



ISOSTATIC™

LEADERS IN BRONZE BEARINGS...and MORE

Powdered Metal Bronze - SAE 841 - Inch & Metric

Cast Bronze - SAE 660

TU-Steel Backed PTFE Lined - Inch & Metric

Powdered Metal Iron - SAE 863 - Inch

Special Order Products



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Single Source Supply Our firm stocks the largest inventory of standard sizes in the U.S. This one source supply eliminates "shopping" for your part. Stock bearings are made with the highest quality powdered metals, and meet the requirements of S.A.E. specifications.

Phone Convenience Our service personnel are experienced and highly qualified to give you professional assistance in meeting your bearing needs by phone. You may use either our toll-free Watts line (from outside Illinois) or call collect from Illinois (from outside of Chicago) to receive prompt assistance from our service personnel.

DESIGN PARAMETERS FOR OILUBE BEARINGS

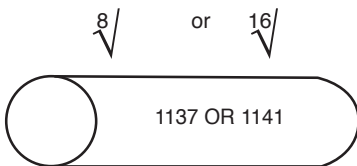
The following information will aid you in the proper selection of bearings to meet your needs. The sample problems will illustrate the design criteria which must be established in order to select the proper bearing. Should any questions arise, our staff is ready to assist you.

Sample Problem: Design a bearing for 180 pound load at a speed of 1100 RPM

SHAFT SELECTION

Size Shaft size will be determined by the size and construction of the unit being designed. Refer to our PV Chart (page 5) in order to determine approximate criteria.

Example: A 1.000 shaft is chosen. The PV chart shows that a 1.000 shaft operating at 1100 RPM will carry 175 pounds per sq. inch load.



Materials Steels containing approximately 0.4% carbon are recommended, and any steels with a lower content should be avoided. The 1137-1141 series, for example, are effective grades for shaft material. In addition, drill rod and hardened and ground steels can be used.

Hard chromium plated materials are recommended when corrosion resistance is required. The performance of stainless steel materials does not equal that of straight carbon-alloy steels. If stainless steel must be used, the 300 series should be avoided. The 400 series is a good choice in stainless, and 416 stainless, heat-treated to maximum hardness, is the best.

Zinc or cadmium plating on shafts must be avoided as they are too soft and will ball up, resulting in a loss of bearing porosity, and lubrication.

Finishes Shaft finish is critical to long bearing life. Recommended finish is 16 RMS to 8 RMS. In some cases, a 32 RMS finish may be adequate if the application is not too precise.

BEARING WALL THICKNESS

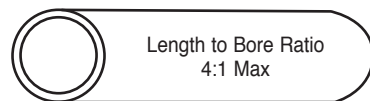


For bearings less than 1/4 inch ID, the minimum wall thickness is 11/32 inch. For bearings 1/4 inch ID and larger, use the following formula to determine wall thickness:

Example:
 Wall thickness = .125 x Shaft dia.
 1" shaft
 Wall thickness = .125 x 1000
 Wall thickness = .125

Larger bearings with extremely thin walls are more costly to produce and result in increased unit costs.

BEARING LENGTH



Maximum length is determined by using a ratio of length to bore, not to exceed 4:1. For diameters less than 1/4 inch, use a smaller ratio.

To determine proper bearing length, refer to the PV chart (page 5). It will give the unit load per square for a specific speed and shaft size. By dividing the unit load per square inch

into the total load to be carried by the bearing, the minimum length is found. In addition we recommend that a safety margin be used. By adding extra length, the bearing avoids operating at extreme limits.

Example: 180 lb. load
 1100 RPM
 1.000 Bearing ID

PV chart indicates
 175 PSI UNIT LOAD

$180 \div 175 = 1.029$ Minimum length

| | |
|-------|------------------|
| 1.029 | (Minimum Length) |
| .221 | (Safety margin) |
| 1.250 | Suggested length |

LOADS AND SPEEDS

Load and speed limitations must be ascertained in order to insure proper bearing design. If design limits are exceeded, the bearing life will decrease and could result in premature failure. To determine the capacity of a bearing, use the following PV formula:

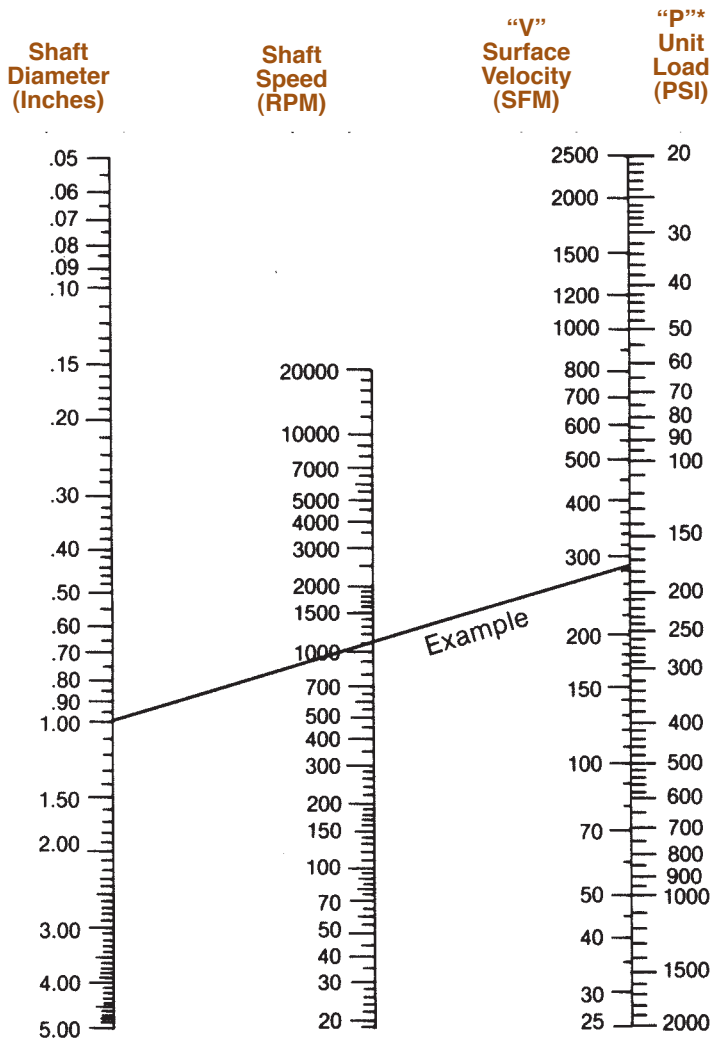
- (P = The load per square inch of Projected area)
 V = Shaft velocity in feet per minute
 $P = \frac{\text{load}}{\text{I.D.} \times \text{Length}}$
 V = R.P.M. x shaft diameter x .262
 (PV = (P X V)
 1 The maximum P is 2000 P.S.I.
 2 The maximum V is 1200 S.F.M.
 3 The maximum PV for Oilube is 50,000

Example: 180 lb. load
 1100 RPM
 1.000 I.D. x 1.250

$P = \frac{180}{1.000 \times 1.250}$
 (P = 144 WITHIN LIMIT
 V = 1100 x 1.00 x .262
 V = 288 SFM WITHIN LIMIT
 (PV = 144 X 288
 (PV = 41472 WITHIN LIMIT

LOAD AND SPEED ("PV") CHART

BASED ON CONTINUOUS ROTATION



Connect two known values with a straight edge to determine the third value.

Max P = 2000
Max V = 1200

TOLERANCES

Based on ASTM Specifications

SLEEVE AND FLANGE BEARING

I.D. or O.D. Size:

| | | |
|------------------|--------|---------|
| Up to 1-1/2" | + .000 | - .001 |
| 1-1/2" to 2-1/2" | + .000 | - .0015 |
| 2-1/2" to 3" | + .000 | - .002 |
| 3" to 4" | + .000 | - .003 |
| 4" to 5" | + .000 | - .004 |
| 5" to 6" | + .000 | - .005 |

Length

| | |
|--------------|---------|
| Up to 1-1/2" | ± .005 |
| 1-1/2" to 3" | ± .0075 |
| 3" to 5" | ± .010 |

Flange Diameter

| | |
|--------------|--------|
| Up to 1-1/2" | ± .005 |
| 1-1/2" to 3" | ± .010 |
| 3" to 6" | ± .025 |

Flange thickness:

Based on Flange O.D.

| | |
|--------------|--------|
| Up to 1-1/2" | ± .005 |
| 1-1/2" to 3" | ± .010 |
| 3" to 6" | ± .015 |

Concentricity

| | |
|--------------|------|
| Up to 1-1/2" | .003 |
| 1-1/2" to 2" | .004 |
| 2" to 4" | .005 |
| 4" to 5" | .006 |

THRUST BEARING (WASHERS)

Inside Diameter

| | |
|------------------|--------|
| Up to 1-1/4" | ± .005 |
| 1-1/4" to 2-1/2" | ± .010 |
| 2-1/2" to 4" | ± .015 |
| 4" to 6" | ± .020 |

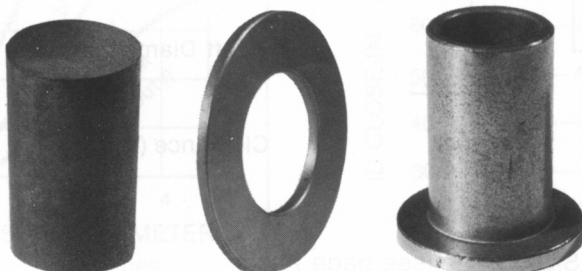
Outside Diameter

| | |
|--------------|--------|
| Up to 1-1/2" | ± .010 |
| 1-1/2" to 3" | ± .015 |
| 3" to 4-1/2" | ± .020 |
| 4-1/2" to 6" | ± .025 |

Thickness ± .0025

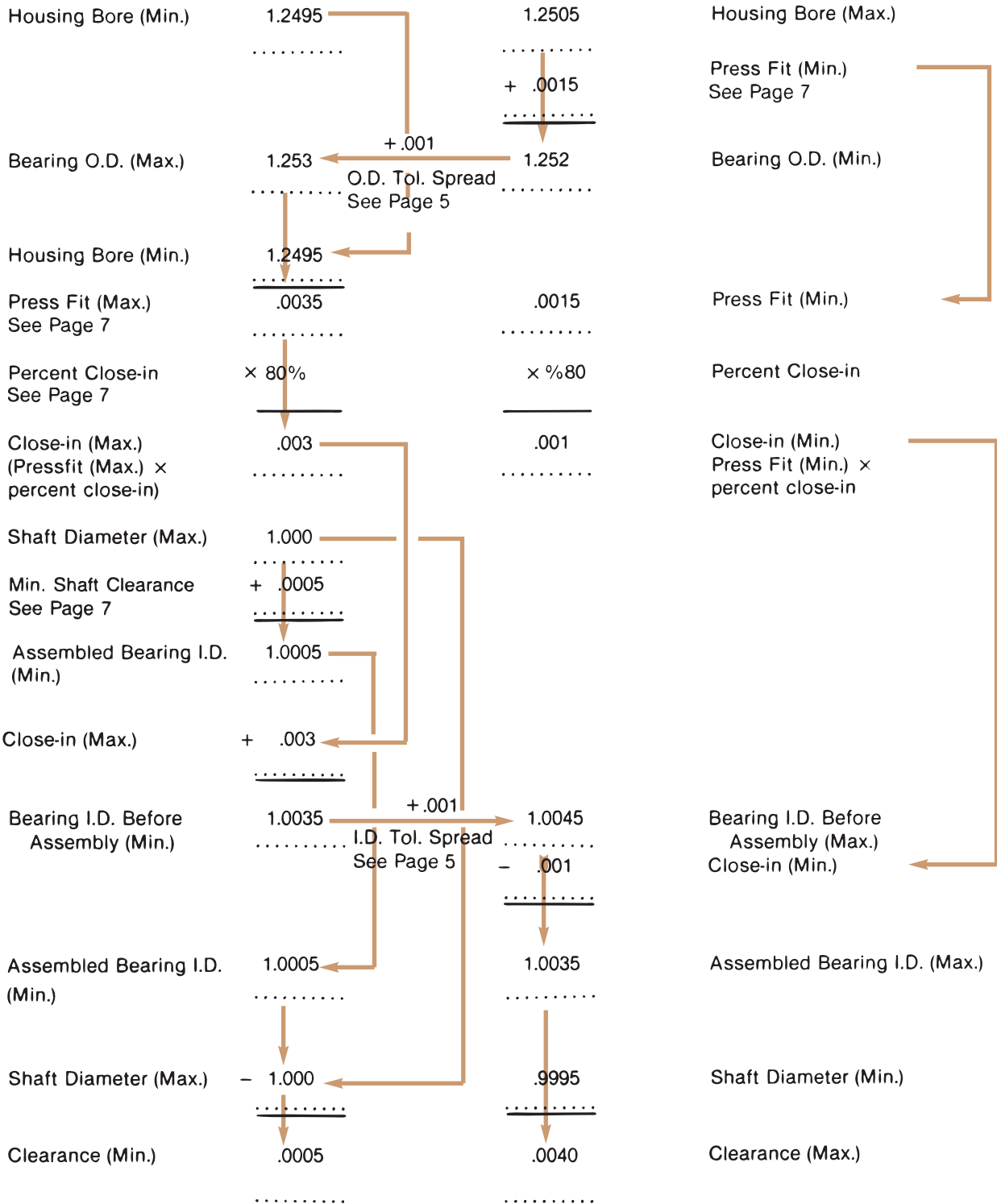
Parallelism of Faces Based on O.D.

| | |
|------------------|------|
| Up to 1-1/2" | .002 |
| 1-1/2" to 3-1/2" | .003 |
| 3-1/2" to 6" | .004 |



EXAMPLE AND WORKSHEET FOR CALCULATING BEARING DIMENSIONS

Fill in the blanks (.)



Check for Stock Size Usage (see page 7)

CHECK FOR STOCK SIZE USAGE

From the calculations on the work sheet we have determined that the ideal dimensions should be

$$\begin{array}{l} 1.0035 \times 1.252 \\ 1.0045 \times 1.253 \times 1-1/4 \end{array}$$

The stock list shows a size of

$$\begin{array}{l} 1.004 \times 1.2515 \\ 1.005 \times 1.2525 \times 1-1/4 \text{ (AA1204-2)} \end{array}$$

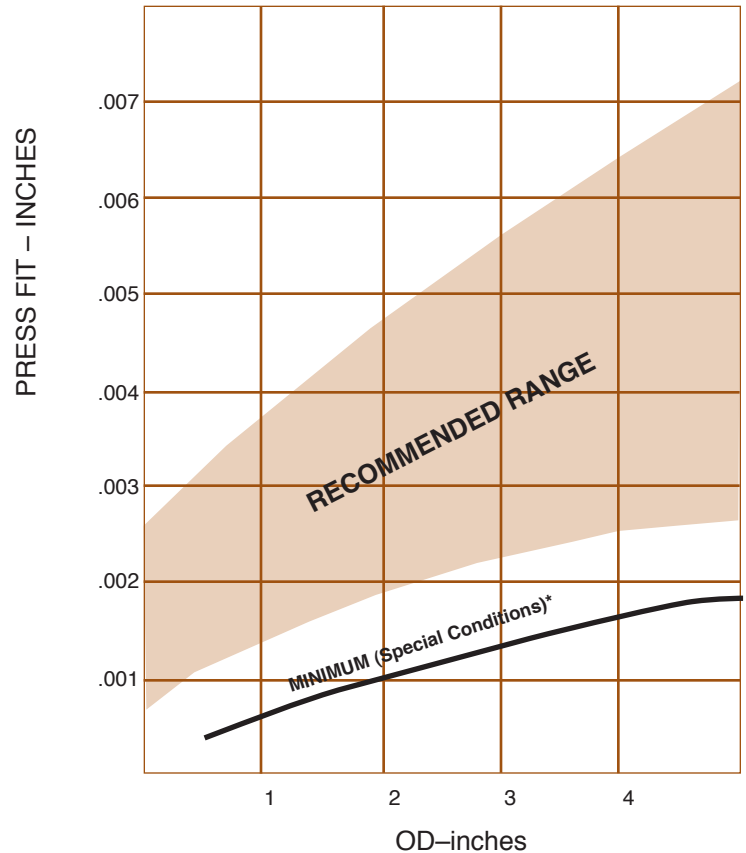
A check can be made to see if this standard size can be used.

| | | |
|-----------------------------|----------|----------|
| Bearing O.D. | 1.2525 | 1.2515 |
| Housing Bore | - 1.2495 | - 1.2505 |
| Press Fits | .0030 | .0010 |
| Close in factor | × .8 | × .8 |
| Close in (to nearest .0005) | .0025 | .0010* |
| Bearing I.D. | 1.0050 | 1.0040 |
| Close-in | - .0010 | - .0025 |
| I.D. after assembly | 1.0040 | 1.0015 |
| Shaft diameter | - .9995 | - 1.0000 |
| Bearing Clearance | .0045 | .0015 |

* Press fit deviation of .0005 is acceptable.

By using a standard size, tool costs are reduced and parts are in ready supply.

OILUBE PRESS FIT VALVES

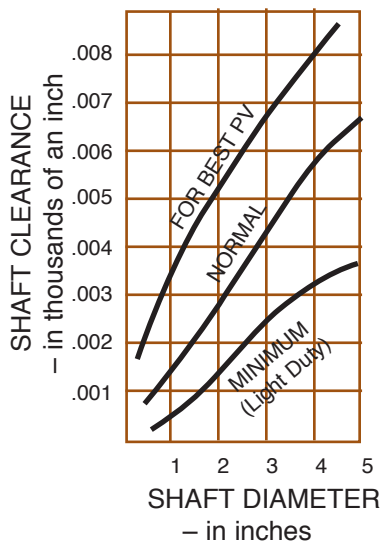


Considerable force is required to seat large bearing when press fit approaches the top of the recommended range.

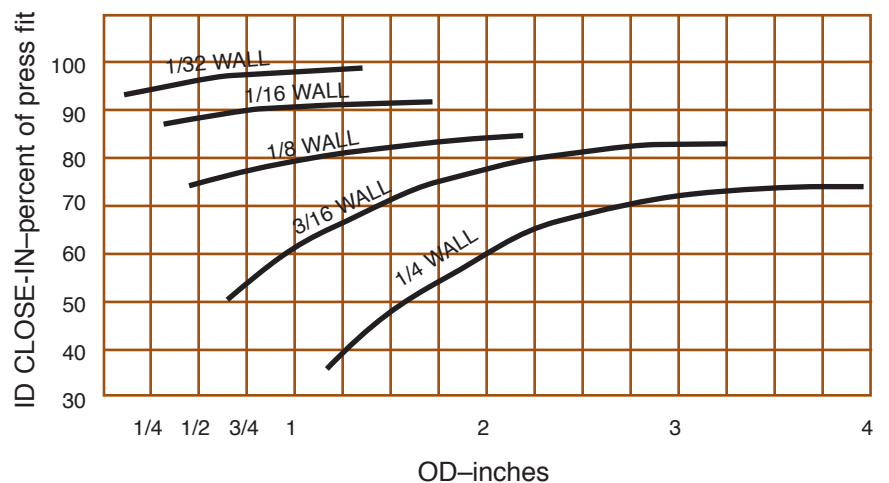
*Less than normal press fit proves satisfactory,

- (1) if the bearing is long and the wall is not exceptionally thin, and
- (2) if the bearing is also carrying a moderate load exerted only in one direction.

BEARING CLEARANCE OILUBE BEARINGS



BEARING CLEARANCE OILUBE BEARINGS



LUBRICATION

Proper lubrication is essential for the Oilube bearing, and we use the highest quality oils available. Our standard lubricant has an effective operating range from +10°F to + 175 *F. Applications requiring extended or unusual operating ranges must be identified so that we can select a special lubricant to do the job. This impregnation process is available for a minimal charge.

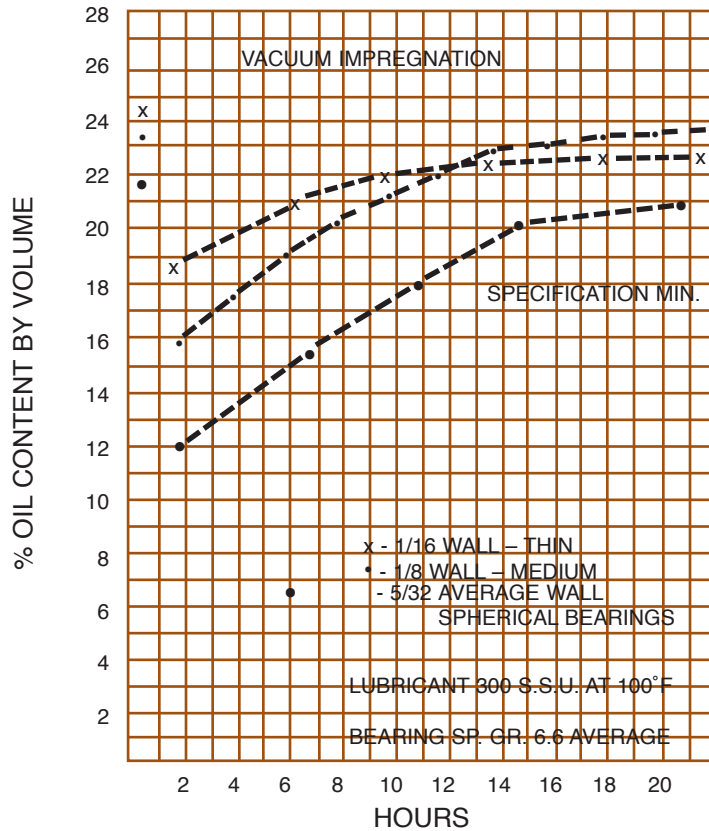
Supplementary Lubrication Additional lubrication can be provided thru the use of oil soaked felts, wicks, etc., or by periodic oiling. A unique advantage of the Oilube bearing is that it does not require any grooving or holes to distribute the oil across the bearing surfaces. The Oilube bearing distributes oil evenly across the bearing face due to the microscopic pores in the material.

Storage of Bearings Oilube bearings must be stored in non-absorbing containers. Do not store in paper or cloth containers. Do not store in cardboard boxes! The best containers are made of plastic or metal.

De-Oiling To remove oil from a bearing, immerse it in a solvent for 12 hours. An aromatic solvent is recommended. Chlorinated solvents should be avoided, as they can initiate corrosion within the pores of the material. After soaking in solvent, the bearings should air dry until the absorbed solvent is evaporated.

Re-Oiling The most efficient method of impregnation is by the vacuum

process. However, this process is typically available only to bearing manufacturers. Re-oiling can also be accomplished by immersing the bearings in oil heated to 150-175°F. This method will result in a 90% saturation of the bearing material. The graph above indicates the length of time required to achieve maximum impregnation by both methods.



Immersion versus vacuum impregnation for bearing lubrication.

CUSTOM MADE BEARINGS

Custom bearings can be designed and manufactured according to customer specifications, including requirements for special dimensions and/or materials. Our inventory provides for a large supply of nearly all the powdered metal mixes used in bearing manufacture. Please give us a call and tell us about your special needs.

OILUBE MATERIAL SPECIFICATIONS

| Composition % | Density (gm/cc) | Porosity (% by Vol.) | K Strength Constant | Tensile Strength | Elongation (in 1") | Yield Strength PSI | Comparable Designations |
|--|-----------------|----------------------|---------------------|------------------|--------------------|--------------------|---|
| Copper 87.5-90.5 Tin 9.5-10.5 Iron 1.0 max. Carbon 1.75 Other Elements 0.5 | 6.4-6.8 | 19 min. | 26500 | 14000 | 1 | 11000 | ASTM B-438-70 GR1 Type II MPIF CT-0010-R SAE 841 Mil-B-5687C Type I. Comp. A |

SUPER OILUBE MATERIAL SPECIFICATIONS

| | | | | | | | |
|--|---------|---------|-------|-------|---|-------|---|
| Copper 18.0-22.0 Iron Balance Other Elements 2.0 | 5.8-6.2 | 19 min. | 40000 | 22000 | 1 | 22000 | ASTM B-439-70 GR 4 SAE 863. Type 3 Mil-B-5687C Type II. Comp. B |
|--|---------|---------|-------|-------|---|-------|---|



| ID | OD | LGTH. | ITEM NO. | PART NO. |
|----------------------------|-------|-------|----------|-------------------|
| 1/8 X 3/16 NOMINAL | | | | |
| .125 | .190 | 5/32 | 101001 | AA-101-8 |
| | | 1/4 | 101002 | AA-101-2 |
| | | 3/8 | 101003 | AA-101 |
| | | 1/2 | 101004 | AA-101-1 |
| .1265 | .1895 | 1/8 | 101005 | AA-110-1 |
| | | 1/4 | 101006 | AA-110-2 |
| | | 5/16 | 101007 | AA-110-4 |
| .127 | .1895 | 1/4 | 401001 | SS-46-4 |
| | | 1/2 | 401002 | SS-46-8 |
| .127 | .1905 | 1/4 | 201001 | EP020304 (P-12-2) |
| | | 1/2 | 201002 | EP020308 (P-12-4) |
| 1/8 X 7/32 NOMINAL | | | | |
| .127 | .222 | 1/4 | 101008 | AA-223 |
| | | 3/8 | 101009 | AA-223-1 |
| 1/8 X 1/4 NOMINAL | | | | |
| .127 | .252 | 1/8 | 301001 | B-24-1 |
| | | 1/4 | 301002 | B-24-2 |
| | | 3/8 | 301003 | B-24-3 |
| | | 1/2 | 301004 | B-24-4 |
| .127 | .252 | 1/8 | 401003 | SS-48-2 |
| | | 1/4 | 401004 | SS-48-4 |
| | | 3/8 | 401005 | SS-48-6 |
| | | 1/2 | 401006 | SS-48-8 |
| .127 | .253 | 1/8 | 201003 | EP020402 (P-13-1) |
| | | 1/4 | 201004 | EP020404 (P-13-2) |
| | | 3/8 | 201005 | EP020406 (P-13-3) |
| | | 1/2 | 201006 | EP020408 (P-13-4) |
| .128 | .253 | 1/4 | 101010 | AA-224 |
| | | 3/8 | 101011 | AA-224-1 |
| 1/8 X 5/16 NOMINAL | | | | |
| .127 | .3145 | 1/4 | 401007 | SS-410-4 |
| | | 3/8 | 401008 | SS-410-6 |
| | | 1/2 | 401009 | SS-410-8 |
| .127 | .315 | 1/8 | 301005 | B-25-1 |
| | | 1/4 | 301006 | B-25-2 |
| | | 3/8 | 301007 | B-25-3 |
| | | 1/2 | 301008 | B-25-4 |
| | | 5/8 | 301009 | B-25-5 |
| .127 | .3155 | 1/8 | 201007 | EP020502 (P-14-1) |
| | | 1/4 | 201008 | EP020504 (P-14-2) |
| | | 3/8 | 201009 | EP020506 (P-14-3) |
| | | 1/2 | 201010 | EP020508 (P-14-4) |
| 1/8 X 3/8 NOMINAL | | | | |
| .127 | .377 | 1/4 | 101012 | AA-337-2 |
| | | 1/2 | 101013 | AA-337-3 |
| 5/32 X 7/32 NOMINAL | | | | |
| .156 | .220 | 1/4 | 101014 | AA-211 |
| | | 3/8 | 101015 | AA-211-1 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|----------------------------|-------|-------|----------|---------------------|
| 5/32 X 1/4 NOMINAL | | | | |
| .1565 | .2525 | 3/8 | 101016 | AA-238 |
| .159 | .253 | 1/4 | 101017 | AA-204-1 |
| | | 5/16 | 101018 | AA-204 |
| 3/16 X 1/4 NOMINAL | | | | |
| .1875 | .252 | 1/4 | 101019 | AA-225-2 |
| | | 5/16 | 101020 | AA-225-1 |
| | | 3/8 | 101021 | AA-225-6 |
| | | 1/2 | 101022 | AA-225-4 |
| | | 5/8 | 101023 | AA-225-3 |
| .1885 | .252 | 1/4 | 101024 | AA-226-1 |
| | | 3/8 | 101025 | AA-226-2 |
| | | 7/16 | 101026 | AA-226 |
| | | 1/2 | 101027 | AA-226-3 |
| | | 5/8 | 101028 | AA-226-4 |
| .189 | .252 | 1/4 | 301010 | B-34-2 |
| | | 3/8 | 301011 | B-34-3 |
| | | 1/2 | 301012 | B-34-4 |
| | | 5/8 | 301013 | B-34-5 |
| | | 3/4 | 301014 | B-34-6 |
| .189 | .252 | 1/4 | 401010 | SS-68-4 |
| | | 3/8 | 401011 | SS-68-6 |
| | | 1/2 | 401012 | SS-68-8 |
| | | 5/8 | 401013 | SS-68-10 |
| | | 3/4 | 401014 | SS-68-12 |
| .1895 | .253 | 1/4 | 201011 | EP030404 (P-18-2) |
| | | 3/8 | 201012 | EP030406 (P-18-3) |
| | | 1/2 | 201013 | EP030408 (P-18-4) |
| | | 5/8 | 201014 | EP030410 (P-18-5) |
| | | 3/4 | 201015 | EP030412 (P-18-6) |
| 3/16 X 5/16 NOMINAL | | | | |
| .1885 | .3145 | 3/16 | 101029 | AA-309-9 |
| | | 1/4 | 101030 | AA-309 |
| | | 5/16 | 101031 | AA-309-3 |
| | | 3/8 | 101032 | AA-309-4 |
| | | 7/16 | 101033 | AA-309-8 |
| | | 1/2 | 101034 | AA-309-14 |
| | | 5/8 | 101035 | AA-309-7 |
| | | 3/4 | 101036 | AA-309-5 |
| .189 | .314 | 1/4 | 301015 | B-35-2 |
| | | 3/8 | 301016 | B-35-3 |
| | | 1/2 | 301017 | B-35-4 |
| | | 5/8 | 301018 | B-35-5 |
| | | 3/4 | 301019 | B-35-6 |
| .1895 | .3145 | 3/16 | 101037 | AA-331 |
| | | 1/4 | 101038 | AA-331-2 |
| | | 3/8 | 101039 | AA-331-3 |
| .1895 | .3155 | 3/16 | 201554 | EP030503 (P-19-1.5) |
| | | 1/4 | 201016 | EP030504 (P-19-2) |
| | | 5/16 | 201555 | EP030505 (P-19-2.5) |
| | | 3/8 | 201017 | EP030506 (P-19-3) |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|----------------------------|-------|-------|----------|-------------------|
| .1895 | .3155 | 1/2 | 201018 | EP030508 (P-19-4) |
| | | 5/8 | 201019 | EP030510 (P-19-5) |
| | | 3/4 | 201020 | EP030512 (P-19-6) |
| | | 1 | 201021 | EP030516 (P-19-8) |
| .190 | .3145 | 1/4 | 401015 | SS-610-4 |
| | | 3/8 | 401016 | SS-610-6 |
| | | 1/2 | 401017 | SS-610-8 |
| | | 5/8 | 401018 | SS-610-10 |
| | | 3/4 | 401019 | SS-610-12 |
| | | 1 | 401020 | SS-610-16 |
| 3/16 X 3/8 NOMINAL | | | | |
| .1885 | .3775 | 1/4 | 101040 | AA-346-1 |
| | | 3/8 | 101041 | AA-346-2 |
| | | 1/2 | 101042 | AA-346 |
| .1895 | .378 | 1/4 | 201556 | EP030604 (P-20-2) |
| | | 3/8 | 201022 | EP030606 (P-20-3) |
| | | 1/2 | 201023 | EP030608 (P-20-4) |
| | | 5/8 | 201024 | EP030610 (P-20-5) |
| | | 3/4 | 201025 | EP030612 (P-20-6) |
| .190 | .377 | 3/8 | 401021 | SS-612-6 |
| | | 1/2 | 401022 | SS-612-8 |
| | | 5/8 | 401023 | SS-612-10 |
| | | 3/4 | 401024 | SS-612-12 |
| 7/32 X 5/16 NOMINAL | | | | |
| .219 | .3145 | 5/16 | 101043 | AA-318 |
| | | 3/8 | 101044 | AA-318-1 |
| 7/32 X 7/16 NOMINAL | | | | |
| .219 | .440 | 1/2 | 101045 | AA-410-2 |
| | | 3/4 | 101046 | AA-410-3 |
| 1/4 X 5/16 NOMINAL | | | | |
| .2505 | .3145 | 1/4 | 101047 | AA-397-1 |
| | | 1/2 | 101048 | AA-397 |
| .2515 | .3155 | 1/4 | 101049 | AA-347-2 |
| | | 3/8 | 101050 | AA-347-3 |
| .252 | .315 | 1/2 | 301455 | B-45-4 |
| .252 | .315 | 1/4 | 401025 | SS-810-4 |
| | | 3/8 | 401026 | SS-810-6 |
| | | 1/2 | 401027 | SS-810-8 |
| | | 3/4 | 401028 | SS-810-12 |
| .252 | .3155 | 1/4 | 201026 | EP040504 (P-25-2) |
| | | 3/8 | 201027 | EP040506 (P-25-3) |
| | | 1/2 | 201028 | EP040508 (P-25-4) |
| | | 5/8 | 201557 | EP040510 (P-25-5) |
| | | 3/4 | 201029 | EP040512 (P-25-6) |
| .253 | .3155 | 1/2 | 101051 | AA-335-4 |
| | | 5/8 | 101052 | AA-335-6 |
| | | 3/4 | 101053 | AA-335-5 |
| 1/4 X 3/8 NOMINAL | | | | |
| .2505 | .377 | 1/4 | 101054 | AA-304-35 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LGTH. | ITEM NO. | PART NO. | ID | OD | LGTH. | ITEM NO. | PART NO. | ID | OD | LGTH. | ITEM NO. | PART NO. | | | | | | | | | | |
|----------------------------------|--------|-------|----------|---------------------|--------|-------------------|--------------------|-------------------|-----------|----------------------------|----------|-------------------|-----------|----------|------------|-----------|----------|-------|--------|---------------------|-------------------|-----------|--|--|
| 1/4 X 3/8 NOMINAL (cont.) | | | | | | | | | | | | | | | | | | | | | | | | |
| .2505 | .377 | 5/16 | 101055 | AA-304-9 | .251 | .4395 | 1/2 | 101078 | AA-430-1 | .3135 | .377 | 3/8 | 101094 | AA-306-3 | | | | | | | | | | |
| | | 3/8 | 101056 | AA-304-7 | | | 5/8 | 101079 | AA-430-5 | | | 1/2 | 101095 | AA-306-7 | | | | | | | | | | |
| | | 7/16 | 101057 | AA-304-24 | | | 3/4 | 101080 | AA-430-2 | | | 5/8 | 101096 | AA-306-8 | | | | | | | | | | |
| | | 1/2 | 101058 | AA-304-2 | | | 7/8 | 101081 | AA-430-6 | | | 3/4 | 101097 | AA-306-6 | | | | | | | | | | |
| | | 9/16 | 101059 | AA-304-5 | | | 1 | 101082 | AA-430-3 | | | | | | | | | | | | | | | |
| | | 5/8 | 101060 | AA-304-1 | | | | | | | | .252 | .439 | 3/8 | 301029 | B-47-3 | .314 | .377 | 3/8 | 301042 | B-56-3 | | | |
| | | 3/4 | 101061 | AA-304-22 | | | 1/2 | 301030 | B-47-4 | | | | | 1/2 | 301043 | B-56-4 | | | | | | | | |
| | | 7/8 | 101062 | AA-304-21 | | | 5/8 | 301031 | B-47-5 | | | | | 5/8 | 301044 | B-56-5 | | | | | | | | |
| | | 1 | 101063 | AA-304-20 | | | 3/4 | 301032 | B-47-6 | | | | | 3/4 | 301045 | B-56-6 | | | | | | | | |
| | | 1-1/8 | 101064 | AA-304-33 | | | 7/8 | 301033 | B-47-7 | | | | | 7/8 | 301046 | B-56-7 | | | | | | | | |
| | | 1-1/4 | 101065 | AA-304-11 | | | 1 | 301034 | B-47-8 | | | | | 1 | 301047 | B-56-8 | | | | | | | | |
| | | .252 | .377 | 1/4 | | | 101066 | AA-307 | | | | .252 | .439 | 3/8 | 401037 | SS-814-6 | .3145 | .378 | 1/4 | 201049 | EP050604 (P-31-2) | | | |
| | | | | 5/16 | | | 101067 | AA-307-1 | 1/2 | | | | | 401038 | SS-814-8 | 3/8 | | | 201050 | EP050606 (P-31-3) | | | | |
| | | | | 3/8 | | | 101068 | AA-307-9 | 5/8 | | | | | 401039 | SS-814-10 | 1/2 | | | 201051 | EP050608 (P-31-4) | | | | |
| 1/2 | 101069 | | | AA-307-3 | 3/4 | 401040 | SS-814-12 | 5/8 | 201052 | EP050610 (P-31-5) | | | | | | | | | | | | | | |
| 5/8 | 101070 | | | AA-307-10 | 7/8 | 401041 | SS-814-14 | 3/4 | 201053 | EP050612 (P-31-6) | | | | | | | | | | | | | | |
| 3/4 | 101071 | | | AA-307-11 | 1 | 401042 | SS-814-16 | 7/8 | 201054 | EP050614 (P-31-7) | | | | | | | | | | | | | | |
| 1 | 101072 | | | AA-307-2 | | | | 1 | 201055 | EP050616 (P-31-8) | | | | | | | | | | | | | | |
| 1-1/8 | 101073 | | | AA-307-13 | .252 | .4395 | 3/8 | 101083 | AA-412-10 | .3145 | .378 | | | 1/4 | 401047 | SS-1012-4 | | | | | | | | |
| 1-1/4 | 101074 | | | AA-307-14 | | | 1/2 | 101084 | AA-412-7 | | | | | 3/8 | 401048 | SS-1012-6 | | | | | | | | |
| | | | | 5/8 | | | 101085 | AA-412-6 | 1/2 | | | | | 401049 | SS-1012-8 | | | | | | | | | |
| | | | | 3/4 | | | 101086 | AA-412-1 | 5/8 | | | | | 401050 | SS-1012-10 | | | | | | | | | |
| | | | | 1 | | | 101087 | AA-412-8 | 3/4 | | | | | 401051 | SS-1012-12 | | | | | | | | | |
| | | | | 7/8 | | | 101088 | AA-412-9 | 7/8 | | | | | 401052 | SS-1012-14 | | | | | | | | | |
| .252 | .377 | 1/4 | 301020 | B-46-2 | | | | .252 | .4405 | 3/8 | 201039 | EP040706 (P-27-3) | | | | | | | | | | | | |
| | | 5/16 | 301021 | B-46-2-1/2 | 1/2 | 201040 | EP040708 (P-27-4) | | | | | | | | | | | | | | | | | |
| | | 3/8 | 301022 | B-46-3 | 5/8 | 201041 | EP040710 (P-27-5) | | | | | | | | | | | | | | | | | |
| | | 1/2 | 301023 | B-46-4 | 3/4 | 201042 | EP040712 (P-27-6) | | | | | | | | | | | | | | | | | |
| | | 5/8 | 301024 | B-46-5 | 7/8 | 201043 | EP040714 (P-27-7) | | | | | | | | | | | | | | | | | |
| | | 3/4 | 301025 | B-46-6 | 1 | 201044 | EP040716 (P-27-8) | | | | | | | | | | | | | | | | | |
| | | 7/8 | 301026 | B-46-7 | | | | | | 5/16 X 7/16 NOMINAL | | | | | | | | | | | | | | |
| | | 1 | 301027 | B-46-8 | | | | | | .3115 | .441 | 3/8 | 101098 | AA-403 | | | | | | | | | | |
| | | 1-1/4 | 301028 | B-46-10 | | | | | | | | 1/2 | 101099 | AA-403-2 | | | | | | | | | | |
| | | .252 | .377 | 1/4 | 401029 | SS-812-4 | | | | | | .3125 | .440 | 1/4 | 101100 | AA-407-1 | | | | | | | | |
| | | | | 3/8 | 401030 | SS-812-6 | .252 | | | | | | | .5015 | 5/16 | 101088 | AA-519-4 | .3135 | .4395 | 5/16 | 101101 | AA-407-10 | | |
| | | | | 1/2 | 401031 | SS-812-8 | | | | | | | | | 1/2 | 101089 | AA-519-1 | | | 3/8 | 101102 | AA-407-7 | | |
| | | | | 5/8 | 401032 | SS-812-10 | | | | | | | | | 3/4 | 101090 | AA-519-2 | | | 1/2 | 101103 | AA-407-3 | | |
| 3/4 | 401033 | | | SS-812-12 | 1 | 101091 | | AA-519-3 | 5/8 | 101104 | AA-407-2 | | | | | | | | | | | | | |
| 7/8 | 401034 | | | SS-812-14 | | | | 3/4 | 101105 | AA-407-4 | | | | | | | | | | | | | | |
| 1 | 401035 | | | SS-812-16 | .252 | .502 | | 3/8 | 301035 | B-48-3 | | | | | | | | | | | | | | |
| 1-1/4 | 401036 | | | SS-812-20 | | | | 1/2 | 301036 | B-48-4 | | | | | | | | | | | | | | |
| | | | | 5/8 | | | | 301037 | B-48-5 | | | | | | | | | | | | | | | |
| | | | | 3/4 | | | | 301038 | B-48-6 | | | | | | | | | | | | | | | |
| | | | | 7/8 | | | | 301039 | B-48-7 | | | | | | | | | | | | | | | |
| | | | | 1 | | | | 301040 | B-48-8 | | | | | | | | | | | | | | | |
| .252 | .378 | | | 1/4 | 201030 | EP040604 (P-26-2) | | | | | .252 | | | | .503 | 5/16 | 201560 | | | EP040805 (P-28-2.5) | | | | |
| | | 5/16 | 201558 | EP040605 (P-26-2.5) | 1/2 | 201045 | | EP040808 (P-28-4) | | | | | | | | | | | | | | | | |
| | | 3/8 | 201031 | EP040606 (P-26-3) | 3/4 | 201046 | EP040812 (P-28-6) | | | | | | | | | | | | | | | | | |
| | | 7/16 | 201559 | EP040607 (P-26-3.5) | 1 | 201047 | EP040816 (P-28-8) | | | | | | | | | | | | | | | | | |
| | | 1/2 | 201032 | EP040608 (P-26-4) | 1-1/4 | 201048 | EP040820 (P-28-10) | | | | | | | | | | | | | | | | | |
| | | 5/8 | 201033 | EP040610 (P-26-5) | | | | .252 | .503 | 1/2 | | 401043 | SS-816-8 | | | | | | | | | | | |
| | | 3/4 | 201034 | EP040612 (P-26-6) | | | | | | 3/4 | | 401044 | SS-816-12 | | | | | | | | | | | |
| | | 7/8 | 201035 | EP040614 (P-26-7) | | | | | | 1 | | 401045 | SS-816-16 | | | | | | | | | | | |
| | | 1 | 201036 | EP040616 (P-26-8) | | | | | | 1-1/4 | | 401046 | SS-816-20 | | | | | | | | | | | |
| | | 1-1/8 | 201037 | EP040618 (P-26-9) | | | | | | 5/16 X 3/8 NOMINAL | | | | | | | | | | | | | | |
| | | 1-1/4 | 201038 | EP040620 (P-26-10) | | | | | | .3135 | | .377 | 1/4 | 101092 | | AA-306-11 | | | | | | | | |
| | | .253 | .377 | 1/4 | 101074 | AA-385-1 | | | | | | | 5/16 | 101093 | | AA-306-1 | | | | | | | | |
| | | | | 1/2 | 101075 | AA-385 | | | | 1/4 X 7/16 NOMINAL | | | | | | | | | | | | | | |
| 3/4 | 101076 | | | AA-385-2 | | | | .251 | .4395 | 3/8 | 101077 | AA-430 | | | | | | | | | | | | |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LGTH. | ITEM NO. | PART NO. |
|------------------------------------|-------|-------|----------|---------------------|
| 5/16 X 7/16 NOMINAL (cont.) | | | | |
| .314 | .439 | 1 | 301054 | B-57-8 |
| | | 1-1/4 | 301055 | B-57-10 |
| | | 1-3/8 | 301056 | B-57-11 |
| .3145 | .440 | 1/4 | 401054 | SS-1014-4 |
| | | 3/8 | 401055 | SS-1014-6 |
| | | 1/2 | 401056 | SS-1014-8 |
| | | 5/8 | 401057 | SS-1014-10 |
| | | 3/4 | 401058 | SS-1014-12 |
| | | 7/8 | 401059 | SS-1014-14 |
| | | 1 | 401060 | SS-1014-16 |
| | | 1-1/8 | 401061 | SS-1014-18 |
| | | 1-1/4 | 401062 | SS-1014-20 |
| .3145 | .4405 | 1/4 | 201056 | EP050704 (P-32-2) |
| | | 5/16 | 201561 | EP050705 (P-32-2.5) |
| | | 3/8 | 201057 | EP050706 (P-32-3) |
| | | 1/2 | 201058 | EP050708 (P-32-4) |
| | | 5/8 | 201059 | EP050710 (P-32-5) |
| | | 3/4 | 201060 | EP050712 (P-32-6) |
| | | 7/8 | 201061 | EP050714 (P-32-7) |
| | | 1 | 201062 | EP050716 (P-32-8) |
| | | 1-1/8 | 201063 | EP050718 (P-32-9) |
| | | 1-1/4 | 201064 | EP050720 (P-32-10) |
| .3155 | .4395 | 1/4 | 101119 | AA-417-7 |
| | | 1/2 | 101120 | AA-417 |
| | | 3/4 | 101121 | AA-417-3 |
| 5/16 X 1/2 NOMINAL | | | | |
| .3125 | .503 | 3/8 | 101122 | AA-520-8 |
| | | 1/2 | 101123 | AA-520-3 |
| | | 5/8 | 101124 | AA-520-4 |
| | | 3/4 | 101125 | AA-520-1 |
| | | 7/8 | 101126 | AA-520-2 |
| | | 1 | 101127 | AA-520-5 |
| .314 | .502 | 3/8 | 301057 | B-58-3 |
| | | 1/2 | 301058 | B-58-4 |
| | | 5/8 | 301059 | B-58-5 |
| | | 3/4 | 301060 | B-58-6 |
| | | 7/8 | 301061 | B-58-7 |
| | | 1 | 301062 | B-58-8 |
| | | 1-1/4 | 301063 | B-58-10 |
| | | 1-1/2 | 301064 | B-58-12 |
| | | 1-3/4 | 301065 | B-58-14 |
| .314 | .503 | 1/4 | 101128 | AA-506-16 |
| | | 3/8 | 101129 | AA-506-2 |
| | | 1/2 | 101130 | AA-506-7 |
| | | 9/16 | 101131 | AA-506-1 |
| | | 5/8 | 101132 | AA-506-3 |
| | | 3/4 | 101133 | AA-506-8 |
| | | 1 | 101134 | AA-506-9 |
| .3145 | .503 | 3/8 | 201065 | EP050806 (P-33-3) |
| | | 1/2 | 201066 | EP050808 (P-33-4) |
| | | 5/8 | 201067 | EP050810 (P-33-5) |
| | | 3/4 | 201068 | EP050812 (P-33-6) |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|---------------------------|-------|-------|----------|--------------------|
| .3145 | .503 | 7/8 | 201069 | EP050814 (P-33-7) |
| | | 1 | 201070 | EP050816 (P-33-8) |
| | | 1-1/4 | 201071 | EP050820 (P-33-10) |
| | | 1-1/2 | 201072 | EP050824 (P-33-12) |
| .3145 | .503 | 3/8 | 401063 | SS-1016-6 |
| | | 1/2 | 401064 | SS-1016-8 |
| | | 5/8 | 401065 | SS-1016-10 |
| | | 3/4 | 401066 | SS-1016-12 |
| | | 7/8 | 401067 | SS-1016-14 |
| | | 1 | 401068 | SS-1016-16 |
| | | 1-1/4 | 401069 | SS-1016-20 |
| | | 1-1/2 | 401070 | SS-1016-24 |
| 3/8 X 7/16 NOMINAL | | | | |
| .3765 | .440 | 1/4 | 101135 | AA-432-4 |
| | | 3/8 | 101136 | AA-432-2 |
| | | 1/2 | 101137 | AA-432-1 |
| | | 3/4 | 101138 | AA-432-3 |
| .377 | .440 | 1/2 | 401071 | SS-1214-8 |
| | | 5/8 | 401072 | SS-1214-10 |
| | | 3/4 | 401073 | SS-1214-12 |
| | | 1 | 401074 | SS-1214-16 |
| .377 | .4405 | 1/2 | 201073 | EP060708 (P-37-4) |
| | | 5/8 | 201074 | EP060710 (P-37-5) |
| | | 3/4 | 201075 | EP060712 (P-37-6) |
| | | 1 | 201076 | EP060716 (P-37-8) |
| 3/8 X 1/2 NOMINAL | | | | |
| .375 | .503 | 1/4 | 101139 | AA-521-4 |
| | | 3/8 | 101140 | AA-521-9 |
| | | 7/16 | 101141 | AA-521-8 |
| | | 1/2 | 101142 | AA-521-1 |
| | | 5/8 | 101143 | AA-521-10 |
| | | 3/4 | 101144 | AA-521 |
| | | 7/8 | 101145 | AA-521-2 |
| | | 1 | 101146 | AA-521-11 |
| | | 1-1/4 | 101147 | AA-521-12 |
| .3765 | .503 | 3/16 | 101148 | AA-507-12 |
| | | 1/4 | 101149 | AA-507-19 |
| | | 5/16 | 101150 | AA-507-13 |
| | | 3/8 | 101151 | AA-507-11 |
| | | 7/16 | 101152 | AA-507-4 |
| | | 1/2 | 101153 | AA-507-10 |
| | | 5/8 | 101154 | AA-507-5 |
| | | 3/4 | 101155 | AA-507-2 |
| | | 7/8 | 101156 | AA-507-3 |
| | | 1 | 101157 | AA-507-23 |
| | | 1-1/8 | 101158 | AA-507-17 |
| .377 | .502 | 3/8 | 301066 | B-68-3 |
| | | 1/2 | 301067 | B-68-4 |
| | | 5/8 | 301068 | B-68-5 |
| | | 3/4 | 301069 | B-68-6 |
| | | 7/8 | 301070 | B-68-7 |
| | | 1 | 301071 | B-68-8 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|---------------------------|-------|-------|----------|---------------------|
| .377 | .502 | 1-1/4 | 301072 | B-68-10 |
| .377 | .503 | 3/16 | 201563 | EP060803 (P-38-1.5) |
| | | 1/4 | 201077 | EP060804 (P-38-2) |
| | | 5/16 | 201564 | EP060805 (P-38-2.5) |
| | | 3/8 | 201078 | EP060806 (P-38-3) |
| | | 7/16 | 201565 | EP060807 (P-38-3.5) |
| | | 1/2 | 201079 | EP060808 (P-38-4) |
| | | 5/8 | 201080 | EP060810 (P-38-5) |
| | | 3/4 | 201081 | EP060812 (P-38-6) |
| | | 7/8 | 201082 | EP060814 (P-38-7) |
| | | 1 | 201083 | EP060816 (P-38-8) |
| | | 1-1/8 | 201084 | EP060818 (P-38-9) |
| | | 1-1/4 | 201085 | EP060820 (P-38-10) |
| .378 | .5025 | 1/4 | 101159 | AA-502-5 |
| | | 1/2 | 101160 | AA-502 |
| | | 5/8 | 101161 | AA-502-3 |
| | | 3/4 | 101162 | AA-502-1 |
| | | 1 | 101163 | AA-502-2 |
| .378 | .503 | 1/4 | 401075 | SS-1216-4 |
| | | 3/8 | 401076 | SS-1216-6 |
| | | 1/2 | 401077 | SS-1216-8 |
| | | 5/8 | 401078 | SS-1216-10 |
| | | 3/4 | 401079 | SS-1216-12 |
| | | 7/8 | 401080 | SS-1216-14 |
| | | 1 | 401081 | SS-1216-16 |
| | | 1-1/8 | 401082 | SS-1216-18 |
| | | 1-1/4 | 401083 | SS-1216-20 |
| 3/8 X 9/16 NOMINAL | | | | |
| .3765 | .5655 | 3/8 | 101164 | AA-516-5 |
| | | 1/2 | 101165 | AA-516-6 |
| | | 9/16 | 101166 | AA-516-3 |
| | | 11/16 | 101167 | AA-516 |
| | | 3/4 | 101168 | AA-516-10 |
| | | 1 | 101169 | AA-516-8 |
| | | 1-1/4 | 101170 | AA-516-2 |
| .377 | .5645 | 3/8 | 301073 | B-69-3 |
| | | 1/2 | 301074 | B-69-4 |
| | | 5/8 | 301075 | B-69-5 |
| | | 3/4 | 301076 | B-69-6 |
| | | 7/8 | 301077 | B-69-7 |
| | | 1 | 301078 | B-69-8 |
| | | 1-1/4 | 301079 | B-69-10 |
| .377 | .5655 | 3/8 | 201086 | EP060906 (P-39-3) |
| | | 1/2 | 201087 | EP060908 (P-39-4) |
| | | 5/8 | 201088 | EP060910 (P-39-5) |
| | | 3/4 | 201089 | EP060912 (P-39-6) |
| | | 7/8 | 201090 | EP060914 (P-39-7) |
| | | 1 | 201091 | EP060916 (P-39-8) |
| | | 1-1/4 | 201092 | EP060920 (P-39-10) |
| .378 | .565 | 3/8 | 401084 | SS-1218-6 |
| | | 1/2 | 401085 | SS-1218-8 |
| | | 5/8 | 401086 | SS-1218-10 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LGTH. | ITEM NO. | PART NO. |
|-----------------------------------|------|-------|----------|--------------------|
| 3/8 X 9/16 NOMINAL (cont.) | | | | |
| .378 | .565 | 3/4 | 401087 | SS-1218-12 |
| | | 7/8 | 401088 | SS-1218-14 |
| | | 1 | 401089 | SS-1218-16 |
| | | 1-1/4 | 401090 | SS-1218-20 |
| 3/8 X 5/8 NOMINAL | | | | |
| .376 | .627 | 3/8 | 101171 | AA-630-8 |
| | | 7/16 | 101172 | AA-630-16 |
| | | 1/2 | 101173 | AA-630-11 |
| | | 5/8 | 101174 | AA-630-6 |
| | | 3/4 | 101175 | AA-630-12 |
| | | 7/8 | 101176 | AA-630 |
| | | 1 | 101177 | AA-630-7 |
| | | 1-1/8 | 101178 | AA-630-1 |
| | | 1-1/4 | 101179 | AA-630-2 |
| .377 | .627 | 3/8 | 301080 | B-610-3 |
| | | 1/2 | 301081 | B-610-4 |
| | | 5/8 | 301082 | B-610-5 |
| | | 3/4 | 301083 | B-610-6 |
| | | 7/8 | 301084 | B-610-7 |
| | | 1 | 301085 | B-610-8 |
| | | 1-1/4 | 301086 | B-610-10 |
| .377 | .628 | 3/8 | 201093 | EP061006 (P-40-3) |
| | | 1/2 | 201094 | EP061008 (P-40-4) |
| | | 5/8 | 201095 | EP061010 (P-40-5) |
| | | 3/4 | 201096 | EP061012 (P-40-6) |
| | | 7/8 | 201097 | EP061014 (P-40-7) |
| | | 1 | 201098 | EP061016 (P-40-8) |
| | | 1-1/4 | 201099 | EP061020 (P-40-10) |
| .378 | .628 | 3/8 | 401091 | SS-1220-6 |
| | | 1/2 | 401092 | SS-1220-8 |
| | | 5/8 | 401093 | SS-1220-10 |
| | | 3/4 | 401094 | SS-1220-12 |
| | | 7/8 | 401095 | SS-1220-14 |
| | | 1 | 401096 | SS-1220-16 |
| | | 1-1/4 | 401097 | SS-1220-20 |
| | | 1-1/2 | 401098 | SS-1220-24 |
| 3/8 X 11/16 NOMINAL | | | | |
| .3765 | .689 | 3/4 | 101180 | AA-615 |
| | | 1-1/2 | 101181 | AA-615-2 |
| 3/8 X 3/4 NOMINAL | | | | |
| .377 | .753 | 1/2 | 101182 | AA-707-2 |
| | | 3/4 | 101183 | AA-707-3 |
| | | 1 | 101184 | AA-707 |
| | | 1-1/4 | 101185 | AA-707-4 |
| .377 | .753 | 3/8 | 301087 | B-612-3 |
| | | 1/2 | 301088 | B-612-4 |
| | | 3/4 | 301089 | B-612-6 |
| | | 1 | 301090 | B-612-8 |
| | | 1-1/4 | 301091 | B-612-10 |
| .377 | .753 | 3/8 | 201100 | EP061206 (P-41-3) |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|----------------------------|-------|-------|----------|--------------------|
| .377 | .753 | 1/2 | 201101 | EP061208 (P-41-4) |
| | | 3/4 | 201102 | EP061212 (P-41-6) |
| | | 1 | 201103 | EP061216 (P-41-8) |
| | | 1-1/4 | 201104 | EP061220 (P-41-10) |
| .378 | .753 | 3/8 | 401099 | SS-1224-6 |
| | | 1/2 | 401100 | SS-1224-8 |
| | | 3/4 | 401101 | SS-1224-12 |
| | | 1 | 401102 | SS-1224-16 |
| | | 1-1/4 | 401103 | SS-1224-20 |
| 7/16 X 9/16 NOMINAL | | | | |
| .439 | .5645 | 3/8 | 301092 | B-79-3 |
| | | 1/2 | 301093 | B-79-4 |
| | | 5/8 | 301094 | B-79-5 |
| | | 3/4 | 301095 | B-79-6 |
| | | 7/8 | 301096 | B-79-7 |
| | | 1 | 301097 | B-79-8 |
| | | 1-1/4 | 301098 | B-79-10 |
| .439 | .565 | 5/16 | 101186 | AA-515-1 |
| | | 3/8 | 101187 | AA-515-21 |
| | | 1/2 | 101188 | AA-515-2 |
| | | 5/8 | 101189 | AA-515-3 |
| | | 3/4 | 101190 | AA-515 |
| | | 13/16 | 101191 | AA-515-12 |
| | | 15/16 | 101192 | AA-515-6 |
| | | 1 | 101193 | AA-515-8 |
| .4395 | .5655 | 3/8 | 201105 | EP070906 (P-43-3) |
| | | 1/2 | 201106 | EP070908 (P-43-4) |
| | | 5/8 | 201107 | EP070910 (P-43-5) |
| | | 3/4 | 201108 | EP070912 (P-43-6) |
| | | 7/8 | 201109 | EP070914 (P-43-7) |
| | | 1 | 201110 | EP070916 (P-43-8) |
| | | 1-1/4 | 201111 | EP070920 (P-43-10) |
| .440 | .565 | 3/8 | 401104 | SS-1418-6 |
| | | 1/2 | 401105 | SS-1418-8 |
| | | 5/8 | 401106 | SS-1418-10 |
| | | 3/4 | 401107 | SS-1418-12 |
| | | 7/8 | 401108 | SS-1418-14 |
| | | 1 | 401109 | SS-1418-16 |
| | | 1-1/4 | 401110 | SS-1418-20 |
| 7/16 X 5/8 NOMINAL | | | | |
| .439 | .627 | 3/8 | 101194 | AA-627-5 |
| | | 7/16 | 101195 | AA-627-13 |
| | | 1/2 | 101196 | AA-627-8 |
| | | 5/8 | 101197 | AA-627-3 |
| | | 3/4 | 101198 | AA-627 |
| | | 1 | 101199 | AA-627-4 |
| | | 1-1/4 | 101200 | AA-627-1 |
| | | 1-1/2 | 101201 | AA-627-7 |
| .439 | .628 | 3/8 | 301099 | B-710-3 |
| | | 1/2 | 301100 | B-710-4 |
| | | 5/8 | 301101 | B-710-5 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|-----------------------------|-------|-------|----------|---------------------|
| .439 | .628 | 3/4 | 301102 | B-710-6 |
| | | 7/8 | 301103 | B-710-7 |
| | | 1 | 301104 | B-710-8 |
| | | 1-1/4 | 301105 | B-710-10 |
| .4395 | .628 | 3/8 | 201112 | EP071006 (P-44-3) |
| | | 1/2 | 201113 | EP071008 (P-44-4) |
| | | 5/8 | 201114 | EP071010 (P-44-5) |
| | | 3/4 | 201115 | EP071012 (P-44-6) |
| | | 7/8 | 201116 | EP071014 (P-44-7) |
| | | 1 | 201117 | EP071016 (P-44-8) |
| | | 1-1/4 | 201118 | EP071020 (P-44-10) |
| | | 1-1/2 | 201119 | EP071024 (P-44-12) |
| .440 | .628 | 3/8 | 401111 | SS-1420-6 |
| | | 1/2 | 401112 | SS-1420-8 |
| | | 5/8 | 401113 | SS-1420-10 |
| | | 3/4 | 401114 | SS-1420-12 |
| | | 7/8 | 401115 | SS-1420-14 |
| | | 1 | 401116 | SS-1420-16 |
| | | 1-1/4 | 401117 | SS-1420-20 |
| | | 1-1/2 | 401118 | SS-1420-24 |
| 7/16 X 11/16 NOMINAL | | | | |
| .439 | .690 | 1/2 | 301106 | B-711-4 |
| | | 1 | 301107 | B-711-8 |
| | | 1-1/2 | 301108 | B-711-12 |
| .4395 | .6905 | 1/2 | 201120 | EP071108 (P-45-4) |
| | | 1 | 201121 | EP071116 (P-45-8) |
| | | 1-1/2 | 201122 | EP071124 (P-45-12) |
| .4395 | .6905 | 1/2 | 401119 | SS-1422-8 |
| | | 1 | 401120 | SS-1422-16 |
| | | 1-1/2 | 401121 | SS-1422-24 |
| 1/2 X 5/8 NOMINAL | | | | |
| .5015 | .628 | 5/16 | 101202 | AA-628-21 |
| | | 3/8 | 101203 | AA-628-7 |
| | | 7/16 | 101204 | AA-628-8 |
| | | 1/2 | 101205 | AA-628-10 |
| | | 9/16 | 101206 | AA-628-3 |
| | | 5/8 | 101207 | AA-628-25 |
| | | 11/16 | 101208 | AA-628-12 |
| | | 3/4 | 101209 | AA-628-6 |
| | | 7/8 | 101210 | AA-628-20 |
| | | 1 | 101211 | AA-628 |
| | | 1-1/4 | 101212 | AA-628-11 |
| | | 1-1/2 | 101213 | AA-628-5 |
| .502 | .628 | 1/2 | 301109 | B-810-4 |
| | | 5/8 | 301110 | B-810-5 |
| | | 3/4 | 301111 | B-810-6 |
| | | 7/8 | 301112 | B-810-7 |
| | | 1 | 301113 | B-810-8 |
| | | 1-1/8 | 301114 | B-810-9 |
| | | 1-1/4 | 301115 | B-810-10 |
| | | 1-1/2 | 301116 | B-810-12 |
| .502 | .628 | 5/16 | 201566 | EP081005 (P-50-2.5) |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LGTH. | ITEM NO. | PART NO. | | ID | OD | LGTH. | ITEM NO. | PART NO. | | ID | OD | LGTH. | ITEM NO. | PART NO. | |
|----------------------------------|-------|-------|----------|---------------------|--|--------------------------|-------|-------|----------|--------------------|--|-------|-------|-------|----------|--------------------|--|
| 1/2 X 5/8 NOMINAL (cont.) | | | | | | | | | | | | | | | | | |
| .502 | .628 | 3/8 | 201123 | EP081006 (P-50-3) | | .502 | .6905 | 1 | 201136 | EP081116 (P-51-8) | | .502 | .753 | 1-1/4 | 201147 | EP081220 (P-52-10) | |
| | | 7/16 | 201567 | EP081007 (P-50-3.5) | | | | 1-1/8 | 201137 | EP081118 (P-51-9) | | | | 1-1/2 | 201148 | EP081224 (P-52-12) | |
| | | 1/2 | 201124 | EP081008 (P-50-4) | | | | 1-1/4 | 201138 | EP081120 (P-51-10) | | | | 1-3/4 | 201149 | EP081228 (P-52-14) | |
| | | 9/16 | 201568 | EP081009 (P-50-4.5) | | | | 1-1/2 | 201139 | EP081124 (P-51-12) | | | | 2 | 201150 | EP081232 (P-52-16) | |
| | | 5/8 | 201125 | EP081010 (P-50-5) | | .5025 | .689 | 3/8 | 101231 | AA-631-13 | | .5025 | .753 | 1/2 | 101253 | AA-744-5 | |
| | | 11/16 | 201569 | EP081011 (P-50-5.5) | | | | 3/4 | 101232 | AA-631 | | | | 5/8 | 101254 | AA-744-9 | |
| | | 3/4 | 201126 | EP081012 (P-50-6) | | | | 1-1/4 | 101233 | AA-631-1 | | | | 3/4 | 101255 | AA-744-4 | |
| | | 7/8 | 201127 | EP081014 (P-50-7) | | .503 | .690 | 1/2 | 401131 | SS-1622-8 | | | | 7/8 | 101256 | AA-744-10 | |
| | | 1 | 201128 | EP081016 (P-50-8) | | | | 5/8 | 401132 | SS-1622-10 | | | | 1 | 101257 | AA-744-3 | |
| | | 1-1/8 | 201129 | EP081018 (P-50-9) | | | | 3/4 | 401133 | SS-1622-12 | | | | 1-1/4 | 101258 | AA-744 | |
| | | 1-1/4 | 201130 | EP081020 (P-50-10) | | | | 7/8 | 401134 | SS-1622-14 | | | | 1-1/2 | 101259 | AA-744-1 | |
| | | 1-1/2 | 201131 | EP081024 (P-50-12) | | | | 1 | 401135 | SS-1622-16 | | | | 1-3/4 | 101260 | AA-744-2 | |
| .502 | .628 | 3/8 | 401122 | SS-1620-6 | | | | 1-1/8 | 401136 | SS-1622-18 | | .503 | .753 | 3/8 | 401139 | SS-1624-6 | |
| | | 1/2 | 401123 | SS-1620-8 | | | | 1-1/4 | 401137 | SS-1622-20 | | | | 1/2 | 401140 | SS-1624-8 | |
| | | 5/8 | 401124 | SS-1620-10 | | | | 1-1/2 | 401138 | SS-1622-24 | | | | 5/8 | 401141 | SS-1624-10 | |
| | | 3/4 | 401125 | SS-1620-12 | | .504 | .690 | 1/4 | 101234 | AA-618-16 | | | | 3/4 | 401142 | SS-1624-12 | |
| | | 7/8 | 401126 | SS-1620-14 | | | | 1/2 | 101235 | AA-618-1 | | | | 7/8 | 401143 | SS-1624-14 | |
| | | 1 | 401127 | SS-1620-16 | | | | 9/16 | 101236 | AA-618-13 | | | | 1 | 401144 | SS-1624-16 | |
| | | 1-1/8 | 401128 | SS-1620-18 | | | | 5/8 | 101237 | AA-618-12 | | | | 1-1/8 | 401145 | SS-1624-18 | |
| | | 1-1/4 | 401129 | SS-1620-20 | | | | 3/4 | 101238 | AA-618-11 | | | | 1-1/4 | 401146 | SS-1624-20 | |
| | | 1-1/2 | 401130 | SS-1620-24 | | | | 7/8 | 101239 | AA-618-8 | | | | 1-1/2 | 401147 | SS-1624-24 | |
| .5025 | .629 | 1/2 | 101214 | AA-607-1 | | | | 1 | 101240 | AA-618-6 | | | | 1-3/4 | 401148 | SS-1624-28 | |
| | | 5/8 | 101215 | AA-607-2 | | | | 1-1/8 | 101241 | AA-618-2 | | | | 2 | 401149 | SS-1624-32 | |
| | | 3/4 | 101216 | AA-607-5 | | | | 1-3/8 | 101242 | AA-618-5 | | | | | | | |
| | | 1 | 101217 | AA-607-3 | | 1/2 X 3/4 NOMINAL | | | | | | | | | | | |
| | | 1-1/4 | 101218 | AA-607-6 | | .5005 | .752 | 1/2 | 101243 | AA-742-1 | | .501 | .815 | 3/4 | 101261 | AA-886-3 | |
| .504 | .6275 | 1/2 | 101219 | AA-634-4 | | | | 3/4 | 101244 | AA-742-2 | | | | 1 | 101262 | AA-886-1 | |
| | | 1 | 101220 | AA-634-5 | | | | 1 | 101245 | AA-742 | | | | 1-1/2 | 101263 | AA-886-4 | |
| 1/2 X 11/16 NOMINAL | | | | | | | | 1-1/8 | 101246 | AA-742-4 | | .502 | .815 | 1/2 | 301135 | B-813-4 | |
| .5015 | .690 | 3/8 | 101221 | AA-650-4 | | | | 1-1/4 | 101247 | AA-742-3 | | | | 3/4 | 301136 | B-813-6 | |
| | | 1/2 | 101222 | AA-650-1 | | .5015 | .752 | 1/2 | 101248 | AA-753 | | | | 1 | 301137 | B-813-8 | |
| | | 9/16 | 101223 | AA-650-6 | | | | 9/16 | 101249 | AA-753-1 | | | | 1-1/2 | 301138 | B-813-12 | |
| | | 5/8 | 101224 | AA-650-9 | | | | 3/4 | 101250 | AA-753-5 | | .502 | .8165 | 1/2 | 201151 | EP081308 (P-53-4) | |
| | | 3/4 | 101225 | AA-650 | | | | 1 | 101251 | AA-753-2 | | | | 3/4 | 201152 | EP081312 (P-53-6) | |
| | | 7/8 | 101226 | AA-650-7 | | | | 1-1/2 | 101252 | AA-753-4 | | | | 1 | 201153 | EP081316 (P-53-8) | |
| | | 1 | 101227 | AA-650-2 | | .502 | .753 | 1/2 | 301125 | B-812-4 | | | | 1-1/2 | 201154 | EP081324 (P-53-12) | |
| | | 1-1/8 | 101228 | AA-650-5 | | | | 5/8 | 301126 | B-812-5 | | .503 | .815 | 1/2 | 401150 | SS-1626-8 | |
| | | 1-1/4 | 101229 | AA-650-12 | | | | 3/4 | 301127 | B-812-6 | | | | 3/4 | 401151 | SS-1626-12 | |
| | | 1-1/2 | 101230 | AA-650-3 | | | | 7/8 | 301128 | B-812-7 | | | | 1 | 401152 | SS-1626-16 | |
| .502 | .690 | 1/2 | 301117 | B-811-4 | | | | 1 | 301129 | B-812-8 | | | | 1-1/2 | 401153 | SS-1626-24 | |
| | | 5/8 | 301118 | B-811-5 | | | | 1-1/8 | 301130 | B-812-9 | | | | | | | |
| | | 3/4 | 301119 | B-811-6 | | | | 1-1/4 | 301131 | B-812-10 | | | | | | | |
| | | 7/8 | 301120 | B-811-7 | | | | 1-1/2 | 301132 | B-812-12 | | | | | | | |
| | | 1 | 301121 | B-811-8 | | | | 1-3/4 | 301133 | B-812-14 | | | | | | | |
| | | 1-1/8 | 301122 | B-811-9 | | | | 2 | 301134 | B-812-16 | | | | | | | |
| | | 1-1/4 | 301123 | B-811-10 | | .502 | .753 | 3/8 | 201140 | EP081206 (P-52-3) | | .502 | .878 | 1/2 | 301139 | B-814-4 | |
| | | 1-1/2 | 301124 | B-811-12 | | | | 1/2 | 201141 | EP081208 (P-52-4) | | | | 5/8 | 301140 | B-814-5 | |
| .502 | .6905 | 3/8 | 201570 | EP081106 (P-51-3) | | | | 5/8 | 201142 | EP081210 (P-52-5) | | | | 3/4 | 301141 | B-814-6 | |
| | | 1/2 | 201132 | EP081108 (P-51-4) | | | | 7/8 | 201144 | EP081214 (P-52-7) | | | | 7/8 | 301142 | B-814-7 | |
| | | 5/8 | 201133 | EP081110 (P-51-5) | | | | 3/4 | 201143 | EP081212 (P-52-6) | | | | 1 | 301143 | B-814-8 | |
| | | 3/4 | 201134 | EP081112 (P-51-6) | | | | 7/8 | 201144 | EP081214 (P-52-7) | | | | 1-1/4 | 301144 | B-814-10 | |
| | | 7/8 | 201135 | EP081114 (P-51-7) | | | | 1 | 201145 | EP081216 (P-52-8) | | | | 1-1/2 | 301145 | B-814-12 | |
| | | | | | | | | 1-1/8 | 201146 | EP081218 (P-52-9) | | .502 | .879 | 1/2 | 201155 | EP081408 (P-54-4) | |
| | | | | | | | | | | | | | | 5/8 | 201156 | EP081410 (P-54-5) | |
| | | | | | | | | | | | | | | 3/4 | 201157 | EP081412 (P-54-6) | |
| | | | | | | | | | | | | | | 7/8 | 201158 | EP081414 (P-54-7) | |



| ID | OD | LGTH. | ITEM NO. | PART NO. | |
|----------------------------------|-------|-------|----------|------------|-----------|
| 1/2 X 7/8 NOMINAL (cont.) | | | | | |
| .502 | .879 | 1 | 201159 | EP081416 | (P-54-8) |
| | | 1-1/4 | 201160 | EP081420 | (P-54-10) |
| | | 1-1/2 | 201161 | EP081424 | (P-54-12) |
| .503 | .878 | 1/2 | 401154 | SS-1628-8 | |
| | | 5/8 | 401155 | SS-1628-10 | |
| | | 3/4 | 401156 | SS-1628-12 | |
| | | 7/8 | 401157 | SS-1628-14 | |
| | | 1 | 401158 | SS-1628-16 | |
| | | 1-1/4 | 401159 | SS-1628-20 | |
| | | 1-1/2 | 401160 | SS-1628-24 | |
| .503 | .879 | 1/2 | 101264 | AA-842-7 | |
| | | 3/4 | 101265 | AA-842-4 | |
| | | 1 | 101266 | AA-842-3 | |
| | | 1-1/4 | 101267 | AA-842-2 | |
| | | 1-1/2 | 101268 | AA-842 | |
| 1/2 X 1 NOMINAL | | | | | |
| .502 | 1.004 | 3/4 | 201162 | EP081612 | (P-55-6) |
| | | 1 | 201163 | EP081616 | (P-55-8) |
| | | 1-1/2 | 201164 | EP081624 | (P-55-12) |
| | | 2 | 201165 | EP081632 | (P-55-16) |
| .503 | 1.004 | 3/4 | 401161 | SS-1632-12 | |
| | | 1 | 401162 | SS-1632-16 | |
| | | 1-1/2 | 401163 | SS-1632-24 | |
| | | 2 | 401164 | SS-1632-32 | |
| 9/16 X 11/16 NOMINAL | | | | | |
| .5635 | .691 | 7/16 | 101269 | AA-620-3 | |
| | | 1/2 | 101270 | AA-620-7 | |
| | | 5/8 | 101271 | AA-620-8 | |
| | | 3/4 | 101272 | AA-620-1 | |
| | | 1 | 101273 | AA-620 | |
| | | 1-1/4 | 101274 | AA-620-5 | |
| .5645 | .6905 | 1/2 | 201166 | EP091108 | (P-56-4) |
| | | 5/8 | 201571 | EP091110 | (P-56-5) |
| | | 3/4 | 201167 | EP091112 | (P-56-6) |
| | | 1 | 201168 | EP091116 | (P-56-8) |
| | | 1-1/4 | 201169 | EP091120 | (P-56-10) |
| | | 1-1/2 | 201170 | EP091124 | (P-56-12) |
| .565 | .690 | 1/2 | 401165 | SS-1822-8 | |
| | | 3/4 | 401166 | SS-1822-12 | |
| | | 1 | 401167 | SS-1822-16 | |
| | | 1-1/4 | 401168 | SS-1822-20 | |
| | | 1-1/2 | 401169 | SS-1822-24 | |
| .565 | .691 | 1/2 | 301146 | B-911-4 | |
| | | 3/4 | 301147 | B-911-6 | |
| | | 1 | 301148 | B-911-8 | |
| | | 1-1/2 | 301149 | B-911-12 | |
| .568 | .689 | 1-1/8 | 101275 | AA-658-5 | |
| | | 1-1/2 | 101276 | AA-658-1 | |
| 9/16 X 3/4 NOMINAL | | | | | |
| .5635 | .7535 | 5/8 | 101278 | AA-711-6 | |
| | | 3/4 | 101279 | AA-711-1 | |
| | | 1 | 101280 | AA-711-3 | |

| ID | OD | LGTH. | ITEM NO. | PART NO. | |
|-----------------------------|-------|-------|----------|------------|-----------|
| .5635 | .7535 | 1-1/4 | 101281 | AA-711-5 | |
| | | 1-3/8 | 101282 | AA-711 | |
| | | 1-1/2 | 101283 | AA-711-2 | |
| .5645 | .753 | 1/2 | 201171 | EP091208 | (P-57-4) |
| | | 3/4 | 201172 | EP091212 | (P-57-6) |
| | | 1 | 201173 | EP091216 | (P-57-8) |
| | | 1-1/4 | 201174 | EP091220 | (P-57-10) |
| | | 1-1/2 | 201175 | EP091224 | (P-57-12) |
| .565 | .753 | 1/2 | 301150 | B-912-4 | |
| | | 3/4 | 301151 | B-912-6 | |
| | | 1 | 301152 | B-912-8 | |
| | | 1-1/2 | 301153 | B-912-12 | |
| .565 | .753 | 1/2 | 401170 | SS-1824-8 | |
| | | 3/4 | 401171 | SS-1824-12 | |
| | | 1 | 401172 | SS-1824-16 | |
| | | 1-1/4 | 401173 | SS-1824-20 | |
| | | 1-1/2 | 401174 | SS-1824-24 | |
| .566 | .753 | 1/2 | 101284 | AA-709-7 | |
| | | 3/4 | 101285 | AA-709-8 | |
| | | 1 | 101286 | AA-709 | |
| | | 1-1/4 | 101287 | AA-709-5 | |
| | | 1-1/2 | 101288 | AA-709-6 | |
| 9/16 X 13/16 NOMINAL | | | | | |
| .563 | .815 | 3/4 | 101289 | AA-807-3 | |
| | | 1 | 101290 | AA-807-2 | |
| | | 1-1/4 | 101291 | AA-807-4 | |
| .5645 | .8165 | 1/2 | 201176 | EP091308 | (P-58-4) |
| | | 3/4 | 201177 | EP091312 | (P-58-6) |
| | | 1 | 201178 | EP091316 | (P-58-8) |
| | | 1-1/4 | 201179 | EP091320 | (P-58-10) |
| | | 1-1/2 | 201180 | EP091324 | (P-58-12) |
| .565 | .815 | 1/2 | 301154 | B-913-4 | |
| | | 3/4 | 301155 | B-913-6 | |
| | | 1 | 301156 | B-913-8 | |
| | | 1-1/4 | 301157 | B-913-10 | |
| | | 1-1/2 | 301158 | B-913-12 | |
| .565 | .815 | 1/2 | 401175 | SS-1826-8 | |
| | | 3/4 | 401176 | SS-1826-12 | |
| | | 1 | 401177 | SS-1826-16 | |
| | | 1-1/4 | 401178 | SS-1826-20 | |
| | | 1-1/2 | 401179 | SS-1826-24 | |
| 9/16 X 7/8 NOMINAL | | | | | |
| .567 | .877 | 1 | 101292 | AA-863-3 | |
| | | 1-3/8 | 101293 | AA-863 | |

| ID | OD | LGTH. | ITEM NO. | (PART NO.) | |
|----------------------------|------|-------|----------|------------|-----------|
| 5/8 X 3/4 NOMINAL | | | | | |
| .626 | .753 | 1/2 | 101294 | AA-724-8 | |
| | | 7/8 | 101295 | AA-724-2 | |
| | | 1 | 101296 | AA-724-3 | |
| | | 1-1/8 | 101297 | AA-724 | |
| | | 1-1/4 | 101298 | AA-724-5 | |
| .627 | .752 | 1/2 | 101299 | AA-741 | |
| | | 5/8 | 101300 | AA-741-1 | |
| | | 3/4 | 101301 | AA-741-4 | |
| .627 | .753 | 3/8 | 101302 | AA-710-13 | |
| | | 1/2 | 101303 | AA-710-27 | |
| | | 5/8 | 101304 | AA-710-19 | |
| | | 3/4 | 101305 | AA-710-6 | |
| | | 7/8 | 101306 | AA-710-16 | |
| | | 1 | 101307 | AA-710-3 | |
| | | 1-1/8 | 101308 | AA-710-8 | |
| | | 1-1/4 | 101309 | AA-710-5 | |
| | | 1-1/2 | 101310 | AA-710-4 | |
| .627 | .753 | 3/8 | 201572 | EP101206 | (P-62-3) |
| | | 1/2 | 201181 | EP101208 | (P-62-4) |
| | | 5/8 | 201182 | EP101210 | (P-62-5) |
| | | 3/4 | 201183 | EP101212 | (P-62-6) |
| | | 7/8 | 201184 | EP101214 | (P-62-7) |
| | | 1 | 201185 | EP101216 | (P-62-8) |
| | | 1-1/8 | 201186 | EP101218 | (P-62-9) |
| | | 1-1/4 | 201187 | EP101220 | (P-62-10) |
| | | 1-1/2 | 201188 | EP101224 | (P-62-12) |
| .627 | .753 | 1/2 | 301159 | B-1012-4 | |
| | | 5/8 | 301160 | B-1012-5 | |
| | | 3/4 | 301161 | B-1012-6 | |
| | | 7/8 | 301162 | B-1012-7 | |
| | | 1 | 301163 | B-1012-8 | |
| | | 1-1/8 | 301164 | B-1012-9 | |
| | | 1-1/4 | 301165 | B-1012-10 | |
| | | 1-1/2 | 301166 | B-1012-12 | |
| .628 | .753 | 1/2 | 401180 | SS-2024-8 | |
| | | 5/8 | 401181 | SS-2024-10 | |
| | | 3/4 | 401182 | SS-2024-12 | |
| | | 7/8 | 401183 | SS-2024-14 | |
| | | 1 | 401184 | SS-2024-16 | |
| | | 1-1/8 | 401185 | SS-2024-18 | |
| | | 1-1/4 | 401186 | SS-2024-20 | |
| | | 1-1/2 | 401187 | SS-2024-24 | |
| 5/8 X 13/16 NOMINAL | | | | | |
| .625 | .815 | 1/2 | 101311 | AA-810-4 | |
| | | 5/8 | 101312 | AA-810-2 | |
| | | 3/4 | 101313 | AA-810-10 | |
| | | 7/8 | 101314 | AA-810-1 | |
| | | 1 | 101315 | AA-810-7 | |
| | | 1-1/4 | 101316 | AA-810-11 | |
| | | 1-3/8 | 101317 | AA-810 | |
| | | 1-1/2 | 101318 | AA-810-12 | |
| .627 | .815 | 3/4 | 101319 | AA-811-7 | |
| | | 1 | 101320 | AA-811-6 | |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LGTH. | ITEM NO. | PART NO. |
|------------------------------------|-------|-------|----------|--------------------|
| 5/8 X 13/16 NOMINAL (cont.) | | | | |
| .627 | .815 | 1-1/4 | 101321 | AA-811-2 |
| | | 1-3/8 | 101322 | AA-811-5 |
| | | 1-1/2 | 101323 | AA-811-3 |
| | | 1-3/4 | 101324 | AA-811-1 |
| | | 1.99 | 101325 | AA-811 |
| .627 | .815 | 1/2 | 301167 | B-1013-4 |
| | | 5/8 | 301168 | B-1013-5 |
| | | 3/4 | 301169 | B-1013-6 |
| | | 7/8 | 301170 | B-1013-7 |
| | | 1 | 301171 | B-1013-8 |
| | | 1-1/4 | 301172 | B-1013-10 |
| | | 1-1/2 | 301173 | B-1013-12 |
| | | 2 | 301174 | B-1013-16 |
| .627 | .8165 | 1/2 | 201189 | EP101308 (P-63-4) |
| | | 5/8 | 201190 | EP101310 (P-63-5) |
| | | 3/4 | 201191 | EP101312 (P-63-6) |
| | | 7/8 | 201192 | EP101314 (P-63-7) |
| | | 1 | 201193 | EP101316 (P-63-8) |
| | | 1-1/4 | 201194 | EP101320 (P-63-10) |
| | | 1-1/2 | 201195 | EP101324 (P-63-12) |
| | | 1-3/4 | 201196 | EP101328 (P-63-14) |
| .628 | .815 | 1/2 | 401188 | SS-2026-8 |
| | | 5/8 | 401189 | SS-2026-10 |
| | | 3/4 | 401190 | SS-2026-12 |
| | | 7/8 | 401191 | SS-2026-14 |
| | | 1 | 401192 | SS-2026-16 |
| | | 1-1/4 | 401193 | SS-2026-20 |
| | | 1-1/2 | 401194 | SS-2026-24 |
| | | 1-3/4 | 401195 | SS-2026-28 |
| .628 | .8155 | 5/8 | 101326 | AA-814-3 |
| | | 3/4 | 101327 | AA-814-2 |
| | | 1 | 101328 | AA-814 |
| | | 1-1/4 | 101329 | AA-814-5 |
| 5/8 X 7/8 NOMINAL | | | | |
| .625 | .877 | 1/2 | 101330 | AA-880-4 |
| | | 3/4 | 101331 | AA-880-2 |
| | | 1 | 101332 | AA-880-1 |
| | | 1-1/2 | 101333 | AA-880 |
| .627 | .878 | 1/2 | 101334 | AA-832-11 |
| | | 5/8 | 101335 | AA-832-12 |
| | | 3/4 | 101336 | AA-832-6 |
| | | 7/8 | 101337 | AA-832-8 |
| | | 1 | 101338 | AA-832-1 |
| | | 1-1/8 | 101339 | AA-832-13 |
| | | 1-1/4 | 101340 | AA-832-4 |
| | | 1-3/8 | 101341 | AA-832-2 |
| | | 1-1/2 | 101342 | AA-832-5 |
| | | 1-5/8 | 101343 | AA-832-9 |
| | | 2 | 101344 | AA-832-18 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|----------------------------|-------|-------|----------|--------------------|
| .627 | .878 | 5/8 | 301175 | B-1014-5 |
| | | 3/4 | 301176 | B-1014-6 |
| | | 7/8 | 301177 | B-1014-7 |
| | | 1 | 301178 | B-1014-8 |
| | | 1-1/4 | 301179 | B-1014-10 |
| | | 1-1/2 | 301180 | B-1014-12 |
| | | 1-3/4 | 301181 | B-1014-14 |
| | | 2 | 301182 | B-1014-16 |
| .627 | .879 | 1/2 | 201197 | EP101408 (P-64-4) |
| | | 5/8 | 201198 | EP101410 (P-64-5) |
| | | 3/4 | 201199 | EP101412 (P-64-6) |
| | | 7/8 | 201200 | EP101414 (P-64-7) |
| | | 1 | 201201 | EP101416 (P-64-8) |
| | | 1-1/8 | 201202 | EP101418 (P-64-9) |
| | | 1-1/4 | 201203 | EP101420 (P-64-10) |
| | | 1-1/2 | 201204 | EP101424 (P-64-12) |
| | | 1-3/4 | 201205 | EP101428 (P-64-14) |
| | | 2 | 201206 | EP101432 (P-64-16) |
| .628 | .878 | 1/2 | 401196 | SS-2028-8 |
| | | 5/8 | 401197 | SS-2028-10 |
| | | 3/4 | 401198 | SS-2028-12 |
| | | 7/8 | 401199 | SS-2028-14 |
| | | 1 | 401200 | SS-2028-16 |
| | | 1-1/8 | 401201 | SS-2028-18 |
| | | 1-1/4 | 401202 | SS-2028-20 |
| | | 1-1/2 | 401203 | SS-2028-24 |
| | | 1-3/4 | 401204 | SS-2028-28 |
| | | 2 | 401205 | SS-2028-32 |
| 5/8 X 15/16 NOMINAL | | | | |
| .627 | .9415 | 5/8 | 201207 | EP101510 (P-65-5) |
| | | 3/4 | 201208 | EP101512 (P-65-6) |
| | | 1 | 201209 | EP101516 (P-65-8) |
| .628 | .940 | 5/8 | 101345 | AA-946-4 |
| | | 3/4 | 101346 | AA-946-2 |
| | | 1 | 101347 | AA-946-1 |
| .628 | .941 | 5/8 | 401206 | SS-2030-10 |
| | | 3/4 | 401207 | SS-2030-12 |
| | | 1 | 401208 | SS-2030-16 |
| 5/8 X 1 NOMINAL | | | | |
| .627 | 1.004 | 1/2 | 201210 | EP101608 (P-66-4) |
| | | 5/8 | 201211 | EP101610 (P-66-5) |
| | | 3/4 | 201212 | EP101612 (P-66-6) |
| | | 7/8 | 201213 | EP101614 (P-66-7) |
| | | 1 | 201214 | EP101616 (P-66-8) |
| | | 1-1/4 | 201215 | EP101620 (P-66-10) |
| | | 1-1/2 | 201216 | EP101624 (P-66-12) |
| | | 1-3/4 | 201217 | EP101628 (P-66-14) |
| | | 2 | 201218 | EP101632 (P-66-16) |
| .628 | 1.003 | 1/2 | 301183 | B-1016-4 |
| | | 5/8 | 301184 | B-1016-5 |
| | | 3/4 | 301185 | B-1016-6 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|------------------------------|--------|-------|----------|--------------------|
| .628 | 1.003 | 7/8 | 301186 | B-1016-7 |
| | | 1 | 301187 | B-1016-8 |
| | | 1-1/4 | 301188 | B-1016-10 |
| | | 1-1/2 | 301189 | B-1016-12 |
| | | 1-3/4 | 301190 | B-1016-14 |
| | | 2 | 301191 | B-1016-16 |
| .628 | 1.003 | 1/2 | 401209 | SS-2032-8 |
| | | 5/8 | 401210 | SS-2032-10 |
| | | 3/4 | 401211 | SS-2032-12 |
| | | 7/8 | 401212 | SS-2032-14 |
| | | 1 | 401213 | SS-2032-16 |
| | | 1-1/4 | 401214 | SS-2032-20 |
| | | 1-1/2 | 401215 | SS-2032-24 |
| | | 1-3/4 | 401216 | SS-2032-28 |
| | | 2 | 401217 | SS-2032-32 |
| .628 | 1.0035 | 3/4 | 101348 | AA-1011-12 |
| | | 7/8 | 101349 | AA-1011-5 |
| | | 1 | 101350 | AA-1011-3 |
| | | 1-1/8 | 101351 | AA-1011-4 |
| | | 1-1/4 | 101352 | AA-1011-1 |
| | | 1-3/8 | 101353 | AA-1011-13 |
| | | 1-1/2 | 101354 | AA-1011 |
| 11/16 X 13/16 NOMINAL | | | | |
| .6885 | .815 | 1 | 101355 | AA-812-1 |
| | | 1-1/4 | 101356 | AA-812 |
| 11/16 X 7/8 NOMINAL | | | | |
| .6895 | .879 | 3/4 | 201219 | EP111412 (P-68-6) |
| | | 1 | 201220 | EP111416 (P-68-8) |
| | | 1-1/4 | 201221 | EP111420 (P-68-10) |
| | | 1-1/2 | 201222 | EP111424 (P-68-12) |
| | | 1-3/4 | 201223 | EP111428 (P-68-14) |
| | | 2 | 201224 | EP111432 (P-68-16) |
| .690 | .878 | 1/2 | 101357 | AA-851-2 |
| | | 3/4 | 101358 | AA-851-7 |
| | | 1 | 101359 | AA-851-8 |
| | | 1-1/8 | 101360 | AA-851-6 |
| | | 1-1/4 | 101361 | AA-851-1 |
| .690 | .878 | 3/4 | 301192 | B-1114-6 |
| | | 1 | 301193 | B-1114-8 |
| | | 1-1/4 | 301194 | B-1114-10 |
| | | 1-1/2 | 301195 | B-1114-12 |
| | | 1-3/4 | 301196 | B-1114-14 |
| | | 2 | 301197 | B-1114-16 |
| .690 | .878 | 3/4 | 401218 | SS-2228-12 |
| | | 1 | 401219 | SS-2228-16 |
| | | 1-1/4 | 401220 | SS-2228-20 |
| | | 1-1/2 | 401221 | SS-2228-24 |
| | | 1-3/4 | 401222 | SS-2228-28 |
| | | 2 | 401223 | SS-2228-32 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LGTH. | ITEM NO. | PART NO. |
|------------------------------|------|-------|----------|---------------------|
| 11/16 X 15/16 NOMINAL | | | | |
| .689 | .941 | 1 | 101362 | AA-939-3 |
| | | 1-1/4 | 101363 | AA-939-2 |
| | | 1-1/2 | 101364 | AA-939-4 |
| 3/4 X 7/8 NOMINAL | | | | |
| .751 | .878 | 9/16 | 101365 | AA-838-9 |
| | | 5/8 | 101366 | AA-838-25 |
| | | 3/4 | 101367 | AA-838-16 |
| | | 7/8 | 101368 | AA-838-6 |
| | | 1 | 101369 | AA-838-7 |
| | | 1-1/8 | 101370 | AA-838-13 |
| | | 1-1/4 | 101371 | AA-838-5 |
| | | 1-3/8 | 101372 | AA-838-15 |
| | | 1-1/2 | 101373 | AA-838-4 |
| | | 1-5/8 | 101374 | AA-838-8 |
| .752 | .878 | 3/4 | 101375 | AA-885 |
| | | 1 | 101376 | AA-885-3 |
| | | 1-1/4 | 101377 | AA-885-4 |
| .752 | .879 | 1/2 | 201225 | EP121408 (P-75-4) |
| | | 9/16 | 201573 | EP121409 (P-75-4.5) |
| | | 5/8 | 201226 | EP121410 (P-75-5) |
| | | 11/16 | 201574 | EP121411 (P-75-5.5) |
| | | 3/4 | 201227 | EP121412 (P-75-6) |
| | | 7/8 | 201228 | EP121414 (P-75-7) |
| | | 1 | 201229 | EP121416 (P-75-8) |
| | | 1-1/8 | 201230 | EP121418 (P-75-9) |
| | | 1-1/4 | 201231 | EP121420 (P-75-10) |
| | | 1-1/2 | 201232 | EP121424 (P-75-12) |
| | | 1-5/8 | 201233 | EP121426 (P-75-13) |
| .753 | .878 | 5/8 | 101378 | AA-839-1 |
| | | 11/16 | 101379 | AA-839-3 |
| | | 3/4 | 101380 | AA-839-6 |
| | | 1 | 101381 | AA-839-13 |
| | | 1-1/8 | 101382 | AA-839-2 |
| | | 1-1/4 | 101383 | AA-839-4 |
| | | 1-1/2 | 101384 | AA-839-7 |
| .753 | .878 | 1/2 | 301198 | B-1214-4 |
| | | 5/8 | 301199 | B-1214-5 |
| | | 3/4 | 301200 | B-1214-6 |
| | | 7/8 | 301201 | B-1214-7 |
| | | 1 | 301202 | B-1214-8 |
| | | 1-1/4 | 301203 | B-1214-10 |
| | | 1-1/2 | 301204 | B-1214-12 |
| | | 1-5/8 | 301205 | B-1214-13 |
| .753 | .878 | 1/2 | 401224 | SS-2428-8 |
| | | 5/8 | 401225 | SS-2428-10 |
| | | 3/4 | 401226 | SS-2428-12 |
| | | 7/8 | 401227 | SS-2428-14 |
| | | 1 | 401228 | SS-2428-16 |
| | | 1-1/8 | 401229 | SS-2428-18 |
| | | 1-1/4 | 401230 | SS-2428-20 |
| | | 1-1/2 | 401231 | SS-2428-24 |
| | | 1-5/8 | 401232 | SS-2428-26 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|----------------------------|--------|-------|----------|--------------------|
| 3/4 X 15/16 NOMINAL | | | | |
| .7515 | .940 | 3/4 | 101385 | AA-921-5 |
| | | 1 | 101386 | AA-921-4 |
| | | 1-1/8 | 101387 | AA-921-2 |
| | | 1-1/4 | 101388 | AA-921-3 |
| | | 1-1/2 | 101389 | AA-921-1 |
| | | 1-3/4 | 101390 | AA-921 |
| | | 2 | 101391 | AA-921-6 |
| .752 | .9415 | 1/2 | 201234 | EP121508 (P-76-4) |
| | | 5/8 | 201235 | EP121510 (P-76-5) |
| | | 3/4 | 201236 | EP121512 (P-76-6) |
| | | 7/8 | 201237 | EP121514 (P-76-7) |
| | | 1 | 201238 | EP121516 (P-76-8) |
| | | 1-1/8 | 201239 | EP121518 (P-76-9) |
| | | 1-1/4 | 201240 | EP121520 (P-76-10) |
| | | 1-1/2 | 201241 | EP121524 (P-76-12) |
| | | 1-5/8 | 201242 | EP121526 (P-76-13) |
| | | 1-3/4 | 201243 | EP121528 (P-76-14) |
| | | 1-7/8 | 201244 | EP121530 (P-76-15) |
| | | 2 | 201245 | EP121532 (P-76-16) |
| .752 | .942 | 1 | 101392 | AA-912 |
| | | 1-1/4 | 101393 | AA-912-4 |
| | | 1-3/8 | 101394 | AA-912-1 |
| | | 1-1/2 | 101395 | AA-912-6 |
| | | 1-5/8 | 101396 | AA-912-2 |
| | | 1-3/4 | 101397 | AA-912-7 |
| .753 | .9405 | 1/2 | 301206 | B-1215-4 |
| | | 5/8 | 301207 | B-1215-5 |
| | | 3/4 | 301208 | B-1215-6 |
| | | 7/8 | 301209 | B-1215-7 |
| | | 1 | 301210 | B-1215-8 |
| | | 1-1/4 | 301211 | B-1215-10 |
| | | 1-1/2 | 301212 | B-1215-12 |
| | | 1-3/4 | 301213 | B-1215-14 |
| | | 2 | 301214 | B-1215-16 |
| .753 | .941 | 1/2 | 401233 | SS-2430-8 |
| | | 5/8 | 401234 | SS-2430-10 |
| | | 3/4 | 401235 | SS-2430-12 |
| | | 7/8 | 401236 | SS-2430-14 |
| | | 1 | 401237 | SS-2430-16 |
| | | 1-1/8 | 401238 | SS-2430-18 |
| | | 1-1/4 | 401239 | SS-2430-20 |
| | | 1-1/2 | 401240 | SS-2430-24 |
| | | 1-5/8 | 401241 | SS-2430-26 |
| | | 1-3/4 | 401242 | SS-2430-28 |
| | | 1-7/8 | 401243 | SS-2430-30 |
| | | 2 | 401244 | SS-2430-32 |
| 3/4 X 1 NOMINAL | | | | |
| .7505 | 1.0025 | 3/4 | 101398 | AA-1005-5 |
| | | 1 | 101399 | AA-1005-7 |
| | | 1-1/8 | 101400 | AA-1005-3 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|-------|--------|-------|----------|--------------------|
| .7505 | 1.0025 | 1-1/4 | 101401 | AA-1005-2 |
| | | 1-1/2 | 101402 | AA-1005-4 |
| .752 | 1.0025 | 3/8 | 101403 | AA-1049-18 |
| | | 1/2 | 101404 | AA-1049-14 |
| | | 3/4 | 101405 | AA-1049-1 |
| | | 7/8 | 101406 | AA-1049-2 |
| | | 1 | 101407 | AA-1049-3 |
| | | 1-1/8 | 101408 | AA-1049-16 |
| | | 1-1/4 | 101409 | AA-1049 |
| | | 1-3/8 | 101410 | AA-1049-17 |
| | | 1-1/2 | 101411 | AA-1049-4 |
| | | 1-3/4 | 101412 | AA-1049-9 |
| | | 2 | 101413 | AA-1049-5 |
| | | 2-1/8 | 101414 | AA-1049-11 |
| | | 2-1/4 | 101415 | AA-1049-12 |
| | | 2-1/2 | 101416 | AA-1049-6 |
| .752 | 1.004 | 1/2 | 201246 | EP121608 (P-77-4) |
| | | 5/8 | 201247 | EP121610 (P-77-5) |
| | | 3/4 | 201248 | EP121612 (P-77-6) |
| | | 7/8 | 201249 | EP121614 (P-77-7) |
| | | 1 | 201250 | EP121616 (P-77-8) |
| | | 1-1/8 | 201251 | EP121618 (P-77-9) |
| | | 1-1/4 | 201252 | EP121620 (P-77-10) |
| | | 1-1/2 | 201253 | EP121624 (P-77-12) |
| | | 1-3/4 | 201254 | EP121628 (P-77-14) |
| | | 2 | 201255 | EP121632 (P-77-16) |
| | | 2-1/2 | 201256 | EP121640 (P-77-20) |
| .753 | 1.003 | 3/4 | 101417 | AA-1043-6 |
| | | 7/8 | 101418 | AA-1043-8 |
| | | 1 | 101419 | AA-1043-9 |
| | | 1-1/4 | 101420 | AA-1043 |
| | | 1-1/2 | 101421 | AA-1043-4 |
| .753 | 1.003 | 1/2 | 301215 | B-1216-4 |
| | | 5/8 | 301216 | B-1216-5 |
| | | 3/4 | 301217 | B-1216-6 |
| | | 7/8 | 301218 | B-1216-7 |
| | | 1 | 301219 | B-1216-8 |
| | | 1-1/8 | 301220 | B-1216-9 |
| | | 1-1/4 | 301221 | B-1216-10 |
| | | 1-1/2 | 301222 | B-1216-12 |
| | | 1-3/4 | 301223 | B-1216-14 |
| | | 2 | 301224 | B-1216-16 |
| | | 2-1/2 | 301225 | B-1216-20 |
| .753 | 1.003 | 1/2 | 401245 | SS-2432-8 |
| | | 5/8 | 401246 | SS-2432-10 |
| | | 3/4 | 401247 | SS-2432-12 |
| | | 7/8 | 401248 | SS-2432-14 |
| | | 1 | 401249 | SS-2432-16 |
| | | 1-1/8 | 401250 | SS-2432-18 |
| | | 1-1/4 | 401251 | SS-2432-20 |
| | | 1-1/2 | 401252 | SS-2432-24 |
| | | 1-3/4 | 401253 | SS-2432-28 |
| | | 2 | 401254 | SS-2432-32 |
| | | 2-1/2 | 401255 | SS-2432-40 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LGTH. | ITEM NO. | PART NO. |
|-----------------------------|--------|-------|----------|--------------------|
| 3/4 X 1-1/16 NOMINAL | | | | |
| .751 | 1.0645 | 1 | 101422 | AA-1039 |
| | | 1-1/4 | 101423 | AA-1039-2 |
| 3/4 X 1-1/8 NOMINAL | | | | |
| .750 | 1.129 | 3/4 | 101424 | AA-1130-3 |
| | | 1-1/4 | 101425 | AA-1130 |
| .752 | 1.129 | 1/2 | 201257 | EP121808 (P-78-4) |
| | | 3/4 | 201258 | EP121812 (P-78-6) |
| | | 1 | 201259 | EP121816 (P-78-8) |
| | | 1-1/4 | 201260 | EP121820 (P-78-10) |
| | | 1-1/2 | 201261 | EP121824 (P-78-12) |
| | | 1-3/4 | 201262 | EP121828 (P-78-14) |
| | | 2 | 201263 | EP121832 (P-78-16) |
| .753 | 1.128 | 3/4 | 101426 | AA-1106-2 |
| | | 1 | 101427 | AA-1106-4 |
| | | 1-1/4 | 101428 | AA-1106-3 |
| | | 1-3/8 | 101429 | AA-1106-13 |
| | | 1-1/2 | 101430 | AA-1106 |
| | | 1-3/4 | 101431 | AA-1106-1 |
| .753 | 1.128 | 1/2 | 301226 | B-1218-4 |
| | | 3/4 | 301227 | B-1218-6 |
| | | 1 | 301228 | B-1218-8 |
| | | 1-1/4 | 301229 | B-1218-10 |
| | | 1-1/2 | 301230 | B-1218-12 |
| | | 1-3/4 | 301231 | B-1218-14 |
| | | 2 | 301232 | B-1218-16 |
| .753 | 1.128 | 1/2 | 401256 | SS-2436-8 |
| | | 3/4 | 401257 | SS-2436-12 |
| | | 1 | 401258 | SS-2436-16 |
| | | 1-1/4 | 401259 | SS-2436-20 |
| | | 1-1/2 | 401260 | SS-2436-24 |
| | | 1-3/4 | 401261 | SS-2436-28 |
| | | 2 | 401262 | SS-2436-32 |
| 3/4 X 1-1/4 NOMINAL | | | | |
| .752 | 1.254 | 3/4 | 201264 | EP122012 (P-79-6) |
| | | 1 | 201265 | EP122016 (P-79-8) |
| | | 1-1/4 | 201266 | EP122020 (P-79-10) |
| | | 1-1/2 | 201267 | EP122024 (P-79-12) |
| .753 | 1.253 | 1 | 101432 | AA-1257 |
| | | 1-1/4 | 101433 | AA-1257-1 |
| | | 1-1/2 | 101434 | AA-1257-2 |
| .753 | 1.253 | 3/4 | 301233 | B-1220-6 |
| | | 1 | 301234 | B-1220-8 |
| | | 1-1/4 | 301235 | B-1220-10 |
| | | 1-1/2 | 301236 | B-1220-12 |
| | | 1-3/4 | 301237 | B-1220-14 |
| | | 2 | 301238 | B-1220-16 |
| .753 | 1.253 | 3/4 | 401263 | SS-2440-12 |
| | | 1 | 401264 | SS-2440-16 |
| | | 1-1/4 | 401265 | SS-2440-20 |
| | | 1-1/2 | 401266 | SS-2440-24 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|--------------------------|-------|-------|----------|--------------------|
| 13/16 X 1 NOMINAL | | | | |
| .8135 | 1.003 | 1 | 101435 | AA-1056-5 |
| | | 1-1/4 | 101436 | AA-1056-3 |
| | | 1-3/4 | 101437 | AA-1056 |
| .8145 | 1.003 | 7/8 | 101438 | AA-1041-2 |
| | | 1 | 101439 | AA-1041-5 |
| | | 1-1/4 | 101440 | AA-1041-6 |
| .8145 | 1.004 | 3/4 | 201268 | EP131612 (P-81-6) |
| | | 1 | 201269 | EP131616 (P-81-8) |
| | | 1-1/4 | 201270 | EP131620 (P-81-10) |
| | | 1-1/2 | 201271 | EP131624 (P-81-12) |
| | | 1-3/4 | 201272 | EP131628 (P-81-14) |
| .815 | 1.003 | 3/4 | 401267 | SS-2632-12 |
| | | 1 | 401268 | SS-2632-16 |
| | | 1-1/4 | 401269 | SS-2632-20 |
| | | 1-1/2 | 401270 | SS-2632-24 |
| | | 1-3/4 | 401271 | SS-2632-28 |
| | | 2 | 401272 | SS-2632-32 |
| .8155 | 1.003 | 3/4 | 301239 | B-1316-6 |
| | | 1 | 301240 | B-1316-8 |
| | | 1-1/4 | 301241 | B-1316-10 |
| | | 1-1/2 | 301242 | B-1316-12 |
| | | 1-3/4 | 301243 | B-1316-14 |
| | | 2 | 301244 | B-1316-16 |
| 7/8 X 1 NOMINAL | | | | |
| .876 | 1.003 | 3/8 | 101441 | AA-1008-11 |
| | | 7/16 | 101442 | AA-1008-14 |
| | | 1/2 | 101443 | AA-1008-9 |
| | | 5/8 | 101444 | AA-1008-13 |
| | | 3/4 | 101445 | AA-1008-5 |
| | | 1 | 101446 | AA-1008-6 |
| | | 1-1/4 | 101447 | AA-1008-1 |
| | | 1-1/2 | 101448 | AA-1008-2 |
| | | 1-3/4 | 101449 | AA-1008-10 |
| .877 | 1.003 | 5/8 | 101450 | AA-1009-5 |
| | | 3/4 | 101451 | AA-1009-8 |
| | | 1 | 101452 | AA-1009-3 |
| | | 1-1/8 | 101453 | AA-1009 |
| | | 1-1/4 | 101454 | AA-1009-2 |
| .877 | 1.004 | 3/8 | 201575 | EP141606 (P-87-3) |
| | | 1/2 | 201576 | EP141608 (P-87-4) |
| | | 5/8 | 201577 | EP141610 (P-87-5) |
| | | 3/4 | 201275 | EP141612 (P-87-6) |
| | | 7/8 | 201276 | EP141614 (P-87-7) |
| | | 1 | 201277 | EP141616 (P-87-8) |
| | | 1-1/4 | 201278 | EP141620 (P-87-10) |
| .877 | 1.004 | 1-1/2 | 201279 | EP141624 (P-87-12) |
| | | 1-3/4 | 201280 | EP141628 (P-87-14) |
| .878 | 1.003 | 3/4 | 301245 | B-1416-6 |
| | | 7/8 | 301246 | B-1416-7 |
| | | 1 | 301247 | B-1416-8 |
| | | 1-1/4 | 301248 | B-1416-10 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|-----------------------------|--------|-------|----------|--------------------|
| | | 1-1/2 | 301249 | B-1416-12 |
| .878 | 1.003 | 1/2 | 401275 | SS-2832-8 |
| | | 3/4 | 401276 | SS-2832-12 |
| | | 7/8 | 401277 | SS-2832-14 |
| | | 1 | 401278 | SS-2832-16 |
| | | 1-1/4 | 401279 | SS-2832-20 |
| | | 1-1/2 | 401280 | SS-2832-24 |
| | | 1-3/4 | 401281 | SS-2832-28 |
| 7/8 X 1-1/16 NOMINAL | | | | |
| .877 | 1.065 | 3/4 | 101455 | AA-1051-3 |
| | | 1-1/4 | 101456 | AA-1051-2 |
| .877 | 1.0665 | 1 | 201281 | EP141716 (P-88-8) |
| | | 1-1/4 | 201282 | EP141720 (P-88-10) |
| | | 1-1/2 | 201283 | EP141724 (P-88-12) |
| .878 | 1.0655 | 1 | 401282 | SS-2834-16 |
| | | 1-1/4 | 401283 | SS-2834-20 |
| 7/8 X 1-1/8 NOMINAL | | | | |
| .876 | 1.128 | 3/4 | 101457 | AA-1108 |
| | | 7/8 | 101458 | AA-1108-15 |
| | | 1 | 101459 | AA-1108-1 |
| | | 1-1/8 | 101460 | AA-1108-2 |
| | | 1-1/4 | 101461 | AA-1108-7 |
| | | 1-3/8 | 101462 | AA-1108-16 |
| | | 1-1/2 | 101463 | AA-1108-12 |
| | | 1-3/4 | 101464 | AA-1108-10 |
| | | 2 | 101465 | AA-1108-3 |
| | | 2-1/4 | 101466 | AA-1108-11 |
| | | 2-1/2 | 101467 | AA-1108-5 |
| | | 2-3/4 | 101468 | AA-1108-6 |
| .877 | 1.129 | 3/4 | 201284 | EP141812 (P-89-6) |
| | | 7/8 | 201285 | EP141814 (P-89-7) |
| | | 1 | 201286 | EP141816 (P-89-8) |
| | | 1-1/8 | 201287 | EP141818 (P-89-9) |
| | | 1-1/4 | 201288 | EP141820 (P-89-10) |
| | | 1-3/8 | 201289 | EP141822 (P-89-11) |
| | | 1-1/2 | 201290 | EP141824 (P-89-12) |
| | | 1-5/8 | 201291 | EP141826 (P-89-13) |
| | | 1-3/4 | 201292 | EP141828 (P-89-14) |
| | | 2 | 201293 | EP141832 (P-89-16) |
| | | 2-1/4 | 201294 | EP141836 (P-89-18) |
| | | 2-1/2 | 201295 | EP141840 (P-89-20) |
| .878 | 1.1275 | 1 | 101469 | AA-1104-2 |
| | | 1-1/4 | 101470 | AA-1104-5 |
| | | 1-3/8 | 101471 | AA-1104-4 |
| | | 1-1/2 | 101472 | AA-1104-3 |
| .878 | 1.128 | 3/4 | 301250 | B-1418-6 |
| | | 7/8 | 301251 | B-1418-7 |
| | | 1 | 301252 | B-1418-8 |
| | | 1-1/8 | 301253 | B-1418-9 |
| | | 1-1/4 | 301254 | B-1418-10 |
| | | 1-3/8 | 301255 | B-1418-11 |
| | | 1-1/2 | 301256 | B-1418-12 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LGTH. | ITEM NO. | PART NO. |
|------------------------------------|--------|-------|----------|--------------------|
| 7/8 X 1-1/8 NOMINAL (cont.) | | | | |
| .878 | 1.128 | 1-3/4 | 301257 | B-1418-14 |
| | | 2 | 301258 | B-1418-16 |
| | | 2-1/2 | 301259 | B-1418-20 |
| .878 | 1.128 | 3/4 | 401284 | SS-2836-12 |
| | | 7/8 | 401285 | SS-2836-14 |
| | | 1 | 401286 | SS-2836-16 |
| | | 1-1/8 | 401287 | SS-2836-18 |
| | | 1-1/4 | 401288 | SS-2836-20 |
| | | 1-3/8 | 401289 | SS-2836-22 |
| | | 1-1/2 | 401290 | SS-2836-24 |
| | | 1-5/8 | 401291 | SS-2836-26 |
| | | 1-3/4 | 401292 | SS-2836-28 |
| | | 2 | 401293 | SS-2836-32 |
| | | 2-1/4 | 401294 | SS-2836-36 |
| | | 2-1/2 | 401295 | SS-2836-40 |
| 7/8 X 1-1/4 NOMINAL | | | | |
| .877 | 1.252 | 1 | 101473 | AA-1203-3 |
| | | 1-1/4 | 101474 | AA-1203 |
| | | 1-1/2 | 101475 | AA-1203-1 |
| .877 | 1.254 | 3/4 | 201296 | EP142012 (P-90-6) |
| | | 1 | 201297 | EP142016 (P-90-8) |
| | | 1-1/4 | 201298 | EP142020 (P-90-10) |
| | | 1-1/2 | 201299 | EP142024 (P-90-12) |
| | | 2 | 201300 | EP142032 (P-90-16) |
| .878 | 1.253 | 3/4 | 101476 | AA-1242-2 |
| | | 1 | 101477 | AA-1242-3 |
| | | 1-3/8 | 101478 | AA-1242 |
| .878 | 1.253 | 3/4 | 301260 | B-1420-6 |
| | | 1 | 301261 | B-1420-8 |
| | | 1-1/4 | 301262 | B-1420-10 |
| | | 1-1/2 | 301263 | B-1420-12 |
| | | 2 | 301264 | B-1420-16 |
| .878 | 1.253 | 3/4 | 401296 | SS-2840-12 |
| | | 1 | 401297 | SS-2840-16 |
| | | 1-1/4 | 401298 | SS-2840-20 |
| | | 1-1/2 | 401299 | SS-2840-24 |
| | | 2 | 401300 | SS-2840-32 |
| 15/16 X 1-1/16 NOMINAL | | | | |
| .940 | 1.065 | 3/4 | 101479 | AA-1087-1 |
| | | 1-1/4 | 101480 | AA-1087 |
| 15/16 X 1-3/16 NOMINAL | | | | |
| .939 | 1.1895 | 7/8 | 101481 | AA-1118-6 |
| | | 1 | 101482 | AA-1118-4 |
| | | 1-1/4 | 101483 | AA-1118-2 |
| | | 1-1/2 | 101484 | AA-1118-5 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|------------------------------|--------|-------|----------|--------------------|
| .9395 | 1.1915 | 3/4 | 201301 | EP151912 (P-93-6) |
| | | 1 | 201302 | EP151916 (P-93-8) |
| | | 1-1/4 | 201303 | EP151920 (P-93-10) |
| | | 1-1/2 | 201304 | EP151924 (P-93-12) |
| | | 2 | 201305 | EP151932 (P-93-16) |
| .940 | 1.190 | 3/4 | 401301 | SS-3038-12 |
| | | 1 | 401302 | SS-3038-16 |
| | | 1-1/4 | 401303 | SS-3038-20 |
| | | 1-1/2 | 401304 | SS-3038-24 |
| | | 2 | 401305 | SS-3038-32 |
| .9405 | 1.1905 | 3/4 | 301265 | B-1519-6 |
| | | 1 | 301266 | B-1519-8 |
| | | 1-1/4 | 301267 | B-1519-10 |
| | | 1-1/2 | 301268 | B-1519-12 |
| | | 2 | 301269 | B-1519-16 |
| 15/16 X 1-1/4 NOMINAL | | | | |
| .9375 | 1.253 | 1 | 101485 | AA-1206-1 |
| | | 1-1/4 | 101486 | AA-1206-4 |
| | | 1-1/2 | 101487 | AA-1206-2 |
| .9395 | 1.254 | 3/4 | 201306 | EP152012 (P-94-6) |
| | | 1 | 201307 | EP152016 (P-94-8) |
| | | 1-1/4 | 201308 | EP152020 (P-94-10) |
| | | 1-1/2 | 201309 | EP152024 (P-94-12) |
| | | 1-3/4 | 201310 | EP152028 (P-94-14) |
| | | 2 | 201311 | EP152032 (P-94-16) |
| .940 | 1.254 | 1-1/2 | 101488 | AA-1216-3 |
| | | 2 | 101489 | AA-1216 |
| .940 | 1.254 | 3/4 | 401306 | SS-3040-12 |
| | | 1 | 401307 | SS-3040-16 |
| | | 1-1/4 | 401308 | SS-3040-20 |
| | | 1-1/2 | 401309 | SS-3040-24 |
| | | 1-3/4 | 401310 | SS-3040-28 |
| | | 2 | 401311 | SS-3040-32 |
| .9405 | 1.253 | 3/4 | 301270 | B-1520-6 |
| | | 1 | 301271 | B-1520-8 |
| | | 1-1/4 | 301272 | B-1520-10 |
| | | 1-1/2 | 301273 | B-1520-12 |
| | | 1-3/4 | 301274 | B-1520-14 |
| | | 2 | 301275 | B-1520-16 |
| 1 X 1-1/8 NOMINAL | | | | |
| 1.001 | 1.128 | 1/2 | 101490 | AA-1110-8 |
| | | 3/4 | 101491 | AA-1110-10 |
| | | 13/16 | 101492 | AA-1110-2 |
| | | 1 | 101493 | AA-1110-1 |
| | | 1-1/4 | 101494 | AA-1110-3 |
| | | 1-3/8 | 101495 | AA-1110-12 |
| | | 1-1/2 | 101496 | AA-1110 |
| 1.003 | 1.128 | 3/4 | 301276 | B-1618-6 |
| | | 1 | 301277 | B-1618-8 |
| | | 1-1/4 | 301278 | B-1618-10 |
| | | 1-1/2 | 301279 | B-1618-12 |
| | | 1-3/4 | 301280 | B-1618-14 |
| | | 2 | 301281 | B-1618-16 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|---------------------------|--------|-------|----------|---------------------|
| 1.003 | 1.129 | 3/4 | 201312 | EP161812 (P-100-6) |
| | | 7/8 | 201578 | EP161814 (P-100-7) |
| | | 1 | 201313 | EP161816 (P-100-8) |
| | | 1-1/4 | 201314 | EP161820 (P-100-10) |
| | | 1-1/2 | 201315 | EP161824 (P-100-12) |
| | | 1-3/4 | 201316 | EP161828 (P-100-14) |
| | | 2 | 201317 | EP161832 (P-100-16) |
| 1.0035 | 1.128 | 3/4 | 101497 | AA-1156 |
| | | 7/8 | 101498 | AA-1156-4 |
| | | 1-1/4 | 101499 | AA-1156-3 |
| | | 1-1/2 | 101500 | AA-1156-1 |
| 1.004 | 1.128 | 3/4 | 401312 | SS-3236-12 |
| | | 1 | 401313 | SS-3236-16 |
| | | 1-1/4 | 401314 | SS-3236-20 |
| | | 1-1/2 | 401315 | SS-3236-24 |
| | | 1-3/4 | 401316 | SS-3236-28 |
| | | 2 | 401317 | SS-3236-32 |
| 1 X 1-3/16 NOMINAL | | | | |
| 1.002 | 1.1895 | 3/4 | 101501 | AA-1154-2 |
| | | 1 | 101502 | AA-1154-1 |
| | | 1-1/2 | 101503 | AA-1154-3 |
| | | 2 | 101504 | AA-1154 |
| 1.003 | 1.1915 | 3/4 | 201318 | EP161912 (P-101-6) |
| | | 1 | 201319 | EP161916 (P-101-8) |
| | | 1-1/4 | 201320 | EP161920 (P-101-10) |
| | | 1-1/2 | 201321 | EP161924 (P-101-12) |
| | | 1-3/4 | 201322 | EP161928 (P-101-14) |
| | | 2 | 201323 | EP161932 (P-101-16) |
| 1.004 | 1.190 | 3/4 | 401318 | SS-3238-12 |
| | | 1 | 401319 | SS-3238-16 |
| | | 1-1/4 | 401320 | SS-3238-20 |
| | | 1-1/2 | 401321 | SS-3238-24 |
| | | 1-3/4 | 401322 | SS-3238-28 |
| | | 2 | 401323 | SS-3238-32 |
| 1 X 1-1/4 NOMINAL | | | | |
| 1.001 | 1.252 | 1/2 | 101505 | AA-1212-7 |
| | | 3/4 | 101506 | AA-1212-6 |
| | | 1 | 101507 | AA-1212-2 |
| | | 1-1/4 | 101508 | AA-1212-16 |
| | | 1-1/2 | 101509 | AA-1212-11 |
| | | 1-3/4 | 101510 | AA-1212-4 |
| | | 2 | 101511 | AA-1212-3 |
| | | 2-1/4 | 101512 | AA-1212-5 |
| | | 2-1/2 | 101513 | AA-1212 |
| | | 2-7/8 | 101514 | AA-1212-8 |
| | | 3 | 101515 | AA-1212-14 |
| 1.002 | 1.252 | 7/8 | 101516 | AA-1213-6 |
| | | 1 | 101517 | AA-1213-3 |
| | | 1-1/8 | 101518 | AA-1213-10 |
| | | 1-1/4 | 101519 | AA-1213-12 |
| | | 1-1/2 | 101520 | AA-1213-1 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LGTH. | ITEM NO. | PART NO. | | |
|----------------------------------|--------|-------|----------|---------------------|--------|--------------------|
| 1 X 1-1/4 NOMINAL (cont.) | | | | | | |
| 1.002 | 1.252 | 1-3/4 | 101521 | AA-1213-2 | | |
| | | 2 | 101522 | AA-1213 | | |
| | | 2-1/2 | 101523 | AA-1213-14 | | |
| | | 3 | 101524 | AA-1213-15 | | |
| 1.003 | 1.253 | 3/4 | 101525 | AA-1232-6 | | |
| | | 1 | 101526 | AA-1232 | | |
| | | 1-1/8 | 101527 | AA-1232-2 | | |
| | | 1-1/4 | 101528 | AA-1232-3 | | |
| | | 1-1/2 | 101529 | AA-1232-7 | | |
| | | 1-3/4 | 101530 | AA-1232-8 | | |
| | | 2 | 101531 | AA-1232-4 | | |
| | | 2-1/2 | 101532 | AA-1232-5 | | |
| 1.003 | 1.253 | 3/4 | 301282 | B-1620-6 | | |
| | | 7/8 | 301283 | B-1620-7 | | |
| | | 1 | 301284 | B-1620-8 | | |
| | | 1-1/4 | 301285 | B-1620-10 | | |
| | | 1-3/8 | 301286 | B-1620-11 | | |
| | | 1-1/2 | 301287 | B-1620-12 | | |
| | | 1-3/4 | 301288 | B-1620-14 | | |
| | | 2 | 301289 | B-1620-16 | | |
| | | 2-1/4 | 301290 | B-1620-18 | | |
| | | 2-1/2 | 301291 | B-1620-20 | | |
| | | 3 | 301292 | B-1620-24 | | |
| | | 1.003 | 1.254 | 1/2 | 201324 | EP162008 (P-102-4) |
| 3/4 | 201325 | | | EP162012 (P-102-6) | | |
| 7/8 | 201326 | | | EP162014 (P-102-7) | | |
| 1 | 201327 | | | EP162016 (P-102-8) | | |
| 1-1/4 | 201328 | | | EP162020 (P-102-10) | | |
| 1-3/8 | 201329 | | | EP162022 (P-102-11) | | |
| 1-1/2 | 201330 | | | EP162024 (P-102-12) | | |
| 1-3/4 | 201331 | | | EP162028 (P-102-14) | | |
| 2 | 201332 | | | EP162032 (P-102-16) | | |
| 2-1/4 | 201333 | | | EP162036 (P-102-18) | | |
| 2-1/2 | 201334 | | | EP162040 (P-102-20) | | |
| 3 | 201335 | | | EP162048 (P-102-24) | | |
| 1.004 | 1.254 | | | 1/2 | 401324 | SS-3240-8 |
| | | | | 3/4 | 401325 | SS-3240-12 |
| | | 7/8 | 401326 | SS-3240-14 | | |
| | | 1 | 401327 | SS-3240-16 | | |
| | | 1-1/4 | 401328 | SS-3240-20 | | |
| | | 1-3/8 | 401329 | SS-3240-22 | | |
| | | 1-1/2 | 401330 | SS-3240-24 | | |
| | | 1-3/4 | 401331 | SS-3240-28 | | |
| | | 2 | 401332 | SS-3240-32 | | |
| | | 2-1/4 | 401333 | SS-3240-36 | | |
| | | 2-1/2 | 401334 | SS-3240-40 | | |
| | | 3 | 401335 | SS-3240-48 | | |
| | | 1.005 | 1.2525 | 1 | 101533 | AA-1204-7 |
| | | | | 1-1/4 | 101534 | AA-1204-2 |
| 1-3/8 | 101535 | | | AA-1204-1 | | |
| 1-1/2 | 101536 | | | AA-1204 | | |

| ID | OD | LGTH. | ITEM NO. | PART NO. | | |
|---------------------------|--------|--------------------------|----------|---------------------|--------|---------------------|
| 1.005 | 1.2525 | 2 | 101537 | AA-1204-3 | | |
| | | 2-1/4 | 101538 | AA-1204-5 | | |
| | | 2-1/2 | 101539 | AA-1204-4 | | |
| 1 X 1-5/16 NOMINAL | | | | | | |
| 1.001 | 1.316 | 1 | 101540 | AA-1304-3 | | |
| | | 1-1/2 | 101541 | AA-1304 | | |
| | | 1-3/4 | 101542 | AA-1304-4 | | |
| | | 2 | 101543 | AA-1304-6 | | |
| 1.002 | 1.315 | 1 | 101544 | AA-1325-10 | | |
| | | 1-1/4 | 101545 | AA-1325-8 | | |
| | | 1-1/2 | 101546 | AA-1325-4 | | |
| | | 1-5/8 | 101547 | AA-1325-7 | | |
| | | 1-3/4 | 101548 | AA-1325-5 | | |
| | | 2 | 101549 | AA-1325 | | |
| | | 2-1/2 | 101550 | AA-1325-1 | | |
| | | 2-3/4 | 101551 | AA-1325-3 | | |
| 1.003 | 1.3155 | 1 | 301293 | B-1621-8 | | |
| | | 1-1/4 | 301294 | B-1621-10 | | |
| | | 1-1/2 | 301295 | B-1621-12 | | |
| | | 1-3/4 | 301296 | B-1621-14 | | |
| | | 2 | 301297 | B-1621-16 | | |
| | | 2-1/2 | 301298 | B-1621-20 | | |
| | | 3 | 301299 | B-1621-24 | | |
| | | 1.003 | 1.3165 | 1 | 201336 | EP162116 (P-103-8) |
| | | | | 1-1/4 | 201337 | EP162120 (P-103-10) |
| | | | | 1-1/2 | 201338 | EP162124 (P-103-12) |
| 1-3/4 | 201339 | | | EP162128 (P-103-14) | | |
| 2 | 201340 | | | EP162132 (P-103-16) | | |
| 2-1/2 | 201341 | | | EP162140 (P-103-20) | | |
| 1.004 | 1.316 | 1 | 401336 | SS-3242-16 | | |
| | | 1-1/4 | 401337 | SS-3242-20 | | |
| | | 1-1/2 | 401338 | SS-3242-24 | | |
| | | 1-3/4 | 401339 | SS-3242-28 | | |
| | | 2 | 401340 | SS-3242-32 | | |
| | | 2-1/2 | 401341 | SS-3242-40 | | |
| | | 3 | 401342 | SS-3242-48 | | |
| | | 1 X 1-3/8 NOMINAL | | | | |
| 1.001 | 1.378 | 3/4 | 101553 | AA-1334-3 | | |
| | | 1-1/4 | 101554 | AA-1334-5 | | |
| | | 1-1/2 | 101555 | AA-1334-1 | | |
| 1.003 | 1.377 | 1 | 101556 | AA-1334-2 | | |
| | | 1 | 101557 | AA-1310-2 | | |
| | | 1-1/8 | 101558 | AA-1310-1 | | |
| | | 1-1/4 | 101559 | AA-1310-4 | | |
| | | 1-3/8 | 101560 | AA-1310 | | |
| | | 1-1/2 | 101561 | AA-1310-5 | | |
| 1.004 | 1.317 | 3/4 | 101569 | AA-1307-2 | | |
| | | 1 | 101570 | AA-1307-4 | | |
| | | 1-1/4 | 101571 | AA-1307-5 | | |
| | | 1-1/2 | 101572 | AA-1307-1 | | |

| ID | OD | LGTH. | ITEM NO. | PART NO. | | |
|--------|--------|--------------------------------|----------|---------------------|--------|----------|
| 1.003 | 1.378 | 1 | 301300 | B-1622-8 | | |
| | | 1-1/4 | 301301 | B-1622-10 | | |
| | | 1-1/2 | 301302 | B-1622-12 | | |
| | | 1-3/4 | 301303 | B-1622-14 | | |
| | | 2 | 301304 | B-1622-16 | | |
| | | 2-1/2 | 301305 | B-1622-20 | | |
| 1.003 | 1.379 | 3 | 301306 | B-1622-24 | | |
| | | 1 | 201343 | EP162216 (P-104-8) | | |
| | | 1-1/4 | 201344 | EP162220 (P-104-10) | | |
| | | 1-1/2 | 201345 | EP162224 (P-104-12) | | |
| 1.004 | 1.379 | 1-3/4 | 201346 | EP162228 (P-104-14) | | |
| | | 2 | 201347 | EP162232 (P-104-16) | | |
| | | 2-1/2 | 201348 | EP162240 (P-104-20) | | |
| | | 3/4 | 401343 | SS-3244-12 | | |
| 1.004 | 1.379 | 1 | 401344 | SS-3244-16 | | |
| | | 1-1/4 | 401345 | SS-3244-20 | | |
| | | 1-1/2 | 401346 | SS-3244-24 | | |
| | | 1-3/4 | 401347 | SS-3244-28 | | |
| | | 2 | 401348 | SS-3244-32 | | |
| | | 2-1/2 | 401349 | SS-3244-40 | | |
| | | 1 X 1-1/2 NOMINAL | | | | |
| | | 1.003 | 1.503 | 1 | 301307 | B-1624-8 |
| 1-1/4 | 301308 | | | B-1624-10 | | |
| 1-1/2 | 301309 | | | B-1624-12 | | |
| 2 | 301310 | | | B-1624-16 | | |
| 2-1/2 | 301311 | | | B-1624-20 | | |
| 1.003 | 1.504 | 3 | 301312 | B-1624-24 | | |
| | | 1 | 201349 | EP162416 (P-105-8) | | |
| | | 1-1/4 | 201350 | EP162420 (P-105-10) | | |
| | | 1-1/2 | 201351 | EP162424 (P-105-12) | | |
| 1.003 | 1.504 | 1-3/4 | 201352 | EP162428 (P-105-14) | | |
| | | 2 | 201353 | EP162432 (P-105-16) | | |
| | | 2-1/2 | 201354 | EP162440 (P-105-20) | | |
| | | 3 | 201355 | EP162448 (P-105-24) | | |
| 1.0035 | 1.5045 | 1 | 101565 | AA-1511-7 | | |
| | | 1-1/4 | 101566 | AA-1511-8 | | |
| | | 1-1/2 | 101567 | AA-1511-5 | | |
| | | 2 | 101568 | AA-1511-1 | | |
| 1.004 | 1.504 | 1 | 401350 | SS-3248-16 | | |
| | | 1-1/4 | 401351 | SS-3248-20 | | |
| | | 1-1/2 | 401352 | SS-3248-24 | | |
| | | 1-3/4 | 401353 | SS-3248-28 | | |
| | | 2 | 401354 | SS-3248-32 | | |
| | | 2-1/2 | 401355 | SS-3248-40 | | |
| 1.004 | 1.504 | 3 | 401356 | SS-3248-48 | | |
| | | 1-1/16 X 1-5/16 NOMINAL | | | | |
| 1.064 | 1.317 | 3/4 | 101569 | AA-1307-2 | | |
| | | 1 | 101570 | AA-1307-4 | | |
| | | 1-1/4 | 101571 | AA-1307-5 | | |
| | | 1-1/2 | 101572 | AA-1307-1 | | |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LGTH. | ITEM NO. | PART NO. |
|--|--------|-------|----------|---------------------|
| 1-1/16 X 1-5/16 NOMINAL (cont.) | | | | |
| 1.065 | 1.316 | 1 | 401357 | SS-3442-16 |
| | | 1-1/2 | 401358 | SS-3442-24 |
| | | 2 | 401359 | SS-3442-32 |
| | | 2-1/2 | 401360 | SS-3442-40 |
| 1.0655 | 1.3155 | 1 | 301313 | B-1721-8 |
| | | 1-1/2 | 301314 | B-1721-12 |
| | | 2 | 301315 | B-1721-16 |
| | | 2-1/2 | 301316 | B-1721-20 |
| 1.0655 | 1.3165 | 1 | 201356 | EP172116 (P-106-8) |
| | | 1-1/2 | 201357 | EP172124 (P-106-12) |
| | | 2 | 201358 | EP172132 (P-106-16) |
| | | 2-1/2 | 201359 | EP172140 (P-106-20) |
| 1-1/8 X 1-1/4 NOMINAL | | | | |
| 1.1245 | 1.2535 | 7/8 | 101573 | AA-1214-6 |
| | | 1 | 101574 | AA-1214-3 |
| | | 1-1/8 | 101575 | AA-1214-2 |
| | | 1-1/4 | 101576 | AA-1214-1 |
| | | 1-1/2 | 101577 | AA-1214-8 |
| 1.127 | 1.2525 | 1-1/4 | 101578 | AA-1250-2 |
| | | 1-1/2 | 101579 | AA-1250-3 |
| 1.128 | 1.254 | 1 | 201360 | EP182016 (P-112-8) |
| | | 1-1/4 | 201361 | EP182020 (P-112-10) |
| | | 1-1/2 | 201362 | EP182024 (P-112-12) |
| 1.129 | 1.254 | 1 | 401361 | SS-3640-16 |
| | | 1-1/4 | 401362 | SS-3640-20 |
| | | 1-1/2 | 401363 | SS-3640-24 |
| 1-1/8 X 1-5/16 NOMINAL | | | | |
| 1.1265 | 1.3155 | 1 | 101580 | AA-1317 |
| | | 1-1/4 | 101581 | AA-1317-1 |
| 1.128 | 1.3155 | 1 | 301317 | B-1821-8 |
| | | 1-1/4 | 301318 | B-1821-10 |
| | | 1-1/2 | 301319 | B-1821-12 |
| | | 2 | 301320 | B-1821-16 |
| 1.128 | 1.3165 | 1 | 201363 | EP182116 (P-113-8) |
| | | 1-1/4 | 201364 | EP182120 (P-113-10) |
| | | 1-1/2 | 201365 | EP182124 (P-113-12) |
| | | 1-3/4 | 201366 | EP182128 (P-113-14) |
| | | 2 | 201367 | EP182132 (P-113-16) |
| 1.129 | 1.316 | 1 | 401364 | SS-3642-16 |
| | | 1-1/4 | 401365 | SS-3642-20 |
| | | 1-1/2 | 401366 | SS-3642-24 |
| | | 1-3/4 | 401367 | SS-3642-28 |
| | | 2 | 401368 | SS-3642-32 |
| 1-1/8 X 1-3/8 NOMINAL | | | | |
| 1.127 | 1.377 | 1/2 | 101582 | AA-1332-6 |
| | | 3/4 | 101583 | AA-1332-1 |
| | | 1 | 101584 | AA-1332-4 |
| | | 1-1/4 | 101585 | AA-1332-9 |
| | | 1-1/2 | 101586 | AA-1332-7 |
| | | 1-3/4 | 101587 | AA-1332-10 |
| | | 2 | 101588 | AA-1332 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|------------------------------|--------|-------|----------|---------------------|
| 1.127 | 1.377 | 2-1/4 | 101589 | AA-1332-11 |
| | | 2-1/2 | 101590 | AA-1332-2 |
| | | 3 | 101591 | AA-1332-8 |
| 1.128 | 1.378 | 3/4 | 301321 | B-1822-6 |
| | | 1 | 301322 | B-1822-8 |
| | | 1-1/4 | 301323 | B-1822-10 |
| | | 1-1/2 | 301324 | B-1822-12 |
| | | 1-3/4 | 301325 | B-1822-14 |
| | | 2 | 301326 | B-1822-16 |
| | | 2-1/2 | 301327 | B-1822-20 |
| | | 3 | 301328 | B-1822-24 |
| 1.128 | 1.379 | 1/2 | 201579 | EP182208 (P-114-4) |
| | | 3/4 | 201368 | EP182212 (P-114-6) |
| | | 1 | 201369 | EP182216 (P-114-8) |
| | | 1-1/4 | 201370 | EP182220 (P-114-10) |
| | | 1-1/2 | 201371 | EP182224 (P-114-12) |
| | | 1-3/4 | 201372 | EP182228 (P-114-14) |
| | | 2 | 201373 | EP182232 (P-114-16) |
| | | 2-1/2 | 201374 | EP182240 (P-114-20) |
| | | 3 | 201375 | EP182248 (P-114-24) |
| 1.129 | 1.379 | 1/2 | 101592 | AA-1319-10 |
| | | 1 | 101593 | AA-1319-3 |
| | | 1-1/4 | 101594 | AA-1319 |
| | | 1-1/2 | 101595 | AA-1319-13 |
| | | 1-3/4 | 101596 | AA-1319-5 |
| | | 2 | 101597 | AA-1319-1 |
| | | 2-1/4 | 101598 | AA-1319-12 |
| | | 2-1/2 | 101599 | AA-1319-2 |
| 1.129 | 1.379 | 3/4 | 401369 | SS-3644-12 |
| | | 1 | 401370 | SS-3644-16 |
| | | 1-1/4 | 401371 | SS-3644-20 |
| | | 1-1/2 | 401372 | SS-3644-24 |
| | | 1-3/4 | 401373 | SS-3644-28 |
| | | 2 | 401374 | SS-3644-32 |
| | | 2-1/2 | 401375 | SS-3644-40 |
| | | 3 | 401376 | SS-3644-48 |
| 1-1/8 X 1-1/2 NOMINAL | | | | |
| 1.126 | 1.503 | 1 | 101600 | AA-1509-4 |
| | | 1-1/2 | 101601 | AA-1509-1 |
| | | 1-3/4 | 101602 | AA-1509-6 |
| | | 2 | 101603 | AA-1509 |
| | | 2-1/2 | 101604 | AA-1509-3 |
| 1.127 | 1.5035 | 1 | 101605 | AA-1502 |
| | | 1-1/4 | 101606 | AA-1502-2 |
| | | 1-1/2 | 101607 | AA-1502-3 |
| 1.128 | 1.504 | 1 | 201376 | EP182416 (P-115-8) |
| | | 1-1/4 | 201377 | EP182420 (P-115-10) |
| | | 1-1/2 | 201378 | EP182424 (P-115-12) |
| | | 1-3/4 | 201379 | EP182428 (P-115-14) |
| | | 2 | 201380 | EP182432 (P-115-16) |
| | | 2-1/2 | 201381 | EP182440 (P-115-20) |
| 1.129 | 1.504 | 1 | 401377 | SS-3648-16 |
| | | 1-1/4 | 401378 | SS-3648-20 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|--------------------------------|--------|-------|----------|---------------------|
| 1.129 | 1.504 | 1-1/2 | 401379 | SS-3648-24 |
| | | 1-3/4 | 401380 | SS-3648-28 |
| | | 2 | 401381 | SS-3648-32 |
| | | 2-1/2 | 401382 | SS-3648-40 |
| 1-3/16 X 1-5/16 NOMINAL | | | | |
| 1.189 | 1.3155 | 1 | 101608 | AA-1339-2 |
| | | 1-1/4 | 101609 | AA-1339 |
| 1-3/16 X 1-3/8 NOMINAL | | | | |
| 1.189 | 1.379 | 1-1/2 | 101610 | AA-1324-1 |
| | | 1-3/4 | 101611 | AA-1324 |
| 1-3/16 X 1-7/16 NOMINAL | | | | |
| 1.1885 | 1.441 | 1-1/4 | 101612 | AA-1403-3 |
| | | 1-1/2 | 101613 | AA-1403-7 |
| | | 2 | 101614 | AA-1403-10 |
| 1.1905 | 1.441 | 1-1/4 | 301329 | B-1923-10 |
| | | 2 | 301330 | B-1923-16 |
| | | 2-1/2 | 301331 | B-1923-20 |
| | | 3 | 301332 | B-1923-24 |
| 1.1905 | 1.4415 | 1-1/4 | 201382 | EP192320 (P-118-10) |
| | | 1-1/2 | 201383 | EP192324 (P-118-12) |
| | | 2 | 201384 | EP192332 (P-118-16) |
| | | 2-1/2 | 201385 | EP192340 (P-118-20) |
| | | 3 | 201386 | EP192348 (P-118-24) |
| 1.192 | 1.441 | 1-1/4 | 401383 | SS-3846-20 |
| | | 1-1/2 | 401384 | SS-3846-24 |
| | | 2 | 401385 | SS-3846-32 |
| | | 2-1/2 | 401386 | SS-3846-40 |
| | | 3 | 401387 | SS-3846-48 |
| 1-3/16 X 1-1/2 NOMINAL | | | | |
| 1.190 | 1.504 | 1 | 101615 | AA-1523-2 |
| | | 1-1/2 | 101616 | AA-1523-5 |
| | | 2 | 101617 | AA-1523 |
| | | 2-1/2 | 101618 | AA-1523-3 |
| 1.1905 | 1.503 | 1 | 301333 | B-1924-8 |
| | | 1-1/4 | 301334 | B-1924-10 |
| | | 1-1/2 | 301335 | B-1924-12 |
| | | 1-3/4 | 301336 | B-1924-14 |
| | | 2 | 301337 | B-1924-16 |
| | | 2-1/2 | 301338 | B-1924-20 |
| | | 3 | 301339 | B-1924-24 |
| 1.1905 | 1.504 | 1 | 201387 | EP192416 (P-119-8) |
| | | 1-1/4 | 201388 | EP192420 (P-119-10) |
| | | 1-1/2 | 201389 | EP192424 (P-119-12) |
| | | 1-3/4 | 201390 | EP192428 (P-119-14) |
| | | 2 | 201391 | EP192432 (P-119-16) |
| | | 2-1/2 | 201392 | EP192440 (P-119-20) |
| | | 3 | 201393 | EP192448 (P-119-24) |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LGTH. | ITEM NO. | PART NO. |
|---------------------------------------|--------|-------|----------|--------------------|
| 1-3/16 X 1-1/2 NOMINAL (cont.) | | | | |
| 1.192 | 1.504 | 1 | 401388 | SS-3848-16 |
| | | 1-1/4 | 401389 | SS-3848-20 |
| | | 1-1/2 | 401390 | SS-3848-24 |
| | | 1-3/4 | 401391 | SS-3848-28 |
| | | 2 | 401392 | SS-3848-32 |
| | | 2-1/2 | 401393 | SS-3848-40 |
| | | 3 | 401394 | SS-3848-48 |
| 1.193 | 1.504 | 1 | 101619 | AA-1504-6 |
| | | 1-1/2 | 101620 | AA-1504-1 |
| 1-1/4 X 1-7/16 NOMINAL | | | | |
| 1.2515 | 1.4405 | 1-1/4 | 101621 | AA-1407-4 |
| | | 1-1/2 | 101622 | AA-1407-5 |
| | | 1-3/4 | 101623 | AA-1407 |
| | | 2 | 101624 | AA-1407-6 |
| | | 2-1/2 | 101625 | AA-1407-8 |
| 1-1/4 X 1-1/2 NOMINAL | | | | |
| 1.250 | 1.502 | 3/4 | 101626 | AA-1517-4 |
| | | 1-1/4 | 101627 | AA-1517-6 |
| | | 1-5/8 | 101628 | AA-1517-1 |
| 1.252 | 1.502 | 1/2 | 101629 | AA-1512-12 |
| | | 5/8 | 101630 | AA-1512-11 |
| | | 3/4 | 101631 | AA-1512-14 |
| | | 7/8 | 101632 | AA-1512-7 |
| | | 1 | 101633 | AA-1512-15 |
| | | 1-1/4 | 101634 | AA-1512-16 |
| | | 1-3/8 | 101635 | AA-1512-3 |
| | | 1-1/2 | 101636 | AA-1512-2 |
| | | 1-3/4 | 101637 | AA-1512-17 |
| | | 1-7/8 | 101638 | AA-1512-1 |
| | | 2 | 101639 | AA-1512-5 |
| | | 2-1/2 | 101640 | AA-1512-13 |
| 1.253 | 1.503 | 1 | 301340 | B-2024-8 |
| | | 1-1/8 | 301341 | B-2024-9 |
| | | 1-1/4 | 301342 | B-2024-10 |
| | | 1-3/8 | 301343 | B-2024-11 |
| | | 1-1/2 | 301344 | B-2024-12 |
| | | 1-5/8 | 301345 | B-2024-13 |
| | | 1-3/4 | 301346 | B-2024-14 |
| | | 2 | 301347 | B-2024-16 |
| | | 2-1/4 | 301348 | B-2024-18 |
| | | 2-1/2 | 301349 | B-2024-20 |
| | | 3 | 301350 | B-2024-24 |
| 1.2535 | 1.504 | 1 | 101641 | AA-1528 |
| | | 1-1/4 | 101642 | AA-1528-3 |
| | | 1-1/2 | 101643 | AA-1528-4 |
| 1.2535 | 1.504 | 1/2 | 201394 | EP202408 (P-125-4) |
| | | 5/8 | 201395 | EP202410 (P-125-5) |
| | | 3/4 | 201396 | EP202412 (P-125-6) |
| | | 7/8 | 201397 | EP202414 (P-125-7) |
| | | 1 | 201398 | EP202416 (P-125-8) |
| | | 1-1/8 | 201399 | EP202418 (P-125-9) |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|-------------------------------|--------|-------|----------|---------------------|
| 1.2535 | 1.504 | 1-1/4 | 201400 | EP202420 (P-125-10) |
| | | 1-3/8 | 201401 | EP202422 (P-125-11) |
| | | 1-1/2 | 201402 | EP202424 (P-125-12) |
| | | 1-5/8 | 201403 | EP202426 (P-125-13) |
| | | 1-3/4 | 201404 | EP202428 (P-125-14) |
| | | 1-7/8 | 201405 | EP202430 (P-125-15) |
| | | 2 | 201406 | EP202432 (P-125-16) |
| | | 2-1/4 | 201407 | EP202436 (P-125-18) |
| | | 2-1/2 | 201408 | EP202440 (P-125-20) |
| | | 3 | 201409 | EP202448 (P-125-24) |
| 1.254 | 1.504 | 1/2 | 401395 | SS-4048-8 |
| | | 5/8 | 401396 | SS-4048-10 |
| | | 3/4 | 401397 | SS-4048-12 |
| | | 7/8 | 401398 | SS-4048-14 |
| | | 1 | 401399 | SS-4048-16 |
| | | 1-1/8 | 401400 | SS-4048-18 |
| | | 1-1/4 | 401401 | SS-4048-20 |
| | | 1-3/8 | 401402 | SS-4048-22 |
| | | 1-1/2 | 401403 | SS-4048-24 |
| | | 1-5/8 | 401404 | SS-4048-26 |
| | | 1-3/4 | 401405 | SS-4048-28 |
| | | 1-7/8 | 401406 | SS-4048-30 |
| | | 2 | 401407 | SS-4048-32 |
| | | 2-1/4 | 401408 | SS-4048-36 |
| | | 2-1/2 | 401409 | SS-4048-40 |
| | | 3 | 401410 | SS-4048-48 |
| 1.258 | 1.504 | 1 | 101644 | AA-1505-11 |
| | | 1-1/2 | 101645 | AA-1505-1 |
| 1-1/4 X 1-9/16 NOMINAL | | | | |
| 1.252 | 1.565 | 1-1/4 | 101646 | AA-1506-12 |
| | | 1-1/2 | 101647 | AA-1506-6 |
| | | 1-3/4 | 101648 | AA-1506 |
| | | 2 | 101649 | AA-1506-7 |
| | | 2-1/4 | 101650 | AA-1506-8 |
| 1.254 | 1.566 | 1 | 401411 | SS-4050-16 |
| | | 1-1/2 | 401412 | SS-4050-24 |
| | | 2 | 401414 | SS-4050-32 |
| 1-1/4 X 1-5/8 NOMINAL | | | | |
| 1.250 | 1.627 | 1-1/2 | 101651 | AA-1602 |
| 1.252 | 1.6275 | 1 | 101652 | AA-1606-9 |
| | | 1-1/4 | 101653 | AA-1606 |
| | | 1-1/2 | 101654 | AA-1606-7 |
| | | 1-5/8 | 101655 | AA-1606-11 |
| | | 1-3/4 | 101656 | AA-1606-1 |
| | | 2 | 101657 | AA-1606-3 |
| | | 2-1/2 | 101658 | AA-1606-5 |
| | | 3 | 101659 | AA-1606-4 |
| 1.253 | 1.628 | 1 | 301351 | B-2026-8 |
| | | 1-1/4 | 301352 | B-2026-10 |
| | | 1-1/2 | 301353 | B-2026-12 |
| | | 1-3/4 | 301354 | B-2026-14 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|-------------------------------|-------|-------|----------|---------------------|
| 1.253 | 1.628 | 2 | 301355 | B-2026-16 |
| | | 2-1/2 | 301356 | B-2026-20 |
| | | 3 | 301357 | B-2026-24 |
| 1.2535 | 1.630 | 1 | 201410 | EP202616 (P-126-8) |
| | | 1-1/4 | 201411 | EP202620 (P-126-10) |
| | | 1-1/2 | 201412 | EP202624 (P-126-12) |
| | | 1-3/4 | 201413 | EP202628 (P-126-14) |
| | | 2 | 201414 | EP202632 (P-126-16) |
| | | 2-1/2 | 201415 | EP202640 (P-126-20) |
| | | 3 | 201416 | EP202648 (P-126-24) |
| 1.254 | 1.629 | 1-1/2 | 101660 | AA-1604 |
| | | 1-3/4 | 101661 | AA-1604-2 |
| 1.254 | 1.629 | 1 | 401415 | SS-4052-16 |
| | | 1-1/4 | 401416 | SS-4052-20 |
| | | 1-1/2 | 401417 | SS-4052-24 |
| | | 1-3/4 | 401418 | SS-4052-28 |
| | | 2 | 401419 | SS-4052-32 |
| | | 2-1/2 | 401420 | SS-4052-40 |
| | | 3 | 401421 | SS-4052-48 |
| 1-1/4 X 1-3/4 NOMINAL | | | | |
| 1.2535 | 1.755 | 1-3/4 | 201417 | EP202828 (P-127-14) |
| | | 2 | 201418 | EP202832 (P-127-16) |
| | | 2-1/2 | 201419 | EP202840 (P-127-20) |
| | | 3 | 201420 | EP202848 (P-127-24) |
| 1.254 | 1.753 | 1-1/2 | 101662 | AA-1715-6 |
| | | 2 | 101663 | AA-1715-2 |
| | | 3 | 101664 | AA-1715-3 |
| 1.254 | 1.754 | 1-1/2 | 401422 | SS-4056-24 |
| | | 1-3/4 | 401423 | SS-4056-28 |
| | | 2 | 401424 | SS-4056-32 |
| | | 2-1/2 | 401425 | SS-4056-40 |
| | | 3 | 401426 | SS-4056-48 |
| 1-5/16 X 1-1/2 NOMINAL | | | | |
| 1.3155 | 1.503 | 1 | 101665 | AA-1526-4 |
| | | 1-1/4 | 101666 | AA-1526 |
| | | 1-1/2 | 101667 | AA-1526-2 |
| | | 2 | 101668 | AA-1526-3 |
| 1-5/16 X 1-5/8 NOMINAL | | | | |
| 1.3155 | 1.628 | 1-1/4 | 301358 | B-2126-10 |
| | | 1-1/2 | 301359 | B-2126-12 |
| | | 2 | 301360 | B-2126-16 |
| | | 2-1/2 | 301361 | B-2126-20 |
| | | 3 | 301362 | B-2126-24 |
| 1.3155 | 1.629 | 1-1/2 | 101669 | AA-1611-5 |
| | | 2 | 101670 | AA-1611-2 |
| | | 2-1/2 | 101671 | AA-1611 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LGTH. | ITEM NO. | PART NO. |
|---------------------------------------|--------|-------|----------|---------------------|
| 1-5/16 X 1-5/8 NOMINAL (cont.) | | | | |
| 1.316 | 1.629 | 1-1/4 | 401430 | SS-4252-20 |
| | | 1-1/2 | 401431 | SS-4252-24 |
| | | 2 | 401432 | SS-4252-32 |
| | | 2-1/2 | 401433 | SS-4252-40 |
| | | 3 | 401434 | SS-4252-48 |
| 1.316 | 1.630 | 1-1/4 | 201421 | EP212620 (P-131-10) |
| | | 1-1/2 | 201422 | EP212624 (P-131-12) |
| | | 2 | 201423 | EP212632 (P-131-16) |
| | | 2-1/2 | 201424 | EP212640 (P-131-20) |
| | | 3 | 201425 | EP212648 (P-131-24) |
| 1-3/8 X 1-9/16 NOMINAL | | | | |
| 1.3745 | 1.5655 | 1-1/4 | 101672 | AA-1507-2 |
| | | 1-1/2 | 101673 | AA-1507 |
| 1-3/8 X 1-5/8 NOMINAL | | | | |
| 1.376 | 1.628 | 1 | 101674 | AA-1608-10 |
| | | 1-1/8 | 101675 | AA-1608-1 |
| | | 1-1/4 | 101676 | AA-1608-11 |
| | | 1-1/2 | 101677 | AA-1608-12 |
| | | 1-3/4 | 101678 | AA-1608-13 |
| | | 2 | 101679 | AA-1608 |
| | | 2-1/2 | 101680 | AA-1608-3 |
| 1.378 | 1.628 | 1 | 301363 | B-2226-8 |
| | | 1-1/2 | 301364 | B-2226-12 |
| | | 2 | 301365 | B-2226-16 |
| | | 2-1/2 | 301366 | B-2226-20 |
| | | 3 | 301367 | B-2226-24 |
| 1.3785 | 1.630 | 1 | 201426 | EP222616 (P-137-8) |
| | | 1-1/8 | 201427 | EP222618 (P-137-9) |
| | | 1-1/4 | 201428 | EP222620 (P-137-10) |
| | | 1-1/2 | 201429 | EP222624 (P-137-12) |
| | | 2 | 201430 | EP222632 (P-137-16) |
| | | 2-1/2 | 201431 | EP222640 (P-137-20) |
| | | 3 | 201432 | EP222648 (P-137-24) |
| 1.379 | 1.628 | 1-1/2 | 101681 | AA-1616-3 |
| | | 2 | 101682 | AA-1616-5 |
| | | 2-1/2 | 101683 | AA-1616-7 |
| 1.379 | 1.629 | 1 | 401435 | SS-4452-16 |
| | | 1-1/8 | 401436 | SS-4452-18 |
| | | 1-1/4 | 401437 | SS-4452-20 |
| | | 1-1/2 | 401438 | SS-4452-24 |
| | | 2 | 401439 | SS-4452-32 |
| | | 2-1/2 | 401440 | SS-4452-40 |
| | | 3 | 401441 | SS-4452-48 |
| 1-3/8 X 1-3/4 NOMINAL | | | | |
| 1.378 | 1.753 | 1 | 301368 | B-2228-8 |
| | | 1-1/2 | 301369 | B-2228-12 |
| | | 2 | 301370 | B-2228-16 |
| | | 2-1/2 | 301371 | B-2228-20 |
| | | 3 | 301372 | B-2228-24 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|-------------------------------|--------|-------|----------|---------------------|
| 1.3785 | 1.755 | 1 | 201433 | EP222816 (P-138-8) |
| | | 1-1/2 | 201434 | EP222824 (P-138-12) |
| | | 2 | 201435 | EP222832 (P-138-16) |
| | | 2-1/2 | 201436 | EP222840 (P-138-20) |
| | | 3 | 201437 | EP222848 (P-138-24) |
| 1.379 | 1.754 | 1 | 401442 | SS-4456-16 |
| | | 1-1/2 | 401443 | SS-4456-24 |
| | | 2 | 401444 | SS-4456-32 |
| | | 2-1/2 | 401445 | SS-4456-40 |
| | | 3 | 401446 | SS-4456-48 |
| 1.380 | 1.753 | 1-1/2 | 101684 | AA-1708-5 |
| | | 2 | 101685 | AA-1708-2 |
| | | 2-1/2 | 101686 | AA-1708 |
| 1-7/16 X 1-5/8 NOMINAL | | | | |
| 1.438 | 1.628 | 1 | 101687 | AA-1609-2 |
| | | 1-1/2 | 101688 | AA-1609-4 |
| | | 2 | 101689 | AA-1609 |
| | | 2-1/4 | 101690 | AA-1609-6 |
| 1.441 | 1.630 | 1 | 201438 | EP232616 (P-143-8) |
| | | 1-1/2 | 201439 | EP232624 (P-143-12) |
| | | 2 | 201440 | EP232632 (P-143-16) |
| 1.442 | 1.629 | 1 | 401447 | SS-4652-16 |
| | | 1-1/2 | 401448 | SS-4652-24 |
| | | 2 | 401449 | SS-4652-32 |
| 1-7/16 X 1-3/4 NOMINAL | | | | |
| 1.4405 | 1.753 | 1 | 301373 | B-2328-8 |
| | | 1-1/4 | 301374 | B-2328-10 |
| | | 1-1/2 | 301375 | B-2328-12 |
| | | 1-3/4 | 301376 | B-2328-14 |
| | | 2 | 301377 | B-2328-16 |
| | | 2-1/2 | 301378 | B-2328-20 |
| | | 3 | 301379 | B-2328-24 |
| 1.441 | 1.755 | 1 | 201441 | EP232816 (P-144-8) |
| | | 1-1/4 | 201442 | EP232820 (P-144-10) |
| | | 1-1/2 | 201443 | EP232824 (P-144-12) |
| | | 1-3/4 | 201444 | EP232828 (P-144-14) |
| | | 2 | 201445 | EP232832 (P-144-16) |
| | | 2-1/2 | 201446 | EP232840 (P-144-20) |
| | | 3 | 201447 | EP232848 (P-144-24) |
| 1.442 | 1.754 | 3/4 | 401450 | SS-4656-12 |
| | | 1 | 401451 | SS-4656-16 |
| | | 1-1/4 | 401452 | SS-4656-20 |
| | | 1-1/2 | 401453 | SS-4656-24 |
| | | 1-3/4 | 401454 | SS-4656-28 |
| | | 2 | 401455 | SS-4656-32 |
| | | 2-1/2 | 401456 | SS-4656-40 |
| | | 3 | 401457 | SS-4656-48 |
| 1.4425 | 1.7535 | 7/8 | 101691 | AA-1703-1 |
| | | 1-1/8 | 101692 | AA-1703-14 |
| | | 1-1/4 | 101693 | AA-1703-4 |
| | | 1-1/2 | 101694 | AA-1703-6 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|--------------------------------|--------|-------|----------|---------------------|
| 1.4425 | 1.7535 | 1-3/4 | 101695 | AA-1703-3 |
| | | 1-7/8 | 101696 | AA-1703 |
| | | 2 | 101697 | AA-1703-7 |
| | | 2-1/4 | 101698 | AA-1703-10 |
| | | 2-1/2 | 101699 | AA-1703-5 |
| 1-1/2 X 1-11/16 NOMINAL | | | | |
| 1.507 | 1.691 | 3/4 | 101700 | AA-1612-4 |
| | | 1 | 101701 | AA-1612-1 |
| 1-1/2 X 1-3/4 NOMINAL | | | | |
| 1.503 | 1.753 | 1 | 301380 | B-2428-8 |
| | | 1-1/4 | 301381 | B-2428-10 |
| | | 1-1/2 | 301382 | B-2428-12 |
| | | 2 | 301383 | B-2428-16 |
| | | 2-1/2 | 301384 | B-2428-20 |
| | | 3 | 301385 | B-2428-24 |
| 1.503 | 1.754 | 1/2 | 101702 | AA-1704-20 |
| | | 5/8 | 101703 | AA-1704-21 |
| | | 3/4 | 101704 | AA-1704-16 |
| | | 7/8 | 101705 | AA-1704-4 |
| | | 1 | 101706 | AA-1704-15 |
| | | 1-1/8 | 101707 | AA-1704-17 |
| | | 1-1/4 | 101708 | AA-1704-11 |
| | | 1-3/8 | 101709 | AA-1704-5 |
| | | 1-1/2 | 101710 | AA-1704 |
| | | 1-3/4 | 101711 | AA-1704-3 |
| | | 2 | 101712 | AA-1704-2 |
| | | 2-1/4 | 101713 | AA-1704-7 |
| | | 2-1/2 | 101714 | AA-1704-8 |
| | | 3 | 101715 | AA-1704-9 |
| | | 3-1/2 | 101716 | AA-1704-19 |
| 1.504 | 1.754 | 1/2 | 401458 | SS-4856-8 |
| | | 3/4 | 401459 | SS-4856-12 |
| | | 1 | 401460 | SS-4856-16 |
| | | 1-1/4 | 401461 | SS-4856-20 |
| | | 1-3/8 | 401462 | SS-4856-22 |
| | | 1-1/2 | 401463 | SS-4856-24 |
| | | 1-3/4 | 401464 | SS-4856-28 |
| | | 2 | 401465 | SS-4856-32 |
| | | 2-1/4 | 401466 | SS-4856-36 |
| | | 2-1/2 | 401467 | SS-4856-40 |
| | | 3 | 401468 | SS-4856-48 |
| 1.504 | 1.755 | 1/2 | 201580 | EP242808 (P-150-4) |
| | | 5/8 | 201581 | EP242810 (P-150-5) |
| | | 3/4 | 201448 | EP242812 (P-150-6) |
| | | 7/8 | 201449 | EP242814 (P-150-7) |
| | | 1 | 201450 | EP242816 (P-150-8) |
| | | 1-1/4 | 201451 | EP242820 (P-150-10) |
| | | 1-3/8 | 201452 | EP242822 (P-150-11) |
| | | 1-1/2 | 201453 | EP242824 (P-150-12) |
| | | 1-3/4 | 201454 | EP242828 (P-150-14) |
| | | 2 | 201455 | EP242832 (P-150-16) |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LGTH. | ITEM NO. | PART NO. |
|--------------------------------------|--------|-------|----------|---------------------|
| 1-1/2 X 1-3/4 NOMINAL (cont.) | | | | |
| 1.504 | 1.755 | 2-1/4 | 201456 | EP242836 (P-150-18) |
| | | 2-1/2 | 201457 | EP242840 (P-150-20) |
| | | 3 | 201458 | EP242848 (P-150-24) |
| 1-1/2 X 1-13/16 NOMINAL | | | | |
| 1.502 | 1.815 | 1 | 101717 | AA-1801-1 |
| | | 1-5/8 | 101718 | AA-1801 |
| 1.503 | 1.816 | 1-1/2 | 301386 | B-2429-12 |
| | | 3 | 301387 | B-2429-24 |
| 1.504 | 1.816 | 1 | 401469 | SS-4858-16 |
| | | 1-1/2 | 401470 | SS-4858-24 |
| | | 1-5/8 | 401471 | SS-4858-26 |
| | | 2 | 401472 | SS-4858-32 |
| | | 3 | 401473 | SS-4858-48 |
| 1.504 | 1.8175 | 1 | 201459 | EP242916 (P-151-8) |
| | | 1-1/2 | 201460 | EP242924 (P-151-12) |
| | | 1-5/8 | 201461 | EP242926 (P-151-13) |
| | | 3 | 201462 | EP242948 (P-151-24) |
| 1-1/2 X 1-7/8 NOMINAL | | | | |
| 1.503 | 1.878 | 1-1/2 | 101719 | AA-1807-9 |
| | | 1-3/4 | 101720 | AA-1807-10 |
| | | 2 | 101721 | AA-1807 |
| | | 2-1/2 | 101722 | AA-1807-11 |
| | | 2-3/4 | 101723 | AA-1807-1 |
| | | 3 | 101724 | AA-1807-2 |
| 1.503 | 1.878 | 1-1/2 | 301388 | B-2430-12 |
| | | 2 | 301389 | B-2430-16 |
| | | 2-1/2 | 301390 | B-2430-20 |
| | | 3 | 301391 | B-2430-24 |
| 1.504 | 1.880 | 1-1/2 | 201463 | EP243024 (P-152-12) |
| | | 2 | 201464 | EP243032 (P-152-16) |
| | | 2-1/2 | 201465 | EP243040 (P-152-20) |
| | | 2-3/4 | 201466 | EP243044 (P-152-22) |
| | | 3 | 201467 | EP243048 (P-152-24) |
| 1.504 | 1.879 | 1-1/2 | 401474 | SS-4860-24 |
| | | 2 | 401475 | SS-4860-32 |
| | | 2-1/2 | 401476 | SS-4860-40 |
| | | 2-3/4 | 401477 | SS-4860-44 |
| | | 3 | 401478 | SS-4860-48 |
| 1-1/2 X 2 NOMINAL | | | | |
| 1.503 | 2.004 | 1 | 101725 | AA-2007-6 |
| | | 2 | 101726 | AA-2007-2 |
| | | 2-1/2 | 101727 | AA-2007-3 |
| | | 3-1/2 | 101728 | AA-2007-5 |
| 1.503 | 2.004 | 1 | 301392 | B-2432-8 |
| | | 1-1/2 | 301447 | B-2432-12 |
| | | 2 | 301393 | B-2432-16 |
| | | 2-1/2 | 301394 | B-2432-20 |
| | | 3 | 301395 | B-2432-24 |
| 1.504 | 2.004 | 1 | 401479 | SS-4864-16 |
| | | 1-1/2 | 401480 | SS-4864-24 |
| | | 2 | 401481 | SS-4864-32 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|------------------------------|-------|-------|----------|---------------------|
| 1.504 | 2.004 | 2-1/2 | 401482 | SS-4864-40 |
| | | 3 | 401483 | SS-4864-48 |
| | | 3-1/2 | 401484 | SS-4864-56 |
| 1.504 | 2.005 | 1 | 201468 | EP243216 (P-153-8) |
| | | 1-1/2 | 201469 | EP243224 (P-153-12) |
| | | 2 | 201470 | EP243232 (P-153-16) |
| | | 2-1/2 | 201471 | EP243240 (P-153-20) |
| | | 3 | 201472 | EP243248 (P-153-24) |
| | | 3-1/2 | 201473 | EP243256 (P-153-28) |
| 1-5/8 X 1-7/8 NOMINAL | | | | |
| 1.627 | 1.879 | 1 | 101729 | AA-1803-10 |
| | | 1-1/4 | 101730 | AA-1803-11 |
| | | 1-1/2 | 101731 | AA-1803-13 |
| | | 1-3/4 | 101732 | AA-1803-14 |
| | | 2 | 101733 | AA-1803-7 |
| | | 2-1/4 | 101734 | AA-1803-1 |
| | | 2-3/4 | 101735 | AA-1803-15 |
| 1.628 | 1.878 | 1-1/4 | 301396 | B-2630-10 |
| | | 1-1/2 | 301397 | B-2630-12 |
| | | 2 | 301398 | B-2630-16 |
| | | 2-1/2 | 301399 | B-2630-20 |
| | | 3 | 301400 | B-2630-24 |
| 1.629 | 1.879 | 1-1/4 | 401485 | SS-5260-20 |
| | | 1-1/2 | 401486 | SS-5260-24 |
| | | 1-3/4 | 401487 | SS-5260-28 |
| | | 2 | 401488 | SS-5260-32 |
| | | 2-1/4 | 401489 | SS-5260-36 |
| | | 2-1/2 | 401490 | SS-5260-40 |
| | | 3 | 401491 | SS-5260-48 |
| 1.629 | 1.880 | 1-1/4 | 201474 | EP263020 (P-162-10) |
| | | 1-1/2 | 201475 | EP263024 (P-162-12) |
| | | 1-3/4 | 201476 | EP263028 (P-162-14) |
| | | 2 | 201477 | EP263032 (P-162-16) |
| | | 2-1/4 | 201478 | EP263036 (P-162-18) |
| | | 2-1/2 | 201479 | EP263040 (P-162-20) |
| | | 3 | 201480 | EP263048 (P-162-24) |
| 1-5/8 X 2 NOMINAL | | | | |
| 1.6265 | 2.004 | 1-1/2 | 101736 | AA-2000-5 |
| | | 2 | 101737 | AA-2000-1 |
| | | 2-1/2 | 101738 | AA-2000-3 |
| | | 3 | 101739 | AA-2000-4 |
| 1.628 | 2.004 | 1 | 301401 | B-2632-8 |
| | | 1-1/2 | 301402 | B-2632-12 |
| | | 2 | 301403 | B-2632-16 |
| | | 3 | 301404 | B-2632-24 |
| 1.629 | 2.004 | 1 | 401492 | SS-5264-16 |
| | | 1-1/2 | 401493 | SS-5264-24 |
| | | 1-3/4 | 401494 | SS-5264-28 |
| | | 2 | 401495 | SS-5264-32 |
| | | 2-1/2 | 401496 | SS-5264-40 |
| | | 3 | 401497 | SS-5264-48 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|---------------------------------|--------|-------|----------|---------------------|
| 1.629 | 2.005 | 1 | 201481 | EP263216 (P-163-8) |
| | | 1-1/2 | 201482 | EP263224 (P-163-12) |
| | | 2 | 201483 | EP263232 (P-163-16) |
| | | 2-1/2 | 201484 | EP263240 (P-163-20) |
| | | 3 | 201485 | EP263248 (P-163-24) |
| 1-11/16 X 2-3/16 NOMINAL | | | | |
| 1.6905 | 2.191 | 1-3/4 | 301405 | B-2735-14 |
| | | 2 | 301406 | B-2735-16 |
| | | 3 | 301407 | B-2735-24 |
| | | 4 | 301408 | B-2735-32 |
| 1.6905 | 2.1915 | 2 | 101740 | AA-2107-1 |
| | | 4 | 101741 | AA-2107 |
| 1.6915 | 2.1925 | 1-3/4 | 201486 | EP273528 (P-168-14) |
| | | 2 | 201487 | EP273532 (P-168-16) |
| | | 3 | 201488 | EP273548 (P-168-24) |
| | | 4 | 201489 | EP273564 (P-168-32) |
| 1.6915 | 2.1925 | 1-3/4 | 401498 | SS-5470-28 |
| | | 2 | 401499 | SS-5470-32 |
| | | 3 | 401500 | SS-5470-48 |
| | | 4 | 401501 | SS-5470-64 |
| 1-3/4 X 1-15/16 NOMINAL | | | | |
| 1.7525 | 1.9415 | 1-1/4 | 101742 | AA-1904-2 |
| | | 1-1/2 | 101743 | AA-1904-3 |
| 1-3/4 X 2 NOMINAL | | | | |
| 1.753 | 2.004 | 1 | 101744 | AA-2001-11 |
| | | 1-1/2 | 101745 | AA-2001-3 |
| | | 1-7/8 | 101746 | AA-2001 |
| | | 2 | 101747 | AA-2001-9 |
| | | 2-1/2 | 101748 | AA-2001-1 |
| | | 2-3/4 | 101749 | AA-2001-13 |
| | | 3 | 101750 | AA-2001-2 |
| 1.753 | 2.004 | 2 | 301409 | B-2832-16 |
| | | 2-1/2 | 301410 | B-2832-20 |
| | | 3 | 301411 | B-2832-24 |
| 1.754 | 2.004 | 1 | 401502 | SS-5664-16 |
| | | 1-1/4 | 401503 | SS-5664-20 |
| | | 1-1/2 | 401504 | SS-5664-24 |
| | | 1-3/4 | 401505 | SS-5664-28 |
| | | 2 | 401506 | SS-5664-32 |
| | | 2-1/2 | 401507 | SS-5664-40 |
| | | 3 | 401508 | SS-5664-48 |
| 1.754 | 2.005 | 1 | 201490 | EP283216 (P-175-8) |
| | | 1-1/4 | 201491 | EP283220 (P-175-10) |
| | | 1-1/2 | 201492 | EP283224 (P-175-12) |
| | | 1-3/4 | 201493 | EP283228 (P-175-14) |
| | | 2 | 201494 | EP283232 (P-175-16) |
| | | 2-1/2 | 201495 | EP283240 (P-175-20) |
| | | 3 | 201496 | EP283248 (P-175-24) |
| 1-3/4 X 2-1/8 NOMINAL | | | | |
| 1.753 | 2.129 | 1-1/2 | 301412 | B-2834-12 |
| | | 2 | 301413 | B-2834-16 |
| | | 3 | 301414 | B-2834-24 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LGTH. | ITEM NO. | PART NO. |
|--------------------------------------|--------|-------|----------|---------------------|
| 1-3/4 X 2-1/8 NOMINAL (cont.) | | | | |
| 1.754 | 2.128 | 1/2 | 101751 | AA-2112-8 |
| | | 1-1/2 | 101752 | AA-2112-1 |
| | | 2 | 101753 | AA-2112-2 |
| | | 2-1/2 | 101754 | AA-2112-3 |
| 1.754 | 2.129 | 1-3/8 | 401509 | SS-5668-22 |
| | | 1-1/2 | 401510 | SS-5668-24 |
| | | 2 | 401511 | SS-5668-32 |
| | | 3 | 401512 | SS-5668-48 |
| 1.754 | 2.130 | 1-1/2 | 201497 | EP283424 (P-176-12) |
| | | 2 | 201498 | EP283432 (P-176-16) |
| | | 3 | 201499 | EP283448 (P-176-24) |
| 1-3/4 X 2-1/4 NOMINAL | | | | |
| 1.753 | 2.253 | 2 | 101755 | AA-2204-2 |
| | | 2-1/2 | 101756 | AA-2204-3 |
| | | 3 | 101757 | AA-2204 |
| 1-7/8 X 2-1/4 NOMINAL | | | | |
| 1.878 | 2.254 | 3/4 | 101758 | AA-2202-10 |
| | | 2 | 101759 | AA-2202 |
| | | 2-1/2 | 101760 | AA-2202-1 |
| | | 3 | 101761 | AA-2202-2 |
| 1-15/16 X 2-1/8 NOMINAL | | | | |
| 1.940 | 2.1285 | 2 | 101762 | AA-2102-3 |
| | | 2-1/2 | 101763 | AA-2102-1 |
| 1.940 | 2.1285 | 2-1/2 | 401513 | SS-6268-40 |
| 1-15/16 X 2-5/16 NOMINAL | | | | |
| 1.9405 | 2.316 | 2 | 301415 | B-3137-16 |
| | | 3 | 301416 | B-3137-24 |
| | | 4 | 301417 | B-3137-32 |
| 1.9405 | 2.3165 | 2 | 101764 | AA-2306-3 |
| | | 3 | 101765 | AA-2306-5 |
| | | 4 | 101766 | AA-2306 |
| 1.9405 | 2.3165 | 2 | 401514 | SS-6274-32 |
| | | 2-1/2 | 401515 | SS-6274-40 |
| | | 3 | 401516 | SS-6274-48 |
| | | 4 | 401517 | SS-6274-64 |
| 1.9415 | 2.3175 | 2 | 201500 | EP313732 (P-193-16) |
| | | 2-1/2 | 201501 | EP313740 (P-193-20) |
| | | 3 | 201502 | EP313748 (P-193-24) |
| | | 4 | 201503 | EP313764 (P-193-32) |
| 1-15/16 X 2-7/16 NOMINAL | | | | |
| 1.942 | 2.4415 | 1-1/2 | 101767 | AA-2403-1 |
| | | 2 | 101768 | AA-2403-2 |
| 2 X 2-1/4 NOMINAL | | | | |
| 2.003 | 2.254 | 3/4 | 101769 | AA-2203-5 |
| | | 1 | 101770 | AA-2203-6 |
| | | 1-1/2 | 101771 | AA-2203-7 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|--------------------------|-------|-------|----------|---------------------|
| 2.003 | 2.254 | 2 | 101772 | AA-2203 |
| | | 2-1/2 | 101773 | AA-2203-9 |
| | | 3 | 101774 | AA-2203-10 |
| 2.004 | 2.254 | 1 | 401518 | SS-6472-16 |
| | | 1-1/2 | 401519 | SS-6472-24 |
| | | 2 | 401520 | SS-6472-32 |
| | | 2-1/2 | 401521 | SS-6472-40 |
| | | 3 | 401522 | SS-6472-48 |
| 2.004 | 2.255 | 3/4 | 201582 | EP323612 (P-200-6) |
| | | 1 | 201504 | EP323616 (P-200-8) |
| | | 1-1/2 | 201505 | EP323624 (P-200-12) |
| | | 2 | 201506 | EP323632 (P-200-16) |
| | | 2-1/2 | 201507 | EP323640 (P-200-20) |
| | | 3 | 201508 | EP323648 (P-200-24) |
| 2 X 2-3/8 NOMINAL | | | | |
| 2.003 | 2.379 | 1-1/8 | 101775 | AA-2304-6 |
| | | 1-1/2 | 101776 | AA-2304-7 |
| | | 1-3/4 | 101777 | AA-2304 |
| | | 2 | 101778 | AA-2304-1 |
| | | 2-1/2 | 101779 | AA-2304-2 |
| | | 3 | 101780 | AA-2304-3 |
| | | 3-1/2 | 101781 | AA-2304-4 |
| | | 4 | 101782 | AA-2304-5 |
| 2.003 | 2.379 | 1-3/4 | 301418 | B-3238-14 |
| | | 2 | 301419 | B-3238-16 |
| | | 2-3/4 | 301420 | B-3238-22 |
| | | 3 | 301421 | B-3238-24 |
| | | 4 | 301422 | B-3238-32 |
| 2.004 | 2.380 | 1-1/8 | 201583 | EP323818 (P-201-9) |
| | | 1-1/2 | 201509 | EP323824 (P-201-12) |
| | | 1-3/4 | 201510 | EP323828 (P-201-14) |
| | | 2 | 201511 | EP323832 (P-201-16) |
| | | 2-1/2 | 201512 | EP323840 (P-201-20) |
| | | 2-3/4 | 201513 | EP323844 (P-201-22) |
| | | 3 | 201514 | EP323848 (P-201-24) |
| | | 3-1/2 | 201515 | EP323856 (P-201-28) |
| | | 4 | 201516 | EP323864 (P-201-32) |
| 2.004 | 2.380 | 1-1/2 | 401523 | SS-6476-24 |
| | | 1-3/4 | 401524 | SS-6476-28 |
| | | 2 | 401525 | SS-6476-32 |
| | | 2-1/2 | 401526 | SS-6476-40 |
| | | 2-3/4 | 401527 | SS-6476-44 |
| | | 3 | 401528 | SS-6476-48 |
| | | 3-1/2 | 401529 | SS-6476-56 |
| | | 4 | 401530 | SS-6476-64 |
| 2 X 2-1/2 NOMINAL | | | | |
| 2.003 | 2.503 | 1-1/2 | 101783 | AA-2501-1 |
| | | 2 | 101784 | AA-2501-2 |
| | | 2-1/2 | 101785 | AA-2501-3 |
| | | 3 | 101786 | AA-2501 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|-------------------------------|--------|-------|----------|---------------------|
| 2.004 | 2.504 | 1 | 301423 | B-3240-8 |
| | | 2 | 301424 | B-3240-16 |
| | | 3 | 301425 | B-3240-24 |
| 2.004 | 2.505 | 1 | 201517 | EP324016 (P-202-8) |
| | | 1-1/2 | 201518 | EP324024 (P-202-12) |
| | | 2 | 201519 | EP324032 (P-202-16) |
| | | 2-1/2 | 201520 | EP324040 (P-202-20) |
| | | 3 | 201521 | EP324048 (P-202-24) |
| | | 3-1/2 | 201522 | EP324056 (P-202-28) |
| | | 4 | 201523 | EP324064 (P-202-32) |
| 2.004 | 2.505 | 1 | 401531 | SS-6480-16 |
| | | 1-1/2 | 401532 | SS-6480-24 |
| | | 2 | 401533 | SS-6480-32 |
| | | 2-1/2 | 401534 | SS-6480-40 |
| | | 3 | 401535 | SS-6480-48 |
| | | 3-1/2 | 401536 | SS-6480-56 |
| | | 4 | 401537 | SS-6480-64 |
| 2-3/16 X 2-3/8 NOMINAL | | | | |
| 2.190 | 2.379 | 1-1/2 | 101787 | AA-2303-1 |
| 2-1/4 X 2-5/8 NOMINAL | | | | |
| 2.254 | 2.6295 | 2 | 101788 | AA-2605-3 |
| | | 3 | 101789 | AA-2605-5 |
| | | 3-1/2 | 101790 | AA-2605 |
| | | 4-1/2 | 101791 | AA-2605-2 |
| 2.254 | 2.630 | 2 | 401538 | SS-7284-32 |
| | | 2-1/2 | 401539 | SS-7284-40 |
| | | 3 | 401540 | SS-7284-48 |
| 2.254 | 2.631 | 2 | 201524 | EP364232 (P-225-16) |
| | | 2-1/2 | 201525 | EP364240 (P-225-20) |
| | | 3 | 201526 | EP364248 (P-225-24) |
| 2-1/4 X 2-3/4 NOMINAL | | | | |
| 2.253 | 2.753 | 1-1/2 | 101792 | AA-2703-1 |
| | | 2 | 101793 | AA-2703-2 |
| | | 3 | 101794 | AA-2703 |
| 2.254 | 2.754 | 2 | 301429 | B-3644-16 |
| | | 3 | 301430 | B-3644-24 |
| 2.254 | 2.755 | 2 | 401541 | SS-7288-32 |
| | | 3 | 401542 | SS-7288-48 |
| 2.254 | 2.756 | 2 | 201527 | EP364432 (P-226-16) |
| | | 3 | 201528 | EP364448 (P-226-24) |
| 2-3/8 X 2-5/8 NOMINAL | | | | |
| 2.377 | 2.6295 | 1-1/4 | 101795 | AA-2602-3 |
| | | 1-5/8 | 101796 | AA-2602 |
| 2-3/8 X 2-3/4 NOMINAL | | | | |
| 2.379 | 2.753 | 2 | 101797 | AA-2701-2 |
| | | 2-1/2 | 101798 | AA-2701-6 |
| | | 3 | 101799 | AA-2701 |
| 2.379 | 2.754 | 2 | 301432 | B-3844-16 |
| | | 3 | 301433 | B-3844-24 |
| 2.379 | 2.755 | 2 | 401543 | SS-7688-32 |
| | | 2-1/2 | 401544 | SS-7688-40 |
| | | 3 | 401545 | SS-7688-48 |
| 2.379 | 2.756 | 2 | 201529 | EP384432 (P-237-16) |
| | | 2-1/2 | 201530 | EP384440 (P-237-20) |
| | | 3 | 201531 | EP384448 (P-237-24) |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LGTH. | ITEM NO. | (PART NO.) |
|------------------------------|-------|-------|----------|---------------------|
| 2-1/2 X 2-3/4 NOMINAL | | | | |
| 2.504 | 2.754 | 2 | 401546 | SS-8088-32 |
| | | 2-1/2 | 401547 | SS-8088-40 |
| | | 3 | 401548 | SS-8088-48 |
| | | 4 | 401549 | SS-8088-64 |
| 2.505 | 2.754 | 2 | 101800 | AA-2702-5 |
| | | 2-1/2 | 101801 | AA-2702-4 |
| | | 3 | 101802 | AA-2702-1 |
| 2.505 | 2.756 | 2 | 201532 | EP404432 (P-250-16) |
| | | 3 | 201533 | EP404448 (P-250-24) |
| | | 4 | 201534 | EP404464 (P-250-32) |
| 2-1/2 X 2-7/8 NOMINAL | | | | |
| 2.504 | 2.880 | 2-1/4 | 101803 | AA-2803-1 |
| | | 2-1/2 | 101804 | AA-2803-3 |
| | | 3 | 101805 | AA-2803-2 |
| 2.504 | 2.880 | 2-1/4 | 401550 | SS-8092-36 |
| | | 2-1/2 | 401551 | SS-8092-40 |
| | | 3 | 401552 | SS-8092-48 |
| 2.505 | 2.881 | 2-1/4 | 201535 | EP404636 (P-251-18) |
| | | 2-1/2 | 201536 | EP404640 (P-251-20) |
| | | 3 | 201537 | EP404648 (P-251-24) |
| 2-1/2 X 3 NOMINAL | | | | |
| 2.504 | 3.005 | 2 | 101806 | AA-3005-7 |
| | | 2-1/2 | 101807 | AA-3005-4 |
| | | 3 | 101808 | AA-3005-1 |
| | | 4 | 101809 | AA-3005 |
| 2.504 | 3.005 | 2 | 301438 | B-4048-16 |
| | | 3 | 301439 | B-4048-24 |
| | | 4 | 301440 | B-4048-32 |
| 2.504 | 3.005 | 2 | 401553 | SS-8096-32 |
| | | 3 | 401554 | SS-8096-48 |
| | | 4 | 401555 | SS-8096-64 |
| 2.505 | 3.006 | 2 | 201538 | EP404832 (P-252-16) |
| | | 3 | 201539 | EP404848 (P-252-24) |
| | | 4 | 201540 | EP404864 (P-252-32) |
| 2-3/4 X 3 NOMINAL | | | | |
| 2.753 | 3.005 | 1-1/2 | 101810 | AA-3006-1 |
| | | 2-1/2 | 101811 | AA-3006 |
| 2.754 | 3.005 | 1-1/2 | 401556 | SS-8896-24 |
| | | 2-1/2 | 401557 | SS-8896-40 |
| 2-3/4 X 3-1/8 NOMINAL | | | | |
| 2.753 | 3.129 | 1-1/4 | 101812 | AA-3100-7 |
| | | 2-3/4 | 101813 | AA-3100 |
| | | 4 | 101814 | AA-3100-11 |
| 2-3/4 X 3-1/4 NOMINAL | | | | |
| 2.752 | 3.254 | 1-1/2 | 101815 | AA-3201-1 |
| | | 2 | 101816 | AA-3201-4 |
| | | 3 | 101817 | AA-3201-7 |
| | | 4 | 101818 | AA-3201 |

| ID | OD | LGTH. | ITEM NO. | (PART NO.) |
|---------------------------------|-------|-------|----------|---------------------|
| 2.754 | 3.255 | 2 | 401558 | SS-88104-32 |
| | | 3 | 401559 | SS-88104-48 |
| | | 4 | 401560 | SS-88104-64 |
| 2.755 | 3.255 | 2 | 301441 | B-4452-16 |
| | | 3 | 301442 | B-4452-24 |
| | | 4 | 301443 | B-4452-32 |
| 2.755 | 3.257 | 2 | 201541 | EP445232 (P-275-16) |
| | | 3 | 201542 | EP445248 (P-275-24) |
| | | 4 | 201543 | EP445264 (P-275-32) |
| 2-15/16 X 3-5/16 NOMINAL | | | | |
| 2.940 | 3.315 | 3 | 401561 | SS-94106-48 |
| | | 3 | 101819 | AA-3301-3 |
| 3 X 3-1/4 NOMINAL | | | | |
| 3.002 | 3.255 | 1-1/4 | 101820 | AA-3200-5 |
| | | 2 | 101821 | AA-3200 |
| | | 3 | 101822 | AA-3200-2 |
| 3.005 | 3.255 | 2 | 401562 | SS-96104-32 |
| | | 3 | 401563 | SS-96104-48 |
| 3.006 | 3.257 | 2 | 201544 | EP485232 (P-300-16) |
| | | 3 | 201545 | EP485248 (P-300-24) |
| 3 X 3-1/2 NOMINAL | | | | |
| 3.004 | 3.505 | 2-1/2 | 101823 | AA-3502-7 |
| | | 3 | 101824 | AA-3502-8 |
| | | 4 | 101825 | AA-3502-3 |
| 3.004 | 3.505 | 2 | 301444 | B-4856-16 |
| | | 3 | 301445 | B-4856-24 |
| | | 4 | 301446 | B-4856-32 |
| 3.005 | 3.505 | 2 | 401564 | SS-96112-32 |
| | | 2-1/2 | 401565 | SS-96112-40 |
| | | 3 | 401566 | SS-96112-48 |
| | | 4 | 401567 | SS-96112-64 |
| 3.006 | 3.507 | 2 | 201546 | EP485632 (P-301-16) |
| | | 2-1/2 | 201547 | EP485640 (P-301-20) |
| | | 3 | 201548 | EP485648 (P-301-24) |
| | | 4 | 201549 | EP485664 (P-301-32) |
| 3-1/4 X 3-5/8 NOMINAL | | | | |
| 3.253 | 3.628 | 4 | 101826 | AA-3600-5 |
| 3.253 | 3.628 | 4 | 401568 | SS-104116-64 |
| 3-1/2 X 4 NOMINAL | | | | |
| 3.5035 | 4.004 | 2 | 101827 | AA-4000-3 |
| | | 3 | 101828 | AA-4000-5 |
| | | 3-1/2 | 101829 | AA-4000-6 |
| | | 4 | 101830 | AA-4000 |
| 3.505 | 4.006 | 3 | 401569 | SS-112128-48 |
| | | 3-1/2 | 401570 | SS-112128-56 |
| | | 4 | 401571 | SS-112128-64 |

| ID | OD | LGTH. | ITEM NO. | (PART NO.) |
|------------------------------|--------|-------|----------|---------------------|
| 3.507 | 4.008 | 2 | 201584 | EP566432 (P-350-16) |
| | | 3 | 201550 | EP566448 (P-350-24) |
| | | 3-1/2 | 201551 | EP566456 (P-350-28) |
| | | 4 | 201552 | EP566464 (P-350-32) |
| 4 X 4-1/2 NOMINAL | | | | |
| 4.0035 | 4.504 | 4 | 101831 | AA-4500 |
| | | 6 | 101832 | AA-4500-2 |
| 4.0035 | 4.504 | 4 | 401572 | SS-128144-64 |
| | | 6 | 401573 | SS-128144-96 |
| 4.008 | 4.509 | 4 | 201553 | EP647264 (P-400-32) |
| 4 X 4-5/8 NOMINAL | | | | |
| 4.003 | 4.628 | 4 | 101833 | AA-4600-5 |
| 4.003 | 4.628 | 4 | 401574 | SS-128148-64 |
| 4-1/2 X 5-1/4 NOMINAL | | | | |
| 4.504 | 5.2545 | 5 | 101834 | AA-5201 |
| 4.504 | 5.2545 | 5 | 401575 | SS-144168-80 |
| 5 X 5-3/4 NOMINAL | | | | |
| 5.004 | 5.755 | 2 | 101835 | AA-5700-1 |
| 5.004 | 5.755 | 2 | 401576 | SS-160184-32 |



| DEC. I.D. | DEC. O.D. | NOM. LGTH. | FLG. O.D. | FLG. THICK | ITEM NO. | PART NO. |
|----------------------------|-----------|--|-----------|------------|--|--|
| 1/8 X 1/4 NOMINAL | | | | | | |
| .126 | .252 | 1/4 3/8 | 5/16 | 1/16 | 102001 102002 | FF-207-2 FF-207-3 |
| 1/8 X 5/16 NOMINAL | | | | | | |
| .127 | .315 | 1/4 3/8 | 3/8 | 3/64 | 302001 302002 | FB-25-2 FB-25-3 |
| 3/16 X 5/16 NOMINAL | | | | | | |
| .187 | .313 | 1/4 3/8 | 3/8 | 1/16 | 102003 102004 | FF-313-1 FF-313-2 |
| .189 | .3145 | 1/8 1/4 3/8 | 3/8 | 3/64 | 302003 302004 302005 | FB-35-1 FB-35-2 FB-35-3 |
| .1895 | .314 | 3/16 1/4 5/16 3/8 1/2 | 7/16 | 1/16 | 102005 102006 102007 102008 102009 | FF-303-1 FF-303-3 FF-303-2 FF-303 FF-303-4 |
| .1895 | .314 | 3/16 1/4 5/16 3/8 1/2 | 7/16 | 1/16 | 402001 402002 402003 402004 402005 | SF-610-3 SF-610-4 SF-610-5 SF-610-6 SF-610-8 |
| .1895 | .3155 | 3/16 1/4 5/16 3/8 1/2 | 7/16 | 1/16 | 202088 202089 202090 202001 202091 | EF030503 (FL-19-1.5) EF030504 (FL-19-2) EF030505 (FL-19-2.5) EF030506 (FL-19-3) EF030508 (FL-19-4) |
| 3/16 X 3/8 NOMINAL | | | | | | |
| .1895 | .3765 | 3/8 1/2 | 7/16 | 1/16 | 102010 102011 | FF-307 FF-307-2 |
| 1/4 X 3/8 NOMINAL | | | | | | |
| .250 | .381 | 3/16 1/4 5/16 3/8 7/16 1/2 9/16 11/16 | 1/2 | 1/16 | 102012 102013 102014 102015 102016 102017 102018 102019 | FF-310 FF-310-3 FF-310-4 FF-310-1 FF-310-5 FF-310-2 FF-310-7 FF-310-10 |
| .252 | .377 | 3/16 1/4 5/16 3/8 7/16 1/2 5/8 3/4 | 15/32 | 1/16 | 402006 402007 402008 402009 402010 402011 402012 402013 | SF-812-3 SF-812-4 SF-812-5 SF-812-6 SF-812-7 SF-812-8 SF-812-10 SF-812-12 |
| .252 | .377 | 1/4 3/8 1/2 5/8 3/4 | 1/2 | 3/64 | 302006 302007 302008 302009 302010 | FB-46-2 FB-46-3 FB-46-4 FB-46-5 FB-46-6 |
| .252 | .3775 | 3/8 | 15/32 | 3/64 | 102023 | FF-300 |
| .252 | .3775 | 1/4 3/8 1/2 | 15/32 | 1/16 | 102020 102021 102022 | FF-312 FF-312-1 FF-312-2 |
| .252 | .378 | 3/16 1/4 3/8 | 1/2 | 1/16 | 202092 202002 202003 | EF040603 (FL-26-1.5) EF040604 (FL-26-2) EF040606 (FL-26-3) |

| DEC. I.D. | DEC. O.D. | NOM. LGTH. | FLG. O.D. | FLG. THICK | ITEM NO. | PART NO. |
|----------------------------|-----------|---|-----------|------------|--|--|
| .252 | .378 | 7/16 1/2 5/8 3/4 | 1/2 | 1/16 | 202093 202004 202005 202006 | EF040607 (FL-26-3.5) EF040608 (FL-26-4) EF040610 (FL-26-5) EF040612 (FL-26-6) |
| .253 | .377 | 1/2 | 1/2 | 1/16 | 102024 | FF-375-1 |
| 1/4 X 7/16 NOMINAL | | | | | | |
| .251 | .4395 | 1/2 | 1/2 | 1/16 | 102025 | FF-435-1 |
| 1/4 X 1/2 NOMINAL | | | | | | |
| .252 | .503 | 5/8 3/4 | 5/8 | 1/16 | 102026 102027 | FF-565-2 FF-565-3 |
| .252 | .503 | 5/8 3/4 | 5/8 | 1/16 | 402014 402015 | SF-816-10 SF-816-12 |
| 5/16 X 3/8 NOMINAL | | | | | | |
| .314 | .377 | 3/8 | 1/2 | 3/64 | 302011 | FB-56-3 |
| 5/16 X 7/16 NOMINAL | | | | | | |
| .3125 | .440 | 3/8 1/2 7/8 | 9/16 | 1/16 | 102028 102029 102030 | FF-411-1 FF-411-2 FF-411-4 |
| .314 | .439 | 3/8 1/2 5/8 3/4 7/8 1 | 5/8 | 3/32 | 302012 302086 302087 302013 302088 302089 | FB-57-3 FB-57-4 FB-57-5 FB-57-6 FB-57-7 FB-57-8 |
| .3145 | .4405 | 3/8 1/2 3/4 | 9/16 | 1/16 | 202007 202008 202009 | EF050706 (FL-32-3) EF050708 (FL-32-4) EF050712 (FL-32-6) |
| .315 | .440 | 3/8 1/2 5/8 3/4 7/8 1 | 9/16 | 1/16 | 402016 402017 402018 402019 402020 402021 | SF-1014-6 SF-1014-8 SF-1014-10 SF-1014-12 SF-1014-14 SF-1014-16 |
| 5/16 X 1/2 NOMINAL | | | | | | |
| .3135 | .502 | 3/8 | 9/16 | 1/16 | 102031 | FF-501-2 |
| .314 | .502 | 3/8 1/2 5/8 | 11/16 | 3/32 | 302014 302015 302016 | FB-58-3 FB-58-4 FB-58-5 |
| .3145 | .503 | 3/8 | 11/16 | 1/16 | 202010 | EF050806 (FL-33-3) |
| .3145 | .503 | 3/8 | 11/16 | 1/16 | 402022 | SF-1016-6 |
| 3/8 X 1/2 NOMINAL | | | | | | |
| .3765 | .502 | 1/4 5/16 3/8 1/2 | 5/8 | 1/16 | 102032 102033 102034 102035 | FF-520-15 FF-520-9 FF-520-10 FF-520-5 |
| .3765 | .503 | 1/2 5/8 | 5/8 | 3/32 | 102036 102037 | FF-512-2 FF-512-3 |
| .377 | .502 | 1/4 5/16 3/8 1/2 5/8 3/4 | 5/8 | 1/16 | 402023 402024 402025 402026 402027 402028 402029 | SF-1216-4 SF-1216-5 SF-1216-6 SF-1216-8 SF-1216-10 SF-1216-12 SF-1216-16 |
| .377 | .502 | 3/8 13/32 | 11/16 | 3/32 | 302017 302018 | FB-68-3 FB-68-3-1/4 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| DEC. I.D. | DEC. O.D. | NOM. LGTH. | FLG. O.D. | FLG. THICK | ITEM NO. | PART NO. |
|----------------------------------|-----------|------------|-----------|------------|----------|---------------------|
| 3/8 X 1/2 NOMINAL (cont.) | | | | | | |
| .377 | .502 | 1/2 | 11/16 | 3/32 | 302019 | FB-68-4 |
| | | 5/8 | | | 302020 | FB-68-5 |
| | | 3/4 | | | 302021 | FB-68-6 |
| | | 7/8 | | | 302090 | FB-68-7 |
| | | 1 | | | 302022 | FB-68-8 |
| | | 1-1/4 | | | 302023 | FB-68-10 |
| .377 | .503 | 1/4 | 11/16 | 1/16 | 202094 | EF060804 (FL-38-2) |
| | | 3/8 | | | 202095 | EF060806 (FL-38-3) |
| | | 1/2 | | | 202011 | EF060808 (FL-38-4) |
| | | 3/4 | | | 202012 | EF060812 (FL-38-6) |
| | | 1 | | | 202013 | EF060816 (FL-38-8) |
| .378 | .503 | 1/2 | 3/4 | 3/32 | 102038 | FF-519-2 |
| 3/8 X 9/16 NOMINAL | | | | | | |
| .376 | .564 | 1/2 | .740 | 1/16 | 102039 | FF-503-6 |
| | | 11/16 | | | 102040 | FF-503-4 |
| | | 13/16 | | | 102041 | FF-503 |
| .377 | .5645 | 1/2 | 3/4 | 1/8 | 302091 | FB-69-4 |
| | | 3/4 | | | 302024 | FB-69-6 |
| | | 1-1/4 | | | 302025 | FB-69-10 |
| .377 | .5655 | 1/2 | 11/16 | 1/16 | 202014 | EF060908 (FL-39-4) |
| | | 3/4 | | | 202015 | EF060912 (FL-39-6) |
| .377 | .5655 | 1/2 | 11/16 | 1/16 | 402030 | SF-1218-8 |
| 3/8 X 5/8 NOMINAL | | | | | | |
| .376 | .627 | 1/2 | 7/8 | 1/16 | 102042 | FF-607-2 |
| | | 3/4 | | | 102043 | FF-607-3 |
| | | 1-1/4 | | | 102044 | FF-607-1 |
| .377 | .627 | 1/2 | 7/8 | 1/16 | 402031 | SF-1220-8 |
| | | 3/4 | | | 402032 | SF-1220-12 |
| | | 1 | | | 402033 | SF-1220-16 |
| | | 1-1/4 | | | 402034 | SF-1220-20 |
| .377 | .627 | 3/8 | 7/8 | 1/8 | 302092 | FB-610-3 |
| | | 1/2 | | | 302026 | FB-610-4 |
| | | 5/8 | | | 302093 | FB-610-5 |
| | | 3/4 | | | 302027 | FB-610-6 |
| | | 1 | | | 302028 | FB-610-8 |
| | | 1-1/4 | | | 302029 | FB-610-10 |
| .377 | .628 | 1/2 | 7/8 | 1/16 | 202016 | EF061008 (FL-40-4) |
| | | 3/4 | | | 202017 | EF061012 (FL-40-6) |
| | | 1 | | | 202018 | EF061016 (FL-40-8) |
| | | 1-1/4 | | | 202019 | EF061020 (FL-40-10) |
| 3/8 X 3/4 NOMINAL | | | | | | |
| .377 | .753 | 1/2 | 1 | 1/8 | 302030 | FB-612-4 |
| 7/16 X 9/16 NOMINAL | | | | | | |
| .439 | .565 | 1/2 | 11/16 | 1/16 | 102045 | FF-504-3 |
| | | 5/8 | | | 102046 | FF-504 |
| | | 3/4 | | | 102047 | FF-504-1 |
| .439 | .565 | 1/2 | 11/16 | 1/16 | 402035 | SF-1418-8 |
| | | 5/8 | | | 402036 | SF-1418-10 |
| | | 3/4 | | | 402037 | SF-1418-12 |
| .4395 | .5655 | 1/2 | 11/16 | 1/16 | 202020 | EF070908 (FL-43-4) |
| | | 3/4 | | | 202021 | EF070912 (FL-43-6) |
| 7/16 X 5/8 NOMINAL | | | | | | |
| .4385 | .627 | 3/4 | 7/8 | 1/8 | 102048 | FF-608-3 |
| | | 1-1/4 | | | 102049 | FF-608 |
| .439 | .628 | 5/8 | 7/8 | 1/8 | 302031 | FB-710-5 |
| | | 3/4 | | | 302094 | FB-710-6 |
| | | 1-1/4 | | | 302032 | FB-710-10 |
| .439 | .628 | 5/8 | 7/8 | 1/8 | 402038 | SF-1420-10 |

| DEC. I.D. | DEC. O.D. | NOM. LGTH. | FLG. O.D. | FLG. THICK | ITEM NO. | PART NO. |
|----------------------------|-----------|------------|-----------|------------|----------|----------------------|
| .439 | .628 | 3/4 | 7/8 | 1/8 | 402039 | SF-1420-12 |
| | | 1 | | | 402040 | SF-1420-16 |
| | | 1-1/4 | | | 402041 | SF-1420-20 |
| .4395 | .628 | 3/4 | 7/8 | 1/8 | 202022 | EF071012 (FL-44-6) |
| | | 1-1/4 | | | 202023 | EF071020 (FL-44-10) |
| 1/2 X 5/8 NOMINAL | | | | | | |
| .502 | .627 | 5/16 | 3/4 | 3/32 | 102053 | FF-636-3 |
| | | 3/8 | | | 102161 | FF-636-2 |
| .502 | .627 | 3/16 | 7/8 | 1/16 | 102054 | FF-620-9 |
| | | 1/2 | | | 102055 | FF-620-1 |
| | | 9/16 | | | 102056 | FF-620-5 |
| | | 5/8 | | | 102057 | FF-620-7 |
| | | 11/16 | | | 102058 | FF-620 |
| | | 3/4 | | | 102059 | FF-620-2 |
| | | 15/16 | | | 102060 | FF-620-6 |
| | | 1 | | | 102061 | FF-620-3 |
| | | 1-1/8 | | | 102062 | FF-620-4 |
| .502 | .627 | 1/4 | 7/8 | 1/16 | 402042 | SF-1620-4 |
| | | 3/8 | | | 402043 | SF-1620-6 |
| | | 1/2 | | | 402044 | SF-1620-8 |
| | | 9/16 | | | 402045 | SF-1620-9 |
| | | 5/8 | | | 402046 | SF-1620-10 |
| | | 11/16 | | | 402047 | SF-1620-11 |
| | | 3/4 | | | 402048 | SF-1620-12 |
| | | 1 | | | 402049 | SF-1620-16 |
| | | 1-1/4 | | | 402050 | SF-1620-20 |
| | | 1-1/2 | | | 402138 | SF-1620-24 |
| .502 | .627 | 1/2 | 31/32 | 3/32 | 102050 | FF-600-5 |
| | | 1 | | | 102051 | FF-600-2 |
| | | 1-3/4 | | | 102052 | FF-600 |
| .502 | .628 | 1/2 | 7/8 | 1/8 | 302033 | FB-810-4 |
| | | 5/8 | | | 302034 | FB-810-5 |
| | | 3/4 | | | 302035 | FB-810-6 |
| | | 7/8 | | | 302095 | FB-810-7 |
| | | 1 | | | 302036 | FB-810-8 |
| | | 1-1/4 | | | 302037 | FB-810-10 |
| | | 1-1/2 | | | 302038 | FB-810-12 |
| | | 1-3/4 | | | 302039 | FB-810-14 |
| .502 | .628 | 5/16 | 7/8 | 1/8 | 202096 | EF081005 (FL-50-2.5) |
| | | 3/8 | | | 202024 | EF081006 (FL-50-3) |
| | | 1/2 | | | 202025 | EF081008 (FL-50-4) |
| | | 5/8 | | | 202097 | EF081010 (FL-50-5) |
| | | 3/4 | | | 202026 | EF081012 (FL-50-6) |
| | | 1 | | | 202027 | EF081016 (FL-50-8) |
| | | 1-1/4 | | | 202028 | EF081020 (FL-50-10) |
| | | 1-1/2 | | | 202029 | EF081024 (FL-50-12) |
| 1/2 X 11/16 NOMINAL | | | | | | |
| .502 | .690 | 1/2 | 15/16 | 1/8 | 302040 | FB-811-4 |
| | | 5/8 | | | 302096 | FB-811-5 |
| | | 3/4 | | | 302041 | FB-811-6 |
| .502 | .6905 | 5/16 | 7/8 | 1/8 | 202098 | EF081105 (FL-51-2.5) |
| | | 1/2 | | | 202030 | EF081108 (FL-51-4) |
| | | 3/4 | | | 202031 | EF081112 (FL-51-6) |
| .502 | .6905 | 5/16 | 7/8 | 1/8 | 402051 | SF-1622-5 |
| | | 1/2 | | | 402052 | SF-1622-8 |
| | | 3/4 | | | 402053 | SF-1622-12 |
| | | 7/8 | | | 402054 | SF-1622-14 |
| .502 | .691 | 5/16 | 13/16 | 1/16 | 102066 | FF-609-1 |
| | | 1/2 | | | 102067 | FF-609-3 |
| | | 3/4 | | | 102068 | FF-609-4 |
| | | 13/16 | | | 102069 | FF-609 |



| DEC. I.D. | DEC. O.D. | NOM. LGTH. | FLG. O.D. | FLG. THICK | ITEM NO. | PART NO. |
|------------------------------------|-----------|---|-----------|------------|--|---|
| 1/2 X 11/16 NOMINAL (cont.) | | | | | | |
| .502 | .691 | 1/2 3/4 13/16 | 31/32 | 3/32 | 102063 102064 102065 | FF-604-2 FF-604-1 FF-604 |
| 1/2 X 3/4 NOMINAL | | | | | | |
| .502 | .753 | 1/2 3/4 1 | 15/16 | 1/8 | 102070 102071 102072 | FF-707-5 FF-707-2 FF-707-3 |
| .502 | .753 | 3/8 1/2 5/8 3/4 1 1-1/4 1-1/2 | 15/16 | 1/8 | 402055 402056 402057 402058 402059 402060 402061 | SF-1624-6 SF-1624-8 SF-1624-10 SF-1624-12 SF-1624-16 SF-1624-20 SF-1624-24 |
| .502 | .753 | 1/2 5/8 3/4 7/8 1 1-1/4 1-1/2 | 1 | 1/8 | 302042 302097 302043 302044 302045 302046 302047 | FB-812-4 FB-812-5 FB-812-6 FB-812-7 FB-812-8 FB-812-10 FB-812-12 |
| .502 | .753 | 1/2 5/8 3/4 1 1-1/4 | 1 | 1/8 | 202032 202087 202033 202034 202035 | EF081208 (FL-52-4) EF081210 (FL-52-5) EF081212 (FL-52-6) EF081216 (FL-52-8) EF081220 (FL-52-10) |
| .503 | .753 | 3/4 | 15/16 | 1/8 | 102073 | FF-710 |
| .505 | .753 | 3/8 1/2 5/8 | 1 | 1/8 | 102074 102075 102076 | FF-723-5 FF-723-1 FF-723 |
| 9/16 X 3/4 NOMINAL | | | | | | |
| .565 | .753 | 1/2 3/4 1 | 1 | 1/8 | 302098 302099 302048 | FB-912-4 FB-912-6 FB-912-8 |
| 5/8 X 3/4 NOMINAL | | | | | | |
| .626 | .753 | 1/2 5/8 3/4 1 1-1/4 | 1 | 1/8 | 302049 302050 302051 302052 302053 | FB-1012-4 FB-1012-5 FB-1012-6 FB-1012-8 FB-1012-10 |
| .6265 | .7525 | 5/8 3/4 1 1-1/8 1-1/4 | 1 | 3/32 | 102077 102078 102079 102080 102081 | FF-703-3 FF-703-7 FF-703-1 FF-703 FF-703-6 |
| .627 | .753 | 1/2 5/8 3/4 1 1-1/8 1-1/4 1-1/2 | 1 | 3/32 | 402062 402063 402064 402065 402066 402067 402068 | SF-2024-8 SF-2024-10 SF-2024-12 SF-2024-16 SF-2024-18 SF-2024-20 SF-2024-24 |
| .627 | .753 | 5/8 3/4 1 1-1/8 | 1 | 1/8 | 202036 202037 202038 202039 | EF101210 (FL-62-5) EF101212 (FL-62-6) EF101216 (FL-62-8) EF101218 (FL-62-9) |
| .6275 | .7525 | 1/2 1 1-1/8 | 7/8 | 1/16 | 102082 102083 102084 | FF-718-1 FF-718-3 FF-718-6 |

| DEC. I.D. | DEC. O.D. | NOM. LGTH. | FLG. O.D. | FLG. THICK | ITEM NO. | PART NO. |
|----------------------------|-----------|--|-----------|------------|--|---|
| 5/8 X 13/16 NOMINAL | | | | | | |
| .625 | .815 | 1 1-1/4 | 1 | 1/8 | 102085 102086 | FF-823-3 FF-823 |
| .626 | .815 | 1/2 3/4 1 | 1 | 1/8 | 102087 102088 102089 | FF-842-1 FF-842-2 FF-842-3 |
| .627 | .815 | 5/8 3/4 1 1-1/4 1-7/16 1-1/2 2 | 1-1/16 | 5/32 | 302100 302054 302055 302056 302057 302058 302059 | FB-1013-5 FB-1013-6 FB-1013-8 FB-1013-10 FB-1013-11.5 FB-1013-12 FB-1013-16 |
| .627 | .8165 | 3/4 1 1-1/4 1-1/2 | 1 | 1/8 | 202040 202041 202042 202043 | EF101312 (FL-63-6) EF101316 (FL-63-8) EF101320 (FL-63-10) EF101324 (FL-63-12) |
| .628 | .815 | 3/4 1 1-1/4 1-1/2 | 1 | 1/8 | 402069 402070 402071 402072 | SF-2026-12 SF-2026-16 SF-2026-20 SF-2026-24 |
| .628 | .816 | 3/4 1-7/16 | 1-1/4 | 1/8 | 102090 102091 | FF-806-1 FF-806 |
| .6295 | .8155 | 1/2 3/4 1 | 1 | 1/8 | 102092 102093 102094 | FF-805-2 FF-805 FF-805-3 |
| 5/8 X 7/8 NOMINAL | | | | | | |
| .627 | .877 | 5/8 3/4 1 1-1/4 | 1 | 1/8 | 102095 102096 102097 102098 | FF-843-4 FF-843 FF-843-2 FF-843-3 |
| .627 | .878 | 5/8 3/4 1 1-3/4 | 1-1/8 | 5/32 | 302101 302060 302061 302062 | FB-1014-5 FB-1014-6 FB-1014-8 FB-1014-14 |
| .627 | .879 | 1/2 5/8 3/4 1 1-1/4 | 1-1/8 | 1/8 | 202044 202100 202045 202046 202047 | EF101408 (FL-64-4) EF101410 (FL-64-5) EF101412 (FL-64-6) EF101416 (FL-64-8) EF101420 (FL-64-10) |
| .628 | .878 | 5/8 3/4 1 1-1/4 1-1/2 | 1 | 1/8 | 402073 402074 402075 402076 402077 | SF-2028-10 SF-2028-12 SF-2028-16 SF-2028-20 SF-2028-24 |
| 5/8 X 1 NOMINAL | | | | | | |
| .627 | 1.003 | 3/4 1 | 1-1/4 | 5/32 | 302102 302063 | FB-1016-6 FB-1016-8 |
| .627 | 1.003 | 1 | 1-1/4 | 3/16 | 402078 | SF-2032-16 |
| .627 | 1.004 | 1 | 1-1/4 | 3/16 | 202048 | EF101616 (FL-66-8) |
| 3/4 X 7/8 NOMINAL | | | | | | |
| .751 | .877 | 1/2 1 | 1 | 1/16 | 102099 102100 | FF-838-1 FF-838-3 |
| .752 | .878 | 3/4 1 1-1/4 | 1-1/8 | 5/32 | 302064 302065 302103 | FB-1214-6 FB-1214-8 FB-1214-10 |
| .752 | .879 | 1/2 3/4 | 1-1/8 | 1/8 | 202049 202050 | EF121408 (FL-75-4) EF121412 (FL-75-6) |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| DEC. I.D. | DEC. O.D. | NOM. LGTH. | FLG. O.D. | FLG. THICK | ITEM NO. | PART NO. |
|----------------------------|-----------|------------|-----------|------------|----------|----------------------|
| 3/4 X 7/8 NOMINAL | | | | | | |
| .753 | .878 | 1/2 | 1-1/8 | 1/8 | 402079 | SF-2428-8 |
| | | 3/4 | | | 402080 | SF-2428-12 |
| | | 1 | | | 402081 | SF-2428-16 |
| | | 1-1/2 | | | 402082 | SF-2428-24 |
| 3/4 X 15/16 NOMINAL | | | | | | |
| .7505 | .941 | 3/4 | 1-1/8 | 3/32 | 102101 | FF-911-3 |
| | | 1 | | | 102102 | FF-911-4 |
| .752 | .940 | 1 | 1-3/16 | 5/32 | 302066 | FB-1215-8 |
| | | 1-1/4 | | | 302104 | FB-1215-10 |
| | | 1-1/2 | | | 302067 | FB-1215-12 |
| .752 | .9415 | 9/16 | 1-1/4 | 1/8 | 202101 | EF121509 (FL-76-4.5) |
| | | 3/4 | | | 202051 | EF121512 (FL-76-6) |
| | | 1 | | | 202052 | EF121516 (FL-76-8) |
| | | 1-1/8 | | | 202053 | EF121518 (FL-76-9) |
| | | 1-1/4 | | | 202054 | EF121520 (FL-76-10) |
| | | 1-1/2 | | | 202055 | EF121524 (FL-76-12) |
| .753 | .938 | 9/16 | 1-5/16 | 1/8 | 102103 | FF-901-4 |
| | | 3/4 | | | 102104 | FF-901-6 |
| | | 1-1/4 | | | 102105 | FF-901-8 |
| | | 1-9/16 | | | 102106 | FF-901 |
| .753 | .940 | 3/4 | 1-1/4 | 1/8 | 402083 | SF-2430-12 |
| | | 1 | | | 402084 | SF-2430-16 |
| | | 1-1/8 | | | 402085 | SF-2430-18 |
| | | 1-1/4 | | | 402086 | SF-2430-20 |
| | | 1-1/2 | | | 402087 | SF-2430-24 |
| .753 | .9405 | 1-1/8 | 1.175 | 1/8 | 102107 | FF-905 |
| 3/4 X 1 NOMINAL | | | | | | |
| .7505 | 1.002 | 1/2 | 1-7/16 | 1/8 | 102108 | FF-1011-2 |
| | | 5/8 | | | 102109 | FF-1011 |
| | | 1 | | | 102110 | FF-1011-4 |
| | | 1-1/8 | | | 102111 | FF-1011-1 |
| .751 | 1.002 | 3/4 | 1-1/2 | 1/8 | 102112 | FF-1013-2 |
| | | 1 | | | 102113 | FF-1013 |
| | | 1-1/4 | | | 102114 | FF-1013-3 |
| | | 1-1/2 | | | 102115 | FF-1013-4 |
| .752 | 1.002 | 3/4 | 1-5/16 | 1/8 | 102116 | FF-1014-2 |
| | | 1 | | | 102117 | FF-1014 |
| .752 | 1.003 | 5/8 | 1-1/4 | 5/32 | 302105 | FB-1216-5 |
| | | 3/4 | | | 302068 | FB-1216-6 |
| | | 1 | | | 302069 | FB-1216-8 |
| | | 1-1/4 | | | 302070 | FB-1216-10 |
| | | 1-1/2 | | | 302071 | FB-1216-12 |
| | | 2 | | | 302072 | FB-1216-16 |
| .752 | 1.004 | 5/8 | 1-1/4 | 3/16 | 202056 | EF121610 (FL-77-5) |
| | | 3/4 | | | 202057 | EF121612 (FL-77-6) |
| | | 1 | | | 202058 | EF121616 (FL-77-8) |
| | | 1-1/8 | | | 202059 | EF121618 (FL-77-9) |
| | | 1-1/4 | | | 202060 | EF121620 (FL-77-10) |
| | | 1-1/2 | | | 202061 | EF121624 (FL-77-12) |
| .753 | 1.003 | 1/2 | 1-1/8 | 1/8 | 102118 | FF-1015-1 |
| | | 3/4 | | | 102119 | FF-1015-2 |
| | | 1 | | | 102120 | FF-1015 |
| .753 | 1.003 | 1/2 | 1-1/8 | 1/8 | 402088 | SF-2432-8 |
| | | 5/8 | | | 402089 | SF-2432-10 |
| | | 3/4 | | | 402090 | SF-2432-12 |
| | | 1 | | | 402091 | SF-2432-16 |
| | | 1-1/8 | | | 402092 | SF-2432-18 |
| | | 1-1/4 | | | 402093 | SF-2432-20 |
| | | 1-1/2 | | | 402094 | SF-2432-24 |

| DEC. I.D. | DEC. O.D. | NOM. LGTH. | FLG. O.D. | FLG. THICK | ITEM NO. | PART NO. |
|-----------------------------|-----------|------------|-----------|------------|----------|---------------------|
| 3/4 X 1-1/16 NOMINAL | | | | | | |
| .752 | 1.0655 | 1-3/16 | 1-3/16 | 1/8 | 102121 | FF-1010 |
| 7/8 X 1 NOMINAL | | | | | | |
| .8765 | 1.003 | 5/8 | 1-1/4 | 1/8 | 102122 | FF-1001-2 |
| | | 3/4 | | | 102123 | FF-1001-1 |
| | | 1 | | | 102124 | FF-1001 |
| .877 | 1.003 | 1/2 | 1-1/4 | 1/8 | 402095 | SF-2832-8 |
| | | 3/4 | | | 402096 | SF-2832-12 |
| | | 1 | | | 402097 | SF-2832-16 |
| | | 1-1/4 | | | 402098 | SF-2832-20 |
| | | 1-1/2 | | | 402099 | SF-2832-24 |
| .877 | 1.003 | 3/4 | 1-1/4 | 5/32 | 302073 | FB-1416-6 |
| | | 1 | | | 302106 | FB-1416-8 |
| | | 1-1/4 | | | 302074 | FB-1416-10 |
| .877 | 1.004 | 1/2 | 1-1/4 | 3/16 | 202062 | EF141608 (FL-87-4) |
| | | 3/4 | | | 202063 | EF141612 (FL-87-6) |
| | | 1 | | | 202064 | EF141616 (FL-87-8) |
| 7/8 X 1-1/8 NOMINAL | | | | | | |
| .877 | 1.128 | 1 | 1-3/8 | 5/32 | 302075 | FB-1418-8 |
| | | 1-1/4 | | | 302107 | FB-1418-10 |
| | | 1-1/2 | | | 302076 | FB-1418-12 |
| .877 | 1.128 | 5/8 | 1-1/2 | 1/8 | 102125 | FF-1102-6 |
| | | 1 | | | 102126 | FF-1102-2 |
| | | 1-1/4 | | | 102127 | FF-1102-3 |
| | | 1-3/4 | | | 102128 | FF-1102 |
| .877 | 1.129 | 3/4 | 1-1/2 | 1/8 | 202065 | EF141812 (FL-89-6) |
| | | 1 | | | 202066 | EF141816 (FL-89-8) |
| | | 1-1/4 | | | 202067 | EF141820 (FL-89-10) |
| | | 1-1/2 | | | 202068 | EF141824 (FL-89-12) |
| | | 1-3/4 | | | 202069 | EF141828 (FL-89-14) |
| .878 | 1.128 | 5/8 | 1-1/2 | 1/8 | 402100 | SF-2836-10 |
| | | 3/4 | | | 402101 | SF-2836-12 |
| | | 1 | | | 402102 | SF-2836-16 |
| | | 1-1/4 | | | 402103 | SF-2836-20 |
| | | 1-1/2 | | | 402104 | SF-2836-24 |
| | | 1-3/4 | | | 402105 | SF-2836-28 |
| 1 X 1-1/4 NOMINAL | | | | | | |
| 1.001 | 1.252 | 3/4 | 1-1/2 | 1/8 | 102129 | FF-1213-1 |
| | | 1-1/2 | | | 102130 | FF-1213-4 |
| 1.001 | 1.253 | 3/4 | 1-7/8 | 1/8 | 102131 | FF-1202-4 |
| | | 1 | | | 102132 | FF-1202-3 |
| | | 1-1/4 | | | 102133 | FF-1202 |
| 1.002 | 1.252 | 3/4 | 1-5/8 | 1/8 | 102134 | FF-1207-5 |
| | | 1-1/4 | | | 102135 | FF-1207-7 |
| | | 1-1/2 | | | 102136 | FF-1207-3 |
| | | 1-3/4 | | | 102137 | FF-1207 |
| 1.002 | 1.253 | 3/4 | 1-1/2 | 3/16 | 302077 | FB-1620-6 |
| | | 1 | | | 302078 | FB-1620-8 |
| | | 1-1/4 | | | 302079 | FB-1620-10 |
| | | 1-1/2 | | | 302080 | FB-1620-12 |
| | | 2 | | | 302081 | FB-1620-16 |
| 1.003 | 1.253 | 3/4 | 1-5/8 | 1/8 | 402106 | SF-3240-12 |
| | | 1 | | | 402107 | SF-3240-16 |
| | | 1-1/4 | | | 402108 | SF-3240-20 |
| | | 1-1/2 | | | 402109 | SF-3240-24 |
| | | 1-3/4 | | | 402110 | SF-3240-28 |
| | | 2 | | | 402111 | SF-3240-32 |
| 1.003 | 1.254 | 3/4 | 1-1/2 | 1/8 | 202070 | EF162012 (FL-102-6) |
| | | 1 | | | 202071 | EF162016 (FL-102-8) |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| DEC. I.D. | DEC. O.D. | NOM. LGTH. | FLG. O.D. | FLG. THICK | ITEM NO. | PART NO. | |
|----------------------------------|-----------|------------|-----------|------------|----------|------------|-------------|
| 1 X 1-1/4 NOMINAL (cont.) | | | | | | | |
| 1.003 | 1.254 | 1-1/4 | 1-1/2 | 1/8 | 202072 | EF162020 | (FL-102-10) |
| | | 1-1/2 | | | 202073 | EF162024 | (FL-102-12) |
| 1 X 1-5/16 NOMINAL | | | | | | | |
| 1.001 | 1.316 | 1-1/4 | 1-3/4 | 7/32 | 102138 | FF-1302 | |
| | | 1-1/2 | | | 102139 | FF-1302-3 | |
| 1.0015 | 1.3155 | 1-1/2 | 1-7/8 | 1/8 | 102140 | FF-1301 | |
| 1 X 1-3/8 NOMINAL | | | | | | | |
| 1.000 | 1.3785 | 1-3/4 | 1-3/4 | 3/16 | 102141 | FF-1304 | |
| | | 2 | | | 102142 | FF-1304-1 | |
| 1.002 | 1.378 | 1 | 1-5/8 | 3/16 | 302082 | FB-1622-8 | |
| | | 1-1/2 | | | 302108 | FB-1622-12 | |
| | | 1-3/4 | | | 302083 | FB-1622-14 | |
| 1.003 | 1.378 | 3/4 | 1-5/8 | 3/16 | 402112 | SF-3244-12 | |
| | | 1 | | | 402113 | SF-3244-16 | |
| | | 1-1/2 | | | 402114 | SF-3244-24 | |
| | | 1-3/4 | | | 402115 | SF-3244-28 | |
| | | 2 | | | 402116 | SF-3244-32 | |
| 1.003 | 1.379 | 3/4 | 1-5/8 | 3/16 | 202074 | EF162212 | (FL-104-6) |
| | | 1 | | | 202075 | EF162216 | (FL-104-8) |
| | | 1-1/2 | | | 202076 | EF162224 | (FL-104-12) |
| | | 1-3/4 | | | 202077 | EF162228 | (FL-104-14) |
| | | 2 | | | 202078 | EF162232 | (FL-104-16) |
| 1-1/8 X 1-3/8 NOMINAL | | | | | | | |
| 1.127 | 1.377 | 3/4 | 1-3/4 | 1/8 | 102143 | FF-1314-1 | |
| | | 1 | | | 102144 | FF-1314-2 | |
| | | 1-1/4 | | | 102145 | FF-1314-3 | |
| 1.127 | 1.377 | 3/4 | 1-3/4 | 1/8 | 402117 | SF-3644-12 | |
| | | 1 | | | 402118 | SF-3644-16 | |
| | | 1-1/4 | | | 402119 | SF-3644-20 | |
| 1-1/4 X 1-1/2 NOMINAL | | | | | | | |
| 1.2515 | 1.503 | 1/2 | 1-11/16 | 1/8 | 102146 | FF-1505-5 | |
| | | 1-1/4 | | | 102147 | FF-1505 | |
| 1.252 | 1.503 | 1/2 | 1-11/16 | 1/8 | 402120 | SF-4048-8 | |
| | | 3/4 | | | 402121 | SF-4048-12 | |
| | | 1 | | | 402122 | SF-4048-16 | |
| | | 1-1/4 | | | 402123 | SF-4048-20 | |
| | | 1-1/2 | | | 402124 | SF-4048-24 | |
| | | 1-3/4 | | | 402125 | SF-4048-28 | |
| 1.252 | 1.503 | 1 | 1-3/4 | 3/16 | 302109 | FB-2024-8 | |
| | | 1-1/4 | | | 302084 | FB-2024-10 | |
| | | 1-1/2 | | | 302110 | FB-2024-12 | |
| 1.252 | 1.503 | 1-1/2 | 2 | 3/32 | 102148 | FF-1506-4 | |
| | | 1-3/4 | | | 102149 | FF-1506-5 | |
| 1.2535 | 1.504 | 1 | 1-3/4 | 3/16 | 202079 | EF202416 | (FL-125-8) |
| | | 1-1/4 | | | 202080 | EF202420 | (FL-125-10) |
| | | 1-1/2 | | | 202081 | EF202424 | (FL-125-12) |
| | | 1-3/4 | | | 202082 | EF202428 | (FL-125-14) |
| 1-3/8 X 1-5/8 NOMINAL | | | | | | | |
| 1.377 | 1.628 | 3/4 | 2 | 1/8 | 102150 | FF-1618 | |
| | | 1 | | | 102151 | FF-1618-1 | |
| 1.377 | 1.628 | 3/4 | 2 | 1/8 | 402126 | SF-4452-12 | |
| | | 1 | | | 402127 | SF-4452-16 | |
| 1-1/2 X 1-3/4 NOMINAL | | | | | | | |
| 1.503 | 1.752 | 1-1/2 | 2 | 3/32 | 102152 | FF-1704-4 | |
| 1.503 | 1.752 | 1-1/2 | 2 | 3/32 | 402128 | SF-4856-24 | |
| 1.503 | 1.754 | 1-1/2 | 2-1/16 | 3/16 | 302085 | FB-2428-12 | |
| 1.504 | 1.755 | 1-1/2 | 2 | 3/16 | 202083 | EF242824 | (FL-150-12) |

| DEC. I.D. | DEC. O.D. | NOM. LGTH. | FLG. O.D. | FLG. THICK | ITEM NO. | PART NO. | |
|------------------------------|-----------|------------|-----------|------------|----------|-------------|-------------|
| 1-5/8 X 2 NOMINAL | | | | | | | |
| 1.6265 | 2.004 | 2 | 2-1/4 | 3/16 | 102153 | FF-2000 | |
| 1.6265 | 2.004 | 2 | 2-1/4 | 3/16 | 402129 | SF-5264-32 | |
| 1.629 | 2.005 | 2 | 2-1/4 | 3/16 | 202084 | EF263232 | (FL-163-16) |
| 1-3/4 X 2-1/4 NOMINAL | | | | | | | |
| 1.753 | 2.254 | 2-1/2 | 3 | 1/4 | 102154 | FF-2204-3 | |
| 1.753 | 2.254 | 2-1/2 | 3 | 1/4 | 402130 | SF-5672-40 | |
| 1.754 | 2.255 | 2-1/2 | 3 | 1/4 | 202085 | EF283640 | (FL-177-20) |
| 2 X 2-1/4 NOMINAL | | | | | | | |
| 2.003 | 2.254 | 3/4 | 2-1/2 | 1/8 | 102155 | FF-2203-2 | |
| | | 1 | | | 102156 | FF-2203-3 | |
| | | 1-1/4 | | | 102157 | FF-2203-4 | |
| 2.003 | 2.254 | 3/4 | 2-1/2 | 1/8 | 402131 | SF-6472-12 | |
| | | 1 | | | 402132 | SF-6472-16 | |
| | | 1-1/4 | | | 402133 | SF-6472-20 | |
| | | 2 | 2-1/2 | 1/8 | 402134 | SF-6472-32 | |
| 2.004 | 2.255 | 2 | 2-1/2 | 1/8 | 202086 | EF323632 | (FL-200-16) |
| 2 X 2-1/2 NOMINAL | | | | | | | |
| 2.002 | 2.501 | 2-3/8 | 3 | 3/8 | 102158 | FF-2501 | |
| 2.002 | 2.501 | 2-3/8 | 3 | 3/8 | 402135 | SF-6480-38 | |
| 2-3/4 X 3-1/4 NOMINAL | | | | | | | |
| 2.752 | 3.250 | 1-1/2 | 4-1/2 | 3/16 | 102159 | FF-3200-4 | |
| 3 X 3-1/2 NOMINAL | | | | | | | |
| 3.002 | 3.502 | 2-3/8 | 4 | 3/8 | 102160 | FF-3500 | |
| 3.002 | 3.502 | 2-3/8 | 4 | 3/8 | 402137 | SF-96112-38 | |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| DECIMAL I.D. | DECIMAL O.D. | NOMINAL LENGTH | ITEM NO. | PART NO. |
|---------------------------|--------------|----------------|----------|----------------------|
| 1/4 X 7/16 NOMINAL | | | | |
| .255 | .4375 | 1/16 | 102401 | TT-400 |
| .255 | .4375 | 1/16 | 402401 | ST-814-2 |
| 1/4 X 1/2 NOMINAL | | | | |
| .255 | .500 | 1/16 | 102402 | TT-504 |
| .255 | .500 | 1/16 | 402402 | ST-816-2 |
| 1/4 X 5/8 NOMINAL | | | | |
| .252 | .628 | 1/16 | 202401 | EW041001 (TW-25) |
| .255 | .625 | 1/16 | 102403 | TT-601 |
| .255 | .625 | 1/16 | 302401 | TB-410 |
| .255 | .625 | 1/16 | 402403 | ST-820-2 |
| 5/16 X 5/8 NOMINAL | | | | |
| .3145 | .625 | 1/16 | 102404 | TT-602 |
| .315 | .625 | 1/16 | 402404 | ST-1020-2 |
| 5/16 X 3/4 NOMINAL | | | | |
| .3145 | .753 | 1/16 | 202402 | EW051201 (TW-31) |
| .315 | .750 | 1/16 | 102405 | TT-709-1 |
| .315 | .750 | 1/16 | 302402 | TB-512 |
| .315 | .750 | 1/16 | 402405 | ST-1024-2 |
| 3/8 X 5/8 NOMINAL | | | | |
| .385 | .625 | 1/16 | 102406 | TT-604 |
| .385 | .625 | 1/16 | 402406 | ST-1220-2 |
| 3/8 X 3/4 NOMINAL | | | | |
| .377 | .753 | 1/16 | 202403 | EW061201 (TW-37) |
| | | 1/8 | 202429 | EW061202 (TW-38) |
| .3775 | .750 | 1/16 | 102407 | TT-710-1 |
| | | 1/8 | 102408 | TT-710-2 |
| .380 | .750 | 1/32 | 402407 | ST-1224-1 |
| | | 1/16 | 402408 | ST-1224-2 |
| | | 1/8 | 402409 | ST-1224-4 |
| .390 | .750 | 1/32 | 102409 | TT-703 |
| .390 | .750 | 1/32 | 302403 | TB-612 |
| 7/16 X 3/4 NOMINAL | | | | |
| .4385 | .750 | 1/16 | 102410 | TT-705-1 |
| .439 | .750 | 1/16 | 302418 | TB-712 |
| .4395 | .753 | 1/16 | 202404 | EW071201 (TW-43) |
| .440 | .750 | 1/16 | 402410 | ST-1424-2 |
| | | 1/8 | 402411 | ST-1424-4 |
| 1/2 X 3/4 NOMINAL | | | | |
| .502 | .753 | 1/16 | 202405 | EW081201 (TW-50) |
| .505 | .750 | 1/16 | 402412 | ST-1624-2 |
| .507 | .750 | 1/16 | 102411 | TT-706 |
| .507 | .750 | 1/16 | 302404 | TB-812 |
| 1/2 X 7/8 NOMINAL | | | | |
| .505 | .875 | 3/16 | 102412 | TT-801 |
| .505 | .875 | 3/16 | 302405 | TB-814 |
| .505 | .875 | 3/16 | 402413 | ST-1628-6 |
| 1/2 X 1 NOMINAL | | | | |
| .502 | 1.004 | 1/16 | 202406 | EW081601 (TW-51) |
| | | 3/32 | 202430 | EW081601.5 (TW-51.5) |
| | | 1/8 | 202407 | EW081602 (TW-52) |
| .510 | 1.000 | 1/16 | 102413 | TT-1001 |
| | | 3/32 | 102414 | TT-1001-2 |

| DECIMAL I.D. | DECIMAL O.D. | NOMINAL LENGTH | ITEM NO. | PART NO. |
|------------------------------|--------------|----------------|----------|--------------------|
| .510 | 1.000 | 1/8 | 102415 | TT-1001-1 |
| .510 | 1.000 | 1/16 | 302406 | TB-816 |
| .510 | 1.000 | 1/16 | 402414 | ST-1632-2 |
| | | 3/32 | 402415 | ST-1632-3 |
| | | 1/8 | 402416 | ST-1632-4 |
| 9/16 X 1-1/4 NOMINAL | | | | |
| .5645 | 1.254 | 1/16 | 202431 | EW092001 (TW-55) |
| | | 1/8 | 202408 | EW092002 (TW-56) |
| .565 | 1.250 | 1/16 | 102416 | TT-1200-1 |
| | | 1/8 | 102417 | TT-1200 |
| .565 | 1.250 | 1/8 | 302407 | TB-920 |
| .565 | 1.250 | 1/16 | 402417 | ST-1840-2 |
| | | 1/8 | 402418 | ST-1840-4 |
| 5/8 X 1 NOMINAL | | | | |
| .627 | 1.004 | 1/16 | 202409 | EW101601 (TW-62) |
| | | 1/8 | 202410 | EW101602 (TW-63) |
| .628 | 1.000 | 1/16 | 102418 | TT-1002-1 |
| | | 1/8 | 102419 | TT-1002 |
| .628 | 1.000 | 1/8 | 302408 | TB-1016 |
| .628 | 1.000 | 1/16 | 402419 | ST-2032-2 |
| | | 1/8 | 402420 | ST-2032-4 |
| 5/8 X 1-3/16 NOMINAL | | | | |
| .627 | 1.187 | 3/32 | 302409 | TB-1019 |
| .627 | 1.1875 | 1/16 | 102420 | TT-1102-1 |
| | | 3/32 | 102421 | TT-1102 |
| | | 1/8 | 102422 | TT-1102-2 |
| .627 | 1.1915 | 1/16 | 202432 | EW101901 (TW-63.5) |
| | | 3/32 | 202411 | EW101902 (TW-64) |
| | | 1/8 | 202433 | EW101903 (TW-64.5) |
| .628 | 1.1875 | 1/16 | 402421 | ST-2038-2 |
| | | 3/32 | 402422 | ST-2038-3 |
| | | 1/8 | 402423 | ST-2038-4 |
| 5/8 X 1-1/4 NOMINAL | | | | |
| .627 | 1.254 | 1/16 | 202434 | EW102001 (TW-64.7) |
| | | 1/8 | 202412 | EW102002 (TW-65) |
| .628 | 1.250 | 1/16 | 102423 | TT-1204 |
| | | 1/8 | 102424 | TT-1204-1 |
| .628 | 1.250 | 1/16 | 402424 | ST-2040-2 |
| | | 1/8 | 402425 | ST-2040-4 |
| .6285 | 1.250 | 1/8 | 302419 | TB-1020 |
| 5/8 X 1-1/2 NOMINAL | | | | |
| .6265 | 1.500 | 1/8 | 302420 | TB-1024 |
| 21/32 X 1-1/2 NOMINAL | | | | |
| .656 | 1.500 | 1/16 | 102425 | TT-1508-1 |
| | | 1/8 | 102426 | TT-1508-2 |
| .656 | 1.500 | 1/16 | 402426 | ST-2148-2 |
| | | 1/8 | 402427 | ST-2148-4 |
| 3/4 X 1-1/4 NOMINAL | | | | |
| .7515 | 1.250 | 1/8 | 302421 | TB-1220 |
| .752 | 1.254 | 1/16 | 202413 | EW122001 (TW-75) |
| | | 1/8 | 202414 | EW122002 (TW-76) |
| .753 | 1.250 | 1/16 | 102427 | TT-1205 |
| | | 1/8 | 102428 | TT-1205-1 |
| .753 | 1.250 | 1/16 | 402428 | ST-2440-2 |
| | | 1/8 | 402429 | ST-2440-4 |



| DECIMAL I.D. | DECIMAL O.D. | NOMINAL LENGTH | ITEM NO. | PART NO. |
|-----------------------------|--------------|----------------|----------|---------------------|
| 3/4 X 1-3/8 NOMINAL | | | | |
| .752 | 1.375 | 1/8 | 302422 | TB-1222 |
| .752 | 1.379 | 1/8 | 202415 | EW122202 (TW-77) |
| .753 | 1.375 | 1/16 | 102429 | TT-1303-1 |
| | | 1/8 | 102430 | TT-1303-2 |
| | | 1/4 | 102431 | TT-1303-4 |
| .753 | 1.375 | 1/16 | 402430 | ST-2444-2 |
| | | 1/8 | 402431 | ST-2444-4 |
| | | 1/4 | 402432 | ST-2444-8 |
| 3/4 X 1-9/16 NOMINAL | | | | |
| .752 | 1.5675 | 3/32 | 202416 | EW122502 (TW-78) |
| .765 | 1.562 | 3/32 | 302410 | TB-1225 |
| .765 | 1.5625 | 3/32 | 102432 | TT-1501-1 |
| .765 | 1.5625 | 3/32 | 402433 | ST-2450-3 |
| 3/4 X 1-3/4 NOMINAL | | | | |
| .752 | 1.755 | 1/8 | 202417 | EW122802 (TW-79) |
| .765 | 1.750 | 1/8 | 102433 | TT-1701 |
| .765 | 1.750 | 1/8 | 302411 | TB-1228 |
| .765 | 1.750 | 1/8 | 402434 | ST-2456-4 |
| 7/8 X 1-1/2 NOMINAL | | | | |
| .877 | 1.504 | 1/16 | 202435 | EW142401 (TW-86) |
| .877 | 1.504 | 1/8 | 202418 | EW142402 (TW-87) |
| .890 | 1.500 | 1/8 | 302412 | TB-1424 |
| .8905 | 1.500 | 1/16 | 102434 | TT-1503-2 |
| | | 1/8 | 102435 | TT-1503 |
| .8905 | 1.500 | 1/16 | 402435 | ST-2848-2 |
| | | 1/8 | 402436 | ST-2848-4 |
| 7/8 X 2 NOMINAL | | | | |
| .880 | 2.000 | 1/8 | 102436 | TT-2007 |
| .880 | 2.000 | 1/8 | 402437 | ST-2864-4 |
| 7/8 X 2-1/8 NOMINAL | | | | |
| .890 | 2.125 | 1/8 | 302413 | TB-1434 |
| .8905 | 2.125 | 1/8 | 102437 | TT-2101-1 |
| .8905 | 2.125 | 1/8 | 402438 | ST-2868-4 |
| 1 X 1-1/2 NOMINAL | | | | |
| 1.003 | 1.500 | 1/16 | 402439 | ST-3248-2 |
| | | 1/8 | 402440 | ST-3248-4 |
| | | 3/16 | 402441 | ST-3248-6 |
| 1.003 | 1.504 | 1/16 | 102438 | TT-1502-2 |
| | | 1/8 | 102439 | TT-1502 |
| | | 3/16 | 102440 | TT-1502-1 |
| 1.003 | 1.504 | 1/8 | 302414 | TB-1624 |
| 1.003 | 1.504 | 1/16 | 202436 | EW162401 (TW-99) |
| 1.003 | 1.504 | 1/8 | 202419 | EW162402 (TW-100) |
| 1 X 1-5/8 NOMINAL | | | | |
| 1.003 | 1.630 | 1/16 | 202437 | EW162601 (TW-100.5) |
| | | 1/8 | 202420 | EW162602 (TW-101) |
| | | 1/4 | 202438 | EW162604 (TW-101.5) |
| 1.0155 | 1.625 | 1/16 | 102441 | TT-1603-3 |
| | | 1/8 | 102442 | TT-1603 |
| | | 1/4 | 102443 | TT-1603-4 |
| 1.0155 | 1.625 | 1/16 | 402442 | ST-3252-2 |
| | | 1/8 | 402443 | ST-3252-4 |
| | | 1/4 | 402444 | ST-3252-8 |

| DECIMAL I.D. | DECIMAL O.D. | NOMINAL LENGTH | ITEM NO. | PART NO. |
|--------------------------------|--------------|----------------|----------|---------------------|
| 1 X 1-3/4 NOMINAL | | | | |
| 1.012 | 1.750 | 1/8 | 302426 | TB-1628 |
| 1.012 | 1.750 | 1/16 | 102444 | TT-1709-1 |
| | | 1/8 | 102445 | TT-1709 |
| 1.012 | 1.750 | 1/16 | 402445 | ST-3256-2 |
| | | 1/8 | 402446 | ST-3256-4 |
| 1 X 2 NOMINAL | | | | |
| 1.003 | 2.005 | 1/8 | 202421 | EW163202 (TW-102) |
| | | 3/16 | 202439 | EW163203 (TW-103) |
| 1.016 | 2.000 | 1/8 | 102446 | TT-2001 |
| | | 3/16 | 102447 | TT-2001-1 |
| 1.016 | 2.000 | 1/8 | 302415 | TB-1632 |
| | | 1/8 | 402447 | ST-3264-4 |
| | | 3/16 | 402448 | ST-3264-6 |
| 1 X 2-7/8 NOMINAL | | | | |
| 1.0155 | 2.875 | 1/8 | 102448 | TT-2800 |
| 1.0155 | 2.875 | 1/8 | 402449 | ST-3292-4 |
| 1-1/16 X 2-3/8 NOMINAL | | | | |
| 1.0625 | 2.375 | 1/16 | 102449 | TT-2301-4 |
| | | 1/8 | 102450 | TT-2301-3 |
| 1.0625 | 2.375 | 1/16 | 402450 | ST-3476-2 |
| | | 1/8 | 402451 | ST-3476-4 |
| 1-1/8 X 1-7/8 NOMINAL | | | | |
| 1.140 | 1.875 | 1/8 | 102451 | TT-1800-1 |
| 1.140 | 1.875 | 1/8 | 402452 | ST-3660-4 |
| 1-1/4 X 1-11/16 NOMINAL | | | | |
| 1.253 | 1.690 | 1/8 | 102452 | TT-1602 |
| 1.253 | 1.690 | 1/8 | 402453 | ST-4054-4 |
| 1.2535 | 1.6925 | 1/8 | 202422 | EW202702 (TW-125) |
| 1-1/4 X 1-3/4 NOMINAL | | | | |
| 1.253 | 1.750 | 1/8 | 302416 | TB-2028 |
| 1-1/4 X 2 NOMINAL | | | | |
| 1.2535 | 2.005 | 1/16 | 202440 | EW203201 (TW-126.5) |
| | | 1/8 | 202423 | EW203202 (TW-126) |
| 1.265 | 2.000 | 1/16 | 102453 | TT-2006 |
| | | 1/8 | 102454 | TT-2006-1 |
| 1.265 | 2.000 | 1/16 | 402454 | ST-4064-2 |
| | | 1/8 | 402455 | ST-4064-4 |
| 1-1/4 X 2-3/8 NOMINAL | | | | |
| 1.265 | 2.375 | 1/16 | 102455 | TT-2304-1 |
| | | 1/8 | 102456 | TT-2304-2 |
| 1.265 | 2.375 | 1/16 | 402456 | ST-4076-2 |
| | | 1/8 | 402457 | ST-4076-4 |
| 1-1/4 X 3-5/16 NOMINAL | | | | |
| 1.255 | 3.312 | 1/16 | 102457 | TT-3301 |
| | | 1/8 | 102458 | TT-3301-1 |
| 1.255 | 3.312 | 1/16 | 402458 | ST-40106-2 |
| | | 1/8 | 402459 | ST-40106-4 |
| 1-3/8 X 1-15/16 NOMINAL | | | | |
| 1.379 | 1.940 | 1/8 | 102459 | TT-1900 |
| 1.379 | 1.940 | 1/8 | 402460 | ST-4462-4 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| DECIMAL I.D. | DECIMAL O.D. | NOMINAL LENGTH | ITEM NO. | (PART NO. |
|--------------------------------|--------------|----------------|----------|-------------------|
| 1-1/2 X 2 NOMINAL | | | | |
| 1.503 | 2.000 | 1/8 | 102460 | TT-2008 |
| 1.503 | 2.000 | 1/8 | 402461 | ST-4864-4 |
| 1-1/2 X 2-1/2 NOMINAL | | | | |
| 1.504 | 2.505 | 1/8 | 202424 | EW244002 (TW-150) |
| 1.505 | 2.505 | 1/8 | 302434 | TB-2440 |
| 1.505 | 2.505 | 1/8 | 402462 | ST-4880-4 |
| 1-1/2 X 3-1/2 NOMINAL | | | | |
| 1.504 | 3.507 | 3/16 | 202425 | EW245603 (TW-151) |
| 1.510 | 3.500 | 3/16 | 102461 | TT-3500-1 |
| 1.510 | 3.500 | 3/16 | 302417 | TB-2456 |
| 1.510 | 3.500 | 3/16 | 402463 | ST-48112-6 |
| 1-9/16 X 2-7/16 NOMINAL | | | | |
| 1.578 | 2.4375 | 1/8 | 102462 | TT-2402 |
| 1.578 | 2.4375 | 1/8 | 402464 | ST-5078-4 |
| 1-3/4 X 2-7/16 NOMINAL | | | | |
| 1.755 | 2.440 | 1/8 | 102463 | TT-2400-1 |
| 1.755 | 2.440 | 1/8 | 402465 | ST-5678-4 |
| 1-3/4 X 2-5/8 NOMINAL | | | | |
| 1.754 | 2.631 | 1/8 | 202426 | EW284202 (TW-175) |
| 1.765 | 2.625 | 1/8 | 102464 | TT-2601 |
| 1.765 | 2.625 | 1/8 | 402466 | ST-5684-4 |
| 1-15/16 X 2-5/8 NOMINAL | | | | |
| 1.953 | 2.625 | 1/8 | 102465 | TT-2600 |
| 1.953 | 2.625 | 1/8 | 402467 | ST-6284-4 |
| 2 X 3 NOMINAL | | | | |
| 2.004 | 3.006 | 1/8 | 202427 | EW324802 (TW-200) |
| | | 1/4 | 202428 | EW324804 (TW-201) |
| 2.010 | 3.000 | 1/8 | 102467 | TT-3001-3 |
| | | 3/16 | 102466 | TT-3001 |
| | | 1/4 | 102468 | TT-3001-1 |
| 2.011 | 3.000 | 1/8 | 402468 | ST-6496-4 |
| | | 3/16 | 402469 | ST-6496-6 |
| | | 1/4 | 402470 | ST-6496-8 |
| 2 X 3-5/8 NOMINAL | | | | |
| 2.031 | 3.625 | 3/16 | 102469 | TT-3600 |
| 2.031 | 3.625 | 3/16 | 402471 | ST-64116-6 |
| 2-1/16 X 4 NOMINAL | | | | |
| 2.062 | 4.000 | 1/8 | 102470 | TT-4002-1 |
| 2.062 | 4.000 | 1/4 | 102471 | TT-4002 |
| 2.062 | 4.000 | 1/8 | 402472 | ST-66128-4 |
| 2.062 | 4.000 | 1/4 | 402473 | ST-66128-8 |
| 2-1/2 X 3-1/4 NOMINAL | | | | |
| 2.502 | 3.250 | 1/8 | 102472 | TT-3200 |
| 2.502 | 3.250 | 1/8 | 402474 | ST-80104-4 |
| 2-3/4 X 3-7/8 NOMINAL | | | | |
| 2.766 | 3.875 | 1/4 | 102473 | TT-3800 |
| 2.766 | 3.875 | 1/4 | 402475 | ST-88124-8 |



CORED BAR STOCK

| ID | OD | LENGTH | ITEM NO. | PART NO. |
|-------|-------|--------|----------|-----------|
| 1/2 | 1 | 6-1/2 | 102601 | CC-1000-2 |
| | 1-1/8 | 6-1/2 | 102602 | CC-1103 |
| | 1-1/4 | 6-1/2 | 102603 | CC-1203 |
| | 1-1/2 | 6-1/2 | 102604 | CC-1502 |
| | 2 | 6-1/2 | 102605 | CC-2005 |
| 5/8 | 1 | 6-1/2 | 102606 | CC-1001 |
| | 1-1/8 | 6-1/2 | 102607 | CC-1101-1 |
| | 1-1/4 | 6-1/2 | 102608 | CC-1200-1 |
| | 1-3/8 | 6-1/2 | 102609 | CC-1302 |
| | 1-1/2 | 6-1/2 | 102610 | CC-1503 |
| | 1-3/4 | 6-1/2 | 102611 | CC-1703 |
| | 2 | 6-1/2 | 102612 | CC-2006 |
| | 3/4 | 1-1/4 | 6-1/2 | 102613 |
| 1-1/2 | | 6-1/2 | 102614 | CC-1500-1 |
| 1-3/4 | | 6-1/2 | 102615 | CC-1702 |
| 2 | | 6-1/2 | 102616 | CC-2001 |
| 2-1/4 | | 6-1/2 | 102617 | CC-2206 |
| 2-1/2 | | 6-1/2 | 102618 | CC-2504 |
| 2-3/4 | | 6-1/2 | 102619 | CC-2704 |
| 7/8 | 1-3/8 | 6-1/2 | 102620 | CC-1301 |
| | 1-1/2 | 6-1/2 | 102621 | CC-1504 |
| | 2 | 6-1/2 | 102622 | CC-2007 |
| | 2-1/4 | 6-1/2 | 102623 | CC-2207 |
| 1 | 1-1/2 | 6-1/2 | 102624 | CC-1501 |
| | 1-5/8 | 6-1/2 | 102625 | CC-1600-1 |
| | 1-3/4 | 6-1/2 | 102626 | CC-1700-2 |
| | 2 | 6-1/2 | 102627 | CC-2002 |
| | 2-1/4 | 6-1/2 | 102628 | CC-2202-2 |
| | 2-1/2 | 6-1/2 | 102629 | CC-2501 |
| | 3 | 6-1/2 | 102630 | CC-3001 |
| | 3-1/2 | 6-1/2 | 102631 | CC-3504 |
| | 4 | 6-1/2 | 102632 | CC-4004 |
| 1-1/8 | 2-1/8 | 6-1/2 | 102633 | CC-2102 |
| 1-1/4 | 1-3/4 | 6-1/2 | 102634 | CC-1701-3 |
| | 2 | 6-1/2 | 102635 | CC-2000-1 |
| | 2-1/4 | 6-1/2 | 102636 | CC-2203 |
| | 2-1/2 | 6-1/2 | 102637 | CC-2502 |
| | 3 | 6-1/2 | 102638 | CC-3003 |
| | 3-1/2 | 6-1/2 | 102639 | CC-3505 |
| | 4 | 6-1/2 | 102640 | CC-4005 |
| 1-3/8 | 2 | 6-1/2 | 102641 | CC-2003 |
| | 2-3/4 | 6-1/2 | 102642 | CC-2702 |
| 1-1/2 | 2 | 6-1/2 | 102643 | CC-2004 |
| | 2-1/4 | 6-1/2 | 102644 | CC-2200-1 |
| | 2-1/2 | 6-1/2 | 102645 | CC-2503 |
| | 2-3/4 | 6-1/2 | 102646 | CC-2701 |
| | 3 | 6-1/2 | 102647 | CC-3002 |
| | 3-1/2 | 6-1/2 | 102648 | CC-3502 |
| 1-3/4 | 2 | 6-1/2 | 102649 | CC-4007 |
| | 2-1/4 | 6-1/2 | 102650 | CC-2201-3 |
| | 2-1/2 | 6-1/2 | 102651 | CC-2500-1 |
| | 2-5/8 | 6-1/2 | 102652 | CC-2604 |
| | 2-3/4 | 6-1/2 | 102653 | CC-2703 |
| | 3 | 6-1/2 | 102654 | CC-3005 |
| | 3-1/2 | 6-1/2 | 102655 | CC-3503 |
| 4-1/4 | 6-1/2 | 102656 | CC-4202 | |
| 4-1/2 | 6-1/2 | 102657 | CC-4502 | |

SOLID BAR STOCK

| ID | OD | LENGTH | ITEM NO. | PART NO. | |
|-------|-------|--------|----------|-----------|---------|
| 2 | 2-3/4 | 6-1/2 | 102658 | CC-2700-1 | |
| | 3 | 6-1/2 | 102659 | CC-3000 | |
| | 3-1/4 | 6-1/2 | 102660 | CC-3201-2 | |
| | 4 | 6-1/2 | 102661 | CC-4003 | |
| | 4-1/2 | 6-1/2 | 102662 | CC-4501 | |
| 2-1/4 | 5 | 6-1/2 | 102663 | CC-5000 | |
| | 5-1/2 | 6-1/2 | 102664 | CC-5500 | |
| | 3 | 6-1/2 | 102665 | CC-3006 | |
| | 3-1/4 | 6-1/2 | 102666 | CC-3202-1 | |
| | 3-1/2 | 6-1/2 | 102667 | CC-3500-1 | |
| | 3-3/4 | 6-1/2 | 102668 | CC-3703 | |
| | 4 | 6-1/2 | 102669 | CC-4008 | |
| 2-3/8 | 4-1/2 | 6-1/2 | 102670 | CC-4503 | |
| | 3 | 6-1/2 | 102671 | CC-3007 | |
| | 3-1/2 | 6-1/2 | 102672 | CC-3507 | |
| | 4 | 6-1/2 | 102673 | CC-4009 | |
| | 4-1/2 | 6-1/2 | 102674 | CC-4504 | |
| | 2-1/2 | 3-1/2 | 6-1/2 | 102675 | CC-3501 |
| | | 3-3/4 | 6-1/2 | 102676 | CC-3702 |
| | | 4 | 6-1/2 | 102677 | CC-4010 |
| 4-1/4 | | 6-1/2 | 102678 | CC-4203 | |
| 4-1/2 | | 6-1/2 | 102679 | CC-4505 | |
| 2-3/4 | 5 | 6-1/2 | 102680 | CC-5001 | |
| | 3-3/4 | 6-1/2 | 102681 | CC-3700-1 | |
| | 3 | 6-1/2 | 102682 | CC-3701-1 | |
| | 4 | 6-1/2 | 102683 | CC-4001 | |
| | 4-1/2 | 6-1/2 | 102684 | CC-4506 | |
| | 5 | 6-1/2 | 102685 | CC-5002 | |
| 3 | 6 | 6-1/2 | 102686 | CC-6000 | |
| | 3-1/4 | 4-1/4 | 102688 | CC-4200-1 | |
| | 3-1/2 | 4-3/4 | 102689 | CC-4700-2 | |
| | 5 | 6-1/2 | 102690 | CC-5003 | |
| | 6 | 6-1/2 | 102691 | CC-6002 | |
| | 3-3/4 | 5 | 6-1/2 | 102692 | CC-5004 |
| | 4 | 5-1/2 | 6-1/2 | 102693 | CC-5501 |
| | 6 | 6-1/2 | 102694 | CC-6001 | |
| | 7 | 6-1/2 | 102695 | CC-7001 | |
| | 8 | 6-1/2 | 102696 | CC-8000 | |
| 4-1/2 | 6 | 6-1/2 | 102697 | CC-6003 | |
| 5 | 7 | 6-1/2 | 102698 | CC-7000 | |
| 6 | 8 | 6-1/2 | 102699 | CC-8001 | |

| ID | OD | LENGTH | ITEM NO. | PART NO. |
|-------|-------|--------|----------|-----------|
| 1/4 | 2 | | 102801 | BB-200 |
| 3/8 | 3 | | 102802 | BB-302 |
| 1/2 | 6-1/2 | | 102803 | BB-500 |
| 5/8 | 6-1/2 | | 102804 | BB-600-1 |
| 3/4 | 6-1/2 | | 102805 | BB-700-1 |
| 7/8 | 6-1/2 | | 102806 | BB-800-1 |
| 1 | 6-1/2 | | 102807 | BB-1000-2 |
| 1-1/8 | 6-1/2 | | 102808 | BB-1100 |
| 1-1/4 | 6-1/2 | | 102809 | BB-1200-1 |
| 1-3/8 | 6-1/2 | | 102810 | BB-1300 |
| 1-1/2 | 6-1/2 | | 102811 | BB-1500-2 |
| 1-5/8 | 6-1/2 | | 102812 | BB-1600 |
| 1-3/4 | 6-1/2 | | 102813 | BB-1700-1 |
| 2 | 6-1/2 | | 102814 | BB-2000-1 |
| 2-1/4 | 6-1/2 | | 102815 | BB-2200 |
| 2-1/2 | 6-1/2 | | 102816 | BB-2500-1 |
| 2-3/4 | 6-1/2 | | 102817 | BB-2700-1 |
| 3 | 6-1/2 | | 102818 | BB-3000-1 |
| 3-1/4 | 6-1/2 | | 102819 | BB-3200-2 |
| 3-1/2 | 6-1/2 | | 102820 | BB-3500-1 |
| 4 | 6-1/2 | | 102821 | BB-4000-1 |
| 4-1/2 | 6-1/2 | | 102822 | BB-4500 |
| 5 | 6-1/2 | | 102823 | BB-5000 |
| 5-1/2 | 6-1/2 | | 102824 | BB-5500 |
| 6 | 6-1/2 | | 102825 | BB-6000 |
| 7 | 6-1/2 | | 102826 | BB-7000 |
| 8 | 6-1/2 | | 102827 | BB-8000 |

All sintered bars will finish to size shown.

*Other sizes, tolerances, lubricants and materials are available on special orders.



**POWDERED METAL BRONZE BEARINGS
 STOCK SIZES- (DISCS-CIRCULAR BEARING
 PLATES)**

| I.D. | O.D. | THICK NESS ±.0025 | ITEM NO. | PART NO. |
|-------|-------|-------------------------|-------------|-------------|
| | 3 | 1/4 | 103001 | DD-3000 |
| | 3 | 3/8 | 103002 | DD-3000-1 |
| | 4 | 1/4 | 103003 | DD-4000 |
| | 5-5/8 | †1/4 | 103004 | DD-5602-1 |
| | 6 | ‡5/16 | 103005 | DD-6000 |
| | 7 | ‡5/16 | 103006 | DD-7001 |
| | 8 | ‡5/16 | 103007 | DD-8000 |
| | 8 | ‡3/8 | 103008 | DD-8000-3 |
| 1 | 3 | 1/4 | 103101 | CD-3001 |
| 1 | 4 | 1/4 | 103102 | CD-4001 |
| 2 | 4 | 1/4 | 103103 | CD-4002 |
| 2 | 5-1/2 | †1/4 | 103104 | CD-5500 |
| 2-1/4 | 4-1/2 | †1/4 | 103105 | CD-4502 |
| 2-1/4 | 7 | †1/4 | 103106 | CD-7000-2 |
| 3 | 9 | ‡5/16 | 103107 | CD-9001 |
| 4 | 6 | ‡5/16 | 103108 | CD-6003 |

†Thickness ± .0035"

‡Thickness ± .005"

I.D. and O.D. will finish to dimensions shown.



RECTANGULAR PLATE STOCK

| W | L | THICK NESS +.010 -.005 | ITEM NO. | PART NO. |
|--------------|-------|---------------------------------|-------------|-------------|
| PLATE | | | | |
| 1/2 | 2-1/2 | 1/4 | 102901 | PP-2500 |
| 2 | 8-1/8 | 1/4 | 102903 | PP-8100-1 |
| 2 | 8-1/8 | 1/2 | 102904 | PP-8100 |
| 3 | 12 | 1/4 | 102905 | PP-12100 |
| 3 | 12 | 1/2 | 102906 | PP-12100-1 |
| 3 | 12 | 3/4 | 102907 | PP-12100-2 |
| 3 | 12 | 1 | 102908 | PP-12100-3 |
| 5 | 6 | 1/8 | 102909 | PP-6000 |
| 5 | 6 | 3/16 | 102910 | PP-6000-1 |
| 5 | 6 | 1/4 | 102911 | PP-6000-2 |
| 5 | 6 | 3/8 | 102912 | PP-6000-4 |
| 5 | 6 | 1/2 | 102913 | PP-6000-5 |
| 5 | 6 | 5/8 | 102914 | PP-6000-6 |
| 5 | 6 | 3/4 | 102915 | PP-6000-7 |
| 5 | 6 | 1 | 102916 | PP-6000-8 |
| 5 | 8 | 1/8 | 102917 | PP-8000-7 |
| 5 | 8 | 1/4 | 102919 | PP-8000-1 |
| 5 | 8 | 1/2 | 102920 | PP-8000-4 |
| 5 | 8 | 3/4 | 102921 | PP-8000-5 |
| 5 | 8 | 1 | 102922 | PP-8000-6 |
| 6 | 12 | 1/8 | 102923 | PP-12000-6 |
| 6 | 12 | 3/16 | 102924 | PP-12000-7 |
| 6 | 12 | 1/4 | 102925 | PP-12000 |
| 6 | 12 | 3/8 | 102926 | PP-12000-1 |
| 6 | 12 | 1/2 | 102927 | PP-12000-2 |
| 6 | 12 | 5/8 | 102928 | PP-12000-3 |
| 6 | 12 | 3/4 | 102929 | PP-12000-4 |
| 6 | 12 | 1 | 102930 | PP-12000-5 |

Width & length will finish to size shown.



**SUPER-OILUBE BAR STOCK-5" LENGTH
 SAE 863, 18-22% COPPER - BALANCE IRON**

| I.D. | O.D. | LENGTH | ITEM NO. | PART NO. |
|--------------|---------|--------|-------------|-------------|
| CORED | | | | |
| 1/2 | 1 | 5 | 103301 | SSC-1000 |
| 1/2 | 1-7/16 | 5 | 103302 | SSC-1402 |
| 3/4 | 1-3/16 | 5 | 103304 | SSC-1102 |
| 3/4 | 1-9/16 | 5 | 103305 | SSC-1500 |
| 3/4 | 1-15/16 | 5 | 103306 | SSC-1900 |
| 1 | 1-11/16 | 5 | 103310 | SSC-1601 |
| 1 | 2-3/16 | 5 | 103311 | SSC-2100 |
| 1-1/4 | 1-11/16 | 5 | 103312 | SSC-1602 |
| 1-1/4 | 2-3/16 | 5 | 103313 | SSC-2103 |
| 1-1/4 | 2-7/8 | 5 | 103314 | SSC-2803 |
| 1-1/2 | 1-15/16 | 5 | 103316 | SSC-1904 |
| 1-1/2 | 3-7/8 | 5 | 103319 | SSC-3805 |
| 1-3/4 | 2-1/2 | 5 | 103320 | SSC-2504 |
| 1-3/4 | 3 | 5 | 103321 | SSC-3004 |
| 2 | 2-5/8 | 5 | 103323 | SSC-2600 |
| 2 | 3 | 5 | 103324 | SSC-3005 |
| 2-1/2 | 3-3/8 | 5 | 103327 | SSC-3301 |
| 2-1/2 | 4-1/8 | 5 | 103328 | SSC-4102 |
| 3 | 4-7/8 | 5 | 103331 | SSC-4802 |

SOLID

| | | | |
|---------|-------|--------|----------|
| 3/8 | 2-1/2 | 103401 | SSS-300 |
| 1/2 | 6-1/2 | 103402 | SSS-500 |
| 5/8 | 5 | 103403 | SSS-600 |
| 3/4 | 5 | 103404 | SSS-700 |
| 7/8 | 5 | 103405 | SSS-800 |
| 1 | 5 | 103406 | SSS-1000 |
| 1-3/16 | 5 | 103407 | SSS-1100 |
| 1-5/16 | 5 | 103408 | SSS-1300 |
| 1-7/16 | 5 | 103409 | SSS-1400 |
| 1-9/16 | 5 | 103410 | SSS-1500 |
| 1-13/16 | 5 | 103411 | SSS-1800 |
| 2-1/16 | 5 | 103412 | SSS-2000 |
| 2-7/8 | 5 | 103413 | SSS-2800 |

Bar stock will finish to sizes shown.

Loads and Speeds

The normal load carrying capacity of OILUBE bearings is expressed as a PV factor (Pressure x Surface Velocity) where —

P = the load in psi on the projected bearing area (Bearing ID x Length).

V = surface velocity of the shaft in feet per minute (sfm)

$$PV = \frac{W}{LD} \times \frac{\pi DN}{12} = \frac{3.14 WN}{12L}$$

W = total load on bearing (pound)

L = bearing length (inches)

D = ID of bearing (inches)

N = shaft speed (rpm)

Normal Upper Limits of OILUBE Bearing Material

| PV | Static (psi) | Dynamic (psi) | Velocity (sfm) |
|--------|--------------|---------------|----------------|
| 50,000 | 8000 | 2000 | 1,200 |

Normal Limits of Bearing Length

| Material | Length to ID Ratio | Length to Wall Thickness Ratio |
|---------------|--------------------|--------------------------------|
| Oilube Bronze | 4 to 1 | 24 to 1 |

For ratios greater than those shown above please contact us.

OILUBE BRONZE METRIC TOLERANCES

| Nominal Sizes (mm) | | Tolerances (IN 0.001mm) | |
|--------------------|----|-------------------------|------------|
| Over | To | I.D. | O.D. |
| 3 | 6 | +20 +0 | +40 +19 |
| 6 | 10 | +30 +05 | +40 +19 |
| 10 | 18 | +30 +05 | +50 +28 |
| 18 | 30 | +30 +05 | +60 +35 |
| 30 | 50 | +40 +09 | +70 +40 |
| 50 | 65 | +40 +10 | +83 +50 |

Overall Length

| | |
|--------------|------------|
| Up to 40mm | +/- 0.12mm |
| 40mm to 55mm | +/- 0.19mm |
| 55mm to 76mm | +/- 0.25mm |

Flange Outside Diameter

| | |
|--------------|------------|
| Up to 30mm | +/- 0.12mm |
| 30mm to 70mm | +/- 0.25mm |

Flange Thickness

| | |
|------------|------------|
| Up to 3mm | +/- 0.07mm |
| 3mm to 5mm | +/- 0.13mm |

Concentricity

| | |
|---------------|--------|
| Up to 40mm | 0.07mm |
| 40mm to 65mm | 0.10mm |
| 65mm to 100mm | 0.13mm |
| OVER 100mm | 0.18mm |

These manufacturing tolerances are the result of a compromise between ASTM-B438-73, and common ISO tolerances for G7-s7. Consider housing bores H7, assembly arbors n6, and shafts f7.

OILUBE MATERIAL SPECIFICATIONS

| Composition % | Density (gm/cc) | Porosity (% by Vol.) | K Strength Constant | Tensile Strength | Elongation (in 1") | Yield Strength PSI | Comparable Designations |
|--|-----------------|----------------------|---------------------|------------------|--------------------|--------------------|---|
| Copper 87.5-90.5 Tin 9.5-10.5 Iron 1.0 max. Carbon 1.75 Other Elements 0.5 | 6.4-6.8 | 19 min. | 26500 | 14000 | 1 | 11000 | ASTM B-438-70 GR1 Type II MPIF CT-1000-K26 Mil-B-5687C Type I, Comp. A SAE-841 |

*Other sizes, tolerances, lubricants and materials are available on special orders.

POWDERED METAL SLEEVE BEARINGS

ISOSTATIC INDUSTRIES INC., CHICAGO, IL 800-621-5500

Metric



Oilube / 37

| ID (mm) | OD (mm) | LGTH. (mm) | ITEM NO. | PART NO. |
|---------|---------|------------|----------|-----------|
| 2 | 5 | 2 | 601003 | AM-205-2 |
| | | 3 | 601004 | AM-205-3 |
| 3 | 6 | 4 | 601006 | AM-306-4 |
| | | 5 | 601007 | AM-306-5 |
| | | 6 | 601008 | AM-306-6 |
| | | 10 | 601009 | AM-306-10 |
| 4 | 6 | 8 | 601012 | AM-406-8 |
| | | 10 | 601013 | AM-406-10 |
| | | 17 | 601014 | AM-406-17 |
| 4 | 7 | 4 | 601015 | AM-407-4 |
| | | 8 | 601016 | AM-407-8 |
| | | 10 | 601017 | AM-407-10 |
| | | 12 | 601018 | AM-407-12 |
| 4 | 8 | 4 | 601020 | AM-408-4 |
| | | 6 | 601021 | AM-408-6 |
| | | 8 | 601022 | AM-408-8 |
| | | 10 | 601023 | AM-408-10 |
| | | 12 | 601024 | AM-408-12 |
| 5 | 7 | 7 | 601028 | AM-507-7 |
| 5 | 8 | 5 | 601029 | AM-508-5 |
| | | 8 | 601030 | AM-508-8 |
| | | 10 | 601031 | AM-508-10 |
| | | 12 | 601032 | AM-508-12 |
| | | 15 | 601033 | AM-508-15 |
| | | 16 | 601034 | AM-508-16 |
| 5 | 9 | 4 | 601035 | AM-509-4 |
| | | 5 | 601036 | AM-509-5 |
| | | 8 | 601037 | AM-509-8 |
| 6 | 9 | 4 | 601047 | AM-609-4 |
| | | 6 | 601048 | AM-609-6 |
| | | 8 | 601049 | AM-609-8 |
| | | 10 | 601050 | AM-609-10 |
| | | 12 | 601051 | AM-609-12 |
| | | 16 | 601053 | AM-609-16 |
| 6 | 10 | 4 | 601055 | AM-610-4 |
| | | 6 | 601056 | AM-610-6 |
| | | 10 | 601058 | AM-610-10 |
| | | 12 | 601059 | AM-610-12 |
| | | 14 | 601060 | AM-610-14 |
| | | 16 | 601061 | AM-610-16 |
| 6 | 12 | 6 | 601062 | AM-612-6 |
| | | 8 | 601063 | AM-612-8 |
| | | 10 | 601064 | AM-612-10 |
| | | 11 | 601065 | AM-612-11 |
| | | 12 | 601066 | AM-612-12 |
| | | 15 | 601067 | AM-612-15 |
| | | 16 | 601068 | AM-612-16 |
| | | 25 | 601069 | AM-612-25 |
| 7 | 10 | 5 | 601072 | AM-710-5 |
| | | 8 | 601073 | AM-710-8 |
| | | 10 | 601074 | AM-710-10 |
| 8 | 10 | 8 | 601080 | AM-810-8 |
| | | 10 | 601081 | AM-810-10 |
| 8 | 11 | 8 | 601083 | AM-811-8 |
| | | 12 | 601084 | AM-811-12 |
| | | 16 | 601085 | AM-811-16 |
| | | 20 | 601086 | AM-811-20 |
| 8 | 12 | 6 | 601087 | AM-812-6 |
| | | 8 | 601088 | AM-812-8 |
| | | 10 | 601089 | AM-812-10 |
| | | 12 | 601090 | AM-812-12 |
| | | 14 | 601091 | AM-812-14 |

| ID (mm) | OD (mm) | LGTH. (mm) | ITEM NO. | PART NO. |
|---------|---------|------------|----------|------------|
| 8 | 12 | 16 | 601092 | AM-812-16 |
| | | 20 | 601093 | AM-812-20 |
| 8 | 14 | 8 | 601097 | AM-814-8 |
| | | 12 | 601098 | AM-814-12 |
| | | 14 | 601099 | AM-814-14 |
| | | 16 | 601100 | AM-814-16 |
| | | 20 | 601101 | AM-814-20 |
| 9 | 12 | 6 | 601105 | AM-912-6 |
| | | 10 | 601106 | AM-912-10 |
| | | 14 | 601107 | AM-912-14 |
| 10 | 12 | 10 | 601113 | AM-1012-10 |
| | | 11 | 601114 | AM-1012-11 |
| | | 20 | 601115 | AM-1012-20 |
| 10 | 13 | 10 | 601116 | AM-1013-10 |
| | | 12 | 601117 | AM-1013-12 |
| | | 16 | 601118 | AM-1013-16 |
| | | 18 | 601119 | AM-1013-18 |
| | | 20 | 601120 | AM-1013-20 |
| | | 25 | 601121 | AM-1013-25 |
| 10 | 14 | 8 | 601122 | AM-1014-8 |
| | | 10 | 601123 | AM-1014-10 |
| | | 14 | 601124 | AM-1014-14 |
| | | 15 | 601125 | AM-1014-15 |
| | | 16 | 601126 | AM-1014-16 |
| | | 18 | 601127 | AM-1014-18 |
| | | 20 | 601128 | AM-1014-20 |
| 10 | 15 | 25 | 601129 | AM-1014-25 |
| | | 10 | 601130 | AM-1015-10 |
| | | 16 | 601131 | AM-1015-16 |
| | | 20 | 601132 | AM-1015-20 |
| | | 25 | 601133 | AM-1015-25 |
| 10 | 16 | 8 | 601134 | AM-1016-8 |
| | | 10 | 601135 | AM-1016-10 |
| | | 15 | 601136 | AM-1016-15 |
| | | 16 | 601137 | AM-1016-16 |
| | | 20 | 601138 | AM-1016-20 |
| | | 25 | 601139 | AM-1016-25 |
| 12 | 14 | 30 | 601140 | AM-1016-30 |
| | | 9 | 601145 | AM-1214-9 |
| | | 12 | 601146 | AM-1214-12 |
| | | 14 | 601147 | AM-1214-14 |
| 12 | 15 | 16 | 601148 | AM-1214-16 |
| | | 8 | 601149 | AM-1215-8 |
| | | 12 | 601150 | AM-1215-12 |
| | | 16 | 601153 | AM-1215-16 |
| | | 18 | 601154 | AM-1215-18 |
| | | 20 | 601155 | AM-1215-20 |
| 12 | 16 | 25 | 601156 | AM-1215-25 |
| | | 8 | 601157 | AM-1216-8 |
| | | 12 | 601158 | AM-1216-12 |
| | | 15 | 601159 | AM-1216-15 |
| | | 16 | 601160 | AM-1216-16 |
| 12 | 17 | 20 | 601161 | AM-1216-20 |
| | | 25 | 601162 | AM-1216-25 |
| | | 27 | 601163 | AM-1216-27 |
| | | 10 | 601165 | AM-1217-10 |
| | | 12 | 601166 | AM-1217-12 |
| 12 | 18 | 16 | 601167 | AM-1217-16 |
| | | 18 | 601168 | AM-1217-18 |
| | | 20 | 601169 | AM-1217-20 |
| | | 25 | 601171 | AM-1217-25 |
| | | 8 | 601172 | AM-1218-8 |
| | | 10 | 601173 | AM-1218-10 |
| 12 | 18 | 12 | 601174 | AM-1218-12 |



| ID (mm) | OD (mm) | LGTH. (mm) | ITEM NO. | PART NO. |
|---------|---------|------------|----------|------------|
| 12 | 18 | 16 | 601175 | AM-1218-16 |
| | | 18 | 601176 | AM-1218-18 |
| | | 20 | 601177 | AM-1218-20 |
| | | 25 | 601178 | AM-1218-25 |
| 14 | 18 | 10 | 601184 | AM-1418-10 |
| | | 14 | 601185 | AM-1418-14 |
| | | 15 | 601186 | AM-1418-15 |
| | | 18 | 601187 | AM-1418-18 |
| | | 19 | 601188 | AM-1418-19 |
| | | 20 | 601189 | AM-1418-20 |
| | | 22 | 601190 | AM-1418-22 |
| | | 26 | 601191 | AM-1418-26 |
| | | 28 | 601192 | AM-1418-28 |
| 14 | 20 | 10 | 601193 | AM-1420-10 |
| | | 12 | 601194 | AM-1420-12 |
| | | 14 | 601195 | AM-1420-14 |
| | | 15 | 601196 | AM-1420-15 |
| | | 18 | 601197 | AM-1420-18 |
| | | 20 | 601198 | AM-1420-20 |
| | | 22 | 601199 | AM-1420-22 |
| | | 25 | 601200 | AM-1420-25 |
| 15 | 19 | 10 | 601208 | AM-1519-10 |
| | | 15 | 601209 | AM-1519-15 |
| | | 16 | 601210 | AM-1519-16 |
| | | 20 | 601211 | AM-1519-20 |
| | | 25 | 601212 | AM-1519-25 |
| | | 32 | 601213 | AM-1519-32 |
| 15 | 21 | 10 | 601223 | AM-1521-10 |
| | | 15 | 601224 | AM-1521-15 |
| | | 16 | 601225 | AM-1521-16 |
| | | 20 | 601226 | AM-1521-20 |
| | | 21 | 601227 | AM-1521-21 |
| | | 25 | 601228 | AM-1521-25 |
| | | 30 | 601229 | AM-1521-30 |
| | | 32 | 601230 | AM-1521-32 |
| 16 | 20 | 12 | 601243 | AM-1620-12 |
| | | 16 | 601244 | AM-1620-16 |
| | | 20 | 601245 | AM-1620-20 |
| | | 25 | 601246 | AM-1620-25 |
| | | 28 | 601247 | AM-1620-28 |
| | | 30 | 601248 | AM-1620-30 |
| 16 | 22 | 16 | 601252 | AM-1622-16 |
| | | 20 | 601253 | AM-1622-20 |
| | | 22 | 601254 | AM-1622-22 |
| | | 25 | 601255 | AM-1622-25 |
| | | 30 | 601256 | AM-1622-30 |
| | | 32 | 601257 | AM-1622-32 |
| 17 | 22 | 17 | 601262 | AM-1722-17 |
| 18 | 22 | 12 | 601264 | AM-1822-12 |
| | | 18 | 601265 | AM-1822-18 |
| | | 22 | 601266 | AM-1822-22 |
| | | 28 | 601267 | AM-1822-28 |
| | | 36 | 601269 | AM-1822-36 |
| 18 | 24 | 12 | 601271 | AM-1824-12 |
| | | 17 | 601272 | AM-1824-17 |
| | | 18 | 601273 | AM-1824-18 |
| | | 22 | 601274 | AM-1824-22 |
| | | 24 | 601275 | AM-1824-24 |
| | | 25 | 601276 | AM-1824-25 |
| | | 28 | 601277 | AM-1824-28 |
| | | 30 | 601278 | AM-1824-30 |
| | | 36 | 601279 | AM-1824-36 |

| ID (mm) | OD (mm) | LGTH. (mm) | ITEM NO. | PART NO. |
|---------|---------|------------|----------|------------|
| 18 | 25 | 22 | 601284 | AM-1825-22 |
| | | 28 | 601285 | AM-1825-28 |
| | | 36 | 601287 | AM-1825-36 |
| 20 | 23 | 24 | 601291 | AM-2023-24 |
| 20 | 24 | 16 | 601292 | AM-2024-16 |
| | | 20 | 601293 | AM-2024-20 |
| | | 24 | 601294 | AM-2024-24 |
| | | 25 | 601295 | AM-2024-25 |
| | | 27 | 601296 | AM-2024-27 |
| | | 30 | 601297 | AM-2024-30 |
| | | 32 | 601298 | AM-2024-32 |
| 20 | 25 | 15 | 601299 | AM-2025-15 |
| | | 16 | 601300 | AM-2025-16 |
| | | 20 | 601301 | AM-2025-20 |
| | | 22 | 601302 | AM-2025-22 |
| | | 25 | 601303 | AM-2025-25 |
| | | 28 | 601304 | AM-2025-28 |
| | | 30 | 601305 | AM-2025-30 |
| 20 | 26 | 15 | 601310 | AM-2026-15 |
| | | 16 | 601311 | AM-2026-16 |
| | | 20 | 601312 | AM-2026-20 |
| | | 25 | 601313 | AM-2026-25 |
| | | 32 | 601316 | AM-2026-32 |
| | | 20 | 27 | 16 |
| 20 | 601319 | | | AM-2027-20 |
| 25 | 601320 | | | AM-2027-25 |
| 32 | 601321 | | | AM-2027-32 |
| 20 | 28 | 16 | 601322 | AM-2028-16 |
| | | 20 | 601323 | AM-2028-20 |
| | | 25 | 601324 | AM-2028-25 |
| | | 28 | 601325 | AM-2028-28 |
| | | 30 | 601326 | AM-2028-30 |
| | | 32 | 601327 | AM-2028-32 |
| 22 | 27 | 15 | 601338 | AM-2227-15 |
| | | 18 | 601340 | AM-2227-18 |
| | | 20 | 601341 | AM-2227-20 |
| | | 22 | 601342 | AM-2227-22 |
| | | 25 | 601343 | AM-2227-25 |
| | | 28 | 601344 | AM-2227-28 |
| 22 | 28 | 16 | 601345 | AM-2227-36 |
| | | 18 | 601346 | AM-2228-18 |
| | | 20 | 601347 | AM-2228-20 |
| | | 22 | 601348 | AM-2228-22 |
| | | 28 | 601349 | AM-2228-28 |
| | | 30 | 601350 | AM-2228-30 |
| 22 | 29 | 18 | 601351 | AM-2228-36 |
| | | 18 | 601353 | AM-2229-18 |
| | | 22 | 601355 | AM-2229-22 |
| | | 28 | 601356 | AM-2229-28 |
| | | 36 | 601357 | AM-2229-36 |
| 25 | 30 | 20 | 601364 | AM-2530-20 |
| | | 25 | 601365 | AM-2530-25 |
| | | 28 | 601366 | AM-2530-28 |
| | | 30 | 601367 | AM-2530-30 |
| | | 32 | 601368 | AM-2530-32 |
| | | 35 | 601369 | AM-2530-35 |
| | | 40 | 601370 | AM-2530-40 |
| | | 45 | 601371 | AM-2530-45 |
| 50 | 601372 | AM-2530-50 | | |

*Other sizes, tolerances, lubricants and materials are available on special orders.

POWDERED METAL SLEEVE BEARINGS

ISOSTATIC INDUSTRIES INC., CHICAGO, IL 800-621-5500

Metric



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| ID (mm) | OD (mm) | LGTH. (mm) | ITEM NO. | PART NO. |
|---------|---------|------------|----------|------------|
| 25 | 32 | 20 | 601373 | AM-2532-20 |
| | | 25 | 601374 | AM-2532-25 |
| | | 30 | 601375 | AM-2532-30 |
| | | 32 | 601376 | AM-2532-32 |
| | | 35 | 601377 | AM-2532-35 |
| | | 40 | 601378 | AM-2532-40 |
| 28 | 32 | 22 | 601390 | AM-2832-22 |
| | | 25 | 601391 | AM-2832-25 |
| | | 28 | 601392 | AM-2832-28 |
| | | 30 | 601393 | AM-2832-30 |
| | | 36 | 601394 | AM-2832-36 |
| | | 45 | 601395 | AM-2832-45 |
| 28 | 33 | 22 | 601396 | AM-2833-22 |
| | | 28 | 601397 | AM-2833-28 |
| | | 36 | 601398 | AM-2833-36 |
| | | 45 | 601399 | AM-2833-45 |
| 28 | 36 | 22 | 601401 | AM-2836-22 |
| | | 28 | 601402 | AM-2836-28 |
| | | 36 | 601403 | AM-2836-36 |
| | | 45 | 601404 | AM-2836-45 |
| 30 | 35 | 15 | 601408 | AM-3035-15 |
| | | 20 | 601409 | AM-3035-20 |
| | | 25 | 601410 | AM-3035-25 |
| | | 30 | 601411 | AM-3035-30 |
| 30 | 38 | 15 | 601415 | AM-3038-15 |
| | | 20 | 601416 | AM-3038-20 |
| | | 24 | 601417 | AM-3038-24 |
| | | 25 | 601418 | AM-3038-25 |
| | | 30 | 601419 | AM-3038-30 |
| | | 38 | 601420 | AM-3038-38 |
| 32 | 38 | 20 | 601434 | AM-3238-20 |
| | | 25 | 601435 | AM-3238-25 |
| | | 28 | 601436 | AM-3238-28 |
| | | 32 | 601437 | AM-3238-32 |
| | | 40 | 601438 | AM-3238-40 |
| | | 50 | 601439 | AM-3238-50 |
| 32 | 40 | 20 | 601440 | AM-3240-20 |
| | | 25 | 601441 | AM-3240-25 |
| | | 32 | 601442 | AM-3240-32 |
| | | 40 | 601443 | AM-3240-40 |
| | | 50 | 601444 | AM-3240-50 |
| 35 | 44 | 22 | 601458 | AM-3544-22 |
| | | 28 | 601459 | AM-3544-28 |
| | | 35 | 601460 | AM-3544-35 |
| | | | | |
| 35 | 45 | 25 | 601461 | AM-3545-25 |
| | | 35 | 601462 | AM-3545-35 |
| | | 40 | 601463 | AM-3545-40 |
| | | 45 | 601464 | AM-3545-45 |
| | | 50 | 601465 | AM-3545-50 |
| 36 | 42 | 22 | 601468 | AM-3642-22 |
| | | 28 | 601469 | AM-3642-28 |
| | | 36 | 601470 | AM-3642-36 |
| | | 45 | 601471 | AM-3642-45 |
| 36 | 45 | 22 | 601472 | AM-3645-22 |
| | | 28 | 601473 | AM-3645-28 |
| | | 36 | 601474 | AM-3645-36 |
| | | 45 | 601475 | AM-3645-45 |
| 38 | 44 | 25 | 601477 | AM-3844-25 |
| | | 35 | 601478 | AM-3844-35 |
| | | 45 | 601479 | AM-3844-45 |
| 40 | 46 | 25 | 601483 | AM-4046-25 |
| | | 30 | 601484 | AM-4046-30 |
| | | 32 | 601485 | AM-4046-32 |
| | | 40 | 601486 | AM-4046-40 |
| | | 50 | 601487 | AM-4046-50 |
| 40 | 50 | 25 | 601488 | AM-4050-25 |
| | | 30 | 601489 | AM-4050-30 |
| | | 32 | 601490 | AM-4050-32 |

| ID (mm) | OD (mm) | LGTH. (mm) | ITEM NO. | PART NO. |
|---------|---------|------------|----------|---------------|
| 40 | 50 | 35 | 601491 | AM-4050-35 |
| | | 40 | 601492 | AM-4050-40 |
| | | 50 | 601493 | AM-4050-50 |
| | | 60 | 601494 | AM-4050-60 |
| | | 80 | 601495 | AM-4050-80 |
| | | | | |
| 45 | 51 | 28 | 601497 | AM-4551-28 |
| | | 35 | 601498 | AM-4551-35 |
| | | 36 | 601499 | AM-4551-36 |
| | | 45 | 601500 | AM-4551-45 |
| | | 55 | 601501 | AM-4551-55 |
| | | 56 | 601502 | AM-4551-56 |
| 45 | 55 | 35 | 601504 | AM-4555-35 |
| | | 40 | 601505 | AM-4555-40 |
| | | 45 | 601506 | AM-4555-45 |
| | | 50 | 601507 | AM-4555-50 |
| | | 55 | 601508 | AM-4555-55 |
| 45 | 56 | 60 | 601509 | AM-4555-60 |
| | | 65 | 601510 | AM-4555-65 |
| | | 28 | 601512 | AM-4556-28 |
| | | 36 | 601513 | AM-4556-36 |
| | | 45 | 601514 | AM-4556-45 |
| | | 56 | 601515 | AM-4556-56 |
| 50 | 56 | 32 | 601518 | AM-5056-32 |
| | | 40 | 601519 | AM-5056-40 |
| | | 50 | 601520 | AM-5056-50 |
| | | 63 | 601522 | AM-5056-63 |
| | | | | |
| 50 | 60 | 32 | 601523 | AM-5060-32 |
| | | 35 | 601524 | AM-5060-35 |
| | | 40 | 601525 | AM-5060-40 |
| | | 50 | 601526 | AM-5060-50 |
| | | 60 | 601527 | AM-5060-60 |
| | | 63 | 601528 | AM-5060-63 |
| 55 | 65 | 40 | 601533 | AM-5565-40 |
| | | 55 | 601534 | AM-5565-55 |
| | | 60 | 601535 | AM-5565-60 |
| | | 65 | 601536 | AM-5565-65 |
| | | 70 | 601537 | AM-5565-70 |
| 60 | 70 | 50 | 601543 | AM-6070-50 |
| | | 60 | 601544 | AM-6070-60 |
| | | 90 | 601545 | AM-6070-90 |
| | | 120 | 601546 | AM-6070-120 |
| 60 | 72 | 50 | 601547 | AM-6072-50 |
| | | 60 | 601548 | AM-6072-60 |
| | | 63 | 601549 | AM-6072-63 |
| | | 70 | 601550 | AM-6072-70 |
| 60 | 80 | 90 | 601553 | AM-6080-90 |
| | | 120 | 601554 | AM-6080-120 |
| 63 | 70 | 40 | 601556 | AM-6370-40 |
| | | 50 | 601557 | AM-6370-50 |
| 70 | 80 | 60 | 601564 | AM-7080-60 |
| | | 90 | 601565 | AM-7080-90 |
| | | 120 | 601566 | AM-7080-120 |
| 80 | 100 | 120 | 601583 | AM-80100-120 |
| 100 | 120 | 80 | 601590 | AM-100120-80 |
| | | 120 | 601591 | AM-100120-120 |
| 110 | 125 | 120 | 601594 | AM-110125-120 |
| 125 | 150 | 120 | 601596 | AM-125150-120 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID (mm) | OD (mm) | LGTH. (mm) | FLG. OD (mm) | FLG. THICK (mm) | ITEM NO. | PART NO. |
|---------|---------|------------|--------------|-----------------|----------|-------------|
| 3 | 6 | 4 | 9 | 1.5 | 602003 | FM-306-4 |
| | | 6 | | | 602004 | FM-306-6 |
| | | 10 | | | 602005 | FM-306-10 |
| 4 | 7 | 6 | 12 | 2 | 602008 | FM-407-6 |
| | | 10 | | | 602009 | FM-407-10 |
| 4 | 8 | 4 | 12 | 2 | 602012 | FM-408-4 |
| | | 6 | | | 602013 | FM-408-6 |
| | | 8 | | | 602014 | FM-408-8 |
| | | 12 | | | 602015 | FM-408-12 |
| 5 | 8 | 5 | 12 | 2 | 602017 | FM-508-5 |
| | | 6 | | | 602018 | FM-508-6 |
| 6 | 9 | 6 | 12 | 1.5 | 602026 | FM-609-6 |
| | | 10 | | | 602027 | FM-609-10 |
| | | 12 | | | 602028 | FM-609-12 |
| 6 | 9 | 5 | 14 | 1.5 | 602029 | FM-609-5-1 |
| | | 6 | | | 602030 | FM-609-6-1 |
| | | 10 | | | 602031 | FM-609-10-1 |
| | | 12 | | | 602032 | FM-609-12-1 |
| 6 | 10 | 4 | 14 | 2 | 602035 | FM-610-4 |
| | | 6 | | | 602036 | FM-610-6 |
| | | 10 | | | 602037 | FM-610-10 |
| | | 14 | | | 602038 | FM-610-14 |
| | | 16 | | | 602039 | FM-610-16 |
| 8 | 11 | 6 | 12 | 1.5 | 602045 | FM-811-6 |
| | | 10 | | | 602046 | FM-811-10 |
| 8 | 11 | 6 | 14 | 1.5 | 602048 | FM-811-6-1 |
| | | 10 | | | 602049 | FM-811-10-1 |
| | | 12 | | | 602050 | FM-811-12-1 |
| 8 | 12 | 6 | 16 | 2 | 602051 | FM-812-6 |
| | | 8 | | | 602052 | FM-812-8 |
| | | 12 | | | 602053 | FM-812-12 |
| | | 14 | | | 602054 | FM-812-14 |
| | | 16 | | | 602055 | FM-812-16 |
| 9 | 14 | 6 | 19 | 2.5 | 602062 | FM-914-6 |
| | | 10 | | | 602063 | FM-914-10 |
| | | 14 | | | 602064 | FM-914-14 |
| 10 | 13 | 6 | 16 | 1.5 | 602067 | FM-1013-6 |
| | | 8 | | | 602068 | FM-1013-8 |
| | | 10 | | | 602069 | FM-1013-10 |
| | | 12 | | | 602070 | FM-1013-12 |
| | | 16 | | | 602071 | FM-1013-16 |
| | | 20 | | | 602072 | FM-1013-20 |
| 10 | 15 | 10 | 20 | 2.5 | 602078 | FM-1015-10 |
| | | 16 | | | 602079 | FM-1015-16 |
| | | 20 | | | 602080 | FM-1015-20 |

| ID (mm) | OD (mm) | LGTH. (mm) | FLG. OD (mm) | FLG. THICK (mm) | ITEM NO. | PART NO. |
|---------|---------|------------|--------------|-----------------|----------|--------------|
| 10 | 16 | 8 | 20 | 3 | 602082 | FM-1016-8 |
| | | 10 | | | 602083 | FM-1016-10 |
| | | 16 | | | 602084 | FM-1016-16 |
| 10 | 16 | 8 | 22 | 3 | 602087 | FM-1016-8-1 |
| | | 10 | | | 602088 | FM-1016-10-1 |
| | | 16 | | | 602090 | FM-1016-16-1 |
| 12 | 15 | 7 | 18 | 1.5 | 602092 | FM-1215-7 |
| | | 12 | | | 602093 | FM-1215-12 |
| | | 16 | | | 602094 | FM-1215-16 |
| | | 20 | | | 602095 | FM-1215-20 |
| 12 | 16 | 12 | 20 | 2 | 602098 | FM-1216-12 |
| | | 16 | | | 602099 | FM-1216-16 |
| | | 25 | | | 602100 | FM-1216-25 |
| 12 | 17 | 12 | 22 | 2.5 | 602102 | FM-1217-12 |
| | | 16 | | | 602103 | FM-1217-16 |
| | | 20 | | | 602104 | FM-1217-20 |
| | | 25 | | | 602105 | FM-1217-25 |
| 12 | 18 | 8 | 24 | 3 | 602111 | FM-1218-8 |
| | | 10 | | | 602112 | FM-1218-10 |
| | | 12 | | | 602113 | FM-1218-12 |
| | | 16 | | | 602114 | FM-1218-16 |
| | | 20 | | | 602115 | FM-1218-20 |
| 14 | 18 | 12 | 22 | 2 | 602119 | FM-1418-12 |
| | | 14 | | | 602120 | FM-1418-14 |
| | | 18 | | | 602121 | FM-1418-18 |
| | | 20 | | | 602122 | FM-1418-20 |
| 14 | 20 | 10 | 26 | 3 | 602123 | FM-1418-22 |
| | | 14 | | | 602128 | FM-1420-10 |
| | | 18 | | | 602129 | FM-1420-14 |
| 15 | 19 | 18 | 23 | 2 | 602130 | FM-1420-18 |
| | | 22 | | | 602132 | FM-1420-22 |
| | | 28 | | | 602133 | FM-1420-28 |
| | | 15 | | | 602135 | FM-1519-15 |
| | | 16 | | | 602136 | FM-1519-16 |
| 15 | 21 | 20 | 27 | 3 | 602137 | FM-1519-20 |
| | | 25 | | | 602138 | FM-1519-25 |
| | | 10 | | | 602142 | FM-1521-10 |
| | | 15 | | | 602143 | FM-1521-15 |
| | | 16 | | | 602144 | FM-1521-16 |
| | | 20 | | | 602145 | FM-1521-20 |
| | | 25 | | | 602146 | FM-1521-25 |
| 32 | 602147 | FM-1521-32 | | | | |
| 15 | 22 | 12 | 28 | 3 | 602148 | FM-1522-12 |
| | | 15 | | | 602149 | FM-1522-15 |
| 16 | 20 | 12 | 24 | 2 | 602154 | FM-1620-12 |

*Other sizes, tolerances, lubricants and materials are available on special orders.

POWDERED METAL FLANGE BEARINGS

ISOSTATIC INDUSTRIES INC., CHICAGO, IL 800-621-5500

Metric



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| ID (mm) | OD (mm) | LGTH. (mm) | FLG. OD (mm) | FLG. THICK (mm) | ITEM NO. | PART NO. |
|---------|---------|------------|--------------|-----------------|----------|------------|
| 16 | 20 | 16 | 24 | 2 | 602155 | FM-1620-16 |
| | | 20 | | | 602156 | FM-1620-20 |
| | | 25 | | | 602157 | FM-1620-25 |
| 16 | 22 | 12 | 28 | 3 | 602158 | FM-1622-12 |
| | | 16 | | | 602159 | FM-1622-16 |
| | | 20 | | | 602160 | FM-1622-20 |
| | | 25 | | | 602161 | FM-1622-25 |
| | | 32 | | | 602162 | FM-1622-32 |
| 18 | 22 | 18 | 26 | 2 | 602169 | FM-1822-18 |
| | | 20 | | | 602170 | FM-1822-20 |
| | | 22 | | | 602171 | FM-1822-22 |
| 18 | 24 | 12 | 30 | 3 | 602175 | FM-1824-12 |
| | | 18 | | | 602176 | FM-1824-18 |
| | | 22 | | | 602177 | FM-1824-22 |
| | | 28 | | | 602178 | FM-1824-28 |
| 20 | 24 | 12 | 28 | 2 | 602187 | FM-2024-12 |
| | | 16 | | | 602188 | FM-2024-16 |
| | | 20 | | | 602189 | FM-2024-20 |
| | | 25 | | | 602190 | FM-2024-25 |
| 20 | 26 | 15 | 32 | 3 | 602193 | FM-2026-15 |
| | | 16 | | | 602194 | FM-2026-16 |
| | | 20 | | | 602195 | FM-2026-20 |
| | | 25 | | | 602196 | FM-2026-25 |
| | | 30 | | | 602197 | FM-2026-30 |
| | | 32 | | | 602198 | FM-2026-32 |
| 22 | 27 | 18 | 32 | 2.5 | 602206 | FM-2227-18 |
| | | 22 | | | 602207 | FM-2227-22 |
| | | 28 | | | 602208 | FM-2227-28 |
| 22 | 28 | 15 | 34 | 3 | 602209 | FM-2228-15 |
| | | 16 | | | 602210 | FM-2228-16 |
| | | 20 | | | 602211 | FM-2228-20 |
| | | 25 | | | 602212 | FM-2228-25 |
| | | 30 | | | 602213 | FM-2228-30 |
| 22 | 29 | 18 | 36 | 3.5 | 602214 | FM-2229-18 |
| | | 22 | | | 602215 | FM-2229-22 |
| | | 28 | | | 602216 | FM-2229-28 |
| | | 36 | | | 602217 | FM-2229-36 |
| 25 | 30 | 20 | 35 | 2.5 | 602222 | FM-2530-20 |
| | | 25 | | | 602223 | FM-2530-25 |
| | | 30 | | | 602224 | FM-2530-30 |
| | | 32 | | | 602225 | FM-2530-32 |
| 25 | 32 | 20 | 39 | 3.5 | 602228 | FM-2532-20 |
| | | 25 | | | 602229 | FM-2532-25 |
| | | 30 | | | 602230 | FM-2532-30 |
| | | 32 | | | 602231 | FM-2532-32 |

| ID (mm) | OD (mm) | LGTH. (mm) | FLG. OD (mm) | FLG. THICK (mm) | ITEM NO. | PART NO. |
|---------|---------|------------|--------------|-----------------|----------|------------|
| 28 | 33 | 22 | 38 | 2.5 | 602242 | FM-2833-22 |
| | | 28 | | | 602243 | FM-2833-28 |
| | | 36 | | | 602244 | FM-2833-36 |
| 28 | 36 | 22 | 44 | 4 | 602245 | FM-2836-22 |
| | | 28 | | | 602246 | FM-2836-28 |
| | | 36 | | | 602247 | FM-2836-36 |
| 30 | 38 | 20 | 46 | 4 | 602256 | FM-3038-20 |
| | | 25 | | | 602257 | FM-3038-25 |
| | | 30 | | | 602258 | FM-3038-30 |
| 32 | 38 | 20 | 44 | 3 | 602264 | FM-3238-20 |
| | | 25 | | | 602265 | FM-3238-25 |
| | | 32 | | | 602266 | FM-3238-32 |
| 32 | 40 | 20 | 48 | 4 | 602269 | FM-3240-20 |
| | | 25 | | | 602270 | FM-3240-25 |
| | | 30 | | | 602271 | FM-3240-30 |
| 36 | 42 | 22 | 48 | 3 | 602272 | FM-3240-32 |
| | | 28 | | | 602279 | FM-3642-22 |
| | | 36 | | | 602280 | FM-3642-28 |
| 36 | 45 | 22 | 54 | 4.5 | 602281 | FM-3642-36 |
| | | 28 | | | 602282 | FM-3645-22 |
| | | 36 | | | 602283 | FM-3645-28 |
| 40 | 46 | 25 | 52 | 3 | 602284 | FM-3645-36 |
| | | 32 | | | 602285 | FM-4046-25 |
| | | 40 | | | 602286 | FM-4046-32 |
| 40 | 50 | 30 | 60 | 5 | 602287 | FM-4046-40 |
| | | 32 | | | 602288 | FM-4050-30 |
| | | 40 | | | 602289 | FM-4050-32 |
| 45 | 51 | 28 | 57 | 3 | 602290 | FM-4050-40 |
| | | 36 | | | 602296 | FM-4551-28 |
| | | 45 | | | 602297 | FM-4551-36 |
| 45 | 56 | 28 | 67 | 5.5 | 602298 | FM-4551-45 |
| | | 36 | | | 602304 | FM-4556-28 |
| | | 45 | | | 602305 | FM-4556-36 |
| 50 | 56 | 30 | 62 | 3 | 602306 | FM-4556-45 |
| | | 32 | | | 602307 | FM-5056-30 |
| | | 40 | | | 602308 | FM-5056-32 |
| 50 | 60 | 30 | 70 | 5 | 602309 | FM-5056-40 |
| | | 32 | | | 602310 | FM-5056-50 |
| | | 35 | | | 602311 | FM-5060-32 |
| 60 | 70 | 40 | 80 | 5 | 602312 | FM-5060-35 |
| | | 50 | | | 602313 | FM-5060-40 |
| | | 60 | | | 602314 | FM-5060-50 |
| 60 | 70 | 50 | 80 | 5 | 602319 | FM-6070-50 |
| | | 60 | | | 602320 | FM-6070-60 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



Century CAST BRONZE BEARINGS

SPECIAL SIZES AND ALLOYS

Our Cast Bearings are made to exacting dimensions and a full range of bronze bearing alloys is available to suit your requirements. Orders placed in quantities from one to thousands are handled economically and fast.

GRAPHITING

Graphite lubrication on the ID face of the bearing will enable you to obtain long bearing life both at high operating temperatures, and in applications lacking a supplemental lubrication. Graphiting is accomplished by grooving the I.D. and then pressing Graphite into the cavities under extremely high pressure. When using a Graphite lubrication bearing, an allowance of .001 " to

.002" additional clearance is suggested. This extra clearance can be obtained by ordering the bearing with a larger ID or by reaming. These bearings should be lubricated prior to assembly.

OIL AND GREASE GROOVES



SINGLE LOOP

Johnson A Boston Gear III
Bunting 1 Buckeye A
Randall A



FIGURE EIGHT

Johnson B Boston Gear IV
Bunting 4 Buckeye D
Randall B



ONE STRAIGHT AND ONE CIRCULAR

Johnson C Boston Gear V
Bunting 3 Buckeye C



DOUBLE LOOP

Johnson D Boston Gear VI
Bunting 2 Buckeye B
Randall D



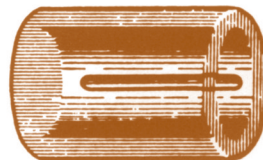
DOUBLE FIGURE EIGHT

Johnson E Boston Gear VII
Bunting 5 Buckeye E
Randall E



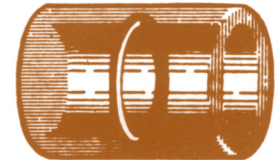
R.H. AND L.H. SPIRAL

Johnson F Boston Gear VIII
Bunting 11 Buckeye F
Randall F



STRAIGHT GROOVE

Johnson G
Randall G
Boston Gear I



CIRCULAR GROOVE

Johnson H
Randall H
Boston Gear II

OIL AND GREASE GROOVES

AIDS IN GROOVE SELECTION

Groove selection can be influenced by many things such as operating environment, type of lubricant, supplemental lubrication feed system, load etc.. The information furnished below is intended as a guide. Consideration must be given to all factors.

Boundry lubrication is where none of the load is supported by the lubricant. Bearings which are only periodically lubricated will at some time operate under these conditions. Speeds which are 10 s.f.m. or less

will cause boundry lubrication.

Suggested grooving:

Double loop – Double figure 8

Mixed film lubrication. Load is partially supported by lubrication. Speeds from 10 to 25 s.f.m. will induce this condition. Most cast bronze bearing applications are in this category.

Suggested grooving:

Straight. – Good for long bearings.

It should be located in the unloaded area of the bearing.

Circular – is used when the

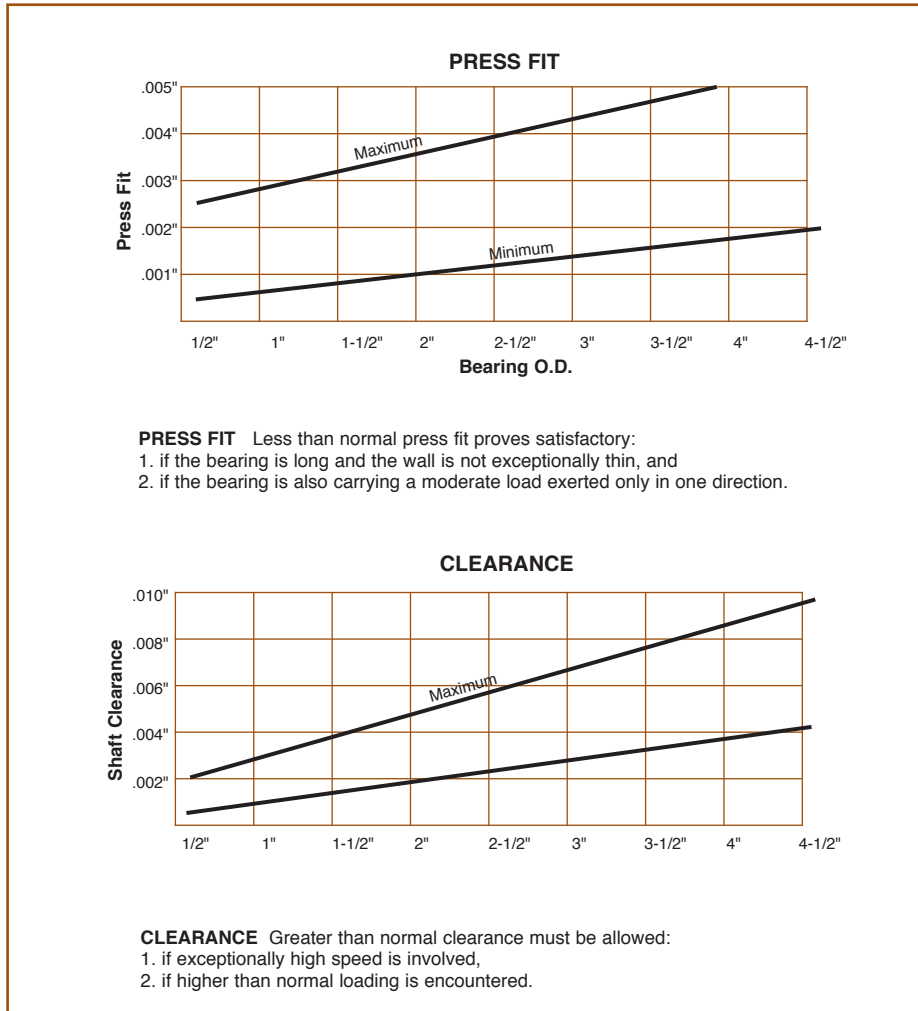
direction of load varies and a pressure fed lubricant system is present.

Straight Circular. – is applied in cases where the direction of the load varies and the lubricant is not pressure fed.

Full film lubrication The load is separated from the bearing by a film of lubricant. A minimum speed of 25 s.f.m. will generally be needed.

Suggested grooving:

The same types of grooving used in mixed film will work in the full film application.



**CENTURY CAST BRONZE
MATERIAL SPECIFICATIONS**

| Chemical Composition | Tensile Strength | Yield Strength | Elongation in 2" | Brinell Hardness | Equivalent Specifications |
|--|------------------|----------------|------------------|------------------|---------------------------------------|
| Copper 83% Tin 7% Lead 7% Zinc 3% | 44000 P.S.I. | 27000 P.S.I. | 16% | 72 | SAE-660 CDA-932 ASTM-B144-52-3B |

TOLERANCES

| | |
|-----------------|------------------|
| I.D. 3" or less | ± .001" |
| Over 3" | ± .0015" |
| O.D. 3" or less | + .002" to .003" |
| Over 3" | + .003" to .005" |
| Length | ± .005" |
| Concentricity | .003" T.I.R. |



| ID | OD | LENGTH | ITEM NO. | PART NO. |
|------|-------|--------|----------|------------|
| 3/16 | 5/16 | 1/2 | 104004 | CB-0305-04 |
| | | 3/4 | 104005 | CB-0305-06 |
| | | 1 | 104006 | CB-0305-08 |
| 1/4 | 3/8 | 1/4 | 104007 | CB-0406-02 |
| | | 3/8 | 104008 | CB-0406-03 |
| | | 1/2 | 104009 | CB-0406-04 |
| | | 3/4 | 104010 | CB-0406-06 |
| | | 1 | 104011 | CB-0406-08 |
| | | 1-1/4 | 104012 | CB-0406-10 |
| | | 3/4 | 304010 | M46-6 |
| 1/4 | 7/16 | 3/4 | 104013 | CB-0407-06 |
| | | 1 | 104014 | CB-0407-08 |
| | | 1-1/4 | 104015 | CB-0407-10 |
| 5/16 | 7/16 | 3/8 | 104016 | CB-0507-03 |
| | | 1/2 | 104017 | CB-0507-04 |
| | | 3/4 | 104018 | CB-0507-06 |
| | | 1 | 104019 | CB-0507-08 |
| | | 1-1/4 | 104020 | CB-0507-10 |
| 5/16 | 1/2 | 3/4 | 104021 | CB-0508-06 |
| | | 1 | 104022 | CB-0508-08 |
| | | 1-1/4 | 104023 | CB-0508-10 |
| 3/8 | 1/2 | 3/8 | 104024 | CB-0608-03 |
| | | 1/2 | 104025 | CB-0608-04 |
| | | 3/4 | 104026 | CB-0608-06 |
| | | 1 | 104027 | CB-0608-08 |
| | | 1-1/4 | 104028 | CB-0608-10 |
| | | 1-1/2 | 104029 | CB-0608-12 |
| 3/8 | 9/16 | 3/4 | 104030 | CB-0609-06 |
| | | 1 | 104031 | CB-0609-08 |
| | | 1-1/4 | 104032 | CB-0609-10 |
| 3/8 | 5/8 | 3/4 | 104034 | CB-0610-06 |
| | | 1 | 104035 | CB-0610-08 |
| | | 1-1/4 | 104036 | CB-0610-10 |
| | | 1-1/2 | 104037 | CB-0610-12 |
| | | 1 | 304035 | M610-8 |
| 7/16 | 9/16 | 1 | 104038 | CB-0709-08 |
| | | 1-1/4 | 104039 | CB-0709-10 |
| | | 1-1/2 | 104040 | CB-0709-12 |
| | | 1-3/4 | 104042 | CB-0709-14 |
| | | 2 | 104043 | CB-0709-16 |
| 7/16 | 5/8 | 1 | 104044 | CB-0710-08 |
| | | 1-1/4 | 104045 | CB-0710-10 |
| | | 1-1/2 | 104046 | CB-0710-12 |
| | | 2 | 104047 | CB-0710-16 |
| 7/16 | 11/16 | 1-1/2 | 104048 | CB-0711-12 |
| | | 1 | 104049 | CB-0712-08 |
| | | | 104050 | CB-0712-10 |
| 7/16 | 3/4 | 1-1/2 | 104051 | CB-0712-12 |
| | | 1-1/2 | 104052 | CB-0713-12 |
| 1/2 | 5/8 | 1/2 | 104053 | CB-0810-04 |
| | | 5/8 | 104054 | CB-0810-05 |

| ID | OD | LENGTH | ITEM NO. | PART NO. | | |
|-------|--------|--------|----------|------------|--------|------------|
| 1/2 | 5/8 | 3/4 | 104055 | CB-0810-06 | | |
| | | 7/8 | 104056 | CB-0810-07 | | |
| | | 1 | 104057 | CB-0810-08 | | |
| | | 1-1/4 | 104058 | CB-0810-10 | | |
| | | 1-3/8 | 104059 | CB-0810-11 | | |
| | | 1-1/2 | 104060 | CB-0810-12 | | |
| | | 1-3/4 | 104061 | CB-0810-14 | | |
| | | 2 | 104062 | CB-0810-16 | | |
| | | 2-1/4 | 104063 | CB-0810-18 | | |
| | | 1/2 | 11/16 | 3/4 | 104064 | CB-0811-06 |
| 1 | 104065 | | | CB-0811-08 | | |
| 1-1/4 | 104066 | | | CB-0811-10 | | |
| 1-1/2 | 104067 | | | CB-0811-12 | | |
| 1-3/4 | 104068 | | | CB-0811-14 | | |
| 2 | 104069 | | | CB-0811-16 | | |
| 2-1/4 | 104070 | | | CB-0811-18 | | |
| 2-1/2 | 104071 | | | CB-0811-20 | | |
| 1/2 | 3/4 | | | 3/4 | 104073 | CB-0812-06 |
| | | | | 1 | 104074 | CB-0812-08 |
| | | 1-1/4 | 104075 | CB-0812-10 | | |
| | | 1-1/2 | 104076 | CB-0812-12 | | |
| | | 1-3/4 | 104078 | CB-0812-14 | | |
| | | 2 | 104079 | CB-0812-16 | | |
| | | 2-1/4 | 104080 | CB-0812-18 | | |
| | | 2-1/2 | 104081 | CB-0812-20 | | |
| | | 2-3/4 | 104082 | CB-0812-22 | | |
| | | 1 | 304074 | M812-8 | | |
| 1/2 | 13/16 | 1 | 104083 | CB-0813-08 | | |
| | | 1-1/2 | 104084 | CB-0813-12 | | |
| | | 2-1/4 | 104085 | CB-0813-18 | | |
| 1/2 | 7/8 | 1 | 104086 | CB-0814-08 | | |
| | | 1-1/4 | 104087 | CB-0814-10 | | |
| | | 1-1/2 | 104088 | CB-0814-12 | | |
| | | 1-3/4 | 104089 | CB-0814-14 | | |
| | | 2 | 104090 | CB-0814-16 | | |
| 1/2 | 1 | 1 | 104091 | CB-0816-08 | | |
| | | 1-1/2 | 104092 | CB-0816-12 | | |
| | | 2 | 104093 | CB-0816-16 | | |
| | | 2-1/4 | 104094 | CB-0816-18 | | |
| 9/16 | 11/16 | 1 | 104095 | CB-0911-08 | | |
| | | 1-1/4 | 104096 | CB-0911-10 | | |
| | | 1-1/2 | 104097 | CB-0911-12 | | |
| | | 1-3/4 | 104099 | CB-0911-14 | | |
| | | 2 | 104100 | CB-0911-16 | | |
| | | 2-1/4 | 104101 | CB-0911-18 | | |
| 9/16 | 3/4 | 2-1/2 | 104102 | CB-0911-20 | | |
| | | 1 | 104103 | CB-0912-08 | | |
| 9/16 | 3/4 | 1-1/4 | 104104 | CB-0912-10 | | |
| | | 1-1/2 | 104105 | CB-0912-12 | | |
| | | 1-3/4 | 104107 | CB-0912-14 | | |
| | | 2 | 104108 | CB-0912-16 | | |
| | | 2-1/4 | 104110 | CB-0912-18 | | |

| ID | OD | LENGTH | ITEM NO. | PART NO. |
|-------|--------|--------|----------|------------|
| 9/16 | 3/4 | 2-1/2 | 104111 | CB-0912-20 |
| 9/16 | 13/16 | 1 | 104112 | CB-0913-08 |
| | | 1-1/4 | 104113 | CB-0913-10 |
| 9/16 | 13/16 | 1-1/2 | 104114 | CB-0913-12 |
| | | 1-3/4 | 104115 | CB-0913-14 |
| | | 2 | 104116 | CB-0913-16 |
| | | 2-1/2 | 104118 | CB-0913-20 |
| 9/16 | 7/8 | 1 | 104119 | CB-0914-08 |
| | | 1-1/2 | 104120 | CB-0914-12 |
| | | 2 | 104121 | CB-0914-16 |
| | | 1/2 | 104124 | CB-1012-04 |
| 5/8 | 3/4 | 3/4 | 104125 | CB-1012-06 |
| | | 1 | 104126 | CB-1012-08 |
| | | 1-1/8 | 104127 | CB-1012-09 |
| | | 1-1/4 | 104128 | CB-1012-10 |
| | | 1-1/2 | 104130 | CB-1012-12 |
| | | 1-3/4 | 104131 | CB-1012-14 |
| | | 2 | 104133 | CB-1012-16 |
| | | 2-1/4 | 104134 | CB-1012-18 |
| | | 2-1/2 | 104135 | CB-1012-20 |
| | | 3 | 104136 | CB-1012-24 |
| | | 1 | 304126 | M1012-8 |
| | | 5/8 | 13/16 | 1 |
| 1-1/4 | 104138 | | | CB-1013-10 |
| 1-1/2 | 104140 | | | CB-1013-12 |
| 1-3/4 | 104141 | | | CB-1013-14 |
| 2 | 104143 | | | CB-1013-16 |
| | | 2-1/4 | 104144 | CB-1013-18 |
| | | 2-1/2 | 104145 | CB-1013-20 |
| | | 1/2 | 104148 | CB-1014-04 |
| 5/8 | 7/8 | 3/4 | 104149 | CB-1014-06 |
| | | 1 | 104150 | CB-1014-08 |
| | | 1-1/8 | 104151 | CB-1014-09 |
| | | 1-1/4 | 104153 | CB-1014-10 |
| | | 1-1/2 | 104155 | CB-1014-12 |
| | | 1-3/4 | 104156 | CB-1014-14 |
| | | 2 | 104159 | CB-1014-16 |
| | | 2-1/4 | 104160 | CB-1014-18 |
| | | 2-1/2 | 104162 | CB-1014-20 |
| | | 3 | 104163 | CB-1014-24 |
| 5/8 | 15/16 | 1 | 104165 | CB-1015-08 |
| | | 1-1/2 | 104166 | CB-1015-12 |
| | | 2 | 104167 | CB-1015-16 |
| | | 2-1/2 | 104168 | CB-1015-20 |
| 5/8 | 1 | 1 | 104169 | CB-1016-08 |
| | | 1-1/2 | 104170 | CB-1016-12 |
| | | 2 | 104171 | CB-1016-16 |
| | | 2-1/4 | 104172 | CB-1016-18 |
| | | 2-1/2 | 104173 | CB-1016-20 |
| | | 3 | 104174 | CB-1016-24 |
| | | 1-1/2 | 104175 | CB-1018-12 |
| | | 2 | 104176 | CB-1018-16 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LENGTH | ITEM NO. | PART NO. | | |
|-------|--------|--------|----------|------------|--------|------------|
| 5/8 | 1-1/8 | 2-1/4 | 104177 | CB-1018-18 | | |
| | | 3 | 1-4518 | CB-1018-24 | | |
| 11/16 | 13/16 | 1 | 104179 | CB-1113-08 | | |
| | | 1-1/4 | 104180 | CB-1113-10 | | |
| 11/16 | 13/16 | 1-1/2 | 104181 | CB-1113-12 | | |
| | | 1-3/4 | 104182 | CB-1113-14 | | |
| | | 2 | 104183 | CB-1113-16 | | |
| | | 2-1/2 | 104185 | CB-1113-20 | | |
| 11/16 | 7/8 | 1 | 104186 | CB-1114-08 | | |
| | | 1-1/4 | 104187 | CB-1114-10 | | |
| | | 1-1/2 | 104188 | CB-1114-12 | | |
| | | 1-3/4 | 104189 | CB-1114-14 | | |
| | | 2 | 104190 | CB-1114-16 | | |
| | | 2-1/4 | 104191 | CB-1114-18 | | |
| | | 2-1/2 | 104192 | CB-1114-20 | | |
| | | 1 | 104193 | CB-1115-08 | | |
| 11/16 | 15/16 | 1-1/4 | 104194 | CB-1115-10 | | |
| | | 1-1/2 | 104195 | CB-1115-12 | | |
| | | 1-3/4 | 104196 | CB-1115-14 | | |
| | | 2 | 104197 | CB-1115-16 | | |
| 11/16 | 1 | 2-1/2 | 104199 | CB-1115-20 | | |
| | | 1-1/4 | 104201 | CB-1116-10 | | |
| | | 2-1/4 | 104204 | CB-1116-18 | | |
| 3/4 | 7/8 | 2-1/2 | 104205 | CB-1116-20 | | |
| | | 3/4 | 104207 | CB-1214-06 | | |
| | | 1 | 104208 | CB-1214-08 | | |
| | | 1-1/4 | 104209 | CB-1214-10 | | |
| | | 1-1/2 | 104210 | CB-1214-12 | | |
| | | 1-3/4 | 104211 | CB-1214-14 | | |
| | | 2 | 104212 | CB-1214-16 | | |
| | | 2-1/4 | 104213 | CB-1214-18 | | |
| | | 2-1/2 | 104214 | CB-1214-20 | | |
| | | 3/4 | 304207 | M1214-6 | | |
| 3/4 | 15/16 | 1 | 104215 | CB-1215-08 | | |
| | | 1-1/4 | 104217 | CB-1215-10 | | |
| | | 1-3/8 | 104218 | CB-1215-11 | | |
| | | 1-1/2 | 104219 | CB-1215-12 | | |
| | | 1-3/4 | 104220 | CB-1215-14 | | |
| | | 2 | 104221 | CB-1215-16 | | |
| | | 2-1/4 | 104222 | CB-1215-18 | | |
| | | 2-1/2 | 104223 | CB-1215-20 | | |
| | | 2-3/4 | 104224 | CB-1215-22 | | |
| | | 3 | 104225 | CB-1215-24 | | |
| | | 3/4 | 1 | 1/2 | 104226 | CB-1216-04 |
| | | | | 3/4 | 104227 | CB-1216-06 |
| 7/8 | 104228 | | | CB-1216-07 | | |
| 1 | 104229 | | | CB-1216-08 | | |
| 1-1/8 | 104230 | | | CB-1216-09 | | |
| 1-1/4 | 104231 | | | CB-1216-10 | | |
| 1-3/8 | 104232 | | | CB-1216-11 | | |
| 1-1/2 | 104233 | | | CB-1216-12 | | |
| 1-3/4 | 104234 | | | CB-1216-14 | | |

| ID | OD | LENGTH | ITEM NO. | PART NO. |
|-------|--------|--------|----------|------------|
| 3/4 | 1 | 1-7/8 | 104235 | CB-1216-15 |
| | | 2 | 104237 | CB-1216-16 |
| 3/4 | 1-1/16 | 2-1/8 | 104238 | CB-1216-17 |
| | | 2-1/4 | 104239 | CB-1216-18 |
| | | 2-1/2 | 104241 | CB-1216-20 |
| | | 2-3/4 | 104242 | CB-1216-22 |
| 3/4 | 1-1/8 | 3 | 104243 | CB-1216-24 |
| | | 3-1/2 | 104244 | CB-1216-28 |
| | | 1 | 304229 | M1216-8 |
| 3/4 | 1-1/16 | 1 | 104245 | CB-1217-08 |
| | | 1-1/2 | 104246 | CB-1217-12 |
| | | 2 | 104247 | CB-1217-16 |
| | | 2-1/4 | 104248 | CB-1217-18 |
| | | 2-1/2 | 104249 | CB-1217-20 |
| | | 3 | 104250 | CB-1217-24 |
| | | 1 | 104251 | CB-1218-08 |
| | | 1-1/2 | 104252 | CB-1218-12 |
| 3/4 | 1-3/16 | 2 | 104253 | CB-1218-16 |
| | | 2-1/4 | 104254 | CB-1218-18 |
| | | 2-1/2 | 104255 | CB-1218-20 |
| | | 3 | 104256 | CB-1218-24 |
| 3/4 | 1-1/4 | 1-1/2 | 104258 | CB-1219-12 |
| | | 2 | 104259 | CB-1219-16 |
| | | 1-3/4 | 104263 | CB-1220-14 |
| 3/4 | 1-1/4 | 2 | 104264 | CB-1220-16 |
| | | 2-1/4 | 104265 | CB-1220-18 |
| | | 2-1/2 | 104266 | CB-1220-20 |
| | | 3 | 104267 | CB-1220-24 |
| 13/16 | 15/16 | 1 | 104268 | CB-1315-08 |
| | | 1-1/2 | 104271 | CB-1315-12 |
| | | 2 | 104272 | CB-1315-16 |
| 13/16 | 1 | 1-1/2 | 104274 | CB-1316-12 |
| | | 1-3/4 | 104275 | CB-1316-14 |
| | | 2 | 104276 | CB-1316-16 |
| 13/16 | 1-1/16 | 2-1/2 | 104277 | CB-1316-20 |
| | | 1-1/2 | 104279 | CB-1317-12 |
| | | 2 | 104280 | CB-1317-16 |
| 13/16 | 1-1/8 | 2-1/2 | 104281 | CB-1317-20 |
| | | 2-3/4 | 104282 | CB-1317-22 |
| | | 3 | 104283 | CB-1317-24 |
| 13/16 | 1-1/8 | 1-1/2 | 104284 | CB-1318-12 |
| | | 2 | 104285 | CB-1318-16 |
| 13/16 | 1-3/16 | 2-1/2 | 104287 | CB-1319-20 |
| | | 3 | 104288 | CB-1319-24 |
| | | 1 | 104296 | CB-1416-08 |
| 7/8 | 1 | 1-1/4 | 104297 | CB-1416-10 |
| | | 1-3/8 | 104298 | CB-1416-11 |
| | | 1-1/2 | 104299 | CB-1416-12 |
| | | 1-5/8 | 104300 | CB-1416-13 |
| | | 2 | 104301 | CB-1416-16 |
| | | 1 | 104303 | CB-1417-08 |
| 7/8 | 1-1/16 | 1-1/4 | 104304 | CB-1417-10 |

| ID | OD | LENGTH | ITEM NO. | PART NO. |
|-------|--------|--------|----------|------------|
| 7/8 | 1-1/16 | 1-1/2 | 104306 | CB-1417-12 |
| | | 1-3/4 | 104307 | CB-1417-14 |
| | | 2 | 104308 | CB-1417-16 |
| | | 2-1/4 | 104309 | CB-1417-18 |
| | | 2-1/2 | 104310 | CB-1417-20 |
| 7/8 | 1-1/8 | 3 | 104312 | CB-1417-24 |
| | | 3/4 | 104313 | CB-1418-06 |
| | | 1 | 104314 | CB-1418-08 |
| | | 1-1/4 | 104315 | CB-1418-10 |
| | | 1-3/8 | 104316 | CB-1418-11 |
| | | 1-1/2 | 104317 | CB-1418-12 |
| 7/8 | 1-3/16 | 1-1/2 | 104318 | CB-1418-14 |
| | | 1-3/4 | 104318 | CB-1418-14 |
| | | 2 | 104320 | CB-1418-16 |
| | | 2-1/4 | 104322 | CB-1418-18 |
| | | 2-1/2 | 104323 | CB-1418-20 |
| | | 3 | 104324 | CB-1418-24 |
| 7/8 | 1-1/8 | 3-1/4 | 104325 | CB-1418-26 |
| | | 3-1/2 | 104326 | CB-1418-28 |
| | | 1 | 104327 | CB-1419-08 |
| | | 1-1/4 | 104328 | CB-1419-10 |
| | | 1-1/2 | 104329 | CB-1419-12 |
| | | 2 | 104330 | CB-1419-16 |
| 7/8 | 1-1/4 | 2-1/2 | 104331 | CB-1419-20 |
| | | 3 | 104333 | CB-1419-24 |
| | | 1-1/2 | 104334 | CB-1420-12 |
| | | 1-3/4 | 104335 | CB-1420-14 |
| | | 2 | 104336 | CB-1420-16 |
| | | 2-1/4 | 104337 | CB-1420-18 |
| 7/8 | 1-1/4 | 2-1/2 | 104338 | CB-1420-20 |
| | | 3 | 104339 | CB-1420-24 |
| | | 3-1/2 | 104340 | CB-1420-28 |
| | | 4 | 104341 | CB-1420-32 |
| | | 1-1/2 | 104344 | CB-1422-12 |
| | | 1-3/4 | 104345 | CB-1422-14 |
| 15/16 | 1-1/8 | 2 | 104346 | CB-1422-16 |
| | | 2-1/2 | 104347 | CB-1422-20 |
| | | 3 | 104348 | CB-1422-24 |
| | | 1-1/2 | 104351 | CB-1518-12 |
| | | 2 | 104352 | CB-1518-16 |
| | | 2-1/2 | 104354 | CB-1518-20 |
| 15/16 | 1-3/16 | 1-1/4 | 104355 | CB-1519-10 |
| | | 1-1/2 | 104357 | CB-1519-12 |
| | | 2 | 104358 | CB-1519-16 |
| | | 2-1/4 | 104359 | CB-1519-18 |
| | | 3 | 104361 | CB-1519-24 |
| | | 1 | 104362 | CB-1520-08 |
| 15/16 | 1-1/4 | 1-1/2 | 104363 | CB-1520-12 |
| | | 2 | 104364 | CB-1520-16 |
| | | 2-1/2 | 104366 | CB-1520-20 |
| | | 2-3/4 | 104367 | CB-1520-22 |
| | | 1-1/2 | 104368 | CB-1521-12 |
| | | 2 | 104370 | CB-1521-16 |
| 15/16 | 1-5/16 | 3 | 104372 | CB-1521-24 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LENGTH | ITEM NO. | PART NO. | | |
|-------|--------|------------|----------|------------|--------|------------|
| 1 | 1-1/8 | 1 | 104373 | CB-1618-08 | | |
| | | 1-3/8 | 104374 | CB-1618-11 | | |
| | | 1-1/2 | 104375 | CB-1618-12 | | |
| | | 1-3/4 | 104376 | CB-1618-14 | | |
| | | 2 | 104377 | CB-1618-18 | | |
| 1 | 1-3/16 | 2-1/2 | 104378 | CB-1618-20 | | |
| | | 7/8 | 104379 | CB-1619-07 | | |
| | | 1 | 105031 | CB-1619-08 | | |
| | | 1-1/4 | 104380 | CB-1619-10 | | |
| | | 1-1/2 | 104381 | CB-1619-12 | | |
| 1 | 1-1/4 | 1-3/4 | 104383 | CB-1619-14 | | |
| | | 2 | 104384 | CB-1619-16 | | |
| | | 2-1/2 | 104386 | CB-1619-20 | | |
| | | 3/4 | 104387 | CB-1620-06 | | |
| | | 1 | 104388 | CB-1620-08 | | |
| | | 1-1/8 | 104389 | CB-1620-09 | | |
| | | 1-1/4 | 104390 | CB-1620-10 | | |
| | | 1-3/8 | 104391 | CB-1620-11 | | |
| | | 1-1/2 | 104392 | CB-1620-12 | | |
| | | 1-5/8 | 104393 | CB-1620-13 | | |
| 1 | 1-5/16 | 1-3/4 | 104394 | CB-1620-14 | | |
| | | 1-7/8 | 105032 | CB-1620-15 | | |
| | | 2 | 104395 | CB-1620-16 | | |
| | | 2-1/4 | 104397 | CB-1620-18 | | |
| | | 2-1/2 | 104398 | CB-1620-20 | | |
| | | 2-3/4 | 104399 | CB-1620-22 | | |
| | | 3 | 104400 | CB-1620-24 | | |
| | | 3-1/2 | 104401 | CB-1620-28 | | |
| | | 3-3/4 | 104402 | CB-1620-30 | | |
| | | 4 | 104403 | CB-1620-32 | | |
| | | 4-1/2 | 104404 | CB-1620-36 | | |
| | | 1-1/2 | 104405 | CB-1621-12 | | |
| | | 2 | 104406 | CB-1621-16 | | |
| | | 2-1/4 | 104407 | CB-1621-18 | | |
| | | 2-1/2 | 104408 | CB-1621-20 | | |
| 3 | 104409 | CB-1621-24 | | | | |
| 3-1/2 | 104410 | CB-1621-28 | | | | |
| 3-3/4 | 104411 | CB-1621-30 | | | | |
| 1 | 1-3/8 | 1 | 104412 | CB-1622-08 | | |
| | | 1-1/4 | 104413 | CB-1622-10 | | |
| | | 1-1/2 | 104414 | CB-1622-12 | | |
| | | 1-3/4 | 104415 | CB-1622-14 | | |
| | | 2 | 104416 | CB-1622-16 | | |
| | | 2-1/2 | 104417 | CB-1622-20 | | |
| | | 2-3/4 | 104418 | CB-1622-22 | | |
| | | 3 | 104419 | CB-1622-24 | | |
| | | 3-1/4 | 104420 | CB-1622-26 | | |
| | | 3-1/2 | 104421 | CB-1622-28 | | |
| | | 4 | 104422 | CB-1622-32 | | |
| | | 4-1/2 | 104423 | CB-1622-36 | | |
| | | 1 | 1-1/2 | 1-1/2 | 104424 | CB-1624-12 |
| | | | | 1-3/4 | 104425 | CB-1624-14 |
| | | | | 2 | 104426 | CB-1624-16 |
| 2-1/2 | 104427 | | | CB-1624-20 | | |

| ID | OD | LENGTH | ITEM NO. | PART NO. |
|--------|--------|--------|----------|------------|
| 1 | 1-1/2 | 3 | 104428 | CB-1624-24 |
| | | 4 | 104429 | CB-1624-32 |
| 1 | 1-5/8 | 2 | 104431 | CB-1626-16 |
| | | 2-1/2 | 104432 | CB-1626-20 |
| | | 3 | 104433 | CB-1626-24 |
| | | 3-1/2 | 104434 | CB-1626-28 |
| | | 3 | 304433 | M1626-24 |
| 1 | 1-3/4 | 6-1/2 | 104436 | CB-1628-52 |
| 1 | 2 | 3 | 104437 | CB-1632-24 |
| | | 6-1/2 | 104440 | CB-1632-52 |
| 1-1/16 | 1-5/16 | 1-1/2 | 104442 | CB-1721-12 |
| | | 2 | 104443 | CB-1721-16 |
| | | 2-1/2 | 104444 | CB-1721-20 |
| | | 3 | 104445 | CB-1721-24 |
| | | 3-1/2 | 104446 | CB-1721-28 |
| 1-1/16 | 1-3/8 | 1 | 104447 | CB-1722-08 |
| | | 2 | 104448 | CB-1722-16 |
| | | 2-1/2 | 104449 | CB-1722-20 |
| 1-1/16 | 1-7/16 | 2-1/2 | 104450 | CB-1723-20 |
| | | 3 | 104451 | CB-1723-24 |
| | | 4 | 104453 | CB-1723-32 |
| | | 1-1/2 | 104457 | CB-1820-12 |
| 1-1/8 | 1-1/4 | 1-3/4 | 104459 | CB-1820-14 |
| | | 2 | 104460 | CB-1820-16 |
| | | 2-1/4 | 104462 | CB-1821-18 |
| 1-1/8 | 1-5/16 | 2-1/2 | 104463 | CB-1821-20 |
| | | 1 | 104464 | CB-1822-08 |
| 1-1/8 | 1-3/8 | 1-1/4 | 104465 | CB-1822-10 |
| | | 1-1/2 | 104466 | CB-1822-12 |
| | | 1-3/4 | 104467 | CB-1822-14 |
| | | 2 | 104468 | CB-1822-16 |
| | | 2-1/4 | 104470 | CB-1822-18 |
| | | 2-1/2 | 104471 | CB-1822-20 |
| | | 3 | 104472 | CB-1822-24 |
| | | 3-1/4 | 104473 | CB-1822-26 |
| | | 3-1/2 | 104474 | CB-1822-28 |
| | | 4 | 104475 | CB-1822-32 |
| 1-1/8 | 1-7/16 | 1-1/2 | 104478 | CB-1823-12 |
| | | 2-1/2 | 104479 | CB-1823-20 |
| | | 3 | 104480 | CB-1823-24 |
| | | 3-1/2 | 104481 | CB-1823-28 |
| | | 1-1/2 | 104482 | CB-1824-12 |
| 1-1/8 | 1-1/2 | 2 | 104483 | CB-1824-16 |
| | | 2-1/2 | 104484 | CB-1824-20 |
| | | 3 | 104485 | CB-1824-24 |
| | | 3-1/2 | 104486 | CB-1824-28 |
| | | 4 | 104487 | CB-1824-32 |
| | | 1-3/4 | 104489 | CB-1826-14 |
| | | 2 | 104490 | CB-1826-16 |
| | | 2-1/2 | 104491 | CB-1826-20 |
| | | 3 | 104492 | CB-1826-24 |
| | | 3-1/2 | 104493 | CB-1826-28 |
| 1-1/8 | 1-5/8 | 4 | 104494 | CB-1826-32 |
| | | 4-1/2 | 104495 | CB-1826-36 |
| | | 6-1/2 | 104496 | CB-1830-52 |
| | | 3 | 104497 | CB-1832-24 |
| | | 5-1/2 | 104498 | CB-1832-44 |

| ID | OD | LENGTH | ITEM NO. | PART NO. |
|--------|---------|--------|----------|------------|
| 1-3/16 | 1-3/8 | 1-3/4 | 104499 | CB-1922-14 |
| | | 2 | 104500 | CB-1922-16 |
| 1-3/16 | 1-7/16 | 2-1/2 | 104501 | CB-1922-20 |
| | | 1-1/4 | 104502 | CB-1923-10 |
| 1-3/16 | 1-7/16 | 1-1/2 | 104503 | CB-1923-12 |
| | | 2 | 104504 | CB-1923-16 |
| | | 2-1/2 | 104505 | CB-1923-20 |
| 1-3/16 | 1-7/16 | 3 | 104507 | CB-1923-24 |
| | | 3-1/2 | 104508 | CB-1923-28 |
| 1-3/16 | 1-1/2 | 2 | 104509 | CB-1924-16 |
| | | 3 | 104510 | CB-1924-24 |
| | | 4 | 104511 | CB-1924-32 |
| 1-3/16 | 1-9/16 | 1-1/2 | 104512 | CB-1925-12 |
| | | 2-1/2 | 104513 | CB-1925-20 |
| | | 3 | 104514 | CB-1925-24 |
| 1-3/16 | 1-5/8 | 3-1/2 | 104515 | CB-1925-28 |
| | | 2 | 104516 | CB-1926-16 |
| | | 2-1/2 | 104517 | CB-1926-20 |
| 1-3/16 | 1-11/16 | 3 | 104518 | CB-1926-24 |
| | | 2 | 104519 | CB-1927-16 |
| 1-3/16 | 1-11/16 | 2-1/2 | 104520 | CB-1927-20 |
| | | 3 | 104521 | CB-1927-24 |
| | | 3-1/2 | 104522 | CB-1927-28 |
| 1-1/4 | 1-7/16 | 2 | 105033 | CB-2023-16 |
| | | 2-1/2 | 104526 | CB-2023-20 |
| 1-1/4 | 1-1/2 | 3 | 104527 | CB-2023-24 |
| | | 1 | 104528 | CB-2024-08 |
| 1-1/4 | 1-1/2 | 1-1/8 | 104529 | CB-2024-09 |
| | | 1-1/4 | 104530 | CB-2024-10 |
| | | 1-3/8 | 104531 | CB-2024-11 |
| | | 1-1/2 | 104532 | CB-2024-12 |
| | | 1-5/8 | 104533 | CB-2024-13 |
| | | 1-3/4 | 104534 | CB-2024-14 |
| | | 2 | 104536 | CB-2024-16 |
| | | 2-1/4 | 104538 | CB-2024-18 |
| | | 2-1/2 | 104539 | CB-2024-20 |
| | | 2-3/4 | 104540 | CB-2024-22 |
| 1-1/4 | 1-9/16 | 3 | 104541 | CB-2024-24 |
| | | 3-1/4 | 104542 | CB-2024-26 |
| | | 3-1/2 | 104543 | CB-2024-28 |
| | | 4 | 104545 | CB-2024-32 |
| | | 4-1/4 | 104546 | CB-2024-34 |
| | | 4-1/2 | 104547 | CB-2024-36 |
| | | 5 | 104548 | CB-2024-40 |
| | | 5-1/2 | 104549 | CB-2024-44 |
| 1-1/4 | 1-5/8 | 2 | 104550 | CB-2025-16 |
| | | 2-1/2 | 104552 | CB-2025-20 |
| | | 3 | 104554 | CB-2025-24 |
| | | 3-1/2 | 104555 | CB-2025-28 |
| | | 3-3/4 | 104556 | CB-2025-30 |
| 1-1/4 | 1-5/8 | 1-3/4 | 104557 | CB-2026-14 |
| | | 2 | 104559 | CB-2026-16 |
| | | 2-1/2 | 104560 | CB-2026-20 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LENGTH | ITEM NO. | PART NO. | | |
|--------|---------|--------|----------|------------|------------|------------|
| 1-1/4 | 1-5/8 | 3 | 104561 | CB-2026-24 | | |
| | | 3-1/4 | 104562 | CB-2026-26 | | |
| | | 3-1/2 | 104563 | CB-2026-28 | | |
| | | 4 | 104564 | CB-2026-32 | | |
| | | 4-1/2 | 104566 | CB-2026-36 | | |
| 1-1/4 | 1-11/16 | 4-3/4 | 104567 | CB-2026-38 | | |
| | | 2 | 104568 | CB-2027-16 | | |
| 1-1/4 | 1-11/16 | 2-1/2 | 104569 | CB-2027-20 | | |
| | | 3-1/4 | 104570 | CB-2027-26 | | |
| | | 3-1/2 | 104571 | CB-2027-28 | | |
| | | 1-1/4 | 1-3/4 | 105034 | CB-2028-10 | |
| 1-1/4 | 1-3/4 | 1-3/4 | 104572 | CB-2028-14 | | |
| | | 2 | 104573 | CB-2028-16 | | |
| | | 2-1/4 | 104574 | CB-2028-18 | | |
| | | 2-1/2 | 104575 | CB-2028-20 | | |
| | | 2-3/4 | 104576 | CB-2028-22 | | |
| | | 3 | 104577 | CB-2028-24 | | |
| | | 3-1/2 | 104578 | CB-2028-28 | | |
| | | 3-3/4 | 104579 | CB-2028-30 | | |
| | | 4 | 104580 | CB-2028-32 | | |
| | | 5 | 104582 | CB-2028-40 | | |
| | | 1-1/4 | 1-7/8 | 2 | 104583 | CB-2030-16 |
| | | | | 2-1/2 | 104584 | CB-2030-20 |
| | | | | 3 | 104585 | CB-2030-24 |
| | | | | 4 | 104586 | CB-2030-32 |
| | | 1-1/4 | 2 | 3 | 104587 | CB-2032-24 |
| 4 | 104588 | | | CB-2032-32 | | |
| 6-1/2 | 104589 | | | CB-2032-52 | | |
| 1-5/16 | 1-1/2 | 1-3/4 | 104594 | CB-2124-14 | | |
| | | 3 | 104595 | CB-2124-24 | | |
| 1-5/16 | 1-9/16 | 3 | 104596 | CB-2125-24 | | |
| | | 3-1/2 | 104597 | CB-2125-28 | | |
| | | 4 | 104598 | CB-2125-32 | | |
| 1-5/16 | 1-5/8 | 2 | 104599 | CB-2126-16 | | |
| | | 2-1/2 | 104600 | CB-2126-20 | | |
| | | 3 | 104601 | CB-2126-24 | | |
| | | 4 | 104602 | CB-2126-32 | | |
| | | 4-3/4 | 104603 | CB-2126-38 | | |
| 1-5/16 | 1-11/16 | 2-1/2 | 104604 | CB-2127-20 | | |
| | | 3 | 104605 | CB-2127-24 | | |
| | | 4 | 104607 | CB-2127-32 | | |
| 1-5/16 | 1-13/16 | 3 | 104608 | CB-2129-24 | | |
| | | 4 | 104610 | CB-2129-32 | | |
| 1-5/16 | 1-7/8 | 3-1/2 | 104611 | CB-2130-28 | | |
| | | 4-1/2 | 104612 | CB-2130-36 | | |
| 1-3/8 | 1-1/2 | 1-3/4 | 104613 | CB-2224-14 | | |
| | | 2 | 104615 | CB-2224-16 | | |
| | | 2-1/2 | 104616 | CB-2224-20 | | |
| 1-3/8 | 1-5/8 | 1-1/4 | 104617 | CB-2226-10 | | |
| | | 1-1/2 | 105035 | CB-2226-12 | | |
| | | 2 | 104618 | CB-2226-16 | | |
| | | 3 | 104619 | CB-2226-24 | | |

| ID | OD | LENGTH | ITEM NO. | PART NO. |
|--------|---------|--------|----------|------------|
| 1-3/8 | 1-5/8 | 3-1/4 | 104620 | CB-2226-26 |
| | | 3-1/2 | 104621 | CB-2226-28 |
| | | 4 | 104622 | CB-2226-32 |
| | | 4-1/2 | 104623 | CB-2226-36 |
| 1-3/8 | 1-11/16 | 3-1/2 | 104624 | CB-2227-28 |
| 1-3/8 | 1-3/4 | 2 | 104625 | CB-2228-16 |
| | | 2-1/4 | 104626 | CB-2228-18 |
| 1-3/8 | 1-7/8 | 2-1/2 | 104627 | CB-2228-20 |
| | | 3 | 104628 | CB-2228-24 |
| | | 3-1/2 | 104630 | CB-2228-28 |
| | | 4 | 104631 | CB-2228-32 |
| 1-3/8 | 2 | 3 | 104632 | CB-2230-24 |
| | | 3-1/2 | 104633 | CB-2230-28 |
| | | 4 | 104634 | CB-2230-32 |
| 1-3/8 | 2 | 4-1/2 | 104635 | CB-2230-36 |
| | | 3 | 104636 | CB-2232-24 |
| | | 4 | 104637 | CB-2232-32 |
| 1-3/8 | 2-1/8 | 6-1/2 | 104638 | CB-2234-52 |
| 1-7/16 | 1-5/8 | 1-3/4 | 104639 | CB-2326-14 |
| | | 2-3/4 | 104640 | CB-2326-22 |
| | | 3 | 104641 | CB-2326-24 |
| 1-7/16 | 1-11/16 | 2-1/2 | 104642 | CB-2327-20 |
| | | 3 | 104643 | CB-2327-24 |
| | | 3-1/2 | 104644 | CB-2327-28 |
| | | 4 | 104645 | CB-2327-32 |
| | | 4-1/4 | 104646 | CB-2327-34 |
| 1-7/16 | 1-3/4 | 2-1/4 | 104648 | CB-2328-18 |
| | | 3 | 104649 | CB-2328-24 |
| | | 4 | 104650 | CB-2328-32 |
| 1-7/16 | 1-13/16 | 3 | 104651 | CB-2329-24 |
| | | 3-1/4 | 104652 | CB-2329-26 |
| | | 3-1/2 | 104653 | CB-2329-28 |
| | | 4 | 104654 | CB-2329-32 |
| | | 4-1/4 | 104655 | CB-2329-34 |
| | | 5 | 104656 | CB-2329-40 |
| 1-7/16 | 1-7/8 | 3 | 104657 | CB-2330-24 |
| | | 4 | 104658 | CB-2330-32 |
| | | 4-1/2 | 104660 | CB-2330-36 |
| | | 5 | 104661 | CB-2330-40 |
| 1-7/16 | 1-15/16 | 2 | 104662 | CB-2331-16 |
| | | 3 | 104663 | CB-2331-24 |
| | | 3-1/2 | 104664 | CB-2331-28 |
| | | 4 | 104665 | CB-2331-32 |
| | | 4-1/2 | 104667 | CB-2331-36 |
| | | 5 | 104668 | CB-2331-40 |
| | | 5-1/2 | 104669 | CB-2331-44 |
| 1-7/16 | 2 | 4 | 104672 | CB-2332-32 |
| 1-1/2 | 1-5/8 | 2 | 104678 | CB-2426-16 |
| 1-1/2 | 1-11/16 | 2-3/4 | 104679 | CB-2427-22 |
| 1-1/2 | 1-3/4 | 1 | 104680 | CB-2428-08 |
| | | 1-1/4 | 104681 | CB-2428-10 |

| ID | OD | LENGTH | ITEM NO. | PART NO. |
|--------|---------|--------|----------|------------|
| 1-1/2 | 1-3/4 | 1-1/2 | 104682 | CB-2428-12 |
| | | 1-3/4 | 104683 | CB-2428-14 |
| | | 2 | 104684 | CB-2428-16 |
| | | 2-1/4 | 104686 | CB-2428-18 |
| | | 2-1/2 | 104687 | CB-2428-20 |
| 1-1/2 | 1-3/4 | 3 | 104688 | CB-2428-24 |
| | | 3-1/2 | 104689 | CB-2428-28 |
| | | 4 | 104690 | CB-2428-32 |
| | | 4-1/2 | 104691 | CB-2428-36 |
| | | 5 | 104692 | CB-2428-40 |
| | | 5-1/2 | 104693 | CB-2428-44 |
| 1-1/2 | 1-13/16 | 3 | 104694 | CB-2429-24 |
| 1-1/2 | 1-7/8 | 1-1/2 | 104695 | CB-2430-12 |
| | | 2 | 104696 | CB-2430-16 |
| | | 2-1/2 | 104697 | CB-2430-20 |
| | | 2-3/4 | 104698 | CB-2430-22 |
| | | 3 | 104699 | CB-2430-24 |
| | | 3-1/2 | 104700 | CB-2430-28 |
| 1-1/2 | 2 | 4 | 104701 | CB-2430-32 |
| | | 4-1/2 | 104704 | CB-2430-36 |
| | | 5 | 104705 | CB-2430-40 |
| | | 5-1/2 | 104706 | CB-2430-44 |
| | | 2 | 105036 | CB-2432-16 |
| | | 2-1/2 | 104707 | CB-2432-20 |
| | | 3 | 104708 | CB-2432-24 |
| | | 3-1/2 | 104709 | CB-2432-28 |
| | | 4 | 104710 | CB-2432-32 |
| | | 4-1/2 | 104711 | CB-2432-36 |
| | | 5 | 104712 | CB-2432-40 |
| 1-1/2 | 2-1/8 | 3 | 104713 | CB-2434-24 |
| | | 4 | 104714 | CB-2434-32 |
| 1-1/2 | 2-1/4 | 3 | 104716 | CB-2436-24 |
| | | 4 | 104717 | CB-2436-32 |
| | | 5 | 104718 | CB-2436-40 |
| | | 6-1/2 | 104719 | CB-2436-52 |
| | | 3 | 104723 | CB-2529-24 |
| 1-9/16 | 1-13/16 | 3-1/2 | 104724 | CB-2529-28 |
| | | 4 | 104725 | CB-2529-32 |
| 1-9/16 | 1-15/16 | 3-1/2 | 104726 | CB-2531-28 |
| | | 4-1/2 | 104727 | CB-2531-36 |
| 1-5/8 | 1-7/8 | 2-1/4 | 104728 | CB-2630-18 |
| | | 3 | 104730 | CB-2630-24 |
| | | 3-3/4 | 104731 | CB-2630-30 |
| 1-5/8 | 2 | 1-3/4 | 104736 | CB-2632-14 |
| | | 2-1/2 | 104737 | CB-2632-20 |
| | | 3 | 104738 | CB-2632-24 |
| | | 3-1/2 | 104739 | CB-2632-28 |
| | | 4 | 104740 | CB-2632-32 |
| 1-1/2 | 1-11/16 | 4-1/2 | 104741 | CB-2632-36 |
| | | 5 | 104742 | CB-2632-40 |
| | | 5-1/2 | 104743 | CB-2632-44 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LENGTH | ITEM NO. | PART NO. | ID | OD | LENGTH | ITEM NO. | PART NO. | ID | OD | LENGTH | ITEM NO. | PART NO. |
|---------|---------|--------|----------|------------|---------|--------|--------|----------|------------|--------|---------|--------|----------|------------|
| 1-5/8 | 2-1/8 | 3 | 104744 | CB-2634-24 | 1-3/4 | 2-1/2 | 6-1/2 | 104801 | CB-2840-52 | 2 | 2-1/2 | 3-1/2 | 104855 | CB-3240-28 |
| | | 4 | 104745 | CB-2634-32 | 1-13/16 | 2-3/16 | 4 | 104802 | CB-2935-32 | | | 4 | 104856 | CB-3240-32 |
| | | 4-1/2 | 104746 | CB-2634-36 | | | 5-1/4 | 104803 | CB-2935-42 | | | 4-1/2 | 104857 | CB-3240-36 |
| | | 5 | 104747 | CB-2634-40 | 1-13/16 | 2-5/16 | 4 | 104804 | CB-2937-32 | | | 5 | 104858 | CB-3240-40 |
| 1-11/16 | 1-15/16 | 3 | 104748 | CB-2731-24 | | | 5 | 104805 | CB-2937-40 | | | 5-1/2 | 104859 | CB-3240-44 |
| | | 3-1/2 | 104749 | CB-2731-28 | 1-7/8 | 2-1/8 | 2-1/2 | 104806 | CB-3034-20 | 2 | 2-5/8 | 4 | 104861 | CB-3242-32 |
| 1-11/16 | 2 | 3-1/2 | 104750 | CB-2732-28 | | | 3 | 104807 | CB-3034-24 | 2 | 2-3/4 | 6 | 105038 | CB-3244-48 |
| | | 4-1/2 | 104751 | CB-2732-36 | | | 4 | 104808 | CB-3034-32 | | | 6-1/2 | 104864 | CB-3244-52 |
| 1-11/16 | 2-1/16 | 3 | 104752 | CB-2733-24 | 1-7/8 | 2-1/4 | 3 | 104809 | CB-3036-24 | 2-1/8 | 2-1/2 | 3 | 104865 | CB-3440-24 |
| | | 3-1/2 | 104753 | CB-2733-28 | | | 3-1/4 | 104810 | CB-3036-26 | | | 4 | 104866 | CB-3440-32 |
| | | 4 | 104754 | CB-2733-32 | | | 4 | 104812 | CB-3036-32 | 2-1/8 | 2-5/8 | 4 | 104867 | CB-3442-32 |
| | | 4-1/2 | 104755 | CB-2733-36 | | | 5 | 104815 | CB-3036-40 | | | 5 | 104868 | CB-3442-40 |
| | | 5 | 104756 | CB-2733-40 | 1-7/8 | 2-3/8 | 3 | 104816 | CB-3038-24 | | | 6 | 104869 | CB-3442-48 |
| | | 5-1/2 | 104757 | CB-2733-44 | | | 4 | 104817 | CB-3038-32 | 2-3/16 | 2-5/8 | 4 | 104870 | CB-3542-32 |
| 1-11/16 | 2-3/16 | 2 | 104758 | CB-2735-16 | | | 5-1/4 | 104818 | CB-3038-42 | | | 5 | 104871 | CB-3542-40 |
| | | 2-1/2 | 104759 | CB-2735-20 | 1-15/16 | 2-3/16 | 2 | 104820 | CB-3135-16 | 2-3/16 | 2-11/16 | 3-1/2 | 104872 | CB-3543-28 |
| | | 3 | 104760 | CB-2735-24 | | | 3 | 104821 | CB-3135-24 | | | 4 | 104873 | CB-3543-32 |
| | | 3-1/2 | 104761 | CB-2735-28 | | | 4 | 104822 | CB-3135-32 | | | 4-1/2 | 104874 | CB-3543-36 |
| | | 4 | 104762 | CB-2735-32 | 1-15/16 | 2-1/4 | 3 | 104823 | CB-3136-24 | 2-3/16 | 2-3/4 | 4-1/2 | 104876 | CB-3544-36 |
| | | 4-1/2 | 104763 | CB-2735-36 | | | 4-1/2 | 104824 | CB-3136-36 | | | 5-1/4 | 104877 | CB-3544-42 |
| | | 5-1/2 | 104766 | CB-2735-44 | 1-15/16 | 2-5/16 | 3-1/2 | 104825 | CB-3137-28 | | | 6 | 104878 | CB-3544-48 |
| 1-11/16 | 2-1/4 | 3 | 104767 | CB-2736-24 | | | 4 | 104826 | CB-3137-32 | 2-3/16 | 2-7/8 | 4-1/2 | 104879 | CB-3546-36 |
| | | 4-1/2 | 104768 | CB-2736-36 | 1-15/16 | 2-5/16 | 5 | 104827 | CB-3137-40 | 2-1/4 | 2-1/2 | 3 | 105039 | CB-3640-24 |
| 1-3/4 | 2 | 1-1/2 | 104772 | CB-2832-12 | | | 5-1/2 | 104828 | CB-3137-44 | | | 3-1/2 | 104880 | CB-3640-28 |
| | | 2 | 104773 | CB-2832-16 | | | 6-1/4 | 104829 | CB-3137-50 | | | 4 | 104881 | CB-3640-32 |
| | | 2-1/4 | 104774 | CB-2832-18 | 1-15/16 | 2-3/8 | 3 | 104830 | CB-3138-24 | 2-1/4 | 2-5/8 | 3 | 104882 | CB-3642-24 |
| | | 2-1/2 | 104775 | CB-2832-20 | | | 4 | 104831 | CB-3138-32 | | | 4 | 104883 | CB-3642-32 |
| | | 3 | 104776 | CB-2832-24 | | | 5-1/2 | 104832 | CB-3138-44 | | | 5 | 104884 | CB-3642-40 |
| | | 4 | 104777 | CB-2832-32 | 1-15/16 | 2-7/16 | 3 | 104833 | CB-3139-24 | 2-1/4 | 2-11/16 | 4-3/4 | 104886 | CB-3643-38 |
| | | 4-1/2 | 104778 | CB-2832-36 | | | 4 | 104834 | CB-3139-32 | 2-1/4 | 2-3/4 | 3 | 105040 | CB-3644-24 |
| | | 5-1/4 | 104779 | CB-2832-42 | | | 5 | 104835 | CB-3139-40 | | | 3-1/2 | 104887 | CB-3644-28 |
| 1-3/4 | 2-1/16 | 3-1/2 | 104780 | CB-2833-28 | | | 5-1/2 | 104836 | CB-3139-44 | | | 4 | 104888 | CB-3644-32 |
| 1-3/4 | 2-1/8 | 2-1/2 | 105037 | CB-2834-20 | 1-15/16 | 2-1/2 | 3 | 104837 | CB-3140-24 | 2-1/4 | 3 | 3-1/2 | 104889 | CB-3644-36 |
| | | 2-3/4 | 104781 | CB-2834-22 | | | 5 | 104838 | CB-3140-40 | 2-1/4 | 2-3/4 | 4 | 104896 | CB-3844-32 |
| | | 3-1/4 | 104782 | CB-2834-26 | 2 | 2-1/4 | 2 | 104839 | CB-3236-16 | 2-3/8 | 2-3/4 | 5 | 104897 | CB-3844-40 |
| | | 3-1/2 | 104783 | CB-2834-28 | | | 2-1/2 | 104840 | CB-3236-20 | | | 6 | 104898 | CB-3844-48 |
| | | 4 | 104784 | CB-2834-32 | | | 3 | 104841 | CB-3236-24 | 2-3/8 | 2-7/8 | 4 | 104899 | CB-3846-32 |
| | | 4-1/4 | 104785 | CB-2834-34 | | | 3-1/2 | 104842 | CB-3236-28 | | | 5 | 104900 | CB-3846-40 |
| | | 5 | 104786 | CB-2834-40 | | | 3-3/4 | 104843 | CB-3236-30 | | | 6 | 104901 | CB-3846-48 |
| | | 5-1/2 | 104787 | CB-2834-44 | | | 4 | 104844 | CB-3236-32 | 2-7/16 | 2-3/4 | 4 | 104902 | CB-3944-32 |
| 1-3/4 | 2-1/4 | 1-3/4 | 104788 | CB-2836-14 | | | 4-1/2 | 104845 | CB-3236-36 | | | 5 | 104903 | CB-3944-40 |
| | | 2 | 104789 | CB-2836-16 | | | 5 | 104846 | CB-3236-40 | 2-7/16 | 2-7/8 | 3 | 104905 | CB-3946-24 |
| | | 2-1/2 | 104790 | CB-2836-20 | | | 2 | 304839 | M3236-16 | | | 5 | 104906 | CB-3946-40 |
| | | 3 | 104791 | CB-2836-24 | 2 | 2-3/8 | 2-1/2 | 104847 | CB-3238-20 | 2-7/16 | 2-15/16 | 4 | 104907 | CB-3947-32 |
| | | 3-1/2 | 104792 | CB-2836-28 | | | 3 | 104848 | CB-3238-24 | | | 5 | 104908 | CB-3947-40 |
| | | 4 | 104793 | CB-2836-32 | | | 3-1/2 | 104849 | CB-3238-28 | 2-7/16 | 3 | 3-3/4 | 104911 | CB-3948-30 |
| | | 4-1/4 | 104794 | CB-2836-34 | | | 4 | 104850 | CB-3238-32 | | | 5 | 104912 | CB-3948-40 |
| | | 5 | 104796 | CB-2836-40 | | | 4-1/2 | 104851 | CB-3238-36 | | | 6-1/4 | 104913 | CB-3948-50 |
| 1-3/4 | 2-3/8 | 3-1/2 | 104797 | CB-2838-28 | 2 | 2-1/2 | 2 | 105044 | CB-3240-16 | 2-1/2 | 2-3/4 | 3 | 104914 | CB-4044-24 |
| | | 4-1/2 | 104798 | CB-2838-36 | | | 2-1/2 | 104853 | CB-3240-20 | | | 4 | 104915 | CB-4044-32 |
| | | 5 | 104799 | CB-2838-40 | | | 3 | 104854 | CB-3240-24 | 2-1/2 | 2-7/8 | 3-1/4 | 104919 | CB-4046-26 |
| | | | | | | | | | | | | 4-1/2 | 104921 | CB-4046-36 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | LGTH. | ITEM NO. | PART NO. |
|---------|--------|-------|----------|------------|
| 2-1/2 | 3 | 3 | 104923 | CB-4048-24 |
| | | 3-3/4 | 104924 | CB-4048-30 |
| | | 4 | 104925 | CB-4048-32 |
| | | 5 | 104926 | CB-4048-40 |
| | | 6 | 104927 | CB-4048-48 |
| | | 7 | 104928 | CB-4048-56 |
| 2-1/2 | 3-1/8 | 3-1/2 | 104929 | CB-4050-28 |
| | | 4 | 104930 | CB-4050-32 |
| | | 4-1/2 | 104931 | CB-4050-36 |
| | | 6-3/4 | 104932 | CB-4050-54 |
| 2-1/2 | 3-1/4 | 4 | 104933 | CB-4052-32 |
| | | 5 | 104934 | CB-4052-40 |
| | | 6 | 104935 | CB-4052-48 |
| | | 7-1/4 | 104936 | CB-4052-58 |
| 2-1/2 | 3-1/2 | 6-1/2 | 104937 | CB-4056-52 |
| 2-5/8 | 3 | 3 | 104939 | CB-4248-24 |
| | | 4 | 104941 | CB-4248-32 |
| | | 5 | 104942 | CB-4248-40 |
| 2-5/8 | 3-1/8 | 5 | 104943 | CB-4250-40 |
| | | 6 | 104944 | CB-4250-48 |
| | | 7-1/4 | 104945 | CB-4250-58 |
| 2-5/8 | 3-1/4 | 7 | 104946 | CB-4252-56 |
| 2-5/8 | 3-3/8 | 6-1/2 | 104947 | CB-4254-52 |
| 2-11/16 | 3-3/16 | 4 | 104948 | CB-4351-32 |
| | | 5 | 104949 | CB-4351-40 |
| | | 6-1/4 | 104950 | CB-4351-50 |
| 2-3/4 | 3-1/8 | 4 | 104951 | CB-4450-32 |
| | | 5 | 104952 | CB-4450-40 |
| | | 6 | 104953 | CB-4450-48 |
| 2-3/4 | 3-1/4 | 4 | 104954 | CB-4452-32 |
| | | 5 | 104955 | CB-4452-40 |
| | | 6 | 104956 | CB-4452-48 |
| | | 7 | 104957 | CB-4452-56 |
| 2-3/4 | 3-3/8 | 4 | 104958 | CB-4454-32 |
| | | 6-1/2 | 104959 | CB-4454-52 |
| 2-3/4 | 3-1/2 | 6-1/2 | 104960 | CB-4456-52 |
| 2-7/8 | 3-3/8 | 4 | 104961 | CB-4654-32 |
| | | 6 | 104962 | CB-4654-48 |
| | | 8 | 104963 | CB-4654-64 |
| 2-7/8 | 3-1/2 | 4-1/2 | 104964 | CB-4656-36 |
| | | 6-3/4 | 104965 | CB-4656-54 |
| 2-15/16 | 3-7/16 | 3-1/2 | 104967 | CB-4755-28 |
| | | 5 | 104968 | CB-4755-40 |
| | | 6-1/2 | 104969 | CB-4755-52 |
| 2-15/16 | 3-3/4 | 7 | 105041 | CB-4760-56 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|--------|---------|-------|----------|------------|
| 3 | 3-3/8 | 4-1/2 | 104973 | CB-4854-36 |
| | | 8 | 104974 | CB-4854-64 |
| 3 | 3-1/2 | 3 | 104975 | CB-4856-24 |
| | | 4 | 104976 | CB-4856-32 |
| | | 4-1/2 | 104977 | CB-4856-36 |
| | | 5-1/2 | 105042 | CB-4856-44 |
| | | 6 | 104978 | CB-4856-48 |
| | | 9 | 104979 | CB-4856-72 |
| 3 | 3-5/8 | 5 | 104980 | CB-4858-40 |
| | | 6-1/2 | 104981 | CB-4858-52 |
| | | 8 | 104982 | CB-4858-64 |
| 3 | 3-3/4 | 6-1/4 | 104983 | CB-4860-50 |
| 3 | 4 | 6-1/2 | 104984 | CB-4864-52 |
| 3-1/4 | 3-1/2 | 4 | 104985 | CB-5256-32 |
| 3-1/4 | 3-3/4 | 5 | 104986 | CB-5260-40 |
| | | 6 | 104987 | CB-5260-48 |
| | | 9 | 104988 | CB-5260-72 |
| 3-7/16 | 3-15/16 | 4-1/2 | 104989 | CB-5563-36 |
| | | 6-1/2 | 104990 | CB-5563-52 |
| 3-1/2 | 4 | 4 | 104992 | CB-5664-32 |
| | | 5-1/2 | 104993 | CB-5664-44 |
| | | 6 | 105043 | CB-5664-48 |
| | | 7 | 104994 | CB-5664-56 |
| 3-1/2 | 4-1/8 | 6 | 104995 | CB-5666-48 |
| 3-1/2 | 4-1/4 | 4-1/2 | 104997 | CB-5668-36 |
| | | 7 | 104998 | CB-5668-56 |
| | | 9-3/4 | 104999 | CB-5668-78 |
| 3-3/4 | 4-1/4 | 5 | 105000 | CB-6068-40 |
| | | 7 | 105001 | CB-6068-56 |
| 3-3/4 | 4-1/2 | 6-1/2 | 105002 | CB-6072-52 |
| | | 4 | 4-1/2 | 4 |
| 4 | 4-1/2 | 6 | 105004 | CB-6472-48 |
| | | 7 | 105005 | CB-6472-56 |
| | | 5 | 105006 | CB-6476-40 |
| | | 6 | 105007 | CB-6476-48 |
| 4 | 5 | 7 | 105008 | CB-6476-56 |
| | | 5 | 105009 | CB-6480-40 |
| | | 6 | 105010 | CB-6480-48 |
| 4-1/4 | 4-3/4 | 7 | 105011 | CB-6480-56 |
| | | 5 | 105012 | CB-6876-40 |
| | | 6 | 105013 | CB-6876-48 |
| 4-1/4 | 5 | 7 | 105014 | CB-6876-56 |
| | | 5 | 105015 | CB-6880-40 |
| | | 6 | 105016 | CB-6880-48 |
| 4-1/2 | 5 | 7 | 105017 | CB-6880-56 |
| | | 6 | 105019 | CB-7280-48 |
| | | 7 | 105020 | CB-7280-56 |
| 4-1/2 | 5-1/2 | 8 | 105021 | CB-7280-64 |
| | | 6 | 105022 | CB-7288-48 |
| | | 7 | 105023 | CB-7288-56 |
| 4-1/2 | 5-1/2 | 8 | 105024 | CB-7288-64 |

| ID | OD | LGTH. | ITEM NO. | PART NO. |
|----|-------|-------|----------|------------|
| 5 | 5-1/2 | 6 | 105025 | CB-8088-48 |
| | | 7 | 105026 | CB-8088-56 |
| | | 8 | 105027 | CB-8088-64 |
| 5 | 6 | 7 | 105028 | CB-8096-56 |
| | | 8 | 105029 | CB-8096-64 |
| | | 9 | 105030 | CB-8096-72 |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | ITEM NO. | PART NO. | AVG. WGT. | ID | OD | ITEM NO. | PART NO. | AVG. WGT. | ID | OD | ITEM NO. | PART NO. | AVG. WGT. | | |
|--------------|--------|-----------|-----------|-----------|--------------|--------------|-----------|--------------|--------------|--------------|--------------|-----------|-----------|-----------|-----------|------|
| SOLID | 3/8 | 106500 | BS0003-13 | .56 | 7/8 | 1-1/8 | 106030 | BC0709-13 | 2.3 | 1-5/8 | 2 | 106110 | BC1316-13 | 5.6 | | |
| | 1/2 | 106501 | BS0004-13 | 1 | | 1-1/4 | 106031 | BC0710-13 | 3.3 | | 2-1/8 | 106111 | BC1317-13 | 7.4 | | |
| | 5/8 | 106502 | BS0005-13 | 1.5 | | 1-3/8 | 106032 | BC0711-13 | 4.5 | | 2-1/4 | 106112 | BC1318-13 | 9.3 | | |
| | 3/4 | 106503 | BS0006-13 | 2.1 | | 1-1/2 | 106033 | BC0712-13 | 5.7 | | 2-3/4 | 106116 | BC1322-13 | 18.0 | | |
| | 7/8 | 106504 | BS0007-13 | 2.8 | | 1-5/8 | 106034 | BC0713-13 | 7.1 | | 3 | 106117 | BC1324-13 | 22.9 | | |
| | 1 | 106505 | BS0008-13 | 3.7 | | 1-3/4 | 106035 | BC0714-13 | 8.5 | | 1-3/4 | 2 | 106118 | BC1416-13 | 4.3 | |
| | 1-1/8 | 106506 | BS0009-13 | 4.6 | | 2 | 106037 | BC0716-13 | 11.8 | | | 2-1/4 | 106120 | BC1418-13 | 7.9 | |
| | 1-1/4 | 106507 | BS0010-13 | 5.6 | | 1 | 1-1/4 | 106040 | BC0810-13 | | | 2.6 | 2-3/8 | 106121 | BC1419-13 | 9.9 |
| | 1-3/8 | 106508 | BS0011-13 | 6.8 | | | 1-3/8 | 106041 | BC0811-13 | | 3.7 | 2-1/2 | 106122 | BC1420-13 | 12.0 | |
| | 1-1/2 | 106509 | BS0012-13 | 8.0 | | | 1-1/2 | 106042 | BC0812-13 | | 5.0 | 2-5/8 | 106123 | BC1421-13 | 14.2 | |
| | 1-5/8 | 106510 | BS0013-13 | 9.4 | | 1-5/8 | 106043 | BC0813-13 | 6.3 | | 2-3/4 | 106124 | BC1422-13 | 16.6 | | |
| | 1-3/4 | 106511 | BS0014-13 | 10.8 | | 1-3/4 | 106044 | BC0814-13 | 7.8 | | 3 | 106126 | BC1424-13 | 21.5 | | |
| | 1-7/8 | 106512 | BS0015-13 | 12.4 | | 2 | 106046 | BC0816-13 | 11.0 | | 3-1/4 | 106127 | BC1426-13 | 26.9 | | |
| | 2 | 106513 | BS0016-13 | 14.0 | | 2-1/4 | 106048 | BC0818-13 | 14.7 | | 3-1/2 | 106128 | BC1428-13 | 32.7 | | |
| | 2-1/8 | 106514 | BS0017-13 | 16.0 | | 2-3/8 | 106049 | BC0819-13 | 16.7 | | 3-3/4 | 106129 | BC1430-13 | 38.9 | | |
| | 2-1/4 | 106515 | BS0018-13 | 17.8 | | 2-1/2 | 106050 | BC0820-13 | 18.8 | | 4 | 106130 | BC1432-13 | 47.0 | | |
| | 2-3/8 | 106516 | BS0019-13 | 19.8 | | 2-3/4 | 106051 | BC0822-13 | 23.3 | | 4-1/4 | 106131 | BC1434-13 | 54.0 | | |
| | 2-1/2 | 106517 | BS0020-13 | 21.9 | | 3 | 106052 | BC0824-13 | 28.3 | | 1-7/8 | 2-3/8 | 106133 | BC1519-13 | 8.4 | |
| | 2-5/8 | 106518 | BS0021-13 | 24.1 | | 3-1/4 | 106053 | BC0826-13 | 33.7 | | | 2-1/2 | 106134 | BC1520-13 | 10.5 | |
| | 2-3/4 | 106519 | BS0022-13 | 26.4 | | 3-1/2 | 106054 | BC0828-13 | 39.5 | | | 2-5/8 | 106135 | BC1521-13 | 12.7 | |
| | 3 | 106521 | BS0024-13 | 31.4 | | 4 | 106055 | BC0832-13 | 53.3 | | 3 | 106138 | BC1524-13 | 20.0 | | |
| | 3-1/4 | 106522 | BS0026-13 | 36.7 | | 2 | 306046 | MCB1632 | 11.0 | | 2 | 2-1/4 | 106140 | BC1618-13 | 4.8 | |
| | 3-1/2 | 106523 | BS0028-13 | 42.5 | | 1-1/8 | 1-5/8 | 106058 | BC0913-13 | | | 5.4 | 2-1/2 | 106141 | BC1620-13 | 8.9 |
| | 3-3/4 | 106524 | BS0030-13 | 48.8 | | | 1-7/8 | 106060 | BC0915-13 | | | 8.5 | 2-5/8 | 106142 | BC1621-13 | 11.1 |
| | 4 | 106525 | BS0032-13 | 56.4 | | | 2 | 106061 | BC0916-13 | | 10.2 | 2-3/4 | 106143 | BC1622-13 | 13.4 | |
| | 4-1/4 | 106526 | BS0034-13 | 63.5 | | 1-1/4 | 1-1/2 | 106068 | BC1012-13 | | 3.0 | 2-7/8 | 106144 | BC1623-13 | 15.9 | |
| | 4-1/2 | 106527 | BS0036-13 | 71.1 | | | 1-5/8 | 106069 | BC1013-13 | | 4.4 | 3 | 106145 | BC1624-13 | 18.4 | |
| | 4-3/4 | 106528 | BS0038-13 | 79.1 | | | 1-3/4 | 106070 | BC1014-13 | | 5.9 | 3-1/4 | 106146 | BC1626-13 | 23.8 | |
| | 5 | 106529 | BS0040-13 | 88.6 | | 1-7/8 | 106071 | BC1015-13 | 7.5 | | 3-1/2 | 106147 | BC1628-13 | 29.6 | | |
| | 5-1/2 | 106530 | BS0044-13 | 107.0 | | 2 | 106072 | BC1016-13 | 9.2 | | 3-3/4 | 106148 | BC1630-13 | 35.8 | | |
| | 6 | 106531 | BS0048-13 | 126.9 | | 2-1/4 | 106074 | BC1018-13 | 12.9 | | 4 | 106149 | BC1632-13 | 43.9 | | |
| | 6-1/2 | 106532 | BS0052-13 | 148.0 | | 2-1/2 | 106076 | BC1020-13 | 17.0 | | 4-1/2 | 106150 | BC1636-13 | 58.6 | | |
| 7 | 106533 | BS0056-13 | 171.9 | 2-3/4 | 106078 | BC1022-13 | 21.5 | 5 | 106151 | BC1640-13 | 76.5 | | | | | |
| 7-1/2 | 106534 | BS0060-13 | 196.9 | 3 | 106080 | BC1024-13 | 26.4 | 5-1/2 | 106152 | BC1644-13 | 95.6 | | | | | |
| 8 | 106535 | BS0064-13 | 223.6 | 3-1/4 | 106081 | BC1026-13 | 31.8 | 6 | 106153 | BC1648-13 | 115.0 | | | | | |
| 9 | 106537 | BS0072-13 | 282.2 | 3-1/2 | 106082 | BC1028-13 | 37.6 | 2-1/8 | 2-5/8 | 106154 | BC1721-13 | 9.4 | | | | |
| 1/2 | 1 | 106001 | BC0408-13 | 3.0 | 4 | 106083 | BC1032-13 | | 51.8 | 2-3/4 | 106155 | BC1722-13 | 11.7 | | | |
| | 1-1/8 | 106002 | BC0409-13 | 3.9 | 1-3/8 | 1-3/4 | 106085 | | BC1114-13 | 4.9 | 2-7/8 | 106156 | BC1723-13 | 14.2 | | |
| | 1-1/4 | 106003 | BC0410-13 | 4.9 | | 1-7/8 | 106086 | BC1115-13 | 6.4 | 2-1/4 | 2-3/4 | 106161 | BC1822-13 | 9.9 | | |
| 1-1/2 | 106005 | BC0412-13 | 7.3 | 2 | | 106087 | BC1116-13 | 8.1 | 2-7/8 | | 106162 | BC1823-13 | 12.3 | | | |
| 1-3/4 | 106006 | BC0414-13 | 10.2 | 2-1/8 | 106088 | BC1117-13 | 9.9 | 3 | 106163 | | BC1824-13 | 14.8 | | | | |
| 2 | 106007 | BC0416-13 | 13.4 | 2-1/4 | 106089 | BC1118-13 | 11.8 | 3-1/4 | 106165 | BC1826-13 | 20.2 | | | | | |
| 5/8 | 1 | 106008 | BC0508-13 | 2.5 | 2-1/2 | 106091 | BC1120-13 | 15.9 | 3-1/2 | 106166 | BC1828-13 | 26 | | | | |
| | 1-1/8 | 106009 | BC0509-13 | 3.5 | 3 | 106094 | BC1124-13 | 25.4 | 3-3/4 | 106167 | BC1830-13 | 32.2 | | | | |
| | 1-1/4 | 106010 | BC0510-13 | 4.5 | 1-1/2 | 1-3/4 | 106095 | BC1214-13 | 3.7 | 4 | 106168 | BC1832-13 | 40.5 | | | |
| 1-3/8 | 106011 | BC0511-13 | 5.6 | 2 | | 106097 | BC1216-13 | 6.9 | 4-1/4 | 106169 | BC1834-13 | 47.5 | | | | |
| 2 | 106015 | BC0516-13 | 13.6 | 2-1/8 | | 106098 | BC1217-13 | 8.7 | 2-3/8 | 2-7/8 | 106170 | BC1923-13 | 10.3 | | | |
| 3/4 | 1 | 106017 | BC0608-13 | 2.0 | 2-1/4 | 106099 | BC1218-13 | 10.6 | | 3 | 106171 | BC1924-13 | 12.8 | | | |
| | 1-1/8 | 106018 | BC0609-13 | 2.9 | 2-3/8 | 106100 | BC1219-13 | 12.6 | | 3-1/4 | 106172 | BC1926-13 | 18.2 | | | |
| | 1-1/4 | 106019 | BC0610-13 | 4.0 | 2-1/2 | 106101 | BC1220-13 | 14.7 | 3-1/2 | 106173 | BC1928-13 | 24.1 | | | | |
| 1-3/8 | 106020 | BC0611-13 | 5.1 | 2-3/4 | 106103 | BC1222-13 | 19.2 | 2-1/2 | 3 | 106176 | BC2024-13 | 10.8 | | | | |
| 1-1/2 | 106021 | BC0612-13 | 6.4 | 3 | 106104 | BC1224-13 | 24.2 | | 3-1/8 | 106177 | BC2025-13 | 13.5 | | | | |
| 1-3/4 | 106023 | BC0614-13 | 9.2 | 3-1/4 | 106105 | BC1226-13 | 29.6 | | 3-1/4 | 106178 | BC2026-13 | 16.2 | | | | |
| 2 | 106025 | BC0616-13 | 12.4 | 3-1/2 | 106106 | BC1228-13 | 35.4 | 3-1/2 | 106179 | BC2028-13 | 22.1 | | | | | |
| 2-1/4 | 106027 | BC0618-13 | 16.1 | 3-3/4 | 106107 | BC1230-13 | 41.6 | 3-3/4 | 106180 | BC2030-13 | 28.2 | | | | | |
| 2-1/2 | 106028 | BC0620-13 | 20.2 | 4 | 106108 | BC1232-13 | 49.6 | 4 | 106181 | BC2032-13 | 36.5 | | | | | |
| 2-3/4 | 106029 | BC0622-13 | 24.7 | 4-1/2 | 106109 | BC1236-13 | 64.3 | 4-1/4 | 106182 | BC2034-13 | 43.7 | | | | | |
| | | | | | | | | | | 4-1/2 | 106183 | BC2036-13 | 51.2 | | | |

*Other sizes, tolerances, lubricants and materials are available on special orders.



| ID | OD | ITEM NO. | PART NO. | AVG. WGT. |
|-------|-------|----------|-----------|-----------|
| 2-1/2 | 4-3/4 | 106184 | BC2038-13 | 59.2 |
| | 5 | 106185 | BC2040-13 | 69.1 |
| | 5-1/2 | 106186 | BC2044-13 | 87.8 |
| | 6 | 106187 | BC2048-13 | 107.6 |
| 2-5/8 | 3-1/2 | 106188 | BC2128-13 | 19.8 |
| 2-3/4 | 3-1/4 | 106192 | BC2226-13 | 12.6 |
| | 3-1/2 | 106193 | BC2228-13 | 17.7 |
| | 3-3/4 | 106194 | BC2230-13 | 23.8 |
| | 4 | 106195 | BC2232-13 | 32.2 |
| | 4-1/4 | 106196 | BC2234-13 | 39.4 |
| | 4-1/2 | 106197 | BC2236-13 | 47 |
| | 4-3/4 | 106198 | BC2238-13 | 54.9 |
| 2-7/8 | 4 | 106199 | BC2332-13 | 29.8 |
| 3 | 3-1/2 | 106200 | BC2428-13 | 12.8 |
| | 3-3/4 | 106201 | BC2430-13 | 19.1 |
| | 4 | 106202 | BC2432-13 | 27.5 |
| | 4-1/4 | 106203 | BC2434-13 | 34.7 |
| | 4-1/2 | 106204 | BC2436-13 | 42.2 |
| | 4-3/4 | 106205 | BC2438-13 | 50.2 |
| | 5 | 106206 | BC2440-13 | 60.2 |
| | 5-1/2 | 106207 | BC2444-13 | 78.9 |
| | 6 | 106208 | BC2448-13 | 98.8 |
| | 6-1/2 | 106209 | BC2452-13 | 120.4 |
| 3-1/4 | 4 | 106210 | BC2632-13 | 22.2 |
| | 4-1/4 | 106211 | BC2634-13 | 29.5 |
| | 4-1/2 | 106212 | BC2636-13 | 37 |
| | 4-3/4 | 106213 | BC2638-13 | 45 |
| | 5 | 106214 | BC2640-13 | 55.2 |
| | 5-1/2 | 106215 | BC2644-13 | 73.8 |
| 3-1/2 | 4 | 106216 | BC2832-13 | 16.7 |
| | 4-1/4 | 106217 | BC2834-13 | 23.8 |
| | 4-1/2 | 106218 | BC2836-13 | 31.5 |
| | 4-3/4 | 106219 | BC2838-13 | 39.4 |
| | 5 | 106220 | BC2840-13 | 49.5 |
| | 5-1/2 | 106221 | BC2844-13 | 68.3 |
| | 6 | 106222 | BC2848-13 | 88.1 |
| | 6-1/2 | 106223 | BC2852-13 | 109.8 |
| 3-3/4 | 4-1/2 | 106224 | BC3036-13 | 25.3 |
| | 4-3/4 | 106225 | BC3038-13 | 33.4 |
| | 5 | 106226 | BC3040-13 | 43.7 |
| | 5-1/2 | 106228 | BC3044-13 | 62.2 |
| | 6 | 106229 | BC3048-13 | 82.1 |

| ID | OD | ITEM NO. | PART NO. | AVG. WGT. |
|-------|-------|----------|-----------|-----------|
| 4 | 4-1/2 | 106230 | BC3236-13 | 19 |
| | 4-3/4 | 106231 | BC3238-13 | 27 |
| | 5 | 106232 | BC3240-13 | 37.2 |
| | 5-1/4 | 106233 | BC3242-13 | 46.5 |
| | 5-1/2 | 106234 | BC3244-13 | 55.9 |
| | 6 | 106235 | BC3248-13 | 75.9 |
| | 6-1/2 | 106236 | BC3252-13 | 97.5 |
| | 7 | 106237 | BC3256-13 | 120.8 |
| | 7-1/2 | 106238 | BC3260-13 | 145.8 |
| | 8 | 106239 | BC3264-13 | 172.5 |
| 4-1/4 | 5 | 106240 | BC3440-13 | 30.3 |
| | 5-1/4 | 106241 | BC3442-13 | 38.4 |
| | 5-1/2 | 106242 | BC3444-13 | 49.0 |
| | 6 | 106243 | BC3448-13 | 69.0 |
| | 6-1/2 | 106244 | BC3452-13 | 90.6 |
| 4-1/2 | 5 | 106245 | BC3640-13 | 23.2 |
| | 5-1/2 | 106246 | BC3644-13 | 41.9 |
| | 6 | 106247 | BC3648-13 | 61.7 |
| | 6-1/2 | 106248 | BC3652-13 | 83.4 |
| | 7 | 106249 | BC3656-13 | 106.8 |
| 4-3/4 | 5-3/4 | 106250 | BC3846-13 | 43.5 |
| | 6 | 106251 | BC3848-13 | 54.2 |
| | 6-1/2 | 106252 | BC3852-13 | 75.8 |
| 5 | 6 | 106255 | BC4048-13 | 46.0 |
| | 6-1/2 | 106256 | BC4052-13 | 67.6 |
| | 7 | 106257 | BC4056-13 | 91 |

| ID | OD | ITEM NO. | PART NO. | AVG. WGT. |
|-------|-------|----------|-----------|-----------|
| 5 | 7-1/2 | 106258 | BC4060-13 | 116.0 |
| | 8 | 106259 | BC4064-13 | 142.8 |
| | 9 | 106260 | BC4072-13 | 201.3 |
| 5-1/4 | 7 | 106262 | BC4256-13 | 82.5 |
| 5-1/2 | 6-1/2 | 106264 | BC4452-13 | 50.2 |
| | 7 | 106265 | BC4456-13 | 73.5 |
| | 7-1/2 | 106266 | BC4460-13 | 98.5 |
| | 8 | 106267 | BC4464-13 | 125.4 |
| 5-3/4 | 6-3/4 | 106268 | BC4654-13 | 51.7 |
| | 7-1/2 | 106269 | BC4660-13 | 89.3 |
| 6 | 6-3/4 | 106272 | BC4854-13 | 41.4 |
| | 7 | 106273 | BC4856-13 | 54.5 |
| | 7-1/2 | 106274 | BC4860-13 | 79.5 |
| | 8 | 106275 | BC4864-13 | 106.1 |
| | 8-1/2 | 106276 | BC4868-13 | 134.6 |
| | 9 | 106277 | BC4872-13 | 164.8 |
| 6-1/2 | 7-1/2 | 106279 | BC5260-13 | 58.7 |
| | 8 | 106280 | BC5264-13 | 85.4 |
| | 9 | 106281 | BC5272-13 | 144 |
| 7 | 8 | 106284 | BC5664-13 | 62.9 |
| | 9 | 106285 | BC5672-13 | 121.4 |
| 8 | 9 | 106291 | BC6472-13 | 71.3 |
| | 10 | 106292 | BC6480-13 | 131.8 |
| 9 | 10 | 106295 | BC7280-13 | 78.8 |

Finish Allowances

Actual sizes provided approximate allowances for finish as follows:

| Outside Diameter | Finish ID & OD |
|------------------|----------------|
| 0-4" | 1/32" |
| 4-5" | 1/16" |
| 5-9" | 3/32" |

Typical Mechanical Properties† Century (SAE 660) Bronze Bars

Chemical Composition

Copper.....83%

Tin.....7%

Lead.....7%

Zinc.....3%

Tensile Strength....44,000 PSI

Yield Strength.....24,000 PSI

Elongation in 2 inches16%

Brinell Number @
500 KG Load.....72

Equivalent Specifications:
C93200; ASTM B505;
QQ-C 390A

Maximum Values (PV=P x V)

POWDERED METAL

| MATERIAL | PV | P-LOAD | V-SFM |
|-----------------------------|--------|--------|-------|
| 1. Iron (SAE 850) | 30,000 | 3,000 | 400 |
| 2. Bronze (SAE 841) | 50,000 | 2,000 | 1,200 |
| 3. Iron-Copper (SAE 863) | 35,000 | 4,000 | 225 |
| 4. Heat Treated Iron Copper | 75,000 | 8,000 | 35 |

CAST BRONZE

| MATERIAL | PV | P-LOAD | V-SFM |
|---------------------|---------|--------|-------|
| 1. Manganese Bronze | 150,000 | 8,000 | 100 |
| 2. Aluminum Bronze | 125,000 | 4,000 | 225 |
| 3. SAE 660 Bronze | 75,000 | 3,000 | 750 |

STEEL

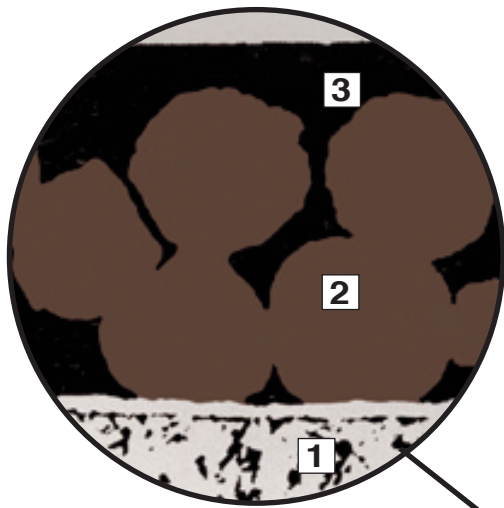
| MATERIAL | PV | P-LOAD | V-SFM |
|------------------------|---------|--------|-------|
| 1. TU Self-Lubricating | 102,000 | 36,250 | 1,900 |

Special Products Available:

- Larger diameter 13" Bars
- Longer length bars up to 105"
- Special bearings machined per print

†Typical for sizes 1-4 inches diameter; other sizes may differ appreciably. Not to be used for specification purposes.

*Other sizes, tolerances, lubricants and materials are available on special orders.



MATERIAL COMPOSITION

TU is a composite of the following materials which are used to produce self-lubricating dry sliding bearings:

1. Low Carbon **Steel** Backing allows for extremely high load capacity. (0.50 - 2.7 mm thickness)
2. Sintered **Bronze** offers optimal heat dispersion. (0.20 - 0.35 mm thickness)
3. **PTFE**-lead sliding surface creates a low friction coefficient and allows for a wide temperature range. (0.02 mm thickness)

As noted above, TU bearings contain a certain quantity of lead, small quantities of which are released from the bearing during operation. For some applications where food is involved, the presence of lead is not acceptable and therefore, a lead-free version has been made available. The absence of lead may lead to a reduction in the useful life of the bearing.

DESIGN PARAMETERS

LOADS - P

Dynamic pressures up to 20,300 psi (140 N/mm²)
 Static loads up to 36,250 psi (250 N/mm²)
 Offering exceptional load carrying capacity and resistance to shock loading.

SPEEDS - V

Speeds up to 1,900 fpm (10 m/s) with lubrication.

PERFORMANCE - PV

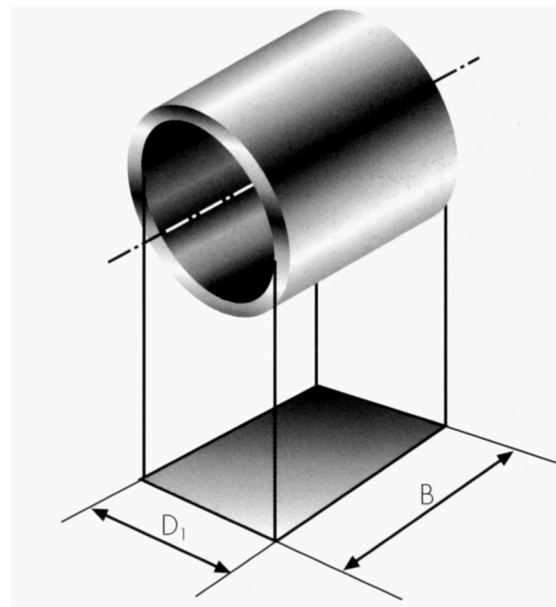
PVs to 51,000 psi-fpm (1.8 N/mm² x m/s) for continuous loads, 102,000 psi-fpm (3.6 N/mm² x m/s) for short-term use and 26,000 psi-fpm (.9 N/mm² x m/s) for alternating loads. Performance has been increased dramatically when lubricated.

TEMPERATURES

From -328 to + 536 degrees F (-200 to + 280 degrees C).

- TU self-lubricating bearings can be used where many liquid lubricants fail.

| Description | Symbol | Units of measure |
|--|-----------|------------------|
| Internal diameter of the bearing | D_1 | mm |
| Internal diameter of the thrust washer | D_4 | mm |
| External diameter of the thrust washer | D_5 | mm |
| Length of the bearing | B | mm |
| Load on the bearing | L | N=(Newton) |
| Speed of rotation | N | r.p.m. |
| Angle of oscillation | φ | ° degrees |
| Frequency of oscillation | N_{osz} | cycles/minutes |
| Nominal life | L_h | hours |
| External radius of the thrust washer | R | mm |
| Internal radius of the thrust washer | r | mm |

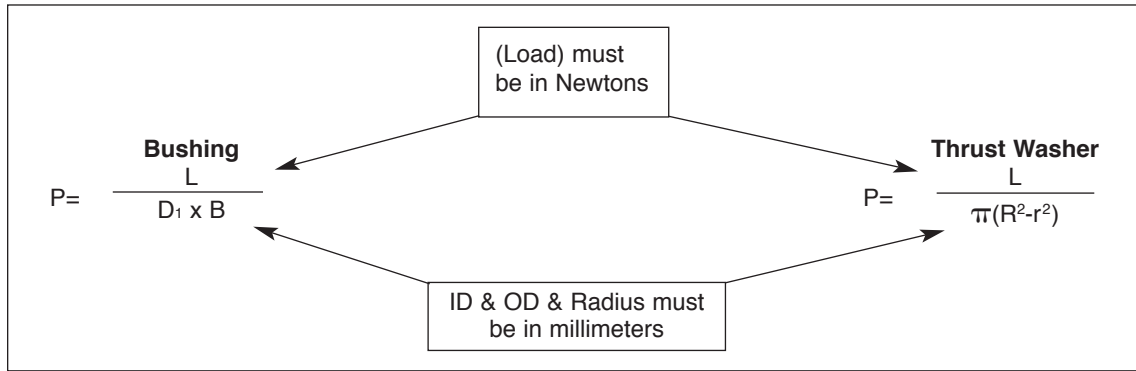


$$PV = (N/mm^2) (m/s)$$

$$V = m/s$$

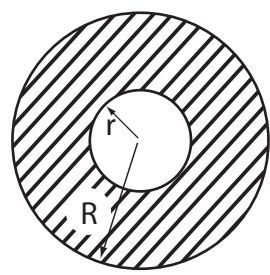
$$P = N/mm^2$$

| Metric Conversion Chart | | |
|------------------------------|-------------|---|
| | Multiply by | |
| Inch [in] | 25.4 | Millimeters [mm] |
| Pounds/force [lbf] | 4.4482 | Newton [N] |
| foot/minute [ft/min] | 0.00508 | Meter / second [m/s] |
| Pounds per square inch [psi] | 0.006895 | Newton / square millimeter [N/mm ²] |

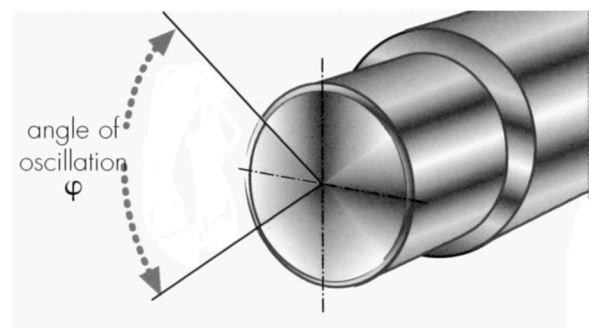


Due to the many different factors involved, the Life formula should only be treated as a rough estimate.

| | |
|--|--|
| ROTATION OF BEARING | OSCILLATION OF BEARING |
| $V = \frac{\pi \times D_1 \times N}{60 \times 10^3}$ | $V = \frac{\pi \times D_1 \times 2\varphi \times N_{osz}}{60 \times 10^3 \times 360}$ |
| ROTATION ON WASHER | OSCILLATION ON WASHER |
| $V = \frac{\pi \times D_5 \times N}{60 \times 10^3}$ | $V = \frac{\pi \times D_5}{60 \times 10^3} \times \frac{2\varphi \times N_{osz}}{360}$ |



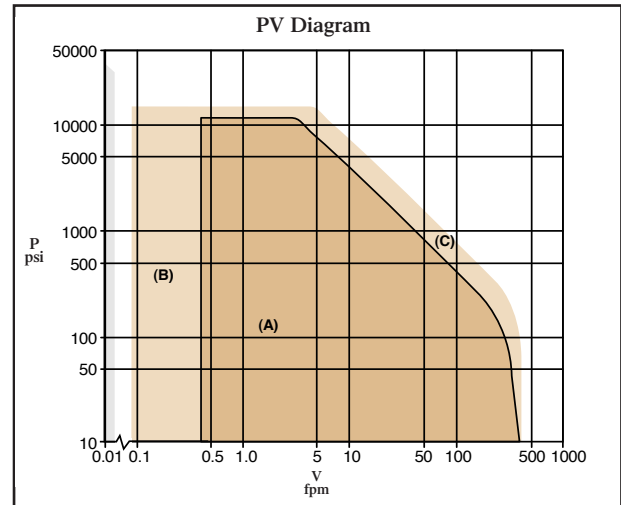
Thrust Washer



The operating life for dry applications of TU Self-lubricating bearings is inversely proportional to the load factor ($p \times v$) but, in order to achieve a close approximation of the figure, the following corrective factors must be introduced:

- K_a = constant relative to the type of application;
- f_p = load correction factor;
- f_c = application characteristics and temperature correction factor;
- f_d = bearing size correction factor;
- f_m = shaft material correction factor.

$$L_h = \frac{K_a}{pv^{1.2}} \times f_p \times f_c \times f_d \times f_m$$



- A. Service life calculation may be used.
- B. Quasi-static: Call before using this Calculation
- C. Requires optimal heat removal.

| f_p = load correction factor | | | | |
|------------------------------------|-------|-------|-------|-------|
| $p = \text{N/mm}^2 \text{ or psi}$ | | | | |
| N/mm ² | <10 | <25 | <50 | > 60 |
| psi | <1450 | <3625 | <7252 | <8702 |
| | 1 | 0.3 | 0.2 | 0.1 |

| f_c = application characteristics and temperature correction factor | | | | | | | |
|---|------------------|----------------|-----|-----|-----|-----|-----|
| Characteristics | Heat Dissipation | Temperature °C | | | | | |
| | | 20 | 60 | 100 | 150 | 200 | 280 |
| Continuous Dry Operation | Good | 1.0 | 0.8 | 0.6 | 0.4 | 0.2 | 0.1 |
| Continuous Dry Operation | Poor | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | - |
| Intermittent Operation Interval > 10 x Operating Time | Good | 2.0 | 1.6 | 1.2 | 0.8 | 0.4 | 0.2 |
| Constant Immersion in Water | | 2.0 | 1.6 | 0.8 | - | - | - |
| Alternating Immersion in Water | | 0.4 | 0.2 | 0.1 | - | - | - |
| Constant Immersion in Lubricant | | 3.0 | 2.4 | 1.8 | 1.2 | 0.8 | - |

| f_m = shaft material correction factor | |
|--|-------|
| Material | f_m |
| Low carbon steel | 1 |
| Hardened steel | 1.5 |
| Stainless Steel | 2 |
| Cast iron (0.4 RQ) | 1 |
| Aluminum | 0.4 |
| Bronze | 0.4 |
| Plating | |
| | f_m |
| Zinc Cadmium | 0.2 |
| Nickel | 0.2 |
| Chrome | 2 |
| Anodized aluminum | 2 |

| K_a = constant relative to the type of application | | |
|--|---------------|-------------|
| UNIDIRECTIONAL LOAD | ROTATING LOAD | THRUST LOAD |
| | | |
| 400 | 800 | 250 |

| f_d = bearing size correction factor | | | | |
|--|-------|-------|-------|-------|
| Shaft diameter (mm) | | | | |
| (mm) ≤ 20 | ≤ 40 | ≤ 100 | ≤ 150 | > 150 |
| (inch) < .8 | < 1.6 | < 3.9 | < 5.9 | > 5.9 |
| 1.0 | 0.9 | 0.7 | 0.5 | 0.4 |

| Nominal Bearing Bore | Recommended | | Installed Bearing ID | Bearing Length and Part Number (+/-0.010") | | | | | | | | | | | | | |
|----------------------|------------------|------------------|----------------------|---|----------|-------|---------|-------|--------|-------|--------|-------|--------|-------|--------|--|--|
| | Shaft Dia. | Housing Bore | | 1/8 | 3/16 | 1/4 | 3/8 | 1/2 | 5/8 | 3/4 | 1 | 1 1/4 | 1 1/2 | 1 3/4 | 2 | | |
| 1/8 | .1243 .1236 | .1878 .1873 | .1268 .1243 | 1/8 | 02TU02 | 3/16 | 02TU03 | | | | | | | | | | |
| 5/32 | .1554 .1547 | .2191 .2186 | .1581 .1556 | 5/32 | 025TU025 | 1/4 | 025TU04 | | | | | | | | | | |
| 3/16 | .1865 .1858 | .2503 .2497 | .1893 .1867 | 3/16 | 03TU03 | 1/4 | 03TU04 | 3/8 | 03TU06 | | | | | | | | |
| 1/4 | .2490 .2481 | .3128 .3122 | .2518 .2492 | 1/4 | 04TU04 | 3/8 | 04TU06 | | | | | | | | | | |
| 5/16 | .3115 .3106 | .3747 .3753 | .3143 .3117 | 3/8 | 05TU06 | 1/2 | 05TU08 | | | | | | | | | | |
| 3/8 | .3740 .3731 | .4691 .4684 | .3769 .3742 | 3/16 | 06TU03 | 1/4 | 06TU04 | 3/8 | 06TU06 | 1/2 | 06TU08 | 5/8 | 06TU10 | 3/4 | 06TU12 | | |
| 7/16 | .4365 .4355 | .5316 .5309 | .4394 .4367 | 1/2 | 07TU08 | 3/4 | 07TU12 | | | | | | | | | | |
| 1/2 | .4990 .4980 | .5941 .5934 | .5019 .4992 | 1/4 | 08TU04 | 3/8 | 08TU06 | 1/2 | 08TU08 | 5/8 | 08TU10 | 3/4 | 08TU12 | 7/8 | 08TU14 | | |
| 9/16 | .5615 .5605 | .6566 .6559 | .5644 .5617 | 3/8 | 09TU06 | 1/2 | 09TU08 | 5/8 | 09TU10 | 3/4 | 09TU12 | | | | | | |
| 5/8 | .6240 .6230 | .7192 .7184 | .6270 .6242 | 1/4 | 10TU04 | 1/2 | 10TU08 | 5/8 | 10TU10 | 3/4 | 10TU12 | 7/8 | 10TU14 | 1 | 10TU16 | | |
| 11/16 | .6865 .6855 | .7817 .7809 | .6895 .6867 | 7/8 | 11TU14 | | | | | | | | | | | | |
| 3/4 | .7491 .7479 | .8755 .8747 | .7525 .7493 | 1/4 | 12TU04 | 3/8 | 12TU06 | 1/2 | 12TU08 | 5/8 | 12TU10 | 3/4 | 12TU12 | 1 | 12TU16 | | |
| 13/16 | .8116 .8104 | .9380 .9372 | .8150 .8118 | 3/4 | 13TU12 | 1 1/8 | 13TU18 | | | | | | | | | | |
| 7/8 | .8741 .8729 | 1.0005 .9997 | .8775 .8743 | 1/4 | 14TU04 | 3/8 | 14TU06 | 3/4 | 14TU12 | 7/8 | 14TU14 | 1 | 14TU16 | 1 1/4 | 14TU20 | | |
| 1 | .9991 .9979 | 1.1255 .11247 | 1.0025 .9993 | 3/8 | 16TU06 | 1/2 | 16TU08 | 3/4 | 16TU12 | 1 | 16TU16 | 1 1/4 | 16TU20 | 1 1/2 | 16TU24 | | |
| 1 1/8 | 1.1238 1.1226 | 1.2818 1.2808 | 1.1278 1.1240 | 3/8 | 18TU06 | 5/8 | 18TU10 | 3/4 | 18TU12 | 1 | 18TU16 | | | | | | |
| 1 1/4 | 1.2488 1.2472 | 1.4068 1.4058 | 1.2528 1.2490 | 3/8 | 20TU06 | 3/4 | 20TU12 | 7/8 | 20TU14 | 1 | 20TU16 | 1 1/4 | 20TU20 | 1 3/4 | 20TU28 | | |
| 1 3/8 | 1.3738 1.3722 | 1.5318 1.5308 | 1.3778 1.3740 | 3/4 | 22TU12 | 1 | 22TU16 | 1 3/8 | 22TU22 | 1 1/2 | 22TU24 | 1 3/4 | 22TU28 | | | | |
| 1 1/2 | 1.4988 1.4972 | 1.6568 1.6558 | 1.5028 1.4990 | 1/2 | 24TU08 | 1 | 24TU16 | 1 1/8 | 24TU18 | 1 1/4 | 24TU20 | 1 1/2 | 24TU24 | 2 | 24TU32 | | |
| 1 5/8 | 1.6238 1.6222 | 1.7818 1.7808 | 1.6278 1.6240 | 1 | 26TU16 | 1 1/2 | 26TU24 | | | | | | | | | | |
| 1 3/4 | 1.7487 1.7471 | 1.9381 1.9371 | 1.7535 1.7489 | 1 | 28TU16 | 1 1/2 | 28TU24 | 1 3/4 | 28TU28 | 2 | 28TU32 | | | | | | |
| 1 7/8 | 1.8737 1.8721 | 2.0633 2.0621 | 1.8787 1.8739 | 3/4 | 30TU12 | 1 | 30TU16 | 1 7/8 | 30TU30 | 2 1/4 | 30TU36 | | | | | | |
| 2 | 1.9987 1.9969 | 2.1883 2.1871 | 2.0037 1.9989 | 1/2 | 32TU08 | 1 | 32TU16 | 1 1/2 | 32TU24 | 1 3/4 | 32TU28 | 2 | 32TU32 | 2 1/2 | 32TU40 | | |

F L A N G E D

| Nominal Bearing Bore | Recommended | | Installed Bearing ID | Nominal Flange OD (±0.020") | Flange Thickness | Bearing Length and Part Number (+/-0.010") | | | | | | | | | | | |
|----------------------|------------------|------------------|----------------------|-----------------------------|------------------|---|---------|-------|---------|-------|---------|-------|---------|-------|---|--|--|
| | Shaft Dia. | Housing Bore | | | | 1/4 | 3/8 | 1/2 | 5/8 | 3/4 | 1 | 1 1/4 | 1 1/2 | 1 3/4 | 2 | | |
| 3/8 | 0.3740 0.3731 | 0.4691 0.4684 | 0.3769 0.3742 | 11/16 | .052 .044 | 1/4 | 06FTU04 | 3/8 | 06FTU06 | 1/2 | 06FTU08 | 3/4 | 06FTU12 | | | | |
| 1/2 | 0.4990 0.4980 | 0.5941 0.5934 | 0.5019 0.4992 | 13/16 | .052 .044 | 1/4 | 08FTU04 | 3/8 | 08FTU06 | 1/2 | 08FTU08 | 3/4 | 08FTU12 | | | | |
| 5/8 | 0.6240 0.6230 | 0.7192 0.7184 | 0.6270 0.6242 | 15/16 | .052 .044 | 3/8 | 10FTU06 | 1/2 | 10FTU08 | 5/8 | 10FTU10 | 3/4 | 10FTU12 | | | | |
| 3/4 | 0.7491 0.7479 | 0.8755 0.8747 | 0.7525 0.7493 | 1 1/8 | .068 .060 | 3/8 | 12FTU06 | 1/2 | 12FTU08 | 3/4 | 12FTU12 | 1 | 12FTU16 | | | | |
| 7/8 | 0.8741 0.8729 | 1.0005 0.9997 | 0.8775 0.8743 | 1 1/4 | .068 .060 | 1/2 | 14FTU08 | 3/4 | 14FTU12 | 1 | 14FTU16 | 1 1/4 | 14FTU20 | | | | |
| 1 | 0.9991 0.9979 | 1.1256 1.1246 | 1.0026 0.9992 | 1 3/8 | .068 .060 | 1/2 | 16FTU08 | 3/4 | 16FTU12 | 1 | 16FTU16 | 1 1/4 | 16FTU20 | | | | |
| 1 1/4 | 1.2488 1.2472 | 1.4068 1.4058 | 1.2528 1.2490 | 1 3/4 | .083 .075 | 1 | 20FTU16 | 1 1/4 | 20FTU20 | 1 1/2 | 20FTU24 | | | | | | |
| 1 1/2 | 1.4988 1.4972 | 1.6568 1.6558 | 1.5028 1.4990 | 2 | .083 .075 | 1 | 24FTU16 | 1 1/2 | 24FTU24 | 2 | 24FTU32 | | | | | | |
| 1 3/4 | 1.7487 1.7471 | 1.9381 1.9371 | 1.7535 1.7489 | 2 3/8 | .098 .090 | 1 | 28FTU16 | 1 1/2 | 28FTU24 | 2 | 28FTU32 | | | | | | |

Chamfers: Standard flanged TU Bearings are supplied with 15°/20° chamfers

| Nominal Bearing Bore | Recommended | | Installed Bearing ID | Bearing Length and Part Number (+/- .25mm) | | | | | | | | | | | | | |
|----------------------|------------------|------------------|----------------------|---|----------|----|----------|----|---------|----|---------|----|---------|----|---------|--|--|
| | Shaft Dia. | Housing Bore | | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | | | |
| 2 | 2.000 1.994 | 3.508 3.500 | 2.048 2.000 | 3 | M0203TU* | 5 | M0205TU* | | | | | | | | | | |
| 3 | 3.000 2.994 | 4.508 4.500 | 3.048 3.000 | 3 | M0303TU | 4 | M0304TU | 5 | M0305TU | 6 | M0306TU | | | | | | |
| 4 | 4.000 3.992 | 5.508 5.500 | 4.048 4.000 | 3 | M0403TU | 4 | M0404TU | 6 | M0406TU | 10 | M0410TU | | | | | | |
| 5 | 4.990 4.978 | 7.015 7.000 | 5.055 4.990 | 5 | M0505TU | 8 | M0508TU | 10 | M0510TU | | | | | | | | |
| 6 | 5.990 5.978 | 8.015 8.000 | 6.055 5.990 | 6 | M0606TU | 8 | M0608TU | 10 | M0610TU | | | | | | | | |
| 7 | 6.987 6.972 | 9.015 9.000 | 7.055 6.990 | 10 | M0710TU | | | | | | | | | | | | |
| 8 | 7.987 7.972 | 10.015 10.000 | 8.055 7.990 | 8 | M0808TU | 10 | M0810TU | 12 | M0812TU | | | | | | | | |
| 10 | 9.987 9.972 | 12.018 12.000 | 10.058 9.990 | 8 | M1008TU | 10 | M1010TU | 12 | M1012TU | 15 | M1015TU | 20 | M1020TU | | | | |
| 12 | 11.984 11.966 | 14.018 14.000 | 12.058 11.990 | 8 | M1208TU | 10 | M1210TU | 12 | M1212TU | 15 | M1215TU | 20 | M1220TU | 25 | M1225TU | | |
| 13 | 12.984 12.966 | 15.018 15.000 | 13.058 12.990 | 10 | M1310TU | 20 | M1320TU | | | | | | | | | | |
| 14 | 13.984 13.966 | 16.018 16.000 | 14.058 13.990 | 5 | M1405TU* | 10 | M1410TU | 12 | M1412TU | 15 | M1415TU | 20 | M1420TU | 25 | M1425TU | | |
| 15 | 14.984 14.966 | 17.018 17.000 | 15.058 14.990 | 10 | M1510TU | 12 | M1512TU | 15 | M1515TU | 20 | M1520TU | 25 | M1525TU | | | | |
| 16 | 15.984 15.966 | 18.018 18.000 | 16.058 15.990 | 10 | M1610TU | 12 | M1612TU | 15 | M1615TU | 20 | M1620TU | 25 | M1625TU | | | | |
| 17 | 16.984 16.966 | 19.021 19.000 | 17.061 16.990 | 15 | M1715TU | 20 | M1720TU | | | | | | | | | | |
| 18 | 17.984 17.966 | 20.021 20.000 | 18.061 17.990 | 15 | M1815TU | 20 | M1820TU | 25 | M1825TU | | | | | | | | |
| 20 | 19.980 19.959 | 23.021 23.000 | 20.062 19.990 | 10 | M2010TU | 15 | M2015TU | 20 | M2020TU | 25 | M2025TU | 30 | M2030TU | | | | |
| 22 | 21.980 21.959 | 25.021 25.000 | 22.071 21.990 | 15 | M2215TU | 20 | M2220TU | 25 | M2225TU | 30 | M2230TU | | | | | | |
| 24 | 23.980 23.959 | 27.021 27.000 | 24.071 23.990 | 15 | M2415TU | 20 | M2420TU | 25 | M2425TU | 30 | M2430TU | | | | | | |
| 25 | 24.980 24.959 | 28.021 28.000 | 25.071 24.990 | 12 | M2512TU | 15 | M2515TU | 20 | M2520TU | 25 | M2525TU | 30 | M2530TU | 50 | M2550TU | | |
| 28 | 27.980 27.959 | 32.025 32.000 | 28.085 27.990 | 15 | M2815TU* | 20 | M2820TU | 25 | M2825TU | 30 | M2830TU | | | | | | |
| 30 | 29.980 29.959 | 34.025 34.000 | 30.085 29.990 | 15 | M3015TU | 20 | M3020TU | 25 | M3025TU | 30 | M3030TU | 40 | M3040TU | | | | |
| 32 | 31.975 31.950 | 36.025 36.000 | 32.085 31.990 | 20 | M3220TU | 30 | M3230TU | 40 | M3240TU | | | | | | | | |
| 35 | 34.975 34.950 | 39.025 39.000 | 35.085 34.990 | 20 | M3520TU | 30 | M3530TU | 35 | M3535TU | 40 | M3540TU | 50 | M3550TU | | | | |
| 37 | 36.975 36.950 | 41.025 41.000 | 37.085 36.990 | 20 | M3720TU* | | | | | | | | | | | | |
| 40 | 39.975 39.950 | 44.025 44.000 | 40.085 39.990 | 20 | M4020TU | 30 | M4030TU | 40 | M4040TU | 50 | M4050TU | | | | | | |
| 45 | 44.975 44.950 | 50.025 50.000 | 45.105 44.990 | 20 | M4520TU | 30 | M4530TU | 40 | M4540TU | 45 | M4545TU | 50 | M4550TU | | | | |

*Currently special order only.

METRIC SIZES
FLANGED

| Nominal Bearing Bore | Recommended | | Installed Bearing ID | Nominal Flange OD (+/- .50mm) | Flange Thickness | Bearing Length and Part Number (+/- .25mm) | | | | | | | | | | | |
|----------------------|-----------------|-----------------|----------------------|-------------------------------|------------------|---|------------|------|------------|------|------------|----|----------|--|--|--|--|
| | Shaft Dia. | Housing Bore | | | | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | | | |
| 6 | 5.990 / 5.978 | 8.015 / 8.000 | 6.055 / 5.990 | 12 | 1.00 / .80 | 4 | FM0604TU | 7 | FM0607TU | 8 | FM0608TU | | | | | | |
| 8 | 7.987 / 7.972 | 10.015 / 10.000 | 8.055 / 7.990 | 15 | 1.00 / .80 | 5.5 | FM0805.5TU | 7.5 | FM0807.5TU | 9.5 | FM0809.5TU | | | | | | |
| 10 | 9.987 / 9.972 | 12.018 / 12.000 | 10.058 / 9.990 | 18 | 1.00 / .80 | 7 | FM1007TU | 9 | FM1009TU | 12 | FM1012TU | 17 | FM1017TU | | | | |
| 12 | 11.984 / 11.966 | 14.018 / 14.000 | 12.058 / 11.990 | 20 | 1.00 / .80 | 7 | FM1207TU | 9 | FM1209TU | 12 | FM1212TU | 17 | FM1217TU | | | | |
| 14 | 13.984 / 13.966 | 16.018 / 16.000 | 14.058 / 13.990 | 22 | 1.00 / .80 | 12 | FM1412TU | 17 | FM1417TU | | | | | | | | |
| 15 | 14.984 / 14.966 | 17.018 / 17.000 | 15.058 / 14.990 | 23 | 1.00 / .80 | 9 | FM1509TU | 12 | FM1512TU | 17 | FM1517TU | | | | | | |
| 16 | 15.984 / 15.966 | 18.018 / 18.000 | 16.058 / 15.990 | 24 | 1.00 / .80 | 12 | FM1612TU | 17 | FM1617TU | | | | | | | | |
| 18 | 17.984 / 17.966 | 20.021 / 20.000 | 18.061 / 17.990 | 26 | 1.00 / .80 | 12 | FM1812TU | 17 | FM1817TU | 22 | FM1822TU | | | | | | |
| 20 | 19.980 / 19.959 | 23.021 / 23.000 | 20.062 / 19.990 | 30 | 1.50 / 1.30 | 11.5 | FM2011.5TU | 16.5 | FM2016.5TU | 21.5 | FM2021.5TU | | | | | | |
| 25 | 24.980 / 24.959 | 28.021 / 28.000 | 25.071 / 24.990 | 35 | 1.50 / 1.30 | 11.5 | FM2511.5TU | 16.5 | FM2516.5TU | 21.5 | FM2521.5TU | | | | | | |
| 30 | 29.980 / 29.959 | 34.025 / 34.000 | 30.085 / 29.990 | 42 | 2.00 / 1.80 | 16 | FM3016TU | 26 | FM3026TU | | | | | | | | |
| 35 | 34.975 / 34.950 | 39.025 / 39.000 | 35.085 / 34.990 | 47 | 2.00 / 1.80 | 16 | FM3516TU | 26 | FM3526TU | | | | | | | | |
| 40 | 39.975 / 39.950 | 44.025 / 44.000 | 40.085 / 39.990 | 52 | 2.00 / 1.80 | 16 | FM4016TU | 26 | FM4026TU | | | | | | | | |

Chamfers: Standard flanged TU Bearings are supplied with 15°/20° Chamfers

ISOSTATIC INDUSTRIES INC., CHICAGO, IL 800-621-5500

| Nominal Bearing Bore | Recommended | | Installed Bearing ID | Bearing Length and Part Number (+/- .25mm) | | | | | | | | | |
|----------------------|--------------------|--------------------|----------------------|---|------------|-----------|-----------|----|----|----|----|-----|--|
| | Shaft Dia. | Housing Bore | | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | |
| 50 | 49.975 49.950 | 55.530 55.000 | 50.110 49.990 | M5020TU | M5030TU | M5040TU | M5050TU | | | | | | |
| 55 | 54.970 54.940 | 60.030 60.000 | 55.110 54.990 | M5520TU | M5530TU | M5540TU | M5555TU | | | | | | |
| 60 | 59.970 59.940 | 65.030 65.000 | 60.110 59.900 | M6030TU | M6040TU | M6060TU | M6070TU | | | | | | |
| 65 | 64.970 64.940 | 70.030 70.000 | 65.110 64.990 | M6530TU | M6550TU | M6570TU | | | | | | | |
| 70 | 69.970 69.940 | 75.030 75.000 | 70.110 64.990 | M7040TU | M7050TU | M7060TU | M7070TU | | | | | | |
| 75 | 74.970 74.940 | 80.030 80.000 | 75.110 74.990 | M7540TU | M7550TU | M7560TU | M7580TU | | | | | | |
| 80 | 80.000 79.954 | 85.035 85.000 | 80.145 80.010 | M8060TU | M80100TU | | | | | | | | |
| 85 | 85.000 84.946 | 90.035 90.000 | 85.145 85.010 | M8530TU* | M8560TU | M85100TU | | | | | | | |
| 90 | 90.000 89.946 | 95.035 95.000 | 90.145 90.010 | M9060TU | M90100TU | | | | | | | | |
| 95 | 95.000 94.946 | 100.035 100.000 | 95.145 95.010 | M9560TU | M95100TU | | | | | | | | |
| 100 | 100.000 99.946 | 105.035 105.000 | 100.145 100.010 | M10060TU | M10070TU | M10080TU | M100115TU | | | | | | |
| 105 | 105.000 104.946 | 110.035 110.000 | 105.145 105.010 | M10560TU | M105115TU | | | | | | | | |
| 110 | 110.000 109.946 | 115.035 115.000 | 110.145 110.010 | M11060TU | M110115TU | | | | | | | | |
| 115 | 115.000 114.946 | 120.035 120.000 | 115.145 115.010 | M11550TU | M11560TU | M11570TU | | | | | | | |
| 120 | 120.000 119.946 | 125.040 125.000 | 120.220 120.048 | M12050TU | M12060TU | M120100TU | | | | | | | |
| 125 | 125.000 124.937 | 130.040 130.000 | 125.220 125.048 | M12560TU | M125100TU | | | | | | | | |
| 130 | 130.000 129.937 | 135.040 135.000 | 130.220 130.048 | M13060TU | M130100TU | | | | | | | | |
| 135 | 135.000 134.937 | 140.040 140.000 | 135.220 135.048 | M13560TU | M13580TU | M135100TU | | | | | | | |
| 140 | 140.000 139.937 | 145.040 145.000 | 140.220 140.048 | M14060TU | M140100TU | | | | | | | | |
| 150 | 150.000 149.937 | 155.040 155.000 | 150.220 150.048 | M15060TU | M15080TU | M150100TU | | | | | | | |
| 160 | 160.000 159.937 | 165.040 165.000 | 160.220 160.048 | M16060TU | M16080TU | M160100TU | | | | | | | |
| 180 | 180.000 179.937 | 185.046 185.000 | 180.220 180.048 | M18060TU | M180100TU | | | | | | | | |
| 200 | 200.000 199.928 | 205.046 205.000 | 200.220 200.048 | M20060TU | M200100TU | | | | | | | | |
| 210 | 210.000 209.928 | 215.046 215.000 | 210.220 210.048 | M21060TU* | M210100TU* | | | | | | | | |
| 220 | 220.000 219.928 | 225.046 225.000 | 220.220 220.048 | M22060TU | M220100TU | | | | | | | | |
| 250 | 250.000 249.928 | 255.052 255.000 | 250.220 250.048 | M25060TU | M250100TU | | | | | | | | |
| 300 | 300.000 299.919 | 305.052 305.000 | 300.220 300.048 | M30060TU | M300100TU | | | | | | | | |

*Currently special order only.

METRIC SIZES
WASHERS

| Part Number | Inside Dia. +.25 | Outside Dia. -.25 | Thickness +.05 | Dowel Hole | | Housing Recess Depth +.25 |
|-------------|------------------|-------------------|----------------|------------|---------------|---------------------------|
| | | | | Dia +.25 | P.C. Dia -.24 | |
| WM08TU | 10.00 | 20.00 | 1.45 | — | — | .95 |
| WM10TU | 12.00 | 24.00 | 1.45 | 1.620 | 18.12 | .95 |
| WM12TU | 14.00 | 26.00 | 1.45 | 2.120 | 20.12 | .95 |
| WM14TU | 16.00 | 30.00 | 1.45 | 2.120 | 22.12 | .95 |
| WM16TU | 18.00 | 32.00 | 1.45 | 2.120 | 25.12 | .95 |
| WM18TU | 20.00 | 36.00 | 1.45 | 3.120 | 28.12 | .95 |
| WM20TU | 22.00 | 38.00 | 1.45 | 3.120 | 30.12 | .95 |
| WM22TU | 24.00 | 42.00 | 1.45 | 3.120 | 33.12 | .95 |

| Part Number | Inside Dia. +.25 | Outside Dia. -.25 | Thickness +.05 | Dowel Hole | | Housing Recess Depth +.25 |
|-------------|------------------|-------------------|----------------|------------|---------------|---------------------------|
| | | | | Dia +.25 | P.C. Dia -.24 | |
| WM24TU | 26.00 | 44.00 | 1.45 | 3.120 | 35.12 | .95 |
| WM25TU | 28.00 | 48.00 | 1.45 | 4.120 | 38.12 | .95 |
| WM30TU | 32.00 | 54.00 | 1.45 | 4.120 | 43.12 | .95 |
| WM35TU | 38.00 | 62.00 | 1.45 | 4.120 | 50.12 | .95 |
| WM40TU | 42.00 | 66.00 | 1.45 | 4.120 | 54.12 | .95 |
| WM45TU | 48.00 | 74.00 | 1.95 | 4.120 | 61.12 | 1.45 |
| WM50TU | 52.00 | 78.00 | 1.95 | 4.120 | 65.12 | 1.45 |
| WM60TU | 62.00 | 90.00 | 1.95 | 4.120 | 76.12 | 1.45 |

