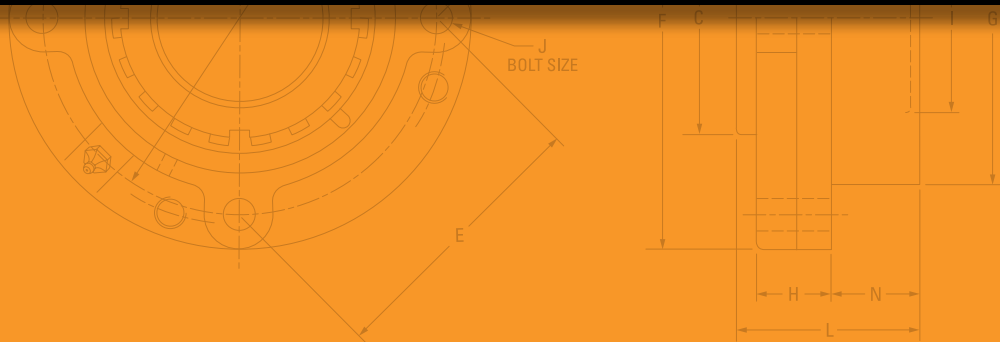


# TIMKEN



## TIMKEN® SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS





**SPHERICAL ROLLER BEARING  
SOLID-BLOCK HOUSED UNITS**

Timken® spherical roller bearing solid-block housed units provide heavy-duty protection in harsh environments. Designed to handle high temperatures, high speeds, heavy loads, misalignment, and contaminated conditions, these solid-block housed units are rugged enough to help protect bearings working in tough conditions. With machined feet, tapped puller holes, black oxide inner rings and multiple shaft locking options, these cast-steel housed units are easy to install.

Updates are made periodically to this catalog. Visit [www.timken.com](http://www.timken.com) for the most recent version of the Timken® Housed Unit Catalog.

**TYPICAL INDUSTRIES AND APPLICATIONS**

Common industries include metal mills, aggregate and cement, mining, power generation, agriculture, pulp and paper, and sawmills and other forest industries. Applications include material conveying, commercial and industrial building equipment, sugar mill machinery, waste management and water treatment equipment, off-highway and construction vehicles, fans, blowers, cranes, lifts and hoists.

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 Spherical Roller Bearing Solid-Block Housed Unit  
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### INTRODUCTION

When your equipment faces harsh environments, you need roller bearing housed units that are rugged enough to withstand tough conditions and deliver exceptional performance.

You gain both with Timken spherical roller bearing solid-block housed units.

Designed specifically to perform under extreme conditions, Timken solid-block housed units are able to handle up to  $\pm 1.5$  degrees of misalignment and withstand the impact of falling debris. Made of cast-steel housings and Timken® double-row spherical roller bearings, their unique sealing design offers protection from contaminants.

Increased performance and durability helps decrease the overall cost of ownership.

### CUSTOMIZABLE DESIGN FEATURES TO FIT YOUR EQUIPMENT

With a full line of precision-made shaft-locking styles, seals and housings, it's easy to find the right housed unit to fit your application. Timken spherical roller bearing solid-block housed units interchange with a wide range of mounted roller bearings. Choose from many primary and secondary sealing mechanisms, and you decide how it's built without paying custom charges.

#### HOUSING STYLES

- Two-bolt pillow blocks.
- Four-bolt pillow blocks.
- Flange blocks.
- Piloted flanges.
- Cartridges.
- Take-up blocks.
- Cartridge units.

#### LOCKING STYLES

- Eccentric lock.
- Concentric lock (set screw) – single or double collar.
- Tapered adapter lock.
- V-Lock® double tapered lock – single or double nut.

DuPont™ is a trademark of E.I. du Pont de Nemours and Company.  
Teflon® is a registered trademark of E.I. du Pont de Nemours and Company.  
Dykor® is a registered trademark of Whitford Corporation.

#### SEALS

- Labyrinth seals – DuPont™ Teflon®:
  - High-speed applications.
  - Superior in dirty and wet conditions.
  - Able to operate at high temperatures.
  - Resistant to most chemicals.
  - Abrasion-resistant.
- Triple-lip seals – nitrile:
  - Self-purging.
  - Excellent in dirty and wet applications.
  - Chemical- and corrosion-resistant.
- Triple-lip seals – urethane:
  - All the benefits of nitrile, plus resistance to abrasion.

#### SECONDARY SEALS

- Closed-end covers.
- Open-end covers with:
  - Triple-lip seal.
  - DuPont Teflon.
  - V-ring seal.
- Piloted-flange cartridge backing plates with:
  - Triple-lip seal.
- Flange block backing plates with V-ring seal.

#### HOUSING COATINGS

- Powder coating – standard.
- Nickel plating – optional.
- Dykor® coating – optional.



Fig. C-1. Two-bolt pillow block.



Fig. C-2. Four-bolt pillow block.

## OUTLASTING THE COMPETITION

Timken solid-block housed units last a long time, yet you don't pay extra for reliability. Experience an increase in performance and durability and a decrease in your overall cost of ownership when you use a Timken solid-block housed unit.

## STANDS UP TO HARSH CONDITIONS

**Protects Bearing.** Harsh operating environments and lubrication issues often lead to housed unit bearing damage. Timken solid-block housed units multiply protection with primary and secondary seal options, as well as steel covers in sizes to fit these units. The space between the primary and secondary seals offers a fillable grease cavity for more protection.

**Handles Misalignment.** Without a properly aligned shaft, the life expectancy of most housed units decreases. However, Timken spherical roller bearing solid-block housed units run efficiently on misaligned shafts up to  $\pm 1.5$  degrees, thanks to their unique design and Timken spherical roller bearings.



Fig. C-3. Flange block.



Fig. C-4. Take-up block.



Fig. C-5. Piloted-flange cartridge.



Fig. C-6. Cartridge block.

## INDUSTRIES AND APPLICATIONS

- Metal mills.
- Aggregate and cement.
- Mining.
- Power generation.
- Sawmills and other forest process industries.
- Pulp and paper.
- Material conveying.
- Commercial and industrial building equipment.
- Sugar mills.
- Agriculture.
- Waste management and water treatment.
- Off-highway and construction vehicles.
- HVAC, fans and blowers.
- Cranes, lifts and hoists.

## DEPENDABLE SERVICE

Every Timken spherical roller bearing solid-block housed unit is backed by the service of our industry-leading experts who are ready to assist you with product design, application knowledge and field engineering support – anything you need to help improve uptime and maximize equipment performance.

### LOCKING STYLES

#### V-LOCK® (DOUBLE-TAPERED LOCK) U.S. PAT. NO. 7344313

The V-Lock locking mechanism is excellent in high-speed applications and designed to maximize shaft-holding power and minimize the time needed for installation and removal as compared to conventional locking mechanisms. With no need for feeler gages during installation, the V-Lock locking mechanism offers superior holding power and is designed to eliminate overtightening. Mechanical withdrawal is a feature of double-nut units.

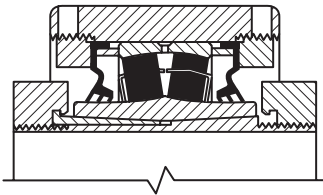


Fig. C-7. V-Lock®.

#### CONCENTRIC LOCK (SET SCREW) – CL SERIES

Two set screws positioned at 60 degrees provide aggressive holding power. When configured with a double-collared insert, the bearing provides double the holding power compared to our standard single-collared insert.

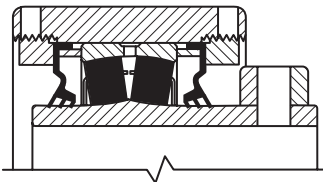


Fig. C-8. Single set screw lock.

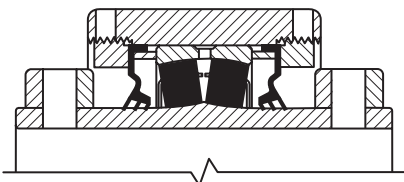


Fig. C-9. Double set screw lock.

#### ECCENTRIC LOCK – EC SERIES

A reduced eccentric offset results in more mechanical advantage. This series provides a secure lock that should not release from a properly prepared shaft even in reversing applications.

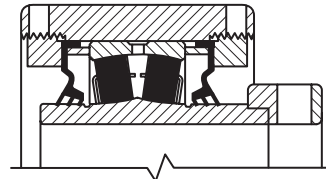


Fig. C-10. Eccentric lock.

#### TAPERED ADAPTER LOCK – TA/DV SERIES

Excellent in high-load applications, this design uses a longer 2300-series adapter for increased shaft contact. This design offers the best shaft concentricity and highest capacity all while having the ability to accommodate undersized shafting.

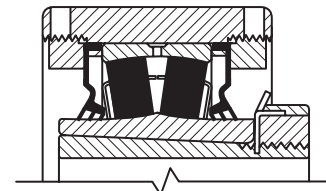


Fig. C-11. Tapered adapter lock.

### HOUSING COATINGS

#### POWDER COATING – STANDARD

All of our steel housings come powder-coated from the factory. Powder coating gives a hard finish that is tough and durable.

#### NICKEL PLATING – OPTIONAL

By nickel plating any of our housings, we are able to offer superior resistance to wear and corrosion.

#### DYKOR® COATING – OPTIONAL

Unaffected by most chemicals and solvents, Dykor coating is designed to last in harsh chemical environments while having extreme abrasion resistance.

Dykor® is a registered trademark of Whitford Corporation.

## SOLID-BLOCK HOUSED UNIT BENEFITS

Depending on how you configure your bearing for a specific application, there's a wide range of product benefits.

- Multiple available sizes accommodate shaft diameters from 35 mm to 180 mm (1 7/16 in. to 7 in.).
- Efficient built-to-order manufacturing. Quick delivery of customized configurations for specific applications.
- Quicker installation. Machined feet, tapped puller holes, black oxide inner rings and multiple shaft-locking choices make it simpler to install this heavy-duty unit.
- Improved performance in high-contaminant environments. Wide selection of primary and secondary seals, as well as auxiliary covers.
- Bidirectional shaft expansion. Double-nut housing feature allows expansion in both directions.
- Increased uptime. Robust steel housing, a wide variety of seal choices and a high-performance Timken spherical roller bearing result in increased unit uptime.
- Increased shaft holding power and reduced shaft damage. Eccentric lock series is designed to stay tight in reversing applications on precision-ground shafts.
- Fewer misalignment issues. Bearings accept up to  $\pm 1.5$  degrees of misalignment.
- Protection against over-lubrication. Pressure relief valves come standard when unit is ordered with non-purgeable seals.
- Dimensionally interchanges with a wide range of other mounted roller bearing units.
- One-time shaft alignment on all housing unit styles. Machined feet ends allow for precise installation and blocking for faster future unit replacement.
- Easier removal with standard withdrawal holes on all piloted-flange units.
- Faster and easier changeover thanks to a comprehensive product offering that interchanges with virtually all solid-block roller bearing units.

### NOTE

*Do not use excessive force when mounting or dismounting the unit.*

*Follow all tolerance, fit and torque recommendations.*

*Always follow the Original Equipment Manufacturer's installation and maintenance guidelines.*

*Ensure proper alignment.*

*Never weld housed units.*

*Do not heat components with an open flame.*

*Do not operate at bearing temperatures above 121°C (250°F).*

Updates are made periodically to this catalog. Visit [www.timken.com](http://www.timken.com) for the most recent version of the Timken® Housed Unit Catalog.



### WARNING

**Failure to observe the following warnings could create a risk of death or serious injury.**

Proper maintenance and handling practices are critical. Always follow installation instructions and maintain proper lubrication.

Overheated bearings can ignite explosive atmospheres. Special care must be taken to properly select, install, maintain, and lubricate housed unit bearings that are used in or near atmospheres that may contain explosive levels of combustible gases or accumulations of dust such as from grain, coal, or other combustible materials. Consult your equipment designer or supplier for installation and maintenance instructions.



### CAUTION

**Failure to follow these cautions could create a risk of injury.**

Do not use damaged housed units. The use of a damaged housed unit can result in equipment damage and/or injury.

### CAUTION

**Failure to follow these cautions may result in property damage.**

If hammer and bar are used for installation or removal of a part, use a mild steel bar (e.g., 1010 or 1020 grade). Mild steel bars are less likely to cause release of high-speed fragments from the hammer, bar or the part being removed.

Warnings for this product line are in this catalog and posted on [www.timken.com/en-us/products/warnings/Pages/TimkenHousedUnitWarnings.aspx](http://www.timken.com/en-us/products/warnings/Pages/TimkenHousedUnitWarnings.aspx).

### DISCLAIMER

*This catalog is provided solely to give you analysis tools and data to assist you in your product selection. Product performance is affected by many factors beyond the control of Timken. Therefore, you must validate the suitability and feasibility of all product selections for your applications.*

*Timken products are sold subject to Timken terms and conditions of sale, which include our limited warranty and remedy. You can find these at <http://www.timken.com/en-us/purchase/Pages/TermsandConditionsofSale.aspx>.*

*Please consult with your Timken engineer for more information and assistance.*

*Every reasonable effort has been made to ensure the accuracy of the information in this writing, but no liability is accepted for errors, omissions or for any other reason.*

### SOLID-BLOCK HOUSED UNIT DESIGN

Flexibility through interchangeable components.

Double-row spherical roller bearing accepts misalignment.

Black oxide inner ring reduces shaft fretting corrosion.

Six primary seals in any combination:

- T seal standard labyrinth (DuPont™ Teflon®).
- M seal standard lip (nitrile rubber).
- N seal optional (DuPont™ Viton®).
- O seal optional (urethane).
- B seal optional (nitrile rubber).
- C seal optional (DuPont Viton).

Housing fit: J7, size-for-size to light interference.

Standard relief valve.

Optional bolt-on open and closed steel or urethane secondary seals.

Lubricated with premium industrial grease.

Five shaft-locking styles:

- Single screw set.
- Double screw set.
- Eccentric.
- Tapered adapter.
- V-Lock®.

Machined feet aid in rapid installation and alignment.

Easily converted to fixed or expansion in the field.

Housing can be supplied with powder (standard), nickel or Dykor® coatings.

Housing manufactured from 75000 psi tensile cast steel that retains the bearing-to-housing fit for those rough applications.

**Fig. C-12. High performance plus superior ruggedness.**

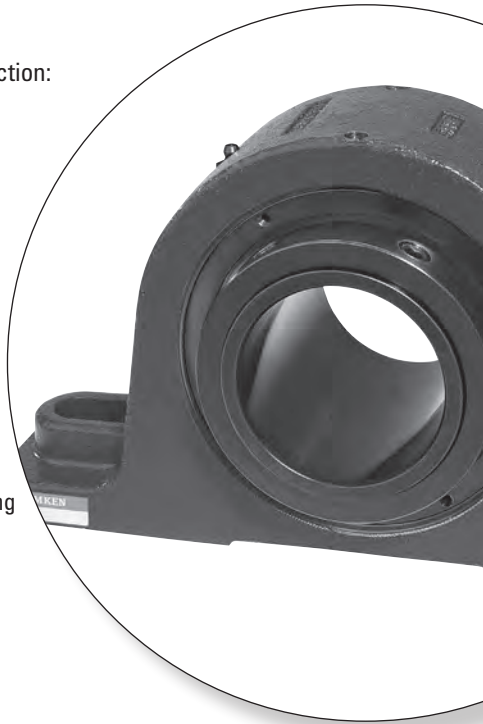
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## ***ENGINEERING***

The following topics are covered within this engineering section:

Bearing Load . . . . .	C-8
Normal Speed Ratings for Seals . . . . .	C-25
Seal Material Chemical Compatibility . . . . .	C-28
Internal Radial Clearance . . . . .	C-30
Shafting . . . . .	C-32
Misalignment . . . . .	C-33
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To view the complete engineering catalog, please visit [www.timken.com](http://www.timken.com). To order the catalog, please contact your Timken engineer and request a copy of the Timken Engineering Manual, order number 10424.



### BEARING LOAD

Solid-block housed unit bearings are excellent for many applications including those with:

- Heavy radial loads.
- Heavy combined radial and thrust loads.
- Shock loads.
- Harsh contamination conditions.
- Low to moderate speeds.
- The possibility of misalignment.

Bearing loads generally come from one of three sources that should all be evaluated and considered when selecting steel housed unit bearings for your application. Contact your Timken engineer for assistance in determining specific application loads and for bearing recommendations.

- Static loads – weights of various components supported by the bearings.
- Drive loads – belts, chains or gears that exert forces on the shaft.
- Imposed loads – forces generated by equipment operation.

Generally, bearing loads are described as being radial (load perpendicular to the axis of the shaft) or axial (load parallel to the axis of the shaft). Axial loads also are referred to as thrust loads. Spherical roller bearings, by design, are very capable of accepting heavy radial loads, even when combined with a thrust load. Timken® Type E housed units are recommended for use in applications when only thrust loads are present or when the thrust component of the load is larger than the radial component.

To determine the allowable radial load at various RPMs for bearings supporting only radial loads, simply use the charts on pages C-10 – C-23. For bearings supporting both radial and thrust loads, an equivalent radial load must first be calculated prior to using these tables (see DYNAMIC EQUIVALENT RADIAL LOAD on page C-9).

### BELT LOADS

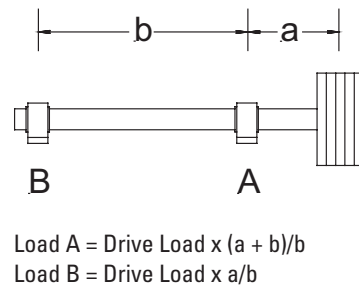
V-belt drives are common sources of drive loads. A good approximation of drive load may be calculated from the formula:

$$\text{Drive Load} = (\text{HP} \times 189000) / (\text{Pulley Diameter} \times \text{RPM})$$

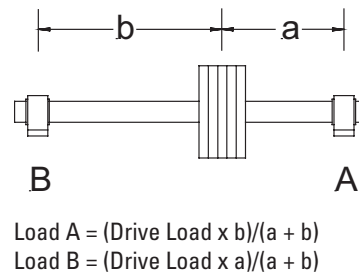
$$\text{Drive Load} = (\text{KW} \times 189000) / (\text{Pulley Diameter} \times \text{RPM})$$

### LOAD SHARING

In some cases, bearings may share the load unequally, depending on their position in relationship to the load. Use the appropriate formula below to determine the drive load on each bearing:



**Fig. C-13. Overhung load.**



**Fig. C-14. Load between bearings.**

## DYNAMIC EQUIVALENT RADIAL LOAD

Bearings that support a combination of radial load and thrust load take an unequal load on one of the rows of rollers. The following formulas and bearing geometry factors are used to convert the independent thrust and radial loads into a single equivalent radial load. The calculated dynamic equivalent radial load ( $P_r$ ) will have the same effect on bearing life ( $L_{10}$ ) as a radial load of the same magnitude.

$$P_r = F_r + (Y1 \times F_a) \text{ when } F_a/F_r \leq e$$

$$P_r = (0.67 \times F_r) + (Y2 \times F_a) \text{ when } F_a/F_r > e$$

where:

$P_r$  = Dynamic equivalent radial load  
 $F_r$  = Applied radial load (lbs., N)  
 $F_a$  = Applied thrust (axial) load (lbs., N)  
 Y1, Y2 and e are bearing geometry factors shown on pages C-10 and C-11.

## BEARING CALCULATED LIFE

Customers select the bearing life of the bearings in equipment they are building. In the absence of a customer bearing life target, the following may be considered as a guideline:

- If the customers machinery operates eight hours a day, then use a bearing life target of 20000 to 30000 hours.
- If the customers machinery operates 24 hours a day, then use a bearing life target of 40000 to 60000 hours.

In addition, a service factor may be used where application conditions are harsh. Extreme environmental conditions or heavy shock or vibration will require the adjustment of load ratings before referring to the  $L_{10}$  tables. Please contact your Timken engineer for additional information.

Standard spherical roller bearing life calculation:

$$\text{Bearing life} = L_{10} = (C/P_r)^{10/3} \times (16667/\text{RPM})$$

where:

C = Dynamic capacity (lbs., N)  
 $P_r$  = Radial load/dynamic equivalent radial load  
 RPM = Revolutions per minute

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## TERMS AND CONDITIONS

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*Please consult with your Timken engineer for more information and assistance.*

## A NOTE ON MINIMUM LOADS

In order for a spherical roller bearing to perform as designed, some radial load should be present. This is particularly true if the bearing is running at high speed. Although it is rarely an issue, as the existing static loads (weights of the combined supported components) usually provide an adequate radial load, there are times when it may be necessary to use a shaft diameter larger than the actual loads require. In these instances, the load becomes a small percentage of the bearing's capacity. Radial loads less than 4 percent of C should be avoided.

**BEARING RADIAL AND THRUST FACTORS**

**TABLE C-1. V-LOCK® SERIES (TAPERED BORE, C3)**

Shaft Dia.	Bearing No.	Dynamic Capacity C	Static Capacity C <sub>0</sub>	Equivalent Radial Load Factors		
				e	Y1	Y2
mm in.		kN lbs.	kN lbs.			
<b>50</b> 1 15/16, 2	22211	<b>140</b> 31400	<b>142</b> 31900	0.23	2.95	4.40
<b>55</b> 2 3/16, 2 1/4	22212	<b>169</b> 38100	<b>174</b> 39000	0.24	2.84	4.23
<b>55</b> 2 3/16, 2 1/4	22213	<b>206</b> 46400	<b>216</b> 48600	0.24	2.79	4.15
<b>60, 65</b> 2 7/16, 2 1/2	22214	<b>213</b> 47800	<b>231</b> 52000	0.23	2.90	4.32
<b>60, 65</b> 2 7/16, 2 1/2	22215	<b>222</b> 49900	<b>240</b> 54100	0.22	3.14	4.67
<b>70, 75</b> 2 11/16, 2 3/4, 2 15/16, 3	22216	<b>254</b> 57200	<b>278</b> 62500	0.22	3.14	4.67
<b>70, 75</b> 2 11/16, 2 3/4, 2 15/16, 3	22217	<b>297</b> 66900	<b>320</b> 71900	0.22	3.07	4.57
<b>80, 85, 90</b> 3 3/16, 3 1/4, 3 7/16, 3 1/2	22219	<b>385</b> 86600	<b>441</b> 99000	0.23	2.88	4.29
<b>80, 85, 90</b> 3 3/16, 3 1/4, 3 7/16, 3 1/2	22220	<b>435</b> 97700	<b>502</b> 113000	0.24	2.85	4.24
<b>100</b> 3 11/16, 3 3/4, 3 15/16, 4	22222	<b>555</b> 125000	<b>653</b> 147000	0.25	2.73	4.06
<b>110</b> —	22224	<b>647</b> 145000	<b>772</b> 174000	0.25	2.70	4.02
<b>110, 115</b> 4 7/16, 4 1/2	22226	<b>757</b> 170000	<b>945</b> 212000	0.26	2.62	3.90
<b>125, 130</b> 4 15/16, 5	22228	<b>863</b> 194000	<b>1060</b> 237000	0.25	2.67	3.98

**TABLE C-2. CL SERIES (STRAIGHT BORE, C NORMAL)**

Shaft Dia.	Bearing No.	Dynamic Capacity C	Static Capacity C <sub>0</sub>	Equivalent Radial Load Factors		
				e	Y1	Y2
mm in.		kN lbs.	kN lbs.			
<b>35</b> 1 7/16, 1 1/2	22208	<b>104</b> 23400	<b>99.7</b> 22400	0.27	2.47	3.67
<b>40, 45</b> 1 11/16, 1 3/4	22209	<b>109</b> 24500	<b>108</b> 24200	0.26	2.64	3.93
<b>50</b> 1 15/16, 2	22210	<b>117</b> 26300	<b>118</b> 26600	0.24	2.84	4.23
<b>55</b> 2 3/16, 2 1/4	22211	<b>140</b> 31400	<b>142</b> 31900	0.23	2.95	4.40
<b>60, 65</b> 2 7/16, 2 1/2	22213	<b>206</b> 46400	<b>216</b> 48600	0.24	2.79	4.15
<b>70, 75</b> 2 11/16, 2 3/4, 2 15/16, 3	22215	<b>222</b> 49900	<b>240</b> 54100	0.22	3.14	4.67
<b>80, 85, 90</b> 3 3/16, 3 1/4, 3 7/16, 3 1/2	22218	<b>355</b> 79700	<b>388</b> 87200	0.23	2.90	4.31
<b>100</b> 3 15/16, 4	22220	<b>435</b> 97700	<b>502</b> 113000	0.24	2.85	4.24
<b>110, 115</b> 4 7/16, 4 1/2	22222	<b>555</b> 125000	<b>653</b> 147000	0.25	2.73	4.06
<b>125, 130</b> 4 15/16, 5	22226	<b>757</b> 170000	<b>945</b> 212000	0.26	2.62	3.90

TABLE C-3. EC SERIES (STRAIGHT BORE, C NORMAL)

Shaft Dia.	Bearing No.	Dynamic Capacity C	Static Capacity C <sub>0</sub>	Equivalent Radial Load Factors		
				e	Y1	Y2
mm in.		kN lbs.	kN lbs.			
<b>35</b> 1 7/16, 1 1/2	22208	<b>104</b> 23400	<b>99.7</b> 22400	0.27	2.47	3.67
<b>40, 45</b> 1 11/16, 1 3/4	22209	<b>109</b> 24500	<b>108</b> 24200	0.26	2.64	3.93
<b>50</b> 1 15/16, 2	22210	<b>117</b> 26300	<b>118</b> 26600	0.24	2.84	4.23
<b>55</b> 2 3/16, 2 1/4	22211	<b>140</b> 31400	<b>142</b> 31900	0.23	2.95	4.40
<b>60, 65</b> 2 7/16, 2 1/2	22213	<b>206</b> 46400	<b>216</b> 48600	0.24	2.79	4.15
<b>70, 75</b> 2 11/16, 2 3/4, 2 15/16, 3	22215	<b>220</b> 49900	<b>240</b> 54100	0.22	3.14	4.67
<b>80, 85, 90</b> 3 3/16, 3 1/4, 3 7/16, 3 1/2	22218	<b>355</b> 79700	<b>388</b> 87200	0.23	2.90	4.31
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<b>110, 115</b> 4 7/16, 4 1/2	22222	<b>555</b> 125000	<b>653</b> 147000	0.25	2.73	4.06
<b>125, 130</b> 4 15/16, 5	22226	<b>757</b> 170000	<b>945</b> 212000	0.26	2.62	3.90
<b>140, 150</b> 5 7/16, 5 1/2, 5 15/16, 6	23230	<b>1270</b> 286000	<b>1660</b> 372000	0.32	2.08	3.10
<b>170, 180</b> 6 7/16, 6 1/2, 6 15/16, 7	23234	<b>1660</b> 373000	<b>2200</b> 494000	0.33	2.08	3.09

TABLE C-4. TA/DV SERIES (TAPERED BORE, C3)

Shaft Dia.	Bearing No.	Dynamic Capacity C	Static Capacity C <sub>0</sub>	Equivalent Radial Load Factors		
				e	Y1	Y2
mm in.		kN lbs.	kN lbs.			
<b>40</b> 1 7/16, 1 1/2	22209	<b>109</b> 24500	<b>108</b> 24200	0.26	2.64	3.93
<b>45</b> 1 11/16, 1 3/4	22210	<b>117</b> 26300	<b>118</b> 26600	0.24	2.84	4.23
<b>50</b> 1 15/16, 2	22211	<b>140</b> 31400	<b>142</b> 31900	0.23	2.95	4.40
<b>55</b> —	22212	<b>169</b> 38100	<b>174</b> 39000	0.24	2.84	4.23
<b>60</b> 2 3/16, 2 1/4	22213	<b>206</b> 46400	<b>216</b> 48600	0.24	2.79	4.15
<b>65</b> 2 7/16, 2 1/2	22215	<b>222</b> 49900	<b>240</b> 54100	0.22	3.14	4.67
<b>70</b> 2 11/16, 2 3/4	22216	<b>254</b> 57200	<b>278</b> 62500	0.22	3.14	4.67
<b>75</b> 2 15/16, 3	22217	<b>297</b> 66900	<b>320</b> 71900	0.22	3.07	4.57
<b>80</b> 3 3/16, 3 1/4	22218	<b>355</b> 79700	<b>388</b> 87200	0.23	2.90	4.31
<b>85</b> —	22219	<b>385</b> 86600	<b>441</b> 99000	0.23	2.88	4.29
<b>90</b> 3 7/16, 3 1/2	22220	<b>435</b> 97700	<b>502</b> 113000	0.24	2.85	4.24
<b>100</b> 3 15/16, 4	22222	<b>555</b> 125000	<b>653</b> 147000	0.25	2.73	4.06
<b>110</b> 4 3/16, 4 1/4	22224	<b>647</b> 145000	<b>772</b> 174000	0.25	2.70	4.02
<b>115</b> 4 7/16, 4 1/2	22226	<b>757</b> 170000	<b>945</b> 212000	0.26	2.62	3.90
<b>125</b> 4 15/16, 5	22228	<b>863</b> 194000	<b>1060</b> 237000	0.25	2.67	3.98

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

ENGINEERING • BEARING LOAD

## LOAD RATINGS

TABLE C-5. V-LOCK SERIES – ALLOWABLE RADIAL LOAD (kN/LBS.) AT VARIOUS RPM<sup>(1)</sup>

Shaft Diameter	Bearing No.	C	L <sub>10</sub> Life	Speed <sup>(2)</sup>															
				RPM															
mm in.		kN lbs.		50	100	200	500	1000	1200	1500	1800	2100	2400	2700	3000	3200	3500 <sup>(1)</sup>		
50 1 15/16, 2	22211	140 31400	10000	50.3 11319	40.9 9194	33.2 7468	25.2 5673	20.5 4608	19.4 4362	18.1 4080	17.2 3863	16.4 3688	15.8 3543	15.2 3420	14.7 3314	14.5 3250	14.1 3164		
			30000	36.2 8141	29.4 6612	23.9 5371	18.1 4080	14.7 3314	14.0 3138	13.1 2934	12.4 2778	11.8 2653	11.3 2549	10.9 2460	10.6 2383	10.4 2338	10.3 2276	10.1 2276	
			40000	33.2 7468	27.0 6066	21.9 4927	16.6 3743	13.5 3040	12.8 2878	12.0 2692	11.3 2549	10.8 2433	10.4 2338	10.0 2257	9.7 2186	9.5 2144	9.3 2088	9.2 2088	9.1 2088
			60000	29.4 6612	23.9 5371	19.4 4362	14.7 3314	12.0 2692	11.3 2549	10.6 2383	10.0 2257	9.6 2155	9.2 2070	8.9 1998	8.6 1936	8.4 1899	8.2 1849	8.1 1849	8.0 1849
			100000	25.2 5673	20.5 4608	16.6 3743	12.6 2843	10.3 2309	9.7 2186	9.1 2045	8.6 1936	8.2 1849	7.9 1776	7.6 1714	7.4 1661	7.2 1629	7.1 1586	7.0 1586	6.9 1586
				50	100	200	500	1000	1200	1500	1800	2100	2400	2700	3000	3200 <sup>(1)</sup>	3500 <sup>(1)</sup>		
55 2 3/16, 2 1/4	22212	169 38100	10000	61.1 13734	49.6 11155	40.3 9061	30.6 6883	24.9 5591	23.5 5293	22.0 4951	20.8 4687	19.9 4475	19.1 4300	18.5 4150	17.9 4021	17.5 3944	17.1 3839		
			30000	43.9 9878	35.7 8023	29.0 6517	22.0 4951	17.9 4021	16.9 3807	15.8 3561	15.0 3371	14.3 3219	13.8 3092	13.3 2985	12.9 2892	12.6 2837	12.3 2761	12.3 2761	
			40000	40.3 9061	32.7 7360	26.6 5978	20.2 4541	16.4 3689	15.5 3492	14.5 3266	13.8 3092	13.1 2953	12.6 2837	12.2 2738	11.8 2653	11.6 2602	11.3 2533	11.3 2533	11.3 2533
			60000	35.7 8023	29.0 6517	23.5 5293	17.9 4021	14.5 3266	13.8 3092	12.9 2892	12.2 2738	11.6 2614	11.2 2512	10.8 2425	10.4 2349	10.2 2304	10.0 2243	9.9 2243	9.8 2243
			100000	30.6 6883	24.9 5591	20.2 4541	15.3 3450	12.5 2802	11.8 2653	11.0 2481	10.4 2349	10.0 2243	9.6 2155	9.3 2080	9.0 2015	8.8 1977	8.6 1924	8.5 1924	8.4 1924
				50	100	200	500	1000	1200	1500	1800	2100	2400	2700	3000 <sup>(1)</sup>	3200 <sup>(1)</sup>	3500 <sup>(1)</sup>		
55 2 3/16, 2 1/4	22213	206 46400	10000	74.4 16726	60.4 13585	49.1 11035	37.3 8383	30.3 6809	28.7 6446	26.8 6029	25.4 5708	24.2 5450	23.3 5236	22.5 5054	21.8 4897	21.4 4803	20.8 4676		
			30000	53.5 12030	43.5 9771	35.3 7937	26.8 6029	21.8 4897	20.6 4636	19.3 4336	18.3 4105	17.4 3920	16.8 3766	16.2 3635	15.7 3522	15.4 3455	15.0 3363	15.0 3363	
			40000	49.1 11035	39.9 8963	32.4 7280	24.6 5531	20.0 4492	18.9 4253	17.7 3978	16.8 3766	16.0 3596	15.4 3455	14.8 3335	14.4 3231	14.1 3169	13.7 3085	13.7 3085	13.7 3085
			60000	43.5 9771	35.3 7937	28.7 6446	21.8 4897	17.7 3978	16.8 3766	15.7 3522	14.8 3335	14.2 3184	13.6 3059	13.1 2953	12.7 2861	12.5 2806	12.2 2732	12.2 2732	12.2 2732
			100000	37.3 8383	30.3 6809	24.6 5531	18.7 4201	15.2 3413	14.4 3231	13.4 3022	12.7 2861	12.2 2732	11.7 2624	11.3 2533	10.9 2454	10.7 2407	10.4 2343	10.4 2343	10.4 2343
				50	100	200	500	1000	1200	1500	1800	2100	2400	2700 <sup>(1)</sup>	3000 <sup>(1)</sup>	3200 <sup>(1)</sup>			
60, 65 2 7/16, 2 1/2	22214	213 47800	10000	76.6 17230	62.3 13995	50.6 11368	38.4 8636	31.2 7014	29.5 6641	27.6 6211	26.2 5880	25.0 5615	24.0 5394	23.2 5207	22.4 5045	22.0 4948			
			30000	55.1 12392	44.8 10066	36.4 8176	27.6 6211	22.4 5045	21.2 4776	19.9 4467	18.8 4229	18.0 4038	17.3 3880	16.7 3745	16.1 3628	15.8 3559	15.5 3559	15.5 3559	
			40000	50.6 11368	41.1 9234	33.4 7500	25.3 5697	20.6 4628	19.5 4381	18.2 4098	17.3 3880	16.5 3704	15.8 3559	15.3 3435	14.8 3328	14.5 3265	14.5 3265	14.5 3265	14.5 3265
			60000	44.8 10066	36.4 8176	29.5 6641	22.4 5045	18.2 4098	17.3 3880	16.1 3628	15.3 3435	14.6 3280	14.0 3151	13.5 3042	13.1 2947	12.9 2891	12.9 2891	12.9 2891	12.9 2891
			100000	38.4 8636	31.2 7014	25.3 5697	19.3 4328	15.6 3515	14.8 3328	13.8 3113	13.1 2947	12.5 2814	12.0 2703	11.6 2610	11.2 2528	11.0 2480	11.0 2480	11.0 2480	11.0 2480

<sup>(1)</sup>Speeds referenced here may be higher than speed rating for seals. Please refer to the charts on pages C-25 and C-26.

<sup>(2)</sup>For speeds greater than thermal reference speed, contact your Timken engineer.

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# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

ENGINEERING • BEARING LOAD

Continued from previous page.

Shaft Diameter	Bearing No.	C	L <sub>10</sub> Life	Speed <sup>(2)</sup>												
				RPM												
mm in.		kN lbs.		50	100	200	500	1000	1200	1500	1800	2100	2400	2700 <sup>(1)</sup>	3000 <sup>(1)</sup>	3200 <sup>(1)</sup>
60, 65 2 7/16, 2 1/2	22215	222 49900	10000	80.0 17987	65.0 14610	52.8 11867	40.1 9015	32.6 7322	30.8 6933	28.8 6484	27.3 6139	26.1 5861	25.0 5631	24.2 5436	23.4 5266	23.0 5166
			30000	57.5 12937	46.7 10508	38.0 8535	28.8 6484	23.4 5266	22.2 4986	20.7 4663	19.6 4415	18.8 4216	18.0 4050	17.4 3909	16.8 3788	16.5 3715
			40000	52.8 11867	42.9 9639	34.8 7829	26.5 5948	21.5 4831	20.3 4574	19.0 4278	18.0 4050	17.2 3867	16.5 3715	16.0 3586	15.5 3475	15.2 3408
			60000	46.7 10508	38.0 8535	30.8 6933	23.4 5266	19.0 4278	18.0 4050	16.8 3788	16.0 3586	15.2 3424	14.6 3290	14.1 3175	13.7 3077	13.4 3018
			100000	40.1 9015	32.6 7322	26.5 5948	20.1 4518	16.3 3670	15.5 3475	14.5 3250	13.7 3077	13.1 2938	12.6 2822	12.1 2724	11.7 2639	11.5 2589
				50	100	200	500	1000	1200	1500	1800	2100	2400 <sup>(1)</sup>	2700 <sup>(1)</sup>	3000 <sup>(1)</sup>	
70, 75 2 11/16, 2 3/4, 2 15/16, 3	22216	254 57200	10000	91.7 20619	74.5 16748	60.5 13603	46.0 10334	37.3 8394	35.4 7947	33.1 7432	31.3 7037	29.9 6719	28.7 6455	27.7 6231	26.9 6037	
			30000	66.0 14829	53.6 12045	43.5 9784	33.1 7432	26.9 6037	25.4 5716	23.8 5346	22.5 5061	21.5 4832	20.7 4643	19.9 4481	19.3 4342	
			40000	60.5 13603	49.1 11049	39.9 8975	30.3 6818	24.6 5538	23.3 5243	21.8 4904	20.7 4643	19.7 4433	18.9 4259	18.3 4111	17.7 3983	
			60000	53.6 12045	43.5 9784	35.4 7947	26.9 6037	21.8 4904	20.7 4643	19.3 4342	18.3 4111	17.5 3925	16.8 3771	16.2 3640	15.7 3527	
			100000	46.0 10334	37.3 8394	30.3 6818	23.0 5179	18.7 4207	17.7 3983	16.6 3725	15.7 3527	15.0 3367	14.4 3235	13.9 3123	13.5 3026	
				50	100	200	500	1000	1200	1500	1800	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>	2700 <sup>(1)</sup>		
70, 75 2 11/16, 2 3/4, 2 15/16, 3	22217	297 66900	10000	107.3 24115	87.1 19588	70.8 15910	53.8 12086	43.7 9817	41.3 9295	38.7 8693	36.6 8230	35.0 7858	33.6 7550	32.4 7287		
			30000	77.1 17344	62.7 14088	50.9 11443	38.7 8693	31.4 7061	29.7 6685	27.8 6252	26.3 5919	25.1 5652	24.2 5430	23.3 5241		
			40000	70.8 15910	57.5 12923	46.7 10497	35.5 7974	28.8 6477	27.3 6132	25.5 5735	24.2 5430	23.1 5184	22.2 4981	21.4 4808	21.4 4808	
			60000	62.7 14088	50.9 11443	41.3 9295	31.4 7061	25.5 5735	24.2 5430	22.6 5078	21.4 4808	20.4 4591	19.6 4410	18.9 4257		
			100000	53.8 12086	43.7 9817	35.5 7974	26.9 6057	21.9 4920	20.7 4658	19.4 4357	18.3 4125	17.5 3938	16.8 3784	16.2 3652		
				50	100	200	500	1000	1200	1500	1800	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>	2700 <sup>(1)</sup>		
80, 85, 90 3 3/16, 3 1/4, 3 7/16, 3 1/2	22219	385 86600	10000	138.9 31216	112.8 25356	91.6 20595	69.6 15645	56.5 12708	53.5 12032	50.1 11252	47.4 10654	45.2 10172	43.5 9773	42.0 9433		
			30000	99.9 22452	81.1 18236	65.9 14813	50.1 11252	40.7 9140	38.5 8653	36.0 8093	34.1 7662	32.5 7316	31.3 7029	30.2 6785		
			40000	91.6 20595	74.4 16729	60.4 13588	45.9 10322	37.3 8384	35.3 7938	33.0 7424	31.3 7029	29.9 6711	28.7 6448	27.7 6224		
			60000	81.1 18236	65.9 14813	53.5 12032	40.7 9140	33.0 7424	31.3 7029	29.2 6574	27.7 6224	26.4 5942	25.4 5709	24.5 5511		
			100000	69.6 15645	56.5 12708	45.9 10322	34.9 7841	28.3 6369	26.8 6030	25.1 5640	23.7 5339	22.7 5098	21.8 4898	21.0 4728		

<sup>(1)</sup>Speeds referenced here may be higher than speed rating for seals. Please refer to the charts on pages C-25 and C-26.

<sup>(2)</sup>For speeds greater than thermal reference speed, contact your Timken engineer.

Continued on next page.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

ENGINEERING • BEARING LOAD

## LOAD RATINGS – *continued*

TABLE C-5. V-LOCK SERIES – ALLOWABLE RADIAL LOAD (kN/LBS.) AT VARIOUS RPM<sup>(1)</sup> – *continued*

Shaft Diameter	Bearing No.	C	L <sub>10</sub> Life	Speed <sup>(2)</sup>										
				RPM										
mm in.		kN lbs.		50	100	200	500	1000	1200	1500	1800 <sup>(1)</sup>	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>	2700 <sup>(1)</sup>
80, 85, 90 3 3/16, 3 1/4, 3 7/16, 3 1/2	22220	435 97700	10000	156.7 35218	127.2 28606	103.4 23235	78.5 17651	63.8 14337	60.4 13574	56.5 12695	53.5 12019	51.0 11476	49.0 11025	47.3 10642
			30000	112.7 25329	91.5 20574	74.3 16711	56.5 12695	45.9 10311	43.4 9762	40.6 9130	38.5 8644	36.7 8254	35.3 7930	34.0 7654
			40000	103.4 23235	84.0 18873	68.2 15329	51.8 11645	42.1 9459	39.8 8955	37.3 8375	35.3 7930	33.7 7571	32.4 7274	31.2 7021
			60000	91.5 20574	74.3 16711	60.4 13574	45.9 10311	37.3 8375	35.3 7930	33.0 7416	31.2 7021	29.8 6704	28.7 6441	27.7 6217
			100000	78.5 17651	63.8 14337	51.8 11645	39.3 8846	32.0 7185	30.3 6803	28.3 6362	26.8 6024	25.6 5752	24.6 5526	23.7 5334
				50	100	200	500	1000	1200	1500 <sup>(1)</sup>	1800 <sup>(1)</sup>	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>	
100 3 11/16, 3 3/4, 3 15/16, 4	22222	555 125000	10000	200.4 45058	162.8 36599	132.2 29727	100.5 22583	81.6 18343	77.3 17367	72.2 16242	68.4 15377	65.3 14683	62.7 14106	
			30000	144.2 32407	117.1 26323	95.1 21381	72.2 16242	58.7 13193	55.6 12490	52.0 11682	49.2 11060	47.0 10560	45.1 10145	
			40000	132.2 29727	107.4 24146	87.2 19613	66.3 14899	53.8 12102	51.0 11458	47.7 10716	45.1 10145	43.1 9687	41.4 9306	
			60000	117.1 26323	95.1 21381	77.3 17367	58.7 13193	47.7 10716	45.1 10145	42.2 9488	40.0 8983	38.2 8577	36.7 8241	
			100000	100.5 22583	81.6 18343	66.3 14899	50.3 11318	40.9 9193	38.7 8704	36.2 8140	34.3 7707	32.7 7359	31.4 7070	
				50	100	200	500	1000	1200	1500	1800	2100	2400	
110 –	22224	647 145000	10000	232.5 52268	188.8 42455	153.4 34484	116.5 26196	94.6 21278	89.6 20145	83.8 18841	79.3 17838	75.8 17032	72.8 16363	
			30000	167.2 37592	135.8 30534	110.3 24802	83.8 18841	68.1 15303	64.5 14489	60.3 13551	57.1 12829	54.5 12250	52.4 11769	
			40000	153.4 34484	124.6 28010	101.2 22751	76.9 17283	62.4 14038	59.1 13291	55.3 12430	52.4 11769	50.0 11237	48.0 10796	
			60000	135.8 30534	110.3 24802	89.6 20145	68.1 15303	55.3 12430	52.4 11769	49.0 11007	46.4 10421	44.3 9950	42.5 9559	
			100000	116.5 26196	94.6 21278	76.9 17283	58.4 13129	47.4 10664	44.9 10097	42.0 9443	39.8 8940	38.0 8536	36.5 8201	

<sup>(1)</sup>Speeds referenced here may be higher than speed rating for seals. Please refer to the charts on pages C-25 and C-26.

<sup>(2)</sup>For speeds greater than thermal reference speed, contact your Timken engineer.

*Continued on next page.*

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Shaft Diameter	Bearing No.	C	L <sub>10</sub> Life	Speed <sup>(2)</sup>									
				RPM									
mm in.		kN lbs.		50	100	200	500	1000	1200 <sup>(1)</sup>	1500 <sup>(1)</sup>	1800 <sup>(1)</sup>	2100 <sup>(1)</sup>	
<b>110, 115</b> 4 7/16, 4 1/2	22226	<b>757</b> 170000	10000	<b>272.6</b> 61279	<b>221.4</b> 49774	<b>179.8</b> 40429	<b>136.6</b> 30712	<b>111.0</b> 24946	<b>105.1</b> 23618	<b>98.3</b> 22089	<b>93.0</b> 20913	<b>88.8</b> 19968	
			30000	<b>196.1</b> 44074	<b>159.2</b> 35799	<b>129.3</b> 29078	<b>98.3</b> 22089	<b>79.8</b> 17942	<b>75.6</b> 16987	<b>70.7</b> 15887	<b>66.9</b> 15041	<b>63.9</b> 14362	
			40000	<b>179.8</b> 40429	<b>146.1</b> 32839	<b>118.6</b> 26673	<b>90.1</b> 20263	<b>73.2</b> 16458	<b>69.3</b> 15582	<b>64.8</b> 14573	<b>61.4</b> 13798	<b>58.6</b> 13174	
			60000	<b>159.2</b> 35799	<b>129.3</b> 29078	<b>105.1</b> 23618	<b>79.8</b> 17942	<b>64.8</b> 14573	<b>61.4</b> 13798	<b>57.4</b> 12904	<b>54.3</b> 12217	<b>51.9</b> 11665	
			100000	<b>136.6</b> 30712	<b>111.0</b> 24946	<b>90.1</b> 20263	<b>68.5</b> 15393	<b>55.6</b> 12503	<b>52.7</b> 11837	<b>49.2</b> 11071	<b>46.6</b> 10482	<b>44.5</b> 10008	
<b>125, 130</b> 4 15/16, 5	22228	<b>863</b> 194000	10000	<b>311.1</b> 69931	<b>252.7</b> 56801	<b>205.2</b> 46137	<b>155.9</b> 35048	<b>126.6</b> 28468	<b>119.9</b> 26953	<b>112.1</b> 25208	<b>106.2</b> 23866		
			30000	<b>223.7</b> 50296	<b>181.7</b> 40853	<b>147.6</b> 33183	<b>112.1</b> 25208	<b>91.1</b> 20475	<b>86.2</b> 19385	<b>80.6</b> 18130	<b>76.4</b> 17165		
			40000	<b>205.2</b> 46137	<b>166.7</b> 37475	<b>135.4</b> 30439	<b>102.9</b> 23123	<b>83.5</b> 18782	<b>79.1</b> 17782	<b>74.0</b> 16631	<b>70.0</b> 15746		
			60000	<b>181.7</b> 40853	<b>147.6</b> 33183	<b>119.9</b> 26953	<b>91.1</b> 20475	<b>74.0</b> 16631	<b>70.0</b> 15746	<b>65.5</b> 14726	<b>62.0</b> 13942		
			100000	<b>155.9</b> 35048	<b>126.6</b> 28468	<b>102.9</b> 23123	<b>78.1</b> 17566	<b>63.5</b> 14268	<b>60.1</b> 13508	<b>56.2</b> 12634	<b>53.2</b> 11961		

<sup>(1)</sup>Speeds referenced here may be higher than speed rating for seals. Please refer to the charts on pages C-25 and C-26.

<sup>(2)</sup>For speeds greater than thermal reference speed, contact your Timken engineer.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

ENGINEERING • BEARING LOAD

## LOAD RATINGS – *continued*

TABLE C-6. CL SERIES – ALLOWABLE RADIAL LOAD (kN/LBS.) AT VARIOUS RPM<sup>(1)</sup>

Shaft Diameter	Bearing No.	C	L <sub>10</sub> Life	Speed <sup>(2)</sup>														
				RPM														
mm in.		kN lbs.		50	100	200	500	1000	1200	1500	1800	2100	2400	2700	3000	3200	3500	
35 1 7/16, 1 1/2	22208	104 23400	10000	37.5 8435	30.5 6851	24.8 5565	18.8 4227	15.3 3434	14.5 3251	13.5 3041	12.8 2879	12.2 2749	11.7 2641	11.3 2549	11.0 2470	10.8 2422	10.5 2358	
			30000	27.0 6067	21.9 4928	17.8 4002	13.5 3041	11.0 2470	10.4 2338	9.7 2187	9.2 2070	8.8 1977	8.4 1899	8.2 1833	7.9 1776	7.7 1742	7.5 1696	
			40000	24.8 5565	20.1 4520	16.3 3672	12.4 2789	10.1 2265	9.5 2145	8.9 2006	8.4 1899	8.1 1813	7.7 1742	7.5 1682	7.2 1629	7.1 1629	6.9 1598	6.9 1556
			60000	21.9 4928	17.8 4002	14.5 3251	11.0 2470	8.9 2006	8.4 1899	7.9 1776	7.5 1682	7.1 1606	6.9 1543	6.6 1489	6.4 1443	6.3 1415	6.1 1378	
			100000	18.8 4227	15.3 3434	12.4 2789	9.4 2119	7.7 1721	7.2 1629	6.8 1524	6.4 1443	6.1 1378	5.9 1323	5.7 1278	5.5 1238	5.4 1214	5.3 1182	
				50	100	200	500	1000	1200	1500	1800	2100	2400	2700	3000	3200	3500	
40, 45 1 11/16, 1 3/4	22209	109 24500	10000	39.3 8831	31.9 7173	25.9 5827	19.7 4426	16.0 3595	15.1 3404	14.2 3183	13.4 3014	12.8 2878	12.3 2765	11.9 2669	11.5 2586	11.3 2536	11.0 2469	
			30000	28.3 6352	22.9 5159	18.6 4191	14.2 3183	11.5 2586	10.9 2448	10.2 2290	9.6 2168	9.2 2070	8.8 1988	8.5 1919	8.3 1860	8.1 1824	7.9 1776	
			40000	25.9 5827	21.1 4733	17.1 3844	13.0 2920	10.6 2372	10.0 2246	9.3 2100	8.8 1988	8.4 1899	8.1 1824	7.8 1761	7.6 1706	7.4 1673	7.2 1629	
			60000	22.9 5159	18.6 4191	15.1 3404	11.5 2586	9.3 2100	8.8 1988	8.3 1860	7.8 1761	7.5 1681	7.2 1615	6.9 1559	6.7 1511	6.6 1482	6.4 1442	
			100000	19.7 4426	16.0 3595	13.0 2920	9.9 2218	8.0 1802	7.6 1706	7.1 1595	6.7 1511	6.4 1442	6.0 1386	5.8 1338	5.7 1296	5.5 1271	5.5 1237	
				50	100	200	500	1000	1200	1500	1800	2100	2400	2700	3000	3200	3500	
50 1 15/16, 2	22210	117 26300	10000	42.2 9480	34.3 7700	27.8 6255	21.1 4751	17.2 3859	16.3 3654	15.2 3417	14.4 3235	13.7 3089	13.2 2968	12.7 2865	12.3 2776	12.1 2723	11.8 2650	
			30000	30.3 6818	24.6 5538	20.0 4498	15.2 3417	12.3 2776	11.7 2628	10.9 2458	10.4 2327	9.9 2222	9.5 2135	9.2 2060	8.9 1996	8.7 1958	8.5 1906	
			40000	27.8 6255	22.6 5080	18.4 4127	13.9 3135	11.3 2546	10.7 2411	10.0 2255	9.5 2135	9.1 2038	8.7 1958	8.4 1890	8.1 1831	8.0 1796	7.8 1749	
			60000	24.6 5538	20.0 4498	16.3 3654	12.3 2776	10.0 2255	9.5 2135	8.9 1996	8.4 1890	8.0 1805	7.7 1734	7.4 1674	7.2 1622	7.1 1590	6.9 1548	
			100000	21.1 4751	17.2 3859	13.9 3135	10.6 2381	8.6 1934	8.1 1831	7.6 1713	7.2 1622	6.9 1548	6.6 1487	6.4 1436	6.2 1391	6.1 1364	5.9 1328	
				50	100	200	500	1000	1200	1500	1800	2100	2400	2700	3000	3200	3500 <sup>(1)</sup>	
55 2 3/16, 2 1/4	22211	140 31400	10000	50.3 11319	40.9 9194	33.2 7468	25.2 5673	20.5 4608	19.4 4362	18.1 4080	17.2 3863	16.4 3688	15.8 3543	15.2 3420	14.7 3314	14.5 3250	14.1 3164	
			30000	36.2 8141	29.4 6612	23.9 5371	18.1 4080	14.7 3314	14.0 3138	13.1 2934	12.4 2778	11.8 2653	11.3 2549	10.9 2460	10.6 2383	10.4 2338	10.1 2276	
			40000	33.2 7468	27.0 6066	21.9 4927	16.6 3743	13.5 3040	12.8 2878	12.0 2692	11.3 2549	10.8 2433	10.4 2338	10.0 2257	9.7 2186	9.5 2144	9.3 2088	
			60000	29.4 6612	23.9 5371	19.4 4362	14.7 3314	12.0 2692	11.3 2549	10.6 2383	10.0 2257	9.6 2155	9.2 2070	8.9 1998	8.6 1936	8.4 1899	8.2 1849	
			100000	25.2 5673	20.5 4608	16.6 3743	12.6 2843	10.3 2309	9.7 2186	9.1 2045	8.6 1936	8.2 1849	7.9 1776	7.6 1714	7.4 1661	7.2 1629	7.1 1586	
				50	100	200	500	1000	1200	1500	1800	2100	2400	2700	3000 <sup>(1)</sup>	3200 <sup>(1)</sup>	3500 <sup>(1)</sup>	
60, 65 2 7/16, 2 1/2	22213	206 46400	10000	74.4 16726	60.4 13585	49.1 11035	37.3 8383	30.3 6809	28.7 6446	26.8 6029	25.4 5708	24.2 5450	23.3 5236	22.5 5054	21.8 4897	21.4 4803	20.8 4676	
			30000	53.5 12030	43.5 9771	35.3 7937	26.8 6029	21.8 4897	20.6 4636	19.3 4336	18.3 4105	17.4 3920	16.8 3766	16.2 3635	15.7 3522	15.4 3455	15.0 3363	
			40000	49.1 11035	39.9 8963	32.4 7280	24.6 5531	20.0 4492	18.9 4253	17.7 3978	16.8 3766	16.0 3596	15.4 3455	14.8 3335	14.4 3231	14.1 3169	13.7 3085	
			60000	43.5 9771	35.3 7937	28.7 6446	21.8 4897	17.7 3978	16.8 3766	15.7 3522	14.8 3335	14.2 3184	13.6 3059	13.1 2953	12.7 2861	12.5 2806	12.2 2732	
			100000	37.3 8383	30.3 6809	24.6 5531	18.7 4201	15.2 3413	14.4 3231	13.4 3022	12.7 2861	12.2 2732	11.7 2624	11.3 2533	10.9 2454	10.7 2407	10.4 2343	
				50	100	200	500	1000	1200	1500	1800	2100	2400	2700	3000 <sup>(1)</sup>	3200 <sup>(1)</sup>	3500 <sup>(1)</sup>	

<sup>(1)</sup>Speeds referenced here may be higher than speed rating for seals. Please refer to the charts on pages C-25 and C-26.

<sup>(2)</sup>For speeds greater than thermal reference speed, contact your Timken engineer.

*Continued on next page.*

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

ENGINEERING • BEARING LOAD

Continued from previous page.

Shaft Diameter	Bearing No.	C	L <sub>10</sub> Life	Speed <sup>(2)</sup>												
				RPM												
mm in.		kN lbs.		50	100	200	500	1000	1200	1500	1800	2100	2400	2700 <sup>(1)</sup>	3000 <sup>(1)</sup>	3200 <sup>(1)</sup>
<b>70, 75</b> 2 1/16, 2 3/4, 2 15/16, 3	22215	220 49900	10000	80.0 17987	65.0 14610	52.8 11867	40.1 9015	32.6 7322	30.8 6933	28.8 6484	27.3 6139	26.1 5861	25.0 5631	24.2 5436	23.4 5266	23.0 5166
			30000	57.5 12937	46.7 10508	38.0 8535	28.8 6484	23.4 5266	22.2 4986	20.7 4663	19.6 4415	18.8 4216	18.0 4050	17.4 3909	16.8 3788	16.5 3715
			40000	52.8 11867	42.9 9639	34.8 7829	26.5 5948	21.5 4831	20.3 4574	19.0 4278	18.0 4050	17.2 3867	16.5 3715	16.0 3586	15.5 3475	15.2 3408
			60000	46.7 10508	38.0 8535	30.8 6933	23.4 5266	19.0 4278	18.0 4050	16.8 3788	16.0 3586	15.2 3424	14.6 3290	14.1 3175	13.7 3077	13.4 3018
			100000	40.1 9015	32.6 7322	26.5 5948	20.1 4518	16.3 3670	15.5 3475	14.5 3250	13.7 3077	13.1 2938	12.6 2822	12.1 2724	11.7 2639	11.5 2589
				50	100	200	500	1000	1200	1500	1800	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>	2700 <sup>(1)</sup>		
<b>80, 85, 90</b> 3 3/16, 3 1/4, 3 7/16, 3 1/2	22218	355 79700	10000	127.8 28729	103.8 23335	84.3 18954	64.0 14399	52.0 11695	49.3 11073	46.1 10356	43.6 9805	41.6 9362	40.0 8994	38.6 8682		
			30000	91.9 20663	74.7 16783	60.6 13632	46.1 10356	37.4 8412	35.4 7964	33.1 7448	31.4 7052	29.9 6733	28.8 6469	27.8 6244		
			40000	84.3 18954	68.5 15396	55.6 12505	42.3 9500	34.3 7716	32.5 7305	30.4 6832	28.8 6469	27.5 6176	26.4 5934	25.5 5728		
			60000	74.7 16783	60.6 13632	49.3 11073	37.4 8412	30.4 6832	28.8 6469	26.9 6050	25.5 5728	24.3 5469	23.4 5254	22.6 5072		
			100000	64.0 14399	52.0 11695	42.3 9500	32.1 7216	26.1 5862	24.7 5550	23.1 5190	21.9 4914	20.9 4692	20.1 4508	19.4 4351		
				50	100	200	500	1000	1200	1500	1800 <sup>(1)</sup>	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>	2700 <sup>(1)</sup>		
<b>100</b> 3 15/16, 4	22220	435 97700	10000	156.7 35218	127.2 28606	103.4 23235	78.5 17651	63.8 14337	60.4 13574	56.5 12695	53.5 12019	51.0 11476	49.0 11025	47.3 10642		
			30000	112.7 25329	91.5 20574	74.3 16711	56.5 12695	45.9 10311	43.4 9762	40.6 9130	38.5 8644	36.7 8254	35.3 7930	34.0 7654		
			40000	103.4 23235	84.0 18873	68.2 15329	51.8 11645	42.1 9459	39.8 8955	37.3 8375	35.3 7930	33.7 7571	32.4 7274	31.2 7021		
			60000	91.5 20574	74.3 16711	60.4 13574	45.9 10311	37.3 8375	35.3 7930	33.0 7416	31.2 7021	29.8 6704	28.7 6441	27.7 6217		
			100000	78.5 17651	63.8 14337	51.8 11645	39.3 8846	32.0 7185	30.3 6803	28.3 6362	26.8 6024	25.6 5752	24.6 5526	23.7 5334		
				50	100	200	500	1000	1200	1500 <sup>(1)</sup>	1800 <sup>(1)</sup>	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>	2700 <sup>(1)</sup>		
<b>110, 115</b> 4 7/16, 4 1/2	22222	555 125000	10000	200.4 45058	162.8 36599	132.2 29727	100.5 22583	81.6 18343	77.3 17367	72.2 16242	68.4 15377	65.3 14683	62.7 14106			
			30000	144.2 32407	117.1 26323	95.1 21381	72.2 16242	58.7 13193	55.6 12490	52.0 11682	49.2 11060	47.0 10560	45.1 10145			
			40000	132.2 29727	107.4 24146	87.2 19613	66.3 14899	53.8 12102	51.0 11458	47.7 10716	45.1 10145	43.1 10145	41.4 9306			
			60000	117.1 26323	95.1 21381	77.3 17367	58.7 13193	47.7 10716	45.1 10145	42.2 9488	40.0 8983	38.2 8577	36.7 8241			
			100000	100.5 22583	81.6 18343	66.3 14899	50.3 11318	40.9 9193	38.7 8704	36.2 8140	34.3 7707	32.7 7359	31.4 7070			
				50	100	200	500	1000	1200 <sup>(1)</sup>	1500 <sup>(1)</sup>	1800 <sup>(1)</sup>	2100 <sup>(1)</sup>				
<b>125, 130</b> 4 15/16, 5	22226	757 170000	10000	272.6 61279	221.4 49774	179.8 40429	136.6 30712	111.0 24946	105.1 23618	98.3 22089	93.0 20913	88.8 19968				
			30000	196.1 44074	159.2 35799	129.3 29078	98.3 22089	79.8 17942	75.6 16987	70.7 15887	66.9 15041	63.9 14362				
			40000	179.8 40429	146.1 32839	118.6 26673	90.1 20263	73.2 16458	69.3 15582	64.8 14573	61.4 13798	58.6 13174				
			60000	159.2 35799	129.3 29078	105.1 23618	79.8 17942	64.8 14573	61.4 13798	57.4 12904	54.3 12217	51.9 11665				
			100000	136.6 30712	111.0 24946	90.1 20263	68.5 15393	55.6 12503	52.7 11837	49.2 11071	46.6 10482	44.5 10008				
				50	100	200	500	1000	1200 <sup>(1)</sup>	1500 <sup>(1)</sup>	1800 <sup>(1)</sup>	2100 <sup>(1)</sup>				

<sup>(1)</sup>Speeds referenced here may be higher than speed rating for seals. Please refer to the charts on pages C-25 and C-26.

<sup>(2)</sup>For speeds greater than thermal reference speed, contact your Timken engineer.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

ENGINEERING • BEARING LOAD

## LOAD RATINGS – *continued*

TABLE C-7. EC SERIES – ALLOWABLE RADIAL LOAD (kN/LBS.) AT VARIOUS RPM<sup>(1)</sup>

Shaft Diameter	Bearing No.	C	L <sub>10</sub> Life	Speed <sup>(2)</sup>													
				RPM													
mm in.		kN lbs.		50	100	200	500	1000	1200	1500	1800	2100	2400	2700	3000	3200	3500
35 1 7/16, 1 1/2	22208	104 23400	10000	37.5 8435	30.5 6851	24.8 5565	18.8 4227	15.3 3434	14.5 3251	13.5 3041	12.8 2879	12.2 2749	11.7 2641	11.3 2549	11.0 2470	10.8 2422	10.5 2358
			30000	27.0 6067	21.9 4928	17.8 4002	13.5 3041	11.0 2470	10.4 2338	9.7 2187	9.2 2070	8.8 1977	8.4 1899	8.2 1833	7.9 1776	7.7 1742	7.5 1696
			40000	24.8 5565	20.1 4520	16.3 3672	12.4 2789	10.1 2265	9.5 2145	8.9 2006	8.4 1899	8.1 1813	7.7 1742	7.5 1682	7.2 1629	7.1 1598	6.9 1556
			60000	21.9 4928	17.8 4002	14.5 3251	11.0 2470	8.9 2006	8.4 1899	7.9 1776	7.5 1682	7.1 1606	6.9 1543	6.6 1489	6.4 1443	6.3 1415	6.1 1378
			100000	18.8 4227	15.3 3434	12.4 2789	9.4 2119	7.7 1721	7.2 1629	6.8 1524	6.4 1443	6.1 1378	5.9 1323	5.7 1278	5.5 1238	5.4 1214	5.3 1182
40, 45 1 15/16, 1 3/4	22209	109 24500	10000	39.3 8831	31.9 7173	25.9 5827	19.7 4426	16.0 3595	15.1 3404	14.2 3183	13.4 3014	12.8 2878	12.3 2765	11.9 2669	11.5 2586	11.3 2536	11.0 2469
			30000	28.3 6352	22.9 5159	18.6 4191	14.2 3183	11.5 2586	10.9 2448	10.2 2290	9.6 2168	9.2 2070	8.8 1988	8.5 1919	8.3 1860	8.1 1824	7.9 1776
			40000	25.9 5827	21.1 4733	17.1 3844	13.0 2920	10.6 2372	10.0 2246	9.3 2100	8.8 1988	8.4 1899	8.1 1824	7.8 1761	7.6 1706	7.4 1673	7.2 1629
			60000	22.9 5159	18.6 4191	15.1 3404	11.5 2586	9.3 2100	8.8 1988	8.3 1860	7.8 1761	7.5 1681	7.2 1615	6.9 1559	6.7 1511	6.6 1482	6.4 1442
			100000	19.7 4426	16.0 3595	13.0 2920	9.9 2218	8.0 1802	7.6 1706	7.1 1595	6.7 1511	6.4 1442	6.2 1386	6.0 1338	5.8 1296	5.7 1271	5.5 1237
50 1 15/16, 2	22210	117 26300	10000	42.2 9480	34.3 7700	27.8 6255	21.1 4751	17.2 3859	16.3 3654	15.2 3417	14.4 3235	13.7 3089	13.2 2968	12.7 2865	12.3 2776	12.1 2723	11.8 2650
			30000	30.3 6818	24.6 5538	20.0 4498	15.2 3417	12.3 2776	11.7 2628	10.9 2458	10.4 2327	9.9 2222	9.5 2135	9.2 2060	8.9 1996	8.7 1958	8.5 1906
			40000	27.8 6255	22.6 5080	18.4 4127	13.9 3135	11.3 2546	10.7 2411	10.0 2255	9.5 2135	9.1 2038	8.7 1958	8.4 1890	8.1 1831	8.0 1796	7.8 1749
			60000	24.6 5538	20.0 4498	16.3 3654	12.3 2776	10.0 2255	9.5 2135	8.9 1996	8.4 1890	8.0 1805	7.7 1734	7.4 1674	7.2 1622	7.1 1590	6.9 1548
			100000	21.1 4751	17.2 3859	13.9 3135	10.6 2381	8.6 1934	8.1 1831	7.6 1713	7.2 1622	6.9 1548	6.6 1487	6.4 1436	6.2 1391	6.1 1364	5.9 1328
55 2 3/16, 2 1/4	22211	140 31400	10000	50.3 11319	40.9 9194	33.2 7468	25.2 5673	20.5 4608	19.4 4362	18.1 4080	17.2 3863	16.4 3688	15.8 3543	15.2 3420	14.7 3314	14.5 3250	14.1 3164
			30000	36.2 8141	29.4 6612	23.9 5371	18.1 4080	14.7 3314	14.0 3138	13.1 2934	12.4 2778	11.8 2653	11.3 2549	10.9 2460	10.6 2383	10.4 2338	10.1 2276
			40000	33.2 7468	27.0 6066	21.9 4927	16.6 3743	13.5 3040	12.8 2878	12.0 2692	11.3 2549	10.8 2433	10.4 2338	10.0 2257	9.7 2186	9.5 2144	9.3 2088
			60000	29.4 6612	23.9 5371	19.4 4362	14.7 3314	12.0 2692	11.3 2549	10.6 2383	10.0 2257	9.6 2155	9.2 2070	8.9 1998	8.6 1936	8.4 1899	8.2 1849
			100000	25.2 5673	20.5 4608	16.6 3743	12.6 2843	10.3 2309	9.7 2186	9.1 2045	8.6 1936	8.2 1849	7.9 1776	7.6 1714	7.4 1661	7.2 1629	7.1 1586
60, 65 2 7/16, 2 1/2	22213	206 46400	10000	74.4 16726	60.4 13585	49.1 11035	37.3 8383	30.3 6809	28.7 6446	26.8 6029	25.4 5708	24.2 5450	23.3 5236	22.5 5054	21.8 4897	21.4 4803	20.8 4676
			30000	53.5 12030	43.5 9771	35.3 7937	26.8 6029	21.8 4897	20.6 4636	19.3 4336	18.3 4105	17.4 3920	16.8 3766	16.2 3635	15.7 3522	15.4 3455	15.0 3363
			40000	49.1 11035	39.9 8963	32.4 7280	24.6 5531	20.0 4492	18.9 4253	17.7 3978	16.8 3766	16.0 3596	15.4 3455	14.8 3335	14.4 3231	14.1 3169	13.7 3085
			60000	43.5 9771	35.3 7937	28.7 6446	21.8 4897	17.7 3978	16.8 3766	15.7 3522	14.8 3335	14.2 3184	13.6 3059	13.1 2953	12.7 2861	12.5 2806	12.2 2732
			100000	37.3 8383	30.3 6809	24.6 5531	18.7 4201	15.2 3413	14.4 3231	13.4 3022	12.7 2861	12.2 2732	11.7 2624	11.3 2533	10.9 2454	10.7 2407	10.4 2343

<sup>(1)</sup>Speeds referenced here may be higher than speed rating for seals. Please refer to the charts on pages C-25 and C-26.

<sup>(2)</sup>For speeds greater than thermal reference speed, contact your Timken engineer.

*Continued on next page.*

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

ENGINEERING • BEARING LOAD

Continued from previous page.

Shaft Diameter	Bearing No.	C	L <sub>10</sub> Life	Speed <sup>(2)</sup>												
				RPM												
mm in.		kN lbs.		50	100	200	500	1000	1200	1500	1800	2100	2400	2700 <sup>(1)</sup>	3000 <sup>(1)</sup>	3200 <sup>(1)</sup>
<b>70, 75</b> 2 1/16, 2 3/4, 2 15/16, 3	22215	222 49900	10000	80.0 17987	65.0 14610	52.8 11867	40.1 9015	32.6 7322	30.8 6933	28.8 6484	27.3 6139	26.1 5861	25.0 5631	24.2 5436	23.4 5266	23.0 5166
			30000	57.5 12937	46.7 10508	38.0 8535	28.8 6484	23.4 5266	22.2 4986	20.7 4663	19.6 4415	18.8 4216	18.0 4050	17.4 3909	16.8 3788	16.5 3715
			40000	52.8 11867	42.9 9639	34.8 7829	26.5 5948	21.5 4831	20.3 4574	19.0 4278	18.0 4050	17.2 3867	16.5 3715	16.0 3586	15.5 3475	15.2 3408
			60000	46.7 10508	38.0 8535	30.8 6933	23.4 5266	19.0 4278	18.0 4050	16.8 3788	16.0 3586	15.2 3424	14.6 3290	14.1 3175	13.7 3077	13.4 3018
			100000	40.1 9015	32.6 7322	26.5 5948	20.1 4518	16.3 3670	15.5 3475	14.5 3250	13.7 3077	13.1 2938	12.6 2822	12.1 2724	11.7 2639	11.5 2589
				50	100	200	500	1000	1200	1500	1800	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>	2700 <sup>(1)</sup>		
<b>80, 85, 90</b> 3 3/16, 3 1/4, 3 7/16, 3 1/2	22218	355 79700	10000	127.8 28729	103.8 23335	84.3 18954	64.0 14399	52.0 11695	49.3 11073	46.1 10356	43.6 9805	41.6 9362	40.0 8994	38.6 8682		
			30000	91.9 20663	74.7 16783	60.6 13632	46.1 10356	37.4 8412	35.4 7964	33.1 7448	31.4 7052	29.9 6733	28.8 6469	27.8 6244		
			40000	84.3 18954	68.5 15396	55.6 12505	42.3 9500	34.3 7716	32.5 7305	30.4 6832	28.8 6469	27.5 6176	26.4 5934	25.5 5728		
			60000	74.7 16783	60.6 13632	49.3 11073	37.4 8412	30.4 6832	28.8 6469	26.9 6050	25.5 5728	24.3 5469	23.4 5254	22.6 5072		
			100000	64.0 14399	52.0 11695	42.3 9500	32.1 7216	26.1 5862	24.7 5550	23.1 5190	21.9 4914	20.9 4692	20.1 4508	19.4 4351		
				50	100	200	500	1000	1200	1500	1800 <sup>(1)</sup>	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>	2700 <sup>(1)</sup>		
<b>100</b> 3 11/16, 3 3/4, 3 15/16, 4	22220	435 97700	10000	156.7 35218	127.2 28606	103.4 23235	78.5 17651	63.8 14337	60.4 13574	56.5 12695	53.5 12019	51.0 11476	49.0 11025	47.3 10642		
			30000	112.7 25329	91.5 20574	74.3 16711	56.5 12695	45.9 10311	43.4 9762	40.6 9130	38.5 8644	36.7 8254	35.3 7930	34.0 7654		
			40000	103.4 23235	84.0 18873	68.2 15329	51.8 11645	42.1 9459	39.8 8955	37.3 8375	35.3 7930	33.7 7571	32.4 7274	31.2 7021		
			60000	91.5 20574	74.3 16711	60.4 13574	45.9 10311	37.3 8375	35.3 7930	33.0 7416	31.2 7021	29.8 6704	28.7 6441	27.7 6217		
			100000	78.5 17651	63.8 14337	51.8 11645	39.3 8846	32.0 7185	30.3 6803	28.3 6362	26.8 6024	25.6 5752	24.6 5526	23.7 5334		
				50	100	200	500	1000	1200	1500 <sup>(1)</sup>	1800 <sup>(1)</sup>	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>			
<b>110, 115</b> 4 7/16, 4 1/2	22222	555 125000	10000	200.4 45058	162.8 36599	132.2 29727	100.5 22583	81.6 18343	77.3 17367	72.2 16242	68.4 15377	65.3 14683	62.7 14106			
			30000	144.2 32407	117.1 26323	95.1 21381	72.2 16242	58.7 13193	55.6 12490	52.0 11682	49.2 11060	47.0 10560	45.1 10145			
			40000	132.2 29727	107.4 24146	87.2 19613	66.3 14899	53.8 12102	51.0 11458	47.7 10716	45.1 10145	43.1 9687	41.4 9306			
			60000	117.1 26323	95.1 21381	77.3 17367	58.7 13193	47.7 10716	45.1 10145	42.2 9488	40.0 8983	38.2 8577	36.7 8241			
			100000	100.5 22583	81.6 18343	66.3 14899	50.3 11318	40.9 9193	38.7 8704	36.2 8140	34.3 7707	32.7 7359	31.4 7070			
				50	100	200	500	1000	1200 <sup>(1)</sup>	1500 <sup>(1)</sup>	1800 <sup>(1)</sup>	2100 <sup>(1)</sup>				
<b>125, 130</b> 4 15/16, 5	22226	757 170000	10000	272.6 61279	221.4 49774	179.8 40429	136.6 30712	111.0 24946	105.1 23618	98.3 22089	93.0 20913	88.8 19968				
			30000	196.1 44074	159.2 35799	129.3 29078	98.3 22089	79.8 17942	75.6 16987	70.7 15887	66.9 15041	63.9 14362				
			40000	179.8 40429	146.1 32839	118.6 26673	90.1 20263	73.2 16458	69.3 15582	64.8 14573	61.4 13798	58.6 13174				
			60000	159.2 35799	129.3 29078	105.1 23618	79.8 17942	64.8 14573	61.4 13798	57.4 12904	54.3 12217	51.9 11665				
			100000	136.6 30712	111.0 24946	90.1 20263	68.5 15393	55.6 12503	52.7 11837	49.2 11071	46.6 10482	44.5 10008				

<sup>(1)</sup>Speeds referenced here may be higher than speed rating for seals. Please refer to the charts on pages C-25 and C-26.

<sup>(2)</sup>For speeds greater than thermal reference speed, contact your Timken engineer.

Continued on next page.

### LOAD RATINGS – *continued*

**TABLE C-7. EC SERIES – ALLOWABLE RADIAL LOAD (kN/LBS.) AT VARIOUS RPM<sup>(1)</sup> – *continued***

Shaft Diameter	Bearing No.	C	L <sub>10</sub> Life	Speed <sup>(2)</sup>					
				RPM					
mm in.		kN lbs.		50	100	200	500	1000 <sup>(1)</sup>	1200 <sup>(1)</sup>
<b>140, 150</b> 5 7/16, 5 1/2, 5 15/16, 6	23230	<b>1270</b> 286000	10000	<b>458.6</b> 103094	<b>372.5</b> 83738	<b>302.6</b> 68016	<b>229.8</b> 51669	<b>186.7</b> 41968	<b>176.8</b> 39735
			30000	<b>329.8</b> 74147	<b>267.9</b> 60226	<b>217.6</b> 48919	<b>165.3</b> 37162	<b>134.3</b> 30185	<b>127.1</b> 28578
			40000	<b>302.6</b> 68016	<b>245.8</b> 55247	<b>199.6</b> 44874	<b>151.6</b> 34089	<b>123.2</b> 27689	<b>116.6</b> 26215
			60000	<b>267.9</b> 60226	<b>217.6</b> 48919	<b>176.8</b> 39735	<b>134.3</b> 30185	<b>109.1</b> 24518	<b>103.3</b> 23213
			100000	<b>229.8</b> 51669	<b>186.7</b> 41968	<b>151.6</b> 34089	<b>115.2</b> 25896	<b>93.6</b> 21034	<b>88.6</b> 19914
<b>170, 180</b> 6 7/16, 6 1/2, 6 15/16, 7	23234	<b>1660</b> 373000		50	100	200	500	1000 <sup>(1)</sup>	
			10000	<b>598.1</b> 134454	<b>485.8</b> 109211	<b>394.6</b> 88707	<b>299.8</b> 67387	<b>243.5</b> 54735	
			30000	<b>430.2</b> 96703	<b>349.4</b> 78547	<b>283.8</b> 63800	<b>215.6</b> 48466	<b>175.1</b> 39367	
			40000	<b>394.6</b> 88707	<b>320.5</b> 72052	<b>260.3</b> 58525	<b>197.8</b> 44459	<b>160.6</b> 36112	
			60000	<b>349.4</b> 78547	<b>283.8</b> 63800	<b>230.5</b> 51822	<b>175.1</b> 39367	<b>142.2</b> 31976	
			100000	<b>299.8</b> 67387	<b>243.5</b> 54735	<b>197.8</b> 44459	<b>150.2</b> 33773	<b>122.0</b> 27433	

<sup>(1)</sup>Speeds referenced here may be higher than speed rating for seals. Please refer to the charts on pages C-25 and C-26.

<sup>(2)</sup>For speeds greater than thermal reference speed, contact your Timken engineer.

TABLE C-8. TA/DV SERIES – ALLOWABLE RADIAL LOAD (kN/LBS.) AT VARIOUS RPM<sup>(1)</sup>

Shaft Diameter	Bearing No.	C	L <sub>10</sub> Life	Speed <sup>(2)</sup>														
				RPM														
mm in.		kN lbs.		50	100	200	500	1000	1200	1500	1800	2100	2400	2700	3000	3200	3500	
40 1 7/16, 1 1/2	22209	109 24500	10000	39.3 8831	31.9 7173	25.9 5827	19.7 4426	16.0 3595	15.1 3404	14.2 3183	13.4 3014	12.8 2878	12.3 2765	11.9 2669	11.5 2586	11.3 2536	11.0 2469	
			30000	28.3 6352	22.9 5159	18.6 4191	14.2 3183	11.5 2586	10.9 2448	10.2 2290	9.6 2168	9.2 2070	8.8 1988	8.5 1919	8.3 1860	8.1 1824	7.9 1776	
			40000	25.9 5827	21.1 4733	17.1 3844	13.0 2920	10.6 2372	10.0 2246	9.3 2100	8.8 1988	8.4 1899	8.1 1824	7.8 1761	7.7 1761	7.6 1706	7.4 1673	7.2 1629
			60000	22.9 5159	18.6 4191	15.1 3404	11.5 2586	9.3 2100	8.8 1988	8.3 1860	7.8 1761	7.5 1681	7.2 1615	6.9 1559	6.7 1511	6.6 1482	6.4 1442	
			100000	19.7 4426	16.0 3595	13.0 2920	9.9 2218	8.0 1802	7.6 1706	7.1 1595	6.7 1511	6.4 1442	6.2 1386	6.0 1338	5.8 1296	5.7 1271	5.5 1237	
				50	100	200	500	1000	1200	1500	1800	2100	2400	2700	3000	3200	3500	
45 1 11/16, 1 3/4	22210	117 26300	10000	42.2 9480	34.3 7700	27.8 6255	21.1 4751	17.2 3859	16.3 3654	15.2 3417	14.4 3235	13.7 3089	13.2 2968	12.7 2865	12.3 2776	12.1 2723	11.8 2650	
			30000	30.3 6818	24.6 5538	20.0 4498	15.2 3417	12.3 2776	11.7 2628	10.9 2458	10.4 2327	9.9 2222	9.5 2135	9.2 2060	8.9 1996	8.7 1958	8.5 1906	
			40000	27.8 6255	22.6 5080	18.4 4127	13.9 3135	11.3 2546	10.7 2411	10.0 2255	9.5 2135	9.1 2038	8.7 1958	8.4 1890	8.1 1831	8.0 1796	7.8 1749	
			60000	24.6 5538	20.0 4498	16.3 3654	12.3 2776	10.0 2255	9.5 2135	8.9 1996	8.4 1890	8.0 1805	7.7 1734	7.4 1674	7.2 1622	7.1 1590	6.9 1548	
			100000	21.1 4751	17.2 3859	13.9 3135	10.6 2381	8.6 1934	8.1 1831	7.6 1713	7.2 1622	6.9 1548	6.6 1487	6.4 1436	6.2 1391	6.1 1364	5.9 1328	
				50	100	200	500	1000	1200	1500	1800	2100	2400	2700	3000	3200	3500 <sup>(1)</sup>	
50 1 15/16, 2	22211	140 31400	10000	50.3 11319	40.9 9194	33.2 7468	25.2 5673	20.5 4608	19.4 4362	18.1 4080	17.2 3863	16.4 3688	15.8 3543	15.2 3420	14.7 3314	14.5 3250	14.1 3164	
			30000	36.2 8141	29.4 6612	23.9 5371	18.1 4080	14.7 3314	14.0 3138	13.1 2934	12.4 2778	11.8 2653	11.3 2549	10.9 2460	10.6 2383	10.4 2338	10.1 2276	
			40000	33.2 7468	27.0 6066	21.9 4927	16.6 3743	13.5 3040	12.8 2878	12.0 2692	11.3 2549	10.8 2433	10.4 2338	10.0 2257	9.7 2186	9.5 2144	9.3 2088	
			60000	29.4 6612	23.9 5371	19.4 4362	14.7 3314	12.0 2692	11.3 2549	10.6 2383	10.0 2257	9.6 2155	9.2 2070	8.9 1998	8.6 1936	8.4 1899	8.2 1849	
			100000	25.2 5673	20.5 4608	16.6 3743	12.6 2843	10.3 2309	9.7 2186	9.1 2045	8.6 1936	8.2 1849	7.9 1776	7.6 1714	7.4 1661	7.2 1629	7.1 1586	
				50	100	200	500	1000	1200	1500	1800	2100	2400	2700	3000	3200 <sup>(1)</sup>	3500 <sup>(1)</sup>	
55 –	22212	169 38100	10000	61.1 13734	49.6 11155	40.3 9061	30.6 6883	24.9 5591	23.5 5293	22.0 4951	20.8 4687	19.9 4475	19.1 4300	18.5 4150	17.9 4021	17.5 3944	17.1 3839	
			30000	43.9 9878	35.7 8023	29.0 6517	22.0 4951	17.9 4021	16.9 3807	15.8 3561	15.0 3371	14.3 3219	13.8 3092	13.3 2985	12.9 2892	12.6 2837	12.3 2761	
			40000	40.3 9061	32.7 7360	26.6 5978	20.2 4541	16.4 3689	15.5 3492	14.5 3266	13.8 3092	13.1 2953	12.6 2837	12.2 2738	11.8 2653	11.6 2602	11.3 2533	
			60000	35.7 8023	29.0 6517	23.5 5293	17.9 4021	14.5 3266	13.8 3092	12.9 2892	12.2 2738	11.6 2614	11.2 2512	10.8 2425	10.4 2349	10.2 2304	10.0 2243	
			100000	30.6 6883	24.9 5591	20.2 4541	15.3 3450	12.5 2802	11.8 2653	11.0 2481	10.4 2349	10.0 2243	9.6 2155	9.3 2080	9.0 2015	8.8 1977	8.6 1924	
				50	100	200	500	1000	1200	1500	1800	2100	2400	2700	3000 <sup>(1)</sup>	3200 <sup>(1)</sup>	3500 <sup>(1)</sup>	
60 2 3/16, 2 1/4	22213	206 46400	10000	74.4 16726	60.4 13585	49.1 11035	37.3 8383	30.3 6809	28.7 6446	26.8 6029	25.4 5708	24.2 5450	23.3 5236	22.5 5054	21.8 4897	21.4 4803	20.8 4676	
			30000	53.5 12030	43.5 9771	35.3 7937	26.8 6029	21.8 4897	20.6 4636	19.3 4336	18.3 4105	17.4 3920	16.8 3766	16.2 3635	15.7 3522	15.4 3455	15.0 3363	
			40000	49.1 11035	39.9 8963	32.4 7280	24.6 5531	20.0 4492	18.9 4253	17.7 3978	16.8 3766	16.0 3596	15.4 3455	14.8 3335	14.4 3231	14.1 3169	13.7 3085	
			60000	43.5 9771	35.3 7937	28.7 6446	21.8 4897	17.7 3978	16.8 3766	15.7 3522	14.8 3335	14.2 3184	13.6 3059	13.1 2953	12.7 2861	12.5 2806	12.2 2732	
			100000	37.3 8383	30.3 6809	24.6 5531	18.7 4201	15.2 3413	14.4 3231	13.4 3022	12.7 2861	12.2 2732	11.7 2624	11.3 2533	10.9 2454	10.7 2407	10.4 2343	
				50	100	200	500	1000	1200	1500	1800	2100	2400	2700	3000 <sup>(1)</sup>	3200 <sup>(1)</sup>	3500 <sup>(1)</sup>	

<sup>(1)</sup>Speeds referenced here may be higher than speed rating for seals. Please refer to the charts on pages C-25 and C-26.

<sup>(2)</sup>For speeds greater than thermal reference speed, contact your Timken engineer.

Continued on next page.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

ENGINEERING • BEARING LOAD

## LOAD RATINGS – continued

TABLE C-8. TA/DV SERIES – ALLOWABLE RADIAL LOAD (kN/LBS.) AT VARIOUS RPM<sup>(1)</sup> – continued

Shaft Diameter	Bearing No.	C	L <sub>10</sub> Life	Speed <sup>(2)</sup>												
				RPM												
mm in.		kN lbs.		50	100	200	500	1000	1200	1500	1800	2100	2400	2700 <sup>(1)</sup>	3000 <sup>(1)</sup>	3200 <sup>(1)</sup>
65 2 7/16, 2 1/2	22215	222 49900	10000	80.0 17987	65.0 14610	52.8 11867	40.1 9015	32.6 7322	30.8 6933	28.8 6484	27.3 6139	26.1 5861	25.0 5631	24.2 5436	23.4 5266	23.0 5166
			30000	57.5 12937	46.7 10508	38.0 8535	28.8 6484	23.4 5266	22.2 4986	20.7 4663	19.6 4415	18.8 4216	18.0 4050	17.4 3909	16.8 3788	16.5 3715
			40000	52.8 11867	42.9 9639	34.8 7829	26.5 5948	21.5 4831	20.3 4574	19.0 4278	18.0 4050	17.2 3867	16.5 3715	16.0 3586	15.5 3475	15.2 3408
			60000	46.7 10508	38.0 8535	30.8 6933	23.4 5266	19.0 4278	18.0 4050	16.8 3788	16.0 3586	15.2 3424	14.6 3290	14.1 3175	13.7 3077	13.4 3018
			100000	40.1 9015	32.6 7322	26.5 5948	20.1 4518	16.3 3670	15.5 3475	14.5 3250	13.7 3077	13.1 2938	12.6 2822	12.1 2724	11.7 2639	11.5 2589
						50	100	200	500	1000	1200	1500	1800	2100	2400 <sup>(1)</sup>	2700 <sup>(1)</sup>
70 2 11/16, 2 3/4	22216	254 57200	10000	91.7 20619	74.5 16748	60.5 13603	46.0 10334	37.3 8394	35.4 7947	33.1 7432	31.3 7037	29.9 6719	28.7 6455	27.7 6231	26.9 6037	
			30000	66.0 14829	53.6 12045	43.5 9784	33.1 7432	26.9 6037	25.4 5716	23.8 5346	22.5 5061	21.5 4832	20.7 4643	19.9 4481	19.3 4342	
			40000	60.5 13603	49.1 11049	39.9 8975	30.3 6818	24.6 5538	23.3 5243	21.8 4904	20.7 4643	19.7 4433	18.9 4259	18.3 4111	17.7 3983	
			60000	53.6 12045	43.5 9784	35.4 7947	26.9 6037	21.8 4904	20.7 4643	19.3 4342	18.3 4111	17.5 3925	16.8 3771	16.2 3640	15.7 3527	
			100000	46.0 10334	37.3 8394	30.3 6818	23.0 5179	18.7 4207	17.7 3983	16.6 3725	15.7 3527	15.0 3367	14.4 3235	13.9 3123	13.5 3026	
						50	100	200	500	1000	1200	1500	1800	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>	2700 <sup>(1)</sup>
75 2 15/16, 3	22217	297 66900	10000	107.3 24115	87.1 19588	70.8 15910	53.8 12086	43.7 9817	41.3 9295	38.7 8693	36.6 8230	35.0 7858	33.6 7550	32.4 7287		
			30000	77.1 17344	62.7 14088	50.9 11443	38.7 8693	31.4 7061	29.7 6685	27.8 6252	26.3 5919	25.1 5652	24.2 5430	23.3 5241		
			40000	70.8 15910	57.5 12923	46.7 10497	35.5 7974	28.8 6477	27.3 6132	25.5 5735	24.2 5430	23.1 5184	22.2 4981	21.4 4808		
			60000	62.7 14088	50.9 11443	41.3 9295	31.4 7061	25.5 5735	24.2 5430	22.6 5078	21.4 4808	20.4 4591	19.6 4410	18.9 4257		
			100000	53.8 12086	43.7 9817	35.5 7974	26.9 6057	21.9 4920	20.7 4658	19.4 4357	18.3 4125	17.5 3938	16.8 3784	16.2 3652		
						50	100	200	500	1000	1200	1500	1800	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>	2700 <sup>(1)</sup>
80 3 3/16, 3 1/4	22218	355 79700	10000	127.8 28729	103.8 23335	84.3 18954	64.0 14399	52.0 11695	49.3 11073	46.1 10356	43.6 9805	41.6 9362	40.0 8994	38.6 8682		
			30000	91.9 20663	74.7 16783	60.6 13632	46.1 10356	37.4 8412	35.4 7964	33.1 7448	31.4 7052	29.9 6733	28.8 6469	27.8 6244		
			40000	84.3 18954	68.5 15396	55.6 12505	42.3 9500	34.3 7716	32.5 7305	30.4 6832	28.8 6469	27.5 6176	26.4 5934	25.5 5728		
			60000	74.7 16783	60.6 13632	49.3 11073	37.4 8412	30.4 6832	28.8 6469	26.9 6050	25.5 5728	24.3 5469	23.4 5254	22.6 5072		
			100000	64.0 14399	52.0 11695	42.3 9500	32.1 7216	26.1 5862	24.7 5550	23.1 5190	21.9 4914	20.9 4692	20.1 4508	19.4 4351		
						50	100	200	500	1000	1200	1500	1800	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>	2700 <sup>(1)</sup>
85 –	22219	385 86600	10000	138.9 31216	112.8 25356	91.6 20595	69.6 15645	56.5 12708	53.5 12032	50.1 11252	47.4 10654	45.2 10172	43.5 9773	42.0 9433		
			30000	99.9 22452	81.1 18236	65.9 14813	50.1 11252	40.7 9140	38.5 8653	36.0 8093	34.1 7662	32.5 7316	31.3 7029	30.2 6785		
			40000	91.6 20595	74.4 16729	60.4 13588	45.9 10322	37.3 8384	35.3 7938	33.0 7424	31.3 7029	29.9 6711	28.7 6448	27.7 6224		
			60000	81.1 18236	65.9 14813	53.5 12032	40.7 9140	33.0 7424	31.3 7029	29.2 6574	27.7 6224	26.4 5942	25.4 5709	24.5 5511		
			100000	69.6 15645	56.5 12708	45.9 10322	34.9 7841	28.3 6369	26.8 6030	25.1 5640	23.7 5339	22.7 5098	21.8 4898	21.0 4728		
						50	100	200	500	1000	1200	1500	1800	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>	2700 <sup>(1)</sup>

<sup>(1)</sup>Speeds referenced here may be higher than speed rating for seals. Please refer to the charts on pages C-25 and C-26.

<sup>(2)</sup>For speeds greater than thermal reference speed, contact your Timken engineer.

Continued on next page.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

ENGINEERING • BEARING LOAD

Continued from previous page.

Shaft Diameter	Bearing No.	C	L <sub>10</sub> Life	Speed <sup>(2)</sup>												
				RPM												
mm in.		kN lbs.		50	100	200	500	1000	1200	1500	1800 <sup>(1)</sup>	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>	2700 <sup>(1)</sup>		
<b>90</b> 3 7/16, 3 1/2	22220	<b>435</b> 97700	10000	<b>156.7</b> 35218	<b>127.2</b> 28606	<b>103.4</b> 23235	<b>78.5</b> 17651	<b>63.8</b> 14337	<b>60.4</b> 13574	<b>56.5</b> 12695	<b>53.5</b> 12019	<b>51.0</b> 11476	<b>49.0</b> 11025	<b>47.3</b> 10642		
			30000	<b>112.7</b> 25329	<b>91.5</b> 20574	<b>74.3</b> 16711	<b>56.5</b> 12695	<b>45.9</b> 10311	<b>43.4</b> 9762	<b>40.6</b> 9130	<b>38.5</b> 8644	<b>36.7</b> 8254	<b>35.3</b> 7930	<b>34.0</b> 7654		
			40000	<b>103.4</b> 23235	<b>84.0</b> 18873	<b>68.2</b> 15329	<b>51.8</b> 11645	<b>42.1</b> 9459	<b>39.8</b> 8955	<b>37.3</b> 8375	<b>35.3</b> 7930	<b>33.2</b> 7416	<b>31.2</b> 7021	<b>29.8</b> 6704	<b>28.7</b> 6441	<b>27.7</b> 6217
			60000	<b>91.5</b> 20574	<b>74.3</b> 16711	<b>60.4</b> 13574	<b>45.9</b> 10311	<b>37.3</b> 8375	<b>35.3</b> 7930	<b>33.0</b> 7416	<b>31.2</b> 7021	<b>29.8</b> 6704	<b>28.7</b> 6441	<b>27.7</b> 6217		
			100000	<b>78.5</b> 17651	<b>63.8</b> 14337	<b>51.8</b> 11645	<b>39.3</b> 8846	<b>32.0</b> 7185	<b>30.3</b> 6803	<b>28.3</b> 6362	<b>26.8</b> 6024	<b>25.6</b> 5752	<b>24.6</b> 5526	<b>23.7</b> 5334		
							50	100	200	500	1000	1200	1500 <sup>(1)</sup>	1800 <sup>(1)</sup>	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>
<b>100</b> 3 15/16, 4	22222	<b>555</b> 125000	10000	<b>200.4</b> 45058	<b>162.8</b> 36599	<b>132.2</b> 29727	<b>100.5</b> 22583	<b>81.6</b> 18343	<b>77.3</b> 17367	<b>72.2</b> 16242	<b>68.4</b> 15377	<b>65.3</b> 14683	<b>62.7</b> 14106			
			30000	<b>144.2</b> 32407	<b>117.1</b> 26323	<b>95.1</b> 21381	<b>72.2</b> 16242	<b>58.7</b> 13193	<b>55.6</b> 12490	<b>52.0</b> 11682	<b>49.2</b> 11060	<b>47.0</b> 10560	<b>45.1</b> 10145			
			40000	<b>132.2</b> 29727	<b>107.4</b> 24146	<b>87.2</b> 19613	<b>66.3</b> 14899	<b>53.8</b> 12102	<b>51.0</b> 11458	<b>47.7</b> 10716	<b>45.1</b> 10145	<b>43.1</b> 9687	<b>41.4</b> 9306			
			60000	<b>117.1</b> 26323	<b>95.1</b> 21381	<b>77.3</b> 17367	<b>58.7</b> 13193	<b>47.7</b> 10716	<b>45.1</b> 10145	<b>42.2</b> 9488	<b>40.0</b> 8983	<b>38.2</b> 8577	<b>36.7</b> 8241			
			100000	<b>100.5</b> 22583	<b>81.6</b> 18343	<b>66.3</b> 14899	<b>50.3</b> 11318	<b>40.9</b> 9193	<b>38.7</b> 8704	<b>36.2</b> 8140	<b>34.3</b> 7707	<b>32.7</b> 7359	<b>31.4</b> 7070			
							50	100	200	500	1000	1200	1500 <sup>(1)</sup>	1800 <sup>(1)</sup>	2100 <sup>(1)</sup>	2400 <sup>(1)</sup>
<b>110</b> 4 3/16, 4 1/4	22224	<b>647</b> 145000	10000	<b>232.5</b> 52268	<b>188.8</b> 42455	<b>153.4</b> 34484	<b>116.5</b> 26196	<b>94.6</b> 21278	<b>89.6</b> 20145	<b>83.8</b> 18841	<b>79.3</b> 17838	<b>75.8</b> 17032	<b>72.8</b> 16363			
			30000	<b>167.2</b> 37592	<b>135.8</b> 30534	<b>110.3</b> 24802	<b>83.8</b> 18841	<b>68.1</b> 15303	<b>64.5</b> 14489	<b>60.3</b> 13551	<b>57.1</b> 12829	<b>54.5</b> 12250	<b>52.4</b> 11769			
			40000	<b>153.4</b> 34484	<b>124.6</b> 28010	<b>101.2</b> 22751	<b>76.9</b> 17283	<b>62.4</b> 14038	<b>59.1</b> 13291	<b>55.3</b> 12430	<b>52.4</b> 11769	<b>50.0</b> 11237	<b>48.0</b> 10796			
			60000	<b>135.8</b> 30534	<b>110.3</b> 24802	<b>89.6</b> 20145	<b>68.1</b> 15303	<b>55.3</b> 12430	<b>52.4</b> 11769	<b>49.0</b> 11007	<b>46.4</b> 10421	<b>44.3</b> 9950	<b>42.5</b> 9559			
			100000	<b>116.5</b> 26196	<b>94.6</b> 21278	<b>76.9</b> 17283	<b>58.4</b> 13129	<b>47.4</b> 10664	<b>44.9</b> 10097	<b>42.0</b> 9443	<b>39.8</b> 8940	<b>38.0</b> 8536	<b>36.5</b> 8201			
							50	100	200	500	1000	1200 <sup>(1)</sup>	1500 <sup>(1)</sup>	1800 <sup>(1)</sup>	2100 <sup>(1)</sup>	
<b>115</b> 4 7/16, 4 1/2	22226	<b>757</b> 170000	10000	<b>272.6</b> 61279	<b>221.4</b> 49774	<b>179.8</b> 40429	<b>136.6</b> 30712	<b>111.0</b> 24946	<b>105.1</b> 23618	<b>98.3</b> 22089	<b>93.0</b> 20913	<b>88.8</b> 19968				
			30000	<b>196.1</b> 44074	<b>159.2</b> 35799	<b>129.3</b> 29078	<b>98.3</b> 22089	<b>79.8</b> 17942	<b>75.6</b> 16987	<b>70.7</b> 15887	<b>66.9</b> 15041	<b>63.9</b> 14362				
			40000	<b>179.8</b> 40429	<b>146.1</b> 32839	<b>118.6</b> 26673	<b>90.1</b> 20263	<b>73.2</b> 16458	<b>69.3</b> 15582	<b>64.8</b> 14573	<b>61.4</b> 13798	<b>58.6</b> 13174				
			60000	<b>159.2</b> 35799	<b>129.3</b> 29078	<b>105.1</b> 23618	<b>79.8</b> 17942	<b>64.8</b> 14573	<b>61.4</b> 13798	<b>57.4</b> 12904	<b>54.3</b> 12217	<b>51.9</b> 11665				
			100000	<b>136.6</b> 30712	<b>111.0</b> 24946	<b>90.1</b> 20263	<b>68.5</b> 15393	<b>55.6</b> 12503	<b>52.7</b> 11837	<b>49.2</b> 11071	<b>46.6</b> 10482	<b>44.5</b> 10008				
							50	100	200	500	1000 <sup>(1)</sup>	1200 <sup>(1)</sup>	1500 <sup>(1)</sup>	1800 <sup>(1)</sup>		
<b>125</b> 4 15/16, 5	22228	<b>863</b> 194000	10000	<b>311.1</b> 69931	<b>252.7</b> 56801	<b>205.2</b> 46137	<b>155.9</b> 35048	<b>126.6</b> 28468	<b>119.9</b> 26953	<b>112.1</b> 25208	<b>106.2</b> 23866					
			30000	<b>223.7</b> 50296	<b>181.7</b> 40853	<b>147.6</b> 33183	<b>112.1</b> 25208	<b>91.1</b> 20475	<b>86.2</b> 19385	<b>80.6</b> 18130	<b>76.4</b> 17165					
			40000	<b>205.2</b> 46137	<b>166.7</b> 37475	<b>135.4</b> 30439	<b>102.9</b> 23123	<b>83.5</b> 18782	<b>79.1</b> 17782	<b>74.0</b> 16631	<b>70.0</b> 15746					
			60000	<b>181.7</b> 40853	<b>147.6</b> 33183	<b>119.9</b> 26953	<b>91.1</b> 20475	<b>74.0</b> 16631	<b>70.0</b> 15746	<b>65.5</b> 14726	<b>62.0</b> 13942					
			100000	<b>155.9</b> 35048	<b>126.6</b> 28468	<b>102.9</b> 23123	<b>78.1</b> 17566	<b>63.5</b> 14268	<b>60.1</b> 13508	<b>56.2</b> 12634	<b>53.2</b> 11961					
							50	100	200	500	1000 <sup>(1)</sup>	1200 <sup>(1)</sup>	1500 <sup>(1)</sup>	1800 <sup>(1)</sup>		

<sup>(1)</sup>Speeds referenced here may be higher than speed rating for seals. Please refer to the charts on pages C-25 and C-26.

<sup>(2)</sup>For speeds greater than thermal reference speed, contact your Timken engineer.

### HOUSING LOADS

Because solid-block housed unit bearings are made of cast steel, they are built to last with high allowable load in multiple orientations.

Refer to tables below for allowable housing loads.

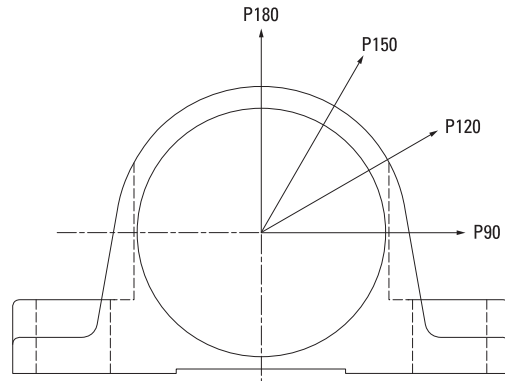


Fig. C-15. Allowable housing loads.

TABLE C-9. HOUSING CAPACITY CHART (222XX SERIES)

Bearing No.	Static Capacity	Fs Ratio 1:5	Timken Factor 180	Housing Capacity 180	Timken Factor 150	Housing Capacity 150	Timken Factor 120	Housing Capacity 120	Timken Factor 90	Housing Capacity 90
	kN lbs.			kN lbs.		kN lbs.		kN lbs.		kN lbs.
22208	99.7 22400	0.20	1	20 4480	0.86	17 3850	1	20 4480	1.73	34 7750
22209	108 24200	0.20	1	22 4840	0.86	18 4160	1	22 4840	1.73	37 8370
22210	118 26600	0.20	1	24 5320	0.86	20 4570	1	24 5320	1.73	41 9200
22211	142 31900	0.20	1	28 6380	0.86	24 5490	1	28 6380	1.73	49 11040
22212	174 39000	0.20	1	35 7800	0.86	30 6710	1	35 7800	1.73	60 13490
22213	216 48600	0.20	1	43 9720	0.86	37 8360	1	43 9720	1.73	75 16820
22214	231 52000	0.20	1	46 10400	0.86	40 8940	1	46 10400	1.73	800 17990
22215	240 54100	0.20	1	48 10820	0.86	41 9310	1	48 10820	1.73	83 18720
22216	278 62500	0.20	1	56 12500	0.86	48 10750	1	56 12500	1.73	96 21630
22217	320 71900	0.20	1	64 14380	0.86	55 12370	1	64 14380	1.73	111 24880
22218	388 87200	0.20	1	78 17440	0.86	67 15000	1	78 17440	1.73	134 30170
22219	441 99000	0.20	1	88 19800	0.86	76 17030	1	88 19800	1.73	152 34250
22220	502 113000	0.20	1	100 22600	0.86	86 19440	1	100 22600	1.73	174 39100
22222	653 147000	0.20	1	131 29400	0.86	112 25290	1	131 29400	1.73	226 50860
22224	772 174000	0.20	1	155 34800	0.86	133 29930	1	155 34800	1.73	268 60200
22226	945 212000	0.20	1	188 42400	0.86	162 36460	1	188 42400	1.73	326 73350
22228	1060 237000	0.20	1	211 47400	0.86	181 40760	1	211 47400	1.73	364 82000

TABLE C-10. HOUSING CAPACITY CHART (232XX SERIES)

Bearing	Static Capacity	Fs Ratio 1:5	Timken Factor 180	Housing Capacity 180	Timken Factor 150	Housing Capacity 150	Timken Factor 120	Housing Capacity 120	Timken Factor 90	Housing Capacity 90
	kN lbs.			kN lbs.		kN lbs.		kN lbs.		kN lbs.
23230	1660 372000	0.17	1	281 63240	0.86	242 54390	1	281 63240	1.73	486 109400
23234	2200 494000	0.17	1	373 83980	0.86	321 72220	1	373 83980	1.73	646 145290

## NORMAL SPEED RATINGS FOR SEALS

TABLE C-11. V-LOCK SERIES NORMAL SEAL SPEED RATINGS (RPM)

Shaft Dia. mm in.	Bearing No.	Oil Lubrication			Grease Lubrication		
		M/N Seal <sup>(1)</sup>	T Seal	B/C/O Seal <sup>(1)</sup>	M/N Seal <sup>(1)</sup>	T Seal	B/C/O Seal <sup>(1)</sup>
<b>50</b> 1 15/16, 2	22211	2200	3800	1800	2200	3200	1600
<b>55</b> 2 3/16, 2 1/4	22212	2000	3500	1650	2000	3000	1550
	22213	1800	3200	1500	1800	2800	1500
<b>60, 65</b> 2 7/16, 2 1/2	22214	1700	3050	1400	1700	2600	1400
	22215	1600	2900	1300	1600	2400	1300
<b>70, 75</b> 2 11/16, 2 3/4 2 15/16, 3	22216	1500	2650	1200	1500	2200	1150
	22217	1400	2400	1100	1400	2000	1100
<b>80, 85, 90</b> 3 3/16, 3 1/4 3 7/16, 3 1/2	22219	1300	2200	1000	1300	1800	950
	22220	1200	2000	900	1200	1600	900
<b>100</b> 3 11/16, 3 3/4 3 15/16, 4	22222	900	1700	600	900	1200	600
	22224 22226	700	1500	400	700	1000	400
<b>125, 130</b> 4 15/16, 5	22228	650	1200	350	650	900	350

<sup>(1)</sup>Bearings with contact seals will have higher operating temperatures than bearings with labyrinth seals.

TABLE C-12. CL SERIES NORMAL SEAL SPEED RATINGS (RPM)

Shaft Dia. mm in.	Bearing No.	Oil Lubrication			Grease Lubrication		
		M/N Seal <sup>(1)</sup>	T Seal	B/C/O Seal <sup>(1)</sup>	M/N Seal <sup>(1)</sup>	T Seal	B/C/O Seal <sup>(1)</sup>
<b>35</b> 1 7/16, 1 1/2	22208	2700	4500	1950	2700	4000	1950
<b>40, 45</b> 1 11/16, 1 3/4	22209	2700	4500	1950	2700	4000	1950
	22210	2400	4200	1800	2400	3550	1800
<b>50</b> 1 15/16, 2	22211	2200	3800	1600	2200	3200	1600
<b>55</b> 2 3/16, 2 1/4	22213	1800	3200	1500	1800	2800	1500
<b>60, 65</b> 2 7/16, 2 1/2	22215	1600	2900	1300	1600	2400	1300
	22218	1400	2400	1000	1400	2000	1000
<b>70, 75</b> 2 11/16, 2 3/4 2 15/16, 3	22220	1200	2000	900	1200	1600	900
	22222	900	1700	600	900	1200	600
<b>110, 115</b> 4 7/16, 4 1/2	22226	700	1500	400	700	1000	400

<sup>(1)</sup>Bearings with contact seals will have higher operating temperatures than bearings with labyrinth seals.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## ENGINEERING • NORMAL SPEED RATINGS FOR SEALS

**TABLE C-13. EC SERIES NORMAL SEAL SPEED RATINGS (RPM)**

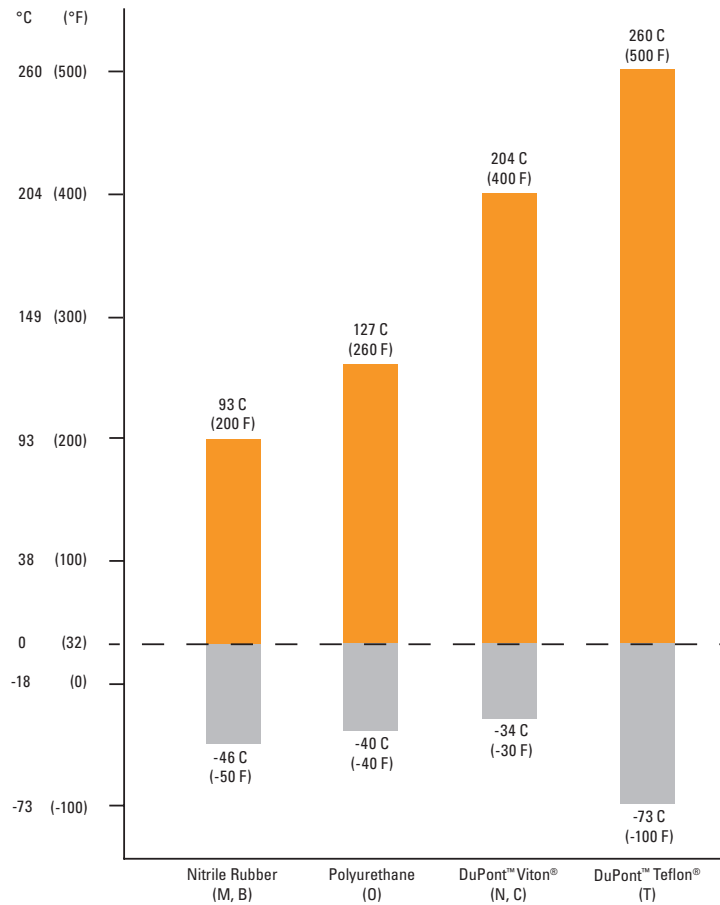
Shaft Dia. mm in.	Bearing No.	Oil Lubrication			Grease Lubrication		
		M/N Seal <sup>(1)</sup>	T Seal	B/C/O Seal <sup>(1)</sup>	M/N Seal <sup>(1)</sup>	T Seal	B/C/O Seal <sup>(1)</sup>
35 1 7/16, 1 1/2	22208	2700	4500	1950	2700	4000	1950
40, 45 1 11/16, 1 3/4	22209	2700	4500	1950	2700	4000	1950
50 1 15/16, 2	22210	2400	4200	1800	2400	3550	1800
55 2 3/16, 2 1/4	22211	2200	3800	1600	2200	3200	1600
60, 65 2 7/16, 2 1/2	22213	1800	3200	1500	1800	2800	1500
70, 75 2 11/16, 2 3/4, 2 15/16, 3	22215	1600	2900	1300	1600	2400	1300
80, 85, 90 3 3/16, 3 1/4, 3 7/16, 3 1/2	22218	1400	2400	1000	1400	2000	1000
100 3 11/16, 3 3/4, 3 15/16, 4	22220	1200	2000	900	1200	1600	900
110, 115 4 7/16, 4 1/2	22222	900	1700	600	900	1200	600
125, 130 4 15/16, 5	22226	700	1500	400	700	1000	400
140, 150 5 7/16, 5 1/2, 5 15/16, 6	23230	650	950	350	600	800	350
170, 180 6 7/16, 6 1/2, 6 15/16, 7	23234	600	900	350	600	800	350

<sup>(1)</sup>Bearings with contact seals will have higher operating temperatures than bearings with labyrinth seals.

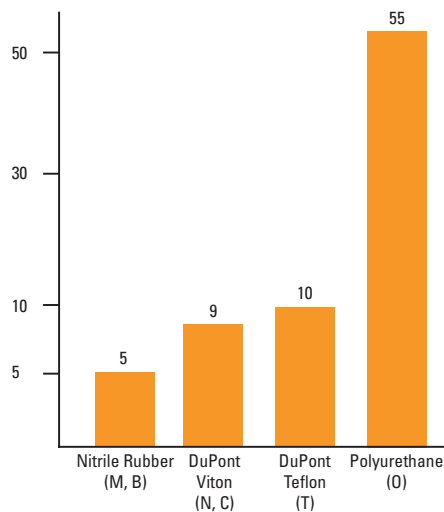
**TABLE C-14. TA/DV SERIES NORMAL SEAL SPEED RATINGS (RPM)**

Shaft Dia. mm in.	Bearing No.	Oil Lubrication			Grease Lubrication		
		M/N Seal <sup>(1)</sup>	T Seal	B/C/O Seal <sup>(1)</sup>	M/N Seal <sup>(1)</sup>	T Seal	B/C/O Seal <sup>(1)</sup>
40 1 7/16, 1 1/2	22209	2700	4500	1950	2700	4000	1950
45 1 11/16, 1 3/4	22210	2400	4200	1800	2400	3550	1800
50 1 15/16, 2	22211	2200	3800	1800	2200	3200	1600
55 —	22212	2000	3500	1650	2000	3000	1550
60 2 3/16, 2 1/4	22213	1800	3200	1500	1800	2800	1500
65 2 7/16, 2 1/2	22215	1600	2900	1300	1600	2400	1300
70 2 11/16, 2 3/4	22216	1500	2650	1200	1500	2200	1150
75 2 15/16, 3	22217	1400	2400	1100	1400	2000	1100
80 3 3/16, 3 1/4	22218	1400	2400	1000	1400	2000	1000
85 —	22219	1300	2200	1000	1300	1800	950
90 3 7/16, 3 1/2	22220	1200	2000	900	1200	1600	900
100 3 15/16, 4	22222	900	1700	600	900	1200	600
110 4 3/16, 4 1/4	22224	800	1600	500	800	1100	500
115 4 7/16, 4 1/2	22226	700	1500	400	700	1000	400
125 4 15/16, 5	22228	650	1200	350	650	900	350

<sup>(1)</sup>Bearings with contact seals will have higher operating temperatures than bearings with labyrinth seals.



**Fig. C-16. Seal temperature ratings based on analytics.**



**Fig. C-17. Relative abrasion resistance ratings.**

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### SEAL MATERIAL CHEMICAL COMPATIBILITY

A - Little to no effect B - Minor to moderate effect C - Severe effect to destruction N - No data – test prior to use.	Urethane	Nitrile rubber	DuPont™ Viton®	DuPont™ Teflon®
Acetaldehyde	C	C	C	A
Acetamide	N	A	B	A
Acetic Acid	C	B	B	A
Acetic Anhydride	C	C	C	A
Acetone	C	C	C	A
Acetyl Bromide	C	N	N	N
Acetyl Chloride	C	C	A	A
Acetylene	C	A	A	A
Adipic Acid	A	A	N	A
Aero Shell Grease	B	A-B	A	A
Aero Lubriplate	A	A	A	A
Aero Safe 2300	N	C	C	A
Aerzine 50	N	C	C	A
Aluminum Acetate	N	A	C	A
Aluminum Bromide	N	A	A	A
Aluminum Chloride	B	A	A	A
Aluminum Sulfate	B	A	A	A
Ammonia	B	B	C	A
Ammonium Carbonate	B	C	N	A
Ammonium Chloride	N	A	A	A
Ammonium Hydroxide	B	C	A	A
Ammonium Nitrate	B	A	N	A
Ammonium Persulfate	B	C	N	A
Ammonium Sulfate	B	A	C	A
Ammonium Sulfide	B	A	C	A
Ammonium Thiocyanate	B	N	N	A
Ammonium Acetate	C	N	N	A
Amyl Acetate	C	C	C	A
Amyl Alcohol	C	B	C	A
Aniline	C	C	C	A
Aniline Hydrochloride	C	B	B	B
Animal Fats and Oils	B	A	A	A
Antimony Salts	B	N	N	A
Aqua Regia	C	C	B	A
Arsenic Salts	B	N	N	A
ASTM Oil #1	A	A	A	A
ASTM Oil #2	B	A	A	A
ASTM Oil #3	B	A	A	A
ASTM Reference Fuel A	A	A	A	A
ASTM Reference Fuel B	B	B	A	A
Atlantic Oil	A	A	A	A
Barium Carbonate	B	A	A	A
Barium Hydroxide	A	A	A	A
Beer	A	A	A	A
Benzaldehyde	B	C	C	A
Benzene	C	C	B	A
Benzoic Acid	B	C	A	A
Black Sulphate Liquors	N	B	A	A

A - Little to no effect B - Minor to moderate effect C - Severe effect to destruction N - No data – test prior to use.	Urethane	Nitrile rubber	DuPont™ Viton®	DuPont™ Teflon®
Bleach Solutions	N	C	A	B
Boric Acid	A	A	A	A
Brake Fluid	N	C	C	N
Bromine	B	C	A	C
Bunker Oil	A	A	A	A
Butane	A	A	A	A
Butyl Acetate	C	C	C	A
Butyl Alcohol	B	A	A	A
Calcium Carbonate	B	A	A	A
Calcium Chloride	A	A	A	A
Calcium Hydroxide	A	A	A	A
Calcium Nitrate	B	A	A	A
Calcium Sulfate	B	B	B	A
Carbon Dioxide	A	A	A	A
Carbon Disulfide	B	C	A	A
Carbon Monoxide	A	A	A	A
Carbon Tetrachloride	C	C	A	A
Chlorine	N	C	A	B
Chloroacetic Acid	C	C	C	N
Chloroform	C	N	N	B
Chromic Acid	C	C	A	B
Chromium Potassium Sulfate	A	N	N	N
Citric Acid	B	A	A	A
Corn Oil	A	A	A	A
Cottonseed Oil	A	A	A	A
Cresol	C	C	A	A
Crude Oil	B	B	A	A
Cupric Chloride	A	B	B	A
Cupric Nitrate	B	N	N	A
Cupric Sulfate	B	B	B	A
Cutting Oil	B	A	A	A
Cyclohexane	B	A	A	A
Cyclohexanone	C	C	A	A
Dibutyl Phthalate	C	C	C	B
Dichlorobenzene	C	N	N	B
Diesel Fuel	B	A	A	A
Diester Oil	B	B	A	A
Dimethyl Acetamide	C	N	N	A
Dimethyl Formamide	C	B	C	A
Dodecyl Mercaptan	B	N	N	N
DTE Oil	B	A	N	N
Dubutyl Ether	B	C	C	N
EP Lubes	A	A	A	A
Esso #90 Lube Oil	A	A	A	A
Ether	B	N	N	A
Ethyl Acetate	C	C	C	A
Ethyl Alcohol (Ethanol)	C	A	C	A
Formic Acid	C	B	C	A

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*Continued on next page.*

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## ENGINEERING • SEAL MATERIAL CHEMICAL COMPATIBILITY

Continued from previous page.

A - Little to no effect B - Minor to moderate effect C - Severe effect to destruction N - No data – test prior to use.	Urethane	Nitrile rubber	DuPont™ Viton®	DuPont™ Teflon®
Freon, 12 or 113	A	A	B	A
Fuel Oil	B	A	A	A
Gasoline	B	B	A	A
Glucose	A	A	A	A
Glue	N	A	A	A
Glycerin	A	A	A	A
Heptane	A	N	N	A
Hexane	A	A	A	A
Hydrazine	C	B	C	B
Hydrobromic Acid	B	C	A	A
Hydrocarbon Oil	A	A	A	A
Hydrochloric Acid	B	C	B	A
Hydrofluoric Acid	B	C	C	A
Hydrogen	A	A	A	A
Hydrogen Peroxide	B	C	A	B
Hydrogen Sulfide	C	C	C	A
Hydrologic Acid	B	N	N	N
Iodine	A	B	A	A
Isobutyl Alcohol	N	B	A	A
Isopropyl Chloride	N	C	A	A
Isopropyl Ether	B	B	C	N
Isopropyl Alcohol (Propanol)	B	A	A	N
JP4 Oil	B	A	A	A
JP5 and 6 Oil	C	A	A	A
Kerosene	B	A	A	A
Lactic Acid	B	B	A	A
Lead Acetate	B	B	C	A
Linseed Oil	B	A	A	A
Liquefied Petroleum Gas	A	A	A	N
Lubrication Oil	B	A	A	A
Lye	N	B	B	A
Magnesium Chloride	N	A	A	A
Magnesium Hydroxide	A	B	A	A
Magnesium Salts	B	A	A	A
Maleic Acid	C	C	A	A
Mercury	B	A	A	A
Methyl Alcohol (Methanol)	A	C	A	N
Methyl Ethyl Ketone	C	C	C	A
Methylene Chloride	C	C	B	A
MIL-D-5606 Oil	C	A	A	A
MIL-L7808 Oil	B	B	A	A
Mineral Oil	A	A	A	A
Mineral Spirits	N	B	A	A
Naphthalene	B	C	A	A
Natural Gas	B	A	A	A
Nickel Salts	C	A	A	A
Oxygen	A	B	A	A
Ozone	A	C	A	A

A - Little to no effect B - Minor to moderate effect C - Severe effect to destruction N - No data – test prior to use.	Urethane	Nitrile rubber	DuPont™ Viton®	DuPont™ Teflon®
Palmitic Acid	A	A	A	A
Paint Thinner	B	C	B	A
Peanut Oil	A	A	A	A
Perchloric Acid	C	C	A	A
Perchloroethylene	C	B	A	A
Petroleum	B	A	A	A
Phenol (Carbolic Acid)	C	C	A	A
Phosphoric Acid	C	C	A	A
Potassium Cyanide	A	A	A	A
Potassium Salts	B	A	A	A
Propane	B	A	A	A
Propyl Alcohol	B	A	A	A
Propylene Glycol	B	N	N	A
Pydraul Oil	C	C	A	A
SAE #10 Oil	A	A	A	A
Seawater	A	A	A	A
Silicic Acid	B	N	N	A
Silver Nitrate	B	B	A	A
Skydrol Oil	C	C	C	A
Soap	B	A	A	A
Sodium Acetate	A	B	C	A
Sodium Bicarbonate	B	A	A	A
Sodium Borate	B	A	A	A
Sodium Carbonate	B	A	A	A
Sodium Chloride	B	A	A	A
Sodium Cyanide	B	A	A	A
Sodium Hydrosulfite	B	N	N	A
Sodium Hydroxide	B	B	B	A
Sodium Hypochlorite	C	B	A	A
Sodium Nitrate	B	B	N	A
Sodium Silicate	A	A	A	A
Sodium Sulfate	B	A	A	A
Sodium Sulfide	B	A	A	A
Steam	C	C	C	A
Styrene	B	C	B	A
Sulfur Dioxide	B	C	A	A
Sulfuric Acid	C	C	A	A
Tannic Acid	A	A	A	A
Tartaric Acid	A	A	A	A
Toluene	C	N	N	A
Transformer Oil	B	N	N	A
Turpentine	C	A	A	A
Urea	B	N	N	A
Varnish	B	B	A	A
Water	B	A	A	A

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### INTERNAL RADIAL CLEARANCES

**TABLE C-15. V-LOCK SERIES (TAPERED BORE, C3)**

Shaft Dia.	Bearing No.	Clearance	
		Min.	Max.
mm in.		mm in.	mm in.
<b>50</b> 1 15/16, 2	22211	<b>0.075</b> 0.003	<b>0.095</b> 0.0037
<b>55</b> 2 3/16, 2 1/4	22212	<b>0.075</b> 0.003	<b>0.095</b> 0.0037
<b>55</b> 2 3/16, 2 1/4	22213	<b>0.075</b> 0.003	<b>0.095</b> 0.0037
<b>60, 65</b> 2 7/16, 2 1/2	22214	<b>0.075</b> 0.003	<b>0.095</b> 0.0037
<b>60, 65</b> 2 7/16, 2 1/2	22215	<b>0.075</b> 0.003	<b>0.095</b> 0.0037
<b>70, 75</b> 2 11/16, 2 3/4, 2 15/16, 3	22216	<b>0.095</b> 0.0037	<b>0.120</b> 0.0047
<b>70, 75</b> 2 11/16, 2 3/4, 2 15/16, 3	22217	<b>0.095</b> 0.0037	<b>0.120</b> 0.0047
<b>80, 85, 90</b> 3 3/16, 3 1/4, 3 7/16, 3 1/2	22219	<b>0.110</b> 0.0043	<b>0.140</b> 0.0055
<b>80, 85, 90</b> 3 3/16, 3 1/4, 3 7/16, 3 1/2	22220	<b>0.110</b> 0.0043	<b>0.140</b> 0.0055
<b>100</b> 3 11/16, 3 3/4, 3 15/16, 4	22222	<b>0.135</b> 0.0053	<b>0.170</b> 0.0067
<b>110</b> —	22224	<b>0.135</b> 0.0053	<b>0.170</b> 0.0067
<b>110, 115</b> 4 7/16, 4 1/2	22226	<b>0.135</b> 0.0053	<b>0.170</b> 0.0067
<b>125, 130</b> 4 15/16, 5	22228	<b>0.160</b> 0.0063	<b>0.200</b> 0.0079

**TABLE C-16. CL SERIES (STRAIGHT BORE, C NORMAL)**

Shaft Dia.	Bearing No.	Clearance	
		Min.	Max.
mm in.		mm in.	mm in.
<b>35</b> 1 7/16, 1 1/2	22208	<b>0.030</b> 0.0012	<b>0.045</b> 0.0018
<b>40, 45</b> 1 11/16, 1 3/4	22209	<b>0.035</b> 0.0014	<b>0.055</b> 0.0022
<b>50</b> 1 15/16, 2	22210	<b>0.040</b> 0.0016	<b>0.065</b> 0.0026
<b>55</b> 2 3/16, 2 1/4	22211	<b>0.040</b> 0.0016	<b>0.065</b> 0.0026
<b>60, 65</b> 2 7/16, 2 1/2	22213	<b>0.040</b> 0.0016	<b>0.065</b> 0.0026
<b>70, 75</b> 2 11/16, 2 3/4, 2 15/16, 3	22215	<b>0.050</b> 0.002	<b>0.080</b> 0.0031
<b>80, 85, 90</b> 3 3/16, 3 1/4, 3 7/16, 3 1/2	22218	<b>0.060</b> 0.0024	<b>0.100</b> 0.0039
<b>100</b> 3 15/16, 4	22220	<b>0.075</b> 0.003	<b>0.120</b> 0.0047
<b>110, 115</b> 4 7/16, 4 1/2	22222	<b>0.075</b> 0.003	<b>0.120</b> 0.0047
<b>125, 130</b> 4 15/16, 5	22226	<b>0.095</b> 0.0037	<b>0.145</b> 0.0057

### TABLE C-17. EC SERIES (STRAIGHT BORE, C NORMAL)

Shaft Dia.	Bearing No.	Clearance		Shaft Dia.	Bearing No.	Clearance	
		Min.	Max.			Min.	Max.
mm in.		mm in.	mm in.	mm in.		mm in.	mm in.
<b>35</b> 1 7/16, 1 1/2	22208	<b>0.030</b> 0.0012	<b>0.045</b> 0.0018	<b>80, 85, 90</b> 3 3/16, 3 1/4 3 7/16, 3 1/2	22218	<b>0.060</b> 0.0024	<b>0.100</b> 0.0039
<b>40, 45</b> 1 11/16, 1 3/4	22209	<b>0.0350</b> 0.0014	<b>0.055</b> 0.0022	<b>100</b> 3 11/16, 3 3/4 3 15/16, 4	22220	<b>0.075</b> 0.003	<b>0.120</b> 0.0047
<b>50</b> 1 15/16, 2	22210	<b>0.040</b> 0.0016	<b>0.065</b> 0.0026	<b>110, 115</b> 4 7/16, 4 1/2	22222	<b>0.075</b> 0.003	<b>0.120</b> 0.0047
<b>55</b> 2 3/16, 2 1/4	22211	<b>0.040</b> 0.0016	<b>0.065</b> 0.0026	<b>125, 130</b> 4 15/16, 5	22226	<b>0.095</b> 0.0037	<b>0.145</b> 0.0057
<b>60, 65</b> 2 7/16, 2 1/2	22213	<b>0.040</b> 0.0016	<b>0.065</b> 0.0026	<b>140, 150</b> 5 7/16, 5 1/2 5 15/16, 6	23230	<b>0.110</b> 0.0043	<b>0.170</b> 0.0067
<b>70, 75</b> 2 11/16, 2 3/4 2 15/16, 3	22215	<b>0.050</b> 0.002	<b>0.080</b> 0.0031	<b>170, 180</b> 6 7/16, 6 1/2, 6 15/16, 7	23234	<b>0.120</b> 0.0047	<b>0.180</b> 0.0071

### TABLE C-18. TA/DV SERIES (TAPERED BORE, C3)

Shaft Dia.	Bearing No.	Clearance Prior To Installation		Recommended Reduction Of Internal Radial Clearance		Recommended Axial Movement Of Adapter Sleeve		Minimum Internal
		Min.	Max.	Min.	Max.	Min.	Max.	
mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
<b>40</b> 1 7/16, 1 1/2	22209	<b>0.061</b> 0.0024	<b>0.079</b> 0.0031	<b>0.025</b> 0.0010	<b>0.030</b> 0.0012	<b>0.381</b> 0.015	<b>0.457</b> 0.018	<b>0.030</b> 0.0012
<b>45</b> 1 11/16, 1 3/4	22210	<b>0.061</b> 0.0024	<b>0.079</b> 0.0031	<b>0.025</b> 0.0010	<b>0.030</b> 0.0012	<b>0.381</b> 0.015	<b>0.457</b> 0.018	<b>0.030</b> 0.0012
<b>50</b> 1 15/16, 2	22211	<b>0.076</b> 0.0030	<b>0.094</b> 0.0037	<b>0.030</b> 0.0012	<b>0.038</b> 0.0015	<b>0.457</b> 0.018	<b>0.559</b> 0.022	<b>0.038</b> 0.0015
<b>55</b> —	22212	<b>0.076</b> 0.0030	<b>0.094</b> 0.0037	<b>0.030</b> 0.0012	<b>0.038</b> 0.0015	<b>0.457</b> 0.018	<b>0.559</b> 0.022	<b>0.038</b> 0.0015
<b>60</b> 2 3/16, 2 1/4	22213	<b>0.076</b> 0.0030	<b>0.094</b> 0.0037	<b>0.030</b> 0.0012	<b>0.038</b> 0.0015	<b>0.457</b> 0.018	<b>0.559</b> 0.022	<b>0.038</b> 0.0015
<b>65</b> 2 7/16, 2 1/2	22215	<b>0.094</b> 0.0037	<b>0.119</b> 0.0047	<b>0.038</b> 0.0015	<b>0.051</b> 0.0020	<b>0.559</b> 0.022	<b>0.762</b> 0.030	<b>0.043</b> 0.0017
<b>70</b> 2 11/16, 2 3/4	22216	<b>0.094</b> 0.0037	<b>0.119</b> 0.0047	<b>0.038</b> 0.0015	<b>0.051</b> 0.0020	<b>0.559</b> 0.022	<b>0.762</b> 0.030	<b>0.043</b> 0.0017
<b>75</b> 2 15/16, 3	22217	<b>0.109</b> 0.0043	<b>0.140</b> 0.0055	<b>0.046</b> 0.0018	<b>0.064</b> 0.0025	<b>0.686</b> 0.027	<b>0.965</b> 0.038	<b>0.051</b> 0.0020
<b>80</b> 3 3/16, 3 1/4	22218	<b>0.109</b> 0.0043	<b>0.140</b> 0.0055	<b>0.046</b> 0.0018	<b>0.064</b> 0.0025	<b>0.686</b> 0.027	<b>0.965</b> 0.038	<b>0.051</b> 0.0020
<b>85</b> —	22219	<b>0.109</b> 0.0043	<b>0.140</b> 0.0055	<b>0.046</b> 0.0018	<b>0.064</b> 0.0025	<b>0.686</b> 0.027	<b>0.965</b> 0.038	<b>0.051</b> 0.0020
<b>90</b> 3 7/16, 3 1/2	22220	<b>0.109</b> 0.0043	<b>0.140</b> 0.0055	<b>0.046</b> 0.0018	<b>0.064</b> 0.0025	<b>0.686</b> 0.027	<b>0.965</b> 0.038	<b>0.051</b> 0.0020
<b>100</b> 3 15/16, 4	22222	<b>0.135</b> 0.0053	<b>0.170</b> 0.0067	<b>0.051</b> 0.0020	<b>0.071</b> 0.0028	<b>0.762</b> 0.030	<b>1.067</b> 0.042	<b>0.064</b> 0.0025
<b>110</b> 4 3/16, 4 1/4	22224	<b>0.135</b> 0.0053	<b>0.170</b> 0.0067	<b>0.051</b> 0.0020	<b>0.071</b> 0.0028	<b>0.762</b> 0.030	<b>1.067</b> 0.042	<b>0.064</b> 0.0025
<b>115</b> 4 7/16, 4 1/2	22226	<b>0.160</b> 0.0063	<b>0.201</b> 0.0079	<b>0.064</b> 0.0025	<b>0.089</b> 0.0035	<b>0.889</b> 0.035	<b>1.270</b> 0.050	<b>0.076</b> 0.0030
<b>125</b> 4 15/16, 5	22228	<b>0.160</b> 0.0063	<b>0.201</b> 0.0079	<b>0.064</b> 0.0025	<b>0.089</b> 0.0035	<b>0.889</b> 0.035	<b>1.270</b> 0.050	<b>0.076</b> 0.0030

### SHAFTING

When installing and using housed unit bearings, all shafting should be straight, clean, free from burrs and within the recommended shaft tolerances in tables C-19 and C-20 below. For applications that involve high speed or extreme vibration conditions, we recommend that all shafting be machined to one-half the recommended tolerances below.

### SHAFT EXPANSION

Steel expands or contracts 0.0000113 millimeter per millimeter for each degree Celsius (0.0000063 inch per inch for each degree Fahrenheit) relative temperature increase or decrease respectively. Expansion bearings are used to accommodate thermal expansion of steel. Where the shafting and the framework on which the bearings and shafting are mounted are made from steel, the relative difference in expansion between the shaft and the

framework will be minimal. In these conditions, fixed bearings can be used on both ends of the shaft. However, if there is a difference in material between the shaft and the framework, or if the application involves different temperatures from the shaft to the frame, then only one fixed bearing should be used on each shaft. All other bearings on the same shaft should be converted to floating to accommodate thermal expansion of the shaft.

**TABLE C-19. V-LOCK, CL AND EC SERIES – RECOMMENDED SHAFT TOLERANCES**

Shaft Dia.	Shaft Tolerance
mm in.	mm in.
<b>35</b> 1 7/16, 1 1/2	<b>+0.00/-0.025</b> +0.00/-0.0010
<b>40, 45</b> 1 11/16, 1 3/4	<b>+0.00/-0.038</b> + 0.00/-0.0015
<b>50</b> 1 15/16, 2	<b>+0.00/-0.038</b> + 0.00/-0.0015
<b>55</b> 2 3/16, 2 1/4	<b>+0.00/-0.038</b> + 0.00/-0.0015
<b>60, 65</b> 2 7/16, 2 1/2	<b>+0.00/-0.038</b> + 0.00/-0.0015
<b>70, 75</b> 2 11/16, 2 3/4, 2 15/16, 3	<b>+0.00/-0.051</b> + 0.00/-0.0020
<b>80, 85, 90</b> 3 3/16, 3 1/4, 3 7/16, 3 1/2	<b>+0.00/-0.076</b> + 0.00/-0.0030
<b>100</b> 3 11/16, 3 3/4, 3 15/16, 4	<b>+0.00/-0.076</b> + 0.00/-0.0030
<b>110, 115</b> 4 7/16, 4 1/2	<b>+0.00/-0.127</b> + 0.00/-0.0050
<b>125, 130</b> 4 15/16, 5	<b>+0.00/-0.127</b> + 0.00/-0.0050
<b>140, 150</b> 5 7/16, 5 1/2, 5 15/16, 6	<b>+0.00/-0.127</b> + 0.00/-0.0050
<b>170, 180</b> 6 7/16, 6 1/2, 6 15/16, 7	<b>+0.00/-0.127</b> + 0.00/-0.0050

**TABLE C-20. TA/DV SERIES – RECOMMENDED SHAFT TOLERANCES**

Shaft Dia.	Shaft Tolerance
mm in.	mm in.
<b>40</b> 1 7/16, 1 1/2	<b>+0.00/-0.025</b> +0.00/-0.0010
<b>45</b> 1 11/16, 1 3/4	<b>+0.00/-0.051</b> +0.00/-0.0020
<b>50</b> 1 15/16, 2	<b>+0.00/-0.076</b> + 0.00/-0.0030
<b>55</b> –	<b>+0.00/-0.076</b> –
<b>60</b> 2 3/16, 2 1/4	<b>+0.00/-0.076</b> + 0.00/-0.0030
<b>65</b> 2 7/16, 2 1/2	<b>+0.00/-0.089</b> + 0.00/-0.0035
<b>70</b> 2 11/16, 2 3/4	<b>+0.00/-0.102</b> + 0.00/-0.0040
<b>75</b> 2 15/16, 3	<b>+0.00/-0.102</b> + 0.00/-0.0040
<b>80</b> 3 3/16, 3 1/4	<b>+0.00/-0.102</b> + 0.00/-0.0040
<b>85</b> –	<b>+0.00/-0.102</b> –
<b>90</b> 3 7/16, 3 1/2	<b>+0.00/-0.102</b> + 0.00/-0.0040
<b>100</b> 3 15/16, 4	<b>+0.00/-0.102</b> + 0.00/-0.0040
<b>110</b> 4 3/16, 4 1/4	<b>+0.00/-0.102</b> + 0.00/-0.0040
<b>115</b> 4 7/16, 4 1/2	<b>+0.00/-0.102</b> + 0.00/-0.0040
<b>125</b> 4 15/16, 5	<b>+0.00/-0.127</b> + 0.00/-0.0050

**TABLE C-21. AMOUNT OF FLOAT PER ONE ROTATION OF EXTERNAL HOUSING NUT**

Bearing Number	Float	Bearing Number	Float	Bearing Number	Float
	mm in.		mm in.		mm in.
22208	1.270 0.050	22215	2.108 0.083	22224	2.108 0.083
22209	1.270 0.050	22216	2.108 0.083	22226	2.108 0.083
22210	1.270 0.050	22217	2.108 0.083	22228	2.108 0.083
22211	1.270 0.050	22218	2.108 0.083	23230	2.108 0.083
22212	1.270 0.050	22219	2.108 0.083	23234	2.108 0.083
22213	2.108 0.083	22220	2.108 0.083	–	–
22214	2.108 0.083	22222	2.108 0.083	–	–

## CONVERSION FROM FIXED TO FLOATING

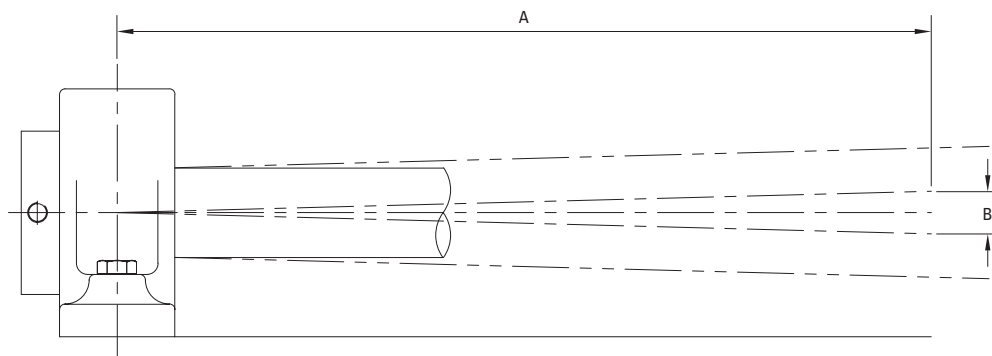
Housed unit bearings are easily converted from fixed to floating in the field (see the appropriate installation guide in this catalog for instructions). The following table will help you determine the amount of float for each bearing based on the number of revolutions the external housing nut is backed out.

## MISALIGNMENT

All spherical roller bearing housed units utilize self-aligning double-row spherical roller bearings. Because of this, the housed unit can accept up to ±1.5 degrees of misalignment. The performance life of our housed unit is not reduced while under misalignment conditions within these guidelines. It will accept both radial and thrust loads under static, oscillatory or dynamic load conditions.

**TABLE C-22. MISALIGNMENT SCALE AT ±1.5 DEGREES**

A	B
m in.	mm in.
0.305 1	15.951 0.628
1.524 5	79.756 3.140



**Fig. C-18. Misalignment.**

## LUBRICATION

Timken is dedicated to using the highest quality components in everything we do. This is why we use premium industrial grease in spherical roller bearing solid-block housed units. The lithium-complex extreme-pressure grease combines the benefits of wide operating temperatures and broad compatibility. This grease offers excellent thermal stability through temperatures ranging from -34° C to 177° C (-30° F to 350° F). When dealing with temperatures above 149° C (300° F), consult your Timken engineer for optional grease recommendations. Application-specific lubrication options are also available ranging from Timken Food Safe Grease (aluminum-complex) to Timken Mill grease (calcium-sulfonate) along with many others.

## European REACH Compliance

Timken lubricants, greases and similar products sold in stand-alone containers or delivery systems are subject to the European REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) directive. For import into the European Union, Timken can sell and provide only those lubricants and greases that are registered with ECHA (European Chemical Agency). For further information, please contact your Timken engineer.

## INSTALLATION GUIDES

### V-LOCK® SERIES

Timken® solid-block housed unit V-Lock® bearings are easy to install and remove because of their unique adapters.

Please complete the following steps to install and/or remove Timken steel housed unit V-Lock bearings. (Refer to fig. C-19.)

- Ensure that the shaft is clean, free from nicks and burrs, straight and of proper diameter. See table C-24 for recommended shaft tolerances. The housed unit should not be mounted on a worn section of the shaft. Using shafts with hardness greater than HRC 45 will reduce the effectiveness of locking devices.
- If using an open-end cover, slide the open-end cover/seal combination into position on the shaft.
- Remove the wedge assembly from the sleeve by unscrewing the wedge nut. See fig. C-19.
- Clean oil off of the sleeve and wedge.
- Apply a thin oil film to the shaft only.
  - For **QV** single-nut housed units:
    - Slide the sleeve, non-threaded end first, into position on the shaft.
  - For **QVV** double-nut housed units:
    - Make sure the sleeve nut is flush with the end of the sleeve.
    - Slide the sleeve/nut assembly, nut end first, into position on the shaft.

- Slide the housed unit into place over the sleeve.
- Loosely install the housed unit mounting bolts. Check the housed unit alignment. Verify that the mounting surfaces are in the same flat plane to help achieve good alignment. If shimming is required to minimize misalignment, use full shims across the entire housing base where possible (fig. C-20). Washers should be properly sized to bolt diameter and should not be an SAE grade, which is smaller.
- Seat the sleeve as best as possible into the mounted unit.
- Tighten the wedge assembly by turning the wedge nut clockwise until tight. Please note that it is designed to prevent overtightening.
- If installing a double-nut housed unit, tighten the sleeve assembly by turning the sleeve nut clockwise until snug.
- Tighten both the wedge nut and sleeve nut set screws alternately according to fig. C-19.
- Install the housed unit mounting bolts. Check the housed unit alignment. Verify that the mounting surfaces are in the same flat plane to achieve good alignment. If shimming is required to minimize misalignment, use full shims across the entire housing base where possible (fig. C-20). The bolts then need to be alternately torqued securely to their mounting supports.
- Tighten the housing mounting bolts.

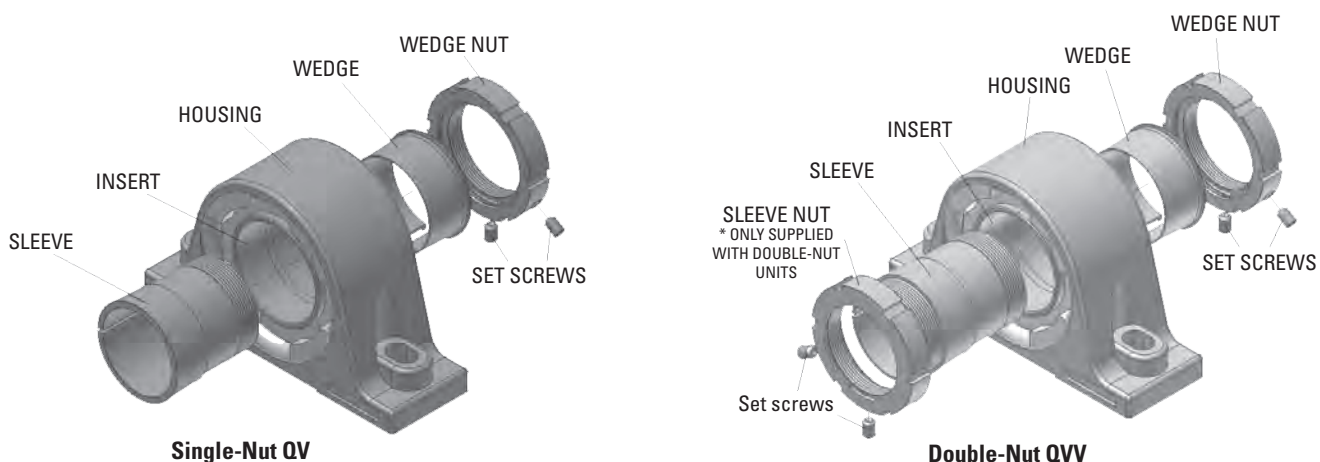


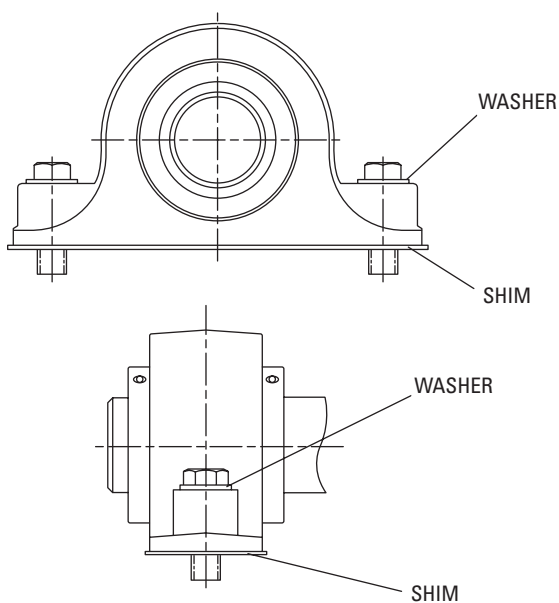
Fig. C-19. V-Lock® insert components.

**TABLE C-23. SET SCREW TORQUE VALUES**

Bearing Size	Set Screw Size	Torque
		Nm in. - lbs.
SLV11 to SLV20	3/8 - 24 TPI	32.8 290
SLV22	7/16 - 20 TPI	47.5 420
SLV24 to SLV28	1/2 - 20 TPI	70.1 620

If using covers:

- Make sure the mating surface of the cover and retaining nuts are clean and dry.
  - Urethane cover: slightly roughen the mating surface of the cover, place a 3 mm – 6 mm (1/8 in. – 1/4 in.) bead of polyurethane adhesive sealant on the roughened surface.
  - Steel cover: place a 3 mm – 6 mm (1/8 in. – 1/4 in.) bead of silicone adhesive sealant on the mating surface of the cover.
- Align the cover mounting holes with the mounting holes on the retaining housing nut (make sure that the grease fitting on the cover is accessible when doing so).
- Apply and tighten the cover mounting hardware.



**Fig. C-20. Use washers and full shims.**

## REMOVAL

- Remove covers, if applicable, by removing cover hardware and disengaging the cover from the housed unit retaining nut.
- Loosen the set screws on the wedge nut.
- Turn the wedge nut counterclockwise to remove the wedge from the locked position.
- Completely remove the wedge/wedge nut assembly.
  - For **QV** housed units:
    - Remove the bearing and sleeve from the shaft.
  - For **QVV** housed units:
    - Loosen the set screws on the sleeve nut.
    - Turn the sleeve nut clockwise to un-seat the sleeve.
    - Remove the bearing and sleeve/sleeve nut from the shaft.

**TABLE C-24. RECOMMENDED SHAFT TOLERANCES**

Shaft Dia.	Bearing No.	Tolerance
mm in.		mm in.
50 1 15/16, 2	22211	+0.00/0.038 +0.00/-0.0015
55 2 3/16, 2 1/4	22212 22213	
60, 65 2 7/16, 2 1/2	22214 22215	
70, 75 2 11/16, 2 3/4, 2 15/16, 3	22216 22217	+0.00/-0.051 +0.00/-0.0020
80, 85, 90 3 3/16, 3 1/4, 3 7/16, 3 1/2	22219 22220	+0.00/-0.076 +0.00/-0.0030
100 3 11/16, 3 15/16, 4	22222	+0.00/-0.076 +0.00/-0.0030
110, 115 4 7/16, 4 1/2	22224 22226	+0.00/-0.127 +0.00/-0.0050
125, 130 4 15/16, 5	22228	

## HOW TO CONVERT A SOLID-BLOCK HOUSED UNIT FROM FIXED TO EXPANSION (FLOATING)

### Flange Cartridge and Flange Block

- Make a reference mark on the housing and retaining nut.
- Loosen the Teflon-tipped set screw that locks the retaining nut in place.
- Loosen the retaining nut by tapping it with a hammer and punch, rotating the retaining nut counterclockwise one complete revolution.
- Tighten the Teflon-tipped set screw.

### Pillow Block

- Decide the amount and direction of expansion that's needed. If unidirectional expansion is required, follow the directions outlined in the previous page for flange housed units on the nut that is on the side you want the expansion.
- If multi-directional expansion is required, follow the directions outlined in the previous section for both nuts on flange housed units.



### WARNING

**Failure to observe the following warnings could create a risk of death or serious injury.**

Proper maintenance and handling practices are critical. Always follow installation instructions and maintain proper lubrication.

Overheated bearings can ignite explosive atmospheres. Special care must be taken to properly select, install, maintain, and lubricate housed unit bearings that are used in or near atmospheres that may contain explosive levels of combustible gases or accumulations of dust such as from grain, coal, or other combustible materials. Consult your equipment designer or supplier for installation and maintenance instructions.

## HOW TO CONVERT A SOLID-BLOCK HOUSED UNIT FROM EXPANSION (FLOATING) TO FIXED

### Flange Cartridge and Flange Block

- Loosen the Teflon-tipped set screw that locks the retaining nut in place.
- Tighten the retaining nut by tapping it with a hammer and punch, rotating the retaining nut clockwise until it's tight. It is not possible to overtighten the retaining nut.
- Tighten the Teflon-tipped set screw.

### NOTE

*When converting a solid-block housed unit bearing from fixed to expansion, it is imperative that the unit that is going to be converted is correctly oriented. Since the insert in a steel housed unit flange bearing is held against either a shoulder or snap ring opposite the housing retaining nut, a flange bearing that has been converted to expansion can only float in the direction of the retaining nut. Based on this, the retaining nut must be on the side of the housing opposite the fixed bearing.*

### Pillow Block

- Follow the directions above for flange housed units on both nuts on either side of the housing.

### NOTE

*When converting a solid-block housed unit from expansion to fixed on a mounted bearing, the locking-collar set screws must be released to allow the insert to move both in the housing and on the shaft.*

## LUBRICATION

This information is to aid in the proper lubrication of Timken spherical roller bearing solid-block housed units for the majority of applications.

Housed units have been factory-prelubricated with an NLGI No. 2 lithium-complex, extreme-pressure synthetic grease that combines the benefits of wide operating temperatures and broad compatibility with varied materials. This grease offers excellent thermal stability through temperatures ranging from -40° C to 177° C (-40° F to 350° F). Housed units should be relubricated with this grease or one that is compatible and made for roller bearings. It is vital that the greases used are compatible. Please consult with your Timken engineer for the grease specifications if the use of a grease other than the grease mentioned above is needed.

Normal service is considered as operation in a clean, dry environment at temperatures between -34° C to +82° C (-30° F to +180° F). If service is beyond normal conditions due to speed, temperature, or exposure to moisture, dirt or corrosive chemicals,

more frequent relubrication may be necessary. For extreme conditions or conditions in which special chemicals are used, consult with your Timken engineer.

After extended storage or periods when the housed unit is not in operation, fresh grease should be added.

It's important to have the right amount of lubrication, because it affects the housed unit bearing operating temperature as well. An inadequate amount of grease could lead to higher operating temperatures due to inadequate lubrication film thickness. Excessive grease also will lead to higher operating temperatures due to grease churning, which can cause bearing overheating. It is best to observe the bearing and its temperature and adjust the lubrication as needed. If necessary, use the purge valve or seals that purge to reduce the amount of grease.

**RELUBRICATION**

Adequate lubrication is an essential element to the housed unit bearing life. Use table C-25 as a suggested initial point of reference. Relubrication frequency and quantity intervals are best determined through experience for each application, based on types of service, which may differ from the suggestions in the table.

When the housed unit is not in operation for an extended period of time, grease should be added to prevent corrosion.

Table C-25 shows general lubrication suggested starting points only. Please read the entire installation instructions prior to using these tables. Applications should be regularly reviewed and lubrication amounts and intervals modified as needed to ensure best results.

**NOTE**

*Please check with the manufacturer of your grease delivery system for specific information.*

**TABLE C-25. RELUBRICATION INTERVALS**

Shaft Diameter	Bearing No.	Initial Weight	Relubrication Weight	Relubrication Interval (Hours of Service based on RPM and Temperature deg. F)											
				100 RPM		250 RPM		500 RPM		1000 RPM		2000 RPM		3000 RPM	
				<160°	>160°	<160°	>160°	<160°	>160°	<160°	>160°	<160°	>160°	<160°	>160°
mm in.		g oz.	g oz.												
<b>50</b> 1 15/16, 2	22211	<b>28.4</b> 1	<b>8.5</b> 0.3	1200	600	800	400	440	220	160	80	100	50	60	30
<b>55</b> 2 3/16, 2 1/4	22212	<b>34.0</b> 1.2	<b>8.5</b> 0.3	1150	580	750	380	400	200	140	70	90	50	50	20
	22213	<b>36.9</b> 1.3	<b>11.3</b> 0.4	1130	570	740	370	380	190	130	65	85	45	45	20
<b>60, 65</b> 2 7/16, 2 1/2	22214	<b>39.7</b> 1.4	<b>11.3</b> 0.4	1120	560	720	360	360	180	120	60	80	40	40	20
	22215	<b>56.7</b> 2	<b>14.2</b> 0.5	1080	540	700	350	350	175	110	55	70	35		
<b>70, 75</b> 2 11/16, 2 3/4 2 15/16, 3	22216	<b>76.5</b> 2.7	<b>19.9</b> 0.7	1040	520	680	340	340	170	100	50	60	30		
	22217	<b>96.4</b> 3.4	<b>25.5</b> 0.9	1000	500	640	320	320	160	100	50	60	30		
<b>80, 85, 90</b> 3 3/16, 3 1/4 3 7/16, 3 1/2	22219	<b>104.9</b> 3.7	<b>25.5</b> 0.9	960	480	600	300	300	150	80	40	40	20		
	22220	<b>184.3</b> 6.5	<b>45.4</b> 1.6	840	420	520	260	240	120	70	35	30	18		
<b>100</b> 3 11/16, 3 3/4 3 15/16, 4	22222	<b>209.8</b> 7.4	<b>53.9</b> 1.9	680	340	440	220	200	100	60	30	20	16		
<b>110, 115</b> 4 7/16, 4 1/2	22224	<b>260.8</b> 9.2	<b>68.0</b> 2.4	640	320	400	200	180	90	50	25				
	22226	<b>300.5</b> 10.6	<b>76.5</b> 2.7	560	280	360	180	160	80						
<b>125, 130</b> 4 15/16, 5	22228	<b>396.9</b> 14	<b>99.2</b> 3.5	520	260	340	170	140	75						

**DISCLAIMER:** Every reasonable effort has been made to ensure the accuracy of the information in this writing, but no liability is accepted for errors, omissions or for any other reason.

### CL SERIES

Please complete the following steps to install Timken solid-block housed unit CL Series bearings.

- Ensure that the shaft is clean, free from nicks and burrs, straight and of proper diameter. See table C-26 for recommended shaft tolerances. The housed unit should not be mounted on a worn section of the shaft. Using shafts with hardness greater than HRC 45 will reduce the effectiveness of locking devices.
- If using an open-end cover, slide the open-end cover/seal combination into position on the shaft.
- Apply a thin oil film to the shaft and bearing bore.
- Slide the housed unit into position on the shaft.
- Install the housed unit mounting bolts. Check the housed unit alignment. Verify mounting surfaces are in the same flat plane to help achieve good alignment. If shimming is required to minimize misalignment, use full shims across the entire housing base where possible (fig. C-22). The bolts then need to be alternately torqued securely to their mounting supports.
- Tighten set screws alternately as per table C-27. Set screws in multiple units should be aligned to each other (fig. C-21).

If using covers:

- Make sure the mating surface of the cover and retaining nuts are clean and dry.
  - Urethane cover: slightly roughen the mating surface of the cover, place a 3 mm – 6 mm ( $\frac{1}{8}$  in. –  $\frac{1}{4}$  in.) bead of polyurethane adhesive sealant on the roughened surface.
  - Steel cover: place a 3 mm – 6 mm ( $\frac{1}{8}$  in. –  $\frac{1}{4}$  in.) bead of silicone adhesive sealant on the mating surface of the cover.
- Align the cover mounting holes with the mounting holes on the retaining housing nut (make sure that the grease fitting on the cover is accessible when doing so).
- Apply and tighten the cover mounting hardware.

TABLE C-26. RECOMMENDED SHAFT TOLERANCES

Shaft Dia.	Bearing No.	Tolerance
mm in.		mm in.
35 1 $\frac{7}{16}$ , 1 $\frac{1}{2}$	22208	+0.00/-0.025 +0.00/0.0010
40, 45 1 $\frac{11}{16}$ , 1 $\frac{3}{4}$	22209	+0.00/-0.038 +0.00/0.0015
50 1 $\frac{15}{16}$ , 2	22210	+0.00/-0.038 +0.00/-0.0015
55 2 $\frac{3}{16}$ , 2 $\frac{1}{4}$	22211	+0.00/-0.038 +0.00/-0.0015
60, 65 2 $\frac{7}{16}$ , 2 $\frac{1}{2}$	22213	+0.00/-0.038 +0.00/-0.0015
70, 75 2 $\frac{11}{16}$ , 2 $\frac{3}{4}$ 2 $\frac{15}{16}$ , 3	22215	+0.00/-0.51 +0.00/-0.0020
80, 85, 90 3 $\frac{3}{16}$ , 3 $\frac{1}{4}$ 3 $\frac{7}{16}$ , 3 $\frac{1}{2}$	22218	+0.00/-0.076 +0.00/-0.0030
100 3 $\frac{15}{16}$ , 4	22220	+0.00/-0.076 +0.00/-0.0030
110, 115 4 $\frac{7}{16}$ , 4 $\frac{1}{2}$	22222	+0.00/-0.127 +0.00/-0.0050
125, 130 4 $\frac{15}{16}$ , 5	22226	+0.00/-0.127 +0.00/-0.0050

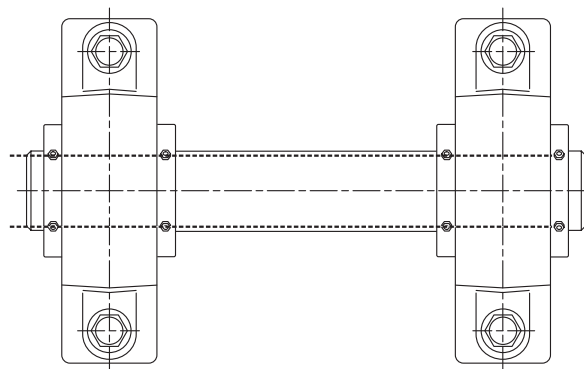


Fig. C-21. Line up set screws in multiple units.

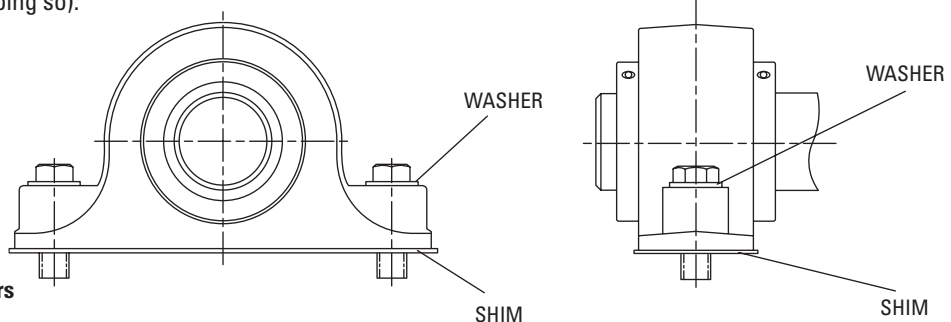


Fig. C-22. Use washers and full shims.

TABLE C-27. SET SCREW TORQUE VALUES

Shaft Dia.	Bearing No.	Set Screw Size	Torque
mm in.			Nm in. - lbs.
<b>35</b> 1 7/16, 1 1/2	22208	3/8 - 24TPI	<b>32.8</b> 290
<b>40</b> 1 11/16, 1 3/4	22209	3/8 - 24TPI	<b>32.8</b> 290
<b>50</b> 1 15/16, 2	22210	3/8 in. - 24TPI	<b>32.8</b> 290
<b>55</b> 2 3/16, 2 1/4	22211	3/8 in. - 24TPI	<b>32.8</b> 290
<b>60, 65</b> 2 7/16, 2 1/2	22213	1/2 in. - 20TPI	<b>70.1</b> 620
<b>70, 75</b> 2 11/16, 2 3/4 2 15/16, 3	22215	1/2 in. - 20TPI	<b>70.1</b> 620
<b>80, 85, 90</b> 3 3/16, 3 1/4 3 7/16, 3 1/2	22218	1/2 in. - 20TPI	<b>70.1</b> 620
<b>100</b> 3 15/16, 4	22220	5/8 in. - 18TPI	<b>149.7</b> 1325
<b>110, 115</b> 4 7/16, 4 1/2	22222	5/8 in. - 18TPI	<b>149.7</b> 1325
<b>125, 130</b> 4 15/16, 5	22226	5/8 in. - 18TPI	<b>149.7</b> 1325

**LUBRICATION**

This information is to aid in the proper lubrication of Timken spherical roller bearing solid-block housed units for the majority of applications.

Housed units have been factory-prelubricated with an NLGI No. 2 lithium-complex, extreme pressure synthetic grease that combines the benefits of wide operating temperatures and broad compatibility with varied materials. This grease offers excellent thermal stability through temperatures ranging from -40° C to 177° C (-40° F to 350° F). Housed units should be relubricated with this grease or one that is compatible and made for roller bearings. It is vital that the greases used are compatible. Please consult with your Timken engineer for the grease specifications if the use of a grease other than the grease mentioned above is needed.

Normal service is considered as operation in a clean, dry environment at temperatures between -34° C to +82° C (-30° F to +180° F). If service is beyond normal conditions due to speed, temperature, or exposure to moisture, dirt or corrosive chemicals, periodic relubrication may be necessary. For extreme conditions or conditions in which special chemicals are used, consult with your Timken engineer.

After extended storage or periods when the housed unit is not in operation, fresh grease should be added.

It's important to have the right amount of lubrication, because it affects the housed unit bearing operating temperature as well. An inadequate amount of grease could lead to higher operating temperatures due to inadequate lubrication film thickness. Excessive grease also will lead to higher operating temperatures due to grease churning, which can cause bearing overheating. It is best to observe the bearing and its temperature and adjust the lubrication as needed. If necessary, use the purge valve or seals that purge to reduce the amount of grease.

**NOTE**

*Please check with the manufacturer of your grease delivery system for specific information.*



**WARNING**

**Failure to observe the following warnings could create a risk of death or serious injury.**

Proper maintenance and handling practices are critical. Always follow installation instructions and maintain proper lubrication.

Overheated bearings can ignite explosive atmospheres. Special care must be taken to properly select, install, maintain, and lubricate housed unit bearings that are used in or near atmospheres that may contain explosive levels of combustible gases or accumulations of dust such as from grain, coal, or other combustible materials. Consult your equipment designer or supplier for installation and maintenance instructions.

### RELUBRICATION

Adequate lubrication is an essential element to the housed unit bearing life. Use table C-28 as a suggested initial point of reference. Relubrication frequency and quantity intervals are best determined through experience for each application based on types of service, which may differ from the suggestions in the table.

When the housed unit is not in operation for an extended period of time, grease should be added to prevent corrosion.

Table C-28 shows general lubrication suggested starting points only. Please read the entire installation instructions prior to using

these tables. Applications should be regularly reviewed and lubrication amounts and intervals modified as needed to ensure the best results.

**TABLE C-28. RELUBRICATION INTERVALS**

Shaft Dia.	Bearing No.	Initial Weight	Relubrication Weight	Relubrication Interval (Hours of Service based on RPM and Temperature deg. F)											
				100 RPM		250 RPM		500 RPM		1000 RPM		2000 RPM		3000 RPM	
				<160°	>160°	<160°	>160°	<160°	>160°	<160°	>160°	<160°	>160°	<160°	>160°
mm in.		g oz.	g oz.												
<b>35</b> 1 7/16, 1 1/2	22208	<b>14.2</b> 0.5	<b>2.4</b> 0.1	2200	1000	1400	700	1000	500	240	120	120	60	40	20
<b>40, 45</b> 1 11/16, 1 3/4	22209	<b>317.5</b> 0.7	<b>5.7</b> 0.2	2000	1000	1200	600	800	400	320	160	160	80	80	40
<b>50</b> 1 15/16, 2	22210	<b>22.7</b> 0.8	<b>5.7</b> 0.2	1600	800	1000	500	640	320	240	120	120	60	60	30
<b>55</b> 2 3/16, 2 1/4	22211	<b>28.4</b> 1	<b>8.5</b> 0.3	1200	600	800	400	440	220	160	80	100	50	60	30
<b>60, 65</b> 2 7/16, 2 1/2	22213	<b>39.7</b> 1.4	<b>11.3</b> 0.4	1120	560	720	360	360	180	120	60	80	40	40	20
<b>70, 75</b> 2 11/16, 2 3/4 2 15/16, 3	22215	<b>76.5</b> 2.7	<b>19.4</b> 0.7	1040	520	680	340	340	170	100	50	60	30		
<b>80, 85, 90</b> 3 3/16, 3 1/4 3 7/16, 3 1/2	22218	<b>104.9</b> 3.7	<b>25.5</b> 0.9	960	480	600	300	300	150	80	40	40	20		
<b>100</b> 3 15/16, 4	22220	<b>184.3</b> 6.5	<b>45.4</b> 1.6	840	420	520	260	240	120	60	30	20	16		
<b>110, 115</b> 4 7/16, 4 1/2	22222	<b>209.8</b> 7.4	<b>53.9</b> 1.9	680	340	440	220	200	100	60	30	20	16		
<b>125, 130</b> 4 15/16, 5	22226	<b>300.5</b> 10.6	<b>76.5</b> 2.7	560	280	360	180	160	80						

**DISCLAIMER:** Every reasonable effort has been made to ensure the accuracy of the information in this writing, but no liability is accepted for errors, omissions or for any other reason.

## HOW TO CONVERT A SOLID-BLOCK HOUSED UNIT FROM FIXED TO EXPANSION (FLOATING)

### Flange Cartridge and Flange Block

- Make a reference mark on the housing and retaining nut.
- Loosen the Teflon-tipped set screw that locks the retaining nut in place.
- Loosen the retaining nut by tapping it with a hammer and punch, rotating the retaining nut counterclockwise one complete revolution.
- Tighten the Teflon-tipped set screw.

#### NOTE

*When converting a solid-block housed unit bearing from fixed to expansion, it is imperative that the unit that is going to be converted is correctly oriented. Since the insert in a steel housed unit flange bearing is held against either a shoulder or snap ring opposite the housing retaining nut, a flange bearing that has been converted to expansion can only float in the direction of the retaining nut. Based on this, the retaining nut must be on the side of the housing opposite the fixed bearing.*

### Pillow Block

- Decide the amount and direction of expansion that's needed. If unidirectional expansion is required, follow the directions outlined above for flange bearings on the nut that is on the side you want the expansion.
- If multi-directional expansion is required, follow the directions as outlined above for both nuts on flange housed units.

## HOW TO CONVERT A SOLID-BLOCK HOUSED UNIT FROM EXPANSION (FLOATING) TO FIXED

### Flange Cartridge and Flange Block

- Loosen the Teflon-tipped set screw that locks the retaining nut in place.
- Tighten the retaining nut by tapping it with a hammer and punch, rotating the retaining nut clockwise until it's tight. It is not possible to overtighten the retaining nut.
- Tighten the Teflon-tipped set screw.

### Pillow Block

- Follow the directions above for flange bearings on both nuts on either side of the housing.

#### NOTE

*When converting a solid-block housed unit from expansion to fixed on a mounted bearing, the locking-collar set screws must be released to allow the insert to move both in the housing and on the shaft.*

### EC SERIES

Please complete the following steps to install Timken EC series spherical roller bearing solid-block housed units.

- Ensure that the shaft is clean, free from nicks and burrs, straight and of proper diameter. See table C-29 for recommended shaft tolerances. The housed unit should not be mounted on a worn section of the shaft. Using shafts with hardness greater than HRC 45 will reduce the effectiveness of locking devices.
- If using an open-end cover, slide the open-end cover/seal combination into position on the shaft.
- Apply a thin oil film to the shaft and bearing bore.
- Slide the housed unit into position on the shaft.
- Install the housed unit mounting bolts. Check the housed unit alignment. Verify that the mounting surfaces are in the same flat plane to help achieve good alignment. If shimming is required to minimize misalignment, use full shims across the entire housing base where possible (fig. C-23). The bolts then need to be alternately torqued securely to their mounting supports.

- Slide the eccentric locking collar along shaft and onto the extended portion of the bearing's inner ring.
- Rotate the eccentric locking collar until it is hand-tight (the direction of rotation does not matter).
- Lock the eccentric locking collar firmly in place by using a spanner wrench or a hammer and drift.

When using a hammer and drift, one or two firm, but not too hard, blows will be sufficient due to the shallow eccentric ramp on EC series housed units. Make sure you drive the collar in the same direction in which you hand-tightened it so as to turn it to a tighter position on the bearing's inner ring.

- Tighten the eccentric locking collar set screws alternately as per table C-30.

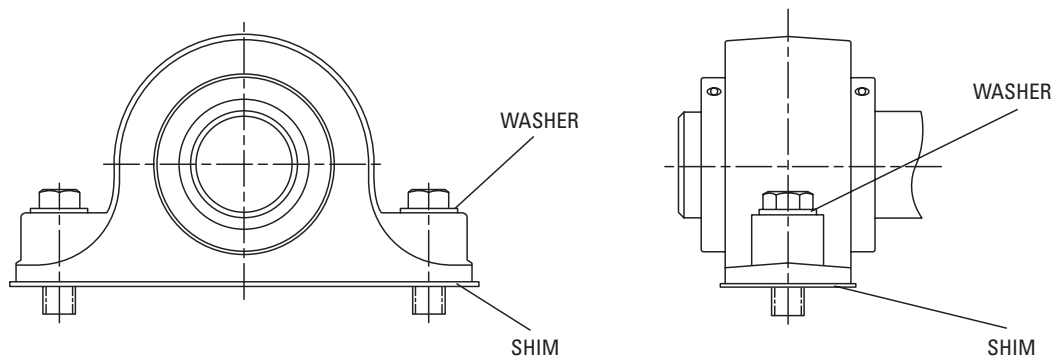


Fig. C-23. Use washers and full shims.

If using covers:

- Make sure the mating surface of the cover and retaining nuts are clean and dry.
  - Urethane cover: slightly roughen the mating surface of the cover, place a 3 mm – 6 mm (1/8 in. – 1/4 in.) bead of polyurethane adhesive sealant on the roughened surface.
  - Steel cover: place a 3 mm – 6 mm (1/8 in. – 1/4 in.) bead of silicone adhesive sealant on the mating surface of the cover.
- Align the cover mounting holes with the mounting holes on the retaining housing nut (make sure that the grease fitting on the cover is accessible when doing so).
- Apply and tighten the cover mounting hardware.

**TABLE C-29. RECOMMENDED SHAFT TOLERANCES**

Shaft Dia.	Bearing No.	Tolerance
mm in.		mm in.
<b>35</b> 1 7/16, 1 1/2	22208	<b>+0.00/-0.025</b> +0.00/-0.0010
<b>40, 45</b> 1 11/16, 1 3/4	22209	<b>+0.00/-0.038</b> +0.00/-0.0015
<b>50</b> 1 15/16, 2	22210	<b>+0.00/-0.038</b> +0.00/-0.0015
<b>55</b> 2 3/16, 2 1/4	22211	<b>+0.00/-0.038</b> +0.00/-0.0015
<b>60, 65</b> 2 7/16, 2 1/2	22213	<b>+0.00/-0.038</b> +0.00/-0.0015
<b>70, 75</b> 2 11/16, 2 3/4 2 15/16, 3	22215	<b>+0.00/-0.051</b> +0.00/-0.0020
<b>80, 85, 90</b> 3 3/16, 3 1/4 3 7/16, 3 1/2	22218	<b>+0.00/-0.076</b> +0.00/-0.0030
<b>100</b> 3 11/16, 3 3/4 3 15/16, 4	22220	<b>+0.00/-0.076</b> +0.00/-0.0030
<b>110, 115</b> 4 7/16, 4 1/2	22222	<b>+0.00/-0.127</b> +0.00/-0.0050
<b>125, 130</b> 4 15/16, 5	22226	<b>+0.00/-0.127</b> +0.00/-0.0050
<b>140, 150</b> 5 7/16, 5 1/2 5 15/16, 6	23230	<b>+0.00/-0.127</b> +0.00/-0.0050
<b>170, 180</b> 6 7/16, 6 1/2 6 15/16, 7	23234	<b>+0.00/-0.127</b> +0.00/-0.0050

**TABLE C-30. SET SCREW TORQUE VALUES**

Shaft Dia.	Bearing No.	Set Screw Size	Torque
mm in.			Nm in. - lbs.
<b>35</b> 1 7/16, 1 1/2	22208	3/8-24TPI	<b>32.8</b> 290
<b>40, 45</b> 1 11/16, 1 3/4	22209	3/8-24TPI	<b>32.8</b> 290
<b>50</b> 1 15/16, 2	22210	3/8-24TPI	<b>32.8</b> 290
<b>55</b> 2 3/16, 2 1/4	22211	3/8-24TPI	<b>32.8</b> 290
<b>60, 65</b> 2 7/16, 2 1/2	22213	7/16-20TPI	<b>48.6</b> 430
<b>70, 75</b> 2 11/16, 2 3/4 2 15/16, 3	22215	7/16-20TPI	<b>48.6</b> 430
<b>80, 85, 90</b> 3 3/16, 3 1/4 3 7/16, 3 1/2	22218	7/16-20TPI	<b>48.6</b> 430
<b>100</b> 3 11/16, 3 3/4 3 15/16, 4	22220	9/16-18TPI	<b>70.1</b> 620
<b>110, 115</b> 4 7/16, 4 1/2	22222	5/8-18TPI	<b>149.7</b> 1325
<b>125, 130</b> 4 15/16, 5	22226	5/8-18TPI	<b>149.7</b> 1325
<b>140, 150</b> 5 7/16, 5 1/2 5 15/16, 6	23230	5/8-18TPI	<b>149.7</b> 1325
<b>170, 180</b> 6 7/16, 6 1/2 6 15/16, 7	23234	5/8-18TPI	<b>149.7</b> 1325

### LUBRICATION

This information is to aid in the proper lubrication of Timken spherical roller bearing solid-block housed units for the majority of applications.

Housed units have been factory-prelubricated with an NLGI No. 2 lithium-complex, extreme-pressure synthetic grease that combines the benefits of wide operating temperatures and broad compatibility with varied materials. This grease offers excellent thermal stability through temperatures ranging from -40° C to 177° C (-40° F to 350° F). Housed units should be relubricated with this grease or one that is compatible and made for roller bearings. It is vital that the greases used are compatible. Please consult with your Timken engineer for the grease specifications if the use of a grease other than the grease mentioned above is needed.

Normal service is considered as operation in a clean, dry environment at temperatures between -34° C to +82° C (-30° F to +180° F). If service is beyond normal conditions due to speed, temperature, or exposure to moisture, dirt or corrosive chemicals, periodic relubrication may be necessary. For extreme conditions or conditions in which special chemicals are used, consult with your Timken engineer.

After extended storage or periods when the housed unit is not in operation, fresh grease should be added.

It's important to have the right amount of lubrication, because it affects the housed unit bearing operating temperature as well. An inadequate amount of grease could lead to higher operating temperatures due to inadequate lubrication film thickness. Excessive grease also will lead to higher operating temperatures due to grease churning, which can cause bearing overheating. It is best to observe the bearing and its temperature and adjust the lubrication as needed. If necessary, use the purge valve or seals that purge to reduce the amount of grease.

### NOTE

*Please check with the manufacturer of your grease delivery system for specific information.*

### RELUBRICATION

Adequate lubrication is an essential element to the housed unit bearing life. Use table C-31 as a suggested initial point of reference. Relubrication frequency and quantity intervals are best developed through experience for each application based on types of service, which may differ from the suggestions in the table.

When the housed unit is not in operation for an extended period of time, grease should be added to prevent corrosion.

Table C-31 shows general lubrication suggested starting points only. Please read the entire installation instructions prior to using these tables. Applications should be regularly reviewed and lubrication amounts and intervals modified as needed to ensure the best results.



### WARNING

***Failure to observe the following warnings could create a risk of death or serious injury.***

Proper maintenance and handling practices are critical. Always follow installation instructions and maintain proper lubrication.

Overheated bearings can ignite explosive atmospheres. Special care must be taken to properly select, install, maintain, and lubricate housed unit bearings that are used in or near atmospheres that may contain explosive levels of combustible gases or accumulations of dust such as from grain, coal, or other combustible materials. Consult your equipment designer or supplier for installation and maintenance instructions.

### DISCLAIMER

***Every reasonable effort has been made to ensure the accuracy of the information in this writing, but no liability is accepted for errors, omissions or for any other reason.***

TABLE C-31. RELUBRICATION INTERVALS

Shaft Dia.	Bearing No.	Initial Weight	Relubrication Weight	Relubrication Interval (Hours of Service based on RPM and Temperature deg. F)											
				100 RPM		250 RPM		500 RPM		1000 RPM		2000 RPM		3000 RPM	
				<160°	>160°	<160°	>160°	<160°	>160°	<160°	>160°	<160°	>160°	<160°	>160°
mm in.		g oz.	g oz.												
<b>35</b> 1 7/16, 1 1/2	22208	<b>14.2</b> 0.5	<b>2.8</b> 0.1	2200	1000	1400	700	1000	500	240	120	120	60	40	20
<b>40, 45</b> 1 11/16, 1 3/4	22209	<b>19.9</b> 0.7	<b>5.7</b> 0.2	2000	1000	1200	600	800	400	320	160	160	80	80	40
<b>50</b> 1 15/16, 2	22210	<b>22.7</b> 0.8	<b>5.7</b> 0.2	1600	800	1000	500	640	320	240	120	120	60	60	30
<b>55</b> 2 3/16, 2 1/4	22211	<b>28.4</b> 1	<b>8.5</b> 0.3	1200	600	800	400	440	220	160	80	100	50	60	30
<b>60, 65</b> 2 7/16, 2 1/2	22213	<b>39.7</b> 1.4	<b>11.3</b> 0.4	1120	560	720	360	360	180	120	60	80	40	40	20
<b>70, 75</b> 2 11/16, 2 3/4 2 15/16, 3	22215	<b>76.5</b> 2.7	<b>19.8</b> 0.7	1040	520	680	340	340	170	100	50	60	30		
<b>80, 85, 90</b> 3 3/16, 3 1/4 3 7/16, 3 1/2	22218	<b>104.9</b> 3.7	<b>25.5</b> 0.9	960	480	600	300	300	150	80	40	40	20		
<b>100</b> 3 11/16, 3 3/4 3 15/16, 4	22220	<b>184.3</b> 6.5	<b>45.4</b> 1.6	840	420	520	260	240	120	60	30	20	16		
<b>110, 115</b> 4 7/16, 4 1/2	22222	<b>209.8</b> 7.4	<b>53.9</b> 1.9	680	340	440	220	200	100	60	30	20	16		
<b>125, 130</b> 4 15/16, 5	22226	<b>300.5</b> 10.6	<b>76.5</b> 2.7	560	280	360	180	160	80						
<b>140, 150</b> 5 7/16, 5 1/2 5 15/16, 6	23230	<b>589.7</b> 20.8	<b>147.4</b> 5.2	480	240	320	160	120	68						
<b>170, 180</b> 6 7/16, 6 1/2 6 15/16, 7	23234	<b>85.0</b> 30.0	<b>241.0</b> 8.5	400	160	240	160	110	60						

## HOW TO CONVERT A SOLID-BLOCK HOUSED UNIT FROM FIXED TO EXPANSION (FLOATING)

### Flange Cartridge and Flange Block

- Make a reference mark on the housing and retaining nut.
- Loosen the Teflon-tipped set screw that locks the retaining nut in place.
- Loosen the retaining nut by tapping it with a hammer and punch, rotating the retaining nut counterclockwise one complete revolution.
- Tighten the Teflon-tipped set screw.

#### NOTE

*When converting a solid-block housed unit bearing from fixed to expansion, it is imperative that the unit that is going to be converted is correctly oriented. Since the insert in a steel housed unit flange bearing is held against either a shoulder or snap ring opposite the housing retaining nut, a flange bearing that has been converted to expansion can only float in the direction of the retaining nut. Based on this, the retaining nut must be on the side of the housing opposite the fixed bearing.*

### Pillow Block

- Decide the amount and direction of expansion that's needed. If unidirectional expansion is required, follow the directions outlined above for flange bearings on the nut that is on the side you want the expansion.
- If multi-directional expansion is required, follow the directions outlined above for both nuts on flange housed units.

## HOW TO CONVERT A SOLID-BLOCK HOUSED UNIT FROM EXPANSION (FLOATING) TO FIXED

### Flange Cartridge and Flange Block

- Loosen the Teflon-tipped set screw that locks the retaining nut in place.
- Tighten the retaining nut by tapping it with a hammer and punch, rotating the retaining nut clockwise until it's tight. It is not possible to overtighten the retaining nut.
- Tighten the Teflon-tipped set screw.

### Pillow Block

- Follow the directions above for flange bearings on both nuts on either side of the housing.

#### NOTE

*When converting a solid-block housed unit from expansion to fixed on a mounted bearing, the locking collar set screws must be released to allow the insert to move both in the housing and on the shaft.*

## TA/DV SERIES

Choose one of the following two methods for installing your housed unit depending on your situation. Timken recommends the axial drive-up method for most applications. If your application is not as critical, the simpler tang counting method is fine.

### AXIAL DRIVE-UP METHOD

- Clean all components of any debris and apply a thin oil film to all mating surfaces to ensure proper seating.
- If using an open-end cover, slide the open-end cover/seal combination into position on the shaft.
- Slide the adapter sleeve into position on the shaft, then put the housed unit into place on the adapter sleeve.
- Loosely install the housed unit mounting bolts. Check the housed unit alignment. Verify mounting surfaces are in the same flat plane to help achieve good alignment. If shimming is required to minimize misalignment, use full shims across the entire housing base where possible (fig. C-24). Washers should be properly sized to the bolt diameter and should not be an SAE grade, which is smaller.
- Put the lockwasher on and thread the locknut onto the adapter sleeve leaving approximately 6.350 mm (¼ in.) between the lockwasher and the inner ring of the bearing.
- Use a large screwdriver or pry bar to lever the sleeve into position until there is no relative movement between the shaft, the adapter sleeve, and the bearing's inner ring.
- Rotate the locknut until hand-tight.
- Tighten the locknut while using a dial indicator to measure the axial movement of the tapered adapter sleeve relative to the bearing's inner ring (see table C-32).
- Bend a tang on the lockwasher into a slot on the locknut to prevent the locknut from loosening.
- Tighten the housed unit mounting bolts.

If using covers:

- Make sure the mating surface of the cover and retaining nuts are clean and dry.
  - Urethane cover: slightly roughen the mating surface of the cover, place a 3 mm – 6 mm (⅛ in. – ¼ in.) bead of polyurethane adhesive sealant on the roughened surface.
  - Steel cover: place a 3 mm – 6 mm (⅛ in. – ¼ in.) bead of silicone adhesive sealant on the mating surface of the cover.
- Align the cover mounting holes with the mounting holes on the retaining housing nut (make sure that the grease fitting on the cover is accessible when doing so).
- Apply and tighten the cover mounting hardware.

**TABLE C-32. AXIAL MOVEMENT OF TAPERED ADAPTER SLEEVE RELATIVE TO INNER RING**

Shaft Dia.	Bearing No.	Minimum Axial Movement	Maximum Axial Movement
mm in.		mm in.	mm in.
<b>40</b> 1 7/16, 1 1/2	22209	<b>0.38</b> 0.015	<b>0.46</b> 0.018
<b>45</b> 1 11/16, 1 3/4	22210	<b>0.38</b> 0.015	<b>0.46</b> 0.018
<b>50</b> 1 15/16, 2	22211	<b>0.46</b> 0.018	<b>0.56</b> 0.022
<b>55</b> —	22212	<b>0.46</b> 0.018	<b>0.56</b> 0.022
<b>60</b> 2 3/16, 2 1/4	22213	<b>0.46</b> 0.018	<b>0.56</b> 0.022
<b>65</b> 2 7/16, 2 1/2	22215	<b>0.64</b> 0.025	<b>0.76</b> 0.030
<b>70</b> 2 11/16, 2 3/4	22216	<b>0.64</b> 0.025	<b>0.76</b> 0.030
<b>75</b> 2 15/16, 3	22217	<b>0.69</b> 0.027	<b>0.97</b> 0.038
<b>80</b> 3 3/16, 3 1/4	22218	<b>0.69</b> 0.027	<b>0.97</b> 0.038
<b>85</b> —	22219	<b>0.69</b> 0.027	<b>0.97</b> 0.038
<b>90</b> 3 7/16, 3 1/2	22220	<b>0.69</b> 0.027	<b>0.97</b> 0.038
<b>100</b> 3 15/16, 4	22222	<b>0.76</b> 0.030	<b>1.07</b> 0.042
<b>110</b> 4 3/16, 4 1/4	22224	<b>0.76</b> 0.030	<b>1.07</b> 0.042
<b>115</b> 4 7/16, 4 1/2	22226	<b>0.89</b> 0.035	<b>1.27</b> 0.050
<b>125</b> 4 15/16, 5	22228	<b>0.89</b> 0.035	<b>1.27</b> 0.050

### TANG COUNTING METHOD

- Clean all components of any debris and apply a thin oil film to all mating surfaces to ensure proper seating.
- If using an open-end cover, slide the open-end cover/seal combination into position on the shaft.
- Slide the adapter sleeve into the correct position on the shaft, then put the housed unit into place on the adapter sleeve.
- Loosely install the housed unit mounting bolts. Check the housed unit alignment. Verify mounting surfaces are in the same flat plane to help achieve good alignment. If shimming is required to minimize misalignment, use full shims across the entire housing base where possible (fig. C-24). Washers should be properly sized to the bolt diameter and should not be an SAE grade, which is smaller.
- Put the lockwasher on and thread the locknut onto the adapter sleeve, leaving approximately  $\frac{1}{4}$  in. between the lockwasher and the inner ring of the bearing.
- Use a large screwdriver or pry bar to lever the sleeve into position until there is no relative movement between the shaft, the adapter sleeve and the bearing's inner ring.
- Rotate the locknut until hand-tight.
- Note which tang is in line with one slot on the locknut.
- Tighten the locknut until the slot on the locknut passes the number of tangs shown in table C-33.
- Bend a tang on the lockwasher into a slot on the locknut to prevent the locknut from loosening.
- Tighten the housed unit mounting bolts.

#### If using covers:

- Make sure the mating surface of the cover and retaining nuts are clean and dry.
  - Urethane cover: slightly roughen the mating surface of the cover, place a 3 mm – 6 mm ( $\frac{1}{8}$  in. –  $\frac{1}{4}$  in.) bead of polyurethane adhesive sealant on the roughened surface.
  - Steel cover: place a 3 mm – 6 mm ( $\frac{1}{8}$  in. –  $\frac{1}{4}$  in.) bead of silicone adhesive sealant on the mating surface of the cover.
- Align the cover mounting holes with the mounting holes on the retaining housing nut (make sure that the grease fitting on the cover is accessible when doing so).
- Apply and tighten the cover mounting hardware.

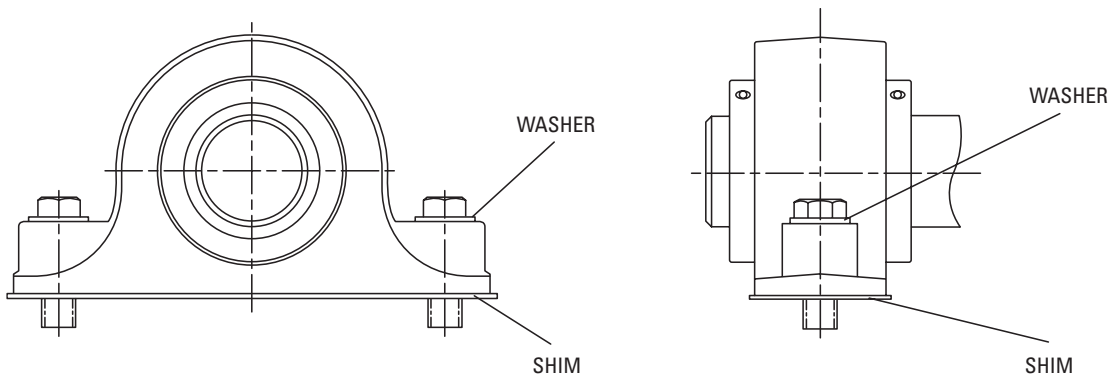


Fig. C-24. Use washers and full shims.

**TABLE C-33. NUMBER OF TANGS TO LOCKING**

Shaft Dia.	Bearing No.	Number of Tangs
mm in.		
<b>40</b> 1 7/16, 1 1/2	22209	3-4
<b>45</b> 1 11/16, 1 3/4	22210	3-4
<b>50</b> 1 15/16, 2	22211	4-5
<b>55</b> —	22212	4-5
<b>60</b> 2 3/16, 2 1/4	22213	4-5
<b>65</b> 2 7/16, 2 1/2	22215	5-6
<b>70</b> 2 11/16, 2 3/4	22216	5-6
<b>75</b> 2 15/16, 3	22217	8-9
<b>80</b> 3 3/16, 3 1/4	22218	8-9
<b>85</b> —	22219	8-9
<b>90</b> 3 7/16, 3 1/2	22220	8-9
<b>100</b> 3 15/16, 4	22222	10-11
<b>110</b> 4 3/16, 4 1/4	22224	10-11
<b>115</b> 4 7/16, 4 1/2	22226	10-11
<b>125</b> 4 15/16, 5	22228	10-11

## LUBRICATION

This information is to aid in the proper lubrication of Timken spherical roller bearing solid-block housed units for the majority of applications.

Housed units have been factory-prelubricated with an NLGI No. 2 lithium-complex, extreme-pressure synthetic grease that combines the benefits of wide operating temperatures and broad compatibility with varied materials. This grease offers excellent thermal stability through temperatures ranging from -40° C to 177° C (-40° F to 350° F). Housed units should be relubricated with this grease or one that is compatible and made for roller bearings. It is vital that the greases used are compatible. Please consult with your Timken engineer for the grease specifications if the use of a grease other than the grease mentioned above is needed.

Normal service is considered as operation in a clean, dry environment at temperatures between -34° C to +82° C (-30° F to +180° F). If service is beyond normal conditions due to speed, temperature or exposure to moisture, dirt or corrosive chemicals, periodic relubrication may be necessary. For extreme conditions or conditions in which special chemicals are used, consult with your Timken engineer.

After extended storage or periods when the housed unit is not in operation, fresh grease should be added.

It's important to have the right amount of lubrication, because it affects the housed unit bearing operating temperature as well. An inadequate amount of grease could lead to higher operating temperatures due to inadequate lubrication film thickness. Excessive grease will lead to higher operating temperatures due to grease churning, which can cause bearing overheating. It is best to observe the bearing and its temperature and adjust the lubrication as needed. If necessary, use the purge valve or seals that purge to reduce the amount of grease.

### NOTE

*Please check with the manufacturer of your grease delivery system for specific information.*

### RELUBRICATION

Adequate lubrication is an essential element to the housed unit bearing life. Use table C-34 as a suggested initial point of reference. Relubrication frequency and quantity intervals are best determined through experience for each application based on types of service, which may differ from the suggestions in the table.

When the housed unit is not in operation for an extended period of time, grease should be added to prevent corrosion.

Table C-34 shows general lubrication suggested starting points only. Please read the entire installation instructions prior to using these tables. Applications should be regularly reviewed and lubrication amounts and intervals modified as needed to ensure the best results.


**WARNING**

Failure to observe the following warnings could create a risk of death or serious injury.

Proper maintenance and handling practices are critical. Always follow installation instructions and maintain proper lubrication.

Overheated bearings can ignite explosive atmospheres. Special care must be taken to properly select, install, maintain, and lubricate housed unit bearings that are used in or near atmospheres that may contain explosive levels of combustible gases or accumulations of dust such as from grain, coal, or other combustible materials. Consult your equipment designer or supplier for installation and maintenance instructions.

**TABLE C-34. RELUBRICATION INTERVALS**

Shaft Dia.	Bearing No.	Initial Weight	Relubrication Weight	Relubrication Interval (Hours of Service based on RPM and Temperature deg. F)											
				100 RPM		250 RPM		500 RPM		1000 RPM		2000 RPM		3000 RPM	
				<160°	>160°	<160°	>160°	<160°	>160°	<160°	>160°	<160°	>160°	<160°	>160°
mm in.		g oz.	g oz.												
40 1 7/16, 1 1/2	22209	19.8 0.7	5.7 0.2	2000	1000	1200	600	800	400	320	160	160	80	80	40
45 1 11/16, 1 3/4	22210	22.7 0.8	5.7 0.7	1600	800	1000	500	640	320	240	120	120	60	60	30
50 1 15/16, 2	22211	28.4 1.0	8.5 0.3	1200	600	800	400	440	220	160	80	100	50	60	30
55 —	22212	34.0 1.2	8.5 0.3	1150	580	750	380	400	200	140	70	90	50	50	20
60 2 3/16, 2 1/4	22213	39.7 1.4	11.3 0.4	1120	560	720	360	360	180	120	60	80	40	40	20
65 2 7/16, 2 1/2	22215	76.5 2.7	19.8 0.7	1040	520	680	340	340	170	100	50	60	30		
70 2 11/16, 2 3/4	22216	76.5 2.7	19.8 0.7	1040	520	680	340	340	170	10	50	60	30		
75 2 15/16, 3	22217	96.4 3.4	25.5 0.9	1000	500	640	320	320	160	100	50	60	30		
80 3 3/16, 3 1/4	22218	104.9 3.7	25.5 0.9	960	480	600	300	300	150	80	40	40	20		
85 —	22219	104.9 3.7	25.5 0.9	960	480	600	300	300	150	80	40	40	20		
90 3 7/16, 3 1/2	22220	184.3 6.5	45.4 1.6	840	420	520	260	240	120	60	30				
100 3 15/16, 4	22222	209.8 7.4	53.9 1.9	680	340	440	220	200	100	60	30				
110 4 3/16, 4 1/4	22224	260.8 9.2	68.0 2.4	640	320	400	200	180	90	50	25				
115 4 7/16, 4 1/2	22226	340.2 12.0	85.0 3.0	600	300	360	180	160	80	40	20				
125 4 15/16, 5	22228	396.9 14.0	99.2 3.5	520	260	340	170	140	75						

**DISCLAIMER:** Every reasonable effort has been made to ensure the accuracy of the information in this writing, but no liability is accepted for errors, omissions or for any other reason.

## HOW TO CONVERT A SOLID-BLOCK HOUSED UNIT FROM FIXED TO EXPANSION (FLOATING)

### Flange Cartridge and Flange Block

- Make a reference mark on the housing and retaining nut.
- Loosen the Teflon-tipped set screw that locks the retaining nut in place.
- Loosen the retaining nut by tapping it with a hammer and punch, rotating the retaining nut counterclockwise one complete revolution.
- Tighten the Teflon-tipped set screw.

#### NOTE

*When converting a solid-block housed unit bearing from fixed to expansion, it is imperative that the unit that is going to be converted is correctly oriented. Since the insert in a steel housed unit flange bearing is held against either a shoulder or snap ring opposite the housing retaining nut, a flange bearing that has been converted to expansion can only float in the direction of the retaining nut. Based on this, the retaining nut must be on the side of the housing opposite the fixed bearing.*

### Pillow Block

- Decide the amount and direction of expansion that's needed. If unidirectional expansion is required, follow the directions outlined above for flange bearings on the nut that is on the side you want the expansion.
- If multi-directional expansion is required, follow the directions above for both nuts on flange housed units.

## HOW TO CONVERT A SOLID-BLOCK HOUSED UNIT FROM EXPANSION (FLOATING) TO FIXED

### Flange Cartridge and Flange Block

- Loosen the Teflon-tipped set screw that locks the retaining nut in place.
- Tighten the retaining nut by tapping it with a hammer and punch, rotating the retaining nut clockwise until tight. It is not possible to overtighten the retaining nut.
- Tighten the Teflon-tipped set screw.

### Pillow Block

- Follow the directions above for flange bearings on both nuts on either side of the housing.

#### NOTE

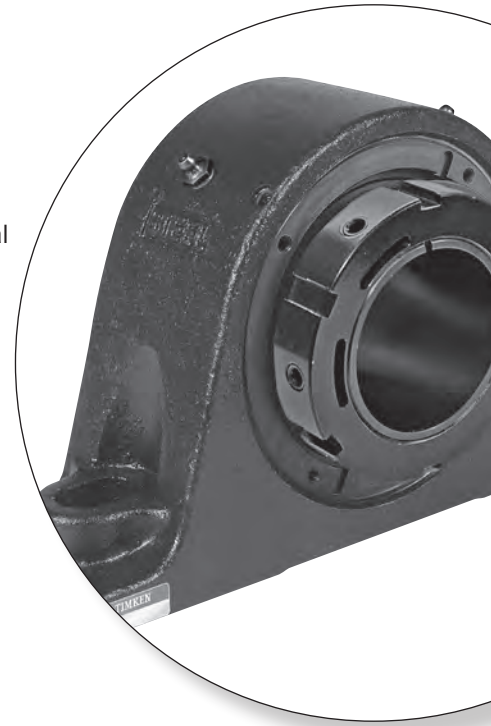
*When converting a solid-block housed unit from expansion to fixed on a mounted bearing, the locking-collar set screws must be released to allow the insert to move both in the housing and on the shaft.*



***SPHERICAL ROLLER BEARING  
SOLID-BLOCK HOUSED UNITS  
PRODUCT DATA TABLES***

When your equipment faces harsh environments, you need spherical roller bearing solid-block housed units rugged enough to withstand tough conditions and deliver exceptional performance. You gain both with Timken® spherical roller bearing solid-block housed units.

Nomenclatures.....	C-54
Seal and Cover Options.....	C-59
V-Lock® Series (double taper lock).....	C-73
CL Series (concentric [set screw] lock).....	C-99
EC Series (eccentric lock).....	C-129
TA/DV Series (tapered adapter lock).....	C-153
Take-Up Frames.....	C-169



### SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNIT NOMENCLATURE

QM P 13 J 207 S E M

**LOCKING STYLE**  
 QM – eccentric lock  
 QA – concentric (set screw) lock, single-collar  
 QAA – concentric (set screw) lock, double-collar  
 QV – V-Lock®, single-nut  
 QVV – V-Lock, double-nut  
 DV – tapered adapter lock (heavy-duty block)  
 TA – tapered adapter lock (extreme-duty block)

**HOUSING STYLE**

P – Type E dimension two-bolt pillow block	PX – 5000 series four-bolt pillow block
PL – two-bolt pillow block, S2000 style	F – square flange block
PA – SAF-style two-bolt pillow block	FB – square flange block
PN – SN-style two-bolt pillow block	FL – square flange block
SN – SN-style two-bolt pillow block	FX – 5000 series flange block
PKT – 9000 series two-bolt pillow block	FY – round flange block
PXT – 5000 series two-bolt pillow block	FK – 9000 series flange block
PR – Type E dimension four-bolt pillow block	C – piloted flange cartridge
PF – four-bolt pillow block, S2000 style	CW – piloted flange cartridge
PH – SAF-style four-bolt pillow block	FC – piloted flange cartridge
PG – SN-style four-bolt pillow block	MC – cartridge block
PK – 9000 series four-bolt pillow block	TU – take-up block

**BEARING INSERT BORE SERIES**  
 222XX (i.e., 13 = 22213)  
 232XX (for size 30 and 34 bearing only)

**BEARING INSERT LOCKING TYPE**  
 J – EC series  
 A and AA – CL series  
 V – V-Lock series  
 K – TA/DV series

**SHAFT DIAMETER**  
 In inch (i.e., 207 = 2 7/16 in.) and metric (i.e., 050 = 50 mm) sizes

**CAST-STEEL HOUSING**

**EXPANSION OR NON-EXPANSION**  
 BLANK (No letter) – Non-expansion (fixed)  
 E – Expansion (floating)

**SEAL TYPE**

M – M seal (triple-lip nitrile rubber)	C – C seal (double-lip Viton)	DuPont™ is a trademark of E.I. du Pont de Nemours and Company. Teflon® is a registered trademark of E.I. du Pont de Nemours and Company. Viton® is a registered trademark of E.I. du Pont de Nemours and Company.
N – N seal (triple-lip DuPont™ Viton®)	T – T seal (DuPont™ Teflon® labyrinth)	
O – O seal (triple-lip urethane)	YDR – flange cartridge backing plate with DR triple-lip seal	
B – B seal (double-lip nitrile rubber)		

## STEEL COVER NOMENCLATURE

**CJ** **18** **T** **085** **S**

### Open-End Steel Cover

**LOCKING STYLE**

CA – concentric lock  
 CJ – eccentric lock  
 CV – V-Lock  
 CK – tapered adapter lock

**BEARING INSERT SERIES**

222XX (i.e., 13 = 22213)  
 232XX (for size 30 and 34 bearing only)

**SEAL TYPE**

T seal only

**SHAFT SIZE**

In inch (i.e., 207 = 2 7/16 in.) and metric (i.e., 050 = 50 mm) sizes

**STEEL COVER**

**CS** **18** **STEEL**

### Closed-End Steel Cover

**BEARING INSERT SERIES**

222XX (i.e., 13 = 22213)  
 232XX (for size 30 and 34 bearing only)

**STEEL COVER**

### URETHANE COVER NOMENCLATURE

#### Open-End Cover with DR Seal

CJ DR 207

**LOCKING STYLE**

CA – concentric lock  
 CJ – eccentric lock  
 CK – tapered adapter lock

**TRIPLE-LIP SECONDARY SEAL**

**SHAFT SIZE**

In inch (i.e., 207 = 2 7/16 in.) and metric (i.e., 050 = 50 mm) sizes

#### Open-End Cover with VR Seal

CJ VR 13

**LOCKING STYLE**

CV – V-Lock  
 CA – concentric lock  
 CJ – eccentric lock  
 CK – tapered adapter lock

**SEAL TYPE**

VR ring

**BEARING INSERT SERIES**

222XX (i.e., 13 = 22213)  
 232XX (for size 30 and 34 bearing only)

#### V-Lock® Open-End Cover with DR Seal

CV DR 13 – 085

**LOCKING STYLE**

CV – V-Lock

**TRIPLE-LIP SECONDARY SEAL**

**BEARING INSERT SERIES**

222XX (i.e., 13 = 22213)  
 232XX (for size 30 and 34 bearing only)

**SHAFT SIZE**

In inch (i.e., 207 = 2 7/16 in.) and metric (i.e., 050 = 50 mm) sizes

#### Closed-End Cover

CS 13

**BEARING INSERT SERIES**

222XX (i.e., 13 = 22213)  
 232XX (for size 30 and 34 bearing only)

## BACKING PLATE NOMENCLATURE

**UFP** **207**

### Backing Plate (Only Available for CA and CJ Series Bearings)

**SQUARE FLANGE BLOCK WITH VR SEAL**

**SHAFT SIZE**  
In inch (i.e., 207 = 2 7/16 in.) and metric (i.e., 050 = 50 mm) sizes

**HSY** **085**

### Backing Plate (Only Available for CA and CJ Series Bearings)

**ROUND PILOTED FLANGE CARTRIDGE WITH DR SEAL**

**SHAFT SIZE**  
In inch (i.e., 207 = 2 7/16 in.) and metric (i.e., 050 = 50 mm) sizes

### ***ORDERING SOLID-BLOCK HOUSED UNITS***

Every solid-block housed unit is made of cast steel for greater strength (compared to cast iron). All bearings feature a double-row, spherical roller bearing design for a high load-carrying capacity, misalignment tolerance and reduced friction.

Starting with these standard design advantages, you can choose from a wide range of sizes, locking styles, seal options and housing styles suited precisely for your application.

There are many ways to determine the correct solid-block housed unit part number for ordering purposes:

- Once you determine the best locking style, housing and seal options for your application, you can easily find the correct part number in the tables included in the following sections.
- If you are ordering a replacement for an existing housed unit, locate the part number for that housed unit on the housing tag.
- If none of the above apply, or if you have additional questions or concerns about ordering the correct housed unit, contact your Timken engineer.

## SEAL AND COVER OPTIONS

### PRIMARY SEALS

Primary seals are installed between the inner ring of the bearing and the housing. They are held securely in place by the external housing nut. Primary seals can be contacting or non-contacting, purging or non-purging and are available in several material compounds for a variety of applications.

#### TRIPLE-LIP SEALS – CONTACTING, SELF-PURGING, LOW TO MODERATE SPEEDS<sup>(1)</sup>

Timken offers three kinds of medium-contact triple-lip seals. Choose from seals made of nitrile synthetic rubber (acrylonitrile butadiene), DuPont™ Viton® fluoroelastomer or urethane.

- **M Seal** – This seal, made of nitrile rubber, offers superior sealing in moist and dirty applications. It is chemical- and corrosion-resistant and provides excellent lubrication retention. It also allows excess grease to purge from the bearing cavity.
- **N Seal** – Made of DuPont Viton, this seal provides excellent chemical resistance and can operate at higher temperatures than nitrile rubber.
- **O Seal** – Made of high-strength urethane for superior abrasion resistance.

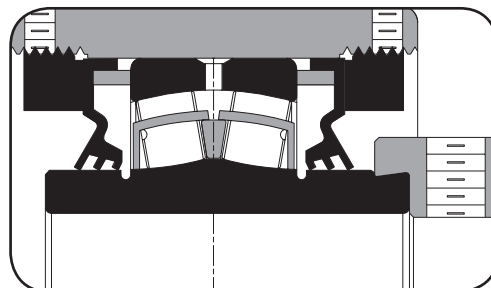


Fig. C-25. Triple-lip seals.

#### LABYRINTH SEALS – NON-CONTACTING, NON-PURGING, ALL SPEEDS<sup>(2)</sup>

Instead of trying to form a seal with a single strong barrier, a labyrinth seal uses a winding passageway to accomplish the same reduction in flow. Not only is seal friction reduced, but so is seal wear.

- **T Seal** – This seal consists of a DuPont™ Teflon® ring pressed onto the inner ring of the bearing that floats between two pieces of formed steel to accommodate misalignment. When using this seal, the housing comes with a vent fitting. Developed for higher-speed applications involving dirty conditions or moisture-affected areas, it is able to operate at higher temperatures and is impervious to most chemicals.

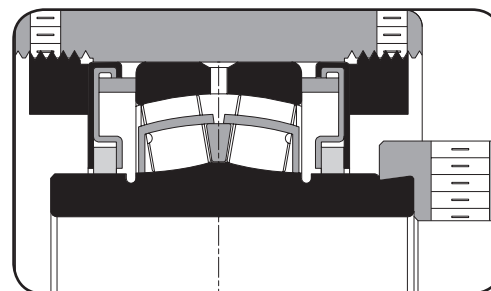


Fig.C-26. T seal.

#### DOUBLE-LIP SEALS – CONTACTING, NON-PURGING, LOW SPEEDS<sup>(1)(2)</sup>

These seals incorporate a double-lip seal, a garter spring for maximum contact, and a heavy-duty steel shield that protects the seal from large pieces of debris that could damage the seal itself.

- **B Seal** – Made of nitrile rubber, this seal offers superior protection in applications with oil lubrication and is designed for extreme moisture, fine dust or extremely dirty applications. When using this seal, the housing comes with a vent fitting.
- **C Seal** – Made of DuPont Viton, this seal provides excellent chemical and abrasion resistance and can operate at higher temperatures than nitrile rubber. When using this seal, the housing comes with a vent fitting.

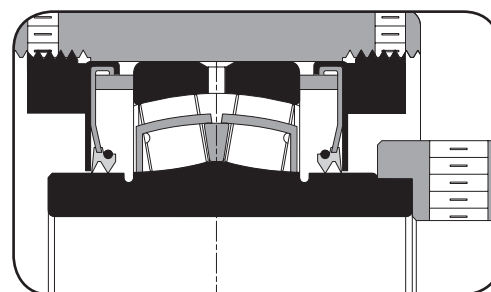


Fig. C-27. Double-lip seals.

<sup>(1)</sup>Temperature limit -40° C to 121° C (-40° F to 250° F) continuous, 149° C (300° F) intermittent. Constant seal-lip pressure on the inner ring results in higher operating temperatures of the complete unit. (See pages C-25 and C-26).

<sup>(2)</sup>Relief valve is standard.

DuPont™ is a trademark of E.I. du Pont de Nemours and Company. Teflon® is a registered trademark of E.I. du Pont de Nemours and Company. Viton® is a registered trademark of E.I. du Pont de Nemours and Company.

### SECONDARY SEALS

In many circumstances, bearings become damaged in housed units due to premature primary seal wear. This is usually the result of harsh operating environments or lubrication issues. Timken offers secondary sealing options that provide an additional barrier to protect the primary seal. These economical secondary seals and covers are easily outfitted on virtually all solid-block housed units.

#### STEEL COVERS

##### Labyrinth Seals – Non-Contacting, Non-Purging, All Speeds

A labyrinth seal uses a winding passageway to accomplish a reduction in flow instead of trying to form a seal with a single strong barrier. Seal friction and wear is reduced.

- **T Seal** – This seal, which is used in the open-end steel covers, consists of a DuPont Teflon ring pressed onto the shaft that floats between two pieces of formed steel to accommodate misalignment. Developed for higher-speed applications involving dirty conditions or moisture-affected areas, it is able to operate at higher temperatures and is impervious to most chemicals, while avoiding shaft damage.

#### URETHANE COVERS

##### DR Triple-Lip Secondary Seal – low speeds

The DR seal is the standard triple-lip seal adapted for use on the open-end covers and piloted flange cartridge backing plates (HSY). This seal can move within the cover or backing plate opening to accommodate misalignment while maintaining full contact to the shaft for positive sealing.

##### VR V-Ring Secondary Seal – high speeds

The VR seal, made of nitrile rubber, rides on the shaft and seals against the open-end covers and flange block backing plates (UFP).

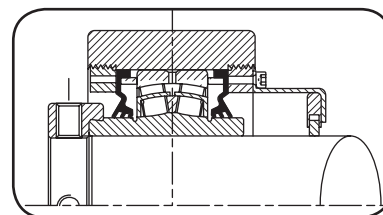


Fig. C-28. Open-end steel cover with T seal.

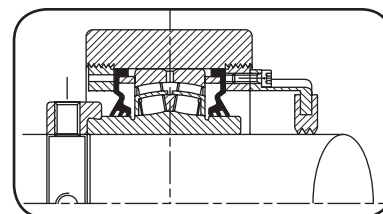


Fig. C-29. Open-end urethane cover with DR seal.

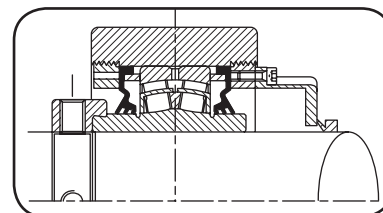


Fig. C-30. Open-end urethane cover with VR seal.

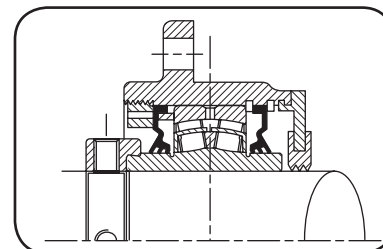


Fig. C-31. HSY backing plate with DR seal.

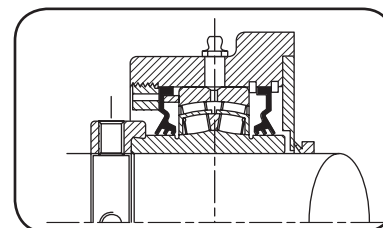


Fig. C-32. UFP backing plate with VR seal.

**STEEL AUXILIARY COVERS**

Steel auxiliary covers bolt directly onto spherical roller bearing solid-block housed units. A DuPont Teflon labyrinth seal on the open-ended covers guards against shaft damage and gives protection at high running speeds. Made from steel to withstand the toughest applications, the covers are black-oxide treated for improved corrosion protection.

These covers are available in both open-ended and closed-ended designs for standard and custom configurations of Timken spherical roller bearing solid-block housed units.

**Closed-End Covers (CS)**

These bolt-on covers are designed to be virtually indestructible and extremely convenient. They are made from structural steel or urethane and are easy to install. The cover completely seals the bearing, preventing contamination from reaching the primary seal. Every cover is outfitted with a grease fitting to fill the cover cavity for an added barrier against contamination.



Fig. C-33. Closed-end covers.

**Open-End Covers (CJ/CK/CV)**

These bolt-on covers are made from structural steel or urethane for repeated and continuous use. The covers are used with either a DuPont Teflon (T seal), triple-lip seal (DR) or a V-ring seal (VR) to help prevent contamination from reaching the primary seal. Every cover is outfitted with a grease fitting to fill the cover cavity for an added barrier against contamination.



Fig. C-34. Open-end covers.

**PILOTED FLANGE CARTRIDGE BACKING PLATES (HSY)**

The HSY backing plate is designed to work in conjunction with the piloted flange cartridge housed units. Made of structural urethane, these plates are fitted to the back side of the pilot for extra protection. The HSY plate comes supplied with a triple-lip seal (DR) or a contamination collar (optional) to form an additional barrier against contamination for the most demanding applications.



Fig. C-35. Piloted flange cartridge backing plates.

**FLANGE BLOCK BACKING PLATES (UFP)**

These backing plates are made from structural urethane and are uniquely designed to work with our flange block housed units. Made to fit flush against the back of the housing, these plates create a labyrinth over the inner ring for additional contamination protection. The UFP plate, when used with an optional V-ring seal (VR), provides an extra barrier against extreme contamination.



Fig. C-36. Flange block backing plates.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## SEAL AND COVER OPTIONS • STEEL COVER DIMENSIONS

### STEEL COVER DIMENSIONS

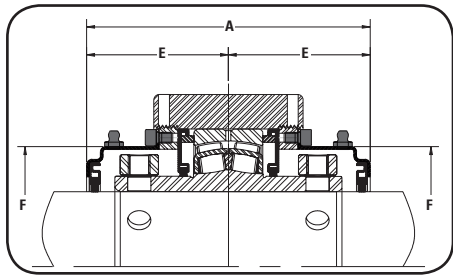


Fig. C-37. Double open-end cover.<sup>(1)</sup>

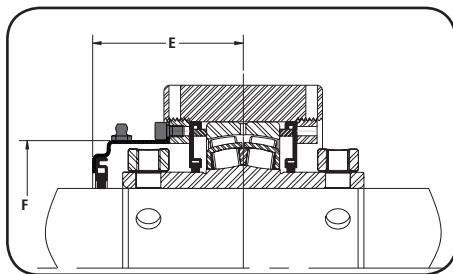


Fig. C-38. Single open-end cover.

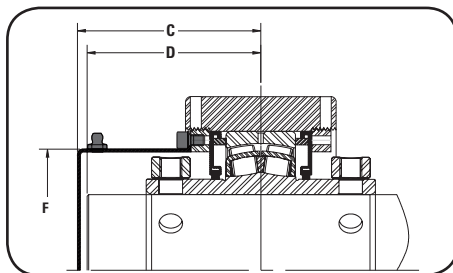


Fig. C-39. Single closed-end cover.

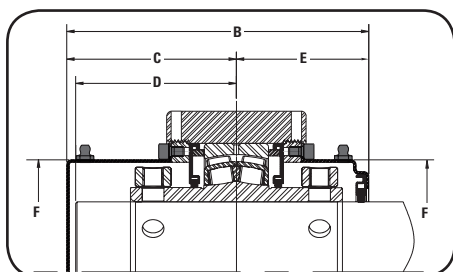


Fig. C-40. Single closed-end cover and single open-end cover.<sup>(1)</sup>

TABLE C-35. V-LOCK® SERIES—STRAIGHT BORE EQUIVALENTS

Cover Part No.	Shaft Dia.	Bearing No.	Steel Cover Dimensions					
			A	B	C	D	E	F
			mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
CS11STEEL	CLOSED	22211						
CV11T115S	1 15/16 in.		128.5	143.3	79.2	75.2	64.3	89.7
CV11T050S	50 mm		5.06	5.64	3.12	2.96	2.53	3.53
CV11T200S	2 in.							
CS12STEEL	CLOSED	22212						
CV12T055S	55 mm		129.0	141.5	77.0	72.9	64.5	98.6
CV12T203S	2 3/16 in.		5.08	5.57	3.03	2.87	2.54	3.88
CV12T204S	2 1/4 in.							
CS14STEEL	CLOSED	22214						
CV14T060S	60 mm		135.4	159.3	91.4	87.4	67.8	103.6
CV14T207S	2 7/16 in.		5.33	6.27	3.60	3.44	2.67	4.08
CV14T208S	2 1/2 in.							
CV14T065S	65 mm							
CS16STEEL	CLOSED	22216						
CV16T211S	2 11/16 in.		150.1	167.6	92.5	88.4	75.2	116.1
CV16T212S	2 3/4 in.		5.91	6.60	3.64	3.48	2.96	4.57
CV16T070S	70 mm							
CV16T215S	2 15/16 in.							
CV16T075S	75 mm							
CV16T300S	3 in.							
CS19STEEL	CLOSED	22219						
CV19T080S	80 mm		167.9	191.0	106.9	102.9	84.1	139.4
CV19T303S	3 3/16 in.		6.61	7.52	4.21	4.05	3.31	5.49
CV19T304S	3 1/4 in.							
CV19T085S	85 mm							
CV19T307S	3 7/16 in.							
CV19T308S	3 1/2 in.							
CV19T090S	90 mm							
CS22STEEL	CLOSED	22222						
CV22T311S	3 11/16 in.		217.7	241.8	133.1	129.0	109.0	180.1
CV22T312S	3 3/4 in.		8.57	9.52	5.24	5.08	4.29	7.09
CV22T100S	100 mm							
CV22T315S	3 15/16 in.							
CV22T400S	4 in.							
CS26STEEL	CLOSED	22226						
CV26T110S	110 mm		219.7	242.8	133.1	129.0	110.0	209.3
CV26T407S	4 7/16 in.		8.65	9.56	5.24	5.08	4.33	8.24
CV26T408S	4 1/2 in.							
CV26T115S	115 mm							
CS28STEEL	CLOSED	22228						
CV28T125S	125 mm		223.5	246.9	135.1	131.1	111.8	209.3
CV28T415S	4 15/16 in.		8.80	9.72	5.32	5.16	4.40	8.24
CV28T500S	5 in.							
CV28T130S	130 mm							

<sup>(1)</sup>Double covers available only on pillow block and take-up style bearings.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## SEAL AND COVER OPTIONS • STEEL COVER DIMENSIONS

**TABLE C-36. V-LOCK SERIES – TAPERED BORE EQUIVALENTS**

Cover Part No.	Shaft Dia.	Bearing No.	Steel Cover Dimensions					
			A	B	C	D	E	F
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
CS11STEEL	CLOSED	22211	<b>124.2</b> 4.89	<b>139.2</b> 5.48	<b>77.0</b> 3.03	<b>72.9</b> 2.87	<b>62.2</b> 2.45	<b>89.7</b> 3.53
CV11T115S	1 15/16 in.							
CV11T050S	50 mm							
CV11T200S	2 in.							
CS13STEEL	CLOSED	22213	<b>130.3</b> 5.13	<b>154.2</b> 6.07	<b>88.9</b> 3.50	<b>84.8</b> 3.34	<b>65.3</b> 2.57	<b>103.6</b> 4.08
CV13T055S	55 mm							
CV13T203S	2 3/16 in.							
CV13T204S	2 1/4 in.							
CS15STEEL	CLOSED	22215	<b>142.7</b> 5.62	<b>160.3</b> 6.31	<b>88.9</b> 3.50	<b>84.8</b> 3.34	<b>71.4</b> 2.81	<b>116.1</b> 4.57
CV15T060S	60 mm							
CV15T207S	2 7/16 in.							
CV15T208S	2 1/2 in.							
CS15T065S	65 mm	22217	<b>133.9</b> 5.27	<b>156.0</b> 6.14	<b>88.9</b> 3.50	<b>84.8</b> 3.34	<b>67.1</b> 2.64	<b>132.1</b> 5.2
CV17T211S	2 11/16 in.							
CV17T212S	2 3/4 in.							
CV17T070S	70 mm							
CV17T215S	2 15/16 in.	22219	<b>170.4</b> 6.71	<b>193.0</b> 7.60	<b>108.0</b> 4.25	<b>103.9</b> 4.09	<b>85.3</b> 3.36	<b>160.3</b> 6.31
CV17T075S	75 mm							
CV17T300S	3 in.							
CS20STEEL	CLOSED							
CV20T080S	80 mm	22220	<b>170.4</b> 6.71	<b>193.0</b> 7.60	<b>108.0</b> 4.25	<b>103.9</b> 4.09	<b>85.3</b> 3.36	<b>160.3</b> 6.31
CV20T303S	3 3/16 in.							
CV20T304S	3 1/4 in.							
CV20T085S	85 mm							
CV20T307S	3 7/16 in.	22222	<b>208.5</b> 8.21	<b>232.9</b> 9.17	<b>128.5</b> 5.06	<b>124.5</b> 4.90	<b>104.4</b> 4.11	<b>180.1</b> 7.09
CV20T308S	3 1/2 in.							
CV20T090S	90 mm							
CS22STEEL	CLOSED							
CV22T311S	3 11/16 in.	22224	<b>213.6</b> 8.41	<b>237.7</b> 9.36	<b>131.1</b> 5.16	<b>127.0</b> 5.00	<b>106.7</b> 4.20	<b>180.1</b> 7.09
CV22T312S	3 3/4 in.							
CV22T100S	100 mm							
CV22T315S	3 15/16 in.							
CV22T400S	4 in.	22226	<b>210.6</b> 8.29	<b>233.9</b> 9.21	<b>128.5</b> 5.06	<b>124.5</b> 4.90	<b>105.4</b> 4.15	<b>209.3</b> 8.24
CS24STEEL	CLOSED							
CV24T110S	110 mm							
CS26STEEL	CLOSED							
CV26T110S	110 mm	22228	<b>214.6</b> 8.45	<b>238.0</b> 9.37	<b>130.6</b> 5.14	<b>126.5</b> 4.98	<b>107.2</b> 4.22	<b>209.3</b> 8.24
CV26T407S	4 7/16 in.							
CV26T408S	4 1/2 in.							
CV26T115S	115 mm							
CS28STEEL	CLOSED	22222	<b>217.7</b> 8.57	<b>241.8</b> 9.52	<b>133.1</b> 5.24	<b>129.0</b> 5.08	<b>109.0</b> 4.29	<b>180.1</b> 7.09
CV28T125S	125 mm							
CV28T415S	4 15/16 in.							
CV28T500S	5 in.							
CV28T130S	130 mm	22226	<b>219.7</b> 8.65	<b>242.8</b> 9.56	<b>133.1</b> 5.24	<b>129.0</b> 5.08	<b>110.0</b> 4.33	<b>209.3</b> 8.24
CS26STEEL	CLOSED							
CA22T110S	110 mm							
CA22T407S	4 7/16 in.							
CA22T408S	4 1/2 in.	22222	<b>217.7</b> 8.57	<b>241.8</b> 9.52	<b>133.1</b> 5.24	<b>129.0</b> 5.08	<b>109.0</b> 4.29	<b>180.1</b> 7.09
CA22T115S	115 mm							
CS26STEEL	CLOSED							
CA26T125S	125 mm							
CA26T415S	4 15/16 in.	22226	<b>219.7</b> 8.65	<b>242.8</b> 9.56	<b>133.1</b> 5.24	<b>129.0</b> 5.08	<b>110.0</b> 4.33	<b>209.3</b> 8.24
CA26T500S	5 in.							
CA26T130S	130 mm							

**TABLE C-37. CL SERIES – SINGLE AND DOUBLE SET SCREW LOCKS**

Cover Part No.	Shaft Dia.	Bearing No.	Steel Cover Dimensions					
			A	B	C	D	E	F
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
CS08STEEL	CLOSED	22208	<b>115.6</b> 4.55	<b>127.8</b> 5.03	<b>69.9</b> 2.75	<b>65.8</b> 2.59	<b>57.9</b> 2.28	<b>69.6</b> 2.74
CA08T035S	35 mm							
CA08T107S	1 7/16 in.							
CA08T108S	1 1/2 in.							
CS09STEEL	CLOSED	22209	<b>121.7</b> 4.79	<b>130.8</b> 5.15	<b>69.9</b> 2.75	<b>65.8</b> 2.59	<b>61.0</b> 2.40	<b>74.7</b> 2.94
CA09T040S	40 mm							
CA09T111S	1 11/16 in.							
CA09T112S	1 3/4 in.							
CA09T045S	45 mm	22210	<b>122.7</b> 4.83	<b>132.8</b> 5.23	<b>73.2</b> 2.88	<b>69.1</b> 2.72	<b>61.5</b> 2.42	<b>79.8</b> 3.14
CS10STEEL	CLOSED							
CA10T115S	1 15/16 in.							
CA10T050S	50 mm							
CA10T200S	2 in.	22211	<b>128.5</b> 5.06	<b>143.3</b> 5.64	<b>79.2</b> 3.12	<b>75.2</b> 2.96	<b>64.3</b> 2.53	<b>89.7</b> 3.53
CS11STEEL	CLOSED							
CA11T055S	55 mm							
CA11T203S	2 3/16 in.							
CA11T204S	2 1/4 in.	22213	<b>135.4</b> 5.33	<b>159.3</b> 6.27	<b>91.4</b> 3.60	<b>87.4</b> 3.44	<b>67.8</b> 2.67	<b>103.6</b> 4.08
CS13STEEL	CLOSED							
CA13T060S	60 mm							
CA13T207S	2 7/16 in.							
CA13T208S	2 1/2 in.	22215	<b>148.1</b> 5.83	<b>165.6</b> 6.52	<b>91.4</b> 3.60	<b>87.4</b> 3.44	<b>74.2</b> 2.92	<b>116.1</b> 4.57
CA13T065S	65 mm							
CS15STEEL	CLOSED							
CA15T211S	2 11/16 in.							
CA15T212S	2 3/4 in.	22218	<b>164.8</b> 6.49	<b>188.0</b> 7.40	<b>105.7</b> 4.16	<b>101.6</b> 4.00	<b>82.6</b> 3.25	<b>139.4</b> 5.49
CA15T070S	70 mm							
CA15T215S	2 15/16 in.							
CA15T075S	75 mm							
CA15T300S	3 in.	22220	<b>179.6</b> 7.07	<b>202.2</b> 7.96	<b>112.5</b> 4.43	<b>108.5</b> 4.27	<b>89.9</b> 3.54	<b>160.3</b> 6.31
CS18STEEL	CLOSED							
CA18T080S	80 mm							
CA18T303S	3 3/16 in.							
CA18T304S	3 1/4 in.	22222	<b>217.7</b> 8.57	<b>241.8</b> 9.52	<b>133.1</b> 5.24	<b>129.0</b> 5.08	<b>109.0</b> 4.29	<b>180.1</b> 7.09
CA18T085S	85 mm							
CA18T307S	3 7/16 in.							
CA18T308S	3 1/2 in.							
CA18T090S	90 mm	22226	<b>219.7</b> 8.65	<b>242.8</b> 9.56	<b>133.1</b> 5.24	<b>129.0</b> 5.08	<b>110.0</b> 4.33	<b>209.3</b> 8.24
CS20STEEL	CLOSED							
CA20T311S	3 11/16 in.							
CA20T312S	3 3/4 in.							
CA20T100S	100 mm	22222	<b>217.7</b> 8.57	<b>241.8</b> 9.52	<b>133.1</b> 5.24	<b>129.0</b> 5.08	<b>109.0</b> 4.29	<b>180.1</b> 7.09
CA20T315S	3 15/16 in.							
CA20T400S	4 in.							
CS22STEEL	CLOSED							
CA22T110S	110 mm	22222	<b>217.7</b> 8.57	<b>241.8</b> 9.52	<b>133.1</b> 5.24	<b>129.0</b> 5.08	<b>109.0</b> 4.29	<b>180.1</b> 7.09
CA22T407S	4 7/16 in.							
CA22T408S	4 1/2 in.							
CA22T115S	115 mm							
CS26STEEL	CLOSED	22226	<b>219.7</b> 8.65	<b>242.8</b> 9.56	<b>133.1</b> 5.24	<b>129.0</b> 5.08	<b>110.0</b> 4.33	<b>209.3</b> 8.24
CA26T125S	125 mm							
CA26T415S	4 15/16 in.							
CA26T500S	5 in.							
CA26T130S	130 mm	22226	<b>219.7</b> 8.65	<b>242.8</b> 9.56	<b>133.1</b> 5.24	<b>129.0</b> 5.08	<b>110.0</b> 4.33	<b>209.3</b> 8.24
CA26T500S	5 in.							
CA26T130S	130 mm							

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## SEAL AND COVER OPTIONS • STEEL COVER DIMENSIONS

TABLE C-38. EC SERIES—ECCENTRIC LOCK

Cover Part No.	Shaft Dia.	Bearing No.	Steel Cover Dimensions					
			A	B	C	D	E	F
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
CS08STEEL	CLOSED	22208	115.6 4.55	127.8 5.03	69.9 2.75	65.8 2.59	57.9 2.28	69.6 2.74
CJ08T035S	35 mm							
CJ08T107S	1 7/16 in.							
CJ08T108S	1 1/2 in.							
CS09STEEL	Closed	22209	121.7 4.79	130.8 5.15	69.9 2.75	65.8 2.59	61.0 2.40	74.7 2.94
CJ09T040S	40 mm							
CJ09T111S	1 11/16 in.							
CJ09T112S	1 3/4 in.							
CJ09T045S	45 mm	22210	122.7 4.83	132.8 5.23	73.2 2.88	69.1 2.72	61.5 2.42	79.8 3.14
CS10STEEL	CLOSED							
CJ10T115S	1 15/16 in.							
CJ10T050S	50 mm							
CJ10T200S	2 in.	22211	128.5 5.06	143.3 5.64	79.2 3.12	75.2 2.96	64.3 2.53	89.7 3.53
CS11STEEL	CLOSED							
CJ11T055S	55 mm							
CJ11T203S	2 3/16 in.							
CJ11T204S	2 1/4 in.	22213	135.4 5.33	159.3 6.27	91.4 3.60	87.4 3.44	67.8 2.67	103.6 4.08
CS13STEEL	CLOSED							
CJ13T060S	60 mm							
CJ13T207S	2 7/16 in.							
CJ13T208S	2 1/2 in.	22215	148.1 5.83	165.6 6.52	91.4 3.60	87.4 3.44	74.2 2.92	116.1 4.57
CJ13T065S	65 mm							
CS15STEEL	CLOSED							
CJ15T211S	2 11/16 in.							
CJ15T212S	2 3/4 in.	22218	164.8 6.49	188.0 7.40	105.7 4.16	101.6 4.00	82.6 3.25	139.4 5.49
CJ15T070S	70 mm							
CJ15T215S	2 15/16 in.							
CJ15T075S	75 mm							
CJ15T300S	3 in.	22218	164.8 6.49	188.0 7.40	105.7 4.16	101.6 4.00	82.6 3.25	139.4 5.49
CS18STEEL	CLOSED							
CJ18T080S	80 mm							
CJ18T303S	3 3/16 in.							
CJ18T304S	3 1/4 in.	22218	164.8 6.49	188.0 7.40	105.7 4.16	101.6 4.00	82.6 3.25	139.4 5.49
CJ18T085S	85 mm							
CJ18T307S	3 7/16 in.							
CJ18T308S	3 1/2 in.							
CJ18T090S	90 mm							

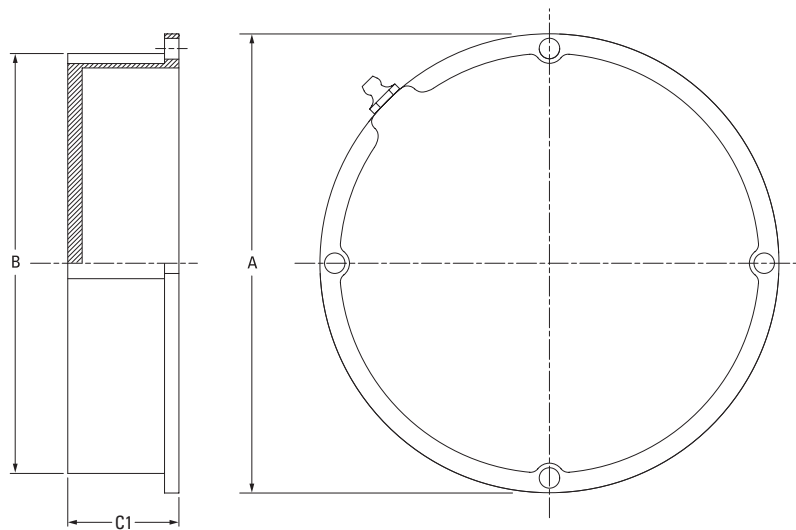
Cover Part No.	Shaft Dia.	Bearing No.	Steel Cover Dimensions					
			A	B	C	D	E	F
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
CS20STEEL	CLOSED	22220	179.6 7.07	202.2 7.96	112.5 4.43	108.5 4.27	89.9 3.54	160.3 6.31
CJ20T311S	3 11/16 in.							
CJ20T312S	3 3/4 in.							
CJ20T100S	100 mm							
CJ20T315S	3 15/16 in.	22222	217.7 8.57	241.8 9.52	133.1 5.24	129.0 5.08	109.0 4.29	180.1 7.09
CJ20T400S	4 in.							
CS22STEEL	CLOSED							
CJ22T110S	110 mm							
CJ22T407S	4 7/16 in.	22226	219.7 8.65	242.8 9.56	133.1 5.24	129.0 5.08	110.0 4.33	209.3 8.24
CJ22T408S	4 1/2 in.							
CJ22T115S	115 mm							
CS26STEEL	CLOSED							
CJ26T125S	125 mm	23230	270.3 10.64	283.2 11.15	148.1 5.83	144.0 5.67	135.1 5.32	239.5 9.43
CJ26T415S	4 15/16 in.							
CJ26T500S	5 in.							
CJ26T130S	130 mm							
CS30STEEL	CLOSED	23234	300.5 11.83	305.3 12.02	155.2 6.11	151.1 5.95	150.1 5.91	279.4 11.00
CJ30T507S	5 7/16 in.							
CJ30T508S	5 1/2 in.							
CJ30T140S	140 mm							
CJ30T515S	5 15/16 in.	23234	300.5 11.83	305.3 12.02	155.2 6.11	151.1 5.95	150.1 5.91	279.4 11.00
CJ30T600S	6 in.							
CJ30T150S	150 mm							
CS34STEEL	CLOSED							
CJ34T607S	6 7/16 in.	23234	300.5 11.83	305.3 12.02	155.2 6.11	151.1 5.95	150.1 5.91	279.4 11.00
CJ34T608S	6 1/2 in.							
CJ34T170S	170 mm							
CJ34T615S	6 15/16 in.							
CJ34T700S	7 in.	23234	300.5 11.83	305.3 12.02	155.2 6.11	151.1 5.95	150.1 5.91	279.4 11.00
CJ34T180S	180 mm							

TABLE C-39. TA/DV SERIES – TAPERED ADAPTER LOCK

Cover Part No.	Shaft Dia.	Bearing No.	Steel Cover Dimensions					
			A	B	C	D	E	F
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
CS09STEEL	CLOSED	22209						
CK09T107S	1 7/16 in.		<b>118.4</b>	<b>127.5</b>	<b>68.3</b>	<b>64.3</b>	<b>59.2</b>	<b>74.7</b>
CK09T108S	1 1/2 in.		4.66	5.02	2.69	2.53	2.33	2.94
CK09T040S	<b>40 mm</b>							
CS10STEEL	CLOSED	22210						
CK10T111S	1 1/16 in.		<b>118.4</b>	<b>130.0</b>	<b>70.9</b>	<b>66.8</b>	<b>59.2</b>	<b>79.8</b>
CK10T112S	1 3/4 in.		4.66	5.12	2.79	2.63	2.33	3.14
CK10T045S	<b>45 mm</b>							
CS11STEEL	CLOSED	22211						
CK11T115S	1 15/16 in.		<b>124.2</b>	<b>139.2</b>	<b>77.0</b>	<b>72.9</b>	<b>62.2</b>	<b>89.7</b>
CK11T050S	<b>50 mm</b>		4.89	5.48	3.03	2.87	2.45	3.53
CK11T200S	2 in.							
CS12STEEL	CLOSED	22212	<b>123.7</b>	<b>136.4</b>	<b>74.4</b>	<b>70.4</b>	<b>62.0</b>	<b>98.6</b>
CK12T055S	<b>55 mm</b>		4.87	5.37	2.93	2.77	2.44	3.88
CS13STEEL	CLOSED	22213						
CK13T203S	2 3/16 in.		<b>130.3</b>	<b>154.2</b>	<b>88.9</b>	<b>84.8</b>	<b>65.3</b>	<b>103.6</b>
CK13T204S	2 1/4 in.		5.13	6.07	3.50	3.34	2.57	4.08
CK13T060S	<b>60 mm</b>							
CS15STEEL	CLOSED	22215						
CK15T207S	2 7/16 in.		<b>142.7</b>	<b>160.3</b>	<b>88.9</b>	<b>84.8</b>	<b>71.4</b>	<b>116.1</b>
CK15T208S	2 1/2 in.		5.62	6.31	3.50	3.34	2.81	4.57
CK15T065S	<b>65 mm</b>							
CS16STEEL	CLOSED	22216						
CK16T211S	2 1/16 in.		<b>144.8</b>	<b>162.3</b>	<b>89.9</b>	<b>85.9</b>	<b>72.4</b>	<b>116.1</b>
CK16T212S	2 3/4 in.		5.70	6.39	3.54	3.38	2.85	4.57
CK16T070S	<b>70 mm</b>							
CS17STEEL	CLOSED	22217						
CK17T215S	2 15/16 in.		<b>133.9</b>	<b>156.0</b>	<b>88.9</b>	<b>84.8</b>	<b>67.1</b>	<b>132.1</b>
CK17T075S	<b>75 mm</b>		5.27	6.14	3.50	3.34	2.64	5.20
CK17T300S	3 in.							
CS18STEEL	CLOSED	22218						
CK18T080S	<b>80 mm</b>		<b>159.5</b>	<b>182.9</b>	<b>102.9</b>	<b>98.8</b>	<b>79.8</b>	<b>139.4</b>
CK18T303S	3 3/16 in.		6.28	7.20	4.05	3.89	3.14	5.49
CK18T304S	3 1/4 in.							
CS19STEEL	CLOSED	22219	<b>162.6</b>	<b>185.7</b>	<b>104.4</b>	<b>100.3</b>	<b>81.3</b>	<b>139.4</b>
CK19T085S	<b>85 mm</b>		6.40	7.31	4.11	3.95	3.20	5.49
CS20STEEL	CLOSED	22220						
CK20T307S	3 7/16 in.		<b>170.4</b>	<b>193.0</b>	<b>108.0</b>	<b>103.9</b>	<b>85.3</b>	<b>160.3</b>
CK20T308S	3 1/2 in.		6.71	7.60	4.25	4.09	3.36	6.31
CK20T090S	<b>90 mm</b>							
CS22STEEL	CLOSED	22222						
CK22T315S	3 15/16 in.		<b>208.5</b>	<b>232.9</b>	<b>128.5</b>	<b>124.5</b>	<b>104.4</b>	<b>180.1</b>
CK22T400S	4 in.		8.21	9.17	5.06	4.90	4.11	7.09
CK22T100S	<b>100 mm</b>							
CS24STEEL	CLOSED	22224						
CK24T403S	4 3/16 in.		<b>213.6</b>	<b>237.7</b>	<b>131.1</b>	<b>127.0</b>	<b>106.7</b>	<b>180.1</b>
CK24T404S	4 1/4 in.		8.41	9.36	5.16	5.00	4.20	7.09
CK24T110S	<b>110 mm</b>							
CS26STEEL	CLOSED	22226						
CK26T407S	4 7/16 in.		<b>210.6</b>	<b>233.9</b>	<b>128.5</b>	<b>124.5</b>	<b>105.4</b>	<b>209.3</b>
CK26T408S	4 1/2 in.		8.29	9.21	5.06	4.90	4.15	8.24
CK26T115S	<b>115 mm</b>							
CS28STEEL	CLOSED	22228						
CK28T415S	4 15/16 in.		<b>214.6</b>	<b>238.0</b>	<b>130.6</b>	<b>126.5</b>	<b>107.2</b>	<b>209.3</b>
CK28T500S	5 in.		8.45	9.37	5.14	4.98	4.22	8.24
CK28T125S	<b>125 mm</b>							

**URETHANE**

**CLOSED-END COVER DIMENSIONS**



**TABLE C-40. CLOSED-END COVER DIMENSIONS**

Cover Part No. <sup>(1)</sup>	A	B	C1 <sup>(2)</sup>
	mm in.	mm in.	mm in.
CS08	97.0 3.82	76.7 3.02	31.8 1.25
CS09	101.8 4.01	81.5 3.21	31.8 1.25
CS10	106.9 4.21	86.6 3.41	31.8 1.25
CS11	117.1 4.61	96.8 3.81	31.8 1.25
CS12V	126.0 4.96	105.7 4.16	31.8 1.25
CS13/CS14V	132.1 5.20	116.1 4.57	31.8 1.08
CS15/CS16V	142.0 5.59	122.9 4.84	33.0 1.30
CS17	160.5 6.32	141.5 5.57	31.0 1.22
CS18/CS19V	168.1 6.62	149.1 5.87	38.9 1.53
CS20	192.0 7.56	174.7 6.88	44.5 1.75
CS22	212.1 8.35	194.8 7.67	52.6 2.07
CS24	212.1 8.35	194.8 7.67	52.6 2.07
CS26/CS28V	241.3 9.50	223.8 8.81	56.9 2.24
CS30	271.5 10.69	254.0 10.00	56.9 2.24
CS34	304.8 12.00	287.3 11.31	56.9 2.24

<sup>(1)</sup>Cover part number, CSXX, is determined by the bearing insert series of unit on which cover will be installed. See nomenclature guide on page C-54 to determine bearing insert series.

<sup>(2)</sup>Extended covers available upon request.

OPEN-END COVERS WITH DR SEALS

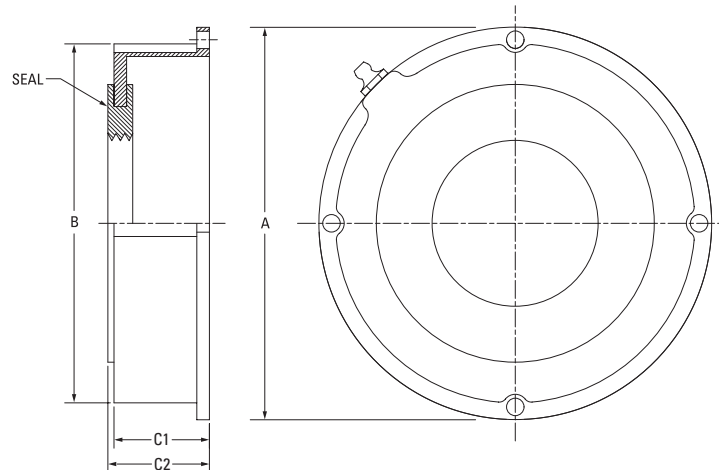


TABLE C-41. V-LOCK SERIES – STRAIGHT BORE EQUIVALENT – OPEN-END COVER WITH DR SEAL – (QV[V]...P, PL, SN, PF, PR, C, CW, F, FL, FY, FX, TU)

Cover Part No.	Shaft Dia.	A	B	C1	C2
	mm in.	mm in.	mm in.	mm in.	mm in.
CVDR115	1 15/16 in.	117.1 4.61	96.8 3.81	31.8 1.25	34.3 1.35
CVDR200	2 in.				
CVDR050MM	50 mm	126.0 4.96	105.7 4.16	31.8 1.25	34.3 1.35
CVDR203	2 3/16 in.				
CVDR204	2 1/4 in.	132.1 5.20	116.1 4.57	27.4 1.08	30.0 1.18
CVDR055MM	55 mm				
CVDR060MM	60 mm	142.0 5.59	122.9 4.84	33.0 1.30	35.6 1.40
CVDR207	2 7/16 in.				
CVDR208	2 1/2 in.	168.1 6.62	149.1 5.87	38.9 1.53	41.4 1.63
CVDR065MM	65 mm				
CVDR211	2 11/16 in.	212.1 8.35	194.8 7.67	52.6 2.07	55.1 2.17
CVDR212	2 3/4 in.				
CVDR070MM	70 mm	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CVDR215	2 15/16 in.				
CVDR300	3 in.	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CVDR075MM	75 mm				
CVDR303	3 3/16 in.	212.1 8.35	194.8 7.67	52.6 2.07	55.1 2.17
CVDR304	3 1/4 in.				
CVDR080MM	80 mm	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CVDR085MM	85 mm				
CVDR307	3 7/16 in.	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CVDR308	3 1/2 in.				
CVDR090MM	90 mm	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CVDR311	3 11/16 in.				
CVDR312	3 3/4 in.	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CVDR100MM	100 mm				
CVDR315	3 15/16 in.	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CVDR400	4 in.				
CVDR110MM	110 mm	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CVDR407	4 7/16 in.				
CVDR408	4 1/2 in.	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CVDR115MM	115 mm				
CVDR125MM	125 mm	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CVDR415	4 15/16 in.				
CVDR500	5 in.	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CVDR130MM	130 mm				

TABLE C-42. V-LOCK SERIES – TAPERED ADAPTER EQUIVALENT – OPEN-END COVER WITH DR SEAL – (QV[V]...PA, PN, PKT, PK, PH, PG, FC, FB, MC)

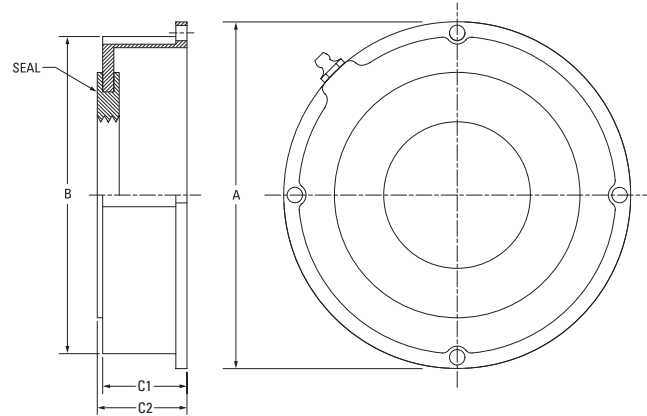
Cover Part No.	Shaft Dia.	A	B	C1	C2
	mm in.	mm in.	mm in.	mm in.	mm in.
CKDR115	1 15/16 in.	117.1 4.61	96.8 3.81	31.8 1.25	34.3 1.35
CKDR200	2 in.				
CKDR050MM	50 mm	132.1 5.20	116.1 4.57	27.4 1.08	30.0 1.18
CKDR203	2 3/16 in.				
CKDR204	2 1/4 in.	142.0 5.59	122.9 4.84	33.0 1.30	35.6 1.40
CKDR055MM	55 mm				
CKDR060MM	60 mm	160.5 6.32	141.5 5.57	31.0 1.22	33.5 1.32
CKDR207	2 7/16 in.				
CKDR208	2 1/2 in.	192.0 7.56	174.8 6.88	44.5 1.75	47.0 1.85
CKDR065MM	65 mm				
CKDR211	2 11/16 in.	212.1 8.35	194.8 7.67	52.6 2.07	55.1 2.17
CKDR212	2 3/4 in.				
CKDR070MM	70 mm	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CKDR215	2 15/16 in.				
CKDR300	3 in.	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CKDR075MM	75 mm				
CKDR303	3 3/16 in.	212.1 8.35	194.8 7.67	52.6 2.07	55.1 2.17
CKDR304	3 1/4 in.				
CKDR080MM	80 mm	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CKDR085MM	85 mm				
CKDR307	3 7/16 in.	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CKDR308	3 1/2 in.				
CKDR090MM	90 mm	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CKDR311	3 11/16 in.				
CKDR312	3 3/4 in.	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CKDR100MM	100 mm				
CKDR315	3 15/16 in.	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CKDR400	4 in.				
CKDR110MM	110 mm	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CKDR407	4 7/16 in.				
CKDR408	4 1/2 in.	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CKDR115MM	115 mm				
CKDR125MM	125 mm	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CKDR415	4 15/16 in.				
CKDR500	5 in.	241.3 9.50	223.8 8.81	56.9 2.24	59.4 2.34
CKDR130MM	130 mm				

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

SEAL AND COVER OPTIONS • URETHANE • OPEN-END COVERS WITH DR SEALS

**TABLE C-43. CL AND EC SERIES – OPEN-END COVER WITH DR SEAL**

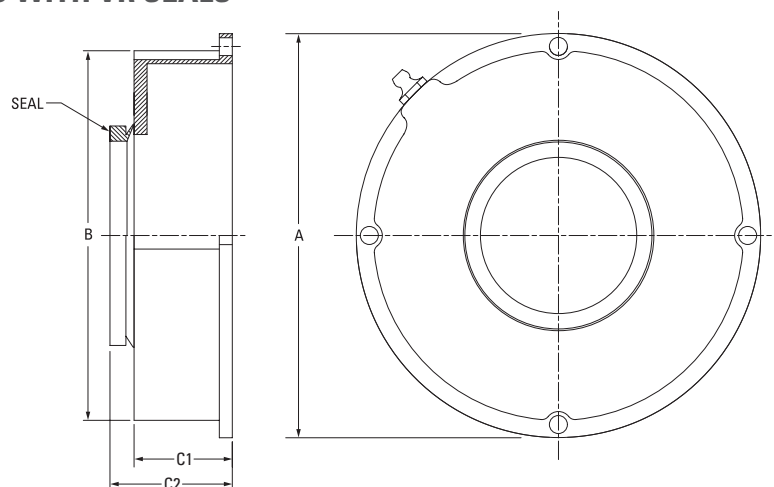
Cover Part No.	Shaft Dia.	A	B	C1	C2
	mm in.	mm in.	mm in.	mm in.	mm in.
CJDR035MM	<b>35 mm</b>				
CJDR107	1 7/16 in.	<b>97.0</b>	<b>76.7</b>	<b>31.8</b>	<b>34.3</b>
CJDR108	1 1/2 in.	3.82	3.02	1.25	1.35
CJDR040MM	<b>40 mm</b>				
CJDR111	1 11/16 in.	<b>101.9</b>	<b>81.6</b>	<b>31.8</b>	<b>34.3</b>
CJDR112	1 3/4 in.	4.01	3.21	1.25	1.35
CJDR045MM	<b>45 mm</b>				
CJDR115	1 15/16 in.	<b>106.9</b>	<b>86.6</b>	<b>31.8</b>	<b>34.3</b>
CJDR200	2 in.	4.21	3.41	1.25	1.35
CJDR050MM	<b>50 mm</b>				
CJDR203	2 3/16 in.	<b>117.1</b>	<b>96.8</b>	<b>31.8</b>	<b>34.3</b>
CJDR204	2 1/4 in.	4.61	3.81	1.25	1.35
CJDR055MM	<b>55 mm</b>				
CJDR060MM	<b>60 mm</b>				
CJDR207	2 7/16 in.	<b>132.1</b>	<b>116.1</b>	<b>27.4</b>	<b>30.0</b>
CJDR208	2 1/2 in.	5.20	4.57	1.08	1.18
CJDR065MM	<b>65 mm</b>				
CJDR211	2 11/16 in.				
CJDR070MM	<b>70 mm</b>				
CJDR212	2 3/4 in.	<b>142</b>	<b>122.9</b>	<b>33.0</b>	<b>35.6</b>
CJDR215	2 15/16 in.	5.59	4.84	1.30	1.40
CJDR300	3 in.				
CJDR075MM	<b>75 mm</b>				
CJDR303	3 3/16 in.				
CJDR304	3 1/4 in.				
CJDR080MM	<b>80 mm</b>	<b>168.1</b>	<b>149.1</b>	<b>38.9</b>	<b>41.4</b>
CJDR085MM	<b>85 mm</b>	6.62	5.87	1.53	1.63
CJDR307	3 7/16 in.				
CJDR308	3 1/2 in.				
CJDR090MM	<b>90 mm</b>				
CJDR315	3 15/16 in.	<b>192</b>	<b>174.8</b>	<b>44.5</b>	<b>47.0</b>
CJDR400	4 in.	7.56	6.88	1.75	1.85
CJDR100MM	<b>100 mm</b>				
CJDR110MM	<b>110 mm</b>				
CJDR407	4 7/16 in.	<b>212.1</b>	<b>194.8</b>	<b>52.6</b>	<b>55.1</b>
CJDR408	4 1/2 in.	8.35	7.67	2.07	2.17
CJDR115MM	<b>115 mm</b>				
CJDR125MM	<b>125 mm</b>				
CJDR415	4 15/16 in.	<b>241.3</b>	<b>223.8</b>	<b>56.9</b>	<b>59.4</b>
CJDR500	5 in.	9.50	8.81	2.24	2.34
CJDR130MM	<b>130 mm</b>				
CJDR507	5 7/16 in.				
CJDR508	5 1/2 in.				
CJDR140MM	<b>140 mm</b>	<b>271.6</b>	<b>254.0</b>	<b>56.9</b>	<b>59.4</b>
CJDR515	5 15/16 in.	10.69	10.00	2.24	2.34
CJDR600	6 in.				
CJDR150MM	<b>150 mm</b>				
CJDR607	6 7/16 in.				
CJDR608	6 1/2 in.				
CJDR170MM	<b>170 mm</b>	<b>304.8</b>	<b>287.3</b>	<b>56.9</b>	<b>59.4</b>
CJDR615	6 15/16 in.	12.00	11.31	2.24	2.34
CJDR700	7 in.				
CJDR180MM	<b>180 mm</b>				



**TABLE C-44. TA/DV SERIES – OPEN-END COVER WITH DR SEAL**

Cover Part No.	Shaft Dia.	A	B	C1	C2
	mm in.	mm in.	mm in.	mm in.	mm in.
CKDR107	1 7/16 in.	<b>101.9</b>	<b>81.5</b>	<b>31.8</b>	<b>34.3</b>
CKDR108	1 1/2 in.	4.01	3.21	1.25	1.35
CKDR040MM	<b>40 mm</b>				
CKDR111	1 11/16 in.	<b>106.9</b>	<b>86.6</b>	<b>31.8</b>	<b>34.3</b>
CKDR112	1 3/4 in.	4.21	3.41	1.25	1.35
CKDR045MM	<b>45mm</b>				
CKDR115	1 15/16 in.	<b>117.1</b>	<b>96.8</b>	<b>31.8</b>	<b>34.3</b>
CKDR200	2 in.	4.61	3.81	1.25	1.35
CKDR050MM	<b>50 mm</b>				
CKDR055MM	<b>55 mm</b>	<b>126.0</b>	<b>105.7</b>	<b>31.8</b>	<b>34.3</b>
		4.96	4.16	1.25	1.35
CKDR203	2 3/16 in.	<b>132.1</b>	<b>116.1</b>	<b>27.4</b>	<b>30.0</b>
CKDR204	2 1/4 in.	5.20	4.57	1.08	1.18
CKDR060MM	<b>60 mm</b>				
CKDR207	2 7/16 in.	<b>142.0</b>	<b>122.9</b>	<b>33.0</b>	<b>35.6</b>
CKDR208	2 1/2 in.	5.59	4.84	1.30	1.40
CKDR065MM	<b>65 mm</b>				
CKDR211	2 11/16 in.	<b>142.0</b>	<b>122.9</b>	<b>33.0</b>	<b>35.6</b>
CKDR212	2 3/4 in.	5.59	4.84	1.30	1.40
CKDR070MM	<b>70 mm</b>				
CKDR215	2 15/16 in.	<b>160.5</b>	<b>141.5</b>	<b>31.0</b>	<b>33.5</b>
CKDR300	3 in.	6.32	5.57	1.22	1.32
CKDR075MM	<b>75 mm</b>				
CKDR080MM	<b>80 mm</b>				
CKDR303	3 3/16 in.	<b>168.1</b>	<b>149.1</b>	<b>38.9</b>	<b>41.4</b>
CKDR304	3 1/4 in.	6.62	5.87	1.53	1.63
CKDR085MM	<b>85 mm</b>	<b>168.1</b>	<b>149.1</b>	<b>38.9</b>	<b>41.4</b>
		6.62	5.87	1.53	1.63
CKDR307	3 7/16 in.	<b>192.0</b>	<b>174.8</b>	<b>44.5</b>	<b>47.0</b>
CKDR308	3 1/2 in.	<b>7.56</b>	<b>6.88</b>	<b>1.75</b>	<b>1.85</b>
CKDR090MM	<b>90 mm</b>				
CKDR315	3 15/16 in.	<b>212.1</b>	<b>194.8</b>	<b>52.6</b>	<b>55.1</b>
CKDR400	4 in.	8.35	7.67	2.07	2.17
CKDR100MM	<b>100 mm</b>				
CKDR403	4 3/16 in.	<b>212.1</b>	<b>194.8</b>	<b>52.6</b>	<b>55.1</b>
CKDR404	4 1/4 in.	8.35	7.67	2.07	2.17
CKDR110MM	<b>110 mm</b>				
CKDR407	4 7/16 in.	<b>241.3</b>	<b>223.8</b>	<b>56.9</b>	<b>59.4</b>
CKDR408	4 1/2 in.	9.50	8.81	2.24	2.34
CKDR115MM	<b>115 mm</b>				
CKDR415	4 15/16 in.	<b>241.3</b>	<b>223.8</b>	<b>56.9</b>	<b>59.4</b>
CKDR500	5 in.	9.50	8.81	2.24	2.34
CKDR125MM	<b>125 mm</b>				

OPEN-END COVERS WITH VR SEALS



**TABLE C-45. V-LOCK SERIES – STRAIGHT BORE EQUIVALENT – OPEN-END COVER WITH VR SEAL – (QV[V])...P, PL, SN, PF, PR, PX, PXT, C, CW, F, FL, FY, FX, TU)**

Cover Part No. <sup>(1)</sup>	Shaft Dia.	A	B	C1	C2
	mm in.	mm in.	mm in.	mm in.	mm in.
CVVR11	1 15/16 in.	117.1 4.61	96.8 3.81	31.8 1.25	40.6 1.60
	2 in.				
	50 mm				
CVVR12	2 3/16 in.	126.0 4.96	105.7 4.16	31.8 1.25	40.6 1.60
	2 1/4 in.				
	55 mm				
CVVR14	60 mm	132.1 5.20	116.1 4.57	27.4 1.08	36.3 1.43
	2 7/16 in.				
	2 1/2 in.				
	65 mm				
CVVR16	70 mm	142.0 5.59	122.9 4.84	33.0 1.30	44.0 1.73
	2 11/16 in.				
	2 3/4 in.				
	75 mm				
	3 in.				
CVVR19	80 mm	168.1 6.62	149.1 5.87	38.9 1.53	50.0 1.96
	3 3/16 in.				
	3 1/4 in.				
	85 mm				
	3 7/16 in.				
	3 1/2 in.				
CVVR22	90 mm	212.1 8.35	194.8 7.67	52.6 2.07	63.5 2.50
	3 11/16 in.				
	3 3/4 in.				
	100 mm				
CVVR26	3 15/16 in.	241.3 9.50	223.8 8.81	56.9 2.24	69.6 2.74
	4 in.				
	110 mm				
CVVR28	4 7/16 in.	241.3 9.50	223.8 8.81	56.9 2.24	69.6 2.74
	4 1/2 in.				
	115 mm				
CVVR28	125 mm	241.3 9.50	223.8 8.81	56.9 2.24	69.6 2.74
	4 15/16 in.				
	5 in.				
	130 mm				

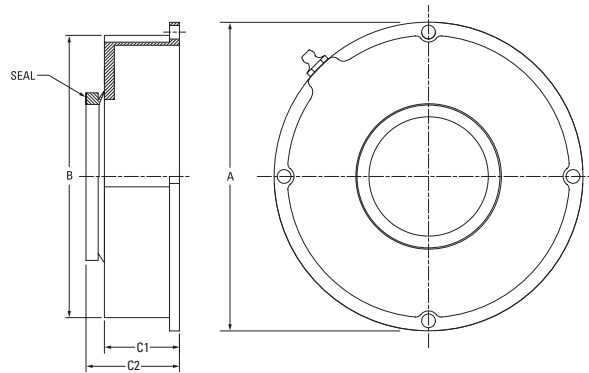
**TABLE C-46. V-LOCK SERIES – TAPERED ADAPTER EQUIVALENT – OPEN-END COVER WITH VR SEAL – (QV[V])...PA, PN, PKT, PK, PH, PG, FC, FB, MC)**

Cover Part No.	Shaft Dia.	A	B	C1	C2
	mm in.	mm in.	mm in.	mm in.	mm in.
CKVR11	1 15/16 in.	117.1 4.61	96.8 3.81	31.8 1.25	40.6 1.60
	2 in.				
	50 mm				
CKVR13	2 3/16 in.	132.1 5.20	116.1 4.57	27.4 1.08	36.3 1.43
	2 1/4 in.				
	55 mm				
CKVR15	60 mm	142.0 5.59	122.9 4.84	33.0 1.30	41.9 1.65
	2 7/16 in.				
	2 1/2 in.				
	65 mm				
CKVR17	70 mm	160.6 6.32	141.5 5.57	31.0 1.22	41.9 1.65
	2 11/16 in.				
	2 3/4 in.				
	75 mm				
	3 in.				
CKVR20	80 mm	192.0 7.56	174.8 6.88	44.4 1.75	55.4 2.18
	3 3/16 in.				
	3 1/4 in.				
	85 mm				
	3 7/16 in.				
	3 1/2 in.				
CKVR22	90 mm	212.1 8.35	194.8 7.67	52.6 2.07	63.5 2.50
	3 11/16 in.				
	3 3/4 in.				
	100 mm				
CKVR24	3 15/16 in.	212.1 8.35	194.8 7.67	52.6 2.07	63.5 2.5
	4 in.				
CKVR26	110 mm	241.3 9.50	223.8 8.81	56.9 2.24	69.6 2.74
	4 7/16 in.				
	4 1/2 in.				
CKVR28	115 mm	241.3 9.50	223.8 8.81	56.9 2.24	69.6 2.74
	125 mm				
	4 15/16 in.				
	5 in.				
CKVR28	130 mm	241.3 9.50	223.8 8.81	56.9 2.24	69.6 2.74
	4 15/16 in.				

<sup>(1)</sup>Please refer to bore size when choosing cover for straight-bore V-Lock®.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

SEAL AND COVER OPTIONS • URETHANE • OPEN-END COVERS WITH VR SEALS



**TABLE C-47. CL AND EC SERIES – OPEN-END COVER WITH VR SEAL**

Cover Part No.	Shaft Dia.	A	B	C1	C2
	mm in.	mm in.	mm in.	mm in.	mm in.
CJVR08	35 mm	97.0 3.82	76.7 3.02	31.8 1.25	39.4 1.55
	1 7/16 in.				
	1 1/2 in.				
CJVR09	40 mm	101.9 4.01	81.5 3.21	31.8 1.25	40.6 1.60
	1 11/16 in.				
	1 3/4 in.				
CJVR10	45 mm	106.9 4.21	86.6 3.41	31.8 1.25	40.6 1.60
	1 15/16 in.				
	2 in.				
CJVR11	50 mm	117.1 4.61	96.8 3.81	31.8 1.25	40.6 1.60
	2 3/16 in.				
	2 1/4 in.				
CJVR13	55 mm	132.1 5.20	116.1 4.57	27.4 1.08	36.3 1.43
	60 mm				
	2 7/16 in.				
CJVR15	65 mm	142.0 5.59	122.9 4.84	33.0 1.30	44.0 1.73
	70 mm				
	2 3/4 in.				
	2 15/16 in.				
	3 in.				
CJVR18	75 mm	168.1 6.62	149.1 5.87	38.9 1.53	49.8 1.96
	80 mm				
	3 3/16 in.				
	3 1/4 in.				
	3 7/16 in.				
CJVR20	90 mm	192.0 7.56	174.8 6.88	44.5 1.75	55.4 2.18
	100 mm				
	3 15/16 in.				
CJVR22	110 mm	212.1 8.35	194.8 7.67	52.6 2.07	65.3 2.57
	115 mm				
	4 7/16 in.				
CJVR26	125 mm	241.3 9.50	223.8 8.81	56.9 2.24	69.6 2.74
	4 15/16 in.				
	5 in.				

**TABLE C-48. TA/DV SERIES – OPEN-END COVER WITH VR SEAL**

Cover Part No.	Shaft Dia.	A	B	C1	C2
	mm in.	mm in.	mm in.	mm in.	mm in.
CKVR09	1 7/16 in.	101.9 4.01	81.5 3.21	31.8 1.25	39.4 1.55
	1 1/2 in.				
	40 mm				
CKVR10	1 11/16 in.	106.9 4.21	86.6 3.41	31.8 1.25	40.6 1.6
	1 3/4 in.				
	45 mm				
CKVR11	1 15/16 in.	117.1 4.61	96.8 3.81	31.8 1.25	40.6 1.60
	2 in.				
	50 mm				
CKVR12	55 mm	126.0 4.96	105.7 4.16	31.8 1.25	40.6 1.6
	2 3/16 in.				
CKVR13	60 mm	132.1 5.20	116.1 4.57	27.4 1.08	36.3 1.43
	2 1/4 in.				
	65 mm				
CKVR15	70 mm	142.0 5.59	122.9 4.84	33.0 1.30	41.9 1.65
	2 7/16 in.				
	2 1/2 in.				
CKVR16	75 mm	142.0 5.59	122.9 4.84	33.0 1.30	41.9 1.65
	2 11/16 in.				
	2 3/4 in.				
CKVR17	80 mm	160.5 6.32	141.5 5.57	31.0 1.22	41.9 1.65
	2 15/16 in.				
	3 in.				
CKVR18	85 mm	168.1 6.62	149.1 5.87	38.9 1.53	49.8 1.96
	3 3/16 in.				
	3 1/4 in.				
CKVR19	90 mm	168.1 6.62	149.1 5.87	38.9 1.53	49.8 1.96
	3 7/16 in.				
CKVR20	95 mm	192.0 7.56	174.8 6.88	44.5 1.75	55.4 2.18
	3 1/2 in.				
	90 mm				
CKVR22	100 mm	212.1 8.35	194.8 7.67	52.6 2.07	63.5 2.50
	3 15/16 in.				
	4 in.				
CKVR24	110 mm	212.1 8.35	194.8 7.67	52.6 2.07	63.5 2.50
	4 3/16 in.				
	4 1/4 in.				
CKVR26	115 mm	241.3 9.50	223.8 8.81	56.9 2.24	69.6 2.74
	4 7/16 in.				
	4 1/2 in.				
CKVR28	125 mm	241.3 9.50	223.8 8.81	56.9 2.24	69.6 2.74
	4 15/16 in.				
	5 in.				

UFP AND HSY FLANGE BLOCK BACKING PLATE DIMENSIONS

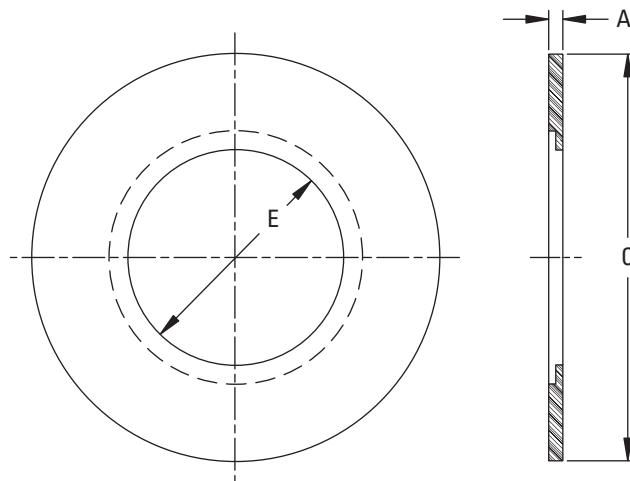


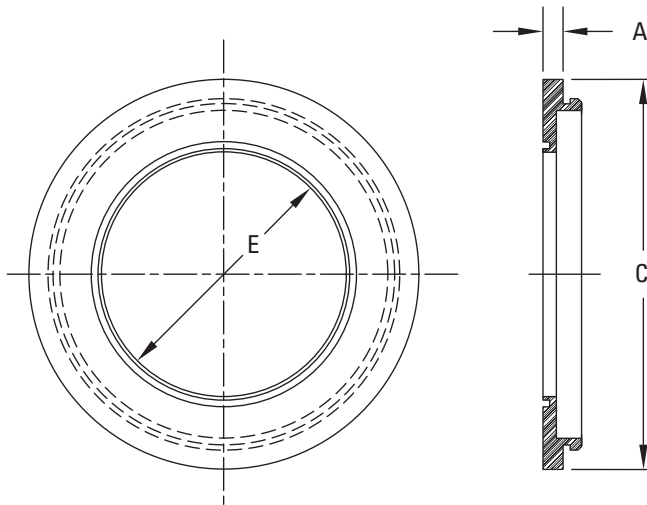
TABLE C-49. UFP BACKING PLATE DIMENSIONS<sup>(1)</sup>

Cover Part No.	A	C	E
	mm in.	mm in.	mm in.
UFP08	5.1 0.20	95.3 3.75	39.4 1.55
UFP09	5.1 0.20	105.9 4.17	44.7 1.76
UFP10	3.8 0.15	106.4 4.19	51.8 2.04
UFP11	6.4 0.25	114.6 4.51	59.7 2.35
UFP13	5.1 0.20	146.1 5.75	64.8 2.55
UFP15	5.1 0.20	146.6 5.77	78.0 3.07
UFP18	5.1 0.20	187.5 7.38	90.4 3.56
UFP20	5.1 0.20	206.5 8.13	104.1 4.10
UFP22	5.1 0.20	215.9 8.50	130.3 5.13
UFP26	5.1 0.20	299 11.77	128.3 5.05

<sup>(1)</sup>Actual backing plate may differ from drawing.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## SEAL AND COVER OPTIONS • UFP AND HSY FLANGE BLOCK BACKING PLATE DIMENSIONS



**TABLE C-50. HSY BACKING PLATE DIMENSIONS**

Cover Part No.	A	C	E
	mm in.	mm in.	mm in.
HSY10	5.1 0.20	108.0 4.25	68.3 2.69
HSY11	5.1 0.20	120.1 4.73	74.7 2.94
HSY13	6.4 0.25	133.4 5.25	81.0 3.19
HSY14	6.4 0.25	133.4 5.25	81.0 3.19
HSY15	6.4 0.25	155.7 6.13	93.7 3.69
HSY16	8.9 0.35	155.7 6.13	93.7 3.69
HSY18	5.1 0.20	181.1 7.13	106.4 4.19
HSY19	7.6 0.30	181.1 7.13	106.4 4.19
HSY20	5.1 0.20	199.9 7.87	119.1 4.69
HSY22	7.6 0.30	254.0 10.00	131.8 5.19

## V-LOCK® SERIES

The V-Lock® locking mechanism (U.S. Pat. No. 7344313) evenly distributes force on the shaft, helping eliminate fretting corrosion. V-Lock provides maximum holding power and prevents overtightening.

In response to customer input, V-Lock was specifically designed to address common spherical roller bearing solid-block housed unit problems:

- Reliable mechanical withdrawal.
- Preset spherical inner ring radial internal clearances (feeler gages are not required).
- Quick installation (typically 10 minutes or less).
- Highest shaft-holding power.
- Works well in high-speed applications where shaft centering is an issue.



Fig. C-41. V-Lock® series insert.

## YOU HAVE CHOICES

For the V-Lock series, you can select either single-nut or double-nut versions and choose from many seal configurations and housing styles, which are shown on page C-74.

### HOUSINGS

- Two-bolt pillow blocks.
- Four-bolt pillow blocks.
- Flange blocks.
- Piloted flange cartridges.
- Cartridge blocks.
- Take-up blocks.

### SEALS

- Labyrinth: DuPont Teflon (T).
- Triple-lip: nitrile rubber (M), urethane (O) and DuPont Viton (N).
- Double-lip: nitrile rubber (B) and DuPont Viton (C).
- Steel and urethane closed-end covers (CS).
- Steel and urethane open-end covers (CV) with:
  - DuPont Teflon (T).
  - Triple-lip seal (DR).
  - V-ring seal (VR).

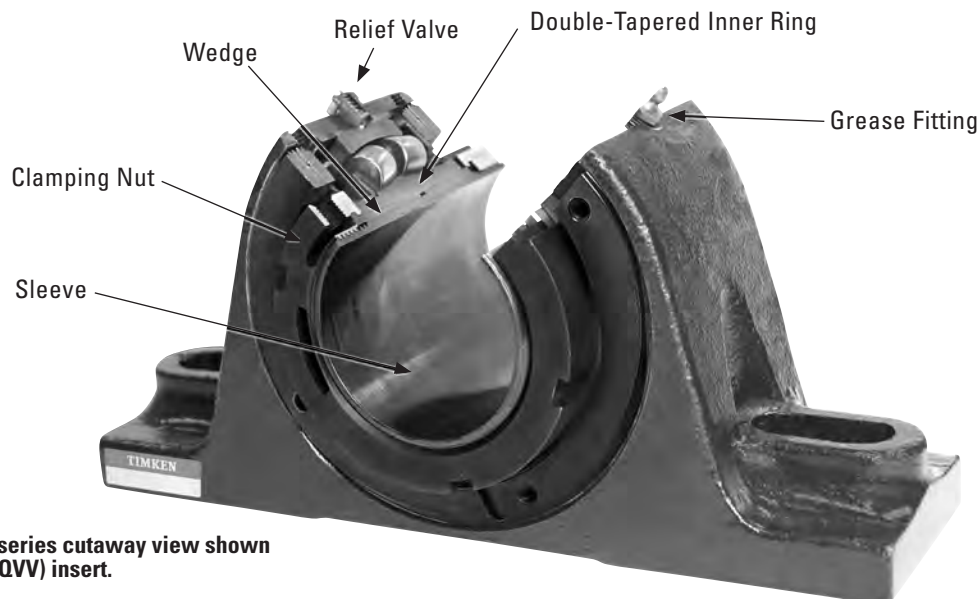


Fig. C-42. V-Lock series cutaway view shown with double-nut (QVV) insert.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## V-LOCK SERIES

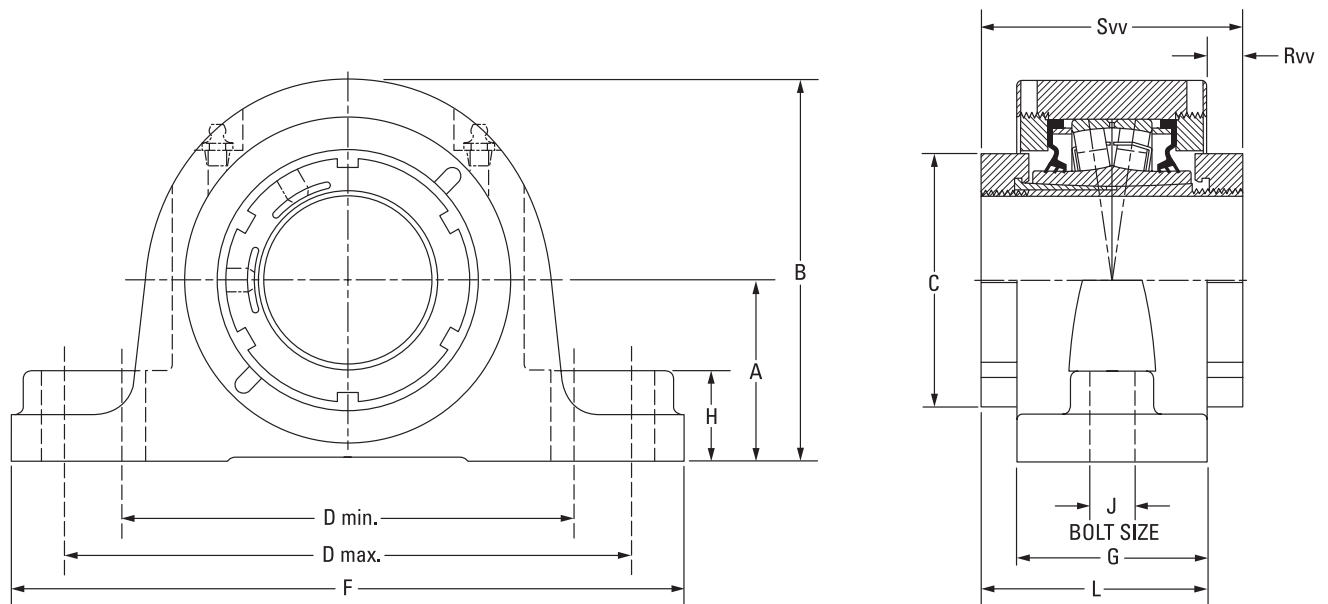
### V-LOCK SERIES (ADAPTER LOCK) U.S. PAT. NO. 7344313

	Housing Type	Primary Seals						Secondary Seals and Covers						
		M	N	O	B	C	T	Open-End Cover			Closed-End Cover	HSY Flange Cartridge Backing Plate		UFP Backing Plate
								DR	VR	T		DR		
V-Lock® (Timken Exclusive Double Taper Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•		
	Flange Block	•	•	•	•	•	•	•	•	•	•	•		
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•		
	Take-Up Block	•	•	•	•	•	•	•	•	•	•	•		
	Cartridge Block	•	•	•	•	•	•	•	•	•	•	•		
CL Series (Set Screw Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•		
	Flange Block	•	•	•	•	•	•	•	•	•	•	•		•
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•	•	
	Take-Up Block	•	•	•	•	•	•	•	•	•	•	•		
	Cartridge Block	•	•	•	•	•	•	•	•	•	•	•		
	Hangar Block	•	•	•	•	•	•	•	•	•	•	•		
EC Series (Eccentric Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•		
	Flange Block	•	•	•	•	•	•	•	•	•	•	•		•
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•	•	
	Take-Up Block	•	•	•	•	•	•	•	•	•	•	•		
	Cartridge Block	•	•	•	•	•	•	•	•	•	•	•		
	Hangar Block	•	•	•	•	•	•	•	•	•	•	•		
TA Series (Tapered Adapter Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•		
	Flange Block	•	•	•	•	•	•	•	•	•	•	•		
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•		
	Cartridge Block	•	•	•	•	•	•	•	•	•	•	•		
DV Series (Tapered Adapter Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•		
	Flange Block	•	•	•	•	•	•	•	•	•	•	•		
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•		

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVVP TWO-BOLT PILLOW BLOCKS – STRAIGHT BORE EQUIVALENT

## QVVP TWO-BOLT PILLOW BLOCKS – STRAIGHT BORE EQUIVALENT



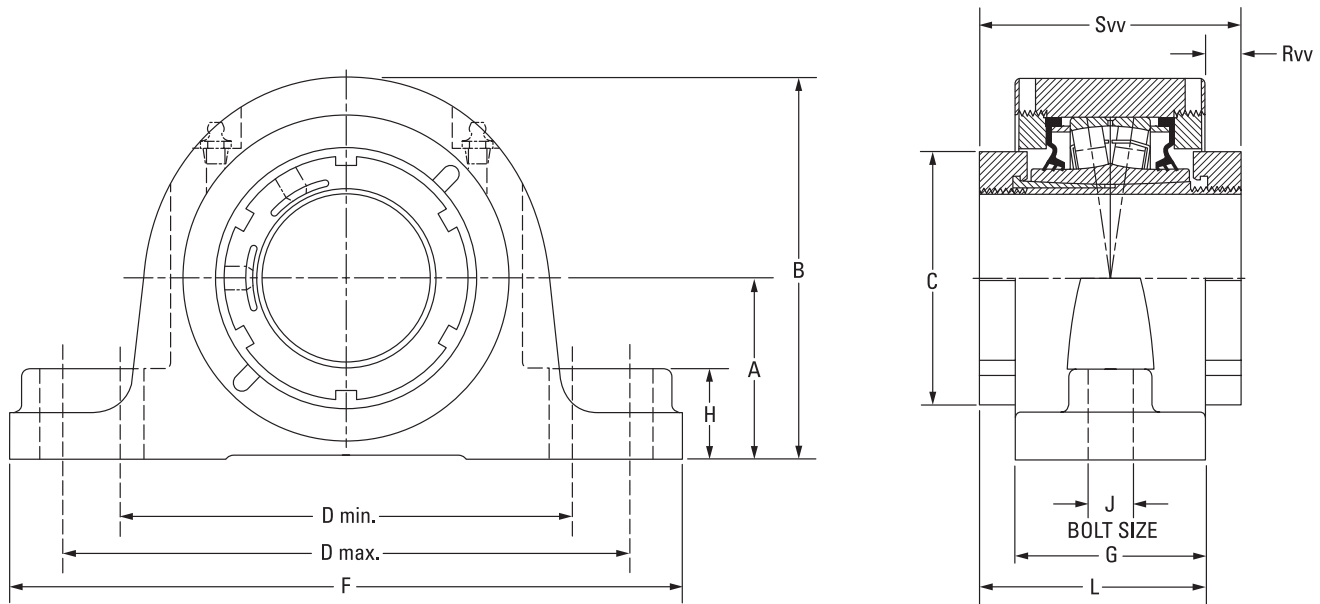
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	L	Rvv	Svv	Wt.
			mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
QVVP11V115S	1 15/16 in.	22211	57.2	122.2	75.9	152.4	181.1	225.6	62.0	31.8	16	82.0	20.1	102.1	6.4
QVVP11V200S	2 in.		2.25	4.81	2.99	6.00	7.13	8.88	2.44	1.25	5/8	3.23	0.79	4.02	14
QVVP11V050S	50 mm														
QVVP12V203S	2 3/16 in.	22212	63.5	133.4	80.3	165.1	200.2	244.6	66.8	31.8	16	84.6	17.8	102.1	7.7
QVVP12V204S	2 1/4 in.		2.50	5.25	3.16	6.50	7.88	9.63	2.63	1.25	5/8	3.33	0.70	4.02	17
QVVP12V055S	55 mm														
QVVP14V060S	60 mm	22214	69.9	147.3	94.0	174.8	219.2	260.4	73.7	35.1	16	88.9	15.2	103.9	10.0
QVVP14V207S	2 7/16 in.		2.75	5.80	3.70	6.88	8.63	10.25	2.90	1.38	5/8	3.50	0.60	4.09	22
QVVP14V208S	2 1/2 in.														
QVVP14V065S	65 mm	22216	79.5	164.3	106.4	200.2	244.6	295.4	76.2	35.1	20	91.2	15.0	106.2	12.7
QVVP16V211S	2 11/16 in.		3.13	6.47	4.19	7.88	9.63	11.63	3.00	1.38	3/4	3.59	0.59	4.18	28
QVVP16V212S	2 3/4 in.														
QVVP16V070S	70 mm	22219	95.3	195.3	124.5	238.3	285.8	342.9	86.6	47.8	24	102.1	15.5	117.6	20.4
QVVP16V215S	2 15/16 in.		3.75	7.69	4.90	9.38	11.25	13.50	3.41	1.88	7/8	4.02	0.61	4.63	45
QVVP16V300S	3 in.														
QVVP16V075S	75 mm	22222	104.9	219.7	139.7	255.0	320.0	362.0	102.6	50.8	24	116.6	14.0	130.3	26.8
QVVP19V303S	3 3/16 in.		4.13	8.65	5.50	10.04	12.60	14.25	4.04	2.00	1	4.59	0.55	5.13	59
QVVP19V304S	3 1/4 in.														
QVVP19V080S	80 mm	22222	104.9	219.7	139.7	255.0	320.0	362.0	102.6	50.8	24	116.6	14.0	130.3	26.8
QVVP19V085S	85 mm		4.13	8.65	5.50	10.04	12.60	14.25	4.04	2.00	1	4.59	0.55	5.13	59
QVVP19V307S	3 7/16 in.														
QVVP19V308S	3 1/2 in.	22222	104.9	219.7	139.7	255.0	320.0	362.0	102.6	50.8	24	116.6	14.0	130.3	26.8
QVVP19V090S	90 mm		4.13	8.65	5.50	10.04	12.60	14.25	4.04	2.00	1	4.59	0.55	5.13	59
QVVP22V311S	3 11/16 in.														
QVVP22V312S	3 3/4 in.	22222	104.9	219.7	139.7	255.0	320.0	362.0	102.6	50.8	24	116.6	14.0	130.3	26.8
QVVP22V100S	100 mm		4.13	8.65	5.50	10.04	12.60	14.25	4.04	2.00	1	4.59	0.55	5.13	59
QVVP22V315S	3 15/16 in.														
QVVP22V400S	4 in.														

<sup>(1)</sup>Double-nut (QVV) part number shown. Single-nut (QV) version available upon request.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVVPL TWO-BOLT PILLOW BLOCKS – STRAIGHT BORE EQUIVALENT

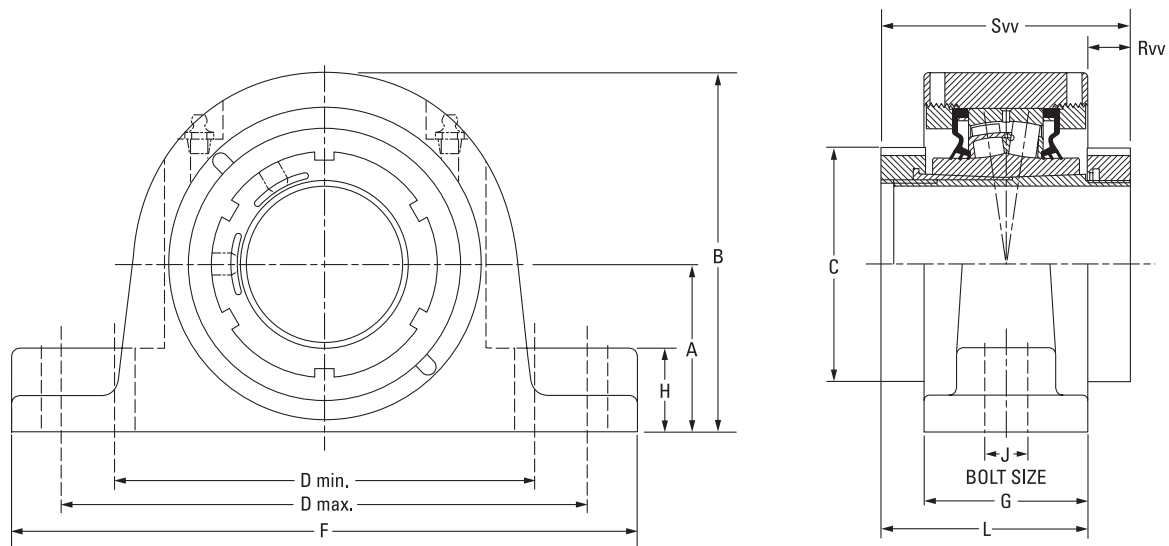
## QVVPL TWO-BOLT PILLOW BLOCKS – STRAIGHT BORE EQUIVALENT



Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	L	Rvv	Svv	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVVPL11V115S	1 15/16 in.	22211	57.2	122.2	75.9	150.6	161.5	212.9	62.0	31.8	16	82.0	20.1	102.1	6.4
QVVPL11V200S	2 in.		2.25	4.81	2.99	5.93	6.36	8.38	2.44	1.25	5/8	3.23	0.79	4.02	14
QVVPL11V050S	50 mm														
QVVPL12V203S	2 3/16 in.	22212	63.5	133.4	80.3	165.1	179.3	225.6	65.5	31.8	16	83.8	18.3	102.1	7.7
QVVPL12V204S	2 1/4 in.		2.50	5.25	3.16	6.50	7.06	8.88	2.58	1.25	5/8	3.30	0.72	4.02	17
QVVPL12V055S	55 mm														
QVVPL14V060S	60 mm	22214	69.9	147.3	94.0	173	189.0	235.0	73.7	35.1	16	88.9	15.2	103.9	10.0
QVVPL14V207S	2 7/16 in.		2.75	5.80	3.70	6.81	7.44	9.25	2.90	1.38	5/8	3.50	0.60	4.09	22
QVVPL14V208S	2 1/2 in.														
QVVPL14V065S	65 mm	22216	82.6	167.4	106.4	195.6	213.4	265.2	76.2	35.1	20	91.2	15.0	106.2	12.7
QVVPL16V211S	2 11/16 in.		3.25	6.59	4.19	7.70	8.40	10.44	3.00	1.38	3/4	3.59	0.59	4.18	28
QVVPL16V212S	2 3/4 in.														
QVVPL16V070S	70 mm	22219	95.3	195.3	124.5	235.0	273.1	330.2	86.6	47.8	24	102.1	15.5	117.6	20.4
QVVPL16V215S	2 15/16 in.		3.75	7.69	4.90	9.25	10.75	13.00	3.41	1.88	7/8	4.02	0.61	4.63	45
QVVPL16V300S	3 in.														
QVVPL16V075S	75 mm	22219	95.3	195.3	124.5	235.0	273.1	330.2	86.6	47.8	24	102.1	15.5	117.6	20.4
QVVPL19V303S	3 3/16 in.		3.75	7.69	4.90	9.25	10.75	13.00	3.41	1.88	7/8	4.02	0.61	4.63	45
QVVPL19V304S	3 1/4 in.														
QVVPL19V080S	80 mm	22219	95.3	195.3	124.5	235.0	273.1	330.2	86.6	47.8	24	102.1	15.5	117.6	20.4
QVVPL19V085S	85 mm		3.75	7.69	4.90	9.25	10.75	13.00	3.41	1.88	7/8	4.02	0.61	4.63	45
QVVPL19V307S	3 7/16 in.														
QVVPL19V308S	3 1/2 in.	22222	108	223	139.7	255.0	320.0	362.0	102.6	53.8	24	116.6	14.0	130.3	26.8
QVVPL19V090S	90 mm		4.25	8.78	5.50	10.04	12.60	14.25	4.04	2.12	1	4.59	0.55	5.13	59
QVVPL22V311S	3 11/16 in.														
QVVPL22V312S	3 3/4 in.	22222	108	223	139.7	255.0	320.0	362.0	102.6	53.8	24	116.6	14.0	130.3	26.8
QVVPL22V100S	100 mm		4.25	8.78	5.50	10.04	12.60	14.25	4.04	2.12	1	4.59	0.55	5.13	59
QVVPL22V315S	3 15/16 in.														
QVVPL22V400S	4 in.														

<sup>(1)</sup>Double-nut (QVV) part number shown. Single-nut (QV) version available upon request.

### QVPPA SAF TWO-BOLT PILLOW BLOCKS – TAPERED BORE EQUIVALENT



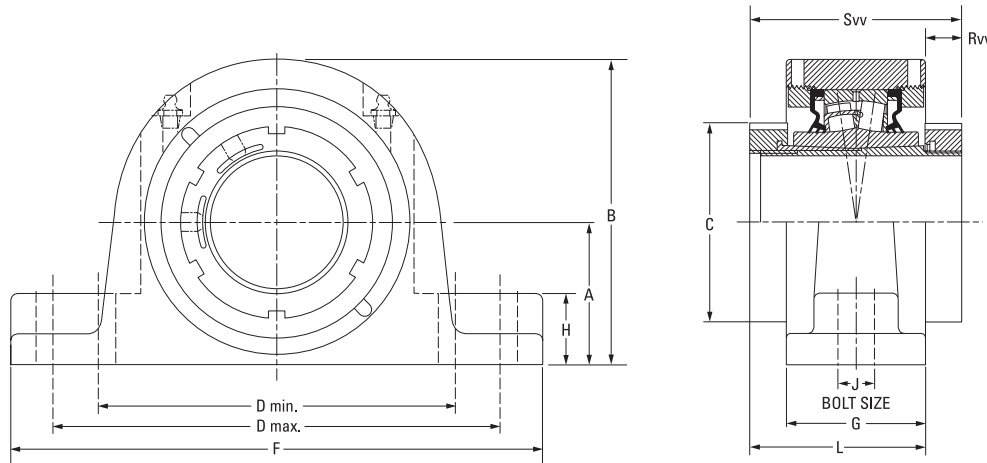
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	L	Rvv	Svv	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVPPA13V203S	2 3/16 in.	22213	<b>76.2</b>	<b>151.1</b>	<b>80.3</b>	<b>182.9</b>	<b>233.7</b>	<b>261.9</b>	<b>68.6</b>	<b>31.2</b>	<b>16</b>	<b>85.3</b>	<b>16.8</b>	<b>102.1</b>	<b>10.4</b>
QVPPA13V204S	2 1/4 in.		3.00	5.95	3.16	7.20	9.20	10.31	2.70	1.23	5/8	3.36	0.66	4.02	23
QVPPA13V055S	<b>55 mm</b>														
QVPPA15V060S	<b>60 mm</b>														
QVPPA15V207S	2 7/16 in.	22215	<b>82.6</b>	<b>163.3</b>	<b>94.0</b>	<b>200.2</b>	<b>244.6</b>	<b>276.4</b>	<b>68.6</b>	<b>31.8</b>	<b>16</b>	<b>86.4</b>	<b>17.8</b>	<b>103.9</b>	<b>12.2</b>
QVPPA15V208S	2 1/2 in.		3.25	6.43	3.70	7.88	9.63	10.88	2.70	1.25	5/8	3.40	0.70	4.09	27
QVPPA15V065S	<b>65 mm</b>														
QVPPA17V211S	2 11/16 in.	22217	<b>95.3</b>	<b>186</b>	<b>106.4</b>	<b>241.3</b>	<b>279.4</b>	<b>320.8</b>	<b>76.2</b>	<b>33.8</b>	<b>20</b>	<b>91.2</b>	<b>15.0</b>	<b>106.2</b>	<b>15.0</b>
QVPPA17V212S	2 3/4 in.														
QVPPA17V070S	<b>70 mm</b>														
QVPPA17V215S	2 15/16 in.														
QVPPA17V300S	3 in.														
QVPPA17V075S	<b>75 mm</b>														
QVPPA20V303S	3 3/16 in.	22220	<b>114.3</b>	<b>219.2</b>	<b>124.5</b>	<b>276.4</b>	<b>327.2</b>	<b>368.3</b>	<b>86.9</b>	<b>41.4</b>	<b>24</b>	<b>102.4</b>	<b>15.5</b>	<b>117.6</b>	<b>29.5</b>
QVPPA20V304S	3 1/4 in.														
QVPPA20V080S	<b>80 mm</b>														
QVPPA20V085S	<b>85 mm</b>														
QVPPA20V307S	3 7/16 in.														
QVPPA20V308S	3 1/2 in.														
QVPPA20V090S	<b>90 mm</b>														
QVPPA22V311S	3 11/16 in.	22222	<b>125.5</b>	<b>240.5</b>	<b>139.7</b>	<b>317.5</b>	<b>368.3</b>	<b>406.4</b>	<b>100.6</b>	<b>50.8</b>	<b>24</b>	<b>115.6</b>	<b>15.0</b>	<b>130.3</b>	<b>38.1</b>
QVPPA22V312S	3 3/4 in.														
QVPPA22V100S	<b>100 mm</b>														
QVPPA22V315S	3 15/16 in.														
QVPPA22V400S	4 in.														
QVPPA26V110S	<b>110 mm</b>	22226	<b>152.4</b>	<b>284.0</b>	<b>174.8</b>	<b>362.0</b>	<b>400.1</b>	<b>444.5</b>	<b>128</b>	<b>51.8</b>	<b>24</b>	<b>153.2</b>	<b>25.1</b>	<b>178.3</b>	<b>61.7</b>
QVPPA26V407S	4 7/16 in.														
QVPPA26V408S	4 1/2 in.														
QVPPA26V115S	<b>115 mm</b>														
QVPPA28V125S	<b>125 mm</b>	22228	<b>152.4</b>	<b>290.8</b>	<b>190.0</b>	<b>384.3</b>	<b>447.8</b>	<b>499.9</b>	<b>85.6</b>	<b>51.8</b>	<b>30</b>	<b>132.0</b>	<b>46.5</b>	<b>178.3</b>	<b>61.8</b>
QVPPA28V415S	4 15/16 in.														
QVPPA28V500S	5 in.														
QVPPA28V130S	<b>130 mm</b>														

<sup>(1)</sup>Double-nut (QVV) part number shown. Single-nut (QV) version available upon request.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVVPN SN-STYLE TWO-BOLT PILLOW BLOCKS – TAPERED BORE EQUIVALENT

## QVVPN SN-STYLE TWO-BOLT PILLOW BLOCKS – TAPERED BORE EQUIVALENT



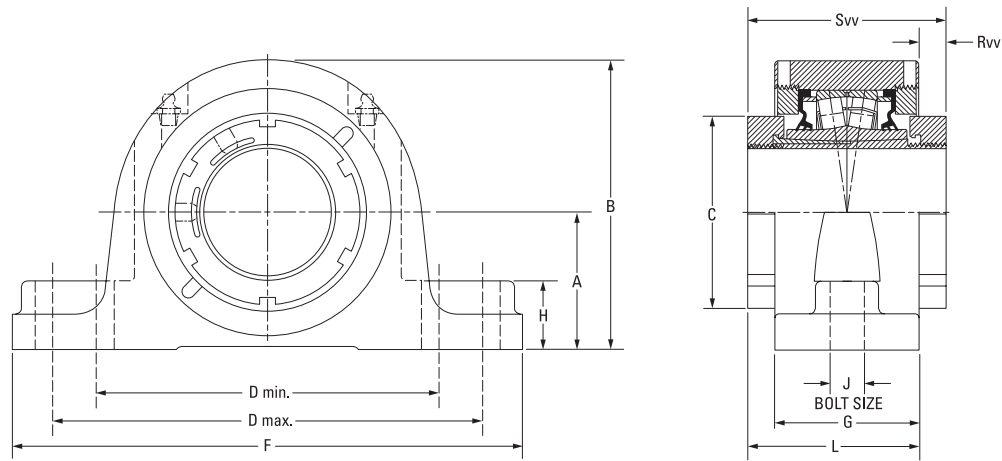
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	L	Rvv	Svv	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
QVVPN11V115S	1 15/16 in.	22211	69.9	135.4	75.9	165.1	221.0	251.0	60.5	31.8	16	81.3	20.8	102.1	7.7	
QVVPN11V200S	2 in.		2.750	5.33	2.99	6.50	8.70	9.88	2.38	1.25	5/8	3.20	0.82	4.02	17	
QVVPN11V050S	50 mm															
QVVPN12V055S	55 mm	22212	70.0	140.5	80.0	177.8	219.2	254.0	60.5	31.8	16	81.3	20.8	102.1	9.1	
			2.756	5.53	3.15	7.00	8.63	10.00	2.38	1.25	5/8	3.20	0.82	4.02	20	
QVVPN13V203S	2 3/16 in.	22213	80.0	154.9	80.3	182.9	233.7	261.9	68.6	35.1	16	85.3	16.8	102.1	10.4	
QVVPN13V204S	2 1/4 in.		3.150	6.10	3.16	7.20	9.20	10.31	2.70	1.38	5/8	3.36	0.66	4.02	23	
QVVPN14V060S	60 mm	22214	80.0	154.9	94.0	182.9	233.7	261.9	68.6	35.1	16	86.4	17.8	104.0	10.4	
			3.150	6.10	3.70	7.20	9.20	10.31	2.70	1.38	5/8	3.40	0.70	4.09	23	
QVVPN15V207S	2 7/16 in.	22215	80.0	160.8	94.0	200.2	244.6	276.4	68.6	29.2	16	86.4	17.8	103.9	12.2	
QVVPN15V208S	2 1/2 in.		3.150	6.33	3.70	7.88	9.63	10.88	2.70	1.15	5/8	3.40	0.70	4.09	27	
QVVPN15V065S	65 mm															
QVVPN16V211S	2 11/16 in.	22216	95.0	180.3	106.0	235.0	266.7	315.0	72.6	31.8	20	89.4	16.8	106.0	13.6	
QVVPN16V212S	2 3/4 in.		3.74	7.10	4.17	9.25	10.50	12.40	2.86	1.25	3/4	3.52	0.66	4.17	30	
QVVPN16V070S	70 mm															
QVVPN17V215S	2 15/16 in.	22217	95.3	185.9	106.4	241.3	279.4	320.8	76.2	33.8	20	91.2	15.0	106.2	15.0	
QVVPN17V300S	3 in.		3.750	7.32	4.19	9.50	11.00	12.63	3.00	1.33	3/4	3.59	0.59	4.18	33	
QVVPN17V075S	75 mm															
QVVPN19V303S	3 3/16 in.	22219	100.0	195.3	124.0	285.8	295.4	346.2	79.8	38.9	20	99.1	19.3	118.1	22.2	
QVVPN19V304S	3 1/4 in.		3.937	7.69	4.88	11.25	11.63	13.63	3.14	1.53	3/4	3.90	0.76	4.65	49	
QVVPN19V080S	80 mm															
QVVPN19V085S	85 mm	22219	112.0	212.3	124.0	285.8	295.4	346.2	82.8	38.9	20	100.6	17.8	118.1	23.1	
			4.409	8.36	4.88	11.25	11.63	13.63	3.26	1.53	3/4	3.96	0.70	4.65	51	
QVVPN20V307S	3 7/16 in.	22220	112.0	216.9	124.5	276.4	327.2	368.3	86.9	38.9	24	102.4	15.5	117.6	29.5	
QVVPN20V308S	3 1/2 in.		4.409	8.54	4.90	10.88	12.88	14.50	3.42	1.53	7/8	4.03	0.61	4.63	65	
QVVPN20V090S	90 mm															
QVVPN22V311S	3 11/16 in.	22222	125.0	240.5	139.7	317.5	368.3	406.4	100.6	50.8	24	115.6	15.0	130.3	38.1	
QVVPN22V312S	3 3/4 in.		4.921	9.47	5.50	12.50	14.50	16.00	3.96	2.00	7/8	4.55	0.59	5.13	84	
QVVPN22V100S	100 mm															
QVVPN22V315S	3 15/16 in.															
QVVPN22V400S	4 in.															
QVVPN24V110S	110 mm	22224	140.0	262.9	174.8	344.4	355.6	409.7	97.8	50.8	24	138.2	40.4	178.3	49.9	
			5.512	10.35	6.88	13.56	14.00	16.13	3.85	2.00	7/8	5.44	1.59	7.02	110	
QVVPN26V407S	4 7/16 in.	22226	150.0	281.7	174.8	367.3	400.1	444.5	128.0	49.3	24	153.2	25.1	178.3	61.7	
QVVPN26V408S	4 1/2 in.		5.906	11.09	6.88	14.46	15.75	17.50	5.04	1.94	1	6.03	0.99	7.02	136	
QVVPN26V115S	115 mm															
QVVPN28V125S	125 mm	22228	150.0	288.5	190.0	384.3	447.8	499.9	85.6	49.3	30	132.0	46.5	178.3	61.8	
QVVPN28V415S	4 15/16 in.		5.906	11.36	7.48	15.13	17.63	19.68	3.37	1.94	1 1/4	5.20	1.83	7.02	136	
QVVPN28V500S	5 in.															
QVVPN28V130S	130 mm															

<sup>(1)</sup>Double-nut (QVV) part number shown. Single-nut (QV) version available upon request.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVVSN SN-STYLE TWO-BOLT PILLOW BLOCKS – PURE METRIC DESIGN

## QVVSN SN-STYLE TWO-BOLT PILLOW BLOCKS – PURE METRIC DESIGN



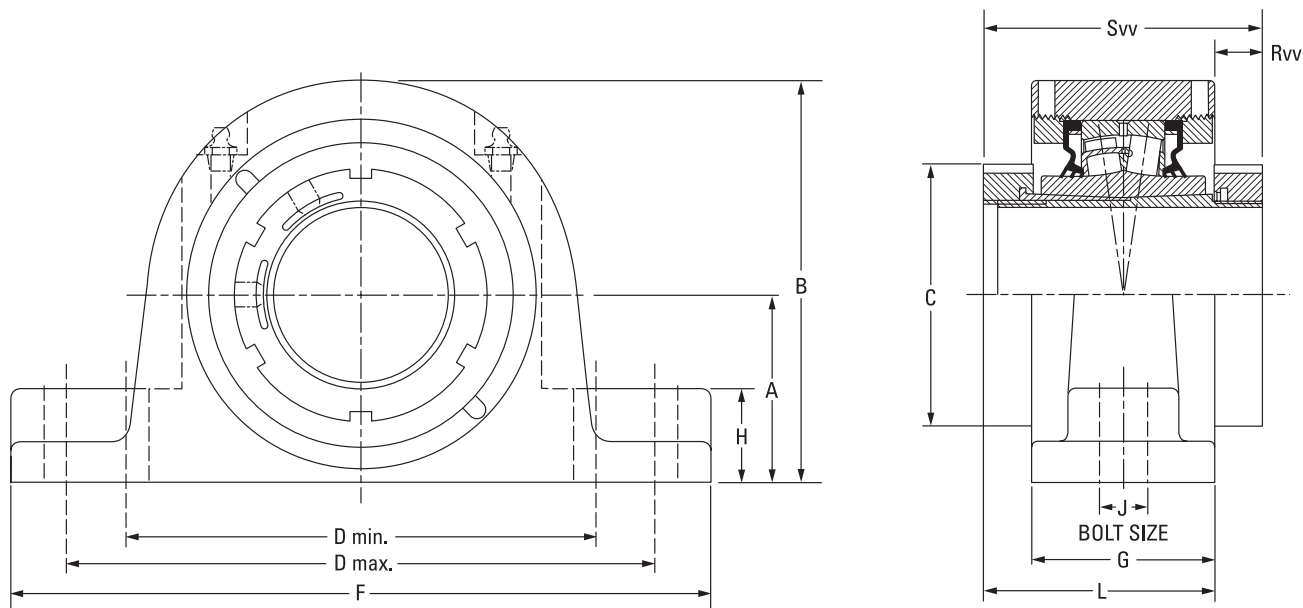
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	L	Rvv	Svv	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVVSN11V115S	1 15/16 in.	22211	<b>70</b>	<b>136</b>	<b>76</b>	<b>183</b>	<b>216</b>	<b>254</b>	<b>68</b>	<b>25</b>	<b>16</b>	<b>85</b>	<b>17</b>	<b>102</b>	<b>13.2</b>
QVVSN11V200S	2 in.		2.76	5.35	2.99	7.20	8.50	10.00	2.68	1.00	5/8	3.35	0.67	4.02	29
QVVSN11V050S	<b>50 mm</b>														
QVVSN12V203S	2 3/16 in.	22212	<b>70</b>	<b>141</b>	<b>80</b>	<b>183</b>	<b>216</b>	<b>254</b>	<b>68</b>	<b>25</b>	<b>16</b>	<b>85</b>	<b>17</b>	<b>102</b>	<b>13.2</b>
QVVSN12V204S	2 1/4 in.		2.76	5.55	3.15	7.20	8.50	10.00	2.68	1.00	5/8	3.35	0.67	4.02	29
QVVSN12V055S	<b>55 mm</b>														
QVVSN14V060S	<b>60 mm</b>	22214	<b>80</b>	<b>157</b>	<b>94</b>	<b>196</b>	<b>235</b>	<b>275</b>	<b>74</b>	<b>35</b>	<b>16</b>	<b>89</b>	<b>15</b>	<b>104</b>	<b>16.8</b>
QVVSN14V207S	2 7/16 in.		3.15	6.18	3.70	7.72	9.25	10.83	2.91	1.38	5/8	3.50	0.59	4.09	37
QVVSN14V208S	2 1/2 in.														
QVVSN14V065S	<b>65 mm</b>	22216	<b>95</b>	<b>183</b>	<b>106</b>	<b>241</b>	<b>279</b>	<b>316</b>	<b>76</b>	<b>34</b>	<b>20</b>	<b>91</b>	<b>15</b>	<b>106</b>	<b>20.9</b>
QVVSN16V211S	2 11/16 in.		3.74	7.2	4.17	9.49	10.98	12.44	2.99	1.33	3/4	3.58	0.59	4.17	46
QVVSN16V212S	2 3/4 in.														
QVVSN16V070S	<b>70 mm</b>	22219	<b>100</b>	<b>200</b>	<b>124</b>	<b>279</b>	<b>292</b>	<b>345</b>	<b>86</b>	<b>39</b>	<b>20</b>	<b>102</b>	<b>16</b>	<b>118</b>	<b>25.4</b>
QVVSN16V215S	2 15/16 in.		3.94	7.87	4.88	10.98	11.50	13.58	3.39	1.53	3/4	4.02	0.63	4.65	56
QVVSN16V300S	3 in.														
QVVSN16V075S	<b>75 mm</b>	22219	<b>112</b>	<b>212</b>	<b>124</b>	<b>279</b>	<b>292</b>	<b>345</b>	<b>86</b>	<b>39</b>	<b>20</b>	<b>102</b>	<b>16</b>	<b>118</b>	<b>25.4</b>
QVVSN19V303S	3 3/16 in.		4.41	8.34	4.88	10.98	11.50	13.58	3.39	1.53	3/4	4.02	0.63	4.65	56
QVVSN19V304S	3 1/4 in.														
QVVSN19V080S	<b>80 mm</b>	22219	<b>112</b>	<b>212</b>	<b>124</b>	<b>290</b>	<b>327</b>	<b>380</b>	<b>86</b>	<b>39</b>	<b>24</b>	<b>102</b>	<b>16</b>	<b>118</b>	<b>25.4</b>
QVVSN19V085S	<b>85 mm</b>		4.41	8.34	4.88	11.42	12.87	14.96	3.39	1.53	7/8	4.02	0.63	4.65	56
QVVSN19V307S	3 7/16 in.														
QVVSN19V308S	3 1/2 in.	22222	<b>125</b>	<b>241</b>	<b>140</b>	<b>319</b>	<b>366</b>	<b>410</b>	<b>101</b>	<b>50</b>	<b>24</b>	<b>116</b>	<b>15</b>	<b>130</b>	<b>35.8</b>
QVVSN19V090S	<b>90 mm</b>		4.92	9.49	5.51	12.56	14.41	16.14	3.98	2.00	7/8	4.57	0.59	5.12	79
QVVSN22V311S	3 11/16 in.														
QVVSN22V312S	3 3/4 in.	22226	<b>140</b>	<b>270</b>	<b>175</b>	<b>332</b>	<b>365</b>	<b>410</b>	<b>113</b>	<b>39</b>	<b>24</b>	<b>146</b>	<b>33</b>	<b>178</b>	<b>39.9</b>
QVVSN22V100S	<b>100 mm</b>		5.51	10.63	6.89	13.07	14.37	16.14	4.45	1.53	7/8	5.75	1.30	7.01	88
QVVSN22V315S	3 15/16 in.														
QVVSN22V400S	4 in.	22226	<b>150</b>	<b>280</b>	<b>175</b>	<b>367</b>	<b>400</b>	<b>445</b>	<b>113</b>	<b>49</b>	<b>24</b>	<b>146</b>	<b>33</b>	<b>178</b>	<b>39.9</b>
QVVSN26V110S	<b>110 mm</b>		5.91	11.02	6.89	14.45	15.75	17.52	4.45	1.92	7/8	5.75	1.30	7.01	88
QVVSN26V407S	4 7/16 in.														
QVVSN26V408S	4 1/2 in.	22228	<b>150</b>	<b>290</b>	<b>190</b>	<b>402</b>	<b>435</b>	<b>500</b>	<b>117</b>	<b>49</b>	<b>30</b>	<b>148</b>	<b>31</b>	<b>178</b>	<b>39.9</b>
QVVSN26V115S	<b>115 mm</b>		5.91	11.41	7.48	15.83	17.13	19.68	4.61	1.92	1 1/4	5.83	1.22	7.01	88
QVVSN28V125S	<b>125 mm</b>														
QVVSN28V415S	4 15/16 in.	22228	<b>150</b>	<b>290</b>	<b>190</b>	<b>402</b>	<b>435</b>	<b>500</b>	<b>117</b>	<b>49</b>	<b>30</b>	<b>148</b>	<b>31</b>	<b>178</b>	<b>39.9</b>
QVVSN28V500S	5 in.		5.91	11.41	7.48	15.83	17.13	19.68	4.61	1.92	1 1/4	5.83	1.22	7.01	88
QVVSN28V130S	<b>130 mm</b>														

<sup>(1)</sup>Double-nut (QVV) part number shown. Single-nut (QV) version available upon request.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVVPKT 9000 SERIES TWO-BOLT PILLOW BLOCKS – TAPERED BORE EQUIVALENT

## QVVPKT 9000 SERIES TWO-BOLT PILLOW BLOCKS – TAPERED BORE EQUIVALENT



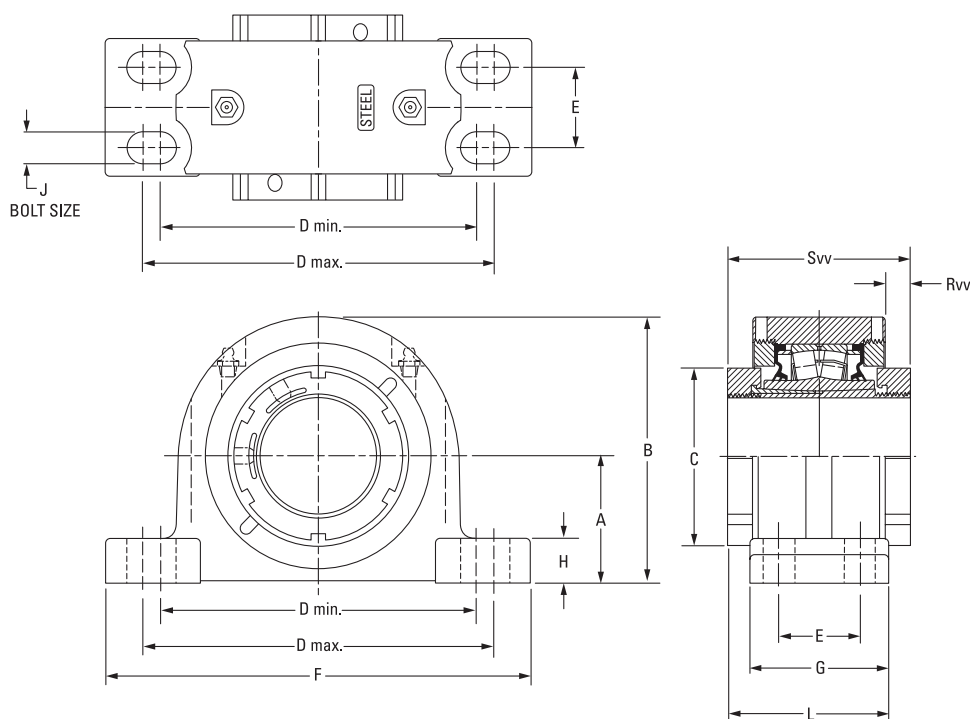
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	L	Rvv	Svv	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
QVVPKT13V203S	2 3/16 in.	22213	<b>76.2</b>	<b>153.7</b>	<b>80.3</b>	<b>194.6</b>	<b>223.0</b>	<b>285.8</b>	<b>73.7</b>	<b>35.1</b>	<b>20</b>	<b>87.9</b>	<b>14.2</b>	<b>102.1</b>	<b>10.0</b>	
QVVPKT13V204S	2 1/4 in.		3.00	6.05	3.16	7.66	8.78	11.25	2.90	1.38	3/4	3.46	0.56	4.02	22	
QVVPKT13V055S	<b>55 mm</b>															
QVVPKT15V060S	<b>60 mm</b>	22215	<b>88.9</b>	<b>173.7</b>	<b>94.0</b>	<b>230.1</b>	<b>265.2</b>	<b>330.2</b>	<b>75.7</b>	<b>35.1</b>	<b>24</b>	<b>89.9</b>	<b>14.2</b>	<b>103.9</b>	<b>12.7</b>	
QVVPKT15V207S	2 7/16 in.		3.50	6.84	3.70	9.06	10.44	13.00	2.98	1.38	7/8	3.54	0.56	4.09	28	
QVVPKT15V208S	2 1/2 in.															
QVVPKT15V065S	<b>65 mm</b>															

<sup>(1)</sup>Double-nut (QVV) part number shown. Single-nut (QV) version available upon request.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVVPF FOUR-BOLT PILLOW BLOCKS – STRAIGHT BORE EQUIVALENT

## QVVPF FOUR-BOLT PILLOW BLOCKS – STRAIGHT BORE EQUIVALENT



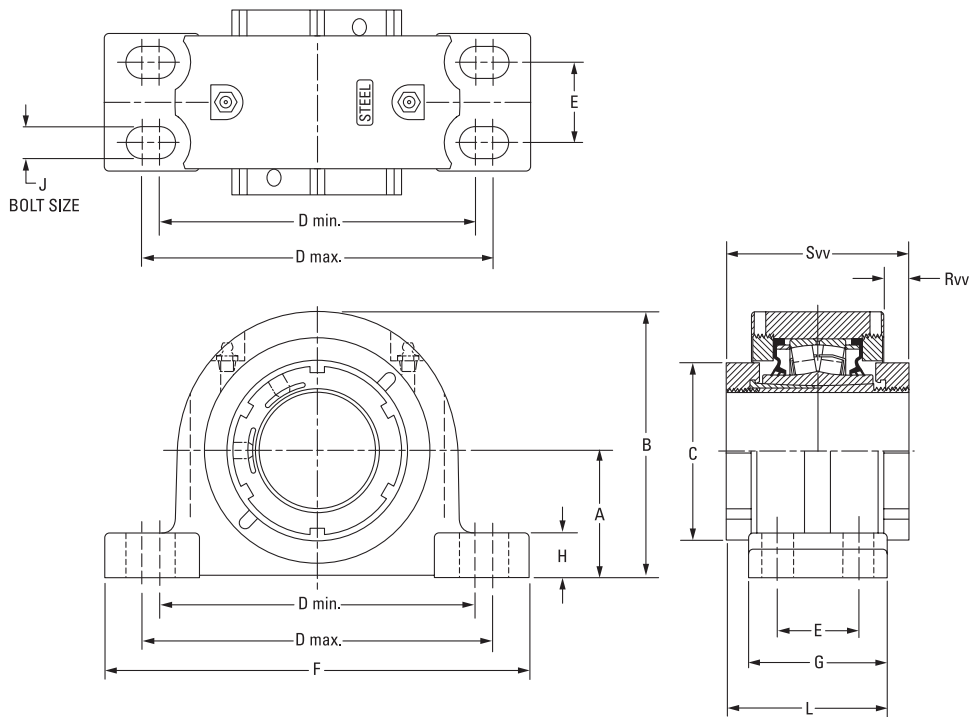
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	L	Rvv	Svv	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVVPF14V060S	<b>60 mm</b>	22214	<b>69.9</b> 2.75	<b>147.3</b> 5.80	<b>94.0</b> 3.70	<b>174.8</b> 6.88	<b>193.8</b> 7.63	<b>44.5</b> 1.75	<b>235.0</b> 9.25	<b>76.2</b> 3.00	<b>24.9</b> 0.98	<b>16</b> 5/8	<b>90.2</b> 3.55	<b>15.2</b> 0.60	<b>103.9</b> 4.09	<b>9.1</b> 20
QVVPF14V207S	2 7/16 in.															
QVVPF14V208S	2 1/2 in.															
QVVPF14V065S	<b>65 mm</b>	22216	<b>82.6</b> 3.25	<b>167.4</b> 6.59	<b>106.4</b> 4.19	<b>193.0</b> 7.60	<b>231.1</b> 9.10	<b>47.8</b> 1.88	<b>265.2</b> 10.44	<b>79.5</b> 3.13	<b>32.8</b> 1.29	<b>16</b> 5/8	<b>93.0</b> 3.66	<b>15.2</b> 0.60	<b>106.2</b> 4.18	<b>12.2</b> 27
QVVPF16V211S	2 11/16 in.															
QVVPF16V212S	2 3/4 in.															
QVVPF16V070S	<b>70 mm</b>	22219	<b>95.3</b> 3.75	<b>195.3</b> 7.69	<b>124.5</b> 4.90	<b>225.6</b> 8.88	<b>276.4</b> 10.88	<b>50.8</b> 2.00	<b>312.4</b> 12.30	<b>95.3</b> 3.75	<b>39.6</b> 1.56	<b>20</b> 3/4	<b>106.4</b> 4.19	<b>14.5</b> 0.57	<b>117.6</b> 4.63	<b>22.2</b> 49
QVVPF16V215S	2 15/16 in.															
QVVPF16V300S	3 in.															
QVVPF16V075S	<b>75 mm</b>	22222	<b>108.0</b> 4.25	<b>223.0</b> 8.78	<b>139.7</b> 5.50	<b>276.4</b> 10.88	<b>339.9</b> 13.38	<b>57.2</b> 2.25	<b>378.0</b> 14.88	<b>109.5</b> 4.31	<b>35.6</b> 1.40	<b>20</b> 3/4	<b>119.9</b> 4.72	<b>14.7</b> 0.58	<b>130.3</b> 5.13	<b>30.4</b> 67
QVVPF19V303S	3 3/16 in.															
QVVPF19V304S	3 1/4 in.															
QVVPF19V080S	<b>80 mm</b>	22226	<b>120.7</b> 4.75	<b>250.7</b> 9.87	<b>174.8</b> 6.88	<b>301.8</b> 11.88	<b>368.3</b> 14.50	<b>63.5</b> 2.50	<b>409.7</b> 16.13	<b>120.7</b> 4.75	<b>40.1</b> 1.58	<b>20</b> 3/4	<b>149.6</b> 5.89	<b>32.8</b> 1.29	<b>178.3</b> 7.02	<b>37.2</b> 82
QVVPF19V085S	<b>85 mm</b>															
QVVPF19V307S	3 7/16 in.															
QVVPF19V308S	3 1/2 in.	22228	<b>139.7</b> 5.50	<b>279.7</b> 11.01	<b>190.0</b> 7.48	<b>349.3</b> 13.75	<b>403.4</b> 15.88	<b>69.9</b> 2.75	<b>444.5</b> 17.50	<b>128.0</b> 5.04	<b>39.1</b> 1.54	<b>24</b> 7/8	<b>153.2</b> 6.03	<b>31.5</b> 1.24	<b>178.3</b> 7.02	<b>60.8</b> 134
QVVPF19V090S	<b>90 mm</b>															
QVVPF22V311S	3 11/16 in.															
QVVPF22V312S	3 3/4 in.															
QVVPF22V100S	<b>100 mm</b>															
QVVPF22V315S	3 15/16 in.															
QVVPF22V400S	4 in.															
QVVPF26V110S	<b>110 mm</b>															
QVVPF26V407S	4 7/16 in.															
QVVPF26V408S	4 1/2 in.															
QVVPF26V115S	<b>115 mm</b>															
QVVPF28V125S	<b>125 mm</b>															
QVVPF28V415S	4 15/16 in.															
QVVPF28V500S	5 in.															
QVVPF28V130S	<b>130 mm</b>															

<sup>(1)</sup>Double-nut (QVV) part number shown. Single-nut (QV) version available upon request.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVVPR FOUR-BOLT PILLOW BLOCKS – STRAIGHT BORE EQUIVALENT

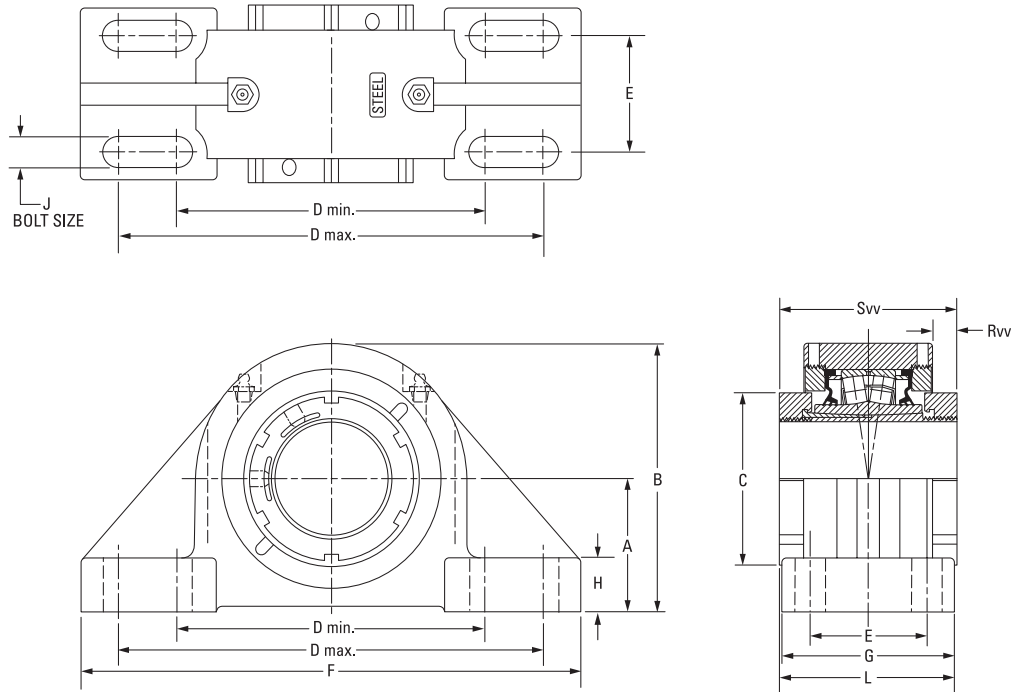
## QVVPR FOUR-BOLT PILLOW BLOCKS – STRAIGHT BORE EQUIVALENT



Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	L	Rvv	Svv	Wt.
			mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVVPR14V060S	60 mm	22214	69.9	147.3	94.0	181.1	222.2	47.8	260.4	82.6	24.9	16	93.2	15.2	103.9	9.1
QVVPR14V207S	2 7/16 in.		2.75	5.80	3.70	7.13	8.75	1.88	10.25	3.25	0.98	5/8	3.67	0.60	4.09	20
QVVPR14V208S	2 1/2 in.															
QVVPR14V065S	65 mm	22216	79.5	164.3	106.4	203.2	243.8	54.1	275.1	85.9	29.5	16	96.0	15.2	106.2	12.2
QVVPR16V211S	2 11/16 in.		3.13	6.47	4.19	8.00	9.60	2.13	10.83	3.38	1.16	5/8	3.78	0.60	4.18	27
QVVPR16V212S	2 3/4 in.															
QVVPR16V070S	70 mm	22219	95.3	195.3	124.5	235.0	285.8	60.5	346.2	95.3	39.6	20	106.4	14.5	117.6	22.2
QVVPR16V215S	2 15/16 in.		3.75	7.69	4.90	9.25	11.25	2.38	13.63	3.75	1.56	3/4	4.19	0.57	4.63	49
QVVPR16V300S	3 in.															
QVVPR16V075S	75 mm	22219	95.3	195.3	124.5	235.0	285.8	60.5	346.2	95.3	39.6	20	106.4	14.5	117.6	22.2
QVVPR19V303S	3 3/16 in.		3.75	7.69	4.90	9.25	11.25	2.38	13.63	3.75	1.56	3/4	4.19	0.57	4.63	49
QVVPR19V304S	3 1/4 in.															
QVVPR19V080S	80 mm	22219	95.3	195.3	124.5	235.0	285.8	60.5	346.2	95.3	39.6	20	106.4	14.5	117.6	22.2
QVVPR19V085S	85 mm		3.75	7.69	4.90	9.25	11.25	2.38	13.63	3.75	1.56	3/4	4.19	0.57	4.63	49
QVVPR19V307S	3 7/16 in.															
QVVPR19V308S	3 1/2 in.															
QVVPR19V090S	90 mm															

<sup>(1)</sup>Double-nut (QVV) part number shown. Single-nut (QV) version available upon request.

QVVPX 5000 SERIES FOUR-BOLT PILLOW BLOCKS – STRAIGHT BORE EQUIVALENT



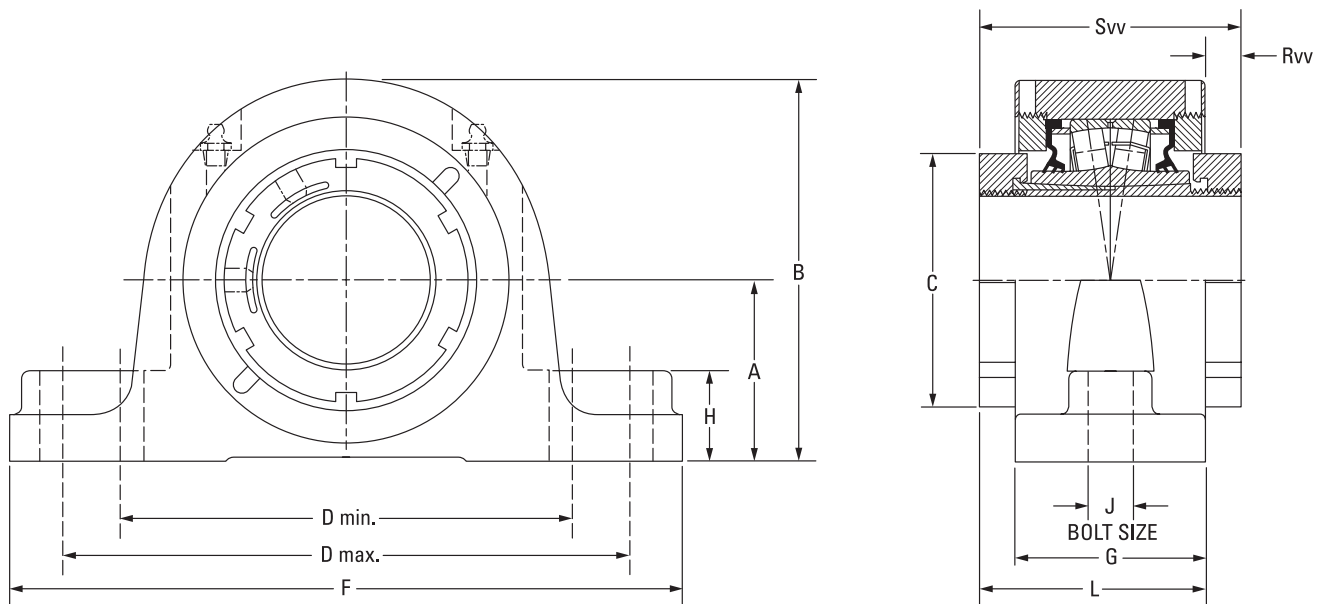
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	L	Rvv	SvV	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVVPX14V060S	<b>60 mm</b>	22214	76.2 3.00	153.7 6.05	94.0 3.70	176.3 6.94	242.8 9.56	66.8 2.63	285.8 11.25	98.6 3.88	31.0 1.22	16 5/8	101.3 3.99	15.2 0.60	103.9 4.09	10.4 23
QVVPX14V207S	2 7/16 in.															
QVVPX14V208S	2 1/2 in.															
QVVPX14V065S	<b>65 mm</b>	22216	88.9 3.50	173.5 6.83	106.4 4.19	230.1 9.06	265.2 10.44	69.9 2.75	330.2 13.00	108.0 4.25	39.1 1.54	20 3/4	107.2 4.22	14.2 0.56	106.2 4.18	12.7 28
QVVPX16V211S	2 11/16 in.															
QVVPX16V212S	2 3/4 in.															
QVVPX16V070S	<b>70 mm</b>	22219	101.6 4.00	201.2 7.92	124.5 4.90	274.6 10.81	309.6 12.19	76.2 3.00	381.0 15.00	120.7 4.75	38.1 1.50	20 3/4	119.1 4.69	14.5 0.57	117.6 4.63	22.2 49
QVVPX16V215S	2 15/16 in.															
QVVPX16V300S	3 in.															
QVVPX16V075S	<b>75 mm</b>	22222	127.0 5.00	239.8 9.44	139.7 5.50	317.5 12.50	355.6 14.00	88.9 3.50	425.5 16.75	139.7 5.50	41.4 1.63	24 7/8	135.1 5.32	15.2 0.60	130.3 5.13	30.4 67
QVVPX19V303S	3 3/16 in.															
QVVPX19V304S	3 1/4 in.															
QVVPX19V080S	<b>80 mm</b>	22226	146.1 5.75	273.8 10.78	174.8 6.88	354.1 13.94	395.2 15.56	101.6 4.00	469.9 18.50	158.8 6.25	45.7 1.80	24 1	168.7 6.64	38.4 1.51	178.3 7.02	37.2 82
QVVPX19V085S	85 mm															
QVVPX19V307S	3 7/16 in.															
QVVPX19V307S	3 7/16 in.	22228	155.6 6.125	293.4 11.55	190.0 7.48	387.4 15.25	452.5 16.75	108.0 4.25	514.4 20.25	171.5 6.75	50.8 2.00	24 1 1/8	175.0 6.89	30.7 1.21	178.3 7.02	61.7 136
QVVPX19V308S	3 1/2 in.															
QVVPX19V090S	90 mm															
QVVPX22V311S	3 11/16 in.	22226	146.1 5.75	273.8 10.78	174.8 6.88	354.1 13.94	395.2 15.56	101.6 4.00	469.9 18.50	158.8 6.25	45.7 1.80	24 1	168.7 6.64	38.4 1.51	178.3 7.02	37.2 82
QVVPX22V312S	3 3/4 in.															
QVVPX22V315S	3 15/16 in.															
QVVPX22V400S	4 in.	22228	155.6 6.125	293.4 11.55	190.0 7.48	387.4 15.25	452.5 16.75	108.0 4.25	514.4 20.25	171.5 6.75	50.8 2.00	24 1 1/8	175.0 6.89	30.7 1.21	178.3 7.02	61.7 136
QVVPX22V100S	100 mm															
QVVPX26V110S	110 mm															
QVVPX26V407S	4 7/16 in.	22228	155.6 6.125	293.4 11.55	190.0 7.48	387.4 15.25	452.5 16.75	108.0 4.25	514.4 20.25	171.5 6.75	50.8 2.00	24 1 1/8	175.0 6.89	30.7 1.21	178.3 7.02	61.7 136
QVVPX26V408S	4 1/2 in.															
QVVPX26V115S	115 mm															
QVVPX28V125S	125 mm	22228	155.6 6.125	293.4 11.55	190.0 7.48	387.4 15.25	452.5 16.75	108.0 4.25	514.4 20.25	171.5 6.75	50.8 2.00	24 1 1/8	175.0 6.89	30.7 1.21	178.3 7.02	61.7 136
QVVPX28V415S	4 15/16 in.															
QVVPX28V500S	5 in.															
QVVPX28V130S	130 mm															

<sup>(1)</sup>Double-nut (QVV) part number shown. Single-nut (QV) version available upon request.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVVPXT 5000 SERIES TWO-BOLT PILLOW BLOCKS – STRAIGHT BORE EQUIVALENT

## QVVPXT 5000 SERIES TWO-BOLT PILLOW BLOCKS – STRAIGHT BORE EQUIVALENT



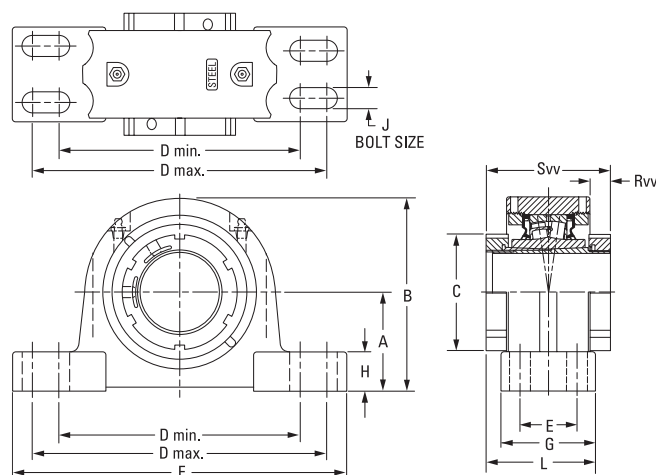
Bearing Part No. <sup>(1)</sup>	Shaft Size	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	L	Rvv	Svv	Wt.
			mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVVPXT14V060S	<b>60 mm</b>	22214	<b>76.2</b> 3.00	<b>153.7</b> 6.05	<b>94.0</b> 3.70	<b>194.6</b> 7.66	<b>233.0</b> 8.78	<b>285.8</b> 11.25	<b>73.7</b> 2.90	<b>35.1</b> 1.38	<b>20</b> ¾	<b>88.9</b> 3.50	<b>15.2</b> 0.60	<b>103.9</b> 4.09	<b>10.0</b> 22
QVVPXT14V207S	2 7/16 in.														
QVVPXT14V208S	2 ½ in.														
QVVPXT14V065S	<b>65 mm</b>	22216	<b>88.9</b> 3.50	<b>173.7</b> 6.84	<b>106.4</b> 4.19	<b>230.1</b> 9.06	<b>265.2</b> 10.44	<b>330.2</b> 13.00	<b>75.7</b> 2.98	<b>35.1</b> 1.38	<b>24</b> 7/8	<b>90.9</b> 3.58	<b>15.2</b> 0.60	<b>106.2</b> 4.18	<b>12.7</b> 28
QVVPXT16V211S	2 11/16 in.														
QVVPXT16V212S	2 ¾ in.														
QVVPXT16V070S	<b>70 mm</b>														
QVVPXT16V215S	2 15/16 in.														
QVVPXT16V300S	3 in.														
QVVPXT16V075S	<b>75 mm</b>														

<sup>(1)</sup>Double-nut (QVV) part number shown. Single-nut (QV) version available upon request.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## V-LOCK SERIES • QVVPG SN-STYLE FOUR-BOLT PILLOW BLOCKS – TAPERED BORE EQUIVALENT

### QVVPG SN-STYLE FOUR-BOLT PILLOW BLOCKS – TAPERED BORE EQUIVALENT



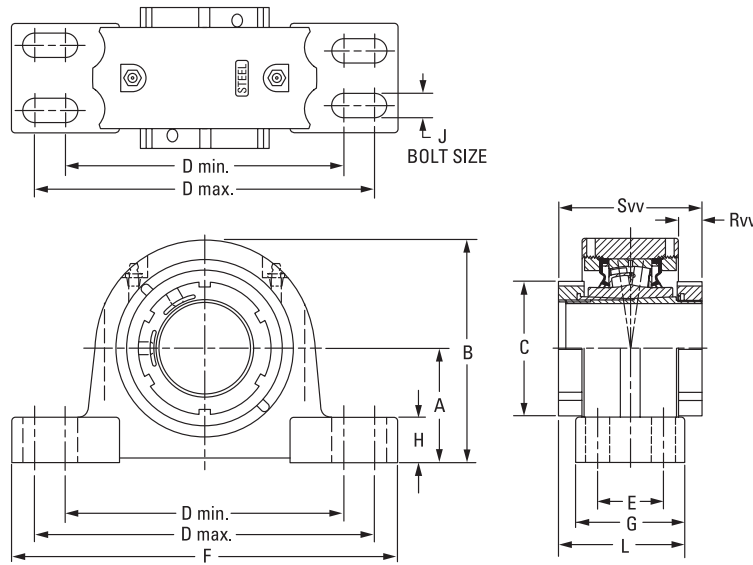
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	L	Rvv	Svv	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
QVVPG11V115S	1 15/16 in.	22211	69.9	134.9	75.9	182.4	217.4	39.9	251.0	68.6	31.8	16	85.3	20.8	102.1	8.6	
QVVPG11V200S	2 in.		2.75	5.31	2.99	7.18	8.56	1.57	9.88	2.70	1.25	5/8	3.36	0.82	4.02	19	
QVVPG11V050S	50 mm																
QVVPG12V055S	55 mm	22212	70.0	140.5	80.0	177.8	219.2	35.1	254.0	69.9	31.8	12	86.1	20.8	102.1	9.9	
			2.756	5.53	3.15	7.00	8.63	1.38	10.00	2.75	1.25	1/2	3.39	0.82	4.02	22	
QVVPG13V203S	2 3/16 in.	22213	80.0	154.9	80.3	182.4	217.4	48.0	261.9	82.6	35.1	16	92.5	17.0	102.1	11.3	
QVVPG13V204S	2 1/4 in.		3.15	6.10	3.16	7.18	8.56	1.89	10.31	3.25	1.38	5/8	3.64	0.67	4.02	25	
QVVPG14V060S	60 mm	22214	80.0	154.9	94.0	182.4	217.4	48.0	261.9	82.6	35.1	16	93.2	86.1	103.9	11.3	
			3.15	6.10	3.70	7.18	8.56	1.89	10.31	3.25	1.38	5/8	3.67	3.39	4.09	25	
QVVPG15V207S	2 7/16 in.	22215	80.0	162.1	94.0	201.7	246.1	39.6	276.4	79.5	30.2	16	91.7	15.7	103.9	13.2	
QVVPG15V208S	2 1/2 in.		3.15	6.38	3.70	7.94	9.69	1.56	10.88	3.13	1.19	5/8	3.61	0.62	4.09	29	
QVVPG15V065S	65 mm																
QVVPG16V211S	2 11/16 in.	22216	95.0	180.3	105.9	235.0	266.7	50.0	315.0	89.9	31.8	16	98.0	16.8	105.9	14.9	
QVVPG16V212S	2 3/4 in.		3.74	7.10	4.17	9.25	10.50	1.97	12.4	3.54	1.25	5/8	3.86	0.66	4.17	33	
QVVPG16V070S	70 mm																
QVVPG17V215S	2 15/16 in.	22217	95.0	182.9	106.4	240.0	287.3	52.3	320.8	92.2	31.8	20	99.3	15.0	106.2	16.8	
QVVPG17V300S	3 in.		3.74	7.20	4.19	9.44	11.31	2.06	12.63	3.63	1.25	3/4	3.91	0.59	4.18	37	
QVVPG17V075S	75 mm																
QVVPG19V303S	3 3/16 in.	22219	100.0	195.3	124.0	282.7	298.5	50.0	344.9	100.1	39.6	16	109.2	19.3	118.1	24.5	
QVVPG19V304S	3 1/4 in.		3.937	7.69	4.88	11.13	11.75	1.97	13.58	3.94	1.56	5/8	4.30	0.76	4.65	54	
QVVPG19V080S	80 mm																
QVVPG19V085S	85 mm	22219	112.0	212.3	124.0	282.7	298.5	50.0	344.9	100.1	39.6	16	109.2	17.8	118.1	25.4	
			4.409	8.36	4.88	11.13	11.75	1.97	13.58	3.94	1.56	5/8	4.30	0.70	4.65	56	
QVVPG20V307S	3 7/16 in.	22220	112.0	214.6	124.5	276.4	339.9	60.5	381.0	109.5	39.6	20	113.5	11.2	117.6	31.8	
QVVPG20V308S	3 1/2 in.		4.409	8.45	4.90	10.88	13.38	2.38	15.00	4.31	1.56	3/4	4.47	0.44	4.63	70	
QVVPG20V090S	90 mm																
QVVPG22V311S	3 11/16 in.	22222	125.0	238.3	139.7	301.8	368.3	69.9	409.7	120.7	44.5	20	125.5	14.5	130.3	39.5	
QVVPG22V312S	3 3/4 in.		4.921	9.38	5.50	11.88	14.50	2.75	16.13	4.75	1.75	3/4	4.94	0.57	5.13	87	
QVVPG22V100S	100 mm																
QVVPG22V315S	3 15/16 in.																
QVVPG22V400S	4 in.																
QVVPG24V110S	110 mm	22224	140.0	262.9	174.8	342.9	355.6	70.1	410.0	120.7	50.8	16	149.6	40.4	178.3	49.9	
			5.512	10.35	6.88	13.50	14.00	2.76	16.14	4.75	2.00	5/8	5.89	1.59	7.02	110	
QVVPG26V407S	4 7/16 in.	22226	150.0	281.7	174.8	367.3	400.1	81.0	444.5	128.0	49.3	24	153.2	36.6	178.3	61.7	
QVVPG26V408S	4 1/2 in.		5.906	11.09	6.88	14.46	15.75	3.19	17.50	5.04	1.94	1	6.03	1.44	7.02	136	
QVVPG26V115S	115 mm																
QVVPG28V125S	125 mm	22228	150.0	288.5	190.0	384.3	447.8	80.0	500.4	128.0	49.3	24	152.9	31.8	178.3	61.7	
QVVPG28V415S	4 15/16 in.		5.906	11.36	7.48	15.13	17.63	3.15	19.70	5.04	1.94	1	6.02	1.25	7.02	136	
QVVPG28V500S	5 in.																
QVVPG28V130S	130 mm																

<sup>(1)</sup>Double-nut (QVV) part number shown. Single-nut (QV) version available upon request.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVVPH SAF-STYLE FOUR-BOLT PILLOW BLOCKS – TAPERED BORE EQUIVALENT

## QVVPH SAF-STYLE FOUR-BOLT PILLOW BLOCKS – TAPERED BORE EQUIVALENT



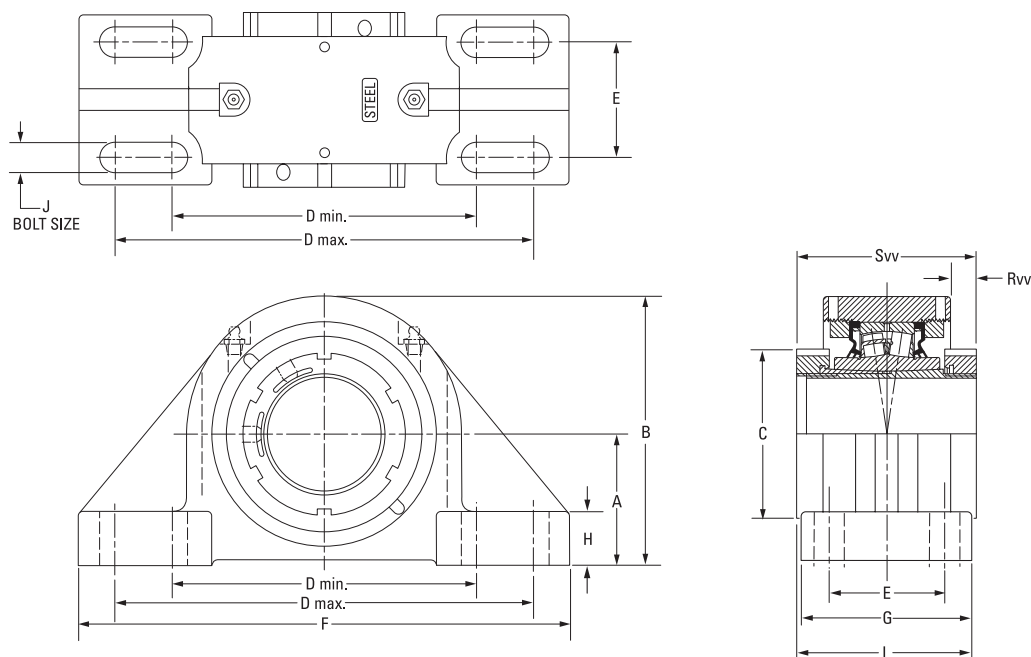
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	L	Rvv	Svv	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVVPH11V115S	1 15/16 in.	22211	69.9	134.9	75.9	182.4	217.4	39.9	251.0	68.6	31.8	16	85.3	20.8	102.1	8.6
QVVPH11V200S	2 in.		2.75	5.31	2.99	7.18	8.56	1.57	9.88	2.70	1.25	5/8	3.36	0.82	4.02	19
QVVPH11V050S	50 mm															
QVVPH13V203S	2 3/16 in.	22213	76.2	151.1	80.3	182.4	217.4	50.8	261.9	82.6	31.2	12	92.5	17.0	102.1	11.3
QVVPH13V204S	2 1/4 in.		3.00	5.95	3.16	7.18	8.56	2.00	10.31	3.25	1.23	1/2	3.64	0.67	4.02	25
QVVPH13V055S	55 mm															
QVVPH15V060S	60 mm	22215	82.6	162.1	94.0	201.7	246.1	47.8	276.4	79.5	32.8	12	91.7	18.0	103.9	13.2
QVVPH15V207S	2 7/16 in.		3.25	6.38	3.70	7.94	9.69	1.88	10.88	3.13	1.29	1/2	3.61	0.71	4.09	29
QVVPH15V208S	2 1/2 in.															
QVVPH15V065S	65 mm	22217	95.3	182.9	106.4	240.0	287.3	54.1	320.8	92.2	32.0	16	99.3	15.0	106.2	16.8
QVVPH17V211S	2 11/16 in.		3.75	7.20	4.19	9.44	11.31	2.13	12.63	3.63	1.26	5/8	3.91	0.59	4.18	37
QVVPH17V212S	2 3/4 in.															
QVVPH17V070S	70 mm	22220	114.3	216.9	124.5	276.4	339.9	60.5	381.0	109.5	41.9	20	113.5	11.2	117.6	31.8
QVVPH17V215S	2 15/16 in.		4.50	8.54	4.90	10.88	13.38	2.38	15.00	4.31	1.65	3/4	4.47	0.44	4.63	70
QVVPH17V300S	3 in.															
QVVPH17V075S	75 mm	22222	125.5	238.3	139.7	301.8	368.3	69.9	406.4	120.7	45.0	20	125.5	14.5	130.3	39.5
QVVPH20V303S	3 3/16 in.		4.94	9.38	5.50	11.88	14.50	2.75	16.00	4.75	1.77	3/4	4.94	0.57	5.13	87
QVVPH20V304S	3 1/4 in.															
QVVPH20V080S	80 mm	22226	152.4	284.0	174.8	362.0	400.1	82.6	444.5	128.0	51.8	20	153.2	36.6	178.3	61.7
QVVPH20V085S	85 mm		4.50	9.38	5.50	11.88	14.50	2.75	16.00	4.75	1.77	3/4	4.94	0.57	5.13	87
QVVPH20V307S	3 7/16 in.															
QVVPH20V308S	3 1/2 in.	22228	152.4	290.8	190.0	406.4	435.1	85.9	500.4	128.0	51.8	24	152.9	31.8	178.3	61.7
QVVPH20V090S	90 mm		6.00	11.18	6.88	14.25	15.75	3.25	17.50	5.04	2.04	3/4	6.03	1.44	7.02	136
QVVPH22V311S	3 11/16 in.															
QVVPH22V312S	3 3/4 in.	22228	152.4	290.8	190.0	406.4	435.1	85.9	500.4	128.0	51.8	24	152.9	31.8	178.3	61.7
QVVPH22V100S	100 mm		6.00	11.45	7.48	16.00	17.13	3.38	19.70	5.04	2.04	1	6.02	1.25	7.02	136
QVVPH22V315S	3 15/16 in.															
QVVPH22V400S	4 in.															
QVVPH26V110S	110 mm	22226	152.4	284.0	174.8	362.0	400.1	82.6	444.5	128.0	51.8	20	153.2	36.6	178.3	61.7
QVVPH26V407S	4 7/16 in.		6.00	11.18	6.88	14.25	15.75	3.25	17.50	5.04	2.04	3/4	6.03	1.44	7.02	136
QVVPH26V408S	4 1/2 in.															
QVVPH26V115S	115 mm	22228	152.4	290.8	190.0	406.4	435.1	85.9	500.4	128.0	51.8	24	152.9	31.8	178.3	61.7
QVVPH28V125S	125 mm		6.00	11.45	7.48	16.00	17.13	3.38	19.70	5.04	2.04	1	6.02	1.25	7.02	136
QVVPH28V415S	4 15/16 in.															
QVVPH28V500S	5 in.															
QVVPH28V130S	130 mm															

<sup>(1)</sup>Double-nut (QVV) part number shown. Single-nut (QV) version available upon request.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## V-LOCK SERIES • QVVPK 9000 SERIES FOUR-BOLT PILLOW BLOCKS – TAPERED BORE EQUIVALENT

### QVVPK 9000 SERIES FOUR-BOLT PILLOW BLOCKS – TAPERED BORE EQUIVALENT



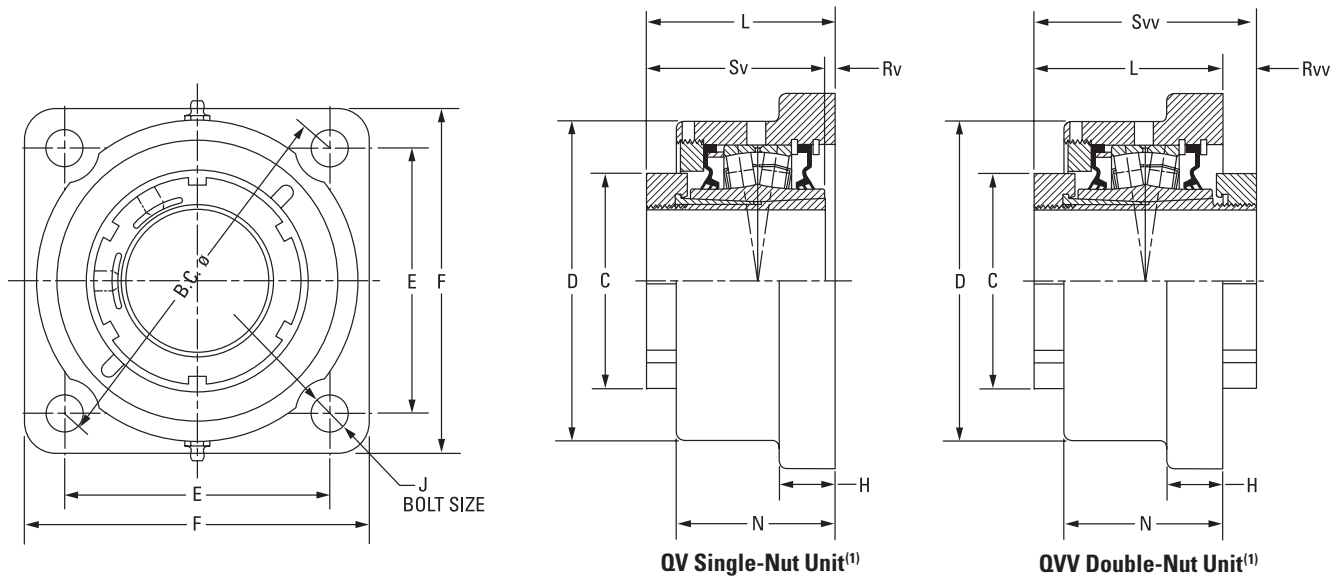
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	L	Rvv	Svv	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVVPK15V060S	<b>60 mm</b>	22215	<b>88.9</b> 3.50	<b>176.0</b> 6.83	<b>94.0</b> 3.70	<b>230.1</b> 9.06	<b>265.2</b> 10.44	<b>69.9</b> 2.75	<b>330.2</b> 13.00	<b>108.0</b> 4.25	<b>39.1</b> 1.54	<b>20</b> ¾	<b>105.9</b> 4.17	<b>12.6</b> 0.51	<b>103.9</b> 4.09	<b>13.2</b> 29
QVVPK15V207S	2 7/16 in.															
QVVPK15V208S	2 1/2 in.															
QVVPK15V065S	<b>65 mm</b>	22217	<b>101.6</b> 4.00	<b>201.2</b> 7.92	<b>106.4</b> 4.19	<b>274.6</b> 10.81	<b>309.6</b> 12.19	<b>76.2</b> 3.00	<b>381.0</b> 15.00	<b>120.7</b> 4.75	<b>38.1</b> 1.50	<b>20</b> ¾	<b>113.5</b> 4.47	<b>8.64</b> 0.34	<b>106.2</b> 4.18	<b>16.8</b> 37
QVVPK17V211S	2 11/16 in.															
QVVPK17V212S	2 ¾ in.															
QVVPK17V070S	<b>70 mm</b>	22220	<b>127.0</b> 5.00	<b>240.0</b> 9.44	<b>124.5</b> 4.90	<b>317.5</b> 12.50	<b>355.6</b> 14.00	<b>88.9</b> 3.50	<b>425.5</b> 16.75	<b>139.7</b> 5.50	<b>41.4</b> 1.63	<b>24</b> 7/8	<b>128.8</b> 5.07	<b>8.9</b> 0.35	<b>117.6</b> 4.63	<b>31.8</b> 70
QVVPK20V303S	3 3/16 in.															
QVVPK20V304S	3 1/4 in.															
QVVPK20V080S	<b>80 mm</b>	22222	<b>146.1</b> 5.75	<b>273.8</b> 10.78	<b>139.7</b> 5.50	<b>354.1</b> 13.94	<b>395.2</b> 15.56	<b>101.6</b> 4.00	<b>469.9</b> 18.50	<b>158.8</b> 6.25	<b>45.7</b> 1.80	<b>24</b> 1	<b>138.4</b> 5.45	<b>14.5</b> 0.57	<b>130.3</b> 5.13	<b>39.5</b> 87
QVVPK20V085S	3 7/16 in.															
QVVPK20V307S	3 1/2 in.															
QVVPK20V308S	<b>90 mm</b>	22226	<b>155.7</b> 6.13	<b>283.2</b> 11.15	<b>174.8</b> 6.88	<b>387.4</b> 15.25	<b>425.5</b> 16.75	<b>108.0</b> 4.25	<b>514.4</b> 20.25	<b>171.5</b> 6.75	<b>50.8</b> 2.00	<b>24</b> 1	<b>175.3</b> 6.90	<b>31.5</b> 1.24	<b>178.3</b> 7.02	<b>61.7</b> 136
QVVPK20V090S	3 11/16 in.															
QVVPK22V311S	3 3/4 in.															
QVVPK22V312S	<b>100 mm</b>															
QVVPK22V100S	4 in.															
QVVPK22V315S	3 15/16 in.															
QVVPK22V400S	<b>110 mm</b>															
QVVPK26V110S	4 7/16 in.															
QVVPK26V407S	4 1/2 in.															
QVVPK26V408S	<b>115 mm</b>															
QVVPK26V115S																

<sup>(1)</sup>Double-nut (QVV) part number shown. Single-nut (QV) version available upon request.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVF AND QVVF SQUARE FLANGE BLOCKS – STRAIGHT BORE EQUIVALENT

## QVF AND QVVF SQUARE FLANGE BLOCKS – STRAIGHT BORE EQUIVALENT



Bearing Part No. <sup>(1)(2)</sup>	Shaft Dia.	Bearing No.	C	D	E	B.C.	F	H	J	L FIX	L EXP	N	Rv <sup>(1)</sup>	Rvv	Sv <sup>(1)</sup>	Svv	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVF11V115S	1 15/16 in.	22211	75.9	120.7	111.3	157.0	139.7	22.4	12	84.1	86.1	65.0	4.1	18.3	79.8	102.1	5.0
QVF11V200S	2 in.		2.99	4.75	4.38	6.18	5.50	0.88	1/2	3.31	3.39	2.56	0.16	0.72	3.14	4.02	11
QVF11V050S	50 mm																
QVF12V203S	2 3/16 in.	22212	80.3	130.3	124.0	175.0	157.2	25.4	16	84.3	86.4	66.8	4.6	17.8	79.8	102.1	6.4
QVF12V204S	2 1/4 in.		3.16	5.13	4.88	6.89	6.19	1.00	5/8	3.32	3.40	2.63	0.18	0.70	3.14	4.02	14
QVF12V055S	55 mm																
QVF14V060S	60 mm	22214	94.0	146.1	136.7	193.0	168.4	25.4	16	85.1	87.1	72.4	4.1	16.0	81.0	101.3	7.7
QVF14V207S	2 7/16 in.		3.70	5.75	5.38	7.60	6.63	1.00	5/8	3.35	3.43	2.85	0.16	0.63	3.19	3.99	17
QVF14V208S	2 1/2 in.																
QVF14V065S	65 mm																
QVF16V211S	2 11/16 in.	22216	106.4	168.9	152.4	215.4	189.0	26.9	20	87.6	89.7	75.7	4.1	16.3	83.6	103.6	10.4
QVF16V212S	2 3/4 in.		4.19	6.65	6.00	8.48	7.44	1.06	3/4	3.45	3.53	2.98	0.16	0.64	3.29	4.08	23
QVF16V070S	70 mm																
QVF16V215S	2 15/16 in.																
QVF16V300S	3 in.																
QVF16V075S	75 mm																
QVF19V303S	3 3/16 in.	22219	124.5	193.8	177.8	251.7	219.2	33.3	20	98.3	100.3	84.1	4.6	15.7	93.7	114.0	15.9
QVF19V304S	3 1/4 in.		4.90	7.63	7.00	9.91	8.63	1.31	3/4	3.87	3.95	3.31	0.18	0.62	3.69	4.49	35
QVF19V080S	80 mm																
QVF19V085S	85 mm																
QVF19V307S	3 7/16 in.																
QVF19V308S	3 1/2 in.																
QVF19V090S	90 mm																
QVF22V311S	3 11/16 in.	22222	139.7	224.0	196.9	278.4	253.2	38.1	24	114.0	116.1	103.1	9.1	12.7	104.9	126.7	24.9
QVF22V312S	3 3/4 in.		5.50	8.82	7.75	10.96	9.97	1.50	7/8	4.49	4.57	4.06	0.36	0.50	4.13	4.99	55
QVF22V100S	100 mm																
QVF22V315S	3 15/16 in.																
QVF22V400S	4 in.																
QVF26V110S	110 mm	22226	174.8	256.8	222.3	314.5	276.4	38.1	24	140.5	142.7	106.9	7.4	37.8	147.8	178.3	28.6
QVF26V407S	4 7/16 in.		6.88	10.11	8.75	12.38	10.88	1.50	7/8	5.53	5.62	4.21	0.29	1.49	5.82	7.02	63
QVF26V408S	4 1/2 in.																
QVF26V115S	115 mm																

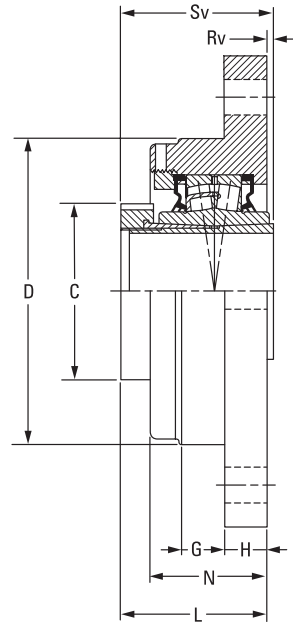
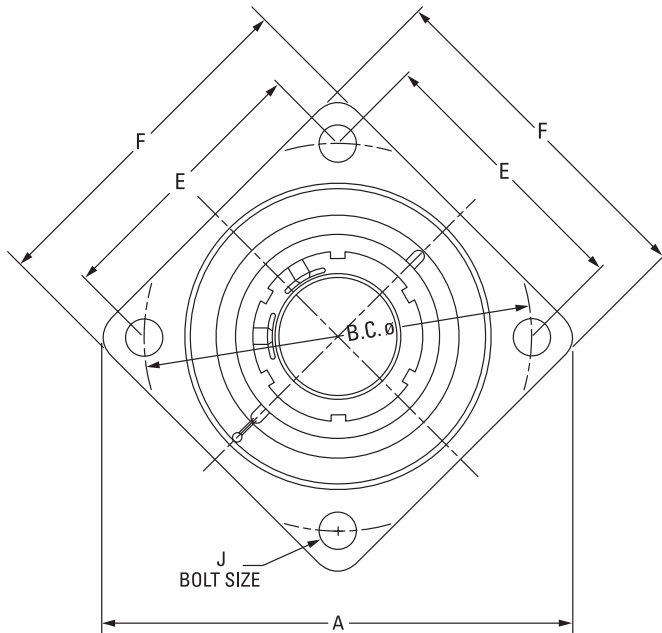
<sup>(1)</sup>Bearing part numbers use QV to designate single-nut units (uses Rv and Sv dimensions) and QVV to designate double-nut units (uses Rvv and Svv dimensions).

<sup>(2)</sup>Single-nut (QV) part number shown. Double-nut (QVV) version available upon request.

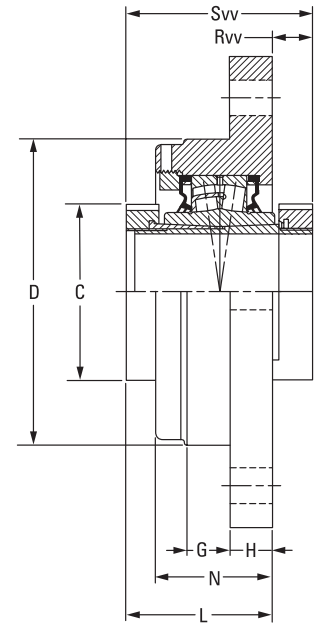
# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVFB AND QVFB FLANGE BLOCKS – TAPERED ADAPTER EQUIVALENT

## QVFB AND QVFB FLANGE BLOCKS – TAPERED ADAPTER EQUIVALENT



QV Single-Nut Unit<sup>(1)</sup>



QVV Double-Nut Unit<sup>(1)</sup>

Bearing Part No. <sup>(1)(2)</sup>	Shaft Dia.	Bearing No.	A	B.C.	C	D	E	F	G	H	J	L	N	Rv <sup>(1)</sup>	Rvv	Sv <sup>(1)</sup>	Svv	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVFB15V060S	60 mm	22215	255.0 10.04	215.1 8.47	94.0 3.70	169.9 6.69	152.4 6.00	192.0 7.56	25.4 1.00	23.9 0.94	16 5/8	81.5 3.21	64.8 2.55	0.8 0.03	22.4 0.88	82.6 3.25	103.9 4.09	11.3 25
QVFB15V207S	2 7/16 in.																	
QVFB15V208S	2 1/2 in.																	
QVFB15V065S	65 mm	22217	282.4 11.12	240.0 9.45	106.4 4.19	190.0 7.48	169.7 6.68	212.1 8.35	25.4 1.00	25.4 1.00	16 5/8	83.8 3.30	69.9 2.75	1.0 0.04	22.4 0.88	84.6 3.33	106.2 4.18	13.6 30
QVFB17V211S	2 11/16 in.																	
QVFB17V212S	2 3/4 in.																	
QVFB17V070S	70 mm	22220	330.2 13.00	279.9 11.02	124.5 4.90	230.1 9.06	197.9 7.79	247.9 9.76	31.8 1.25	28.7 1.13	20 3/4	106.7 4.20	94.2 3.71	11.4 0.45	10.9 0.43	95.3 3.75	117.3 4.62	18.1 40
QVFB20V303S	3 3/16 in.																	
QVFB20V304S	3 1/4 in.																	
QVFB20V080S	80 mm	22222	367.0 14.45	309.9 12.20	139.7 5.50	255.0 10.04	219.2 8.63	274.3 10.80	44.5 1.75	26.4 1.04	20 3/4	112.0 4.41	101.1 3.98	7.4 0.29	14.7 0.58	104.9 4.13	126.7 4.99	27.2 60
QVFB20V085S	85 mm																	
QVFB20V307S	3 7/16 in.																	
QVFB20V308S	3 1/2 in.	22226	416.1 16.38	355.1 13.98	174.8 6.88	290.1 11.42	251.0 9.88	298.5 11.75	41.9 1.65	32.0 1.26	24 7/8	148.3 5.84	114.3 4.50	0.5 0.02	30.0 1.18	147.8 5.82	178.3 7.02	42.6 94
QVFB20V090S	90 mm																	
QVFB22V311S	3 11/16 in.																	
QVFB22V312S	3 3/4 in.																	
QVFB22V100S	100 mm																	
QVFB22V315S	3 15/16 in.																	
QVFB22V400S	4 in.																	
QVFB26V110S	110 mm																	
QVFB26V407S	4 7/16 in.																	
QVFB26V408S	4 1/2 in.																	
QVFB26V115S	115 mm																	

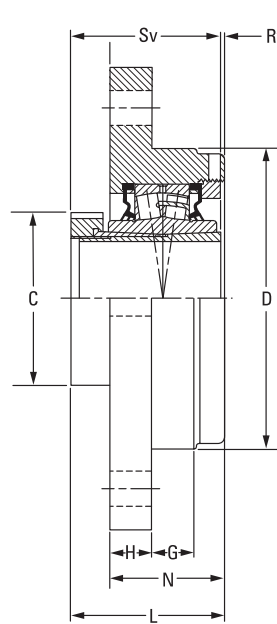
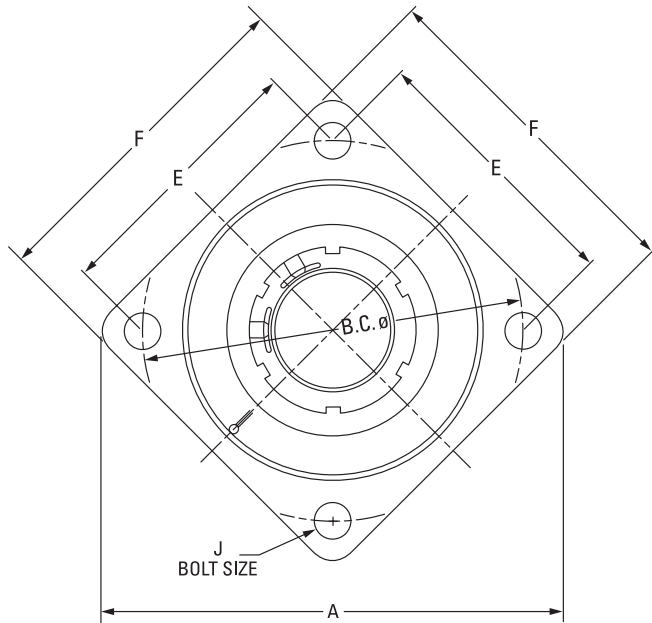
<sup>(1)</sup>Bearing part numbers use QV to designate single-nut units (uses Rv and Sv dimensions) and QVV to designate double-nut units (uses Rvv and Sv dimensions).

<sup>(2)</sup>Single-nut (QV) part number shown. Double-nut (QVV) version available upon request.

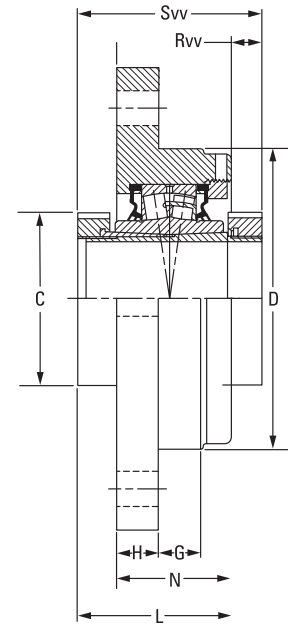
# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVFC AND QVVFC PILOTED FLANGE CARTRIDGES – TAPERED ADAPTER EQUIVALENT

## QVFC AND QVVFC PILOTED FLANGE CARTRIDGES – TAPERED ADAPTER EQUIVALENT



QV Single-Nut Unit<sup>(1)</sup>



QVV Double-Nut Unit<sup>(1)</sup>

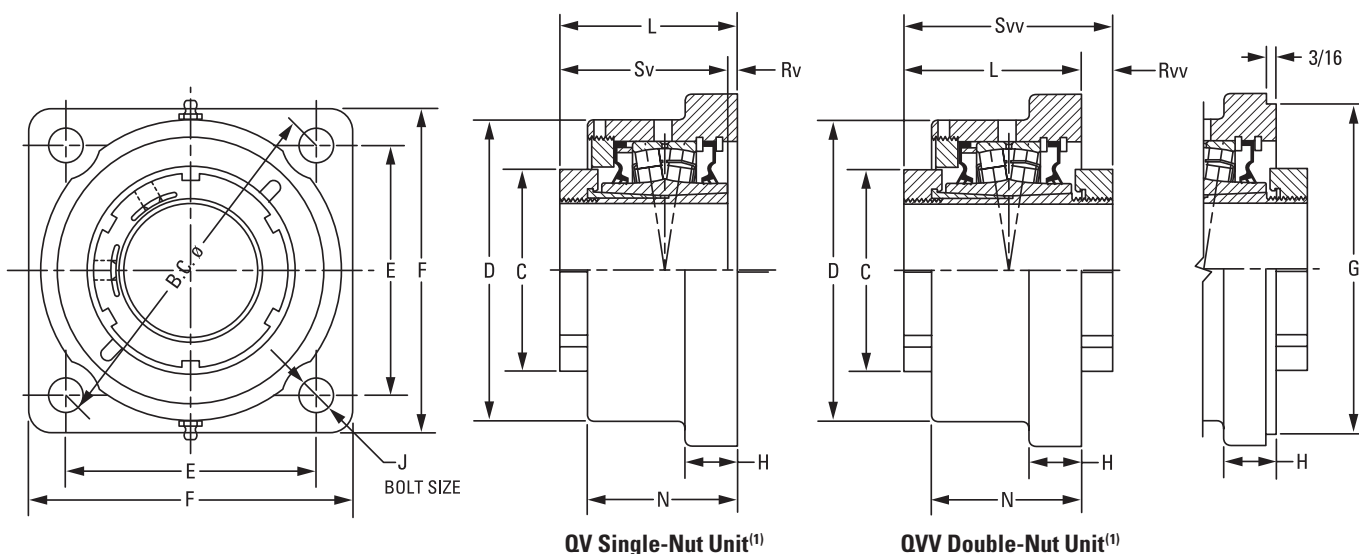
Bearing Part No. <sup>(1)(2)</sup>	Shaft Dia.	Bearing No.	A	B.C.	C	D <sup>(3)</sup>	E	F	G	H	J	L	N	Rv <sup>(1)</sup>	Rvv	Sv <sup>(1)</sup>	Svv	Wt.	
			mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
QVFC15V060S	60 mm	22215	255.0 10.04	215.1 8.47	94.0 3.70	169.9 6.690	152.4 6.00	192.0 7.56	25.4 1.00	23.9 0.94	16 5/8	87.1 3.43	64.8 2.55	4.6 0.18	16.8 0.66	82.6 3.25	103.9 4.09	11.3 25	
QVFC15V207S	2 7/16 in.																		
QVFC15V208S	2 1/2 in.																		
QVFC15V065S	65 mm	22217	282.4 11.12	240.0 9.45	106.4 4.19	190.0 7.480	169.7 6.68	212.1 8.35	25.4 1.00	25.4 1.00	16 5/8	91.7 3.61	69.9 2.75	6.6 0.26	14.5 0.57	84.6 3.33	106.2 4.18	13.6 30	
QVFC17V211S	2 11/16 in.																		
QVFC17V212S	2 3/4 in.																		
QVFC17V070S	70 mm	22220	330.2 13.00	279.9 11.02	124.5 4.90	230.1 9.060	197.9 7.79	247.9 9.76	31.8 1.25	28.7 1.13	20 3/4	105.2 4.14	94.2 3.71	9.7 0.38	12.4 0.49	95.3 3.75	117.3 4.62	18.1 40	
QVFC20V303S	3 3/16 in.																		
QVFC20V304S	3 1/4 in.																		
QVFC20V080S	80 mm	22222	367.0 14.45	309.9 12.20	139.7 5.50	255.0 10.040	219.2 8.63	274.3 10.80	44.5 1.75	26.4 1.04	20 3/4	112.8 4.44	101.1 3.98	8.1 0.32	5.8 0.23	104.9 4.13	126.7 4.99	27.2 60	
QVFC20V085S	85 mm																		
QVFC20V307S	3 7/16 in.																		
QVFC20V308S	3 1/2 in.	22226	416.1 16.38	355.1 13.98	174.8 6.88	290.0 11.417	251.0 9.88	298.5 11.75	41.9 1.65	32.0 1.26	24 7/8	144.3 5.68	114.3 4.50	3.6 0.14	34.0 1.34	147.8 5.82	178.3 7.02	42.6 94	
QVFC20V090S	90 mm																		
QVFC22V311S	3 11/16 in.																		
QVFC22V312S	3 3/4 in.																		
QVFC22V100S	100 mm																		
QVFC22V315S	3 15/16 in.																		
QVFC22V400S	4 in.																		
QVFC26V110S	110 mm																		
QVFC26V407S	4 7/16 in.																		
QVFC26V408S	4 1/2 in.																		
QVFC26V115S	115 mm																		

<sup>(1)</sup>Bearing part numbers use QV to designate single-nut units (uses Rv and Sv dimensions) and QVV to designate double-nut units (uses Rvv and Svv dimensions).

<sup>(2)</sup>Single-nut (QV) part number shown. Double-nut (QVV) version available upon request.

<sup>(3)</sup>Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

QVFL AND QVVFL SQUARE FLANGE BLOCKS – STRAIGHT BORE EQUIVALENT



Bearing Part No. <sup>(1)(2)</sup>	Shaft Dia.	Bearing No.	C	D	E	B.C.	F	G <sup>(3)(4)(5)</sup>	H	J	L <sub>FIX</sub>	L <sub>EXP</sub>	N	Rv <sup>(1)</sup>	Rvv	Sv <sup>(1)</sup>	Svv	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVFL11V115S	1 15/16 in.	22211	75.9	115.3	103.4	146.1	131.8	N/A	23.1	12	82.6	84.6	61.2	2.5	19.8	79.8	102.1	5.0
QVFL11V200S	2 in.		2.99	4.54	4.07	5.75	5.19		0.91	1/2	3.25	3.33	2.41	0.10	0.78	3.14	4.02	11
QVFL11V050S	50 mm																	
QVFL12V203S	2 3/16 in.	22212	80.3	130.3	114.6	162.1	149.4	N/A	19.1	16	84.3	86.4	66.8	4.6	17.8	79.8	102.1	6.4
QVFL12V204S	2 1/4 in.		3.16	5.13	4.51	6.38	5.88		0.75	5/8	3.32	3.40	2.63	0.18	0.70	3.14	4.02	14
QVFL12V055S	55 mm																	
QVFL14V060S	60 mm	22214	94.0	146.1	121.2	171.5	157.2	N/A	25.4	16	86.1	88.1	72.6	5.1	15.2	81.0	101.3	7.7
QVFL14V207S	2 7/16 in.		3.70	5.75	4.77	6.75	6.19		1.00	5/8	3.39	3.47	2.86	0.20	0.60	3.19	3.99	17
QVFL14V208S	2 1/2 in.																	
QVFL14V065S	65 mm	22216	106.4	168.4	141.2	200.2	182.6	N/A	26.9	20	86.9	88.9	74.4	3.3	17.0	83.6	103.6	10.4
QVFL16V211S	2 11/16 in.		4.19	6.63	5.56	7.88	7.19		1.06	3/4	3.42	3.50	2.93	0.13	0.67	3.29	4.08	23
QVFL16V212S	2 3/4 in.																	
QVFL16V070S	70 mm	22219	124.5	193.8	170.7	241.3	212.9	187.33	32.5	20	97.3	99.3	86.4	3.6	17.0	93.7	114.0	15.9
QVFL16V215S	2 15/16 in.		4.90	7.63	6.72	9.50	8.38	7.375	1.28	3/4	3.83	3.91	3.40	0.14	0.67	3.69	4.49	35
QVFL16V300S	3 in.																	
QVFL16V075S	75 mm	22222	139.7	229.6	193.0	273.1	241.3	215.90	38.1	24	116.8	118.9	104.6	11.9	9.9	104.9	126.7	24.9
QVFL19V303S	3 3/16 in.		4.90	7.63	6.72	9.50	8.38	7.375	1.28	3/4	3.83	3.91	3.40	0.14	0.67	3.69	4.49	35
QVFL19V304S	3 1/4 in.																	
QVFL19V080S	80 mm	22219	124.5	193.8	170.7	241.3	212.9	187.33	32.5	20	97.3	99.3	86.4	3.6	17.0	93.7	114.0	15.9
QVFL19V085S	85 mm		4.90	7.63	6.72	9.50	8.38	7.375	1.28	3/4	3.83	3.91	3.40	0.14	0.67	3.69	4.49	35
QVFL19V307S	3 7/16 in.																	
QVFL19V308S	3 1/2 in.	22222	139.7	229.6	193.0	273.1	241.3	215.90	38.1	24	116.8	118.9	104.6	11.9	9.9	104.9	126.7	24.9
QVFL19V090S	90 mm		4.90	7.63	6.72	9.50	8.38	7.375	1.28	3/4	3.83	3.91	3.40	0.14	0.67	3.69	4.49	35
QVFL22V311S	3 11/16 in.																	
QVFL22V312S	3 3/4 in.	22222	139.7	229.6	193.0	273.1	241.3	215.90	38.1	24	116.8	118.9	104.6	11.9	9.9	104.9	126.7	24.9
QVFL22V100S	100 mm		5.50	9.04	7.60	10.75	9.50	8.500	1.50	1	4.60	4.68	4.12	0.47	0.39	4.13	4.99	55
QVFL22V315S	3 15/16 in.																	
QVFL22V400S	4 in.																	

<sup>(1)</sup> Bearing part numbers use QV to designate single-nut units (uses Rv and Sv dimensions) and QVV to designate double-nut units (uses Rvv and Svv dimensions).

<sup>(2)</sup> Single-nut (QV) part number shown. Double-nut (QVV) version available upon request.

<sup>(3)</sup> Pilot tolerance: +0/-0.08 mm (+0/-0.003 in.).

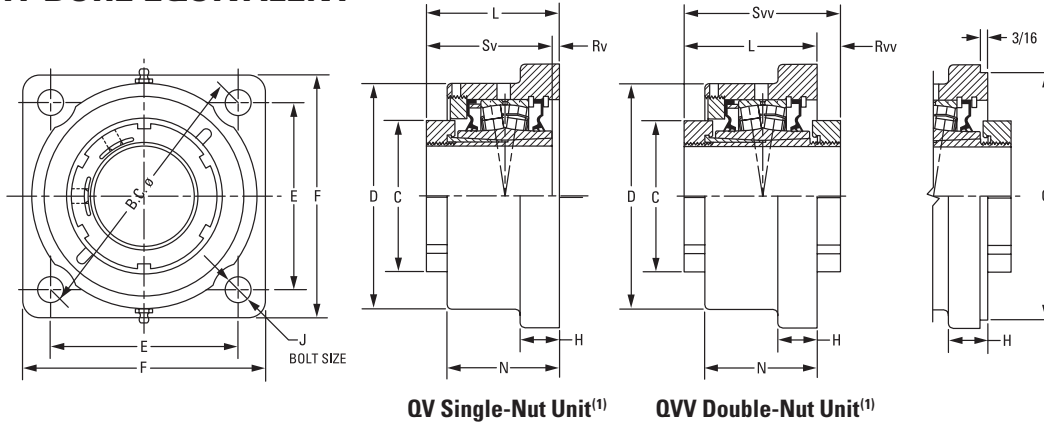
<sup>(4)</sup> Add (p) to the end of the housing designation in the part number to order with pilot using G dimension.

<sup>(5)</sup> Piloted flange blocks will be quoted (price and delivery) upon request. For optional spigot on flange side, insert the letter P as seen in the following example: QMFP\*\*J\*\*\*S.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVFX AND QVVFX 5000 SERIES SQUARE FLANGE BLOCKS – STRAIGHT BORE EQUIVALENT

## QVFX AND QVVFX 5000 SERIES SQUARE FLANGE BLOCKS – STRAIGHT BORE EQUIVALENT



QV Single-Nut Unit<sup>(1)</sup>

QVV Double-Nut Unit<sup>(1)</sup>

Bearing Part No. <sup>(1)(2)</sup>	Shaft Dia.	Bearing No.	C	D	E	B.C.	F	G <sup>(3)(4)(5)</sup>	H	J	L FIX	L EXP	N	Rv <sup>(1)</sup>	Rvv	Sv <sup>(1)</sup>	Svv	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVFX11V115S	1 15/16 in.	22211	75.9	120.7	103.6	146.1	134.9	111.13	22.4	12	84.1	86.1	65.0	4.1	18.3	79.8	102.1	5.0
QVFX11V200S	2 in.		2.99	4.75	4.08	5.75	5.31	4.375	0.88	1/2	3.31	3.39	2.56	0.16	0.72	3.14	4.02	11
QVFX11V050S	50 mm																	
QVFX12V203S	2 3/16 in.	22212	80.3	130.3	114.3	161.5	149.4	127.00	25.4	16	84.3	86.4	66.8	4.6	17.5	79.8	102.1	6.4
QVFX12V204S	2 1/4 in.		3.16	5.13	4.50	6.36	5.88	5.000	1.00	5/8	3.32	3.40	2.63	0.18	0.69	3.14	4.02	14
QVFX12V055S	55 mm																	
QVFX14V060S	60 mm	22214	94.0	146.1	127.8	180.8	157.2	138.13	25.4	16	85.1	87.4	72.4	4.1	16.0	81.0	101.3	7.7
QVFX14V207S	2 7/16 in.		3.70	5.75	5.03	7.12	6.19	5.438	1.00	5/8	3.35	3.44	2.85	0.16	0.63	3.19	3.99	17
QVFX14V208S	2 1/2 in.																	
QVFX14V065S	65 mm	22216	106.4	168.9	152.7	215.9	189.0	160.35	26.9	20	87.6	89.7	76.2	4.1	16.3	83.6	103.6	10.4
QVFX16V211S	2 11/16 in.		4.19	6.65	6.01	8.50	7.44	6.313	1.06	3/4	3.45	3.53	3.00	0.16	0.64	3.29	4.08	23
QVFX16V212S	2 3/4 in.																	
QVFX16V070S	70 mm	22219	124.5	193.8	170.7	241.3	212.6	187.33	33.3	20	98.3	100.6	84.1	4.8	15.7	93.7	114.0	15.9
QVFX16V215S	2 15/16 in.		4.90	7.63	6.72	9.50	8.37	7.375	1.31	3/4	3.87	3.96	3.31	0.19	0.62	3.69	4.49	35
QVFX16V300S	3 in.																	
QVFX16V075S	75 mm	22222	139.7	215.9	211.1	298.5	268.2	225.43	38.1	24	114.0	116.3	100.6	9.4	12.7	104.9	126.7	24.9
QVFX19V303S	3 3/16 in.		5.50	8.50	8.31	11.75	10.56	8.875	1.50	1	4.49	4.58	3.96	0.37	0.50	4.13	4.99	55
QVFX19V304S	3 1/4 in.																	
QVFX19V080S	80 mm	22226	174.8	256.5	163.6	327.2	384.3	263.53	38.1	24	140.5	142.7	106.9	7.4	37.8	147.8	178.3	49.0
QVFX19V085S	85 mm		6.88	10.10	6.44 <sup>(6)</sup>	12.88 <sup>(6)</sup>	15.13	10.375	1.50	1 <sup>(6)</sup>	5.53	5.62	4.21	0.29	1.49	5.82	7.02	108
QVFX19V307S	3 7/16 in.																	
QVFX19V308S	3 1/2 in.	22228	189.7	284.2	177.8	355.6	419.1	284.18	38.1	24	166.1	168.1	138.4	18.3	12.2	147.8	178.3	52.2
QVFX19V090S	90 mm		7.47	11.19	7.00 <sup>(6)</sup>	14.00 <sup>(6)</sup>	16.50	11.188	1.50	1 1/8 <sup>(6)</sup>	6.54	6.62	5.45	0.72	0.48	5.82	7.02	115
QVFX22V311S	3 11/16 in.																	
QVFX22V312S	3 3/4 in.																	
QVFX22V100S	100 mm																	
QVFX22V315S	3 15/16 in.																	
QVFX22V400S	4 in.																	
QVFX26V110S <sup>(6)</sup>	110 mm																	
QVFX26V407S <sup>(6)</sup>	4 7/16 in.																	
QVFX26V408S <sup>(6)</sup>	4 1/2 in.																	
QVFX26V115S <sup>(6)</sup>	115 mm																	
QVFX28V125S <sup>(6)</sup>	125 mm																	
QVFX28V415S <sup>(6)</sup>	4 15/16 in.																	
QVFX28V500S <sup>(6)</sup>	5 in.																	
QVFX28V130S <sup>(6)</sup>	130 mm																	

<sup>(1)</sup> Bearing part numbers use QV to designate single-nut units (uses Rv and Sv dimensions) and QVV to designate double-nut units (uses Rvv and Sv dimensions).

<sup>(2)</sup> Single-nut (QV) part number shown. Double-nut (QVV) version available upon request.

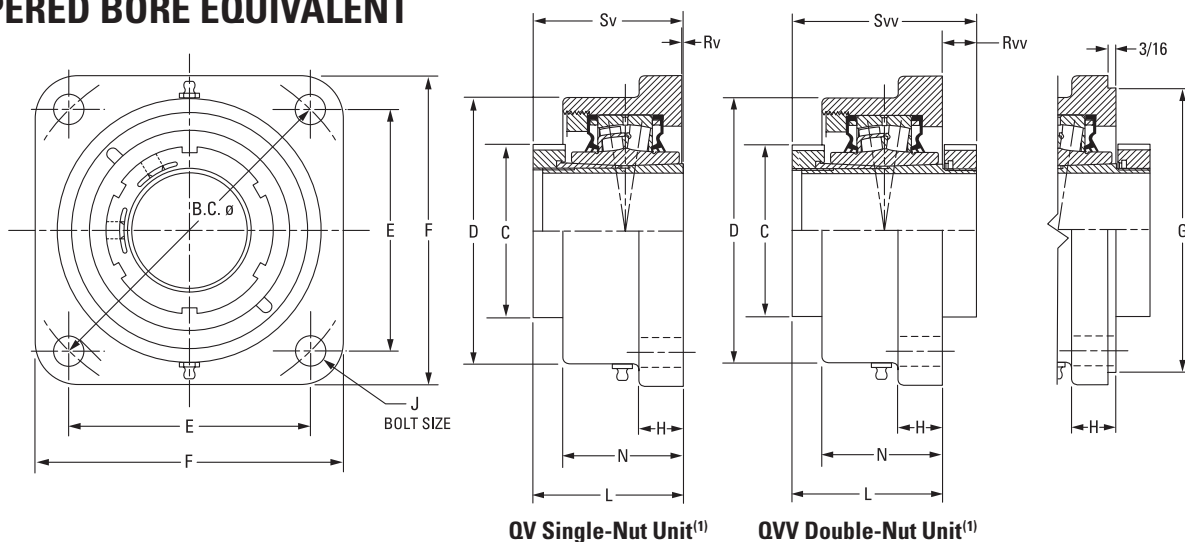
<sup>(3)</sup> Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

<sup>(4)</sup> Add (p) to the end of the housing designation in the part number to order with pilot using G dimension.

<sup>(5)</sup> Piloted flange blocks will be quoted (price and delivery) upon request. For optional spigot on flange side, insert the letter P as seen in the following example: QMFP\*\*J\*\*\*S.

<sup>(6)</sup> Six-bolt round housing.

**QVFK AND QVVFK 9000 SERIES SQUARE FLANGE BLOCKS – TAPERED BORE EQUIVALENT**



Bearing Part No. <sup>(1)(2)</sup>	Shaft Dia.	Bearing No.	C	D	E	B.C.	F	G <sup>(3)(4)(5)</sup>	H	J	L <sub>FIX</sub>	L <sub>EXP</sub>	N	Rv <sup>(1)</sup>	Rvv	Sv <sup>(1)</sup>	Svv	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVFK11V115S	1 15/16 in.	22211	75.9	130.3	114.3	161.5	149.4	127.00	25.4	16	87.1	88.4	66.8	7.4	15.0	79.8	102.1	5.0
QVFK11V200S	2 in.		2.99	5.13	4.50	6.36	5.88	5.000	1.00	5/8	3.43	3.48	2.63	0.29	0.59	3.14	4.02	11
QVFK11V050S	50 mm																	
QVFK13V203S	2 3/16 in.	22213	80.3	146.1	127.8	180.8	157.2	138.13	25.4	16	92.2	94.2	72.4	6.9	15.5	85.3	107.7	6.4
QVFK13V204S	2 1/4 in.		3.16	5.75	5.03	7.12	6.19	5.438	1.00	5/8	3.63	3.71	2.85	0.27	0.61	3.36	4.24	14
QVFK13V055S	55 mm																	
QVFK15V060S	60 mm	22215	94.0	168.9	152.7	215.9	189.0	160.35	26.9	20	92.5	94.5	76.2	9.9	11.4	82.6	103.9	7.7
QVFK15V207S	2 7/16 in.		3.70	6.65	6.01	8.50	7.44	6.313	1.06	3/4	3.64	3.72	3.00	0.39	0.45	3.25	4.09	17
QVFK15V208S	2 1/2 in.																	
QVFK15V065S	65 mm	22217	106.4	193.8	170.7	241.3	212.9	187.33	33.3	20	92.5	101.1	84.1	14.5	7.1	84.6	106.2	10.4
QVFK17V211S	2 11/16 in.		4.19	7.63	6.72	9.50	8.38	7.375	1.31	3/4	3.64	3.98	3.31	0.57	0.28	3.33	4.18	23
QVFK17V212S	2 3/4 in.																	
QVFK17V070S	70 mm	22220	124.5	215.9	211.1	298.5	268.2	225.43	38.1	24	113.3	115.3	103.1	18.0	4.1	95.3	117.3	15.9
QVFK17V215S	2 15/16 in.		4.90	8.50	8.31	11.75	10.56	8.875	1.50	7/8	4.46	4.54	4.06	0.71	0.16	3.75	4.62	35
QVFK17V300S	3 in.																	
QVFK17V075S	75 mm	22222	139.7	256.5	168.7	327.2	384.3	263.53	31.8	24	117.3	119.4	106.9	12.4	9.7	104.9	126.7	24.9
QVFK20V303S	3 3/16 in.		5.50	10.10	6.64 <sup>(6)</sup>	12.88 <sup>(6)</sup>	15.13	10.375	1.25	1 <sup>(6)</sup>	4.62	4.70	4.21	0.49	0.38	4.13	4.99	55
QVFK20V304S	3 1/4 in.																	
QVFK20V080S	80 mm	22226	174.8	284.2	177.8	355.6	419.1	124.18	38.1	28.6	164.6	166.6	135.1	11.7	13.7	147.8	178.3	49.0
QVFK20V085S	85 mm		4.90	8.50	8.31	11.75	10.56	8.875	1.50	7/8	4.46	4.54	4.06	0.71	0.16	3.75	4.62	35
QVFK20V307S	3 7/16 in.																	
QVFK20V308S	3 1/2 in.	22226	174.8	284.2	177.8	355.6	419.1	124.18	38.1	28.6	164.6	166.6	135.1	11.7	13.7	147.8	178.3	49.0
QVFK20V090S	90 mm		6.88	11.19	7.00 <sup>(6)</sup>	14.00 <sup>(6)</sup>	16.50	4.89	1.50	1 1/8 <sup>(6)</sup>	6.48	6.56	5.32	0.46	0.54	5.82	7.02	108
QVFK22V311S <sup>(6)</sup>	3 11/16 in.																	
QVFK22V312S <sup>(6)</sup>	3 3/4 in.																	
QVFK22V100S <sup>(6)</sup>	100 mm																	
QVFK22V315S <sup>(6)</sup>	3 15/16 in.																	
QVFK22V400S <sup>(6)</sup>	4 in.																	
QVFK26V110S <sup>(6)</sup>	110 mm																	
QVFK26V407S <sup>(6)</sup>	4 7/16 in.																	
QVFK26V408S <sup>(6)</sup>	4 1/2 in.																	
QVFK26V115S <sup>(6)</sup>	115 mm																	

<sup>(1)</sup> Bearing part numbers use QV to designate single-nut units (uses Rv and Sv dimensions) and QVV to designate double-nut units (uses Rvv and Svv dimensions).

<sup>(2)</sup> Single-nut (QV) part number shown. Double-nut (QVV) version available upon request.

<sup>(3)</sup> Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

<sup>(4)</sup> Add (p) to the end of the housing designation in the part number to order with pilot using G dimension.

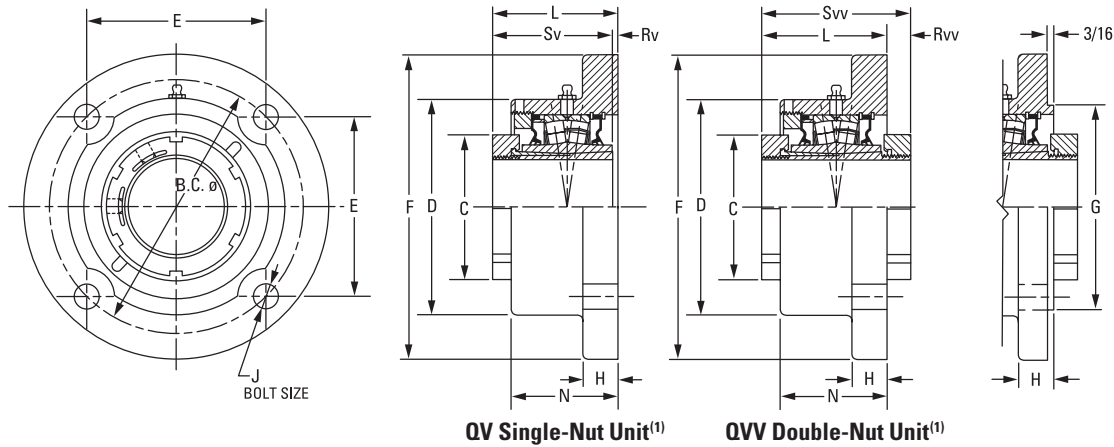
<sup>(5)</sup> Piloted flange blocks will be quoted (price and delivery) upon request. For optional spigot on flange side, insert the letter P as seen in the following example: QMFP\*\*J\*\*\*S.

<sup>(6)</sup> Six-bolt round housing.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVfy AND QVfy ROUND FLANGE BLOCKS – STRAIGHT BORE EQUIVALENT

## QVfy AND QVfy ROUND FLANGE BLOCKS – STRAIGHT BORE EQUIVALENT



QV Single-Nut Unit<sup>(1)</sup>

QV Double-Nut Unit<sup>(1)</sup>

Bearing Part No. <sup>(1)(2)</sup>	Shaft Dia.	Bearing No.	C	D	E	B.C.	F	G <sup>(3)(4)(5)</sup>	H	J	L <sub>FIX</sub>	L <sub>EXP</sub>	N	Rv <sup>(1)</sup>	Rvv	Sv <sup>(1)</sup>	Svv	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVfy11V115S	1 15/16 in.	22211	75.9	115.3	103.4	146.1	177.8	111.13	19.1	12	78.5	80.5	58.4	1.5	23.9	79.8	102.1	5.4	
QVfy11V200S	2 in.		2.99	4.54	4.07	5.75	7.00	4.375	0.75	1/2	3.09	3.17	2.30	0.06	0.94	3.14	4.02	12	
QVfy11V050S	50 mm																		
QVfy12V203S	2 3/4 in.	22212	80.3	130.3	114.6	162.1	196.9	127.00	19.1	16	80.0	82.0	62.0	0.3	22.1	79.8	102.1	6.8	
QVfy12V204S	2 1/4 in.		3.16	5.13	4.51	6.38	7.75	5.000	0.75	5/8	3.15	3.23	2.44	0.01	0.87	3.14	4.02	15	
QVfy12V055S	55 mm																		
QVfy14V060S	60 mm	22214	94.0	146.1	121.2	171.5	206.5	138.13	23.9	16	84.8	86.9	72.4	3.8	16.5	81.0	101.3	8.6	
QVfy14V207S	2 7/16 in.		3.70	5.75	4.77	6.75	8.13	5.438	0.94	5/8	3.34	3.42	2.85	0.15	0.65	3.19	3.99	19	
QVfy14V208S	2 1/2 in.																		
QVfy14V065S	65 mm	22216	106.4	168.4	141.2	200.2	241.3	160.35	23.9	20	88.4	90.4	76.2	4.8	15.2	83.6	103.6	12.7	
QVfy16V211S	2 11/16 in.		4.19	6.63	5.56	7.88	9.50	6.313	0.94	3/4	3.48	3.56	3.00	0.19	0.60	3.29	4.08	28	
QVfy16V212S	2 3/4 in.																		
QVfy16V070S	70 mm	22219	124.5	193.8	170.7	241.3	282.7	187.33	28.7	24	98.3	116.1	85.3	4.8	15.7	93.7	114.0	19.1	
QVfy16V215S	2 15/16 in.		4.90	7.63	6.72	9.50	11.13	7.375	1.13	7/8	3.87	4.57	3.36	0.19	0.62	3.69	4.49	42	
QVfy16V300S	3 in.																		
QVfy16V075S	75 mm	22222	139.7	222.5	193.0	273.1	320.8	N/A	28.7	24	115.3	117.3	103.1	10.4	11.4	104.9	126.7	29.9	
QVfy19V303S	3 3/16 in.		5.50	8.76	7.60	10.75	12.63	N/A	1.13	1	4.54	4.62	4.06	0.41	0.45	4.13	4.99	66	
QVfy19V304S	3 1/4 in.																		
QVfy19V080S	80 mm	22226	174.8	230.1	163.6	327.2	384.3	N/A	38.1	24	140.5	142.7	106.9	7.4	37.8	147.8	178.3	49.0	
QVfy19V085S	85 mm		6.88	9.06	6.44 <sup>(6)</sup>	12.88 <sup>(6)</sup>	15.13	N/A	1.50	1 <sup>(6)</sup>	5.53	5.62	4.21	0.29	1.49	5.82	7.02	108	
QVfy19V307S	3 7/16 in.																		
QVfy19V308S	3 1/2 in.	22228	190.0	284.2	177.8	355.6	419.1	N/A	38.1	24	166.1	168.1	138.4	18.3	12.2	147.8	178.3	52.2	
QVfy19V090S	90 mm		7.48	11.19	7.00 <sup>(6)</sup>	14.00 <sup>(6)</sup>	16.50	N/A	1.50	1 1/8 <sup>(6)</sup>	6.54	6.62	5.45	0.72	0.48	5.82	7.02	115	
QVfy22V311S	3 11/16 in.																		
QVfy22V312S	3 3/4 in.																		
QVfy22V100S	100 mm																		
QVfy22V315S	3 15/16 in.																		
QVfy22V400S	4 in.																		
QVfy26V110S <sup>(6)</sup>	110 mm																		
QVfy26V407S <sup>(6)</sup>	4 7/16 in.																		
QVfy26V408S <sup>(6)</sup>	4 1/2 in.																		
QVfy26V115S <sup>(6)</sup>	115 mm																		
QVfy28V125S <sup>(6)</sup>	125 mm																		
QVfy28V415S <sup>(6)</sup>	4 15/16 in.																		
QVfy28V500S <sup>(6)</sup>	5 in.																		
QVfy28V130S <sup>(6)</sup>	130 mm																		

<sup>(1)</sup> Bearing part numbers use QV to designate single-nut units (uses Rv and Sv dimensions) and QVV to designate double-nut units (uses Rvv and Sv dimensions).

<sup>(2)</sup> Single-nut (QV) part number shown. Double-nut (QVV) version available upon request.

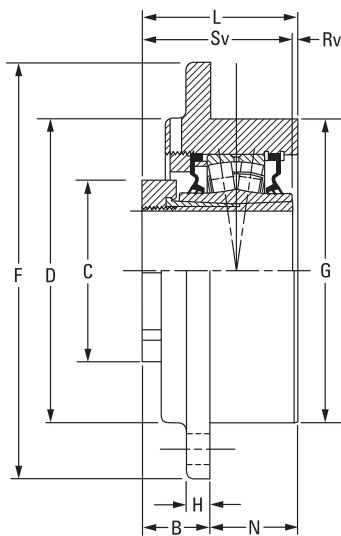
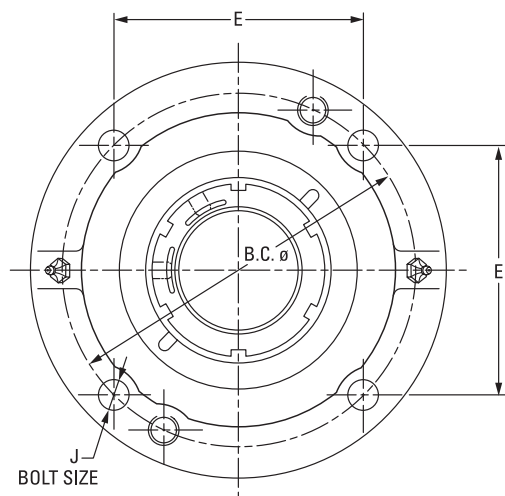
<sup>(3)</sup> Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

<sup>(4)</sup> Add (p) to the end of the housing designation in the part number to order with pilot using G dimension.

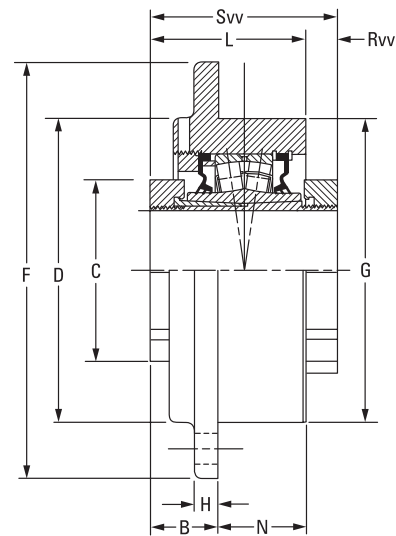
<sup>(5)</sup> Piloted flange blocks will be quoted (price and delivery) upon request. For optional spigot on flange side, insert the letter P as seen in the following example: QMFP\*\*J\*\*\*S.

<sup>(6)</sup> Six-bolt round housing.

### QVC AND QVVC PILOTED FLANGE CARTRIDGES – STRAIGHT BORE EQUIVALENT



QV Single-Nut Unit<sup>(1)</sup>



QVV Double-Nut Unit<sup>(1)</sup>

Bearing Part No. <sup>(1)(2)</sup>	Shaft Dia.	Bearing No.	B <sub>FIX</sub>	B <sub>EXP</sub>	C	D	B.C.	E	F	G <sup>(3)</sup>	H	J	L	N	Rv <sup>(1)</sup>	Rvv	Sv <sup>(1)</sup>	Svv	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVC11V115S	1 15/16 in.	22211	53.8	55.9	75.9	113.5	136.7	96.5	162.1	114.3	16.0	10	80.8	26.9	0.8	21.6	79.8	102.1	4.5	
QVC11V200S	2 in.		2.12	2.20	2.99	4.47	5.38	3.80	6.38	4.500	0.63	7/16	3.18	1.06	0.03	0.85	3.14	4.02	10	
QVC11V050S	50 mm																			
QVC12V203S	2 3/16 in.	22212	51.3	53.3	80.3	127.0	152.4	107.7	185.4	127.0	14.7	12	80.0	28.7	0.3	22.1	79.8	102.1	5.9	
QVC12V204S	2 1/4 in.		2.02	2.10	3.16	5.00	6.00	4.24	7.30	5.000	0.58	1/2	3.15	1.13	0.01	0.87	3.14	4.02	13	
QVC12V055S	55 mm																			
QVC14V060S	60 mm	22214	56.1	58.2	94.0	139.7	165.1	116.8	193.8	139.7	17.5	12	84.6	28.7	3.8	16.5	81.0	101.3	7.3	
QVC14V207S	2 7/16 in.		2.21	2.29	3.70	5.50	6.50	4.60	7.63	5.500	0.69	1/2	3.33	1.13	0.15	0.65	3.19	3.99	16	
QVC14V208S	2 1/2 in.																			
QVC14V065S	65 mm	22216	52.8	54.9	106.4	162.1	190.5	134.6	222.3	161.9	20.6	16	84.6	31.8	1.0	19.3	83.6	103.6	10.0	
QVC16V211S	2 11/16 in.		2.08	2.16	4.19	6.38	7.50	5.30	8.75	6.375	0.81	5/8	3.33	1.25	0.04	0.76	3.29	4.08	22	
QVC16V212S	2 3/4 in.																			
QVC16V070S	70 mm	22219	62.5	64.5	124.5	185.2	219.2	154.9	262.6	187.3	25.4	20	95.8	33.3	2.0	18.5	93.7	114.0	14.5	
QVC16V215S	2 15/16 in.		2.46	2.54	4.90	7.29	8.63	6.10	10.34	7.375	1.00	3/4	3.77	1.31	0.08	0.73	3.69	4.49	32	
QVC16V300S	3 in.																			
QVC16V075S	75 mm	22222	60.2	62.2	139.7	222.5	238.3	168.4	276.4	206.4	25.4	20	115.3	54.1	10.4	11.7	104.9	126.7	19.5	
QVC19V303S	3 3/16 in.		2.37	2.45	5.50	8.76	9.38	6.63	10.88	8.125	1.00	3/4	4.54	2.13	0.41	0.46	4.13	4.99	43	
QVC19V304S	3 1/4 in.																			
QVC19V080S	80 mm	22226	86.4	88.4	174.8	260.4	298.5	149.4	342.9	260.4	25.4	20	134.6	48.3	13.2	43.7	147.8	178.3	32.7	
QVC19V085S	85 mm		3.40	3.48	6.88	10.25	11.75 <sup>(4)</sup>	5.88 <sup>(4)</sup>	13.50	10.250	1.00	3/4 <sup>(4)</sup>	5.30	1.90	0.52	1.72	5.82	7.02	72	
QVC19V307S	3 7/16 in.																			
QVC19V308S	3 1/2 in.																			
QVC19V090S	90 mm																			
QVC22V311S	3 11/16 in.																			
QVC22V312S	3 3/4 in.																			
QVC22V100S	100 mm																			
QVC22V315S	3 15/16 in.																			
QVC22V400S	4 in.																			
QVC26V110S <sup>(4)</sup>	110 mm																			
QVC26V407S <sup>(4)</sup>	4 7/16 in.																			
QVC26V408S <sup>(4)</sup>	4 1/2 in.																			
QVC26V115S <sup>(4)</sup>	115 mm																			

<sup>(1)</sup> Bearing part numbers use QV to designate single-nut units (uses Rv and Sv dimensions) and QVV to designate double-nut units (uses Rvv and Svv dimensions).

<sup>(2)</sup> Single-nut (QV) part number shown. Double-nut (QVV) version available upon request.

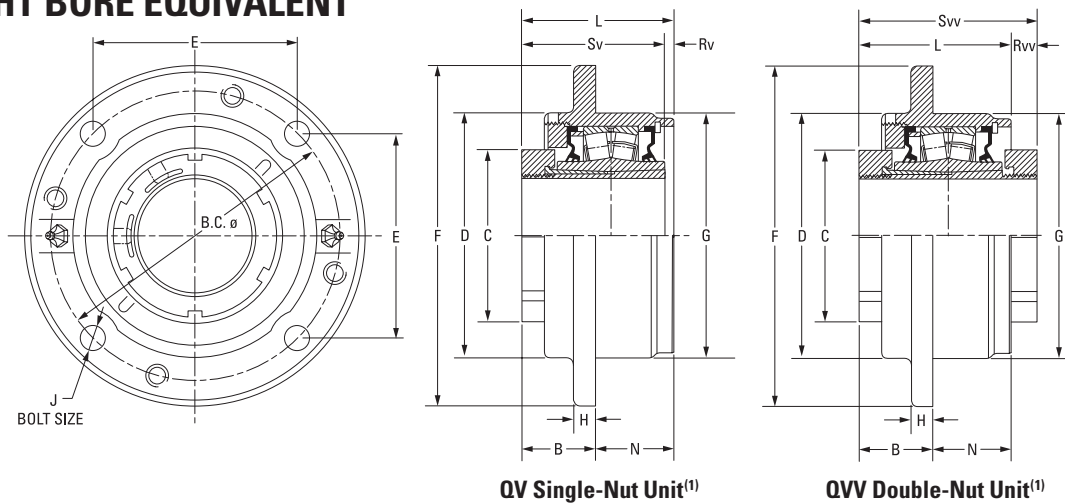
<sup>(3)</sup> Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

<sup>(4)</sup> Six-bolt round housing.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVCW AND QVVCW PILOTED FLANGE CARTRIDGES – STRAIGHT BORE EQUIVALENT

## QVCW AND QVVCW PILOTED FLANGE CARTRIDGES – STRAIGHT BORE EQUIVALENT



QV Single-Nut Unit<sup>(1)</sup>

QVV Double-Nut Unit<sup>(1)</sup>

Bearing Part No. <sup>(1)(2)</sup>	Shaft Dia.	Bearing No.	B <sub>FIX</sub>	B <sub>EXP</sub>	C	D	B.C.	E	F	G <sup>(3)</sup>	H	J	L	N	Rv <sup>(1)</sup>	Rvv	Sv <sup>(1)</sup>	Svv	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVCW11V115S	1 15/16 in.	22211	42.2	44.2	75.9	113.5	136.7	96.5	162.1	114.3	9.7	10	80.3	38.1	0.8	21.8	79.8	102.1	4.5	
QVCW11V200S	2 in.		1.66	1.74	2.99	4.47	5.38	3.80	6.38	4.500	0.38	7/16	3.16	1.50	0.03	0.86	3.14	4.02	10	
QVCW11V050S	50 mm																			
QVCW12V203S	2 3/16 in.	22212	43.2	45.5	80.3	127.0	152.4	107.7	181.1	127.0	14.2	12	84.6	41.4	4.8	17.5	79.8	102.1	5.9	
QVCW12V204S	2 1/4 in.		1.70	1.79	3.16	5.00	6.00	4.24	7.13	5.000	0.56	1/2	3.33	1.63	0.19	0.69	3.14	4.02	13	
QVCW12V055S	55 mm																			
QVCW14V060S	60 mm	22214	41.9	43.9	94.0	139.7	165.1	116.8	193.8	139.7	12.7	12	86.4	42.9	5.3	15.0	81.0	101.3	7.3	
QVCW14V207S	2 7/16 in.		1.65	1.73	3.70	5.50	6.50	4.60	7.63	5.500	0.50	1/2	3.40	1.69	0.21	0.59	3.19	3.99	16	
QVCW14V065S	65 mm																			
QVCW16V211S	2 11/16 in.	22216	37.6	39.6	106.4	162.1	190.5	134.6	222.3	161.9	12.7	16	85.1	47.8	1.8	18.5	83.6	103.6	10.0	
QVCW16V212S	2 3/4 in.		1.48	1.56	4.19	6.38	7.50	5.30	8.75	6.375	0.50	5/8	3.35	1.88	0.07	0.73	3.29	4.08	22	
QVCW16V070S	70 mm																			
QVCW16V215S	2 15/16 in.	22219	49.8	51.8	124.5	187.5	219.2	154.9	260.4	187.3	22.4	20	97.5	47.8	3.8	16.8	93.7	114.0	14.5	
QVCW16V300S	3 in.		1.96	2.04	4.90	7.38	8.63	6.10	10.25	7.375	0.88	3/4	3.84	1.88	0.15	0.66	3.69	4.49	32	
QVCW16V075S	75 mm																			
QVCW19V303S	3 3/16 in.	22222	51.6	53.6	139.7	222.5	238.3	168.4	276.4	206.4	25.4	20	109.7	57.2	4.8	17.3	104.9	126.7	19.5	
QVCW19V304S	3 1/4 in.		2.03	2.11	5.50	8.76	9.38	6.63	10.88	8.125	1.00	3/4	4.32	2.25	0.19	0.68	4.13	4.99	43	
QVCW19V080S	80 mm																			
QVCW19V085S	85 mm	22226	72.4	74.4	174.8	260.4	298.5	149.4	342.9	260.4	25.4	20	140.5	68.3	7.4	37.8	147.8	178.3	32.7	
QVCW19V307S	3 7/16 in.		2.85	2.93	6.88	10.25	11.75 <sup>(4)</sup>	5.88 <sup>(4)</sup>	13.50	10.250	1.00 <sup>(4)</sup>	3/4	5.53	2.69	0.29	1.49	5.82	7.02	72	
QVCW19V308S	3 1/2 in.																			
QVCW19V090S	90 mm	22228	66.5	68.6	190.0	266.7	323.9	162.1	374.7	279.4	26.2	24	144.5	78.0	3.3	33.8	147.8	178.3	46.3	
QVCW22V311S	3 11/16 in.		2.62	2.70	7.48	10.50	12.75 <sup>(4)</sup>	6.38 <sup>(4)</sup>	14.75	11.000	1.03 <sup>(4)</sup>	7/8	5.69	3.07	0.13	1.33	5.82	7.02	102	
QVCW22V312S	3 3/4 in.																			
QVCW22V100S	100 mm	22228	66.5	68.6	190.0	266.7	323.9	162.1	374.7	279.4	26.2	24	144.5	78.0	3.3	33.8	147.8	178.3	46.3	
QVCW22V315S	3 15/16 in.		2.62	2.70	7.48	10.50	12.75 <sup>(4)</sup>	6.38 <sup>(4)</sup>	14.75	11.000	1.03 <sup>(4)</sup>	7/8	5.69	3.07	0.13	1.33	5.82	7.02	102	
QVCW22V400S	4 in.																			
QVCW26V110S <sup>(4)</sup>	110 mm	22226	72.4	74.4	174.8	260.4	298.5	149.4	342.9	260.4	25.4	20	140.5	68.3	7.4	37.8	147.8	178.3	32.7	
QVCW26V407S <sup>(4)</sup>	4 7/16 in.		2.85	2.93	6.88	10.25	11.75 <sup>(4)</sup>	5.88 <sup>(4)</sup>	13.50	10.250	1.00 <sup>(4)</sup>	3/4	5.53	2.69	0.29	1.49	5.82	7.02	72	
QVCW26V408S <sup>(4)</sup>	4 1/2 in.																			
QVCW26V115S <sup>(4)</sup>	115 mm	22228	66.5	68.6	190.0	266.7	323.9	162.1	374.7	279.4	26.2	24	144.5	78.0	3.3	33.8	147.8	178.3	46.3	
QVCW28V125S <sup>(4)</sup>	125 mm		2.62	2.70	7.48	10.50	12.75 <sup>(4)</sup>	6.38 <sup>(4)</sup>	14.75	11.000	1.03 <sup>(4)</sup>	7/8	5.69	3.07	0.13	1.33	5.82	7.02	102	
QVCW28V415S <sup>(4)</sup>	4 15/16 in.																			
QVCW28V500S <sup>(4)</sup>	5 in.	22228	66.5	68.6	190.0	266.7	323.9	162.1	374.7	279.4	26.2	24	144.5	78.0	3.3	33.8	147.8	178.3	46.3	
QVCW28V130S <sup>(4)</sup>	130 mm		2.62	2.70	7.48	10.50	12.75 <sup>(4)</sup>	6.38 <sup>(4)</sup>	14.75	11.000	1.03 <sup>(4)</sup>	7/8	5.69	3.07	0.13	1.33	5.82	7.02	102	

<sup>(1)</sup>Bearing part numbers use QV to designate single-nut units (uses Rv and Sv dimensions) and QVV to designate double-nut units (uses Rvv and Sv dimensions).

<sup>(2)</sup>Single-nut (QV) part number shown. Double-nut (QVV) version available upon request.

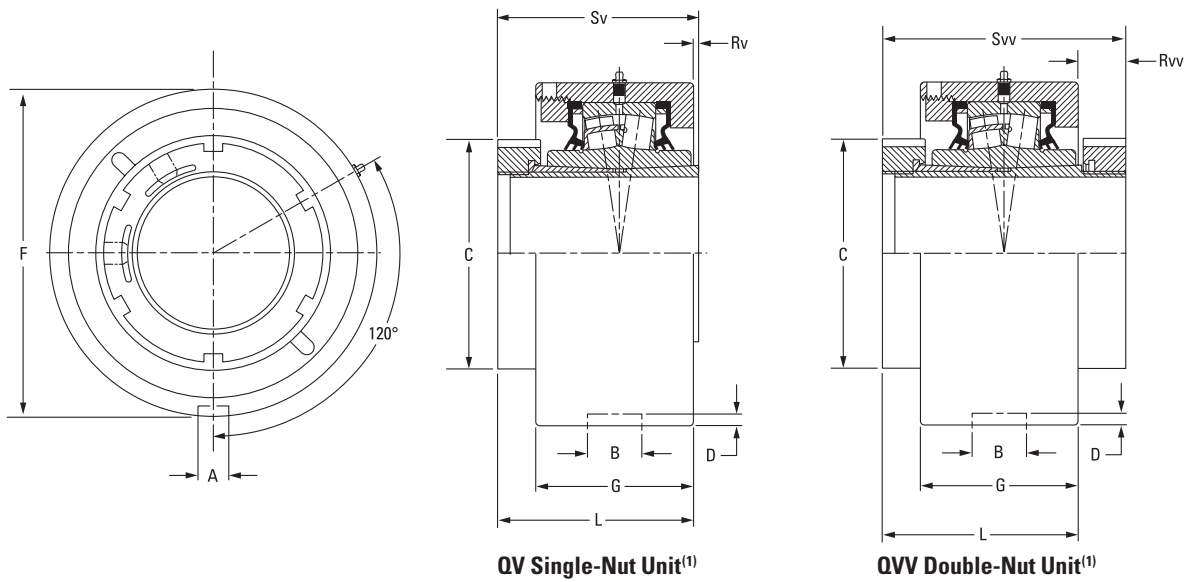
<sup>(3)</sup>Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

<sup>(4)</sup>Six-bolt round housing.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVMC AND QVVMC CARTRIDGE BLOCKS – TAPERED BORE EQUIVALENT

## QVMC AND QVVMC CARTRIDGE BLOCKS – TAPERED BORE EQUIVALENT



Bearing Part No. <sup>(1)(2)</sup>	Shaft Dia.	Bearing No.	A	B	C	D	F	G	L FIX	L EXP	Rv <sup>(1)</sup>	Rvv	Sv <sup>(1)</sup>	Svv	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QVMC11V115S	1 15/16 in.	22211	13.5 0.530	23.0 0.906	75.9 2.99	4.8 0.188	115.09	55.4 2.180	79.0 3.11	81.0 3.19	0.8 0.03	23.1 0.91	79.8 3.14	102.1 4.02	4.5 10
QVMC11V200S	2 in.						(+0/-0.05) 4.531								
QVMC11V050S	50 mm						(+0/-0.002)								
QVMC13V203S	2 3/16 in.	22213	13.5 0.530	23.0 0.906	80.3 3.16	4.8 0.188	127.00	67.1 2.640	85.9 3.38	87.9 3.46	0.5 0.02	21.8 0.86	85.3 3.36	107.7 4.24	5.4 12
QVMC13V204S	2 1/4 in.						(+0/-0.05) 5.000								
QVMC13V055S	55 mm						(+0/-0.002)								
QVMC15V060S	60 mm	22215	15.1 0.594	26.2 1.032	94.0 3.70	6.4 0.250	149.23	70.6 2.780	87.4 3.44	89.4 3.52	5.1 0.20	16.5 0.65	82.6 3.25	103.9 4.09	8.2 18
QVMC15V207S	2 7/16 in.						(+0/-0.05) 5.875								
QVMC15V208S	2 1/2 in.						(+0/-0.002)								
QVMC15V065S	65 mm	22217	15.1 0.594	27.5 1.083	106.4 4.19	7.1 0.281	171.45	74.9 2.950	91.2 3.59	93.2 3.67	6.4 0.25	15.0 0.59	84.6 3.33	106.2 4.18	11.8 26
QVMC17V211S	2 11/16 in.						(+0/-0.05) 6.75								
QVMC17V212S	2 3/4 in.						(+0/-0.002)								
QVMC17V070S	70 mm	22220	19.8 0.781	32.5 1.281	124.5 4.90	8.0 0.313	206.38	85.6 3.370	102.1 4.02	104.1 4.10	6.9 0.27	15.2 0.60	95.3 3.75	117.3 4.62	14.5 32
QVMC20V303S	3 3/16 in.						(+0/-0.05) 8.125								
QVMC20V304S	3 1/4 in.						(+0/-0.002)								
QVMC20V080S	80 mm	22222	19.8 0.781	32.5 1.281	139.7 5.50	8.0 0.313	222.25	97.8 3.850	113.0 4.45	115.1 4.53	8.1 0.32	14.0 0.55	104.9 4.13	126.7 4.99	18.1 40
QVMC20V085S	85 mm						(+0/-0.08) 8.75								
QVMC20V307S	3 7/16 in.						(+0/-0.003)								
QVMC20V308S	3 1/2 in.	22226	19.8 0.780	38.1 1.500	174.8 6.88	8.0 0.313	265.10	104.4 4.110	141.5 5.57	143.5 5.65	6.4 0.25	36.8 1.45	147.8 5.82	178.3 7.02	23.6 52
QVMC20V090S	90 mm						(+0/-0.08) 10.437								
QVMC22V311S	3 11/16 in.						(+0/-0.003)								
QVMC22V312S	3 3/4 in.	22226	19.8 0.780	38.1 1.500	174.8 6.88	8.0 0.313	265.10	104.4 4.110	141.5 5.57	143.5 5.65	6.4 0.25	36.8 1.45	147.8 5.82	178.3 7.02	23.6 52
QVMC22V100S	100 mm						(+0/-0.08) 10.437								
QVMC22V315S	3 15/16 in.						(+0/-0.003)								
QVMC22V400S	4 in.	22226	19.8 0.780	38.1 1.500	174.8 6.88	8.0 0.313	265.10	104.4 4.110	141.5 5.57	143.5 5.65	6.4 0.25	36.8 1.45	147.8 5.82	178.3 7.02	23.6 52
QVMC26V110S	110 mm						(+0/-0.08) 10.437								
QVMC26V407S	4 7/16 in.						(+0/-0.003)								
QVMC26V408S	4 1/2 in.	22226	19.8 0.780	38.1 1.500	174.8 6.88	8.0 0.313	265.10	104.4 4.110	141.5 5.57	143.5 5.65	6.4 0.25	36.8 1.45	147.8 5.82	178.3 7.02	23.6 52
QVMC26V115S	115 mm						(+0/-0.003)								

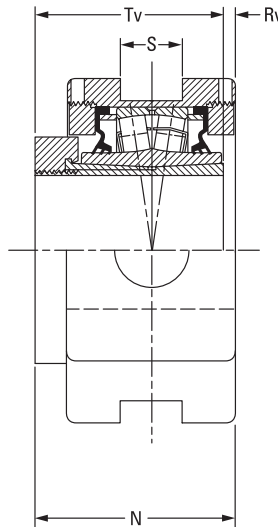
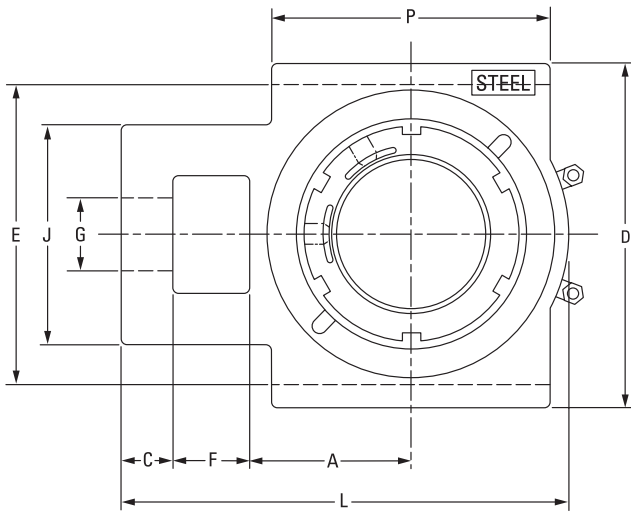
<sup>(1)</sup>Bearing part numbers use QV to designate single-nut units (uses Rv and Sv dimensions) and QVV to designate double-nut units (uses Rvv and Svv dimensions).

<sup>(2)</sup>Single-nut (QV) part number shown. Double-nut (QVV) version available upon request.

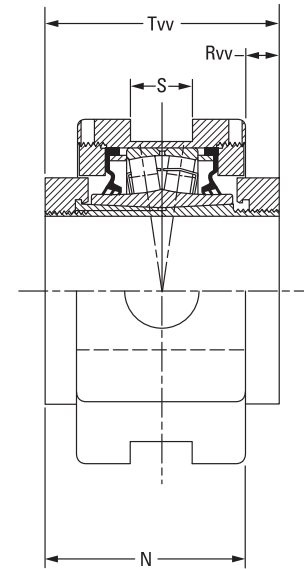
# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

V-LOCK SERIES • QVVTU TAKE-UP BLOCKS – STRAIGHT BORE EQUIVALENT

## QVVTU TAKE-UP BLOCKS – STRAIGHT BORE EQUIVALENT



QV Single-Nut Unit



QVV Double-Nut Unit

Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	C	D	E	F	G	J	L	N	P	S	Rv <sup>(1)</sup>	Rvv	Tv <sup>(1)</sup>	Tvv	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg in.	
QVVTU14V060S	60 mm	22214	69.9	22.4	149.4	130.3	33.3	33.3	95.3	193.8	88.4	120.7	26.9	3.3	15.5	85.1	103.9	7.7	
QVVTU14V207S	2 7/16 in.		2.75	0.88	5.88	5.13	1.31	1.31	3.75	7.63	3.48	4.75	1.06	0.13	0.61	3.35	4.09	17	
QVVTU14V208S	2 1/2 in.																		
QVVTU14V065S	65 mm																		
QVVTU16V211S	2 11/16 in.	22216	76.2	25.4	171.5	150.9	39.6	39.6	108.0	219.7	90.2	120.7	46.0	2.3	16.3	87.6	106.2	15.9	
QVVTU16V212S	2 3/4 in.		3.00	1.00	6.75	5.94	1.56	1.56	4.25	8.65	3.55	4.75	1.81	0.09	0.64	3.45	4.18	35	
QVVTU16V070S	70 mm																		
QVVTU16V215S	2 15/16 in.																		
QVVTU16V300S	3 in.																		
QVVTU16V075S	75 mm																		
QVVTU19V303S	3 3/16 in.	22219	92.2	25.4	193.8	173.0	46.0	47.8	124.0	257.0	99.6	158.8	46.0	0.5	18.0	99.1	117.6	20.0	
QVVTU19V304S	3 1/4 in.		3.63	1.00	7.63	6.81	1.81	1.88	4.88	10.12	3.92	6.25	1.81	0.02	0.71	3.90	4.63	44	
QVVTU19V080S	80 mm																		
QVVTU19V085S	85 mm																		
QVVTU19V307S	3 7/16 in.																		
QVVTU19V308S	3 1/2 in.																		
QVVTU19V090S	90 mm																		
QVVTU22V311S	3 11/16 in.	22222	104.9	28.7	239.8	219.2	54.1	52.3	143.0	296.9	111.3	177.8	52.3	1.5	18.8	110.0	130.3	26.3	
QVVTU22V312S	3 3/4 in.		4.13	1.13	9.44	8.63	2.13	2.06	5.63	11.69	4.38	7.00	2.06	0.06	0.74	4.33	5.13	58	
QVVTU22V100S	100 mm																		
QVVTU22V315S	3 15/16 in.																		
QVVTU22V400S	4 in.																		

<sup>(1)</sup>Double-nut (QVV) part number shown. Single-nut (QV) version available upon request.

## CL SERIES

Available in both single-collar (QA) and double-collar (QAA) versions, the CL bearing series features a concentric locking collar with two set screws at 60 degrees to provide maximum positive locking power with minimal run out.



Fig. C-43. CL series single-collar (QA) insert available up to 100 mm (4 in.).



Fig. C-44. CL series double-collar (QAA) insert for size ranges 50 mm – 130 mm (1 <sup>15</sup>/<sub>16</sub> in. – 5 in.).

## YOU HAVE CHOICES

For the CL series, you can select either single-collar or double-collar versions and choose from many seal configurations and housing styles, which are shown on page C-100.

### HOUSINGS

- Two-bolt pillow blocks.
- Four-bolt pillow blocks.
- Flange blocks.
- Piloted flange cartridges.
- Take-up blocks.
- Cartridge blocks.
- Hanger blocks.

### SEALS

- Labyrinth: DuPont Teflon (T).
- Triple-lip: nitrile rubber (M), urethane (O) and DuPont Viton (N).
- Double-lip: nitrile rubber (B) and DuPont Viton (C).
- Steel and urethane closed-end covers (CS).
- Steel and urethane open-end covers (CJ) with:
  - DuPont Teflon (T).
  - Triple-lip seal (DR).
  - V-ring seal (VR).
- Piloted flange cartridge backing plates (HSY) with:
  - Triple-lip seal (DR).
- Flange block backing plates (UFP).
  - V-ring (VR).

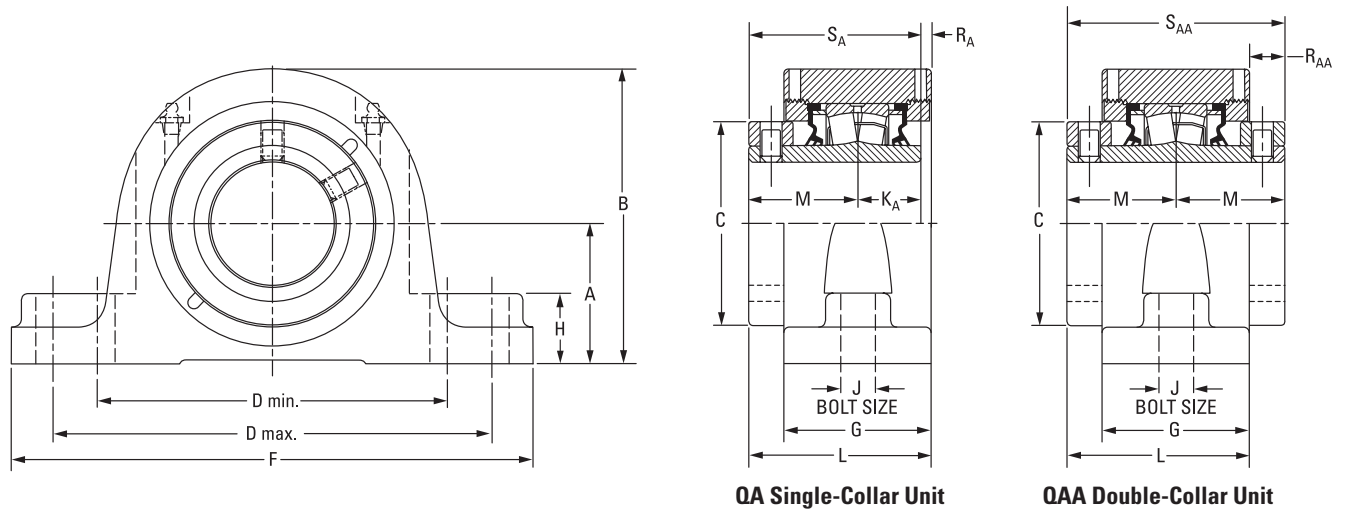
# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## CL SERIES

### CL SERIES

	Housing Type	Primary Seals						Secondary Seals and Covers							
		M	N	O	B	C	T	Open-End Cover			Closed-End Cover	HSY Flange Cartridge Backing Plate		UFP Backing Plate	
								DR	VR	T		DR			
V-Lock (Timken Exclusive Double Taper Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•			
	Flange Block	•	•	•	•	•	•	•	•	•	•	•			
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•			
	Take-Up Block	•	•	•	•	•	•	•	•	•	•	•			
	Cartridge Block	•	•	•	•	•	•	•	•	•	•	•			
CL Series (Set Screw Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•			
	Flange Block	•	•	•	•	•	•	•	•	•	•	•		•	
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•	•		
	Take-Up Block	•	•	•	•	•	•	•	•	•	•	•			
	Cartridge Block	•	•	•	•	•	•	•	•	•	•	•			
	Hangar Block	•	•	•	•	•	•	•	•	•	•	•			
EC Series (Eccentric Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•			
	Flange Block	•	•	•	•	•	•	•	•	•	•	•		•	
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•	•		
	Take-Up Block	•	•	•	•	•	•	•	•	•	•	•			
	Cartridge Block	•	•	•	•	•	•	•	•	•	•	•			
	Hangar Block	•	•	•	•	•	•	•	•	•	•	•			
TA Series (Tapered Adapter Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•			
	Flange Block	•	•	•	•	•	•	•	•	•	•	•			
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•			
	Cartridge Block	•	•	•	•	•	•	•	•	•	•	•			
DV Series (Tapered Adapter Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•			
	Flange Block	•	•	•	•	•	•	•	•	•	•	•			
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•			

QAP AND QAAP TWO-BOLT PILLOW BLOCKS



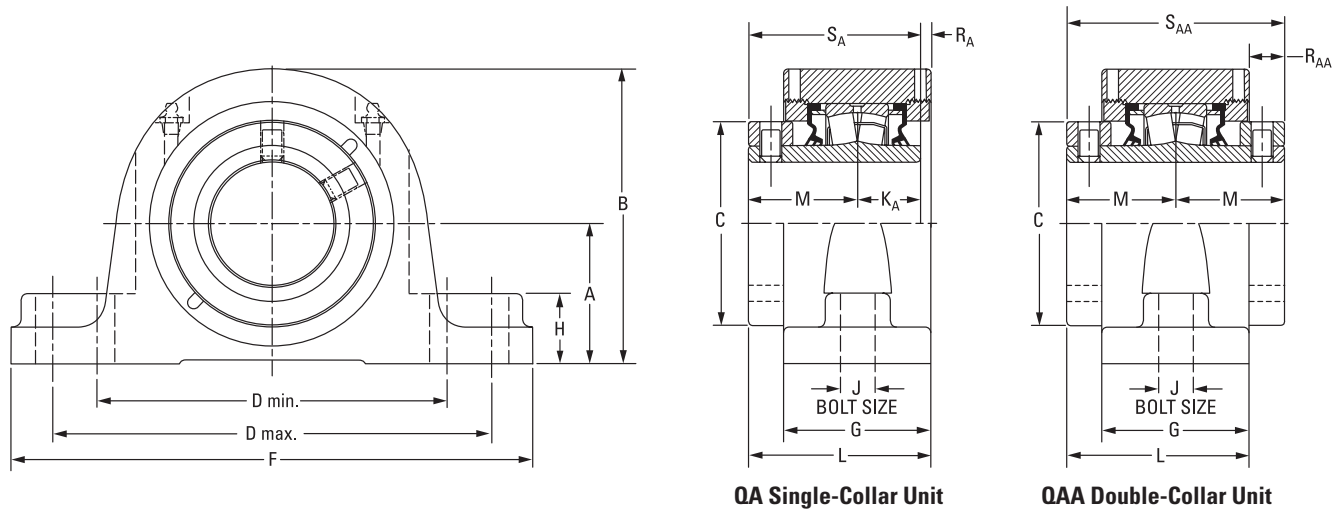
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	K <sub>A</sub>	L	M	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QAP08A035S	35 mm	22208	47.8	94.7	60.5	119.1	152.4	174.8	57.2	25.4	12	25.4	73.2	44.5	3.3	-	69.9	-	4.1	
QAP08A107S	1 7/16 in.		1.88	3.73	2.38	4.69	6.00	6.88	2.25	1.00	1/2	1.00	2.88	1.75	0.13	-	2.75	-	9	
QAP08A108S	1 1/2 in.	22208	54.1	101.1	60.5	119.1	165.1	200.2	57.2	25.4	12	25.4	73.2	44.5	3.3	-	69.9	-	4.1	
			2.13	3.98	2.38	4.69	6.50	7.88	2.25	1.00	1/2	1.00	2.88	1.75	0.13	-	2.75	-	9	
QAP09A111S	1 11/16 in.	22209	54.1	104.9	66.8	144.8	165.1	200.2	60.2	31.8	12	25.4	78.0	47.8	4.8	-	73.2	-	4.5	
			2.13	4.13	2.63	5.70	6.50	7.88	2.37	1.25	1/2	1.00	3.07	1.88	0.19	-	2.88	-	10	
QAP09A040S	40 mm	22209	57.2	108.0	66.8	158.8	180.8	225.6	62.0	31.8	16	25.4	78.7	47.8	5.6	-	73.2	-	4.5	
QAP09A112S	1 3/4 in.		2.25	4.25	2.63	6.25	7.12	8.88	2.44	1.25	5/8	1.00	3.10	1.88	0.22	-	2.88	-	10	
QAP09A045S	45mm																			
QAP10A115S	1 15/16 in.	22210	57.2	122.2	73.2	152.4	181.1	225.6	62.0	31.8	16	25.4	79.0	47.5	6.1	17.0	72.9	95.3	5.9	
QAAP10A115S			2.25	4.81	2.88	6.00	7.13	8.88	2.44	1.25	5/8	1.00	3.11	1.87	0.24	0.67	2.87	3.75	13	
QAP10A200S	2 in.																			
QAAP10A200S																				
QAP10A050S	50 mm																			
QAAP10A050S																				
QAP11A203S	2 3/16 in.	22211	63.5	133.4	82.6	165.1	200.2	244.6	66.8	31.8	16	28.7	84.3	50.8	4.8	17.5	79.5	101.6	7.7	
QAAP11A203S			2.50	5.25	3.25	6.50	7.88	9.63	2.63	1.25	5/8	1.13	3.32	2.00	0.19	0.69	3.13	4.00	17	
QAP11A204S	2 1/4 in.																			
QAAP11A204S																				
QAP11A055S	55 mm																			
QAAP11A055S																				
QAP13A060S	60 mm	22213	69.9	147.3	96.8	174.8	219.2	260.4	73.7	35.1	16	31.5	91.4	54.6	5.3	17.8	86.1	109.2	10.0	
QAAP13A060S			2.75	5.80	3.81	6.88	8.63	10.25	2.90	1.38	5/8	1.24	3.60	2.15	0.21	0.70	3.39	4.30	22	
QAP13A207S	2 7/16 in.																			
QAAP13A207S																				
QAP13A208S	2 1/2 in.																			
QAAP13A208S																				
QAP13A065S	65 mm																			
QAAP13A065S																				

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

Continued on next page.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## CL SERIES • QAP AND QAAP TWO-BOLT PILLOW BLOCKS

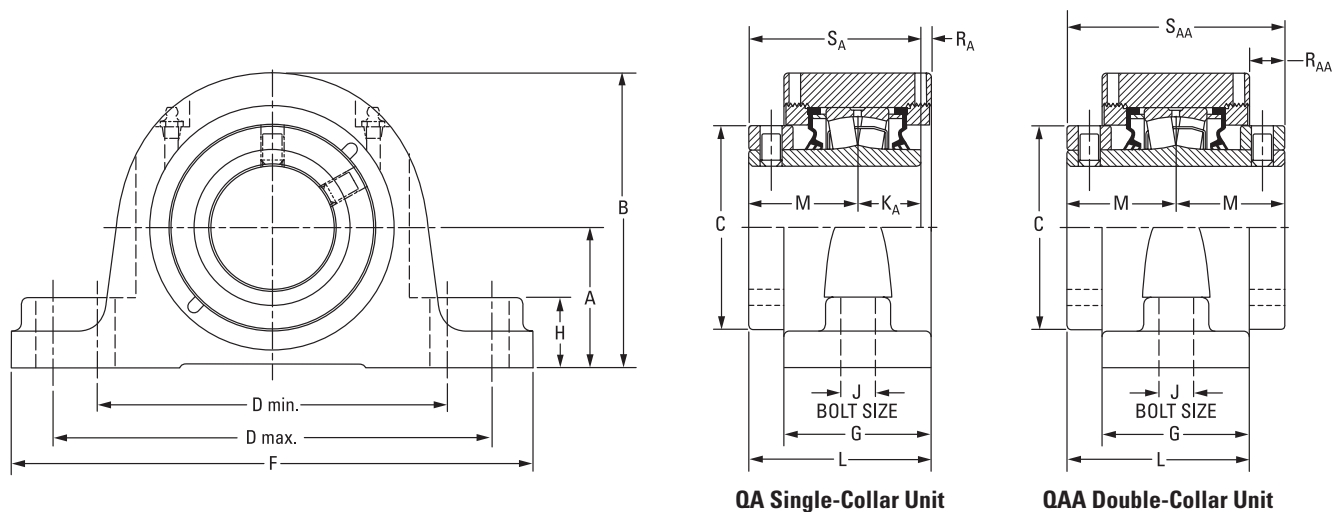


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Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	K <sub>A</sub>	L	M	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QAP15A211S QAAP15A211S	2 1/16 in.	22215	79.5 3.13	164.3 6.47	109.0 4.29	200.2 7.88	244.6 9.63	295.4 11.63	76.2 3.00	35.1 1.38	20 3/4	31.8 1.25	98.3 3.87	60.2 2.37	6.4 0.25	22.1 0.87	91.9 3.62	120.4 4.74	12.7 28	
QAP15A212S QAAP15A212S	2 3/4 in.																			
QAP15A070S QAAP15A070S	70 mm																			
QAP15A215S QAAP15A215S	2 15/16 in.																			
QAP15A300S QAAP15A300S	3 in.																			
QAP15A075S QAAP15A075S	75 mm																			
QAP18A303S QAAP18A303S	3 3/16 in.	22218	95.3 3.75	195.3 7.69	130.3 5.13	238.3 9.38	285.8 11.25	342.9 13.50	86.6 3.41	47.8 1.88	24 7/8	36.6 1.44	109.2 4.30	65.8 2.59	6.9 0.27	22.6 0.89	102.4 4.03	131.6 5.18	20.4 45	
QAP18A304S QAAP18A304S	3 1/4 in.																			
QAP18A080S QAAP18A080S	80 mm																			
QAP18A085S QAAP18 A085S	85 mm																			
QAP18A307S QAAP18A307S	3 7/16 in.																			
QAP18A308S QAAP18A308S	3 1/2 in.																			
QAP18A090S QAAP18A090S	90 mm	22220	104.9 4.13	209.8 8.26	152.4 6.00	255.0 10.04	320.0 12.60	362.0 14.25	94.7 3.73	50.8 2.00	24 1	41.4 1.63	122.9 4.84	75.4 2.97	6.1 0.24	28.2 1.11	116.8 4.60	150.9 5.94	26.8 59	
QAP20A315S QAAP20A315S	3 15/16 in.																			
QAP20A400S QAAP20A400S	4 in.																			
QAP20A100S QAAP20A100S	100 mm																			

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

QAPL AND QAAPL TWO-BOLT PILLOW BLOCKS



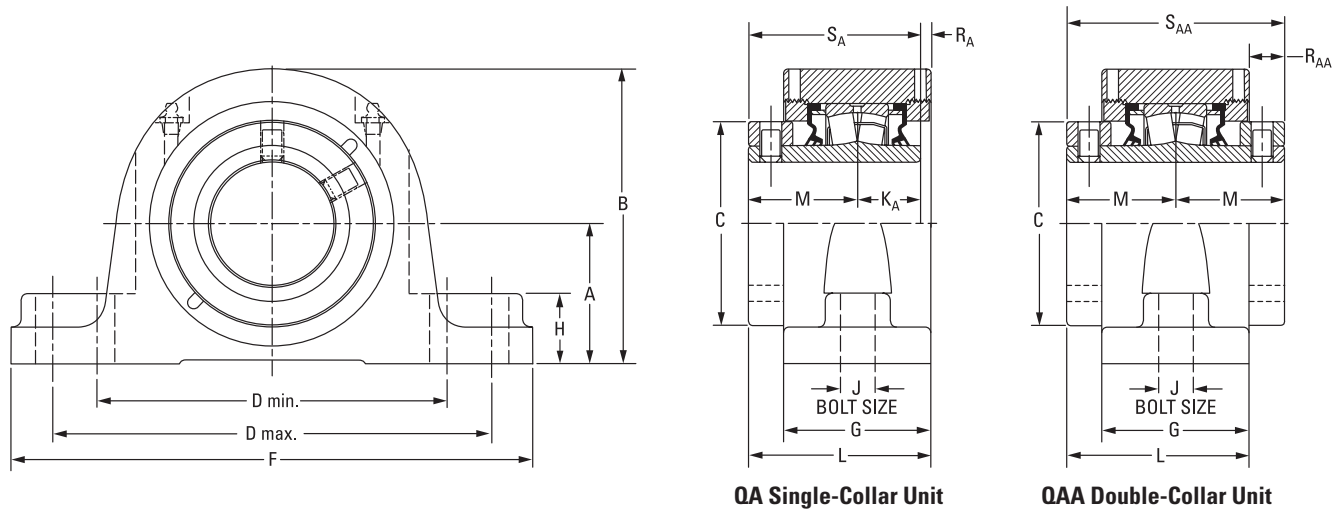
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	K <sub>A</sub>	L	M	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QAPL08A035S	35 mm	22208	47.8	94.7	60.5	119.1	152.4	174.8	57.2	25.4	12	25.4	73.2	44.5	3.3	-	69.9	-	4.1	
QAPL08A107S	1 7/16 in.		1.88	3.73	2.38	4.69	6.00	6.88	2.25	1.00	1/2	1.00	2.88	1.75	0.13	-	2.75	-	9	
QAPL08A108S	1 1/2 in.																			
QAPL09A040S	40 mm	22209	54.1	104.9	66.8	133.4	146.1	181.1	60.2	31.8	12	25.4	78.0	47.8	4.8	-	73.2	-	4.5	
QAPL09A111S	1 11/16 in.		2.13	4.13	2.63	5.25	5.75	7.13	2.37	1.25	1/2	1.00	3.07	1.88	0.19	-	2.88	-	10	
QAPL09A112S	1 3/4 in.																			
QAPL09A045S	45 mm	22210	57.2	122.2	73.2	150.6	161.5	212.9	62.0	31.8	16	25.4	79.0	47.5	6.1	17.0	72.9	95.3	5.9	
QAPL10A115S QAAPL10A115S	1 15/16 in.		2.25	4.81	2.88	5.93	6.36	8.38	2.44	1.25	5/8	1.00	3.11	1.87	0.24	0.67	2.87	3.75	13	
QAPL10A200S QAAPL10A200S	2 in.																			
QAPL10A050S QAAPL10A050S	50 mm	22211	63.5	133.4	82.6	165.1	179.3	225.6	65.5	31.8	16	28.7	83.6	50.8	4.1	18.0	79.5	101.6	7.7	
QAPL11A203S QAAPL11A203S	2 3/16 in.		2.50	5.25	3.25	6.50	7.06	8.88	2.58	1.25	5/8	1.13	3.29	2.00	0.16	0.71	3.13	4.00	17	
QAPL11A204S QAAPL11A204S	2 1/4 in.																			
QAPL11A055S QAAPL11A055S	55 mm	22213	69.9	147.3	96.8	173.0	189.0	235.0	73.7	35.1	16	31.5	91.4	54.6	5.3	17.8	86.1	109.2	10.0	
QAPL13A060S QAAPL13A060S	60 mm		2.75	5.80	3.81	6.81	7.44	9.25	2.90	1.38	5/8	1.24	3.60	2.15	0.21	0.70	3.39	4.30	22	
QAPL13A207S QAAPL13A207S	2 7/16 in.																			
QAPL13A208S QAAPL13A208S	2 1/2 in.																			
QAPL13A065S QAAPL13A065S	65 mm																			

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

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# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## CL SERIES • QAPL AND QAAPL TWO-BOLT PILLOW BLOCKS

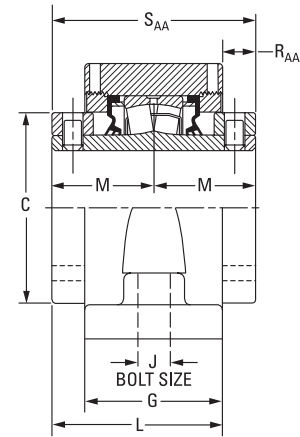
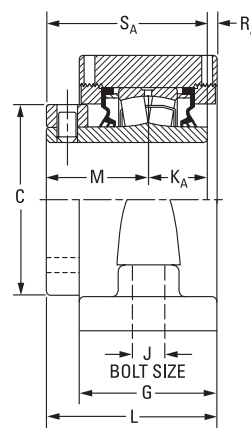
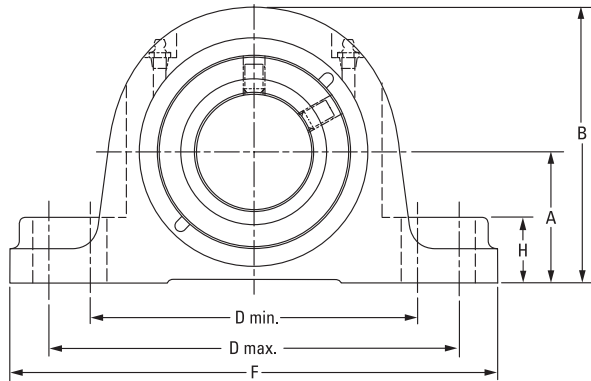


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Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	K <sub>A</sub>	L	M	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QAPL15A211S QAAPL15A211S	2 11/16 in.	22215	82.6 3.25	167.4 6.59	109.0 4.29	195.6 7.70	213.4 8.40	265.2 10.44	76.2 3.00	35.1 1.38	20 3/4	31.8 1.25	98.3 3.87	60.2 2.37	6.4 0.25	22.1 0.87	91.9 3.62	120.4 4.74	12.7 28	
QAPL15A212S QAAPL15A212S	2 3/4 in.																			
QAPL15A070S QAAPL15A070S	70 mm																			
QAPL15A215S QAAPL15A215S	2 15/16 in.																			
QAPL15A300S QAAPL15A300S	3 in.																			
QAPL15A075S QAAPL15A075S	75 mm																			
QAPL18A303S QAAPL18A303S	3 3/16 in.	22218	95.3 3.75	195.3 7.69	130.3 5.13	235.0 9.25	273.1 10.75	330.2 13.00	86.6 3.41	47.8 1.88	24 7/8	36.6 1.44	109.2 4.30	65.8 2.59	6.9 0.27	22.6 0.89	102.4 4.03	131.6 5.18	20.4 45	
QAPL18A304S QAAPL18A304S	3 1/4 in.																			
QAPL18A080S QAAPL18A080S	80 mm																			
QAPL18A085S QAAPL18A085S	85 mm																			
QAPL18A307S QAAPL18A307S	3 7/16 in.																			
QAPL18A308S QAAPL18A308S	3 1/2 in.																			
QAPL18A090S QAAPL18A090S	90 mm	22220	108.0 4.25	212.9 8.38	152.4 6.00	255.0 10.04	320.0 12.60	362.0 14.25	94.7 3.73	54.1 2.13	24 1	41.4 1.63	122.9 4.84	75.4 2.97	6.1 0.24	28.2 1.11	116.8 4.60	150.9 5.94	26.8 59	
QAPL20A315S QAAPL20A315S	3 15/16 in.																			
QAPL20A400S QAAPL20A400S	4 in.																			
QAPL20A100S QAAPL20A100S	100 mm																			

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

**QASN AND QAASN SN-STYLE TWO-BOLT PILLOW BLOCKS – PURE METRIC DESIGN**



QA Single-Collar Unit

QAA Double-Collar Unit

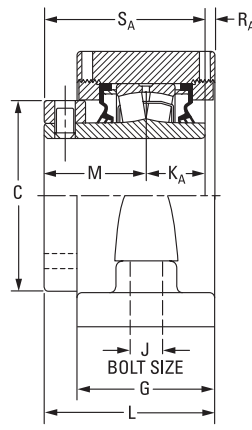
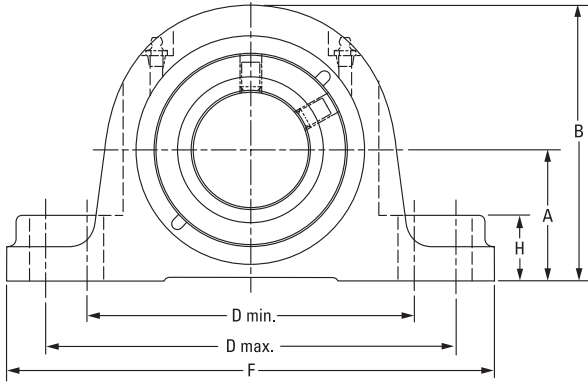
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	K <sub>A</sub>	L	M	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QASN08A035S	<b>35 mm</b>																			
QASN08A107S	1 7/16 in.	22208	60	111	60.5	159	175	205	62	35	12	25	75	44	5	—	70	—	10.5	23
QASN08A108S	1 1/2 in.		2.36	4.37	2.38	6.26	6.89	8.07	2.44	1.38	1/2	1.00	2.95	1.75	0.20	—	2.75	—		
QASN09A040S	<b>40 mm</b>																			
QASN09A111S	1 11/16 in.	22209	60	111	66.8	159	175	205	62	35	12	25	79	48	6	—	73	—	10.5	23
QASN09A112S	1 3/4 in.		2.36	4.37	2.63	6.26	6.89	8.07	2.44	1.38	1/2	1.00	3.10	1.88	0.22	—	2.88	—		
QASN09A045S	45mm																			
QASN10A115S	1 15/16 in.																			
QAASN10A115S																				
QASN10A200S	2 in.	22210	70	136	73	183	216	254	68	25	16	25.4	82	48	9	14	73	95	12.7	28
QAASN10A200S			2.76	5.35	2.87	7.20	8.50	10.00	2.68	0.98	5/8	1	3.23	1.87	0.35	0.55	2.87	3.75		
QASN10A050S	<b>50 mm</b>																			
QAASN10A050S																				
QASN11A203S	2 3/16 in.																			
QAASN11A203S																				
QASN11A204S	2 1/4 in.	22211	70	141	83	183	216	254	68	25	16	29	85	51	5	17	80	102	13.2	29
QAASN11A204S			2.76	5.55	3.27	7.20	8.50	10.00	2.68	0.98	5/8	1.14	3.35	2.01	0.20	0.67	3.15	4.02		
QASN11A055S	<b>55 mm</b>																			
QAASN11A055S																				
QASN13A060S	<b>60 mm</b>																			
QAASN13A060S																				
QASN13A207S	2 7/16 in.																			
QAASN13A207S																				
QASN13A208S	2 1/2 in.	22213	80	157	96.8	196	235	275	74	35	16	31	92	55	6	18	86	110	15.9	35
QAASN13A208S			3.15	6.18	3.81	7.72	9.25	10.83	2.91	1.38	5/8	1.22	3.62	2.17	0.24	0.71	3.39	4.33		
QASN13A065S	<b>65 mm</b>																			
QAASN13A065S																				
QASN15A211S	2 11/16 in.																			
QAASN15A211S																				
QASN15A212S	2 3/4 in.																			
QAASN15A212S																				
QASN15A070S	<b>70 mm</b>																			
QAASN15A070S																				
QASN15A215S	2 15/16 in.	22215	95	183	109.0	241	279	316	76	34	20	32	98	60	6	22	92	120	20.9	46
QAASN15A215S			3.74	7.20	4.29	9.49	10.98	12.44	2.99	1.34	3/4	1.26	3.86	2.36	0.24	0.87	3.62	4.72		
QASN15A300S	3 in.																			
QAASN15A300S																				
QASN15A075S	<b>75 mm</b>																			
QAASN15A075S																				

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

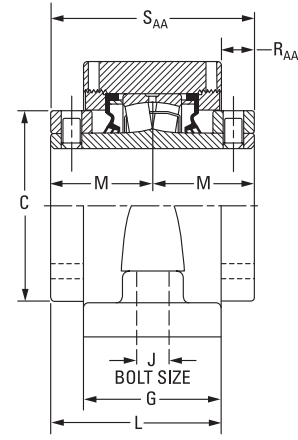
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# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## CL SERIES • QASN AND QAASN SN-STYLE TWO-BOLT PILLOW BLOCKS – PURE METRIC DESIGN



QA Single-Collar Unit



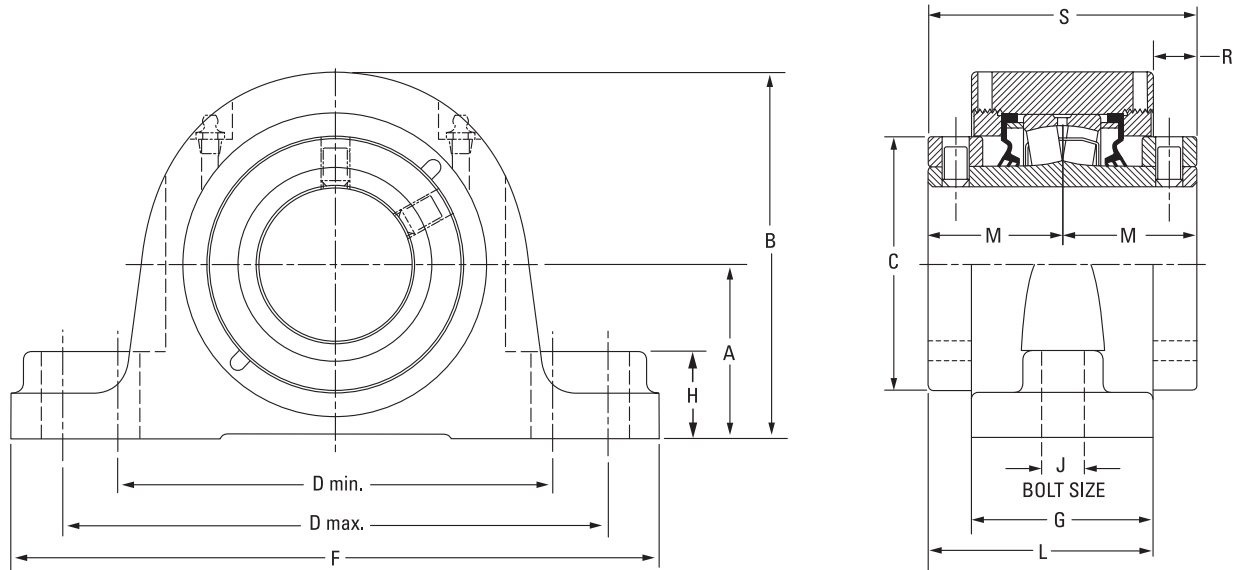
QAA Double-Collar Unit

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Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	K <sub>A</sub>	L	M	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QASN18A303S QAASN18A303S	3 3/16 in.	22218	100	200	130	279	292	345	86	39	20	37	109	66	6	23	102	132	25.5	
QASN18A304S QAASN18A304S	3 1/4 in.		3.94	7.87	5.12	10.98	11.50	13.58	3.39	1.54	3/4	1.46	4.29	2.60	0.24	0.91	4.02	5.20	56	
QASN18A080S QAASN18A080S	80 mm																			
QASN18A085S QAASN18A085S	85 mm	22218	112	212	130	279	292	345	86	39	20	37	109	66	6	23	102	132	25.5	
QASN18A085S QAASN18A085S	85 mm		4.41	8.35	5.12	10.98	11.50	13.58	3.39	1.54	3/4	1.46	4.29	2.60	0.24	0.91	4.02	5.20	56	
QASN18A307S QAASN18A307S	3 7/16 in.	22218	112	212	130	290	327	380	86	39	24	37	109	66	6	23	102	132	25.5	
QASN18A308S QAASN18A308S	3 1/2 in.		4.41	8.35	5.12	11.42	12.87	14.96	3.39	1.54	7/8	1.46	4.29	2.60	0.24	0.91	4.02	5.20	56	
QASN18A090S QAASN18A090S	90 mm																			
QASN20A315S QAASN20A315S	3 15/16 in.	22220	125	241	152	319	366	410	101	50	24	41	126	75	10	25	117	150	35.9	
QASN20A400S QAASN20A400S	4 in.		4.92	9.49	5.98	12.56	14.41	16.14	3.98	1.97	7/8	1.61	4.96	2.95	0.39	0.98	4.61	5.91	79	
QASN20A100S QAASN20A100S	100 mm																			
QAASN22A110S	110 mm	22222	140	255	160	332	365	410	105	39	24	–	133	80	–	28	–	160	35.9	
QAASN22A110S	110 mm		5.51	10.04	6.30	13.07	14.37	16.14	4.13	1.54	7/8	–	5.24	3.15	–	1.10	–	6.30	79	
QAASN22A407S	4 7/16 in.	22222	150	265	160	367	400	445	105	49	24	–	133	80	–	28	–	160	40.0	
QAASN22A408S	4 1/2 in.		5.91	10.43	6.30	14.45	15.75	17.52	4.13	1.93	7/8	–	5.24	3.15	–	1.10	–	6.30	88	
QAASN22A115S	115 mm																			
QAASN26A125S	125 mm	22226	150	282	175	402	435	500	113	49	30	–	151	94	–	38	–	188	40.0	
QAASN26A415S	4 15/16 in.		5.91	11.1	6.89	15.83	17.13	19.69	4.45	1.93	1 1/4	–	5.94	3.7	–	1.5	–	7.4	88	
QAASN26A500S	5 in.																			
QAASN26A130S	130 mm																			

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

QAAPXT 5000 SERIES TWO-BOLT PILLOW BLOCKS

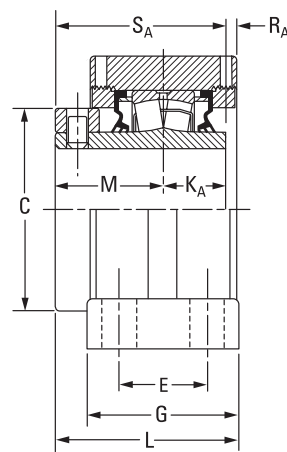
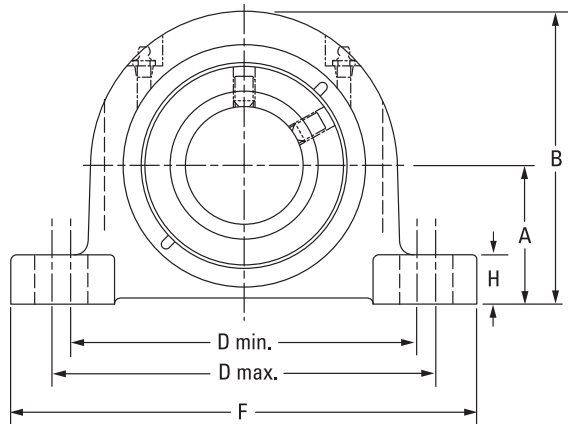
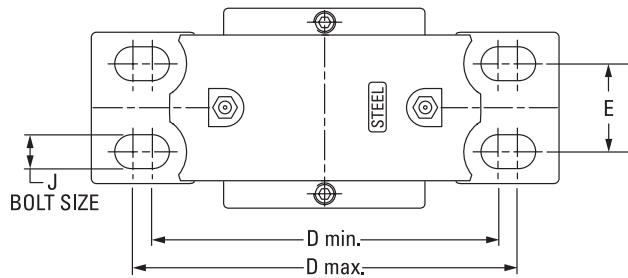


Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	L	M	R	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QAAPXT13A060S	60 mm	22213	76.2 3.00	153.7 6.05	96.8 3.81	194.6 7.66	223.0 8.78	285.8 11.25	73.7 2.90	35.1 1.38	20 ¾	91.4 3.60	54.6 2.15	17.8 0.70	109.2 4.30	10.0 22
QAAPXT13A207S	2 7/16 in.															
QAAPXT13A208S	2 1/2 in.															
QAAPXT13A065S	65 mm															
QAAPXT15A211S	2 11/16 in.	22215	88.9 3.50	173.7 6.84	109.0 4.29	230.1 9.06	265.2 10.44	330.2 13.00	75.7 2.98	35.1 1.38	24 7/8	98.0 3.86	60.2 2.37	22.4 0.88	120.4 4.74	12.7 28
QAAPXT15A212S	2 3/4 in.															
QAAPXT15A070S	70 mm															
QAAPXT15A215S	2 15/16 in.															
QAAPXT15A300S	3 in.															
QAAPXT15A075S	75 mm															

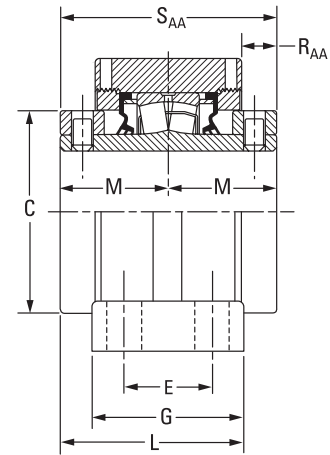
# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

CL SERIES • QAPF AND QAAPF FOUR-BOLT PILLOW BLOCKS

## QAPF AND QAAPF FOUR-BOLT PILLOW BLOCKS



QA Single-Collar Unit



QAA Double-Collar Unit

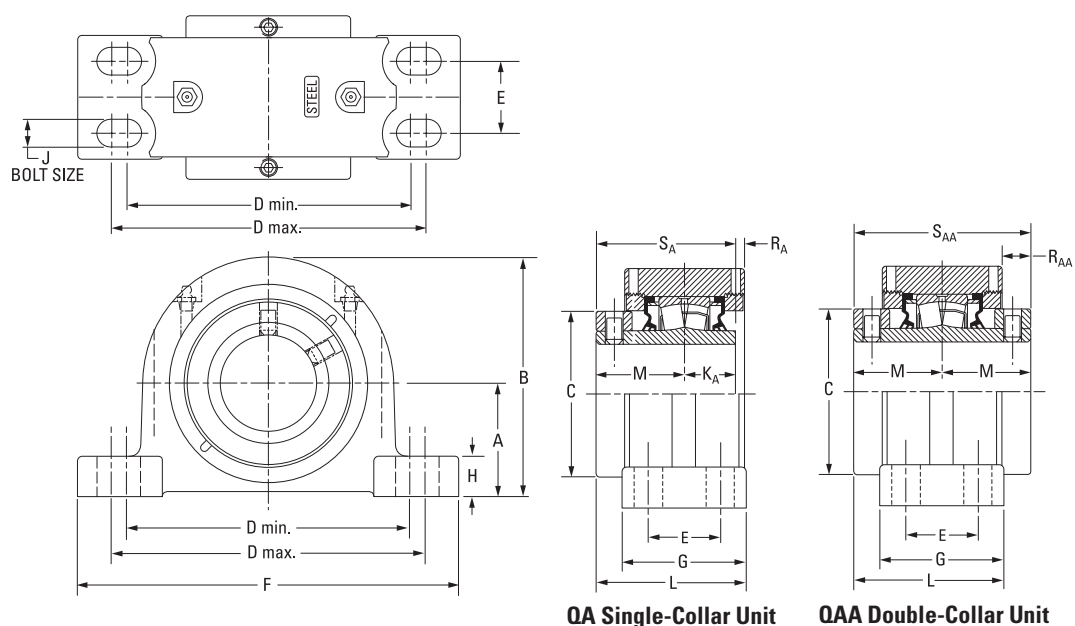
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	K <sub>A</sub>	L	M	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QAPF13A060S QAAPF13A060S	60 mm	22213	69.9 2.75	147.3 5.80	96.8 3.81	174.8 6.88	193.8 7.63	44.5 1.75	235.0 9.25	76.2 3.00	24.9 0.98	16 5/8	31.5 1.24	92.7 3.65	54.6 2.15	5.3 0.21	17.8 0.70	86.1 3.39	109.2 4.30	9.1 20	
QAPF13A207S QAAPF13A207S	2 7/16 in.																				
QAPF13A208S QAAPF13A208S	2 1/2 in.																				
QAPF13A065S QAAPF13A065S	65 mm																				
QAPF15A211S QAAPF15A211S	2 11/16 in.	22215	82.6 3.25	167.6 6.60	109.0 4.29	193.0 7.60	231.1 9.10	47.8 1.88	265.2 10.44	79.5 3.13	32.8 1.29	16 5/8	31.8 1.25	100.1 3.94	60.2 2.37	6.1 0.24	22.4 0.88	91.9 3.62	120.4 4.74	12.2 27	
QAPF15A212S QAAPF15A212S	2 3/4 in.																				
QAPF15A070S QAAPF15A070S	70 mm																				
QAPF15A215S QAAPF15A215S	2 15/16 in.																				
QAPF15A300S QAAPF15A300S	3 in.																				
QAPF15A075S QAAPF15A075S	75 mm																				

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

Continued on next page.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

CL SERIES • QAPF AND QAAPF FOUR-BOLT PILLOW BLOCKS



Continued from previous page.

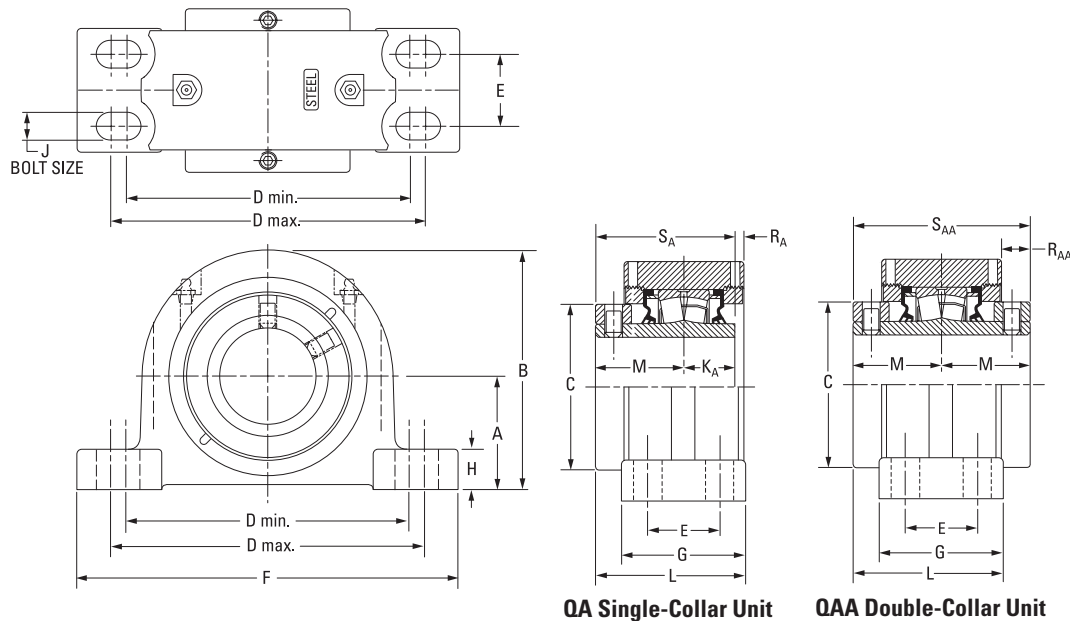
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	K <sub>A</sub>	L	M	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.																			
			mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.																	
QAPF18A303S QAAPF18A303S	3 3/16 in.	22218	95.3 3.75	195.3 7.69	130.3 5.13	225.6 8.88	276.4 10.88	50.8 2.00	312.4 12.30	95.3 3.75	39.6 1.56	20 3/4	36.6 1.44	113.5 4.47	65.8 2.59	7.9 0.31	21.3 0.84	102.4 4.03	131.6 5.18	22.2 49																			
QAPF18A304S QAAPF18A304S	3 1/4 in.																																						
QAPF18A080S QAAPF18A080S	80 mm																																						
QAPF18A085S QAAPF18A085S	85 mm																																						
QAPF18A307S QAAPF18A307S	3 7/16 in.																																						
QAPF18A308S QAAPF18A308S	3 1/2 in.																																						
QAPF18A090S QAAPF18A090S	90 mm																																						
QAPF20A315S QAAPF20A315S	3 15/16 in.																				22220	108.0 4.25	223.0 8.78	152.4 6.00	276.4 10.88	339.9 13.38	57.2 2.25	378.0 14.88	109.5 4.31	35.6 1.40	20 3/4	41.4 1.63	130.3 5.13	75.4 2.97	8.9 0.35	25.1 0.99	116.6 4.59	150.9 5.94	30.4 67
QAPF20A400S QAAPF20A400S	4 in.																																						
QAPF20A100S QAAPF20A100S	100 mm																																						
QAAPF22A110S	110 mm	22222	120.7 4.75	233.4 9.19	160.0 6.30	301.8 11.88	368.3 14.50	63.5 2.50	409.7 16.13	120.7 4.75	40.1 1.58	20 3/4	-	140.0 5.51	79.5 3.13	-	28.7 1.13	-	158.8 6.25	37.2 82																			
QAAPF22A407S	4 7/16 in.																																						
QAAPF22A408S	4 1/2 in.																																						
QAAPF22A115S	115 mm	22226	139.7 5.50	279.7 11.01	175.0 6.89	349.3 13.75	403.4 15.88	69.9 2.75	444.5 17.50	128.0 5.04	39.1 1.54	24 7/8	-	158.5 6.24	94.5 3.72	-	36.8 1.45	-	189.0 7.44	60.8 134																			
QAAPF26A125S	125 mm																																						
QAAPF26A415S	4 15/16 in.																																						
QAAPF26A500S	5 in.																																						
QAAPF26A130S	130 mm																																						

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

CL SERIES • QAPR AND QAAPR FOUR-BOLT PILLOW BLOCKS

## QAPR AND QAAPR FOUR-BOLT PILLOW BLOCKS



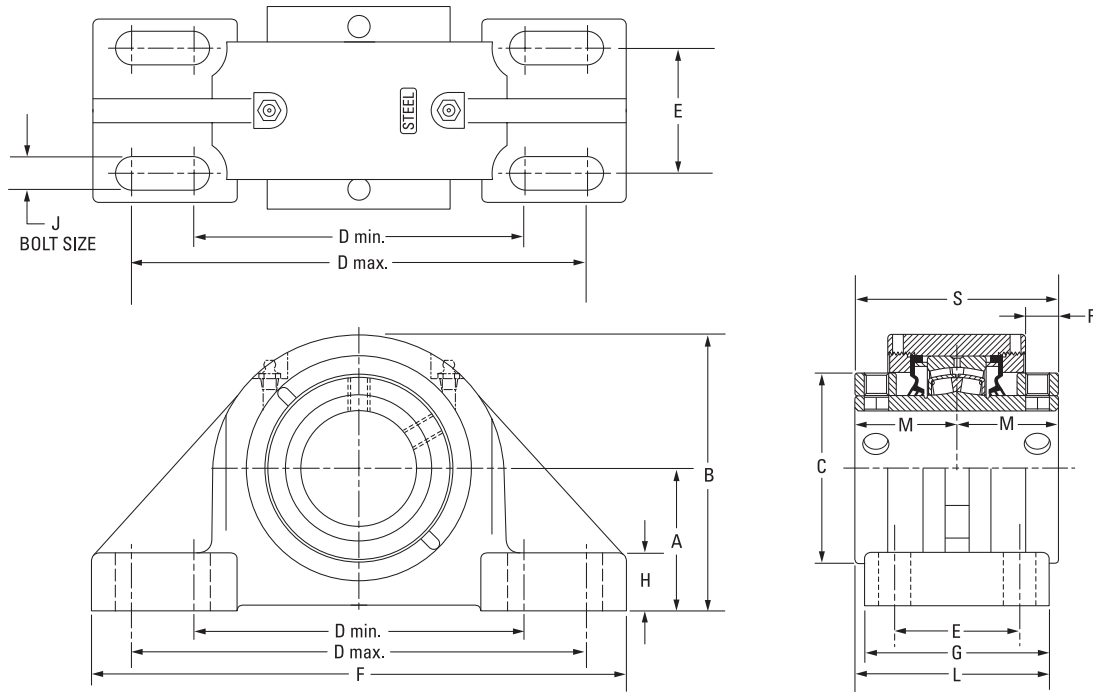
QA Single-Collar Unit

QAA Double-Collar Unit

Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	K <sub>A</sub>	L	M	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
QAPR13A060S QAAPR13A060S	60 mm	22213	69.9 2.75	147.3 5.80	96.8 3.81	181.1 7.13	222.3 8.75	47.8 1.88	260.4 10.25	82.6 3.25	24.9 0.98	16 5/8	31.5 1.24	95.8 3.77	54.6 2.15	5.3 0.21	17.8 0.70	86.1 3.39	109.2 4.30	9.1 20	
QAPR13A207S QAAPR13A207S	2 7/16 in.																				
QAPR13A208S QAAPR13A208S	2 1/2 in.																				
QAPR13A065S QAAPR13A065S	65 mm																				
QAPR15A211S QAAPR15A211S	2 11/16 in.	22215	79.5 3.13	164.3 6.47	109.0 4.29	203.2 8.00	243.8 9.60	54.1 2.13	275.1 10.83	85.9 3.38	29.5 1.16	16 5/8	31.8 1.25	102.1 4.02	60.2 2.37	6.1 0.24	22.4 0.88	91.9 3.62	120.4 4.74	12.2 27	
QAPR15A212S QAAPR15A212S	2 3/4 in.																				
QAPR15A070S QAAPR15A070S	70 mm																				
QAPR15A215S QAAPR15A215S	2 15/16 in.																				
QAPR15A300S QAAPR15A300S	3 in.	22218	95.3 3.75	195.3 7.69	130.3 5.13	235.0 9.25	285.8 11.25	60.5 2.38	346.2 13.63	95.3 3.75	39.6 1.56	20 3/4	36.6 1.44	113.5 4.47	65.8 2.59	7.9 0.31	21.3 0.84	102.4 4.03	131.6 5.18	22.2 49	
QAPR18A303S QAAPR18A303S	3 3/16 in.																				
QAPR18A304S QAAPR18A304S	3 1/4 in.																				
QAPR18A080S QAAPR18A080S	80 mm																				
QAPR18A085S QAAPR18A085S	85 mm																				
QAPR18A307S QAAPR18A307S	3 7/16 in.																				
QAPR18A308S QAAPR18A308S	3 1/2 in.																				
QAPR18A090S QAAPR18A090S	90 mm																				

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

QAAPX 5000 SERIES FOUR-BOLT PILLOW BLOCKS



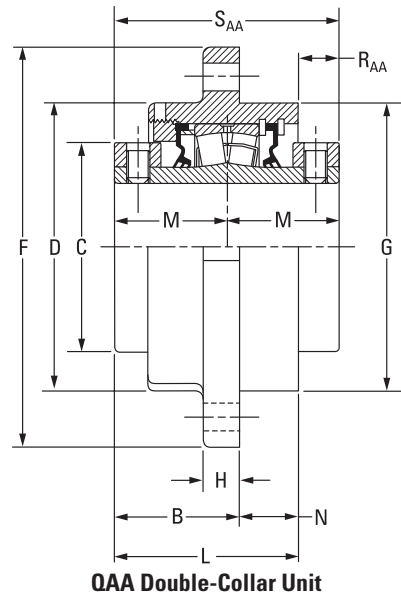
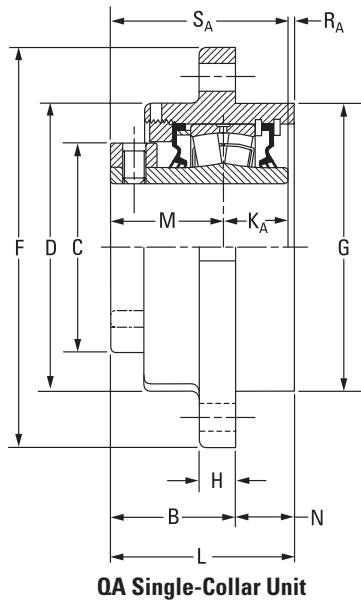
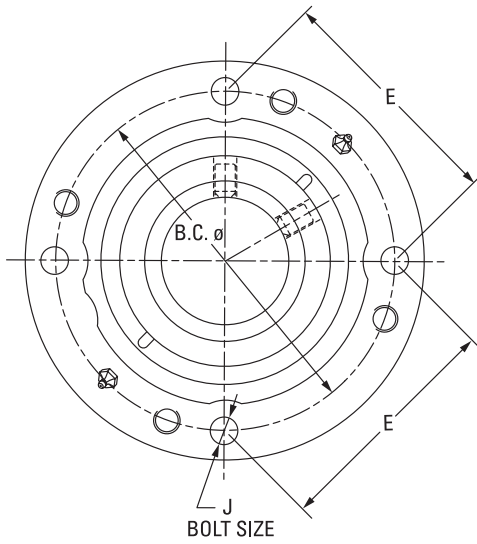
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	L	M	R	S	Wt.	
			mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
QAAPX13A060S	60 mm	22213	76.2 3.00	153.7 6.05	96.8 3.81	176.3 6.94	242.8 9.56	66.8 2.63	285.8 11.25	98.6 3.88	31.0 1.22	20 ¾	103.9 4.09	54.6 2.15	17.8 0.70	109.2 4.30	13.2 29	
QAAPX13A207S	2 7/16 in.																	
QAAPX13A208S	2 1/2 in.																	
QAAPX13A065S	65 mm	22215	88.9 3.50	173.5 6.83	109.0 4.29	230.1 9.06	265.2 10.44	69.9 2.75	330.2 13.00	108.0 4.25	39.1 1.54	20 ¾	114.3 4.50	60.2 2.37	21.3 0.84	120.4 4.74	20.4 45	
QAAPX15A211S	2 11/16 in.																	
QAAPX15A212S	2 ¾ in.																	
QAAPX15A070S	70 mm	22218	101.6 4.00	201.2 7.92	130.3 5.13	274.6 10.81	309.6 12.19	76.2 3.00	381.0 15.00	120.7 4.75	38.1 1.50	20 ¾	126.2 4.97	65.8 2.59	21.3 0.84	131.6 5.18	29.0 64	
QAAPX18A303S	3 3/16 in.																	
QAAPX18A304S	3 ¼ in.																	
QAAPX18A080S	80 mm	22220	127.0 5.00	239.8 9.44	152.4 6.00	317.5 12.50	355.6 14.00	88.9 3.50	425.5 16.75	139.7 5.50	41.4 1.63	24 7/8	145.0 5.71	75.2 2.96	25.4 1.00	150.4 5.92	44.9 99	
QAAPX18A085S	85 mm																	
QAAPX18A307S	3 7/16 in.																	
QAAPX18A308S	3 ½ in.	22222	146.1 5.75	273.8 10.78	159.8 6.29	354.1 13.94	395.2 15.56	101.6 4.00	469.9 18.50	158.8 6.25	45.7 1.80	24 1	158.8 6.25	79.5 3.13	28.7 1.13	158.8 6.25	63.0 139	
QAAPX22A110S	110 mm																	
QAAPX22A407S	4 7/16 in.																	
QAAPX22A408S	4 ½ in.	22226	155.7 6.13	283.2 11.15	174.8 6.88	387.4 15.25	425.5 16.75	108.0 4.25	514.4 20.25	171.5 6.75	50.8 2.00	28.6 1 1/8	180.3 7.10	94.5 3.72	37.3 1.47	189.0 7.44	67.6 149	
QAAPX26A115S	115 mm																	
QAAPX26A125S	125 mm																	
QAAPX26A415S	4 15/16 in.																	
QAAPX26A500S	5 in.																	
QAAPX26A130S	130 mm																	

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## CL SERIES • QAC AND QAAC PILOTED FLANGE CARTRIDGES

### QAC AND QAAC PILOTED FLANGE CARTRIDGES



Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	B	B	B.C.	C	D	E	F	G <sup>(2)</sup>	H	J	K <sub>A</sub>	L	L	M	N	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.	
			FIX	EXP										FIX	EXP					mm	in.		mm
QAC08A035S	<b>35 mm</b>	22208	<b>49.8</b>	<b>51.8</b>	<b>111.3</b>	<b>60.5</b>	<b>92.2</b>	<b>78.5</b>	<b>133.4</b>	<b>92.1</b>	<b>12.7</b>	<b>10</b>	<b>25.4</b>	<b>73.7</b>	<b>75.7</b>	<b>44.5</b>	<b>23.9</b>	<b>3.8</b>	-	<b>69.9</b>	-	<b>3.6</b>	
QAC08A107S	1 7/16 in.		1.96	2.04	4.38	2.38	3.63	3.09	5.25	3.625	0.50	7/16	1.00	2.90	2.98	1.75	0.94	0.15	-	2.75	-	8	
QAC08A108S	1 1/2 in.																						
QAC09A040S	<b>40 mm</b>	22209	<b>54.6</b>	<b>56.6</b>	<b>130.3</b>	<b>66.8</b>	<b>111.3</b>	<b>91.9</b>	<b>155.7</b>	<b>108.0</b>	<b>12.7</b>	<b>10</b>	<b>25.4</b>	<b>77.0</b>	<b>78.2</b>	<b>47.8</b>	<b>22.4</b>	<b>3.8</b>	-	<b>73.2</b>	-	<b>4.1</b>	
QAC09A111S	1 11/16 in.		2.15	2.23	5.13	2.63	4.38	3.62	6.13	4.250	0.50	7/16	1.00	3.03	3.08	1.88	0.88	0.15	-	2.88	-	9	
QAC09A112S	1 3/4 in.																						
QAC09A045S	<b>45 mm</b>	22210	<b>50.5</b>	<b>52.6</b>	<b>136.7</b>	<b>73.2</b>	<b>113.5</b>	<b>96.5</b>	<b>162.1</b>	<b>114.3</b>	<b>16.0</b>	<b>10</b>	<b>25.4</b>	<b>77.5</b>	<b>79.5</b>	<b>47.5</b>	<b>26.9</b>	<b>4.6</b>	<b>18.5</b>	<b>72.9</b>	<b>95.3</b>	<b>4.5</b>	
QAC10A115S QAAC10A115S	1 15/16 in.		1.99	2.07	5.38	2.88	4.47	3.80	6.38	4.500	0.63	7/16	1.00	3.05	3.13	1.87	1.06	0.18	0.73	2.87	3.75	10	
QAC10A050S QAAC10A050S	<b>50 mm</b>																						
QAC11A203S QAAC11A203S	2 3/16 in.	22211	<b>54.4</b>	<b>56.4</b>	<b>152.4</b>	<b>82.6</b>	<b>127.0</b>	<b>107.7</b>	<b>185.4</b>	<b>127.0</b>	<b>14.7</b>	<b>12</b>	<b>28.7</b>	<b>83.1</b>	<b>85.1</b>	<b>50.8</b>	<b>28.7</b>	<b>3.6</b>	<b>18.5</b>	<b>79.5</b>	<b>101.6</b>	<b>5.9</b>	
QAC11A204S QAAC11A204S	2 1/4 in.		2.14	2.22	6.00	3.25	5.00	4.24	7.30	5.000	0.58	1/2	1.13	3.27	3.35	2.00	1.13	0.14	0.73	3.13	4.00	13	
QAC11A055S QAAC11A055S	<b>55 mm</b>																						
QAC13A060S QAAC13A060S	<b>60 mm</b>	22213	<b>60.5</b>	<b>62.5</b>	<b>165.1</b>	<b>96.8</b>	<b>139.7</b>	<b>116.8</b>	<b>193.8</b>	<b>139.7</b>	<b>17.5</b>	<b>12</b>	<b>31.5</b>	<b>88.9</b>	<b>90.9</b>	<b>54.6</b>	<b>28.7</b>	<b>3.0</b>	<b>20.3</b>	<b>86.1</b>	<b>109.2</b>	<b>7.3</b>	
QAC13A207S QAAC13A207S	2 7/16 in.		2.38	2.46	6.50	3.81	5.50	4.60	7.63	5.500	0.69	1/2	1.24	3.50	3.58	2.15	1.13	0.12	0.80	3.39	4.30	16	
QAC13A208S QAAC13A208S	2 1/2 in.																						
QAC13A065S QAAC13A065S	<b>65 mm</b>																						

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use  $S_A$  and  $R_A$  dimensions) and QAA to designate double-collar units (use  $S_{AA}$  and  $R_{AA}$  dimensions).

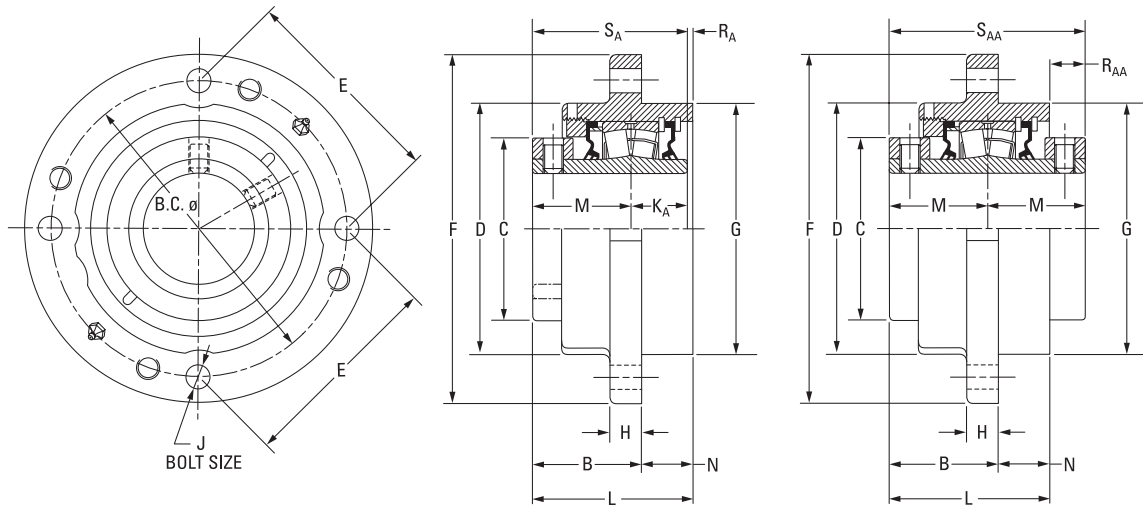
<sup>(2)</sup>Pilot tolerance: +0/-0.051 mm (+0/-0.002 in.).

<sup>(3)</sup>Six-bolt housing.

Continued on next page.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## CL SERIES • QAC AND QAAC PILOTED FLANGE CARTRIDGES



QA Single-Collar Unit

QAA Double-Collar Unit

Continued from previous page.

Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	B <sub>FIX</sub>	B <sub>EXP</sub>	B.C.	C	D	E	F	G <sup>(2)</sup>	H	J	K <sub>A</sub>	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QAC15A211S QAAC15A211S	2 1 <sup>1</sup> / <sub>16</sub> in.	22215	62.5 2.46	64.5 2.54	190.5 7.50	109.0 4.29	162.1 6.38	134.6 5.30	222.3 8.75	161.9 6.375	20.6 0.81	16 5/8	31.8 1.25	94.2 3.71	96.3 3.79	60.2 2.37	31.8 1.25	2.3 0.09	21.6 0.85	91.9 3.62	120.4 4.74	10.0 22	
QAC15A212S QAAC15A212S	2 3/4 in.																						
QAC15A070S QAAC15A070S	70 mm																						
QAC15A215S QAAC15A215S	2 15/16 in.																						
QAC15A300S QAAC15A300S	3 in.																						
QAC15A075S QAAC15A075S	75 mm																						
QAC18A303S QAAC18A303S	3 3/16 in.	22218	73.2 2.88	75.2 2.96	219.2 8.63	130.3 5.13	187.5 7.38	154.9 6.10	262.6 10.34	187.3 7.375	25.4 1.00	20 3/4	36.6 1.44	106.4 4.19	108.5 4.27	65.8 2.59	33.3 1.31	4.1 0.16	25.1 0.99	102.4 4.03	131.6 5.18	14.5 32	
QAC18A304S QAAC18A304S	3 1/4 in.																						
QAC18A080S QAAC18A080S	80 mm																						
QAC18A085S QAAC18A085S	85 mm																						
QAC18A307S QAAC18A307S	3 7/16 in.																						
QAC18A308S QAAC18A308S	3 1/2 in.																						
QAC18A090S QAAC18A090S	90 mm	22220	72.1 2.84	74.2 2.92	238.3 9.38	152.4 6.00	206.5 8.13	168.4 6.63	276.4 10.88	206.4 8.125	25.4 1.00	20 3/4	41.4 1.63	126.0 4.96	128.0 5.04	75.4 2.97	54.1 2.13	9.4 0.37	24.9 0.98	116.6 4.59	150.9 5.94	19.5 43	
QAC20A315S QAAC20A315S	3 15/16 in.																						
QAC20A400S QAAC20A400S	4 in.																						
QAC20A100S QAAC20A100S	100 mm																						
QAAC22A110S	110 mm																						
QAAC22A407S <sup>(3)</sup>	4 7/16 in.																						
QAAC22A408S <sup>(3)</sup>	4 1/2 in.	22222	78.0 3.07	80.0 3.15	298.5 11.75 <sup>(3)</sup>	160.0 6.30	254.0 10.00	149.4 5.88 <sup>(3)</sup>	342.9 13.50	260.4 10.250	25.4 1.00	20 3/4 <sup>(3)</sup>	-	126.2 4.97	128.3 5.05	79.5 3.13	48.3 1.90	-	32.8 1.29	-	158.8 6.25	32.7 72	
QAAC22A115S <sup>(3)</sup>	115 mm																						

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

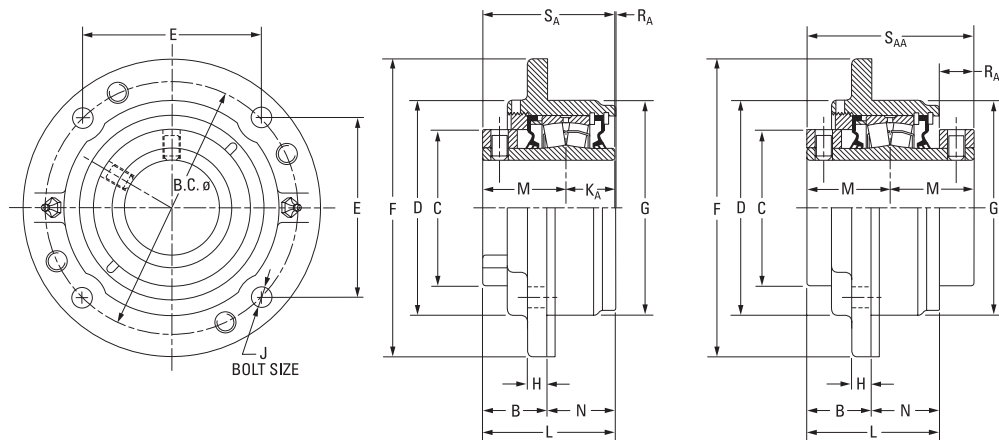
<sup>(2)</sup>Pilot tolerance: +0/-0.051 mm (+0/-0.002 in.).

<sup>(3)</sup>Six-bolt housing.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

CL SERIES • QACW AND QAACW PILOTED FLANGE CARTRIDGES

## QACW AND QAACW PILOTED FLANGE CARTRIDGES



QA Single-Collar Unit

QAA Double-Collar Unit

Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	B <sub>FIX</sub>	B <sub>EXP</sub>	B.C.	C	D	E	F	G <sup>(2)</sup>	H	J	K <sub>A</sub>	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QACW08A035S	35 mm	22208	38.9	40.9	111.3	60.5	92.2	78.5	133.4	92.1	12.7	10	25.4	73.7	75.7	44.5	35.1	3.8	-	69.9	-	-	3.6
QACW08A107S	1 7/16 in.		1.53	1.61	4.38	2.38	3.63	3.09	5.25	3.625	0.50	7/16	1.00	2.90	2.98	1.75	1.38	0.15	-	2.75	-	-	8
QACW08A108S	1 1/2 in.																						
QACW09A040S	40 mm	22209	38.9	40.1	130.3	66.8	111.3	91.9	155.7	108.0	10.2	10	25.4	77.0	78.2	47.8	38.1	4.1	-	73.2	-	-	4.1
QACW09A111S	1 11/16 in.		1.53	1.58	5.13	2.63	4.38	3.62	6.13	4.250	0.40	7/16	1.00	3.03	3.08	1.88	1.5	0.16	-	2.88	-	-	9
QACW09A112S	1 3/4 in.																						
QACW09A045S	45 mm	22210	35.3	37.3	136.7	73.2	113.5	96.5	162.1	114.3	9.7	10	25.4	73.4	75.4	47.5	38.1	0.5	22.6	72.9	95.3	-	4.5
QACW10A115S	1 15/16 in.		1.39	1.47	5.38	2.88	4.47	3.80	6.38	4.500	0.38	7/16	1.00	2.89	2.97	1.87	1.50	0.02	0.89	2.87	3.75	-	10
QAACW10A115S	2 in.																						
QACW10A050S	50 mm	22211	38.9	40.9	152.4	82.6	126.7	107.7	181.1	127.0	14.2	12	28.7	80.3	82.3	50.8	41.4	0.8	14.7	79.5	101.6	-	5.9
QACW11A203S	2 3/16 in.		1.53	1.61	6.00	3.25	4.99	4.24	7.13	5.000	0.56	1/2	1.13	3.16	3.24	2.00	1.63	0.03	0.58	3.13	4.00	-	13
QAACW11A203S	2 1/4 in.																						
QACW11A204S	2 1/4 in.																						
QAACW11A204S	2 1/4 in.																						
QACW11A055S	55 mm	22213	47.2	49.3	165.1	96.8	139.7	116.8	193.8	139.7	12.7	12	31.5	90.2	92.2	54.6	42.9	4.3	19.1	86.1	109.2	-	7.3
QACW13A060S	60 mm		1.86	1.94	6.50	3.81	5.50	4.60	7.63	5.500	0.50	1/2	1.24	3.55	3.63	2.15	1.69	0.17	0.75	3.39	4.30	-	16
QAACW13A060S	2 7/16 in.																						
QACW13A207S	2 7/16 in.																						
QAACW13A207S	2 7/16 in.																						
QACW13A208S	2 1/2 in.																						
QAACW13A208S	2 1/2 in.																						
QACW13A065S	65 mm	22215	46.0	48.0	190.5	109.0	162.1	134.6	222.3	161.9	12.7	16	31.8	93.5	95.5	60.2	47.8	1.5	26.9	91.9	120.4	-	10.0
QACW15A211S	2 11/16 in.		1.81	1.89	7.50	4.29	6.38	5.30	8.75	6.375	0.50	5/8	1.25	3.68	3.76	2.37	1.88	0.06	1.06	3.62	4.74	-	22
QAACW15A211S	2 3/4 in.																						
QACW15A070S	70 mm																						
QAACW15A070S	70 mm																						
QACW15A215S	2 15/16 in.																						
QAACW15A215S	2 15/16 in.																						
QACW15A300S	3 in.																						
QAACW15A300S	3 in.																						
QACW15A075S	75 mm																						
QAACW15A075S	75 mm																						

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

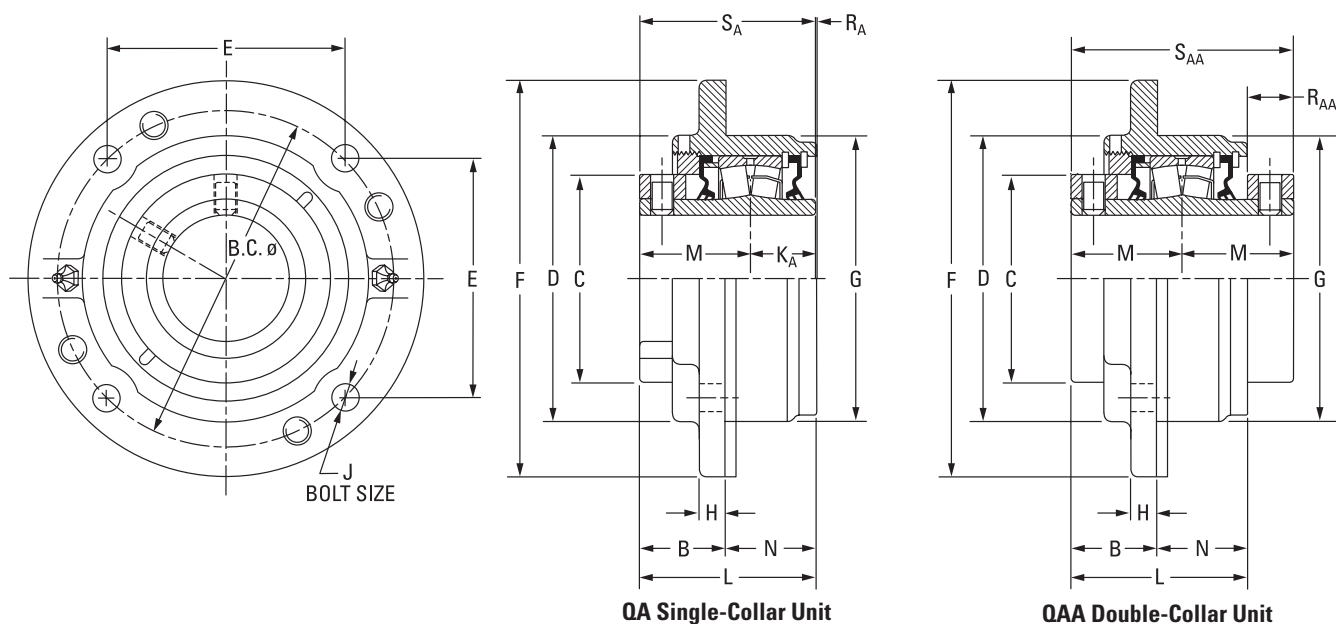
<sup>(2)</sup>Pilot tolerance: +0/-0.051 mm (+0/-0.002 in.).

<sup>(3)</sup>Six-bolt housing.

Continued on next page.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## CL SERIES • QACW AND QAACW PILOTED FLANGE CARTRIDGES



Continued from previous page.

Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	B <sub>FIX</sub>	B <sub>EXP</sub>	B.C.	C	D	E	F	G <sup>(2)</sup>	H	J	K <sub>A</sub>	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QACW18A303S QAACW18A303S	3 3/16 in.	22218	58.2 2.29	60.2 2.37	219.2 8.63	130.3 5.13	187.5 7.38	154.9 6.10	260.4 10.25	187.3 7.375	22.4 0.88	20 3/4	36.6 1.44	105.9 4.17	108.0 4.25	65.8 2.59	47.8 1.88	3.3 0.13	21.3 0.84	102.4 4.03	131.6 5.18	14.5 32	
QACW18A080S QAACW18A080S	80 mm																						
QACW18A085S QAACW18A085S	85 mm																						
QACW18A307S QAACW18A307S	3 7/16 in.																						
QACW18A308S QAACW18A308S	3 1/2 in.																						
QACW18A090S QAACW18A090S	90 mm																						
QACW20A315S QAACW20A315S	3 15/16 in.	22220	65.5 2.58	67.6 2.66	238.3 9.38	152.4 6.00	206.5 8.13	168.4 6.63	276.4 10.88	206.4 8.125	25.4 1.00	20 3/4	41.4 1.63	123.4 4.86	125.5 4.94	75.4 2.97	57.9 2.28	6.9 0.27	30.2 1.19	116.6 4.59	150.9 5.94	19.5 43	
QACW20A400S QAACW20A400S	4 in.																						
QACW20A100S QAACW20A100S	100 mm																						
QAACW22A110S	110 mm	22222	62.0 2.44	64.0 2.52	298.5 11.75 <sup>(3)</sup>	160.0 6.30	254.0 10.00	149.4 5.88 <sup>(3)</sup>	342.9 13.50	260.4 10.250	25.4 1.00	20 3/4 <sup>(3)</sup>	130.0 5.12	132.1 5.20	79.5 3.13	68.3 2.69	-	28.7 1.13	-	158.8 6.25	32.7 72		
QAACW22A407S <sup>(3)</sup>	4 7/16 in.																						
QAACW22A408S <sup>(3)</sup>	4 1/2 in.																						
QAACW26A125S <sup>(3)</sup>	125 mm	22226	73.7 2.90	75.7 2.98	323.9 12.75 <sup>(3)</sup>	175.0 6.89	266.7 10.50	162.1 6.38 <sup>(3)</sup>	374.7 14.75	279.4 11.000	26.2 1.03	24 7/8 <sup>(3)</sup>	153.2 6.03	155.2 6.11	94.5 3.72	78.0 3.07	-	35.8 1.41	-	189.0 7.44	46.3 102		
QAACW26A415S <sup>(3)</sup>	4 15/16 in.																						
QAACW26A500S <sup>(3)</sup>	5 in.																						
QAACW26A130S <sup>(3)</sup>	130 mm																						

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

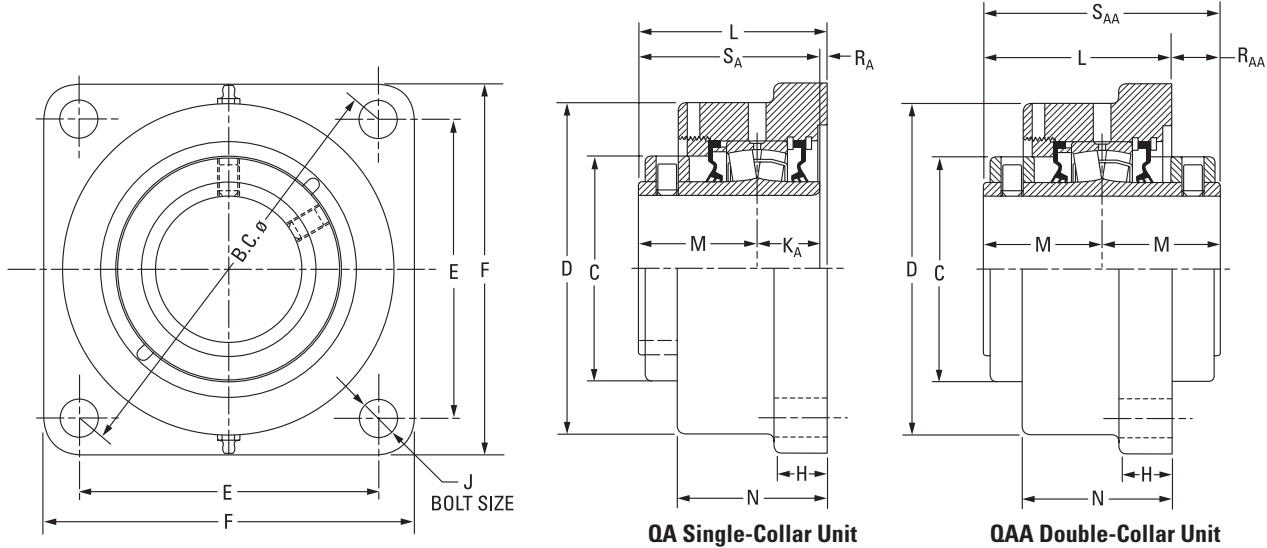
<sup>(2)</sup>Pilot tolerance: +0/-0.051 mm (+0/-0.002 in.).

<sup>(3)</sup>Six-bolt housing.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

CL SERIES • QAF AND QAAF SQUARE FLANGE BLOCKS

## QAF AND QAAF SQUARE FLANGE BLOCKS



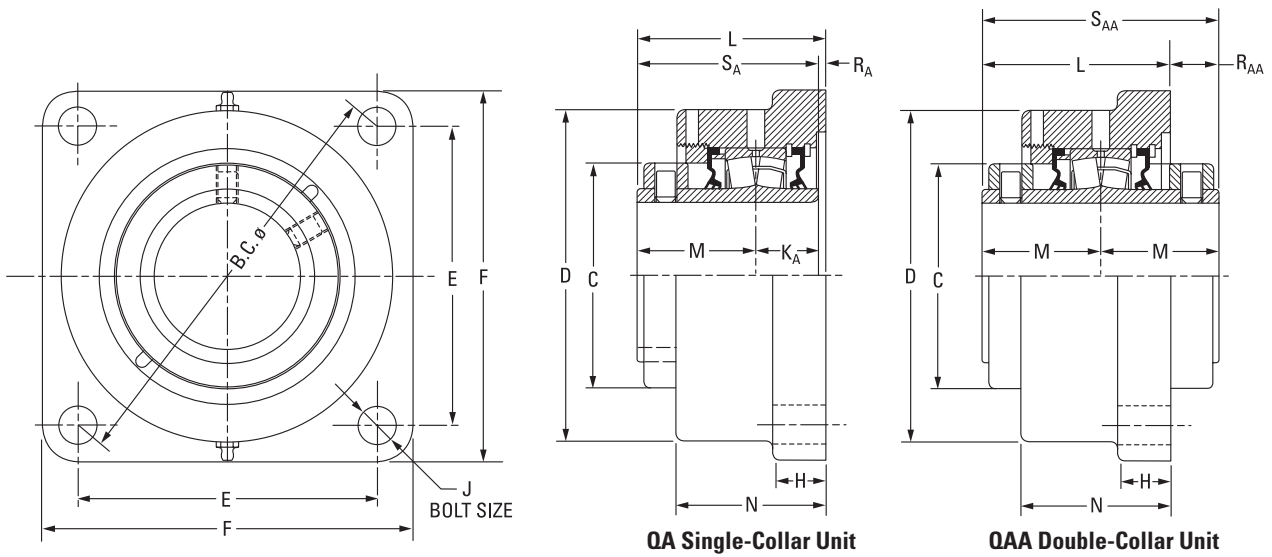
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	B.C.	C	D	E	F	H	J	K <sub>A</sub>	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.																		
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.																	
QAF08A035S	35 mm	22208	125.7	60.5	93.7	88.9	117.6	22.4	12	25.4	72.9	74.9	44.5	57.2	3.0	-	69.9	-	4.5																		
QAF08A107S	1 7/16 in.		4.95	2.38	3.69	3.50	4.63	0.88	1/2	1.00	2.87	2.95	1.75	2.25	0.12	-	2.75	-	10																		
QAF08A108S	1 1/2 in.	22208	148.3	60.5	108.0	104.9	136.7	22.4	12	25.4	73.7	75.7	44.5	59.4	3.8	-	69.9	-	4.5																		
			5.84	2.38	4.25	4.13	5.38	0.88	1/2	1.00	2.90	2.98	1.75	2.34	0.15	-	2.75	-	10																		
QAF09A040S	40 mm	22209	148.3	66.8	118.4	104.9	136.7	22.4	12	25.4	79.5	81.5	47.8	63.5	6.4	-	73.2	-	5.0																		
QAF09A111S	1 11/16 in.		5.84	2.63	4.66	4.13	5.38	0.88	1/2	1.00	3.13	3.21	1.88	2.50	0.25	-	2.88	-	11																		
QAF09A112S	1 3/4 in.	22209	157.2	66.8	118.4	111.3	143.0	22.4	12	25.4	79.5	81.5	47.8	63.5	6.4	-	73.2	-	5.0																		
QAF09A045S	45 mm		6.19	2.63	4.66	4.38	5.63	0.88	1/2	1.00	3.13	3.21	1.88	2.50	0.25	-	2.88	-	11																		
QAF10A115S	1 15/16 in.	22210	157.2	73.2	120.7	111.3	139.7	22.4	12	25.4	80.8	82.8	47.5	65.0	7.9	15.2	72.9	95.3	5.0																		
QAF10A200S	2 in.																			6.19	2.88	4.75	4.38	5.50	0.88	1/2	1.00	3.18	3.26	1.87	2.56	0.31	0.60	2.87	3.75	11	
QAAF10A200S																																					
QAF10A050S	50 mm																																				
QAAF10A050S																																					
QAF11A203S	2 3/16 in.	22211	175.0	82.6	130.3	124.0	157.2	25.4	16	28.7	83.1	85.1	50.8	66.8	3.8	18.5	79.5	101.6	6.4																		
QAF11A204S	2 1/4 in.																			6.89	3.25	5.13	4.88	6.19	1.00	5/8	1.13	3.27	3.35	2.00	2.63	0.15	0.73	3.13	4.00	14	
QAAF11A204S																																					
QAF11A055S	55 mm																																				
QAAF11A055S																																					
QAF13A060S	60 mm	22213	193.0	96.8	146.1	136.7	168.4	25.4	16	31.5	89.2	91.2	54.6	72.4	3.0	20.1	86.1	109.2	7.7																		
QAAF13A060S																																					
QAF13A207S	2 7/16 in.																			7.60	3.81	5.75	5.38	6.63	1.00	5/8	1.24	3.51	3.59	2.15	2.85	0.12	0.79	3.39	4.30	17	
QAAF13A207S																																					
QAF13A208S	2 1/2 in.																																				
QAAF13A208S																																					
QAF13A065S	65 mm																																				
QAAF13A065S																																					

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

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# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

CL SERIES • QAF AND QAAF SQUARE FLANGE BLOCKS



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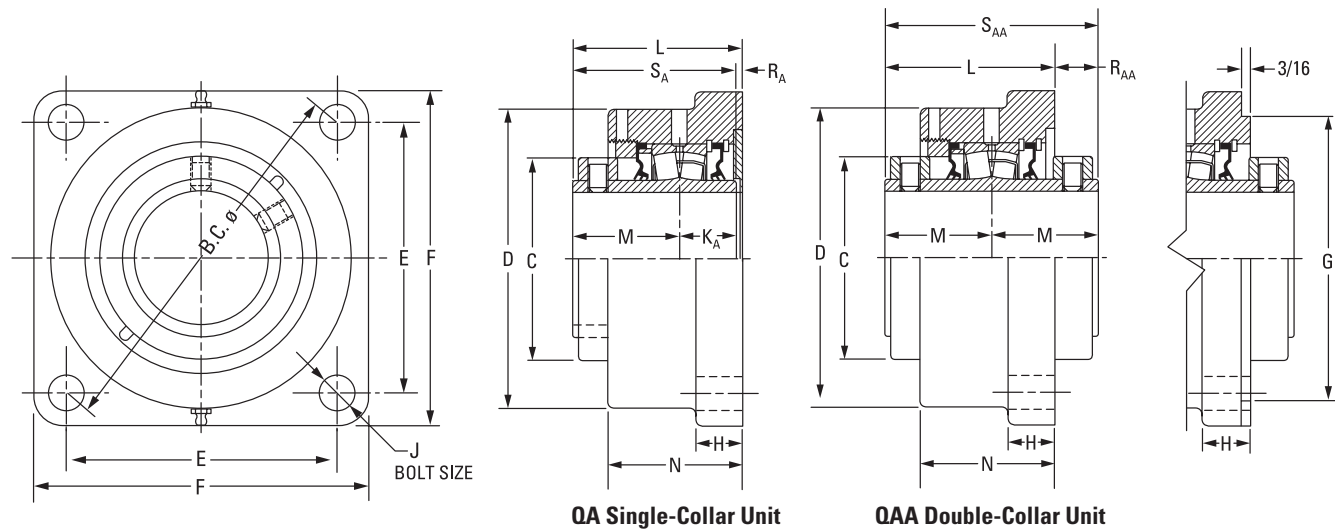
Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	B.C.	C	D	E	F	H	J	K <sub>A</sub>	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QAF15A211S QAAF15A211S	2 11/16 in.	22215	215.4 8.48	109.0 4.29	168.9 6.65	152.4 6.00	189.0 7.44	26.9 1.06	20 3/4	31.8 1.25	95.8 3.77	97.8 3.85	60.2 2.37	76.2 3.00	3.8 0.15	24.6 0.97	91.9 3.62	120.4 4.74	10.4 23	
QAF15A212S QAAF15A212S	2 3/4 in.																			
QAF15A070S QAAF15A070S	<b>70 mm</b>																			
QAF15A215S QAAF15A215S	2 15/16 in.																			
QAF15A300S QAAF15A300S	3 in.																			
QAF15A075S QAAF15A075S	<b>75 mm</b>																			
QAF18A303S QAAF18A303S	3 3/16 in.	22218	251.7 9.91	130.3 5.13	193.8 7.63	177.8 7.00	219.2 8.63	33.3 1.31	20 3/4	36.6 1.44	107.2 4.22	109.2 4.30	65.8 2.59	84.1 3.31	4.8 0.19	24.4 0.96	102.4 4.03	131.6 5.18	15.9 35	
QAF18A304S QAAF18A304S	3 1/4 in.																			
QAF18A080S QAAF18A080S	<b>80 mm</b>																			
QAF18A085S QAAF18A085S	<b>85 mm</b>																			
QAF18A307S QAAF18A307S	3 7/16 in.																			
QAF18A308S QAAF18A308S	3 1/2 in.																			
QAF18A090S QAAF18A090S	<b>90 mm</b>	22220	278.4 10.96	152.4 6.00	224.0 8.82	196.9 7.75	253.2 9.97	38.1 1.50	24 7/8	41.4 1.63	126.0 4.96	128.0 5.04	75.4 2.97	103.1 4.06	9.4 0.37	24.1 0.95	116.6 4.59	150.4 5.92	24.9 55	
QAF20A315S QAAF20A315S	3 15/16 in.																			
QAF20A400S QAAF20A400S	4 in.																			
QAF20A100S QAAF20A100S	<b>100 mm</b>																			
QAAF22A110S	<b>110 mm</b>																			
QAAF22A407S	4 7/16 in.																			
QAAF22A408S	4 1/2 in.	22222	314.5 12.38	160.0 6.30	222.3 8.75	222.3 8.75	276.4 10.88	38.1 1.50	24 7/8	-	135.6 5.34	137.7 5.42	79.5 3.13	106.9 4.21	-	23.4 0.92	-	158.8 6.25	28.6 63	
QAAF22A115S	<b>115 mm</b>																			

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## CL SERIES • QAFL AND QAAFL SQUARE FLANGE BLOCKS

### QAFL AND QAAFL SQUARE FLANGE BLOCKS



QA Single-Collar Unit

QAA Double-Collar Unit

Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	B.C.	C	D	E	F	G <sup>(2)(3)(4)</sup>	H	J	K <sub>A</sub>	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QAFL08A035S	35 mm	22208	127.0	60.5	93.7	89.9	117.6	N/A	22.4	12	25.4	72.9	74.9	44.5	57.2	3.0	-	69.9	-	4.5
QAFL08A107S	1 7/16 in.		5.00	2.38	3.69	3.54	4.63	N/A	0.88	1/2	1.00	2.87	2.95	1.75	2.25	0.12	-	2.75	-	10
QAFL08A108S	1 1/2 in.																			
QAFL09A040S	40 mm	22209	139.7	66.8	118.4	98.8	136.7	N/A	22.4	12	25.4	79.5	81.5	47.8	63.5	6.6	-	73.2	-	5.0
QAFL09A111S	1 11/16 in.		5.50	2.63	4.66	3.89	5.38	N/A	0.88	1/2	1.00	3.13	3.21	1.88	2.50	0.26	-	2.88	-	11
QAFL09A112S	1 3/4 in.																			
QAFL09A045S	45 mm	22210	146.1	73.2	120.7	103.4	131.8	N/A	23.1	12	25.4	80.8	82.8	47.5	62.5	7.9	15.2	72.9	95.3	5.0
QAFL10A115S	1 15/16 in.		5.75	2.88	4.75	4.07	5.19	N/A	0.91	1/2	1.00	3.18	3.26	1.87	2.46	0.31	0.60	2.87	3.75	11
QAFL10A200S	2 in.																			
QAFL10A050S	50 mm	22211	162.1	82.6	131.8	114.3	149.4	N/A	19.1	16	28.7	83.3	85.3	50.8	66.8	3.8	18.3	79.5	101.6	6.4
QAFL11A203S	2 3/16 in.		6.38	3.25	5.19	4.50	5.88	N/A	0.75	5/8	1.13	3.28	3.36	2.00	2.63	0.15	0.72	3.13	4.00	14
QAFL11A204S	2 1/4 in.																			
QAFL11A055S	55 mm	22213	171.5	96.8	146.1	121.2	157.2	N/A	25.4	16	31.5	89.2	91.2	54.6	72.6	3.0	20.1	86.1	109.2	7.7
QAFL13A060S	60 mm		6.75	3.81	5.75	4.77	6.19	N/A	1.00	5/8	1.24	3.51	3.59	2.15	2.86	0.12	0.79	3.39	4.30	17
QAFL13A207S	2 7/16 in.																			
QAFL13A208S	2 1/2 in.																			
QAFL13A065S	65 mm																			

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

<sup>(2)</sup>Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

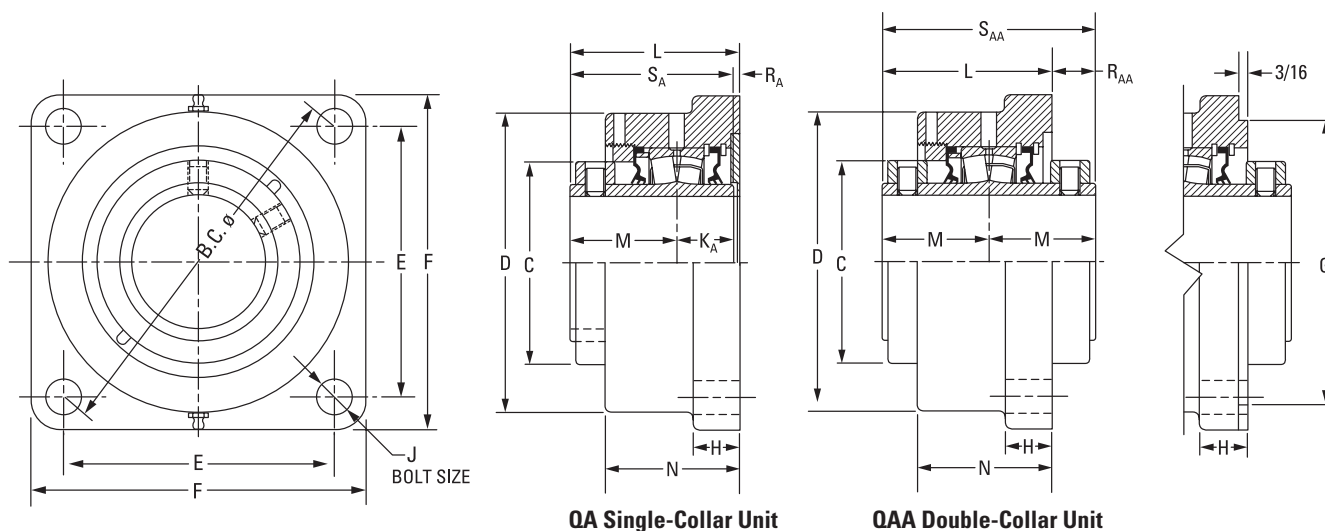
<sup>(3)</sup>Add (p) to the end of the housing designation in the part number to order with pilot using G dimension.

<sup>(4)</sup>Piloted flange blocks will be quoted (price and delivery) upon request. For optional spigot on flange side, insert the letter P as seen in the following example: QMFP\*\*J\*\*\*S.

Continued on next page.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

CL SERIES • QAFL AND QAAFL SQUARE FLANGE BLOCKS



Continued from previous page.

Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	B.C.	C	D	E	F	G <sup>(2)(3)(4)</sup>	H	J	K <sub>A</sub>	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QAFL15A211S QAAFL15A211S	2 11/16 in.	22215	200.2 7.88	109.0 4.29	168.4 6.63	141.2 5.56	182.6 7.19	N/A	26.9 1.06	20 3/4	31.8 1.25	95.8 3.77	97.8 3.85	60.2 2.37	74.4 2.93	3.8 0.15	24.6 0.97	91.9 3.62	120.4 4.74	10.4 23
QAFL15A212S QAAFL15A212S	2 3/4 in.																			
QAFL15A070S QAAFL15A070S	70 mm																			
QAFL15A215S QAAFL15A215S	2 15/16 in.																			
QAFL15A300S QAAFL15A300S	3 in.																			
QAFL15A075S QAAFL15A075S	75 mm																			
QAFL18A303S QAAFL18A303S	3 3/16 in.	22218	241.3 9.50	130.3 5.13	193.8 7.63	170.7 6.72	212.9 8.38	187.33 7.375	32.5 1.28	20 3/4	36.6 1.44	106.4 4.19	108.5 4.27	65.8 2.59	86.4 3.40	4.1 0.16	25.1 0.99	102.4 4.03	131.6 5.18	15.9 35
QAFL18A304S QAAFL18A304S	3 1/4 in.																			
QAFL18A080S QAAFL18A080S	80 mm																			
QAFL18A085S QAAFL18A085S	85 mm																			
QAFL18A307S QAAFL18A307S	3 7/16 in.																			
QAFL18A308S QAAFL18A308S	3 1/2 in.																			
QAFL18A090S QAAFL18A090S	90 mm	22220	273.1 10.75	152.4 6.00	229.6 9.04	193.0 7.60	241.3 9.50	215.90 8.500	38.1 1.50	24 1	41.4 1.63	132.3 5.21	134.4 5.29	75.4 2.97	104.6 4.12	15.7 0.62	18.0 0.71	116.6 4.59	150.4 5.92	24.9 55
QAFL20A315S QAAFL20A315S	3 15/16 in.																			
QAFL20A400S QAAFL20A400S	4 in.																			
QAFL20A100S QAAFL20A100S	100 mm																			

<sup>(1)</sup> Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

<sup>(2)</sup> Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

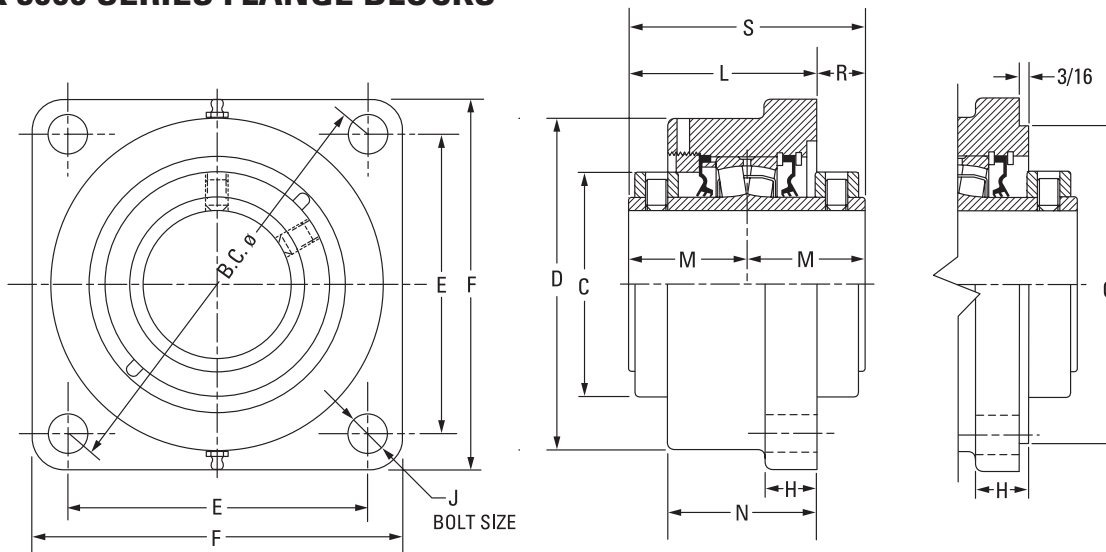
<sup>(3)</sup> Add (p) to the end of the housing designation in the part number to order with pilot using G dimension.

<sup>(4)</sup> Piloted flange blocks will be quoted (price and delivery) upon request. For optional spigot on flange side, insert the letter P as seen in the following example: QMFP\*\*J\*\*\*S.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## CL SERIES • QAAF 5000 SERIES FLANGE BLOCKS

### QAAF 5000 SERIES FLANGE BLOCKS



Bearing Part No.	Shaft Dia.	Bearing No.	B.C.	C	D	E	F	G <sup>(1)(2)(3)</sup>	H	J	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QAAF10A115S	1 15/16 in.	22210	146.1	73.2	120.7	103.1	134.9	111.13	22.4	12	80.8	82.8	47.5	65.0	15.2	95.3	5.4
QAAF10A200S	2 in.		5.75	2.88	4.75	4.06	5.31	4.375	0.88	1/2	3.18	3.26	1.87	2.56	0.60	3.75	12
QAAF10A050S	50 mm																
QAAF11A203S	2 3/16 in.	22211	161.5	82.6	130.3	114.3	149.4	127.00	25.4	16	83.1	85.1	50.5	66.8	18.5	101.6	6.8
QAAF11A204S	2 1/4 in.		6.36	3.25	5.13	4.50	5.88	5.000	1.00	5/8	3.27	3.35	1.99	2.63	0.73	4.00	15
QAAF11A055S	55 mm																
QAAF13A060S	60 mm	22213	180.8	96.8	146.1	127.8	157.2	138.13	25.4	16	89.2	91.2	54.6	72.4	19.6	109.2	8.6
QAAF13A207S	2 7/16 in.		7.12	3.81	5.75	5.03	6.19	5.438	1.00	5/8	3.51	3.59	2.15	2.85	0.77	4.30	19
QAAF13A208S	2 1/2 in.																
QAAF13A065S	65 mm	22215	215.9	109.0	168.9	152.7	189.0	160.35	26.9	20	96.0	98.0	60.2	76.2	24.4	120.4	12.7
QAAF15A211S	2 1/16 in.		8.50	4.29	6.65	6.01	7.44	6.313	1.06	3/4	3.78	3.86	2.37	3.00	0.96	4.74	28
QAAF15A212S	2 3/4 in.																
QAAF15A070S	70 mm	22218	241.3	130.3	193.8	170.7	212.9	187.33	33.3	20	107.2	109.2	65.8	84.1	24.6	131.6	19.1
QAAF15A215S	2 15/16 in.		9.50	5.13	7.63	6.72	8.38	7.375	1.31	3/4	4.22	4.30	2.59	3.31	0.97	5.18	42
QAAF15A300S	3 in.																
QAAF15A075S	75 mm	22220	298.5	152.4	215.9	211.1	268.2	225.43	38.1	24	126.0	128.0	75.4	103.1	24.6	150.4	29.9
QAAF18A303S	3 3/16 in.		11.75	6.00	8.50	8.31	10.56	8.875	1.50	7/8	4.96	5.04	2.97	4.06	0.97	5.92	66
QAAF18A304S	3 1/4 in.																
QAAF18A080S	80 mm	22222	327.2	160.0	256.5	163.6	384.3	263.53	31.8	24	143.8	145.8	94.0	106.9	15.0	158.8	46.3
QAAF18A085S	85 mm		12.88 <sup>(4)</sup>	6.30	10.10	6.44 <sup>(4)</sup>	15.13	10.375	1.25	7/8	5.66	5.74	3.70	4.21	0.59	6.25	102
QAAF18A307S	3 7/16 in.																
QAAF18A308S	3 1/2 in.	22226	355.6	175.0	284.2	177.8	419.1	284.18	38.1	24	174.8	176.8	94.5	135.1	14.2	189.0	52.2
QAAF18A090S	90 mm		14.00 <sup>(4)</sup>	6.89	11.19	7.00 <sup>(4)</sup>	16.50	11.188	1.50	1	6.88	6.96	3.72	5.32	0.56	7.44	115
QAAF20A315S	3 15/16 in.																
QAAF20A400S	4 in.	22226	355.6	175.0	284.2	177.8	419.1	284.18	38.1	24	174.8	176.8	94.5	135.1	14.2	189.0	52.2
QAAF20A100S	100 mm		14.00 <sup>(4)</sup>	6.89	11.19	7.00 <sup>(4)</sup>	16.50	11.188	1.50	1	6.88	6.96	3.72	5.32	0.56	7.44	115
QAAF22A110S	110 mm																
QAAF22A407S <sup>(4)</sup>	4 7/16 in.	22222	327.2	160.0	256.5	163.6	384.3	263.53	31.8	24	143.8	145.8	94.0	106.9	15.0	158.8	46.3
QAAF22A408S <sup>(4)</sup>	4 1/2 in.		12.88 <sup>(4)</sup>	6.30	10.10	6.44 <sup>(4)</sup>	15.13	10.375	1.25	7/8	5.66	5.74	3.70	4.21	0.59	6.25	102
QAAF22A115S <sup>(4)</sup>	115 mm																
QAAF26A125S <sup>(4)</sup>	125 mm	22226	355.6	175.0	284.2	177.8	419.1	284.18	38.1	24	174.8	176.8	94.5	135.1	14.2	189.0	52.2
QAAF26A415S <sup>(4)</sup>	4 15/16 in.		14.00 <sup>(4)</sup>	6.89	11.19	7.00 <sup>(4)</sup>	16.50	11.188	1.50	1	6.88	6.96	3.72	5.32	0.56	7.44	115
QAAF26A500S <sup>(4)</sup>	5 in.																
QAAF26A130S <sup>(4)</sup>	130 mm																

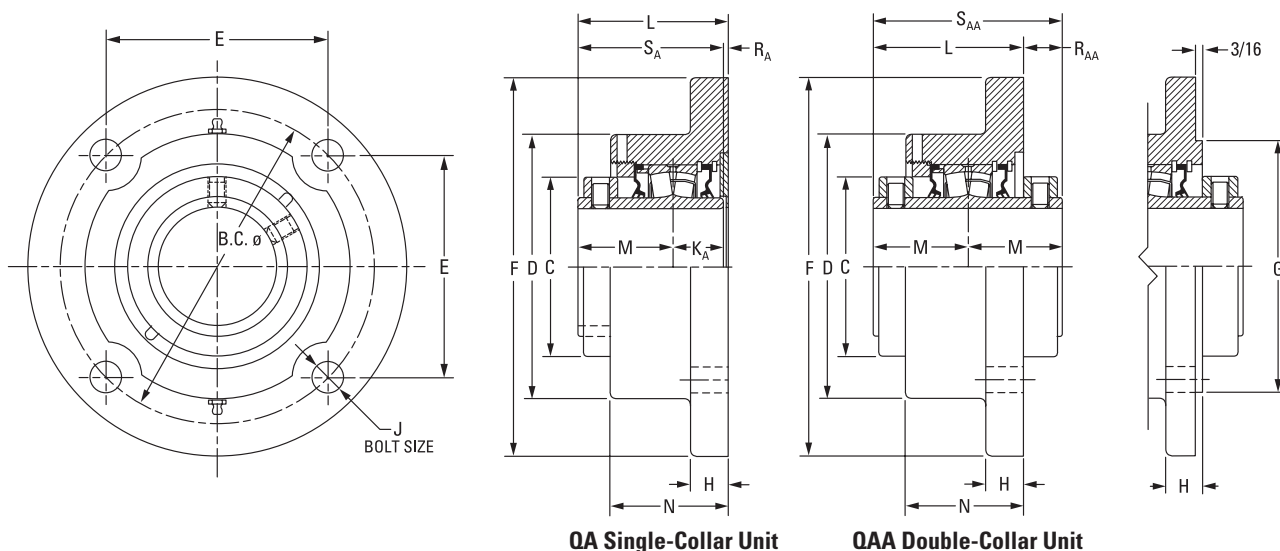
<sup>(1)</sup>Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

<sup>(2)</sup>Add (p) to the end of the housing designation in the part number to order with pilot using G dimension.

<sup>(3)</sup>Piloted flange blocks will be quoted (price and delivery) upon request. For optional spigot on flange side, insert the letter P as seen in the following example: QMFP\*\*J\*\*\*S.

<sup>(4)</sup>Six-bolt round housing.

QAFY AND QAAFY ROUND FLANGE BLOCKS



Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	B.C.	C	D	E	F	G <sup>(2)(3)(4)</sup>	H	J	KA	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	RA	RAA	SA	SAA	Wt.	
			mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QAFY08A035S <sup>(6)</sup>	<b>35 mm</b>	22208	<b>127.0</b>	<b>60.5</b>	<b>108.0</b>	<b>89.9</b>	<b>158.8</b>	<b>90.50</b>	<b>19.1</b>	<b>12</b>	<b>25.4</b>	<b>73.2</b>	<b>75.2</b>	<b>44.5</b>	<b>57.4</b>	<b>3.3</b>		<b>69.9</b>		<b>4.5</b>	
QAFY08A107S <sup>(6)</sup>	1 7/16 in.		<b>5.00</b>	<b>2.38</b>	<b>4.25</b>	<b>3.54</b>	<b>6.25</b>	<b>3.563</b>	<b>0.75</b>	<b>1/2</b>	<b>1.00</b>	<b>2.88</b>	<b>2.96</b>	<b>1.75</b>	<b>2.26</b>	<b>0.13</b>		<b>2.75</b>		<b>10</b>	
QAFY08A108S <sup>(6)</sup>	1 1/2 in.																				
QAFY09A040S	<b>40 mm</b>	22209	<b>139.7</b>	<b>66.8</b>	<b>104.9</b>	<b>98.8</b>	<b>171.5</b>	<b>103.20</b>	<b>20.6</b>	<b>12</b>	<b>25.4</b>	<b>76.2</b>	<b>78.2</b>	<b>47.8</b>	<b>60.5</b>	<b>3.0</b>		<b>73.2</b>		<b>5.0</b>	
QAFY09A112S	1 3/4 in.		<b>5.50</b>	<b>2.63</b>	<b>4.13</b>	<b>3.89</b>	<b>6.75</b>	<b>4.063</b>	<b>0.81</b>	<b>1/2</b>	<b>1.00</b>	<b>3.00</b>	<b>3.08</b>	<b>1.88</b>	<b>2.38</b>	<b>0.12</b>		<b>2.88</b>		<b>11</b>	
QAFY09A045S	<b>45 mm</b>																				
QAFY10A115S	1 15/16 in.	22210	<b>146.1</b>	<b>73.2</b>	<b>115.3</b>	<b>103.4</b>	<b>177.8</b>	<b>111.13</b>	<b>19.1</b>	<b>12</b>	<b>25.4</b>	<b>75.9</b>	<b>78.0</b>	<b>47.5</b>	<b>57.2</b>	<b>3.0</b>	<b>20.1</b>	<b>72.9</b>	<b>95.3</b>	<b>5.4</b>	
QAFY10A200S	2 in.		<b>5.75</b>	<b>2.88</b>	<b>4.54</b>	<b>4.07</b>	<b>7.00</b>	<b>4.375</b>	<b>0.75</b>	<b>1/2</b>	<b>1.00</b>	<b>2.99</b>	<b>3.07</b>	<b>1.87</b>	<b>2.25</b>	<b>0.12</b>	<b>0.79</b>	<b>2.87</b>	<b>3.75</b>	<b>12</b>	
QAFY10A050S	<b>50 mm</b>																				
QAFY11A203S	2 3/16 in.	22211	<b>162.1</b>	<b>82.6</b>	<b>130.3</b>	<b>114.3</b>	<b>196.9</b>	<b>127.00</b>	<b>19.1</b>	<b>16</b>	<b>28.7</b>	<b>82.3</b>	<b>84.3</b>	<b>50.8</b>	<b>62.0</b>	<b>3.0</b>	<b>19.3</b>	<b>79.5</b>	<b>101.6</b>	<b>6.8</b>	
QAFY11A204S	2 1/4 in.		<b>6.38</b>	<b>3.25</b>	<b>5.13</b>	<b>4.50</b>	<b>7.75</b>	<b>5.000</b>	<b>0.75</b>	<b>5/8</b>	<b>1.13</b>	<b>3.24</b>	<b>3.32</b>	<b>2.00</b>	<b>2.44</b>	<b>0.12</b>	<b>0.76</b>	<b>3.13</b>	<b>4.00</b>	<b>15</b>	
QAFY11A055S	<b>55 mm</b>																				
QAFY13A060S	<b>60 mm</b>	22213	<b>171.5</b>	<b>96.8</b>	<b>146.1</b>	<b>121.2</b>	<b>206.5</b>	<b>138.13</b>	<b>23.9</b>	<b>16</b>	<b>31.5</b>	<b>91.2</b>	<b>93.2</b>	<b>54.6</b>	<b>72.4</b>	<b>5.1</b>	<b>20.6</b>	<b>86.1</b>	<b>109.2</b>	<b>8.6</b>	
QAFY13A207S	2 7/16 in.		<b>6.75</b>	<b>3.81</b>	<b>5.75</b>	<b>4.77</b>	<b>8.13</b>	<b>5.438</b>	<b>0.94</b>	<b>5/8</b>	<b>1.24</b>	<b>3.59</b>	<b>3.67</b>	<b>2.15</b>	<b>2.85</b>	<b>0.20</b>	<b>0.81</b>	<b>3.39</b>	<b>4.30</b>	<b>19</b>	
QAFY13A208S	2 1/2 in.																				
QAFY13A065S	<b>65 mm</b>																				

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use SA and RA dimensions) and QAA to designate double-collar units (use SAA and RAA dimensions).

<sup>(2)</sup>Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

<sup>(3)</sup>Add (p) to the end of the housing designation in the part number to order with pilot using G dimension.

<sup>(4)</sup>Piloted flange blocks will be quoted (price and delivery) upon request. For optional spigot on flange side, insert the letter P as seen in the following example: QMFP\*\*J\*\*\*S.

<sup>(5)</sup>Six-bolt housing.

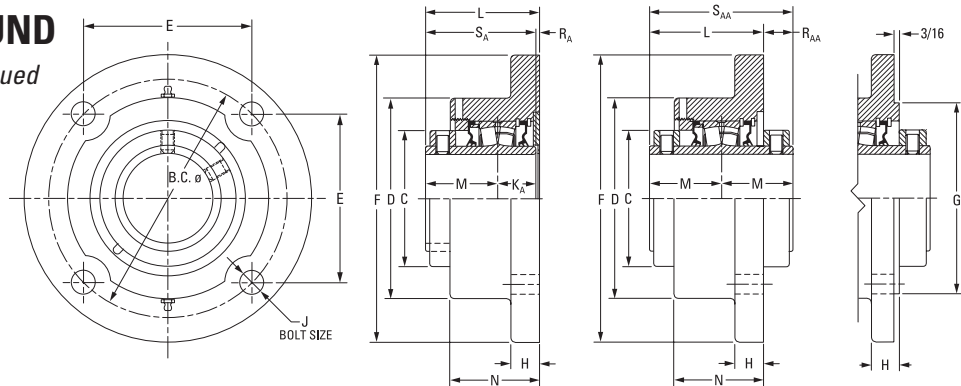
<sup>(6)</sup>Three-bolt housing.

Continued on next page.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## CL SERIES • QAFY AND QAAFY ROUND FLANGE BLOCKS

### QAFY AND QAAFY ROUND FLANGE BLOCKS – continued



QA Single-Collar Unit    QAA Double-Collar Unit

Continued from previous page.

Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	B.C.	C	D	E	F	G <sup>(2)(3)(4)</sup>	H	J	K <sub>A</sub>	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QAFY15A211S QAAFY15A211S	2 11/16 in.	22215	200.2 7.88	109.0 4.29	168.4 6.63	141.5 5.57	241.3 9.50	160.35 6.313	23.9 0.94	20 3/4	31.8 1.25	98.3 3.87	100.3 3.95	60.2 2.37	74.4 2.93	6.4 0.25	21.8 0.86	91.9 3.62	120.4 4.74	12.7 28	
QAFY15A212S QAAFY15A212S	2 3/4 in.																				
QAFY15A070S QAAFY15A070S	70 mm																				
QAFY15A215S QAAFY15A215S	2 15/16 in.																				
QAFY15A300S QAAFY15A300S	3 in.																				
QAFY15A075S QAAFY15A075S	75 mm																				
QAFY18A303S QAAFY18A303S	3 3/16 in.																				22218
QAFY18A304S QAAFY18A304S	3 1/4 in.																				
QAFY18A080S QAAFY18A080S	80 mm																				
QAFY18A085S QAAFY18A085S	85 mm																				
QAFY18A307S QAAFY18A307S	3 7/16 in.																				
QAFY18A308S QAAFY18A308S	3 1/2 in.																				
QAFY18A090S QAAFY18A090S	90 mm																				
QAFY20A315S QAAFY20A315S	3 15/16 in.	22220	273.1 10.75	152.4 6.00	212.9 8.38	193.0 7.60	320.8 12.63	N/A	28.7 1.13	24 1	41.4 1.63	123.7 4.87	125.7 4.95	75.4 2.97	96.8 3.81	6.9 0.27	26.7 1.05	116.6 4.59	150.4 5.92	29.9 66	
QAFY20A400S QAAFY20A400S	4 in.																				
QAFY20A100S QAAFY20A100S	100 mm																				
QAAFY22A110S <sup>(5)</sup>	110 mm																				
QAAFY22A407S <sup>(5)</sup>	4 7/16 in.	22222	327.2 12.88 <sup>(5)</sup>	160.0 6.30	254.0 10.00	163.6 6.44 <sup>(5)</sup>	384.3 15.13	N/A	31.8 1.25	24 1 <sup>(5)</sup>	129.0 5.08	131.1 5.16	79.5 3.13	100.3 3.95	-	30.0 1.18	-	158.8 6.25	46.3 102		
QAAFY22A408S <sup>(5)</sup>	4 1/2 in.																				
QAAFY22A115S <sup>(5)</sup>	115 mm	22226	355.6 14.00 <sup>(5)</sup>	175.0 6.89	284.2 11.19	177.8 7.00 <sup>(5)</sup>	419.1 16.50	N/A	38.1 1.50	27 1 1/8 <sup>(5)</sup>	169.9 6.69	172.0 6.77	94.5 3.72	139.7 5.50	-	19.1 0.75	-	189.0 7.44	52.2 115		
QAAFY26A125S <sup>(5)</sup>	125 mm																				
QAAFY26A415S <sup>(5)</sup>	4 15/16 in.																				
QAAFY26A500S <sup>(5)</sup>	5 in.																				
QAAFY26A130S <sup>(5)</sup>	130 mm																				

<sup>(1)</sup> Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

<sup>(2)</sup> Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

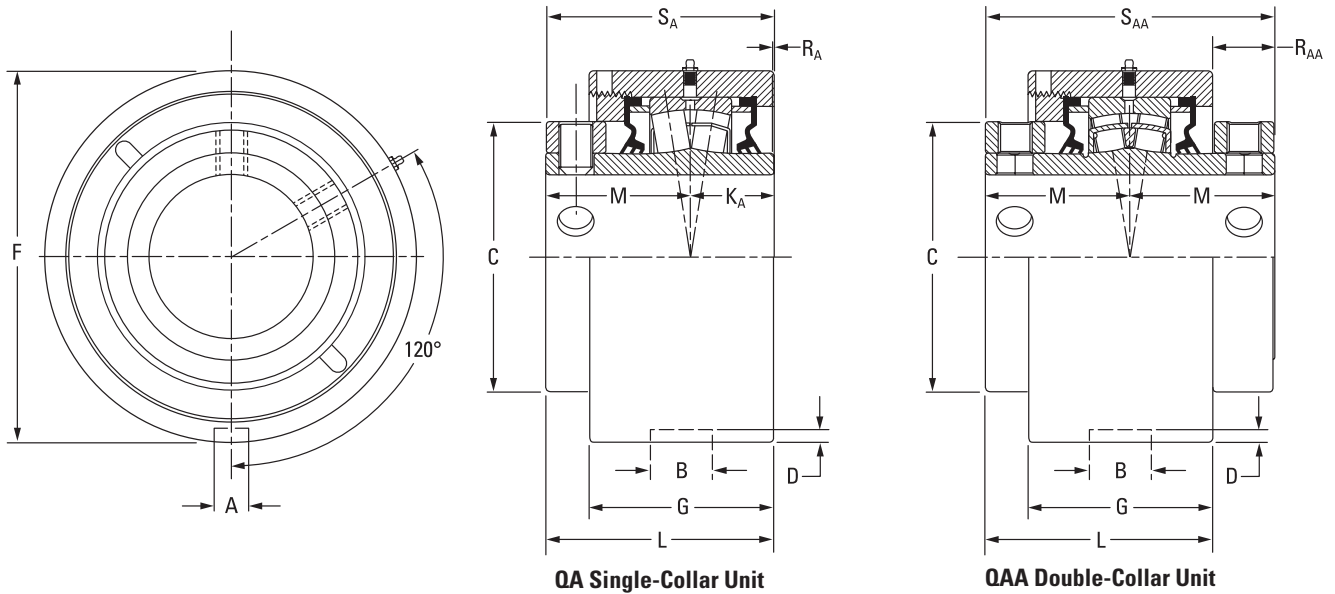
<sup>(3)</sup> Add (p) to the end of the housing designation in the part number to order with pilot using G dimension.

<sup>(4)</sup> Piloted flange blocks will be quoted (price and delivery) upon request. For optional spigot on flange side, insert the letter P as seen in the following example: QMFP\*\*J\*\*\*S.

<sup>(5)</sup> Six-bolt housing.

<sup>(6)</sup> Three-bolt housing.

QAMC AND QAAMC CARTRIDGE BLOCKS



Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D	F	G	K <sub>A</sub>	L <sub>FIX</sub>	L <sub>EXP</sub>	M	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.
			mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
QAMC10A115S QAAMC10A115S	1 15/16 in.	22210	13.5 0.53	23.1 0.91	73.2 2.88	4.8 0.19	104.78 (+0/-0.05) 4.125 (+0/-0.002)	62.2 2.45	25.4 1.00	79.2 3.12	81.3 3.20	47.5 1.87	6.1 0.24	16.8 0.66	72.9 2.87	95.3 3.75	3.6 8
QAMC10A200S QAAMC10A200S	2 in.																
QAMC10A050S QAAMC10A050S	50 mm																
QAMC11A203S QAAMC11A203S	2 3/16 in.	22211	13.5 0.53	23.1 0.91	82.6 3.25	4.8 0.19	115.09 (+0/-0.05) 4.531 (+0/-0.002)	65.5 2.58	28.7 1.13	83.8 3.30	85.9 3.38	50.8 2.00	4.1 0.16	18.0 0.71	79.5 3.13	101.6 4.00	4.5 10
QAMC11A204S QAAMC11A204S	2 1/4 in.																
QAMC11A055S QAAMC11A055S	55 mm																
QAMC13A060S QAAMC13A060S	60 mm	22213	13.5 0.53	23.1 0.91	96.8 3.81	3.6 0.14	127.00 (+0/-0.05) 5.000 (+0/-0.002)	69.3 2.73	31.5 1.24	85.9 3.38	87.9 3.46	54.6 2.15	0.0 0.00	14.0 0.55	86.1 3.39	109.2 4.30	5.4 12
QAMC13A207S QAAMC13A207S	2 7/16 in.																
QAMC13A208S QAAMC13A208S	2 1/2 in.																
QAMC13A065S QAAMC13A065S	65 mm	22215	15.0 0.59	26.2 1.03	109.0 4.29	6.4 0.25	149.225 (+0/-0.05) 5.875 (+0/-0.002)	79.8 3.14	31.8 1.25	100.6 3.96	102.6 4.04	60.2 2.37	8.1 0.32	19.8 0.78	91.9 3.62	120.4 4.74	8.2 18
QAMC15A211S QAAMC15A211S	2 11/16 in.																
QAMC15A212S QAAMC15A212S	2 3/4 in.																
QAMC15A070S QAAMC15A070S	70 mm																
QAMC15A215S QAAMC15A215S	2 15/16 in.																
QAMC15A300S QAAMC15A300S	3 in.																
QAMC15A075S QAAMC15A075S	75 mm																

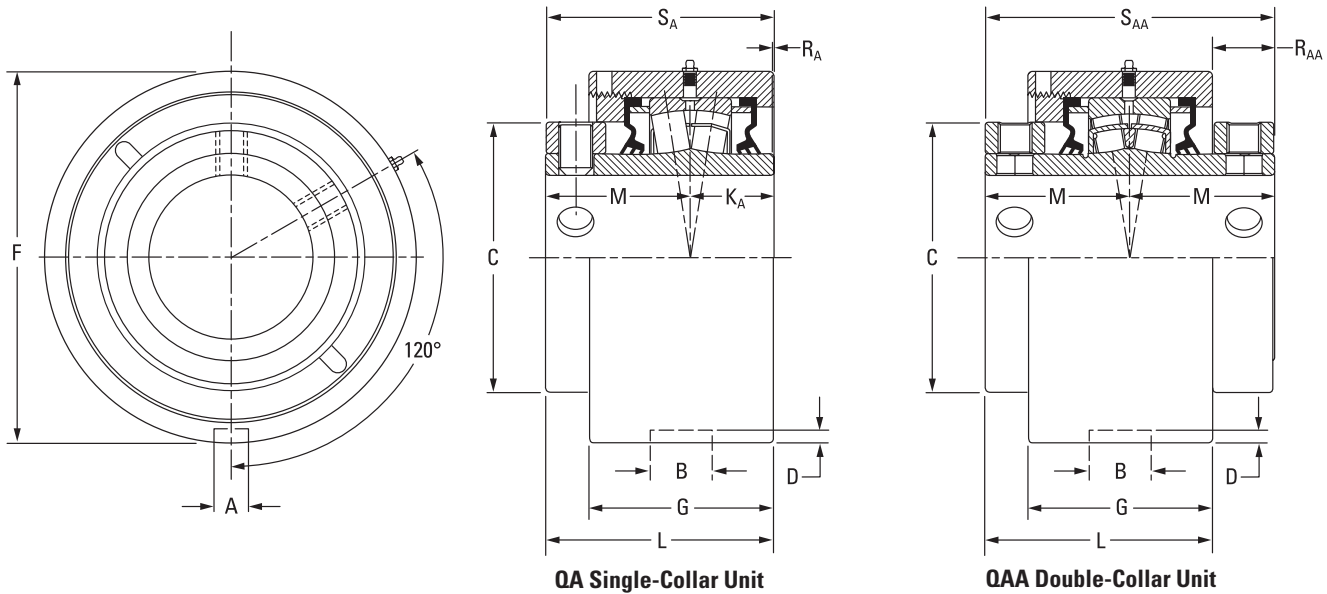
<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

Continued on next page.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## CL SERIES • QAMC AND QAAMC CARTRIDGE BLOCKS

### QAMC AND QAAMC CARTRIDGE BLOCKS – continued

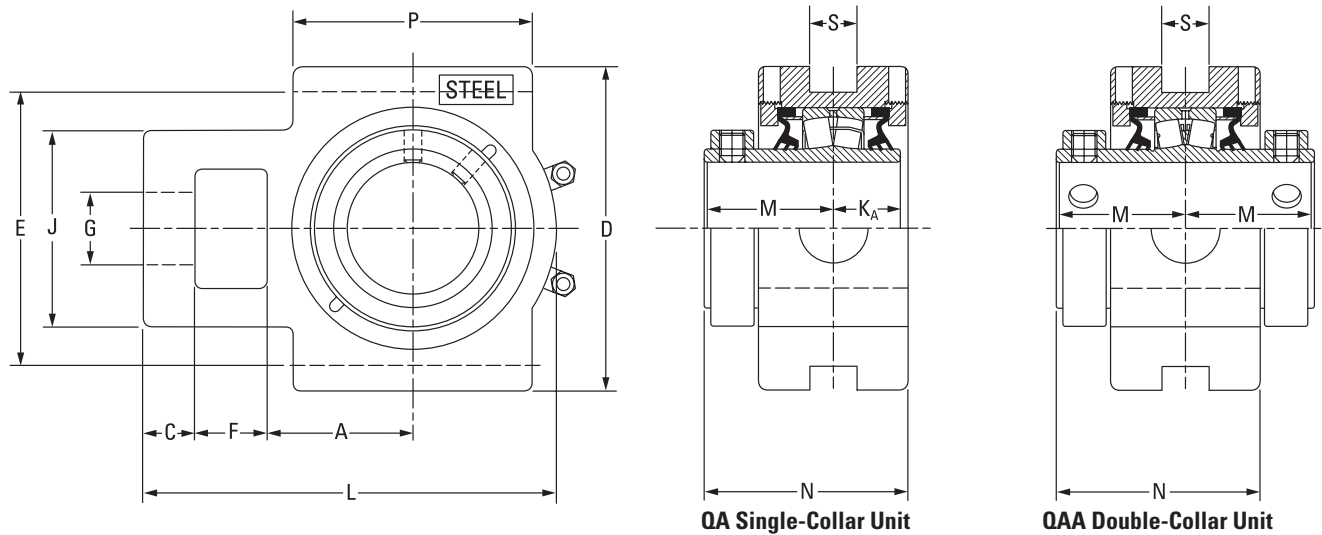


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Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	B	C	D	F	G	K <sub>A</sub>	L <sub>FIX</sub>	L <sub>EXP</sub>	M	R <sub>A</sub>	R <sub>AA</sub>	S <sub>A</sub>	S <sub>AA</sub>	Wt.																
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.																
QAMC18A303S QAAMC18A303S	3 3/16 in.	22218	15.0 0.59	26.9 1.06	130.3 5.13	5.8 0.23	171.45 (+0/-0.05) 6.750 (+0/-0.002)	87.6 3.45	36.6 1.44	110.2 4.34	112.3 4.42	65.8 2.59	7.4 0.29	21.3 0.84	102.4 4.03	131.6 5.18	11.8 26																
QAMC18A304S QAAMC18A304S	3 1/4 in.																																
QAMC18A080S QAAMC18A080S	80 mm																																
QAMC18A085S QAAMC18A085S	85 mm																																
QAMC18A307S QAAMC18A307S	3 7/16 in.																																
QAMC18A308S QAAMC18A308S	3 1/2 in.																																
QAMC18A090S QAAMC18A090S	90 mm																																
QAMC20A315S QAAMC20A315S	3 15/16 in.																	22220	19.8 0.78	32.5 1.28	152.4 6.00	7.9 0.31	206.375 (+0/-0.05) 8.125 (+0/-0.002)	105.2 4.14	41.4 1.63	128.3 5.05	130.3 5.13	75.4 2.97	11.4 0.45	22.6 0.89	116.6 4.59	150.9 5.94	14.5 32
QAMC20A400S QAAMC20A400S	4 in.																																
QAMC20A100S QAAMC20A100S	100 mm																																
QAAMC22A110S	110 mm	22222	19.8 0.78	38.1 1.50	160.0 6.30	7.9 0.31	222.25 (+0/-0.08) 8.75 (+0/-0.003)	108.5 4.27	-	133.6 5.26	135.6 5.34	79.5 3.13	-	25.1 0.99	-	158.8 6.25	18.1 40																
QAAMC22A407S	4 7/16 in.																																
QAAMC22A408S	4 1/2 in.																																
QAAMC22A115	115 mm	22226	19.8 0.78	38.1 1.50	175.0 6.89	7.9 0.31	265.13 (+0/-0.08) 10.438 (+0/-0.003)	141.7 5.58	-	165.4 6.51	167.4 6.59	94.5 3.72	-	23.6 0.93	-	189.0 7.44	18.1 40																
QAAMC26A125S	125 mm																																
QAAMC26A415S	4 15/16 in.																																
QAAMC26A500S	5 in.																																
QAAMC26A130S	130 mm																																

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units (use S<sub>A</sub> and R<sub>A</sub> dimensions) and QAA to designate double-collar units (use S<sub>AA</sub> and R<sub>AA</sub> dimensions).

QATU AND QAATU TAKE-UP BLOCKS



Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	C	D	E	F	G	J	K <sub>A</sub>	L	M	N	P	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QATU10A115S QAATU10A115S	1 15/16 in.	22210	54.1 2.13	19.1 0.75	120.7 4.75	101.6 4.00	26.9 1.06	26.9 1.06	73.2 2.88	25.4 1.00	153.4 6.04	47.5 1.87	75.7 2.98	88.9 3.50	17.5 0.69	7.7 17
QATU10A200S QAATU10A200S	2 in.															
QATU10A050S QAATU10A050S	50 mm															
QATU11A203S QAATU11A203S	2 3/16 in.	22211	60.5 2.38	19.1 0.75	133.4 5.25	114.3 4.50	28.7 1.13	30.2 1.19	88.9 3.50	28.7 1.13	167.9 6.61	50.8 2.00	81.8 3.22	95.3 3.75	20.6 0.81	9.5 21
QATU11A204S QAATU11A204S	2 1/4 in.															
QATU11A055S QAATU11A055S	55 mm															
QATU13A060S QAATU13A060S	60 mm	22213	69.9 2.75	22.4 0.88	149.4 5.88	130.3 5.13	33.3 1.31	33.3 1.31	95.3 3.75	31.5 1.24	193.8 7.63	54.6 2.15	91.2 3.59	120.7 4.75	26.9 1.06	12.2 27
QATU13A207S QAATU13A207S	2 7/16 in.															
QATU13A208S QAATU13A208S	2 1/2 in.															
QATU13A065S QAATU13A065S	65 mm	22215	76.2 3.00	25.4 1.00	171.5 6.75	150.9 5.94	39.6 1.56	39.6 1.56	108.0 4.25	31.8 1.25	219.7 8.65	60.2 2.37	97.0 3.82	120.7 4.75	46.0 1.81	15.9 35
QATU15A211S QAATU15A211S	2 11/16 in.															
QATU15A212S QAATU15A212S	2 3/4 in.															
QATU15A070S QAATU15A070S	70 mm															
QATU15A215S QAATU15A215S	2 15/16 in.															
QATU15A300S QAATU15A300S	3 in.															
QATU15A075S QAATU15A075S	75 mm															

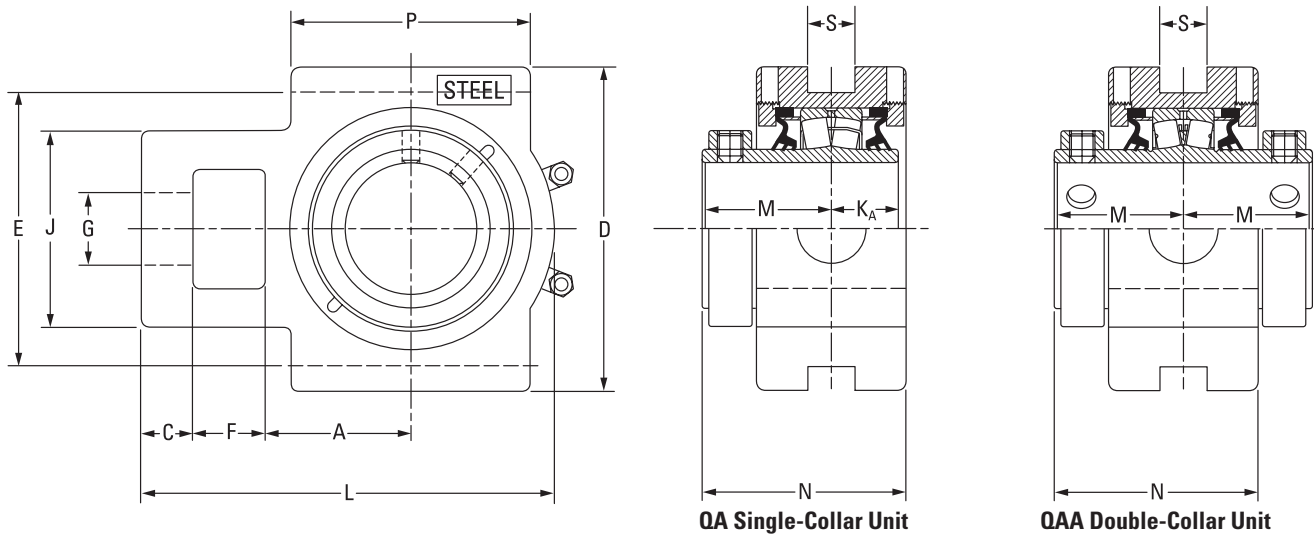
<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units and QAA to designate double-collar units.  
NOTE: Please refer to page C-169 for take-up frames.

Continued on next page.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## CL SERIES • QATU AND QAATU TAKE-UP BLOCKS

### QATU AND QAATU TAKE-UP BLOCKS – continued



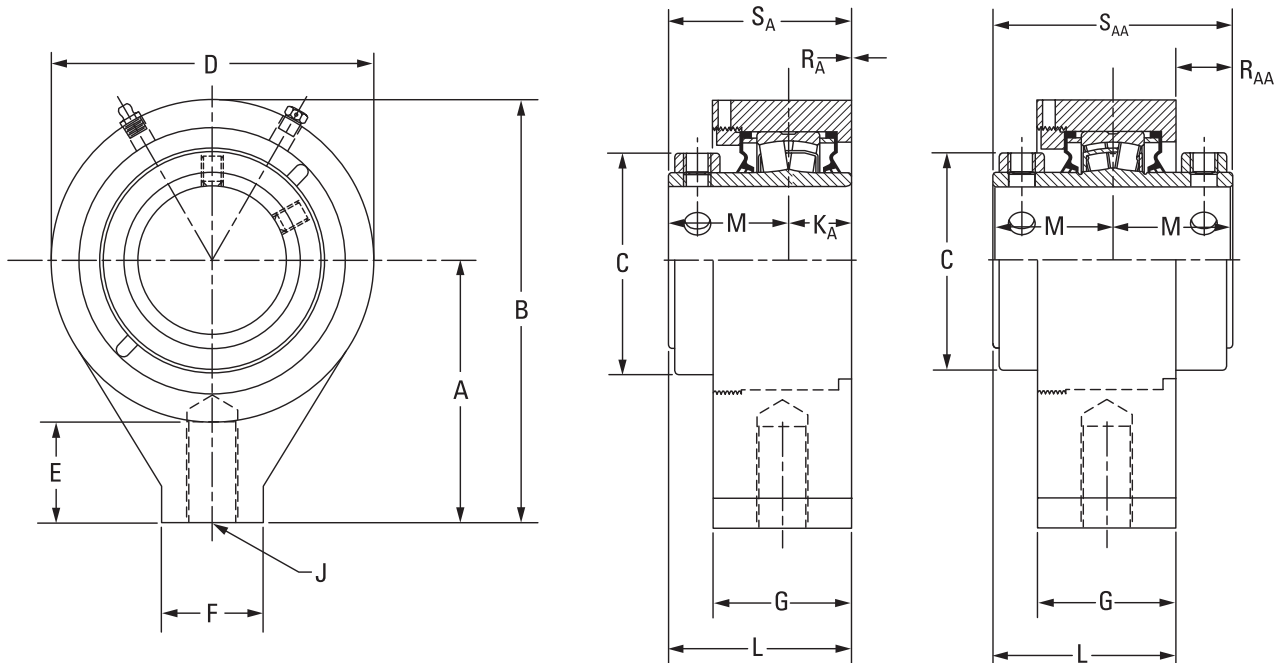
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Bearing Part No. <sup>(1)</sup>	Shaft Dia.	Bearing No.	A	C	D	E	F	G	J	K <sub>A</sub>	L	M	N	P	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QATU18A303S QAATU18A303S	3 3/16 in.	22218	92.2 3.63	25.4 1.00	193.8 7.63	173.0 6.81	46.0 1.81	47.8 1.88	124.0 4.88	36.6 1.44	257.0 10.12	65.8 2.59	107.2 4.22	158.8 6.25	46.0 1.81	20.0 44
QATU18A304S QAATU18A304S	3 1/4 in.															
QATU18A080S QAATU18A080S	80 mm															
QATU18A085S QAATU18A085S	85 mm															
QATU18A307S QAATU18A307S	3 7/16 in.															
QATU18A308S QAATU18A308S	3 1/2 in.															
QATU18A090S QAATU18A090S	90 mm															
QATU20A315S QAATU20A315S	3 15/16 in.															
QATU20A400S QAATU20A400S	4 in.															
QATU20A100S QAATU20A100S	100 mm															
QAATU22A110S	110 mm	22222	128.5 5.06	38.1 1.50	263.7 10.38	241.3 9.50	54.1 2.13	54.1 2.13	162.1 6.38	-	341.4 13.44	79.5 3.13	143.8 5.66	199.9 7.87	52.3 2.06	36.4 80
QAATU22A407S	4 7/16 in.															
QAATU22A408S	4 1/2 in.															
QAATU22A115S	115 mm	22226	134.9 5.31	63.5 2.50	285.8 11.25	260.4 10.25	63.5 2.50	60.5 2.38	177.8 7.00	-	396.7 15.62	94.5 3.72	150.9 5.94	228.6 9.00	52.3 2.06	60.8 134
QAATU26A125S	125 mm															
QAATU26A415S	4 15/16 in.															
QAATU26A500S	5 in.															
QAATU26A130S	130 mm															

<sup>(1)</sup>Bearing part numbers use QA to designate single-collar units and QAA to designate double-collar units.

NOTE: Please refer to page C-169 for take-up frames.

QAMH AND QAAMH HANGER BLOCKS



Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D	E	F	G	J	KA	L	M	RA	RAA	SA	SAA	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QAMH15A211S QAAMH15A211S	2 1/16 in.	22215	131.8 5.19	212.9 8.38	109.0 4.29	162.1 6.38	50.8 2.00	50.8 2.00	69.9 2.75	1 - 8UNC	31.8 1.25	91.9 3.62	60.2 2.37	0.0 0.00	28.4 1.12	91.9 3.62	120.7 4.75	10.0 22
QAMH15A212S QAAMH15A212S	2 3/4 in.																	
QAMH15A070S QAAMH15A070S	70 mm																	
QAMH15A215S QAAMH15A215S	2 15/16 in.																	
QAMH15A300S QAAMH15A300S	3 in.																	
QAMH15A075S QAAMH15A075S	75 mm																	
QAMH18A303S QAAMH18A303S	3 3/16 in.																	
QAMH18A304S QAAMH18A304S	3 1/4 in.																	
QAMH18A080S QAAMH18A080S	80 mm																	
QAMH18A085S QAAMH18A085S	85 mm																	
QAMH18A307S QAAMH18A307S	3 7/16 in.																	
QAMH18A308S QAAMH18A308S	3 1/2 in.																	
QAMH18A090S QAAMH18A090S	90 mm																	



## EC SERIES

The reduced eccentric offset of our EC series locking collar results in a secure shaft lock that is designed not to release from a properly prepared shaft. EC series housed units also are suitable for reversing applications.



Fig. C-45. EC series eccentric lock.

## YOU HAVE CHOICES

For the EC series, you can select from many seal configurations and housing styles, which are shown on page C-130.

### HOUSINGS

- Two-bolt pillow blocks.
- Four-bolt pillow blocks.
- Flange blocks.
- Piloted flange cartridges.
- Take-up blocks.
- Cartridge blocks.
- Hanger blocks.

### SEALS

- Labyrinth: DuPont Teflon (T).
- Triple-lip: nitrile rubber (M), urethane (O) and DuPont Viton (N).
- Double-lip: nitrile rubber (B) and DuPont Viton (C).
- Steel and urethane closed-end covers (CS).
- Steel and urethane open-end covers (CJ) with:
  - DuPont Teflon (T).
  - Triple-lip seal (DR).
  - V-ring seal (VR).
- Piloted flange cartridge backing plates (HSY) with:
  - Triple-lip seal (DR).
- Flange block backing plates (UFP).
  - V-ring (VR).

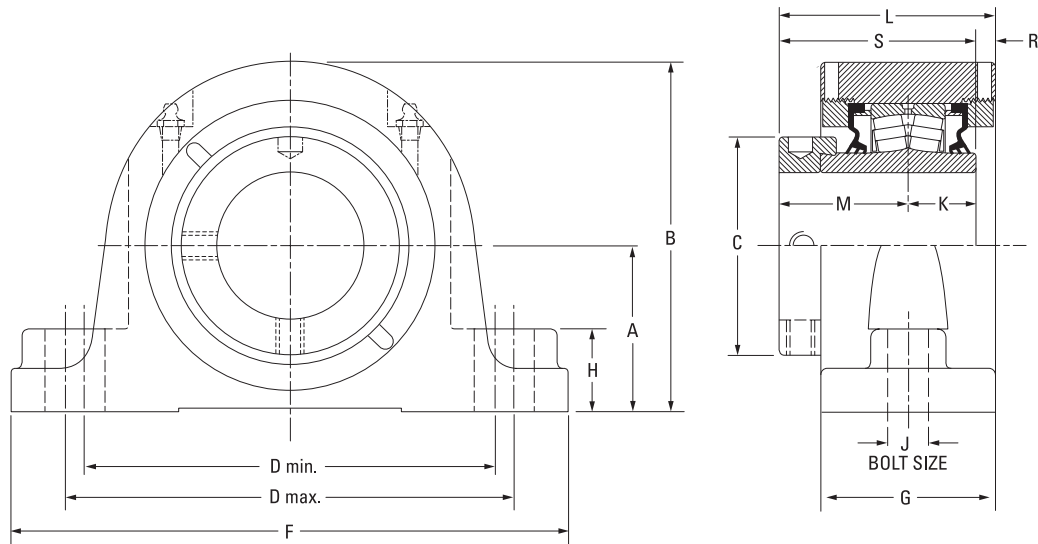
# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## EC SERIES

### EC SERIES

	Housing Type	Primary Seals						Secondary Seals and Covers							
		M	N	O	B	C	T	Open-End Cover			Closed-End Cover	HSY Flange Cartridge Backing Plate		UFP Backing Plate	
								DR	VR	T		DR			
V-Lock (Timken Exclusive Double Taper Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•			
	Flange Block	•	•	•	•	•	•	•	•	•	•	•			
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•			
	Take-Up Block	•	•	•	•	•	•	•	•	•	•	•			
	Cartridge Block	•	•	•	•	•	•	•	•	•	•	•			
CL Series (Set Screw Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•			
	Flange Block	•	•	•	•	•	•	•	•	•	•	•			•
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•	•		
	Take-Up Block	•	•	•	•	•	•	•	•	•	•	•			
	Cartridge Block	•	•	•	•	•	•	•	•	•	•	•			
	Hangar Block	•	•	•	•	•	•	•	•	•	•	•			
EC Series (Eccentric Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•			
	Flange Block	•	•	•	•	•	•	•	•	•	•	•			•
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•	•		
	Take-Up Block	•	•	•	•	•	•	•	•	•	•	•			
	Cartridge Block	•	•	•	•	•	•	•	•	•	•	•			
	Hangar Block	•	•	•	•	•	•	•	•	•	•	•			
TA Series (Tapered Adapter Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•			
	Flange Block	•	•	•	•	•	•	•	•	•	•	•			
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•			
	Cartridge Block	•	•	•	•	•	•	•	•	•	•	•			
DV Series (Tapered Adapter Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•			
	Flange Block	•	•	•	•	•	•	•	•	•	•	•			
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•			

QMP TWO-BOLT PILLOW BLOCKS

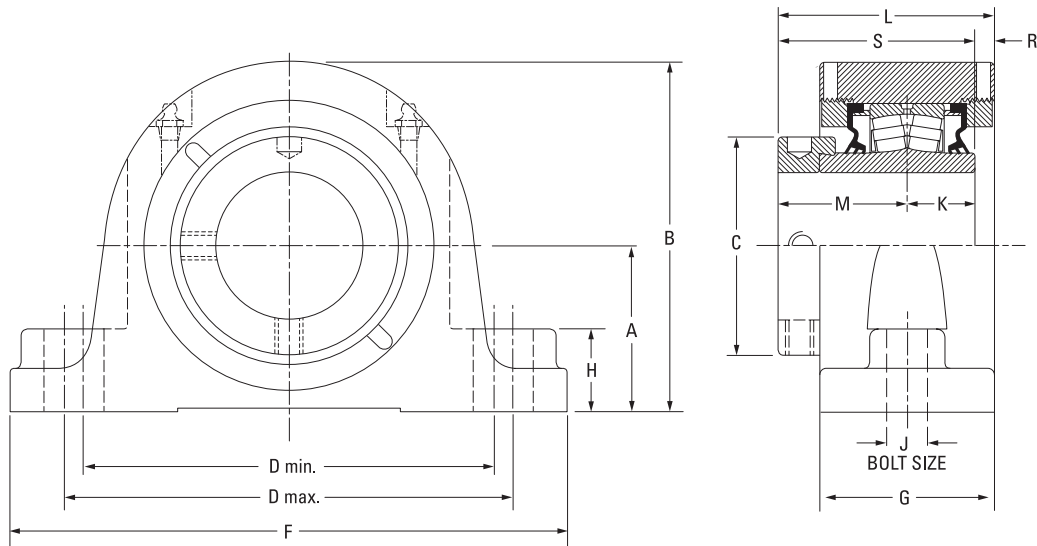


Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	K	L	M	R	S	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
QMP08J035S	35 mm	22208	47.8	94.7	60.5	119.1	152.4	174.8	57.2	25.4	12	25.4	73.2	44.5	3.3	69.9	4.1	
QMP08J107S	1 7/16 in.		1.88	3.73	2.38	4.69	6.00	6.88	2.25	1.00	1/2	1.00	2.88	1.75	0.13	2.75	9	
QMP08J108S	1 1/2 in.	22208	54.1	101.1	60.5	119.1	165.1	200.2	57.2	25.4	12	25.4	73.2	44.5	3.3	69.9	4.1	
			2.13	3.98	2.38	4.69	6.50	7.88	2.25	1.00	1/2	1.00	2.88	1.75	0.13	2.75	9	
QMP09J111S	1 11/16 in.	22209	54.1	104.9	66.5	144.8	165.1	200.2	60.2	31.8	12	25.4	77.7	47.8	4.8	73.2	4.5	
			2.13	4.13	2.62	5.70	6.50	7.88	2.37	1.25	1/2	1.00	3.06	1.88	0.19	2.88	10	
QMP09J040S	40 mm	22209	57.2	108.0	66.5	158.8	180.8	225.6	62.0	31.8	16	25.4	78.7	47.8	5.8	73.2	4.5	
QMP09J112S	1 3/4 in.		2.25	4.25	2.62	6.25	7.12	8.88	2.44	1.25	5/8	1.00	3.10	1.88	0.23	2.88	10	
QMP09J045S	45 mm																	
QMP10J115S	1 15/16 in.	22210	57.2	122.2	71.4	152.4	181.1	225.6	62.0	31.8	16	25.4	79.0	47.5	6.1	72.9	5.9	
QMP10J200S	2 in.		2.25	4.81	2.81	6.00	7.13	8.88	2.44	1.25	5/8	1.00	3.11	1.87	0.24	2.87	13	
QMP10J050S	50 mm																	
QMP11J203S	2 3/16 in.	22211	63.5	133.4	75.9	165.1	200.2	244.6	66.8	31.8	16	28.7	84.1	50.8	4.8	79.5	7.7	
QMP11J204S	2 1/4 in.		2.50	5.25	2.99	6.50	7.88	9.63	2.63	1.25	5/8	1.13	3.31	2.00	0.19	3.13	17	
QMP11J055S	55 mm																	
QMP13J060S	60 mm	22213	69.9	147.3	91.9	174.8	219.2	260.4	73.7	35.1	16	31.5	91.2	54.1	5.3	85.6	10.0	
QMP13J207S	2 7/16 in.		2.75	5.80	3.62	6.88	8.63	10.25	2.90	1.38	5/8	1.24	3.59	2.13	0.21	3.37	22	
QMP13J208S	2 1/2 in.																	
QMP13J065S	65 mm																	
QMP15J211S	2 11/16 in.	22215	79.5	164.3	101.9	200.2	244.6	295.4	76.2	35.1	20	31.8	98.3	60.2	6.4	91.9	12.7	
QMP15J212S	2 3/4 in.																	
QMP15J070S	70 mm		3.13	6.47	4.01	7.88	9.63	11.63	3.00	1.38	3/4	1.25	3.87	2.37	0.25	3.62	28	
QMP15J215S	2 15/16 in.																	
QMP15J300S	3 in.																	
QMP15J075S	75 mm																	
QMP18J303S	3 3/16 in.	22218	95.3	195.3	120.9	238.3	285.8	342.9	86.6	47.8	24	36.6	109.2	65.8	7.1	102.4	20.4	
QMP18J304S	3 1/4 in.																	
QMP18J080S	80 mm		3.75	7.69	4.76	9.38	11.25	13.50	3.41	1.88	7/8	1.44	4.30	2.59	0.28	4.03	45	
QMP18J085S	85 mm																	
QMP18J307S	3 7/16 in.																	
QMP18J308S	3 1/2 in.																	
QMP18J090S	90 mm																	
QMP20J311S	3 11/16 in.	22220	104.9	209.8	152.4	255.0	320.0	362.0	94.7	50.8	24	41.4	122.9	75.2	6.1	116.6	26.8	
QMP20J312S	3 3/4 in.																	
QMP20J315S	3 15/16 in.		4.13	8.26	6.00	10.04	12.60	14.25	3.73	2.00	1	1.63	4.84	2.96	0.24	4.59	59	
QMP20J400S	4 in.																	
QMP20J100S	100 mm																	

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

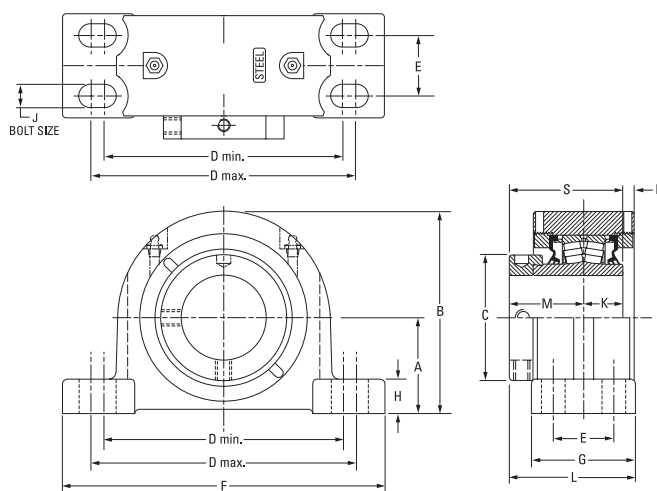
## EC SERIES • QMPL TWO-BOLT PILLOW BLOCKS

### QMPL TWO-BOLT PILLOW BLOCKS



Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	K	L	M	R	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QMPL08J035S	35 mm	22208	47.8	94.7	60.5	119.1	152.4	174.8	57.2	25.4	12	25.4	73.2	44.5	3.3	69.9	4.1
QMPL08J107S	1 7/16 in.		1.88	3.73	2.38	4.69	6.00	6.88	2.25	1.00	1/2	1.00	2.88	1.75	0.13	2.75	9
QMPL08J108S	1 1/2 in.																
QMPL09J040S	40 mm	22209	54.1	104.9	66.5	133.4	146.1	181.1	60.2	31.8	12	25.4	77.7	47.8	4.8	73.2	4.5
QMPL09J111S	1 11/16 in.		2.13	4.13	2.62	5.25	5.75	7.13	2.37	1.25	1/2	1.00	3.06	1.88	0.19	2.88	10
QMPL09J112S	1 3/4 in.																
QMPL09J045S	45 mm	22210	57.2	122.2	71.4	150.6	161.5	212.9	62.0	31.8	16	25.4	79.0	47.5	6.1	72.9	5.9
QMPL10J115S	1 15/16 in.		2.25	4.81	2.81	5.93	6.36	8.38	2.44	1.25	5/8	1.00	3.11	1.87	0.24	2.87	13
QMPL10J200S	2 in.																
QMPL10J050S	50 mm	22211	63.5	133.4	75.9	165.1	179.3	225.6	65.5	31.8	16	28.4	83.3	50.8	4.3	79.2	7.7
QMPL11J203S	2 3/16 in.		2.50	5.25	2.99	6.50	7.06	8.88	2.58	1.25	5/8	1.12	3.28	2.00	0.17	3.12	17
QMPL11J204S	2 1/4 in.																
QMPL11J055S	55 mm	22213	69.9	147.3	91.9	173.0	189.0	235.0	73.7	35.1	16	31.5	90.9	54.1	5.3	85.6	10.0
QMPL13J060S	60 mm		2.75	5.80	3.62	6.81	7.44	9.25	2.90	1.38	5/8	1.24	3.58	2.13	0.21	3.37	22
QMPL13J207S	2 7/16 in.																
QMPL13J065S	65 mm	22215	82.6	167.4	101.9	195.6	213.4	265.2	76.2	35.1	20	31.8	98.3	60.2	6.4	91.9	12.7
QMPL15J211S	2 11/16 in.		3.25	6.59	4.01	7.70	8.40	10.44	3.00	1.38	3/4	1.25	3.87	2.37	0.25	3.62	28
QMPL15J212S	2 3/4 in.																
QMPL15J070S	70 mm	22218	95.3	195.3	120.9	235.0	273.1	330.2	86.6	47.8	24	36.6	109.2	65.8	7.1	102.4	20.4
QMPL15J300S	3 in.		3.75	7.69	4.76	9.25	10.75	13.00	3.41	1.88	7/8	1.44	4.30	2.59	0.28	4.03	45
QMPL15J075S	75 mm																
QMPL18J303S	3 3/16 in.	22220	108.0	212.9	152.4	255.0	320.0	362.0	94.7	53.8	24	41.4	122.9	75.2	6.1	116.6	26.8
QMPL18J304S	3 1/4 in.		4.25	8.38	6.00	10.04	12.60	14.25	3.73	2.12	1	1.63	4.84	2.96	0.24	4.59	59
QMPL18J080S	80 mm																
QMPL18J085S	85 mm																
QMPL18J307S	3 7/16 in.																
QMPL18J308S	3 1/2 in.																
QMPL18J090S	90 mm																
QMPL20J311S	3 11/16 in.																
QMPL20J312S	3 3/4 in.																
QMPL20J315S	3 15/16 in.																
QMPL20J400S	4 in.																
QMPL20J100S	100 mm																

# QMPF FOUR-BOLT PILLOW BLOCKS

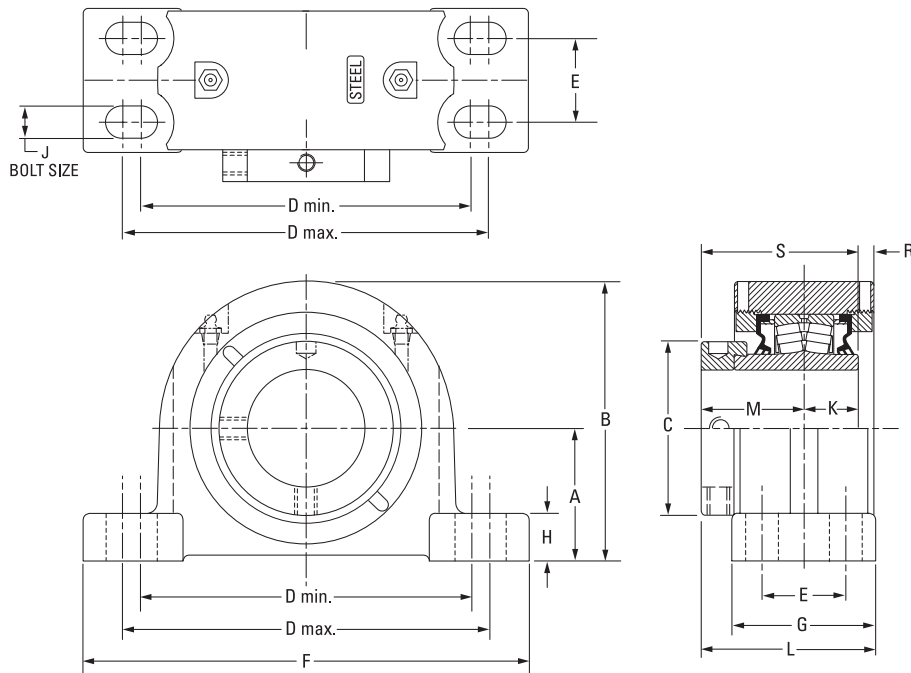


Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	K	L	M	R	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QMPF13J060S	<b>60 mm</b>	22213	<b>69.9</b>	<b>147.3</b>	<b>91.9</b>	<b>174.8</b>	<b>193.8</b>	<b>44.5</b>	<b>235.0</b>	<b>76.2</b>	<b>24.9</b>	<b>16</b>	<b>31.5</b>	<b>92.2</b>	<b>54.1</b>	<b>5.3</b>	<b>85.6</b>	<b>9.1</b>
QMPF13J207S	2 7/16 in.		2.75	5.80	3.62	6.88	7.63	1.75	9.25	3.00	0.98	5/8	1.24	3.63	2.13	0.21	3.37	20
QMPF13J208S	2 1/2 in.																	
QMPF13J065S	<b>65 mm</b>	22215	<b>82.6</b>	<b>167.6</b>	<b>101.9</b>	<b>193.0</b>	<b>231.1</b>	<b>47.8</b>	<b>265.2</b>	<b>79.5</b>	<b>32.8</b>	<b>16</b>	<b>31.8</b>	<b>99.8</b>	<b>60.2</b>	<b>6.1</b>	<b>91.9</b>	<b>12.2</b>
QMPF15J211S	2 11/16 in.		3.25	6.60	4.01	7.60	9.10	1.88	10.44	3.13	1.29	5/8	1.25	3.93	2.37	0.24	3.62	27
QMPF15J212S	2 3/4 in.																	
QMPF15J070S	<b>70 mm</b>	22218	<b>95.3</b>	<b>195.3</b>	<b>120.9</b>	<b>225.6</b>	<b>276.4</b>	<b>50.8</b>	<b>312.4</b>	<b>95.3</b>	<b>39.6</b>	<b>20</b>	<b>36.6</b>	<b>113.3</b>	<b>65.8</b>	<b>8.1</b>	<b>102.4</b>	<b>22.2</b>
QMPF15J215S	2 15/16 in.		3.75	7.69	4.76	8.88	10.88	2.00	12.30	3.75	1.56	3/4	1.44	4.46	2.59	0.32	4.03	49
QMPF15J300S	3 in.																	
QMPF15J075S	<b>75 mm</b>	22220	<b>108.0</b>	<b>223.0</b>	<b>152.4</b>	<b>276.4</b>	<b>339.9</b>	<b>57.2</b>	<b>378.0</b>	<b>109.5</b>	<b>35.6</b>	<b>20</b>	<b>41.4</b>	<b>130.3</b>	<b>75.2</b>	<b>9.1</b>	<b>116.6</b>	<b>30.4</b>
QMPF18J303S	3 3/16 in.		4.25	8.78	6.00	10.88	13.38	2.25	14.88	4.31	1.40	3/4	1.63	5.13	2.96	0.36	4.59	67
QMPF18J304S	3 1/4 in.																	
QMPF18J080S	<b>80 mm</b>	22222	<b>120.7</b>	<b>233.4</b>	<b>160.0</b>	<b>301.8</b>	<b>368.3</b>	<b>63.5</b>	<b>409.7</b>	<b>120.7</b>	<b>40.1</b>	<b>20</b>	<b>46.5</b>	<b>154.4</b>	<b>94.0</b>	<b>4.3</b>	<b>140.5</b>	<b>37.2</b>
QMPF18J085S	<b>85 mm</b>		4.75	9.19	6.30	11.88	14.50	2.50	16.13	4.75	1.58	3/4	1.83	6.08	3.70	0.17	5.53	82
QMPF18J307S	3 7/16 in.																	
QMPF18J308S	3 1/2 in.	22226	<b>139.7</b>	<b>279.7</b>	<b>175.0</b>	<b>349.3</b>	<b>403.4</b>	<b>69.9</b>	<b>444.5</b>	<b>128.0</b>	<b>39.1</b>	<b>24</b>	<b>58.7</b>	<b>158.8</b>	<b>94.7</b>	<b>-0.8</b>	<b>153.4</b>	<b>60.8</b>
QMPF18J090S	<b>90 mm</b>		5.50	11.01	6.89	13.75	15.88	2.75	17.5	5.04	1.54	7/8	2.31	6.25	3.73	-0.03	6.04	134
QMPF20J311S	3 11/16 in.																	
QMPF20J312S	3 3/4 in.	23230	<b>169.9</b>	<b>330.2</b>	<b>205.0</b>	<b>441.5</b>	<b>485.9</b>	<b>95.3</b>	<b>558.8</b>	<b>171.5</b>	<b>76.2</b>	<b>24</b>	<b>75.9</b>	<b>201.7</b>	<b>116.1</b>	<b>6.6</b>	<b>192.0</b>	<b>113.4</b>
QMPF20J315S	3 15/16 in.		6.69	13.00	8.07	17.38	19.13	3.75	22.00	6.75	3.00	1	2.99	7.94	4.57	0.26	7.56	250
QMPF20J400S	4 in.																	
QMPF20J100S	<b>100 mm</b>	23234	<b>190.5</b>	<b>390.7</b>	<b>235.0</b>	<b>530.4</b>	<b>600.2</b>	<b>117.5</b>	<b>660.4</b>	<b>190.5</b>	<b>63.5</b>	<b>24</b>	<b>85.1</b>	<b>224.3</b>	<b>129.0</b>	<b>5.6</b>	<b>214.1</b>	<b>170.1</b>
QMPF22J110S	<b>110 mm</b>		7.50	15.38	9.25	20.88	23.63	4.625	26.00	7.50	2.50	1	3.35	8.83	5.08	0.22	8.43	375
QMPF22J407S	4 7/16 in.																	
QMPF22J408S	4 1/2 in.	23230	<b>169.9</b>	<b>330.2</b>	<b>205.0</b>	<b>441.5</b>	<b>485.9</b>	<b>95.3</b>	<b>558.8</b>	<b>171.5</b>	<b>76.2</b>	<b>24</b>	<b>75.9</b>	<b>201.7</b>	<b>116.1</b>	<b>6.6</b>	<b>192.0</b>	<b>113.4</b>
QMPF26J125S	<b>125 mm</b>		6.69	13.00	8.07	17.38	19.13	3.75	22.00	6.75	3.00	1	2.99	7.94	4.57	0.26	7.56	250
QMPF26J415S	4 15/16 in.																	
QMPF26J500S	5 in.	23230	<b>169.9</b>	<b>330.2</b>	<b>205.0</b>	<b>441.5</b>	<b>485.9</b>	<b>95.3</b>	<b>558.8</b>	<b>171.5</b>	<b>76.2</b>	<b>24</b>	<b>75.9</b>	<b>201.7</b>	<b>116.1</b>	<b>6.6</b>	<b>192.0</b>	<b>113.4</b>
QMPF26J130S	<b>130 mm</b>		6.69	13.00	8.07	17.38	19.13	3.75	22.00	6.75	3.00	1	2.99	7.94	4.57	0.26	7.56	250
QMPF30J507S	5 7/16 in.																	
QMPF30J508S	5 1/2 in.	23234	<b>190.5</b>	<b>390.7</b>	<b>235.0</b>	<b>530.4</b>	<b>600.2</b>	<b>117.5</b>	<b>660.4</b>	<b>190.5</b>	<b>63.5</b>	<b>24</b>	<b>85.1</b>	<b>224.3</b>	<b>129.0</b>	<b>5.6</b>	<b>214.1</b>	<b>170.1</b>
QMPF30J140S	<b>140 mm</b>		7.50	15.38	9.25	20.88	23.63	4.625	26.00	7.50	2.50	1	3.35	8.83	5.08	0.22	8.43	375
QMPF30J515S	5 15/16 in.																	
QMPF30J600S	6 in.	23234	<b>190.5</b>	<b>390.7</b>	<b>235.0</b>	<b>530.4</b>	<b>600.2</b>	<b>117.5</b>	<b>660.4</b>	<b>190.5</b>	<b>63.5</b>	<b>24</b>	<b>85.1</b>	<b>224.3</b>	<b>129.0</b>	<b>5.6</b>	<b>214.1</b>	<b>170.1</b>
QMPF30J150S	<b>150 mm</b>		7.50	15.38	9.25	20.88	23.63	4.625	26.00	7.50	2.50	1	3.35	8.83	5.08	0.22	8.43	375
QMPF34J607S	6 7/16 in.																	
QMPF34J608S	6 1/2 in.	23234	<b>190.5</b>	<b>390.7</b>	<b>235.0</b>	<b>530.4</b>	<b>600.2</b>	<b>117.5</b>	<b>660.4</b>	<b>190.5</b>	<b>63.5</b>	<b>24</b>	<b>85.1</b>	<b>224.3</b>	<b>129.0</b>	<b>5.6</b>	<b>214.1</b>	<b>170.1</b>
QMPF34J170S	<b>170 mm</b>		7.50	15.38	9.25	20.88	23.63	4.625	26.00	7.50	2.50	1	3.35	8.83	5.08	0.22	8.43	375
QMPF34J615S	6 15/16 in.																	
QMPF34J700S	7 in.	23234	<b>190.5</b>	<b>390.7</b>	<b>235.0</b>	<b>530.4</b>	<b>600.2</b>	<b>117.5</b>	<b>660.4</b>	<b>190.5</b>	<b>63.5</b>	<b>24</b>	<b>85.1</b>	<b>224.3</b>	<b>129.0</b>	<b>5.6</b>	<b>214.1</b>	<b>170.1</b>
QMPF34J180S	<b>180 mm</b>		7.50	15.38	9.25	20.88	23.63	4.625	26.00	7.50	2.50	1	3.35	8.83	5.08	0.22	8.43	375

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

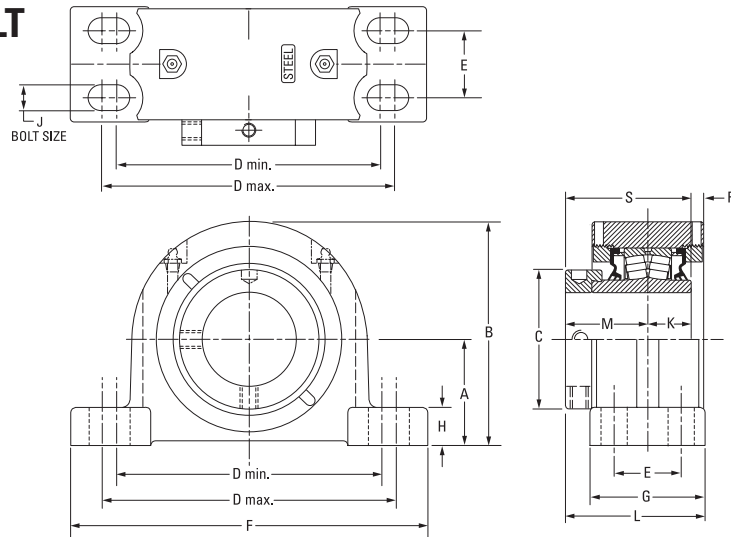
## EC SERIES • QMPR FOUR-BOLT PILLOW BLOCKS

### QMPR FOUR-BOLT PILLOW BLOCKS



Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	K	L	M	R	S	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
QMPR13J060S	60 mm	22213	69.9	147.3	91.9	181.1	222.3	47.8	260.4	82.6	24.9	16	31.5	95.5	54.1	5.3	85.6	9.1	
QMPR13J207S	2 7/16 in.		2.75	5.80	3.62	7.13	8.75	1.88	10.25	3.25	0.98	5/8	1.24	3.76	2.13	0.21	3.37	20	
QMPR13J208S	2 1/2 in.																		
QMPR13J065S	65 mm																		
QMPR15J211S	2 11/16 in.	22215	79.5	164.3	101.9	203.2	243.8	54.1	275.1	85.9	29.5	16	31.8	103.1	60.2	6.1	91.9	12.2	
QMPR15J212S	2 3/4 in.		3.13	6.47	4.01	8.00	9.60	2.13	10.83	3.38	1.16	5/8	1.25	4.06	2.37	0.24	3.62	27	
QMPR15J070S	70 mm																		
QMPR15J215S	2 15/16 in.																		
QMPR15J300S	3 in.																		
QMPR15J075S	75 mm																		
QMPR18J303S	3 3/16 in.	22218	95.3	195.3	120.9	235.0	285.8	60.5	346.2	95.3	39.6	20	36.6	113.3	65.8	8.1	102.4	22.2	
QMPR18J304S	3 1/4 in.		3.75	7.69	4.76	9.25	11.25	2.38	13.63	3.75	1.56	3/4	1.44	4.46	2.59	0.32	4.03	49	
QMPR18J080S	80 mm																		
QMPR18J085S	85 mm																		
QMPR18J307S	3 7/16 in.																		
QMPR18J308S	3 1/2 in.																		
QMPR18J090S	90 mm																		

**QMPH/QMPG FOUR-BOLT PILLOW BLOCKS**



**QMPH SAF STYLE FOUR-BOLT PILLOW BLOCK DIMENSIONS**

Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	K	L	M	R	S	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
QMPH26J125S	125 mm	22226	152.4 6.00	284 11.18	175 6.89	406.4 16.00	435.1 17.13	85.9 3.38	500.4 19.70	128 5.04	51.8 2.04	24 1	58.7 2.31	158.5 6.24	94.5 3.72	-0.7 -0.028	153.4 6.04	60.8 134	
QMPH26J415S	4 15/16 in.																		
QMPH26J500S	5 in.																		
QMPH26J130S	130 mm	23230	169.9 6.688	330.7 13.02	205.0 8.07	441.5 17.38	485.9 19.13	95.3 3.75	558.8 22.00	171.5 6.75	76.2 3.00	24 1	75.9 2.99	199.1 7.84	116.1 4.57	5.1 0.20	192.0 7.56	113.4 250	
QMPH30J507S	5 7/16 in.																		
QMPH30J508S	5 1/2 in.																		
QMPH30J140S	140 mm	23230	179.4 7.063	339.9 13.38	205.0 8.07	492.3 19.38	549.4 21.63	108.0 4.25	628.7 24.75	171.5 6.75	85.9 3.38	24 1	75.9 2.99	201.7 7.94	116.1 4.57	6.6 0.26	192.0 7.56	113.4 250	
QMPH30J515S	5 15/16 in.																		
QMPH30J600S	6 in.																		
QMPH30J150S	150 mm	23234	190.5 7.50	390.7 15.38	235.0 9.25	530.4 20.88	600.2 23.63	117.5 4.625	711.2 28.00	190.5 7.50	63.5 2.50	24 1	85.1 3.35	224.3 8.83	129.0 5.08	5.6 0.22	214.1 8.43	170.1 375	
QMPH34J607S	6 7/16 in.																		
QMPH34J608S	6 1/2 in.																		
QMPH34J170S	170 mm	23234	200.0 7.875	400.1 15.75	235.0 9.25	549.4 21.63	619.3 24.38	114.3 4.50	711.2 28.00	190.5 7.50	73.2 2.88	30 1 1/4	85.1 3.35	224.3 8.83	129.0 5.08	5.6 0.22	214.1 8.43	170.1 375	
QMPH34J615S	6 15/16 in.																		
QMPH34J700S	7 in.																		
QMPH34J180S	180 mm																		

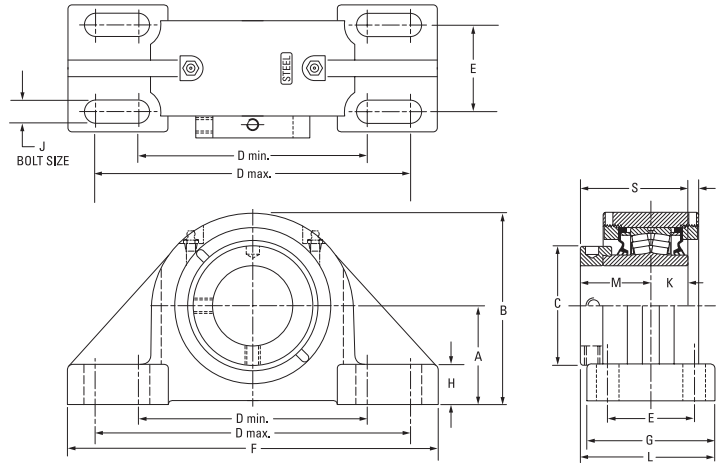
**QMPG SN STYLE FOUR-BOLT PILLOW BLOCK DIMENSIONS**

Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	K	L	M	R	S	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
QMPG26J125S	125 mm	22226	150.0 5.906	281.4 11.08	175.0 6.89	384.3 15.13	447.8 17.63	80.0 3.15	500.1 19.69	128 5.04	49.3 1.94	24 1	58.7 2.31	158.5 6.24	94.5 3.72	-6.9 -0.27	153.4 6.04	60.8 134	
QMPG26J415S	4 15/16 in.																		
QMPG26J500S	5 in.																		
QMPG26J130S	130 mm	23230	170.0 6.693	332.2 13.08	205.0 8.07	438.2 17.25	482.6 19.00	89.9 3.54	547.6 21.65	171.5 6.75	76.2 3.00	24 1	75.9 2.99	198.6 7.82	116.1 4.57	9.7 0.38	192.0 7.56	113.4 250	
QMPG30J507S	5 7/16 in.																		
QMPG30J508S	5 1/2 in.																		
QMPG30J140S	140 mm	23234	190.5 7.50	390.7 15.38	235.0 9.25	530.4 20.88	600.2 23.63	117.5 4.625	711.2 28.00	190.5 7.50	63.5 2.50	24 1	85.1 3.35	224.3 8.83	129.0 5.08	5.6 0.22	214.1 8.43	170.1 375	
QMPG30J515S	5 15/16 in.																		
QMPG30J600S	6 in.																		
QMPG30J150S	150 mm	23234	200.0 7.875	400.1 15.75	235.0 9.25	549.4 21.63	619.3 24.38	114.3 4.50	711.2 28.00	190.5 7.50	73.2 2.88	30 1 1/4	85.1 3.35	224.3 8.83	129.0 5.08	5.6 0.22	214.1 8.43	170.1 375	
QMPG34J607S	6 7/16 in.																		
QMPG34J608S	6 1/2 in.																		
QMPG34J170S	170 mm																		

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## EC SERIES • QMPX 5000 SERIES FOUR-BOLT PILLOW BLOCKS

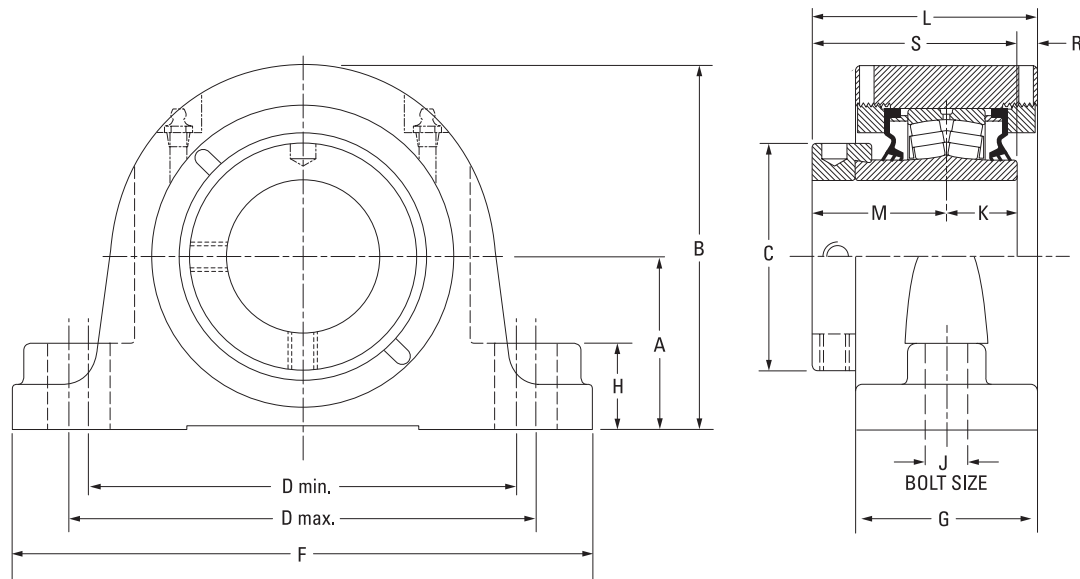
### QMPX 5000 SERIES FOUR-BOLT PILLOW BLOCKS



Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	K	L	M	R	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QMPX13J060S	60 mm	22213	76.2 3.00	153.7 6.05	91.9 3.62	176.3 6.94	242.8 9.56	66.8 2.63	285.8 11.25	98.6 3.88	31.0 1.22	16 5/8	31.5 1.24	103.4 4.07	54.1 2.13	5.3 0.21	85.6 3.37	10.4 23
QMPX13J207S	2 7/16 in.																	
QMPX13J208S	2 1/2 in.																	
QMPX13J065S	65 mm	22215	88.9 3.50	173.5 6.83	101.9 4.01	230.1 9.06	265.2 10.44	68.9 2.75	330.2 13.00	108.0 4.25	39.1 1.54	20 3/4	31.8 1.25	114.3 4.50	60.2 2.37	7.1 0.28	91.9 3.62	12.7 28
QMPX15J211S	2 11/16 in.																	
QMPX15J212S	2 3/4 in.																	
QMPX15J070S	70 mm	22218	101.6 4.00	201.2 7.92	120.9 4.76	274.6 10.81	309.6 12.19	76.2 3.00	381.0 15.00	120.7 4.75	38.1 1.50	20 3/4	36.6 1.44	126.0 4.96	65.8 2.59	8.1 0.32	102.4 4.03	22.2 49
QMPX18J303S	3 3/16 in.																	
QMPX18J304S	3 1/4 in.																	
QMPX18J080S	80 mm	22220	127.0 5.00	239.8 9.44	152.4 6.00	317.5 12.50	355.6 14.00	88.9 3.50	425.5 16.75	139.7 5.50	41.4 1.63	24 7/8	41.4 1.63	145.3 5.72	75.2 2.96	8.6 0.34	116.6 4.59	30.4 67
QMPX18J085S	85 mm																	
QMPX18J307S	3 7/16 in.																	
QMPX18J308S	3 1/2 in.	22222	146.1 5.75	273.8 10.78	160.0 6.30	354.1 13.94	395.2 15.56	101.6 4.00	469.9 18.50	158.8 6.25	45.7 1.80	24 1	46.5 1.83	171.2 6.74	94.0 3.70	2.3 0.09	140.5 5.53	37.2 82
QMPX18J090S	90 mm																	
QMPX20J311S	3 11/16 in.																	
QMPX20J312S	3 3/4 in.	22226	155.6 6.125	283.2 11.15	175.0 6.89	387.4 15.25	425.5 16.75	108.0 4.25	514.4 20.25	171.5 6.75	50.8 2.00	24 1 1/8	58.7 2.31	180.3 7.10	94.5 3.72	-1.5 -0.06	153.4 6.04	60.8 134
QMPX20J400S	4 in.																	
QMPX20J100S	100 mm																	
QMPX22J110S	110 mm	23230	169.9 6.688	330.2 13.00	205.0 8.07	439.9 17.32	485.8 19.125	93.5 3.68	558.8 22.00	171.5 6.75	76.2 3.00	24 1 1/8	75.9 2.99	201.7 7.94	116.1 4.57	6.6 0.26	192.0 7.56	113.4 250
QMPX22J407S	4 7/16 in.																	
QMPX22J408S	4 1/2 in.																	
QMPX22J115S	115 mm	23230	179.4 7.063	339.9 13.38	205.0 8.07	489.0 19.25	552.5 21.75	106.4 4.188	625.7 24.75	171.5 6.75	85.6 3.37	24 1 1/8	75.9 2.99	196.9 7.75	116.1 4.57	4.8 0.19	192.0 7.56	113.4 250
QMPX26J125S	125 mm																	
QMPX26J415S	4 15/16 in.																	
QMPX26J500S	5 in.	23234	200.0 7.875	400.1 15.75	235.0 9.25	549.4 21.63	619.3 24.38	112.8 4.44	711.2 28.00	190.5 7.50	73.2 2.88	30 1 1/4	80.1 3.35	224.3 8.83	129.0 5.08	5.6 0.22	214.1 8.43	179.2 395
QMPX26J130S	130 mm																	
QMPX30J507S	5 7/16 in.																	
QMPX30J508S	5 1/2 in.	23234	179.4 7.063	339.9 13.38	205.0 8.07	489.0 19.25	552.5 21.75	106.4 4.188	625.7 24.75	171.5 6.75	85.6 3.37	24 1 1/8	75.9 2.99	196.9 7.75	116.1 4.57	4.8 0.19	192.0 7.56	113.4 250
QMPX30J140S	140 mm																	
QMPX30J515S <sup>(1)</sup>	5 15/16 in.																	
QMPX30J600S <sup>(1)</sup>	6 in.	23234	200.0 7.875	400.1 15.75	235.0 9.25	549.4 21.63	619.3 24.38	112.8 4.44	711.2 28.00	190.5 7.50	73.2 2.88	30 1 1/4	80.1 3.35	224.3 8.83	129.0 5.08	5.6 0.22	214.1 8.43	179.2 395
QMPX30J150S <sup>(1)</sup>	150 mm																	
QMPX34J607S <sup>(1)</sup>	6 7/16 in.																	
QMPX34J608S <sup>(1)</sup>	6 1/2 in.	23234	200.0 7.875	400.1 15.75	235.0 9.25	549.4 21.63	619.3 24.38	112.8 4.44	711.2 28.00	190.5 7.50	73.2 2.88	30 1 1/4	80.1 3.35	224.3 8.83	129.0 5.08	5.6 0.22	214.1 8.43	179.2 395
QMPX34J170S <sup>(1)</sup>	170 mm																	
QMPX34J615S <sup>(1)</sup>	6 15/16 in.																	
QMPX34J700S <sup>(1)</sup>	7 in.	23234	200.0 7.875	400.1 15.75	235.0 9.25	549.4 21.63	619.3 24.38	112.8 4.44	711.2 28.00	190.5 7.50	73.2 2.88	30 1 1/4	80.1 3.35	224.3 8.83	129.0 5.08	5.6 0.22	214.1 8.43	179.2 395
QMPX34J180S <sup>(1)</sup>	180 mm																	

<sup>(1)</sup>No gussets on outside housing.

QMPXT 5000 SERIES TWO-BOLT PILLOW BLOCKS

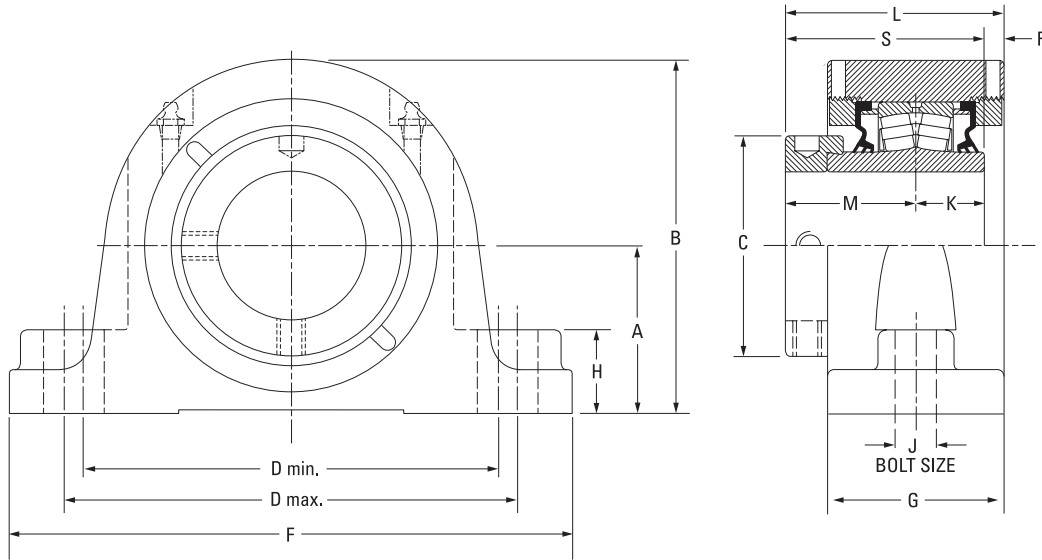


Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	K	L	M	R	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QMPXT13J060S	<b>60 mm</b>	22213	76.2 3.00	153.7 6.05	91.9 3.62	194.6 7.66	223.0 8.78	285.8 11.25	73.7 2.90	35.1 1.38	20 ¾	31.5 1.24	91.4 3.60	54.1 2.13	5.3 0.21	85.6 3.37	10.0 22
QMPXT13J207S	2 7/16 in.																
QMPXT13J208S	2 1/2 in.																
QMPXT13J065S	<b>65 mm</b>	22215	88.9 3.50	173.7 6.84	101.9 4.01	230.1 9.06	265.2 10.44	330.2 13.00	75.7 2.98	35.1 1.38	24 7/8	31.8 1.25	98.0 3.86	60.2 2.37	6.1 0.24	91.9 3.62	12.7 28
QMPXT15J211S	2 11/16 in.																
QMPXT15J212S	2 3/4 in.																
QMPXT15J070S	<b>70 mm</b>																
QMPXT15J215S	2 15/16 in.																
QMPXT15J300S	3 in.																
QMPXT15J075S	<b>75 mm</b>																

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

EC SERIES • QMSN SN-STYLE TWO-BOLT PILLOW BLOCKS – PURE METRIC DESIGN

## QMSN SN-STYLE TWO-BOLT PILLOW BLOCKS – PURE METRIC DESIGN

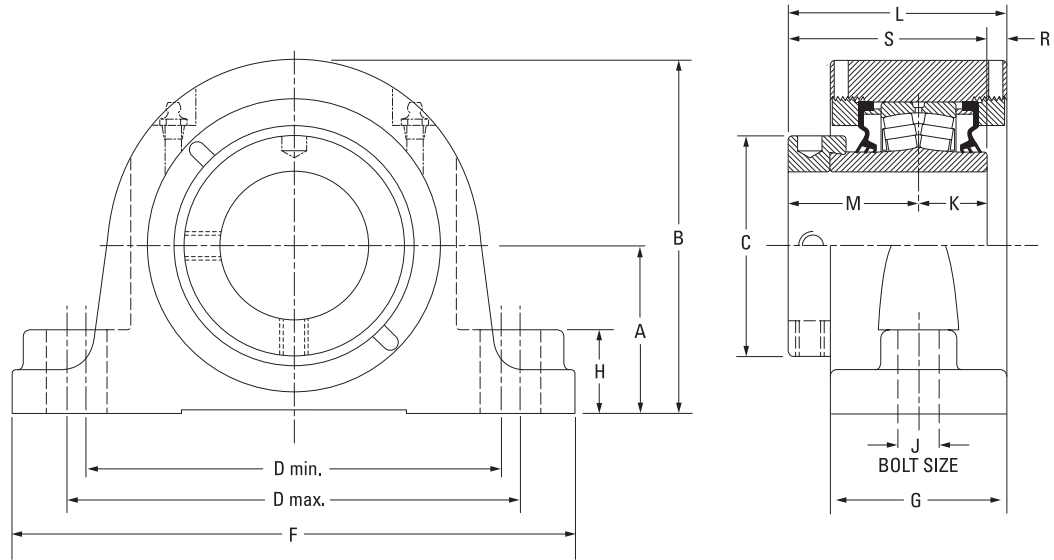


Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	K	L	M	R	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QMSN08J035S	<b>35 mm</b>	22208	<b>60</b>	<b>111</b>	<b>60.5</b>	<b>159</b>	<b>175</b>	<b>205</b>	<b>62</b>	<b>35</b>	<b>12</b>	<b>25</b>	<b>75</b>	<b>44</b>	<b>5</b>	<b>70</b>	<b>10.5</b>
QMSN08J107S	1 7/16 in.		2.36	4.37	2.38	6.26	6.89	8.07	2.44	1.38	1/2	1.00	2.95	1.75	0.20	2.75	23
QMSN08J108S	1 1/2 in.																
QMSN09J040S	<b>40 mm</b>	22209	<b>60</b>	<b>111</b>	<b>67</b>	<b>159</b>	<b>175</b>	<b>205</b>	<b>62</b>	<b>35</b>	<b>12</b>	<b>25</b>	<b>79</b>	<b>48</b>	<b>6</b>	<b>73</b>	<b>10.5</b>
QMSN09J111S	1 11/16 in.		2.36	4.37	2.64	6.26	6.89	8.07	2.44	1.38	1/2	0.98	3.11	1.89	0.24	2.87	23
QMSN09J112S	1 3/4 in.																
QMSN09J045S	<b>45 mm</b>	22210	<b>70</b>	<b>136</b>	<b>70</b>	<b>183</b>	<b>216</b>	<b>254</b>	<b>68</b>	<b>25</b>	<b>16</b>	<b>25</b>	<b>82</b>	<b>48</b>	<b>9</b>	<b>73</b>	<b>12.7</b>
QMSN10J115S	1 15/16 in.		2.76	5.35	2.76	7.20	8.50	10.00	2.68	0.98	5/8	0.98	3.23	1.89	0.35	2.87	28
QMSN10J200S	2 in.																
QMSN10J050S	<b>50 mm</b>	22211	<b>70</b>	<b>141</b>	<b>76</b>	<b>183</b>	<b>216</b>	<b>254</b>	<b>68</b>	<b>25</b>	<b>16</b>	<b>29</b>	<b>85</b>	<b>51</b>	<b>6</b>	<b>80</b>	<b>13.2</b>
QMSN11J203S	2 3/16 in.		2.76	5.55	2.99	7.20	8.50	10.00	2.68	0.98	5/8	1.14	3.35	2.01	0.24	3.15	29
QMSN11J204S	2 1/4 in.																
QMSN11J055S	<b>55 mm</b>	22213	<b>80</b>	<b>157</b>	<b>92</b>	<b>196</b>	<b>235</b>	<b>275</b>	<b>74</b>	<b>35</b>	<b>16</b>	<b>31</b>	<b>91</b>	<b>55</b>	<b>5</b>	<b>86</b>	<b>15.9</b>
QMSN13J060S	2 7/16 in.		3.15	6.18	3.62	7.72	9.25	10.83	2.91	1.38	5/8	1.22	3.58	2.17	0.20	3.39	35
QMSN13J208S	2 1/2 in.																
QMSN13J065S	<b>65 mm</b>	22215	<b>95</b>	<b>183</b>	<b>102</b>	<b>241</b>	<b>279</b>	<b>316</b>	<b>76</b>	<b>34</b>	<b>20</b>	<b>32</b>	<b>98</b>	<b>60</b>	<b>6</b>	<b>92</b>	<b>20.9</b>
QMSN15J211S	2 11/16 in.		3.74	7.20	4.02	9.49	10.98	12.44	2.99	1.34	3/4	1.26	3.86	2.36	0.24	3.62	46
QMSN15J212S	2 3/4 in.																
QMSN15J070S	<b>70 mm</b>	22218	<b>100</b>	<b>200</b>	<b>121</b>	<b>279</b>	<b>292</b>	<b>345</b>	<b>86</b>	<b>39</b>	<b>20</b>	<b>37</b>	<b>109</b>	<b>66</b>	<b>7</b>	<b>103</b>	<b>25.5</b>
QMSN15J215S	2 15/16 in.		3.94	7.87	4.76	10.98	11.50	13.58	3.39	1.54	3/4	1.46	4.29	2.60	0.28	4.06	56
QMSN18J300S	3 in.																
QMSN15J075S	<b>75 mm</b>	22218	<b>100</b>	<b>200</b>	<b>121</b>	<b>279</b>	<b>292</b>	<b>345</b>	<b>86</b>	<b>39</b>	<b>20</b>	<b>37</b>	<b>109</b>	<b>66</b>	<b>7</b>	<b>103</b>	<b>25.5</b>
QMSN18J303S	3 3/16 in.		3.94	7.87	4.76	10.98	11.50	13.58	3.39	1.54	3/4	1.46	4.29	2.60	0.28	4.06	56
QMSN18J304S	3 1/4 in.																
QMSN18J080S	<b>80 mm</b>																

Continued on next page.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

EC SERIES • QMSN SN-STYLE TWO-BOLT PILLOW BLOCKS – PURE METRIC DESIGN



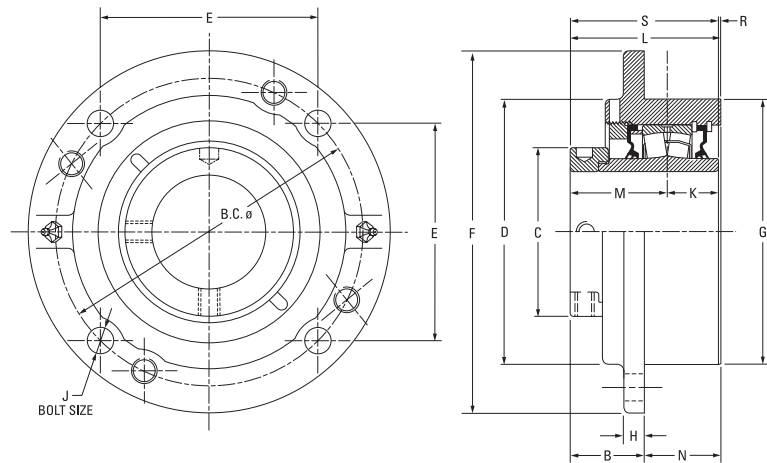
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Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	K	L	M	R	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QMSN18J085S	<b>85 mm</b>	22218	<b>112</b> 4.41	<b>212</b> 8.35	<b>121</b> 4.76	<b>279</b> 10.98	<b>292</b> 11.50	<b>345</b> 13.58	<b>86</b> 3.39	<b>39</b> 1.54	<b>20</b> ¾	<b>37</b> 1.46	<b>109</b> 4.29	<b>66</b> 2.60	<b>7</b> 0.28	<b>103</b> 4.06	<b>25.5</b> 56
QMSN18J307S	3 7/16 in.	22218	<b>112</b> 4.41	<b>212</b> 8.35	<b>121</b> 4.76	<b>290</b> 11.42	<b>327</b> 12.87	<b>380</b> 14.96	<b>86</b> 3.39	<b>39</b> 1.54	<b>24</b> ¾	<b>37</b> 1.46	<b>109</b> 4.29	<b>66</b> 2.60	<b>7</b> 0.28	<b>103</b> 4.06	<b>25.5</b> 56
QMSN18J308S	3 1/2 in.																
QMSN18J090S	<b>90 mm</b>																
QMSN20J311S	3 11/16 in.	22220	<b>125</b> 4.92	<b>241</b> 9.49	<b>152</b> 5.98	<b>319</b> 12.56	<b>366</b> 14.41	<b>410</b> 16.14	<b>101</b> 3.98	<b>50</b> 1.97	<b>24</b> ¾	<b>41</b> 1.61	<b>126</b> 4.96	<b>75</b> 2.95	<b>9</b> 0.35	<b>116</b> 4.57	<b>35.9</b> 79
QMSN20J312S	3 ¾ in.																
QMSN20J315S	3 15/16 in.																
QMSN20J400S	4 in.																
QMSN20J100S	<b>100 mm</b>																
QMSN22J110S	<b>110 mm</b>	22222	<b>140</b> 5.51	<b>255</b> 10.04	<b>160</b> 6.30	<b>332</b> 13.07	<b>365</b> 14.37	<b>410</b> 16.14	<b>105</b> 4.13	<b>39</b> 1.54	<b>24</b> ¾	<b>47</b> 1.85	<b>147</b> 5.79	<b>94</b> 3.70	<b>6</b> 0.24	<b>141</b> 5.55	<b>35.9</b> 79
QMSN22J407S	4 7/16 in.	22222	<b>150</b> 5.91	<b>265</b> 10.43	<b>160</b> 6.30	<b>367</b> 14.45	<b>400</b> 15.75	<b>445</b> 17.52	<b>105</b> 4.13	<b>49</b> 1.93	<b>24</b> ¾	<b>47</b> 1.85	<b>147</b> 5.79	<b>94</b> 3.70	<b>6</b> 0.24	<b>141</b> 5.55	<b>35.5</b> 78
QMSN22J408S	4 1/2 in.																
QMSN22J115S	<b>115 mm</b>																
QMSN26J125S	<b>125 mm</b>	22226	<b>150</b> 5.91	<b>282</b> 11.10	<b>175</b> 6.89	<b>402</b> 15.83	<b>435</b> 17.13	<b>500</b> 19.69	<b>113</b> 4.45	<b>49</b> 1.93	<b>30</b> 1 ¼	<b>58</b> 2.28	<b>151</b> 5.94	<b>95</b> 3.74	<b>2</b> 0.08	<b>153</b> 6.02	<b>40.0</b> 88
QMSN26J415S	4 15/16 in.																
QMSN26J500S	5 in.																
QMSN26J130S	<b>130 mm</b>																

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## EC SERIES • QMC PILOTED FLANGE CARTRIDGES

### QMC PILOTED FLANGE CARTRIDGES

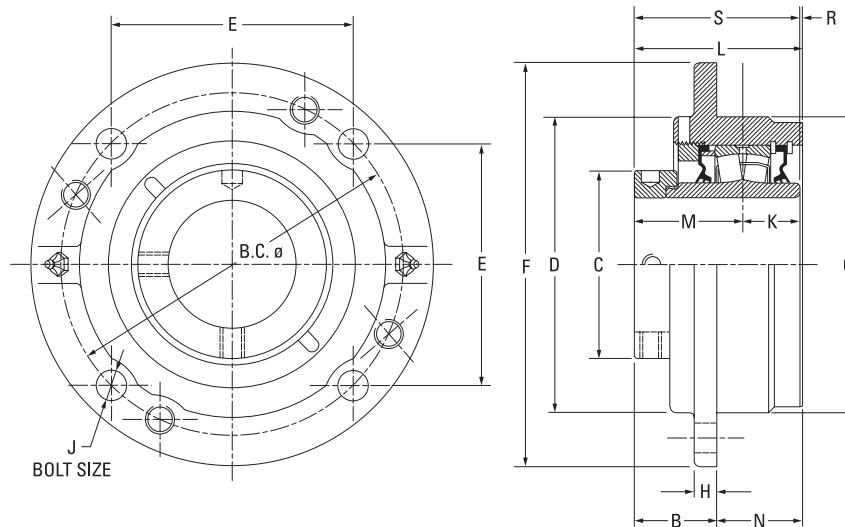


Bearing Part No.	Shaft Dia.	Bearing No.	B <sub>FIX</sub>	B <sub>EXP</sub>	B.C.	C	D	E	F	G <sup>(1)</sup>	H	J	K	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R	S	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QMC08J035S	35 mm	22208	49.8	51.8	111.3	60.5	92.2	78.5	133.4	92.1	12.7	10	25.4	73.7	75.7	44.5	23.9	3.81	69.9	3.6	
QMC08J107S	1 7/16 in.		1.96	2.04	4.38	2.38	3.63	3.09	5.25	3.625	0.50	7/16	1.00	2.90	2.98	1.75	0.94	0.15	2.75	8	
QMC08J108S	1 1/2 in.																				
QMC09J040S	40 mm	22209	54.6	56.6	130.3	66.8	111.3	91.9	155.7	108.0	12.7	10	25.4	77.0	79.0	47.5	22.4	3.81	72.9	4.1	
QMC09J111S	1 11/16 in.		2.15	2.23	5.13	2.63	4.38	3.62	6.13	4.250	0.50	7/16	1.00	3.03	3.11	1.87	0.88	0.15	2.87	9	
QMC09J112S	1 3/4 in.																				
QMC09J045S	45 mm	22210	50.4	52.6	136.7	70.1	113.5	96.5	162.1	114.3	16.0	10	25.4	77.5	79.5	47.5	26.9	4.6	72.9	4.5	
QMC10J115S	1 15/16 in.		1.99	2.07	5.38	2.76	4.47	3.80	6.38	4.500	0.63	7/16	1.00	3.05	3.13	1.87	1.06	0.18	2.87	10	
QMC10J200S	2 in.																				
QMC10J050S	50 mm	22211	54.4	56.4	152.4	75.9	127.0	107.7	185.4	127.0	14.7	12	28.7	83.1	85.1	50.5	28.7	3.6	79.2	5.9	
QMC11J203S	2 3/16 in.		2.14	2.22	6.00	2.99	5.00	4.24	7.30	5.000	0.58	1/2	1.13	3.27	3.35	1.99	1.13	0.14	3.12	13	
QMC11J204S	2 1/4 in.																				
QMC11J055S	55 mm	22213	59.4	61.5	165.1	91.9	139.7	116.8	193.8	139.7	17.5	12	31.5	87.9	91.2	54.1	28.7	2.3	85.6	7.3	
QMC13J207S	2 7/16 in.		2.34	2.42	6.50	3.62	5.50	4.60	7.63	5.500	0.69	1/2	1.24	3.46	3.59	2.13	1.13	0.09	3.37	16	
QMC13J208S	2 1/2 in.																				
QMC13J065S	65 mm	22215	62.5	64.5	190.5	101.9	162.1	134.6	222.3	161.9	20.6	16	31.8	94.5	96.5	60.2	31.8	2.3	91.9	10.0	
QMC15J211S	2 11/16 in.		2.46	2.54	7.50	4.01	6.38	5.30	8.75	6.375	0.81	5/8	1.25	3.72	3.80	2.37	1.25	0.09	3.62	22	
QMC15J212S	2 3/4 in.																				
QMC15J070S	70 mm	22218	73.2	75.2	219.2	120.9	187.5	154.9	262.6	187.3	25.4	20	36.6	106.4	108.5	65.8	33.3	4.1	102.4	14.5	
QMC15J300S	3 in.		2.88	2.96	8.63	4.76	7.38	6.10	10.34	7.375	1.00	3/4	1.44	4.19	4.27	2.59	1.31	0.16	4.03	32	
QMC15J075S	75 mm																				
QMC18J303S	3 3/16 in.	22220	72.1	74.2	238.3	152.4	206.5	168.4	276.4	206.4	25.4	20	41.4	126.0	128.0	75.2	54.1	9.4	115.8	19.5	
QMC18J304S	3 1/4 in.		2.84	2.92	9.38	6.00	8.13	6.63	10.88	8.125	1.00	3/4	1.63	4.96	5.04	2.96	2.13	0.37	4.56	43	
QMC18J080S	80 mm																				
QMC18J085S	85 mm	22222	92.5	94.5	298.5	160.0	254.0	149.4	342.9	260.4	25.4	20	46.5	140.7	142.7	94.0	48.3	0.3	140.5	32.7	
QMC18J307S	3 7/16 in.		3.64	3.72	11.75 <sup>(2)</sup>	6.30	10.00	5.88 <sup>(2)</sup>	13.50	10.250	1.00	3/4 <sup>(2)</sup>	1.83	5.54	5.62	3.70	1.90	0.01	5.53	72	
QMC18J308S	3 1/2 in.																				
QMC18J090S	90 mm																				
QMC20J311S	3 11/16 in.	22222	92.5	94.5	298.5	160.0	254.0	149.4	342.9	260.4	25.4	20	46.5	140.7	142.7	94.0	48.3	0.3	140.5	32.7	
QMC20J312S	3 3/4 in.		3.64	3.72	11.75 <sup>(2)</sup>	6.30	10.00	5.88 <sup>(2)</sup>	13.50	10.250	1.00	3/4 <sup>(2)</sup>	1.83	5.54	5.62	3.70	1.90	0.01	5.53	72	
QMC20J315S	3 15/16 in.																				
QMC20J400S	4 in.																				
QMC20J100S	100 mm																				
QMC22J110S <sup>(2)</sup>	110 mm																				
QMC22J407S <sup>(2)</sup>	4 7/16 in.																				
QMC22J408S <sup>(2)</sup>	4 1/2 in.																				
QMC22J115S <sup>(2)</sup>	115 mm																				

<sup>(1)</sup>Pilot tolerance: +0/-0.051 mm (+0/-0.002 in.).

<sup>(2)</sup>Six-bolt housing.

QMCW PILOTED FLANGE CARTRIDGES



Bearing Part No.	Shaft Dia.	Bearing No.	B	B	B.C.	C	D	E	F	G <sup>(1)</sup>	H	J	K	L	L	M	N	R	S	Wt.		
			FIX	EXP	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
			in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lbs.
QMCW08J035S	35 mm	22208	38.6	40.9	111.3	59.9	92.2	78.5	133.4	92.1	12.7	10	25.4	73.7	75.7	44.5	35.1	3.8	69.9	3.6		
QMCW08J107S	1 7/16 in.		1.53	1.61	4.38	2.36	3.63	3.09	5.25	3.625	0.50	7/16	1.00	2.90	2.98	1.75	1.38	0.15	2.75	8		
QMCW08J108S	1 1/2 in.																					
QMCW09J040S	40 mm	22209	38.9	40.1	130.3	66.8	111.3	91.9	155.7	108.0	10.2	10	25.1	77.0	78.2	47.8	38.1	4.1	72.9	4.1		
QMCW09J111S	1 11/16 in.		1.53	1.58	5.13	2.63	4.38	3.62	6.13	4.250	0.40	7/16	0.99	3.03	3.08	1.88	1.50	0.16	2.87	9		
QMCW09J112S	1 3/4 in.																					
QMCW09J045S	45 mm	22210	39.1	41.1	136.7	70.1	113.5	96.5	162.1	114.3	9.7	10	24.9	77.2	79.2	48.0	38.1	4.3	72.9	4.5		
QMCW10J115S	1 15/16 in.		1.54	1.62	5.38	2.76	4.47	3.80	6.38	4.500	0.38	7/16	0.98	3.04	3.12	1.89	1.50	0.17	2.87	10		
QMCW10J200S	2 in.																					
QMCW10J050S	50 mm	22211	45.7	47.8	152.4	75.9	127.0	107.7	181.1	127.0	14.2	12	28.7	86.9	88.9	50.5	41.4	7.62	79.2	5.9		
QMCW11J203S	2 3/16 in.		1.80	1.88	6.00	2.99	5.00	4.24	7.13	5.000	0.56	1/2	1.13	3.42	3.50	1.99	1.63	0.30	3.12	13		
QMCW11J204S	2 1/4 in.																					
QMCW11J055S	55 mm	22213	47.5	49.5	165.1	91.9	139.7	116.8	193.8	139.7	12.7	12	31.5	90.2	92.2	54.1	42.9	4.31	85.6	7.3		
QMCW13J060S	60 mm		1.87	1.95	6.50	3.62	5.50	4.60	7.63	5.500	0.50	1/2	1.24	3.55	3.63	2.13	1.69	0.17	3.37	16		
QMCW13J207S	2 7/16 in.																					
QMCW13J208S	2 1/2 in.	22215	46.0	48.0	190.5	101.9	162.1	134.6	222.3	161.9	12.7	16	31.8	93.5	95.5	60.2	47.8	1.5	91.9	10.0		
QMCW13J065S	65 mm		1.81	1.89	7.50	4.01	6.38	5.30	8.75	6.375	0.50	5/8	1.25	3.68	3.76	2.37	1.88	0.06	3.62	22		
QMCW15J211S	2 11/16 in.																					
QMCW15J212S	2 3/4 in.	22218	62.5	64.5	219.2	120.9	187.5	154.9	260.4	187.3	22.4	20	36.6	110.2	112.3	65.8	47.8	7.9	102.4	14.5		
QMCW15J070S	70 mm		2.46	2.54	8.63	4.76	7.38	6.10	10.25	7.375	0.88	3/4	1.44	4.34	4.42	2.59	1.88	0.31	4.03	32		
QMCW15J215S	2 15/16 in.																					
QMCW15J300S	3 in.	22218																				
QMCW15J075S	75 mm																					
QMCW18J303S	3 3/16 in.																					
QMCW18J304S	3 1/4 in.																					
QMCW18J080S	80 mm																					
QMCW18J085S	85 mm																					
QMCW18J307S	3 7/16 in.																					
QMCW18J308S	3 1/2 in.																					
QMCW18J090S	90 mm																					

<sup>(1)</sup>Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

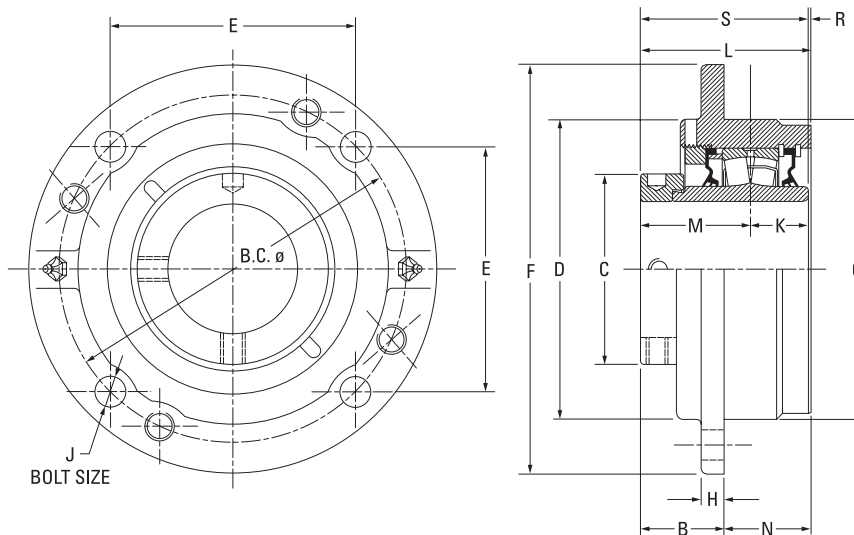
<sup>(2)</sup>Six-bolt housing.

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# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

EC SERIES • QMCW PILOTED FLANGE CARTRIDGES

## QMCW PILOTED FLANGE CARTRIDGES – continued



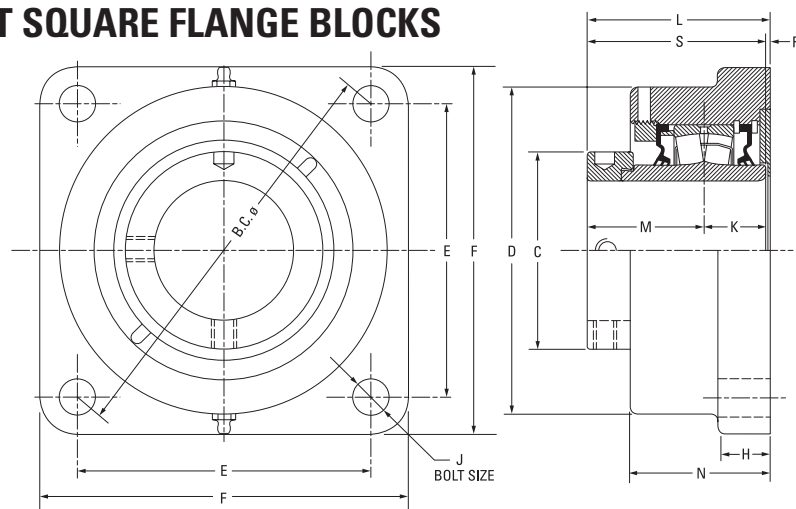
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Bearing Part No.	Shaft Dia.	Bearing No.	B <sub>FIX</sub>	B <sub>EXP</sub>	B.C.	C	D	E	F	G <sup>(1)</sup>	H	J	K	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R	S	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QMCW20J311S	3 1/16 in.	22220	63.5 2.50	65.5 2.58	238.3 9.38	152.4 6.00	206.5 8.13	168.4 6.63	276.4 10.88	206.4 8.125	25.4 1.00	20 3/4	41.4 1.63	120.7 4.75	122.7 4.83	75.2 2.96	57.2 2.25	4.1 0.16	116.6 4.59	19.5 43	
QMCW20J312S	3 3/4 in.																				
QMCW20J315S	3 15/16 in.																				
QMCW20J400S	4 in.																				
QMCW20J100S	100 mm	22222	76.5 3.01	78.5 3.09	298.5 11.75 <sup>(2)</sup>	160.0 6.30	254.0 10.00	149.4 5.88 <sup>(2)</sup>	342.9 13.50	260.4 10.250	25.4 1.00	20 3/4 <sup>(2)</sup>	46.5 1.83	144.8 5.70	146.8 5.78	94.0 3.70	68.3 2.69	4.3 0.17	140.5 5.53	32.7 72	
QMCW22J110S <sup>(2)</sup>	110 mm																				
QMCW22J407S <sup>(2)</sup>	4 7/16 in.																				
QMCW22J408S <sup>(2)</sup>	4 1/2 in.																				
QMCW22J115S <sup>(2)</sup>	115 mm	22226	73.7 2.90	75.7 2.98	323.9 12.75 <sup>(2)</sup>	175.0 6.89	266.7 10.50	162.1 6.38 <sup>(2)</sup>	374.7 14.75	279.4 11.000	26.2 1.03	24 7/8 <sup>(2)</sup>	58.7 2.31	151.4 5.96	153.4 6.04	94.7 3.73	77.9 3.065	-1.8 -0.07	153.4 6.04	46.3 102	
QMCW26J415S <sup>(2)</sup>	4 15/16 in.																				
QMCW26J500S <sup>(2)</sup>	5 in.																				
QMCW26J130S <sup>(2)</sup>	130 mm																				
QMCW30J507S <sup>(2)</sup>	5 7/16 in.	23230	82.8 3.26	84.8 3.34	368.3 14.50 <sup>(2)</sup>	205.0 8.07	304.8 12.00	184.2 7.25 <sup>(2)</sup>	431.8 17.00	330.2 13.000	26.2 1.03	24 7/8 <sup>(2)</sup>	75.9 2.99	204.2 8.04	206.2 8.12	116.1 4.57	121.4 4.78	12.2 0.48	192.0 7.56	102.5 226	
QMCW30J508S <sup>(2)</sup>	5 1/2 in.																				
QMCW30J140S <sup>(2)</sup>	140 mm																				
QMCW30J515S <sup>(2)</sup>	5 15/16 in.																				
QMCW30J600S <sup>(2)</sup>	6 in.	23234	82.8 3.26	84.8 3.34	419.1 16.50 <sup>(2)</sup>	205.0 8.07	304.8 12.00	209.6 8.25 <sup>(2)</sup>	482.6 19.00	355.6 14.000	26.2 1.03	24 7/8 <sup>(2)</sup>	75.9 2.99	211.3 8.32	213.4 8.40	116.1 4.57	128.5 5.06	19.3 0.76	192.0 7.56	101.6 224	
QMCW30J150S <sup>(2)</sup>	150 mm																				
QMCW34J607S <sup>(2)</sup>	6 7/16 in.																				
QMCW34J608S <sup>(2)</sup>	6 1/2 in.																				
QMCW34J170S <sup>(2)</sup>	170 mm	23234	85.9 3.38	87.9 3.46	431.8 17.00	235.0 9.25	355.6 14.00	215.9 8.50	482.6 19.00	381.0 15.000	28.7 1.13	24 1 <sup>(2)</sup>	85.1 3.35	216.2 8.51	218.2 8.59	129.0 5.08	130.3 5.13	2.0 0.08	214.1 8.43	152.4 336	
QMCW34J615S <sup>(2)</sup>	6 15/16 in.																				
QMCW34J700S <sup>(2)</sup>	7 in.																				
QMCW34J180S <sup>(2)</sup>	180 mm																				

<sup>(1)</sup>Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

<sup>(2)</sup>Six-bolt housing.

QMF FOUR-BOLT SQUARE FLANGE BLOCKS

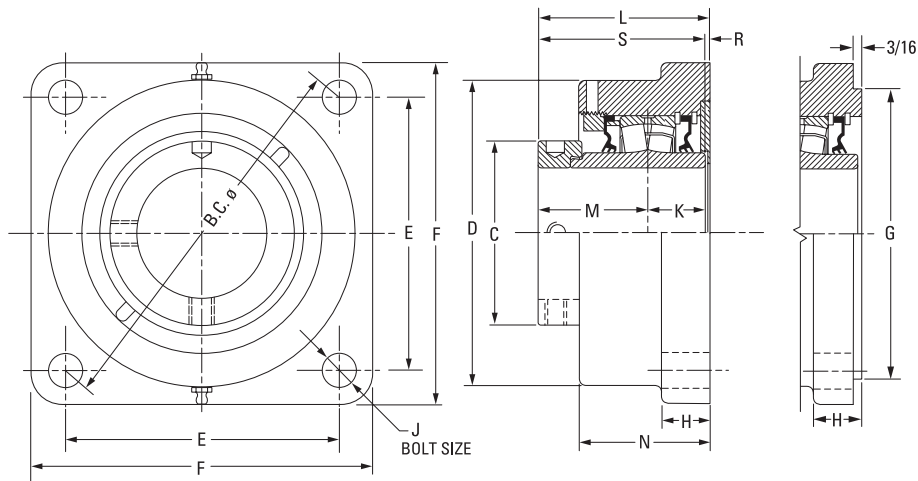


Bearing Part No.	Shaft Dia.	Bearing No.	B.C.	C	D	E	F	H	J	K	L FIX	L EXP	M	N	R	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	lbs. kg
QMF08J035S	35 mm	22208	127.7	60.5	93.7	88.9	117.6	22.4	12	25.4	72.9	74.9	44.5	57.2	3.0	69.9	4.5
QMF08J107S	1 7/16 in.		4.95	2.38	3.69	3.50	4.63	0.88	1/2	1.00	2.87	2.95	1.75	2.25	0.12	2.75	10
QMF08J108S	1 1/2 in.	22208	148.3	60.5	108.0	104.9	136.7	22.4	12	25.4	73.7	75.7	44.5	59.4	3.8	69.9	4.5
QMF09J111S	1 11/16 in.		5.84	2.38	4.25	4.13	5.38	0.88	1/2	1.00	2.90	2.98	1.75	2.34	0.15	2.75	10
QMF09J040S	40 mm	22209	148.3	66.8	118.4	104.9	136.7	22.4	12	25.4	79.5	81.5	47.8	63.5	6.4	73.2	5.0
QMF09J112S	1 3/4 in.		5.84	2.63	4.66	4.13	5.38	0.88	1/2	1.00	3.13	3.21	1.88	2.50	0.25	2.88	11
QMF09J045S	45 mm	22209	157.2	66.8	118.4	111.3	143.0	22.4	12	25.4	79.5	81.5	47.8	63.5	6.4	72.9	5.0
QMF10J115S	1 15/16 in.		6.19	2.63	4.66	4.38	5.63	0.88	1/2	1.00	3.13	3.21	1.88	2.50	0.25	2.87	11
QMF10J200S	2 in.	22210	157.2	70.1	120.7	111.3	139.7	22.4	12	24.4	80.8	82.8	48.0	65.0	7.9	72.9	5.0
QMF10J050S	50 mm		6.19	2.76	4.75	4.38	5.50	0.88	1/2	0.98	3.18	3.26	1.89	2.56	0.31	2.87	11
QMF11J203S	2 3/16 in.	22211	175.0	75.9	130.3	124.0	157.2	25.4	16	28.7	82.8	84.8	50.5	66.8	3.3	79.2	6.4
QMF11J204S	2 1/4 in.		6.89	2.99	5.13	4.88	6.19	1.00	5/8	1.13	3.26	3.34	1.99	2.63	0.13	3.12	14
QMF11J055S	55 mm																
QMF13J060S	60 mm	22213	193.0	91.9	146.1	136.7	168.4	25.4	16	31.5	88.6	90.7	54.1	72.4	3.0	85.6	7.7
QMF13J207S	2 7/16 in.		7.60	3.62	5.75	5.38	6.63	1.00	5/8	1.24	3.49	3.57	2.13	2.85	0.12	3.37	17
QMF13J208S	2 1/2 in.																
QMF13J065S	65 mm	22215	215.6	101.9	168.9	152.4	189.0	26.9	20	31.8	96.0	98.0	60.2	76.2	4.1	91.9	10.4
QMF15J211S	2 11/16 in.		8.49	4.01	6.65	6.00	7.44	1.06	3/4	1.25	3.78	3.86	2.37	3.00	0.16	3.62	23
QMF15J070S	70 mm																
QMF15J215S	2 15/16 in.	22218	251.7	120.9	193.8	177.8	219.2	33.3	20	36.6	107.2	109.2	66.8	84.1	4.8	102.4	15.9
QMF15J300S	3 in.		9.91	4.76	7.63	7.00	8.63	1.31	3/4	1.44	4.22	4.30	2.59	3.31	0.19	4.03	35
QMF15J075S	75 mm																
QMF18J303S	3 3/16 in.	22218	251.7	120.9	193.8	177.8	219.2	33.3	20	36.6	107.2	109.2	66.8	84.1	4.8	102.4	15.9
QMF18J304S	3 1/4 in.		9.91	4.76	7.63	7.00	8.63	1.31	3/4	1.44	4.22	4.30	2.59	3.31	0.19	4.03	35
QMF18J080S	80 mm																
QMF18J085S	85 mm	22220	278.4	152.4	224.0	196.9	253.2	38.1	24	41.4	126.2	128.3	75.2	103.1	9.4	116.6	24.9
QMF18J307S	3 7/16 in.		10.96	6.00	8.82	7.75	9.97	1.50	7/8	1.63	4.97	5.05	2.96	4.06	0.37	4.59	55
QMF18J308S	3 1/2 in.																
QMF18J090S	90 mm	22222	314.5	160.0	256.8	222.3	276.4	38.1	24	46.5	150.1	152.1	94.0	106.9	9.7	140.5	28.6
QMF20J311S	3 11/16 in.		12.38	6.30	10.11	8.75	10.88	1.50	7/8	1.83	5.91	5.99	3.70	4.21	0.38	5.53	63
QMF20J312S	3 3/4 in.																
QMF20J315S	3 15/16 in.	22222	314.5	160.0	256.8	222.3	276.4	38.1	24	46.5	150.1	152.1	94.0	106.9	9.7	140.5	28.6
QMF20J400S	4 in.		12.38	6.30	10.11	8.75	10.88	1.50	7/8	1.83	5.91	5.99	3.70	4.21	0.38	5.53	63
QMF20J100S	100 mm	22222	314.5	160.0	256.8	222.3	276.4	38.1	24	46.5	150.1	152.1	94.0	106.9	9.7	140.5	28.6
QMF22J110S	110 mm		12.38	6.30	10.11	8.75	10.88	1.50	7/8	1.83	5.91	5.99	3.70	4.21	0.38	5.53	63
QMF22J407S	4 7/16 in.	22222	314.5	160.0	256.8	222.3	276.4	38.1	24	46.5	150.1	152.1	94.0	106.9	9.7	140.5	28.6
QMF22J408S	4 1/2 in.		12.38	6.30	10.11	8.75	10.88	1.50	7/8	1.83	5.91	5.99	3.70	4.21	0.38	5.53	63
QMF22J115S	115 mm	22222	314.5	160.0	256.8	222.3	276.4	38.1	24	46.5	150.1	152.1	94.0	106.9	9.7	140.5	28.6
QMF22J115S	115 mm		12.38	6.30	10.11	8.75	10.88	1.50	7/8	1.83	5.91	5.99	3.70	4.21	0.38	5.53	63

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## EC SERIES • QMFL FOUR-BOLT SQUARE FLANGE BLOCKS

### QMFL FOUR-BOLT SQUARE FLANGE BLOCKS



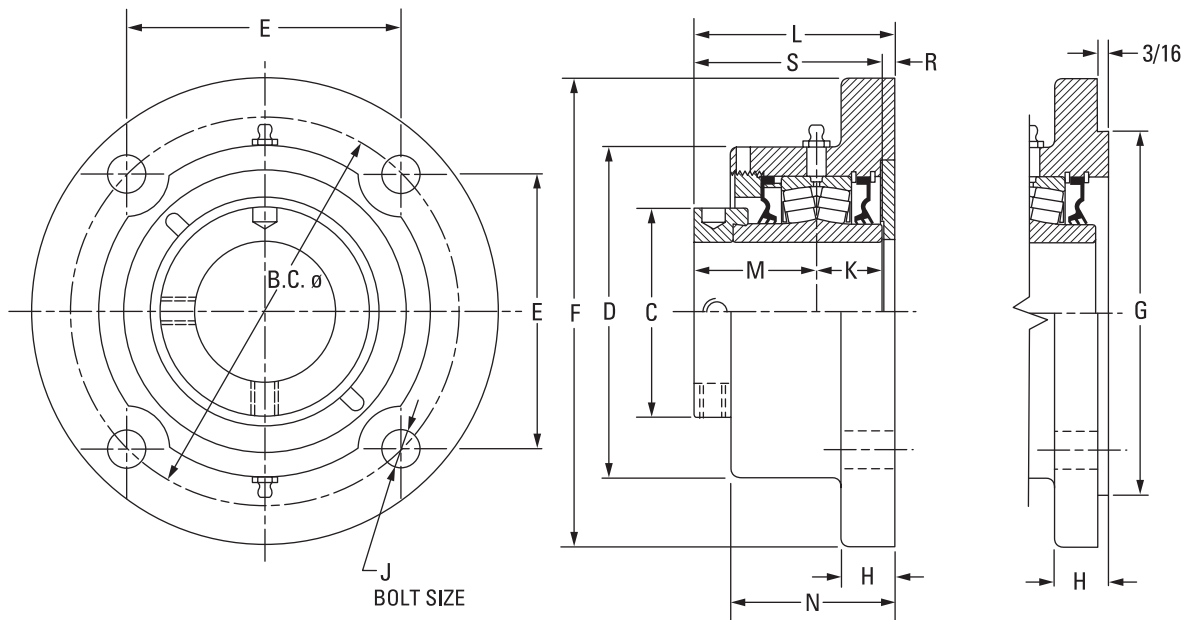
Bearing Part No.	Shaft Dia.	Bearing No.	B.C.	C	D	E	F	G <sup>(1)(2)(3)</sup>	H	J	K	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QMFL08J035S	<b>35 mm</b>																	
QMFL08J107S	1 7/16 in.	22208	127.0	60.5	93.7	89.9	117.6	N/A	22.4	12	25.4	72.9	74.9	44.5	57.2	3.0	69.9	4.5
QMFL08J108S	1 1/2 in.		5.00	2.38	3.69	3.54	4.63		0.88	1/2	1.00	2.87	2.95	1.75	2.25	0.12	2.75	10
QMFL09J111S	1 11/16 in.																	
QMFL09J040S	<b>40 mm</b>	22209	139.7	66.8	118.4	98.8	136.7	N/A	22.4	12	25.1	79.5	81.5	47.8	63.5	6.6	72.9	5.0
QMFL09J112S	1 3/4 in.		5.50	2.63	4.66	3.89	5.38		0.88	1/2	0.99	3.13	3.21	1.88	2.50	0.26	2.87	11
QMFL09J045S	<b>45 mm</b>																	
QMFL10J115S	1 15/16 in.																	
QMFL10J200S	2 in.	22210	146.1	70.1	115.3	103.4	131.8	N/A	23.1	12	24.9	80.8	82.8	48.0	62.5	7.9	72.9	5.0
QMFL10J050S	<b>50 mm</b>		5.75	2.76	4.54	4.07	5.19		0.91	1/2	0.98	3.18	3.26	1.89	2.46	0.31	2.87	11
QMFL11J203S	2 3/16 in.																	
QMFL11J204S	2 1/4 in.	22211	162.1	76.0	130.3	114.3	149.4	N/A	19.1	16	28.7	83.3	85.3	50.5	66.8	3.8	79.2	6.4
QMFL11J055S	<b>55 mm</b>		6.38	2.99	5.13	4.50	5.88		0.75	5/8	1.13	3.28	3.36	1.99	2.63	0.15	3.12	14
QMFL13J060S	<b>60 mm</b>																	
QMFL13J207S	2 7/16 in.	22213	171.5	91.9	146.1	121.2	157.2	N/A	25.4	16	31.5	88.9	90.7	54.1	72.6	3.0	85.6	7.7
QMFL13J208S	2 1/2 in.		6.75	3.62	5.75	4.77	6.19		1.00	5/8	1.24	3.50	3.57	2.13	2.86	0.12	3.37	17
QMFL13J065S	<b>65 mm</b>																	
QMFL15J211S	2 11/16 in.																	
QMFL15J212S	2 3/4 in.																	
QMFL15J070S	<b>70 mm</b>	22215	200.2	101.9	168.4	141.2	182.6	N/A	26.9	20	31.8	95.8	97.8	60.2	74.4	3.8	91.9	10.4
QMFL15J215S	2 15/16 in.		7.88	4.01	6.63	5.56	7.19		1.06	3/4	1.25	3.77	3.85	2.37	2.93	0.15	3.62	23
QMFL15J300S	3 in.																	
QMFL15J075S	<b>75 mm</b>																	
QMFL18J303S	3 3/16 in.																	
QMFL18J304S	3 1/4 in.																	
QMFL18J080S	<b>80 mm</b>	22218	241.3	120.9	193.8	170.7	212.9	187.33	32.5	20	36.6	106.4	108.5	65.8	86.4	4.1	102.4	15.9
QMFL18J085S	<b>85 mm</b>		9.50	4.76	7.63	6.72	8.38	7.375	1.28	3/4	1.44	4.19	4.27	2.59	3.40	0.16	4.03	35
QMFL18J307S	3 7/16 in.																	
QMFL18J308S	3 1/2 in.																	
QMFL18J090S	<b>90 mm</b>																	
QMFL20J311S	3 11/16 in.																	
QMFL20J312S	3 3/4 in.																	
QMFL20J315S	3 15/16 in.	22220	273.1	152.4	229.6	193.0	241.3	215.90	38.1	24	41.4	132.3	134.4	75.2	104.6	15.7	116.6	24.9
QMFL20J400S	4 in.		10.75	6.00	9.04	7.60	9.50	8.500	1.50	1	1.63	5.21	5.29	2.96	4.12	0.62	4.59	55
QMFL20J100S	<b>100 mm</b>																	

<sup>(1)</sup>Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

<sup>(2)</sup>Add (p) to the end of the housing designation in the part number to order with pilot using G dimension.

<sup>(3)</sup>Piloted flange blocks will be quoted (price and delivery) upon request. For optional spigot on flange side, insert the letter P as seen in the following example: QMFP\*\*J\*\*\*S.

QMFY ROUND FLANGE BLOCKS



Bearing Part No.	Shaft Dia.	Bearing No.	B.C.	C	D	E	F	G <sup>(1)(2)(3)</sup>	H	J	K	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R	S	Wt.
																		mm in.
QMFY08J035S <sup>(4)</sup>	<b>35 mm</b>	22208	<b>127.0</b> 5.00 <sup>(4)</sup>	<b>60.5</b> 2.38	<b>108.0</b> 4.25	<b>88.9</b> 3.54 <sup>(4)</sup>	<b>158.8</b> 6.25	<b>90.50</b> 3.563	<b>19.1</b> 0.75	<b>12</b> 1/2 <sup>(4)</sup>	<b>25.4</b> 1.00	<b>73.2</b> 2.88	<b>75.2</b> 2.96	<b>44.5</b> 1.75	<b>57.4</b> 2.26	<b>3.3</b> 0.13	<b>69.9</b> 2.75	<b>4.5</b>
QMFY08J107S <sup>(4)</sup>	1 7/16 in.																	<b>10</b>
QMFY08J108S <sup>(4)</sup>	1 1/2 in.																	<b>10</b>
QMFY09J040S	<b>40 mm</b>	22209	<b>139.7</b> 5.50	<b>66.8</b> 2.63	<b>104.9</b> 4.13	<b>98.8</b> 3.89	<b>171.5</b> 6.75	<b>103.20</b> 4.063	<b>20.6</b> 0.81	<b>12</b> 1/2	<b>25.1</b> 0.99	<b>76.2</b> 3.00	<b>78.2</b> 3.08	<b>47.8</b> 1.88	<b>60.5</b> 2.38	<b>3.0</b> 0.12	<b>72.9</b> 2.87	<b>5.0</b>
QMFY09J111S	1 11/16 in.																	<b>11</b>
QMFY09J112S	1 3/4 in.																	<b>11</b>
QMFY09J045S	<b>45 mm</b>	22210	<b>146.1</b> 5.75	<b>70.1</b> 2.76	<b>115.3</b> 4.54	<b>103.4</b> 4.07	<b>177.8</b> 7.00	<b>111.13</b> 4.375	<b>19.1</b> 0.75	<b>12</b> 1/2	<b>24.9</b> 0.98	<b>75.9</b> 2.99	<b>78.0</b> 3.07	<b>48.0</b> 1.89	<b>58.4</b> 2.30	<b>3.0</b> 0.12	<b>72.9</b> 2.87	<b>5.4</b>
QMFY10J115S	1 15/16 in.																	<b>12</b>
QMFY10J200S	2 in.																	<b>12</b>
QMFY10J050S	<b>50 mm</b>	22211	<b>162.1</b> 6.38	<b>75.9</b> 2.99	<b>130.3</b> 5.13	<b>114.3</b> 4.50	<b>196.9</b> 7.75	<b>127.00</b> 5.000	<b>19.1</b> 0.75	<b>16</b> 5/8	<b>28.7</b> 1.13	<b>82.3</b> 3.24	<b>84.3</b> 3.32	<b>75.9</b> 2.99	<b>62.0</b> 2.44	<b>3.0</b> 0.12	<b>79.2</b> 3.12	<b>6.8</b>
QMFY11J203S	2 3/16 in.																	<b>15</b>
QMFY11J204S	2 1/4 in.																	<b>15</b>
QMFY11J055S	<b>55 mm</b>	22213	<b>171.5</b> 6.75	<b>91.9</b> 3.62	<b>146.1</b> 5.75	<b>121.2</b> 4.77	<b>206.5</b> 8.13	<b>138.13</b> 5.438	<b>23.9</b> 0.94	<b>16</b> 5/8	<b>31.5</b> 1.24	<b>88.1</b> 3.47	<b>90.4</b> 3.56	<b>54.1</b> 2.13	<b>72.4</b> 2.85	<b>2.3</b> 0.09	<b>85.6</b> 3.37	<b>8.6</b>
QMFY13J207S	2 7/16 in.																	<b>19</b>
QMFY13J208S	2 1/2 in.																	<b>19</b>
QMFY13J065S	<b>65 mm</b>	22215	<b>199.9</b> 7.87	<b>101.9</b> 4.01	<b>168.4</b> 6.63	<b>141.2</b> 5.56	<b>241.3</b> 9.50	<b>160.35</b> 6.313	<b>23.9</b> 0.94	<b>20</b> 3/4	<b>31.8</b> 1.25	<b>98.6</b> 3.88	<b>100.6</b> 3.96	<b>60.2</b> 2.37	<b>76.2</b> 3.00	<b>6.4</b> 0.25	<b>91.9</b> 3.62	<b>12.7</b>
QMFY15J211S	2 11/16 in.																	<b>28</b>
QMFY15J212S	2 3/4 in.																	<b>28</b>
QMFY15J070S	<b>70 mm</b>	22215	<b>199.9</b> 7.87	<b>101.9</b> 4.01	<b>168.4</b> 6.63	<b>141.2</b> 5.56	<b>241.3</b> 9.50	<b>160.35</b> 6.313	<b>23.9</b> 0.94	<b>20</b> 3/4	<b>31.8</b> 1.25	<b>98.6</b> 3.88	<b>100.6</b> 3.96	<b>60.2</b> 2.37	<b>76.2</b> 3.00	<b>6.4</b> 0.25	<b>91.9</b> 3.62	<b>12.7</b>
QMFY15J215S	2 15/16 in.																	<b>28</b>
QMFY15J300S	3 in.																	<b>28</b>
QMFY15J075S	<b>75 mm</b>																	

<sup>(1)</sup>Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

<sup>(2)</sup>Add (p) to the end of the housing designation in the part number to order with pilot using G dimension.

<sup>(3)</sup>Piloted flange blocks will be quoted (price and delivery) upon request. For optional spigot on flange side, insert the letter P as seen in the following example: QMFY\*\*J\*\*\*S.

<sup>(4)</sup>Three-bolt housing.

<sup>(5)</sup>Six-bolt housing.

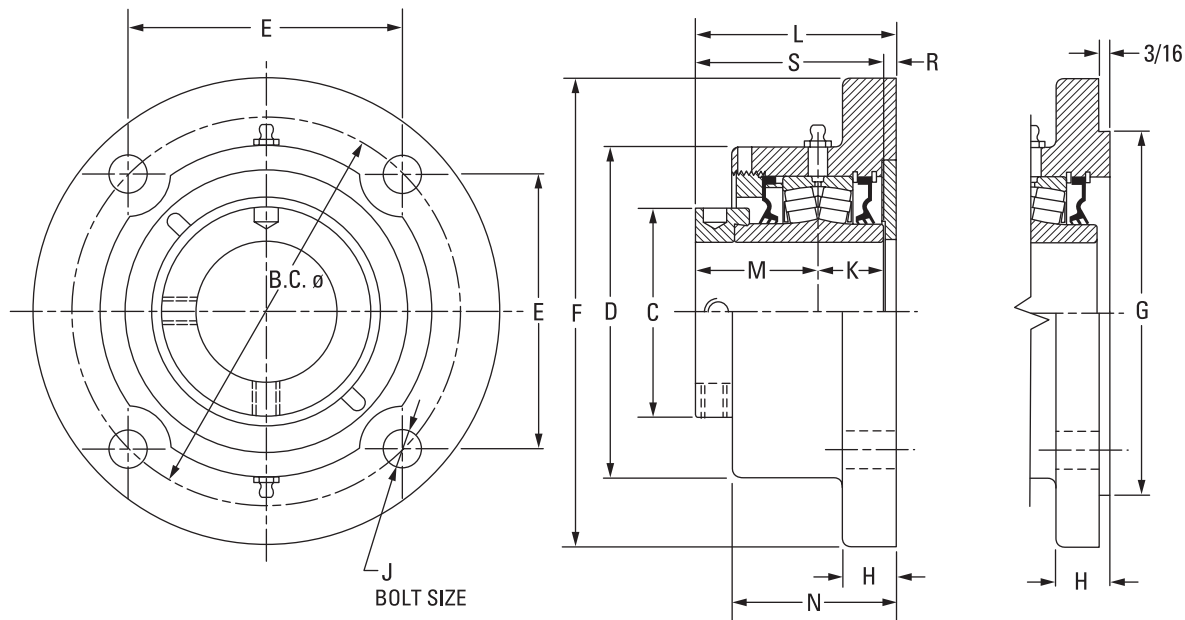
NOTE: Housings also are available with a 3/16 in. machined pilot. Please contact your Timken engineer for more information.

Continued on next page.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## EC SERIES • QMFY ROUND FLANGE BLOCKS

### QMFY ROUND FLANGE BLOCKS – continued



Continued from previous page.

Bearing Part No.	Shaft Dia.	Bearing No.	B.C.	C	D	E	F	G <sup>(1)(2)(3)</sup>	H	J	K	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QMFY18J303S	3 3/16 in.	22218	241.3 9.50	120.9 4.76	193.8 7.63	170.7 6.72	282.7 11.13	N/A	28.7 1.13	24 7/8	36.6 1.44	108.7 4.28	110.7 4.36	65.8 2.59	85.3 3.36	6.4 0.25	102.4 4.03	19.1 42
QMFY18J304S	3 1/4 in.																	
QMFY18J080S	80 mm																	
QMFY18J085S	85 mm																	
QMFY18J307S	3 7/16 in.																	
QMFY18J308S	3 1/2 in.																	
QMFY18J090S	90 mm	22220	273.1 10.75	152.4 6.00	212.9 8.38	193.0 7.60	320.8 12.63	N/A	28.7 1.13	24 1	41.4 1.63	123.7 4.87	125.7 4.95	75.2 2.96	96.8 3.81	6.9 0.27	116.6 4.59	29.9 66
QMFY20J311S	3 11/16 in.																	
QMFY20J312S	3 3/4 in.																	
QMFY20J315S	3 15/16 in.																	
QMFY20J400S	4 in.																	
QMFY20J100S	100 mm																	
QMFY22J110S <sup>(5)</sup>	110 mm	22222	327.2 12.88 <sup>(5)</sup>	160.0 6.30	254.0 10.00	163.6 6.44 <sup>(5)</sup>	384.3 15.13	N/A	31.8 1.25	24 1 <sup>(5)</sup>	46.5 1.83	143.5 5.65	145.5 5.73	94.0 3.70	100.3 3.95	3.0 0.12	140.5 5.53	46.3 102
QMFY22J407S <sup>(5)</sup>	4 7/16 in.																	
QMFY22J408S <sup>(5)</sup>	4 1/2 in.																	
QMFY22J115S <sup>(5)</sup>	115 mm																	
QMFY26J125S <sup>(5)</sup>	125 mm																	
QMFY26J415S <sup>(5)</sup>	4 15/16 in.																	
QMFY26J500S <sup>(5)</sup>	5 in.	22226	355.6 14.00 <sup>(5)</sup>	175.0 6.89	284.2 11.19	177.8 7.00 <sup>(5)</sup>	419.1 16.50	N/A	38.1 1.50	24 1 1/8 <sup>(5)</sup>	58.7 2.31	170.2 6.70	172.2 6.78	94.7 3.73	138.4 5.45	16.8 0.66	153.4 6.04	52.2 115
QMFY26J130S <sup>(5)</sup>	130 mm																	

<sup>(1)</sup>Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

<sup>(2)</sup>Add (p) to the end of the housing designation in the part number to order with pilot using G dimension.

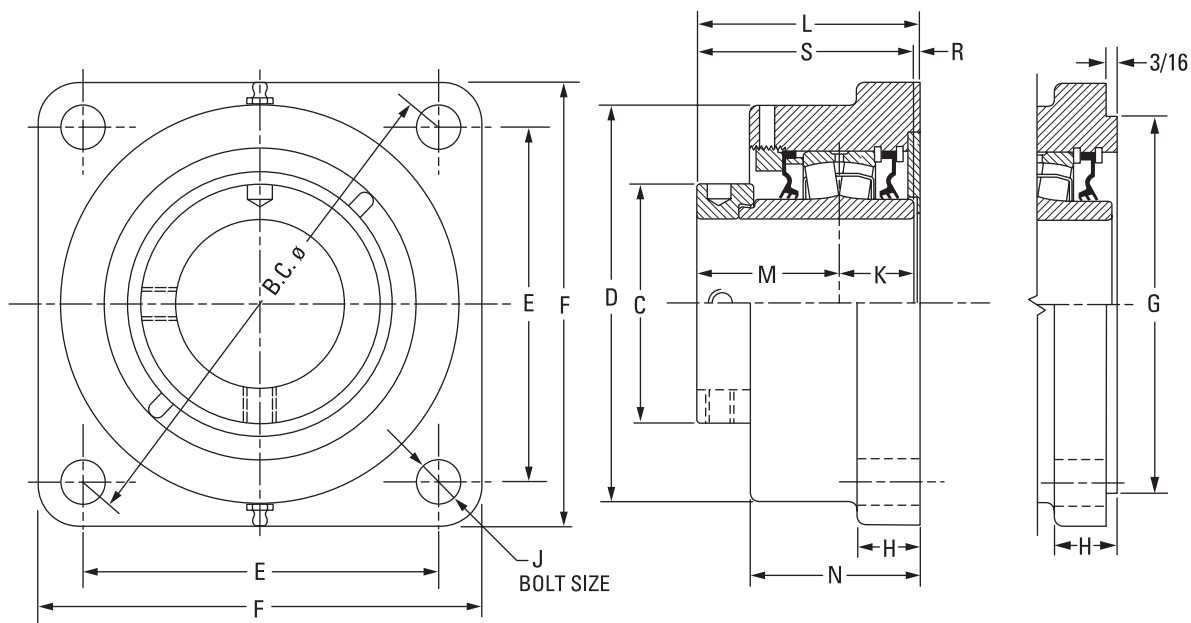
<sup>(3)</sup>Piloted flange blocks will be quoted (price and delivery) upon request. For optional spigot on flange side, insert the letter P as seen in the following example: QMFP\*\*J\*\*\*S.

<sup>(4)</sup>Three-bolt housing.

<sup>(5)</sup>Six-bolt housing.

NOTE: Housings also are available with a 3/16 in. machined pilot. Please contact your Timken engineer for more information.

QMFX 5000 SERIES SQUARE FLANGE BLOCKS



Bearing Part No.	Shaft Dia.	Bearing No.	B.C.	C	D	E	F	G <sup>(1)(2)(3)</sup>	H	J	K	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R	S	Wt.																	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.																	
QMFX08J035S	35 mm	22208	133.6	59.9	93.7	94.5	117.6	90.50	22.1	12	25.4	72.9	74.9	44.5	57.2	3.0	69.9	4.5																	
QMFX08J107S	1 7/16 in.		5.26	2.36	3.69	3.72	4.63	3.563	0.88	1/2	1.00	2.87	2.95	1.75	2.25	0.12	2.75	10																	
QMFX08J108S	1 1/2 in.	22208	139.7	59.9	108.0	98.8	130.3	103.20	22.1	12	25.4	73.7	75.7	44.5	59.4	3.81	69.9	4.5																	
			5.50	2.36	4.25	3.89	5.13	4.063	0.88	1/2	1.00	2.90	2.98	1.75	2.34	0.15	2.75	10																	
QMFX09J040S	40 mm	22209	139.7	66.8	108.0	98.8	130.3	103.20	22.1	12	25.1	79.5	81.5	47.8	63.5	6.4	72.9	5.0																	
QMFX09J111S	1 11/16 in.																		5.50	2.63	4.25	3.89	5.13	4.063	0.88	1/2	0.99	3.13	3.21	1.88	2.50	0.25	2.87	11	
QMFX09J112S	1 3/4 in.																																		
QMFX09J045S	45 mm																																		
QMFX10J115S	1 15/16 in.	22210	146.1	70.1	120.7	103.1	134.9	111.13	22.1	12	24.9	80.8	82.8	48.0	65.0	7.9	72.9	5.0																	
QMFX10J200S	2 in.																		5.75	2.76	4.75	4.06	5.31	4.375	0.88	1/2	0.98	3.18	3.26	1.89	2.56	0.31	2.87	11	
QMFX10J050S	50 mm																																		
QMFX11J203S	2 3/16 in.	22211	161.5	75.9	130.3	114.3	149.4	127.00	25.4	16	28.7	83.1	85.1	50.5	66.8	3.3	79.2	5.0																	
QMFX11J204S	2 1/4 in.																		6.36	2.99	5.13	4.50	5.88	5.000	1.00	5/8	1.13	3.27	3.35	1.99	2.63	0.13	3.12	11	
QMFX11J055S	55 mm																																		
QMFX13J060S	60 mm	22213	180.8	91.9	146.1	127.8	157.2	138.13	25.4	16	31.5	89.2	91.2	54.1	72.4	3.0	85.6	6.4																	
QMFX13J207S	2 7/16 in.																		7.12	3.62	5.75	5.03	6.19	5.438	1.00	5/8	1.24	3.51	3.59	2.13	2.85	0.12	3.37	14	
QMFX13J208S	2 1/2 in.																																		
QMFX13J065S	65 mm																																		
QMFX15J211S	2 11/16 in.	22215	215.9	102.1	168.9	152.7	189.0	160.35	26.9	20	31.8	96.0	98.0	60.2	76.2	4.1	91.9	7.7																	
QMFX15J212S	2 3/4 in.																		8.50	4.02	6.65	6.01	7.44	6.313	1.06	3/4	1.25	3.78	3.86	2.37	3.00	0.16	3.62	17	
QMFX15J070S	70 mm																																		
QMFX15J215S	2 15/16 in.																																		
QMFX15J300S	3 in.																																		
QMFX15J075S	75 mm																																		

<sup>(1)</sup>Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

<sup>(2)</sup>Add (p) to the end of the housing designation in the part number to order with pilot using G dimension.

<sup>(3)</sup>Piloted flange blocks will be quoted (price and delivery) upon request. For optional spigot on flange side, insert the letter P as seen in the following example: QMFP\*\*J\*\*\*S.

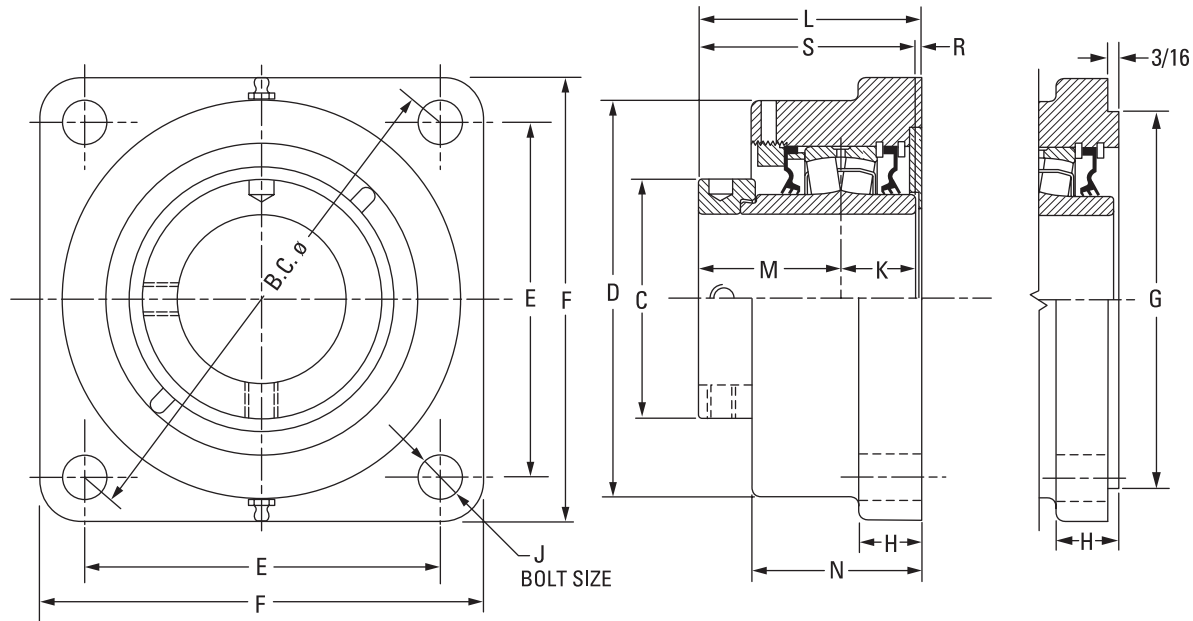
<sup>(4)</sup>Six-bolt round housing.

Continued on next page.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

EC SERIES • QMFX 5000 SERIES SQUARE FLANGE BLOCKS

## QMFX 5000 SERIES SQUARE FLANGE BLOCKS – continued



Continued from previous page.

Bearing Part No.	Shaft Dia.	Bearing No.	B.C.	C	D	E	F	G <sup>(1)(2)(3)</sup>	H	J	K	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QMFX18J303S	3 3/16 in.	22218	241.3 9.50	120.9 4.76	193.8 7.63	170.7 6.72	212.9 8.38	187.33 7.375	33.3 1.31	20 3/4	36.6 1.44	107.2 4.22	109.2 4.30	65.8 2.59	84.1 3.31	4.8 0.19	102.4 4.03	10.4 23
QMFX18J304S	3 1/4 in.																	
QMFX18J080S	80 mm																	
QMFX18J085S	85 mm																	
QMFX18J307S	3 7/16 in.																	
QMFX18J308S	3 1/2 in.																	
QMFX18J090S	90 mm	22220	298.5 11.75	152.4 6.00	215.9 8.50	211.1 8.31	268.2 10.56	225.43 8.875	38.1 1.50	24 7/8	41.4 1.63	126.0 4.96	128.0 5.04	75.2 2.96	103.1 4.06	9.4 0.37	116.8 4.60	15.9 35
QMFX20J311S	3 11/16 in.																	
QMFX20J312S	3 3/4 in.																	
QMFX20J315S	3 15/16 in.																	
QMFX20J400S	4 in.																	
QMFX20J100S	100 mm																	
QMFX22J110S <sup>(4)</sup>	110 mm	22222	327.2 12.88 <sup>(1)</sup>	160.0 6.30	256.5 10.10	163.6 6.44 <sup>(1)</sup>	384.3 15.13	263.53 10.375	31.8 1.25	24 1 <sup>(1)</sup>	46.5 1.83	143.8 5.66	145.8 5.74	94.0 3.70	106.9 4.21	3.3 0.13	140.5 5.53	46.3 102
QMFX22J407S <sup>(4)</sup>	4 7/16 in.																	
QMFX22J408S <sup>(4)</sup>	4 1/2 in.																	
QMFX22J115S <sup>(4)</sup>	115 mm																	
QMFX26J125S <sup>(4)</sup>	125 mm	22226	355.6 14.00 <sup>(1)</sup>	175.0 6.89	284.2 11.19	177.8 7.00 <sup>(1)</sup>	419.1 16.50	284.18 11.188	38.1 1.50	24 1 1/8 <sup>(1)</sup>	58.7 2.31	172.2 6.78	174.2 6.86	94.7 3.73	135.1 5.32	17.3 0.68	153.4 6.04	52.2 115
QMFX26J415S <sup>(4)</sup>	4 15/16 in.																	
QMFX26J500S <sup>(4)</sup>	5 in.																	
QMFX26J130S <sup>(4)</sup>	130 mm																	

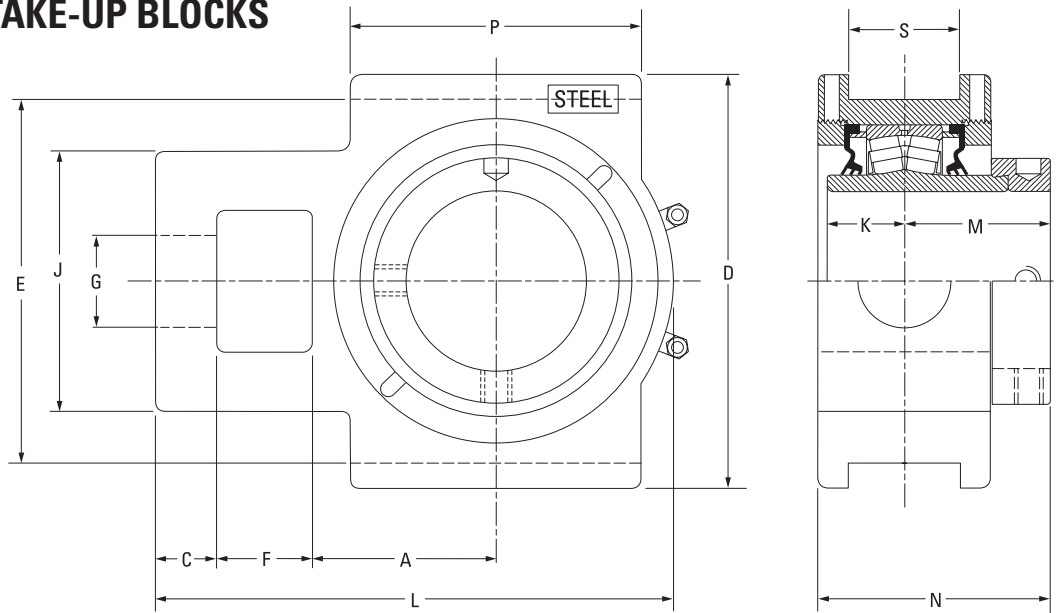
<sup>(1)</sup>Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

<sup>(2)</sup>Add (p) to the end of the housing designation in the part number to order with pilot using G dimension.

<sup>(3)</sup>Piloted flange blocks will be quoted (price and delivery) upon request. For optional spigot on flange side, insert the letter P as seen in the following example: QMFP\*\*J\*\*\*S.

<sup>(4)</sup>Six-bolt round housing.

QMTU TAKE-UP BLOCKS



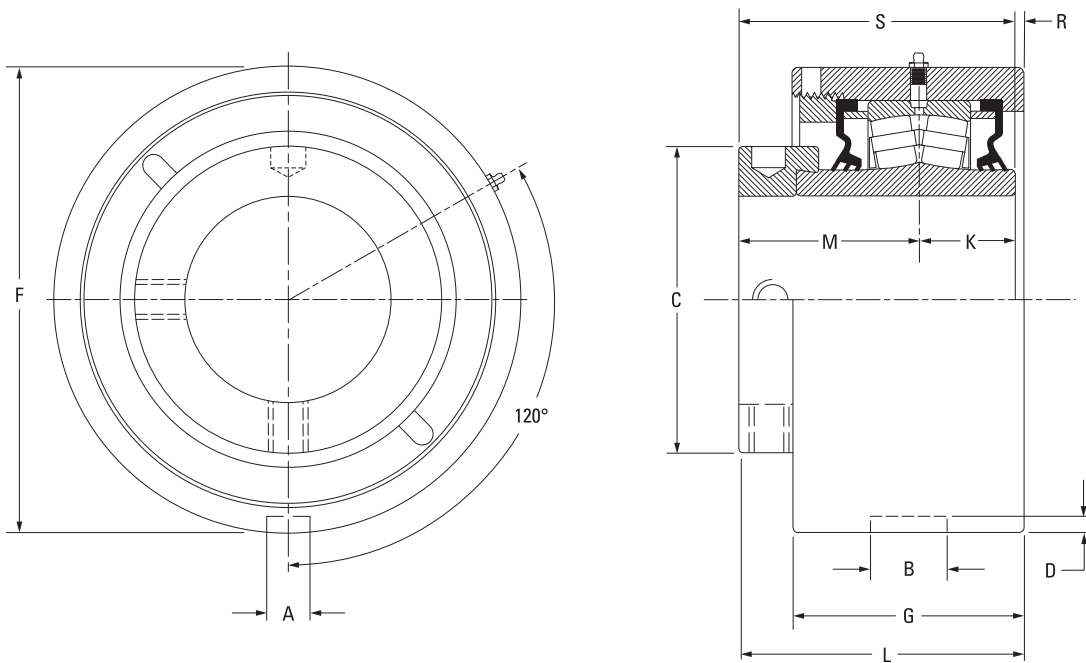
Bearing Part No.	Shaft Dia.	Bearing No.	A	C	D	E	F	G	J	K	L	M	N	P	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QMTU10J115S	1 15/16 in.	22210	54.1	19.1	120.7	101.6	26.9	26.9	73.2	24.9	153.4	48.0	76.7	88.9	17.5	7.7
QMTU10J200S	2 in.		2.13	0.75	4.75	4.00	1.06	1.06	2.88	0.98	6.04	1.89	3.02	3.50	0.69	17
QMTU10J050S	50 mm															
QMTU11J203S	2 3/16 in.	22211	60.5	19.1	133.4	114.3	30.2	30.2	88.9	28.7	167.9	50.5	82.8	95.3	20.6	9.5
QMTU11J204S	2 1/4 in.		2.38	0.75	5.25	4.50	1.19	1.19	3.50	1.13	6.61	1.99	3.26	3.75	0.81	21
QMTU11J055S	55 mm															
QMTU13J060S	60 mm	22213	69.9	22.4	149.4	130.3	33.3	33.3	95.3	31.5	193.8	54.1	90.7	120.7	26.9	12.2
QMTU13J207S	2 7/16 in.		2.75	0.88	5.88	5.13	1.31	1.31	3.75	1.24	7.63	2.13	3.57	4.75	1.06	27
QMTU13J208S	2 1/2 in.															
QMTU13J065S	65 mm	22215	76.2	25.4	171.5	150.9	39.6	39.6	108.0	31.8	219.7	60.2	97.0	120.7	46.0	15.9
QMTU15J211S	2 11/16 in.		3.00	1.00	6.75	5.94	1.56	1.56	4.25	1.25	8.65	2.37	3.82	4.75	1.81	35
QMTU15J212S	2 3/4 in.															
QMTU15J070S	70 mm	22218	92.2	25.4	193.8	173.0	46.0	47.8	124.0	36.6	257.0	65.8	106.4	158.8	46.0	20.0
QMTU18J303S	3 3/16 in.		3.63	1.00	7.63	6.81	1.81	1.88	4.88	1.44	10.12	2.59	4.19	6.25	1.81	44
QMTU18J304S	3 1/4 in.															
QMTU18J080S	80 mm	22220	104.9	28.7	239.8	219.2	54.1	52.3	143.0	41.4	296.9	75.4	120.4	177.8	52.3	26.3
QMTU18J085S	85 mm		4.13	1.13	9.44	8.63	2.13	2.06	5.63	1.63	11.69	2.97	4.74	7.00	2.06	58
QMTU18J307S	3 7/16 in.															
QMTU18J308S	3 1/2 in.	22222	128.5	38.1	263.7	241.3	54.1	54.1	162.1	46.5	341.4	94.0	143.8	199.9	52.3	36.4
QMTU18J090S	90 mm		5.06	1.50	10.38	9.50	2.13	2.13	6.38	1.83	13.44	3.70	5.66	7.87	2.06	80
QMTU20J311S	3 11/16 in.															
QMTU20J312S	3 3/4 in.	22226	134.9	63.5	285.8	260.4	63.5	60.5	177.8	58.7	396.7	94.7	151.1	228.6	52.3	60.8
QMTU20J315S	3 15/16 in.		4.13	2.50	11.25	10.25	2.50	2.38	7.00	2.31	15.62	3.73	5.95	9.00	2.06	134
QMTU20J400S	4 in.															
QMTU20J100S	100 mm	22226	134.9	63.5	285.8	260.4	63.5	60.5	177.8	58.7	396.7	94.7	151.1	228.6	52.3	60.8
QMTU22J110S	110 mm		5.31	2.50	11.25	10.25	2.50	2.38	7.00	2.31	15.62	3.73	5.95	9.00	2.06	134
QMTU22J407S	4 7/16 in.															
QMTU22J408S	4 1/2 in.	22226	134.9	63.5	285.8	260.4	63.5	60.5	177.8	58.7	396.7	94.7	151.1	228.6	52.3	60.8
QMTU22J115S	115 mm		5.31	2.50	11.25	10.25	2.50	2.38	7.00	2.31	15.62	3.73	5.95	9.00	2.06	134
QMTU26J125S	125 mm															
QMTU26J415S	4 15/16 in.	22226	134.9	63.5	285.8	260.4	63.5	60.5	177.8	58.7	396.7	94.7	151.1	228.6	52.3	60.8
QMTU26J500S	5 in.		5.31	2.50	11.25	10.25	2.50	2.38	7.00	2.31	15.62	3.73	5.95	9.00	2.06	134
QMTU26J130S	130 mm															

NOTE: Please refer to page C-169 for take-up frames.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## EC SERIES • QMMC CARTRIDGE BLOCKS

### QMMC CARTRIDGE BLOCKS



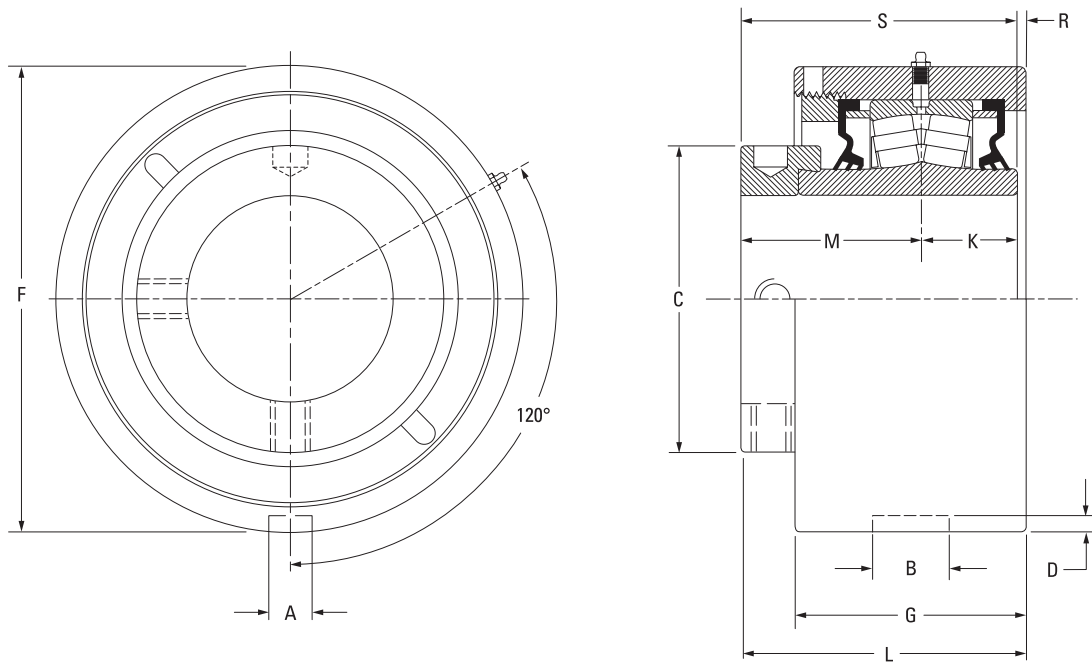
Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D	F	G	K	L FIX	L EXP	M	R	S	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
QMMC10J115S	1 15/16 in.	22210	13.5	23.1	70.1	4.8	104.78	62.2	24.9	79.2	81.3	48.0	6.1	72.9	3.6	
QMMC10J200S	2 in.		0.53	0.91	2.76	0.19	(+0/-0.05) 4.125	2.45	0.98	3.12	3.20	1.89	0.24	2.87	8	
QMMC10J050S	50 mm						(+0/-0.002)									
QMMC11J203S	2 3/16 in.	22211	13.5	23.1	75.9	4.8	115.09	65.5	28.7	83.6	85.6	50.5	4.1	79.2	4.5	
QMMC11J204S	2 1/4 in.		0.53	0.91	2.99	0.19	(+0/-0.05) 4.531	2.58	1.13	3.29	3.37	1.99	0.16	3.12	10	
QMMC11J055S	55 mm						(+0/-0.002)									
QMMC13J060S <sup>(1)</sup>	60 mm	22213	13.5	23.1	91.9	4.8	127.00	69.3	31.5	85.6	87.6	54.1	0.0	85.6	5.4	
QMMC13J207S <sup>(1)</sup>	2 7/16 in.		0.53	0.91	3.62	0.19	(+0/-0.05) 5.000	2.73	1.24	3.37	3.45	2.13	0.00	3.37	12	
QMMC13J208S <sup>(1)</sup>	2 1/2 in.						(+0/-0.002)									
QMMC13J065S <sup>(1)</sup>	65 mm															
QMMC15J211S	2 11/16 in.	22215	15.0	26.2	101.9	6.4	149.225	79.8	31.8	100.1	102.1	60.2	8.1	91.9	8.2	
QMMC15J212S	2 3/4 in.		0.59	1.03	4.01	0.25	(+0/-0.05) 5.875	3.14	1.25	3.94	4.02	2.37	0.32	3.62	18	
QMMC15J070S	70 mm						(+0/-0.002)									
QMMC15J215S	2 15/16 in.															
QMMC15J300S	3 in.															
QMMC15J075S	75 mm	22218	15.0	26.9	120.9	5.8	171.45	87.6	36.6	109.7	111.8	65.0	7.4	102.4	11.8	
QMMC18J303S	3 3/16 in.		0.59	1.06	4.76	0.23	(+0/-0.05) 6.750	3.45	1.44	4.32	4.40	2.56	0.29	4.03	26	
QMMC18J304S	3 1/4 in.						(+0/-0.002)									
QMMC18J080S	80 mm															
QMMC18J085S	85 mm															
QMMC18J307S	3 7/16 in.															
QMMC18J308S	3 1/2 in.	22220	19.8	32.5	152.4	7.9	206.375	105.2	41.4	128.0	130.0	75.2	11.4	116.6	14.5	
QMMC18J090S	90 mm		0.78	1.28	6.00	0.31	(+0/-0.05) 8.125	4.14	1.63	5.039	5.12	2.96	0.45	4.59	32	
QMMC20J311S	3 11/16 in.						(+0/-0.002)									
QMMC20J312S	3 3/4 in.															
QMMC20J315S	3 15/16 in.															
QMMC20J400S	4 in.															
QMMC20J100S	100 mm															

<sup>(1)</sup>The grub screw is located in the external housing nut to secure to the housing.

Continued on next page.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

EC SERIES • QMMC CARTRIDGE BLOCKS

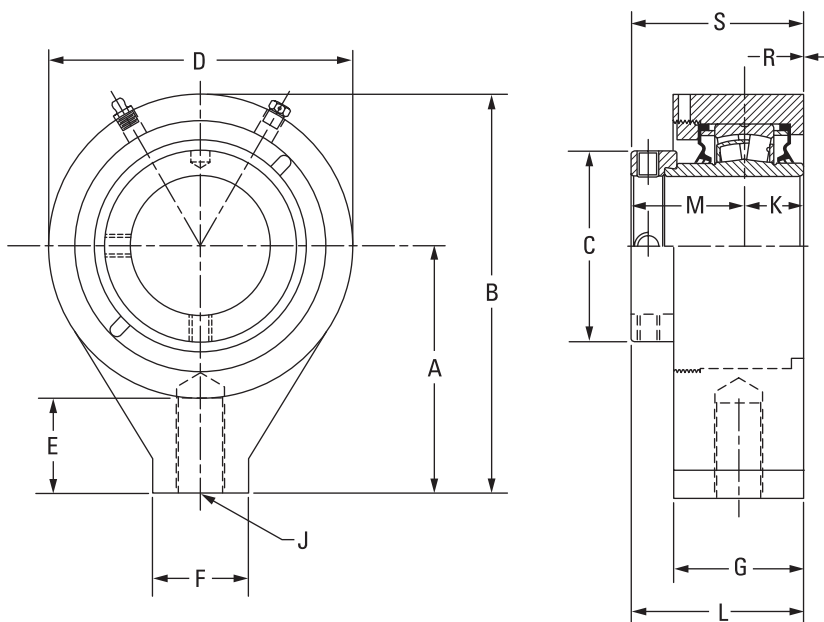


Continued from previous page.

Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D	F	G	K	L FIX	L EXP	M	R	S	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
QMMC22J110S	<b>110 mm</b>	22222	<b>19.8</b> 0.78	<b>38.1</b> 1.50	<b>160.0</b> 6.30	<b>7.9</b> 0.31	<b>222.25</b>	<b>108.5</b> 4.27	<b>46.5</b> 1.83	<b>148.0</b> 5.83	<b>150.1</b> 5.91	<b>94.0</b> 3.70	<b>7.6</b> 0.30	<b>140.5</b> 5.53	<b>18.1</b> 40	
QMMC22J407S	4 7/16 in.						(+0/-0.08)									8.75
QMMC22J408S	4 1/2 in.						(+0/-0.003)									
QMMC22J115S	<b>115 mm</b>	22226	<b>19.8</b> 0.78	<b>38.1</b> 1.50	<b>175.0</b> 6.89	<b>7.9</b> 0.31	<b>265.13</b>	<b>141.7</b> 5.58	<b>58.7</b> 2.31	<b>165.4</b> 6.51	<b>167.4</b> 6.59	<b>94.7</b> 3.73	<b>11.9</b> 0.47	<b>153.4</b> 6.04	<b>31.8</b> 70	
QMMC26J125S	<b>125 mm</b>						(+0/-0.08)									10.438
QMMC26J415S	4 15/16 in.						(+0/-0.003)									
QMMC26J500S	<b>130 mm</b>	23230	<b>19.8</b> 0.78	<b>38.1</b> 1.50	<b>205.0</b> 8.07	<b>5.6</b> 0.22	<b>292.10</b>	<b>154.4</b> 6.08	<b>75.9</b> 2.99	<b>188.2</b> 7.41	<b>190.2</b> 7.49	<b>116.1</b> 4.57	<b>-3.8</b> -0.15	<b>192.0</b> 7.56	<b>88.0</b> 194	
QMMC30J507S	5 7/16 in.						(+0/-0.08)									11.500
QMMC30J508S	5 1/2 in.						(+0/-0.003)									
QMMC30J140S	<b>140 mm</b>	23230	<b>19.8</b> 0.78	<b>38.1</b> 1.50	<b>205.0</b> 8.07	<b>5.6</b> 0.22	<b>311.15</b>	<b>154.4</b> 6.08	<b>75.9</b> 2.99	<b>188.2</b> 7.41	<b>190.2</b> 7.49	<b>116.1</b> 4.57	<b>-3.8</b> -0.15	<b>192.0</b> 7.56	<b>87.1</b> 192	
QMMC30J515S	5 15/16 in.						(+0/-0.08)									12.250
QMMC30J600S	6 in.						(+0/-0.003)									
QMMC30J150S	<b>150 mm</b>	23234	<b>19.8</b> 0.78	<b>38.1</b> 1.50	<b>235.0</b> 9.25	<b>5.6</b> 0.22	<b>344.50</b>	<b>181.1</b> 7.13	<b>85.1</b> 3.35	<b>219.5</b> 8.64	<b>221.5</b> 8.72	<b>129.0</b> 5.08	<b>5.33</b> 0.21	<b>214.1</b> 8.43	<b>155.6</b> 343	
QMMC34J607S	6 7/16 in.						(+0/-0.08)									13.563
QMMC34J608S	6 1/2 in.						(+0/-0.003)									
QMMC34J170S	<b>170 mm</b>															
QMMC34J615S	6 15/16 in.															
QMMC34J700S	7 in.															
QMMC34J180S	<b>180 mm</b>															

<sup>(1)</sup>The grub screw is located in the external housing nut to secure to the housing.

### QMMH HANGER BLOCKS



Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D	E	F	G	J	K	L	M	R	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QMMH15J211S	2 11/16 in.	22215	131.8 5.19	212.9 8.38	101.9 4.01	162.1 6.38	50.8 2.00	50.8 2.00	69.9 2.75	1 -8UNC	31.8 1.25	91.9 3.62	60.2 2.37	0.0 0.00	91.9 3.62	10.0 22
QMMH15J212S	2 3/4 in.															
QMMH15J070S	70 mm															
QMMH15J215S	2 15/16 in.															
QMMH15J300S	3 in.															
QMMH15J075S	75 mm	22218	160.3 6.31	260.4 10.25	120.9 4.76	200.2 7.88	63.5 2.50	76.2 3.00	76.2 3.00	1 1/4 -7UNC	36.6 1.44	99.3 3.91	65.8 2.59	3.0 0.12	102.4 4.03	16.3 36
QMMH18J303S	3 3/16 in.															
QMMH18J304S	3 1/4 in.															
QMMH18J080S	80 mm															
QMMH18J085S	85 mm															
QMMH18J307S	3 7/16 in.															
QMMH18J308S	3 1/2 in.															
QMMH18J090S	90 mm															

## TA/DV SERIES

The TA and DV series feature a 2300-series tapered adapter sleeve for increased shaft contact. This design offers the best shaft concentricity and highest capacity all the while having the ability to accommodate undersized shafting.

### TA Series

TA series housed unit bearings are a direct drop-in replacement for SAF/SN split-cap housing dimensions.

### DV Series

DV series housed units are a drop-in replacement for common American set screw mounted units.



Fig. C-46. TA/DV series taper adapter insert.

## YOU HAVE CHOICES

For the TA and DV series, you can select from many seal options and housing styles, which are shown on page C-154.

### HOUSINGS

- Two-bolt pillow blocks.
- Four-bolt pillow blocks.
- Flange blocks.
- Piloted flange cartridges.
- Cartridge blocks.

### SEALS

- Labyrinth: DuPont Teflon (T).
- Triple-lip: nitrile rubber (M), urethane (O) and DuPont Viton (N).
- Double-lip: nitrile rubber (B) and DuPont Viton (C).
- Steel and urethane closed-end covers (CS).
- Steel and urethane open-end covers (CK) with:
  - DuPont Teflon (T).
  - Triple-lip seal (DR).
  - V-ring seal (VR).

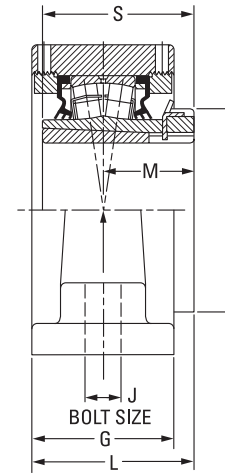
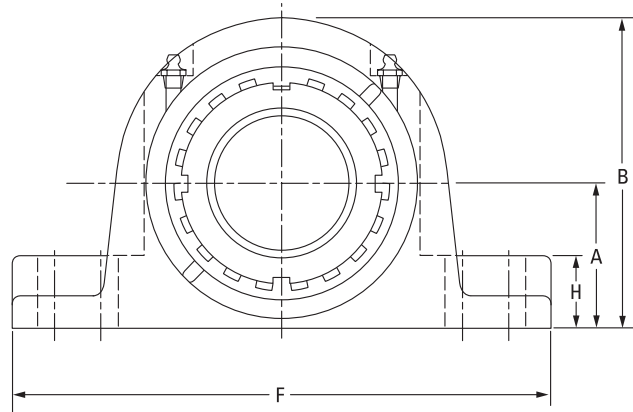
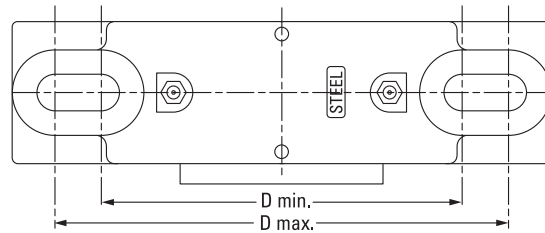
# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## TA/DV SERIES

### TA/DV SERIES

	Housing Type	Primary Seals						Secondary Seals and Covers						
		M	N	O	B	C	T	Open-End Cover			Closed-End Cover	HSY Flange Cartridge Backing Plate		UFP Backing Plate
								DR	VR	T		DR		
V-Lock (Timken Exclusive Double Taper Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•		
	Flange Block	•	•	•	•	•	•	•	•	•	•	•		
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•		
	Take-Up Block	•	•	•	•	•	•	•	•	•	•	•		
	Cartridge Block	•	•	•	•	•	•	•	•	•	•	•		
CL Series (Set Screw Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•		
	Flange Block	•	•	•	•	•	•	•	•	•	•	•		•
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•	•	
	Take-Up Block	•	•	•	•	•	•	•	•	•	•	•		
	Cartridge Block	•	•	•	•	•	•	•	•	•	•	•		
	Hangar Block	•	•	•	•	•	•	•	•	•	•	•		
EC Series (Eccentric Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•		
	Flange Block	•	•	•	•	•	•	•	•	•	•	•		•
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•	•	
	Take-Up Block	•	•	•	•	•	•	•	•	•	•	•		
	Cartridge Block	•	•	•	•	•	•	•	•	•	•	•		
	Hangar Block	•	•	•	•	•	•	•	•	•	•	•		
TA Series (Tapered Adapter Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•		
	Flange Block	•	•	•	•	•	•	•	•	•	•	•		
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•		
	Cartridge Block	•	•	•	•	•	•	•	•	•	•	•		
DV Series (Tapered Adapter Lock)	Pillow Block	•	•	•	•	•	•	•	•	•	•	•		
	Flange Block	•	•	•	•	•	•	•	•	•	•	•		
	Piloted Flange Cartridge	•	•	•	•	•	•	•	•	•	•	•		

DVP TWO-BOLT PILLOW BLOCKS

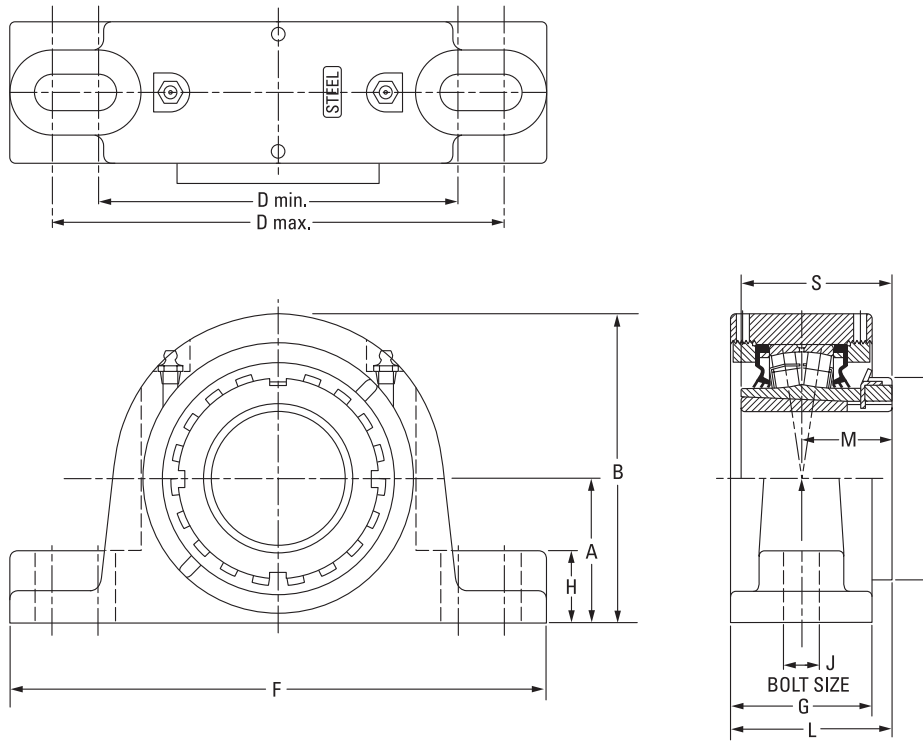


Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	L	M	S	Wt.	
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
DVP09K107S	1 7/16 in.	22209	47.8 1.88	98.6 3.88	65.0 2.56	119.1 4.69	152.4 6.00	174.8 6.88	53.3 2.10	25.4 1.00	12 1/2	57.4 2.26	30.7 1.21	50.3 1.98	4.5 10	
DVP09K108S	1 1/2 in.	22209	54.1 2.13	104.9 4.13	65.0 2.56	119.1 4.69	165.1 6.50	200.2 7.88	53.3 2.10	25.4 1.00	12 1/2	57.4 2.26	30.7 1.21	50.3 1.98	4.5 10	
DVP09K040S	40 mm															
DVP10K111S	1 11/16 in.	22210	54.1 2.13	114.3 4.50	70.1 2.76	144.8 5.70	165.1 6.50	200.2 7.88	54.9 2.16	31.8 1.25	12 1/2	61.0 2.40	33.5 1.32	55.1 2.17	5.0 11	
DVP10K112S	1 3/4 in.	22210	57.2 2.25	117.3 4.62	70.1 2.76	158.8 6.25	180.8 7.12	225.6 8.88	54.9 2.16	31.8 1.25	16 5/8	61.0 2.40	33.5 1.32	55.1 2.17	5.0 11	
DVP10K045S	45 mm															
DVP11K115S	1 15/16 in.	22211	57.2 2.25	123.4 4.86	74.9 2.95	152.4 6.00	181.1 7.13	225.6 8.88	61.7 2.43	31.8 1.25	16 5/8	66.5 2.62	35.6 1.40	58.9 2.32	5.9 13	
DVP11K200S	2 in.															
DVP11K050S	50 mm															
DVP13K203S	2 3/16 in.	22213	63.5 2.50	138.9 5.47	85.1 3.35	165.1 6.50	200.0 7.87	244.6 9.63	70.6 2.78	32.8 1.29	16 5/8	74.9 2.95	39.6 1.56	65.0 2.56	9.1 20	
DVP13K204S	2 1/4 in.															
DVP13K060S	60 mm															
DVP15K207S	2 7/16 in.	22215	69.9 2.75	149.9 5.90	98.0 3.86	174.8 6.88	219.2 8.63	260.4 10.25	68.6 2.70	35.1 1.38	16 5/8	78.2 3.08	43.9 1.73	73.4 2.89	11.3 25	
DVP15K208S	2 1/2 in.															
DVP15K065S	65 mm															
DVP17K215S	2 15/16 in.	22217	82.6 3.25	173.2 6.82	110.0 4.33	200.2 7.88	244.3 9.62	295.4 11.63	76.2 3.00	35.1 1.38	20 3/4	88.1 3.47	49.8 1.96	82.0 3.23	14.5 32	
DVP17K300S	3 in.															
DVP17K075S	75 mm															
DVP20K307S	3 7/16 in.	22220	95.3 3.75	202.7 7.98	130.0 5.12	238.3 9.38	285.8 11.25	342.9 13.50	85.9 3.38	47.8 1.88	24 7/8	101.3 3.99	58.4 2.30	97.0 3.82	25.9 57	
DVP20K308S	3 1/2 in.															
DVP20K090S	90 mm															
DVP22K315S	3 15/16 in.	22222	108.0 4.25	223.5 8.80	145.0 5.71	255.5 10.06	317.5 12.50	362.0 14.25	100.6 3.96	38.1 1.50	24 1	113.3 4.46	63.0 2.48	104.9 4.13	30.4 67	
DVP22K400S	4 in.															
DVP22K100S	100 mm															

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

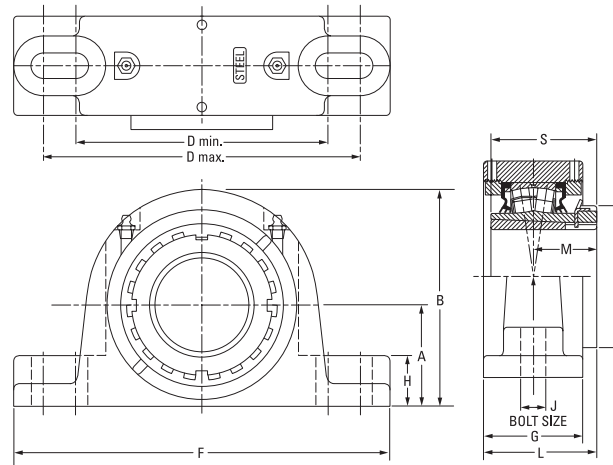
TA/DV SERIES • TAPA SAF-STYLE TWO-BOLT PILLOW BLOCKS

## TAPA SAF-STYLE TWO-BOLT PILLOW BLOCKS



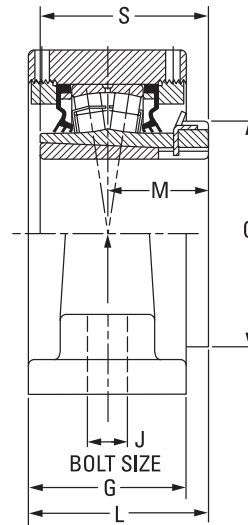
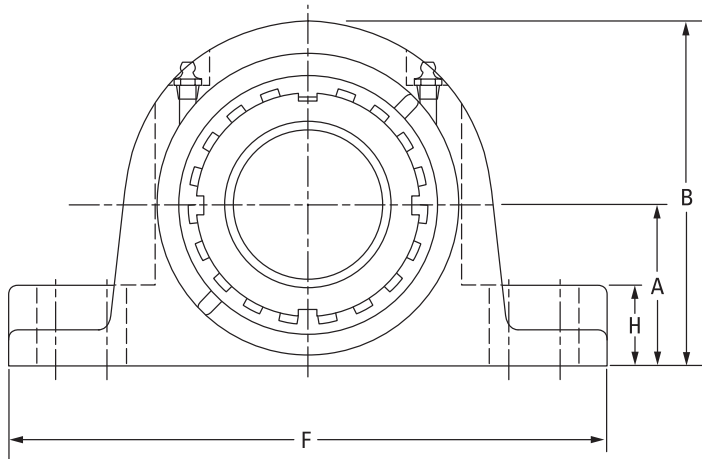
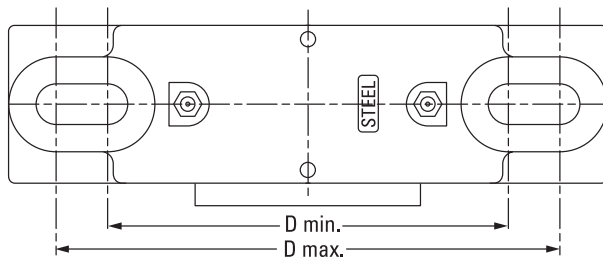
Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	L	M	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
TAPA09K107S	1 7/16 in.	22209	<b>57.2</b>	<b>108.0</b>	<b>65.0</b>	<b>158.8</b>	<b>177.8</b>	<b>209.6</b>	<b>53.3</b>	<b>29.0</b>	<b>12</b>	<b>57.4</b>	<b>30.7</b>	<b>50.3</b>	<b>4.5</b>
TAPA09K108S	1 1/2 in.		2.25	4.25	2.56	6.25	7.00	8.25	2.10	1.14	1/2	2.26	1.21	1.98	10
TAPA09K040S	<b>40 mm</b>														
TAPA10K111S	1 11/16 in.	22210	<b>63.5</b>	<b>123.7</b>	<b>70.1</b>	<b>165.1</b>	<b>177.8</b>	<b>209.6</b>	<b>54.9</b>	<b>31.8</b>	<b>12</b>	<b>61.0</b>	<b>33.5</b>	<b>55.1</b>	<b>5.9</b>
TAPA10K112S	1 3/4 in.		2.50	4.87	2.76	6.50	7.00	8.25	2.16	1.25	1/2	2.40	1.32	2.17	13
TAPA10K045S	<b>45 mm</b>														
TAPA11K115S	1 15/16 in.	22211	<b>69.9</b>	<b>135.4</b>	<b>74.9</b>	<b>165.1</b>	<b>221.0</b>	<b>251.0</b>	<b>60.5</b>	<b>31.8</b>	<b>16</b>	<b>65.8</b>	<b>35.6</b>	<b>58.9</b>	<b>7.7</b>
TAPA11K200S	2 in.		2.75	5.33	2.95	6.50	8.70	9.88	2.38	1.25	5/8	2.59	1.40	2.32	17
TAPA11K050S	<b>50 mm</b>														
TAPA13K203S	2 3/16 in.	22213	<b>76.2</b>	<b>151.1</b>	<b>85.1</b>	<b>182.9</b>	<b>233.7</b>	<b>261.9</b>	<b>68.6</b>	<b>31.2</b>	<b>16</b>	<b>73.9</b>	<b>39.6</b>	<b>65.0</b>	<b>10.4</b>
TAPA13K204S	2 1/4 in.		3.00	5.95	3.35	7.20	9.20	10.31	2.70	1.23	5/8	2.91	1.56	2.56	23
TAPA13K060S	<b>60 mm</b>														
TAPA15K207S	2 7/16 in.	22215	<b>82.6</b>	<b>163.3</b>	<b>98.0</b>	<b>200.2</b>	<b>244.6</b>	<b>276.4</b>	<b>68.6</b>	<b>31.8</b>	<b>16</b>	<b>78.2</b>	<b>43.9</b>	<b>72.9</b>	<b>12.2</b>
TAPA15K208S	2 1/2 in.		3.25	6.43	3.86	7.88	9.63	10.88	2.70	1.25	5/8	3.08	1.73	2.87	27
TAPA15K065S	<b>65 mm</b>														
TAPA17K215S	2 15/16 in.	22217	<b>95.3</b>	<b>185.9</b>	<b>110.0</b>	<b>241.3</b>	<b>279.4</b>	<b>320.8</b>	<b>76.2</b>	<b>33.8</b>	<b>20</b>	<b>88.1</b>	<b>49.8</b>	<b>82.0</b>	<b>15.0</b>
TAPA17K300S	3 in.		3.75	7.32	4.33	9.50	11.00	12.63	3.00	1.33	3/4	3.47	1.96	3.23	33
TAPA17K075S	<b>75 mm</b>														
TAPA20K307S	3 7/16 in.	22220	<b>114.3</b>	<b>219.2</b>	<b>130.0</b>	<b>276.4</b>	<b>327.2</b>	<b>368.3</b>	<b>86.9</b>	<b>41.4</b>	<b>24</b>	<b>102.4</b>	<b>58.4</b>	<b>97.0</b>	<b>29.5</b>
TAPA20K308S	3 1/2 in.		4.50	8.63	5.12	10.88	12.88	14.50	3.42	1.63	7/8	4.03	2.30	3.82	65
TAPA20K090S	<b>90 mm</b>														
TAPA22K315S	3 15/16 in.	22222	<b>125.5</b>	<b>240.5</b>	<b>145.0</b>	<b>317.5</b>	<b>368.3</b>	<b>406.4</b>	<b>100.6</b>	<b>50.8</b>	<b>24</b>	<b>113.5</b>	<b>63.0</b>	<b>104.9</b>	<b>38.1</b>
TAPA22K400S	4 in.		4.94	9.47	5.71	12.50	14.50	16.00	3.96	2.00	7/8	4.47	2.48	4.13	84
TAPA22K100S	<b>100 mm</b>														
TAPA26K407S	4 7/16 in.	22226	<b>152.4</b>	<b>284.0</b>	<b>165.1</b>	<b>362.0</b>	<b>400.1</b>	<b>444.5</b>	<b>128.0</b>	<b>51.8</b>	<b>24</b>	<b>135.9</b>	<b>71.9</b>	<b>120.9</b>	<b>61.7</b>
TAPA26K408S	4 1/2 in.		6.00	11.18	6.50	14.25	15.75	17.50	5.04	2.04	1	5.35	2.83	4.76	136
TAPA26K115S	<b>115 mm</b>														
TAPA28K415S	4 15/16 in.	22228	<b>152.4</b>	<b>290.8</b>	<b>180.1</b>	<b>384.3</b>	<b>447.8</b>	<b>499.9</b>	<b>85.6</b>	<b>51.8</b>	<b>30</b>	<b>120.4</b>	<b>77.5</b>	<b>131.1</b>	<b>61.8</b>
TAPA28K500S	5 in.		6.00	11.45	7.09	15.13	17.63	19.68	3.37	2.04	1 1/4	4.74	3.05	5.16	136
TAPA28K125S	<b>125 mm</b>														

TAPN SN-STYLE TWO-BOLT PILLOW BLOCKS



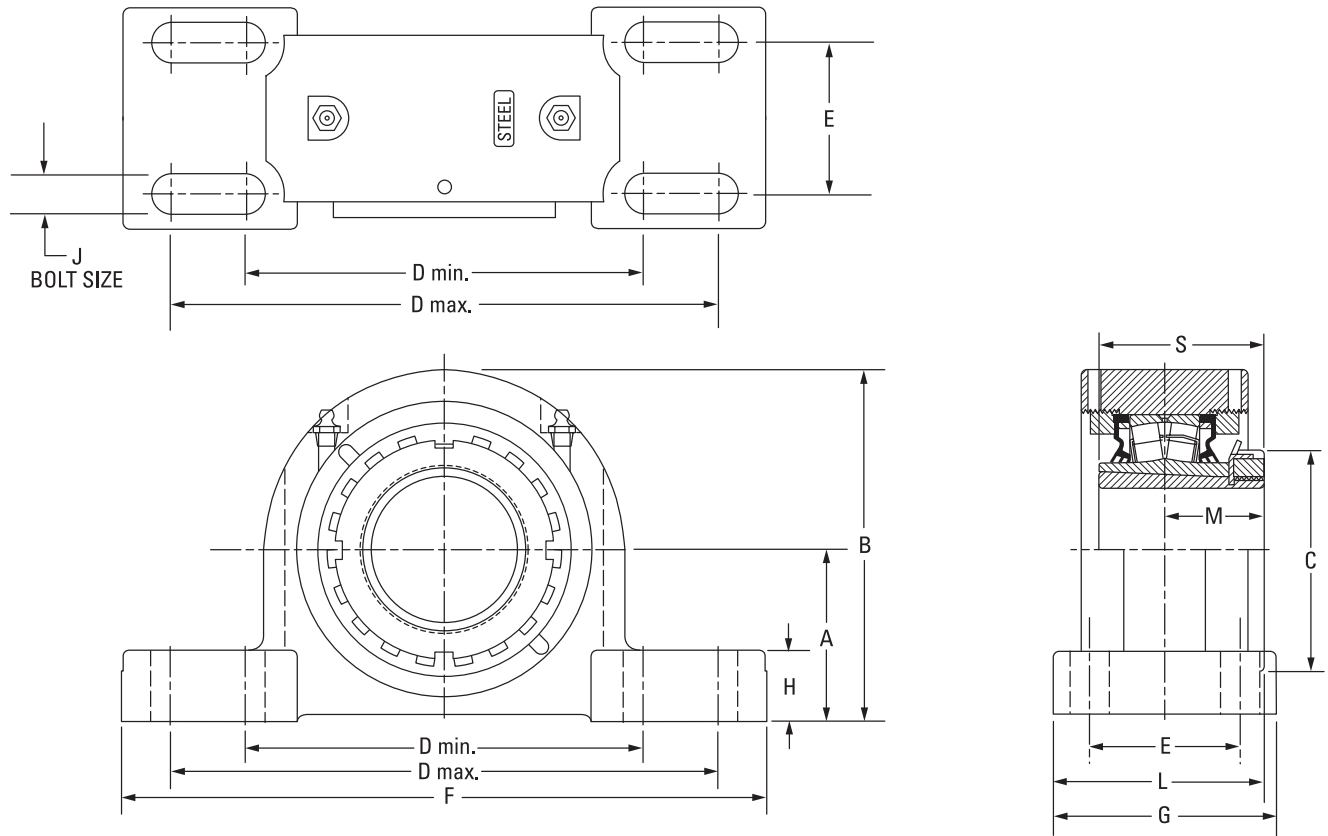
Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	L	M	S	Wt.
			mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
TAPN09K107S	1 7/16 in.	22209	<b>60.0</b>	<b>108.0</b>	<b>65.0</b>	<b>158.8</b>	<b>177.8</b>	<b>209.6</b>	<b>53.3</b>	<b>29.0</b>	<b>12</b>	<b>57.4</b>	<b>30.7</b>	<b>50.3</b>	<b>4.5</b>
TAPN09K108S	1 1/2 in.		2.362	4.25	2.56	6.25	7.00	8.25	2.10	1.14	1/2	2.26	1.21	1.98	10
TAPN09K040S	<b>40 mm</b>														
TAPN10K111S	1 11/16 in.	22210	<b>60.0</b>	<b>120.1</b>	<b>70.1</b>	<b>165.1</b>	<b>177.8</b>	<b>209.6</b>	<b>54.9</b>	<b>28.2</b>	<b>12</b>	<b>61.0</b>	<b>33.5</b>	<b>55.1</b>	<b>5.9</b>
TAPN10K112S	1 3/4 in.		2.362	4.73	2.76	6.50	7.00	8.25	2.16	1.11	1/2	2.40	1.32	2.17	13
TAPN10K045S	<b>45 mm</b>														
TAPN11K115S	1 15/16 in.	22211	<b>69.9</b>	<b>135.4</b>	<b>74.9</b>	<b>165.1</b>	<b>221.0</b>	<b>251.0</b>	<b>60.5</b>	<b>31.8</b>	<b>16</b>	<b>65.8</b>	<b>35.6</b>	<b>58.9</b>	<b>7.7</b>
TAPN11K200S	2 in.		2.75	5.33	2.95	6.50	8.70	9.88	2.38	1.25	5/8	2.59	1.40	2.32	17
TAPN11K050S	<b>50 mm</b>														
TAPN12K055S	<b>55 mm</b>	22212	<b>70.0</b>	<b>140.5</b>	<b>79.8</b>	<b>177.8</b>	<b>219.2</b>	<b>254.0</b>	<b>60.5</b>	<b>31.8</b>	<b>16</b>	<b>67.6</b>	<b>37.6</b>	<b>62.0</b>	<b>9.1</b>
TAPN13K203S	2 3/16 in.	22213	<b>80.0</b>	<b>154.9</b>	<b>85.1</b>	<b>182.9</b>	<b>233.7</b>	<b>261.9</b>	<b>68.6</b>	<b>35.1</b>	<b>16</b>	<b>73.9</b>	<b>39.6</b>	<b>65.0</b>	<b>10.4</b>
TAPN13K204S	2 1/4 in.		3.15	6.10	3.35	7.20	9.20	10.31	2.70	1.38	5/8	2.91	1.56	2.56	23
TAPN13K060S	<b>60 mm</b>														
TAPN15K207S	2 7/16 in.	22215	<b>80.0</b>	<b>160.8</b>	<b>98.0</b>	<b>200.2</b>	<b>244.6</b>	<b>276.4</b>	<b>68.6</b>	<b>29.2</b>	<b>16</b>	<b>78.2</b>	<b>43.9</b>	<b>72.9</b>	<b>12.2</b>
TAPN15K208S	2 1/2 in.		3.15	6.33	3.86	7.88	9.63	10.88	2.70	1.15	5/8	3.08	1.73	2.87	27
TAPN15K065S	<b>65 mm</b>														
TAPN16K211S	2 11/16 in.	22216	<b>95.0</b>	<b>180.3</b>	<b>104.6</b>	<b>235.0</b>	<b>266.7</b>	<b>315.0</b>	<b>72.6</b>	<b>31.8</b>	<b>20</b>	<b>83.8</b>	<b>47.5</b>	<b>78.0</b>	<b>13.6</b>
TAPN16K212S	2 3/4 in.		3.74	7.10	4.12	9.25	10.50	12.40	2.86	1.25	3/4	3.30	1.87	3.07	30
TAPN16K070S	<b>70 mm</b>														
TAPN17K215S	2 15/16 in.	22217	<b>95.3</b>	<b>185.9</b>	<b>110.0</b>	<b>241.3</b>	<b>279.4</b>	<b>320.8</b>	<b>76.2</b>	<b>33.8</b>	<b>20</b>	<b>88.1</b>	<b>49.8</b>	<b>82.0</b>	<b>15.0</b>
TAPN17K300S	3 in.		3.75	7.32	4.33	9.50	11.00	12.63	3.00	1.33	3/4	3.47	1.96	3.23	33
TAPN17K075S	<b>75 mm</b>														
TAPN18K080S	<b>80 mm</b>	22218	<b>100.0</b>	<b>195.3</b>	<b>119.6</b>	<b>285.8</b>	<b>295.4</b>	<b>346.2</b>	<b>79.8</b>	<b>38.9</b>	<b>20</b>	<b>91.7</b>	<b>52.1</b>	<b>86.1</b>	<b>22.2</b>
TAPN18K303S	3 3/16 in.		3.937	7.69	4.71	11.25	11.63	13.63	3.14	1.53	3/4	3.61	2.05	3.39	49
TAPN18K304S	3 1/4 in.														
TAPN19K085S	<b>85 mm</b>	22219	<b>112.0</b>	<b>212.3</b>	<b>124.7</b>	<b>285.8</b>	<b>295.4</b>	<b>346.2</b>	<b>82.8</b>	<b>38.9</b>	<b>20</b>	<b>96.0</b>	<b>54.6</b>	<b>89.9</b>	<b>23.1</b>
TAPN20K307S	3 7/16 in.	22220	<b>112.0</b>	<b>216.9</b>	<b>130.0</b>	<b>276.4</b>	<b>327.2</b>	<b>368.3</b>	<b>86.9</b>	<b>38.9</b>	<b>24</b>	<b>102.4</b>	<b>58.4</b>	<b>97.0</b>	<b>29.5</b>
TAPN20K308S	3 1/2 in.		4.409	8.54	5.12	10.88	12.88	14.50	3.42	1.53	7/8	4.03	2.30	3.82	65
TAPN20K090S	<b>90 mm</b>														
TAPN22K315S	3 15/16 in.	22222	<b>125.0</b>	<b>240.5</b>	<b>145.0</b>	<b>317.5</b>	<b>368.3</b>	<b>406.4</b>	<b>100.6</b>	<b>50.8</b>	<b>24</b>	<b>113.5</b>	<b>63.0</b>	<b>104.9</b>	<b>38.1</b>
TAPN22K400S	4 in.		4.921	9.47	5.71	12.50	14.50	16.00	3.96	2.00	7/8	4.47	2.48	4.13	84
TAPN22K100S	<b>100 mm</b>														
TAPN24K403S	4 3/16 in.	22224	<b>140.0</b>	<b>262.9</b>	<b>154.4</b>	<b>344.4</b>	<b>355.6</b>	<b>409.7</b>	<b>97.8</b>	<b>50.8</b>	<b>24</b>	<b>116.1</b>	<b>67.1</b>	<b>112.0</b>	<b>49.9</b>
TAPN24K404S	4 1/4 in.		5.512	10.35	6.08	13.56	14.00	16.13	3.85	2.00	7/8	4.57	2.64	4.41	110
TAPN24K110S	<b>110 mm</b>														
TAPN26K407S	4 7/16 in.	22226	<b>150.0</b>	<b>281.7</b>	<b>165.1</b>	<b>367.3</b>	<b>400.1</b>	<b>444.5</b>	<b>128.0</b>	<b>49.3</b>	<b>24</b>	<b>135.9</b>	<b>71.9</b>	<b>120.9</b>	<b>61.7</b>
TAPN26K408S	4 1/2 in.		5.906	11.09	6.50	14.46	15.75	17.50	5.04	1.94	1	5.35	2.83	4.76	136
TAPN26K115S	<b>115 mm</b>														
TAPN28K415S	4 15/16 in.	22228	<b>150.0</b>	<b>288.5</b>	<b>180.1</b>	<b>384.3</b>	<b>447.8</b>	<b>499.9</b>	<b>85.6</b>	<b>49.3</b>	<b>30</b>	<b>120.4</b>	<b>77.5</b>	<b>131.1</b>	<b>61.8</b>
TAPN28K500S	5 in.		5.906	11.36	7.09	15.13	17.63	19.68	3.37	1.94	1 1/4	4.74	3.05	5.16	136
TAPN28K125S	<b>125 mm</b>														

**TAPKT 9000 SERIES TWO-BOLT PILLOW BLOCKS**



Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	F	G	H	J	L	M	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
TAPKT13K203S	2 3/16 in.	22213	<b>76.2</b>	<b>153.7</b>	<b>85.1</b>	<b>194.6</b>	<b>223.0</b>	<b>285.8</b>	<b>73.7</b>	<b>35.1</b>	<b>20</b>	<b>76.5</b>	<b>36.6</b>	<b>65.0</b>	<b>10.0</b>
TAPKT13K204S	2 1/4 in.		3.00	6.05	3.35	7.66	8.78	11.25	2.90	1.38	3/4	3.01	1.56	2.56	22
TAPKT13K060S	<b>60 mm</b>														
TAPKT15K207S	2 7/16 in.	22215	<b>88.9</b>	<b>173.7</b>	<b>98.0</b>	<b>230.1</b>	<b>265.2</b>	<b>330.2</b>	<b>75.7</b>	<b>35.1</b>	<b>24</b>	<b>81.8</b>	<b>43.9</b>	<b>72.9</b>	<b>12.7</b>
TAPKT15K208S	2 1/2 in.		3.50	6.84	3.86	9.06	10.44	13.00	2.98	1.38	7/8	3.22	1.73	2.87	28
TAPKT15K065S	<b>65 mm</b>														

DVPF FOUR-BOLT PILLOW BLOCKS

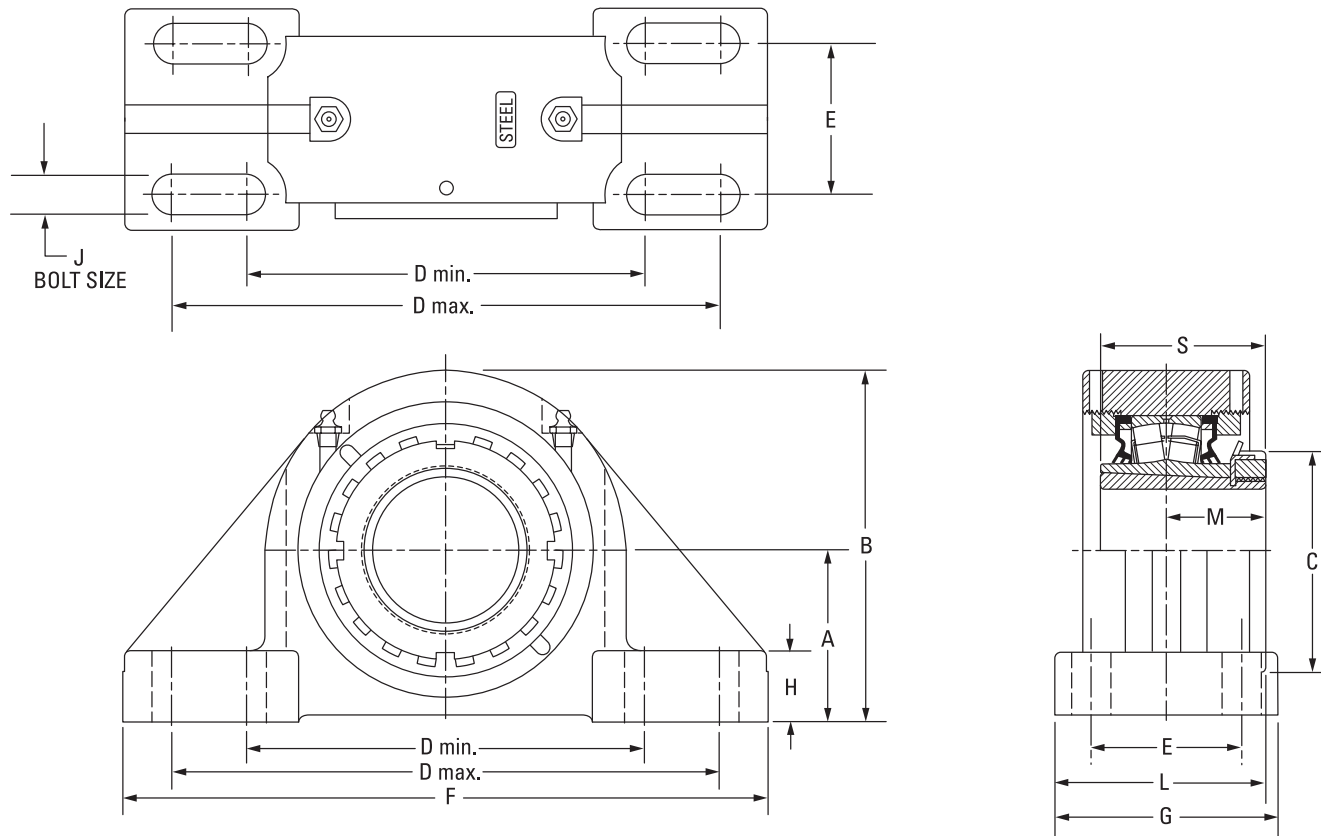


Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	L	M	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
DVPF17K215S	2 15/16 in.	22217	82.6	172.5	110.0	193.0	231.1	47.8	265.2	79.5	32.8	16	86.6	49.8	82.0	23.1
DVPF17K300S	3 in.		3.25	6.79	4.33	7.60	9.10	1.88	10.44	3.13	1.29	5/8	3.41	1.96	3.23	51
DVPF17K075S	<b>75 mm</b>															
DVPF20K307S	3 7/16 in.	22220	95.3	200.2	130.0	225.6	276.4	50.8	312.4	95.3	39.6	20	101.3	58.4	97.0	31.8
DVPF20K308S	3 1/2 in.		3.75	7.88	5.12	8.88	10.88	2.00	12.30	3.75	1.56	3/4	3.99	2.30	3.82	70
DVPF20K090S	<b>90 mm</b>															
DVPF22K315S	3 15/16 in.	22222	108.0	223.0	145.0	276.4	339.9	57.2	378.0	109.5	35.6	20	110.7	63.0	104.9	38.6
DVPF22K400S	4 in.		4.25	8.78	5.71	10.88	13.38	2.25	14.88	4.31	1.40	3/4	4.36	2.48	4.13	85
DVPF22K100S	<b>100 mm</b>															
DVPF26K407S	4 7/16 in.	22226	120.7	250.7	165.1	302.3	368.3	63.5	409.7	120.7	40.1	20	123.7	71.9	120.1	62.1
DVPF26K408S	4 1/2 in.		4.75	9.87	6.50	11.90	14.50	2.50	16.13	4.75	1.58	3/4	4.87	2.83	4.73	137
DVPF26K115S	<b>115 mm</b>															

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

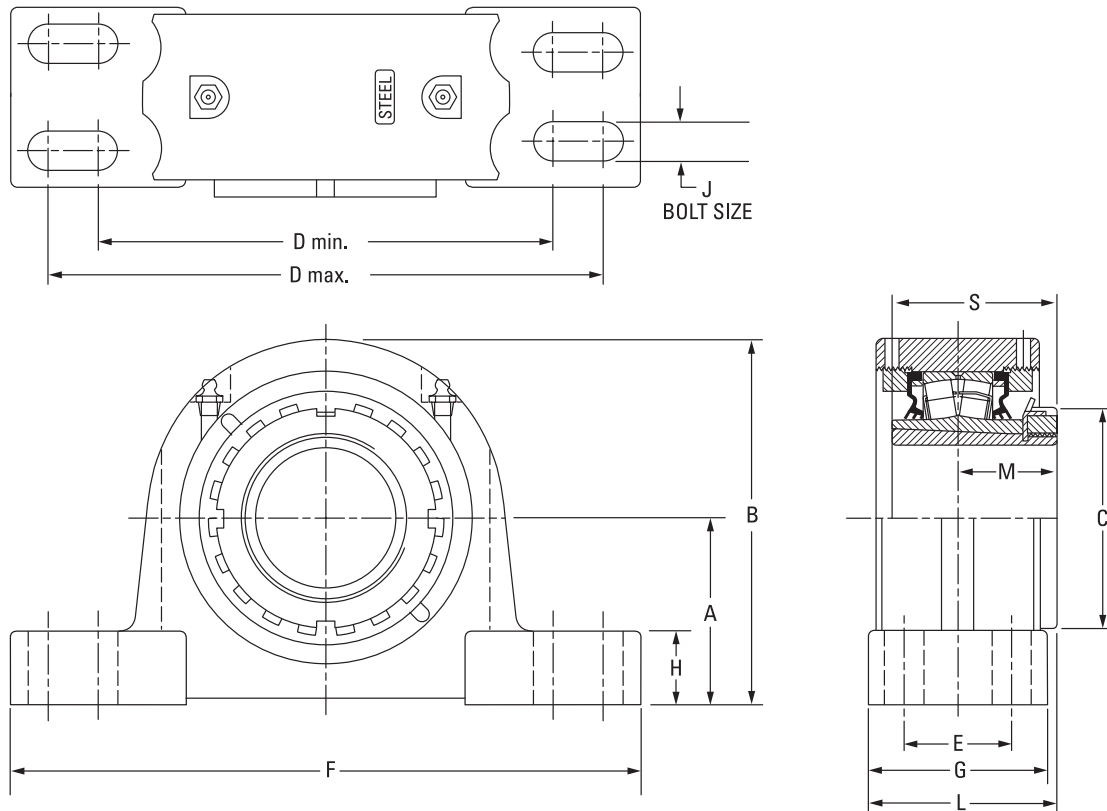
TA/DV SERIES • TAPK 9000 SERIES FOUR-BOLT PILLOW BLOCKS

## TAPK 9000 SERIES FOUR-BOLT PILLOW BLOCKS



Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	L	M	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
TAPK15K207S	2 7/16 in.	22215	88.9	173.5	98.0	230.1	265.2	69.9	330.2	108.0	39.1	20	98.0	43.9	72.9	13.2
TAPK15K208S	2 1/2 in.		3.50	6.83	3.86	9.06	10.44	2.75	13.00	4.25	1.54	3/4	3.86	1.73	2.87	29
TAPK15K065S	65 mm															
TAPK17K215S	2 15/16 in.	22217	101.6	201.2	110.0	274.6	309.6	76.2	381.0	120.7	38.1	20	110.2	49.8	82.0	16.8
TAPK17K300S	3 in.		4.00	7.92	4.33	10.81	12.19	3.00	15.00	4.75	1.50	3/4	4.34	1.96	3.23	37
TAPK17K075S	75 mm															
TAPK20K307S	3 7/16 in.	22220	127.0	239.8	130.0	317.5	355.6	88.9	425.5	139.7	41.4	24	128.3	58.4	97.0	31.8
TAPK20K308S	3 1/2 in.		5.00	9.44	5.12	12.50	14.00	3.50	16.75	5.50	1.63	7/8	5.05	2.30	3.82	70
TAPK20K090S	90 mm															
TAPK22K315S	3 15/16 in.	22222	146.1	273.8	145.0	354.1	395.2	101.6	469.9	158.8	45.7	24	138.2	63.0	104.9	39.5
TAPK22K400S	4 in.		5.75	10.78	5.71	13.94	15.56	4.00	18.50	6.25	1.80	1	5.44	2.48	4.13	87
TAPK22K100S	100 mm															
TAPK26K407S	4 7/16 in.	22226	155.6	283.2	165.1	387.4	425.5	108.0	514.4	171.5	50.8	24	157.5	71.9	120.9	61.7
TAPK26K408S	4 1/2 in.		6.125	11.15	6.50	15.25	16.75	4.25	20.25	6.75	2.00	1 1/8	6.20	2.83	4.76	136
TAPK26K115S	115 mm															

TAPH SAF-STYLE FOUR-BOLT PILLOW BLOCKS

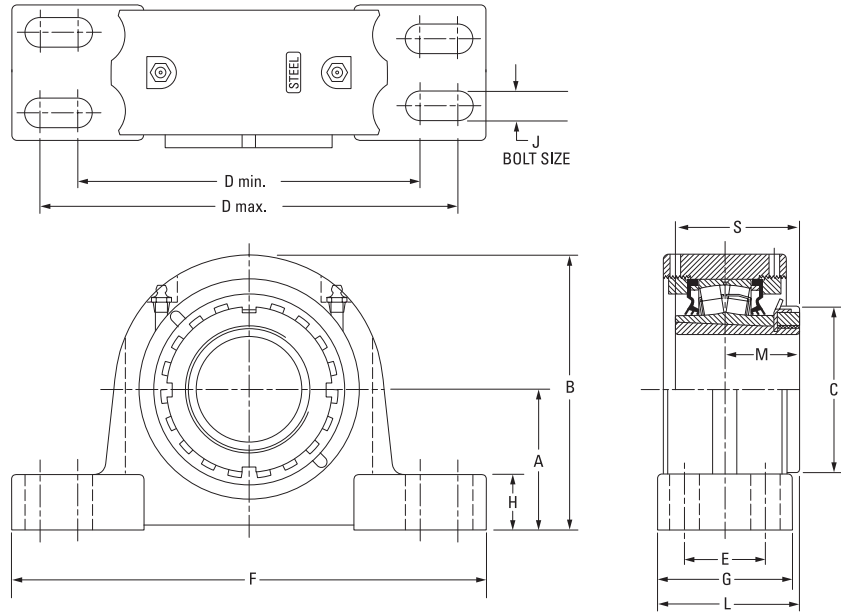


Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	L	M	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
TAPH11K115S	1 15/16 in.	22211	69.9	134.9	74.9	182.4	217.4	39.9	251.0	68.6	31.8	16	69.9	35.6	58.9	8.6
TAPH11K200S	2 in.		2.75	5.31	2.95	7.18	8.56	1.57	9.88	2.70	1.25	5/8	2.75	1.40	2.32	19
TAPH11K050S	50 mm															
TAPH13K203S	2 3/16 in.	22213	76.2	151.1	85.1	182.4	217.4	50.8	261.9	82.6	31.2	12	81.0	39.6	65.0	11.3
TAPH13K204S	2 1/4 in.		3.00	5.95	3.35	7.18	8.56	2.00	10.31	3.25	1.23	1/2	3.19	1.56	2.56	25
TAPH13K060S	60 mm															
TAPH15K207S	2 7/16 in.	22215	82.6	162.1	98.0	201.7	246.1	47.8	276.4	79.5	32.8	12	83.6	43.9	72.9	13.2
TAPH15K208S	2 1/2 in.		3.25	6.38	3.86	7.94	9.69	1.88	10.88	3.13	1.29	1/2	3.29	1.73	2.87	29
TAPH15K065S	65 mm															
TAPH17K215S	2 15/16 in.	22217	95.3	182.9	110.0	239.8	287.3	54.1	320.8	92.2	32.0	16	96.0	49.8	82.0	16.8
TAPH17K300S	3 in.		3.75	7.20	4.33	9.44	11.31	2.13	12.63	3.63	1.26	5/8	3.78	1.96	3.23	37
TAPH17K075S	75 mm															
TAPH20K307S	3 7/16 in.	22220	114.3	216.9	130.0	276.4	339.9	60.5	381	109.5	41.9	20	113.3	58.4	97.0	31.8
TAPH20K308S	3 1/2 in.		4.50	8.54	5.12	10.88	13.38	2.38	15.00	4.31	1.65	3/4	4.46	2.30	3.82	70
TAPH20K090S	90 mm															
TAPH22K315S	3 15/16 in.	22222	125.5	238.3	145.0	301.8	368.3	69.9	406.4	120.7	45.0	20	123.4	63.0	104.9	39.5
TAPH22K400S	4 in.		4.94	9.38	5.71	11.88	14.50	2.75	16.00	4.75	1.77	3/4	4.86	2.48	4.13	87
TAPH22K100S	100 mm															
TAPH26K407S	4 7/16 in.	22226	152.4	284.0	165.1	362.0	400.1	82.6	444.5	128.0	51.8	24	135.9	71.9	120.9	61.7
TAPH26K408S	4 1/2 in.		6.00	11.18	6.50	14.25	15.75	3.25	17.50	5.04	2.04	3/4	5.35	2.83	4.76	136
TAPH26K115S	115 mm															
TAPH28K415S	4 15/16 in.	22228	152.4	290.8	180.1	406.4	435.1	85.9	500.4	128.0	51.8	24	141.5	77.5	131.1	61.8
TAPH28K500S	5 in.		6.00	11.45	7.09	16.00	17.13	3.38	19.70	5.04	2.04	1	5.57	3.05	5.16	136
TAPH28K125S	125 mm															

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

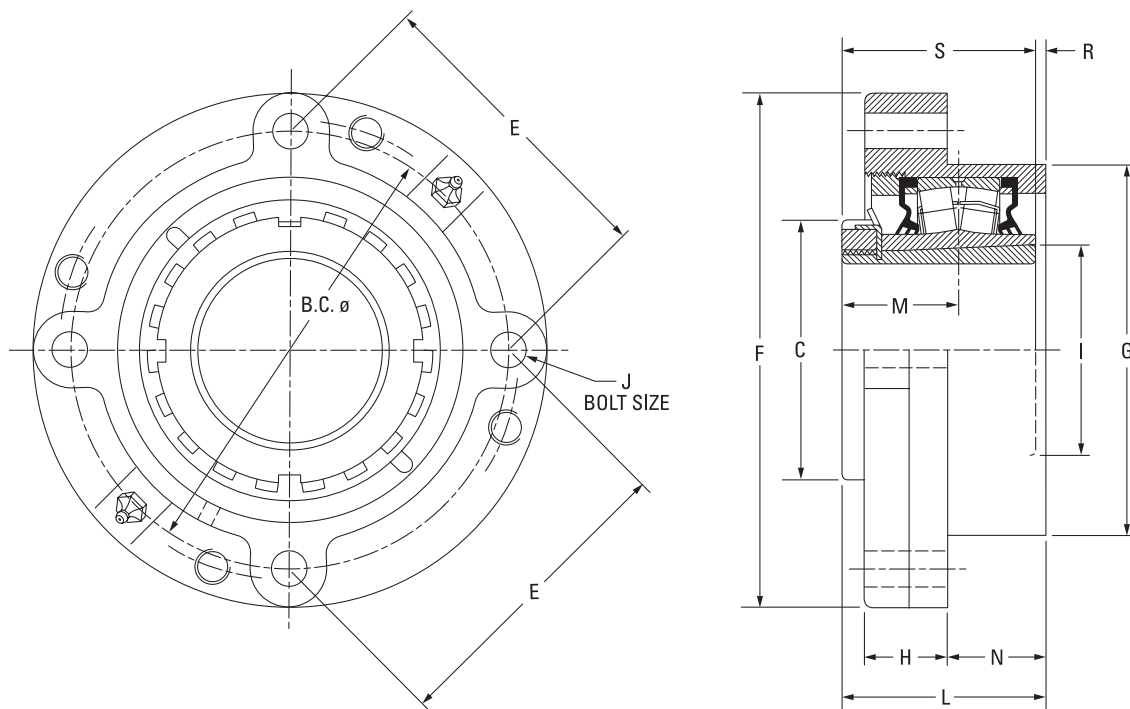
TA/DV SERIES • TAPG SN-STYLE FOUR-BOLT PILLOW BLOCKS

## TAPG SN-STYLE FOUR-BOLT PILLOW BLOCKS



Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D min.	D max.	E	F	G	H	J	L	M	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
TAPG11K115S	1 15/16 in.	22211	69.9	134.9	74.9	182.4	217.4	39.9	251.0	68.6	31.8	16	69.9	35.6	58.9	8.6
TAPG11K200S	2 in.		2.75	5.31	2.95	7.18	8.56	1.57	9.88	2.70	1.25	5/8	2.75	1.40	2.32	19
TAPG11K050S	50 mm															
TAPG12K055S	55 mm	22212	70.0	140.5	79.8	177.8	219.2	35.1	254.0	69.9	31.8	12	72.6	37.6	62.0	9.9
			2.756	5.53	3.14	7.00	8.63	1.38	10.00	2.75	1.25	1/2	2.86	1.48	2.44	22
TAPG13K203S	2 3/16 in.	22213	80.0	154.9	85.1	182.4	217.4	48.0	261.9	82.6	35.1	16	81.0	39.6	65.0	11.3
TAPG13K204S	2 1/4 in.		3.15	6.10	3.35	7.18	8.56	1.89	10.31	3.25	1.38	5/8	3.19	1.56	2.56	25
TAPG13K060S	60 mm															
TAPG15K207S	2 7/16 in.	22215	80.0	162.1	98.0	201.7	246.1	39.6	276.4	79.5	30.2	16	83.8	43.9	72.9	13.2
TAPG15K208S	2 1/2 in.		3.15	6.38	3.86	7.94	9.69	1.56	10.88	3.13	1.19	5/8	3.30	1.73	2.87	29
TAPG15K065S	65 mm															
TAPG16K211S	2 11/16 in.	22216	95.0	180.3	104.6	235.0	266.7	50.0	315.0	89.9	31.8	16	92.5	47.5	78.0	14.9
TAPG16K212S	2 3/4 in.		3.74	7.10	4.12	9.25	10.50	1.97	12.40	3.54	1.25	5/8	3.64	1.87	3.07	33
TAPG16K070S	70 mm															
TAPG17K215S	2 15/16 in.	22217	95.0	182.9	110.0	239.8	287.3	52.3	320.8	92.2	31.8	20	96.0	49.8	82.0	16.8
TAPG17K300S	3 in.		3.74	7.20	4.33	9.44	11.31	2.06	12.63	3.63	1.25	3/4	3.78	1.96	3.23	37
TAPG17K075S	75 mm															
TAPG18K080S	80 mm	22218	100.0	195.3	119.6	282.7	298.5	50.0	344.9	100.1	39.6	16	102.1	52.1	86.1	24.5
TAPG18K303S	3 3/16 in.		3.937	7.69	4.71	11.13	11.75	1.97	13.58	3.94	1.56	5/8	4.02	2.05	3.39	54
TAPG18K304S	3 1/4 in.															
TAPG19K085S	85 mm	22219	112.0	212.3	124.7	282.7	298.5	50.0	344.9	100.1	39.6	16	104.6	54.6	89.9	25.4
			4.409	8.36	4.91	11.13	11.75	1.97	13.58	3.94	1.56	5/8	4.12	2.15	3.54	56
TAPG20K307S	3 7/16 in.	22220	112.0	214.6	130.0	276.4	339.9	60.5	381.0	109.5	39.6	20	113.3	58.4	97.0	31.8
TAPG20K308S	3 1/2 in.		4.409	8.45	5.12	10.88	13.38	2.38	15.00	4.31	1.56	3/4	4.46	2.30	3.82	70
TAPG20K090S	90 mm															
TAPG22K315S	3 15/16 in.	22222	112.0	238.3	145.0	301.8	368.3	69.9	406.4	120.7	44.5	20	123.4	63.0	104.9	39.5
TAPG22K400S	4 in.		4.921	9.38	5.71	11.88	14.50	2.75	16.00	4.75	1.75	3/4	4.86	2.48	4.13	87
TAPG22K100S	100 mm															
TAPG24K403S	4 3/16 in.	22224	140.0	262.9	154.4	342.9	355.6	70.1	410.0	120.7	50.8	16	127.5	67.1	112.0	49.9
TAPG24K404S	4 1/4 in.		5.512	10.35	6.08	13.50	14.00	2.76	16.14	4.75	2.00	5/8	5.02	2.64	4.41	110
TAPG24K110S	110 mm															
TAPG26K407S	4 7/16 in.	22226	150.0	281.7	165.1	367.28	400.1	81.0	444.5	128.0	49.3	24	135.9	71.88	120.9	61.7
TAPG26K408S	4 1/2 in.		5.906	11.09	6.50	14.46	15.75	3.19	17.50	5.04	1.94	1	5.35	2.83	4.76	136
TAPG26K115S	115 mm															
TAPG28K415S	4 15/16 in.	22228	150.0	288.4	180.1	384.3	447.8	80.0	500.4	128.0	49.3	24	141.5	77.5	131.1	61.8
TAPG28K500S	5 in.		5.906	11.36	7.09	15.13	17.63	3.15	19.70	5.04	1.94	1	5.57	3.05	5.16	136
TAPG28K125S	125 mm															

### DVC PILOTED FLANGE CARTRIDGES



Bearing Part No.	Shaft Dia.	Bearing No.	B.C.	C	E	F	G <sup>(1)</sup>	H	I	J	L	M	N	R	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
DVC09K107S	1 7/16 in.	22209	<b>111.3</b>	<b>65.0</b>	<b>78.5</b>	<b>133.4</b>	<b>92.1</b>	<b>26.7</b>	<b>48.3</b>	<b>10</b>	<b>55.4</b>	<b>30.7</b>	<b>23.9</b>	<b>5.1</b>	<b>50.3</b>	<b>4.1</b>
DVC09K108S	1 1/2 in.		4.38	2.56	3.09	5.25	3.625	1.05	1.90	7/16	2.18	1.21	0.94	0.20	1.98	9
DVC09K040S	<b>40 mm</b>															
DVC10K111S	1 11/16 in.	22210	<b>130.3</b>	<b>70.1</b>	<b>91.9</b>	<b>155.7</b>	<b>107.95</b>	<b>26.7</b>	<b>58.9</b>	<b>10</b>	<b>60.1</b>	<b>33.5</b>	<b>25.4</b>	<b>5.1</b>	<b>55.1</b>	<b>4.5</b>
DVC10K112S	1 3/4 in.		5.13	2.76	3.62	6.13	4.250	1.05	2.32	7/16	2.37	1.32	1.00	0.20	2.17	10
DVC10K045S	<b>45 mm</b>															
DVC11K115S	1 15/16 in.	22211	<b>136.7</b>	<b>74.9</b>	<b>96.5</b>	<b>162.1</b>	<b>114.3</b>	<b>31.5</b>	<b>62.2</b>	<b>10</b>	<b>63.2</b>	<b>35.6</b>	<b>25.4</b>	<b>4.1</b>	<b>58.9</b>	<b>5.0</b>
DVC11K200S	2 in.		5.38	2.95	3.80	6.38	4.500	1.24	2.45	7/16	2.49	1.40	1.00	0.16	2.32	11
DVC11K050S	<b>50 mm</b>															
DVC13K203S	2 3/16 in.	22213	<b>152.4</b>	<b>82.6</b>	<b>107.7</b>	<b>181.1</b>	<b>127.0</b>	<b>37.3</b>	<b>84.8</b>	<b>12</b>	<b>65.5</b>	<b>39.6</b>	<b>25.4</b>	<b>-2.8</b>	<b>65.0</b>	<b>7.3</b>
DVC13K204S	2 1/4 in.		6.00	3.35	4.24	7.13	5.000	1.47	3.34	1/2	2.58	1.56	1.00	-0.11	2.56	16
DVC13K060S	<b>60 mm</b>															
DVC15K207S	2 7/16 in.	22215	<b>165.1</b>	<b>98.0</b>	<b>116.8</b>	<b>193.8</b>	<b>139.7</b>	<b>32.3</b>	<b>79.0</b>	<b>12</b>	<b>69.9</b>	<b>43.9</b>	<b>31.8</b>	<b>3.6</b>	<b>72.9</b>	<b>8.2</b>
DVC15K208S	2 1/2 in.		6.50	3.86	4.60	7.63	5.500	1.27	3.11	1/2	2.75	1.73	1.25	0.14	2.87	18
DVC15K065S	<b>65 mm</b>															
DVC17K215S	2 15/16 in.	22217	<b>190.5</b>	<b>110.0</b>	<b>134.6</b>	<b>222.3</b>	<b>161.9</b>	<b>32.5</b>	<b>90.2</b>	<b>16</b>	<b>79.8</b>	<b>49.8</b>	<b>35.1</b>	<b>2.3</b>	<b>82.0</b>	<b>11.3</b>
DVC17K300S	3 in.		7.50	4.33	5.30	8.75	6.375	1.28	3.55	5/8	3.14	1.96	1.38	0.09	3.23	25
DVC17K075S	<b>75 mm</b>															
DVC20K307S	3 7/16 in.	22220	<b>219.2</b>	<b>130.0</b>	<b>154.9</b>	<b>260.4</b>	<b>187.3</b>	<b>41.1</b>	<b>106.2</b>	<b>20</b>	<b>91.9</b>	<b>58.4</b>	<b>35.1</b>	<b>5.1</b>	<b>97.0</b>	<b>16.8</b>
DVC20K308S	3 1/2 in.		8.63	5.12	6.10	10.25	7.375	1.62	4.18	3/4	3.62	2.30	1.38	0.20	3.82	37
DVC20K090S	<b>90 mm</b>															
DVC22K315S	3 15/16 in.	22222	<b>238.3</b>	<b>145.0</b>	<b>168.4</b>	<b>276.4</b>	<b>206.4</b>	<b>48.0</b>	<b>116.8</b>	<b>20</b>	<b>100.1</b>	<b>63.0</b>	<b>38.1</b>	<b>4.6</b>	<b>104.9</b>	<b>26.3</b>
DVC22K400S	4 in.		9.38	5.71	6.63	10.88	8.125	1.89	4.60	3/4	3.94	2.48	1.50	0.18	4.13	58
DVC22K100S	<b>100 mm</b>															
DVC26K407S <sup>(2)</sup>	4 7/16 in.	22226	<b>298.5</b>	<b>165.1</b>	<b>149.4</b>	<b>342.9</b>	<b>260.4</b>	<b>47.0</b>	<b>137.9</b>	<b>20</b>	<b>116.8</b>	<b>71.9</b>	<b>48.3</b>	<b>4.1</b>	<b>120.9</b>	<b>34.5</b>
DVC26K408S <sup>(2)</sup>	4 1/2 in.		11.75 <sup>(2)</sup>	6.50	5.88 <sup>(2)</sup>	13.50	10.250	1.85	5.43	3/4 <sup>(2)</sup>	4.60	2.83	1.90	0.16	4.76	76
DVC26K115S <sup>(2)</sup>	<b>115 mm</b>															

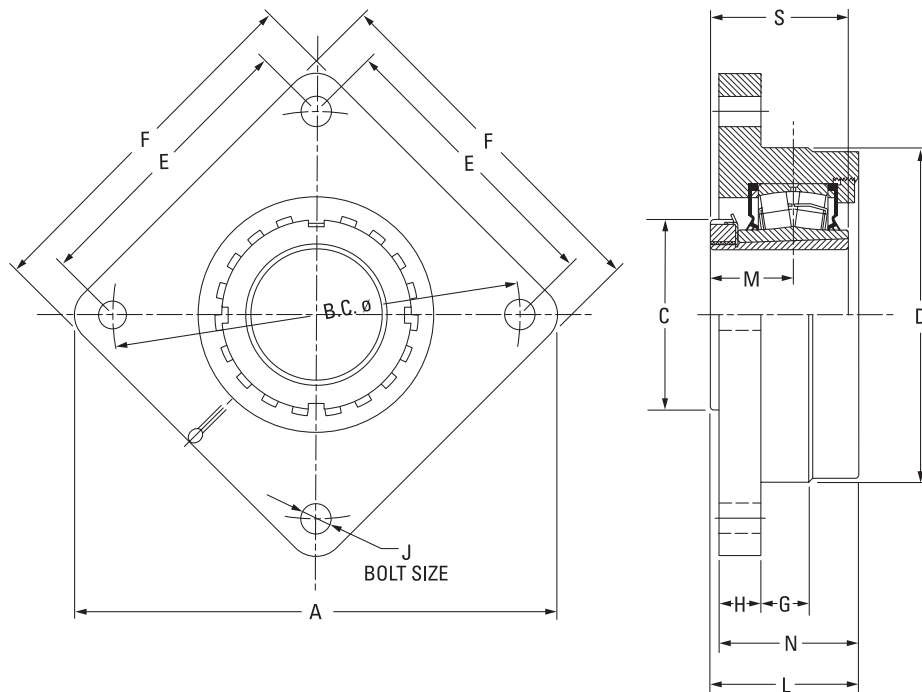
<sup>(1)</sup>Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

<sup>(2)</sup>Six-bolt housing.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

TA/DV SERIES • T AFC SQUARE PILOTED FLANGE CARTRIDGES

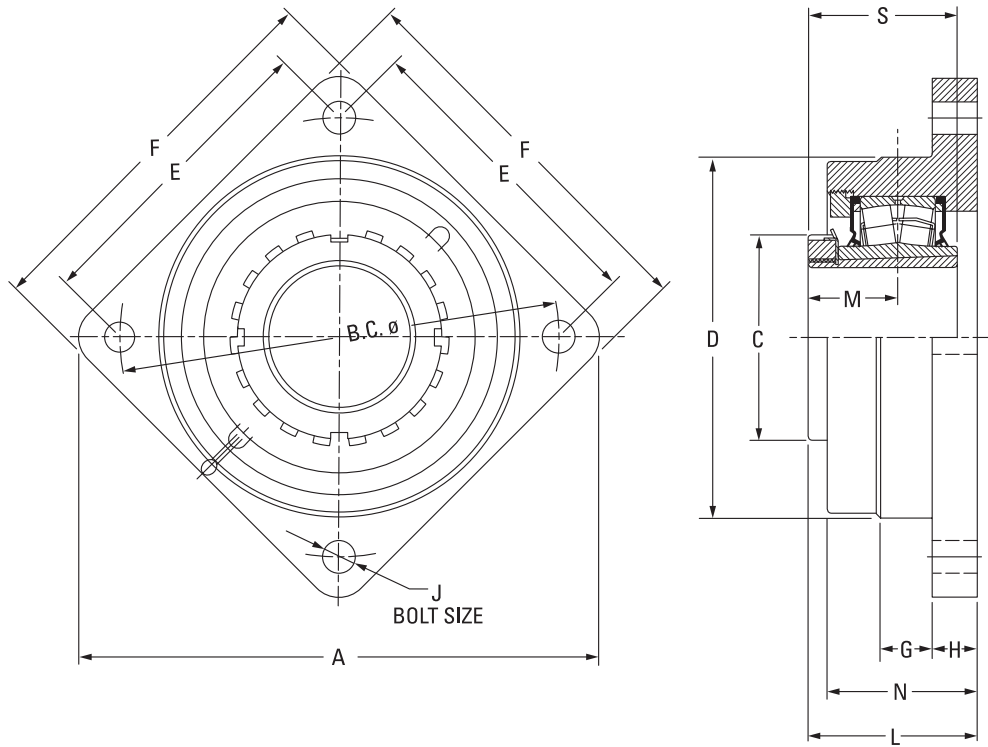
## T AFC SQUARE PILOTED FLANGE CARTRIDGES



Bearing Part No.	Shaft Dia.	Bearing No.	A	B.C.	C	D <sup>(1)</sup>	E	F	G	H	J	L	M	N	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
TAFC15K207S	2 7/16 in.	22215	255.0	215.1	98.0	169.9	152.4	192.0	25.4	23.9	16	79.5	43.9	64.8	72.9	11.3
TAFC15K208S	2 1/2 in.		10.04	8.47	3.86	6.690	6.00	7.56	1.00	0.94	5/8	3.13	1.73	2.55	2.87	25
TAFC15K065S	65 mm															
TAFC17K215S	2 15/16 in.	22217	282.4	240.0	110.0	190.0	169.7	212.1	25.4	25.4	16	88.6	49.8	69.9	82.0	13.6
TAFC17K300S	3 in.		11.12	9.45	4.33	7.480	6.68	8.35	1.00	1.00	5/8	3.49	1.96	2.75	3.23	30
TAFC17K075S	75 mm															
TAFC20K307S	3 7/16 in.	22220	330.2	279.9	130.0	230.1	197.9	247.9	31.8	28.7	20	105.7	58.4	94.2	97.0	18.1
TAFC20K308S	3 1/2 in.		13.00	11.02	5.12	9.060	7.79	9.76	1.25	1.13	3/4	4.16	2.30	3.71	3.82	40
TAFC20K090S	90 mm															
TAFC22K315S	3 15/16 in.	22222	367.0	309.9	145.0	255.0	219.2	274.3	44.5	26.4	20	113.0	63.0	101.1	104.9	27.2
TAFC22K400S	4 in.		14.45	12.20	5.71	10.039	8.63	10.80	1.75	1.04	3/4	4.45	2.48	3.98	4.13	60
TAFC22K100S	100 mm															
TAFC26K407S	4 7/16 in.	22226	411.5	355.1	165.1	290.0	251.0	298.5	41.9	32.0	24	130.6	71.9	114.3	120.9	42.6
TAFC26K408S	4 1/2 in.		16.20	13.98	6.50	11.417	9.88	11.75	1.65	1.26	7/8	5.14	2.83	4.50	4.76	94
TAFC26K115S	115 mm															

<sup>(1)</sup>Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

TAFB SQUARE FLANGE BLOCKS

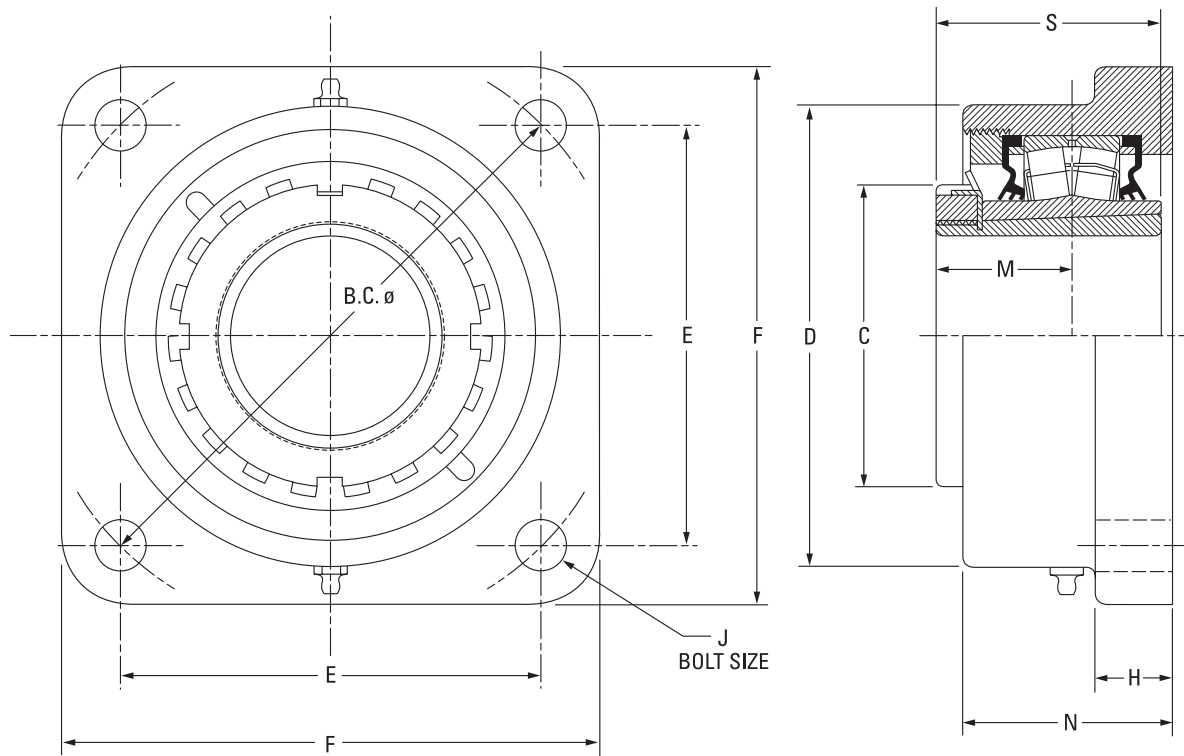


Bearing Part No.	Shaft Dia.	Bearing No.	A	B.C.	C	D	E	F	G	H	J	L	M	N	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
TAFB15K207S	2 7/16 in.	22215	255.0	215.1	98.0	169.9	152.4	192.0	25.4	23.9	16	73.7	43.9	64.8	72.9	11.3
TAFB15K208S	2 1/2 in.		10.04	8.47	3.86	6.69	6.00	7.56	1.00	0.94	5/8	2.90	1.73	2.55	2.87	25
TAFB15K065S	65 mm															
TAFB17K215S	2 15/16 in.	22217	282.4	240.0	110.0	190.0	169.7	212.1	25.4	25.4	16	88.6	49.8	69.9	82.0	13.6
TAFB17K300S	3 in.		11.12	9.45	4.33	7.48	6.68	8.35	1.00	1.00	5/8	3.49	1.96	2.75	3.23	30
TAFB17K075S	75 mm															
TAFB20K307S	3 7/16 in.	22220	330.2	280.0	130.0	230.1	197.9	247.9	31.8	28.7	20	105.7	58.4	94.2	97.0	18.1
TAFB20K308S	3 1/2 in.		13.00	11.02	5.12	9.06	7.79	9.76	1.25	1.13	3/4	4.16	2.30	3.71	3.82	40
TAFB20K090S	90 mm															
TAFB22K315S	3 15/16 in.	22222	367.0	309.9	145.0	255.0	219.2	279.4	44.5	26.4	20	113.0	63.0	101.1	104.9	27.2
TAFB22K400S	4 in.		14.45	12.20	5.71	10.04	8.63	11.00	1.75	1.04	3/4	4.45	2.48	3.98	4.13	60
TAFB22K100S	100 mm															
TAFB26K407S	4 7/16 in.	22226	411.5	354.8	165.1	290.0	251.0	298.5	41.9	32.0	24	130.6	71.9	114.3	120.9	42.6
TAFB26K408S	4 1/2 in.		16.20	13.97	6.50	11.42	9.88	11.75	1.65	1.26	7/8	5.14	2.83	4.50	4.76	94
TAFB26K115S	115 mm															

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

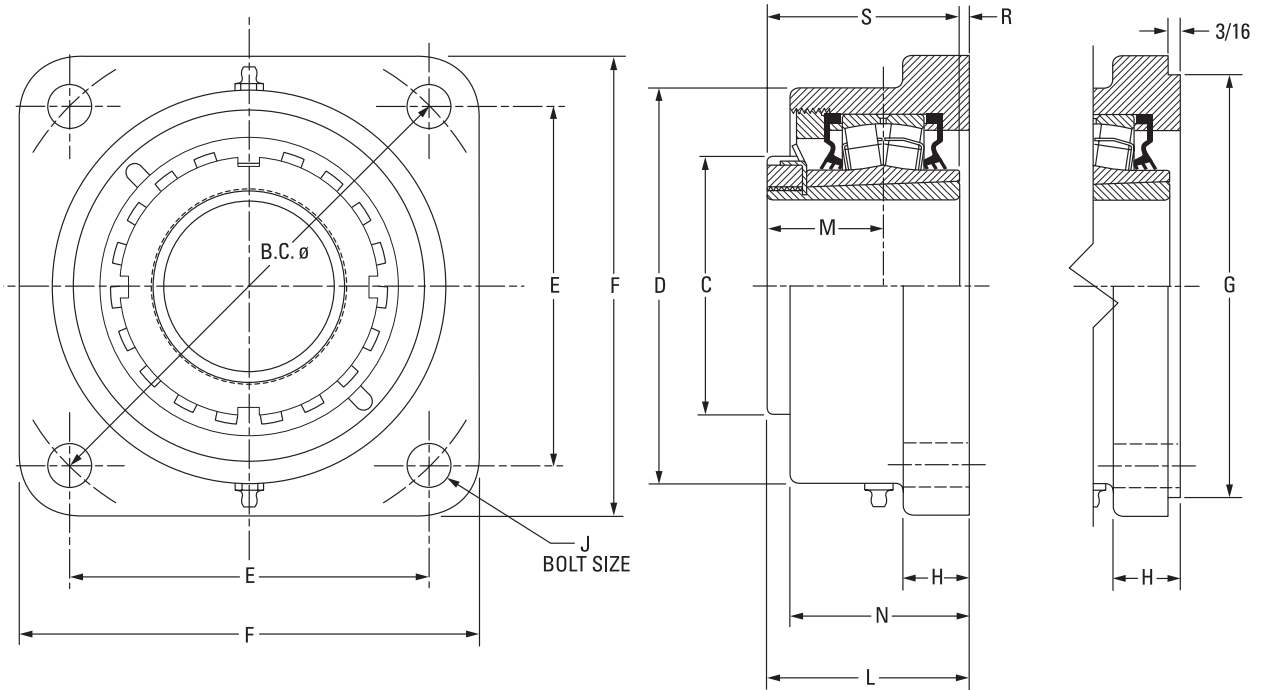
TA/DV SERIES • DVF SQUARE FLANGE BLOCKS

## DVF SQUARE FLANGE BLOCKS



Bearing Part No.	Shaft Dia.	Bearing No.	B.C.	C	D	E	F	H	J	M	N	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
DVF09K107S	1 7/16 in.	22209	125.7 4.95	65.0 2.56	101.6 4.00	88.9 3.50	117.6 4.63	19.1 0.75	12 1/2	30.7 1.21	56.1 2.21	50.3 1.98	5.0 11
DVF09K108S	1 1/2 in.	22209	148.3	65.0	107.8	104.9	136.7	19.1	12	30.7	56.1	50.3	5.0
DVF09K040S	40 mm	22209	5.84	2.56	4.25	4.13	5.38	0.75	1/2	1.21	2.21	1.98	11
DVF10K111S	1 11/16 in.	22210	148.3 5.84	70.1 2.76	118.4 4.66	104.9 4.13	136.7 5.38	22.4 0.88	12 1/2	33.5 1.32	52.3 2.06	55.1 2.17	5.5 12
DVF10K112S	1 3/4 in.	22210	157.2	70.1	118.4	111.3	143.0	22.4	12	33.5	52.3	55.1	5.5
DVF10K045S	45 mm	22210	6.19	2.76	4.66	4.38	5.63	0.88	1/2	1.32	2.06	2.17	12
DVF11K115S	1 15/16 in.	22211	157.2	74.9	121.9	111.3	139.7	22.4	12	35.6	65.0	58.9	5.44
DVF11K200S	2 in.	22211	6.19	2.95	4.80	4.38	5.50	0.88	1/2	1.40	2.56	2.32	12
DVF11K050S	50 mm	22211	6.19	2.95	4.80	4.38	5.50	0.88	1/2	1.40	2.56	2.32	12
DVF13K203S	2 3/16 in.	22213	175.0	85.1	137.9	124.0	157.2	25.4	16	39.6	66.8	65.0	6.8
DVF13K204S	2 1/4 in.	22213	6.89	3.35	5.43	4.88	6.19	1.00	5/8	1.56	2.63	2.56	15
DVF13K060S	60 mm	22213	6.89	3.35	5.43	4.88	6.19	1.00	5/8	1.56	2.63	2.56	15
DVF15K207S	2 7/16 in.	22215	193.0	98.0	146.0	136.7	168.4	25.4	16	43.9	72.4	72.9	8.2
DVF15K208S	2 1/2 in.	22215	7.60	3.86	5.75	5.38	6.63	1.00	5/8	1.73	2.85	2.87	18
DVF15K065S	65 mm	22215	7.60	3.86	5.75	5.38	6.63	1.00	5/8	1.73	2.85	2.87	18
DVF17K215S	2 15/16 in.	22217	215.4	110.0	170.7	152.4	189.0	26.9	20	49.8	77.0	82.0	12.7
DVF17K300S	3 in.	22217	8.48	4.33	6.72	6.00	7.44	1.06	3/4	1.96	3.03	3.23	28
DVF17K075S	75 mm	22217	8.48	4.33	6.72	6.00	7.44	1.06	3/4	1.96	3.03	3.23	28
DVF20K307S	3 7/16 in.	22220	251.5	130.0	193.8	177.8	219.2	33.3	20	58.4	84.1	97.0	17.7
DVF20K308S	3 1/2 in.	22220	9.90	5.12	7.63	7.00	8.63	1.31	3/4	2.30	3.31	3.82	39
DVF20K090S	90 mm	22220	9.90	5.12	7.63	7.00	8.63	1.31	3/4	2.30	3.31	3.82	39
DVF22K315S	3 15/16 in.	22222	278.4	145.0	215.9	196.9	253.2	38.1	24	63.0	103.1	104.9	24.0
DVF22K400S	4 in.	22222	10.96	5.71	8.50	7.75	9.97	1.50	7/8	2.48	4.06	4.13	53
DVF22K100S	100 mm	22222	10.96	5.71	8.50	7.75	9.97	1.50	7/8	2.48	4.06	4.13	53
DVF26K407S	4 7/16 in.	22226	314.5	165.1	263.7	222.3	276.4	38.1	24	71.9	106.9	120.9	34.0
DVF26K408S	4 1/2 in.	22226	12.38	6.50	10.38	8.75	10.88	1.50	7/8	2.83	4.21	4.76	75
DVF26K115S	115 mm	22226	12.38	6.50	10.38	8.75	10.88	1.50	7/8	2.83	4.21	4.76	75

TAFK 9000 SERIES SQUARE FLANGE BLOCKS



Bearing Part No.	Shaft Dia.	Bearing No.	B.C.	C	D	E	F	G <sup>(1)(2)(3)</sup>	H	J	L <sub>FIX</sub>	L <sub>EXP</sub>	M	N	R	S	Wt.
																	kg lbs.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	
TAFK11K115S	1 15/16 in.	22211	161.5	74.9	130.3	114.3	149.4	127.00	25.4	16	71.6	72.9	35.6	66.8	12.7	58.9	5.0
TAFK11K200S	2 in.		6.36	2.95	5.13	4.50	5.88	5.000	1.00	5/8	2.82	2.87	1.40	2.63	0.50	2.32	11
TAFK11K050S	50 mm																
TAFK13K203S	2 3/16 in.	22213	180.8	85.1	146.1	127.8	157.2	138.13	25.4	16	77.7	79.8	39.6	72.4	12.7	65.0	6.4
TAFK13K204S	2 1/4 in.		7.12	3.35	5.75	5.03	6.19	5.438	1.00	5/8	3.06	3.14	1.56	2.85	0.50	2.56	14
TAFK13K060S	60 mm																
TAFK15K207S	2 7/16 in.	22215	215.9	98.0	168.9	152.7	189.0	160.35	26.9	20	84.8	86.9	43.9	76.2	11.9	72.9	7.7
TAFK15K208S	2 1/2 in.		8.50	3.86	6.65	6.01	7.44	6.313	1.06	3/4	3.34	3.42	1.73	3.00	0.47	2.87	17
TAFK15K065S	65 mm																
TAFK17K215S	2 15/16 in.	22217	41.3	110.0	193.8	170.7	212.9	187.33	33.3	20	96.3	98.3	49.8	84.1	14.2	82.0	10.4
TAFK17K300S	3 in.		9.50	4.33	7.63	6.72	8.38	7.375	1.31	3/4	3.79	3.87	1.96	3.31	0.56	3.23	23
TAFK17K075S	75 mm																
TAFK20K307S	3 7/16 in.	22220	298.5	130.0	215.9	211.1	268.2	225.43	38.1	24	114.6	116.6	58.4	103.1	17.5	97.0	15.9
TAFK20K308S	3 1/2 in.		11.75	5.12	8.50	8.31	10.56	8.875	1.50	7/8	4.51	4.59	2.30	4.06	0.69	3.82	35
TAFK20K090S	90 mm																
TAFK22K315S <sup>(4)</sup>	3 15/16 in.	22222	327.2	145.0	256.5	163.6	384.3	263.53	38.1	24	117.3	119.4	63.0	106.9	12.4	104.9	24.9
TAFK22K400S <sup>(4)</sup>	4 in.		12.88 <sup>(4)</sup>	5.71	10.10	6.44 <sup>(4)</sup>	15.13	10.375	1.50	1 <sup>(4)</sup>	4.62	4.70	2.48	4.21	0.49	4.13	55
TAFK22K100S <sup>(4)</sup>	100 mm																
TAFK26K407S <sup>(4)</sup>	4 7/16 in.	22226	355.6	165.1	284.2	177.8	419.1	284.18	38.1	27	147.3	149.4	71.9	135.1	26.4	120.9	49.0
TAFK26K408S <sup>(4)</sup>	4 1/2 in.		14.00 <sup>(4)</sup>	6.50	11.19	7.00 <sup>(4)</sup>	16.50	11.188	1.50	1 1/8 <sup>(4)</sup>	5.80	5.88	2.83	5.32	1.04	4.76	108
TAFK26K115S <sup>(4)</sup>	115 mm																

<sup>(1)</sup>Pilot tolerance: +0/-0.05 mm (+0/-0.002 in.).

<sup>(2)</sup>Add (p) to the end of the housing designation in the part number to order with pilot using G dimension.

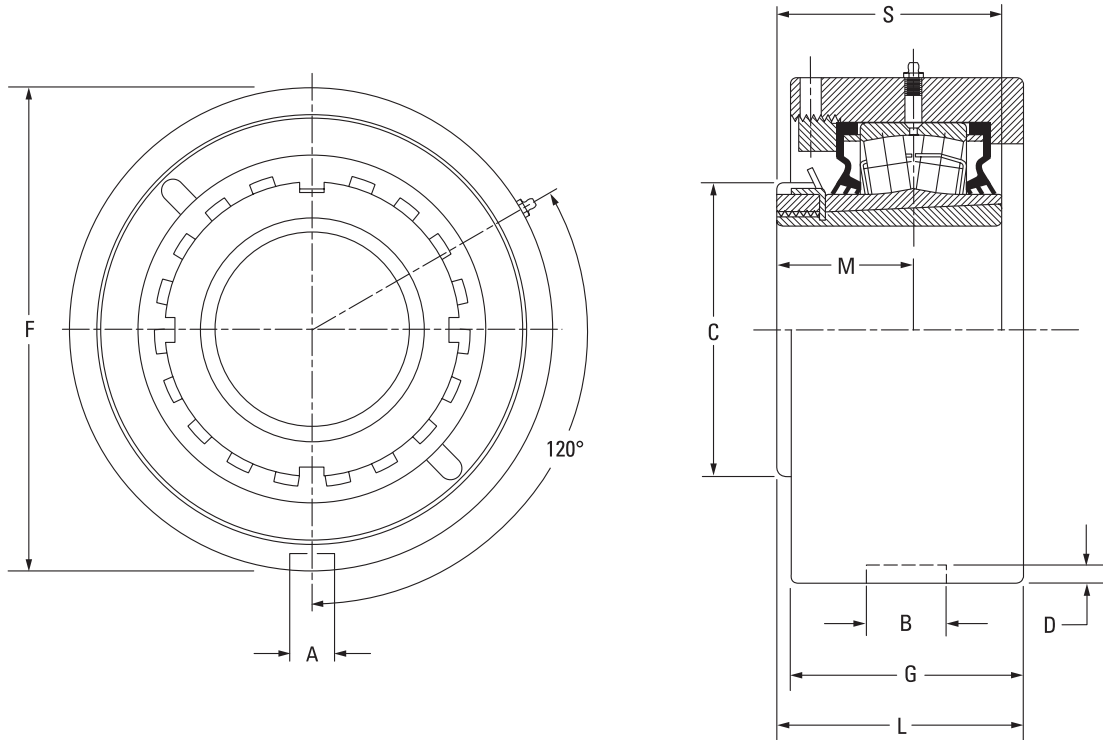
<sup>(3)</sup>Piloted flange blocks will be quoted (price and delivery) upon request. For optional spigot on flange side, insert the letter P as seen in the following example: QMFP\*\*J\*\*\*S.

<sup>(4)</sup>Six-bolt housing.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

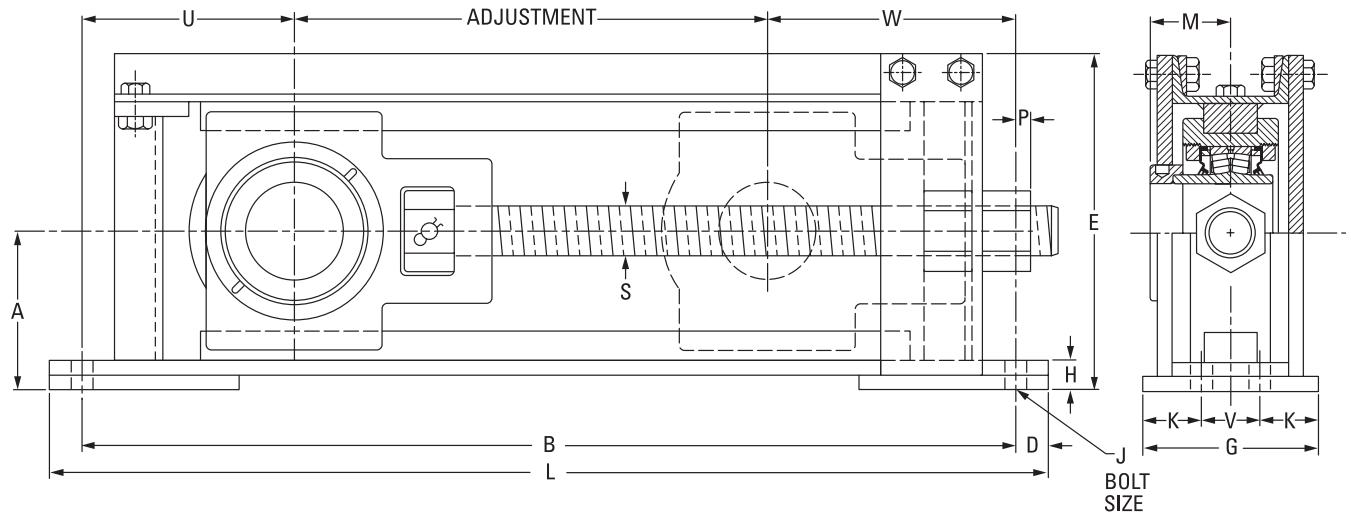
TA/DV SERIES • TAMC CARTRIDGE BLOCKS

## TAMC CARTRIDGE BLOCKS



Bearing Part No.	Shaft Dia.	Bearing No.	A	B	C	D	F	G	L <sub>FIX</sub>	L <sub>EXP</sub>	M	S	Wt.
	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
TAMC11K115S	1 15/16 in.	22211	13.5 0.530	23.0 0.906	74.9 2.95	4.8 0.188	115.09 (+0/-0.05) 4.531 (+0/-0.002)	55.4 2.18	63.2 2.49	64.5 2.54	35.6 1.40	58.9 2.32	4.5 10
TAMC11K200S	2 in.												
TAMC11K050S	50 mm												
TAMC13K203S	2 3/16 in.	22213	13.5 0.530	23.0 0.906	85.1 3.35	4.8 0.188	127.00 (+0/-0.05) 5.000 (+0/-0.002)	67.1 2.64	70.9 2.79	72.9 2.87	39.6 1.56	65.0 2.56	5.4 12
TAMC13K204S	2 1/4 in.												
TAMC13K060S	60 mm												
TAMC15K207S	2 7/16 in.	22215	15.1 0.594	26.2 1.032	98.0 3.86	6.4 0.250	149.23 (+0/-0.05) 5.875 (+0/-0.002)	70.6 2.78	78.2 3.08	80.3 3.16	43.9 1.73	72.9 2.87	8.2 18
TAMC15K208S	2 1/2 in.												
TAMC15K065S	65 mm												
TAMC17K215S	2 15/16 in.	22217	15.1 0.594	27.5 1.083	110.0 4.33	7.1 0.281	171.45 (+0/-0.05) 6.750 (+0/-0.002)	74.9 2.95	87.4 3.44	89.4 3.52	49.8 1.96	82.0 3.23	11.8 26
TAMC17K300S	3 in.												
TAMC17K075S	75 mm												
TAMC20K307S	3 7/16 in.	22220	19.8 0.781	32.5 1.281	130.0 5.12	8.0 0.313	206.38 (+0/-0.05) 8.125 (+0/-0.002)	85.6 3.37	101.3 3.99	103.4 4.07	58.4 2.30	97.0 3.82	14.5 32
TAMC20K308S	3 1/2 in.												
TAMC20K090S	90 mm												
TAMC22K315S	3 15/16 in.	22222	19.8 0.781	32.5 1.281	145.0 5.71	8.0 0.313	222.25 (+0/-0.08) 8.750 (+0/-0.003)	97.8 3.85	112.0 4.41	114.0 4.49	63.0 2.48	104.9 4.13	18.1 40
TAMC22K400S	4 in.												
TAMC22K100S	100 mm												
TAMC26K407S	4 7/16 in.	22226	19.8 0.780	38.1 1.500	165.1 6.50	8.0 0.313	265.10 (+0/-0.08) 10.437 (+0/-0.003)	104.4 4.11	124.2 4.89	126.2 4.97	71.9 2.83	120.9 4.76	23.6 52
TAMC26K408S	4 1/2 in.												
TAMC26K115S	115 mm												

**TAKE-UP FRAMES<sup>(1)</sup>**  
**QMTF TAKE-UP FRAMES**



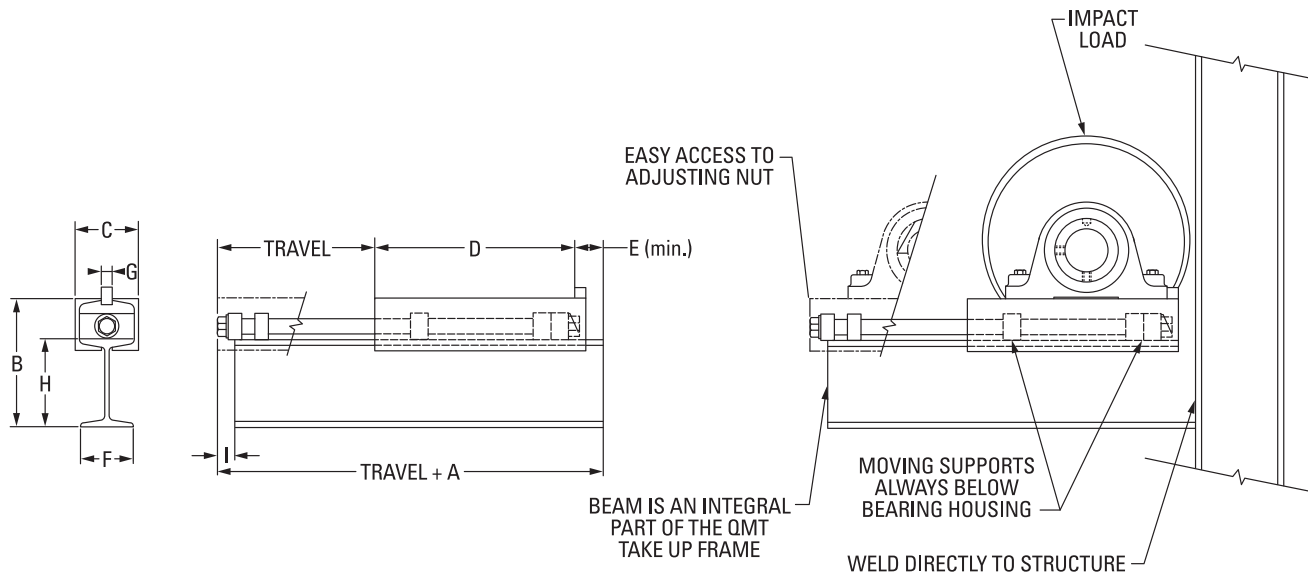
Frame Part No.	Travel Nom.	Travel Adj.	A	B	D	E	G	H	J	K	L	M	P	S	U	V	W	No. of Bolts Req.	Wt.
			mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.		mm in.
QMTF12-115	12	419.1 16.50	100.1 3.94	698.5 27.50	25.4 1.00	210.3 8.28	101.6 4.00	31.8 1.25	16 5/8	-	749.3 29.50	47.8 1.88	31.8 1.25	1-5 ACME	136.7 5.38	-	143.0 5.63	2	27.216 60
QMTF12-203	12	431.8 17.00	106.4 4.19	698.5 27.50	25.4 1.00	220.0 8.66	101.6 4.00	35.1 1.38	16 5/8	-	749.3 29.50	50.8 2.00	41.4 1.63	1.125-5 ACME	115.8 4.56	-	150.9 5.94	2	29.484 65
QMTF12-207	12	421.6 16.60	111.3 4.38	723.9 28.50	25.4 1.00	233.4 9.19	101.6 4.00	28.7 1.13	20 3/4	-	774.7 30.50	54.1 2.13	44.5 1.75	1.25-5 ACME	134.9 5.31	-	166.6 6.56	2	32.205 71
QMTF12-215	12	393.7 15.50	129.3 5.09	774.7 30.50	25.4 1.00	272.8 10.74	127.0 5.00	28.7 1.13	16 5/8	38.1 1.50	825.5 32.50	60.5 2.38	12.7 0.50	1.5-4 ACME	165.1 6.50	50.8 2.00	215.9 8.50	4	49.442 109
QMTF12-307	12	393.7 15.50	143.0 5.63	812.8 32.00	28.7 1.13	295.4 11.63	127.0 5.00	26.2 1.03	20 3/4	38.1 1.50	870.0 34.25	65.5 2.58	25.4 1.00	1.75-4 ACME	185.7 7.31	50.8 2.00	233.4 9.19	4	62.596 138
QMTF12-315	12	457.2 18.00	177.8 7.00	914.4 36.00	31.8 1.25	367.5 14.47	152.4 6.00	36.6 1.44	20 3/4	44.5 1.75	977.9 38.50	75.2 2.96	41.4 1.63	2-4 ACME	190.5 7.50	63.5 2.50	265.2 10.44	4	86.636 191
QMTF18-207	18	574.0 22.60	111.3 4.38	876.3 34.50	25.4 1.00	234.2 9.22	101.6 4.00	26.9 1.06	20 3/4	-	927.1 36.50	54.1 2.13	44.5 1.75	1.25-5 ACME	139.7 5.50	-	162.6 6.40	2	36.741 81
QMTF18-215	18	546.1 21.50	129.3 5.09	927.1 36.50	25.4 1.00	272.8 10.74	127.0 5.00	28.7 1.13	16 5/8	38.1 1.50	977.9 38.50	60.5 2.38	12.7 0.50	1.5-4 ACME	165.1 6.50	50.8 2.00	215.9 8.50	4	54.431 120
QMTF18-307	18	546.1 21.50	143.0 5.63	965.2 38.00	28.7 1.13	295.4 11.63	127.0 5.00	26.2 1.03	20 3/4	38.1 1.50	1022.4 40.25	65.5 2.58	25.4 1.00	1.75-4 ACME	185.7 7.31	50.8 2.00	233.4 9.19	4	70.760 156
QMTF18-315	18	609.6 24.00	177.8 7.00	1066.8 42.00	31.8 1.25	366.8 14.44	152.4 6.00	36.6 1.44	20 3/4	44.5 1.75	1130.3 44.50	75.2 2.96	41.4 1.63	2-4 ACME	190.5 7.50	63.5 2.50	265.2 10.44	4	101.150 223
QMTF24-207	24	726.4 28.60	111.3 4.38	1028.7 40.50	25.4 1.00	233.4 9.19	101.6 4.00	28.7 1.13	20 3/4	-	1079.5 42.50	54.1 2.13	44.5 1.75	1.25-5 ACME	115.8 4.56	-	166.6 6.56	2	41.277 91
QMTF24-215	24	698.5 27.50	129.3 5.09	1079.5 42.50	25.4 1.00	271.5 10.69	127.0 5.00	24.6 0.97	16 5/8	38.1 1.50	1130.3 44.50	60.5 2.38	12.7 0.50	1.5-4 ACME	165.1 6.50	50.8 2.00	215.9 8.50	4	63.957 141
QMTF24-307	24	698.5 27.50	143.0 5.63	1117.6 44.00	28.7 1.13	295.4 11.63	127.0 5.00	26.2 1.03	20 3/4	38.1 1.50	1174.8 46.25	65.5 2.58	25.4 1.00	1.75-4 ACME	185.7 7.31	50.8 2.00	233.4 9.19	4	81.193 179
QMTF24-315	24	762.0 30.00	177.8 7.00	1219.2 48.00	31.8 1.25	367.5 14.47	152.4 6.00	36.6 1.44	20 3/4	44.5 1.75	1282.7 50.50	75.2 2.96	41.4 1.63	2-4 ACME	190.5 7.50	63.5 2.50	265.2 10.44	4	112.940 249

<sup>(1)</sup>Frame only. Bearing unit must be ordered separately. See pages C-98 (V-Lock), C-125, C-120 (CL) and C-149 (EC) for information on take-up bearing units.  
 NOTE: All take-up frames come with Acme threaded rod.

# SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS

## TAKE-UP FRAMES • QMT PILLOW BLOCK TAKE-UP FRAMES

### QMT PILLOW BLOCK TAKE-UP FRAMES<sup>(1)</sup>



Frame Part No.	Bearing Size	Travel	A	B	C	D	E	F	G	H	I	Wt.
			mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QMT1 X 9	1 7/16 in. – 2 15/16 in.	9	330.2 13.0	187.3 7.375	92.1 3.625	289.1 11.38	41.4 1.63	76.2 3.00	20 3/4	127.0 5.0	25.4 1.0	11.793 26
QMT1 X 12	1 7/16 in. – 2 15/16 in.	12	330.2 13.0	187.3 7.375	92.1 3.625	289.1 11.38	41.4 1.63	76.2 3.00	20 3/4	127.0 5.0	25.4 1.0	13.608 30
QMT1 X 18	1 7/16 in. – 2 15/16 in.	18	330.2 13.0	187.3 7.375	92.1 3.625	289.1 11.38	41.4 1.63	76.2 3.00	20 3/4	127.0 5.0	25.4 1.0	16.329 36
QMT1 X 24	1 7/16 in. – 2 15/16 in.	24	330.2 13.0	187.3 7.375	92.1 3.625	289.1 11.38	41.4 1.63	76.2 3.00	20 3/4	127.0 5.0	25.4 1.0	19.051 42
QMT2 X 18	2 15/16 in. – 4 7/16 in.	18	482.6 19.0	311.2 12.25	125.4 4.938	431.8 17.00	50.8 2.00	106.4 4.19	24 1	203.2 8.0	38.1 1.5	33.566 74
QMT2 X 24	2 15/16 in. – 4 7/16 in.	24	482.6 19.0	311.2 12.25	125.4 4.938	431.8 17.00	50.8 2.00	106.4 4.19	24 1	203.2 8.0	38.1 1.5	40.823 90
QMT2 X 36	2 15/16 in. – 4 7/16 in.	36	482.6 19.0	311.2 12.25	125.4 4.938	431.8 17.00	50.8 2.00	106.4 4.19	24 1	203.2 8.0	38.1 1.5	43.545 96

<sup>(1)</sup>Frame only. Bearing unit must be ordered separately.  
NOTE: All take-up frames come with Acme threaded rod.

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