1.457	1.200	.015 - .025	1.471	.810	.050 - .070	1.485	.674	.050 - .070
1.433	1.050	.040 - .060	1.437	1.201	.060 - .080	**1.447**	**.596**	**.005 - .010**	1.457	1.295	.020 - .030	1.471	.821	.057 - .088	**1.485**	**.794**	**.005 - .010**
1.433	1.095	.020 - .030	**1.437**	**1.250**	**.005 - .010**	1.447	.837	.100 - .125	1.458	.670	.100 - .120	1.471	.877	.100 - .125	**1.485**	**.846**	**.005 - .020**
1.433	1.350	.010 - .020	1.437	1.281	.025 - .040	1.447	1.064	.080 - .100	1.458	.873	.030 - .050	1.471	.938	.105 - .125	1.485	.901	.134 - .156
1.434	**.361**	**.005 - .010**	1.438	.258	.105 - .125	1.447	1.136	.105 - .125	**1.458**	**.984**	**.005 - .010**	**1.471**	**1.331**	**.005 - .040**	1.485	.919	.030 - .040
1.434	.751	.100 - .125	1.438	.281	.120 - .135	1.447	1.203	.032 - .060	1.458	1.124	.042 - .062	1.472	.438	.015 - .030	1.485	.970	.032 - .042
1.434	.873	.120 - .135	1.438	.345	.040 - .060	1.448	.125	.030 - .050	1.459	.239	.015 - .030	**1.472**	**.501**	**.005 - .010**	1.485	1.108	.050 - .070
1.434	.936	.090 - .120	1.438	.377	.010 - .030	1.448	.390	.040 - .050	**1.459**	**.630**	**.005 - .010**	1.472	.762	.010 - .020	1.485	1.223	.015 - .030
1.434	1.125	.015 - .030	**1.438**	**.562**	**.005 - .010**	1.448	.441	.010 - .020	1.459	.841	.040 - .050	1.472	.765	.080 - .100	**1.485**	**1.250**	**.005 - .012**
1.434	1.315	.010 - .020	1.438	.669	.020 - .030	1.448	.575	.050 - .070	1.459	.951	.030 - .050	1.472	.829	.010 - .020	1.485	1.357	.015 - .025
1.435	.207	.100 - .125	1.438	.682	.060 - .080	**1.448**	**.630**	**.005 - .010**	1.459	1.143	.015 - .030	1.472	1.001	.070 - .090	1.486	.650	.100 - .125
1.435	**.270**	**.005 - .010**	1.438	.751	.100 - .125	1.448	1.031	.075 - .090	1.459	1.189	.015 - .030	1.472	1.230	.090 - .125	**1.486**	**.803**	**.005 - .010**
1.435	.316	.015 - .030	**1.438**	**.765**	**.005 - .010**	1.448	1.052	.030 - .050	1.460	.180	.035 - .050	1.473	.130	.042 - .062	1.486	.830	.040 - .062
1.435	**.377**	**.005 - .010**	1.438	.811	.125 - .156	1.448	1.053	.040 - .060	1.460	.500	.025 - .040	1.473	.609	.010 - .030	**1.486**	**.893**	**.005 - .010**
1.435	.379	.020 - .040	1.438	.881	.080 - .100	**1.448**	**1.057**	**.005 - .010**	1.460	.569	.050 - .070	1.474	.318	.010 - .020	**1.486**	**.906**	**.005 - .010**
1.435	**.500**	**.005 - .010**	1.438	.938	.040 - .060	1.448	1.091	.010 - .020	1.460	.667	.050 - .070	1.474	1.010	.040 - .060	1.486	1.090	.050 - .075
1.435	.563	.010 - .020	**1.438**	**.998**	**.005 - .010**	1.448	1.126	.090 - .105	1.460	.761	.010 - .020	**1.474**	**1.180**	**.005 - .010**	1.486	1.229	.070 - .090
1.435	**.665**	**.005 - .010**	1.438	1.039	.030 - .050	1.448	1.190	.080 - .100	1.460	.950	.040 - .060	**1.474**	**1.357**	**.005 - .010**	**1.486**	**1.330**	**.005 - .015**
1.435	.750	.020 - .030	1.438	1.065	.036 - .050	1.448	1.193	.050 - .070	1.460	1.189	.035 - .050	1.474	1.358	.015 - .025	1.486	1.380	.015 - .030
1.435	**.875**	**.005 - .010**	1.438	1.100	.050 - .070	1.449	.522	.105 - .125	1.460	1.394	.020 - .025	1.475	.499	.005 - .010	1.487	.949	.080 - .104
1.435	1.082	.070 - .090	**1.438**	**1.150**	**.005 - .010**	1.449	.629	.010 - .020	1.461	.180	.070 - .080	1.475	.500	.110 - .130	**1.487**	**1.128**	**.005 - .010**
1.435	1.107	.020 - .040	1.438	1.171	.025 - .040	1.449	.629	.010 - .020	1.461	.875	.030 - .050	1.475	.504	.006 - .015	1.487	1.233	.015 - .030
1.435	1.192	.040 - .060	1.438	1.188	.020 - .040	1.449	.966	.040 - .060	1.461	1.172	.050 - .070	1.475	.526	.080 - .100	1.487	1.368	.020 - .030
1.435	**1.257**	**.005 - .010**	1.438	1.190	.015 - .030	1.449	.990	.010 - .020	1.461	1.362	.020 - .030	**1.475**	**.620**	**.005 - .010**	1.488	.390	.020 - .030
1.435	1.315	.010 - .020	1.439	.115	.020 - .040	1.449	1.028	.045 - .060	1.462	.502	.080 - .100	**1.475**	**.626**	**.005 - .020**	1.488	.550	.100 - .125
1.436	.125	.008 - .016	**1.439**	**.466**	**.005 - .010**	1.449	1.057	.040 - .060	1.462	.563	.048 - .062	**1.475**	**.751**	**.005 - .010**	1.488	.804	.050 - .070
1.436	.195	.025 - .050	1.439	.515	.125 - .135	**1.449**	**1.198**	**.005 - .010**	1.462	1.070	.080 - .100	1.475	.828	.062 - .090	**1.488**	**.880**	**.005 - .010**
1.436	.377	.010 - .040	1.439	.636	.015 - .030	1.449	1.322	.010 - .020	1.462	1.247	.008 - .075	**1.475**	**.834**	**.005 - .010**	**1.488**	**1.043**	**.005 - .010**
1.436	.383	.010 - .040	1.439	.757	.040 - .060	1.450	.157	.020 - .035	1.463	.480	.090 - .110	1.475	1.169	.040 - .060	1.488	1.217	.010 - .020
1.436	.504	.050 - .075	1.439	.811	.040 - .060	1.450	.201	.025 - .040	1.463	.813	.090 - .110	1.475	1.360	.010 - .020	1.488	1.313	.030 - .042
1.436	**.555**	**.005 - .010**	**1.439**	**.812**	**.005 - .020**	1.450	.208	.050 - .075	1.463	1.211	.015 - .025	**1.476**	**.255**	**.005 - .010**	1.488	1.330	.030 - .042
1.436	.563	.015 - .030	1.439	1.125	.070 - .085	1.450	.262	.020 - .030	1.463	1.224	.015 - .030	**1.476**	**.500**	**.005 - .030**	**1.488**	**1.350**	**.005 - .010**
1.436	**.643**	**.005 - .010**	1.439	1.265	.015 - .030	1.450	.282	.040 - .060	**1.464**	**.590**	**.005 - .010**	1.476	1.359	.010 - .020	1.489	.383	.070 - .090
1.436	.886	.008 - .012	1.440	.235	.020 - .035	**1.450**	**.380**	**.005 - .020**	1.464	.741	.042 - .062	1.477	.617	.010 - .020	1.489	1.004	.050 - .070
1.436	**.940**	**.005 - .010**	1.440	.250	.060 - .070	**1.450**	**.441**	**.005 - .010**	1.464	1.189	.015 - .025	1.477	1.201	.010 - .040	1.489	1.165	.015 - .030
1.436	1.001	.050 - .075	**1.440**	**.332**	**.005 - .010**	**1.450**	**.450**	**.005 - .010**	1.465	.377	.030 - .060	1.478	1.099	.080 - .100	1.489	1.260	.050 - .075

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

Call BOKER'S for precision stamping, assembly, and secondary operations.

O.D.	I.D.	Thickness* From – To	O.D.	I.D.	Thickness* From – To	O.D.	I.D.	Thickness* From – To	O.D.	I.D.	Thickness* From – To	O.D.	I.D.	Thickness* From – To	O.D.	I.D.	Thickness* From – To
1.490	.170	.025 - .042	1.495	.354	.105 - .135	1.497	.891	.005 - .010	1.499	.399	.005 - .010	1.500	.311	.104 - .134	1.500	.725	.070 - .090
1.490	.171	.030 - .050	1.495	.355	.005 - .010	1.497	.906	.100 - .120	1.499	.420	.005 - .010	1.500	.312	.160 - .190	1.500	.749	.010 - .025
1.490	.243	.080 - .100	1.495	.375	.030 - .050	1.497	1.060	.100 - .125	1.499	.474	.005 - .010	1.500	.313	.062 - .080	1.500	.753	.010 - .125
1.490	.325	.156 - .187	1.495	.459	.156 - .187	1.497	1.119	.040 - .060	1.499	.485	.050 - .075	1.500	.315	.008 - .110	1.500	.754	.040 - .060
1.490	.511	.105 - .125	1.495	.500	.105 - .125	1.497	1.126	.135 - .156	1.499	.503	.005 - .020	1.500	.325	.048 - .075	1.500	.758	.105 - .125
1.490	.688	.080 - .100	1.495	.510	.070 - .090	1.497	1.137	.005 - .010	1.499	.504	.005 - .020	1.500	.327	.005 - .010	1.500	.761	.100 - .125
1.490	.760	.020 - .030	1.495	.545	.010 - .020	1.497	1.150	.090 - .110	1.499	.533	.005 - .010	1.500	.330	.120 - .135	1.500	.765	.020 - .080
1.490	.764	.030 - .050	1.495	.629	.040 - .050	1.497	1.154	.025 - .040	1.499	.561	.005 - .010	1.500	.340	.005 - .010	1.500	.768	.020 - .030
1.490	.820	.040 - .060	1.495	.682	.010 - .020	1.497	1.242	.030 - .050	1.499	.562	.015 - .025	1.500	.345	.050 - .070	1.500	.781	.015 - .110
1.490	.875	.100 - .125	1.495	1.010	.015 - .030	1.497	1.252	.005 - .012	1.499	.563	.010 - .020	1.500	.346	.105 - .135	1.500	.782	.050 - .075
1.490	1.004	.005 - .010	1.495	1.028	.060 - .080	1.497	1.267	.040 - .062	1.499	.574	.050 - .060	1.500	.349	.005 - .010	1.500	.783	.156 - .187
1.490	1.063	.080 - .100	1.495	1.058	.005 - .010	1.497	1.283	.005 - .010	1.499	.599	.030 - .050	1.500	.364	.005 - .010	1.500	.785	.030 - .040
1.490	1.125	.005 - .010	1.495	1.086	.005 - .010	1.497	1.352	.010 - .020	1.499	.626	.005 - .010	1.500	.372	.040 - .060	1.500	.786	.005 - .010
1.490	1.130	.010 - .025	1.495	1.116	.090 - .104	1.498	.128	.015 - .030	1.499	.643	.005 - .010	1.500	.375	.060 - .187	1.500	.788	.105 - .135
1.490	1.140	.025 - .050	1.495	1.120	.005 - .010	1.498	.142	.040 - .060	1.499	.676	.030 - .060	1.500	.376	.015 - .025	1.500	.792	.005 - .040
1.490	1.190	.005 - .010	1.495	1.182	.060 - .080	1.498	.176	.010 - .015	1.499	.710	.030 - .050	1.500	.377	.005 - .010	1.500	.804	.005 - .012
1.490	1.193	.010 - .020	1.495	1.185	.020 - .030	1.498	.252	.100 - .125	1.499	.750	.070 - .090	1.500	.379	.030 - .050	1.500	.806	.080 - .104
1.490	1.242	.090 - .125	1.495	1.201	.010 - .025	1.498	.253	.042 - .062	1.499	.759	.060 - .080	1.500	.384	.010 - .025	1.500	.810	.025 - .040
1.490	1.272	.060 - .080	1.495	1.255	.010 - .020	1.498	.262	.005 - .010	1.499	.760	.060 - .080	1.500	.385	.005 - .010	1.500	.812	.050 - .100
1.490	1.280	.005 - .010	1.495	1.257	.060 - .080	1.498	.266	.100 - .125	1.499	.763	.040 - .060	1.500	.391	.050 - .070	1.500	.813	.050 - .100
1.490	1.290	.040 - .060	1.495	1.260	.005 - .010	1.498	.313	.040 - .060	1.499	.765	.005 - .125	1.500	.392	.010 - .020	1.500	.817	.005 - .125
1.490	1.295	.005 - .010	1.495	1.275	.005 - .010	1.498	.360	.005 - .010	1.499	.768	.010 - .020	1.500	.395	.050 - .083	1.500	.817	.126 - .135
1.490	1.360	.005 - .025	1.495	1.339	.005 - .010	1.498	.379	.005 - .010	1.499	.813	.090 - .105	1.500	.397	.030 - .050	1.500	.820	.020 - .040
1.490	1.361	.040 - .060	1.495	1.354	.005 - .010	1.498	.380	.120 - .135	1.499	.835	.030 - .050	1.500	.398	.005 - .015	1.500	.830	.015 - .135
1.491	.063	.005 - .010	1.495	1.400	.020 - .040	1.498	.390	.105 - .130	1.499	.876	.005 - .010	1.500	.406	.005 - .125	1.500	.841	.040 - .050
1.491	.875	.100 - .125	1.496	.250	.030 - .050	1.498	.400	.170 - .190	1.499	.880	.040 - .060	1.500	.406	.126 - .187	1.500	.853	.080 - .104
1.491	.994	.105 - .120	1.496	.256	.005 - .010	1.498	.406	.050 - .125	1.499	.881	.040 - .060	1.500	.411	.020 - .030	1.500	.871	.010 - .020
1.491	1.001	.005 - .010	1.496	.296	.010 - .020	1.498	.412	.005 - .010	1.499	.967	.105 - .125	1.500	.413	.075 - .090	1.500	.873	.170 - .190
1.491	1.063	.080 - .100	1.496	.438	.040 - .060	1.498	.500	.005 - .015	1.499	.995	.005 - .010	1.500	.437	.040 - .125	1.500	.874	.020 - .040
1.491	1.210	.010 - .020	1.496	.473	.005 - .020	1.498	.502	.005 - .010	1.499	1.003	.005 - .012	1.500	.440	.005 - .080	1.500	.876	.100 - .125
1.491	1.312	.005 - .010	1.496	.474	.005 - .010	1.498	.521	.015 - .025	1.499	1.011	.110 - .130	1.500	.441	.010 - .020	1.500	.877	.100 - .125
1.492	.394	.005 - .010	1.496	.512	.170 - .190	1.498	.607	.005 - .010	1.499	1.046	.050 - .075	1.500	.442	.005 - .010	1.500	.880	.010 - .020
1.492	.803	.016 - .025	1.496	.620	.015 - .050	1.498	.625	.040 - .060	1.499	1.047	.040 - .060	1.500	.443	.020 - .032	1.500	.882	.110 - .134
1.492	.886	.020 - .032	1.496	.625	.050 - .080	1.498	.687	.030 - .125	1.499	1.052	.050 - .070	1.500	.450	.100 - .125	1.500	.883	.040 - .125
1.492	1.011	.020 - .040	1.496	.630	.005 - .075	1.498	.688	.105 - .125	1.499	1.059	.070 - .090	1.500	.451	.005 - .010	1.500	.886	.156 - .187
1.492	1.062	.100 - .125	1.496	.720	.010 - .020	1.498	.690	.100 - .125	1.499	1.098	.030 - .050	1.500	.453	.170 - .190	1.500	.892	.105 - .120
1.492	1.118	.005 - .010	1.496	.762	.005 - .010	1.498	.754	.020 - .030	1.499	1.117	.040 - .060	1.500	.454	.100 - .125	1.500	.893	.062 - .090
1.492	1.130	.015 - .030	1.496	.767	.010 - .020	1.498	.757	.040 - .060	1.499	1.123	.080 - .100	1.500	.479	.156 - .187	1.500	.900	.040 - .060
1.493	.433	.105 - .125	1.496	.783	.100 - .125	1.498	.771	.005 - .048	1.499	1.135	.040 - .060	1.500	.497	.105 - .125	1.500	.904	.104 - .125
1.493	.748	.015 - .030	1.496	.900	.005 - .010	1.498	.819	.005 - .010	1.499	1.142	.005 - .012	1.500	.498	.070 - .090	1.500	.908	.026 - .048
1.493	.758	.032 - .060	1.496	.946	.005 - .010	1.498	.825	.005 - .010	1.499	1.150	.040 - .060	1.500	.500	.005 - .060	1.500	.910	.140 - .160
1.493	.776	.020 - .030	1.496	.994	.010 - .020	1.498	.844	.100 - .125	1.499	1.202	.005 - .015	1.500	.505	.005 - .050	1.500	.934	.040 - .060
1.493	.810	.005 - .010	1.496	1.003	.040 - .060	1.498	.867	.005 - .010	1.499	1.250	.050 - .075	1.500	.506	.005 - .125	1.500	.935	.030 - .040
1.493	1.008	.050 - .070	1.496	1.007	.005 - .010	1.498	.902	.025 - .040	1.499	1.256	.030 - .040	1.500	.512	.060 - .156	1.500	.937	.050 - .075
1.493	1.062	.030 - .050	1.496	1.014	.060 - .080	1.498	.979	.050 - .070	1.499	1.260	.040 - .060	1.500	.513	.100 - .125	1.500	.938	.093 - .109
1.493	1.136	.010 - .025	1.496	1.017	.050 - .075	1.498	.997	.030 - .050	**1.500**			1.500	.515	.100 - .125	1.500	.942	.105 - .134
1.493	1.191	.030 - .050	1.496	1.060	.005 - .010	1.498	1.000	.060 - .080				1.500	.519	.080 - .104	1.500	.954	.050 - .070
1.493	1.229	.005 - .010	1.496	1.066	.005 - .010	1.498	1.014	.100 - .125				1.500	.521	.105 - .125	1.500	.970	.080 - .100
1.493	1.242	.005 - .010	1.496	1.114	.010 - .020	1.498	1.015	.005 - .015				1.500	.530	.015 - .125	1.500	.975	.005 - .010
1.493	1.259	.010 - .020	1.496	1.162	.005 - .010	1.498	1.021	.005 - .010				1.500	.536	.006 - .134	1.500	.993	.025 - .040
1.493	1.273	.060 - .070	1.496	1.181	.010 - .020	1.498	1.032	.020 - .040	1.500	.084	.020 - .035	1.500	.537	.030 - .048	1.500	.996	.050 - .070
1.493	1.299	.005 - .010	1.496	1.189	.005 - .010	1.498	1.033	.005 - .010	1.500	.094	.005 - .010	1.500	.550	.090 - .125	1.500	1.001	.005 - .015
1.493	1.314	.005 - .010	1.496	1.221	.040 - .060	1.498	1.040	.105 - .135	1.500	.126	.040 - .060	1.500	.560	.005 - .015	1.500	1.002	.040 - .090
1.494	.271	.015 - .030	1.496	1.245	.020 - .040	1.498	1.065	.005 - .012	1.500	.130	.020 - .032	1.500	.562	.050 - .190	1.500	1.003	.005 - .125
1.494	.330	.005 - .020	1.496	1.253	.050 - .070	1.498	1.066	.030 - .050	1.500	.135	.090 - .104	1.500	.563	.015 - .030	1.500	1.003	.126 - .156
1.494	.474	.005 - .010	1.496	1.255	.040 - .060	1.498	1.071	.015 - .030	1.500	.150	.040 - .062	1.500	.564	.100 - .120	1.500	1.004	.015 - .050
1.494	.477	.005 - .010	1.496	1.260	.005 - .075	1.498	1.072	.110 - .130	1.500	.156	.030 - .125	1.500	.571	.025 - .040	1.500	1.005	.010 - .070
1.494	.637	.005 - .010	1.496	1.270	.005 - .010	1.498	1.098	.030 - .060	1.500	.157	.030 - .050	1.500	.577	.010 - .015	1.500	1.009	.040 - .140
1.494	.650	.007 - .020	1.496	1.311	.010 - .020	1.498	1.125	.090 - .120	1.500	.161	.100 - .125	1.500	.579	.110 - .130	1.500	1.010	.005 - .020
1.494	.760	.060 - .080	1.497	.145	.020 - .040	1.498	1.130	.100 - .120	1.500	.163	.010 - .040	1.500	.605	.050 - .070	1.500	1.011	.010 - .020
1.494	.857	.080 - .104	1.497	.195	.025 - .042	1.498	1.169	.025 - .040	1.500	.185	.050 - .083	1.500	.625	.030 - .050	1.500	1.015	.040 - .190
1.494	.937	.030 - .050	1.497	.375	.050 - .083	1.498	1.178	.010 - .020	1.500	.188	.005 - .010	1.500	.626	.010 - .125	1.500	1.018	.100 - .125
1.494	1.024	.030 - .050	1.497	.377	.105 - .125	1.498	1.268	.040 - .060	1.500	.194	.025 - .042	1.500	.634	.005 - .010	1.500	1.019	.005 - .012
1.494	1.057	.080 - .104	1.497	.379	.042 - .062	1.498	1.305	.030 - .050	1.500	.195	.048 - .075	1.500	.636	.060 - .180	1.500	1.020	.005 - .125
1.494	1.060	.064 - .078	1.497	.386	.062 - .080	1.498	1.321	.030 - .048	1.500	.200	.010 - .030	1.500	.638	.020 - .040	1.500	1.022	.020 - .040
1.494	1.075	.050 - .070	1.497	.421	.156 - .187	1.498	1.378	.005 - .010	1.500	.209	.105 - .125	1.500	.640	.110 - .130	1.500	1.023	.005 - .010
1.494	1.092	.040 - .060	1.497	.477	.005 - .010	1.498	1.396	.015 - .025	1.500	.219	.050 - .070	1.500	.655	.005 - .020	1.500	1.025	.105 - .125
1.494	1.175	.015 - .025	1.497	.515	.100 - .125	1.499	.098	.050 - .075	1.500	.245	.032 - .060	1.500	.656	.075 - .130	1.500	1.032	.048 - .134
1.494	1.201	.035 - .050	1.497	.559	.100 - .125	1.499	.127	.080 - .090	1.500	.250	.010 - .020	1.500	.660	.040 - .060	1.500	1.036	.008 - .105
1.494	1.265	.005 - .010	1.497	.612	.020 - .030	1.499	.167	.005 - .010	1.500	.259	.060 - .083	1.500	.665	.005 - .010	1.500	1.041	.005 - .010
1.494	1.270	.010 - .015	1.497	.620	.010 - .060	1.499	.187	.020 - .040	1.500	.265	.100 - .125	1.500	.687	.030 - .050	1.500	1.043	.005 - .010
1.494	1.305	.005 - .010	1.497	.632	.010 - .020	1.499	.197	.125 - .156	1.500	.266	.015 - .025	1.500	.688	.050 - .070	1.500	1.050	.156 - .187
1.494	1.338	.010 - .020	1.497	.655	.075 - .100	1.499	.213	.005 - .010	1.500	.267	.005 - .010	1.500	.690	.120 - .135	1.500	1.062	.050 - .075
1.494	1.342	.008 - .015	1.497	.723	.060 - .083	1.499	.268	.070 - .090	1.500	.269	.030 - .048	1.500	.694	.005 - .010	1.500	1.063	.020 - .040
1.494	1.414	.015 - .025	1.497	.753	.025 - .040	1.499	.281	.100 - .125	1.500	.275	.080 - .090	1.500	.700	.070 - .090	1.500	1.065	.010 - .060
1.494	1.425	.025 - .040	1.497	.755	.025 - .042	1.499	.303	.040 - .060	1.500	.280	.040 - .060	1.500	.701	.050 - .070	1.500	1.092	.005 - .062
1.495	.263	.005 - .010	1.497	.757	.010 - .030	1.499	.314	.010 - .020	1.500	.281	.156 - .187	1.500	.703	.005 - .010	1.500	1.093	.005 - .062
1.495	.276	.005 - .010	1.497	.763	.005 - .015	1.499	.374	.030 - .050	1.500	.282	.008 - .015	1.500	.713	.005 - .010	1.500	1.115	.005 - .010
1.495	.294	.020 - .032	1.497	.772	.030 - .048	1.499	.385	.135 - .156	1.500	.283	.005 - .010	1.500	.715	.005 - .020	1.500	1.122	.032 - .048
1.495	.295	.100 - .125	1.497	.810	.005 - .010	1.499	.391	.156 - .190	1.500	.303	.005 - .010	1.500	.721	.104 - .125	1.500	1.127	.005 - .010

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

New tools added continually. Call for sizes not listed — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	From	To	O.D.	I.D.	From	To	O.D.	I.D.	From	To	O.D.	I.D.	From	To	O.D.	I.D.	From	To	O.D.	I.D.	From	To
1.500	1.129	.060	.083	1.502	.752	.105	.125	1.520	.816	.060	.080	1.533	1.379	.050	.060	1.549	1.003	.050	.070	1.560	.381	.125	.156
1.500	1.136	.105	.125	1.502	.877	.080	.100	1.520	.821	.040	.060	1.534	.325	.080	.104	1.549	1.005	.040	.060	1.560	.391	.080	.105
1.500	1.156	.015	.030	**1.502**	**.885**	**.005**	**.010**	1.520	.838	.060	.080	**1.534**	**.505**	**.005**	**.020**	**1.549**	**1.007**	**.005**	**.010**	1.560	.392	.080	.105
1.500	1.157	.025	.042	1.502	.891	.025	.040	1.520	.850	.080	.090	1.534	1.026	.105	.125	1.549	1.226	.030	.050	1.560	.455	.100	.125
1.500	1.171	.070	.090	1.502	.960	.060	.080	1.520	.890	.050	.070	1.534	1.046	.015	.030	1.550	.245	.042	.075	1.560	.508	.100	.125
1.500	1.175	.030	.050	1.502	1.015	.020	.030	1.520	.891	.040	.060	1.534	1.097	.020	.040	1.550	.368	.020	.035	1.560	.563	.015	.030
1.500	1.178	.020	.040	1.502	1.067	.100	.125	**1.520**	**1.015**	**.005**	**.010**	1.534	1.397	.020	.035	**1.550**	**.438**	**.005**	**.030**	**1.560**	**.619**	**.005**	**.010**
1.500	1.180	.060	.080	1.502	1.110	.025	.040	1.520	1.264	.020	.050	1.535	.322	.050	.075	**1.550**	**.440**	**.005**	**.010**	**1.560**	**.772**	**.005**	**.010**
1.500	1.186	.105	.135	1.502	1.119	.120	.135	**1.520**	**1.420**	**.005**	**.010**	1.535	.330	.156	.187	1.550	.500	.050	.070	1.560	.839	.050	.070
1.500	1.187	.015	.125	**1.502**	**1.125**	**.005**	**.010**	1.521	.326	.030	.050	1.535	.635	.025	.040	**1.550**	**.502**	**.005**	**.010**	1.560	.845	.025	.048
1.500	**1.190**	**.005**	**.010**	1.502	1.150	.090	.125	1.521	.390	.040	.060	1.535	.697	.156	.164	1.550	.505	.010	.020	1.560	1.063	.135	.156
1.500	1.191	.105	.125	**1.502**	**1.380**	**.005**	**.010**	1.521	.889	.050	.070	1.535	.788	.050	.070	**1.550**	**.626**	**.005**	**.010**	**1.560**	**1.100**	**.005**	**.010**
1.500	1.195	.050	.070	**1.503**	**.509**	**.005**	**.010**	1.521	1.024	.040	.060	1.535	.867	.105	.125	1.550	.626	.010	.020	**1.560**	**1.140**	**.005**	**.010**
1.500	**1.199**	**.005**	**.040**	1.503	.701	.050	.070	1.523	.346	.050	.070	1.535	.904	.100	.125	1.550	.635	.015	.035	1.560	1.207	.010	.020
1.500	1.200	.090	.105	1.503	.845	.025	.040	**1.523**	**.503**	**.005**	**.010**	1.535	1.064	.080	.104	**1.550**	**.704**	**.005**	**.010**	1.560	1.261	.070	.080
1.500	1.202	.031	.048	**1.503**	**1.008**	**.005**	**.010**	**1.523**	**.507**	**.005**	**.020**	**1.535**	**1.138**	**.005**	**.020**	1.550	.750	.020	.040	1.560	1.315	.015	.025
1.500	1.204	.035	.048	1.503	1.016	.015	.030	1.523	.584	.050	.070	1.535	1.140	.030	.040	1.550	.752	.105	.125	**1.560**	**1.319**	**.005**	**.010**
1.500	1.212	.015	.030	1.503	1.020	.050	.075	1.524	.329	.110	.130	**1.535**	**1.290**	**.005**	**.010**	**1.550**	**1.221**	**.005**	**.010**	1.560	1.320	.015	.025
1.500	**1.215**	**.005**	**.010**	1.504	.687	.010	.020	1.524	.432	.100	.125	1.535	1.300	.060	.080	1.550	1.235	.050	.075	1.560	1.331	.050	.070
1.500	1.225	.020	.030	1.504	.764	.020	.040	1.524	.435	.040	.060	1.535	1.344	.012	.025	**1.550**	**1.250**	**.005**	**.010**	**1.560**	**1.353**	**.005**	**.010**
1.500	**1.249**	**.005**	**.010**	1.504	.784	.042	.062	1.524	.560	.040	.060	1.535	1.378	.020	.035	1.550	1.255	.015	.025	1.560	1.376	.025	.040
1.500	1.251	.025	.040	**1.504**	**.789**	**.005**	**.010**	1.524	1.274	.042	.060	1.536	.188	.090	.120	**1.550**	**1.415**	**.005**	**.010**	1.561	.161	.020	.030
1.500	1.252	.105	.125	1.504	.811	.100	.125	1.524	1.416	.040	.060	1.536	.501	.010	.020	1.550	1.416	.015	.020	1.561	.251	.040	.060
1.500	1.264	.020	.030	1.504	1.036	.120	.135	1.525	.250	.050	.070	1.536	.576	.015	.030	**1.550**	**1.439**	**.005**	**.010**	1.561	.259	.083	.125
1.500	**1.265**	**.005**	**.010**	1.504	1.230	.062	.090	**1.525**	**.265**	**.005**	**.010**	1.536	.651	.015	.030	1.551	.289	.050	.070	1.561	.629	.075	.105
1.500	1.266	.010	.020	1.504	1.287	.040	.060	**1.525**	**.268**	**.005**	**.010**	1.536	.694	.015	.020	1.551	.438	.010	.020	1.561	.766	.100	.125
1.500	1.274	.010	.020	1.504	1.378	.010	.020	**1.525**	**.501**	**.005**	**.010**	**1.536**	**.710**	**.005**	**.010**	1.551	.440	.010	.020	1.561	.768	.025	.040
1.500	1.275	.008	.018	1.505	.408	.015	.030	1.525	.617	.050	.060	1.536	.712	.030	.050	1.551	1.026	.060	.080	**1.561**	**.883**	**.005**	**.010**
1.500	1.277	.090	.125	1.505	.440	.156	.187	**1.525**	**.657**	**.005**	**.010**	**1.536**	**.811**	**.005**	**.010**	1.551	1.140	.010	.020	1.561	.952	.030	.050
1.500	1.282	.008	.016	1.505	.510	.105	.125	1.525	.685	.040	.060	1.536	1.009	.050	.070	1.551	1.189	.105	.125	1.561	1.039	.030	.050
1.500	1.298	.010	.025	1.505	.845	.025	.035	1.525	.800	.010	.020	1.536	1.024	.135	.156	1.551	1.278	.060	.080	1.561	1.040	.010	.015
1.500	1.300	.050	.075	1.505	1.003	.015	.030	**1.525**	**1.231**	**.005**	**.010**	1.537	.407	.075	.125	**1.552**	**1.460**	**.005**	**.010**	1.561	1.158	.040	.060
1.500	1.301	.050	.070	1.505	1.109	.040	.060	1.525	1.310	.025	.040	1.537	.501	.010	.020	1.553	.854	.075	.105	1.561	1.231	.040	.060
1.500	1.316	.010	.020	1.505	1.310	.015	.025	1.525	1.316	.070	.090	1.537	1.288	.042	.062	1.553	.859	.080	.100	1.561	1.261	.040	.060
1.500	1.332	.025	.040	1.506	1.249	.050	.075	1.525	1.335	.040	.060	**1.537**	**1.296**	**.005**	**.010**	1.553	1.158	.125	.156	**1.561**	**1.390**	**.005**	**.010**
1.500	1.358	.050	.070	**1.507**	**1.324**	**.005**	**.010**	1.526	1.280	.040	.060	1.539	.562	.010	.020	1.554	.765	.080	.104	**1.561**	**1.433**	**.005**	**.012**
1.500	1.376	.015	.060	1.508	.315	.105	.125	1.526	1.310	.025	.042	1.539	1.206	.015	.030	1.554	.883	.010	.015	**1.561**	**1.439**	**.005**	**.010**
1.500	1.389	.030	.050	1.508	.910	.080	.105	**1.526**	**1.345**	**.005**	**.010**	1.539	1.220	.015	.030	1.554	1.000	.060	.080	1.562	.201	.020	.030
1.501	.125	.075	.090	1.509	.301	.090	.120	1.527	1.317	.060	.078	1.539	1.359	.030	.050	1.554	1.193	.060	.080	1.562	.251	.090	.104
1.501	.188	.020	.040	1.509	.781	.090	.105	1.527	1.418	.020	.030	1.540	.512	.105	.125	**1.554**	**1.460**	**.005**	**.010**	1.562	.317	.008	.016
1.501	**.190**	**.005**	**.010**	1.510	.510	.060	.080	1.528	.187	.025	.040	**1.540**	**.563**	**.005**	**.010**	1.555	.166	.080	.104	1.562	.351	.075	.105
1.501	.200	.100	.125	1.510	.900	.030	.050	1.528	.195	.050	.100	1.540	.910	.015	.030	1.555	.650	.007	.012	1.562	.378	.048	.075
1.501	.280	.060	.090	1.510	1.089	.015	.030	1.528	.250	.010	.030	1.540	1.102	.025	.040	1.555	1.060	.032	.060	1.562	.406	.105	.125
1.501	.336	.105	.125	**1.510**	**1.236**	**.005**	**.010**	**1.528**	**.728**	**.005**	**.010**	1.540	1.200	.020	.030	1.555	1.100	.090	.120	1.562	.408	.015	.030
1.501	.372	.050	.070	**1.510**	**1.258**	**.005**	**.010**	1.528	1.009	.050	.070	1.540	1.290	.050	.070	1.555	1.112	.080	.105	1.562	.447	.040	.060
1.501	**.382**	**.005**	**.012**	1.510	1.312	.060	.070	1.528	1.276	.010	.020	1.541	.318	.020	.030	1.555	1.133	.090	.105	1.562	.562	.032	.050
1.501	.385	.090	.125	1.511	.213	.090	.100	1.528	1.285	.020	.040	1.541	1.008	.025	.070	1.555	1.196	.015	.030	1.562	.563	.156	.187
1.501	**.437**	**.005**	**.010**	1.511	.630	.080	.105	**1.529**	**.466**	**.005**	**.010**	1.541	1.250	.050	.070	1.555	1.250	.060	.080	**1.562**	**.564**	**.005**	**.020**
1.501	.508	.030	.050	1.511	.792	.090	.105	1.529	.791	.030	.050	1.542	.833	.020	.030	1.556	.164	.050	.062	1.562	.656	.156	.187
1.501	**.514**	**.005**	**.010**	1.511	.823	.170	.190	1.529	.984	.080	.105	**1.542**	**.998**	**.005**	**.010**	1.556	.511	.080	.105	1.562	.746	.075	.105
1.501	.626	.010	.020	**1.511**	**1.015**	**.005**	**.010**	1.529	1.052	.080	.100	**1.542**	**1.193**	**.005**	**.010**	1.556	1.192	.050	.070	1.562	.750	.010	.100
1.501	**.715**	**.005**	**.010**	1.511	1.112	.050	.075	1.529	1.117	.100	.110	1.543	.431	.075	.105	1.556	1.260	.015	.030	**1.562**	**.762**	**.005**	**.010**
1.501	.755	.010	.020	1.511	1.113	.040	.060	1.529	1.259	.020	.040	1.543	1.200	.020	.030	1.556	1.262	.020	.040	1.562	.765	.090	.120
1.501	.773	.100	.125	**1.511**	**1.351**	**.005**	**.010**	1.529	1.360	.020	.040	1.543	1.255	.050	.075	1.556	1.405	.010	.020	1.562	.781	.083	.105
1.501	.817	.100	.125	1.514	.940	.125	.135	1.529	1.416	.020	.030	1.543	1.257	.025	.040	1.556	1.437	.032	.050	1.562	.782	.080	.104
1.501	.820	.040	.060	1.514	1.126	.062	.080	**1.529**	**1.453**	**.005**	**.010**	1.543	1.261	.030	.050	**1.557**	**.396**	**.005**	**.015**	1.562	.812	.062	.080
1.501	.840	.010	.020	1.515	.583	.120	.134	1.530	.251	.015	.030	1.544	1.169	.030	.050	1.557	.407	.060	.080	1.562	.864	.120	.140
1.501	.876	.040	.060	1.515	.765	.050	.070	1.530	.282	.060	.080	1.544	1.182	.025	.040	1.557	.770	.110	.130	1.562	.874	.020	.040
1.501	.909	.050	.070	1.515	.892	.045	.060	1.530	.312	.030	.050	**1.544**	**1.191**	**.005**	**.010**	1.557	1.002	.075	.090	1.562	.875	.015	.030
1.501	1.008	.080	.100	1.515	1.360	.040	.060	**1.530**	**.536**	**.005**	**.010**	1.544	1.481	.010	.020	1.557	1.038	.040	.060	1.562	.904	.040	.050
1.501	**1.009**	**.005**	**.010**	1.515	1.375	.020	.040	**1.530**	**.548**	**.005**	**.010**	1.545	.264	.030	.050	1.557	1.314	.105	.125	1.562	.906	.040	.050
1.501	**1.010**	**.005**	**.010**	1.515	1.378	.010	.020	1.530	.832	.020	.030	1.545	.437	.020	.040	1.557	1.355	.025	.040	1.562	.925	.030	.060
1.501	1.121	.020	.030	1.516	.293	.050	.075	1.530	1.031	.075	.090	**1.545**	**1.060**	**.005**	**.010**	**1.557**	**1.358**	**.005**	**.010**	1.562	.932	.050	.075
1.501	1.132	.025	.050	1.516	.915	.050	.070	1.530	1.202	.010	.030	1.545	1.156	.020	.030	1.558	.157	.015	.030	1.562	.937	.100	.125
1.501	1.133	.060	.080	**1.516**	**1.194**	**.005**	**.010**	1.530	1.280	.050	.060	**1.545**	**1.191**	**.005**	**.010**	1.558	.256	.075	.100	1.562	.938	.015	.025
1.501	1.188	.050	.070	**1.516**	**1.199**	**.005**	**.010**	**1.531**	**.333**	**.005**	**.010**	1.545	1.391	.050	.070	1.558	.375	.075	.090	1.562	.939	.030	.050
1.501	1.251	.020	.030	1.517	.755	.090	.104	1.531	.390	.100	.125	1.545	1.457	.025	.035	1.558	.378	.060	.080	1.562	.945	.070	.090
1.501	**1.290**	**.005**	**.010**	1.518	.770	.050	.070	1.531	.516	.060	.080	1.546	1.182	.025	.040	1.558	.410	.090	.105	1.562	.996	.062	.090
1.502	.185	.105	.135	1.518	1.195	.050	.070	**1.531**	**.625**	**.005**	**.010**	1.546	1.184	.025	.040	1.558	.749	.020	.040	1.562	.997	.020	.030
1.502	.220	.060	.080	**1.519**	**.623**	**.005**	**.010**	1.531	.689	.060	.080	1.547	1.007	.040	.064	1.558	.770	.105	.125	1.562	1.001	.120	.134
1.502	.345	.080	.104	1.519	.689	.060	.080	1.531	.776	.025	.040	1.548	.441	.010	.020	1.558	1.004	.025	.040	1.562	1.002	.120	.134
1.502	.349	.030	.048	1.520	.195	.035	.050	1.531	.808	.030	.050	1.548	.951	.090	.110	**1.558**	**1.433**	**.005**	**.010**	1.562	1.008	.040	.060
1.502	.375	.060	.125	1.520	.328	.015	.020	1.531	1.000	.020	.032	1.548	1.005	.010	.020	**1.559**	**.776**	**.005**	**.010**	1.562	1.032	.083	.105
1.502	**.411**	**.005**	**.010**	1.520	.753	.060	.080	1.531	1.015	.025	.042	1.548	1.038	.031	.048	1.559	.875	.110	.130	1.562	1.063	.015	.025
1.502	.441	.030	.050	1.520	.760	.100	.110	1.531	1.223	.010	.020	1.548	1.100	.040	.050	**1.559**	**1.071**	**.005**	**.010**	1.562	1.128	.030	.048
1.502	.444	.120	.135	1.520	.801	.030	.050	1.532	.098	.030	.050	1.548	1.270	.015	.030	1.559	1.288	.010	.020	1.562	1.155	.015	.032
1.502	.562	.134	.187	1.520	.804	.050	.070	**1.532**	**.765**	**.005**	**.010**	1.549	.361	.050	.070	1.559	1.315	.006	.040	**1.562**	**1.187**	**.005**	**.010**
1.502	**.563**	**.005**	**.010**	1.520	.808	.040	.070	1.532	1.047	.015	.025	1.549	.503	.015	.030	**1.559**	**1.439**	**.005**	**.020**	1.562	1.188	.020	.040
1.502	.648	.100	.120	1.520	.811	.080	.100	1.532	1.306	.070	.090	**1.549**	**.505**	**.005**	**.020**	1.560	.191	.020	.040	1.562	1.203	.025	.048
1.502	.656	.156	.188					1.533	1.003	.040	.060	1.549	.754	.040	.062	1.560	.242	.015	.030	**1.562**	**1.313**	**.005**	**.010**

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For non-metallic materials, contact BOKER'S — (800) 927-4377, Fax (800) 321-3462.

BOKER'S METAL WASHERS ARE FLAT AND TUMBLE DEBURRED

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
1.562	1.320	.060 - .080	1.570	.906	.100 - .125	1.575	1.338	.005 - .010	1.594	1.504	.015 - .030	1.602	1.492	.005 - .010	1.617	1.060	.050 - .070
1.562	1.323	.105 - .125	1.570	1.003	.035 - .060	1.575	1.389	.070 - .090	1.595	.551	.105 - .125	1.603	.341	.100 - .125	1.617	1.258	.025 - .042
1.562	1.346	.030 - .050	1.570	1.031	.080 - .105	1.575	1.474	.005 - .010	1.596	.880	.010 - .020	1.603	.800	.075 - .090	1.617	1.390	.030 - .050
1.562	1.347	.040 - .060	1.570	1.032	.100 - .125	1.576	.414	.160 - .190	1.597	.200	.050 - .070	1.603	1.012	.025 - .040	1.618	.256	.100 - .125
1.562	1.348	.062 - .075	1.570	1.190	.032 - .042	1.576	.477	.010 - .020	1.597	.755	.010 - .020	1.603	1.500	.020 - .030	1.618	.651	.040 - .060
1.562	1.354	.005 - .010	1.570	1.191	.125 - .156	1.576	.630	.005 - .010	1.597	.881	.090 - .125	1.604	.674	.115 - .130	1.618	.690	.015 - .030
1.562	1.374	.025 - .040	1.570	1.220	.050 - .070	1.576	.670	.015 - .030	1.598	.199	.080 - .090	1.604	1.007	.005 - .010	1.618	.899	.030 - .050
1.562	1.375	.020 - .040	1.570	1.250	.005 - .010	1.576	.826	.125 - .156	1.598	.320	.080 - .090	1.605	.378	.030 - .050	1.618	.963	.110 - .130
1.562	1.376	.005 - .010	1.570	1.259	.030 - .040	1.576	1.092	.050 - .070	1.598	.505	.005 - .010	1.605	.390	.005 - .010	1.618	1.010	.105 - .125
1.563	.439	.005 - .010	1.571	.379	.080 - .100	1.576	1.245	.025 - .040	1.598	.516	.050 - .070	1.605	1.009	.105 - .125	1.618	1.035	.060 - .090
1.563	.638	.005 - .010	1.571	.870	.100 - .120	1.576	1.474	.005 - .010	1.598	.625	.030 - .050	1.605	1.134	.010 - .030	1.618	1.134	.005 - .010
1.563	.690	.032 - .060	1.571	1.018	.100 - .125	1.577	.632	.040 - .060	1.598	.630	.010 - .020	1.605	1.348	.030 - .050	1.618	1.180	.060 - .080
1.563	.762	.005 - .010	1.571	1.038	.005 - .015	1.577	.771	.030 - .060	1.598	.720	.005 - .010	1.606	.465	.105 - .125	1.618	1.382	.020 - .030
1.563	.878	.025 - .040	1.571	1.146	.070 - .090	1.577	.994	.015 - .030	1.598	1.000	.080 - .125	1.606	.516	.105 - .125	1.619	.838	.040 - .060
1.563	.892	.075 - .100	1.572	.476	.005 - .010	1.577	1.072	.090 - .110	1.598	1.058	.005 - .010	1.606	1.000	.105 - .125	1.619	.937	.060 - .070
1.563	.999	.105 - .125	1.572	.569	.050 - .060	1.577	1.341	.070 - .090	1.598	1.269	.050 - .070	1.607	.562	.125 - .156	1.619	1.470	.010 - .020
1.563	1.005	.110 - .130	1.572	.625	.050 - .070	1.578	.771	.025 - .040	1.599	.378	.005 - .020	1.607	.630	.092 - .125	1.620	.297	.080 - .105
1.563	1.062	.005 - .010	1.572	.754	.005 - .010	1.578	1.063	.030 - .050	1.599	.489	.090 - .110	1.607	1.022	.030 - .060	1.620	.408	.005 - .010
1.563	1.131	.050 - .070	1.572	.761	.020 - .040	1.578	1.292	.020 - .030	1.599	.503	.005 - .010	1.607	1.271	.025 - .040	1.620	.418	.005 - .010
1.563	1.347	.040 - .062	1.572	1.254	.030 - .050	1.578	1.298	.010 - .015	1.599	.504	.010 - .020	1.607	1.332	.010 - .020	1.620	.530	.005 - .010
1.563	1.402	.020 - .040	1.572	1.255	.025 - .040	1.579	.570	.005 - .010	1.599	.505	.005 - .010	1.608	.811	.030 - .050	1.620	.585	.090 - .120
1.564	.375	.048 - .075	1.572	1.258	.007 - .016	1.579	1.232	.010 - .020	1.599	.626	.015 - .025	1.608	1.130	.100 - .125	1.620	.592	.012 - .020
1.564	.501	.025 - .040	1.572	1.452	.005 - .010	1.579	1.378	.030 - .040	1.599	.630	.005 - .010	1.608	1.444	.015 - .030	1.620	.644	.005 - .010
1.564	.511	.020 - .040	1.573	.504	.090 - .135	1.580	.785	.050 - .060	1.599	.689	.060 - .080	1.609	.411	.040 - .060	1.620	.647	.005 - .010
1.564	.700	.020 - .030	1.573	.641	.060 - .083	1.580	.795	.020 - .040	1.599	1.243	.015 - .035	1.609	.594	.040 - .060	1.620	.713	.005 - .010
1.564	.767	.010 - .020	1.573	.648	.010 - .020	1.580	.829	.090 - .105	1.599	1.437	.010 - .020	1.609	.633	.090 - .120	1.620	.759	.040 - .060
1.564	1.135	.050 - .075	1.573	.731	.040 - .062	1.580	.850	.050 - .060	1.600	.170	.050 - .062	1.609	.810	.025 - .040	1.620	.884	.005 - .010
1.564	1.189	.005 - .010	1.573	.812	.015 - .030	1.580	1.081	.010 - .020	1.600	.253	.005 - .010	1.609	.845	.012 - .020	1.620	.909	.005 - .010
1.564	1.309	.005 - .010	1.573	1.013	.005 - .010	1.580	1.310	.005 - .010	1.600	.281	.050 - .075	1.609	1.015	.016 - .025	1.620	.920	.010 - .020
1.564	1.393	.015 - .030	1.573	1.102	.060 - .080	1.580	1.472	.005 - .010	1.600	.310	.030 - .050	1.609	1.260	.050 - .075	1.620	.940	.100 - .125
1.564	1.434	.005 - .010	1.573	1.221	.030 - .050	1.581	.119	.005 - .010	1.600	.377	.005 - .015	1.609	1.275	.100 - .125	1.620	.963	.120 - .134
1.565	.122	.020 - .040	1.573	1.224	.135 - .156	1.582	.405	.040 - .060	1.600	.378	.005 - .015	1.609	1.400	.020 - .032	1.620	1.120	.110 - .135
1.565	.562	.030 - .048	1.573	1.264	.005 - .010	1.582	.450	.010 - .020	1.600	.415	.075 - .100	1.609	1.468	.048 - .062	1.620	1.122	.010 - .020
1.565	1.192	.050 - .075	1.573	1.374	.005 - .010	1.582	.530	.040 - .060	1.600	.441	.100 - .125	1.610	1.110	.015 - .030	1.620	1.140	.070 - .095
1.565	1.228	.030 - .050	1.574	.344	.105 - .125	1.582	.634	.010 - .020	1.600	.478	.090 - .120	1.610	1.148	.090 - .105	1.620	1.144	.050 - .070
1.565	1.270	.030 - .042	1.574	.410	.005 - .010	1.582	1.250	.083 - .105	1.600	.502	.005 - .010	1.610	1.200	.020 - .030	1.620	1.190	.060 - .090
1.565	1.369	.050 - .075	1.574	.434	.150 - .170	1.582	1.301	.005 - .010	1.600	.503	.006 - .012	1.610	1.259	.005 - .010	1.620	1.261	.015 - .030
1.566	.257	.070 - .090	1.574	.474	.005 - .010	1.583	1.089	.020 - .040	1.600	.504	.005 - .020	1.610	1.275	.100 - .125	1.620	1.311	.005 - .010
1.566	.502	.105 - .125	1.574	.475	.010 - .020	1.584	.834	.005 - .010	1.600	.505	.005 - .010	1.610	1.358	.050 - .070	1.620	1.383	.005 - .010
1.566	.980	.005 - .010	1.574	.502	.010 - .020	1.584	1.009	.040 - .060	1.600	.508	.125 - .135	1.610	1.404	.070 - .090	1.620	1.470	.020 - .030
1.566	1.330	.050 - .070	1.574	.631	.010 - .020	1.585	.140	.042 - .060	1.600	.510	.010 - .020	1.610	1.422	.020 - .035	1.621	.319	.025 - .036
1.566	1.347	.035 - .050	1.574	.828	.060 - .080	1.585	.375	.070 - .090	1.600	.625	.020 - .040	1.611	1.135	.005 - .010	1.621	.758	.050 - .075
1.566	1.416	.040 - .060	1.574	.984	.035 - .045	1.585	1.000	.032 - .050	1.600	.627	.005 - .020	1.611	1.410	.010 - .020	1.621	1.265	.005 - .010
1.567	.729	.030 - .048	1.574	1.071	.090 - .100	1.585	1.007	.010 - .030	1.600	.630	.010 - .020	1.612	1.135	.005 - .020	1.621	1.275	.020 - .040
1.567	.935	.050 - .075	1.574	1.103	.015 - .030	1.585	1.120	.005 - .015	1.600	.634	.105 - .125	1.612	1.280	.015 - .035	1.621	1.317	.025 - .042
1.567	.978	.007 - .015	1.574	1.130	.012 - .020	1.585	1.209	.025 - .040	1.600	.715	.105 - .120	1.612	1.316	.030 - .050	1.621	1.480	.025 - .035
1.567	.992	.010 - .020	1.574	1.188	.005 - .010	1.585	1.256	.025 - .040	1.600	.751	.005 - .010	1.612	1.499	.005 - .010	1.622	.341	.075 - .090
1.567	1.004	.105 - .125	1.574	1.221	.010 - .020	1.585	1.260	.015 - .030	1.600	.754	.010 - .020	1.612	1.510	.005 - .010	1.622	.407	.036 - .048
1.567	1.232	.030 - .050	1.574	1.320	.005 - .010	1.585	1.359	.050 - .062	1.600	.765	.050 - .060	1.613	.315	.025 - .040	1.622	.645	.100 - .125
1.567	1.248	.062 - .090	1.574	1.337	.020 - .030	1.586	.141	.060 - .090	1.600	.800	.005 - .010	1.613	.778	.020 - .040	1.622	.767	.120 - .156
1.567	1.260	.005 - .010	1.574	1.373	.062 - .090	1.586	1.265	.020 - .030	1.600	.827	.005 - .010	1.613	1.124	.090 - .100	1.622	.894	.090 - .120
1.567	1.311	.015 - .030	1.574	1.416	.005 - .010	1.586	1.290	.005 - .010	1.600	.874	.040 - .060	1.613	1.312	.015 - .030	1.622	.992	.025 - .040
1.567	1.346	.015 - .030	1.575	.355	.100 - .125	1.587	.469	.010 - .020	1.600	.878	.025 - .040	1.614	.145	.070 - .090	1.622	1.161	.040 - .050
1.567	1.380	.040 - .062	1.575	.393	.120 - .135	1.588	.700	.050 - .070	1.600	.885	.030 - .040	1.614	.329	.005 - .010	1.622	1.188	.050 - .100
1.568	.060	.040 - .050	1.575	.473	.005 - .010	1.588	1.006	.005 - .010	1.600	.925	.080 - .100	1.614	.694	.020 - .030	1.622	1.250	.020 - .040
1.568	.675	.005 - .010	1.575	.477	.005 - .010	1.588	1.118	.105 - .120	1.600	1.000	.005 - .010	1.614	.884	.040 - .060	1.622	1.261	.050 - .070
1.568	.692	.060 - .080	1.575	.502	.020 - .030	1.588	1.248	.020 - .035	1.600	1.070	.025 - .125	1.614	1.001	.005 - .010	1.622	1.312	.060 - .070
1.568	1.031	.110 - .130	1.575	.503	.005 - .010	1.589	.505	.025 - .040	1.600	1.101	.020 - .030	1.614	1.189	.025 - .040	1.622	1.357	.015 - .030
1.568	1.110	.050 - .070	1.575	.504	.100 - .125	1.590	.490	.090 - .125	1.600	1.125	.015 - .025	1.614	1.251	.005 - .010	1.622	1.364	.020 - .040
1.568	1.347	.005 - .010	1.575	.564	.010 - .020	1.590	.594	.100 - .125	1.600	1.128	.010 - .020	1.614	1.280	.020 - .040	1.623	.255	.080 - .104
1.568	1.420	.005 - .010	1.575	.591	.050 - .060	1.590	1.299	.020 - .035	1.600	1.175	.090 - .125	1.614	1.281	.010 - .020	1.623	.511	.090 - .105
1.569	.361	.040 - .060	1.575	.599	.005 - .010	1.590	1.345	.010 - .060	1.600	1.205	.010 - .020	1.614	1.381	.010 - .020	1.623	.597	.080 - .104
1.569	.504	.070 - .090	1.575	.630	.005 - .010	1.590	1.362	.060 - .080	1.600	1.220	.050 - .070	1.615	.316	.010 - .020	1.623	.625	.010 - .020
1.569	.589	.005 - .030	1.575	.643	.070 - .090	1.592	.407	.048 - .062	1.600	1.260	.030 - .050	1.615	.500	.050 - .070	1.623	.775	.005 - .010
1.569	.756	.105 - .125	1.575	.708	.105 - .125	1.592	1.171	.040 - .060	1.600	1.271	.110 - .130	1.615	.629	.090 - .100	1.623	.782	.062 - .080
1.569	.807	.090 - .105	1.575	.709	.015 - .030	1.592	1.222	.010 - .020	1.600	1.300	.050 - .060	1.615	.877	.050 - .075	1.623	.891	.005 - .010
1.569	.884	.105 - .125	1.575	.712	.040 - .060	1.593	.515	.010 - .020	1.600	1.310	.050 - .060	1.615	1.000	.050 - .075	1.623	1.000	.080 - .100
1.569	1.030	.025 - .040	1.575	.789	.025 - .040	1.593	.900	.060 - .080	1.600	1.312	.005 - .010	1.615	1.407	.020 - .040	1.623	1.032	.050 - .070
1.569	1.140	.070 - .090	1.575	.794	.005 - .010	1.593	1.034	.010 - .020	1.600	1.357	.005 - .015	1.615	1.417	.040 - .060	1.623	1.063	.050 - .080
1.569	1.187	.040 - .060	1.575	.827	.040 - .060	1.593	1.171	.100 - .125	1.600	1.375	.010 - .020	1.615	1.450	.005 - .010	1.623	1.064	.050 - .075
1.569	1.285	.010 - .020	1.575	.879	.005 - .010	1.593	1.172	.050 - .075	1.600	1.435	.010 - .020	1.615	1.456	.010 - .020	1.623	1.188	.060 - .090
1.569	1.320	.015 - .030	1.575	.953	.090 - .100	1.593	1.194	.062 - .080	1.600	1.439	.005 - .010	1.616	.752	.075 - .100	1.623	1.208	.025 - .040
1.569	1.331	.040 - .060	1.575	.985	.010 - .156	1.593	1.239	.010 - .020	1.601	.631	.005 - .010	1.616	1.382	.005 - .010	1.623	1.257	.110 - .125
1.570	.168	.008 - .012	1.575	1.025	.030 - .050	1.593	1.322	.060 - .080	1.601	.770	.005 - .010	1.616	1.390	.100 - .120	1.623	1.375	.005 - .015
1.570	.256	.080 - .100	1.575	1.063	.040 - .060	1.594	.657	.030 - .060	1.601	1.436	.005 - .010	1.617	.417	.005 - .010	1.623	1.410	.005 - .015
1.570	.346	.010 - .020	1.575	1.110	.005 - .010	1.594	.814	.015 - .025	1.601	1.460	.005 - .010	1.617	.498	.080 - .120	1.623	1.456	.010 - .020
1.570	.526	.080 - .100	1.575	1.178	.156 - .187	1.594	1.278	.080 - .100	1.602	.630	.100 - .125	1.617	.500	.010 - .020	1.623	1.481	.025 - .040
1.570	.720	.005 - .010	1.575	1.200	.040 - .050	1.594	1.303	.010 - .020	1.602	.772	.010 - .020	1.617	.626	.048 - .062	1.624	.311	.105 - .125
1.570	.813	.030 - .050	1.575	1.220	.005 - .015	1.594	1.416	.005 - .015	1.602	.973	.100 - .125	1.617	.751	.020 - .040	1.624	.440	.040 - .060
1.570	.870	.005 - .010	1.575	1.240	.030 - .050	1.594	1.451	.030 - .050	1.602	1.432	.005 - .010	1.617	.805	.040 - .060	1.624	.621	.050 - .070

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

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O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
1.624	.691	.050 - .075	1.625	1.000	.040 - .060	1.630	.243	.110 - .135	1.647	1.310	.050 - .070	1.654	1.272	.010 - .020	**1.675**	**.855**	**.005 - .010**
1.624	.695	.015 - .030	1.625	1.004	.040 - .060	1.630	.320	.100 - .125	**1.647**	**1.426**	**.005 - .010**	1.654	1.419	.020 - .040	1.675	1.285	.060 - .080
1.624	.875	.040 - .060	1.625	1.009	.040 - .060	1.630	.422	.140 - .160	1.648	.408	.062 - .080	**1.654**	**1.420**	**.005 - .010**	1.677	1.141	.030 - .050
1.624	.906	.100 - .125	**1.625**	**1.010**	**.005 - .010**	**1.630**	**.828**	**.005 - .010**	1.648	.543	.040 - .060	1.655	.203	.050 - .075	**1.677**	**1.198**	**.005 - .010**
1.624	.917	.030 - .050	1.625	1.016	.020 - .036	1.630	.890	.025 - .042	1.648	1.008	.010 - .020	**1.655**	**.473**	**.005 - .010**	1.677	1.499	.020 - .030
1.624	1.005	.040 - .060	1.625	1.032	.100 - .125	1.630	1.007	.083 - .120	1.648	1.194	.090 - .105	**1.655**	**.629**	**.005 - .010**	1.678	.717	.020 - .030
1.624	1.015	.050 - .100	1.625	1.062	.120 - .134	1.630	1.061	.042 - .062	1.648	1.270	.020 - .030	1.655	.633	.020 - .040	1.678	.756	.105 - .125
1.624	1.021	.060 - .090	**1.625**	**1.125**	**.005 - .125**	1.630	1.153	.025 - .040	**1.648**	**1.403**	**.005 - .010**	1.655	.651	.080 - .105	1.678	.769	.025 - .040
1.624	1.032	.020 - .040	1.625	1.125	.126 - .135	1.630	1.200	.125 - .156	1.648	1.515	.040 - .050	1.655	.771	.020 - .030	1.678	1.342	.080 - .100
1.624	1.083	.100 - .120	**1.625**	**1.127**	**.005 - .010**	**1.630**	**1.274**	**.005 - .010**	**1.649**	**.055**	**.005 - .010**	1.655	.905	.050 - .070	1.679	.897	.156 - .188
1.624	1.100	.050 - .070	1.625	1.130	.090 - .125	1.630	1.283	.020 - .040	**1.649**	**.505**	**.005 - .010**	1.655	1.063	.030 - .050	1.679	.951	.040 - .060
1.624	1.129	.062 - .080	1.625	1.134	.032 - .042	1.630	1.330	.040 - .060	1.649	.562	.010 - .020	1.655	1.125	.020 - .030	**1.679**	**1.050**	**.005 - .010**
1.624	1.135	.015 - .030	1.625	1.220	.050 - .075	1.630	1.489	.030 - .040	1.649	.621	.030 - .050	**1.655**	**1.179**	**.005 - .020**	1.679	1.182	.040 - .060
1.624	**1.141**	**.005 - .010**	1.625	1.250	.015 - .030	1.630	1.490	.040 - .060	**1.649**	**1.296**	**.005 - .010**	**1.655**	**1.412**	**.005 - .010**	1.679	1.365	.015 - .030
1.624	1.182	.020 - .040	1.625	1.255	.100 - .125	1.630	1.503	.015 - .030	1.649	1.366	.060 - .080	1.655	1.440	.030 - .050	**1.679**	**1.375**	**.005 - .010**
1.624	1.187	.100 - .125	1.625	1.256	.030 - .050	1.631	1.010	.010 - .020	1.649	1.449	.050 - .070	**1.655**	**1.541**	**.005 - .010**	1.679	1.389	.040 - .060
1.624	1.205	.050 - .070	1.625	1.281	.040 - .060	**1.631**	**1.378**	**.005 - .010**	1.649	1.499	.050 - .070	1.656	1.101	.120 - .156	1.680	.250	.010 - .035
1.624	1.218	.020 - .035	**1.625**	**1.287**	**.005 - .010**	1.631	1.438	.020 - .035	1.649	1.501	.010 - .020	1.656	1.223	.090 - .105	1.680	.500	.010 - .105
1.624	**1.260**	**.005 - .010**	1.625	1.296	.075 - .083	1.632	.513	.040 - .060	1.650	.051	.015 - .030	1.656	1.344	.050 - .070	1.680	.712	.040 - .060
1.624	1.268	.050 - .070	1.625	1.303	.025 - .042	**1.632**	**.565**	**.005 - .010**	1.650	.132	.010 - .020	1.656	1.390	.030 - .050	1.680	.768	.040 - .060
1.624	**1.329**	**.005 - .020**	**1.625**	**1.305**	**.005 - .010**	1.632	1.202	.030 - .050	1.650	.377	.030 - .050	1.656	1.437	.040 - .060	1.680	.797	.042 - .062
1.624	1.357	.010 - .025	1.625	1.328	.060 - .080	1.633	.501	.015 - .030	1.650	.411	.015 - .025	**1.656**	**1.581**	**.005 - .010**	1.680	.813	.040 - .060
1.624	**1.376**	**.005 - .010**	1.625	1.339	.050 - .075	**1.633**	**.828**	**.005 - .010**	1.650	.424	.100 - .125	**1.657**	**.345**	**.005 - .010**	1.680	.856	.040 - .060
1.624	**1.378**	**.005 - .010**	1.625	1.375	.020 - .070	1.634	1.202	.030 - .050	1.650	.440	.010 - .020	**1.657**	**.352**	**.005 - .010**	1.680	.895	.040 - .060
1.624	1.406	.090 - .110	1.625	1.382	.090 - .105	1.635	.787	.020 - .030	**1.650**	**.441**	**.005 - .010**	**1.657**	**1.126**	**.005 - .010**	1.680	.927	.040 - .060
1.624	1.442	.010 - .020	1.625	1.396	.080 - .100	1.635	.998	.050 - .075	**1.650**	**.500**	**.005 - .010**	1.657	1.135	.090 - .110	1.680	.965	.040 - .060
1.625	.125	.020 - .040	**1.625**	**1.398**	**.005 - .025**	1.635	1.162	.050 - .070	**1.650**	**.503**	**.005 - .060**	1.657	1.182	.100 - .120	1.680	1.102	.030 - .050
1.625	.137	.040 - .060	1.625	1.406	.070 - .090	1.635	1.326	.020 - .040	**1.650**	**.563**	**.005 - .020**	1.657	1.212	.025 - .040	1.680	1.195	.090 - .120
1.625	.172	.040 - .060	1.625	1.437	.060 - .080	1.635	1.432	.050 - .070	1.650	.620	.015 - .125	1.658	1.182	.010 - .015	1.680	1.249	.040 - .060
1.625	.199	.050 - .075	1.626	.251	.050 - .070	1.636	.411	.105 - .120	**1.650**	**.625**	**.005 - .020**	**1.658**	**1.229**	**.005 - .010**	1.680	1.372	.010 - .025
1.625	.231	.105 - .125	1.626	.504	.010 - .020	1.636	1.250	.040 - .060	1.650	.626	.020 - .030	1.659	.754	.025 - .040	**1.680**	**1.430**	**.005 - .010**
1.625	**.266**	**.005 - .010**	1.626	.509	.105 - .135	1.636	1.377	.062 - .090	**1.650**	**.629**	**.005 - .010**	1.659	1.518	.050 - .062	1.680	1.450	.032 - .060
1.625	**.330**	**.005 - .010**	1.626	.516	.050 - .060	1.637	1.314	.050 - .062	1.650	.630	.010 - .020	1.660	.375	.050 - .070	**1.681**	**.196**	**.005 - .010**
1.625	.344	.060 - .080	**1.626**	**.562**	**.005 - .010**	1.638	.554	.010 - .020	1.650	.634	.020 - .040	1.660	.634	.010 - .020	1.681	.894	.050 - .070
1.625	**.362**	**.005 - .010**	1.626	.757	.010 - .015	1.638	1.020	.030 - .050	1.650	.686	.062 - .080	1.660	.873	.070 - .090	1.681	1.034	.105 - .125
1.625	.375	.032 - .105	1.626	.780	.010 - .020	**1.638**	**1.262**	**.005 - .050**	1.650	.689	.156 - .187	1.660	.964	.010 - .020	1.681	1.193	.020 - .040
1.625	.395	.105 - .125	1.626	1.007	.025 - .040	1.638	1.375	.105 - .125	1.650	.750	.156 - .190	**1.660**	**1.188**	**.005 - .010**	1.681	1.300	.040 - .060
1.625	.406	.050 - .070	1.626	1.125	.040 - .060	**1.639**	**.677**	**.005 - .010**	1.650	1.010	.090 - .105	1.660	1.250	.015 - .030	**1.681**	**1.372**	**.005 - .020**
1.625	.412	.062 - .090	**1.626**	**1.187**	**.005 - .040**	1.639	.737	.060 - .080	1.650	1.094	.040 - .060	1.660	1.375	.090 - .120	**1.681**	**1.400**	**.005 - .010**
1.625	.430	.100 - .125	1.626	1.321	.050 - .075	1.639	.990	.010 - .020	1.650	1.181	.025 - .060	1.660	1.389	.090 - .105	1.682	1.016	.060 - .080
1.625	.465	.015 - .030	1.626	1.377	.025 - .040	1.639	1.310	.080 - .100	**1.650**	**1.250**	**.005 - .030**	1.660	1.390	.110 - .130	1.683	.819	.010 - .020
1.625	.475	.105 - .135	**1.626**	**1.402**	**.005 - .010**	**1.639**	**1.376**	**.005 - .010**	1.650	1.252	.105 - .156	1.661	1.141	.080 - .100	1.683	.918	.010 - .020
1.625	**.498**	**.005 - .010**	1.627	.173	.010 - .020	**1.640**	**.645**	**.005 - .010**	1.650	1.253	.020 - .030	1.661	1.194	.025 - .042	1.683	1.006	.050 - .075
1.625	.500	.025 - .080	1.627	.314	.015 - .030	**1.640**	**.750**	**.005 - .010**	**1.650**	**1.262**	**.005 - .010**	1.661	1.359	.105 - .125	1.683	1.298	.090 - .105
1.625	**.504**	**.005 - .010**	1.627	.380	.040 - .060	**1.640**	**1.000**	**.005 - .010**	1.650	1.321	.100 - .125	**1.661**	**1.381**	**.005 - .010**	**1.684**	**1.188**	**.005 - .010**
1.625	**.508**	**.005 - .042**	1.627	.385	.090 - .125	1.640	1.082	.156 - .187	**1.650**	**1.328**	**.005 - .010**	1.662	1.375	.040 - .060	1.684	1.389	.025 - .040
1.625	**.514**	**.005 - .010**	1.627	.555	.156 - .187	1.640	1.373	.010 - .035	1.650	1.399	.050 - .070	1.662	1.410	.040 - .125	**1.684**	**1.442**	**.005 - .010**
1.625	.531	.100 - .125	1.627	.627	.062 - .080	**1.640**	**1.440**	**.005 - .010**	1.650	1.413	.015 - .025	**1.663**	**.340**	**.005 - .010**	1.684	1.525	.015 - .030
1.625	.535	.010 - .030	1.627	.693	.105 - .135	1.640	1.442	.050 - .070	1.651	.276	.030 - .040	1.663	1.291	.020 - .040	1.684	1.562	.040 - .050
1.625	.540	.010 - .060	1.627	.816	.025 - .042	1.641	1.044	.036 - .060	**1.651**	**.690**	**.005 - .010**	1.663	1.298	.060 - .090	1.685	.340	.025 - .042
1.625	.542	.090 - .120	1.627	.876	.015 - .030	1.642	.682	.105 - .135	1.651	.818	.040 - .060	1.664	1.471	.015 - .030	1.685	.425	.050 - .083
1.625	.563	.025 - .042	1.627	1.006	.105 - .125	**1.642**	**1.039**	**.005 - .010**	**1.651**	**1.251**	**.005 - .010**	1.665	1.256	.050 - .070	1.685	.495	.032 - .060
1.625	.564	.050 - .075	1.627	1.125	.080 - .104	1.642	1.330	.050 - .080	1.651	1.300	.015 - .025	1.665	1.437	.070 - .090	1.685	.782	.020 - .040
1.625	.565	.010 - .125	**1.627**	**1.130**	**.005 - .010**	1.643	.678	.080 - .104	1.651	1.413	.020 - .030	1.665	1.471	.010 - .016	1.685	1.065	.032 - .060
1.625	.566	.100 - .125	1.627	1.181	.080 - .100	1.643	.755	.050 - .080	**1.652**	**.562**	**.005 - .020**	**1.665**	**1.581**	**.005 - .010**	1.685	1.070	.040 - .050
1.625	.571	.015 - .030	**1.627**	**1.250**	**.005 - .010**	1.644	.911	.025 - .040	1.652	.786	.070 - .090	**1.666**	**.895**	**.005 - .008**	1.685	1.190	.010 - .020
1.625	.614	.015 - .030	**1.627**	**1.260**	**.005 - .010**	1.644	.914	.030 - .050	**1.653**	**.473**	**.005 - .010**	**1.667**	**1.400**	**.005 - .010**	1.685	1.269	.062 - .080
1.625	.625	.156 - .190	**1.627**	**1.267**	**.005 - .030**	1.644	.990	.040 - .060	1.653	.474	.020 - .030	1.668	1.010	.042 - .060	1.685	1.300	.050 - .060
1.625	.633	.060 - .090	**1.627**	**1.278**	**.005 - .010**	1.644	1.039	.015 - .030	**1.653**	**.475**	**.005 - .010**	**1.668**	**1.144**	**.005 - .010**	1.685	1.360	.020 - .030
1.625	.634	.100 - .125	1.627	1.302	.010 - .020	1.644	1.310	.070 - .090	1.653	.492	.090 - .125	**1.668**	**1.264**	**.005 - .010**	1.685	1.567	.032 - .050
1.625	**.640**	**.005 - .010**	1.627	1.320	.025 - .040	1.644	1.328	.075 - .090	**1.653**	**.502**	**.005 - .010**	**1.670**	**.635**	**.005 - .010**	1.685	1.568	.040 - .060
1.625	.656	.010 - .020	1.627	1.378	.050 - .070	1.644	1.388	.090 - .110	**1.653**	**.631**	**.005 - .010**	1.670	1.009	.100 - .135	1.686	.317	.020 - .040
1.625	.657	.035 - .050	1.628	.129	.050 - .070	1.644	1.405	.040 - .060	1.653	.633	.020 - .040	1.670	1.060	.020 - .040	1.686	.345	.050 - .070
1.625	.688	.100 - .120	1.628	.323	.080 - .105	1.644	1.458	.020 - .040	1.653	1.273	.050 - .060	1.670	1.131	.070 - .080	**1.686**	**.350**	**.005 - .010**
1.625	.754	.050 - .075	1.628	.420	.156 - .187	1.644	1.528	.030 - .050	1.653	1.274	.050 - .070	1.670	1.255	.025 - .042	**1.686**	**1.070**	**.005 - .012**
1.625	.755	.090 - .105	1.628	.508	.090 - .120	1.645	.625	.015 - .050	1.653	1.326	.070 - .090	**1.670**	**1.314**	**.005 - .010**	1.686	1.190	.015 - .030
1.625	.760	.100 - .125	1.628	.810	.040 - .060	1.645	.956	.105 - .125	1.653	1.378	.090 - .105	1.670	1.380	.030 - .050	1.686	1.270	.015 - .030
1.625	.765	.090 - .120	**1.628**	**1.137**	**.005 - .010**	**1.645**	**1.073**	**.005 - .010**	1.653	1.416	.070 - .090	**1.670**	**1.417**	**.005 - .010**	1.686	1.383	.016 - .025
1.625	.770	.050 - .075	1.628	1.358	.030 - .050	1.645	1.250	.140 - .160	1.653	1.481	.040 - .060	1.670	1.420	.020 - .040	**1.686**	**1.560**	**.005 - .010**
1.625	**.772**	**.005 - .010**	**1.628**	**1.386**	**.005 - .010**	1.645	1.328	.060 - .080	1.653	1.486	.030 - .050	**1.671**	**.922**	**.005 - .010**	1.687	.255	.080 - .104
1.625	.781	.100 - .135	1.628	1.387	.010 - .040	1.646	1.236	.030 - .050	1.654	.128	.010 - .020	1.671	1.152	.030 - .050	1.687	.375	.030 - .050
1.625	.791	.030 - .050	1.629	.240	.015 - .030	1.646	1.411	.015 - .030	1.654	.475	.010 - .020	1.671	1.200	.075 - .105	1.687	.406	.105 - .135
1.625	.797	.080 - .100	1.629	.284	.015 - .030	1.646	1.427	.015 - .030	1.654	.632	.010 - .020	1.672	.874	.105 - .125	1.687	.484	.060 - .080
1.625	.816	.090 - .120	1.629	.530	.100 - .125	1.646	1.435	.070 - .090	1.654	.639	.090 - .105	**1.672**	**1.198**	**.005 - .010**	**1.687**	**.562**	**.005 - .020**
1.625	.865	.100 - .125	1.629	.592	.020 - .030	1.646	1.460	.015 - .025	**1.654**	**.691**	**.005 - .010**	**1.672**	**1.515**	**.005 - .010**	1.687	.634	.030 - .050
1.625	.875	.090 - .125	1.629	1.125	.015 - .025	**1.646**	**1.525**	**.005 - .010**	**1.654**	**.820**	**.005 - .010**	**1.673**	**.714**	**.005 - .010**	1.687	.756	.030 - .050
1.625	.882	.060 - .070	**1.629**	**1.319**	**.005 - .010**	1.647	.619	.010 - .020	**1.654**	**.834**	**.005 - .050**	1.674	1.150	.040 - .060	**1.687**	**.893**	**.005 - .010**
1.625	**.932**	**.005 - .012**	1.629	1.331	.025 - .040	1.647	.621	.025 - .040	1.654	.886	.070 - .090	**1.675**	**.250**	**.005 - .010**	1.687	1.226	.030 - .050
1.625	.937	.070 - .090	1.629	1.388	.020 - .030	**1.647**	**.722**	**.005 - .010**	1.654	1.050	.080 - .100	1.675	.771	.060 - .075	1.687	1.312	.030 - .040
1.625	**.999**	**.005 - .032**	1.630	.231	.050 - .070	1.647	1.053	.010 - .020	1.654	1.265	.050 - .070	1.675	.800	.042 - .075	1.687	1.520	.060 - .070

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For a size NOT listed, send specs or phone for quote — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
1.687	1.534	.005 - .010	1.700	1.451	.005 - .010	1.720	1.400	.015 - .030	1.737	.401	.005 - .010	1.746	1.046	.075 - .090	1.749	.141	.060 - .080
1.688	.635	.015 - .030	1.700	1.504	.030 - .050	1.720	1.464	.010 - .020	1.737	1.501	.040 - .060	1.746	1.066	.005 - .010	1.749	.211	.105 - .125
1.688	.686	.100 - .125	1.700	1.515	.012 - .020	1.721	1.306	.050 - .075	1.737	1.502	.005 - .010	1.746	1.133	.040 - .060	1.749	.270	.075 - .090
1.688	1.090	.070 - .090	1.700	1.542	.010 - .020	1.721	1.408	.005 - .010	1.738	.771	.015 - .025	1.746	1.141	.005 - .010	1.749	.281	.050 - .075
1.688	1.097	.030 - .050	1.701	1.266	.015 - .030	1.721	1.514	.020 - .030	1.738	.882	.090 - .105	1.746	1.169	.060 - .080	1.749	.335	.005 - .010
1.688	1.262	.050 - .075	1.701	1.385	.030 - .050	1.722	.417	.005 - .010	1.738	.991	.010 - .020	1.746	1.190	.090 - .125	1.749	.375	.005 - .010
1.688	1.432	.030 - .050	1.701	1.450	.040 - .060	1.722	.752	.045 - .060	1.738	1.249	.005 - .010	1.746	1.254	.100 - .125	1.749	.381	.005 - .010
1.688	1.507	.040 - .060	1.702	.208	.040 - .060	1.722	1.515	.060 - .080	1.738	1.257	.005 - .020	1.746	1.320	.005 - .010	1.749	.389	.156 - .187
1.689	.517	.075 - .105	1.702	.820	.080 - .100	1.723	.265	.050 - .083	1.738	1.260	.070 - .090	1.746	1.448	.050 - .075	1.749	.502	.015 - .025
1.689	.940	.090 - .125	1.702	.825	.156 - .190	1.723	.354	.060 - .080	1.738	1.548	.005 - .015	1.746	1.535	.060 - .080	1.749	.534	.005 - .010
1.689	1.230	.100 - .125	1.702	1.000	.010 - .020	1.723	.686	.110 - .130	1.739	1.114	.030 - .050	1.747	.282	.025 - .040	1.749	.546	.156 - .187
1.689	1.376	.020 - .030	1.702	1.120	.050 - .070	1.723	1.415	.020 - .040	1.739	1.302	.020 - .040	1.747	.286	.005 - .010	1.749	.701	.050 - .070
1.690	.125	.020 - .040	1.703	.114	.005 - .015	1.723	1.513	.070 - .090	1.739	1.446	.040 - .060	1.747	.314	.100 - .125	1.749	.781	.040 - .060
1.690	.410	.105 - .125	1.703	1.320	.050 - .075	1.724	.375	.040 - .060	1.740	.362	.050 - .070	1.747	.333	.090 - .110	1.749	.783	.005 - .010
1.690	.711	.050 - .070	1.703	1.386	.005 - .010	1.724	1.195	.060 - .080	1.740	.501	.025 - .040	1.747	.502	.032 - .048	1.749	.794	.070 - .090
1.690	.890	.080 - .104	1.704	.114	.005 - .010	1.725	1.350	.040 - .062	1.740	.503	.070 - .090	1.747	.515	.005 - .010	1.749	.894	.005 - .010
1.690	1.163	.040 - .050	1.704	.169	.010 - .025	1.725	1.410	.005 - .010	1.740	.765	.032 - .060	1.747	.531	.015 - .030	1.749	.920	.005 - .015
1.690	1.187	.020 - .040	1.705	1.250	.005 - .012	1.726	1.134	.050 - .070	1.740	.878	.100 - .125	1.747	.543	.100 - .125	1.749	.937	.020 - .040
1.690	1.303	.030 - .050	1.705	1.418	.015 - .030	1.726	1.385	.030 - .050	1.740	1.008	.050 - .060	1.747	.565	.050 - .075	1.749	1.000	.025 - .040
1.690	1.378	.030 - .060	1.706	.439	.040 - .060	1.727	1.623	.020 - .035	1.740	1.058	.060 - .080	1.747	.620	.050 - .075	1.749	1.001	.050 - .070
1.690	1.559	.005 - .010	1.706	.776	.070 - .090	1.728	.878	.100 - .125	1.740	1.199	.025 - .040	1.747	.626	.032 - .060	1.749	1.005	.125 - .135
1.691	.772	.010 - .020	1.707	.780	.005 - .010	1.729	.870	.020 - .040	1.740	1.236	.105 - .125	1.747	.701	.125 - .134	1.749	1.015	.015 - .030
1.691	1.083	.005 - .010	1.707	1.002	.105 - .135	1.730	.632	.005 - .010	1.740	1.244	.005 - .010	1.747	.815	.010 - .020	1.749	1.020	.105 - .135
1.691	1.300	.050 - .060	1.708	.381	.060 - .080	1.730	.748	.005 - .010	1.740	1.260	.010 - .060	1.747	.885	.100 - .125	1.749	1.031	.105 - .135
1.691	1.477	.005 - .010	1.708	1.247	.005 - .020	1.730	1.000	.080 - .105	1.740	1.261	.006 - .012	1.747	.892	.075 - .105	1.749	1.038	.010 - .020
1.691	1.563	.005 - .010	1.708	1.311	.030 - .050	1.730	1.300	.060 - .070	1.740	1.313	.062 - .093	1.747	.906	.120 - .140	1.749	1.074	.090 - .105
1.692	.885	.080 - .100	1.708	1.312	.050 - .075	1.730	1.330	.010 - .050	1.740	1.530	.005 - .010	1.747	.908	.010 - .020	1.749	1.080	.050 - .060
1.693	.803	.040 - .060	1.709	.391	.005 - .015	1.730	1.390	.040 - .060	1.740	1.531	.015 - .030	1.747	.918	.070 - .090	1.749	1.124	.100 - .125
1.693	1.122	.010 - .020	1.709	.761	.156 - .187	1.730	1.478	.010 - .020	1.740	1.535	.040 - .060	1.747	1.006	.110 - .130	1.749	1.125	.010 - .020
1.694	.723	.005 - .010	1.710	.760	.100 - .125	1.730	1.498	.040 - .060	1.740	1.609	.020 - .040	1.747	1.030	.020 - .040	1.749	1.140	.030 - .050
1.694	.984	.005 - .010	1.710	1.093	.015 - .035	1.730	1.541	.015 - .030	1.741	1.010	.025 - .040	1.747	1.253	.005 - .010	1.749	1.155	.080 - .100
1.694	1.260	.090 - .110	1.710	1.345	.005 - .010	1.731	.476	.005 - .010	1.741	1.239	.030 - .050	1.747	1.255	.005 - .025	1.749	1.187	.016 - .025
1.694	1.499	.025 - .040	1.711	1.143	.156 - .187	1.731	.748	.015 - .030	1.742	.198	.050 - .075	1.747	1.309	.050 - .075	1.749	1.250	.125 - .135
1.694	1.500	.005 - .015	1.711	1.300	.050 - .070	1.731	.828	.090 - .105	1.742	1.020	.020 - .060	1.747	1.315	.060 - .070	1.749	1.251	.030 - .040
1.695	.203	.040 - .060	1.712	.905	.025 - .040	1.731	.854	.070 - .090	1.742	1.459	.010 - .020	1.747	1.340	.005 - .010	1.749	1.255	.040 - .060
1.695	.314	.040 - .060	1.712	1.617	.005 - .010	1.731	.881	.040 - .060	1.742	1.512	.060 - .070	1.747	1.376	.020 - .030	1.749	1.256	.005 - .010
1.695	.998	.005 - .010	1.713	1.500	.050 - .070	1.731	1.135	.005 - .010	1.742	1.555	.050 - .070	1.747	1.394	.042 - .062	1.749	1.293	.156 - .180
1.695	1.010	.100 - .125	1.714	1.408	.050 - .062	1.731	1.195	.025 - .040	1.743	.315	.010 - .032	1.747	1.395	.005 - .010	1.749	1.494	.005 - .010
1.696	1.002	.060 - .083	1.714	1.409	.050 - .070	1.731	1.255	.040 - .050	1.743	.505	.015 - .020	1.747	1.449	.005 - .010	1.749	1.499	.005 - .010
1.696	1.200	.020 - .040	1.714	1.513	.025 - .042	1.731	1.497	.030 - .050	1.743	.511	.005 - .010	1.747	1.451	.015 - .025	1.749	1.510	.010 - .020
1.696	1.397	.005 - .010	1.714	1.541	.040 - .060	1.731	1.585	.010 - .020	1.743	.532	.100 - .125	1.747	1.499	.015 - .030	1.749	1.568	.025 - .040
1.696	1.452	.080 - .105	1.715	.185	.060 - .080	1.732	.186	.010 - .020	1.743	1.220	.020 - .030	1.748	.116	.015 - .030			
1.697	.453	.100 - .125	1.715	.188	.020 - .030	1.732	.473	.005 - .010	1.743	1.225	.015 - .030	1.748	.256	.010 - .020			
1.697	.861	.090 - .125	1.715	.950	.050 - .080	1.732	.545	.005 - .010	1.743	1.339	.090 - .105	1.748	.266	.042 - .060			
1.697	1.308	.105 - .125	1.715	1.033	.060 - .080	1.732	.630	.005 - .010	1.743	1.503	.020 - .030	1.748	.267	.030 - .042			
1.697	1.328	.005 - .010	1.715	1.513	.015 - .030	1.732	.631	.010 - .020	1.743	1.536	.040 - .060	1.748	.278	.005 - .010			
1.697	1.338	.010 - .020	1.715	1.551	.005 - .010	1.732	.695	.007 - .012	1.744	1.254	.020 - .040	1.748	.281	.048 - .062		**1.750**	
1.698	.131	.015 - .030	1.716	.405	.090 - .120	1.732	.748	.005 - .010	1.744	1.398	.020 - .040	1.748	.315	.062 - .083			
1.698	.453	.100 - .125	1.716	.720	.050 - .075	1.732	.748	.015 - .030	1.744	1.447	.030 - .050	1.748	.395	.010 - .025			
1.698	.502	.015 - .030	1.716	.953	.050 - .070	1.732	.750	.070 - .080	1.744	1.503	.020 - .040	1.748	.495	.020 - .030			
1.698	.626	.010 - .020	1.716	1.312	.020 - .040	1.732	1.257	.040 - .060	1.744	1.505	.030 - .105	1.748	.562	.100 - .125	1.750	.127	.005 - .010
1.698	.715	.090 - .105	1.717	.410	.075 - .090	1.732	1.338	.040 - .060	1.744	1.567	.005 - .010	1.748	.627	.060 - .080	1.750	.150	.040 - .060
1.698	.753	.060 - .090	1.717	.758	.040 - .060	1.732	1.387	.025 - .040	1.745	.125	.032 - .060	1.748	.752	.005 - .030	1.750	.155	.040 - .080
1.698	.760	.080 - .100	1.717	1.186	.015 - .030	1.732	1.420	.020 - .040	1.745	.162	.015 - .030	1.748	.756	.005 - .050	1.750	.194	.075 - .100
1.698	1.449	.005 - .010	1.717	1.619	.015 - .030	1.732	1.429	.010 - .020	1.745	.195	.005 - .012	1.748	.759	.020 - .030	1.750	.195	.030 - .050
1.699	.625	.015 - .030	1.718	.360	.050 - .070	1.732	1.630	.010 - .020	1.745	.315	.060 - .080	1.748	.765	.050 - .070	1.750	.201	.080 - .100
1.699	.754	.010 - .020	1.718	.630	.015 - .030	1.733	.634	.010 - .020	1.745	.503	.100 - .125	1.748	.767	.100 - .125	1.750	.204	.105 - .125
1.699	.949	.050 - .060	1.718	.656	.100 - .125	1.733	1.257	.030 - .050	1.745	.505	.105 - .125	1.748	.770	.010 - .020	1.750	.220	.050 - .070
1.699	1.404	.005 - .010	1.718	.705	.135 - .156	1.733	1.357	.040 - .050	1.745	.640	.020 - .030	1.748	.781	.050 - .075	1.750	.238	.060 - .090
1.699	1.503	.015 - .030	1.718	1.130	.060 - .083	1.733	1.506	.050 - .075	1.745	.647	.005 - .010	1.748	.785	.100 - .125	1.750	.250	.050 - .075
1.700	.125	.100 - .125	1.718	1.187	.100 - .125	1.733	1.575	.010 - .020	1.745	.695	.100 - .125	1.748	.875	.020 - .040	1.750	.251	.050 - .075
1.700	.204	.100 - .125	1.718	1.402	.005 - .010	1.734	.253	.105 - .125	1.745	.885	.050 - .070	1.748	.878	.005 - .010	1.750	.252	.025 - .125
1.700	.206	.100 - .120	1.719	.481	.090 - .110	1.734	.924	.005 - .010	1.745	1.073	.010 - .020	1.748	.906	.050 - .070	1.750	.256	.080 - .104
1.700	.364	.100 - .125	1.719	1.063	.030 - .050	1.734	1.382	.070 - .090	1.745	1.101	.015 - .030	1.748	1.019	.060 - .083	1.750	.262	.025 - .042
1.700	.502	.005 - .010	1.719	1.133	.100 - .125	1.734	1.399	.005 - .010	1.745	1.109	.010 - .020	1.748	1.029	.005 - .010	1.750	.270	.120 - .135
1.700	.505	.010 - .020	1.719	1.275	.070 - .090	1.734	1.451	.005 - .010	1.745	1.165	.005 - .010	1.748	1.060	.010 - .020	1.750	.272	.010 - .020
1.700	.579	.090 - .100	1.719	1.378	.050 - .070	1.734	1.536	.015 - .030	1.745	1.196	.020 - .040	1.748	1.072	.005 - .010	1.750	.342	.050 - .080
1.700	.585	.135 - .156	1.719	1.400	.020 - .030	1.735	.113	.030 - .050	1.745	1.370	.025 - .040	1.748	1.136	.075 - .090	1.750	.343	.100 - .125
1.700	.860	.090 - .105	1.719	1.555	.005 - .010	1.735	.378	.030 - .050	1.745	1.375	.005 - .010	1.748	1.161	.040 - .060	1.750	.365	.105 - .125
1.700	.938	.135 - .156	1.719	1.592	.050 - .070	1.735	.896	.080 - .105	1.745	1.448	.020 - .030	1.748	1.264	.015 - .030	1.750	.375	.100 - .125
1.700	.990	.030 - .040	1.720	.217	.040 - .070	1.735	1.259	.125 - .156	1.746	.373	.060 - .080	1.748	1.293	.070 - .090	1.750	.392	.100 - .125
1.700	1.000	.060 - .083	1.720	.250	.042 - .062	1.735	1.265	.015 - .030	1.746	.443	.005 - .010	1.748	1.299	.005 - .010	1.750	.395	.100 - .125
1.700	1.190	.020 - .080	1.720	.257	.070 - .080	1.735	1.399	.005 - .010	1.746	.497	.025 - .040	1.748	1.316	.070 - .090	1.750	.396	.090 - .120
1.700	1.192	.100 - .125	1.720	.265	.052 - .083	1.735	1.438	.075 - .090	1.746	.595	.005 - .010	1.748	1.320	.040 - .060	1.750	.398	.005 - .010
1.700	1.223	.050 - .075	1.720	.503	.005 - .010	1.735	1.513	.093 - .105	1.746	.781	.100 - .125	1.748	1.374	.100 - .125	1.750	.401	.090 - .105
1.700	1.250	.005 - .012	1.720	.655	.025 - .040	1.735	1.565	.015 - .030	1.746	.906	.100 - .125	1.748	1.380	.020 - .040	1.750	.406	.070 - .090
1.700	1.340	.005 - .010	1.720	.718	.005 - .010	1.736	.475	.005 - .010	1.746	1.001	.040 - .062	1.748	1.499	.015 - .030	1.750	.407	.156 - .187
1.700	1.380	.005 - .010	1.720	.760	.105 - .125	1.736	1.149	.030 - .060				1.748	1.511	.062 - .083	1.750	.410	.100 - .125
1.700	1.385	.040 - .060	1.720	1.000	.060 - .083	1.736	1.253	.060 - .080				1.748	1.650	.005 - .010	1.750	.436	.150 - .187
1.700	1.389	.005 - .010	1.720	1.225	.008 - .015	1.737	.350	.015 - .030				1.749	.100	.025 - .040	1.750	.437	.060 - .120

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

O.D.	I.D.	From	To	O.D.	I.D.	From	To	O.D.	I.D.	From	To	O.D.	I.D.	From	To	O.D.	I.D.	From	To	O.D.	I.D.	From	To
1.750	.438	.015	.030	1.750	1.122	.110	.130	1.752	.262	.100	.120	1.769	.406	.080	.104	1.788	1.605	.020	.040	1.804	1.270	.010	.020
1.750	**.440**	**.005**	**.020**	1.750	1.124	.100	.125	1.752	.375	.030	.050	1.769	.641	.090	.120	1.789	.761	.080	.125	**1.804**	**1.366**	**.005**	**.010**
1.750	.471	.170	.190	1.750	1.126	.010	.083	1.752	.381	.040	.060	1.769	.838	.040	.060	1.790	.620	.015	.125	**1.805**	**.338**	**.005**	**.010**
1.750	.504	.010	.060	1.750	1.130	.105	.125	1.752	.485	.156	.190	1.769	1.299	.050	.070	1.790	.820	.015	.125	1.805	.375	.090	.105
1.750	**.505**	**.005**	**.060**	**1.750**	**1.135**	**.005**	**.010**	**1.752**	**.531**	**.005**	**.010**	1.769	1.301	.040	.060	**1.790**	**1.063**	**.005**	**.010**	1.805	.550	.025	.040
1.750	.508	.040	.060	1.750	1.139	.015	.060	1.752	.563	.110	.130	1.769	1.391	.025	.040	1.790	1.530	.010	.020	1.805	1.117	.020	.040
1.750	.510	.048	.134	1.750	1.150	.090	.120	1.752	.640	.010	.020	1.770	.781	.050	.070	**1.790**	**1.679**	**.005**	**.010**	1.805	1.375	.030	.060
1.750	.515	.120	.135	1.750	1.170	.030	.048	1.752	.800	.025	.040	1.770	.789	.040	.060	1.791	1.276	.010	.020	**1.805**	**1.398**	**.005**	**.010**
1.750	**.516**	**.005**	**.010**	1.750	1.187	.030	.080	1.752	.910	.015	.030	1.770	.810	.030	.040	1.791	1.280	.040	.060	1.805	1.565	.010	.020
1.750	.531	.015	.125	1.750	1.189	.100	.125	1.752	1.000	.030	.060	1.770	.827	.030	.048	1.791	1.605	.030	.050	1.805	1.584	.015	.030
1.750	.532	.100	.125	**1.750**	**1.190**	**.005**	**.010**	1.752	1.062	.100	.125	1.770	1.065	.050	.070	1.792	1.605	.010	.020	1.805	1.591	.070	.090
1.750	.534	.105	.125	**1.750**	**1.193**	**.005**	**.010**	1.752	1.064	.110	.130	1.770	1.181	.010	.020	**1.793**	**.638**	**.005**	**.010**	**1.805**	**1.718**	**.005**	**.010**
1.750	.535	.105	.135	1.750	1.226	.020	.040	1.752	1.450	.080	.100	1.770	1.250	.040	.060	1.793	.999	.010	.020	1.806	.206	.040	.050
1.750	.543	.040	.060	1.750	1.250	.010	.030	1.752	1.453	.083	.120	1.770	1.542	.010	.020	1.793	1.499	.020	.030	**1.806**	**.350**	**.005**	**.010**
1.750	.551	.060	.080	1.750	1.252	.010	.020	1.752	1.500	.080	.090	1.770	1.565	.050	.070	1.794	.387	.010	.020	1.806	1.344	.015	.030
1.750	**.562**	**.005**	**.125**	**1.750**	**1.253**	**.005**	**.010**	1.752	1.507	.050	.070	1.770	1.629	.015	.025	1.794	1.588	.010	.020	1.806	1.655	.030	.050
1.750	.562	.126	.187	1.750	1.254	.020	.082	1.752	1.513	.042	.062	1.771	.257	.050	.070	1.795	.276	.100	.125	**1.806**	**1.660**	**.005**	**.010**
1.750	.564	.010	.020	1.750	1.255	.010	.020	1.752	1.528	.070	.090	1.771	.433	.105	.125	1.795	.510	.105	.125	1.806	1.690	.030	.050
1.750	.566	.105	.125	1.750	1.256	.090	.105	1.753	.343	.080	.104	1.771	.812	.020	.030	**1.795**	**1.001**	**.005**	**.010**	1.807	.166	.035	.050
1.750	.590	.090	.110	1.750	1.259	.080	.105	1.753	.387	.040	.080	1.771	1.332	.090	.105	1.795	1.625	.025	.040	1.807	.461	.050	.075
1.750	.623	.020	.075	**1.750**	**1.260**	**.005**	**.042**	1.753	.751	.080	.100	1.771	1.378	.010	.020	1.796	1.688	.015	.030	1.807	1.007	.050	.070
1.750	.624	.100	.125	1.750	1.300	.040	.060	1.753	.752	.105	.125	**1.771**	**1.397**	**.005**	**.010**	1.797	1.687	.020	.030	1.807	1.209	.090	.105
1.750	.625	.010	.160	1.750	1.316	.010	.020	**1.753**	**1.067**	**.005**	**.010**	1.772	.501	.015	.025	1.798	.096	.030	.050	**1.807**	**1.223**	**.005**	**.010**
1.750	.626	.010	.020	**1.750**	**1.318**	**.005**	**.008**	**1.753**	**1.268**	**.005**	**.010**	1.772	1.313	.050	.060	**1.798**	**.629**	**.005**	**.010**	1.807	1.438	.040	.060
1.750	**.627**	**.005**	**.010**	**1.750**	**1.319**	**.005**	**.010**	1.753	1.313	.080	.100	**1.772**	**1.360**	**.005**	**.010**	1.798	.931	.050	.075	1.807	1.518	.030	.060
1.750	**.628**	**.005**	**.032**	1.750	1.324	.035	.050	**1.753**	**1.323**	**.005**	**.010**	**1.772**	**1.361**	**.005**	**.008**	**1.798**	**1.076**	**.005**	**.010**	1.808	.690	.030	.050
1.750	**.629**	**.005**	**.090**	1.750	1.329	.030	.050	**1.753**	**1.385**	**.005**	**.008**	1.772	1.470	.015	.025	1.798	1.122	.105	.125	1.808	1.534	.010	.020
1.750	.630	.010	.020	1.750	1.351	.060	.080	1.753	1.564	.050	.070	1.773	.202	.050	.070	1.798	1.255	.100	.125	1.809	.096	.040	.060
1.750	.635	.120	.135	1.750	1.353	.040	.060	1.754	.894	.100	.125	1.773	.471	.130	.150	1.799	.096	.030	.050	1.809	.463	.025	.040
1.750	.637	.025	.040	**1.750**	**1.375**	**.005**	**.020**	1.754	1.254	.062	.083	**1.773**	**.501**	**.005**	**.020**	1.799	.180	.030	.050	1.809	1.063	.093	.113
1.750	.641	.156	.190	**1.750**	**1.383**	**.005**	**.010**	1.754	1.375	.105	.125	1.773	1.023	.050	.070	**1.799**	**.377**	**.005**	**.010**	1.809	1.121	.105	.120
1.750	.655	.100	.125	1.750	1.384	.015	.025	1.754	1.387	.020	.030	1.773	1.149	.050	.070	1.799	.753	.042	.060	**1.809**	**1.437**	**.005**	**.008**
1.750	.656	.010	.060	1.750	1.385	.100	.125	1.755	.257	.040	.060	1.773	1.386	.070	.090	1.799	.795	.036	.050	1.810	.100	.020	.050
1.750	.657	.040	.060	**1.750**	**1.386**	**.005**	**.010**	1.755	.281	.080	.100	1.774	.127	.015	.030	1.799	.945	.100	.125	1.810	.167	.093	.125
1.750	.660	.090	.105	1.750	1.389	.060	.080	1.755	.322	.050	.070	1.774	1.182	.040	.060	1.799	1.020	.040	.060	1.810	.180	.015	.030
1.750	.686	.050	.075	1.750	1.394	.090	.120	1.755	.906	.040	.062	**1.774**	**1.362**	**.005**	**.010**	1.799	1.029	.120	.135	1.810	.756	.156	.190
1.750	**.687**	**.005**	**.010**	1.750	1.398	.032	.050	1.755	1.285	.060	.080	1.774	1.484	.020	.030	1.799	1.380	.050	.075	**1.810**	**.824**	**.005**	**.010**
1.750	.688	.100	.125	**1.750**	**1.400**	**.005**	**.050**	1.755	1.536	.050	.070	1.775	1.275	.100	.130	1.799	1.397	.015	.030	1.810	.875	.040	.060
1.750	**.692**	**.005**	**.010**	**1.750**	**1.410**	**.005**	**.010**	1.756	.484	.105	.135	1.775	1.511	.025	.040	1.800	.147	.080	.104	1.810	1.059	.090	.120
1.750	.703	.010	.020	1.750	1.410	.010	.020	1.757	.252	.080	.104	1.775	1.517	.030	.040	1.800	.154	.050	.060	1.810	1.066	.040	.060
1.750	.733	.015	.025	1.750	1.411	.008	.015	1.757	.629	.100	.125	1.775	1.520	.025	.040	**1.800**	**.195**	**.005**	**.010**	1.810	1.130	.100	.125
1.750	.749	.050	.070	1.750	1.420	.070	.090	**1.757**	**1.437**	**.005**	**.010**	**1.776**	**.685**	**.005**	**.010**	1.800	.196	.090	.105	1.810	1.518	.040	.062
1.750	.750	.100	.156	**1.750**	**1.435**	**.005**	**.040**	**1.758**	**.562**	**.005**	**.010**	1.776	.752	.100	.134	1.800	.308	.050	.070	**1.810**	**1.583**	**.005**	**.060**
1.750	.751	.090	.110	1.750	1.436	.120	.134	1.758	1.476	.050	.070	1.776	1.235	.060	.080	1.800	.473	.025	.040	**1.811**	**.275**	**.005**	**.010**
1.750	.754	.015	.030	1.750	1.443	.090	.105	1.760	.631	.010	.020	1.776	1.262	.060	.080	**1.800**	**.475**	**.005**	**.020**	1.811	.313	.050	.060
1.750	.755	.060	.090	1.750	1.450	.040	.060	1.760	.767	.007	.016	1.776	1.452	.030	.050	1.800	.490	.090	.110	1.811	.501	.030	.050
1.750	**.758**	**.005**	**.010**	1.750	1.471	.050	.075	1.760	1.140	.007	.016	1.776	1.576	.015	.025	**1.800**	**.504**	**.005**	**.010**	1.811	1.013	.100	.125
1.750	.780	.156	.187	1.750	1.500	.025	.040	1.760	1.270	.020	.040	1.777	.998	.010	.020	**1.800**	**.505**	**.005**	**.020**	1.811	1.144	.020	.030
1.750	.812	.042	.156	**1.750**	**1.502**	**.005**	**.010**	**1.760**	**1.286**	**.005**	**.010**	1.777	1.110	.015	.030	1.800	.510	.010	.021	1.811	1.314	.100	.125
1.750	**.815**	**.005**	**.030**	1.750	1.527	.020	.040	1.761	.408	.015	.030	1.778	.199	.020	.040	**1.800**	**.754**	**.005**	**.010**	**1.811**	**1.379**	**.005**	**.010**
1.750	.820	.100	.125	1.750	1.531	.030	.080	1.761	.699	.080	.105	1.778	1.682	.030	.050	1.800	.814	.010	.020	1.811	1.521	.025	.040
1.750	.825	.090	.105	1.750	1.532	.025	.045	1.762	.408	.015	.030	1.779	.999	.050	.070	1.800	.880	.010	.020	1.811	1.540	.090	.120
1.750	**.830**	**.005**	**.010**	1.750	1.550	.010	.015	1.762	.950	.140	.160	**1.779**	**1.057**	**.005**	**.010**	1.800	.892	.062	.083	1.812	.213	.010	.125
1.750	.832	.050	.070	**1.750**	**1.565**	**.005**	**.010**	1.762	1.388	.060	.080	1.780	.250	.020	.032	1.800	.900	.135	.156	**1.812**	**.246**	**.005**	**.010**
1.750	.876	.030	.105	**1.750**	**1.566**	**.005**	**.010**	1.763	.505	.030	.040	1.780	.509	.020	.040	**1.800**	**.906**	**.005**	**.010**	1.812	.328	.156	.187
1.750	.878	.006	.016	1.750	1.567	.010	.020	1.763	.547	.090	.105	**1.780**	**.720**	**.005**	**.010**	1.800	.968	.050	.060	1.812	.456	.060	.080
1.750	.906	.100	.125	1.750	1.580	.040	.060	1.763	1.126	.135	.160	1.780	.754	.030	.048	1.800	.992	.060	.080	**1.812**	**.629**	**.005**	**.010**
1.750	.907	.110	.130	**1.751**	**.325**	**.005**	**.010**	1.764	.453	.010	.040	1.780	.953	.120	.135	1.800	1.010	.120	.134	1.812	.751	.156	.187
1.750	.920	.030	.104	1.751	.451	.105	.125	1.764	.504	.090	.125	1.780	1.250	.015	.030	1.800	1.172	.080	.100	1.812	.792	.035	.048
1.750	.937	.100	.125	**1.751**	**.511**	**.005**	**.010**	1.764	.514	.105	.134	1.780	1.601	.070	.090	1.800	1.173	.083	.120	1.812	1.062	.075	.100
1.750	.943	.060	.080	1.751	.560	.010	.060	1.764	.950	.110	.130	1.780	1.612	.030	.050	1.800	1.251	.010	.020	1.812	1.124	.050	.075
1.750	.950	.105	.160	1.751	.626	.025	.040	1.764	1.268	.060	.090	1.780	1.691	.020	.030	1.800	1.268	.020	.030	1.812	1.130	.090	.125
1.750	.954	.010	.020	1.751	.628	.100	.125	1.764	1.475	.080	.104	1.781	.936	.080	.105	**1.800**	**1.380**	**.005**	**.010**	1.812	1.156	.080	.104
1.750	1.000	.010	.020	1.751	.629	.030	.050	1.765	.297	.042	.060	1.781	1.157	.020	.040	**1.800**	**1.385**	**.005**	**.010**	1.812	1.188	.050	.080
1.750	1.003	.050	.070	1.751	.720	.156	.187	1.765	.308	.042	.062	1.781	1.517	.015	.030	1.800	1.430	.040	.060	1.812	1.300	.030	.050
1.750	1.005	.015	.187	1.751	.890	.105	.135	**1.765**	**.394**	**.005**	**.010**	**1.782**	**.396**	**.005**	**.010**	1.800	1.451	.015	.030	1.812	1.312	.010	.015
1.750	1.009	.050	.070	1.751	1.002	.105	.125	1.765	.504	.100	.125	**1.782**	**.645**	**.005**	**.010**	**1.800**	**1.500**	**.005**	**.020**	1.812	1.381	.050	.075
1.750	1.010	.050	.070	**1.751**	**1.011**	**.005**	**.010**	1.765	.630	.008	.016	1.783	.880	.010	.030	**1.800**	**1.548**	**.005**	**.010**	1.812	1.402	.015	.030
1.750	1.015	.156	.188	1.751	1.033	.050	.075	1.765	.993	.100	.125	1.784	1.136	.020	.040	**1.800**	**1.562**	**.005**	**.010**	1.812	1.410	.030	.050
1.750	**1.019**	**.005**	**.020**	1.751	1.132	.050	.075	1.765	1.005	.010	.020	1.784	1.330	.010	.020	1.800	1.569	.025	.040	1.812	1.436	.040	.060
1.750	**1.020**	**.005**	**.125**	1.751	1.198	.070	.090	1.765	1.024	.036	.060	1.784	1.616	.060	.080	1.801	.505	.010	.020	1.812	1.444	.040	.060
1.750	1.025	.010	.020	1.751	1.260	.050	.070	1.765	1.044	.090	.105	1.785	.881	.050	.070	**1.801**	**.751**	**.005**	**.010**	1.812	1.445	.020	.040
1.750	1.031	.135	.156	1.751	1.265	.050	.070	1.765	1.350	.030	.050	1.785	1.084	.032	.048	1.801	1.501	.050	.070	1.812	1.480	.050	.075
1.750	1.033	.062	.083	1.751	1.290	.025	.040	1.765	1.361	.050	.070	1.785	1.264	.105	.125	1.801	1.610	.020	.030	1.812	1.498	.010	.020
1.750	1.043	.050	.070	**1.751**	**1.302**	**.005**	**.010**	1.765	1.382	.062	.083	1.788	.698	.050	.075	1.801	1.611	.010	.020	**1.812**	**1.510**	**.005**	**.010**
1.750	**1.049**	**.005**	**.010**	1.751	1.405	.050	.075	1.766	.382	.060	.080	1.788	1.124	.010	.015	1.802	.425	.040	.060	1.812	1.522	.020	.040
1.750	1.060	.030	.060	1.751	1.434	.020	.040	**1.768**	**.793**	**.005**	**.010**	1.788	1.425	.075	.100	**1.802**	**1.257**	**.005**	**.010**	1.812	1.523	.030	.050
1.750	1.062	.050	.075	**1.751**	**1.515**	**.005**	**.010**	**1.768**	**1.232**	**.005**	**.010**	1.788	1.586	.090	.105	1.803	.712	.070	.090	1.812	1.524	.015	.030
				1.751	1.569	.020	.035	1.768	1.380	.030	.050					1.803	.906	.020	.032	1.812	1.563	.015	.030
1.750	**1.120**	**.005**	**.010**	1.751	1.583	.025	.040	**1.768**	**1.382**	**.005**	**.010**	1.788	1.587	.050	.065	1.803	1.362	.040	.060	1.813	.251	.083	.104

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

New tools added continually. Call for sizes not listed — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
1.813	.751	.025 - .040	**1.840**	**1.005**	**.005 - .010**	1.850	1.685	.015 - .025	1.870	1.713	.050 - .060	1.875	.450	.105 - .125	1.877	1.527	.050 - .070
1.813	.754	.030 - .040	1.840	1.008	.090 - .105	1.851	1.505	.025 - .040	**1.871**	**1.009**	**.005 - .010**	1.875	.510	.090 - .125	1.877	1.563	.025 - .040
1.813	.906	.025 - .040	1.840	1.336	.050 - .075	**1.851**	**1.590**	**.005 - .012**	1.871	1.260	.156 - .187	1.875	.620	.062 - .075	1.877	1.637	.030 - .040
1.813	**.938**	**.005 - .010**	1.840	1.343	.010 - .020	**1.851**	**1.630**	**.005 - .025**	1.871	1.377	.050 - .070	1.875	.626	.015 - .030	**1.878**	**.621**	**.005 - .020**
1.813	1.140	.156 - .187	1.840	1.424	.050 - .075	1.852	.290	.020 - .030	1.871	1.417	.060 - .080	1.875	.629	.040 - .060	1.878	.655	.090 - .120
1.813	1.266	.090 - .105	1.840	1.425	.065 - .080	1.852	.560	.070 - .090	1.871	1.770	.015 - .030	1.875	.632	.104 - .135	**1.878**	**.690**	**.005 - .010**
1.813	1.323	.010 - .020	1.840	1.479	.040 - .060	**1.852**	**.629**	**.005 - .010**	1.872	.626	.050 - .075	1.875	.718	.062 - .075	1.878	.754	.125 - .156
1.813	1.394	.040 - .060	1.840	1.519	.040 - .060	1.852	1.165	.035 - .045	1.872	.632	.156 - .187	**1.875**	**.757**	**.005 - .010**	1.878	.812	.105 - .125
1.813	1.585	.010 - .020	1.841	.377	.110 - .130	1.852	1.590	.008 - .015	**1.872**	**.756**	**.005 - .010**	1.875	.781	.075 - .090	**1.878**	**1.053**	**.005 - .010**
1.814	1.000	.100 - .125	1.841	.402	.040 - .060	1.854	1.658	.020 - .030	**1.872**	**.891**	**.005 - .010**	1.875	.875	.015 - .030	1.878	1.500	.060 - .080
1.814	1.300	.025 - .050	1.841	.551	.105 - .125	1.855	1.416	.030 - .050	1.872	.909	.010 - .025	1.875	.876	.010 - .020	1.878	1.505	.010 - .020
1.815	**.323**	**.005 - .016**	1.841	1.189	.015 - .040	1.855	1.500	.125 - .135	1.872	1.260	.075 - .135	1.875	.890	.110 - .130	1.878	1.650	.030 - .040
1.815	.410	.070 - .110	**1.841**	**1.404**	**.005 - .010**	1.856	1.263	.105 - .125	1.872	1.318	.040 - .060	1.875	.891	.040 - .060	**1.879**	**.523**	**.005 - .010**
1.815	.523	.010 - .020	**1.841**	**1.407**	**.005 - .010**	1.857	.586	.020 - .030	**1.872**	**1.509**	**.005 - .010**	1.875	.906	.105 - .125	1.879	1.029	.120 - .135
1.815	.772	.100 - .125	**1.841**	**1.569**	**.100 - .125**	1.857	.710	.090 - .125	**1.872**	**1.513**	**.005 - .010**	1.875	.936	.105 - .135	**1.879**	**1.130**	**.005 - .010**
1.815	.775	.125 - .135	1.842	.378	.100 - .125	**1.857**	**1.435**	**.005 - .012**	1.873	.177	.050 - .070	1.875	1.031	.025 - .040	**1.879**	**1.140**	**.005 - .010**
1.815	1.024	.020 - .040	1.842	.640	.025 - .040	1.858	1.340	.020 - .030	**1.873**	**.252**	**.005 - .015**	1.875	1.061	.050 - .070	1.879	1.255	.070 - .090
1.815	1.192	.080 - .100	**1.842**	**.828**	**.005 - .010**	1.858	1.360	.025 - .040	1.873	.386	.090 - .125	1.875	1.072	.070 - .090	1.879	1.431	.060 - .070
1.815	1.523	.015 - .030	1.842	1.098	.080 - .100	1.859	.389	.050 - .075	**1.873**	**.478**	**.005 - .010**	1.875	1.093	.025 - .040	1.879	1.463	.015 - .030
1.816	.751	.010 - .020	1.842	1.251	.090 - .125	**1.859**	**.818**	**.005 - .010**	1.873	.625	.100 - .125	1.875	1.113	.080 - .104	1.879	1.501	.015 - .030
1.816	1.338	.020 - .030	1.842	1.531	.040 - .060	**1.859**	**1.435**	**.005 - .010**	1.873	.750	.100 - .125	1.875	1.135	.050 - .070	1.879	1.563	.025 - .040
1.818	.631	.020 - .030	1.842	1.643	.025 - .040	1.859	1.642	.060 - .080	1.873	.844	.105 - .135	1.875	1.140	.010 - .042	1.879	1.605	.025 - .040
1.818	1.065	.015 - .030	1.843	.316	.015 - .030	1.860	.201	.050 - .075	1.873	.882	.015 - .030	1.875	1.142	.007 - .016	1.879	1.687	.010 - .020
1.818	1.404	.025 - .040	1.843	.816	.025 - .035	1.860	.620	.105 - .125	1.873	1.140	.100 - .125	**1.875**	**1.152**	**.005 - .010**	1.880	.585	.156 - .187
1.818	1.406	.020 - .030	**1.843**	**.880**	**.005 - .010**	1.860	.631	.010 - .020	1.873	1.260	.065 - .080	1.875	1.156	.032 - .125	**1.880**	**.960**	**.005 - .010**
1.818	1.498	.040 - .060	1.843	1.188	.020 - .030	1.860	1.268	.025 - .050	1.873	1.349	.030 - .050	1.875	1.171	.100 - .125	1.880	1.000	.050 - .070
1.818	1.502	.020 - .030	**1.843**	**1.381**	**.005 - .010**	1.860	1.345	.030 - .040	1.873	1.381	.090 - .125	1.875	1.188	.015 - .070	1.880	1.131	.025 - .040
1.818	**1.572**	**.005 - .010**	1.843	1.455	.038 - .060	1.860	1.445	.050 - .075	1.873	1.386	.100 - .134	1.875	1.244	.040 - .062	1.880	1.193	.015 - .030
1.819	.450	.010 - .020	1.843	1.456	.030 - .050	**1.861**	**1.446**	**.005 - .010**	1.873	1.437	.100 - .125	1.875	1.250	.020 - .040	1.880	1.272	.040 - .060
1.819	**1.580**	**.005 - .008**	1.843	1.706	.020 - .040	1.862	1.510	.012 - .025	1.873	1.444	.062 - .075	**1.875**	**1.254**	**.005 - .010**	1.880	1.392	.070 - .080
1.820	.630	.010 - .020	1.844	.260	.105 - .125	**1.863**	**.650**	**.005 - .010**	**1.873**	**1.508**	**.005 - .020**	1.875	1.258	.030 - .050	**1.880**	**1.465**	**.005 - .010**
1.820	**1.013**	**.005 - .010**	**1.844**	**.816**	**.005 - .010**	**1.863**	**.819**	**.005 - .010**	**1.873**	**1.533**	**.005 - .010**	1.875	1.259	.020 - .040	**1.880**	**1.759**	**.005 - .010**
1.820	1.450	.020 - .090	1.844	1.098	.050 - .075	1.863	1.361	.110 - .130	**1.873**	**1.639**	**.005 - .010**	1.875	1.260	.060 - .090	1.880	1.774	.010 - .020
1.820	**1.515**	**.005 - .010**	1.844	1.100	.030 - .050	1.863	1.375	.090 - .110	**1.873**	**1.671**	**.005 - .015**	1.875	1.310	.040 - .062	1.880	1.814	.015 - .030
1.821	1.006	.050 - .075	**1.844**	**1.263**	**.005 - .010**	1.863	1.501	.105 - .125	1.873	1.734	.010 - .020	1.875	1.355	.070 - .090	1.881	.786	.010 - .025
1.822	1.270	.040 - .060	**1.844**	**1.624**	**.005 - .010**	**1.863**	**1.577**	**.005 - .010**	1.874	.219	.100 - .134	1.875	1.370	.060 - .083	1.881	1.204	.015 - .030
1.822	1.586	.030 - .050	1.845	.140	.040 - .060	1.865	.354	.070 - .090	**1.874**	**.252**	**.005 - .010**	1.875	1.375	.006 - .030	1.881	1.281	.040 - .060
1.823	.434	.050 - .075	1.845	.391	.050 - .070	1.865	.770	.050 - .070	1.874	.266	.070 - .090	**1.875**	**1.379**	**.005 - .075**	**1.881**	**1.424**	**.005 - .010**
1.823	1.066	.020 - .040	1.845	.661	.105 - .125	1.865	.888	.050 - .062	1.874	.281	.020 - .050	1.875	1.384	.042 - .062	1.882	.887	.060 - .100
1.823	1.135	.010 - .100	1.845	1.190	.105 - .125	1.865	1.023	.100 - .125	1.874	.282	.015 - .060	1.875	1.386	.030 - .050	1.883	1.035	.060 - .080
1.823	1.205	.020 - .030	1.845	1.201	.020 - .030	1.865	1.123	.100 - .125	1.874	.375	.100 - .125	1.875	1.394	.090 - .105	1.883	1.585	.040 - .060
1.823	1.250	.035 - .050	1.845	1.250	.040 - .060	1.865	1.134	.075 - .100	1.874	.376	.070 - .125	1.875	1.453	.040 - .060	1.884	1.010	.015 - .040
1.824	1.083	.060 - .080	1.845	1.312	.048 - .075	1.865	1.390	.040 - .060	**1.874**	**.381**	**.005 - .010**	1.875	1.502	.105 - .125	1.884	1.494	.050 - .075
1.825	**1.140**	**.005 - .010**	1.845	1.384	.015 - .030	1.865	1.502	.025 - .040	1.874	.398	.030 - .040	**1.875**	**1.503**	**.005 - .032**	1.884	1.577	.040 - .050
1.827	1.320	.062 - .090	1.845	1.568	.025 - .035	1.867	.315	.100 - .125	1.874	.409	.100 - .120	1.875	1.505	.040 - .083	1.884	1.585	.030 - .060
1.827	1.481	.015 - .025	**1.845**	**1.569**	**.005 - .010**	1.867	.334	.040 - .060	1.874	.440	.170 - .190	1.875	1.512	.105 - .125	1.885	.327	.025 - .035
1.828	1.420	.050 - .060	**1.845**	**1.623**	**.005 - .010**	1.867	1.387	.040 - .060	1.874	.625	.015 - .030	1.875	1.550	.020 - .050	1.885	.376	.060 - .080
1.829	**1.520**	**.005 - .010**	1.846	.792	.080 - .120	1.867	1.438	.100 - .125	1.874	.628	.040 - .060	1.875	1.568	.060 - .090	1.885	.956	.062 - .090
1.830	.975	.010 - .020	1.846	1.312	.020 - .030	1.868	.897	.040 - .060	1.874	.631	.105 - .125	1.875	1.585	.010 - .020	1.885	.985	.080 - .105
1.830	1.059	.105 - .125	1.846	1.401	.050 - .070	1.868	1.063	.040 - .060	**1.874**	**.713**	**.005 - .012**	1.875	1.640	.050 - .070	1.885	1.060	.042 - .062
1.830	1.083	.080 - .100	1.846	1.441	.125 - .156	1.869	.380	.040 - .060	1.874	.749	.070 - .090	1.875	1.681	.050 - .070	1.885	1.136	.060 - .080
1.830	1.530	.050 - .070	**1.847**	**.375**	**.005 - .010**	1.869	.405	.020 - .040	1.874	.822	.050 - .062	**1.875**	**1.688**	**.005 - .015**	1.885	1.157	.062 - .090
1.830	1.627	.042 - .060	1.847	1.442	.120 - .135	1.869	.501	.110 - .135	1.874	.875	.110 - .130	1.875	1.707	.025 - .040	1.885	1.380	.062 - .090
1.831	1.200	.020 - .030	**1.848**	**.258**	**.005 - .010**	**1.869**	**1.136**	**.005 - .010**	**1.874**	**.879**	**.005 - .020**	1.876	.512	.105 - .125	1.886	.985	.100 - .125
1.832	.156	.030 - .048	1.848	.332	.050 - .070	1.869	1.277	.050 - .105	**1.874**	**.883**	**.005 - .010**	1.876	.533	.105 - .125	**1.886**	**1.188**	**.005 - .010**
1.832	.764	.015 - .030	1.848	.485	.020 - .040	1.869	1.283	.090 - .105	1.874	.907	.080 - .105	1.876	.659	.080 - .100	1.886	1.382	.060 - .080
1.833	1.382	.050 - .070	1.849	.375	.090 - .105	1.869	1.438	.050 - .062	1.874	.951	.050 - .070	1.876	.669	.100 - .125	**1.886**	**1.397**	**.005 - .010**
1.833	1.589	.015 - .030	1.849	1.081	.060 - .070	1.869	1.567	.025 - .040	1.874	1.045	.025 - .040	1.876	.754	.062 - .083	**1.886**	**1.398**	**.005 - .010**
1.834	.764	.020 - .032	1.849	1.333	.083 - .140	1.870	.080	.020 - .040	1.874	1.180	.030 - .050	1.876	.765	.125 - .156	1.886	1.446	.050 - .075
1.834	**1.382**	**.005 - .010**	1.849	1.731	.010 - .020	1.870	.315	.105 - .125	1.874	1.202	.015 - .025	1.876	1.007	.015 - .032	1.887	.670	.040 - .060
1.834	**1.384**	**.005 - .010**	1.850	.252	.030 - .050	1.870	.500	.100 - .125	1.874	1.257	.070 - .090	1.876	1.129	.015 - .030	1.887	1.186	.010 - .020
1.834	1.574	.015 - .030	1.850	.366	.050 - .070	1.870	.505	.100 - .125	1.874	1.282	.010 - .070	1.876	1.156	.105 - .135	1.887	1.300	.040 - .060
1.835	.255	.020 - .030	**1.850**	**.440**	**.005 - .020**	**1.870**	**.642**	**.005 - .010**	**1.874**	**1.331**	**.005 - .010**	1.876	1.257	.105 - .135	**1.888**	**.755**	**.005 - .010**
1.835	**.430**	**.005 - .010**	1.850	.502	.010 - .020	1.870	.661	.105 - .125	1.874	1.443	.050 - .070	**1.876**	**1.260**	**.005 - .040**	1.888	.788	.050 - .070
1.835	1.382	.030 - .060	1.850	.505	.010 - .020	1.870	.696	.060 - .080	1.874	1.450	.150 - .170	1.876	1.265	.025 - .040	1.889	.760	.015 - .030
1.835	**1.501**	**.005 - .010**	**1.850**	**.510**	**.005 - .010**	1.870	.698	.050 - .075	1.874	1.479	.020 - .030	1.876	1.380	.010 - .020	1.890	.380	.105 - .135
1.835	1.620	.010 - .020	1.850	.561	.170 - .190	1.870	.795	.040 - .060	1.874	1.515	.010 - .020	1.876	1.381	.015 - .040	**1.890**	**.512**	**.005 - .010**
1.836	**1.646**	**.005 - .010**	1.850	.625	.030 - .040	1.870	.880	.042 - .062	1.874	1.595	.030 - .045	1.876	1.382	.020 - .040	**1.890**	**.630**	**.005 - .010**
1.837	**1.343**	**.005 - .010**	1.850	.626	.010 - .020	**1.870**	**.901**	**.005 - .010**	1.874	1.625	.015 - .030	1.876	1.438	.100 - .125	1.890	.648	.105 - .125
1.837	**1.345**	**.005 - .015**	1.850	.967	.100 - .120	1.870	.909	.015 - .030	1.874	1.627	.025 - .040	1.876	1.508	.020 - .060	1.890	1.023	.010 - .025
1.838	.126	.030 - .050	1.850	1.071	.060 - .080	**1.870**	**.911**	**.005 - .010**	1.874	1.752	.010 - .020	1.876	1.592	.090 - .105	1.890	1.220	.040 - .090
1.838	**.419**	**.005 - .010**	**1.850**	**1.107**	**.005 - .010**	1.870	1.004	.020 - .030	1.875	.159	.010 - .020	1.876	1.645	.020 - .040	1.890	1.256	.040 - .060
1.838	1.371	.040 - .060	**1.850**	**1.122**	**.005 - .020**	1.870	1.032	.105 - .125	1.875	.204	.100 - .125	1.876	1.752	.020 - .030	1.890	1.378	.030 - .050
1.838	1.571	.030 - .050	1.850	1.199	.040 - .050	1.870	1.196	.010 - .020	1.875	.250	.050 - .105	1.876	1.764	.010 - .020	**1.890**	**1.384**	**.005 - .010**
1.839	1.251	.025 - .030	**1.850**	**1.310**	**.005 - .007**	1.870	1.273	.010 - .020	1.875	.317	.015 - .030	1.877	.320	.100 - .125	1.890	1.389	.010 - .020
1.839	**1.382**	**.005 - .010**	1.850	1.391	.010 - .020	1.870	1.392	.010 - .015	1.875	.320	.105 - .125	1.877	.525	.015 - .030	1.890	1.496	.025 - .030
1.840	.249	.060 - .075	1.850	1.438	.100 - .120	**1.870**	**1.418**	**.005 - .010**	1.875	.375	.040 - .060	1.877	1.008	.015 - .030	1.890	1.510	.010 - .020
1.840	.509	.050 - .070	1.850	1.570	.020 - .050	1.870	1.419	.010 - .020	1.875	.408	.060 - .080	**1.877**	**1.376**	**.005 - .010**	**1.890**	**1.562**	**.005 - .010**
1.840	.679	.050 - .070	**1.850**	**1.581**	**.005 - .010**	1.870	1.504	.025 - .040	1.875	.409	.090 - .120	1.877	1.505	.070 - .090	1.890	1.614	.040 - .060
1.840	.700	.030 - .040	1.850	1.651	.120 - .135	1.870	1.513	.060 - .090	**1.875**	**.437**	**.005 - .010**	1.877	1.525	.015 - .030	1.891	1.000	.008 - .015

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For non-metallic materials, contact BOKER'S — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To	O.D.	I.D.	Thickness From - To
1.891	1.719	.010 - .020	1.906	1.314	.080 - .105	1.925	1.317	.020 - .040	1.939	.126	.030 - .050	1.960	1.642	.005 - .010	1.971	1.268	.093 - .125
1.892	.989	.005 - .010	1.906	1.557	.015 - .030	1.925	1.391	.025 - .040	1.939	1.062	.060 - .070	1.960	1.674	.005 - .010	1.971	1.541	.005 - .030
1.892	1.367	.100 - .125	1.906	1.590	.015 - .025	1.925	1.510	.010 - .020	1.939	1.380	.110 - .130	1.960	1.712	.005 - .010	1.972	.379	.015 - .030
1.892	1.719	.005 - .010	1.907	.365	.060 - .080	1.925	1.554	.050 - .075	1.939	1.578	.030 - .050	1.960	1.862	.005 - .010	1.972	.505	.015 - .030
1.893	.508	.104 - .125	1.907	1.157	.120 - .134	1.925	1.715	.062 - .083	1.939	1.664	.020 - .030	1.961	1.188	.010 - .020	1.972	.875	.105 - .125
1.893	.535	.100 - .125	1.907	1.485	.070 - .090	1.926	1.554	.020 - .040	1.940	.687	.090 - .105	1.961	1.300	.020 - .030	1.972	1.130	.015 - .030
1.894	.868	.020 - .030	1.908	.877	.010 - .020	1.926	1.684	.032 - .060	1.940	.880	.065 - .080	1.961	1.312	.050 - .083	1.972	1.250	.093 - .125
1.894	1.180	.005 - .010	1.909	.802	.080 - .100	1.926	1.691	.030 - .042	1.940	1.155	.080 - .100	1.961	1.584	.090 - .125	1.972	1.579	.030 - .040
1.894	1.535	.050 - .070	1.909	1.250	.020 - .040	1.928	.533	.008 - .020	1.940	1.260	.005 - .010	1.962	1.735	.008 - .020	1.974	.408	.015 - .030
1.895	.378	.100 - .125	1.909	1.275	.005 - .010	1.928	1.265	.025 - .040	1.940	1.261	.030 - .070	1.963	.281	.005 - .010	1.974	1.170	.005 - .010
1.895	1.159	.005 - .010	1.909	1.348	.005 - .010	1.928	1.585	.005 - .010	1.940	1.402	.015 - .030	1.963	.481	.005 - .010	1.974	1.284	.005 - .010
1.895	1.582	.015 - .030	1.910	1.159	.040 - .060	1.928	1.664	.070 - .090	1.940	1.410	.040 - .060	1.963	1.565	.025 - .040	1.974	1.503	.005 - .010
1.896	.508	.105 - .135	1.910	1.437	.100 - .125	1.929	1.550	.015 - .025	1.940	1.769	.005 - .010	1.964	.281	.015 - .030	1.975	.755	.025 - .040
1.896	.752	.005 - .010	1.910	1.438	.105 - .125	1.930	.375	.032 - .048	1.941	1.627	.065 - .080	1.964	1.576	.015 - .025	1.975	1.821	.020 - .030
1.896	.761	.005 - .010	1.910	1.610	.010 - .020	1.930	.451	.015 - .025	1.941	1.629	.075 - .090	1.964	1.579	.005 - .040	1.975	1.879	.010 - .020
1.897	.309	.005 - .010	1.910	1.640	.105 - .125	1.930	1.181	.050 - .070	1.942	.314	.105 - .125	1.964	1.756	.020 - .030	1.976	.759	.030 - .050
1.897	1.414	.005 - .010	1.911	1.631	.005 - .010	1.930	1.478	.010 - .020	1.942	1.157	.080 - .100	1.964	1.790	.012 - .020	1.976	1.289	.040 - .060
1.898	.305	.005 - .010	1.912	1.758	.030 - .050	1.930	1.532	.010 - .020	1.942	1.746	.015 - .030	1.965	.281	.005 - .010	1.976	1.385	.015 - .030
1.898	.511	.120 - .135	1.912	1.801	.020 - .030	1.930	1.600	.025 - .042	1.942	1.787	.005 - .010	1.965	.815	.060 - .080	1.976	1.673	.030 - .050
1.898	.629	.010 - .020	1.913	1.096	.005 - .010	1.930	1.650	.005 - .010	1.943	.764	.105 - .125	1.965	1.427	.030 - .050	1.977	1.775	.005 - .010
1.898	.636	.120 - .135	1.913	1.337	.015 - .030	1.930	1.824	.005 - .030	1.944	.800	.156 - .187	1.965	1.491	.015 - .030	1.977	1.798	.010 - .020
1.898	.754	.005 - .010	1.913	1.755	.005 - .010	1.930	1.880	.010 - .020	1.944	1.628	.025 - .040	1.965	1.498	.048 - .062	1.978	1.550	.015 - .030
1.898	.910	.050 - .075	1.913	1.779	.005 - .010	1.931	.181	.015 - .025	1.945	.426	.050 - .070	1.965	1.503	.005 - .010	1.978	1.694	.020 - .030
1.899	.194	.005 - .010	1.915	.255	.020 - .030	1.931	.566	.156 - .190	1.945	1.063	.105 - .125	1.965	1.513	.005 - .010	1.978	1.776	.050 - .070
1.899	.340	.156 - .190	1.915	1.259	.100 - .125	1.931	1.595	.005 - .020	1.945	1.477	.010 - .020	1.965	1.586	.020 - .030	1.979	.395	.160 - .190
1.899	.380	.030 - .050	1.915	1.346	.040 - .060	1.932	1.126	.130 - .150	1.945	1.792	.005 - .020	1.965	1.694	.005 - .010	1.979	1.660	.005 - .010
1.899	.437	.156 - .190	1.915	1.586	.007 - .015	1.932	1.626	.040 - .060	1.946	1.780	.005 - .010	1.965	1.860	.007 - .030	1.979	1.775	.020 - .030
1.899	.629	.015 - .030	1.916	.966	.050 - .070	1.932	1.695	.025 - .040	1.947	1.661	.005 - .010	1.966	1.006	.005 - .010	1.980	.267	.125 - .135
1.899	.630	.005 - .010	1.917	1.258	.125 - .156	1.932	1.779	.005 - .010	1.948	1.083	.070 - .090	1.966	1.206	.005 - .010	1.980	1.060	.010 - .020
1.899	1.015	.040 - .060	1.918	1.385	.015 - .025	1.933	.750	.130 - .150	1.948	1.578	.005 - .010	1.966	1.438	.060 - .080	1.980	1.478	.050 - .070
1.900	.253	.050 - .060	1.918	1.410	.062 - .083	1.933	1.504	.015 - .030	1.948	1.749	.010 - .020	1.967	.394	.080 - .100	1.980	1.500	.050 - .070
1.900	.378	.030 - .075	1.918	1.519	.050 - .070	1.933	1.556	.050 - .060	1.948	1.820	.005 - .020	1.967	.502	.010 - .020	1.980	1.507	.005 - .010
1.900	.500	.005 - .010	1.918	1.632	.005 - .010	1.933	1.565	.030 - .050	1.949	.459	.020 - .030	1.967	1.113	.025 - .040	1.980	1.546	.005 - .010
1.900	.502	.005 - .010	1.919	1.390	.060 - .080	1.934	1.002	.030 - .050	1.949	.820	.005 - .010	1.967	1.519	.005 - .010	1.980	1.601	.010 - .020
1.900	.626	.005 - .020	1.919	1.501	.010 - .020	1.934	1.562	.050 - .062	1.949	1.062	.030 - .050	1.967	1.596	.030 - .050	1.980	1.778	.005 - .010
1.900	.630	.005 - .010	1.919	1.595	.060 - .080	1.935	.473	.060 - .085	1.949	1.119	.080 - .100	1.967	1.687	.010 - .020	1.980	1.850	.005 - .010
1.900	.855	.005 - .010	1.919	1.754	.015 - .030	1.935	.500	.060 - .083	1.949	1.526	.005 - .010	1.968	.283	.050 - .070	1.981	.831	.156 - .187
1.900	.870	.060 - .080	1.920	.859	.080 - .104	1.935	.651	.020 - .040	1.949	1.555	.015 - .030	1.968	.386	.110 - .135	1.981	1.519	.040 - .060
1.900	.881	.090 - .125	1.920	1.000	.070 - .090	1.935	1.032	.156 - .187	1.949	1.620	.030 - .040	1.968	.505	.005 - .010	1.981	1.736	.005 - .010
1.900	1.002	.075 - .105	1.920	1.263	.062 - .083	1.935	1.190	.005 - .010	1.949	1.664	.035 - .050	1.968	.625	.005 - .010	1.982	.760	.015 - .030
1.900	1.006	.040 - .060	1.920	1.410	.060 - .090	1.935	1.309	.105 - .125	1.950	.190	.015 - .040	1.968	.630	.105 - .125	1.982	1.609	.083 - .104
1.900	1.095	.040 - .060	1.920	1.411	.090 - .105	1.935	1.500	.090 - .100	1.950	.320	.005 - .010	1.968	.827	.105 - .125	1.983	.515	.030 - .050
1.900	1.256	.080 - .104	1.920	1.471	.080 - .100	1.935	1.555	.060 - .083	1.950	.490	.005 - .010	1.968	.866	.170 - .190	1.983	.914	.005 - .010
1.900	1.320	.040 - .060	1.920	1.635	.030 - .040	1.935	1.656	.010 - .020	1.950	.505	.125 - .156	1.968	.984	.005 - .010	1.983	1.628	.020 - .040
1.900	1.321	.040 - .060	1.920	1.826	.010 - .020	1.935	1.661	.032 - .048	1.950	.810	.005 - .010	1.968	.995	.005 - .010	1.984	.229	.005 - .010
1.900	1.375	.050 - .075	1.921	.438	.090 - .110	1.935	1.687	.090 - .105	1.950	.878	.125 - .135	1.968	1.008	.030 - .050	1.984	.395	.005 - .125
1.900	1.453	.020 - .040	1.921	.566	.015 - .030	1.936	.688	.025 - .040	1.950	1.408	.005 - .010	1.968	1.026	.090 - .100	1.984	.395	.126 - .190
1.900	1.500	.006 - .060	1.921	1.500	.010 - .020	1.936	.780	.060 - .080	1.950	1.600	.005 - .050	1.968	1.028	.005 - .010	1.984	1.544	.005 - .015
1.900	1.501	.090 - .105	1.921	1.671	.062 - .083	1.936	.818	.005 - .060	1.950	1.820	.025 - .035	1.968	1.150	.005 - .010	1.985	1.206	.070 - .090
1.900	1.530	.010 - .020	1.922	.317	.015 - .030	1.936	1.186	.050 - .075	1.951	.504	.110 - .130	1.968	1.183	.005 - .010	1.985	1.398	.010 - .030
1.900	1.600	.030 - .050	1.922	.565	.150 - .170	1.936	1.564	.060 - .080	1.951	1.000	.105 - .135	1.968	1.253	.030 - .050	1.985	1.590	.010 - .020
1.900	1.628	.030 - .050	1.922	.972	.080 - .104	1.936	1.579	.015 - .042	1.951	1.201	.030 - .050	1.968	1.394	.005 - .010	1.985	1.693	.005 - .010
1.900	1.650	.025 - .060	1.922	1.079	.080 - .104	1.936	1.586	.090 - .100	1.951	1.781	.005 - .010	1.968	1.401	.060 - .070	1.985	1.695	.040 - .060
1.900	1.651	.080 - .100	1.922	1.176	.080 - .104	1.936	1.650	.050 - .070	1.952	.812	.040 - .060	1.968	1.501	.015 - .030	1.985	1.860	.010 - .020
1.900	1.660	.005 - .010	1.922	1.341	.080 - .104	1.936	1.719	.005 - .010	1.952	1.055	.020 - .040	1.968	1.578	.015 - .125	1.986	.540	.005 - .010
1.901	.626	.025 - .040	1.922	1.410	.080 - .104	1.936	1.740	.005 - .010	1.952	1.592	.030 - .050	1.968	1.625	.015 - .030	1.986	1.205	.135 - .156
1.901	.726	.105 - .125	1.923	.390	.015 - .030	1.937	.651	.105 - .125	1.953	1.375	.040 - .060	1.968	1.692	.040 - .060	1.987	.671	.100 - .120
1.901	.760	.120 - .140	1.923	.881	.105 - .135	1.937	1.015	.075 - .090	1.953	1.421	.005 - .010	1.968	1.731	.005 - .010	1.987	.888	.050 - .070
1.901	.781	.105 - .125	1.923	1.181	.025 - .040	1.937	1.021	.156 - .187	1.954	.377	.050 - .075	1.969	.502	.005 - .010	1.987	1.313	.030 - .040
1.901	1.501	.010 - .020	1.923	1.262	.080 - .104	1.937	1.079	.005 - .010	1.954	.421	.050 - .070	1.969	.881	.015 - .030	1.988	.880	.050 - .070
1.902	.631	.005 - .010	1.923	1.533	.050 - .070	1.937	1.157	.020 - .040	1.954	1.108	.125 - .156	1.969	1.339	.050 - .060	1.988	.899	.005 - .010
1.902	1.101	.040 - .062	1.923	1.714	.010 - .020	1.937	1.260	.040 - .062	1.954	1.627	.005 - .010	1.969	1.380	.070 - .090	1.988	1.497	.005 - .010
1.902	1.139	.090 - .125	1.924	.315	.015 - .030	1.937	1.283	.005 - .010	1.955	.421	.050 - .070	1.969	1.440	.010 - .020	1.988	1.575	.050 - .075
1.902	1.256	.083 - .104	1.924	.691	.050 - .070	1.937	1.284	.015 - .030	1.955	1.004	.140 - .160	1.969	1.468	.010 - .020	1.988	1.586	.020 - .042
1.902	1.570	.005 - .010	1.924	.860	.062 - .083	1.937	1.399	.030 - .050	1.955	1.513	.020 - .042	1.969	1.469	.030 - .070	1.989	.750	.020 - .030
1.903	.485	.025 - .040	1.924	.973	.062 - .083	1.937	1.436	.030 - .050	1.955	1.519	.080 - .104	1.969	1.470	.105 - .125	1.989	.786	.105 - .135
1.903	.719	.010 - .125	1.924	1.068	.025 - .040	1.937	1.498	.025 - .040	1.955	1.780	.005 - .010	1.969	1.628	.015 - .030	1.989	.875	.100 - .125
1.903	1.031	.050 - .070	1.924	1.080	.062 - .083	1.937	1.527	.005 - .010	1.956	.995	.050 - .090	1.969	1.657	.050 - .070	1.989	1.753	.030 - .050
1.903	1.404	.015 - .025	1.924	1.177	.062 - .083	1.937	1.528	.050 - .075	1.956	1.520	.005 - .010	1.969	1.692	.030 - .050	1.990	.245	.005 - .010
1.904	1.510	.025 - .040	1.924	1.180	.062 - .083	1.937	1.657	.010 - .020	1.956	1.564	.010 - .015	1.970	.413	.105 - .125	1.990	.281	.125 - .135
1.904	1.565	.010 - .020	1.924	1.261	.050 - .070	1.937	1.665	.050 - .070	1.957	1.415	.030 - .050	1.970	.556	.030 - .050	1.990	.317	.005 - .010
1.905	1.160	.005 - .010	1.924	1.263	.062 - .083	1.937	1.733	.040 - .060	1.958	.390	.135 - .156	1.970	.594	.010 - .020	1.990	.318	.007 - .012
1.905	1.510	.005 - .010	1.924	1.341	.062 - .083	1.937	1.809	.005 - .010	1.959	1.861	.005 - .010	1.970	.938	.090 - .110	1.990	.526	.005 - .010
1.905	1.590	.010 - .030	1.924	1.410	.062 - .083	1.938	.319	.015 - .030	1.960	.754	.120 - .134	1.970	1.427	.005 - .010	1.990	.651	.105 - .135
1.905	1.627	.025 - .040	1.925	.328	.030 - .040	1.938	1.314	.050 - .070	1.960	.870	.150 - .170	1.970	1.428	.020 - .040	1.990	.688	.050 - .070
1.905	1.640	.080 - .100	1.925	.564	.010 - .020	1.938	1.395	.005 - .010	1.960	1.011	.105 - .120	1.970	1.500	.050 - .070	1.990	.754	.005 - .010
1.906	.194	.070 - .090	1.925	.573	.015 - .030	1.938	1.468	.030 - .050	1.960	1.065	.070 - .090	1.970	1.630	.005 - .010	1.990	.893	.005 - .010
1.906	.316	.060 - .080	1.925	.690	.050 - .070	1.938	1.502	.025 - .040	1.960	1.500	.020 - .040	1.970	1.654	.040 - .060	1.990	1.376	.040 - .060
1.906	.381	.090 - .120	1.925	.754	.060 - .080	1.938	1.758	.005 - .010	1.960	1.584	.010 - .020	1.970	1.692	.010 - .020	1.990	1.379	.093 - .125
1.906	.409	.050 - .070	1.925	1.253	.005 - .010	1.938	1.809	.005 - .010	1.960	1.619	.020 - .040	1.970	1.814	.015 - .030	1.990	1.519	.060 - .080

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

Need Disks? All O.D. sizes available with no I.D. — (800) 927-4377, Fax (800) 321-3462.

BOKER'S METAL WASHERS ARE FLAT AND TUMBLE DEBURRED

Large graphic in second column block reads: **2.000**

O.D.	I.D.	Thickness From – To	O.D.	I.D.	Thickness From – To	O.D.	I.D.	Thickness From – To	O.D.	I.D.	Thickness From – To	O.D.	I.D.	Thickness From – To	O.D.	I.D.	Thickness From – To
1.990	1.779	.015 - .030	1.998	.500	.020 - .050	2.000	.261	.060 - .080	2.000	1.158	.025 - .042	2.001	1.602	.030 - .050	**2.030**	**1.500**	**.005 - .010**
1.991	.317	.105 - .130	1.998	.531	.120 - .135	2.000	.266	.040 - .060	2.000	1.165	.020 - .040	**2.002**	**.101**	**.005 - .010**	2.030	1.715	.016 - .030
1.991	.653	.090 - .120	1.998	.562	.040 - .060	2.000	.270	.080 - .100	**2.000**	**1.166**	**.005 - .010**	2.002	.380	.090 - .134	**2.031**	**.936**	**.005 - .010**
1.991	.687	.030 - .050	**1.998**	**.662**	**.005 - .010**	2.000	.282	.060 - .080	2.000	1.190	.080 - .187	2.002	.437	.050 - .075	**2.031**	**1.755**	**.005 - .030**
1.991	.998	.015 - .050	1.998	.690	.050 - .075	2.000	.291	.050 - .075	**2.000**	**1.199**	**.005 - .010**	**2.002**	**.510**	**.005 - .010**	**2.032**	**.489**	**.005 - .010**
1.991	1.325	.020 - .040	1.998	.755	.135 - .156	**2.000**	**.298**	**.005 - .010**	2.000	1.201	.080 - .100	2.002	.533	.156 - .187	**2.032**	**.880**	**.005 - .010**
1.992	**.419**	**.005 - .010**	1.998	.881	.015 - .030	2.000	.299	.020 - .040	2.000	1.208	.050 - .075	2.002	.665	.105 - .120	2.033	.877	.025 - .040
1.992	.560	.010 - .020	1.998	.882	.020 - .030	**2.000**	**.316**	**.005 - .010**	**2.000**	**1.217**	**.005 - .010**	2.002	1.276	.050 - .070	2.033	1.525	.010 - .030
1.992	.999	.020 - .030	1.998	1.021	.070 - .090	2.000	.328	.070 - .090	2.000	1.220	.035 - .060	2.002	1.381	.020 - .030	2.033	1.562	.020 - .030
1.992	1.182	.020 - .040	**1.998**	**1.029**	**.005 - .010**	2.000	.344	.060 - .075	2.000	1.248	.156 - .187	2.002	1.390	.010 - .020	2.033	1.745	.010 - .020
1.992	**1.267**	**.005 - .010**	**1.998**	**1.077**	**.005 - .010**	2.000	.376	.050 - .060	2.000	1.250	.008 - .040	2.002	1.501	.050 - .075	2.033	1.845	.040 - .060
1.992	1.267	.015 - .030	1.998	1.093	.025 - .040	2.000	.380	.160 - .190	2.000	1.253	.010 - .156	2.002	1.530	.025 - .035	2.034	1.574	.020 - .040
1.992	1.313	.040 - .060	1.998	1.124	.030 - .070	2.000	.398	.010 - .020	2.000	1.256	.050 - .070	2.002	1.560	.105 - .135	2.035	.423	.030 - .050
1.993	.406	.030 - .040	**1.998**	**1.126**	**.005 - .010**	2.000	.399	.020 - .040	2.000	1.262	.083 - .104	2.002	1.630	.050 - .070	2.035	.788	.105 - .125
1.993	.410	.010 - .015	1.998	1.136	.110 - .135	2.000	.405	.100 - .135	2.000	1.263	.050 - .075	2.002	1.733	.080 - .105	2.035	1.002	.090 - .110
1.993	.474	.030 - .050	1.998	1.248	.125 - .156	2.000	.415	.090 - .105	2.000	1.264	.090 - .120	**2.002**	**1.758**	**.005 - .010**	2.035	1.690	.040 - .060
1.993	.499	.090 - .110	1.998	1.409	.025 - .040	2.000	.437	.050 - .070	2.000	1.280	.040 - .090	2.002	1.812	.070 - .090	2.035	1.750	.050 - .075
1.993	**.520**	**.005 - .010**	1.998	1.417	.030 - .050	2.000	.438	.156 - .190	2.000	1.281	.040 - .060	**2.002**	**1.828**	**.005 - .010**	2.035	1.834	.025 - .042
1.993	**1.017**	**.005 - .010**	1.998	1.501	.050 - .060	2.000	.451	.090 - .125	**2.000**	**1.282**	**.005 - .010**	2.003	.161	.025 - .040	2.035	1.933	.020 - .030
1.993	1.501	.010 - .020	1.998	1.506	.020 - .030	2.000	.484	.170 - .190	2.000	1.285	.025 - .040	2.003	.752	.075 - .090	2.036	1.557	.040 - .062
1.993	**1.664**	**.005 - .010**	1.998	1.508	.010 - .020	2.000	.503	.105 - .125	2.000	1.290	.157 - .187	**2.003**	**.843**	**.005 - .010**	**2.037**	**1.588**	**.005 - .010**
1.993	**1.933**	**.005 - .010**	1.998	1.531	.156 - .187	2.000	.504	.010 - .060	**2.000**	**1.291**	**.005 - .010**	2.003	1.077	.050 - .070	2.037	1.676	.050 - .070
1.994	**.412**	**.005 - .010**	1.998	1.635	.010 - .020	**2.000**	**.505**	**.005 - .010**	**2.000**	**1.311**	**.005 - .010**	2.003	1.126	.070 - .090	2.038	.989	.080 - .100
1.994	.885	.110 - .135	1.998	1.664	.030 - .050	2.000	.506	.020 - .030	2.000	1.321	.080 - .100	**2.003**	**1.481**	**.005 - .015**	2.038	1.875	.015 - .030
1.994	1.382	.040 - .060	1.998	1.734	.050 - .070	2.000	.507	.100 - .125	2.000	1.330	.080 - .104	2.003	1.557	.020 - .040	2.039	.281	.030 - .050
1.994	1.475	.010 - .020	1.998	1.748	.080 - .100	**2.000**	**.509**	**.156 - .187**	**2.000**	**1.332**	**.005 - .010**	2.003	1.694	.020 - .030	2.039	1.527	.105 - .135
1.994	1.476	.010 - .015	1.998	1.750	.050 - .070	2.000	.516	.090 - .120	2.000	1.350	.010 - .020	2.003	1.781	.010 - .020	2.040	.990	.015 - .030
1.994	1.629	.010 - .020	**1.998**	**1.789**	**.005 - .010**	**2.000**	**.522**	**.005 - .010**	2.000	1.375	.050 - .090	2.004	.756	.040 - .060	**2.040**	**1.383**	**.005 - .010**
1.994	1.662	.010 - .020	**1.999**	**.193**	**.005 - .010**	2.000	.530	.060 - .080	2.000	1.376	.015 - .030	2.004	.843	.100 - .125	**2.040**	**1.410**	**.005 - .007**
1.994	**1.789**	**.005 - .010**	**1.999**	**.238**	**.005 - .015**	**2.000**	**.536**	**.005 - .010**	2.000	1.380	.135 - .156	2.004	1.131	.010 - .020	2.040	1.620	.070 - .105
1.994	1.885	.020 - .040	1.999	.280	.120 - .135	**2.000**	**.570**	**.005 - .010**	2.000	1.386	.030 - .060	2.005	.204	.080 - .104	**2.040**	**1.625**	**.005 - .010**
1.994	**1.933**	**.005 - .010**	**1.999**	**.310**	**.005 - .010**	2.000	.591	.025 - .040	2.000	1.389	.015 - .080	2.005	1.260	.025 - .040	2.041	1.500	.040 - .060
1.995	**.395**	**.005 - .010**	1.999	.313	.050 - .070	2.000	.594	.170 - .190	2.000	1.402	.105 - .125	2.005	1.261	.070 - .090	2.041	1.773	.020 - .030
1.995	**.404**	**.005 - .010**	1.999	.388	.105 - .135	2.000	.619	.015 - .030	**2.000**	**1.450**	**.005 - .010**	2.005	1.515	.010 - .020	2.042	.331	.040 - .060
1.995	.405	.040 - .060	1.999	.406	.160 - .190	2.000	.620	.040 - .060	**2.000**	**1.499**	**.005 - .010**	2.006	1.280	.105 - .135	2.042	1.312	.050 - .070
1.995	.453	.060 - .080	1.999	.407	.100 - .125	2.000	.625	.100 - .125	2.000	1.500	.005 - .125	**2.006**	**1.775**	**.005 - .010**	2.042	1.630	.040 - .060
1.995	**.634**	**.005 - .010**	1.999	.452	.100 - .125	2.000	.626	.015 - .030	2.000	1.502	.010 - .020	**2.007**	**.826**	**.005 - .010**	2.042	1.795	.050 - .075
1.995	.750	.105 - .125	1.999	.484	.070 - .090	2.000	.627	.040 - .060	2.000	1.511	.090 - .125	2.007	1.533	.040 - .060	2.042	1.940	.020 - .030
1.995	.886	.090 - .120	1.999	.515	.156 - .187	2.000	.628	.020 - .040	2.000	1.513	.015 - .030	2.008	.765	.105 - .125	2.043	1.825	.015 - .030
1.995	1.000	.030 - .050	1.999	.562	.100 - .125	2.000	.632	.010 - .020	**2.000**	**1.515**	**.005 - .060**	2.008	1.254	.135 - .156	2.043	1.940	.010 - .020
1.995	1.128	.120 - .135	1.999	.667	.030 - .040	**2.000**	**.636**	**.005 - .010**	**2.000**	**1.536**	**.005 - .010**	**2.008**	**1.319**	**.005 - .010**	2.044	1.025	.050 - .070
1.995	1.500	.048 - .062	1.999	.687	.156 - .187	2.000	.644	.090 - .105	**2.000**	**1.589**	**.005 - .010**	**2.008**	**1.392**	**.005 - .012**	2.044	1.826	.010 - .020
1.995	1.636	.015 - .030	1.999	.691	.120 - .140	2.000	.657	.100 - .125	2.000	1.625	.050 - .060	2.008	1.676	.070 - .090	2.045	.344	.040 - .060
1.995	1.663	.020 - .040	1.999	.749	.025 - .040	2.000	.670	.090 - .125	2.000	1.626	.105 - .125	2.009	.239	.040 - .065	**2.045**	**.722**	**.005 - .030**
1.995	1.758	.015 - .030	1.999	.750	.156 - .187	2.000	.685	.080 - .105	**2.000**	**1.635**	**.005 - .015**	2.009	1.783	.070 - .090	**2.045**	**.724**	**.005 - .050**
1.995	1.818	.015 - .030	1.999	.753	.020 - .030	2.000	.692	.090 - .120	**2.000**	**1.649**	**.005 - .020**	2.009	1.804	.030 - .050	2.045	1.256	.050 - .070
1.996	**.269**	**.005 - .010**	1.999	.797	.020 - .040	2.000	.700	.020 - .030	**2.000**	**1.654**	**.005 - .105**	2.010	.567	.105 - .125	2.045	1.344	.040 - .060
1.996	**.381**	**.005 - .010**	1.999	.813	.135 - .156	2.000	.750	.105 - .125	2.000	1.670	.025 - .040	**2.010**	**1.084**	**.005 - .010**	**2.045**	**1.703**	**.005 - .010**
1.996	.391	.105 - .125	1.999	.937	.075 - .090	2.000	.752	.010 - .020	**2.000**	**1.695**	**.005 - .010**	2.010	1.470	.050 - .070	2.045	1.730	.010 - .020
1.996	**.647**	**.005 - .010**	1.999	.977	.015 - .030	**2.000**	**.753**	**.005 - .010**	2.000	1.749	.010 - .060	2.010	1.699	.050 - .070	**2.045**	**1.881**	**.005 - .010**
1.996	**.768**	**.005 - .010**	1.999	1.000	.030 - .040	**2.000**	**.758**	**.005 - .010**	2.000	1.755	.080 - .100	**2.010**	**1.705**	**.005 - .010**	2.046	1.536	.060 - .080
1.996	**.821**	**.005 - .010**	**1.999**	**1.015**	**.005 - .010**	2.000	.761	.090 - .110	2.000	1.780	.015 - .040	2.013	1.003	.015 - .030	2.046	1.611	.070 - .090
1.996	**1.045**	**.005 - .010**	1.999	1.033	.160 - .190	**2.000**	**.779**	**.005 - .010**	**2.000**	**1.810**	**.005 - .020**	2.013	1.502	.020 - .040	2.046	1.730	.020 - .030
1.996	1.120	.135 - .156	**1.999**	**1.034**	**.005 - .010**	2.000	.780	.015 - .030	2.000	1.843	.010 - .025	**2.013**	**1.658**	**.005 - .010**	2.047	.551	.060 - .080
1.996	**1.404**	**.005 - .010**	**1.999**	**1.143**	**.005 - .010**	**2.000**	**.781**	**.005 - .060**	2.000	2.064	.015 - .030	2.015	1.383	.030 - .040	2.047	.747	.015 - .030
1.996	1.504	.010 - .020	1.999	1.289	.025 - .040	**2.000**	**.786**	**.005 - .010**	2.001	.198	.010 - .020	**2.016**	**1.687**	**.005 - .010**	2.047	.807	.070 - .090
1.996	**1.666**	**.005 - .010**	**1.999**	**1.308**	**.005 - .020**	2.000	.797	.020 - .040	**2.001**	**.245**	**.005 - .010**	2.017	1.614	.020 - .040	2.047	.828	.025 - .040
1.996	1.751	.050 - .070	1.999	1.504	.025 - .042	2.000	.812	.080 - .105	2.001	.250	.100 - .125	2.018	1.510	.030 - .050	2.047	.965	.025 - .040
1.996	1.850	.010 - .030	**1.999**	**1.560**	**.005 - .010**	2.000	.875	.010 - .020	2.001	.315	.105 - .120	2.019	.502	.030 - .050	2.047	.985	.070 - .080
1.997	.310	.080 - .100	1.999	1.655	.040 - .060	2.000	.876	.105 - .125	2.001	.345	.125 - .135	2.019	.508	.050 - .070	2.047	1.102	.060 - .080
1.997	.407	.050 - .070	1.999	1.685	.020 - .030	2.000	.880	.010 - .020	2.001	.375	.105 - .125	2.019	1.623	.015 - .030	**2.047**	**1.274**	**.005 - .010**
1.997	.500	.105 - .125	1.999	1.692	.030 - .040	2.000	.906	.015 - .060	2.001	.381	.020 - .030	2.020	.280	.100 - .125	2.047	1.417	.060 - .080
1.997	**.561**	**.005 - .010**				2.000	.977	.025 - .040	**2.001**	**.447**	**.005 - .010**	2.020	1.551	.080 - .100	2.047	1.692	.060 - .080
1.997	.623	.156 - .190				2.000	.979	.020 - .040	2.001	.499	.170 - .190	2.020	1.682	.015 - .030	2.047	1.773	.015 - .030
1.997	**.700**	**.005 - .010**				2.000	1.000	.055 - .070	2.001	.501	.015 - .030	**2.021**	**.604**	**.005 - .010**	2.047	1.811	.025 - .040
1.997	.720	.020 - .035				**2.000**	**1.005**	**.005 - .010**	2.001	.592	.120 - .135	**2.021**	**1.014**	**.005 - .010**	**2.048**	**.296**	**.005 - .010**
1.997	.766	.010 - .020				2.000	1.006	.083 - .105	**2.001**	**.750**	**.005 - .010**	2.021	1.669	.015 - .030	**2.048**	**.626**	**.005 - .010**
1.997	**.913**	**.005 - .010**				2.000	1.014	.035 - .060	**2.001**	**.755**	**.005 - .010**	2.022	1.184	.010 - .020	**2.048**	**.631**	**.005 - .010**
1.997	1.021	.030 - .050				2.000	1.015	.050 - .075	**2.001**	**.813**	**.005 - .010**	2.024	.810	.030 - .050	2.048	1.260	.070 - .090
1.997	1.061	.050 - .075				2.000	1.020	.015 - .030	2.001	.814	.060 - .080	2.025	1.531	.050 - .070	2.048	1.378	.030 - .050
1.997	**1.071**	**.005 - .010**	**2.000**	**.160**	**.005 - .015**	2.000	1.030	.010 - .125	2.001	.942	.105 - .135	2.025	1.600	.010 - .020	**2.048**	**1.387**	**.005 - .010**
1.997	**1.254**	**.005 - .010**	2.000	.165	.050 - .070	2.000	1.031	.050 - .070	2.001	1.020	.015 - .030	2.027	1.575	.015 - .030	2.048	1.393	.070 - .090
1.997	**1.414**	**.005 - .010**	**2.000**	**.180**	**.005 - .010**	2.000	1.060	.015 - .030	2.001	1.105	.080 - .104	**2.029**	**1.222**	**.005 - .010**	2.048	1.748	.020 - .040
1.997	1.503	.080 - .105	2.000	.194	.036 - .050	2.000	1.062	.100 - .125	2.001	1.155	.105 - .125	2.029	1.626	.050 - .070	**2.049**	**1.209**	**.005 - .010**
1.997	**1.584**	**.005 - .010**	2.000	.205	.060 - .125	2.000	1.064	.100 - .125	2.001	1.282	.105 - .125	**2.029**	**1.755**	**.005 - .010**	**2.049**	**1.854**	**.005 - .010**
1.997	**1.849**	**.005 - .010**	2.000	.210	.105 - .135	2.000	1.075	.015 - .030	2.001	1.312	.050 - .070	2.030	.936	.050 - .070	2.050	.140	.060 - .080
1.998	.251	.105 - .125	2.000	.221	.030 - .050	**2.000**	**1.090**	**.005 - .010**	2.001	1.397	.015 - .025	2.030	1.060	.050 - .070	**2.050**	**.253**	**.005 - .010**
1.998	**.328**	**.005 - .010**	2.000	.250	.025 - .125	2.000	1.108	.040 - .060	**2.001**	**1.505**	**.005 - .010**	2.030	1.184	.050 - .070	2.050	.406	.105 - .125
1.998	**.426**	**.005 - .010**	**2.000**	**.253**	**.005 - .010**	2.000	1.125	.015 - .062	**2.001**	**1.522**	**.005 - .010**	2.030	1.310	.050 - .070	**2.050**	**.506**	**.005 - .010**
1.998	.441	.120 - .135	2.000	.255	.030 - .060	2.000	1.131	.030 - .062	2.001	1.583	.025 - .040	2.030	1.434	.050 - .070	2.050	.626	.010 - .020

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For a size NOT listed, send specs or phone for quote — (800) 927-4377, Fax (800) 321-3462.

O.D.	I.D.	Choose Any Thickness From - To	O.D.	I.D.	Choose Any Thickness From - To	O.D.	I.D.	Choose Any Thickness From - To	O.D.	I.D.	Choose Any Thickness From - To	O.D.	I.D.	Choose Any Thickness From - To	O.D.	I.D.	Choose Any Thickness From - To
2.050	.627	.010 - .020	2.081	.820	.042 - .060	**2.119**	**1.512**	.005 - .010	2.126	1.950	.040 - .060	2.151	.687	.100 - .125	2.179	1.500	.030 - .050
2.050	**.629**	.005 - .010	2.081	1.060	.010 - .020	2.119	1.587	.050 - .070	**2.127**	**.385**	.005 - .010	2.151	.874	.100 - .125	2.180	1.133	.070 - .090
2.050	**.630**	.005 - .020	**2.082**	**1.883**	.005 - .010	2.120	.628	.050 - .075	2.127	.406	.100 - .120	2.151	1.379	.025 - .040	**2.180**	**1.200**	.005 - .075
2.050	.731	.010 - .020	2.082	1.942	.020 - .030	2.120	.810	.015 - .030	2.127	.754	.040 - .060	**2.152**	**.630**	.005 - .010	2.180	1.662	.080 - .100
2.050	1.425	.030 - .050	**2.083**	**1.440**	.005 - .010	2.120	.875	.040 - .062	2.127	.999	.010 - .020	2.153	.724	.100 - .134	2.181	.499	.015 - .030
2.050	1.660	.075 - .090	2.085	1.429	.040 - .060	2.120	.927	.156 - .187	2.127	1.021	.080 - .105	2.153	.875	.100 - .125	2.181	1.507	.025 - .040
2.050	1.708	.040 - .060	2.085	1.801	.025 - .040	2.120	1.014	.015 - .030	**2.127**	**1.260**	.005 - .010	2.153	1.725	.050 - .070	2.182	1.511	.050 - .070
2.052	.626	.025 - .040	2.086	.787	.020 - .035	2.120	1.187	.015 - .025	**2.127**	**1.625**	.005 - .010	2.153	2.013	.040 - .060	2.182	2.067	.010 - .020
2.054	1.274	.010 - .020	**2.086**	**1.674**	.005 - .010	2.120	1.305	.030 - .050	2.127	1.673	.040 - .060	2.154	.132	.016 - .030	2.182	2.092	.025 - .035
2.054	1.384	.025 - .040	2.089	1.508	.050 - .070	2.120	1.490	.090 - .105	2.128	1.122	.050 - .075	2.154	1.780	.040 - .060	2.183	1.384	.100 - .125
2.054	1.632	.015 - .030	2.090	.815	.070 - .090	2.120	1.506	.050 - .070	2.128	1.374	.060 - .080	2.154	1.957	.010 - .020	2.184	1.788	.030 - .040
2.055	**1.570**	.005 - .010	2.090	.941	.110 - .135	2.120	1.615	.050 - .075	2.128	1.505	.050 - .070	**2.155**	**1.325**	.005 - .010	2.185	1.781	.030 - .050
2.056	.528	.048 - .062	2.092	1.801	.010 - .020	2.120	1.698	.010 - .020	**2.128**	**1.626**	.005 - .010	2.155	1.957	.015 - .030	2.187	.251	.050 - .070
2.057	.390	.040 - .060	2.093	.223	.100 - .125	2.120	1.785	.050 - .075	**2.128**	**1.668**	.005 - .010	2.156	.345	.030 - .060	**2.187**	**.565**	.005 - .010
2.058	.482	.048 - .062	2.093	1.001	.060 - .080	2.120	1.811	.080 - .105	2.129	.251	.050 - .070	2.156	.877	.110 - .130	2.187	.822	.060 - .080
2.058	.519	.156 - .190	**2.093**	**1.656**	.005 - .010	2.120	1.819	.025 - .040	2.129	.533	.105 - .135	2.156	1.312	.050 - .070	2.188	.320	.050 - .070
2.058	.630	.105 - .135	2.095	.473	.080 - .100	2.121	1.903	.010 - .020	2.129	.735	.020 - .040	2.156	2.006	.015 - .030	2.188	.446	.050 - .070
2.058	1.010	.010 - .020	2.095	.688	.105 - .135	2.122	1.507	.020 - .030	2.129	1.282	.050 - .070	2.157	.344	.050 - .075	2.188	.781	.100 - .134
2.058	1.196	.050 - .070	2.095	.875	.105 - .135	2.122	1.631	.020 - .030	2.129	1.500	.010 - .020	**2.157**	**.350**	.005 - .010	2.188	1.126	.050 - .075
2.058	1.515	.020 - .040	**2.095**	**1.890**	.005 - .010	**2.122**	**1.877**	.005 - .010	2.129	1.524	.100 - .125	2.157	.629	.120 - .135	2.189	1.690	.025 - .040
2.058	1.671	.050 - .060	**2.095**	**1.901**	.005 - .010	2.122	1.878	.020 - .040	2.130	.293	.050 - .070	**2.157**	**1.253**	.005 - .010	2.190	1.125	.025 - .040
2.059	.402	.030 - .060	**2.095**	**1.946**	.005 - .010	2.123	.890	.090 - .105	2.130	.516	.040 - .060	2.157	1.344	.050 - .075	2.190	1.455	.020 - .040
2.059	1.671	.030 - .060	2.096	.202	.015 - .020	2.123	.906	.090 - .125	2.130	.532	.134 - .156	2.157	1.427	.040 - .050	2.190	1.517	.015 - .030
2.059	1.750	.050 - .075	2.096	1.186	.015 - .030	2.123	1.008	.050 - .070	2.130	.549	.040 - .060	2.157	1.670	.015 - .030	**2.190**	**1.627**	.005 - .010
2.059	**1.759**	.005 - .010	2.097	1.013	.110 - .125	2.123	1.645	.105 - .125	2.130	.860	.100 - .125	2.157	2.006	.010 - .020	2.190	1.711	.015 - .030
2.060	.221	.050 - .075	2.098	.253	.025 - .040	2.123	1.659	.105 - .125	2.130	1.030	.015 - .030	2.158	1.060	.075 - .090	2.191	1.254	.015 - .030
2.060	**.254**	.005 - .125	2.098	.760	.015 - .030	**2.123**	**1.811**	.005 - .010	**2.130**	**1.057**	.005 - .010	2.158	1.063	.080 - .120	2.191	1.892	.060 - .080
2.060	.254	.126 - .130	2.098	1.013	.010 - .020	2.124	.312	.080 - .100	2.130	1.625	.040 - .060	**2.158**	**1.469**	.005 - .010	2.191	2.005	.015 - .030
2.060	**.312**	.005 - .010	2.098	1.635	.010 - .020	2.124	1.127	.015 - .030	**2.130**	**1.762**	.005 - .010	2.158	1.564	.080 - .120	2.192	1.636	.040 - .062
2.060	**.390**	.005 - .010	2.099	1.200	.010 - .020	2.124	1.250	.010 - .020	2.130	1.869	.025 - .040	2.158	1.727	.030 - .050	2.192	1.754	.030 - .040
2.060	**.443**	.005 - .010	**2.099**	**1.638**	.005 - .010	2.124	1.580	.040 - .060	2.130	1.871	.010 - .020	2.159	.386	.010 - .020	2.193	.972	.025 - .042
2.060	.530	.050 - .075	2.100	.753	.025 - .040	2.124	1.815	.070 - .090	2.131	1.658	.015 - .030	2.159	1.690	.025 - .040	2.193	1.934	.030 - .040
2.060	.800	.025 - .036	2.100	.794	.010 - .020	2.125	.346	.050 - .075	2.131	1.878	.080 - .105	2.160	1.127	.020 - .030	2.193	2.006	.010 - .020
2.060	.890	.080 - .104	2.100	1.391	.020 - .030	2.125	.380	.100 - .125	2.131	2.031	.030 - .050	2.160	1.400	.040 - .125	2.196	1.698	.010 - .020
2.060	1.141	.040 - .060	2.100	1.406	.050 - .070	2.125	.500	.080 - .100	2.132	.250	.090 - .110	2.160	1.730	.020 - .040	**2.196**	**1.702**	.005 - .010
2.060	1.438	.030 - .050	**2.100**	**1.640**	.005 - .015	**2.125**	**.507**	.005 - .010	2.132	1.190	.060 - .080	2.162	.668	.020 - .030	**2.196**	**1.982**	.005 - .010
2.060	1.450	.025 - .042	2.100	1.656	.105 - .125	2.125	.562	.100 - .125	2.134	1.410	.015 - .030	2.162	.756	.025 - .040	2.197	1.650	.040 - .060
2.060	**1.511**	.005 - .010	**2.100**	**1.825**	.005 - .010	2.125	.565	.010 - .020	2.134	1.729	.060 - .080	2.162	.857	.020 - .030	2.198	1.047	.040 - .060
2.060	1.520	.040 - .060	2.100	1.830	.010 - .020	2.125	.626	.015 - .030	**2.134**	**1.752**	.005 - .012	2.162	1.512	.080 - .105	2.198	1.126	.040 - .060
2.060	1.629	.015 - .030	2.100	1.900	.050 - .075	2.125	.655	.075 - .100	2.134	1.898	.020 - .040	2.162	1.724	.134 - .160	**2.198**	**2.047**	.005 - .010
2.060	1.672	.020 - .040	**2.100**	**1.933**	.005 - .010	2.125	.695	.090 - .105	2.135	1.120	.100 - .120	2.162	1.760	.032 - .050	**2.199**	**.250**	.005 - .010
2.060	**1.805**	.005 - .010	2.100	1.971	.010 - .020	**2.125**	**.705**	.005 - .010	2.136	1.578	.060 - .080	2.163	.252	.030 - .050	2.199	.629	.015 - .030
2.061	1.291	.060 - .080	2.101	.564	.010 - .020	2.125	.761	.060 - .090	**2.137**	**1.969**	.005 - .010	**2.163**	**.678**	.005 - .010	2.199	.706	.050 - .070
2.061	1.734	.020 - .035	2.101	1.731	.025 - .040	2.125	.813	.110 - .135	**2.138**	**1.897**	.005 - .010	2.163	1.929	.060 - .080	**2.199**	**.840**	.005 - .010
2.062	**.372**	.005 - .010	2.102	.792	.030 - .040	**2.125**	**.895**	.005 - .010	2.138	1.968	.025 - .040	**2.163**	**2.028**	.005 - .010	2.200	.360	.050 - .070
2.062	.515	.100 - .125	2.103	1.781	.010 - .020	2.125	.907	.020 - .030	2.139	1.417	.080 - .104	2.164	1.801	.025 - .040	2.200	.628	.010 - .020
2.062	**.625**	.005 - .032	2.104	1.250	.060 - .080	2.125	1.015	.105 - .125	**2.139**	**1.454**	.005 - .010	2.164	1.898	.070 - .090	2.200	.880	.060 - .070
2.062	.630	.050 - .070	2.104	1.680	.040 - .060	**2.125**	**1.070**	.005 - .010	**2.139**	**1.818**	.005 - .010	2.164	1.908	.050 - .070	**2.200**	**1.010**	.005 - .060
2.062	.766	.040 - .060	2.106	1.808	.015 - .030	2.125	1.075	.010 - .020	2.139	1.821	.025 - .040	**2.165**	**.254**	.005 - .010	2.200	1.378	.105 - .125
2.062	1.371	.070 - .090	2.106	1.814	.050 - .075	2.125	1.100	.030 - .050	2.139	1.896	.030 - .040	2.165	.323	.030 - .050	2.200	1.519	.030 - .050
2.062	1.381	.015 - .030	2.107	.314	.105 - .125	2.125	1.123	.060 - .080	2.140	1.730	.025 - .040	2.165	.670	.105 - .135	2.200	1.599	.048 - .075
2.063	.392	.050 - .070	2.108	1.801	.075 - .090	2.125	1.251	.050 - .075	2.140	2.012	.040 - .060	**2.165**	**1.380**	.005 - .010	2.200	1.700	.048 - .075
2.063	.751	.030 - .050	2.109	1.726	.025 - .040	2.125	1.252	.090 - .105	2.142	1.545	.030 - .050	2.165	1.506	.050 - .070	2.200	1.800	.105 - .120
2.063	**1.062**	.005 - .010	2.109	1.829	.080 - .100	2.125	1.260	.075 - .090	**2.142**	**1.941**	.005 - .010	**2.165**	**1.645**	.005 - .010	2.200	1.884	.030 - .050
2.063	**1.312**	.005 - .010	2.111	1.436	.010 - .020	2.125	1.308	.025 - .050	**2.142**	**2.003**	.005 - .010	2.165	1.660	.080 - .100	2.200	1.920	.020 - .030
2.063	**1.628**	.005 - .010	2.112	1.260	.080 - .105	2.125	1.339	.080 - .105	**2.143**	**1.621**	.005 - .010	2.165	1.701	.030 - .050	**2.201**	**.505**	.005 - .020
2.065	1.564	.040 - .070	2.112	1.509	.020 - .040	2.125	1.376	.015 - .030	2.143	1.730	.020 - .040	2.165	1.790	.040 - .050	**2.201**	**.755**	.005 - .010
2.065	1.570	.050 - .070	2.112	1.831	.050 - .070	2.125	1.408	.030 - .050	2.143	1.791	.010 - .020	**2.165**	**1.800**	.005 - .010	2.201	1.520	.040 - .060
2.065	1.722	.015 - .030	2.113	.256	.006 - .016	2.125	1.439	.015 - .030	**2.144**	**1.890**	.005 - .010	**2.165**	**1.968**	.005 - .010	2.201	2.010	.010 - .020
2.065	1.857	.075 - .090	2.113	.876	.015 - .030	2.125	1.500	.015 - .104	**2.145**	**.845**	.005 - .010	2.166	.458	.090 - .105	**2.201**	**2.039**	.005 - .010
2.066	1.718	.030 - .050	2.113	1.497	.070 - .090	2.125	1.504	.040 - .060	**2.145**	**1.730**	.005 - .010	2.166	1.216	.050 - .070	2.202	.752	.015 - .030
2.070	1.180	.080 - .104	2.113	1.535	.010 - .020	**2.125**	**1.507**	.005 - .060	**2.145**	**1.967**	.005 - .010	2.166	1.594	.060 - .090	**2.202**	**1.887**	.005 - .010
2.070	1.530	.020 - .030	2.113	1.735	.040 - .060	2.125	1.526	.040 - .060	2.146	1.645	.070 - .090	2.167	1.408	.070 - .090	2.203	.255	.100 - .125
2.070	1.780	.090 - .105	2.113	1.890	.020 - .040	**2.125**	**1.580**	.005 - .010	2.146	1.654	.075 - .090	**2.167**	**1.718**	.005 - .010	2.203	1.026	.010 - .020
2.071	1.749	.010 - .020	**2.113**	**1.916**	.005 - .010	2.125	1.625	.015 - .030	**2.146**	**1.743**	.005 - .020	2.167	1.772	.070 - .090	2.203	1.582	.050 - .075
2.072	1.277	.015 - .030	2.114	1.190	.025 - .040	2.125	1.641	.010 - .040	2.147	1.671	.030 - .050	2.169	.720	.020 - .030	2.203	1.884	.030 - .050
2.074	1.500	.040 - .060	2.114	1.900	.015 - .030	2.125	1.642	.040 - .060	2.148	.626	.015 - .030	2.170	1.520	.015 - .030	2.205	1.122	.050 - .070
2.075	1.969	.030 - .050	2.115	.986	.080 - .100	2.125	1.671	.010 - .020	2.148	.690	.105 - .135	**2.170**	**1.556**	.005 - .010	2.205	1.127	.040 - .060
2.076	1.629	.050 - .070	2.115	1.762	.020 - .030	2.125	1.750	.010 - .020	2.148	.878	.105 - .135	2.171	1.900	.010 - .020	2.205	1.772	.070 - .090
2.077	1.155	.080 - .104	2.116	1.330	.030 - .050	2.125	1.751	.090 - .105	2.148	1.003	.010 - .020	**2.171**	**1.969**	.005 - .010	2.205	1.912	.070 - .090
2.077	1.380	.080 - .104	**2.117**	**1.152**	.005 - .010	2.125	1.757	.025 - .050	2.148	1.764	.030 - .040	2.172	1.760	.020 - .030	**2.206**	**.631**	.005 - .010
2.077	1.639	.030 - .050	**2.117**	**1.764**	.005 - .010	2.125	1.781	.025 - .040	2.148	1.778	.050 - .070	**2.173**	**1.393**	.005 - .010	**2.206**	**1.791**	.005 - .010
2.077	1.719	.030 - .050	2.118	1.382	.070 - .090	2.125	1.852	.015 - .030	2.148	1.988	.060 - .075	**2.173**	**1.709**	.005 - .010	2.206	1.980	.050 - .100
2.078	**1.237**	.005 - .010	2.118	1.508	.105 - .125	2.125	1.876	.050 - .070	2.150	.505	.010 - .020	2.175	1.710	.020 - .040	2.208	1.928	.060 - .070
2.078	1.691	.050 - .060	**2.118**	**1.537**	.005 - .010	**2.125**	**1.891**	.005 - .010	2.150	.631	.010 - .020	2.176	.942	.050 - .070	2.210	1.015	.050 - .060
2.079	1.750	.060 - .080	2.118	1.610	.070 - .080	**2.125**	**1.978**	.005 - .020	2.150	.813	.100 - .125	2.176	2.068	.010 - .020	2.210	1.215	.090 - .125
2.080	.834	.070 - .090	2.118	1.641	.060 - .080	2.126	.439	.010 - .030	2.150	1.250	.100 - .125	2.177	1.545	.010 - .020	2.210	1.625	.040 - .125
2.080	**1.600**	.005 - .040	2.118	1.887	.025 - .040	**2.126**	**.631**	.005 - .010	2.150	1.379	.020 - .040	2.177	2.051	.040 - .060	2.211	.127	.040 - .060
2.080	1.695	.090 - .105	2.119	1.061	.075 - .090	2.126	.755	.050 - .105	2.150	1.778	.015 - .050	2.178	.362	.050 - .070	2.211	1.933	.010 - .020
2.080	1.719	.030 - .040	**2.119**	**1.503**	.005 - .010	2.126	.755	.050 - .105	**2.151**	**.629**	.005 - .010	**2.179**	**1.208**	.005 - .010	2.215	.880	.050 - .075

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
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Call BOKER'S for precision stamping, assembly, and secondary operations.

Each group of columns lists: **O.D.**, **I.D.**, **Choose Any Thickness* (From – To)**.

O.D.	I.D.	Thickness	O.D.	I.D.	Thickness	O.D.	I.D.	Thickness	O.D.	I.D.	Thickness	O.D.	I.D.	Thickness	O.D.	I.D.	Thickness
2.215	.913	.005-.040	2.245	1.417	.080-.125	2.250	.643	.135-.156	2.252	1.000	.040-.060	2.295	2.052	.025-.040	2.324	1.253	.025-.040
2.215	.916	.005-.010	2.245	1.738	.110-.130	2.250	.662	.140-.160	2.252	1.032	.005-.010	2.296	.187	.025-.040	2.325	1.851	.050-.070
2.215	.933	.040-.060	2.245	2.007	.010-.015	2.250	.688	.104-.125	2.252	1.253	.050-.070	2.296	.501	.015-.025	2.325	2.008	.015-.060
2.215	1.153	.060-.090	2.246	.378	.080-.100	2.250	.745	.020-.040	2.252	1.511	.050-.075	2.296	2.068	.025-.040	2.325	2.062	.005-.010
2.215	1.434	.075-.100	2.246	.627	.025-.040	2.250	.750	.075-.104	2.252	1.656	.005-.010	2.297	1.960	.005-.010	2.325	2.148	.005-.010
2.215	1.510	.005-.010	2.246	.631	.156-.179	2.250	.759	.090-.105	2.252	1.887	.005-.010	2.298	.402	.105-.125	2.328	.500	.120-.135
2.215	1.976	.010-.020	2.246	1.048	.050-.070	2.250	.771	.060-.080	2.252	1.979	.080-.105	2.298	1.325	.005-.010	2.328	1.199	.030-.050
2.215	1.977	.010-.020	2.246	1.058	.050-.070	2.250	.781	.100-.134	2.253	.188	.025-.040	2.300	.196	.005-.010	2.328	2.006	.005-.010
2.216	.914	.050-.060	2.246	1.064	.025-.040	2.250	.790	.040-.060	2.253	.252	.025-.040	2.300	.504	.010-.020	2.330	1.200	.005-.010
2.216	1.575	.025-.040	2.246	1.813	.050-.075	2.250	.795	.050-.070	2.253	.517	.105-.125	2.300	.628	.005-.010	2.331	1.627	.090-.110
2.217	1.632	.040-.060	2.247	.538	.010-.020	2.250	.874	.060-.080	2.253	.642	.120-.135	2.300	.631	.005-.010	2.334	2.162	.010-.020
2.218	.127	.042-.060	2.247	.762	.005-.010	2.250	.875	.125-.156	2.253	.780	.005-.010	2.300	1.314	.105-.135	2.334	2.164	.025-.040
2.218	.328	.010-.020	2.247	.905	.010-.020	2.250	.877	.070-.090	2.253	1.011	.030-.050	2.300	1.654	.050-.070	2.335	1.968	.050-.070
2.219	1.686	.010-.020	2.247	1.200	.010-.020	2.250	.880	.005-.010	2.253	1.063	.120-.156	2.300	1.678	.005-.010	2.335	1.995	.020-.030
2.220	.190	.005-.010	2.248	.250	.105-.120	2.250	.885	.125-.135	2.253	1.145	.120-.134	2.300	1.950	.030-.050	2.338	1.636	.020-.040
2.220	.886	.005-.010	2.248	.620	.015-.030	2.250	1.004	.080-.100	2.253	1.751	.105-.135	2.300	2.000	.040-.060	2.339	.430	.060-.080
2.220	1.290	.150-.164	2.248	.656	.156-.187	2.250	1.014	.005-.010	2.253	1.752	.050-.070	2.301	.625	.005-.010	2.339	2.235	.020-.030
2.220	1.906	.050-.070	2.248	.883	.005-.010	2.250	1.022	.090-.104	2.253	1.973	.050-.070	2.301	1.480	.050-.125	2.340	1.752	.005-.025
2.221	1.312	.100-.125	2.248	1.033	.105-.120	2.250	1.040	.010-.090	2.254	1.511	.020-.030	2.302	1.620	.050-.070	2.341	2.200	.005-.060
2.222	.826	.030-.050	2.248	1.127	.050-.075	2.250	1.060	.015-.030	2.254	1.555	.110-.130	2.303	2.000	.005-.010	2.342	1.770	.075-.090
2.225	.812	.020-.040	2.248	1.190	.005-.010	2.250	1.067	.005-.010	2.255	1.032	.090-.120	2.303	2.194	.005-.010	2.342	2.001	.050-.070
2.225	1.804	.050-.070	2.248	1.249	.015-.030	2.250	1.180	.105-.135	2.255	1.242	.030-.040	2.304	1.905	.100-.120	2.343	1.773	.005-.010
2.226	1.616	.080-.100	2.248	1.250	.090-.105	2.250	1.255	.040-.060	2.255	1.625	.040-.062	2.304	2.000	.005-.010	2.344	1.033	.020-.040
2.226	1.650	.020-.040	2.248	1.290	.105-.125	2.250	1.256	.005-.010	2.255	1.645	.005-.010	2.305	1.498	.008-.016	2.345	.718	.090-.105
2.227	1.451	.050-.070	2.248	1.315	.005-.010	2.250	1.257	.025-.042	2.256	1.281	.090-.125	2.305	1.681	.050-.075	2.345	1.370	.060-.070
2.227	1.800	.020-.070	2.248	1.507	.030-.050	2.250	1.263	.060-.080	2.256	1.778	.030-.040	2.306	1.899	.048-.062	2.346	2.074	.030-.050
2.227	1.855	.105-.135	2.248	1.508	.005-.010	2.250	1.265	.050-.135	2.257	1.938	.005-.010	2.307	1.199	.030-.050	2.347	1.437	.050-.070
2.228	1.685	.105-.125	2.248	1.655	.005-.090	2.250	1.274	.080-.104	2.260	.880	.030-.040	2.307	1.893	.110-.130	2.347	2.110	.005-.010
2.228	1.857	.060-.090	2.248	1.749	.015-.035	2.250	1.278	.100-.134	2.260	1.268	.005-.010	2.308	2.208	.005-.015	2.348	.747	.050-.070
2.230	1.800	.030-.120	2.248	1.753	.005-.010	2.250	1.279	.005-.010	2.260	1.320	.010-.030	2.309	1.061	.015-.030	2.348	.783	.075-.090
2.230	1.937	.072-.090	2.248	1.767	.080-.100	2.250	1.286	.010-.020	2.260	1.890	.015-.030	2.310	.661	.015-.030	2.348	1.380	.060-.080
2.230	1.939	.005-.010	2.248	1.875	.030-.050	2.250	1.311	.040-.060	2.265	1.635	.005-.010	2.310	.890	.030-.050	2.348	2.000	.042-.062
2.231	1.763	.050-.060	2.248	1.889	.025-.040	2.250	1.335	.025-.050	2.265	1.880	.010-.020	2.310	1.136	.080-.105	2.348	2.067	.015-.030
2.232	1.761	.050-.070	2.248	1.912	.050-.070	2.250	1.375	.010-.020	2.266	.354	.060-.080	2.310	1.636	.005-.010	2.349	.502	.100-.120
2.232	1.764	.010-.030	2.248	1.990	.005-.010	2.250	1.380	.015-.030	2.267	1.932	.025-.040	2.310	1.693	.005-.010	2.349	1.494	.025-.040
2.233	1.845	.010-.020	2.248	2.000	.010-.020	2.250	1.387	.105-.134	2.268	.316	.015-.030	2.310	1.873	.070-.090	2.349	2.005	.060-.090
2.234	1.250	.015-.025	2.248	2.002	.080-.100	2.250	1.425	.030-.050	2.269	.916	.005-.010	2.310	1.997	.010-.025	2.350	.754	.015-.030
2.235	1.034	.005-.010	2.249	.316	.050-.070	2.250	1.438	.030-.050	2.269	1.260	.050-.070	2.311	.312	.030-.050	2.350	1.250	.090-.105
2.235	1.499	.050-.070	2.249	.438	.156-.187	2.250	1.442	.050-.075	2.270	1.813	.020-.030	2.311	.532	.050-.070	2.350	1.267	.050-.070
2.235	1.640	.005-.010	2.249	.439	.104-.120	2.250	1.500	.060-.156	2.270	1.885	.030-.050	2.311	.633	.030-.050	2.350	1.815	.005-.010
2.235	1.950	.040-.060	2.249	.540	.015-.030	2.250	1.510	.005-.010	2.270	1.890	.036-.060	2.311	1.067	.005-.010	2.350	1.947	.090-.105
2.236	1.442	.005-.010	2.249	.542	.150-.170	2.250	1.530	.042-.060	2.270	1.980	.015-.030	2.311	1.688	.025-.040	2.350	2.010	.010-.040
2.236	1.562	.070-.090	2.249	.752	.005-.010	2.250	1.563	.050-.104	2.271	.258	.060-.080	2.311	1.934	.050-.070	2.351	.270	.080-.100
2.238	1.427	.025-.040	2.249	.756	.005-.010	2.250	1.598	.030-.050	2.271	1.979	.005-.010	2.311	2.080	.030-.050	2.351	.628	.010-.020
2.239	.875	.100-.125	2.249	.800	.080-.100	2.250	1.615	.015-.030	2.271	1.980	.005-.010	2.312	.502	.125-.135	2.351	1.659	.010-.020
2.239	1.020	.156-.188	2.249	1.217	.005-.010	2.250	1.620	.040-.060	2.272	.443	.080-.100	2.312	.563	.050-.070	2.352	.638	.156-.190
2.239	1.260	.050-.060	2.249	1.640	.005-.020	2.250	1.628	.110-.130	2.273	.590	.100-.125	2.312	1.003	.005-.010	2.352	1.660	.005-.010
2.239	1.773	.050-.070	2.249	1.711	.040-.060	2.250	1.630	.005-.020	2.273	.665	.100-.125	2.312	1.640	.015-.030	2.354	2.100	.010-.020
2.240	.782	.156-.188				2.250	1.631	.005-.020	2.273	1.910	.010-.020	2.312	1.651	.105-.134	2.355	1.873	.005-.010
2.240	1.115	.020-.030				2.250	1.668	.020-.075	2.273	1.968	.005-.020	2.312	1.802	.005-.010	2.355	2.217	.010-.020
2.240	1.200	.016-.032		**2.250**		2.250	1.687	.025-.040	2.274	1.544	.010-.020	2.312	1.881	.010-.020	2.356	.815	.080-.105
2.240	1.384	.080-.105				2.250	1.751	.005-.020	2.275	.881	.025-.040	2.312	2.000	.040-.060	2.358	1.095	.025-.040
2.240	1.440	.105-.135				2.250	1.768	.050-.075	2.275	2.000	.005-.010	2.313	1.828	.015-.030	2.358	1.542	.030-.050
2.240	1.631	.015-.030				2.250	1.781	.050-.070	2.277	1.184	.060-.080	2.313	1.992	.005-.010	2.358	1.932	.135-.156
2.240	1.762	.040-.060				2.250	1.782	.090-.105	2.277	1.785	.005-.010	2.313	2.185	.005-.010	2.358	2.130	.010-.020
2.240	2.010	.005-.040	2.250	.125	.050-.070	2.250	1.801	.100-.134	2.278	1.674	.105-.135	2.314	.745	.070-.090	2.359	1.260	.020-.040
2.240	2.025	.005-.010	2.250	.136	.015-.025	2.250	1.810	.125-.135	2.278	1.868	.050-.070	2.314	1.758	.025-.040	2.360	.438	.070-.090
2.241	.698	.020-.040	2.250	.164	.010-.020	2.250	1.844	.040-.075	2.278	1.919	.040-.060	2.314	1.991	.005-.010	2.360	.728	.050-.070
2.241	.880	.030-.050	2.250	.216	.060-.080	2.250	1.875	.050-.075	2.278	1.990	.050-.070	2.315	1.906	.040-.060	2.360	1.003	.050-.070
2.241	1.578	.100-.125	2.250	.257	.020-.040	2.250	1.912	.070-.090	2.279	.313	.030-.050	2.315	1.986	.090-.105	2.360	1.133	.160-.190
2.241	1.700	.015-.030	2.250	.325	.075-.104	2.250	1.969	.010-.015	2.279	1.746	.020-.030	2.315	2.032	.040-.060	2.360	1.262	.005-.010
2.242	1.565	.005-.010	2.250	.370	.050-.070	2.250	2.025	.020-.040	2.280	1.070	.040-.060	2.316	.173	.040-.060	2.360	1.375	.015-.060
2.242	1.726	.080-.105	2.250	.378	.050-.075	2.250	2.082	.005-.010	2.280	1.150	.025-.040	2.316	.623	.020-.040	2.360	1.578	.005-.040
2.242	1.761	.050-.070	2.250	.394	.030-.050	2.251	.266	.005-.010	2.280	2.032	.050-.070	2.316	1.757	.032-.050	2.360	1.958	.010-.020
2.242	1.844	.080-.105	2.250	.400	.100-.125	2.251	.378	.025-.040	2.282	1.575	.125-.135	2.316	2.058	.005-.010	2.360	2.165	.005-.010
2.243	.762	.030-.050	2.250	.439	.100-.125	2.251	.540	.134-.156	2.282	1.771	.050-.070	2.317	1.941	.025-.040	2.361	1.009	.025-.070
2.243	1.009	.060-.080	2.250	.478	.030-.050	2.251	.579	.090-.105	2.283	.334	.060-.080	2.317	1.969	.070-.080	2.361	1.047	.005-.010
2.243	1.551	.010-.020	2.250	.500	.105-.120	2.251	.812	.005-.010	2.283	1.261	.080-.104	2.318	.771	.005-.010	2.361	1.181	.080-.120
2.244	1.857	.015-.030	2.250	.507	.030-.050	2.251	.905	.030-.050	2.284	2.043	.040-.060	2.318	1.760	.005-.010	2.361	1.774	.010-.020
2.245	.330	.005-.010	2.250	.517	.005-.110	2.251	1.083	.120-.140	2.284	2.070	.030-.040	2.318	1.942	.020-.040	2.361	2.026	.040-.060
2.245	.633	.005-.010	2.250	.519	.170-.190	2.251	1.377	.040-.060	2.285	.768	.075-.090	2.320	1.580	.070-.090	2.362	.240	.020-.030
2.245	.886	.105-.125	2.250	.531	.050-.060	2.251	1.501	.030-.050	2.285	2.070	.005-.010	2.320	1.681	.005-.010	2.362	1.002	.005-.010
2.245	1.005	.060-.070	2.250	.562	.135-.156	2.251	1.519	.025-.040	2.287	.770	.080-.104	2.321	1.580	.010-.020	2.362	1.541	.020-.050
2.245	1.192	.005-.010	2.250	.620	.030-.050	2.251	1.538	.005-.010	2.290	1.125	.105-.134	2.321	2.053	.005-.010	2.362	1.575	.020-.040
2.245	1.259	.090-.105	2.250	.626	.015-.030	2.251	1.563	.030-.040	2.290	2.160	.020-.040	2.322	.192	.015-.030	2.362	1.875	.005-.010
2.245	1.319	.025-.040	2.250	.629	.040-.060	2.251	2.025	.105-.135	2.291	1.630	.030-.050	2.322	1.770	.030-.040	2.362	2.007	.088-.120
2.245	1.343	.025-.042	2.250	.639	.015-.030	2.251	2.125	.040-.060	2.293	1.127	.090-.105	2.322	2.000	.015-.030	2.362	2.075	.015-.030
2.245	1.375	.080-.105	2.250	.640	.156-.187	2.252	.377	.025-.040	2.295	1.857	.030-.050	2.323	.311	.015-.030	2.363	1.010	.005-.015
2.245	1.380	.030-.050	2.250	.641	.125-.156	2.252	.758	.040-.060	2.295	1.858	.020-.030	2.323	1.948	.070-.090	2.363	1.122	.100-.120
2.245	1.395	.010-.020	2.250	.642	.105-.125	2.252	.781	.090-.120				2.323	2.165	.050-.070	2.363	1.526	.120-.135

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

New tools added continually. Call for sizes not listed — (800) 927-4377, Fax (800) 321-3462.

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Columns read top-to-bottom, left-to-right. Thickness values are "Choose Any Thickness* From – To". **Bold** entries can also be used for non-metallic materials.

O.D.	I.D.	Thickness (From – To)
2.363	1.870	.060 – .080
2.363	1.889	.010 – .020
2.363	2.206	.010 – .020
2.364	.630	.105 – .125
2.365	.674	.125 – .156
2.365	**1.136**	**.005 – .010**
2.365	2.266	.015 – .030
2.366	1.508	.030 – .050
2.366	1.570	.030 – .050
2.366	1.827	.030 – .050
2.367	1.520	.100 – .125
2.368	1.640	.050 – .070
2.368	**2.069**	**.005 – .010**
2.369	.245	.010 – .020
2.369	.816	.015 – .030
2.369	**1.701**	**.005 – .010**
2.369	1.875	.050 – .070
2.370	**.135**	**.005 – .010**
2.370	**.246**	**.005 – .010**
2.370	**.510**	**.005 – .010**
2.370	**.852**	**.005 – .010**
2.370	.884	.050 – .060
2.370	1.254	.110 – .130
2.370	1.588	.090 – .105
2.370	**1.681**	**.005 – .010**
2.370	2.001	.080 – .105
2.371	1.515	.050 – .070
2.371	1.865	.015 – .030
2.372	.418	.015 – .030
2.372	.866	.025 – .060
2.372	1.000	.025 – .040
2.372	1.015	.100 – .125
2.372	1.512	.050 – .075
2.372	1.654	.040 – .060
2.372	1.990	.015 – .030
2.373	.193	.060 – .080
2.373	.210	.030 – .050
2.373	.630	.015 – .030
2.373	.642	.080 – .100
2.373	**.755**	**.005 – .010**
2.373	.876	.050 – .070
2.373	1.125	.025 – .040
2.373	1.281	.030 – .045
2.373	1.300	.040 – .060
2.373	1.500	.050 – .070
2.373	1.739	.015 – .025
2.373	**1.912**	**.005 – .010**
2.373	1.937	.030 – .050
2.373	2.166	.040 – .060
2.374	.346	.105 – .125
2.374	.560	.040 – .060
2.374	.625	.050 – .075
2.374	.900	.020 – .040
2.374	**1.066**	**.005 – .010**
2.374	1.170	.030 – .187
2.374	1.374	.050 – .070
2.374	1.535	.040 – .060
2.374	1.537	.020 – .040
2.374	1.757	.010 – .020
2.374	**1.811**	**.005 – .050**
2.374	1.990	.100 – .120
2.375	.139	.040 – .062
2.375	.165	.030 – .050
2.375	.280	.025 – .040
2.375	.369	.156 – .187
2.375	.375	.104 – .134
2.375	.390	.160 – .190
2.375	.503	.015 – .025
2.375	.506	.080 – .100
2.375	.640	.040 – .060
2.375	.687	.050 – .075
2.375	.717	.100 – .135
2.375	.945	.006 – .020
2.375	1.067	.120 – .140
2.375	1.269	.100 – .125
2.375	1.345	.050 – .070
2.375	1.371	.100 – .120
2.375	1.490	.025 – .050
2.375	1.500	.010 – .020
2.375	1.639	.100 – .125
2.375	**1.645**	**.005 – .010**
2.375	1.688	.030 – .040
2.375	1.766	.050 – .075
2.375	1.785	.015 – .030
2.375	1.906	.042 – .060
2.375	1.925	.050 – .070
2.375	1.938	.050 – .070
2.375	1.938	.156 – .187
2.375	2.019	.020 – .040
2.375	**2.105**	**.005 – .010**
2.375	2.125	.040 – .060
2.376	.631	.120 – .140
2.376	.755	.030 – .060
2.376	1.406	.010 – .020
2.376	1.443	.040 – .060
2.376	1.828	.030 – .050
2.376	1.875	.040 – .060
2.377	.261	.090 – .120
2.377	**.502**	**.005 – .010**
2.377	1.512	.050 – .075
2.377	**1.783**	**.005 – .010**
2.378	.689	.040 – .060
2.378	**1.255**	**.005 – .010**
2.378	1.785	.025 – .035
2.378	1.800	.090 – .125
2.378	1.849	.090 – .105
2.378	1.997	.090 – .115
2.378	2.000	.040 – .060
2.378	2.005	.040 – .060
2.379	.876	.060 – .080
2.379	1.505	.040 – .060
2.379	1.630	.010 – .030
2.379	2.011	.030 – .040
2.380	.551	.080 – .105
2.380	.670	.050 – .075
2.380	.870	.060 – .090
2.380	1.000	.040 – .060
2.380	1.250	.030 – .040
2.380	1.632	.010 – .020
2.380	1.649	.030 – .050
2.380	1.700	.050 – .060
2.380	1.937	.040 – .060
2.380	1.997	.015 – .030
2.380	2.020	.090 – .105
2.380	2.090	.010 – .020
2.381	.328	.050 – .070
2.381	.437	.025 – .040
2.381	1.552	.020 – .040
2.382	2.014	.105 – .125
2.383	.881	.060 – .080
2.385	.254	.080 – .100
2.385	1.877	.010 – .020
2.385	1.935	.060 – .080
2.387	1.366	.050 – .075
2.388	1.433	.060 – .070
2.388	1.701	.050 – .070
2.388	2.048	.040 – .060
2.389	1.443	.050 – .060
2.390	1.120	.015 – .030
2.390	1.188	.050 – .070
2.390	1.328	.010 – .050
2.390	1.850	.020 – .040
2.391	**2.070**	**.005 – .010**
2.391	2.078	.040 – .060
2.393	1.100	.010 – .050
2.395	.813	.040 – .060
2.395	1.435	.050 – .070
2.395	1.443	.050 – .070
2.395	2.000	.020 – .030
2.395	**2.099**	**.005 – .010**
2.396	1.085	.010 – .020
2.396	2.099	.010 – .060
2.396	2.151	.030 – .050
2.397	2.024	.030 – .050
2.398	**2.170**	**.005 – .010**
2.399	1.393	.080 – .105
2.399	1.560	.025 – .040
2.399	1.681	.025 – .040
2.399	**1.713**	**.005 – .010**
2.399	1.720	.035 – .050
2.399	2.133	.050 – .075
2.400	**.504**	**.005 – .010**
2.400	.505	.010 – .020
2.400	.511	.105 – .135
2.400	.753	.010 – .020
2.400	1.320	.015 – .030
2.400	1.734	.080 – .105
2.400	**1.818**	**.005 – .010**
2.400	1.838	.060 – .080
2.400	1.850	.010 – .020
2.400	**1.933**	**.005 – .010**
2.400	1.999	.045 – .060
2.400	**2.001**	**.005 – .010**
2.400	2.047	.050 – .070
2.400	2.062	.020 – .040
2.400	2.200	.015 – .050
2.400	**2.205**	**.005 – .010**
2.400	2.220	.050 – .070
2.401	.761	.010 – .030
2.401	1.209	.015 – .030
2.401	1.889	.015 – .010
2.401	2.067	.025 – .040
2.402	.760	.015 – .030
2.402	.857	.050 – .070
2.402	1.970	.070 – .090
2.402	2.000	.060 – .075
2.402	**2.295**	**.005 – .030**
2.403	**2.196**	**.005 – .010**
2.404	**1.903**	**.005 – .010**
2.405	**.135**	**.005 – .010**
2.405	.993	.080 – .104
2.405	1.125	.010 – .025
2.405	2.125	.010 – .025
2.405	2.217	.040 – .060
2.407	.658	.100 – .120
2.408	1.875	.020 – .040
2.410	1.908	.007 – .035
2.411	**2.187**	**.005 – .010**
2.414	**1.624**	**.005 – .010**
2.414	1.935	.025 – .040
2.416	1.519	.040 – .060
2.416	1.911	.030 – .040
2.417	1.465	.050 – .070
2.418	1.873	.020 – .040
2.419	**2.187**	**.005 – .010**
2.420	1.873	.020 – .030
2.420	2.100	.020 – .030
2.420	2.180	.020 – .035
2.420	2.186	.015 – .030
2.420	2.187	.030 – .050
2.421	2.125	.020 – .040
2.422	1.522	.110 – .130
2.422	2.040	.100 – .125
2.422	**2.215**	**.005 – .010**
2.423	**1.422**	**.005 – .008**
2.423	1.623	.030 – .050
2.425	1.520	.040 – .060
2.425	1.552	.020 – .030
2.425	1.899	.010 – .020
2.427	1.187	.010 – .020
2.427	1.191	.050 – .070
2.428	1.510	.050 – .070
2.428	2.001	.020 – .030
2.428	2.020	.042 – .060
2.430	1.651	.010 – .020
2.430	1.938	.010 – .020
2.430	2.000	.020 – .040
2.430	2.118	.015 – .025
2.430	**2.121**	**.005 – .010**
2.431	**2.090**	**.005 – .010**
2.431	2.091	.020 – .030
2.432	1.005	.015 – .025
2.432	1.267	.025 – .040
2.432	1.679	.040 – .050
2.432	**2.000**	**.005 – .015**
2.432	2.140	.020 – .030
2.433	1.866	.010 – .020
2.433	2.188	.010 – .020
2.434	1.483	.030 – .050
2.434	1.501	.050 – .075
2.434	1.531	.030 – .050
2.435	1.255	.125 – .156
2.435	1.900	.050 – .075
2.435	2.255	.010 – .015
2.435	2.263	.015 – .030
2.436	1.750	.090 – .105
2.436	**1.877**	**.005 – .010**
2.437	1.257	.050 – .070
2.437	1.313	.040 – .060
2.437	1.425	.025 – .042
2.437	1.498	.010 – .020
2.437	1.875	.020 – .035
2.437	2.000	.050 – .075
2.437	2.187	.025 – .040
2.437	2.250	.020 – .040
2.438	**.350**	**.005 – .010**
2.438	.390	.042 – .060
2.438	.691	.105 – .135
2.438	.940	.100 – .125
2.438	2.007	.040 – .060
2.438	2.160	.015 – .025
2.438	2.214	.040 – .060
2.439	1.966	.040 – .060
2.439	**1.977**	**.005 – .015**
2.439	2.164	.015 – .030
2.440	.837	.105 – .135
2.440	1.274	.050 – .070
2.440	**1.968**	**.005 – .010**
2.440	1.978	.020 – .030
2.440	1.982	.015 – .030
2.440	**2.175**	**.005 – .010**
2.440	2.219	.090 – .105
2.440	2.262	.040 – .050
2.440	**2.290**	**.005 – .010**
2.440	2.330	.010 – .020
2.441	1.527	.050 – .070
2.446	.315	.105 – .125
2.447	**1.500**	**.005 – .010**
2.447	2.040	.015 – .030
2.447	**2.059**	**.005 – .010**
2.447	2.129	.040 – .060
2.448	**1.749**	**.005 – .010**
2.448	1.989	.070 – .090
2.448	**2.089**	**.005 – .010**
2.449	1.970	.015 – .035
2.450	.504	.010 – .020
2.450	.753	.015 – .030
2.450	1.192	.040 – .060
2.450	2.133	.015 – .032
2.450	**2.135**	**.005 – .030**
2.450	2.140	.012 – .020
2.450	2.305	.040 – .050
2.451	.629	.010 – .020
2.451	**.814**	**.005 – .010**
2.452	1.630	.060 – .080
2.453	1.565	.060 – .075
2.453	1.791	.075 – .095
2.453	1.820	.060 – .080
2.453	1.828	.134 – .156
2.453	2.050	.120 – .135
2.454	1.020	.015 – .030
2.454	1.827	.105 – .125
2.460	1.726	.050 – .060
2.462	1.727	.050 – .070
2.462	1.940	.020 – .040
2.468	.381	.105 – .135
2.469	1.270	.010 – .020
2.469	2.123	.010 – .020
2.469	**2.264**	**.005 – .010**
2.470	.502	.040 – .060
2.470	**2.362**	**.005 – .010**
2.472	.814	.125 – .135
2.473	1.220	.070 – .090
2.473	2.000	.010 – .020
2.475	.870	.125 – .135
2.475	1.351	.070 – .080
2.475	**1.770**	**.005 – .010**
2.477	1.968	.030 – .080
2.478	1.230	.075 – .105
2.478	**1.598**	**.005 – .010**
2.478	1.889	.020 – .040
2.478	1.980	.060 – .070
2.479	2.100	.015 – .030
2.480	.750	.060 – .075
2.480	**2.255**	**.005 – .010**
2.481	1.673	.105 – .135
2.481	**2.185**	**.005 – .010**
2.482	2.142	.025 – .040
2.482	2.150	.050 – .070
2.483	1.591	.080 – .090
2.483	2.110	.020 – .030
2.484	**1.640**	**.005 – .010**
2.485	1.055	.135 – .156
2.485	1.395	.105 – .125
2.487	1.015	.134 – .187
2.487	1.425	.030 – .050
2.487	**1.635**	**.005 – .010**
2.488	1.998	.010 – .020
2.489	1.748	.050 – .070
2.489	1.776	.015 – .020
2.489	**2.002**	**.005 – .010**
2.490	**1.436**	**.005 – .010**
2.490	**1.853**	**.005 – .010**
2.490	1.980	.090 – .110
2.490	1.996	.105 – .125
2.490	**2.060**	**.005 – .010**
2.491	1.011	.120 – .156
2.491	1.508	.080 – .125
2.492	**1.069**	**.005 – .010**
2.493	.752	.048 – .062
2.493	1.255	.080 – .100
2.493	1.400	.025 – .035
2.493	1.562	.080 – .105
2.493	1.785	.125 – .156
2.493	1.850	.120 – .135
2.493	2.000	.040 – .060
2.493	2.062	.040 – .060
2.494	.616	.030 – .050
2.494	**1.257**	**.005 – .010**
2.495	.508	.105 – .125
2.495	.616	.010 – .020
2.495	.620	.015 – .060
2.495	**1.150**	**.005 – .010**
2.495	1.319	.105 – .135
2.495	**1.400**	**.005 – .010**
2.495	1.651	.030 – .050
2.495	**2.046**	**.005 – .010**
2.495	2.060	.050 – .075
2.495	2.120	.090 – .110
2.496	**1.122**	**.005 – .010**
2.496	1.123	.010 – .050
2.496	1.665	.080 – .093
2.496	**2.361**	**.005 – .010**
2.497	.813	.045 – .060
2.497	**1.311**	**.005 – .010**
2.497	1.314	.040 – .060
2.497	1.318	.080 – .105
2.497	1.506	.020 – .040
2.497	1.518	.030 – .050
2.497	**1.680**	**.005 – .010**
2.497	2.029	.005 – .030
2.498	.125	.030 – .050
2.498	.188	.025 – .040
2.498	.283	.025 – .040
2.498	.300	.040 – .060
2.498	**.379**	**.005 – .008**
2.498	.385	.020 – .040
2.498	**.752**	**.005 – .010**
2.498	**.755**	**.005 – .010**
2.498	1.062	.090 – .105
2.498	1.126	.090 – .120
2.498	1.261	.060 – .080
2.498	1.359	.015 – .030
2.498	1.449	.070 – .090
2.498	1.515	.125 – .135
2.498	1.532	.110 – .135
2.498	1.568	.020 – .050
2.498	1.625	.010 – .020
2.498	**1.687**	**.005 – .010**
2.498	1.881	.020 – .030
2.498	1.910	.060 – .070
2.498	**2.002**	**.005 – .015**
2.498	2.015	.050 – .070
2.498	2.032	.015 – .030
2.498	2.119	.060 – .080
2.498	2.310	.070 – .080
2.499	.325	.060 – .080
2.499	**1.026**	**.005 – .010**
2.499	1.061	.050 – .070
2.499	**1.270**	**.005 – .010**
2.499	1.313	.105 – .135
2.499	1.379	.060 – .070
2.499	1.387	.060 – .080
2.499	1.498	.025 – .040
2.499	**1.749**	**.005 – .020**
2.499	1.757	.040 – .060
2.499	1.889	.010 – .020
2.499	**1.952**	**.005 – .010**
2.499	2.061	.015 – .020

2.500

O.D.	I.D.	Thickness (From – To)
2.500	.100	.015 – .030
2.500	.113	.015 – .035
2.500	**.144**	**.005 – .020**
2.500	.149	.080 – .090
2.500	.188	.090 – .105
2.500	.198	.010 – .020
2.500	.261	.100 – .135
2.500	**.266**	**.005 – .010**
2.500	.312	.125 – .156
2.500	.370	.050 – .070
2.500	.375	.080 – .104
2.500	.385	.125 – .156
2.500	.390	.090 – .120
2.500	**.400**	**.005 – .010**
2.500	.405	.105 – .135
2.500	.440	.080 – .100
2.500	.454	.105 – .135
2.500	.500	.090 – .135
2.500	.501	.015 – .035
2.500	.520	.105 – .125
2.500	.563	.036 – .060
2.500	.623	.040 – .060
2.500	**.624**	**.005 – .010**
2.500	.628	.010 – .020
2.500	.630	.010 – .050
2.500	.635	.015 – .030
2.500	.641	.120 – .135
2.500	.656	.156 – .187
2.500	.660	.105 – .135
2.500	.688	.105 – .125
2.500	.751	.060 – .080
2.500	.752	.010 – .020
2.500	.756	.100 – .125
2.500	.760	.090 – .105
2.500	.770	.070 – .090
2.500	.822	.120 – .135
2.500	.845	.105 – .125
2.500	.871	.015 – .030
2.500	**.879**	**.005 – .010**
2.500	.912	.090 – .110
2.500	.934	.070 – .090
2.500	.951	.040 – .060
2.500	.984	.070 – .090
2.500	**1.000**	**.005 – .040**
2.500	1.006	.060 – .070
2.500	1.014	.110 – .130
2.500	**1.020**	**.005 – .010**
2.500	1.034	.036 – .050
2.500	**1.038**	**.005 – .010**
2.500	1.062	.120 – .156
2.500	1.130	.010 – .050
2.500	1.150	.093 – .125
2.500	1.185	.110 – .125
2.500	1.192	.040 – .060
2.500	1.262	.010 – .020

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed. Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

Need Disks? All O.D. sizes available with no I.D. — (800) 927-4377, Fax (800) 321-3462.

BOKER'S METAL WASHERS ARE FLAT AND TUMBLE DEBURRED

O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To	O.D.	I.D.	Choose Any Thickness* From - To
2.500	1.268	.050 - .070	2.504	1.501	.050 - .070	2.564	1.706	.080 - .105	2.620	2.381	.010 - .020	2.627	2.263	.010 - .020	2.750	.505	.010 - .020
2.500	1.272	.015 - .025	2.505	.145	.025 - .040	2.564	**2.435**	**.005 - .010**	2.622	.252	.120 - .134	2.627	2.321	.040 - .060	2.750	.563	.090 - .125
2.500	1.275	.105 - .125	2.505	.195	.060 - .080	2.565	**.412**	**.005 - .010**	2.622	.341	.075 - .090	2.628	**.351**	**.005 - .010**	2.750	.628	.010 - .030
2.500	1.279	.100 - .125	2.505	.929	.050 - .070	2.565	2.146	.015 - .045	2.622	1.067	.015 - .030	2.628	.634	.080 - .100	2.750	.629	.010 - .030
2.500	**1.280**	**.005 - .010**	2.505	1.413	.120 - .135	2.565	**2.434**	**.005 - .020**	2.622	1.130	.050 - .075	2.628	1.878	.040 - .060	2.750	.760	.020 - .040
2.500	1.295	.010 - .020	2.505	1.416	.100 - .134	2.566	2.320	.040 - .060	2.622	1.637	.030 - .050	2.628	**1.881**	**.005 - .010**	2.750	1.200	.020 - .030
2.500	1.300	.070 - .090	2.505	**1.989**	**.005 - .010**	2.567	.407	.030 - .050	2.622	1.868	.040 - .060	2.628	2.253	.050 - .070	2.750	1.250	.010 - .020
2.500	1.311	.040 - .060	2.507	.562	.050 - .125	2.570	1.827	.070 - .090	2.622	2.002	.015 - .030	2.629	1.920	.050 - .070	2.750	1.300	.020 - .035
2.500	**1.346**	**.005 - .010**	2.507	2.310	.015 - .025	2.570	1.828	.010 - .020	2.623	**.514**	**.005 - .010**	2.629	**2.290**	**.005 - .010**	2.750	1.312	.040 - .060
2.500	1.375	.030 - .040	2.510	.502	.090 - .105	2.571	.710	.080 - .100	2.623	2.025	.075 - .090	2.630	.411	.015 - .030	2.750	1.562	.040 - .060
2.500	1.392	.040 - .060	2.511	.698	.105 - .125	2.574	2.250	.010 - .020	2.623	2.372	.010 - .020	2.630	1.419	.030 - .050	2.750	1.635	.020 - .030
2.500	1.394	.040 - .060	2.511	.781	.040 - .060	2.575	.711	.040 - .060	2.623	**2.376**	**.005 - .010**	2.630	1.610	.090 - .105	2.750	1.880	.020 - .040
2.500	1.500	.105 - .125	2.511	1.980	.030 - .060	2.578	1.025	.030 - .060	2.624	.124	.030 - .050	2.630	2.291	.060 - .080	2.750	2.000	.010 - .020
2.500	1.511	.050 - .060	2.515	.145	.015 - .030	2.578	**2.076**	**.005 - .010**	2.624	.750	.105 - .125	2.630	**2.292**	**.005 - .010**	2.750	2.000	.030 - .050
2.500	**1.517**	**.005 - .010**	2.515	2.218	.080 - .100	2.579	2.060	.090 - .120	2.624	.754	.040 - .060	2.630	2.385	.030 - .060	2.750	2.370	.010 - .015
2.500	1.523	.050 - .070	2.516	1.581	.070 - .090	2.580	1.381	.120 - .135	2.624	1.533	.080 - .100	2.631	**2.288**	**.005 - .010**	2.755	.375	.010 - .020
2.500	1.529	.070 - .090	2.516	1.683	.030 - .050	2.580	2.137	.020 - .040	2.624	1.571	.110 - .130	2.635	**1.634**	**.005 - .010**	2.755	1.260	.035 - .045
2.500	1.561	.050 - .075	2.518	1.918	.040 - .060	2.580	2.196	.015 - .025	2.624	1.781	.030 - .050	2.635	1.868	.015 - .030	2.755	2.346	.025 - .035
2.500	1.606	.025 - .042	2.520	.354	.060 - .080	2.580	2.338	.020 - .040	2.624	1.791	.015 - .030	2.635	1.911	.080 - .100	2.755	2.401	.010 - .040
2.500	1.624	.040 - .060	2.520	**.368**	**.005 - .010**	2.582	1.750	.010 - .020	2.624	**1.897**	**.005 - .010**	2.636	**1.636**	**.005 - .010**	2.756	1.085	.010 - .020
2.500	**1.625**	**.005 - .060**	2.520	1.921	.020 - .030	2.583	.880	.040 - .060	2.624	1.958	.090 - .120	**For sizes not listed**			2.756	2.284	.040 - .050
2.500	1.635	.090 - .125	2.520	2.121	.015 - .030	2.585	.536	.110 - .130	2.624	**1.996**	**.005 - .010**	**contact BOKER's at**			2.756	2.401	.040 - .050
2.500	1.750	.040 - .060	2.520	2.194	.050 - .070	2.586	2.031	.020 - .040	2.625	.251	.040 - .050	**(800) 927-4377.**			2.760	1.850	.020 - .040
2.500	**1.755**	**.005 - .010**	2.520	**2.255**	**.005 - .010**	2.588	.391	.060 - .080	2.625	.281	.080 - .104				2.780	2.263	.025 - .040
2.500	1.756	.105 - .125	2.522	**1.921**	**.005 - .010**	2.589	2.100	.040 - .060	2.625	.347	.100 - .125				2.780	2.363	.020 - .040
2.500	1.759	.090 - .105	2.523	2.040	.035 - .062	2.590	.345	.105 - .125	2.625	**.362**	**.005 - .010**	2.640	**1.630**	**.005 - .010**	2.780	2.480	.010 - .050
2.500	1.770	.040 - .060	2.524	**.533**	**.005 - .010**	2.590	2.253	.050 - .070	2.625	.376	.050 - .075	2.640	2.410	.030 - .050	2.781	2.531	.006 - .010
2.500	1.777	.015 - .062	2.528	2.328	.020 - .030	2.591	2.373	.020 - .030	2.625	.383	.100 - .125	2.645	2.057	.010 - .020	2.787	2.390	.015 - .025
2.500	1.787	.040 - .060	2.530	1.251	.060 - .070	2.591	2.376	.015 - .030	2.625	.385	.048 - .062	2.645	2.175	.030 - .040	2.790	1.747	.030 - .040
2.500	1.796	.075 - .156	2.530	1.875	.060 - .080	2.594	2.368	.020 - .030	2.625	.469	.105 - .135	2.647	2.174	.020 - .040	2.795	2.430	.006 - .010
2.500	1.814	.010 - .031	2.530	**2.192**	**.005 - .010**	2.595	1.580	.020 - .080	2.625	**.502**	**.005 - .010**	2.650	.628	.010 - .020	2.796	2.343	.060 - .078
2.500	**1.820**	**.005 - .010**	2.530	2.260	.020 - .030	2.598	1.625	.080 - .100	2.625	.503	.015 - .030	2.650	.754	.020 - .030	2.798	.750	.010 - .030
2.500	1.889	.030 - .050	2.530	**2.316**	**.005 - .010**	2.598	**2.392**	**.005 - .010**	2.625	.627	.090 - .120	2.650	**2.080**	**.005 - .010**	2.798	**2.506**	**.005 - .010**
2.500	1.890	.020 - .030	2.531	2.331	.015 - .025	2.599	1.378	.010 - .020	2.625	.750	.040 - .070	2.655	1.137	.050 - .060	2.799	.755	.020 - .030
2.500	1.900	.010 - .025	2.533	**2.365**	**.005 - .010**	2.599	1.387	.060 - .080	2.625	.874	.050 - .075	2.657	2.219	.040 - .050	2.800	.628	.010 - .020
2.500	1.945	.010 - .060	2.534	2.087	.050 - .060	2.600	**.503**	**.005 - .020**	2.625	1.000	.060 - .070	2.660	2.217	.010 - .020	2.800	1.867	.020 - .030
2.500	1.954	.025 - .040	2.539	.301	.040 - .060	2.600	.629	.010 - .020	2.625	**1.020**	**.005 - .010**	2.662	2.050	.040 - .060	2.800	2.000	.010 - .020
2.500	1.978	.042 - .062	2.540	1.528	.030 - .050	2.600	.752	.015 - .030	2.625	**1.075**	**.005 - .010**	2.665	2.055	.040 - .060	2.810	.169	.015 - .025
2.500	1.990	.010 - .031	2.540	**1.942**	**.005 - .010**	2.600	.753	.008 - .015	2.625	1.250	.030 - .040	2.665	2.230	.040 - .060	2.810	2.375	.006 - .010
2.500	**2.001**	**.005 - .010**	2.540	2.090	.010 - .020	2.600	.755	.010 - .020	2.625	1.315	.080 - .100	2.666	1.715	.040 - .060	2.810	2.400	.010 - .020
2.500	2.002	.036 - .135	2.540	2.095	.030 - .050	2.600	**.812**	**.005 - .020**	2.625	1.413	.080 - .104	2.673	1.003	.020 - .040	2.812	.192	.050 - .062
2.500	2.030	.020 - .030	2.541	1.939	.025 - .040	2.600	1.456	.020 - .030	2.625	1.516	.100 - .125	2.674	1.003	.010 - .020	2.815	1.969	.020 - .040
2.500	2.125	.040 - .050	2.542	**1.897**	**.005 - .010**	2.600	1.782	.020 - .030	2.625	1.531	.104 - .134	2.675	1.440	.040 - .060	2.816	2.200	.020 - .035
2.500	**2.146**	**.005 - .010**	2.544	**1.393**	**.005 - .010**	2.600	2.120	.060 - .080	2.625	1.640	.010 - .060	2.676	1.003	.040 - .060	2.816	2.406	.020 - .040
2.500	**2.175**	**.005 - .060**	2.544	2.241	.040 - .060	2.600	2.176	.018 - .031	2.625	1.701	.025 - .040	2.677	2.362	.030 - .050	2.819	2.565	.030 - .040
2.500	2.250	.025 - .040	2.548	1.996	.050 - .070	2.600	2.180	.018 - .030	2.625	**1.760**	**.005 - .010**	2.677	2.382	.060 - .080	2.825	2.440	.010 - .020
2.500	2.258	.040 - .080	2.548	**2.213**	**.005 - .010**	2.600	2.300	.040 - .060	2.625	1.781	.015 - .030	2.677	2.440	.020 - .035	2.828	1.435	.030 - .040
2.500	2.271	.020 - .035	2.549	**1.904**	**.005 - .010**	2.601	1.391	.070 - .090	2.625	1.882	.010 - .020	2.685	.843	.020 - .040	2.829	1.192	.010 - .015
2.500	**2.313**	**.005 - .010**	2.549	**2.049**	**.005 - .010**	2.601	2.011	.040 - .060	2.625	1.926	.050 - .075	2.685	.844	.030 - .050	2.829	2.270	.020 - .040
2.500	2.314	.020 - .030	2.550	**.410**	**.005 - .010**	2.602	1.378	.010 - .020	2.625	1.998	.105 - .125	2.687	1.635	.090 - .105	2.830	1.810	.020 - .040
2.500	**2.343**	**.005 - .010**	2.550	**2.022**	**.005 - .010**	2.602	2.402	.030 - .050	2.625	**2.002**	**.005 - .010**	2.694	2.081	.080 - .093	2.830	2.263	.050 - .060
2.501	.253	.010 - .020	2.550	**2.300**	**.005 - .010**	2.603	1.250	.020 - .040	2.625	2.010	.020 - .030	2.700	.780	.040 - .060	2.835	.267	.020 - .040
2.501	.447	.050 - .070	2.555	**1.873**	**.005 - .010**	2.603	1.932	.050 - .070	2.625	2.367	.040 - .060	2.700	2.370	.020 - .040	2.840	2.540	.010 - .020
2.501	.627	.010 - .125	2.555	1.899	.030 - .048	2.603	2.180	.020 - .031	2.626	**.440**	**.005 - .010**	2.700	**2.540**	**.005 - .010**	2.843	.781	.010 - .015
2.501	.688	.160 - .190	2.556	2.364	.040 - .060	2.604	1.559	.050 - .070	2.626	.500	.104 - .134	2.713	2.380	.020 - .035	2.843	2.538	.010 - .015
2.501	**1.199**	**.005 - .010**	2.557	1.640	.010 - .020	2.605	1.685	.050 - .070	2.626	.895	.105 - .135	2.720	1.125	.020 - .040	2.845	**2.540**	**.005 - .040**
2.501	**1.249**	**.005 - .070**	2.558	1.385	.050 - .075	2.605	1.810	.050 - .070	2.626	1.516	.100 - .125	2.725	2.010	.035 - .050	2.850	**2.370**	**.005 - .010**
2.501	1.250	.060 - .090	2.558	2.070	.060 - .070	2.607	2.015	.010 - .030	2.626	1.532	.006 - .015	2.730	2.007	.020 - .035	2.850	2.650	.020 - .040
2.501	**1.500**	**.005 - .010**	2.559	.417	.135 - .156	2.607	2.063	.050 - .070	2.626	1.562	.015 - .025	2.734	2.323	.020 - .030	2.854	1.583	.010 - .020
2.501	**1.530**	**.005 - .010**	2.559	1.639	.010 - .020	2.608	2.063	.025 - .040	2.626	1.577	.030 - .050	2.735	1.985	.030 - .040	2.855	2.295	.015 - .025
2.501	1.625	.080 - .100	2.559	1.897	.105 - .120	2.608	2.200	.035 - .050	2.626	1.658	.060 - .090	2.735	2.000	.050 - .060	2.867	2.476	.015 - .025
2.501	1.745	.104 - .134	2.560	.531	.135 - .187	2.610	.513	.090 - .135	2.626	1.745	.060 - .090	2.736	2.253	.010 - .020	2.869	**1.765**	**.005 - .010**
2.501	2.137	.020 - .040	2.560	1.136	.050 - .070	2.610	**2.262**	**.005 - .010**	2.626	1.807	.025 - .040	2.739	2.403	.020 - .040	2.869	1.900	.030 - .050
2.501	**2.186**	**.005 - .010**	2.560	1.220	.040 - .050	2.611	2.303	.030 - .050	2.626	1.825	.060 - .090	2.740	2.200	.020 - .030	2.870	1.780	.048 - .062
2.502	**.314**	**.005 - .010**	2.560	1.250	.025 - .040	2.612	2.300	.050 - .070	2.626	1.836	.060 - .080	2.740	2.250	.010 - .020	2.871	1.316	.020 - .030
2.502	**.637**	**.005 - .010**	2.560	1.422	.030 - .050	2.613	1.697	.025 - .040	2.626	**1.849**	**.005 - .010**	2.742	1.728	.030 - .040	2.872	1.700	.010 - .020
2.502	**.771**	**.005 - .010**	2.560	**1.879**	**.005 - .010**	2.615	.560	.100 - .125	2.626	1.871	.010 - .020	2.743	2.520	.030 - .040	2.875	.755	.040 - .060
2.502	1.134	.040 - .060	2.560	1.898	.090 - .105	2.615	2.136	.010 - .020	2.626	1.933	.060 - .090	2.745	**.888**	**.005 - .010**	2.875	**1.500**	**.005 - .030**
2.502	1.500	.020 - .030	2.561	.760	.020 - .040	2.615	2.140	.050 - .075	2.626	2.000	.015 - .050	2.745	2.345	.020 - .030	2.875	2.255	.020 - .040
2.502	1.501	.080 - .100	2.561	1.657	.100 - .134	2.615	2.354	.020 - .030	2.626	2.074	.060 - .080	2.747	1.400	.025 - .040	2.875	2.275	.030 - .050
2.502	1.796	.070 - .090	2.561	2.091	.042 - .060	2.617	1.549	.050 - .075	2.627	.394	.010 - .020	2.749	1.376	.040 - .050	2.880	2.020	.030 - .040
2.502	1.999	.125 - .156	2.561	2.177	.010 - .020	2.618	1.760	.105 - .125	2.627	**.395**	**.005 - .010**				2.880	2.263	.050 - .060
2.502	**2.273**	**.005 - .010**	2.562	.407	.030 - .050	2.618	2.007	.015 - .030	2.627	.500	.135 - .187	**2.750**			2.880	2.500	.015 - .030
2.502	2.282	.025 - .040	2.562	1.562	.100 - .125	2.619	1.754	.015 - .030	2.627	1.266	.025 - .040				2.883	2.000	.008 - .016
2.503	.509	.010 - .020	2.562	1.811	.020 - .035	2.619	2.124	.015 - .025	2.627	1.296	.060 - .075				2.885	2.177	.020 - .040
2.503	.625	.040 - .060	2.562	2.313	.010 - .020	2.620	.412	.010 - .020	2.627	1.317	.060 - .080				2.885	2.475	.015 - .030
2.503	1.578	.020 - .030	2.563	.756	.020 - .040	2.620	**.553**	**.005 - .010**	2.627	1.461	.060 - .075				2.890	**2.390**	**.005 - .010**
2.503	2.076	.070 - .090	2.563	2.003	.020 - .040	2.620	**1.124**	**.005 - .008**	2.627	1.561	.060 - .075				2.895	2.420	.020 - .030
2.503	2.139	.030 - .040	2.563	2.006	.015 - .030	2.620	1.255	.040 - .060	2.627	1.674	.105 - .125				2.900	.630	.010 - .030
2.504	.875	.100 - .120	2.563	**2.028**	**.005 - .010**	2.620	**1.322**	**.005 - .010**	2.627	1.949	.025 - .040				2.900	.780	.080 - .105

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

For a size NOT listed, send specs or phone for quote — (800) 927-4377, Fax (800) 321-3462.

Column group 1

O.D.	I.D.	Choose Any Thickness* From - To
2.900	2.010	.060 - .080
2.900	2.400	.010 - .040
2.911	1.656	.040 - .060
2.915	1.965	.040 - .060
2.915	2.643	.020 - .030
2.916	1.965	.040 - .060
2.919	1.257	.050 - .060
2.920	2.030	.050 - .060
2.925	1.690	.040 - .060
2.925	2.362	.020 - .040
2.930	2.710	.020 - .030
2.931	1.310	.040 - .060
2.932	2.596	.010 - .020
2.934	2.597	.060 - .070
2.935	2.520	.020 - .030
2.937	1.375	.040 - .060
2.937	1.500	.040 - .060
2.937	2.640	.025 - .040
2.940	1.325	.048 - .062
2.944	.572	.010 - .020
2.945	1.994	.040 - .060
2.949	1.511	.040 - .060
2.950	.628	.010 - .020
2.950	2.229	.040 - .050
2.950	2.250	.015 - .025
2.950	2.260	.020 - .040
2.953	.551	.015 - .025
2.955	1.719	.040 - .050
2.958	2.469	.040 - .060
2.965	2.485	.020 - .040
2.967	.786	.040 - .060
2.969	2.156	.010 - .025
2.977	2.330	.020 - .040
2.980	2.450	.010 - .020
2.986	2.230	.060 - .080
2.994	2.394	.010 - .020
2.995	.949	.010 - .015
2.997	2.187	.010 - .020
2.998	2.380	.050 - .060

3.000

O.D.	I.D.	Choose Any Thickness* From - To
3.000	.250	.030 - .050
3.000	**.253**	**.005 - .010**
3.000	.253	.040 - .060
3.000	.312	.040 - .060
3.000	.343	.010 - .015
3.000	.375	.020 - .040
3.000	.531	.090 - .105
3.000	.560	.050 - .070
3.000	.750	.090 - .105
3.000	.890	.020 - .040
3.000	.981	.015 - .030
3.000	1.020	.020 - .035
3.000	1.218	.010 - .015
3.000	1.748	.048 - .062
3.000	1.750	.050 - .070
3.000	2.000	.020 - .040
3.000	2.125	.030 - .050
3.000	2.255	.010 - .020
3.000	2.444	.020 - .040
3.000	2.500	.048 - .062

Column group 2

O.D.	I.D.	Choose Any Thickness* From - To
3.000	2.527	.040 - .060
3.000	2.550	.020 - .040
3.009	1.650	.048 - .062
3.010	2.530	.030 - .040
3.015	2.665	.008 - .015
3.029	2.184	.050 - .070
3.030	2.917	.010 - .020
3.031	2.185	.030 - .040
3.031	2.310	.050 - .060
3.031	2.435	.050 - .060
3.032	2.913	.030 - .050
3.037	.820	.020 - .035
3.047	1.795	.040 - .050
3.050	.630	.015 - .030
3.060	2.015	.010 - .015
3.060	2.180	.040 - .050
3.062	2.750	.020 - .030
3.062	2.798	.025 - .035
3.063	2.372	.048 - .062
3.065	1.560	.090 - .105
3.065	2.800	.040 - .050
3.066	2.550	.040 - .050
3.067	.901	.040 - .050
3.070	1.775	.010 - .020
3.070	1.930	.020 - .040
3.070	2.711	.015 - .025
3.077	.941	.040 - .060
3.080	2.190	.040 - .050
3.085	2.458	.060 - .080
3.090	1.650	.048 - .062
3.093	2.628	.020 - .040
3.094	2.000	.010 - .020
3.099	2.757	.040 - .050
3.100	.628	.010 - .020
3.100	**2.500**	**.005 - .060**
3.100	2.501	.030 - .050
3.100	2.750	.030 - .050
3.107	2.122	.040 - .060
3.120	2.747	.040 - .060
3.120	2.750	.010 - .020
3.121	1.641	.048 - .062
3.123	2.151	.015 - .025
3.123	2.153	.010 - .020
3.125	.906	.080 - .090
3.125	1.900	.048 - .062
3.125	1.902	.040 - .060
3.125	2.000	.020 - .040
3.130	.315	.105 - .125
3.138	1.566	.020 - .030
3.138	1.578	.020 - .030
3.140	1.446	.020 - .030
3.149	.722	.090 - .125
3.149	1.671	.020 - .050
3.150	.630	.010 - .030
3.150	1.673	.040 - .060
3.150	2.835	.015 - .025
3.175	2.700	.010 - .020
3.181	2.230	.040 - .050
3.185	**1.023**	**.005 - .010**
3.185	2.940	.020 - .030
3.191	1.955	.040 - .060
3.195	**1.260**	**.005 - .010**
3.195	1.355	.020 - .035
3.200	2.500	.010 - .075
3.220	3.024	.020 - .030

3.500

Column group 3

O.D.	I.D.	Choose Any Thickness* From - To
3.244	**1.425**	**.005 - .010**
3.248	2.776	.010 - .015
3.249	**1.001**	**.005 - .010**
3.250	.190	.010 - .020
3.250	.628	.010 - .020
3.250	.750	.010 - .015
3.250	**1.013**	**.005 - .010**
3.250	**1.338**	**.005 - .010**
3.250	2.375	.030 - .050
3.250	2.510	.020 - .030
3.250	2.563	.010 - .020
3.250	2.670	.010 - .020
3.259	2.694	.010 - .060
3.263	2.558	.030 - .040
3.265	2.465	.020 - .030
3.290	2.280	.020 - .035
3.290	3.115	.020 - .035
3.300	.630	.015 - .030
3.300	2.270	.020 - .035
3.306	2.505	.040 - .050
3.312	2.375	.015 - .025
3.313	2.753	.025 - .040
3.325	3.145	.015 - .025
3.337	.308	.080 - .090
3.340	2.943	.020 - .030
3.341	**2.565**	**.005 - .010**
3.364	1.404	.020 - .030
3.367	2.065	.020 - .030
3.370	2.625	.048 - .062
3.375	3.156	.015 - .025
3.385	3.146	.020 - .030
3.387	1.816	.020 - .030
3.390	.191	.010 - .015
3.393	1.841	.020 - .040
3.395	3.020	.020 - .030
3.400	.400	.048 - .062
3.400	.628	.020 - .030
3.426	2.939	.010 - .030
3.427	2.940	.020 - .035
3.430	3.077	.020 - .040
3.450	.630	.010 - .030
3.450	**1.554**	**.005 - .010**
3.450	2.610	.040 - .050
3.450	3.125	.030 - .040
3.452	3.038	.010 - .015
3.454	3.055	.015 - .030
3.463	2.632	.020 - .030
3.466	2.230	.040 - .060
3.470	.705	.090 - .105
3.481	2.415	.010 - .020
3.482	2.703	.032 - .042
3.484	2.880	.035 - .048
3.491	2.000	.010 - .015
3.494	.636	.090 - .125
3.497	2.670	.060 - .080
3.498	2.798	.030 - .040

Column group 4

O.D.	I.D.	Choose Any Thickness* From - To
3.500	.135	.015 - .025
3.500	.504	.040 - .060
3.500	2.000	.040 - .060
3.500	2.030	.040 - .050
3.500	2.250	.020 - .035
3.500	2.500	.010 - .020
3.500	3.060	.010 - .015
3.500	3.125	.020 - .030
3.500	3.158	.020 - .030
3.500	3.250	.010 - .020
3.503	2.702	.040 - .060
3.510	2.510	.020 - .040
3.511	3.207	.040 - .050
3.515	3.050	.050 - .060
3.520	2.750	.020 - .030
3.537	2.186	.020 - .040
3.537	2.280	.030 - .050
3.540	2.890	.015 - .030
3.543	3.150	.015 - .025
3.550	.628	.020 - .030
3.550	2.975	.020 - .030
3.551	3.015	.020 - .030
3.557	2.782	.010 - .020
3.570	.259	.030 - .050
3.570	1.070	.040 - .060
3.570	1.090	.030 - .040
3.575	1.020	.036 - .050
3.586	3.275	.020 - .032
3.590	3.375	.020 - .040
3.609	2.250	.025 - .040
3.609	2.500	.025 - .040
3.620	.750	.040 - .060
3.625	2.030	.062 - .080
3.625	2.562	.020 - .040
3.625	3.032	.010 - .020
3.625	3.196	.020 - .030
3.640	2.072	.020 - .040
3.647	2.346	.015 - .036
3.661	2.992	.010 - .030
3.663	2.427	.040 - .060
3.700	2.899	.040 - .060
3.700	2.960	.020 - .040
3.733	3.332	.020 - .035
3.735	3.300	.010 - .020
3.750	.656	.090 - .105
3.750	.875	.020 - .035
3.750	**3.015**	**.005 - .010**
3.750	3.250	.035 - .045
3.761	1.870	.030 - .050
3.780	3.049	.020 - .040
3.781	1.435	.030 - .050
3.800	3.300	.020 - .035
3.800	3.350	.020 - .040
3.819	3.415	.040 - .060
3.823	3.332	.030 - .040
3.850	1.780	.020 - .040
3.870	1.370	.020 - .032
3.874	1.642	.050 - .062
3.875	1.150	.040 - .060
3.880	2.515	.030 - .050
3.881	2.396	.050 - .060
3.889	2.315	.020 - .030
3.900	2.700	.050 - .060
3.900	3.360	.020 - .040
3.904	3.513	.030 - .040

Column group 5

O.D.	I.D.	Choose Any Thickness* From - To
3.908	2.352	.020 - .040
3.924	.492	.030 - .050
3.925	2.224	.020 - .030
3.937	1.673	.010 - .020
3.937	2.008	.015 - .025
3.937	2.362	.020 - .032
3.940	3.150	.050 - .060
3.945	3.505	.020 - .040
3.960	3.612	.030 - .050
3.987	1.891	.010 - .015
3.997	**1.381**	**.005 - .010**
3.998	2.998	.010 - .020

4.000

O.D.	I.D.	Choose Any Thickness* From - To
4.000	.504	.040 - .060
4.000	.690	.040 - .060
4.000	1.010	.050 - .070
4.000	2.000	.008 - .015
4.000	2.031	.040 - .060
4.000	2.281	.008 - .015
4.000	2.530	.030 - .050
4.000	2.562	.048 - .062
4.000	2.577	.020 - .040
4.000	2.780	.040 - .060
4.000	3.000	.008 - .025
4.000	3.362	.010 - .020
4.000	3.410	.020 - .030
4.000	3.426	.020 - .030
4.000	3.544	.015 - .025
4.015	3.572	.040 - .060
4.025	3.060	.040 - .060
4.026	3.309	.050 - .060
4.055	1.299	.050 - .060
4.055	**3.750**	**.005 - .010**
4.065	3.275	.020 - .030
4.095	3.858	.010 - .020
4.096	3.267	.010 - .020
4.120	2.549	.020 - .030
4.120	3.150	.035 - .050
4.125	1.781	.040 - .050
4.125	3.430	.020 - .030
4.125	3.750	.020 - .040
4.127	3.214	.048 - .062
4.130	.660	.020 - .030
4.150	3.576	.020 - .030
4.195	2.136	.010 - .020
4.200	3.505	.020 - .032
4.218	1.618	.020 - .040
4.224	1.520	.020 - .032
4.240	2.525	.020 - .032
4.250	.780	.010 - .020
4.250	.801	.020 - .030
4.250	3.550	.050 - .060
4.250	3.570	.020 - .030
4.250	3.660	.015 - .025
4.254	3.018	.040 - .050
4.270	3.935	.020 - .040
4.300	3.200	.020 - .040
4.308	2.746	.020 - .040

Column group 6

O.D.	I.D.	Choose Any Thickness* From - To
4.320	2.385	.020 - .040
4.358	.485	.048 - .062
4.368	3.273	.020 - .035
4.373	3.776	.010 - .015
4.375	4.083	.030 - .040
4.376	3.258	.025 - .040
4.380	3.375	.006 - .012
4.398	3.986	.015 - .030
4.402	2.778	.010 - .020
4.420	3.890	.020 - .030
4.432	3.810	.020 - .035
4.434	3.153	.010 - .015
4.435	.756	.050 - .070
4.470	3.470	.020 - .030
4.471	3.468	.020 - .030
4.480	4.030	.025 - .035
4.490	4.223	.030 - .050
4.499	2.058	.010 - .020
4.500	.504	.040 - .060
4.500	2.500	.048 - .062
4.550	.243	.040 - .060
4.570	3.870	.020 - .030
4.623	4.328	.010 - .015
4.688	**3.560**	**.005 - .010**
4.688	**3.879**	**.005 - .010**
4.700	3.865	.010 - .020
4.706	3.140	.020 - .030
4.710	3.873	.010 - .020
4.720	3.884	.020 - .035
4.730	4.083	.030 - .050
4.850	**4.450**	**.005 - .010**
4.860	.390	.090 - .125
4.860	4.350	.020 - .036
4.860	4.600	.015 - .030
4.875	3.018	.020 - .030
4.935	4.763	.015 - .025
4.950	4.393	.010 - .020
4.960	4.260	.020 - .030
4.975	3.165	.025 - .040
4.994	4.904	.020 - .040

5.000

O.D.	I.D.	Choose Any Thickness* From - To
5.000	.270	.040 - .060
5.000	1.562	.030 - .050
5.125	4.393	.015 - .025
5.140	2.860	.006 - .012

For outside diameters up to 12" contact BOKER's at (800) 927-4377.

*With BOKER'S precision metal washers, you can choose the exact thickness you want from the tool range listed.
Tools indicated in **BOLD** can also be used for non-metallic materials – see page 3 for details.

Call: 800-WASHERS (800-927-4377) or email: sales@bokers.com

Equipment and Capabilities List

Housed in over 100,000 square feet of buildings, the equipment listed below, as well as all tooling, are protected by a central station security and fire system.

Tool & Die Department
- CAD CAM Drawing System
- Kitamura Vertical Machine Center
- Mori Seiki Vertical Machine Center (20" x 40")
- Mori Seiki High Precision C.N.C. Lathes
- Digital Optical Comparator
- (2) Clausing Surface Grinders
- Matsui Precision Grinder
- (3) Charmilles Wire E.D.M.s (14" x 21" x 8")
- Charmilles E.D.M. Drill
- Okamoto Precision Grinder
- Stratasys Dimension SST 1200ES 3D Printer

Washer Department
- 18 Punch Presses (10 to 75 tons)
- Digital Servo Feeders
- Electric Coil Reels (1,200 lb. capacity)
- Coil Straighteners
- Tonnage Monitors

Stamping Department
- 46 Punch Presses (10 to 180 tons)
- Aida Servo Press
- 2 High Speed Minster Progressive Die Presses (60 to 150 tons)
- Digital Servo Feeders
- Electric Coil Reels (6,000 lb. capacity)
- 48" Press Brake
- Optical Part Detection Systems
- Press Control Automation
- Tonnage Monitors

Heat Treating Department
- Electric High Temperature Hardening Furnaces
- Electric Tempering Furnaces (all furnaces calibrated)

Raw Stock & Shear Department
- 2-10' Shears (.25" thick maximum)
- Stanat Model Rolling Mill
- IRM Rolling Mill
- Cooper Weymouth Roller Levelers
- Coil Set Straightener
- Wilder Coil Slitter
- Computer Inventory & Control System

Secondary Operations Department
- Trimming Lathes
- Production Milling Machines
- Pneumatic Presses
- Tapping Machines
- 6 Spindle Machine Centers (multiple head drilling, tapping, and reaming)
- 4 Straight-liners up to 18"
- Parts Washing System

Cleaning & Deburring Department
- Agitated Chemical Washing System
- Rotary Deburring Machines
- Vibratory Deburring Machines
- Centrifugal Tumblers
- Heated Centrifugal Dryers
- Lewis Ultrasonic Cleaner
- High Energy Deburring Machines
- Mass Finishing Machines
- Custom Parts Dryer

Shipping Department
- Toledo Electronic Scales & Printer
- Precision Electronic Scales & Printers
- Automated Protective Packaging Bagger
- Polychem Automatic Plastic Strapping System
- Hercules Ergo Container Handling System
- Wulftec Pallet Wrapper

Inspection Department
- Numerex Coordinate Measuring Machine
- Digital Optical Comparator
- Digital Buehler Hardness Tester
- Digital Profilometer
- Ceramic Gauge Block Sets
- Plug Gauge Sets
- Height Gauges
- Thread Gauges
- Statistical Process & Capability Studies Available
- Climate-controlled & Monitored

Material Capabilities
- Material Thickness: .005" to .134"
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