

# Y-bearings

2

<b>Designs .....</b>	<b>80</b>
Special designs.	81
<b>Y-bearings with grub screws .....</b>	<b>82</b>
Bearings made of rolling bearing steel .....	82
Bearings with zinc-coated rings .....	83
Stainless steel bearings .....	83
<b>Y-bearings with an eccentric locking collar .....</b>	<b>84</b>
<b>Y-bearings with a tapered bore .....</b>	<b>85</b>
<b>Y-bearings with a standard inner ring.....</b>	<b>85</b>
<b>Y-bearings with a hexagonal or square bore.....</b>	<b>86</b>
<b>Seals.....</b>	<b>87</b>
Standard seals .....	87
Standard seals with an additional flinger .....	87
Multiple seals .....	87
RS1 seals .....	88
LS8 seals.....	88
Shields .....	88
Permissible operating temperatures for seals .....	88
<b>Data – general .....</b>	<b>89</b>
Dimensions.....	89
Tolerances.....	89
Radial internal clearance.....	90
Cages.....	91
Grease fills .....	91
Mounting .....	91
<b>Product tables .....</b>	<b>92</b>
2.1 Y-bearings with grub screws, metric shafts .....	92
inch shafts.....	94
2.2 Y-bearings with an eccentric locking collar, metric shafts .....	98
inch shafts.....	100
2.3 Y-bearings with a tapered bore on an adapter sleeve, metric shafts .....	102
inch shafts.....	104
2.4 Y-bearings with a standard inner ring, metric shafts.....	106

## Y-bearings

# Designs

SKF Y-bearings, which are usually referred to as insert bearings, are basically sealed deep groove ball bearings in the 62 and 63 series, with a convex outer ring. These bearings are manufactured in a number of different series and sizes and are available with a standard inner ring or an inner ring that is extended on one or both sides (→ **fig. 1**).

The various insert bearing series differ in the way the bearing is located onto the shaft. The most common methods use any one of the following:

- grub (set) screws (→ **fig. 2**)
- eccentric locking collar (→ **fig. 3**)
- adapter sleeve (→ **fig. 4**)
- interference fit (→ **fig. 5**)
- SKF ConCentra locking (→ **fig. 6**)

The standard SKF assortment includes Y-bearings made of rolling bearing steel as well as stainless steel and Y-bearings with zinc-coated components.

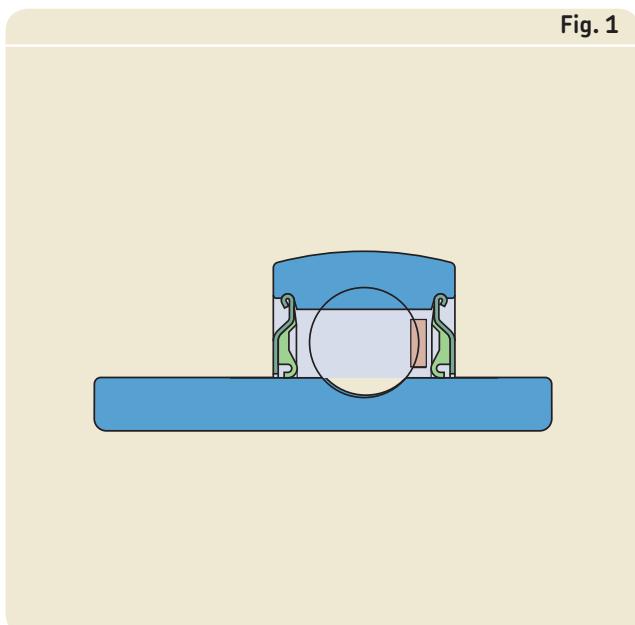


Fig. 1

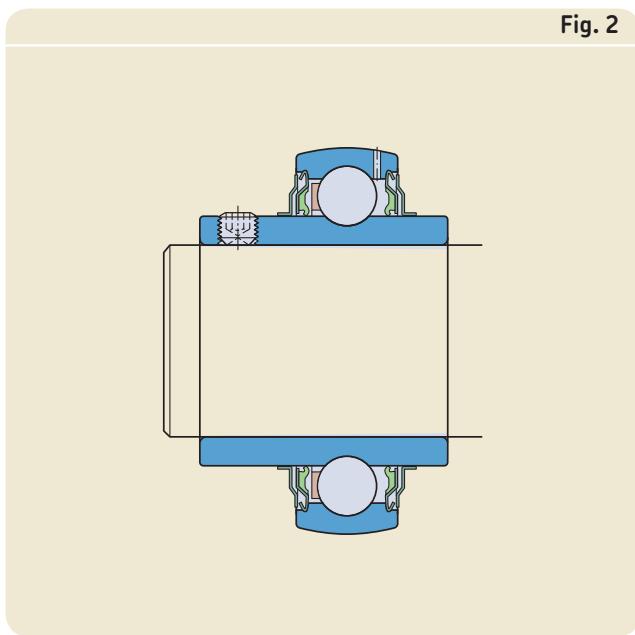


Fig. 2

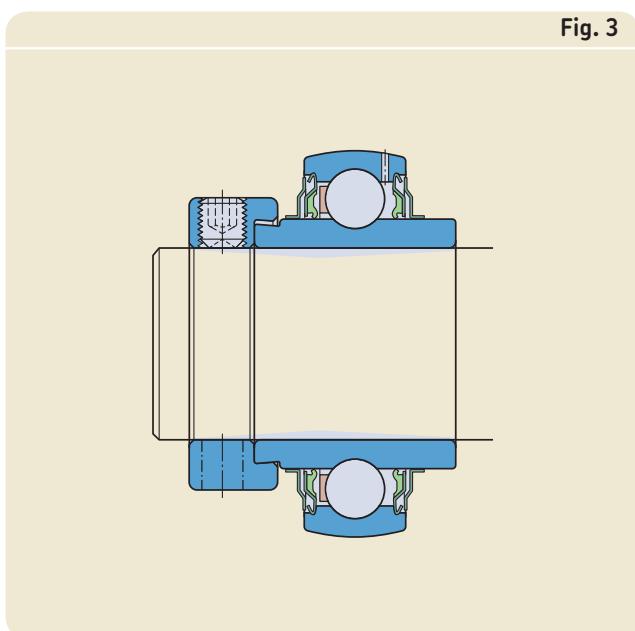


Fig. 3

Fig. 4

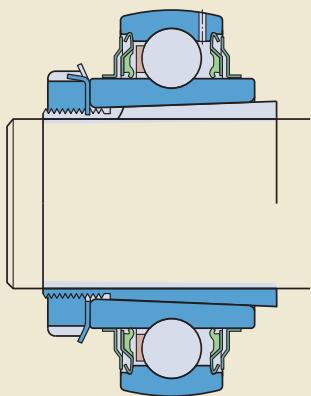


Fig. 5

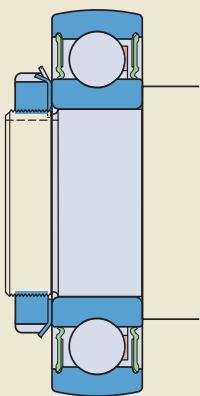
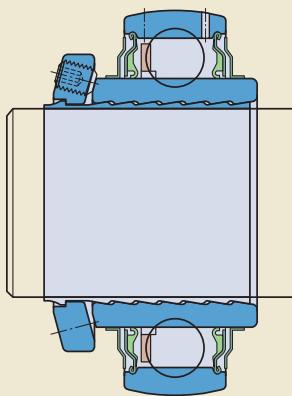


Fig. 6



## Y-bearings

### Y-bearings with grub screws

Y-bearings with grub screws in the inner ring are locked in position on the shaft by tightening the two cup point hexagonal grub screws, positioned 120° apart. These bearings are suitable for applications where the direction of rotation is constant or alternating. Two different standard designs are available.

Y-bearings in the YAT 2 series have an extended inner ring on one side, and are sealed with the rugged standard integral seal (**→ fig. 7**). The outer ring has two lubrication holes as standard.

Y-bearings in the YAR 2 series have an extended inner ring on both sides (**→ fig. 8**). This reduces the extent to which the inner ring can tilt on the shaft, which enables the bearing to run more smoothly. These bearings are fitted with the rugged standard integral seal and one of the following flinger options:

- plain sheet steel flingers, designation suffix 2F
- rubberized sheet steel flingers (multiple seal), designation suffix 2RF

The outer ring has two lubrication holes as standard.

Bearings without lubrication holes can be supplied on request. They are identified by the suffix W.

### Bearings made of rolling bearing steel

Y-bearings in the YAT 2 and YAR 2 standard series are manufactured from high-grade carbon chromium steel. The SKF range comprises bearings for metric shafts from 12 to 100 mm and inch shafts from 1/2 to 3 inch (**→ product table on pages 92 to 97**).

Fig. 7

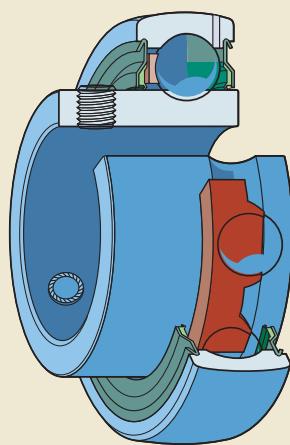
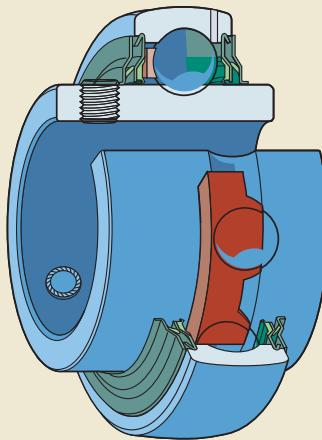


Fig. 8



## Bearings with zinc-coated rings

Y-bearings with an extended inner ring on both sides (YAR 2 series) are also available with zinc-coated rings for use in corrosive environments.

These bearings, series designation

YAR 2-2RF/VE495:

- use highly efficient multiple seals made of food-compatible rubber and stainless steel flingers
- are fitted with grub screws made of stainless steel
- are filled with a food-grade grease
- can be relubricated through the lubrication holes in the outer ring

The SKF range of Y-bearings with zinc-coated rings covers bearings for metric shafts from 20 to 50 mm (→ product table on **page 92**).

## Stainless steel bearings

All steel components of stainless steel Y-bearings are made of stainless steel. This includes the rings, balls, sheet metal parts of the seal and the grub screws. The inner ring is extended on both sides. These bearings, series designation YAR 2-2RF/HV:

- use highly efficient multiple seals made of food-compatible rubber
- are filled with a food-grade grease
- can be relubricated through one lubrication hole in the outer ring

The SKF range covers bearings for metric shafts from 20 to 50 mm as well as inch shafts from  $\frac{3}{4}$  to  $1\frac{15}{16}$  inch (→ product table on **page 92 to 96**).

The dynamic load carrying capacity of a stainless steel bearing is less than that of a similarly sized standard steel bearing.

## Y-bearings

### Y-bearings with an eccentric locking collar

Y-bearings with an eccentric locking collar are intended primarily for use in applications where the direction of rotation is constant. On one side of the bearing inner ring is an eccentric extension that fits the locking collar. Turning the locking collar on the inner ring extension in the direction of rotation locks the collar and bearing on the shaft. A single grub screw further secures the collar to the shaft. There are two standard series available from SKF.

Y-bearings in the YET 2 series have an extended inner ring on one side and are fitted with the rugged standard integral seal (**→ fig. 9**). The eccentric collar is coated (zinc-coated for bearings with a metric bore, black oxidized for bearings with an inch bore). The outer ring has two lubrication holes as standard.

Y-bearings in the YEL 2 series have an extended inner ring on both sides (**→ fig. 10**). This reduces the extent to which the inner ring can tilt on the shaft, which enables the bearing to run more smoothly. These bearings are fitted with the rugged standard integral seal and one of the following flinger options:

- plain sheet steel flingers, designation suffix 2F
- rubberized sheet steel flingers (multiple seal), designation suffix 2RF/VL065

The outer ring has two lubrication holes as standard.

Bearings without lubrication holes can be supplied on request. They are identified by the suffix W.

The SKF range comprises bearings for metric shafts from 15 to 60 mm and inch shafts from  $\frac{1}{2}$  to  $2\frac{7}{16}$  inch (**→ product table on pages 98 to 101**).

Fig. 9

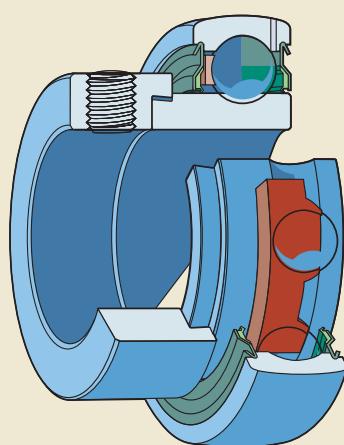


Fig. 10

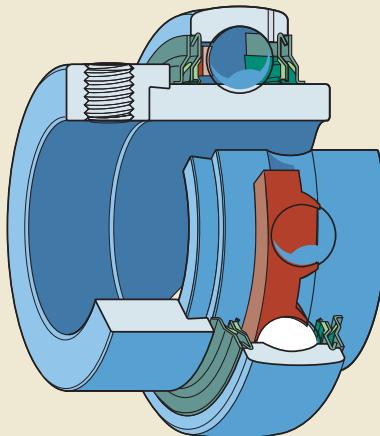
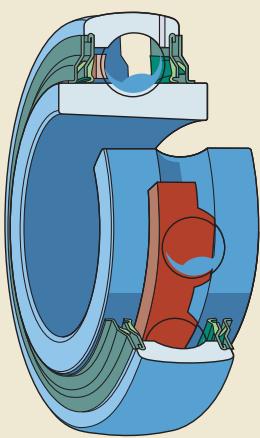


Fig. 11



## Y-bearings with a tapered bore

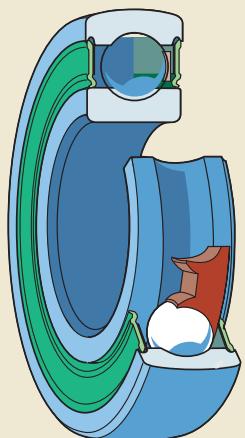
Y-bearings in the YSA 2-2FK series (→ **fig. 11**) have a symmetrically extended inner ring on both sides and a tapered bore (taper 1:12) enabling them to be mounted on a standard adapter sleeve in the H 23 series. The appropriate adapter sleeve is not part of the bearing and must be ordered separately.

Y-bearings with a tapered bore are equipped with the rugged standard integral seal, fitted with additional plain sheet steel flingers. The outer ring has two lubrication holes as standard.

Mounting onto an adapter sleeve enables the bearings to operate at higher speeds and run more smoothly in applications where the direction of rotation is constant or alternating.

The SKF range, which comprises bearings with bore diameters ranging from 25 to 65 mm, fits adapter sleeves in the H 23 series for metric shafts ranging from 20 to 60 mm (→ product table on **page 102**). These bearings can also be used on adapter sleeves in the HA 23, HE 23 and HS 23 series for inch shafts ranging from  $\frac{3}{4}$  to  $2\frac{3}{8}$  inch (→ product table on **page 104**).

Fig. 12



## Y-bearings with a standard inner ring

Y-bearings in the 17262(00)-2RS1 and 17263(00)-2RS1 series (→ **fig. 12**) with a standard inner ring have normal tolerances for the bearing bore diameter and are located on the shaft using an appropriate interference fit. They do not have any lubrication holes in the outer ring. The only difference between these Y-bearings and deep groove ball bearings in the 62 and 63 series is the spherized outside surface of the outer ring.

These Y-bearings are suitable for applications where the direction of the load alternates and where smooth running is a key operational parameter. These bearings can accommodate heavier axial loads than Y-bearings of any other design. They can also operate at the same speeds as the corresponding sealed deep groove ball bearings.

The SKF range comprises bearings for metric shafts from 17 to 60 mm (→ product table on **page 106**).

## Y-bearings with a hexagonal or square bore

Y-bearings with a hexagonal or square bore are intended primarily for high torque applications. The bore is produced to a plus tolerance and enables easy mounting and dismounting. These bearings should be axially located on the shaft using adjacent components.

The bearings have a standard outer ring without lubrication holes (designation suffix W).

Bearings in the YHB 2 and YHC 2 series have a hexagonal bore (→ **fig. 13**). They are equipped with rugged contact seals (designation suffix LS8).

For more information, contact the SKF application engineering service.

Fig. 13

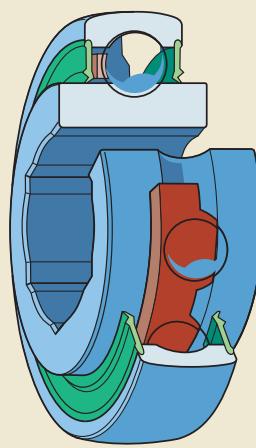
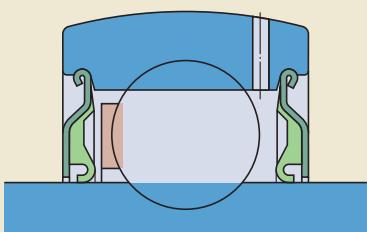


Fig. 14



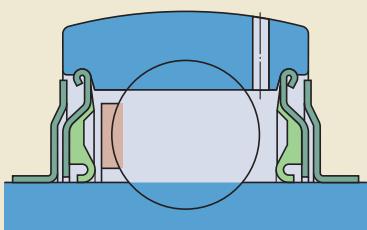
## Seals

Since Y-bearings were originally developed for use in agricultural applications, sealing has always been very important. Therefore, SKF Y-bearings are available with different sealing configurations to suit the operating conditions.

### Standard seals

The standard seal for SKF Y-bearings is the rugged integral seal. It consists of a pressed sheet steel washer with a sealing lip made of acrylonitrile-butadiene rubber (NBR) vulcanized to its inner surface (→ fig. 14). The non-contact sheet steel washer forms a narrow gap with the cylindrical surface of the inner ring shoulder and protects the land-riding seal against coarse contaminants.

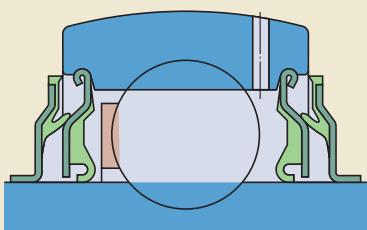
Fig. 15



### Standard seals with an additional flinger

For more contaminated environments, a Y-bearing with an inner ring extended on both sides should be used. These bearings are equipped with seals that have an additional plain, sheet steel flinger on the outboard side of the integral standard seal (→ fig. 15) and are identified by the designation suffix 2F. The flingers are made of sheet steel or stainless sheet steel respectively, have an interference fit on the inner ring and considerably enhance the seals' effectiveness without increasing friction.

Fig. 16



### Multiple seals

For Y-bearing arrangements requiring a high degree of reliability, even in extremely contaminated environments, a bearing with an inner ring extended on both sides should be used with the highly efficient multiple seal arrangement.

In this sealing arrangement (→ fig. 16), a flinger with a vulcanized rubber lip is fitted outside the standard integral seal. This acrylonitrile-butadiene rubber lip seals axially against the integral seal. The space between the integral seal and the rubberized flinger is filled with grease to provide additional protection.

## Y-bearings

### RS1 seals

Y-bearings with a standard inner ring, 17262(00)-2RS1 and 17263(00)-2RS1 series, are equipped with the RS1 contact seal developed for standard SKF deep groove ball bearings (**→ fig. 17**). These seals, which are made from oil and wear resistant acrylonitrile-butadiene rubber (NBR), are reinforced with a pressed sheet steel insert and seal against the cylindrical surface of the inner ring shoulder.

### LS8 seals

Y-bearings with a hexagonal bore, series YHB 2 and YHC 2, are equipped with LS8 contact seals (**→ fig. 18**). These seals, which are made from acrylonitrile-butadiene rubber (NBR), are reinforced with a pressed sheet steel insert and seal against the cylindrical surface of the inner ring shoulder.

### Shields

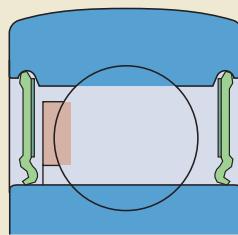
Y-bearings are also available with shields (**→ fig. 19**), which are identified by the designation suffix VP076.

Pressed steel shields are used in temperature or speed sensitive applications where additional friction is not desirable. In applications where shielded bearings are used, contamination should not be severe and water, steam or moisture should not be able to enter the bearing.

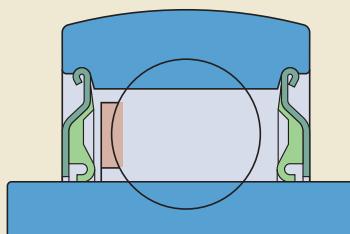
### Permissible operating temperatures for seals

Contact seals can be used at operating temperatures between –30 and +100 °C. Temperatures up to 120 °C are also possible for brief periods, but might have a negative effect on the service life of the grease.

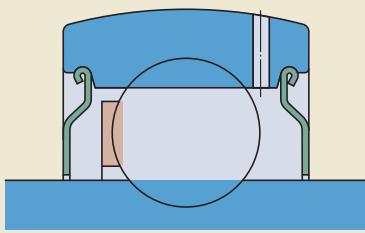
**Fig. 17**



**Fig. 18**



**Fig. 19**



# Data – general

## Dimensions

- The boundary dimensions of Y-bearings in the YAR 2, YET 2 and YEL 2 series are in accordance with ISO 9628:2006.
- The boundary dimensions of Y-bearings in the 17262(00)-2RS1 and 17263(00)-2RS1 series are in accordance with those of deep groove ball bearings in the 62 and 63 series and are in accordance with ISO 15:1998, except that the bearings have a spheroid outside diameter
- The boundary dimensions of Y-bearings in the YSA 2-2FK series are in accordance with JIS 1558-1995
- Y-bearings in the YAT 2, YHB 2, YHC 2 and YQC 2 series have not been standardized either nationally or internationally, but are common in the marketplace.

The dimensions of the adapter sleeves in the H 23 series, which are normally used to locate YSA 2-2FK bearings onto the shaft, are in accordance with ISO 2982-1:1995.

## Tolerances

The bore and outside diameter of Y-bearings are produced to tolerances indicated in **table 1**. Symbols used are explained in the following.

The values specified for the tolerance zone of the bore diameter of bearings in the YAT 2, YAR 2, YET 2 and YEL 2 series are slightly tighter than Normal tolerances listed in ISO 9628:2006.

The values specified for bearings in the 17262(00)-2RS1 and 17263(00)-2RS1 series are in accordance with ISO 492:2002.

SKF manufactures bearings in the YSA 2-2FK series with a tapered bore, taper 1:12. They are designed to fit adapter sleeves in the H 23 series, for metric and inch shafts.

The hexagonal or square bore of bearings in the YHB 2, YHC 2 and YQC 2 series is produced to a 0/+0,25 mm tolerance.

## Symbols

d	Nominal bore diameter
$\Delta_{dmp}$	Deviation of the mean bore diameter from the nominal
D	Nominal outside diameter
$\Delta_{Dmp}$	Deviation of the mean outside diameter from the nominal

Table 1

### Tolerances for SKF Y-bearings

Nominal diameter		Inner ring Bearings in the series YAT 2, YAR 2, YET 2, YEL 2		Outer ring All bearings			
d, D		$\Delta_{dmp}$		$\Delta_{dmp}$		$\Delta_{Dmp}$	
Over	Incl.	High	Low	High	Low	High	Low
mm		$\mu\text{m}$				$\mu\text{m}$	
10	18	+15	+5	0	-8	–	–
18	31,75	+18	+5	0	-10	–	–
31,75	50,8	+19	+5	0	-12	0	-10
50,8	80,962	+21	+5	0	-15	0	-10
80,962	120	+25	+5	–	–	0	-15
120	150	–	–	–	–	0	-15
150	180	–	–	–	–	0	-20

## Y-bearings

### Radial internal clearance

Y-bearings are manufactured as standard with the radial internal clearance indicated in **table 2**. The values specified there for bearings in the:

- YAT, YAR, YET, YEL, YHB, YHC and YQC series are in accordance with Group N radial internal clearances as listed ISO 9628:2006
- YSA 2 K series are in accordance with Group 3 radial internal clearances as listed in ISO 9628:2006
- 17262(00)-2RS1 and 17263(00)-2RS1 series are manufactured with Normal radial internal clearances for deep groove ball bearings as standard. The values are in accordance with ISO 5753:1991

**Table 2**

#### Radial internal clearance for Y-bearings

Bearing size <sup>1)</sup>		Radial internal clearance of Y-bearings in the series					
from	to	YAT 2, YAR 2, YET 2, YEL 2 YHC 2	YSA 2 K	17262 (00)	17263(00)	min	max
μm							
03	03	10	25	—	—	3	18
04	04	12	28	—	—	5	20
05	06	12	28	23	41	5	20
07	08	13	33	28	46	6	20
09	10	14	36	30	51	6	23
11	13	18	43	38	61	8	28
14	16	20	51	—	—	—	—
17	20	24	58	—	—	—	—

<sup>1)</sup> For example: bearing size 06 includes all bearings based on a Y 206 bearing, such as YAR 206-101-2F, YAR 206-102-2F, YAR 206-2F, YAR 206-103-2F, YAR 206-104-2F

Fig. 20



## Cages

All standard Y-bearings are fitted with an injection moulded snap-type cage of glass fibre reinforced polyamide 66 (→ fig. 20). These cages exhibit excellent performance characteristics in a variety of applications where operating temperatures do not exceed 120 °C.

The lubricants generally used for Y-bearings do not have any detrimental effect on cage properties.

## Grease fills

All standard design SKF Y-bearings and Y-bearings with a square bore are filled with a high quality, long lasting grease containing a lithium-calcium thickener with a consistency of 2 on the NLGI scale.

Y-bearings made of stainless steel, in the YAR 2-2RF/HV series, and Y-bearings with zinc-coated rings, in the YAR 2-2RF/VE495 series, meet the demands of food-processing machinery in a corrosive environment. They are filled with a non-toxic, food-grade grease based on a synthetic hydrocarbon oil using an aluminium-complex soap as a thickener.

Y-bearings with a hexagonal bore are filled with a premium quality, mineral oil based grease using a lithium-complex soap (designation suffix VT357). The grease, which has a consistency of 3 on the NGI scale, has good water and corrosion resistant properties and provides excellent lubrication at high operating temperatures.

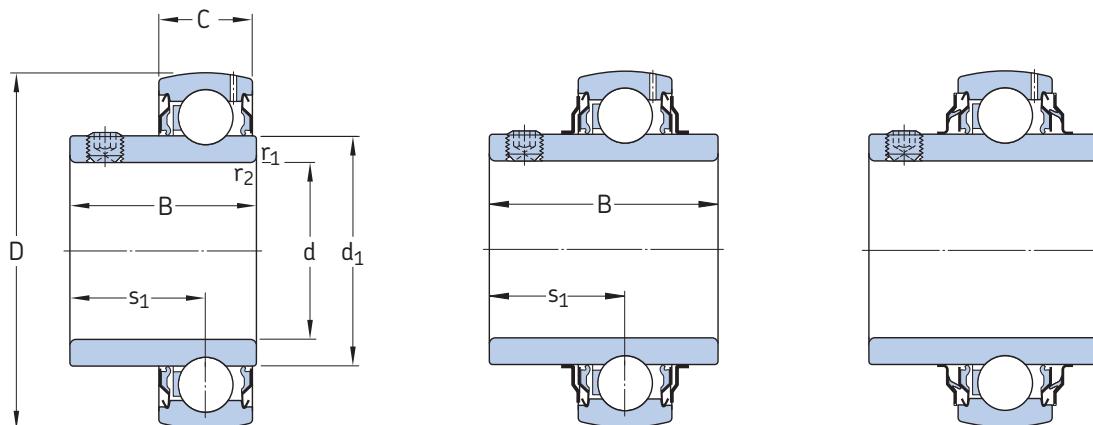
For additional information about lubrication and different lubricants, refer to the section *Lubrication and maintenance*, starting on **page 48**.

## Mounting

The mounting procedures for Y-bearings depend on the method used to attach the unit to the shaft. The procedures are described in detail in the section *Mounting instructions*, starting on **page 52**.

Y-bearings with a standard inner ring are mounted on the shaft with an interference fit.

**Y-bearings with grub screws, metric shafts**  
d 12 – 100 mm



YAT

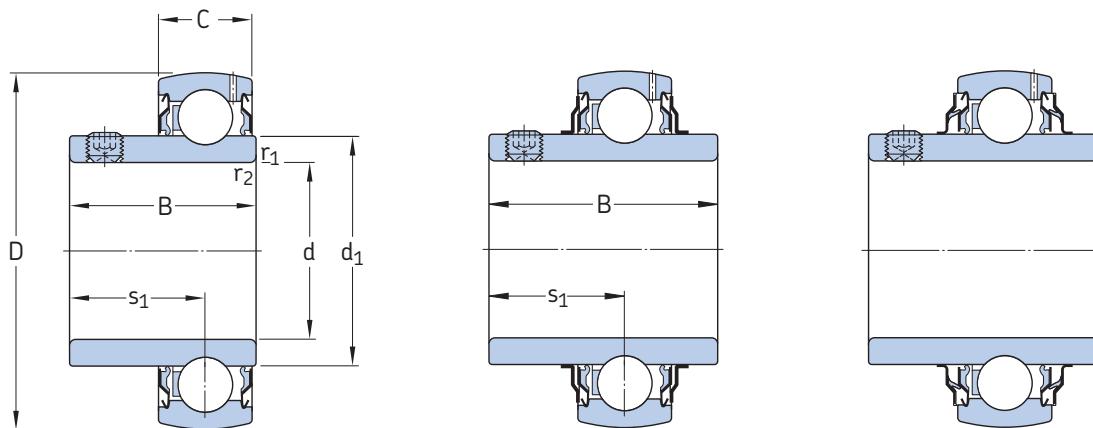
YAR-2F

YAR-2RF

Dimensions							Basic load ratings dynamic static		Fatigue load limit $P_u$	Limiting speed with shaft tolerance h6	Mass	Designation
d	D	B	C	$d_1$	$s_1$	$r_{1,2}$ min	C	$C_0$				
mm							kN		kN	r/min	kg	-
<b>12</b>	40	27,4	12	24,2	15,9	0,3	9,56	4,75	0,2	9 500	0,11	<b>YAR 203/12-2F</b>
<b>15</b>	40	27,4	12	24,2	15,9	0,3	9,56	4,75	0,2	9 500	0,10	<b>YAR 203/15-2F</b>
<b>17</b>	40	22,1	12	24,2	15,9	0,3	9,56	4,75	0,2	9 500	0,07	<b>YAT 203</b>
	40	27,4	12	24,2	15,9	0,3	9,56	4,75	0,2	9 500	0,09	<b>YAR 203-2F</b>
<b>20</b>	47	25,5	14	28,2	18,3	0,6	12,7	6,55	0,28	8 500	0,11	<b>YAT 204</b>
	47	31	14	28,2	18,3	0,6	12,7	6,55	0,28	8 500	0,14	<b>YAR 204-2F</b>
	47	31	14	28,2	18,3	0,6	12,7	6,55	0,28	5 000	0,14	<b>YAR 204-2RF</b>
	47	31	14	28,2	18,3	0,6	10,8	6,55	0,28	5 000	0,14	<b>YAR 204-2RF/HV</b>
	47	31	14	28,2	18,3	0,6	12,7	6,55	0,28	5 000	0,14	<b>YAR 204-2RF/VE495</b>
<b>25</b>	52	27,2	15	33,7	19,5	0,6	14	7,8	0,335	7 000	0,14	<b>YAT 205</b>
	52	34,1	15	33,7	19,8	0,6	14	7,8	0,335	7 000	0,17	<b>YAR 205-2F</b>
	52	34,1	15	33,7	19,8	0,6	14	7,8	0,335	4 300	0,17	<b>YAR 205-2RF</b>
	52	34,1	15	33,7	19,8	0,6	11,9	7,8	0,335	4 300	0,18	<b>YAR 205-2RF/HV</b>
	52	34,1	15	33,7	19,8	0,6	14	7,8	0,335	4 300	0,18	<b>YAR 205-2RF/VE495</b>
<b>30</b>	62	30,2	18	39,7	21	0,6	19,5	11,2	0,475	6 300	0,23	<b>YAT 206</b>
	62	38,1	18	39,7	22,2	0,6	19,5	11,2	0,475	6 300	0,28	<b>YAR 206-2F</b>
	62	38,1	18	39,7	22,2	0,6	19,5	11,2	0,475	3 800	0,28	<b>YAR 206-2RF</b>
	62	38,1	18	39,7	22,2	0,6	16,3	11,2	0,475	3 800	0,29	<b>YAR 206-2RF/HV</b>
	62	38,1	18	39,7	22,2	0,6	19,5	11,2	0,475	3 800	0,29	<b>YAR 206-2RF/VE495</b>
<b>35</b>	72	33	19	46,1	23,3	1	25,5	15,3	0,655	5 300	0,31	<b>YAT 207</b>
	72	42,9	19	46,1	25,4	1	25,5	15,3	0,655	5 300	0,41	<b>YAR 207-2F</b>
	72	42,9	19	46,1	25,4	1	25,5	15,3	0,655	3 200	0,41	<b>YAR 207-2RF</b>
	72	42,9	19	46,1	25,4	1	21,6	15,3	0,655	3 800	0,42	<b>YAR 207-2RF/HV</b>
	72	42,9	19	46,1	25,4	1	25,5	15,3	0,655	3 800	0,42	<b>YAR 207-2RF/VE495</b>
<b>40</b>	80	36	21	51,8	25,3	1	30,7	19	0,8	4 800	0,43	<b>YAT 208</b>
	80	49,2	21	51,8	30,2	1	30,7	19	0,8	4 800	0,55	<b>YAR 208-2F</b>
	80	49,2	21	51,8	30,2	1	30,7	19	0,8	2 800	0,55	<b>YAR 208-2RF</b>
	80	49,2	21	51,8	30,2	1	24,7	19	0,8	2 800	0,56	<b>YAR 208-2RF/HV</b>
	80	49,2	21	51,8	30,2	1	30,7	19	0,8	2 800	0,56	<b>YAR 208-2RF/VE495</b>
<b>45</b>	85	37	22	56,8	25,8	1	33,2	21,6	0,915	4 300	0,48	<b>YAT 209</b>
	85	49,2	22	56,8	30,2	1	33,2	21,6	0,915	4 300	0,60	<b>YAR 209-2F</b>
	85	49,2	22	56,8	30,2	1	33,2	21,6	0,915	2 400	0,60	<b>YAR 209-2RF</b>

Dimensions							Basic load ratings static		Fatigue load limit $P_u$	Limiting speed with shaft tolerance h6	Mass	Designation
d	D	B	C	$d_1$	$s_1$	$r_{1,2}$ min	C	$C_0$				
mm							kN		kN	r/min	kg	-
<b>50</b>	90	38,8	22	62,5	27,6	1	35,1	23,2	0,98	4 000	0,54	<b>YAT 210</b>
	90	51,6	22	62,5	32,6	1	35,1	23,2	0,98	4 000	0,69	<b>YAR 210-2F</b>
	90	51,6	22	62,5	32,6	1	35,1	23,2	0,98	2 200	0,69	<b>YAR 210-2RF</b>
	90	51,6	22	62,5	32,6	1	29,6	23,2	0,98	2 200	0,69	<b>YAR 210-2RF/HV</b>
	90	51,6	22	62,5	32,6	1	35,1	23,2	0,98	2 200	0,69	<b>YAR 210-2RF/VE495</b>
<b>55</b>	100	55,6	25	69,1	33,4	1	43,6	29	1,25	3 600	0,94	<b>YAR 211-2F</b>
	100	55,6	25	69,1	33,4	1	43,6	29	1,25	1 900	0,94	<b>YAR 211-2RF</b>
<b>60</b>	110	65,1	26	75,6	39,7	1,5	52,7	36	1,53	3 400	1,30	<b>YAR 212-2F</b>
	110	65,1	26	75,6	39,7	1,5	52,7	36	1,53	1 800	1,30	<b>YAR 212-2RF</b>
<b>65</b>	120	68,3	27	82,5	42,9	1,5	57,2	40	1,7	3 000	1,70	<b>YAR 213-2F</b>
	120	68,3	27	82,5	42,9	1,5	57,2	40	1,7	1 600	1,70	<b>YAR 213-2RF</b>
<b>70</b>	125	69,9	28	87	39,7	1,5	62,4	45	1,86	2 800	1,85	<b>YAR 214-2F</b>
<b>75</b>	130	73,3	29	92	46,1	1,5	66,3	49	2,04	2 600	2,05	<b>YAR 215-2F</b>
<b>80</b>	140	77,9	30	97,4	47,7	2	72,8	53	2,16	2 400	2,45	<b>YAR 216-2F</b>
<b>85</b>	150	81	34	105	50,8	2	83,2	62	2,4	2 200	3,20	<b>YAR 217-2F</b>
<b>90</b>	160	89	36	112,5	54	2	95,6	72	2,7	2 000	4,00	<b>YAR 218-2F</b>
<b>100</b>	180	98,4	40	124,5	63,4	2	124	93	3,35	1 900	5,25	<b>YAR 220-2F</b>

**Y-bearings with grub screws, inch shafts**  
d  $\frac{1}{2}$  -  $1\frac{7}{16}$  in



YAT

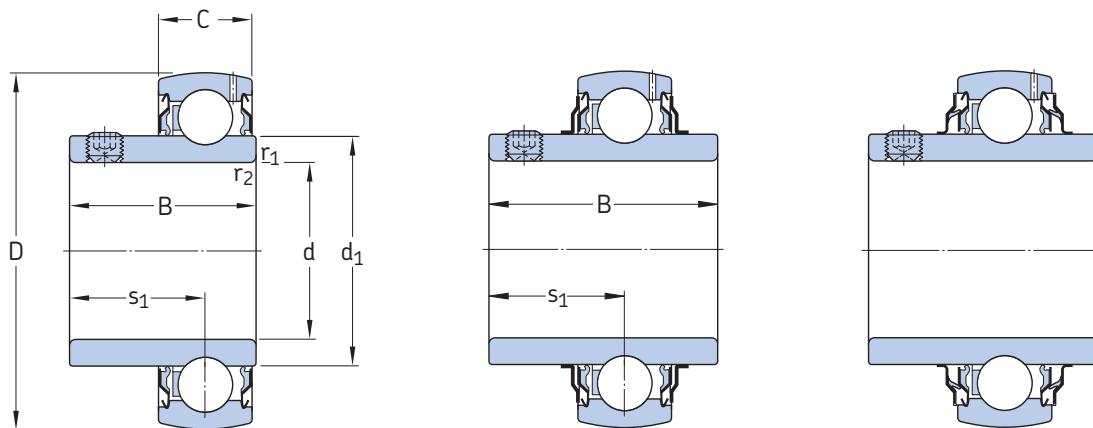
YAR-2F

YAR-2RF

Dimensions							Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass	Designation
d	D	B	C	d <sub>1</sub>	s <sub>1</sub>	r <sub>1,2</sub> min	dynamic C	static C <sub>0</sub>	P <sub>u</sub>	-	lb/kg	-
1/2 12,7	1.5748 40	1.08 27,4	0.47 12	0.95 24,2	0.63 15,9	0.01 0,3	2 150 9,56	1 070 4,75	50 0,2	9 500	0.27 0,12	YAR 203-008-2F
5/8 15,875	1.5748 40	1.08 27,4	0.47 12	0.95 24,2	0.63 15,9	0.01 0,3	2 150 9,56	1 070 4,75	50 0,2	9 500	0.23 0,11	YAR 203-010-2F
	1.5748 40	0.89 22,5	0.47 12	0.95 24,2	0.63 16	0.01 0,3	2 150 9,56	1 070 4,75	50 0,2	9 500	0.21 0,10	YAT 203-010
3/4 19,05	1.8504 47	1.22 31	0.55 14	1.11 28,2	0.72 18,3	0.02 0,6	2 860 12,7	1 470 6,55	60 0,28	8 500	0.36 0,17	YAR 204-012-2F
	1.8504 47	1.22 31	0.55 14	1.11 28,2	0.72 18,3	0.02 0,6	2 860 12,7	1 470 6,55	60 0,28	5 000	0.36	YAR 204-012-2RF
	1.8504 47	1.22 31	0.55 14	1.11 28,2	0.72 18,3	0.02 0,6	2 860 12,7	1 470 6,55	60 0,28	8 500	0.34 0,16	YAR 204-012-2F/AH
	1.8504 47	1.22 31	0.55 14	1.11 28,2	0.72 18,3	0.02 0,6	2 430 10,8	1 470 6,55	60 0,28	5 000	0.36 0,16	YAR 204-012-2RF/HV
	1.8504 47	1.00 25,5	0.55 14	1.11 28,2	0.72 18,3	0.02 0,6	2 860 12,7	1 470 6,55	60 0,28	8 500	0.31 0,14	YAT 204-012
7/8 22,225	2.0472 52	1.07 27,2	0.59 15	1.33 33,7	0.77 19,5	0.02 0,6	3 150 14	1 760 7,8	80 0,335	7 000	0.37 0,17	YAT 205-014
15/16 23,813	2.0472 52	1.34 34,1	0.59 15	1.33 33,7	0.78 19,8	0.02 0,6	3 150 14	1 760 7,8	80 0,335	7 000	0.47 0,21	YAR 205-015-2F
	2.0472 52	1.07 27,2	0.59 15	1.33 33,7	0.77 19,5	0.02 0,6	3 150 14	1 760 7,8	80 0,335	7 000	0.40 0,18	YAT 205-015
1 25,4	2.0472 52	1.34 34,1	0.59 15	1.33 33,7	0.78 19,8	0.02 0,6	3 150 14	1 760 7,8	80 0,335	7 000	0.43 0,19	YAR 205-100-2F
	2.0472 52	1.34 34,1	0.59 15	1.33 33,7	0.78 19,8	0.02 0,6	3 150 14	1 760 7,8	80 0,335	4 300	0.43 0,19	YAR 205-100-2RF
	2.0472 52	1.34 34,1	0.59 15	1.33 33,7	0.78 19,8	0.02 0,6	3 150 14	1 760 7,8	80 0,335	7 000	0.43 0,19	YAR 205-100-2F/AH
	2.0472 52	1.34 34,1	0.59 15	1.33 33,7	0.78 19,8	0.02 0,6	2 680 11,9	1 760 7,8	80 0,335	4 300	0.43 0,19	YAR 205-100-2RF/HV
	2.0472 52	1.07 27,2	0.59 15	1.33 33,7	0.77 19,5	0.02 0,6	3 150 14	1 760 7,8	80 0,335	7 000	0.36 0,16	YAT 205-100
1 1/16 26,988	2.4409 62	1.50 38,1	0.71 18	1.56 39,7	0.87 22,2	0.02 0,6	4 390 19,5	2 520 11,2	110 0,475	6 300	0.76 0,34	YAR 206-101-2F

Dimensions							Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass	Designation
d	D	B	C	d <sub>1</sub>	s <sub>1</sub>	r <sub>1,2</sub> min	dynamic C	static C <sub>0</sub>	P <sub>u</sub>			
in/mm							lbf/kN	lbf/kN	r/min	lb/kg	-	
<b>1 1/8</b> 28,575	2.4409 62	1.50 38,1	0.71 18	1.56 39,7	0.87 22,2	0.02 0,6	4 390 19,5	2 520 11,2	110 0,475	6 300	0.76 0,34	<b>YAR 206-102-2F</b>
<b>1 3/16</b> 30,163	2.4409 62 2.4409 62 2.4409 62 2.4409 62 2.4409 62	1.50 38,1 0.71 18 1.56 39,7 0.87 22,2 1.22 31 0.71 18 1.56 39,7 0.87 22,2	0.71 18 1.56 39,7 0.87 22,2 0.02 0,6 0.04 1 0.02 0,6	1.56 39,7 0.87 22,2 1.56 39,7 0.87 22,2 1.56 39,7 0.87 22,2	0.87 22,2 0.87 22,2 0.87 22 1 0.87 22,2	0.02 0,6 0.02 0,6 0.04 1 0.02 0,6	4 390 19,5 4 390 19,5 4 390 19,5 4 390 19,5 3 670 16,3	2 520 11,2 2 520 11,2 2 520 11,2 2 520 11,2 2 520 11,2	110 0,475 110 0,475 110 0,475 110 0,475 110 0,475	6 300 6 300 6 300 6 300 3 800	0.68 0,31 0.68 0,31 0.62 0,28 0.64 0,29	<b>YAR 206-103-2F</b> <b>YAR 206-103-2F/AH</b> <b>YAT 206-103</b> <b>YAR 206-103-2RF/HV</b>
<b>1 1/4</b> 31,75	2.4409 62 2.8346 72 2.8346 72 2.8346 72 2.8346 72 2.4409 62	1.50 38,1 0.75 42,9 0.75 42,9 0.75 42,9 1.22 31	0.71 18 1.82 46,1 1.82 46,1 1.82 46,1 0.71 18	1.56 39,7 1.82 46,1 1.82 46,1 1.82 46,1 1.56 39,7	0.87 22,2 1.00 25,4 1.00 25,4 1.00 25,4 0.87 22	0.02 0,6 0.04 1 0.04 1 0.04 1 0.04 1	4 390 19,5 5 740 25,5 5 740 25,5 4 860 21,6 4 390 19,5	2 520 11,2 3 440 15,3 3 440 15,3 3 440 15,3 2 520 11,2	110 0,475 150 0,655 150 0,655 150 0,655 110 0,475	6 300 5 300 3 200 3 800 6 300	0.62 0,28 1.15 0,52 1.00 0,46 1.15 0,52 0,61 0,28	<b>YAR 206-104-2F</b> <b>YAR 207-104-2F</b> <b>YAR 207-104-2RF</b> <b>YAR 207-104-2RF/HV</b> <b>YAT 206-104</b>
<b>1 5/16</b> 33,338	2.8346 72	1.69 42,9	0.75 19	1.82 46,1	1.00 25,4	0.04 1	5 740 25,5	3 440 15,3	150 0,655	5 300	1.05 0,48	<b>YAR 207-105-2F</b>
<b>1 3/8</b> 34,925	2.8346 72 2.8346 72	1.69 42,9 1.69 42,9	0.75 19 0.75 19	1.82 46,1 1.81 46,1	1.00 25,4 1 25,4	0.04 1 0.04 1	5 740 25,5 4 860 21,6	3 440 15,3 3 440 15,3	150 0,655 150 0,655	5 300 3 800	1.00 0,46 0.93 0,42	<b>YAR 207-106-2F</b> <b>YAR 207-106-2RF/HV</b>
<b>1 7/16</b> 36,513	2.8346 72 2.8346 72 3.1496 80 2.8346 72	1.69 42,9 1.69 42,9 1.94 49,2 1.38 35	0.75 19 0.75 19 0.83 21 0.75 19	1.82 46,1 1.82 46,1 2.04 51,8 1.82 46,1	1.00 25,4 1.00 25,4 1.19 30,2 1.00 25,5	0.04 1 0.04 1 0.04 1 0.04 1	5 740 25,5 4 860 21,6 6 910 30,7 5 740 25,5	3 440 15,3 3 440 15,3 4 280 19 3 440 15,3	150 0,655 150 0,655 180 0,8 150 0,655	5 300 3 800 4 800 5 300	0.93 0,42 0.95 0,43 1.55 0,70 0.83 0,38	<b>YAR 207-107-2F</b> <b>YAR 207-107-2RF/HV</b> <b>YAR 208-107-2F</b> <b>YAT 207-107</b>

Y-bearings with grub screws, inch shafts  
d  $1\frac{1}{2}$  –  $2\frac{15}{16}$  in



YAT

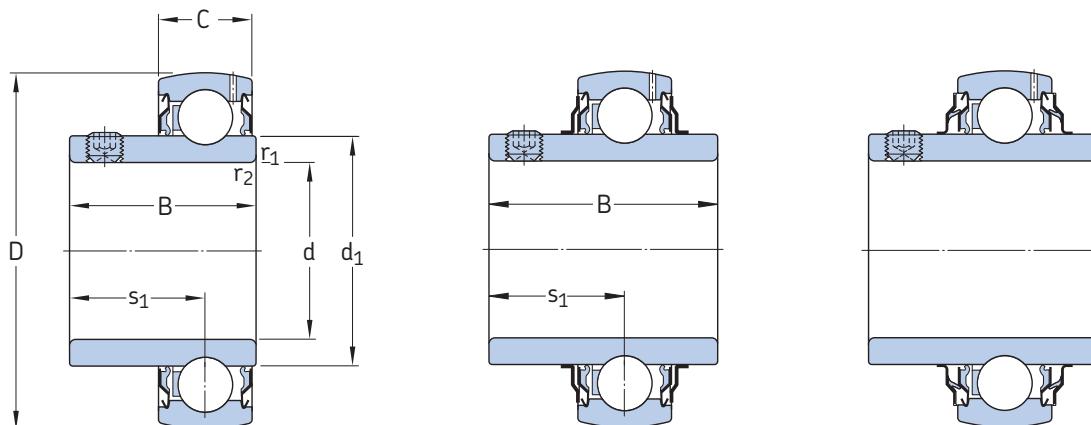
YAR-2F

YAR-2RF

Dimensions	d	D	B	C	d <sub>1</sub>	s <sub>1</sub>	r <sub>1,2</sub> min	Basic load ratings		Fatigue load limit P <sub>u</sub>	Limiting speed with shaft tolerance h6	Mass	Designation		
								dynamic C	static C <sub>0</sub>						
								lbf/kN		lbf/kN		r/min	lb/kg	–	
								in/mm		in/mm					
<b>1 1/2</b>	3.1496	1.94	0.83	2.04	1.19	0.04		6 910	4 280	180	4 800	1.30	<b>YAR 208-108-2F</b>		
38,1	80	49,2	21	51,8	30,2	1		30,7	19	0,8		0,59			
	3.1496	1.94	0.83	2.04	1.19	0.04		6 910	4 280	180	2 800	1.30	<b>YAR 208-108-2RF</b>		
	80	49,2	21	51,8	30,2	1		30,7	19	0,8		0,59			
	3.3465	1.94	0.87	2.24	1.19	0.04		7 470	4 860	210	4 300	1.89	<b>YAR 209-108-2F</b>		
	85	49,2	22	56,8	30,2	1		33,2	21,6	0,915		0,86			
	3.1496	1.57	0.83	2.04	1.12	0.04		6 910	4 280	180	4 800	1.29	<b>YAT 208-108</b>		
	80	40	21	51,8	28,5	1		30,7	19	0,8		0,58			
	3.1496	1.94	0.83	2.04	1.19	0.04		5 560	4 280	180	2 800	1.25	<b>YAR 208-108-2RF/HV</b>		
	80	49,2	21	51,8	30,2	1		24,7	19	0,8		0,56			
<b>1 9/16</b>	3.1496	1.94	0.83	2.04	1.19	0.04		6 910	4 280	180	4 300	1.40	<b>YAR 208-109-2F</b>		
39,688	80	49,2	21	51,8	30,2	1		30,7	19	0,8		0,64			
<b>1 5/8</b>	3.3465	1.94	0.87	2.24	1.19	0.04		7 470	4 860	210	4 300	1.75	<b>YAR 209-110-2F</b>		
41,275	85	49,2	22	56,8	30,2	1		33,2	21,6	0,915		0,79			
<b>1 11/16</b>	3.3465	1.94	0.87	2.24	1.19	0.04		7 470	4 860	210	4 300	1.65	<b>YAR 209-111-2F</b>		
42,863	85	49,2	22	56,8	30,2	1		33,2	21,6	0,915		0,75			
	3.3465	1.63	0.87	2.24	1.20	0.04		7 470	4 860	210	4 300	1.40	<b>YAT 209-111</b>		
	85	41,5	22	56,8	30,5	1		33,2	21,6	0,915		0,65			
<b>1 3/4</b>	3.3465	1.94	0.87	2.24	1.19	0.04		7 470	4 860	210	4 300	1.35	<b>YAR 209-112-2F</b>		
44,45	85	49,2	22	56,8	30,2	1		33,2	21,6	0,915		0,62			
	3.3465	1.94	0.87	2.24	1.19	0.04		7 470	4 860	210	2 400	1.35	<b>YAR 209-112-2RF</b>		
	85	49,2	22	56,8	30,2	1		33,2	21,6	0,915		0,62			
	3.3465	1.63	0.87	2.24	1.20	0.04		7 470	4 860	210	4 300	1.35	<b>YAT 209-112</b>		
	85	41,5	22	56,8	30,5	1		33,2	21,6	0,915		0,60			
<b>1 15/16</b>	3.5433	2.03	0.87	2.46	1.28	0.04		7 900	5 220	220	4 000	1.70	<b>YAR 210-115-2F</b>		
49,213	90	51,6	22	62,5	32,6	1		35,1	23,2	0,98		0,78			
	3.5433	2.03	0.87	2.46	1.28	0.04		7 900	5 220	220	2 200	1.70	<b>YAR 210-115-2RF</b>		
	90	51,6	22	62,5	32,6	1		35,1	23,2	0,98		0,78			
	3.5433	2.03	0.87	2.46	1.28	0.04		6 660	5 220	220	2 200	1.70	<b>YAR 210-115-2RF/HV</b>		
	90	51,6	22	62,5	32,6	1		29,6	23,2	0,98		0,78			
	3.5433	2.03	0.87	2.46	1.28	0.04		7 900	5 220	220	2 200	1.70	<b>YAR 210-115-2RF/VE495</b>		
	90	51,6	22	62,5	32,6	1		35,1	23,2	0,98		0,78			
	3.5433	1.69	0.87	2.46	1.26	0.04		7 900	5 220	220	4 000	1.50	<b>YAT 210-115</b>		
	90	43	22	62,5	32	1		35,1	23,2	0,98		0,67			

Dimensions								Basic load ratings	Fatigue load limit	Limiting speed with shaft tolerance h6	Mass	Designation
d	D	B	C	d <sub>1</sub>	s <sub>1</sub>	r <sub>1,2</sub> min		dynamic C	static C <sub>0</sub>	P <sub>u</sub>		
in/mm								lbf/kN	lbf/kN	r/min	lb/kg	-
<b>2</b>	3.9370	2.19	0.98	2.72	1.32	0.04	9 810	6 530	280	3 600	2,45	<b>YAR 211-200-2F</b>
50,8	100	55,6	25	69,1	33,4	1	43,6	29	1,25		1,10	
	3.9370	2.19	0.98	2.72	1.32	0.04	9 810	6 530	280	1 900	2,45	<b>YAR 211-200-2RF</b>
	100	55,6	25	69,1	33,4	1	43,6	29	1,25		1,10	
	3.9370	1.77	0.98	2.72	1.28	0.04	9 810	6 530	280	3 600	2,30	<b>YAT 211-200</b>
	100	45	25	69,1	32,5	1	43,6	29	1,25		1,05	
<b>2 3/16</b>	3.9370	2.19	0.98	2.72	1.32	0.04	9 810	6 530	280	3 600	2,30	<b>YAR 211-203-2F</b>
55,563	100	55,6	25	69,1	33,4	1	43,6	29	1,25		1,05	
	3.9370	2.19	0.98	2.72	1.32	0.04	9 810	6 530	280	3 600	2,30	<b>YAR 211-203-2F/AH</b>
	100	55,6	25	69,1	33,4	1	43,6	29	1,25		1,05	
	4.3307	2.56	1.02	2.98	1.56	0.06	11 860	8 100	340	3 400	3,75	<b>YAR 212-203-2F</b>
	110	65,1	26	75,6	39,7	1,5	52,7	36	1,53		1,70	
<b>2 1/4</b>	4.3307	2.56	1.02	2.98	1.56	0.06	11 860	8 100	340	3 400	3,55	<b>YAR 212-204-2F</b>
57,15	110	65,1	26	75,6	39,7	1,5	52,7	36	1,53		1,60	
	4.3307	1.91	1.02	2.98	1.38	0.06	11 860	8 100	340	3 400	2,75	<b>YAT 212-204</b>
	110	48,5	26	75,6	35	1,5	52,7	36	1,53		1,25	
<b>2 7/16</b>	4.3307	2.56	1.02	2.98	1.56	0.06	11 860	8 100	340	3 400	3,00	<b>YAR 212-207-2F</b>
61,913	110	65,1	26	75,6	39,7	1,5	52,7	36	1,53		1,35	
	4.3307	1.91	1.02	2.98	1.38	0.06	11 860	8 100	340	3 400	2,75	<b>YAT 212-207</b>
	110	48,5	26	75,6	35	1,5	52,7	36	1,53		1,25	
	4.9213	2.75	1.10	3.43	1.56	0.06	14 040	9 900	420	2 800	5,40	<b>YAR 214-207-2F</b>
	125	69,93	28	87	39,7	1,5	62,4	44	1,86		2,45	
<b>2 1/2</b>	4.7244	2,69	1.06	3.25	1.69	0.06	12 870	9 000	380	3 000	4,20	<b>YAR 213-208-2F</b>
63,5	120	68,3	27	82,5	42,9	1,5	57,2	40	1,7		1,90	
	4.7244	2,69	1.06	3.25	1.69	0.06	12 870	9 000	380	1 600	4,20	<b>YAR 213-208-2RF</b>
	120	68,3	27	82,5	42,9	1,5	57,2	40	1,7		1,90	
	4.9213	2.75	1.10	3.43	1.56	0.06	14 040	9 900	420	2 800	5,30	<b>YAR 214-208-2F</b>
	125	69,93	28	87	39,7	1,5	62,4	44	1,86		2,40	
<b>2 11/16</b>	4.7244	2,69	1.06	3.25	1.69	0.06	12 870	9 000	380	3 000	3,75	<b>YAR 213-211-2F</b>
68,263	120	68,3	27	82,5	42,9	1,5	57,2	40	1,7		1,70	
<b>2 15/16</b>	5.1181	2,88	1.14	3.62	1.82	0.06	14 920	11 030	460	2 600	4,85	<b>YAR 215-215-2F</b>
74,613	130	73,3	29	92	46,1	1,5	66,3	49	2,04		2,20	
	5.1181	2,11	1.14	3.62	1.54	0.06	14 920	11 030	460	2 600	4,65	<b>YAT 215-215</b>
	130	53,5	29	92	39	1,5	66,3	49	2,04		2,10	

Y-bearings with grub screws, inch shafts  
d 3 in



YAT

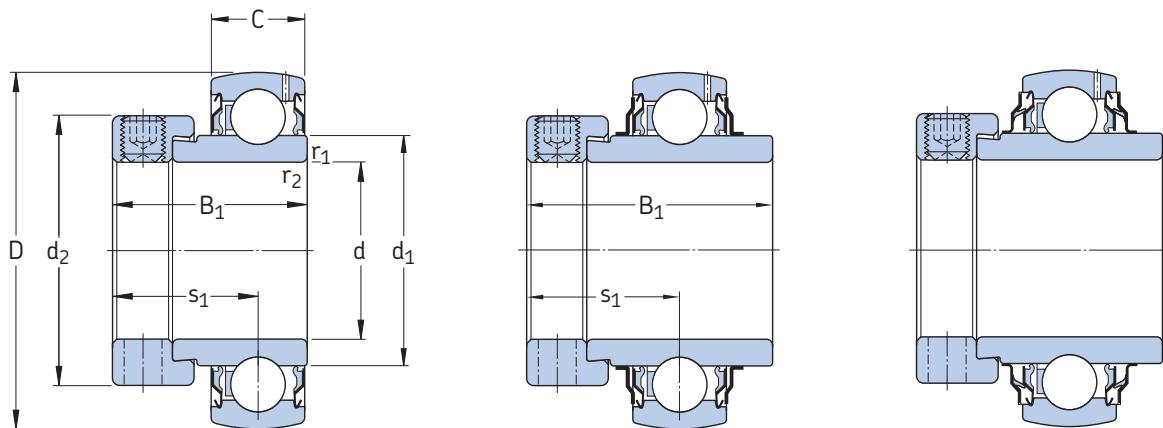
YAR-2F

YAR-2RF

Dimensions								Basic load ratings	Fatigue load limit	Limiting speed with shaft tolerance h6	Mass	Designation	
d	D	B	C	d <sub>1</sub>	s <sub>1</sub>	r <sub>1,2</sub> min	C	dynamic C	static C <sub>0</sub>	P <sub>u</sub>	r/min	lb/kg	-
in/mm							lbf/kN	lbf/kN					
3 76,2	5.5118 140	3.07 77,9	1.18 30	3.83 97,4	1.88 47,7	0.08 2	16 400 72,8	11 900 53	486 2,16	2 400	6.30 2,85	YAR 216-300-2F	
	5.5118 140	2.19 55,5	1.18 30	3.83 97,4	1.54 39	0.08 2	16 370 72,8	11 920 53	490 2,16	2 400	5.20 2,35	YAT 216-300	



**Y-bearings with an eccentric locking collar, metric shafts**  
d 15 – 60 mm



YET

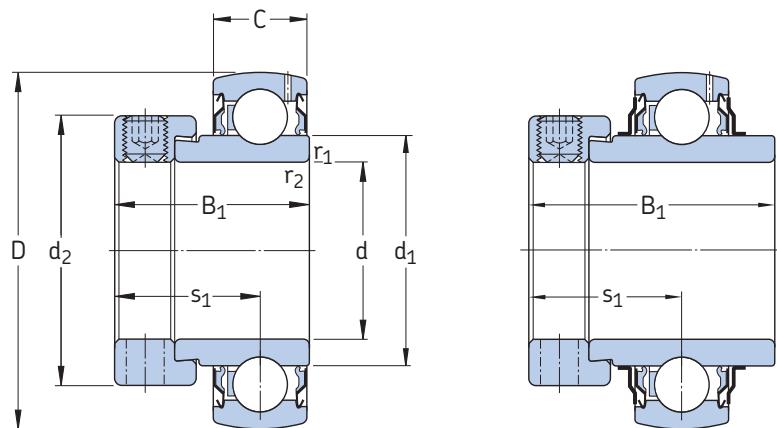
YEL-2F

YEL-2RF/VL065

Dimensions										Basic load ratings dynamic static	Fatigue load limit $P_u$	Limiting speed with shaft tolerance h6	Mass	Designation
d	D	B <sub>1</sub>	C	d <sub>1</sub>	d <sub>2</sub>	s <sub>1</sub>	r <sub>1,2</sub> min	C	C <sub>0</sub>					
mm								kN		kN	r/min	kg	–	
<b>15</b>	40	28,6	12	24,2	27,2	22,1	0,3	9,56	4,75	0,2	9 500	0,12	<b>YET 203/15</b>	
<b>17</b>	40	28,6	12	24,2	27,2	22,1	0,3	9,56	4,75	0,2	9 500	0,10	<b>YET 203</b>	
<b>20</b>	47	31	14	28,2	32,4	23,5	0,6	12,7	6,55	0,28	8 500	0,18	<b>YET 204</b>	
	47	31	14	28,2	32,4	23,5	0,6	12,7	6,55	0,28	8 500	0,18	<b>YET 204/VL065</b>	
	47	43,7	14	28,2	32,4	26,6	0,6	12,7	6,55	0,28	8 500	0,19	<b>YEL 204-2F</b>	
	47	43,7	14	28,2	32,4	26,6	0,6	12,7	6,55	0,28	5 000	0,19	<b>YEL 204-2RF/VL065</b>	
<b>25</b>	52	31	15	33,7	37,4	23,5	0,6	14	7,8	0,335	7 000	0,18	<b>YET 205</b>	
	52	31	15	33,7	37,4	23,5	0,6	14	7,8	0,335	7 000	0,18	<b>YET 205/VL065</b>	
	52	44,4	15	33,7	37,4	26,9	0,6	14	7,8	0,335	7 000	0,24	<b>YEL 205-2F</b>	
	52	44,4	15	33,7	37,4	26,9	0,6	14	7,8	0,335	4 300	0,24	<b>YEL 205-2RF/VL065</b>	
<b>30</b>	62	35,7	18	39,7	44,1	26,7	0,6	19,5	11,2	0,475	6 300	0,30	<b>YET 206</b>	
	62	35,7	18	39,7	44,1	26,7	0,6	19,5	11,2	0,475	6 300	0,30	<b>YET 206/VL065</b>	
	62	48,4	18	39,7	44,1	30,1	0,6	19,5	11,2	0,475	6 300	0,36	<b>YEL 206-2F</b>	
	62	48,4	18	39,7	44,1	30,1	0,6	19,5	11,2	0,475	3 900	0,36	<b>YEL 206-2RF/VL065</b>	
<b>35</b>	72	38,9	19	46,1	51,1	29,4	1	25,5	15,3	0,655	5 300	0,44	<b>YET 207</b>	
	72	38,9	19	46,1	51,1	29,4	1	25,5	15,3	0,655	5 300	0,44	<b>YET 207/VL065</b>	
	72	51,1	19	46,1	51,1	32,3	1	25,5	15,3	0,655	5 300	0,55	<b>YEL 207-2F</b>	
	72	51,1	19	46,1	51,1	32,3	1	25,5	15,3	0,655	3 200	0,55	<b>YEL 207-2RF/VL065</b>	
<b>40</b>	80	43,7	21	51,8	56,5	32,7	1	30,7	19	0,8	4 800	0,59	<b>YET 208</b>	
	80	43,7	21	51,8	56,5	32,7	1	30,7	19	0,8	4 800	0,59	<b>YET 208/VL065</b>	
	80	56,3	21	51,8	56,5	34,9	1	30,7	19	0,8	4 800	0,67	<b>YEL 208-2F</b>	
	80	56,3	21	51,8	56,5	34,9	1	30,7	19	0,8	2 800	0,67	<b>YEL 208-2RF/VL065</b>	
<b>45</b>	85	43,7	22	56,8	62	32,7	1	33,2	21,6	0,915	4 300	0,65	<b>YET 209</b>	
	85	56,3	22	56,8	62	34,9	1	33,2	21,6	0,915	4 300	0,74	<b>YEL 209-2F</b>	
<b>50</b>	90	43,7	22	62,5	67,2	32,7	1	35,1	23,2	0,98	4 000	0,70	<b>YET 210</b>	
	90	62,7	22	62,5	67,2	38,1	1	35,1	23,2	0,98	4 000	0,89	<b>YEL 210-2F</b>	
<b>55</b>	100	48,4	25	69,1	74,5	36,4	1	43,6	29	1,25	3 600	0,90	<b>YET 211</b>	
	100	71,4	25	69,1	74,5	43,6	1	43,6	29	1,25	3 600	1,20	<b>YEL 211-2F</b>	
<b>60</b>	110	53,1	26	75,6	82	39,6	1,5	52,7	36	1,53	3 400	1,30	<b>YET 212</b>	
	110	77,8	26	75,6	82	46,8	1,5	52,7	36	1,53	3 400	1,60	<b>YEL 212-2F</b>	

2.2

Y-bearings with an eccentric locking collar, inch shafts  
d  $\frac{1}{2}$  –  $2\frac{7}{16}$  in



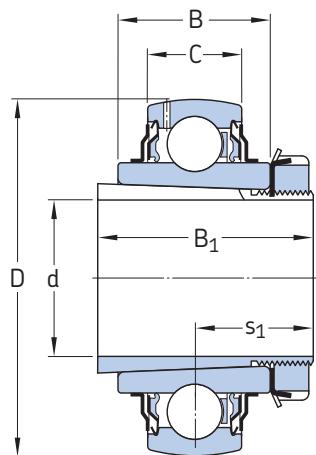
YET

YEL-2F

Dimensions								Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass	Designation
d	D	B <sub>1</sub>	C	d <sub>1</sub>	d <sub>2</sub>	s <sub>1</sub>	r <sub>1,2</sub> min	dynamic C	static C <sub>0</sub>	P <sub>u</sub>			
in/mm								lbf/kN		lbf/kN		r/min	lb/kg
$\frac{1}{2}$ 12,7	1.5748 40	1.47 37,3	0,47 12	0,95 24,2	1,07 27,2	0,92 23,4	0,01 0,3	2 150 9,56	1 070 4,75	45 0,2	9 500	0,33 0,15	YEL 203-008-2F
	1.5748 40	1.13 28,6	0,47 12	0,95 24,2	1,07 27,2	0,87 22,1	0,01 0,3	2 150 9,56	1 070 4,75	50 0,2	9 500	0,29 0,13	YET 203-008
$\frac{3}{4}$ 19,05	1.8504 47	1,72 43,7	0,55 14	1,11 28,2	1,28 32,4	1,05 26,6	0,02 0,6	2 860 12,7	1 470 6,55	60 0,28	8 500	0,44 0,20	YEL 204-012-2F
	1.8504 47	1,22 31	0,55 14	1,11 28,2	1,28 32,4	0,93 23,5	0,02 0,6	2 860 12,7	1 470 6,55	60 0,28	8 500	0,38 0,17	YET 204-012
$1$ 25,4	2,0472 52	1,22 31	0,59 15	1,33 33,7	1,47 37,4	0,93 23,5	0,02 0,6	3 150 14	1 760 7,8	80 0,335	7 000	0,40 0,18	YET 205-100
	2,0472 52	1,75 44,4	0,59 15	1,33 33,7	1,47 37,4	1,06 26,9	0,02 0,6	3 150 14	1 760 7,8	80 0,335	7 000	0,53 0,24	YEL 205-100-2F
$1\frac{1}{8}$ 28,575	2,4409 62	1,91 48,4	0,71 18	1,56 39,7	1,74 44,1	1,19 30,1	0,02 0,6	4 390 19,5	2 520 11,2	110 0,475	6 300	0,86 0,39	YEL 206-102-2F
	2,4409 62	1,41 35,7	0,71 18	1,56 39,7	1,74 44,1	1,05 26,7	0,02 0,6	4 390 19,5	2 520 11,2	110 0,475	6 300	0,73 0,33	YET 206-102
$1\frac{3}{16}$ 30,163	2,4409 62	1,91 48,4	0,71 18	1,56 39,7	1,74 44,1	1,19 30,1	0,02 0,6	4 390 19,5	2 520 11,2	110 0,475	6 300	0,82 0,37	YEL 206-103-2F
	2,4409 62	1,41 35,7	0,71 18	1,56 39,7	1,74 44,1	1,05 26,7	0,02 0,6	4 390 19,5	2 520 11,2	110 0,475	6 300	0,68 0,31	YET 206-103
$1\frac{1}{4}$ 31,75	2,8346 72	2,01 51,1	0,75 19	1,82 46,1	2,01 51,1	1,27 32,3	0,04 1	5 740 25,5	3 440 15,3	150 0,655	5 300	1,30 0,60	YEL 207-104-2F
	2,4409 62	1,41 35,7	0,71 18	1,56 39,7	1,74 44,1	1,05 26,7	0,02 0,6	4 390 19,5	2 520 11,2	110 0,475	6 300	0,64 0,29	YET 206-104
$1\frac{5}{16}$ 33,338	2,8346 72	2,01 38,9	0,75 19	1,82 46,1	2,01 51,1	1,16 29,4	0,04 1	5 740 25,5	3 440 15,3	150 0,655	5 300	1,10 0,51	YET 207-104
$1\frac{3}{8}$ 34,925	2,8346 72	2,01 51,1	0,75 19	1,82 46,1	2,01 51,1	1,27 32,3	0,04 1	5 740 25,5	3 440 15,3	150 0,655	5 300	1,20 0,55	YEL 207-106-2F
	2,8346 72	1,53 38,9	0,75 19	1,82 46,1	2,01 51,1	1,16 29,4	0,04 1	5 740 25,5	3 440 15,3	150 0,655	5 300	1,05 0,47	YET 207-106

Dimensions								Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass	Designation
d	D	B <sub>1</sub>	C	d <sub>1</sub>	d <sub>2</sub>	s <sub>1</sub>	r <sub>1,2</sub> min	dynamic C	static C <sub>0</sub>	P <sub>u</sub>			
in/mm								lbf/kN		lbf/kN		lb/kg	-
<b>1 7/16</b> 36,513	2.8346 72	2.01 51,1	0.75 19	1.82 46,1	2.01 51,1	1.27 32,3	0.04 1	5 740 25,5	3 440 15,3	150 0,655	5 300	1.15 0,53	<b>YEL 207-107-2F</b>
	2.8346 72	1.53 38,9	0.75 19	1.82 46,1	2.01 51,1	1.16 29,4	0.04 1	5 740 25,5	3 440 15,3	150 0,655	5 300	1.97 0,44	<b>YET 207-107</b>
<b>1 1/2</b> 38,1	3.1496 80	1.72 43,7	0.83 21	2.04 51,8	2.22 56,5	1.29 32,7	0.04 1	6 910 30,7	4 280 19	180 0,8	4 800	1.40 0,63	<b>YET 208-108</b>
	3.1496 80	2.22 56,3	0.83 21	2.04 51,8	2.22 56,5	1.37 34,9	0.04 1	6 910 30,7	4 280 19	180 0,8	4 800	1.70 0,77	<b>YEL 208-108-2F</b>
<b>1 11/16</b> 42,863	3.3465 85	2.22 56,3	0.87 22	2.24 56,8	2.44 62	1.37 34,9	0.04 1	7 470 33,2	4 860 21,6	210 0,915	4 300	1.95 0,88	<b>YEL 209-111-2F</b>
	3.3465 85	1.72 43,7	0.87 22	2.24 56,8	2.44 62	1.29 32,7	0.04 1	7 470 33,2	4 860 21,6	210 0,915	4 300	1.65 0,74	<b>YET 209-111</b>
<b>1 3/4</b> 44,45	3.3465 85	2.22 56,3	0.87 22	2.24 56,8	2.44 62	1.37 34,9	0.04 1	7 470 33,2	4 860 21,6	210 0,915	4 300	1.75 0,80	<b>YEL 209-112-2F</b>
	3.3465 85	1.72 43,7	0.87 22	2.24 56,8	2.44 62	1.29 32,7	0.04 1	7 470 33,2	4 860 21,6	210 0,915	4 300	1.55 0,70	<b>YET 209-112</b>
<b>1 15/16</b> 49,213	3.5433 90	2.47 62,7	0.87 22	2.46 62,5	2.65 67,2	1.50 38,1	0.04 1	7 900 35,1	5 220 23,2	220 0,98	4 000	2.05 0,94	<b>YEL 210-115-2F</b>
<b>2</b> 50,8	3.9370 100	2.81 71,4	0.98 25	2.72 69,1	2.93 74,5	1.72 43,6	0.04 1	9 810 43,6	6 530 29	280 1,25	3 600	3.30 1,50	<b>YEL 211-200-2F</b>
<b>2 3/16</b> 55,563	3.9370 100	2.81 71,4	0.98 25	2.72 69,1	2.93 74,5	1.72 43,6	0.04 1	9 810 43,6	6 530 29	280 1,25	3 600	2.85 1,30	<b>YEL 211-203-2F</b>
<b>2 7/16</b> 61,913	4.3307 110	3.06 77,8	1.02 26	2.98 75,6	3.23 82	1.84 46,8	0.06 1,5	11 860 52,7	8 100 36	340 1,53	3 400	3.75 1,70	<b>YEL 212-207-2F</b>
	4.3307 110	2.09 53,1	1.02 26	2.98 75,6	3.23 82	1.84 46,8	0.06 1,5	11 860 52,7	8 100 36	340 1,53	3 400	2.65 1,20	<b>YET 212-207</b>

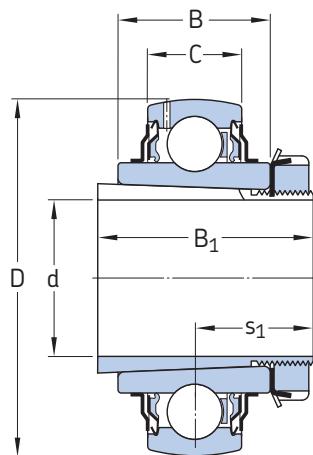
**Y-bearings with a tapered bore on an adapter sleeve, metric shafts  
d 20 – 60 mm**



Dimensions						Basic load ratings		Fatigue load limit $P_u$	Limiting speed with shaft tolerance h6	Mass Bearing + sleeve	Designations	
d	D	B	$B_1$	C	$C_0$	dynamic	static				Bearing	Adapter sleeve
mm						kN		kN	r/min	kg	-	
20	52	24	35	15	20	14	7,8	0,335	7 000	0,22	YSA 205-2FK	H 2305
25	62	28	38	18	22	19,5	11,2	0,475	6 300	0,33	YSA 206-2FK	H 2306
30	72	30,5	43	19	24,3	25,5	15,3	0,655	5 300	0,47	YSA 207-2FK	H 2307
35	80	33,9	46	21	27	30,7	19	0,8	4 800	0,69	YSA 208-2FK	H 2308
40	85	35	50	22	28,5	33,2	21,6	0,915	4 300	0,77	YSA 209-2FK	H 2309
45	90	37	55	22	30,5	35,1	23,2	0,98	4 000	0,88	YSA 210-2FK	H 2310
50	100	40	59	25	32,5	43,6	29	1,25	3 600	1,10	YSA 211-2FK	H 2311
55	110	42,5	62	26	34,3	52,7	36	1,53	3 400	1,40	YSA 212-2FK	H 2312
60	120	43,5	65	27	35,8	57,2	40	1,7	3 000	1,70	YSA 213-2FK	H 2313

2.3

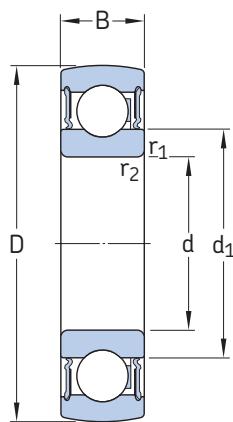
Y-bearings with a tapered bore on an adapter sleeve, inch shafts  
 $d \frac{3}{4} - 2 \frac{3}{8}$  in



Dimensions						Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass Bearing + sleeve	Designations	Adapter sleeve
d	D	B	B <sub>1</sub>	C	s <sub>1</sub>	dyn. C	stat C <sub>0</sub>	P <sub>u</sub>	r/min	lb/kg	–	
in/mm												
$\frac{3}{4}$ 19,05	2,0472 52	0,95 24	1,38 35	0,59 15	0,79 20	3 150 14	1 760 7,8	80 0,335	7 000	0,49 0,22	YSA 205-2FK	HE 2305
$\frac{15}{16}$ 23,813	2,4409 62	1,10 28	1,50 38	0,71 18	0,87 22	4 390 20	2 520 11,2	110 0,475	6 300	0,77 0,35	YSA 206-2FK	HA 2306
$1\frac{1}{16}$ 25,4	2,4409 62	1,10 28	1,50 38	0,71 18	0,87 22	4 390 20	2 520 11,2	110 0,475	6 300	0,73 0,33	YSA 206-2FK	HE 2306
$1\frac{3}{16}$ 30,163	2,8346 72	1,20 30,5	1,69 43	0,75 19	0,96 24,3	5 740 26	3 440 15,3	150 0,655	5 300	1,05 0,47	YSA 207-2FK	HA 2307
$1\frac{1}{4}$ 31,75	3,1496 80	1,34 33,9	1,81 46	0,83 21	1,06 27	6 910 31	4 280 19	180 0,8	4 800	1,50 0,69	YSA 208-2FK	HE 2308
$1\frac{7}{16}$ 36,513	3,3465 85	1,38 35	1,97 50	0,87 22	1,12 28,5	7 470 33	4 860 21,6	210 0,915	4 300	1,80 0,81	YSA 209-2FK	HA 2309
$1\frac{1}{2}$ 38,1	3,3465 85	1,38 35	1,97 50	0,87 22	1,12 28,5	7 470 33	4 860 21,6	210 0,915	4 300	1,70 0,77	YSA 209-2FK	HE 2309
$1\frac{5}{8}$ 41,275	3,5433 90	1,46 37	2,17 55	0,87 22	1,20 30,5	7 900 35	5 220 23,2	220 0,98	4 000	2,05 0,94	YSA 210-2FK	HS 2310
$1\frac{11}{16}$ 42,863	3,5433 90	1,46 37	2,17 55	0,87 22	1,20 30,5	7 900 35	5 220 23,2	220 0,98	4 000	2 0,91	YSA 210-2FK	HA 2310
$1\frac{3}{4}$ 44,45	3,5433 90	1,46 37	2,17 55	0,87 22	1,20 30,5	7 900 35	5 220 23,2	220 0,98	4 000	1,95 0,88	YSA 210-2FK	HE 2310
$1\frac{15}{16}$ 49,213	3,937 100	1,58 40	2,32 59	0,98 25	1,28 32,5	9 810 44	6 530 29	280 1,25	3 600	2,45 1,10	YSA 211-2FK	HA 2311
$2$ 50,800	3,937 100	1,58 40	2,32 59	0,98 25	1,28 32,5	9 810 44	6 530 29	280 1,25	3 600	2,45 1,10	YSA 211-2FK	HE 2311 B
$2\frac{1}{8}$ 53,975	4,3307 110	1,67 42,5	2,44 62	1,02 26	1,35 34,3	11 860 53	8 100 36	340 1,53	3 400	3,10 1,40	YSA 212-2FK	HS 2312
$2\frac{3}{16}$ 55,563	4,7244 120	1,71 43,5	2,56 65	1,06 27	1,41 35,8	12 870 57	9 000 40	380 1,7	3 000	4,20 1,90	YSA 213-2FK	HA 2313

Dimensions						Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass Bearing + sleeve	Designations Bearing	Adapter sleeve
d	D	B	B <sub>1</sub>	C	s <sub>1</sub>	dyn. C	stat C <sub>0</sub>	P <sub>u</sub>	r/min	lb/kg	–	
2 1/4 57,15	4.7244 120	1.71 43,5	2.56 65	1.06 27	1.41 35,8	12 870 57	9 000 40	380 1,7	3 000	3,95 1,80	YSA 213-2FK	HE 2313
2 3/8 60,325	4.7244 120	1.71 43,5	2.56 65	1.06 27	1.41 35,8	12 870 57	9 000 40	380 1,7	3 000	3,75 1,70	YSA 213-2FK	HS 2313

Y-bearings with a standard inner ring, metric shafts  
d 17 – 60 mm



Dimensions					Basic load ratings		Fatigue load limit	Limiting speed	Mass	Designation
d	D	B	d <sub>1</sub>	r <sub>1,2</sub> min	C dynamic	C <sub>0</sub> static	P <sub>u</sub>	r/min	kg	–
mm										
					kN		kN	r/min	kg	–
<b>17</b>	40	12	24,2	0,6	9,56	4,75	0,2	12 000	0,056	<b>1726203-2RS1</b>
<b>20</b>	47	14	28,5	1	12,7	6,55	0,28	10 000	0,095	<b>1726204-2RS1</b>
<b>25</b>	52	15	34	1	14	7,8	0,335	8 500	0,11	<b>1726205-2RS1</b>
	62	17	36,6	1,1	22,5	11,6	0,49	7 500	0,20	<b>1726305-2RS1</b>
<b>30</b>	62	16	40,3	1	19,5	11,2	0,475	7 500	0,18	<b>1726206-2RS1</b>
	72	19	44,6	1,1	28,1	16	0,67	6 300	0,30	<b>1726306-2RS1</b>
<b>35</b>	72	17	46,9	1,1	25,5	15,3	0,655	6 300	0,25	<b>1726207-2RS1</b>
	80	21	49,6	1,5	33,2	19	0,815	6 000	0,40	<b>1726307-2RS1</b>
<b>40</b>	80	18	52,6	1,1	30,7	19	0,8	5 600	0,32	<b>1726208-2RS1</b>
	90	23	56,1	1,5	41	24	1	5 000	0,55	<b>1726308-2RS1</b>
<b>45</b>	85	19	57,6	1,1	33,2	21,6	0,915	5 000	0,37	<b>1726209-2RS1</b>
	100	25	62,1	1,5	52,7	31,5	1,34	4 500	0,73	<b>1726309-2RS1</b>
<b>50</b>	90	20	62,5	1,1	35,1	23,2	0,98	4 800	0,41	<b>1726210-2RS1</b>
	110	27	68,7	2	61,8	38	1,6	4 300	0,95	<b>1726310-2RS1</b>
<b>55</b>	100	21	69	1,5	43,6	29	1,25	4 300	0,54	<b>1726211-2RS1</b>
<b>60</b>	110	22	75,5	1,5	52,7	36	1,53	4 000	0,70	<b>1726212-2RS1</b>

2.4

