SNL 30, SNL 31 and SNL 32 plummer block housings

solve housing problems



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The SKF brand now stands for more than ever before, and means more to you as a valued customer.

While SKF maintains its leadership as the hallmark of quality bearings throughout the world, new dimensions in technical advances, product support and services have evolved SKF into a truly solutions-oriented supplier, creating greater value for customers.

These solutions encompass ways to bring greater productivity to customers, not only with breakthrough application-specific products, but also through leading-edge design simulation tools and consultancy services, plant asset efficiency maintenance programmes, and the industry's most advanced supply management techniques.

The SKF brand still stands for the very best in rolling bearings, but it now stands for much more.

SKF – the knowledge engineering company

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Fewer bearing replacements and less maintenance

Plummer block housings have much to offer

The main benefit of split plummer block housings is their easy installation; pre-assembled shafts can be mounted in them. When the housing bases are attached to the base plate it is then only necessary to place the housing caps in position and to tighten the attachment bolts to complete the installation.

Split plummer block housings available on the market are mainly intended for self-aligning ball bearings, spherical roller bearings and CARB toroidal roller bearings. The housings can accommodate bearings in the 02, 03, 22, 23, 30, 31, 32, 39, 40 and 41 ISO Dimension Series. They can often be fitted with a variety of seals. Several designs and variants of split plummer block housings are available making the use of tailored housings unnecessary and thus enabling cost-effective bearing arrangements to be made.

For many years SKF has been one of the leading suppliers of split plummer block housings – synonymous with operational reliability and quality.

SNL 30, SNL 31 and SNL 32 plummer block housings have more to offer

SNL plummer block housings in the 30, 31 and 32 series are also referred to as “Large SNL plummer block housings”.

These plummer block housings enable the bearings to achieve maximum bearing service life with less need for maintenance. This supports user efforts to further reduce maintenance costs. Among other enhancements, SNL housings are designed for easy alignment and handling during installation.

Another benefit is the choice of oil or grease lubrication for the bearings housed in SNL plummer blocks. A range of seals for oil lubrication and difficult environments provide trouble-free operation.



One basic design – many variants

Large SNL plummer block housings are primarily intended for spherical roller bearings and CARB toroidal roller bearings. The housings are designed on a "building block" principle. This enables more possibilities when it comes to selecting the bearing designs, shaft, seals and the type of lubricant and/or lubrication delivery system.

A building block system

The basis of the original SNL plummer block housing system consists of a number of housings with the same basic design but in different sizes. By combining the housings with the different standard seals, a wide variety of variants, all belonging to the standard range, can be supplied to cover most applications.

SNL 30, 31 and 32 series housings are available for shaft diameters ranging from 150 to 530 mm, inclusive.

The standard range also covers housings with drilled and tapped holes for lubrication fittings. Upon request, housings can be drilled for condition monitoring.

SNL 30, 31 and 32 series plummer block housings are made of grey cast iron and demonstrate the same high strength as the earlier SD housings. Should, however, this strength be inadequate, dimensionally equivalent SNLD plummer block housings made of spheroidal graphite cast iron are available.

The large SNL and SNLD plummer block housings in the 31 series are dimensionally interchangeable with the earlier SD and SDD housings. However, for SNL and SNLD plummer block housings in the 30 series, one needs to check the bearing axial position, as the bearing centre is off-set compared to the housing base centre (dimension s in the tables). The housing boundary dimensions conform to ISO 113:1999.

Several sealing options

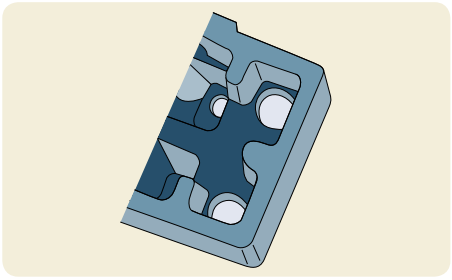
An important advantage of the SNL plummer block housings is that they can be fitted with a choice of seals. The standard seals supplied by SKF for SNL 30, 31 and 32 series housings include labyrinth seals and heavy-duty "taconite" seals as well as end covers. Oil seals are also available and are supplied together with the housing, as the housing has to be modified to accommodate the seal.

Large SNL plummer block housing with sealing options

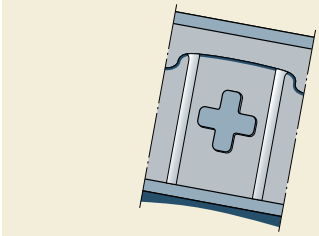


Designed for easy installation and superior performance

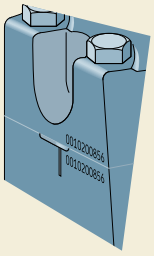
These large SNL housings have several special features as well as sealing alternatives.



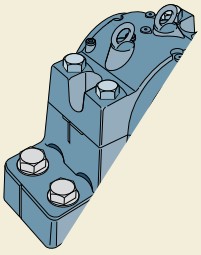
Stiff design
The housing base is reinforced with ribs and has extra material surrounding the holes for the attachment bolts to provide improved seating on the base plate. The attachment bolts can be preloaded to locate the housing and prevent deformation of the housing base and bore.



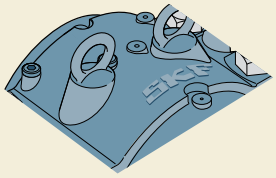
Large contact area
The centre cross reinforcement of the housing base enlarges the contact area between the housing base and base plate and enables an improved heat flow from the bearing outer ring to the base plate.



Caps and bases individually marked
The housing base and cap 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 base.

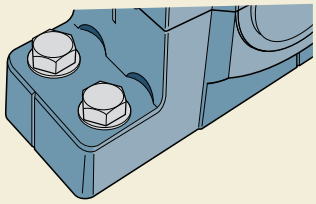


Indications for holes to take other components
SNL housings can be fitted with sensors serving permanently installed condition monitoring equipment based on vibration measurements. The positions where holes can be drilled to take these sensors are indicated on the housing.

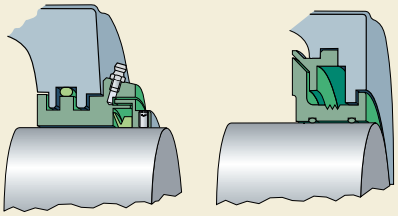


Drilled and tapped holes
Housings have drilled and tapped holes in the cap as standard. The holes are protected by metallic plugs. Two nipples are supplied, together with a nipple protector and adapter (packed inside the housing). If the application is such that relubrication is required, it is only necessary to screw the nipples into the holes and lubricant can be supplied to one side of the bearing or directly into the bearing (through the W33 groove if available). There are also indications on the housing where holes can be drilled for lubrication of the seals.

• Reinforced rectangular base	High level of stiffness
• Large contact area	Reinforced housing base and good heat flow
• Drilled and tapped holes with fittings	Relubrication facility as standard
• Caps and bases individually marked	Avoids mixing of caps and bases, permits traceability
• Indications for holes to take other components	Simple and easy adaptation of standard housing to individual application, easy attachment of condition monitoring equipment
• Simple and reliable	Simple and reliable mounting and maintenance
• Additional seals	Seals available for difficult operating conditions and oil lubrication for long bearing service life.



Simple instalment
In order to simplify mounting and make alignment more accurate, cast indications, which are vertical to the centre of the bore of the housing, are provided on the side faces of the housing base. Cast indications on the end faces of the base show the centre of the bearing.



Additional seals
Two seal designs have been developed specifically for large SNL housings. One is intended for difficult operating conditions that call for a robust seal that can be relubricated and the other one is for high speeds and oil lubrication.



Superior performance in all sectors

High load carrying capacity, simplified installation and easy maintenance, a variety of applications, and a robust design have made SKF housings a must. The most important sectors of industry and their demands are listed below.

One important reason for the popularity of SKF housings is the increased awareness of the impact of enhanced quality on the cost of a machine and its total life.

Applications

- Material handling
- Handling systems
- Mining and construction
- Fluid machinery
- Metallurgical
- Pulp and paper

Demands

- Long service life
- Robust design
- Long relubrication intervals
- Ready for relubrication
- Condition monitoring facilities
- Avoid risk of mixed caps
- Fast and easy mounting and dismounting

Solution













Bearing arrangement design

Large SNL plummer block housings in the 30, 31 and 32 series are typically used with spherical roller bearings or CARB toroidal roller bearings fitted on straight or stepped shafts. These bearings can be mounted on adapter sleeves or directly on cylindrical shaft seats. These housings can also be used with other bearing types if they are within the correct Dimension Series.

1. Bearings on adapter sleeves on straight shafts

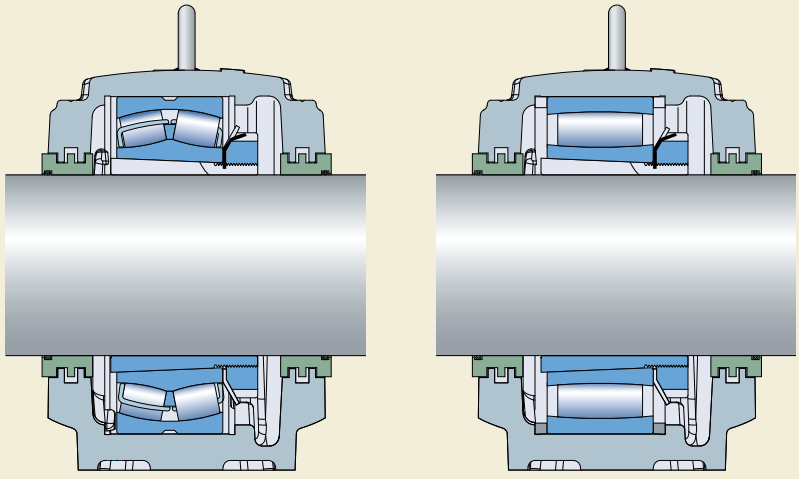
Advantages of a straight shaft

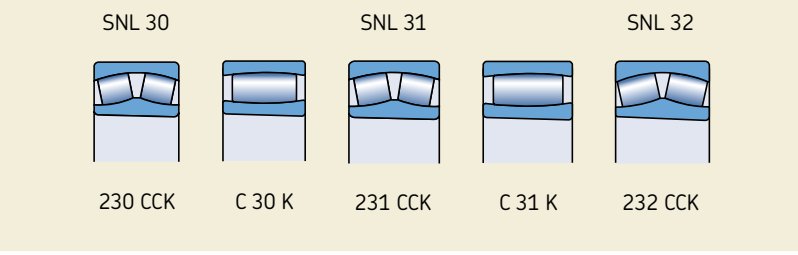
- Shafts with an h9 diameter tolerance do not require machining.
- Straight shafts have no shoulders or relieves to weaken the shaft.
- Bearings can be mounted at any position on the shaft.
- Mounting force, i.e. the force required to drive the bearing up onto the sleeve, is 40 % less than with other shafts because friction occurs only in one sliding interface.
- Bearing radial clearance can be modified (within limits) during mounting to meet application demands.

Applications

- Applications that require more than two bearings to support relatively long shafts.
- Applications that comprise machine components that are mounted using wedging or tensioning components, which do not require the shaft to be machined.
- Bearing arrangements where the final position of the bearing cannot be predetermined accurately.

Bearings on adapter sleeves on straight shafts





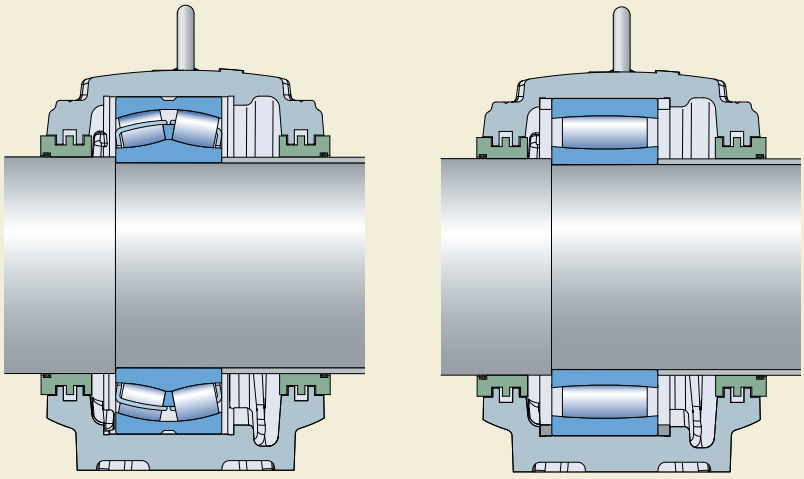
2. Bearings with a cylindrical bore on a stepped shaft

Advantages

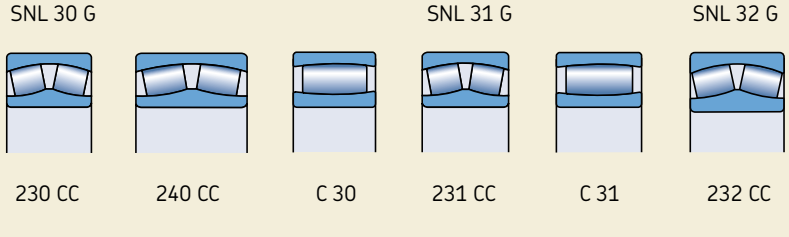
- The axial load carrying capacity of the bearing arrangement (in either direction) is not limited by a sleeve.
- The residual bearing internal clearance is determined by the tolerance of the shaft seat so there is no chance of radially preloading the bearing during mounting.
- The bearing position on the shaft is accurately determined by the shaft shoulder.
- The bearing can be located by other components via spacer sleeves.
- The shaft diameter is the largest possible (no sleeve).

Applications

- Bearing arrangements where large numbers of bearings have to be mounted.
- Bearing arrangements that are exposed to heavy shock loads.



Bearings with a cylindrical bore on a stepped shaft



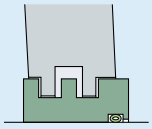
Standard seals

The standard seals available from SKF for large SNL housings in the 30, 31 and 32 series include labyrinth seals and heavy-duty taconite seals. The seals are easy to install and are supplied separately. These seals as well as special seals for oil lubrication are shown in **table 1** with an overview of the seal type, its design features and suitability for various operating conditions.

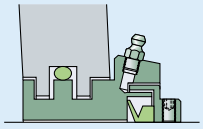
Detailed information on the various standard and special seals including properties can be found on **pages 13** to **15**.

Table 1

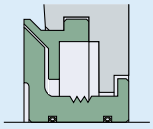
Seal selection



TS ..



TNF ..



TSD .. U[1)]

Properties			
Temperature, °C Temperature, °F	–50 to +200 –60 to +390	–40 to +100 –40 to +210	–50 to +200 –60 to +390
Peripheral speed, m/s	++	≤ 12	++
Misalignment, degrees	≤ 0,3	≤ 0,3	≤ 0,3
Grease relubrication	+	+	-
Oil lubrication	--	-	++
Low friction	++	+	++
Axial shaft displacement	+	+	-
Vertical arrangement	--	-	--
Sealing ability against dust	+	++	+
Abrasive contaminants	++	++	++
Liquids when sprayed	--	++	-
Direct sunlight	++	++	++

Symbols:

++ very suitable
+ suitable
- limited suitability
-- unsuitable

[1)] The oil seals are supplied together with housings prepared for oil lubrication. Oil seals can be ordered separately as spares only

Labyrinth seals

For applications where there are high speeds and/or extreme temperatures, SKF recommends using a labyrinth seal (→ **fig. 1**). The standard labyrinth seal consists of a labyrinth ring with two steps arranged radially. One step fits in the seal groove in the housing to form a gap type seal. The other step forms a gap type seal with the outside of the housing. A hollow, silicone rubber cord supplied with the seal holds the labyrinth ring in place on the shaft.

The standard labyrinth ring can accommodate approximately 0,3° of angular misalignment and operating temperatures ranging from –50 to +200 °C (–60 to 390 °F).

Labyrinth seals enable axial movement of the shaft relative to the housing.

Labyrinth seals are supplied singly. For a housing arrangement for a through shaft, two seals should be ordered. For a housing arrangement at the end of a shaft, one seal and an end cover (→ **page 17**) should be ordered. Labyrinth seals are identified by the prefix TS followed by the size identification, e.g. TS 34.

Taconite heavy-duty seals

Taconite, a very fine grained mineral found in the mining industry, is extremely difficult to seal against. When SKF developed a heavy-duty sealing system that could stop taconite from entering into the housing, the industry called it a taconite seal. Since then the taconite seal has become the industry term for heavy-duty labyrinth seals. SKF taconite seals, which are based on the design of a labyrinth seal with axially arranged labyrinth stages, fit SNL 30, 31 and 32 series housings.

The taconite seal design (→ **fig. 2**) is based on a radial labyrinth seal and fits standard housings. The main body of this three-piece seal fits in the seal groove in the housing. An O-ring fitted on the outside diameter keeps it firmly in place. A separate V-ring seal, mounted on the shaft, presses against the main body of the seal. The third piece, which is also installed on the shaft, creates a labyrinth that is virtually impenetrable when filled with grease. Taconite seals for SNL 30, 31 and 32 series housings are designed to be relubricated. The grease not only enhances the sealing effect, it also extends the service life of the seal. Grease is supplied via a grease fitting in the main body of the seal.

These seals, which can accommodate up to approximately 0,3° of angular misalignment, can accommodate temperatures between –40 and +100 °C (–40 to +210 °F). In case of higher operating temperatures, contact the SKF application engineering service.

The axial movement of the shaft, relative to the housing, is limited for this type of taconite seal to 2 mm for shaft diameters ranging from 150 up to 200 mm and up to 4 mm for larger shaft diameters.

These seals are supplied singly so that for housings used on through shafts, it is necessary to order two seals. The seal is identified by the prefix TNF followed by the size, e.g. TNF 34.

Seals for oil lubrication

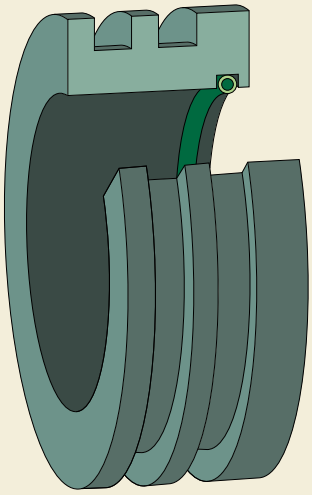
To retain oil in a large SNL housing and prevent leaks, SKF has developed a U-design labyrinth seal (→ **fig. 3**). These seals, which require a modified housing, consist of two parts: a stationary U-shaped plate that is bolted to the housing, and a steel reinforced rubber labyrinth ring that is mounted on the shaft. Two hollow, silicone rubber cords inserted between the loose fitting labyrinth ring and shaft, keep the ring in place and prevent oil from escaping along the shaft.

These seals do not limit axial movement of the shaft relative the housing as the rotating part of the seal will slide on the shaft after metal-to-metal contact is made between the seal parts.

For oil lubricated applications, modified SNL housings are supplied as a unit, complete with seals. Housings that are supplied with seals are identified by the suffix TURT (TURA for CARB bearings) e.g. SNL 3134 TURT. The seal itself is designated TSD .. U.

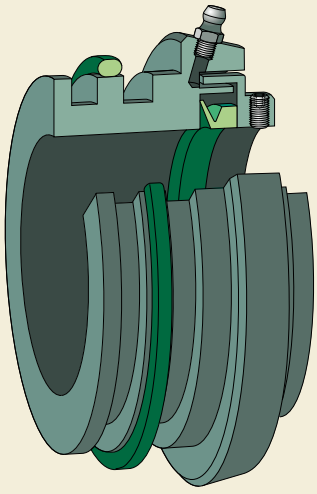
Labyrinth seal

Fig. 1



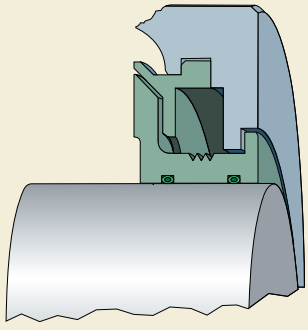
Taconite heavy-duty seal

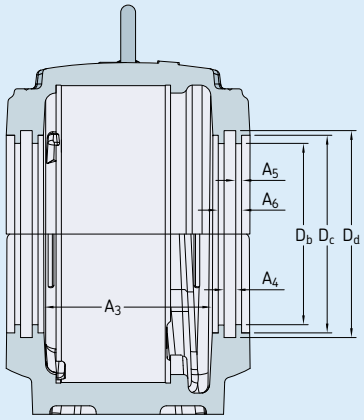
Fig. 2



Oil seal

Fig. 3





Special seals

For applications that require special seals, large SNL housings can be supplied without seals. However, if standard seals are not adequate, SKF recommends ordering housings in the SNL .. G series. Housings in the SNL .. G series have a larger bore at the shaft entrance and can accommodate a wider choice of seal designs.

Special seals are not normally supplied by SKF. Therefore, relevant seal groove dimensions are provided in **tables 2** and **3**.

Table 2

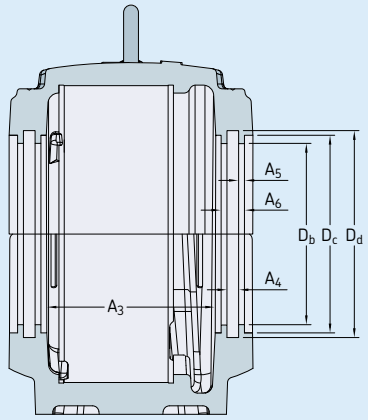
Seal groove dimensions for SNL housings

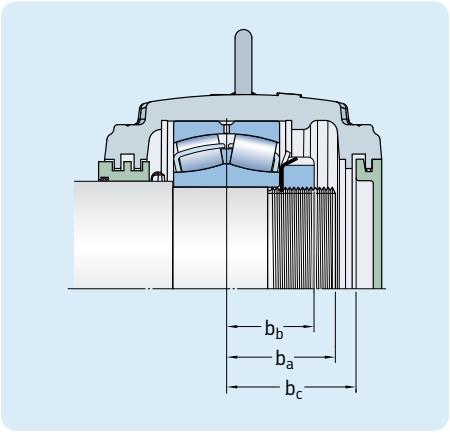
Housing	Dimensions						
Size	A_3	A_4	A_5	A_6	D_b	D_c	D_d
–	mm						
SNL 3036	158	11	5,5	22	181,2	196,4	205,2
SNL 3038	168	11	5,5	22	191,4	206,4	215,4
SNL 3040	186	11	5,5	22	201,4	216,4	225,4
SNL 3044	206	11	5,5	22	221,4	236,4	245,4
SNL 3048	214	11	5,5	22	241,4	256,4	265,4
SNL 3052	231	11	5,5	22	261,6	276,6	285,6
SNL 3056	249	11	5,5	22	281,6	296,6	305,6
SNL 3060	249	11	5,5	22	301,6	316,6	325,6
SNL 3064	279	11	5,5	22	321,8	336,8	345,8
SNL 3068	299	11	5,5	22	342,4	357,4	366,4
SNL 3072	297	11	5,5	22	362,4	377,4	386,4
SNL 3076	328	11	5,5	22	382,4	397,4	406,4
SNL 3080	328	11	5,5	22	402,8	417,8	426,8
SNL 3084	328	11	5,5	22	422,8	437,8	446,8
SNL 3088	358	11	5,5	22	442,8	457,8	466,8
SNL 3092	388	11	5,5	22	463	478	487
SNL 3096	388	11	5,5	22	483	498	507
SNL 30/500	388	11	5,5	22	503	518	527
SNL 30/530	398	11	5,5	22	533	548	557
SNL 3134	159	11	5,5	22	171,2	186,4	195,2
SNL 3136	169	11	5,5	22	181,2	196,4	205,2
SNL 3138	187	11	5,5	22	191,4	206,4	215,4
SNL 3140	207	11	5,5	22	201,4	216,4	225,4
SNL 3144	215	11	5,5	22	221,4	236,4	245,4
SNL 3148	231	11	5,5	22	241,4	256,4	265,4
SNL 3152	249	11	5,5	22	261,6	276,6	285,6
SNL 3156	249	11	5,5	22	281,6	296,6	305,6
SNL 3160	280	11	5,5	22	301,6	316,8	325,6
SNL 3164	300	11	5,5	22	321,8	336,8	345,8
SNL 3168	328	11	5,5	22	342,4	357,4	366,4
SNL 3172	328	11	5,5	22	362,4	377,4	386,4
SNL 3176	328	11	5,5	22	382,4	397,4	406,4
SNL 3180	358	11	5,5	22	402,8	417,8	426,8
SNL 3184	388	11	5,5	22	422,8	437,8	446,8
SNL 3188	388	11	5,5	22	442,8	457,8	466,8
SNL 3192	398	11	5,5	22	463	478	487
SNL 3196	398	11	5,5	22	483	498	507
SNL 3234	186	11	5,5	22	201,4	216,4	225,4
SNL 3236	187	11	5,5	22	191,4	206,4	215,4
SNL 3238	207	11	5,5	22	201,4	216,4	225,4
SNL 3240	214	11	5,5	22	241,4	256,4	265,4
SNL 3244	231	11	5,5	22	241,4	256,4	265,4
SNL 3248	249	11	5,5	22	261,6	276,6	285,6
SNL 3252	279	11	5,5	22	321,8	336,8	345,8
SNL 3256	280	11	5,5	22	301,6	316,8	325,6
SNL 3260	300	11	5,5	22	321,8	336,8	345,8
SNL 3264	328	11	5,5	22	342,4	357,4	366,4
SNL 3268	328	11	5,5	22	382,4	397,4	406,4
SNL 3272	358	11	5,5	22	402,8	417,8	426,8
SNL 3276	388	11	5,5	22	463	478	487
SNL 3280	388	11	5,5	22	422,8	457,8	466,8
SNL 3284	398	11	5,5	22	463	478	487
SNL 3288	398	11	5,5	22	483	498	507

Table 3

Seal groove dimensions for SNL .. G housings

Housing Size	Dimensions A_3	A_4	A_5	A_6	D_b	D_c	D_d
–	mm						
SNL 3036 G	156	11	5,5	22	221,4	236,4	245,4
SNL 3038 G	166	11	5,5	22	221,4	236,4	245,4
SNL 3040 G	184	11	5,5	22	241,4	256,4	265,4
SNL 3044 G	203	11	5,5	22	261,6	276,6	285,6
SNL 3048 G	211	11	5,5	22	281,6	296,6	305,6
SNL 3052 G	228	11	5,5	22	301,6	316,8	325,6
SNL 3056 G	247	11	5,5	22	321,8	336,8	345,8
SNL 3060 G	247	11	5,5	22	342,4	357,4	366,4
SNL 3064 G	277	11	5,5	22	362,4	377,4	386,4
SNL 3068 G	295	11	5,5	22	382,4	397,4	406,4
SNL 3072 G	293	11	5,5	22	402,8	417,8	426,8
SNL 3076 G	325	11	5,5	22	422,8	437,8	446,8
SNL 3080 G	325	11	5,5	22	463	478	487
SNL 3084 G	325	11	5,5	22	483	498	507
SNL 3088 G	354	11	5,5	22	503	518	527
SNL 3092 G	384	11	5,5	22	553	548	557
SNL 3096 G	384	11	5,5	22	533	548	557
SNL 30/500 G	384	11	5,5	22	563	578	587
SNL 30/530 G	392	11	5,5	22	603	618	627
SNL 3134 G	157	11	5,5	22	201,4	216,4	225,4
SNL 3136 G	166	11	5,5	22	221,4	236,4	245,4
SNL 3138 G	185	11	5,5	22	221,4	236,4	245,4
SNL 3140 G	204	11	5,5	22	241,4	256,4	265,4
SNL 3144 G	213	11	5,5	22	261,6	276,6	285,6
SNL 3148 G	230	11	5,5	22	281,6	296,6	305,6
SNL 3152 G	248	11	5,5	22	301,6	316,8	325,6
SNL 3156 G	248	11	5,5	22	321,8	336,8	345,8
SNL 3160 G	278	11	5,5	22	342,4	357,4	366,4
SNL 3164 G	297	11	5,5	22	362,4	377,4	386,4
SNL 3168 G	325	11	5,5	22	382,4	497,4	406,4
SNL 3172 G	325	11	5,5	22	402,8	417,8	426,8
SNL 3176 G	325	11	5,5	22	422,8	437,8	446,8
SNL 3180 G	354	11	5,5	22	463	478	487
SNL 3184 G	384	11	5,5	22	483	498	507
SNL 3188 G	384	11	5,5	22	503	518	527
SNL 3192 G	395	11	5,5	22	533	548	557
SNL 3196 G	394	11	5,5	22	563	578	587
SNL 3234 G	186	11	5,5	22	201,4	216,4	225,4
SNL 3236 G	185	11	5,5	22	221,4	236,4	245,4
SNL 3238 G	204	11	5,5	22	241,4	256,4	265,4
SNL 3240 G	214	11	5,5	22	241,4	256,4	265,4
SNL 3244 G	230	11	5,5	22	281,6	296,6	305,6
SNL 3248 G	248	11	5,5	22	301,6	316,8	325,6
SNL 3252 G	279	11	5,5	22	321,8	336,8	345,8
SNL 3256 G	278	11	5,5	22	341,8	356,8	365,8
SNL 3260 G	297	11	5,5	22	361,8	376,8	385,8
SNL 3264 G	325	11	5,5	22	382,4	397,4	406,4
SNL 3268 G	328	11	5,5	22	382,4	397,4	406,4
SNL 3272 G	358	11	5,5	22	402,8	417,8	426,8
SNL 3276 G	388	11	5,5	22	463	478	487
SNL 3280 G	388	11	5,5	22	442,8	457,8	466,8
SNL 3284 G	393	11	5,5	22	533	548	557
SNL 3288 G	392	11	5,5	22	563	578	587





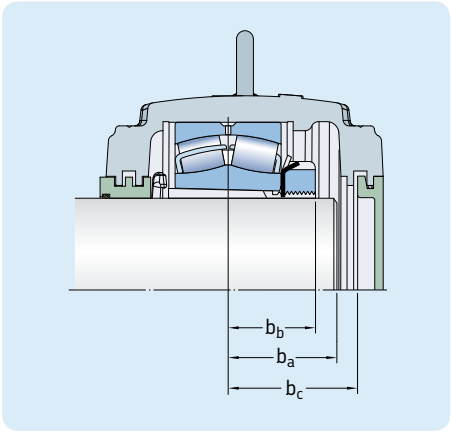


Table 4

Permissible length of shaft end

Housing Size	Bearing	Dimensions b_a min	b_a max[1)]	b_b	b_c	Housing Size	Bearing	Dimensions b_a min	b_a max[1)]	b_b	b_c
–	–	mm				–	–	mm			
SNL 3036	23036	72	102	66,5	107,5	**SNL 3134**	23134	78	102	73	107,5
	24036	85	102	79,5	107,5	**SNL 3136**	23136	83	108	78	113,5
SNL 3038	23038	73	108	68	113,5	**SNL 3138**	23138	88	112	83	117,5
	24038	86	108	80,5	113,5						
SNL 3040	23040	78	112	72,5	117,5	**SNL 3140**	23140	93	122	88	127,5
	24040	91	112	86	117,5	**SNL 3144**	23144	100	128	95	133,5
						SNL 3148	23148	106	136	101	141,5
SNL 3044	23044	91	122	86	127,5						
	24044	105	122	100	127,5	**SNL 3152**	23152	116	146	111	151,5
SNL 3048	23048	97	128	92	133,5	**SNL 3156**	23156	119	149	114	154,5
	24048	110	128	105	133,5	**SNL 3160**	23160	138	170	133	175,5
SNL 3052	23052	103	136	98	141,5						
	24052	121	136	116	141,5	**SNL 3164**	23164	149	181	144	186,5
						SNL 3168	23168	172	197	167	202,5
SNL 3056	23056	108	146	103	151,5	**SNL 3172**	23172	176	203	171	208,5
	24056	125	146	120	151,5						
SNL 3060	23060	118	149	113	154,5	**SNL 3176**	23176	179	203	174	208,5
	24060	139	149	134	154,5	**SNL 3180**	23180	187	218	182	223,5
SNL 3064	23064	121	170	115,5	175,5	**SNL 3184**	23184	207	238	202	243,5
	24064	140	170	135	175,5						
						SNL 3188	23188	208	238	203	243,5
SNL 3068	23068	130	181	124,5	186,5	**SNL 3192**	23192	220	243	215	248,5
	24068	153	181	148	186,5	**SNL 3196**	23196	224	243	219	248,5
SNL 3072	23072	130	181	125	186,5						
	24072	153	181	148	186,5	**SNL 3234**	23234	78	112	73	117,5
SNL 3076	23076	134,5	197	129,5	202,5	**SNL 3236**	23236	91	112	86	117,5
	24076	157	197	152	202,5	**SNL 3238**	23238	96	122	91	127,5
SNL 3080	23080	145	203	140	208,5	**SNL 3240**	23240	101	128	96	133,5
	24080	171	203	166	208,5	**SNL 3244**	23244	112	136	107	141,5
SNL 3084	23084	146	203	141	208,5	**SNL 3248**	23248	122	146	117	151,5
	24084	171	203	166	208,5						
SNL 3088	23088	160,5	218	155,5	223,5	**SNL 3252**	23252	131	170	126	175,5
	24088	188	218	183	223,5	**SNL 3256**	23256	134	170	129	175,5
						SNL 3260	23260	154	181	149	186,5
SNL 3092	23092	163,5	238	158,5	243,5						
	24092	191	238	186	243,5	**SNL 3264**	23264	165	197	160	202,5
SNL 3096	23096	164,5	238	159,5	243,5	**SNL 3268**	23268	189	203	184	208,5
	24096	191	238	186	243,5	**SNL 3272**	23272	196	218	191	223,5
SNL 30/500	230/500	173,5	238	168,5	243,5						
	240/500	199	238	194	243,5	**SNL 3276**	23276	202	238	197	243,5
SNL 30/530	230/530	187,5	243	182,5	248,5	**SNL 3280**	23280	215	238	210	243,5
	240/530	220	243	215	248,5	**SNL 3284**	23284	231	243	226	248,5
						SNL 3288	23288	235	243	230	248,5

[1)] For non-locating arrangements which are not mounted centrally in the bearing seat, the value of $b_{a\,max}$ must be correspondingly reduced

End covers

Housings mounted at the end of a shaft should be fitted with an end cover that fits into the seal groove. (→ **fig. 4**). Details of the permissible length of the shaft end can be found in **table 4**. End covers, which are made of cast iron, are installed with a hollow silicone rubber cord that holds the cover in place. The hollow cord is suitable for operating temperatures ranging from –50 to +200 °C (–60 to 390 °F).

The standard cast iron end cover is identified by the prefix ETS followed by the housing size identification, e.g. ETS 34. End covers for oil lubricated SNL housings are identified by the suffix R, e.g. ETS 34 R.

Locating rings

Standard bearing systems normally have a locating and a non-locating bearing. The locating bearing, which locates the shaft axially in both directions, must be secured in the housing on both sides with locating rings (→ **fig. 5**).

In most cases, the non-locating bearing is free to move axially in the housing to accommodate thermal expansion of the shaft. However, CARB bearings are an exception. These bearings accommodate axial displacement internally and must therefore be secured in the housing, on both sides, with locating rings.

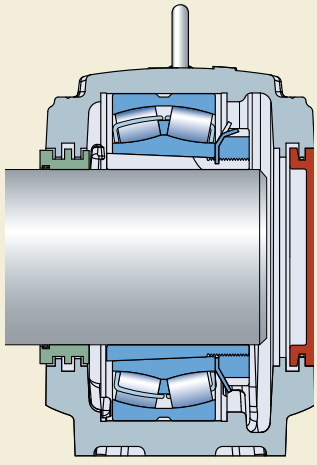
Locating rings are identified by the prefix FRB followed by dimensions of the ring width and outside diameter in millimetres, e.g. FRB 10/280.

Note: Very large SNL housings have F (locating) and L (non-locating) designs and do not need additional locating rings: starting from sizes SNL 3076, SNL 3168 or SNL 3264.

For these sizes, an F housing should be used in the non-locating position, if it will contain a CARB bearing.

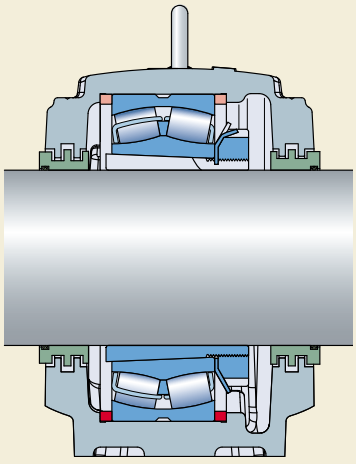
Housing with end cover

Fig. 4



Housing with a locating ring on both sides of the bearing

Fig. 5



Application advice for trouble-free operation

Condition monitoring is recommended for bearing arrangements in large SNL plummer blocks that are used in critical applications where machine failure will result in production losses. Early recognition and trending of the degradation of the machine and machine parts make it possible to analyse the problem and plan corrective maintenance.

SKF has a great deal of knowledge and experience monitoring the dynamic behaviour of machines, machine components and bearings in order to detect incipient damage. SKF recommends two powerful signal processing techniques to monitor the conditions that can lead to equipment failure.

Vibration velocity

The RMS (root mean square) of the velocity of vibrations in the frequency range 10 Hz to 1 kHz has been used with great success to measure conditions such as imbalance, misalignment, resonance etc. High levels of velocity vibration can be generated by poor machine conditions such as improper clearances, imbalance, misalignment, weak foundations, bent rotors, out-of-round, belt problems or damaged fan blades. The ISO Standard 10816-1:1995 contains recommendations for reference values for the RMS velocity values measured on different classes of machines and machine parts. These recommendations give a clear and quantifiable measurement of changes in machine condition. Vibration velocity, expressed as an overall RMS value in the 10 Hz to 1 kHz frequency range, provides minimal information on damage in rolling element bearings or gear mesh problems. The damage can now be easily detected by enveloped acceleration in the higher frequency ranges.



SKF Multilog online system CMU



SKF Machine Condition Transmitters (MCT)



SKF Microlog series data collectors/ analysers

Enveloped acceleration

Bearing damage can be easily recognized by measurement and analysis of an enveloped acceleration signal of the higher frequencies generated by the impact signals typical of rolling bearing damage and gear teeth problems. This technique has proved to be extremely reliable in the detection of incipient bearing failure. The low frequencies generated by imbalance, misalignment etc. are not measured and diagnosed within the enveloped acceleration process.

- Condition monitoring and diagnosis with permanently installed monitoring systems

  The SKF Multilog online system CMU enables round-the-clock data acquisition from plant machinery in any industrial or process environment. The Multilog CMU collects and evaluates vibration and process machinery data from permanently installed sensors, then automatically captures alarms as they occur.

  SKF's Machine Condition Transmitters (MCT) deliver added value to essential production equipment by providing vital information on bearing performance that helps maximize potential machine utilization. Highly cost-effective, using MCTs mean potential problems can be spotted before they deteriorate so maintenance and repair schedules can be forecast and production arrangements can continue as planned.

  Each stand-alone monitoring device may be permanently mounted onto a machine providing low-cost continuous monitoring of specific machine, gear and bearing performance parameters in pumps, fans, motors and other general-purpose machinery.

- Condition monitoring and diagnosis with a portable data collector and analyser

  SKF offers a range of portable condition monitoring hardware designed for the user who wishes to assess and report on temperature, oil condition, speed, bearing condition, shaft alignment, noise, vibration and more. Where a measurement point is difficult to access, permanently installed sensors can be used. These can be connected by cable to a connection box accessible to the data collector.

Condition monitoring of large SNL housings

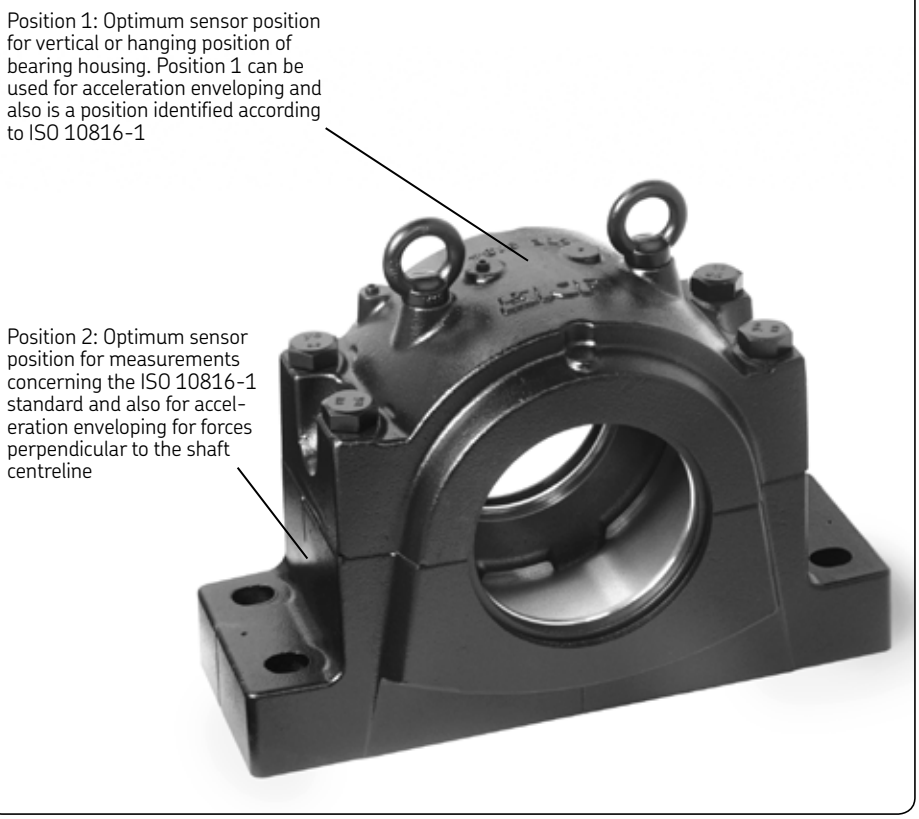
SNL housings have appropriate points for sensors (→ **fig. 1**). Measurement points 1 and 2 are perpendicular to the shaft and correspond best to ISO 10816-1:1995.

Measurement point 2 should be used on SNL housings where the load acts towards the base plate. Measurement point 1 is intended for when the housing is hung from its support or when the load acts away from the base plate.

For additional information about condition monitoring and the measurement tools and systems available from SKF contact the SKF application engineering service.

Measurement points for condition monitoring

Fig. 1



Lubrication

SNL plummer blocks can accommodate either grease or oil as a lubricant, but grease is preferred. Whichever lubricant is used, it should be selected based on the operating conditions. Additional information about lubricant selection can be found in the SKF General Catalogue.

Grease lubrication

In most applications, the initial grease fill in an SNL housing will adequately lubricate the bearings until the next planned inspection. However, certain operating conditions, e.g high speeds, high temperatures or heavy loads, may require more frequent relubrication. **Table 1** provides guideline values for the initial grease fill.

Depending on the method of relubrication, the following housing grease fills are recommended

- 40 % of the free space, when relubricating from the side of the bearing
- 20 % of the free space, when relubricating through the annular groove and lubrication holes in the bearing outer or inner ring.

In either case, the free space in the bearing should be completely filled with grease.

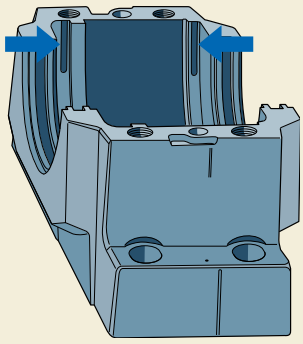
Markings in each corner inside the base indicate the proper grease level when the first fill is 40% (→ **fig. 2**).

There are three drilled and tapped holes for an AH 1/8-27 PTF grease fitting in the housing: two in the cap and one in the base. Each is sealed with a threaded plug. The two markings on the outer sides of the central ridge indicate the position for lubrication holes for the seals.

An AH 1/8-27 PTF grease fitting is supplied with the housing. The grease fitting kit (→ **fig. 3**) also contains a plastic cap, an M1 G 1/8 grease fitting and an LAPN 1/8 adapter. This adapter transforms the standard drilled 1/8-27 NPSF thread to a G 1/4 which enables the use of grease lubricators such as SKF SYSTEM 24. The standard thread can also accommodate grease fittings with any of the following thread types R 1/8, KR 1/8, M 10×1.

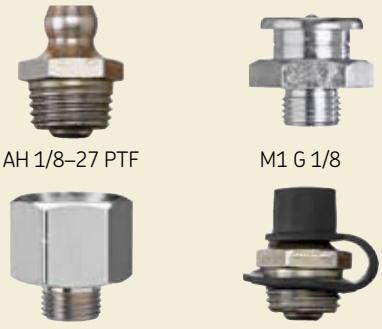
Larger spherical roller bearings should be lubricated via a lubrication groove and three lubrication holes in the outer ring, identified by a W33 suffix (→ **fig. 4**). When outer ring relubrication is to take place, the lubrication hole in the centre of the cap should be used

Fig. 2



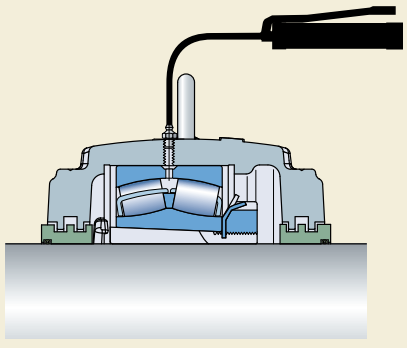
Grease level markings for a first 40 % fill

Fig. 3



Grease fitting kit

Fig. 4



Lubricating the bearing via the outer ring

Table 1

Grease quantities

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

and the bearing should be rotated. If outer ring relubrication is not possible, or if CARB bearings are used, the other standard hole should contain the grease fitting and the centre hole should be plugged. (→ **fig. 5**). If a different size grease fitting will be used, adapters that fit into the existing holes are available, making rework unnecessary.

In applications where bearings are mounted on adapter sleeves, the grease should be introduced at the side opposite the lock nut.

If frequent relubrication is required, it is advisable to provide the housing with grease escape holes (→ **fig. 6**) through which excess grease can escape. Recommended dimensions can be found in **table 2**. SNL housings with grease escape holes in the base can be supplied. This housing design is identified by the suffix V, e.g. SNL 3134 V. SNL housings can also be equipped with grease lubricators.

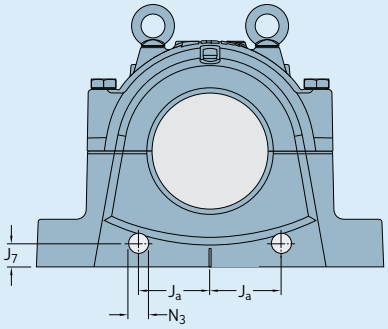


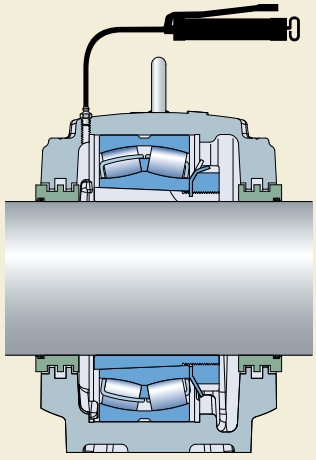
Table 2

Recommended dimensions for grease escape holes

Housing Size	Dimensions J_a	J_7	N_3
–	kg		
SNL 3036	105	34	30
SNL 3038	110	38	30
SNL 3040	120	36	30
SNL 3044	120	36	30
SNL 3048	130	42	40
SNL 3052	145	43	40
SNL 3056	150	44	40
SNL 3060	165	51	40
SNL 3064	180	53	40
SNL 3068	180	53	40
SNL 3072	180	53	40
SNL 3076	185	51	40
SNL 3080	220	51	40
SNL 3084	220	53	40
SNL 3088	230	58	40
SNL 3092	260	58	40
SNL 3096	260	58	40
SNL 30/500	260	58	40
SNL 30/530	280	58	40
SNL 3134	105	34	30
SNL 3136	110	38	30
SNL 3138	120	36	30
SNL 3140	120	36	30
SNL 3144	130	42	40
SNL 3148	145	43	40
SNL 3152	150	44	40
SNL 3156	165	51	40
SNL 3160	180	53	40
SNL 3164	180	53	40
SNL 3168	185	51	40
SNL 3172	220	51	40
SNL 3176	220	53	40
SNL 3180	230	58	40
SNL 3184	260	58	40
SNL 3188	260	58	40
SNL 3192	280	58	40
SNL 3196	280	58	40
SNL 3234	120	36	30
SNL 3236	120	36	30
SNL 3238	120	36	30
SNL 3240	130	42	40
SNL 3244	145	43	40
SNL 3248	150	44	40
SNL 3252	180	53	40
SNL 3256	180	53	40
SNL 3260	180	53	40
SNL 3264	185	51	40
SNL 3268	220	53	40
SNL 3272	230	58	40
SNL 3276	260	58	40
SNL 3280	260	58	40
SNL 3284	280	58	40
SNL 3288	280	58	40

Lubricating the bearing from the side

Fig. 5



Housing with grease escape holes

Fig. 6

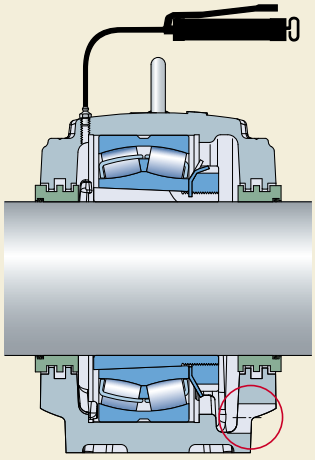


Table 3

Recommended oil levels

Housing Size	TURT Oil level for bearing series 230		TURA C 30		Housing Size	TURT Oil level for bearing series 231		TURA C 31		Housing Size	TURT Oil level for bearing series 232	
–	min	max	min	max	–	min	max	min	max	–	min	max
SNL 3036	48	54	47	55	**SNL 3134**	50	57	48	58	**SNL 3234**	61	69
SNL 3038	52	59	49	57	**SNL 3136**	52	59	50	61	**SNL 3236**	56	64
SNL 3040	53	62	50	60	**SNL 3138**	54	62	48	61	**SNL 3238**	68	77
SNL 3044	59	69	57	68	**SNL 3140**	65	74	60	73	**SNL 3240**	70	79
SNL 3048	59	69	58	69	**SNL 3144**	62	71	56	70	**SNL 3244**	72	83
SNL 3052	62	74	59	72	**SNL 3148**	68	79	64	81	**SNL 3248**	74	87
SNL 3056	72	84	68	81	**SNL 3152**	72	84	65	83	**SNL 3252**	97	111
SNL 3060	75	89	74	88	**SNL 3156**	82	94	74	92	**SNL 3256**	87	101
SNL 3064	85	99	82	96	**SNL 3160**	85	99	78	97	**SNL 3260**	91	106
SNL 3068	88	104	81	99	**SNL 3164**	89	104	84	108	**SNL 3264**	94	116
SNL 3072	81	94	74	92	**SNL 3168**	93	108	84	110	**SNL 3268**	98	118
SNL 3076	88	104	87	105	**SNL 3172**	90	108	84	110	**SNL 3272**	105	124
SNL 3080	81	98	76	97	**SNL 3176**	91	108	87	110	**SNL 3276**	131	151
SNL 3084	81	98	77	99	**SNL 3180**	99	116	88	111	**SNL 3280**	115	135
SNL 3088	87	106	89	110	**SNL 3184**	108	128	103	129	**SNL 3284**	117	139
										SNL 3288	123	147
SNL 3092	104	124	100	119	**SNL 3188**	106	128	105	133			
SNL 3096	96	114	92	111	**SNL 3192**	109	133	103	131			
SNL 30/500	94	114	94	113	**SNL 3196**	116	141	112	139			
SNL 30/530	108	131	110	134								

The oil level is measured from the base of the housing. Mark the min and max level on the sight glass

Oil lubrication

SNL 30, SNL 31 and SNL 32 housings can be used for oil lubrication at relatively high speeds. When lubricating with oil, the specially developed U-design seal should be used to avoid oil loss from the housing (→ **fig. 7**). These seals are described on **page 13**. In order for this seal to be used, the housing must be modified so that SNL housings for oil lubrication are supplied complete with seals. Recommended oil levels can be found in **table 3**.

SNL housings for inch shafts can also be used for oil lubrication. Contact the SKF application engineering service for more information.

Oil lubricated SNL housings can also be equipped with LHAD series oil levellers, wich are designed to automatically adjust the oil level to an optimum within the bearing housing.

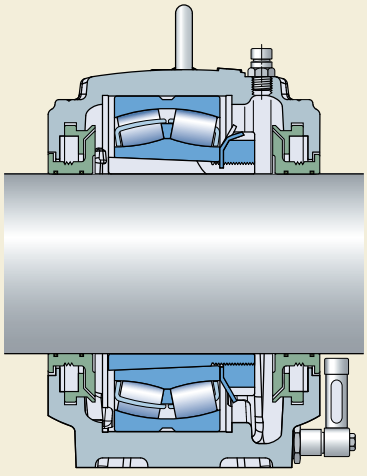
Variant for circulating oil lubrication

SNL housings with a special seal, designated SNL .. TURP (→ **fig. 8**), can accommodate spherical roller bearings in the 230 and 231 series and CARB toroidal roller bearings in the C 30 and C 31 series. SNL .. TURP is a modified standard housing fitted with special seals for circulating oil lubrication. This variant can be used when there is a need for large axial movements.

SNL .. TURP is available upon request in sizes 3036–30/530 and 3134–3196.

Housing for oil lubrication

Fig. 7



Variant for circulating oil lubrication, SNL .. TURP

Fig. 8

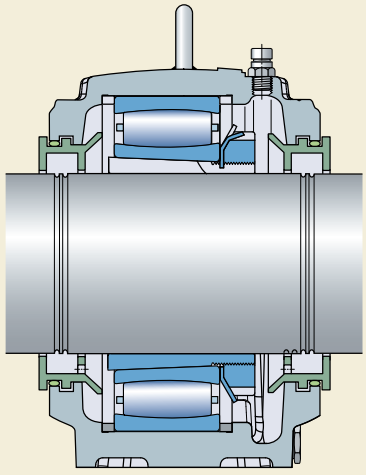
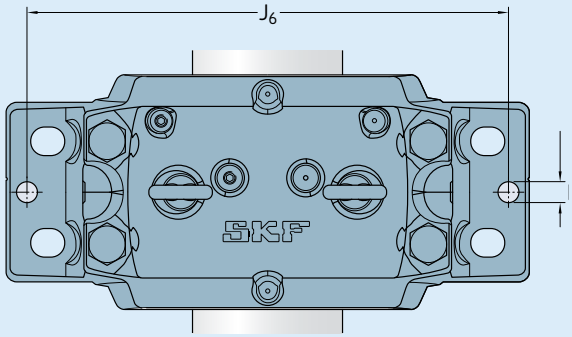


Table 4

Position and size of dowel pin holes



Housing Size	Dimensions J_6	N_4 max	Housing Size	Dimensions J_6	N_4 max	Housing Size	Dimensions J_6	N_4 max
–	mm		–	mm		–	mm	
SNL 3036	470	20	**SNL 3134**	470	20	**SNL 3234**	520	20
SNL 3038	490	20	**SNL 3136**	490	20	**SNL 3236**	520	20
SNL 3040	520	20	**SNL 3138**	520	20	**SNL 3238**	560	20
SNL 3044	560	20	**SNL 3140**	560	20	**SNL 3240**	590	20
SNL 3048	590	20	**SNL 3144**	590	20	**SNL 3244**	650	20
SNL 3052	650	20	**SNL 3148**	650	20	**SNL 3248**	720	20
SNL 3056	720	20	**SNL 3152**	720	20	**SNL 3252**	770	25
SNL 3060	740	20	**SNL 3156**	740	20	**SNL 3256**	770	25
SNL 3064	770	25	**SNL 3160**	770	25	**SNL 3260**	820	25
SNL 3068	820	25	**SNL 3164**	820	25	**SNL 3264**	880	25
SNL 3072	820	25	**SNL 3168**	880	25	**SNL 3268**	960	30
SNL 3076	880	25	**SNL 3172**	920	30	**SNL 3272**	1 020	35
SNL 3080	920	30	**SNL 3176**	960	30	**SNL 3276**	1 070	35
SNL 3084	960	30	**SNL 3180**	1 020	35	**SNL 3280**	1 120	35
SNL 3088	1 020	35	**SNL 3184**	1 070	35	**SNL 3284**	1 160	40
SNL 3092	1 070	35	**SNL 3188**	1 120	35	**SNL 3288**	1 210	40
SNL 3096	1 070	35	**SNL 3192**	1 160	40			
SNL 30/500	1 120	35	**SNL 3196**	1 210	40			
SNL 30/530	1 210	40						

Mounting

SNL housings, together with SKF bearings, can create a robust, operationally reliable system that provides long service life. However, if the system is to achieve maximum service life, each component must be mounted properly, using the correct tools.

When mounting the housings, it should be remembered that the housings are asymmetrical internally and, therefore, the bearings are not always mounted in the centre of the housing.

Vertical markings on the housing base end face indicate the location of the centre of the bearing seat.

Mounting the bearing

Bearings can be mounted either on a tapered seat – typically an adapter sleeve – or on a cylindrical seat. When a bearing is mounted correctly on a sleeve, there will be an interference fit between the inner ring, sleeve and shaft. The degree of interference depends on how far the bearing is driven up on the sleeve and can be determined either by measuring the reduction of internal clearance in the bearing with a feeler gauge or by measuring the drive-up distance.

When using a feeler gauge to measure clearance reduction, it is important that the inner and outer rings of the bearing are not displaced relative to each other.

SKF recommends using the SKF Drive-up Method, which is fast and easy. Information will be sent on request.

Adapter sleeves with the designation OH .. H in the product tables indicate that the sleeves are provided with the necessary ducts to enable the bearings to be mounted using the SKF oil injection method. The connection for the oil supply is on the nut side of the sleeve.

Bearings with a cylindrical bore are normally mounted with an interference fit on the shaft. Appropriate shaft tolerances should be selected (→ SKF General Catalogue).

Details of mounting tools as well as the SKF drive-up method can be found

- in the SKF General Catalogue
- online in the “SKF Interactive Engineering Catalogue at www.skf.com
- in the catalogue MP 3000 “SKF Maintenance and Lubrication Products”

- in the handbook “SKF Drive-up Method” on CD-ROM.

Support surface for the housing base

To realize maximum bearing service life, the housing must be mounted on a surface that is sufficiently flat and rigid in order to prevent deformation to the housing bore. SKF recommends a support surface for the housing that is finished to $R_a \leq 12{,}5$ µm with a flatness tolerance of IT7.

Dowel pins

SNL plummer block housings are designed for loads acting vertically to the base support of the housing. If they are subjected to moderate or heavy loads acting parallel to the base support, a stop should be provided, or the housing should be pinned to its support. Recommendations for the position and size of dowel pin holes are provided in **table 4** on **page 23**.

Attachment bolts

SKF recommends using hexagonal bolts to EN ISO 4014:2000 in the class 8.8. If the load does not act vertically to the base, it may be necessary to use stronger, class 10.9 bolts. The recommended tightening torques for bolts in class 8.8 are provided in **table 2** on **page 34**.

Mounting SNL 30, SNL 31 and SNL 32 housings with labyrinth seals

Before starting installation work, the following instructions should be read carefully.

1. Make sure that the work area is clean. Check the dimensional and form accuracy of the shaft seat. The shaft should be machined to a tolerance of h9/IT5 for adapter sleeve mounting.

2. Check that the roughness of the support surface is $R_a \leq 12{,}5$ µm. The flatness (planicity) tolerance should be to IT7. Make sure that the mounting surface is clean. If shims are used, the whole surface must be covered by shims. The mounting surface (frame) must be designed to accommodate actual loads, vibrations and settings.

3. Mount any components that are on the shaft between the two SNL housings.

4. If the bearing is mounted on an adapter sleeve, determine its position relative to the housing. For spherical roller bearings with a lubrication groove and three holes in the outer ring, SKF recommends using the relubrication hole in the centre of the housing. When relubrication from the side of the bearing is required, e.g. for CARB toroidal roller bearings, the housing must be positioned so that the grease fitting is on the opposite side of the nut. When a housing is located at the end of a shaft, grease should be applied at the end cover side.

5. Position the housing on the support surface. Fit the attachment bolts, but do not tighten them.

6. Mount the first labyrinth seal on the shaft in the correct position.

7. Mount the bearing on the shaft – either directly on a stepped shaft or using an adapter sleeve. Completely fill the bearing with grease. The remainder of the recommended grease quantity should be put in the housing base at the sides (→ **table 1**, **page 20**).

8. Mount the second labyrinth ring on the shaft in the correct position (if a stepped shaft is used, first mount the distance ring). If the housing is to be used at the end of a shaft, the second seal is omitted and an end cover inserted in the housing base instead.

9. Mount the second bearing and housing, following steps 4 to 8.

10. Lay the shaft with the two bearings and labyrinth rings in the two housing bases.

11. For locating bearing arrangements and arrangements with CARB toroidal roller bearings, put the appropriate number of locating rings on each side of the bearing (→ product tables). Note that the product tables indicate the total number of locating rings needed. For sizes SNL 3074, SNL 3168 and SNL 3264, the housings have an F or L design and locating rings are not needed.

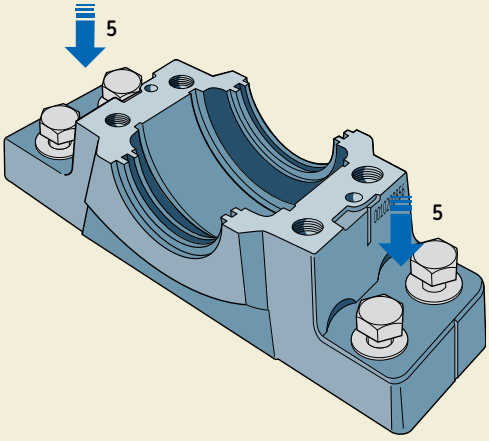
12. Carefully align the two housing bases. Vertical markings at the middle of the side faces and ends of the housing bases can facilitate this. Then, lightly tighten the attachment bolts on both housings.

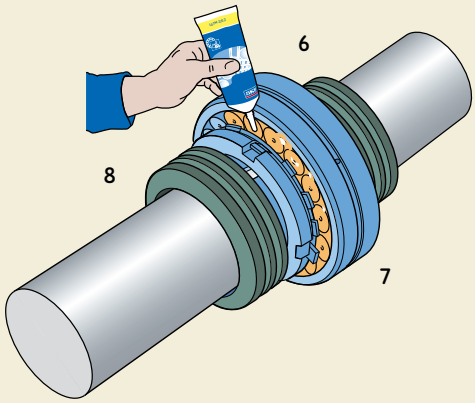
13. Place the two housing caps over each base and tighten the cap bolts (to join cap and base) to the torque specified in **table 2** on **page 34**. The cap and base of one housing are not interchangeable with those of another housing. The cap and base for each housing should be checked to make sure that they bear the same serial number.

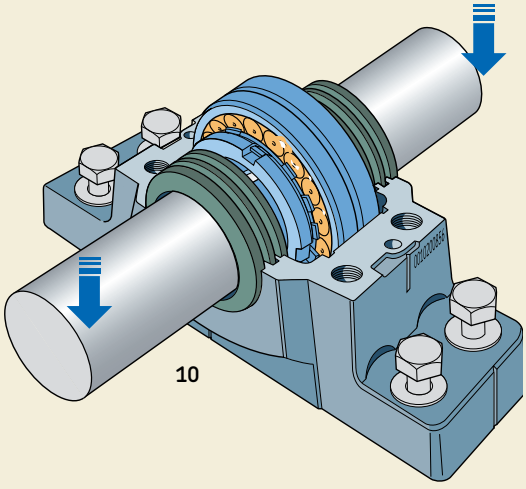
14. Check the alignment of the two housings to minimize misalignment, and fully tighten the attachment bolts in the two housing bases. Recommended tightening torques are provided in **table 2** on **page 34**.

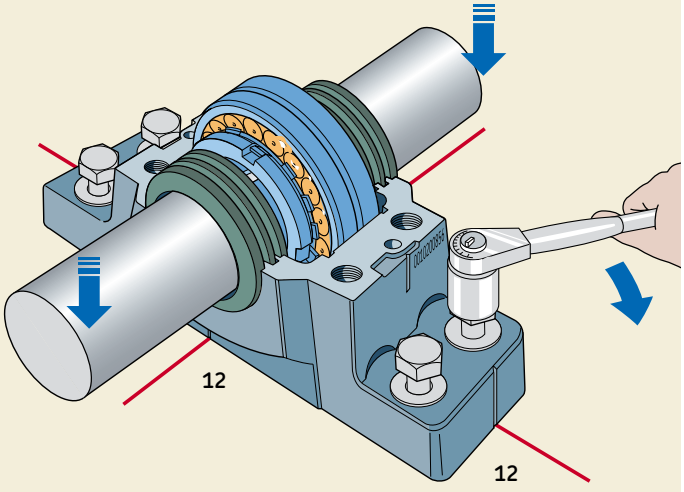
15. Finally, insert the hollow O-ring cords of synthetic rubber in the labyrinth rings. This can be done using a screwdriver while turning the shaft.

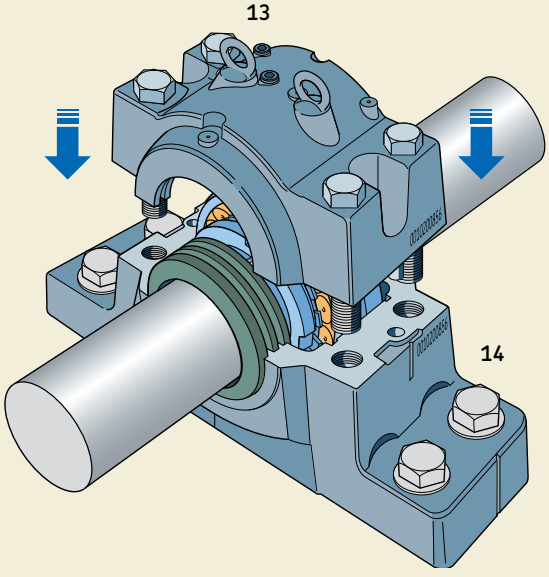
16. One day after tightening the cap and attachment bolts, check to make sure that the appropriate torque was maintained.

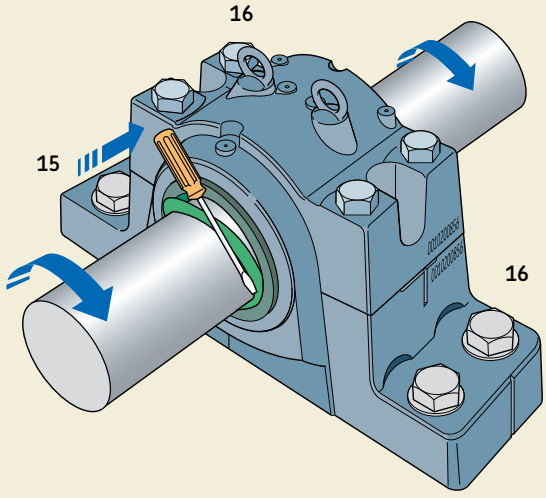

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Mounting SNL 30, SNL 31 and SNL 32 housings with taconite seals

Before starting installation work, the following instructions should be read carefully.

1. Make sure that the work area is clean. Check the dimensional and form accuracy of the shaft seat. The shaft should be machined to a tolerance of h9/IT5 for adapter sleeve mounting.

2. Check that the roughness of the support surface is $R_a \leq 12{,}5$ µm. The flatness (planicity) tolerance should be to IT7. Make sure that the mounting surface is clean. If shims are used, the whole surface must be covered by shims. The mounting surface (frame) must be designed to accommodate actual loads, vibrations and settings.

3. Mount any components that are on the shaft between the two SNL housings.

4. If the bearing is mounted on an adapter sleeve, determine its position relative to the housing. For spherical roller bearings with a lubrication groove and three holes in the outer ring, SKF recommends using the relubrication hole in the centre of the housing. When relubrication from the side of the bearing is required, e.g. for CARB toroidal roller bearings, the housing must be positioned so that the grease fitting is on the opposite side of the nut. When a housing is located at the end of a shaft, grease should be applied at the end cover side.

5. Position the housing on the support surface. Fit the attachment bolts, but do not tighten them.

6. Slide the parts for the first seal to the correct position on the shaft. The lip of the V-ring should point towards the bearing. Do not tighten the grub screws.

7. Mount the bearing on the shaft – either directly on a stepped shaft or using an adapter sleeve. Completely fill the bearing with grease. The remainder of the recommended grease quantity should be put in the housing base at the sides (→ **table 1**, **page 20**).

8. Mount the second seal according to point 6 (if a stepped shaft is used, first mount the distance ring). If the housing is to be used at the end of a shaft, the second seal is omitted and an end cover inserted in the housing base instead.

9. Mount the second bearing and housing, following steps 4 to 8.

10. Lay the shaft with the two bearings and labyrinth rings in the two housing bases.

11. For locating bearing arrangements and arrangements with CARB toroidal roller bearings, put the appropriate number of locating rings on each side of the bearing (→ product tables). Note that the product tables indicates the total number of locating rings needed. For sizes SNL 3074, SNL 3168 and SNL 3264, the housings have an F or L design and locating rings are not needed.

12. Carefully align the two housing bases. Vertical markings at the middle of the side faces and ends of the housing bases can facilitate this. Then, lightly tighten the attachment bolts on both housings.

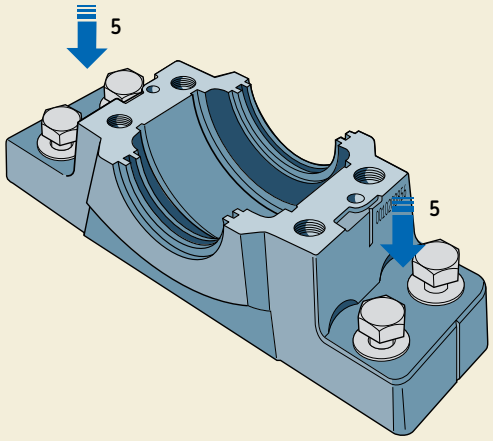
13. Place the two housing caps over each base and tighten the cap bolts (to join cap and base) to the torque specified in **table 2** on **page 34**. The cap and base of one housing are not interchangeable with those of other housings. The cap and base of each housing should be checked to make sure that they bear the same serial number.

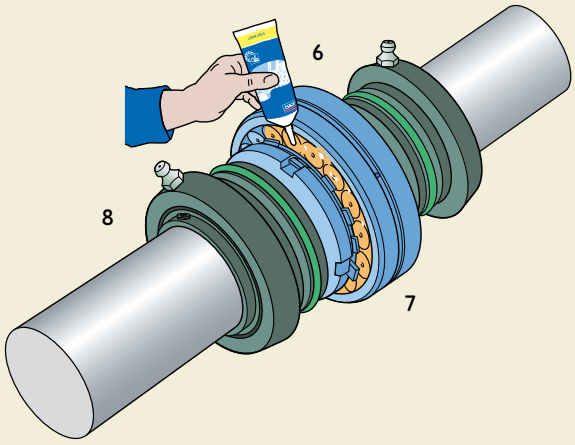
14. Check the alignment of the two housings to minimize misalignment, and fully tighten the attachment bolts in the two housing bases. Recommended tightening torques are provided in **table 2** on **page 34**.

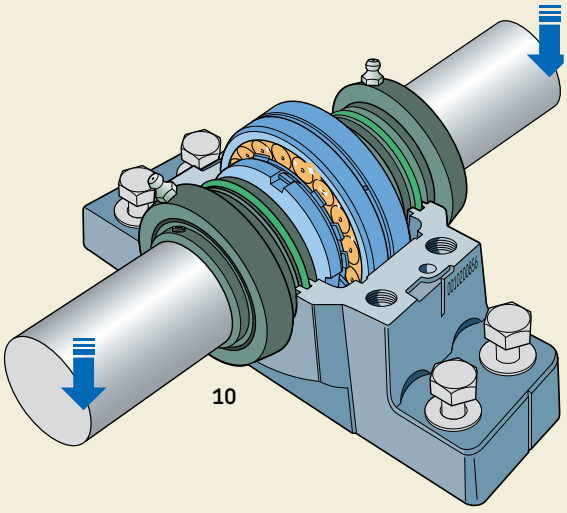
15. Adjust the flingers to the correct position and tighten the grub screws. The clearance in the seal must exceed the axial movement of the bearing.

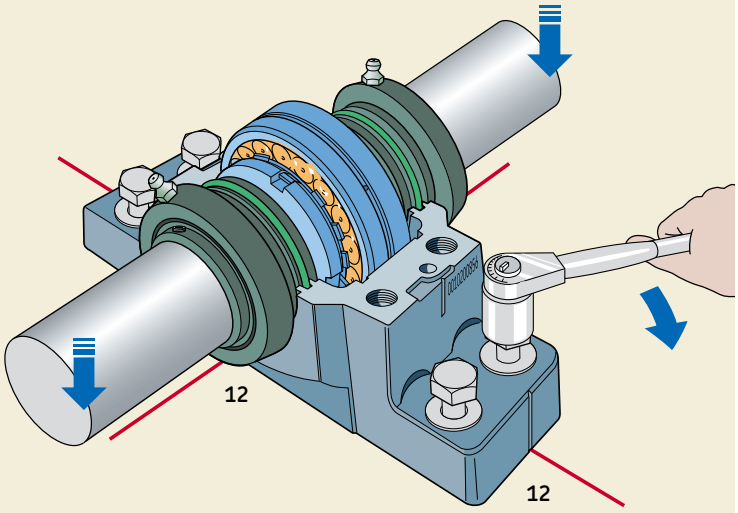
16. Finally, before the first test run, rotate the shaft and supply grease via the fitting until it exudes from the labyrinth rings. The same grease as that used for the bearing should also be used to lubricate the labyrinth rings.

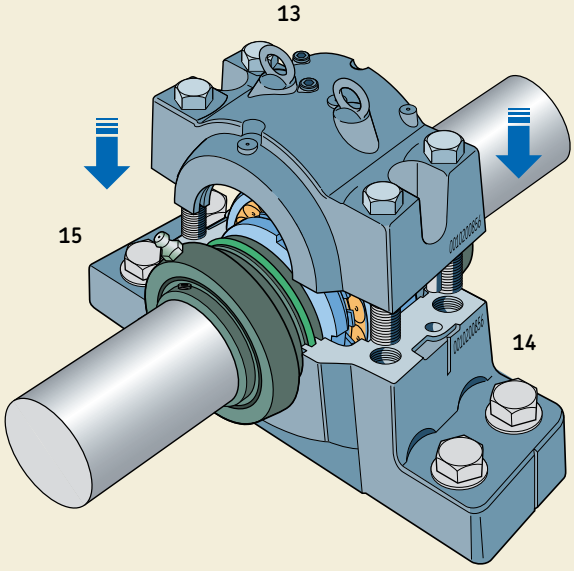
17. One day after tightening the cap and attachment bolts, check to make sure that the appropriate torque was maintained.

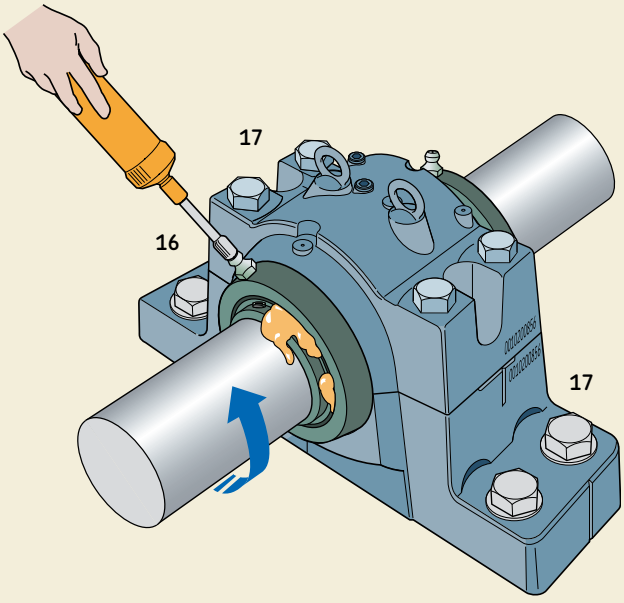

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Mounting SNL 30 and SNL 31 housings with oil seals

Before starting installation work, the following instructions should be read carefully.

1. Make sure that the work area is clean. Check the dimensional and form accuracy of the shaft seat. The shaft should be machined to a tolerance of g7/IT5, but h9/IT5 is possible for adapter sleeve mounting, and performed with a lead-in chamfer of about 3 mm × 15°.

2. Check that the roughness of the support surface is $R_a \leq 12{,}5$ µm. The flatness (planicity) tolerance should be to IT7. Make sure that the mounting surface is clean. If shims are used, the whole surface must be covered by shims. The mounting surface (frame) must be designed to accommodate actual loads, vibrations and settings.

3. Mount any components that are on the shaft between the two SNL housings.

4. If the bearing is mounted on an adapter sleeve, determine its position relative to the housing.

5. Make sure that the attachment surface of the housing is cleaned of paint and contaminants. Position the housing base on the support surface. Fit the attachment bolts, but do not tighten them.

6. Make sure that the silicone tubes are at their right position in the grooves. The dimension of the silicone tubes is 1 × 3 mm.

7. Coat the shaft lightly with a thin oil. Slide the parts for the first seal to the correct position on the shaft.

8. Mount the bearing on the shaft – either directly on a stepped shaft or using an adapter sleeve.

9. Slide the parts of the second seal to the correct position on the shaft. Keep the locating pin in the outer seal parts in a horizontal position. If the housing is to be used at the end of a shaft, the second seal is omitted and the inner part of the end cover inserted in the housing base seal groove.

10. Mount the second bearing and housing, following steps 4 to 9.

11. Lay the shaft with the two bearings and seal assemblies in the two housing bases.

12. For locating bearing arrangements and arrangements with CARB toroidal roller bearings, put the appropriate number of locating rings on each side of the bearing (→ product tables). Note that the product tables indicate the total number of locating rings needed. For sizes SNL 3074, SNL 3168 and SNL 3264, the housings have an F or L design and locating rings are not needed.

13. Carefully align the two housing bases. Vertical markings at the middle of the side faces and ends of the housing bases can facilitate this. Then, lightly tighten the attachment bolts on both housings.

14. Apply a string of oil-resistant sealant, of type Blue Silicone or equal, along the outer contour-line and around the holes and on the housing split surfaces. Then place the two housing caps over each base and tighten the cap bolts (to join cap and base) to the torque specified in **table 2** on **page 34**. The cap and base of one housing are not interchangeable with those of other housings. The cap and base of each housing should be checked to make sure they bear the same serial number.

15. Check the alignment of the two housings to minimize misalignment, and fully tighten the attachment bolts in the two housing bases. Recommended tightening torques are provided in **table 2** on **page 34**.

16. Mount the supplied ventilating plugs on the top of the housings and when oil bath lubrication is used, mount the oil level sight glasses. When circulating oil lubrication is used, connect the oil inlet and outlet pipes to the housing.

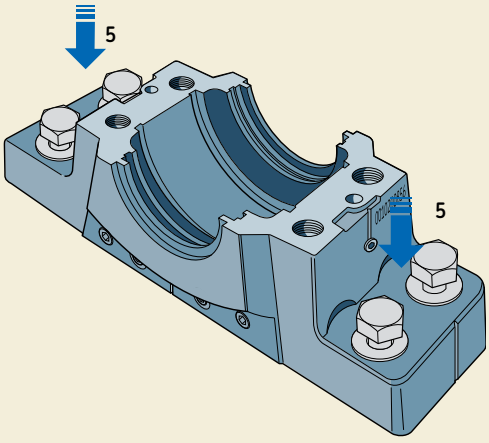
NOTE: It is important that sealant, of type Loctite or equal, is applied on all threads of the supplied accessories.

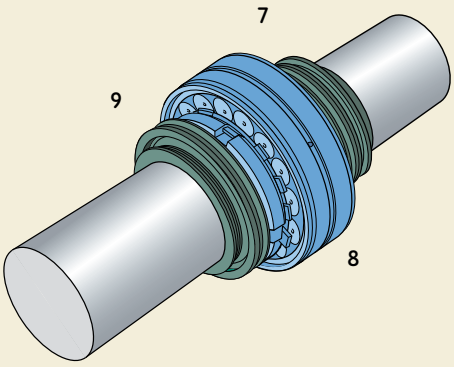
17. When an oil bath lubrication is used, the max and min level should be shown on the sight glass. Recommended oil levels to be used for the mounted bearings can be found in **table 3** on **page 22**. The oil levels must be read while the application is not operating.

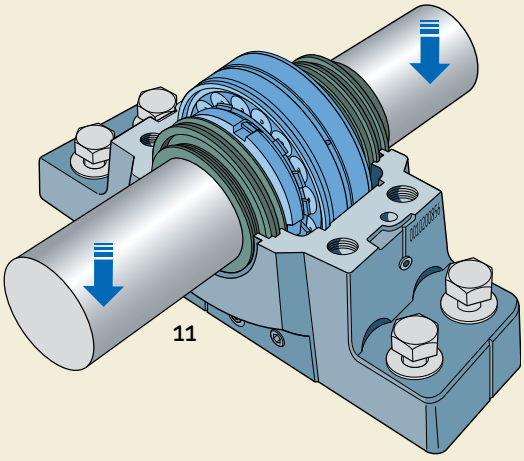
NOTE: For oil bath lubrication, it is important not to exceed the max level as this can cause oil leakage from the housing. For circulating oil, it is important that the outlet pipes can properly drain the housing to avoid an overfill of oil.

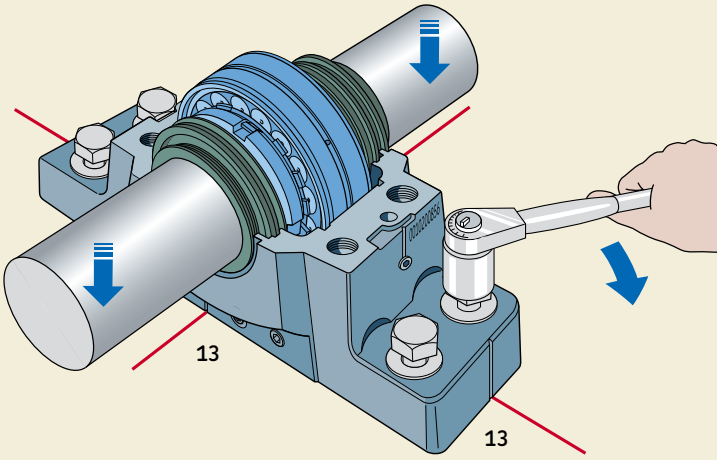
18. Protect the housing assemblies from negative pressure from surrounding equipment.

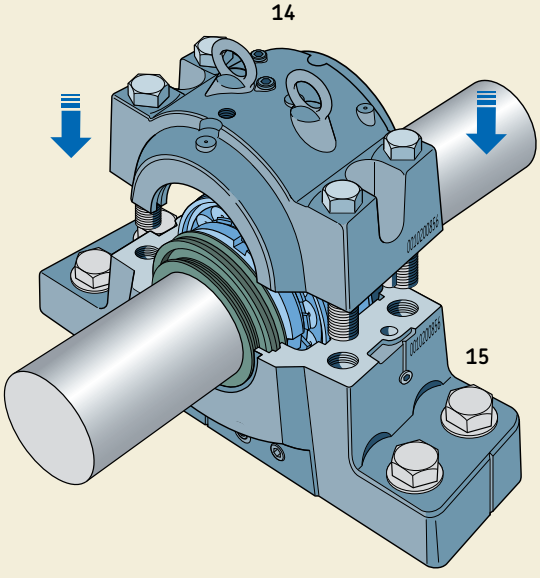
19. One day after tightening the cap and attachment bolts, make sure that the proper torque was maintained.

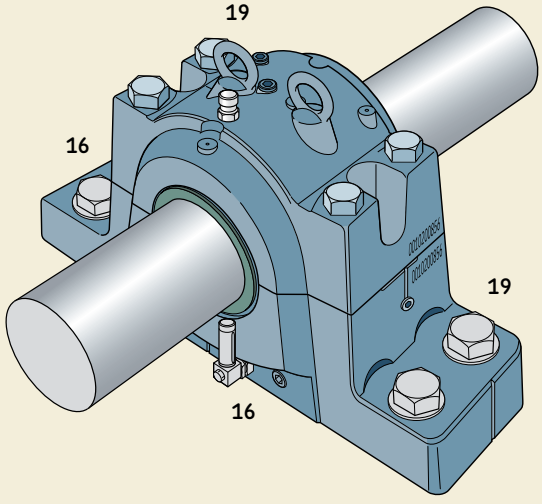

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Designations and housing data – general

Designations

The designations used for SNL housings consist of a basic designation, which identifies the design, material and size followed by any supplementary designations needed to identify features that deviate from the standard design. A dash (–) in the chart indicates that the feature belongs to the standard design.

Load carrying ability

Large SNL plummer block housings are intended for loads acting vertically towards the base plate (support). If loads acting in other directions occur, check to make sure that the magnitude of the load is permissible for the housing, the bolts joining the housing cap and base, and attachment bolts.

Load carrying ability of the housing

Guideline values for the breaking load P of the housing for various load directions are provided in **table 1**. Using these values and a safety factor selected relative to the operating conditions, the permissible load for the housing can be calculated. In general engineering a safety factor of 6 is often used. Note that $P_{0°}$ values are valid when the housing is not supported in the middle of the base plate, i.e. the space between the reinforcement ribs in the base plate. It is important for the load carrying ability of the housing that the bolts joining cap and base are properly tightened in accordance with the values provided in **table 2** on **page 34**. The axial load carrying capacity of the housing is approximately 65 % of $P_{180°}$. For load angles between 55° and 120° as well as for axial loads, or if the load acting parallel to the base plate (support surface) exceeds 5 % of $P_{180°}$, the housing should be pinned to the support or a stop should be provided in the direction of the load.

Designation chart

SNL	D	31	34	SN

Basic design

Material

–	Housing of grey cast iron
D	Housing of spheroidal graphite cast iron

Series

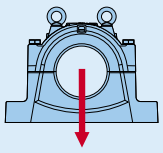
Series	30, 31 or 32

Size

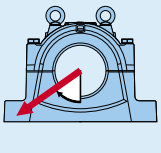
from	34 to 96
from	/500 to /530

Suffixes

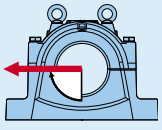
–	Housing for a bearing on an adapter sleeve and a straight shaft
G	Housing for a bearing with a cylindrical bore and for a stepped shaft
L	Housing for a non-locating bearing arrangement
F	Housing for a locating bearing arrangement
V	Housing with grease escape holes in the base
T	A drilled and tapped hole 1/8-27 NPSF at one side of the cap (opposite to the lock nut) to take a grease fitting
TD	A drilled and tapped hole 1/8-27 NPSF on both sides of the cap to take a grease fitting AH 1/8-27 PTF for relubrication of the seals; two fittings supplied with the housing
SN	Housing with a drilled and tapped hole for a sensor
TURT	Housing prepared for oil lubrication (spherical roller bearing) with seals
TURA	Housing prepared for oil lubrication (CARB toroidal roller bearing) with seals
TURP	Housing with a special seal for large axial movement and circulating oil lubrication



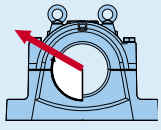
P_0



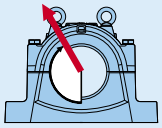
P_{55}



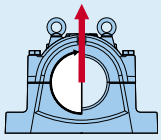
P_{90}



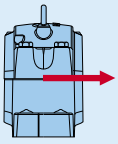
P_{120}



P_{150}



P_{180}



P_a

Table 1

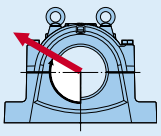
Breaking loads for SNL plummer block housings

Housing Size	Breaking loads for SNL housings $P_{0°}$	$P_{55°}$	$P_{90°}$	$P_{120°}$	$P_{150°}$	$P_{180°}$	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
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

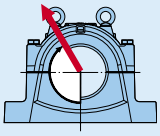
Table 2

Load carrying ability and tightening torques for cap bolts and attachment bolts

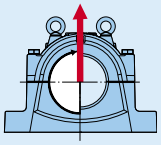
Housing	Cap bolts								Attachment bolts	
Size	Yield point for four bolts			Maximum load for four bolts			Tightening torque	Designation to ISO 4014	Size	Tightening torque
	$Q_{120°}$	$Q_{150°}$	$Q_{180°}$	$F_{120°}$	$F_{150°}$	$F_{180°}$				
–	kN			kN			Nm	–	–	Nm
SNL 3036	1 800	1 040	900	760	440	380	350	M 24×140	M 24	665
SNL 3038	1 800	1 040	900	760	440	380	350	M 24×140	M 24	665
SNL 3040	1 800	1 040	900	760	440	380	350	M 24×150	M 24	665
SNL 3044	1 800	1 040	900	760	440	380	350	M 24×160	M 30	1 310
SNL 3048	1 800	1 040	900	760	440	380	350	M 24×160	M 30	1 310
SNL 3052	2 860	1 650	1 430	1 240	720	620	400	M 30×180	M 30	1 310
SNL 3056	2 860	1 650	1 430	1 240	720	620	400	M 30×200	M 36	2 280
SNL 3060	2 860	1 650	1 430	1 240	720	620	400	M 30×200	M 36	2 280
SNL 3064	2 860	1 650	1 430	1 240	720	620	400	M 30×220	M 36	2 280
SNL 3068	2 860	1 650	1 430	1 240	720	620	400	M 30×220	M 36	2 280
SNL 3072	2 860	1 650	1 430	1 240	720	620	400	M 30×220	M 36	2 280
SNL 3076	4 200	2 400	2 100	1 600	920	800	600	M 36×240	M 36	2 280
SNL 3080	4 200	2 400	2 100	1 600	920	800	600	M 36×240	M 36	2 280
SNL 3084	4 200	2 400	2 100	1 600	920	800	600	M 36×240	M 36	2 280
SNL 3088	4 200	2 400	2 100	1 600	920	800	600	M 36×240	M 42	3 640
SNL 3092	5 800	3 350	2 900	2 200	1 260	1 100	850	M 42×280	M 42	3 640
SNL 3096	5 800	3 350	2 900	2 200	1 260	1 100	850	M 42×280	M 42	3 640
SNL 30/500	5 800	3 350	2 900	2 200	1 260	1 100	850	M 42×280	M 42	3 640
SNL 30/530	5 800	3 350	2 900	2 200	1 260	1 100	850	M 42×280	M 48	5 450
SNL 3134	1 800	1 040	900	760	440	380	350	M 24×140	M 24	665
SNL 3136	1 800	1 040	900	760	440	380	350	M 24×140	M 24	665
SNL 3138	1 800	1 040	900	760	440	380	350	M 24×150	M 24	665
SNL 3140	1 800	1 040	900	760	440	380	350	M 24×160	M 30	1 310
SNL 3144	1 800	1 040	900	760	440	380	350	M 24×160	M 30	1 310
SNL 3148	2 860	1 650	1 430	1 240	720	620	400	M 30×180	M 30	1 310
SNL 3152	2 860	1 650	1 430	1 240	720	620	400	M 30×200	M 36	2 280
SNL 3156	2 860	1 650	1 430	1 240	720	620	400	M 30×200	M 36	2 280
SNL 3160	2 860	1 650	1 430	1 240	720	620	400	M 30×220	M 36	2 280
SNL 3164	2 860	1 650	1 430	1 240	720	620	400	M 30×220	M 36	2 280
SNL 3168	4 200	2 400	2 100	1 600	920	800	600	M 36×240	M 36	2 280
SNL 3172	4 200	2 400	2 100	1 600	920	800	600	M 36×240	M 36	2 280
SNL 3176	4 200	2 400	2 100	1 600	920	800	600	M 36×240	M 36	2 280
SNL 3180	4 200	2 400	2 100	1 600	920	800	600	M 36×240	M 42	3 640
SNL 3184	5 800	3 350	2 900	2 200	1 260	1 100	850	M 42×280	M 42	3 640
SNL 3188	5 800	3 350	2 900	2 200	1 260	1 100	850	M 42×280	M 42	3 640
SNL 3192	5 800	3 350	2 900	2 200	1 260	1 100	850	M 42×300	M 42	3 640
SNL 3196	5 800	3 350	2 900	2 200	1 260	1 100	850	M 42×320	M 48	5 450
SNL 3234	1 800	1 040	900	760	440	380	350	M 24×150	M 24	665
SNL 3236	1 800	1 040	900	760	440	380	350	M 24×150	M 24	665
SNL 3238	1 800	1 040	900	760	440	380	350	M 24×160	M 30	1 310
SNL 3240	1 800	1 040	900	760	440	380	350	M 24×160	M 30	1 310
SNL 3244	2 860	1 650	1 430	1 240	720	620	400	M 30×180	M 30	1 310
SNL 3248	2 860	1 650	1 430	1 240	720	620	400	M 30×200	M 36	2 280
SNL 3252	2 860	1 650	1 430	1 240	720	620	400	M 30×220	M 36	2 280
SNL 3256	2 860	1 650	1 430	1 240	720	620	400	M 30×220	M 36	2 280
SNL 3260	2 860	1 650	1 430	1 240	720	620	400	M 30×220	M 36	2 280
SNL 3264	4 200	2 400	2 100	1 600	920	800	600	M 36×240	M 36	2 280
SNL 3268	4 200	2 400	2 100	1 600	920	800	600	M 36×240	M 36	2 280
SNL 3272	4 200	2 400	2 100	1 600	920	800	600	M 36×240	M 42	3 640
SNL 3276	5 800	3 350	2 900	2 200	1 260	1 100	850	M 42×280	M 42	3 640
SNL 3280	5 800	3 350	2 900	2 200	1 260	1 100	850	M 42×280	M 42	3 640
SNL 3284	5 800	3 350	2 900	2 200	1 260	1 100	850	M 42×300	M 42	3 640
SNL 3288	5 800	3 350	2 900	2 200	1 260	1 100	850	M 42×320	M 48	5 450



Q_{120}
F_{120}



Q_{150}
F_{150}



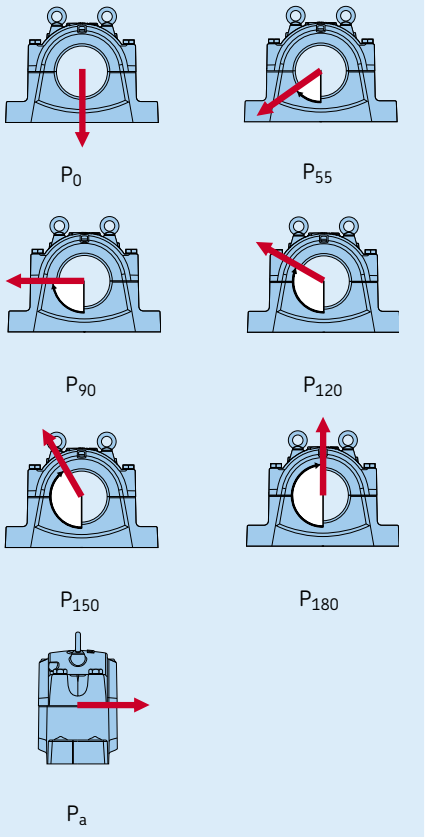
Q_{180}
F_{180}

Load carrying ability of bolts

Large SNL plummer block housings are supplied with cap bolts (to join cap and base) with a strength class 8.8 as standard. The guideline values for the yield point Q for the cap bolts are provided in **table 2** for various load directions as well as the corresponding maximum radial loads F.

Materials

Large SNL plummer block housings as standard are made of grey cast iron EN-GJL-250 to EN 1561:1992. Where extra strength is needed, housing made of spheroidal graphite cast iron EN-GJS-400 to EN 1563:1997 can be supplied. These housings are identified by the designation prefix D, i.e. SNLD.



Safe loads

For the North American markets, the norm is to use safe loads instead of breaking loads. The approximate safe loads for different load directions are provided in **table 3**. These guideline limits have been established using accepted engineering practices, considering the safety of the ultimate tensile strength of the materials used and the working stresses to reflect a safety factor of 5 against base fracture, and a minimum factor of 2 against cap bolt yield. When the load acts at an angle between 55° and 120°, or loads in the axial direction exceed 25 % of the $P_{180°}$ value shown in **table 3**, it is recommended that the housing should be pinned to the support. Alternatively, the support may be provided with stops to locate the housing in the direction of the load. The maximum permissible axial loading that can be safely carried by the housing assembly depends on various conditions in addition to the operational performance abilities of the bearing. For a purely axial force under static or dynamic conditions, the permissible load on the housing casting should not exceed 65 % of $P_{180°}$.

Table 3

Safe loads for SNL plummer block housings

Housing Size	Safe loads for SNL plummer block housings $P_{0°}$	$P_{55°}$	$P_{90°}$	$P_{120°}$	$P_{150°}$	$P_{180°}$	P_a
–	kN/lbf						
SNL 3036	340	420	200	152	136	170	110
	76 500	94 500	45 000	34 200	30 600	38 250	24 750
SNL 3038	380	480	230	170	152	190	124
	85 500	108 000	51 750	38 250	34 200	42 750	27 900
SNL 3040	440	540	260	200	176	220	142
	99 000	121 500	58 500	45 000	39 600	49 500	31 950
SNL 3044	520	640	320	220	200	260	168
	117 000	144 000	72 000	49 500	45 000	58 500	37 800
SNL 3048	620	800	380	280	260	320	200
	139 500	180 000	85 500	63 000	58 500	72 000	45 000
SNL 3052	680	840	400	300	280	340	220
	153 000	189 000	90 000	67 500	63 000	76 500	49 500
SNL 3056	760	940	460	340	300	380	240
	171 000	211 500	103 500	76 500	67 500	85 500	54 000
SNL 3060	800	1 000	480	360	320	400	260
	180 000	225 000	108 000	81 000	72 000	90 000	58 500
SNL 3064	960	1 200	580	440	380	480	300
	216 000	270 000	130 500	99 000	85 500	108 000	67 500
SNL 3068	1 080	1400	680	500	440	560	360
	243 000	315 000	153 000	112 500	99 000	126 000	81 000
SNL 3072	1 080	1 400	680	500	440	560	360
	243 000	315 000	153 000	112 500	99 000	126 000	81 000
SNL 3076	1 200	1 500	720	520	460	600	380
	270 000	337 500	162 000	117 000	103 500	135 000	85 500
SNL 3080	1 200	1 540	720	540	480	600	400
	270 000	346 500	162 000	121 500	108 000	135 000	90 000
SNL 3084	1 220	1 600	780	580	500	640	420
	274 500	360 000	175 500	130 500	112 500	144 000	94 500
SNL 3088	1 400	1 740	840	620	540	700	440
	315 000	391 500	189 000	139 500	121 500	157 500	99 000
SNL 3092	1 520	1 920	920	680	600	760	480
	342 000	432 000	207 000	153 000	135 000	171 000	108 000
SNL 3096	1 520	1 920	920	680	600	760	480
	342 000	432 000	207 000	153 000	135 000	171 000	108 000
SNL 30/500	1 600	2 000	960	720	620	800	500
	360 000	450 000	216 000	162 000	139 500	180 000	112 500
SNL 30/530	1 600	2 240	1 080	800	700	880	560
	360 000	504 000	243 00	180 000	157 500	198 000	126 000
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
	117 000	144 000	72 000	49 500	45 000	58 500	37 800
SNL 3144	620	800	380	280	260	320	200
	139 500	180 000	85 500	63 000	58 500	72 000	45 000
SNL 3148	680	840	400	300	280	340	220
	153 000	189 000	90 000	67 500	63 000	76 500	49 500
SNL 3152	760	940	460	340	300	380	240
	171 000	211 500	103 500	76 500	67 500	85 500	54 000
SNL 3156	800	1 000	480	360	320	400	260
	180 000	225 000	108 000	81 000	72 000	90 000	58 500
SNL 3160	960	1 200	580	440	380	480	300
	216 000	270 000	130 500	99 000	85 500	108 000	67 500

cont. table 3

Safe loads for SNL plummer block housings

Housing Size	Safe loads for SNL plummer block housings $P_{0°}$	$P_{55°}$	$P_{90°}$	$P_{120°}$	$P_{150°}$	$P_{180°}$	P_a
–	kN/lbf						
SNL 3164	1 080	1400	680	500	440	560	360
	243 000	315 000	153 000	112 500	99 000	126 000	81 000
SNL 3168	1 200	1 500	720	520	460	600	380
	270 000	337 500	162 000	117 000	103 500	135 000	85 500
SNL 3172	1 200	1 540	720	540	480	600	400
	270 000	346 500	162 000	121 500	108 000	135 000	90 000
SNL 3176	1 220	1 600	780	580	500	640	420
	274 500	360 000	175 500	130 500	112 500	144 000	94 500
SNL 3180	1 400	1 740	840	620	540	700	440
	315 000	391 500	189 000	139 500	121 500	157 500	99 000
SNL 3184	1 520	1 920	920	680	600	760	480
	342 000	432 000	207 000	153 000	135 000	171 000	108 000
SNL 3188	1 600	2 000	960	720	620	800	500
	360 000	450 000	216 000	162 000	139 500	180 000	112 500
SNL 3192	1 680	2 140	1 040	760	660	840	540
	378 000	481 500	234 000	171 000	148 500	189 000	121 500
SNL 3196	1 760	2 240	1 080	800	700	880	560
	396 000	504 000	243 00	180 000	157 500	198 000	126 000
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
	139 500	180 000	85 500	63 000	58 500	72 000	45 000
SNL 3244	680	840	400	300	280	340	130
	153 000	189 000	90 000	67 500	63 000	76 500	29 250
SNL 3248	760	940	460	340	300	380	134
	171 000	211 500	103 500	76 500	67 500	85 500	30 150
SNL 3252	960	1 200	580	440	380	480	230
	216 000	270 000	130 500	99 000	85 500	108 000	51 750
SNL 3256	960	1 200	580	440	380	480	240
	216 000	270 000	130 500	99 000	85 500	108 000	54 000
SNL 3260	1 080	1400	680	500	440	560	320
	243 000	315 000	153 000	112 500	99 000	126 000	72 000
SNL 3264	1 200	1 500	720	520	460	600	290
	270 000	337 500	162 000	117 000	103 500	135 000	65 250
SNL 3268	1 220	1 600	780	580	500	640	370
	274 500	360 000	175 500	130 500	112 500	144 000	83 250
SNL 3272	1 400	1 740	840	620	540	700	320
	315 000	391 500	189 000	139 500	121 500	157 500	72 000
SNL 3276	1 520	1 920	920	680	600	760	420
	342 000	432 000	207 000	153 000	135 000	171 000	94 500
SNL 3280	1 600	2 000	960	720	620	800	480
	360 000	450 000	216 000	162 000	139 500	180 000	108 000
SNL 3284	1 680	2 140	1 040	760	660	840	520
	378 000	481 500	234 000	171 000	148 500	189 000	117 000
SNL 3288	1 760	2 240	1 080	800	700	880	540
	396 000	504 000	243 00	180 000	157 500	198 000	121 500

Spheroidal graphite cast iron

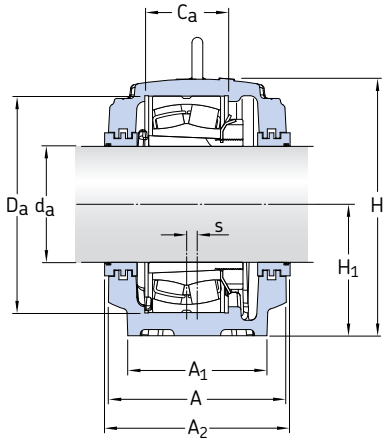
For special purposes where extra strength and resistance to shock loads are required, SKF as standard supplies a range of spheroidal graphite cast iron housings. For housings made of spheroidal graphite cast iron, the values for P obtained from **table 1** on **page 33** and **table 3** on **page 36** and **37** should be multiplied by a factor of 1,8.

Spheroidal graphite cast iron housings are designated SNLD followed by the series and size identification, e.g. SNLD 3134.

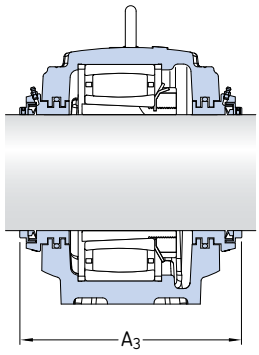
C

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

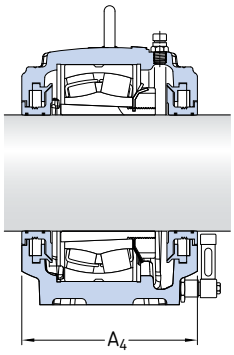
d_a **115 – 160** mm



Labyrinth seals, TS design

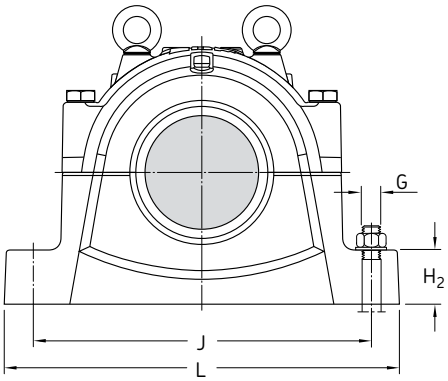


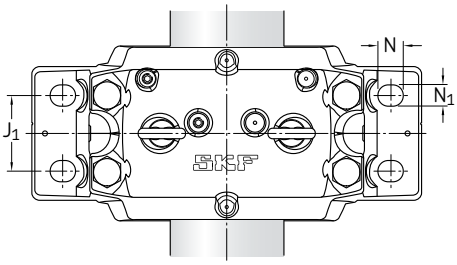
Taconite seals, TNF design



Oil seals, TURT/TURA design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
115	230	180	333	170	70	430	100	510	34	28	14	24	69,5	**SNL 3134**	TS 34/115	ETS 34
														SNL 3134	TNF 34/115	ETS 34
125	240	190	353	180	75	450	110	530	34	28	15	24	77,5	**SNL 3136**	TS 36/125	ETS 36
														SNL 3136	TNF 36/125	ETS 36
135	260	210	375	190	80	480	120	560	34	28	10	24	97,5	**SNL 3138**	TS 38/135	ETS 38
														SNL 3138	TNF 38/135	ETS 38
140	240	190	353	180	75	450	110	530	34	28	15	24	77,5	**SNL 3038**	TS 38/140	ETS 38
														SNL 3038	TNF 38/140	ETS 38
	280	230	411	210	85	510	130	610	42	35	10	30	123	**SNL 3140**	TS 40/140	ETS 40
														SNL 3140	TNF 40/140	ETS 40
150	230	180	333	170	70	430	100	510	34	28	14	24	69,5	**SNL 3134**	TS 34	ETS 34
														SNL 3134	TNF 34	ETS 34
														SNL 3134 TURT	included	ETS 3134 R
														SNL 3134 TURA	included	ETS 3134 R
	260	210	375	190	80	480	120	560	34	28	10	24	97,5	**SNL 3234**	TS 40/150	ETS 40
														SNL 3234	TNF 40/150	ETS 40
	260	210	375	190	80	480	120	560	34	28	10	24	97,5	**SNL 3040**	TS 40/150	ETS 40
														SNL 3040	TNF 40/150	ETS 40
	290	240	434	220	90	540	140	640	42	35	12	30	139	**SNL 3048**	TS 48/150	ETS 48
														SNL 3048	TNF 48/150	ETS 48
160	230	180	333	170	70	430	100	510	34	28	14	24	69,5	**SNL 3036**	TS 36	ETS 36
														SNL 3036	TNF 36	ETS 36
														SNL 3036 TURT	included	ETS 3036 R
														SNL 3036 TURA	included	ETS 3036 R
	240	190	353	180	75	450	110	530	34	28	15	24	77,5	**SNL 3136**	TS 36	ETS 36
														SNL 3136	TNF 36	ETS 36
														SNL 3136 TURT	included	ETS 3136 R
														SNL 3136 TURA	included	ETS 3136 R
	260	210	375	190	80	480	120	560	34	28	10	24	97,5	**SNL 3236**	TS 38/160	ETS 38
														SNL 3236	TNF 38/160	ETS 38
	260	210	375	190	80	480	120	560	34	28	10	24	97,5	**SNL 3138**	TS 38/160	ETS 38
														SNL 3138	TNF 38/160	ETS 38



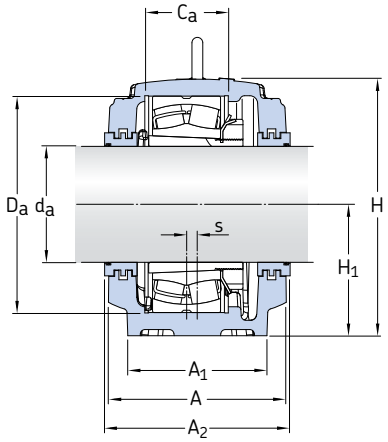


Shaft	Bearing seat		Width across seals			Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3	A_4				
mm	mm		mm			–	–		
115	108	280	240	302	–	M 16	**22326 CCK/W33** **–**	H 2326 –	2 FRB 7.5/280 –
125	116	300	250	317	–	M 16	**22328 CCK/W33** **–**	H 2328 –	2 FRB 7/300 –
135	124	320	270	334	–	M 20	**22330 CCK/W33** **–**	H 2330 –	2 FRB 8/320 –
140	115	290	250	318	–	M 16	**22232 CCK/W33** **C3232 K**	H 3132 H 2332 L	2 FRB 17.5/290 2 FRB 5.5/290
	132	340	290	351	–	M 20	**22332 CCK/W33** **–**	H 2332 –	2 FRB 9/340 –
150	108	280	240	302	225	M 16	**23134 CCK/W33** **C 3134 K**[1)]	H 3134 H 3134 L	2 FRB 10/280 2 FRB 10/280
	122	310	270	331	–	M 20	**23234 CCK/W33** **–**	H 2334 –	2 FRB 6/310 –
	122	310	270	331	–	M 20	**22234 CCK/W33** **C 2234 K**	H 3134 H 3134 L	2 FRB 18/310 2 FRB 18/310
	140	360	300	387	–	M 20	**22334 CCK/W33** **–**	H 2334 –	2 FRB 10/360 –
160	108	280	240	304	225	M 16	**23036 CCK/W33** **C 3036 K**	H 3036 H 3036	2 FRB 17/280 2 FRB 17/280
	116	300	250	317	235	M 16	**23136 CCK/W33** **C 3136 K**	H 3136 H 3136 L	2 FRB 10/300 2 FRB 10/300
	124	320	270	334	–	M 20	**23236 CCK/W33** **C 3236 K**	H 2336 H 2336	2 FRB 6/320 2 FRB 6/320
	124	320	270	334	–	M 20	**22236 CCK/W33** **–**	H 3136 –	2 FRB 19/320 –

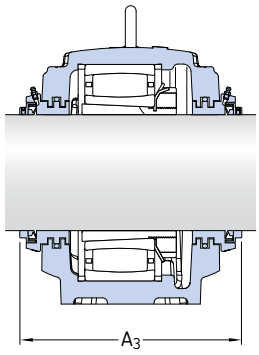
[1)] Check with SKF for availability

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

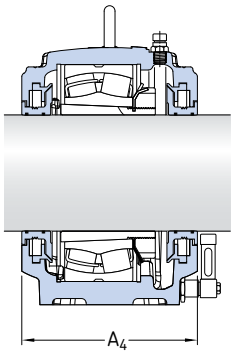
d_a **170 – 180** mm



Labyrinth seals, TS design

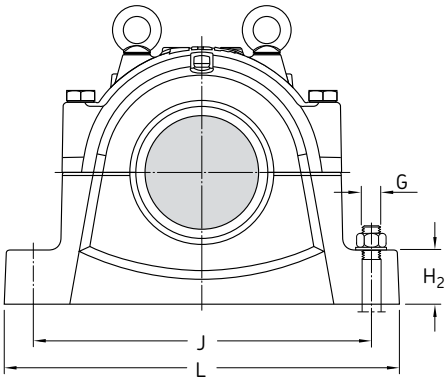


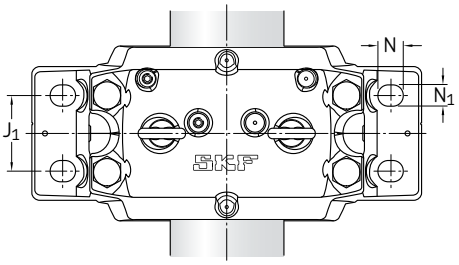
Taconite seals, TNF design



Oil seals, TURT/TURA design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
170	240	190	353	180	75	450	110	530	34	28	15	24	77,5	**SNL 3038**	TS 38	ETS 38
														SNL 3038	TNF 38	ETS 38
														SNL 3038 TURT	included	ETS 3038 R
														SNL 3038 TURA	included	ETS 3038 R
	260	210	375	190	80	480	120	560	34	28	10	24	97,5	**SNL 3138**	TS 38	ETS 38
														SNL 3138	TNF 38	ETS 38
														SNL 3138 TURT	included	ETS 3138 R
														SNL 3138 TURA	included	ETS 3138 R
	280	230	411	210	85	510	130	610	42	35	10	30	123	**SNL 3238**	TS 40/170	ETS 40
														SNL 3238	TNF 40/170	ETS 40
	280	230	411	210	85	510	130	610	42	35	10	30	123	**SNL 3140**	TS 40/170	ETS 40
														SNL 3140	TNF 40/170	ETS 40
	310	260	474	240	95	600	150	700	42	35	12	30	187	**SNL 3148**	TS 48/170	ETS 48
														SNL 3148	TNF 48/170	ETS 48
180	260	210	375	190	80	480	120	560	34	28	10	24	97,5	**SNL 3040**	TS 40	ETS 40
														SNL 3040	TNF 40	ETS 40
														SNL 3040 TURT	included	ETS 3040 R
														SNL 3040 TURA	included	ETS 3040 R
	280	230	411	210	85	510	130	610	42	35	10	30	123	**SNL 3140**	TS 40	ETS 40
														SNL 3140	TNF 40	ETS 40
														SNL 3140 TURT	included	ETS 3140 R
														SNL 3140 TURA	included	ETS 3140 R
	290	240	434	220	90	540	140	640	42	35	12	30	139	**SNL 3240**	TS 48/180	ETS 48
														SNL 3240	TNF 48/180	ETS 48
	290	240	434	220	90	540	140	640	42	35	12	30	139	**SNL 3048**	TS 48/180	ETS 48
														SNL 3048	TNF 48/180	ETS 48
	320	280	516	260	100	650	160	770	50	42	13	36	221	**SNL 3056**	TS 56/180	ETS 56
														SNL 3056	TNF 56/180	ETS 56





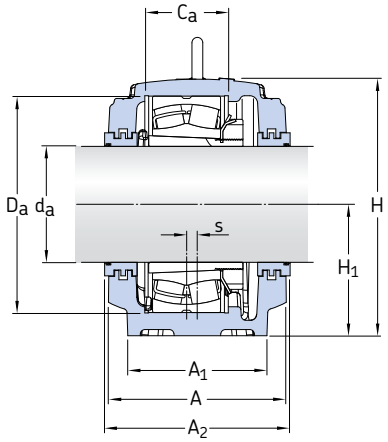
C

Shaft	Bearing seat		Width across seals			Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3	A_4				
mm	mm		mm			–	–		
170	115	290	250	318	235	M 16	**23038 CCK/W33** **C 3038 K**	H 3038 H 3038	4 FRB 10/290 4 FRB 10/290
	124	320	270	334	255	M 20	**23138 CCK/W33** **C 3138**[1)]	H 3138 H 3138 L	2 FRB 10/320 2 FRB 10/320
	132	340	290	351	–	M 20	**23238 CCK/W33** **–**	H 2338 –	2 FRB 6/340 –
	132	340	290	351	–	M 20	**22238 CCK/W33** **C 2238 K**	H 3138 H 3138	4 FRB 10/340 4 FRB 10/340
	148	400	315	404	–	M 24	**22338 CCK/W33** **–**	H 2338 –	2 FRB 8/400 –
180	122	310	270	331	255	M 20	**23040 CCK/W33** **C 3040 K**	H 3040 H 3040	4 FRB 10/310 4 FRB 10/310
	132	340	290	351	275	M 20	**23140 CCK/W33** **C 3140 K**	H 3140 H 3140	2 FRB 10/340 2 FRB 10/340
	140	360	300	383	–	M 20	**23240 CCK/W33** **–**	H 2340 –	2 FRB 6/360 –
	140	360	300	387	–	M 20	**22240 CCK/W33** **–**	H 3140 –	2 FRB 21/360 –
	166	420	330	413	–	M 24	**22340 CCK/W33** **–**	H 2340 –	2 FRB 14/420 –

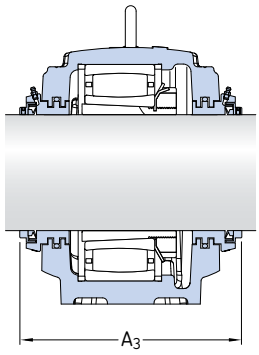
[1)] Check with SKF for availability

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

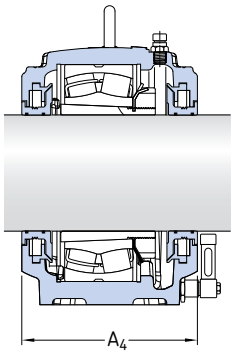
d_a **200 – 220** mm



Labyrinth seals, TS design

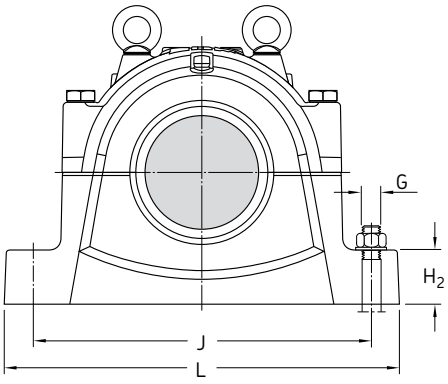


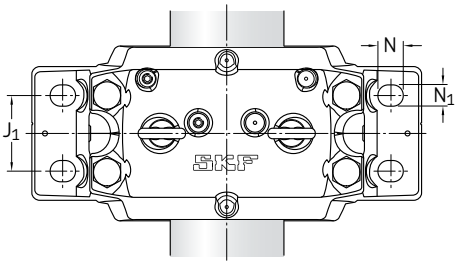
Taconite seals, TNF design



Oil seals, TURT/TURA design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
200	280	230	411	210	85	510	130	610	42	35	10	30	123	**SNL 3044**	TS 44	ETS 44
														SNL 3044	TNF 44	ETS 44
														SNL 3044 TURT	included	ETS 3044 R
														SNL 3044 TURA	included	ETS 3044 R
	290	240	434	220	90	540	140	640	42	35	12	30	138	**SNL 3144**	TS 44	ETS 44
														SNL 3144	TNF 44	ETS 44
														SNL 3144 TURT	included	ETS 3144 R
														SNL 3144 TURA	included	ETS 3144 R
	310	260	474	240	95	600	150	700	42	35	12	30	187	**SNL 3244**	TS 48/200	ETS 48
														SNL 3244	TNF 48/200	ETS 48
	310	260	474	240	95	600	150	700	42	35	12	30	187	**SNL 3148**	TS 48/200	ETS 48
														SNL 3148	TNF 48/200	ETS 48
	320	280	516	260	100	650	160	770	50	42	16	36	252	**SNL 3156**	TS 56/200	ETS 56
														SNL 3156	TNF 56/200	ETS 56
220	290	240	434	220	90	540	140	640	42	35	12	30	138	**SNL 3048**	TS 48	ETS 48
														SNL 3048	TNF 48	ETS 48
														SNL 3048 TURT	included	ETS 3048 R
														SNL 3048 TURA	included	ETS 3048 R
	310	260	474	240	95	600	150	700	42	35	12	30	187	**SNL 3148**	TS 48	ETS 48
														SNL 3148	TNF 48	ETS 48
														SNL 3148 TURT	included	ETS 3148 R
														SNL 3148 TURA	included	ETS 3148 R
	320	280	516	260	100	650	160	770	50	42	13	36	221	**SNL 3248**	TS 52/220	ETS 52
														SNL 3248	TNF 52/220	ETS 52
	320	280	516	260	100	650	160	770	50	42	13	36	221	**SNL 3152**	TS 52/220	ETS 52
														SNL 3152	TNF 52/220	ETS 52
	350	310	591	300	110	710	190	830	50	42	22	36	301	**SNL 3160**	TS 60/220	ETS 60
														SNL 3160	TNF 60/220	ETS 60

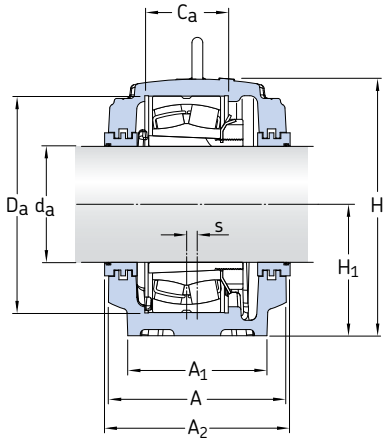




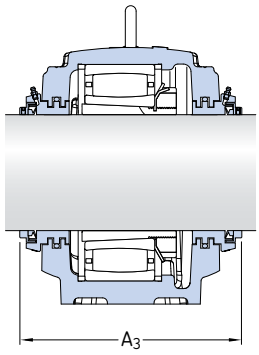
Shaft	Bearing seat		Width across seals			Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3	A_4				
mm	mm		mm			–	–		
200	130	340	290	353	275	M 20	**23044 CCK/W33** **C 3044 K**	OH 3044 H OH 3044 H	4 FRB 10/340 4 FRB 10/340
	140	370	300	361	285	M 20	**23144 CCK/W33** **C 3144 K**	OH 3144 H OH 3144 HTL	2 FRB 10/370 2 FRB 10/370
	164	400	315	404	–	M 24	**23244 CCK/W33** **–**	OH 2344 H –	2 FRB 10/400 –
	148	400	315	404	–	M 24	**22244 CCK/W33** **C 2244 K**	OH 3144 H OH 3144 H	4 FRB 10/400 4 FRB 10/400
	166	460	330	412	–	M 24	**22344 CCK/W33** **–**	OH 2344 H –	2 FRB 10.5/460 –
220	140	360	300	387	285	M 20	**23048 CCK/W33** **C 3048 K**	OH 3048 H OH 3048 H	4 FRB 12/360 4 FRB 12/360
	148	400	315	404	305	M 24	**23148 CCK/W33** **C 3148 K**	OH 3148 H OH 3148 HTL	2 FRB 10/400 2 FRB 10/400
	180	440	330	414	–	M 24	**23248 CCK/W33** **–**	OH 2348 H –	2 FRB 10/440 –
	164	440	330	414	–	M 24	**22248 CCK/W33** **–**	OH 3148 H –	2 FRB 22/440 –
	180	500	360	442	–	M 30	**22348 CCK/W33** **–**	OH 2348 H –	2 FRB 12.5/500 –

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

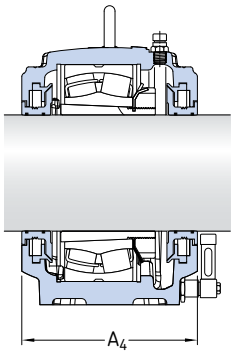
d_a **240 – 260** mm



Labyrinth seals, TS design

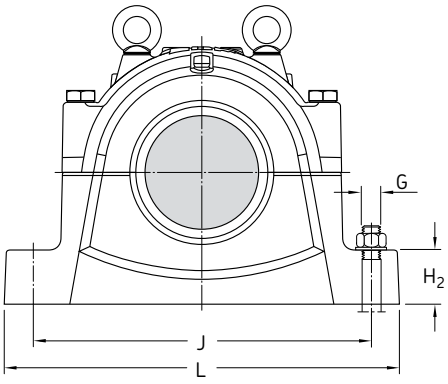


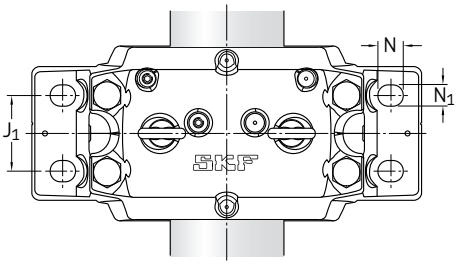
Taconite seals, TNF design



Oil seals, TURT/TURA design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
240	310	260	474	240	95	600	150	700	42	35	12	30	187	**SNL 3052**	TS 52	ETS 52
														SNL 3052	TNF 52	ETS 52
														SNL 3052 TURT	included	ETS 3052 R
														SNL 3052 TURA	included	ETS 3052 R
	320	280	516	260	100	650	160	770	50	42	13	36	221	**SNL 3152**	TS 52	ETS 52
														SNL 3152	TNF 52	ETS 52
														SNL 3152 TURT	included	ETS 3152 R
														SNL 3152 TURA	included	ETS 3152 R
	350	310	591	300	110	710	190	830	50	42	22	36	301	**SNL 3252**	TS 64/240	ETS 64
														SNL 3252	TNF 64/240	ETS 64
	350	310	591	300	110	710	190	830	50	42	22	36	301	**SNL 3064**	TS 64/240	ETS 64
														SNL 3064	TNF 64/240	ETS 64
	370	330	631	320	115	750	200	880	50	42	23	36	339	**SNL 3164**	TS 64/240	ETS 64
														SNL 3164	TNF 64/240	ETS 64
260	320	280	516	260	100	650	160	770	50	42	13	36	221	**SNL 3056**	TS 56	ETS 56
														SNL 3056	TNF 56	ETS 56
														SNL 3056 TURT	included	ETS 3056 R
														SNL 3056 TURA	included	ETS 3056 R
	320	280	551	280	105	670	160	790	50	42	16	36	252	**SNL 3156**	TS 56	ETS 56
														SNL 3156	TNF 56	ETS 56
														SNL 3156 TURT	included	ETS 3156 R
														SNL 3156 TURA	included	ETS 3156 R
	350	310	591	300	110	710	190	830	50	42	22	36	301	**SNL 3256**	TS 60/260	ETS 60
														SNL 3256	TNF 60/260	ETS 60
	350	310	591	300	110	710	190	830	50	42	22	36	301	**SNL 3160**	TS 60/260	ETS 60
														SNL 3160	TNF 60/260	ETS 60
	400	360	675	340	120	810	220	950	50	42	24	36	427	**SNL 3168 L**	TS 68/260	ETS 68
														SNL 3168 L	TNF 68/260	ETS 68

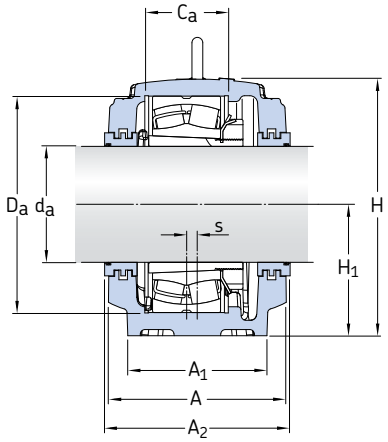




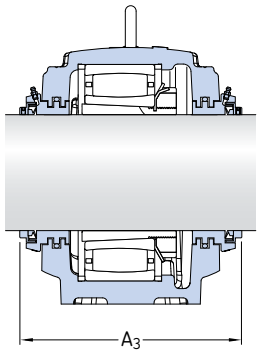
Shaft	Bearing seat		Width across seals			Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3	A_4				
mm	mm		mm			–	–		
240	148	400	315	397	305	M 24	**23052 CCK/W33** **C 3052 K**	OH 3052 H OH 3052 H	2 FRB 22/400 2 FRB 22/400
	164	440	330	414	315	M 24	**23152 CCK/W33** **C 3152 K**	OH 3152 H OH 3152 HTL	2 FRB 10/440 2 FRB 10/440
	194	480	360	443	–	M 30	**23252 CCK/W33** **–**	OH 2352 H –	2 FRB 10/480 –
	181	480	360	443	–	M 30	**22252 CCK/W33** **–**	OH 3152 H –	2 FRB 25.5/480 –
	196	540	380	462	–	M 30	**22352 CCK/W33** **–**	OH 2352 H –	2 FRB 15.5/540 –
260	166	420	330	413	315	M 24	**23056 CCK/W33** **C 3056 K**	OH 3056 H OH 3056 H	6 FRB 10/420 6 FRB 10/420
	166	460	330	412	315	M 24	**23156 CCK/W33** **C 3156 K**	OH 3156 H OH 3156 HTL	2 FRB 10/460 2 FRB 10/460
	196	500	360	442	–	M 30	**23256 CCK/W33** **–**	OH 2356 H –	2 FRB 10/500 –
	180	500	360	442	–	M 30	**22256 CCK/W33** **–**	OH 3156 H –	2 FRB 25/500 –
	210	580	410	491	–	M 30	**22356 CCK/W33** **–**	OH 2356 H –	2 FRB 17.5/580 –

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

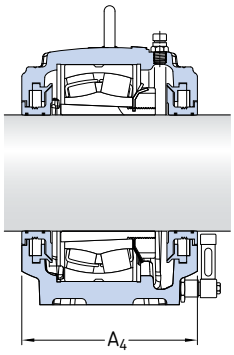
d_a **280 – 300** mm



Labyrinth seals, TS design

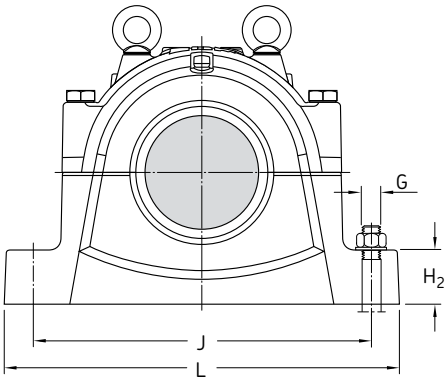


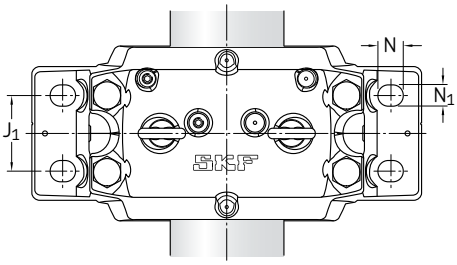
Taconite seals, TNF design



Oil seals, TURT/TURA design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
280	320	280	551	280	105	670	160	790	50	42	16	36	252	**SNL 3060**	TS 60	ETS 60
														SNL 3060	TNF 60	ETS 60
														SNL 3060 TURT	included	ETS 3060 R
														SNL 3060 TURA	included	ETS 3060 R
	350	310	591	300	110	710	190	830	50	42	22	36	301	**SNL 3160**	TS 60	ETS 60
														SNL 3160	TNF 60	ETS 60
														SNL 3160 TURT	included	ETS 3160 R
														SNL 3160 TURA	included	ETS 3160 R
	370	330	631	320	115	750	200	880	50	42	23	36	339	**SNL 3260**	TS 64/280	ETS 64
														SNL 3260	TNF 64/280	ETS 64
	370	330	631	320	115	750	200	880	50	42	23	36	339	**SNL 3164**	TS 64/280	ETS 64
														SNL 3164	TNF 64/280	ETS 64
300	350	310	591	300	110	710	190	830	50	42	22	36	301	**SNL 3064**	TS 64	ETS 64
														SNL 3064	TNF 64	ETS 64
														SNL 3064 TURT	included	ETS 3064 R
														SNL 3064 TURA	included	ETS 3064 R
	370	330	631	320	115	750	200	880	50	42	23	36	339	**SNL 3164**	TS 64	ETS 64
														SNL 3164	TNF 64	ETS 64
														SNL 3164 TURT	included	ETS 3164 R
														SNL 3164 TURA	included	ETS 3164 R
	400	360	675	340	120	810	220	950	50	42	24	36	430	**SNL 3264 F**	TS 68/300	ETS 68
														SNL 3264 F	TNF 68/300	ETS 68
	400	360	675	340	120	810	220	950	50	42	24	36	427	**SNL 3264 L**	TS 68/300	ETS 68
														SNL 3264 L	TNF 68/300	ETS 68
	400	360	675	340	120	810	220	950	50	42	24	36	430	**SNL 3168 F**	TS 68/300	ETS 68
														SNL 3168 F	TNF 68/300	ETS 68



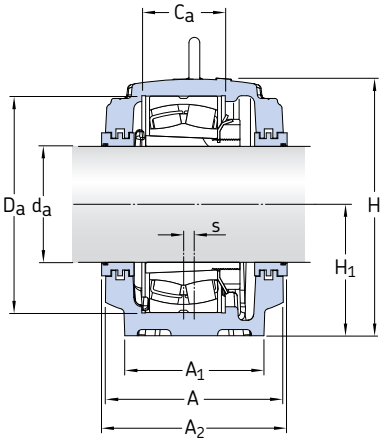


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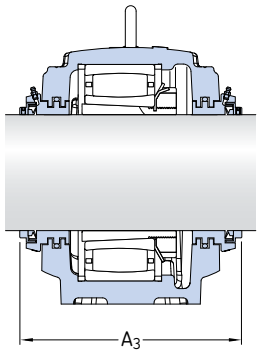
Shaft	Bearing seat		Width across seals			Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3	A_4				
mm	mm		mm			–	–		
280	168	460	330	412	315	M 24	**23060 CCK/W33** **C 3060 KM**	OH 3060 H OH 3060 H	2 FRB 25/460 2 FRB 25/460
	180	500	360	442	345	M 30	**23160 CCK/W33** **C 3160 K**	OH 3160 H OH 3160 H	2 FRB 10/500 2 FRB 10/500
	212	540	380	462	–	M 30	**23260 CCK/W33** **–**	OH 3260 H –	2 FRB 10/540 –
	196	540	380	462	–	M 30	**22260 CCK/W33** **–**	OH 3160 H –	2 FRB 28/540 –
300	181	480	360	443	345	M 30	**23064 CCK/W33** **C 3064 KM**	OH 3064 H OH 3064 H	6 FRB 10/480 6 FRB 10/480
	196	540	380	462	365	M 30	**23164 CCK/W33** **C 3164 KM**	OH 3164 H OH 3164 H	2 FRB 10/540 2 FRB 10/540
	208	580	410	491	–	M 30	**23264 CCK/W33** **–**	OH 3264 H –	– –
	228	580	410	491	–	M 30	**23264 CCK/W33** **–**	OH 3264 H –	– –
	190	580	410	491	–	M 30	**22264 CCK/W33** **–**	OH 3164 H –	2 FRB 20/580 –

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

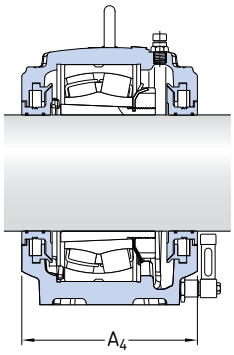
d_a **320 – 340** mm



Labyrinth seals, TS design

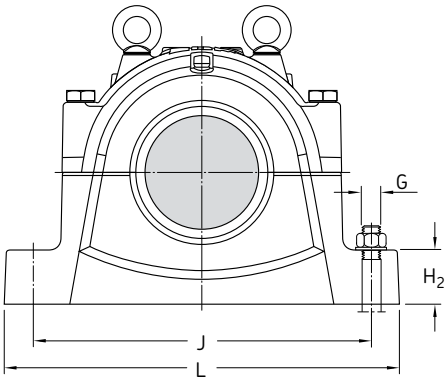


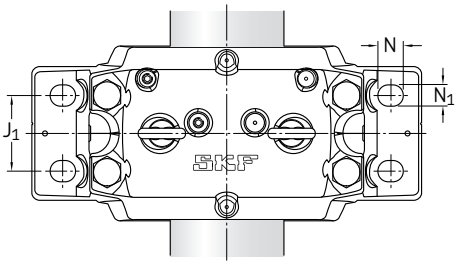
Taconite seals, TNF design



Oil seals, TURT/TURA design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
320	370	330	631	320	115	750	200	880	50	42	23	36	339	**SNL 3068**	TS 68	ETS 68
														SNL 3068	TNF 68	ETS 68
														SNL 3068 TURT	included	ETS 3068 R
														SNL 3068 TURA	included	ETS 3068 R
	400	360	675	340	120	810	220	950	50	42	24	36	430	**SNL 3168 F**	TS 68	ETS 68
														SNL 3168 F	TNF 68	ETS 68
														SNL 3168 FTURT	included	ETS 3168 R
														SNL 3168 FTURA	included	ETS 3168 R
	400	360	675	340	120	810	220	950	50	42	24	36	427	**SNL 3168 L**	TS 68	ETS 68
														SNL 3168 L	TNF 68	ETS 68
														SNL 3168 LTURT	included	ETS 3168 R
	400	360	715	360	120	870	220	1 040	50	42	30	36	473	**SNL 3268 F**	TS 76/320	ETS 76
														SNL 3268 F	TNF 76/320	ETS 76
	400	360	715	360	120	870	220	1 040	50	42	30	36	470	**SNL 3268 L**	TS 76/320	ETS 76
														SNL 3268 L	TNF 76/320	ETS 76
340	370	330	631	320	115	750	200	880	50	42	23	36	339	**SNL 3072**	TS 72	ETS 72
														SNL 3072	TNF 72	ETS 72
														SNL 3072 TURT	included	ETS 3072 R
														SNL 3072 TURA	included	ETS 3072 R
	400	360	695	350	120	840	220	1 000	50	42	30	36	458	**SNL 3172 F**	TS 72	ETS 72
														SNL 3172 F	TNF 72	ETS 72
														SNL 3172 FTURT	included	ETS 3172 R
														SNL 3172 FTURA	included	ETS 3172 R
	400	360	695	350	120	840	220	1 000	50	42	30	36	454	**SNL 3172 L**	TS 72	ETS 72
														SNL 3172 L	TNF 72	ETS 72
														SNL 3172 LTURT	included	ETS 3172 R
	430	390	775	380	125	950	240	1 120	60	48	30	42	595	**SNL 3272 F**	TS 80/340	ETS 80
														SNL 3272 F	TNF 80/340	ETS 80
	430	390	775	380	125	950	240	1 120	60	48	30	42	595	**SNL 3272 L**	TS 80/340	ETS 80
														SNL 3272 L	TNF 80/340	ETS 80
	430	390	775	380	125	950	240	1 120	60	48	30	42	595	**SNL 3180 F**	TS 80/340	ETS 80
														SNL 3180 F	TNF 80/340	ETS 80



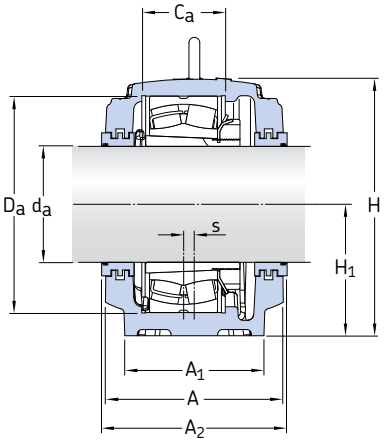


C

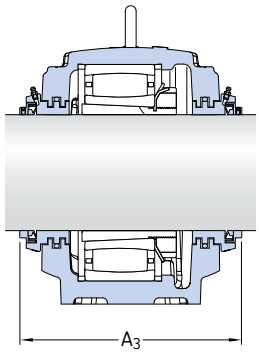
Shaft	Bearing seat		Width across seals			Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3	A_4				
mm	mm		mm			–	–		
320	197	520	380	461	365	M 30	**23068 CCK/W33** **C 3068 KM**	OH 3068 H OH 3068 H	4 FRB 16/520 4 FRB 16/520
	190	580	410	491	395	M 30	**23168 CCK/W33** **C 3168 KM**	OH 3168 H OH 3168 H	– –
	210	580	410	491	395	M 30	**23168 CCK/W33** –	OH 3168 H –	– –
	224	620	410	491	–	M 36	**23268 CAK/W33** –	OH 3268 H –	– –
	244	620	410	491	–	M 36	**23268 CAK/W33** –	OH 3268 H –	– –
340	198	540	380	461	365	M 30	**23072 CCK/W33** **C 3072 KM**	OH 3072 H OH 3072 H	4 FRB 16/540 4 FRB 16/540
	192	600	410	491	395	M 36	**23172 CCK/W33** **C 3172 KM**	OH 3172 H OH 3172 H	– –
	212	600	410	491	395	M 36	**23172 CCK/W33** –	OH 3172 H –	– –
	232	650	440	521	–	M 42	**23272 CAK/W33** –	OH 3272 H –	– –
	252	650	440	521	–	M 42	**23272 CAK/W33** –	OH 3272 H –	– –
	220	650	440	521	–	M 42	**22272 CCK/W33** –	OH 3172 H –	2 FRB 25/650 –

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

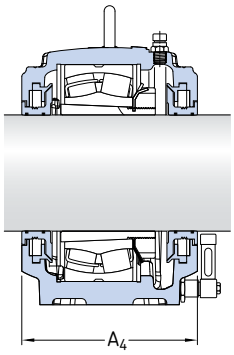
d_a **360 – 380** mm



Labyrinth seals, TS design

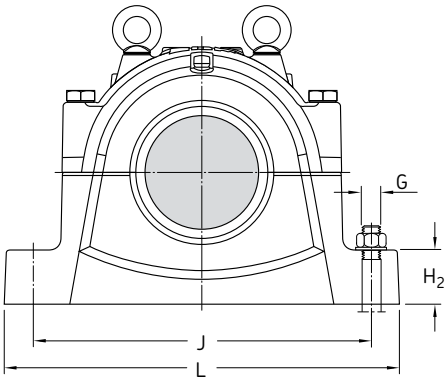


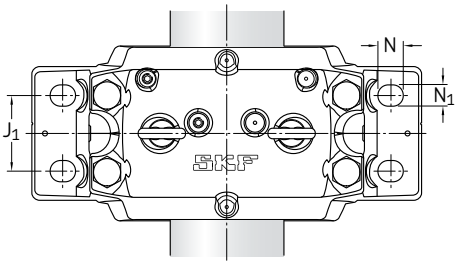
Taconite seals, TNF design



Oil seals, TURT/TURA design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
360	400	360	675	340	120	810	220	950	50	42	24	36	430	**SNL 3076 F**	TS 76	ETS 76
														SNL 3076 F	TNF 76	ETS 76
														SNL 3076 FTURT	included	ETS 3076 R
														SNL 3076 FTURA	included	ETS 3076 R
	400	360	675	340	120	810	220	950	50	42	24	36	427	**SNL 3076 L**	TS 76	ETS 76
														SNL 3076 L	TNF 76	ETS 76
														SNL 3076 LTURT	included	ETS 3076 R
	400	360	715	360	120	870	220	1 040	50	42	30	36	473	**SNL 3176 F**	TS 76	ETS 76
														SNL 3176 F	TNF 76	ETS 76
														SNL 3176 FTURT	included	ETS 3176 R
														SNL 3176 FTURA	included	ETS 3176 R
	400	360	715	360	120	870	220	1 040	50	42	30	36	470	**SNL 3176 L**	TS 76	ETS 76
														SNL 3176 L	TNF 76	ETS 76
														SNL 3176 LTURT	included	ETS 3176 R
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	716	**SNL 3276 F**	TS 92/360	ETS 92
														SNL 3276 F	TNF 92/360	ETS 92
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	709	**SNL 3276 L**	TS 92/360	ETS 92
														SNL 3276 L	TNF 92/360	ETS 92
380	400	360	695	350	120	840	220	1 000	50	42	30	36	458	**SNL 3080 F**	TS 80	ETS 80
														SNL 3080 F	TNF 80	ETS 80
														SNL 3080 FTURT	included	ETS 3080 R
														SNL 3080 FTURA	included	ETS 3080 R
	400	360	695	350	120	840	220	1 000	50	42	30	36	454	**SNL 3080 L**	TS 80	ETS 80
														SNL 3080 L	TNF 80	ETS 80
														SNL 3080 LTURT	included	ETS 3080 R
	430	390	775	380	125	950	240	1 120	60	48	30	42	595	**SNL 3180 F**	TS 80	ETS 80
														SNL 3180 F	TNF 80	ETS 80
														SNL 3180 FTURT	included	ETS 3180 R
														SNL 3180 FTURA	included	ETS 3180 R
	430	390	775	380	125	950	240	1 120	60	48	30	42	595	**SNL 3180 L**	TS 80	ETS 80
														SNL 3180 L	TNF 80	ETS 80
														SNL 3180 LTURT	included	ETS 3180 R
	460	430	835	420	135	1 030	260	1 220	60	48	35	42	755	**SNL 3280 F**	TS 88/380	ETS 88
														SNL 3280 F	TNF 88/380	ETS 88
	460	430	835	420	135	1 030	260	1 220	60	48	35	42	751	**SNL 3280 L**	TS 88/380	ETS 88
														SNL 3280 L	TNF 88/380	ETS 88



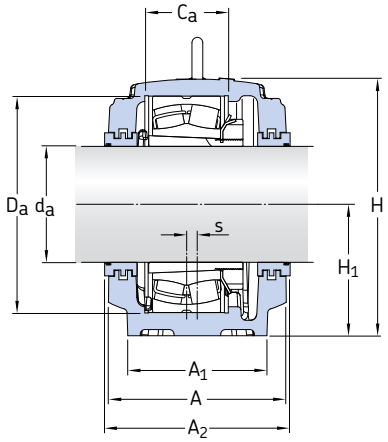


Shaft	Bearing seat		Width across seals			Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve
d_a	C_a	D_a	A_2	A_3	A_4			
mm	mm		mm			–	–	
360	135	560	410	492	395	M 30	**23076 CCK/W33** **C 3076 KM**	OH 3076 H OH 3076 H
	180	560	410	492	395	M 30	**23076 CCK/W33** **–**	OH 3076 H –
	194	620	410	491	395	M 36	**23176 CAK/W33** **C 3176 KMB**[1)]	OH 3176 H OH 3176 HE
	214	620	410	491	395	M 36	**23176 CAK/W33** **–**	OH 3176 H –
	240	680	470	552	–	M 42	**23276 CAK/W33** **–**	OH 3276 H –
	260	680	470	552	–	M 42	**23276 CAK/W33** **–**	OH 3276 H –
380	148	600	410	492	395	M 36	**23080 CCK/W33** **C 3080 KM**	OH 3080 H OH 3080 H
	192	600	410	492	395	M 36	**23080 CCK/W33** **–**	OH 3080 H –
	200	650	440	521	425	M 42	**23180 CAK/W33** **C 3180 KMB**	OH 3180 H OH 3180 HE
	220	650	440	521	425	M 42	**23180 CAK/W33** **–**	OH 3180 H –
	256	720	470	552	–	M 42	**23280 CAK/W33** **–**	OH 3280 H –
	276	720	470	552	–	M 42	**23280 CAK/W33** **–**	OH 3280 H –

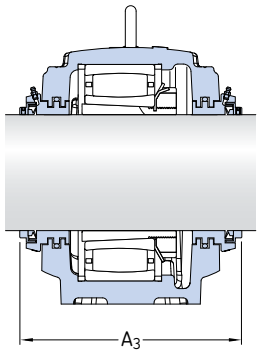
[1)] Check with SKF for availability

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

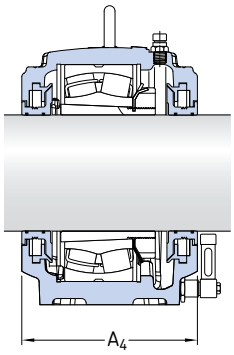
d_a **400 – 410** mm



Labyrinth seals, TS design

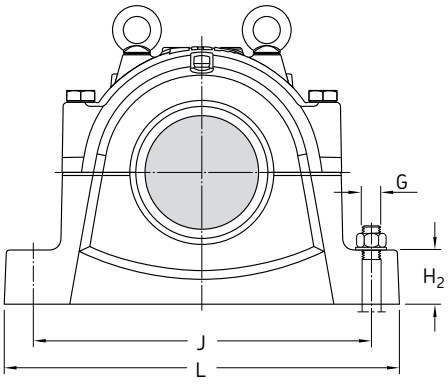


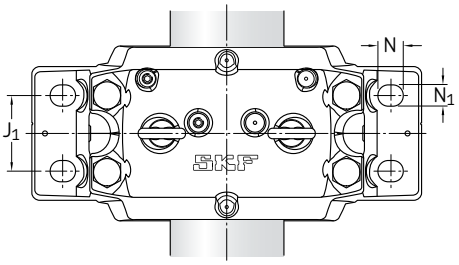
Taconite seals, TNF design



Oil seals, TURT/TURA design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
400	400	360	715	360	120	870	220	1 040	50	42	30	36	473	**SNL 3084 F**	TS 84	ETS 84
														SNL 3084 F	TNF 84	ETS 84
														SNL 3084 FTURT	included	ETS 3084 R
														SNL 3084 FTURA	included	ETS 3084 R
	400	360	715	360	120	870	220	1 040	50	42	30	36	470	**SNL 3084 L**	TS 84	ETS 84
														SNL 3084 L	TNF 84	ETS 84
														SNL 3084 LTURT	included	ETS 3084 R
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	716	**SNL 3184 F**	TS 84	ETS 84
														SNL 3184 F	TNF 84	ETS 84
														SNL 3184 FTURT	included	ETS 3184 R
														SNL 3184 FTURA	included	ETS 3184 R
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	709	**SNL 3184 L**	TS 84	ETS 84
														SNL 3184 L	TNF 84	ETS 84
														SNL 3184 LTURT	included	ETS 3184 R
	470	440	880	440	145	1 070	260	1 280	60	48	35	42	865	**SNL 3284 F**	TS 92/400	ETS 92
														SNL 3284 F	TNF 92/400	ETS 92
	470	440	880	440	145	1 070	260	1 280	60	48	35	42	859	**SNL 3284 L**	TS 92/400	ETS 92
														SNL 3284 L	TNF 92/400	ETS 92
410	430	390	775	380	125	950	240	1 120	60	48	30	42	595	**SNL 3088 F**	TS 88	ETS 88
														SNL 3088 F	TNF 88	ETS 88
														SNL 3088 FTURT	included	ETS 3088 R
														SNL 3088 FTURA	included	ETS 3088 R
	430	390	775	380	125	950	240	1 120	60	48	30	42	595	**SNL 3088 L**	TS 88	ETS 88
														SNL 3088 L	TNF 88	ETS 88
														SNL 3088 LTURT	included	ETS 3088 R
	460	430	835	420	135	1 030	260	1 220	60	48	35	42	755	**SNL 3188 F**	TS 88	ETS 88
														SNL 3188 F	TNF 88	ETS 88
														SNL 3188 FTURT	included	ETS 3188 R
														SNL 3188 FTURA	included	ETS 3188 R
	460	430	835	420	135	1 030	260	1 220	60	48	35	42	751	**SNL 3188 L**	TS 88	ETS 88
														SNL 3188 L	TNF 88	ETS 88
														SNL 3188 LTURT	included	ETS 3188 R
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	947	**SNL 3288 F**	TS 96/410	ETS 96
														SNL 3288 F	TNF 96/410	ETS 96
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	941	**SNL 3288 L**	TS 96/410	ETS 96
														SNL 3288 L	TNF 96/410	ETS 96





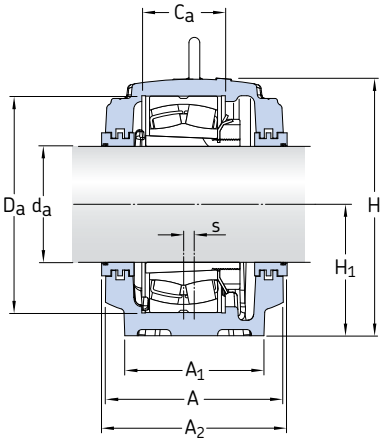
C

Shaft	Bearing seat		Width across seals			Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve
d_a	C_a	D_a	A_2	A_3	A_4			
mm	mm		mm			–	–	
400	150	620	410	492	395	M 36	**23084 CAK/W33** **C 3084 KM**	OH 3084 H OH 3084 H
	194	620	410	492	395	M 36	**23084 CAK/W33** **–**	OH 3084 H –
	224	700	470	551	455	M 42	**23184 CKJ/W33** **C 3184 KM**	OH 3184 H OH 3184 H
	244	700	470	551	455	M 42	**23184 CKJ/W33** **–**	OH 3184 H –
	272	760	480	562	–	M 48	**23284 CAK/W33** **–**	OH 3284 H –
	292	760	480	562	–	M 48	**23284 CAK/W33** **–**	OH 3284 H –
410	157	650	440	522	425	M 42	**23088 CAK/W33** **C 3088 KMB**	OH 3088 H OH 3088 HE
	200	650	440	522	425	M 42	**23088 CAK/W33** **–**	OH 3088 H –
	226	720	470	552	455	M 42	**23188 CAK/W33** **C 3188 KMB**[1)]	OH 3188 H OH 3188 HE
	246	720	470	552	455	M 42	**23188 CAK/W33** **–**	OH 3188 H –
	280	790	480	561	–	M 48	**23288 CAK/W33** **–**	OH 3288 H –
	300	790	480	561	–	M 48	**23288 CAK/W33** **–**	OH 3288 H –

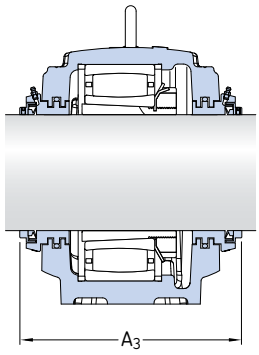
[1)] Check with SKF for availability

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

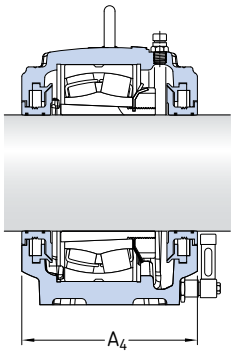
d_a **430 – 470** mm



Labyrinth seals, TS design

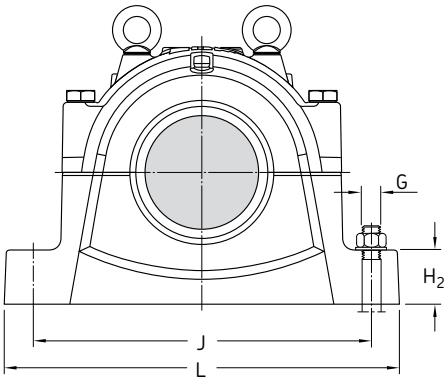


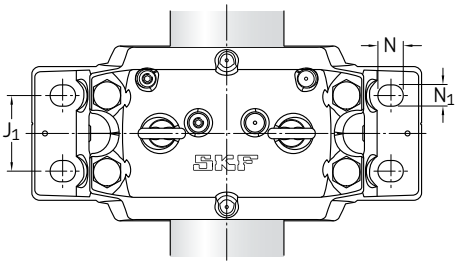
Taconite seals, TNF design



Oil seals, TURT/TURA design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
430	460	420	810	410	130	1 000	260	1 170	60	48	35	42	716	**SNL 3092 F**	TS 92	ETS 92
														SNL 3092 F	TNF 92	ETS 92
														SNL 3092 FTURT	included	ETS 3092 R
														SNL 3092 FTURA	included	ETS 3092 R
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	709	**SNL 3092 L**	TS 92	ETS 92
														SNL 3092 L	TNF 92	ETS 92
														SNL 3092 LTURT	included	ETS 3092 R
	470	440	880	440	145	1 070	260	1 280	60	48	35	42	865	**SNL 3192 F**	TS 92	ETS 92
														SNL 3192 F	TNF 92	ETS 92
														SNL 3192 FTURT	included	ETS 3192 R
														SNL 3192 FTURA	included	ETS 3192 R
	470	440	880	440	145	1 070	260	1 280	60	48	35	42	859	**SNL 3192 L**	TS 92	ETS 92
														SNL 3192 L	TNF 92	ETS 92
														SNL 3192 LTURT	included	ETS 3192 R
450	460	420	810	410	130	1 000	260	1 170	60	48	35	42	716	**SNL 3096 F**	TS 96	ETS 96
														SNL 3096 F	TNF 96	ETS 96
														SNL 3096 FTURT	included	ETS 3096 R
														SNL 3096 FTURA	included	ETS 3096 R
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	709	**SNL 3096 L**	TS 96	ETS 96
														SNL 3096 L	TNF 96	ETS 96
														SNL 3096 LTURT	included	ETS 3096 R
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	947	**SNL 3196 F**	TS 96	ETS 96
														SNL 3196 F	TNF 96	ETS 96
														SNL 3196 FTURT	included	ETS 3196 R
														SNL 3196 FTURA	included	ETS 3196 R
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	941	**SNL 3196 L**	TS 96	ETS 96
														SNL 3196 L	TNF 96	ETS 96
														SNL 3196 LTURT	included	ETS 3196 R
470	460	430	835	420	135	1 030	260	1 220	60	48	35	42	755	**SNL 30/500 F**	TS 500	ETS 500
														SNL 30/500 F	TNF 500	ETS 500
														SNL 30/500 FTURT	included	ETS 30/500 R
														SNL 30/500 FTURA	included	ETS 30/500 R
	460	430	835	420	135	1 030	260	1 220	60	48	35	42	751	**SNL 30/500 L**	TS 500	ETS 500
														SNL 30/500 L	TNF 500	ETS 500
														SNL 30/500 LTURT	included	ETS 30/500 R



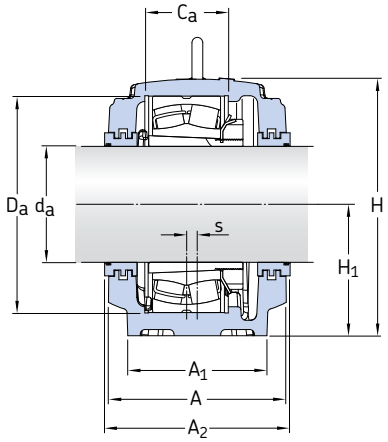


Shaft	Bearing seat		Width across seals			Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve
d_a	C_a	D_a	A_2	A_3	A_4			
mm	mm		mm			–	–	
430	163	680	470	552	455	M 42	**23092 CAK/W33** **C 3092 KM**	OH 3092 H OH 3092 H
	224	680	470	552	455	M 42	**23092 CAK/W33** **–**	OH 3092 H –
	240	760	480	562	465	M 48	**23192 CAK/W33** **C 3192 KM**	OH 3192 H OH 3192 H
	260	760	480	562	465	M 48	**23192 CAK/W33** **–**	OH 3192 H –
450	165	700	470	561	455	M 42	**23096 CAK/W33** **C 3096 KM**	OH 3096 H OH 3096 H
	224	700	470	561	455	M 42	**23096 CAK/W33** **–**	OH 3096 H –
	248	790	480	561	465	M 48	**23196 CAK/W33** **C 3196 KMB**[1)]	OH 3196 H OH 3196 HE
	268	790	480	561	465	M 48	**23196 CAK/W33** **–**	OH 3196 H –
470	167	720	470	551	455	M 42	**230/500 CAK/W33** **C 30/500 KM**	OH 30/500 H OH 30/500 H
	226	720	470	551	455	M 42	**230/500 CAK/W33** **–**	OH 30/500 H –

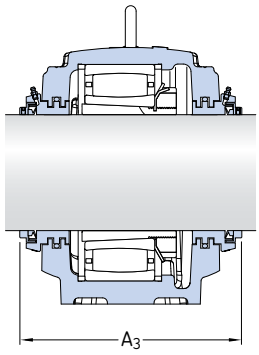
[1)] Check with SKF for availability

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

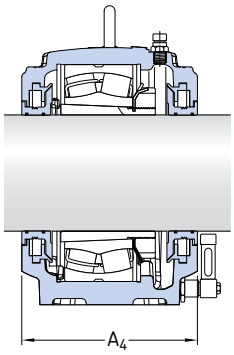
d_a **500** mm



Labyrinth seals, TS design

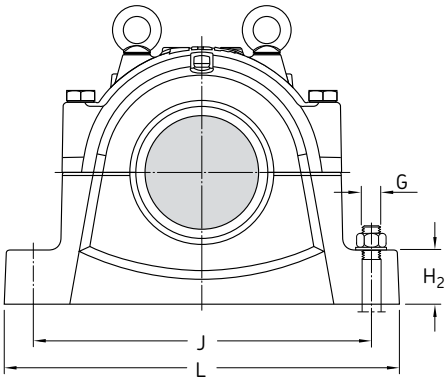


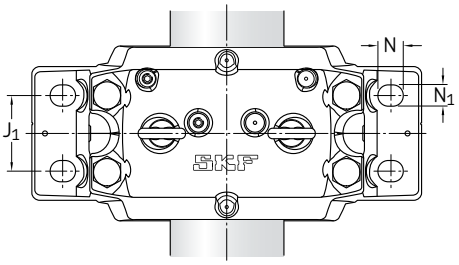
Taconite seals, TNF design



Oil seals, TURT/TURA design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
500	470	440	920	460	155	1 110	260	1 330	70	56	35	48	947	**SNL 30/530 F**	TS 530	ETS 530
														SNL 30/530 F	TNF 530	ETS 530
														SNL 30/530 FTURT	included	ETS 30/530 R
														SNL 30/530 FTURA	included	ETS 30/530 R
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	941	**SNL 30/530 L**	TS 530	ETS 530
														SNL 30/530 L	TNF 530	ETS 530
														SNL 30/530 LTURT	included	ETS 30/530 R

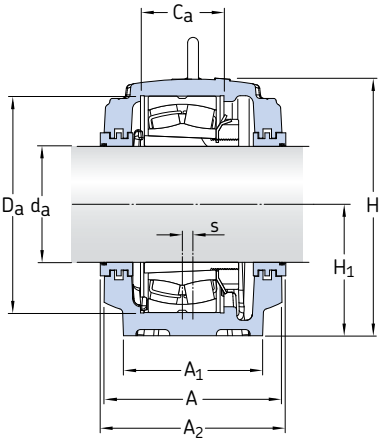




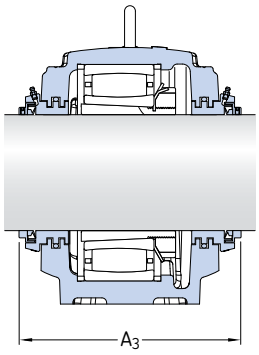
Shaft	Bearing seat		Width across seals			Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve
d_a	C_a	D_a	A_2	A_3	A_4			
mm	mm		mm			–	–	
500	185	780	480	551	465	M 48	**230/530 CAK/W33** **C 30/530 KM**	OH 30/530 H OH 30/530 H
	248	780	480	551	465	M 48	**230/530 CAK/W33** **–**	OH 30/530 H –

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

d_a **5 13/16 – 6 5/16** in

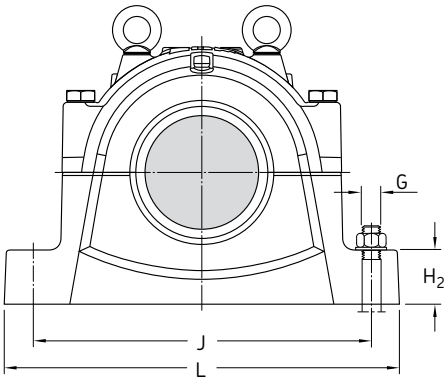


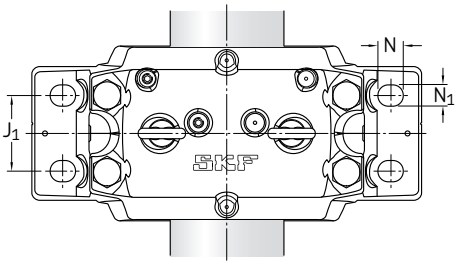
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions													Mass	Designations		
															Housings	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G	G				
in/mm	mm												in	kg	–		
5 13/16 147,638	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3040**	TS 40/5.13/16 TNF 40/5.13/16	ETS 40 ETS 40
	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3234**	TS 40/5.13/16 TNF 40/5.13/16	ETS 40 ETS 40
	290	240	434	220	90	540	140	640	42	35	12	30	1 1/4	139	**SNL 3048**	TS 48/5.13/16 TNF 48/5.13/16	ETS 48 ETS 48
5 7/8 149,225	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3040**	TS 40/5.7/8 TNF 40/5.7/8	ETS 40 ETS 40
	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3234**	TS 40/5.7/8 TNF 40/5.7/8	ETS 40 ETS 40
	290	240	434	220	90	540	140	640	42	35	12	30	1 1/4	139	**SNL 3048**	TS 48/5.7/8 TNF 48/5.7/8	ETS 48 ETS 48
5 15/16 150,813	230	180	33	170	70	430	100	510	34	28	14	24	1	69,5	**SNL 3134** **SNL 3134**	TS 34/5.15/16 TNF 34/5.15/16	ETS 34 ETS 34
	260	210	375	190	80	480	120	560	34	28	10	24	1	69,5	**SNL 3234** **SNL 3234**	TS 40/5.15/16 TNF 40/5.15/16	ETS 40 ETS 40
	290	240	434	220	90	540	140	640	42	35	12	30	1 1/4	138	**SNL 3048** **SNL 3048**	TS 48/5.15/16 TNF 48/5.15/16	ETS 48 ETS 48
	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3040** **SNL 3040**	TS 40/5.15/16 TNF 40/5.15/16	ETS 40 ETS 40
6 152,400	230	180	33	170	70	430	100	510	34	28	14	24	1	69,5	**SNL 3134** **SNL 3134**	TS 34/6 TNF 34/6	ETS 34 ETS 34
	260	210	375	190	80	480	120	560	34	28	10	24	1	69,5	**SNL 3234** **SNL 3234**	TS 40/6 TNF 40/6	ETS 40 ETS 40
	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3040** **SNL 3040**	TS 40/6 TSN 40/6	ETS 40 ETS 40
	290	240	434	220	90	540	140	640	42	35	12	30	1 1/4	139	**SNL 3048** **SNL 3048**	TS 48/6 TNF 48/6	ETS 48 ETS 48
6 5/16 160,338	230	180	333	170	70	430	100	510	34	28	14	24	1	69,5	**SNL 3036** **SNL 3036**	TS 36/6.5/16 TNF 36/6.5/16	ETS 36 ETS 36
	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3138** **SNL 3138**	TS 38/6.5/16 TNF 38/6.5/16	ETS 38 ETS 38





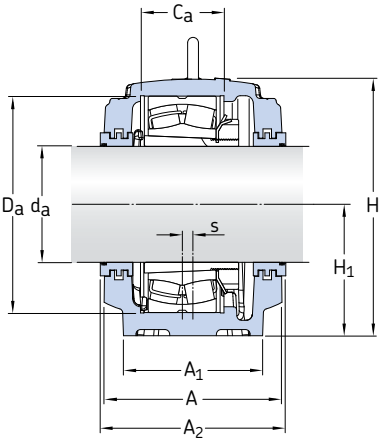
C

Shaft	Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3				
in/mm	mm		mm		–	–		
5 13/16 147,638	122	310	270	331	M 20	**22234 CCK/W33** **C 2234 K**	H 3134/5.13/16 H 3134/5.13/16 L	2 FRB 18/310 2 FRB 18/310
	122	310	270	331	M 20	**23234 CCK/W33** **–**	H 2334/5.13/16 –	2 FRB 6/310 –
	140	360	300	387	M 20	**22334 CCK/W33** **–**	H 2334/5.13/16 –	2 FRB 10/360 –
5 7/8 149,225	122	310	270	331	M 20	**22234 CCK/W33** **C 2234 K**	H 3134/5.7/8 H 3134/5.7/8 L	2 FRB 18/310 2 FRB 18/310
	122	310	270	331	M 20	**23234 CCK/W33** **–**	H 2334/5.7/8 –	2 FRB 6/310 –
	140	360	300	387	M 20	**22334 CCK/W33** **–**	H 2334/5.7/8 –	2 FRB 10/360 –
5 15/16 150,813	108	280	240	302	M 16	**23134 CCK/W33** **C 3134 K**[1)]	HA 3134 HA 3134 L	2 FRB 10/280 2 FRB 10/280
	122	310	270	331	M 20	**23234 CCK/W33** **–**	HA 2334 –	2 FRB 6/310 –
	140	360	300	387	M 20	**22334 CCK/W33** **–**	HA 2334 –	2 FRB 10/360 –
	122	310	270	331	M 20	**22234 CCK/W33** **–**	HA 3134 –	2 FRB 18/310 –
6 152,400	108	280	240	302	M 16	**23134 CCK/W33** **–**	HE 3134 –	2 FRB 10/280 –
	122	310	270	331	M 20	**23234 CCK/W33** **–**	HE 2334 –	2 FRB 6/310 –
	122	310	270	331	M 20	**22234 CCK/W33** **–**	HE 3134 –	2 FRB 18/310 –
	140	360	300	387	M 20	**22334 CCK/W33** **–**	HE 2334 –	2 FRB 10/360 –
6 5/16 160,338	108	280	240	304	M 16	**23036 CCK/W33** **C 3036 K**	H 3036/6.5/16 H 3036/6.5/16	2 FRB 17/280 2 FRB 17/280
	124	320	270	334	M 20	**22236 CCK/W33** **–**	H 3136/6.5/16 –	2 FRB 19/320 –

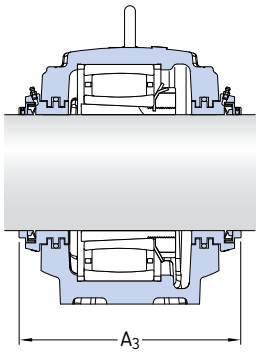
[1)] Check with SKF for availability

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

d_a **6 3/8 – 6 3/4** in

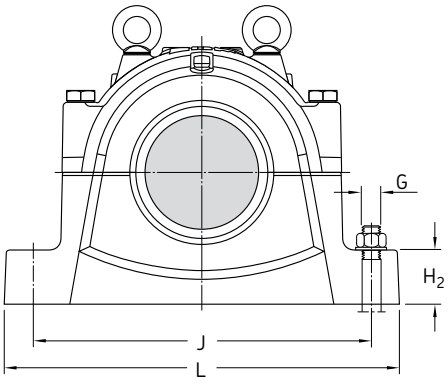


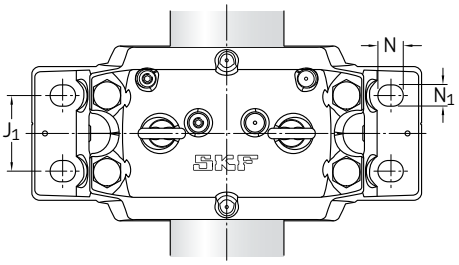
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions													Mass	Designations		
															Housings	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G	G				
in/mm	mm												in	kg	–		
6 3/8 161,925	230	180	333	170	70	430	100	510	34	28	14	24	1	69,5	**SNL 3036**	TS 36/6.3/8 TNF 36/6.3/8	ETS 36 ETS 36
	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3138** **SNL 3138**	TS 38/6.3/8 TNF 38/6.3/8	ETS 38 ETS 38
6 7/16 163,513	230	180	333	170	70	430	100	510	34	28	14	24	1	69,5	**SNL 3036** **SNL 3036**	TS 36/6.7/16 TNF 36/6.7/16	ETS 36 ETS 36
	240	190	353	180	75	450	110	530	34	28	15	24	1	77,5	**SNL 3136** **SNL 3136**	TS 36/6.7/16 TNF 36/6.7/16	ETS 36 ETS 36
	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3236** **SNL 3236**	TS 38/6.7/16 TNF 38/6.7/16	ETS 38 ETS 38
	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3138** **SNL 3138**	TS 38/6.7/16 TNF 38/6.7/16	ETS 38 ETS 38
6 1/2 165,100	230	180	333	170	70	430	100	510	34	28	14	24	1	69,5	**SNL 3036** **SNL 3036**	TS 36/6.1/2 TNF 36/6.1/2	ETS 36 ETS 36
	240	190	353	180	75	450	110	530	34	28	15	24	1	77,5	**SNL 3136** **SNL 3136**	TS 36/6.1/2 TNF 36/6.1/2	ETS 36 ETS 36
	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3138** **SNL 3138**	TS 38/6.1/2 TNF 38/6.1/2	ETS 38 ETS 38
	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3236** **SNL 3236**	TS 38/6.1/2 TNF 38/6.1/2	ETS 38 ETS 38
6 3/4 171,450	240	190	353	180	75	450	110	530	34	28	15	24	1	77,5	**SNL 3038** **SNL 3038**	TS 38/6.3/4 TNF 38/6.3/4	ETS 38 ETS 38
	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3138** **SNL 3138**	TS 38/6.3/4 TNF 38/6.3/4	ETS 38 ETS 38
	280	230	411	210	85	510	130	610	42	35	10	30	1 1/4	123	**SNL 3140** **SNL 3140**	TS 40/6.3/4 TNF 40/6.3/4	ETS 40 ETS 40
	280	230	411	210	85	510	130	610	42	35	10	30	1 1/4	123	**SNL 3238** **SNL 3238**	TS 40/6.3/4 TNF 40/6.3/4	ETS 40 ETS 40
	310	260	474	240	95	600	150	700	42	35	12	30	1 1/4	187	**SNL 3148** **SNL 3148**	TS 48/6.3/4 TNF 48/6.3/4	ETS 48 ETS 48





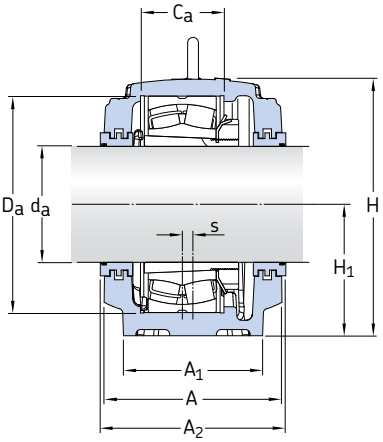
C

Shaft	Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3				
in/mm	mm		mm		–	–		
6 3/8 161,925	108	280	240	304	M 16	**23036 CCK/W33** **C 3036 K**	H 3036/6.3/8 H 3036/6.3/8	2 FRB 17/280 2 FRB 17/280
	124	320	270	334	M 20	**22236 CCK/W33** **–**	H 3136/6.3/8 –	2 FRB 19/320 –
6 7/16 163,513	108	280	240	304	M 16	**23036 CCK/W33** **C 3036 K**	HA 3036 HA 3036	2 FRB 17/280 2 FRB 17/280
	116	300	250	317	M 16	**23136 CCK/W33** **C 3136 K**	HA 3136 HA 3136 L	2 FRB 10/300 2 FRB 10/300
	124	320	270	334	M 20	**23236 CCK/W33** **C 3236 K**	HA 2336 HA 2336	2 FRB 6/320 2 FRB 6/320
	124	320	270	334	M 20	**22236 CCK/W33** **–**	HA 3136 –	2 FRB 19/320 –
6 1/2 165,100	108	280	240	304	M 16	**23036 CCK/W33** **C 3036 K**	HE 3036 HE 3036	2 FRB 17/280 2 FRB 17/280
	116	300	250	317	M 16	**23136 CCK/W33** **C 3136 K**	HE 3136 HE 3136 L	2 FRB 10/300 2 FRB 10/300
	124	320	270	334	M 20	**22236 CCK/W33** **–**	HE 3136 –	2 FRB 19/320 –
	124	320	270	334	M 20	**23236 CCK/W33** **C 3236 K**	HE 2336 HE 2336	2 FRB 6/320 2 FRB 6/320
6 3/4 171,450	115	290	250	318	M 16	**23038 CCK/W33** **C 3038 K**	HE 3038 HE 3038	4 FRB 10/290 4 FRB 10/290
	124	320	270	334	M 20	**23138 CCK/W33** **C 3138 K**[1)]	HE 3138 HE 3138 L	2 FRB 10/320 2 FRB 10/320
	132	340	290	351	M 20	**22238 CCK/W33** **C 2238 K**	HE 3138 HE 3138	4 FRB 10/340 4 FRB 10/340
	132	340	290	351	M 20	**23238 CCK/W33** **–**	HE 2338 –	2 FRB 6/340 –
	148	400	315	404	M 24	**22338 CKK/W33** **–**	HE 2338 –	2 FRB 8/400 –

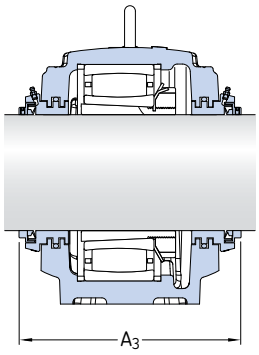
[1)] Check with SKF for availability

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

d_a **6 13/16 – 6 15/16** in

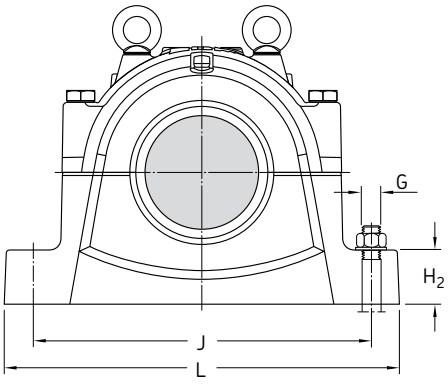


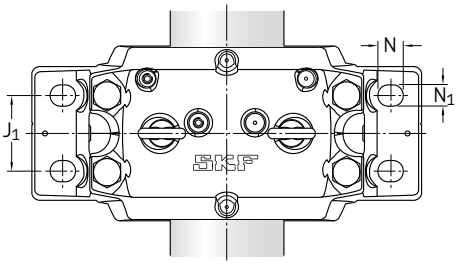
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions													Mass	Designations		
															Housings	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G	G				
in/mm	mm												in	kg	–		
6 13/16 173,038	240	190	353	180	75	450	110	530	34	28	15	24	1	77,5	**SNL 3038**	TS 38/6.13/16	ETS 38
															SNL 3038	TNF 38/6.13/16	ETS 38
	280	230	411	210	85	510	130	610	42	35	10	30	1 1/4	123	**SNL 3140**	TS 40/6.13/16	ETS 40
															SNL 3140	TNF 40/6.13/16	ETS 40
	280	230	411	210	85	510	130	610	42	35	10	30	1 1/4	123	**SNL 3238**	TS 40/6.13/16	ETS 40
															SNL 3238	TNF 40/6.13/16	ETS 40
	310	260	474	240	95	600	150	700	42	35	12	30	1 1/4	187	**SNL 3148**	TS 48/6.13/16	ETS 48
															SNL 3148	TNF 48/6.13/16	ETS 48
6 7/8 174,625	240	190	353	180	75	450	110	530	34	28	15	24	1	77,5	**SNL 3038**	TS 38/6.7/8	ETS 38
															SNL 3038	TNF 38/6.7/8	ETS 38
	280	230	411	210	85	510	130	610	42	35	10	30	1 1/4	123	**SNL 3140**	TS 40/6.7/8	ETS 40
															SNL 3140	TNF 40/6.7/8	ETS 40
	280	230	411	210	85	510	130	610	42	35	10	30	1 1/4	123	**SNL 3238**	TS 40/6.7/8	ETS 40
															SNL 3238	TNF 40/6.7/8	ETS 40
	310	260	474	240	95	600	150	700	42	35	12	30	1 1/4	187	**SNL 3148**	TS 48/6.7/8	ETS 48
															SNL 3148	TNF 48/6.7/8	ETS 48
6 15/16 176,213	240	190	353	180	75	450	110	530	34	28	15	24	1	77,5	**SNL 3038**	TS 38/6.15/16	ETS 38
															SNL 3038	TNF 38/6.15/16	ETS 38
	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3138**	TS 38/6.15/16	ETS 38
															SNL 3138	TNF 38/6.15/16	ETS 38
	280	230	411	210	85	510	130	610	42	35	10	30	1 1/4	123	**SNL 3238**	TS 40/6.15/16	ETS 40
															SNL 3238	TNF 40/6.15/16	ETS 40
	280	230	411	210	85	510	130	610	42	35	10	30	1 1/4	123	**SNL 3140**	TS 40/6.15/16	ETS 40
															SNL 3140	TNF 40/6.15/16	ETS 40
	310	260	474	240	95	600	150	700	42	35	12	30	1 1/4	187	**SNL 3148**	TS 48/6.15/16	ETS 48
															SNL 3148	TNF 48/6.15/16	ETS 48





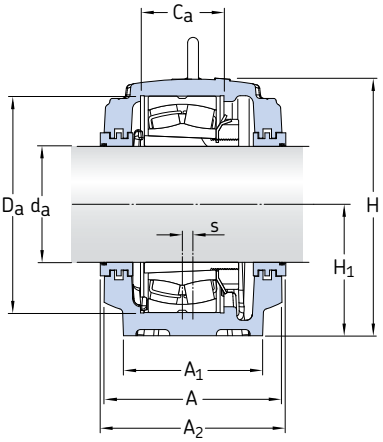
C

Shaft	Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3				
in/mm	mm		mm		–	–		
6 13/16 173,038	115	290	250	318	M 16	**23038 CCK/W33** **C 3038 K**	H 3038/6.13/16 H 3038/6.13/16	4 FRB 10/290 4 FRB 10/290
	132	340	290	351	M 20	**22238 CCK/W33** **C 2238 K**	H 3138/6.13/16 H 3138/6.13/16	4 FRB 10/340 4 FRB 10/340
	132	340	290	351	M 20	**23238 CCK/W33** **–**	H 2338/6.13/16 –	2 FRB 6/340 –
	148	400	315	404	M 24	**22338 CCK/W33** **–**	H 2338/6.13/16 –	2 FRB 8/400 –
6 7/8 174,625	115	290	250	318	M 16	**23038 CCK/W33** **C 3038 K**	H 3038/6.7/8 H 3038/6.7/8	4 FRB 10/290 4 FRB 10/290
	132	340	290	351	M 20	**22238 CCK/W33** **C 2238 K**	H 3138/6.7/8 H 3138/6.7/8	4 FRB 10/340 4 FRB 10/340
	132	340	290	351	M 20	**23238 CCK/W33** **–**	H 2338/6.7/8 –	2 FRB 6/340 –
	148	400	315	404	M 24	**22338 CCK/W33** **–**	H 2338/6.7/8 –	2 FRB 8/400 –
6 15/16 176,213	115	290	250	318	M 16	**23038 CCK/W33** **C 3038 K**	HA 3038 HA 3038	4 FRB 10/290 4 FRB 10/290
	124	320	270	334	M 20	**23138 CCK/W33** **C 3138 K**[1)]	HA 3138 HA 3138 L	2 FRB 10/320 2 FRB 10/320
	132	340	290	351	M 20	**23238 CCK/W33** **–**	HA 2338 –	2 FRB 6/340 –
	132	340	290	351	M 20	**22238 CCK/W33** **–**	HA 3138 –	4 FRB 10/340 –
	148	400	315	404	M 24	**22338 CCK/W33** **–**	HA 2338 –	2 FRB 8/400 –

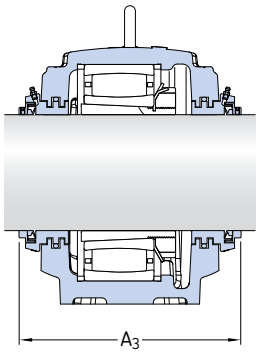
[1)] Check with SKF for availability

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

d_a **7 – 7 1/8** in

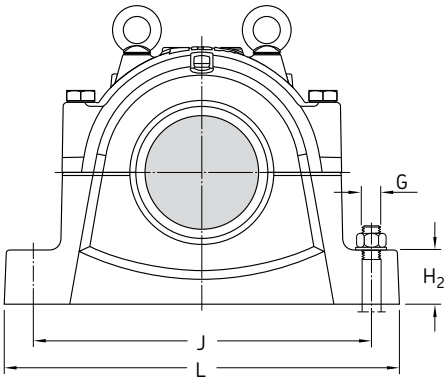


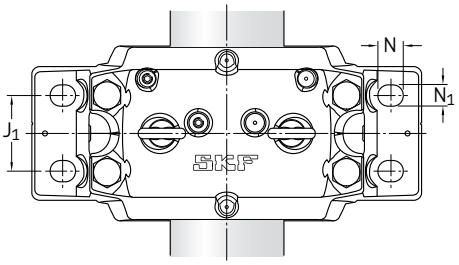
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions													Mass	Designations		
															Housings	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G	G				
in/mm	mm												in	kg	–		
7 177,800	240	190	353	180	75	450	110	530	34	28	15	24	1	77,5	**SNL 3038** **SNL 3038**	TS 38/7 TNF 38/7	ETS 38 ETS 38
	280	230	411	210	85	510	130	610	42	35	10	30	1 1/4	123	**SNL 3140** **SNL 3140**	TS 40/7 TNF 40/7	ETS 40 ETS 40
	280	230	411	210	85	510	130	610	42	35	10	30	1 1/4	123	**SNL 3238** **SNL 3238**	TS 40/7 TNF 40/7	ETS 40 ETS 40
	310	260	474	240	95	600	150	700	42	35	12	30	1 1/4	187	**SNL 3148** **SNL 3148**	TS 48/7 TNF 48/7	ETS 48 ETS 48
	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3040** **SNL 3040**	TS 40/7 TNF 40/7	ETS 40 ETS 40
	280	230	411	210	85	510	130	610	42	35	10	30	1 1/4	123	**SNL 3140** **SNL 3140**	TS 40/7 TNF 40/7	ETS 40 ETS 40
	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3048** **SNL 3048**	TS 48/7 TNF 48/7	ETS 48 ETS 48
	290	240	434	220	90	540	140	640	42	35	12	30	1 1/4	139	**SNL 3240** **SNL 3240**	TS 48/7 TNF 48/7	ETS 48 ETS 48
	320	280	516	260	100	650	160	770	50	42	13	36	1 1/2	221	**SNL 3056** **SNL 3056**	TS 56/7 TNF 56/7	ETS 56 ETS 56
7 1/8 180,975	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3040** **SNL 3040**	TS 40/7.1/8 TNF 40/7.1/8	ETS 40 ETS 40
	290	240	434	220	90	540	140	640	42	35	12	30	1 1/4	138	**SNL 3048** **SNL 3048**	TS 48/7.1/8 TNF 48/7.1/8	ETS 48 ETS 48
	290	240	434	220	90	540	140	640	42	35	12	30	1 1/4	139	**SNL 3240** **SNL 3240**	TS 48/7.1/8 TNF 48/7.1/8	ETS 48 ETS 48
	320	280	516	260	100	650	160	770	50	42	13	36	1 1/2	221	**SNL 3056** **SNL 3056**	TS 56/7.1/8 TNF 56/7.1/8	ETS 56 ETS 56



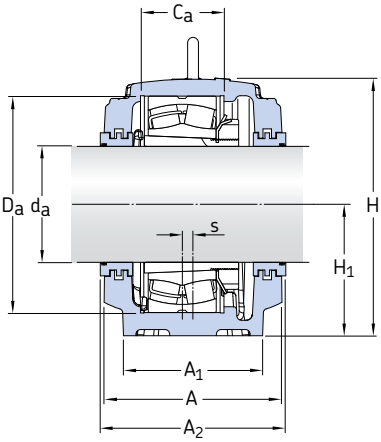


C

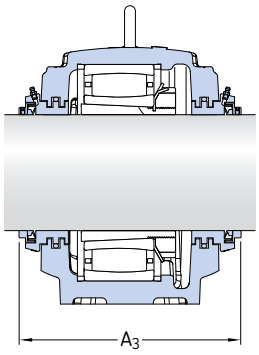
Shaft	Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3				
in/mm	mm		mm		–	–		
7 177,800	115	290	250	318	M 16	**23038 CCK/W33** **C 3038 K**	H 3038/7 H 3038/7	4 FRB 10/290 4 FRB 10/290
	132	340	290	351	M 20	**22238 CCK/W33** **C 2238 K**	H 3138/7 H 3138/7	4 FRB 10/340 4 FRB 10/340
	132	340	290	351	M 20	**23238 CCK/W33** **–**	H 2338/7 –	2 FRB 6/340 –
	148	400	315	404	M 24	**22338 CCK/W33** **–**	H 2338/7 –	2 FRB 8/400 –
	122	310	270	331	M 20	**23040 CCK/W33** **C 3040 K**	HE 3040 HE 3040	4 FRB 10/310 4 FRB 10/310
	132	340	290	351	M 20	**23140 CCK/W33** **C 3140 K**	HE 3140 HE 3140	2 FRB 10/340 2 FRB 10/340
	122	310	270	331	M 20	**22240 CCK/W33** **–**	HE 3140 –	2 FRB 21/360 –
	140	360	300	383	M 20	**23240 CCK/W33** **–**	HE 2340 –	2 FRB 6/360 –
	166	420	330	413	M 24	**22340 CCK/W33** **–**	HE 2340 –	2 FRB 14/420 –
7 1/8 180,975	122	310	270	331	M 20	**23040 CCK/W33** **C 3040 K**	H 3040/7.1/8 H 3040/7.1/8	4 FRB 10/310 4 FRB 10/310
	140	360	300	387	M 20	**22240 CCK/W33** **–**	H 3140/7.1/8 –	2 FRB 21/360 –
	140	360	300	383	M 20	**23240 CCK/W33** **–**	H 2340/7.1/8 –	2 FRB 6/360 –
	166	420	330	413	M 24	**22340 CCK/W33** **–**	H 2340/7.1/8 –	2 FRB 14/420 –

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

d_a **7 3/16 – 7 7/8** in

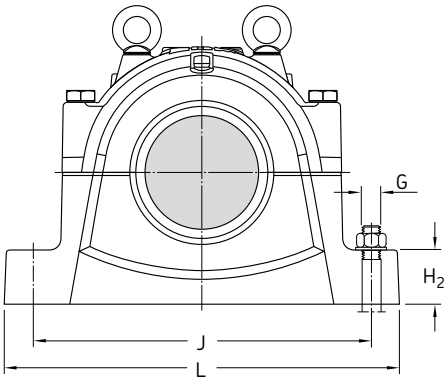


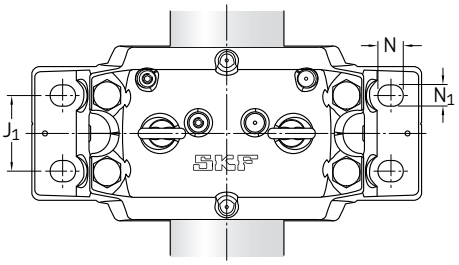
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions													Mass	Designations		
															Housings	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G	G				
in/mm	mm												in	kg	–		
7 3/16 182,563	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3040**	TS 40/7.3/16	ETS 40
															SNL 3040	TNF 40/7.3/16	ETS 40
	280	230	411	210	85	510	130	610	42	35	10	30	1 1/4	123	**SNL 3140**	TS 40/7.3/16	ETS 40
															SNL 3140	TNF 40/7.3/16	ETS 40
	290	240	434	220	90	540	140	640	42	35	12	30	1 1/4	139	**SNL 3240**	TS 48/7.3/16	ETS 48
															SNL 3240	TNF 48/7.3/16	ETS 48
	290	240	434	220	90	540	140	640	42	35	12	30	1 1/4	138	**SNL 3048**	TS 48/7.3/16	ETS 48
															SNL 3048	TNF 48/7.3/16	ETS 48
	320	280	516	260	100	650	160	770	50	42	13	36	1 1/2	221	**SNL 3056**	TS 56/7.3/16	ETS 56
															SNL 3056	TNF 56/7.3/16	ETS 56
7 1/4 184,150	260	210	375	190	80	480	120	560	34	28	10	24	1	97,5	**SNL 3040**	TS 40/7.1/4	ETS 40
															SNL 3040	TNF 40/7.1/4	ETS 40
	290	240	434	220	90	540	140	640	42	35	12	30	1 1/4	138	**SNL 3048**	TS 48/7.1/4	ETS 48
															SNL 3048	TNF 48/7.1/4	ETS 48
	290	240	434	220	90	540	140	640	42	35	12	30	1 1/4	139	**SNL 3240**	TS 48/7.1/4	ETS 48
															SNL 3240	TNF 48/7.1/4	ETS 48
	320	280	516	260	100	650	160	770	50	42	13	36	1 1/2	221	**SNL 3056**	TS 56/7.1/4	ETS 56
															SNL 3056	TNF 56/7.1/4	ETS 56
7 13/16 198,438	280	230	411	210	85	510	130	610	42	35	10	30	1 1/4	123	**SNL 3044**	TS 44/7.13/16	ETS 44
															SNL 3044	TNF 44/7.13/16	ETS 44
	310	260	474	240	95	600	150	700	42	35	12	30	1 1/4	187	**SNL 3148**	TS 48/7.13/16	ETS 48
															SNL 3148	TNF 48/7.13/16	ETS 48
7 7/8 200,025	280	230	411	210	85	510	130	610	42	35	10	30	1 1/4	123	**SNL 3044**	TS 44/7.7/8	ETS 44
															SNL 3044	TNF 44/7.7/8	ETS 44
	310	260	474	240	95	600	150	700	42	35	12	30	1 1/4	187	**SNL 3148**	TS 48/7.7/8	ETS 48
															SNL 3148	TNF 48/7.7/8	ETS 48



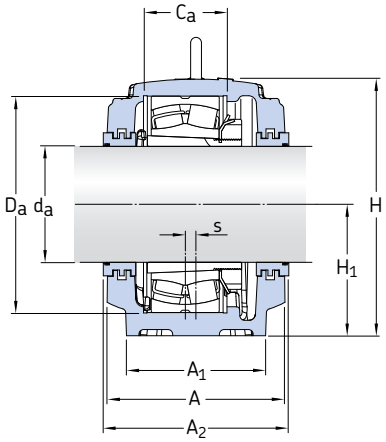


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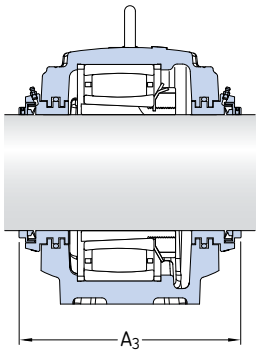
Shaft	Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3				
in/mm	mm		mm		–	–		
7 3/16 182,563	122	310	270	331	M 20	**23040 CCK/W33** **C 3040 K**	HA 3040 HA 3040	4 FRB 10/310 4 FRB 10/310
	132	340	290	351	M 20	**23140 CCK/W33** **C 3140 K**	HA 3140 HA 3140	2 FRB 10/340 2 FRB 10/340
	140	360	300	383	M 20	**23240 CCK/W33** **–**	HA 2340 –	2 FRB 6/360 –
	140	360	300	387	M 20	**22240 CCK/W33** **–**	HA 3140 –	2 FRB 21/360 –
	166	420	330	413	M 24	**22340 CCK/W33** **–**	HA 2340 –	2 FRB 14/420 –
7 1/4 184,150	122	310	270	331	M 20	**23040 CCK/W33** **C 3040 K**	H 3040/7.1/4 H 3040/7.1/4	4 FRB 10/310 4 FRB 10/310
	140	360	300	387	M 20	**22240 CCK/W33** **–**	H 3140/7.1/4 –	2 FRB 21/360 –
	140	360	300	383	M 20	**23240 CCK/W33** **–**	H 2340/7.1/4 –	2 FRB 6/360 –
	166	420	330	413	M 24	**22340 CCK/W33** **–**	H 2340/7.1/4 –	2 FRB 14/420 –
7 13/16 198,438	130	340	290	353	M 20	**23044 CCK/W33** **C 3044 K**	OH 3044/7.13/16 H OH 3044/7.13/16 H	4 FRB 10/340 4 FRB 10/340
	148	400	315	404	M 24	**22244 CCK/W33** **–**	OH 3144/7.13/16 H –	4 FRB 10/400 –
7 7/8 200,025	130	340	290	353	M 20	**23044 CCK/W33** **C 3044 K**	OH 3044/7.7/8 H OH 3044/7.7/8 H	4 FRB 10/340 4 FRB 10/340
	148	400	315	404	M 24	**22244 CCK/W33** **–**	OH 3144/7.7/8 H –	4 FRB 10/400 –

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

d_a **7 15/16 – 8 15/16** in

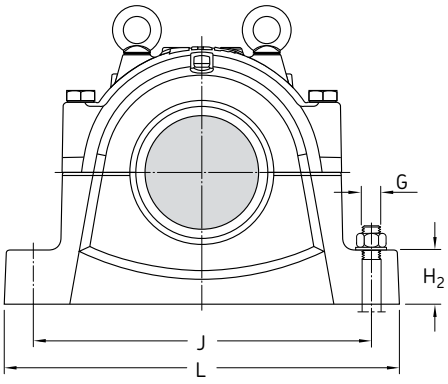


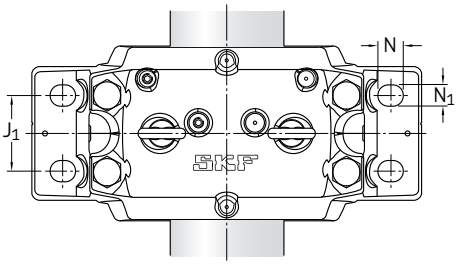
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions													Mass	Designations		
															Housings	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G	G				
in/mm	mm												in	kg	–		
7 15/16 201,613	280	230	411	210	85	510	130	610	42	35	10	30	1 1/4	123	**SNL 3044**	TS 44/7.15/16	ETS 44
															SNL 3044	TNF 44/7.15/16	ETS 44
	290	240	434	220	90	540	140	640	42	35	12	30	1 1/4	138	**SNL 3144**	TS 44/7.15/16	ETS 44
															SNL 3144	TNF 44/7.15/16	ETS 44
	310	260	474	240	95	600	150	700	42	35	12	30	1 1/4	187	**SNL 3148**	TS 48/7.15/16	ETS 48
															SNL 3148	TNF 48/7.15/16	ETS 48
	310	260	474	240	95	600	150	700	42	35	12	30	1 1/4	187	**SNL 3244**	TS 48/7.15/16	ETS 48
															SNL 3244	TNF 48/7.15/16	ETS 48
	320	280	516	260	100	650	160	770	50	42	16	36	1 1/2	252	**SNL 3156**	TS 56/7.15/16	ETS 56
															SNL 3156	TNF 56/7.15/16	ETS 56
8 203,200	280	230	411	210	85	510	130	610	42	35	10	30	1 1/4	123	**SNL 3044**	TS 44/8	ETS 44
															SNL 3044	TNF 44/8	ETS 44
	310	260	474	240	95	600	150	700	42	35	12	30	1 1/4	187	**SNL 3148**	TS 48/8	ETS 48
															SNL 3148	TNF 48/8	ETS 48
8 7/16 214,312	290	240	434	220	90	540	140	640	42	35	12	30	1 1/4	138	**SNL 3048**	TS 48/8.7/16	ETS 48
															SNL 3048	TNF 48/8.7/16	ETS 48
	320	280	516	260	100	650	160	770	50	42	13	36	1 1/2	221	**SNL 3152**	TS 52/8.7/16	ETS 52
															SNL 3152	TNF 52/8.7/16	ETS 52
8 1/2 215,900	290	240	434	220	90	540	140	640	42	35	12	30	1 1/4	138	**SNL 3048**	TS 48/8.1/2	ETS 48
															SNL 3048	TNF 48/8.1/2	ETS 48
	320	280	516	260	100	650	160	770	50	42	13	36	1 1/2	221	**SNL 3152**	TS 52/8.1/2	ETS 52
															SNL 3152	TNF 52/8.1/2	ETS 52
8 15/16 227,013	290	240	434	220	90	540	140	640	42	35	12	30	1 1/4	138	**SNL 3048**	TS 48/8.15/16	ETS 48
															SNL 3048	TNF 48/8.15/16	ETS 48
	310	260	474	240	95	600	150	700	42	35	12	30	1 1/4	187	**SNL 3148**	TS 48/8.15/16	ETS 48
															SNL 3148	TNF 48/8.15/16	ETS 48
	320	280	516	260	100	650	160	770	50	42	13	36	1 1/2	221	**SNL 3248**	TS 52/8.15/16	ETS 52
															SNL 3248	TNF 52/8.15/16	ETS 52
	320	280	516	260	100	650	160	770	50	42	13	36	1 1/2	221	**SNL 3152**	TS 52/8.15/16	ETS 52
															SNL 3152	TNF 52/8.15/16	ETS 52
	350	310	591	300	110	710	190	830	50	42	22	36	1 1/2	301	**SNL 3160**	TS 60/8.15/16	ETS 60
															SNL 3160	TNF 60/8.15/16	ETS 60



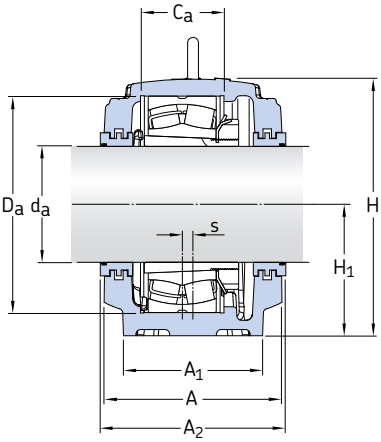


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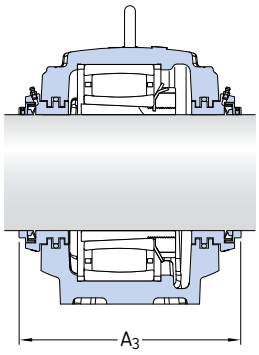
Shaft	Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3				
in/mm	mm		mm		–	–		
7 15/16 201,613	130	340	290	353	M 20	**23044 CCK/W33** **C 3044 K**	H 3044/7.15/16 H 3044/7.15/16	4 FRB 10/340 4 FRB 10/340
	140	370	300	361	M 20	**23144 CCK/W33** **C 3144 K**	H 3144/7.15/16 H 3144/7.15/16 TL	2 FRB 10/370 2 FRB 10/370
	148	400	315	404	M 24	**22244 CCK/W33** **C 2244 K**	H 3144/7.15/16 H 3144/7.15/16	4 FRB 10/400 4 FRB 10/400
	164	400	315	404	M 24	**23244 CCK/W33** –	H 2344/7.15/16 –	2 FRB 10/400 –
	166	460	330	412	M 24	**22344 CCK/W33** –	H 2344/7.15/16 –	2 FRB 10.5/460 –
8 203,200	130	340	290	353	M 20	**23044 CCK/W33** **C 3044 K**	H 3044/8 H 3044/8	4 FRB 10/340 4 FRB 10/340
	148	400	315	404	M 24	**22244 CCK/W33** **C 2244 K**	H 3144/8 H 3144/8	4 FRB 10/400 4 FRB 10/400
8 7/16 214,312	140	360	300	387	M 20	**23048 CCK/W33** **C 3048 K**	OH 3048/8.7/16 H OH 3048/8.7/16 H	4 FRB 12/360 4 FRB 12/360
	164	440	330	414	M 24	**22248 CCK/W33** –	OH 3148/8.7/16 H –	2 FRB 22/440 –
8 1/2 215,900	140	360	300	387	M 20	**23048 CCK/W33** **C 3048 K**	OH 3048/8.1/2 H OH 3048/8.1/2 H	4 FRB 12/360 4 FRB 12/360
	164	440	330	414	M 24	**22248 CCK/W33** –	OH 3148/8.1/2 H –	2 FRB 22/440 –
8 15/16 227,013	140	360	300	387	M 20	**23048 CCK/W33** **C 3048 K**	H 3048/8.15/16 H 3048/8.15/16	4 FRB 12/360 4 FRB 12/360
	148	400	315	404	M 24	**23148 CCK/W33** **C 3148 K**	H 3148/8.15/16 H 3148/8.15/16 TL	2 FRB 10/400 2 FRB 10/400
	180	440	330	414	M 24	**23248 CCK/W33** –	H 2348/8.15/16 –	2 FRB 10/440 –
	164	440	330	414	M 24	**22248 CCK/W33** –	H 3148/8.15/16 –	2 FRB 22/440 –
	180	500	360	442	M 30	**22348 CCK/W33** –	H 2348/8.15/16 –	2 FRB 12.5/500 –

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

d_a **9 7/16 – 10 7/16** in

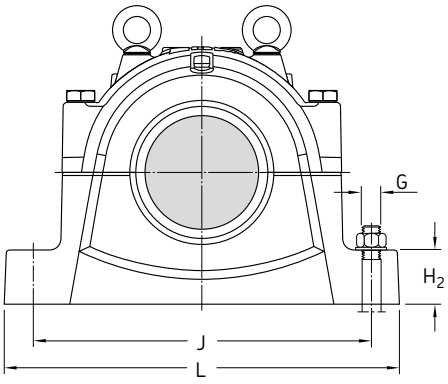


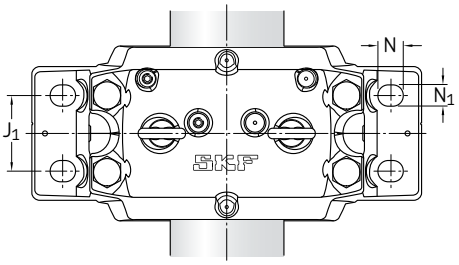
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions													Mass	Designations		
															Housings	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G	G				
in/mm	mm												in	kg	–		
9 7/16 239,713	310	260	474	240	95	600	150	700	42	35	12	30	1 1/4	187	**SNL 3052** **SNL 3052**	TS 52/9.7/16 TNF 52/9.7/16	ETS 52 ETS 52
	320	280	516	260	100	650	160	770	50	42	13	36	1 1/2	221	**SNL 3152** **SNL 3152**	TS 52/9.7/16 TNF 52/9.7/16	ETS 52 ETS 52
	350	310	591	300	110	710	190	830	50	42	22	36	1 1/2	301	**SNL 3252** **SNL 3252**	TS 64/9.7/16 TNF 64/9.7/16	ETS 64 ETS 64
9 1/2 241,300	310	260	474	240	95	600	150	700	42	35	12	30	1 1/4	187	**SNL 3052** **SNL 3052**	TS 52/9.1/2 TNF 52/9.1/2	ETS 52 ETS 52
	320	280	516	260	100	650	160	770	50	42	13	36	1 1/2	221	**SNL 3152** **SNL 3152**	TS 52/9.1/2 TNF 52/9.1/2	ETS 52 ETS 52
	350	310	591	300	110	710	190	830	50	42	22	36	1 1/2	301	**SNL 3064** **SNL 3064**	TS 64/9.1/2 TNF 64/9.1/2	ETS 64 ETS 64
	350	310	591	300	110	710	190	830	50	42	22	36	1 1/2	301	**SNL 3252** **SNL 3252**	TS 64/9.1/2 TNF 64/9.1/2	ETS 52 ETS 52
	370	330	631	320	115	750	200	880	50	42	23	36	1 1/2	339	**SNL 3164** **SNL 3164**	TS 64/9.1/2 TNF 64/9.1/2	ETS 64 ETS 64
9 15/16 252,413	320	280	516	260	100	650	160	770	50	42	13	36	1 1/2	221	**SNL 3056** **SNL 3056**	TS 56/9.15/16 TNF 56/9.15/16	ETS 56 ETS 56
10 254,000	320	280	516	260	100	650	160	770	50	42	13	36	1 1/2	221	**SNL 3056** **SNL 3056**	TS 56/10 TNF 56/10	ETS 56 ETS 56
	320	280	551	280	105	670	160	790	50	42	16	36	1 1/2	252	**SNL 3156** **SNL 3156**	TS 56/10 TNF 56/10	ETS 56 ETS 56
	350	310	591	300	110	710	190	830	50	42	22	36	1 1/2	301	**SNL 3160** **SNL 3160**	TS 60/10 TNF 60/10	ETS 60 ETS 60
10 7/16 265,113	320	280	516	260	100	650	160	770	50	42	13	36	1 1/2	221	**SNL 3056** **SNL 3056**	TS 56/10.7/16 TNF 56/10.7/16	ETS 56 ETS 56
	320	280	551	280	105	670	160	790	50	42	16	36	1 1/2	252	**SNL 3156** **SNL 3156**	TS 56/10.7/16 TNF 56/10.7/16	ETS 56 ETS 56
	350	310	591	300	110	710	190	830	50	42	22	36	1 1/2	301	**SNL 3256** **SNL 3256**	TS 60/10.7/16 TNF 60/10.7/16	ETS 60 ETS 60
	350	310	591	300	110	710	190	830	50	42	22	36	1 1/2	301	**SNL 3160** **SNL 3160**	TS 60/10.7/16 TNF 60/10.7/16	ETS 60 ETS 60
	400	360	675	340	120	810	220	950	50	42	24	36	1 1/2	427	**SNL 3168 L** **SNL 3168 L**	TS 68/10.7/16 TNF 68/10.7/16	ETS 68 ETS 68



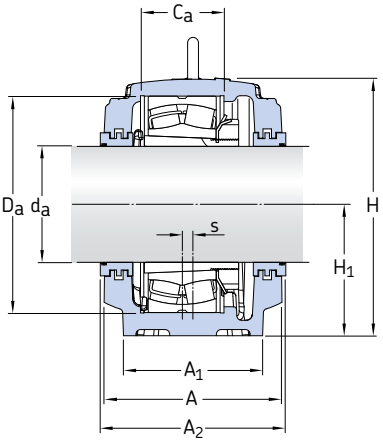


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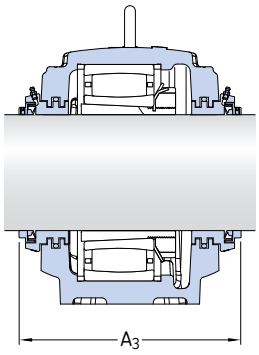
Shaft	Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3				
in/mm	mm		mm		–	–		
9 7/16 239,713	148	400	315	397	M 24	**23052 CCK/W33** **C 3052 K**	OH 3052/9.7/16 H OH 3052/9.7/16 H	2 FRB 22/400 2 FRB 22/400
	164	440	330	414	M 24	**23152 CCK/W33** **C 3152 K**	OH 3152/9.7/16 H OH 3152/9.7/16 HTL	2 FRB 10/440 2 FRB 10/440
	194	480	360	443	M 30	**23252 CCK/W33** **–**	OH 2352/9.7/16 H –	2 FRB 10/480 –
9 1/2 241,300	148	400	315	397	M 24	**23052 CCK/W33** **C 3052 K**	H 3052/9.1/2 H 3052/9.1/2	2 FRB 22/400 2 FRB 22/400
	164	440	330	414	M 24	**23152 CCK/W33** **C 3152 K**	H 3152/9.1/2 H 3152/9.1/2 TL	2 FRB 10/440 2 FRB 10/440
	181	480	360	443	M 30	**22252 CCK/W33** **–**	H 3152/9.1/2 –	2 FRB 25.5/480 –
	194	480	360	443	M 30	**23252 CCK/W33** **–**	H 2352/9.1/2 –	2 FRB 10/480 –
	196	540	380	462	M 30	**22352 CCK/W33** **–**	H 2352/9.1/2 –	2 FRB 15.5/540 –
9 15/16 252,413	166	420	330	413	M 24	**23056 CCK/W33** **C 3056 K**	OH 3056/9.15/16 H OH 3056/9.15/16 H	6 FRB 10/420 6 FRB 10/420
10 254,000	166	420	330	413	M 24	**23056 CCK/W33** **C 3056 K**	OH 3056/10 H OH 3056/10 H	6 FRB 10/420 6 FRB 10/420
	166	460	330	412	M 24	**23156 CCK/W33** **C 3156 K**	OH 3156/10 H OH 3156/10 HTL	2 FRB 10/460 2 FRB 10/460
	180	500	360	442	M 30	**22256 CCK/W33** **–**	OH 3156/10 H –	2 FRB 25/500 –
10 7/16 265,113	166	420	330	413	M 24	**23056 CCK/W33** **C 3056 K**	H 3056/10.7/16 H 3056/10.7/16	6 FRB 10/420 6 FRB 10/420
	166	460	330	412	M 24	**23156 CCK/W33** **C 3156 K**	H 3156/10.7/16 H 3156/10.7/16 TL	2 FRB 10/460 2 FRB 10/460
	196	500	360	442	M 30	**23256 CCK/W33** **–**	H 2356/10.7/16 –	2 FRB 10/500 –
	180	500	360	442	M 30	**22256 CCK/W33** **–**	H 3156/10.7/16 –	2 FRB 25/500 –
	210	580	410	491	M 30	**22356 CCK/W33** **–**	H 2356/10.7/16 –	2 FRB 17.5/580 –

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

d_a **10 1/2 – 11 1/2** in

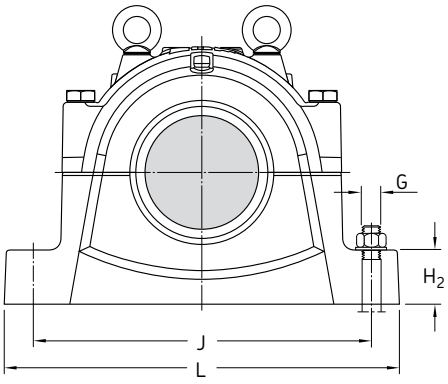


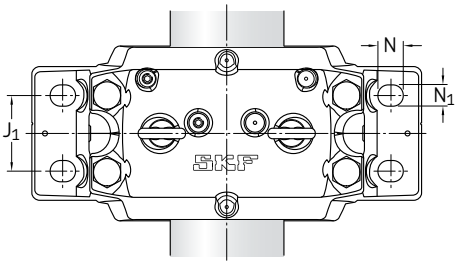
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions													Mass	Designations		
															Housings	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G	G				
in/mm	mm												in	kg	–		
10 1/2 266,700	320	280	516	260	100	650	160	770	50	42	13	36	1 1/2	221	**SNL 3056** **SNL 3056**	TS 56/10.1/2 TNF 56/10.1/2	ETS 56 ETS 56
	320	280	551	280	105	670	160	790	50	42	16	36	1 1/2	252	**SNL 3156** **SNL 3156**	TS 56/10.1/2 TNF 56/10.1/2	ETS 56 ETS 56
	350	310	591	300	110	710	190	830	50	42	22	36	1 1/2	301	**SNL 3160** **SNL 3160**	TS 60/10.1/2 TNF 60/10.1/2	ETS 60 ETS 60
	350	310	591	300	110	710	190	830	50	42	22	36	1 1/2	301	**SNL 3256** **SNL 3256**	TS 60/10.1/2 TNF 60/10.1/2	ETS 60 ETS 60
	400	360	675	340	120	810	220	950	50	42	24	36	1 1/2	427	**SNL 3168 L** **SNL 3168 L**	TS 68/10.1/2 TNF 68/10.1/2	ETS 68 ETS 68
10 15/16 277,813	320	280	551	280	105	670	160	790	50	42	16	36	1 1/2	252	**SNL 3060** **SNL 3060**	TS 60/10.15/16 TNF 60/10.15/16	ETS 60 ETS 60
	350	310	591	300	110	710	190	830	50	42	22	36	1 1/2	301	**SNL 3160** **SNL 3160**	TS 60/10.15/16 TNF 60/10.15/16	ETS 60 ETS 60
	370	330	631	320	115	750	200	880	50	42	23	36	1 1/2	339	**SNL 3260** **SNL 3260**	TS 64/10.15/16 TNF 64/10.15/16	ETS 64 ETS 64
	370	330	631	320	115	750	200	880	50	42	23	36	1 1/2	339	**SNL 3164** **SNL 3164**	TS 64/10.7/16 TNF 64/10.7/16	ETS 64 ETS 64
11 279,400	320	280	551	280	105	670	160	790	50	42	16	36	1 1/2	252	**SNL 3060** **SNL 3060**	TS 60/11 TNF 60/11	ETS 60 ETS 60
	350	310	591	300	110	710	190	830	50	42	22	36	1 1/2	301	**SNL 3160** **SNL 3160**	TS 60/11 TNF 60/11	ETS 60 ETS 60
	370	330	631	320	115	750	200	880	50	42	23	36	1 1/2	339	**SNL 3164** **SNL 3164**	TS 64/11 TNF 64/11	ETS 64 ETS 64
	370	330	631	320	115	750	200	880	50	42	23	36	1 1/2	339	**SNL 3260** **SNL 3260**	TS 64/11 TNF 64/11	ETS 64 ETS 64
11 7/16 290,513	350	310	591	300	110	710	190	830	50	42	22	36	1 1/2	301	**SNL 3064** **SNL 3064**	TS 64/11.7/16 TNF 64/11.7/16	ETS 64 ETS 64
11 1/2 292,100	400	360	675	340	120	810	220	950	50	42	24	36	1 1/2	430	**SNL 3168 F** **SNL 3168 F**	TS 68/11.1/2 TNF 68/11.1/2	ETS 68 ETS 68
	350	310	591	300	110	710	190	830	50	42	22	36	1 1/2	301	**SNL 3064** **SNL 3064**	TS 64/11.1/2 TNF 64/11.1/2	ETS 64 ETS 64



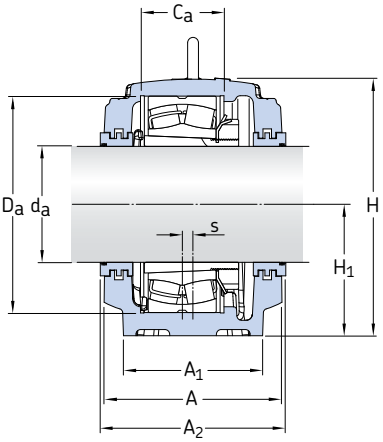


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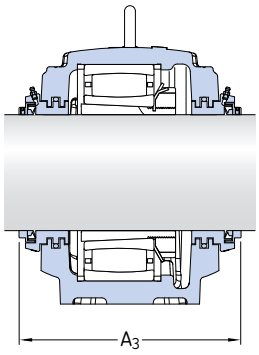
Shaft	Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3				
in/mm	mm		mm		–	–		
10 1/2 266,700	166	420	330	413	M 24	**23056 CCK/W33** **C 3056 K**	H 3056/10.1/2 H 3056/10.1/2	6 FRB 10/420 6 FRB 10/420
	166	460	330	412	M 24	**23156 CCK/W33** **C 3156 K**	H 3156/10.1/2 H 3156/10.1/2 TL	2 FRB 10/460 2 FRB 10/460
	180	500	360	442	M 30	**22256 CCK/W33** –	H 3156/10.1/2 –	2 FRB 25/500 –
	196	500	360	442	M 30	**23256 CCK/W33** –	H 2356/10.1/2 –	2 FRB 10/500 –
	210	580	410	491	M 30	**22356 CCK/W33** –	H 2356/10.1/2 –	2 FRB 17.5/580 –
10 15/16 277,813	168	460	330	412	M 24	**23060 CCK/W33** **C 3060 KM**	OH 3060/10.15/16 H OH 3060/10.15/16 H	2 FRB 25/460 2 FRB 25/460
	180	500	360	442	M 30	**23160 CCK/W33** **C 3160 K**	OH 3160/10.15/16 H OH 3160/10.15/16 H	2 FRB 10/500 2 FRB 10/500
	212	540	380	462	M 30	**23260 CCK/W33** –	OH 3260/10.15/16 H –	2 FRB 10/540 –
	196	540	380	462	M 30	**22260 CCK/W33** –	OH 3160/10.7/16 H –	2 FRB 28/540 –
11 279,400	168	460	330	412	M 24	**23060 CCK/W33** **C 3060 KM**	OH 3060/11 H OH 3060/11 H	2 FRB 25/460 2 FRB 25/460
	180	500	360	442	M 30	**23160 CCK/W33** **C 3160 K**	OH 3160/11 H OH 3160/11 H	2 FRB 10/500 2 FRB 10/500
	196	540	380	462	M 30	**22260 CCK/W33** –	OH 3160/11 H –	2 FRB 28/540 –
	212	540	380	462	M 30	**23260 CCK/W33** –	OH 3260/11 H –	2 FRB 10/540 –
11 7/16 290,513	181	480	360	443	M 30	**23064 CCK/W33** **C 3064 KM**	OH 3064/11.7/16 H OH 3064/11.7/16 H	6 FRB 10/480 6 FRB 10/480
11 1/2 292,100	190	580	410	491	M 30	**22264 CCK/W33** –	OH 3164/11.1/2 H –	2 FRB 20/580 –
	181	480	360	443	M 30	**23064 CCK/W33** **C 3064 KM**	OH 3064/11.1/2 H OH 3064/11.1/2 H	6 FRB 10/480 6 FRB 10/480

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

d_a **11 15/16 – 12 7/16** in

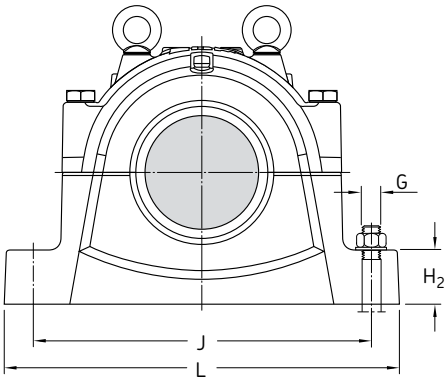


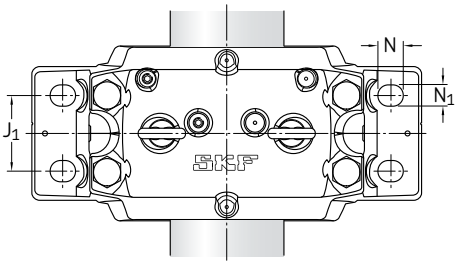
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions													Mass	Designations		
															Housings	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G	G				
in/mm	mm												in	kg	–		
11 15/16 303,213	350	310	591	300	110	710	190	830	50	42	22	36	1 1/2	301	**SNL 3064**	TS 64/11.15/16	ETS 64
															SNL 3064	TNF 64/11.15/16	ETS 64
	370	330	631	320	115	750	200	880	50	42	23	36	1 1/2	339	**SNL 3164**	TS 64/11.15/16	ETS 64
															SNL 3164	TNF 64/11.15/16	ETS 64
	400	360	675	340	120	810	220	950	50	42	24	36	1 1/2	430	**SNL 3264 F**	TS 68/11.15/16	ETS 68
															SNL 3264 F	TNF 68/11.15/16	ETS 68
	400	360	675	340	120	810	220	950	50	42	24	36	1 1/2	427	**SNL 3264 L**	TS 68/11.15/16	ETS 68
															SNL 3264 L	TNF 68/11.15/16	ETS 68
12 304,800	350	310	591	300	110	710	190	830	50	42	22	36	1 1/2	301	**SNL 3064**	TS 64/12	ETS 64
															SNL 3064	TNF 64/12	ETS 64
	370	330	631	320	115	750	200	880	50	42	23	36	1 1/2	339	**SNL 3164**	TS 64/12	ETS 64
															SNL 3164	TNF 64/12	ETS 64
	400	360	675	340	120	810	220	950	50	42	24	36	1 1/2	430	**SNL 3168 F**	TS 68/12	ETS 68
															SNL 3168 F	TNF 68/12	ETS 68
	400	360	675	340	120	810	220	950	50	42	24	36	1 1/2	430	**SNL 3264 F**	TS 68/12	ETS 68
															SNL 3264 F	TNF 68/12	ETS 68
	400	360	675	340	120	810	220	950	50	42	24	36	1 1/2	427	**SNL 3264 L**	TS 68/12	ETS 68
															SNL 3264 L	TNF 68/12	ETS 68
12 7/16 315,913	370	330	631	320	115	750	200	880	50	42	23	36	1 1/2	339	**SNL 3068**	TS 68/12.7/16	ETS 68
															SNL 3068	TNF 68/12.7/16	ETS 68
	400	360	675	340	120	810	220	950	50	42	24	36	1 1/2	430	**SNL 3168 F**	TS 68/12.7/16	ETS 68
															SNL 3168 F	TNF 68/12.7/16	ETS 68
	400	360	675	340	120	810	220	950	50	42	24	36	1 1/2	427	**SNL 3168 L**	TS 68/12.7/16	ETS 68
															SNL 3168 L	TNF 68/12.7/16	ETS 68
	400	360	715	360	120	870	220	1 040	50	42	30	36	1 1/2	473	**SNL 3268 F**	TS 76/12.7/16	ETS 76
															SNL 3268 F	TNF 76/12.7/16	ETS 76
	400	360	715	360	120	870	220	1 040	50	42	30	36	1 1/2	470	**SNL 3268 L**	TS 76/12.7/16	ETS 76
															SNL 3268 L	TNF 76/12.7/16	ETS 76



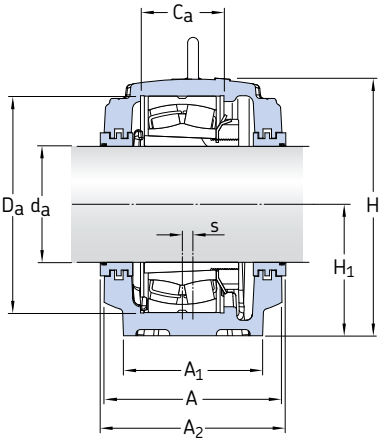


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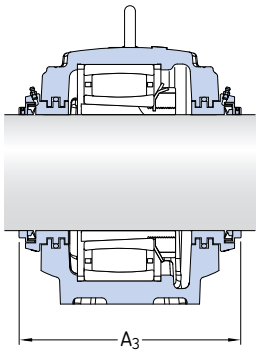
Shaft	Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3				
in/mm	mm		mm		–	–		
11 15/16 303,213	181	480	360	443	M 30	**23064 CCK/W33** **C 3064 KM**	H 3064/11.15/16 H 3064/11.15/16	6 FRB 10/480 6 FRB 10/480
	196	540	380	462	M 30	**23164 CCK/W33** **C 3164 KM**	H 3164/11.15/16 H 3164/11.15/16	2 FRB 10/540 2 FRB 10/540
	208	580	410	491	M 30	**23264 CCK/W33** **–**	H 3264/11.15/16 –	– –
	228	580	410	491	M 30	**23264 CCK/W33** **–**	H 3264/11.15/16 –	– –
12 304,800	181	480	360	443	M 30	**23064 CCK/W33** **C 3064 KM**	H 3064/12 H 3064/12	6 FRB 10/480 6 FRB 10/480
	196	540	380	462	M 30	**23164 CCK/W33** **C 3164 K**	H 3164/12 H 3164/12	2 FRB 10/540 2 FRB 10/540
	190	580	410	491	M 30	**22264 CCK/W33** **–**	H 3164/12 –	2 FRB 20/580 –
	208	580	410	491	M 30	**23264 CCK/W33** **–**	H 3264/12 –	– –
	228	580	410	491	M 30	**23264 CCK/W33** **–**	H 3264/12 –	– –
12 7/16 315,913	197	520	380	461	M 30	**23068 CCK/W33** **C 3068 KM**	OH 3068/12.7/16 H OH 3068/12.7/16 H	4 FRB 16/520 4 FRB 16/520
	190	580	410	491	M 30	**23168 CCK/W33** **C 3168 KM**	OH 3168/12.7/16 H OH 3168/12.7/16 H	– –
	210	580	410	491	M 30	**23168 CCK/W33** **–**	OH 3168/12.7/16 H –	– –
	224	620	410	491	M 36	**23268 CAK/W33** **–**	OH 3268/12.7/16 H –	– –
	244	620	410	491	M 36	**23268 CAK/W33** **–**	OH 3268/12.7/16 H –	– –

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

d_a **12 1/2 – 13 7/16** in

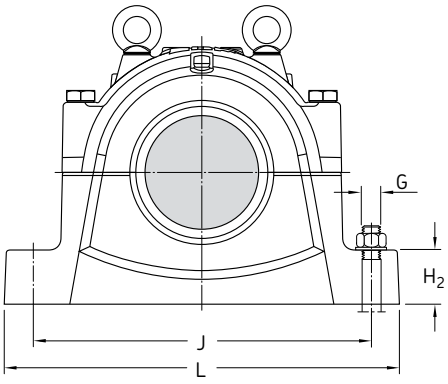


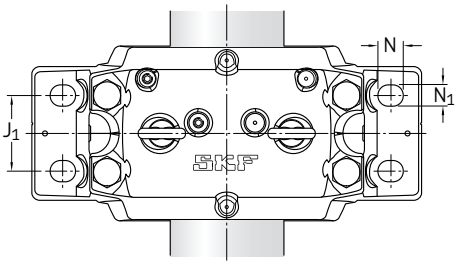
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions													Mass	Designations		
															Housings	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G	G				
in/mm	mm												in	kg	–		
12 1/2 317,500	370	330	631	320	115	750	200	880	50	42	23	36	1 1/2	339	**SNL 3068** **SNL 3068**	TS 68/12.1/2 TNF 68/12.1/2	ETS 68 ETS 68
	400	360	675	340	120	810	220	950	50	42	24	36	1 1/2	430	**SNL 3168 F** **SNL 3168 F**	TS 68/12.1/2 TNF 68/12.1/2	ETS 68 ETS 68
	400	360	675	340	120	810	220	950	50	42	24	36	1 1/2	427	**SNL 3168 L** **SNL 3168 L**	TS 68/12.1/2 TNF 68/12.1/2	ETS 68 ETS 68
	400	360	715	360	120	870	220	1 040	50	42	30	36	1 1/2	473	**SNL 3268 F** **SNL 3268 F**	TS 76/12.1/2 TNF 76/12.1/2	ETS 76 ETS 76
	400	360	715	360	120	870	220	1 040	50	42	30	36	1 1/2	470	**SNL 3268 L** **SNL 3268 L**	TS 76/12.1/2 TNF 76/12.1/2	ETS 76 ETS 76
12 15/16 328,613	370	330	631	320	115	750	200	880	50	42	23	36	1 1/2	339	**SNL 3072** **SNL 3072**	TS 72/12.15/16 TNF 72/12.15/16	ETS 72 ETS 72
13 330,200	370	330	631	320	115	750	200	880	50	42	23	36	1 1/2	339	**SNL 3072** **SNL 3072**	TS 72/13 TNF 72/13	ETS 72 ETS 72
	430	390	775	380	125	950	240	1 120	60	48	30	42	1 3/4	595	**SNL 3180 F** **SNL 3180 F**	TS 80/13 TNF 80/13	ETS 80 ETS 80
13 7/16 341,313	370	330	631	320	115	750	200	880	50	42	23	36	1 1/2	339	**SNL 3072** **SNL 3072**	TS 72/13.7/16 TNF 72/13.7/16	ETS 72 ETS 72
	400	360	695	350	120	840	220	1 000	50	42	30	36	1 1/2	458	**SNL 3172 F** **SNL 3172 F**	TS 72/13.7/16 TNF 72/13.7/16	ETS 72 ETS 72
	400	360	695	350	120	840	220	1 000	50	42	30	36	1 1/2	454	**SNL 3172 L** **SNL 3172 L**	TS 72/13.7/16 TNF 72/13.7/16	ETS 72 ETS 72
	430	390	775	380	125	950	240	1 120	60	48	30	42	1 3/4	595	**SNL 3272 F** **SNL 3272 F**	TS 80/13.7/16 TNF 80/13.7/16	ETS 80 ETS 80
	430	390	775	380	125	950	240	1 120	60	48	30	42	1 3/4	595	**SNL 3272 L** **SNL 3272 L**	TS 80/13.7/16 TNF 80/13.7/16	ETS 80 ETS 80



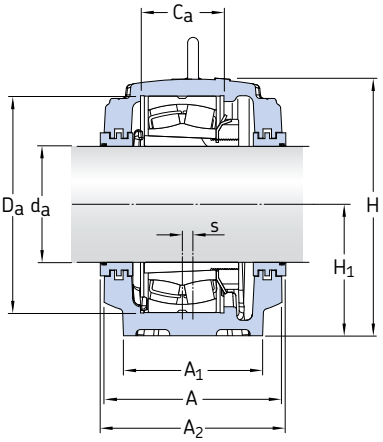


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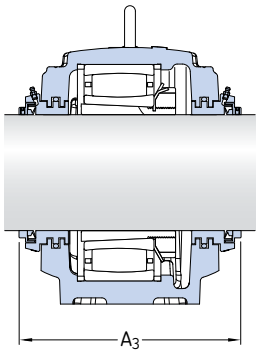
Shaft	Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3				
in/mm	mm		mm		–	–		
12 1/2 317,500	197	520	380	461	M 30	**23068 CCK/W33** **C 3068 KM**	OH 3068/12.1/2 H OH 3068/12.1/2 H	4 FRB 16/520 4 FRB 16/520
	190	580	410	491	M 30	**23168 CCK/W33** **C 3168 KM**	OH 3168/12.1/2 H OH 3168/12.1/2 H	– –
	210	580	410	491	M 30	**23168 CCK/W33** **–**	OH 3168/12.1/2 H –	– –
	224	620	410	491	M 36	**23268 CAK/W33** **–**	OH 3268/12.1/2 H –	– –
	244	620	410	491	M 36	**23268 CAK/W33** **–**	OH 3268/12.1/2 H –	– –
12 15/16 328,613	198	540	380	461	M 30	**23072 CCK/W33** **C 3072 KM**	OH 3072/12.15/16 H OH 3072/12.15/16 H	4 FRB 16/540 4 FRB 16/540
13 330,200	198	540	380	461	M 30	**23072 CCK/W33** **C 3072 KM**	OH 3072/13 H OH 3072/13 H	4 FRB 16/540 4 FRB 16/540
	200	650	440	521	M 42	**22272 CAK/W33** **–**	OH 3172/13 H –	2 FRB 25/650 –
13 7/16 341,313	198	540	380	461	M 30	**23072 CCK/W33** **C 3072 KM**	H 3072/13.7/16 H 3072/13.7/16	4 FRB 16/540 4 FRB 16/540
	192	600	410	491	M 36	**23172 CCK/W33** **C 3172 KM**	H 3172/13.7/16 H 3172/13.7/16	– –
	212	600	410	491	M 36	**23172 CCK/W33** **–**	H 3172/13.7/16 –	– –
	232	650	440	521	M 42	**23272 CAK/W33** **–**	H 3272/13.7/16 –	– –
	252	650	440	521	M 42	**23272 CAK/W33** **–**	H 3272/13.7/16 –	– –

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

d_a **13 1/2 – 13 15/16** in

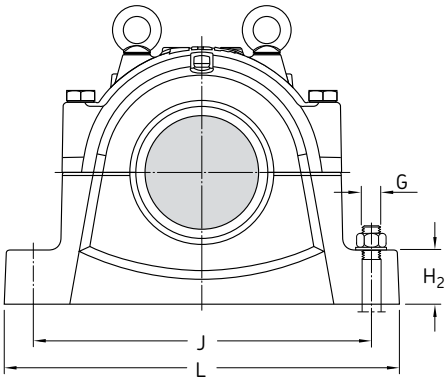


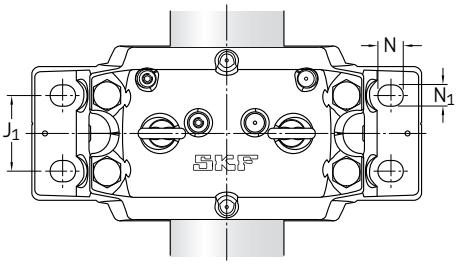
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions													Mass	Designations		
															Housings	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G	G				
in/mm	mm												in	kg	–		
13 1/2 342,900	370	330	631	320	115	750	200	880	50	42	23	36	1 1/2	339	**SNL 3072**	TS 72/13.1/2	ETS 72
															SNL 3072	TNF 72/13.1/2	ETS 72
	400	360	695	350	120	840	220	1 000	50	42	30	36	1 1/2	458	**SNL 3172 F**	TS 72/13.1/2	ETS 72
															SNL 3172 F	TNF 72/13.1/2	ETS 72
	400	360	695	350	120	840	220	1 000	50	42	30	36	1 1/2	454	**SNL 3172 L**	TS 72/13.1/2	ETS 72
															SNL 3172 L	TNF 72/13.1/2	ETS 72
	430	390	775	380	125	950	240	1 120	60	48	30	42	1 3/4	595	**SNL 3180 F**	TS 80/13.1/2	ETS 80
															SNL 3180 F	TNF 80/13.1/2	ETS 80
	430	390	775	380	125	950	240	1 120	60	48	30	42	1 3/4	595	**SNL 3272 F**	TS 80/13.1/2	ETS 80
															SNL 3272 F	TNF 80/13.1/2	ETS 80
	430	390	775	380	125	950	240	1 120	60	48	30	42	1 3/4	595	**SNL 3272 L**	TS 80/13.1/2	ETS 80
															SNL 3272 L	TNF 80/13.1/2	ETS 80
13 15/16 354,013	400	360	675	340	120	810	220	950	50	42	24	36	1 1/2	430	**SNL 3076 F**	TS 76/13.15/16	ETS 76
															SNL 3076 F	TNF 76/13.15/16	ETS 76
	400	360	675	340	120	810	220	950	50	42	24	36	1 1/2	427	**SNL 3076 L**	TS 76/13.15/16	ETS 76
															SNL 3076 L	TNF 76/13.15/16	ETS 76
	400	360	715	360	120	870	220	1 040	50	42	30	36	1 1/2	473	**SNL 3176 F**	TS 76/13.15/16	ETS 76
															SNL 3176 F	TNF 76/13.15/16	ETS 76
	400	360	715	360	120	870	220	1 040	50	42	30	36	1 1/2	470	**SNL 3176 L**	TS 76/13.15/16	ETS 76
															SNL 3176 L	TNF 76/13.15/16	ETS 76
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	1 3/4	716	**SNL 3276 F**	TS 92/13.15/16	ETS 92
															SNL 3276 F	TNF 92/13.15/16	ETS 92
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	1 3/4	709	**SNL 3276 L**	TS 92/13.15/16	ETS 92
															SNL 3276 L	TNF 92/13.15/16	ETS 92



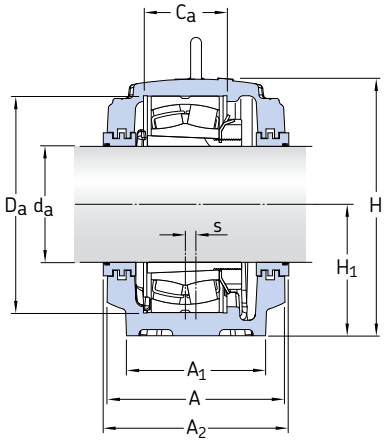


Shaft	Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve	Locating rings
d_a	C_a	D_a	A_2	A_3				
in/mm	mm		mm		–	–		
13 1/2 342,900	198	540	380	461	M 30	**23072 CCK/W33** **C 3072 KM**	H 3072/13.1/2 H 3072/13.1/2	4 FRB 16/540 4 FRB 16/540
	192	600	410	491	M 36	**23172 CCK/W33** **C 3172 KM**	H 3172/13.1/2 H 3172/13.1/2	– –
	212	600	410	491	M 36	**23172 CCK/W33** **–**	H 3172/13.1/2 –	– –
	200	650	440	521	M 42	**22272 CAK/W33** **–**	H 3172/13.1/2 –	2 FRB 25/650 –
	232	650	440	521	M 42	**23272 CAK/W33** **–**	H 3272/13.1/2 –	– –
	252	650	440	521	M 42	**23272 CAK/W33** **–**	H 3272/13.1/2 –	– –
13 15/16 354,013	135	560	410	492	M 30	**23076 CCK/W33** **C 3076 KM**[1)]	OH 3076/13.15/16 H OH 3076/13.15/16 H	– –
	180	560	410	492	M 30	**23076 CCK/W33** **–**	OH 3076/13.15/16 H –	– –
	194	620	410	491	M 36	**23176 CAK/W33** **C 3176 KMB**[1)]	OH 3176/13.15/16 H OH 3176/13.15/16 HE	– –
	214	620	410	491	M 36	**23176 CAK/W33** **–**	OH 3176/13.15/16 H –	– –
	240	680	470	552	M 42	**23276 CAK/W33** **–**	OH 3276/13.15/16 H –	– –
	260	680	470	552	M 42	**23276 CAK/W33** **–**	OH 3276/13.15/16 H –	– –

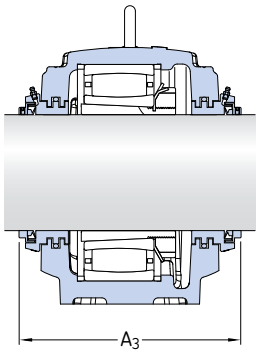
[1)] Check with SKF for availability

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

d_a **14 – 15** in

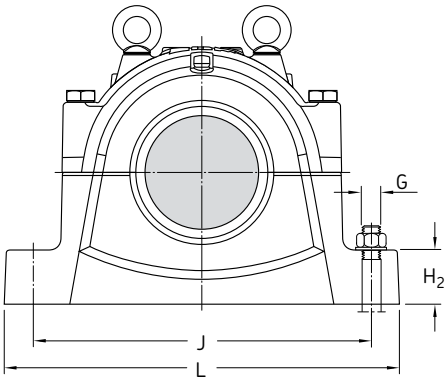


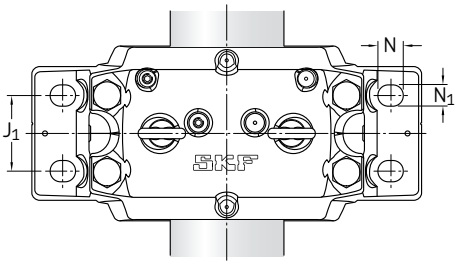
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions													Mass	Designations		
															Housings	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G	G				
in/mm	mm												in	kg	–		
14 355,600	400	360	675	340	120	810	220	950	50	42	24	36	1 1/2	430	**SNL 3076 F**	TS 76/14	ETS 76
															SNL 3076 F	TNF 76/14	ETS 76
	400	360	675	340	120	810	220	950	50	42	24	36	1 1/2	427	**SNL 3076 L**	TS 76/14	ETS 76
															SNL 3076 L	TNF 76/14	ETS 76
	400	360	715	360	120	870	220	1 040	50	42	30	36	1 1/2	473	**SNL 3176 F**	TS 76/14	ETS 76
															SNL 3176 F	TNF 76/14	ETS 76
	400	360	715	360	120	870	220	1 040	50	42	30	36	1 1/2	470	**SNL 3176 L**	TS 76/14	ETS 76
															SNL 3176 L	TNF 76/14	ETS 76
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	1 3/4	716	**SNL 3276 F**	TS 92/14	ETS 92
															SNL 3276 F	TNF 92/14	ETS 92
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	1 3/4	709	**SNL 3276 L**	TS 92/14	ETS 92
															SNL 3276 L	TNF 92/14	ETS 92
15 381,000	400	360	695	350	120	840	220	1 000	50	42	30	36	1 1/2	458	**SNL 3080 F**	TS 80/15	ETS 80
															SNL 3080 F	TNF 80/15	ETS 80
	400	360	695	350	120	840	220	1 000	50	42	30	36	1 1/2	454	**SNL 3080 L**	TS 80/15	ETS 80
															SNL 3080 L	TNF 80/15	ETS 80
	430	390	775	380	125	950	240	1 120	60	48	30	42	1 3/4	595	**SNL 3180 F**	TS 80/15	ETS 80
															SNL 3180 F	TNF 80/15	ETS 80
	430	390	775	380	125	950	240	1 120	60	48	30	42	1 3/4	595	**SNL 3180 L**	TS 80/15	ETS 80
															SNL 3180 L	TNF 80/15	ETS 80
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	1 3/4	716	**SNL 3280 F**	TS 88/15	ETS 88
															SNL 3280 F	TNF 88/15	ETS 88
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	1 3/4	709	**SNL 3280 L**	TS 88/15	ETS 88
															SNL 3280 L	TNF 88/15	ETS 88





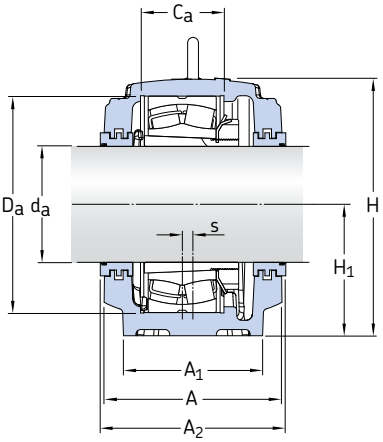
C

Shaft	Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	 Adapter sleeve
d_a	C_a	D_a	A_2	A_3			
in/mm	mm		mm		–	–	
14 355,600	135	560	410	492	M 30	**23076 CCK/W33** **C 3076 KM**	OH 3076/14 H OH 3076/14 H
	180	560	410	492	M 30	**23076 CCK/W33** **–**	OH 3076/14 H –
	194	620	410	491	M 36	**23176 CAK/W33** **C 3176 KMB**[1)]	OH 3176/14 H OH 3176/14 HE
	214	620	410	491	M 36	**23176 CAK/W33** **–**	OH 3176/14 H –
	240	680	470	552	M 42	**23276 CAK/W33** **–**	OH 3276/14 H –
	260	680	470	552	M 42	**23276 CAK/W33** **–**	OH 3276/14 H –
15 381,000	148	600	410	492	M 36	**23080 CCK/W33** **C 3080 KM**	H 3080/15 H 3080/15
	192	600	410	492	M 36	**23080 CCK/W33** **–**	H 3080/15 –
	200	650	440	521	M 42	**23180 CAK/W33** **C 3180 KMB**	H 3180/15 H 3180/15 E
	220	650	440	521	M 42	**23180 CAK/W33** **–**	H 3180/15 –
	256	720	470	552	M 42	**23280 CAK/W33** **–**	H 3280/15 –
	276	720	470	552	M 42	**23280 CAK/W33** **–**	H 3280/15 –

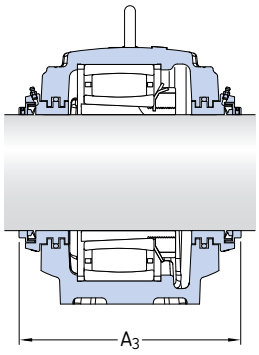
[1)] Check with SKF for availability

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

d_a **15 3/4 – 17** in

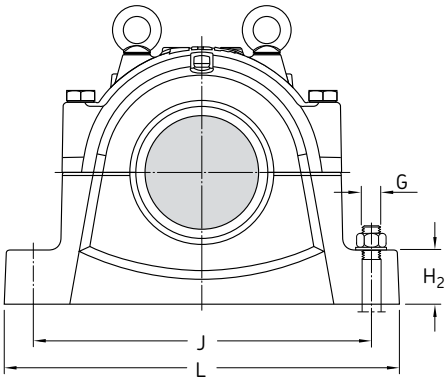


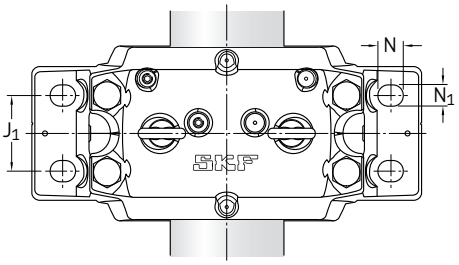
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions													Mass	Designations		
															Housings	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G	G				
in/mm	mm												in	kg	–		
15 3/4 400,050	400	360	695	350	120	840	220	1 000	50	42	30	36	1 1/2	458	**SNL 3084 F**	TS 84/15.3/4	ETS 84
															SNL 3084 F	TNF 84/15.3/4	ETS 84
	400	360	695	350	120	840	220	1 000	50	42	30	36	1 1/2	458	**SNL 3084 L**	TS 84/15.3/4	ETS 84
															SNL 3084 L	TNF 84/15.3/4	ETS 84
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	1 3/4	709	**SNL 3184 F**	TS 84/15.3/4	ETS 84
															SNL 3184 F	TNF 84/15.3/4	ETS 84
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	1 3/4	709	**SNL 3184 L**	TS 84/15.3/4	ETS 84
															SNL 3184 L	TNF 84/15.3/4	ETS 84
	470	440	880	440	145	1 070	260	1 280	60	48	35	42	1 3/4	865	**SNL 3284 F**	TS 92/15.3/4	ETS 92
															SNL 3284 F	TNF 92/15.3/4	ETS 92
	470	440	880	440	145	1 070	260	1 280	60	48	35	42	1 3/4	859	**SNL 3284 L**	TS 92/15.3/4	ETS 92
															SNL 3284 L	TNF 92/15.3/4	ETS 92
16 1/2 419,100	430	390	775	380	125	950	240	1 120	60	48	30	42	1 3/4	595	**SNL 3088 F**	TS 88/16.1/2	ETS 88
															SNL 3088 F	TNF 88/16.1/2	ETS 88
	430	390	775	380	125	950	240	1 120	60	48	30	42	1 3/4	595	**SNL 3088 L**	TS 88/16.1/2	ETS 88
															SNL 3088 L	TNF 88/16.1/2	ETS 88
	460	430	835	420	135	1 030	260	1 220	60	48	35	42	1 3/4	755	**SNL 3188 F**	TS 88/16.1/2	ETS 88
															SNL 3188 F	TNF 88/16.1/2	ETS 88
	460	430	835	420	135	1 030	260	1 220	60	48	35	42	1 3/4	751	**SNL 3188 L**	TS 88/16.1/2	ETS 88
															SNL 3188 L	TNF 88/16.1/2	ETS 88
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	2	947	**SNL 3288 F**	TS 96/16.1/2	ETS 96
															SNL 3288 F	TNF 96/16.1/2	ETS 96
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	2	941	**SNL 3288 L**	TS 96/16.1/2	ETS 96
															SNL 3288 L	TNF 96/16.1/2	ETS 96
17 431,800	460	420	810	410	130	1 000	260	1 170	60	48	35	42	1 3/4	716	**SNL 3092 F**	TS 92/17	ETS 92
															SNL 3092 F	TNF 92/17	ETS 92
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	1 3/4	709	**SNL 3092 L**	TS 92/17	ETS 92
															SNL 3092 L	TNF 92/17	ETS 92
	470	440	880	440	145	1 070	260	1 280	60	48	35	42	1 3/4	865	**SNL 3192 F**	TS 92/17	ETS 92
															SNL 3192 F	TNF 92/17	ETS 92
	470	440	880	440	145	1 070	260	1 280	60	48	35	42	1 3/4	859	**SNL 3192 L**	TS 92/17	ETS 92
															SNL 3192 L	TNF 92/17	ETS 92





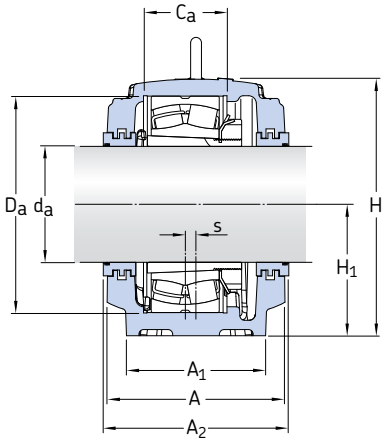
C

Shaft	Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Adapter sleeve
d_a	C_a	D_a	A_2	A_3			
in/mm	mm		mm		–	–	
15 3/4 400,050	148	600	410	492	M 36	**23084 CAK/W33** **C 3084 KM**	H 3084/15.3/4 H 3084/15.3/4
	148	600	410	492	M 36	**23084 CAK/W33** –	H 3084/15.3/4 –
	244	700	470	551	M 42	**23184 CKJ/W33** **C 3184 KM**	H 3184/15.3/4 H 3184/15.3/4
	244	700	470	551	M 42	**23184 CKJ/W33** –	H 3184/15.3/4 –
	272	760	480	562	M 48	**23284 CAK/W33** –	H 3284/15.3/4 –
	292	760	480	562	M 48	**23284 CAK/W33** –	H 3284/15.3/4 –
16 1/2 419,100	157	650	440	522	M 42	**23088 CAK/W33** **C 3088 KMB**	OH 3088/16.1/2 H OH 3088/16.1/2 HE
	200	650	440	522	M 42	**23088 CAK/W33** –	OH 3088/16.1/2 H –
	226	720	470	552	M 42	**23188 CAK/W33** **C 3188 KMB**[1)]	OH 3188/16.1/2 H OH 3188/16.1/2 HE
	246	720	470	552	M 42	**23188 CAK/W33** –	OH 3188/16.1/2 H –
	280	790	480	561	M 48	**23288 CAK/W33** –	OH 3288/16.1/2 H –
	300	790	480	561	M 48	**23288 CAK/W33** –	OH 3288/16.1/2 H –
17 431,800	163	680	470	552	M 42	**23092 CAK/W33** **C 3092 KM**	OH 3092/17 H OH 3092/17 H
	224	680	470	552	M 42	**23092 CAK/W33** –	OH 3092/17 H –
	240	760	480	562	M 48	**23192 CAK/W33** **C 3192 KM**	OH 3192/17 H OH 3192/17 H
	260	760	480	562	M 48	**23192 CAK/W33** –	OH 3192/17 H –

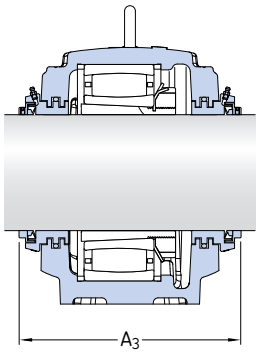
[1)] Check with SKF for availability

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

d_a **18 – 19 1/2** in

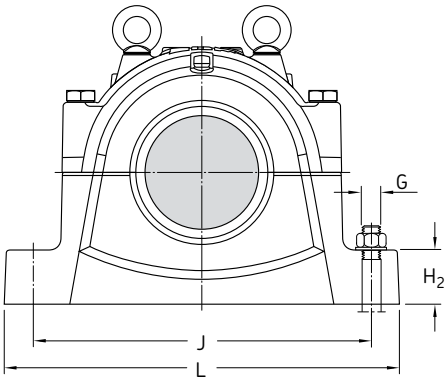


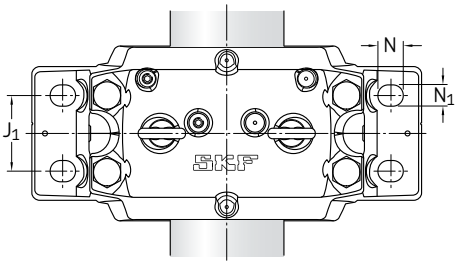
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions													Mass	Designations		
															Housings	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G	G				
in/mm	mm												in	kg	–		
18 457,200	460	420	810	410	130	1 000	260	1 170	60	48	35	42	1 3/4	716	**SNL 3096 F** **SNL 3096 F**	TS 96/18 TNF 96/18	ETS 96 ETS 96
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	1 3/4	709	**SNL 3096 L** **SNL 3096 L**	TS 96/18 TNF 96/18	ETS 96 ETS 96
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	2	947	**SNL 3196 F** **SNL 3196 F**	TS 96/18 TNF 96/18	ETS 96 ETS 96
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	2	941	**SNL 3196 L** **SNL 3196 L**	TS 96/18 TNF 96/18	ETS 96 ETS 96
18 1/2 469,900	460	430	835	420	135	1 030	260	1 220	60	48	35	42	1 3/4	755	**SNL 30/500 F** **SNL 30/500 F**	TS 500/18.1/2 TNF 500/18.1/2	ETS 500 ETS 500
	460	430	835	420	135	1 030	260	1 220	60	48	35	42	1 3/4	751	**SNL 30/500 L** **SNL 30/500 L**	TS 500/18.1/2 TNF 500/18.1/2	ETS 500 ETS 500
19 1/2 495,300	470	440	920	460	155	1 110	260	1 330	70	56	35	48	2	947	**SNL 30/530 F** **SNL 30/530 F**	TS 530/19.1/2 TNF 530/19.1/2	ETS 530 ETS 530
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	2	941	**SNL 30/530 L** **SNL 30/530 L**	TS 530/19.1/2 TNF 530/19.1/2	ETS 530 ETS 530





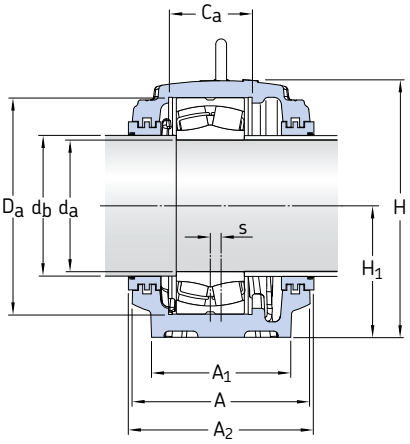
C

Shaft	Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	 Adapter sleeve
d_a	C_a	D_a	A_2	A_3			
in/mm	mm		mm		–	–	
18 457,200	165	700	470	561	M 42	**23096 CAK/W33** **C 3096 KM**	OH 3096/18 H OH 3096/18 H
	224	700	470	561	M 42	**23096 CAK/W33** **–**	OH 3096/18 H –
	248	790	480	561	M 48	**23196 CAK/W33** **C 3196 KMB**[1)]	OH 3196/18 H OH 3196/18 HE
	268	790	480	561	M 48	**23196 CAK/W33** **–**	OH 3196/18 H –
18 1/2 469,900	167	720	470	551	M 42	**230/500 CAK/W33** **C 30/500 KM**	OH 30/500/18.1/2 H OH 30/500/18.1/2 H
	226	720	470	551	M 42	**230/500 CAK/W33** **–**	OH 30/500/18.1/2 H –
19 1/2 495,300	185	780	480	551	M 48	**230/530 CAK/W33** **C 30/530 KM**	OH 30/530/19.1/2 H OH 30/530/19.1/2 H
	248	780	480	551	M 48	**230/530 CAK/W33** **–**	OH 30/530/19.1/2 H –

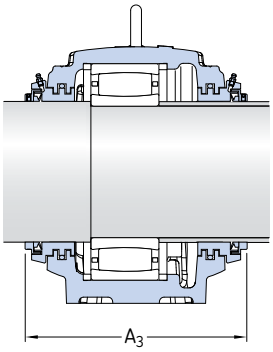
[1)] Check with SKF for availability

Large SNL plummer block housings for bearings with a cylindrical bore

d_a **130 – 180** mm

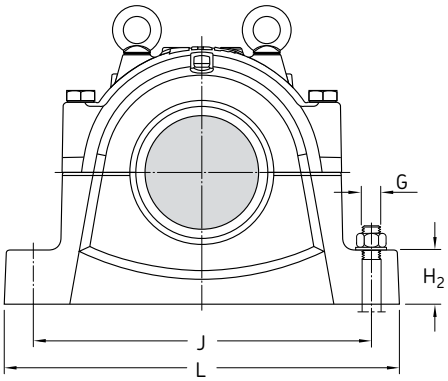


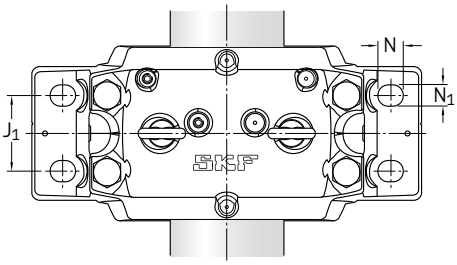
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
130	230	180	333	170	70	430	100	510	34	28	14	24	69,5	**SNL 3134**	TS 34	ETS 34
														SNL 3134	TNF 34	ETS 34
140	240	190	353	180	75	450	110	530	34	28	15	24	77,5	**SNL 3136**	TS 36	ETS 36
														SNL 3136	TNF 36	ETS 36
150	260	210	375	190	80	480	120	560	34	28	10	24	97,5	**SNL 3138**	TS 38	ETS 38
														SNL 3138	TNF 38	ETS 38
160	240	190	353	180	75	450	110	530	34	28	15	24	77,5	**SNL 3038**	TS 38/180	ETS 38
														SNL 3038	TNF 38/180	ETS 38
	280	230	411	210	85	510	130	610	42	35	10	30	123	**SNL 3140**	TS 40	ETS 40
														SNL 3140	TNF 40	ETS 40
170	230	180	333	170	70	430	100	510	34	28	14	24	69,5	**SNL 3134 G**	TS 40	ETS 40
														SNL 3134 G	TNF 40	ETS 40
	260	210	375	190	80	480	120	560	34	28	10	24	97,5	**SNL 3234 G**	TS 40/190	ETS 40
														SNL 3234 G	TNF 40/190	ETS 40
	260	210	375	190	80	480	120	560	34	28	10	24	97,5	**SNL 3040**	TS 40/190	ETS 40
														SNL 3040	TNF 40/190	ETS 40
	290	240	434	220	90	540	140	640	42	35	12	30	139	**SNL 3048**	TS 48/190	ETS 48
														SNL 3048	TNF 48/190	ETS 48
180	230	180	333	170	70	430	100	510	34	28	14	24	69,5	**SNL 3036 G**	TS 44	ETS 44
														SNL 3036 G	TNF 44	ETS 44
	240	190	353	180	75	450	110	530	34	28	15	24	77,5	**SNL 3136 G**	TS 44	ETS 44
														SNL 3136 G	TNF 44	ETS 44
	260	210	375	190	80	480	120	560	34	28	10	24	97,5	**SNL 3138 G**	TS 44	ETS 44
														SNL 3138 G	TNF 44	ETS 44
	260	210	375	190	80	480	120	560	34	28	10	24	97,5	**SNL 3236 G**	TS 44	ETS 44
														SNL 3236 G	TNF 44	ETS 44



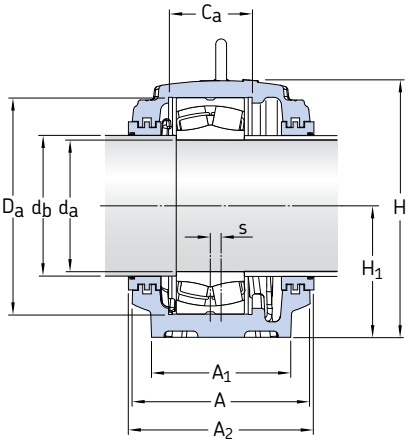


C

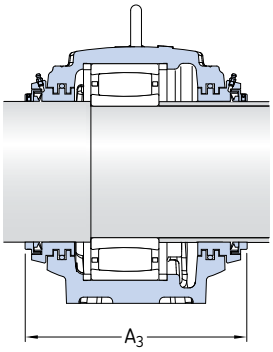
Shaft		Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Locating rings
d_a	d_b	C_a	D_a	A_2	A_3			
mm		mm		mm		–	–	
130	150	108	280	240	302	M 16	**22326 CC/W33** **–**	2 FRB 7.5/280 –
140	160	116	300	250	317	M 16	**22328 CC/W33** **–**	2 FRB 7/300 –
150	170	124	320	270	334	M 20	**22330 CC/W33** **–**	2 FRB 8/320 –
160	180	115	290	250	318	M 16	**22232 CC/W33** **C 3232**	2 FRB 17.5/290 2 FRB 5.5/290
	180	132	340	290	351	M 20	**22332 CC/W33** **–**	2 FRB 9/340 –
170	180	108	280	240	302	M 16	**23134 CC/W33** **–**	2 FRB 10/280 –
	190	122	310	270	331	M 20	**23234 CC/W33** **–**	2 FRB 6/310 –
	190	122	310	270	331	M 20	**22234 CC/W33** **C 2234**	2 FRB 18/310 2 FRB 18/310
	190	140	360	300	387	M 20	**22334 CC/W33** **–**	2 FRB 10/360 –
180	200	108	280	240	304	M 16	**23036 CC/W33** **24036 CC/W33** **C 3036** **C 4036 V**	2 FRB 17/280 2 FRB 4/280 2 FRB 17/280 2 FRB 4/280
	200	116	300	250	317	M 16	**23136 CC/W33** **C 3136**	2 FRB 10/300 2 FRB 10/300
	200	124	320	270	334	M 20	**22236 CC/W33** **–**	2 FRB 19/320 –
	200	124	320	270	334	M 20	**23236 CC/W33** **C 3236**	2 FRB 6/320 2 FRB 6/320

Large SNL plummer block housings for bearings with a cylindrical bore

d_a **190 – 200** mm

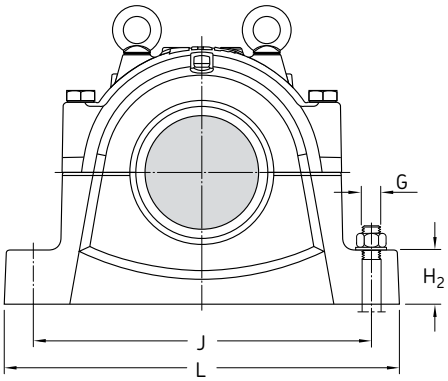


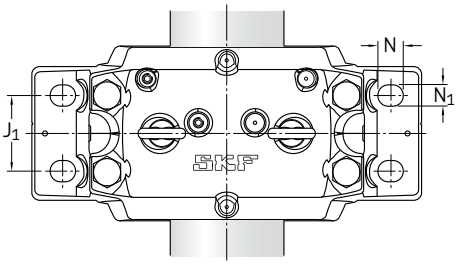
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
190	240	190	353	180	75	450	110	530	34	28	15	24	77,5	**SNL 3038 G**	TS 44	ETS 44
														SNL 3038 G	TNF 44	ETS 44
	260	210	375	190	80	480	120	560	34	28	10	24	97,5	**SNL 3138 G**	TS 44	ETS 44
														SNL 3138 G	TNF 44	ETS 44
	280	230	411	210	85	510	130	610	42	35	10	30	123	**SNL 3238 G**	TS 48/210	ETS 48
														SNL 3238 G	TNF 48/210	ETS 48
	280	230	411	210	85	510	130	610	42	35	10	30	123	**SNL 3140 G**	TS 48/210	ETS 48
														SNL 3140 G	TNF 48/210	ETS 48
	310	260	474	240	95	600	150	700	42	35	12	30	187	**SNL 3148**	TS 48/210	ETS 48
														SNL 3148	TNF 48/210	ETS 48
200	260	210	375	190	80	480	120	560	34	28	10	24	97,5	**SNL 3040 G**	TS 48	ETS 48
														SNL 3040 G	TNF 48	ETS 48
	280	230	411	210	85	510	130	610	42	35	10	30	123	**SNL 3140 G**	TS 48	ETS 48
														SNL 3140 G	TNF 48	ETS 48
	290	240	434	220	90	540	140	640	42	35	12	30	139	**SNL 3240 G**	TS 48	ETS 48
														SNL 3240 G	TNF 48	ETS 48
	290	240	434	220	90	540	140	640	42	35	12	30	139	**SNL 3048**	TS 48	ETS 48
														SNL 3048	TNF 48	ETS 48
	320	280	516	260	100	650	160	770	50	42	13	36	221	**SNL 3056**	TS 56/220	ETS 56
														SNL 3056	TNF 56/220	ETS 56



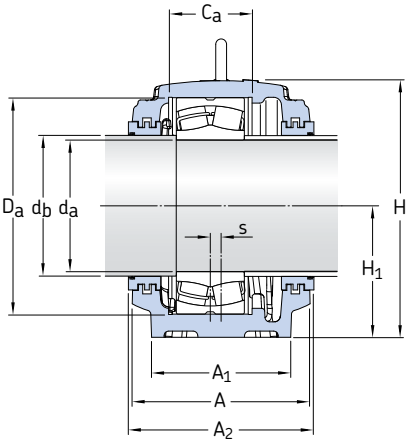


C

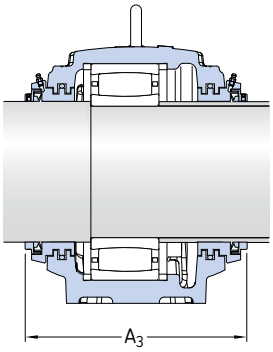
Shaft		Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Locating rings
d_a	d_b	C_a	D_a	A_2	A_3			
mm		mm		mm		–	–	
190	200	115	290	250	318	M 16	**23038 CC/W33** **24038 CC/W33** **C 3038** **C 4038 V**[1)]	4 FRB 10/290 2 FRB 7.5/290 4 FRB 10/290 2 FRB 7.5/290
	200	124	320	270	334	M 20	**23138 CC/W33** **–**	2 FRB 10/320 –
	210	132	340	290	351	M 20	**23238 CC/W33** **–**	2 FRB 6/340 –
	210	132	340	290	351	M 20	**22238 CC/W33** **C 2238**	4 FRB 10/340 4 FRB 10/340
	210	148	400	315	404	M 24	**22338 CC/W33** **–**	2 FRB 8/400 –
200	220	122	310	270	331	M 20	**23040 CC/W33** **24040 CC/W33** **C 3040** **C 4040 V**[1)]	4 FRB 10/310 2 FRB 6.5/310 4 FRB 10/310 2 FRB 6.5/310
	220	132	340	290	351	M 20	**23140 CC/W33** **C 3140**	2 FRB 10/340 2 FRB 10/340
	220	140	360	300	383	M 20	**23240 CC/W33** **–**	2 FRB 6/360 -
	220	140	360	300	387	M 20	**22240 CC/W33** **–**	2 FRB 21/360 –
	220	166	420	330	413	M 24	**22340 CC/W33** **–**	2 FRB 14/420 –

[1)] Check with SKF for availability

Large SNL plummer block housings for bearings with a cylindrical bore
d_a **220 – 260** mm

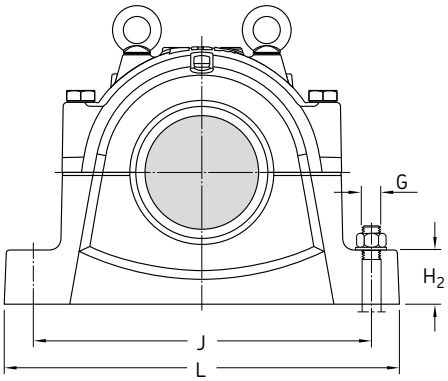


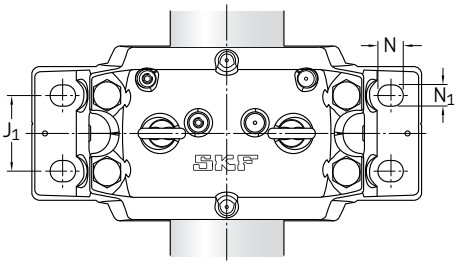
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
220	280	230	411	210	85	510	130	610	42	35	10	30	123	**SNL 3044 G**	TS 52	ETS 52
														SNL 3044 G	TNF 52	ETS 52
	290	240	434	220	90	540	140	640	42	35	12	30	138	**SNL 3144 G**	TS 52	ETS 52
														SNL 3144 G	TNF 52	ETS 52
	310	260	474	240	95	600	150	700	42	35	12	30	187	**SNL 3244 G**	TS 56/240	ETS 56
														SNL 3244 G	TNF 56/240	ETS 56
	310	260	474	240	95	600	150	700	42	35	12	30	187	**SNL 3148 G**	TS 56/240	ETS 56
														SNL 3148 G	TNF 56/240	ETS 56
	320	280	551	280	105	670	160	790	50	42	16	36	252	**SNL 3156**	TS 56/240	ETS 56
														SNL 3156	TNF 56/240	ETS 56
240	290	240	434	220	90	540	140	640	42	35	12	30	139	**SNL 3048 G**	TS 56	ETS 56
														SNL 3048 G	TNF 56	ETS 56
	310	260	474	240	95	600	150	700	42	35	12	30	187	**SNL 3148 G**	TS 56	ETS 56
														SNL 3148 G	TNF 56	ETS 56
	320	280	516	260	100	650	160	770	50	42	13	36	221	**SNL 3248 G**	TS 60/260	ETS 60
														SNL 3248 G	TNF 60/260	ETS 60
	320	280	516	260	100	650	160	770	50	42	13	36	221	**SNL 3152 G**	TS 60/260	ETS 60
														SNL 3152 G	TNF 60/260	ETS 60
	350	310	591	300	110	710	190	830	50	42	22	36	301	**SNL 3160**	TS 60/260	ETS 60
														SNL 3160	TNF 60/260	ETS 60
260	310	260	474	240	95	600	150	700	42	35	12	30	187	**SNL 3052 G**	TS 60	ETS 60
														SNL 3052 G	TNF 60	ETS 60
	320	280	516	260	100	650	160	770	50	42	13	36	221	**SNL 3152 G**	TS 60	ETS 60
														SNL 3152 G	TNF 60	ETS 60
	350	310	591	300	110	710	190	830	50	42	22	36	301	**SNL 3252 G**	TS 64/280	ETS 64
														SNL 3252 G	TNF 64/280	ETS 64
	350	310	591	300	110	710	190	830	50	42	22	36	301	**SNL 3064**	TS 64/280	ETS 64
														SNL 3064	TNF 64/280	ETS 64
	370	330	631	320	115	750	200	880	50	42	23	36	339	**SNL 3164**	TS 64/290	ETS 64
														SNL 3164	TNF 64/290	ETS 64

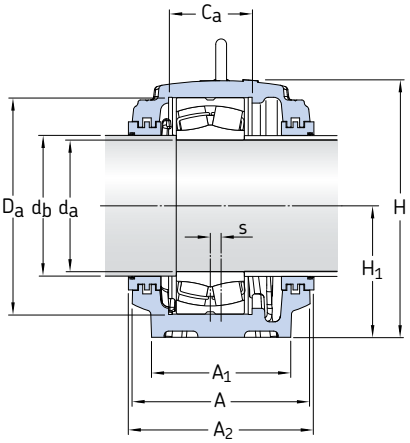




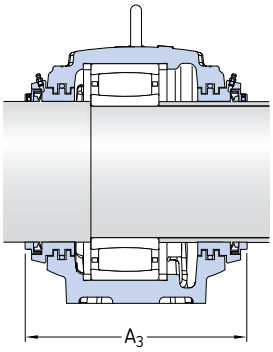
Shaft		Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Locating rings
d_a	d_b	C_a	D_a	A_2	A_3			
mm		mm		mm		–	–	
220	240	130	340	290	353	M 20	**23044 CC/W33** **24044 CC/W33** **C 3044** **C 4044 V**[1)]	4 FRB 10/340 2 FRB 6/340 4 FRB 10/340 2 FRB 6/340
	240	140	370	300	361	M 20	**23144 CC/W33** **C 3144**	2 FRB 10/370 2 FRB 10/370
	240	164	400	315	404	M 24	**23244 CC/W33** –	2 FRB 10/400 –
	240	148	400	315	404	M 24	**22244 CC/W33** **C 2244**	4 FRB 10/400 4 FRB 10/400
	240	166	460	330	412	M 24	**22344 CC/W33** –	2 FRB 10.5/460 –
240	260	140	360	300	387	M 20	**23048 CC/W33** **24048 CC/W33** **C 3048**	4 FRB 12/360 2 FRB 11/360 4 FRB 12/360
	260	148	400	315	404	M 24	**23148 CC/W33** **C 3148**	2 FRB 10/400 2 FRB 10/400
	260	180	440	330	414	M 24	**23248 CC/W33** –	2 FRB 10/440 –
	260	164	440	330	414	M 24	**22248 CC/W33** –	2 FRB 22/440 –
	260	180	500	360	442	M 30	**22348 CC/W33** –	2 FRB 12.5/500 –
260	280	148	400	315	397	M 24	**23052 CC/W33** **24052 CC/W33** **C 3052**	2 FRB 22/400 2 FRB 4/400 2 FRB 22/400
	280	164	440	330	414	M 24	**23152 CC/W33** **C 3152**	2 FRB 10/440 2 FRB 10/440
	280	194	480	360	443	M 30	**23252 CC/W33** –	2 FRB 10/480 –
	280	181	480	360	443	M 30	**22252 CC/W33** –	2 FRB 25.5/480 –
	290	196	540	380	462	M 30	**22352 CC/W33** –	2 FRB 15.5/540 –

[1)] Check with SKF for availability

Large SNL plummer block housings for bearings with a cylindrical bore
d_a **280 – 320** mm

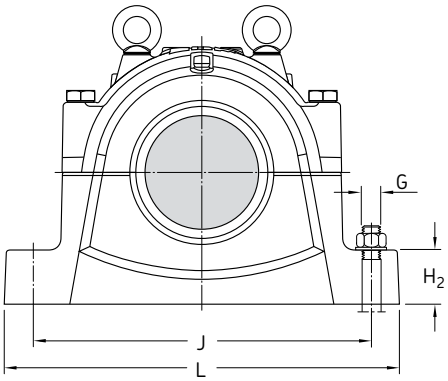


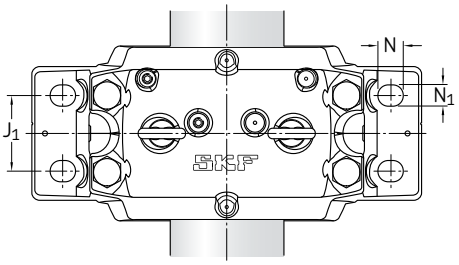
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
280	320	280	516	260	100	650	160	770	50	42	13	36	221	**SNL 3056 G**	TS 64	ETS 64
														SNL 3056 G	TNF 64	ETS 64
	320	280	551	280	105	670	160	790	50	42	16	36	252	**SNL 3156 G**	TS 64	ETS 64
														SNL 3156 G	TNF 64	ETS 64
	350	310	591	300	110	710	190	830	50	42	22	36	301	**SNL 3256 G**	TS 68/300	ETS 68
														SNL 3256 G	TNF 68/300	ETS 68
	350	310	591	300	110	710	190	830	50	42	22	36	301	**SNL 3160 G**	TS 68/300	ETS 68
														SNL 3160 G	TNF 68/300	ETS 68
	400	360	675	340	120	810	220	950	50	42	24	36	427	**SNL 3168 L**	TS 68/310	ETS 68
														SNL 3168 L	TNF 68/310	ETS 68
300	320	280	551	280	105	670	160	790	50	42	16	36	252	**SNL 3060 G**	TS 68	ETS 68
														SNL 3060 G	TNF 68	ETS 68
	350	310	591	300	110	710	190	830	50	42	22	36	301	**SNL 3160 G**	TS 68	ETS 68
														SNL 3160 G	TNF 68	ETS 68
	370	330	631	320	115	750	200	880	50	42	23	36	339	**SNL 3260 G**	TS 72/320	ETS 72
														SNL 3260 G	TNF 72/320	ETS 72
	370	330	631	320	115	750	200	880	50	42	23	36	339	**SNL 3164 G**	TS 72/320	ETS 72
														SNL 3164 G	TNF 72/320	ETS 72
320	350	310	591	300	110	710	190	830	50	42	22	36	301	**SNL 3064 G**	TS 72	ETS 72
														SNL 3064 G	TNF 72	ETS 72
	370	330	631	320	115	750	200	880	50	42	23	36	339	**SNL 3164 G**	TS 72	ETS 72
														SNL 3164 G	TNF 72	ETS 72
	400	360	675	340	120	810	220	950	50	42	24	36	430	**SNL 3264 GF**	TS 76/340	ETS 76
														SNL 3264 GF	TNF 76/340	ETS 76
	400	360	675	340	120	810	220	950	50	42	24	36	427	**SNL 3264 GL**	TS 76/340	ETS 76
														SNL 3264 GL	TNF 76/340	ETS 76
	400	360	675	340	120	810	220	950	50	42	24	36	430	**SNL 3168 GF**	TS 76/340	ETS 76
														SNL 3168 GF	TNF 76/340	ETS 76



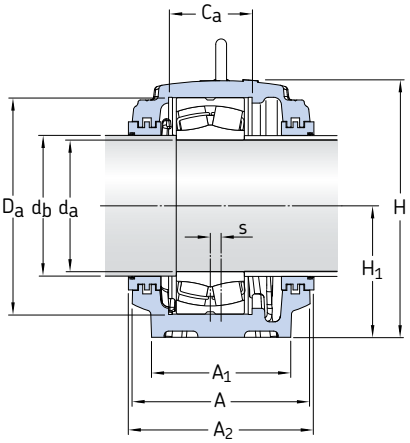


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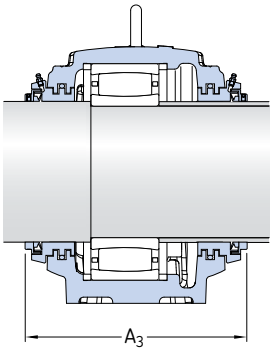
Shaft		Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Locating rings
d_a	d_b	C_a	D_a	A_2	A_3			
mm		mm		mm		–	–	
280	300	166	420	330	413	M 24	**23056 CC/W33** **24056 CC/W33** **C 3056**	6 FRB 10/420 2 FRB 13/420 6 FRB 10/420
	300	166	460	330	412	M 24	**23156 CC/W33** **C 3156**	2 FRB 10/460 2 FRB 10/460
	300	196	500	360	442	M 30	**23256 CC/W33** –	2 FRB 10/500 –
	300	180	500	360	442	M 30	**22256 CC/W33** –	2 FRB 25/500 –
	310	210	580	410	491	M 30	**22356 CC/W33** –	2 FRB 17.5/580 –
300	320	168	460	330	412	M 24	**23060 CC/W33** **24060 CC/W33** **C 3060 M** **C 4060 M**	2 FRB 25/460 2 FRB 4/460 2 FRB 25/460 2 FRB 4/460
	320	180	500	360	442	M 30	**23160 CC/W33** **C 3160**	2 FRB 10/500 2 FRB 10/500
	320	212	540	380	462	M 30	**23260 CC/W33** –	2 FRB 10/540 –
	320	196	540	380	462	M 30	**22260 CC/W33** –	2 FRB 28/540 –
320	340	181	480	360	443	M 30	**23064 CC/W33** **24064 CC/W33** **C 3064 M**	6 FRB 10/480 2 FRB 10.5/480 6 FRB 10/480
	340	196	540	380	462	M 30	**23164 CC/W33** **C 3164 M**	2 FRB 10/540 2 FRB 10/540
	340	208	580	410	491	M 30	**23264 CC/W33** –	– –
	340	228	580	410	491	M 30	**23264 CC/W33** –	– –
	340	190	580	410	491	M 30	**22264 CC/W33** –	2 FRB 20/580 –

Large SNL plummer block housings for bearings with a cylindrical bore

d_a **340 – 360** mm

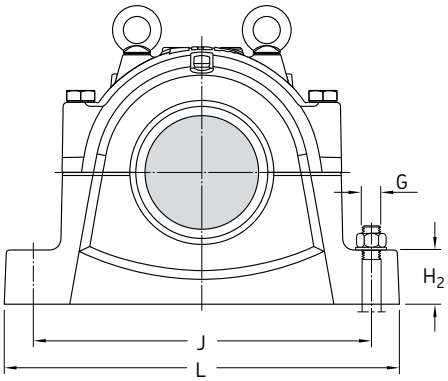


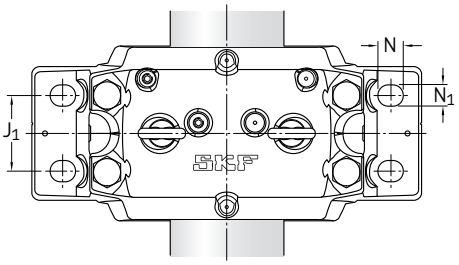
Labyrinth seals, TS design



Taconite seals, TNF design

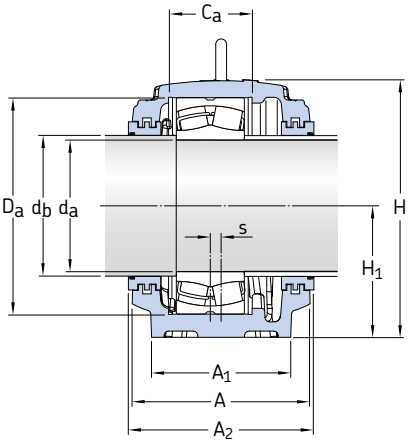
Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
340	370	330	631	320	115	750	200	880	50	42	23	36	339	**SNL 3068 G**	TS 76	ETS 76
														SNL 3068 G	TNF 76	ETS 76
	400	360	675	340	120	810	220	950	50	42	24	36	430	**SNL 3168 GF**	TS 76	ETS 76
														SNL 3168 GF	TNF 76	ETS 76
	400	360	675	340	120	810	220	950	50	42	24	36	427	**SNL 3168 GL**	TS 76	ETS 76
														SNL 3168 GL	TNF 76	ETS 76
	400	360	715	360	120	870	220	1 040	50	42	30	36	473	**SNL 3268 GF**	TS 76/370	ETS 76
														SNL 3268 GF	TNF 76/370	ETS 76
	400	360	715	360	120	870	220	1 040	50	42	30	36	470	**SNL 3268 GL**	TS 76/370	ETS 76
														SNL 3268 GL	TNF 76/370	ETS 76
360	370	330	631	320	115	750	200	880	50	42	23	36	339	**SNL 3072 G**	TS 80	ETS 80
														SNL 3072 G	TNF 80	ETS 80
	400	360	695	350	120	840	220	1 000	50	42	30	36	458	**SNL 3172 GF**	TS 80	ETS 80
														SNL 3172 GF	TNF 80	ETS 80
	400	360	695	350	120	840	220	1 000	50	42	30	36	454	**SNL 3172 GL**	TS 80	ETS 80
														SNL 3172 GL	TNF 80	ETS 80
	430	390	775	380	125	950	240	1 120	60	48	30	42	595	**SNL 3272 GF**	TS 80/390	ETS 80
														SNL 3272 GF	TNF 80/390	ETS 80
	430	390	775	380	125	950	240	1 120	60	48	30	42	595	**SNL 3272 GL**	TS 80/390	ETS 80
														SNL 3272 GL	TNF 80/390	ETS 80
	430	390	775	380	125	950	240	1 120	60	48	30	42	595	**SNL 3180 F**	TS 80/390	ETS 80
														SNL 3180 F	TNF 80/390	ETS 80



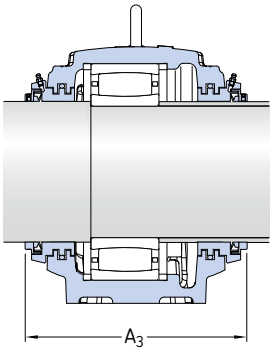


Shaft		Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings and associated components Spherical roller bearing CARB bearing	Locating rings
d_a	d_b	C_a	D_a	A_2	A_3			
mm		mm		mm		–	–	
340	360	197	520	380	461	M 30	**23068 CC/W33** **24068 CC/W33** **C 3068 M**	4 FRB 16/520 2 FRB 8.5/520 4 FRB 16/520
	360	190	580	410	491	M 30	**23168 CC/W33** **C 3168 M**	–
	360	210	580	410	491	M 30	**23168 CC/W33** –	– –
	370	224	620	410	491	M 36	**23268 CA/W33** –	– –
	370	244	620	410	491	M 36	**23268 CA/W33** –	– –
360	380	198	540	380	461	M 30	**23072 CC/W33** **24072 CC/W33** **C 3072 M**	4 FRB 16/540 2 FRB 9/540 4 FRB 16/540
	380	192	600	410	491	M 36	**23172 CC/W33** **C 3172 M**	–
	380	212	600	410	491	M 36	**23172 CC/W33** –	– –
	390	232	650	440	521	M 42	**23272 CA/W33** –	– –
	390	252	650	440	521	M 42	**23272 CA/W33** –	– –
	390	220	650	440	521	M 42	**22272 CC/W33** –	2 FRB 25/650 –

Large SNL plummer block housings for bearings with a cylindrical bore
d_a **380 – 400** mm

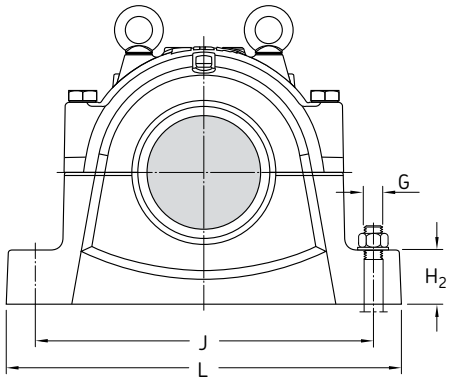


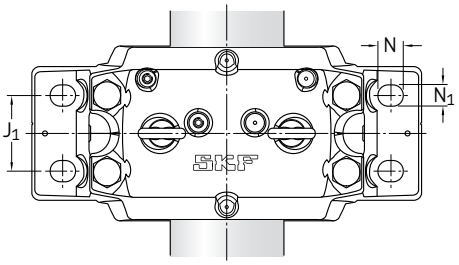
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
380	400	360	675	340	120	810	220	950	50	42	24	36	430	**SNL 3076 GF**	TS 84	ETS 84
														SNL 3076 GF	TNF 84	ETS 84
	400	360	675	340	120	810	220	950	50	42	24	36	427	**SNL 3076 GL**	TS 84	ETS 84
														SNL 3076 GL	TNF 84	ETS 84
	400	360	715	360	120	870	220	1 040	50	42	30	36	473	**SNL 3176 GF**	TS 84	ETS 84
														SNL 3176 GF	TNF 84	ETS 84
	400	360	715	360	120	870	220	1 040	50	42	30	36	470	**SNL 3176 GL**	TS 84	ETS 84
														SNL 3176 GL	TNF 84	ETS 84
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	716	**SNL 3276 GF**	TS 92/410	ETS 92
														SNL 3276 GF	TNF 92/410	ETS 92
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	709	**SNL 3276 GL**	TS 92/410	ETS 92
														SNL 3276 GL	TNF 92/410	ETS 92
	400	360	675	340	120	810	220	950	50	42	24	36	430	**SNL 4076 GF**	TS 84	ETS 84
														SNL 4076 GF	TNF 84	ETS 84
	400	360	675	340	120	810	220	950	50	42	24	36	427	**SNL 4076 GL**	TS 84	ETS 84
														SNL 4076 GL	TNF 84	ETS 84
400	400	360	695	350	120	840	220	1 000	50	42	30	36	458	**SNL 3080 GF**	TS 92	ETS 92
														SNL 3080 GF	TNF 92	ETS 92
	400	360	695	350	120	840	220	1 000	50	42	30	36	454	**SNL 3080 GL**	TS 92	ETS 92
														SNL 3080 GL	TNF 92	ETS 92
	430	390	775	380	125	950	240	1 120	60	48	30	42	595	**SNL 3180 GF**	TS 92	ETS 92
														SNL 3180 GF	TNF 92	ETS 92
	430	390	775	380	125	950	240	1 120	60	48	30	42	595	**SNL 3180 GL**	TS 92	ETS 92
														SNL 3180 GL	TNF 92	ETS 92
	460	430	835	420	135	1 030	260	1 220	60	48	35	42	745	**SNL 3280 GF**	TS 500/430	ETS 500
														SNL 3280 GF	TNF 500/430	ETS 500
	460	430	835	420	135	1 030	260	1 220	60	48	35	42	740	**SNL 3280 GL**	TS 500/430	ETS 500
														SNL 3280 GL	TNF 500/430	ETS 500
	400	360	695	350	120	840	220	1 000	50	42	30	36	458	**SNL 4080 GF**	TS 92	ETS 92
														SNL 4080 GF	TNF 92	ETS 92
	400	360	695	350	120	840	220	1 000	50	42	30	36	454	**SNL 4080 GL**	TS 92	ETS 92
														SNL 4080 GL	TNF 92	ETS 92

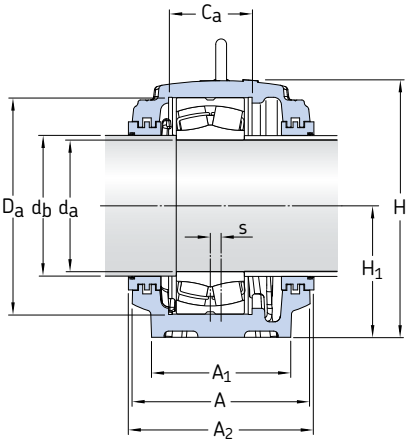




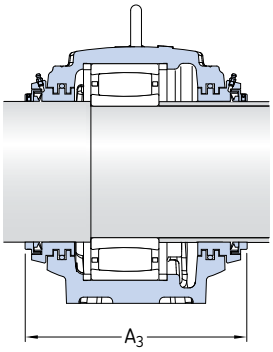
Shaft		Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings Spherical roller bearing CARB bearing
d_a	d_b	C_a	D_a	A_2	A_3		
mm		mm		mm		–	–
380	400	135	560	410	492	M 30	**23076 CC/W33** **C 3076 M**
	400	180	560	410	492	M 30	**23076 CC/W33** **–**
	400	194	620	410	491	M 36	**23176 CA/W33** **–**
	400	214	620	410	491	M 36	**23176 CA/W33** **–**
	410	240	680	470	552	M 42	**23276 CA/W33** **–**
	410	260	680	470	552	M 42	**23276 CA/W33** **–**
	400	180	560	410	491	M 30	**24076 CC/W33** **–**
	400	200	560	410	491	M 30	**24076 CC/W33** **–**
400	430	148	600	410	492	M 36	**23080 CC/W33** **C 3080 M**
	430	192	600	410	492	M 36	**23080 CC/W33** **–**
	430	200	650	440	521	M 42	**23180 CA/W33** **C 3180 MB**
	430	220	650	440	521	M 42	**23180 CA/W33** **–**
	430	256	720	470	552	M 42	**23280 CA/W33** **–**
	430	276	720	470	552	M 42	**23280 CA/W33** **–**
	430	200	600	410	491	M 36	**24080 ECCJ/W33** **–**
	430	220	600	410	491	M 36	**24080 ECCJ/W33** **–**

Large SNL plummer block housings for bearings with a cylindrical bore

d_a **420 – 440** mm

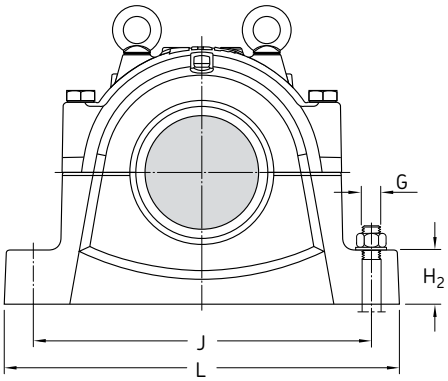


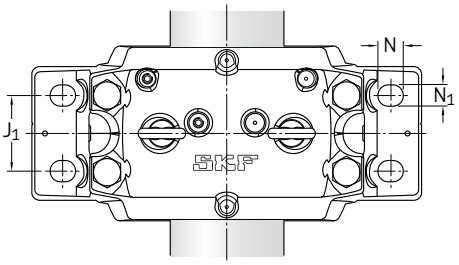
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
420	400	360	715	360	120	870	220	1 040	50	42	30	36	473	**SNL 3084 GF**	TS 96	ETS 96
														SNL 3084 GF	TNF 96	ETS 96
	400	360	715	360	120	870	220	1 040	50	42	30	36	470	**SNL 3084 GL**	TS 96	ETS 96
														SNL 3084 GL	TNF 96	ETS 96
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	716	**SNL 3184 GF**	TS 96	ETS 96
														SNL 3184 GF	TNF 96	ETS 96
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	709	**SNL 3184 GL**	TS 96	ETS 96
														SNL 3184 GL	TNF 96	ETS 96
	470	440	880	440	145	1 070	260	1 280	60	48	35	42	865	**SNL 3284 GF**	TS 530/460	ETS 530
														SNL 3284 GF	TNF 530/460	ETS 530
	470	440	880	440	145	1 070	260	1 280	60	48	35	42	859	**SNL 3284 GL**	TS 530/460	ETS 530
														SNL 3284 GL	TNF 530/460	ETS 530
	400	360	715	360	120	870	220	1 040	50	42	30	36	473	**SNL 4084 GF**	TS 96	ETS 96
														SNL 4084 GF	TNF 96	ETS 96
	400	360	715	360	120	870	220	1 040	50	42	30	36	470	**SNL 4084 GL**	TS 96	ETS 96
														SNL 4084 GL	TNF 96	ETS 96
440	430	390	775	380	125	950	240	1 120	60	48	30	42	595	**SNL 3088 GF**	TS 500	ETS 500
														SNL 3088 GF	TNF 500	ETS 500
	430	390	775	380	125	950	240	1 120	60	48	30	42	595	**SNL 3088 GL**	TS 500	ETS 500
														SNL 3088 GL	TNF 500	ETS 500
	460	430	835	420	135	1 030	260	1 220	60	48	35	42	755	**SNL 3188 GF**	TS 500	ETS 500
														SNL 3188 GF	TNF 500	ETS 500
	460	430	835	420	135	1 030	260	1 220	60	48	35	42	751	**SNL 3188 GL**	TS 500	ETS 500
														SNL 3188 GL	TNF 500	ETS 500
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	947	**SNL 3288 GF**	TS 560/480	ETS 560
														SNL 3288 GF	TNF 560/480	ETS 560
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	941	**SNL 3288 GL**	TS 560/480	ETS 560
														SNL 3288 GL	TNF 560/480	ETS 560
	430	390	775	380	125	950	240	1 120	60	48	30	42	595	**SNL 4088 GF**	TS 500	ETS 500
														SNL 4088 GF	TNF 500	ETS 500
	430	390	775	380	125	950	240	1 120	60	48	30	42	595	**SNL 4088 GL**	TS 500	ETS 500
														SNL 4088 GL	TNF 500	ETS 500



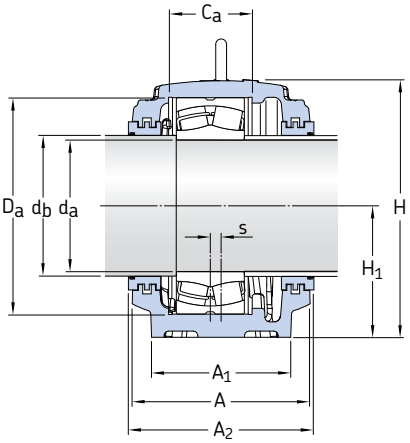


C

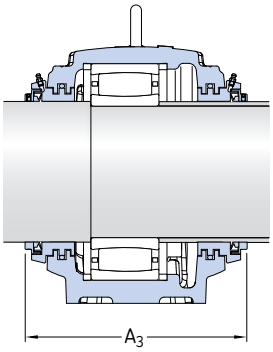
Shaft		Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings Spherical roller bearing CARB bearing
d_a	d_b	C_a	D_a	A_2	A_3		
mm		mm		mm		–	–
420	450	150	620	410	492	M 36	**23084 CA/W33** **C 3084 M**
	450	194	620	410	492	M 36	**23084 CA/W33** **–**
	450	224	700	470	551	M 42	**23184 CJ/W33** **C 3184 M**
	450	244	700	470	551	M 42	**23184 CJ/W33** **–**
	460	272	760	480	562	M 48	**23284 CA/W33** **–**
	460	292	760	480	562	M 48	**23284 CA/W33** **–**
	450	200	620	410	492	M 36	**24084 ECA/W33** **–**
	450	220	620	410	492	M 36	**24084 ECA/W33** **–**
440	470	157	650	440	522	M 42	**23088 CA/W33** **C 3088 MB**
	470	200	650	440	522	M 42	**23088 CA/W33** **–**
	470	226	720	470	552	M 42	**23188 CA/W33** **–**
	470	246	720	470	552	M 42	**23188 CA/W33** **–**
	480	280	790	480	561	M 48	**23288 CA/W33** **–**
	480	300	790	480	561	M 48	**23288 CA/W33** **–**
	470	212	650	440	522	M 42	**24088 ECA/W33** **–**
	470	232	650	440	522	M 42	**24088 ECA/W33** **–**

Large SNL plummer block housings for bearings with a cylindrical bore

d_a **460 – 500** mm

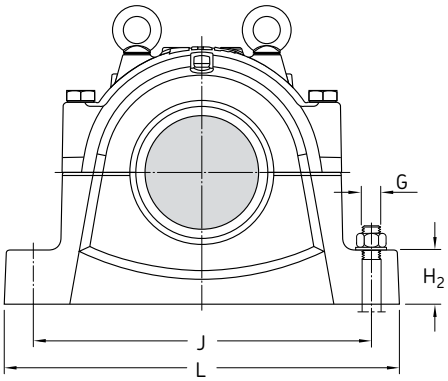


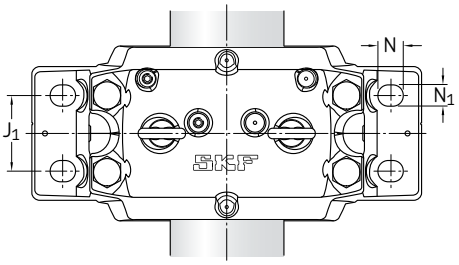
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
460	460	420	810	410	130	1 000	260	1 170	60	48	35	42	716	**SNL 3092 GF**	TS 530	ETS 530
														SNL 3092 GF	TNF 530	ETS 530
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	709	**SNL 3092 GL**	TS 530	ETS 530
														SNL 3092 GL	TNF 530	ETS 530
	470	440	880	440	145	1 070	260	1 280	60	48	35	42	865	**SNL 3192 GF**	TS 530	ETS 530
														SNL 3192 GF	TNF 530	ETS 530
	470	440	880	440	145	1 070	260	1 280	60	48	35	42	859	**SNL 3192 GL**	TS 530	ETS 530
														SNL 3192 GL	TNF 530	ETS 530
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	716	**SNL 4092 GF**	TS 530	ETS 530
														SNL 4092 GF	TNF 530	ETS 530
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	709	**SNL 4092 GL**	TS 530	ETS 530
														SNL 4092 GL	TNF 530	ETS 530
480	460	420	810	410	130	1 000	260	1 170	60	48	35	42	716	**SNL 3096 GF**	TS 530/510	ETS 530
														SNL 3096 GF	TNF 530/510	ETS 530
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	709	**SNL 3096 GL**	TS 530/510	ETS 530
														SNL 3096 GL	TNF 530/510	ETS 530
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	947	**SNL 3196 GF**	TS 560/520	ETS 560
														SNL 3196 GF	TNF 560/520	ETS 560
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	941	**SNL 3196 GL**	TS 560/520	ETS 560
														SNL 3196 GL	TNF 560/520	ETS 560
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	716	**SNL 4096 GF**	TS 530/510	ETS 530
														SNL 4096 GF	TNF 530/510	ETS 530
	460	420	810	410	130	1 000	260	1 170	60	48	35	42	709	**SNL 4096 GL**	TS 530/510	ETS 530
														SNL 4096 GL	TNF 530/510	ETS 530
500	460	430	835	420	135	1 030	260	1 220	60	48	35	42	755	**SNL 30/500 GF**	TS 560	ETS 560
														SNL 30/500 GF	TNF 560	ETS 560
	460	430	835	420	135	1 030	260	1 220	60	48	35	42	751	**SNL 30/500 GL**	TS 560	ETS 560
														SNL 30/500 GL	TNF 560	ETS 560
	460	430	835	420	135	1 030	260	1 220	60	48	35	42	755	**SNL 40/500 GF**	TS 560	ETS 560
														SNL 40/500 GF	TNF 560	ETS 560
	460	430	835	420	135	1 030	260	1 220	60	48	35	42	751	**SNL 40/500 GL**	TS 560	ETS 560
														SNL 40/500 GL	TNF 560	ETS 560

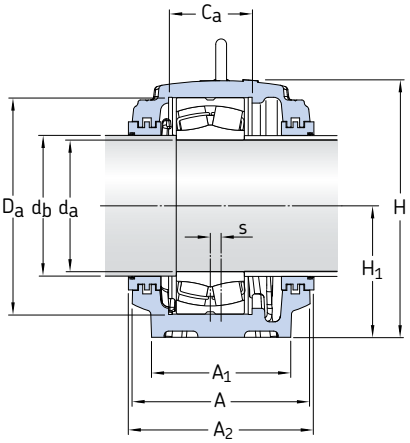




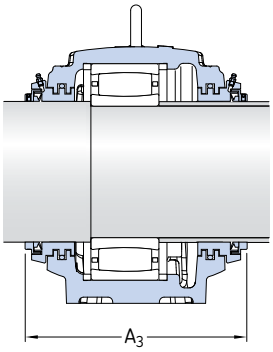
Shaft		Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings Spherical roller bearing CARB bearing
d_a	d_b	C_a	D_a	A_2	A_3		
mm		mm		mm		–	–
460	500	163	680	470	552	M 42	**23092 CA/W33** **C 3092 M**
	500	224	680	470	552	M 42	**23092 CA/W33** **–**
	500	240	760	480	562	M 48	**23192 CA/W33** **C 3192 M**
	500	260	760	480	562	M 48	**23192 CA/W33** **–**
	500	218	680	470	552	M 42	**24092 ECA/W33** **–**
	500	238	680	470	552	M 42	**24092 ECA/W33** **–**
480	510	165	700	470	561	M 42	**23096 CA/W33** **C 3096 M**
	510	224	700	470	561	M 42	**23096 CA/W33** **–**
	520	248	790	480	561	M 48	**23196 CA/W33** **–**
	520	268	790	480	561	M 48	**23196 CA/W33** **–**
	510	218	700	470	551	M 42	**24096 ECA/W33** **–**
	510	238	700	470	551	M 42	**24096 ECA/W33** **–**
500	530	167	720	470	551	M 42	**230/500 CA/W33** **C 30/500 M**
	530	226	720	470	551	M 42	**230/500 CA/W33** **–**
	530	218	720	470	551	M 42	**240/500 ECA/W33** **–**
	530	238	720	470	551	M 42	**240/500 ECA/W33** **–**

Large SNL plummer block housings for bearings with a cylindrical bore

d_a **530** mm

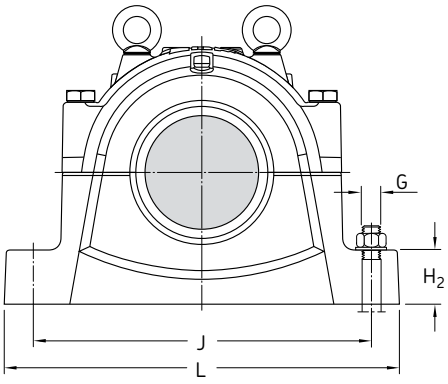


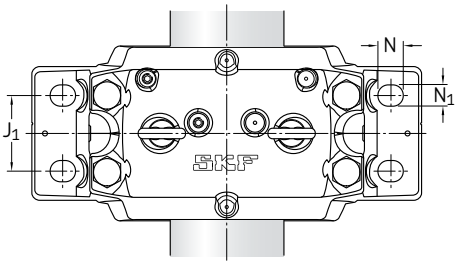
Labyrinth seals, TS design



Taconite seals, TNF design

Shaft	Housing Dimensions												Mass	Designations		
														Housing only	Seal	End cover
d_a	A	A_1	H	H_1	H_2	J	J_1	L	N	N_1	s	G				
mm	mm												kg	–		
530	470	440	920	460	155	1 110	260	1 330	70	56	35	48	947	**SNL 30/530 GF**	TS 600	ETS 600
														SNL 30/530 GF	TNF 600	ETS 600
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	941	**SNL 30/530 GL**	TS 600	ETS 600
														SNL 30/530 GL	TNF 600	ETS 600
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	947	**SNL 40/530 GF**	TS 600	ETS 600
														SNL 40/530 GF	TNF 600	ETS 600
	470	440	920	460	155	1 110	260	1 330	70	56	35	48	941	**SNL 40/530 GL**	TS 600	ETS 600
														SNL 40/530 GL	TNF 600	ETS 600





C

Shaft		Bearing seat		Width across seals		Eye bolts according to DIN 580	Appropriate bearings Spherical roller bearing
d_a	d_b	C_a	D_a	A_2	A_3		
mm		mm		mm		–	–
530	560	185	780	480	551	M 48	**230/530 CA/W33**
	560	248	780	480	551	M 48	**230/530 CA/W33**
	560	250	780	480	551	M 48	**240/530 ECA/W33**
	560	270	780	480	551	M 48	**240/530 ECA/W33**

Other products for trouble-free operation

Robust, high-performance standard bearings

SKF produces the spherical roller bearings and CARB toroidal roller bearings normally incorporated in large SNL plummer block housings in several designs and in many sizes. Both bearing types are self-aligning. The degree of misalignment which can be accommodated depends on the bearing series and the seals used in the SNL housing.

Spherical roller bearings can be used for both locating and non-locating bearing arrangements. At non-locating positions, the outer ring of the bearing is free to move axially on its seat in the housing bore. CARB toroidal roller bearings, on the other hand, accommodate axial displacements internally and are always non-locating. To fully exploit the features built into SKF bearings, a CARB bearing in the non-locating position is usually combined with a spherical roller bearing in the locating position.

Spherical roller bearings

The spherical roller bearings that can be used in large SNL plummer block housings are those in the 222, 223, 230, 231, 232, 239, 240 and 241 series. These bearings are available with a tapered bore for mounting on adapter or withdrawal sleeves, or with a cylindrical bore for mounting on a cylindrical seat on a stepped shaft.

Sealed spherical roller bearings in the 222, 223, 230, 231, 232, 240 and 241 series can also be incorporated.

CARB toroidal roller bearings

The CARB bearings that can be used in large SNL plummer block housings are those in the C 22, C 23, C 30, C 31, C32, C 39, C 40 and C 41 series.

Although available in a caged as well as a full complement version, it is normally recommended that caged bearings be used in SNL housings. CARB bearings are available with a tapered bore for mounting on adapter or withdrawal sleeves, as well as with a cylindrical bore for mounting on a cylindrical seat on a stepped shaft.



For easy mounting – adapter and withdrawal sleeves

Bearings with a tapered bore that are incorporated in SNL plummer block housings can be mounted using an adapter sleeve on smooth or stepped shafts and a withdrawal sleeve used only on stepped shafts.

These sleeves are produced by SKF in appropriate sizes for the range of bearings which can be used in SNL housings. The adapter sleeves are more popular as they are more versatile and easier to mount.

Adapter sleeves

These are slotted sleeves with a tapered outside diameter. The sizes used with bearings for SNL housings have an external taper of 1:12 and are supplied with a lock nut and lock washer. Their dimensions are in accordance with ISO 2982-1:1995.

When using adapter sleeves on straight shafts, it is possible to locate the bearing at any position on the shaft with no additional axial location.

To facilitate mounting and dismounting, most adapter sleeves are supplied with oil injection ducts and grooves to apply the SKF oil injection method.

Withdrawal sleeves

These are also slotted sleeves with a tapered outside diameter. The sizes used with bearings for SNL housings have an external taper of 1:12. Their dimensions are in accordance with ISO 2982-1:1995.

Bearings on withdrawal sleeves must be mounted against a fixed abutment, e.g. a shaft shoulder. The withdrawal sleeve must be secured in position after the bearing has been mounted by a lock nut or end plate. Lock nuts are not supplied with the sleeves and must be ordered separately.

To facilitate mounting and dismounting, most withdrawal sleeves are supplied with oil injection ducts and grooves to apply the SKF oil injection method.

More information about

- *spherical roller bearings (→ General Catalogue 6000 and brochure 6100)*
- *CARB toroidal roller bearings (→ brochure 6102)*
- *bearing sleeves (→ catalogue 6005)*
- *SKF self-aligning bearing system (→ brochure 6121)*

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Other products

Lock nuts

SKF lock nuts, also referred to as shaft nuts, are available in several designs to axially locate bearings on shaft ends. The most popular lock nuts are supplied in the KM, KML and HM series. These nuts have four or eight equally spaced slots in the outside diameter and are locked in position with locking washers or locking clips engaging a groove in the shaft. The lock nut dimensions are in accordance with ISO 2982-2:1995 as are the dimensions of the locking washers in the MB and MBL series.

Other lock nuts produced by SKF, including those in the KMT, KMTA, KMK and KMFE series, do not require a groove in the shaft.



Lubricating greases for bearings

Appropriate lubrication is necessary for proper bearing performance. Grease is normally used for applications involving large SNL plummer blocks. SKF has put considerable effort into establishing a range of high-quality greases for ball and roller bearing lubrication.

The SKF SYSTEM 24 automatic lubricator can be used with large SNL plummer block housings. An adapter can be fitted to the standard drilled and tapped hole in the housing cap. Make sure that surplus grease is able to leave the housing.



SKF ConCentra roller bearing units

These units are plummer blocks incorporating factory-lubricated bearings for easy installation. They comprise

- a one-piece plummer block housing of grey cast iron
- a spherical roller bearing in the 222 series with a special inner ring
- a special adapter sleeve
- two seals made of acrylonitrile-butadiene rubber, double lip type, or two labyrinth seals.

The units are available in a locating and a non-locating version.



Other bearing housings

To meet a wide variety of application demands, SKF produces a comprehensive range of bearing housings. The majority of these are of the split plummer block type but the SKF range also includes

- one-piece plummer block housings
- flanged housings
- take-up housings
- two-bearing housings.

Most of these housings are designed to accommodate self-aligning bearings, and the range extends to shaft diameters up to and including 1 800 mm. Housings are available for oil lubrication as well as grease lubrication and also for bearings with cylindrical bore or for tapered bore, mounted on adapter or withdrawal sleeves. Smooth or stepped shafts can be used.

Various types of seals are used. Most housings are made of grey cast iron but spheroidal graphite cast iron or cast steel housings are included in the range.

For further information, contact SKF.

More information about

- *lock nuts (→ catalogue 6006)*
- *greases (→ catalogue MP3000)*
- *SKF ConCentra roller bearing units (→ brochure 6103)*
- *housings (→ catalogue 6004)*



Condition monitoring equipment

The goals of condition monitoring are to maximize the time that the machine is correctly functioning and to minimize the number of breakdowns, thereby significantly reducing operating downtime and maintenance cost.

To achieve this, it is recommended that the bearing and machine condition be monitored either periodically or continuously. Condition monitoring enables incipient bearing damage to be detected and evaluated, so that bearing replacement can be scheduled for a time when the machine is not in operation, thus avoiding unplanned stoppages. Applied to all machinery (not just sensitive or problematic machines), condition monitoring improves machinery operation to an optimum level, often exceeding the original equipment specifications.

SKF provides a comprehensive range of condition monitoring equipment to measure all important parameters. These include

- temperature
- speed
- noise
- oil condition
- shaft alignment
- vibration
- bearing condition.

The range includes lightweight, handheld devices for manual use as well as complex continuous monitoring systems for preventive maintenance on fixed installations.

One example is the MARLIN I-Pro data manager, which is a rugged, high performance data collector that enables plant operations personnel to quickly and easily collect, store and analyze overall machine vibration, process and inspection data. The unit enables trending, comparison with previous readings, alarm alerts and more. A "user notes" feature allows an operator to immediately record detailed observations of troublesome machine conditions or questionable measurements.



Recording vibration values using an SKF Microlog series data collector

SKF Vibration Pen^{plus}



Noise testing



MARLIN I-Pro data manager



SKF – the knowledge engineering company

From the company that invented the self-aligning ball bearing more than 100 years ago, SKF has evolved into a knowledge engineering company that is able to draw on five technology platforms to create unique solutions for its customers. These platforms include bearings, bearing units and seals, of course, but extend to other areas including: lubricants and lubrication systems, critical for long bearing life in many applications; mechatronics that combine mechanical and electronics knowledge into systems for more effective linear motion and sensorized solutions; and a full range of services, from design and logistics support to conditioning monitoring and reliability systems.

Though the scope has broadened, SKF continues to maintain the world's leadership in the design, manufacture and marketing of rolling bearings, as well as complementary products such as radial seals. SKF also holds an increasingly important position in the market for linear motion products, high-precision aerospace bearings, machine tool spindles and plant maintenance services.

The SKF Group is globally certified to ISO 14001:2004, the international standard for environmental management, as well as OHSAS 18001, the health and safety management standard. Individual divisions have been approved for quality certification in accordance with either ISO 9001:2000 or ISO/TS 16949:2002.

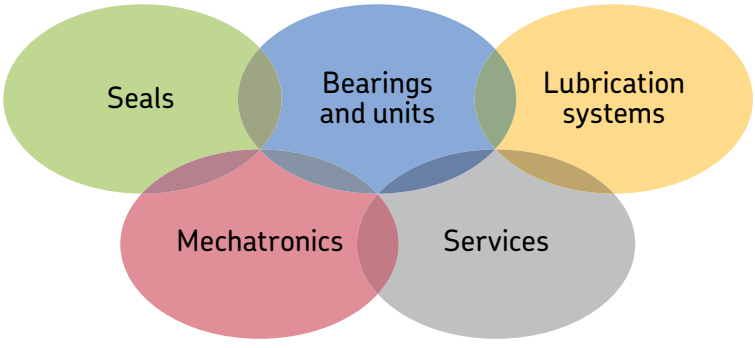
With some 100 manufacturing sites worldwide and sales companies in 70 countries, SKF is a truly international corporation. In addition, our distributors and dealers in some 15 000 locations around the world, an e-business marketplace and a global distribution system put SKF close to customers for the supply of both products and services. In essence, SKF solutions are available wherever and whenever customers need them. Overall, the SKF brand and the corporation are stronger than ever. As the knowledge engineering company, we stand ready to serve you with world-class product competencies, intellectual resources, and the vision to help you succeed.



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Evolving by-wire technology
SKF has a unique expertise in fast-growing by-wire technology, from fly-by-wire, to drive-by-wire, to work-by-wire. SKF pioneered practical fly-by-wire technology and is a close working partner with all aerospace industry leaders. As an example, virtually all aircraft of the Airbus design use SKF by-wire systems for cockpit flight control.

SKF is also a leader in automotive by-wire technology, and has partnered with automotive engineers to develop two concept cars, which employ SKF mechatronics for steering and braking. Further by-wire development has led SKF to produce an all-electric forklift truck, which uses mechatronics rather than hydraulics for all controls.







Harnessing wind power
The growing industry of wind-generated electric power provides a source of clean, green electricity. SKF is working closely with global industry leaders to develop efficient and trouble-free turbines, providing a wide range of large, highly specialized bearings and condition monitoring systems to extend equipment life of wind farms located in even the most remote and inhospitable environments.



Working in extreme environments
In frigid winters, especially in northern countries, extreme sub-zero temperatures can cause bearings in railway axleboxes to seize due to lubrication starvation. SKF created a new family of synthetic lubricants formulated to retain their lubrication viscosity even at these extreme temperatures. SKF knowledge enables manufacturers and end user customers to overcome the performance issues resulting from extreme temperatures, whether hot or cold. For example, SKF products are at work in diverse environments such as baking ovens and instant freezing in food processing plants.



Developing a cleaner cleaner
The electric motor and its bearings are the heart of many household appliances. SKF works closely with appliance manufacturers to improve their products' performance, cut costs, reduce weight, and reduce energy consumption. A recent example of this cooperation is a new generation of vacuum cleaners with substantially more suction. SKF knowledge in the area of small bearing technology is also applied to manufacturers of power tools and office equipment.



Maintaining a 350 km/h R&D lab
In addition to SKF's renowned research and development facilities in Europe and the United States, Formula One car racing provides a unique environment for SKF to push the limits of bearing technology. For over 50 years, SKF products, engineering and knowledge have helped make Scuderia Ferrari a formidable force in F1 racing. (The average racing Ferrari utilizes more than 150 SKF components.) Lessons learned here are applied to the products we provide to automakers and the aftermarket worldwide.



Delivering Asset Efficiency Optimization
Through SKF Reliability Systems, SKF provides a comprehensive range of asset efficiency products and services, from condition monitoring hardware and software to maintenance strategies, engineering assistance and machine reliability programmes. To optimize efficiency and boost productivity, some industrial facilities opt for an Integrated Maintenance Solution, in which SKF delivers all services under one fixed-fee, performance-based contract.



Planning for sustainable growth
By their very nature, bearings make a positive contribution to the natural environment, enabling machinery to operate more efficiently, consume less power, and require less lubrication. By raising the performance bar for our own products, SKF is enabling a new generation of high-efficiency products and equipment. With an eye to the future and the world we will leave to our children, the SKF Group policy on environment, health and safety, as well as the manufacturing techniques, are planned and implemented to help protect and preserve the earth's limited natural resources. We remain committed to sustainable, environmentally responsible growth.



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