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; preassembled 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 of ISO Dimension Series 02, 03, 22, 23 and 32. They can often be fitted with a number of different seals. Many 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 producers of split plummer block housings – synonymous with operational reliability, quality and versatility.

SNL plummer block housings have more to offer

SKF has developed the SNL plummer block housings to be the first choice for design, quality and economy. This enables customers to keep a step ahead.

SNL plummer block housings enable the full service life potential of the incorporated bearings to be exploited with less need for maintenance. This supports user's efforts to further reduce maintenance costs. Among other characteristics, the housings are very stiff, making them insensitive to uncontrolled and excessive tightening of the attachment bolts.

Another benefit is the wide range of different types of standard seals to be fitted in the SNL plummer block housings.

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.

SNL plummer block housing with sealing options

Superior performance in all sectors

High load carrying capacity, robust design, accurately machined surfaces and simplified installation make SKF housings the first choice for machine manufacturers and end users.

Another reason why SKF housings are so popular is because knowledgeable consumers know that high quality components can significantly reduce operating costs – that includes everything from maintenance, energy consumption, lubricant consumption and downtime.

Applications
- Mine ventilators
- Exhaust and fresh air fans
- Flue gas fans
- Emergency power supply generator flywheels
- Transmissions
- Belt drives
- Impact and hammer mills

Customer demands
- Robust design
- No breakdowns
- Extremely effective seals
- Long maintenance intervals
- Condition monitoring facilities
- Fast and easy mounting and dismounting

Solution

Designations and housing data – general

Designations

SNL housing designations consist of a basic designation that identifies the design, material and size, followed by any supplementary designations needed to identify features that differ from the standard design. A dash (–) in the designation chart indicates that the features belong to the standard design.

Load carrying ability

SNL plummer block housings are intended for loads acting vertically toward the base plate (support). If loads acting in other directions occur, check to be sure that the magnitude of the load is permissible for the housing, for the bolts joining the housing cap and base, and for the 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**. The permissible housing load can be obtained from these values by applying a selected safety factor that depends on the operating conditions. In general engineering in Europe, a safety factor of 6 is often used. It is important for the load carrying ability of the

Designation chart

F	SNL	D	522-619	SN

Prefixes

–	Two oblong cast holes for attachment bolts
F	Four oblong cast holes for attachment bolts
S	No holes

Basic design

Material

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

Size

205 to **218**
505 to **532**

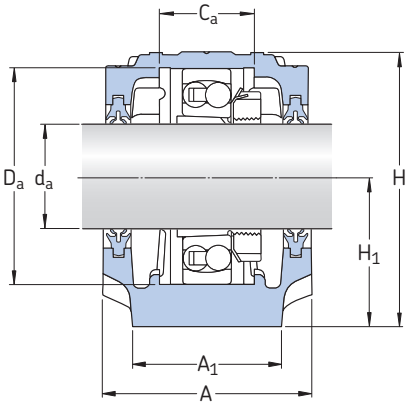
Suffixes

TURU	Housing prepared for oil lubrication with seals
V	Housing with a grease escape hole in the base
T	Drilled and tapped hole 1/4-28 UNF at one side of the cap to accommodate a grease fitting AH 1/4-28 SAE-LT for relubrication of seal; fitting supplied with the housing
TD	Drilled and tapped hole 1/4-28 UNF at both sides of the cap to accommodate a grease fitting AH 1/4-28 SAE-LT for lubrication of seals, two fittings supplied with housing
SN	Housing with drilled and tapped hole for sensor position 4 (→ **fig. 1** on **page 27**)
/MS1	Two drilled holes for attachment bolts
/MS2	Four drilled holes for attachment bolts

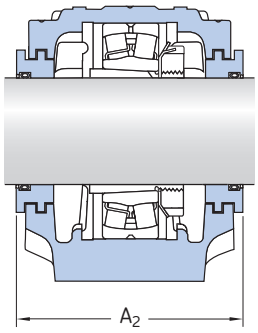
Where two or more suffixes are used they are listed in the same order as above.

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

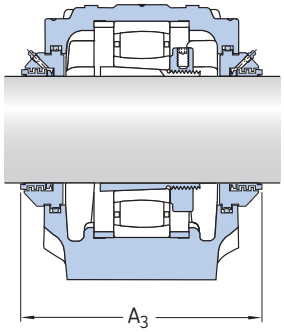
d_a **55 – 65** mm



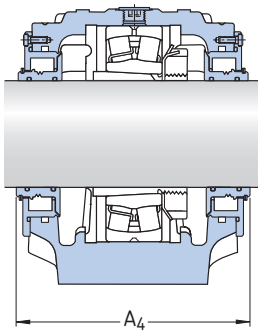
Four-lip seal, L design[1)]



Labyrinth seals, S design



Taconite seals, ND design



Oil seals, TURU design

Shaft	Housing Dimensions										Mass	Designations		
												Housing	Seals	End cover
d_a	A	A_1	H	H_1	H_2	J	L	N	N_1	G				
mm	mm										kg	–		
55	105	70	134	70	30	210	255	24	18	16	5,10	**SNL 512-610**	TSN 512 L	ASNH 512-610
												SNL 512-610	TSN 512 A	ASNH 512-610
												SNL 512-610	TSN 512 C	ASNH 512-610
												SNL 512-610	TSN 512 S	ASNH 512-610
												SNL 512-610	TSN 512 ND	ASNH 512-610
												SNL 512 TURU	included	ASNH 515-612 R
	115	80	156	80	30	230	280	24	18	16	7,00	**SNL 515-612**	TSN 612 L	ASNH 515-612
												SNL 515-612	TSN 612 A	ASNH 515-612
												SNL 515-612	TSN 612 C	ASNH 515-612
												SNL 515-612	TSN 612 S	ASNH 515-612
												SNL 515-612	TSN 612 ND	ASNH 515-612
												SNL 612 TURU	included	ASNH 515-612 R
60	110	80	149	80	30	230	275	24	18	16	6,50	**SNL 513-611**	TSN 513 L	ASNH 513-611
												SNL 513-611	TSN 513 A	ASNH 513-611
												SNL 513-611	TSN 513 C	ASNH 513-611
												SNL 513-611	TSN 513 S	ASNH 513-611
												SNL 513-611	TSN 513 ND	ASNH 513-611
												SNL 513 TURU	included	ASNH 516-613 R
	120	90	177	95	32	260	315	28	22	20	9,50	**SNL 516-613**	TSN 613 L	ASNH 516-613
												SNL 516-613	TSN 613 A	ASNH 516-613
												SNL 516-613	TSN 613 C	ASNH 516-613
												SSNL 516-613	TSN 613 S	ASNH 516-613
												SNL 516-613	TSN 613 ND	ASNH 516-613
												SNL 613 TURU	included	ASNH 516-613 R
65	115	80	155	80	30	230	280	24	18	16	7,00	**SNL 515-612**	TSN 515 L	ASNH 515-612
												SNL 515-612	TSN 515 A	ASNH 515-612
												SNL 515-612	TSN 515 C	ASNH 515-612
												SNL 515-612	TSN 515 S	ASNH 515-612
												SNL 515-612	TSN 515 ND	ASNH 515-612
												SNL 515 TURU	included	ASNH 518-615 R
	140	100	194	100	35	290	345	28	22	20	12,5	**SNL 518-615**	TSN 615 L	ASNH 518-615
												SNL 518-615	TSN 615 A	ASNH 518-615
												SNL 518-615	TSN 615 C	ASNH 518-615
												SNL 518-615	TSN 615 S	ASNH 518-615
												SNL 518-615	TSN 615 ND	ASNH 518-615
												SNL 615 TURU	included	ASNH 518-615 R

[1)] Dimension A remains the same also with C and A seal designs