



Inch roller bearing units SYE, SYR, FYE and FYR series

Bearing type

- Spherical roller bearings, 222 series

Shaft diameter range

- 1 7/16 to 4 15/16 in.

Typical shaft-bearing combinations

- Plain shaft, bearing fixed using either the locking collar method or the SKF ConCentra locking method

Seals

- Triple-lip
- Labyrinth
- Radial shaft seal

Lubrication

- Grease

Mounting

- Two-bolt mounting
- Four-bolt mounting

Material

- Grey cast iron

Compliance to standards

- Not standardized

SKF inch roller bearings units are robust, ready-to-mount units that are assembled, lubricated and sealed at the factory for maximum service life. With their simple and safe installation and easy alignment, they are an excellent alternative to sleeve-mounted bearings in split housings. The assortment for inch shafts includes SKF ConCentra units and collar-mount units.



Units of measurement

In this chapter only imperial units are used. To convert imperial units to metric units, refer to the conversion table on **page 10**.

Inch roller bearing units SYE, SYR, FYE and FYR series

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Designations

Designation system for inch roller bearing units

F SYE 2 7/16 NH -118

Prefix

- For pillow block units: two-bolt base
 F For pillow block units: four-bolt base

Series

SYE Pillow block unit
 SYR Pillow block unit
 FYE Square flange unit
 FYR Round flange unit
 FYRP Piloted flange unit

Size identification

... Shaft diameter [in.]

Suffixes¹⁾

N SKF ConCentra
 H Locating bearing unit
 Y Closed end (end plug supplied)
 -3 Radial shaft seal (for collar-mount units)
 -18 Labyrinth seal (for collar-mount units)
 -118 Labyrinth seal (for SKF ConCentra units)

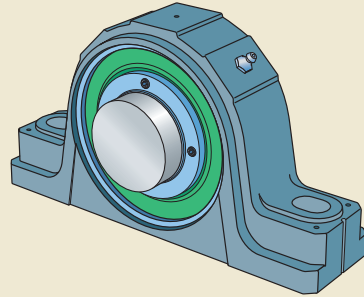
¹⁾ When multiple suffixes are used, they are listed in the same order as shown here.

Standard bearing unit design

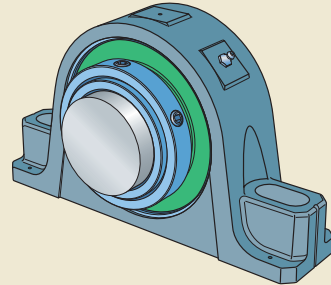
SKF inch roller bearing units consist of a non-split housing, an SKF spherical roller bearing in the 222 series, seals and grease. The bearings are fixed to the shaft using either the locking collar method or the SKF ConCentra locking method (designation suffix N). Inch roller bearing units are available in different series and designs:

- Pillow (plummer) block units with two bolt holes in the base are available in two series. Units in the SYE and SYE .. N series are available for shafts ranging from 1 ⁷/₁₆ to 3 ¹/₂ inches (→ **fig. 1**). Bearing units in the SYR and SYR .. N series are available for shafts ranging from 1 ⁷/₁₆ to 4 inches (→ **fig. 1**).
- Four-bolt base pillow (plummer) block units in the SYE series, designation FSYE and FSYE .. N, are available for shafts ranging from 2 ⁷/₁₆ to 4 ¹⁵/₁₆ inches (→ **fig. 1**).
- Square flange units (FYE series) are available for shafts ranging from 1 ⁷/₁₆ to 4 inches (→ **fig. 2**).
- Round flange units (FYR series) are available for shafts ranging from 1 ⁷/₁₆ to 4 inches (→ **fig. 2**).
- Piloted flange units (FYRP series) are available for shafts ranging from 1 ⁷/₁₆ to 4 inches (→ **fig. 2**).

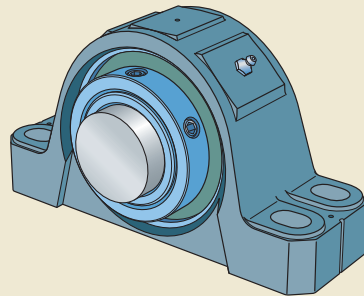
Fig. 1



SYE .. N series

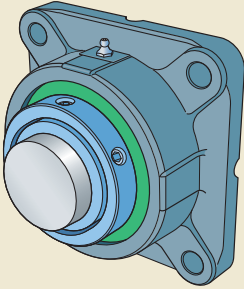


SYR series

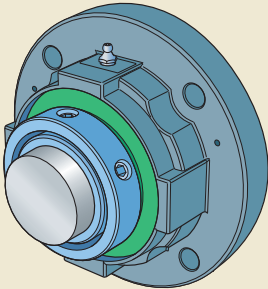


FSYE series

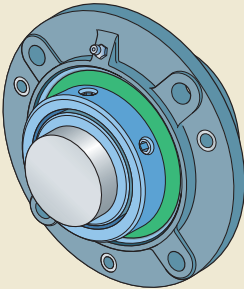
Fig. 2



FYE series



FYR series

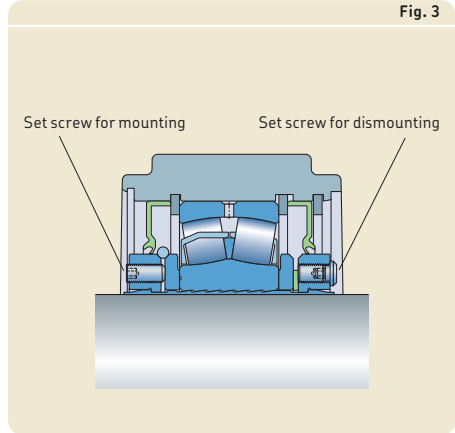


FYRP series

Inch roller bearing units SYE, SYR, FYE and FYR series

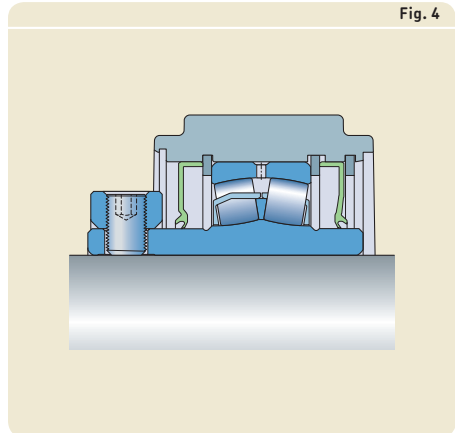
SKF ConCentra locking method

The SKF ConCentra locking concept is based on two sets of inclined planes (serrations): one set in the bearing bore, the other on the stepped sleeve. When the set (grub) screws in the mounting collar are tightened, the bearing is displaced axially, forcing the inner ring to expand. This does two things: it sets the correct internal clearance within the bearing and it exerts pressure on the stepped sleeve, forcing it to contract around the circumference of the shaft for a true concentric, tight fit (→ **fig. 3**). On the opposite side are set (grub) screws for dismounting. An engraving marked "MOUNT.SIDE/DISMOUNT.SIDE" shows the mounting and dismounting sides of the unit.



Locking collar method

The locking collar method uses a collar mounted on the extended inner ring of the bearing (→ **fig. 4**). The extended inner ring has two holes, 62° apart. The collar has two matching tapped holes, each containing a set (grub) screw. When the set (grub) screws are fully tightened, the shaft is held firmly against the inner ring of the bearing.



Features and benefits

SKF roller bearing units share some of the following features and benefits:

Ready-to-mount

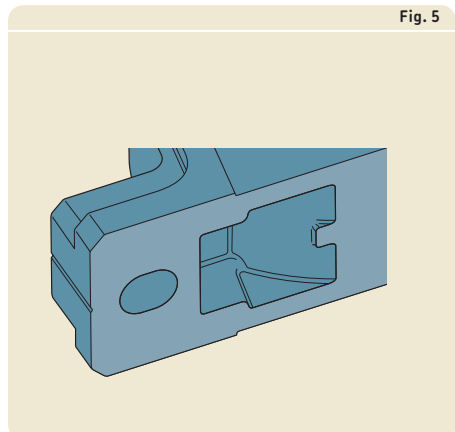
SKF roller bearing units are assembled, greased and ready-to-mount, saving time and reducing the risk of contaminating or damaging the bearing during installation.

Simple mounting

The bearing units can be used with commercial grade shafts and are located easily on the shaft by tightening the set (grub) screws in the mounting collar or locking collar.

Stiff housing

The housing base is reinforced with ribs and the area around the attachment bolt holes is strengthened to minimize the risk of cracking caused by over-tightening the attachment bolts (→ **fig.5**).



Easy replacement

With SKF inch roller bearing units, logistics costs are reduced as there is only one part to order, store and mount.

Housing material

All housings used for SKF inch roller bearing units are made of grey cast iron.

Paint, corrosion protection

The housings are painted blue (RAL 5007) using a water based alkyd/acryl paint. The paint protects the housing in accordance with ISO 12944-2, corrosivity category C2 (i.e. exterior atmospheres with low level of pollution, interior atmospheres where condensation may occur). The paint is not affected by most lubricating or engine oils, cutting fluids or alkalescent washing chemicals. Housings can be repainted with most water or solvent based 1- or 2-component paints.

Unpainted surfaces are protected by a solventless rust inhibitor.

Sealing solutions

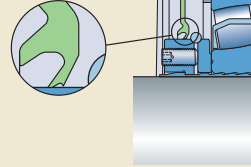
SKF roller bearing units are available with different sealing solutions (→ **fig. 6**):

- triple-lip seals (TriGard)
- labyrinth seals
- radial shaft seals (garter spring seals)
- end plugs

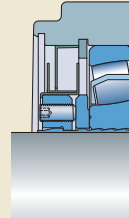
Fig. 6

Sealing solutions for inch roller bearing units

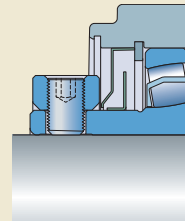
Triple-lip seal
(TriGard)



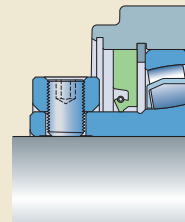
Labyrinth seal
(for SKF ConCentra)



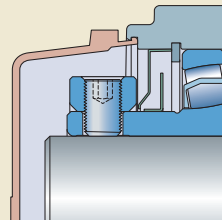
Labyrinth seal
(for collar-mount)



Radial shaft seal



End plug



Inch roller bearing units SYE, SYR, FYE and FYR series

Table 1 provides an overview of the characteristics and suitability of each sealing solution. Details are provided in the following text. This information should be used as a guideline and does not substitute for testing a seal in its application.

plugs are identified by the designation suffix Y. For information about the permissible length of the shaft end, contact the SKF application engineering service.

TriGard seals

TriGard seals are standard with inch roller bearing units. These acrylonitrile-butadiene rubber (NBR) seals have the outside surface and seal lips vulcanized to a sheet steel insert. The seal consists of two lips that make contact with the mounting collar or bearing inner ring, and a third, non-contact lip, to protect the seal lips from coarse contaminants. The rubber coated outside circumference secures the seal in the housing and enhances the sealing effect.

Labyrinth seals

As labyrinth seals do not generate friction, bearing units fitted with these seals are capable of relatively high speed operation.

For SKF ConCentra units, the labyrinth is created with three sheet steel rings. Two rings are fixed to the mounting collar or back-up collar and rotate with the shaft to act as flingers. The third ring is secured in the housing bore.

For collar-mount units, the labyrinth is created with two sheet steel rings. One ring is pressed onto the extended inner ring and rotates with the shaft, acting as a flinger. The other ring is secured in the housing bore.

Radial shaft seals (garter spring seals)

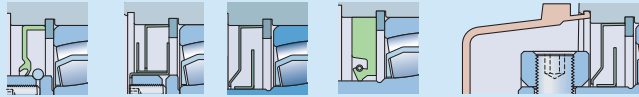
Collar-mount units can be supplied with radial shaft seals on both sides, on request. The seals are made of acrylonitrile-butadiene rubber (NBR) and have no metal reinforcement. They sit firmly in the housing bore providing a static seal. The spring-loaded seal lip provides a dynamic seal against the inner ring shoulder.

End plugs

Bearing units mounted at the end of a shaft should have an end plug (end cover). End plugs for units up to 2¹⁵/16 inches are plastic, while larger sizes are steel. Bearing units with end

Table 1

Seals for inch roller bearing units



Seal

Type	triple-lip (TriGard)	labyrinth	radial shaft seal ¹⁾	end plug
Material	nitrile rubber, steel	metal	nitrile rubber	$d_a < 3$ in.: plastic $d_a \geq 3$ in.: steel

Application conditions and requirements

Temperature [°F]	-5 to 230 ²⁾	-5 to 230 ²⁾	-5 to 230 ²⁾	$d_a < 3$ in.: -5 to 230 ²⁾ $d_a \geq 3$ in.: -5 to 230 ²⁾
Max. circumferential speed ³⁾ [m/s]	13	not limited	6	n/a
Max. misalignment [°]	1,5	1,5	1,5	n/a
Low friction	+	++	-	n/a
Axial shaft displacement	++	-	+	n/a
Vertical shaft arrangement	+	+	+	+

Sealing suitability

Dust	++	+	++	++
Fine particles	++	+	++	++
Coarse particles	+	+	++	++
Chips	+	++	++	++
Liquids when sprayed	+	--	++	++
Direct sunlight	+	++	+	++

Symbols: n/a not applicable ++ very suitable + suitable - limited suitability -- unsuitable

¹⁾ Option only for collar-mount units.

²⁾ Imposed by the grease.

³⁾ To convert circumferential speeds to rotational speeds, refer to **table 7** on **page 37**.

Design considerations

For general information about system design, refer to the following sections:

- *Typical shaft-bearing combinations* (→ page 41)
- *Locating/non-locating bearing systems* (→ page 40)
- *Load carrying ability* (→ page 44)
- *Specifications for shafts and housing support surfaces* (→ page 45)

Bearing life

For information about the SKF rating life, minimum load and static safety for bearings in SKF inch roller bearing units, refer to the product information available online at skf.com/bearings. The bearing data are listed in **tables 2 and 3**.

Typical shaft-bearing combinations

SKF inch roller bearing units are designed for plain shafts.

Locating and non-locating bearing positions

SKF inch roller bearing units can be used for both the locating and non-locating bearing positions. Bearing units for the non-locating bearing position have a wide bearing seat to accommodate $\frac{1}{32}$ in. of axial displacement, in either direction from the central position ($\frac{1}{16}$ in. maximum) (→ **fig. 7**).

Bearing units for the locating bearing position are identified by the designation suffix H. Units for the non-locating bearing position have no suffix.

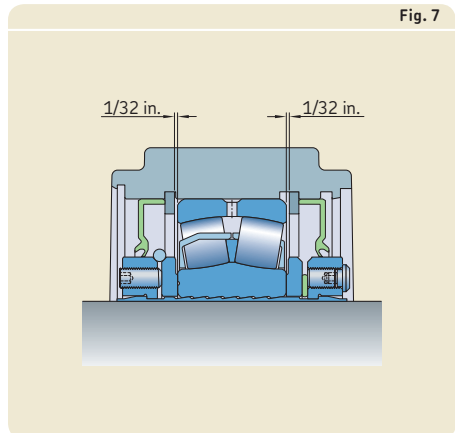


Table 2

Bearing data for inch SKF ConCentra roller bearing units

Shaft diameter		Load ratings		Fatigue load limit	Calculation factors				Bearing mean diameter
from	to	dynamic C	static C ₀	P _u	e	Y ₁	Y ₂	Y ₀	d _m
in.		lbf.		lbf.	–				in.
1 7/16	1 1/2	21 700	20 300	2 200	0.28	2.4	3.6	2.5	2.36
1 11/16	1 3/4	23 000	22 100	2 430	0.26	2.6	3.9	2.5	2.56
1 15/16	2	23 400	24 100	2 650	0.24	2.8	4.2	2.8	2.76
2 3/16		28 100	28 600	3 080	0.24	2.8	4.2	2.8	3.05
2 7/16	2 1/2	43 400	41 100	5 400	0.24	2.8	4.2	2.8	3.64
2 11/16	3	47 700	54 000	5 960	0.22	3	4.6	2.8	4.04
3 7/16	3 1/2	73 100	84 400	8 770	0.24	2.8	4.2	2.8	4.92
3 11/16	4	95 700	110 000	11 020	0.24	2.8	4.2	2.8	5.51

Table 3

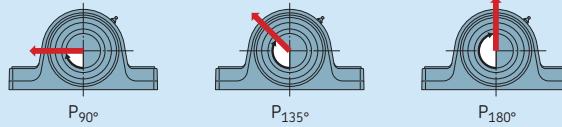
Bearing data for collar-mount roller bearing units

Shaft diameter		Load ratings		Fatigue load limit	Calculation factors				Bearing mean diameter
from	to	dynamic C	static C ₀	P _u	e	Y ₁	Y ₂	Y ₀	d _m
in.		lbf.		lbf.	–				in.
1 7/16	1 1/2	16 600	18 300	2 050	0.28	2.4	3.6	2.5	2.36
1 11/16	1 3/4	17 300	19 800	2 130	0.26	2.6	3.9	2.5	2.56
1 15/16	2	19 000	22 500	2 470	0.24	2.8	4.2	2.8	2.76
2 3/16		22 400	26 500	2 900	0.24	2.8	4.2	2.8	3.05
2 7/16	2 1/2	33 300	41 100	4 770	0.24	2.8	4.2	2.8	3.64
2 11/16	3	35 500	46 800	5 310	0.22	3	4.6	2.8	4.04
3 7/16	3 1/2	56 900	76 400	8 430	0.31	2.2	3.3	2.2	4.92
3 11/16	4	69 900	93 300	11 900	0.24	2.8	4.2	2.8	5.51
4 7/16	4 1/2	91 700	126 000	12 800	0.25	2.7	4	2.5	6.10
4 15/16		123 000	180 000	17 500	0.26	2.6	3.9	2.5	7.09

Inch roller bearing units SYE, SYR, FYE and FYR series

Table 4

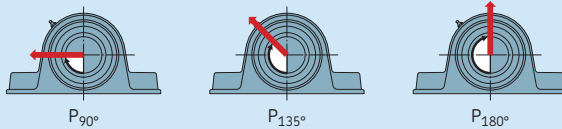
Safe loads for SYE series roller bearing units



Shaft diameter		Safe loads in the direction of		
from	to	P_{90°	P_{135°	P_{180°
in.		lbf.		
$1\frac{7}{16}$	$1\frac{7}{16}$	4 000	1 800	1 800
$1\frac{1}{2}$	$1\frac{1}{2}$	7 200	4 200	4 800
$1\frac{11}{16}$	$1\frac{11}{16}$	7 200	4 200	4 800
$1\frac{3}{4}$	$1\frac{3}{4}$	9 200	5 000	5 600
$1\frac{15}{16}$	2	9 200	5 000	5 600
$2\frac{3}{16}$	$2\frac{3}{16}$	10 200	6 200	6 900
$2\frac{7}{16}$	$2\frac{1}{2}$	10 400	6 400	7 000
$3\frac{11}{16}$	3	16 000	9 600	10 800
$3\frac{7}{16}$	$3\frac{1}{2}$	18 000	10 400	11 800

Table 5

Safe loads for SYR series roller bearing units



Shaft diameter		Safe loads in the direction of		
from	to	P_{90°	P_{135°	P_{180°
in.		lbf.		
$1\frac{7}{16}$	$1\frac{1}{2}$	6 200	3 200	3 900
$1\frac{11}{16}$	$1\frac{3}{4}$	7 800	4 400	5 200
$1\frac{15}{16}$	2	9 000	5 200	6 400
$2\frac{3}{16}$	$2\frac{3}{16}$	10 400	6 200	7 400
$2\frac{7}{16}$	$2\frac{1}{2}$	11 600	7 000	8 300
$2\frac{11}{16}$	3	13 000	8 200	10 000
$3\frac{7}{16}$	$3\frac{1}{2}$	14 600	9 200	11 300
$3\frac{11}{16}$	4	16 000	10 000	12 400

Load carrying ability

Pillow (plummer) blocks

SKF pillow block roller bearing units are intended for loads acting perpendicularly toward the support surface. If the bearing unit is supported over its entire base and the loads are purely perpendicular, loads are limited only by the bearing.

If loads acting in other directions occur, be sure that the magnitude of the load is permissible for the housing and the attachment bolts. Guideline values for the safe loads of the housings are provided in **tables 4 to 6**. The safe loads have been calculated using a safety factor of 5 against fracture.

If the bearing unit is not supported over its entire base, the load carrying ability for perpendicular loads may be affected. For additional information, contact the SKF application engineering service.

For a purely axial force, static or dynamic, the permissible load on the housing should not exceed 65% of P_{180° .

Additional housing support

When the housing is subjected to loads acting parallel to the support surface, it may be necessary to pin the housing to the support surface or to provide a stop to counter the load.

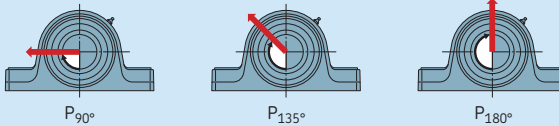
When loads act at angles between 55° and 120° , or when the axial loads are greater than 5% of P_{180° (→ **tables 4 to 6**), the bearing unit should be pinned to the support surface. The dowel pins should be sufficiently strong to accommodate the loads acting parallel to the support surface.

Flanged units

For the safe loads of flanged units, contact the SKF application engineering service.

Table 6

Safe loads for FSYE series roller bearing units



Shaft diameter		Safe loads		
from	to	in the direction of		
		P_{90°	P_{135°	P_{180°
in.		lbf.		
2 7/16	3 1/2	17 200	8 800	9 500
2 11/16	3	20 800	11 000	12 000
3 7/16	3 1/2	23 600	13 600	14 400
3 11/16	4	26 800	16 200	16 600
4 7/16	4 1/2	29 600	18 600	19 200
4 15/16	4 15/16	32 800	20 600	21 200

Axial holding power

The axial holding power of SKF ConCentra roller bearing units depends on the friction between the shaft and locking device. It is therefore also dependent on the number of set (grub) screws in the mounting collar (→ table 7).

For collar-mount units, the axial holding power is determined by the size of the set (grub) screws (→ table 8). The values are valid for unhardened shafts after the set screws have been tightened to the recommended torque value.

When mounted correctly, the bearing units can withstand typical shock loads equivalent to the requisite axial holding force. However, the axial load carrying capacity of the bearing unit can be limited by the bearing.

Radial internal clearance

The clearance values for bearings in SKF inch roller bearing units are provided in tables 9 and 10. The values are valid for unmounted units under zero measuring load.

Table 7

Axial holding power of SKF ConCentra roller bearing units				
Shaft diameter		Set screws		Axial holding power ¹⁾
from	to	Number	Tightening torque	
in.		in.-lbf.		lbf.
1 7/16	2 3/16	3	66	3 350
2 7/16	2 3/4	4	66	4 500
2 15/16	3 15/16	5	66	5 600
3	3 1/2	4	66	4 500
3 7/16	4	7	66	7 850

¹⁾ Not equivalent to the axial load carrying capacity of the bearing unit.

Table 8

Axial holding power of collar-mount roller bearing units					
Shaft diameter		Set screws		Tightening torque	Axial holding power ¹⁾
from	to	Number	Size	in.-lbf.	lbf.
in.				in.-lbf.	lbf.
1 7/16	2 3/16	2	3/8" - 24	250	515
2 7/16	3 1/2	2	1/2" - 20	620	900
3 11/16	4	2	5/8" - 18	1 325	1 200
4 7/16	4 15/16	4	5/8" - 18	1 325	2 400

¹⁾ Not equivalent to the axial load carrying capacity of the bearing unit.

Table 9

Radial internal clearance of bearings in SKF ConCentra roller bearing units			
Shaft diameter		Radial internal clearance	
from	to	min.	max.
in.		in.	
1 7/16	1 1/2	0.0020	0.0026
1 11/16	2	0.0024	0.0031
2 3/16	2 1/2	0.0030	0.0037
2 11/16	3	0.0037	0.0047
3 7/16	4	0.0043	0.0055

Table 10

Radial internal clearance of bearings in collar-mount roller bearing units			
Shaft diameter		Radial internal clearance	
from	to	min.	max.
in.		in.	
1 7/16	1 1/2	0.001	0.002
1 11/16	2	0.0012	0.0022
2 3/16	2 1/2	0.0014	0.0026
2 11/16	3	0.0018	0.0031
3 7/16	4	0.0024	0.0039
4 7/16	4 1/2	0.0028	0.0047
4 15/16	5	0.0035	0.0057

Operating temperature

The permissible operating temperature is limited by the seals (→ **table 1, page 699**) and the lubricant (→ **table 13, page 706**).

The housing material does not have any additional temperature limits, except for very low temperature applications where impact strength could be a factor.

The housing paint is heat resistant up to 175 °F material temperature or 210 °F ambient temperature.

When temperatures outside the permissible range are expected, contact the SKF application engineering service.

Operating speed

The speeds at which SKF inch roller bearing units can be operated depend on the sealing solution in the bearing unit. For bearing units fitted with TriGard or radial shaft seals, the limiting speeds are based on the permissible circumferential speed at the seal lips (→ **table 1, page 699**). For bearing units fitted with labyrinth seals, the limiting speeds are imposed by the bearing size and grease.

Guideline values for the limiting speeds are listed in the product tables.

Shaft specifications

For SKF ConCentra units, SKF recommends using the shaft tolerances listed in **table 11** for the bearing seat. For collar-mount units, use the values listed in **table 12**.

A small lead-in chamfer should be machined at the shaft end to facilitate mounting.

Attachment bolt recommendations

In typical applications, 8.8 class (SAE J429, Grade 5) hexagon head bolts can be used together with washers. If the load does not act perpendicularly toward the base, it may be necessary to use stronger, 10.9 class (SAE J429, Grade 8) bolts.

SKF inch roller bearing units can withstand loads resulting from tightening the attachment bolts to the torque values recommended by bolt manufacturers. They are valid for oiled, but otherwise untreated, thread surfaces. SKF cannot guarantee that tightening to the recommended value will provide sufficient anchoring. Make sure that attachment bolts, dowels or stops, and a sufficiently strong support can accommodate all occurring loads.

Table 11

Shaft tolerances for SKF ConCentra units			
Shaft diameter		Tolerance	
from	to	high	low
in.		in.	
1 7/16	1 1/2	0	-0.003
1 11/16	2 1/2	0	-0.004
2 11/16	4	0	-0.005

Table 12

Shaft tolerances for collar-mount units			
Shaft diameter		Tolerance	
from	to	high	low
in.		in.	
1 7/16	1 15/16	0	-0.0005
2	4 15/16	0	-0.001

Lubrication

SKF inch roller bearing units are intended for grease lubrication.

Initial grease fill

SKF inch roller bearing units are filled with a mineral oil based lithium grease that contains EP additives. The initial grease fill at the factory fills the bearing completely and 40 to 50% of the free space in the housing. The technical specifications of the grease are provided in **table 13**. The grease provides reliable performance when operating between 95 and 230 °F. During start-up, temperatures down to -5 °F are permissible. For short periods, temperatures above 230 °F can be tolerated.

For additional information about permissible temperatures of rolling bearing greases (the SKF traffic light concept), refer to the information available online at skf.com/bearings.

Relubrication

SKF inch roller bearing units are typically relubricated in order to realize maximum service life. All bearing units have a lubrication hole with a 1/8-27 NPSF thread. They are provided standard with a grease fitting AH 1/8-27 PTF.

Relubrication intervals

To calculate the relubrication intervals refer to *Relubrication intervals* under *Metric roller bearing units* (→ **page 676**). The relevant calculation factors for SKF inch roller bearing units are provided in **tables 2** and **3** (→ **page 701**).

Relubrication procedure

Before relubricating, the grease fitting and the area surrounding it should be cleaned. High-pressure cleaning equipment should be avoided. During relubrication, grease should be introduced via the grease fitting while the shaft is rotating slowly. Excessive pressure and over-greasing should be avoided, otherwise the seals may be damaged.

Relubrication quantity

The appropriate quantity of grease for relubrication of SKF inch roller bearing units is provided in **table 14**.

Table 13

Technical specifications for the grease in SKF inch roller bearing units

Property	Specification
Thickener	Lithium soap
Base oil type	Mineral
NLGI consistency class	2
Temperature range [°F]	-5 to +230
Base oil viscosity [SUS]	
• at 105 °F	900
• at 210 °F	82

Table 14

Grease quantities for relubricating inch roller bearing units

Shaft diameter		Grease quantity
from	to	
in.		g
1 7/16	1 1/2	4
1 11/16	1 3/4	4
1 15/16	2	4
2 3/16	2 3/16	5
2 7/16	2 1/2	7
2 11/16	3	8
3 7/16	3 1/2	13
3 11/16	4	17
4 7/16	-	21
4 15/16	-	28

Greases for relubrication

To relubricate SKF inch roller bearing units, SKF recommends using SKF LGEP 2 grease, which is fully compatible with the original grease introduced at the factory. Other compatible greases such as SKF's multipurpose LGMT 2 and LGMT 3 greases can also be used.

Mounting

SKF inch roller bearing units must be mounted properly using the appropriate tools and state of the art mechanical mounting methods. All the associated components must also meet certain basic requirements (→ *Specifications for shafts and housing support surfaces on page 45*). Mounting instructions are provided with each unit.

The mounting collar on SKF ConCentra roller bearing units is equipped with M6 set (grub) screws, the number of which depends on the size of the bearing unit. SKF recommends using a torque wrench to tighten these set (grub) screws. The tightening torque is 66 in-lbf. A specially designed hexagonal key 3L, in accordance with ISO 2936, with a torque indicator is supplied with each bearing unit.

CAUTION: Do not tighten the set (grub) screws until the bearing unit is positioned on the shaft. If the screws are tightened prematurely, the stepped sleeve may deform.

The locking collar of collar-mount units is equipped with two set (grub) screws, the size of which depends on the bearing unit size. SKF recommends using a torque wrench to tighten these set (grub) screws. Recommended tightening torque values are provided in **table 8** (→ **page 704**).

Condition monitoring

SKF inch roller bearing units support condition monitoring during operation. For additional information about condition monitoring and the measurement tools and systems available from SKF, contact the SKF application engineering service.

Accessories

The following accessories are available for SKF inch roller bearing units:

- Grease fitting M1 1/8 NPTF
- Automatic lubricators
- Grease meter: LAGM 1000E
- Condition monitoring sensors

For additional information, refer to *SKF tools and products* (→ **page 47**).

Ordering information

SKF inch roller bearing units are supplied assembled, greased and ready-to-mount.

Order example

Two SKF ConCentra roller bearing units with a pillow (plummer) block housing in the SYE series are required for a 2 in. shaft diameter. The units should be fitted with labyrinth seals. One bearing unit will accommodate the bearing in the non-locating position at the end of the shaft. The other bearing unit will accommodate the bearing in the locating position on a through shaft.

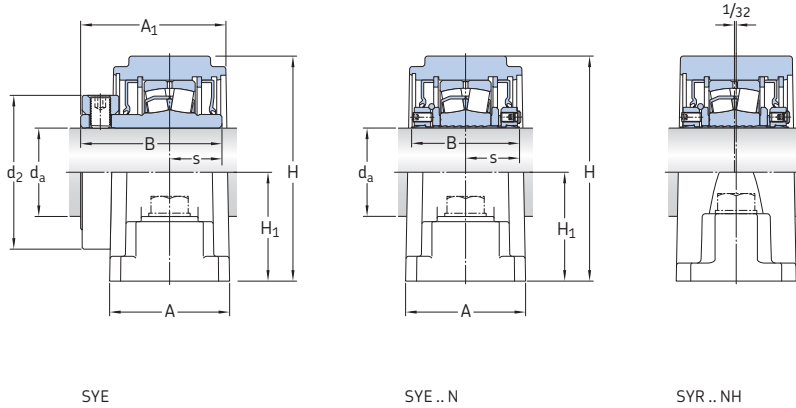
The following items should be ordered:

- 1 bearing unit SYE 2 NY -118
- 1 bearing unit SYE 2 NH -118

17.1 SKF inch roller bearing units with a two-bolt pillow (plummer) block housing

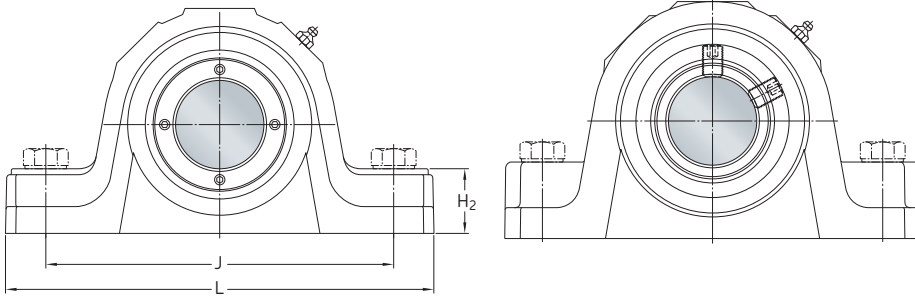
SYE, SYE .. N, SYR and SYR .. N series

d_a 1 7/16 – 2 7/16 in.



Shaft diameter d_a	Bearing unit Designation ¹⁾	Basic load rating dynamic C	Limiting speeds		Radial shaft seal	Mass lb.	Appropriate attachment bolt size
			TriGard seal r/min	Labyrinth seal			
in.		lb.	r/min			lb.	–
1 7/16	SYE 17/16	16 600	5 100	5 300	1 700	8	1/2
	SYE 17/16 N	21 700	4 000	5 600	–	8	1/2
	SYR 17/16	16 600	5 100	5 300	1 700	7	1/2
	SYR 17/16 N	21 700	4 000	5 600	–	7	1/2
1 1/2	SYE 11/2	16 600	5 100	5 300	1 700	8	1/2
	SYE 11/2 N	21 700	4 000	5 600	–	8	1/2
	SYR 11/2	16 600	5 100	5 300	1 700	7	1/2
	SYR 11/2 N	21 700	4 000	5 600	–	7	1/2
1 11/16	SYE 111/16	17 300	4 500	4 700	1 600	9.3	1/2
	SYE 111/16 N	23 000	3 700	5 300	–	9.3	1/2
	SYR 111/16	17 300	4 500	4 700	1 600	8.1	1/2
	SYR 111/16 N	23 000	3 700	5 300	–	8.1	1/2
1 3/4	SYE 13/4	17 300	4 500	4 700	1 600	9.3	5/8
	SYE 13/4 N	23 000	3 700	5 300	–	9.3	5/8
	SYR 13/4	17 300	4 500	4 700	1 600	8.1	1/2
	SYR 13/4 N	23 000	3 700	5 300	–	8.1	1/2
1 15/16	SYE 115/16	19 000	4 100	4 250	1 450	10.5	5/8
	SYE 115/16 N	23 400	3 500	5 000	–	10.5	5/8
	SYR 115/16	19 000	4 100	4 250	1 450	9.2	5/8
	SYR 115/16 N	23 400	3 500	5 000	–	9.2	5/8
2	SYE 2	19 000	4 100	4 250	1 450	10.5	5/8
	SYE 2 N	23 400	3 500	5 000	–	10.5	5/8
	SYR 2	19 000	4 100	4 250	1 450	9.2	5/8
	SYR 2 N	23 400	3 500	5 000	–	9.2	5/8
2 3/16	SYE 23/16	22 400	3 700	3 800	1 300	13.5	5/8
	SYE 23/16 N	28 100	3 250	4 500	–	13.5	5/8
	SYR 23/16	22 400	3 700	3 800	1 300	12	5/8
	SYR 23/16 N	28 100	3 250	4 500	–	12	5/8
2 7/16	SYE 27/16	33 300	3 100	3 250	1 100	18.5	5/8
	SYE 27/16 N	43 400	2 900	3 800	–	18.5	5/8
	SYR 27/16	33 300	3 100	3 250	1 100	16	5/8
	SYR 27/16 N	43 400	2 900	3 800	–	16	5/8

¹⁾ The listed designation is for a non-locating unit with TriGard seals. Other variants must be specified by suffixes (→ page 693).



SYE ..N

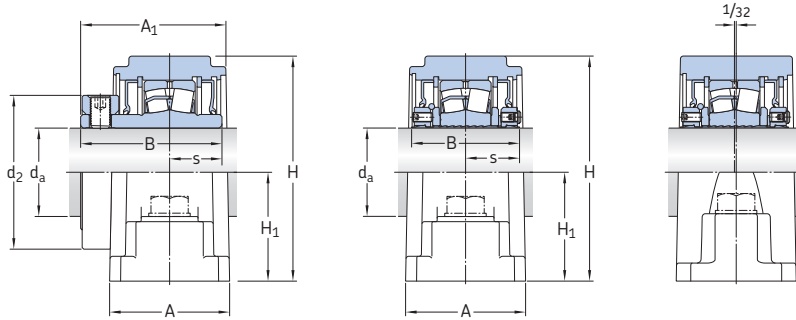
SYR

Shaft diameter d_s	Bearing unit Designation ¹⁾	Dimensions										
		A	A ₁	B	d ₂	H	H ₁	H ₂	J max.	J min.	L	s
in.	-	in.										
17/16	SYE 17/16	2 1/8	2 27/32	2 3/4	2 3/8	3 7/8	1 7/8	1 1/8	6	5 1/2	7 3/8	1
	SYE 17/16 N	2 1/8	-	2 11/32	-	3 7/8	1 7/8	1 1/8	6	5 1/2	7 3/8	1.17
	SYR 17/16	2 1/8	2 13/16	2 3/4	2 3/8	3 7/8	1 7/8	1 3/16	5 5/16	4 11/16	6 7/8	1
	SYR 17/16 N	2 1/16	-	2 11/32	-	3 7/8	1 7/8	1 3/16	5 5/16	4 11/16	6 7/8	1.17
1 1/2	SYE 11/2	2 3/8	2 31/32	2 3/4	2 3/8	4 1/4	2 1/8	1 1/4	6 1/2	6	7 7/8	1
	SYE 11/2 N	2 3/8	-	2 11/32	-	4 1/4	2 1/8	1 1/4	6 1/2	6	7 7/8	1.17
	SYR 11/2	2 1/8	2 13/16	2 3/4	2 3/8	3 7/8	1 7/8	1 3/16	5 5/16	4 11/16	6 7/8	1
	SYR 11/2 N	2 1/16	-	2 11/32	-	3 7/8	1 7/8	1 3/16	5 5/16	4 11/16	6 7/8	1.17
1 11/16	SYE 111/16	2 3/8	2 31/32	2 7/8	2 5/8	4 1/4	2 1/8	1 1/4	6 1/2	6	7 7/8	1
	SYE 111/16 N	2 3/8	-	2 11/32	-	4 1/4	2 1/8	1 1/4	6 1/2	6	7 7/8	1.17
	SYR 111/16	2 3/8	2 15/16	2 7/8	2 5/8	4 1/4	2 1/8	1 5/16	5 13/16	5 3/16	7 3/8	1
	SYR 111/16 N	2 1/8	-	2 11/32	-	4 1/4	2 1/8	1 5/16	5 13/16	5 3/16	7 3/8	1.17
1 3/4	SYE 13/4	2 1/2	3 5/32	2 7/8	2 5/8	4 1/2	2 1/4	1 5/16	7 1/4	6 3/4	8 7/8	1
	SYE 13/4 N	2 1/2	-	2 11/32	-	4 1/2	2 1/4	1 5/16	7 1/4	6 3/4	8 7/8	1.17
	SYR 13/4	2 3/8	2 15/16	2 7/8	2 5/8	4 1/4	2 1/8	1 5/16	5 13/16	5 3/16	7 3/8	1
	SYR 13/4 N	2 1/8	-	2 11/32	-	4 1/4	2 1/8	1 5/16	5 13/16	5 3/16	7 3/8	1.17
1 15/16	SYE 115/16	2 1/2	3 5/32	2 7/8	2 7/8	4 1/2	2 1/4	1 5/16	7 1/4	6 3/4	8 7/8	1
	SYE 115/16 N	2 1/2	-	2 11/32	-	4 1/2	2 1/4	1 5/16	7 1/4	6 3/4	8 7/8	1.17
	SYR 115/16	2 3/8	2 15/16	2 7/8	2 7/8	4 9/16	2 1/4	1 3/8	6 9/16	5 15/16	8 3/8	1
	SYR 115/16 N	2 5/16	-	2 11/32	-	4 9/16	2 1/4	1 3/8	6 9/16	5 15/16	8 3/8	1.17
2	SYE 2	2 5/8	3 11/32	2 7/8	2 7/8	5	2 1/2	1 1/2	8	7 1/2	9 5/8	1
	SYE 2 N	2 5/8	-	2 11/32	-	5	2 1/2	1 1/2	8	7 1/2	9 5/8	1.17
	SYR 2	2 3/8	2 15/16	2 7/8	2 7/8	4 9/16	2 1/4	1 3/8	6 9/16	5 15/16	8 3/8	1
	SYR 2 N	2 5/16	-	2 11/32	-	4 9/16	2 1/4	1 3/8	6 9/16	5 15/16	8 3/8	1.17
2 3/16	SYE 23/16	2 5/8	3 11/32	3 1/8	3 1/4	5	2 1/2	1 1/2	8	7 1/2	9 5/8	1 1/8
	SYE 23/16 N	2 5/8	-	2 11/32	-	5	2 1/2	1 1/2	8	7 1/2	9 5/8	1.1
	SYR 23/16	2 3/8	3 7/16	3 1/8	3 1/4	5 11/16	2 1/2	1 5/8	7 1/16	6 13/16	8 7/8	1 1/8
	SYR 23/16 N	2 3/8	-	2 11/32	-	5	2 1/2	1 5/8	7 1/16	6 7/16	8 7/8	1.1
2 7/16	SYE 27/16	2 7/8	3 19/32	3 3/8	4	5 11/16	2 3/4	1 5/8	8 3/4	8 1/4	10 1/2	1 1/4
	SYE 27/16 N	2 7/8	-	2 37/64	-	5 11/16	2 3/4	1 5/8	8 3/4	8 1/4	10 1/2	1.29
	SYR 27/16	2 11/16	3 7/16	3 3/8	4	5 11/16	2 3/4	1 3/4	7 7/16	6 13/16	9 1/4	1 1/4
	SYR 27/16 N	2 11/16	-	2 37/64	-	5 11/16	2 3/4	1 3/4	7 7/16	6 13/16	9 1/4	1.29

¹⁾ The listed designation is for a non-locating unit with TriGard seals. Other variants must be specified by suffixes (→ page 693).

17.1 SKF inch roller bearing units with a two-bolt pillow (plummer) block housing SYE, SYE .. N, SYR and SYR .. N series

d_a 2 1/2 – 3 11/16 in.



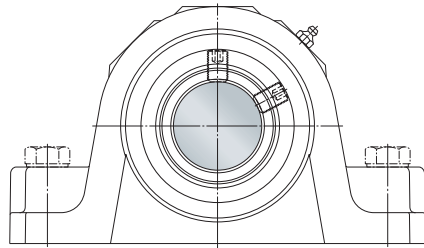
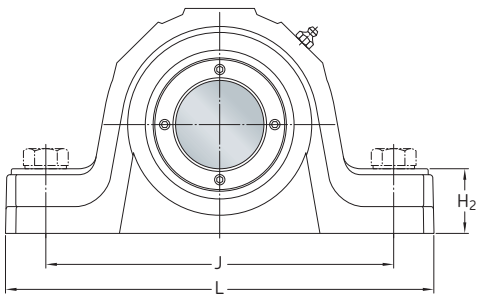
SYE

SYE .. N

SYR .. NH

Shaft diameter d_a	Bearing unit Designation ¹⁾	Basic load rating dynamic C	Limiting speeds		Radial shaft seal	Mass	Appropriate attachment bolt size
			TriGard seal	Labyrinth seal			
in.		lbf.	r/min			lb.	–
2 1/2	SYE 2 1/2	33 300	3 100	3 250	1 100	18.5	5/8
	SYE 2 1/2 N	43 400	2 900	3 800	–	18.5	5/8
	SYR 2 1/2	33 300	3 100	3 250	1 100	16	5/8
	SYR 2 1/2 N	43 400	2 900	3 800	–	16	5/8
2 11/16	SYE 2 11/16	35 500	2 800	2 800	950	25.5	3/4
	SYE 2 11/16 N	47 700	2 600	3 400	–	25.5	3/4
	SYR 2 11/16	35 500	2 800	2 800	950	22	3/4
	SYR 2 11/16 N	47 700	2 600	3 400	–	22	3/4
2 3/4	SYE 2 3/4	35 500	2 800	2 800	950	25	3/4
	SYE 2 3/4 N	47 700	2 600	3 400	–	25	3/4
	SYR 2 3/4	35 500	2 800	2 800	950	22	3/4
	SYR 2 3/4 N	47 700	2 600	3 400	–	22	3/4
2 15/16	SYE 2 15/16	35 500	2 800	2 800	950	24	3/4
	SYE 2 15/16 N	47 700	2 600	3 400	–	24	3/4
	SYR 2 15/16	35 500	2 800	2 800	950	21	3/4
	SYR 2 15/16 N	47 700	2 600	3 400	–	21	3/4
3	SYE 3	35 500	2 800	2 800	950	23.5	3/4
	SYE 3 N	47 700	2 600	3 400	–	23.5	3/4
	SYR 3	35 500	2 800	2 800	950	21	3/4
	SYR 3 N	47 700	2 600	3 400	–	21	3/4
3 7/16	SYE 3 7/16	56 900	2 300	2 200	800	35.5	7/8
	SYE 3 7/16 N	73 100	2 200	2 600	–	35.5	7/8
	SYR 3 7/16	56 900	2 300	2 200	800	31.5	7/8
	SYR 3 7/16 N	73 100	2 200	2 600	–	31.5	7/8
3 1/2	SYE 3 1/2	56 900	2 300	2 200	800	35.5	7/8
	SYE 3 1/2 N	73 100	2 200	2 600	–	35.5	7/8
	SYR 3 1/2	56 900	2 300	2 200	800	31.5	7/8
	SYR 3 1/2 N	73 100	2 200	2 600	–	31.5	7/8
3 11/16	SYR 3 11/16	69 900	2 100	2 000	700	44.5	1
	SYR 3 11/16 N	95 700	2 000	2 200	–	44.5	1

¹⁾ The listed designation is for a non-locating unit with TriGard seals. Other variants must be specified by suffixes (→ page 693).



SYE ..N

SYR

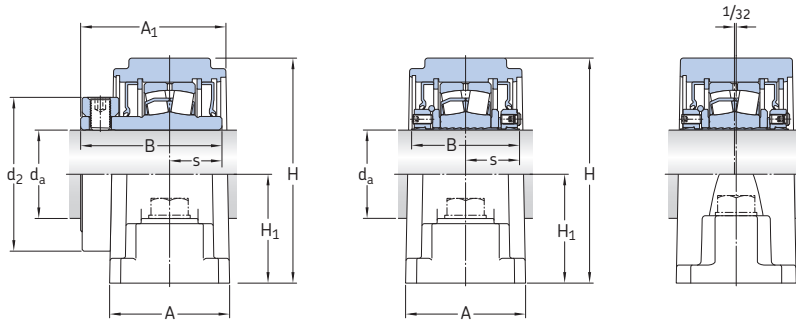
Shaft diameter d_s	Bearing unit Designation ¹⁾	Dimensions										
		A	A ₁	B	d ₂	H	H ₁	H ₂	J max.	J min.	L	s
in.	-	in.										
2 1/2	SYE 2 1/2	2 7/8	3 19/32	3 3/8	4	5 11/16	2 3/4	1 5/8	8 3/4	8 1/4	10 1/2	1 1/4
	SYE 2 1/2 N	2 7/8	-	2 37/64	-	5 11/16	2 3/4	1 5/8	8 3/4	8 1/4	10 1/2	1.29
	SYR 2 1/2	2 11/16	3 7/16	3 3/8	4	5 11/16	2 3/4	1 3/4	7 7/16	6 13/16	9 1/4	1 1/4
	SYR 2 1/2 N	2 11/16	-	2 37/64	-	5 11/16	2 3/4	1 3/4	7 7/16	6 13/16	9 1/4	1.29
2 11/16	SYE 2 11/16	3	3 29/32	3 5/8	4 1/2	6 5/16	3 1/8	1 7/8	9 3/4	9 1/4	12	1 1/4
	SYE 2 11/16 N	3	-	2 37/64	-	6 5/16	3 1/8	1 7/8	9 3/4	9 1/4	12	1.29
	SYR 2 11/16	2 11/16	3 11/16	3 5/8	4 1/2	6 7/16	3 1/4	2 1/4	8 7/16	7 13/16	10 7/16	1 1/4
	SYR 2 11/16 N	2 11/16	-	2 37/64	-	6 7/16	3 1/4	2 1/4	8 7/16	7 13/16	10 7/16	1.29
2 3/4	SYE 2 3/4	3	3 29/32	3 5/8	4 1/2	6 5/16	3 1/8	1 7/8	9 3/4	9 1/4	12	1 1/4
	SYE 2 3/4 N	3	-	2 37/64	-	6 5/16	3 1/8	1 7/8	9 3/4	9 1/4	12	1.29
	SYR 2 3/4	2 11/16	3 11/16	3 5/8	4 1/2	6 7/16	3 1/4	2 1/4	8 7/16	7 13/16	10 7/16	1 1/4
	SYR 2 3/4 N	2 11/16	-	2 37/64	-	6 7/16	3 1/4	2 1/4	8 7/16	7 13/16	10 7/16	1.29
2 15/16	SYE 2 15/16	3	3 29/32	3 5/8	4 1/2	6 5/16	3 1/8	1 7/8	9 3/4	9 1/4	12	1 1/4
	SYE 2 15/16 N	3	-	2 37/64	-	6 5/16	3 1/8	1 7/8	9 3/4	9 1/4	12	1.29
	SYR 2 15/16	2 11/16	3 11/16	3 5/8	4 1/2	6 7/16	3 1/4	2 1/4	8 7/16	7 13/16	10 7/16	1 1/4
	SYR 2 15/16 N	2 11/16	-	2 37/64	-	6 7/16	3 1/4	2 1/4	8 7/16	7 13/16	10 7/16	1.29
3	SYE 3	3	3 29/32	3 5/8	4 1/2	6 5/16	3 1/8	1 7/8	9 3/4	9 1/4	12	1 1/4
	SYE 3 N	3	-	2 37/64	-	6 5/16	3 1/8	1 7/8	9 3/4	9 1/4	12	1.29
	SYR 3	2 11/16	3 11/16	3 5/8	4 1/2	6 7/16	3 1/4	2 1/4	8 7/16	7 13/16	10 7/16	1 1/4
	SYR 3 N	2 11/16	-	2 37/64	-	6 7/16	3 1/4	2 1/4	8 7/16	7 13/16	10 7/16	1.29
3 7/16	SYE 3 7/16	3 5/8	4 7/16	4 1/32	5 1/8	7 1/2	3 3/4	2 1/4	11 5/16	10 11/16	14	1 7/16
	SYE 3 7/16 N	3 5/8	-	3 5/32	-	7 1/2	3 3/4	2 1/4	11 5/16	10 11/16	14	1.57
	SYR 3 7/16	3 3/16	4 3/32	4 1/32	5 1/8	7 1/2	3 3/4	2 1/4	10 3/4	9 1/4	13	1 7/16
	SYR 3 7/16 N	3 3/16	-	3 5/32	-	7 1/2	3 3/4	2 1/4	10 3/4	9 1/4	13	1.57
3 1/2	SYE 3 1/2	3 5/8	4 7/16	4 1/32	5 1/8	7 1/2	3 3/4	2 1/4	11 5/16	10 11/16	14	1 7/16
	SYE 3 1/2 N	3 5/8	-	3 5/32	-	7 1/2	3 3/4	2 1/4	11 5/16	10 11/16	14	1.57
	SYR 3 1/2	3 3/16	4 3/32	4 1/32	5 1/8	7 1/2	3 3/4	2 1/4	10 3/4	9 1/4	13	1 7/16
	SYR 3 1/2 N	3 3/16	-	3 5/32	-	7 1/2	3 3/4	2 1/4	10 3/4	9 1/4	13	1.57
3 11/16	SYR 3 11/16	3 17/32	4 21/32	4 19/32	6	8 7/16	4 1/8	2 1/2	11 3/4	10	14 1/4	1 5/8
	SYR 3 11/16 N	3 17/32	-	3 3/8	-	8 7/16	4 1/8	2 1/2	11 3/4	10	14 1/4	1.61

¹⁾ The listed designation is for a non-locating unit with TriGard seals. Other variants must be specified by suffixes (→ page 693).

17.1 SKF inch roller bearing units with a two-bolt pillow (plummer) block housing

SYE, SYE .. N, SYR and SYR .. N series

d_a $3 \frac{15}{16}$ – 4 in.



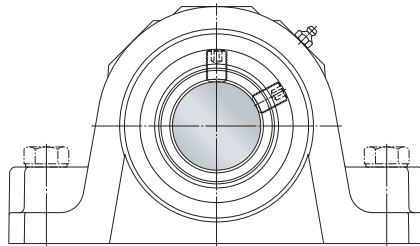
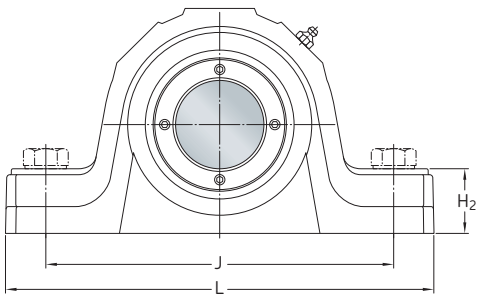
SYE

SYE .. N

SYR .. NH

Shaft diameter d_a	Bearing unit Designation ¹⁾	Basic load rating dynamic C	Limiting speeds			Mass	Appropriate attachment bolt size
			TriGard seal	Labyrinth seal	Radial shaft seal		
in.		lbf.	r/min			lb.	–
$3 \frac{15}{16}$	SYR $3 \frac{15}{16}$	69 900	2 100	2 000	700	43.5	1
	SYR $3 \frac{15}{16}$ N	95 700	2 000	2 200	–	43.5	1
4	SYR 4	69 900	2 100	2 000	700	43.5	1
	SYR 4 N	95 700	2 000	2 200	–	43.5	1

¹⁾ The listed designation is for a non-locating unit with TriGard seals. Other variants must be specified by suffixes (→ page 693).



SYE..N

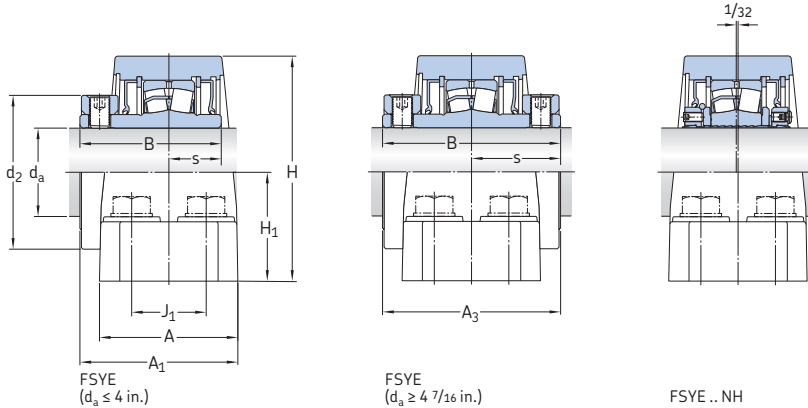
SYR

Shaft diameter	Bearing unit Designation ¹⁾	Dimensions										
		A	A ₁	B	d ₂	H	H ₁	H ₂	J max.	J min.	L	s
in.	-	in.										
3 ¹⁵ / ₁₆	SYR 3 15/16 SYR 3 15/16 N	3 ¹⁷ / ₃₂ 3 ¹⁷ / ₃₂	4 ²¹ / ₃₂ -	4 ¹⁹ / ₃₂ 3 ³ / ₈	6 -	8 ⁷ / ₁₆ 8 ⁷ / ₁₆	4 ¹ / ₈ 4 ¹ / ₈	2 ¹ / ₂ 2 ¹ / ₂	11 ³ / ₄ 11 ³ / ₄	10 10	14 ¹ / ₄ 14 ¹ / ₄	1 ⁵ / ₈ 1.61
4	SYR 4 SYR 4 N	3 ¹⁷ / ₃₂ 3 ¹⁷ / ₃₂	4 ²¹ / ₃₂ -	4 ¹⁹ / ₃₂ 3 ³ / ₈	6 -	8 ⁷ / ₁₆ 8 ⁷ / ₁₆	4 ¹ / ₈ 4 ¹ / ₈	2 ¹ / ₂ 2 ¹ / ₂	11 ³ / ₄ 11 ³ / ₄	10 10	14 ¹ / ₄ 14 ¹ / ₄	1 ⁵ / ₈ 1.61

¹⁾ The listed designation is for a non-locating unit with TriGard seals. Other variants must be specified by suffixes (→ page 693).

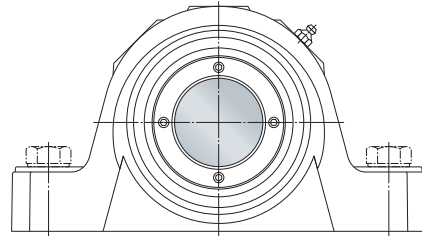
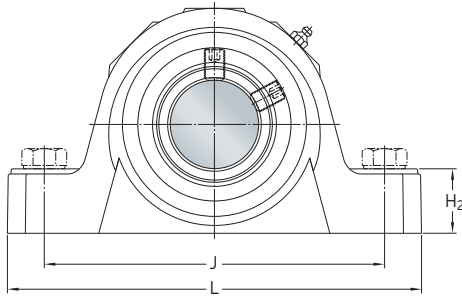
17.2 SKF inch roller bearing units with a four-bolt pillow (plummer) block housing FSYE and FSYE .. N series

d_a 2 7/16 – 4 15/16 in.



Shaft diameter d_a	Bearing unit Designation ¹⁾	Basic load rating dynamic C	Limiting speeds		Radial shaft seal	Mass	Appropriate attachment bolt size
			TriGard seal	Labyrinth seal			
in.		lbf.	r/min			lb.	–
2 7/16	FSYE 2 7/16	33 300	3 100	3 250	1 100	19	5/8
	FSYE 2 7/16 N	43 400	2 900	3 800	–	19	5/8
2 1/2	FSYE 2 1/2	33 300	3 100	3 250	1 100	18.5	5/8
	FSYE 2 1/2 N	43 400	2 900	3 800	–	18.5	5/8
2 11/16	FSYE 2 11/16	35 500	2 800	2 800	950	25.5	5/8
	FSYE 2 11/16 N	47 700	2 600	3 400	–	25.5	5/8
2 3/4	FSYE 2 3/4	35 500	2 800	2 800	950	25.5	5/8
	FSYE 2 3/4 N	47 700	2 600	3 400	–	25.5	5/8
2 15/16	FSYE 2 15/16	35 500	2 800	2 800	950	24	5/8
	FSYE 2 15/16 N	47 700	2 600	3 400	–	24	5/8
3	FSYE 3	35 500	2 800	2 800	950	24	5/8
	FSYE 3 N	47 700	2 600	3 400	–	24	5/8
3 7/16	FSYE 3 7/16	56 900	2 300	2 200	800	36.5	3/4
	FSYE 3 7/16 N	73 100	2 200	2 600	–	36.5	3/4
3 1/2	FSYE 3 1/2	56 900	2 300	2 200	800	36.5	3/4
	FSYE 3 1/2 N	73 100	2 200	2 600	–	36.5	3/4
3 11/16	FSYE 3 11/16	69 900	2 100	2 000	700	50.5	3/4
	FSYE 3 11/16 N	95 700	2 000	2 200	–	50.5	3/4
3 15/16	FSYE 3 15/16	69 900	2 100	2 000	700	49.5	3/4
	FSYE 3 15/16 N	95 700	2 000	2 200	–	49.5	3/4
4	FSYE 4	69 900	2 100	2 000	700	49.5	3/4
	FSYE 4 N	95 700	2 000	2 200	–	49.5	3/4
4 7/16	FSYE 4 7/16	91 700	1 900	–	–	71	3/4
4 1/2	FSYE 4 1/2	91 700	1 900	–	–	71	3/4
4 15/16	FSYE 4 15/16	123 000	1 650	–	–	100	7/8

¹⁾ The listed designation is for a non-locating unit with TriGard seals. Other variants must be specified by suffixes (→ page 693).



FSYE

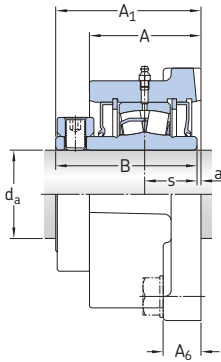
FSYE..N

Shaft diameter d_s	Bearing unit Designation ¹⁾	Dimensions											
		A	A ₁	B	d ₂	H	H ₁	H ₂	J max.	J ₁ min.	L	s	
in.	-	in.											
27/16	FSYE 2 7/16	3 1/2	3 ¹⁹ /32	3 3/8	4	5 ¹¹ /16	2 3/4	1 5/8	8 3/4	8 1/4	1 7/8	10 1/2	1 1/4
	FSYE 2 7/16 N	3 1/2	-	2 ³⁷ /64	-	5 ¹¹ /16	2 3/4	1 5/8	8 3/4	8 1/4	1 7/8	10 1/2	1.29
2 1/2	FSYE 2 1/2	3 1/2	3 ¹⁹ /32	3 3/8	4	5 ¹¹ /16	2 3/4	1 5/8	8 3/4	8 1/4	1 7/8	10 1/2	1 1/4
	FSYE 2 1/2 N	3 1/2	-	2 ³⁷ /64	-	5 ¹¹ /16	2 3/4	1 5/8	8 3/4	8 1/4	1 7/8	10 1/2	1.29
2 ¹¹ /16	FSYE 2 11/16	4	3 ²⁹ /32	3 5/8	4 1/2	6 ⁵ /16	3 1/8	1 7/8	9 7/8	9 1/8	2 1/8	12	1 1/4
	FSYE 2 11/16 N	4	-	2 ³⁷ /64	-	6 ⁵ /16	3 1/8	1 7/8	9 7/8	9 1/8	2 1/8	12	1.29
2 3/4	FSYE 2 3/4	4	3 ²⁹ /32	3 5/8	4 1/2	6 ⁵ /16	3 1/8	1 7/8	9 7/8	9 1/8	2 1/8	12	1 1/4
	FSYE 2 3/4 N	4	-	2 ³⁷ /64	-	6 ⁵ /16	3 1/8	1 7/8	9 7/8	9 1/8	2 1/8	12	1.29
2 ¹⁵ /16	FSYE 2 15/16	4	3 ²⁹ /32	3 5/8	4 1/2	6 ⁵ /16	3 1/8	1 7/8	9 7/8	9 1/8	2 1/8	12	1 1/4
	FSYE 2 15/16 N	4	-	2 ³⁷ /64	-	6 ⁵ /16	3 1/8	1 7/8	9 7/8	9 1/8	2 1/8	12	1.29
3	FSYE 3	4	3 ²⁹ /32	3 5/8	4 1/2	6 ⁵ /16	3 1/8	1 7/8	9 7/8	9 1/8	2 1/8	12	1 1/4
	FSYE 3 N	4	-	2 ³⁷ /64	-	6 ⁵ /16	3 1/8	1 7/8	9 7/8	9 1/8	2 1/8	12	1.29
3 7/16	FSYE 3 7/16	4 1/2	4 ⁷ /16	4 1/32	5 1/8	7 1/2	3 3/4	2 1/4	11 7/16	10 9/16	2 3/8	14	1 7/16
	FSYE 3 7/16 N	4 1/2	-	3 ⁹ /64	-	7 1/2	3 3/4	2 1/4	11 7/16	10 9/16	2 3/8	14	1.57
3 1/2	FSYE 3 1/2	4 1/2	4 ⁷ /16	4 1/32	5 1/8	7 1/2	3 3/4	2 1/4	11 7/16	10 9/16	2 3/8	14	1 7/16
	FSYE 3 1/2 N	4 1/2	-	3 ⁹ /64	-	7 1/2	3 3/4	2 1/4	11 7/16	10 9/16	2 3/8	14	1.57
3 ¹¹ /16	FSYE 3 11/16	4 1/2	4 7/8	4 ¹⁹ /32	6	8 9/16	4 1/4	2 7/16	13	12	2 1/4	15 1/4	1 5/8
	FSYE 3 11/16 N	4 1/2	-	3 ²⁵ /34	-	8 9/16	4 1/4	2 7/16	13	12	2 1/4	15 1/4	1.61
3 ¹⁵ /16	FSYE 3 15/16	4 1/2	4 7/8	4 ¹⁹ /32	6	8 9/16	4 1/4	2 7/16	13	12	2 1/4	15 1/4	1 5/8
	FSYE 3 15/16 N	4 1/2	-	3 ²⁵ /34	-	8 9/16	4 1/4	2 7/16	13	12	2 1/4	15 1/4	1.61
4	FSYE 4	4 1/2	4 7/8	4 ¹⁹ /32	6	8 9/16	4 1/4	2 7/16	13	12	2 1/4	15 1/4	1 5/8
	FSYE 4 N	4 1/2	-	3 ²⁵ /34	-	8 9/16	4 1/4	2 7/16	13	12	2 1/4	15 1/4	1.61
4 7/16	FSYE 4 7/16	4 5/8	6 1/8	6 1/8	6 1/8	9 3/8	4 3/4	2 3/4	13 7/8	13 1/8	2 1/2	16 5/8	3 1/16
4 1/2	FSYE 4 1/2	4 5/8	6 1/8	6 1/8	6 1/8	9 3/8	4 3/4	2 3/4	13 7/8	13 1/8	2 1/2	16 5/8	3 1/16
4 ¹⁵ /16	FSYE 4 15/16	5 1/8	6 5/8	6 5/8	6 7/8	10 7/8	5 1/2	3	15 7/8	15 1/8	2 3/4	18 1/2	3 5/16

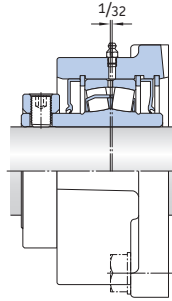
¹⁾ The listed designation is for a non-locating unit with TriGard seals. Other variants must be specified by suffixes (→ page 693).

17.3 20.3 SKF inch roller bearing units with a square flanged housing FYE series

d_a 1 7/16 – 4 in.



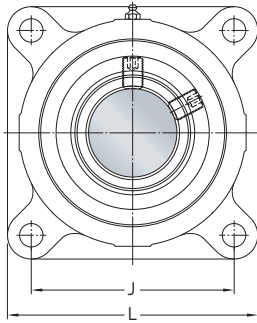
FYE



FYE..H

Shaft diameter d_a	Bearing unit Designation ¹⁾	Basic load rating dynamic C	Limiting speeds		Radial shaft seal	Mass	Appropriate attachment bolt size
			TriGard seal	Labyrinth seal			
in.		lbf.	r/min			lb.	–
1 7/16	FYE 1 7/16	16 600	5 100	5 300	1 700	7.2	1/2
1 1/2	FYE 1 1/2	16 600	5 100	5 300	1 600	10	1/2
1 11/16	FYE 1 11/16	17 300	4 500	4 700	1 600	10	1/2
1 3/4	FYE 1 3/4	17 300	4 500	4 700	1 450	11	1/2
1 15/16	FYE 1 15/16	19 000	4 100	4 250	1 450	11	1/2
2	FYE 2	19 000	4 100	4 250	1 450	11	1/2
2 3/16	FYE 2 3/16	22 400	3 700	3 800	1 300	13.5	1/2
2 7/16	FYE 2 7/16	33 300	3 100	3 250	1 100	17.5	5/8
2 1/2	FYE 2 1/2	33 300	3 100	3 250	1 100	17	5/8
2 11/16	FYE 2 11/16	35 500	2 800	2 800	950	28.5	3/4
2 3/4	FYE 2 3/4	35 500	2 800	2 800	950	28.5	3/4
2 15/16	FYE 2 15/16	35 500	2 800	2 800	950	27	3/4
3	FYE 3	35 500	2 800	2 800	950	27	3/4
3 7/16	FYE 3 7/16	56 900	2 300	2 200	800	40.5	3/4
3 1/2	FYE 3 1/2	56 900	2 300	2 200	800	40	3/4
3 11/16	FYE 3 11/16	69 900	2 100	2 000	700	64	7/8
3 15/16	FYE 3 15/16	69 900	2 100	2 000	700	69	7/8
4	FYE 4	69 900	2 100	2 000	700	68	7/8

¹⁾ The listed designation is for a non-locating unit with TriGard seals. Other variants must be specified by suffixes (→ page 693).

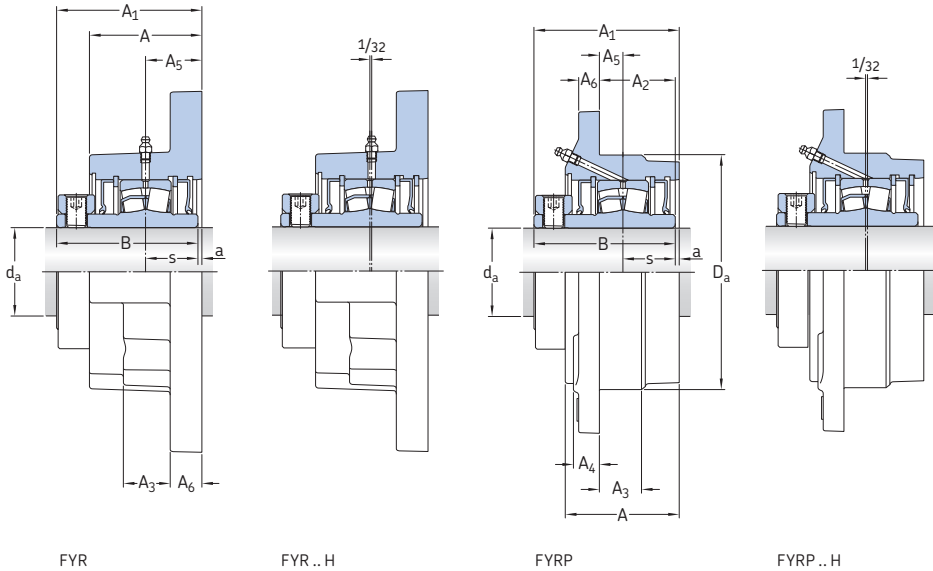


Shaft diameter	Bearing unit Designation ¹⁾	Dimensions							
		A ₁	A ₆	T	B	J	L	a	s
d _a		in.							
in.	-	in.							
17/16	FYE 17/16	2 ¹ / ₄	3/4	2 ²⁷ / ₃₂	2 ³ / ₄	3 ¹ / ₂	4 ⁵ / ₈	3/32	1
1 ¹ / ₂	FYE 11/2	2 ⁵ / ₁₆	3/4	2 ⁹ / ₃₂	3/4	4 ¹ / ₈	5 ³ / ₈	5/32	1
1 ¹¹ / ₁₆	FYE 111/16	2 ⁵ / ₁₆	3/4	3 ¹ / ₃₂	2 ⁷ / ₈	4 ¹ / ₈	5 ³ / ₈	5/32	1
1 ³ / ₄	FYE 13/4	2 ¹ / ₄	3/4	2 ³¹ / ₃₂	2 ⁷ / ₈	4 ¹ / ₄	5 ¹ / ₂	3/32	1
1 ¹⁵ / ₁₆	FYE 115/16	2 ¹ / ₄	3/4	2 ³¹ / ₃₂	2 ⁷ / ₈	4 ¹ / ₄	5 ¹ / ₂	3/32	1
2	FYE 2	2 ¹ / ₄	3/4	2 ³¹ / ₃₂	2 ⁷ / ₈	4 ¹ / ₄	5 ¹ / ₂	3/32	1
2 ³ / ₁₆	FYE 23/16	2 ³ / ₈	3/4	3 ⁷ / ₃₂	3 ¹ / ₈	4 ³ / ₄	6 ¹ / ₄	3/32	1 ¹ / ₈
2 ⁷ / ₁₆	FYE 27/16	2 ³ / ₄	1	3 ¹⁵ / ₃₂	3 ³ / ₈	5 ³ / ₈	6 ⁷ / ₈	3/32	1 ¹ / ₄
2 ¹ / ₂	FYE 21/2	2 ³ / ₄	1	3 ¹⁵ / ₃₂	3 ³ / ₈	5 ³ / ₈	6 ⁷ / ₈	3/32	1 ¹ / ₄
2 ¹¹ / ₁₆	FYE 211/16	2 ³ / ₄	1 ¹ / ₁₆	3 ⁷ / ₈	3 ⁵ / ₈	6	7 ⁵ / ₈	1/4	1 ¹ / ₄
2 ³ / ₄	FYE 23/4	2 ³ / ₄	1 ¹ / ₁₆	3 ⁷ / ₈	3 ⁵ / ₈	6	7 ⁵ / ₈	1/4	1 ¹ / ₄
2 ¹⁵ / ₁₆	FYE 215/16	2 ³ / ₄	1 ¹ / ₁₆	3 ⁷ / ₈	3 ⁵ / ₈	6	7 ⁵ / ₈	1/4	1 ¹ / ₄
3	FYE 3	2 ³ / ₄	1 ¹ / ₁₆	3 ⁷ / ₈	3 ⁵ / ₈	6	7 ⁵ / ₈	1/4	1 ¹ / ₄
3 ⁷ / ₁₆	FYE 37/16	3 ⁵ / ₁₆	1 ¹ / ₈	4 ¹ / ₄	4 ¹ / ₃₂	7	8 ³ / ₄	7/32	1 ⁷ / ₁₆
3 ¹ / ₂	FYE 31/2	3 ⁵ / ₁₆	1 ¹ / ₈	4 ¹ / ₄	4 ¹ / ₃₂	7	8 ³ / ₄	7/32	1 ⁷ / ₁₆
3 ¹¹ / ₁₆	FYE 311/16	3 ¹ / ₂	1 ¹ / ₄	4 ¹³ / ₁₆	4 ¹³ / ₁₆	7 ³ / ₄	9 ³ / ₄	7/32	1 ⁵ / ₈
3 ¹⁵ / ₁₆	FYE 315/16	3 ¹ / ₂	1 ¹ / ₄	4 ¹³ / ₁₆	4 ¹³ / ₁₆	7 ³ / ₄	9 ³ / ₄	7/32	1 ⁵ / ₈
4	FYE 4	3 ¹ / ₂	1 ¹ / ₄	4 ¹³ / ₁₆	4 ¹³ / ₁₆	7 ³ / ₄	9 ³ / ₄	7/32	1 ⁵ / ₈

¹⁾ The listed designation is for a non-locating unit with TriGard seals. Other variants must be specified by suffixes (→ page 693).

17.4 SKF inch roller bearing units with a round or piloted flanged housing FYR and FYRP series

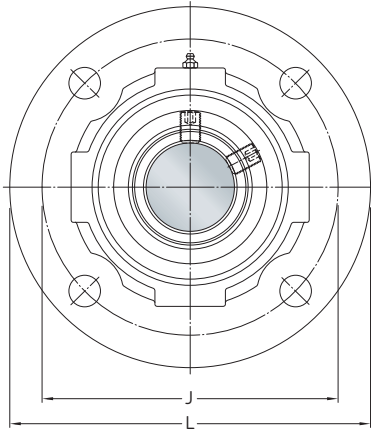
d_a 1 7/16 – 3 in.



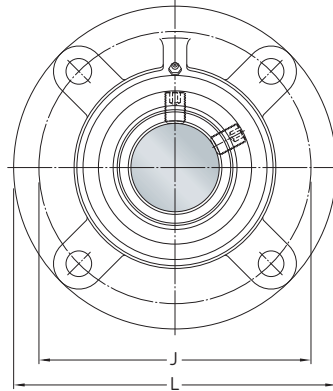
Shaft diameter d_a in.	Bearing unit Designation ¹⁾	Basic load rating dynamic C	Limiting speeds		Radial shaft seal	Mass lb.	Appropriate attachment bolt size
			TriGard seal r/min	Labyrinth seal			
1 7/16	FYR 1 7/16	16 600	5 100	5 300	1 700	8.5	1/2 ²⁾
	FYRP 1 7/16	16 600	5 100	5 300	1 700	6.3	3/8
1 1/2	FYR 1 1/2	16 600	5 100	5 300	1 700	8.4	1/2 ²⁾
	FYRP 1 1/2	16 600	5 100	5 300	1 700	6.3	3/8
1 11/16	FYR 1 11/16	17 300	4 500	4 700	1 600	10.5	1/2
	FYRP 1 11/16	17 300	4 500	4 700	1 600	7.8	7/16
1 3/4	FYR 1 3/4	17 300	4 500	4 700	1 600	11	1/2
	FYRP 1 3/4	17 300	4 500	4 700	1 600	7.7	7/16
1 15/16	FYR 1 15/16	19 000	4 100	4 250	1 450	11	1/2
	FYRP 1 15/16	19 000	4 100	4 250	1 450	8.2	1/2
2	FYR 2	19 000	4 100	4 250	1 450	10.5	1/2
	FYRP 2	19 000	4 100	4 250	1 450	8.2	1/2
2 3/16	FYR 2 3/16	22 400	3 700	3 800	1 300	13.5	5/8
	FYRP 2 3/16	22 400	3 700	3 800	1 300	9.9	1/2
2 7/16	FYR 2 7/16	33 300	3 100	3 250	1 100	17.5	5/8
	FYRP 2 7/16	33 300	3 100	3 250	1 100	14	1/2
2 1/2	FYR 2 1/2	33 300	3 100	3 250	1 100	17.5	5/8
	FYRP 2 1/2	33 300	3 100	3 250	1 100	13.5	1/2
2 11/16	FYR 2 11/16	35 500	2 800	2 800	950	27	3/4
	FYRP 2 11/16	35 500	2 800	2 800	950	20.5	5/8

¹⁾ The listed designation is for a non-locating unit with TriGard seals. Other variants must be specified by suffixes (→ page 693).

²⁾ The units are supplied with three attachment bolt holes, which are placed in an angle of 120°.



FYR



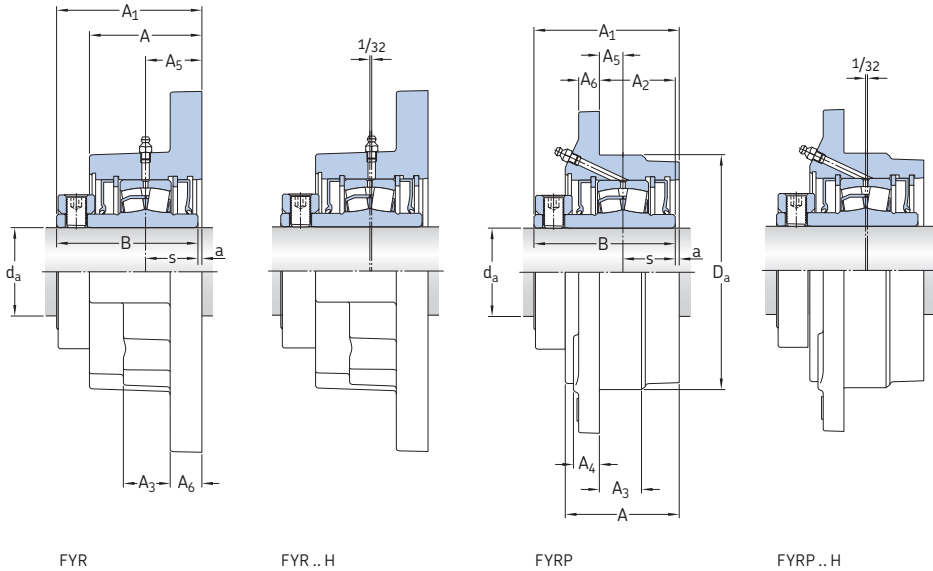
FYRP

Shaft diameter d_a	Bearing unit Designation ¹⁾	Dimensions													
		A	A ₆	A ₃	A ₄	A ₁	B	A ₅	a	D _a	J	L	s	A ₂	
in.	–	in.													
17/16	FYR 17/16 FYRP 17/16	21/16 21/4	3/4 1/2	3/4 3/4	– 23/32	27/8 257/64	23/4 23/4	13/32 27/64	1/8 9/64	37/8 35/8	5 43/8	61/4 51/4	31/32 31/32	– 125/64	
1 1/2	FYR 1 1/2 FYRP 1 1/2	21/16 21/4	3/4 1/2	3/4 3/4	– 23/32	27/8 257/64	23/4 23/4	13/32 27/64	1/8 9/64	37/8 35/8	5 43/8	61/4 51/4	31/32 31/32	– 125/64	
1 11/16	FYR 1 11/16 FYRP 1 11/16	21/4 21/2	3/4 1/2	13/16 7/8	– 5/8	3 35/32	27/8 27/8	13/32 5/8	1/8 9/32	41/2 41/4	51/2 51/8	63/4 61/8	31/32 31/32	– 119/32	
1 3/4	FYR 1 3/4 FYRP 1 3/4	21/4 21/2	3/4 1/2	13/16 7/8	– 5/8	3 35/32	27/8 27/8	13/32 5/8	1/8 9/32	41/2 41/4	51/2 51/8	63/4 61/8	31/32 31/32	– 119/32	
1 15/16	FYR 1 15/16 FYRP 1 15/16	21/4 21/2	3/4 9/16	13/16 7/8	– 5/8	3 35/32	27/8 27/8	13/32 5/8	1/8 9/32	43/4 41/2	53/4 53/8	7 63/8	31/32 31/32	– 119/32	
2	FYR 2 FYRP 2	21/4 21/2	3/4 9/16	13/16 7/8	– 5/8	3 35/32	27/8 27/8	13/32 5/8	1/8 9/32	43/4 41/2	53/4 53/8	7 63/8	31/32 31/32	– 119/32	
2 3/16	FYR 2 3/16 FYRP 2 3/16	23/8 29/16	3/4 9/16	15/16 1	– 23/32	31/4 35/16	31/8 31/8	17/32 9/16	1/8 3/16	51/8 5	63/8 6	73/4 71/8	13/32 13/32	– 121/32	
2 7/16	FYR 2 7/16 FYRP 2 7/16	29/16 25/8	15/16 5/8	15/16 1	– 13/16	31/2 31/2	33/8 33/8	111/32 15/32	1/8 1/8	53/4 51/2	63/4 61/2	81/8 75/8	17/32 17/32	– 111/16	
2 1/2	FYR 2 1/2 FYRP 2 1/2	29/16 25/8	15/16 5/8	15/16 1	– 13/16	31/2 31/2	33/8 33/8	111/32 15/32	1/8 1/8	53/4 51/2	63/4 61/2	81/8 75/8	17/32 17/32	– 111/16	
2 11/16	FYR 2 11/16 FYRP 2 11/16	27/8 31/8	15/16 11/16	13/16 11/4	– 13/16	37/8 329/32	35/8 35/8	115/32 13/16	1/4 9/32	65/8 63/8	77/8 71/2	91/2 83/4	17/32 17/32	– 21/32	

¹⁾ The listed designation is for a non-locating unit with TriGard seals. Other variants must be specified by suffixes (→ page 693).

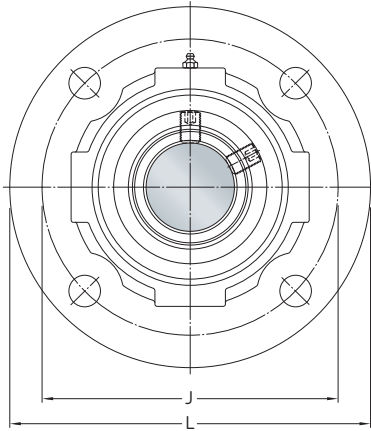
17.4 SKF inch roller bearing units with a round or piloted flanged housing FYR and FYRP series

d_a 3 7/16 – 4 in.

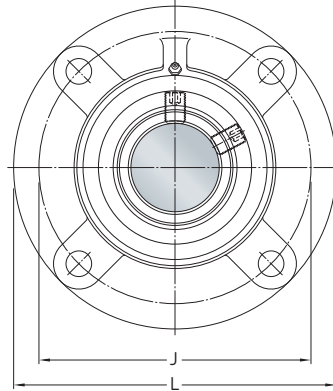


Shaft diameter d_a in.	Bearing unit Designation ¹⁾	Basic load rating dynamic C	Limiting speeds		Radial shaft seal	Mass	Appropriate attachment bolt size
			TriGard seal	Labyrinth seal			
		lbf.	r/min			lb.	–
2 3/4	FYR 2 3/4	35 500	2 800	2 800	950	27	3/4
	FYRP 2 3/4	35 500	2 800	2 800	950	20.5	5/8
2 15/16	FYR 2 15/16	35 500	2 800	2 800	950	26	3/4
	FYRP 2 15/16	35 500	2 800	2 800	950	19.5	5/8
3	FYR 3	35 500	2 800	2 800	950	26	3/4
	FYRP 3	35 500	2 800	2 800	950	19.5	5/8
3 7/16	FYR 3 7/16	56 900	2 300	2 200	800	38.0	3/4
	FYRP 3 7/16	56 900	2 300	2 200	800	30	3/4
3 1/2	FYR 3 1/2	56 900	2 300	2 200	800	38	3/4
	FYRP 3 1/2	56 900	2 300	2 200	800	29.0	3/4
3 11/16	FYR 3 11/16	69 900	2 100	2 000	700	53.0	7/8
	FYRP 3 11/16	69 900	2 100	2 000	700	41	3/4
3 15/16	FYR 3 15/16	69 900	2 100	2 000	700	52	7/8
	FYRP 3 15/16	69 900	2 100	2 000	700	40.0	3/4
4	FYR 4	69 900	2 100	2 000	700	52.0	7/8
	FYRP 4	69 900	2 100	2 000	700	40	3/4

¹⁾ The listed designation is for a non-locating unit with TriGard seals. Other variants must be specified by suffixes (→ page 693).



FYR



FYRP

Shaft diameter	Bearing unit Designation ¹⁾	Dimensions													
		A	A ₆	A ₃	A ₄	A ₁	B	A ₅	a	D _a	J	L	s	A ₂	
d _a		in.													
2 3/4	FYR 2 3/4	2 7/8	1 5/16	1 3/16	–	3 7/8	3 5/8	1 15/32	1/4	6 5/8	7 7/8	9 1/2	1 7/32	–	
	FYRP 2 3/4	3 1/8	1 1/16	1 1/4	1 13/16	3 29/32	3 5/8	1 13/16	9/32	6 3/8	7 1/2	8 3/4	1 7/32	2 1/32	
2 15/16	FYR 2 15/16	2 7/8	1 5/16	1 3/16	–	3 7/8	3 5/8	1 15/32	1/4	6 5/8	7 7/8	9 1/2	1 7/32	–	
	FYRP 2 15/16	3 1/8	1 1/16	1 1/4	1 13/16	3 29/32	3 5/8	1 13/16	9/32	6 3/8	7 1/2	8 3/4	1 7/32	2 1/32	
3	FYR 3	2 7/8	1 5/16	1 3/16	–	3 7/8	3 5/8	1 15/32	1/4	6 5/8	7 7/8	9 1/2	1 7/32	–	
	FYRP 3	3 1/8	1 1/16	1 1/4	1 13/16	3 29/32	3 5/8	1 13/16	9/32	6 3/8	7 1/2	8 3/4	1 7/32	2 1/32	
3 7/16	FYR 3 7/16	3 1/16	1 1/8	1 3/16	–	4 9/32	4 1/32	1 21/32	1/4	7 5/8	9 1/2	11 1/8	1 15/32	–	
	FYRP 3 7/16	3 3/16	7/8	1 1/4	1 1/16	4 7/32	4 1/32	1 17/32	3/16	7 3/8	8 5/8	10 1/4	1 15/32	1 15/16	
3 1/2	FYR 3 1/2	3 1/16	1 1/8	1 3/16	–	4 9/32	4 1/32	1 21/32	1/4	7 5/8	9 1/2	11 1/8	1 15/32	–	
	FYRP 3 1/2	3 3/16	7/8	1 1/4	1 1/16	4 7/32	4 1/32	1 17/32	3/16	7 3/8	8 5/8	10 1/4	1 15/32	1 15/16	
3 11/16	FYR 3 11/16	3 1/2	1 1/8	1 7/16	–	4 27/32	4 19/32	1 27/32	1/4	8 3/8	10 3/4	12 5/8	1 19/32	–	
	FYRP 3 11/16	3 5/8	7/8	2	1	4 13/16	4 19/32	1 13/16	7/32	8 1/8	9 3/8	10 7/8	1 19/32	2 13/32	
3 15/16	FYR 3 15/16	3 1/2	1 1/8	1 7/16	–	4 27/32	4 19/32	1 27/32	1/4	8 3/8	10 3/4	12 5/8	1 19/32	–	
	FYRP 3 15/16	3 5/8	7/8	2	1	4 13/16	4 19/32	1 13/16	7/32	8 1/8	9 3/8	10 7/8	1 19/32	2 13/32	
4	FYR 4	3 1/2	1 1/8	1 7/16	–	4 27/32	4 19/32	1 27/32	1/4	8 3/8	10 3/4	12 5/8	1 19/32	–	
	FYRP 4	3 5/8	7/8	2	1	4 13/16	4 19/32	1 13/16	7/32	8 1/8	9 3/8	10 7/8	1 19/32	2 13/32	