



Y-bearing plummer block units

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Designs

SKFY-bearing plummer (pillow) block units are available as standard in a wide variety of designs. The standard assortment includes plummer block units with housings made of:

- composite material (→ **fig. 1**) referred to as Y-TECH plummer block units
- grey cast iron (→ **fig. 2**)
- pressed sheet steel (→ **fig. 3**)

They are located on the shaft via the inner ring of the insert bearing with either:

- grub (set) screws
- an eccentric locking collar
- an adapter sleeve

The Y-bearing can be sealed with either:

- the standard integral seal
- the standard integral seal and an additional flinger
- the highly efficient multiple seal

Additional information about Y-bearings can be found in the section *Y-bearings*, starting on **page 79**.

Y-bearing plummer block units available from stock are listed in the product tables. Other units can be composed by ordering the parts separately. The table on **pages 114** and **115** shows the wide variety of combinations of Y-bearings and Y-bearing housings.



Fig. 1



Fig. 2

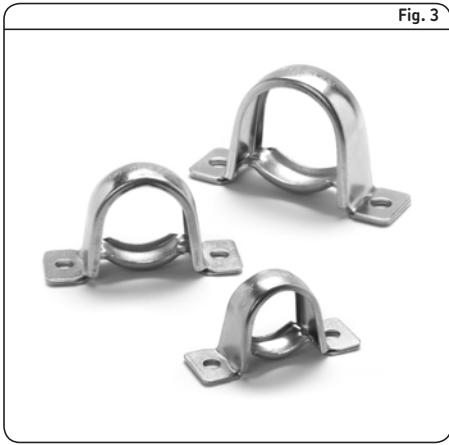


Fig. 3

Y-TECH plummer block units

Y-TECH plummer block units have housings made of composite material. They were developed for bearing arrangements that must operate reliably in difficult environments for extended periods without maintenance.

Y-TECH plummer block units in the SYK series are fitted with Y-bearings in the YAR 2-2F or YAR 2-2RF series and are attached to the shaft with grub screws (→ fig. 4). These units are part of the standard SKF product range.

For additional information about Y-TECH plummer block units for the food industry, refer to **page 274**.

Fig. 4



Y-bearing plummer block units with a cast housing

Y-bearing plummer block units with a grey cast iron housing can be relubricated through a grease fitting in the housing. This makes them especially suitable for bearing arrangements that operate under any of the following conditions:

- high levels of contamination
- high speeds
- high temperatures
- relatively heavy loads

Four different housing designs are available:

- SY(J) series with two oblong holes for the attachment bolts in the base of the housing (→ fig. 5)
- SYH series, which is similar to the SY series, but with a lower centre height
- SYM series, which is similar to the SY series, but accommodates a larger bearing for a given shaft size, resulting in a greater load carrying capacity
- SYF(J) series with a shortened base that contains two threaded holes in the support base (→ fig. 6)

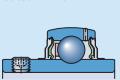
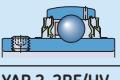
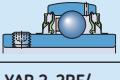
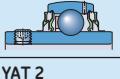
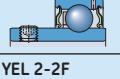
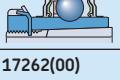
Fig. 5



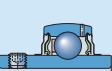
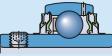
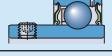
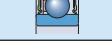
Fig. 6



Y-bearing plummer block units

Y-bearing unit	Y-bearing housings					
						
Y-bearings	SYK 5(00)	SY 5(00)	SYJ 5(00)	SYH 5(00)	SYM 5(00)	SYF 5(00)
YAR 2-2F 	SYK .. TF 20–40 mm	SY .. TF 12–65 mm 1/2–2 15/16 in.	SYJ .. TF 20–100 mm 3/4–2 1/2 in.	SYH .. TF 1/2–2 7/16 in.	SYM .. TF 1 7/16–3 in.	SYF .. TF 20–50 mm 3/4–1 3/4 in. ¹⁾
YAR 2-2RF 	SYK .. TR 20–40 mm	SY .. TR 20–60 mm 3/4–2 1/2 in. ¹⁾	20–65 mm ¹⁾ 3/4–2 1/2 in. ¹⁾	–	–	20–50 mm ¹⁾ 3/4–1 15/16 in.
YAR 2-2RF/HV 	20–40 mm ¹⁾ 3/4–1 1/2 in. ¹⁾	20–50 mm 3/4–1 15/16 in.	20–50 mm 3/4–1 15/16 in.	–	–	20–50 mm 3/4–1 15/16 in.
YAR 2-2RF/ VE495 	20–40 mm ¹⁾	20–50 mm	20–50 mm	–	–	20–50 mm
YAT 2 	20–40 mm ¹⁾	17–50 mm ¹⁾	20–50 mm ¹⁾	–	–	20–50 mm ¹⁾
YEL 2-2F 	20–40 mm ¹⁾	SY .. WF 20–60 mm 17/16–1 15/16 in.	20–60 mm ¹⁾	SYH .. WF 3/4–2 7/16 in.	–	20–50 mm ¹⁾
YEL 2-2RF/ VL065 	20–40 mm ¹⁾	20–40 mm ¹⁾	20–40 mm ¹⁾	–	–	20–40 mm ¹⁾
YET 2 	20–40 mm ¹⁾	SY .. FM 15–60 mm 3/4–1 1/2 in. ¹⁾	20–60 mm ¹⁾ 3/4–1 1/2 in. ¹⁾	SYH .. FM 1–2 in.	–	SYF .. FM 20–50 mm 3/4–1 1/2 in. ¹⁾
YSA 2-2FK on adapter sleeve 	20–35 mm ¹⁾ 3/4–1 1/4 in. ¹⁾	20–60 mm ¹⁾ 3/4–2 3/8 in. ¹⁾	SYJ .. KF 20–60 mm 3/4–2 3/8 in.	–	–	20–45 mm ¹⁾ 3/4–1 3/4 in. ¹⁾
17262(00) 	20–40 mm ¹⁾	17–60 mm ¹⁾	20–60 mm ¹⁾	–	–	20–50 mm ¹⁾

¹⁾ Parts must be ordered separately.

Y-bearing unit	Y-bearing housings	
		
Y-bearings	SYFJ 5(00)	P 40-P 85
YAR 2-2F 	SYFJ .. TF 20–50 mm 3/4–1 3/4 in. ¹⁾	12–45 mm ¹⁾ 1/2–1 3/4 in. ¹⁾
YAR 2-2RF 	20–50 mm ¹⁾ 3/4–1 3/4 in. ¹⁾	12–45 mm ¹⁾ 3/4–1 3/4 in. ¹⁾
YAR 2-2RF/HV 	20–50 mm 3/4–1 15/16 in.	20–40 mm ¹⁾ 3/4–1 1/2 in. ¹⁾
YAR 2-2RF/ VE495 	20–50 mm	20–40 mm ¹⁾
YAT 2 	20–50 mm ¹⁾	17–45 mm ¹⁾ 5/8–1 3/4 in. ¹⁾
YEL 2-2F 	20–50 mm ¹⁾	12–45 mm ¹⁾ 1/2–1 3/4 in. ¹⁾
YEL 2-2RF/ VL065 	20–40 mm ¹⁾	20–40 mm ¹⁾
YET 2 	SYFJ .. FM 20–50 mm 3/4–1 1/2 in. ¹⁾	15–45 mm ¹⁾ 1/2–1 3/4 in. ¹⁾
YSA 2-2FK on adapter sleeve 	12–45 mm ¹⁾ 3/4–1 3/4 in. ¹⁾	20–40 mm ¹⁾ 3/4–1 1/2 in. ¹⁾
17262(00) 	20–50 mm ¹⁾	17–45 mm ¹⁾

¹⁾ Parts must be ordered separately.

Y-bearing plummer block units with a pressed steel housing

Y-bearing plummer block units (→ fig. 7) with a pressed steel housing are designed for simple applications with limited loads and speeds. The two-part housing, which has no provision for relubrication, is ordered separately from the insert bearing. The individual items that make up a Y-bearing unit are:

- the two-part housing
- the Y-bearing
- the rubber seating ring, if needed

The advantage of ordering individual components is that a large number of combinations are possible.

Rubber seating rings made of acrylonitrile-butadiene rubber in the RIS 2 series (→ fig. 8) are available for these Y-bearing plummer blocks and are meant to reduce running noise and dampen vibration. The rubber seating rings also enable the bearings to be displaced slightly in their housings, for example, to accommodate shaft elongation.

Y-bearing units with a rubber seating ring are also listed in the product tables. Detailed information about rubber seating rings can be found in the section *Design of Y-bearing arrangements* on pages 45 and 46.

Data – general

Dimensions

The boundary dimensions of most Y-bearing plummer block housings are in accordance with the following standards:

- Housings in the SY 5(00) M series are in accordance with ISO 3228:1993.
- Housings in the SY 5(00) U series are in accordance with ISO 3228:1993, except the centre height H_1 , which deviates for several housing sizes.
- Housings in the SYH series are in accordance with ISO 3228:1993, except the centre height H_1 , which is lower than the standard.

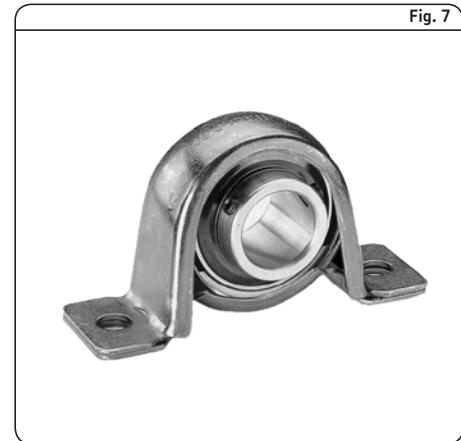


Fig. 7



Fig. 8

- Housings in the SYJ series are in accordance with JIS B 1559-1995.
- Housings in the P series are in accordance with ISO 3228:1993, except the centre height H_1 , which deviates slightly.

Y-bearing plummer block housings in the SYF, SYFJ and SYM series have not been standardized either nationally or internationally, but are common in the marketplace.

Tolerances

The tolerance for the shaft centre height H_1 (→ fig. 9) is

- $\pm 0,25$ mm for plummer block units with a bearing bore diameter ≤ 40 mm, except for units in the SYK series, where the tolerance is $+\/- 0,31$ mm
- $\pm 0,30$ mm for the larger plummer block units.

For Y-bearing plummer block units with composite or cast housings, the outside diameter of the bearing is matched to the diameter of the housing bore so that the outer ring is prevented from turning in its seat, but still able to compensate for misalignment.

Additional information about tolerances for the inner ring bore are listed in the section *Y-bearings on page 89*.

Radial internal clearance

The Y-bearing used in a Y-bearing plummer block unit has the same radial internal clearance as a similarly sized individual Y-bearing.

Additional information about the radial internal clearance can be found in the section *Y-bearings on page 90*.

Materials

Composite housings

Y-housings in the SYK series are made of injection moulded glass fibre reinforced polyamide 6. A steel coil embedded in the housing adds greater stability to the form of the housing, even if operating temperatures are elevated.

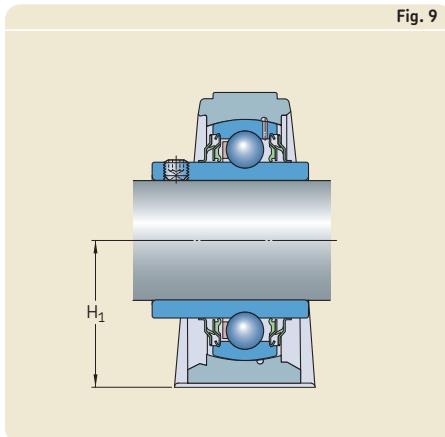
The housing bolt holes are reinforced with zinc-plated sheet steel inserts. The standard housing colour is black.

Cast housings

Housings in the SY(J), SYH, SYM and SYF(J) series are manufactured from grey cast iron EN-GJL HB195 in accordance with EN 1561:1997.

Pressed steel housings

Pressed steel housings in the P series are made from cold-rolled sheet steel and are zinc-coated for corrosion protection.



Load carrying ability of the housings

Housings made of composite material or grey cast iron are able to withstand the same dynamic and static loads as the Y-bearings they incorporate. These Y-bearing units can also be used in applications where shock loads or variable axial loads occur.

If SKF Y-bearing units are to be used in an application where health, safety, or the environment is at risk, contact the SKF application engineering service during the design phase.

Pressed steel housings have a lower load carrying capacity than their insert bearings. Permissible radial loads are specified in the product tables. The axial load should not exceed 20% of the permissible radial load.

If the bearing arrangement will be subjected to shock loads or variable axial loads, Y-bearing units with a cast or Y-TECH housing should always be used.

Y-bearing plummer block units

End covers

To protect the shaft ends and avoid contact to rotating shaft ends, end covers are available for composite and cast Y-bearing plummer block units (**→ fig. 10**).

In the product tables, end covers in the ECY 2 series are shown together with the appropriate bearing unit. The designation of the end cover is listed together with the distance that the end cover protrudes from the housing.

For additional information about end covers, refer to the section *Design of Y-bearing arrangements* on **page 47**.

Attaching to a support surface

Plummer block units have two bolt holes in the housing base through which they can be attached to their support surface with threaded fasteners. The bolt holes vary for different housings. Housings made of:

- composite material have oblong bolt holes, reinforced with zinc-coated sheet steel or stainless steel inserts
- grey cast iron – SY(J), SYH and SYM series – have cast oblong bolt holes
- grey cast iron – SYF and SYFJ series – have threaded holes in the support base
- pressed steel have round bolt holes

If the loads acting on a housing are between 55° and 120° (**→ fig. 11**), Y-TECH bearing units and SY(J), SYH and SYM plummer block units should be doweled to the support surface or stops should be provided in the direction of the load.

Recommendations for the position and size of the dowel pin holes for SY, SYJ and SYH series housings are provided in **table 1**.

Grease fills

With the exception of SKF Y-bearing units for the food industry, all standard SKF Y-bearing plummer block units are filled with a high-quality, long-lasting grease containing a lithium-calcium thickener that has a consistency of 2 on the NLGI scale.

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

Fig. 10

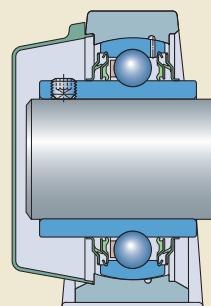
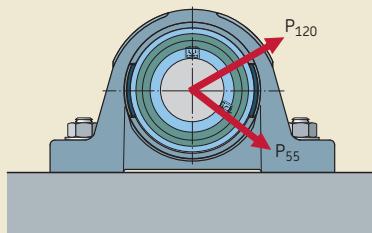


Fig. 11



Mounting

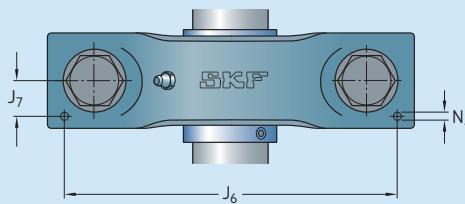
The procedure for mounting a Y-bearing plummer block unit depends on:

- the design of the housing
- the method used to attach the unit to the shaft

These methods are described in detail in the section *Mounting instructions*, starting on **page 52**.

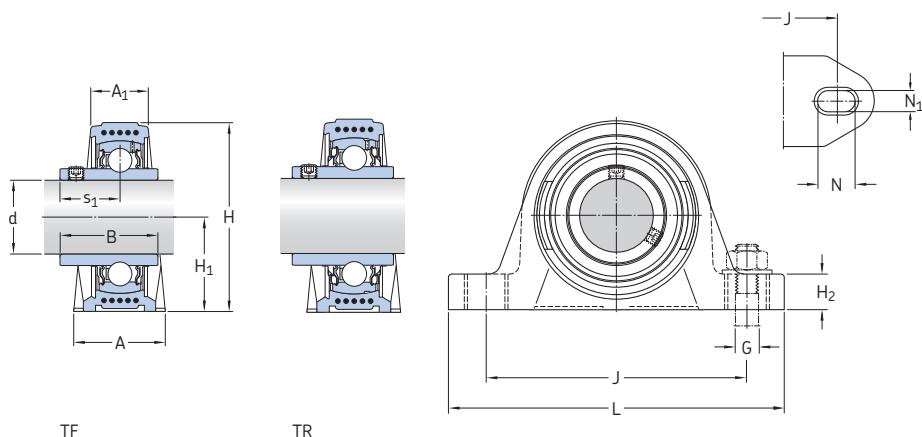
Table 1

Position and size of dowel pin holes for Y-bearing plummer block housings made of grey cast iron

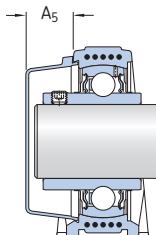


Housing size	Dimensions for housings in the SYJ series			SY, SYH series		
	J ₆	J ₇	N ₄	J ₆	J ₇	N ₄
— mm						
503	—	—	—	118	11,5	2
504	118	12,5	2	118	11,5	2
505	130	14	2	120	13	2
506	155	15	2	140	14	2
507	153	16	4	146	15,5	4
508	170	17,5	4	161	17	4
509	174	18	4	173	17	4
510	190	21	5	187	19	5
511	201	21	5	201	21	5
512	223	23,5	5	222	21	5
513	241	23	5	238	22,5	5
514	246	26	6	240	22,5	6
515	255	27	6	—	—	—
516	270	28	6	285	29	6
518	303	32	8	—	—	—
520	352	33,5	8	—	—	—

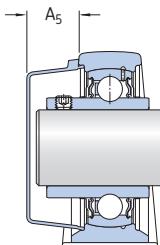
Y-TECH plummer block units with grub screws, metric shafts
d 20 – 40 mm



Dimensions	d	A	A ₁	B	H	H ₁	H ₂	J	L	N	N ₁	G	s ₁	Basic load ratings		Fatigue load limit P _u	Limiting speed with shaft tolerance h6	Designation Bearing unit
														C	C ₀			
mm															kN	kN	r/min	–
20	32	21	31	64	33,3	16	96	126	17,5	12	10	18,3		12,7	6,55	0,28	8 500	SYK 20 TF
	32	21	31	64	33,3	16	96	126	17,5	12	10	18,3		12,7	6,55	0,28	5 000	SYK 20 TR
25	32	22	34,1	70,5	36,5	16	105	134	17,5	12	10	19,8		14	7,8	0,335	7 000	SYK 25 TF
	32	22	34,1	70,5	36,5	16	105	134	17,5	12	10	19,8		14	7,8	0,335	4 300	SYK 25 TR
30	40	25	38,1	82	42,9	19	121	159	21,5	14,5	12	22,2		19,5	11,2	0,475	6 300	SYK 30 TF
	40	25	38,1	82	42,9	19	121	159	21,5	14,5	12	22,2		19,5	11,2	0,475	3 800	SYK 30 TR
35	45	27	42,9	93	47,6	19	126	164	21,5	14,5	12	25,4		25,5	15,3	0,655	5 300	SYK 35 TF
	45	27	42,9	93	47,6	19	126	164	21,5	14,5	12	25,4		25,5	15,3	0,655	3 200	SYK 35 TR
40	48	30	49,2	99	49,2	19	136	176	21,5	14,5	12	30,2		30,7	19	0,8	4 800	SYK 40 TF
	48	30	49,2	99	49,2	19	136	176	21,5	14,5	12	30,2		30,7	19	0,8	2 800	SYK 40 TR

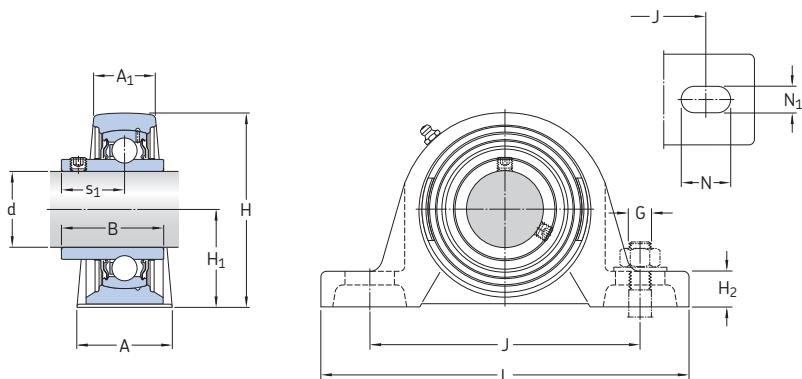


Designations			Mass	Appropriate end cover	
Bearing unit	Separate components		Bearing unit	Designation	Dimension
-	Housing	Bearing	kg	-	mm
SYK 20 TF	SYK 504	YAR 204-2F	0,24	ECY 204	18,5
SYK 20 TR	SYK 504	YAR 204-2RF	0,24	ECY 204	18,5
SYK 25 TF	SYK 505	YAR 205-2F	0,29	ECY 205	18
SYK 25 TR	SYK 505	YAR 205-2RF	0,29	ECY 205	18
SYK 30 TF	SYK 506	YAR 206-2F	0,49	ECY 206	20
SYK 30 TR	SYK 506	YAR 206-2RF	0,49	ECY 206	20
SYK 35 TF	SYK 507	YAR 207-2F	0,66	ECY 207	22
SYK 35 TR	SYK 507	YAR 207-2RF	0,66	ECY 207	22
SYK 40 TF	SYK 508	YAR 208-2F	0,86	ECY 208	23,5
SYK 40 TR	SYK 508	YAR 208-2RF	0,86	ECY 208	23,5



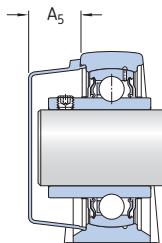
Designations Bearing unit			Mass Bearing unit	Appropriate end cover Designation Dimension A ₅	
Separate components Housing Bearing			kg	–	mm
SY 12 TF	SY 503 M	YAR 203/12-2F	0,52	–	–
SY 15 TF	SY 503 M	YAR 203/15-2F	0,51	–	–
SY 17 TF	SY 503 M	YAR 203-2F	0,50	–	–
SY 20 TF	SY 504 M	YAR 204-2F	0,57	ECY 204	18,5
SYJ 20 TF	SYJ 504	YAR 204-2F	0,55	–	–
SY 20 TR	SY 504 M	YAR 204-2RF	0,57	ECY 204	18,5
SY 25 TF	SY 505 M	YAR 205-2F	0,72	ECY 205	18
SYJ 25 TF	SYJ 505	YAR 205-2F	0,73	–	–
SY 25 TR	SY 505 M	YAR 205-2RF	0,72	ECY 205	18
SY 30 TF	SY 506 M	YAR 206-2F	1,10	ECY 206	20
SYJ 30 TF	SYJ 506	YAR 206-2F	1,05	–	–
SY 30 TR	SY 506 M	YAR 206-2RF	1,10	ECY 206	20
SY 35 TF	SY 507 M	YAR 207-2F	1,45	ECY 207	22
SYJ 35 TF	SYJ 507	YAR 207-2F	1,50	–	–
SY 35 TR	SY 507 M	YAR 207-2RF	1,45	ECY 207	22
SY 40 TF	SY 508 M	YAR 208-2F	1,80	ECY 208	23,5
SYJ 40 TF	SYJ 508	YAR 208-2F	1,85	–	–
SY 40 TR	SY 508 M	YAR 208-2RF	1,80	ECY 208	23,5
SY 45 TF	SY 509 M	YAR 209-2F	2,20	ECY 209	23
SYJ 45 TF	SYJ 509	YAR 209-2F	2,40	–	–
SY 45 TR	SY 509 M	YAR 209-2RF	2,20	ECY 209	23
SY 50 TF	SY 510 M	YAR 210-2F	2,70	ECY 210	29,5
SYJ 50 TF	SYJ 510	YAR 210-2F	2,95	–	–
SY 50 TR	SY 510 M	YAR 210-2RF	2,70	ECY 210	29,5
SY 55 TF	SY 511 M	YAR 211-2F	3,60	ECY 211	34
SYJ 55 TF	SYJ 511	YAR 211-2F	3,70	–	–
SY 55 TR	SY 511 M	YAR 211-2RF	3,60	ECY 211	34
SY 60 TF	SY 512 M	YAR 212-2F	4,45	ECY 212	35,5
SYJ 60 TF	SYJ 512	YAR 212-2F	4,85	–	–
SY 60 TR	SY 512 M	YAR 212-2RF	4,45	ECY 212	35,5

Y-bearing plummer block units with a cast housing and grub screws, metric shafts
d 65 – 100 mm



TF

Dimensions	d	A	A ₁	B	H	H ₁	H ₂	J	L	N	N ₁	G	s ₁	Basic load ratings		Fatigue load limit P _u	Limiting speed with shaft tolerance h6	Designation Bearing unit
														dynamic C	static C ₀			
	mm													kN	kN	r/min	–	
65	65 70	44 49	68,3 68,3	151 151	76,2 76,2	29 27	203 203	257 265	35 35	22 25	20 20	42,9 42,9	57,2 57,2	40 40	1,7 1,7	3 000 3 000	SY 65 TF SY 65 TF	
70	72	46	69,9	156	79,4	27	210	266	30	25	20	39,7	62,4	45	1,86	2 800	SY 70 TF	
75	74	54	73,1	166	82,5	28	217	275	30	25	20	46,1	66,3	49	2,04	2 600	SYJ 75 TF	
80	78	50	77,9	176	88,9	30	232	292	35	25	20	47,7	72,8	53	2,16	2 400	SYJ 80 TF	
90	88	54	89	201	101,6	33	262	327	35	27	22	54	95,6	72	2,7	2 000	SYJ 90 TF	
100	95	57	98,4	226	115	38	308	380	48	26	24	63,4	124	93	3,35	1 900	SYJ 100 TF	



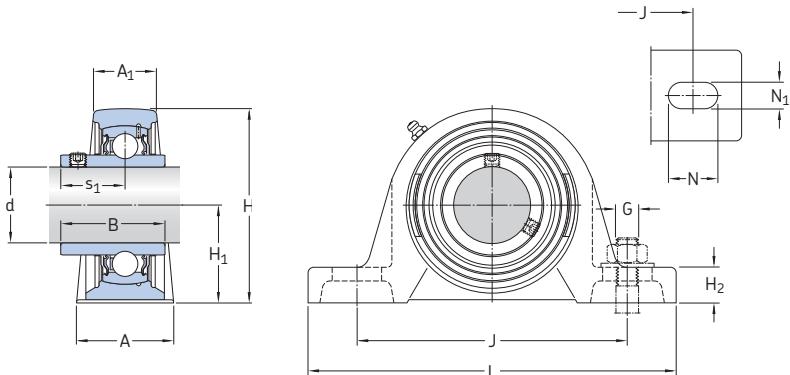
Designations			Mass	Appropriate end cover	
Bearing unit	Separate components		Bearing unit	Designation	Dimension
	Housing	Bearing		A5	
–	–	–	kg	–	mm
SY 65 TF	SY 513 M	YAR 213-2F	5,70	ECY 213	35,5
SYJ 65 TF	SYJ 513	YAR 213-2F	6,15	–	–
SYJ 70 TF	SYJ 514	YAR 214-2F	6,20	–	–
SYJ 75 TF	SYJ 515	YAR 215-2F	7,30	–	–
SYJ 80 TF	SYJ 516	YAR 216-2F	9,70	–	–
SYJ 90 TF	SYJ 518	YAR 218-2F	14,0	–	–
SYJ 100 TF	SYJ 520	YAR 220-2F	19,0	–	–

Designations Bearing unit	Separate components Housing Bearing		Basic load ratings dynamic C		static C ₀	Fatigue load limit P _u	Limiting speed with shaft tolerance h6	Mass Bearing unit
–			lbf/kN			lbf/kN	r/min	lb/kg
SY 1/2 TF	SY 503 U	YAR 203-008-2F	2 150 9,56	1 070 4,75	50 0,2	9 500	1,21 0,55	
SYH 1/2 TF	SYH 503 U	YAR 203-008-2F	2 150 9,56	1 070 4,75	50 0,2	9 500	1,21 0,55	
SY 3/4 TF	SY 504 M	YAR 204-012-2F	2 860 12,7	1 470 6,55	60 0,28	8 500	1,23 0,56	
SYJ 3/4 TF	SYJ 504	YAR 204-012-2F	2 860 12,7	1 470 6,55	60 0,28	8 500	1,19 0,54	
SY 5/8 TF	SY 503 U	YAR 203-010-2F	2 150 9,56	1 070 4,75	50 0,2	9 500	1,12 0,51	
SY 13/16 TF	SY 505 U	YAR 205-013-2F	3 150 14	1 760 7,8	80 0,335	7 000	1,85 0,84	
SY 7/8 TF	SY 505 U	YAR 205-014-2F	3 150 14	1 760 7,8	80 0,335	7 000	1,78 0,81	
SY 15/16 TF	SY 505 U	YAR 205-015-2F	3 150 14	1 760 7,8	80 0,335	7 000	1,71 0,78	
SY 1. TF	SY 505 M	YAR 205-100-2F	3 150 14	1 760 7,8	80 0,335	7 000	1,57 0,71	
SY 1. TF/AH	SY 505 U/AH	YAR 205-100-2F/AH	3 150 14	1 760 7,8	80 0,335	7 000	1,59 0,72	
SYJ 1. TF	SYJ 505	YAR 205-100-2F	3 150 14	1 760 7,8	80 0,335	7 000	1,61 0,73	
SY 1. TR	SY 505 M	YAR 205-100-2RF	3 150 14	1 760 7,8	80 0,335	4 300	1,59 0,72	
SY 1.1/16 TF	SY 506 U	YAR 206-101-2F	4 390 19,5	2 520 11,2	110 0,475	6 300	2,65 1,20	
SY 1.1/8 TF	SY 506 U	YAR 206-102-2F	4 390 19,5	2 520 11,2	110 0,475	6 300	2,60 1,20	
SY 1.3/16 TF	SY 506 U	YAR 206-103-2F	4 390 19,5	2 520 11,2	110 0,475	6 300	2,60 1,20	
SY 1.3/16 TF/AH	SY 506 U/AH	YAR 206-103-2F/AH	4 390 19,5	2 520 11,2	110 0,475	6 300	2,60 1,20	

Designations Bearing unit	Separate components Housing	Bearing	Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass Bearing unit
			dynamic C	static C ₀	P _u	r/min	lb/kg
SY 1.1/4 TF	SY 507 M	YAR 207-104-2F	5 740 25,5	3 440 15,3	150 0,655	5 300	3,35 1,50
SYJ 1.1/4 TF	SYJ 507	YAR 207-104-2F	5 740 25,5	3 440 15,3	150 0,655	5 300	3,45 1,55
SY 1.1/4 TR	SY 507 M	YAR 207-104-2RF	5 740 25,5	3 440 15,3	150 0,655	3 200	3,35 1,50
SY 1.5/16 TF	SY 507 U	YAR 207-105-2F	5 740 25,5	3 440 15,3	150 0,655	5 300	3,65 1,65
SY 1.3/8 TF	SY 507 U	YAR 207-106-2F	5 740 25,5	3 440 15,3	150 0,655	5 300	3,35 1,50
SY 1.7/16 TF	SY 507 U	YAR 207-107-2F	5 740 25,5	3 440 15,3	150 0,655	5 300	3,50 1,60
SYM 1.7/16 TF	SYM 508 U	YAR 208-107-2F	6 910 30,7	4 280 19	180 0,8	4 800	5,35 2,40
SY 1.1/2 TF	SY 508 M	YAR 208-108-2F	6 910 30,7	4 280 19	180 0,8	4 800	4,10 1,85
SY 1.1/2 TF/AH	SY 508 U/AH	YAR 208-108-2F/AH	6 910 30,7	4 280 19	180 0,8	4 800	3,95 1,80
SYJ 1.1/2 TF	SYJ 508	YAR 208-108-2F	6 910 30,7	4 280 19	180 0,8	4 800	4,20 1,90
SYM 1.1/2 TF	SYM 509 U	YAR 209-108-2F	7 470 33,2	4 860 21,6	210 0,915	4 300	2,50 2,55
SY 1.1/2 TR	SY 508 M	YAR 208-108-2RF	6 910 30,7	4 280 19	180 0,8	2 800	4,10 1,85
SY 1.9/16 TF	SY 508 U	YAR 208-109-2F	6 910 30,7	4 280 19	180 0,8	4 300	4,25 1,95
SY 1.5/8 TF	SY 509 U	YAR 209-110-2F	7 470 33,2	4 860 21,6	210 0,915	4 300	5,45 2,45

Designations Bearing unit	Separate components Housing Bearing		Basic load ratings dynamic C		Fatigue load limit P _u	Limiting speed with shaft tolerance h6	Mass Bearing unit
-			lbf/kN		lbf/kN	r/min	lb/kg
SY 1.11/16 TF	SY 509 U	YAR 209-111-2F	7 470 33,2	4 860 21,6	210 0,915	4 300	5,30 2,40
SY 1.11/16 TF/AH	SY 509 U/AH	YAR 209-111-2F/AH	7 470 33,2	4 860 21,6	210 0,915	4 300	5,30 2,40
SYM 1.11/16 TF	SYM 510 U	YAR 210-111-2F	7 900 35,1	5 220 23,2	220 0,98	4 000	6,60 3,00
SY 1.3/4 TF	SY 509 M	YAR 209-112-2F	7 470 33,2	4 860 21,6	210 0,915	4 300	4,85 2,20
SYJ 1.3/4 TF	SYJ 509	YAR 209-112-2F	7 470 33,2	4 860 21,6	210 0,915	4 300	5,30 2,40
SYM 1.3/4 TF	SY 510 U	YAR 210-112-2F	7 900 35,1	5 220 23,2	220 0,98	4 000	6,75 3,05
SY 1.15/16 TF	SY 510 U	YAR 210-115-2F	7 900 35,1	5 220 23,2	220 0,98	4 000	6,30 2,85
SY 1.15/16 TF/AH	SY 510 U/AH	YAR 210-115-2F/AH	7 900 35,1	5 220 23,2	220 0,98	4 000	6,30 2,85
SYH 1.15/16 TF	SYH 510 U	YAR 210-115-2F	7 900 35,1	5 220 23,2	220 0,98	4 000	6,45 2,90
SYM 1.15/16 TF	SY 511 U	YAR 211-115-2F	9 810 43,6	6 530 29	280 1,25	3 600	8,80 4,00
SY 2. TF	SY 511 M	YAR 211-200-2F	9 810 43,6	6 530 29	280 1,25	3 600	8,25 3,75
SYJ 2. TF	SYJ 511	YAR 211-200-2F	9 810 43,6	6 530 29	280 1,25	3 600	8,50 3,85
SY 2. TF/AH	SY 511 U/AH	YAR 211-200-2F/AH	9 810 43,6	6 530 29	280 1,25	3 600	8,80 4,00
SY 2.3/16 TF	SY 511 U	YAR 211-203-2F	9 810 43,6	6 530 29	280 1,25	3 600	7,95 3,60
SY 2.3/16 TF/AH	SY 511 U/AH	YAR 211-203-2F/AH	9 810 43,6	6 530 29	280 1,25	3 600	8,40 3,80
SYM 2.3/16 TF	SY 512 U	YAR 212-203-2F	11 860 52,7	8 100 36	340 1,53	3 400	12,0 5,45
SY 2.1/4 TF	SY 512 U	YAR 212-204-2F	11 860 52,7	8 100 36	340 1,53	3 400	12,0 5,45
SYH 2.1/4 TF	SYH 512 U	YAR 212-204-2F	11 860 52,7	8 100 36	340 1,53	3 400	10,4 4,70

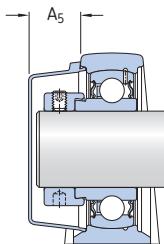
Y-bearing plummer block units with a cast housing and grub screws, inch shafts
d 2 7/16 – 3 in



TF

Dimensions												Designation Bearing unit	
d	A	A ₁	B	H	H ₁	H ₂	J	L	N	N ₁	G	s ₁	
in/mm												–	
2 7/16 61,913	2.36 60	1.65 42	2.56 65,1	5.50 139.5	2.75 69,9	1.02 26	7.50 190,5	9.45 240	1.16 29,5	0.71 18	5/8 16	1.56 39,7	SY 2.7/16 TF
	2.36 60	1.65 42	2.56 65,1	5.44 138	2.69 68,3	1.00 25,4	7.50 190,5	9.45 240	1.16 29,5	0.71 18	5/8 16	1.56 39,7	SYH 2.7/16 TF
	2.56 65	1.73 44	2.75 69,9	6.04 153,5	3.00 76,2	1.50 38,1	8.00 203,2	10.24 260	1.16 29,5	0.87 22	3/4 20	1.56 39,7	SYM 2.7/16 TF
2 1/2 63,5	2.56 65	1.73 44	2.69 68,3	5.94 151	3.00 76,2	1.14 29	7.99 203	10.12 257	1.38 35	0.87 22	3/4 20	1.69 42,9	SY 2.1/2 TF
	2.76 70	1.93 49	2.69 68,3	5.94 151	3.00 76,2	1.06 27	7.99 203	10.43 265	1.38 35	0.98 25	3/4 20	1.69 42,9	SYJ 2.1/2 TF
	2.56 65	1.73 44	2.75 69,9	6.04 153,5	3.00 76,2	1.54 39,1	8.00 203,2	10.24 260	1.16 29,5	0.87 22	3/4 20	1.56 39,7	SYM 2.1/2 TF
2 11/16 68,263	2.56 65	1.73 44	2.69 68,3	5.87 149	3.00 76,2	1.14 29	7.99 203	10.12 257	1.38 35	0.87 22	3/4 20	1.69 42,9	SY 2.11/16 TF
	3.00 76,2	1.89 48	2.88 73,1	6.97 177	3.50 88,9	1.86 47,2	9.00 228,6	12	1.38 35	0.88 22,2	3/4 20	1.81 46,1	SYM 2.11/16 TF
2 3/4 69,85	2.82 71,6	1.89 48	2.88 73,1	6.54 166	3.25 82,6	1.29 32,8	8.50 215,9	10.98 279	1.38 35	0.88 22,2	3/4 20	1.81 46,1	SY 2.3/4 TF
2 15/16 74,613	2.82 71,6	1.89 48	3.07 77,9	6.54 166	3.25 82,6	1.29 32,8	8.50 215,9	10.98 279	1.38 35	0.88 22,2	3/4 20	1.81 46,1	SY 2.15/16 TF
	3.07 78	2.05 52	3.07 77,9	6.97 177	3.50 88,9	1.87 47,6	9.00 228,6	12	1.38 35	0.88 22,2	3/4 20	1.88 47,7	SYM 2.15/16 TF
3 76,2	3.07 78	2.05 52	3.07 77,9	6.97 177	3.50 88,9	1.87 47,6	9.00 228,6	12	1.38 35	0.88 22,2	3/4 20	1.88 47,7	SYM 3. TF

Designations Bearing unit	Separate components Housing Bearing		Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass Bearing unit
			dynamic C	static C ₀	P _u	r/min	lb/kg
-					lbf/kN	lbf/kN	
SY 2.7/16 TF	SY 512 U	YAR 212-207-2F	11 860 52,7	8 100 36	340 1,53	3 400	10,0 4,55
SYH 2.7/16 TF	SYH 512 U	YAR 212-207-2F	11 860 52,7	8 100 36	340 1,53	3 400	10,3 4,65
SYM 2.7/16 TF	SY 514 U	YAR 214-207-2F	14 040 62,4	9 900 44	420 1,86	2 800	16,0 7,25
SY 2.1/2 TF	SY 513 M	YAR 213-208-2F	12 870 57,2	9 000 40	380 1,7	3 000	12,8 5,80
SYJ 2.1/2 TF	SYJ 513	YAR 213-208-2F	12 870 57,2	9 000 40	380 1,7	3 000	13,8 6,25
SYM 2.1/2 TF	SY 514 U	YAR 214-208-2F	14 040 62,4	9 900 44	420 1,86	2 800	15,4 7,00
SY 2.11/16 TF	SY 513 U	YAR 213-211-2F	12 870 57,2	9 000 40	380 1,7	3 000	12,5 5,70
SYM 2.11/16 TF	SYM 515 U	YAR 215-211-2F	14 920 66,3	11 030 49	460 2,04	2 600	23,8 10,8
SY 2.3/4 TF	SY 515 U	YAR 215-212-2F	14 920 66,3	11 030 49	460 2,04	2 600	17,7 8,00
SY 2.15/16 TF	SY 515 U	YAR 215-215-2F	16 380 72,8	11 930 53	460 2,04	2 400	16,6 7,55
SYM 2.15/16 TF	SY 516 U	YAR 216-215-2F	16 380 72,8	11 930 53	490 2,16	2 400	22,8 10,3
SYM 3. TF	SY 516 U	YAR 216-300-2F	16 380 72,8	11 930 53	490 2,16	2 400	22,4 10,2

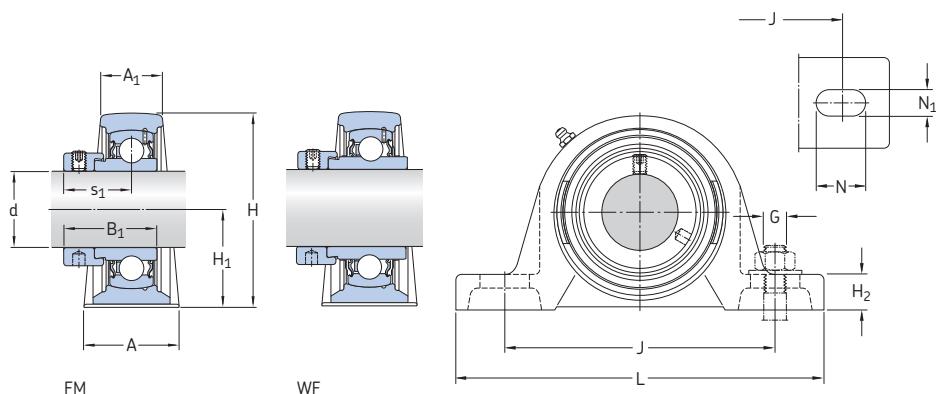


Designations			Mass	Appropriate end cover	
Bearing unit	Separate components	Housing Bearing	Bearing unit	Designation	Dimension
-	-	-	kg	-	mm
SY 15 FM	SY 503 M	YET 203/15	0,53	-	-
SY 17 FM	SY 503 M	YET 203	0,52	-	-
SY 20 FM	SY 504 M	YET 204	0,59	ECY 204	18,5
SY 20 WF	SY 504 M	YEL 204-2F	0,62	ECY 204	18,5
SY 25 FM	SY 505 M	YET 205	0,73	ECY 205	18
SY 25 WF	SY 505 M	YEL 205-2F	0,78	ECY 205	18
SY 30 FM	SY 506 M	YET 206	1,10	ECY 206	20
SY 30 WF	SY 506 M	YEL 206-2F	1,20	ECY 206	20
SY 35 FM	SY 507 M	YET 207	1,55	ECY 207	22
SY 35 WF	SY 507 M	YEL 207-2F	1,60	ECY 207	22
SY 40 FM	SY 508 M	YET 208	1,85	ECY 208	23,5
SY 40 WF	SY 508 M	YEL 208-2F	1,95	ECY 208	23,5
SY 45 FM	SY 509 M	YET 209	2,25	ECY 209	23
SY 45 WF	SY 509 M	YEL 209-2F	2,35	ECY 209	23
SY 50 FM	SY 510 M	YET 210	2,75	ECY 210	29,5
SY 50 WF	SY 510 M	YEL 210-2F	2,90	ECY 210	29,5
SY 55 FM	SY 511 M	YET 211	3,65	ECY 211	34
SY 55 WF	SY 511 M	YEL 211-2F	3,90	ECY 211	34
SY 60 FM	SY 512 M	YET 212	4,45	ECY 212	35,5
SY 60 WF	SY 512 M	YEL 212-2F	4,75	ECY 212	35,5

Designations Bearing unit	Separate components		Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass Bearing unit
	Housing	Bearing	dynamic C	static C ₀	lbf/kN	r/min	lb/kg
SY 1/2 FM	SY 503 U	YET 203-008	2 150 9,56	1 070 4,75	50 0,2	9 500	1,32 0,60
SY 3/4 FM	SY 504 U	YET 204-012	2 860 12,7	1 470 6,55	60 0,28	8 500	1,37 0,62
SYH 3/4 WF	SYH 504 U	YEL 204-012-2F	2 860 12,7	1 470 6,55	60 0,28	8 500	1,45 0,66
SY 15/16 FM	SY 505 U	YET 205-015	3 150 14	1 760 7,8	80 0,335	7 000	1,65 0,75
SYH 1. FM	SYH 505 U	YET 205-100	3 150 14	1 760 7,8	80 0,335	7 000	1,63 0,74
SYH 1. WF	SYH 505 U	YEL 205-100-2F	3 150 14	1 760 7,8	80 0,335	7 000	1,73 0,79
SY 1.1/8 FM	SY 506 U	YET 206-102	4 390 19,5	2 520 11,2	110 0,475	6 300	2,45 1,10
SYH 1.1/8 WF	SYH 506 U	YEL 206-102-2F	4 390 19,5	2 520 11,2	110 0,475	6 300	3,20 1,45
SY 1.3/16 FM	SY 506 U	YET 206-103	4 390 19,5	2 520 11,2	110 0,475	6 300	2,45 1,10
SYH 1.3/16 FM	SYH 506 U	YET 206-103	4 390 19,5	2 520 11,2	110 0,475	6 300	2,55 1,15
SYH 1.3/16 WF	SYH 506 U	YEL 206-103-2F	4 390 19,5	2 520 11,2	110 0,475	6 300	2,65 1,20
SY 1.1/4 FM	SY 507 U	YET 207-104	5 740 25,5	3 440 15,3	150 0,655	5 300	3,75 1,70
SYH 1.1/4 FM	SYH 507 U	YET 207-104	5 740 25,5	3 440 15,3	150 0,655	5 300	3,55 1,60
SYH 1.1/4 WF	SYH 507 U	YEL 207-104-2F	5 740 25,5	3 440 15,3	150 0,655	5 300	4,10 1,85
SY 1.5/16 FM	SY 507 U	YET 207-105	5 740 25,5	3 440 15,3	150 0,655	5 300	3,65 1,65

**Y-bearing plummer block units with a cast housing and an eccentric locking collar,
inch shafts**

d $2\frac{3}{16}$ – $2\frac{7}{16}$ in

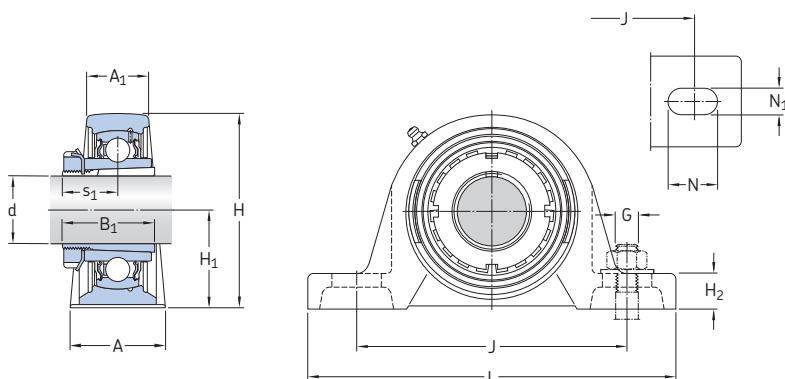


Dimensions

															Designation Bearing unit
d	A	A ₁	B ₁	H	H ₁	H ₂	J	L	N	N ₁	G	s ₁		–	
	in/mm														
$2\frac{3}{16}$	2.38	1.57	1.91	5.00	2.50	0.94	6.75	8.63	1.08	0.71	$\frac{5}{8}$	1.41		SY 2.3/16 FM	
55,563	60,4	40	48,4	127	63,5	23,8	171,5	219	27,5	18	16	35,9		SYH 2.3/16 WF	
	2.38	1.57	2.81	4.98	2.44	0.92	6.75	8.63	1.08	0.71	$\frac{5}{8}$	1.72			
	60,4	40	71,4	126,5	61,9	23,3	171,5	219	27,5	18	16	43,6			
$2\frac{7}{16}$	2.36	1.65	3.06	5.50	2.75	1.02	7.50	9.45	1.15	0.71	$\frac{5}{8}$	1.84		SYH 2.7/16 WF	
61,913	60	42	77,8	139,5	69,9	26	190,5	240	29,1	18	16	46,7			

Designations Bearing unit	Separate components		Basic load ratings		Fatigue load limit	Limiting speed	Mass
	Housing	Bearing	dynamic C	static C ₀	P _u	with shaft tolerance h6	Bearing unit
-			lbf/kN		lbf/kN	r/min	lb/kg
SY 2.3/16 FM	SY 511 U	YET 211-203	9 810 43,6	6 530 29	280 1,25	3 600	8,05 3,65
SYH 2.3/16 WF	SYH 511 U	YEL 211-203-2F	9 810 43,6	6 530 29	280 1,25	3 600	8,70 3,95
SYH 2.7/16 WF	SYH 512 U	YEL 212-207-2F	11 860 52,7	8 100 36	340 1,53	3 400	10,8 4,90

Y-bearing plummer block units with a cast housing and an adapter sleeve, metric shafts
d 20 – 60 mm



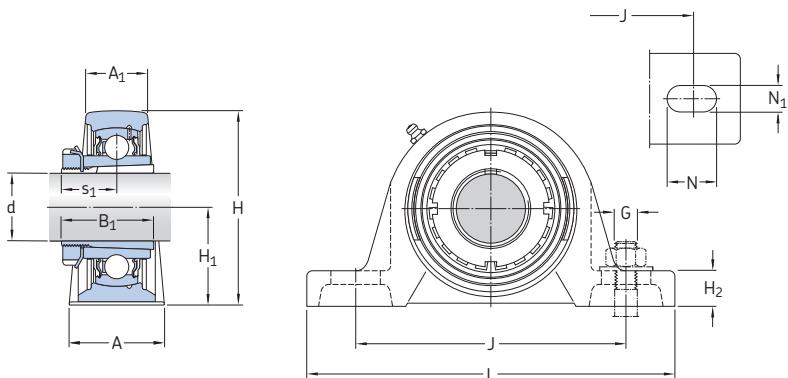
Dimensions	d	A	A ₁	B ₁	H	H ₁	H ₂	J	L	N	N ₁	G	s ₁	Basic load ratings		Fatigue load limit P _u	Designations ¹⁾	
														dynamic C	static C ₀		Bearing unit	Adapter sleeve
mm														kN	kN	–		
20	38	24	35	70,5	36,5	16	102	140	21,5	13	12	20	14	7,8	0,335	SYJ 25 KF	H 2305	
25	42	27	38	82,5	42,9	16	118	165	24	17	14	22	19,5	11,2	0,475	SYJ 30 KF	H 2306	
30	46	28	43	93	47,6	17	129	167	24	17	14	24,3	25,5	15,3	0,655	SYJ 35 KF	H 2307	
35	49	31	46	99	49,2	18	136,5	184	25,5	17	14	27	30,7	19	0,8	SYJ 40 KF	H 2308	
40	52	36	50	107,5	54	20	143,5	190	23,5	17	14	28,5	33,2	21,6	0,915	SYJ 45 KF	H 2309	
45	58	38	55	114,5	57,2	22	157,5	206	26,5	20	16	30,5	35,1	23,2	0,98	SYJ 50 KF	H 2310	
50	60	40	59	126	63,5	24	171,5	219	27,5	20	16	32,5	43,6	29	1,25	SYJ 55 KF	H 2311	
55	65	47	62	138	69,8	26,5	188,5	241	29,5	20	16	34,3	52,7	36	1,53	SYJ 60 KF	H 2312	
60	70	49	65	151	76,2	27	203	265	35	25	20	35,8	57,2	40	1,7	SYJ 65 KF	H 2313	

¹⁾ Bearing unit and adapter sleeve to be ordered separately

Designations	Bearing unit without adapter sleeve	Separate components of the bearing unit	Limiting speed	Mass Bearing unit + sleeve
	Housing	Bearing	r/min	kg
SYJ 25 KF	SYJ 505	YSA 205-2FK	7 000	0,63
SYJ 30 KF	SYJ 506	YSA 206-2FK	6 300	0,90
SYJ 35 KF	SYJ 507	YSA 207-2FK	5 300	1,25
SYJ 40 KF	SYJ 508	YSA 208-2FK	4 800	1,80
SYJ 45 KF	SYJ 509	YSA 209-2FK	4 300	2,10
SYJ 50 KF	SYJ 510	YSA 210-2FK	4 000	2,75
SYJ 55 KF	SYJ 511	YSA 211-2FK	3 600	3,85
SYJ 60 KF	SYJ 512	YSA 212-2FK	3 400	5,00
SYJ 65 KF	SYJ 513	YSA 213-2FK	3 000	6,35

Designations Bearing unit without adapter sleeve	Separate components of the bearing unit		Basic load ratings		Fatigue load limit	Limiting speed	Mass Bearing unit + sleeve
	Housing	Bearing	dynamic C	static C ₀	P _u	r/min	lb/kg
SYJ 25 KF	SYJ 505	YSA 205-2FK	3 150 14	1 760 7,8	80 0,335	7 000	1,40 0,63
SYJ 30 KF	SYJ 506	YSA 206-2FK	4 390 19,5	2 520 11,2	110 0,475	6 300	2,00 0,90
SYJ 30 KF	SYJ 506	YSA 206-2FK	4 390 19,5	2 520 11,2	110 0,475	6 300	2,00 0,90
SYJ 35 KF	SYJ 507	YSA 207-2FK	5 740 25,5	3 440 15,3	150 0,655	5 300	2,75 1,25
SYJ 40 KF	SYJ 508	YSA 208-2FK	6 910 30,7	4 280 19	180 0,8	4 800	3,95 1,80
SYJ 45 KF	SYJ 509	YSA 209-2FK	7 470 33,2	4 860 21,6	210 0,915	4 300	4,70 2,15
SYJ 45 KF	SYJ 509	YSA 209-2FK	7 470 33,2	4 860 21,6	210 0,915	4 300	4,65 2,10
SYJ 50 KF	SYJ 510	YSA 210-2FK	7 900 35,1	5 220 23,2	220 0,98	4 000	6,05 2,75
SYJ 50 KF	SYJ 510	YSA 210-2FK	7 900 35,1	5 220 23,2	220 0,98	4 000	6,05 2,75
SYJ 50 KF	SYJ 510	YSA 210-2FK	7 900 35,1	5 220 23,2	220 0,98	4 000	6,05 2,75
SYJ 55 KF	SYJ 511	YSA 211-2FK	9 810 43,6	6 530 29	280 1,25	3 600	8,50 3,85
SYJ 55 KF	SYJ 511	YSA 211-2FK	9 810 43,6	6 530 29	280 1,25	3 600	8,50 3,85
SYJ 60 KF	SYJ 512	YSA 212-2FK	11 860 52,7	8 100 36	340 1,53	3 400	11,0 5,00

Y-bearing plummer block units with a cast housing and an adapter sleeve, inch shafts
d 2 3/16 – 2 3/8 in



Dimensions

															Designations¹⁾
d	A	A ₁	B ₁	H	H ₁	H ₂	J	L	N	N ₁	G	s ₁		Bearing unit	Adapter sleeve
in/mm														–	
2 3/16 55,563	2.76 70	1.93 49	2.56 65	5.94 151	3.00 76,2	1.06 27	7.99 203	10.43 265	1.38 35	0.98 25	3/4 20	1.41 35,8		SYJ 65 KF	HA 2313
2 1/4 57,15	2.76 70	1.93 49	2.56 65	5.94 151	3.00 76,2	1.06 27	7.99 203	10.43 265	1.38 35	0.98 25	3/4 20	1.41 35,8		SYJ 65 KF	HE 2313
2 3/8 60,325	2.76 70	1.93 49	2.56 65	5.94 151	3.00 76,2	1.06 27	7.99 203	10.43 265	1.38 35	0.98 25	3/4 20	1.41 35,8		SYJ 65 KF	HS 2313

¹⁾ Bearing unit and adapter sleeve to be ordered separately