

# Split plummer block housings SNL 30, 31 and 32 series

<b>Designations</b> .....	<b>191</b>	<b>Mounting</b> .....	<b>219</b>
<b>Standard housing design</b> .....	<b>193</b>	Torque specifications .....	219
Features and benefits .....	194	Pinning or supporting the housing .....	219
Housing material .....	195	<b>Condition monitoring</b> .....	<b>220</b>
Paint, corrosion protection .....	195	<b>Accessories</b> .....	<b>221</b>
Dimension standards .....	195	<b>Ordering information</b> .....	<b>221</b>
Interchangeability .....	195	<b>Product tables</b>	
<b>Housing variants</b> .....	<b>196</b>	<b>5.1</b> Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts .....	222
Housing material .....	196	<b>5.2</b> Large SNL plummer block housings for bearings on an adapter sleeve, inch shafts .....	260
Bearing seat tolerance .....	196	<b>5.3</b> Large SNL plummer block housings for bearings on a cylindrical seat ..	302
Housings for oil lubrication .....	196		
<b>Sealing solutions</b> .....	<b>196</b>		
Labyrinth seals .....	198		
Taconite heavy-duty seals .....	198		
Seals for oil lubrication .....	198		
End covers .....	198		
<b>Using sealed bearings</b> .....	<b>200</b>		
<b>Special seals</b> .....	<b>200</b>		
Seals for large axial movements .....	200		
Custom seals .....	200		
<b>Design considerations</b> .....	<b>203</b>		
Typical shaft-bearing arrangements ..	203		
Locating and non-locating bearing positions .....	204		
Load carrying capacity .....	204		
Operating temperature .....	212		
Operating speed .....	212		
Attachment bolt recommendations .....	212		
<b>Lubrication</b> .....	<b>212</b>		
Initial grease fill .....	212		
Relubrication .....	213		
Oil lubrication .....	215		

# Designations

## Designation system for SNL plummer block housings

**SNLD 3134 SN**

### Series

**SNL** Standard plummer block housing

### Material

**-** Grey cast iron  
**D** Spheroidal graphite cast iron

### Size identification

**30(00)** Housing for bearings in the 30 dimension series  
**31(00)** Housing for bearings in the 31 dimension series  
**32(00)** Housing for bearings in the 32 dimension series  
**..34 to 96** Size code, related to the bearing bore size  
**../500 to /530** Size code, related to the bearing bore size

### Suffixes<sup>1)</sup>

**-** Housing for bearings on an adapter sleeve and a plain shaft  
**G** Housing for bearings on a cylindrical seat and a stepped shaft  
**L** Housing for a non-locating bearing arrangement  
**F** Housing for a locating bearing arrangement  
**TURT** Housing prepared for oil lubrication, including seals, for use with spherical roller bearings  
**TURA** Housing prepared for oil lubrication, including seals, for use with CARB toroidal roller bearings  
**TURP** Housing with seals for circulating oil lubrication systems and large axial shaft movements  
**V** Housing with a grease escape hole in the base  
**T** Drilled and tapped hole 1/8-27 NPSF at one side of the housing cap (opposite the lock nut) for a grease fitting  
**TD** Drilled and tapped hole 1/8-27 NPSF at both sides of the housing cap for a grease fitting  
**SN** Drilled and tapped M8 hole for sensors

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

## Split plummer block housings SNL 30, 31 and 32 series

### Designation system for seals

**TS 38**  
**TNF 88/380**

#### Series

**TS** Labyrinth seal  
**TNF** Taconite seal  
**TSD** Seal for oil lubrication

#### Size identification

**34 to 96** Size code, related to the bearing bore size  
**500 to 560** Size code, related to the bearing bore size  
**/...** Bore diameter of the seal [mm] when differing from the standard

### Designation system for end covers

**ETS 34**  
**ETS 3184 R**

#### Series

**ETS** End cover for SNL plummer block housings in the 30, 31 and 32 series

#### Size identification

**...** Size code, related to bearing or housing size

#### Suffix

**R** End cover for oil lubricated housings

### Designation system for locating rings

**FRB 12/360**

#### Series

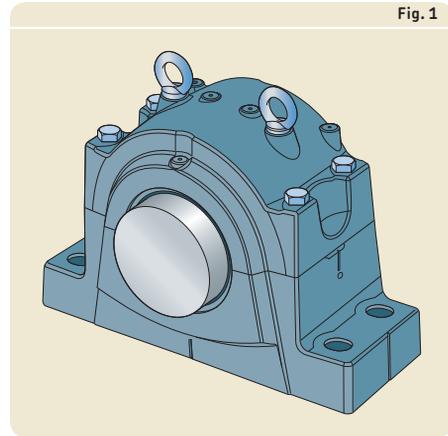
**FRB** Locating ring for SKF bearing housings

#### Size identification

**...** Width and outside diameter of the locating ring [mm]

## Standard housing design

SNL plummer (pillow) block housings in the 30, 31 and 32 series, often referred to as “large SNL plummer block housings”, are split housings consisting of a cap and base (→ **fig. 1**). They have four holes cast into the base for attachment bolts. The housings are designed on the “building block” principle to enable a wider choice of bearings and seals as well as a variety of shaft-bearing combinations and lubrication methods.



## Split plummer block housings SNL 30, 31 and 32 series

### Features and benefits

SNL plummer block housings in the 30, 31 and 32 series have the following features and benefits:

#### Stiff housing

The housing base is reinforced with ribs and has extra material surrounding the holes for the attachment bolts (→ **fig. 2**). This virtually eliminates any distortion of the base and bearing seat during tightening of the attachment bolts.

#### Good heat dissipation

The centre cross reinforcement in the housing base (→ **fig. 3**) increases the contact area between the housing base and the support surface to improve the heat flow from the bearing outer ring to the support surface.

#### Caps and bases individually marked

The housing cap and base are matched during manufacture and are not interchangeable with the caps and bases of other housings. To prevent any mismatches, a unique serial number is marked on both the housing cap and the base (→ **fig. 4**).

#### Dimples to locate accessories

Dimples cast into the housing cap indicate where grease fittings and condition monitoring sensors can be mounted for maximum effectiveness (→ **fig. 5**).

#### Simple mounting

To simplify mounting and make alignment more accurate, lines indicating the centre of the bearing seat and housing bore axis are cast into the housing base. Dimples indicate the position for dowel pins (→ **fig. 6**). Mounting instructions are supplied with each seal pack. The housings have two eyebolts on the cap for safe and easy handling.

Fig. 2

Reinforcement rib in the base

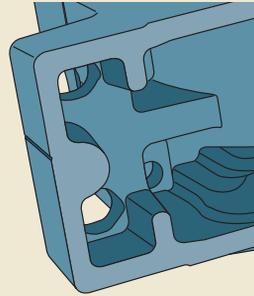


Fig. 3

Centre cross for better heat conduction

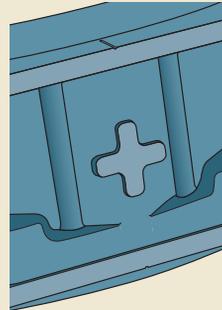


Fig. 4

Individually marked cap and base

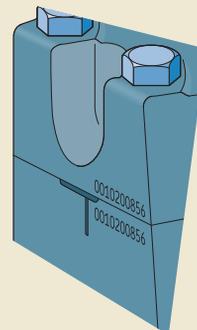


Fig. 5

Dimples indicate positions for accessories

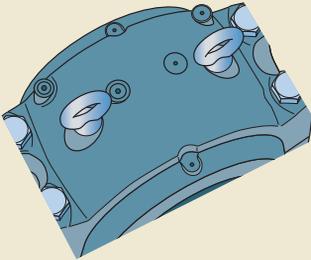
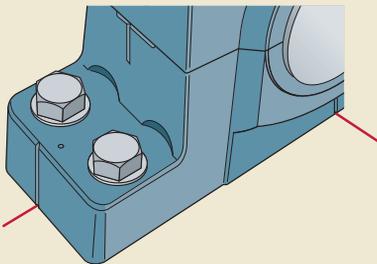


Fig. 6

Cast indications mark the centre of the housing bore



## Housing material

SNL plummer block housings are made of grey cast iron.

## Paint, corrosion protection

SNL housings are painted black (RAL 9005) 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 alkaline 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.

## Dimension standards

Where applicable, boundary dimensions are in accordance with ISO 113 for four-bolt plummer block housings. ISO 113 applies to housings with a bearing seat diameter  $D_a \leq 540$  mm.

## Interchangeability

SNL plummer block housings in the 31 series are dimensionally interchangeable with the earlier SD housings.

SNL housings in the 30 and 32 series are dimensionally interchangeable with the earlier SD housings, except for the bearing position. The offset of the bearing centre compared to the centre of the housing differs (dimension s, → product tables).

## Housing variants

In addition to standard design SNL housings, a number of variants are also available. Variants include housings made of different materials, different bearing seat tolerance classes and modifications for special applications.

### Housing material

For applications where extra strength is needed, SNL housings are also available in spheroidal graphite cast iron.

### Bearing seat tolerance

SNL housings can be supplied with different bearing seat tolerance classes, e.g. for applications prone to vibration, with rotating outer ring load or for applications operating at high temperatures.

For additional information, contact the SKF application engineering service.

### Housings for oil lubrication

SNL housings in the 30, 31 and 32 series can be used for oil lubrication at relatively high speeds. When they are to be used for oil lubri-

cation, the housings are modified to accommodate the special oil seals. As a result, large SNL housings for oil lubrication are supplied together with the seals, as a unit.

## Sealing solutions

SNL plummer (pillow) block housings in the 30, 31 and 32 series are available with different standard sealing solutions (→ fig. 7):

- labyrinth seals (TS ..)
- taconite heavy-duty seals (TNF ..)
- seals for oil lubrication (TSD .. U)
- end covers (ETS ..)

**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.

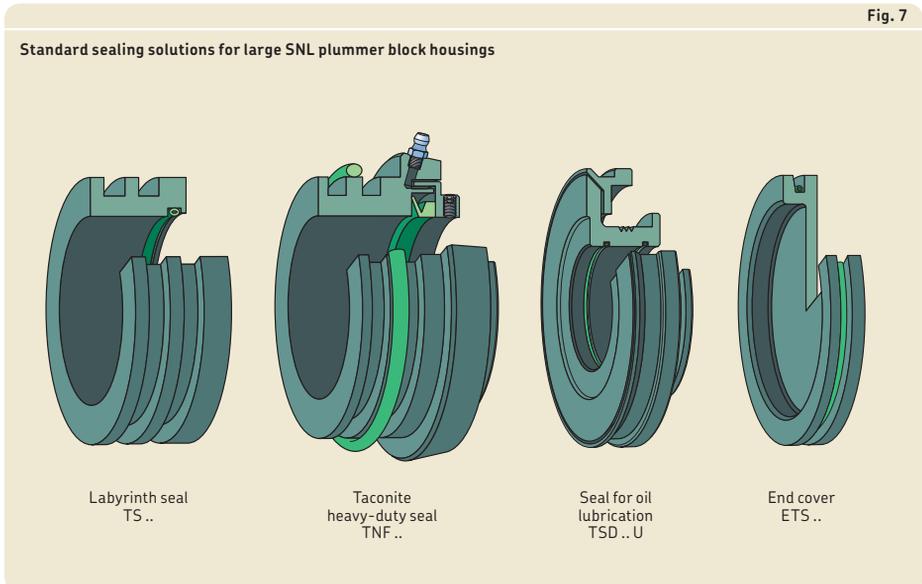
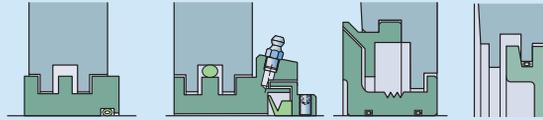


Table 1

## Standard seals for large SNL plummer block housings



## Seal

Type	Labyrinth	Taconite	Oil	End cover
Designation	TS ..	TNF ..	TSD .. U <sup>1)</sup>	ETS ..
Material	steel, silicone	steel, nitrile rubber	steel, silicone	steel, silicone
Seals per pack	1 seal	1 seal	1 seal	1 end cover

## Application conditions and requirements

Temperature [°C]	-50 to +200	-40 to +100	-50 to +200	-50 to +200
Temperature [°F]	-60 to +390	-40 to +210	-60 to +390	-60 to +390
Max. circumferential speed [m/s]	not limited	12	not limited	n/a
Max. misalignment [°]	≤ 0,3°	≤ 0,3°	≤ 0,3°	n/a
Low friction	++	+	++	n/a
Axial shaft displacement	+	+	+	n/a
Vertical shaft arrangement	--	-	--	++
Grease relubrication	+	+	n/a	++
Oil lubrication	--	-	++	n/a
Replacement	-	-	-	++
Shaft tolerance class	h9(E)	h9(E)	h9(E)	n/a
Shaft roughness R <sub>a</sub> [μm]	3,2	3,2	3,2	n/a

## Sealing suitability

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

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

<sup>1)</sup> The designation is valid for ordering spare parts. The oil seals are supplied together with the housing.

### Labyrinth seals

For applications where there are high speeds or extreme temperatures, SKF recommends using labyrinth seals. Labyrinth rings, mounted on the shaft, form a multi-stage labyrinth seal with the housing seal grooves. A hollow, silicone rubber cord, supplied with the ring, holds the ring in place on the shaft.

### Taconite heavy-duty seals

For shaft-bearing combinations that must operate under highly contaminated conditions, such as those encountered in mining, taconite heavy-duty seals, which can be filled with grease, are recommended. Grease enhances the sealing effect and extends the service life of the seals.

Taconite heavy-duty seals are labyrinth seals combined with a V-ring seal. The inner ring of the labyrinth seal is solid but the outer ring is split. They can be relubricated via a grease fitting in the main body of the seal.

The axial movement of the shaft relative to the housing is limited to  $\pm 2$  mm for shaft diameters up to 200 mm and  $\pm 4$  mm for larger shaft diameters.

### Seals for oil lubrication

Seals for oil bath and circulating oil lubrication systems require a modified housing, and are therefore supplied together with the housing ( $\rightarrow$  fig 8).

The oil seals consist of a stationary part, which is fitted in the housing, and a labyrinth ring that rotates with the shaft. The labyrinth ring is held in place by two hollow silicone rubber cords, which also help to prevent oil leakage.

SNL housings with oil seals are identified by the designation suffix TURT for spherical roller bearings and TURA for CARB toroidal roller bearings. The seal by itself is designated TSD .. U.

SNL housings for inch shafts can also be used for oil lubrication. For additional information, contact the SKF application engineering service.

### End covers

Housings at the end of a shaft should have an end cover that fits into the seal groove in the housing.

End covers, which are made of grey cast iron, are installed with a hollow, silicone rubber cord that holds the cover in place. End covers are available in two variants, one for grease lubrication and one for oil lubrication.

Details of the permissible length of the shaft end are listed in **table 2** on **page 199**.

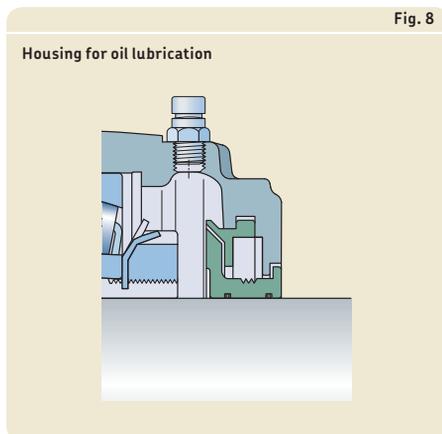
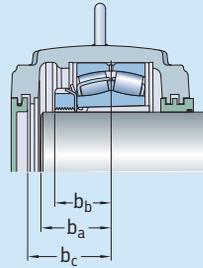
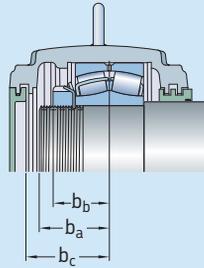


Table 2

## Permissible length of a shaft end



Housing Size	Bearing	Dimensions			
		$b_a$ min	$b_a$ max <sup>1)</sup>	$b_b$	$b_c$
mm					
–	–	–	–	–	–
<b>SNL 3036</b>	23036	72	102	66,5	107,5
	24036	85	102	79,5	107,5
<b>SNL 3038</b>	23038	73	108	68	113,5
	24038	86	108	80,5	113,5
<b>SNL 3040</b>	23040	78	112	72,5	117,5
	24040	91	112	86	117,5
<b>SNL 3044</b>	23044	91	122	86	127,5
	24044	105	122	100	127,5
<b>SNL 3048</b>	23048	97	128	92	133,5
	24048	110	128	105	133,5
<b>SNL 3052</b>	23052	103	136	98	141,5
	24052	121	136	116	141,5
<b>SNL 3056</b>	23056	108	146	103	151,5
	24056	125	146	120	151,5
<b>SNL 3060</b>	23060	118	149	113	154,5
	24060	139	149	134	154,5
<b>SNL 3064</b>	23064	121	170	115,5	175,5
	24064	140	170	135	175,5
<b>SNL 3068</b>	23068	130	181	124,5	186,5
	24068	153	181	148	186,5
<b>SNL 3072</b>	23072	130	181	125	186,5
	24072	153	181	148	186,5
<b>SNL 3076</b>	23076	134,5	197	129,5	202,5
	24076	157	197	152	202,5
<b>SNL 3080</b>	23080	145	203	140	208,5
	24080	171	203	166	208,5
<b>SNL 3084</b>	23084	146	203	141	208,5
	24084	171	203	166	208,5
<b>SNL 3088</b>	23088	160,5	218	155,5	223,5
	24088	188	218	183	223,5
<b>SNL 3092</b>	23092	163,5	238	158,5	243,5
	24092	191	238	186	243,5
<b>SNL 3096</b>	23096	164,5	238	159,5	243,5
	24096	191	238	186	243,5
<b>SNL 30/500</b>	230/500	173,5	238	168,5	243,5
	240/500	199	238	194	243,5
<b>SNL 30/530</b>	230/530	187,5	243	182,5	248,5
	240/530	220	243	215	248,5

Housing Size	Bearing	Dimensions			
		$b_a$ min	$b_a$ max <sup>1)</sup>	$b_b$	$b_c$
mm					
–	–	–	–	–	–
<b>SNL 3134</b>	23134	78	102	73	107,5
<b>SNL 3136</b>	23136	83	108	78	113,5
<b>SNL 3138</b>	23138	88	112	83	117,5
<b>SNL 3140</b>	23140	93	122	88	127,5
<b>SNL 3144</b>	23144	100	128	95	133,5
<b>SNL 3148</b>	23148	106	136	101	141,5
<b>SNL 3152</b>	23152	116	146	111	151,5
<b>SNL 3156</b>	23156	119	149	114	154,5
<b>SNL 3160</b>	23160	138	170	133	175,5
<b>SNL 3164</b>	23164	149	181	144	186,5
<b>SNL 3168</b>	23168	172	197	167	202,5
<b>SNL 3172</b>	23172	176	203	171	208,5
<b>SNL 3176</b>	23176	179	203	174	208,5
<b>SNL 3180</b>	23180	187	218	182	223,5
<b>SNL 3184</b>	23184	207	238	202	243,5
<b>SNL 3188</b>	23188	208	238	203	243,5
<b>SNL 3192</b>	23192	220	243	215	248,5
<b>SNL 3196</b>	23196	224	243	219	248,5
<b>SNL 3234</b>	23234	78	112	73	117,5
<b>SNL 3236</b>	23236	91	112	86	117,5
<b>SNL 3238</b>	23238	96	122	91	127,5
<b>SNL 3240</b>	23240	101	128	96	133,5
<b>SNL 3244</b>	23244	112	136	107	141,5
<b>SNL 3248</b>	23248	122	146	117	151,5
<b>SNL 3252</b>	23252	131	170	126	175,5
<b>SNL 3256</b>	23256	134	170	129	175,5
<b>SNL 3260</b>	23260	154	181	149	186,5
<b>SNL 3264</b>	23264	165	197	160	202,5
<b>SNL 3268</b>	23268	189	203	184	208,5
<b>SNL 3272</b>	23272	196	218	191	223,5
<b>SNL 3276</b>	23276	202	238	197	243,5
<b>SNL 3280</b>	23280	215	238	210	243,5
<b>SNL 3284</b>	23284	231	243	226	248,5
<b>SNL 3288</b>	23288	235	243	230	248,5

<sup>1)</sup> For non-locating bearing arrangements, the values for  $b_a$  must be adjusted if the bearing is not centred in the housing seat.

## Using sealed bearings

Using sealed bearings in housings with standard seals is a good solution for highly contaminated environments. The sealed bearing together with the housing seal and grease provide three layers of protection (→ *SKF three-barrier solution*, page 39).

SNL housing seals in the 30, 31 and 32 series can be used together with sealed, self-aligning SKF bearings. When using taconite heavy-duty seals, a sealed bearing does not enhance the sealing effect during operation, but still protects the bearing against contaminants during mounting.

## Special seals

In addition to the standard seal assortment, SNL housings in the 30, 31 and 32 series are also available with seals for large axial movements. Custom seals for special applications are also available on request.

### Seals for large axial movements

Large SNL housings are available with seals that can accommodate large axial movements, a typical requirement of drying cylinders and felt rolls in paper machines. The double labyrinth seals are designed for circulating oil lubrication systems. The seals are fitted in a modified housing, designation suffix TURP,

and are always supplied together with the housing.

SNL ... TURP housings are suitable for spherical roller and CARB toroidal roller bearings in the 30 and 31 dimension series from size 3036 to 30/530 and 3134 to 3196.

### Custom seals

SNL housings in the 30, 31 and 32 series can be equipped with any type of seal that fits the seal groove dimensions in the housing. The relevant dimensions are provided in **tables 3 and 4** on **pages 201 and 202**.

If custom seals are to be used, SKF recommends ordering housings in the SNL .. G series. Housings in the SNL .. G series have larger bores at the front and back of the housing and can accommodate a wider choice of seal designs.

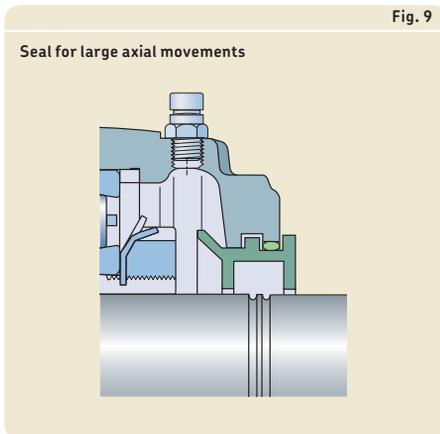
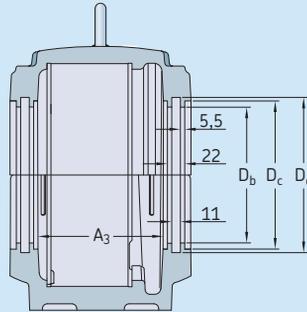


Table 3

## Seal groove dimensions

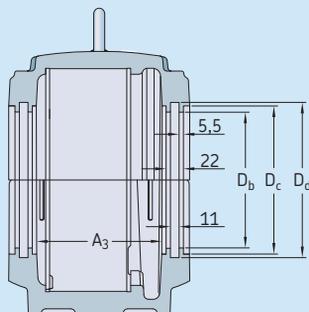


Housing Size	Dimensions				Housing Size	Dimensions			
	A <sub>3</sub>	D <sub>b</sub>	D <sub>c</sub>	D <sub>d</sub>		A <sub>3</sub>	D <sub>b</sub>	D <sub>c</sub>	D <sub>d</sub>
–	mm				–	mm			
<b>SNL 3036</b>	158	181,2	196,4	205,2	<b>SNL 3176</b>	328	382,4	397,4	406,4
<b>SNL 3038</b>	168	191,4	206,4	215,4	<b>SNL 3180</b>	358	402,8	417,8	426,8
<b>SNL 3040</b>	186	201,4	216,4	225,4	<b>SNL 3184</b>	388	422,8	437,8	446,8
<b>SNL 3044</b>	206	221,4	236,4	245,4	<b>SNL 3188</b>	388	442,8	457,8	466,8
<b>SNL 3048</b>	214	241,4	256,4	265,4	<b>SNL 3192</b>	398	463	478	487
<b>SNL 3052</b>	231	261,6	276,6	285,6	<b>SNL 3196</b>	398	483	498	507
<b>SNL 3056</b>	249	281,6	296,6	305,6	<b>SNL 3234</b>	186	201,4	216,4	225,4
<b>SNL 3060</b>	249	301,6	316,6	325,6	<b>SNL 3236</b>	187	191,4	206,4	215,4
<b>SNL 3064</b>	279	321,8	336,8	345,8	<b>SNL 3238</b>	207	201,4	216,4	225,4
<b>SNL 3068</b>	299	342,4	357,4	366,4	<b>SNL 3240</b>	214	241,4	256,4	265,4
<b>SNL 3072</b>	297	362,4	377,4	386,4	<b>SNL 3244</b>	231	241,4	256,4	265,4
<b>SNL 3076</b>	328	382,4	397,4	406,4	<b>SNL 3248</b>	249	261,6	276,6	285,6
<b>SNL 3080</b>	328	402,8	417,8	426,8	<b>SNL 3252</b>	279	321,8	336,8	345,8
<b>SNL 3084</b>	328	422,8	437,8	446,8	<b>SNL 3256</b>	280	301,6	316,8	325,6
<b>SNL 3088</b>	358	442,8	457,8	466,8	<b>SNL 3260</b>	300	321,8	336,8	345,8
<b>SNL 3092</b>	388	463	478	487	<b>SNL 3264</b>	328	342,4	357,4	366,4
<b>SNL 3096</b>	388	483	498	507	<b>SNL 3268</b>	328	382,4	397,4	406,4
<b>SNL 30/500</b>	388	503	518	527	<b>SNL 3272</b>	358	402,8	417,8	426,8
<b>SNL 30/530</b>	398	533	548	557	<b>SNL 3276</b>	388	463	478	487
<b>SNL 3134</b>	159	171,2	186,4	195,2	<b>SNL 3280</b>	388	442,8	457,8	466,8
<b>SNL 3136</b>	169	181,2	196,4	205,2	<b>SNL 3284</b>	398	463	478	487
<b>SNL 3138</b>	187	191,4	206,4	215,4	<b>SNL 3288</b>	398	483	498	507
<b>SNL 3140</b>	207	201,4	216,4	225,4					
<b>SNL 3144</b>	215	221,4	236,4	245,4					
<b>SNL 3148</b>	231	241,4	256,4	265,4					
<b>SNL 3152</b>	249	261,6	276,6	285,6					
<b>SNL 3156</b>	249	281,6	296,6	305,6					
<b>SNL 3160</b>	280	301,6	316,8	325,6					
<b>SNL 3164</b>	300	321,8	336,8	345,8					
<b>SNL 3168</b>	328	342,4	357,4	366,4					
<b>SNL 3172</b>	328	362,4	377,4	386,4					

## Split plummer block housings SNL 30, 31 and 32 series

Table 4

Seal groove dimensions for SNL .. G housings



Housing Size	Dimensions				Housing Size	Dimensions			
	A <sub>3</sub>	D <sub>b</sub>	D <sub>c</sub>	D <sub>d</sub>		A <sub>3</sub>	D <sub>b</sub>	D <sub>c</sub>	D <sub>d</sub>
–	mm				–	mm			
<b>SNL 3036 G</b>	156	221,4	236,4	245,4	<b>SNL 3176 G</b>	325	422,8	437,8	446,8
<b>SNL 3038 G</b>	166	221,4	236,4	245,4	<b>SNL 3180 G</b>	354	463	478	487
<b>SNL 3040 G</b>	184	241,4	256,4	265,4	<b>SNL 3184 G</b>	384	483	498	507
<b>SNL 3044 G</b>	203	261,6	276,6	285,6	<b>SNL 3188 G</b>	384	503	518	527
<b>SNL 3048 G</b>	211	281,6	296,6	305,6	<b>SNL 3192 G</b>	395	533	548	557
<b>SNL 3052 G</b>	228	301,6	316,8	325,6	<b>SNL 3196 G</b>	394	563	578	587
<b>SNL 3056 G</b>	247	321,8	336,8	345,8	<b>SNL 3234 G</b>	186	201,4	216,4	225,4
<b>SNL 3060 G</b>	247	342,4	357,4	366,4	<b>SNL 3236 G</b>	185	221,4	236,4	245,4
<b>SNL 3064 G</b>	277	362,4	377,4	386,4	<b>SNL 3238 G</b>	204	241,4	256,4	265,4
<b>SNL 3068 G</b>	295	382,4	397,4	406,4	<b>SNL 3240 G</b>	214	241,4	256,4	265,4
<b>SNL 3072 G</b>	293	402,8	417,8	426,8	<b>SNL 3244 G</b>	230	281,6	296,6	305,6
<b>SNL 3076 G</b>	325	422,8	437,8	446,8	<b>SNL 3248 G</b>	248	301,6	316,8	325,6
<b>SNL 3080 G</b>	325	463	478	487	<b>SNL 3252 G</b>	279	321,8	336,8	345,8
<b>SNL 3084 G</b>	325	483	498	507	<b>SNL 3256 G</b>	278	341,8	356,8	365,8
<b>SNL 3088 G</b>	354	503	518	527	<b>SNL 3260 G</b>	297	361,8	376,8	385,8
<b>SNL 3092 G</b>	384	533	548	557	<b>SNL 3264 G</b>	325	382,4	397,4	406,4
<b>SNL 3096 G</b>	384	533	548	557	<b>SNL 3268 G</b>	328	382,4	397,4	406,4
<b>SNL 30/500 G</b>	384	563	578	587	<b>SNL 3272 G</b>	358	402,8	417,8	426,8
<b>SNL 30/530 G</b>	392	603	618	627	<b>SNL 3276 G</b>	387	463	478	487
<b>SNL 3134 G</b>	157	201,4	216,4	225,4	<b>SNL 3280 G</b>	386	503	518	527
<b>SNL 3136 G</b>	166	221,4	236,4	245,4	<b>SNL 3284 G</b>	393	533	548	557
<b>SNL 3138 G</b>	185	221,4	236,4	245,4	<b>SNL 3288 G</b>	392	563	578	587
<b>SNL 3140 G</b>	204	241,4	256,4	265,4					
<b>SNL 3144 G</b>	213	261,6	276,6	285,6					
<b>SNL 3148 G</b>	230	281,6	296,6	305,6					
<b>SNL 3152 G</b>	248	301,6	316,8	325,6					
<b>SNL 3156 G</b>	248	321,8	336,8	345,8					
<b>SNL 3160 G</b>	278	342,4	357,4	366,4					
<b>SNL 3164 G</b>	297	362,4	377,4	386,4					
<b>SNL 3168 G</b>	325	382,4	397,4	406,4					
<b>SNL 3172 G</b>	325	402,8	417,8	426,8					

## Design considerations

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

- *Typical shaft-bearing combinations* (→ **page 41**)
- *Locating/non-locating bearing arrangements* (→ **page 40**)
- *Load carrying capacity* (→ **page 44**)
- *Axial load carrying capacity for bearings on sleeves* (→ **page 44**)
- *Specifications for shafts and housing support surfaces* (→ **page 45**)

For additional information about rolling bearings and adapter sleeves, refer to the product information available online at [skf.com/bearings](http://skf.com/bearings).

### Typical shaft-bearing combinations

SNL housings in the 30, 31 and 32 series can accommodate different shaft-bearing combinations (→ **fig. 10**):

- plain shaft with bearing on an adapter sleeve
- stepped shaft with bearing on a cylindrical seat
- stepped shaft with bearing on a withdrawal sleeve

#### Plain shaft with bearing on an adapter sleeve

Housings, appropriate parts and dimensions are listed in **product tables 5.1** and **5.2**, starting on **pages 222** and **260** respectively.

#### Stepped shaft with bearing on a cylindrical seat

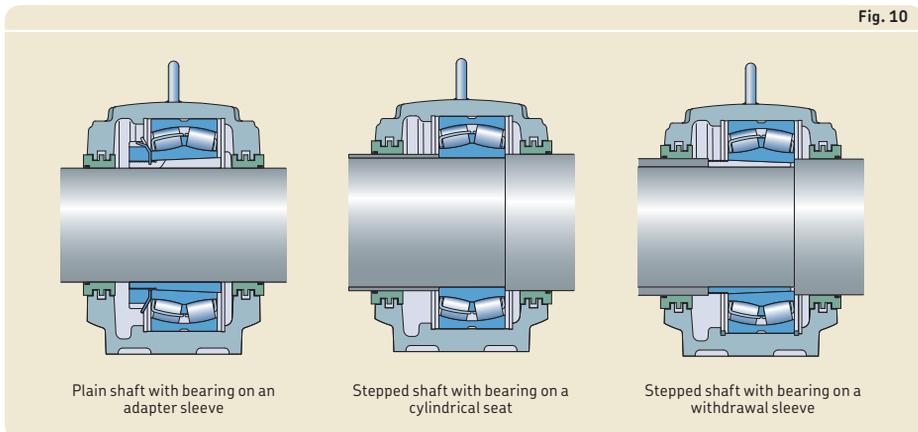
Housings, appropriate parts and dimensions are listed in **product table 5.3**, starting on **page 302**.

The bearing is located axially between a shaft shoulder and a spacer sleeve, which is held in place by another component on the shaft. The outside diameter of the sleeve must match the bore diameter of the seal. The sleeve is not supplied by SKF.

#### Stepped shaft with bearing on a withdrawal sleeve

When using an SNL housing for this arrangement, the withdrawal sleeve must be located axially on the shaft. This can be done using a spacer sleeve that is held in place by another component. Using a lock nut can be difficult because of the limited space in the housing. The outside diameter of the spacer sleeve must match the bore diameter of the seal. The spacer sleeve is not supplied by SKF.

5



### Locating and non-locating bearing positions

SNL housings can be used for both the locating and non-locating bearing positions.

For smaller sizes, the housings are machined standard for bearings in the non-locating position. Bearings in the locating position as well as CARB toroidal roller bearings must be secured in the housing on both sides with locating rings. Appropriate locating rings are listed in the product tables.

Housings from sizes 3076, 3168 and 3264 upwards are supplied in two designs:

- Housings with the suffix F have a bearing seat that matches the bearing width. These housings should be used for spherical roller bearings in the locating position and CARB toroidal roller bearings.
- Housings with the suffix L have a bearing seat that is wider than the bearing. These housings should be used for spherical roller bearings in the non-locating position. The possible axial displacement is at least 20 mm.

### Load carrying capacity

SNL housings are intended for loads acting perpendicularly toward the support surface. If the housing 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, or if the housing is not supported over its entire base, be sure that the magnitude of the load is permissible for the housing, the cap bolts and the attachment bolts. When housings are subjected to cyclic loads or dynamic imbalance, contact the SKF application engineering service.

#### Breaking loads and safety factors

Guideline values for the breaking loads  $P$  for housings made of grey cast iron are listed in **table 5** on **page 205**.

To obtain the permissible load for a housing, the appropriate breaking load value should be divided by a factor based on the safety requirements. In general engineering, a safety factor of 6 is typical (→ *Load carrying capacity*, **page 44**).

The permissible load can only be exploited if the cap bolts are tightened at least to the torque values listed in **table 7** on **page 210**.

The limits for  $P_{0^\circ}$  apply only when the housing is not supported over its entire base.

The load  $P_a$  is the axial breaking load of the housing. If the incorporated bearing is mounted on a sleeve, check the permissible axial load for the sleeve.

For housings made of spheroidal graphite cast iron, the values obtained from **tables 5** and **6** should be multiplied by a factor of 1,8.

#### Safe loads

In some countries, safe loads are used instead of breaking loads. Approximate safe loads are listed in **table 6** on **page 207**. These guideline values have been established using accepted engineering practices, taking safety, ultimate tensile strength of the materials and working stresses into account. They reflect a safety factor of 5 against fracture, and a minimum factor of 2 against cap bolt yield.

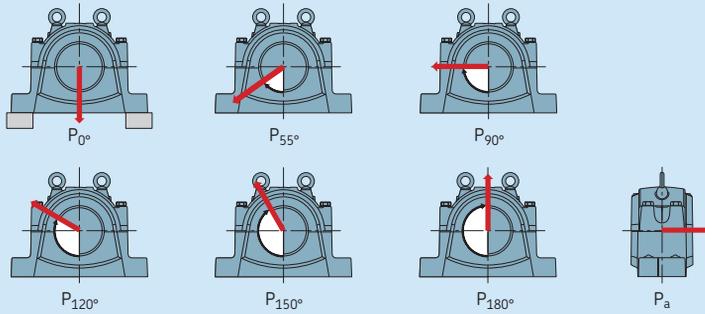
#### Additional housing support

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  $55^\circ$  and  $120^\circ$ , or when the axial loads are greater than 5% of  $P_{180^\circ}$  (→ **table 6** on **page 207**), the housing should be pinned to the support surface or a stop should be provided to counter the load. The dowel pins or stop should be sufficiently strong to accommodate the loads acting parallel to the support surface.

Recommendations for the position and size of the holes to accommodate dowel pins are provided in **table 11** on **page 219**.

Table 5

Breaking loads for large SNL plummer block housings made of grey cast iron



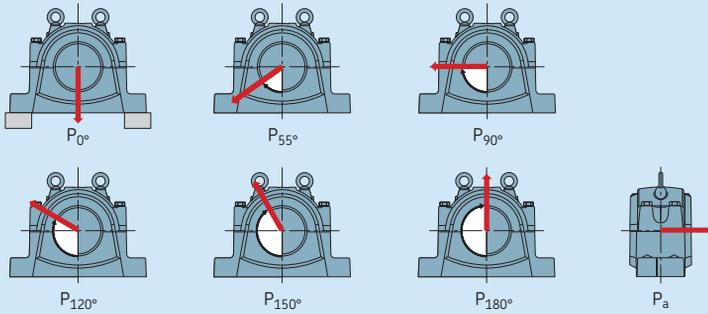
Housing Size	Breaking loads						
	$P_{0^\circ}$	$P_{55^\circ}$	$P_{90^\circ}$	$P_{120^\circ}$	$P_{150^\circ}$	$P_{180^\circ}$	$P_a$
–	kN						
SNL 3036	1 700	2 100	1 000	760	680	850	550
SNL 3038	1 900	2 400	1 150	850	760	950	620
SNL 3040	2 200	2 700	1 300	1 000	880	1 100	710
SNL 3044	2 600	3 200	1 600	1 100	1 000	1 300	840
SNL 3048	3 100	4 000	1 900	1 400	1 300	1 600	1 000
SNL 3052	3 400	4 200	2 000	1 500	1 400	1 700	1 100
SNL 3056	3 800	4 700	2 300	1 700	1 500	1 900	1 200
SNL 3060	4 000	5 000	2 400	1 800	1 600	2 000	1 300
SNL 3064	4 800	6 000	2 900	2 200	1 900	2 400	1 500
SNL 3068	5 400	7 000	3 400	2 500	2 200	2 800	1 800
SNL 3072	5 400	7 000	3 400	2 500	2 200	2 800	1 800
SNL 3076	6 000	7 500	3 600	2 600	2 300	3 000	1 900
SNL 3080	6 000	7 700	3 600	2 700	2 400	3 000	2 000
SNL 3084	6 100	8 000	3 900	2 900	2 500	3 200	2 100
SNL 3088	7 000	8 700	4 200	3 100	2 700	3 500	2 200
SNL 3092	7 600	9 600	4 600	3 400	3 000	3 800	2 400
SNL 3096	7 600	9 600	4 600	3 400	3 000	3 800	2 400
SNL 30/500	8 000	10 000	4 800	3 600	3 100	4 000	2 500
SNL 30/530	8 000	11 200	5 400	4 000	3 500	4 400	2 800
SNL 3134	1 700	2 100	1 000	760	680	850	550
SNL 3136	1 900	2 400	1 150	850	760	950	620
SNL 3138	2 200	2 700	1 300	1 000	880	1 100	710
SNL 3140	2 600	3 200	1 600	1 100	1 000	1 300	840
SNL 3144	3 100	4 000	1 900	1 400	1 300	1 600	1 000
SNL 3148	3 400	4 200	2 000	1 500	1 400	1 700	1 100
SNL 3152	3 800	4 700	2 300	1 700	1 500	1 900	1 200
SNL 3156	4 000	5 000	2 400	1 800	1 600	2 000	1 300
SNL 3160	4 800	6 000	2 900	2 200	1 900	2 400	1 500
SNL 3164	5 400	7 000	3 400	2 500	2 200	2 800	1 800
SNL 3168	6 000	7 500	3 600	2 600	2 300	3 000	1 900
SNL 3172	6 000	7 700	3 600	2 700	2 400	3 000	2 000

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## Split plummer block housings SNL 30, 31 and 32 series

cont. Table 5

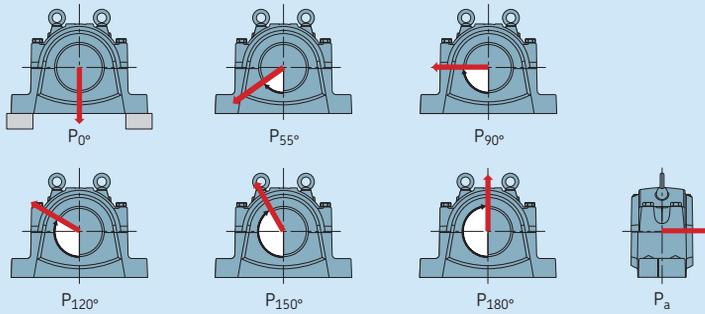
Breaking loads for large SNL plummer block housings made of grey cast iron



Housing Size	Breaking loads						
	$P_{0^\circ}$	$P_{55^\circ}$	$P_{90^\circ}$	$P_{120^\circ}$	$P_{150^\circ}$	$P_{180^\circ}$	$P_a$
–	kN						
SNL 3176	6 100	8 000	3 900	2 900	2 500	3 200	2 100
SNL 3180	7 000	8 700	4 200	3 100	2 700	3 500	2 200
SNL 3184	7 600	9 600	4 600	3 400	3 000	3 800	2 400
SNL 3188	8 000	10 000	4 800	3 600	3 100	4 000	2 500
SNL 3192	8 400	10 700	5 200	3 800	3 300	4 200	2 700
SNL 3196	8 800	11 200	5 400	4 000	3 500	4 400	2 800
SNL 3234	2 200	2 700	1 300	1 000	880	1 100	710
SNL 3236	2 200	2 700	1 300	1 000	880	1 100	710
SNL 3238	2 600	3 200	1 600	1 100	1 000	1 300	840
SNL 3240	3 100	4 000	1 900	1 400	1 300	1 600	1 000
SNL 3244	3 400	4 200	2 000	1 500	1 400	1 700	650
SNL 3248	3 800	4 700	2 300	1 700	1 500	1 900	670
SNL 3252	4 800	6 000	2 900	2 200	1 900	2 400	1 150
SNL 3256	4 800	6 000	2 900	2 200	1 900	2 400	1 200
SNL 3260	5 400	7 000	3 400	2 500	2 200	2 800	1 600
SNL 3264	6 000	7 500	3 600	2 600	2 300	3 000	1 450
SNL 3268	6 100	8 000	3 900	2 900	2 500	3 200	1 850
SNL 3272	7 000	8 700	4 200	3 100	2 700	3 500	1 600
SNL 3276	7 600	9 600	4 600	3 400	3 000	3 800	2 100
SNL 3280	8 000	10 000	4 800	3 600	3 100	4 000	2 400
SNL 3284	8 400	10 700	5 200	3 800	3 300	4 200	2 600
SNL 3288	8 800	11 200	5 400	4 000	3 500	4 400	2 700

Table 6

Safe loads for large SNL plummer block housings made of grey cast iron



Housing Size	Safe loads <sup>1)</sup>						
	P <sub>0°</sub>	P <sub>55°</sub>	P <sub>90°</sub>	P <sub>120°</sub>	P <sub>150°</sub>	P <sub>180°</sub>	P <sub>a</sub>
–	kN / lbf.						
<b>SNL 3036</b>	340 76 500	420 94 500	200 45 000	152 34 200	136 30 600	170 38 250	110 24 750
<b>SNL 3038</b>	380 85 500	480 108 000	230 51 750	170 38 250	152 34 200	190 42 750	124 27 900
<b>SNL 3040</b>	440 99 000	540 121 500	260 58 500	200 45 000	176 39 600	220 49 500	142 31 950
<b>SNL 3044</b>	520 117 000	640 144 000	320 72 000	220 49 500	200 45 000	260 58 500	168 37 800
<b>SNL 3048</b>	620 139 500	800 180 000	380 85 500	280 63 000	260 58 500	320 72 000	200 45 000
<b>SNL 3052</b>	680 153 000	840 189 000	400 90 000	300 67 500	280 63 000	340 76 500	220 49 500
<b>SNL 3056</b>	760 171 000	940 211 500	460 103 500	340 76 500	300 67 500	380 85 500	240 54 000
<b>SNL 3060</b>	800 180 000	1 000 225 000	480 108 000	360 81 000	320 72 000	400 90 000	260 58 500
<b>SNL 3064</b>	960 216 000	1 200 270 000	580 130 500	440 99 000	380 85 500	480 108 000	300 67 500
<b>SNL 3068</b>	1 080 243 000	1 400 315 000	680 153 000	500 112 500	440 99 000	560 126 000	360 81 000
<b>SNL 3072</b>	1 080 243 000	1 080 243 000	680 153 000	500 112 500	440 99 000	560 126 000	360 81 000
<b>SNL 3076</b>	1 200 270 000	1 500 337 500	720 162 000	520 117 000	460 103 500	600 135 000	380 85 500
<b>SNL 3080</b>	1 200 270 000	1 540 346 500	720 162 000	540 121 500	480 108 000	600 135 000	400 90 000
<b>SNL 3084</b>	1 220 274 500	1 600 360 000	780 175 500	580 130 500	500 112 500	640 144 000	420 94 500
<b>SNL 3088</b>	1 400 315 000	1 740 391 500	840 189 000	620 139 500	540 121 500	700 157 500	440 99 000
<b>SNL 3092</b>	1 520 342 000	1 920 432 000	920 207 000	680 153 000	600 135 000	760 171 000	480 108 000
<b>SNL 3096</b>	1 520 342 000	1 920 432 000	920 207 000	680 153 000	600 135 000	760 171 000	480 108 000
<b>SNL 30/500</b>	1 600 360 000	2 000 450 000	960 216 000	720 162 000	620 139 500	800 180 000	500 112 500
<b>SNL 30/530</b>	1 760 396 000	2 240 504 000	1 080 243 000	800 180 000	700 157 500	880 198 000	560 126 000

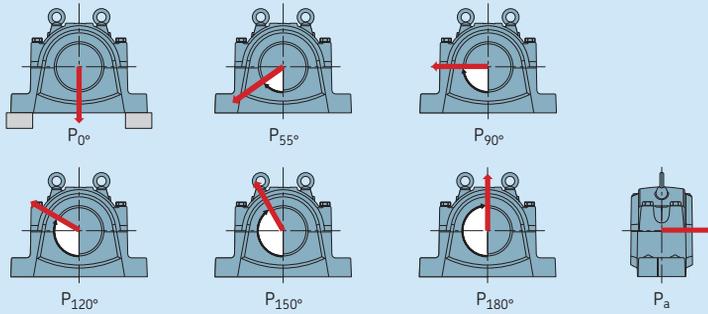
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<sup>1)</sup> The values are based on a safety factor of 5.

## Split plummer block housings SNL 30, 31 and 32 series

cont. Table 6

### Safe loads for large SNL plummer block housings made of grey cast iron

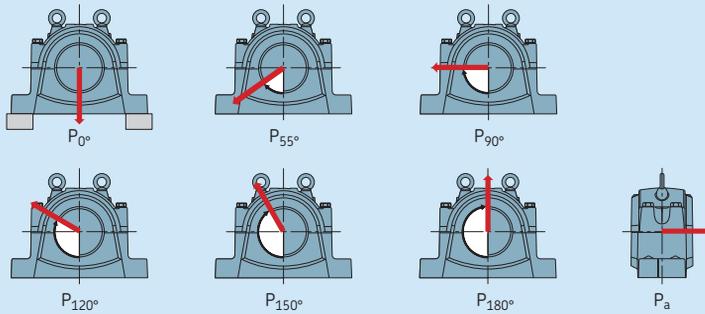


Housing Size	Safe loads <sup>1)</sup>						
	$P_{0^\circ}$	$P_{55^\circ}$	$P_{90^\circ}$	$P_{120^\circ}$	$P_{150^\circ}$	$P_{180^\circ}$	$P_a$
–	kN / lbf.						
SNL 3134	340	420	200	152	136	170	110
	76 500	94 500	45 000	34 200	30 600	38 250	24 750
SNL 3136	380	480	230	170	152	190	124
	85 500	108 000	51 750	38 250	34 200	42 750	27 900
SNL 3138	440	540	260	200	176	220	142
	99 000	121 500	58 500	45 000	39 600	49 500	31 950
SNL 3140	520	640	320	220	200	260	168
SNL 3144	117 000	144 000	72 000	49 500	45 000	58 500	37 800
	620	800	380	280	260	320	200
SNL 3148	139 500	180 000	85 500	63 000	58 500	72 000	45 000
	680	840	400	300	280	340	220
SNL 3152	153 000	189 000	90 000	67 500	63 000	76 500	49 500
	760	940	460	340	300	380	240
SNL 3156	171 000	211 500	103 500	76 500	67 500	85 500	54 000
	800	1 000	480	360	320	400	260
SNL 3160	180 000	225 000	108 000	81 000	72 000	90 000	58 500
	960	1 200	580	440	380	480	300
SNL 3164	216 000	270 000	130 500	99 000	85 500	108 000	67 500
	1 080	1 400	680	500	440	560	360
SNL 3168	243 000	315 000	153 000	112 500	99 000	126 000	81 000
	1 200	1 500	720	520	460	600	380
SNL 3172	270 000	337 500	162 000	117 000	103 500	135 000	85 500
	1 200	1 540	720	540	480	600	400
SNL 3176	270 000	346 500	162 000	121 500	108 000	135 000	90 000
	1 220	1 600	780	580	500	640	420
SNL 3180	274 500	360 000	175 500	130 500	112 500	140 000	94 500
	1 400	1 740	840	620	540	700	440
SNL 3184	315 000	391 500	189 000	139 500	121 500	157 500	99 000
	1 520	1 920	920	680	600	760	480
SNL 3188	342 000	432 000	207 000	153 000	135 000	171 000	108 000
	1 600	2 000	960	720	620	800	500
SNL 3192	360 000	450 000	216 000	162 000	139 500	180 000	112 500
	1 680	2 140	1 040	760	660	840	540
SNL 3196	378 000	481 500	234 000	171 000	148 500	189 000	121 500
	1 760	2 240	1 080	800	700	880	560
	396 000	504 000	243 000	180 000	157 500	198 000	126 000

continues on next page

<sup>1)</sup> The values are based on a safety factor of 5.

Safe loads for large SNL plummer block housings made of grey cast iron



Housing Size	Safe loads <sup>1)</sup>						
	P <sub>0°</sub>	P <sub>55°</sub>	P <sub>90°</sub>	P <sub>120°</sub>	P <sub>150°</sub>	P <sub>180°</sub>	P <sub>a</sub>
–	kN / lbf.						
SNL 3234	440	540	260	200	176	220	142
	99 000	121 500	58 500	45 000	39 600	49 500	31 950
SNL 3236	440	540	260	200	176	220	142
	99 000	121 500	58 500	45 000	39 600	49 500	31 950
SNL 3238	520	640	320	220	200	260	168
	117 000	144 000	72 000	49 500	45 000	58 500	37 800
SNL 3240	620	800	380	280	260	320	200
SNL 3244	139 500	180 000	85 500	63 000	58 500	72 000	45 000
	680	840	400	300	280	340	130
SNL 3248	153 000	189 000	90 000	67 500	63 000	76 500	29 250
	760	940	460	340	300	380	134
SNL 3252	171 000	211 500	103 500	76 500	67 500	85 500	30 150
	960	1 200	580	440	380	480	230
SNL 3256	216 000	270 000	130 500	99 000	85 500	108 000	51 750
	960	1 200	580	440	380	480	240
SNL 3260	216 000	270 000	130 500	99 000	85 500	108 000	54 000
	1 080	1 400	680	500	440	560	320
SNL 3264	243 000	315 000	153 000	112 500	99 000	126 000	72 000
	1 200	1 500	720	520	460	600	290
SNL 3268	270 000	337 500	162 000	117 000	103 500	135 000	65 250
	1 220	1 600	780	580	500	640	370
SNL 3272	274 500	360 000	175 500	130 500	112 500	144 000	83 250
	1 400	1 740	840	620	540	700	320
SNL 3276	315 000	391 500	189 000	139 500	121 500	157 500	72 000
	1 520	1 920	920	680	600	760	420
SNL 3280	342 000	432 000	207 000	153 000	135 000	171 000	94 500
	1 520	1 920	920	680	600	760	480
SNL 3284	342 000	432 000	207 000	153 000	135 000	171 000	108 000
	1 680	2 140	1 040	760	660	840	520
SNL 3288	378 000	481 500	234 000	171 000	148 500	189 000	117 000
	1 760	2 240	1 080	800	700	880	540
	396 000	504 000	243 000	180 000	157 500	198 000	121 500

<sup>1)</sup> The values are based on a safety factor of 5.

## Split plummer block housings SNL 30, 31 and 32 series

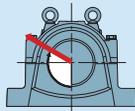
### Load carrying capacity of the cap bolts

Approximate values for the yield points for cap bolts are provided in **table 7**. The values in **table 7** apply to 8.8 strength cap bolts, which are supplied with SNL and SNLD housings.

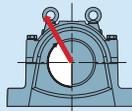
If a safety factor of 6 is used for the permissible load of grey cast iron SNL housings, the cap bolts do not need to be considered. In this case, the permissible load of the housing is less than the permissible load for the cap bolts.

Table 7

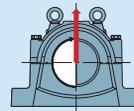
Load carrying capacity and torque values for cap bolts and attachment bolts



$Q_{120^\circ}$



$Q_{150^\circ}$



$Q_{180^\circ}$

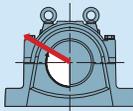
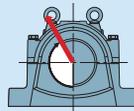
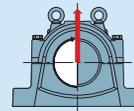
Housing Size	Cap bolts Yield point for four bolts			Size	Tightening torque	Attachment bolts	
	$Q_{120^\circ}$	$Q_{150^\circ}$	$Q_{180^\circ}$			Size	Tightening torque <sup>1)</sup>
–	kN			–	Nm	–	Nm
SNL 3036	1800	1040	900	M 24×140	350	M 24	665
SNL 3038	1800	1040	900	M 24×140	350	M 24	665
SNL 3040	1800	1040	900	M 24×150	350	M 24	665
SNL 3044	1800	1040	900	M 24×160	350	M 30	1310
SNL 3048	1800	1040	900	M 24×160	350	M 30	1310
SNL 3052	2860	1650	1430	M 30×180	400	M 30	1310
SNL 3056	2860	1650	1430	M 30×200	400	M 36	2280
SNL 3060	2860	1650	1430	M 30×200	400	M 36	2280
SNL 3064	2860	1650	1430	M 30×220	400	M 36	2280
SNL 3068	2860	1650	1430	M 30×220	400	M 36	2280
SNL 3072	2860	1650	1430	M 30×220	400	M 36	2280
SNL 3076	4200	2400	2100	M 36×240	600	M 36	2280
SNL 3080	4200	2400	2100	M 36×240	600	M 36	2280
SNL 3084	4200	2400	2100	M 36×240	600	M 36	2280
SNL 3088	4200	2400	2100	M 36×240	600	M 42	3640
SNL 3092	5800	3350	2900	M 42×280	850	M 42	3640
SNL 3096	5800	3350	2900	M 42×280	850	M 42	3640
SNL 30/500	5800	3350	2900	M 42×280	850	M 42	3640
SNL 30/530	5800	3350	2900	M 42×320	850	M 48	5450
SNL 3134	1800	1040	900	M 24×140	350	M 24	665
SNL 3136	1800	1040	900	M 24×140	350	M 24	665
SNL 3138	1800	1040	900	M 24×150	350	M 24	665
SNL 3140	1800	1040	900	M 24×160	350	M 30	1310
SNL 3144	1800	1040	900	M 24×160	350	M 30	1310
SNL 3148	2860	1650	1430	M 30×180	400	M 30	1310

continues on next page

<sup>1)</sup> Recommended by bolt manufacturers

cont. Table 7

## Load carrying capacity and torque values for cap bolts and attachment bolts

 $Q_{120^\circ}$  $Q_{150^\circ}$  $Q_{180^\circ}$ 

Housing Size	Cap bolts Yield point for four bolts			Size	Tightening torque	Attachment bolts	
	$Q_{120^\circ}$	$Q_{150^\circ}$	$Q_{180^\circ}$			Size	Tightening torque <sup>1)</sup>
–	kN			–	Nm	–	Nm
SNL 3152	2 860	1 650	1 430	M 30x200	400	M 36	2 280
SNL 3156	2 860	1 650	1 430	M 30x200	400	M 36	2 280
SNL 3160	2 860	1 650	1 430	M 30x220	400	M 36	2 280
SNL 3164	2 860	1 650	1 430	M 30x220	400	M 36	2 280
SNL 3168	4 200	2 400	2 100	M 36x240	600	M 36	2 280
SNL 3172	4 200	2 400	2 100	M 36x240	600	M 36	2 280
SNL 3176	4 200	2 400	2 100	M 36x240	600	M 36	2 280
SNL 3180	4 200	2 400	2 100	M 36x240	600	M 42	3 640
SNL 3184	5 800	3 350	2 900	M 42x280	850	M 42	3 640
SNL 3188	5 800	3 350	2 900	M 42x280	850	M 42	3 640
SNL 3192	5 800	3 350	2 900	M 42x300	850	M 42	3 640
SNL 3196	5 800	3 350	2 900	M 42x320	850	M 48	5 450
SNL 3234	1 800	1 040	900	M 24x150	350	M 24	665
SNL 3236	1 800	1 040	900	M 24x150	350	M 24	665
SNL 3238	1 800	1 040	900	M 24x160	350	M 30	1 310
SNL 3240	1 800	1 040	900	M 24x160	350	M 30	1 310
SNL 3244	2 860	1 650	1 430	M 30x180	400	M 30	1 310
SNL 3248	2 860	1 650	1 430	M 30x200	400	M 36	2 280
SNL 3252	2 860	1 650	1 430	M 30x220	400	M 36	2 280
SNL 3256	2 860	1 650	1 430	M 30x220	400	M 36	2 280
SNL 3260	2 860	1 650	1 430	M 30x220	400	M 36	2 280
SNL 3264	4 200	2 400	2 100	M 36x240	600	M 36	2 280
SNL 3268	4 200	2 400	2 100	M 36x240	600	M 36	2 280
SNL 3272	4 200	2 400	2 100	M 36x240	600	M 42	3 640
SNL 3276	5 800	3 350	2 900	M 42x280	850	M 42	3 640
SNL 3280	5 800	3 350	2 900	M 42x280	850	M 42	3 640
SNL 3284	5 800	3 350	2 900	M 42x300	850	M 42	3 640
SNL 3288	5 800	3 350	2 900	M 42x320	850	M 48	5 450

<sup>1)</sup> Recommended by bolt manufacturers

### Operating temperature

The permissible operating temperature is mainly limited by the seals (→ **table 1, page 197**), and the lubricant in the bearing. For temperature limits of SKF bearings and lubricants, refer to the product information available online at [skf.com/bearings](http://skf.com/bearings).

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 80 °C (175 °F) material temperature or 100 °C (210 °F) ambient temperature.

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

### Operating speed

The permissible operating speed is not limited by the housing, except when taconite seals are used. The maximum speeds for taconite seals are provided in **table 1 on page 197**. For speed limits of the bearing, refer to the product information available online at [skf.com/bearings](http://skf.com/bearings).

### Attachment bolt recommendations

In typical applications, 8.8 class hexagon head bolts, in accordance with ISO 4014, 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 bolts.

SKF housings can withstand loads resulting from tightening the attachment bolts to the torque values recommended by bolt manufacturers (→ **table 7**). 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.

## Lubrication

SNL housings in the 30, 31 and 32 series with labyrinth or taconite seals are intended for grease lubrication. For oil lubrication, modified housings with oil seals (→ **page 198**) or SONL plummer block housings (→ **page 349**) should be used.

The lubricant should be selected based on the operating conditions of the bearing. For additional information about lubricant selection, refer to the product information available online at [skf.com/bearings](http://skf.com/bearings).

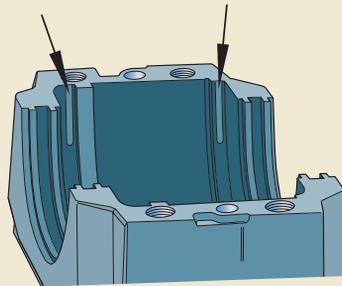
### Initial grease fill

If no other requirements exist, the free space in the bearing should be completely filled with grease and the free space in the housing should be filled to 20 to 40% of its volume. A 40% grease fill is required when bearings have to be relubricated from the side, while a 20% grease fill is used when bearings are relubricated via the outer ring.

The housing base has markings to show the height of a 40% grease fill (→ **fig. 11**). For highly contaminated environments and slow speeds, fill the housing to 70–80%. For best protection against contaminants, use the SKF three-barrier solution (→ **page 39**). For additional information, contact the SKF application engineering service.

Quantities for 20 and 40% grease fills are listed in **table 8 on page 213**. The values are valid for a typical lithium grease (about

Fig. 11



0,95 g/cm<sup>3</sup>). They include the grease for the bearing, but not the grease to fill the seals. For sealed bearings, the values have to be adjusted.

In most applications, the initial grease fill will adequately lubricate the bearing until the grease is exchanged during the next planned maintenance interval.

## Relubrication

SNL plummer block housings enable relubrication of the incorporated bearings and seals. There are three drilled and tapped holes for an AH 1/8-27 PTF grease fitting: two in the cap (one centred and one offset), and one in the base. Each hole is sealed at delivery with a threaded plug.

Dimples cast into the top of the housing cap indicate alternative positions where holes can be drilled and tapped to accommodate a grease fitting. The two dimples on the outer sides of the central ridge indicate the position for lubrication holes for the seals.

The following items are supplied with each housing:

- a grease fitting, designation AH 1/8-27 PTF, with a plastic cover (fitting protector)
- a grease fitting, designation M1 G 1/8
- an adapter, designation LAPN 1/8

The adapter transforms the 1/8-27 NPSF thread to a G 1/4, which enables the use of grease lubricators such as SKF MultiPoint.

Table 8

Initial grease fill					
Housing Size	Initial fill		Housing Size	Initial fill	
	20%	40%		20%	40%
–	kg		–	kg	
SNL 3036	0,70	1,20	SNL 3134	0,70	1,10
SNL 3038	0,90	1,50	SNL 3136	0,90	1,40
SNL 3040	1,20	2,00	SNL 3138	1,20	1,80
SNL 3044	1,60	2,70	SNL 3140	1,50	2,30
SNL 3048	1,80	3,00	SNL 3144	1,70	2,70
SNL 3052	2,30	3,90	SNL 3148	2,20	3,40
SNL 3056	2,80	4,90	SNL 3152	2,80	4,30
SNL 3060	3,10	5,20	SNL 3156	2,90	4,40
SNL 3064	4,10	7,00	SNL 3160	4,00	6,20
SNL 3068	5,10	8,70	SNL 3164	5,00	7,70
SNL 3072	6,20	11,0	SNL 3168	6,20	9,40
SNL 3076	6,30	11,0	SNL 3172	6,40	9,70
SNL 3080	6,70	11,5	SNL 3176	6,40	9,60
SNL 3084	7,00	12,0	SNL 3180	8,00	12,0
SNL 3088	8,50	14,5	SNL 3184	10,0	15,0
SNL 3092	11,0	19,0	SNL 3188	10,5	16,0
SNL 3096	11,0	18,5	SNL 3192	12,0	17,5
SNL 30/500	11,5	20,0	SNL 3196	12,0	17,0
SNL 30/530	13,0	21,5			
SNL 3234	1,20	1,90	SNL 3260	4,80	6,90
SNL 3236	1,20	1,90	SNL 3264	6,00	8,60
SNL 3238	1,40	2,20	SNL 3268	6,30	8,40
SNL 3240	1,70	2,50	SNL 3272	7,80	10,5
SNL 3244	2,10	3,00	SNL 3276	8,90	12,5
SNL 3248	2,70	3,80	SNL 3280	10,5	14,5
SNL 3252	3,80	5,60	SNL 3284	11,5	15,0
SNL 3256	3,90	5,60	SNL 3288	12,0	15,0

## Split plummer block housings SNL 30, 31 and 32 series

### Relubrication via the outer ring

The hole in the centre of the cap or the hole in the base should be used to relubricate spherical roller bearings with a relubrication feature (a lubrication groove and holes in the outer ring) (→ **fig. 12**). When applying grease via the relubrication feature, the shaft should be rotating. Narrow bearings (dimension series 13 and 22) in the locating position can be axially displaced, so that the relubrication groove in the bearing does not line up with the relubrication hole in the housing cap. Make sure the bearing is sufficiently centred when relubricating.

### Relubrication from the side

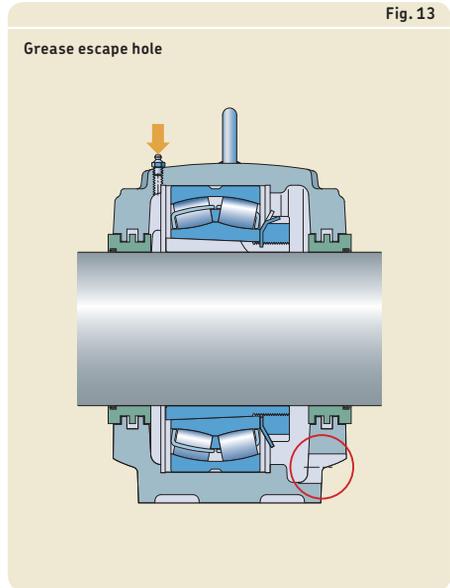
When relubricating from the side, which is typically necessary for CARB toroidal roller bearings, the offset hole in the housing should be used (→ **fig. 12**).

When bearings mounted on an adapter sleeve have to be relubricated from the side, the grease should be introduced from the side opposite the lock nut.

When bearings mounted at the end of a shaft have to be relubricated from the side, the grease should be applied at the point closest to the end cover.

### Grease escape holes

If frequent relubrication is required, SKF recommends having grease escape holes (→ **fig. 13**). Dimensions can be found in **table 9**. SNL housings supplied with grease



escape holes are identified by the suffix V, e.g. SNL 3134 V.

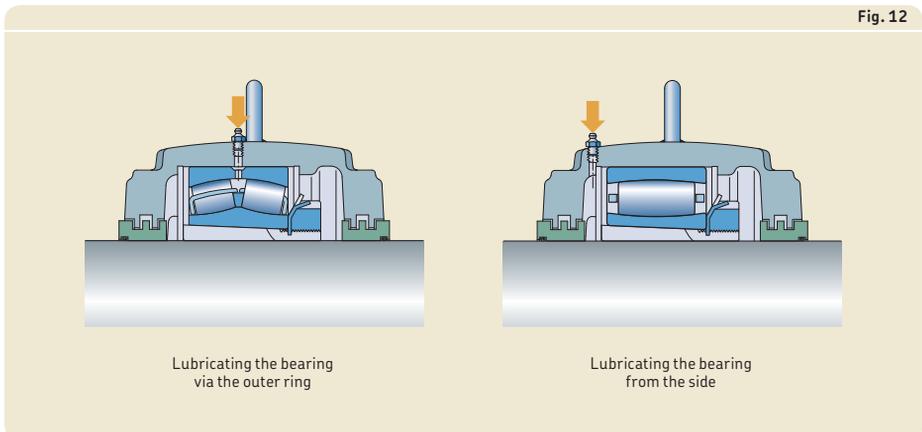
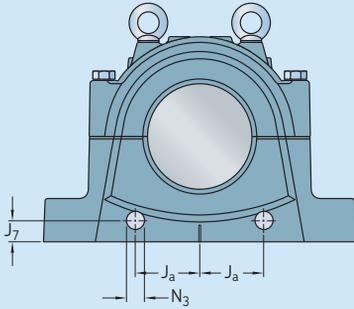


Table 9

Recommended dimensions for grease escape holes



Housing Size	Dimensions				
	Ja	J7	N3		
–	mm				
SNL 3036	SNL 3134	105	34	30	
SNL 3038	SNL 3136	110	38	30	
SNL 3040	SNL 3138	SNL 3234	120	36	30
SNL 3044	SNL 3140	SNL 3236	120	36	30
		SNL 3238	120	36	30
SNL 3048	SNL 3144	SNL 3240	130	42	40
SNL 3052	SNL 3148	SNL 3244	145	43	40
SNL 3056	SNL 3152	SNL 3248	150	44	40
SNL 3060	SNL 3156		165	51	40
SNL 3064	SNL 3160	SNL 3252	180	53	40
SNL 3068	SNL 3164	SNL 3256	180	53	40
SNL 3072		SNL 3260	180	53	40
SNL 3076	SNL 3168	SNL 3264	185	51	40
SNL 3080	SNL 3172		220	51	40
SNL 3084	SNL 3176	SNL 3268	220	53	40
SNL 3088	SNL 3180	SNL 3272	230	58	40
SNL 3092	SNL 3184	SNL 3276	260	58	40
SNL 3096	SNL 3188	SNL 3280	260	58	40
SNL 30/500			260	58	40
SNL 30/530	SNL 3192	SNL 3284	280	58	40
	SNL 3196	SNL 3288	280	58	40

Oil lubrication

SNL housings in the 30, 31 and 32 series can be used in applications where there are relatively high speeds and the bearings are lubricated via an oil bath or circulating oil lubrication system.

The housings must be modified to accommodate one of the following oil seals:

- TURT or TURA for oil bath or circulating oil lubrication system (→ page 198)
- TURP for circulating oil lubrication system and large axial movements (→ page 200)

Recommended oil levels can be found in table 10a, 10b and 10c on page 216–218.

Housings modified for oil lubrication are not stock items. Check availability prior to ordering.

## Split plummer block housings SNL 30, 31 and 32 series

Table 10a

Recommended oil levels <sup>1)</sup>											
Housing Size	Shaft diameter	Design and bearing series									
		TURT		222		223		TURA		C 22	
		230 min.	max.	min.	max.	min.	max.	C 30 min.	max.	min.	max.
–	mm	mm									
SNL 3036	160	48	54					47	55		
SNL 3038	140			57	67						
	170	51	58					49	57		
SNL 3040	150			58	69					55	69
	180	53	62					50	60		
SNL 3044	200	59	69					57	68		
SNL 3048	150					72	86				
	180			65	79						
	220	59	68					58	69		
SNL 3052	240	62	73					59	72		
SNL 3056	180					86	103				
	260	72	83					68	81		
SNL 3060	280	75	87					74	88		
SNL 3064	240			91	112						
	300	85	97					82	96		
SNL 3068	320	88	102					81	99		
SNL 3072	340	80	94					74	92		
SNL 3076	360	87	102					87	105		
SNL 3080	380	80	97					76	97		
SNL 3084	400	80	97					77	99		
SNL 3088	410	87	104					89	111		
SNL 3092	430	103	122					100	119		
SNL 3096	450	95	113					92	111		
SNL 30/500	470	93	112					94	113		
SNL 30/530	500	107	128					110	134		

<sup>1)</sup> The oil level is measured from the base of the housing. Mark the min and max level on the oil level gauge.

Table 10b

Recommended oil levels <sup>1)</sup>												
Housing Size	Shaft diameter	Design and bearing series										
		TURT 231		222		223		TURA C 31		C 22		
		min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	
–	mm	mm										
SNL 3134	115					55	66					
SNL 3136	150	50	56			58	69	48	58			
SNL 3138	125	52	59			59	71	49	61			
	160											
	135									53	64	
SNL 3140	160	54	61					48	61			
	170											
	140						71			84		
SNL 3144	170	65	74	65	77			60	73	64	80	
	200	62	71					56	70			
SNL 3148	170					75	91					
	200	68	78			69	84	64	81	67	90	
	220											
220					70							87
SNL 3152	220	72	83					65	83			
SNL 3156	240					87	106	74	92			
	200	81	93									
SNL 3160	260					90	112					
	220							78	98			
	260	85	98	81	102							
SNL 3164	280							93	116			
	240			83	107							
	280	89	103					84	108			
SNL 3168	300					96	121					
	260											
SNL 3172	300			85	112							
	320	93	108					84	110			
	340	90	106					84	110			
SNL 3176	360	91	108					87	111			
SNL 3180	340			98	124							
	380	99	116					88	111			
SNL 3184	400	108	128					103	129			
SNL 3188	410	106	125					106	133			
SNL 3192	430	109	130					103	131			
SNL 3196	450	116	137					112	139			

<sup>1)</sup> The oil level is measured from the base of the housing. Mark the min and max level on the oil level gauge.

## Split plummer block housings SNL 30, 31 and 32 series

Table 10c

Recommended oil levels <sup>1)</sup>					
Housing Size	Shaft diameter	Design and bearing series			
		TURT 232 min.	max.	C 32 min.	max.
–	mm	mm			
SNL 3232	140			54	68
SNL 3234	150	61	69		
SNL 3236	160	56	64	47	61
SNL 3238	170	68	77		
SNL 3240	180	70	79		
SNL 3244	200	73	83		
SNL 3248	220	75	87		
SNL 3252	240	98	111		
SNL 3256	260	87	101		
SNL 3260	280	91	106		
SNL 3264	300	95	111		
SNL 3268	320	98	115		
SNL 3272	340	106	124		
SNL 3276	360	121	141		
SNL 3280	380	114	135		
SNL 3284	400	117	139		
SNL 3288	410	124	147		

<sup>1)</sup> The oil level is measured from the base of the housing. Mark the min and max level on the oil level gauge.

## Mounting

SNL plummer (pillow) block housings 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 for each housing are provided with the seal pack. For information about mounting rolling bearings, refer to the *SKF bearing maintenance handbook* or [skf.com/mount](http://skf.com/mount).

### Torque specifications

Cap bolts should be tightened to the torque values listed in **table 7** on **page 210**. For information about attachment bolts, refer to *Attachment bolt recommendations on page 212*.

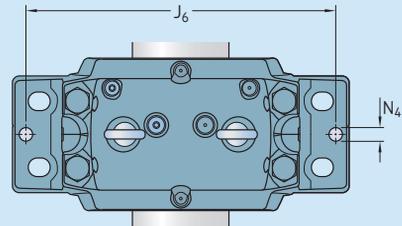
### Pinning or supporting the housing

Some load conditions may require the housing to be pinned to its support surface or a stop to accommodate loads acting parallel to the housing support surface (→ *Additional housing support, page 204*).

Recommendations for the position and size of the holes to accommodate dowel pins are provided in **table 11**.

Table 11

Position and size of dowel pin holes



Housing Size	Dimensions	
	$J_6$	$N_4$ max
mm		
SNL 3036	SNL 3134	470 20
SNL 3038	SNL 3136	490 20
SNL 3040	SNL 3138	SNL 3234 520 20
SNL 3044	SNL 3140	SNL 3236 520 20
SNL 3048	SNL 3144	SNL 3238 560 20
		SNL 3240 590 20
SNL 3052	SNL 3148	SNL 3244 650 20
SNL 3056	SNL 3152	SNL 3248 720 20
SNL 3060	SNL 3156	740 20
SNL 3064	SNL 3160	SNL 3252 770 25
		SNL 3256 770 25
SNL 3068	SNL 3164	SNL 3260 820 25
SNL 3072		820 25
SNL 3076	SNL 3168	SNL 3264 880 25
SNL 3080	SNL 3172	920 30
SNL 3084	SNL 3176	SNL 3268 960 30
SNL 3088	SNL 3180	SNL 3272 1020 35
SNL 3092	SNL 3184	SNL 3276 1070 35
SNL 3096		1070 35
SNL 30/500	SNL 3188	SNL 3280 1120 35
	SNL 3192	SNL 3284 1160 40
SNL 30/530	SNL 3196	SNL 3288 1210 40

## Condition monitoring

SNL housings in the 30, 31 and 32 series have appropriate positions for condition monitoring sensors (→ fig. 14).

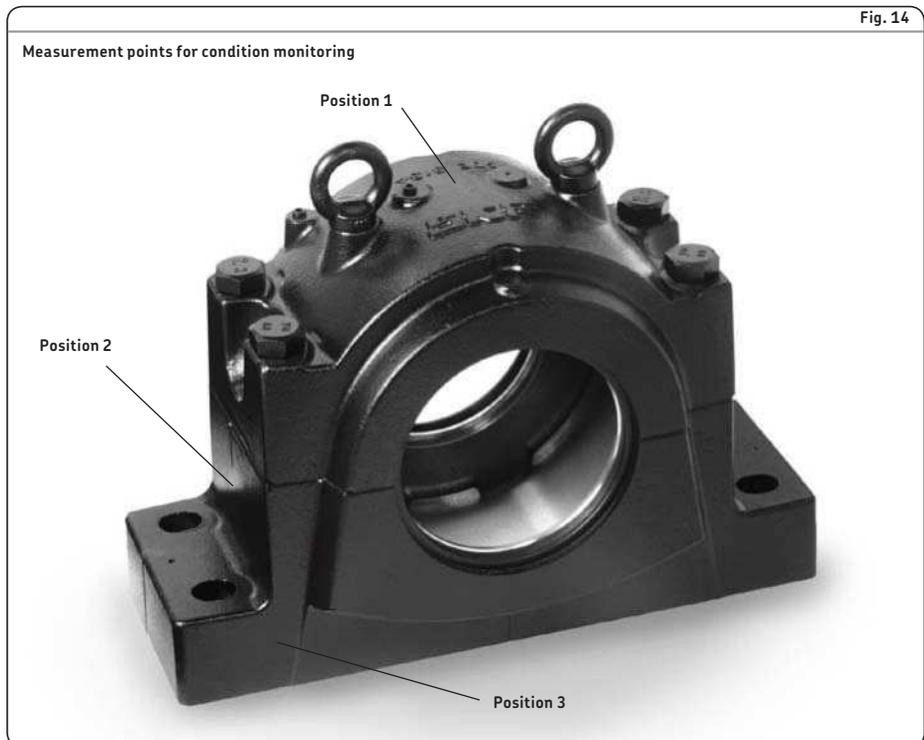
**Position 1** is a measurement point perpendicular to the shaft and should be used when loads act away from the support surface.

**Position 2** is a measurement point perpendicular to the shaft and should be used when loads act toward the support surface.

**Position 3** is a measurement point parallel to the shaft and should be used when loads act toward the support surface.

All three positions are in accordance with ISO 10816-1.

For additional information about condition monitoring, as well as the measurement tools and systems available from SKF, contact your local SKF representative or SKF Authorized Distributor.



## Accessories

The following accessories are available for SNL housings in the 30, 31 and 32 series:

- Oil leveller: LAHD
- Automatic lubricators: SKF SYSTEM 24 or SKF MultiPoint. If frequent relubrication is required and SKF SYSTEM 24 is to be used, combine it with LAPM 4 (Manifold 4 to 1).
- Grease meter: LAGM 1000E
- Condition monitoring sensors

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

## Ordering information

For SNL housings in the 30, 31 and 32 series, each of the following items must be ordered separately:

- housing
- seals
- end cover
- locating rings
- bearing
- adapter sleeve

### Order example

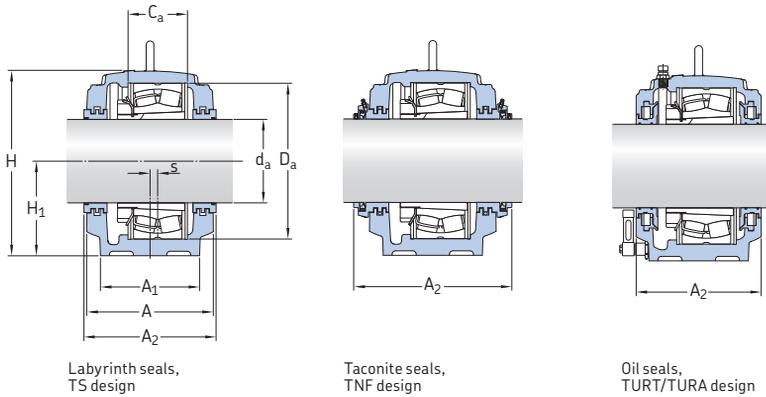
Two plummer block housings with labyrinth seals are required for two 23036 CCK/W33 bearings on H 3036 adapter sleeves. One housing will accommodate the non-locating bearing at the end of the shaft. The other housings will accommodate the locating bearing and a through shaft.

The following items should be ordered (in addition to the bearings and adapter sleeves):

- 2 housings SNL 3036
- 3 labyrinth seals TS 36
- 1 end cover ETS 36
- 2 locating rings FRB 17/280

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

$d_a$  115 – 150 mm

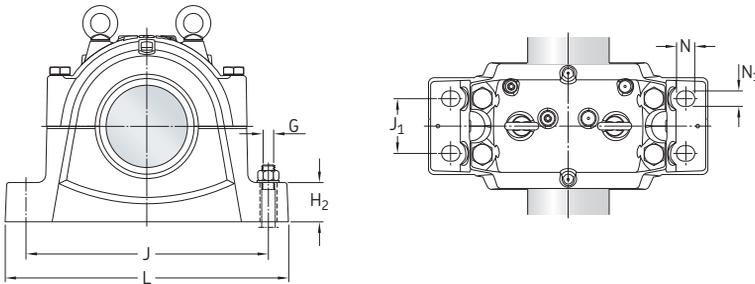


Shaft diameter $d_a$	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Locating ring <sup>3)</sup>	Seals	End cover	Width incl. seals $A_2$
mm	–	–					mm
115	SNL 3134	22326 CCK/W33	H 2326	2 FRB 7.5/280	TS 34/115	ETS 34	240
		22326-2CS5K	H 2326	2 FRB 7.5/280	TNF 34/115		299
125	SNL 3136	22328 CCK/W33	H 2328	2 FRB 7/300	TS 36/125	ETS 36	250
		22328-2CS5K	H 2328	2 FRB 7/300	TNF 36/125		310
135	SNL 3138	22330 CCK/W33	H 2330	2 FRB 8/320	TS 38/135	ETS 38	270
		22330-2CS5K	H 2330	2 FRB 8/320	TNF 38/135		330
140	SNL 3038	22232 CCK/W33	H 3132	2 FRB 17.5/290	TS 38/140	ETS 38	250
		22232-2CS5K	H 3132	2 FRB 17.5/290	TNF 38/140		312
		23232 CCK/W33	H 2332	2 FRB 5.5/290			
		C 3232 K	H 2332 L	2 FRB 5.5/290			
150	SNL 3140	22332 CCK/W33	H 2332	2 FRB 9/340	TS 40/140	ETS 40	290
		22332-2CS5K	H 2332	2 FRB 9/340	TNF 40/140		347
150	SNL 3134	23134 CCK/W33	H 3134	2 FRB 10/280	TS 34	ETS 34	240
		23134-2CS5K	H 3134 E	2 FRB 10/280	TNF 34		299
		C 3134 K	H 3134 L	2 FRB 10/280			
	SNL 3134 TURT	23134 CCK/W33	H 3134	2 FRB 10/280	included	ETS 3134 R	225
	SNL 3134 TURA	C 3134 K	H 3134 E	2 FRB 10/280	included	ETS 3134 R	225
	SNL 3234	23234 CCK/W33	H 2334	2 FRB 6/310	TS 40/150	ETS 40	270
	SNL 3040	22234 CCK/W33	H 3134	2 FRB 18/310	TS 40/150	ETS 40	270
		22234-2CS5K	H 3134	2 FRB 18/310	TNF 40/150		327
	SNL 3048	22334 CCK/W33	H 2334	2 FRB 10/360	TS 48/150	ETS 48	300
					TNF 48/150		380

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.

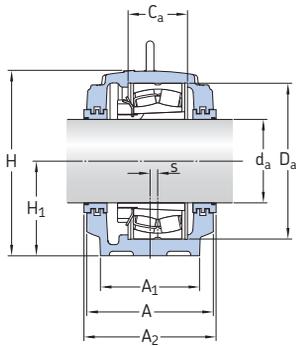
<sup>3)</sup> The locating rings fit the bearing in the same line only.



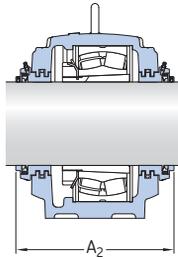
Shaft diameter $d_a$	Dimensions															Eye bolt according to DIN 580	Mass Housing kg
	A	A <sub>1</sub>	C <sub>a</sub>	D <sub>a</sub>	H	H <sub>1</sub>	H <sub>2</sub>	J	J <sub>1</sub>	L	N	N <sub>1</sub>	s	G			
mm	mm															-	kg
<b>115</b>	230	180	108	280	333	170	70	430	100	510	34	28	14	24	M16	69,5	
<b>125</b>	240	190	116	300	353	180	75	450	110	530	34	28	15	24	M16	77,5	
<b>135</b>	260	210	124	320	375	190	80	480	120	560	34	28	10	24	M20	97,5	
<b>140</b>	240	190	115	290	353	180	75	450	110	530	34	28	15	24	M16	77,5	
	280	230	132	340	411	210	85	510	130	610	42	35	10	30	M20	123	
<b>150</b>	230	180	108	280	333	170	70	430	100	510	34	28	14	24	M16	69,5	
	230	180	108	280	333	170	70	430	100	510	34	28	14	24	M16	69,5	
	260	210	122	310	375	190	80	480	120	560	34	28	10	24	M20	97,5	
	260	210	122	310	375	190	80	480	120	560	34	28	10	24	M20	97,5	
	290	240	140	360	434	220	90	540	140	640	42	35	12	30	M20	139	

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

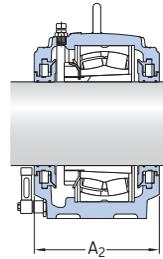
$d_a$  160 mm



Labyrinth seals,  
TS design



Taconite seals,  
TNF design



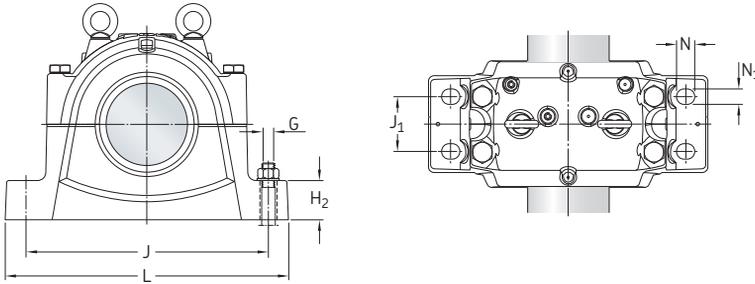
Oil seals,  
TURT/TURA design

Shaft diameter $d_a$	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Locating ring <sup>3)</sup>	Seals	End cover	Width incl. seals $A_2$
mm	–	–					mm
160	SNL 3036	23036 CCK/W33	H 3036	2 FRB 17/280	TS 36	ETS 36	240 300
		23036-2CS5K	H 3036 E	2 FRB 17/280	TNF 36		
		C 3036 K	H 3036	2 FRB 17/280			
	SNL 3036 TURT	23036 CCK/W33	H 3036	2 FRB 17/280	included	ETS 3036 R	225
	SNL 3036 TURA	C 3036 K	H 3036	2 FRB 17/280	included	ETS 3036 R	225
	SNL 3136	23136 CCK/W33	H 3136	2 FRB 10/300	TS 36	ETS 36	250 310
		23136-2CS5K	H 3136 L	2 FRB 10/300	TNF 36		
		C 3136 K	H 3136 L	2 FRB 10/300			
	SNL 3136 TURT	23136 CCK/W33	H 3136	2 FRB 10/300	included	ETS 3136 R	235
	SNL 3136 TURA	C 3136 K	H 3136 L	2 FRB 10/300	included	ETS 3136 R	235
SNL 3236	23236 CCK/W33	H 2336	2 FRB 6/320	TS 38/160	ETS 38	270 330	
	C 3236 K	H 2336	2 FRB 6/320	TNF 38/160			
SNL 3138	22236 CCK/W33	H 3136	2 FRB 19/320	TS 38/160	ETS 38	270 330	
	22236-2CS5K	H 3136	2 FRB 19/320	TNF 38/160			

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.

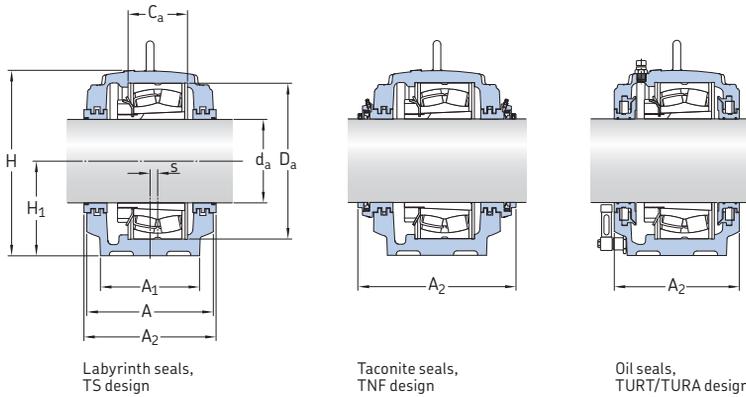
<sup>3)</sup> The locating rings fit the bearing in the same line only.



Shaft diameter $d_a$	Dimensions															Eye bolt according to DIN 580	Mass Housing kg
	A	A <sub>1</sub>	C <sub>a</sub>	D <sub>a</sub>	H	H <sub>1</sub>	H <sub>2</sub>	J	J <sub>1</sub>	L	N	N <sub>1</sub>	s	G			
mm	mm															-	kg
<b>160</b>	230	180	108	280	333	170	70	430	100	510	34	28	14	24	M16	69,5	
	230	180	108	280	333	170	70	430	100	510	34	28	14	24	M16	69,5	
	230	180	108	280	333	170	70	430	100	510	34	28	14	24	M16	69,5	
	240	190	116	300	353	180	75	450	110	530	34	28	15	24	M16	77,5	
	240	190	116	300	353	180	75	450	110	530	34	28	15	24	M16	77,5	
	240	190	116	300	353	180	75	450	110	530	34	28	15	24	M16	77,5	
	260	210	124	320	375	190	80	480	120	560	34	28	10	24	M20	97,5	
	260	210	124	320	375	190	80	480	120	560	34	28	10	24	M20	97,5	

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

$d_a$  170 mm



Labyrinth seals,  
TS design

Taconite seals,  
TNF design

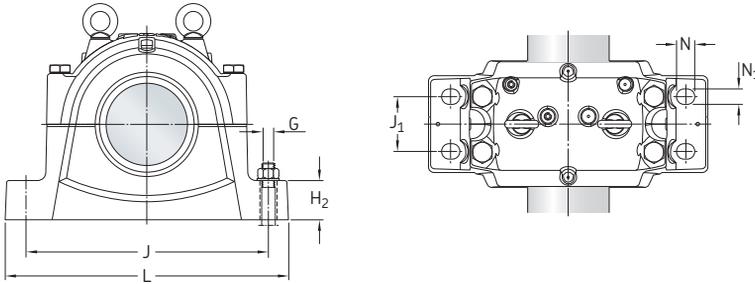
Oil seals,  
TURT/TURA design

Shaft diameter $d_a$	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Locating ring <sup>3)</sup>	Seals	End cover	Width incl. seals
							$A_2$
mm	–	–					mm
170	SNL 3038	23038 CCK/W33 C 3038 K	H 3038 H 3038	4 FRB 10/290 4 FRB 10/290	TS 38 TNF 38	ETS 38	250 312
	SNL 3038 TURT	23038 CCK/W33	H 3038	4 FRB 10/290	included	ETS 3038 R	235
	SNL 3038 TURA	C 3038 K	H 3038	4 FRB 10/290	included	ETS 3038 R	235
	SNL 3138	23138 CCK/W33 23138-2CS5K C 3138 KV	H 3138 H 3138 H 3138	2 FRB 10/320 2 FRB 10/320 2 FRB 10/320	TS 38 TNF 38	ETS 38	270 330
	SNL 3138 TURT	23138 CCK/W33	H 3138	2 FRB 10/320	included	ETS 3138 R	255
	SNL 3138 TURA	C 3138 KV	H 3138	2 FRB 10/320	included	ETS 3138 R	255
	SNL 3238	23238 CCK/W33	H 2338	2 FRB 6/340	TS 40/170 TNF 40/170	ETS 40	290 347
	SNL 3140	22238 CCK/W33 22238-2CS5K C 2238 K	H 3138 H 3138 H 3138	4 FRB 10/340 4 FRB 10/340 4 FRB 10/340	TS 40/170 TNF 40/170	ETS 40	290 347
	SNL 3148	22338 CCK/W33	H 2338	2 FRB 8/400	TS 48/170 TNF 48/170	ETS 48	315 396

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.

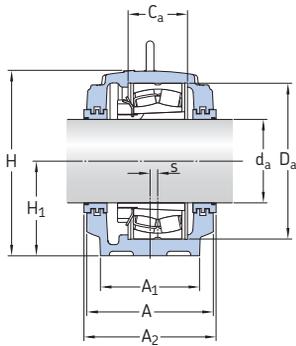
<sup>3)</sup> The locating rings fit the bearing in the same line only.



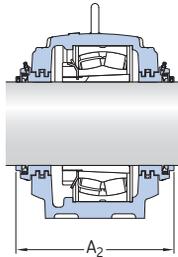
Shaft diameter $d_a$	Dimensions														Eye bolt according to DIN 580	Mass Housing kg
	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G		
mm	mm														-	kg
<b>170</b>	240	190	115	290	353	180	75	450	110	530	34	28	15	24	M16	77,5
	240	190	115	290	353	180	75	450	110	530	34	28	15	24	M16	77,5
	240	190	115	290	353	180	75	450	110	530	34	28	15	24	M16	77,5
	260	210	124	320	375	190	80	480	120	560	34	28	10	24	M20	97,5
	260	210	124	320	375	190	80	480	120	560	34	28	10	24	M20	97,5
	260	210	124	320	375	190	80	480	120	560	34	28	10	24	M20	97,5
	280	230	132	340	411	210	85	510	130	610	42	35	10	30	M20	123
	280	230	132	340	411	210	85	510	130	610	42	35	10	30	M20	123
	310	260	148	400	474	240	95	600	150	700	42	35	12	30	M24	187

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

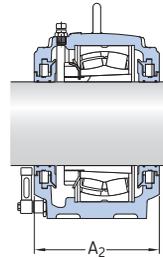
$d_a$  180 mm



Labyrinth seals,  
TS design



Taconite seals,  
TNF design



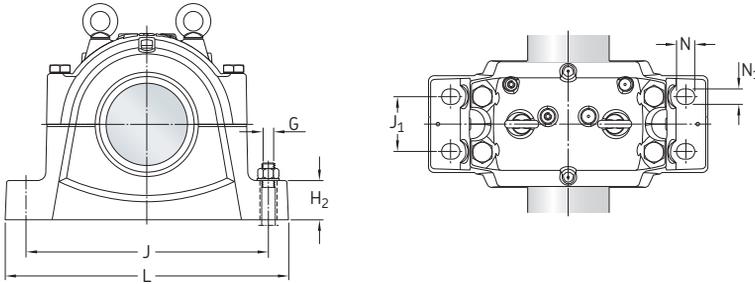
Oil seals,  
TURT/TURA design

Shaft diameter	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Locating ring <sup>3)</sup>	Seals	End cover	Width incl. seals $A_2$
$d_a$							
mm	–	–					mm
180	SNL 3040	23040 CCK/W33	H 3040	4 FRB 10/310	TS 40	ETS 40	270
		23040-2CS5K	H 3040	4 FRB 10/310	TNF 40		327
		C 3040 K	H 3040	4 FRB 10/310			
	SNL 3040 TURT	23040 CCK/W33	H 3040	4 FRB 10/310	included	ETS 3040 R	255
	SNL 3040 TURA	C 3040 K	H 3040	4 FRB 10/310	included	ETS 3040 R	255
	SNL 3140	23140 CCK/W33	H 3140	2 FRB 10/340	TS 40	ETS 40	290
		23140-2CS5K	H 3140	2 FRB 10/340	TNF 40		347
	SNL 3140 TURT	23140 CCK/W33	H 3140	2 FRB 10/340	included	ETS 3140 R	275
	SNL 3140 TURA	C 3140 K	H 3140	2 FRB 10/340	included	ETS 3140 R	275
	SNL 3240	23240 CCK/W33	H 2340	2 FRB 6/360	TS 48/180 TNF 48/180	ETS 48	300 380
SNL 3048	22240 CCK/W33	H 3140	2 FRB 21/360	TS 48/180	ETS 48	300	
	22240-2CS5K	H 3140	2 FRB 21/360	TNF 48/180		380	
SNL 3056	22340 CCK/W33	H 2340	2 FRB 14/420	TS 56/180 TNF 56/180	ETS 56	330 404	

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.

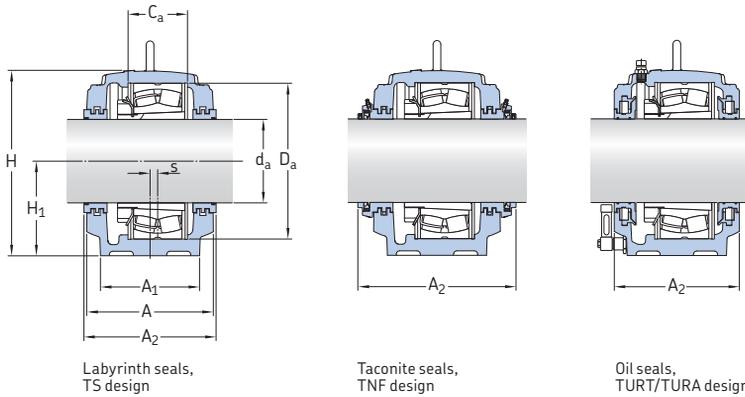
<sup>3)</sup> The locating rings fit the bearing in the same line only.



Shaft diameter $d_a$	Dimensions														Eye bolt according to DIN 580	Mass Housing kg
	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G		
mm	mm														-	kg
<b>180</b>	260	210	122	310	375	190	80	480	120	560	34	28	10	24	M 20	97,5
	260	210	122	310	375	190	80	480	120	560	34	28	10	24	M 20	97,5
	260	210	122	310	375	190	80	480	120	560	34	28	10	24	M 20	97,5
	280	230	132	340	411	210	85	510	130	610	42	35	10	30	M 20	123
	280	230	132	340	411	210	85	510	130	610	42	35	10	30	M 20	123
	280	230	132	340	411	210	85	510	130	610	42	35	10	30	M 20	123
	290	240	140	360	434	220	90	540	140	640	42	35	12	30	M 20	139
	290	240	140	360	434	220	90	540	140	640	42	35	12	30	M 20	139
	320	280	166	420	516	260	100	650	160	770	50	42	13	36	M 24	221

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

$d_a$  200 mm

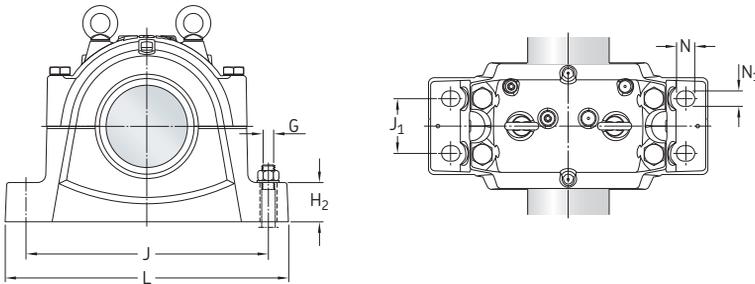


Shaft diameter	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Locating ring <sup>3)</sup>	Seals	End cover	Width incl. seals $A_2$
$d_a$							
mm	–	–					mm
200	SNL 3044	23044 CCK/W33	OH 3044 H	4 FRB 10/340	TS 44	ETS 44	290
		23044-2CS5K	OH 3044 H	4 FRB 10/340	TNF 44		349
		C 3044 K	OH 3044 H	4 FRB 10/340			
	SNL 3044 TURT	23044 CCK/W33	OH 3044 H	4 FRB 10/340	included	ETS 3044 R	275
	SNL 3044 TURA	C 3044 K	OH 3044 H	4 FRB 10/340	included	ETS 3044 R	275
	SNL 3144	23144 CCK/W33	OH 3144 H	2 FRB 10/370	TS 44	ETS 44	300
		23144-2CS5K	OH 3144 HTL	2 FRB 10/370	TNF 44		357
		C 3144 K	OH 3144 HTL	2 FRB 10/370			
	SNL 3144 TURT	23144 CCK/W33	OH 3144 H	2 FRB 10/370	included	ETS 3144 R	285
	SNL 3144 TURA	C 3144 K	OH 3144 HTL	2 FRB 10/370	included	ETS 3144 R	285
SNL 3244	23244 CCK/W33	OH 2344 H	2 FRB 10/400	TS 48/200 TNF 48/200	ETS 48	315 396	
SNL 3148	22244 CCK/W33	OH 3144 H	4 FRB 10/400	TS 48/200	ETS 48	315	
	22244-2CS5K C 2244 K	OH 3144 H OH 3144 H	4 FRB 10/400 4 FRB 10/400	TNF 48/200		396	
SNL 3156	22344 CCK/W33	OH 2344 H	2 FRB 10.5/460	TS 56/200 TNF 56/200	ETS 56	330 404	

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.

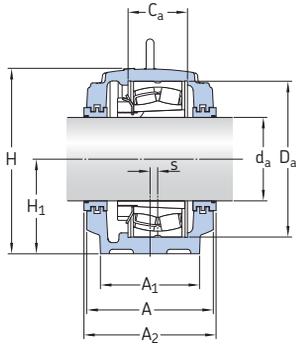
<sup>3)</sup> The locating rings fit the bearing in the same line only.



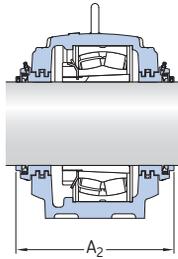
Shaft diameter	Dimensions															Eye bolt according to DIN 580	Mass Housing
$d_a$	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G			
mm	mm															-	kg
<b>200</b>	280	230	130	340	411	210	85	510	130	610	42	35	10	30	M 20	123	
	280	230	130	340	411	210	85	510	130	610	42	35	10	30	M 20	123	
	280	230	130	340	411	210	85	510	130	610	42	35	10	30	M 20	123	
	290	240	140	370	434	220	90	540	140	640	42	35	12	30	M 20	138	
	290	240	140	370	434	220	90	540	140	640	42	35	12	30	M 20	138	
	290	240	140	370	434	220	90	540	140	640	42	35	12	30	M 20	138	
	310	260	164	400	474	240	95	600	150	700	42	35	12	30	M 24	187	
	310	260	148	400	474	240	95	600	150	700	42	35	12	30	M 24	187	
	320	280	166	460	550	280	105	670	160	790	50	42	16	36	M 24	252	

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

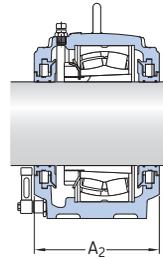
$d_a$  220 mm



Labyrinth seals,  
TS design



Taconite seals,  
TNF design



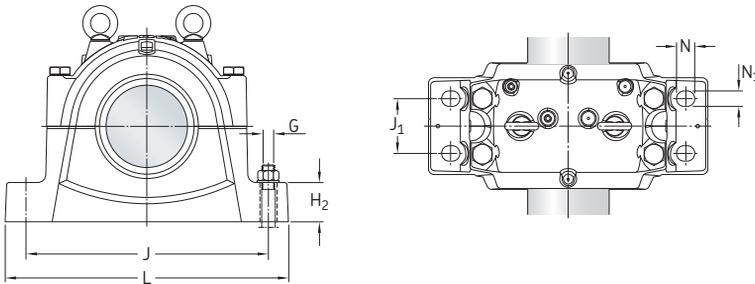
Oil seals,  
TURT/TURA design

Shaft diameter $d_a$	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Locating ring <sup>3)</sup>	Seals	End cover	Width incl. seals $A_2$
mm	–	–					mm
220	SNL 3048	23048 CCK/W33	OH 3048 H	4 FRB 12/360	TS 48	ETS 48	300
		23048-2CS5K	OH 3048 HE	4 FRB 12/360	TNF 48		380
		C 3048 K	OH 3048 H	4 FRB 12/360			
	SNL 3048 TURT	23048 CCK/W33	OH 3048 H	4 FRB 12/360	included	ETS 3048 R	285
	SNL 3048 TURA	C 3048 K	OH 3048 H	4 FRB 12/360	included	ETS 3048 R	285
	SNL 3148	23148 CCK/W33	OH 3148 H	2 FRB 10/400	TS 48	ETS 48	315
		23148-2CS5K	OH 3148 HTL	2 FRB 10/400	TNF 48		396
		C 3148 K	OH 3148 HTL	2 FRB 10/400			
	SNL 3148 TURT	23148 CCK/W33	OH 3148 H	2 FRB 10/400	included	ETS 3148 R	305
	SNL 3148 TURA	C 3148 K	OH 3148 HTL	2 FRB 10/400	included	ETS 3148 R	305
SNL 3248	23248 CCK/W33	OH 2348 H	2 FRB 10/440	TS 52/220 TNF 52/220	ETS 52	330 406	
SNL 3152	22248 CCK/W33	OH 3148 H	2 FRB 22/440	TS 52/220 TNF 52/220	ETS 52	330 412	
SNL 3160	22348 CCK/W33	OH 2348 H	2 FRB 12.5/500	TS 60/220 TNF 60/220	ETS 60	360 434	

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.

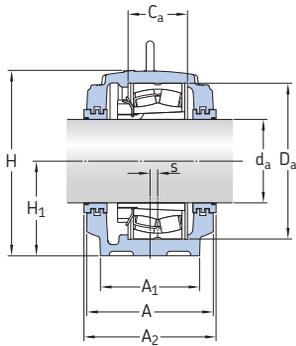
<sup>3)</sup> The locating rings fit the bearing in the same line only.



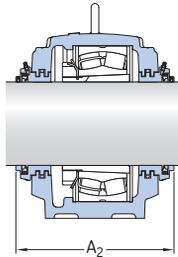
Shaft diameter	Dimensions															Eye bolt according to DIN 580	Mass Housing
$d_a$	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G			
mm	mm															-	kg
220	290	240	140	360	434	220	90	540	140	640	42	35	12	30	M 20	139	
	290	240	140	360	434	220	90	540	140	640	42	35	12	30	M 20	139	
	290	240	140	360	434	220	90	540	140	640	42	35	12	30	M 20	139	
	310	260	148	400	474	240	95	600	150	700	42	35	12	30	M 24	187	
	310	260	148	400	474	240	95	600	150	700	42	35	12	30	M 24	187	
	310	260	148	400	474	240	95	600	150	700	42	35	12	30	M 24	187	
	320	280	180	440	516	260	100	650	160	770	50	42	13	36	M 24	221	
	320	280	164	440	516	260	100	650	160	770	50	42	13	36	M 24	221	
	350	310	180	500	591	300	110	710	190	830	50	42	22	36	M 30	301	

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

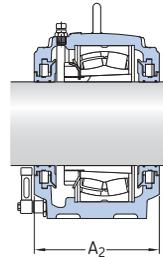
$d_a$  240 mm



Labyrinth seals,  
TS design



Taconite seals,  
TNF design



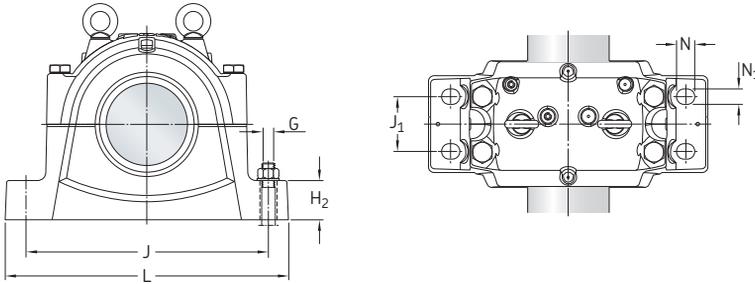
Oil seals,  
TURT/TURA design

Shaft diameter	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Locating ring <sup>3)</sup>	Seals	End cover	Width incl. seals $A_2$
$d_a$							
mm	–	–					mm
240	SNL 3052	23052 CCK/W33	OH 3052 H	2 FRB 22/400	TS 52	ETS 52	315
		23052-2CS5K C 3052 K	OH 3052 HE OH 3052 H	2 FRB 22/400 2 FRB 22/400	TNF 52		394
	SNL 3052 TURT	23052 CCK/W33	OH 3052 H	2 FRB 22/400	included	ETS 3052 R	305
	SNL 3052 TURA	C 3052 K	OH 3052 H	2 FRB 22/400	included	ETS 3052 R	305
	SNL 3152	23152 CCK/W33	OH 3152 H	2 FRB 10/440	TS 52	ETS 52	330
		23152-2CS5K C 3152 K	OH 3152 HTL OH 3152 HTL	2 FRB 10/440 2 FRB 10/440	TNF 52		412
	SNL 3152 TURT	23152 CCK/W33	OH 3152 H	2 FRB 10/440	included	ETS 3152 R	315
	SNL 3152 TURA	C 3152 K	OH 3152 HTL	2 FRB 10/440	included	ETS 3152 R	315
	SNL 3252	23252 CCK/W33	OH 2352 H	2 FRB 10/480	TS 64/240 TNF 64/240	ETS 64	360 434
	SNL 3064	22252 CCK/W33	OH 3152 H	2 FRB 25.5/480	TS 64/240 TNF 64/240	ETS 64	360 434
SNL 3164	22352 CCK/W33	OH 2352 H	2 FRB 15.5/540	TS 64/240 TNF 64/240	ETS 64	380 454	

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.

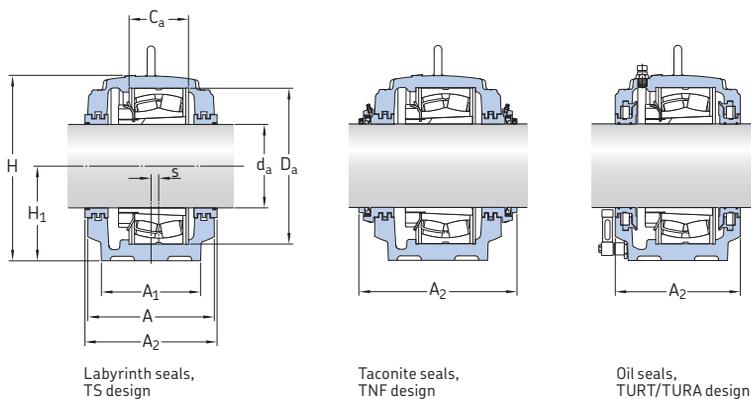
<sup>3)</sup> The locating rings fit the bearing in the same line only.



Shaft diameter	Dimensions															Eye bolt according to DIN 580	Mass Housing
$d_a$	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G			
mm	mm															-	kg
<b>240</b>	310	260	148	400	474	240	95	600	150	700	42	35	12	30	M 24	187	
	310	260	148	400	474	240	95	600	150	700	42	35	12	30	M 24	187	
	310	260	148	400	474	240	95	600	150	700	42	35	12	30	M 24	187	
	320	280	164	440	516	260	100	650	160	770	50	42	13	36	M 24	221	
	320	280	164	440	516	260	100	650	160	770	50	42	13	36	M 24	221	
	320	280	164	440	516	260	100	650	160	770	50	42	13	36	M 24	221	
	350	310	194	480	591	300	110	710	190	830	50	42	22	36	M 30	301	
	350	310	181	480	591	300	110	710	190	830	50	42	22	36	M 30	301	
	370	330	196	540	631	320	115	750	200	880	50	42	23	36	M 30	339	

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

$d_a$  260 mm

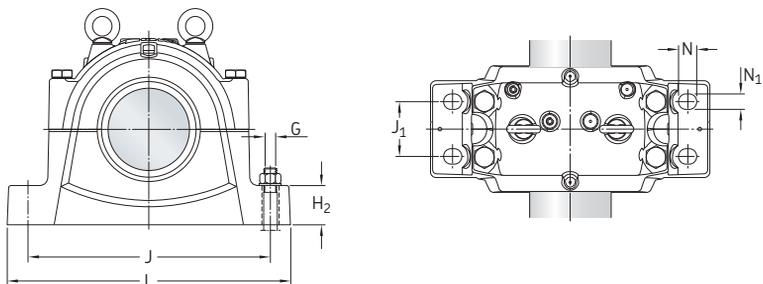


Shaft diameter	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Locating ring <sup>3)</sup>	Seals	End cover	Width incl. seals $A_2$
$d_a$							
mm	–	–					mm
260	SNL 3056	23056 CCK/W33 C 3056 K	OH 3056 H OH 3056 H	6 FRB 10/420 6 FRB 10/420	TS 56 TNF 56	ETS 56	330 404
	SNL 3056 TURT	23056 CCK/W33	OH 3056 H	6 FRB 10/420	included	ETS 3056 R	315
	SNL 3056 TURA	C 3056 K	OH 3056 H	6 FRB 10/420	included	ETS 3056 R	315
	SNL 3156	23156 CCK/W33 23156-2CS5K C 3156 K	OH 3156 H OH 3156 HTL OH 3156 HTL	2 FRB 10/460 2 FRB 10/460 2 FRB 10/460	TS 56 TNF 56	ETS 56	330 404
	SNL 3156 TURT	23156 CCK/W33	OH 3156 H	2 FRB 10/460	included	ETS 3156 R	315
	SNL 3156 TURA	C 3156 K	OH 3156 HTL	2 FRB 10/460	included	ETS 3156 R	315
	SNL 3256	23256 CCK/W33	OH 2356 H	2 FRB 10/500	TS 60/260 TNF 60/260	ETS 60	360 434
	SNL 3160	22256 CCK/W33	OH 3156 H	2 FRB 25/500	TS 60/260 TNF 60/260	ETS 60	360 434
	SNL 3168 L	22356 CCK/W33	OH 2356 H	2 FRB 17.5/580	TS 68/260 TNF 68/260	ETS 68	410 483

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.

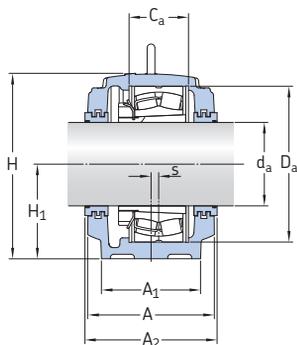
<sup>3)</sup> The locating rings fit the bearing in the same line only.



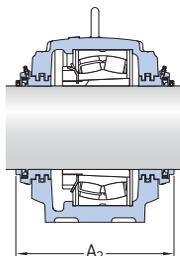
Shaft diameter	Dimensions															Eye bolt according to DIN 580	Mass Housing
$d_a$	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G			
mm	mm															-	kg
<b>260</b>	320	280	166	420	516	260	100	650	160	770	50	42	13	36	M 24	221	
	320	280	166	420	516	260	100	650	160	770	50	42	13	36	M 24	221	
	320	280	166	420	516	260	100	650	160	770	50	42	13	36	M 24	221	
	320	280	166	460	550	280	105	670	160	790	50	42	16	36	M 24	252	
	320	280	166	460	550	280	105	670	160	790	50	42	16	36	M 24	252	
	320	280	166	460	550	280	105	670	160	790	50	42	16	36	M 24	252	
	350	310	196	500	591	300	110	710	190	830	50	42	22	36	M 30	301	
	350	310	180	500	591	300	110	710	190	830	50	42	22	36	M 30	301	
	400	360	210	580	675	340	120	810	220	950	50	42	24	36	M 30	427	

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

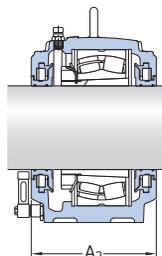
$d_a$  280 mm



Labyrinth seals,  
TS design



Taconite seals,  
TNF design



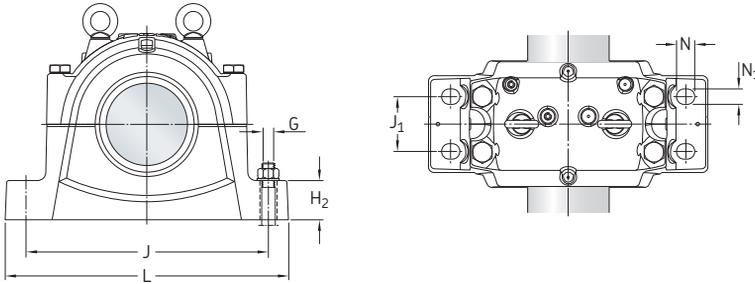
Oil seals,  
TURT/TURA design

Shaft diameter	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Locating ring <sup>3)</sup>	Seals	End cover	Width incl. seals $A_2$
$d_a$	–	–					mm
mm	–	–					mm
280	SNL 3060	23060 CCK/W33 C 3060 KM	OH 3060 H OH 3060 H	2 FRB 25/460 2 FRB 25/460	TS 60 TNF 60	ETS 60	330 404
	SNL 3060 TURT	23060 CCK/W33	OH 3060 H	2 FRB 25/460	included	ETS 3060 R	315
	SNL 3060 TURA	C 3060 KM	OH 3060 H	2 FRB 25/460	included	ETS 3060 R	315
	SNL 3160	23160 CCK/W33 23160-2CS5K C 3160 K	OH 3160 H OH 3160 HE OH 3160 H	2 FRB 10/500 2 FRB 10/500 2 FRB 10/500	TS 60 TNF 60	ETS 60	360 434
	SNL 3160 TURT	23160 CCK/W33	OH 3160 H	2 FRB 10/500	included	ETS 3160 R	345
	SNL 3160 TURA	C 3160 K	OH 3160 H	2 FRB 10/500	included	ETS 3160 R	345
	SNL 3260	23260 CCK/W33	OH 3260 H	2 FRB 10/540	TS 64/280 TNF 64/280	ETS 64	380 454
	SNL 3164	22260 CCK/W33	OH 3160 H	2 FRB 28/540	TS 64/280 TNF 64/280	ETS 64	380 454

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.

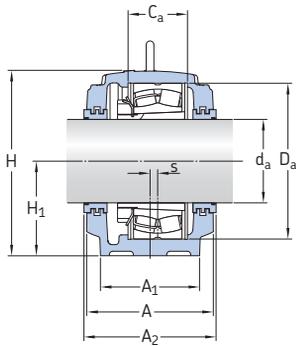
<sup>3)</sup> The locating rings fit the bearing in the same line only.



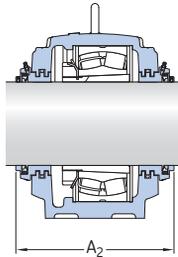
Shaft diameter	Dimensions															Eye bolt according to DIN 580	Mass Housing
$d_a$	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G			
mm	mm															-	kg
<b>280</b>	320	280	168	460	550	280	105	670	160	790	50	42	16	36	M 24	252	
	320	280	168	460	550	280	105	670	160	790	50	42	16	36	M 24	252	
	320	280	168	460	550	280	105	670	160	790	50	42	16	36	M 24	252	
	350	310	180	500	591	300	110	710	190	830	50	42	22	36	M 30	301	
	350	310	180	500	591	300	110	710	190	830	50	42	22	36	M 30	301	
	350	310	180	500	591	300	110	710	190	830	50	42	22	36	M 30	301	
	370	330	212	540	631	320	115	750	200	880	50	42	23	36	M 30	339	
	370	330	196	540	631	320	115	750	200	880	50	42	23	36	M 30	339	

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

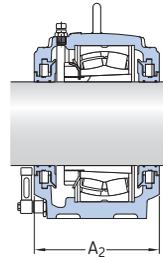
$d_a$  300 mm



Labyrinth seals,  
TS design



Taconite seals,  
TNF design



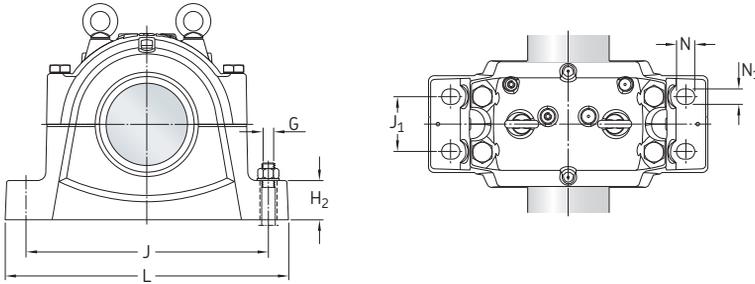
Oil seals,  
TURT/TURA design

Shaft diameter	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Locating ring <sup>3)</sup>	Seals	End cover	Width incl. seals A <sub>2</sub>
$d_a$							
mm	–	–					mm
300	SNL 3064	23064 CCK/W33	OH 3064 H	6 FRB 10/480	TS 64	ETS 64	360
		C 3064 KM	OH 3064 H	6 FRB 10/480	TNF 64		434
	SNL 3064 TURT	23064 CCK/W33	OH 3064 H	6 FRB 10/480	included	ETS 3064 R	345
	SNL 3064 TURA	C 3064 KM	OH 3064 H	6 FRB 10/480	included	ETS 3064 R	345
	SNL 3164	23164 CCK/W33	OH 3164 H	2 FRB 10/540	TS 64	ETS 64	380
		23164-2CS5K C 3164 KM	OH 3164 H OH 3164 H	2 FRB 10/540 2 FRB 10/540	TNF 64		454
	SNL 3164 TURT	23164 CCK/W33	OH 3164 H	2 FRB 10/540	included	ETS 3164 R	365
	SNL 3164 TURA	C 3164 KM	OH 3164 H	2 FRB 10/540	included	ETS 3164 R	365
	SNL 3264 F	23264 CCK/W33	OH 3264 H	–	TS 68/300 TNF 68/300	ETS 68	410 483
	SNL 3264 L	23264 CCK/W33	OH 3264 H	–	TS 68/300 TNF 68/300	ETS 68	410 483
SNL 3168 F	22264 CCK/W33	OH 3164 H	2 FRB 20/580	TS 68/300 TNF 68/300	ETS 68	410 483	

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.

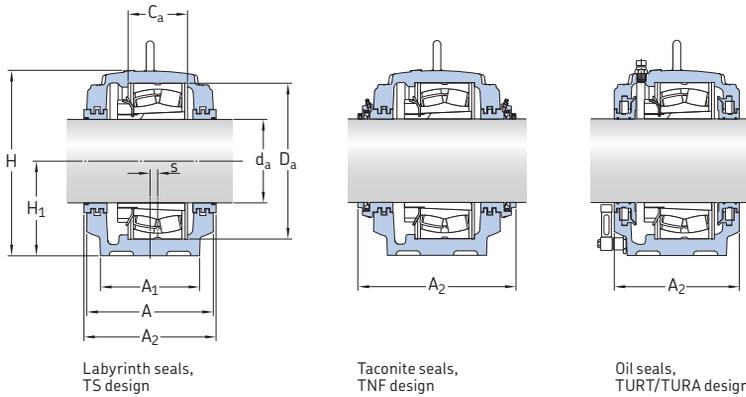
<sup>3)</sup> The locating rings fit the bearing in the same line only.



Shaft diameter	Dimensions															Eye bolt according to DIN 580	Mass Housing
$d_a$	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G			
mm	mm															-	kg
<b>300</b>	350	310	181	480	591	300	110	710	190	830	50	42	22	36	M 30	301	
	350	310	181	480	591	300	110	710	190	830	50	42	22	36	M 30	301	
	350	310	181	480	591	300	110	710	190	830	50	42	22	36	M 30	301	
	370	330	196	540	631	320	115	750	200	880	50	42	23	36	M 30	339	
	370	330	196	540	631	320	115	750	200	880	50	42	23	36	M 30	339	
	370	330	196	540	631	320	115	750	200	880	50	42	23	36	M 30	339	
	400	360	208	580	675	340	120	810	220	950	50	42	24	36	M 30	430	
	400	360	228	580	675	340	120	810	220	950	50	42	24	36	M 30	427	
	400	360	190	580	675	340	120	810	220	950	50	42	24	36	M 30	430	

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

$d_a$  320 mm

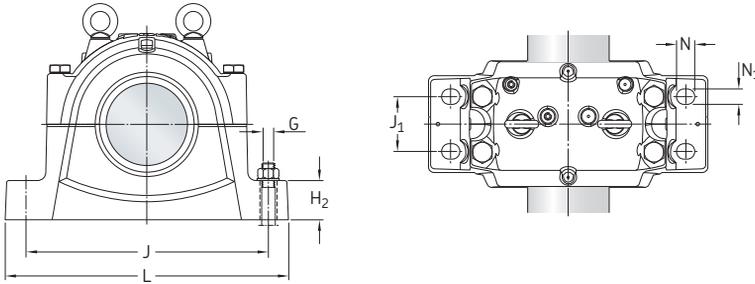


Shaft diameter	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Locating ring <sup>3)</sup>	Seals	End cover	Width incl. seals A <sub>2</sub>
$d_a$							
mm	–	–					mm
320	SNL 3068	23068 CCK/W33 C 3068 KM	OH 3068 H OH 3068 H	4 FRB 16/520 4 FRB 16/520	TS 68 TNF 68	ETS 68	380 453
	SNL 3068 TURT	23068 CCK/W33	OH 3068 H	4 FRB 16/520	included	ETS 3068 R	365
	SNL 3068 TURA	C 3068 KM	OH 3068 H	4 FRB 16/520	included	ETS 3068 R	365
	SNL 3168 F	23168 CCK/W33 23168-2CS5K C 3168 KM	OH 3168 H OH 3168 HE OH 3168 H	– – –	TS 68 TNF 68	ETS 68	410 483
	SNL 3168 FTURT	23168 CCK/W33	OH 3168 H	–	included	ETS 3168 R	395
	SNL 3168 FTURA	C 3168 KM	OH 3168 H	–	included	ETS 3168 R	395
	SNL 3168 L	23168 CCK/W33	OH 3168 H	–	TS 68 TNF 68	ETS 68	410 483
	SNL 3168 LTURT	23168 CCK/W33	OH 3168 H	–	included	ETS 3168 R	395
	SNL 3268 F	23268 CAK/W33	OH 3268 H	–	TS 76/320 TNF 76/320	ETS 76	410 483
	SNL 3268 L	23268 CAK/W33	OH 3268 H	–	TS 76/320 TNF 76/320	ETS 76	410 483

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.

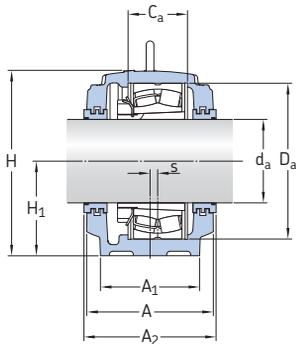
<sup>3)</sup> The locating rings fit the bearing in the same line only.



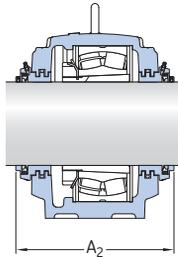
Shaft diameter	Dimensions															Eye bolt according to DIN 580	Mass Housing
$d_a$	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G			
mm	mm															-	kg
<b>320</b>	370	330	197	520	631	320	115	750	200	880	50	42	23	36	M 30	339	
	370	330	197	520	631	320	115	750	200	880	50	42	23	36	M 30	339	
	370	330	197	520	631	320	115	750	200	880	50	42	23	36	M 30	339	
	400	360	190	580	675	340	120	810	220	950	50	42	24	36	M 30	430	
	400	360	190	580	675	340	120	810	220	950	50	42	24	36	M 30	430	
	400	360	190	580	675	340	120	810	220	950	50	42	24	36	M 30	430	
	400	360	210	580	675	340	120	810	220	950	50	42	24	36	M 30	427	
	400	360	210	580	675	340	120	810	220	950	50	42	24	36	M 30	427	
	400	360	224	620	715	360	120	870	220	1 040	50	42	30	36	M 36	473	
	400	360	244	620	715	360	120	870	220	1 040	50	42	30	36	M 36	470	

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

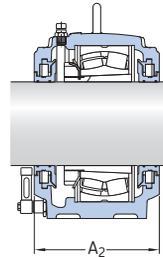
$d_a$  340 mm



Labyrinth seals,  
TS design



Taconite seals,  
TNF design



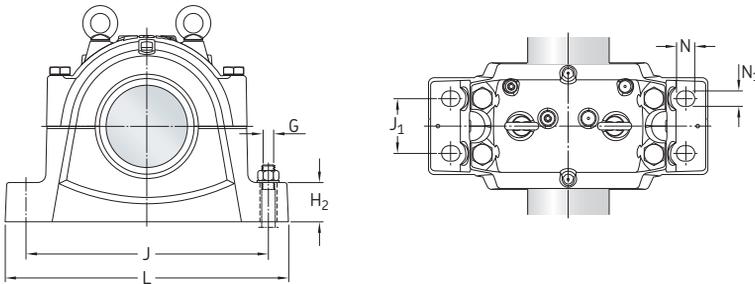
Oil seals,  
TURT/TURA design

Shaft diameter $d_a$	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Locating ring <sup>3)</sup>	Seals	End cover	Width
							incl. seals $A_2$
mm	–	–					mm
340	SNL 3072	23072 CCK/W33 C 3072 KM	OH 3072 H OH 3072 H	4 FRB 16/540 4 FRB 16/540	TS 72 TNF 72	ETS 72	380 453
	SNL 3072 TURT	23072 CCK/W33	OH 3072 H	4 FRB 16/540	included	ETS 3072 R	365
	SNL 3072 TURA	C 3072 KM	OH 3072 H	4 FRB 16/540	included	ETS 3072 R	365
	SNL 3172 F	23172 CCK/W33 23172-2CS5K C 3172 KM	OH 3172 H OH 3172 HE OH 3172 H	– – –	TS 72 TNF 72	ETS 72	410 483
	SNL 3172 FTURT	23172 CCK/W33	OH 3172 H	–	included	ETS 3172 R	395
	SNL 3172 FTURA	C 3172 KM	OH 3172 H	–	included	ETS 3172 R	395
	SNL 3172 L	23172 CCK/W33 23172-2CS5K	OH 3172 H OH 3172 HE	– –	TS 72 TNF 72	ETS 72	410 483
	SNL 3172 LTURT	23172 CCK/W33	OH 3172 H	–	included	ETS 3172 R	395
	SNL 3272 F	23272 CAK/W33	OH 3272 H	–	TS 80/340 TNF 80/340	ETS 80	440 513
	SNL 3272 L	23272 CAK/W33	OH 3272 H	–	TS 80/340 TNF 80/340	ETS 80	440 513
	SNL 3180 L	22272 CAK/W33	OH 3172 H	2 FRB 25/650	TS 80/340 TNF 80/340	ETS 80	440 513

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.

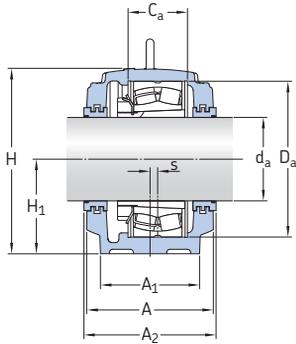
<sup>3)</sup> The locating rings fit the bearing in the same line only.



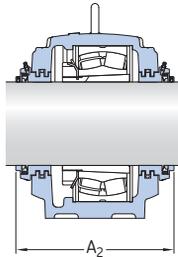
Shaft diameter	Dimensions															Eye bolt according to DIN 580	Mass Housing
$d_a$	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G			
mm	mm															-	kg
<b>340</b>	370	330	198	540	631	320	115	750	200	880	50	42	23	36	M 30	339	
	370	330	198	540	631	320	115	750	200	880	50	42	23	36	M 30	339	
	370	330	198	540	631	320	115	750	200	880	50	42	23	36	M 30	339	
	400	360	192	600	695	350	120	840	220	1 000	50	42	30	36	M 36	458	
	400	360	192	600	695	350	120	840	220	1 000	50	42	30	36	M 36	458	
	400	360	192	600	695	350	120	840	220	1 000	50	42	30	36	M 36	458	
	400	360	212	600	695	350	120	840	220	1 000	50	42	30	36	M 36	454	
	400	360	212	600	695	350	120	840	220	1 000	50	42	30	36	M 36	454	
	430	390	232	650	755	380	125	950	240	1 120	60	48	30	42	M 42	595	
	430	390	252	650	755	380	125	950	240	1 120	60	48	30	42	M 42	595	
	430	390	220	650	755	380	125	950	240	1 120	60	48	30	42	M 42	595	

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

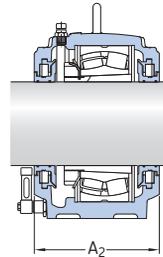
$d_a$  360 mm



Labyrinth seals,  
TS design



Taconite seals,  
TNF design

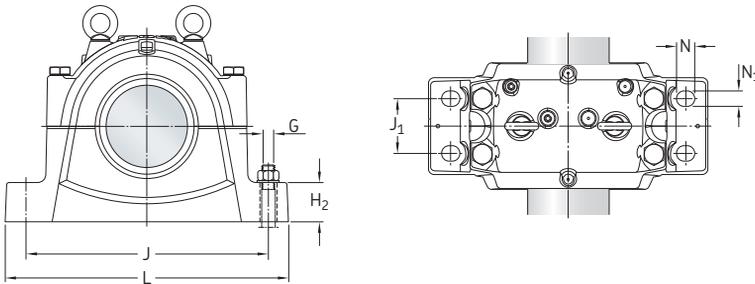


Oil seals,  
TURT/TURA design

Shaft diameter	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Seals	End cover	Width incl. seals $A_2$
$d_a$						
mm	–	–				mm
360	SNL 3076 F	23076 CCK/W33 C 3076 KM	OH 3076 H OH 3076 H	TS 76 TNF 76	ETS 76	410 483
	SNL 3076 FTURT	23076 CCK/W33	OH 3076 H	included	ETS 3076 R	395
	SNL 3076 FTURA	C 3076 KM	OH 3076 H	included	ETS 3076 R	395
	SNL 3076 L	23076 CCK/W33	OH 3076 H	TS 76 TNF 76	ETS 76	410 483
	SNL 3076 LTURT	23076 CCK/W33	OH 3076 H	included	ETS 3076 R	395
	SNL 3176 F	23176 CAK/W33 C 3176 KMB	OH 3176 H OH 3176 HE	TS 76 TNF 76	ETS 76	410 483
	SNL 3176 FTURT	23176 CAK/W33	OH 3176 H	included	ETS 3176 R	395
	SNL 3176 FTURA	C 3176 KMB	OH 3176 HE	included	ETS 3176 R	395
	SNL 3176 L	23176 CAK/W33	OH 3176 H	TS 76 TNF 76	ETS 76	410 483
	SNL 3176 LTURT	23176 CAK/W33	OH 3176 H	included	ETS 3176 R	395
	SNL 3276 F	23276 CAK/W33	OH 3276 H	TS 92/360 TNF 92/360	ETS 92	470 543
	SNL 3276 L	23276 CAK/W33	OH 3276 H	TS 92/360 TNF 92/360	ETS 92	470 543

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

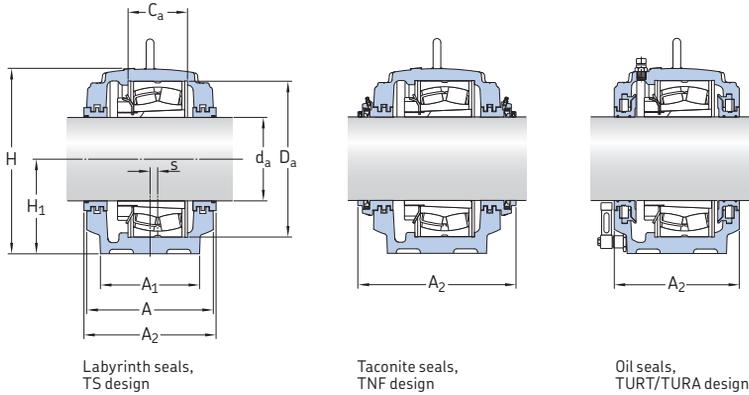
<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.



Shaft diameter	Dimensions															Eye bolt according to DIN 580	Mass Housing
$d_a$	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G			
mm	mm															-	kg
<b>360</b>	400	360	135	560	675	340	120	810	220	950	50	42	24	36	M30	430	
	400	360	135	560	675	340	120	810	220	950	50	42	24	36	M30	430	
	400	360	135	560	675	340	120	810	220	950	50	42	24	36	M30	430	
	400	360	180	560	675	340	120	810	220	950	50	42	24	36	M30	427	
	400	360	180	560	675	340	120	810	220	950	50	42	24	36	M30	427	
	400	360	194	620	715	360	120	870	220	1040	50	42	30	36	M36	473	
	400	360	194	620	715	360	120	870	220	1040	50	42	30	36	M36	473	
	400	360	194	620	715	360	120	870	220	1040	50	42	30	36	M36	473	
	400	360	214	620	715	360	120	870	220	1040	50	42	30	36	M36	470	
	400	360	214	620	715	360	120	870	220	1040	50	42	30	36	M36	470	
	460	420	240	680	810	410	130	1000	260	1170	60	48	35	42	M42	716	
	460	420	260	680	810	410	130	1000	260	1170	60	48	35	42	M42	709	

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

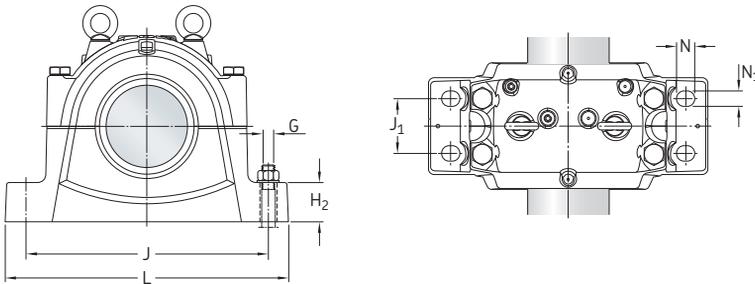
$d_a$  380 mm



Shaft diameter	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Seals	End cover	Width incl. seals $A_2$
$d_a$						
mm	–	–				mm
380	SNL 3080 F	23080 CCK/W33 C 3080 KM	OH 3080 H OH 3080 H	TS 80 TNF 80	ETS 80	410 483
	SNL 3080 FTURT	23080 CCK/W33	OH 3080 H	included	ETS 3080 R	395
	SNL 3080 FTURA	C 3080 KM	OH 3080 H	included	ETS 3080 R	395
	SNL 3080 L	23080 CCK/W33	OH 3080 H	TS 80 TNF 80	ETS 80	410 483
	SNL 3080 LTURT	23080 CCK/W33	OH 3080 H	included	ETS 3080 R	395
	SNL 3180 F	23180 CAK/W33 23180-2CS5K C 3180 KM	OH 3180 H OH 3180 HE OH 3180 H	TS 80 TNF 80	ETS 80	440 513
	SNL 3180 FTURT	23180 CAK/W33	OH 3180 H	included	ETS 3180 R	425
	SNL 3180 FTURA	C 3180 KM	OH 3180 H	included	ETS 3180 R	425
	SNL 3180 L	23180 CAK/W33 23180-2CS5K	OH 3180 H OH 3180 HE	TS 80 TNF 80	ETS 80	440 513
	SNL 3180 LTURT	23180 CAK/W33	OH 3180 H	included	ETS 3180 R	425
	SNL 3280 F	23280 CAK/W33	OH 3280 H	TS 88/380 TNF 88/380	ETS 88	470 543
	SNL 3280 L	23280 CAK/W33	OH 3280 H	TS 88/380 TNF 88/380	ETS 88	470 543

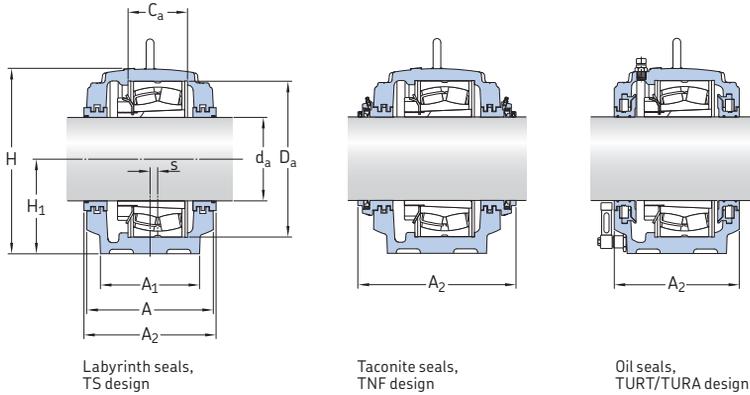
<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.



Shaft diameter	Dimensions															Eye bolt according to DIN 580	Mass Housing
$d_a$	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G			
mm	mm															-	kg
<b>380</b>	400	360	148	600	695	350	120	840	220	1000	50	42	30	36	M 36	458	
	400	360	148	600	695	350	120	840	220	1000	50	42	30	36	M 36	458	
	400	360	148	600	695	350	120	840	220	1000	50	42	30	36	M 36	458	
	400	360	192	600	695	350	120	840	220	1000	50	42	30	36	M 36	454	
	400	360	192	600	695	350	120	840	220	1000	50	42	30	36	M 36	454	
	430	390	200	650	755	380	125	950	240	1120	60	48	30	42	M 42	595	
	430	390	200	650	755	380	125	950	240	1120	60	48	30	42	M 42	595	
	430	390	200	650	755	380	125	950	240	1120	60	48	30	42	M 42	595	
	430	390	220	650	755	380	125	950	240	1120	60	48	30	42	M 42	595	
	430	390	220	650	755	380	125	950	240	1120	60	48	30	42	M 42	595	
	460	430	256	720	835	420	135	1030	260	1220	60	48	35	42	M 42	755	
	460	430	276	720	835	420	135	1030	260	1220	60	48	35	42	M 42	751	

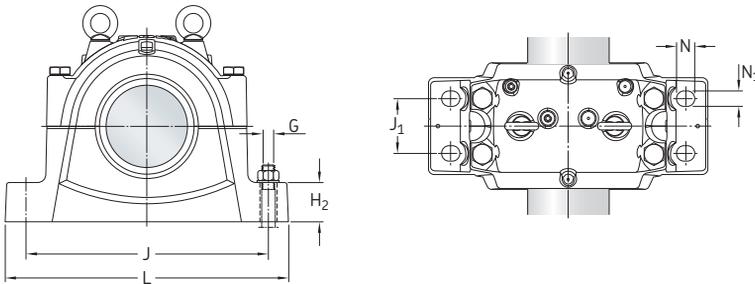
## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts d<sub>a</sub> 400 mm



Shaft diameter d <sub>a</sub>	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Seals	End cover	Width incl. seals A <sub>2</sub>
mm	–	–				mm
400	SNL 3084 F	23084 CAK/W33 C 3084 KM	OH 3084 H OH 3084 H	TS 84 TNF 84	ETS 84	410 483
	SNL 3084 FTURT	23084 CAK/W33	OH 3084 H	included	ETS 3084 R	395
	SNL 3084 FTURA	C 3084 KM	OH 3084 H	included	ETS 3084 R	395
	SNL 3084 L	23084 CAK/W33	OH 3084 H	TS 84 TNF 84	ETS 84	410 483
	SNL 3084 LTURT	23084 CAK/W33	OH 3084 H	included	ETS 3084 R	395
	SNL 3184 F	23184 CKJ/W33 C 3184 KM	OH 3184 H OH 3184 H	TS 84 TNF 84	ETS 84	470 543
	SNL 3184 FTURT	23184 CKJ/W33	OH 3184 H	included	ETS 3184 R	450
	SNL 3184 FTURA	C 3184 KM	OH 3184 H	included	ETS 3184 R	450
	SNL 3184 L	23184 CKJ/W33	OH 3184 H	TS 84 TNF 84	ETS 84	470 543
	SNL 3184 LTURT	23184 CKJ/W33	OH 3184 H	included	ETS 3184 R	450
	SNL 3284 F	23284 CAK/W33	OH 3284 H	TS 92/400 TNF 92/400	ETS 92	480 553
	SNL 3284 L	23284 CAK/W33	OH 3284 H	TS 92/400 TNF 92/400	ETS 92	480 553

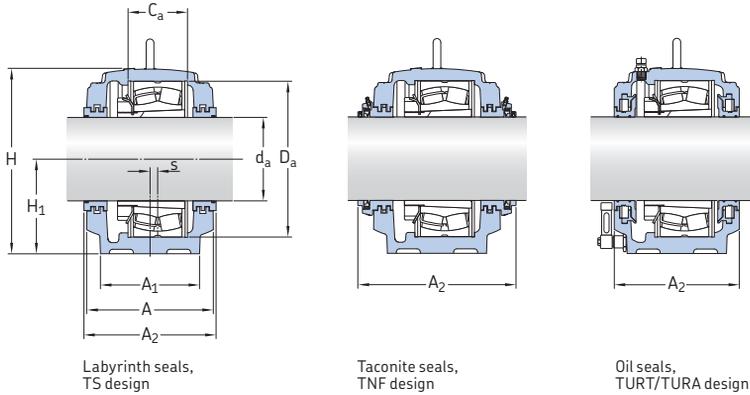
<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.



Shaft diameter	Dimensions															Eye bolt according to DIN 580	Mass Housing
$d_a$	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G			
mm	mm															-	kg
400	400	360	150	620	715	360	120	870	220	1040	50	42	30	36	M36	473	
	400	360	150	620	715	360	120	870	220	1040	50	42	30	36	M36	473	
	400	360	150	620	715	360	120	870	220	1040	50	42	30	36	M36	473	
	400	360	194	620	715	360	120	870	220	1040	50	42	30	36	M36	470	
	400	360	194	620	715	360	120	870	220	1040	50	42	30	36	M36	470	
	460	420	224	700	810	410	130	1000	260	1170	60	48	35	42	M42	716	
	460	420	224	700	810	410	130	1000	260	1170	60	48	35	42	M42	716	
	460	420	224	700	810	410	130	1000	260	1170	60	48	35	42	M42	716	
	460	420	244	700	810	410	130	1000	260	1170	60	48	35	42	M42	709	
	460	420	244	700	810	410	130	1000	260	1170	60	48	35	42	M42	709	
	470	440	272	760	880	440	145	1070	260	1280	60	48	40	42	M48	865	
	470	440	292	760	880	440	145	1070	260	1280	60	48	40	42	M48	859	

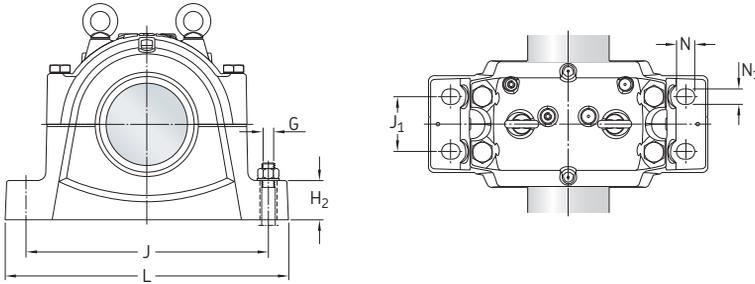
## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts d<sub>a</sub> 410 mm



Shaft diameter	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Seals	End cover	Width incl. seals A <sub>2</sub>
d <sub>a</sub>						
mm	–	–				mm
<b>410</b>	<b>SNL 3088 F</b>	23088 CAK/W33 C 3088 KMB	OH 3088 H OH 3088 HE	TS 88 TNF 88	ETS 88	440 513
	<b>SNL 3088 FTURT</b>	23088 CAK/W33	OH 3088 H	included	ETS 3088 R	425
	<b>SNL 3088 FTURA</b>	C 3088 KMB	OH 3088 HE	included	ETS 3088 R	425
	<b>SNL 3088 L</b>	23088 CAK/W33	OH 3088 H	TS 88 TNF 88	ETS 88	440 513
	<b>SNL 3088 LTURT</b>	23088 CAK/W33	OH 3088 H	included	ETS 3088 R	425
	<b>SNL 3188 F</b>	23188 CAK/W33 C 3188 KMB	OH 3188 H OH 3188 HE	TS 88 TNF 88	ETS 88	470 543
	<b>SNL 3188 FTURT</b>	23188 CAK/W33	OH 3188 H	included	ETS 3188 R	450
	<b>SNL 3188 FTURA</b>	C 3188 KMB	OH 3188 HE	included	ETS 3188 R	450
	<b>SNL 3188 L</b>	23188 CAK/W33	OH 3188 H	TS 88 TNF 88	ETS 88	470 543
	<b>SNL 3188 LTURT</b>	23188 CAK/W33	OH 3188 H	included	ETS 3188 R	450
	<b>SNL 3288 F</b>	23288 CAK/W33	OH 3288 H	TS 96/410 TNF 96/410	ETS 96	480 553
	<b>SNL 3288 L</b>	23288 CAK/W33	OH 3288 H	TS 96/410 TNF 96/410	ETS 96	480 553

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

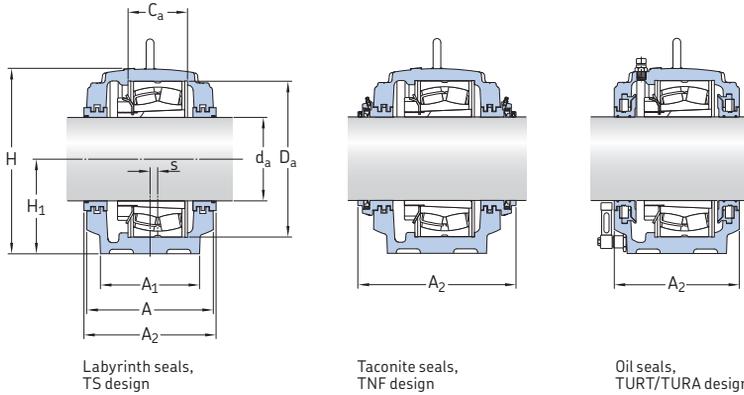
<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.



Shaft diameter	Dimensions															Eye bolt according to DIN 580	Mass Housing
$d_a$	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G			
mm	mm															-	kg
<b>410</b>	430	390	157	650	755	380	125	950	240	1120	60	48	30	42	M 42	595	
	430	390	157	650	755	380	125	950	240	1120	60	48	30	42	M 42	595	
	430	390	157	650	755	380	125	950	240	1120	60	48	30	42	M 42	595	
	430	390	200	650	755	380	125	950	240	1120	60	48	30	42	M 42	595	
	430	390	200	650	755	380	125	950	240	1120	60	48	30	42	M 42	595	
	460	430	226	720	835	420	135	1030	260	1220	60	48	35	42	M 42	755	
	460	430	226	720	835	420	135	1030	260	1220	60	48	35	42	M 42	755	
	460	430	226	720	835	420	135	1030	260	1220	60	48	35	42	M 42	755	
	460	430	246	720	835	420	135	1030	260	1220	60	48	35	42	M 42	751	
	460	430	246	720	835	420	135	1030	260	1220	60	48	35	42	M 42	751	
	470	440	280	790	920	460	155	1110	260	1330	70	56	40	48	M 48	947	
	470	440	300	790	920	460	155	1110	260	1330	70	56	40	48	M 48	941	

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

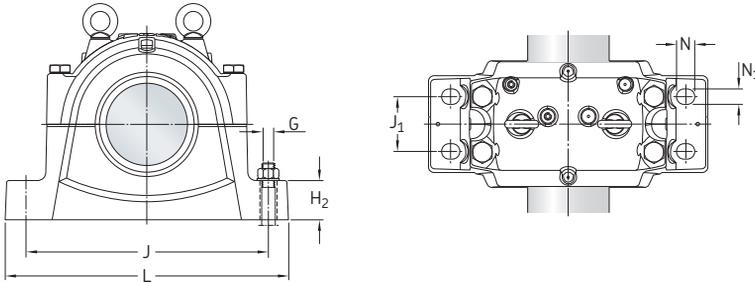
$d_a$  430 mm



Shaft diameter	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Seals	End cover	Width incl. seals $A_2$
$d_a$						
mm	–	–				mm
430	SNL 3092 F	23092 CAK/W33 C 3092 KM	OH 3092 H OH 3092 H	TS 92 TNF 92	ETS 92	470 543
	SNL 3092 FTURT	23092 CAK/W33	OH 3092 H	included	ETS 3092 R	455
	SNL 3092 FTURA	C 3092 KM	OH 3092 H	included	ETS 3092 R	455
	SNL 3092 L	23092 CAK/W33	OH 3092 H	TS 92 TNF 92	ETS 92	470 543
	SNL 3092 LTURT	23092 CAK/W33	OH 3092 H	included	ETS 3092 R	455
	SNL 3192 F	23192 CAK/W33 C 3192 KM	OH 3192 H OH 3192 H	TS 92 TNF 92	ETS 92	480 553
	SNL 3192 FTURT	23192 CAK/W33	OH 3192 H	included	ETS 3192 R	465
	SNL 3192 FTURA	C 3192 KM	OH 3192 H	included	ETS 3192 R	465
	SNL 3192 L	23192 CAK/W33	OH 3192 H	TS 92 TNF 92	ETS 92	480 553
	SNL 3192 LTURT	23192 CAK/W33	OH 3192 H	included	ETS 3192 R	465

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

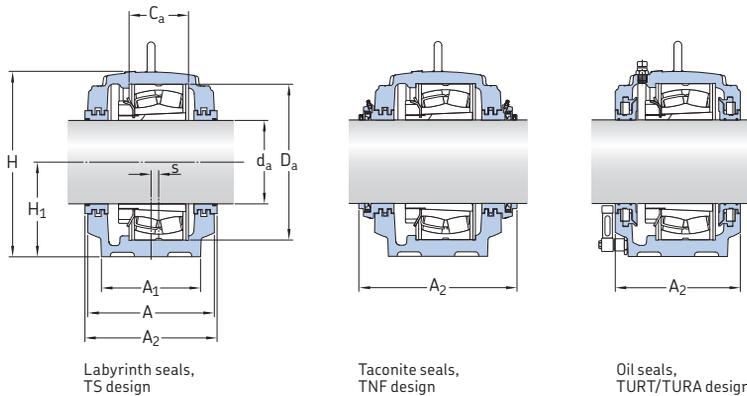
<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.



Shaft diameter	Dimensions															Eye bolt according to DIN 580	Mass Housing
$d_a$	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G			
mm	mm															-	kg
<b>430</b>	460	420	163	680	810	410	130	1000	260	1170	60	48	35	42	M 42	716	
	460	420	163	680	810	410	130	1000	260	1170	60	48	35	42	M 42	716	
	460	420	163	680	810	410	130	1000	260	1170	60	48	35	42	M 42	716	
	460	420	224	680	810	410	130	1000	260	1170	60	48	35	42	M 42	709	
	460	420	224	680	810	410	130	1000	260	1170	60	48	35	42	M 42	709	
	470	440	240	760	880	440	145	1070	260	1280	60	48	35	42	M 48	865	
	470	440	240	760	880	440	145	1070	260	1280	60	48	35	42	M 48	865	
	470	440	240	760	880	440	145	1070	260	1280	60	48	35	42	M 48	865	
	470	440	260	760	880	440	145	1070	260	1280	60	48	35	42	M 48	859	
	470	440	260	760	880	440	145	1070	260	1280	60	48	35	42	M 48	859	

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

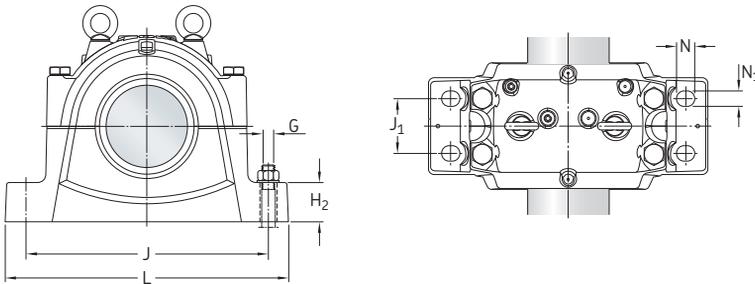
$d_a$  450 mm



Shaft diameter	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Seals	End cover	Width incl. seals A <sub>2</sub>
$d_a$	–	–				mm
mm	–	–				mm
450	SNL 3096 F	23096 CAK/W33 C 3096 KM	OH 3096 H OH 3096 H	TS 96 TNF 96	ETS 96	470 543
	SNL 3096 FTURT	23096 CAK/W33	OH 3096 H	included	ETS 3096 R	455
	SNL 3096 FTURA	C 3096 KM	OH 3096 H	included	ETS 3096 R	455
	SNL 3096 L	23096 CAK/W33	OH 3096 H	TS 96 TNF 96	ETS 96	470 543
	SNL 3096 LTURT	23096 CAK/W33	OH 3096 H	included	ETS 3096 R	455
	SNL 3196 F	23196 CAK/W33 C 3196 KMB	OH 3196 H OH 3196 HE	TS 96 TNF 96	ETS 96	480 553
	SNL 3196 FTURT	23196 CAK/W33	OH 3196 H	included	ETS 3196 R	465
	SNL 3196 FTURA	C 3196 KMB	OH 3196 HE	included	ETS 3196 R	465
	SNL 3196 L	23196 CAK/W33	OH 3196 H	TS 96 TNF 96	ETS 96	480 553
	SNL 3196 LTURT	23196 CAK/W33	OH 3196 H	included	ETS 3196 R	465

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

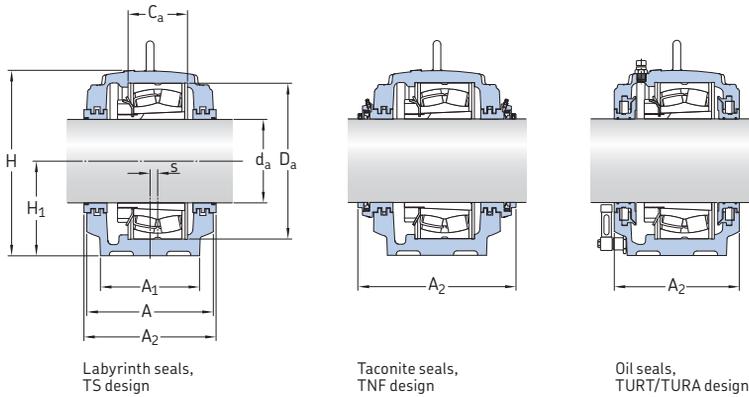
<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.



Shaft diameter	Dimensions															Eye bolt according to DIN 580	Mass Housing
$d_a$	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G			
mm	mm															-	kg
<b>450</b>	460	420	165	700	810	410	130	1 000	260	1 170	60	48	35	42	M 42	716	
	460	420	165	700	810	410	130	1 000	260	1 170	60	48	35	42	M 42	716	
	460	420	165	700	810	410	130	1 000	260	1 170	60	48	35	42	M 42	716	
	460	420	224	700	810	410	130	1 000	260	1 170	60	48	35	42	M 42	709	
	460	420	224	700	810	410	130	1 000	260	1 170	60	48	35	42	M 42	709	
	470	440	248	790	920	460	155	1 110	260	1 330	70	56	35	48	M 48	947	
	470	440	248	790	920	460	155	1 110	260	1 330	70	56	35	48	M 48	947	
	470	440	248	790	920	460	155	1 110	260	1 330	70	56	35	48	M 48	947	
	470	440	268	790	920	460	155	1 110	260	1 330	70	56	35	48	M 48	941	
	470	440	268	790	920	460	155	1 110	260	1 330	70	56	35	48	M 48	941	

## 5.1 Large SNL plummer block housings for bearings on an adapter sleeve, metric shafts

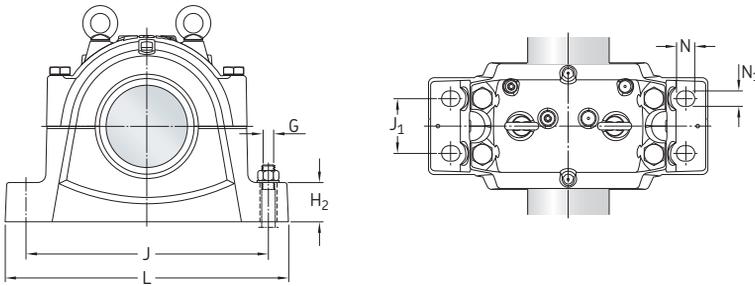
$d_a$  470 – 500 mm



Shaft diameter	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Seals	End cover	Width incl. seals $A_2$
$d_a$						
mm	–	–				mm
470	SNL 30/500 F	230/500 CAK/W33 C 30/500 KM	OH 30/500 H OH 30/500 H	TS 500 TNF 500	ETS 500	470 543
	SNL 30/500 FTURT	230/500 CAK/W33	OH 30/500 H	included	ETS 30/500 R	455
	SNL 30/500 FTURA	C 30/500 KM	OH 30/500 H	included	ETS 30/500 R	455
	SNL 30/500 L	230/500 CAK/W33	OH 30/500 H	TS 500 TNF 500	ETS 500	470 543
	SNL 30/500 LTURT	230/500 CAK/W33	OH 30/500 H	included	ETS 30/500 R	455
500	SNL 30/530 F	230/530 CAK/W33 C 30/530 KM	OH 30/530 H OH 30/530 H	TS 530 TNF 530	ETS 530	480 553
	SNL 30/530 FTURT	230/530 CAK/W33	OH 30/530 H	included	ETS 30/530 R	465
	SNL 30/530 FTURA	C 30/530 KM	OH 30/530 H	included	ETS 30/530 R	465
	SNL 30/530 L	230/530 CAK/W33	OH 30/530 H	TS 530 TNF 530	ETS 530	480 553
	SNL 30/530 LTURT	230/530 CAK/W33	OH 30/530 H	included	ETS 30/530 R	465

<sup>1)</sup> 222(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing. Only typical bearings are listed. Other bearing variants can also fit the housing.

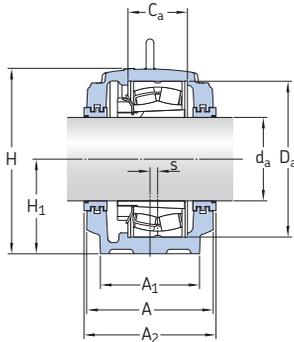
<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. Only typical adapter sleeves are listed. Other variants can also fit the housing.



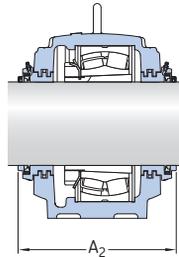
Shaft diameter	Dimensions														Eye bolt according to DIN 580	Mass Housing
$d_a$	A	$A_1$	$C_a$	$D_a$	H	$H_1$	$H_2$	J	$J_1$	L	N	$N_1$	s	G		
mm	mm														-	kg
<b>470</b>	460	430	167	720	835	420	135	1030	260	1220	60	48	35	42	M 42	755
	460	430	167	720	835	420	135	1030	260	1220	60	48	35	42	M 42	755
	460	430	167	720	835	420	135	1030	260	1220	60	48	35	42	M 42	755
	460	430	226	720	835	420	135	1030	260	1220	60	48	35	42	M 42	751
	460	430	226	720	835	420	135	1030	260	1220	60	48	35	42	M 42	751
<b>500</b>	470	440	185	780	920	460	155	1110	260	1330	70	56	35	48	M 48	947
	470	440	185	780	920	460	155	1110	260	1330	70	56	35	48	M 48	947
	470	440	185	780	920	460	155	1110	260	1330	70	56	35	48	M 48	947
	470	440	248	780	920	460	155	1110	260	1330	70	56	35	48	M 48	941
	470	440	248	780	920	460	155	1110	260	1330	70	56	35	48	M 48	941

## 5.2 Large SNL plummer block housings for bearings on an adapter sleeve, inch shafts

$d_a$  4 7/16 – 5 1/2 in.  
112,713 – 139,700 mm



Labyrinth seals,  
TS design



Taconite seals,  
TNF design

Shaft diameter $d_a$	Housing	Appropriate parts Bearing <sup>1)</sup>	Adapter sleeve <sup>2)</sup>	Locating ring <sup>3)</sup>	Seals	End cover	Width incl. seals $A_2$
in./mm	–	–					mm
4 7/16 112,713	SNL 3134	22326 CCK/W33	HA 2326	2 FRB 7.5/280	TS 34/4.7/16	ETS 34	240 299
		22326-2CS5K	HA 2326	2 FRB 7.5/280	TNF 34/4.7/16		
4 1/2 114,300	SNL 3134	22326 CCK/W33	HE 2326	2 FRB 7.5/280	TS 34/4.1/2	ETS 34	240 299
		22326-2CS5K	HE 2326	2 FRB 7.5/280	TNF 34/4.1/2		
4 15/16 125,413	SNL 3136	22328 CCK/W33	HA 2328	2 FRB 7/300	TS 36/4.15/16	ETS 36	250 310
		22328-2CS5K	HA 2328	2 FRB 7/300	TNF 36/4.15/16		
5 127,000	SNL 3136	22328 CCK/W33	HE 2328	2 FRB 7/300	TS 36/5	ETS 36	250 310
		22328-2CS5K	HE 2328	2 FRB 7/300	TNF 36/5		
5 3/16 131,763	SNL 3138	22330 CCK/W33	HA 2330	2 FRB 8/320	TS 38/5.3/16	ETS 38	270 330
		22330-2CS5K	HA 2330	2 FRB 8/320	TNF 38/5.3/16		
5 1/4 133,350	SNL 3138	22330 CCK/W33	HE 2330	2 FRB 8/320	TS 38/5.1/4	ETS 38	270 330
		22330-2CS5K	HE 2330	2 FRB 8/320	TNF 38/5.1/4		
5 7/16 138,113	SNL 3038	22232 CCK/W33	HA 3132	2 FRB 17.5/290	TS 38/5.7/16	ETS 38	250 312
		22232-2CS5K	HA 3132	2 FRB 17.5/290	TNF 38/5.7/16		
		C 3232 K	HA 2332 L	2 FRB 5.5/290			
	SNL 3140	22332 CCK/W33	HA 2332	2 FRB 9/340	TS 40/5.7/16	ETS 40	290 347
22332-2CS5K		HA 2332	2 FRB 9/340	TNF 40/5.7/16			
5 1/2 139,700	SNL 3038	22232 CCK/W33	HE 3132	2 FRB 17.5/290	TS 38/5.1/2	ETS 38	250 312
		22232-2CS5K	HE 3132	2 FRB 17.5/290	TNF 38/5.1/2		
		C 3232 K	HE 2332 L	2 FRB 5.5/290			
	SNL 3140	22332 CCK/W33	HE 2332	2 FRB 9/340	TS 40/5.1/2	ETS 40	290 347
22332-2CS5K	HE 2332	2 FRB 9/340	TNF 40/5.1/2				

<sup>1)</sup> 222(00), 223(00), 230(00), 231(00), 232(00)... – spherical roller bearing, C... – CARB toroidal roller bearing.

Only typical bearings are listed. Other bearing variants can also fit the housing.

<sup>2)</sup> The adapter sleeve fits the bearing in the same line only. If an oil lubricated adapter sleeve is wanted, contact SKF for availability.

Only typical adapter sleeves are listed. Other variants can also fit the housing.

<sup>3)</sup> The locating rings fit the bearing in the same line only.