

One basic design – many variants

SNL plummer block housings are primarily intended for self-aligning ball bearings, spherical roller bearings and CARB toroidal roller bearings. The housings are designed on the "building block" principle to enable a wider choice of bearings and seals as well as a variety of mounting and lubrication methods.

A building block system

The SKF assortment of SNL plummer block housings can accommodate shafts ranging from 20 to 160 mm in diameter. These housings, which all share the same design features, are available with a variety of seals. The standard range also includes a number of options, like tapped holes for grease fittings and condition monitoring sensors, to create an almost limitless combination of variants. Housings are also available for bearings for larger shaft diameters (→ **page 103**).

SNL plummer block housings are made of high quality, grey cast iron to provide high tensile strength. For applications where additional strength is required, housings made of spheroidal graphite cast iron are available.

Several sealing options

An important advantage of the SNL plummer block housings is that they can be fitted with a variety of seals. Standard SKF seals include four-lip seals, V-ring seals, felt seals, labyrinth seals and heavy-duty taconite labyrinth seals with a radial labyrinth and end covers. Other standard seals are also available for SNL housings, but the housing has to be modified for the seal to be effective. These include oil seals and heavy-duty taconite labyrinth seals with an axial labyrinth.

SNL plummer block housings are dimensionally interchangeable with the earlier SNH housings. Their dimensions conform to ISO 113:1999.

Mounting bearings on a cylindrical seat

Bearings with a cylindrical bore are normally mounted with an interference fit on the shaft. Appropriate shaft tolerances should be selected.

Small bearings may be mounted cold, driven into position by applying light hammer blows to a sleeve placed against the bearing ring face. The use of a mounting dolly enables the mounting force to be applied centrally.

The force to mount bearings increases considerably with increasing bearing size. Therefore, medium sized bearings should be heated prior to mounting with an SKF electric induction heater.

Support surface for housing base

To provide long bearing service life, SKF recommends that all housing support surfaces be finished to $R_a \leq 12,5 \mu\text{m}$. The flatness (planicity) tolerance should be to IT7. For moderate demands, IT8 may be satisfactory.

Dowel pins

SNL housings are designed for loads acting vertically to the housing base support. If they are to be 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 the holes to accommodate dowel pins are provided in **tables 4 and 5**.

Housings for four-bolt mounting

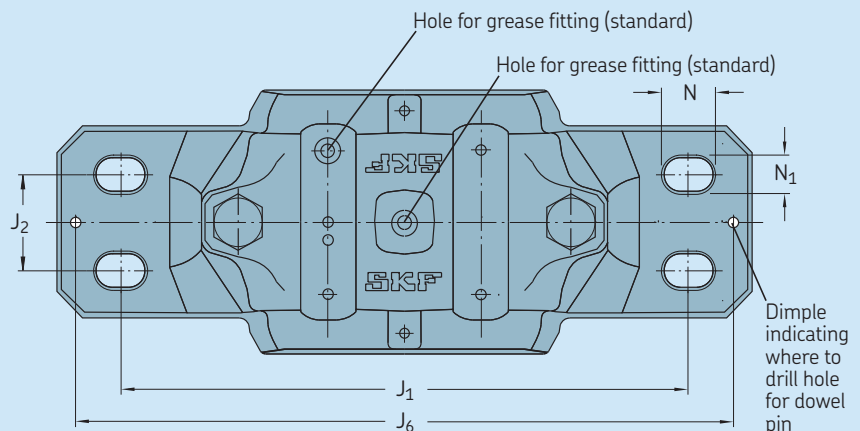
To attach SNL housings to T-shaped beams, a variant with four oblong holes cast into the mounting base can be supplied. Available sizes are shown in **table 5**. These housings are identified by the series designation FSNL, e.g. FSNL 511-609.

It is also possible to drill four bolt holes in the base of a standard SNL housing. Their positions are indicated by cast dimples. Recommended dimensions are provided in **table 6 on page 34**. SNL housings with four drilled bolt holes can be supplied upon request. These housings are identified by the designation suffix /MS2, e.g. SNL 510-608/MS2.

NOTE: Housings supplied with four drilled holes are not interchangeable with the variant containing four cast oblong bolt holes (FSNL). The size and position of the holes are different.

Table 5

Bolt hole dimensions for four cast oblong bolt holes



Housing Size	Dimensions				
	N	N ₁	J ₁	J ₂	J ₆
–	mm				
FSNL 511-609	20	15	210	35	234
FSNL 512-610	20	15	210	35	234
FSNL 513-611	20	15	230	40	252
FSNL 515-612	20	15	230	40	257
FSNL 516-613	24	18	260	50	288
FSNL 517	24	18	260	50	292
FSNL 518-615	24	18	290	50	317
FSNL 519-616	24	18	290	50	317
FSNL 520-617	24	18	320	60	348
FSNL 522-619	24	18	350	70	378
FSNL 524-620	24	18	350	70	378
FSNL 526	28	22	380	70	414
FSNL 528	32	26	420	80	458
FSNL 530	32	26	450	90	486
FSNL 532	32	26	470	90	506

Housings for two-bolt mounting

SNL housings are as standard performed with two oblong cast holes with dimensions according to the product tables. If two drilled holes in the base are needed, this can be made provided an SSNLD housing with a blank base is used. Their positions are indicated by cast dimples. Recommended bolt hole dimensions are provided in **table 6 on page 34**. SSNLD housings with two drilled bolt holes can be supplied upon request. These housings are identified by the designation suffix /MS1, e.g. SSNLD 516-613/MS1.