



Split plummer block housings SE 2, 3, 5 and 6 series

Bearing types

- Self-aligning ball bearings
- Spherical roller bearings
- CARB toroidal roller bearings

Bearing dimension series

- 02, 03, 22, 23, 32

Shaft diameter range

- 30 to 160 mm
- 1 1/8 to 5 1/2 in.

Typical shaft-bearing combinations

- Plain shaft with bearing on an adapter sleeve
- Stepped shaft with bearing on a cylindrical seat

Seals

- Four-lip
- Labyrinth
- Felt
- V-ring
- Heavy duty

Lubrication

- Grease

Materials

- Grey cast iron
- Spheroidal graphite cast iron

Mounting

- Two-bolt mounting
- Four-bolt mounting

Compliance to standards

- ISO 113
(two-bolt plummer block housings)

Supersedes

- SNL, SN, SNA, SNH series

SE plummer (pillow) block housings are a new generation of the most popular SKF bearing housings on the market – SNL plummer (pillow) block housings. With a number of new features and a stronger material grade, the upgraded housings continue to provide maximum reliability while meeting increasing demands. Different housing variants and seal designs are available, making the use of tailored housings virtually unnecessary and enabling cost-effective bearing arrangements to be made.

SE plummer block housings supersede SNL plummer block housings in the 2, 3, 5 and 6 series, and will be available in corresponding sizes, starting with size 511.

Split plummer block housings SE 2, 3, 5 and 6 series

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Designations

Designation system for SE plummer (pillow) block housings

		SE	512-610	TD
Prefix for bolt holes				
–	Two oblong cast holes for attachment bolts			
F	Four oblong cast holes for attachment bolts			
S	No holes for attachment bolts (drilled holes can be supplied)			
Series				
SE	Standard plummer block housing			
Material				
–	Grey cast iron			
D	Spheroidal graphite cast iron			
Size identification				
2(00)	Housing for bearings with a cylindrical bore, diameter series 2			
3(00)	Housing for bearings with a cylindrical bore, diameter series 3			
5(00)	Housing for bearings on an adapter sleeve, diameter series 2			
6(00)	Housing for bearings on an adapter sleeve, diameter series 3			
..(00)	Size code of the bearing, (00) × 5 = bearing bore diameter [mm]			
Suffixes¹⁾				
V	Grease escape hole in the housing base			
T	Drilled and tapped hole 1/4-28 UNF on one side of the housing cap to lubricate the seal, grease fitting AH 1/4-28 SAE-LT supplied with the housing			
TD	Drilled and tapped hole 1/4-28 UNF on both sides of the housing cap to lubricate the seals, two grease fittings AH 1/4-28 SAE-LT supplied with the housing			
/MS1	Two drilled holes for attachment bolts			
/MS2	Four drilled holes for attachment bolts			

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

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Designation system for seals

TSN 512 L

Series

TSN	Seal for SE plummer block housings
FS	Felt strip
FSB	Felt strip for high operating temperature

Size identification

2(00)	Housing for bearings with a cylindrical bore, diameter series 2
3(00)	Housing for bearings with a cylindrical bore, diameter series 3
5(00)	Housing for bearings on an adapter sleeve, diameter series 2
6(00)	Housing for bearings on an adapter sleeve, diameter series 3
..(00)	Size code of the bearing, (00) x 5 = bearing bore diameter [mm]
...	For felt strips only, number indicating the length of the strip

Seal type

A	V-ring seal
C	Felt seal
CB	Felt seal for high operating temperatures
L	Four-lip seal
S	Labyrinth seal
NB	Taconite seal with axial labyrinth and V-ring
NC	Taconite seal with axial labyrinth
ND	Taconite seal with radial labyrinth and V-ring

Indication for an inch shaft

A, E	Seal for inch shaft
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Designation system for end covers

ASNH 512-610

Series

ASNH	End cover for SE plummer block housings
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Size identification

...	Housing size identification
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Designation system for locating rings

FRB 13/110

Series

FRB	Locating ring for SKF bearing housings
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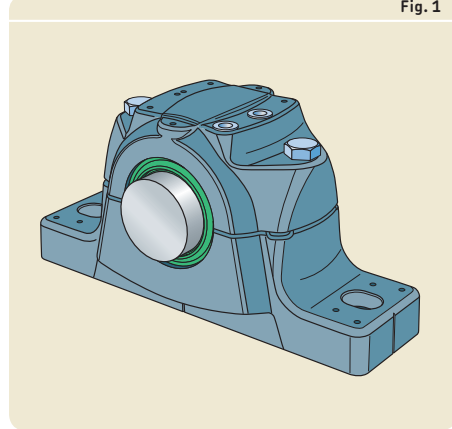
Size identification

...	Width and outside diameter of the locating ring [mm]
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Standard housing design

SE plummer (pillow) block housings in the 2, 3, 5 and 6 series are split housings consisting of a cap and base (→ **fig. 1**). They have two holes cast into the base for attachment bolts. The housings are designed on the “building block” principle to enable a wider choice of bearings and seals as well as a variety of shaft-bearing combinations and lubrication methods.

Fig. 1



Split plummer block housings SE 2, 3, 5 and 6 series

Features and benefits

SE plummer block housings in the 2, 3, 5 and 6 series have the following features and benefits:

Stiffer and more robust housing

The new, optimized design together with their stronger material grade make SE housings more robust compared to SNL housings. Also, the breaking loads are improved in some directions.

With larger ribs in the base, and additional material around the holes for attachment bolts (→ **figs. 2 and 3**), SE housings are stiffer than their predecessors. The attachment bolts can be preloaded to locate the housing without deforming the base or housing bore.

Better heat dissipation

The ribs around the perimeter and in the centre of the base (→ **fig. 3**) are larger, to increase the contact area between the base and support surface. This results in improved heat flow from the bearing outer ring to the support surface.

Improved markings on the housing

The housing cap and base are matched during manufacture and are not interchangeable with the caps and bases of other housings. A unique serial number on both housing parts helps avoid any mismatches (→ **fig. 4**).

The designation on the housing cap has also been enhanced for readability and now contains the complete housing designation, i.e. with variant suffixes, for better traceability (→ **fig. 5**).

Fig. 2

Reinforcement rib in the base

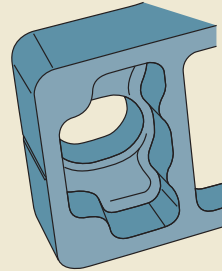


Fig. 3

Enlarged central rib for better support and heat dissipation

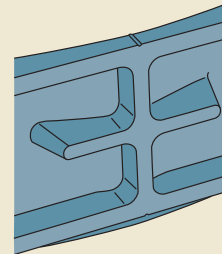
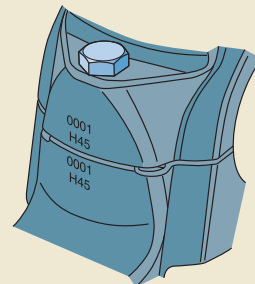


Fig. 4

Individually marked cap and base



Dimples to locate accessories

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

Simpler mounting

The grease fitting kit contains torque values for the cap bolts and data for initial grease fills. Housings from size 519-616 and above have an eye bolt on top for safe and easy handling (→ fig. 6).

To simplify mounting and make alignment more accurate, lines indicating the centre of the bearing seat and housing bore axis are cast into the housing base. Dimples indicate the position for dowel pins (→ fig. 7). Mounting instructions are supplied with each seal pack.

Simpler maintenance

SE housings have a pry slot between the cap and base to ease removal of the cap during dismantling (→ fig. 4).

Fig. 5

Dimples indicate positions for accessories

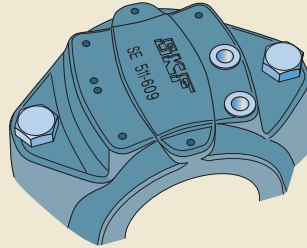


Fig. 6

Eye bolt

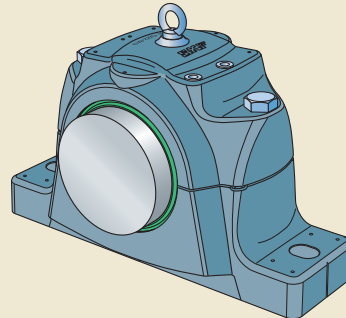
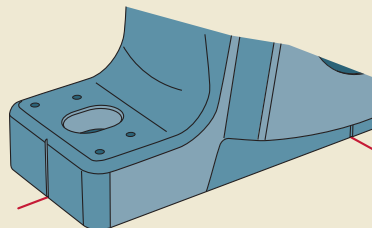


Fig. 7

Cast indications mark the centre of the housing bore and bearing seat



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Grease guiding system

For efficient relubrication from the side, SE housings from size 511 to 532 have an integrated flange that guides grease from the grease fitting directly to the bearing (→ fig. 8). This can reduce grease consumption and disposal costs.

Grease level markings

To avoid over-filling, markings at each corner inside the housing base indicate the proper grease level for an initial 20 or 40% fill of the free space between housing and bearing (→ fig. 9).

Better lubrication facilities

The hole in the housing cap for relubrication through the centre of the bearing is positioned off-centre relative to the shaft axis (→ fig. 10). Housings from size 518 up to 532 with G 1/4 grease fittings are also supplied with H1 and M1 fittings as standard. M1 fittings enable a higher flow of grease during relubrication.

Fig. 8

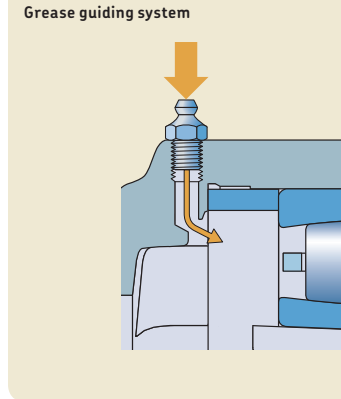


Fig. 9

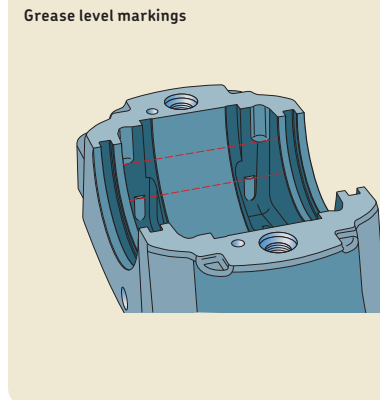
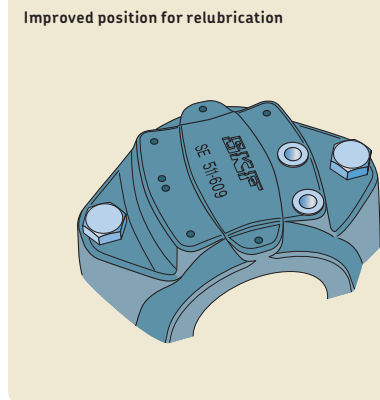


Fig. 10



New position of grease escape hole

The grease escape hole, on housings with a V suffix, is parallel to the shaft (→ **fig. 11**) for easier access after the housing is mounted. The hole is threaded and plugged.

Improved corrosion protection

SE housings are well protected from corrosion. The corrosivity category of the paint is higher than for SNL housings (→ *Environmental conditions*, **page 36**).

Environmental Product Declaration

In SKF's continuing efforts to reduce environmental impact, a declaration of SE housings is described in an Environmental Product Declaration (EPD) according to ISO 14025 (→ **fig. 12**). The scope of the EPD is from 'cradle to cradle' and the content is a description of the SE housing, its material, its production, its area of use in the final product and end of life for the housing.

Fig. 11

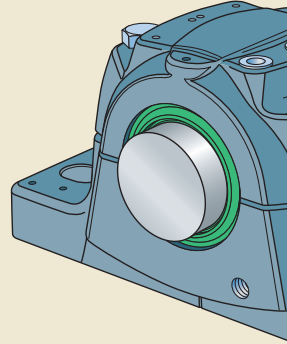
New position of grease escape hole

Fig. 12

Environmental Product Declaration

EPD®



Housing material

SE plumber block housings are made of an improved grade of grey cast iron compared to SNL housings.

Paint, corrosion protection

SE plumber block housings are painted graphite grey (RAL design 000 30 00) using a water based alkyd/acryl paint. The paint protects the housing in accordance with ISO 12944-2, corrosivity category C3 (i.e. exterior atmospheres with a moderate level of pollution; coastal areas with low salinity; interior atmospheres with high humidity and some air pollution). It is not affected by most lubricating or engine oils, cutting fluids or alkaline washing chemicals. Housings can be repainted with most water or solvent based 1- or 2-component paints.

Unpainted surfaces are protected by a solventless rust inhibitor.

Dimension standards

Boundary dimensions are in accordance with ISO 113 for two-bolt plumber block housings.

Interchangeability

SE plumber block housings in the 2, 3, 5 and 6 series are dimensionally interchangeable with housings in the SNL 2, 3, 5 and 6 series and former plumber block housings in the SN, SNA and SNH series.

Product data

SE plumber (pillow) block housings supersede SNL plumber (pillow) block housings. In general, the product data for SE housings is similar to SNL housings (→ *Split plumber block housings SNL 2, 3, 5 and 6 series*, starting on **page 55**). There are, however, two exceptions that should be taken into consideration, and these are mentioned below.

The product tables for SNL housings can be used as a reference for SE housings until updated tables are available. When in doubt, contact the SKF application engineering service.

Initial grease fill

The initial grease fill for an SE housing is different from that for an SNL housing. Quantities for 20 and 40% grease fills for SE housings are provided in the instructions supplied with the grease fitting kit.

Torque values for cap bolts

The cap bolt torque values for some SE housings are different from SNL housings. The torque values are in the instructions supplied with the grease fitting kit.

Ordering information

For SE housings in the 2, 3, 5 and 6 series, each of the following items must be ordered separately:

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

Order example

Two plummer block housings with four-lip seals are required for a 22212 EK spherical roller bearing on an H 312 adapter sleeve and a C 2212 KTN9 CARB toroidal roller bearing on an H 312 E adapter sleeve. One housing will accommodate the non-locating bearing at the end of the shaft. The other housing will accommodate the locating bearing and a through shaft.

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

- 2 housings SE 512-610
- 2 four-lip seal packs TSN 512 L (each pack contains two seals)
- 1 end cover ASNH 512-610
- 4 locating rings FRB 10/110