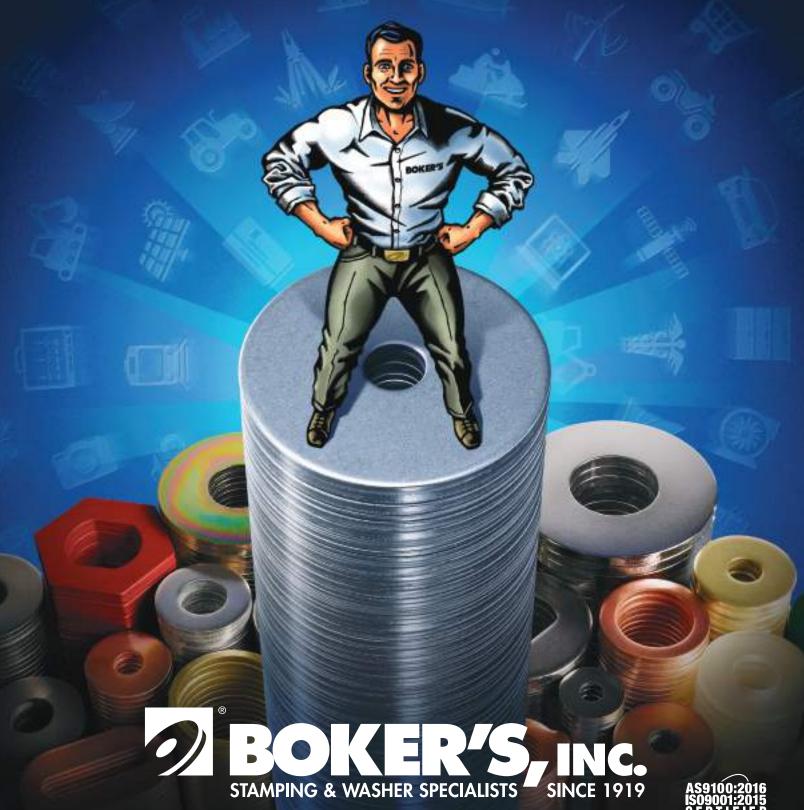
STAMPINGS & WASHERS

2023 CATALOG



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

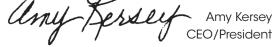
A NOTE FROM BOKER'S

We are pleased to bring you the Boker's, Inc. 2023 Stampings & Washers Catalog. For over 100 years, we have been honored to provide stamped components and washer solutions to every market and industry to date.

As you are likely aware, our lead times in 2021 and well into 2022 were longer than they ever have been. Globally, manufacturers faced the same challenge of re-stocking the world after the pandemic shutdowns left retailers and distribution centers empty and OEM's work-in-process nearly diminished. The overwhelming increase of "super-sized" orders led us to a point where our capacity was booked out further than ever before. We have now dug out of our backlog and have made major strides in meeting or exceeding customer on-time delivery expectations. Boker's understands that long lead times have an adverse effect on our customers and their ability to plan and execute; we are excited to announce that Boker's team continues to work hard and has significantly reduced our lead times to provide you, our customer, with world-class service.

As we continue to drive our lead times back down to the quick delivery we are known for, please reach out to understand the lead time required to manufacture your order. Our lead times are back, and we are stronger than ever.

As always, it is our pleasure to be at your service.







- **3** Our Story
- 4 The Boker's Advantage
- **6** Stampings
- 7 Washers, Spacers & Shims
- 8 Industries Served
- **9** Stock Tool Listings
- **67** Edge/Thickness Considerations
- **68** Boker's Corner
- **70** Glossary
- 71 Equipment & Capabilities List



100+ YEARS OF PRECISION MANUFACTURING

It all began in the Minneapolis basement of a young, passionate and focused man named Vitus Boker. He instilled the values of hard work and attention to detail throughout the company as it grew. These values still guide the company today, which inspires the team to provide an exceptional customer experience while producing the highest quality component parts.

Being a value-driven company also means giving back and being good stewards for the surrounding community. From drawing skilled tradespeople from across the Twin Cities to volunteering with local nonprofits, Boker's brings passion and attention to detail to everything we do.

A Part of Every Industry

Boker's has been serving companies on the forefront of technology innovation for over 100 years. As a result, you come into contact with components that Boker's has manufactured almost every day. From airplanes, appliances and medical devices to outdoor recreational equipment, furniture and renewable energy, you interact with items that feature stamped components manufactured by Boker's.

Held the first meeting of

the board of directors

1947

Customers trust Boker's because of their quality, on-time delivery and service. Often times, customers come with a difficult part that they were struggling with and Boker's figures out how to manufacture the part to their exact specifications.

Continuing the Legacy

Boker's works in and serves all fast-paced and highdemand industries. Over the past 100+ years, we have embraced and been on the forefront of technology evolution and integration.

The future of Boker's is sticking to our wheelhouse of what we are known for while expanding our customer base and serving emerging markets. We will continue to expand capabilities by adapting and pursing new technologies and processes in an effort to continue exceeding customer expectations.

Our team works hard and is dedicated to following and continually improving processes. This is the reason Boker's is successful and will continue to be so for at least the next 100 years.

- Chuck Kersey, Assistant Sales Manager

2008

1901

1919

1923

1926

1933

Third location a Bohemian Flats

4th location on

Snelling Avenue

1939

Boker's purchased by four employees (William Tedlund, Joseph Basara

Chester Engauist, Joseph Kantorowicz)

1968

1986

William Tedlund

becomes sole owne

totaling over 165,000 square feet

66,500 square foot expansion

2018 2019

Vitus Boker started using short run stampina methods in Denmark

1860

Vitus immigrated to the United States V.A. Boker & Sons was

patented

Check Protector Second location on Erie Street

company to his children (John, William, Richard, Marie)

1942

Expansion completed totaling over 90,000 sauare feet

Boker's celebrates 100th Anniversary

BOKER'S, INC.



Prototype Before Production

No more guess work or uncertainty.

Make sure to take advantage of our capabilities next time you work

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. Whatever your requirements, if it can be stamped, we can turn it into the part you need.

Metallic Materials: 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 others.

Non-Metallic Materials: Acetal, PTFE, polyester, nylon, fiber, polyethylene, various phenolics and NEMA grade phenolics and others.

Superalloys: Iron, cobalt and nickel based alloys such as: Hastelloy, Inconel, Monel and others.

Secondary Operations

Boker's provides secondary operations including deburring, tapping, counterboring, reaming, and spotfacing to name a few. We also have approved vendors for plating, heat treating, grinding, testing and others.

Boker's Environmental Compliance

Boker's, Inc. is committed to responsible business practices that portray our dedication to our employees, customers, country and world.

Certified Quality Management System

Our Quality Management System (QMS) is AS 9100:2016/ ISO 9001:2015 Certified. When you purchase products from us, you can be confident that our processes are efficient and effective.

Quality Assurance and Certification

✓ C of C PPAP ✓ DFARS

✓ Rohs

- ✓ F.A.I.
- ✓ AS9102
- ✓ REACH
- ✓ ITAR
- ✓ S.P.C. ✓ IMDS
- ✓ Dock-To-Stock
 - ✓ Conflict Minerals ✓ CA Proposition 65
 - ✓ Latex-Free
 - ✓ WBENC





Bokers.com is Your **Complete Resource**

Boker's website provides extensive stamping information including access to thousands of non-standard flat washer, spacer, shim and disk sizes.

Simply key in the desired size range in inch or millimeter measurements by O.D. or I.D. and get immediate display of all stock tool sizes.



Stay in the Loop with Boker's Bulletin

This electronic newsletter is sent out on a quarterly basis and contains industry news as well as other metal forming industry information.

Subscribe today! Scan or visit bokersbulletin.com





Boker's 3D Printing Prototyping Services

Boker's offers additive manufacturing (3D printing) to provide customers with 3D prototypes. See how your product will turn out in advance. This service allows our customers to test parts for form and fit prior to production of the actual stamped part.



Inspection Reports

Certificates of Compliance, Chemical/Physical Analysis, PPAP, FAI and AS9102 are available upon request.



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. Your order may also be expedited for 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 production capacity and enhanced technology allows Boker's quality stampings and non-standard washers to be manufactured quickly, well into the millions.



Quality Stampings Made to Order

Vitus Boker launched the company based on pioneering the production of high-quality, short-run stamped metal parts. With over 100 years of experience, Boker's has earned the reputation as a stamping leader and the respect of many customers for their specialized metal components.



Draws up to 3" deep and 8" in diameter



Complex metal forming needs in thicknesses from .005" to .190" (varies by material)



Flat blanking and piercing up to 12" by 12"

Draws, Forming, Blanking and Piercing

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.

Production Process Overview:

- In-House tool and die department designs and produces custom tooling to be used in the stamping process.
- Material warehouse shears sheets of material into strips or issues a coil of material—metallic or non-metallic.
- The material then transfers to the production floor to be stamped using the custom or stock tool(s) in one or more of our many varieties of punch presses.
- Parts are then (in any combination) blanked, deburred, formed, drawn, tapped or
 pierced in-house. After in-house production is complete parts may be sent to an
 approved vendor for plating, heat treating, grinding, or testing before going to
 Boker's Quality Assurance Department. In our Q.A. Lab, parts are inspected to
 ensure they meet customer specifications before being released for shipping.





Precision Fabrication

When you've been successful for 100+ years, quality isn't just a promise, it's our mission. The washers, spacers and shims you get from Boker's will 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. Boker's dedicates every department to the task of providing the highest quality washers, spacers and shims.

As a final check, your parts are inspected in the Q.A. Lab before your order is shipped out.

Washers, Spacers & Shims

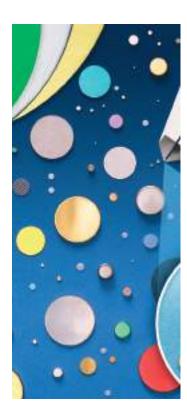
Metric Sizes No Problem! Boker's maintains over 32,000 stock tools for flat washers, spacers and shims. You can choose from a wide variety of sizes, thicknesses and materials, including non-metallics. With outside diameters of 0.080" to 5.140" and a wide variety of inside diameters, you have millions of flat washer possibilities.



Special Shapes and Sizes

Boker's also makes special washer shapes and sizes—up to 12" in outside diameter.
We can produce a vast number of custom washer types with little to no tooling costs.

Tell us what you need, and we'll make it to your exact specifications. Visit bokers.com to submit a drawing for a fast quote or to search stock metric sizes.



The Widest Range of Disks Available

Disks, commonly referred to as discs, circles, plates and/or slugs, are typically round washers with or without a center hole and are typically used to provide a precise space between components or materials or for load disbursement.

All of Boker's 32,000+ flat washer sizes are available without the I.D. hole in more than 2,000 commonly specified and difficult-to-find materials.

- Sizes up to 12" x 12" (flat)
- Thicknesses from .005" to .190" (varies by material)

SPACE AIR LAND SEA

Serving a World of Industries

AEROSPACE, AVIATION & DEFENSE • MEDICAL • ELECTRONIC MEASUREMENT & TESTING • TELECOMMUNICATIONS • RENEWABLE ENERGY • OIL & GAS HYDRAULICS • INDUSTRIAL EQUIPMENT • AGRICULTURE • APPLIANCES HVAC • RECREATIONAL VEHICLES • AUTOMOTIVE • INFORMATION TECHNOLOGY PHOTOGRAPHIC & IMAGING EQUIPMENT • OFFICE MACHINES • CUTLERY & HAND TOOLS • CABINET & FURNITURE • CONSUMER PRODUCTS AND MORE

With a commitment to continuous improvement, Boker's recently surveyed a subset of our customer base in our pursuit of perfection. Our customer service team, comprised of key personnel, reviewed every response and identified action assignments focused on providing the highest quality customer service. Thank you to everyone who participated. We are listening.

Here's what our customers are saying:





BOKER'S STAFF HAVE ALWAYS JUMPED THROUGH HOOPS TO ACCOMMODATE US WHENEVER WE WERE IN DIRE STRAITS. I ENJOY WORKING WITH THEIR STAFF EVERY TIME WE NEED TO PLACE AN ORDER.

- Customer in Defense Industry

BOKER'S HAS BEEN VERY GOOD IN THESE HARD TIMES. DELIVERY HAS BEEN MUCH BETTER. CUSTOMER SERVICE IS EXCELLENT.

- Customer in Pressure Gauge Manufacturing Industry

HONESTLY, BOKER'S PROVIDES EXACTLY WHAT WE NEED IN

CUSTOM STAMPED WASHERS AND SPACERS.

- Customer in Firearm Industry

WE'VE BEEN A **SATISFIED BOKER'S CUSTOMER FOR OVER 20 YEARS**THE QUALITY OF THE PRODUCTS, CUSTOMER

SERVICE, AND **LEAD TIMES HAVE ALWAYS BEEN EXCELLENT**.

- Customer in Prosthetics & Orthotics Industry

GIVEN ALL THE GENERAL SUPPLY

CHAIN ISSUES, BOKER'S HAS DONE GREAT

AND EXCEEDED EXPECTATIONS.

- Customer in Photography & Imaging Industry



Customer Satisfaction is Our #1 Goal

When quality and precision matter the most, turn to Boker's for your stamped components.

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 washers within the tool range indicated. For the most up-to-date list of sizes, please visit **bokers.com**

0.0	1.0	Choose Any	0.0	1.0	Choose Any	0.0	1.0	Choose Any	0.0	10	Choose Any	0.0	I D	Choose Any	0.0	1.0	Choose Any
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
.080	.049	.005010	.106	.077	.005012	.123	.052	.020040	.135	.066	.005010	.149	.097	.015025	.156	.089	.005015
.081	.033	.005010	.107	.055	.005012	.123	.058	.005010	.135	.072	.005015	.150	.033	.005010	.156	.094	.010015
.083	.033	.010020	.108	.055	.005020	.123	.069	.005010	.135	.085	.005010	.150	.035	.010020	.156	.095	.005010
.084	.043	.005010	.108	.061	.010020	.123	.080	.010020	.136	.064	.015030	.150	.041	.005030	.156	.098	.010020
.084	.048	.012020	.109	.047	.012020	.123	.082	.010020	.136	.073	.005010	.150	.044	.005010	.156	.100	.016025
.084	.040	.005010	.109	.036	.010020 .008018	.124 .124	.028 .063	.005010 .005010	.136 .136	.090 .095	.005010 .012020	.150 .150	.046 .056	.005010	.156	.103 .106	.015030 .005010
.085	.043	.005010	.110	.032	.010015	.124	.065	.015025	.137	.049	.012020	.150	.057	.015020 .010020	.156 .156	.115	.005010
.085	.048	.010015	.110	.054	.005010	.124	.066	.015030	.137	.066	.012025	.150	.059	.005010	.156	.130	.010020
.086	.027	.010020	.110	.055	.010020	.124	.073	.005010	.137	.077	.020030	.150	.065	.005010	.157	.043	.020030
.086	.036	.005008	.110	.073	.005010	.125	.049	.005010	.137	.091	.008016	.150	.066	.006010	.157	.057	.005025
.086	.045	.005010	.111	.061	.010020	.125	.052	.005012	.138	.049	.010020	.150	.073	.005010	.157	.061	.010020
.086	.048	.010015	.111	.067	.015025	.125	.054	.015025	.138	.070	.005010	.150	.077	.010020	.157	.064	.005010
.087	.025	.005010	.111	.082	.005010	.125	.055	.020030	.138	.073	.005010	.150	.083	.010020	.157	.066	.010020
.087	.043	.015030	.112	.039	.005010	.125	.060	.015030	.138	.075	.015030	.150	.087	.010015	.157	.086	.005010
.088	.032	.005010	.112	.044	.012020	.125	.062	.010020	.138	.088	.005010	.150	.088	.005010	.157	.088	.005010
.088	.066	.005015	.112	.059	.015025	.125	.063	.005020	.138	.102	.005010	.150	.089	.015025	.157	.091	.010020
.089	.044	.005010	.112	.061	.005010	.125	.064	.010020	.139	.047	.005010	.150	.090	.005030	.157	.092	.010020
.089	.065	.005015	.112	.062	.015025	.125	.065	.005030	.139	.053	.005012	.150	.091	.005012	.157	.094	.020030
.090	.030	.010030	.112	.067	.015025	.125	.066	.005030	.139	.056	.010020	.150	.099	.020025	.157	.096	.005030
.090	.050	.010015	.112	.073	.005010	.125	.067	.015025	.139	.057	.005012	.150	.116	.016020	.157	.120	.005010
.090	.054 .064	.010015 .008012	.113 .113	.052 .074	.005010 .005010	.125 .125	.068 .069	.010032	.139 .139	.063 .066	.005010	.151	.056	.015025	.157	.127	.005010
.090	.004	.006012	.113	.040	.030040	.125	.069	.005010 .012020	.139	.095	.015030 .010020	.151 .151	.069 .073	.005010 .005010	.158 .158	.040 .046	.010020 .012025
.091	.065	.005010	.114	.044	.005040	.125	.072	.020025	.139	.095	.010020	.151	.073	.015010	.158	.046	.012025
.092	.003	.010015	.114	.066	.005010	.125	.078	.020025	.140	.062	.005010	.151	.077	.010020	.158	.057	.020035
.092	.041	.008012	.114	.073	.005010	.126	.042	.008032	.140	.073	.005010	.151	.083	.025030	.158	.060	.020030
.092	.043	.010020	.115	.031	.010020	.126	.050	.005012	.140	.082	.005032	.152	.094	.020025	.158	.089	.020032
.092	.044	.005010	.115	.033	.005010	.126	.052	.008025	.140	.090	.005010	.152	.095	.015025	.158	.094	.025035
.092	.047	.005010	.115	.061	.005010	.126	.057	.025032	.140	.095	.005010	.152	.098	.005010	.158	.095	.005010
.092	.060	.005010	.115	.079	.005015	.126	.062	.008040	.140	.109	.010015	.152	.100	.005010	.158	.098	.005015
.092	.068	.005010	.116	.037	.005010	.126	.064	.005010	.141	.061	.005010	.153	.056	.010020	.158	.100	.015020
.093	.036	.010020	.116	.055	.010020	.126	.065	.005015	.141	.065	.015025	.153	.061	.005010	.158	.101	.005010
.093	.049	.010020	.116	.066	.015025	.126	.068	.005010	.141	.067	.010016	.153	.062	.005010	.158	.119	.015025
.093	.051 .062	.005020	.116	.067	.005010	.126	.073	.005010	.141	.076	.005010	.153	.073	.015025	.159	.077	.005010
.094	.002	.010015	.117	.032	.005010	.126 .126	.095	.005010 .005015	.141 .141	.079 .092	.015025 .015025	.153 .153	.077 .078	.025035 .005015	.159 .159	.081 .095	.005010 .005010
.095	.043	.005010	.117	.035	.005012	.126	.096	.005010	.142	.032	.015025	.153	.081	.020035	.159	.100	.010025
.095	.049	.005010	.117	.056	.010015	.127	.039	.020032	.142	.073	.005010	.153	.095	.020030	.159	.110	.005012
.095	.052	.005010	.118	.058	.010020	.127	.042	.010020	.142	.076	.005010	.153	.100	.010025	.160	.060	.005015
.095	.056	.015020	.118	.073	.005020	.127	.047	.015030	.142	.078	.005010	.154	.073	.020040	.160	.088	.010020
.097	.060	.005010	.118	.075	.005015	.127	.065	.012020	.142	.083	.005010	.154	.095	.005010	.160	.090	.005010
.097	.074	.005010	.118	.080	.005012	.127	.067	.010020	.142	.089	.020030	.154	.101	.005010	.160	.095	.025040
.098	.040	.005010	.118	.091	.005010	.127	.077	.015025	.142	.098	.010015	.154	.110	.020030	.161	.063	.015030
.098	.064	.010020	.120	.039	.010020	.127	.083	.015030	.143	.052	.005010	.154	.115	.005010	.161	.069	.010020
.098	.065 .050	.005010 .005010	.120 .120	.040 .041	.010020 .005010	.127 .127	.093 .094	.010015 .008015	.143	.083 .095	.015025 .010020	.155	.064	.015030	.161	.076	.015030
.100	.026	.010015	.120	.050	.005010	.128	.056	.015025	.143	.095		.155	.066	.005010	.162	.061	.005020 .012020
.100	.035	.010013	.120	.062	.010020	.128	.036	.015025	.143	.065	.005015 .005010	.155 .155	.069 .072	.005015 .020040	.162 .162	.077 .086	.012020
.100	.040	.005010	.120	.063	.015030	.128	.076	.015030	.144	.003	.005010	.155	.072	.010020	.162	.092	.015030
.100	.055	.020030	.120	.065	.005010	.128	.078	.005010	.144	.076	.010020	.155	.078	.008012	.162	.097	.010020
.100	.062	.005010	.120	.070	.015030	.128	.089	.005010	.145	.056	.005010	.155	.081	.005010	.162	.112	.005010
.100	.065	.005020	.120	.073	.005010	.128	.103	.005010	.145	.068	.005012	.155	.084	.005010	.163	.082	.015030
.100	.067	.015025	.120	.080	.010016	.129	.083	.010020	.145	.090	.005010	.155	.094	.015025	.163	.110	.015020
.101	.036	.015025	.121	.043	.005012	.130	.061	.010020	.145	.097	.005010	.155	.111	.005010	.163	.128	.005010
.101	.045	.005030	.121	.047	.005010	.130	.063	.020030	.145	.116	.005010	.155	.124	.010020	.163	.129	.005010
.101	.049	.015020	.121	.054	.010025	.130	.073	.005010	.146	.046	.010020	.156	.044	.015035	.164	.081	.010020
.101	.050	.005010	.121	.062	.010020	.131	.059	.005012	.146	.065	.005010	.156	.049	.005015	.164	.087 .100	.005010 .005012
.102	.040 .053	.020030 .020030	.121 .121	.072 .092	.005010 .005010	.132 .133	.073	.005010 .005010	.146	.073	.005010	.156	.052	.010032	.164 .164	.114	.010012
.102	.033	.020030	.122	.049	.010020	.133	.052	.005010	.146	.091 .107	.010020	.156 .156	.053	.005012	.165	.040	.005010
.104	.030	.005015	.122	.056	.010020	.133	.096	.010020	.147	.067	.020032	.156	.062	.020040	.165	.045	.015030
.105	.037	.015025	.122	.066	.020030	.134	.041	.005010	.147	.111	.010025	.156	.065	.020040	.165	.052	.010030
.105	.044	.005010	.122	.073	.005010	.134	.070	.010020	.148	.068	.010020	.156	.066	.020035	.165	.061	.025040
.105	.047	.005010	.122	.076	.010020	.134	.071	.005010	.148	.073	.005010	.156	.067	.008018	.165	.071	.005010
.105	.056	.015025	.122	.095	.008015	.134	.073	.005010	.148	.077	.010020	.156	.068	.010040	.165	.073	.005015
.105	.057	.005010	.123	.032	.005020	.134	.095	.005010	.149	.036	.005010	.156	.071	.005025	.165	.075	.005010
.105	.063	.010020	.123	.034	.020030	.135	.035	.005010	.149	.079	.005010	.156	.077	.015035	.165	.080	.015025
.106	.065	.010020	.123	.035	.010020	.135	.059	.005010	.149	.086	.005010	.156	.078	.005010	.165	.083	.005010
.106	.069	.005012	.123	.036	.005010	.135	.060	.005010	.149	.095	.005010	.156	.080	.025035	.165	.090	.005010

 $\hbox{*With BOKER'S precision washers, you can choose the exact thickness you want from the tool range listed.}$

Choose Any Thickness* From To

.005 - .015

.015 - .030

.015 - .030 .005 - .010

.005 - .010

.010 - .020

.010 - .015

.005 - .010

.005 - .010

.010 - .030 .005 - .010

.025 - .040

.005 - .010 .005 - .010

.005 - .010

.010 - .020

.005 - .012 .005 - .010 .010 - .020

.025 - .040 .005 - .010

.005 - .010

.005 - .010

.015 - .030

.005 - .010

.015 - .025

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.010 - .020 .005 - .010

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.005 - .010 .035 - .050

.015 - .025 .015 - .030

.015 - .030 .015 - .030

.005 - .010

.020 - .040 .050 - .070

.005 - .015 .020 - .035

.030 - .040

.005 - .015 .005 - .030

.040 - .060

.005 - .010 .015 - .030

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O.D. I.D.	Choose Any Thickness* O.D.	Choose An I.D. Thickness*		I.D.	Choose Any Thickness*	O.D. I.E	Choose Any Thickness*		I.D.	Choose Any Thickness*	O.D.	ΙD	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D. I		hoose Any hickness*	O.D.	I.D.	Choose Any Thickness*	OD
O.D. 1.D.	From To	From T	0.D.	1.0.	From To	O.D. 1.L	From To	0.5.	1.0.	From To	0.0.	1.0.	From To	0.0.	1.0.	From To	0.5.	1.0.	From To	0.5.	1.0.	From To	0.0.	FI	rom To	0.0.	1.0.	From To	0.0.
.165 .096	.015030 .176	.119 .01002	.185	.118	.015030	.188 .10	02 .00501	5 .196	.122	.005020	.202	.066	.015025	.211	.111	.010020	.218	.090	.015030	.222	.129	.020030	.231 .	155 .0	010020	.236	.210	.005010	.244
.165 .100	.015025 .177	.053 .0050	10 .185	.119	.015030	.188 .10	03 .02003	.196	.128	.005010	.202	.067	.005015	.211	.112	.005010	.218	.095	.010050	.222	.134	.040050	.231 .		010015			.010020	
.165 .125	.005010 .177	.070 .0050	10 .185	.126	.020030	.188 .10	06 .01002	.196	.129	.005025	.202	.101	.015025	.211	.120	.005010	.218	.097	.005025	.222	.140	.010020	.231 .	173 .0	005010	.237		.010020	
.165 .126	.015025 .177				.005010					.010020		.116	.015020			.015030		.101	.020030			.010020						.040060	
.166 .062	.005010 .177	.094 .0070			.010020					.010020		.120			.133	.020035		.105	.005032			.015040						.005010	
.166 .073	.010020 .177	.099 .0050		.129	.005015					.005010		.126		.211	.142	.025035		.106	.020032		.100	.005010						.005030	
166 075	.005010 .177				.005010					.005010		.128	.005010	.211		.005010		.108	.008020			.025035			005010			.005020	
.166 .081	.005010 .177												.005010	.211	.160	.005010													
					.005010					.015025		.134							.025040			.005015						.030050	
	.010020 .177				.010025					.030050		.136		.211		.020032			.005020			.025042			005010			.025036	
.166 .125	.005010 .177	.125 .0050			.005010					.005010		.056	.005010	.211		.005010		.119	.005008			.005010						.005010	
.166 .129	.005010 .177				.006010					.020040		.063				.005010			.005010			.025035			006016			.008035	
.167 .031	.005010 .178	.050 .03004			.005010					.005010		.072	.015040	.212		.015030		.128	.005020			.010020			005010			.010020	
.167 .065	.010020 .178	.077 .01503	.186	.038	.005010	.189 .04			.103	.005010	.203	.091	.010040	.212		.010020		.132	.008015	.223	.139	.015025						.010020	
.167 .078	.005010 .178	.113 .0050	.186	.046	.010020	.189 .05	53 .03004	0 .197	.116	.005010	.203	.092	.030040	.212	.124	.005010	.218	.137	.005010	.223	.155	.005010	.233 .	110 .0	010 200	.238	.071	.015030	.245
.167 .085	.010020 .178	.119 .03004	.186	.064	.008020	.189 .06	.01005	0 .197	.121	.005010	.203	.093	.040060	.212	.131	.005010	.218	.138	.020040	.223	.191	.005010	.233 .	118 .0	020040	.238	.115	.040060	.245
.167 .108	.010020 .178	.123 .0050	.186	.075	.015025	.189 .09	94 .04006	0 .197	.122	.020040	.203	.107	.005010	.212	.135	.005015	.218	.140	.015025	.224	.075	.025040	.233 .	124 .0	010020	.238	.126	.030050	.245
.168 .082	.005010 .178	.137 .01002	.186	.079	.015040	.189 .09	95 .02504	5 197		.005010	.203	.114	.015040	.212	.137	.015025	.218	.141	.025036	.224	.139	.005012	.233 .	127 .0	005010			.005010	
.168 .096	.025040 .178	.139 .0050			.005010					.030040		.123	.005010	.212	.138	.005012	.218	.143	.015030			.005010			005015			.005010	
.168 .130	.005010 .179				.015025					.015025		.124	.010020	.212	.158	.015025			.015025			.005010			005010			.030040	
.169 .027	.010020 .179	.101 .01002			.015030					.010020		.128				.005012		.070	.020030			.005010			005010			.005010	
.169 .115	.015025 .179				.025035					.010020		.137	.020040	213		.025040		.085	.005010			.015030			010015			.020030	
.170 .034	.005010 .179	.113 .0050			.025035					.010030		.170		.213		.015030		.090	.005010			.005010						.020030	
.170 .054	.005010 .179				.012025					.015030		.175		.213		.005010		.103	.010020			.015030			020030			.005010	
													.005010	212	100	.005010													
.170 .064	.015032 .180	.081 .02000			.005010					.020030		.176		213	110			.106	.005020			.015030			010 200			.032050	
.170 .067	.010020 .180	.089 .00503			.005010					.005010		.044	.005010			.010020			.020040			.005010			010010			.015030	
.170 .070	.020030 .180	.090 .01002			.010020					.005010		.075	.025040	.213		.025040			.010030			.015032			010 200			.015030	
.170 .089	.015025 .180	.094 .01002			.030040					.020030		.100				.005010		.127	.030040			.030050						.005010	
.170 .097	.005010 .180				.005010					.020040		.105				.010025			.010015			.005015						.030050	
.170 .109	.025035 .180	.100 .02504			.020030					.005010		.125		.213	.162	.020030			.015030			.005015						.030040	
.170 .121	.005010 .180			.125	.010030	.190 .13			.050	.005010	.204	.143	.020030	.214		.005010		.142	.005010	.225	.144	.015030	.234 .	126 .0	015025	.239		.005010	
.171 .065	.005010 .180	.115 .0050	.186	.126	.005010	.191 .03	.00501	0 .199		.030050		.157	.010020	.214	.062	.015030	.219	.147	.025040	.225	.147	.025040	.234 .	128 .0	015030	.239		.005015	
.171 .086	.030050 .180	.118 .0050	.186	.127	.010015	.191 .03	.01002	.199	.105	.030050	.205	.038	.015025	.214	.089	.010020	.219	.156	.010020	.225	.150	.005010	.234 .	129 .0	010 200	.240	.024	.005010	.247
.171 .087	.015030 .180	.128 .0050	.186	.129	.020040	.191 .06	.01001	6 .199	.122	.010020	.205	.050	.030040	.214	.098	.010020	.219	.161	.005035	.225	.164	.005010	.234 .	134 .0	020030	.240	.072	.005010	.247
.171 .090	.005030 .180	.141 .0050	.186	.136	.010020	.191 .06	35 .02505	0 .199		.005015		.079	.020030	.214	.100	.015025	.219	.171	.005010	.226	.087	.005010	.234 .	135 .0	030050			.020030	
.171 .098	.007015 .181				.005010					.015020		.094	.010020	.214	.109	.020030	.219	.173	.005010			.015050						.010020	
.171 .101	.010020 .181	.078 .0070			.005010					.005010		.097	.010020	.214	.126	.005010		.040	.005010			.020030			005010			.010020	
.171 .128	.010020 .181	.087 .0050			.015030					.005010		.112		.214		.010020		.051	.025035			.025040			035050			.025040	
.171 .129	.010020 .181	.093 .0050			.015030					.005010		.115		.214	.166	.005010		.063	.010020			.005030						.005010	
.171 .130	.005010 .181	.095 .0100			.020040					.005010		.131	.010020	.214		.010015		.065	.020032			.005010			005010			.025060	
.172 .036	.005010 .181	.116 .0150		.078	.025050					.020030		.137	.025040	.214	.180	.005010		.069	.005010		.193	.005010						.005010	
	.005020 .181	.127 .01502		.080	.005010							.147	.025030			.010030		.070	.020030									.005010	
										.020030			.005015	215								.010020							
.172 .080	.015025 .181	.128 .00502			.005010					.010020		.051		.215		.005010			.005010			.005010						.005010	
.172 .081	.020030 .182	.052 .01002		.082	.005042					.025040		.094	.005010		.073	.030040		.091	.005040		.153	.020032			005010			.005010	
.172 .096	.020032 .182	.057 .01202		.084	.005010					.025040		.126	.005010	.215	.088	.010015		.099	.005010			.020030			005010			.005010	
.172 .103	.010020 .182	.068 .01002		.086	.030050					.010020		.154	.005010	.215	.090	.042062		.106	.005015		.091	.005010						.015040	
.172 .109	.020040 .182	.083 .0400			.010030					.005010		.161	.005010	.215		.010025			.010020			.010020			030050			.005010	
.172 .128	.005010 .182	.094 .01503		.090	.025040	.192 .12	25 .00501	0 .200		.015025	1	.112	.005010	.215	.100	.010050		.109	.005010	.228	.106	.020035	.235 .	114 .0	010030	.241		.005010	
.173 .065	.015030 .182	.110 .01002	.187	.091	.015025	.192 .13	.00501	0 .200	.096	.005010	.207	.127	.015025	.215		.010020			.032048			.010050			030050			.020035	.247
	.020030 .182									.015030		.132										.010020					.128	.015030	
.173 .079	.020030 .182	.134 .0050	.187	.096	.010025	.193 .07	75 .01503	.200	.098	.015025	.207	.133	.020030	.215	.112	.020040	.220	.117	.025042	.228	.129	.020030	.235 .	131 .0	025040	.241	.148	.005010	.247
.173 .088	.005010 .183	.067 .01202	25 .187	.098	.015025	.193 .09	95 .02004	0 .200	.100	.040050	.207	.144	.010020	.215	.123	.015035	.220	.122	.025040	.228	.131	.015030	.235 .	134 .0	020035	.241	.162	.005010	.247
.173 .092	.020035 .183	.090 .01002	.187	.100	.005010	.193 .10	.01002	.200	.101	.005040	.207	.147	.005010	.215	.127	.005012	.220	.125	.020030	.228	.148	.005010	.235 .	138 .0	015025	.241	.180	.005010	.247
.173 .096	.020040 .183	.096 .02003	.187	.104	.032042	.193 .11	1 .00501	0 .200	.102	.005030	.208	.099	.010020	.215	.137	.010015	.220	.127	.025048	.228	.167	.005010	.235 .	139 .0	025040	.242	.072	.005010	.247
.173 .100	.010020 .183	.097 .0050	.187		.015040				.105	.010025	.208	.120	.005060	.215	.138	.020030	.220	.128	.005050	.229	.096	.010020	.235 .		020032		.100	.005010	.247
.173 .102	.010020 .183	.101 .02003	36 .187	.108	.005010					.025035		.127	.015025	.215	.144	.030050	.220	.129	.020035			.015025			010020				
.173 .104	.016025 .183				.015032					.010020		.128	.040050	.215	.162	.005010	.220	.140	.010020			.005010			010 200			.005010	
.173 .114	.010020 .183	.106 .01002	20 .187	.116	.010020			2 .200		.020036		.129	.020030	.215	.164	.005010			.025035			.010020			010020			.015025	
	.005025 .183									.005010			.005010			.005010			.015025			.020030			020036			.010015	
.174 .044	.020030 .183				.020030					.020036			.005010			.010020			.005010			.020030			005010			.005010	
	.010020 .183				.005010					.025040		.155				.005010			.015020			.015030			020040			.010020	
.174 .093	.040060 .183				.005010					.015030			.010015			.015032			.015020			.042062			005010			.025035	
.174 .095	.020032 .183									.005010			.005010			.005010			.005010			.010020			010020				
.174 .093	.025040 .183				.005010					.020030		.090				.020030			.050060			.005010			005010			.012020	
.174 .097	.005010 .184				.005010								.015030			.020030			.005010			.005010						.012020	
																.010020									020030				
	.010020 .184				.005010					.010020			.025040						.020035			.010020			015030	.243	.095	.015025	240
.175 .056	.005025 .184				.020032								.005010			.005010			.020030			.005060			020030			.010050	
.175 .077	.005010 .185				.005010					.010020			.015030			.005010			.010020			.010040			015030			.005010	
.175 .089	.015030 .185				.005010					.005010			.012020						.005010			.010020			015030			.005010	
.175 .090	.005030 .185				.030050								.015025			.020030			.020035			.010020			030048			.010020	
.175 .092	.005030 .185				.020040					.020040			.005010			.015030			.020035			.005010			020030			.010020	
.175 .099	.005010 .185	.080 .0050			.025040		15 .01504						.005010			.030050			.020035			.005010			010 200				
.175 .102	.020030 .185	.083 .01503	.188	.063	.010015	.196 .05	.01002	.201					.005010			.015030	.221	.130	.030042	.230		.005010			010 200				
.175 .104	.005010 .185	.086 .00802	.188	.071	.005015	.196 .05	55 .02504	.201	.096	.020040	.210	.155	.010020	.217	.116	.008016	.221	.135	.005010	.231		.005010			010 200				
.175 .121	.010020 .185	.089 .01503	.188	.075	.030050	.196 .07			.115	.015025	.210	.162	.020040	.217	.118	.050070	.221	.144	.005010	.231	.068	.020030	.236 .	130 .0	015030	.243	.198	.005020	.248
.175 .123	.030040 .185	.092 .00503	.188		.010015					.020032		.182				.025040			.020030			.050070			005010				
.175 .124	.025030 .185				.025040								.015030			.015030			.010020			.040060	.236 .	155 .0	005010	.244	.088	.005010	.248
.175 .127	.005010 .185				.010020					.005010						.005010			.020030			.035048	.236	160 n	005010	.244	.106	.015030	.248
.175 .128	.015020 .185				.005010								.020040			.005010			.008012			.005010			005010				
.176 .053	.005010 .185																		.010020			.010020			005010				
	.005010 .185																					.005010							
				.555			.555 .51		.501	.0.0 .020												510		0					4 11 4

									NC	100	LING CH	ARGE	FOR	ANY OF	THE	SIZES	LISTED
O.D.	I.D.	Choose Any Thickness*															
		From To															
.248 .248	.133 .135	.015030 .015025	.250 .250	.146 .147	.010020 .005050	.253 .253	.145 .151	.025040 .005010	.263 .263	.193 .195	.005010 .005010	.270 .271	.210 .127	.020040 .015025	.276 .276	.146 .153	.005015
.248	.152	.030050	.250	.150	.005015	.253	.166	.020040	.263	.199	.010025	.271	.130	.008015	.276	.159	.030050
.248	.155	.005010	.250	.153	.010020	.253	.190	.020040	.264	.108	.025040	.271	.138	.005040	.276	.161	.005015
.248	.158	.025042	.250	.154	.015025	.253	.191	.020040	.264	.139	.015025	.271	.146	.005010	.276	.162	.010020
.248	.176	.010020	.250	.157	.025040	.253	.192	.005010	.264	.147	.005010	.271	.175	.030050	.276	.167	.005010
.248	.208	.010020	.250	.158	.015030	.253	.197	.005010	.264	.162	.025040	.271	.190	.015025	.276	.190	.020040
.249 .249	.075 .100	.015030 .020032	.250 .250	.159 .161	.020036 .005010	.254 .254	.051 .117	.030050 .010020	.264 .264	.168 .174	.015025 .050060	.271 .271	.199	.015025	.276 .276	.192 .196	.015040
.249	.103	.005010	.250	.162	.032042	.254	.127	.025040	.264	.240	.005010	.272	.221 .032	.020030 .010020	.276	.200	.010020
.249	.112	.010018	.250	.164	.010020	.254	.159	.005010	.265	.093	.060080	.272	.093	.025042	.276	.209	.010020
.249	.116	.020040	.250	.165	.010020	.254	.160	.025042	.265	.101	.020040	.272	.095	.015030	.277	.088	.005010
.249	.121	.015025	.250	.166	.005012	.254	.194	.025042	.265	.115	.040050	.272	.120	.005010	.277	.092	.010020
.249	.123	.015030	.250	.167	.010045	.254	.201	.005010	.265	.122	.020040	.272	.121	.020040	.277	.108	.005010
.249	.124	.005010	.250 .250	.172	.005010 .025040	.254	.205	.005010	.265 .265	.125 .126	.005010	.272 .272	.132	.015030	.277 .277	.126 .127	.005010
.249	.128	.020035	.250	.175	.005010	.255	.101	.030050	.265	.129	.005010	.272	.169	.030048	.277	.129	.050070
.249	.135	.005010	.250	.176	.025040	.255	.105	.025040	.265	.141	.005010	.272	.192	.015032	.277	.132	.015025
.249	.137	.025050	.250	.183	.020040	.255	.109	.010020	.265	.143	.040062	.272	.194	.010020	.277	.140	.020030
.249	.139	.005040	.250	.186	.010020	.255	.135	.015030	.265	.153	.005010	.272	.220	.005010	.277	.143	.005010
.249	.143	.015030	.250	.189	.010020 .010020	.255	.149	.040050	.265	.160	.005010	.273	.104	.005010	.277	.146	.050070
.249 .249	.144 .152	.030050 .005010	.250 .250	.190 .191	.010020	.255 .255	.164 .167	.035050 .005010	.265 .265	.161 .166	.010030 .010015	.273 .273	.108 .118	.015030 .015030	.277 .277	.161 .163	.015030 .015025
.249	.158	.020030	.250	.192	.025030	.255	.195	.040060	.265	.183	.025040	.273	.135	.020040	.277	.166	.005008
.249	.160	.020040	.251	.036	.010020	.256	.119	.040060	.265	.189	.005010	.273	.141	.015025	.277	.170	.015030
.249	.170	.025040	.251	.057	.005012	.256	.164	.025042	.266	.082	.015030	.273	.144	.005010	.277	.195	.005010
.249	.172	.010020	.251	.059	.005010	.257	.067	.015030	.266	.090	.005010	.273	.148	.005010	.277	.201	.010020
.249	.186	.005010	.251	.063	.025040	.257	.078	.025040	.266	.106	.005010	.273	.149	.020030	.278	.058	.010020
.249 .249	.189 .190	.015032 .005008	.251 .251	.074 .076	.025050 .005010	.257 .257	.095 .191	.005010 .010020	.266 .266	.110 .121	.010020 .020040	.273	.163	.020040	.278 .278	.087 .103	.005010 .005010
.249	.193	.008012	.251	.093	.005010	.257	.213	.005010	.266	.123	.020040	.273 .273	.173 .203	.005010	.278	.135	.040062
.= .0		.000 .0.2	.251	.101	.025040	.258	.067	.015030	.266	.131	.036060	.274	.032	.005010	.278	.141	.010020
			.251	.108	.020040	.258	.095	.015025	.266	.134	.025040	.274	.052	.005010	.278	.142	.025040
			.251	.113	.030050	.258	.149	.005010	.266	.168	.025040	.274	.093	.005040	.278	.145	.005010
			.251	.115	.040060	.258	.154	.005010	.266	.171	.020035	.274	.095	.005010	.278	.151	.005030
			.251 .251	.122 .125	.035050 .010020	.258 .258	.163 .169	.015030 .020030	.266	.179	.020030	.274 .274	.121	.005010	.278 .278	.155 .183	.005010 .005010
		50	.251	.127	.010025	.258	.103	.020030	.266 .266	.185 .202	.015025 .005010	.274	.127 .132	.030060 .025035	.278	.190	.005010
			.251	.130	.015030	.259	.116	.005010	.266	.218	.005010	.274	.170	.030050	.278	.191	.015032
			.251	.131	.005050	.259	.160	.005010	.267	.059	.010020	.274	.172	.040060	.278	.224	.010020
.250	.027	.005010	.251	.136	.005010	.259	.213	.005010	.267	.100	.030050	.274	.174	.035050	.278	.236	.005010
.250	.039	.005025	.251	.138	.005010	.260	.065	.010020	.267	.125	.005010	.274	.175	.040050	.279	.045	.005015
.250 .250	.044 .052	.005015 .005012	.251 .251	.145 .146	.015048 .015030	.260 .260	.089 .108	.010020 .015030	.267 .267	.140 .143	.015030 .010025	.274 .274	.191	.005020 .005010	.279 .279	.103 .116	.005010 .010020
.250	.063	.005010	.251	.149	.040050	.260	.113	.015030	.267	.143	.020030	.274	.211 .237	.005010	.279	.129	.010020
.250	.072	.005012	.251	.151	.025040	.260	.120	.020060	.267	.168	.005010	.275	.071	.010020	.279	.139	.032048
.250	.077	.012025	.251	.157	.040060	.260	.121	.007015	.267	.170	.030050	.275	.079	.010020	.279	.140	.030040
.250	.082	.005010	.251	.158	.005015	.260	.128	.040060	.267	.178	.025040	.275	.081	.020040	.279	.144	.025040
.250	.083	.015020	.251	.160	.005010	.260	.129	.025040	.267	.190	.005008	.275	.089	.030050	.279	.156	.020030
.250 .250	.085	.005030	.251 .251	.162 .187	.025042 .010020	.260 .260	.144 .148	.020040	.267 .267	.205 .211	.015030	.275 .275	.091 .096	.020040	.279 .279	.170 .195	.015025
.250	.093	.062083	.251	.188	.005008	.260	.158	.005020	.268	.109	.015030	.275	.098	.030050	.279	.197	.015030
.250	.094	.005025	.251	.190	.005015	.260	.163	.020040	.268	.114	.020040	.275	.115	.005010	.279	.217	.015030
.250	.095	.007040	.251	.192	.005010	.260	.167	.005010	.268	.124	.015030	.275	.118	.020040	.279	.232	.005010
.250	.097	.030080	.251	.195	.005010	.260	.170	.040060	.268	.147	.032050	.275	.122	.020040	.279	.247	.010015
.250	.098	.010025	.251	.200	.015025	.260	.173	.020040	.268	.173	.005010	.275	.126	.010020	.280	.067	.005015
.250 .250	.099 .100	.032050 .025040	.251 .251	.205 .214	.007015 .005010	.260 .260	.175 .176	.005010 .020040	.268 .268	.179 .199	.005010 .010020	.275 .275	.135 .143	.005012 .010020	.280 .280	.079 .100	.030050
.250	.100	.025040	.252	.078	.060072	.260	.176	.020040	.268	.202	.010020	.275	.143	.010020	.280	.105	.015032
.250	.105	.005035	.252	.099	.005010	.260	.190	.010020	.268	.213	.010020	.275	.163	.015025	.280	.115	.015030
.250	.106	.030050	.252	.103	.015025	.260	.205	.010020	.269	.139	.020030	.275	.166	.020030	.280	.118	.010020
.250	.108	.005010	.252	.120	.010020	.261	.104	.050070	.269	.156	.015025	.275	.170	.032048	.280	.122	.025048
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.250	.120	.030050	.252	.146	.020040	.261	.206	.005010	.269	.161 .179	.048062	.275 .275	.190 .192	.005010	.280	.133	.020040
.250	.122	.005060	.252	.159	.025040	.262	.062	.020030	.269	.190	.005010	.275	.200	.005010	.280	.134	.005010
.250	.124	.010032	.252	.191	.010040	.262	.117	.015030	.269	.213	.005010	.275	.203	.030050	.280	.135	.020035
.250	.125	.010050	.252	.195	.012020	.262	.129	.005010	.270	.079	.005010	.275	.242	.010020	.280	.145	.032050
.250	.126	.005020	.252	.197	.020030	.262	.142	.005010	.270	.096	.005025	.276	.081	.005010	.280	.148	.005010
.250 .250	.127 .128	.007050 .005062	.252 .253	.205	.005010 .040050	.262	.156	.015030	.270	.099	.020030	.276	.091	.015025	.280	.155	.025045
.250	.128	.010052	.253	.048 .053	.040050	.262 .262	.178 .188	.015030 .025040	.270 .270	.109 .113	.015030 .005010	.276 .276	.109 .112	.015040 .030050	.280 .280	.156 .161	.040060
.250	.130	.005042	.253	.056	.025040	.262	.192	.020030	.270	.113	.040060	.276	.114	.030030	.280	.169	.005015
.250	.131	.005060	.253	.096	.025040	.262	.199	.020040	.270	.132	.025035	.276	.122	.008016	.280	.193	.010015
.250	.132	.032052	.253	.115	.005012	.263	.061	.005010	.270	.135	.031042	.276	.126	.020030	.280	.201	.005020
.250	.134	.005010	.253	.116	.005012	.263	.091	.025040	.270	.148	.010020	.276	.133	.005010	.280	.202	.025040
.250	.135	.030048	.253	.125	.040060	.263	.129	.010020	.270	.160	.005010	.276	.141	.040060	.280	.217	.020030
.250 .250	.136 .140	.005010 .005060	.253 .253	.127 .132	.020030 .025040	.263 .263	.158 .191	.030050 .005010	.270 .270	.180 .207	.005010 .005010	.276 .276	.142 .143	.005010 .015030	.280 .281	.236 .052	.010032 .010020
.200	. 1 40	.000 .000	.200	.102	.020040	.200	.101	.000010	.210	.201	.000010	, 0	70	.510 .000	.201	.002	.510 .020

O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*
O.D.	1.0.	From To	O.D.	1.0.	From To	O.D.	1.0.	From To	O.D.	1.0.	From To	O.D.	1.0.	From To	O.D.	1.0.	Thickness*
.281	.067	.032050	.286	.186	.010020	.295	.162	.020040	.300	.185	.010020	.306	.045	.010025	.310	.127	.020075
.281	.094	.040060	.286			.295									.310	.130	.030050
				.188	.005010		.167	.025040	.300	.192	.005010	.306	.127	.025040			
.281	.096	.005010	.286	.195	.005010	.295	.169	.005010	.300	.200	.005010	.306	.138	.020040	.310	.132	.015030
.281	.112	.040050	.286	.211	.005010	.295	.170	.040050	.300	.203	.010020	.306	.140	.005010	.310	.134	.015030
.281	.117	.025040	.287	.118	.005010	.295	.173	.030050	.300	.216	.016025	.306	.190	.015030	.310	.140	.015025
.281	.122	.010020	.287	.183	.005010	.295	.174	.020032	.300	.220	.015025	.306	.194	.030050	.310	.147	.005010
			.287														.015025
.281	.126	.005010		.195	.006012	.295	.177	.010020	.300	.230	.010020	.306	.203	.005015	.310	.152	
.281	.132	.005010	.287	.196	.005020	.295	.179	.050060	.300	.248	.015030	.306	.228	.016025	.310	.155	.030042
.281	.134	.040060	.288	.128	.030050	.295	.187	.005010	.300	.260	.005012	.306	.243	.005010	.310	.158	.050070
.281	.142	.010030	.288	.131	.025040	.295	.192	.005040	.301	.109	.025040	.307	.080	.005010	.310	.161	.005010
.281	.143	.005010	.288	.197	.015030	.295	.193	.015030	.301	.127	.015025	.307	.081	.060080	.310	.162	.030040
.281	.156	.005010	.289	.037	.020030	.295	.195	.005010	.301	.128	.010020	.307	.095	.020040	.310	.171	.010020
.281	.159	.015030	.289	.046	.005010	.295	.199	.020030	.301	.130	.015030	.307	.130	.080100	.310	.174	.010020
.281	.162	.010050	.289	.084	.005010	.295	.210	.010020	.301	.132	.005010	.307	.143	.025080	.310	.188	.030050
.281	.170	.016032	.289	.090	.075090	.296	.119	.015060	.301	.142	.060080	.307	.159	.030050	.310	.189	.010020
.281	.173	.005010	.289	.091	.060075										.310	.190	.012025
						.296	.120	.020030	.301	.144	.020040	.307	.161	.005010			
.281	.185	.015030	.289	.123	.005010	.296	.122	.005010	.301	.146	.005010	.307	.166	.005010	.310	.191	.005010
.281	.186	.005010	.289	.126	.005030	.296	.130	.030050	.301	.152	.020030	.307	.169	.020030	.310	.193	.025040
.281	.187	.015030	.289	.175	.025040	.296	.144	.025040	.301	.161	.025040	.307	.174	.005010	.310	.195	.005010
.282	.082	.030040	.289	.189	.040050	.296	.173	.005010	.301	.165	.005015	.307	.177	.015025	.310	.199	.030050
.282	.089	.075093	.289	.192	.010020	.296	.188								.310	.201	.032050
								.015030	.301	.167	.040060	.307	.182	.010020			
.282	.096	.015025	.289	.193	.040060	.296	.189	.015030	.301	.168	.040060	.307	.189	.005020	.310	.213	.030050
.282	.123	.005015	.289	.200	.005010	.296	.190	.015025	.301	.185	.020030	.307	.203	.025042	.310	.214	.010020
.282	.126	.015025	.290	.081	.020040	.296	.198	.025042	.301	.192	.005020	.307	.204	.025040	.310	.232	.005010
.282	.127	.040060	.290	.091	.030050	.296	.215	.010020	.301	.203	.015030	.307	.207	.005010	.310	.235	.005010
.282	.130	.005010	.290	.103	.005010	.296	.258	.005015	.301	.215	.005010	.307	.254	.010020	.310	.242	.010040
.282	.131	.030050	.290	.126	.005030	.297	.062	.010025	.301	.225	.005050	.308	.043	.005012	.310	.250	.005020
.282	.173	.025040	.290	.128	.015030	.297	.086	.005010	.301	.245	.005010	.308	.099	.010020	.310	.254	.015030
.282	.176	.005010	.290	.130	.030050	.297	.120	.050070	.301	.252	.010020	.308	.108	.005015	.310	.255	.005020
.282	.180	.025040	.290	.137	.010020	.297	.135	.020035	.301	.255	.010016	.308	.121	.015030	.310	.256	.010020
.282	.184	.006016	.290	.139							.005010				.310	.257	.005030
					.005010	.297	.159	.030050	.301	.268		.308	.131	.005010			
.282	.187	.040050	.290	.151	.032042	.297	.191	.005020	.302	.125	.070090	.308	.136	.005010	.310	.258	.005010
.282	.191	.025040	.290	.170	.010020	.297	.203	.020040	.302	.130	.050070	.308	.140	.005015	.310	.260	.005010
.282	.197	.010020	.290	.199	.015030	.297	.209	.005010	.302	.131	.040060	.308	.143	.015030	.311	.068	.005010
.282	.223	.007015	.290	.201	.030040	.297	.255	.005010	.302	.141	.005010	.308	.145	.020030	.311	.103	.005010
	.095																.050075
.283		.005010	.290	.209	.025040	.298	.062	.010020	.302	.151	.005010	.308	.148	.030050	.311	.118	
.283	.096	.015030	.291	.027	.005010	.298	.139	.005010	.302	.167	.035050	.308	.175	.040060	.311	.125	.005010
.283	.098	.032062	.291	.032	.010020	.298	.153	.030050	.302	.168	.015025	.308	.188	.040060	.311	.126	.030050
.283	.111	.010020	.291	.078	.015030	.298	.155	.005010	.302	.172	.015025	.308	.199	.005010	.311	.127	.012025
.283	.140	.025042	.291	.125	.040060	.298	.156	.020040	.302	.190	.005040	.308	.204	.020040	.311	.128	.060080
.283	.143	.010015	.291	.159	.040060	.298	.158	.008016	.302	.198	.015030	.308	.205	.005025	.311	.129	.025048
.283	.165	.008015	.291	.176	.020040	.298	.161	.025040	.302	.205	.030050	.308	.209	.015025	.311	.130	.005025
.283	.166	.005010	.291	.184	.008015	.298	.164	.030050	.302	.252	.005015	.308	.210	.015025	.311	.137	.030050
.283	.168	.025040	.291	.190	.025050	.298	.180	.015030	.303	.114	.005010	.308	.254	.005010	.311	.142	.040070
.283	.173	.030040	.291	.195	.005010	.298	.181	.030050	.303	.128	.005010	.309	.031	.010020	.311	.147	.080090
.283	.184	.005010	.291	.232	.005010	.298	.193	.015025	.303	.171	.020040	.309	.070	.015025	.311	.155	.015050
.283	.190	.008015	.291	.244	.015025	.298	.200	.005010	.303	.181	.030050	.309	.094	.010020	.311	.159	.005025
.283	.200	.010020	.291	.250	.005010	.298	.205	.005010	.303	.191	.025040	.309	.109	.025040	.311	.160	.010020
.283	.216	.005030	.292	.114	.040060	.298	.241	.005010	.303	.197	.030050	.309	.147	.010020	.311	.166	.040062
.283	.217	.005010	.292	.145	.025040	.299	.105	.030040	.303	.198	.005010	.309		.005030	.311	.167	.005015
													.159				.005010
.283	.218	.005025	.292	.146	.005010	.299	.116	.010020	.303	.200	.005010	.309	.160	.005010	.311	.177	
.283	.240	.005010	.292	.148	.020040	.299	.145	.010030	.303	.220	.030050	.309	.161	.040062	.311	.183	.042062
.283	.250	.005010	.292	.149	.030040	.299	.202	.005010	.303	.225	.005010	.309	.172	.020035	.311	.187	.025042
.284	.095	.015025	.292	.165	.050060	.300	.045	.025040	.303	.234	.005010	.309	.176	.020030	.311	.188	.005050
.284	.119	.025040	.292	.171	.005010	.300	.056	.005010	.303	.240	.020030	.309	.191	.030050	.311	.190	.015030
.284	.125	.005015															.008040
			.292	.192	.010015	.300	.065	.008040	.303	.251	.010020	.309	.194	.025040	.311	.191	
.284	.191	.010018	.292	.193	.020030	.300	.074	.005010	.304	.083	.025040	.309	.195	.050070	.311	.195	.005010
.284	.200	.010020	.292	.197	.040050	.300	.081	.005010	.304	.163	.010020	.309	.202	.030050	.311	.204	.005020
.284	.212	.005010	.292	.236	.005010	.300	.095	.010020	.304	.174	.005010	.309	.210	.010020	.311	.215	.005010
.285	.079	.005010	.293	.034	.015025	.300	.097	.016090	.304	.213	.010020	.309	.247	.005010	.311	.217	.020040
.285	.088	.005010	.293	.124	.010020	.300	.100	.005015	.304	.217	.030050	.309	.251	.015030	.311	.219	.020035
																	.025040
.285	.107	.020032	.293	.129	.005010	.300	.116	.020040	.304	.241	.010020	.309	.254	.010030	.311	.231	
.285	.115	.015030	.293	.147	.005010	.300	.117	.025040	.304	.245	.015020	.309	.255	.015030	.311	.238	.005010
.285	.117	.010020	.293	.188	.030050	.300	.119	.005010	.304	.250	.020030	.310	.047	.025035	.312	.039	.005012
.285	.127	.010035	.293	.192	.040050	.300	.128	.005060	.305	.087	.025040	.310	.060	.010025	.312	.045	.025035
.285	.128	.010035	.293	.219	.005010			.030050							.312	.054	.005010
						.300	.130		.305	.105	.030050	.310	.071	.005010			
.285	.131	.005010	.294	.086	.015030	.300	.135	.005010	.305	.125	.005010	.310	.076	.020040	.312	.062	.015030
.285	.147	.030050	.294	.089	.015030	.300	.138	.020060	.305	.129	.010020	.310	.088	.015025	.312	.066	.010020
.285	.161	.005010	.294	.122	.015030	.300	.144	.015030	.305	.140	.032060	.310	.090	.012025	.312	.072	.005010
.285	.165	.015030	.294	.126	.015030	.300	.145	.005012	.305	.152	.015030	.310	.093	.025040	.312	.073	.015025
																	.025050
.285	.175	.025048	.294	.177	.040060	.300	.157	.020030	.305	.156	.010020	.310	.095	.025035	.312	.090	
.285	.192	.020035	.294	.187	.030050	.300	.162	.025040	.305	.160	.025040	.310	.096	.005010	.312	.093	.005062
	.194	.005010	.294	.192	.005012	.300	.166	.005010	.305	.162	.015030	.310	.102	.015030	.312	.094	.020030
.285		.010020	.294	.224	.005010	.300	.167	.030042	.305	.169	.025040	.310	.104	.020040	.312	.095	.032042
	.204		.295	.079	.050060	.300	.169	.015030	.305	.188	.010020	.310	.106	.025050	.312	.096	.015025
.285 .285		(120 - 1130)	00	.019													
.285 .285 .285	.207	.020030	005	100	000 040		1/6	.025040	.305	.197	.005010	.310	.116	.030040	.312	.098	.060070
.285 .285 .285 .285	.207	.010015	.295	.106	.008016	.300	.175										
.285 .285 .285	.207	.010015 .032048	.295	.106 .127	.025040	.300	.176	.005010	.305	.204	.025048	.310	.119	.025050	.312	.099	.010020
.285 .285 .285 .285	.207	.010015															
.285 .285 .285 .285 .286 .286	.207 .239 .125 .150	.010015 .032048 .032050	.295 .295	.127 .130	.025040 .010040	.300 .300	.176 .177	.005010 .010020	.305 .305	.204 .205	.025048 .025042	.310 .310	.119 .120	.025050 .030060	.312 .312	.099 .100	.010020 .050060
.285 .285 .285 .285 .286	.207 .239 .125	.010015 .032048	.295	.127	.025040	.300	.176	.005010	.305	.204	.025048	.310	.119	.025050	.312	.099	.010020

		01 4			01 4	01	•		21 4		01 1		01 1	Г								01 4		01 4		01 4		01 4
O.D.		Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness* O.D. I	.D. Choos			Choose Any Thickness* O.D	. I.D.	Choose Any Thickness*	D.D. I.D.	Choose Any Thickness*		O.D.		hoose Any hickness*	O.D. I.E	Choose Thickness		I.D.	Choose Any Thickness*	O.D. I.D.	Choose Any Thickness* O.	D. I.D.	Choose Any Thickness*	O.D. I.I	Choose Any D. Thickness*
0.5.	1.0.	From To	0.5.	1.0.	From To	From	To O.D.	1.D. I	From To		From To	J.D. 1.D.	From To		О.Б.	1.D. I	rom To	O.D. 1.L	From	To O.D.	1.0.	From To	0.0. 1.0.	From To	D. 1.D.	From To	O.D. 1.1	From To
.312	.112	.010020	.313	.200	.010020 .316 .2	239 .005 -	010 .324	.165 .0	060080 .330	.257	.020036 .3	338 .201	.050060		.344	.165 .0	015030 .	.350 .12	25 .090 -	.110 .354	.152	.060080	360 .136	.005020 .36	6 253	.005015	.370 .2	52 .005010
.312	.116	.005010	313	.206			010 .324		005010 .330			338 .238	.005010		.344	.167 .0	015025	.350 .15		.010 .354		.010020		.020032 .36			.370 .2	54 .020040
		.015030					010 .324				1000 1010	338 .251	.015030					.350 .16		.040 .354		.010020		.025040 .36			.370 .2	
										.067	10.0 1020		.010020		3//		025040 .			.030 .354								
		.005090					020 .324		040060 .331						.344							.010020		.005020 .36				
		.010020					030 .324	.206 .0	040060 .331	.129		339 .150	.010020		.344			.350 .16		.050 .354		.005010		.050070 .36	6 .274		.370 .20	
.312	.128	.020040	.313	.230	.005015 .317 .1	114 .005 -	010 .324	.207 .0	020030 .331	.140	.030050	339 .151	.005010		.344	.190 .0	. 800 200	.350 .17	'1 .005 -	.010 .354	.204	.010060	360 .185	.005010 .36	6 .294	.005012	.370 .30	00 .020030
.312	.129	.010030	.313	.232	.005015 .317 .1	132 .005 -	010 .324	.242 .0	025042 .331	.158	.005010	.157	.005010		.344	.196 .0	020060 .	.350 .17	'8 .060 -	.080 .354	.226	.005010	360 .186	.040060 .36	6 .305	.016025	.370 .3	30 .005010
.312	.130	.005015	.313	.242	.005010 .317 .1	148 .050 -	070 .324	.254 .0	005010 .331	.161	.020040 .3	.176	.020040		.344	.252 .0	025040 .	.350 .18	.025 -	.040 .354	.237	.010020	360 .188	.015030 .36	6 .312	.015025	.371 .09	99 .020040
.312	.132	.010025	.313	.253	.020030 .317 .1	179 .005 -	010 .325	.118 .0	005010 .331	.167	.020030	.206	.005010		.344	.267 .0	025040 .	.350 .19	.005 -	.010 .354	.238	.005040	360 .190	.030050 .36	7 .098	.030050	.371 .13	29 .050070
.312	.134	.010015	.313	.255	.015025 .317 .2	.010	020 .325	.125 .0	015025 .331	.196	.005010	.223	.005010		.344	.290 .0	010020 .	.350 .19	.060 -	.080 .354	.245	.005010	360 .192	.060090 .36	7 .105	.015025	.371 .13	30 .050075
.312	.139	.005008	.314	.039			010 .325		015025 .331		.015030 .3	.085	.015030		.344	.291 .0	005010 .	.350 .20	3 .032 -	.042 .354		.005010		.005015 .36		.090125	.371 .13	31 .020030
		.006030					035 .325		005010 .331			340 .150	.015025		345	.043 .0	005010 .			.030 .354		.005010		.030042 .36			.371 .1	
		.005012							040060 .331	.236		340 .158	.020040		345			.350 .22				.015030		.050062 .36			.371 .1	
		.005020					010 .325		008018 .331		1010 1000	340 .164	.030060		3/15		032048			.030 .355		.030050		.010020 .36			.371 .18	
											1020 1000		.012020		245													
		.008016					010 .325		015030 .331			340 .189			.343		032048 .			.050 .355		.070080 .		.005010 .36				
		.040060							005010 .331		1000 1010	340 .190	.005010		.345		030042 .			.020 .355		.050078		.025042 .36		.005010		
		.020040					020 .325		005050 .332		.005010	340 .191	.025050		.345					.010 .355		.025042		.005010 .36			.371 .20	
.312	.154	.005060	.314				020 .325	.235 .0	005010 .332	.175	.050075	.194	.005010		.345		. 010000			.040 .355		.040060		.015025 .36	7 .273	.005010	.371 .2	22 .030050
.312	.156	.016080	.314	.128	.005015 .318 .1	159 .020 -	040 .325	.236 .0	025040 .332	.192	.016030	.196	.020040		.345	.189 .0	. 010 200	.350 .26	62 .005 -	.010 .355	.160	.040060	361 .215	.030050 .36	8 .061	.005010	.371 .23	33 .005010
.312	.157	.005035	.314	.139	.040060 .318 .1	166 .020 -	040 .325	.244 .0	015025 .332	.203	.010020	.197	.005035		.345	.192 .0	005075 .	.350 .27	6 .025 -	.040 .355	.175	.040060	361 .243	.025040 .36	8 .063	.005010	.371 .24	15 .050075
.312	.158	.005020	.314	.147	.015030 .318 .1	174 .015 -	030 .325	.254 .0	015025 .332	.213	.005008 .3	.204	.036050		.345	.193 .0	025060 .	.350 .29	.020 -	.045 .355	.185	.005010	361 .281	.005010 .36	8 .080	.020030	.371 .2	50 .005032
.312	.160	.040060	.314	.148	.025062 .318 .1	.010 -	020 .325	.256 .0	005010 .332	.236	.005030	.207	.030050		.345	.198 .0	040060 .	.351 .06	64 .005 -	.010 .355	.198	.030050	361 .296	.005010 .36	8 .122	.025042	.371 .29	52 .035050
.312	.165	.020040	.314	.152	.035050 .318 .1		060 .326		005010 .333		.020080 .3	.210	.030050		.345	.205 .0	005010	.351 .09	.030 -	.050 .355		.020040		.005010 .36		.040050	.371 .2	53 .015030
.312	.167	.015025					016 .326		030050 .333		.032048	340 .212	.020040		.345	.216 .0	005010 .	.351 .09		.010 .355		.008016		.015030 .36			.371 .29	55 .005012
		.040060							005010 .333			340 .222	.025062		345		010050 .			.010 .355		.005010		.005010 .36		.005010		
		.020030					030 .326		005010 .333		020 .000 .0	340 .233	.050060		345		015030 .			.020 .355		.005010		.010020 .36			.371 .20	
		.005010					030 .326				.020036	340 .233	.030050		345		010020 .			.010 .355				.040060 .36			.371 .20	
									050070 .333						.343							.010020 .						
		.010020							005010 .333			340 .257	.005020		.345		030 .			.015 .355		.030040		.015030 .36			.371 .20	
		.020040					020 .326		005010 .334			340 .283	.015025		.345		005010 .			.015 .355		.015025		.030050 .36			.371 .28	
		.005062							025042 .334	.040	.005010	341 .052	.025040		.346		015030 .			.010 .355		.005025		.025040 .36	8 .199		.371 .2	
.312		.005030		.225	.015025 .320 .0	067 .030 -	042 .327	.120 .0	025040 .334	.046	.005010	.061	.005010		.346	.046 .0	025040 .	.351 .20		.050 .356	.111	.025040	362 .283	.005010 .36	8 .223	.080080	.371 .3	14 .005010
.312	.191	.008020	.314	.230	.005010 .320 .0	.005 -	010 .327	.130 .0	030050 .334	.122	.005010	.090	.060080		.346	.084 .0	. 050060	.351 .20	.020 -	.030 .356	.154	.015030	363 .152	.005010 .36	8 .226	.007015	.372 .00	60 .010020
.312	.192	.005040	.314	.236	.005010 .320 .0	084 .030 -	040 .327	.190 .0	030050 .334	.127	.005010 .3	.093	.020040		.346	.116 .0	. 01000	.351 .20	.030 -	.060 .356	.198	.030060	363 .180	.050070 .36	8 .256	.005010	.372 .0	71 .020040
.312	.193	.005010	.314	.242	.010020 .320 .0	093 .042 -	060 .327	.194 .0	010020 .334	.160	.015030 .3	.120	.005010		.346	.128 .0	. 070070	.351 .22	.005 -	.010 .356	.250	.050070	363 .191	.008016 .36	8 .257	.020040	.372 .08	33 .040060
.312	.194	.025040	.314	.256	.010020 .320 .1	113 .005 -	010 .327	.217 .0	030050 .334	.196	.005010 .3	.131	.070090		.346	.143 .0	040060 .	.351 .23	.040 -	.060 .356	.255	.005010	363 .192	.020040 .36		.005010	.372 .09	97 .040060
.312	.195	.020035	.315				030 .327		050060 .334			341 .141	.080090		.346	.149 .0	075090 .	.351 .24		.040 .356		.025040		.010040 .36			.372 .09	99 .020040
		.005020					010 .327		010025 .334		.015030	341 .158	.025040		.346		005010 .					.005010		.010020 .36			.372 .10	
		.040060					010 .327		005010 .334			341 .161	.015035		346		005025			.030 .357		.005012		.010020 .36			.372 .1	
		.005050					042 .328		005010 .334			341 .164	.010025		346		006015			.020 .357		.020040		.025036 .36		.005010		
		.010020										2/1 202	.015030		346		005010 .					.030050						
							030 .328		040060 .334		.010020 .3	041 .202		er e	.340									.005010 .36				
		.005010					010 .328		030050 .334		.020030	341 .281	.025035		.340		040090 .			.015 .357		.070090		.020040 .36			.372 .10	
		.010020					025 .328		005010 .334			342 .092	.005020		.346		005010 .			.030 .357		.060080		.090110 .36			.372 .10	
		.015030							015030 .334			342 .118	.032048		.346		010 .			.050 .357		.060080		.010020 .36			.372 .1	
.312	.221	.005010	.315	.127	.050070 .320 .1	182 .050 -	070 .328	.192 .0	030050 .334	.295	.010015	.145	.005008		.346	.207 .0	. 060060	.352 .16	- 800.	.020 .357	.260	.040050	364 .205	.015030 .36	9 .181	.040060	.372 .1	77 .060080
.312	.223	.005042	.315	.129	.030050 .320 .2	.040	050 .328	.197 .0	025040 .335	.034	.010020	342 .156	.005010		.346	.210 .0	040060 .	.352 .18	.015 -	.030 .357	.303	.010020	364 .210	.005015 .36	9 .190	.005015	.372 .1	79 .015030
.312	.227	.030042	.315	.138	.060080 .320 .2	.050 -	062 .328	.200 .0	005015 .335	.129	.015025 .3	.162	.030050		.346	.216 .0	020030 .	.352 .19	.035 -	.050 .357	.318	.005010 .	364 .258	.015030 .36	9 .194	.005010	.372 .18	.015030
.312	.228	.030050	.315	.140	.020040 .321 .0	062 .005 -	010 .328	.214 .0	010032 .335	.159	.060075	.164	.015030		.346	.219 .0	010020 .	.352 .23	.030 -	.050 .358	.126	.025040	365 .046	.010020 .36	9 .197	.005010	.372 .19	96 .062080
.312	.231	.025040	.315	.147	.020030 .321 .0	.020 -	030 .328	.219 .0	030050 .335	.169	.015030	.193	.005050		.346	.253 .0	. 01000	.352 .24	.040 -	.060 .358	.127	.015025	365 .062	.005010 .36	9 .205	.005010	.372 .19	99 .005016
.312	.251	.005010	.315	.157	.005015 .321 .1	135 .020 -	035 .328	.222 .0	010025 .335	.172	.010020 .3	.198	.015030		.346	.289 .0	. 01000	.352 .25	.005 -	.010 .358	.164	.020040	365 .098	.020040 .36	9 .208	.025040	.372 .20	
.312	.252	.025042	.315	.160	.005010 .321 .1		020 .328	.225 .0	005040 .335	196	025 - 040 3	.201	.025040		.347	.157 .0	020030 .	.352 .25	55 .030 -	.050 .358				.050070 .36		005 - 020	.372 .20	04 .030050
.312		.015030							007016 .335	.200	.020040 .3	342 .206	.015030		.347		030050 .			.020 .358		.030050		.005010 .36		.005010		08 .015030
.313		.005010					020 .328		020031 .335		.005040						025040 .			.025 .358		.005010		.020040 .36		.050070		
.313		.005010							005010 .335		.030050		.020030				015030 .			.040 .358		.020030		.007015 .36		.005010		
.313		.075090		.170			010 .328		010020 .335			343 .062	.050070				040060 .			.075 .358		.005010		.005010 .36		.005010		
.313		.008042							020040 .335		.010020		.030050				016025 .			.030 .358		.025040		.005010 .37		.020025		
.313		.040060					030 .328		005010 .335				.060075				006016 .			.030 .358		.005010				.010025		
.313		.008020					010 .329		010020 .335		.005010		.005010				005010 .			.050 .358		.010020		.030040 .37 .020040 .37		.010025		
.313		.008020									.005015		.005010				005010 .			.040 .359				.020040 .37		.005020		
		.005010							025040 .336													.030050 .						
.313									005010 .336		.005010		.010020				020040 .			.010 .359		.025040 .		.005010 .37		.005010		
.313		.050070							010020 .336		.040060 .3		.025040				005010 .			.030 .359		.010020 .		.050070 .37		.005060		
.313		.020040					040 .329		005010 .336				.015030				010042 .			.050 .359		.010020		.005020 .37		.005010		
.313		.005010					020 .329		005010 .336		.005048		.007016				010 .			.042 .359		.020035		.025040 .37		.010042		
.313		.025040					020 .329		030050 .336		.030050		.040060				025042 .			.010 .359		.020040 .		.005010 .37		.025048		
.313		.015030							005010 .336		.005010		.005008				015030 .			.040 .359		.030050 .		.015025 .37		.010020		
.313	.135	.030050	.316	.098	.030050 .323 .1	124 .005 -	010 .329	.245 .0	020040 .336	.218	.005010	343 .167	.010020		.349	.123 .0	010020 .	.353 .23	.005 -	.010 .359	.204	.010025	365 .257	.015030 .37	0 .159	.035060	.372 .3	15 .005010
.313	.138	.025040	.316	.105	.025048 .323 .1	130 .025 -	042 .329	.253 .0	005010 .336	.230	.010020	.193	.005060		.349	.171 .0	030	.353 .24	.015 -	.025 .359	.210	.025042	365 .265	.042062 .37	0 .160	.070080		
.313	.140	.040060	.316	.124	.060075 .323 .1	160 .005 -	025 .329	.288 .0	005010 .336	.257	.020040 .3	.194	.060078		.349	.176 .0	. 015015	.353 .25	.005 -	.010 .359	.221	.025040	365 .268	.005010 .37	0 .171	.005020	.373 .04	11 .010020
.313	.147	.030050	.316	.134	.005010 .323 .1	166 .020 -	030 .330	.093 .0	005010 .336		.005010 .3	.195	.006070		.349	.191 .0	.050 .	.353 .28	.005 -	.010 .359	.240	.005010	365 .270	.020040 .37	0 .173	.020040	.373 .00	88 .015030
.313	.151	.005010	.316						020032 .336		.005010		.010020		.349	.192 .0	. 030 .	.354 .04		.010 .359		.010020		.005010 .37		.020030		31 .040062
.313		.040050					090 .330		042062 .336			343 .197	.025040		.349		020030 .			.050 .359		.020040		.005020 .37		.020040		
.313		.005010					010 .330		020040 .337		.005012		.040050		.349		015030 .			.025 .359		.031042		.005010 .37		.005010		
.313		.015030					032 .330		020040 .337		.015025						015030			.025 .359		.020032		.005010 .37				
.313		.006030					030 .330		005010 .337		.005010						020030 .			.020 .359		.010020		.015025 .37				
.313		.005010					010 .330		040060 .337			343 .229	.005010				005010 .			.080 .359		.005015		.015025 .37				
.313		.040070					010 .330		005015 .337		.020030		.025035				005010 .			.060 .360		.005010						
													.025035	-			005010 .			.070 .360		.005010		.040060 .37				
.313		.025050							005010 .337		.015030				350		005010 .											
.313		.005025							025040 .337		.015030		.010020		.550					.040 .360		.005010				.060080		
.313		.005010					040 .330		005010 .338		.005010						010 .			.050 .360		.015030		.015030 .37				
.313		.005010			.005010 .324 .1				005020 .338		.072090		.005010				010020 .			.040 .360		.030040		.020040 .37				91 .030072
.313	.190	.010015	.316	.209	.005010 .324 .1	162 .060 -	080 .330	.253 .0	020040 .338	.170	.010030 .3	344 .152	.025045		.350	.122 .0	. 100 500	.354 .14	.020 -	.035 360	.126	. 010 200.	366 .241	.020040 .37	u .220	.015030	.3/3 .19	92 .010060

									IVO	100		Andi	FUR		INE	SIZE	LISTED	1					
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		O.D.	I.D.	Choose Any Thickness* From To	O.D.	I.D.
.373	.193	.005060		.165	.042062	.376	.205	.005010		.163	.020035	.384	.127	.020030	.390	.266	.025040		.395	.236	.040060	.400	.203
.373 .373	.196 .200	.005010 .005010		.169 .172	.015050 .005050	.376 .376	.217 .220	.040060	.379	.164 .173	.040070	.384	.144	.030050 .030050	.390	.284 .306	.005010 .005010		.395 .395	.243 .246	.005015 .015030	.400 .400	.206 .210
.373	.210	.005010		.172	.020030	.376	.222	.005010	.379 .379	.173	.005010 .005010	.384 .384	.159 .214	.030050	.390	.314	.025040		.395	.248	.060075	.400	.216
.373	.222	.015030		.175	.005012	.376	.223	.005042	.379	.200	.005010	.384	.238	.020030	.391	.105	.005010		.395	.251	.020030	.400	.225
.373 .373	.238 .253	.030050 .040060		.177 .180	.060075 .060080	.376	.234	.030050	.379	.221	.005010	.384	.271	.015020	.391	.132 .163	.120140		.395 .395	.277 .280	.040050 .040060	.400 .400	.240 .250
.373	.256	.040060		.184	.000000	.376 .376	.244 .251	.032050 .020032	.379 .379	.250 .252	.005010 .005010	.384 .385	.285 .156	.015030 .020032	.391	.177	.040060		.395	.284	.005048	.400	.252
.373	.269	.005010	.375	.188	.005030	.376	.252	.040050	.379	.257	.040062	.385	.181	.030050	.391	.197	.015030		.395	.294	.036050	.400	.253
.373	.317	.010020		.189	.080104	.376	.254	.025048	.379	.297	.030042	.385	.188	.025040	.391	.226	.010020		.395	.322	.005010	.400	.254
.373 .374	.318 .049	.005010 .005010		.190 .191	.080104 .040090	.376 .376	.255 .260	.040060 .005032	.380 .380	.093 .095	.015030 .015030	.385 .385	.194 .239	.060080 .005010	.391	.242 .271	.005010 .020040		.395 .396	.338 .055	.005010 .010020	.400 .400	.255 .258
.374	.083	.036050		.192	.005090	.376	.261	.010020	.380	.096	.060080	.385	.241	.030070	.391	.285	.020035		.396	.151	.040060		.260
.374	.099	.005010		.193	.005015	.376	.263	.005020	.380	.097	.040060	.385	.249	.025048	.391	.306	.005010		.396	.194	.010015		.261
.374	.120	.040060		.194	.040060	.376 .376	.269 .271	.005010	.380	.116	.005010	.385 .385	.252	.005012 .005010	.391	.307	.010020		.396	.203	.020040	.400	.268
.374	.138	.005015		.196	.005060	.376	.276	.040060	.380	.148	.025040	.385	.262	.050060	.391	.348	.005010		.396	.259	.030050	.400	.282
.374	.149	.010015		.200	.040060	.376	.301	.005010	.380	.149	.080100	.385	.290	.010020	.392	.129	.025040		.396	.260	.030050	.400	.286
.374 .374	.157 .168	.025040 .025040		.202 .203	.010032 .015060	.376 .377	.316 .031	.005010 .005010	.380 .380	.162 .173	.040060 .005010	.385 .386	.301 .121	.005010 .030050	.392	.190 .207	.005010 .015030		.396 .396	.277 .278	.020040 .020040	.400 .400	.288 .314
.374	.172	.040060		.204	.060080	.377	.035	.015025	.380	.175	.015090	.386	.130	.020030	.392	.219	.005010		.396	.285	.025042		.347
.374	.173	.040060		.205	.008015	.377	.047	.030042	.380	.180	.005010	.386	.141	.010020	.392	.280	.035050		.396	.318	.005010		.360
.374 .374	.175 .180	.040060 .020080		.209 .211	.025062 .010020	.377 .377	.068 .071	.030042	.380	.186	.015040 .005010	.386	.162	.050062	.392	.328 .337	.005010 .005010		.396 .396	.333 .338	.005030	.401 .401	.102 .121
.374	.185	.020080		.213	.010020	.377	.100	.005010 .015030	.380 .380	.190 .191	.005010	.386 .386	.181 .225	.040060 .020040	.393	.042	.005010		.397	.025	.005010	.401	.125
.374	.191	.005060		.218	.060080	.377	.101	.020030	.380	.192	.005010	.386	.237	.040050	.393	.103	.010020		.397	.032	.005010		.128
.374 .374	.194 .196	.005010 .025040		.220 .223	.005010 .050070	.377 .377	.110 .114	.020030	.380	.194	.005010	.386	.250	.015040 .020040	.393	.111 .120	.025040 .005010		.397 .397	.105 .109	.008016		.130 .165
.374	.199	.005010		.225	.050070	.377	.115	.020040 .005010	.380 .380	.195 .204	.005025 .012025	.386 .386	.301 .313	.020040	.393	.158	.005020		.397	.153	.025040		.169
.374	.200	.005010	.375	.226	.015030	.377	.134	.015030	.380	.215	.030050	.387	.091	.030050	.393	.196	.040050		.397	.176	.005010		.171
.374 .374	.202 .206	.025040 .005010		.235	.010020	.377	.140	.005010	.380	.226	.005010	.387	.118	.020030	.393	.201 .209	.030050 .005010		.397 .397	.183 .196	.010020 .010015	.401 .401	.202 .219
.374	.221	.010020		.237 .238	.005075 .005030	.377 .377	.145 .147	.050060 .010020	.380 .380	.242 .255	.015030 .005010	.387 .387	.171 .189	.060090 .032048	.393	.214	.005010		.397	.212	.005015	.401	.221
.374	.222	.005010	.375	.245	.050060	.377	.156	.030060	.380	.262	.005010	.387	.192	.005010	.393	.217	.030050		.397	.231	.005010		.237
.374	.224	.005010		.248	.010020	.377	.157	.070090	.380	.264	.025040	.387	.258	.020040	.393	.230	.025040		.397	.250	.005010		.241 .251
.374	.232	.005040		.250 .252	.005060 .005015	.377 .377	.164 .165	.005010	.380 .380	.276 .277	.005010 .010020	.387 .387	.280 .318	.005010 .008020	.393	.237 .239	.005010		.397	.267	.020040		.258
.374	.236	.050060	.375	.253	.005025	.377	.171	.025040	.380	.280	.030040	.387	.328	.010020	.393	.240	.005050		.397	.280	.040050	.401	.263
.374 .374	.237 .252	.030060 .005040		.254 .255	.005040 .020030	.377 .377	.173 .182	.030050 .025048	.380 .381	.285 .094	.032050 .005010	.388 .388	.090	.015025 .008020	.393	.256 .277	.020040 .005010		.397 .397	.298 .315	.015030	.401 .401	.298 .314
.374	.255	.005010		.257	.025040	.377	.185	.010020	.381	.099	.025040	.388	.127 .136	.005010	.393	.279	.005010		.397	.320	.020040	.401	.328
.374	.257	.025060		.258	.010020	.377	.189	.030060	.381	.114	.005010	.388	.171	.075090	.393	.285	.010020		.397	.325	.015025	.402	.099
.374 .374	.280 .307	.005010 .005010		.267 .274	.020030 .010020	.377 .377	.190 .191	.015030 .025040	.381 .381	.116 .124	.005010	.388	.205 .211	.025040 .005010	.393	.287 .314	.005015 .025035		.398 .398	.117 .188	.020035 .005010	.402 .402	.145 .157
.374	.320	.010020		.280	.030042	.377	.194	.025040	.381	.124	.005012 .030050	.388 .388	.215	.040060	.393	.315	.005010		.398	.191	.040060	.402	.162
.375	.041	.040050		.281	.005040	.377	.219	.032042	.381	.131	.040060	.388	.252	.015030	.393	.316	.010020		.398	.200	.070080	.402	.193
.375 .375	.045 .048	.006015 .015030		.282 .285	.005010 .008015	.377 .377	.220 .223	.020040 .030050	.381 .381	.138 .148	.005010 .025040	.388 .388	.264 .280	.025040 .005030	.393 .394	.324 .083	.010020 .005010		.398 .398	.225 .234	.005010	.402 .402	.235 .256
.375	.059	.005010		.292	.015025		.225	.015030	.381	.150	.005010	.388	.288	.015030	.394	.095	.005020		.398	.241	.040060		.270
.375	.086	.015030		.301	.015030		.230	.010020		.153	.060070	.389	.078	.015030	.394	.142	.005010		.398	.286	.025048		.281
.375 .375	.091 .095	.005030 .090104		.303 .313	.025040 .005010		.253 .254	.015060 .025040	.381 .381	.163 .175	.030050	.389	.130	.020035	.394	.157 .158	.040060 .040060		.398 .398	.303 .304	.005010 .015030		.300 .359
.375	.100	.005030		.316	.020040		.255	.040062	.381	.178	.075090 .015030	.389 .389	.198 .199	.020040 .015030	.394	.168	.050075		.398	.320	.020040		.144
.375	.101	.070080		.318	.020032	.377	.262	.030050	.381	.182	.005020	.389	.200	.015030	.394	.183	.010020		.399	.169	.005010		.189
.375	.103	.030050		.382	.005010		.265 .267	.005010	.381	.186 .195	.015030	.389 .389	.205 .223	.005012	.394	.196 .203	.050075		.399	.200	.020040		.192 .193
.375	.111	.005010		.117	.015040		.276	.010020	.381	.200	.020030	.389	.227	.005010	.394	.207	.050075		.399	.226	.050070		.203
.375	.114	.030042		.122	.015030		.315	.010020	.381	.203	.005010	.389	.276	.020030	.394	.208	.070090		.399	.260	.070090	.403	.263
.375 .375	.120 .123	.030060 .030075		.126 .130	.012020 .025040		.061 .062	.005010 .005010	.381 .381	.212 .255	.005010 .015030	.390 .390	.039 .077	.005010 .010020	.394	.237 .239	.005010 .025040		.399	.284 .290	.010020 .005010		.100 .128
.375	.125	.010070		.141	.020040		.064	.015025	.381	.260	.015030	.390	.087	.020030	.394	.240	.005025		.399	.362	.005010		.173
.375	.126	.010020		.156	.010020	.378	.127	.005010	.381	.290	.005010	.390	.129	.015030	.394	.243	.015030		.400	.066	.025048		.180
.375 .375	.129 .132	.005036 .080090		.157 .158	.010090 .050070	.378 .378	.130 .160	.010020 .010020	.381 .381	.294	.005010	.390	.145	.015080	.394	.251 .255	.005080 .045064		.400 .400	.091 .119	.005010 .005010		.189 .190
.375	.133	.050062		.159	.050075		.164	.010020	.381	.300 .315	.020035 .020036	.390 .390	.157 .162	.005010 .020030	.394	.260	.040060		.400	.124	.005010		.195
.375	.135	.005010		.161	.005010		.171	.032050	.382	.132	.025040	.390	.169	.025050	.394	.319	.005010		.400	.131	.020030		.197
.375 .375	.143 .144	.075090 .005040		.169 .172	.005010 .005060	.378 .378	.178 .200	.005010	.382	.163 .175	.030050 .015030	.390	.181	.030050	.395	.099 .165	.030050 .015030		.400 .400	.139 .142	.020035 .005010		.210 .218
.375	.145	.025040		.174	.005000	.378	.202	.010020	.382 .382	.175	.050072	.390 .390	.185 .195	.005010 .020050	.395	.172	.020035		.400	.147	.025048		.220
.375	.147	.030050	.376	.177	.020035	.378	.244	.005010	.382	.195	.005010	.390	.198	.015030	.395	.174	.015030		.400	.151	.010060	.404	.224
.375 .375	.148 .150	.030050 .020105		.182 .186	.010020 .060080	.378 .378	.251 .252	.020030 .010060	.382	.199	.030050	.390	.201	.070090	.395 .395	.175 .186	.090105 .070090		.400 .400	.153 .160	.005010 .020040		.246 .252
.375	.150	.080100		.187	.030050	.378	.252	.010000	.382 .382	.204 .207	.005010 .030050	.390 .390	.217 .235	.015030 .050080	.395	.191	.025093		.400	.168	.042062		.260
.375	.153	.005050	.376	.189	.005020	.378	.258	.020030	.382	.225	.030050	.390	.236	.005080	.395	.195	.005010		.400	.172	.005010	.404	.265
.375	.156	.005012		.190	.020080	.378	.260	.005010	.382	.252	.015025	.390	.241	.040075	.395	.200	.005010		.400	.173	.030050		.280
.375 .375	.158 .160	.005010 .010020		.191 .194	.040060 .030050	.378 .378	.269 .289	.008016 .012025	.382 .382	.300 .328	.048062 .015025	.390 .390	.256 .257	.005010 .015030		.209 .210	.050070 .025040		.400 .400	.182 .192	.016032 .005060	.404 .404	.313 .320
.375	.161	.020040	.376	.196	.005010	.378	.292	.005010	.383	.099	.030050	.390	.258	.005010	.395	.219	.010020		.400	.198	.015050	.405	.099
.375 .375	.162	.006100		.197	.005010		.143	.050070	.383	.115	.015030	.390	.260 .262	.005020		.220	.015035		.400	.200 .202	.015025	.405	.107
.575	.163	.005060	.570	.204	.010020	.379	.162	.015035	.ანპ	.155	.030050	.390	.202	.040060	.585	.225	.010020		.400	.202	.005010	.405	.108

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*	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
.395	.236	.040060	.400	.203	.005010	.405	.137	.005010	.409	.322	.015030	.417	.276	.005010	.424	.230	.015025
.395	.243	.005015	.400	.206	.050070	.405	.156	.040060	.410	.063	.005010	.417	.356	.010020	.424	.319	.005010
.395	.246	.015030	.400	.210	.005020	.405	.162	.015025	.410	.102	.005010	.418	.149	.050070	.424	.325	.005010
.395	.248	.060075	.400	.216	.005010	.405	.168	.005010	.410	.186	.005010	.418	.190	.025050	.425	.130	.020040
.395	.251	.020030	.400	.225	.050070	.405	.175	.040060	.410	.188	.030040	.418	.206	.010015	.425	.138	.030050
.395	.277	.040050	.400	.240	.015020	.405	.184	.005010	.410	.201	.005105	.418	.251	.030040	.425	.147	.020030
.395	.280	.040060	.400	.250	.050070	.405	.201	.005010	.410	.210	.040060	.418	.257	.025040	.425	.165	.015030
.395	.284	.005048	.400	.252	.005010	.405	.202	.020072	.410	.220	.025040	.418	.289	.020030	.425	.191	.060080
.395	.294	.036050	.400	.253	.010020	.405	.204	.050060	.410	.223	.010020	.418	.315	.035050	.425	.194	.015030
.395	.322	.005010	.400	.254	.010020	.405	.222	.050070	.410	.254	.005010	.419	.125	.050072	.425	.197	.005010
.395	.338 .055	.005010 .010020	.400	.255 .258	.005030 .005010	.405 .405	.243 .250	.010015 .020030	.410 .410	.256 .261	.030042 .005010	.419 .419	.148	.062090 .080104	.425 .425	.212 .250	.005010 .015030
.396	.151	.040060	.400	.260	.005010	.405	.252	.030050	.410	.300	.005010	.419	.173 .224	.040060	.425	.256	.050070
.396	.194	.010015	.400	.261	.015030	.405	.253	.025040	.410	.306	.015030	.419	.260	.010020	.425	.261	.050062
.396	.203	.020040	.400	.268	.030050	.405	.257	.005040	.410	.314	.005010	.419	.296	.020040	.425	.284	.030050
.396	.221	.005015	.400	.273	.025040	.405	.261	.010020	.410	.317	.020035	.419	.303	.005010	.425	.317	.015030
.396	.259	.030050	.400	.282	.015030	.405	.276	.025048	.410	.358	.020030	.419	.313	.020040	.425	.318	.005010
.396	.260	.030050	.400	.286	.030040	.405	.279	.050060	.411	.091	.005010	.419	.329	.005025	.425	.319	.040050
.396	.277	.020040	.400	.288	.015030	.405	.303	.015025	.411	.095	.005010	.419	.345	.005010	.425	.326	.020030
.396	.278	.020040	.400	.314	.025040	.406	.094	.005010	.411	.127	.020040	.420	.036	.005010	.425	.336	.020030
.396	.285	.025042	.400	.347	.005010	.406	.120	.032048	.411	.225	.005010	.420	.095	.005010	.425	.343	.020040
.396	.318 .333	.005010 .005030	.400	.360	.005010	.406	.124	.020040	.411	.258	.020050	.420	.129	.020030	.425 .425	.344 .345	.005010 .005010
.396	.338	.005030	.401 .401	.102 .121	.005010 .030050	.406 .406	.127 .128	.025040 .015030	.411 .411	.292 .310	.010020 .010020	.420 .420	.170 .179	.015030 .005010	.425	.140	.015030
.397	.025	.005010	.401	.125	.030030	.406	.140	.015030	.411	.314	.010020	.420	.179	.005010	.426	.187	.005010
.397	.032	.005010	.401	.128	.025040	.406	.155	.050075	.411	.315	.005020	.420	.204	.030050	.426	.215	.005015
.397	.105	.008016	.401	.130	.005010	.406	.161	.050075	.412	.136	.007015	.420	.234	.005010	.426	.216	.070090
.397	.109	.005015	.401	.165	.005010	.406	.170	.010025	.412	.161	.030050	.420	.238	.020030	.426	.219	.005010
.397	.153	.025040	.401	.169	.031048	.406	.171	.048072	.412	.190	.005070	.420	.241	.005010	.426	.225	.010020
.397	.176	.005010	.401	.171	.005010	.406	.189	.012020	.412	.196	.005015	.420	.251	.030040	.426	.234	.025040
.397	.183	.010020	.401	.202	.020060	.406	.190	.005010	.412	.211	.005010	.420	.254	.006012	.426	.256	.040060
.397	.196	.010015	.401	.219	.020040	.406	.201	.050070	.412	.218	.010020	.420	.258	.005010	.426	.257	.050075
.397	.212 .231	.005015 .005010	.401 .401	.221 .237	.060075	.406 .406	.203	.005010	.412	.222	.010020	.420	.279	.005016	.426 .426	.270 .272	.050070 .005010
.397	.250	.005010	.401	.241	.035050 .030050	.406	.204 .209	.030050 .030050	.412 .412	.231 .236	.060080 .005010	.420 .420	.280	.010025 .005010	.426	.314	.005010
.397	.255	.070090	.401	.251	.025040	.406	.218	.025040	.412	.241	.005010	.420	.311	.030050	.426	.320	.010020
.397	.267	.020040	.401	.258	.015025	.406	.220	.025042	.412	.290	.040060	.420	.319	.005010	.426	.345	.010020
.397	.280	.040050	.401	.263	.005010	.406	.221	.010020	.412	.326	.010040	.421	.058	.005010	.426	.354	.015025
.397	.298	.015030	.401	.298	.005010	.406	.224	.005010	.413	.169	.005010	.421	.108	.005010	.427	.107	.010020
.397	.315	.032042	.401	.314	.010020	.406	.242	.062080	.413	.187	.010020	.421	.121	.005010	.427	.134	.030050
.397	.320	.020040	.401	.328	.005030	.406	.250	.020035	.413	.212	.010020	.421	.178	.020040	.427	.187	.005010
.397	.325	.015025	.402	.099	.015025	.406	.252	.050070	.413	.222	.042072	.421	.204	.020040	.427	.213	.030050
.398	.117	.020035	.402	.145	.015060	.406	.257	.025042	.413	.223	.005010	.421	.209	.005010	.427	.230	.010020
.398	.188	.005010	.402	.157	.005010	.406	.260	.005010	.413	.229	.005010	.421	.234	.025040	.427	.233	.050070
.398	.191	.040060	.402 .402	.162 .193	.060080	.406	.262	.025040 .036050	.413	.269	.005010	.421	.251	.015030	.427 .427	.260 .265	.005010
.398	.225	.005010	.402	.235	.050070	.406 .406	.264 .269	.005010	.413 .413	.319 .326	.005010 .005010	.421 .421	.252 .268	.005010 .025040	.427	.203	.040060
.398	.234	.005010	.402	.256	.030050	.406	.276	.042062	.413	.379	.010020	.421	.279	.025040	.427	.325	.015030
.398	.241	.040060	.402	.270	.040060	.406	.278	.005010	.414	.081	.030050	.421	.280	.005010	.427	.347	.005010
.398	.286	.025048	.402	.281	.048062	.406	.284	.020040	.414	.162	.030050	.421	.291	.005010	.428	.034	.016025
.398	.303	.005010	.402	.300	.015030	.406	.285	.005010	.414	.166	.005010	.421	.319	.020030	.428	.101	.010020
.398	.304	.015030	.402	.359	.005010	.406	.304	.005010	.414	.212	.080100	.421	.322	.005010	.428	.132	.005010
.398	.320	.020040	.403	.144	.005010	.407	.063	.005010	.414	.236	.070080	.422	.038	.020036	.428	.143	.050070
.399	.169	.005010	.403	.189	.025036	.407	.175	.005010	.414	.252	.005060	.422	.123	.005010	.428	.179	.090105
.399	.200	.020040	.403	.192	.020040	.407	.207	.005015	.414	.261	.005010	.422	.129	.010025	.428	.187	.005010
.399	.223 .226	.005010 .050070	.403 .403	.193 .203	.016025 .005010	.407 .407	.225 .237	.020040 .020040	.414 .414	.277	.035045 .020030	.422 .422	.130	.015025 .005010	.428 .428	.213 .220	.020040
.399	.260	.070090	.403	.263	.030050	.407	.253	.010015	.414 .414	.282 .315	.020030	.422	.153 .189	.005010	.428	.241	.005010
.399	.284	.010020	.404	.100	.005010	.407	.257	.010020	.415	.092	.040060	.422	.218	.010020	.428	.299	.005010
.399	.290	.005010	.404	.128	.005010	.407	.261	.008016	.415	.179	.040070	.422	.282	.040060	.428	.311	.025040
.399	.362	.005010	.404	.173	.060080	.407	.262	.005040	.415	.192	.070090	.422	.335	.010020	.428	.316	.025040
.400	.066	.025048	.404	.180	.060080	.407	.265	.015036	.415	.243	.008020	.422	.375	.005010	.428	.318	.010020
.400	.091	.005010	.404	.189	.025040	.407	.320	.010020	.415	.250	.042080	.423	.129	.005010	.429	.135	.005010
.400	.119	.005010	.404	.190	.025040	.408	.083	.020050	.415	.253	.005010	.423	.153	.005015	.429	.161	.020040
.400	.124	.005010	.404	.195	.010020	.408	.134	.025040	.415	.265	.050070	.423	.177	.030050	.429	.189	.010020
.400	.131	.020030	.404	.197	.005010	.408	.166	.015040	.415	.281	.050072	.423	.226	.040060	.429	.199	.005010
.400	.139 .142	.020035 .005010	.404 .404	.210 .218	.030050 .005010	.408 .408	.172	.005015	.415 .415	.285	.015025	.423	.250	.020035	.429 .429	.257 .260	.010020 .015060
.400	.142	.005010	.404	.220	.005010	.408	.173 .194	.005010 .040060	.415 .415	.313 .324	.010020 .025035	.423 .423	.254 .269	.020030 .060078	.429	.111	.005010
.400	.151	.010060	.404	.224	.005010	.408	.202	.030040	.416	.121	.025035	.423 .423	.209	.060078	.430	.115	.010020
.400	.153	.005010	.404	.246	.005010	.408	.240	.020040	.416	.128	.040060	.423	.271	.050070	.430	.120	.005012
.400	.160	.020040	.404	.252	.005010	.408	.261	.005015	.416	.160	.005010	.423	.278	.025050	.430	.128	.032042
.400	.168	.042062	.404	.260	.015025	.408	.297	.010020	.416	.180	.020030	.423	.314	.010020	.430	.130	.030050
.400	.172	.005010	.404	.265	.015030	.409	.129	.015030	.416	.205	.062080	.423	.319	.015025	.430	.159	.020040
.400	.173	.030050	.404	.280	.060080	.409	.167	.015025	.416	.218	.010020	.423	.328	.030042	.430	.161	.010020
.400	.182	.016032	.404	.313	.005012	.409	.172	.020040	.416	.241	.008020	.423	.345	.010020	.430	.175	.015030
.400	.192	.005060	.404	.320	.005020	.409	.194	.035050	.416	.251	.025040	.424	.139	.030050	.430	.180	.020040
.400	.198	.015050	.405	.099	.005010	.409	.210	.060083	.416	.256	.020040	.424	.169	.005030	.430	.185	.020040
.400	.200 .202	.015025 .005010	.405 .405	.107 .108	.005010 .030050	.409 .409	.244 .313	.030040 .015030	.416 .417	.260 .251	.025040 .048062	.424 .424	.190 .196	.005020 .040060	.430 .430	.187 .189	.005010
. 100		.000 .010	. 100	.130	.000 .000	100	.010	.010000	.711	.201	.0-0002	.724	.130	.0-0000	. 100	.100	.555 .656

									NO	100	LING CH	ARGE	: FOR	ANY OF	THE	SIZE	S LISTED
O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness* From To	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness* From To
	.190	From To						From To			From To			From To			.062090
.430	.191	.020040 .020080	.434 .434	.079 .094	.030050 .040060	.437 .437	.120 .125	.040060 .005015	.438 .438	.196 .198	.005020 .025035	.440 .440	.211 .217	.005010 .070090	.446 .446	.151 .162	.002090
.430	.200	.070090	.434	.103	.040060	.437	.126	.025050	.438	.200	.005090	.440	.218	.005020	.446	.171	.040060
.430	.206	.080100	.434	.160	.090125	.437	.127	.015060	.438	.201	.025050	.440	.228	.015040	.446	.197	.010020
.430	.215	.032042	.434	.176	.020040	.437	.128	.030050	.438	.202	.020050	.440	.237	.050075	.446	.208	.050070
.430	.220	.015035	.434	.187	.005010	.437	.129	.010042	.438	.203	.075090	.440	.245	.005010	.446	.256	.005010
.430 .430	.230 .258	.005010 .020040	.434 .434	.196 .198	.005010 .005010	.437 .437	.130 .133	.025042 .050062	.438 .438	.205 .206	.070090 .020030	.440 .440	.250 .252	.005010 .010025	.446 .446	.270 .307	.005040 .030050
.430	.265	.005080	.434	.224	.005010	.437	.141	.048072	.438	.207	.020030	.440	.252	.010023	.446	.319	.032060
.430	.279	.005010	.434	.236	.032062	.437	.142	.040060	.438	.210	.042060	.440	.260	.010070	.446	.325	.032060
.430	.285	.020030	.434	.244	.040050	.437	.143	.040060	.438	.216	.005100	.440	.265	.005010	.447	.127	.020040
.430	.300	.010020	.434	.253	.005010	.437	.144	.025035	.438	.232	.035050	.440	.275	.020045	.447	.146	.020040
.430 .430	.308 .314	.010020 .030050	.434 .434	.255 .271	.005010 .050070	.437 .437	.147 .150	.020040 .010020	.438 .438	.236 .247	.005010 .005010	.440 .440	.283 .291	.040062 .020040	.447 .447	.194 .202	.030050 .025040
.430	.339	.005010	.434	.282	.005010	.437	.157	.015030	.438	.249	.050075	.440	.304	.030050	.447	.223	.025050
.430	.343	.015030	.434	.286	.020030	.437	.158	.005010	.438	.255	.005030	.440	.314	.040060	.447	.230	.025040
.430	.364	.005010	.434	.315	.005010	.437	.166	.010050	.438	.256	.025050	.440	.316	.020050	.447	.236	.005010
.430	.372	.005020	.434	.316	.015040	.437	.169	.008016	.438	.257	.030050	.440	.328	.040060	.447	.250	.020040
.430 .430	.376 .379	.005010 .015020	.434 .434	.318 .320	.005010 .005010	.437 .437	.171 .183	.030050 .050062	.438 .438	.258 .259	.005010 .005010	.440 .440	.355 .381	.015025 .010020	.447 .447	.254 .270	.010020 .020030
.431	.040	.005010	.434	.330	.030050	.437	.191	.010104	.438	.262	.030050	.440	.390	.005010	.447	.313	.015025
.431	.126	.035050	.434	.350	.025035	.437	.194	.020104	.438	.265	.030060	.441	.042	.010020	.447	.337	.005010
.431	.127	.025040	.435	.064	.035062	.437	.197	.040125	.438	.266	.015030	.441	.093	.005020	.447	.375	.020036
.431	.157	.025040	.435	.067	.020040 .005010	.437	.198	.005010	.438	.274	.015030	.441	.143	.005020	.447	.380 .094	.015030
.431	.158 .195	.005010	.435	.077	.012025	.437	.199 .204	.015032	.438 .438	.276 .281	.030050	.441 .441	.151 .168	.030050	.448	.139	.005010
.431	.197	.020030	.435	.082	.030050	.437	.205	.020035	.438	.282	.005075	.441	.172	.062083	.448	.181	.006012
.431	.235	.005012	.435	.112	.007012	.437	.215	.020040	.438	.284	.050075	.441	.190	.005010	.448	.189	.005010
.431	.238	.030060	.435	.136	.090105	.437	.217	.060080	.438	.297	.005010	.441	.198	.005030	.448	.191	.030048
.431	.259	.005030 .015025	.435 .435	.149	.060083	.437	.218	.015062	.438	.297	.015025	.441	.224	.050075	.448	.203	.015030
.432	.080	.015025	.435	.166	.090105	.437 .437	.219 .220	.008016	.438 .438	.313 .315	.030060 .010020	.441 .441	.242 .254	.020030 .020040	.448	.215	.020040
.432	.117	.030050	.435	.174	.025040	.437	.222	.005010	.438	.316	.005010	.441	.255	.005010	.448	.223	.025040
.432	.118	.015030	.435	.178	.105125	.437	.225	.032062	.438	.322	.010020	.441	.257	.020048	.448	.245	.005020
.432	.120	.015030	.435	.182	.060083	.437	.228	.050070	.438	.323	.025040	.441	.258	.030050	.448	.248	.010020
.432	.122 .125	.030050 .032062	.435 .435	.190 .191	.070090 .005010	.437 .437	.232 .238	.030042 .006016	.438	.325	.005010	.441	.266	.042072	.448 .448	.251 .271	.032060 .030050
.432	.130	.010020	.435	.198	.005072	.437	.245	.020040	.438 .438	.328 .335	.010020 .005010	.441 .441	.270 .273	.025040 .005010	.448	.312	.005010
.432	.133	.050090	.435	.200	.050075	.437	.251	.010015	.438	.337	.025040	.441	.316	.040060	.448	.323	.010020
.432	.135	.040060	.435	.203	.005008	.437	.252	.010020	.438	.339	.025040	.441	.319	.005010	.448	.331	.010020
.432	.187	.005010	.435	.214	.040062	.437	.253	.035050	.438	.365	.005015	.441	.320	.005008	.448	.367	.035050
.432 .432	.199 .260	.005010 .080100	.435 .435	.223 .237	.025050 .015030	.437 .437	.254 .255	.005050 .010020	.438 .438	.381 .384	.020030 .015030	.442 .442	.154 .195	.030040 .005010	.448 .448	.368 .377	.030040 .005010
.432	.263	.015025	.435	.250	.015030	.437	.257	.010020	.439	.118	.030050	.442	.254	.020040	.449	.259	.005010
.432	.297	.005010	.435	.252	.015030	.437	.258	.025070	.439	.141	.010020	.442	.260	.010020	.449	.351	.005010
.432	.313	.020048	.435	.254	.005008	.437	.259	.050070	.439	.165	.025040	.442	.286	.005010	.449	.412	.005010
.432	.314 .315	.005010 .005010	.435 .435	.257	.025040 .025045	.437	.260	.010025	.439	.173	.030050	.442	.317	.040060	.450 .450	.062 .065	.030050 .006015
.432	.316	.040060	.435	.261 .267	.025045	.437 .437	.261 .262	.005010 .030042	.439 .439	.174 .185	.005050 .090105	.443 .443	.190 .191	.025040 .025040	.450	.089	.030050
.432	.317	.005010	.435	.268	.010020	.437	.265	.005012	.439	.189	.010075	.443	.223	.005010	.450	.114	.015030
.432	.319	.030050	.435	.284	.040072	.437	.275	.020040	.439	.190	.060080	.443	.224	.040060	.450	.120	.010015
.432	.356	.015025	.435	.290	.025050	.437	.281	.042062	.439	.192	.005010	.443	.278	.020040	.450	.138	.005015
.432	.364 .042	.005010 .031048	.435 .435	.296 .305	.005010 .005010	.437 .437	.284 .287	.015030 .010020	.439	.203	.040090	.443	.295	.016025	.450 .450	.143 .162	.005010 .050075
.433	.052	.015030	.435	.321	.030050	.437	.302	.010020	.439 .439	.207 .251	.040060 .060080	.443 .444	.336 .165	.040060 .005010	.450	.174	.025040
.433	.054	.015030	.435	.327	.030050	.437	.312	.005010	.439	.252	.060080	.444	.174	.030050	.450	.182	.005010
.433	.089	.020040	.435	.380	.010020	.437	.316	.010015	.439	.253	.010025	.444	.196	.015030	.450	.185	.040050
.433	.157	.030050	.436	.187	.005010	.437	.321	.020040	.439	.260	.025040	.444	.220	.030050	.450	.192	.005010
.433	.178 .202	.105125 .015030	.436 .436	.188 .201	.070090 .005010	.437 .437	.325 .328	.005010 .020030	.439 .439	.264 .276	.060075 .005010	.444 .444	.318 .342	.030050 .010020	.450 .450	.200 .201	.015080 .005010
.433	.203	.005030	.436	.226	.010025	.437	.329	.040060	.439	.282	.005010	.444	.347	.020040	.450	.216	.005010
.433	.220	.005010	.436	.241	.025035	.437	.343	.005060	.439	.313	.040060	.444	.349	.005010	.450	.223	.015025
.433	.224	.005010	.436	.251	.080100	.437	.365	.005010	.439	.315	.005010	.444	.381	.015030	.450	.237	.030050
.433	.237	.030050	.436	.253	.030050	.437	.376	.005025	.439	.317	.040060	.445	.095	.030050	.450	.240	.005010
.433	.238	.005010 .005010	.436 .436	.254	.010020	.437 .438	.380	.005010	.439 .440	.321 .024	.040060	.445 .445	.116 .136	.050070 .010020	.450 .450	.247	.005010
.433	.243	.020050	.436	.263	.005010	.438	.058	.020035	.440	.052	.005010	.445	.142	.040050	.450	.252	.005020
.433	.251	.010030	.436	.279	.010025	.438	.087	.005010	.440	.090	.035050	.445	.206	.035050	.450	.254	.025040
.433	.253	.008070	.436	.282	.025075	.438	.093	.005010	.440	.105	.005010	.445	.212	.005010	.450	.256	.010020
.433	.276 .278	.020040 .005010	.436	.283	.010020	.438	.094	.025040	.440	.127	.010020	.445	.219	.050070	.450	.259	.015030
.433	.278	.010010	.436 .436	.287 .314	.005015 .005010	.438 .438	.119 .125	.015030 .025042	.440 .440	.129 .140	.030050 .025040	.445 .445	.252 .265	.015025 .040060	.450 .450	.260	.025040 .050070
.433	.315	.005030	.436	.316	.010042	.438	.129	.015030	.440	.158	.030050	.445	.325	.010020	.450	.280	.050075
.433	.317	.005010	.436	.318	.005010	.438	.136	.010015	.440	.168	.040060	.445	.331	.030050	.450	.284	.020040
.433	.321	.035050	.436	.334	.015030	.438	.138	.005010	.440	.170	.025050	.445	.348	.020040	.450	.290	.080100
.433	.330	.005010	.436 436	.375	.015030	.438	.147	.030050	.440	.173	.005010	.445	.383	.005040	.450	.292	.015025
.433	.347 .348	.015030 .030040	.436 .436	.378 .397	.005010 .005010	.438 .438	.162 .169	.030060 .005010	.440 .440	.190 .195	.100125 .035050	.445 .445	.385 .390	.005020 .010015	.450 .450	.295 .316	.015030 .005030
.433	.351	.015030	.437	.039	.005010	.438	.193	.050070	.440	.202	.070090	.445	.399	.005010	.450	.317	.005025
.434	.043	.005010	.437	.096	.015025	.438	.195	.030040	.440	.210	.010020	.446	.049	.010020	.450	.320	.005060

		01 4			01 4			01 4			01 4			01 4			
O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*
0.5.	1.0.	From To	0.5.		From To	0.5.		From To	0.5.	1.0.	From To	0.5.	1.0.	From To	0.5.		From To
.450	.350	.015025	.459	.312	.040060	.465	.345	.005010	.470	.176	.060080	.472	.270	.090105	.477	.178	.005010
.450	.368	.010020	.459	.337	.040060	.465	.402	.005020	.470	.187	.110130	.472	.282	.020040	.477	.201	.020030
.450	.370	.015030	.459	.347	.020030	.466	.125	.015030	.470	.200	.005010	.472	.289	.005010	.477	.266	.005010
.450	.375	.025042	.459	.350	.020030	.466	.127	.020040	.470	.210	.035050	.472	.315	.025040	.477	.302	.025040
.451	.146	.020030	.460	.040	.010020	.466	.189	.020040	.470	.218	.010040	.472	.316	.025040	.477	.390	.010020
.451	.188	.020030													.478	.170	.010020
			.460	.143	.020040	.466	.191	.020045	.470	.225	.030050	.472	.317	.050070			
.451	.241	.025040	.460	.159	.005010	.466	.198	.040060	.470	.228	.010020	.472	.319	.005030	.478	.222	.025040
.451	.267	.030050	.460	.194	.005010	.466	.205	.020030	.470	.239	.005010	.472	.376	.005010	.478	.253	.005010
.451	.274	.005010	.460	.244	.020040	.466	.210	.020035	.470	.255	.047085	.472	.379	.005010	.478	.254	.015030
.451	.315	.040062	.460	.279	.005010	.466	.218	.050070	.470	.265	.032048	.472	.387	.025035	.478	.255	.090105
.451	.317	.005010	.460	.301	.005010	.466	.251	.025040	.470	.271	.010020	.472	.399	.010020	.478	.311	.005010
.451	.334	.020030	.460	.306	.005010	.466	.259	.080100	.470	.276	.050075	.473	.039	.005010	.478	.315	.050070
.451	.344	.030050	.460	.313	.020030	.466	.264	.005010	.470	.279	.005010	.473	.070	.010020	.478	.316	.025040
.451	.353	.010020	.460	.319	.020040	.466	.290	.020030	.470	.280	.010020	.473	.157	.005010	.478	.322	.005010
.451	.378	.020030	.460	.378	.030042	.466	.293	.005010	.470	.290	.015030	.473	.172	.120135	.478	.325	.050070
.451	.395	.005010	.460	.380	.005015	.466			.470	.312					.478	.343	.005010
.452	.036	.010020					.319	.010020			.020030	.473	.205	.005010	.478	.375	.050062
			.461	.091	.005010	.466	.321	.005010	.470	.316	.005010	.473	.217	.015030			
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.453	.236	.030050	.462	.158	.040060	.467	.213	.015030	.470	.341	.050075	.473	.274	.005010	.479	.377	.015030
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.455	.302	.015030	.464	.141	.050070	.469	.149	.080104	.471	.287	.005015	.475	.259	.010030	.480	.360	.015030
.455	.353	.010020	.464	.159	.060080	.469	.184	.005010	.471	.296	.005010	.475	.279	.005010	.480	.365	.030040
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.456	.190	.025062	.464	.244	.005020											.407	.015030
						.469	.269	.015025	.471	.378	.005012	.475	.360	.005010	.480		
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.456	.235	.005010	.464	.318	.015025	.469	.321	.005010	.472	.099	.020040	.475	.380	.010020	.481	.126	.020040
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.456	.261	.005010	.464	.367	.010020	.469	.325	.020035	.472	.125	.005010	.475	.400	.020040	.481	.188	.020030
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.456	.390	.010020	.465	.134	.030040	.469									.481	.318	.005010
							.384	.010020	.472	.165	.015030	.476	.163	.015030			
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	.363	.005010	.465	.221	.005010	.470	.118	.025042	.472	.237	.015030	.476	.289	.010030	.481	.402	.005010
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.457 .457	.407		.465	.229	.005010	.470	.138	.015025	.472	.239	.005010	.476	.324	.025040	.482	.190	.020040
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.457 .458	.172	.062090			006 - 015	170				.41	.07:5090			.010020			
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.457 .458 .458 .459 .459	.172 .250 .172 .173	.040062 .050075 .005050	.465 .465 .465	.252 .261 .283	.005010 .075090	.470 .470	.149 .150	.005010 .060090	.472 .472	.245 .246	.030040 .030050	.476 .477	.404 .132	.005010 .030040	.482 .482	.329 .332	.050075 .020040
.457 .458 .458 .459	.172 .250 .172	.040062 .050075	.465 .465	.252 .261	.005010	.470	.149	.005010	.472	.245	.030040	.476	.404	.005010	.482	.329	.050075

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

									NO	100	LING CH	ANGL	FOR	ANT OF	IIIE	SIZE	3 LISTLD
O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*
		From To			From To			From To			From To			From To			From To
.482	.396	.005010	.488	.096	.060090	.492	.276	.005010	.495	.225	.075090	.497	.324	.005010	.499	.259	.030050
.483	.033	.010020	.488	.118	.080104	.492	.281	.030050	.495	.236	.010020	.497	.337	.005010	.499	.264	.010020
.483	.077	.020040	.488	.137	.005010	.492	.290	.020030	.495	.252	.040060	.497	.344	.062075	.499	.265	.025040
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.483	.375	.025040	.489	.180	.030050	.492	.393	.020042	.495	.310	.010030	.498	.063	.050062	.499	.329	.005010
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.484	.379	.040060	.489	.320	.040060	.493	.282	.050075	.495	.363	.040060	.498	.175	.100125		U	
.484	.398	.040060	.489	.333	.020030	.493	.284	.030050	.495	.381	.010020	.498	.184	.005010			
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.486	.315	.015030	.491	.207	.020030	.494	.370	.008015	.496	.400	.005010	.499	.094	.042062	.500	.155	.100125
.486	.327	.005050	.491	.250	.005010	.494	.373	.005010	.496	.433	.005010	.499	.118	.060080	.500	.160	.005010
.486	.355	.005010	.491	.252	.100134	.494	.380	.005010	.496	.437	.005010	.499	.123	.050060	.500	.163	.050072
.486	.404	.010020	.491	.253	.005075	.494	.399	.025040	.497	.088	.020030	.499	.125	.005010	.500	.167	.005010
.487	.042	.025042	.491	.254	.050075	.494	.420	.008015	.497	.098	.030050	.499	.138	.005010	.500	.168	.025075
.487	.071	.010020	.491	.256	.040060	.495	.034	.015025	.497	.137	.030048	.499	.142	.030050	.500	.170	.025050
.487	.120	.005010	.491	.265	.090105	.495	.040	.005010	.497	.138	.030048	.499	.170	.020030	.500	.172	.006050
.487	.225	.010032	.491	.266	.010030	.495	.063	.020035	.497	.166	.010020	.499	.175	.050072	.500	.173	.005010
.487	.233	.040060	.491	.267	.005010	.495	.064	.005010	.497	.191	.060080	.499	.173	.010020	.500	.176	.050070
.487	.256	.025040	.491	.268	.005010	.495	.073	.040062	.497	.193	.025040	.499	.190	.020030	.500	.177	.060075
.487		.010020	.491	.317	.010020	.495	.136	.030050	.497	.196	.005010	.499	.192	.020030	.500	.180	.025040
.487	.257			.320	.010020	.495	.143	.100125	.497	.215	.005010	.499	.192	.005030	.500	.182	.060090
.487	.257 .270		491				.158	.030060	.497	.220	.020070	.499	.193	.005015	.500	.187	.020125
	.270	.090110	.491 .491			495			. + 01	٠٧٢٠٠	.020070	.+33	. 134				
	.270 .272	.090110 .005010	.491	.338	.030050	.495 495			⊿ 07	250	015 - 020	400					
.487	.270 .272 .286	.090110 .005010 .015030	.491 .491	.338 .385	.030050 .015030	.495	.162	.048075	.497 497	.250	.015030	.499	.201	.050075	.500	.188	.030050
.487 .487	.270 .272 .286 .321	.090110 .005010 .015030 .040060	.491 .491 .491	.338 .385 .393	.030050 .015030 .005010	.495 .495	.162 .170	.048075 .005010	.497	.252	.005025	.499	.201	.050075 .080100	.500 .500	.188 .189	.030050 .005125
.487 .487 .487	.270 .272 .286 .321 .327	.090110 .005010 .015030 .040060 .030040	.491 .491 .491 .492	.338 .385 .393 .124	.030050 .015030 .005010 .110130	.495 .495 .495	.162 .170 .184	.048075 .005010 .070090	.497 .497	.252 .253	.005025 .005010	.499 .499	.201 .203 .215	.050075 .080100 .010020	.500 .500 .500	.188 .189 .190	.030050 .005125 .090104
.487 .487 .487 .487	.270 .272 .286 .321 .327 .336	.090110 .005010 .015030 .040060 .030040 .025040	.491 .491 .491 .492 .492	.338 .385 .393 .124 .193	.030050 .015030 .005010 .110130 .030050	.495 .495 .495 .495	.162 .170 .184 .190	.048075 .005010 .070090 .010020	.497 .497 .497	.252 .253 .254	.005025 .005010 .015060	.499 .499 .499	.201 .203 .215 .229	.050075 .080100 .010020 .005010	.500 .500 .500 .500	.188 .189 .190 .191	.030050 .005125 .090104 .005010
.487 .487 .487 .487 .487	.270 .272 .286 .321 .327 .336 .337	.090110 .005010 .015030 .040060 .030040 .025040 .020040	.491 .491 .491 .492 .492	.338 .385 .393 .124 .193 .201	.030050 .015030 .005010 .110130 .030050 .040050	.495 .495 .495 .495 .495	.162 .170 .184 .190 .191	.048075 .005010 .070090 .010020 .020030	.497 .497 .497 .497	.252 .253 .254 .259	.005025 .005010 .015060 .010040	.499 .499 .499 .499	.201 .203 .215 .229 .239	.050075 .080100 .010020 .005010 .030040	.500 .500 .500 .500	.188 .189 .190 .191 .194	.030050 .005125 .090104 .005010 .062090
.487 .487 .487 .487 .487	.270 .272 .286 .321 .327 .336 .337 .355	.090110 .005010 .015030 .040060 .030040 .025040 .020040	.491 .491 .491 .492 .492 .492 .492	.338 .385 .393 .124 .193 .201 .204	.030050 .015030 .005010 .110130 .030050 .040050 .105125	.495 .495 .495 .495 .495 .495	.162 .170 .184 .190 .191 .195	.048075 .005010 .070090 .010020 .020030 .005010	.497 .497 .497 .497 .497	.252 .253 .254 .259 .280	.005025 .005010 .015060 .010040 .015030	.499 .499 .499 .499	.201 .203 .215 .229 .239 .240	.050075 .080100 .010020 .005010 .030040 .048070	.500 .500 .500 .500 .500	.188 .189 .190 .191 .194 .195	.030050 .005125 .090104 .005010 .062090 .005010
.487 .487 .487 .487 .487 .487	.270 .272 .286 .321 .327 .336 .337 .355	.090110 .005010 .015030 .040060 .030040 .025040 .020040 .005020	.491 .491 .491 .492 .492 .492 .492	.338 .385 .393 .124 .193 .201 .204	.030050 .015030 .005010 .110130 .030050 .040050 .105125	.495 .495 .495 .495 .495 .495	.162 .170 .184 .190 .191 .195	.048075 .005010 .070090 .010020 .020030 .005010	.497 .497 .497 .497 .497	.252 .253 .254 .259 .280	.005025 .005010 .015060 .010040 .015030 .005015	.499 .499 .499 .499 .499	.201 .203 .215 .229 .239 .240	.050075 .080100 .010020 .005010 .030040 .048070	.500 .500 .500 .500 .500 .500	.188 .189 .190 .191 .194 .195	.030050 .005125 .090104 .005010 .062090 .005010
.487 .487 .487 .487 .487 .487 .487	.270 .272 .286 .321 .327 .336 .337 .355 .364	.090110 .005010 .015030 .040060 .030040 .025040 .020040 .005020 .005010	.491 .491 .491 .492 .492 .492 .492 .492	.338 .385 .393 .124 .193 .201 .204 .250 .254	.030050 .015030 .005010 .110130 .030050 .040050 .105125 .020040 .030060	.495 .495 .495 .495 .495 .495 .495	.162 .170 .184 .190 .191 .195 .200 .203	.048075 .005010 .070090 .010020 .020030 .005010 .030050	.497 .497 .497 .497 .497 .497	.252 .253 .254 .259 .280 .287	.005025 .005010 .015060 .010040 .015030 .005015 .005012	.499 .499 .499 .499 .499 .499	.201 .203 .215 .229 .239 .240 .243 .246	.050075 .080100 .010020 .005010 .030040 .048070 .005010	.500 .500 .500 .500 .500 .500 .500	.188 .189 .190 .191 .194 .195 .196 .197	.030050 .005125 .090104 .005010 .062090 .005010 .010125 .005135
.487 .487 .487 .487 .487 .487 .487 .487	.270 .272 .286 .321 .327 .336 .337 .355 .364 .399 .402	.090110 .005010 .015030 .040060 .030040 .025040 .020040 .005020 .005010 .005010	.491 .491 .491 .492 .492 .492 .492 .492 .492	.338 .385 .393 .124 .193 .201 .204 .250 .254	.030050 .015030 .005010 .110130 .030050 .040050 .105125 .020040 .030060	.495 .495 .495 .495 .495 .495 .495 .495	.162 .170 .184 .190 .191 .195 .200 .203 .210	.048075 .005010 .070090 .010020 .020030 .005010 .030050 .050070	.497 .497 .497 .497 .497 .497 .497	.252 .253 .254 .259 .280 .287 .315	.005025 .005010 .015060 .010040 .015030 .005015 .005012	.499 .499 .499 .499 .499 .499 .499	.201 .203 .215 .229 .239 .240 .243 .246 .254	.050075 .080100 .010020 .005010 .030040 .048070 .005010 .005010	.500 .500 .500 .500 .500 .500 .500	.188 .189 .190 .191 .194 .195 .196 .197	.030050 .005125 .090104 .005010 .062090 .005010 .010125 .005135 .035050
.487 .487 .487 .487 .487 .487 .487	.270 .272 .286 .321 .327 .336 .337 .355 .364	.090110 .005010 .015030 .040060 .030040 .025040 .020040 .005020 .005010	.491 .491 .491 .492 .492 .492 .492 .492	.338 .385 .393 .124 .193 .201 .204 .250 .254	.030050 .015030 .005010 .110130 .030050 .040050 .105125 .020040 .030060	.495 .495 .495 .495 .495 .495 .495	.162 .170 .184 .190 .191 .195 .200 .203	.048075 .005010 .070090 .010020 .020030 .005010 .030050	.497 .497 .497 .497 .497 .497	.252 .253 .254 .259 .280 .287	.005025 .005010 .015060 .010040 .015030 .005015 .005012	.499 .499 .499 .499 .499 .499	.201 .203 .215 .229 .239 .240 .243 .246	.050075 .080100 .010020 .005010 .030040 .048070 .005010	.500 .500 .500 .500 .500 .500 .500	.188 .189 .190 .191 .194 .195 .196 .197	.030050 .005125 .090104 .005010 .062090 .005010 .010125 .005135

O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*
		From To			From To			From To			From To			From To			.010020
.500 .500	.202 .203	.060125 .012020	.500 .500	.361 .368	.050060 .020040	.502 .502	.190 .192	.062100 .030050	.507 .507	.368 .375	.005030 .010020	.513	.455	.010020	.520 .520	.430 .440	.010020
.500	.204	.015075	.500	.370	.020040	.502	.192	.005010	.507	.446	.020030	.514 .514	.100 .151	.020040 .020040	.520	.455	.005010
.500	.205	.005050	.500	.373	.008015	.502	.194	.060080	.508	.201	.020030	.514	.194	.020040	.521	.145	.075090
.500	.209	.050070	.500	.375	.040075	.502	.196	.040060	.508	.223	.050070	.514	.200	.020040	.521	.239	.040050
.500	.210	.010025	.500	.376	.015030	.502	.245	.025036	.508	.269	.010020	.514	.203	.005010	.521	.325	.010020
.500	.217	.040060	.500	.377	.005060	.502	.257	.040050	.508	.280	.020040	.514	.210	.040060	.521	.340	.072090
.500	.218	.005090	.500	.378	.005060	.502	.262	.040060	.508	.285	.015025	.514	.339	.010020	.521	.380	.025040
.500	.220	.062105	.500	.383	.030050	.502	.263	.030050	.508	.314	.005010	.514	.392	.005010	.521	.440	.005010
.500	.221	.020125	.500	.385	.040050	.502	.303	.075100	.508	.329	.050075	.514	.431	.030040	.522	.251	.042072
.500	.222	.010020	.500	.388	.020036	.502	.315	.005040	.508	.336	.005010	.514	.454	.020030	.522	.265	.005010
.500	.226	.025040	.500	.390	.005060	.502	.329	.020030	.508	.355	.040060	.515	.149	.005010	.522	.279	.005010
.500 .500	.230 .231	.032048 .005010	.500 .500	.396 .402	.005030 .005015	.502 .502	.378 .386	.025040	.508 .508	.366	.005010	.515	.163	.030050	.522 .522	.290 .353	.040050 .015025
.500	.233	.100125	.500	.412	.005010	.502	.131	.005010 .005120	.508	.405 .405	.005010 .030050	.515 .515	.191 .206	.050070 .080104	.522	.413	.030050
.500	.234	.100120	.500	.415	.012016	.503	.142	.030060	.508	.430	.030040	.515	.218	.005010	.522	.435	.015030
.500	.235	.005010	.500	.441	.010020	.503	.153	.040050	.509	.031	.030050	.515	.227	.030050	.522	.437	.005010
.500	.237	.008125	.500	.446	.005010	.503	.157	.050062	.509	.064	.030050	.515	.228	.005010	.523	.118	.025040
.500	.238	.105125	.500	.450	.005010	.503	.159	.005010	.509	.080	.030050	.515	.253	.105125	.523	.252	.070090
.500	.245	.020030	.500	.452	.010020	.503	.205	.030040	.509	.219	.025042	.515	.260	.020040	.523	.273	.005010
.500	.250	.010134	.501	.061	.005020	.503	.280	.075100	.509	.285	.010020	.515	.308	.008015	.523	.396	.015030
.500	.251	.015030	.501	.099	.050075	.503	.281	.010020	.509	.286	.010020	.515	.310	.008015	.523	.402	.005010
.500	.253 .254	.005050 .005083	.501 .501	.130	.030050	.503	.315	.005010	.509	.298	.050070	.515	.315	.008015	.523	.406 411	.032050 .040060
.500 .500	.254	.005083	.501	.131 .136	.025040 .005020	.503 .503	.316 .318	.005010 .050070	.509 .510	.430 .053	.020035 .015025	.515 .515	.316 .318	.008015 .005010	.523 .523	.411 .428	.040060
.500	.257	.005030	.501	.139	.075105	.503	.363	.005010	.510	.156	.015025	.515	.322	.015015	.524	.286	.030048
.500	.258	.100120	.501	.143	.070090	.503	.383	.005010	.510	.210	.075090	.515	.377	.015025	.524	.323	.020060
.500	.259	.100125	.501	.158	.005010	.503	.387	.005010	.510	.251	.020040	.515	.378	.020030	.524	.387	.015025
.500	.260	.005020	.501	.168	.045060	.503	.411	.005010	.510	.269	.005010	.515	.385	.005010	.524	.396	.005010
.500	.261	.050075	.501	.170	.005010	.504	.125	.090104	.510	.280	.040075	.515	.388	.020040	.524	.409	.010020
.500	.263	.005120	.501	.182	.010104	.504	.230	.005010	.510	.300	.010020	.515	.390	.010040	.524	.441	.005010
.500	.264	.005010	.501	.191	.090100	.504	.249	.040060	.510	.341	.042062	.515	.391	.050060	.524	.463	.025040
.500	.265	.005104	.501	.192	.020040	.504	.258	.030050	.510	.398	.040050	.515	.394	.005008	.525	.068 .156	.015032
.500 .500	.266 .266	.005025 .040060	.501 .501	.195 .196	.048062 .005010	.504 .504	.269 .283	.005010 .010020	.510 .511	.414 .150	.007020 .005010	.515 .515	.397	.005010 .020032	.525 .525	.187	.090105 .015030
.500	.268	.005020	.501	.199	.005010	.504	.321	.030050	.511	.165	.040060	.516	.420 .156	.030050	.525	.201	.060080
.500	.269	.020036	.501	.202	.005010	.504	.343	.070090	.511	.237	.005010	.516	.195	.008015	.525	.252	.005010
.500	.270	.005090	.501	.205	.030100	.504	.361	.005010	.511	.250	.005072	.516	.239	.005010	.525	.258	.060080
.500	.275	.005010	.501	.207	.025040	.504	.362	.005010	.511	.256	.005010	.516	.246	.005020	.525	.308	.005010
.500	.276	.060080	.501	.208	.060072	.504	.379	.020030	.511	.259	.010020	.516	.315	.005010	.525	.346	.060080
.500	.280	.042078	.501	.210	.100125	.504	.382	.005010	.511	.285	.020040	.516	.320	.005010	.525	.357	.005010
.500	.281	.005040	.501	.223	.005010	.504	.390	.030050	.511	.316	.005010	.516	.387	.020040	.525	.358	.070080
.500	.283	.030104	.501	.228	.060080	.505	.090	.015030	.511	.319	.040060	.516	.388	.005010	.525	.375	.005010
.500 .500	.286 .288	.030050 .010020	.501 .501	.230 .241	.005010 .080100	.505 .505	.101 .129	.050070 .050070	.511 .511	.320 .327	.015030 .020040	.516 .516	.438 .445	.020032 .005010	.525 .525	.378 .390	.030050 .060080
.500	.289	.015030	.501	.253	.005125	.505	.149	.010075	.511	.383	.015030	.517	.331	.030050	.525	.401	.020040
.500	.291	.025040	.501	.254	.048072	.505	.167	.025040	.511	.460	.005010	.517	.340	.015030	.525	.428	.005015
.500	.292	.005010	.501	.255	.080105	.505	.194	.005010	.512	.180	.040060	.517	.341	.040060	.526	.195	.030050
.500	.295	.025040	.501	.256	.020090	.505	.250	.020030	.512	.198	.050070	.517	.346	.005070	.526	.203	.030050
.500	.296	.010025	.501	.263	.005010	.505	.254	.010020	.512	.203	.005010	.517	.402	.005010	.526	.256	.030050
.500	.298	.005025	.501	.272	.090105	.505	.295	.080090	.512	.209	.010020	.517	.417	.005010	.526	.270	.010020
.500	.299	.030050	.501	.281	.050104	.505	.300	.010020	.512	.238	.005010	.517	.438	.005010	.526	.357	.005010
.500 .500	.300 .302	.005010	.501 501	.283	.010100	.505	.301	.005030	.512	.275	.040060	.517	.441	.020030	.526	.437 .129	.015030 .015025
.500	.302	.060070 .005010	.501 .501	.300 .313	.005010 .005070	.505 .505	.324 .335	.050070 .025040	.512 .512	.278 .312	.005010 .010020	.518 .518	.175	.008016 .015030	.527 .527	.129	.015025
.500	.305	.020030	.501	.318	.005070	.505	.341	.025040	.512	.317	.005020	.518	.214 .253	.005010	.527	.346	.040060
.500	.309	.005025	.501	.322	.020040	.505	.355	.025040	.512	.320	.005010	.518	.256	.040060	.527	.348	.032050
.500	.312	.015030	.501	.340	.070090	.505	.386	.020030	.512	.321	.005010	.518	.338	.005010	.527	.369	.005010
.500	.313	.008015	.501	.345	.025040	.505	.390	.030050	.512	.322	.005080	.518	.375	.050070	.527	.393	.030050
.500	.314	.005010	.501	.370	.050070	.505	.396	.005010	.512	.363	.030040	.518	.438	.005010	.527	.437	.010020
.500	.315	.015104	.501	.375	.016030	.505	.399	.020040	.512	.375	.050070	.518	.440	.020030	.527	.443	.020040
.500	.316	.010050 .005090	.501	.376	.005010	.505	.401	.030050	.512	.394	.005010	.518	.447	.010020	.528	.128	.010020
.500 .500	.317 .318	.005090	.501 .501	.379 .380	.030050 .005010	.505 .506	.457 .053	.005010 .005010	.512 .512	.395 .433	.015025 .005010	.519	.081	.015025 .005010	.528 .528	.152 .209	.005012 .010020
.500	.319	.025050	.501	.386	.010020	.506	.206	.005010	.512	.119	.040060	.519 .519	.103 .170	.005010	.528	.236	.040060
.500	.320	.015025	.501	.397	.005010	.506	.220	.040060	.513	.126	.015030	.519	.290	.030070	.528	.254	.005010
.500	.321	.005010	.501	.400	.030050	.506	.221	.040060	.513	.137	.005010	.519	.339	.005010	.528	.265	.030060
.500	.323	.005010	.501	.402	.020030	.506	.257	.005010	.513	.153	.040060	.519	.377	.005010	.528	.268	.040060
.500	.327	.020080	.501	.404	.015030	.506	.258	.040060	.513	.174	.030050	.519	.397	.005010	.528	.308	.005010
.500	.328	.048070	.501	.409	.030048	.506	.266	.005010	.513	.197	.015030	.520	.120	.010020	.528	.360	.025040
.500	.332	.080100	.501	.413	.015025	.506	.275	.005010	.513	.237	.070090	.520	.194	.050060	.528	.410	.040060
		.010020	.502	.124	.060083	.507	.107	.005010	.513	.240	.030050	.520	.208	.015020	.528	.439	.010020
.500	.334		.502	.130	.005010 .025040	.507	.125	.030040	.513	.268	.005012	.520	.224	.005010	.528 .529	.453 .132	.005010 .005010
.500 .500	.336	.030050				.507	.145	.005010	.513 .513	.287 .313	.050070 .080090	.520	.311	.020035 .005010	.529		.005010
.500 .500 .500	.336 .338	.005070	.502	.131		507	ソソコ									.1/5	
.500 .500 .500 .500	.336 .338 .344	.005070 .040060	.502 .502	.142	.005010	.507 .507	.221	.010020				.520 .520	.324			.175	
.500 .500 .500	.336 .338	.005070	.502	.142 .161	.005010 .012025	.507	.232	.060078	.513	.360	.005010	.520 .520	.328	.020040	.529	.234	.070090
.500 .500 .500 .500	.336 .338 .344 .348	.005070 .040060 .015030	.502 .502 .502	.142	.005010			.060078 .050075				.520	.328		.529	.234	.070090
.500 .500 .500 .500 .500	.336 .338 .344 .348 .350	.005070 .040060 .015030 .040060	.502 .502 .502 .502	.142 .161 .183	.005010 .012025 .080104	.507 .507	.232 .253	.060078	.513 .513	.360 .373	.005010 .015030	.520 .520	.328 .333	.020040 .005010	.529 .529	.234 .280	.070090 .015030

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0.0		Choose Any	0.0		Choose Any	0.0		Choose Any		Choose A			Choose Any	0.0		Choose Any				Choose Any	0.0		Choose Any	0.0		Choose Any	0.0		Choose Any		Choose Any	0.0	Choose Any	
O.D.	I.D.	Thickness*	O.D.	I.D.	Thickness*	O.D.	I.D.	Thickness* ().D.	I.D. Thicknes	* O.D.	. I.D.	Thickness* From To	O.D.	I.D.	Thickness*	0.0). I.D	J. I	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*	
.529	.385	.005010	533	411	.010025	.540	.391	.030050	47	.365 .0050	10 .551	.264	.070090	.555	.328	.050078	.560	.25	58 .	060080	.562	.202	.030050	.563	.373	.015030	568	.138	.005010 .575	.322	.010020	.583	.344 .070090	90
.529	.439				.015030	.540	.392			.405 .0050		.278	.005010	.555	356	.050060	.560		59				.075090	.563	.376		.568		.042072 .575		.016025		.378 .015030	30
.530	.066				.030050	.540	.395		48	.095 .0400		.284	.030050		.360	.050070	.560			005010			.020040	.563		.010020			.005010 .575		.005030		.410 .030050	
530	.090				.070090	.540	.399	.025040 .5		.170 .0500		.294	.012025	.555	.438	.005010	.560							.563		.015060			.050070 .575		.025042		.301 .005010	
.530	.099				.015030	.540		.015025		.211 .0150		.300	.020040		.440	.005010	.560							.563		.015090			.005010 .575		.060080		.327 .005010	.
.530	.130				.030050	.540		.005010					.020040		.443	.015030	.560						.010072	.563		.010020					.060090		.350 .005010	
		.080104													.445	.005010	.560																.358 .005010	.
.530	.153				.005010			.040050 .5		.325 .0600			.005050				.560			005010				.563	.385	.020030			.005010 .575		.010020	.584		.
.530	.180	.005010			.060083	.540		.015030 .5		.329 .0250			.005010		.475	.030045	.500			005010				.563	.387	.020050			.005010 .575		.010020		.431 .005010	.
.530	.191	.005010			.062080	.540		.005010 .5		.397 .0050			.050070		.120	.030050	.560	.31		. 010010			.015030	.563		.030050			.010030 .575		.040060		.446 .030050	
.530	.206	.100125			.030050		.152	.060090 .5		.401 .0500			.005010	.556	.123	.030060	.560			062120 .				.563		.030080			.015025 .575		.010030		.104 .025040	
.530	.219				.030042			.010020 .5		.452 .0300		.321	.005010	.556	.136	.030050	.560						.005010			.020030			.020040 .575		.020040		.183 .015030	
.530	.222	.020035			.012020	.541		.010020 .5		.453 .0250		.322	.005010			.040060	.560						.062090			.005015			.030040 .575	.485	.005040		.257 .020040	-
.530	.253	.005010	.535	.228	.075104	.541	.306	.010020 .5	49	.099 .0050	.551	.330	.050070	.556	.197	.030050	.560		20 .	020040	.562	.261	.030050	.563	.445	.015030	.569	.205	.050070 .576	.147	.090104	.585	.264 .025040	+0
.530	.254	.015030	.535	.238	.010020	.541	.314	.050060 .5	49	.216 .0050	.551	.357	.015030	.556	.200	.005010	.560	.32	26 .	. 010 200	.562	.263	.005030	.563	.450	.005010	.569	.207	.025040 .576	.218	.030040	.585	.290 .090105)5
.530	.255	.015030	.535	.239	.005010	.541	.319	.030050 .5	49	.316 .0050	.551	.377	.010020	.556	.263	.005010	.560	.33	31 .	. 015015	.562	.264	.015030	.563	.467	.025042	.569	.243	.010015 .576	.500	.020030	.585	.327 .050070	/0
.530	.270	.100125	.535	.244	.015030	.541	.375	.030050 .5	49	.326 .0050	10 .551	.378	.010100	.556	.281	.075104	.560	.33	36 .	. 010 200	.562	.265	.050090	.564	.118	.005010	.569	.257	.005010 .577	.096	.012025	.585	.328 .070090	J0
.530	.272	.100125	.535	.298	.010020	.541	.378	.040060 .5	49	.334 .0250	40 .551	.385	.005010	.556	.317	.040060	.560	.34	43 .	040060	.562	.266	.100125	.564	.195	.090105	.569	.324	.015075 .577	.199	.060090	.585	.364 .060080	30
.530	.273	.100125	.535	.310	.025042	.541	.402	.005030 .5	49	.452 .0300	60 .551	.387	.010020	.556	.327	.010020	.560	.34	45 .	090110	.562	.269	.030050	.564	.208	.040050	.569	.447	.020040 .577	.253	.050070	.585	.366 .040050	50
.530	.277	.005010	.535	.314	.005010	.541	.407	.040060 .5	49	.455 .0100	20 .551	.394	.005040	.556	.383	.040060	.560	.37	70 .	010000	.562	.275	.050075	.564	.214	.030050	.569	.470	.015025 .577		.050070	.585	.372 .025040	10
.530	.281	.040050	.535	.318	.005010	.541	.415	.005010	49	.476 .0050		.395	.050070	.556	.441	.005010	.560	.37	75 .	050070	.562	.281	.032050	.564	.252	.075090	.569		.012020 .577		.042062	.585	.377 .005010	10
.530	.312	.005010	.535	.320	.016025	.542	.172	.010020		.032 .0100		.399	.010040	.557	.242	.010020	.560	.37	77 .	. 015005	.562	.282	.080100	.564					.005010 .577		.090120	.585	.380 .005010	10
.530	.314	.015070			.010020			.020040 .5		.105 .0420			.036060			.010020	.560	.37		020040			.050070			.020040			.030050 .577		.025040		.390 .020040	40
.530	.315	.010020			.005010			.030050 .5		.120 .0050			.010025	.557	.317	.020060	.560	.38		005010				.564		.005020			.080090 .577		.010025		.397 .005010	10
.530	.316	.025040			.025040	.542	.303	.060080 .5		.140 .0200		.461	.005010	.557	.380	.040060	.560						.025040	.564		.015030			.015030 .578		.025042		.405 .050070	.
530	.320	.025040			.008015		.380	.040060		.158 .0050		.472	.005030	.557	387	.025040	.560			005010			.010020	.564	.311	.025040			.105125 .578		.005060	.586	.132 .010020	.
.530	.321	.010020			.005010		.395	.005010		.159 .000			.005030		.396	.050070	.560							.564		.010020			.025042 .578		.080090		.327 .015030	-
.530	.344				.012025	.542		.010020		.173 .090			.025040		.421	.010020	.560						.020030			.010020			.050075 .578		.050090		.415 .005010	
.530	.375	.005010			.010020	.542	.440			.190 .0200			.005008		.446	.020040	.560						.010020	.564	.384	.005010			.025042 .578		.020060		.433 .040060	.
.530	.377	.005010			.010020	.542	.453	.020040							.288	.005010	.560			005010			.080104			.030048							.447 .005010	
										.193 .0050			.020040			.050070	.560														.005010			-
.530	.385	.050060			.005010		.198			.208 .0480			.015030	.558	.327					005010				.564		.050072			.030050 .578		.005010			
.530		.010020			.030050	.543	.316	.020040 .5		.240 .0100			.060080	.558	.331	.020050	.560							.564	.445	.005010			.025042 .578		.050070	.586	.484 .005010	.
.530	.393	.005010			.075090	.543	.333	.005010 .5		.245 .0200			.005010	.558		.005012	.560						.005060	.564	.500	.020040			.010020 .578		.010020		.500 .030040	.
.530	.397	.025035			.005010		.346	.030050 .5		.250 .040			.005020		.361	.036060	.560							.564		.005010			.015030 .578		.010020		.525 .005010	
.530	.403	.005010			.100125			.015025 .5		.255 .0200			.005010	.558		.030050	.560							.564		.005010			.020040 .579		.031042		.544 .010020	.
.530	.417	.005010			.030050	.543		.005010 .5		.258 .0250			.010020		.486	.005030	.560							.565		.005010			.005010 .579	.174	.020040		.195 .032050	
.530	.450	.015030			.005010			.005010 .5		.259 .0050			.030040	.559	.032	.020030	.561						.080100			.080090			.005010 .579		.020040		.231 .005010	.
.530	.468	.005030	.536	.324	.025040	.544	.189	.005010 .5	50	.271 .0050	.552	.286	.010020	.559	.060	.015025	.561		27 .	020040	.562	.332	.020040	.565	.120	.015030	.570	.380	.010020 .579	.265	.050075	.587	.231 .015025	25
.530	.490	.005010	.536	.346	.010015	.544	.206	.020040 .5	50	.282 .035	25 .552	.305	.025060	.559	.128	.005010	.561	.16	31 .	. 010 200	.562	.343	.005050	.565		.025040		.433	.010020 .579	.318	.060070	.587	.345 .030050	0ز
.531	.143	.015050	.537	.104	.016025	.544	.226	.010020 .5	50	.300 .0420	.552	.319	.005010	.559	.135	.005010	.561	.16	66 .	. 080083	.562	.344	.060080	.565	.186	.010015	.570	.445	.025040 .579	.342	.090104	.587	.373 .005010	10
.531	.158	.032048	.537	.243	.105125	.544	.227	.020040 .5	50	.304 .0300	60 .552	.320	.090110	.559	.145	.015030	.561	.17	73 .	. 010 200	.562	.370	.020040	.565	.236	.083105	.570	.461	.030050 .579	.374	.020030	.587	.400 .050070	′0
.531	.180	.050075	.537	.283	.105125	.544	.311	.030040 .5	50	.315 .0050	48 .552	.321	.005010	.559	.209	.060080	.561	.17	74 .	075090	.562	.374	.005010	.565	.240	.050080	.570	.515	.005010 .579	.378	.020030	.587	.411 .040060	06
.531	.191	.012020	.537	.370	.040060	.544	.324	.005010 .5	50	.316 .0050	30 .552	.387	.040060	.559	.216	.020040	.561	.17	75 .	015030	.562	.375	.050070	.565	.280	.105125	.571	.206	.105125 .579	.400	.050070	.587	.437 .010020	20
.531	.200	.015030	.537	.375	.005010	.544	.325	.020040 .5	50	.317 .0150	30 .552	.395	.005015	.559	.225	.005010	.561	.18	. 88	015025	.562	.376	.005062	.565	.310	.030040	.571	.256	.030050 .579	.407	.005010	.587	.461 .005010	10
.531	.202	.015030	.537	.394	.010020	.544	.385	.005010 .5	50	.319 .0050	10 .552	.396	.050075	.559	.259	.010040	.561	.19	90 .	. 000060	.562	.381	.040060	.565	.315	.005015	.571	.257	.070090 .579	.437	.025040	.588	.245 .015030	30
.531	.206	.005030	.537	.409	.025040	.544	.421	.005010 .5	50	.322 .0300	50 .552	.397	.005010	.559	.285	.005010	.561	.19	92 .	020040	.562	.382	.040060	.565	.316	.060080	.571	.283	.070090 .579	.502	.005010	.588	.250 .005010	10
.531	.213	.005010	.538	.210	.030060	.544	.449	.015030 .5	50	.323 .0080	20 .552	.398	.005010	.559	.311	.005010	.561	.20	. 00	080105	.562	.383	.030050	.565	.353	.050072	.571	.319	.050070 .580	.096	.025040	.588	.260 .040060	30
.531	.230	.105125	.538	.219	.005010	.544	.463	.005010 .5	50	.332 .0050	10 .552	.400	.025040	.559	.322	.080104	.561	.20	02 .	030060	.562	.385	.015070	.565	.396	.005010	.571	.373	.020035 .580	.196	.005010	.588	.282 .030040	10
.531	.254	.060083	.538	.257	.015030	.544	.502	.010020 .5	50	.344 .0600			.010015	.559	.347	.025042	.561	.20	. 80	030050	.562	.386	.020040	.565	.453	.025035	.572	.256	.005008 .580		.090120	.588	.300 .005020	20
.531	.257	.010060	.538	.309	.010020	.545		.042060 .5		.351 .0050			.040050		.349	.075090	.561	.25	55 .	020040	.562	.387	.040060			.040060			.030040 .580		.050075	.588	.386 .010020	20
.531	.264	.030050	.538	.340	.030050	.545	.187	.005012 .5	50	.357 .0400	62 .552	.434	.015030	.559	.379	.030050	.561	.29	90 .	. 010000	.562	.388	.005015	.566	.201	.005010	.573	.129	.050070 .580	.218	.093125	.588	.406 .040060	30
.531	.271	.025035	.538		.040060	.545	.244			.375 .0050			.005010		.388	.060080	.561	.29	98 .	. 080083	.562		.075090	.566	.203	.005010			.050070 .580		.030040	.588	.417 .040060	30
.531	.295	.015030	.538	.385	.050075		.260	.050070 .5		.380 .0050			.005010		.391	.030050	.561	.31	10 .	040060	.562	.392	.005010		.266	.005010			.050070 .580		.050070	.589	.178 .060080	30
.531	.317	.010060	.538	.440	.005010	.545	.313	.005010		.381 .0400			.010020		.454	.020040	.561	.31	14 .	036060	.562	.396	.025040	.566	.270	.005010			.025040 .580		.050070	.589	.232 .070090	30
.531	.330	.040060			.005010			.015050		.390 .0700			.060080		.471	.005030	.561	.32		090110				.566		.050075			.020040 .580		.020070		.311 .030050	50
.531	.335	.090120	.539		.025050	.545	.346			.398 .0050			.005010		.480	.005010	.561	.33	31 .	100115			.015075	.566	.321	.005010			.040060 .580		.080104		.314 .005015	15
	.346	.042062			.060080			.040060			70 .553		.005010			.005010	.561			005010			.010025			.005010			.025045 .580		.005010		.341 .040062	
.531	.348	.050072			.015030	.545		.040062			40 .553		.040060		.113	.015030	.561	.36	. 06	015025	.562	.440	.020040	.566		.010015			.050060 .580		.025035		.348 .040060	30
.531	.350	.040062			.005010		.385	.005010		.408 .0400			.005010			.016030	.561			005010			.005010			.040060			.030050 .580		.080104		.376 .015030	
.531		.010020			.005010			.010020 .5			75 .553		.015030			.075104	.561	.37		020030			.020030			.005060			.015025 .580		.042062		.410 .062078	78
.531	.406	.050060			.025040	.545	.410	.020030			10 .554		.015030			.015030	.561							.566		.093104			.025042 .580		.090105		.444 .040060	.
.531		.005010			.025042		.442	.005010		.421 .0200			.005010			.060083	.561			020032						.060090			.015030 .580		.005010		.446 .020030	
.531	.463	.015030			.005030	.545	.445	.005010		.427 .0250			.030050			.050070	561	.40		005010				.566		.040060			.090105 .580		.010020		.455 .030050	
.532		.010020			.005010			.005010 .5		.429 .0350			.025035			.005020	.561			005010			.025040			.040060			.005010 .580		.005010		.066 .005010	
.532		.100125			.005010			.005010			10 .554		.025035			.040062	.561			010020			.100125			.010020			.032062 .580		.005010		.115 .032062	
.532	.201	.005010			.005010			.010020			20 .554		.090110			.005010	.561							.566		.010020			.005010 .580		.042062		.118 .015030	
532	.207	.062090			.005010			.010020 .3					.005010			.005015	.561			010020			.100125			.015030					.042062		.145 .015030	
.532	.250	.002090			.007015	.546 .546	.305				10 .554					.030050	.562			010020 .			.030050		.505	.015025			.020030 .580 .070090 .580				.145 .005010 .147 .005020	.
.532		.040075			.060070			.030050 .5 .015030 .5					.010020 .030048			.008016	.562			005010 .			.005125			.010020					.005010		.199 .060080	.
.532	.329	.030050			.020040	.546 .546										.032048	.562														.010032			
	.451	.005010					.410	.020030 .5		.141 .0050			.020040			.032046	.562			030050 .			.020030	.567	.227	.007012			.010020 .580		.025040			.
.532					.030050	.546	.435	.020040 .5			10 .554		.010025										.005015			.010020			.070090 .580		.025040			
.532	.468	.020040			.010020	.547	.144	.005010 .5		.166 .030			.030050			.005010	.562			040060			.030050	.567	.260	.040060			.080100 .580		.010030		.209 .125156	
.532		.012020			.030060	.547		.010015		.172 .080			.060080			.032050	.562			035050 .				.567		.030050			.060080 .580		.020030		.237 .005010	
.533		.010020			.042062			.005010 .5			10 .555		.020040			.012020	.562	.15		036075			.100125			.040060			.025042 .581		.090125		.238 .005010	.
.533		.010020			.015030	.547		.005010 .5			25 .555		.105135			.005010	.562			008015			.005042			.090104			.010020 .581		.050070		.250 .070090	
.533	.236	.005010			.005010		.258	.005010 .5		.225 .0700			.010020			.030050	.562			050070				.567		.015025			.005030 .581		.030050		.290 .040060	
.533	.240	.050070			.010020	.547	.293	.060070 .5			10 .555		.080104			.006010	.562	.16		005010				.567		.040060			.075090 .582		.020040		.292 .010020	
	.266	.090105			.015025			.010130 .5			20 .555		.020040			.015025	.562			040060				.567		.030050			.005010 .582		.030050		.295 .005010	.
.533		.005010			.078104			.005010 .5		.240 .0050			.005010			.060083	.562			040060				.567		.050060			.005010 .582		.020040		.314 .060080	
		.070090			.015030			.050070 .5			.555		.005010			.040060	.562			. 080080			.015025			.020030			.100125 .582		.015030		.316 .005010	-
.533	.389	.020030	.540	.388	.000070	.547	.320	.030050 .5	57	.253 .0050	.555	.320	.080 000.	.560	.254	.100120	.562	.19	JO .	050070	.၁೮3	.359	.025040	.568	.109	.040060	.5/5	.320	.020040 .583	.259	.010 600.	.590	.317 .040090)U

									NO	100	LING CH	ARGE	FOR	ANY OF	THE	SIZES	LISTED						
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	O.D.	I.D.	Choose Any Thickness* From To	O.D.	I.D.	Choos Thickr
.590	.318	.030050	.593	.472	.005010	.599	.415	.005010	.601	.461	.005010	.610	.317	.010020	.615	.153	.020030	.618	.549	.005010	.621	.091	.005
.590	.324	.005010	.593	.478	.005015	.599	.476	.050070	.601	.480	.005010	.610	.321	.080100	.615	.212	.020030	.618	.551	.015025	.621	.125	.050
.590	.327	.050075	.593	.497	.005010	.599	.489	.005010	.602	.101	.080100	.610	.328	.050075	.615	.240	.005010	.618	.556	.005010	.621	.159	.030
.590	.329	.042062	.593	.518	.020030	.600	.041	.015025	.602	.180	.050080	.610	.335	.015030	.615	.267	.040060	.618	.560	.015025	.621	.161	.090
.590 .590	.331	.010020 .005010	.594 .594	.061	.015030	.600	.046	.005010	.602	.254	.005010	.610	.352	.020040	.615	.298	.020030	.619 .619	.125	.050070	.621 .621	.172	.005
.590	.339	.035060	.594	.283 .312	.005010 .010020	.600 .600	.066 .076	.020035	.602 .602	.255 .407	.040060 .025040	.610 .610	.365 .367	.010020 .020030	.615 .615	.321	.050070	.619	.171	.100125	.621	.182 .194	.105
.590	.340	.010050	.594	.315	.005010	.600	.077	.005010	.602	.486	.040060	.610	.375	.050060	.615	.322	.020040	.619	.238	.030050	.621	.253	.062
.590	.344	.032050	.594	.325	.005010	.600	.089	.020040	.603	.227	.030050	.610	.376	.060125	.615	.341	.050070	.619	.306	.025040	.621	.254	.010
.590	.345	.040060	.594	.358	.015025	.600	.118	.015030	.603	.479	.040060	.610	.380	.010020	.615	.352	.005012	.619	.324	.020030	.621	.283	.015
.590	.355	.005010		.375	.070090	.600	.119	.080100	.603	.498	.010020	.610	.395	.015030	.615	.359	.005010	.619	.326	.020040	.621	.288	.050
.590	.376	.020032	.594	.378	.005104	.600	.128	.032048	.603	.504	.010020	.610	.409	.005010	.615	.377	.070090	.619	.329	.070090	.621	.336	.050
.590 .590	.378 .379	.005010 .025040	.594 .594	.383 .405	.015030 .005010	.600	.138	.040105	.604	.252	.005010		.438	.050070	.615 .615	.386 .387	.060080	.619 .619	.353 .360	.050070	.621 .621	.363 .368	.050
.590	.386	.005010	.594	.423	.025040	.600 .600	.156 .157	.025040	.604 .604	.255 .307	.005010 .005010	.610 .610	.460 .461	.040060 .060075	.615	.395	.020040	.619	.377	.020035	.621	.376	.010
.590	.390	.032062	.594	.452	.040060	.600	.168	.070090	.604	.308	.010030	.610	.472	.050075	.615	.408	.090105	.619	.381	.105135	.621	.378	.010
.590	.396	.005012	.594	.506	.015025	.600	.176	.005010		.340	.040060	.610	.476	.040060	.615	.420	.010020	.619	.431	.005010	.621	.379	.025
.590	.397	.005050	.595	.144	.008016	.600	.200	.005010	.604	.347	.031042	.610	.550	.005010	.615	.441	.005010	.619	.440	.005040	.621	.380	.090
.590	.401	.005010	.595	.186	.070090	.600	.203	.020040	.604	.381	.025040	.611	.089	.040060	.615	.448	.030040	.619	.449	.030040	.621	.381	.005
.590	.410	.040060	.595	.193	.075090	.600	.203	.100120	.604	.384	.015030	.611	.192	.020030	.615	.460	.020040	.619	.460	.080100	.621	.410	.005
.590 .590	.426 .430	.070080 .005060	.595 .595	.195 .251	.010020 .010020	.600 .600	.207 .209	.015030	.604 .604	.407 .439	.005030 .030050	.611 .611	.243 .250	.062090 .062090	.615 .615	.478 .492	.030040 .020040	.619 .619	.481 .500	.005020	.621 .621	.437 .438	.025
.590	.439	.005010	.595	.253	.020030	.600	.210	.075090	.604	.502	.010020	.611	.259	.040060	.615	.510	.025040	.619	.508	.005010	.621	.442	.005
.590	.471	.015025	.595	.256	.015030	.600	.215	.005010	.604	.508	.015030	.611	.261	.005010	.615	.511	.005010	.619	.540	.005010	.621	.471	.008
.590	.480	.005020	.595	.320	.010020	.600	.217	.050075	.605	.163	.015030	.611	.265	.105125	.615	.520	.025035	.619	.549	.015020	.621	.500	.015
.590	.498	.025040	.595	.353	.025040	.600	.236	.005010	.605	.190	.020040	.611	.273	.005010	.615	.536	.010020	.620	.041	.040060	.621	.504	.020
.590	.523	.005008	.595	.359	.005010	.600	.237	.040060	.605	.313	.015030	.611	.278	.005010	.615	.537	.020040	.620	.076	.010020	.621	.505	.005
.591 .591	.079 .115	.020030 .020040	.595 .595	.413 .430	.050070 .040060	.600 .600	.241 .252	.005030	.605 .605	.317 .359	.075090 .025040	.611 .611	.315 .347	.050010 .005010	.615 .615	.540 .551	.010025 .030040	.620 .620	.126 .132	.015030	.621 .621	.506 .507	.040 .015
.591	.161	.050070	.595	.436	.005010	.600	.253	.005060	.605	.388	.070090	.611	.350	.030050	.616	.044	.015025	.620	.168	.050072	.621	.533	.015
.591	.200	.040060	.595	.437	.040060	.600	.254	.015030	.605	.416	.005010		.352	.005010	.616	.160	.015030	.620	.184	.050075	.622	.061	.005
.591	.216	.050070	.595	.495	.030050	.600	.255		.605	.453	.005060	.611	.379	.025040	.616	.167	.020032	.620	.191	.025040	.622	.147	.060
.591	.217	.015025	.595	.515	.005010	.600	.265	.010020	.605	.566		.611	.405	.060083	.616	.192	.070090	.620	.198	.050070	.622	.159	.048
.591 .591	.240 .277	.075090	.596	.099	.030050	.600	.266	.005010		.198	.040050	.611	.406	.080090	.616	.251	.005010	.620	.200 .201	.005010	.622	.166	.005
.591	.289	.005010	.596 .596	.129 .207	.025040 .050070	.600	.267 .269	.005010	.606 .606	.203 .285	.005010	.611 .611	.460 .480	.025040	.616 .616	.256 .259	.020032	.620 .620	.214	.030050	.622 .622	.174 .175	.008
.591	.296	.050070	.596	.401	.020040	.600	.270	.005010	.606	.312	.075100	.611	.515	.020040	.616	.268	.015030	.620	.250	.010035	.622	.180	.016
.591	.316	.010020	.596	.409	.010020	.600	.282	.005010	.606	.380		.612	.194	.100125	.616	.323	.010020	.620	.252	.020040	.622	.190	.020
.591	.318	.010020	.596	.443	.050075	.600	.285	.005010	.606	.389	.050075	.612	.198	.008020	.616	.328	.025040	.620	.254	.010020	.622	.191	.005
.591	.321	.015030	.596	.485	.005040	.600	.296	.015105		.400	.020030	.612	.214	.030050	.616	.377	.050090	.620	.255	.015020	.622	.196	.030
.591 .591	.324 .326	.040060 .005010	.596 .596	.503 .510	.020040 .025040	.600 .600	.300 .322	.005010	.606	.462 .480	.020040 .040060	.612 .612	.433 .440	.040060 .042062	.616 .616	.384 .386	.005010 .062083	.620 .620	.257 .260	.040060	.622 .622	.205 .206	.030
.591	.435	.050070	.597	.130	.005015	.600	.330	.080090	.606	.505	.015030	.612	.444	.010030	.616	.410	.005010	.620	.268	.005010	.622	.214	.015
.591	.440	.040050	.597	.251	.062078	.600	.346	.005010	.607	.247	.020040	.612	.467	.005010	.616	.412	.020040	.620	.279	.005010	.622	.220	.010
.591	.511	.010020	.597	.305	.025040	.600	.361	.015030	.607	.251	.030050	.612	.510	.040050	.616	.456	.040050	.620	.281	.040060	.622	.230	.060
.592	.147	.005010		.388	.005015	.600	.370	.040060	.607	.333	.005010	.612	.520	.005010	.616	.478	.030040	.620	.320	.105125	.622	.250	.005
.592 .592	.221 .236	.005010 .005010	.597	.406 .452	.025040	.600	.380	.015090	.607	.388	.080105	.613	.040	.020030	.616	.480 .505	.040060 .005010	.620 .620	.322 .334	.040060	.622 .622	.251 .258	.005
.592	.258	.030050	.597	.432	.016040 .015030		.383 .386	.010020 .010020		.461 .531	.005010 .005010		.278 .331	.050070 .050070	.616 .616	.524	.030040	.620	.346	.016025	.622	.261	.025
.592	.315	.010015		.512	.020030	.600	.401	.010020		.204	.010020		.350	.050070		.310	.005010	.620	.348	.050070	.622	.284	.010
.592	.317	.005010	.597	.513	.020030	.600	.406	.020030		.249	.030050		.377	.015030	.617	.318	.015025	.620	.350	.025062	.622	.300	.020
.592	.322	.005010		.159	.015030	.600	.408	.040060		.252	.015040		.391	.025040	.617	.351	.005010	.620	.370	.015025	.622	.302	.050
.592	.330	.040062	.598	.180	.005010	.600	.413	.010020		.253	.020040		.402	.005010	.617	.359	.025040	.620	.378	.020035	.622	.314	.075
.592 .592	.332 .389	.005010		.215 .264	.032062 .010020	.600 .600	.421 .434	.005010		.254	.020040		.451	.030050	.617 .617	.362 .385	.005010	.620 .620	.380 .381	.080100 .015025	.622 .622	.315 .317	.100
.592	.394	.040060	.598	.271	.025040		.438	.005010		.283 .293	.020040		.472 .521	.005010 .020042	.617	.448	.065080	.620	.384	.100125	.622	.320	.025
.592	.396	.040060	.598	.304	.025040	.600	.440	.010020		.350	.020032		.065	.005010	.617	.496	.010020	.620	.390	.100125	.622	.325	.007
.592	.397	.020040	.598	.313	.005020	.600	.442	.030050		.392	.030050		.094	.040060	.617	.514	.005010	.620	.394	.010020	.622	.343	.005
.592	.453	.020042	.598	.321	.010020	.600	.450	.040060	.608	.397	.005020	.614	.198	.050090	.617	.560	.005010	.620	.406	.005060	.622	.374	.005
.592	.472	.040060		.340	.005010	.600	.460	.030050		.505	.015030		.199	.060078	.618	.120	.015030	.620	.408	.030050	.622	.376	.015
.592	.497	.005010		.387	.025040	.600	.498	.005010		.509	.010025		.200	.060083	.618	.124	.040060	.620	.409	.030050	.622 .622	.377	.025
.593 .593	.082 .096	.032062 .005010	.598 .598	.412 .442	.031048 .025040	.600 .600	.503 .505	.005010		.518 .128	.020040 .030050		.207 .268	.020040 .005010	.618 .618	.164 .185	.030050 .040050	.620 .620	.410 .420	.080105	.622	.378 .384	.005
	.129	.005012		.494	.040060		.517	.005010		.274	.005010		.330	.015030	.618	.215	.005010	.620	.440	.025042	.622	.389	.060
.593	.190	.032060	.598	.504	.005010		.550	.005010		.297	.020032		.354	.050070	.618	.216	.010020	.620	.442	.032048	.622	.390	.005
.593	.195	.015030		.506	.040050	.601	.159	.080100	.609	.400	.040060	.614	.373	.050070	.618	.259	.040060	.620	.476	.005010	.622	.391	.050
.593	.196	.015040	.598	.511	.005015		.165	.005010		.487	.030060		.388	.015030	.618	.262	.005010	.620	.484	.020030	.622	.400	.010
.593	.261	.005010		.527	.005010		.227	.005030		.506	.020030		.402	.010020	.618	.364	.005078	.620	.490	.020040	.622	.407	.006
.593 .593	.265 .301	.025042 .050070		.128 .149	.060080 .025042		.228 .257	.005010 .030050		.546 .551	.015025 .015025		.434 .479	.030050 .005010	.618 .618	.381 .382	.040060	.620 .620	.500 .502	.005010	.622 .622	.409 .411	.005
.593	.311	.020050		.189	.010020		.313	.020040		.094	.060080		.482	.005010	.618	.393	.020040	.620	.503	.005016	.622	.438	.005
.593	.318	.005010	.599	.201	.075090	.601	.315	.040060		.100	.040060		.534	.005010	.618	.400	.080104	.620	.509	.010025	.622	.445	.015
.593	.392	.075095	.599	.254	.080090	.601	.357	.060080		.191	.040060		.540	.005010	.618	.435	.050075	.620	.511	.010020	.622	.450	.050
.593	.399	.010020	.599	.257	.050070	.601	.376	.005020		.204	.010030		.030	.005010	.618	.440	.005010	.620	.515	.005015	.622	.453	.005
.593	.407	.100120		.378	.030050	.601	.377	.010020		.206	.104125		.041	.015030	.618	.446	.005010	.620	.522	.015030	.622	.461	.005
.593	.410 437	.005010		.383	.030050		.378	.005010		.209	.104125		.099	.020030	.618	.475 500	.005010	.620	.530	.005010	.622	.488	.050
	.437	.005010		.400 .401	.035050 .005010		.391 .401	.025040		.248 .250	.020032 .020040		.110 .126	.020030 .020030	.618 .618	.500 .507	.005010	.620 .620	.532 .550	.005010 .005010	.622 .622	.500 .503	.010
.593 .593	453	.005 - 0101				.001	01	.5-0 .000	.010		.020040	.010	.120	.020000	.010	.001				.555 .010	.022		
.593 .593 .593	.453 .464	.005010 .015030		.408	.005060		.428	.010020	.610	.258	.040090	.615	.137	.025080	.618	.526	.032042	.621	.062	.030050	.622	.511	.005

O.D.	I.D.	Choose Any Thickness* From To															
.618	.549	.005010	.621	.091	.005010	.622	.532	.008015	.624	.380	.105125	.625	.281	.120134	.626	.113	.030050
.618	.551	.015025	.621	.125	.050070	.622	.533	.005015	.624	.392	.030050	.625	.283	.025060	.626	.129	.005130
.618	.556	.005010	.621	.159	.030042	.622	.534	.005010	.624	.398	.020040	.625	.284	.005040	.626	.133	.030060
.618	.560	.015025	.621	.161	.090120	.622	.540	.005010	.624	.399	.030050	.625	.290	.090100	.626	.156	.020035
.619	.125	.050070	.621	.172	.005010	.623	.030	.010020	.624	.403	.030050	.625	.293	.005040	.626	.193	.020075
.619	.158	.100125	.621	.182	.105125	.623	.062	.015030	.624	.415	.025050	.625	.298	.015030	.626	.198	.025040
.619	.171	.015075	.621	.194	.005010	.623	.094	.060075	.624	.425	.035050	.625	.299	.020050	.626	.202	.005010
.619	.238	.030050	.621	.253	.062080	.623	.100	.040060	.624	.438	.030050	.625	.301	.005010	.626	.204	.030156
.619	.306	.025040	.621	.254	.010020	.623	.126	.040050	.624	.440	.010020	.625	.302	.050070	.626	.207	.050070
.619	.324	.020030	.621	.283	.015025 .050075	.623	.136	.080104	.624	.442	.006012	.625	.311	.042062	.626	.217	.100125
.619 .619	.326 .329	.020040 .070090	.621 .621	.288 .336	.050073	.623 .623	.137	.030060 .030050	.624 .624	.445	.050070 .005015	.625	.312	.005125	.626 .626	.253	.060080
.619	.353	.050070	.621	.363	.050070	.623	.148 .156	.020035	.624	.448 .452	.003013	.625 .625	.314 .315	.005030 .025040	.626	.257	.015030
.619	.360	.005010	.621	.368	.030050	.623	.176	.050070	.624	.485	.040060	.625	.316	.040060	.626	.262	.100125
.619	.377	.020035	.621	.376	.010020	.623	.179	.050090	.624	.500	.005010	.625	.317	.060070	.626	.268	.020060
.619	.381	.105135	.621	.378	.010020	.623	.190	.010125	.624	.515	.020030	.625	.318	.005125	.626	.277	.020040
.619	.431	.005010	.621	.379	.025040	.623	.191	.030060	.624	.533	.005010	.625	.319	.020040	.626	.281	.005020
.619	.440	.005040	.621	.380	.090105	.623	.202	.050090	.624	.564	.005010	.625	.320	.010050	.626	.282	.020040
.619	.449	.030040	.621	.381	.005010	.623	.220	.050090	.625	.063	.005010	.625	.321	.015070	.626	.312	.035050
.619	.460	.080100	.621	.410	.005010	.623	.240	.050090	.625	.067	.008016	.625	.322	.045075	.626	.314	.005015
.619	.481	.005020	.621	.437	.025036	.623	.247	.020035	.625	.087	.005010	.625	.323	.060075	.626	.315	.040060 .010015
.619 .619	.500 .508	.005020 .005010	.621 .621	.438 .442	.032042 .005048	.623 .623	.250 .254	.005010	.625	.096	.005010	.625	.324	.005010	.626 .626	.317 .326	.020030
.619	.540	.005010	.621	.442 .471	.005046	.623	.265	.005075	.625 .625	.102 .115	.020040 .005010	.625 .625	.327 .328	.070080 .005125	.626	.339	.100125
.619	.549	.015020	.621	.500	.015025	.623	.268	.010015	.625	.113	.010020	.625	.329	.020030	.626	.344	.025040
.620	.041	.040060	.621	.504	.020030	.623	.281	.012075	.625	.128	.030062	.625	.330	.025040	.626	.377	.005010
.620	.076	.010020	.621	.505	.005030	.623	.304	.075105	.625	.129	.020040	.625	.331	.005010	.626	.379	.005010
.620	.126	.015030	.621	.506	.040060	.623	.317	.050075	.625	.130	.012020	.625	.336	.090120	.626	.381	.005010
.620	.132	.005010	.621	.507	.015030	.623	.320	.005030	.625	.136	.080104	.625	.343	.005134	.626	.386	.005075
.620	.168	.050072	.621	.533	.015030	.623	.326	.040060	.625	.139	.025105	.625	.348	.080104	.626	.392	.005010
.620	.184	.050075	.622	.061	.005010	.623	.328	.010025	.625	.145	.020032	.625	.349	.083104	.626	.394	.015030 .090105
.620 .620	.191 .198	.025040 .050070	.622 .622	.147 .159	.060080 .048075	.623 .623	.330 .375	.050090 .010020	.625 .625	.151 .157	.005010 .100125	.625 .625	.356	.042062	.626 .626	.408 .409	.020030
.620	.200	.005010	.622	.166	.005010	.623	.390	.050070	.625	.158	.005010	.625	.372 .375	.030050 .005120	.626	.422	.070090
.620	.201	.030050	.622	.174	.008016	.623	.404	.005010	.625	.160	.075104	.625	.376	.005010	.626	.442	.005025
.620	.214	.050070	.622	.175	.007015	.623	.405	.030050	.625	.166	.025042	.625	.377	.005010	.626	.445	.020040
.620	.250	.010035	.622	.180	.016025	.623	.424	.005010	.625	.171	.015125	.625	.378	.015080	.626	.468	.005010
.620	.252	.020040	.622	.190	.020040	.623	.460	.050075	.625	.187	.025050	.625	.379	.005010	.626	.470	.005010
.620	.254	.010020	.622	.191	.005010	.623	.465	.012020	.625	.188	.005010	.625	.380	.025060	.626	.478	.005010
.620	.255	.015020	.622	.196	.030048	.623	.474	.008016	.625	.189	.005060	.625	.381	.100125	.626	.495	.040060
.620	.257	.040060	.622	.205	.030050	.623	.492	.005010	.625	.190	.060090	.625	.382	.030120	.626	.499	.010020
.620 .620	.260 .268	.005010 .005010	.622 .622	.206	.030060 .015030	.623 .623	.500	.005012	.625	.191	.025042	.625	.385	.005010	.626 .626	.501 .504	.010020 .010020
.620	.279	.005010	.622	.214 .220	.010020	.623	.501 .504	.010020 .050062	.625 .625	.192 .193	.050070 .100125	.625 .625	.386 .390	.032048 .015062	.626	.505	.005010
.620	.281	.040060	.622	.230	.060090	.623	.505	.005010	.625	.195	.090125	.625	.392	.015062	.626	.507	.005030
.620	.320	.105125	.622	.250	.005015	.623	.515	.005010	.625	.196	.020040	.625	.393	.010020	.626	.510	.010025
.620	.322	.040060	.622	.251	.005010	.623	.531	.010020	.625	.200	.030040	.625	.394	.020040	.626	.528	.025040
.620	.334	.050070	.622	.258	.025040	.623	.532	.005010	.625	.201	.005010	.625	.396	.020030	.626	.564	.005010
.620	.346	.016025	.622	.261	.036050	.624	.087	.010020	.625	.202	.050075	.625	.397	.090120	.626	.566	.010020
.620	.348	.050070	.622	.284	.010042	.624	.094	.070090	.625	.205	.050090	.625	.398	.005010	.627	.036	.025035
.620	.350	.025062	.622	.300	.020040	.624	.108	.005010	.625	.207	.005015	.625	.399	.050075	.627	.058	.020032
.620	.370	.015025	.622	.302	.050070	.624	.109	.005010	.625	.208	.005010	.625	.400	.025040	.627	.125	.020040 .025040
.620 .620	.378 .380	.020035 .080100	.622 .622	.314	.075125 .100125	.624 .624	.128 .156	.025040 .050070	.625	.210	.100125	.625	.401	.070090	.627 .627	.129 .133	.040060
.620	.381	.015025	.622	.315 .317	.040060	.624	.168	.060080	.625 .625	.211 .220	.040060 .005010	.625 .625	.402 .406	.005015 .060075	.627	.166	.005010
.620	.384	.100125	.622	.320	.025070	.624	.173	.020050	.625	.222	.050070	.625	.415	.005012	.627	.196	.050070
.620	.390	.100125	.622	.325	.007025	.624	.177	.010020	.625	.223	.005010	.625	.425	.020035	.627	.198	.010025
.620	.394	.010020	.622	.343	.005010	.624	.178	.015030	.625	.225	.015020	.625	.437	.040060	.627	.236	.100125
.620	.406	.005060	.622	.374	.005010	.624	.196	.032042	.625	.226	.032042	.625	.440	.005105	.627	.248	.100125
.620	.408	.030050	.622	.376	.015025	.624	.204	.005010	.625	.230	.075090	.625	.441	.005010	.627	.253	.005010
.620	.409	.030050	.622	.377	.025105	.624	.220	.005010	.625	.231	.005010	.625	.442	.005010	.627	.265	.050070
.620	.410	.080105	.622	.378	.015030	.624	.249	.050070	.625	.236	.025042	.625	.445	.060075	.627	.266	.030050
.620 .620	.420 .440	.020060 .025042	.622	.384	.005010	.624	.250	.050075	.625	.238	.005072	.625	.449	.070090	.627	.280	.100125 .100120
.620	.442	.032042	.622 .622	.389	.060075	.624	.253	.100125	.625	.239	.070090	.625	.453	.020030	.627 .627	.281 .283	.030048
.620	.476	.005010	.622	.390	.005010 .050105	.624 .624	.254 .255	.005010	.625 .625	.240 .251	.050070 .005042	.625 .625	.455 .456	.020030 .030070	.627	.285	.042062
.620	.484	.020030	.622	.400	.010020	.624	.264	.050070	.625	.252	.036105	.625	.457	.030070	.627	.313	.090120
.620	.490	.020040	.622	.407	.006016	.624	.298	.050075	.625	.253	.005042	.625	.458	.010020	.627	.314	.015030
.620	.500	.005010	.622	.409	.005015	.624	.312	.005010	.625	.255	.075104	.625	.476	.040060	.627	.323	.105125
.620	.502	.005010	.622	.411	.025040	.624	.313	.025045	.625	.259	.125156	.625	.479	.010050	.627	.334	.100125
.620	.503	.005025	.622	.438	.005010	.624	.315	.100125	.625	.260	.005010	.625	.485	.005008	.627	.335	.100125
.620	.509	.010025	.622	.445	.015030	.624	.324	.030042	.625	.261	.030075	.625	.500	.032060	.627	.344	.050125
.620	.511	.010020	.622	.450	.050070	.624	.328	.050070	.625	.264	.005015	.625	.501	.020030	.627	.349	.080104
.620 .620	.515 .522	.005015 .015030	.622 .622	.453 .461	.005010 .005010	.624 .624	.330	.060090 .030050	.625 .625	.265	.040050	.625 .625	.506	.030050	.627 .627	.375 .376	.005010 .080104
.620	.530	.005010	.622	.488	.050070	.624	.334	.010020	.625	.266 .268	.015100 .015104	.625	.520 .532	.040050 .020030	.627	.378	.030050
.620	.532	.005010	.622	.500	.010020	.624	.343	.105125	.625	.271	.015104	.625	.570	.020030	.627	.379	.030050
.620	.550	.005010	.622	.503	.005030	.624	.376	.080125	.625	.273	.060070	.626	.096	.015025	.627	.380	.050070
.621	.062	.030050	.622	.511	.005010	.624	.378	.005010	.625	.279	.060080	.626	.100	.015030	.627	.385	.083120
.621	.075	.005010	.622	.531	.010020	.624	.379	.080100	.625	.280	.030060	.626	.104	.005010	.627	.389	.005010

									NO	100	LING CH	ARGE	: FOH	ANY OF	THE	SIZE	SLISTEL
O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness* From To												
.627	.392	.005010	.630	.326	.060080	.634	.194	.015025	.640	.576	.020030	.648	.551	.005010	.652	.510	.010020
.627	.406	.050090	.630	.330	.010020	.634	.330	.005010	.640	.579	.005010	.649	.126	.020050	.653	.154	.040062
.627	.442	.005010	.630	.331	.050125	.634	.354	.010030	.641	.125	.005010	.649	.201	.090100	.653	.238	.040062
.627	.475	.020030	.630	.336	.005010	.634	.394	.005010	.641	.243	.020090	.649	.203	.025040	.653	.276	.005010
.627 .627	.486 .505	.012025	.630	.346	.040060	.634	.459	.020030	.641	.265	.005060	.649	.250	.005010	.653 .653	.316 .317	.010020
.627	.510	.005040	.630 .630	.354 .363	.005070 .070090	.634 .634	.477 .478	.008016 .005010	.641 .641	.308 .320	.005010 .010025	.649 .649	.266 .281	.125135	.653	.376	.010020
.627	.527	.005010	.630	.368	.050075	.634	.512	.010020	.641	.332	.015030	.649	.286	.070090	.653	.392	.050090
.627	.547	.007012	.630	.384	.005040	.635	.167	.015035	.641	.368	.020040	.649	.338	.030050	.653	.414	.050070
.628	.096	.030050	.630	.387	.010020	.635	.179	.010015	.641	.470	.010020	.649	.387	.005010	.653	.442	.005010
.628	.125	.005010	.630	.394	.060070	.635	.200	.025040	.641	.475	.005010	.649	.452	.005010	.653	.542	.005010
.628	.166	.050070	.630	.395	.005020	.635	.204	.010020	.641	.501	.031048	.649	.522	.005010	.654	.142	.040060
.628 .628	.191 .198	.040060	.630 .630	.397 .400	.005090 .025090	.635 .635	.312 .356	.035050 .010020	.641 .641	.522 .533	.020030 .030060	.649 .649	.562 .583	.005010 .005010	.654 .654	.267 .270	.030050 .005010
.628	.201	.040060	.630	.401	.015030	.635	.375	.032042	.642	.153	.030050	.650	.056	.005010	.654	.276	.010020
.628	.208	.020040	.630	.403	.005010	.635	.376	.005010	.642	.254	.015030	.650	.062	.020040	.654	.363	.050075
.628	.232	.030050	.630	.404	.005010	.635	.410	.005010	.642	.411	.005010	.650	.076	.005010	.654	.389	.015040
.628	.238	.050070	.630	.415	.080105	.635	.443	.020030	.642	.449	.005010	.650	.118	.010030	.654	.480	.010020
.628	.261	.040060	.630	.417	.050070	.635	.470	.030042	.642	.477	.070090	.650	.161	.005015	.654	.510	.025040
.628 .628	.271 .287	.005010	.630 .630	.427 .440	.005010	.635 .636	.531 .179	.025040	.642 .642	.482 .536	.020040	.650 .650	.162 .212	.040060	.654 .654	.564 .574	.005012
.628	.331	.105120	.630	.443	.070090	.636	.212	.005010	.643	.169	.007012	.650	.236	.005010	.655	.124	.015030
.628	.375	.060083	.630	.461	.015030	.636	.275	.005010	.643	.174	.005010	.650	.250	.020030	.655	.125	.040060
.628	.477	.005010	.630	.475	.010020	.636	.381	.015030	.643	.256	.010020	.650	.255	.020040	.655	.142	.015030
.628	.483	.030050	.630	.478	.010020	.636	.384	.005010	.643	.322	.015030	.650	.260	.042060	.655	.167	.030050
.628	.510	.010020	.630	.479	.040050	.636	.393	.020030	.643	.370	.005010	.650	.260	.130150	.655	.191	.010020
.628 .628	.511 .555	.040060 .020030	.630 .630	.499 .500	.005010 .015030	.636 .636	.410	.005015 .015030	.643 .643	.502 .503	.005010 .015030	.650	.290	.015030 .075090	.655 .655	.223 .256	.080100 .020040
.629	.095	.062078	.630	.502	.015030	.636	.454 .565	.015030	.643	.530	.015030	.650 .650	.311 .312	.075090	.655	.230	.020040
.629	.149	.015030	.630	.518	.010020	.637	.244	.020040	.644	.171	.005010	.650	.315	.010020	.655	.378	.030090
.629	.177	.005010	.630	.534	.005010	.637	.356	.005010	.644	.257	.050070	.650	.316	.005010	.655	.379	.010020
.629	.226	.005010	.630	.554	.005010	.637	.381	.025040	.644	.316	.020035	.650	.317	.005010	.655	.381	.020030
.629	.290	.050083	.630	.558	.005020	.637	.399	.105125	.644	.346	.015030	.650	.319	.005010	.655	.419	.005010
.629 .629	.292 .316	.042060	.631 .631	.150 .154	.040060 .050070	.637 .637	.425 .520	.012020 .005010	.644 .644	.396 .454	.025040 .025040	.650	.325	.050075	.655 .655	.421 .465	.050070 .005010
.629	.319	.005010	.631	.238	.005010	.638	.156	.032048	.644	.477	.020030	.650 .650	.326 .357	.005010	.655	.488	.005010
.629	.344	.005010	.631	.240	.010020	.638	.263	.040060	.644	.503	.020040	.650	.374	.015030	.655	.512	.015025
.629	.351	.090110	.631	.315	.015030	.638	.338	.020040	.644	.531	.030050	.650	.377	.005030	.655	.525	.040060
.629	.356	.010020	.631	.316	.005010	.638	.401	.005010	.645	.152	.030050	.650	.380	.050070	.655	.528	.005010
.629	.391	.030050	.631	.318	.005010	.638	.401	.015030	.645	.170	.035050	.650	.388	.070090	.655	.530	.005010
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.629	.427	.005010	.631	.374	.105125	.639	.199	.060080	.645	.316 .347	.020032 .025040	.650	.404 .410	.080090	.656	.195	.050075
.629	.472	.030080	.631	.378	.060080	.639	.322	.005010	.645	.393	.050062	.650	.424	.005010	.656	.196	.020040
.629	.473	.005020	.631	.386	.060080	.639	.325	.010020	.645	.434	.032048	.650	.469	.050070	.656	.258	.030050
.629	.507	.005030	.631	.387	.010020	.639	.394	.020040	.645	.441	.060080	.650	.500	.005010	.656	.267	.050075
.629 .629	.512	.015030	.631	.396	.005010	.639	.415	.025040	.645	.470	.005010	.650	.503	.015030	.656	.278 .290	.005010
.630	.517 .052	.005010	.631 .631	.399 .403	.010020 .060080	.639 .639	.438 .439	.030050 .040050	.645 .645	.510 .518	.005010 .040060	.650 .650	.505 .507	.020030 .010020	.656 .656	.320	.025040
.630	.128	.005010	.631	.411	.020030	.639	.453	.005010	.645	.579	.005010	.650	.534	.010020	.656	.341	.030050
.630	.138	.030060	.631	.437	.005010	.639	.524	.025035	.646	.204	.060070	.650	.553	.010020	.656	.345	.005010
.630	.140	.020040	.631	.452	.060080	.639	.550	.005010	.646	.210	.060110	.650	.562	.005010	.656	.377	.015030
.630	.141	.100120	.631	.521	.040060	.639	.576	.015030	.646	.255	.020030	.651	.147	.042060	.656	.387	.030050
.630	.158	.050060	.632	.160	.030040	.640	.036	.015030	.646	.257	.005010	.651	.160	.020030	.656	.397	.015025
.630 .630	.163 .174	.050060 .050075	.632 .632	.239 .253	.005010	.640 .640	.073 .168	.025040	.646 .646	.273 .316	.020035 .005012	.651 .651	.229 .315	.005010	.656 .656	.404 .406	.080104 .090125
.630	.177	.030050	.632	.261	.020040	.640	.175	.025040	.646	.344	.020030	.651	.374	.010020	.656	.453	.005040
.630	.188	.090105	.632	.285	.005010	.640	.186	.030050	.646	.393	.090105	.651	.377	.030050	.656	.458	.040060
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.630	.209	.105125	.632	.320	.005010	.640	.256	.005010	.646	.447	.005010	.651	.380	.015030	.656	.470	.035050
.630	.214	.065080	.632	.357	.005010	.640	.299	.005010	.646	.539	.005010	.651	.394	.005010	.656	.489	.005010
.630 .630	.236 .237	.005025 .005020	.632 .632	.359 .387	.025040 .020060	.640 .640	.334 .342	.005010 .040060	.647 .647	.131 .191	.005010 .030050	.651 .651	.398 .450	.005010 .010020	.656 .656	.500 .503	.030050 .010020
.630	.238	.005020	.632	.426	.070090	.640	.361	.030050	.647	.283	.030050	.651	.460	.010020	.656	.510	.005010
.630	.239	.005010	.632	.475	.040060	.640	.377	.030040	.647	.355	.010020	.651	.465	.010020	.656	.511	.005030
.630	.241	.050060	.632	.480	.005072	.640	.390	.050075	.647	.381	.105125	.651	.485	.040060	.656	.515	.015030
.630	.243	.005010	.632	.547	.010020	.640	.400	.005010	.647	.407	.030050	.651	.505	.005010	.656	.528	.015030
630 630	.247	.030050	.633	.119	.005010	.640	.406	.005010	.647	.472	.015030	.651	.551	.005030	.656	.563	.020040
.630 .630	.254 .275	.025040 .005125	.633 .633	.172 .256	.015035 .060080	.640 .640	.429 .441	.012020 .010020	.647 .648	.492 .093	.005010 .005010	.652	.096	.062078 .062090	.656 .657	.565 .216	.010020 .060080
.630	.279	.005010	.633	.267	.032050	.640	.443	.025040	.648	.144	.020040	.652 .652	.118 .193	.030050	.657	.250	.080105
.630	.280	.005015	.633	.282	.080100	.640	.444	.015030	.648	.202	.008015	.652	.258	.060080	.657	.255	.015030
.630	.282	.050070	.633	.346	.060080	.640	.446	.015030	.648	.209	.015030	.652	.376	.005010	.657	.330	.075100
.630	.283	.105125	.633	.377	.075090	.640	.451	.080090	.648	.250	.050070	.652	.400	.010020	.657	.338	.105125
.630	.315	.005010	.633	.439	.030050	.640	.460	.050060	.648	.266	.005010	.652	.406	.015030	.657	.363	.005010
.630 .630	.316 .317	.005090 .010020	.633 .633	.472 .501	.010020 .030050	.640 640	.485 480	.020040 .040060	.648	.298	.050075	.652	.412	.005010	.657 .657	.375 .413	.005010 .005010
.UUU		.010020	.633	.551	.030030	.640 .640	.489 .501	.040060	.648 .648	.382 .490	.005012 .010020	.652 .652	.435 .439	.005010 .020040	.657	.413 .417	.005010
.630	.319				000					. 100							
.630 .630	.319 .320	.005010	.634	.116	.032042	.640	.508	.015030	.648	.493	.015030	.652	.453	.005010	.657	.530	.020040

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O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*
		From To	0.5.		From To	0.5.		From To	0.5.		From To	0.5.		From To			From To
.657	.538	.040060	.665	.434	.040060	.670	.330	.050075	.675	.224	.005010	.680	.283	.080105	.684	.593	.030040
.657	.613	.016025	.665	.515	.025040	.670	.331	.005010	.675	.280	.060090	.680	.300	.032050	.684	.613	.015030
.658	.255	.010020	.665	.550	.005012	.670	.350	.020100	.675	.284	.032050	.680	.316	.048062	.685	.143	.040060
.658	.314	.030050	.665	.569	.020040	.670	.354	.105125	.675	.301	.050105	.680	.317	.030040	.685	.158	.060083
.658	.375	.010020	.665	.576	.030048	.670	.355	.005010	.675	.375	.010020	.680	.325	.005050	.685	.225	.005010
.658	.385	.050060	.666	.143	.015030	.670	.360	.040050	.675	.386	.040060	.680	.326	.070090	.685	.233	.010020
.658	.437	.005012	.666	.168	.075090	.670	.365	.060080	.675	.400	.010040	.680	.330	.015030	.685	.254	.010075
.658	.478	.015025	.666	.196	.020040	.670	.378	.060080	.675	.416	.015030	.680	.369	.050075	.685	.263	.010015
.658	.479	.030042	.666	.256	.075090	.670	.382	.030060	.675	.435	.070090	.680	.375	.040060	.685	.264	.005010
.658	.511	.030070	.666	.267	.040062	.670	.385	.010020	.675	.440	.005010	.680	.422	.005015	.685	.269	.050070
.658	.572	.005010	.666	.430	.020030	.670	.398	.040060	.675	.442	.005010	.680	.442	.040060	.685	.325	.090120
.659	.125	.015025	.666	.453	.015025	.670	.401	.015030	.675	.447	.080100	.680	.445	.005010	.685	.344	.040060
.659	.256	.100120	.666	.475	.020040	.670	.406	.005010	.675	.458	.005040	.680	.447	.010020	.685	.346	.070105
.659	.265	.020035	.666	.478	.030050	.670	.421	.005010	.675	.460	.010020	.680	.470	.005010	.685	.366	.105125
.659	.288	.050070	.666	.537	.005010	.670	.439	.005010	.675	.480	.005060	.680	.476	.030050	.685	.371	.100125
.659	.299	.050070	.666	.564	.010020	.670	.474	.070090	.675	.500	.040060	.680	.485	.050060	.685	.375	.032062
.659	.313	.020040	.666	.579	.005010	.670	.476	.005020	.675	.504	.005010	.680	.500	.032050	.685	.376	.100125
.659	.335	.060075	.667	.213	.012020	.670	.480	.010020	.675	.515	.025048	.680	.504	.020040	.685	.378	.080100
.659	.381	.090100	.667	.270	.025040	.670	.481	.040060	.675	.582	.005010	.680	.514	.020060	.685	.379	.010048
.659	.501	.015030	.667	.275	.025042	.670	.490	.005010	.676	.225	.040060	.680	.524	.030050	.685	.380	.025060
.660	.125	.020030	.667	.319	.042062	.670	.495	.040062	.676	.288	.010025	.680	.540	.005010	.685	.391	.090110
.660	.213	.070090	.667	.336	.005010	.670	.503	.020040	.676	.306	.050070	.680	.559	.005010	.685	.392	.090110
.660	.225	.040060	.667	.347	.015030	.670	.520	.020040	.676	.370	.070080	.680	.564	.030050	.685	.400	.105125
.660	.251	.005010	.667	.496	.005010	.670	.545	.005010	.676	.440	.005010	.680	.565	.005050	.685	.410	.060078
.660	.261	.005010	.667	.595	.005010	.670	.566	.015030	.676	.500	.025042	.680	.597	.005010	.685	.423	.100125
.660	.268	.050072	.668	.218	.060080	.670	.574	.030050	.676	.515	.020030	.681	.190	.030050	.685	.427	.032042
.660	.313	.020030	.668	.316	.005010	.671	.200	.025042	.676	.565	.020040	.681	.251	.050070	.685	.441	.005010
.660	.314	.005010	.668	.317	.005010	.671	.239	.005010	.676	.571	.015030	.681	.264	.030050	.685	.450	.008020
.660	.345	.015030	.668	.333	.005010	.671	.264	.005010	.677	.168	.020030	.681	.391	.005010	.685	.470	.050070
.660	.350	.050070	.668	.333	.050075	.671	.311	.078090	.677	.316	.040060	.681	.395	.005050	.685	.473	.060080
.660	.366	.020030	.668	.340	.035050	.671	.315	.005010	.677	.382	.005010	.681	.401	.020040	.685	.475	.020040
.660	.378	.020030	.668	.348	.010015	.671	.316	.015030	.677	.387	.005010	.681	.440	.005010	.685	.478	.015030
.660	.390	.040060	.668	.406	.040060	.671	.319	.005010	.677	.392	.120140	.681	.503	.015030	.685	.487	.020030
.660	.401	.020030	.668	.435	.020030	.671	.322	.005010	.677	.441	.060080	.681	.515	.005010	.685	.520	.010020
.660	.409	.040060	.668	.472	.010020	.671	.325	.015030	.677	.458	.025040	.681	.590	.010020	.685	.533	.060083
.660	.437	.005020	.668	.498	.020040	.671	.333	.010020	.677	.468	.010020	.682	.129	.015025	.685	.568	.030050
.660	.472	.005010	.669	.031	.005010	.671	.345	.020040	.677	.476	.040060	.682	.333	.070090	.685	.609	.010030
.660	.503	.040060	.669	.114	.005010	.671	.385	.070090	.677	.523	.005010	.682	.351	.050070	.686	.066	.036050
.660	.507	.005010	.669	.138	.005010	.671	.386	.100125	.677	.525	.005010	.682	.365	.005010	.686	.094	.005010
.660	.512	.005010	.669	.163	.005010	.671	.391	.005075	.677	.534	.005010	.682	.395	.005010	.686	.135	.030050
.660	.563	.005010	.669	.200	.005010	.671	.395	.020030	.677	.534	.015030	.682	.400	.032048	.686	.136	.040060
.660	.577	.020030	.669	.204	.020060	.671	.422	.020040	.678	.193	.060090	.682	.439	.025040	.686	.147	.015025
.661	.241	.005010	.669	.237	.005010	.671	.474	.005010	.678	.256	.035060	.682	.440	.020030	.686	.159	.080100
.661	.270	.060080	.669	.316	.005010	.671	.507	.008015	.678	.384	.020032	.682	.472	.062078	.686	.161	.005010
.661	.336	.020040	.669	.317	.075105	.671	.568	.010020	.678	.406	.010040	.682	.486	.002010	.686	.167	.040135
.661	.341	.005010	.669	.319	.005020	.672	.128	.100125	.678	.440	.005010	.682	.503	.005010	.686	.198	.042060
.661	.403	.040060	.669	.320	.010040	.672	.325	.015030	.678	.442	.012020	.682	.578	.015030	.686	.202	.100125
.661	.487	.040060	.669	.331	.050070	.672	.326	.080125	.678	.449	.040060	.682		.020030	.686	.252	.040060
.661	.529	.015025	.669	.338	.080070	.672	.346	.005010	.678	.504	.015030	.683	.601 .121	.050030	.686	.253	.042062
.661	.531	.010020	.669	.397	.005010	.672	.362	.005010		.507	.005010				.686	.269	.050072
.661	.551	.005010	.669	.427					.678			.683	.172	.010025	.686	.270	.005010
.661	.583	.005010			.030050	.672	.375	.005010 .110130	.678	.529	.005007	.683	.345	.070090		.313	.100120
.662	.201	.050070	.669 .669	.430	.010020 .070090	.672 .672	.405 407		.678	.530	.015030	.683	.376	.005010	.686 .686	.345	.060080
.662	.219	.050070		.434 472			.407 .415	.010020	.678	.564	.035050	.683	.378	.015030	.686	.346	.025035
.662	.324	.010020	.669 .669	.472 487	.030050	.672	.415	.005010	.678	.568	.010020	.683	.379	.040060	.686	.360	.025035
.662	.324	.020040	.669	.487	.006015	.672	.442	.030040	.678	.591	.005010	.683	.396	.070090	.686	.377	.060080
.662	.393	.040060		.515	.005010	.672	.445		.678	.593	.005010	.683	.400	.032042		.377	.025040
.662	.432	.060080	.669	.543	.015030	.672	.490	.050070	.678	.606	.005010	.683	.406	.040105	.686		.025040
			.669 669	.550	.015030	.672	.531	.030040	.679	.111	.048062	.683	.440	.015030	.686	.381	
.662	.461 477	.030050	.669 670	.552	.005010 .060080	.673	.098	.020040	.679	.206	.035060	.683	.478	.025035	.686	.385 390	.048062 .048062
.662	.477	.010020	.670	.121		.673	.283	.005010	.679	.221	.010015	.683	.488	.080104	.686	.390	.048062
.662 .662	.487 .553	.060070 .010020	.670 .670	.123	.005010	.673	.408	.005010	.679	.395	.030050	.683	.505	.050070	.686	.392 .395	
.663				.130	.005010 .040060	.673	.412	.100134	.679	.396	.015030	.683	.510	.030062	.686	.395	.010020 .005010
	.140 457	.005010 .050070	.670 670	.168		.673	.437	.010025	.679	.403	.050075	.683	.512	.005010	.686		.050070
.663	.457 504		.670	.169	.040060	.673	.446	.005010	.679	.409	.040050	.683	.570	.040050	.686	.407	
.663	.504 .556	.005010 .010020	.670	.178	.030040	.673	.473	.010025	.679	.411	.005010	.683	.575	.040060	.686 .686	.421	.005010
			.670	.190	.015032	.673	.500	.020036	.679	.441	.030050	.683	.579	.015025			
.663	.560	.010020	.670	.208	.005010	.673	.537	.005010	.679	.451	.005010	.684	.234	.062078	.686	.438	.050075
.664	.256	.100125	.670	.234	.005010	.674	.095	.010020	.679	.457	.030060	.684	.247	.050075	.686	.483	.050075
.664	.259	.005125	.670	.237	.005010	.674	.377	.025040	.679	.482	.015062	.684	.279	.005010	.686	.500	.030070
.664	.413	.030050	.670	.239	.005010	.674	.391	.005010	.679	.500	.005010	.684	.303	.005010	.686	.502	.025042
.664	.503	.025050	.670	.240	.005010	.674	.395	.005010	.679	.501	.015030	.684	.323	.020040	.686	.512	.005010
.664	.541	.040060	.670	.245	.020030	.674	.441	.005080	.679	.509	.005010	.684	.399	.005010	.686	.520	.015030
.664	.585	.015030	.670	.253	.005010	.674	.450	.040060	.680	.163	.005010	.684	.400	.015030	.686	.528	.005010
.665	.173	.050075	.670	.257	.040125	.674	.473	.025040	.680	.200	.032050	.684	.412	.100125	.686	.625	.015030
.665	.249	.030050	.670	.260	.020030	.674	.480	.070090	.680	.204	.090110	.684	.443	.005012	.687	.102	.005010
	.251	.075090	.670	.280	.010020	.674	.504	.075090	.680	.239	.005010	.684	.466	.090100	.687	.119	.015030
.665		.050130	.670	.300	.005010	.674	.536	.040060	.680	.253	.005030	.684	.510	.050070	.687	.187	.030050
.665 .665	.334	400				.674	.562	.020030	.680	.256	.040060	.684	.542	.035050	.687	.189	.010060
.665 .665 .665	.374	.120140	.670	.315	.005010							001	F00	005 015			
.665 .665		.120140 .040060 .070090	.670 .670 .670	.315 .317 .319	.005010	.675 .675	.095	.005010 .020040	.680	.262 .270	.005010 .015035	.684 .684	.568 .581	.025045 .015025	.687 .687	.191 .194	.005010 .125156

27

									NO	100	LING CH	ARGE	FOR	ANY OF	THE	SIZES	LISTED
O.D.	I.D.	Choose Any Thickness*															
		From To															
.687 .687	.198 .199	.090105 .015020	.688 .688	.378 .381	.050075 .005010	.690 .690	.566 .569	.030050 .010020	.699	.380	.005010	.700	.533	.030050	.705 .705	.098 .248	.005010
.687	.200	.032042	.688	.384	.050070	.690	.575	.010020	.699 .699	.483 .500	.005020 .010020	.700 .700	.535 .550	.040050 .005010	.705	.253	.050072
.687	.219	.036050	.688	.386	.050070	.690	.615	.020030	.699	.502	.005010	.700	.555	.015030	.705	.265	.020040
.687	.221	.020062	.688	.391	.105125	.690	.625	.010020	.699	.503	.070090	.700	.560	.005030	.705	.274	.005010
.687	.234	.005010	.688	.393	.075090	.690	.639	.005010	.699	.505	.010020	.700	.564	.025072	.705	.311	.005010
.687	.237	.005010	.688	.407	.005010	.691	.163	.025040	.699	.514	.060080	.700	.565	.010060	.705	.312	.005010
.687 .687	.257 .259	.080090 .005010	.688 .688	.452 .464	.030050 .080100	.691 .691	.189 .192	.050070 .020040	.699 .700	.562 .076	.040060 .010020	.700 .700	.566 .578	.015032 .005010	.705 .705	.317 .361	.005010
.687	.267	.030048	.688	.468	.020040	.691	.194	.015030	.700	.077	.010020	.700	.585	.005010	.705	.383	.010020
.687	.296	.050075	.688	.469	.015030	.691	.203	.005010	.700	.093	.005010	.700	.600	.010020	.705	.438	.005010
.687	.306	.040060	.688	.505	.060080	.691	.238	.030050	.700	.096	.050062	.700	.608	.005010	.705	.516	.025040
.687	.312	.120156	.688	.513	.050075	.691	.258	.060080	.700	.120	.070090	.700	.610	.015030	.705	.531	.005010
.687 .687	.316 .323	.036048 .048062	.688 .688	.518 .538	.005010 .015040	.691 .691	.475 .485	.030060 .005010	.700 .700	.129 .138	.005010 .010020	.700 .700	.615 .631	.005010	.705 .705	.550 .570	.030050
.687	.328	.005012	.688	.563	.005010	.691	.511	.020030	.700	.159	.040060	.700	.651	.005010	.705	.634	.015025
.687	.330	.050075	.688	.615	.015030	.691	.515	.015030	.700	.164	.010020	.701	.130	.060080	.706	.254	.030050
.687	.339	.050070	.689	.156	.040060	.691	.598	.005010	.700	.168	.050070	.701	.153	.048090	.706	.347	.005010
.687	.343	.005010	.689	.162	.100120	.692	.286	.042062	.700	.169	.040060	.701	.168	.005010	.706	.390	.005010
.687 .687	.350	.050075 .025048	.689 .689	.222	.090120	.692 .692	.406 .519	.020040	.700	.176	.005010	.701	.193	.040060	.706 .706	.395	.062083
.687	.371	.100125	.689	.273	.005010	.692	.603	.015030	.700 .700	.193 .210	.005010 .050070	.701 .701	.204 .224	.050070 .040060	.706	.402	.005010
.687	.376	.010020	.689	.281	.050070	.693	.119	.005012	.700	.221	.020040	.701	.241	.050070	.706	.420	.005010
.687	.378	.010020	.689	.313	.020040	.693	.236	.005010	.700	.221	.075090	.701	.257	.050100	.706	.434	.025040
.687	.379	.005010	.689	.319	.025040	.693	.320	.005010	.700	.250	.070090	.701	.259	.005010	.706	.453	.032042
.687	.380	.025040	.689	.320	.005010	.693	.396	.050075	.700	.252	.010020	.701	.285	.005010	.706	.478	.040060
.687 .687	.384 .385	.010040 .005010	.689 .689	.325 .345	.040060 .040060	.693 .693	.410 .438	.025040 .020030	.700 .700	.253 .256	.005010 .040060	.701 .701	.321 .410	.125135	.706 .706	.500 .505	.075100
.687	.386	.070090	.689	.375	.010020	.693	.443	.005010	.700	.272	.060080	.701	.419	.050070	.707	.315	.100125
.687	.393	.005015	.689	.377	.050070	.693	.539	.050070	.700	.291	.005010	.701	.425	.050070	.707	.316	.005125
.687	.397	.050075	.689	.398	.005010	.694	.200	.080100	.700	.313	.010020	.701	.438	.040060	.707	.320	.005010
.687	.406	.040050	.689	.401	.015030	.694	.275	.020040	.700	.317	.005020	.701	.500	.010060	.707	.335	.020040
.687 .687	.416 .432	.050060 .050070	.689 .689	.402 .408	.032048 .100125	.694 .694	.370 .379	.010020 .060070	.700 .700	.320 .327	.005010 .015020	.701 .701	.521	.080100	.707 .707	.436 .472	.005010
.687	.433	.050125	.689	.435	.005010	.694	.478	.060070	.700	.328	.010025	.701	.549 .561	.020030 .010020	.707	.480	.005010
.687	.438	.005020	.689	.437	.005010	.694	.484	.050070	.700	.330	.100125	.701	.614	.015030	.708	.120	.072120
.687	.441	.020070	.689	.468	.015125	.695	.195	.015025	.700	.337	.050070	.702	.255	.005010	.708	.136	.040060
.687	.443	.030125	.689	.471	.005010	.695	.196	.032062	.700	.344	.007020	.702	.261	.100120	.708	.170	.040060
.687 .687	.445 .452	.012020 .010020	.689 .689	.472 .493	.030050 .040060	.695 .695	.264	.005012	.700	.356	.005010	.702	.312	.010020	.708 .708	.218 .236	.005030
.687	.455	.050100	.689	.493	.050075	.695	.265 .282	.005010	.700 .700	.357 .358	.010020	.702 .702	.319	.020030	.708	.238	.005010
.687	.465	.080100	.689	.500	.005010	.695	.335	.025040	.700	.360	.030050	.702	.327	.105125	.708	.239	.030050
.687	.468	.040060	.689	.517	.030050	.695	.353	.010020	.700	.366	.090105	.702	.401	.025040	.708	.253	.040060
.687	.469	.050080	.689	.564	.010030	.695	.412	.080104	.700	.376	.010020	.702	.437	.090105	.708	.257	.050070
.687	.475	.015030	.689	.565	.010020	.695	.414	.012025	.700	.377	.020040	.702	.487	.050070	.708	.271	.105120
.687 .687	.481 .487	.050070 .025040	.689 .690	.577 .076	.030050 .010020	.695 .695	.486 .505	.060070 .050070	.700 .700	.378 .380	.005030 .040060	.702 .702	.504 .505	.012025	.708 .708	.279 .293	.060080
.687	.500	.010050	.690	.149	.050060	.695	.518	.030040	.700	.381	.005010	.702	.516	.050075	.708	.305	.005010
.687	.503	.005010	.690	.157	.005010	.695	.520	.005010	.700	.383	.040060	.702	.561	.015030	.708	.315	.005010
.687	.506	.005010	.690	.167	.005010	.695	.557	.005010	.700	.385	.090105	.702	.595	.025040	.708	.319	.005070
.687	.510	.050060	.690	.173	.050070	.695	.558	.015030	.700	.392	.010020	.702	.635	.010020	.708	.322	.005010
.687 .687	.511 .513	.020040 .042062	.690 .690	.188 .190	.040060 .010020	.695 .696	.626 .037	.015025 .007015	.700 .700	.394 .397	.135156 .005010	.703 .703	.119 .206	.030050 .025040	.708 .708	.335 .338	.020030 .005010
.687	.517	.030048	.690	.192	.060080	.696	.147	.005015	.700	.405	.120134	.703	.263	.025040	.708	.339	.040060
.687	.564	.005010	.690	.202	.030050	.696	.156	.005010	.700	.406	.050150	.703	.409	.010020	.708	.341	.005010
.687	.566	.005015	.690	.206	.050075	.696	.166	.062090	.700	.411	.005060	.703	.442	.005020	.708	.347	.005010
.687	.603	.005010	.690	.220	.020032	.696	.178	.062078	.700	.417	.005020	.703	.480	.030050	.708	.354	.050060
.688 .688	.130 .168	.050060 .050060	.690 .690	.250 .254	.125135 .050070	.696 .696	.196 .281	.050070 .090120	.700 .700	.435 .437	.005010 .005010	.703 .703	.482 .487	.050070 .040050	.708 .708	.372 .375	.010020 .005010
.688	.205	.025040	.690	.264	.105125	.696	.458	.025042	.700	.437 .441	.005010	.703	.516	.020040	.708	.393	.005020
.688	.206	.040060	.690	.265	.100125	.696	.498	.005010	.700	.443	.105125	.703	.525	.030050	.708	.394	.050070
.688	.216	.050070	.690	.280	.050075	.696	.531	.015030	.700	.446	.010020	.703	.540	.040060	.708	.395	.010020
.688	.253	.010020	.690	.281	.050070	.697	.313	.090110	.700	.450	.005080	.703	.635	.010020	.708	.404	.050070
.688 .688	.259 .263	.040060 .005190	.690	.317	.080100	.697	.532	.025040	.700	.455	.005010	.704	.078	.040060	.708 .708	.413 .415	.080100 .025040
.688	.284	.005010	.690 .690	.323	.020070	.698 .698	.231 .361	.005010	.700 .700	.456 .465	.030050 .020040	.704 .704	.259 .264	.050070	.708	.478	.010020
.688	.311	.010040	.690	.336	.060075	.698	.477	.005010	.700	.473	.005010	.704	.268	.060090	.708	.478	.080090
.688	.313	.020140	.690	.343	.050070	.698	.500	.005010	.700	.476	.005010	.704	.336	.005010	.708	.512	.005040
.688	.316	.005010	.690	.344	.100120	.698	.506	.010020	.700	.478	.070080	.704	.343	.060080	.708	.550	.020036
.688	.317	.005010	.690	.354	.005010	.698	.527	.005010	.700	.500	.005010	.704	.366	.010040	.708	.551	.045060
.688 .688	.326 .328	.015030 .080105	.690 .690	.365 .376	.005010 .010030	.698 .698	.541 .542	.025040 .030060	.700 .700	.501 .502	.070090 .010100	.704 .704	.475 .478	.010025 .040060	.708 .708	.575 .630	.010025 .005010
.688	.330	.030050	.690	.385	.090104	.698	.564	.010020	.700	.502	.005030	.704	.480	.040060	.708	.632	.005010
.688	.334	.005010	.690	.436	.100125	.698	.602	.005010	.700	.506	.015042	.704	.497	.020035	.708	.636	.015030
.688	.343	.070090	.690	.475	.030050	.698	.626	.005010	.700	.510	.010025	.704	.503	.060100	.708	.637	.005020
.688	.344	.070090	.690	.494	.075090	.699	.070	.040060	.700	.511	.020040	.704	.532	.030050	.708	.641	.005010
.688 .688	.349 .350	.005010 .050070	.690 .690	.503 .530	.050070 .040060	.699 .699	.076	.015025 .040060	.700	.514	.020060	.704	.553	.005010	.709 .709	.145 .149	.005010
.688	.352	.050070	.690	.533	.072090	.699	.201 .210	.060080	.700 .700	.530 .531	.070080 .020040	.704 .704	.600 .626	.020040 .005010	.709	.149	.005010
.688	.376	.005042	.690	.542	.005010	.699	.376	.005010	.700	.532	.005010	.705	.085	.005012	.709	.181	.060080

O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness* From To
.709	.239	.005020	.712	.236	.005010	.718	.313	.015030	700	.500	.072090	700	550	From To	.735	.451	.050070
.709	.243	.005020	.712	.246	.080105	.718	.353	.005010	.722 .722	.515	.010020	.729 .730	.552 .238	.060080 .080080	.735	.454	.005010
.709	.253	.160180	.712	.252	.005010	.718	.375	.030060	.722	.540	.078090	.730	.280	.010020	.735	.454	.100130
.709	.259	.040060	.712	.505	.005010	.718	.378	.025050	.722	.636	.010020	.730	.287	.050075	.735	.500	.020070
.709	.313	.005110	.712	.514	.005010	.718	.380	.025030	.723	.221	.010020	.730		.005010	.735	.560	.060080
.709	.314	.005010	.712	.525	.040060	.718	.395	.010020	.723	.314	.040060	.730	.401	.005010	.735	.627	.040060
.709	.316	.005030	.712	.530	.030050	.718	.398	.010020	.723	.382	.030060	.730	.415 .433	.005010	.736	.118	.015030
.709	.317	.005010	.712	.567	.015030	.718	.406	.005010	.723	.632	.005010	.730	.460	.025040	.736	.159	.040050
.709	.320	.005010	.712	.646	.005010	.718	.408	.030050	.723	.637	.010020	.730	.475	.020040	.736	.160	.030050
.709	.321	.005010	.713	.116	.050070	.718	.418	.015030	.723	.641	.010020	.730	.480	.050040	.736	.268	.042060
.709	.322	.005010	.713	.199	.015030	.718	.438	.090125	.724	.173	.030050	.730	.486	.020040	.736	.310	.048070
.709	.327	.040060	.713	.206	.080100	.718	.464	.005010	.724	.201	.020040	.730	.492	.030050	.736	.313	.040060
.709	.347	.050070	.713	.400	.015025	.718	.465	.060070	.724	.382	.020040	.730	.506	.040060	.736	.318	.015030
.709	.352	.015030	.713	.410	.005010	.718	.487	.005010	.724	.428	.005010	.730	.519	.050070	.736	.380	.020030
.709	.381	.030050	.713	.437	.060075	.718	.518	.020040	.724	.508	.025040	.730	.526	.005010	.736	.386	.040060
.709	.386	.005010	.713	.540	.040060	.718	.562	.005040	.724	.519	.020040	.730	.569	.015030	.736	.436	.005010
.709	.392	.010020	.713	.595	.010020	.718	.585	.005010	.724	.570	.005010	.730	.571	.005010	.736	.467	.005010
.709	.394	.010050	.713	.672	.005010	.718	.593	.015020	.724	.670	.005010	.730	.615	.020030	.736	.504	.007016
.709	.395	.005020	.714	.101	.020030	.718	.595	.005010	.725	.089	.062078	.730	.630	.030042	.736	.516	.030050
.709	.397	.005020	.714	.111	.020030	.718	.600	.045060	.725	.128	.040060	.730	.632	.005010	.736	.565	.005010
.709	.399	.010020	.714	.118	.020030	.718	.638	.006030	.725	.160	.020040	.731	.206	.030050	.736	.578	.015025
.709	.437	.005050	.714	.125	.020030	.719	.132	.030050	.725	.187	.060090	.731	.410	.070090	.736	.595	.040062
.709	.455	.090105	.714	.140	.020030	.719	.196	.040060	.725	.251	.015030	.731	.416	.005080	.736	.601	.015030
.709	.472	.005050	.714	.182	.005010	.719	.198	.015030	.725	.296	.100125	.731	.426	.010020	.736	.633	.015030
.709	.474	.010020	.714	.223	.050070	.719	.237	.005010	.725	.339	.005030	.731	.433	.030050	.736	.650	.025040
.709	.475	.040060	.714	.285	.070090	.719	.240	.015030	.725	.346	.005010	.731	.453	.100120	.737	.318	.015025
.709	.476	.005010	.714	.299	.020030	.719	.254	.008016	.725	.458	.010020	.731	.482	.020040	.737	.330	.040060
.709	.482	.070090	.714	.390	.048072	.719	.324	.015030	.725	.505	.010020	.731	.564	.005010	.737	.364	.005010
.709	.483	.005010	.714	.414	.040060	.719	.329	.080100	.725	.540	.050070	.731	.585	.005010	.737	.419	.030060
.709	.490	.060080	.714	.555	.050075	.719	.374	.010015	.725	.548	.020040	.732	.043	.010020	.737	.436	.040050
.709	.492	.030050	.715	.198	.030078	.719	.378	.005010	.726	.183	.050070	.732	.159	.070090	.737	.503	.060083
.709	.503	.080105	.715	.199	.060083	.719	.380	.070090	.726	.304	.010020	.732	.163	.015030	.737	.505	.005070
.709	.550	.005010	.715	.315	.090104	.719	.395	.040060	.726	.315	.020030	.732	.165	.005010	.737	.537	.030050
.709	.592	.030050	.715	.323	.015030	.719	.439	.080105	.726	.325	.005010	.732	.199	.042080	.737	.546	.005010
.709	.596	.020040	.715	.330	.005012	.719	.441	.070090	.726	.343	.005010	.732	.253	.010015	.737	.550	.025040
.710	.133	.005010	.715	.366	.020040	.719	.453	.050070	.726	.375	.105125	.732	.263	.040062	.738	.342	.042060
.710	.201	.050070	.715	.369	.060080	.719	.468	.020040	.726	.388	.005010	.732	.281	.050075	.738	.346	.005010
.710	.211	.070090	.715	.379	.005010	.719	.543	.040060	.726	.406	.030050	.732	.290	.005010	.738	.511	.015030
.710	.236	.005010	.715	.437	.008012	.719	.555	.040060	.726	.439	.020040	.732	.330	.005060	.738	.538	.015030
.710	.238	.005010	.715	.440	.090100	.720	.254	.020035	.726	.485	.015030	.732	.335	.020040	.738	.540	.015025
.710	.252	.008016	.715	.470	.060105	.720	.259	.005010	.726	.632	.005010	.732	.443	.015030	.738	.544	.005010
.710	.278	.005010	.715	.474	.030060	.720	.281	.110187	.727	.257	.020040	.732	.475	.008015	.738	.594	.015030
.710	.279	.005010	.715	.481	.025040	.720	.315	.005010	.727	.397	.005010	.732	.502	.025042	.738	.595	.005010 .040060
.710	.288	.015125	.715	.495	.005010	.720	.321	.050075	.727	.448	.005010	.732	.550	.040050	.739	.222	
.710 .710	.301	.010020 .100120	.715 .715	.500	.020035 .015025	.720	.341	.090105	.727	.480	.040050	.733	.159	.070090	.739	.305	.010020
.710	.315	.005010	.715	.526 .535	.015025	.720	.360	.020030	.727	.500	.015030	.733	.234	.005010	.739 .739	.407	.060080
.710	.317	.005010	.716	.230	.025040	.720	.380	.020040	.727	.512	.010020	.733	.389	.010020	.739	.431	.070090
.710	.318	.010015	.716	.264	.020040	.720	.401	.005015	.727	.570	.040060	.733	.435	.030050	.739	.505	.015030
					.020040	.720	.446	.025040	.727	.576	.015035	.733	.502	.040060			
.710 .710	.330	.010020	.716 .716	.324	.025042	.720 .720	.455	.105125	.727 .728	.586	.015030	.733	.515	.050070	.739 .739	.519	.005010
.710	.354	.020030	.716	.474	.030050	.720	.463 .473	.005010	.728	.174 .219		.733	.650	.010015	.739	.565	.015030
.710	.376	.020040	.716	.515	.040062	.720	.476	.070090	.728	.251	.010020 .005010	.734	.162	.015030	.739	.576	.005010
.710	.413	.050072	.716	.624	.030048	.720	.502	.015020	.728	.253	.005010	.734 .734	.187 .192	.005010 .080125	.739	.605	.040060
.710	.454	.005012	.716	.630	.020040	.720	.550	.015020	.728	.253	.025040	.734 .734		.080125	.739	.632	.005010
.710	.473	.010020	.717	.187	.010020	.720	.564	.020032	.728	.291	.025040	.734	.198 .203	.040080	.739	.634	.005010
.710	.474	.005010	.717	.223	.050070	.720	.566	.015030	.728	.292	.025040	.734	.209	.005010	.739	.656	.025040
.710	.475	.015030	.717	.290	.030050	.720	.568	.015030	.728	.328	.025040	.734	.258	.040060	.740	.143	.070080
.710	.497	.030050	.717	.293	.010020	.720	.594	.050075	.728	.375	.060090	.734	.260	.032050	.740	.160	.005010
.710	.505	.050070	.717	.318	.025040	.720	.612	.005010	.728	.395	.010020	.734	.316	.010020	.740	.200	.005010
.710	.507	.020035	.717	.322	.032050	.720	.621	.005010	.728	.402	.010040	.734	.376	.030050	.740	.206	.005010
.710	.525	.005010	.717	.396	.020040	.720	.639	.005010	.728	.440	.005010	.734	.380	.010015	.740	.250	.120135
.710	.526	.010025	.717	.438	.030050	.720	.642	.030040	.728	.454	.015025	.734	.406	.050125	.740	.318	.005010
.710	.530	.070090	.717	.440	.080100	.721	.250	.050075	.728	.473	.025042	.734	.420	.093130	.740	.330	.070080
.710	.533	.050070	.717	.447	.005010	.721	.318	.030042	.728	.477	.005010	.734	.466	.060075	.740	.341	.050070
.710	.575	.040060	.717	.473	.015030	.721	.404	.062078	.728	.500	.005015	.734	.485	.020030	.740	.344	.020030
.710	.578	.040060	.717	.476	.025040	.721	.423	.005010	.728	.532	.020040	.734	.515	.030042	.740	.352	.020040
.710	.589	.005030	.717	.478	.005010	.721	.530	.010020	.728	.545	.015030	.734	.531	.005010	.740	.377	.050093
.710	.610	.010020	.717	.515	.050075	.721	.594	.016025	.728	.574	.005010	.734	.630	.032048	.740	.380	.030125
.710	.620	.005010	.717	.548	.005010	.721	.601	.020040	.728	.591	.030050	.735	.193	.050070	.740	.386	.005010
.711	.160	.005010	.717	.628	.005010	.722	.186	.005010	.728	.631	.012020	.735	.282	.050070	.740	.390	.005050
.711	.168	.005010	.718	.131	.030050	.722	.221	.080100	.728	.632	.005010	.735	.321	.030060	.740	.391	.005010
.711	.320	.005010	.718	.160	.048062	.722	.233	.050070	.729	.219	.010020	.735	.346	.050080	.740	.410	.105125
.711	.407	.020050	.718	.189	.015030	.722	.265	.050075	.729	.376	.015030	.735	.369	.060080	.740	.412	.062075
.711	.485	.040060	.718	.205	.005010	.722	.268	.005010	.729	.379	.005010	.735	.380	.105156	.740	.439	.005010
.711	.486	.040060	.718	.213	.015030	.722	.314	.050075	.729	.382	.135156	.735	.385	.020030	.740	.440	.010020
.711	.526	.015025	.718	.252	.010025	.722	.320	.050080	.729	.397	.025040	.735	.393	.005110	.740	.453	.020040
.712	.177	.020032	.718	.257	.025040	.722	.324	.030050	.729	.477	.005010	.735	.401	.015025	.740	.489	.005080
.712	.200	.005015	.718	.262	.020040	.722	.376	.100125	.729	.500	.005010	.735	.412	.005010	.740	.501	.008015
	224	.005010	.718	.282	.062083	.722	.481	.050060	.729	.513	.007016	.735	.418	.060080	.740	.502	.080100
.712	.234	1000 1010															

									110		LING CH					0.220	
O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*
.740	.510	.040060	.744	.504	.005010	.746	.564	.015030	.748	.513	.070090	740	600	From To	.750	.285	.015135
.740	.511	.005010	.744	.507	.040075	.746	.565	.075090	.748	.553	.005010	.749 .749	.633 .640	.010020 .030060	.750	.288	.015030
.740	.550	.005010	.744	.523	.030050	.746	.579	.025048	.748	.563	.015030	.749	.644	.005010	.750	.291	.100125
.740	.571	.005010	.744	.525	.040050	.746	.608	.050070	.748	.570	.005012	.749	.650	.040050	.750	.293	.100125
.740	.603	.005010	.744	.532	.010020	.746	.621	.005010	.748	.573	.012020	.749	.669	.005010	.750	.295	.015030
.740	.626	.005010	.744	.561	.005010	.746	.627	.020040	.748	.582	.005010	.143	.003	.003010	.750	.299	.010020
.740	.628	.005010	.744	.599	.005012	.746	.634	.010020	.748	.626	.040060				.750	.303	.060080
.740	.631	.005010	.744	.622	.020040	.746	.670	.005010	.748	.629	.010020			50	.750	.312	.035050
.740	.659	.005010	.745	.095	.005010	.747	.131	.025040	.748	.632	.010020			JU	.750	.313	.020135
.740	.660	.020030	.745	.120	.015040	.747	.143	.030050	.748	.634	.005030	_	-		.750	.315	.025190
.740	.691	.005010	.745	.126	.032050	.747	.214	.065080	.748	.635	.015025	.750	.063	.025048	.750	.316	.023136
.740	.696	.010020	.745	.143	.035055	.747	.235	.005010	.748	.644	.025040	.750	.069	.005010	.750	.317	.005030
.741	.201	.015025	.745	.184	.010020	.747	.261	.015025	.748	.670	.005015	.750	.078	.005010	.750	.318	.005015
.741	.203	.060080	.745	.190	.040060	.747	.268	.005010	.748	.693	.005010	.750	.085	.005010	.750	.319	.040100
.741	.261	.156187	.745	.191	.025035	.747	.269	.040060	.749	.064	.030050	.750	.090	.010015	.750	.320	.01502
.741	.291	.015025	.745	.193	.020060	.747	.315	.005010	.749	.087	.015030	.750	.096	.060090	.750	.321	.005010
.741	.296	.015030	.745	.200	.050070	.747	.316	.030040	.749	.160	.008016	.750	.102	.015025	.750	.325	.125156
.741	.322	.050075	.745	.214	.015030	.747	.317	.040060	.749	.161	.060090	.750	.118	.005010	.750	.326	.025040
.741	.378	.050080	.745	.234	.040060	.747	.324	.020030	.749		.030050	.750	.125	.012025	.750	.327	.062090
.741	.395	.025040	.745					.020030		.162		.750	.126	.005010	.750	.329	.070090
.741		.080105		.244	.005010	.747	.376		.749	.181	.060090			.005010	.750	.330	.025040
	.412		.745	.255	.032050	.747	.377	.010015	.749	.190	.010020	.750	.128				
.741 741	.505 515	.060083	.745	.265	.050125	.747 747	.380	.008016	.749	.194	.090125	.750 750	.129	.090104	.750 750	.331	.005010
741	.515	.040060	.745	.291	.005010	.747	.395	.010020	.749	.200	.020042	.750	.133	.030050	.750	.333	.005010
741	.529	.010020	.745	.316	.060070	.747	.397	.105125	.749	.203	.125156	.750	.134	.005010	.750	.337	.042075
741	.531	.050070	.745	.317	.105135	.747	.468	.030050	.749	.204	.005060	.750	.143	.015030	.750	.344	.07510
741	.562	.030060	.745	.320	.080105	.747	.475	.008012	.749	.220	.105135	.750	.146	.010078	.750	.345	.00512
741	.570	.020040	.745	.330	.015030	.747	.478	.005015	.749	.221	.040060	.750	.147	.005015	.750	.348	.00501
741	.636	.015030	.745	.389	.050070	.747	.491	.005010	.749	.229	.160187	.750	.150	.005020	.750	.350	.07209
741	.640	.005010	.745	.403	.050060	.747	.508	.100125	.749	.237	.005030	.750	.155	.005010	.750	.354	.00501
741	.690	.005010	.745	.422	.090100	.747	.510	.015030	.749	.252	.025040	.750	.156	.025075	.750	.356	.07008
742	.149	.005010	.745	.438	.020036	.747	.517	.010020	.749	.257	.072120	.750	.161	.090100	.750	.359	.01512
742	.226	.075100	.745	.451	.010020	.747	.561	.010025	.749	.258	.030040	.750	.165	.060080	.750	.362	.05007
742	.251	.040060	.745	.454	.120140	.747	.566	.050070	.749	.263	.030050	.750	.166	.025035	.750	.364	.00501
742	.271	.110130	.745	.455	.032050	.747	.594	.005010	.749	.268	.060090	.750	.171	.005010	.750	.374	.01002
742	.346	.020030	.745	.468	.005012	.747	.618	.005010	.749	.272	.005010	.750	.172	.010020	.750	.375	.00501
742	.360	.050060	.745	.509	.005010	.747	.628	.005010	.749	.286	.105120	.750	.184	.030050	.750	.376	.00512
.742	.378	.080104	.745	.510	.020040	.747	.632	.030050	.749	.313	.005040	.750	.186	.005015	.750	.377	.00501
.742	.380	.030050	.745	.538	.030050	.747	.651	.005010	.749	.315	.005010	.750	.188	.060083	.750	.378	.00518
.742	.387	.100135	.745	.541	.010025	.747	.691	.015025	.749	.316	.005010	.750	.189	.005104	.750	.379	.01504
.742	.389	.042062	.745	.558	.010020	.748	.066	.015030	.749	.322	.005010	.750	.190	.015125	.750	.381	.04806
.742	.426	.050070	.745	.560	.005010	.748	.136	.031042	.749	.323	.105125	.750	.191	.050075	.750	.382	.02004
.742	.443	.025060	.745	.562	.020030	.748	.139	.020042	.749	.330	.060090	.750	.192	.050070	.750	.383	.06008
.742	.462	.005010	.745	.571	.005010	.748	.140	.005010	.749	.347	.020035	.750	.193	.010075	.750	.384	.00502
.742	.466	.060075	.745	.576	.042060	.748	.147	.062075	.749	.350	.005010	.750	.194	.042062	.750	.385	.00501
.742	.474	.080100	.745	.591	.030050	.748	.173	.032050	.749	.351	.005010	.750	.195	.005125	.750	.387	.050080
.742 .742	.502 .517	.060070 .005030	.745	.599	.005010	.748	.180	.008016	.749	.364	.005010	.750 .750	.197 .198	.005010 .025105	.750 .750	.388 .389	.02504
.742 .742	.566	.005030	.745	.605	.005010	.748	.201	.060090	.749	.375	.025040		.200		.750	.390	
			.745	.626	.040060	.748	.237	.005010	.749	.379	.036060	.750		.030060			.10012
742	.593	.025040	.745	.628	.005010	.748	.238	.005010	.749	.386	.005010	.750	.202	.005010	.750	.394	
742	.671	.010020	.745	.661	.010015	.748	.239	.050070	.749	.387	.005010	.750	.203	.030050	.750	.395	.02005
.743	.144	.070090	.745	.693	.010020	.748	.241	.040060	.749	.395	.005010	.750	.204	.050070	.750	.396	.06007
743	.271	.050075	.746	.100	.032050	.748	.249	.050075	.749	.397	.015025	.750	.206	.070090	.750	.400	.01004
.743	.390	.005010	.746	.125	.015030	.748	.252	.005010	.749	.402	.100120	.750	.209	.030050	.750	.402	.04206
743	.417	.005010	.746	.166	.050075	.748	.254	.060090	.749	.403	.005008	.750	.213	.105125	.750	.406	.01003
743	.475	.040050	.746	.200	.060080	.748	.255	.005010	.749	.408	.005010	.750	.218	.005010	.750	.407	.12013
743	.488	.060080	.746	.203	.030050	.748	.259	.008016	.749	.424	.040060	.750	.223	.125156	.750	.411	.06007
743	.520	.070090	.746	.204	.070090	.748	.315	.005010	.749	.437	.042060	.750	.229	.005010	.750	.413	.00501
743	.531	.005010	.746	.253	.040060	.748	.316	.005190	.749	.438	.010020	.750	.232	.050075	.750	.415	.00501
743	.541	.005010	.746	.260	.005010	.748	.318	.005020	.749	.440	.005070	.750	.236	.005030	.750	.419	.08010
743	.556	.005008	.746	.285	.005010	.748	.322	.005010	.749	.445	.005015	.750	.242	.030050	.750	.420	.10512
743	.572	.040060	.746	.316	.005030	.748	.328	.105134	.749	.459	.005010	.750	.250	.005062	.750	.426	.00501
743	.596	.005010	.746	.318	.078090	.748	.331	.015030	.749	.468	.005010	.750	.251	.005030	.750	.437	.00501
743	.600	.010080	.746	.319	.040060	.748	.357	.070090	.749	.471	.050070	.750	.252	.005080	.750	.438	.04006
743	.623	.010020	.746	.379	.040060	.748	.376	.005010	.749	.474	.050070	.750	.253	.025040	.750	.439	.01002
743	.630	.016025	.746	.386	.060070	.748	.377	.156187	.749	.499	.020080	.750	.254	.005100	.750	.440	.08010
744	.187	.100120	.746	.390	.006010	.748	.384	.020040	.749	.503	.005010	.750	.256	.040060	.750	.441	.06009
744	.215	.030050	.746	.393	.110130	.748	.385	.005010	.749	.504	.090120	.750	.257	.090120	.750	.442	.00509
744	.236	.010020	.746	.395	.030050	.748	.393	.060080	.749	.507	.008016	.750	.259	.005032	.750	.444	.01503
744	.262	.015030	.746	.405	.005010	.748	.397	.005010	.749	.517	.005010	.750	.260	.090125	.750	.445	.03005
744	.370	.015030	.746	.437	.042060	.748	.400	.005010	.749	.528	.005010	.750	.261	.040080	.750	.446	.01503
744	.383	.035050	.746	.438	.005010	.748	.451	.005010	.749	.531	.005010	.750	.264	.005104	.750	.448	.00501
744	.388	.005010	.746	.445	.040060	.748	.461	.010020	.749	.562	.010020	.750	.265	.050120	.750	.450	.02504
744	.403	.031048	.746	.455	.010020	.748	.462	.005010	.749	.563	.005010	.750	.266	.072135	.750	.451	.03605
744	.409	.050070	.746	.469	.030060	.748	.473	.005015	.749	.575	.040060	.750	.267	.010025	.750	.454	.04212
744	.413	.105125	.746	.480	.015090	.748	.476	.005020	.749	.594	.010020	.750	.268	.010080	.750	.457	.07009
744	.430	.005010	.746	.499	.020040	.748	.501	.090105	.749	.595	.035062	.750	.270	.005010	.750	.468	.01012
744	.438	.040060	.746	.500	.005012	.748	.503	.010040	.749	.599	.015030	.750	.277	.005010	.750	.470	.02004
744	.449	.060080	.746	.521	.005010	.748	.504	.050070	.749	.609	.005010	.750	.281	.005078	.750	.472	.01602
	.450	.050075	.746	.531	.005020	.748	.507	.020036	.749	.620	.015030	.750	.282	.105135	.750	.476	.06008
744	.430	.000 .070															

O.D.	ID	Choose Any	O.D.	ΙD	Choose Any	O.D.	I D	Choose Any	O.D.	ID	Choose Any	O.D.	I.D.	Choose Any	O.D.	I D	Choose Any
U.D.	I.D.	Thickness* From To	O.D.	I.D.	Thickness* From To	U.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*
.750	.478	.100125	.751	.239	.005010	.752	.461	.008012	.760	.032	.020032	.770	.375	.040060	.778	.266	.062075
.750	.480	.030050	.751	.242	.080105	.752	.475	.030050	.760	.126	.015030	.770	.377	.040060	.778	.363	.070090
.750	.491	.015030	.751	.244	.050070	.752	.502	.008012	.760	.150	.020040	.770	.384	.020040	.778	.386	.030050
.750	.496	.040060	.751	.250	.080140	.752	.504	.010050	.760					.015030	.778	.390	.015030
.750	.499	.100125								.200	.090110	.770	.385				
			.751	.255	.050070	.752	.505	.015030	.760	.256	.080104	.770	.430	.030050	.778	.408	.020040
.750	.500	.005060	.751	.257	.050070	.752	.516	.005015	.760	.260	.030062	.770	.474	.030040	.778	.435	.120135
.750	.502	.005100	.751	.265	.005015	.752	.555	.040070	.760	.269	.040060	.770	.517	.005015	.778	.534	.062078
.750	.503	.005020	.751	.266	.032050	.752	.564	.050070	.760	.322	.050070	.770	.524	.040060	.779	.190	.030050
.750	.504	.015025	.751	.272	.100125	.752	.570	.010020	.760	.330	.005010	.770	.525	.005010	.779	.264	.025040
.750	.505	.025105	.751	.296	.050070	.752	.591	.060090	.760	.385	.040060	.770	.531	.050060	.779	.270	.060090
.750	.506	.005020	.751	.303	.005010	.752	.624	.050070	.760	.446	.010020	.770	.536	.015030	.779	.318	.050070
.750	.509	.005010	.751	.307	.010020	.752	.697	.010020	.760	.471	.050070	.770	.571	.025040	.779	.323	.015030
.750	.510	.010020	.751	.315	.015030	.753	.133	.075090	.760	.482	.040060	.770		.020040	.779	.378	.090105
.750	.510	.100120	.751	.322	.050075								.636		.779	.395	.032060
						.753	.170	.020040	.760	.508	.105120	.770	.664	.005010			
.750	.511	.030060	.751	.325	.015030	.753	.276	.010020	.760	.565	.020040	.770	.680	.035045	.779	.422	.030050
.750	.512	.005075	.751	.331	.075093	.753	.318	.050070	.760	.571	.070090	.770	.711	.015030	.779	.439	.015030
.750	.513	.010075	.751	.332	.005010	.753	.330	.110130	.760	.579	.005008	.771	.380	.005010	.779	.476	.100125
.750	.514	.100125	.751	.335	.090125	.753	.337	.100125	.760	.592	.020035	.771	.474	.050070	.779	.492	.050060
.750	.517	.030050	.751	.343	.025040	.753	.375	.100125	.760	.624	.020030	.771	.511	.105125	.779	.568	.010020
.750	.522	.010020	.751	.361	.005010	.753	.381	.134187	.760	.664	.005010	.771	.554	.010020	.779	.579	.005010
.750	.524	.015030	.751	.376	.005015	.753	.384	.050070	.760	.675	.010020	.771	.606	.005010	.779	.632	.030060
.750	.525	.050070	.751	.379	.040060	.753	.405	.050072	.761	.141	.005015	.771	.639	.050060	.779	.633	.005010
.750	.528	.005010	.751	.380	.005020	.753	.409	.005012	.761	.184	.005015	.771	.700	.005010	.779	.640	.040060
.750	.530	.040105	.751	.387	.105125	.753		.100120							.779	.680	.005010
							.472		.761	.561	.030050	.772	.188	.020040			
.750	.531	.010020	.751	.395	.020030	.753	.477	.020040	.762	.250	.005010	.772	.250	.040060	.779	.700	.010020
.750	.532	.020125	.751	.400	.050080	.753	.484	.025050	.762	.445	.040060	.772	.265	.060070	.780	.051	.025035
.750	.533	.050070	.751	.420	.110130	.753	.526	.030060	.762	.616	.005010	.772	.404	.005010	.780	.190	.040060
.750	.535	.010020	.751	.435	.005010	.753	.527	.005010	.763	.503	.005010	.772	.412	.050060	.780	.267	.062090
.750	.536	.040060	.751	.437	.005010	.753	.609	.025050	.763	.660	.005010	.772	.671	.010020	.780	.306	.015030
.750	.540	.040050	.751	.438	.050070	.753	.627	.005015	.764	.315	.050075	.773	.126	.005010	.780	.378	.005020
.750	.545	.015030	.751	.440	.050070	.753	.629	.005010	.764	.528	.060080	.773	.238	.062080	.780	.380	.080105
.750	.549	.005010	.751	.448	.050070	.754	.253	.005010	.764	.707	.005010	.773	.370	.060080	.780	.390	.080104
.750	.550	.020030	.751	.455	.010020	.754	.265	.030060	.765	.117	.040062	.773	.480	.015030	.780	.391	.080100
.750	.551	.010020	.751	.463	.050070	.754	.393	.005010	.765	.222	.030050	.773	.579	.090100	.780	.403	.005010
.750	.558	.040060	.751	.470	.075090	.754	.428	.048062	.765	.265	.100125	.773		.020040	.780	.408	.030050
.750	.562	.040060	.751	.499	.005025	.754	.460	.105125					.656		.780	.420	.060080
									.765	.285	.005010	.773	.677	.040050		.422	
.750	.563	.010060	.751	.500	.050070	.754	.469	.040060	.765	.293	.040060	.773	.692	.005010	.780		.015040
.750	.564	.005060	.751	.503	.005110	.754	.509	.030050	.765	.312	.050062	.774	.251	.050070	.780	.425	.010020
.750	.565	.010040	.751	.504	.010080	.754	.532	.080105	.765	.331	.025040	.774	.556	.050070	.780	.460	.030060
.750	.566	.012020	.751	.505	.010105	.755	.222	.005010	.765	.348	.025035	.774	.605	.010020	.780	.484	.005010
.750	.569	.050062	.751	.506	.015025	.755	.281	.005010	.765	.406	.005010	.774	.634	.010020	.780	.498	.080104
.750	.570	.020040	.751	.508	.020030	.755	.335	.170190	.765	.508	.005010	.774	.705	.005010	.780	.500	.015030
.750	.582	.030050	.751	.513	.090120	.755	.347	.010020	.765	.528	.050060	.775	.228	.050072	.780	.503	.006012
.750	.584	.005010	.751	.515	.025040	.755	.378	.010080	.765	.533	.015030	.775	.229	.070090	.780	.510	.005030
.750	.590	.005010	.751	.516	.008060	.755	.385	.025042	.765	.565	.010020	.775	.231	.042062	.780	.511	.030050
.750	.595	.005020	.751	.521	.048060	.755	.393	.005010	.765	.625	.050070	.775	.252	.005010	.780	.520	.007015
.750	.609	.040060	.751	.524	.005010	.755	.513	.030040	.766	.505	.030050	.775	.324	.100125	.780	.527	.075090
.750	.625	.005050	.751	.563	.005040	.755	.520	.005010	.766	.518	.050070	.775	.335	.015030	.780	.529	.025040
.750	.626	.015030	.751	.594	.010020	.755	.532	.020040	.766	.535	.080100	.775	.368	.080090	.780	.552	.040060
.750	.630	.005060	.751	.600	.030050	.755	.533	.010020	.766	.557	.025040			.005012	.780	.562	.031048
.750	.632	.005010	.751	.606	.005010			.030040				.775	.379		.780	.566	.030050
						.755	.552		.766	.585	.015030	.775	.428	.025040			
.750	.634	.005020	.751	.626	.005025	.755	.554	.005010	.766	.610	.030050	.775	.457	.005010	.780	.566	.080100
.750	.639	.015030	.751	.633	.005010	.755	.565	.040060	.766	.676	.005010	.775	.464	.048070	.780	.570	.020040
.750	.640	.010020	.751	.634	.005010	.755	.586	.005010	.767	.073	.025040	.775	.469	.080100	.780	.579	.005015
.750	.645	.010020	.751	.639	.010015	.756	.230	.005010	.767	.084	.015030	.775	.500	.075090	.780	.591	.060090
.750	.650	.025040	.751	.650	.010020	.756	.258	.075100	.767	.224	.090110	.775	.525	.100125	.780	.593	.005010
.750	.651	.040060	.752	.143	.090120	.756	.375	.040050	.767	.301	.100125	.775	.555	.020030	.780	.598	.050070
.750	.679	.005010	.752	.145	.100125	.756	.395	.005010	.767	.315	.020040	.775	.560	.070090	.780	.627	.020030
.750	.691	.010020	.752	.150	.090105	.756	.408	.020035	.767	.429	.005010	.775	.602	.005010	.780	.640	.030070
.750	.692	.015025	.752	.181	.080104	.756	.500	.010020	.767	.537	.005010	.775	.643	.005030	.780	.658	.005010
.750	.697	.030060	.752	.186	.005010	.756	.564	.005010	.767	.563	.020040	.776	.196	.015030	.780	.672	.015030
.750	.700	.010020	.752	.196	.040060	.756		.020030			.030050			.020035	.780	.684	.025040
							.570		.767	.576		.776	.197				
.750	.705	.010020	.752	.212	.030060	.757	.139	.005010	.767	.588	.015030	.776	.221	.005010	.780	.685	.005012
.751	.105	.010020	.752	.250	.005010	.757	.243	.005020	.767	.699	.005010	.776	.239	.070090	.781	.111	.025040
.751	.126	.030050	.752	.269	.100135	.757	.279	.005015	.768	.235	.040060	.776	.240	.025040	.781	.142	.010020
.751	.129	.050070	.752	.303	.005012	.757	.387	.060125	.768	.378	.110130	.776	.283	.030050	.781	.172	.010020
.751	.140	.080100	.752	.315	.104135	.757	.400	.040060	.768	.415	.050070	.776	.386	.005010	.781	.280	.156190
.751	.168	.040060	.752	.317	.010020	.757	.436	.005010	.768	.416	.050070	.776	.432	.070090	.781	.316	.005010
.751	.170	.040060	.752	.319	.005030	.757	.468	.030050	.768	.471	.010020	.776	.598	.050070	.781	.317	.010030
.751	.184	.005010	.752	.320	.050070	.757	.470	.020040	.768	.530	.010030	.776	.646	.020040	.781	.335	.005050
.751	.187	.010020	.752	.322	.005010	.757	.563	.010020	.768	.545	.020040	.776	.653	.040050	.781	.402	.010020
.751	.188	.060083	.752	.340	.005010	.758	.234	.005010	.768	.631	.020040	.777	.150	.005010	.781	.430	.048062
.751	.190	.005010	.752	.357	.050070	.758	.237	.005010	.769	.202	.050070	.777	.317	.020040	.781	.448	.015030
.751	.194	.090125	.752	.375	.062075	.758	.310	.015030	.769	.240	.050070	.777	.328	.156187	.781	.485	.005010
.751	.200	.042062	.752	.379	.002075	.758		.080100				.777	.326 .392	.020030	.781	.488	.050060
							.350		.769	.256	.005035	.777	.421	.025040			
.751	.204	.005010	.752	.380	.090120	.758	.394	.040060	.769	.395	.070090				.781	.501	.005015
.751	.205	.060080	.752	.388	.050070	.758	.608	.050075	.769	.399	.135156	.777	.572	.005010	.781	.518	.040060
754	.206	.040075	.752	.389	.005010	.759	.462	.005010	.770	.141	.025040	.777	.613	.050070	.781	.531	.008012
.751	C 1 -		.752	.406	.060083	.759	.606	.005010	.770	.211	.040060	.778	.221	.005015	.781	.557	.020040
.751 .751 .751	.218 .229	.020050 .015030	.752	.431	.000003	.759	.694	.005010	.770	.248	.005010	.778	.261	.060070	.781	.600	.015030

31

	Chassa Any		Change Any	Char	200 Amir	Chassa Any		Chassa Any		Chassa Any			Chassa Any			Chasas Anu		Chassa Any		Chassa Any	Chases An		Choose Any
O.D. I.D	Choose Any Thickness*	O.D.	I.D. Choose Any Thickness* O.D.	. I.D. Thicl	kness* O.D.	I.D. Choose Any Thickness*	O.D. I.D.	Choose Any Thickness* O.	D. I.D.	Choose Any Thickness*	O.I	.D. I.E	Choose Any D. Thickness*	O.D.	I.D.	Choose Any Thickness* O.D.	I.D.	Choose Any Thickness* O.D.	I.D.	Choose Any Thickness* O.D.	Choose Any I.D. Thickness*	O.D.	I.D. Thickness*
	From To		From To	From	То	From To		From To		From To			From To			From To		From To		From To	From To		From To
.781 .60			.535 .005030 .788			.441 .020040	.800 .225	.040060 .80		.040060	.80					.005010 .813			.310	.005010 .827	.318 .00501		.441 .070090
.781 .62			.556 .040060 .788			.471 .025048	.800 .250	.020030 .80	1 .650	.010020	.80	90. 09				.026052 .813	.493	.005010 .820	.315	.005010 .827	.328 .06008	ງ .835	.480 .010020
.781 .62	5 .050075	.786	.572 .050070 .788	.487 .040	.793 .793	.505 .025040	.800 .252	.008015 .80	1 .657	.005010	.80	9 .09	99 .005015	.811 .		.025042 .813	.494	.020040 .820	.320	.040060 .827	.331 .12013	.835	.506 .080100
.781 .62	7 .040060	.786	.594 .010020 .788	.488 .040	.793 .793	.575 .032050	.800 .253	.040060 .80	1 .674	.005010	.80)9 .15	57 .050070	.811 .	.595	.035060 .813	.496	.010020 .820	.340	.005010 .827	.332 .15618	7 .835	.570 .005050
.781 .62	8 .005010	.786	.598 .030050 .788	.505 .050	.794 .794	.257 .005010	.800 .254	.025040 .80	1 .696	.060070	.80)9 .25	50 .020030	.811 .	.623	.005010 .813	.500	.050083 .820	.348	.005010 .827	.376 .00501	.835	.595 .010020
.781 .62	9 .025060	.786	.626 .030050 .788	.512 .060	.794 .794	.285 .005010	.800 .256	.005010 .80	2 .257	.060080	.80	9 .25	57 .030050	.811 .	.630	.005010 .813	.504	.105135 .820	.380	.005010 .827	.393 .00501	.835	.685 .030060
.781 .64	0 .060070	.786	.631 .030050 .788	.521 .048	3062 .794	.420 .090110	.800 .315	.010020 .80	2 .261	.040062	.80	9 .28	.070090	.811 .	.656	.005010 .813	.510	.020040 .820	.392	.010020 .827	.407 .09012	.835	.753 .020040
.782 .36	8 .010020	.786	.680 .010020 .788	.545 .005	5010 .794	.477 .135160	.800 .316	.005010 .80	2 .346	.020035	.80	9 .32	21 .025042	.811 .	.658	.020030 .813	.562	.080100 .820	.395	.050075 .827	.412 .00501	.835	.782 .020030
.782 .43	7 .090105	.787	.129 .030050 .788				.800 .320	.105125 .80	2 .387	.050075	.80	9 .33	36 .050070	.812 .	.127	.025040 .813	.563	.005020 .820		.135160 .827	.415 .06008		.416 .010020
.782 .44	0 .015030	.787	.141 .040060 .788				.800 .327	.020040 .80	2 .408	.100110	.80	9 .37	77 .005010	.812 .		.015030 .813	.597	.020040 .820		.025040 .827	.473 .00501	.836	.438 .005010
.782 .44			.142 .030060 .788			.159 .005010		.075104 .80		.025040	.80	9 .38						.010020 .820		.012025 .827	.509 .05007		.450 .040060
.782 .48			.161 .050070 .788				.800 .370	.005012 .80		.005010	.80	9 .41	14 .070090			.005040 .813	.634	.060080 .820		.015025 .827	.632 .00501		.680 .005060
.782 .50			.188 .020040 .788			.175 .005010				.040060	.80	9 .47				.020040 .813	.659	.035048 .820		.030040 .827	.749 .00501	000	.705 .032060
.782 .51			.203 .040060 .788				.800 .378	.005078 .80		.005010	.80	9 .48				.005010 .813	.680	.005030 .820		.070090 .828	.108 .00501		.506 .115130
.782 .51			.208 .070080 .789			.197 .008016		.010020 .80		.025040	.80	9 .50					.728	.005010 .820		.005010 .828	.317 .01001		.527 .040060
.782 .53	0 .093103		.228 .052072 .789				.800 .380	.040060 .80		.020030	80	9 .50						.060080 .820		.050070 .828	.407 .01503		.530 .048075
.782 .54			.238 .005010 .789				.800 .387	.020040 .80		.005010	80	9 .57				.020036 .814	.522	.040060 .820		.005010 .828	.447 .06008		.591 .005010
.782 .54			.256 .010020 .789				.800 .397	.005010 .80		.025040	.80							.090105 .820		.050075 .828	.499 .00500		.633 .025040
.782 .56			.257 .025060 .789				.800 .398	.005010 .80		.005008	80	9 .62						.050075 .820		.100125 .828	.502 .03004		.679 .025040
.782 .56			.279 .005010 .789				.800 .411	1000 1010		.050075	.81					.050070 .814	.628	.020030 .820	.565	.100125 .828	.502 .00004		.783 .010020
.782 .69	9 .005010		.315 .005020 .789				.800 .411	.105135 .80		.010020	81	0 .11				.040060 .814		.042062 .820		.005010 .828	.530 .00501	000	.281 .032060
.783 .06			.317 .005010 .789				.800 .420	.005010 .80		.080105	.81						.641	.005010 .820		.105125 .828	.590 .00501		.290 .050075
.783 .25			.318 .005010 .789				.800 .439	.030050 .80		.015030	.81						.751	.020030 .820		.010020 .828	.655 .00501		.376 .015030
.783 .27	0 .070080		.319 .005010 .789							.105125	.010	0 .16				.150180 .815	.129	.020040 .820					.482 .031048
.783 .27			.324 .015030 .789							.005010	.81						.221			.005010 .828			.483 .050075
700 .21	0 .050070		.329 .005010 .789			.634 .005010 .655 .030040				.010025	.81							.020030 .820		.010020 .829		.838	.508 .005010
.783 .45			.355 .135156 .789							.050072	.81							.060075 .820	.698	.005030 .829	.250 .03005		.563 .040060
						.680 .005040		.040060 .80		.060080	.010	0 .18					.260	.048062 .820		.015025 .829	.283 .02003		.618 .040060
							.800 .490	.030050 .80			.010							.105120 .821		.032048 .829	.414 .00709		
.783 .50 .783 .51	0 .030050 3 .025040		.392 .005010 .790 .395 .005010 .790				.800 .502	.005020 .80		.005010 .050072	.810 .810						.309	.005010 .821		.030040 .829	.430 .10012		.651 .010020 .665 .005010
						.256 .005010		.005030 .80		.100125	.81					.015135 .815		.025040 .821		.010020 .829	.468 .10012		
.783 .60	4 .005010		.397 .005010 .790			.286 .005010		.005010 .80								.040060 .815	.444	.005012 .821		.100125 .829	.475 .08010		
.783 .63			.398 .005020 .790			.290 .025040		.005010 .80		.005010	.81					.075090 .815	.468	.025036 .821	.596	.005030 .829	.480 .10513		.756 .005010
.783 .63			.399 .070080 .790				.800 .510	.020040 .80		.005010	.81					.050090 .815	.500	.015030 .821		.005010 .829	.500 .00501		.316 .015030
.783 .64			.400 .040060 .790			.397 .050070		.005010 .80		.090110	.81					.060070 .815	.527	.080104 .821		.060080 .829	.503 .02504		.502 .005010
.783 .64		_	.410 .060080 .790				.800 .530	.030050 .80		.060080	.010	0 .38				.105125 .815		.030050 .821		.030048 .829	.648 .05007		.591 .010015
.783 .65	6 .048062		.424 .005010 .790				.800 .544	.005010 .80		.005010	.81					.100125 .815		.015025 .822		.020030 .829	.653 .03006		.628 .050070
.784 .48			.433 .010020 .790				.800 .550	.060075 .80		.005010	.81					.015030 .815		.080100 .822	.523	.060080 .829	.761 .02003		.652 .005010
.764 .59	2 .015030		.453 .005010 .790				.800 .551	.005010 .80		.005010	.81					.032048 .815	.669	.025040 .822		.050070 .830	.160 .06009		.165 .005010
.784 .59	9 .030050		.472 .030050 .790				.800 .557	.005010 .80		.010020	.81							.015030 .823		.005010 .830	.187 .02004	.840	.246 .104125
.704 .00	1 .030050		.473 .005010 .790		0050 .796		.800 .558	.005015 .80	6 .209	.005010	.010	0 .44				.104125 .816	.456	.070090 .823		.070090 .830	.379 .00503	0.040	.292 .020040
.784 .61			.475 .010020 .790				.800 .560	.070090 .80		.040060	.81					.030050 .816	.510	.005012 .823		.005020 .830	.405 .04006		.310 .060080
.785 .17			.477 .050070 .790 .480 .020030 .790		5040 .796		.800 .574	.050060 .80			.81					.015020 .816		.015025 .823	.756	.005010 .830	.461 .01503		.313 .105125
.785 .23 .785 .34							.800 .575	.025040 .80		.005010	.810 .810					.005020 .817	.195	.050070 .824	.321	.005010 .830	.475 .02504		.316 .015030 .340 .010025
.785 .34 .785 .35							.800 .582	.005010 .80		.030050	.81					.060080	.319	.060083 .824	.333	.005010 .830	.515 .00501		
705 .33	2 .110130				0040		.800 .594	.005010 .80 .005010 .80		.030050	.81						.321 .411	.015030		.050070 .830	.530 .09012) .840 5 .840	.384 .010025 .387 .015030
.785 .40	6 .005010		.530 .030050 .790 .547 .005010 .790				.800 .618			.020040	.81					.050075	.455	.060090 .824		.025040	.556 .01002	8/10	.390 .005010
.785 .41			.551 .005030 .790				.800 .619 .800 .623	.005010 .80		.005010	.81					.030040 .817	.505	.050070 .825			.564 .10012 .565 .03005	.840	.470 .060083
.785 .45			.556 .005010 .790			.378 .005010		.005010 .80		.060083	.81					.050070 .817		.005010 .825		.005010	.590 .07009		.499 .005010
	5 .015050		.577 .005010 .790			.487 .005010				.050070		0 .54				.032042 .817		.005010 .825		.005010 .830	.605 .02504		.503 .005010
.785 .48			.603 .005010 .790				.800 .628 .800 .631			.005010	.81					.010020 .817	.661	.005010 .825		.005020 .830	.628 .02504		.510 .005010
.785 .51			.610 .005080 .790			.624 .070090		10.10 1020		.020040	.810					.005030 .817	.690	.012020 .825		.015030 .830	.632 .02504		.515 .025040
.785 .52			.630 .030050 .790			.632 .010020				.005010		0 .56					.711	.005010 .825		.105125 .830	.636 .01503		.535 .005010
.785 .52			.631 .005010 .790		0042 .798	.656 .005010				.015030	.810					.020030 .817	.750	.010020 .825		.040060 .830	.649 .01002		.545 .100135
.785 .53			.648 .025040 .790			.711 .010020				.015030	.810					.005050 .818	.264	.030040 .825		.005010 .830	.693 .02003		.556 .032040
.785 .54			.661 .005010 .790		0060 .799	.252 .005010		.010020 .80		.005010	.810					.025040 .818	.317	.030040 .825		.070080 .830	.696 .00501		.558 .005010
.785 .55			.677 .010020 .790			.360 .170190				.050070	.810					.015110 .818		.010020 .825		.010020 .830	.711 .01503		.569 .005010
.785 .56			.680 .060080 .790			.397 .010020				.040060	.810	0 .65				.015080 .818		.005010 .825		.090125 .831	.239 .00501		.575 .060070
.785 .59			.697 .005010 .790				.800 .675			.080090	.810							.125156 .825		.015030 .831	.584 .01502		.631 .030060
.785 .65			.707 .005010 .790			.439 .005010				.005010	.810	0 .69						.060080 .825		.020040 .831	.649 .00501		.633 .007015
.785 .69	6 .010020		.128 .010020 .790			.471 .005010				.020040	.81	0 .70				.020030 .818	.480	.005010 .825		.005015 .832	.461 .01002		.643 .075090
.786 .15			.218 .040060 .790			.472 .030050				.005010	.810					.020040 .818		.005010 .825		.030040 .832	.520 .05007		.650 .048062
.786 .19	8 .015030		.227 .005010 .791		5030 .799	.492 .080100		.005010 .80		.020040	.810					.050070 .818	.591	.090110 .825		.020030 .832	.551 .00501		.674 .010020
.786 .25			.237 .080100 .791			.500 .005010				.015030	.81							.010020 .825		.005010 .832	.574 .03005		.675 .015030
.786 .25			.243 .030050 .791			.501 .010020				.010020	.81	1 .15				.005010 .818		.040060 .826		.040050 .832	.595 .00501		.676 .020035
.786 .30			.244 .005010 .791			.505 .025040				.050070	.81						.720	.025040 .826		.030050 .832	.598 .00501		.680 .005010
.786 .31			.317 .010020 .791		0020 .799	.580 .050075				.015030	.81					.040060 .819	.065	.025040 .826		.030050 .832	.703 .01002		.682 .015030
.786 .38	2 .005010		.319 .060080 .791		5010 .799	.596 .005010			7 .745	.020031	.81	1 .28	32 .050070				.174	.005010 .826		.105125 .832	.751 .03004		.711 .020040
.786 .39			.322 .005010 .791			.629 .015025				.005015	.81							.005010 .826		.010020 .833	.607 .00501		.731 .030050
.786 .43	6 .050070		.355 .010020 .792		2083 .799	.653 .005010				.060080	.81	1 .33				.100134 .819	.260	.010020 .826		.025040 .833	.730 .03004		.748 .015025
.786 .44			.376 .005010 .792			.671 .005010				.015030	.81					.060080 .819	.531	.005010 .826		.050070 .833	.770 .01002		.440 .025040
.786 .44			.394 .125156 .792			.673 .005010				.105125	.81					.005010 .819		.025040 .826		.090105 .834	.093 .05007		.631 .030050
.786 .45			.395 .005010 .792			.674 .005010				.060080	.81					.030050 .819	.690	.020035 .826		.030050 .834	.462 .02004		.651 .005010
.786 .47			.397 .005015 .792			.694 .005010				.025040	.81					.100125 .819		.040060 .826		.020040 .834	.562 .00501		.663 .015030
.786 .47			.403 .005030 .792			.701 .005010				.005010	.81					.030125 .820	.090	.005010 .826		.025040 .834	.590 .03005		.752 .010020
.786 .48			.414 .020040 .792			.076 .005010				.020040		1 .44						.015030 .827		.010020 .834	.596 .03005		.378 .025042
.786 .50	2 .010020		.440 .005010 .793			.190 .020040				.005010	.81					.005010 .820	.159	.105135 .827			.759 .01002		.470 .050070
.786 .50			.452 .005010 .793			.194 .050070				.015030	.81					.005010 .820		.005010 .827			.200 .02003		.593 .080095
.786 .51	5 .010020	.788	.473 .010020 .793			.200 .025040				.015030	.81	1 .56	66 .025050	.813 .	.435	.100125 .820				.005010 .835	.221 .00501	.842	.631 .005008
.786 .53	1 .020030	.788	.476 .030050 .793							.030050	.81	1 .56	67 .042062	.813 .		.050070 .820							.632 .010020

									NO		LING CH						_
O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*
.842	.690	.005010	.850	.175	.050070	.852	.543	.025040	.859	.515	.032042	.863	.626	.090120	.866	.475	.010020
.842	.729	.005010	.850	.180	.120135	.852	.628	.020040	.859	.606	.060080	.863	.679	.040062	.866	.484	.070090
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.843	.142	.010020	.850	.240	.048072	.853	.266	.030060	.859	.629	.005010	.863	.682	.010020	.866	.500	.010020
.843	.210	.040060	.850	.250	.015030	.853	.357	.005010	.859	.646	.020040	.863	.687	.010020	.866	.531	.025040
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.843	.358	.005010	.850	.252	.005010	.853	.408								.866	.545	.02004
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.843	.559	.050072	.850	.319	.060080	.853	.726	.030050	.860	.171	.015030	.864	.505	.015025	.866	.626	.04006
.843	.630	.005010	.850	.330	.020040	.853	.750	.005010	.860	.192	.090125	.864	.536	.080104	.866	.627	.02504
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.844	.099	.025040	.850	.356	.010020	.854	.578	.010020	.860	.265	.075090	.864	.620	.010020	.866	.642	.005010
.844	.397	.005010	.850	.374	.005010	.854	.583	.030050	.860	.275	.030050	.864	.628	.050070	.866	.643	.005010
.844	.555	.010020	.850	.377	.005020	.854	.605	.005010	.860	.314	.075090	.864	.633	.005010	.866	.647	.015030
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.844	.610	.030060	.850	.380	.030040	.854	.655	.005010	.860				.639	.042062	.866	.697	.015025
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	.666		.850	.382		.854	.808	.015020	.860	.338	.005010	.865	.205	.005010	.866		
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.845	.660	.010020	.850	.535	.050075	.855	.531	.010020	.860	.592	.005010	.865	.493	.010020	.867	.381	.030060
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.846	.762	.032050							.860	.602	.010020	.865	.553	.010020			.010020
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.846	.273	.005010	.850	.595	.090105	.855	.651	.050062	.860	.629	.030050	.865	.570	.030040	.867	.405	.090105
.846	.320	.015030	.850	.600	.010020	.855	.691	.050070	.860	.634	.020030	.865	.597	.042062	.867	.413	.005010
.846	.327	.005010	.850	.612	.005010	.856	.088	.010020	.860	.645	.040060	.865	.626	.040060	.867	.452	.005010
.846	.455	.030060	.850	.620	.005010	.856	.123	.005010	.860	.676	.005030	.865	.630	.005010	.867	.474	.090110
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.846	.630	.005010	.850	.627	.005010	.856	.286	.050070	.860	.698	.030050	.865	.635	.005010	.867	.560	.040060
.846	.639	.005040	.850	.630	.015020	.856	.380	.010020	.860	.705	.005050	.865	.650	.020030	.867	.566	.005010
.846	.658	.032050	.850	.635	.015030	.856	.443	.020040	.860	.711	.025040	.865	.672	.010015	.867	.593	.015030
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.846	.663	.030060	.850	.653	.015030	.856	.628	.060080	.860	.750	.005010	.865	.714	.005010	.867	.632	.025040
.846	.670	.040060	.850	.664	.005030	.856	.640	.015030	.860	.757	.005010	.865	.715	.032042	.867	.638	.012020
.846	.697	.015030	.850	.673	.015030	.856	.650	.010020	.860	.767	.005010	.865	.740	.020040	.867	.644	.080100
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.847	.193	.090105	.850	.711	.015030	.856	.688	.010020	.860	.785	.010020			.005010	.867	.688	.005008
.847	.253	.005010	.850		.020040	.856	.689	.030050				.865	.756		.867	.690	.010020
	.323	.005010		.731					.861	.499	.030050	.865	.794	.005010			.025040
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.847	.416	.005010	.850	.750	.010020	.857	.312	.005010	.861	.601	.030050	.866	.197	.080100	.867	.709	.005010
.847	.422	.005010	.850	.756	.020030	.857	.409	.005010	.861	.620	.060080	.866	.236	.005020	.867	.710	.010030
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.848	.199	.025040	.851	.184	.040090	.858	.352	.100125	.861	.763	.005010	.866	.302	.060080	.867	.794	.005010
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						.858	.649	.030050	.862	.472	.050060	.866	.325	.090105			
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.849	.386	.050075	.851	.640	.005010	.859	.064	.030050	.862	.692	.020030	.866	.396	.005010	.868	.563	.080100
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.849	.520	.005010	.852	.257	.062090										.868	.620	.005010
						.859	.439	.020030	.863	.375	.025040	.866	.439	.005010			
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									_		-				_		
O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*
0.5.	1.0.	From To	0.5.		From To	0.5.	1.0.	From To	0.5.	1.0.	From To	0.5.		From To	0.5.	1.0.	From To
.868	.687	.005010	.870	.755	.042062	.873	.780	.025040	.875	.268	.005010	.875	.611	.050070	.876	.745	.025040
.868	.689	.005010	.870	.761	.020030	.874	.200	.042080	.875	.281	.005010	.875	.621	.060080	.876	.750	.030040
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.868	.751	.010020	.871	.381	.030110	.874	.259	.005010	.875	.318	.090110	.875	.630	.050070	.877	.170	.035060
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									.875	.320	.010020	.875	.631	.015030			
.869	.279	.105135	.871	.410	.030050	.874	.312	.005010	.875	.320	.070090	.875	.632	.100125	.877	.250	.030050
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.869	.539	.010020	.871	.581	.070090	.874	.375	.060187	.875	.328	.005010	.875	.652	.031048	.877	.329	.020030
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.870	.461	.040060	.872	.687	.005010	.874	.658	.005010	.875	.436	.060080	.876	.317	.030050	.878	.523	.100125
.870	.472	.005010	.872	.725	.040060	.874	.660	.010020	.875	.437	.050080	.876	.328	.005187	.878	.531	.020040
.870	.478	.010020	.872	.728	.005010	.874	.688	.015030	.875	.438	.010020	.876	.340	.160190	.878	.562	.025040
.870	.502	.030040	.872	.754	.005010	.874	.721	.010020	.875	.439	.005010	.876	.343	.025040	.878	.570	.005012
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.870	.506	.080105	.872	.760	.005025										.878	.593	.025050
						.875	.070	.005010	.875	.448	.030050	.876	.377	.005010			
.870	.508	.105135	.872	.807	.010015	.875	.086	.005010	.875	.451	.005010	.876	.378	.090105	.878	.627	.020030
.870	.512	.005010	.873	.140	.048062	.875	.087	.020040	.875	.452	.005010	.876	.397	.030050	.878	.628	.005010
.870	.520	.075090	.873	.153	.050075	.875	.111	.020040	.875	.453	.025080	.876	.461	.005010	.878	.632	.040060
.870	.540	.005010	.873	.194	.070090	.875	.129	.020040	.875	.456	.090125	.876	.471	.040062	.878	.648	.005010
.870	.541	.105125	.873	.195	.005010	.875	.133	.032042	.875	.465	.080100	.876	.500	.005010	.878	.660	.015030
.870	.551	.050070	.873	.224	.020040	.875	.140	.015030	.875	.473	.100125	.876	.503	.005010	.878	.689	.020040
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									.875	.500	.040090	.876	.516	.125156			
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.870	.625	.015030	.873	.405	.015030	.875	.184	.020040	.875	.506	.090125	.876	.551	.100120	.879	.431	.050070
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.870	.632	.010050	.873	.436	.050075	.875	.192	.025042	.875	.516	.060080	.876	.591	.050070	.879	.593	.050070
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.870	.640	.030060	.873		.015030										.879	.636	.015030
				.467		.875	.196	.050075	.875	.518	.090110	.876	.616	.048062			
.870	.647	.005010	.873	.470	.030050	.875	.199	.050070	.875	.527	.032048	.876	.622	.040060	.880	.165	.050075
.870	.649	.015030	.873	.503	.015070	.875	.203	.062090	.875	.530	.015030	.876	.625	.005010	.880	.170	.110130
.870	.650	.040060	.873	.522	.020040	.875	.204	.040060	.875	.531	.105125	.876	.626	.050075	.880	.192	.015030
.870	.682	.015075	.873	.532	.170190	.875	.226	.005010	.875	.537	.005010	.876	.632	.030050	.880	.219	.032050
.870	.687	.050062	.873	.546	.050070	.875	.236	.005060	.875	.562	.050072	.876	.633	.062080	.880	.260	.005187
.870	.691	.005010	.873	.582	.100125	.875	.246	.040060	.875	.563	.005105	.876	.672	.090105	.880	.265	.005010
.870	.695	.005010	.873	.599	.075090	.875	.250	.005050	.875	.567	.005090	.876	.675	.030040	.880	.302	.005015
.870	.711	.025040	.873	.604	.025040	.875	.252	.010020	.875	.568	.020048	.876	.681	.060080	.880	.324	.050070
													.692				
	.728 .738	.005010	.873	.627	.030060	.875	.253	.050075	.875	.579	.050060	.876		.020030	.880	.333	.042060
.870	7.48	.005010	.873	.628	.105125	.875	.257	.070130	.875	.580	.015030	.876	.694	.020040	.880	.340	.160190
.870		005 016	070											.010020	.880		.005010
	.744 .754	.005010 .005012	.873 .873	.630 .632	.005050 .005015	.875 .875	.260 .267	.030040 .090134	.875 .875	.600 .610	.090105 .025040	.876 .876	.702 .714	.030050	.880	.357 .375	.060080

									110	100	LING CH	AIIGE		AITI OI		OIZE	LIGILD
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
.880	.376	.025062	.889	.395	.105120	.899	.841	.010020	.903	.258	.060080	.906	.638	.093125	.912	.636	.060070
.880	.380	.005080	.889	.557	.005010	.900	.063	.010020	.903	.315	.030048	.906	.657	.025035	.912	.656	.105120
.880	.381	.005015	.889	.569	.005010	.900	.079	.030050	.903	.330	.015030	.906	.669	.015030	.912	.683	.015030
.880	.386	.070090	.889	.758	.025040	.900	.100	.015030	.903	.401	.005010	.906	.728	.030050	.912	.805	.005010
.880	.406	.005010	.889	.786	.005010	.900	.154	.005010	.903	.416	.100125	.906	.730	.030050	.913	.493	.015030
.880	.407	.080105	.890	.192	.050072	.900	.217	.025040	.903	.500	.025036	.906	.750	.010020	.913	.507	.020030
.880	.426	.005015	.890	.273	.070105	.900	.252	.005010	.903	.531	.160180	.906	.759	.010020	.913	.510	.020040
.880	.430	.005010	.890	.385	.090105	.900	.254	.040060	.903	.664	.025040	.906	.769	.010020	.913	.665	.080100
.880	.455	.005012	.890	.405	.100125	.900	.321	.005010	.903	.710	.010020	.907	.200	.060080	.913	.847	.005010
.880	.485	.050060	.890	.438	.030040	.900	.376	.005030	.903	.735	.005015	.907	.228	.040060	.914	.521	.005010
.880	.495	.005010	.890	.504	.015030	.900	.377	.005010	.903	.760	.015030	.907	.293	.070090	.914	.596	.025040
.880	.505	.015025	.890	.530	.010030	.900	.378	.015040	.903	.766	.040060	.907	.330	.050060	.914	.650	.015030
.880	.518	.040060	.890	.537	.105125	.900	.379	.005078	.903	.771	.005050	.907	.380	.125135	.915	.350	.040060
.880	.523	.005010	.890	.547	.110130	.900	.380	.010020	.903	.781	.040050	.907	.411	.025040	.915	.446	.015025
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.880	.541	.025035	.890	.582	.005010	.900	.390	.030060	.904	.206	.040060	.907	.514	.005010	.915	.509	.050070
.880	.557	.005010	.890	.587	.005010	.900	.400	.005010	.904	.262	.070090	.907	.603	.070090	.915	.510	.005010
.880	.604	.005010	.890	.667	.005010	.900	.406	.135156	.904	.319	.005020	.907	.624	.020035	.915	.512	.020040
.880	.621	.020060	.890	.711	.025040	.900	.437	.005010	.904	.329	.005010	.907	.645	.020033	.915	.616	.015030
.880	.626	.062078	.890	.785	.040050	.900	.440	.005010	.904	.486	.025042	.907	.669	.060080	.915	.623	.030060
.880	.659	.070080	.891	.582	.030050	.900	.442	.005010	.904	.629	.020100	.907	.672	.042060	.915	.628	.080095
.880	.681	.005012	.891	.632	.005010	.900	.453	.030040	.904	.640	.030040	.907	.682	.030050	.915	.744	.005010
.880	.688	.030050	.891	.669	.010020	.900	.455	.050040	.904	.649	.020035	.907	.728	.005015	.915	.775	.005010
.880	.690	.060070	.891	.711	.005015	.900	.489	.005010	.904	.690	.020030	.907	.740	.010050	.916	.150	.020032
.880	.711	.025040	.892	.073	.025036	.900	.500	.005010	.904	.750	.040060	.907	.757	.010030	.916	.317	.100120
.881	.201	.005010	.892	.273	.070105	.900	.503	.005020	.904	.805	.040060	.908	.332	.135156	.916	.507	.020040
.881	.203	.005010	.892	.390	.005010	.900	.504	.005020	.905	.127	.005040	.908	.342	.050075	.916	.532	.040060
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.881	.548	.030050	.892	.612	.010025	.900	.562	.015030	.905	.201	.005010	.908	.502	.030050	.916	.570	.050040
.881	.661	.005010	.892	.632	.005010	.900	.563	.040060	.905	.238	.005010	.908	.555	.080050	.916	.571	.090090
.881	.681	.010015	.892	.653	.050070	.900	.564	.010100	.905	.330	.015030	.908	.564	.015030	.916	.734	.020040
.881	.732	.020030	.892	.726	.005010	.900	.570	.005070	.905	.344	.020030	.908	.616	.020032	.916	.735	.020040
.882	.300	.005010	.893	.621	.040075	.900	.577	.015025	.905	.392	.010040	.908	.688	.010025	.916	.795	.010020
.882	.323	.005010	.893	.701	.005010	.900	.578	.070090	.905	.396	.005010	.908	.705	.030048	.916	.804	.016032
.882	.325	.005010	.894	.195	.020040	.900	.595	.070090	.905	.398	.120135	.908	.751	.060080	.916	.834	.005010
.882	.500	.150180	.894	.251	.010020	.900	.610	.020040	.905	.403	.020040	.908	.753	.005010	.917	.501	.050090
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.882	.522	.020040	.894	.624	.005010	.900	.626	.050070	.905	.451	.070090	.908	.765	.020030	.917	.531	.062078
.882	.540	.090110	.894	.762	.005010	.900	.628	.005010	.905	.460	.005010	.909	.250	.030040	.917	.579	.050060
.882	.642	.040060	.895	.375	.070090	.900	.629	.010020	.905	.473	.010030	.909	.342	.050040	.917	.596	.005015
.882	.664	.005010	.895	.390	.032062	.900	.630	.120135	.905	.475	.105125	.909	.364	.005010	.917	.623	.040060
.882	.788	.015030	.895	.462	.005010	.900	.634	.040060	.905	.481	.040060	.909	.379	.005010	.918	.497	.010020
.883	.315	.010020	.895	.574	.032042	.900	.651	.005010	.905	.493	.070090	.909	.634	.010020	.918	.508	.030050
.883	.500	.050075	.895	.631	.005010	.900	.654	.060070	.905	.513	.060080	.909	.676	.007015	.918	.596	.005010
.883	.509	.030050	.895	.661	.010020	.900	.661	.070090	.905	.520	.020040	.909	.749	.040060	.918	.614	.005010
.883	.560	.050070	.895	.733	.050070	.900	.670	.025048	.905	.531	.050060	.909	.796	.005010	.918	.762	.025035
.883	.622	.050075	.895	.795	.010020	.900	.690	.010050	.905	.558	.005010	.910	.250	.080104	.919	.257	.070090
.883	.777	.010020	.895	.801	.020030	.900	.711	.025040	.905	.564	.040060	.910	.330	.030104	.919	.366	.005010
.883	.788	.005010	.896	.215	.060080	.900	.725	.020040	.905	.585	.050075	.910			.919	.396	.005010
.884	.411	.005010	.896	.340	.050070	.900	.730	.060080	.905	.634	.032060		.381	.050070 .015030	.919	.493	.100125
.884	.510	.015030	.896	.772	.020042	.900	.755	.010020	.905		.015030	.910	.400		.919	.565	.005020
.885	.150	.020040	.897	.292	.020042	.900	.800	.010020	.905	.637 639	.040060	.910	.417 425	.010020	.919	.671	.005020
.885	.212	.020040	.897 .897	.292 .407	.005010	.900	.805	.005010	.905	.639		.910	.425	.005010	.919	.697	.010020
.885	.325	.010020	.897	.407	.010020	.900	.810	.010020	.905	.643 657	.010020	.910	.440	.005010	.919	.765	.005010
.885	.325	.005010	.897 .897	.408	.025080	.900	.825			.657 667	.070080	.910	.468	.075090	.919	.812	.020030
.885	.443	.005010	.897	.704	.025080	.900	.830	.005010	.905	.667 672	.040060	.910	.490	.130156	.920	.048	.020030
.885	.456	.005008	.897 .897	.704	.025040	.900	.840	.015025	.905	.672	.070090	.910	.500	.025040	.920	.040	.040060
.885	.521	.005020	.897 .897	.810	.010015	.900	.202	.030050	.905	.673	.090125	.910	.515	.100125	.920	.157	.005010
.885	.565	.015010	.898	.250	.040060	.901			.905	.674 677	.075100	.910	.540	.060080	.920	.163	.005010
.885	.626	.015032	.898	.250	.050075		.256	.010016	.905	.677	.105125	.910	.560	.110130		.200	.032060
.885		.020040			.005010	.901	.292	.040060	.905	.682	.010020	.910	.590	.005010	.920	.230	.005010
	.695 705		.898 808	.343		.901	.361		.905	.709	.015030	.910	.638	.010020	.920		.025040
.885	.705	.005010	.898	.453	.080100	.901	.506	.005020	.905	.728	.050070	.910	.650	.005015	.920	.253	
.886	.118	.030050	.898	.510	.075104	.901	.626	.005020	.905	.785	.005010	.910	.667	.030050	.920	.265	.040060
.886	.291	.030050	.898	.665	.025040	.901	.694	.075093	.906	.316	.005010	.910	.703	.030040	.920	.269	.135187
.886	.443	.005040	.898	.726	.005010	.901	.710	.005020	.906	.317	.005020	.910	.750	.010020	.920	.316	.080100
.886	.531	.050070	.898	.748	.005010	.901	.715	.010020	.906	.325	.005010	.910	.811	.020040	.920	.318	.005010
.886	.650	.070090	.898	.812	.005010	.902	.316	.010030	.906	.332	.090110	.910	.820	.005010	.920	.378	.005010
.887	.265	.062090	.898	.829	.015030	.902	.318	.005010	.906	.394	.010020	.911	.256	.080100	.920	.456	.010030
.887	.325	.035050	.899	.121	.040060	.902	.329	.005010	.906	.395	.090100	.911	.416	.062090	.920	.470	.105125
.887	.572	.050070	.899	.197	.030050	.902	.377	.005010	.906	.396	.010020	.911	.471	.030050	.920	.499	.050070
.887	.714	.020040	.899	.444	.010020	.902	.504	.006012	.906	.405	.010020	.911	.564	.030050	.920	.504	.005010
.887	.755	.005010	.899	.479	.020040	.902	.505	.005020	.906	.470	.060080	.911	.568	.005010	.920	.505	.090110
.887	.795	.005010	.899	.535	.005010	.902	.535	.005010	.906	.474	.005010	.911	.615	.005010	.920	.525	.005010
.888	.382	.075090	.899	.562	.025040	.902	.564	.005010	.906	.512	.006012	.911	.710	.030048	.920	.550	.005010
.888	.530	.005010	.899	.563	.005010	.902	.642	.005010	.906	.519	.010020	.911	.780	.005010	.920	.564	.015030
.888	.535	.015030	.899	.568	.070090	.902	.658	.005010	.906	.565	.080100	.911	.815	.005010	.920	.584	.005010
.888	.622	.005010	.899	.789	.030040	.902	.679	.030050	.906	.585	.020040	.912	.176	.005010	.920	.590	.005010
.888	.656	.005010	.899	.791	.010020	.902	.790	.030050	.906	.592	.025040	.912	.549	.070105	.920	.608	.005010
	.760	.010020	.899	.810	.020030	.902	.792	.005010	.906	.603	.010020	.912	.563	.010020	.920	.618	.005010
.888	., 00										.005010	.912	.596	.005010	.920		

Description																		
Sect 101	0.0	ΙD	Choose Any	ΟD	ΙD	Choose Any	0.0	ΙD	Choose Any	0.0	ΙD	Choose Any	0.0	ΙD	Choose Any	OD	ΙD	Choose Any
1909 1909	O.D.	1.0.	From To	0.0.	1.0.	From To	0.0.	1.0.	From To	0.0.	1.0.	From To	O.D.	1.0.	From To	O.D.	1.0.	From To
100	.920	.629	.010020	.927	.264	.005010	.934	.563	.048078	.937	.410	.015030	.938	.784	.015030	.941	.566	.020040
1800 1800	.920	.630	.015060	.927	.397	.005010	.934	.743	.020040	.937	.431					.941	.632	.030060
1909 1909	.920	.687	.020040														.675	.005010
180																		
Sept																		
Sept																		
See 1989																		
141 171																		
1442 1452 1505																		
												.020110	.939	.457	.008016			
	.921	.402	.005010	.928	.084	.050062	.935	.310	.050083	.937	.515	.030050	.939	.496	.005010	.942	.407	.005010
1	.921	.445	.005010	.928	.087	.050060	.935	.318	.005010	.937	.517	.105125	.939	.560	.080104	.942	.455	.030120
1941 1851 1852 1854 1852 1859	.921	.490	.025040	.928	.153	.060080	.935	.321	.005010	.937	.518	.005010	.939	.563	.005010	.942	.475	.030050
Sept	.921	.508	.010020	.928	.383	.005015	.935	.439	.020050	.937	.520	.020125	.939	.610	.040060	.942	.484	.010020
221 S87 D02 O40 O578 F7 D05 O10 D05 O40 S98 S98 D05 O40 S98 S98 D05 O40 O40	.921	.531	.025040	.928	.552	.080100	.935	.455	.100125	.937	.570	.005010	.939	.628	.015030	.942	.504	.030050
1842 1841 101	.921	.587	.020040	.928	.678	.005010	.935	.481		.937	.578					.942	.508	.090120
Set Med	.921	.630	.010020	.929												.942	.515	.015035
1842 1868	.921	.641	.010020													.942	.530	.005010
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924 727 040 060 930 816 100 050 936 343 105 125 938 217 100 120 940 553 100 125 944 432 1156 125	.924	.382	.030040	.930	.710	.005010	.936	.266	.060080	.938	.199	.048062	.940	.525	.040060	.944	.319	.008012
924 746 022 040 930 812 010 020 936 343 105 125 938 247 050 072 940 590 015 030 944 432 105 125	.924	.538	.010015	.930	.750	.025040	.936	.310	.050080	.938	.200	.030060	.940	.535	.030040	.944	.394	.005010
924 746 020 - 040 930 812 010 - 020 936 343 105 - 125 938 247 050 - 072 940 590 015 - 030 944 432 105 - 125 925 158 100 - 125 931 478 020 - 030 936 337 040 - 060 938 246 042 - 060 940 697 030 - 060 944 473 005 - 070 925 289 100 - 120 931 598 035 - 060 938 406 050 - 070 938 318 048 - 062 940 690 030 - 060 944 473 005 - 070 925 322 070 - 090 931 660 020 - 030 936 481 005 - 060 938 328 104 - 134 940 640 005 - 105 944 502 010 - 020 925 322 070 - 090 931 729 050 - 070 938 348 048 - 062 940 641 025 - 040 944 502 010 - 020 925 397 048 - 072 931 729 050 - 070 938 337 048 - 062 940 641 025 - 040 944 597 020 - 030 936 537 030 - 110 938 337 048 - 062 940 641 025 - 040 944 597 020 - 030 936 537 030 - 110 938 337 048 - 062 940 641 025 - 040 944 597 020 - 030 036 537 030 - 110 938 337 048 - 062 940 641 025 - 040 944 537 030 - 010 938 338 030 - 030 030	.924	.727	.040060	.930	.760	.005030	.936	.313	.020035	.938	.201	.100120	.940	.553	.100125	.944	.423	.156187
925 .091 .005010 .931 .454 .020030 .936 .375 .040050 .938 .246 .048062 .940 .650 .070 .944 .472 .005020 .925 .158 .100125 .931 .478 .020030 .936 .390 .060090 .938 .266 .042060 .940 .607 .030060 .944 .475 .005010 .925 .314 .010015 .931 .632 .105125 .936 .480 .010030 .938 .322 .035060 .940 .607 .030060 .944 .475 .005010 .925 .346 .015025 .931 .691 .040060 .936 .481 .005060 .938 .332 .005010 .941 .478 .020030 .925 .322 .070990 .931 .660 .020030 .936 .481 .005060 .938 .334 .048062 .940 .641 .025040 .944 .595 .020040 .925 .346 .015025 .931 .691 .040060 .936 .537 .005010 .938 .333 .048062 .940 .646 .060090 .944 .673 .005010 .925 .348 .015050 .931 .762 .020030 .936 .537 .005010 .938 .333 .055010 .940 .666 .040060 .944 .673 .005010 .925 .445 .060083 .931 .811 .040060 .936 .537 .005010 .938 .333 .055010 .940 .666 .040060 .944 .673 .005010 .925 .445 .060083 .931 .811 .040060 .936 .537 .005010 .938 .333 .055010 .940 .666 .040060 .944 .673 .005010 .925 .445 .060080 .932 .335 .055070 .936 .541 .055 .045 .040 .938 .333 .055070 .936 .541 .055 .040 .936 .035 .040 .060 .938 .338 .055070 .936 .045 .060 .938 .338 .055070 .938 .438 .045 .	.924	.746	.020040	.930	.812	.010020	.936			.938					.015030	.944	.432	.105125
925 158 100 - 125 931 478 020 - 030 936 390 060 - 090 938 266 042 - 060 940 607 030 - 060 944 473 005 - 010 925 289 100 - 105 931 .598 .035060 .936 .400 .050 - 0.70 .938 .318 .048062 .940 .610 .030060 .944 .475 .005010 .931 .660 .020030 .936 .480 .010030 .938 .322 .035060 .940 .630 .005015 .934 .610 .020030 .936 .811 .005010 .938 .322 .035060 .940 .641 .025040 .944 .692 .940 .646 .660000 .006 .936 .517 .090110 .938 .376 .048062 .940 .646 .660000 .000 .944 .633 .005010 .938 .377 .005010 .938 .337 .00	.925	.091	.005010														.442	
925 289 100 - 120 931 598 035 - 060 936 480 050 - 070 938 318 048 - 062 940 610 030 - 060 944 475 005 - 010 925 314 010 - 015 931 632 105 - 125 936 480 010 - 030 938 322 035 - 060 940 633 030 - 060 944 475 020 - 030 935 322 070 - 090 931 660 020 - 030 936 481 005 - 060 938 328 104 - 134 940 640 005 - 105 944 479 020 - 030 935 348 486 060 - 036 936 532 005 - 010 938 338 343 048 - 062 940 641 025 - 040 944 595 020 - 040 935 348 035 - 030 944 352 035 - 040 945 332 035 - 040 945 332 035 - 040 945 332 035 - 040 945 332 035 - 040 945 332 035 - 040 945 332 035 - 040 945 332 035 - 040 945 332 035 - 040 945 332 035 - 040 945 035																		
925 314 0.10 - 0.15 931 632 1.05 - 1.25 936 4.80 0.10 - 0.30 938 3.22 0.35 - 0.60 940 6.83 0.05 - 0.10 9.44 4.79 0.20 - 0.30 9.25 3.22 0.70 - 0.90 9.31 6.60 0.20 - 0.30 9.36 4.81 0.05 - 0.60 9.38 3.28 1.04 - 1.34 940 6.40 0.05 - 1.05 9.44 5.50 0.10 - 0.20 9.25 3.346 0.15 - 0.25 9.31 6.91 0.40 - 0.60 9.36 5.51 0.90 - 1.10 9.38 3.43 0.48 - 0.62 9.40 6.41 0.25 - 0.40 9.44 5.55 0.20 - 0.40 9.25 3.37 0.48 - 0.72 9.31 7.29 0.50 - 0.70 9.36 5.51 0.90 - 1.10 9.38 3.79 0.05 - 0.10 9.40 6.66 0.60 - 0.80 9.44 6.73 0.05 - 0.05 0.25																		
.925 .322 .070090 .931 .660 .020030 .936 .481 .005060 .938 .328 .104134 .940 .641 .025040 .944 .592 .010020 .931 .691 .040060 .936 .502 .005010 .938 .378 .048062 .940 .641 .025040 .944 .633 .005010 .936 .517 .990110 .938 .376 .048062 .940 .666 .060080 .944 .633 .005010 .925 .445 .060083 .931 .811 .040060 .936 .552 .005010 .938 .383 .105125 .940 .673 .005010 .944 .673 .015025 .925 .445 .006080 .944 .673 .015025 .925 .450 .025040 .932 .330 .025040 .936 .627 .040060 .938 .383 .105125 .940 .686 .010																		
.925 .346 .015025 .931 .691 .040060 .936 .502 .055010 .938 .343 .048062 .940 .641 .025040 .944 .633 .005010 .925 .438 .015050 .931 .729 .050030 .936 .537 .005010 .938 .379 .005010 .946 .666 .040060 .944 .673 .015025 .925 .445 .060083 .931 .811 .040060 .936 .552 .055010 .936 .677 .005010 .936 .677 .005010 .936 .677 .005010 .936 .677 .005010 .936 .677 .040060 .938 .383 .105125 .940 .686 .010020 .944 .769 .020040 .932 .335 .050070 .936 .641 .100125 .938 .439 .042062 .940 .686 .015030 .932																		
.925 .397 .048072 .931 .729 .050070 .936 .517 .090110 .938 .379 .048062 .940 .646 .060080 .944 .633 .005010 .936 .537 .005010 .938 .339 .005010 .940 .666 .040060 .944 .673 .015025 .940 .673 .005030 .944 .673 .015026 .940 .673 .005030 .944 .669 .040060 .925 .450 .025040 .932 .230 .052040 .936 .627 .040060 .938 .388 .090105 .940 .674 .055010 .944 .766 .020040 .932 .335 .055040 .936 .645 .105135 .938 .444 .040062 .940 .666 .010020 .944 .766 .020075 .925 .575 .070090 .932 .466 .090110 .936 .660 .055																		
.925 .438 .015050 .931 .762 .020030 .936 .537 .005010 .938 .379 .005010 .940 .656 .040060 .944 .673 .015025 .925 .445 .060083 .931 .811 .040060 .938 .383 .105125 .940 .674 .005010 .944 .694 .040060 .925 .474 .050070 .932 .330 .025040 .936 .641 .100125 .938 .439 .042062 .940 .686 .010020 .944 .795 .015030 .925 .561 .025040 .932 .335 .050070 .936 .665 .050010 .940 .700 .015025 .945 .221 .050075 .925 .576 .050075 .932 .663 .050012 .936 .660 .050008 .938 .505 .030050 .940 .704 .083																		
9.25 .445 .060083 .931 .811 .040060 .936 .552 .005010 .938 .383 .105125 .940 .673 .005030 .944 .694 .040060 .925 .450 .025040 .932 .243 .055070 .936 .627 .040060 .938 .383 .905105 .940 .674 .005010 .944 .795 .015030 .925 .474 .050070 .932 .330 .025040 .936 .641 .100125 .938 .439 .042062 .940 .686 .010020 .944 .795 .015030 .925 .516 .025040 .932 .335 .050070 .936 .665 .050070 .938 .444 .040062 .940 .700 .015025 .945 .221 .050075 .925 .526 .015030 .932 .465 .090110 .936 .650 .050070 .938 .458 .005010 .940 .701 .015030 .945 .240 .005010 .925 .575 .070090 .932 .563 .005012 .936 .667 .052084 .938 .507 .005010 .940 .701 .030050 .945 .249 .005010 .925 .575 .576 .050075 .932 .563 .005070 .936 .687 .022084 .938 .507 .005010 .940 .771 .030050 .945 .249 .060125 .925 .575 .070090 .932 .776 .050070 .937 .080 .020035 .938 .521 .005010 .940 .771 .030050 .945 .249 .060125 .925 .575 .050075 .932 .574 .050070 .937 .080 .020035 .938 .521 .005010 .940 .721 .040060 .945 .314 .005010 .925 .672 .040060 .932 .869 .005070 .937 .080 .020035 .938 .552 .005010 .940 .730 .015030 .945 .314 .005010 .925 .672 .040060 .932 .869 .005020 .937 .174 .062080 .938 .562 .030050 .940 .766 .050075 .945 .317 .005070 .925 .672 .040060 .932 .869 .005020 .937 .174 .062080 .938 .562 .030050 .940 .766 .050075 .945 .317 .005070 .925 .672 .010 -																		
.925 .450 .025040 .932 .243 .050070 .936 .627 .040060 .938 .388 .090105 .940 .674 .005010 .944 .766 .020040 .925 .516 .025040 .932 .335 .050070 .936 .681 .105135 .938 .444 .040062 .940 .686 .010020 .945 .212 .050070 .936 .650 .050070 .938 .444 .040062 .940 .068 .015030 .945 .221 .050070 .936 .650 .050070 .938 .458 .005010 .940 .701 .015030 .945 .221 .050010 .940 .701 .015030 .945 .221 .050070 .938 .650 .050070 .938 .507 .050010 .940 .701 .015030 .945 .249 .050070 .940 .721 .040060 .945 .249																		
.925 .474 .050070 .932 .330 .025040 .936 .641 .100125 .938 .439 .042062 .940 .686 .010020 .944 .795 .015030 .925 .516 .025040 .932 .465 .050070 .938 .458 .005010 .940 .701 .015030 .945 .221 .050075 .925 .575 .070090 .932 .469 .040062 .936 .660 .005008 .938 .505 .030050 .940 .704 .083105 .945 .240 .005010 .925 .575 .070075 .932 .563 .005012 .936 .687 .052040 .938 .505 .030050 .940 .704 .083105 .945 .249 .060125 .925 .577 .050075 .932 .676 .015030 .941 .925 .921 .941 .730 .015030<																		
.925 .516 .025040 .932 .335 .050070 .936 .645 .105135 .938 .444 .040062 .940 .700 .015025 .945 .221 .050075 .925 .526 .015030 .932 .469 .090110 .936 .660 .050078 .938 .505 .030050 .940 .083105 .945 .237 .005010 .925 .576 .050075 .932 .563 .005012 .936 .680 .052084 .938 .507 .005010 .940 .701 .030050 .945 .249 .060125 .925 .576 .050075 .932 .676 .015030 .936 .718 .020035 .938 .521 .005010 .940 .721 .040060 .945 .282 .040060 .942 .282 .040060 .942 .775 .005010 .945 .314 .005010 .945																		
.925 .526 .015030 .932 .465 .090110 .936 .650 .050070 .938 .458 .005010 .940 .701 .015030 .945 .237 .005010 .925 .576 .070090 .932 .469 .040062 .936 .660 .005004 .938 .507 .005010 .940 .701 .033050 .945 .240 .005010 .925 .577 .050075 .932 .676 .015030 .936 .718 .022040 .938 .521 .005010 .940 .721 .040060 .945 .282 .040060 .945 .282 .040060 .945 .282 .040060 .940 .730 .015030 .945 .314 .005010 .940 .730 .015030 .945 .314 .005010 .940 .752 .005010 .945 .315 .010020 .937 .7174 .050070 .938																		
.925 .575 .070090 .932 .469 .040062 .936 .660 .005008 .938 .505 .030050 .940 .704 .083105 .945 .240 .005010 .925 .576 .050075 .932 .563 .005012 .936 .687 .052084 .938 .507 .005010 .940 .710 .030050 .945 .249 .060125 .925 .577 .050075 .932 .676 .015030 .936 .718 .020040 .938 .521 .005010 .940 .721 .040060 .945 .282 .040060 .925 .661 .025040 .932 .775 .005010 .937 .092 .050070 .938 .552 .005010 .940 .756 .050075 .945 .317 .005010 .945 .317 .005010 .945 .317 .005010 .945 .317 .005010																		
.925 .576 .050075 .932 .563 .005012 .936 .687 .052084 .938 .507 .005010 .940 .710 .030050 .945 .249 .060125 .925 .577 .050075 .932 .676 .015030 .936 .718 .020040 .938 .521 .005010 .940 .721 .040060 .945 .282 .040060 .945 .282 .040060 .945 .314 .005010 .940 .752 .005010 .945 .314 .005010 .940 .752 .005010 .945 .314 .005010 .940 .752 .005010 .945 .317 .005010 .940 .766 .050075 .945 .317 .005010 .940 .766 .050075 .945 .317 .005010 .940 .766 .050075 .945 .317 .005010 .943 .940 .766 .005010 .943								.650		.938	.458	.005010	.940	.701	.015030			
.925 .577 .050075 .932 .676 .015030 .936 .718 .020040 .938 .521 .005010 .940 .721 .040060 .945 .282 .040060 .925 .611 .010020 .932 .774 .050010 .937 .080 .020035 .938 .532 .105125 .940 .730 .015030 .945 .314 .005010 .925 .661 .025040 .932 .775 .005010 .937 .110 .050070 .938 .550 .050010 .940 .752 .005010 .945 .315 .010020 .925 .670 .040060 .932 .870 .010020 .937 .174 .062080 .938 .563 .015030 .940 .776 .005010 .945 .318 .010020 .937 .257 .032048 .938 .570 .070090 .940 .788 .020030		.575					.936	.660	.005008	.938	.505	.030050	.940	.704	.083105	.945		
.925 .577 .050075 .932 .676 .015030 .936 .718 .020040 .938 .521 .005010 .940 .721 .040060 .945 .282 .040060 .925 .611 .010020 .932 .775 .005010 .937 .080 .020070 .938 .532 .105125 .940 .730 .015030 .945 .314 .005010 .925 .661 .025040 .932 .755 .005010 .937 .110 .050070 .938 .550 .005010 .940 .752 .005010 .945 .315 .010020 .925 .690 .010020 .932 .870 .010020 .937 .257 .032048 .938 .562 .030050 .940 .766 .050076 .945 .317 .005010 .940 .788 .020030 .945 .318 .010020 .937 .257 .032048	.925	.576	.050075	.932	.563	.005012	.936	.687	.052084	.938	.507	.005010	.940	.710	.030050	.945	.249	
.925 .611 .010020 .932 .749 .050070 .937 .080 .020035 .938 .532 .105125 .940 .730 .015030 .945 .314 .005010 .925 .661 .025040 .932 .775 .005010 .937 .092 .050070 .938 .550 .005010 .940 .752 .005010 .945 .315 .010020 .925 .672 .040060 .932 .869 .005020 .937 .110 .050070 .938 .562 .030050 .940 .766 .050075 .945 .317 .005010 .945 .317 .005010 .945 .318 .010020 .937 .775 .032048 .938 .560 .015030 .945 .318 .010020 .937 .275 .032048 .938 .570 .070090 .940 .776 .005010 .945 .318 .010020 .937 .225	.925	.577	.050075	.932	.676	.015030	.936	.718		.938						.945	.282	.040060
925 .661 .025040 .932 .775 .005010 .937 .092 .050070 .938 .550 .005010 .940 .752 .005010 .945 .315 .010020 .925 .672 .040060 .932 .869 .005020 .937 .110 .050070 .938 .562 .030050 .940 .766 .050075 .945 .317 .005070 .925 .690 .010020 .932 .870 .010020 .937 .174 .062080 .938 .563 .015030 .940 .776 .005010 .945 .318 .010020 .925 .719 .005010 .933 .197 .010020 .937 .257 .032048 .938 .595 .005010 .940 .788 .020030 .945 .331 .070090 .925 .756 .010020 .933 .508 .032040 .938 .596 .005 -	.925		.010020	.932													.314	.005010
.925 .672 .040060 .932 .869 .005020 .937 .110 .050070 .938 .562 .030050 .940 .766 .050075 .945 .317 .005070 .925 .690 .010020 .932 .870 .010020 .937 .174 .062080 .938 .563 .015030 .940 .776 .005010 .945 .318 .010020 .925 .719 .005010 .933 .197 .010020 .937 .257 .032048 .938 .595 .005010 .940 .788 .020030 .945 .322 .010020 .925 .725 .010020 .933 .415 .010020 .937 .275 .030050 .938 .596 .005010 .940 .796 .005010 .945 .331 .070090 .925 .756 .010020 .933 .6824 .025040 .937 .315 .080	.925	.661	.025040														.315	.010020
925 .690 .010020 .932 .870 .010020 .937 .174 .062080 .938 .563 .015030 .940 .776 .005010 .945 .318 .010020 .925 .719 .005010 .933 .197 .010020 .937 .257 .032048 .938 .570 .070090 .940 .788 .020030 .945 .322 .010020 .925 .725 .010020 .933 .415 .010020 .937 .275 .030050 .938 .595 .005010 .940 .788 .020010 .945 .331 .070090 .925 .756 .010020 .933 .508 .032060 .937 .292 .025040 .938 .596 .005010 .940 .796 .005012 .945 .345 .020040 .925 .817 .010020 .933 .688 .005010 .937 .319 .025 -																		
.925 .719 .005010 .933 .197 .010020 .937 .257 .032048 .938 .570 .070090 .940 .788 .020030 .945 .322 .010020 .925 .725 .010020 .933 .415 .010020 .937 .275 .030050 .938 .595 .005010 .940 .796 .005010 .945 .331 .070090 .925 .756 .010020 .933 .508 .032060 .937 .292 .025040 .938 .596 .005010 .940 .830 .005012 .945 .345 .020040 .925 .800 .012025 .933 .624 .025040 .937 .315 .080100 .938 .636 .030050 .941 .119 .030060 .945 .378 .050070 .925 .817 .010020 .933 .688 .005010 .937 .324 .030																		
.925 .725 .010020 .933 .415 .010020 .937 .275 .030050 .938 .595 .005010 .940 .796 .005010 .945 .331 .070090 .925 .756 .010020 .933 .508 .032060 .937 .292 .025040 .938 .596 .005010 .940 .830 .005012 .945 .345 .020040 .925 .800 .012025 .933 .624 .025040 .937 .315 .080100 .938 .636 .030050 .941 .119 .030060 .945 .378 .050070 .925 .817 .010020 .933 .688 .005010 .937 .319 .025040 .938 .637 .080104 .941 .150 .060070 .945 .389 .050075 .926 .162 .050070 .933 .752 .010020 .934 .393 .030																		
.925 .756 .010020 .933 .508 .032060 .937 .292 .025040 .938 .596 .005010 .940 .830 .005012 .945 .345 .020040 .925 .800 .012025 .933 .624 .025040 .937 .315 .080100 .938 .636 .030050 .941 .119 .030060 .945 .378 .050070 .925 .817 .010020 .933 .688 .005010 .937 .319 .025040 .938 .637 .080104 .941 .150 .060070 .945 .389 .050075 .925 .834 .020030 .933 .726 .005010 .937 .324 .030060 .938 .690 .040060 .941 .256 .130150 .945 .393 .030050 .926 .162 .050070 .933 .755 .010020 .937 .341 .050																		
.925 .800 .012025 .933 .624 .025040 .937 .315 .080100 .938 .636 .030050 .941 .119 .030060 .945 .378 .050070 .925 .817 .010020 .933 .688 .005010 .937 .319 .025040 .938 .637 .080104 .941 .150 .060070 .945 .389 .050075 .925 .834 .020030 .933 .726 .005010 .937 .324 .030060 .938 .690 .040060 .941 .150 .060070 .945 .389 .050075 .926 .162 .050070 .933 .775 .010020 .937 .330 .156187 .938 .721 .020040 .941 .257 .010020 .945 .394 .010020 .934 .940 .005010 .937 .341 .050075 .938 .730 .070090																		
.925 .817 .010020 .933 .688 .005010 .937 .319 .025040 .938 .687 .080104 .941 .150 .060070 .945 .389 .050075 .925 .834 .020030 .933 .726 .005010 .937 .324 .030060 .938 .690 .040060 .941 .256 .130150 .945 .393 .030050 .926 .162 .050070 .933 .775 .010020 .937 .330 .156187 .938 .721 .020040 .941 .257 .010020 .945 .394 .010020 .926 .399 .080105 .933 .836 .005010 .937 .341 .050075 .938 .730 .070090 .941 .260 .050070 .945 .411 .005010 .926 .438 .045060 .934 .094 .005010 .937 .375 .010																		
.925 .834 .020030 .933 .726 .005010 .937 .324 .030060 .938 .690 .040060 .941 .256 .130150 .945 .393 .030050 .926 .162 .050070 .933 .775 .010020 .937 .330 .156187 .938 .721 .020040 .941 .257 .010020 .945 .394 .010020 .945 .394 .010020 .945 .394 .010020 .941 .257 .010020 .945 .394 .010020 .945 .394 .010020 .941 .250 .050070 .945 .394 .010020 .941 .250 .050070 .945 .494 .010020 .941 .260 .050070 .945 .411 .005010 .937 .350 .020030 .938 .752 .015090 .941 .459 .020030 .945 .434 .156187 .936 .670																		
.926 .162 .050070 .933 .775 .010020 .937 .330 .156187 .938 .721 .020040 .941 .257 .010020 .945 .394 .010020 .926 .399 .080105 .933 .836 .005010 .937 .341 .050075 .938 .730 .070090 .941 .260 .050070 .945 .411 .005010 .926 .438 .045060 .934 .094 .005010 .937 .350 .020030 .938 .752 .015090 .941 .459 .020030 .945 .434 .156187 .926 .670 .010020 .934 .190 .010020 .937 .375 .010020 .938 .760 .005010 .941 .484 .005010 .945 .453 .156187 .926 .689 .015030 .934 .414 .025040 .937 .381 .025040 .938 .761 .015030 .941 .500 .040060																		
.926 .399 .080105 .933 .836 .005010 .937 .341 .050075 .938 .730 .070090 .941 .260 .050070 .945 .411 .005010 .926 .438 .045060 .934 .094 .005010 .937 .350 .020030 .938 .752 .015090 .941 .459 .020030 .945 .434 .156187 .926 .670 .010020 .934 .190 .010020 .937 .375 .010020 .938 .760 .005010 .941 .484 .005010 .945 .453 .156187 .926 .689 .015030 .934 .414 .025040 .937 .381 .025040 .938 .761 .015030 .941 .500 .040060 .945 .454 .156187 .926 .724 .015030 .934 .508 .020040 .937 .390 .005010 .938 .766 .020030 .941 .532 .030050																		
.926 .438 .045060 .934 .094 .005010 .937 .350 .020030 .938 .752 .015090 .941 .459 .020030 .945 .434 .156187 .926 .670 .010020 .934 .190 .010020 .937 .375 .010020 .938 .760 .005010 .941 .484 .005010 .945 .453 .156187 .926 .689 .015030 .934 .414 .025040 .937 .381 .025040 .938 .761 .015030 .941 .500 .040060 .945 .454 .156187 .926 .724 .015030 .934 .508 .020040 .937 .390 .005010 .938 .761 .015030 .941 .500 .040060 .945 .454 .156187 .926 .724 .015030 .934 .508 .020040 .937 .390 .005010 .938 .766 .020030 .941 .532 .030050																		
.926 .670 .010020 .934 .190 .010020 .937 .375 .010020 .938 .760 .005010 .941 .484 .005010 .945 .453 .156187 .926 .689 .015030 .934 .414 .025040 .937 .381 .025040 .938 .761 .015030 .941 .500 .040060 .945 .454 .156187 .926 .724 .015030 .934 .508 .020040 .937 .390 .005010 .938 .766 .020030 .941 .532 .030050 .945 .472 .005010										.938	.730	.070090	.941	.260	.050070			
.926 .670 .010020 .934 .190 .010020 .937 .375 .010020 .938 .760 .005010 .941 .484 .005010 .945 .453 .156187 .926 .689 .015030 .934 .414 .025040 .937 .381 .025040 .938 .761 .015030 .941 .500 .040060 .945 .454 .156187 .926 .724 .015030 .934 .508 .020040 .937 .390 .005010 .938 .766 .020030 .941 .532 .030050 .945 .472 .005010	.926	.438	.045060	.934	.094	.005010	.937	.350	.020030	.938	.752	.015090		.459	.020030	.945	.434	.156187
.926 .689 .015030 .934 .414 .025040 .937 .381 .025040 .938 .761 .015030 .941 .500 .040060 .945 .454 .156187 .926 .724 .015030 .934 .508 .020040 .937 .390 .005010 .938 .766 .020030 .941 .532 .030050 .945 .472 .005010	.926	.670	.010020	.934	.190	.010020	.937	.375								.945	.453	.156187
.926 .724 .015030 .934 .508 .020040 .937 .390 .005010 .938 .766 .020030 .941 .532 .030050 .945 .472 .005010																		
													.941	.532	.030050			

Choose Any	Choose Any
Choose Any O.D. I.D. Thickness*	Choose Any O.D. I.D. Thickness* O.D. I.D. Thickness
.945 .477 .005010 .950 .234 .015030 .960 .350 .032050 .968 .869 .025040 .976 .503 .030050 .982 .501 .005010	.985 .450 .025035 .990 .512 .005010 .994 .508 .090105 .997 .171 .040062 .999 .348 .080104 1.000 .228 .005010
.945 .484 .050075 .950 .250 .015030 .960 .398 .090105 .969 .250 .050070 .976 .525 .010020 .982 .502 .015030	.985 .451 .070090 .990 .516 .030050 .994 .513 .130150 .997 .250 .005010 .999 .356 .005010 1.000 .237 .060080
.945 .502 .005010 .950 .328 .105125 .960 .450 .032050 .969 .391 .030050 .976 .527 .015030 .982 .503 .005010	.985 .475 .010015 .990 .526 .090105 .994 .540 .005010 .997 .266 .010020 .999 .372 .030060 1.000 .238 .010020
.945 .511 .080100 .950 .387 .005010 .960 .500 .030060 .969 .436 .050075 .976 .565 .005010 .982 .504 .100125	.985 .490 .120156 .990 .560 .030060 .994 .552 .040050 .997 .312 .005010 .999 .375 .010060 1.000 .239 .015030
.945 .512 .005010 .950 .395 .005070 .960 .507 .080104 .969 .559 .020040 .976 .640 .005020 .982 .562 .060080	.985 .500 .020032 .990 .562 .080156 .994 .565 .040060 .997 .315 .060080 .999 .376 .005010 1.000 .250 .008070
.945 .514 .180190 .950 .440 .090105 .960 .537 .005010 .969 .565 .020030 .976 .661 .005010 .982 .620 .005010	.985 .503 .008015 .990 .595 .105125 .994 .605 .005010 .997 .327 .005010 .999 .382 .030050 1.000 .251 .105125
.945 .519 .040110 .950 .454 .050070 .960 .550 .032050 .969 .582 .005010 .976 .717 .005010 .982 .704 .010020	.985 .506 .100120 .990 .605 .075090 .994 .625 .050075 .997 .456 .005010 .999 .392 .030050 1.000 .252 .005080
945 .554 .010020 .950 .500 .005030 .960 .572 .005010 .969 .638 .025042 .976 .872 .010020 .982 .752 .030050	.985 .512 .030050 .990 .625 .020040 .994 .721 .005010 .997 .466 .080100 .999 .401 .040060 1.000 .253 .030120
.945 .607 .005010 .950 .502 .005020 .960 .575 .005010 .969 .641 .060080 .977 .276 .015030 .982 .801 .005010	.985 .535 .040060 .990 .626 .050075 .994 .813 .005010 .997 .503 .030050 .999 .444 .030050 1.000 .255 .060070
.945 .610 .060080 .950 .503 .010040 .960 .640 .005010 .969 .656 .060080 .977 .315 .015040 .982 .875 .020040 .945 .627 .032042 .950 .505 .010020 .960 .650 .032050 .969 .661 .060080 .977 .485 .005010 .983 .090 .010025	.985 .548 .010015 .990 .631 .005010 .994 .900 .005010 .997 .508 .050070 .999 .453 .060070 1.000 .256 .020040 .985 .556 .040060 .990 .635 .060080 .995 .083 .005010 .997 .533 .005010 .999 .505 .005010 1.000 .256 .170190
.945 .627 .032042 .950 .505 .010020 .960 .650 .032050 .969 .661 .060080 .977 .485 .005010 .983 .090 .010025 .945 .669 .050125 .950 .512 .100125 .960 .705 .030060 .969 .750 .005010 .977 .550 .020030 .983 .242 .040060	.985 .556 .040060 .990 .635 .060080 .995 .083 .005010 .997 .533 .005010 .999 .505 .005010 1.000 .256 .170190 .985 .565 .062105 .990 .645 .005010 .995 .157 .032042 .997 .537 .040062 .999 .518 .040060 1.000 .258 .030050
.945 .671 .005010 .950 .531 .060080 .960 .728 .040060 .969 .770 .010048 .977 .560 .020040 .983 .257 .100125	.985 .587 .020032 .990 .661 .010020 .995 .160 .015030 .997 .541 .005010 .999 .527 .090105 1.000 .263 .005010
.945 .673 .015030 .950 .567 .030050 .960 .740 .090105 .969 .792 .025048 .977 .626 .070090 .983 .280 .015025	.985 .635 .060080 .990 .693 .005010 .995 .196 .005010 .997 .549 .020040 .999 .563 .015030 1.000 .264 .042062
.945 .686 .060105 .950 .640 .030125 .960 .750 .030060 .969 .802 .015030 .977 .649 .010020 .983 .315 .005010	.985 .669 .005010 .990 .703 .020040 .995 .224 .005010 .997 .563 .125187 .999 .578 .010020 1.000 .266 .005030
.945 .708 .060080 .950 .645 .090105 .960 .751 .050075 .970 .092 .025048 .977 .720 .010040 .983 .319 .005010	.985 .685 .100125 .990 .735 .030050 .995 .272 .005010 .997 .622 .005010 .999 .626 .020134 1.000 .267 .050075
.945 .710 .030050 .950 .680 .110130 .960 .758 .005010 .970 .230 .005010 .977 .778 .070 .090 .983 .323 .040060	.985 .700 .005015 .990 .758 .020105 .995 .282 .025050 .997 .640 .090105 .999 .629 .050070 1.000 .268 .030050
.945 .714 .060080 .950 .696 .030040 .960 .774 .005010 .970 .262 .100125 .978 .180 .020040 .983 .381 .015030	.985 .721 .040105 .990 .759 .080100 .995 .297 .100125 .997 .689 .050070 .999 .633 .005010 1.000 .270 .005010
.945 .719 .070090 .950 .747 .005010 .960 .783 .020030 .970 .345 .020040 .978 .437 .050075 .983 .396 .050075	.985 .751 .005010 .990 .760 .010042 .995 .374 .050070 .997 .718 .005015 .999 .657 .080100 1.000 .272 .030050
.945 .737 .005010 .950 .760 .030050 .960 .820 .005010 .970 .380 .025040 .978 .503 .025040 .983 .398 .050070	.985 .760 .042062 .990 .770 .020030 .995 .378 .005030 .997 .748 .030050 .999 .674 .100134 1.000 .273 .135190
.945 .831 .015030 .950 .775 .020035 .961 .438 .050070 .970 .418 .070080 .978 .515 .005120 .983 .416 .005010 .945 .845 .005015 .950 .807 .010020 .961 .500 .040050 .970 .440 .005010 .978 .659 .015020 .983 .434 .005010	.985 .789 .005025 .990 .780 .005010 .995 .392 .050070 .997 .756 .016025 .999 .675 .100134 1.000 .278 .050075 .985 .790 .005010 .990 .800 .005010 .995 .410 .005010 .997 .758 .005010 .999 .680 .005010 1.000 .280 .040060
.945 .845 .005015 .950 .807 .010020 .961 .500 .040050 .970 .440 .005010 .978 .659 .015020 .983 .434 .005010 .946 .354 .005010 .950 .815 .005010 .961 .621 .005010 .970 .515 .080100 .978 .690 .010020 .983 .471 .008015	.985 .790 .005010 .990 .800 .005010 .995 .410 .005010 .997 .758 .005010 .999 .680 .005010 1.000 .280 .040060 .985 .806 .005010 .990 .810 .010030 .995 .447 .005010 .997 .769 .025040 .999 .693 .005010 1.000 .281 .005125
.946 .386 .040060 .951 .104 .005010 .961 .676 .020030 .970 .550 .010020 .979 .171 .015035 .983 .502 .005010	.985 .825 .010020 .990 .813 .005010 .995 .453 .008016 .997 .819 .005010 .999 .700 .020030 1.000 .282 .006070
.946 .398 .010020 .951 .156 .015030 .961 .730 .005010 .970 .631 .156187 .979 .285 .015030 .983 .659 .010020	.986 .220 .070090 .990 .820 .016032 .995 .494 .005010 .998 .062 .030050 .999 .715 .010020 1.000 .283 .040060
.946 .473 .005010 .951 .376 .010020 .961 .820 .010020 .970 .670 .005010 .979 .340 .060080 .983 .670 .020040	.986 .337 .030050 .990 .842 .010020 .995 .500 .070090 .998 .111 .010020 .999 .754 .050070 1.000 .292 .005010
.946 .506 .050070 .951 .377 .020030 .961 .844 .010020 .970 .679 .010020 .979 .393 .005010 .983 .678 .060080	.986 .408 .020040 .990 .858 .025040 .995 .515 .070090 .998 .125 .040060 .999 .755 .090105 1.000 .293 .080104
.946 .513 .105125 .951 .380 .040060 .961 .878 .005010 .970 .723 .005010 .979 .405 .005010 .983 .719 .005010	.986 .516 .050070 .990 .910 .015025 .995 .517 .040060 .998 .131 .015025 .999 .763 .005010 1.000 .301 .005010
.946 .602 .025042 .951 .388 .010020 .962 .045 .015025 .970 .754 .040060 .979 .517 .125135 .983 .753 .020030	.986 .585 .050070 .991 .071 .010020 .995 .522 .005010 .998 .136 .015030 .999 .787 .025040 1.000 .310 .062090
.946 .678 .005010 .951 .500 .010020 .962 .055 .005010 .970 .769 .005010 .979 .563 .070090 .984 .183 .050075 .946 .686 .062070 .951 .586 .015025 .962 .766 .005010 .970 .802 .030048 .979 .630 .005010 .984 .238 .005010	.986 .631 .010020 .991 .267 .060080 .995 .534 .083105 .998 .138 .005015 .999 .790 .005010 1.000 .311 .150180 .986 .635 .060080 .991 .303 .005010 .995 .535 .062120 .998 .156 .050075 .999 .822 .050070 1.000 .315 .031042
.946 .686 .062070 .951 .586 .015025 .962 .766 .005010 .970 .802 .030048 .979 .630 .005010 .984 .238 .005010 .946 .717 .060080 .951 .661 .005010 .962 .769 .035062 .970 .882 .010020 .979 .674 .005010 .984 .239 .005010	.986
.946 .786 .050070 .951 .741 .020030 .962 .789 .020030 .971 .345 .105135 .979 .678 .025040 .984 .240 .015030	.986 .710 .105125 .991 .317 .005125 .995 .559 .125187 .998 .202 .050075 .999 .840 .005010 1.000 .317 .005012
.947 .128 .005010 .952 .125 .025040 .963 .271 .005010 .971 .376 .060080 .979 .705 .005010 .984 .257 .105125	.986 .779 .005010 .991 .405 .005010 .995 .564 .040060 .998 .230 .008016 .999 .878 .005010 .1000 .318 .050105
.947 .397 .010020 .952 .166 .060080 .963 .283 .030050 .971 .408 .050075 .979 .710 .030050 .984 .284 .005010	.986 .859 .030050 .991 .406 .090125 .995 .566 .030060 .998 .252 .005020
.947 .463 .060070 .952 .198 .048070 .963 .324 .005010 .971 .439 .020040 .979 .837 .010030 .984 .320 .010020	.987 .348 .005010 .991 .412 .005010 .995 .573 .050070 .998 .270 .060083
.947 .482 .005010 .952 .213 .048070 .963 .400 .020040 .971 .444 .020030 .979 .840 .015030 .984 .355 .080104	.987 .397 .005010 .991 .515 .005010 .995 .630 .050070 .998 .339 .005010
.947 .566 .030048 .952 .376 .005010 .963 .451 .030050 .971 .550 .030050 .980 .198 .005010 .984 .394 .005010	.987 .516 .050070 .991 .605 .005010 .995 .657 .025048 .998 .347 .100125
.947 .599 .042060 .952 .470 .005010 .963 .500 .010020 .971 .605 .005010 .980 .246 .015030 .984 .395 .100125	.987 .748 .025042 .991 .627 .105135 .995 .665 .005012 .998 .348 .075090
.947 .730 .030050 .952 .502 .050070 .963 .504 .005010 .971 .631 .080104 .980 .302 .015030 .984 .435 .005010 .947 .757 .010025 .952 .555 .060070 .963 .659 .080100 .971 .720 .104125 .980 .347 .005010 .984 .469 .080100	.988 .255 .025040 .991 .678 .030050 .995 .666 .015030 .998 .378 .080105
.947 .757 .010025 .952 .555 .060070 .963 .659 .080100 .971 .720 .104125 .980 .347 .005010 .984 .469 .080100 .947 .780 .020040 .952 .570 .080100 .963 .758 .020030 .971 .761 .005020 .980 .395 .015025 .984 .473 .005010	.988 .354 .020040 .991 .751 .030040 .995 .694 .020062 .998 .395 .010030 1.000 .028 .010015 1.000 .338 .100125 .988 .499 .040060 .991 .770 .015030 .995 .700 .020040 .998 .435 .020030 1.000 .064 .010020 1.000 .340 .032048
.947 .783 .048062 .952 .627 .005010 .963 .800 .030050 .971 .837 .040060 .980 .407 .100125 .984 .477 .005010	.988 .505 .090120 .991 .779 .040060 .995 .717 .005012 .998 .501 .040060 1.000 .066 .005010 1.000 .343 .050070
.947 .799 .010020 .952 .685 .060070 .963 .885 .010020 .971 .865 .030050 .980 .445 .005010 .984 .481 .040060	.988 .506 .025040 .991 .796 .020030 .995 .720 .030060 .998 .503 .030125 1.000 .073 .020035 1.000 .344 .010020
.947 .821 .005010 .952 .687 .005010 .964 .376 .030050 .972 .335 .040060 .980 .458 .020030 .984 .507 .070090	.988 .597 .040060 .991 .877 .005010 .995 .740 .025040 .998 .504 .030060 1.000 .077 .015030 1.000 .354 .100125
.948 .059 .005010 .953 .693 .105125 .964 .500 .015030 .972 .365 .010020 .980 .480 .060080 .984 .513 .105125	.988 .703 .005010 .991 .880 .015060 .995 .750 .005010 .998 .506 .005125 1.000 .086 .005010 1.000 .357 .010020
.948 .245 .005072 .953 .710 .105135 .964 .652 .090120 .972 .570 .100130 .980 .481 .005010 .984 .530 .042062	.988 .736 .040060 .991 .887 .005010 .995 .763 .005010 .998 .508 .090110 1.000 .093 .010020 1.000 .363 .005010
.948 .262 .060080 .953 .742 .090105 .965 .264 .020040 .972 .657 .015105 .980 .500 .010020 .984 .531 .005010	.988 .758 .005015 .992 .260 .005010 .995 .766 .005010 .998 .509 .005010 1.000 .094 .030060 1.000 .372 .010020 .988 .759 .030050 .992 .263 .005010 .995 .873 .040060 .998 .515 .080100 .100 .050070 1.000 .375 .060187
.948 .390 .005010 .954 .322 .005010 .965 .423 .030040 .972 .746 .050070 .980 .501 .005010 .984 .556 .005010 .984 .572 .040060 .948 .398 .005010 .954 .630 .105125 .965 .506 .060075 .972 .764 .050075 .980 .514 .005010 .984 .572 .040060	100 100 100 100 100 100 100 100 100 100
.948 .398 .005010 .954 .630 .105125 .965 .506 .060075 .972 .764 .050075 .980 .514 .005010 .984 .572 .040060 .965 .914 .090120 .973 .110 .050072 .980 .521 .025040 .984 .625 .040060	.988 .760 .005010 .992 .270 .005015 .995 .938 .010020 .998 .516 .005010 1.000 .116 .010062 1.000 .376 .005010 .988 .877 .015030 .992 .316 .110130 .996 .120 .042062 .998 .534 .030050 1.000 .117 .040060 1.000 .377 .005010
.948 .439 .010020 .954 .753 .040060 .965 .580 .032060 .973 .567 .005010 .980 .522 .005010 .984 .628 .035060	.989 .176 .005010 .992 .330 .110130 .996 .170 .005010 .998 .562 .015020 1.000 .118 .040060 1.000 .378 .005050
.948 .448 .060070 .954 .826 .005010 .965 .610 .020035 .973 .595 .005075 .980 .600 .030105 .984 .630 .015025	.989 .201 .080100 .992 .387 .020040 .996 .255 .005010 .998 .563 .075100 1.000 .129 .005010 1.000 .379 .042134
.948 .485 .090100 .955 .510 .025040 .965 .620 .025040 .974 .226 .050075 .980 .640 .007015 .984 .641 .080105	.989 .253 .030050 .992 .523 .025040 .996 .283 .090125 .998 .573 .050070 1.000 .131 .015030 1.000 .381 .005020
.948 .493 .062080 .955 .733 .020040 .965 .644 .005010 .974 .260 .050070 .980 .647 .005010 .984 .643 .060080	.989 .259 .060070 .992 .536 .005010 .996 .318 .005010 .998 .577 .005010 1.000 .142 .010062 1.000 .384 .060090
.948 .502 .006015 .955 .825 .010020 .965 .669 .080105 .974 .502 .005010 .980 .648 .050070 .984 .648 .015030	.989 .282 .080100 .992 .582 .030050 .996 .323 .005010 .998 .578 .010020 1.000 .143 .030050 1.000 .386 .005010
.948 .503 .005010 .955 .848 .005010 .965 .709 .005010 .974 .669 .015025 .980 .664 .060083 .984 .650 .100125 .948 .506 .005010 .956 .439 .060125 .965 .754 .020040 .974 .699 .025040 .980 .668 .080100 .984 .689 .020030	.989 .390 .005010 .992 .669 .005010 .996 .395 .156187 .998 .580 .157187 1.000 .147 .005010 1.000 .386 .050075 .989 .400 .100125 .992 .687 .105135 .996 .396 .396 .100125 .998 .629 .005010 1.000 .156 .020040 1.000 .387 .007016
.948 .506 .005010 .956 .439 .060125 .965 .754 .020040 .974 .699 .025040 .980 .668 .080100 .984 .689 .020030 .948 .514 .050075 .956 .635 .005050 .965 .783 .020036 .974 .716 .120135 .980 .719 .040060 .984 .715 .050075	.989 .506 .070090 .992 .688 .050070 .996 .441 .020030 .998 .630 .010020 1.000 .157 .070090 1.000 .388 .005010
.948 .518 .030060 .956 .781 .005010 .966 .391 .040060 .974 .755 .050070 .980 .740 .020040 .984 .716 .025042	.989 .515 .060080 .992 .754 .040060 .996 .463 .060080 .998 .637 .040060 1.000 .165 .020072 1.000 .389 .048075
.948 .576 .005010 .956 .820 .005010 .966 .542 .020032 .974 .768 .030050 .980 .757 .080104 .984 .748 .010020	.989 .560 .025040 .992 .835 .010015 .996 .511 .040060 .998 .662 .050070 1.000 .168 .050070 1.000 .392 .075125
.948 .666 .035050 .957 .295 .030050 .966 .643 .080105 .975 .440 .005010 .980 .841 .030050 .984 .749 .040060	.989 .640 .005010 .993 .249 .040050 .996 .578 .075090 .998 .672 .005012 1.000 .170 .030050 1.000 .395 .010020
.948 .763 .005010 .957 .626 .040060 .966 .703 .060075 .975 .495 .005010 .980 .851 .010020 .984 .794 .070090	.989 .736 .100120 .993 .295 .062120 .996 .630 .010015 .998 .678 .032042 1.000 .172 .090120 1.000 .400 .010020
.948 .780 .020040 .957 .734 .015030 .967 .265 .005030 .975 .503 .015030 .980 .860 .005010 .984 .795 .025042	.989 .739 .005010 .993 .297 .062120 .996 .666 .040060 .998 .694 .020040 1.000 .178 .005010 1.000 .403 .105125
.948 .864 .025040 .957 .812 .005010 .967 .375 .090125 .975 .531 .010020 .980 .875 .005010 .984 .798 .070090	.989 .771 .060075 .993 .316 .005010 .996 .692 .010030 .998 .748 .035060 1.000 .180 .030125 1.000 .405 .042100
949 .189 .005010 .957 .841 .015020 .967 .542 .015030 .975 .532 .025040 .981 .396 .010020 .984 .799 .040060 .949 .380 .040060 .958 .442 .005010 .967 .567 .070090 .975 .550 .050060 .981 .467 .020030 .984 .817 .005010	.989 .789 .020040 .993 .371 .070090 .996 .740 .050070 .998 .793 .005010 1.000 .192 .050075 1.000 .406 .020030 .989 .830 .015030 .993 .523 .040060 .996 .758 .005010 .998 .855 .005010 1.000 .195 .010110 1.000 .407 .156187
.949 .380 .040060 .958 .442 .005010 .967 .567 .070090 .975 .550 .050060 .981 .467 .020030 .984 .817 .005010 .949 .503 .005010 .958 .606 .050072 .967 .593 .050075 .975 .571 .050110 .981 .504 .050060 .984 .838 .015030	.989 .830 .015030 .993 .523 .040060 .996 .758 .005010 .998 .855 .005010 1.000 .195 .010110 1.000 .407 .156187 .989 .844 .005020 .993 .605 .020040 .996 .785 .050075 .998 .877 .015030 1.000 .196 .025090 1.000 .409 .120134
.949 .505 .050070 .958 .639 .020030 .967 .719 .060080 .975 .596 .030040 .981 .512 .005010 .984 .880 .015030	.989 .879 .005010 .993 .638 .040060 .996 .788 .005010 .998 .913 .005010 1.000 .198 .070090 1.000 .410 .005010
.949 .507 .005020 .958 .779 .070080 .967 .761 .050075 .975 .630 .010020 .981 .525 .015030 .985 .209 .060080	.990 .125 .040060 .993 .640 .062090 .996 .798 .040050 .999 .036 .005010 1.000 .199 .008080 1.000 .414 .100125
.949 .511 .010020 .959 .300 .015025 .968 .517 .050075 .975 .640 .005020 .981 .565 .005010 .985 .215 .040060	.990 .126 .010020 .993 .655 .070090 .996 .808 .040060 .999 .096 .010020 1.000 .200 .134160 1.000 .415 .025040
.949 .592 .072090 .959 .328 .030050 .968 .625 .050070 .975 .687 .090100 .981 .577 .075104 .985 .250 .040050	.990 .355 .080100 .993 .689 .010040 .996 .812 .060080 .999 .122 .005010 1.000 .205 .050075 1.000 .418 .050070
.950 .102 .005030 .959 .420 .030050 .968 .634 .005015 .975 .697 .062075 .981 .586 .005015 .985 .276 .060080	.990 .437 .010020 .993 .802 .050070 .996 .813 .015030 .999 .201 .050070 1.000 .209 .105125 1.000 .425 .040060
.950 .125 .005010 .959 .641 .090120 .968 .636 .030050 .975 .699 .005010 .981 .730 .030050 .985 .316 .005010	.990 .438 .105125 .994 .151 .005010 .996 .823 .005060 .999 .206 .005010 1.000 .215 .050075 1.000 .427 .110120
.950 .131 .062080 .959 .729 .020040 .968 .655 .025045 .975 .765 .040050 .981 .752 .020040 .985 .331 .070090 .950 .186 .020035 .960 .125 .032060 .968 .675 .015030 .975 .795 .005012 .981 .821 .005010 .985 .354 .005010	.990 .442 .006015 .994 .243 .025042 .996 .859 .040060 .999 .243 .030050 1.000 .217 .025125 1.000 .432 .005010 .990 .443 .006015 .994 .287 .090110 .996 .864 .040060 .999 .252 .030045 1.000 .218 .015048 1.000 .434 .104125
.950 .189 .005030 .960 .133 .010025 .968 .687 .020040 .975 .804 .030060 .981 .840 .005010 .985 .395 .005010	.990 .454 .060080 .994 .431 .010020 .996 .877 .005030 .999 .253 .005010 1.000 .219 .005125 1.000 .437 .050125
.950 .198 .047070 .960 .155 .050072 .968 .718 .050075 .975 .825 .005010 .981 .845 .005015 .985 .409 .120140	.990 .456 .030050 .994 .441 .090110 .996 .880 .020030 .999 .267 .105125 1.000 .220 .010020 1.000 .438 .020040
.950 .204 .020035 .960 .259 .005010 .968 .729 .015030 .975 .885 .010020 .982 .286 .030060 .985 .440 .020040	.990 .469 .080100 .994 .484 .005010 .996 .881 .025040 .999 .284 .005010 1.000 .221 .005050 1.000 .440 .005010
.950 .219 .015030 .960 .315 .020032 .968 .741 .005010 .976 .394 .035050 .982 .345 .060080 .985 .443 .005010	.990 .510 .025040 .994 .500 .090100 .997 .152 .050075 .999 .344 .080104 1.000 .225 .050070 1.000 .441 .100120

Choose Any	Choose Any
O.D. I.D. Thickness*	O.D. I.D. Thickness*
1.000 .443 .135170 1.000 .675 .005030 1.001 .389 .030050 1.004 .567 .100125 1.016 .460 .015030 1.023 .839 .005010	1.030 .336 .156187 1.040 .627 .020040 1.050 .570 .015030 1.056 .875 .010020 1.061 .267 .125 .135 1.063 .343 .100125
1.000 .444 .005010 1.000 .676 .020030 1.001 .409 .005010 1.004 .628 .062120 1.016 .481 .020040 1.023 .869 .010020	1.030 .377 .020030
1.000 .445 .060080 1.000 .679 .050070 1.001 .416 .070090 1.004 .675 .100125 1.016 .505 .050070 1.023 .885 .010020	1.030 .383 .015030 1.040 .809 .012025 1.050 .626 .005050 1.057 .350 .005010 1.061 .386 .080100 1.063 .437 .005030
1.000 .447 .010020 1.000 .680 .005125 1.001 .418 .050070 1.004 .705 .040060 1.016 .522 .015030 1.023 .887 .010020 1.000 .451 .005010 1.000 .686 .030060 1.001 .423 .050070 1.004 .750 .090105 1.016 .650 .005010 1.023 .893 .015030	1.030 .384 .010015 1.040 .831 .025035 1.050 .629 .005010 1.057 .838 .005010 1.061 .442 .005020 1.063 .442 .005010 1.030 .417 .030050 1.040 .869 .005010 1.050 .635 .005010 1.058 .251 .005010 1.061 .500 .050070 1.063 .472 .015030
1.000 .451 .005010 1.000 .668 .030060 1.001 .423 .050070 1.004 .750 .090105 1.016 .650 .005010 1.023 .693 .015050 1.001 1.002 1.000 .688 .008016 1.001 .439 .170190 1.004 .760 .090125 1.016 .750 .005010 1.023 .909 .005010	1.030 .505 .050070
1.000 .457 .100125	1.030 .510 .062080 1.040 .915 .010020 1.050 .722 .032040 1.058 .501 .010020 1.061 .510 .070090 1.063 .503 .005010
1.000 .459 .005010 1.000 .691 .005010 1.001 .500 .010020 1.004 .781 .005010 1.016 .920 .005010 1.024 .395 .005010	1.030 .533 .110130 1.040 .926 .020030 1.050 .753 .005010 1.058 .520 .040060 1.061 .531 .005010 1.063 .506 .062083
1.000 .465 .030050 1.000 .700 .005060 1.001 .503 .005100 1.004 .873 .050070 1.016 .929 .005010 1.024 .398 .005010	1.030 .542 .015030 1.041 .788 .015030 1.050 .760 .030050 1.058 .532 .060075 1.061 .533 .035050 1.063 .540 .135156
1.000 .468 .100125 1.000 .709 .015030 1.001 .504 .005030 1.005 .210 .030042 1.017 .301 .050075 1.024 .454 .040060	1.030 .585 .005010 1.041 .909 .005010 1.050 .765 .010020 1.058 .583 .090110 1.061 .562 .005125 1.063 .545 .005010
1.000 .471 .050070 1.000 .716 .005010 1.001 .505 .015025 1.005 .257 .100125 1.017 .627 .005008 1.024 .473 .005010	1.030 .649 .005010 1.041 .919 .005010 1.050 .771 .110120 1.058 .601 .005010 1.061 .574 .005010 1.063 .563 .015030
1.000 .475 .020040 1.000 .720 .010020 1.001 .508 .005105 1.005 .262 .010020 1.017 .754 .005015 1.024 .476 .005010	1.030 .688 .050060 1.042 .544 .090120 1.050 .798 .025048 1.058 .626 .005030 1.061 .657 .170190 1.063 .573 .005010
1.000	1.030 .690 .090125
1.000 .480 .005125 1.000 .729 .060080 1.001 .564 .170190 1.005 .480 .060075 1.017 .865 .005010 1.024 .629 .005010 1.024 .629 .005010 1.000 .733 .025040 1.001 .587 .020040 1.005 .510 .025040 1.017 .878 .048062 1.024 .694 .015030	1.030 .719 .100125 1.043 .473 .105135 1.050 .820 .030050 1.058 .640 .050070 1.061 .783 .025040 1.063 .579 .060080 1.030 .749 .040060 1.043 .676 .070090 1.050 .820 .030010 1.058 .676 .005030 1.061 .922 .025040 1.063 .611 .005010
1.000 .482 .005010 1.000 .733 .025040 1.001 .587 .020040 1.005 .510 .025040 1.017 .878 .048062 1.024 .694 .015030 1.000 .485 .040135 1.000 .742 .005010 1.001 .595 .050070 1.005 .536 .100125 1.018 .203 .008015 1.024 .717 .070090	1.030 .749 .040060 1.043 .676 .070090 1.050 .826 .005010 1.058 .676 .005030 1.061 .922 .025040 1.063 .611 .005010 1.030 .815 .020030 1.044 .191 .032060 1.050 .828 .005010 1.058 .688 .105125 1.061 .943 .050062 1.063 .638 .050070
1.000 .499 .005010 1.000 .750 .005125 1.001 .611 .040062 1.005 .650 .080100 1.018 .688 .050070 1.024 .801 .030050	1.030 .850 .030050 1.044 .191 .032000 1.050 .850 .005010 1.058 .068 .105125 1.061 .943 .050062 1.063 .060010 1.058 .068 .105125 1.061 .943 .050062 1.063 .060010 1.058 .056 .056 .056 .056 .056 .056 .056 .056
1.000 .500 .005062 1.000 .751 .100125 1.001 .626 .005020 1.005 .758 .005010 1.018 .696 .050070 1.024 .881 .010020	1.030 .894 .050075 1.044 .378 .020040 1.050 .876 .005010 1.058 .757 .030050 1.062 .061 .015020 1.063 .645 .025040
1.000 .501 .030105 1.000 .752 .040105 1.001 .628 .040062 1.005 .801 .010020 1.018 .747 .048062 1.025 .243 .005010	1.030 .952 .005015 1.044 .512 .020030 1.050 .877 .050070 1.058 .762 .075100 1.062 .073 .020040 1.063 .657 .040062
1.000 .502 .005187 1.000 .753 .050070 1.001 .629 .050070 1.005 .840 .005010 1.018 .807 .010020 1.025 .315 .005010	1.030 .967 .020030 1.044 .750 .100125 1.050 .878 .010090 1.058 .872 .050070 1.062 .120 .010020 1.063 .674 .005010
1.000 .504 .010110 1.000 .754 .020075 1.001 .688 .006016 1.005 .900 .005010 1.018 .824 .020040 1.025 .318 .005010	1.031 .377 .015030 1.044 .828 .025042 1.050 .896 .005010 1.058 .897 .060080 1.062 .128 .048062 1.063 .687 .040060
1.000 .505 .030050 1.000 .755 .005125 1.001 .690 .050070 1.005 .950 .005010 1.018 .826 .005010 1.025 .330 .020040	1.031 .385 .005010 1.044 .987 .010020 1.050 .900 .030050 1.059 .058 .010020 1.062 .137 .080100 1.063 .749 .005010
1.000 .506 .010020 1.000 .756 .030050 1.001 .711 .080090 1.006 .516 .080105 1.018 .832 .020040 1.025 .337 .060080	1.031 .408 .105135
1.000 .507 .020187 1.000 .759 .005040 1.001 .756 .025050 1.006 .584 .040060 1.019 .166 .015030 1.025 .375 .030040 1.000 .508 .005190 1.000 .760 .060080 1.001 .818 .080105 1.006 .881 .015030 1.019 .415 .020030 1.025 .394 .010020	1.031
1.000 .508 .005190 1.000 .760 .060080 1.001 .818 .080105 1.006 .881 .015030 1.019 .415 .020030 1.025 .394 .010020 1.000 .510 .060083 1.000 .761 .035050 1.001 .906 .005010 1.007 .203 .050075 1.019 .613 .015030 1.025 .395 .005010	1.031 .320 .005010 1.045 .232 .005010 1.050 .964 .005010 1.059 .347 .060070 1.062 .211 .050083 1.063 .767 .050070 1.061 .070 1.062 .218 .020035 1.063 .798 .030050 1.061 .070 1.062 .218 .020035 1.063 .798 .030050
1.000 .510 .000 .005 .000 .761 .035 .050 1.001 .906 .005 .010 1.007 .203 .050075 1.019 .615 .015 .035 .035 .035 .005 .010 1.025 .395 .005010 1.007 .414 .015025 1.019 .665 .030050 1.025 .410 .036060	1.031 .864 .080100 1.045 .208 .005010 1.051 .315 .008015 1.059 .514 .015030 1.062 .252 .030040 1.063 .883 .005010
1.000 .513 .140160 1.000 .765 .030050 1.002 .140 .042060 1.007 .448 .015025 1.019 .757 .005010 1.025 .433 .050070	1.031 .910 .010020 1.045 .407 .030050 1.051 .500 .010020 1.052 .582 .030050 1.062 .259 .045060 1.063 .889 .005010
1.000 .515 .005187 1.000 .766 .100125 1.002 .172 .010025 1.007 .528 .080105 1.019 .766 .010030 1.025 .440 .090110	1.031 .958 .010020 1.045 .465 .005010 1.051 .502 .015030 1.059 .596 .050070 1.062 .262 .007025 1.064 .470 .010020
1.000 .517 .005010 1.000 .767 .050075 1.002 .197 .005010 1.007 .569 .135160 1.019 .769 .050070 1.025 .475 .005010	1.032 .175 .100125 1.045 .619 .010020 1.051 .503 .015025 1.059 .634 .005010 1.062 .318 .008016 1.064 .512 .005010
1.000 .518 .015125 1.000 .768 .010020 1.002 .277 .010020 1.007 .641 .015030 1.019 .794 .010020 1.025 .477 .005010	1.032 .259 .062090 1.045 .704 .030050 1.051 .504 .005010 1.059 .750 .050070 1.062 .328 .040060 1.064 .563 .005020
1.000 .520 .100125 1.000 .770 .005060 1.002 .312 .135160 1.007 .647 .100125 1.020 .316 .050075 1.025 .505 .005020	1.032 .378 .010020
1.000 .531 .120140 1.000 .771 .015030 1.002 .319 .060080 1.007 .725 .062075 1.020 .378 .015030 1.025 .550 .005012 1.000 .534 .050070 1.000 .776 .070090 1.002 .379 .005010 1.007 .752 .036050 1.020 .510 1.35 - 160 1.025 .606 .048062	1.032 .529 .100125 1.045 .783 .015030 1.051 .752 .110130 1.059 .890 .040060 1.062 .436 .005010 1.064 .687 .048062 1.032 .566 .010020 1.045 .830 .005010 1.051 .881 .060080 1.059 .965 .015025 1.062 .440 .080 - 1.04 1.064 .712 .030050
1.000 .534 .050070 1.000 .776	1.032
1.000 .545 .150190 1.000 .785 .100125 1.002 .442 .050070 1.008 .469 .015030 1.020 .641 .005010 1.025 .704 .032042	1.032 .656 .100125 1.045 .894 .050060 1.051 .988 .005010 1.060 .172 .010020 1.062 .472 .005010 1.064 .762 .005010
1.000 .549 .100125 1.000 .787 .060070 1.002 .454 .025042 1.008 .661 .060080 1.020 .667 .010020 1.025 .720 .035050	1.032 .788 .020030 1.046 .138 .005010 1.052 .253 .010020 1.060 .180 .030050 1.062 .480 .015030 1.064 .790 .005010
1.000 .550 .030110 1.000 .791 .005020 1.002 .470 .005075 1.008 .689 .050060 1.020 .700 .005008 1.025 .749 .005035	1.032 .849 .070090 1.046 .345 .070090 1.052 .595 .005010 1.060 .210 .010020 1.062 .484 .032060 1.064 .822 .040062
1.000 .556 .025040 1.000 .796 .010015 1.002 .504 .100125 1.008 .778 .015030 1.020 .744 .010020 1.025 .754 .040060	1.032 .925 .015030 1.046 .517 .035050 1.052 .715 .005010 1.060 .258 .025035 1.062 .515 .005010 1.064 .847 .060070
1.000 .562 .050075 1.000 .797 .025125 1.002 .505 .005010 1.008 .831 .030040 1.020 .750 .040060 1.025 .775 .010020	1.032 .955 .020040 1.046 .861 .010020 1.052 .760 .105125 1.060 .283 .156187 1.062 .521 .005010 1.064 .865 .010020
1.000 .563 .005020 1.000 .798 .005010 1.002 .507 .010020 1.008 .845 .050070 1.020 .775 .050070 1.025 .776 .020040	1.033 .483 .080100 1.046 .908 .005010 1.052 .765 .060070 1.060 .284 .040062 1.062 .531 .100125 1.064 .945 .030040
1.000 .564 .030050 1.000 .800 .012025 1.002 .531 .035090 1.009 .195 .025042 1.020 .787 .030048 1.025 .787 .030050 1.000 .567 .010020 1.000 .801 .025040 1.002 .532 .005010 1.009 .444 .060080 1.020 .805 .060075 1.025 .788 .010020	1.033 .757 .005010 1.046 .943 .020035 1.052 .846 .040060 1.060 .318 .005010 1.062 .537 .005105 1.064 .951 .015030 1.033 .811 .050075 1.047 .287 .005010 1.052 .881 .050075 1.060 .341 .010020 1.062 .564 .062090 1.065 .165 .025040
1.000 .568 .005010 1.000 .805 .005010 1.002 .534 .025040 1.009 .511 .030050 1.020 .861 .025048 1.025 .804 .040050	1.033 .836 .015030 1.047 .480 .005010 1.053 .530 .075090 1.060 .378 .105135 1.062 .580 .005010 1.065 .395 .062083
1.000 .572 .005080 1.000 .815 .005010 1.002 .564 .062083 1.010 .130 .060070 1.020 .960 .015030 1.025 .877 .010020	1.033 .883 .015030 1.047 .499 .006015 1.053 .627 .070090 1.060 .394 .100125 1.062 .625 .020030 1.065 .434 .005010
1.000 .578 .100125 1.000 .828 .015025 1.002 .579 .015030 1.010 .388 .005010 1.020 .962 .005020 1.025 .893 .020040	1.033 .925 .032050 1.047 .522 .005010 1.053 .662 .025050 1.060 .396 .025048 1.062 .626 .048062 1.065 .444 .005010
1.000 .579 .020040 1.000 .837 .040060 1.002 .581 .050070 1.010 .450 .050010 1.021 .257 .050075 1.025 .926 .020040	1.034 .130 .005015 1.047 .627 .070090 1.053 .752 .110130 1.060 .429 .005010 1.062 .635 .100156 1.065 .510 .015036
1.000 .590 .020125 1.000 .845 .030050 1.002 .645 .015030 1.010 .506 .005010 1.021 .316 .040060 1.026 .239 .005010	1.034 .350 .020040 1.047 .840 .010020 1.053 .893 .005020 1.060 .451 .105125 1.062 .638 .050070 1.065 .562 .010020
1.000 .594 .156187 1.000 .850 .005010 1.002 .652 .015030 1.010 .510 .015030 1.021 .575 .005010 1.026 .480 .030050	1.034 .381 .075090 1.047 .916 .005010 1.054 .503 .005010 1.060 .469 .105125 1.062 .642 .060080 1.065 .626 .156187 1.034 .500 .070090 1.048 .163 .005010 1.054 .560 .030050 1.060 .479 .005010 1.062 .656 .075090 1.065 .634 .075090
1.000 .598 .060070 1.000 .851 .070080 1.002 .658 .100125 1.010 .540 .015030 1.021 .668 .015020 1.026 .630 .060080 1.000 .600 .005010 1.000 .854 .010020 1.002 .685 .060083 1.010 .640 .050060 1.021 .726 .005010 1.026 .781 .040060	1.034 .500 .070090 1.048 .163 .005010 1.054 .560 .030050 1.060 .479 .005010 1.062 .656 .075090 1.065 .634 .075090 1.084 .654 .005010 1.048 .282 .090105 1.054 .649 .005010 1.060 .510 .020035 1.062 .657 .075090 1.065 .697 .030040
1.000 .605 .010020 1.000 .855 .005010 1.002 .700 .125135 1.010 .664 .025040 1.021 .750 .025040 1.026 .917 .005010	1.034 .731 .015030 1.048 .378 .100125 1.054 .725 .015030 1.060 .512 .156188 1.062 .687 .100187 1.065 .760 .010020
1.000 .610 .005120 1.000 .875 .016025 1.002 .703 .050070 1.010 .757 .015025 1.021 .766 .015030 1.027 .203 .005010	1.034 .827 .005010 1.048 .431 .042062 1.054 .749 .005010 1.060 .513 .105135 1.062 .718 .015032 1.065 .767 .005010
1.000 .611 .030060 1.000 .876 .005010 1.002 .718 .020040 1.011 .501 .015030 1.021 .878 .020030 1.027 .294 .070090	1.034 .830 .005012 1.048 .504 .006012 1.054 .840 .008012 1.060 .531 .010020 1.062 .721 .050070 1.065 .814 .042060
1.000 .623 .030050 1.000 .879 .030060 1.002 .719 .062083 1.012 .315 .030040 1.021 .930 .015030 1.027 .382 .005010	1.035 .660 .070090 1.048 .517 .020040 1.054 .879 .015025 1.060 .563 .015030 1.062 .727 .060080 1.065 .826 .040060
1.000 .624 .005187 1.000 .880 .010020 1.002 .767 .020040 1.012 .358 .010020 1.022 .219 .005010 1.027 .417 .075090	1.035 .820 .020030
1.000 .625 .015030 1.000 .892 .030050 1.002 .820 .020040 1.012 .551 .030040 1.022 .318 .005010 1.027 .418 .070090 1.000 .626 .050075 1.000 .900 .005010 1.002 .842 .030050 1.012 .849 .015030 1.022 .354 .005010 1.027 .439 .005010	1.035 .832 .030050 1.048 .657 .010020 1.055 .312 .020040 1.060 .580 .062120 1.062 .755 .005015 1.065 .892 .030050 1.035 .858 .040060 1.048 .688 .005010 1.055 .350 .030050 1.060 .629 .015050 1.062 .764 .100125 1.065 .923 .032042
1.000 .626 .036075 1.000 .900 .005010 1.002 .642 .036050 1.012 .849 .015030 1.022 .354 .005010 1.027 .459 .005010 1.027 .459 .005010 1.027 .459 .005010 1.027 .459 .005010 1.027 .459 .005010 1.027 .542 .076090	1.035 .874 .060080 1.048 .882 .005015 1.055 .384 .020035 1.060 .638 .090105 1.062 .770 .030050 1.065 .967 .005010
1.000 .628 .005030	1.035 .948 .010020 1.048 .883 .015030 1.055 .461 .005010 1.060 .658 .005040 1.062 .802 .106 .106 .535 .050075
1.000 .629 .005010 1.000 .957 .015025 1.003 .377 .005015 1.013 .755 .005010 1.022 .477 .010020 1.027 .637 .010030	1.035 .954 .020030 1.049 .377 .010020 1.055 .472 .010025 1.060 .659 .035060 1.062 .812 .005012 1.066 .632 .005010
1.000 .630 .030060 1.000 .958 .005010 1.003 .410 .005020 1.013 .806 .040060 1.022 .552 .005010 1.027 .669 .075100	1.036 .533 .050083 1.049 .463 .060090 1.055 .501 .020040 1.060 .672 .060083 1.062 .817 .010020 1.066 .634 .075100
1.000 .631 .134156 1.001 .164 .005010 1.003 .441 .030050 1.013 .848 .042060 1.022 .590 .015030 1.027 .721 .040060	1.036 .678 .005010 1.049 .562 .010020 1.055 .758 .010020 1.060 .688 .010020 1.062 .833 .025040 1.066 .664 .005010
1.000 .632 .090110 1.001 .203 .025040 1.003 .445 .010020 1.014 .503 .060080 1.022 .626 .030050 1.027 .793 .060083	1.036 .718 .090105 1.049 .648 .040060 1.055 .786 .015030 1.060 .702 .005010 1.062 .839 .025042 1.066 .725 .020030
1.000 .633 .015030 1.001 .218 .005010 1.003 .455 .062080 1.014 .642 .020040 1.022 .786 .100125 1.027 .826 .020040 1.000 .634 .025060 1.001 .247 .090105 1.003 .498 .005015 1.014 .692 .040060 1.022 .826 .030050 1.027 .830 .060080	1.036 .793 .075090 1.049 .890 .030050 1.055 .791 .005010 1.060 .726 .060080 1.062 .860 .010020 1.066 .728 .105135 1.037 .440 .015030 1.049 .950 .005010 1.055 .856 .005020 1.060 .741 .025040 1.062 .876 .010080 1.066 .766 .030060
1.000 .634 .025060 1.001 .247 .090105 1.003 .498 .005015 1.014 .692 .040060 1.022 .826 .030050 1.027 .830 .060080 1.000 .636 .060075 1.001 .250 .062120 1.003 .508 .005010 1.014 .848 .005010 1.022 .960 .030042 1.027 .872 .050060	1.037 .440 .013030 1.049 .950 .005010 1.055 .856 .005020 1.060 .741 .025040 1.062 .876 .010080 1.060 .766 .030060 1.037 .925 .030048 1.050 .156 .025042 1.055 .865 .050060 1.060 .752 .005010 1.062 .877 .020040 1.066 .873 .030060
1.000 .638 .100125	1.038 .440 .025042 1.050 .178 .025040 1.055 .880 .040060 1.060 .760 .020030 1.062 .930 .005010 1.066 .874 .030050
1.000 .640 .020080 1.001 .253 .010020 1.003 .641 .005012 1.014 .874 .015030 1.023 .127 .005010 1.028 .623 .060080	1.038 .506 .050075 1.050 .250 .015030 1.055 .884 .035050 1.060 .772 .060080 1.062 .962 .010030 1.066 .967 .005010
1.000 .641 .005156 1.001 .260 .080100 1.003 .723 .025040 1.014 .884 .005040 1.023 .302 .030040 1.028 .629 .032048	1.038 .709 .030050 1.050 .314 .005020 1.055 .942 .020035 1.060 .794 .080105 1.062 .963 .010020 1.067 .213 .030050
1.000 .646 .040080 1.001 .262 .005010 1.003 .780 .010020 1.015 .534 .050075 1.023 .395 .005010 1.028 .812 .020040	1.038 .974 .010020 1.050 .320 .170190 1.055 .949 .010020 1.060 .819 .050070 1.062 .985 .020030 1.067 .354 .060080
1.000 .649 .005010 1.001 .264 .090120 1.003 .807 .030048 1.015 .652 .060080 1.023 .398 .005015 1.028 .846 .050070	1.038 .989 .015025
1.000 .655 .030050 1.001 .268 .005010 1.003 .810 .005010 1.015 .671 .010020 1.023 .473 .020030 1.029 .318 .005010 1.009 .318 .005010 1.000 .656 .005010 1.001 .269 .050070 1.004 .148 .080105 1.015 .755 .005010 1.023 .474 .005010 1.029 .520 .120135	1.039 .626 .030060 1.050 .376 .005010 1.055 .957 .010020 1.060 .880 .048072 1.062 1.025 .005010 1.067 .515 .080100 1.039 .890 .010020 1.050 .416 .020030 1.056 .205 .005010 1.060 .881 .025040 1.063 .142 .090105 1.067 .535 .050075
1.000 .665 .050070 1.001 .285 .105135 1.004 .185 .005010 1.015 .773 .020030 1.023 .552 .060080 1.029 .740 .030050	1.039
1.000 .669 .005032 1.001 .322 .080100 1.004 .320 .020040 1.015 .770 .020050 1.023 .553 .005010 1.029 .765 .050070	1.040 .138 .005010 1.050 .500 .005030 1.056 .659 .005010 1.060 .883 .010020 1.063 .204 .075090 1.068 .205 .030050
1.000 .670 .105125	1.040 .195 .005010 1.050 .503 .005020 1.056 .676 .040060 1.060 .888 .010020 1.063 .315 .005010 1.068 .254 .010020
1.000 .671 .060090 1.001 .378 .005125 1.004 .458 .050070 1.015 .842 .050070 1.023 .709 .010020 1.030 .189 .075090	1.040 .378 .005010 1.050 .504 .005008 1.056 .719 .032060 1.060 .896 .010020 1.063 .317 .005010 1.068 .341 .100125
1.000 .673 .080100 1.001 .380 .025040 1.004 .531 .005010 1.015 .876 .015030 1.023 .725 .050070 1.030 .194 .030050	1.040 .544 .090120 1.050 .564 .005020 1.056 .726 .005010 1.060 .905 .040060 1.063 .321 .090120 1.068 .636 .090105
1.000 .674 .100125 1.001 .385 .005010 1.004 .549 .005010 1.016 .302 .100125 1.023 .730 .005010 1.030 .273 .060075	1.040 .560 .030050 1.050 .567 .100120 1.056 .841 .005040 1.061 .128 .010020 1.063 .329 .080100 1.068 .750 .040050

NO TOOLING CHARGE FOR ANY OF THE SIZES LISTED	BOKER'S METAL WASHERS ARE FLAT AND TOMBLE DEBURKED
Choose Any O.D. I.D. Thickness*	Choose Any O.D. I.D. Thickness*
From To From To From To From To From To	From To From To From To From To
1.068 .813 .030050 1.079 .760 .025040 1.092 .239 .005020 1.098 .671 .005010 1.100 .863 .030042 1.103 .811 .005010	1.110 .868 .005010 1.117 .372 .050075 1.120 .765 .005012 1.123 .750 .005010 1.125 .314 .008015 1.125 .795 .010050
1.069 .153 .005010 1.079 .933 .005010 1.092 .433 .040105 1.098 .752 .120140 1.100 .875 .005010 1.103 .820 .015030	1.110 .875 .050075 1.117 .392 .050070 1.120 .779 .025042 1.123 .765 .020040 1.125 .317 .083120 1.125 .796 .050062
1.069 .390 .005010 1.079 .955 .005010 1.092 .615 .020030 1.098 .754 .120156 1.100 .877 .025040 1.103 .827 .020040 1.069 .600 .170190 1.080 .088 .005010 1.092 .695 .025040 1.098 .761 .005010 1.100 .882 .030040 1.103 .845 .060080	1.110 .880 .042130 1.117 .410 .156187 1.120 .780 .100125 1.123 .770 .005010 1.125 .318 .005010 1.125 .802 .134156 1.110 .893 .083105 1.117 .566 .025040 1.120 .800 .040050 1.123 .784 .040060 1.125 .321 .005020 1.125 .812 .080100
1110 100 1010	1.110 .893 .083105 1.117 .566 .025040 1.120 .800 .040050 1.123 .784 .040060 1.125 .321 .005020 1.125 .812 .080100 1.110 .940 .005010 1.117 .620 .100125 1.120 .811 .030050 1.123 .807 .005010 1.125 .327 .062090 1.125 .813 .010020
1.069 .936 .025040 1.080 .276 .020040 1.092 .750 .015025 1.098 .846 .110130 1.100 .889 .015030 1.103 .857 .010020 1.070 .255 .105125 1.080 .320 .040060 1.092 .753 .048070 1.098 .929 .005010 1.100 .905 .040060 1.103 .886 .010020	1.110 .965 .042062
1.070 .266 .020030 1.080 .328 .015030 1.092 .791 .010020 1.098 .939 .005010 1.100 .926 .010020 1.103 .947 .015030	1.110 1.006 .010020 1.117 .756 .050060 1.120 .832 .015030 1.123 .853 .005010 1.125 .344 .062083 1.125 .823 .005010
1.070 .318 .020040 1.080 .505 .005020 1.092 .811 .005010 1.099 .253 .005010 1.100 .941 .015050 1.104 .097 .060090	1.110 1.011 .005010 1.117 .758 .135156 1.120 .870 .040060 1.123 .880 .030050 1.125 .362 .105134 1.125 .840 .105125
1.070 .619 .005010 1.080 .571 .070090 1.092 .812 .015030 1.099 .318 .005010 1.100 .952 .010020 1.104 .396 .060070	1.111 .391 .050070 1.117 .760 .020040 1.120 .880 .020030 1.123 .884 .090105 1.125 .373 .042062 1.125 .845 .005050
1.070 .755 .030040 1.080 .623 .020040 1.093 .239 .012020 1.099 .377 .005010 1.100 .961 .005010 1.104 .496 .005010	1.111 .556 .040060 1.117 .813 .062083 1.120 .882 .060083 1.123 .890 .080090 1.125 .375 .125156 1.125 .848 .062083
1.070 .794 .070080 1.080 .738 .060080 1.093 .405 .030060 1.099 .378 .010015 1.100 .965 .030050 1.104 .552 .110130	1.111 .567 .105125 1.117 .889 .010020 1.120 .890 .060090 1.123 .893 .020030 1.125 .376 .125156 1.125 .858 .015030
1.070 .906 .005010 1.080 .760 .020040 1.093 .421 .050070 1.099 .436 .020040 1.100 .987 .005035 1.104 .633 .110130	1.111 .711 .020030 1.117 .896 .015030 1.120 .920 .010020 1.123 .908 .005030 1.125 .378 .005090 1.125 .872 .100125
1.070 .961 .020035 1.080 .770 .050075 1.093 .500 .050075 1.099 .440 .005010 1.100 .992 .030050 1.104 .670 .080010	1.111 .751 .005010 1.117 .929 .042062 1.120 .945 .015030 1.123 .966 .015025 1.125 .380 .050075 1.125 .875 .032060
1.071 .259 .040062 1.080 .773 .030060 1.093 .641 .015030 1.099 .500 .005010 1.100 .994 .030050 1.104 .752 .050075	1.111 .775 .100125 1.117 .930 .050075 1.120 .997 .005010 1.123 .999 .040060 1.125 .383 .005012 1.125 .878 .005010
1.071 .266 .010030 1.080 .780 .005010 1.093 .681 .010030 1.099 .508 .005020 1.100 1.000 .005010 1.104 .826 .005010	1.112 .246 .060090 1.117 .954 .060080 1.120 1.020 .005010 1.123 1.013 .005040 1.125 .390 .005070 1.125 .880 .010020
1.071 323 .015030 1.080 .856 .020035 1.093 .830 .030050 1.099 .558 .010020 1.100 1.007 .010020 1.104 .945 .010020	1.112 .288 .070090 1.117 1.010 .030050 1.121 .160 .010020 1.123 1.072 .005010 1.125 .391 .100125 1.125 .900 .040060
1.071 .626 .005010 1.080 .906 .005010 1.093 .871 .025040 1.099 .633 .020030 1.100 1.010 .005020 1.105 .126 .005010	1.112 .312 .060090
1.071	1.112 .313 .080100 1.118 .506 .060075 1.121 .275 .060070 1.124 .199 .010020 1.125 .407 .020030 1.125 .920 .050075 1.112 .413 .070090 1.118 .679 .025040 1.121 .344 .005010 1.124 .251 .010020 1.125 .408 100125 1.125 .935 .005008
	1.112
1.072 .381 .005010 1.081 .341 .030050 1.093 .883 .035050 1.099 .816 .015025 1.101 .275 .060070 1.105 .496 .030050 1.072 .712 .005010 1.081 .793 .030050 1.093 .957 .005010 1.099 .840 .015025 1.101 .316 .020030 1.105 .592 .030050	1.112 .478 .050075 1.118 .768 .005010 1.121 .472 .030040 1.124 .273 .005010 1.125 .421 .008015 1.125 .939 .050070
1.072 .750 .075100 1.081 .797 .005010 1.094 .313 .005010 1.099 .902 .010030 1.101 .317 .005010 1.015 .032 .000 .000	1.112 .500 .060090 1.118 .802 .005010 1.121 .491 .080100 1.124 .273 .003010 1.125 .425 .013135 1.125 .940 .005010
1.072 1.001 .005010 1.083 .253 .050075 1.094 .395 .040060 1.100 .128 .005010 1.101 .354 .005010 1.105 .640 .010020	1.112 .538 .070090 1.118 .823 .110130 1.121 .511 .050070 1.124 .319 .020040 1.125 .438 .100125 .950 .040060
1.073 .347 .060080 1.083 .475 .010020 1.094 .559 .020030 1.100 .162 .030042 1.101 .356 .015030 1.105 .703 .080090	1.112 .562 .015030 1.118 .940 .005010 1.121 .531 .105125 1.124 .330 .005010 1.125 .439 .070090 1.125 .958 .020040
1.073 .474 .005010 1.083 .670 .010020 1.094 .668 .080100 1.100 .253 .005010 1.101 .444 .010020 1.105 .749 .030070	1.112 .663 .070090 1.118 1.000 .040060 1.121 .609 .134156 1.124 .437 .060080 1.125 .441 .090105 1.125 .959 .005010
1.073 .510 .015030 1.083 1.016 .020030 1.094 .782 .025040 1.100 .312 .010020 1.101 .473 .005010 1.105 .756 .030050	1.112 .760 .060090 1.118 1.001 .050060 1.121 .628 .040060 1.124 .469 .015030 1.125 .450 .025062 1.125 .967 .005010
1.073 .572 .070090 1.084 .631 .080100 1.094 .846 .030050 1.100 .316 .005010 1.101 .502 .010020 1.105 .881 .070090	1.112 .776 .020040 1.119 .323 .050075 1.121 .644 .100125 1.124 .500 .005010 1.125 .455 .090125 1.125 1.005 .010025
1.073 .656 .040060 1.084 .645 .025040 1.094 .885 .030040 1.100 .346 .050070 1.101 .505 .015025 1.105 .886 .020030	1.112 .890 .030050 1.119 .403 .005010 1.121 .664 .105125 1.124 .502 .005010 1.125 .468 .105125 1.126 .170 .050075
1.073 .672 .005010 1.084 .721 .050070 1.094 .900 .005010 1.100 .354 .070090 1.101 .630 .020040 1.105 .900 .005010	1.112 .893 .090120 1.119 .450 .030050 1.121 .699 .005010 1.124 .509 .100125 1.125 .480 .040060 1.126 .270 .025040
1.073 .890 .050070 1.084 .725 .040060 1.094 .993 .020030 1.100 .377 .010020 1.101 .719 .025040 1.105 .916 .005010	1.112 1.017 .020040 1.119 .602 .030050 1.121 .720 .005010 1.124 .519 .005010 1.125 .500 .032042 1.126 .385 .050070
1.074 .680 .135156 1.084 .728 .040050 1.095 .375 .025080 1.100 .378 .015030 1.101 .788 .005010 1.105 .954 .005010 1.095 .010	1.113 .330 .156190 1.119 .628 .080104 1.121 .721 .010020 1.124 .562 .105135 1.125 .503 .005010 1.126 .406 .100130 1.113 .500 .060090 1.119 .658 .060080 1.121 .761 .020040 1.124 .563 .010020 1.125 .504 .015025 1.126 .452 .005010
1.074 .720 .020040 1.084 .765 .040060 1.095 .405 .025048 1.100 .380 .005010 1.102 .070 .005010 1.105 .960 .105120 1.074 .971 .015025 1.084 .800 .015030 1.095 .591 .100125 1.100 .416 .015030 1.102 .237 .005010 1.106 .317 .015030	1.113 .500 .060090 1.119 .658 .060080 1.121 .761 .020040 1.124 .563 .010020 1.125 .504 .015025 1.126 .452 .005010 1.113 .757 .015025 1.119 .678 .030040 1.121 .770 .050070 1.124 .592 .005010 1.125 .512 .005187 1.126 .546 .060080
1.075 .350 .005010 1.084 .848 .005010 1.095 .625 .010020 1.100 .426 .157187 1.102 .239 .005010 1.106 .633 .078105	1.113 .760 .060090 1.119 .851 .030050 1.121 .871 .020030 1.124 .607 .100120 1.125 .515 .040050 1.126 .563 .015030
1.075 .525 .100120 1.084 .871 .005010 1.095 .655 .042062 1.100 .439 .005010 1.102 .239 .005060 1.106 .656 .060090	1.113 .879 .020040 1.119 .880 .080100 1.121 .878 .005010 1.124 .627 .005010 1.125 .516 .020040 1.126 .639 .005010
1.075 .689 .075100 1.084 .926 .005010 1.095 .700 .060090 1.100 .440 .005020 1.102 .251 .025040 1.106 .782 .020040	1.113 .888 .010020 1.119 .885 .040060 1.121 .880 .005010 1.124 .629 .080100 1.125 .516 .130150 1.126 .677 .015025
1.075 .694 .050060 1.084 .927 .010020 1.095 .749 .040060 1.100 .452 .005010 1.102 .276 .180190 1.106 .790 .040060	1.113 .910 .042060 1.119 .918 .075090 1.121 .925 .005010 1.124 .632 .060080 1.125 .523 .020040 1.126 .728 .030050
1.075 .804 .005010 1.085 .245 .030050 1.095 .755 .040050 1.100 .454 .050125 1.102 .305 .005010 1.107 .691 .080100	1.113 .940 .010020 1.119 .921 .025042 1.121 .998 .020040 1.124 .634 .135156 1.125 .525 .120135 1.126 .755 .040060
1.075 .810 .005010 1.085 .283 .050075 1.095 .790 .060080 1.100 .478 .005010 1.102 .320 .005020 1.107 .892 .040060	1.113 .943 .025040 1.119 .926 .050070 1.122 .195 .005010 1.124 .639 .030050 1.125 .530 .006012 1.126 .781 .010020
1.075 .814 .005010 1.085 .476 .005010 1.095 .808 .015030 1.100 .485 .010020 1.102 .334 .005010 1.107 .912 .030050	1.113 1.011 .020030 1.119 1.041 .005010 1.122 .329 .030040 1.124 .663 .015030 1.125 .532 .156187 1.126 .851 .005125
1.075 .834 .005020 1.085 .572 .070090 1.095 .809 .025040 1.100 .500 .005010 1.102 .335 .080090 1.107 .955 .020030	1.114 .186 .005010 1.120 .100 .050074 1.122 .383 .030050 1.124 .687 .040060 1.125 .535 .020040 1.126 .880 .005010
1.076 .348 .050075 1.085 .650 .015030 1.095 .813 .105135 1.100 .502 .005010 1.102 .394 .005020 1.107 .983 .010020	1.114 .209 .005010 1.120 .132 .015025 1.122 .441 .010020 1.124 .693 .005010 1.125 .546 .060080 1.126 .938 .015025
1.076 .367 .075090 1.085 .722 .005010 1.095 .818 .050075 1.100 .503 .005010 1.102 .395 .005025 1.108 .407 .050070	1.114 .312 .090125 1.120 .158 .005012 1.122 .442 .007016 1.124 .704 .025040 1.125 .563 .005010 1.126 .990 .005010
1.076 .398 .005010 1.085 .749 .050070 1.095 .906 .005010 1.100 .504 .005020 1.102 .396 .005010 1.108 .525 .005015	1.114 .436 .150180 1.120 .160 .030042 1.122 .468 .015030 1.124 .750 .005010 1.125 .564 .080104 1.127 .063 .020035
1.076 .499 .015030 1.085 1.022 .005010 1.096 .375 .030060 1.100 .505 .005010 1.102 .401 .005010 1.108 .563 .005010 1.076 .508 .083104 1.086 .643 .050030 1.096 .398 .050083 1.100 .506 .005010 1.102 .473 .005010 1.108 .636 .050070	1.114 .551 .170180 1.120 .220 .104134 1.122 .505 .030125 1.124 .753 .110130 1.125 .566 .005010 1.127 .125 .020040 1.114 .665 .010020 1.120 .255 .100125 1.122 .510 .090105 1.124 .755 .110130 1.125 .570 .060080 1.127 .159 .025042
1.076 .508 .083104 1.086 .643 .050030 1.096 .398 .050083 1.100 .506 .005010 1.102 .473 .005010 1.108 .636 .050070 .075 .1076 .515 .015025 1.086 .820 .010020 1.096 .441 .060075 1.100 .515 .100125 1.102 .474 .005010 1.108 .714 .060075	1.114
1.076 .535 .060080 1.086 .915 .020035 1.096 .450 .060070 1.100 .525 .010020 1.102 .474 .005020 1.108 .778 .030050	1.115 .204 .005010 1.120 .359 .090110 1.122 .595 .015030 1.124 .794 .020030 1.125 .573 .100125 1.127 .253 .075090
1.076 .536 .060080 1.086 .948 .032050 1.096 .500 .070090 1.100 .560 .005010 1.102 .477 .005010 1.108 .786 .015030	1.115 .224 .005010 1.120 .380 .025040 1.122 .627 .020040 1.124 .860 .104125 1.125 .590 .100125 1.127 .267 .048062
1.076 .643 .075090 1.087 .281 .030050 1.096 .577 .015030 1.100 .562 .040060 1.102 .511 .160190 1.108 .801 .030040	1.115 .256 .015030 1.120 .390 .020125 1.122 .629 .050070 1.124 .870 .020030 1.125 .594 .050075 1.127 .375 .020030
1.076 .690 .080104 1.087 .562 .036060 1.096 .675 .005015 1.100 .563 .015035 1.102 .541 .015030 1.108 .832 .005010	1.115 .500 .075090 1.120 .391 .005075 1.122 .750 .005015 1.124 .879 .005010 1.125 .609 .040060 1.127 .410 .100125
1.076 .915 .015025 1.087 .597 .005010 1.096 .690 .030050 1.100 .566 .005010 1.102 .564 .100120 1.108 .844 .050070	1.115 .642 .005010 1.120 .420 .040060 1.122 .755 .050070 1.124 .891 .030060 1.125 .625 .005010 1.127 .438 .005010
1.077 .380 .060080 1.087 .740 .040060 1.096 .754 .005010 1.100 .578 .080090 1.102 .590 .090105 1.109 .318 .010020	1.115 .644 .015030 1.120 .439 .050075 1.122 .758 .010020 1.124 .905 .005010 1.125 .626 .020105 1.127 .507 .005010
1.077 .758 .050075 1.087 .848 .005010 1.096 .803 .010020 1.100 .607 .075100 1.102 .598 .030050 1.109 .488 .005010	1.115 .645 .005010 1.120 .450 .100125 1.122 .771 .020040 1.124 .914 .060080 1.125 .628 .090125 1.127 .521 .025042
1.077 .767 .025040 1.088 .194 .062083 1.096 .872 .005020 1.100 .626 .005020 1.102 .632 .005020 1.109 .504 .030050	1.115 .663 .005010 1.120 .472 .100125 1.122 .877 .050070 1.124 .916 .005010 1.125 .630 .020040 1.127 .531 .060083
1.077 .830 .005010 1.088 .214 .005010 1.096 .922 .025040 1.100 .627 .005010 1.102 .666 .040060 1.109 .506 .025040	1.115 .664 .005010 1.120 .496 .040060 1.122 .889 .020035 1.124 .961 .040060 1.125 .632 .090105 1.127 .626 .005080
1.077	1.115
1.077 .3907 .020030	1.115 .780 .005010 1.120 .507 .006010 1.122 .891 .005010 1.124 1.087 .005010 1.125 .640 .156187 1.127 .695 .012016 1.115 .780 .050070 1.120 .512 .005015 1.122 .893 .015030 1.125 .080 .050075 1.125 .645 .100125 1.127 .773 .075090
1.078 .252 .025040 1.083 .040 .000000 1.097 .079 .005010 1.100 .632 .010075 1.102 .689 .030070 1.109 .035 .010020 1.089 .460 .020030 1.097 .598 .170190 1.100 .635 .005010 1.102 .766 .005010 1.109 .917 .040050	1.115 .807 .005010 1.120 .522 .100125 1.122 1.002 .015025 1.125 .040060 1.125 .654 .050075 1.127 .775 .080 .080010 1.125 .080 .080010
1.078 .392 .060083 1.089 .687 .110130 1.097 .627 .070090 1.100 .641 .135156 1.102 .771 .040060 1.110 .094 .005010	1.115 .818 .100125 1.120 .573 .005050 1.122 1.024 .015025 1.125 .131 .010025 1.125 .034 .036125 1.127 .030 .050070
1.078 .456 .005010 1.089 .843 .050070 1.097 .638 .030050 1.100 .643 .050070 1.102 .787 .060080 1.110 .097 .045060	1.115 .875 .030050
1.078 .523 .040060 1.089 .875 .042060 1.097 .782 .005010 1.100 .672 .015035 1.102 .827 .010020 1.110 .228 .030042	1.115 .876 .050075 1.120 .591 .050060 1.123 .314 .050075 1.125 .156 .025040 1.125 .685 .008016 1.127 .997 .005010
1.078 .574 .020040 1.090 .120 .020030 1.097 .830 .025040 1.100 .675 .070090 1.102 .835 .020040 1.110 .238 .018038	1.115 .930 .030040 1.120 .601 .060080 1.123 .344 .005010 1.125 .162 .015030 1.125 .687 .090105 1.127 1.018 .005020
1.078 .580 .040060 1.090 .245 .005010 1.097 .872 .050070 1.100 .693 .005010 1.102 .849 .070090 1.110 .282 .015030	1.116 .163 .010030 1.120 .603 .010050 1.123 .385 .005010 1.125 .169 .042062 1.125 .702 .050075 1.128 .314 .075090
1.078 .593 .050075 1.090 .314 .025036 1.097 .873 .005010 1.100 .695 .030040 1.102 .854 .005010 1.110 .326 .050070	1.116 .381 .020030 1.120 .620 .120156 1.123 .399 .010020 1.125 .172 .125135 1.125 .711 .070080 1.128 .347 .156187
1.078 .616 .005010 1.090 .329 .100125 1.097 .883 .005010 1.100 .696 .020040 1.102 .866 .050060 1.110 .467 .020040	1.116 .547 .050075 1.120 .625 .010020 1.123 .405 .080105 1.125 .177 .025040 1.125 .715 .025040 1.128 .358 .156187
1.078 .635 .020040 1.090 .340 .010020 1.097 .900 .030050 1.100 .700 .040060 1.102 .948 .005010 1.110 .517 .005010	1.116
1.078 .644 .005010 1.090 .355 .015030 1.097 .901 .040060 1.100 .716 .005020 1.103 .316 .005010 1.110 .607 .080010 1.110 .607 .080010 1.097 .949 .050060 1.097 .949 .050060 1.097 .718 .105135 1.103 .395 .005020 1.110 .626 .005010	1.116 .757 .010020 1.120 .640 .016025 1.123 .417 .020030 1.125 .202 .090120 1.125 .719 .040060 1.128 .747 .005010 1.116 .782 .010015 1.120 .644 .100125 1.123 .501 .005010 1.125 .203 .040125 1.125 .741 .020040 1.128 .749 .025040
1.078 .687 .030040 1.090 .433 .030060 1.097 .949 .050060 1.100 .718 .105135 1.103 .395 .005020 1.110 .626 .005010 1.078 .749 .020040 1.090 .500 .100125 1.097 1.003 .010030 1.100 .751 .005010 1.103 .396 .080100 1.110 .684 .060080	1.116 .782 .010015 1.120 .644 .100125 1.123 .501 .005010 1.125 .203 .040125 1.125 .741 .020040 1.128 .749 .025040 1.116 .786 .005010 1.120 .646 .030050 1.123 .503 .010110 1.125 .206 .015040 1.125 .745 .100125 1.128 .751 .005010
1.078 .781 .031042 1.090 .502 .040060 1.098 .220 .005010 1.100 .765 .030050 1.103 .396 .080010 1.110 .084 .000080	1.116 .809 .030060 1.120 .668 .090120 1.123 .516 .125156 1.125 .255 .005060 1.125 .749 .105135 1.128 .877 .010020
1.078 .830 .030050 1.090 .505 .025040 1.098 .375 .070090 1.100 .770 .010020 1.103 .398 .005020 1.110 .700 .100 .100	1.116 .816 .005016 1.120 .669 .015025 1.123 .524 .005010 1.125 .260 .048125 1.125 .750 .015042 1.128 .889 .050070
1.078 .840 .010020 1.090 .534 .030060 1.098 .377 .010020 1.100 .775 .032042 1.103 .473 .005010 1.110 .710 .005010	1.116 .862 .015030
1.078 .870 .015030 1.090 .595 .090120 1.098 .396 .120140 1.100 .781 .040060 1.103 .502 .010020 1.110 .725 .030040	1.116 .868 .062083
1.079 .114 .005010 1.090 .932 .060080 1.098 .420 .005010 1.100 .782 .020040 1.103 .554 .005010 1.110 .760 .005008	1.116 .879 .005010 1.120 .750 .005010 1.123 .632 .090110 1.125 .283 .062083 1.125 .754 .005010 1.129 .503 .090105
1.079 .257 .005010 1.091 .625 .032062 1.098 .504 .010020 1.100 .794 .005080 1.103 .560 .015030 1.110 .780 .020035	1.116 .883 .016025 1.120 .753 .030050 1.123 .636 .005010 1.125 .289 .060083 1.125 .755 .005010 1.129 .506 .050070
1.079 .509 .030050 1.091 .850 .070090 1.098 .597 .030040 1.100 .797 .015035 1.103 .632 .075095 1.110 .805 .015030	1.116 1.002 .005010 1.120 .755 .175200 1.123 .691 .125156 1.125 .296 .020040 1.125 .760 .050090 1.129 .620 .100125
1.079 .567 .025040 1.091 .991 .015030 1.098 .600 .005010 1.100 .827 .125135 1.103 .638 .005010 1.110 .834 .080105	1.117 .159 .105125 1.120 .760 .015032 1.123 .696 .040060 1.125 .298 .060090 1.125 .768 .048062 1.129 .705 .105135
1.079 .587 .025040 1.092 .070 .005010 1.098 .660 .105125 1.100 .858 .010020 1.103 .692 .030050 1.110 .835 .005010	1.117 .340 .005015 1.120 .761 .060080 1.123 .703 .040060 1.125 .313 .020040 1.125 .781 .050070 1.129 .804 .060080

(42)

NO TOOLING CHARGE FOR ANY OF THE SIZES LISTED	BOKEN 3 WETAL WASHENS ARE FLAT AND TOWIDLE DEBORNED
Choose Any O.D. I.D. Thickness* O.D. I.D. Thickness* O.D. I.D. Thickness* O.D. I.D. Thickness*	Choose Any Choose Any Choose Any Choose Any Choose Any Choose Any O.D. I.D. Thickness* O.D. I.D. Thickness* O.D. I.D. Thickness* O.D. I.D. Thickness*
From To From To From To From To	From To From To From To From To
1.129 .957 .005010 1.140 .657 .005020 1.150 .381 .005020 1.156 .911 .020040 1.169 .698 .030050 1.175 .840 .005010	1.180 .398 .005020 1.182 .429 .060070 1.187 .374 .042062 1.190 .265 .062090 1.197 1.120 .020035 1.201 .721 .050070
11.10 1000 1010 1110 1010 1010 1010 101	1.180 .409 .005010 1.182 .506 .005020 1.187 .378 .005010 1.190 .317 .100125 1.198 .398 .105125 1.201 .755 .005010
11.100 1.000 1.100 1.000 1.100 1.000 1.100 1.000 1.100 1.100 1.100 1.000 1.100	1.180 .438 .050070 1.182 .550 .050060 1.187 .390 .134187 1.190 .392 .090110 1.198 .441 .010020 1.201 .760 .050070
11.00 1000 1010 1010 1010	1.180 .472 .005010 1.182 .558 .080100 1.187 .404 .020040 1.190 .410 .010020 1.198 .500 .005010 1.201 .763 .050075
	1.180 .474 .005010 1.182 .561 .030050 1.187 .477 .100125 1.190 .500 .032050 1.198 .522 .005010 1.201 .774 .025040
11.0 11.0 10.0 10.0 10.0	1.180 .475 .005010 1.182 .635 .100125 1.187 .512 .060080 1.190 .531 .050070 1.198 .552 .025040 1.201 .800 .015030
1100 1100 1100 1000 11100 1000	1.180 .476 .025040 1.182 .714 .048062 1.187 .516 .065080 1.190 .543 .060080 1.198 .632 .030050 1.201 1.003 .010020
1.130 .410 .060080 1.140 .809 .005010 1.150 .628 .005010 1.158 .237 .020040 1.169 1.590 .015030 1.175 .999 .015020	1.180 .485 .010020 1.182 .750 .090120 1.187 .519 .010020 1.190 .564 .020035 1.198 .640 .070090 1.201 1.050 .050062
1110 1110 1010 1010 1010	1.180 .499 .015025 1.182 .752 .100125 1.187 .550 .025040 1.190 .626 .025070 1.198 .875 .025042 1.202 .439 .040060
1110 1110 1110 1110 1000 1010 1110 1000 1000	1.180 .512 .005010 1.182 .753 .005010 1.187 .594 .080100 1.190 .656 .110120 1.198 .890 .025040 1.202 .793 .015030
1110 1010 1000 1000	1.180 .521 .070090 1.182 .801 .010020 1.187 .625 .030050 1.190 .738 .050070 1.198 1.045 .020040 1.202 .937 .025040
11.10 1.10 1.10 1.10 1.10 1.10 1.10 1.1	1.180 .540 .015025 1.182 .867 .010020 1.187 .632 .006020 1.190 .752 .042060 1.198 1.053 .010030 1.202 .996 .025040
1.110 1.011 1.000 1.010	1.180 .563 .010020 1.182 .879 .060080 1.187 .636 .115135 1.190 .753 .015040 1.198 1.068 .020040 1.202 1.057 .010020
1110 1000 1010 1010 1010 1010 1010	1.180 .635 .040060 1.182 .906 .005010 1.187 .640 .040060 1.190 .787 .080104 1.199 .187 .020040 1.202 1.065 .010020
1110 1010 1010 1010 1000 1110 1000 1110 1000 1110 1000 1110 1000 1110 1000 1110 1000 1110 1000 1110 1000 1110 1000 1110 1000 1110 1000 1110 1000 1110 1000 1110 1000 1110 1000 1110 1000 1110 1100 1	1.180 .638 .005010 1.182 .960 .005010 1.187 .656 .048062 1.190 .817 .048062 1.199 .379 .020040 1.203 .138 .020040
1110 100 100 100 100 100 100 100	1.180 .671 .150170 1.182 .993 .005010 1.187 .660 .005010 1.190 .830 .040125 1.199 .503 .005010 1.203 .353 .060080
1110 100 1010 1010	1.180 .694 .080104 1.183 .405 .010020 1.187 .674 .090120 1.190 .881 .025040 1.199 .510 .005030 1.203 .439 .050075
11. 11. 11. 11. 11. 11. 11. 11. 11. 11.	1.180 .714 .120135 1.183 .485 .110130 1.187 .686 .060075 1.190 .890 .050060 1.199 .550 .005010 1.203 .502 .100125
11.10 100 1010 1010 1010	1.180 .747 .030050 1.183 .771 .060080 1.187 .687 .050083 1.190 .918 .010020 1.199 .562 .015030 1.203 .627 .005010
11.10 1.000 1.010	1.180 .773 .015030 1.183 .807 .006015 1.187 .688 .060080 1.190 1.000 .030040 1.199 .679 .005010 1.203 .793 .015030
11.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	1.180 .787 .010020 1.183 .810 .105125 1.187 .753 .050060 1.190 1.125 .005010 1.199 .735 .050070 1.203 .822 .015025
1110 1200 1000 1000 1000	1.180 .788 .090105
1100 1000 1100 10	1.180 .789 .010050 1.183 1.000 .040060 1.187 .757 .100125 1.191 .459 .010020 1.199 .830 .040060 1.203 1.004 .030050
1100 1110 1000 1000 1010	1.180 .793 .105125 1.184 .127 .060083 1.187 .765 .025083 1.191 .460 .020040 1.199 .985 .020030 1.204 .757 .005015
110 110 110 110 110 100 1010 1010	1.180 .808 .020040 1.184 .325 .050060 1.187 .812 .062083 1.191 .560 .170190 1.199 1.012 .015030 1.204 1.030 .005010 1.180 .890 .010020 1.184 .585 .010020 1.187 .823 .032120 1.191 .646 .005010 1.199 1.050 .040060 1.205 .508 .040060
1110 1101 1100 1101 1100 1101	
1100 1100 1000 1000 1000	1101 1101 1100 1000 1000 1010
11.10 1.002 1.000 1	1.180 .903 .005010 1.184 .635 .062083 1.187 .874 .010020 1.191 .882 .005010 1.200 .086 .010020 1.205 .922 .015030 1.180 .947 .010020 1.184 .730 .025040 1.187 .880 .010020 1.191 .900 .070090 1.200 .138 .050070 1.206 .920 .025040 .025040 .026
	1.180 .981 .005010 1.184 .753 .005010 1.187 .881 .005010 1.191 .934 .050075 1.200 .168 .030050 1.206 1.072 .005010
100 100 100	1.180 .995 .005040 1.184 .807 .005010 1.187 .882 .010025 1.192 .739 .030050 1.200 .186 .020040 1.207 .258 .050070
	1.180 1.015 .040060 1.184 .995 .005010 1.187 .944 .005010 1.192 .778 .040060 1.200 .213 .040060 1.207 .381 .160190
	1.180 1.029 .005010 1.184 1.073 .005010 1.187 .954 .005010 1.192 1.004 .015025 1.200 .220 .005010 1.207 .307 .005010
	1.187 .005010
	1.187 1.252 .005010 1.185 .252 .040060 1.187 1.025 .050060 1.193 .088 .005010 1.200 .250 .060000 1.207 .074 .000010 1.207 .000010 1.207 .000010 1.207 .000010 1.207 .000010 1.207 .000010 1.207 .000 .000 .000 .000 .000 .000 .000
	1.181 .265 .030050 1.185 .313 .100125 1.187 1.029 .005010 1.193 .159 .005010 1.200 .327 .010020 1.208 .390 .010050
	1.181 .326 .005010
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.181 .335 .060078 1.185 .328 .100125 1.188 .094 .020030 1.193 .445 .060078 1.200 .376 .005020 1.210 .312 .015030
	1.181 .379 .005010 1.185 .365 .075125 1.188 .128 .020035 1.193 .640 .040060 1.200 .377 .100125 1.210 .383 .050075
	1.181 .394 .015030
	1.181 .395 .005060 1.185 .435 .100125 1.188 .240 .050070 1.193 1.003 .010020 1.200 .383 .090125 1.210 .878 .005020
1102 1000 1000 1101	1.181 .396 .080100 1.185 .437 .060080 1.188 .254 .050070 1.194 .760 .050070 1.200 .408 .050070 1.201 .958 .100125
1102 1000 1010 1000 1010 1000	1.181 .414 .090105
	1.181 .472 .010020 1.185 .609 .030040 1.188 .312 .005010 1.194 1.002 .050070 1.200 .500 .005020 1.210 1.140 .005010
11.00 1.100 1	1.181 .473 .005010 1.185 .645 .010040 1.188 .326 .062083 1.194 1.012 .005010 1.200 .501 .005020 1.211 .201 .010020
	1.181 .474 .005010 1.185 .700 .005015 1.188 .439 .060080 1.194 1.014 .060080 1.200 .502 .005020 1.211 .403 .075090
	1.181 .477 .005010 1.185 .709 .100125 1.188 .508 .020040 1.194 1.072 .005010 1.200 .503 .005020 1.211 .751 .050075
	1.181 .482 .030060 1.185 .753 .005010 1.188 .515 .040060 1.194 1.073 .005010 1.200 .504 .005030 1.211 1.005 .005010
	1.181 .512 .105125 1.185 .755 .030050 1.188 .530 .048075 1.195 .057 .005010 1.200 .520 .050070 1.211 1.035 .010020
1.136 .961 .060075 1.145 .856 .005010 1.154 .787 .090100 1.164 .787 .083120 1.172 .958 .050062 1.179 .381 .170190	1.181 .518 .135156 1.185 .768 .005010 1.188 .563 .005075 1.195 .252 .005010 1.200 .562 .005020 1.212 .994 .030050
	1.181 .531 .010020 1.185 .783 .050125 1.188 .621 .080100 1.195 .312 .005010 1.200 .570 .080100 1.212 .997 .015030
1.137 .693 .005010 1.145 1.006 .030050 1.154 .856 .025040 1.164 .802 .040060 1.173 .063 .015025 1.179 .502 .005010	1.181 .552 .105125 1.185 .875 .050083 1.188 .623 .040060 1.195 .379 .040050 1.200 .600 .105125 1.212 1.015 .020040
1.137 .814 .040060 1.146 .289 .015030 1.154 .875 .010020 1.164 .946 .031048 1.173 .412 .130150 1.179 .569 .030060	1.181 .560 .100125 1.185 .880 .012025 1.188 .626 .105125 1.195 .575 .120135 1.200 .626 .005020 1.212 1.016 .020040
1.137 .907 .030050 1.146 1.000 .005010 1.154 .877 .005010 1.165 .315 .070090 1.173 .413 .156190 1.179 .632 .010020	1.181 .577 .070090 1.185 .908 .005020 1.185 .908 .005020 1.188 .656 .025040 1.195 .641 .040060 1.200 .629 .010020 1.212 1.042 .070090
1110 1000 10	1.181 .607 .005015 1.185 .940 .030062 1.188 .688 .040060 1.195 .692 .008020 1.200 .642 .015030 1.213 .894 .005020
1110 1110 1110 1110 1110	1.181 .627 .020040 1.185 .973 .005010 1.188 .720 .030050 1.195 .730 .030050 1.200 .650 .025042 1.213 1.074 .015025
11.00 10.00 10.10 10.00 10.10	1.181 .628 .025083 1.185 .990 .080104 1.188 .759 .156187 1.195 .795 .050070 1.200 .751 .030050 1.214 .569 .050070
1110 1100 1000 1000 1000 1000 1000	1.181 .640 .090125 1.185 1.024 .040060 1.188 .763 .005105 1.195 .865 .015030 1.200 .755 .010020 1.214 .860 .030050
1110 1110 1110 1110 1110	1.181 .649 .160190 1.185 1.048 .005010 1.188 .765 .070090 1.195 .872 .005010 1.200 .760 .020040 1.214 .879 .015025
THE THE THE THE TOTAL THE	1.181 .669 .070090 1.185 1.067 .015030 1.188 .799 .050070 1.195 .912 .010020 1.200 .761 .120135 1.214 1.144 .010020
1100 1000 1010 1010 1010 1010 1010	1.181 .696 .010020 1.186 .189 .105125 1.188 .880 .005160 1.195 .915 .005010 1.200 .786 .080090 1.215 .260 .040060
1110 1000 1000 1000	1.181 .708 .005010 1.186 .378 .156190 1.188 .920 .010020 1.195 .964 .032048 1.200 .796 .005010 1.215 .410 .010020
	1.181 .787 .135160 1.186 .437 .010100 1.188 .922 .040060 1.195 .980 .005015 1.200 .817 .080105 1.215 .474 .005010
11.00 11.00 11.00 11.00 11.00 11.00 11.00	1.181 .801 .005010 1.186 .506 .060090 1.188 .940 .005010 1.195 .983 .010020 1.200 .829 .005010 1.215 .753 .030050
101. 111. 111. 100. 111. 111. 100. 111. 100. 111. 111. 111. 111. 111. 111. 111. 111. 111. 111. 111. 111.	1.181 .802 .025040 1.186 .559 .090125 1.188 1.000 .062089 1.195 1.007 .060080 1.200 .865 .135156 1.215 .875 .062090
1110 1020 1010 1010 1010 1010 1010 1010	1.181 .829 .025040 1.186 .685 .020040 1.188 1.001 .005010 1.195 1.026 .010030 1.200 .900 .030050 1.215 .906 .010020
1110 1001 1000 10	1.181 .877 .040060 1.186 .710 .020040 1.188 1.010 .015025 1.195 1.116 .010020 1.200 .935 .005010 1.216 .377 .060083
1110 1120 1010 1110 1100 1010 1110 1110	1.181
11.10 1.10 1.00 1.00 1.00 1.00 1.00	1100 1200 1000 1000 1000 1000 1000 1000
1110 1010 1010 1010 1010 1010 1010	11.20 1.010 1.010 1.010
	1.181 .950 .005010 1.186 .975 .010030 1.189 .380 .110130 1.196 .859 .040060 1.200 1.210 1.011 .050070 1.217 .757 .005010 1.181 .965 .012040 1.186 1.015 .025040 1.189 .627 .160190 1.196 1.013 .005010 1.200 1.013 .015030 1.217 .902 .005015
	1.181 1.000 .010030 1.186 1.016 .030050 1.189 .751 .040060 1.196 1.020 .020030 1.200 1.048 .005010 1.217 .995 .005010
	1.181 1.020 .005010 1.186 1.063 .015030 1.189 .798 .005010 1.196 1.020 .020030 1.200 1.050 .025040 1.217 .998 .010020
1100 1100 1000 1010 1010 1010 1010	1.182 .315 .005010 1.187 .142 .005030 1.189 .828 .005010 1.197 .376 .005010 1.200 1.073 .005030 1.217 1.001 .005025
1100 1120 1110 1120 1110 1020	1.162 .316 .003010 1.167 .142 .003030 1.189 .828 .003010 1.197 .376 .003010 1.200 1.073 .003030 1.217 1.001 .003020 1.182 .316 .010020 1.187 .156 .050062 1.189 .999 .010020 1.197 .500 .030050 1.201 .257 .005010 1.217 1.013 .020040
	1.182 .317 .005020 1.187 .212 .040062 1.189 1.032 .005010 1.197 .570 .005010 1.201 .314 .030050 1.218 .277 .090125
	1.182 .395 .010020 1.187 .283 .080104 1.190 .128 .030050 1.197 .637 .005010 1.201 .395 .005030 1.218 .315 .035050
	1.182 .398 .005010 1.187 .313 .010025 1.190 .250 .100125 1.197 .880 .005010 1.201 .562 .020030 1.218 .355 .040060
	100 100 100 100 100 100 100 100 100 100

0 -		Choose Any			Choose Any	0.5		Choose Any			Choose Any			Choose Any			Choose Any
O.D.	I.D.	Thickness* From To	O.D.	I.D.	Thickness*	O.D.	I.D.	Thickness*	O.D.	I.D.	Thickness* From To	O.D.	I.D.	Thickness* From To	O.D.	I.D.	Thickness*
1.218	.380	.020060	1.223		.005010	1.235		.020040	1.243	.405	.030050	1.246	.952	.050067	1.248		.015030
1.218	.439	.030050	1.224	.754	.070090		1.010	.005020	1.243	.491	.125156	1.246	1.035	.075090		1.060	.005015
1.218	.474	.005010	1.224		.020040	1.236	.131	.005010	1.243	.613	.005010	1.246		.020040		1.145	.040060
1.218	.565	.042062	1.224		.040060	1.236	.413	.005010	1.243	.614	.005010		1.060	.020040	1.249	.140	.005050
1.218	.627	.005010	1.225	.120	.015030	1.236	.500	.005010	1.243	.699	.005010	1.247	.064	.015030	1.249	.188	.015030
1.218	.758	.025035	1.225	.375	.015030	1.236	.501	.090110	1.243	.855	.070090	1.247	.125	.040060	1.249	.203	.005105
1.218 1.218	.855 .856	.060075 .060075	1.225 1.225	.564 .640	.010020 .005010	1.236 1.236	.635 .644	.005010	1.243	.965	.090105	1.247	.254 .263	.060080	1.249 1.249	.250 .253	.030050 .005010
1.218		.050062	1.225	.826	.040060	1.236	.812	.060070	1.243 1.243		.005010	1.247		.050075	1.249	.233	.170190
1.218		.060080	1.225	.947	.010020	1.236	.967	.020040	1.243		.030040	1.247 1.247	.354 .378	.100125 .005010	1.249	.319	.036060
1.218		.025040	1.226	.525	.015030	1.236	1.122	.005010	1.243		.015030	1.247	.392	.005010	1.249	.320	.105125
1.219	.268	.060080	1.226	.750	.135156	1.237	.867	.030050	1.244	.150	.015030	1.247	.450	.020030	1.249	.327	.015030
1.219	.270	.005025	1.227	.381	.005010	1.237	.930	.050070	1.244	.543	.005010	1.247	.503	.030050	1.249	.328	.090125
1.219	.315	.035050	1.227	.777	.005010	1.238	.326	.040060	1.244	.768	.060125	1.247	.572	.030048	1.249	.380	.105125
1.219	.473	.005010	1.227	.812	.005010	1.238	.640	.070090	1.244	.770	.020083	1.247	.684	.110120	1.249	.391	.042060
1.219	.515	.050075	1.227	.966	.010020	1.238	.661	.020030	1.244	.782	.070090	1.247	.699	.005010	1.249	.401	.100125
1.219	.534	.050075	1.228	.661	.080100	1.238	.890	.070090	1.244	.793	.005010	1.247	.754	.050070	1.249	.427	.020040
1.219	.552	.005010	1.228	.926	.010020	1.239	.718	.005010	1.244	.801	.025040	1.247	.816	.005050	1.249	.444	.036060
1.219	.595	.025042	1.228	1.012	.005010	1.239	.779	.020030	1.244	.878	.105135	1.247	.850	.070090	1.249	.450	.005010
1.219	.642	.005010	1.229	.416	.005010	1.239	.879	.062083	1.244	.967	.080100	1.247	.874	.015030	1.249	.455	.005010
1.219	.751	.010020	1.229	.591	.040060	1.239	.885	.020030	1.244		.025040	1.247	.937	.016025	1.249	.495	.005010
1.219	.801	.005010	1.229	.753	.020040	1.239	.950	.010020	1.244		.070090	1.247	.978	.050070	1.249	.510	.070090
1.219	.890	.020040	1.229	.757	.025070	1.239	.962	.020060	1.244		.005010	1.247	.992	.062083	1.249	.516	.030050
1.219	.940	.040060	1.229	.785	.032050	1.239	1.043	.015030	1.245	.205	.005075		1.011	.020030	1.249	.532	.156187
1.219		.020075	1.229	.861	.070090	1.240	.065	.030040	1.245	.315	.156187		1.034	.035050	1.249	.549	.005010
1.220	.125	.015030	1.229	.917	.025042	1.240	.127	.090105	1.245	.340	.005010	1.248	.145	.050075	1.249	.578	.060070
1.220	.194	.075100	1.229	.919	.005010	1.240	.130	.040060	1.245	.501	.100125	1.248	.147	.030040	1.249	.605	.005010
1.220	.258 .283	.050070 .015030	1.229 1.230	.920 .145	.010020 .050070	1.240	.163	.070090	1.245	.527	.005010	1.248	.178	.100125	1.249	.623 .635	.040060 .005010
1.220 1.220	.283 .315	.015030	1.230	.145	.050070	1.240 1.240	.172 .323	.010020 .062083	1.245 1.245	.528 .550	.050070 .015035	1.248 1.248	.202 .219	.050070 .040060	1.249 1.249	.650	.005010
1.220	.375	.090100	1.230	.201	.125156	1.240	.325	.062083	1.245	.560	.005010	1.248	.255	.040060	1.249	.651	.020040
1.220	.394	.005020	1.230	.378	.060080	1.240	.378	.005020	1.245	.565	.050083	1.248	.262	.005010	1.249	.660	.020040
1.220	.455	.012020	1.230	.381	.042062	1.240	.380	.030048	1.245	.595	.080100	1.248	.263	.050075	1.249	.663	.060080
1.220	.476	.005010	1.230	.501	.050070	1.240	.412	.005010	1.245	.631	.015025	1.248	.325	.030050	1.249	.689	.050075
1.220	.504	.005125	1.230	.562	.110130	1.240	.451	.015030	1.245	.636	.050070	1.248	.333	.050070	1.249	.690	.080100
1.220	.507	.110134	1.230	.612	.050070	1.240	.484	.070090	1.245	.741	.015025	1.248	.344	.042060	1.249	.721	.030050
1.220	.564	.010020	1.230	.680	.010020	1.240	.560	.075105	1.245	.754	.050075	1.248	.354	.100125	1.249	.723	.010020
1.220	.602	.090120	1.230	.761	.005010	1.240	.581	.010020	1.245	.756	.010020	1.248	.375	.005010	1.249	.752	.090110
1.220	.640	.100125	1.230	.766	.050134	1.240	.635	.030040	1.245	.758	.040060	1.248	.377	.020040	1.249	.756	.036060
1.220	.672	.025042	1.230	.890	.030050	1.240	.661	.050105	1.245	.760	.060080	1.248	.378	.042062	1.249	.758	.005010
1.220	.680	.030050	1.230	.911	.015025	1.240	.697	.030072	1.245	.768	.015025	1.248	.428	.005010	1.249	.797	.030050
1.220	.699	.030050	1.230	.921	.025040	1.240	.710	.040060	1.245	.773	.005010	1.248	.451	.005010	1.249	.800	.030050
1.220	.799	.010020	1.230	.925	.010030	1.240	.720	.020040	1.245	.788	.025040	1.248	.453	.005010	1.249	.812	.050070
1.220	.809	.050070	1.230	.981	.020030	1.240	.749	.010020	1.245	.836	.030050	1.248	.455	.090120	1.249	.850	.015030
1.220 1.220	.831 .844	.060083	1.230	.985 1.005	.010020	1.240	.812	.025040	1.245	.852	.005010	1.248	.471	.005010	1.249	.905 .920	.015030
1.220	.875	.062090	1.230 1.230		.030050 .020040	1.240 1.240	.814 .851	.005010	1.245 1.245	.880 .887	.015030 .050070	1.248 1.248	.500 .505	.135187 .005020	1.249 1.249	.925	.105125
1.220	.960	.050083	1.230		.005010	1.240	.875	.030030	1.245	.906	.100120	1.248	.508	.105125	1.249	.951	.005010
	1.004	.010020		.625	.060080	1.240	.937	.090105	1.245	.921	.030050	1.248	.510		1.249	.961	.007015
	1.083	.005010	1.231	.915	.010020	1.240	.938	.020040	1.245	.945	.005020	1.248	.517	.005125	1.249		.030050
	1.090	.042062	1.231		.005010	1.240	.960	.025040	1.245	.947	.080104	1.248	.532	.005010	1.249		.030050
	1.116	.040050	1.232	.185	.015030	1.240		.025070	1.245	.948	.070090	1.248	.535	.005010	1.249		.025040
1.221	.131	.015030	1.232	.500	.005010	1.240		.030050	1.245	.990	.100125	1.248	.550	.050070	1.249		.075090
1.221	.194	.020040	1.232	.661	.040060	1.240		.010020	1.245		.020105	1.248	.559	.156187	1.249	1.110	.010020
1.221	.257	.040060	1.232	.751	.005010	1.240		.005010	1.245		.010020	1.248	.574	.005010	1.249		.005010
1.221	.867	.020040	1.232	.792	.120130	1.240		.030050	1.245		.005010	1.248	.627	.010020	1.249	1.156	.015030
1.221	.899	.025040	1.233		.040060	1.240		.025042	1.245		.005010	1.248	.636	.110130			
1.221	.916	.005010	1.233		.005010	1.241	.279	.005030	1.245		.005010	1.248	.651	.090105			
1.221	.985	.074090	1.233		.005010	1.241	.500	.050060	1.245		.005015	1.248	.656	.005010			
1.221	.986	.020040	1.233		.020030	1.241	.641	.050075	1.246	.252	.080104	1.248	.689	.050070			
	1.094	.010020	1.234	.087	.015030	1.241	.750	.030050	1.246	.254	.015030	1.248	.695	.005010	_		
1.221 1.222	1.098 .194	.035050	1.234 1.234	.279 .392	.005010	1.241	.761	.105125	1.246	.261	.075090	1.248	.723	.005010	=		50
1.222		.110120	1.234	.505	.134156 .070090	1.241 1.241	.782 .788	.110130 .010020	1.246 1.246	.287 .384	.005010 .050083	1.248 1.248	.742 .749	.100125 .050070			JU
1.222		.020040	1.234	.849	.020040	1.241	.766	.030050	1.246	.566	.005010	1.248	.749 .750	.005010	_		
1.222		.020050	1.234	.906	.105120	1.241	.945	.020040	1.246	.701	.110130	1.248	.752	.003010	1.250	.040	.005010
.222		.090110	1.234	.950	.090110	1.241	.970	.020030	1.246	.741	.015030	1.248	.760	.025040	1.250	.082	.025040
	1.015	.005010	1.234		.008016	1.241	.994	.020030	1.246	.750	.010015	1.248	.780	.080104	1.250	.125	.050075
	1.063	.040060	1.234		.030050	1.241		.020035	1.246	.753	.050070	1.248	.810	.005010	1.250	.127	.031048
	1.079	.005010	1.234		.020030	1.241		.050070	1.246	.754	.060090	1.248	.811	.040100	1.250	.140	.020125
1.223		.110130	1.235	.500	.010020	1.242	.436	.020030	1.246	.755	.020040	1.248	.813	.040062	1.250	.148	.008016
1.223	.385	.100125	1.235	.626	.005020	1.242	.452	.020030	1.246	.761	.070090	1.248	.877	.005010	1.250	.164	.005010
1.223	.386	.060078	1.235	.628	.040060	1.242	.535	.090100	1.246	.768	.015030	1.248	.878	.005025	1.250	.165	.060083
1.223		.008015	1.235	.695	.090100	1.242	.641	.062090	1.246	.769	.040060	1.248	.909	.010015	1.250	.170	.030060
1.223	.755	.025040	1.235	.732	.005010	1.242	.879	.042062	1.246	.781	.020040	1.248	.932	.005010	1.250	.179	.015030
1.223	.793	.020040	1.235	.766	.010020	1.242	.897	.015030	1.246	.783	.020040	1.248	.950	.030050	1.250	.182	.005010
1.223	.907	.015030	1.235	.802	.005010	1.242	.944	.040060	1.246	.839	.060080	1.248	.984	.010020	1.250	.187	.040083
	.998	.005030	1.235	.882	.005020	1.242		.005010	1.246	.880	.005010	1.248		.062083	1.250	.192	.040062
1.223				0.45	.010020	1 2/12	1.021	.015030	1.246	.909	.050075	1.248	1.004	.062083	1.250	.193	.030060
1.223 1.223	1.020	.030060 .010020	1.235 1.235	.945 .962	.010020	1.242		.035060	1.246	.937	.005010	1.248		.005010	1.250	.195	.090135

Dec																		
1.550 1.55	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*
1,250 2,750 1,75			From To			From To			From To			From To	0.5.		From To			From To
1.500 1.50													1.255	.911	.105125			
1299 277															.040060			
1,290 227 098 096 196 258 658 079 197 1280 1017 090 090 1280 229 090 1290													1.255	1.031	.020030			
1.550 2550														1.079	.020030			
1,250 252 102 - 132 125 250 250 250 100 - 102 125 12										1.252	.407	.090110	1.256	.139	.050083			
1,250 254 0.05 0.01 220 682 105 125										1.252	.408	.025042	1.256		.075100			
1,220 285 0.05 0.01 220 685 0.00 0.05 0.01 2120 1.05 0.05 0.00 1.05 1.05 0.05 0.05 1.05 1.05 0.05 0.05 1.05 0.05 0.05 0.05 1.05 0.										1.252	.426	.100125	1.256	.507	.050070			
1,250 286 105 105 106 10										1.252	.437	.060075	1.256	.519	.100125			
1,750 280 0.00 0.00 0.250 0.75 0.15 0.00 0.00 0.25									.050070	1.252	.442	.125156	1.256	.613	.015030	1.260	1.100	
1250 2862 1800 1907 1250 176 1800 1901 1260 1608 1907 1901 1800 1							1.250	1.036	.080105	1.252	.506	.005010	1.256	.941	.125156	1.260	1.130	.010020
1,250			.040060			.015030	1.250	1.051		1.252	.585	.030050	1.256	1.080	.062080	1.260	1.135	.010020
1.250 266							1.250	1.058	.072093	1.252	.625	.005010	1.257	.605	.005010			
1.250 2.73									.025040	1.252	.629	.020030	1.257	.673	.020030			
1,250 28							1.250	1.067	.030050	1.252	.630	.105125	1.257	.787	.120135			
1,220 283 080 - 081 285 680 085 - 070 075 - 076 - 076 075 - 076 - 076 075 - 076 - 07							1.250	1.115	.010020	1.252	.633	.050075	1.257	.933	.030048			
1,250 268 695 - 676 1285 707 075 - 106 1285 1485 080 - 506 1287 705 085 - 616 1287 110 085 - 616 1287 128 070 - 090 070 - 090 1282 131 080 - 506 1285 131 080 - 506 1285 137 080 - 507 1287 110 080 - 506 1285 131 080 - 507 1285													1.257		.125156			
1,250 295 095 046 129 129 707 090 070 129 1180 101 095 105 1													1.257	.956	.005010			
1,250 311 020 - 040 1250 710 050 - 070 1250 180 050 - 070													1.257	1.014	.005010			
1.250 311 0.50 0.05 1.250 7.11 0.05 0.10 1.250 1.81 0.05 0.05 0.01 1.250 7.79 0.05 0.05 0.01 1.250 1.250 0.00 0.00 1.250 1.250 0.00																		
1250 314 0.05 - 101 1250 715 0.05010 1250 1.887 0.05010 1252 738 0.05010 1251 1.004 0.07005 1.250 330 0.05010 1250 1.004 1.07005 1.250 330 0.05010 1250 733 0.05006 1251 131 0.07000 1.252 739 0.05010 1.258 1.005 0.05010 1.250 1.005 1.250													1.257	1.120				
1250 344 105 - 125 1250 729 050 - 050 1251 131 050 - 070 1252 797 010 - 1250 1250 320 000 - 001 1251 1301 050 - 070 1252 327 000 - 050 1250 327 070 - 050 1250 327 070 - 050 1250 328 378 005 - 070 1251 137 000 - 070 1252 328 038 070 070 1252 138 338 070 - 020 1250 328 378 005 - 070 1252 137 000 - 070 1250 137 000 -													1.257		.025040			
1250 327 000 - 101 1250 751 180 181 1251 187 005 - 101 1252 182 005 - 101 1258 187 005 - 101 1261 1083 030 - 042 1250 339 070 - 1090 1250 753 040 - 080 1251 215 215 010 - 200 1252 291 007 - 102 1258 538 010 - 102 1250 237 005 - 101 1252 235 005 - 101 1252 1351 005 - 101 1252 1351 005 - 101 1252 1351 005 - 101 1250 1351 005 - 101 1250 1351 005 - 101 1252 1351 005 - 101 1252 1351 005 - 101 1251 1351 005 - 101 1252 1351 005 - 1																		
1,250 327 070 - 080 1250 751 180 - 188 1251 187 005 - 070 1252 882 038 - 070 1251 1258 378 005 - 070 1252 525 030 - 030 1252 1251 135																		
1290 329 070 0.09																		
1250 344 005 - 010 1250 754 032 - 042 1251 257 070 - 090 1252 961 007 - 040 1258 632 015 - 030 105 - 030 050 005 - 010 1250 961 030 - 050 1250 340 080 - 100 1250 758 070 - 125 125 330 156 - 130 1252 965 030 - 010 1258 687 030 - 050 1263 185 105 - 125 1250 1250 12																		
1.250 344 0.00 0.00 1.250 758 070 0.900 1.251 312 0.90 0.150 1.252 988 0.00 0.16 1.258 8.643 0.00																		
1280 348 080 - 1.00 1280 786 070 - 128 1281 330 156 - 128 1282 1092 106 - 025 1286 377 080 - 500 1283 1882 105 - 1385 1280 336 015 - 030 1280 786 005 - 010 1281 338 020 - 040 1282 1070 000 1285 772 030 050 1281 388 030 - 030 1280 786 005 - 010 1285 1385 030 - 030 1280 1380 030 - 030 1280 1080 025 030 1280 030 030 1280 030 030 1280 1080 025 030															.015030			
1250 354 005 - 010 1250 762 005 - 070 1251 332 105 - 125 1252 1002 016 - 025 1258 688 722 030 - 050 1263 1075 080 - 105 1250 105 1															.005010			
1250 356 015 - 030 1260 763 005 - 010 1251 335 005 - 010 1252 1010 1252 1015 1026 1258 722 026 030 050 1263 1085 010 - 020 1250 365 020 - 060 1252 076 040 - 060 1251 398 075 - 030 1252 1010 0252 1010 0252 1010 020 020 040 1258 1010 010 - 020 1265 345 1020 13																		
1250 389																		
1250 365 0.090006 1250 765 104134 1251 384 170190 1252 1260 0.05006 1258 1000 0.10000 1265 336 4.020304 1250 377 0.06010 1250 771 0.090006 1251 410 0.15031 1252 1337 0.06070 1258 1.10 0.05010 1265 336 0.06030 0.05030 1250 781 0.06000 0.070 1251 417 135010 1252 1337 0.06070 1258 1.10 0.05010 1265 533 0.00125 1250 383 0.00050 0.150 784 0.06070 1251 440 0.06010 1259 232 0.02040 1265 533 100125 1250 383 0.05050 0.150 785 0.05060 1.251 480 0.03050 1252 1.102 0.05010 1.259 239 0.05010 1265 837 0.06020 1250 320 0.06020 1.251 300 0.05020 1.251 300 0.05020 1.259 329 0.06020 1.255 300 3.06020 1.255 300							1.251	.335	.020040	1.252	1.004	.025040	1.258	.722	.030050			
1.250 375 0.09 - 1.016 1.250 770 0.040 0.06 1.251 4.01 0.15 - 0.03 1.252 1.030 0.02 - 0.040 1.258 1.116 0.05 - 0.010 1.265 3.07 0.060 - 0.010 1.250 3.76 0.060 - 0.001 1.250 3.76 0.060 - 0.001 1.250 3.76 0.060 - 0.001 1.250 3.76 0.060 - 0.001 1.250 3.76 0.060 - 0.001 1.250 3.76 0.060 - 0.001 1.250 3.76 0.060 - 0.001 1.250 3.76 0.060 - 0.001 1.250 3.76 0.060 - 0.001 1.250 3.76 0.060 - 0.001 1.250 3.76 0.060 - 0.001 1.250 1.2			.060090	1.250	.764	.040060	1.251	.378	.005010	1.252	1.015	.100125	1.258	.984	.010015	1.263		
1.250 377 0.05 - 0.01 1.250 711 0.05 - 0.07 1.251 410 0.15 - 0.03 1.252 1.037 0.05 - 0.070 1.256 1.156 0.05 - 0.010 1.256 3.76 0.06 - 0.00 1.250 3.78 0.05 - 0.00 1.250 3.78 0.05 - 0.00 1.250 3.78 0.05 - 0.00 1.250 3.78 0.05 - 0.00 1.250 3.78 0.05 - 0.00 1.251 3.05	1.250		.020062	1.250	.765	.104134	1.251	.384	.170190	1.252	1.020	.032060	1.258	1.004	.015030	1.264	.548	.030050
1250 378 0.05 - 0.00 1.250 781 0.05 - 0.07 1251 417 415 - 160 1.252 1.040 0.05 - 0.01 1.258 1.129 0.10 - 0.015 1.265 5.34 0.05 - 0.10 1.250 1.380 0.05 - 0.01 1.250 1.380 0.05 - 0.01 1.250 1.380 0.05 - 0.01 1.250 1.380 0.05 - 0.01 1.250 1.380 0.05 - 0.01 1.250 1.380 0.05 - 0.01 1.250 1.380 0.05 - 0.01 1.250 1.380 0.05 - 0.01 1.250 1.380 0.05 - 0.00 1.250 1.380 0.05 - 0.00 1.250 1.380 0.05 - 0.00 1.250 1.380 0.05 - 0.00 1.250 1.380 0.05 - 0.00 1.250 1.380 0.05 - 0.00 1.250 1.380 0.05 - 0.00 1.250 1.380 0.05 - 0.00 1.250 1.380 0.05 - 0.00 1.250 1.380 0.05 - 0.00 1.250 0.05 0.05 - 0.00 1.250 0.05 0.05 - 0.00 1.250 0.05 0.05 - 0.00 1.250 0.05 0.05 - 0.00 1.250 0.05 0.05 - 0.00 1.250 0.05 0.05 - 0.00 1.250 0.05 0.05 - 0.00 1.250 0.05 0.05 - 0.00 1.250 0.05 0.05 - 0.00 1.250 0.05 0.05 - 0.00 0.05 0.05 0.05 0.05 - 0.00 0.05 0	1.250	.375	.090105	1.250	.770	.040060	1.251	.401	.015030	1.252	1.030	.020040	1.258	1.010	.010020	1.265	.354	.120134
1.250 379 0.012 - 0.40	1.250	.377	.005010	1.250	.771	.030050	1.251	.410	.015031	1.252	1.037	.050070	1.258	1.116	.005010	1.265	.376	.060080
1.250 382 1.00 - 1.34 1.250 784 0.50 - 0.07 1.251 4.71 0.45 - 0.06 1.252 1.107 0.05 - 0.01 1.259 316 0.05 - 0.01 0.250 3675 0.40 - 0.01 0.250 390 0.05 - 0.00 0.1250 789 1.05 - 1.05 1.251 482 1.60 - 1.90 1.252 1.125 0.10 - 0.00 1.259 316 0.10 - 0.00 1.265 390 0.10 - 0.20 1.251 1.251 1.250 0.05 - 0.01 1.252 1.125 0.10 - 0.00 1.259 345 0.10 - 0.00 1.265 390 0.10 - 0.20 1.251 1	1.250	.378	.005030	1.250	.781	.050070	1.251	.417	.135160	1.252	1.040	.005010	1.258	1.129	.010015	1.265	.504	.005010
1259 383 095 095 1250 785 005 080 1251 482 160 190 1252 1125 0105 015 1259 385 010 020 1255 387 010 020 1255 380 010 020 010 02	1.250		.012040	1.250	.783	.050075	1.251	.440	.040060	1.252	1.092	.010020	1.259	.232	.020040	1.265	.533	.100125
1.250 390 0.05 - 0.08 1.250 789 1.05 - 1.35 1.251 4.82 1.06 - 1.09 1.252 1.125 0.10 - 0.09 1.259 3.95 0.10 - 0.00 1.255 3.90 0.10 - 0.00 1.250 1.250 1.250 0.06 0.10 1.250 1.250 0.06 0.10 1.250 1.250 0.06 0.10 1.250 1.250 0.06 0.00 0.250 1.250 0.06 0.00 0.250 1.250 0.06 0.00 0.250 1.250 0.06 0.00 0.250 0.05 0.00	1.250	.382	.100134	1.250	.784	.050070	1.251	.471	.045060	1.252	1.107	.005010	1.259	.239	.005010	1.265	.866	.080100
1250 397 005 - 010 1250 791 010 - 020 1251 530 005 - 010 1252 1252 390 100 - 125 1259 473 015 - 303 1265 1000 060 - 075 1250 477 015 - 503 1250 796 110 - 125 1251 531 156 - 187 1253 390 100 - 120 1259 473 015 - 303 1265 1000 060 - 075 1250 478 015 - 303 1250 100 1251 125	1.250	.383	.030050	1.250	.785	.005060	1.251	.480	.030050	1.252	1.122	.005010	1.259	.316	.010030	1.265	.875	.040060
1250 406 100 - 187 1250 795 007 - 015 1251 532 1261 126	1.250	.390	.005080	1.250	.789	.105135	1.251	.482	.160190	1.252	1.125	.010030	1.259	.395	.010020	1.265	.930	.010020
1250 447	1.250	.397	.005010	1.250	.791	.010020	1.251	.500	.005010	1.252	1.127	.005010	1.259	.425	.156187	1.265	.990	.100125
1250 443 100 - 125 1250 808 010 - 125 1250 808 010 - 020 1251 551 015 - 125 1253 573 010 - 125 1259 501 005 - 010 1266 680 050 - 010 1256 680 050 - 010 1256 680 050 - 010 1256 680 050 - 010 1256 680 050 - 010 1256 680 050 - 010 1256 680 050 - 010 1256 680 050 - 010 1256 680 050 - 010 1250 447 040 - 025 1250 808 010 - 020 1251 551 060 - 125 1253 683 060 - 080 1259 586 005 - 010 1266 779 050 - 075 050 - 0	1.250	.406	.100187	1.250	.795	.007015	1.251	.531	.156187	1.253	.390	.100120	1.259	.473	.015030	1.265	1.000	.060075
1250 438 100 - 125 1250 803 080 - 100 1251 559 105 - 125 1253 573 0.90 - 0.50 1259 566 0.05 - 0.10 1266 680 0.50 - 0.70 1250 440 0.40 - 125 1250 812 0.10 - 104 1.251 5.74 0.10 - 0.20 1.253 686 0.05 - 0.01 1266 671 0.05 - 0.01 1.250 441 0.05 - 0.01 1.250 814 0.05 - 0.10 1.251 5.79 1.00 - 1.251 1.253 686 0.05 - 0.01 1.259 683 0.05 - 0.01 1.256 6.779 0.05 - 0.075 1.250 441 0.05 - 0.01 1.250 1.250 814 0.05 - 0.01 1.251 5.79 1.00 - 1.251 1.253 766 1.56 - 1.87 1.259 6.81 1.10 - 1.135 1.266 7.79 0.05 - 0.01 1.250 4.41 1.05 - 1.35 1.250 829 0.90 - 1.25 1.256 804 0.05 - 0.01 1.253 7.80 0.05 - 0.01 1.250 6.79 0.70 - 0.90 1.266 1.047 0.05 - 0.01 1.250 4.43 1.05 - 1.35 1.250 809 0.00 - 0.00 1.251 6.05 0.00 - 0.00 0.05 - 0.01 1.250 8.00 0.00	1.250	.407	.005050	1.250	.796	.110125	1.251	.532	.120135	1.253	.410	.060080	1.259	.475	.005010	1.265	1.206	.005010
1250 437 0110 0.020 1250 808 0.010 0.020 0.125 561 0.060 1.253 833 0.090 0.025 1.259 838 0.090 0.125 1.266 7.071 0.050 0	1.250	.413	.100120	1.250	.798	.015030	1.251	.551	.015030	1.253	.450	.010020	1.259	.501	.005010	1.266	.668	.070090
1250 444 0.040 - 1.025 1250 812 0.010 - 1.04 1251 5.774 0.010 - 0.25 1253 3.686 0.015 - 0.30 1.259 6.841 1.110 - 1.35 1.266 7.779 0.050 - 0.075 1.250 4.42 0.40 - 0.06 1.250 8.28 0.20 - 0.30 1.251 6.86 0.05 - 0.10 1.253 7.68 0.30 - 0.05 0.15 1.259 6.79 0.70 - 0.90 1.266 1.047 0.60 - 0.80 1.255 4.43 1.05 - 1.35 1.250 8.29 0.99 - 1.251 6.58 0.40 - 0.062 1.253 7.68 0.30 - 0.05 0.15 1.259 8.29 0.90 - 0.07 1.251 6.58 0.40 - 0.062 1.253 7.68 0.05 - 0.07 1.259 8.29 0.07 - 0.90 1.267 7.79 0.075 - 1.00 1.250 4.58 0.05 - 0.07 1.250 7.68 0.05 - 0.07 1.250 7.69 0.05 - 0.07 1.250 7.69 0.05 - 0.07 1.250 7.69 0.05 - 0.07 1.250 7.69 0.05 - 0.07 1.250 7.69 0.05 - 0.07 1.250 7.50 0.05 - 0.07 1.250 7.50 0.05 - 0.07 1.250 7.50 0.05 - 0.07 1.250 0.05	1.250	.436	.100125	1.250	.803	.080100	1.251	.559	.105125	1.253	.573	.030050	1.259	.502	.005010	1.266	.680	.050070
1250 441 0.05 0	1.250	.437	.010020	1.250	.808	.010020	1.251	.561	.060120	1.253	.633	.060080	1.259	.566	.005010	1.266	.761	.005010
1250 442 0.04 0.06 0.150 828 0.020 0.30 1.251 6.40 0.05 0.10 1.253 7.68 0.30 0.50 0.156 1.259 6.79 0.70 0.00 0.1266 1.047 0.060 0.80 1.251 0.58 0.04 0.062 1.253 7.80 0.35 0.060 0.1250 0.35 0.10 1.267 7.98 0.075 0.10 1.257 0.05 0.10 1.257 0.05 0.10 1.257 0.05 0.10 1.257 0.05 0.10 1.257 0.05 0.10 1.257 0.05 0.10 1.257 0.05 0.10 1.257 0.05 0.10 1.257 0.05 0.10 1.257 0.05 0.10 1.257 0.05 0.10 1.257 0.05 0.10 1.257 0.05 0.10 1.257 0.05	1.250	.440	.040125	1.250	.812	.010104	1.251	.574	.010020	1.253	.656	.015030	1.259	.633	.090125	1.266	.779	.050075
1.250 443 1.05 - 1.35 1.250 8.29 0.90 - 1.20 1.251 6.68 0.40 - 0.62 1.253 7.80 1.65 - 1.87 1.259 7.48 0.05 - 0.01 1.267 7.28 0.075 - 1.00 1.250 4.45 0.05 - 0.03 1.250 8.39 1.20 - 1.35 1.251 6.68 0.50 - 0.07 1.253 7.82 0.08 - 0.00 1.259 8.82 0.10 - 0.20 1.267 7.98 0.075 - 1.00 1.250 4.80 0.00 - 0.00 1.250 8.83 1.20 - 1.35 1.251 6.92 0.09 - 1.01 1.253 8.84 1.00 - 1.20 1.259 9.27 0.44 - 0.50 1.267 1.049 0.075 - 0.09 1.250 4.00 0.00 0.00 0.00 1.250 8.44 0.00 - 0.00 1.251 7.55 0.00 - 0.00 1.253 8.86 0.50 - 0.00 1.259 9.91 0.05 - 0.01 1.267 1.120 0.20 - 0.40 1.253 0.00 0.00 0.00 0.00 1.250 4.00 1.250 4.00 0.251 1.250	1.250	.441	.005012	1.250	.814	.005010	1.251	.579	.100125	1.253	.766	.156187	1.259	.641	.110135	1.266	.791	.005010
1250 443 105 - 135 1250 829 .090 - 120 1251 .668 .040062 1253 .780 .156 - 187 1259 .748 .005010 1267 .527 .798 .075100 1250 .455 .015030 1.250 .839 .120135 1.251 .692 .090110 1.253 .814 .100120 1.259 .982 .016032 .1267 .798 .075100 1.250 .480 .040060 1.250 .843 .005030 1.251 .692 .095040 1.253 .886 .055070 1.259 .991 .005010 1.267 1.049 .075090 1.250 .840 .040060 1.250 .844 .010020 .024 .040 .263 .840 .010020 .250 .844 .010020 .251 .755 .025040 1.253 .886 .055070 .259 .991 .005010 1.267 1.120 .025040 .263 .005 .007 .259 .991 .005010 .268 .114 .005010 .258 .005 .007 .259 .005000 .259 .005 .005 .005 .259 .005 .005 .005 .259 .005 .00	1.250	.442	.040060	1.250	.828	.020030	1.251	.640			.768	.030050				1.266	1.047	.060080
1.250 445 .100134 .1250 .830 .060080 .1251 .669 .050070 .1253 .782 .008020 .1259 .882 .010020 .1267 .709 .075090 .1250 .480 .040060 .1250 .843 .005030 .1251 .695 .092040 .1253 .886 .050070 .1259 .991 .005010 .1267 1.120 .020040 .1250 .500 .005020 .1250 .844 .010020 .1251 .755 .020040 .1253 .140 .020030 .1259 .991 .005010 .1267 1.120 .020040 .1250 .001 .070090 .1250 .845 .020080 .1251 .755 .020040 .1253 .140 .020030 .1259 .190 .025040 .1259 .026 .015020 .1268 .918 .080104 .1250 .055 .005 .005020 .1250 .855 .040060 .1251 .755 .015030 .1253 .130 .005050 .1259 .114 .005010 .1268 .980 .060080 .1251 .050 .005 .0	1.250	.443	.105135	1.250	.829	.090120	1.251	.658	.040062	1.253	.780	.156187				1.267	.624	.016032
1.250 485 0.15 - 0.30 1.250 8.89 1.20 - 1.35 1.251 6.95 0.95 - 0.10 1.253 8.14 1.00 - 1.20 1.259 9.91 0.05 - 0.05 1.267 1.049 0.75 - 0.90 1.250 4.80 0.040 - 0.60 1.250 8.44 0.01 - 0.20 1.251 7.52 0.20 - 0.40 1.253 9.14 0.20 - 0.30 1.259 1.020 0.25 - 0.40 1.268 7.11 0.80 - 1.00 1.251 0.253 0.05 - 0.00 0.255 0.40 1.259 0.25 - 0.40 1.258 0.20 - 0.40 1.253 0.20 0.25 - 0.40 1.259 0.25 - 0.40 1.258 0.25 0.40 1.251 0.25 0.20 0.25 0.40 1.251 0.25 0.25	1.250	.445	.100134	1.250	.830	.060080	1.251	.669		1.253	.782	.008020				1.267	.798	.075100
1.250 480 0.404 - 0.60 1.250 8.44 0.05 - 0.30 1.251 6.95 0.25 - 0.40 1.253 8.86 0.50 - 0.70 1.259 9.91 0.005 - 0.10 1.267 1.120 0.20 - 0.40 1.250 0.500 0.05 - 0.00 1.250 8.45 0.02 - 0.80 1.251 7.752 0.20 - 0.30 1.253 1.000 0.025 - 0.40 1.259 1.020 0.025 - 0.40 1.268 9.18 0.80 - 1.004 1.250 5.03 0.05 - 0.005 1.250 8.45 0.02 - 0.80 1.251 7.55 0.15 - 0.30 1.253 1.005 0.025 - 0.40 1.259 1.114 0.05 - 0.10 1.268 9.91 0.005 - 0.005 1.268 1.914 0.05 - 0.10 1.269 0.05 - 0.00 1.261 0.05 - 0.00 1.261 0.05 - 0.00 1.261 0.05 - 0.00 1.261 0.05 - 0.00 1.261 0.05 - 0.00 1.261 0.05 - 0.00 1.261 0.05 - 0.00 1.261 0.05 - 0.00 1.261 0.05 - 0.00 1.261 0.05 - 0.00 1.261 0.05 - 0.00 1.261 0.05 - 0.00 1.261 0.05 - 0.00 1.261 0.05 - 0.00 1.261	1.250	.455	.015030	1.250	.839	.120135	1.251	.692	.090110		.814	.100120				1.267	1.049	.075090
1.250 5.00 0.05 - 0.62 1.250 8.44 0.10 - 0.20 1.251 7.25 0.20 - 0.40 1.253 9.14 0.20 - 0.30 1.259 1.020 0.05 - 0.40 1.268 7.11 0.80 - 1.00 1.250 0.50 0.05 - 0.00 1.250 0.85 0.40 - 0.60 1.251 7.55 0.15 - 0.30 1.253 1.025 0.30 - 0.50 1.259 1.114 0.05 - 0.10 1.268 9.18 0.06 - 0.80 1.250 0.05 - 0.00 0.25 - 0.40 0.25 0.40 0.05 - 0.10 1.268 9.18 0.05 - 0.10 1.260 0.05 - 0.00 0.25 - 0.40 0.259 1.181 0.30 - 0.50 1.268 1.185 0.05 - 0.10 1.250 0.05 - 0.00 0.25 - 0.40 0.259 1.811 0.30 - 0.50 0.259 1.816 0.259 0.05 - 0.10 0.259 1.261 0.259	1.250	.480	.040060	1.250	.843	.005030	1.251	.695	.025040							1.267	1.120	.020040
1.250 .501 .070090 1.250 .845 .020080 1.251 .752 .020030 1.253 1.000 .025040 1.259 1.024 .015020 1.268 .980 .060040 1.250 .503 .050																		
1.250 .503 .005020 1.250 .855 .040060 1.251 .755 .015030 1.253 1.025 .030050 1.259 1.114 .005010 1.268 .980 .060080 1.250 .505 .005020 1.250 .875 1.251 .184 .075100 1.253 1.123 .005010 1.259 1.181 .030050 .1260 .005010 1.260 .005010 1.260 .005010 1.269 .181 .030050 .005010 1.253 1.123 .005010 1.260 .301 .005010 1.260 .301 .005010 1.260 .301 .005010 1.269 .800 .005010 1.251 .876 .005010 1.254 .516 .0848075 1.260 .319 .005010 1.269 .800 .005010 .251 .876 .005010 1.254 .516 .0048075 .1260 .399 .005010 1.269 .800 .005010																		
1.250 .504 .006015 1.250 .874 .090105 1.251 .759 .105135 1.253 1.110 .010020 1.259 1.811 .030050 1.268 1.155 .005010 1.250 .507 .005010 1.250 .876 .102135 1.251 .814 .075100 1.253 1.123 .005010 1.260 .301 .100125 .1269 .668 .060080 .1250 .507 .005010 1.250 .878 .040060 1.251 .874 .050075 1.254 .516 .048075 1.260 .319 .005010 1.269 .880 .007080 .1251 .874 .050075 .1254 .516 .048075 .1260 .319 .005010 1.269 .880 .005010 .1251 .874 .050075 .1254 .516 .048075 .1260 .319 .005010 1.269 .890 .070080 .1251 .1351	1.250	.503				.040060											.980	.060080
1.250 .505 .005020 1.250 .875 .120135 1.251 .814 .075100 1.254 .085 .010 .1260 .307 .005010 1.269 .688 .096010 1.254 .086 .030050 1.269 .688 .090010 1.254 .086 .030050 1.269 .680 .090010 1.250 .878 .040060 1.251 .874 .050010 1.254 .516 .048075 .1260 .319 .005010 1.269 .890 .070080 1.250 .510 .090120 1.250 .879 .050070 1.251 .879 .005010 1.254 .581 .030050 1.260 .395 .005010 1.269 .980 .025040 1.250 .512 .135156 1.250 .882 .090125 .887 .005010 1.254 .630 .050075 1.260 .493 .05010 1.270 .660 .1250 .881 .0		.504	.006015														1.155	.005010
1.250 5.507 .005010 1.250 .876 .030050 1.251 .834 .005010 1.254 .058 .030050 1.260 .301 .100125 1.269 .688 .060080 1.250 .510 .090120 1.250 .878 .040060 1.251 .874 .050075 1.254 .516 .048075 1.260 .319 .005010 1.269 .980 .070080 .050 .	1.250	.505	.005020	1.250	.875	.120135	1.251	.814	.075100							1.269	.161	.020035
1.250 .508 .015062 1.250 .878 .040060 1.251 .874 .050075 1.254 .516 .048075 1.260 .319 .005010 1.269 .890 .070080 1.250 .510 .090120 1.250 .879 .055010 1.254 .542 .010020 1.260 .398 .005010 1.269 .980 .025040 1.250 .518 .005010 1.250 .882 .090125 1.251 .907 .040062 1.254 .630 .050070 1.260 .415 .020040 1.270 .166 .050075 1.250 .520 .020060 1.250 .887 .005010 1.251 .928 .025040 1.254 .748 .040060 1.260 .449 .005010 1.270 .460 .135156 1.250 .888 .012025 .942 .090105 1.254 .766 .050075 1.260 .449 .010020	1.250	.507	.005010	1.250	.876		1.251	.834		1.254	.058					1.269	.668	.060080
1.250 .510 .090120 1.250 .879 .050070 1.251 .876 .005010 1.254 .542 .010020 1.260 .395 .005010 1.269 .980 .025040 1.250 .512 .135156 1.250 .880 .005030 1.251 .879 .005010 1.254 .581 .030050 1.260 .415 .020040 1.270 .166 .050075 1.250 .520 .020060 1.250 .887 .005010 1.251 .988 .025040 1.254 .630 .050075 1.260 .440 .005010 1.270 .646 .135156 1.250 .888 .012025 1.251 .982 .025040 1.254 .766 .050075 1.260 .449 .005010 1.270 .661 .020040 1.250 .534 .036090 1.251 .984 .010020 1.254 .766 .134156 1.260 .474 <	1.250	.508	.015062	1.250	.878	.040060	1.251	.874								1.269	.890	.070080
1.250 .512 .135156 1.250 .880 .005030 1.251 .879 .005010 1.254 .581 .030050 1.260 .398 .005020 1.269 1.004 .005010 1.250 .520 .020060 1.250 .887 .005010 1.251 .992 .025040 .050070 1.260 .415 .020040 1.270 .460 .050075 1.250 .520 .020060 1.250 .887 .005010 1.251 .992 .025040 1.254 .748 .040060 1.260 .449 .010020 1.270 .460 .136156 1.250 .534 .036090 1.251 .950 .080100 1.254 .766 .134156 1.260 .474 .005010 1.270 .651 .020040 1.250 .562 .050125 1.250 .893 .015090 1.251 .984 .010020 1.254 .480 .050075		.510	.090120	1.250	.879	.050070	1.251	.876	.005010							1.269	.980	.025040
1.250 .518 .005010 1.250 .882 .090125 1.251 .907 .040062 1.254 .630 .050070 1.260 .415 .020040 1.270 .166 .050075 1.250 .520 .020060 1.250 .887 .005010 1.251 .928 .025040 1.254 .748 .040060 1.260 .440 .005010 1.270 .460 .135156 1.250 .531 .135156 1.250 .888 .012025 1.251 .992 .090105 1.254 .765 .050075 1.260 .449 .010020 1.251 .661 .080 .005090 1.251 .990 .080100 1.254 .860 .050075 1.260 .474 .005010 1.270 .700 .040 .061 .020040 1.254 .800 .050010 .1254 .800 .050010 .1251 .990 .005010 1.254 .900 .005010	1.250	.512	.135156	1.250	.880	.005030	1.251	.879	.005010	1.254						1.269	1.004	
1.250 .520 .020060 1.250 .887 .005010 1.251 .928 .025040 1.254 .748 .040060 1.260 .440 .005010 1.270 .460 .135156 1.250 .531 .135156 1.250 .888 .012025 1.251 .942 .090105 1.254 .765 .050075 1.260 .449 .010020 1.270 .527 .156187 1.250 .534 .036090 1.250 .890 .060090 1.251 .950 .080100 1.254 .766 .134156 1.260 .474 .005010 1.270 .651 .020040 .020044 .050075 1.260 .475 .005010 1.270 .651 .020040 .020040 .1260 .475 .005010 1.270 .764 .090100 .020040 .1260 .477 .005010 1.270 .764 .090100 .020040 .1260 .501 .056010	1.250	.518	.005010	1.250	.882	.090125	1.251	.907	.040062	1.254	.630	.050070				1.270	.166	.050075
1.250 .531 .135156 1.250 .888 .012025 1.251 .942 .090105 1.254 .765 .050075 1.260 .449 .010020 1.270 .527 .156187 1.250 .534 .036090 1.250 .889 .060090 1.251 .950 .080100 1.254 .766 .134156 1.260 .474 .005010 1.270 .651 .020040 1.250 .540 .005125 1.250 .890 .005090 1.251 .984 .010020 1.254 .840 .050075 1.260 .475 .005010 1.270 .700 .040060 1.250 .562 .050125 1.250 .893 .015030 .025010 1.254 .990 .005010 1.260 .477 .005010 1.270 .764 .090010 1.250 .563 .005030 1.250 .030 .025070 .1251 .005 .001 .		.520	.020060	1.250	.887	.005010											.460	
1.250 .534 .036090 1.250 .889 .060090 1.251 .950 .080100 1.254 .766 .134156 1.260 .474 .005010 1.270 .651 .020040 1.250 .540 .005125 1.250 .890 .005090 1.251 .984 .010020 1.254 .840 .050075 1.260 .475 .005010 1.270 .700 .040060 1.250 .562 .050125 1.250 .893 .015030 1.251 .999 .005010 1.254 .990 .005010 1.260 .477 .005020 1.270 .764 .090105 1.250 .563 .005030 1.251 .090 .005010 1.254 .090 .005010 1.260 .477 .005020 1.270 .764 .090105 1.250 .564 .104030 1.250 .005010 1.251 1.005 .005010 1.254 1.083 <t< td=""><td>1.250</td><td>.531</td><td>.135156</td><td>1.250</td><td>.888</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1.270</td><td>.527</td><td>.156187</td></t<>	1.250	.531	.135156	1.250	.888											1.270	.527	.156187
1.250 .540 .005125 1.250 .890 .005090 1.251 .984 .010020 1.254 .840 .050075 1.260 .475 .005010 1.270 .700 .040060 1.250 .562 .050125 1.250 .893 .015030 1.251 .999 .005010 1.254 .990 .005010 1.260 .477 .005020 1.270 .764 .090100 1.250 .563 .005030 1.250 .895 .025070 1.251 1.003 .005010 1.254 1.069 .020040 1.260 .501 .005030 1.270 .793 .100125 1.250 .564 .104134 1.250 .901 .050070 1.251 1.005 .009105 1.254 1.083 .030050 1.260 .503 .100125 1.270 .976 .040060 1.250 .571 .040060 1.250 .005 .010 .1.251 1.	1.250	.534	.036090	1.250	.889				.080100							1.270	.651	
1.250 .562 .050125 1.250 .893 .015030 1.251 .999 .005010 1.254 .990 .005010 1.260 .477 .005020 1.270 .764 .090100 1.250 .563 .005030 1.250 .895 .025070 1.251 1.003 .005010 1.254 1.069 .020040 1.260 .501 .005030 1.270 .793 .100125 1.250 .564 .104134 1.250 .901 .050070 1.251 1.005 .090105 1.254 1.083 .030050 1.260 .503 .100125 1.270 .976 .040060 1.250 .571 .040060 1.250 .902 .005010 1.251 1.081 .070090 1.255 .501 .060080 1.260 .505 .005020 1.271 .886 .005010 1.250 .572 .040050 1.250 .937 .100125 1.251	1.250	.540	.005125	1.250	.890											1.270	.700	.040060
1.250 .563 .005030 1.250 .895 .025070 1.251 1.003 .005010 1.254 1.069 .020040 1.260 .501 .005030 1.270 .793 .100125 1.250 .564 .104134 1.250 .901 .050070 1.251 1.005 .090105 1.254 1.083 .030050 1.260 .503 .100125 1.270 .976 .040060 1.250 .571 .040060 1.250 .902 .005010 1.251 1.050 .005010 1.254 1.130 .015030 1.260 .505 .005020 1.271 .886 .005010 1.250 .572 .040050 1.250 .997 .040060 1.251 1.081 .070090 1.255 .501 .060080 1.260 .512 .080105 1.271 .940 .006012 1.250 .580 .135156 1.250 .937 .100125 1.251	1.250	.562	.050125	1.250	.893	.015030										1.270	.764	.090100
1.250 .564 .104134 1.250 .901 .050070 1.251 1.005 .090105 1.254 1.083 .030050 1.260 .503 .100125 1.270 .976 .040060 1.250 .571 .040060 1.250 .902 .005010 1.251 1.050 .005010 1.254 1.130 .015030 1.260 .505 .005020 1.271 .886 .005010 1.250 .572 .040050 1.250 .997 .040060 1.251 1.081 .070090 1.255 .501 .060080 1.260 .512 .080105 1.271 .940 .006012 1.250 .586 .135156 1.250 .937 .100125 1.251 1.099 .010020 1.255 .666 .010120 1.260 .553 .010020 1.271 .940 .006012 1.250 .586 .015030 1.250 .939 .100125 1.251		.563	.005030														.793	.100125
1.250 .571 .040060 1.250 .902 .005010 1.251 1.050 .005010 1.254 1.130 .015030 1.260 .505 .005020 1.271 .886 .005010 1.250 .572 .040050 1.250 .907 .040060 1.251 1.081 .070090 1.255 .501 .060080 1.260 .512 .080105 1.271 .940 .006012 1.250 .580 .135156 1.250 .937 .100125 1.251 1.082 .020040 1.255 .656 .010120 1.260 .553 .010020 1.271 1.005 .025040 1.250 .586 .015030 1.250 .939 .100125 1.251 1.099 .010020 1.255 .664 .090105 1.260 .625 .005010 1.271 .100 .020035 .015030 .015030 .020035 .020036 .020036 .020036 .02003	1.250	.564	.104134														.976	.040060
1.250 .572 .040050 1.250 .907 .040060 1.251 1.081 .070090 1.255 .501 .060080 1.260 .512 .080105 1.271 .940 .006012 1.250 .580 .135156 1.250 .937 .100125 1.251 1.082 .020040 1.255 .656 .010120 1.260 .553 .010020 1.271 1.005 .025040 1.250 .586 .015030 1.250 .939 .100125 1.251 1.099 .010020 1.255 .664 .090105 1.260 .625 .005010 1.271 1.080 .020035 1.250 .595 .015135 1.250 .983 .015083 1.251 1.110 .020030 1.255 .714 .110125 1.260 .635 .005010 1.272 .525 .050070 1.250 .625 .020125 .020024 .1250 .986 .091105		.571	.040060														.886	.005010
1.250 .580 .135156 1.250 .937 .100125 1.251 1.082 .020040 1.255 .656 .010120 1.260 .553 .010020 1.271 1.005 .025040 1.250 .586 .015030 1.250 .939 .100125 1.251 1.099 .010020 1.255 .664 .090105 1.260 .625 .005010 1.271 1.080 .020035 1.250 .595 .015135 1.250 .953 .015083 .1251 1.110 .020030 1.255 .714 .110125 1.260 .630 .005010 1.272 .525 .050070 1.250 .625 .020125 .020024 .1250 .962 .015020 .1252 .268 .030055 .754 .070080 1.260 .632 .005010 1.272 .643 .090125 1.250 .630 .050010 1.250 .986 .090105 .1252 .280 .105135 1.255 .756 .020040 1.260 .63																		
1.250 .586 .015030 1.250 .939 .100125 1.251 1.099 .010020 1.255 .664 .090105 1.260 .625 .005010 1.271 1.080 .020035 1.250 .595 .015135 1.250 .953 .015083 1.251 1.110 .020030 1.255 .714 .110125 1.260 .630 .005010 1.272 .525 .050070 1.250 .625 .020125 1.250 .962 .015020 1.252 .268 .030050 1.255 .754 .070080 1.260 .632 .005010 1.272 .643 .090120 1.250 .630 .050100 1.250 .986 .090105 1.252 .280 .105135 1.255 .756 .020040 1.260 .6675 .010020 1.272 .800 .040080 1.250 .637 .005010 1.250 .990 .030040 1.252 .316 .025070 1.255 .843 .135187 1.260 .682																		
1.250 .595 .015135 1.250 .953 .015083 1.251 1.110 .020030 1.255 .714 .110125 1.260 .630 .005010 1.272 .525 .050070 1.250 .625 .020125 1.250 .962 .015020 1.252 .268 .030050 1.255 .754 .070080 1.260 .632 .005010 1.272 .643 .090120 1.250 .630 .050010 1.250 .986 .090105 1.252 .280 .105135 1.255 .756 .020040 1.260 .632 .050010 1.272 .643 .090120 1.250 .636 .005010 1.250 .996 .090105 1.252 .280 .105135 1.255 .756 .020040 1.260 .675 .010020 1.272 .800 .040080 1.250 .637 .005010 1.250 .990 .030080 1.252 .317 .135156 1.255 .843 .135187 1.260 .683																		
1.250 .625 .020125 1.250 .962 .015020 1.252 .268 .030050 1.255 .754 .070080 1.260 .632 .005010 1.272 .643 .090120 1.250 .630 .050010 1.250 .986 .090105 1.252 .280 .105135 1.255 .756 .020040 1.260 .632 .005010 1.272 .800 .040060 1.250 .636 .005010 1.250 .990 .030040 1.252 .316 .025070 1.255 .843 .135187 1.260 .682 .060080 1.273 .780 .080105 1.250 .637 .005010 1.250 .995 .060080 1.252 .317 .135156 1.255 .843 .135160 .1260 .682 .060080 1.273 .780 .080105 1.250 .637 .005010 1.250 .995 .060080 1.252 .317 .135156 1.255 .845 .005010 1.260 .683 .060080 1.273 .907 .030050																		
1.250 .630 .050100 1.250 .986 .090105 1.252 .280 .105135 1.255 .756 .020040 1.260 .675 .010020 1.272 .800 .040060 1.250 .636 .005010 1.250 .990 .030040 1.252 .316 .025070 1.255 .843 .135187 1.260 .682 .060080 1.273 .780 .080105 1.250 .637 .005010 1.250 .995 .060080 1.252 .317 .135156 1.255 .845 .005010 1.260 .683 .060080 1.273 .907 .030050																		
1.250 .636 .005010 1.250 .990 .030040 1.252 .316 .025070 1.255 .843 .135187 1.260 .682 .060080 1.273 .780 .080105 1.250 .637 .005010 1.250 .995 .060080 1.252 .317 .135156 1.255 .845 .005010 1.260 .682 .060080 1.273 .780 .080050 1.250 .683 .060080 1.273 .907 .030050																		
1.250 .637 .005010 1.250 .995 .060080 1.252 .317 .135156 1.255 .845 .005010 1.260 .683 .060080 1.273 .907 .030050																		
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									INC	100	LING CH	ARGE	FUH	ANY OF	INE	SIZE	LISTEL
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*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness* From To
.274	.711	.030050	1.282	1.020	.005010	1.297	.852	.010020	1.300	1.020	.035050	1.309	1.128	.030050	1.312	.781	.020125
274	.938	.015025	1.282		.030050	1.297	.860	.010020		1.060	.006016		.190	.050070			.060083
274 274	.969 1.125	.080105 .005010	1.282 1.282		.040060 .010020	1.297 1.297	.945	.062090 .090105		1.062 1.067	.070090 .050060		.205 .231		1.312 1.312	.783 .812	.040070 .070090
.275	.255	.015030	1.282		.010020	1.297		.020040		1.087	.010020		.379	.005010		.825	.010020
275	.297	.025042		.104				.020050		1.093	.005010		.385	.170190		.843	.005010
275 275	.313 .409	.060090 .050070	1.283 1.283	.375 .409	.020035 .010020	1.298 1.298	.220 .275	.060080 .050075		1.126 1.136	.010020 .030040		.407 .416	.090120 .110130		.878 .890	.060080 .090125
275	.410	.025042	1.283	.650	.080090	1.298	.395	.010020		1.182	.005010		.505	.010020	1.312	.892	.020040
275 275	.411	.025040 .075090	1.283	.671 .890	.015025 .015030	1.298	.441	.010020	1.301		.015030		.510	.012020	1.312 1.312	.906 .938	.062080
.275	.672	.025042	1.283	.929	.030040	1.298 1.298	.479	.105125 .030050	1.301 1.301	.504 .698	.005020 .005010		.516 .529		1.312	.941	.030040
.275	.797	.025042			.040060		.504	.090110	1.301	.756	.018025		.619		1.312	.948	.070090
.275 .275	.980 1.009	.020040 .090110		1.16 <i>7</i> .192	.005010 .050070	1.298 1.298	.630 .640	.005010 .005010	1.301 1.301	.820 .901	.040060 .080110		.711 .751	.015030 .100120	1.312 1.312		.005010 .010020
	1.045	.025042		.324	.080104		.862	.005010	1.301		.080105		.753	.105125	1.312		.080105
	1.060	.005008		.787	.050070	1.298	.880	.070090	1.301		.105125		.755	.005010			.050125
.275 .276	1.092	.005010 .025040			.010020 .015030	1.298 1.299	.906 .140	.015025 .020040	1.301	1.068 .441	.030050 .100125		.768 .770	.040060 .005010	1.312 1.312		.005010
276	.821	.050070	1.284		.005010	1.299	.245	.005010	1.302		.050070		.772				.015025
277 277	.657 .964	.083105 .020030	1.285 1.285	.409 .505			.253 .385	.030040	1.302		.100125		.812		1.312		.105125
	1.059	.050070		.724	.120135 .005010	1.299 1.299	.395	.005010 .005020	1.302 1.302		.060090 .100125		.868 .878	.156187 .015030	1.313 1.313	.375	.100125
.278	.250	.005015			.020040	1.299	.396	.005010	1.302	.788	.005010		.944	.005010	1.313	.456	.005010
.278 .278	.500 .529	.100125	1.285 1.286	1.136 .251	.005010	1.299	.471 .473	.030050		1.007	.012020			.005010		.563 .635	.005030
.278	.571	.005010		.509	.156187	1.299	.553	.005015	1.302	1.200 .194	.005010 .005010			.005010		.657	.050075
.278	.750	.015030	1.286	.809		1.299	.626	.010020	1.303		.005010					.660	.090125
.278 .278	.821 .924	.030050 .005010		.811 .918	.090105 .010020	1.299 1.299	.812 .922	.025040 .040060	1.303 1.303		.020030 .070090		.189 .202		1.313 1.313	.687 .751	.105125
.279	.438	.005010		.178	.050083	1.299	.958	.050070	1.303		.040060		.261	.020040		.759	.080100
.279	.506 .633	.005010		.251	.060090	1.299	.960	.005010	1.304		.040050		.335		1.313	.874	.02004
.279 .280	.155	.050060 .005015	1.287 1.287	.254 .264	.050062 .010020	1.299 1.299		.025042 .016025	1.304 1.304		.075125 .090120		.380 .389	.030050 .025040	1.313 1.313		.06008
.280	.170	.100125	1.287	1.142	.005010	1.299	1.068	.005010		1.189	.005016		.500	.025040	1.313	1.063	.04006
.280 .280	.221 .318	.070090 .050062	1.288 1.288	.614 .761				.080104 .020030	1.305 1.305		.005008 .040050		.573	.005010 .075090	1.313 1.313		.015039
.280	.438	.030040		.777	.100120	1.300	.312	.020030	1.305		.100120		.593 .635				.025040
.280	.505	.010020	1.288	.969			.316	.105125	1.305		.062120	1.311	.655	.090110	1.314		.030060
.280	.515 .518	.040070	1.288		.015030	1.300	.318	.005010	1.305		.020030		.676 .688	.005010 .156187		.341	.060080
.280	.530	.015025	1.288			1.300	.377	.005020	1.305		.040060		.858	.005010		.439	.050075
1.280	.628	.040060	1.288		.040060		.378	.005020	1.305		.100125		.875			.441	.105135
1.280 1.280	.668 .677	.062120 .030050	1.288 1.289		.015030 .075090	1.300	.380 .382	.005020 .010020	1.305	.942 1.006	.020040 .015030		.884 .890		1.314 1.314	.522 .593	.015030 .015030
.280	.760	.040060		.128	.020030	1.300	.383	.020030		1.011	.005010		.905	.020040		.626	.100125
1.280 1.280	.888 .893	.070090 .005010	1.290 1.290	.231 .264	.105135 .005010		.394	.005020		1.016	.060070 .070080		.947	.020040 .030050		.673 827	.015025 .010020
.280	.915	.003010			.020030			.010020 .005010			.010080			.030050			.070020
	1.000	.060090			.020030	1.300	.438	.010020	1.305	1.205	.010020	1.311	1.005	.030048	1.314	.969	.040060
	1.017 1.020	.025040 .070090			.030060 .050070			.005020 .005010		.758 .970	.040060 .015025			.030040 .005010			.006016
	1.031	.010020			.050060			.010020		.996	.013023			.005010			.005010
	1.041	.040050			.005010			.010020	1.306	1.007	.050090			.025040			.005010
	1.045	.040060	1.291	.457 .966	.030050 .020040		.558 .628	.010020 .020035		1.070	.015030		.234 .251	.050075 .050070			.080104
	1.070	.050070			.005010			.005030	1.306		.005010		.314	.075090		.560	.005010
	1.074	.030050			.005010			.050075		.502	.010020			.030050			.10012
	1.139 1.140	.020040			.010020 .060080			.005020 .080105		.655 1.068	.005010 .075090		.374 .377	.020040 .020030			.010020
.281	.248	.060090			.005010			.030050	1.308		.040062		.392	.030060			.00501
281	.264	.010020			.005010			.005010			.050070			.010015			.00501
.281 .281	.408 .442	.005030			.015030 .100120			.005010 .010030	1.308 1.308		.005010 .005010		.507 .553	.042062 .005010			.080070
.281	.530	.015030	1.294	1.135	.010020	1.300	.760	.015030	1.308	.751	.050075		.563	.005010	1.316	.881	.02004
.281 .281	.538 .550	.010020 .156187			.010020			.015030	1.308		.070090		.564	.020040			.02505
.281	.608	.020030		.588	.135156 .040060			.005010 .020040	1.308 1.309		.005010 .105125		.565 .566	.090110 .005010			.04206
.281	.891	.080100	1.295	.881	.010020	1.300	.887	.010020	1.309	.377	.005015	1.312	.594	.075090	1.317	.502	.03005
.281	.892 1.000	.040060			.060080		.900 .905	.060080	1.309		.030048		.625	.100125			.00501
	1.012	.015030			.005010		.960	.062083	1.309 1.309		.025040 .010020		.655	.040062 .015030			.08010
	.103	.005010			.005010	1.300		.010020	1.309	.751	.050070	1.312	.687	.025035	1.317	1.198	.02003
.282 .282	.248 .310	.060075 .075090			.010020 .015030			.020060 .100125	1.309		.005010		.689	.050060			.020032
1.282	.408	.005010			.050083			.050070	1.309	.813 .816	.020035 .007016		.703 .720	.100125			.050075
1.282	.409	.005010	1.297	.571	.015030	1.300	.988	.005015	1.309	.878	.060083	1.312	.748	.050062	1.318	1.005	.040125
1.282 1.282	.580 .625	.010020 .005010			.005010 .010020			.050070		.883	.050080			.105125			.015030 .090125
1.282	.942	.010020			.050070			.010020 .005015			.020040 .100120			.090120 .050075			.090123
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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
1.319	.716	.005010	1.328 1.020	.025040	1.339 .316	.005010	1.348 .566	.080100	1.355 1.129	.050060	1.364 1.194	.030060
1.319	.851	.040060	1.329 .175	.050083	1.339 .474	.005010	1.348 .677	.030050	1.356 .444	.025042	1.364 1.237	.010025
1.319		.015030	1.329 .680	.015030	1.339 .640	.100125	1.348 .700	.005010	1.356 1.000	.015030	1.364 1.252	.005010
1.319		.050070 .030040	1.329 .791 1.329 .900	.105125	1.339 .671	.070090	1.348 .717	.075090	1.356 1.030	.015030	1.364 1.281 1.364 1.282	.005010 .005012
1.319		.005010	1.329 .900 1.329 .990	.050075 .105134	1.339 .762 1.339 .828	.105125	1.348 .818 1.348 1.095	.005015	1.357 .190 1.357 .350	.020040	1.364 1.282 1.365 .281	.090110
1.320	.183	.005010	1.329 1.001	.080100	1.339 .983	.005010	1.348 1.145	.010025	1.357 .500	.100125	1.365 .354	.060080
1.320	.210	.005010	1.329 1.142	.005010	1.339 1.104	.060080	1.349 .471	.040060	1.357 .666	.080100	1.365 .376	.100120
1.320	.318	.105125	1.329 1.174	.060070	1.339 1.181	.005010	1.349 .501	.005010	1.357 .845	.032060	1.365 .435	.050083
1.320	.476	.010020	1.329 1.180	.005010	1.339 1.202	.005010	1.349 .504	.005020	1.357 .890	.020040	1.365 .562	.030050
1.320	.495 .552	.062135	1.329 1.190 1.330 .328	.030050 .005010	1.339 1.205 1.339 1.213	.005010 .015030	1.349 .593 1.349 .749	.060080 .050070	1.357 .968 1.357 .996	.005010 .005010	1.365 .584 1.365 .585	.030060 .025042
1.320	.715	.005010	1.330 .385	.005010	1.340 .250	.062120	1.349 .984	.050070	1.357 1.030	.015040	1.365 .595	.030050
1.320	.753	.005010	1.330 .391	.156190	1.340 .260	.005010	1.349 1.057	.010020	1.358 .125	.030050	1.365 .808	.040060
1.320	.758	.080104	1.330 .744	.030060	1.340 .261	.005010	1.349 1.294	.005010	1.358 .209	.120135	1.365 .940	.030050
1.320 1.320	.761 .765	.015060	1.330 .851	.040060	1.340 .284	.015030	1.350 .089	.005010	1.358 .601	.040060	1.365 1.095	.110130 .005010
1.320	.849	.005010 .005010	1.330 .897 1.330 .910	.015030 .025040	1.340 .288 1.340 .289	.040060 .005010	1.350 .090 1.350 .240	.025040 .120130	1.358 .803 1.358 1.026	.005010 .050075	1.365 1.131 1.365 1.150	.050075
1.320	.867	.005010	1.330 .985	.050070	1.340 .630	.020040	1.350 .252	.015125	1.358 1.037	.008015	1.365 1.160	.020030
1.320	.880	.005010	1.330 1.100	.030050	1.340 .632	.010020	1.350 .312	.050060	1.358 1.130	.005010	1.365 1.187	.025040
1.320	.931	.020035	1.331 .635	.070090	1.340 .677	.042072	1.350 .314	.005020	1.358 1.178	.010020	1.365 1.192	.005020
	1.000 1.024	.090125	1.331 .776	.050070	1.340 .726	.105120	1.350 .390	.105125	1.359 .689	.005010	1.365 1.194	.020040 .020030
	1.024	.015030 .010020	1.331 .910 1.331 1.123	.005010 .005010	1.340 .750 1.340 .751	.005010 .045060	1.350 .440 1.350 .441	.020040 .010020	1.359 .860 1.359 .888	.130150 .005010	1.365 1.262 1.366 .070	.015030
	1.130	.040050	1.331 1.128	.010020	1.340 .766	.042062	1.350 .457	.005010	1.359 1.025	.100125	1.366 .191	.105125
1.321	.780	.050070	1.332 .770	.125156	1.340 1.000	.105125	1.350 .500	.005020	1.359 1.028	.100125	1.366 .542	.025050
1.321	.804	.005010	1.333 .397	.040060	1.340 1.004	.042060	1.350 .503	.005025	1.359 1.126	.060080	1.366 .690	.078105
1.322	.758 1.175	.080104	1.333 .950 1.334 .239	.005010 .015030	1.340 1.034 1.340 1.104	.005010	1.350 .506 1.350 .562	.005020 .005010	1.360 .204 1.360 .338	.050075 .005010	1.366 .760 1.366 .761	.020030 .005010
1.323	.212	.040000	1.334 .325	.005010	1.340 1.104	.050083	1.350 .562	.010020	1.360 .338	.050070	1.366 .763	.005010
1.323	.244	.020040	1.334 .771	.010020	1.340 1.120	.010020	1.350 .626	.005020	1.360 .629	.010020	1.366 .883	.080100
1.323	.351	.005015	1.334 .886	.105125	1.340 1.143	.005020	1.350 .634	.020040	1.360 .639	.015030	1.366 .892	.005020
1.323	.394	.015030	1.334 .906	.060075	1.340 1.263	.010020	1.350 .669	.090110	1.360 .656	.100125	1.366 .997	.025040
1.323	.551 .640	.050070 .060075	1.335 .380 1.335 .632	.020035 .035060	1.341 .479 1.341 .537	.005010 .105135	1.350 .675	.005010	1.360 .791	.090105	1.366 1.028 1.366 1.030	.070090 .050075
1.323	.666	.100125	1.335 .650	.050070	1.341 .871	.010020	1.350 .700 1.350 .750	.030060	1.360 .878 1.360 .928	.050070	1.366 1.070	.030075
1.323		.015030	1.335 .906	.020030	1.341 .893	.040060	1.350 .751	.005010	1.360 .986	.060080	1.366 1.133	.050070
	1.063	.050070	1.335 1.106	.062080	1.342 .380	.120156	1.350 .760	.005040	1.360 1.003	.005010	1.366 1.140	.020030
	1.194	.020040	1.335 1.131	.050075	1.342 .457	.100125	1.350 .777	.025040	1.360 1.026	.050075	1.366 1.144	.005010
1.324	.320 .529	.010020 .105135	1.335 1.134 1.335 1.146	.005010	1.342 .876 1.342 .922	.125156	1.350 .779 1.350 .804	.040060	1.360 1.060 1.360 1.128	.090105	1.366 1.153 1.366 1.221	.010020 .005010
1.324	.687	.005030	1.336 .907	.005010	1.342 1.015	.005010	1.350 .804	.050070	1.360 1.126	.030060	1.367 .758	.070090
1.324	.808	.105125	1.336 1.004	.005010	1.343 .630	.025040	1.350 .850	.005010	1.361 .219	.060080	1.367 .760	.110130
1.324		.020040	1.336 1.006	.030050	1.343 .871	.050075	1.350 .860	.015030	1.361 .875	.075125	1.367 .763	.110130
1.325	.125	.010020 .040060	1.336 1.038 1.336 1.131	.080100	1.343 .907 1.343 1.100	.042062	1.350 .863	.005030	1.361 .884	.075100	1.367 .884 1.367 .885	.080104
1.325	.141	.010020	1.337 .319	.040002	1.343 1.100	.080105 .030050	1.350 .905 1.350 .910	.050070 .015030	1.361 .890 1.361 1.032	.050075 .005010	1.367 .885 1.367 .911	.010020
1.325	.157	.010020	1.337 .396	.005010	1.343 1.150	.072090	1.350 .977	.036048	1.362 .230	.005010	1.367 1.010	.040060
1.325	.171	.005015	1.337 .440	.042062	1.343 1.261	.020040	1.350 .978	.010020	1.362 .439	.015030	1.367 1.030	.060080
1.325	.172	.010020	1.337 .475	.005010	1.344 .258	.100135	1.350 1.000	.050070	1.362 .525	.010020	1.367 1.067	.040060
1.325 1.325	.204 .218	.010020 .010020	1.337 .500 1.337 .502	.100125 .005020	1.344 .260 1.344 .376	.060090 .100120	1.350 1.054 1.350 1.067	.012020 .015030	1.362 .625 1.362 .641	.110120 .062090	1.367 1.112 1.367 1.153	.025040 .020030
1.325	.251	.010020	1.337 .747	.025040	1.344 .752	.100125	1.350 1.007	.050070	1.362 .656	.100125	1.367 1.180	.005015
1.325	.270	.010020	1.337 .748	.010020	1.344 .812	.040062	1.350 1.139	.005010	1.362 .750	.010060	1.368 .498	.005010
1.325	.281	.040060	1.337 .856	.010020	1.344 1.000	.015030	1.350 1.209	.010020	1.362 .762	.100125	1.368 .510	.075090
1.325 1.325	.295 .301	.080104 .012025	1.337 .884 1.337 .945	.005010 .060080	1.344 1.002 1.344 1.009	.050075	1.351 .561	.010030	1.362 1.002	.005025	1.368 .596 1.368 .635	.030050 .005010
1.325	.350	.012023	1.337 .945 1.337 .984	.000000	1.344 1.050	.080100 .005010	1.351 .750 1.351 1.026	.020030 .060080	1.362 1.101 1.362 1.203	.005010 .005010	1.368 .792	.040060
1.325	.381	.010020	1.337 1.001	.070090	1.344 1.068	.015030	1.351 1.049	.010020	1.362 1.262	.015030	1.368 .874	.050070
1.325	.410	.010015	1.337 1.094	.005010	1.345 .341	.090105	1.351 1.091	.025040	1.363 .941	.060080	1.368 .918	.100125
1.325	.440	.010134	1.338 .255	.005010	1.345 .408	.005010	1.351 1.164	.015030	1.363 1.004	.015030	1.368 .980	.050070 .030050
1.325 1.325	.500 .600	.010015 .010015	1.338 .259 1.338 .320	.005010 .005010	1.345 .661 1.345 .818	.050070 .050070	1.351 1.209 1.351 1.212	.010020 .010020	1.363 1.190 1.363 1.249	.030050 .015025	1.368 1.044 1.368 1.069	.030050
1.325	.640	.010015	1.338 .394	.005020	1.345 .836	.005010	1.351 1.212	.005010	1.364 .414	.070090	1.368 1.072	.030080
1.325	.669	.040060	1.338 .396	.010020	1.345 .907	.060090	1.351 1.253	.005010	1.364 .505	.025040	1.368 1.073	.080090
1.325	.700	.010015	1.338 .434	.100120	1.345 .967	.100125	1.352 .670	.180190	1.364 .539	.070090	1.368 1.112	.025040
1.325 1.325	.750 .810	.010015 .010020	1.338 .473 1.338 .475	.005010	1.345 1.001	.010020	1.352 .776	.050075	1.364 .664	.005010	1.368 1.113 1.368 1.174	.050075 .040062
1.325	.900	.050075	1.338 .477	.010020 .005010	1.345 1.039 1.345 1.040	.025040 .015030	1.353 .988 1.353 1.070	.075090 .050070	1.364 .665 1.364 .701	.070090 .040060	1.369 .312	.025040
1.325	.920	.010015	1.338 .505	.005020	1.345 1.173	.015030	1.354 .315	.020040	1.364 .780	.135156	1.369 .329	.010020
1.325		.080104	1.338 .552	.005015	1.345 1.174	.015025	1.354 .538	.005010	1.364 .788	.070090	1.369 .505	.065080
1.325		.015030	1.338 .582	.005010	1.346 .201	.060080	1.355 .263	.090120	1.364 .911	.070090	1.369 .670	.090105
1.325 1.326	.314	.080100 .025040	1.338 .751 1.338 .867	.100134	1.346 .443 1.347 .441	.005025 .005010	1.355 .501 1.355 .687	.110130	1.364 .912 1.364 1.002	.080100 .008016	1.369 .761 1.369 .803	.010020 .040060
1.326	.570	.025040	1.338 .937	.020030	1.347 .500	.005010	1.355 .667	.015025 .015030	1.364 1.002	.030050	1.369 .832	.005010
1.326	.751	.010020	1.338 .983	.010020	1.347 .502	.005010	1.355 .795	.090105	1.364 1.042	.080100	1.369 .885	.005015
1.326		.005010	1.338 1.121	.020030	1.347 1.075	.015030	1.355 .899	.050070	1.364 1.182	.005010	1.369 .893	.125156
1.327	.680	.030050	1.339 .220	.040060	1.347 1.140	.015030	1.355 1.010	.060105	1.364 1.184	.005010	1.369 1.001	.015030
1.328 1.328	.126 .415	.016025 .156187	1.339 .272 1.339 .274	.015030 .010020	1.348 .441 1.348 .500	.005010 .005015	1.355 1.064 1.355 1.073	.015030 .005010	1.364 1.191 1.364 1.193	.010020 .050070	1.369 1.145 1.369 1.188	.090105 .010015
23								010				

Choose Any Choose Any Choose Any Choose	se Any Choose Any Choose Any Choose Any Choose Any	Choose Any Choose Any Choose Any Choose Any	Choose Any Choose Any Choose Any
O.D. I.D. Thickness' O.D. I.D. Thickness' From To O.D. I.D. Thickness' From To From To O.D. I.D. Thickness' From To O.D. I.D. Thickn	To From To From To From To	From To From To From To	Thickness* O.D. I.D. Thickness* O.D. I.D. Thickness*
1.369 1.207 .005010 1.372 1.135 .050070 1.374 1.011 .090 1.370 .144 .030050 1.372 1.145 .050105 1.374 1.049 .005		1.399 .524 .005060	
1.370 .144 .030050 1.372 1.145 .050105 1.374 1.049 .005 1.370 .192 .030050 1.372 1.153 .030050 1.374 1.059 .030			.070090 1.435 1.107 .020040 1.438 1.065 .036050 .005020 1.435 1.192 .040060 1.438 1.100 .050070
	020		.005020
1.370 .282 .080100 1.372 1.191 .005010 1.374 1.125 .050			010020
1.370 .300 .075125 1.372 1.210 .010020 1.374 1.128 .010			.005010 1.436 .125 .008016 1.438 1.188 .020040
1.370 .316 .005010 1.372 1.213 .020035 1.374 1.145 .005			005020
1.370 .333 .010020 1.372 1.285 .015030 1.374 1.209 .040 1.370 .505 .100125 1.373 .218 .040062 1.374 1.265 .030			.005010 1.436 .377 .010040 1.439 .115 .020040 .040050 1.436 .383 .010040 1.439 .466 .005010
	045 1.375 .940 .060090 1.377 .895 .032048 1.383 .629 .090125	1110 1012 1010 11101	010020
	090		.060075
1.370 .628 .005010 1.373 .255 .040060 1.375 .129 .015			.005020 1.436 .563 .015030 1.439 .757 .040060
1.370 .685 .075125 1.373 .380 .120135 1.375 .131 .005			005010 1.436 .643 .005010 1.439 .811 .040060
	060 1.375 .977 .062083 1.377 1.001 .025090 1.384 .758 .005010		.005010
11010 11010 11010 1	062	1.400 .505 .080100 1.410 .897 .060090 1.418 .504 .005010 1.426 1.110 1.400 .549 .020040 1.410 1.030 .020040 1.418 .505 .010020 1.426 1.188	.005010
1100 11	104		.005020
	060 1.375 1.006 .100125 1.377 1.241 .005010 1.385 .578 .031042		.005015 1.436 1.154 .015025 1.440 .250 .060070
	060 1.375 1.008 .060080 1.378 .206 .050075 1.385 .796 .005010		050075 1.436 1.195 .032050 1.440 .332 .005010
	030 1.375 1.015 .005010 1.378 .208 .005010 1.385 .920 .015020 010 1.375 1.022 .016032 1.378 .240 .105125 1.385 1.010 .030060		.060070
1.370 .940 .080100 1.373 .575 .050075 1.375 .281 .100			.075093
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	080		.025040
1.370 .950 .005015 1.373 .627 .010020 1.375 .312 .050	083 1.375 1.065 .035050 1.378 .316 .005010 1.385 1.269 .005010	1.400 .879 .005010 1.411 1.265 .010025 1.418 .985 .015030 1.428 1.014	060080 1.437 .186 .010020 1.440 .438 .040060
	100 1.375 1.078 .040060 1.378 .324 .005010 1.385 1.339 .005010		015032
1.370 .990 .020040 1.373 .641 .125156 1.375 .318 .100 1.370 1.000 .042062 1.373 .737 .010020 1.375 .321 .060			.005010
1.370 1.000 .042062 1.373 .737 .010020 1.375 .321 .060 1.370 1.056 .005015 1.373 .749 .005010 1.375 .328 .025	080 1.375 1.124 .005010 1.378 .492 .005010 1.386 .655 .170190 070 1.375 1.130 .015080 1.378 .500 .010020 1.386 1.084 .060080	11.20 11.10	.005010
	134		.020030
	125 1.375 1.136 .050070 1.378 .660 .105135 1.386 1.187 .030045		.020040 1.437 .378 .015035 1.440 1.070 .020030
	100 1.375 1.146 .025040 1.378 .736 .100125 1.387 1.065 .060080		040060 1.437 .383 .005060 1.440 1.083 .005010
	125		.030050
1010 1010 1002	075 1.375 1.188 .005010 1.378 .783 .040060 1.388 .785 .015030	1.400 1.100	
1.370 1.188 .060070 1.373 .996 .005010 1.375 .391 .090			100125
1.370 1.199 .005010 1.373 1.000 .008060 1.375 .395 .062			.005010 1.437 .500 .032048 1.441 1.142 .050075
1.370 1.245 .010020 1.373 1.095 .042062 1.375 .420 .048		1.401 .195 .005010 1.415 .319 .005010 1.420 .285 .110135 1.430 .716	
1.370 1.255 .010015 1.373 1.126 .020040 1.375 .422 .060 1.371 .148 .005010 1.373 1.207 .025040 1.375 .439 .170	070 1.375 1.201 .025040 1.378 .865 .100125 1.389 1.052 .030050 190 1.375 1.247 .040060 1.378 .876 .090125 1.389 1.073 .005010		.010020 1.437 .552 .005015 1.441 1.258 .005010 .015030 1.437 .639 .015025 1.441 1.311 .020040
1.371 .234 .090125 1.373 1.209 .030060 1.375 .440 .075		11.00 11.00	010020
1.371 .281 .005010 1.373 1.218 .040060 1.375 .444 .050	070 1.375 1.253 .005030 1.378 .957 .105125 1.390 .430 .080134	1.401 1.186 .015025 1.415 .398 .005010 1.420 .487 .005010 1.430 1.063	060070 1.437 .761 .105125 1.442 .541 .005010
1.371 .525 .020030 1.373 1.236 .010020 1.375 .445 .015			.005010 1.437 .764 .020030 1.442 .881 .080105
	187 1.376 .258 .005010 1.378 1.060 .005010 1.390 .780 .005010 125 1.376 .267 .134187 1.378 1.061 .012020 1.390 1.094 .005008		.050075
	125 1.376 .267 .134187 1.378 1.061 .012020 1.390 1.094 .005008 060 1.376 .383 .005015 1.378 1.075 .030050 1.390 1.147 .015030		.050070
1.371 .651 .030050 1.374 .245 .050070 1.375 .505 .030		1.402 .505 .008015 1.415 .896 .060070 1.420 .690 .050070 1.430 1.186	
1.371 .698 .040062 1.374 .251 .160180 1.375 .515 .060			.005010 1.437 .795 .020040 1.443 .948 .040060
	090	1.402 .518 .005008 1.415 1.044 .015030 1.420 .853 .050060 1.431 1.129	
1.371 .760 .005010 1.374 .318 .050060 1.375 .530 .005	075 1.376 .530 .156187 1.379 .203 .020040 1.391 .983 .040060 060 1.376 .534 .010020 1.379 .453 .010040 1.391 1.056 .005010	1.402 .760 .005015 1.415 1.100 .010020 1.420 1.004 .005010 1.431 1.253 1.402 1.224 .050070 1.415 1.122 .030042 1.420 1.005 .010020 1.432 .936	.060080
	010		100125
1.371 1.000 .120135 1.374 .378 .050070 1.375 .563 .120	135 1.376 .650 .100125 1.379 .564 .005010 1.393 .611 .060080		.030050 1.437 .895 .040060 1.444 1.055 .005010
	020 1.376 .657 .005010 1.379 .599 .015030 1.393 .719 .080104		050060 1.437 .950 .050070 1.445 .132 .040062
	070 1.376 .700 .010020 1.379 .787 .070090 1.393 1.281 .005010 125 1.376 .703 .005010 1.379 .812 .005010 1.394 .654 .005010		.040060
	040		.005010
	007 1.376 .761 .090105 1.379 1.069 .090120 1.395 .132 .025035		008030 1.437 1.031 .050070 1.445 .690 .090120
	010 1.376 .765 .090105 1.379 1.075 .015025 1.395 .420 .105125		.005010 1.437 1.093 .035048 1.445 .934 .050060
	020 1.376 .780 .110130 1.379 1.089 .030050 1.395 .550 .050083 187 1.376 815 .060080 1.380 .254 .040060 1.395 1.157 .040060		040060
	187		.005010
1.372 .141 .070090 1.374 .701 .005010 1.375 .656 .040			.020030
1.372 .191 .070090 1.374 .710 .005010 1.375 .700 .120	135 1.376 .906 .030060 1.380 .339 .005010 1.396 1.190 .015025	1.406 .139 .030048 1.416 .793 .005010 1.422 .697 .065080 1.433 1.350	.010020 1.437 1.185 .015070 1.446 .253 .105135
1.372 .378 .030050 1.374 .717 .005010 1.375 .709 .050			005010
1.372 .564 .080125 1.374 .750 .100125 1.375 .719 .010 1.372 .637 .020032 1.374 .756 .020030 1.375 .750 .020			.100125
1010 1100 1020 1	060 1.376 1.015 .110120 1.380 .405 .100125 1.397 .415 .000125 060 1.376 1.016 .050070 1.380 .596 .100125 1.397 .545 .005010		.120135
	125 1.376 1.022 .005010 1.380 .694 .120135 1.397 .705 .060090	1.406 1.249 .020030 1.416 1.141 .040060 1.423 .156 .030050 1.434 .936	.090120
1.372 .750 .020032 1.374 .800 .010020 1.375 .754 .060			.015030
	110	1.407 .390 .005030 1.416 1.338 .010020 1.423 .864 .020040 1.434 1.315	
1.372 .891 .070090 1.374 .825 .040060 1.375 .758 .048 1.372 .908 .050075 1.374 .829 .010020 1.375 .762 .005			.100125 1.438 .377 .010030 1.447 1.064 .080100 .005010 1.438 .562 .005010 1.447 1.136 .105125
	187	1.100 .270	0.005010
1.372 .948 .005010 1.374 .881 .110135 1.375 .770 .005	010 1.377 .269 .040060 1.380 1.009 .105125 1.398 .505 .005015	1.407 1.112 .015030 1.417 .477 .005020 1.423 1.288 .005010 1.435 .377	.005010 1.438 .682 .060080 1.448 .125 .030050
	187		020040
	100 1.377 .336 .075090 1.380 1.105 .005010 1.398 .872 .025040 120 1.377 .346 .100125 1.380 1.180 .005010 1.398 .906 .030050		.005010
1.372 1.003 .040060 1.374 .912 .010025 1.375 .824 .005		1.407 1.193 .005010 1.417 .346 .030070 1.424 .506 .010020 1.435 .665	
1.372 1.011 .105120 1.374 .942 .050070 1.375 .827 .105	135 1.377 .377 .080105 1.380 1.253 .005010 1.398 1.161 .030050	1.408 .902 .032050 1.417 .632 .005010 1.425 .316 .015030 1.435 .750	020030 1.438 .938 .040060 1.448 1.031 .075090
1.372 1.065 .012025 1.374 .999 .025040 1.375 .829 .048	075 1.377 .383 .005010 1.381 .561 .080100 1.399 .377 .005020	1.408 1.004 .005010 1.417 .825 .050070 1.425 .377 .005020 1.435 .875	.005010 1.438 .998 .005010 1.448 1.052 .030050

(51)

						NO IC	OLING CH	IARGE FOR	ANY OF	THE SIZE	S LISTED
O.D. I.D.	Choose Any Thickness*	O.D. I.D.	Choose Any Thickness*	O.D. I.D.	Choose Any Thickness*	O.D. I.D	Choose Any Thickness*	O.D. I.D.	Choose Any Thickness*	O.D. I.D.	Choose Any Thickness*
1.448 1.053	.040060	1.459 .841	From To		From To		From To		From To	1.496 .250	.030050
1.448 1.057	.005010	1.459 .951	.040050 .030050	1.471 1.331 1.472 .438	.005040 .015030	1.485 .07 1.485 .13		1.491 1.063 1.491 1.210	.080100	1.496 .256	.005010
1.448 1.091	.010020	1.459 1.143	.015030	1.472 .501	.005010	1.485 .47		1.491 1.312	.005010	1.496 .296	.010020
1.448 1.126	.090105	1.459 1.189	.015030	1.472 .762	.010020	1.485 .52		1.492 .394	.005010	1.496 .438	.040060
1.448 1.190	.080100	1.460 .180	.035050	1.472 .765	.080100	1.485 .55		1.492 .803	.016025	1.496 .473	.005020
1.448 1.193	.050070	1.460 .500	.025040	1.472 .829	.010020	1.485 .64		1.492 .886	.020032	1.496 .474	.005010
1.449 .522 1.449 .629	.105125	1.460 .569 1.460 .667	.050070 .050070	1.472 1.001 1.472 1.230	.070090 .090125	1.485 .65 1.485 .66		1.492 1.011 1.492 1.062	.020040 .100125	1.496 .512 1.496 .620	.170190 .015050
1.449 .966	.040060	1.460 .761	.010020	1.472 1.230	.042062	1.485 .67		1.492 1.002	.005010	1.496 .625	.050080
1.449 .990	.010020	1.460 .950	.040060	1.473 .609	.010030	1.485 .77		1.492 1.130	.015030	1.496 .630	.005075
1.449 1.028	.045060	1.460 1.189	.035050	1.474 .318	.010020	1.485 .79		1.493 .433	.105125	1.496 .720	.010020
1.449 1.057	.040060	1.460 1.394	.020025	1.474 1.010	.040060	1.485 .84		1.493 .521	.005010	1.496 .762	.005010
1.449 1.198 1.449 1.322	.005010 .010020	1.461 .180 1.461 .875	.070080 .030050	1.474 1.180 1.474 1.357	.005010 .005010	1.485 .90 1.485 .91		1.493 .748 1.493 .758	.015030 .032060	1.496 .767 1.496 .783	.010020 .100125
1.450 .157	.020035	1.461 1.172	.050070	1.474 1.358	.015025	1.485 .97		1.493 .776	.020030	1.496 .900	.005010
1.450 .201	.025040	1.461 1.34	.005010	1.475 .499	.005010	1.485 1.10		1.493 .810	.005010	1.496 .946	.005010
1.450 .208	.050075	1.461 1.362	.020030	1.475 .500	.110130	1.485 1.16		1.493 1.008	.050070	1.496 .994	.010020
1.450 .220	.020030	1.462 .502	.080100	1.475 .504	.006015	1.485 1.22		1.493 1.062	.030050	1.496 1.003	.040060
1.450 .262 1.450 .282	.020030 .040060	1.462 .563 1.462 1.070	.048062 .080100	1.475 .526 1.475 .620	.080100 .005010	1.485 1.25 1.485 1.35		1.493 1.136 1.493 1.191	.010025 .030050	1.496 1.007 1.496 1.014	.005010 .060080
1.450 .380	.005020	1.462 1.247	.008075	1.475 .626	.005020	1.486 .13		1.493 1.191	.005010	1.496 1.017	.050075
1.450 .442	.005020	1.463 .480	.090110	1.475 .751	.005020	1.486 .65		1.493 1.242	.005010	1.496 1.060	.005010
1.450 .449	.010020	1.463 .813	.090110	1.475 .828	.062090	1.486 .80		1.493 1.259	.010020	1.496 1.066	.005010
1.450 .450	.005010	1.463 1.211	.015025	1.475 .834	.005010	1.486 .83		1.493 1.273	.060070	1.496 1.114	.010020
1.450 .531 1.450 .626	.080100	1.463 1.224 1.464 .590	.015030	1.475 1.169 1.475 1.360	.040060	1.486 .89 1.486 .90		1.493 1.299 1.493 1.314	.005010	1.496 1.162 1.496 1.181	.005010
1.450 .631	.005010	1.464 .741	.042062	1.476 .255	.010020	1.486 1.09		1.494 .271	.015030	1.496 1.189	.005010
1.450 .650	.050062	1.464 1.189	.015025	1.476 .500	.005030	1.486 1.22		1.494 .330	.005020	1.496 1.216	.010020
1.450 .760	.030060	1.465 .377	.030060	1.476 .650	.005010	1.486 1.33		1.494 .474	.005010	1.496 1.221	.040060
1.450 .830	.020040	1.465 .378	.010050	1.476 1.359	.010020	1.486 1.38		1.494 .477	.005010	1.496 1.245	.020040
1.450 .952 1.450 1.019	.040060 .105135	1.465 .812 1.465 1.095	.105134 .050075	1.477 .617 1.477 1.201	.010020 .010040	1.487 .94 1.487 1.12		1.494 .637 1.494 .650	.005010	1.496 1.253 1.496 1.255	.050070 .040060
1.450 1.013	.083120	1.465 1.190	.025040	1.478 1.099	.080100	1.487 1.12		1.494 .760	.007020 .060080	1.496 1.260	.005075
1.450 1.085	.050075	1.465 1.262	.060080	1.478 1.310	.025042	1.487 1.36		1.494 .857	.080104	1.496 1.270	.005010
1.450 1.100	.005010	1.465 1.306	.035050	1.479 .470	.080110	1.488 .39		1.494 .937	.030050	1.496 1.311	.010020
1.450 1.140	.005010	1.465 1.325	.015030	1.479 .600	.020030	1.488 .55		1.494 1.024	.030050	1.497 .145	.020040
1.450 1.225 1.450 1.265	.030040 .010020	1.466 .379 1.466 .596	.030050 .005010	1.479 .786 1.479 1.133	.134156 .015030	1.488 .80 1.488 .88		1.494 1.057 1.494 1.060	.080104 .064078	1.497 .195 1.497 .375	.025042 .050083
1.450 1.379	.010020	1.466 1.064	.005010	1.479 1.147	.005010	1.488 1.04		1.494 1.075	.050060	1.497 .377	.105125
1.451 .503	.005010	1.466 1.072	.030050	1.479 1.361	.005020	1.488 1.21		1.494 1.092	.040060	1.497 .379	.042062
1.451 1.016	.050070	1.466 1.155	.020040	1.480 .221	.062080	1.488 1.31		1.494 1.175	.015025	1.497 .386	.062080
1.451 1.140 1.451 1.196	.005015	1.466 1.268	.030050	1.480 .511	.105125	1.488 1.33		1.494 1.201	.035050	1.497 .421 1.497 .477	.156187
1.451 1.196	.010020 .036060	1.466 1.272 1.467 .841	.005010 .015030	1.480 .632 1.480 .640	.100125 .156188	1.488 1.35 1.489 .38		1.494 1.265 1.494 1.270	.005010 .010015	1.497 .477 1.497 .515	.005010 .100125
1.452 .266	.020040	1.467 .939	.075090	1.480 .677	.005010	1.489 1.00		1.494 1.305	.005010	1.497 .559	.100125
1.452 .270	.005010	1.467 1.038	.030050	1.480 .702	.015060	1.489 1.16	5 .015030	1.494 1.338	.010020	1.497 .612	.020030
1.452 .441	.010020	1.467 1.126	.075100	1.480 .707	.090105	1.489 1.26		1.494 1.342	.008015	1.497 .620	.010060
1.453 .104 1.453 .760	.005010 .030050	1.468 .310 1.468 .384	.010020 .080105	1.480 .769 1.480 .784	.005010	1.490 .17		1.494 1.414	.015025	1.497 .632 1.497 .655	.010020 .075100
1.453 1.234	.010020	1.468 .391	.050103	1.480 .784	.075090 .105135	1.490 .17 1.490 .24		1.494 1.425 1.495 .263	.025040 .005010	1.497 .723	.060083
1.454 .568	.080100	1.468 .440	.010020	1.480 .984	.070090	1.490 .32		1.495 .276	.005010	1.497 .753	.025040
1.454 .756	.020030	1.468 .640	.050075	1.480 1.049	.120156	1.490 .51		1.495 .294	.020032	1.497 .755	.025042
1.454 1.014	.015030	1.468 .820	.005010	1.480 1.120	.010020	1.490 .58		1.495 .295	.100125	1.497 .757	.010030
1.454 1.102 1.454 1.282	.005010 .050070	1.468 .988 1.468 1.235	.005010 .010020	1.480 1.134 1.480 1.154	.110125 .030060	1.490 .63 1.490 .68		1.495 .354	.105135	1.497 .763 1.497 .772	.005015 .030048
1.455 .475	.125135	1.468 1.250	.005010	1.480 1.134	.005010	1.490 .76		1.495 .355 1.495 .375	.005010	1.497 .810	.005010
1.455 .637	.040050	1.468 1.310	.020032	1.480 1.269	.080105	1.490 .76		1.495 .459	.156187	1.497 .891	.005010
1.455 .638	.085100	1.469 .665	.100120	1.480 1.276	.040060	1.490 .82		1.495 .500	.105125	1.497 .906	.100120
1.455 .754 1.455 1.000	.005010	1.469 .750 1.469 .808	.080090 .005010	1.480 1.279	.005010	1.490 .87		1.495 .510	.070090	1.497 1.060 1.497 1.113	.100125 .030050
1.455 1.000	.015030	1.469 .808 1.470 .171	.005010	1.481 .269 1.481 .622	.042062	1.490 1.00 1.490 1.06		1.495 .545 1.495 .629	.010020	1.497 1.113	.030050
1.455 1.101	.040050	1.470 .203	.010020	1.481 .936	.010020	1.490 1.00		1.495 .682	.010020	1.497 1.119	.135156
1.456 .315	.020030	1.470 .610	.100125	1.481 1.108	.025042	1.490 1.13		1.495 1.010	.015030	1.497 1.137	.005010
1.456 .826	.105135	1.470 .752	.005010	1.482 .250	.015030	1.490 1.14		1.495 1.028	.060080	1.497 1.150	.090110
1.456 1.066 1.456 1.082	.030050	1.470 .782	.100125	1.482 .632	.135156	1.490 1.17		1.495 1.058	.005010	1.497 1.154	.025040
1.456 1.062	.015030 .005010	1.470 .820 1.470 .833	.010020 .100156	1.482 .774 1.482 .882	.120135 .020040	1.490 1.19 1.490 1.19		1.495 1.086 1.495 1.116	.005010 .090104	1.497 1.242 1.497 1.252	.030030
1.457 .505	.005020	1.470 1.062	.048075	1.482 .884	.020040	1.490 1.19		1.495 1.110	.005010	1.497 1.267	.040062
1.457 .675	.050070	1.470 1.094	.015030	1.482 1.222	.050070	1.490 1.24	2 .090125	1.495 1.182	.060080	1.497 1.283	.005010
1.457 1.022	.005010	1.470 1.111	.040050	1.483 .755	.105125	1.490 1.27		1.495 1.185	.020030	1.497 1.352	.010020
1.457 1.200 1.457 1.295	.015025 .020030	1.470 1.150	.025042	1.483 1.063 1.484 .070	.110130	1.490 1.28		1.495 1.201	.010025	1.498 .128 1.498 .142	.015030 .040060
1.457 1.295	.020030	1.470 1.226 1.470 1.375	.040060 .005010	1.484 .070 1.484 .132	.005010 .015030	1.490 1.29 1.490 1.29		1.495 1.255 1.495 1.257	.010020 .060080	1.498 .142 1.498 .176	.040060
1.458 .670	.100120	1.471 .688	.062080	1.484 .252	.156187	1.490 1.29		1.495 1.260	.005010	1.498 .252	.100125
1.458 .873	.030050	1.471 .758	.090120	1.484 .882	.040060	1.490 1.36		1.495 1.275	.005010	1.498 .253	.042062
1.458 .984	.005010	1.471 .759	.100125	1.484 .889	.050070	1.490 1.36		1.495 1.318	.005010	1.498 .262	.005010
1.458 1.124	.042062	1.471 .810	.050070	1.484 1.070	.005010	1.491 .06		1.495 1.339	.005010	1.498 .266	.100125
1.458 1.254 1.459 .239	.020040 .015030	1.471 .821 1.471 .877	.057088 .100125	1.484 1.130 1.484 1.250	.020030 .105125	1.491 .87 1.491 .99		1.495 1.354 1.495 1.400	.005010 .020040	1.498 .313 1.498 .360	.040060 .005010
1.459 .630	.005010	1.471 .938	.105125	1.484 1.382	.020030	1.491 1.00			.020040	1.498 .379	.005010

		Chassa Anu		Chases Any			Chassa Any			Chassa Any		Chassa Any			Chassa Any
O.D.	I.D.	Choose Any Thickness*	O.D. I.	D. Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D. I.D.	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*
		From To		From To			From To			From To		From To			From To
1.498	.380	.120135		13 .090105	1.500	.392	.010020	1.500	.820	.020040	1.500 1.252		1.504	.789	.005010
1.498	.390	.105130		35 .030050	1.500	.395	.050083	1.500	.830	.015135	1.500 1.264	.020030	1.504	.811	.100125
1.498	.400	.170190	1.499 .8	76 .005010	1.500	.397	.030050	1.500	.841	.040050	1.500 1.265	.005010	1.504		.120135
1.498	.406	.050125		.040060	1.500	.398	.005015	1.500	.853	.080104	1.500 1.266	.010020	1.504		.062090
1.498	.412	.005010	1.499 .8	81 .040060	1.500	.406	.005187	1.500	.871	.010020	1.500 1.274	.010020	1.504	1.287	.040060
1.498	.500	.005015	1.499 .9	67 .105125	1.500	.411	.020030	1.500	.873	.170190	1.500 1.275	.008018	1.504	1.378	.010020
1.498	.502	.005010	1.499 .9	95 .005010	1.500	.413	.075090	1.500	.874	.020040	1.500 1.277	.090125	1.505	.408	.015030
1.498	.521	.015025	1.499 1.0	00 .015030	1.500	.437	.040125	1.500	.876	.100125	1.500 1.282	.008016	1.505	.440	.156187
1.498	.607	.005010	1.499 1.0	03 .005012	1.500	.440	.005080	1.500	.877	.100125	1.500 1.298	.010025	1.505	.510	.105125
1.498	.625	.040060	1.499 1.0	11 .110130	1.500	.442	.005032	1.500	.880	.010020	1.500 1.300	.050075	1.505	.845	.025035
1.498	.687	.030125	1.499 1.0	46 .050075	1.500	.450	.100125	1.500	.882	.110134	1.500 1.301	.050070	1.505	1.003	.015030
1.498	.688	.105125	1.499 1.0	47 .040060	1.500	.451	.005010	1.500	.883	.040125	1.500 1.316	.010020	1.505	1.109	.040060
1.498	.690	.100125	1.499 1.0	52 .050070	1.500	.453	.170190	1.500	.886	.156187	1.500 1.332	.025040	1.505	1.310	.015025
1.498	.754	.020030	1.499 1.0	59 .070090	1.500	.454	.100125	1.500	.892	.105120	1.500 1.358	.050070	1.506	1.249	.050075
1.498	.757	.040060	1.499 1.0		1.500	.479	.156187	1.500	.893	.062090	1.500 1.376	.015060	1.507	1.324	.005010
1.498	.771	.005048	1.499 1.1	17 .040060	1.500	.497	.105125	1.500	.900	.040060	1.500 1.389	.030050	1.508	.315	.105125
1.498	.819	.005010	1.499 1.1	23 .080100	1.500	.498	.070090	1.500	.904	.104125	1.501 .125	.075090	1.508	.910	.080105
1.498	.825	.005010	1.499 1.1		1.500	.500	.005060	1.500	.908	.026048	1.501 .188		1.509	.301	.090120
1.498	.844	.100125	1.499 1.1		1.500	.502	.005030	1.500	.910	.140160	1.501 .190	.005010	1.509	.781	.090105
1.498	.867	.005010	1.499 1.1		1.500	.505	.005050	1.500	.934	.040060	1.501 .200		1.510	.510	.060080
1.498	.902	.025040	1.499 1.2		1.500	.506	.005125	1.500	.935	.030040	1.501 .280		1.510	.900	.030050
1.498	.979	.050070	1.499 1.2		1.500	.512	.060156	1.500	.937	.050075	1.501 .336		1.510		.015030
1.498	.997	.030050	1.499 1.2		1.500	.513	.100125	1.500	.938	.093109	1.501 .372		1.510		.015030
1.498		.060080	1.499 1.2		1.500	.515	.100125	1.500	.942	.105134	1.501 .382		1.510		.005010
1.498		.040060			1.500	.519	.080104	1.500	.954	.050070	1.501 .385		1.510		.005010
1.498		.100125			1.500	.521	.105125	1.500	.970	.080100	1.501 .437	.005010	1.510		.060070
1.498		.005015			1.500	.530	.015125	1.500	.975	.005010	1.501 .508		1.511	.213	.090100
1.498		.005010	7 /	500	1.500	.536	.006134	1.500	.993	.025040	1.501 .514		1.511	.630	.080105
1.498		.020040			1.500	.537	.030048	1.500	.996	.050070	1.501 .626		1.511	.792	.090105
1.498		.005010	_		1.500	.550	.090125		1.001	.005015	1.501 .715		1.511	.823	.170190
1.498		.105135	1.500 .0	84 .020035	1.500	.560	.005015	1.500		.040090	1.501 .755		1.511		.005010
1.498		.005012		94 .005010	1.500	.562	.050190	1.500		.005156	1.501 .773		1.511		.050075
1.498		.030050		26 .040060	1.500	.563	.015030	1.500		.015050	1.501 .817	.100125	1.511		.040060
1.498		.015030		30 .020032	1.500	.564	.100120	1.500		.010070	1.501 .820	.040060	1.511		.005010
1.498		.110130		35 .090104	1.500	.571	.025040	1.500		.040140	1.501 .840		1.512		.005010
1.498		.030060		50 .040062	1.500	.577	.010015	1.500		.005020	1.501 .876		1.514	.940	.125135
1.498		.090120		56 .030125	1.500	.579	.110130	1.500		.010020	1.501 .909		1.514		.062080
1.498		.100120		57 .030050	1.500	.605	.050070	1.500		.040190	1.501 1.008		1.515	.583	.120134
1.498		.025040		61 .100125	1.500	.625	.030050	1.500		.100125	1.501 1.000	.005010	1.515	.765	.050070
1.498		.010020		63 .010040	1.500	.626	.010125	1.500		.005012	1.501 1.000	.005010	1.515	.892	.045060
1.498		.040060		85 .050083	1.500	.634	.005010	1.500		.005125	1.501 1.012	.030050	1.515		.010015
1.498		.030050		88 .005010	1.500	.636	.060180	1.500		.020040	1.501 1.121	.020030	1.515		.040060
	1.321	.030048		94 .025042	1.500	.638	.020040	1.500		.005010	1.501 1.121		1.515		.020040
1.498		.005010		95 .048075	1.500	.640	.110130	1.500		.105125	1.501 1.102		1.515		.010020
	1.396	.015025		00 .010030	1.500	.655	.005020	1.500		.048134	1.501 1.188		1.516	.293	.050075
1.499	.098	.050075		09 .105125	1.500	.656	.075130	1.500		.008105	1.501 1.160	.020030	1.516	.915	.050070
1.499	.127	.080090		19 .050070	1.500	.660	.040060	1.500		.005010	1.501 1.290	.005010	1.516		.005010
1.499	.167	.005010		45 .032060	1.500	.665	.005010	1.500		.005010	1.502 .185	.105135	1.516		.005010
1.499	.187	.020040		50 .010020	1.500	.687	.030050	1.500		.156187	1.502 .100		1.517	.755	.090104
1.499	.197	.125156		59 .060090	1.500	.688	.050070	1.500		.050075	1.502 .220			.770	.050070
1.499	.213	.005010		65 .100125	1.500	.690	.120135	1.500		.020040			1.518		.050070
1.499	.268	.070090		66 .015025	1.500	.694	.005010	1.500		.010060	1.502 .349 1.502 .375		1.518		.005010
1.499	.281	.100125		67 .005010	1.500	.700	.070090	1.500		.005030		.000125	1.519	.271	.005010
1.499	.303	.040060		69 .030048	1.500	.700	.050070	1.500					1.519	.623	.005010
1.499	.314	.040060		75 .080090	1.500	.701	.005010			.005062	1.502 .441	.030050	1.519	.623 .689	.060080
1.499	.374	.030050		80 .040060	1.500	.713	.005010	1.500		.005010	1.502 .444 1.502 .562		1.520	.195	.035050
1.499	.385	.135156		81 .156187	1.500	.715	.005010	1.500		.005010	1.502 .562		1.520	.328	.015020
1.499	.391	.156190		82 .008015	1.500	.713	.104125	1.500		.060083	1.502 .563		1.520	.753	.060080
1.499	.399	.005010		83 .005010	1.500	.725	.070090	1.500		.105125	1.502 .656		1.520	.760	.100000
1.499	.420	.005010		03 .005010	1.500	.749	.010025	1.500		.015030	1.502 .050		1.520	.801	.030050
1.499	.474	.005010		11 .104134	1.500	.753	.010025	1.500		.025042	1.502 .732		1.520	.804	.050070
1.499	.485	.050075		12 .160190	1.500	.754	.040060	1.500		.025042	1.502 .885		1.520	.808	.040070
1.499	.504	.005020		13 .062080	1.500	.758	.105125	1.500		.070090	1.502 .891	.005010	1.520	.811	.080100
1.499	.533	.005020		15 .008110	1.500	.760	.030050	1.500		.030050	1.502 .960		1.520	.816	.060080
1.499	.561	.005010		25 .048075	1.500	.761	.100125	1.500		.020030	1.502 .900		1.520	.821	.040060
1.499	.562	.015025		27 .005010	1.500	.765	.020080	1.500		.060080	1.502 1.013		1.520	.838	.060080
1.499	.563	.010020		30 .120135	1.500	.768	.020030	1.500		.105135	1.502 1.007		1.520	.850	.080090
1.499	.574	.050060		40 .005010	1.500	.781	.015110	1.500		.015125	1.502 1.110		1.520	.890	.050070
1.499	.599	.030050		45 .050070	1.500	.782	.050075	1.500		.015125	1.502 1.118		1.520	.891	.040060
1.499	.626	.005010		46 .105135	1.500	.783	.156187	1.500		.105125	1.502 1.123		1.520		.005010
1.499	.630	.005020		49 .005010	1.500	.785	.030040	1.500		.050070	1.502 1.150		1.520		.020050
1.499	.643	.005020		64 .005010	1.500	.786	.005040	1.500		.005040			1.520		.020030
1.499	.676	.030060		72 .040060	1.500	.788	.105135	1.500		.005040	1.503 .509		1.520	.326	.030050
1.499	.710	.030050		75 .060187	1.500	.700	.005040				1.503 .701	.050070	1.521	.320	.040060
1.499	.750	.030030		76 .015025	1.500	.804	.005040	1.500		.031048	1.503 .845		1.521	.706	.060080
	.759			77 .005010		.806		1.500		.035048	1.503 1.008				.050070
1.499 1.499	.760	.060080		79 .030050	1.500	.810	.080104	1.500		.015030	1.503 1.016		1.521	.889 1.024	.040060
1.499				.030030 84 .010025	1.500		.025040	1.500		.005010	1.503 1.020				
1.499	.763 .765	.040060 .005125		85 .005010	1.500 1.500	.812	.050100	1.500		.020030	1.504 .687	.010020	1.522 1.523	.966 .346	.090110 .050070
1.499	.768	.010020		91 .050070	1.500	.813 .817	.050100 .005135	1.500		.005010	1.504 .764				.050070
1.499	.700	.010020	1.500 .3		1.500	.017	.000100	1.500	1.251	.025040	1.504 .784	.042062	1.523	.503	.003010

NO TOOLING CHANGE FOR ANY OF THE SIZES LISTED	BOKEN 3 METAL WASHENS ARE FLAT AND TOMBLE DEBORNED
Choose Any	Choose Any
O.D. I.D. Thickness' O.D. I.D	O.D. I.D. Thickness* O.D. I.D.
1.523 .507 .005020 1.535 .710 .020040 1.550 .368 .020035 1.560 .392 .080105 1.562 1.203 .025048 1.570 .346 .010020	1.575 1.025 .030050 1.593 .900 .060080 1.600 1.290 .020040 1.614 1.189 .025040 1.622 1.161 .040050 1.625 .542 .090120
1.523 .584 .050070 1.535 .788 .050070 1.550 .438 .005030 1.560 .455 .100125 1.562 1.313 .005010 1.570 .526 .080100	1.575 1.063 .040060 1.593 1.034 .010020 1.600 1.300 .050060 1.614 1.251 .005010 1.622 1.188 .050100 1.625 .563 .025042
1.523 1.467 .005010 1.535 .867 .105125 1.550 .440 .005010 1.560 .508 .100125 1.562 1.320 .060080 1.570 .720 .005010	1.575 1.110 .005010 1.593 1.171 .100125 1.600 1.310 .015060 1.614 1.280 .020040 1.622 1.250 .020040 1.625 .564 .050075
1.524 .329 .110130 1.535 .904 .100125 1.550 .449 .010020 1.560 .563 .015030 1.562 1.323 .105125 1.570 .813 .030050	1.575 1.110 .060080 1.593 1.172 .050075 1.600 1.312 .005010 1.614 1.281 .010020 1.622 1.261 .050070 1.625 .565 .010125
1.524 .432 .100125 1.535 1.064 .080104 1.550 .500 .050070 1.560 .619 .005010 1.562 1.346 .030050 1.570 .870 .005010	1.575 1.178 .156187 1.593 1.194 .062080 1.600 1.357 .005015 1.614 1.339 .015030 1.622 1.312 .060070 1.625 .566 .100125
	1011 1000 1010 1000 1010
1000 1112 1000 1010 1010 1010	
1000 1000 1000 1000 1000 1000	
	1010 1000 1010 1000 1000 1000 1000 1000 1000
1.524 1.416 .040060 1.535 1.300 .060080 1.550 .626 .005020 1.560 .883 .030050 1.562 1.374 .025040 1.570 1.032 .100125	1.575 1.338 .005010 1.594 .814 .015025 1.601 .631 .005010 1.615 .629 .090100 1.623 .511 .090105 1.625 .633 .060090
1.525 .250 .050070 1.535 1.344 .012025 1.550 .629 .005010 1.560 .891 .020040 1.562 1.375 .020040 1.570 1.190 .032042	1.575 1.389 .070090 1.594 1.278 .080100 1.601 .770 .005010 1.615 .877 .050075 1.623 .597 .080104 1.625 .634 .100125
1.525 .265 .005010 1.535 1.378 .020035 1.550 .635 .015035 1.560 1.063 .135156 1.562 1.376 .005010 1.570 1.191 .125156	1.575 1.474 0.005 - 0.010 1.594 1.303 0.010 - 0.020 1.601 1.436 0.005 - 0.010 1.615 1.000 0.050 - 0.075 1.623 0.775 0.005 - 0.010 1.625 0.640 0.005 - 0.010
1.525 .268 .005010 1.536 .188 .090120 1.550 .704 .005010 1.560 1.100 .005010 1.562 1.437 .010020 1.570 1.220 .050070	1.576 .414 .160190 1.594 1.416 .005015 1.601 1.460 .005010 1.615 1.407 .020040 1.623 .782 .062080 1.625 .643 .170190
1.525 .501 .005010 1.536 .501 .010020 1.550 .750 .020040 1.560 1.140 .005010 1.563 .439 .005010 1.570 1.250 .005010	1.576 .477 .010020 1.594 1.451 .030050 1.602 .630 .100125 1.615 1.417 .040060 1.623 .891 .005010 1.625 .656 .010020
1.525 .617 .050060 1.536 .576 .015030 1.550 .752 .105125 1.560 1.207 .010020 1.563 .638 .005010 1.570 1.259 .030040	1.576 .630 .005010 1.594 1.504 .015030 1.602 .772 .010020 1.615 1.450 .005010 1.623 1.000 .080100 1.625 .657 .035050
1.525 .657 .005010 1.536 .651 .015030 1.550 1.221 .005010 1.560 1.261 .070080 1.563 .690 .032060 1.571 .379 .080100	1.576 .670 .015030 1.595 .551 .105125 1.602 .973 .100125 1.615 1.456 .010020 1.623 1.032 .050070 1.625 .688 .100120
1.525 .685 .040060 1.536 .694 .015020 1.550 1.235 .050075 1.560 1.315 .015025 1.563 .762 .005010 1.571 .870 .100120	1.576 .826 .125156 1.595 1.313 .110130 1.602 1.432 .005010 1.616 .752 .075100 1.623 1.063 .050080 1.625 .754 .050075
1.525 .800 .010020 1.536 .710 .005010 1.550 1.250 .005010 1.560 1.319 .005010 1.563 .878 .025040 1.571 1.018 .100125	1.576 .828 .010020 1.596 .880 .010020 1.602 1.492 .005010 1.616 1.382 .005010 1.623 1.064 .050075 1.625 .755 .090105
1.525 1.231 .005010 1.536 .712 .030050 1.550 1.255 .015025 1.560 1.320 .015025 1.563 .892 .075100 1.571 1.038 .005015	1.576 .926 .005010 1.597 .200 .050070 1.603 .341 .100125 1.616 1.390 .100120 1.623 1.188 .060090 1.625 .760 .100125
1.525 1.310 .025040 1.536 .811 .005010 1.550 1.321 .010020 1.560 1.331 .050070 1.563 .999 .105125 1.571 1.146 .070090	1.576 1.092 .050070 1.597 .755 .010020 1.603 .800 .075090 1.617 .417 .005010 1.623 1.208 .025040 1.625 .765 .090120
1.525 1.316 .070090 1.536 1.009 .050070 1.550 1.415 .005010 1.560 1.353 .005010 1.563 1.005 .110130 1.572 .476 .005010	1.576 1.245 .025040 1.597 .881 .090125 1.603 1.012 .025040 1.617 .498 .080120 1.623 1.257 .110125 1.625 .768 .020040
1.525 1.335 .040060 1.536 1.024 .135156 1.550 1.416 .015020 1.560 1.376 .025040 1.563 1.062 .005010 1.572 .569 .050060	1.576 1.474 .005010 1.598 .199 .080090 1.603 1.500 .020030 1.617 .500 .010020 1.623 1.375 .005015 1.625 .770 .050075
1.526 1.280 .040060 1.537 .407 .075125 1.550 1.439 .005010 1.561 .161 .020030 1.563 1.131 .050070 .1572 .625 .050070	1.577 .632 .040060 1.598 .320 .080090 1.604 .674 .115130 1.617 .626 .048062 1.623 1.410 .005015 1.625 .772 .005010
1.526 1.310 .025042 1.537 .501 .010020 1.551 .289 .050070 1.561 .251 .040060 1.563 1.347 .040062 1.572 .050070	1.577 .771 .030060
1.526 1.345 .005010 1.537 .670 .005010 1.551 .438 .010020 1.561 .259 .083125 1.563 1.402 .020040 1.572 .761 .020040	1.577 .994 .015030 1.598 .516 .050070 1.605 .378 .030050 1.617 .805 .040060 1.623 1.481 .025040 1.625 .791 .030050
1001 1200 1000 1102 1010	1011 1000 1010 1010 1010
1.526 1.376 .050070 1.537 1.288 .042062 1.551 .440 .010020 1.561 .562 .005010 1.564 .375 .048075 1.572 1.254 .030050	1.577 1.072 .090110 1.598 .625 .030050 1.605 .390 .005010 1.617 1.060 .050070 1.624 .311 .105125 1.625 .797 .080100
1.527 1.317 .060078 1.537 1.296 .005010 1.551 1.026 .060080 1.561 .629 .075105 1.564 .501 .025040 1.572 1.255 .025040	1.577 1.341 .070090 1.598 .631 .010020 1.605 .694 .020040 1.617 1.258 .025042 1.624 .408 .010020 1.625 .816 .090120
1.527 1.418 .015030 1.539 .562 .010020 1.551 1.140 .010020 1.561 .766 .100125 1.564 .511 .020040 1.572 1.258 .007016	1.578 .771 .025040 1.598 .720 .005010 1.605 .881 .015030 1.617 1.390 .030050 1.624 .440 .040060 1.625 .865 .100125
1.528 .187 .025040 1.539 1.206 .015030 1.551 1.189 .105125 1.561 .768 .025040 1.564 .700 .020030 1.572 1.452 .005010	1.578 1.063 .030050 1.598 1.000 .080125 1.605 1.009 .105125 1.618 .107 .110130 1.624 .621 .050070 1.625 .875 .090125
1.528 .195 .050100 1.539 1.220 .015030 1.551 1.278 .060080 1.561 .883 .005010 1.564 .767 .010020 1.573 .504 .090135	1.578 1.292 .020030 1.598 1.058 .005010 1.605 1.134 .010030 1.618 .256 .100125 1.624 .626 .010040 1.625 .882 .060070
1.528 .250 .010030 1.539 1.336 .040060 1.552 1.460 .005010 1.561 .952 .030050 1.564 1.123 .020040 1.573 .641 .060083	1.578 1.298 .010015 1.598 1.269 .050070 1.605 1.348 .030050 1.618 .651 .040060 1.624 .691 .050075 1.625 .932 .005012
1.528 .728 .005010 1.539 1.359 .030050 1.553 .854 .075105 1.561 1.039 .030050 1.564 1.135 .050075 1.573 .648 .010020	1.579 .570 .005010 1.599 .378 .005020 1.606 .465 .105125 1.618 .690 .015030 1.624 .695 .015030 1.625 .937 .070090
1.528 1.009 .050070 1.539 1.462 .005010 1.553 .859 .080100 1.561 1.040 .010015 1.564 1.189 .005010 1.573 .731 .040062	1.579 1.232 .010020 1.599 .489 .090110 1.606 .516 .105125 1.618 .899 .030050 1.624 .875 .040060 1.625 .999 .005032
1.528 1.276 .010020 1.540 .512 .105125 1.553 1.158 .125156 1.561 1.158 .040060 1.564 1.309 .005010 1.573 .812 .015030	1.579 1.378 .030040 1.599 .503 .005010 1.606 1.000 .105125 1.618 .963 .110130 1.624 .906 .100125 1.625 1.000 .040060
1.528 1.285 .020040 1.540 .563 .005010 1.554 .765 .080104 1.561 1.231 .040060 1.564 1.393 .015030 1.573 .990 .005010	1.580 .785 .050060 1.599 .505 .005020 1.607 .562 .125156 1.618 1.010 .105125 1.624 .917 .030050 1.625 1.000 .080090
1.529 .466 .005010 1.540 .910 .015030 1.554 .883 .010015 1.561 1.261 .040060 1.564 1.434 .005010 1.573 1.013 .005010	1.580 .795 .020040 1.599 .626 .015025 1.607 .630 .092125 1.618 1.035 .060090 1.624 1.005 .040060 1.625 1.004 .040060
1.529 .791 .030050 1.540 1.102 .025040 1.554 1.000 .060080 1.561 1.390 .005010 1.565 .122 .020040 1.573 1.102 .060080	1.580 .829 .090105 1.599 .630 .005010 1.607 1.022 .030060 1.618 1.134 .005010 1.624 1.015 .050100 1.625 1.009 .040060
1.529 .984 .080105 1.540 1.200 .020030 1.554 1.193 .060080 1.561 1.433 .005012 1.565 .562 .030048 1.573 1.221 .030050	1.580 .850 .050060 1.599 .689 .060080 1.607 1.271 .025040 1.618 1.180 .060080 1.624 1.021 .060090 1.625 1.010 .005010
1.529 1.052 .080100 1.540 1.290 .050070 1.554 1.460 .005010 1.561 1.439 .005010 1.565 1.192 .050075 1.573 1.224 .135156	1.580 .953 .110130 1.599 1.243 .015035 1.607 1.332 .010020 1.618 1.382 .020030 1.624 1.032 .020040 1.625 1.016 .020036
1.529 1.117 .100110 1.541 .318 .020030 1.555 .166 .080104 1.562 .201 .020030 1.565 1.228 .030050 1.573 1.264 .005010	1.580 1.081 .010020 1.599 1.437 .010020 1.608 .811 .030050 1.619 .838 .040060 1.624 1.083 .100120 1.625 1.032 .100125
1.529 1.259 .020040 1.541 1.008 .025070 1.555 .650 .007012 1.562 .251 .090104 1.565 1.260 .010020 1.573 1.374 .005010	1.580 1.310 .005010 1.600 .170 .050062 1.608 1.130 .100125 1.619 .937 .060070 1.624 1.100 .050070 1.625 1.062 .120134
1.529 1.360 .020040 1.541 1.030 .005010 1.555 1.060 .032060 1.562 .317 .008016 1.565 1.270 .030042 1.574 .344 .105125	1.580 1.380 .015030 1.600 .253 .005010 1.608 1.444 .015030 1.619 1.470 .010020 1.624 1.129 .062080 1.625 1.125 .005135
1.529 1.416 .020030 1.541 1.250 .050070 1.555 1.100 .090120 1.562 .351 .075105 1.565 1.369 .050075 1.574 .410 .005010	1.580 1.472 .005010 1.600 .281 .050075 1.609 .411 .040060 1.620 .297 .080105 1.624 1.135 .015030 1.625 1.127 .005010
1.529 1.453 .005010 1.542 .833 .020030 1.555 1.112 .080105 1.562 .378 .048075 1.566 .257 .070090 1.574 .434 .150170	1.581 .119 .005010 1.600 .310 .030050 1.609 .594 .040060 1.620 .408 .005010 1.624 1.141 .005010 1.625 1.130 .090125
1.530 .251 .015030	1.582 .405 .040060 1.600 .377 .005015 1.609 .633 .090120 1.620 .418 .005010 1.624 1.182 .020040 1.625 1.134 .032042
1.530 .282 .060080	1.582 .450 .010020 1.600 .378 .005015 1.609 .810 .025040 1.620 .443 .005010 1.624 1.187 .100125 1.625 1.220 .050075
1000 1000 1000 1000	1021 1120 1000 1010
1.000 1.011 1.000 1.011	1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000
100 101 100 101 100 101 100 101	1.582 1.250
100 100 100 100 100 100 100 100 100 100	1.582 1.301 .005010 1.600 .502 .005010 1.609 1.275 .100125 1.620 .644 .005010 1.624 1.268 .050070 1.625 1.281 .040060
1.530 1.031 .075090 1.543 1.261 .030050 1.556 1.260 .015030 1.562 .656 .156187 1.567 .935 .050075 1.574 1.071 .090100	1.583 1.089 .020040 1.600 .503 .006012 1.609 1.400 .020032 1.620 .647 .005010 1.624 1.329 .005020 1.625 1.287 .005010
1.530 1.141 .050070 1.544 1.169 .030050 1.556 1.262 .020040 1.562 .746 .075105 1.567 .978 .007015 1.574 1.103 .015030	1.584 .834 .005010 1.600 .504 .005020 1.609 1.468 .048062 1.620 .713 .005010 1.624 1.357 .010025 1.625 1.296 .075083
1.530 1.202 .010030 1.544 1.182 .025040 1.556 1.405 .010020 1.562 .750 .010100 1.567 .992 .010020 1.574 1.130 .012020	1.584 1.009 .040060 1.600 .505 .005010 1.609 1.475 .005010 1.620 .759 .040060 1.624 1.376 .005010 1.625 1.303 .025042
1.530 1.280 .050060 1.544 1.191 .005010 1.556 1.437 .032050 1.562 .762 .005010 1.567 1.004 .105125 1.574 1.188 .005010	1.585 .140 .042060 1.600 .508 .010135 1.610 1.110 .015030 1.620 .812 .005010 1.624 1.378 .005010 1.625 1.305 .005010
1.531 .333 .005010 1.544 1.481 .010020 1.557 .396 .005015 1.562 .765 .090120 1.567 1.232 .030050 1.574 1.221 .010020	1.585 .375 .070090
1.531 .390 .100125	1.585 1.000 .032050 1.600 .515 .010020 1.610 1.200 .020030 1.620 .909 .005010 1.624 1.442 .010020 1.625 1.339 .050075
1.531 .516 .060080 1.545 .437 .020040 1.557 .770 .110130 1.562 .782 .080104 1.567 1.260 .005010 1.574 1.337 .020030	1.585 1.007 .010030 1.600 .625 .020040 1.610 1.251 .015030 1.620 .920 .010020 1.625 .125 .020040 1.625 1.375 .020070
1.531 .625 .005010 1.545 1.060 .005010 1.557 1.002 .075090 1.562 .812 .062080 1.567 1.311 .015030 1.574 1.373 .062090	1.585 1.120 .005015 1.600 .627 .005020 1.610 1.259 .005010 1.620 .940 .100125 1.625 .137 .040060 1.625 1.382 .090105
1.531 .689 .060080 1.545 1.156 .020030 1.557 1.038 .040060 1.562 .864 .120140 1.567 1.346 .015030 1.574 1.416 .005010	1.585 1.209 .025040 1.600 .630 .010020 1.610 1.275 .100125 1.620 .963 .120134 1.625 .172 .040060 1.625 1.396 .080100
1.531 .776 .025040 1.545 1.191 .005010 1.557 1.314 .105125 1.562 .874 .020040 1.567 1.380 .040062 1.575 .355 .100125	1.585 1.256 .025040 1.600 .634 .105125 1.610 1.309 .005010 1.620 1.120 .110135 1.625 .199 .050075 1.625 1.398 .005025
1.531 .808 .030050 1.545 1.391 .050070 1.557 1.355 .025040 1.562 .875 .015030 1.568 .060 .040050 1.575 .393 .120135	1.585 1.260 .015030 1.600 .715 .105120 1.610 1.325 .030050 1.620 1.122 .010020 1.625 .231 .105125 1.625 1.406 .070090
1.531 1.000 .020032 1.545 1.457 .025035 1.557 1.358 .005010 1.562 .904 .040050 1.568 .675 .005010 1.575 .473 .005010	1.585 1.359 .050062 1.600 .751 .005010 1.610 1.358 .050070 1.620 1.140 .070095 1.625 .266 .005010 1.625 1.437 .060080
1.531 1.015 .025042 1.546 1.182 .025040 1.558 .157 .015030 1.562 .906 .040050 1.568 .692 .060080 1.575 .477 .005010	1.586 .141 .060090 1.600 .754 .010020 1.610 1.404 .070090 1.620 1.144 .050070 1.625 .330 .005010 1.626 .251 .050070
1.531 1.223 .010020 1.546 1.184 .025040 1.558 .256 .075100 1.562 .925 .030060 1.568 1.031 .110130 1.575 .502 .020030	1.586 1.265 .020030 1.600 .765 .050060 1.610 1.422 .020035 1.620 1.190 .060090 1.625 .344 .060080 1.626 .504 .010020
1.532 .098 .030050 1.547 1.007 .040064 1.558 .375 .075090 1.562 .932 .050075 1.568 1.110 .050070 1.575 .503 .005010	1.586 1.290 .005010 1.600 .800 .005010 1.611 1.135 .005010 1.620 1.261 .015030 1.625 .362 .005010 1.626 .509 .105135
1.532 .765 .005010 1.548 .441 .010020 1.558 .378 .060080 1.562 .937 .100125 1.568 1.347 .005010 1.575 .504 .100125	1.587 .469 .010020 1.600 .827 .005010 1.611 1.410 .010020 1.620 1.311 .005010 1.625 .375 .032105 1.626 .516 .050060
1.532 1.047 .015025 1.548 .951 .090110 1.558 .410 .090105 1.562 .938 .015025 1.568 1.420 .005010 1.575 .564 .010020	1.588 .700 .050070 1.600 .874 .040060 1.612 1.135 .005020 1.620 1.383 .005010 1.625 .395 .105125 1.626 .562 .005010
1.532 1.306 .070090 1.548 1.005 .010020 1.558 .749 .020040 1.562 .939 .030050 1.569 .361 .040060 1.575 .591 .050060	1.588 1.006 .005010 1.600 .878 .025040 1.612 1.280 .015035 1.620 1.385 .050070 1.625 .406 .050070 1.626 .757 .010015
1.533 1.003 .040060 1.548 1.038 .031048 1.558 .770 .105125 1.562 .945 .070090 1.569 .504 .070090 1.575 .599 .005010	1.588 1.118 .105120 1.600 .885 .030040 1.612 1.316 .030050 1.620 1.470 .020030 1.625 .412 .062090 1.626 .780 .010020
1.533 1.379 .050060 1.548 1.100 .040050 1.558 1.004 .025040 1.562 .996 .062090 1.569 .589 .005030 1.575 .630 .005010	1.588 1.248 .020035 1.600 .925 .080100 1.612 1.468 .010020 1.621 .319 .025036 1.625 .430 .100125 1.626 1.007 .025040
1.534 .325 .080 - 1.04 1.548 1.270 .015030 1.558 1.433 .005010 1.562 .997 .020030 1.569 .756 .105125 1.575 .643 .070090	1.589 .505 .025040 1.600 1.000 .005010 1.612 1.499 .005010 1.621 .758 .050075 1.625 .465 .015030 1.626 1.125 .040060
1.534 .505 .005020 1.549 .361 .050070 1.559 .776 .005010 1.562 1.001 .120134 1.569 .807 .090105 1.575 .708 .105125	1.590 .490 .090125 1.600 1.070 .025125 1.612 1.510 .005010 1.621 1.265 .005010 1.625 .475 .105135 1.626 1.134 .005010
1.534 1.026 .105125 1.549 .444 .005020 1.559 .875 .110130 1.562 1.002 .120134 1.569 .884 .105125 1.575 .709 .015030	1.590 .594 .100125
1.534 1.046 .015030 1.549 .503 .015030 1.559 1.071 .005010 1.562 1.008 .040060 1.569 1.030 .025040 1.575 .712 .040060	1.590 1.028 .005010 1.600 1.125 .015025 1.613 .778 .020040 1.621 1.317 .025040 1.625 .500 .025080 1.626 1.321 .050075
1.534 1.097 .020040 1.549 .505 .005020 1.559 1.288 .010020 1.562 1.032 .083105 1.569 1.140 .070090 1.575 .789 .025040	1.590 1.299 .020035 1.600 1.128 .010020 1.613 1.124 .090100 1.621 1.480 .025035 1.625 .504 .005010 1.626 1.377 .025040
1.534 1.397 .020035 1.549 .754 .040062 1.559 1.315 .006040 1.562 1.063 .015025 1.569 1.187 .040060 1.575 .794 .005010	1.590 1.345 .010060 1.600 1.175 .090125 1.613 1.312 .015030 1.622 .341 .075090 1.625 .508 .005042 1.626 1.402 .005010
1.535 .322 .050075	1.590 1.362 .060080 1.600 1.205 .010020 1.614 .145 .070090 1.622 .407 .036048 1.625 .514 .005010 1.627 .173 .010020
1.535 .330 .156187 1.549 1.005 .040060 1.560 .191 .020040 1.562 1.140 .050070 1.569 1.320 .015030 1.575 .879 .005010	1.590 1.302 .000000 1.000 1.205 .010020 1.614 .145 .070090 1.622 .407 .036048 1.625 .514 .005010 1.627 .173 .010020 1.592 .407 .048062 1.600 1.200 .050070 1.614 .329 .005010 1.622 .645 .100125 1.625 .531 .100125 1.627 .314 .015030
1002 1110 1000 1010 1000 1010	1.592
1002 1100 1000 1000 1000	
1.535 .697 .156164 1.549 1.226 .030050 1.560 .381 .125156 1.562 1.187 .005010 1.570 .168 .008012 1.575 .985 .010156	1.592 1.222 .010020
1.535 .710 .005010 1.550 .245 .042075 1.560 .391 .080105 1.562 1.188 .020040 1.570 .256 .080100 1.575 .986 .050070	1.593 .515 .010020 1.600 1.271 .110130 1.614 1.001 .005010 1.622 .992 .025040 1.625 .540 .010060 1.627 .555 .156187

					BOKER	S WE IAL	WASHER	S ARE FLA	I AND I	IMBLE DE	BURKED
O.D. I.D.	Choose Any										
	Thickness* From To	O.D. I.D.	Thickness* From To	O.D. 1.D.	Thickness* From To	O.D. I.D.	Thickness* From To	O.D. I.D.	Thickness* From To	O.D. 1.D.	Thickness* From To
1.708 .381	.060080	1.727 1.623	.020035	1.739 1.114	.030050	1.746 1.190	.090125	1.749 .281	.050075	1.750 .437	.060120
1.708 1.247	.005020	1.728 .878	.100125	1.739 1.302	.020040	1.746 1.254	.100125	1.749 .335	.005010	1.750 .438	.015030
1.708 1.311	.030050	1.728 1.509	.060080	1.739 1.446	.040060	1.746 1.320	.005010	1.749 .350	.060080	1.750 .440	.005020
1.708 1.312	.050075	1.729 .870	.020040	1.740 .362	.050070	1.746 1.448	.050075	1.749 .375	.005010	1.750 .471 1.750 .500	.170190
1.709 .391 1.709 .761	.005015	1.729 1.361 1.729 1.475	.020040 .005010	1.740 .501 1.740 .503	.025040	1.746 1.535	.060080	1.749 .381 1.749 .389	.005010	1.750 .500 1.750 .504	.120140
1.710 .760	.100107	1.730 .632	.005010	1.740 .303	.032060	1.747 .282 1.747 .286	.025040 .005010	1.749 .389 1.749 .502	.156187 .015025	1.750 .504	.005060
1.710 1.093	.015035	1.730 .748	.005010	1.740 .703	.100125	1.747 .280	.100125	1.749 .534	.005010	1.750 .508	.040060
1.710 1.345	.005010	1.730 1.000	.080105	1.740 1.008	.050060	1.747 .333	.090110	1.749 .546	.156187	1.750 .510	.048134
1.711 1.143	.156187	1.730 1.300	.060070	1.740 1.058	.060080	1.747 .502	.032048	1.749 .701	.050070	1.750 .515	.120135
1.711 1.300	.050070	1.730 1.330	.010050	1.740 1.199	.025040	1.747 .515	.005010	1.749 .781	.040060	1.750 .516	.005010
1.711 1.497	.020040	1.730 1.353	.005010	1.740 1.236	.105125	1.747 .531	.015030	1.749 .783	.005010	1.750 .531	.015125
1.712 .905	.025040	1.730 1.390	.040060	1.740 1.244	.005010	1.747 .543	.100125	1.749 .794	.070090	1.750 .532	.100125
1.712 1.617	.005010	1.730 1.478	.010020	1.740 1.260	.010060	1.747 .565	.050075	1.749 .894	.005010	1.750 .534	.105125
1.713 1.129	.050070	1.730 1.498	.040060	1.740 1.261	.006012	1.747 .620	.050075	1.749 .920	.005015	1.750 .535	.105135
1.713 1.500	.050070	1.730 1.541	.015030	1.740 1.313	.062093	1.747 .626	.032060	1.749 .937	.020040	1.750 .543	.040060
1.714 1.408	.050062	1.731 .476	.005010	1.740 1.380	.090110	1.747 .701	.125134	1.749 1.000	.025040	1.750 .551	.060080
1.714 1.409 1.714 1.513	.050070 .025042	1.731 .748 1.731 .828	.015030	1.740 1.530	.005010	1.747 .815	.010020	1.749 1.001	.050070	1.750 .562 1.750 .564	.005187 .010020
1.714 1.513	.040060	1.731 .828 1.731 .854	.090105 .070090	1.740 1.531 1.740 1.535	.015030 .040060	1.747 .885 1.747 .892	.100125	1.749 1.005	.125135	1.750 .566	.105125
1.714 1.613	.005010	1.731 .866	.080100	1.740 1.555	.005010	1.747 .906	.075105 .120140	1.749 1.015 1.749 1.020	.015030	1.750 .590	.090110
1.715 .185	.060080	1.731 .881	.040060	1.740 1.600	.020040	1.747 .908	.010020	1.749 1.020	.105135	1.750 .623	.020075
1.715 .188	.020030	1.731 1.135	.005010	1.741 1.010	.025040	1.747 .918	.070020	1.749 1.031	.010020	1.750 .624	.100125
1.715 .950	.050080	1.731 1.195	.025040	1.741 1.239	.030050	1.747 1.006	.110130	1.749 1.036	.090105	1.750 .625	.010160
1.715 1.033	.060080	1.731 1.255	.040050	1.742 .198	.050075	1.747 1.030	.020040	1.749 1.080	.050060	1.750 .626	.010020
1.715 1.513	.015030	1.731 1.497	.030050	1.742 1.020	.020060	1.747 1.222	.005010	1.749 1.124	.100125	1.750 .627	.005010
1.715 1.551	.005010	1.731 1.585	.010020	1.742 1.459	.010020	1.747 1.253	.005010	1.749 1.125	.010020	1.750 .628	.005032
1.716 .405	.090120	1.732 .186	.010020	1.742 1.512	.060070	1.747 1.255	.005025	1.749 1.140	.030050	1.750 .629	.005090
1.716 .720	.050075	1.732 .473	.005010	1.742 1.555	.050070	1.747 1.309	.050075	1.749 1.155	.080100	1.750 .631	.005020
1.716 .953	.050070	1.732 .545	.005010	1.743 .315	.010032	1.747 1.315	.060070	1.749 1.187	.016025	1.750 .635	.120135
1.716 1.312	.020040	1.732 .630	.005010	1.743 .505	.015020	1.747 1.340	.005010	1.749 1.250	.125135	1.750 .637	.025040
1.717 .410	.075090	1.732 .631	.010020	1.743 .511	.005010	1.747 1.376	.020030	1.749 1.251	.030040	1.750 .641	.156190
1.717 .758	.040060	1.732 .695	.007012	1.743 .532	.100125	1.747 1.394	.042062	1.749 1.255	.040060	1.750 .655	.100125
1.717 1.186	.015030	1.732 .748	.005030	1.743 1.220	.020030	1.747 1.395	.005010	1.749 1.256	.005010	1.750 .656	.010060
1.717 1.619 1.718 .360	.015030	1.732 .750 1.732 .993	.070080	1.743 1.225	.015030	1.747 1.449	.005010	1.749 1.293	.156180	1.750 .657 1.750 .660	.040060
1.718 .630	.030070	1.732 .993	.005010 .040060	1.743 1.339 1.743 1.503	.090105 .020030	1.747 1.451 1.747 1.499	.015025 .015030	1.749 1.300	.100120	1.750 .660 1.750 .686	.050105
1.718 .656	.100125	1.732 1.237	.040060	1.743 1.536	.040060	1.748 .116	.015030	1.749 1.400 1.749 1.494	.010020 .005010	1.750 .687	.005010
1.718 .705	.135156	1.732 1.387	.025040	1.744 1.254	.020040	1.748 .256	.010020	1.749 1.494	.005010	1.750 .688	.100125
1.718 1.130	.060083	1.732 1.420	.020040	1.744 1.322	.010020	1.748 .266	.042060	1.749 1.510	.010020	1.750 .692	.005010
1.718 1.187	.100125	1.732 1.429	.010020	1.744 1.398	.020040	1.748 .267	.030042	1.749 1.568	.025040	1.750 .703	.010020
1.718 1.402	.005010	1.732 1.623	.020040	1.744 1.447	.030050	1.748 .278	.005010			1.750 .733	.015025
1.719 .481	.090110	1.732 1.630	.010020	1.744 1.503	.020040	1.748 .281	.048062			1.750 .749	.050070
1.719 .999	.040060	1.733 .634	.010020	1.744 1.505	.030105	1.748 .315	.062083			1.750 .750	.100156
1.719 1.063	.030050	1.733 .992	.015030	1.744 1.567	.005010	1.748 .395	.010025			1.750 .751	.090110
1.719 1.133	.100125	1.733 1.257	.030050	1.745 .125	.032060	1.748 .495	.020030			1.750 .754	.015030
1.719 1.275 1.719 1.378	.070090 .050070	1.733 1.357 1.733 1.506	.040050 .050075	1.745 .162	.015030	1.748 .562	.100125	17	50	1.750 .755 1.750 .758	.060090 .005010
1.719 1.376	.020030	1.733 1.506	.010020	1.745 .195 1.745 .315	.005012	1.748 .627 1.748 .752	.060080 .005030		JU	1.750 .780	.156187
1.719 1.555	.005010	1.734 .253	.105125	1.745 .315 1.745 .503	.060080 .100125	1.748 .752 1.748 .756	.005050		•	1.750 .812	.042156
1.719 1.592	.030050	1.734 .924	.005010	1.745 .505	.105125	1.748 .759	.020030	1.750 .127	.005010	1.750 .815	.005030
1.720 .217	.040070	1.734 1.257	.100115	1.745 .636	.005010	1.748 .765	.050070	1.750 .150	.040060	1.750 .820	.100125
1.720 .250	.042062	1.734 1.257	.120140	1.745 .640	.020030	1.748 .767	.100125	1.750 .155	.040080	1.750 .825	.090105
1.720 .257	.070080	1.734 1.382	.070090	1.745 .647	.005010	1.748 .770	.010020	1.750 .194	.075100	1.750 .830	.005010
1.720 .265	.052083	1.734 1.399	.005010	1.745 .695	.100125	1.748 .781	.050075	1.750 .195	.030050	1.750 .832	.050070
1.720 .503	.005010	1.734 1.451	.005010	1.745 .885	.050070	1.748 .785	.100125	1.750 .201	.080100	1.750 .876	.030105
1.720 .655	.025040	1.734 1.536	.015030	1.745 1.073	.010020	1.748 .875	.020040	1.750 .204	.105125	1.750 .878	.006016
1.720 .718	.005010	1.735 .113	.030050	1.745 1.101	.015030	1.748 .878	.005010	1.750 .220	.050070	1.750 .885	.005010
1.720 .760	.105125	1.735 .378	.030050	1.745 1.109	.010020	1.748 .906	.050070	1.750 .238	.060090	1.750 .906	.100125
1.720 1.000	.060083	1.735 .896 1.735 1.259	.080105	1.745 1.133	.010020	1.748 1.019	.060083	1.750 .250 1.750 .251	.050075	1.750 .907	.110130
1.720 1.225 1.720 1.400	.008015	1.735 1.259	.125156 .015030	1.745 1.165	.005010 .020040	1.748 1.029	.005010 .010020	1.750 .251	.050075 .025125	1.750 .920 1.750 .937	.030104 .100125
1.720 1.400	.010020	1.735 1.265	.015030	1.745 1.196 1.745 1.370	.020040	1.748 1.060 1.748 1.072	.010020	1.750 .252	.080104	1.750 .937	.100125
1.720 1.404	.050075	1.735 1.399	.075090	1.745 1.375	.025040	1.748 1.072	.005010	1.750 .262	.025042	1.750 .950	.105160
1.721 1.408	.005010	1.735 1.513	.093105	1.745 1.448	.020030	1.748 1.161	.040060	1.750 .270	.120135	1.750 .954	.010020
1.721 1.514	.020030	1.735 1.565	.005010	1.745 1.511	.005010	1.748 1.264	.015030	1.750 .272	.010020	1.750 1.000	.010020
1.722 .417	.005010	1.736 .475	.005010	1.745 1.560	.010020	1.748 1.293	.070090	1.750 .320	.100120	1.750 1.003	.050070
1.722 .752	.045060	1.736 1.149	.030060	1.745 1.561	.015025	1.748 1.299	.005010	1.750 .342	.050080	1.750 1.005	.015187
1.722 1.515	.060080	1.736 1.253	.060080	1.746 .373	.060080	1.748 1.316	.070090	1.750 .343	.100125	1.750 1.009	.050070
1.723 .265	.050083	1.737 .350	.015030	1.746 .443	.005010	1.748 1.320	.040060	1.750 .365	.105125	1.750 1.010	.050070
1.723 .354	.060080	1.737 .401	.005010	1.746 .497	.025040	1.748 1.374	.100125	1.750 .375	.090125	1.750 1.015	.156188
1.723 .686	.110130	1.737 1.501	.040060	1.746 .595	.005010	1.748 1.380	.020040	1.750 .392	.100125	1.750 1.016	.050070
1.723 1.415	.020040	1.737 1.502	.005010	1.746 .781	.100125	1.748 1.499	.015030	1.750 .395	.100125	1.750 1.019	.005020
1.723 1.513	.070090	1.738 .771	.015025	1.746 .906	.100125	1.748 1.501	.030050	1.750 .396	.090120	1.750 1.020	.005125
1.724 .375 1.724 1.195	.040060	1.738 .882 1.738 .991	.090105	1.746 1.001	.040062	1.748 1.511	.062083	1.750 .398 1.750 .401	.005010	1.750 1.025 1.750 1.031	.010020
1.724 1.195	.060060	1.738 .991	.010020 .005010	1.746 1.046 1.746 1.066	.075090 .005010	1.748 1.650	.005010 .025040	1.750 .401	.070090	1.750 1.031	.062083
1.725 1.330	.005010	1.738 1.257	.005010	1.746 1.066	.040060	1.749 .100 1.749 .141	.025040	1.750 .407	.156187	1.750 1.033	.050070
1.726 1.134	.050070	1.738 1.260	.070090	1.746 1.133	.005010	1.749 .141	.105125	1.750 .410	.100125	1.750 1.045	.005010
1.726 1.385	.030050	1.738 1.548	.005015	1.746 1.169	.060080	1.749 .270	.075090	1.750 .436	.150187	1.750 1.060	.030060

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0.0	I.D.	Choose Any	0.0	1.0	Choose Any	0.0	1.0	Choose Any	0.0	10	Choose Any	0.0	LD	Choose Any	0.0	1.0	Choose Any
O.D.	I.D.	Thickness*	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
1.627	.627	.062080	1.640	1.082	.156187	1.650	1.252	.105156	1.660	1.354	.015030	1.681	1.034	.105125	1.694	1.500	.005015
1.627	.693	.105135	1.640	1.373	.010035	1.650	1.253	.020030	1.660	1.375	.090120		1.193	.020040	1.695	.203	.040060
1.627	.816	.025042	1.640	1.399	.015030	1.650	1.262	.005010	1.660	1.389	.090105		1.300	.040060	1.695	.314	.040060
1.627	.876	.015030		1.440	.005010	1.650		.100125	1.660		.110130		1.372	.005020	1.695	.998	.005010
1.627	1.006	.105125		1.440	.015030		1.328	.005010	1.661		.080100		1.400	.005010	1.695	1.010	.100125
1.627		.080104	1.640		.050070	1.650		.050070	1.661		.025042		1.016	.060080	1.695	1.537	.060075
1.627		.005010		1.044	.036060		1.413	.015025	1.661		.105125	1.683	.819	.010020	1.696		.060083
1.627		.080100	1.642	.682	.105135		1.430	.070090	1.661		.005010	1.683	.918	.010020	1.696		.020040
1.627		.005010		1.039	.005010	1.651	.276	.030040	1.662		.040060		1.006	.050075		1.397	.005010
1.627		.005010	1.642	1.330	.050080	1.651	.690	.005010	1.662	1.410	.040125		1.298	.090105	1.696	1.452	.080105
1.627		.005030	1.643	.678	.080104	1.651	.818	.040060	1.663	.340	.005010	1.684		.005010	1.697	.453	.100125
1.627		.005010	1.643	.755	.050080		1.251	.005010		1.291	.020040	1.684		.025040	1.697	.861	.090125
1.627		.010020	1.643	1.329	.050070	1.651		.015025	1.663		.060090	1.684		.005010	1.697	1.308	.105125
1.627		.025040	1.644	.911	.025040		1.413	.020030			.015030		1.525	.015030	1.697		.005010
1.627		.050070	1.644	.914	.030050	1.652	.562	.005020		1.256	.050070			.040050	1.697	1.338	.010020
1.628	.129	.050070	1.644	.990	.040060	1.652	.786	.070090	1.665		.070090	1.685	.340	.025042	1.698	.131	.015030
1.628	.323	.080105	1.644	1.039	.015030	1.653	.473	.005010			.010016	1.685	.425	.050083	1.698	.453	.100125
1.628	.420	.156187		1.310	.070090	1.653	.474	.020030	1.665	1.581	.005010	1.685	.495	.032060	1.698	.502	.015030
1.628	.508	.090120		1.328	.075090	1.653	.475	.005010	1.666	.895	.005008	1.685	.782	.020040	1.698	.626	.010020
1.628	.810	.040060		1.388	.090110	1.653	.492	.090125	1.667		.005010		1.065	.032060	1.698	.715	.090105
1.628	1.137	.005010		1.405	.040060	1.653	.502	.005010	1.668		.042060		1.070	.040050	1.698	.753	.060090
1.628	1.358	.030050		1.458	.020040	1.653	.631	.005010		1.144	.005010		1.190	.010020	1.698	.760	.080100
1.628	1.386	.005010		1.528	.030050	1.653	.633	.020040	1.668	1.264	.005010		1.269	.062080	1.698	1.449	.005010
1.628	1.387	.010040	1.645	.625	.015050	1.653	1.273	.050060	1.669	.987	.005010		1.300	.050060	1.699	.625	.015030
1.629	.240	.015030	1.645	.956	.105125		1.274	.050070	1.670	.635	.005010		1.360	.020030	1.699	.754	.010020
1.629	.284	.015030		1.073	.005010	1.653		.070090	1.670		.100135		1.567	.032050	1.699	.949	.050060
1.629	.530	.100125		1.250	.140160	1.653		.090105	1.670		.020040		1.568	.032030	1.699	1.404	.005010
1.629	.592	.020030	1.645		.060080	1.653		.070090	1.670		.020040	1.686	.317	.020040	1.699	1.503	.015030
1.629	1.125	.015025		1.236	.030050	1.653		.040060	1.670		.025042	1.686	.345	.050070	1.700	.125	.100125
1.629	1.319	.005010	1.646		.015030	1.653	1.486	.030050	1.670		.005010	1.686	.350	.005010	1.700	.204	.100125
1.629	1.331	.025040	1.646		.015030	1.654	.128	.010020	1.670		.030050		1.070	.005012	1.700	.206	.100120
1.629	1.388	.020030		1.435	.070090	1.654	.475	.010020	1.670		.005010		1.190	.015030	1.700	.364	.100125
1.630	.231	.050070		1.460	.015025	1.654	.632	.010020	1.670	1.420	.020040		1.270	.015030	1.700	.500	.005020
1.630	.243	.110135		1.525	.005010	1.654	.639	.090105	1.671	.922	.020040		1.383	.016025	1.700	.502	.005010
1.630	.320	.100125	1.647	.619	.010020	1.654	.691	.005010	1.671	1.152	.030050		1.560	.005010	1.700	.505	.010020
1.630	.422	.140160	1.647	.621	.025040	1.654	.820	.005010	1.671		.075105	1.687	.255	.080104	1.700	.578	.005010
1.630	.828	.005010	1.647	.722	.005010	1.654	.834	.005050	1.672	.874	.105125	1.687	.375	.030050	1.700	.579	.090100
1.630	.890	.025042		1.053	.010020	1.654	.886	.070090			.005010	1.687	.406	.105135	1.700	.585	.135156
1.630	1.007	.083120		1.310	.050070	1.654	1.050	.080100	1.672		.005010	1.687	.484	.060080	1.700	.631	.005020
1.630	1.061	.042062	1.647		.005010	1.654	1.265	.050070	1.673	.714	.005010	1.687	.562	.005020	1.700	.726	.005010
1.630	1.153	.025040	1.648	.408	.062080	1.654		.010020	1.674		.040060	1.687	.634	.030050	1.700	.860	.090105
1.630	1.200	.125156	1.648	.543	.040060	1.654	1.419	.020040	1.675	.250	.005010	1.687	.756	.030050	1.700	.938	.135156
1.630	1.274	.005010	1.648	1.008	.010020	1.654	1.420	.005010	1.675	.771	.060075	1.687	.893	.005010	1.700	.990	.030040
1.630	1.283	.020040	1.648	1.194	.090105	1.655	.203	.050075	1.675	.800	.042075	1.687	1.226	.030050	1.700	1.000	.060083
1.630	1.330	.040060	1.648	1.270	.020030	1.655	.473	.005010	1.675	.855	.005010	1.687		.030040	1.700	1.187	.010020
1.630	1.489	.030040	1.648	1.403	.005010	1.655	.629	.005010	1.675	1.285	.060080	1.687	1.520	.060070	1.700	1.190	.020080
1.630	1.490	.040060	1.648	1.515	.040050	1.655	.633	.020040	1.676	.096	.030050	1.687	1.534	.005010	1.700	1.192	.100125
1.630	1.503	.015030	1.649	.055	.005010	1.655	.651	.080105	1.677	1.141	.030050	1.688	.635	.015030	1.700	1.223	.050075
1.631	1.010	.010020	1.649	.505	.005010	1.655	.771	.020030	1.677	1.198	.005010	1.688	.686	.100125	1.700		.005012
1.631	1.378	.005010	1.649	.562	.010020	1.655	.905	.050070	1.677	1.499	.020030	1.688	1.090	.070090	1.700		.005010
1.631	1.438	.020035	1.649	.621	.030050	1.655	.985	.015030	1.678	.717	.020030	1.688	1.097	.030050	1.700	1.380	.005010
1.631	1.503	.050070	1.649	1.296	.005010	1.655	1.063	.030050	1.678	.756	.105125	1.688	1.257	.015030	1.700	1.385	.040060
1.632	.513	.040060	1.649	1.366	.060080	1.655	1.125	.020030	1.678	.769	.025040	1.688	1.262	.050075	1.700	1.389	.005010
1.632	.565	.005010	1.649	1.449	.050070	1.655	1.179	.005020	1.678	1.342	.080100	1.688	1.432	.030050	1.700	1.400	.040060
1.632		.030050		1.499	.050070	1.655	1.395	.005010	1.679	.897	.156188	1.688	1.507	.040060	1.700	1.451	.005010
1.633	.501	.015030	1.649	1.501	.010020	1.655	1.412	.005010	1.679	.951	.040060	1.689	.517	.075105	1.700	1.504	.030050
1.633	.828	.005010	1.650	.051	.015030	1.655		.030050	1.679	1.050	.005010	1.689	.940	.090125	1.700		.012020
1.634		.030050	1.650	.132	.010020	1.655		.005010	1.679	1.182	.040060	1.689	1.230	.100125	1.700		.010020
1.635	.787	.020030	1.650	.377	.030050	1.656		.120156	1.679	1.365	.015030	1.689	1.376	.020030	1.701		.010020
1.635	.998	.050075	1.650	.411	.015025	1.656		.090105	1.679		.005010	1.690	.125	.020040	1.701		.005010
1.635		.050070	1.650	.424	.100125	1.656		.050070	1.679	1.389	.040060	1.690	.410	.105125	1.701		.015030
1.635		.020040	1.650	.440	.010020	1.656	1.390	.030050	1.680	.250	.010035	1.690	.711	.050070	1.701		.030050
1.635		.050070	1.650	.441	.005010	1.656	1.437	.040060	1.680	.500	.010105	1.690	.890	.080104	1.701		.040060
1.636		.105120	1.650	.449	.010020	1.656	1.581	.005010	1.680	.605	.040060	1.690	1.163	.040050	1.702	.208	.040060
1.636		.040060	1.650	.500	.005010	1.657	.345	.005010	1.680	.712	.040060	1.690	1.187	.020040	1.702	.820	.080100
1.636		.062090	1.650	.503	.005060	1.657	.352	.005010	1.680	.768	.040060	1.690	1.303	.030050	1.702	.825	.156190
1.637		.050062	1.650	.563	.005020	1.657		.005010	1.680	.797	.042062	1.690		.030060	1.702		.010020
1.638	.554	.010020	1.650	.620	.015125	1.657		.090110	1.680	.813	.040060	1.690	1.559	.005010	1.702		.050070
1.638		.030050	1.650	.625	.005020	1.657		.100120	1.680	.856	.040060		.772	.010020	1.703	.114	.005015
1.638		.005050	1.650	.626	.020030	1.657		.025040	1.680	.895	.040060	1.691		.005010	1.703		.050075
1.638		.105125	1.650	.629	.005010	1.658		.010015	1.680	.927	.040060	1.691		.050060	1.703		.005010
1.638		.015030	1.650	.630	.010020	1.658		.005010	1.680	.965	.040060	1.691		.005010	1.704	.114	.005010
1.639	.677	.005010	1.650	.634	.020040	1.659	.754	.025040	1.680		.030050	1.691		.005010	1.704	.169	.010025
1.639	.737	.060080	1.650	.686	.062080	1.659		.050062	1.680		.090120	1.692	.885	.080100	1.705		.005012
1.639	.990	.010020	1.650	.689	.156187	1.660	.375	.050070	1.680		.040060	1.693	.803	.040060	1.705		.015030
1.639		.080100	1.650	.750	.156190	1.660	.634	.010020	1.680		.010025	1.693		.010020	1.706	.439	.040060
1.639		.005010	1.650		.090105	1.660	.873	.070090	1.680		.005010	1.694	.723	.005010	1.706	.586	.070090
1.640	.645	.005010		1.094	.040060	1.660	.964	.010020	1.680		.032060	1.694	.984	.005010	1.706	.776	.070090
1.640	.750	.005010	1.650		.025060	1.660		.005010	1.681	.196	.005010	1.694		.090110	1.707	.780	.005010
1.640	1.000	.005010	1.650	1.250	.005030	1.660	1.250	.015030	1.681	.894	.050070	1.694	1.499	.025040	1.707	1.002	.105135

Choose Any Thickness* From To .015 - .030 .040 - .060 .070 - .080 .005 - .010 .010 - .020 .005 - .010 .010 - .020 .010 - .025 .040 - .060 .005 - .010 .060 - .100 .060 - .080 .040 - .060 .015 - .040 .050 - .075 .040 - .050 .030 - .060 .025 - .035 .060 - .080 .062 - .090 .080 - .105 .042 - .062 .060 - .080 .062 - .090 .062 - .090 .110 - .130 .100 - .125 .005 - .010 .005 - .010 .005 - .010 .050 - .075 .040 - .060 .010 - .020 .005 - .010 .050 - .070 .015 - .030 .105 - .135 .005 - .010 .005 - .010 .105 - .125 .010 - .025 .040 - .090 .040 - .060 .030 - .050 .005 - .010 .010 - .020 .020 - .040 .010 - .020 .005 - .010 .040 - .060 .008 - .015 .040 - .060 .010 - .020 .005 - .010 .100 - .125 .005 - .010 .104 - .125 .100 - .125 .020 - .030 .050 - .070 .100 - .125 .005 - .010 .015 - .030 .105 - .135 .005 - .010 .005 - .010 .005 - .010 .005 - .010 .120 - .135 .010 - .020 .120 - .135 .005 - .010 .050 - .075 .005 - .010

O.D. I.D.	Choose Any Thickness*	O.D. I.D	Choose Any Thickness*	O.D.	I.D.	Choose Any Thickness*	O.D. I.D.	Choose Any Thickness*	O.D. I.D.	Choose Any Thickness*	O.D. I.D.	Choose Any Thickness*	O.D. I.D.	Choose Any Thickness*	O.D. I.D.								
	From To		From To			From To		From To		From To		From To		From To	_								
		1.751 1.405									3 .010125	1.829			1.845 1.201	.020030			1.873 1.671		1.875 1.254	.005010	
1.750 1.120		1.751 1.434		1.765 1.024		1.780 1.612		1.800 1.010				1.830 1.830			1.845 1.250		1.865 .354		1.873 1.734		1.875 1.258	.030050	
1.750 1.122 1.750 1.124	.110130	1.751 1.515 1.751 1.569		1.765 1.044 1.765 1.350		1.780 1.691 1.781 .936	.020030	1.800 1.172 1.800 1.173		1.812 .25 1.812 .32		1.830			1.845 1.312 1.845 1.384	.048075 .015030			1.874 .219 1.874 .252		1.875 1.259	.020040	1.880 1.39
1.750 1.124	.010123			1.765 1.350		1.781 .936		1.800 1.173	.083120			1.83			1.845 1.568	.025035			1.874 .252		1.875 1.260 1.875 1.310	.060090	1.880 1.74
1.750 1.120	.105125			1.765 1.382		1.781 1.137		1.800 1.268	.020030			1.830			1.845 1.569	.005010			1.874 .281		1.875 1.355	.070090	1.880 1.75
1.750 1.135		1.752 .375		1.765 1.569		1.782 .396		1.800 1.200		1.812 .75		1.830			1.845 1.623	.005010			1.874 .282		1.875 1.359	.015030	1.880 1.77
1.750 1.139	.015060			1.766 1.382		1.782 .645		1.800 1.385	.005010			1.831			1.846 .792	.080120			1.874 .375		1.875 1.370	.060083	1.880 1.81
1.750 1.141	.060080			1.767 1.607		1.783 .880		1.800 1.430		1.812 1.06		1.832			1.846 1.312	.020030			1.874 .376		1.875 1.375	.006030	1.881 .786
1.750 1.150	.090120	1.752 .531	.005010	1.768 .793		1.784 1.136		1.800 1.451		1.812 1.12	4 .050075	1.832	.764	.015030	1.846 1.401	.050070			1.874 .381		1.875 1.379		1.881 1.204
1.750 1.170	.030048	1.752 .563	.110130	1.768 1.232	.005010	1.784 1.330	.010020	1.800 1.500	.005020	1.812 1.13	0 .090125	1.832	.765	.050070	1.846 1.441	.125156	1.867 .334		1.874 .398		1.875 1.384	.042062	1.881 1.28
1.750 1.187	.030080	1.752 .640	.010020	1.768 1.380	.030050	1.784 1.616	.060080	1.800 1.548	.005010	1.812 1.15	6 .080104	1.833	1.382	.050070	1.847 .375	.005010	1.867 1.387	.040060	1.874 .409	.100120	1.875 1.386	.030050	1.881 1.424
1.750 1.189	.100125			1.768 1.382		1.785 .881		1.800 1.562	.005010	1.812 1.18		1.833			1.847 1.442	.120135			1.874 .440		1.875 1.394	.090105	1.882 .88
1.750 1.190		1.752 .907		1.769 .406		1.785 1.084		1.800 1.569		1.812 1.30		1.834			1.848 .258	.005010			1.874 .625		1.875 1.453	.040060	1.883 1.035
1.750 1.193	.005010			1.769 .641		1.785 1.264				1.812 1.31		1.834		.005010		.050070			1.874 .628		1.875 1.502	.105125	1.883 1.585
1.750 1.226		1.752 1.000		1.769 .838		1.788 .330		1.801 .505		1.812 1.38		1.834		.005010		.020040			1.874 .631		1.875 1.503	.005032	1.884 1.010
1.750 1.250	.010030			1.769 1.299		1.788 .698				1.812 1.40		1.834		.015030			1.869 .380		1.874 .713		1.875 1.505	.040083	1.884 1.494
1.750 1.252 1.750 1.253		1.752 1.062 1.752 1.064		1.769 1.301 1.769 1.391		1.788 1.124 1.788 1.425				1.812 1.41 1.812 1.43		1.834		.015030	1.849 1.081	.060070 .083100			1.874 .749 1.874 .822		1.875 1.512		1.884 1.577 1.884 1.585
1.750 1.253		1.752 1.064		1.769 1.391		1.788 1.425		1.801 1.610 1.801 1.611				1.835			1.849 1.333	.010020			1.874 .822		1.875 1.550 1.875 1.568	.020050 .060090	1.885 .327
1.750 1.254		1.752 1.250		1.770 .439		1.788 1.587		1.802 .425		1.812 1.44		1.835			1.850 .252	.030050			1.874 .879		1.875 1.585	.010020	1.885 .376
1.750 1.255		1.752 1.450		1.770 .781		1.788 1.605		1.802 .425		1.812 1.44		1.835		.005010		.050050			1.874 .883		1.875 1.585	.010020	1.885 .956
1.750 1.259		1.752 1.433		1.770 .709		1.789 .761		1.803 .712				1.835		.010020		.005020			1.874 .907		1.875 1.681		1.885 .985
1.750 1.260		1.752 1.500		1.770 .817		1.790 .620				1.812 1.51		1.836		.005010		.010020			1.874 .951		1.875 1.688		1.885 1.060
1.750 1.261			.042062			1.790 .820		1.803 .906		1.812 1.52		1.837			1.850 .505	.010020			1.874 1.031		1.875 1.707		1.885 1.136
1.750 1.300	.040060			1.770 1.181		1.790 1.063		1.803 1.362		1.812 1.52		1.837	1.345		1.850 .510	.005010			1.874 1.045				1.885 1.15
1.750 1.316	.010020	1.753 .343	.080104	1.770 1.250		1.790 1.530		1.804 1.270		1.812 1.52		1.838	.126		1.850 .561	.170190			1.874 1.180				1.885 1.380
1.750 1.318	.005008			1.770 1.265		1.790 1.679		1.804 1.366	.005010	1.812 1.56		1.838			1.850 .625	.030040			1.874 1.202				
1.750 1.319	.005010			1.770 1.542		1.791 1.276			.005010			1.838			1.850 .626	.010020			1.874 1.250				1.886 .985
1.750 1.324	.035050			1.770 1.565		1.791 1.280		1.805 .375				1.838			1.850 .751	.080100			1.874 1.257			.062083	1.886 1.188
1.750 1.329	.030050			1.77 1.569		1.791 1.605			.025040	1.813 .75	4 .030040	1.839			1.850 .967	.100120			1.874 1.282			.125156	1.886 1.382
1.750 1.351		1.753 1.268		1.770 1.629		1.792 1.605						1.839			1.850 1.000	.060080			1.874 1.331		1.876 1.007	.015032	
1.750 1.353	.040060			1.771 .257		1.793 .638		1.805 1.375					.249		1.850 1.071	.060080			1.874 1.443		1.876 1.129	.015030	1.886 1.398
1.750 1.375 1.750 1.383		1.753 1.323 1.753 1.385		1.771 .433		1.793 .999		1.805 1.398		1.813 1.14 1.813 1.26		1.840	.509		1.850 1.107 1.850 1.122	.005010			1.874 1.450		1.876 1.156	.105135	1.886 1.446 1.887 .670
1.750 1.383		1.753 1.365		1.771 1.332		1.793 1.499 1.794 .387		1.805 1.565 1.805 1.584	.010020	1.813 1.32		1.840			1.850 1.122	.005020			1.874 1.479 1.874 1.515		1.876 1.257	.105135	1.887 1.186
1.750 1.385		1.753 1.364				1.794 .367		1.805 1.584	.070090			1.840			1.850 1.199	.005007			1.874 1.515		1.876 1.260 1.876 1.265	.005040	1.887 1.300
1.750 1.386		1.754 1.254		1.771 1.376		1.795 .276		1.805 1.591				1.840			1.850 1.391	.010020			1.874 1.595		1.876 1.265	.025040	1.888 .755
1.750 1.389		1.754 1.254		1.772 .473		1.795 .510				1.814 1.00		1.840			1.850 1.438	.100120			1.874 1.625		1.876 1.381	.015040	
1.750 1.394		1.754 1.387				1.795 1.001		1.806 .350		1.814 1.30		1.840			1.850 1.570		1.870 1.196		1.874 1.627		1.876 1.382	.020040	1.889 .760
1.750 1.398	.032050			1.772 1.313		1.795 1.625		1.806 1.344				1.840		.010020		.005010			1.874 1.752		1.876 1.438	.100125	1.890 .380
1.750 1.400	.005050	1.755 .257	.040060	1.772 1.360		1.796 .400		1.806 1.655	.030050	1.815 .41	0 .070110	1.840	1.424	.050075	1.850 1.640	.005010			1.875 .125		1.876 1.508	.020060	1.890 .512
1.750 1.410	.005020	1.755 .281	.080100	1.772 1.361	.005010	1.796 1.688		1.806 1.660	.005010	1.815 .52	3 .010020	1.840	1.425	.065080	1.850 1.685	.015025	1.870 1.418	.005010			1.876 1.592	.090105	1.890 .630
1.750 1.411	.008015	1.755 .322	.050070	1.772 1.470	.015025	1.797 1.687	.020030	1.806 1.690	.030050	1.815 .77	2 .100125	1.840	1.479	.040060	1.851 1.505	.025040	1.870 1.419	.010020	1.875 .190	.030050	1.876 1.645	.020040	1.890 .648
1.750 1.420	.070090	1.755 .906		1.773 .202		1.798 .096			.035050	1.815 .77	5 .125135	1.840	1.519		1.851 1.590	.005012		.025040	1.875 .204		1.876 1.752	.020030	1.890 1.023
1.750 1.435		1.755 1.285		1.773 .471		1.798 .629		1.807 .461	.050075	1.815 1.02		1.840			1.851 1.630	.005025	1.870 1.513		1.875 .250		1.876 1.764	.010020	1.890 1.220
1.750 1.436		1.755 1.536		1.773 .501	.005020			1.807 1.007	.050070			1.840			1.852 .290		1.870 1.713		1.875 .317			.100125	1.890 1.256
1.750 1.438		1.756 .484		1.773 1.023		1.798 1.076		1.807 1.209		1.815 1.52			.377	.110130		.070090			1.875 .320			.015030	1.890 1.378
1.750 1.443						1.798 1.122					1 .010020	1.841				.005010			1.875 .375		1.877 1.008	.015030	
											8 .020030	1.841			1.852 1.165						1.877 1.376		1.890 1.389
1.750 1.471	.025040	1.757 1.437 1.758 .562		1.773 1.500 1.774 .127		1.799 .096 1.799 .180		1.807 1.518 1.808 .690			1 .020030 5 .015030	1.841			1.852 1.378 1.852 1.524	.005010 .070090			1.875 .409 1.875 .437		1.877 1.505 1.877 1.525		1.890 1.490
1.750 1.500		1.758 1.476				1.799 .180		1.808 1.534			4 .025040	1.841			1.852 1.590	.008015			1.875 .450		1.877 1.525		1.890 1.562
1.750 1.502	.020040			1.774 1.162		1.799 .753				1.818 1.40		1.841			1.854 1.658		1.872 .632		1.875 .510		1.877 1.563		1.890 1.614
		1.760 .631		1.774 1.484		1.799 .795		1.809 .463		1.818 1.49		1.842			1.855 1.416	.030050			1.875 .620		1.877 1.637		1.891 1.000
1.750 1.532		1.760 .767		1.775 1.275		1.799 .945		1.809 1.063		1.818 1.50		1.842			1.855 1.500	.125135			1.875 .626		1.878 .621		1.891 1.339
1.750 1.550		1.760 1.140		1.775 1.511		1.799 1.020		1.809 1.121				1.842			1.856 1.263	.105125			1.875 .629		1.878 .655		1.891 1.719
1.750 1.565		1.760 1.270		1.775 1.517		1.799 1.029		1.809 1.437		1.819 .45		1.842			1.857 .586	.020030			1.875 .632				1.892 .989
1.750 1.566		1.760 1.286		1.775 1.520		1.799 1.380		1.810 .100		1.819 1.58		1.842			1.857 .710	.090125			1.875 .718				1.892 1.367
1.750 1.567		1.761 .408		1.776 .685		1.799 1.397		1.810 .167			7 .010020	1.842		.040060		.005012			1.875 .757		1.878 .812	.105125	
1.750 1.580		1.761 .699		1.776 .752		1.800 .147		1.810 .180		1.820 .63		1.842			1.858 1.340	.020030			1.875 .781		1.878 1.053		1.893 .508
		1.762 .408		1.776 1.235		1.800 .154		1.810 .756			3 .005010	1.843		.015030		.025040			1.875 .875		1.878 1.500		1.893 .535
1.751 .325		1.762 .538		1.776 1.262				1.810 .824		1.820 1.45		1.843 1.843		.025035		.050075			1.875 .876		1.878 1.505		1.894 .868
1.751 .451 1.751 .511		1.762 .950		1.776 1.452		1.800 .196					0 .005010	1.843			1.859 .818 1.859 1.435	.005010			1.875 .890		1.878 1.650		1.894 1.180
1.751 .511	.010060	1.762 1.388 1.763 .505		1.776 1.576 1.777 .998		1.800 .308 1.800 .473		1.810 1.059 1.810 1.066		1.821 1.00	5 .005010 6 .050075	1.843			1.859 1.435	.060080			1.875 .891 1.875 .906		1.879 .523 1.879 1.029		1.894 1.535 1.895 .378
1.751 .626		1.763 .505		1.777 1.110		1.800 .473		1.810 1.066			5 .020040	1.843			1.860 .201	.050075			1.875 .906		1.879 1.029		1.895 1.159
1.751 .628		1.763 1.126		1.778 .199				1.810 1.130			0 .040060	1.843		.030050		.105125			1.875 1.061		1.879 1.130		1.895 1.582
1.751 .629		1.764 .453		1.778 1.682		1.800 .504					6 .030050	1.843		.020040		.010020			1.875 1.001		1.879 1.140		1.896 .508
1.751 .720	.156187			1.779 .999		1.800 .505		1.810 1.583				1.844			1.860 1.268	.025050			1.875 1.093		1.879 1.431		
1.751 .890			.105134			1.800 .508		1.811 .275		1.823 1.06		1.844		.010020		.030040			1.875 1.113		1.879 1.463		1.896 .761
1.751 1.002		1.764 .950		1.779 1.380		1.800 .510		1.811 .313		1.823 1.13		1.844	.816	.005010	1.860 1.445	.050075			1.875 1.135		1.879 1.501		1.897 .309
1.751 1.011	.005010	1.764 1.268		1.780 .250		1.800 .631		1.811 .501		1.823 1.20		1.844	1.098	.050075	1.861 1.446	.005010			1.875 1.140		1.879 1.563		1.897 1.414
1.751 1.033	.050075	1.764 1.475		1.780 .509	.020040	1.800 .754		1.811 1.013	.100125	1.823 1.25	0 .035050	1.844		.030050	1.862 1.510	.012025	1.873 1.381		1.875 1.142		1.879 1.605	.025040	1.898 .30
1.751 1.132	.050075			1.780 .720		1.800 .814		1.811 1.144	.020030	1.824 1.08	3 .060080	1.844		.005010		.005010			1.875 1.152		1.879 1.687		1.898 .51
		1.765 .308		1.780 .754		1.800 .880		1.811 1.203		1.825 1.14		1.844			1.863 .819	.005010			1.875 1.156		1.880 .585	.156187	
1.751 1.260	.050070					1.800 .892		1.811 1.314		1.827 1.32		1.845		.040060		.110130			1.875 1.171		1.880 .960	.005010	
1.751 1.265		1.765 .504		1.780 1.250		1.800 .900		1.811 1.379			4 .090110	1.845		.050070		.090110			1.875 1.188		1.880 1.000		1.898 .754
1.751 1.290		1.765 .630				1.800 .906					1 .015025	1.845		.105125		.105125			1.875 1.244		1.880 1.020	.020040	
1.751 1.302	.010 c00.	1./65 .993	.100125	1.780 1.379	.040060	1.800 .968	.050060	1.611 1.540	.090120	1.828 1.42	0 .050060	1.845	1.190	.105125	1.863 1.577	.005010	1.873 1.639	.010010	1.875 1.250	.020040	1.880 1.131	.∪25U4U	1.899 .194

Choose Any Choose Any Choose Any Choose Any Choose Any Choose Any	Choose Any
O.D. I.D. Thickness' O.D. I.D.	O.D. I.D. Thickness, O.D. I.D.
1.899 .340 .156190 1.912 1.801 .020030 1.928 1.585 .005010 1.940 .687 .090105 1.960 1.619 .020040 1.970 1.428 .020040	1.989 1.753 .030050 1.997 .561 .005010 1.999 1.504 .025042 2.000 .786 .005010 2.000 1.755 .080100 2.010 .567 .105125
1.899 .380 .030050 1.913 1.096 .005010 1.928 1.664 .070090 1.940 .880 .065080 1.960 1.642 .005010 1.970 1.500 .050070	1.990 .222 .005010 1.997 .623 .156190 1.999 1.560 .005010 2.000 .795 .005010 2.000 1.780 .005010 2.010 .664 .030050
1.899 .437 .156190 1.913 1.337 .015030 1.929 1.550 .015025 1.940 1.155 .080100 1.960 1.674 .005010 1.970 1.576 .050070	1.990 .245 .005010 1.997 .700 .005010 1.999 1.655 .040060 2.000 .797 .020040 2.000 1.780 .015040 2.010 .792 .120140
1.899 .629 .015030 1.913 1.755 .005010 1.930 .375 .032048 1.940 1.260 .005010 1.960 1.712 .005010 1.970 1.630 .005010	1.990 .281 .125135 1.997 .720 .020035 1.999 1.685 .020030 2.000 .812 .080105 2.000 1.810 .005020 2.010 1.084 .005010
1.899 .630 .005010 1.913 1.779 .005010 1.930 .451 .015025 1.940 1.261 .030070 1.960 1.862 .005010 1.970 1.654 .040060	1.990 .317 .005010 1.997 .766 .010020 1.999 1.692 .030040 2.000 .875 .010020 2.000 1.843 .010025 2.010 1.470 .050070
1.899 1.015 .040060 1.915 .255 .020030 1.930 1.181 .050070 1.940 1.402 .015030 1.961 1.188 .010020 1.970 1.692 .010020	1.990 .318 .007012 1.997 .913 .005010 2.000 .876 .105125 2.000 2.064 .015030 2.010 1.699 .050070
1.900 .253 .050060 1.915 1.259 .100125 1.930 1.478 .010020 1.940 1.410 .040060 1.961 1.300 .020030 1.970 1.814 .015030	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
1.900 .378 .030075 1.915 1.346 .040060 1.930 1.532 .010020 1.940 1.769 .005010 1.961 1.312 .050083 1.971 1.268 .093125	1.990 .651 .105135 1.997 1.061 .050075 2.000 .906 .015060 2.001 .245 .005010 2.012 .886 .005010
1.900 .500 .005010 1.915 1.586 .007015 1.930 1.600 .025042 1.941 1.627 .065080 1.961 1.584 .090125 1.971 1.541 .005030	1.990 .688 .050070 1.997 1.071 .005010 2.000 .977 .025040 2.001 .250 .100125 2.012 1.250 .020040 2.001 .315 .105120 2.013 1.003 .005010
1.900 .502 .005010 1.915 1.675 .010020 1.930 1.650 .005010 1.941 1.629 .075090 1.962 1.735 .008020 1.972 .379 .015030 1.900 .626 .005020 1.916 .966 .050070 1.930 1.824 .005030 1.942 .314 .105125 1.963 .281 .005010 1.972 .505 .015030	1.990 .754 .005010 1.997 1.254 .005010 2.000 .160 .005015 2.000 1.000 .055070 2.001 .315 .105120 2.013 1.003 .005010 1.990 .893 .005010 1.997 1.414 .005010 2.000 .160 .005015 2.000 1.000 .055070 2.001 .345 .125135 2.013 1.003 .015030
1.900 .626 .005020 1.916 .966 .050070 1.930 1.824 .005030 1.942 .314 .105125 1.963 .281 .005010 1.972 .505 .015030 1.900 .630 .005010 1.917 1.258 .125156 1.930 1.880 .010020 1.942 1.157 .080100 1.963 .481 .005010 1.972 .875 .105125	1.990 1.376 .040060 1.997 1.503 .080105 2.000 .165 .050070 2.000 1.005 .005010 2.001 .375 .125125 2.013 1.502 .020040
1.900 .755 .010020 1.918 1.385 .015025 1.931 .181 .015025 1.942 1.746 .015030 1.963 1.565 .025040 1.972 1.130 .015030	1.990 1.379 .093125 1.997 1.584 .005010 2.000 .180 .005010 2.000 1.006 .083105 2.001 .381 .020030 2.013 1.658 .005010
1.900 .855 .005010 1.918 1.410 .062083 1.931 .566 .156190 1.942 1.787 .005010 1.964 .281 .015030 1.972 1.250 .093125	1.990 1.519 .060080 1.997 1.777 .005010 2.000 .194 .036050 2.000 1.014 .035060 2.001 .447 .005010 2.015 1.383 .030040
1.900 .870 .060080 1.918 1.519 .050070 1.931 1.595 .005020 1.943 .764 .105125 1.964 1.576 .015025 1.972 1.579 .030040	1.990 1.779 .015030 1.997 1.849 .005010 2.000 .205 .060125 2.000 1.015 .050075 2.001 .499 .170190 2.016 1.687 .005010
1.900 .881 .090125	1.991 .317 .105130 1.998 .251 .105125 2.000 .210 .105135 2.000 1.020 .015030 2.001 .501 .015030 2.017 1.614 .020040
1.900 1.000 .050070 1.919 1.263 .040060 1.932 1.626 .040060 1.944 .800 .156187 1.964 1.740 .005010 1.974 .408 .015030	1.991 .653 .090120 1.998 .328 .005010 2.000 .221 .030050 2.000 1.020 .110130 2.001 .592 .120135 2.018 1.510 .030050
1.900 1.002 .075105 1.919 1.390 .060080 1.932 1.695 .025040 1.944 1.628 .025040 1.964 1.756 .020030 1.974 .630 .120140	1.991 .687 .030050 1.998 .426 .005010 2.000 .250 .025125 2.000 1.030 .010125 2.001 .750 .005010 2.019 .502 .030050
1.900 1.006 .040060 1.919 1.501 .010020 1.932 1.779 .005010 1.945 .426 .050070 1.964 1.790 .012020 1.974 .880 .120140	1.991 .998 .015050 1.998 .441 .120135 2.000 .253 .005010 2.000 1.031 .050070 2.001 .755 .005010 2.019 .508 .050070
1.900 1.095 .040060 1.919 1.595 .060080 1.933 .750 .130150 1.945 1.063 .105125 1.965 .281 .005010 1.974 1.170 .005010	1.991 1.325 .020040 1.998 .500 .020050 2.000 .253 .050070 2.000 1.060 .015030 2.001 .813 .005010 2.019 1.623 .015030
1.900 1.256	1.992 .419 .005010 1.998 .531 .120135 2.000 .255 .030060 2.000 1.062 .100125 2.001 .814 .060080 2.020 .280 .100125 1.992 .560 .010020 1.998 .562 .040060 2.000 .261 .060080 2.000 1.064 .100125 2.001 .942 .105135 2.020 1.551 .080100
1.900 1.320	1.992 .999 .020030
1.900 1.375 .010020 1.920 1.263 .062083 1.934 1.002 .030050 1.946 1.760 .005010 1.965 1.491 .015030 1.975 1.004 .130 .130 .150	1.992 1.182 .020040 1.998 .662 .005010 2.000 .270 .080100 2.000 1.090 .005010 2.001 1.105 .080104 2.021 .604 .005010
1.900 1.375 .050075 1.920 1.264 .040060 1.934 1.562 .050062 1.948 1.083 .070090 1.965 1.503 .005010 1.975 1.821 .020030	1.992 1.267 .005030 1.998 .690 .050075 2.000 .282 .060080 2.000 1.108 .040060 2.001 1.155 .105125 2.021 1.014 .005010
1.900 1.395 .040060 1.920 1.410 .060090 1.935 .473 .060085 1.548 1.578 .005010 1.965 1.513 .005010 1.975 1.879 .010020	1.992 1.313 .040060 1.998 .755 .135156 2.000 .291 .050075 2.000 1.125 .015062 2.001 1.282 .105125 2.021 1.669 .015030
1.900 1.453 .020040 1.920 1.411 .090105 1.935 .500 .060083 1.948 1.749 .010020 1.965 1.586 .020030 1.976 .759 .030050	1.993 .406 .030040 1.998 .881 .015030 2.000 .298 .005010 2.000 1.131 .030062 2.001 1.312 .050070 2.022 1.184 .010020
1.900 1.500 .006060 1.920 1.471 .080100 1.935 .651 .020040 1.948 1.820 .005020 1.965 1.694 .005010 1.976 1.289 .020060	1.993 .410 .010015 1.998 .882 .020030 2.000 .299 .020040 2.000 1.158 .025042 2.001 1.397 .015025 2.024 .810 .030050
1.900 1.501 .090105 1.920 1.635 .030040 1.935 1.032 .156187 1.949 .459 .020030 1.965 1.860 .007030 1.976 1.385 .015030	1.993 .474 .030050 1.998 1.021 .070090 2.000 .316 .005010 2.000 1.165 .020040 2.001 1.505 .005010 2.025 1.531 .050070
1.900 1.530 .010020 1.920 1.826 .010020 1.935 1.190 .005010 1.949 .820 .005010 1.966 1.006 .005010 1.976 1.673 .030050	1.993 .499 .090110 1.998 1.029 .005010 2.000 .317 .015030 2.000 1.166 .005010 2.001 1.522 .005010 2.025 1.600 .010020
1.900 1.600 .030050 1.921 .438 .090110 1.935 1.309 .105125 1.949 1.062 .030050 1.966 1.206 .005010 1.977 1.775 .005010	1.993 .520 .005010 1.998 1.077 .005010 2.000 .328 .070090 2.000 1.190 .080187 2.001 1.583 .025040 2.026 1.874 .040060
1.900 1.626 .015030 1.921 .566 .015030 1.935 1.500 .090100 1.949 1.119 .080100 1.966 1.438 .060080 1.977 1.798 .010020 1.900 1.628 .030050 1.921 1.500 .010020 1.935 1.555 .060083 1.949 1.526 .005010 1.966 1.722 .020040 1.978 1.550 .015030	1.993 1.017 .005010 1.998 1.093 .025040 2.000 .344 .060075 2.000 1.199 .005010 2.001 1.602 .030050 2.027 1.575 .015030 1.993 1.501 .010020 1.998 1.124 .030070 2.000 .376 .050060 2.000 1.201 .080100 2.002 .101 .005010 2.029 1.222 .005010
1.900 1.628 .030050 1.921 1.500 .010020 1.935 1.555 .060083 1.949 1.526 .005010 1.966 1.722 .020040 1.978 1.550 .015030 1.900 1.650 .025060 1.921 1.671 .062083 1.935 1.656 .010020 1.949 1.555 .015030 1.967 .394 .080100 1.978 1.694 .020030	1.993 1.501
1.900 1.651 .080100 1.922 .317 .015030 1.935 1.661 .032048 1.949 1.620 .030040 1.967 .502 .010020 1.978 1.776 .050070	1.993 1.933 .005010 1.998 1.136 .110135 2.000 .398 .010020 2.000 1.217 .005010 2.002 .300 .030075 2.022 .300 .030075 2.022 .300 .300075 2.022 .300
1.900 1.660 .005010 1.922 .565 .150170 1.935 1.687 .090105 1.949 1.664 .035050 1.967 1.113 .025040 1.979 .395 .160190	1.994 .268 .005010 1.998 1.248 .125156 2.000 .399 .020040 2.000 1.220 .035060 2.002 .510 .005010 2.030 .936 .050070
1.901 .626 .025040 1.922 .972 .080104 1.936 .688 .025040 1.950 .190 .015040 1.967 1.519 .005010 1.979 1.660 .005010	1.994 .412 .005010 1.998 1.409 .025040 2.000 .405 .100135 2.000 1.248 .156187 2.002 .533 .156187 2.030 1.060 .050070
1.901 .726 .105125 1.922 1.079 .080104 1.936 .780 .060080 1.950 .320 .005010 1.967 1.596 .030050 1.979 1.775 .020030	1.994 .885 .110135 1.998 1.417 .030050 2.000 .415 .090105 2.000 1.250 .008040 2.002 .665 .105120 2.030 1.184 .050070
1.901 .760 .120140 1.922 1.176 .080104 1.936 .818 .005060 1.950 .490 .005010 1.967 1.654 .005010 1.980 .267 .125 .135	1.994 1.284 .010020 1.998 1.501 .050060 2.000 .437 .050070 2.000 1.252 .070090 2.002 .855 .005010 2.030 1.310 .050070
1.901 .781 .105125	1.994 1.382 .040060 1.998 1.506 .020030 2.000 .438 .156190 2.000 1.253 .010156 2.002 1.276 .050070 2.030 1.434 .050070
1.901 1.501 .010020 1.922 1.410 .080104 1.936 1.564 .060080 1.950 .810 .005010 1.968 .283 .050070 1.980 1.478 .050070	1.994 1.475 .010020 1.998 1.508 .010020 2.000 .451 .090125 2.000 1.256 .050070 2.002 1.381 .020030 2.030 1.500 .005010
1.902 .631 .005010 1.922 1.574 .010020 1.936 1.579 .015042 1.950 .878 .125135 1.968 .315 .040060 1.980 1.500 .050070 1.990 1.900 1.9	1.994 1.476 .010020
1.902 1.101 .040062 1.923 .390 .015030 1.936 1.586 .090100 1.950 1.321 .005010 1.968 .386 .110135 1.980 1.507 .005010 1.990 1.139 .090125 1.923 .881 .105135 1.936 1.656 .050070 1.950 1.408 .005010 1.968 .505 .005010 1.980 1.546 .005010	1.994 1.489
1.902 1.256 .083104 1.923 1.181 .025040 1.936 1.719 .005010 1.950 1.500 .050070 1.968 .625 .005010 1.980 1.601 .010020	1.994 1.662 .010020 1.998 1.734 .050070 2.000 .505 .005010 2.000 1.265 .060080 2.002 1.560 .105135 2.032 .489 .005010
1.902 1.420 .020040 1.923 1.262 .080104 1.936 1.740 .005010 1.950 1.600 .005050 1.968 .630 .105125 1.980 1.778 .005010	1.994 1.789 .005010 1.998 1.748 .080100 2.000 .506 .020030 2.000 1.280 .040090 2.002 1.630 .050070 2.032 .880 .005010
1.902 1.570 .005010 1.923 1.533 .050070 1.936 1.757 .010020 1.950 1.617 .010020 1.968 .827 .105125 1.980 1.850 .005010	1.994 1.885 .020040 1.998 1.750 .050070 2.000 .507 .100125 2.000 1.281 .040060 2.002 1.733 .080105 2.033 .877 .025040
1.903 .485 .025040 1.923 1.714 .010020 1.937 .651 .105125 1.950 1.820 .025035 1.968 .866 .170190 1.981 .831 .156187	1.994 1.933 .005010 1.998 1.789 .005010 2.000 .509 .156187 2.000 1.282 .005010 2.002 1.758 .005010 2.033 1.525 .010030
1.903 .719 .010125 1.923 1.720 .005010 1.937 1.015 .075090 1.951 .504 .110130 1.968 .984 .005010 1.981 1.519 .040060	1.995 .147 .005010 1.999 .193 .005010 2.000 .516 .090120 2.000 1.285 .025040 2.002 1.812 .070090 2.033 1.562 .020030
1.903 1.031 .050070 1.924 .315 .015030 1.937 1.021 .156187 1.951 1.000 .105135 1.968 .995 .005010 1.981 1.736 .005010	1.995 .395 .005010 1.999 .238 .005015 2.000 .522 .005010 2.000 1.290 .157187 2.002 1.828 .005010 2.033 1.732 .030050
1.903 1.404 .015025	1.995
1.904 1.510 .025040 1.924 .860 .062083 1.937 1.157 .020040 1.951 1.781 .005010 1.968 1.026 .090100 1.982 1.609 .083104 1.904 1.565 .010020 1.924 .973 .062083 1.937 1.250 .005010 1.952 .812 .040060 1.968 1.028 .005010 1.983 .515 .030050	1.995 .453 .060080 1.999 .313 .050070 2.000 .570 .005010 2.000 1.311 .005010 2.003 .752 .075090 2.033 1.790 .020040 1.995 .453 .060080 1.999 .313 .050070 2.000 .570 .005010 2.000 1.321 .080100 2.003 .843 .005010 2.033 1.845 .040060
1.905 1.160 .005010 1.924 1.068 .025040 1.937 1.260 .040062 1.952 1.055 .020040 1.968 1.028 .005010 1.983 .015 .005010	1.995 .634 .005010 1.999 .318 .090110 2.000 .591 .025040 2.000 1.330 .080104 2.003 1.077 .050070 2.033 1.043 .040040
1.905 1.510 .005010 1.924 1.080 .062083 1.937 1.283 .005010 1.952 1.069 .090110 1.968 1.183 .005010 1.983 1.628 .020040	1.995 .750 .105125 1.999 .388 .105135 2.000 .594 .170190 2.000 1.332 .005010 2.003 1.126 .070090 2.035 .423 .030050
1.905 1.590 .010030 1.924 1.177 .062083 1.937 1.284 .015030 1.952 1.592 .030050 1.968 1.253 .030050 1.984 .229 .005010	1.995 .886 .090120 1.999 .406 .160190 2.000 .619 .015030 2.000 1.350 .010020 2.003 1.481 .005015 2.035 .788 .105125
1.905 1.627 .025040 1.924 1.180 .062083 1.937 1.285 .040060 1.953 1.375 .040060 1.968 1.394 .005010 1.984 .395 .005190	1.995 1.000 .030050 1.999 .407 .100125 2.000 .620 .040060 2.000 1.375 .050090 2.003 1.557 .020040 2.035 1.002 .090110
1.905 1.640 .080100 1.924 1.261 .050070 1.937 1.399 .030050 1.953 1.421 .005010 1.968 1.401 .060070 1.984 1.329 .040060	1.995 1.128 .120135 1.999 .452 .100125 2.000 .625 .005010 2.000 1.376 .015030 2.003 1.694 .020030 2.035 1.690 .040060
1.906 .194 .070090	1.995 1.500 .048062 1.999 .484 .070090 2.000 .625 .100125 2.000 1.380 .135156 2.003 1.781 .010020 2.035 1.750 .050075
1.906 .316 .060080 1.924 1.265 .005010 1.937 1.498 .025040 1.954 .421 .050070 1.968 1.530 .020040 1.985 1.206 .070090	1.995 1.636 .015030 1.999 .515 .156187 2.000 .626 .015030 2.000 1.386 .030060 2.004 .756 .040060 2.035 1.834 .025042
1.906 .381 .090120 1.924 1.341 .062083 1.937 1.527 .005010 1.954 1.108 .125156 1.968 1.578 .015125 1.985 1.398 .010030 1.906 .409 .050070 1.924 1.410 .062083 1.937 1.528 .050075 1.954 1.627 .005010 1.968 1.625 .015030 1.985 1.520 .015030	1.995 1.663 .020040 1.999 .562 .100125 2.000 .627 .040060 2.000 1.389 .015080 2.004 .843 .100125 2.035 1.933 .020030 1.995 1.758 .015030 1.999 .667 .030040 2.000 .628 .020040 2.000 1.394 .005010 2.004 1.131 .010020 2.036 1.557 .040062
1.906	1.995 1.798 .015030 1.999 .667 .030040 2.000 .628 .020040 2.000 1.394 .005010 2.004 1.131 .010020 2.036 1.557 .040062 1.995 1.818 .015030 1.999 .687 .156187 2.000 .632 .005020 2.000 1.402 .105125 2.005 .204 .080104 2.037 1.060 .005010
1.906 1.557 .015030 1.925 .564 .010020 1.937 1.665 .050070 1.955 1.004 .140160 1.968 1.731 .005010 1.985 1.693 .005010	1.996 .269 .005010 1.999 .691 .120140 2.000 .636 .005010 2.000 1.450 .005010 2.005 1.260 .025040 2.037 1.588 .005010
1.906 1.590 .015025 1.925 .573 .015030 1.937 1.733 .040060 1.955 1.513 .020042 1.969 .502 .005010 1.985 1.695 .040060	1.996 .381 .005010 1.999 .749 .025040 2.000 .641 .110130 2.000 1.499 .005010 2.005 1.261 .070090 2.037 1.676 .050070
1.907 .365 .060080 1.925 .690 .050070 1.937 1.809 .005010 1.955 1.519 .080104 1.969 .881 .015030 1.985 1.860 .010020	1.996 .391 .105125 1.999 .750 .156187 2.000 .644 .090105 2.000 1.500 .005125 2.005 1.515 .010020 2.038 .989 .080100
1.907 1.157 .120134 1.925 .754 .060080 1.938 .319 .015030 1.955 1.780 .005010 1.969 1.339 .050060 1.986 .540 .005010	1.996 .451 .005010 1.999 .753 .020030 2.000 .657 .100125 2.000 1.502 .010020 2.006 1.280 .105135 2.038 1.875 .015030
1.907 1.485 .070090 1.925 1.253 .005010 1.938 1.313 .020040 1.956 .995 .050090 1.969 1.380 .070090 1.986 1.205 .135156	1.996 .647 .005010 1.999 .781 .110130 2.000 .670 .090125 2.000 1.511 .030125 2.006 1.775 .005010 2.039 .281 .030050
1.908 .877 .010020 1.925 1.317 .020040 1.938 1.314 .050070 1.956 1.020 .050070 1.969 1.440 .010020 1.986 1.546 .005010	1.996 .768 .005010 1.999 .797 .020040 2.000 .685 .080105 2.000 1.513 .015030 2.007 .826 .005010 2.039 1.527 .105135
1.909 .802 .080100 1.925 1.391 .025040 1.938 1.395 .005010 1.956 1.520 .005010 1.969 1.468 .010020 1.987 .671 .100120 1.909 1.250 .020040 1.925 1.510 .010020 1.938 1.468 .030050 1.956 1.564 .010015 1.969 1.469 .030070 1.987 .888 .050070	1.996 .821 .005010 1.999 .813 .135156 2.000 .692 .090120 2.000 1.515 .005060 2.007 1.533 .040060 2.039 1.781 .005010
1.909 1.250 .020040 1.925 1.510 .010020 1.938 1.468 .030050 1.956 1.564 .010015 1.969 1.469 .030070 1.987 .888 .050070 1.998 1.999 1.275 .005010 1.925 1.554 .050075 1.938 1.502 .025040 1.957 1.415 .030050 1.969 1.470 .105125 1.987 1.313 .030040	1.996 1.045 .005010 1.999 .937 .075090 2.000 .700 .020030 2.000 1.536 .005010 2.008 .765 .105125 2.040 .990 .015030 1.996 1.120 .135156 1.999 .977 .015030 2.000 .750 .105125 2.000 1.589 .005010 2.008 1.254 .135156 2.040 1.383 .005010
1.909 1.273 .005010 1.925 1.354 .050073 1.938 1.502 .025040 1.957 1.415 .030050 1.969 1.470 .105125 1.967 1.313 .030040 1.909 1.348 .005010 1.925 1.715 .062083 1.938 1.505 .060080 1.958 .390 .135156 1.969 1.628 .015030 1.988 .880 .050070	1.996 1.404 .005010 1.999 1.000 .030040 2.000 .752 .010020 2.000 1.625 .050060 2.008 1.319 .005010 2.040 1.365 .005010
1.910 1.159 .040060 1.926 1.554 .020040 1.938 1.758 .005010 1.959 1.861 .005010 1.969 1.657 .050070 1.988 .899 .005010	1.996 1.504 .010020 1.999 1.015 .005010 2.000 .753 .005010 2.000 1.626 .105125 2.008 1.319 .005012 2.040 1.620 .070105
1.910 1.437 .100125 1.926 1.684 .032060 1.938 1.809 .005010 1.960 .754 .120134 1.969 1.692 .030050 1.988 1.497 .005010	1.996 1.666 .005010 1.999 1.033 .160190 2.000 .754 .110130 2.000 1.635 .005015 2.008 1.676 .070090 2.040 1.625 .005010
1.910 1.438 .105125 1.926 1.691 .030042 1.939 .126 .030050 1.960 .870 .150170 1.970 .413 .105125 1.988 1.575 .050075	1.996 1.751 .050070 1.999 1.034 .005010 2.000 .758 .005010 2.000 1.649 .005020 2.008 1.801 .010020 2.040 1.787 .050070
1.910 1.610 .010020 1.927 .480 .005010 1.939 1.062 .060070 1.960 1.011 .105120 1.970 .556 .030050 1.988 1.586 .020042	1.996 1.850 .010020 1.999 1.143 .005010 2.000 .761 .090110 2.000 1.654 .005105 2.009 .239 .040060 2.041 1.500 .040060
1.910 1.640 .105125 1.927 .810 .005010 1.939 1.380 .110130 1.960 1.065 .070090 1.970 .594 .010020 1.989 .750 .020030	1.997 .310 .080100 1.999 1.289 .025040 2.000 .779 .005010 2.000 1.670 .025040 2.009 1.508 .015030 2.041 1.773 .020030
1.911 1.631 .005010 1.928 .533 .008020 1.939 1.578 .030050 1.960 1.500 .020040 1.970 .938 .090110 1.989 .786 .105135	1.997 .407 .050070 1.999 1.308 .005020 2.000 .780 .015030 2.000 1.695 .005010 2.009 1.783 .070090 2.042 .331 .040060
1.912 1.758 .030050 1.928 1.265 .025040 1.939 1.664 .020030 1.960 1.584 .010020 1.970 1.427 .005010 1.989 .875 .100125	1.997 .500 .105125 1.999 1.475 .005010 2.000 .781 .005060 2.000 1.749 .010060 2.009 1.804 .030050 2.042 1.312 .050070

(61)

Choose Any Choose Any Choose Any Choose Any Choose Any Choose Any	Choose Any
O.D. I.D. Thickness*	O.D. I.D. Thickness*
2.042 1.630 .040060 2.060 .890 .080104 2.098 1.013 .010020 2.122 1.878 .020040 2.129 .251 .050070 2.154 1.957 .010020	2.179 1.500 .030050 2.206 1.980 .050100 2.242 1.726 .080105 2.250 .325 .075104 2.250 1.844 .040075 2.275 .881 .025040
2.042 1.795 .050075 2.060 1.141 .040060 2.098 1.635 .010020 2.123 .890 .090105 2.129 .533 .105135 2.155 1.097 .050070	2.180 .780 .005010 2.208 1.928 .060070 2.242 1.761 .050070 2.250 .370 .050070 2.250 1.875 .050070 2.275 2.000 .005010
2.042 1.940 .020030 2.060 1.438 .030050 2.098 1.909 .020040 2.123 .906 .090125 2.129 .735 .020040 2.155 1.325 .005010	2.180 .781 .015030 2.209 1.219 .010020 2.242 1.844 .080105 2.250 .378 .050075 2.250 1.900 .040060 2.277 1.184 .060080
2.043 1.825 .015030 2.060 1.450 .025042 2.099 1.200 .010020 2.123 1.008 .050070 2.129 1.282 .050070 2.155 1.957 .015030	2.180 1.133 .070090 2.210 1.015 .050060 2.243 .762 .030050 2.250 .394 .030050 2.250 1.912 .070090 2.277 1.785 .005010
2.043 1.940 .010020 2.060 1.511 .005010 2.099 1.638 .005010 2.123 1.645 .105125 2.129 1.500 .010020 2.156 .345 .030060	2.180 1.200 .005075 2.210 1.215 .090125 2.243 1.009 .060080 2.250 .400 .100125 2.250 1.920 .020040 2.278 1.674 .105135
2.044 1.025 .050070 2.060 1.520 .040060 2.100 .753 .025040 2.123 1.659 .105125 2.129 1.524 .100125 2.156 .877 .110130	2.180 1.662 .080100 2.210 1.625 .040125 2.243 1.551 .010020 2.250 .439 .100125 2.250 1.969 .010015 2.278 1.868 .050070
2.044 1.826 .010020 2.060 1.629 .015030 2.100 .794 .010020 2.123 1.811 .005010 2.130 .293 .050070 2.156 1.312 .050070	2.181 .499 .015030 2.211 .127 .040060 2.244 1.857 .015030 2.250 .478 .030050 2.250 1.980 .005010 2.278 1.919 .040060
2.045 .344 .040060 2.060 1.672 .020040 2.100 1.391 .020030 2.124 .312 .080100 2.130 .516 .040060 2.156 2.060 .015030	2.181 1.507 .025040 2.211 1.933 .010020 2.245 .330 .005010 2.250 .500 .105120 2.250 2.025 .020040 2.278 1.940 .040060
2.045 .722 .005030 2.060 1.805 .005010 2.100 1.406 .050070 2.124 1.127 .015030 2.130 .532 .134156 2.157 .344 .050075	2.182 1.511 .050070 2.213 1.657 .010020 2.245 .633 .005010 2.250 .507 .030050 2.250 2.082 .005010 2.278 1.990 .050070
2.045 .724 .005050 2.061 1.291 .060080 2.100 1.640 .005015 2.124 1.250 .010020 2.130 .549 .040060 2.157 .350 .005010	2.182 2.067 .010020 2.215 .880 .050075 2.245 .886 .105125 2.250 .517 .005110 2.251 .266 .005010 2.279 .313 .030050
2.045 1.256 .050070 2.061 1.734 .020035 2.100 1.656 .105125 2.124 1.580 .040060 2.130 .860 .100125 2.157 .629 .120135	2.182 2.092 .025035 2.215 .913 .005040 2.245 1.005 .060070 2.250 .519 .170190 2.251 .378 .025040 2.279 1.746 .020030
2.045 1.344 .040060 2.062 .372 .005010 2.100 1.675 .005010 2.124 1.815 .070090 2.130 1.030 .015030 2.157 1.253 .005010 2.045 1.703 .005010 2.062 .515 .100125 2.100 1.700 .040060 2.124 1.974 .015030 2.130 1.057 .005010 2.157 1.344 .050075	2.183 1.384 .100125 2.215 .916 .005010 2.245 1.192 .005010 2.250 .531 .050060 2.251 .540 .134156 2.280 1.070 .040060
	2.184 1.788 .030040 2.215 .933 .040060 2.245 1.259 .090105 2.250 .562 .135156 2.251 .579 .090105 2.280 1.150 .025040 2.185 1.781 .030050 2.215 1.153 .060090 2.245 1.319 .025040 2.250 .620 .030050 2.251 .812 .005010 2.280 2.032 .050070
2.045 1.730 .010020 2.062 .625 .005032 2.100 1.825 .005010 2.125 .346 .050075 2.130 1.625 .040060 2.157 1.427 .040050 2.045 1.881 .005010 2.062 .630 .050070 2.100 1.830 .010020 2.125 .380 .100125 2.130 1.762 .005010 2.157 1.670 .015030	2.165 1.761 .030030 2.215 1.153 .060090 2.245 1.319 .025040 2.250 .020 .030030 2.251 .812 .005010 2.260 2.052 .030070 2.186 1.550 .020040 2.215 1.434 .075100 2.245 1.343 .025042 2.250 .626 .015030 2.251 .905 .030050 2.282 1.575 .125135
2.046 1.536 .060080 2.062 .766 .040060 2.100 1.900 .050075 2.125 .500 .080100 2.130 1.869 .025040 2.157 2.006 .010020	2.187 .251 .050070 2.215 1.510 .005010 2.245 1.375 .080105 2.250 .020 .040060 2.251 1.083 .120140 2.282 1.771 .050070
2.046 1.611 .070090 2.062 1.371 .070090 2.100 1.933 .005010 2.125 .507 .005010 2.130 1.871 .010020 2.158 1.060 .075090	2.187 .565 .005010 2.215 1.976 .010020 2.245 1.380 .030050 2.250 .639 .015030 2.251 1.377 .040060 2.283 .334 .060080
2.046 1.730 .020030 2.062 1.381 .015040 2.100 1.971 .010020 2.125 .562 .100125 2.131 1.658 .015030 2.158 1.063 .080120	2.187 .822 .060080 2.215 1.977 .010020 2.245 1.395 .010020 2.250 .640 .156187 2.251 1.501 .030050 2.283 1.261 .080104
2.046 1.871 .040060 2.063 .392 .050070 2.101 .564 .010020 2.125 .565 .010020 2.131 1.878 .080105 2.158 1.469 .005010	2.187 1.756 .005010 2.216 .914 .050060 2.245 1.417 .080125 2.250 .641 .125156 2.251 1.519 .025040 2.283 1.948 .015030
2.047 .551 .060080 2.063 .751 .030050 2.101 1.731 .025040 2.125 .626 .015030 2.131 2.031 .030050 2.158 1.564 .080120	2.188 .320 .050070 2.216 1.575 .025040 2.245 1.738 .110130 2.250 .642 .105125 2.251 1.538 .005010 2.284 2.043 .040060
2.047 .747 .015030 2.063 1.062 .005010 2.102 .792 .030040 2.125 .655 .075100 2.132 .250 .090110 2.158 1.727 .030050	2.188 .446 .050070 2.217 1.632 .040060 2.245 1.921 .020040 2.250 .643 .135156 2.251 1.563 .030040 2.284 2.070 .030040
2.047 .807 .070090 2.063 1.312 .005010 2.103 1.781 .010020 2.125 .695 .090105 2.132 1.190 .060080 2.159 .386 .010020	2.188 .781 .100134 2.218 .127 .042060 2.245 2.007 .010015 2.250 .662 .140160 2.251 2.025 .105135 2.285 .768 .075090
2.047 .828 .025040 2.063 1.454 .040060 2.104 1.250 .060080 2.125 .705 .005010 2.132 1.658 .020040 2.159 1.690 .025040	2.188 1.069 .030050 2.218 .328 .010020 2.246 .378 .080100 2.250 .688 .104125 2.251 2.125 .040060 2.285 2.070 .005010
2.047 .965 .025040 2.063 1.628 .005010 2.104 1.680 .040060 2.125 .761 .060090 2.134 1.410 .015030 2.160 1.127 .020030	2.188 1.126 .050075 2.218 1.437 .040060 2.246 .627 .025040 2.250 .745 .020040 2.252 .377 .025040 2.287 .770 .080104
2.047 .985 .070080 2.065 1.564 .040070 2.106 1.808 .015030 2.125 .813 .110135 2.134 1.729 .060080 2.160 1.400 .040125	2.189 1.690 .025040 2.219 1.408 .020040 2.246 .631 .156179 2.250 .750 .075104 2.252 .758 .040060 2.290 1.125 .105134
2.047 1.102 .060080 2.065 1.570 .050070 2.106 1.814 .050075 2.125 .895 .005010 2.134 1.752 .005012 2.160 1.730 .020040	2.190 1.125 .025040 2.219 1.686 .010020 2.246 1.048 .050070 2.250 .759 .090105 2.252 .781 .090120 2.290 2.160 .020040
2.047 1.274 .005010 2.065 1.722 .015030 2.107 .314 .105125 2.125 .907 .020030 2.134 1.898 .020040 2.162 .668 .020030	2.190 1.455 .020040 2.220 .190 .005010 2.246 1.058 .050070 2.250 .771 .060080 2.252 1.000 .040060 2.291 1.630 .030050
2.047 1.417 .060080 2.065 1.857 .075090 2.108 1.801 .075090 2.125 1.015 .105125 2.135 1.120 .100120 2.162 .756 .025040	2.190 1.517 .015030 2.220 .886 .005010 2.246 1.064 .025040 2.250 .781 .100134 2.252 1.032 .005010 2.293 1.127 .090105
2.047 1.692 .060080 2.066 1.718 .030050 2.109 1.726 .025040 2.125 1.070 .005010 2.135 1.900 .020040 2.162 .857 .020030 2.047 1.773 .015030 2.068 .756 .050070 2.109 1.829 .080100 2.125 1.075 .010020 2.136 1.578 .060080 2.162 1.512 .080105	2.190 1.627 .005010 2.220 1.290 .150164 2.246 1.813 .050075 2.250 .790 .040060 2.252 1.253 .050070 2.295 1.857 .030050 2.190 1.711 .015030 2.220 1.832 .010030 2.247 .538 .010020 2.250 .795 .050070 2.252 1.511 .050075 2.295 1.857 .080090
21.00 10.00 10.00 10.00	
2.047 1.811 .025040 2.070 1.180 .080104 2.110 1.929 .005010 2.125 1.100 .030050 2.137 1.969 .005010 2.162 1.724 .134160 2.048 .296 .005010 2.070 1.530 .020030 2.111 1.436 .010020 2.125 1.123 .060080 2.138 1.897 .005010 2.162 1.760 .032050	2.191 1.254 .015030 2.220 1.906 .050070 2.247 .762 .005010 2.250 .874 .060080 2.252 1.656 .005010 2.295 1.858 .020030 2.191 1.892 .060080 2.221 1.312 .100125 2.247 .905 .010020 2.250 .875 .125156 2.252 1.887 .005010 2.295 2.052 .025040
2.048 .626 .005010 2.070 1.780 .090105 2.112 1.260 .080105 2.125 1.125 .050075 2.138 1.968 .025040 2.163 .252 .030050	2.191 2.005 .015030 2.222 .826 .030050 2.247 1.200 .010020 2.250 .877 .070090 2.252 1.979 .080105 2.296 .187 .025040
2.048 .631 .005010 2.071 1.749 .010020 2.112 1.509 .020040 2.125 1.251 .030055 2.138 1.388 .025040 2.163 .678 .025040 2.163 .678 .005010	2.192 1.636 .040062 2.225 .812 .020040 2.248 .250 .105120 2.250 .880 .005010 2.253 .188 .025040 2.296 .501 .015025
2.048 1.260 .070090 2.072 1.277 .015030 2.112 1.831 .050070 2.125 1.260 .075090 2.139 1.454 .005010 2.163 1.929 .060080	2.192 1.754 .030040 2.225 1.804 .050070 2.248 .620 .015030 2.250 .885 .125135 2.253 .252 .025040 2.296 2.068 .025040
2.048 1.378 .030050 2.074 .628 .005010 2.113 .256 .006016 2.125 1.308 .025050 2.139 1.818 .005010 2.163 2.028 .005010	2.193 .972 .025042 2.226 1.616 .080100 2.248 .656 .156187 2.250 1.004 .080100 2.253 .517 .105125 2.297 1.960 .005010
2.048 1.387 .005010 2.074 1.500 .040060 2.113 .876 .015030 2.125 1.339 .080105 2.139 1.821 .025040 2.164 .987 .050070	2.193 1.934 .030040 2.226 1.650 .020040 2.248 .883 .005010 2.250 1.014 .005010 2.253 .642 .120135 2.298 .402 .105125
2.048 1.393 .070090 2.075 1.969 .030050 2.113 1.497 .070090 2.125 1.376 .015030 2.139 1.896 .030040 2.164 1.801 .025040	2.193 2.006 .010020 2.227 1.451 .050070 2.248 1.033 .105120 2.250 1.022 .090104 2.253 .780 .005010 2.298 1.325 .005010
2.048 1.748 .020040 2.076 1.629 .050070 2.113 1.535 .010020 2.125 1.408 .030050 2.140 1.730 .025040 2.164 1.898 .070090	2.196 1.698 .010020 2.227 1.800 .020070 2.248 1.127 .050075 2.250 1.040 .010090 2.253 1.011 .030050 2.299 1.205 .005010
2.049 1.209 .005010 2.077 1.155 .080104 2.113 1.735 .040060 2.125 1.439 .015030 2.140 2.012 .040060 2.164 1.908 .050070	2.196 1.702 .005010 2.227 1.855 .105135 2.248 1.190 .005010 2.250 1.060 .015030 2.253 1.063 .120156 2.300 .158 .040060
2.049 1.854 .005010 2.077 1.380	2.196 1.982 .005010 2.228 1.685 .105125 2.248 1.249 .015030 2.250 1.067 .005010 2.253 1.145 .120134 2.300 .196 .005010
2.050 .140 .060080 2.077 1.639 .030050 2.113 1.916 .005010 2.125 1.500 .015104 2.142 1.941 .005010 2.165 .323 .030050	2.197 1.650 .040060 2.228 1.857 .060090 2.248 1.250 .090105 2.250 1.180 .105135 2.253 1.751 .105135 2.300 .504 .010020
2.050 .253 .005010 2.077 1.719 .030050 2.114 1.190 .025040 2.125 1.504 .040060 2.142 2.003 .005010 2.165 .502 .010020	2.198 1.047 .040060 2.230 1.600 .010020 2.248 1.290 .105125 2.250 1.255 .040060 2.253 1.752 .050070 2.300 .628 .005010
2.050 .406 .105125 2.078 1.237 .005010 2.114 1.900 .015030 2.125 1.507 .005060 2.143 1.621 .005010 2.165 .670 .105135	2.198 1.126 .040060 2.230 1.800 .030120 2.248 1.315 .005010 2.250 1.256 .005010 2.253 1.973 .050070 2.300 .631 .005010
2.050 .506 .005010 2.078 1.620 .005010 2.115 .986 .080100 2.125 1.510 .020040 2.143 1.730 .020040 2.165 1.379 .020040	2.198 2.047 .005010 2.230 1.937 .072090 2.248 1.507 .030050 2.250 1.257 .025042 2.253 2.011 .020032 2.300 1.314 .105135
2.050 .626 .010020 2.078 1.691 .050060 2.115 1.762 .020030 2.125 1.526 .040060 2.143 1.791 .010020 2.165 1.380 .005010 2.050 .627 .010020 2.079 1.750 .060080 2.116 1.330 .030050 2.125 1.529 .005010 2.144 1.831 .050070 2.165 1.506 .050070	2.199 .250 .005010 2.230 1.939 .005010 2.248 1.508 .005010 2.250 1.263 .060080 2.254 1.511 .020030 2.300 1.654 .050070 2.199 .629 .015030 2.231 1.763 .050060 2.248 1.655 .005090 2.250 1.265 .050135 2.254 1.555 .110130 2.300 1.678 .005010
2.050 .627 .010020 2.079 1.750 .060080 2.116 1.330 .030050 2.125 1.529 .005010 2.144 1.831 .050070 2.165 1.506 .050070 2.050 .050010 2.080 .834 .070090 2.117 1.152 .005010 2.125 1.562 .050070 2.144 1.890 .005010 2.165 1.645 .005010	2.199 .629 .015030 2.231
2.050 .630 .005020 2.080 1.600 .005040 2.117 1.764 .005010 2.125 1.580 .005010 2.144 1.690 .005010 2.165 1.660 .080100	2.199 .840 .005010 2.232 1.764 .010030 2.248 1.753 .005010 2.250 1.278 .100134 2.255 1.242 .030040 2.300 2.000 .040060
2.050 .651 .080100 2.080 1.695 .090105 2.118 1.382 .070090 2.125 1.625 .015030 2.145 1.730 .005010 2.165 1.701 .030050	2.200 .360 .050070 2.233 1.845 .010020 2.248 1.767 .080100 2.250 1.279 .005010 2.255 1.625 .040062 2.301 .625 .005010
2.050 .731 .010020 2.080 1.719 .030040 2.118 1.508 .105125 2.125 1.641 .010040 2.145 1.967 .005010 2.165 1.790 .040050	2.200 628 .010020 2.233 2.033 .015030 2.248 1.834 .005010 2.250 1.286 .010020 2.255 1.645 .005010 2.301 1.480 .050125
2.050 1.425 .030050 2.081 .820 .042060 2.118 1.537 .005010 2.125 1.642 .040060 2.146 1.645 .070090 2.165 1.800 .005010	2.200 .880 .060070 2.234 1.250 .015025 2.248 1.875 .030050 2.250 1.287 .040060 2.256 1.281 .090125 2.302 1.620 .050070
2.050 1.660 .075090 2.081 1.060 .010020 2.118 1.610 .070080 2.125 1.671 .010020 2.146 1.654 .075090 2.165 1.968 .005010	2.200 1.010 .005060 2.235 1.034 .005010 2.248 1.889 .025040 2.250 1.311 .040060 2.256 1.778 .030040 2.303 2.000 .005010
2.050 1.708 .040060 2.082 1.883 .005010 2.118 1.641 .060080 2.125 1.750 .010020 2.146 1.743 .005020 2.166 .458 .090105	2.200 1.378 .105125 2.235 1.499 .050070 2.248 1.912 .050070 2.250 1.335 .025050 2.257 1.938 .005010 2.303 2.194 .005010
2.052 .626 .025040 2.082 1.942 .020030 2.118 1.887 .025040 2.125 1.751 .090105 2.147 1.671 .030050 2.166 1.216 .050070	2.200 1.519 .030050 2.235 1.509 .005030 2.248 1.990 .005010 2.250 1.375 .010020 2.260 .632 .070090 2.304 1.905 .100120
2.054 1.274 .010020 2.083 1.440 .005010 2.119 1.061 .075090 2.125 1.757 .025050 2.148 .626 .015030 2.166 1.594 .060090	2.200 1.599 .048075 2.235 1.640 .005010 2.248 2.000 .010020 2.250 1.380 .015030 2.260 .880 .030040 2.304 2.000 .005010
2.054 1.384 .025040 2.085 1.429 .040060 2.119 1.414 .020040 2.125 1.781 .025040 2.148 .690 .105135 2.167 1.408 .070090	2.200 1.700 .048075 2.235 1.950 .040060 2.248 2.002 .080100 2.250 1.387 .105134 2.260 1.268 .005010 2.305 1.498 .008016
2.054 1.632 .015030 2.085 1.801 .025040 2.119 1.503 .005010 2.125 1.811 .015030 2.148 .878 .105135 2.167 1.718 .005010	2.200 1.800 .105120 2.236 1.442 .005010 2.249 .316 .050070 2.250 1.425 .030050 2.260 1.320 .010030 2.305 1.681 .050075 2.200 1.830 .040060 2.236 1.562 .070090 2.249 .438 .156187 2.250 1.438 .030050 2.260 1.890 .015030 2.306 1.899 .048062
2.055 1.570 .005010 2.086 .787 .020035 2.119 1.512 .005010 2.125 1.852 .015030 2.148 1.003 .010020 2.167 1.772 .070090 2.056 .528 .048062 2.086 1.536 .030050 2.119 1.587 .050070 2.125 1.876 .050070 2.148 1.764 .030040 2.169 .720 .020030	2.200 1.830 .040060 2.236 1.562 .070090 2.249 .438 .156187 2.250 1.438 .030050 2.260 1.890 .015030 2.306 1.899 .048062 2.200 1.884 .030050 2.238 .640 .130150 2.249 .439 .104120 2.250 1.442 .050075 2.265 1.635 .005010 2.307 1.199 .030050
2.056 .528 .048062 2.086 1.536 .030050 2.119 1.587 .050070 2.125 1.876 .050070 2.148 1.764 .030040 2.169 .720 .020030 2.057 .390 .040060 2.086 1.674 .005010 2.120 .628 .050075 2.125 1.891 .005010 2.148 1.778 .050070 2.170 .536 .005010	2.200 1.884 .030050 2.238 .040 .130150 2.249 .439 .104120 2.250 1.442 .050075 2.265 1.635 .005010 2.307 1.199 .030050 2.200 1.885 .060080 2.238 1.427 .025040 2.249 .540 .015030 2.250 1.500 .060156 2.265 1.880 .010020 2.307 1.893 .110130
2.058 .482 .048062 2.089 1.508 .050070 2.120 .810 .015030 2.125 1.891 .005010 2.148 1.778 .050070 2.170 .556 .005010 2.058 .482 .048062 2.089 1.508 .050070 2.120 .810 .015030 2.125 1.978 .005020 2.148 1.988 .060075 2.170 .597 .005010	2.200 1.365 .000060 2.236 1.427 .025040 2.249 .540 .015050 2.250 1.500 .000150 2.265 1.660 .010020 2.307 1.695 .110150 2.200 1.920 .020030 2.239 .875 .100125 2.249 .542 .150170 2.250 1.510 .005010 2.266 .354 .060080 2.308 2.208 .005015
2.058 .519 .156190 2.090 .815 .070090 2.120 .875 .040062 2.126 .439 .010030 2.150 .505 .010020 2.170 1.520 .015030	2.201 .505 .005020 2.239 1.020 .156188 2.249 .752 .005010 2.250 1.530 .042060 2.267 1.932 .025040 2.309 1.061 .015030
2.058 .630 .105 - 135 2.090 .941 .110 - 135 2.120 .927 .156 - 187 2.126 .631 .005010 2.150 .631 .010020 2.170 1.556 .005010	2.201 .755 .005010 2.239 1.260 .050060 2.249 .756 .005010 2.250 1.563 .050104 2.268 .316 .015030 2.310 .661 .015030
2.058 1.010 .010020 2.092 1.801 .010020 2.120 1.014 .015030 2.126 .755 .050105 2.150 .813 .100125 2.171 .662 .005010	2.201 1.520 .040060 2.239 1.773 .050070 2.249 .800 .080100 2.250 1.598 .030050 2.269 .916 .005010 2.310 .890 .030050
2.058 1.196 .050070 2.093 .223 .100125 2.120 1.187 .015025 2.126 1.390 .140160 2.150 1.250 .100125 2.171 1.734 .050070	2.201 2.010 .010020 2.240 .782 .156188 2.249 1.217 .005010 2.250 1.615 .015030 2.269 1.260 .050070 2.310 1.136 .080105
2.058 1.515 .020040 2.093 1.001 .060080 2.120 1.265 .040060 2.126 1.950 .040060 2.150 1.379 .020040 2.171 1.900 .010020	2.201 2.039 .005010 2.240 1.115 .020030 2.249 1.640 .005020 2.250 1.620 .040060 2.270 1.813 .020030 2.310 1.636 .005010
2.058 1.671 .050060 2.093 1.656 .005010 2.120 1.273 .030050 2.127 .385 .005010 2.150 1.778 .015050 2.171 1.969 .005010	2.202 .752 .015030 2.240 1.200 .016032 2.249 1.711 .040060 2.250 1.628 .110130 2.270 1.885 .030050 2.310 1.693 .005010
2.059 .402 .030060 2.095 .473 .080100 2.120 1.305 .030050 2.127 .406 .100120 2.150 1.900 .005010 2.172 .476 .005010	2.202 1.887 .005010 2.240 1.384 .080105 2.250 1.630 .005020 2.270 1.890 .036060 2.310 1.873 .070090
2.059 1.671 .030060 2.095 .636 .005010 2.120 1.490 .090105 2.127 .754 .040060 2.151 .629 .005010 2.172 1.760 .020030	2.203 .255 .100125 2.240 1.440 .105135 2.250 1.631 .005020 2.270 1.967 .070090 2.310 1.997 .010025
2.059 1.750 .050075 2.095 .688 .105135 2.120 1.506 .050070 2.127 .999 .010020 2.151 .687 .100125 2.173 1.393 .005010	2.203 1.026 .010020 2.240 1.631 .015030 2.311 .312 .030050
2.059 1.759 .005010 2.095 .875 .105135 2.120 1.615 .050075 2.127 1.021 .080105 2.151 .874 .100125 2.173 1.709 .005010	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
2.060 .221 .050075 2.095 1.890 .005010 2.120 1.698 .010020 2.127 1.260 .005010 2.151 1.379 .025040 2.175 1.710 .020040	2.203 1.884 .030050 2.240 2.010 .005040 2.250 1.751 .005020 2.271 1.979 .005010 2.311 .633 .030050
2.060 .254 .005130 2.095 1.901 .005010 2.120 1.785 .050075 2.127 1.625 .005010 2.152 .630 .005010 2.176 .942 .050070	
2.060 .312 .005010 2.095 1.946 .005010 2.120 1.811 .080105 2.127 1.673 .040060 2.153 .724 .100134 2.176 2.068 .010020	2.205 1.122 .050070 2.241 .698 .020040 2.250 1.768 .050075 2.272 .443 .080100 2.311 1.688 .025040
2.060 .390 .005010 2.096 .202 .015020 2.120 1.819 .025040 2.128 1.122 .050075 2.153 .875 .100125 2.177 .500 .120140 2.060 .443 .005010 2.096 1.186 .015030 2.121 1.903 .010020 2.128 1.374 .060080 2.153 1.725 .050070 2.177 1.545 .010020	2.205 1.127
2.060 .443 .005010 2.096 1.186 .015030 2.121 1.903 .010020 2.128 1.374 .060080 2.153 1.725 .050070 2.177 1.545 .010020 2.060 .530 .050075 2.097 1.013 .110125 2.122 1.507 .020030 2.128 1.505 .050070 2.153 2.013 .040060 2.177 2.051 .040060	2.205 1.772
2.060 .530 .050075 2.097 1.013 .110125 2.122 1.507 .020030 2.128 1.505 .050070 2.153 2.013 .040060 2.177 2.051 .040 2.177 2.051 .040 2.177 2.051 .040 2.177 2.051 .040 2.177 2.051 .040 2.177 2.051 .040 2.177 2.051 .040 2.177 2.051 .040 2.177 2.051 .040 2.177 2.051 .040 2.177 2.051 .040 2.177 2.051 .040 2.177 2.051 .040 2.177 2.051 2.0	2.205 1.912 1.070 - 1.090 2.241 1.700 1.015 - 1.030 2.250 1.104 1.010 - 1.020 2.250 1.702 1.090 - 1.05 2.273 1.910 1.010 - 1.020 2.312 1.250 1.050 - 1.070 2.206 1.912 1.070 - 1.090 2.241 1.700 1.015 - 1.030 2.250 1.044 1.010 - 1.020 2.250 1.702 1.090 - 1.05 2.273 1.910 1.010 - 1.020 2.312 1.250 1.050 - 1.070 2.206 1.912 1.070 - 1.090 2.241 1.700 1.015 - 1.030 2.250 1.044 1.010 - 1.020 2.250 1.044 1.010 - 1.030 2.250 1.044 1.010 - 1.030 2.207 1.912 1.070 - 1.090 2.241 1.700 1.015 - 1.030 2.250 1.044 1.010 - 1.030 2.250 1.044 1.010 - 1.030 2.250 1.044 1.010 - 1.030 2.208 1.912 1.070 - 1.090 2.241 1.700 1.015 - 1.030 2.250 1.044 1.010 - 1.030 2.250 1.044 1.010 - 1.030 2.208 1.912 1.090 - 1.090 - 1.090 2.241 1.700 1.010 - 1.020 2.312 1.250 1.030 2.208 1.912 1.090 - 1.090 - 1.090 2.241 1.700 1.030 2.250 1.030 2.208 1.912 1.090 - 1.090 - 1.090 2.241 1.700 1.030 2.250 1.030 2.208 1.912 1.090 - 1.090 - 1.090 2.241 1.700 1.030 2.250 1.030 2.208 1.912 1.090 - 1.090 2.241 1.700 1.030 2.250 1.030 2.208 1.912 1.090 - 1.090 2.241 1.700 1.030 2.250 1.030 2.209 1.912 1.090 - 1.030 2.241 1.700 1.030 2.250 1.030 2.209 1.912 1.090 - 1.030 2.241 1.700 1.030 2.200 1.912 1.090 - 1.030 2.241 1.700 1.030 2.200 1.912 1.090 - 1.090 2.241 1.700 1.030 2.200 1.912 1.090 - 1.090 2.241 1.700 1.030 2.200 1.912 1.090 - 1.090 2.241 1.700 1.030 2.200 1.912 1.090 - 1.090 2.241 1.700 1.030 2.200 1.912 1.090 - 1.090 2.241 1.700 1.030 2.200 1.912 1.090 - 1.090 2.241 1.700 1.030 2.200 1.912 1.090 - 1.090 2.241 1.700 1.030 2.200 1.912 1.090 - 1.090 2.241 1.700 1.030 2.200 1.912 1.090 - 1.090 2.241 1.700 1.030 2.200 1.912 1.090 - 1.090 2.241 1.700 1.030 2.200 1.912 1.090 - 1.090 2.241 1.700 1.030 2.200 1.912 1.090 - 1.090 2.241 1.700 1.030 2.200 1.912 1.090 - 1.090 2.241 1.700 1.030 2.200 1.912 1.090 2.241 1.700 1.030 2.200 1.912 1.090 2.241 1.700 1.030 2.200 1.912 1.090 2.241 1.000 2.200 1
2.060 .800 .025036 2.098 .760 .015030 2.122 1.877 .005010 2.128 1.668 .005010 2.154 1.780 .040060 2.179 1.208 .005010	2.206 1.791 .005010 2.242 1.565 .005010 2.250 .257 .020040 2.250 1.810 .125135 2.274 1.544 .010020 2.312 .563 .050070
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2.312 1.003 .005010	2.350 1.947 .0901	05 2.372 1.512	.050075	2.378 2.005	.040060	2.402 .857	.050070	2.438 1.693	.020040
2.312 1.640 .015030			.040060	2.379 .876	.060080	2.402 1.970	.070090	2.438 2.007	.040060
2.312 1.651 .105134 2.312 1.802 .005010			.015030 .060080	2.379 1.505	.040060	2.402 2.000	.060075	2.438 2.160 2.438 2.214	.015025 .040060
2.312 1.881 .010020			.030050	2.379 1.630 2.379 2.011	.010030 .030040	2.402 2.295 2.403 2.196	.005030 .005010	2.439 1.966	.040060
2.312 2.000 .040060			.015030	2.380 .551	.080105	2.404 1.903	.005010	2.439 1.977	.005015
2.313 1.828 .015030			.080100	2.380 .670	.050075	2.405 .135	.005010	2.439 2.164	.015030
2.313 1.992 .005010			.005010	2.380 .870	.060090	2.405 .467	.050070	2.440 .837	.105135
2.313 2.185 .005010 2.314 .745 .070090			.050070	2.380 1.000	.040060	2.405 .993	.080104	2.440 1.274 2.440 1.968	.050070 .005010
2.314 1.313 .020060			.025040	2.380 1.250 2.380 1.632	.030040	2.405 2.125 2.405 2.217	.010025	2.440 1.978	.020030
2.314 1.758 .025040			.040060	2.380 1.649	.030050	2.407 .658	.100120	2.440 1.982	.015030
2.314 1.991 .005010			.050070	2.380 1.700	.050060	2.408 1.875	.020040	2.440 2.175	.005010
2.315 1.906 .040060 2.315 1.986 .090105			.015025	2.380 1.937	.040060	2.409 1.873	.030050	2.440 2.219 2.440 2.262	.090105
2.315 1.986 .090105 2.315 2.032 .040060			.005010	2.380 1.997 2.380 2.020	.015030	2.410 1.908 2.411 2.187	.007035	2.440 2.202	.040050
2.316 .173 .040060			.040060	2.380 2.090	.010020	2.414 1.624	.005010	2.440 2.330	.010020
2.316 .623 .020040		90 2.374 .346	.105125	2.381 .328	.050070	2.414 1.935	.025040	2.441 1.527	.050070
2.316 1.757 .032050			.040060	2.381 1.437	.025040	2.416 1.519	.040060	2.446 .315	.105125
2.316 2.058 .005010 2.317 1.941 .025040			.050075 .020040	2.381 1.552 2.382 2.014	.020040 .105125	2.416 1.911 2.417 1.465	.030040	2.447 1.500 2.447 2.040	.005010
2.317 1.969 .070080			.020040	2.383 .881	.060080	2.417 1.403	.020040	2.447 2.059	.005010
2.318 .771 .005010			.030187	2.383 2.144	.005010	2.419 2.187	.005010	2.447 2.129	.040060
2.318 1.760 .005010			.050070	2.384 .318	.090110	2.420 1.873	.020030	2.448 1.749	.005010
2.318 1.942 .020040			.040060	2.385 .254	.080100	2.420 2.100	.020030	2.448 1.989	.070090
2.320 1.580 .070090 2.320 1.681 .005010			.020040 .010020	2.385 1.877 2.385 1.935	.010020 .060080	2.420 2.180 2.420 2.186	.020035 .015030	2.448 2.089 2.449 1.970	.005010 .015035
2.321 1.580 .010020			.005050	2.387 1.366	.050075	2.420 2.180	.030050	2.450 .504	.010020
2.321 2.053 .005010	2.361 1.181 .0801	20 2.374 1.990	.100120	2.388 1.433	.060070	2.421 2.125	.020040	2.450 .753	.015030
2.322 .192 .015030			.040062	2.388 1.701	.050070	2.422 1.522	.110130	2.450 1.192	.040060
2.322 1.770 .030040 2.322 2.000 .015030			.030050	2.388 2.048 2.389 1.443	.040060	2.422 2.040	.100125	2.450 2.133 2.450 2.135	.015032 .005030
2.323 .311 .015030			.025040 .156187	2.390 1.120	.050060 .015030	2.422 2.215 2.423 1.422	.005010 .005008	2.450 2.140	.012020
2.323 1.693 .040060			.104134	2.390 1.188	.050070	2.423 1.623	.030050	2.450 2.305	.040050
2.323 1.813 .005010			.160190	2.390 1.328	.010050	2.424 1.125	.110130	2.451 .629	.010020
2.323 1.948 .070090 2.323 2.165 .050070			.015025	2.390 1.850	.020040	2.425 1.520	.040060	2.451 .814 2.452 1.630	.005010 .060080
2.323 2.165 .050070 2.324 1.253 .025040			.080100 .040060	2.391 2.070 2.391 2.078	.005010 .040060	2.425 1.552 2.425 1.899	.020030 .010020	2.453 1.565	.060075
2.324 1.811 .020040			.050075	2.393 1.100	.010050	2.427 1.187	.010020	2.453 1.791	.075095
2.325 1.851 .050070			.100135	2.395 .813	.040060	2.427 1.191	.050070	2.453 1.820	.060080
2.325 2.008 .015060			.006020	2.395 1.435	.050070	2.428 1.510	.050070	2.453 1.828	.134156
2.325 2.062 .005010 2.325 2.148 .005010			.100120 .120140	2.395 1.443 2.395 2.000	.050070 .020030	2.428 2.001 2.428 2.020	.020030 .042060	2.453 2.050 2.454 1.020	.120135 .015030
2.328 .500 .120135			.100125	2.395 2.000	.020030	2.430 1.651	.010020	2.454 1.827	.105125
2.328 1.199 .030050			.050070	2.396 1.085	.010020	2.430 1.938	.010020	2.460 1.726	.050060
2.328 2.006 .005010			.100120	2.396 1.783	.005010	2.430 2.000	.020040	2.462 1.727	.050070
2.330 1.200 .005010 2.331 1.627 .090110			.005010	2.396 2.099	.010060	2.430 2.118	.015025	2.462 1.940 2.467 1.593	.020040 .040060
2.334 2.162 .010020			.025050 .010020	2.396 2.151 2.397 2.024	.030050 .030050	2.430 2.121 2.431 2.090	.005010	2.468 .381	.105135
2.334 2.164 .025040			.100125	2.398 2.170	.005010	2.431 2.091	.020030	2.469 1.270	.010020
2.335 1.968 .050070			.005010	2.399 1.393	.080105	2.432 1.005	.015025	2.469 2.123	.010020
2.335 1.995 .020030 2.338 1.636 .020040			.030040	2.399 1.560	.025040	2.432 1.267	.025040	2.469 2.264 2.470 .502	.005010 .040060
2.338 1.636 .020040 2.339 .430 .060080			.050075 .015030	2.399 1.681 2.399 1.713	.025040 .005010	2.432 1.679 2.432 2.000	.040050 .005015	2.470 .302	.005010
2.339 2.235 .020030			.060080	2.399 1.720	.035050	2.432 2.140	.020030	2.472 .814	.125135
2.340 1.752 .005025	2.368 1.640 .0500	70 2.375 1.906	.042060	2.399 1.772	.005010	2.433 1.866	.010020	2.473 1.220	.070090
2.341 2.200 .005060			.050070	2.399 2.133	.050075	2.433 2.188	.010020	2.473 2.000	.010020
2.342 1.770 .075090 2.342 2.001 .050070			.050090 .010020	2.399 2.165 2.400 .504	.020040 .005010	2.434 1.483 2.434 1.501	.030050 .050075	2.475 .568 2.475 .870	.005010 .125135
2.343 1.773 .005010			.020040	2.400 .504	.010010	2.434 1.501	.030075	2.475 1.351	.070080
2.344 1.033 .020040	2.369 1.875 .0500	70 2.375 2.105	.005010	2.400 .511	.105135	2.434 2.187	.050070	2.475 1.770	.005010
2.345 .718 .090105			.040060	2.400 .753	.010020	2.435 1.255	.125156	2.477 1.968	.030080
2.345 1.370 .060070 2.346 1.750 .005010			.060080	2.400 1.320	.015030	2.435 1.900	.050075	2.478 1.230 2.478 1.598	.075105 .005010
2.346 2.074 .030050			.120140 .030060	2.400 1.734 2.400 1.818	.080105 .005010	2.435 2.255 2.435 2.263	.010015 .015030	2.478 1.598	.080090
2.347 1.437 .050070			.010020	2.400 1.818	.060080	2.436 1.750	.090105	2.478 1.889	.020040
2.347 2.110 .005010	2.370 1.254 .1101	30 2.376 1.443	.040060	2.400 1.850	.010020	2.436 1.877	.005010	2.478 1.980	.060070
2.348 .747 .050070			.030050	2.400 1.933	.005010	2.437 1.257	.050070	2.479 2.100	.015030
2.348 .783 .075090 2.348 1.380 .060080			.040060 .090120	2.400 1.999 2.400 2.001	.045060 .005010	2.437 1.313 2.437 1.425	.040060 .025042	2.480 .750 2.480 2.255	.060075 .005010
2.348 2.000 .042062			.005010	2.400 2.001	.050070	2.437 1.425	.010020	2.481 1.673	.105135
2.348 2.067 .015030	2.370 2.152 .0050	20 2.377 1.512	.050075	2.400 2.062	.020040	2.437 1.875	.020035	2.481 2.185	.005010
2.349 .502 .100120			.005010	2.400 2.200	.015050	2.437 2.000	.005075	2.482 2.142	.025040
2.349 1.494 .025040 2.349 2.005 .060090			.040060 .005010	2.400 2.205	.005010	2.437 2.187	.025040	2.482 2.150 2.483 1.591	.050070 .080090
2.350 .754 .015030			.005010	2.400 2.220 2.401 .761	.050070 .010030	2.437 2.250 2.438 .350	.020040	2.483 2.110	.020030
2.350 1.250 .090105			.090125	2.401 1.209	.015030	2.438 .390	.042060	2.484 1.640	.005010
2.350 1.267 .050070		60 2.378 1.849	.090105	2.401 1.889	.015010	2.438 .660	.110120	2.485 1.055	.135156
2.350 1.396 .005010			.090115	2.401 2.067	.025040	2.438 .691 2.438 .940	.105135 .100125	2.485 1.395	.105125
2.350 1.815 .005010	2.372 1.015 .1001	25 2.378 2.000	.040060	2.402 .760	.015030	2.400 .840	.100123	2.485 1.667	.010020

O.D. I.D.	Choose Any Thickness*										
2.487 1.015	.134187	2.499 1.061	.050070	2.500 1.279	.100125	2.503 1.252	.090100	2.561 .760	.020040	2.612 2.300	.050070
2.487 1.425	.030050	2.499 1.270	.005010	2.500 1.280	.005010	2.503 1.578	.020030	2.561 1.657	.100134	2.613 1.697	.025040
2.487 1.635	.005010	2.499 1.313	.105135	2.500 1.295	.010020	2.503 2.076	.070090	2.561 2.091	.042060	2.615 .560	.100125
2.488 1.998	.010020	2.499 1.379	.060070	2.500 1.300	.070090	2.503 2.139	.030040	2.561 2.177	.010020	2.615 2.136	.010020 .050075
2.489 1.748 2.489 1.776	.050070 .015020	2.499 1.387 2.499 1.498	.060080 .025040	2.500 1.306 2.500 1.311	.005010	2.504 .875 2.504 1.501	.100120	2.562 .407 2.562 1.521	.030050	2.615 2.140 2.615 2.354	.020030
2.489 2.002	.005010	2.499 1.749	.005020	2.500 1.346	.005010	2.504 1.501	.020040	2.562 1.562	.100125	2.615 2.380	.015030
2.490 1.436	.005010	2.499 1.757	.040060	2.500 1.375	.030040	2.505 .145	.025040	2.562 1.811	.020035	2.617 1.549	.050075
2.490 1.853	.005010	2.499 1.889	.010020	2.500 1.392	.040060	2.505 .195	.060080	2.562 2.313	.010020	2.618 1.760	.105125
2.490 1.980	.090110	2.499 1.952	.005010	2.500 1.394	.040060	2.505 .929	.050070	2.563 .756	.020040	2.618 2.007	.015030
2.490 1.996	.105125	2.499 2.040	.010020	2.500 1.500	.105125	2.505 1.413	.120135	2.563 2.003	.020040	2.619 1.754	.015030
2.490 2.060 2.491 1.011	.005010 .120156	2.499 2.061	.015020	2.500 1.510 2.500 1.511	.020050 .050060	2.505 1.416 2.505 1.989	.100134 .005010	2.563 2.006 2.563 2.028	.015030 .005010	2.619 2.124 2.620 .412	.015025 .010020
2.491 1.508	.080125			2.500 1.517	.005010	2.507 .562	.050125	2.564 1.706	.080105	2.620 .553	.005010
2.492 1.069	.005010			2.500 1.523	.050070	2.507 2.310	.015025	2.564 2.435	.005010	2.620 1.124	.005008
2.493 .752	.048062			2.500 1.529	.070090	2.510 .502	.090105	2.565 .412	.005010	2.620 1.255	.040060
2.493 1.255	.080100	2.5		2.500 1.561	.050075	2.511 .698	.105125	2.565 2.146	.015045	2.620 1.322	.005010
2.493 1.400 2.493 1.562	.025035 .080105			2.500 1.606 2.500 1.624	.025042 .040060	2.511 .781 2.511 1.980	.040060 .030060	2.565 2.434 2.566 2.320	.005020 .040060	2.620 2.381 2.622 .252	.010020 .120134
2.493 1.785	.125156			2.500 1.625	.005060	2.515 .145	.015030	2.567 .407	.030050	2.622 .341	.075090
2.493 1.850	.120135	2.500 .100	.015030	2.500 1.635	.090125	2.515 2.218	.080100	2.570 1.827	.070090	2.622 1.067	.015030
2.493 2.000	.040060	2.500 .113	.015035	2.500 1.750	.040060	2.516 1.581	.070090	2.570 1.828	.010020	2.622 1.130	.050075
2.493 2.062	.040060	2.500 .144	.005020	2.500 1.755	.005010	2.516 1.683	.030050	2.571 .710	.080100	2.622 1.637	.030050
2.494 .616 2.494 1.257	.030050	2.500 .149 2.500 .188	.080090 .090105	2.500 1.756 2.500 1.759	.105125 .090105	2.518 1.575	.060080	2.574 2.250	.010020	2.622 1.868 2.622 2.002	.040060 .015030
2.494 1.257	.005010	2.500 .188	.090105	2.500 1.759	.040060	2.518 1.918 2.520 .354	.040060	2.575 .711 2.578 1.025	.040060	2.622 2.002	.015030
2.495 .616	.010020	2.500 .190	.100135	2.500 1.777	.015062	2.520 .368	.000000	2.578 2.076	.005010	2.623 2.025	.075090
2.495 .620	.015060	2.500 .266	.005010	2.500 1.787	.040060	2.520 1.921	.020030	2.579 2.060	.090120	2.623 2.372	.010020
2.495 1.150	.005010	2.500 .312	.125156	2.500 1.796	.075156	2.520 2.091	.005010	2.580 1.381	.120135	2.623 2.376	.005010
2.495 1.257	.060080	2.500 .370	.050070	2.500 1.814	.010031	2.520 2.121	.015030	2.580 2.137	.020040	2.624 .124	.030050
2.495 1.319 2.495 1.400	.105135 .005010	2.500 .375 2.500 .385	.080104 .125156	2.500 1.820 2.500 1.850	.005010 .015030	2.520 2.194	.050070	2.580 2.196	.015025	2.624 .750 2.624 .754	.105125 .040060
2.495 1.651	.030050	2.500 .390	.090120	2.500 1.889	.030050	2.520 2.255 2.522 1.921	.005010 .005010	2.580 2.338 2.582 1.750	.020040 .010020	2.624 1.533	.080100
2.495 2.046	.005010	2.500 .400	.005010	2.500 1.890	.020030	2.523 2.040	.035062	2.583 .880	.040060	2.624 1.571	.110130
2.495 2.060	.050075	2.500 .405	.105135	2.500 1.900	.010025	2.524 .533	.005010	2.585 .536	.110130	2.624 1.781	.030050
2.495 2.120	.090110	2.500 .438	.090110	2.500 1.945	.010060	2.528 2.328	.020030	2.586 2.031	.020040	2.624 1.791	.015030
2.496 1.122	.005010	2.500 .440 2.500 .454	.080100	2.500 1.954	.025040	2.530 1.251	.060070	2.588 .391	.060080	2.624 1.897	.005010
2.496 1.123 2.496 1.665	.010050 .080093	2.500 .454 2.500 .475	.105135 .120140	2.500 1.978 2.500 1.990	.042062 .010031	2.530 1.875 2.530 2.040	.060080 .005010	2.589 2.100 2.590 .345	.040060 .105125	2.624 1.958 2.624 1.996	.090120 .005010
2.496 2.361	.005010	2.500 .500	.090135	2.500 2.001	.005010	2.530 2.192	.005010	2.590 2.253	.050070	2.625 .251	.040050
2.497 .408	.030050	2.500 .501	.015035	2.500 2.002	.036135	2.530 2.260	.020030	2.591 2.373	.020030	2.625 .281	.080104
2.497 .813	.045060	2.500 .520	.105125	2.500 2.011	.040060	2.530 2.316	.005010	2.591 2.376	.015030	2.625 .347	.100125
2.497 1.049 2.497 1.311	.005010 .005010	2.500 .563	.036060	2.500 2.030	.020030	2.531 2.331	.015025	2.594 2.368	.020030	2.625 .362	.005010
2.497 1.311	.040060	2.500 .623 2.500 .624	.040060 .005010	2.500 2.124 2.500 2.125	.020040 .040050	2.533 2.365 2.534 2.087	.005010 .050060	2.595 1.580 2.598 1.625	.020080 .080100	2.625 .376 2.625 .383	.050075 .100125
2.497 1.318	.080105	2.500 .628	.010020	2.500 2.146	.005010	2.539 .301	.040060	2.598 2.392	.005010	2.625 .385	.048062
2.497 1.331	.005010	2.500 .630	.010020	2.500 2.175	.005060	2.540 1.528	.030050	2.599 1.378	.010020	2.625 .469	.105135
2.497 1.498	.040060	2.500 .635	.015030	2.500 2.250	.025040	2.540 1.942	.005010	2.599 1.387	.060080	2.625 .502	.005010
2.497 1.506 2.497 1.518	.020040 .030050	2.500 .641 2.500 .656	.120135 .156187	2.500 2.258	.040080	2.540 2.090	.010020 .030050	2.600 .503	.005020	2.625 .503 2.625 .627	.015030 .090120
2.497 1.680	.005010	2.500 .660	.105135	2.500 2.271 2.500 2.313	.020035	2.540 2.095 2.541 1.939	.025040	2.600 .629 2.600 .752	.010020	2.625 .750	.040070
2.497 2.029	.005010	2.500 .688	.105125	2.500 2.314	.020030	2.542 1.897	.005010	2.600 .753	.008015	2.625 .874	.050075
2.498 .125	.030050	2.500 .751	.060080	2.500 2.343	.005010	2.544 1.393	.005010	2.600 .755	.010020	2.625 1.000	.060070
2.498 .188	.025040	2.500 .752	.010020	2.501 .253	.010020	2.544 2.241	.040060	2.600 .812	.005020	2.625 1.020	.005010
2.498 .283	.025040	2.500 .756	.100125	2.501 .447	.050070	2.548 1.996	.050070	2.600 1.185	.005010	2.625 1.075	.005010
2.498 .300 2.498 .379	.040060 .005008	2.500 .760 2.500 .770	.090105 .070090	2.501 .627 2.501 .688	.010125 .160190	2.548 2.213 2.549 1.904	.005010 .005010	2.600 1.456 2.600 1.542	.020030 .040060	2.625 1.250 2.625 1.257	.030040 .005010
2.498 .385	.020040	2.500 .770	.120135	2.501 1.199	.005010	2.549 1.904	.005010	2.600 1.342	.020030	2.625 1.315	.080100
2.498 .752	.005010	2.500 .845	.105125	2.501 1.249	.005070	2.550 .410	.005010	2.600 2.120	.060080	2.625 1.413	.080104
2.498 .755	.005010	2.500 .871	.015030	2.501 1.250	.060090	2.550 2.022	.005010	2.600 2.176	.018031	2.625 1.516	.100125
2.498 1.062	.090105	2.500 .879	.005010	2.501 1.500	.005010	2.550 2.300	.005010	2.600 2.180	.018030	2.625 1.531	.104134
2.498 1.126 2.498 1.261	.090120 .060080	2.500 .912 2.500 .934	.090110 .070090	2.501 1.530 2.501 1.625	.005010 .080100	2.550 2.442 2.555 1.873	.010020 .005010	2.600 2.300 2.601 1.391	.040060 .070090	2.625 1.640 2.625 1.701	.010060 .025040
2.498 1.359	.015030	2.500 .951	.040060	2.501 1.745	.104134	2.555 1.899	.030048	2.601 2.011	.040060	2.625 1.760	.005010
2.498 1.449	.070090	2.500 .984	.070090	2.501 2.137	.020040	2.556 2.364	.040060	2.602 1.378	.010020	2.625 1.781	.015030
2.498 1.515	.125135	2.500 1.000	.005040	2.501 2.186	.005010	2.557 1.640	.010020	2.602 2.402	.030050	2.625 1.882	.010020
2.498 1.532	.110135	2.500 1.006	.060070	2.502 .314	.005010	2.558 1.385	.050075	2.603 1.250	.020040	2.625 1.926	.050075
2.498 1.568 2.498 1.625	.020050 .010020	2.500 1.014 2.500 1.020	.110130 .005010	2.502 .401 2.502 .637	.015030	2.558 1.930	.030050	2.603 1.932	.050070	2.625 1.998 2.625 1.998	.050070 .105125
2.498 1.687	.010020	2.500 1.020	.036050	2.502 .637 2.502 .771	.005010 .005010	2.558 2.070 2.559 .417	.060070 .135156	2.603 2.180 2.604 1.559	.020031 .050070	2.625 2.002	.005010
2.498 1.881	.020030	2.500 1.038	.005010	2.502 1.134	.040060	2.559 1.639	.010020	2.605 1.685	.050070	2.625 2.010	.020030
2.498 1.910	.060070	2.500 1.062	.120156	2.502 1.500	.020030	2.559 1.897	.105120	2.605 1.810	.050070	2.625 2.367	.040060
2.498 2.002	.005015	2.500 1.130	.010060	2.502 1.501	.080100	2.560 .531	.135187	2.607 2.015	.010030	2.626 .440	.005010
2.498 2.015 2.498 2.032	.050070	2.500 1.150	.093100	2.502 1.796	.070090	2.560 1.136	.050070	2.607 2.063	.050070	2.626 .500	.104134 .105135
2.498 2.032	.015030	2.500 1.165 2.500 1.192	.020040	2.502 1.800 2.502 1.999	.070090	2.560 1.220 2.560 1.250	.040050	2.608 2.063 2.608 2.200	.025040	2.626 .895 2.626 1.516	.105135
2.498 2.198	.005020	2.500 1.162	.010020	2.502 2.273	.005010	2.560 1.422	.030050	2.610 .513	.090135	2.626 1.532	.006015
2.498 2.310	.070080	2.500 1.268	.050070	2.502 2.282	.025040	2.560 1.879	.005010	2.610 2.185	.020040	2.626 1.562	.015025
2.499 .325	.060080	2.500 1.272	.015025	2.503 .509	.010020	2.560 1.898	.090105	2.610 2.262	.005010	2.626 1.577	.030050
2.499 1.026	.005010	2.500 1.275	.105125	2.503 .625	.040060	2.560 2.366	.005010	2.611 2.303	.030050	2.626 1.658	.060090

NO TOOLING CHARGE FOR ANY OF THE SIZES LISTED

O.D.	I.D.	Choose Any Thickness*	O.D.	Choose Any I.D. Thickness*	O.D. I.D.	Choose Any Thickness*						
2.626	1.745	.060090	2.734 2.	323 .020030	2.850 2.650	.020040	3.000 .981	.015030	3.244 1.425	From To .005010	3.500 3.158	.020030
2.626		.025040	2.735 1.		2.854 1.583	.010020	3.000 1.020	.020035	3.248 2.776	.010015	3.500 3.250	.010020
	1.825	.060090	2.735 2.		2.855 2.295	.015025	3.000 1.218	.010015	3.249 1.001	.005010	3.503 2.702	.040060
2.626	1.836	.060080	2.736 2.		2.867 2.476	.015025	3.000 1.748	.048062	3.250 .190	.010020	3.510 2.510	.020040
2.626		.005010	2.739 2. 2.740 1.		2.869 1.765 2.869 1.900	.005010	3.000 1.750 3.000 2.000	.050070	3.250 .628 3.250 .750	.010020 .010015	3.511 3.207 3.515 3.050	.040050
	1.933	.060090	2.740 2.		2.870 1.780	.048062	3.000 2.125	.030050	3.250 1.013	.005010	3.520 2.750	.020030
	2.000	.015050	2.740 2.		2.871 1.316	.020030	3.000 2.255	.010020	3.250 1.338	.005010	3.537 2.186	.020040
2.626	2.074 .394	.060080 .010020	2.742 1. 2.743 2.		2.872 1.700 2.873 1.371	.010020 .005010	3.000 2.444 3.000 2.500	.020040 .048062	3.250 2.375 3.250 2.510	.030050 .020030	3.537 2.280 3.540 2.890	.030050 .015030
2.627	.395	.005010		888 .005010	2.875 .755	.040060	3.000 2.500	.040060	3.250 2.510	.010020	3.543 3.150	.015025
2.627	.500	.135187	2.745 2.		2.875 1.500	.005030	3.000 2.550	.020040	3.250 2.670	.010030	3.545 2.756	.040054
	1.266	.025040	2.747 1.		2.875 2.255	.020040	3.000 2.625	.010030	3.259 2.694	.010060	3.550 .628	.020030
2.627	1.296	.060075 .060080	2.749 1. 2.749 2.		2.875 2.275 2.880 2.020	.030050 .030040	3.009 1.650 3.010 2.530	.048062 .030040	3.263 2.558 3.265 2.465	.030040 .020030	3.550 2.975 3.551 3.015	.020030
2.627		.060075	2.143 2.	.005010	2.880 2.263	.050060	3.015 2.665	.008015	3.290 2.280	.020035	3.557 2.782	.010020
2.627		.060075		750	2.880 2.500	.015030	3.029 2.184	.050070	3.290 3.115	.020035	3.570 .259	.030050
2.627 2.627	1.674	.105125	Z .	750	2.880 2.528	.030050	3.030 2.917	.010020 .030040	3.300 .630	.015030	3.570 1.070 3.570 1.090	.040060 .030040
2.627		.010020			2.883 2.000 2.885 2.177	.008016 .020040	3.031 2.185 3.031 2.310	.050040	3.300 2.270 3.306 2.505	.020035 .040050	3.572 3.134	.030040
2.627		.040060	2.750 .	505 .010020	2.885 2.475	.015030	3.031 2.435	.050060	3.312 2.375	.015025	3.572 3.135	.030050
2.628	.351	.005010		563 .090125	2.890 2.390	.005010	3.032 2.913	.030050	3.313 2.188	.010020	3.575 1.020	.036050
2.628	.634 1.878	.080100 .040060		628 .010030 629 .010020	2.895 2.420 2.900 .630	.020030 .010030	3.037 .820 3.047 1.795	.020035 .040050	3.313 2.753 3.325 3.145	.025040	3.586 3.275 3.590 3.375	.020032 .020040
2.628		.040060		760 .020040	2.900 .780	.080105	3.050 .630	.040030	3.325 3.145	.015025 .080090	3.609 2.250	.020040
2.628	2.253	.050070	2.750 1.	200 .020030	2.900 2.010	.060080	3.060 2.015	.010015	3.340 2.943	.020030	3.609 2.500	.025040
2.629		.050070	2.750 1.		2.900 2.400	.010040	3.060 2.180	.040050	3.341 2.565	.005010	3.620 .750	.040060
2.629 2.630	2.290 .254	.005010 .020040	2.750 1. 2.750 1.		2.911 1.656 2.915 1.965	.040060 .040060	3.062 2.750 3.062 2.798	.020030 .025035	3.347 2.559 3.364 1.404	.030050 .020030	3.625 2.030 3.625 2.562	.062080 .020040
2.630	.411	.015030	2.750 1.		2.915 2.643	.020030	3.063 2.372	.048062	3.367 2.065	.020030	3.625 3.032	.010020
	1.419	.030050	2.750 1.		2.916 1.965	.040060	3.065 1.560	.090105	3.370 2.625	.048062	3.625 3.196	.020030
	1.610	.090105	2.750 1.		2.919 1.257	.050060	3.065 2.800	.040050	3.373 2.870	.005010	3.640 2.072	.020040
2.630 2.630		.020040 .060080	2.750 1. 2.750 2.		2.920 2.030 2.925 1.690	.050060 .040060	3.066 2.550 3.067 .901	.040050 .040050	3.375 2.000 3.375 3.156	.010030 .015025	3.647 2.346 3.661 2.992	.015036 .010030
2.630		.005010	2.750 2.		2.925 2.362	.020040	3.070 1.775	.010020	3.385 3.146	.020030	3.663 2.427	.040060
2.630		.030060	2.750 2.		2.930 2.710	.020030	3.070 1.930	.020040	3.387 1.816	.020030	3.700 2.899	.040060
	2.288 1.868	.005010 .040060	2.750 2. 2.755 .	.010020 .010020	2.931 1.310 2.932 2.596	.040060 .010020	3.070 2.711 3.077 .941	.015025 .040060	3.390 .191 3.393 1.841	.010015 .020040	3.700 2.960 3.733 3.332	.020040 .020035
	1.634	.005010	2.755 1.		2.934 2.597	.060070	3.080 2.190	.040050	3.395 3.020	.020040	3.735 3.300	.010020
	1.868	.015030	2.755 2.		2.935 2.520	.020030	3.085 2.458	.060080	3.400 .400	.048062	3.740 2.953	.040054
2.635 2.636		.080100 .005010	2.755 2. 2.756 1.		2.937 1.375 2.937 1.500	.040060	3.090 1.650 3.093 2.628	.048062 .020040	3.400 .628 3.426 2.939	.020030 .010030	3.750 .656 3.750 .875	.090105 .020035
	1.630	.005010	2.756 1.		2.937 1.500	.025040	3.093 2.760	.020040	3.426 2.939	.020035	3.750 3.015	.020033
	2.410	.030050	2.756 2.		2.940 1.325	.048062	3.094 2.000	.010020	3.430 3.077	.020040	3.750 3.250	.035045
2.645		.010020	2.760 1.		2.944 .572	.010020	3.099 2.757	.040050	3.450 .630	.010030	3.761 1.870	.030050
	2.175 2.174	.030040 .020040	2.780 2. 2.780 2.		2.945 1.994 2.949 1.511	.040060 .040060	3.100 .628 3.100 2.500	.010020 .005060	3.450 1.554 3.450 2.610	.005010 .040050	3.780 3.049 3.781 1.435	.020040 .030050
2.650	.628	.010020	2.780 2.		2.950 .628	.010020	3.100 2.501	.030050	3.450 3.125	.030040	3.800 3.300	.020035
2.650	.754	.020030	2.781 2.		2.950 2.229	.040050	3.100 2.750	.030050	3.452 3.038	.010015	3.800 3.350	.020040
	2.080 1.910	.005010	2.787 2. 2.790 1.		2.950 2.250 2.950 2.260	.015025	3.107 2.122 3.110 2.888	.040060 .010020	3.454 3.055 3.463 2.632	.015030	3.819 3.415 3.823 3.332	.040060
	1.137	.050060	2.795 2.		2.953 .551	.020040	3.110 2.890	.010020	3.466 2.230	.040060	3.850 1.780	.020040
2.657	2.219	.040050	2.796 2.	343 .060078	2.955 1.719	.040050	3.120 2.747	.040060	3.470 .705	.090105	3.850 2.805	.005010
	2.217	.010020		750 .010030	2.958 2.469	.040060	3.120 2.750	.010020	3.475 2.595	.010030	3.858 2.765	.010020
	2.050	.040060	2.798 2. 2.799 .	506 .005010 755 .020030	2.965 2.485 2.967 .786	.020040	3.121 1.641 3.123 2.151	.048062 .015025	3.481 2.415 3.482 2.703	.010020	3.870 1.370 3.874 1.642	.020032 .050062
2.665	2.230	.040060		628 .010020	2.969 2.156	.010025	3.123 2.153	.010020	3.484 2.880	.035048	3.875 1.150	.040060
2.666		.040060	2.800 1.		2.977 2.330	.020040	3.125 .625	.050070	3.490 2.990	.010030	3.880 2.515	.030050
2.673	1.003	.020040 .010020	2.800 2. 2.800 2.		2.980 2.450 2.986 2.230	.010020 .060080	3.125 1.900 3.125 1.902	.048062 .040060	3.491 2.000 3.494 .636	.010015 .090125	3.881 2.396 3.889 2.315	.050060 .020030
	1.440	.040060	2.810 .		2.992 2.323	.010030	3.125 2.000	.020040	3.497 2.670	.060080	3.900 2.700	.050060
2.676	1.003	.040060	2.810 2.		2.994 2.394	.010020	3.130 .315	.105125	3.498 2.798	.030040	3.900 3.360	.020040
	2.362 2.382	.030050	2.810 2.		2.995 .949	.010015	3.138 1.566	.020030			3.904 3.513 3.908 2.352	.030040 .020040
2.677		.060080 .020032	2.812 . 2.815 1.		2.997 2.187 2.998 2.380	.010020 .050060	3.138 1.578 3.140 1.446	.020030 .020030			3.924 .492	.030050
	2.178	.020032	2.816 2.				3.149 .722	.090125	_		3.925 2.224	.020030
2.685		.020040	2.816 2.		3.0		3.149 1.671	.020050	3.5		3.937 1.673	.010020
	.844 2.177	.030050 .010030	2.819 2. 2.825 2.		J.U	UU	3.150 .630 3.150 1.673	.010030 .040060	J. 3	UU	3.937 2.008 3.937 2.362	.015025 .020032
	1.635	.090105	2.828 1.		J.J		3.150 1.073	.015025			3.937 2.302	.005010
2.692	.126	.005010	2.829 1.	192 .010015	3.000 .250	.030050	3.175 2.700	.010020	3.500 .135	.015025	3.940 3.150	.050060
2.694		.080093	2.829 2.		3.000 .253	.005060	3.181 2.230	.040050	3.500 .504	.040060	3.945 3.505	.020040
2.700	.780 2.370	.040060 .020040	2.830 1. 2.830 2.		3.000 .312 3.000 .343	.040060 .010015	3.185 1.023 3.185 2.940	.005010 .020030	3.500 2.000 3.500 2.030	.040060 .040050	3.960 3.612 3.987 1.891	.030050 .010015
2.700	2.540	.005010		267 .020040	3.000 .375	.020040	3.191 1.955	.040060	3.500 2.250	.020035	3.995 1.509	.005010
2.713	2.380	.020035	2.840 2.		3.000 .531	.090105	3.195 1.260	.005010	3.500 2.500	.010020	3.997 1.381	.005010
	1.125 2.010	.020040 .035050	2.843 . 2.843 2.		3.000 .535 3.000 .560	.040060 .050070	3.195 1.355 3.200 2.500	.020035 .010075	3.500 2.500 3.500 2.750	.030050 .005010	3.998 2.998	.010020
	2.010	.020035	2.845 2.		3.000 .750	.090105	3.220 3.024	.020030	3.500 2.750	.010015		
	2.060	.040060	2.850 2.		3.000 .890	.020040	3.240 2.629	.010030	3.500 3.125	.020030		

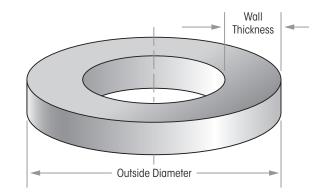
BOKER'S METAL WASHERS ARE FLAT AND TUMBLE DEBURRED

O.D.	I.D.	Choose Any Thickness* From To	O.D. I.	D. Choose Any Thickness*	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
			4.000 3.4	.020030	4.150 3	3.576	.020030	4.368	3.273	.020035	4.500	2.500	.048062	4.950	4.393	.010020
A			4.000 3.4	26 .020030	4.195 2	2.136	.010020	4.370	3.670	.010020	4.550	.243	.040060	4.960	4.260	.020030
4	. ()	00	4.000 3.5	.015025	4.200 3	3.505	.020032	4.373	3.776	.010015	4.570	3.870	.020030	4.975	3.165	.025040
			4.015 3.5	.040060	4.218 1	1.618	.020040	4.375	4.083	.030040	4.623	4.328	.010015	4.994	4.904	.020040
			4.025 3.0	.040060	4.224 1	1.520	.020032	4.376	3.258	.025040	4.666	3.410	.030042			
4.000	.504	.040060	4.026 3.3	.050060	4.224 2	2.020	.020040	4.380	3.375	.006012	4.688	3.560	.005010			
4.000	.690	.040060	4.055 1.2	99 .050060	4.240 2	2.525	.020032	4.398	3.986	.015030	4.688	3.879	.005010			
4.000	1.010	.050070	4.055 3.7	50 .005010	4.250	.780	.010020	4.402	2.778	.010020	4.700	3.865	.010020	-		00
4.000	2.000	.008015	4.065 3.2	.020030	4.250	.801	.020030	4.420	3.890	.020030	4.706	3.140	.020030			UU
4.000	2.031	.040060	4.095 3.8	.010020	4.250 3	3.550	.050060	4.432	3.810	.020035	4.710	3.873	.010020			
4.000	2.281	.008015	4.096 3.2	.010020	4.250 3	3.570	.020030	4.434	3.153	.010015	4.720	3.884	.020035	5.000	.270	.040060
4.000	2.530	.030050	4.120 2.5	.020030	4.250 3	3.660	.015025	4.435	.756	.050070	4.730	4.083	.030050	5.000	1.562	.030050
4.000	2.562	.048062	4.120 3.1	50 .035050	4.254 3	3.018	.040050	4.470	3.470	.020030	4.850	4.450	.005010	5.125	4.393	.015025
4.000	2.577	.020040	4.125 1.7	81 .040050	4.270 3	3.935	.020040	4.471	3.468	.020030	4.860	.390	.090125	5.140	2.860	.006012
4.000	2.780	.040060	4.125 3.4	.020030	4.300 3	3.200	.020040	4.480	4.030	.025035	4.860	4.350	.020036			
4.000	3.000	.008025	4.125 3.7	50 .020040	4.308 2	2.746	.020040	4.490	4.223	.030050	4.860	4.600	.015030			diameters
4.000	3.360	.010030	4.127 3.2	.048062	4.320 2	2.385	.020040	4.499	2.058	.010020	4.875	3.018	.020030			act BOKER'S
4.000	3.362	.010020	4.130 .6	.020030	4.358	.485	.048062	4.500	.504	.040060	4.935	4.763	.015025	ai	(800) 9:	27-4377

NEW TOOLS CONTINUALLY ADDED! For the most up-to-date list of washer sizes, please visit bokers.com

Did You Know?Washer Wall Thickness

Acceptable limits for minimal wall thickness on flat washers can be determined by reviewing the table below. There can be exceptions but you should always check with a Boker's Sales Associate for more information.



WALL THICKNESS TABLE

Stainless steel annealed blue steel*

Pre-tempered high carbon steel*

Inches	Millimeters	Inches	Millimeters
.1875 – .375	4.76 - 9.5	.0625	1.6
.375 – 1	9.5 - 25	.09375	2.4
1 - 2	25 - 51	.125	3.2
2 - 3	51 - 76	.1875	4.76
3 – 5	76 – 127	.25	6.35
Fo	or:	Minimu	ım Wall:
Low carbon steel 1050 high carbo Copper alloys—c Aluminum alloys	n steel—annealed all tempers	Two times mat but not less th	erial thickness an above chart

*Note: Contact your Boker's Sales Associate for exceptions. Special tooling or setup procedures sometimes permit a narrower wall thickness. There is a limit of up to .020" maximum thickness of blue steel and pre-tempered high carbon steel.

Did You Know? *Edge Conditions*

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

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″

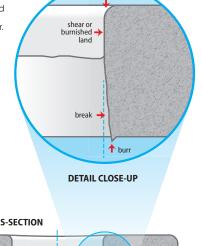
Boker's maximum burr on metallic washers and stampings

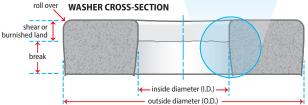
Feature Size: This is to be measured only in cut portion of the hole and cut portion of the outside diameter.

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.

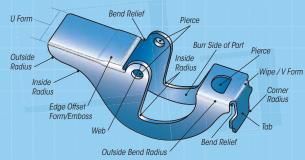




*With BOKER'S precision washers, you can choose the exact thickness you want from the tool range listed.

Three times material thickness

Designer's Guide To Precision Metal Stampings Outside Radius Inside Radius Edge Offse Form/Embe



INTRODUCTION

Boker's has been a metal stamping leader for over 100 years. The following is excerpted from a longer white paper authored by Boker's regarding short-run stamped components and considerations for design engineers regarding these crucial pieces.

The basics of metal stampings.

Precision metal stampings are produced by converting flat metal sheet or coil into engineered component parts for manufacturers. Parts can be flat and simple or complex profiles. Stampings are produced using a variety of punch presses that brings to bear ten to hundreds-of-tons of stamping pressure onto the sheet or coil. In their most basic operation, punch presses use a corresponding die and punch tool for flat blanking—a flat metal cutout of the exact periphery shape and size of the part. Additional metal forming stages are often employed to produce complex parts and profiles including piercing, and metal forming operations such as bending, drawing, flanging, embossing, rolling, and others.



(varies with shear strenath of material)





Relative Cost Comparison Relation of Tolerances to Cost Number of Pieces Relation of Tolerances to Cost Relation of Tolerances to Cost | Tolerances | Tolera

What are the advantages of short-run custom stampings?

Compared to permanent production tooling, short-run stamping offers high quality and durability plus considerable manufacturing advantages—primarily in cost and time. Significantly lower initial tooling costs versus permanent tooling offers savings that gives manufacturers greater design and component inventory flexibility. Small quantity needs, customization, pilot runs, testing, frequently-changing designs, functional prototypes and limited production runs are all opportunities for short-run stampings that would be less feasible with expensive permanent tooling.

STAMPING OPERATIONS

Flat Blanking

Flat blanking is the process of stamping out the perimeter of a product from sheet or coil material to produce more complex metal blanks. Blanking can also be performed with flat non-metallic sheet or coil material.

Metal Piercing

Piercing metal is a shearing process used to produce holes, slots and/or notches with tight tolerances within a component part or raw material. The punched side of pierced metal produces a clean cut with high output rates often making it a more productive method than drilling, machining, or using a laser. Boker's utilizes a CAD drawing system, over 70 different punch presses, digital servo feeders and compound as well as progressive dies to transform raw material into your most complex components.

Metal Forming

Metal forming is the process of converting a flat piece of metal into a three-dimensional part. Metal forming can be done in a variety of ways including bending, drawing, embossing, rolling etc

Selecting the Optimal Washer



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 its surrounding surface.

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.**



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.

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 parts as well.

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 twelve percent of the material thickness depending on the material used and its thickness. Rely on Boker's experienced Sales Associates to determine the proper tool to manufacture the size part you specify.



Estimated Non-Metallic I.D. Shrinkage Factor

MATERIAL	F	ACTO	OR %
Polycarbonate		10-1	2
Nylon		10	
Polyethylene		10	
Acetal		10	
PVC		10	
A.B.S.		10	
MD Nylon		10	

MATERIAL	FACTOR %
Polypropylene	5-10
PTFE	5
Polyester	5
Linen Phenolic	5
Vulcanized Fiber	0-5
FR-4	0-5
G-10	0-5

BOKER'S

Glossary of Terms

and/or numeric information used for identification of packaged parts.

Barrel Tumbling - Process in which parts to be deburred are put together with abrasive material into a barrel and rotated for prolonged periods for the purpose of burn

Bend Radius - Inside radius

Bend Relief - Clearance notch at an end of flange to allow bending without distorting or tearing adjacent material.

Bending - Generally applied to forming. Creation of a formed feature by angular displacement of a sheet metal workpiece. See also "Drawing" and "Forming."

Blank - (1) Sheet metal stock from which a product is to be made. (2) Workpiece resulting from blanking operation.

Blanking - Die cutting of the outside shape of a part

Bow Distortion - Out of flatness condition in sheet material commonly known as "Oil Canning" in which, with the edges of the sheet restrained, the center of the sheet can be popped back and forth but cannot be flattened without specialized equipment.

Breakout - Fractured portion of the cross section of a cut edge of stock. A condition naturally occurring during shearing blanking, punching and other cutting operations

Burn Mark - Heat discoloration created in the contact area of a welding electrode.

Burr - Raised, sharp edge inherent in cutting operations such as shearing, blanking, punching and drilling.

Burr Direction - Side of the stock on which burrs appear

Burr-Free - Edge without sharp protrusions.

Burr Height - Height to which burr is raised beyond the surface of the material.

Burr Rollover - Condition of burr displacement resulting from mechanical deburring operation

Chain Dimensioning - Drafting practice which dimensions repetitive features from each other rather than a common datum

Clamp Marks - Slight indentations at the edge of one side of stock caused by pressure from turret press holding devices.

Coining - Compressive metal flowing action. **Compound Die** – Tool used to pierce, form

and blank a part at the same time, with one stroke of the press.

Concentricity – Dimensional relationship of 2 or more items sharing a common center line.

Corner - Three surfaces meeting at one point.

Corner Radius - Outside radius.

Counterboring - Machining or coining operation to generate a cylindrical flatbottomed hole. Countersinking - Machining or coining

operation to generate a conical angle or a hole.

Cumulative Tolerance - Progressive accumulation of tolerances resulting from multiple operations or assembly of multiple

Datums - Theoretically exact planes, lines or points from which other features are located on design drawings.

Deburr - To remove the sharp, knife-like edge from parts.

as "hard tooling"— tooling made to produce a specific part.

Die - Tool with a void or cavity which is precisely fitted to a "Punch" used to shear or form sheet metal parts

Die Clearance - Amount of space between

Die Marks - Scratches, scrub marks. indentations, galling or burnishing of sheet metal workpieces by tooling.

Drawing - (1) Engineering document depicting a part or assembly. (2) In metalforming, the stretching or compressing of a sheet metal part into a die by a punch to create a 3-dimensional part. See also

Ductility - Ability of a material to be bent or otherwise formed without fracture

Edge Bulge - Condition resulting from any forming, piercing, hardware insertion or spot welding operation too close to an edge.

Edge-to-Feature - A dimension between the edge of the part and a feature.

Feature-to-Feature - Dimension between two features on a part.

Fixture - Tooling designed to locate and hold components in position.

Flange - Formed projection or rim of a part generally used for stiffness or assembly.

Flat or Matte - Coating surface which displays no gloss when observed at any angle; a perfectly diffused reflecting surface.

Formed Tab - Small flange bent at an angle from the body of a metal workpiece.

Forming - Operation converting a flat sheet metal workpiece into a three dimensional part. See also "Bending" and "Drawing"

Gauge - (1) Instrument for measuring, testing, or registering. (2) Numeric scale for metal thickness

Go/No-Go Gauge - Measuring device with two registration elements which determine if a feature to be measured is between two established limits

Gouge - Surface imperfection, deeper than

Grain Direction - (1) Crystalline orientation of material in the direction of mill rolling. (2) Orientation of a surface finish generated by

Grinding - Process of removing material by

Half Shearing - Partial penetration piercing, creating a locating button with a height of about 1/2 material thickness.

Hard Tooling - Tooling made for a specific part. Also called "dedicated tooling"

Hem (Dutch Bend) - Edge of material doubled over onto itself for the purpose of safe handling or to increase edge stiffness.

Hold-Down Marks - Slight indentations or scuff marks on one side of the stock which can result from the pressure of hold-down devices during shearing operations.

Hole Rollover - Rounding of the top edge of a pierced feature caused by the ductility of the metal, which flows in the direction of the

Hole-to-Form - Distance from the edge of a hole to the inside edge of a formed feature. Hole-to-Hole - Dimension between the centers of holes

Hydraulic Press - Machine which exerts working pressure by hydraulic means.

which the part will be evaluated both dimensionally and cosmetically

Lead Time - Time required to manufacture a product from order placement until

Master Die - Universal tool receptacle for holding changeable tool systems

Metal Thinning - Thickness reduction during any forming operation **Model** - Pre-production sample made with limited emphasis on tolerance to test a

design concept. See also "Prototype". Nesting - (1) Grouping of identical or different parts in multiples within a workpiece to conserve material. (2) In packaging, stacking of parts whose shape permits one

to fit inside another. Nibble Marks - Slight irregularities at the edge of the stock surface after progressive punching ("nibbling") operations in a turret

Notching - Operation in which the punch removes material from the edge or corner of a strip or blank

Penetration - (1) Depth of a cutting operation before breakout occurs (2) In welding, the depth of material through which fusion occurs.

Perpendicularity - Dimensional relationship of a part or datum located at right angles (90°) to a given feature

Piercing - Punching of openings such as holes and slots in material.

Pinch Trim - Trimming excess material from a drawn part at the bottom of the stroke. Leaves drawn shell without an inside burr, but with an outside burr and a thinned

Progressive Tool - Die using multiple stations or operations to produce a variety of options. Can incorporate piercing, forming, extruding and drawing, and is usually applied to high quantity production runs.

Prototype - First part of a design which is made to test tolerance capability, tooling concepts and manufacturability.

Pull Down - Area of material next to the penetrating edge of a piercing punch, or die edge of the blanking station, where the material yields i.e., flows in the direction of the applied force creating a rounded edge. Also known as "roll-over

Punch Press - Machine supplying compression force for reshaping materials

Punch Side - Opposite side from burr side for pierced features; side on which the punch

Quick Change Inserts - Tool sections or parts which may be changed without removing the entire tool from the press.

Rerolling - Final cold rolling operation, usually done to achieve specific thickness control and improved finish. **Roundness** - Extent to which a feature is

circular Run Out Flange - Feature on a formed part which is designated by the designer to absorb the tolerance accumulations

created by multiple forming operations. Scrap - Leftover, unused material releaated to recycling.

Shear-to-Feature - Shearing of an edge of stock to an exact dimension from an already existing feature.

Shearing - Cutting force applied perpendicular to material causing the material to yield and break.

Shut Height - Clearance in a press between ram and bed with ram down and adjustment up.

Slide Forming - A high-volume stamping process in which a machine with multiple slides sequentially performs various operations (i.e. - blanking, piercing, forming,

Slug - Scrap from a piercing operation.

Slug Marks - Surface defects caused by scrap being indented into the metal surface

Spot Face - Circular flat surface as a bearing area for hardware.

Squareness - Measure of perpendicularity of adjacent edges or surfaces.

Spring Back - Partial rebounding of formed material caused by its elasticity

Staking - Method of fastening using displaced material for retention

Stiffening Rib - Embossed feature in a sheet metal workpiece which is added to make the part more rigid.

Stretcher Leveled - A flattening process in which a material is stretched to achieve a desired flatness tolerance.

Stripper - Mechanical hold-down device applied to the workpiece during the punching process.

Stripper Marks - Imprints on one side of the stock around pierced holes, caused by punch strippers.

Stripping - Process of disengaging tooling Strips - Sheet material, sheared into narrow

Stroke - RAM travel from top dead center

(TDC) to bottom dead center (BDC). Tapping - Operation to create internal

threads by either cutting or forming. **Tolerance** - Permissible variation from a specification for any characteristic of the

Transfer Die - Variation of a progressive die where the part is transferred from station to station by a mechanical system. Mainly used where the part has to be free from the strip to allow operations to be performed in a free state.

Turret Press - Automatic punch press indexing the material and selecting the intended tool out of the rotary tool holding device (turret) totally by computer control for piercina, blankina and formina workpieces as programmed.

V Die - Tool used in conjunction with a V

V Punch - Vee shaped tool used for anale forming

Vibratory Finishing - Burr removal process in which an appropriate number of parts. depending on part size and abrasive material, is accelerated and decelerated by mechanical means inside of a drum-like

Webs - Material between two openings or

Wipe Die - Forming tool using two opposing edges, separated by one material thickness, moving past each other to form material

*Terms provided courtesy of the Precision Metalforming Association.

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) Clausina Surface Grinders · Matsui Precision Grinder
- (2) Charmilles Wire E.D.M. (14" x 21" x 8")
- (2) Fanuc Wire E.D.M.
- Ocean Technologies E.D.M. Drill
- Okamoto Precision Grinder
- Stratasvs Dimension SST 1200ES 3D Printer



Washer Department

- (20) 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

certified

WBENG

- Electric Coil Reels (6,000 lb. capacity)
- 48" Press Brake
- Optical Part Detection Systems
- Press Control Automation Tonnage Monitors
- (2) Material Handling Conveyors







Heat Treating Department

- Electric High Temperature Hardenina Furnaces
- Electric Temperina Furnaces (all furnaces calibrated)

Raw Stock & Shear Department

- (3) 10' Shears (.20" thick maximum)
- Stanat Model Rolling Mill IRM Rolling Mill
- Cooper Weymouth Roller Levelers Coil Set Straightener
- Wilder Coil Slitter
- Computer Inventory & Control System • (2) Material Slitting Machines

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



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

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 Finishina Machines
- Custom Parts Dryer
- Custom Multi-Station Vibratory



Inspection Department

- Numerex Coordinate Measuring Machine
- · Digital Optical Comparator
- · Diaital Buehler Hardness Tester · Ceramic Gauge Block Sets
- · Digital Profilometer
- · Plug Gauge Sets
- Height Gauges
- Thread Gauges · Statistical Process & Capability Studies
- Climate-controlled & Monitored
- Keyence Vision System

Material Capabilities

- Material Thickness: .005" to .190" (varies by material)
- Blank Size: 12" x 12" maximum (flat)
- Draws: 8" diameter, 3" deep





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