

Split plummer block housings SNL 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

- 20 to 30 mm and 60 to 160 mm
- 3/4 to 1 1/8 in. and 2 1/2 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 | • V-ring |
| • Labyrinth | • Heavy-duty |
| • Felt | |

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

- SN, SNA, SNH series

SNL plummer block housings are the most popular SKF bearing housings on the market, developed to be the first choice for design, quality and economy.

SNL plummer block housings enable the incorporated bearings to achieve maximum service life with less need for maintenance. 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.

For sizes 507 up to and including 515-612, SNL housings are replaced by a new generation of plummer block housings (→ *Split plummer block housings SE 2, 3, 5 and 6 series*, starting on **page 139**). From size 516-613 upward, SNL plummer block housings in the 2, 3, 5 and 6 series remains.

Split plummer block housings

SNL 2, 3, 5 and 6 series

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Designations

2

Designations

Designation system for SNL plummer (pillow) block housings

SNL_518-615 SNPrefixes 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

- SNL** Standard plummer block housing

Material

- Grey cast iron
- D Spheroidal graphite cast iron

Size identification

- 2(00)** Housing for bearings on a cylindrical seat, diameter series 2
- 3(00)** Housing for bearings on a cylindrical seat, 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
- TURU** Housing prepared for oil lubrication, including seals
- T** Drilled and tapped hole 1/4-28 UNF at one side of the housing cap to lubricate a seal.
- TD** Grease fitting AH 1/4-28 SAE-LT supplied with the housing
- TD** Drilled and tapped hole 1/4-28 UNF at both sides of the housing cap to lubricate the seals.
- SN** Two grease fittings AH 1/4-28 SAE-LT supplied with the housing
- /MS1** Drilled and tapped M8 hole for sensor in position 3 (→ **fig. 16, page 83**)
- /MS2** 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.

Split plummer block housings SNL 2, 3, 5 and 6 series**Designation system for seals****TSN 518 L****Series**

TSN	Seal for SNL 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) × 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 temperature
L	Four-lip seal
S	Labyrinth seal
NB	Taconite heavy-duty seal with axial labyrinth and V-ring seal
NC	Taconite heavy-duty seal with axial labyrinth
ND	Taconite heavy-duty seal with radial labyrinth and V-ring seal

Indication for an inch shaft

A, E	Seal for inch shaft
-------------	---------------------

Designation system for end covers**ASNH 518-615****Series**

ASNH	End cover for SNL plummer block housings
-------------	--

Size identification

...	Housing size identification
------------	-----------------------------

Designation system for locating rings**FRB 17.5/160****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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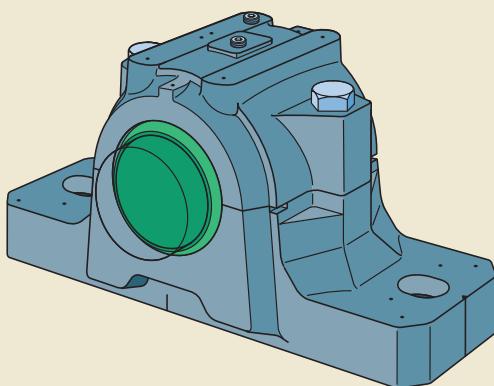
Standard housing design

2

Standard housing design

SNL 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.

Fig. 1



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

Features and benefits

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

Stiff housing

The housing base is reinforced with ribs and has extra material surrounding the holes for the attachment bolts (→ fig. 2). The attachment bolts can be preloaded to locate the housing without deforming the housing base or bore.

Good heat dissipation

Additional ribs in the housing base (→ fig. 3) increase the contact area between the housing base and the support surface to improve the heat flow from the bearing outer ring to the support surface.

Grease guiding system

For more efficient relubrication from the side, SNL housings from sizes 216 and 516-613 upwards have an integrated flange that guides grease from the grease fitting directly to the bearing (→ fig. 4).

Caps and bases individually marked

The housing cap and base are matched during manufacture and are not interchangeable with the caps and bases of other housings. To prevent any mismatches, a unique serial number is marked on both the housing cap and the base (→ fig. 5).

Dimples to locate accessories

Dimples cast into the housing cap indicate where grease fittings and condition monitoring sensors can be mounted for maximum effectiveness (→ fig. 6).

Simple mounting

To simplify mounting and make alignment more accurate, lines indicating the centre of the bearing seat and the 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.

Housings from size 524-620 and above are supplied with an eye bolt on the cap for safe and easy handling.

Fig. 2
Reinforcement rib in the base

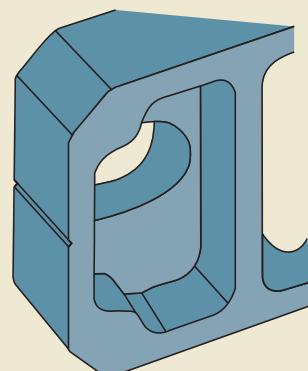


Fig. 3
Extra rib for better heat conduction

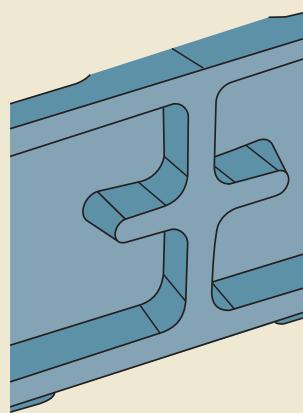
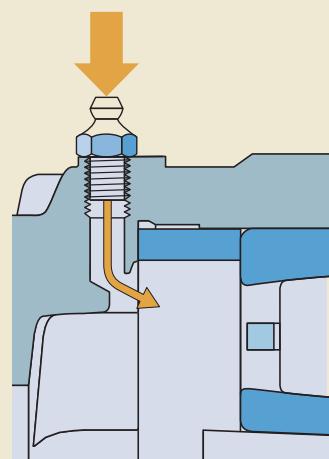


Fig. 4
Grease guiding system



Standard housing design

Fig. 5

Individually marked cap and base

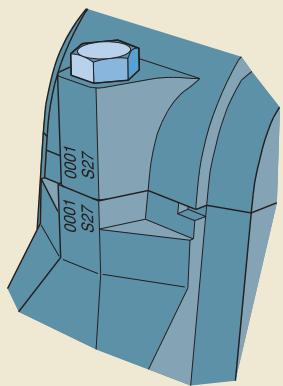


Fig. 6

Dimples indicate positions for accessories

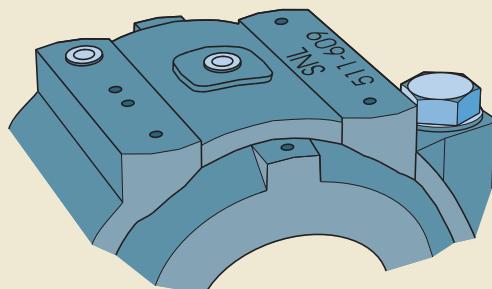
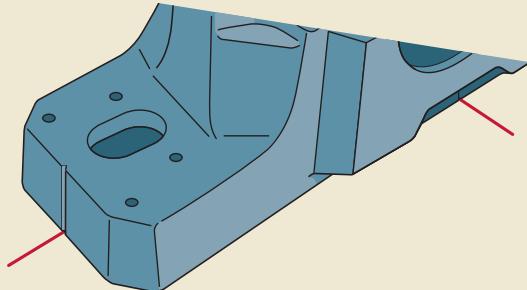


Fig. 7

Cast indications mark the centre of the housing bore



Housing material

SNL housings are made of grey cast iron.

Paint, corrosion protection

SNL housings are painted black (RAL 9005) using a water based alkyd/acryl paint. The paint protects the housing in accordance with ISO 12944-2, corrosivity category C2 (i.e. exterior atmospheres with low level of pollution, interior atmospheres where condensation may occur). The paint is not affected by most lubricating and engine oils, cutting fluids or alkalescent 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 plummer block housings.

Interchangeability

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

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

Housing variants

In addition to standard design SNL plunger (pillow) block housings, a number of variants are also available. Variants include housings made of different materials, alternative attachment bolt hole configurations, different bearing seat tolerance classes and modifications for special applications.

Housing material

For applications where extra strength is needed, SNL housings are also available in spheroidal graphite cast iron. Housings made of spheroidal graphite cast iron are available from size 516-613 and are supplied with a solid base (no

holes for attachment bolts) as standard. From size 516-613 the housings can be supplied with four oblong holes cast in the base. All housings made of spheroidal graphite cast iron can be supplied with two drilled holes for attachment bolts (designation suffix /MS1).

Attachment bolt holes

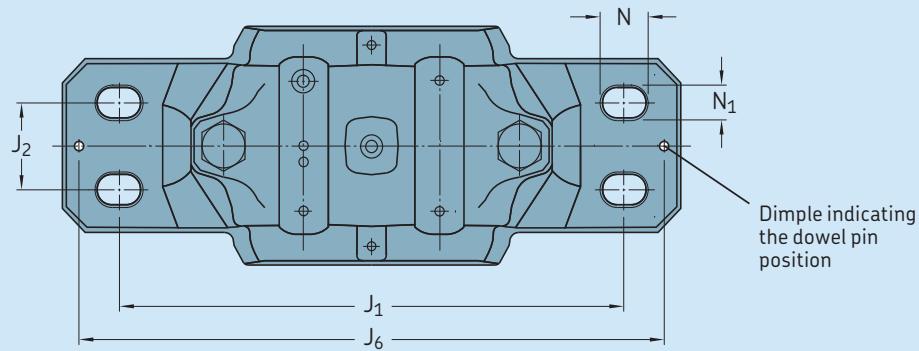
SNL plunger block housings can be supplied with the following bolt hole configurations:

- four cast holes

Dimensions are listed in **table 1**. These housings are designated FSNL.

Table 1

Dimensions for four cast attachment bolt holes



Housing Size		Dimensions					Attachment bolts	
		N	N ₁	J ₁	J ₂	J ₆	Size	Tightening torque ¹⁾
-		mm					-	Nm
FSE 211	FSE 511-609	20	15	210	35	234	M 12	80
FSE 212	FSE 512-610	20	15	210	35	234	M 12	80
FSE 213	FSE 513-611	20	15	230	40	252	M 12	80
FSE 215	FSE 515-612	20	15	230	40	257	M 12	80
FSNL 216	FSNL 516-613	24	18	260	50	288	M 16	200
FSNL 217	FSNL 517	24	18	260	50	292	M 16	200
FSNL 218	FSNL 518-615	24	18	290	50	317	M 16	200
	FSNL 519-616	24	18	290	50	317	M 16	200
	FSNL 520-617	24	18	320	60	348	M 16	200
	FSNL 522-619	24	18	350	70	378	M 16	200
	FSNL 524-620	24	18	350	70	378	M 16	200
	FSNL 526	28	22	380	70	414	M 20	385
	FSNL 528	32	26	420	80	458	M 24	665
	FSNL 530	32	26	450	90	486	M 24	665
	FSNL 532	32	26	470	90	506	M 24	665

¹⁾ Recommended by bolt manufacturers.

Housing variants

2

- four drilled holes

These variants are available for housings with two cast bolt holes, designation SNL, and for housings made of spheroidal graphite cast iron with a solid base, designation SSNLD.

Dimensions are listed in **table 2**. These housings have the designation suffix /MS2.

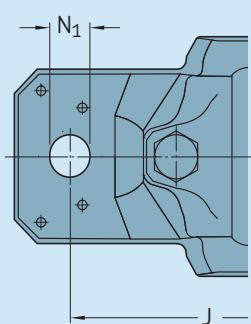
All two-bolt housings have dimples, which mark the bolt hole positions for four-bolt mounting.

- two drilled holes

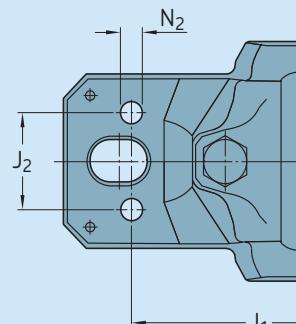
This variant is available for housings made of spheroidal graphite cast iron with a solid base, designation SSNLD.

Dimensions are listed in **table 2**. The housings have the designation suffix /MS1.

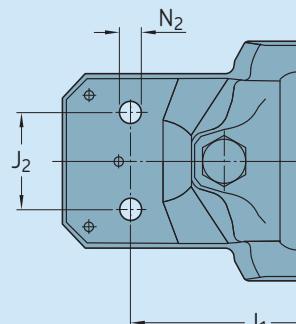
Dimensions for drilled attachment bolt holes



SSNLD.../MS1



SNL.../MS2



SSNLD.../MS2

Table 2

Housing Size		Two drilled holes (/MS1)				Four drilled holes (/MS2)				
		Dimensions J	N ₁	Appropriate bolt size	Dimensions J ₁	J ₂	N ₂	Appropriate bolt size		
		mm	–	in.	mm	–	in.			
SNL 205	SNL 505	–	–	–	114	25	9	M 8	5/16	
SNL 206-305	SNL 506-605	–	–	–	130	29	9	M 8	5/16	
SE 207	SE 507-606	–	–	–	138	29	9	M 8	5/16	
SE 208-307	SE 508-607	–	–	–	160	34	11	M 10	3/8	
SE 209	SE 509	–	–	–	160	34	11	M 10	3/8	
(S)SE(D) 210	(S)SE(D) 510-608	170	15	M 12	1/2	160	34	11	M 10	3/8
(S)SE(D) 211	(S)SE(D) 511-609	210	18	M 16	5/8	200	40	14	M 12	1/2
(S)SE(D) 212	(S)SE(D) 512-610	210	18	M 16	5/8	200	40	14	M 12	1/2
(S)SE(D) 213	(S)SE(D) 513-611	230	18	M 16	5/8	220	48	14	M 12	1/2
(S)SE(D) 215	(S)SE(D) 515-612	230	18	M 16	5/8	220	48	14	M 12	1/2
(S)SNL(D) 216	(S)SNL(D) 516-613	260	22	M 20	3/4	252	52	18	M 16	5/8
(S)SNL(D) 217	(S)SNL(D) 517	260	22	M 20	3/4	252	52	18	M 16	5/8
(S)SNL(D) 218	(S)SNL(D) 518-615	290	22	M 20	3/4	280	58	18	M 16	5/8
	(S)SNL(D) 519-616	290	22	M 20	3/4	280	58	18	M 16	5/8
	(S)SNL(D) 520-617	320	26	M 24	7/8	300	66	18	M 16	5/8
	(S)SNL(D) 522-619	350	26	M 24	7/8	320	74	18	M 16	5/8
	(S)SNL(D) 524-620	350	26	M 24	7/8	330	74	18	M 16	5/8
	(S)SNL(D) 526	380	28	M 24	1	370	80	22	M 20	3/4
	(S)SNL(D) 528	420	35	M 30	1 1/4	400	92	26	M 24	7/8
	(S)SNL(D) 530	450	35	M 30	1 1/4	430	100	26	M 24	7/8
	(S)SNL(D) 532	470	35	M 30	1 1/4	450	100	26	M 24	7/8

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

Bearing seat tolerance

SNL ho
be
c
r
t
F
a

Housings for oil lubrication

F
pre
f
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ho

s 16-613. The housing with oil seals is identified by the suffix TURU, e.g. SNL 524 URU.

SNL plummer block housings have a small oil sump. Be careful not to overfill the sump, or leaks can result. SONL plummer block housings are specially designed for oil lubrication and may be more advantageous. For detailed information refer to *Split plummer block housings SONL series* (→ page 349).

Sealing solutions

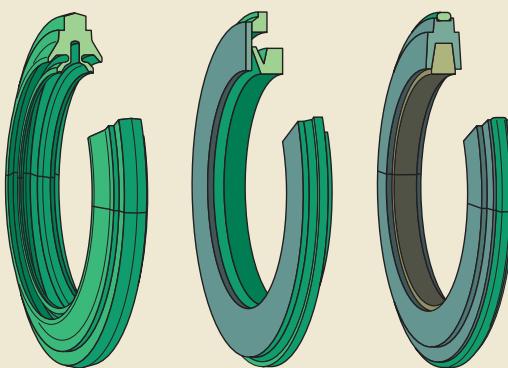
SNL plummer (pillow) block housings are available with different standard sealing solutions (→ fig. 8):

- four-lip seals (TSN .. L)
- V-ring seals (TSN .. A)
- felt seals (TSN .. C) or felt strips (FS 170)
- labyrinth seals (TSN .. S)
- taconite heavy-duty seals (TSN .. ND)
- end covers (ASNH ...)

Table 3 provides an overview of the characteristics and suitability of each sealing solution. Details are provided in the following text. This information should be used as a guideline, and does not substitute for testing a seal in its application.

Fig. 8

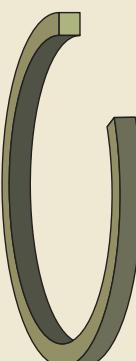
Standard sealing solutions for SNL plummer block housings in the 2, 3, 5 and 6 series



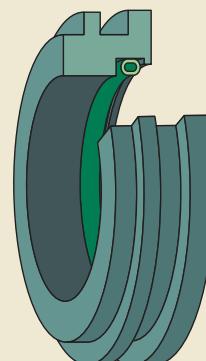
Four-lip seal
TSN .. L

V-ring seal
TSN .. A

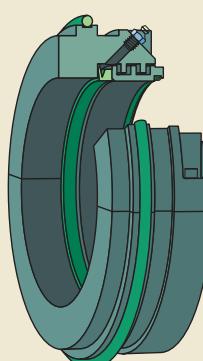
Felt seal
TSN .. C



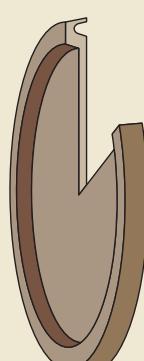
Felt strip
FS 170



Labyrinth ring
TSN .. S



Taconite heavy-duty seal
TSN .. ND



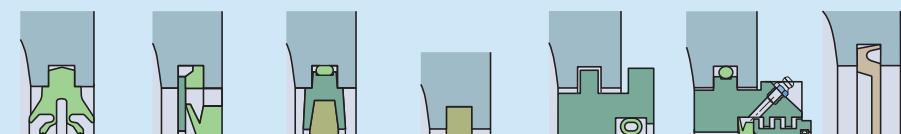
End cover
ASNH ...

Sealing solutions

2

Table 3

Standard sealing solutions for SNL plummer block housings

**Seal**

Type	Four-lip split	V-ring	Felt seal split	Felt strip split	Labyrinth	Taconite	End cover
Designation	TSN..L	TSN..A	TSN..C	FS 170	TSN..S	TSN..ND	ASNH..
Material	thermoplastic polyester elastomer	nitrile rubber, steel	felt, nitrile rubber, aluminum	felt	steel, silicone	steel, nitrile rubber	polymer
Seals per pack	2 seals	2 seals	2 seals	1 strip ²⁾	1 seal	1 seal	1 end cover

Application conditions and requirements

Temperature	-40 to +100	-40 to +100	-40 to +100	-40 to +100	-50 to +200	-40 to +100	-40 to +110
Temperature [°F]	-40 to +210	-40 to +210	-40 to +210	-40 to +210	-60 to +390	-40 to +210	-40 to +230
Max. circumferential speed ¹⁾ [m/s]	13	7 ²⁾	4 ²⁾	4 ²⁾	not limited	12	n/a
Max. misalignment [°]	1 to 0,5	1,5 to 1	0,5	0,5	0,3	0,5	n/a
Low friction	++	++	-	-	++	+	n/a
Axial shaft displacement	++	-	++	++	+	+	n/a
Vertical arrangement	+	++ ³⁾	--	--	--	-	++
Replacement	++	-	+	+	-	-	++
Shaft tolerance class	h9@E	n/a	h9@E	h9@E	h9@E	h9@E	n/a
Shaft roughness R _a [µm]	≤ 3,2	n/a	≤ 3,2	≤ 3,2	≤ 3,2	≤ 3,2	n/a

Sealing suitability

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

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

¹⁾ To convert circumferential speeds to rotational speeds → table 7, page 37²⁾ Higher speeds are possible. For details, refer to the text about the relevant seal.³⁾ For details see text about the relevant seal.

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

Four-lip seals

Four-lip seals replace the former double-lip seals (TSN .. G). When compared to double-lip seals, the new seals are more effective. They also generate less friction, which enables higher shaft speeds. Four-lip seals are horizontally split and easy to mount.

The permissible angular misalignment for seals mounted on shafts ≤ 100 mm in diameter is approximately 1° and approximately $0,5^\circ$ for larger shafts.

V-ring seals

V-ring seals consist of a V-ring and a sheet steel sealing washer with a vulcanized rubber lip. The rubber lip fits into the seal groove in the housing. The washer is protected against corrosion.

V-rings can accommodate circumferential speeds up to 7 m/s. For circumferential speeds between 7 and 12 m/s, they should be located axially on the shaft. At speeds above 12 m/s, a support ring must be used to prevent the seal from lifting. Recommended dimensions for appropriate support rings for axial and radial location are provided in **table 4**. Housing sizes 205 to 211 and 306 to 314 cannot be used with a support ring and are therefore not suitable for V-ring seals at operating speeds above 7 m/s.

The permissible angular misalignment for V-ring seals is approximately $1,5^\circ$ for a 50 mm shaft decreasing to approximately 1° for shaft diameters ≥ 150 mm.

The axial movement of the shaft relative to the housing is limited to ± 1 mm for shaft diameters up to 65 mm, to approximately $\pm 1,2$ mm for shaft diameters up to 100 mm and to approximately $\pm 1,5$ mm for larger shaft diameters.

For arrangements with a vertical shaft, the V-ring of the lower seal should be mounted inside the housing.

Felt seals or strips

Felt seals or strips are simple and effective. At circumferential speeds above 4 m/s, a small gap forms between the felt and shaft, transforming the contact seal into a non-contact, gap-type seal.

In applications where bearings are mounted on a plain shaft with an adapter sleeve, split felt ring seals are typically used.

If the bearings are to be installed on a stepped shaft with a cylindrical seat (housing sizes 205 to 218 inclusive), loose felt strips can be used. The strips are 170 mm in length. They should be cut to the correct length and soaked in hot oil for a few minutes prior to mounting. The required number of strips per housing (for both sides) is listed in the product tables (\rightarrow **pages 86 to 137**).

Labyrinth seals

For applications where there are high speeds or extreme temperatures, SKF recommends using labyrinth seals. Labyrinth rings, mounted on the shaft, form a multi-stage labyrinth seal with the housing seal grooves. Hollow, silicone rubber cords (2 x 4 mm), supplied with the rings, hold the rings in place on the shaft.

Taconite heavy-duty seals with a radial labyrinth

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

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

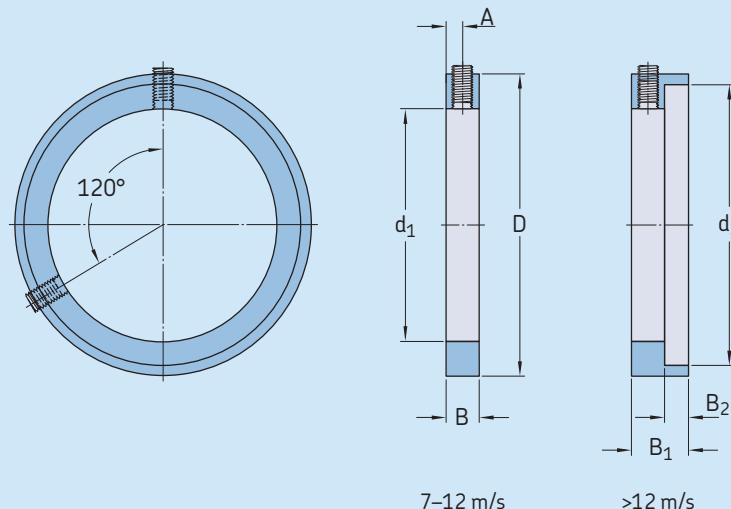
The axial movement of the shaft relative to the housing is limited to ± 1 mm for shaft diameters up to 65 mm, approximately $\pm 1,2$ mm for shaft diameters up to 100 mm and $\pm 1,5$ mm for larger shaft diameters.

Sealing solutions

2

Table 4

Recommended dimensions for support rings for V-ring seals



Shaft diameter $d_a, d_b^1)$	Dimensions							Grub screw to DIN 913	V-ring seal Standard designation	Alternative designation
-	mm							-	-	-
20	20	27,2	5	8,5	3,5	30	2,5	M 3x5	20 VAR	CR 400200
25	25	32,1	5	8,5	3,5	35	2,5	M 3x5	25 VAR	CR 400250
30	30	37,2	5	8,5	3,5	40	2,5	M 3x5	30 VAR	CR 400300
35	35	42,2	5	8,5	3,5	45	2,5	M 3x5	35 VAR	CR 400350
40	40	49,1	7	11,5	4,5	53	3,5	M 4x5	40 VAR	CR 400400
45	45	54	7	11,5	4,5	-2)	3,5	M 4x5	45 VAR	CR 400450
50	50	59,1	7	11,5	4,5	-2)	3,5	M 4x5	50 VAR	CR 400500
55	55	64,1	7	11,5	4,5	-2)	3,5	M 4x5	55 VAR	CR 400550
60	60	69,1	7	11,5	4,5	-2)	3,5	M 4x5	60 VAR	CR 400600
65	65	74,1	7	11,5	4,5	-2)	3,5	M 4x5	65 VAR	CR 400650
70	70	81	9	15	6	84	4,5	M 5x6	70 VAR	CR 400700
75	75	86	9	15	6	89,5	4,5	M 5x6	75 VAR	CR 400750
80	80	91	9	15	6	94,5	4,5	M 5x6	80 VAR	CR 400800
85	85	96	9	15	6	100	4,5	M 5x6	85 VAR	CR 400850
90	90	101	9	15	6	105	4,5	M 5x6	90 VAR	CR 400900
95	95	106	9	15	6	109	4,5	M 5x6	95 VAR	CR 400950
100	100	111	9	15	6	115	4,5	M 5x6	100 VAR	CR 401000
110	110	122,9	10	17,5	7,5	128	5	M 6x8	110 VAR	CR 401100
115	115	127,4	10	17,5	7,5	133	5	M 6x8	110 VAR	CR 401100
125	125	138,1	10	17,5	7,5	143	5	M 6x8	130 VAR	CR 401300
135	135	147,5	10	17,5	7,5	153	5	M 6x8	130 VAR	CR 401300
140	140	152,9	10	17,5	7,5	158	5	M 6x8	140 VAR	CR 401400
145	145	158,1	10	17,5	7,5	163	5	M 6x8	150 VAR	CR 401500
155	155	167,5	10	18,5	8,5	173	5	M 6x8	150 VAR	CR 401500
165	165	179,9	10	18,5	8,5	185,5	5	M 6x8	170 VAR	CR 401700
175	175	189,3	10	18,5	8,5	195	5	M 6x8	170 VAR	CR 401700

¹⁾ d_a : shaft diameter for bearings on an adapter sleeve d_b : shaft diameter for bearings on stepped shafts²⁾ Contact the SKF application engineering service for more information.

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

End covers

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

For applications where temperatures exceed 110 °C (230 °F), steel end covers should be used. These can be cut from sheet steel and placed in the seal groove. Use a hollow silicone rubber cord to hold the cover in place. Seal groove dimensions are provided in **table 5**.

Details of the permissible length of the shaft end are listed in **table 6**.

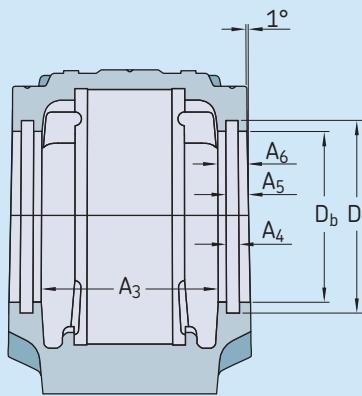
Using sealed bearings

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

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

Table 5

Seal groove dimensions



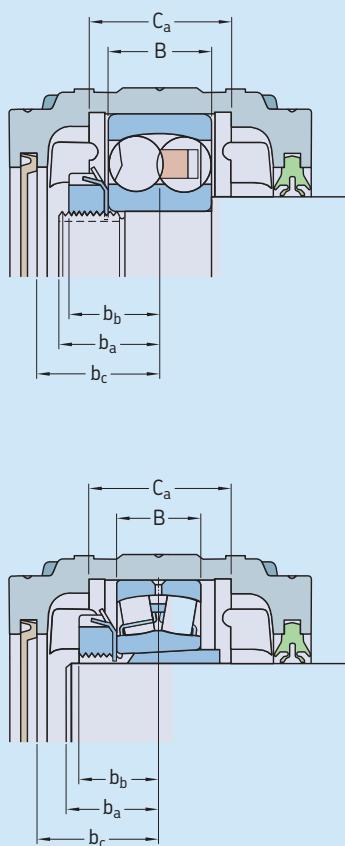
Housing Size	Dimensions	A ₃	A ₄	A ₅	A ₆	D _b	D _c
mm							
SNL 205		44	5	7,5	10	36,5	44,5
SNL 206-305		54	5	7,5	10	46,5	54,5
SE 207		58	5	8	11	56,5	64,5
SE 208-307		61	5	8	11	62	70,5
SE 209		59	5	9	12	67	75,5
SE 210		64	5	9	12	72	80,5
SE 211		69	5	9	12	77	85,5
SE 212		79	5	9	12	87	95,5
SE 213		82	5	9	13	92,5	101
SE 215		87	5	9	13	102,5	111
SNL 216		92	5	9	13	108	116,5
SNL 217		97	5	9	13	112	120,5
SNL 218		112	5	9	13	120	128,5
SNL 505		45	5	7,5	10	31,5	39,5
SNL 506-605		55	5	7,5	10	36,5	44,5
SE 507-606		59	5	8	11	46,5	54,5
SE 508-607		62	5	8	11	51,5	59,5
SE 509		60	5	9	12	56,5	64,5
SE 510-608		65	5	9	12	62	70,5
SE 511-609		70	5	9	12	67	75,5
SE 512-610		80	5	9	12	72	80,5
SE 513-611		83	5	9	13	77	85,5
SE 515-612		88	5	9	13	87	95,5
SNL 516-613		93	5	9	13	92,5	101
SNL 517		98	5	9	13	97,5	106
SNL 518-615		113	5	9	13	102,5	111
SNL 519-616		116	6	10	14	131	141
SNL 520-617		131	6	10	14	137,5	147,5
SNL 522-619		143	6	10	14	147,5	157,5
SNL 524-620		151	6	11	15	157,5	167,5
SNL 526		156	6	11	15	167,5	177,5
SNL 528		171	6	11	15	177,5	187,5
SNL 530		189	6	11	15	192,5	202,5
SNL 532		201	6	11	15	202,5	212,5

Using sealed bearings

2

Table 6

Permissible length of a shaft end



Housing Size	Dimensions			Widest bearing that fits the housing Designation	Dimensions	
	b _a ¹⁾	b _c	C _a		B	b _b
-	mm	-	mm	-	mm	-
SNL 205	18	24	25	22205 E	18	17
SNL 206-305	20	29	32	2305 E	24	19
SE 207	23	32	34	22207 E	23	20,5
SE 208-307	26 (22)	33	39	2307 E	31	24,5
SE 209	25	32	30	22209 E	23	22,5
SE 210	28 (24)	35	41	22210 E	23	23,5
SE 211	30 (25)	37	44	22211 E	25	25
SE 212	33 (26)	42	48	22212 E	28	27
SE 213	35 (30)	45	51	22213 E	31	29,5
SE 215	37 (30)	47	56	22215 E	31	30,5
SNL 216	39 (33)	50	58	22216 E	33	33,5
SNL 217	40 (35)	52	61	22217 E	36	36
SNL 218	45 (35)	60	65	23218 CC/W33	52,4	44,2
SNL 505	18	24	25	22205 EK	18	17
SNL 506-605	20	29	32	2305 EK	24	19
SE 507-606	23	32	34	2306 EK	27	21,5
SE 508-607	26 (22)	33	39	2307 EK	31	24,5
SE 509	25	32	30	22209 EK	23	22,5
SE 510-608	28 (24)	35	41	22308 EK	33	26,5
SE 511-609	30 (25)	37	44	22309 EK	36	29
SE 512-610	33 (26)	42	48	22310 EK	40	32
SE 513-611	35 (30)	45	51	22311 EK	43	33,5
SE 515-612	37 (30)	47	56	22312 EK	46	36
SNL 516-613	39 (33)	50	58	22313 EK	48	38
SNL 517	40 (35)	52	61	22217 EK	36	36
SNL 518-615	45 (35)	60	65	22315 EK	55	42,5
SNL 519-616	47 (40)	61	68	22316 EK	58	46
SNL 520-617	51 (45)	69	70	23220 CC/W33	60,3	50,2
SNL 522-619	61	75	80	23222 CC/W33	69,8	55,9
SNL 524-620	65	79	86	23224 CC/W33	76	60
SNL 526	65	81	90	23226 CC/W33	80	63
SNL 528	70	89	98	23228 CC/W33	88	68
SNL 530	80	98	106	23230 CC/W33	96	74
SNL 532	85	104	114	23232 CC/W33	104	80

¹⁾ The dimension b_a is measured from the centre of the housing seat. There are two special cases:

- 1 For self-aligning ball bearings in the 12 series, values in brackets are suitable.
- 2 For non-locating bearing arrangements, and in particular for the widest bearings, the values for b_a must be adjusted if the bearing is not centered in the housing seat.

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

Special seals

In addition to the standard seal assortment, SNL housings are available, on request, with high-temperature seals, taconite heavy-duty seals with an axial labyrinth, or custom seals for special applications.

High-temperature seals

For high operating temperatures, up to 250 °C (480 °F), high-temperature felt seals or strips should be used. The felt seals can accommodate circumferential speeds up to 2 m/s. They are identified by the designation suffix CB, e.g. TSN 516 CB. For additional information about the felt strips, contact the SKF application engineering service.

Taconite heavy-duty seals with an axial labyrinth

Taconite heavy-duty seals with an axial labyrinth (TSN .. NC or TSN .. NB, → **fig. 9**) can be used under the same conditions as taconite seals with a radial labyrinth. The seals are greased via a hole in the housing cap. Therefore, they can only be used with housings with the suffix T (at the end of a shaft) or the suffix TD (for through shafts).

TSN .. NB seals have a V-ring. It limits the axial movement of the shaft relative to the housing to ± 1 mm for shaft diameters up to 65 mm and to approximately $\pm 1,2$ mm for sizes up to 100 mm and $\pm 1,5$ mm for larger shaft diameters.

Specifications for the seals are listed in **table 7**.

Taconite heavy-duty seals

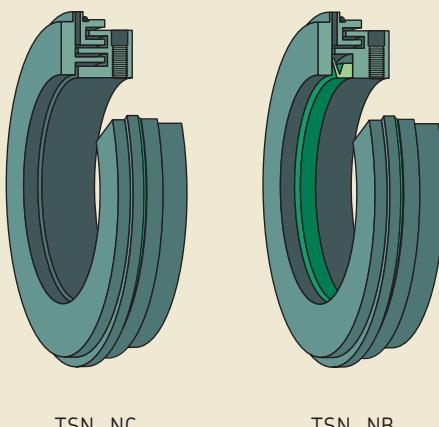


Fig. 9

Table 7

Taconite heavy-duty seals with an axial labyrinth

Seal

Designation	TSN .. NC	TSN .. NB
Size range	515 to 532 612 to 620	515 to 532 612 to 620

Application conditions and requirements

Temperature [°C]	-40 to +250	-40 to +100
Temperature [°F]	-40 to +480	-40 to +210
Max. circumferential speed [m/s] ¹⁾	not limited	12
Max. misalignment [°]	0,5	0,5
Max. axial shaft displacement from a central position [mm]	±2,5	±1 to 1,5
Shaft tolerance class	h9(E)	h9(E)

¹⁾ To convert circumferential speeds to rotational speeds, refer to **table 7** on **page 37**.

Special seals

2

Custom seals

SNL housings can be equipped with any type of seal that fits the seal groove dimensions in the housing. The relevant dimensions are provided in **table 5 on page 68**.

If custom seals are to be used, SKF recommends ordering housings in the SNL 2 series rather than those in the 5 or 6 series. Housings in the SNL 2 series have a larger bore at the shaft entrance and can accommodate a wider choice of seal designs.

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

Design considerations

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

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

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

Typical shaft-bearing combinations

SNL plummer block housings in the 2, 3, 5 and 6 series can accommodate different shaft-bearing combinations ([→ fig. 10](#)):

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

Plain shaft with bearing on an adapter sleeve

This arrangement is standard for housings in the SNL 5 and 6 series. Housings, appropriate parts and dimensions are listed in **product tables 2.1** ([→ page 86](#)) and **2.2** ([→ page 100](#)).

Stepped shaft with bearing on a cylindrical seat

This arrangement is standard for housings in the SNL 2 and 3 series, but can also be used for several housings in the SNL 5 and 6 series. Housings, appropriate parts and dimensions are listed in the **product table 2.3**, starting on [page 120](#).

The bearing is located axially between a shaft shoulder and a spacer sleeve which is held in place by another component on the shaft. The outside diameter of the spacer sleeve must match the bore diameter of the

seal. The spacer sleeve is not supplied with by SKF.

Stepped shaft with bearing on an adapter sleeve

When using an SNL plummer block housing for this arrangement, the dimensions of the abutment ring and the spacer sleeve must fit the housing. Abutment rings and spacer sleeves are not supplied by SKF.

Stepped shaft with bearing on a withdrawal sleeve

When using an SNL housing for this arrangement, the withdrawal sleeve must be located axially on the shaft. This can be done using a spacer sleeve that is held in place by another component. Using a lock nut can be difficult because of the limited space in the housing. The outside diameter of the spacer sleeve must be the same as the shaft abutment diameter d_b , ([→ product tables](#)) and it should be in accordance with the h9 E tolerance class to fit the seal. The spacer sleeve is not supplied by SKF.

Locating and non-locating bearing positions

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

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

Design considerations

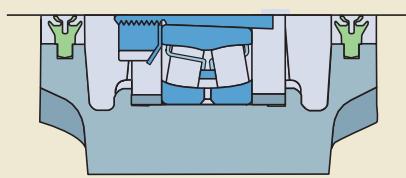
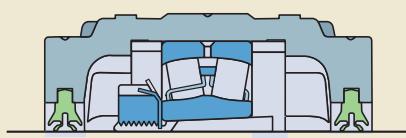
2

Load carrying capacity

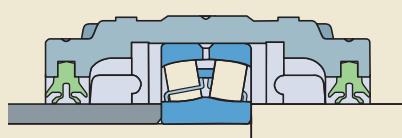
SNL housings are intended for loads acting perpendicularly toward the support surface. If the housing is supported over its entire base and the loads are purely perpendicular, loads are limited only by the bearing. If loads acting in other directions occur, or if the housing is not supported over its entire base, be sure that the magnitude of the load is permissible for the housing, the cap bolts and the attachment bolts. When housings are subjected to

cyclic loads or dynamic imbalance, contact the SKF application engineering service.

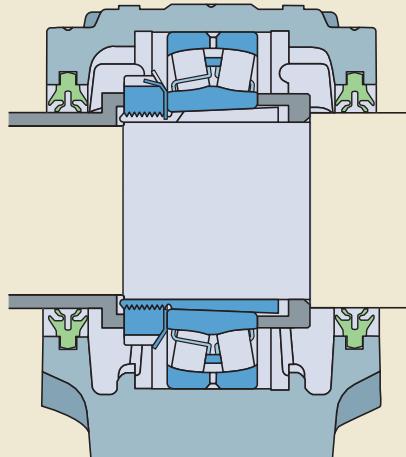
Fig. 10



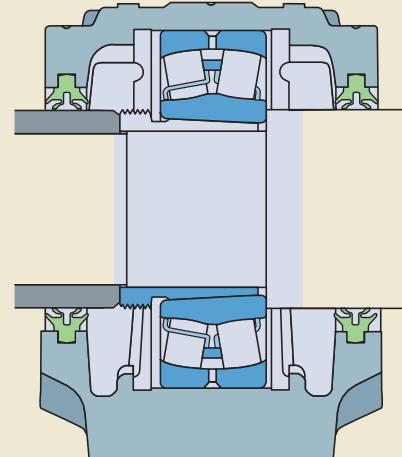
Plain shaft with bearing on an adapter sleeve



Stepped shaft with bearing on a cylindrical seat



Stepped shaft with bearing on an adapter sleeve



Stepped shaft with bearing on a withdrawal sleeve

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

Breaking loads and safety factors

Guideline values for the breaking loads of housings made of grey cast iron are listed in **table 8**. To obtain the permissible load for a housing, the appropriate breaking load value should be divided by a factor based on the safety requirements. In general engineering, a safety factor of 6 is typical (→ *Load carrying capacity, page 44*). The permissible load can only be exploited if the cap bolts are tightened according to the torque values listed in **table 10** on **page 77**.

The limits for P_0 apply only when the housing is not supported over its entire base.

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

For housings made of spheroidal graphite cast iron, the values obtained from **tables 8** and **9** on **pages 75** and **76** respectively should be multiplied by a factor of 1,8.

Safe loads

In some countries, safe loads are used instead of breaking loads. Approximate safe loads are listed in **table 9** on **page 76**. These guideline values have been established using accepted engineering practices, taking safety, ultimate tensile strength of the materials and working stresses into account. They reflect a safety factor of 5 against fracture, and a minimum factor of 2 against cap bolt yield.

Additional housing support

When the housing is subjected to loads acting parallel to the support surface, it may be necessary to pin the housing to the support surface or to provide a stop to counter the load.

When loads act at angles between 55° and 120°, or when the axial loads are greater than 5% of P_{180} (→ **table 8**), the housing should be pinned to the support surface or a stop should be provided to counter the load. The dowel pins or stop should be sufficiently strong to accommodate the loads acting parallel to the support surface.

Recommendations for the position and size of the holes to accommodate dowel pins are provided in **table 13** on **page 82**. For FSNL housings, refer to **table 1** on **page 62**.

Load carrying capacity of the cap bolts

Approximate values for the yield points for cap bolts are provided in **table 10** on **page 77**. The values in **table 10** apply to 8.8 class cap bolts, which are supplied with SNL housings made of grey cast iron. SSNLD housings made of spheroidal graphite cast iron are supplied with 10.9 class cap bolts. For these cap bolts, the values obtained from **table 10** should be multiplied by a factor of 1,4.

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

Operating temperature

The permissible operating temperature is mainly limited by the seals (→ **table 3**, **page 65**) and the lubricant in the bearing. For temperature limits of SKF bearings and lubricants, refer to the product information available online at skf.com/bearings.

The housing material does not have any additional temperature limits, except for very low temperature applications where impact strength could be a factor.

The housing paint is heat resistant up to 80 °C (175 °F) material temperature or 100 °C (210 °F) ambient temperature. When temperatures outside the permissible range are expected, contact the SKF application engineering service.

Operating speed

All seals, except non-contact labyrinth seals, limit the permissible operating speed. Speed limits for seals are provided in **table 3** on **page 65** and in **table 7** on **page 70**. For speed limits of the bearing, refer to the product information available online at skf.com/bearings.

Design considerations

2

Table 8

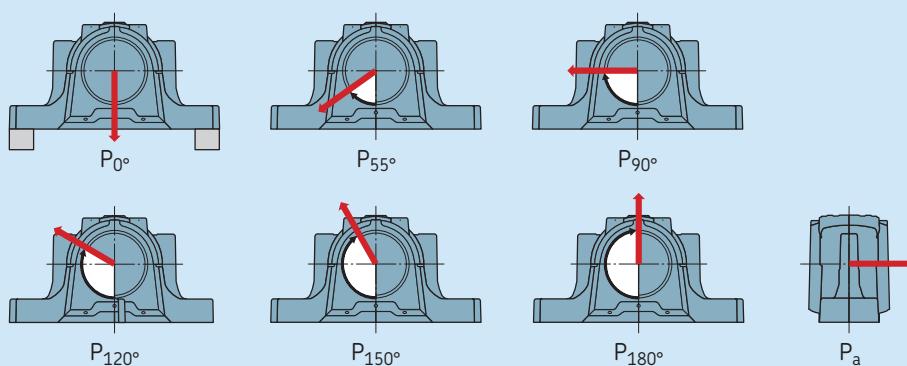
Breaking loads for SNL plummer block housings

Housing Size		Breaking loads						
		P _{0°}	P _{55°}	P _{90°}	P _{120°}	P _{150°}	P _{180°}	P _a
-		kN						
SNL 205	SNL 505	100	155	95	70	60	80	52
SNL 206-305	SNL 506-605	130	170	100	80	65	85	55
SE 207	SE 507-606	140	190	115	85	80	95	60
SE 208-307	SE 508-607	150	215	130	95	85	110	70
SE 209	SE 509	160	230	140	100	90	115	75
SE 210	SE 510-608	170	265	155	120	110	130	85
(F)SE 211	(F)SE 511-609	190	275	170	125	115	140	90
(F)SE 212	(F)SE 512-610	210	300	180	130	120	150	100
(F)SE 213	(F)SE 513-611	270	340	205	150	130	170	110
(F)SE 215	(F)SE 515-612	290	410	250	185	160	205	135
(F)SNL 216	(F)SNL 516-613	350	430	260	190	175	215	140
(F)SNL 217	(F)SNL 517	370	480	290	205	190	240	155
(F)SNL 218	(F)SNL 518-615	430	550	340	250	215	275	180
	(F)SNL 519-616	450	580	350	260	230	290	190
	(F)SNL 520-617	470	620	370	280	250	310	200
	(F)SNL 522-619	600	680	410	310	275	340	220
	(F)SNL 524-620	800	790	470	350	320	400	260
	(F)SNL 526	900	900	540	410	360	450	295
	(F)SNL 528	1 000	1 050	630	470	430	530	345
	(F)SNL 530	1 100	1 200	730	540	480	600	390
	(F)SNL 532	1 300	1 450	860	640	570	720	470

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

Table 9

Safe loads for SNL plummer block housings



Housing Size		Safe loads for different load directions ¹⁾						
		P _{0°}	P _{55°}	P _{90°}	P _{120°}	P _{150°}	P _{180°}	P _a
kN/lbf.								
SNL 205	SNL 505	20 4 500	31 6 975	19 4 275	14 3 150	12 2 700	16 3 600	10,4 2 340
SNL 206-305	SNL 506-605	26 5 850	34 7 650	20 4 500	16 3 600	13 2 925	17 3 825	11 2 475
SE 207	SE 507-606	28 6 300	38 8 550	23 5 175	17 3 825	16 3 600	19 4 275	12 2 700
SE 208-307	SE 508-607	30 6 750	43 9 675	26 5 850	19 4 275	17 3 825	22 4 950	14 3 150
SE 209	SE 509	32 7 200	46 10 350	28 6 300	20 4 500	18 4 050	23 5 175	15 3 375
SE 210	SE 510-608	34 7 650	53 11 925	31 6 975	24 5 400	22 4 950	26 5 850	17 3 825
(F)SE 211	(F)SE 511-609	38 8 550	55 12 375	34 7 650	25 5 625	23 5 175	28 6 300	18 4 050
(F)SE 212	(F)SE 512-610	42 9 450	60 13 500	36 8 100	26 5 850	24 5 400	30 6 750	20 4 500
(F)SE 213	(F)SE 513-611	54 12 150	68 15 300	41 9 225	30 6 750	26 5 850	34 7 650	22 4 950
(F)SE 215	(F)SE 515-612	58 13 050	82 18 450	50 11 250	37 8 325	32 7 200	41 9 225	27 6 075
(F)SNL 216	(F)SNL 516-613	70 15 750	86 19 350	52 11 700	38 8 550	35 7 875	43 9 675	28 6 300
(F)SNL 217	(F)SNL 517	74 16 650	96 21 600	58 13 050	41 9 225	38 8 550	48 10 800	31 6 975
(F)SNL 219	(F)SNL 518-615	86 19 350	110 24 750	68 15 300	50 11 250	43 9 675	55 12 375	36 8 100
	(F)SNL 519-616	90 20 250	116 26 100	70 15 750	52 11 700	46 10 350	58 13 050	38 8 550
	(F)SNL 520-617	94 21 150	124 27 900	74 16 650	56 12 600	50 11 250	62 13 950	40 9 000
	(F)SNL 522-619	120 27 000	136 30 600	82 18 450	62 13 950	55 12 375	68 15 300	44 9 900
	(F)SNL 524-620	160 36 000	158 35 550	94 21 150	70 15 750	64 14 400	80 18 000	52 11 700
	(F)SNL 526	180 40 500	180 40 500	108 24 300	82 18 450	72 16 200	90 20 250	59 13 275
	(F)SNL 528	200 45 000	210 47 250	126 28 350	94 21 150	86 19 350	106 23 850	69 15 525
	(F)SNL 530	220 49 500	240 54 000	146 32 850	108 24 300	96 21 600	120 27 000	78 17 550
	(F)SNL 532	260 58 500	290 65 250	172 38 700	128 28 800	114 25 650	144 32 400	94 21 150

¹⁾ The values are based on a safety factor of 5.

Design considerations

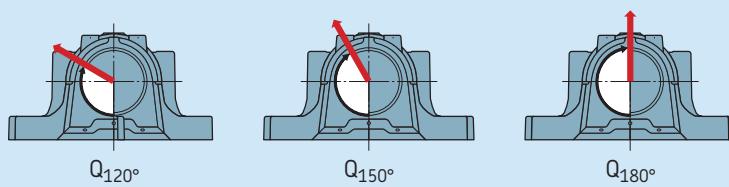
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Attachment bolt recommendations

In typical applications, 8.8 class hexagon head bolts in accordance with ISO 4014 can be used together with washers. If the load does not act perpendicular toward the base, it may be necessary to use stronger 10.9 class bolts.

SKF housings can withstand loads resulting from tightening the attachment bolts to the torque values recommended by bolt manufacturers (→ **table 10**). They are valid for oiled, but otherwise untreated, thread surfaces. SKF

cannot guarantee that tightening to the recommended value will provide sufficient anchoring. Make sure that attachment bolts, dowels or stops, and a sufficiently strong support can accommodate all occurring loads.

Table 10
Load carrying capacity and torque values for cap bolts and attachment bolts

Housing Size	Cap bolts			Size	Tightening torque	Attachment bolts ¹⁾		
	Yield point for two bolts Q _{120°}	Q _{150°}	Q _{180°}			Size	Tightening torque ²⁾	
-	kN	-	-	Nm	-	Nm		
SNL 205	SNL 505	150	85	75	M 10×40	50	M 12	80
SNL 206-305	SNL 506-605	150	85	75	M 10×40	50	M 12	80
SE 207	SNL 507-606	150	85	75	M 10×50	50	M 12	80
SE 208-307	SNL 508-607	150	85	75	M 10×50	50	M 12	80
SE 209	SNL 509	150	85	75	M 10×50	50	M 12	80
SE 210	SNL 510-608	150	85	75	M 10×55	50	M 12	80
SE 211	SE 511-609	220	125	110	M 12×60	80	M 16	200
SE 212	SE 512-610	220	125	110	M 12×60	80	M 16	200
SE 213	SE 513-611	220	125	110	M 12×65	80	M 16	200
SE 215	SE 515-612	220	125	110	M 12×65	80	M 16	200
SNL 216	SNL 516-613	220	125	110	M 12×70	80	M 20	385
SNL 217	SNL 517	220	125	110	M 12×80	80	M 20	385
SNL 218	SNL 518-615	400	230	200	M 16×90	150	M 20	385
	SNL 519-616	400	230	200	M 16×90	150	M 20	385
	SNL 520-617	620	360	310	M 20×100	200	M 24	665
	SNL 522-619	620	360	310	M 20×100	200	M 24	665
	SNL 524-620	620	360	310	M 20×110	200	M 24	665
	SNL 526	900	520	450	M 24×130	350	M 24	665
	SNL 528	900	520	450	M 24×130	350	M 30	1 310
	SNL 530	900	520	450	M 24×130	350	M 30	1 310
	SNL 532	900	520	450	M 24×130	350	M 30	1 310

¹⁾ Valid for SE and SNL housings only. For information about attachment bolts for FSE and FSNL housings, refer to **table 1** on page 62.

²⁾ Recommended by bolt manufacturers.

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

Lubrication

SNL plummer (pillow) block housings in the 2, 3, 5 and 6 series with standard seals are intended for grease lubrication. For oil lubrication, housings with oil seals ([→ page 64](#)) or SONL plummer block housings ([→ page 349](#)) should be used.

The lubricant should be selected based on the operating conditions of the bearing. For additional information about lubricant selection, refer to the product information available online at skf.com.

Initial grease fill

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

grease fill is used when bearings are relubricated via the outer ring.

For highly contaminated environments and slow speeds, fill the housing to 70–80%. For best protection against contaminants, use the SKF three-barrier solution ([→ page 39](#)). For additional information, contact the SKF application engineering service.

Quantities for 20 and 40% grease fills are listed **table 11**. The values are valid for a typical lithium grease (about 0,95 g/cm³). They include grease for the bearing and the four-lip seals or the sealing washers of V-ring seals. The grease to fill labyrinth seals or taconite heavy-duty seals is not included. For sealed bearings, the values have to be adjusted.

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

Relubrication

SNL plummer block housings enable relubrication of the incorporated bearings and seals ([→ fig. 11](#)):

- SNL housings have two holes that have been drilled and tapped for an AH 1/8-27 PTF grease fitting. On a new housing, the holes are covered by plastic plugs. These plugs should be replaced with the grease fitting and threaded plug supplied with the housing.
- If a larger grease fitting or other equipment has to be used, an adapter to change to a G 1/4 thread is available ([→ page 47](#)).
- Dimples cast into the top of the housing cap indicate alternative positions where holes can be drilled and tapped to accommodate a grease fitting for bearing or seal relubrication.

Table 11			
Initial grease fill		Initial fill	
Housing Size		20%	40%
–	g		
SNL 205	SNL 505	15	25
SNL 206-305	SNL 506-605	25	40
SE 207	SE 507-606	30	50
SE 208-307	SE 508-607	35	55
SE 209	SE 509	40	60
SE 210	SE 510-608	45	70
(F)SE 211	(F)SE 511-609	55	90
(F)SE 212	(F)SE 512-610	80	135
(F)SE 213	(F)SE 513-611	100	160
(F)SE 215	(F)SE 515-612	125	210
(F)SNL 216	(F)SNL 516-613	170	280
(F)SNL 217	(F)SNL 517	200	330
(F)SNL 218	(F)SNL 518-615	260	430
	(F)SNL 519-616	300	480
	(F)SNL 520-617	390	630
	(F)SNL 522-619	530	850
	(F)SNL 524-620	630	1 000
	(F)SNL 526	700	1 100
	(F)SNL 528	900	1 400
	(F)SNL 530	1 100	1 700
	(F)SNL 532	1 300	2 000

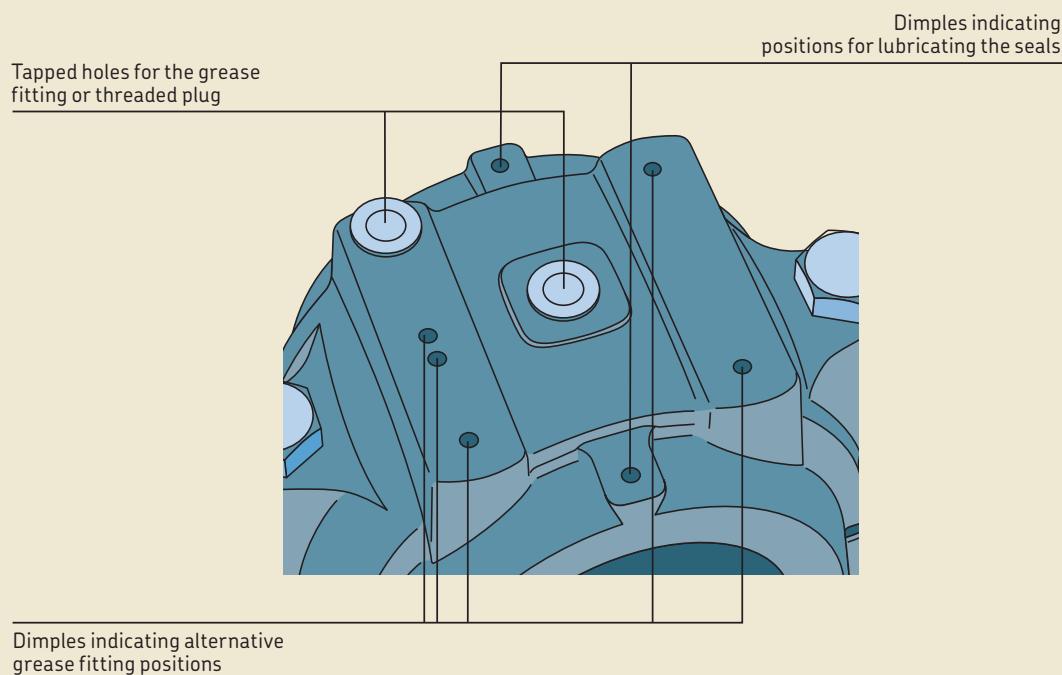
Lubrication

2

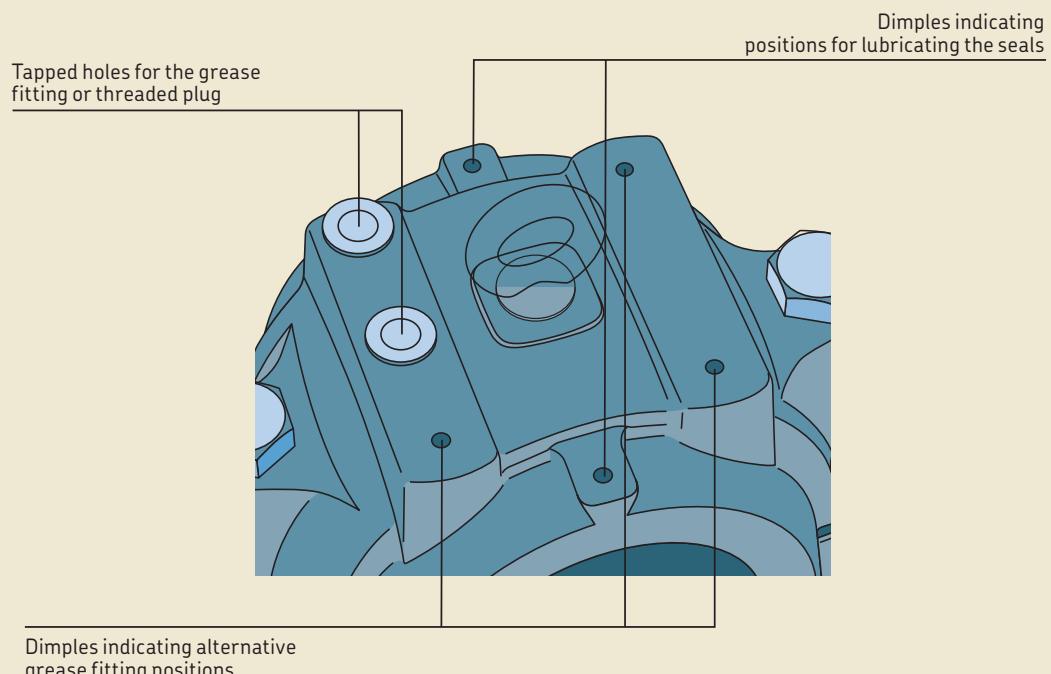
Fig. 11

Relubrication possibilities

SNL housing up to size 218 or 522



SNL housing from size 524 and above



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

Relubrication via the outer ring

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

Relubrication from the side

When relubricating from the side, which is typically necessary for self-aligning ball bearings and CARB toroidal roller bearings, the offset hole in the housing should be used. An integrated flange in the housing guides grease from the grease fitting directly to the rolling elements (**→ fig. 13**). This grease guiding system is available on housings from sizes 216 and 516-613 upwards.

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

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

Relubrication from the side for housings with V-ring seals

When relubricating bearings from the side in housings with V-ring seals, mount an additional V-ring inside the housing on the side where grease is applied (**→ fig. 14**). This forces the grease to travel through the bearing and exit the housing on the opposite side.

SKF can supply an appropriate V-ring together with a splash plate that fits in the seal groove to cover a bit more than the top half of the housing. These sets are identified by the series designation ASNA followed by the housing size identification and the suffix V, e.g. ASNA 516 V.

Grease escape hole

When four-lip seals (TSN .. L) or felt seals (TSN .. C or FS 170) are used, grease cannot escape via the seals. If relubrication is required, the housing should have a grease escape hole.

SNL housings can be supplied with a grease escape hole (suffix V). A grease escape hole can be drilled into the housing using the dimensions provided in **table 12**.

Fig. 12

Relubrication via the outer ring

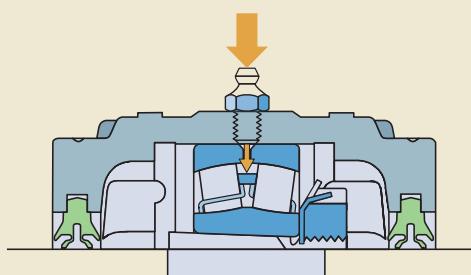
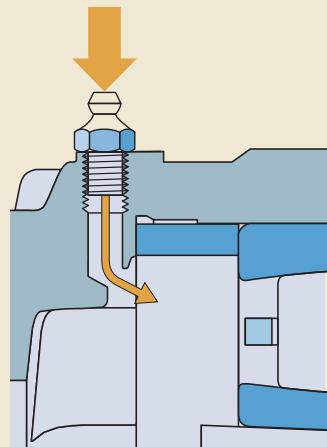


Fig. 13

Relubrication from the side

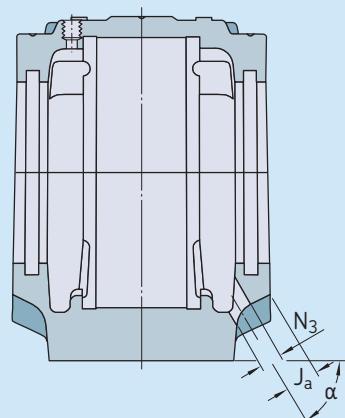


Lubrication

2

Table 12

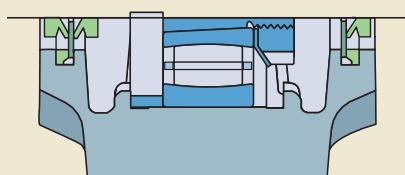
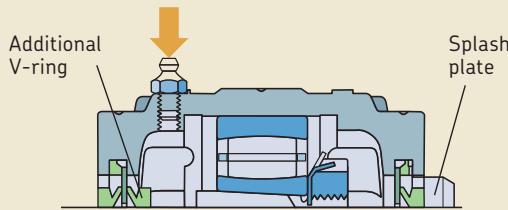
Recommended dimensions for grease escape holes



Housing Size		Dimensions		
-		J _a	N ₃	α
SNL 205	SNL 505	8,5	10	45
SNL 206-305	SNL 506-605	10	10	45
SE 207	SNL 507-606	10	10	45
SE 208-307	SE 508-607	9	10	45
SE 209	SE 509	10	10	45
SE 210	SE 510-608	11	10	45
(F)SE 211	(F)SE 511-609	10	12	45
(F)SE 212	(F)SE 512-610	9	12	45
(F)SE 213	(F)SE 513-611	13	12	45
(F)SE 215	(F)SE 515-612	12,5	12	45
(F)SNL 216	(F)SNL 516-613	14	16	45
(F)SNL 217	(F)SNL 517	17	16	45
(F)SNL 218	(F)SNL 518-615	20	16	40
	(F)SNL 519-616	20	16	50
	(F)SNL 520-617	21	16	50
	(F)SNL 522-619	21	20	50
	(F)SNL 524-620	24	20	55
	(F)SNL 526	22	20	55
	(F)SNL 528	23	20	50
	(F)SNL 530	25	20	55
	(F)SNL 532	25	20	60

Fig. 14

V-ring seal and splash plate set mounted in an SNL housing



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

Mounting

SNL plummer (pillow) block housings must be mounted properly using the appropriate tools and state of the art mechanical mounting methods. All the associated components must also meet certain basic requirements (→ *Specifications for shafts and housing support surfaces* on page 45).

Mounting instructions for each housing are provided with the seal pack. For information about mounting rolling bearings, refer to the *SKF bearing maintenance handbook* or skf.com/mount.

Torque specifications

Cap bolts should be tightened to the torque values listed in **table 10** on page 77. For information about attachment bolts, refer to *Attachment bolt recommendations* on page 77.

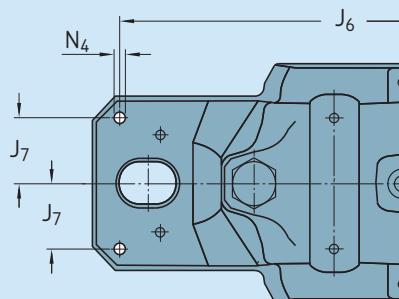
Pinning or supporting the housing

Some load conditions may require the housing to be pinned to its support surface or a stop to accommodate loads acting parallel to the housing support surface (→ *Additional housing support*, page 74).

Recommendations for the position and size of the holes to accommodate dowel pins are provided in **table 13**. For FSNL housings, refer to **table 1** on page 62. Dimples cast into the housing base mark the recommended positions.

Table 13

Position and size of dowel pin holes



Housing Size		Dimensions		
		J ₆	J ₇	N ₄
–		mm		
SNL 205	SNL 505	152	16	5
SNL 206-305	SNL 506-605	172	19	5
SE 207	SE 507-606	172	19	5
SE 208-307	SE 508-607	188	22	6
SE 209	SE 509	188	22	6
SE 210	SE 510-608	188	22	6
SE 211	SE 511-609	234	24,5	8
SE 212	SE 512-610	234	27	8
SE 213	SE 513-611	252	29	8
SE 215	SE 515-612	257	29	8
SNL 216	SNL 516-613	288	33	8
SNL 217	SNL 517	292	33	8
SNL 218	SNL 518-615 SNL 519-616 SNL 520-617	317 317 348	35 35 39	8 8 8
	SNL 522-619 SNL 524-620 SNL 526	378 378 414	44 44 46	8 8 12
	SNL 528 SNL 530 SNL 532	458 486 506	54 58 58	12 12 12

Condition monitoring

2

Condition monitoring

SNL housings have appropriate positions for condition monitoring sensors (\rightarrow fig. 15).

Position 1 is a measurement point perpendicular to the shaft, and should be used when the housing is hung from its support or when loads act away from the support surface.

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

Both positions 1 and 2 are in accordance with ISO 10816-1.

Position 3 is a measurement point that is approximately 20° to 45° to the shaft axis.

Fig. 15



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

Accessories

The following accessories are available for SNL housings in the 2, 3, 5 and 6 series:

- Adapter for G 1/4 connections
- V-ring and splash plate sets (**→ page 80**)
- Automatic lubricators: SKF SYSTEM 24 and SKF MultiPoint
- Grease meter: LAGM 1000E
- Condition monitoring sensors

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

Ordering information

For SNL housings in the 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 two 22218 EK spherical roller bearings on H 318 adapter sleeves. 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.

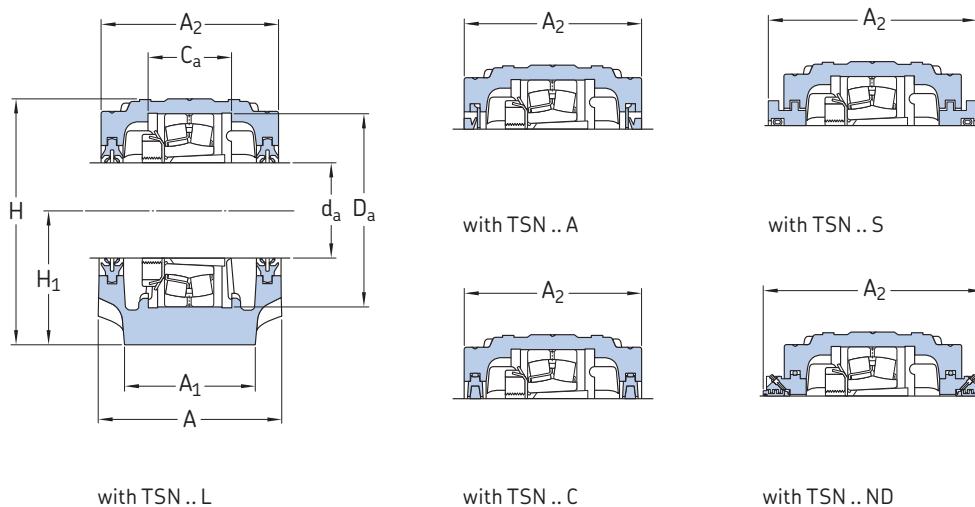
The following items should be ordered (in addition to the bearings and adapter sleeves):

- 2 housings SNL 518-615
- 2 four-lip seal packs TSN 518 L
(each pack contains two seals)
- 1 end cover ASNH 518-615
- 2 locating rings FRB 12.5/160

Ordering information

2

2.1 SNL and SE plummer block housings for bearings on an adapter sleeve, metric shafts d_a 20 – 30 mm

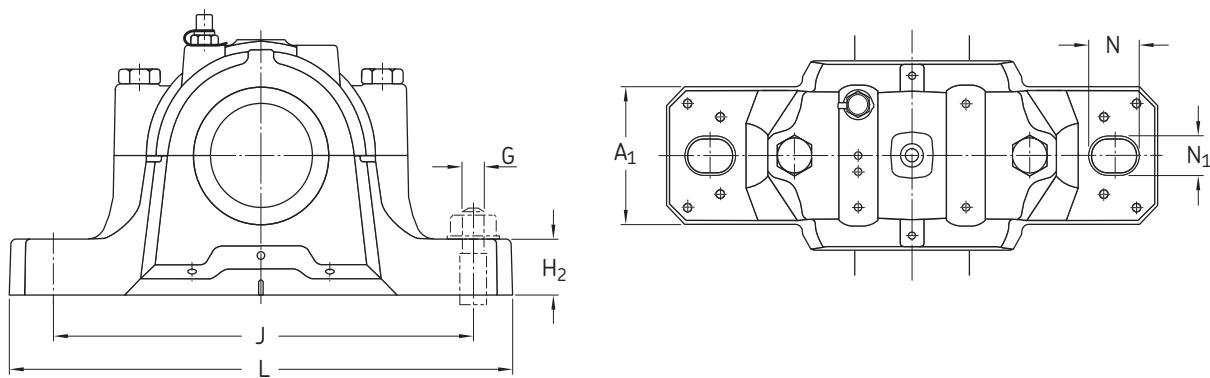


Shaft diameter d _a	Housing	Appropriate parts	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A ₂
mm	-	-					mm
20	SNL 505	1205 EKTN9 2205 EKTN9 22205 EK C 2205 KTN9	H 205 H 305 H 305 H 305 E	FRB 5/52 FRB 3.5/52 FRB 3.5/52 FRB 3.5/52	TSN 505 A TSN 505 C TSN 505 S TSN 505 ND	ASNH 505	67 67 80 125
	SNL 506-605	1305 EKTN9	H 305	FRB 7.5/62	TSN 605 A TSN 605 C TSN 605 S TSN 605 ND	ASNH 506-605	77 77 89 135
	SNL 506-605	1206 EKTN9 2206 EKTN9 22206 EK C 2206 KTN9	H 206 H 306 H 306 H 306 E	FRB 8/62 FRB 6/62 FRB 6/62 FRB 6/62	TSN 506 A TSN 506 C TSN 506 S TSN 506 ND	ASNH 506-605	77 77 89 135
	SE 507-606	1306 EKTN9 2306 K 21306 CCK	H 306 H 2306 H 306	FRB 7.5/72 FRB 3.5/72 FRB 7.5/72	TSN 606 A TSN 606 C TSN 606 S TSN 606 ND	ASNH 507-606	82 82 94 140
	SE 507-606	1207 EKTN9 2207 EKTN9 22207 EK C 2207 KTN9	H 207 H 307 H 307 H 307 E	FRB 8.5/72 FRB 5.5/72 FRB 5.5/72 FRB 5.5/72	TSN 507 L TSN 507 A TSN 507 C TSN 507 S TSN 507 ND	ASNH 507-606	82 82 82 94 145
30	SE 508-607	1307 EKTN9 2307 EKTN9 21307 CCK	H 307 H 2307 H 307	FRB 9/80 FRB 4/80 FRB 9/80	TSN 607 L TSN 607 A TSN 607 C TSN 607 S TSN 607 ND	ASNH 508-607	85 85 85 97 145

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00) – self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

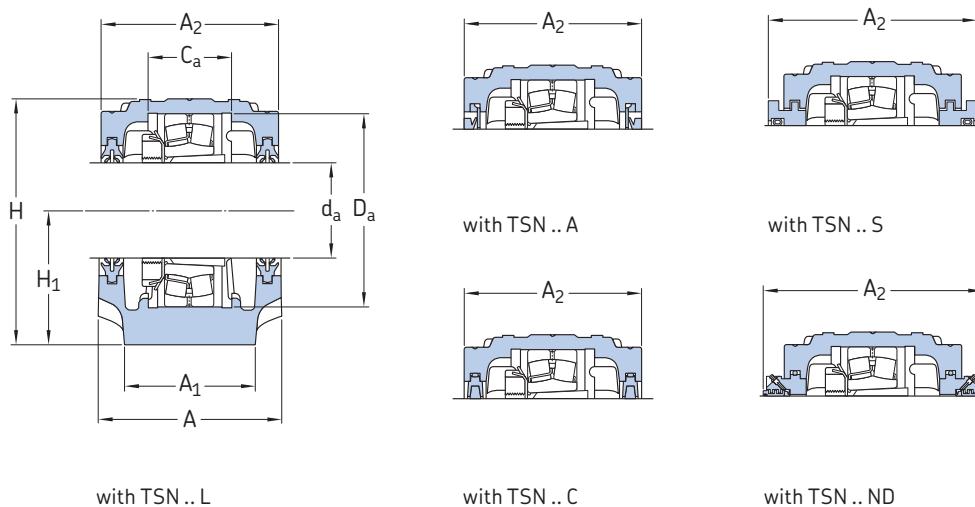
²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter mm	Dimensions mm												Mass Housing kg	
	d _a	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	
20	67	46	25	52	74	40	19	130	165	20	15	12	1,45	
	77	52	32	62	89	50	22	150	185	20	15	12	2,00	
25	77	52	32	62	89	50	22	150	185	20	15	12	2,00	
	83	52	34	72	94	50	22	150	185	20	15	12	2,60	
30	83	52	34	72	94	50	22	150	185	20	15	12	2,60	
	85	60	39	80	108	60	25	170	205	20	15	12	3,40	

2.1 SNL and SE plummer block housings for bearings on an adapter sleeve, metric shafts d_a 35 – 45 mm

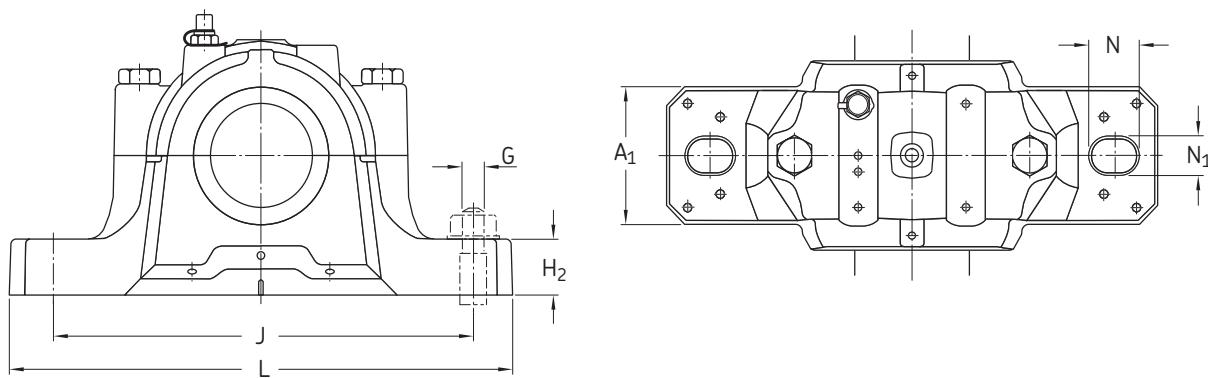


Shaft diameter d _a	Housing	Appropriate parts	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A ₂
mm	-	-					mm
35	SE 508-607	1208 EKTN9	H 208	FRB 10.5/80	TSN 508 L	ASNH 508-607	85
		2208 EKTN9	H 308	FRB 8/80	TSN 508 A		85
		22208 EK	H 308	FRB 8/80	TSN 508 C		85
		BS2-2208-2CSK	H 2308 E	FRB 5.5/80	TSN 508 S		97
		C 2208 KTN9	H 308 E	FRB 8/80	TSN 508 ND		150
35	SE 510-608	1308 EKTN9	H 308	FRB 9/90	TSN 608 L	ASNH 510-608	90
		2308 EKTN9	H 2308	FRB 4/90	TSN 608 A		90
		21308 EK	H 308	FRB 9/90	TSN 608 C		90
		22308 EK	H 2308	FRB 4/90	TSN 608 S		102
					TSN 608 ND		150
40	SE 509	1209 EKTN9	H 209	FRB 5.5/85	TSN 509 L	ASNH 509	85
		2209 EKTN9	H 309	FRB 3.5/85	TSN 509 A		85
		22209 EK	H 309	FRB 3.5/85	TSN 509 C		85
		BS2-2209-2CSK	H 309 E	FRB 1/85	TSN 509 S		97
		C 2209 KTN9	H 309 E	FRB 3.5/85	TSN 509 ND		150
40	SE 511-609	1309 EKTN9	H 309	FRB 9.5/100	TSN 609 L	ASNH 511-609	95
		2309 EKTN9	H 2309	FRB 4/100	TSN 609 A		95
		21309 EK	H 309	FRB 9.5/100	TSN 609 C		95
		22309 EK	H 2309	FRB 4/100	TSN 609 S		107
					TSN 609 ND		155
45	SE 510-608	1210 EKTN9	H 210	FRB 10.5/90	TSN 510 L	ASNH 510-608	90
		2210 EKTN9	H 310	FRB 9/90	TSN 510 A		90
		22210 EK	H 310	FRB 9/90	TSN 510 C		90
		BS2-2210-2CSK	H 310 E	FRB 6.5/90	TSN 510 S		102
		C 2210 KTN9	H 310 E	FRB 9/90	TSN 510 ND		155
45	SE 512-610	1310 EKTN9	H 310	FRB 10.5/110	TSN 610 L	ASNH 512-610	105
		2310 K	H 2310	FRB 4/110	TSN 610 A		105
		21310 EK	H 310	FRB 10.5/110	TSN 610 C		105
		22310 EK	H 2310	FRB 4/110	TSN 610 S		117
					TSN 610 ND		165

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00) – self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

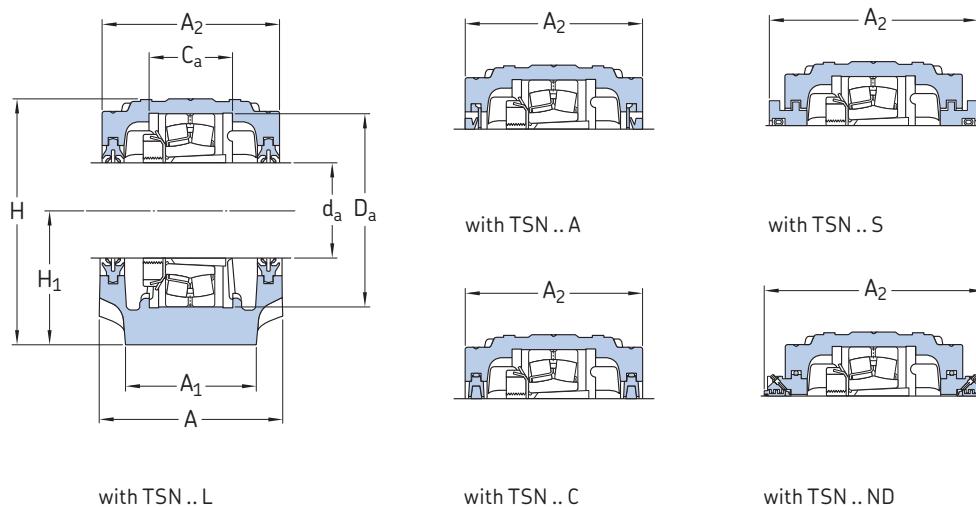
²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter mm	Dimensions mm												Mass Housing kg
	d _a	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G
35	85	60	39	80	108	60	25	170	205	20	15	12	3,40
	90	60	41	90	114	60	25	170	205	20	15	12	3,85
40	85	60	30	85	109	60	25	170	205	20	15	12	3,40
	95	70	44	100	129	70	28	210	255	24	18	16	5,45
45	90	60	41	90	114	60	25	170	205	20	15	12	3,85
	105	70	48	110	134	70	30	210	255	24	18	16	6,15

2.1 SNL and SE plummer block housings for bearings on an adapter sleeve, metric shafts d_a 50 – 60 mm

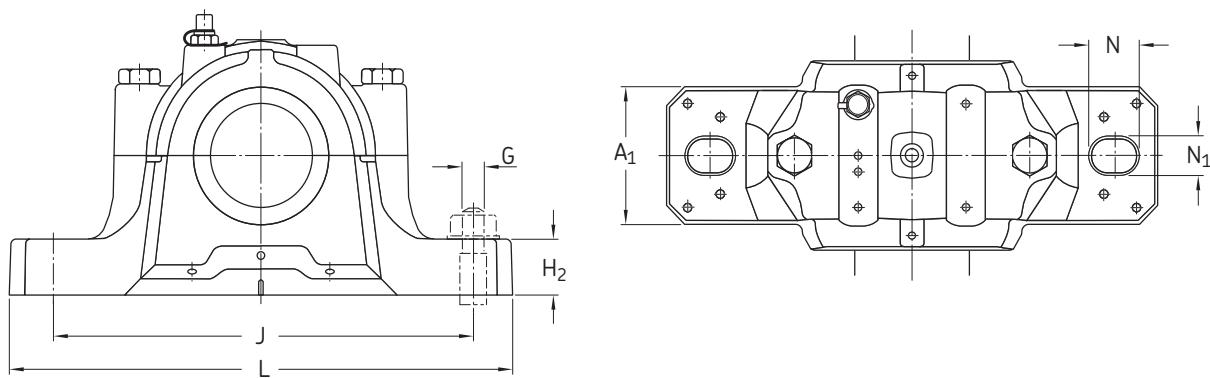


Shaft diameter d _a	Housing	Appropriate parts	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A ₂
mm	-	-					mm
50	SE 511-609	1211 EKTN9	H 211	FRB 11.5/100	TSN 511 L	ASNH 511-609	95
		2211 EKTN9	H 311	FRB 9.5/100	TSN 511 A		95
		22211 EK	H 311	FRB 9.5/100	TSN 511 C		95
		BS2-2211-2CSK	H 311 E	FRB 6.5/100	TSN 511 S		107
		C 2211 KTN9	H 311 E	FRB 9.5/100	TSN 511 ND		165
55	SE 513-611	1311 EKTN9	H 311	FRB 11/120	TSN 611 L	ASNH 513-611	110
		2311 K	H 2311	FRB 4/120	TSN 611 A		110
		21311 EK	H 311	FRB 11/120	TSN 611 C		110
		22311 EK	H 2311	FRB 4/120	TSN 611 S		122
					TSN 611 ND		170
60	SE 512-610	1212 EKTN9	H 212	FRB 13/110	TSN 512 L	ASNH 512-610	105
		2212 EKTN9	H 312	FRB 10/110	TSN 512 A		105
		22212 EK	H 312	FRB 10/110	TSN 512 C		105
		BS2-2212-2CSK	H 312 E	FRB 7/110	TSN 512 S		117
		C 2212 KTN9	H 312 E	FRB 10/110	TSN 512 ND		175
60	SE 515-612	1312 EKTN9	H 312	FRB 12.5/130	TSN 612 L	ASNH 515-612	115
		2312 K	H 2312	FRB 5/130	TSN 612 A		115
		21312 EK	H 312	FRB 12.5/130	TSN 612 C		115
		22312 EK	H 2312	FRB 5/130	TSN 612 S		127
					TSN 612 ND		175
60	SE 513-611	1213 EKTN9	H 213	FRB 14/120	TSN 513 L	ASNH 513-611	110
		2213 EKTN9	H 313	FRB 10/120	TSN 513 A		110
		22213 EK	H 313	FRB 10/120	TSN 513 C		110
		BS2-2213-2CSK	H 2313 E	FRB 6.5/120	TSN 513 S		122
		C 2213 KTN9	H 313 E	FRB 10/120	TSN 513 ND		180
60	SNL 516-613	1313 EKTN9	H 313	FRB 12.5/140	TSN 613 L	ASNH 516-613	120
		2313 K	H 2313	FRB 5/140	TSN 613 A		120
		21313 EK	H 313	FRB 12.5/140	TSN 613 C		120
		22313 EK	H 2313	FRB 5/140	TSN 613 S		138
					TSN 613 ND		180

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00) – self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter Dimensions Mass Housing

d _a	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G
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mm	mm	kg
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50	95	70	44	100	129	70	28	210	255	24	18	16	5,45
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	110	80	51	120	150	80	30	230	275	24	18	16	7,90
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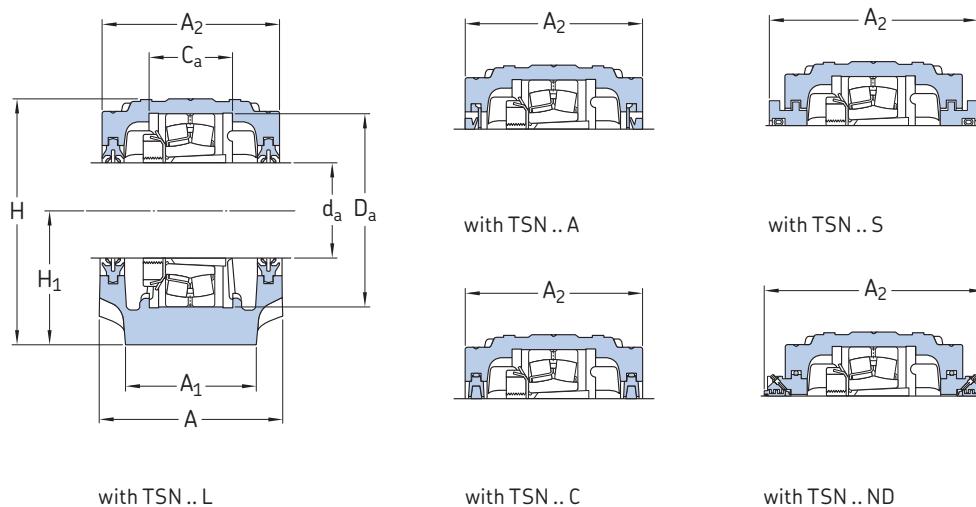
55	105	70	48	110	134	70	30	210	255	24	18	16	6,15
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	115	80	56	130	156	80	30	230	280	24	18	16	8,55
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60	110	80	51	120	150	80	30	230	275	24	18	16	7,90
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	120	90	58	140	177	95	32	260	315	28	22	20	9,50
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2.1 SNL and SE plummer block housings for bearings on an adapter sleeve, metric shafts d_a 65 – 75 mm

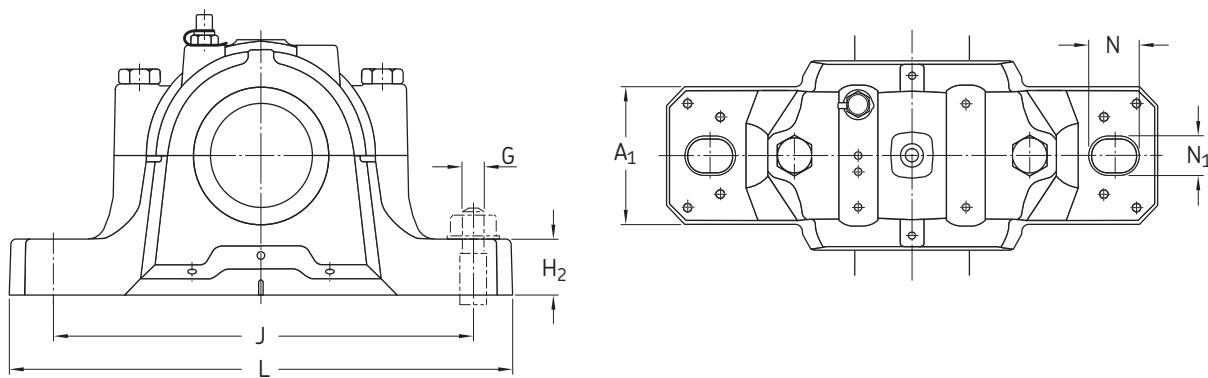


Shaft diameter d _a	Housing	Appropriate parts Bearing ¹⁾	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A ₂
mm	-	-					mm
65	SE 515-612	1215 K	H 215	FRB 15.5/130	TSN 515 L	ASNH 515-612	115
		2215 EKTN9	H 315	FRB 12.5/130	TSN 515 A		115
		22215 EK	H 315	FRB 12.5/130	TSN 515 C		115
		BS2-2215-2CSK	H 315 E	FRB 9/130	TSN 515 S		127
		C 2215 K	H 315 E	FRB 12.5/130	TSN 515 ND		175
	SNL 518-615	1315 K	H 315	FRB 14/160	TSN 615 L	ASNH 518-615	140
		2315 K	H 2315	FRB 5/160	TSN 615 A		140
		21315 EK	H 315	FRB 14/160	TSN 615 C		140
		22315 EK	H 2315	FRB 5/160	TSN 615 S		158
		C 2315 K	H 2315	FRB 5/160	TSN 615 ND		200
70	SNL 516-613	1216 K	H 216	FRB 16/140	TSN 516 L	ASNH 516-613	120
		2216 EKTN9	H 316	FRB 12.5/140	TSN 516 A		120
		22216 EK	H 316	FRB 12.5/140	TSN 516 C		120
		BS2-2216-2CSK	H 316 E	FRB 9/140	TSN 516 S		138
		C 2216 K	H 316 E	FRB 12.5/140	TSN 516 ND		205
	SNL 519-616	1316 K	H 316	FRB 14.5/170	TSN 616 L	ASNH 519-616	145
		2316 K	H 2316	FRB 5/170	TSN 616 A		145
		21316 EK	H 316	FRB 14.5/170	TSN 616 C		145
		22316 EK	H 2316	FRB 5/170	TSN 616 S		163
		C 2316 K	H 2316	FRB 5/170	TSN 616 ND		205
75	SNL 517	1217 K	H 217	FRB 16.5/150	TSN 517 L	ASNH 517	125
		2217 K	H 317	FRB 12.5/150	TSN 517 A		125
		22217 EK	H 317	FRB 12.5/150	TSN 517 C		125
		BS2-2217-2CSK	H 317 E	FRB 8.5/150	TSN 517 S		143
		C 2217 K	H 317 E	FRB 12.5/150	TSN 517 ND		210
	SNL 520-617	1317 K	H 317	FRB 14.5/180	TSN 617 L	ASNH 520-617	160
		2317 K	H 2317	FRB 5/180	TSN 617 A		160
		21317 EK	H 317	FRB 14.5/180	TSN 617 C		160
		22317 EK	H 2317	FRB 5/180	TSN 617 S		178
		C 2317 K	H 2317	FRB 5/180	TSN 617 ND		220

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00) – self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter Dimensions **Mass Housing**

d _a	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G
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mm	mm	kg
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65	115	80	56	130	156	80	30	230	280	24	18	16	8,55
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	140	100	65	160	194	100	35	290	345	28	22	20	12,5
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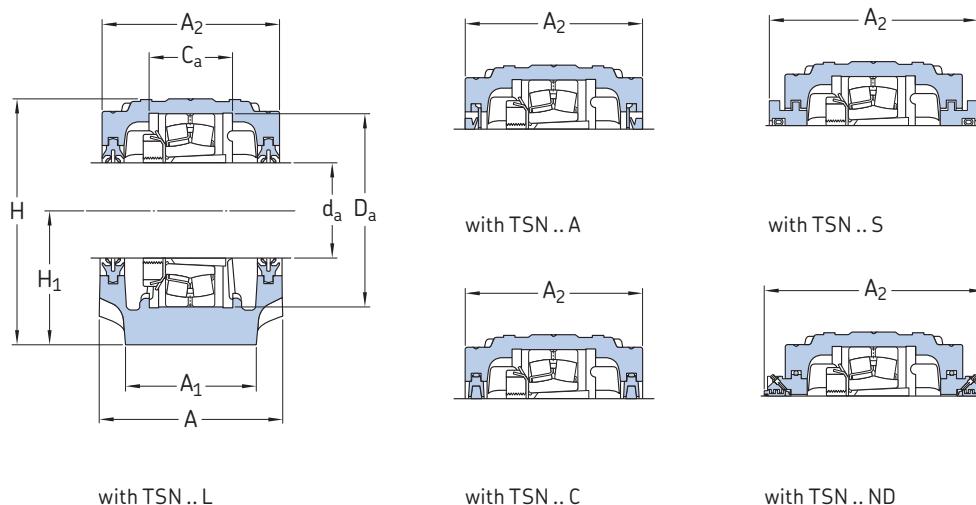
70	120	90	58	140	177	95	32	260	315	28	22	20	9,50
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	145	100	68	170	212	112	35	290	345	28	22	20	13,7
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75	125	90	61	150	183	95	32	260	320	28	22	20	10,0
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	160	110	70	180	218	112	40	320	380	32	26	24	17,6
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2.1 SNL and SE plummer block housings for bearings on an adapter sleeve, metric shafts d_a 80 – 90 mm

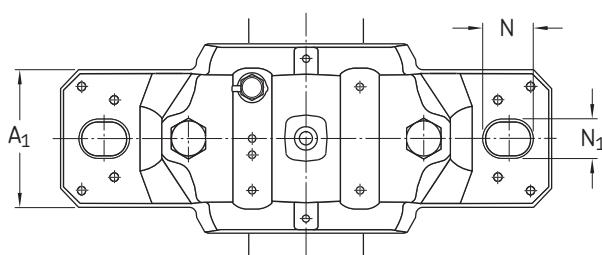
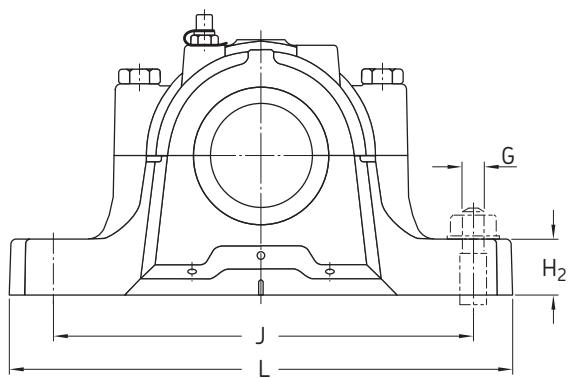


Shaft diameter d _a	Housing SNL 518-615	Appropriate parts Bearing ¹⁾	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A ₂
mm	-	-					mm
80	SNL 518-615	1218 K	H 218	FRB 17.5/160	TSN 518 L	ASNH 518-615	140
		2218 K	H 318	FRB 12.5/160	TSN 518 A		140
		22218 EK	H 318	FRB 12.5/160	TSN 518 C		140
		BS2-2218-2CSK	H 2318 E/L73	FRB 8.5/160	TSN 518 S		158
		23218 CCK/W33	H 2318	FRB 6.25/160	TSN 518 ND		225
		C 2218 K	H 318 E	FRB 12.5/160			
85	SNL 519-616	1219 K	H 219	FRB 18/170	TSN 519 L	ASNH 519-616	145
		2219 KM	H 319	FRB 12.5/170	TSN 519 A		145
		22219 EK	H 319	FRB 12.5/170	TSN 519 C		145
		C 2219 K	H 319 E	FRB 12.5/170	TSN 519 S		163
					TSN 519 ND		220
90	SNL 522-619	1319 K	H 319	FRB 17.5/200	TSN 619 A	ASNH 522-619	175
		2319 KM	H 2319	FRB 6.5/200	TSN 619 C		175
		21319 EK	H 319	FRB 17.5/200	TSN 619 S		191
		22319 EK	H 2319	FRB 6.5/200	TSN 619 ND		235
		C 2319 K	H 2319	FRB 6.5/200			
90	SNL 520-617	1220 K	H 220	FRB 18/180	TSN 520 L	ASNH 520-617	160
		2220 KM	H 320	FRB 12/180	TSN 520 A		160
		22220 EK	H 320	FRB 12/180	TSN 520 C		160
		BS2-2220-2CS5K	H 2320 E	FRB 7.5/180	TSN 520 S		178
		23220 CCK/W33	H 2320	FRB 4.85/180	TSN 520 ND		230
		C 2220 K	H 320 E	FRB 12/180			
90	SNL 524-620	1320 K	H 320	FRB 19.5/215	TSN 620 A	ASNH 524-620	185
		2320 KM	H 2320	FRB 6.5/215	TSN 620 C		185
		21320 EK	H 320	FRB 19.5/215	TSN 620 S		199
		22320 EK	H 2320	FRB 6.5/215	TSN 620 ND		240
		C 2320 K	H 2320	FRB 6.5/215			

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00) – self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

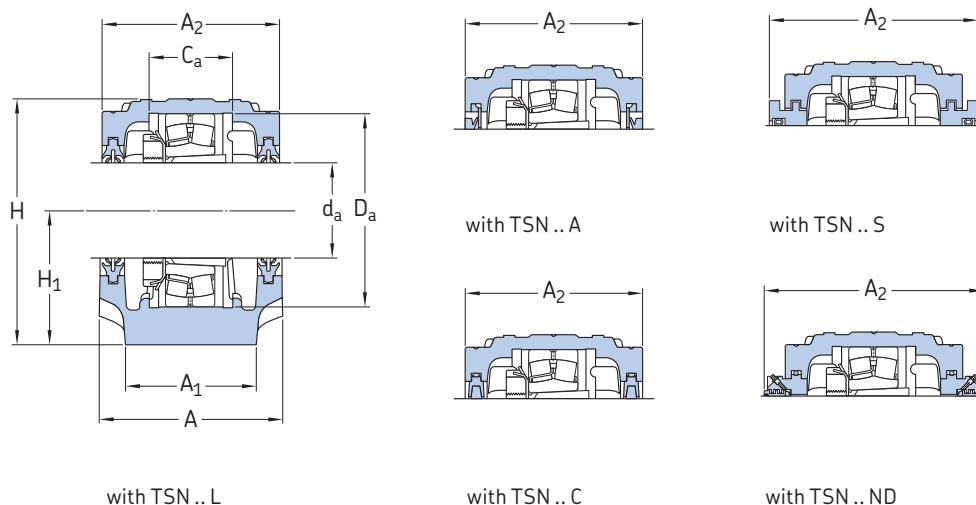
²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter mm	Dimensions mm												Mass Housing kg
	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	
80	140	100	65	160	194	100	35	290	345	28	22	20	12,5
85	145	100	68	170	212	112	35	290	345	28	22	20	13,7
	175	120	80	200	242	125	45	350	410	32	26	24	22,0
90	160	110	70	180	218	112	40	320	380	32	26	24	17,6
	185	120	86	215	271	140	45	350	410	32	26	24	26,2

2.1 SNL and SE plummer block housings for bearings on an adapter sleeve, metric shafts d_a 100 – 135 mm

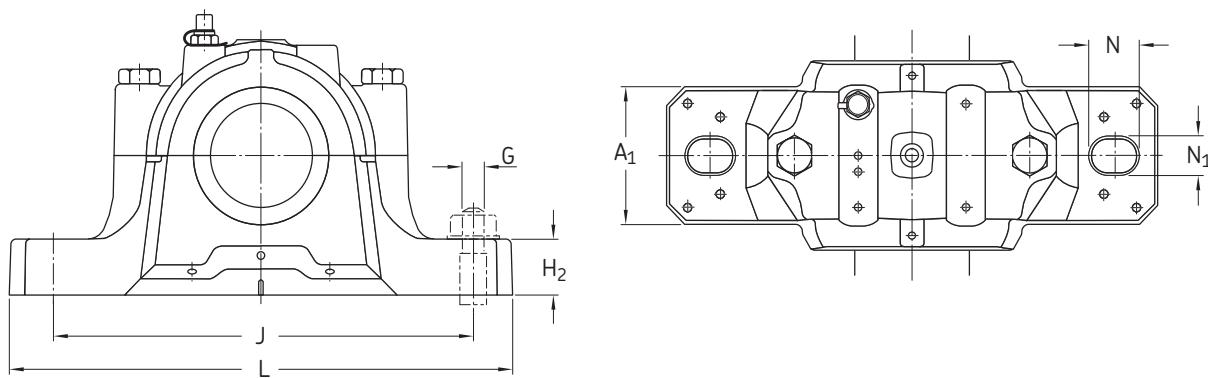


Shaft diameter d _a	Housing SNL 522-619	Appropriate parts Bearing ¹⁾	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A ₂
mm	-	-					mm
100	SNL 522-619	1222 K 2222 KM 2222 EK BS2-2222-2CS5K 23222 CCK/W33 C 2222 K	H 222 H 322 H 322 H 2322 E H 2322 H 322 E	FRB 21/200 FRB 13.5/200 FRB 13.5/200 FRB 8.5/200 FRB 5.1/200 FRB 13.5/200	TSN 522 L TSN 522 A TSN 522 C TSN 522 S TSN 522 ND	ASNH 522-619	175 175 175 191 250
110	SNL 524-620	1224 KM 22224 EK BS2-2224-2CS5K 23224 CCK/W33 C 2224 K C 3224 K	H 3024 H 3124 H 2324 EH H 2324 H 3124 L H 2324 L	FRB 22/215 FRB 14/215 FRB 8.5/215 FRB 5/215 FRB 14/215 FRB 5/215	TSN 524 L TSN 524 A TSN 524 C TSN 524 S TSN 524 ND	ASNH 524-620	185 185 185 199 260
115	SNL 526	22226 EK BS2-2226-2CS5K 23226 CCK/W33 23226-2CS5K C 2226 K	H 3126 H 2326 L H 2326 H 2326 L H 3126 L	FRB 13/230 FRB 7.5/230 FRB 5/230 FRB 5/230 FRB 13/230	TSN 526 L TSN 526 A TSN 526 C TSN 526 S TSN 526 ND	ASNH 526	190 190 190 208 265
125	SNL 528	22228 CCK/W33 22228-2CS5K 23228 CCK/W33 23228-2CS5K C 2228 K	H 3128 H 3128 L H 2328 H 2328 H 3128 L	FRB 15/250 FRB 15/250 FRB 5/250 FRB 5/250 FRB 15/250	TSN 528 L TSN 528 A TSN 528 C TSN 528 S TSN 528 ND	ASNH 528	205 205 205 223 285
135	SNL 530	22230 CCK/W33 22230-2CS5K 23230 CCK/W33 C 2230 K	H 3130 H 3130 H 2330 H 3130 L	FRB 16.5/270 FRB 16.5/270 FRB 5/270 FRB 16.5/270	TSN 530 L TSN 530 A TSN 530 C TSN 530 S TSN 530 ND	ASNH 530	220 220 220 241 295

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00) – self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

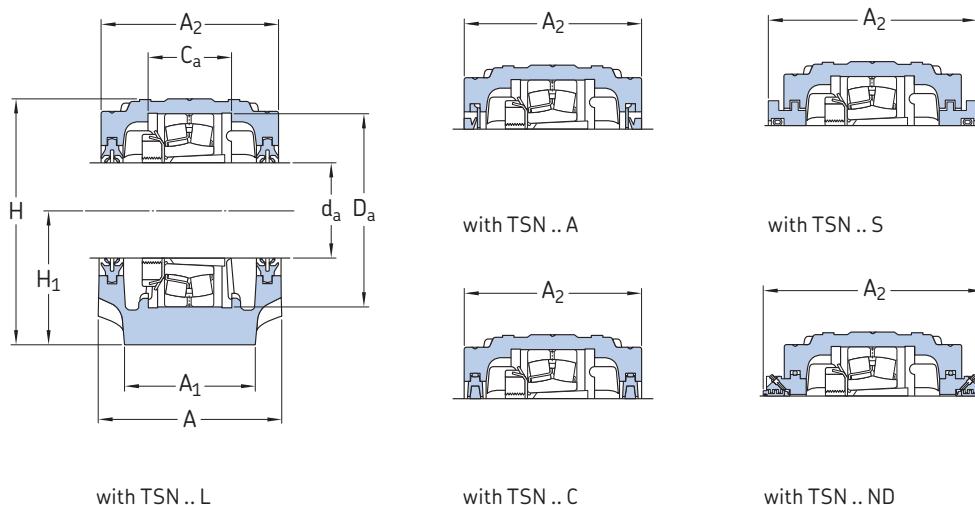
²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter	Dimensions													Eye bolt acc. to DIN 580	Mass Housing
	d _a	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G		
mm	mm													kg	
100	175	120	80	200	242	125	45	350	410	32	26	24	—	22,0	
110	185	120	86	215	271	140	45	350	410	32	26	24	M 10	26,2	
115	190	130	90	230	290	150	50	380	445	35	28	24	M 10	33,0	
125	205	150	98	250	302	150	50	420	500	42	35	30	M 12	40,0	
135	220	160	106	270	323	160	60	450	530	42	35	30	M 12	49,0	

2.1 SNL and SE plummer block housings for bearings on an adapter sleeve, metric shafts d_a 140 mm

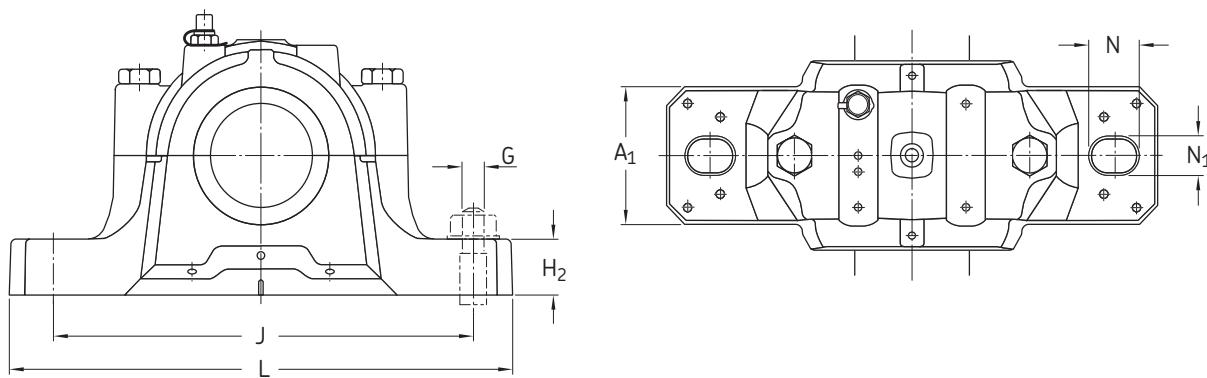


Shaft diameter d _a	Housing SNL 532	Appropriate parts Bearing ¹⁾	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A ₂
mm	-	-					mm
140	SNL 532	22232 CCK/W33 22232-2CS5K 23232 CCK/W33 C 3232 K	H 3132 H 3132 H 2332 H 2332 L	FRB 17/290 FRB 17/290 FRB 5/290 FRB 5/290	TSN 532 L TSN 532 A TSN 532 C TSN 532 S TSN 532 ND	ASNH 532	235 235 235 254 315

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00) – self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

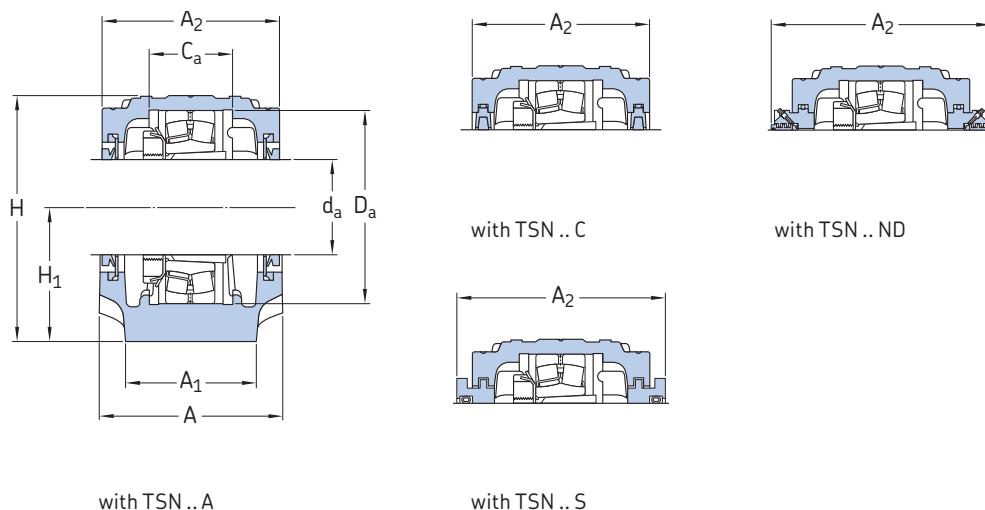
³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter	Dimensions												Eye bolt acc. to DIN 580	Mass Housing	
	d _a	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G		
mm	mm													kg	
140	235	160	114	290	344	170	60	470	550	42	35	30	M 12	55,0	

2.2 SNL and SE plummer block housings for bearings on an adapter sleeve, inch shafts

d_a $\frac{3}{4}$ – 1 in.
19,05 – 25,4 mm

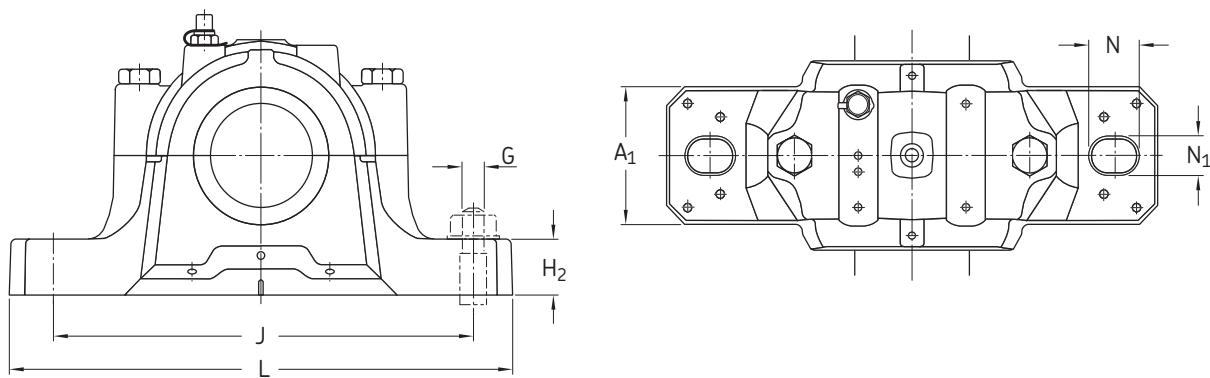


Shaft diameter d_a	Housing	Appropriate parts	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A_2
in./mm	-	-					mm
$\frac{3}{4}$ 19,05	SNL 505	1205 EKTN9 2205 EKTN9 22205 EK C 2205 KTN9	HE 205 HE 305 HE 305 HE 305 E	FRB 5/52 FRB 3.5/52 FRB 3.5/52 FRB 3.5/52	TSN 505 A TSN 505 C TSN 505 SE TSN 505 NDE	ASNH 505	67 67 80 125
	SNL 506-605	1305 EKTN9	HE 305	FRB 7.5/62	TSN 605 A TSN 605 C TSN 605 SE TSN 605 NDE	ASNH 506-605	77 77 89 135
	SE 507-606	1306 EKTN9 2306 K 21306 CCK	HA 306 HA 2306 HA 306	FRB 7.5/72 FRB 3.5/72 FRB 7.5/72	TSN 606 A TSN 606 C TSN 606 SA TSN 606 NDA	ASNH 507-606	82 82 94 140
	SNL 506-605	1206 EKTN9 2206 EKTN9 22206 EK C 2206 KTN9	HE 206 HE 306 HE 306 HE 306 E	FRB 8/62 FRB 6/62 FRB 6/62 FRB 6/62	TSN 506 A TSN 506 C TSN 506 SA TSN 506 NDA	ASNH 506-605	77 77 89 135
1 25,4	SE 507-606	1306 EKTN9 2306 K 21306 CCK	HE 306 HE 2306 HE 2306	FRB 7.5/72 FRB 3.5/72 FRB 7.5/72	TSN 606 A TSN 606 C TSN 606 SE TSN 606 NDE	ASNH 507-606	82 82 94 140

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00), self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

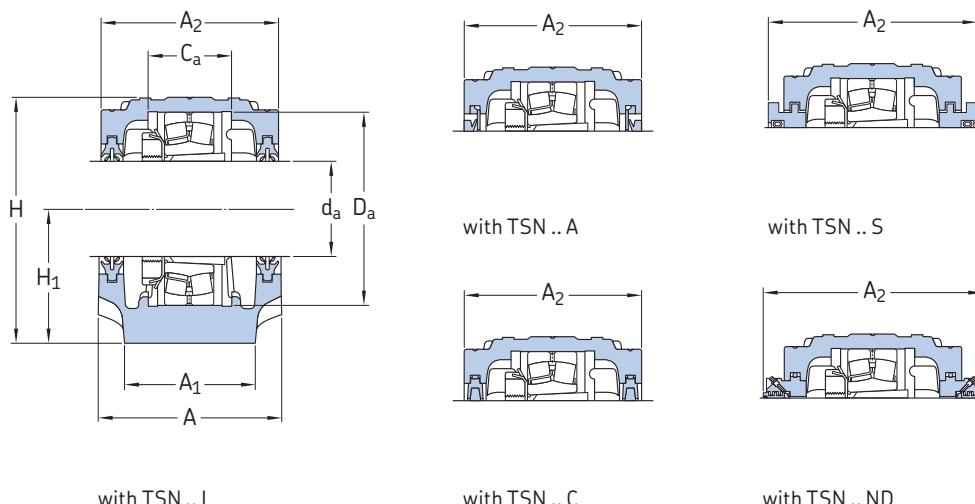
³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter	Dimensions												Mass Housing		
	d _a	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	G	
in./mm	mm													in.	kg
3/4 19,05	67	46	25	52	74	40	19	130	165	20	15	12	1/2	1,45	
	77	52	32	62	89	50	22	150	185	20	15	12	1/2	2,00	
15/16 23,813	77	52	32	62	89	50	22	150	185	20	15	12	1/2	2,00	
	82	52	34	72	94	50	22	150	185	20	15	12	1/2	2,60	
1 25,4	77	52	32	62	89	50	22	150	185	20	15	12	1/2	2,00	
	83	52	34	72	94	50	22	150	185	20	15	12	1/2	2,60	

2.2 SNL and SE plummer block housings for bearings on an adapter sleeve, inch shafts

d_a **1 $\frac{3}{16}$ – 1 $\frac{7}{16}$ in.**
 30,163 – 36,513 mm

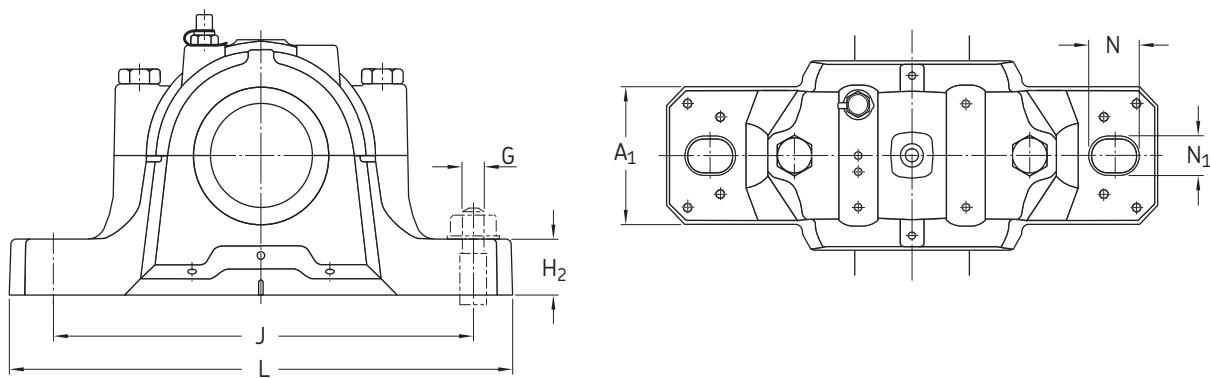


Shaft diameter d_a	Housing	Appropriate parts Bearing ¹⁾	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A_2
in./mm	-	-					mm
1 $\frac{3}{16}$ 30,163	SE 507-606	1207 EKTN9	HA 207	FRB 8.5/72	TSN 507 L	ASNH 507-606	82
		2207 EKTN9	HA 307	FRB 5.5/72	TSN 507 A		82
		22207 EK	HA 307	FRB 5.5/72	TSN 507 C		82
		C 2207 KTN9	HA 307 E	FRB 5.5/72	TSN 507 SA		94
					TSNA 507 NDA		145
1 $\frac{1}{4}$ 31,75	SE 508-607	1307 EKTN9	HA 307	FRB 9/80	TSN 607 L	ASNH 508-607	85
		2307 EKTN9	HA 2307	FRB 4/80	TSN 607 A		85
		21307 CCK	HA 307	FRB 9/80	TSN 607 C		85
					TSN 607 SA		97
					TSN 607 NDA		145
1 $\frac{7}{16}$ 36,513	SE 508-607	1208 EKTN9	HE 208	FRB 10.5/80	TSN 508 AE	ASNH 508-607	85
		2208 EKTN9	HE 308	FRB 8/80	TSN 508 CE		85
		22208 EK	HE 308	FRB 8/80	TSN 508 SE		97
		C 2208 KTN9	HE 308 E	FRB 8/80	TSN 508 NDE		150
1 $\frac{7}{16}$ 36,513	SE 510-608	1308 EKTN9	HE 308	FRB 9/90	TSN 608 AE	ASNH 510-608	90
		2308 EKTN9	HE 2308	FRB 4/90	TSN 608 CE		90
		21308 EK	HE 308	FRB 9/90	TSN 608 SE		102
		22308 EK	HE 2308	FRB 4/90	TSN 608 NDE		150
1 $\frac{7}{16}$ 36,513	SE 509	1209 EKTN9	HA 209	FRB 5.5/85	TSN 509 AE	ASNH 509	85
		2209 EKTN9	HA 309	FRB 3.5/85	TSN 509 CE		85
		22209 EK	HA 309	FRB 3.5/85	TSN 509 SA		97
		BS2-2209-2CSK	HA 309 E	FRB 1/85	TSN 509 NDA		150
		C 2209 KTN9	HA 309 E	FRB 3.5/85			
1 $\frac{7}{16}$ 36,513	SE 511-609	1309 EKTN9	HA 309	FRB 9.5/100	TSN 609 AE	ASNH 511-609	95
		2309 EKTN9	HA 2309	FRB 4/100	TSN 609 CE		95
		21309 EK	HA 309	FRB 9.5/100	TSN 609 SA		107
		22309 EK	HA 2309	FRB 4/100	TSN 609 NDA		155

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00), self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

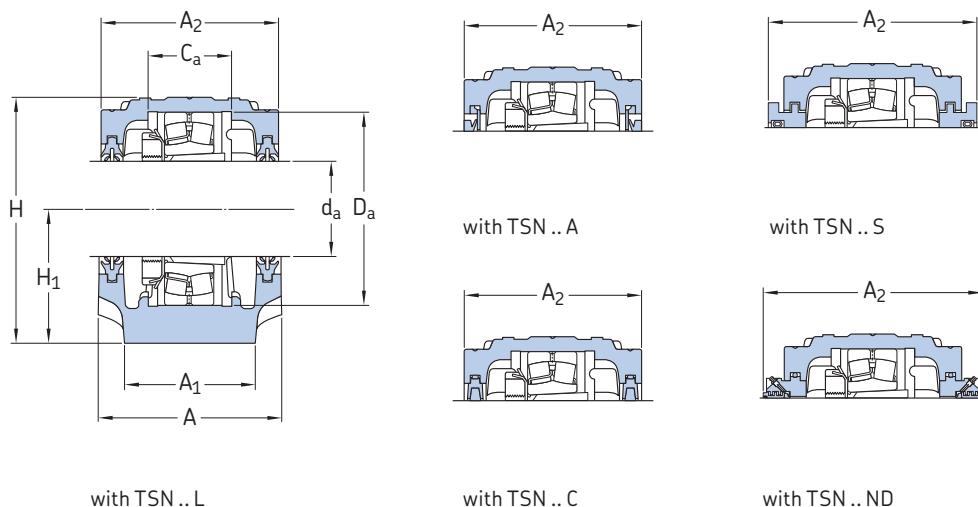
³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter	Dimensions												Mass Housing	
	d _a	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	G
in./mm	mm												in.	kg
1 3/16 30,163	83	52	34	72	94	50	22	150	185	20	15	12	1/2	2,60
	85	60	39	80	108	60	25	170	205	20	15	12	1/2	2,90
1 1/4 31,75	85	60	39	80	108	60	25	170	205	20	15	12	1/2	3,40
	90	60	41	90	114	60	25	170	205	20	12	12	1/2	3,85
1 7/16 36,513	85	60	30	85	109	60	25	170	205	20	15	12	1/2	3,40
	95	70	44	100	129	70	28	210	255	24	18	16	5/8	5,45

2.2 SNL and SE plummer block housings for bearings on an adapter sleeve, inch shafts

d_a **1 1/2 – 1 3/4 in.**
38,1 – 44,45 mm

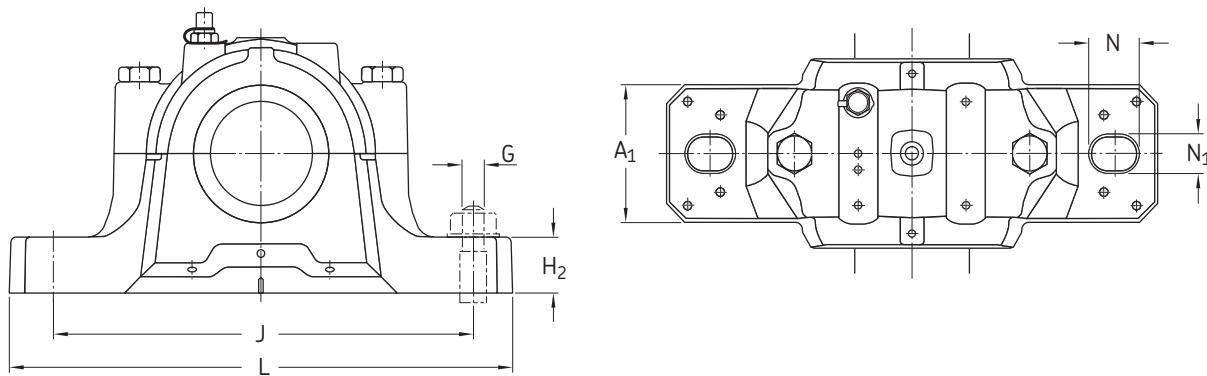


Shaft diameter d_a	Housing	Appropriate parts Bearing ¹⁾	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A_2	
in./mm	-	-					mm	
1 1/2 38,1	SE 509	1209 EKTN9 2209 EKTN9 22209 EK BS2-2209-2CSK C 2209 KTN9	HE 209 HE 309 HE 309 HE 309 E HE 309 E	FRB 5.5/85 FRB 3.5/85 FRB 3.5/85 FRB 1/85 FRB 3.5/85	TSN 509 AE TSN 509 CE TSN 509 SE TSN 509 NDE	ASNH 509	85 85 97 150	
	SE 511-609	1309 EKTN9 2309 EKTN9 21309 EK 22309 EK	HE 309 HE 2309 HE 309 HE 2309	FRB 9.5/100 FRB 4/100 FRB 9.5/100 FRB 4/100	TSN 609 AE TSN 609 CE TSN 609 SE TSN 609 NDE	ASNH 511-609	95 95 107 155	
	1 11/16 42,863	SE 510-608	1210 EKTN9 2210 EKTN9 22210 EK BS2-2210-2CSK C 2210 KTN9	HA 210 HA 310 HA 310 HA 310 E HA 310 E	FRB 10.5/90 FRB 9/90 FRB 9/90 FRB 6.5/90 FRB 9/90	TSN 510 A TSN 510 C TSN 510 SA TSN 510 NDA	ASNH 510-608	90 90 102 155
		SE 512-610	1310 EKTN9 2310 K 21310 EK 22310 EK	HA 310 HA 2310 HA 310 HA 2310	FRB 10.5/110 FRB 4/110 FRB 10.5/110 FRB 4/110	TSN 610 A TSN 610 C TSN 610 SA TSN 610 NDA	ASNH 512-610	105 105 117 165
		SE 510-608	1210 EKTN9 2210 EKTN9 22210 EK BS2-2210-2CSK C 2210 KTN9	HE 210 HE 310 HE 310 HE 310 E HE 310 E	FRB 10.5/90 FRB 9/90 FRB 9/90 FRB 6.5/90 FRB 9/90	TSN 510 L TSN 510 A TSN 510 C TSN 510 SE TSN 510 NDE	ASNH 510-608	90 90 90 102 155
1 3/4 44,45	SE 512-610	1310 EKTN9 2310 K 21310 EK 22310 EK	HE 310 HE 2310 HE 310 HE 2310	FRB 10.5/110 FRB 4/110 FRB 10.5/110 FRB 4/110	TSN 610 L TSN 610 A TSN 610 C TSN 610 SE TSN 610 NDE	ASNH 512-610	105 105 105 117 165	

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00), self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

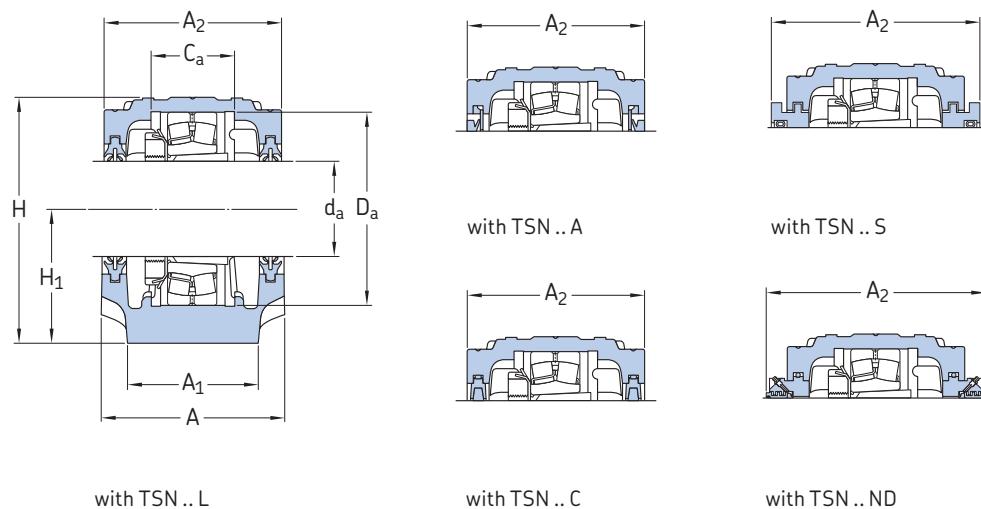
³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter	Dimensions													Mass Housing		
	d _a	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	G		
in./mm	mm														in.	kg
1 1/2 38,1	85	60	30	85	109	60	25	170	205	20	15	12	1/2	3,40		
	95	70	44	100	129	70	28	210	255	24	18	16	5/8	5,45		
1 11/16 42,863	90	60	41	90	114	60	25	170	205	20	15	12	1/2	3,85		
	105	70	48	110	134	70	30	210	255	24	18	16	5/8	6,15		
1 3/4 44,45	90	60	41	90	114	60	25	170	205	20	15	12	1/2	3,85		
	105	70	48	110	134	70	30	210	255	24	18	16	5/8	6,15		

2.2 SNL and SE plummer block housings for bearings on an adapter sleeve, inch shafts

d_a **1 15/16 – 2 3/16** in.
49,213 – 55,563 mm

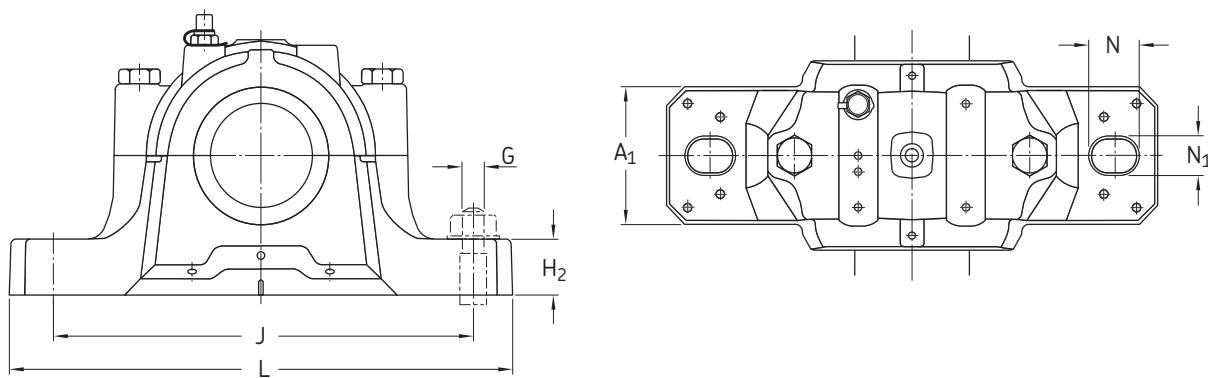


Shaft diameter d_a	Housing	Appropriate parts	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A_2
in./mm	-	-					mm
1 15/16 49,213	SE 511-609	1211 EKTN9	HA 211	FRB 11.5/100	TSN 511 L	ASNH 511-609	95
		2211 EKTN9	HA 311	FRB 9.5/100	TSN 511 A		95
		22211 EK	HA 311	FRB 9.5/100	TSN 511 C		95
		BS2-2211-2CSK	HA 311 E	FRB 6.5/100	TSN 511 SA		107
		C 2211 KTN9	HA 311 E	FRB 9.5/100	TSN 511 NDA		165
2 50,8	SE 511-609	1311 EKTN9	HA 311	FRB 11/120	TSN 611 L	ASNH 511-609	110
		2311 K	HA 2311	FRB 4/120	TSN 611 A		110
		21311 EK	HA 311	FRB 11/120	TSN 611 C		110
		22311 EK	HA 2311	FRB 4/120	TSN 611 SA		122
					TSN 611 NDA		170
2 3/16 55,563	SE 513-611	1211 EKTN9	HE 211 B	FRB 11.5/100	TSN 511 L	ASNH 513-611	95
		2211 EKTN9	HE 311 B	FRB 9.5/100	TSN 511 A		95
		22211 EK	HE 311 B	FRB 9.5/100	TSN 511 C		95
		BS2-2211-2CSK	HE 311 BE	FRB 6.5/100	TSN 511 SE		107
		C 2211 KTN9	HE 311 BE	FRB 9.5/100	TSN 511 NDE		165
2 3/16 55,563	SE 513-611	1311 EKTN9	HE 311	FRB 11/120	TSN 611 L	ASNH 513-611	110
		2311 K	HE 2311 B	FRB 4/120	TSN 611 A		110
		21311 EK	HE 311	FRB 11/120	TSN 611 C		110
		22311 EK	HE 2311 B	FRB 4/120	TSN 611 SE		122
					TSN 611 NDE		170
2 3/16 55,563	SE 513-611	1213 EKTN9	HA 213	FRB 14/120	TSN 513 LA	ASNH 513-611	110
		2213 EKTN9	HA 313	FRB 10/120	TSN 513 AE		110
		22213 EK	HA 313	FRB 10/120	TSN 513 CE		110
		BS2-2213-2CSK	HA 2313 E	FRB 6.5/120	TSN 513 SA		122
		C 2213 KTN9	HA 313 E	FRB 10/120	TSN 513 NDA		180
2 3/16 55,563	SNL 516-613	1313 EKTN9	HA 313	FRB 12.5/140	TSN 613 AE	ASNH 516-613	120
		2313 K	HA 2313	FRB 5/140	TSN 613 CE		120
		21313 EK	HA 313	FRB 12.5/140	TSN 613 SA		138
		22313 EK	HA 2313	FRB 5/140	TSN 613 NDA		180

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00), self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

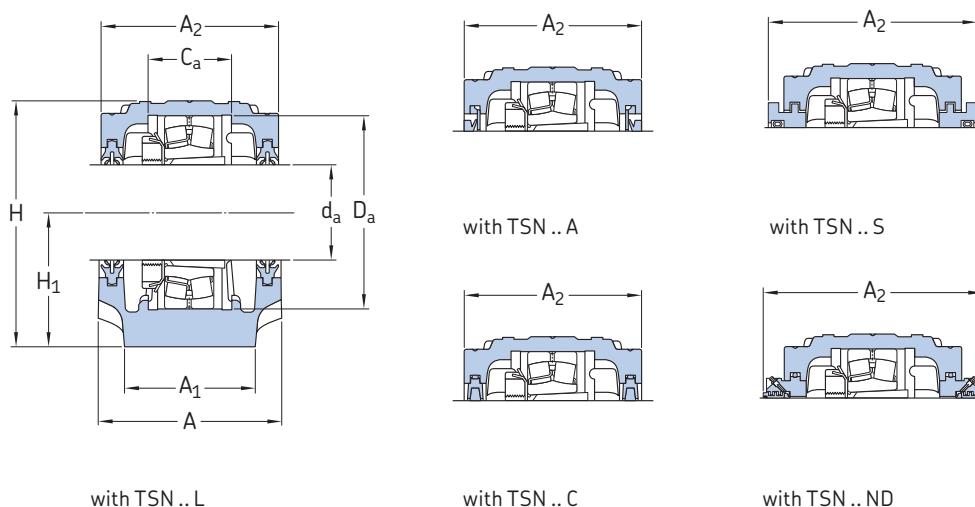
³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter	Dimensions												Mass Housing	
	d _a	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	G
in./mm	mm												in.	kg
1 15/16 49,213	95	70	44	100	129	70	28	210	255	24	18	16	5/8	5,45
	110	80	51	120	150	80	30	230	275	24	18	16	5/8	7,90
2 50,8	95	70	44	100	129	70	28	210	255	24	18	16	5/8	5,45
	110	80	51	120	150	80	30	230	275	24	18	16	5/8	7,90
2 3/16 55,563	110	80	51	120	150	80	30	230	275	24	18	16	5/8	7,90
	120	90	58	140	177	95	32	260	315	28	22	20	3/4	9,50

2.2 SNL and SE plummer block housings for bearings on an adapter sleeve, inch shafts

d_a $2\frac{1}{4}$ – $2\frac{1}{2}$ in.
57,15 – 63,5 mm

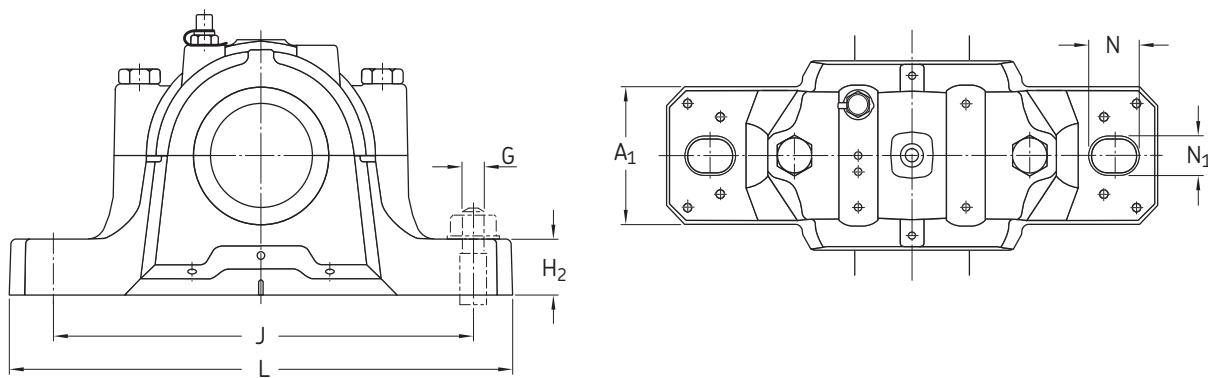


Shaft diameter d_a	Housing	Appropriate parts	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A_2
in./mm	-	-					mm
$2\frac{1}{4}$ 57,15	SE 513-611	1213 EKTN9	HE 213	FRB 14/120	TSN 513 A	ASNH 513-611	110
		2213 EKTN9	HE 313	FRB 10/120	TSN 513 CE		110
		22213 EK	HE 313	FRB 10/120	TSN 513 SE		122
		BS2-2213-2CSK	HE 2313 E	FRB 6.5/120	TSN 513 NDE		180
		C 2213 KTN9	HE 313 E	FRB 10/120			
$2\frac{7}{16}$ 61,913	SNL 516-613	1313 EKTN9	HE 313	FRB 12.5/140	TSN 613 A	ASNH 516-613	120
		2313 K	HE 2313	FRB 5/140	TSN 613 CE		120
		21313 EK	HE 313	FRB 12.5/140	TSN 613 SE		138
		22313 EK	HE 2313	FRB 5/140	TSN 613 NDE		180
$2\frac{1}{2}$ 63,5	SE 515-612	1215 K	HA 215	FRB 15.5/130	TSN 515 LA	ASNH 515-612	115
		2215 EKTN9	HA 315	FRB 12.5/130	TSN 515 AE		115
		22215 EK	HA 315	FRB 12.5/130	TSN 515 CE		115
		BS2-2215-2CSK	HA 315 E	FRB 9/130	TSN 515 SA		127
		C 2215 K	HA 315 E	FRB 12.5/130	TSN 515 NDA		175
$2\frac{1}{2}$ 63,5	SNL 518-615	1315 K	HA 315	FRB 14/160	TSN 615 AE	ASNH 518-615	140
		2315 K	HA 2315	FRB 5/160	TSN 615 CE		140
		21315 EK	HA 315	FRB 14/160	TSN 615 SA		158
		22315 EK	HA 2315	FRB 5/160	TSN 615 NDA		200
		C 2315 K	HA 2315	FRB 5/160			

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00), self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

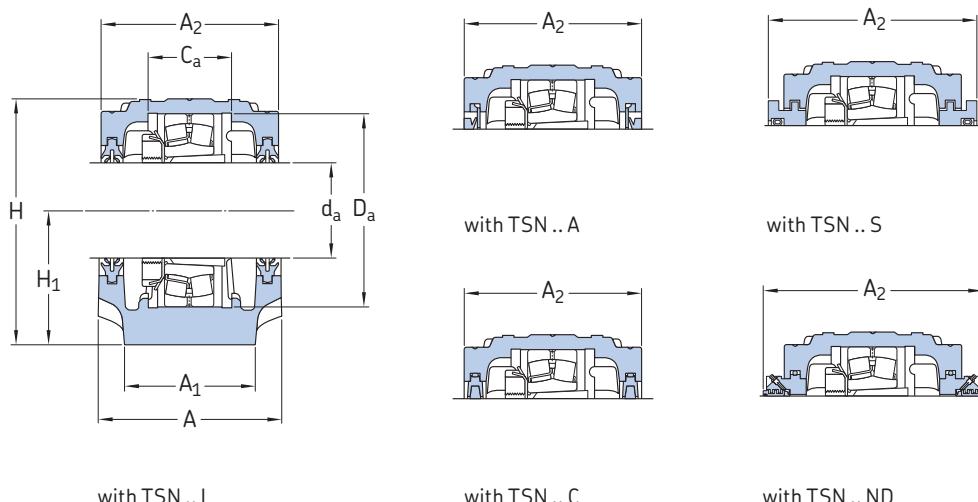
³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter	Dimensions												Mass Housing	
	d _a	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	G
in./mm	mm												in.	kg
2 1/4 57,15	110	80	51	120	150	80	30	230	275	24	18	16	5/8	7,90
	120	90	58	140	177	95	32	260	315	28	22	20	3/4	9,50
2 7/16 61,913	115	80	56	130	156	80	30	230	280	24	18	16	5/8	8,55
	140	100	65	160	194	100	35	290	345	28	22	20	3/4	12,5
2 1/2 63,5	115	80	56	130	156	80	30	230	280	24	18	16	5/8	8,55
	140	100	65	160	194	100	35	290	345	28	22	20	3/4	12,5

2.2 SNL and SE plummer block housings for bearings on an adapter sleeve, inch shafts

d_a **2 11/16 – 2 15/16** in.
68,263 – 74,613 mm

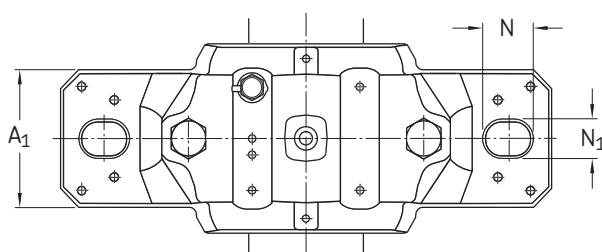
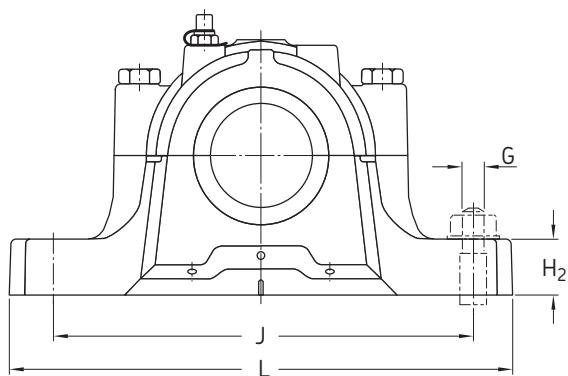


Shaft diameter d_a	Housing	Appropriate parts	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A_2
in./mm	-	-					mm
2 11/16 68,263	SNL 516-613	1216 K 2216 EKTN9 22216 EK BS2-2216-2CSK C 2216 K	HA 216 HA 316 HA 316 HA 316 E HA 316 E	FRB 16/140 FRB 12.5/140 FRB 12.5/140 FRB 9/140 FRB 12.5/140	TSN 516 A TSN 516 C TSN 516 SA TSN 516 NDA	ASNH 516-613	120 120 138 205
	SNL 519-616	1316 K 2316 K 21316 EK 22316 EK C 2316 K	HA 316 HA 2316 HA 316 HA 2316 HA 2316	FRB 14.5/170 FRB 5/170 FRB 14.5/170 FRB 5/170 FRB 5/170	TSN 616 A TSN 616 C TSN 616 SA TSN 616 NDA	ASNH 519-616	145 145 163 205
	SNL 516-613	1216 K 2216 EKTN9 22216 EK BS2-2216-2CSK C 2216 K	HE 216 HE 316 HE 316 HE 316 E HE 316 E	FRB 16/140 FRB 12.5/140 FRB 12.5/140 FRB 9/140 FRB 12.5/140	TSN 516 L TSN 516 A TSN 516 C TSN 516 SE TSN 516 NDE	ASNH 516-613	120 120 120 138 205
	SNL 519-616	1316 K 2316 K 21316 EK 22316 EK C 2316 K	HE 316 HE 2316 HE 316 HE 2316 HE 2316	FRB 14.5/170 FRB 5/170 FRB 14.5/170 FRB 5/170 FRB 5/170	TSN 616 L TSN 616 A TSN 616 C TSN 616 SE TSN 616 NDE	ASNH 519-616	145 145 145 163 205
	SNL 517	1217 K 2217 K 22217 EK BS2-2217-2CSK C 2217 K	HA 217 HA 317 HA 317 HA 317 E HA 317 E	FRB 16.5/150 FRB 12.5/150 FRB 12.5/150 FRB 8.5/150 FRB 12.5/150	TSN 517 L TSN 517 A TSN 517 C TSNA 517 SA TSN 517 NDA	ASNH 517	125 125 125 143 210
2 15/16 74,613	SNL 520-617	1317 K 2317 K 21317 EK 22317 EK C 2317 K	HA 317 HA 2317 HA 317 HA 2317 HA 2317	FRB 14.5/180 FRB 5/180 FRB 14.5/180 FRB 5/180 FRB 5/180	TSN 617 L TSN 617 A TSN 617 C TSN 617 SA TSN 617 NDA	ASNH 520-617	160 160 160 178 220

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00), self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

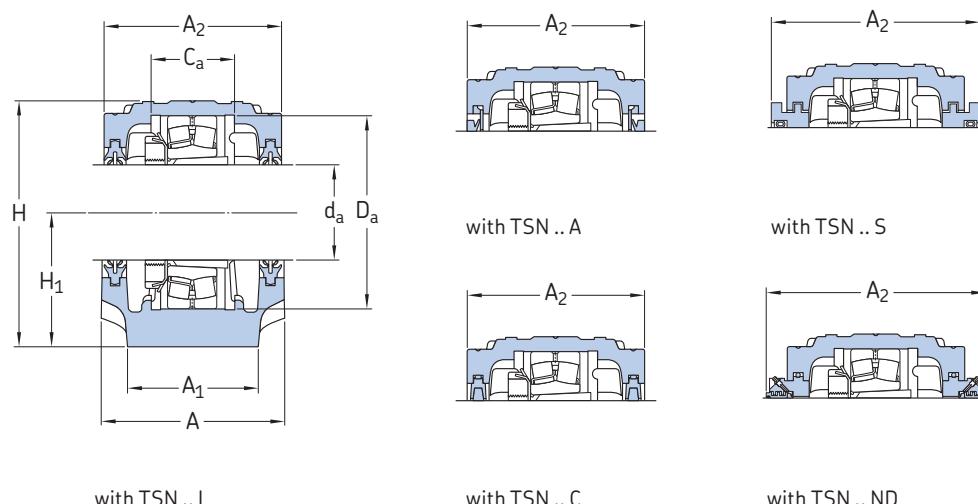
³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter	Dimensions												Mass Housing		
	d _a	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	G	
in./mm	mm													in.	kg
2 11/16 68,263	120	90	58	140	177	95	32	260	315	28	22	20	3/4	9,50	
	145	100	68	170	212	112	35	290	345	28	22	20	3/4	13,7	
2 3/4 69,85	120	90	58	140	177	95	32	260	315	28	22	20	3/4	9,50	
	145	100	68	170	212	112	35	290	345	28	22	20	3/4	13,7	
2 15/16 74,613	125	90	61	150	183	95	32	260	320	28	22	20	3/4	10,0	
	160	110	70	180	218	112	40	320	380	32	26	24	7/8	17,6	

2.2 SNL and SE plummer block housings for bearings on an adapter sleeve, inch shafts

d_a 3 – 3 $\frac{1}{4}$ in.
76,2 – 82,55 mm

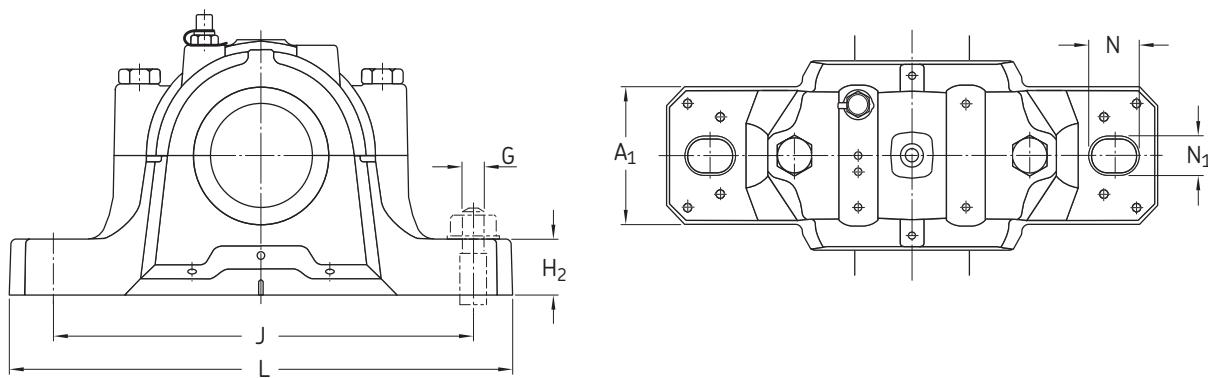


Shaft diameter d_a	Housing	Appropriate parts	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A_2
in./mm	-	-					mm
3 76,2	SNL 517	1217 K	HE 217	FRB 16.5/150	TSN 517 L	ASNH 517	125
		2217 K	HE 317	FRB 12.5/150	TSN 517 A		125
		22217 EK	HE 317	FRB 12.5/150	TSN 517 C		125
		BS2-2217-2CSK	HE 317 E	FRB 8.5/150	TSN 517 SE		143
		C 2217 K	HE 317 E	FRB 12.5/150	TSN 517 NDE		210
$3\frac{3}{16}$ 80,963	SNL 520-617	1317 K	H 317	FRB 14.5/180	TSN 617 L	ASNH 520-617	160
		2317 K	HE 2317	FRB 5/180	TSN 617 A		160
		21317 EK	H 317	FRB 14.5/180	TSN 617 C		160
		22317 EK	HE 2317	FRB 5/180	TSN 617 SE		178
		C 2317 K	HE 2317	FRB 5/180	TSN 617 NDE		220
$3\frac{1}{4}$ 82,55	SNL 518-615	1218 K	HA 218	FRB 17.5/160	TSN 518 L	ASNH 518-615	140
		2218 K	HA 318	FRB 12.5/160	TSN 518 A		140
		22218 EK	HA 318	FRB 12.5/160	TSN 518 CE		140
		BS2-2218-2CSK	HA 2318 E/L73	FRB 8.5/160	TSN 518 SA		158
		23218 CCK/W33	HA 2318	FRB 6.25/160	TSN 518 NDA		225
		C 2218 K	HA 318 E	FRB 12.5/160			
$3\frac{1}{4}$ 82,55	SNL 518-615	1218 K	HE 218	FRB 17.5/160	TSN 518 A	ASNH 518-615	140
		2218 K	HE 318	FRB 12.5/160	TSN 518 CE		140
		22218 EK	HE 318	FRB 12.5/160	TSN 518 SE		158
		BS2-2218-2CSK	HE 2318 E/L73	FRB 8.5/160	TSN 518 NDE		225
		23218 CCK/W33	HE 2318	FRB 6.25/160			
		C 2218 K	HE 318 E	FRB 12.5/160			
$3\frac{1}{4}$ 82,55	SNL 522-619	1319 K	HE 319	FRB 17.5/200	TSN 619 A	ASNH 522-619	175
		2319 KM	HE 2319	FRB 6.5/200	TSN 619 C		175
		21319 EK	HE 319	FRB 17.5/200	TSN 619 SE		191
		22319 EK	HE 2319	FRB 6.5/200	TSN 619 NDE		235
		C 2319 K	HE 2319	FRB 6.5/200			

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00), self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

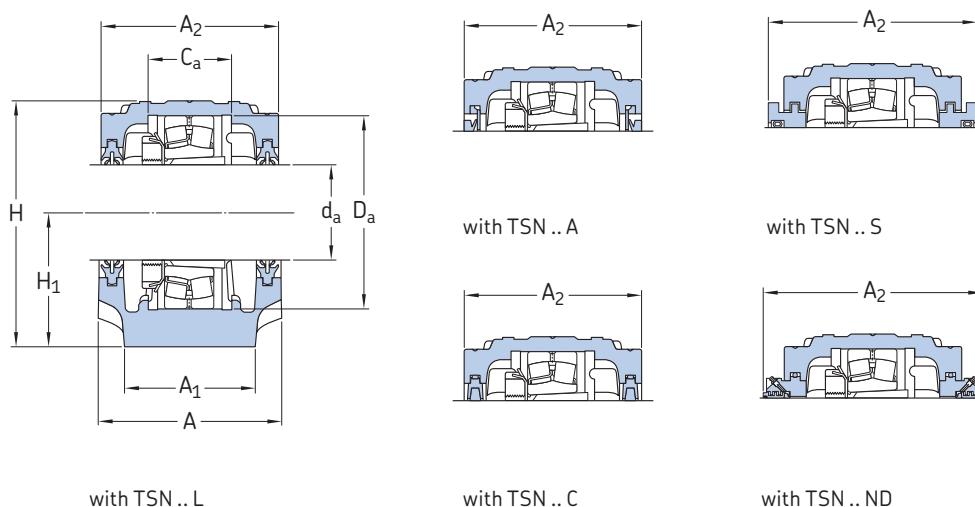
³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter	Dimensions												Mass Housing	
	d _a	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	G
in./mm	mm												in.	kg
3 76,2	125	90	61	150	183	95	32	260	320	28	22	20	3/4	10,0
	160	110	70	180	218	112	40	320	380	32	26	24	7/8	17,6
3 3/16 80,963	140	100	65	160	194	100	35	290	345	28	22	20	3/4	12,5
3 1/4 82,55	140	100	65	160	194	100	35	290	345	28	22	20	3/4	12,5
	175	120	80	200	242	125	45	350	410	32	26	24	7/8	22,0

2.2 SNL and SE plummer block housings for bearings on an adapter sleeve, inch shafts

d_a 3 7/16 – 3 15/16 in.
87,313 – 100,012 mm

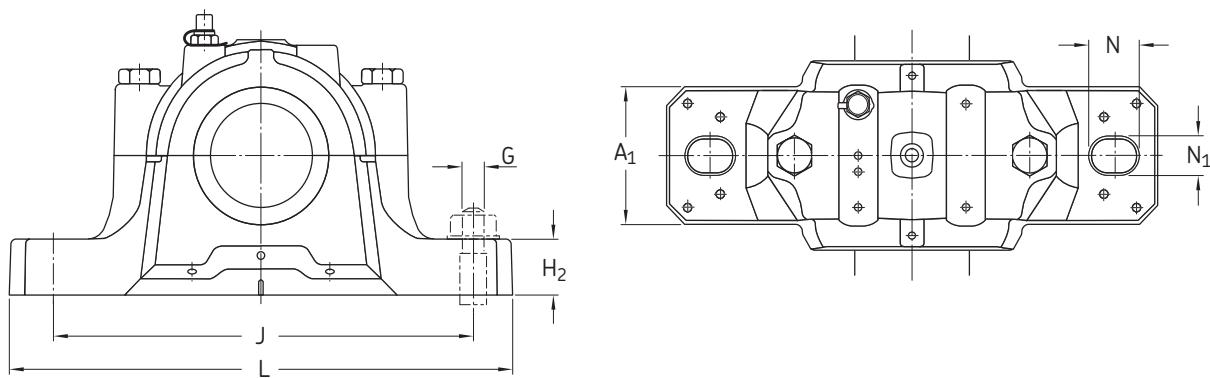


Shaft diameter d_a	Housing	Appropriate parts Bearing ¹⁾	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A ₂
in./mm	-	-					mm
3 7/16 87,313	SNL 520-617	1220 K	HA 220	FRB 18/180	TSN 520 A	ASNH 520-617	160
		2220 KM	HA 320	FRB 12/180	TSN 520 C		160
		22220 EK	HA 320	FRB 12/180	TSN 520 SA		178
		BS2-2220-2CS5K	HA 2320 E	FRB 7.5/180	TSN 520 NDA		230
		23220 CCK/W33	HA 2320	FRB 4.85/180			
		C 2220 K	HA 320 E	FRB 12/180			
3 1/2 88,9	SNL 524-620	1320 K	HA 320	FRB 19.5/215	TSN 620 A	ASNH 524-620	185
		2320 KM	HA 2320	FRB 6.5/215	TSN 620 C		185
		21320 EK	HA 320	FRB 19.5/215	TSN 620 SA		199
		22320 EK	HA 2320	FRB 6.5/215	TSN 620 NDA		240
		C 2320 K	HA 2320	FRB 6.5/215			
3 15/16 100,012	SNL 522-619	1222 K	H 222	FRB 21/200	TSN 522 L	ASNH 522-619	175
		2222 KM	H 322	FRB 13.5/200	TSN 522 A		175
		22222 EK	H 322	FRB 13.5/200	TSN 522 C		175
		BS2-2222-2CS5K	H 2322 E	FRB 8.5/200	TSN 522 SA		191
		23222 CCK/W33	H 2322	FRB 5.1/200	TSN 522 NDA		250
		C 2222 K	H 322 E	FRB 13.5/200			

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00), self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

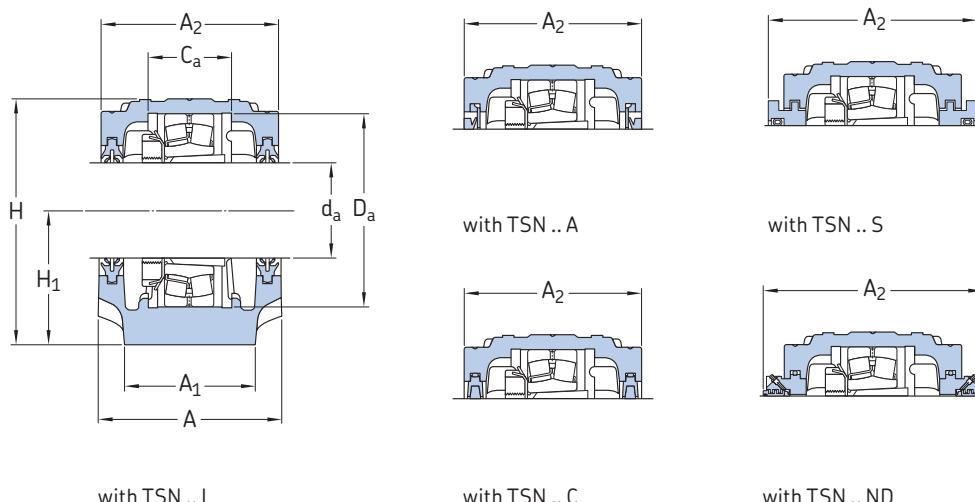
³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter	Dimensions												Eye bolt acc. to DIN 580	Mass Housing		
	d _a	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	G		
in./mm	mm													in.	-	kg
3 7/16 87,313	160	110	70	180	218	112	40	320	380	32	26	24	7/8	-	17,6	
	185	120	86	215	271	140	45	350	410	32	26	24	7/8	M 10	26,2	
3 1/2 88,9	160	110	70	180	218	112	40	320	380	32	26	24	7/8	-	17,6	
	185	120	86	215	271	140	45	350	410	32	26	24	7/8	M 10	26,2	
3 15/16 100,012	175	120	80	200	242	125	45	350	410	32	26	24	7/8	-	22,0	

2.2 SNL and SE plummer block housings for bearings on an adapter sleeve, inch shafts

d_a 4 – 4 1/2 in.
101,6 – 114,3 mm

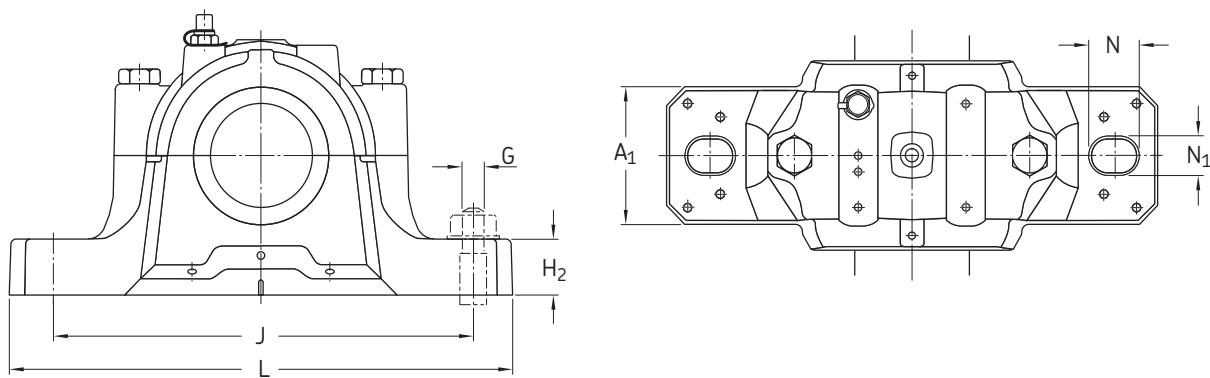


Shaft diameter d_a	Housing	Appropriate parts Bearing ¹⁾	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A_2
in./mm	-	-					mm
4 101,6	SNL 522-619	1222 K 2222 KM 22222 EK BS2-2222-2CS5K 23222 CCK/W33 C 2222 K	HE 222 HE 322 HE 322 HE 2322 E HE 2322 HE 322 E	FRB 21/200 FRB 13.5/200 FRB 13.5/200 FRB 8.5/200 FRB 5.1/200 FRB 13.5/200	TSN 522 L TSN 522 A TSN 522 C TSN 522 SE TSN 522 NDE	ASNH 522-619	175 175 175 191 250
4 3/16 106,363	SNL 524-620	1224 KM 22224 EK BS2-2224-2CS5K 23224 CCK/W33 C 3224 K	HA 3024 HA 3124 HA 2324 EH HA 2324 HA 2324 L	FRB 22/215 FRB 14/215 FRB 8.5/215 FRB 5/215 FRB 5/215	TSN 524 A TSN 524 CE TSN 524 SA TSN 524 NDA	ASNH 524-620	185 185 199 260
4 1/4 107,95	SNL 524-620	1224 KM 22224 EK BS2-2224-2CS5K 23224 CCK/W33 C 2224 K C 3224 K	HE 3024 HE 3124 HE 2324 EH HE 2324 HE 3124 L HE 2324 L	FRB 22/215 FRB 14/215 FRB 8.5/215 FRB 5/215 FRB 14/215 FRB 5/215	TSN 524 A TSN 524 C TSN 524 SE TSN 524 NDE	ASNH 524-620	185 815 199 260
4 7/16 112,713	SNL 526	22226 EK BS2-2226-2CS5K 23226 CCK/W33 23226-2CS5K C 2226 K	HA 3126 HA 2326 L HA 2326 HA 2326 HA 3126 L	FRB 13/230 FRB 7.5/230 FRB 5/230 FRB 5/230 FRB 13/230	TSN 526 A TSN 526 C TSN 526 SA TSN 526 NDA	ASNH 526	190 190 208 265
4 1/2 114,3	SNL 526	22226 EK BS2-2226-2CS5K 23226 CCK/W33 23226-2CS5K C 2226 K	HE 3126 HE 2326 L HE 2326 HE 2326 HE 3126 L	FRB 13/230 FRB 7.5/230 FRB 5/230 FRB 5/230 FRB 13/230	TSN 526 L TSN 526 A TSN 526 C TSN 526 SE TSN 526 NDE	ASNH 526	190 190 190 208 265

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00), self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

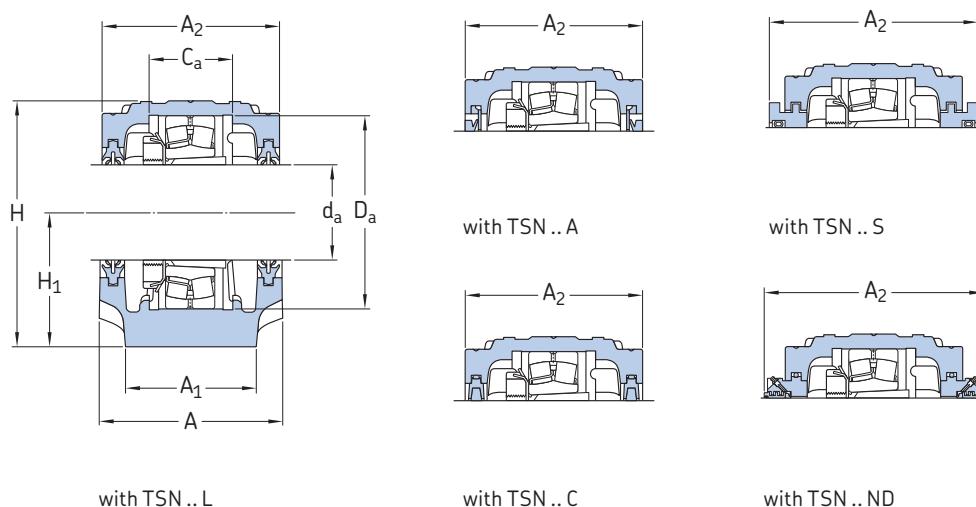
³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter	Dimensions												Eye bolt acc. to DIN 580	Mass Housing	
	d _a	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	G	
in./mm	mm												in.	-	kg
4 101,6	175	120	80	200	242	125	45	350	410	32	26	24	7/8	-	22,0
4 3/16 106,363	185	120	86	215	271	140	45	350	410	32	26	24	7/8	M 10	26,2
4 1/4 107,95	185	120	86	215	271	140	45	350	410	32	26	24	7/8	M 10	26,2
4 7/16 112,713	190	130	90	230	290	150	50	380	445	35	28	24	1	M 10	33,0
4 1/2 114,3	190	130	90	230	290	150	50	380	445	35	28	24	1	M 10	33,0

2.2 SNL and SE plummer block housings for bearings on an adapter sleeve, inch shafts

d_a 4 $\frac{15}{16}$ – 5 $\frac{1}{2}$ in.
125,413 – 139,7 mm

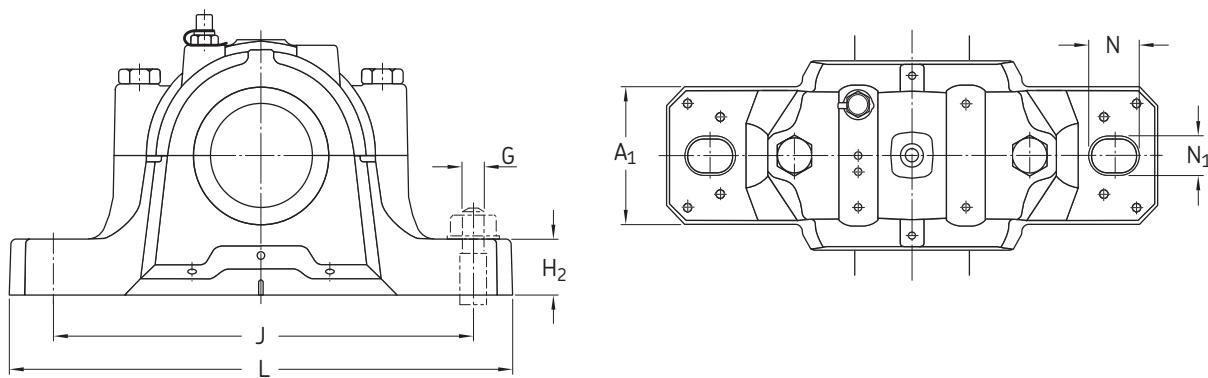


Shaft diameter d_a	Housing	Appropriate parts	Adapter sleeve ²⁾	Locating ring ³⁾	Seals	End cover	Width incl. seals A_2
in./mm	-	-					mm
4 $\frac{15}{16}$ 125,413	SNL 528	22228 CCK/W33	HA 3128	FRB 15/250	TSN 528 L	ASNH 528	205
		22228-2CS5K	HA 3128 L	FRB 15/250	TSN 528 A		205
		23228 CCK/W33	HA 2328	FRB 5/250	TSN 528 C		205
		23228-2CS5K	HA 2328	FRB 5/250	TSN 528 SA		223
		C 2228 K	HA 3128 L	FRB 15/250	TSN 528 NDA		285
5 127	SNL 528	22228 CCK/W33	HE 3128	FRB 15/250	TSN 528 A	ASNH 528	205
		22228-2CS5K	HA 3128 L	FRB 15/250	TSN 528 C		205
		23228 CCK/W33	HE 2328	FRB 5/250	TSN 528 SE		223
		23228-2CS5K	HA 2328	FRB 5/250	TSN 528 NDE		285
		C 2228 K	HE 3128 L	FRB 15/250			
5 $\frac{3}{16}$ 131,763	SNL 530	22230 CCK/W33	HA 3130	FRB 16.5/270	TSN 530 A	ASNH 530	220
		22230-2CS5K	HA 3130	FRB 16.5/270	TSN 530 C		220
		23230 CCK/W33	HA 2330	FRB 5/270	TSN 530 SA		241
		23230-2CS5K	HA 2330	FRB 5/270	TSN 530 NDA		295
		C 2230 K	HA 3130 L	FRB 16.5/270			
5 $\frac{1}{4}$ 133,35	SNL 530	22230 CCK/W33	HE 3130	FRB 16.5/270	TSN 530 A	ASNH 530	220
		22230-2CS5K	HE 3130	FRB 16.5/270	TSN 530 C		220
		23230 CCK/W33	HE 2330	FRB 5/270	TSN 530 SE		241
		23230-2CS5K	HE 2330	FRB 5/270	TSN 530 NDE		295
		C 2230 K	HE 3130 L	FRB 16.5/270			
5 $\frac{7}{16}$ 138,113	SNL 532	22232 CCK/W33	HA 3132	FRB 17/290	TSN 532 A	ASNH 532	235
		22232-2CS5K	HA 3132	FRB 17/290	TSN 532 C		235
		23232 CCK/W33	HA 2332	FRB 5/290	TSN 532 SA		254
		C 3232 K	HA 2332 L	FRB 5/290	TSN 532 NDA		315
5 $\frac{1}{2}$ 139,7	SNL 532	22232 CCK/W33	HE 3132	FRB 17/290	TSN 532 L	ASNH 532	235
		22232-2CS5K	HE 3132	FRB 17/290	TSN 532 A		235
		23232 CCK/W33	HE 2332	FRB 5/290	TSN 532 C		235
		C 3232 K	HE 2332 L	FRB 5/290	TSN 532 SE		254
					TSN 532 NDE		315

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00), self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

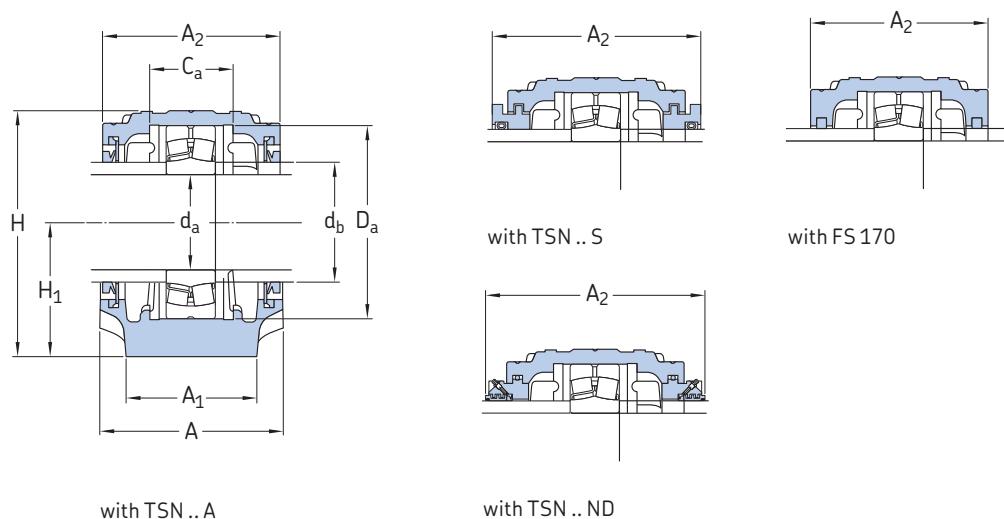
²⁾ The adapter sleeve fits the bearing in the same line only. Other adapter sleeve variants can also be used.

³⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter	Dimensions													Eye bolt acc. to DIN 580	Mass Housing	
	d _a	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	G		
in./mm	mm													in.	-	kg
4 15/16 125,413	205	150	98	250	302	150	50	420	500	42	35	30	1 1/4	M 12	40,0	
5 127	205	150	98	250	302	150	50	420	500	42	35	30	1 1/4	M 12	40,0	
5 3/16 131,763	220	160	106	270	323	160	60	450	530	42	35	30	1 1/4	M 12	49,0	
5 1/4 133,35	220	160	106	270	323	160	60	450	530	42	35	30	1 1/4	M 12	49,0	
5 7/16 138,113	235	160	114	290	344	170	60	470	550	42	35	30	1 1/4	M 12	55,0	
5 1/2 139,7	235	160	114	290	344	170	60	470	550	42	35	30	1 1/4	M 12	55,0	

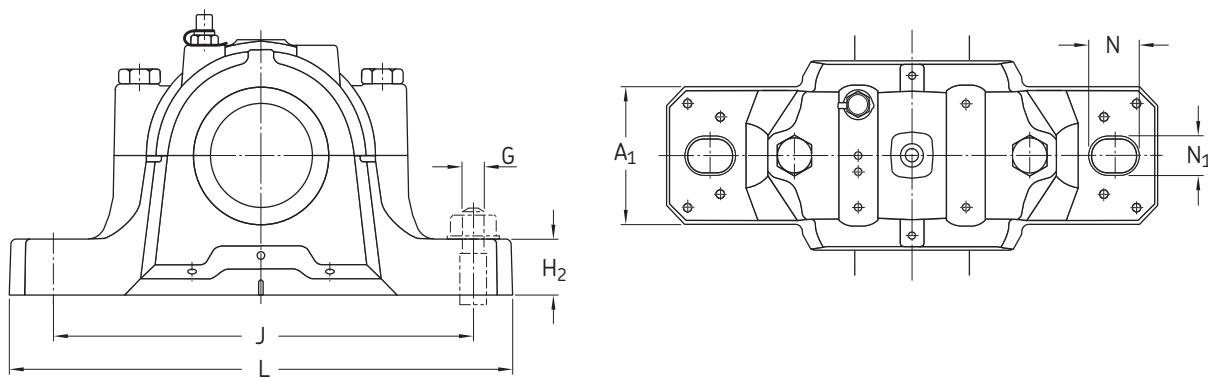
2.3 SNL and SE plummer block housings for bearings on a cylindrical seat d 25 – 30 mm



Shaft diameter d_a	Housing	Appropriate parts	Locating ring ²⁾	Seals	End cover	Width incl. seals A_2
mm	-	-				mm
25	SNL 205	1205 ETN9 2205 ETN9 22205 E BS2-2205-2CS C 2205 TN9	FRB 5/52 FRB 3.5/52 FRB 3.5/52 FRB 1/52 FRB 3.5/52	TSN 205 S TSN 205 ND	ASNH 505-605	90 140
	SNL 505	1205 ETN9 2205 ETN9 22205 E BS2-2205-2CS C 2205 TN9	FRB 5/52 FRB 3.5/52 FRB 3.5/52 FRB 1/52 FRB 3.5/52	2 FS 170	ASNH 505	67
	SNL 206-305	1305 ETN9 21305 CC 2305 ETN9	FRB 7.5/62 FRB 7.5/62 FRB 4/62	TSN 305 A TSN 305 S TSN 305 ND	ASNH 507-606	77 89 140
	SNL 206-305	1206 ETN9 2206 ETN9 22206 E BS2-2206-2CS C 2206 TN9	FRB 8/62 FRB 6/62 FRB 6/62 FRB 3.5/62 FRB 6/62	TSN 206 A TSN 206 S TSN 206 ND	ASNH 507-606	77 89 150
	SNL 506-605	1206 ETN9 2206 ETN9 22206 E BS2-2206-2CS C 2206 TN9	FRB 8/62 FRB 6/62 FRB 6/62 FRB 3.5/62 FRB 6/62	2 FS 170	ASNH 506-605	77
	SE 507-606	1306 ETN9 21306 CC 2306	FRB 7.5/72 FRB 7.5/72 FRB 3.5/72	TSN 306 A TSN 306 S TSN 306 ND	ASNH 507-606	82 94 155

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00) – self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter Dimensions Mass
Housing

d _a	d _b	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	kg
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25	30	67	46	25	52	74	40	19	130	165	20	15	12	1,40
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30	67	46	25	52	74	40	19	130	165	20	15	12	1,40
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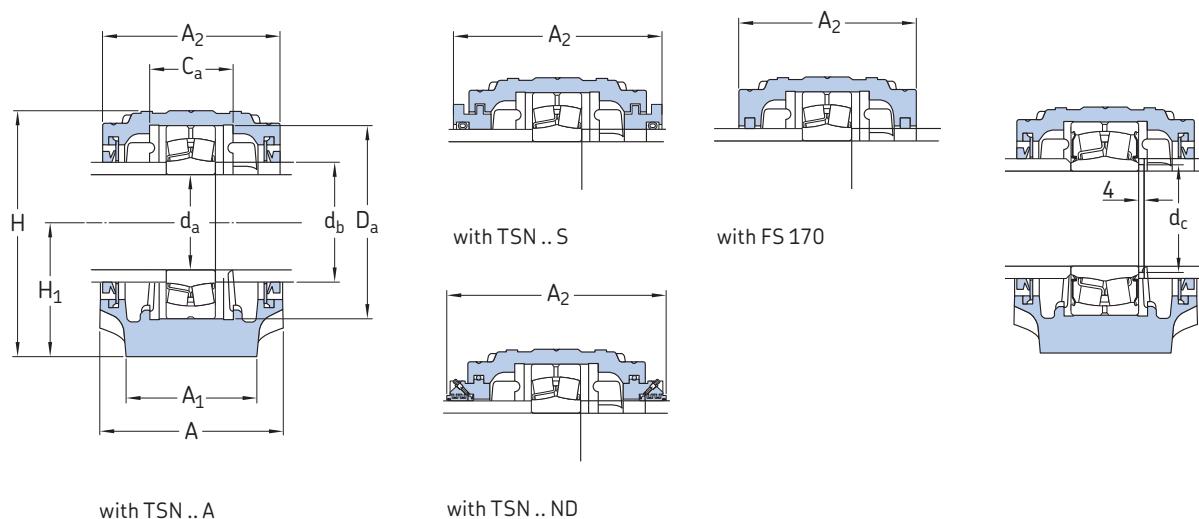
30	77	52	32	62	89	50	22	150	185	20	15	12	1,90
----	----	----	----	----	----	----	----	-----	-----	----	----	----	------

30	35	77	52	32	62	89	50	22	150	185	20	15	12	1,90
----	----	----	----	----	----	----	----	----	-----	-----	----	----	----	------

35	77	52	32	62	89	50	22	150	185	20	15	12	1,90
----	----	----	----	----	----	----	----	-----	-----	----	----	----	------

35	83	52	34	72	94	50	22	150	185	20	15	12	2,60
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2.3 SNL and SE plummer block housings for bearings on a cylindrical seat d 35 – 40 mm

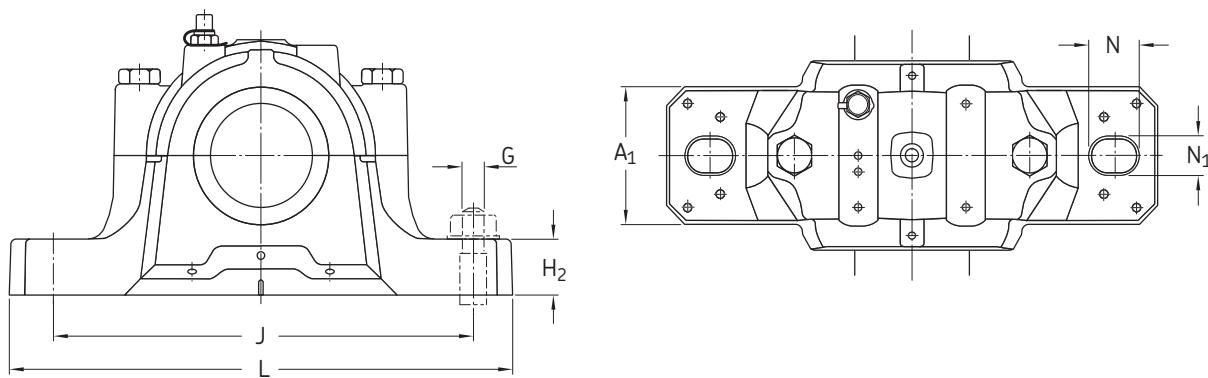


Shaft diameter d_a	Housing	Appropriate parts Bearing ¹⁾	Locating ring ²⁾	Seals	End cover	Width incl. seals A_2
mm	-	-				mm
35	SE 207	1207 E	FRB 8.5/72	TSN 207 A	ASNH 509	82
		2207 ETN9	FRB 5.5/72	TSN 207 S		96
		22207 E	FRB 5.5/72	TSN 207 ND		160
		BS2-2207-2CS ³⁾	FRB 3/72			
		C 2207 TN9	FRB 5.5/72			
	SE 507-606	1207 E	FRB 8.5/72	4 FS 170	ASNH 507-606	82
40	SE 208-307	2207 ETN9	FRB 5.5/72			
		22207 E	FRB 5.5/72			
		BS2-2207-2CS ³⁾	FRB 3/72			
		C 2207 TN9	FRB 5.5/72			
		1307 ETN9	FRB 9/80	TSN 307 A	ASNH 510-608	85
		2307 ETN9	FRB 4/80	TSN 307 S		99
		21307 CC	FRB 9/80	TSN 307 ND		145
	SE 208-307	1208 ETN9	FRB 10.5/80	TSN 208 A	ASNH 510-608	85
		2208 ETN9	FRB 8/80	TSN 208 S		99
		22208 E	FRB 8/80	TSN 208 ND		160
		BS2-2208-2CS ³⁾	FRB 5.5/80			
		C 2208 TN9	FRB 8/80			
	SE 508-607	1208 ETN9	FRB 10.5/80	4 FS 170	ASNH 508-607	85
	SE 508-607	2208 ETN9	FRB 8/80			
		22208 E	FRB 8/80			
		BS2-2208-2CS ³⁾	FRB 5.5/80			
		C 2208 TN9	FRB 8/80			
		1308 ETN9	FRB 9/90	TSN 308 A	ASNH 510-608	90
		2308 ETN9	FRB 4/90	TSN 308 S		102
		21308 E	FRB 9/90	TSN 308 ND		167
		22308 E	FRB 4/90			
		BS2-2308-2CS ³⁾	FRB 1.5/90			

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00) – self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.

³⁾ The shaft must be modified according to the d_c value for the bearing.

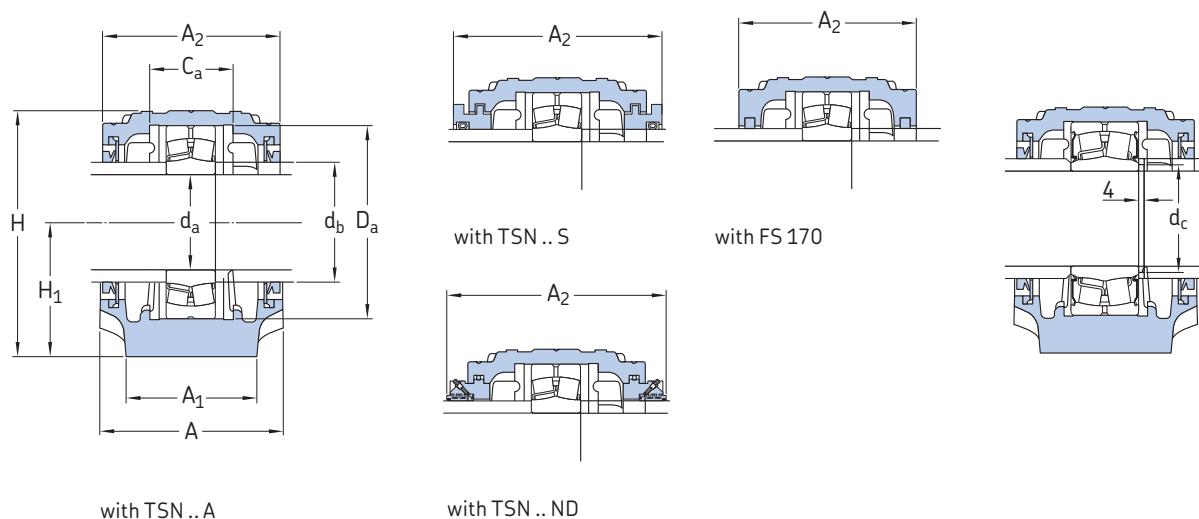


Shaft diameter				Dimensions												Mass Housing	
d _a	d _b	d _c ¹⁾ min	d _c ¹⁾ max	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G		
mm	mm													kg			
35	45			83	52	34	72	94	50	22	150	185	20	15	12	2,45	
		42	43														
	45			83	52	34	72	94	50	22	150	185	20	15	12	2,60	
		42	43														
	45	-	-	85	60	39	80	108	60	25	170	205	20	15	12	3,30	
40	50			85	60	39	80	108	60	25	170	205	20	15	12	3,30	
		47	47														
	50			85	60	39	80	108	60	25	170	205	20	15	12	3,40	
		47	47														
	50			90	60	41	90	114	60	25	170	205	20	15	12	3,85	
		47,5	47,5														

¹⁾ Valid for some sealed spherical roller bearings only.

2.3 SNL and SE plummer block housings for bearings on a cylindrical seat

d_a 45 – 50 mm

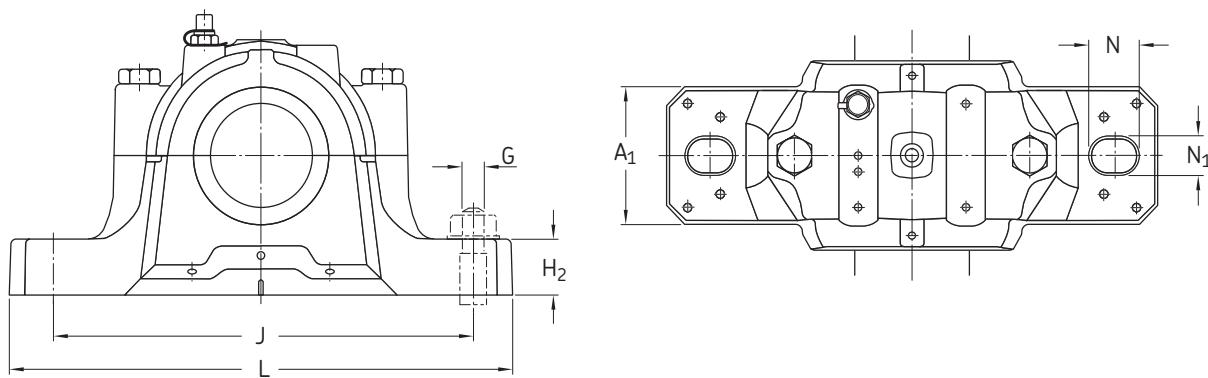


Shaft diameter d_a	Housing	Appropriate parts Bearing ¹⁾	Locating ring ²⁾	Seals	End cover	Width incl. seals A_2
mm	-	-				mm
45	SE 209	1209 ETN9	FRB 5.5/85	TSN 209 A	ASNH 511-609	85
		2209 ETN9	FRB 3.5/85	TSN 209 S		97
		22209 E	FRB 3.5/85	TSN 209 ND		160
		BS2-2209-2CS ³⁾	FRB 1/85			
		C 2209 TN9	FRB 3.5/85			
50	SE 509	1209 ETN9	FRB 5.5/85	4 FS 170	ASNH 509	85
		2209 ETN9	FRB 3.5/85			
		22209 E	FRB 3.5/85			
		BS2-2209-2CS ³⁾	FRB 1/85			
		C 2209 TN9	FRB 3.5/85			
50	SE 511-609	1309 ETN9	FRB 9.5/100	TSN 309 A	ASNH 511-609	95
		2309 ETN9	FRB 4/100	TSN 309 S		107
		21309 E	FRB 9.5/100	TSN 309 ND		172
		22309 E	FRB 4/100			
50	SE 210	1210 ETN9	FRB 10.5/90	TSN 210 A	ASNH 512-610	90
		2210 ETN9	FRB 9/90	TSN 210 S		102
		22210 E	FRB 9/90	TSN 210 ND		165
		BS2-2210-2CS ³⁾	FRB 6.5/90			
		C 2210 TN9	FRB 9/90			
50	SE 510-608	1210 ETN9	FRB 10.5/90	4 FS 170	ASNH 510-608	90
		2210 ETN9	FRB 9/90			
		22210 E	FRB 9/90			
		BS2-2210-2CS ³⁾	FRB 6.5/90			
		C 2210 TN9	FRB 9/90			
50	SE 512-610	1310 ETN9	FRB 10.5/110	TSN 310 A	ASNH 512-610	105
		2310	FRB 4/110	TSN 310 S		117
		21310 E	FRB 10.5/110	TSN 310 ND		180
		22310 E	FRB 4/110			

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00) – self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.

³⁾ The shaft must be modified according to the d_c value for the bearing.

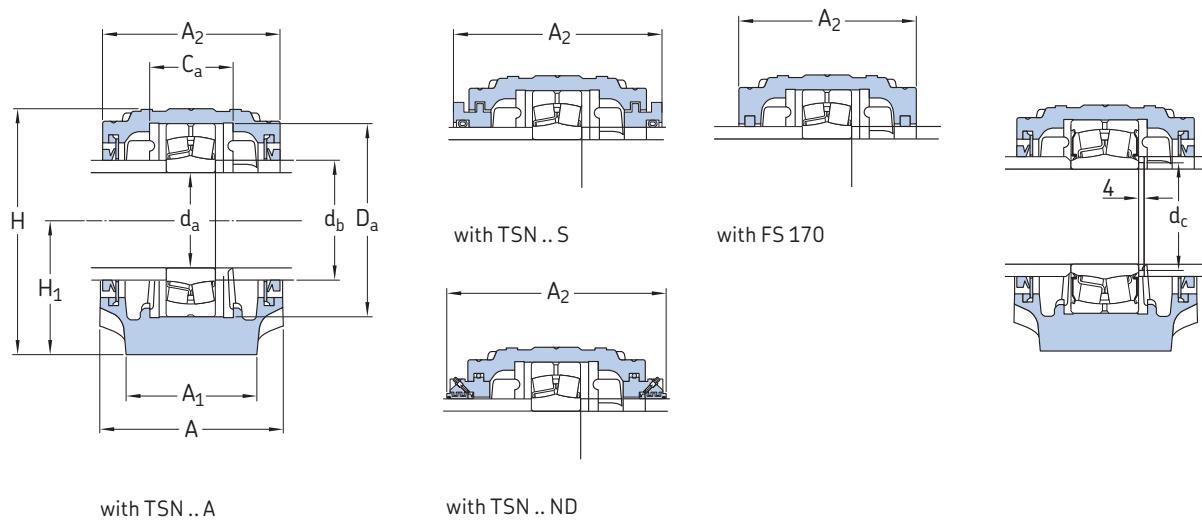


Shaft diameter				Dimensions												Mass Housing	
d_a	d_b	$d_c^{(1)}$ min	$d_c^{(1)}$ max	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	kg	
				mm													
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	
45	55			85	60	30	85	109	60	25	170	205	20	15	12	3,20	
		52	53														
		55		85	60	30	85	109	60	25	170	205	20	15	12	3,40	
			52	53													
		55	-	-	95	70	44	100	129	70	28	210	255	24	18	16	5,45
50	60			90	60	41	90	114	60	25	170	205	20	15	12	3,65	
		57	58														
		60		90	60	41	90	114	60	25	170	205	20	15	12	3,85	
			57	58													
		60	-	-	105	70	48	110	134	70	30	210	255	24	18	16	6,15

¹⁾ Valid for some sealed spherical roller bearings only.

2.3 SNL and SE plummer block housings for bearings on a cylindrical seat

d_a 55 – 60 mm

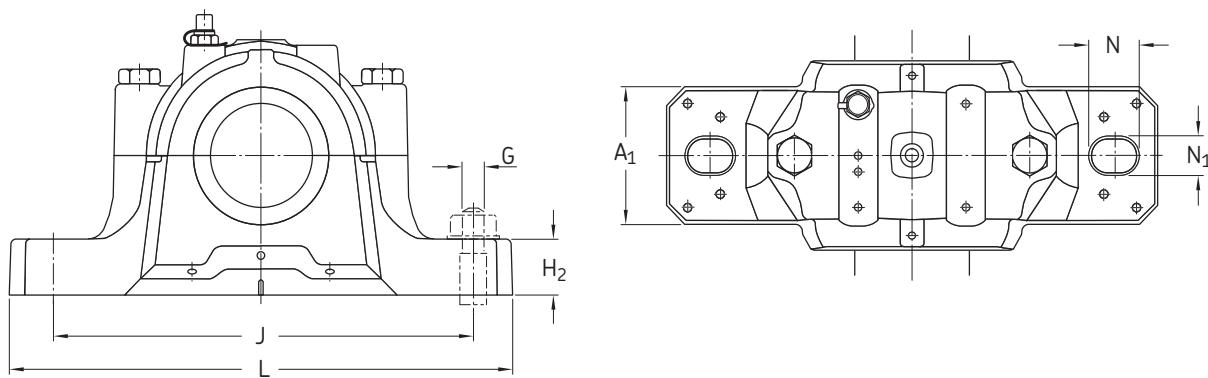


Shaft diameter d _a	Housing	Appropriate parts Bearing ¹⁾	Locating ring ²⁾	Seals	End cover	Width incl. seals A ₂
mm	-	-				mm
55	SE 211	1211 ETN9 2211 ETN9 22211 E BS2-2211-2CS ³⁾ C 2211 TN9	FRB 11.5/100 FRB 9.5/100 FRB 9.5/100 FRB 6.5/100 FRB 9.5/100	TSN 211 A TSN 211 S TSN 211 ND	ASNH 513-611	95 107 170
	SE 511-609	1211 ETN9 2211 ETN9 22211 E BS2-2211-2CS ³⁾ C 2211 TN9	FRB 11.5/100 FRB 9.5/100 FRB 9.5/100 FRB 6.5/100 FRB 9.5/100	4 FS 170	ASNH 511-609	95
	SE 513-611	1311 ETN9 2311 21311 E 22311 E BS2-2311-2CS	FRB 11/120 FRB 4/120 FRB 11/120 FRB 4/120 FRB 1/120	TSN 311 A TSN 311 S TSN 311 ND	ASNH 513-611	110 122 185
60	SE 212	1212 ETN9 2212 ETN9 22212 E BS2-2212-2CS ³⁾ C 2212 TN9	FRB 13/110 FRB 10/110 FRB 10/110 FRB 7/110 FRB 10/110	TSN 212 A TSN 212 S TSN 212 ND	ASNH 515-612	105 117 185
	SE 512-610	1212 ETN9 2212 ETN9 22212 E BS2-2212-2CS ³⁾ C 2212 TN9	FRB 13/110 FRB 10/110 FRB 10/110 FRB 7/110 FRB 10/110	4 FS 170	ASNH 512-610	105
	SE 515-612	1312 ETN9 2312 21312 E 22312 E	FRB 12.5/130 FRB 5/130 FRB 12.5/130 FRB 5/130	TSN 312 A TSN 312 S TSN 312 ND	ASNH 515-612	115 127 197

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00) – self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.

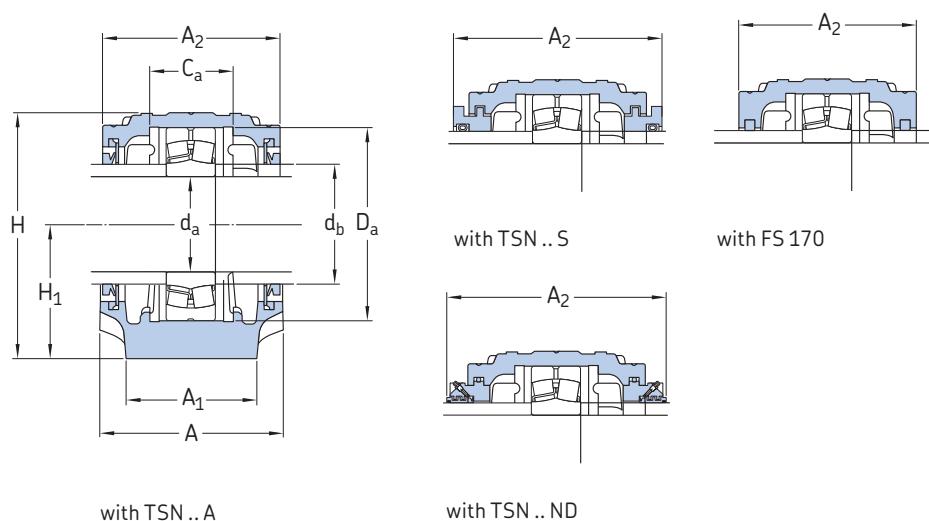
³⁾ The shaft must be modified according to the d_c value for the bearing.



Shaft diameter		Dimensions													Mass Housing			
d _a	d _b	d _c ¹⁾ min	d _c ¹⁾ max	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	kg		
mm	mm														kg	kg		
55	65			95	70	44	100	129	70	28	210	255	24	18	16	5,85		
		64	64															
		65		95	70	44	100	129	70	28	210	255	24	18	16	5,45		
			64	64														
		65	—	—	110	80	51	120	150	80	30	230	275	24	18	16	7,90	
 60		70			105	70	48	110	134	70	30	210	255	24	18	16	5,80	
			69	69														
			70		105	70	48	110	134	70	30	210	255	24	18	16	6,15	
				69	69													
			70	—	—	115	80	56	130	156	80	30	230	280	24	18	16	8,55

¹⁾ Valid for some sealed spherical roller bearings only.

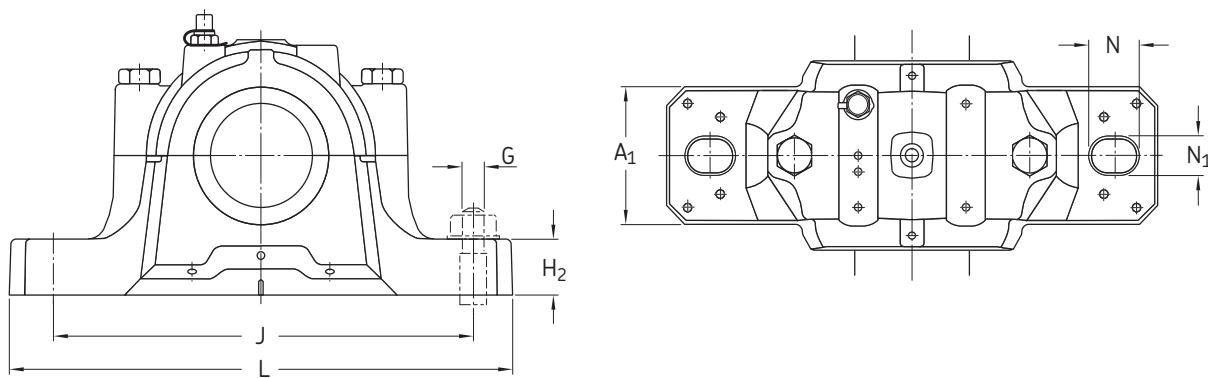
2.3 SNL and SE plummer block housings for bearings on a cylindrical seat d 65 – 70 mm



Shaft diameter d_a	Housing	Appropriate parts	Locating ring ²⁾	Seals	End cover	Width incl. seals A_2
mm	-	-				mm
65	SE 213	1213 ETN9	FRB 14/120	TSN 213 A	ASNH 516-613	110
		2213 ETN9	FRB 10/120	TSN 213 S		128
		22213 E	FRB 10/120	TSN 213 ND		190
		BS2-2213-2CS	FRB 6.5/120			
		C 2213 TN9	FRB 10/120			
	SE 513-611	1213 ETN9	FRB 14/120	4 FS 170	ASNH 513-611	110
70	SNL 517	2213 ETN9	FRB 10/120			
		22213 E	FRB 10/120			
		BS2-2213-2CS	FRB 6.5/120			
		C 2213 TN9	FRB 10/120			
		SNL 516-613	1313 ETN9	FRB 12.5/140	TSN 313 A	120
		2313	FRB 5/140	TSN 313 S	ASNH 516-613	138
		21313 E	FRB 12.5/140	TSN 313 ND		200
		22313 E	FRB 5/140			
		1314	FRB 13/150	TSN 314 A	ASNH 517	125
		2314	FRB 5/150	TSN 314 S		143
		21314 E	FRB 13/150	TSN 314 ND		205
		22314 E	FRB 5/150			

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00) – self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



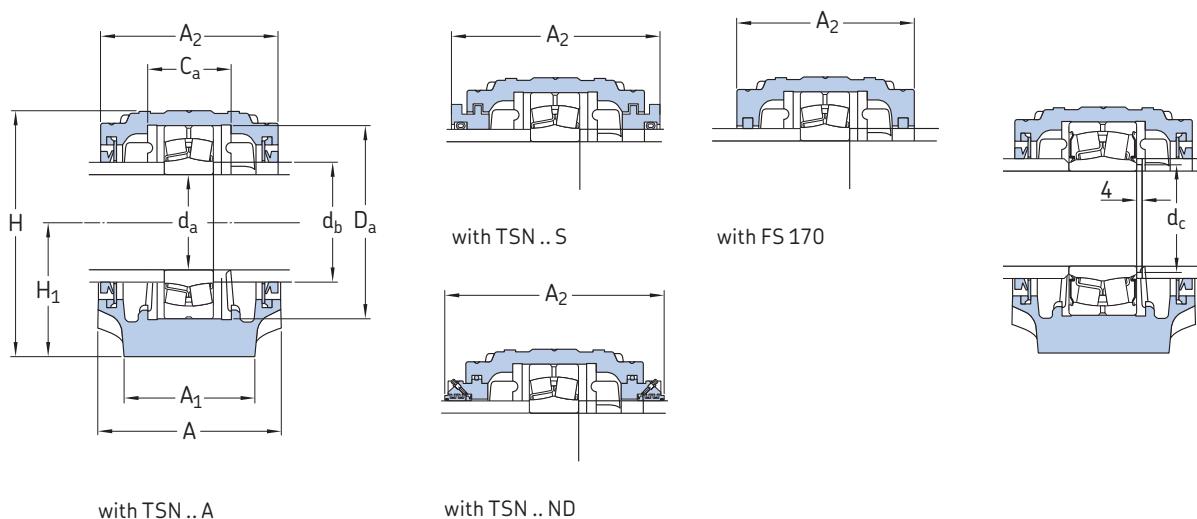
Shaft diameter Dimensions

**Mass
Housing**

d_a	d_b	A	A_1	C_a	D_a	H	H_1	H_2	J	L	N	N_1	G	kg
65	75	110	80	51	120	150	80	30	230	275	24	18	16	7,45
75		110	80	51	120	150	80	30	230	275	24	18	16	7,90
75		120	90	58	140	177	95	32	260	315	28	22	20	9,50
70	80	125	90	61	150	183	95	32	260	320	28	22	20	10,0

2.3 SNL and SE plummer block housings for bearings on a cylindrical seat

d 75 – 80 mm

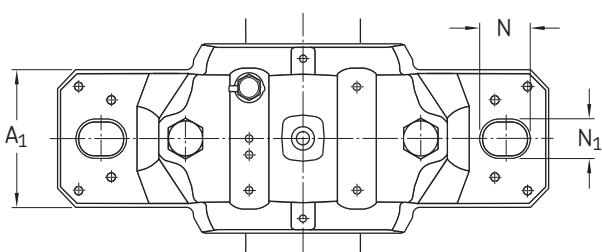
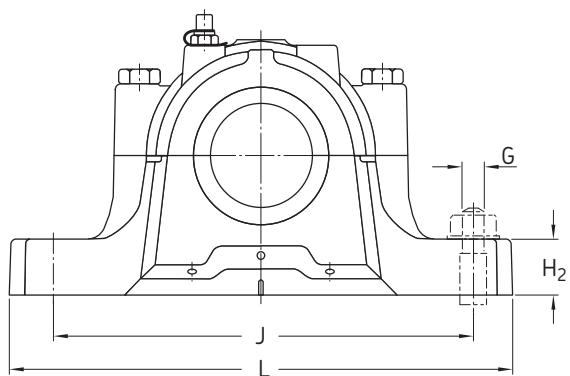


Shaft diameter d _a	Housing	Appropriate parts Bearing ¹⁾	Locating ring ²⁾	Seals	End cover	Width incl. seals A ₂
mm	-	-				mm
75	SE 215	1215 2215 ETN9 22215 E BS2-2215-2CS ³⁾ C 2215	FRB 15.5/130 FRB 12.5/130 FRB 12.5/130 FRB 9/130 FRB 12.5/130	TSN 215 A TSN 215 S TSN 215 ND	ASNH 518-615	115 133 195
	SE 515-612	1215 2215 ETN9 22215 E BS2-2215-2CS ³⁾ C 2215	FRB 15.5/130 FRB 12.5/130 FRB 12.5/130 FRB 9/130 FRB 12.5/130	4 FS 170	ASNH 515-612	115
	SNL 518-615	1315 2315 21315 E 22315 E C 2315	FRB 14/160 FRB 5/160 FRB 14/160 FRB 5/160 FRB 5/160	TSN 315 A TSN 315 S TSN 315 ND	ASNH 518-615	140 158 220
	SNL 216	1216 2216 ETN9 22216 E BS2-2216-2CS C 2216	FRB 16/140 FRB 12.5/140 FRB 12.5/140 FRB 9/140 FRB 12.5/140	TSN 216 A TSN 216 S TSN 216 ND	ASNH 216	120 138 200
	SNL 516-613	1216 2216 ETN9 22216 E BS2-2216-2CS C 2216	FRB 16/140 FRB 12.5/140 FRB 12.5/140 FRB 9/140 FRB 12.5/140	4 FS 170	ASNH 516-613	120
80	SNL 519-616	1316 2316 21316 E 22316 E C 2316	FRB 14.5/170 FRB 5/170 FRB 14.5/170 FRB 5/170 FRB 5/170	TSN 316 A TSN 316 S TSN 316 ND	ASNH 519-616	145 163 218

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00) – self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.

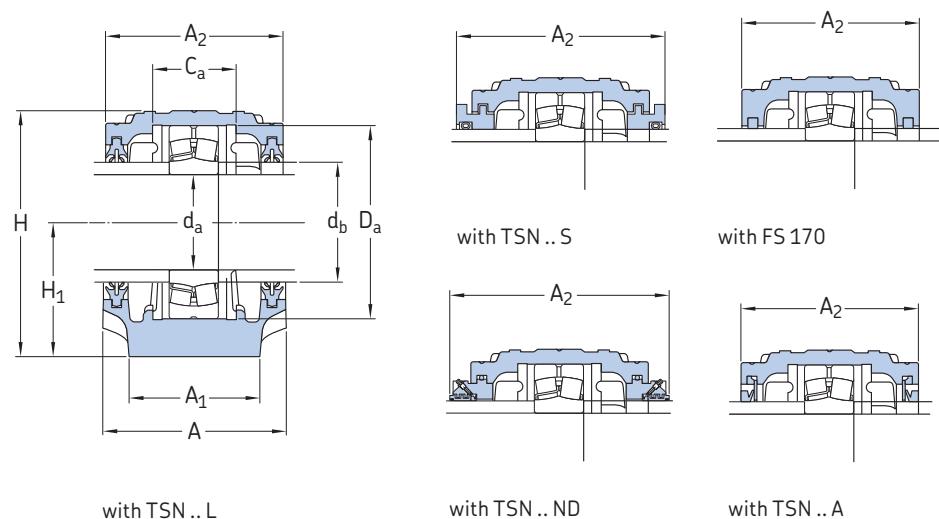
³⁾ The shaft must be modified according to the d_c value for the bearing.



Shaft diameter	d _a	d _b	d _c ¹⁾ min	d _c ¹⁾ max	Dimensions												Mass Housing
					A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	
	mm				mm												kg
75	85				115	80	56	130	156	80	30	230	280	24	18	16	8,10
					84	84											
	85				115	80	56	130	156	80	30	230	280	24	18	16	8,60
					84	84											
	85	-	-		140	100	65	160	194	100	35	290	345	28	22	20	12,5
80	90	-	-		120	90	58	140	177	95	32	260	315	28	22	20	9,00
	90	-	-		120	90	58	140	177	95	32	260	315	28	22	20	9,00
	90	-	-		145	100	68	170	212	112	35	290	345	28	22	20	13,7

¹⁾ Valid for some sealed spherical roller bearings only.

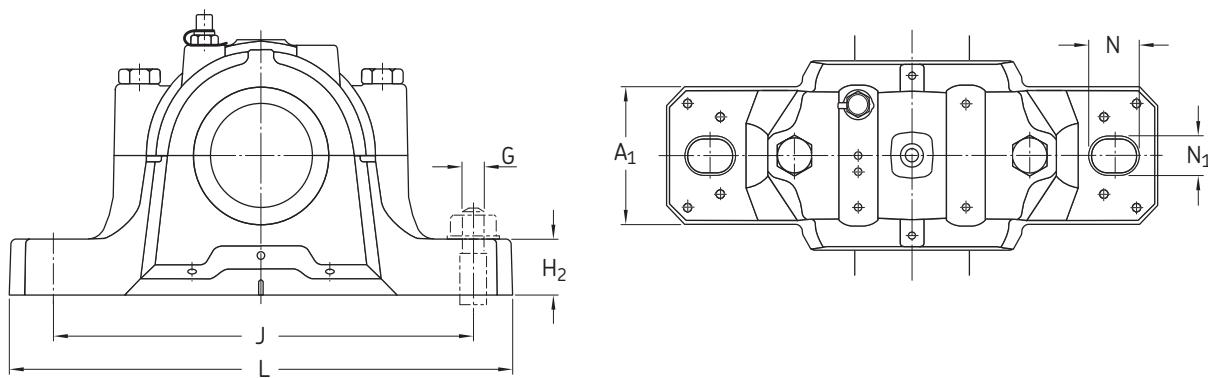
2.3 SNL and SE plummer block housings for bearings on a cylindrical seat d 85 – 90 mm



Shaft diameter d _a	Housing	Appropriate parts	Locating ring ²⁾	Seals	End cover	Width incl. seals A ₂
mm	-	-				mm
85	SNL 217	1217	FRB 16.5/150	TSN 217 A	ASNH 217	125
		2217	FRB 12.5/150	TSN 217 S		143
		22217 E	FRB 12.5/150	TSN 217 ND		205
		BS2-2217-2CS	FRB 8.5/150			
		C 2217	FRB 12.5/150			
	SNL 517	1217	FRB 16.5/150	4 FS 170	ASNH 517	125
90	SNL 520-617	2217	FRB 12.5/150			
		22217 E	FRB 12.5/150			
		BS2-2217-2CS	FRB 8.5/150			
		C 2217	FRB 12.5/150			
		1317	FRB 14.5/180	TSN 317 A	ASNH 520-617	160
		2317	FRB 5/180	TSN 317 S		178
		21317 E	FRB 14.5/180	TSN 317 ND		238
		22317 E	FRB 5/180			
		C 2317	FRB 5/180			
	SNL 218	1218	FRB 17.5/160	TSN 218 L	ASNH 218	140
		2218	FRB 12.5/160	TSN 218 A		140
		22218 E	FRB 12.5/160	TSN 218 S		158
		23218 CC/W33	FRB 6.25/160	TSN 218 ND		220
		BS2-2218-2CS	FRB 8.5/160			
		C 2218	FRB 12.5/160			
	SNL 518-615	1218	FRB 17.5/160	4 FS 170	ASNH 518-615	140
		2218	FRB 12.5/160			
		22218 E	FRB 12.5/160			
		23218 CC/W33	FRB 6.25/160			
		BS2-2218-2CS	FRB 8.5/160			
		C 2218	FRB 12.5/160			

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00) – self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



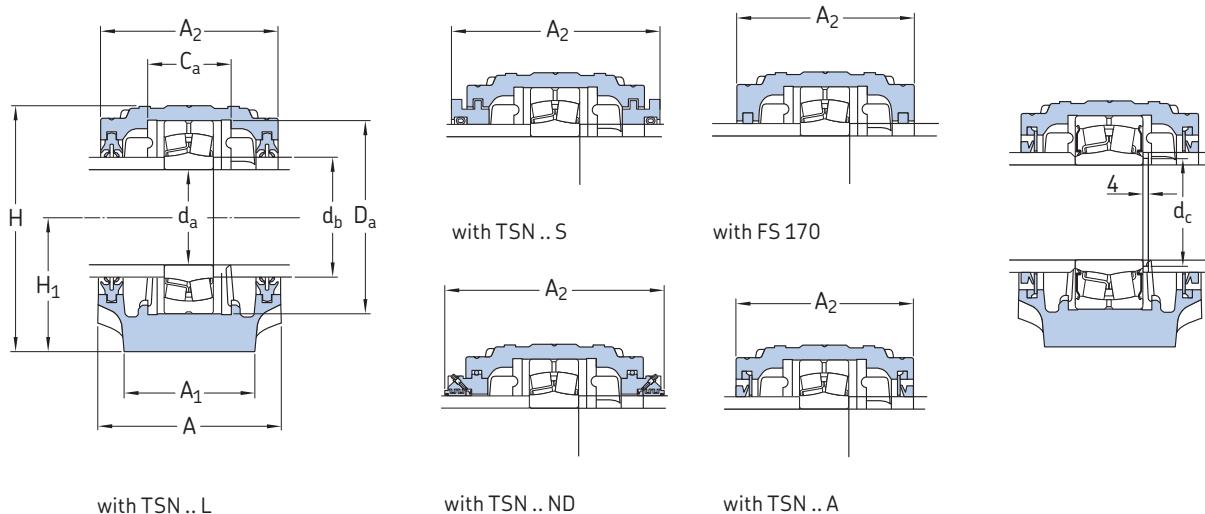
Shaft diameter Dimensions

**Mass
Housing**

d_a	d_b	A	A_1	C_a	D_a	H	H_1	H_2	J	L	N	N_1	G	kg
85	95	125	90	61	150	183	95	32	260	320	28	22	20	9,50
95		125	90	61	150	183	95	32	260	320	28	22	20	9,50
95		160	110	70	180	218	112	40	320	380	32	26	24	17,6
90	100	140	100	65	160	194	100	35	290	345	28	22	20	11,8
100		140	100	65	160	194	100	35	290	345	28	22	20	11,8

2.3 SNL and SE plummer block housings for bearings on a cylindrical seat

d 95 – 120 mm

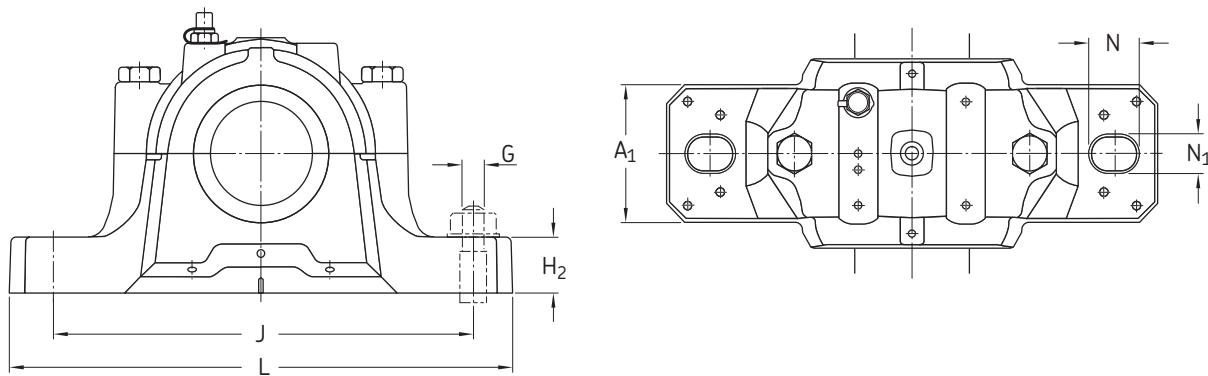


Shaft diameter d _a	Housing	Appropriate parts Bearing ¹⁾	Locating ring ²⁾	Seals	End cover	Width incl. seals A ₂
mm	-	-				mm
95	SNL 522-619	1319 2319 M 21319 E 22319 E C 2319	FRB 17.5/200 FRB 6.5/200 FRB 17.5/200 FRB 6.5/200 FRB 6.5/200	TSN 319 A TSN 319 S TSN 319 ND	ASNH 522-619	175 191 253
100	SNL 520-617	1220 2220 M 2220 E 23220 CC/W33 23220-2CS BS2-2220-2CS5 ³⁾ C 2220	FRB 18/180 FRB 12/180 FRB 12/180 FRB 4.85/180 FRB 4.85/180 FRB 7.5/180 FRB 12/180	TSN 220 L TSN 220 A TSN 220 S TSN 220 ND	ASNH 520-617	160 160 178 245
	SNL 524-620	1320 2320 M 21320 E 23220 CC/W33 C 2320	FRB 19.5/215 FRB 6.5/215 FRB 19.5/215 FRB 6.5/215 FRB 6.5/215	TSN 320 A TSN 320 S TSN 320 ND	ASNH 524-620	185 199 260
110	SNL 522-619	1222 2222 M 22222 E BS2-2222-2CS5 23222 CC/W33 C 2222	FRB 21/200 FRB 13.5/200 FRB 13.5/200 FRB 8.5/200 FRB 5.1/200 FRB 13.5/200	TSN 222 L TSN 222 A TSN 222 S TSN 222 ND	ASNH 522-619	175 175 191 255
120	SNL 524-620	1224 M 22224 E BS2-2224-2CS5 23224 CC/W33 C 3224	FRB 22/215 FRB 14/215 FRB 8.5/215 FRB 5/215 FRB 5/215	TSN 224 L TSN 224 A TSN 224 S TSN 224 ND	ASNH 524-620	185 185 199 270

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00) – self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.

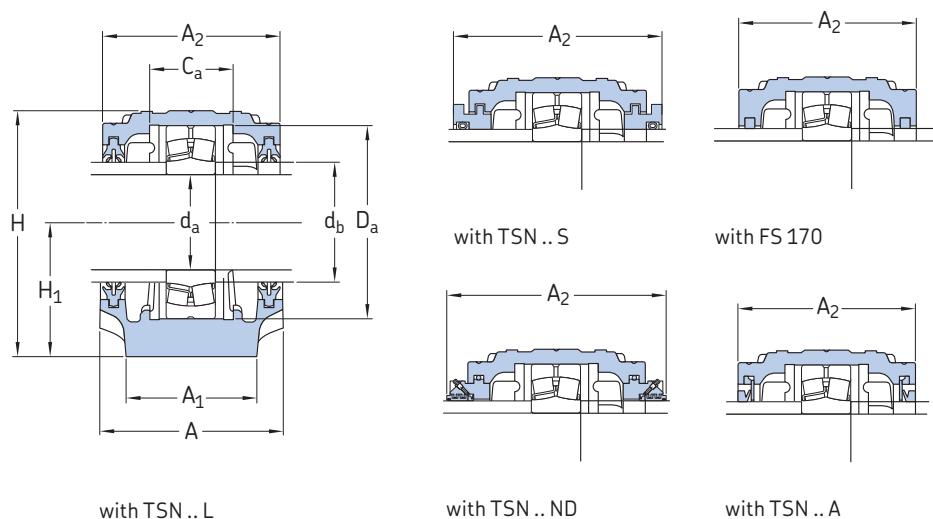
³⁾ The shaft must be modified according to the d_c value for the bearing.



Shaft diameter				Dimensions												Eye bolt acc. to DIN 580	Mass Housing
d _a	d _b	d _c ¹⁾ min	d _c ¹⁾ max	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	–	kg
95	110	–	–	175	120	80	200	242	125	45	350	410	32	26	24	–	22,0
100	115			160	110	70	180	218	112	40	320	380	32	26	24	–	17,6
		112	114														
115	–	–		185	120	86	215	271	140	45	350	410	32	26	24	M 10	26,2
110	125	–	–	175	120	80	200	242	125	45	350	410	32	26	24	–	22,0
120	135	–	–	185	120	86	215	271	140	45	350	410	32	26	24	M 10	26,2

¹⁾ Valid for some sealed spherical roller bearings only.

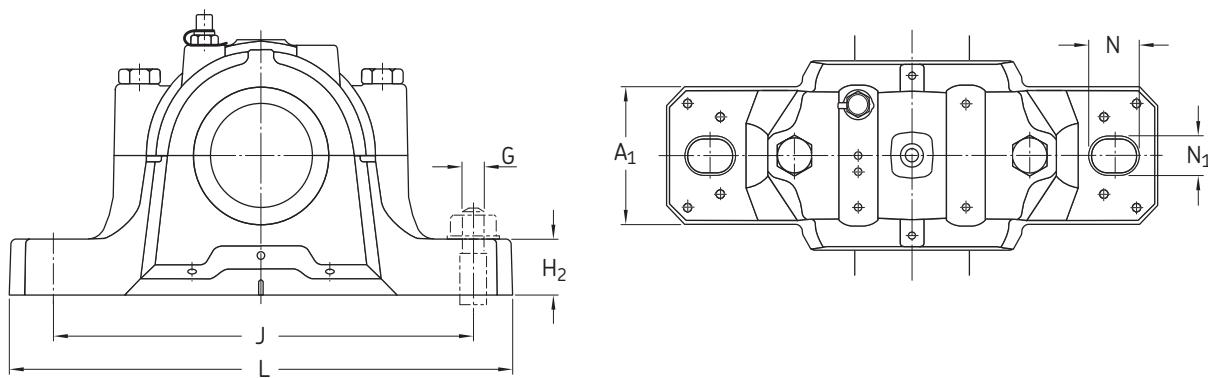
2.3 SNL and SE plummer block housings for bearings on a cylindrical seat d 130 – 160 mm



Shaft diameter d_a	Housing	Appropriate parts	Locating ring ²⁾	Seals	End cover	Width incl. seals A_2
mm	-	-				mm
130	SNL 526	1226 M 22226 E BS2-2226-2CS5 23226 CC/W33 23226-2CS5 C 2226	FRB 22/230 FRB 13/230 FRB 7.5/230 FRB 5/230 FRB 5/230 FRB 13/230	TSN 226 L TSN 226 A TSN 226 S TSN 226 ND	ASNH 26	190 190 208 275
140	SNL 528	22228 CC/W33 22228-2CS5 23228 CC/W33 23228-2CS5 C 2228	FRB 15/250 FRB 15/250 FRB 5/250 FRB 5/250 FRB 15/250	TSN 228 L TSN 228 A TSN 228 S TSN 228 ND	ASNH 528	205 205 223 290
150	SNL 530	22230 CC/W33 22230-2CS5 23230 CC/W33 23230-2CS5 C 2230	FRB 16.5/270 FRB 16.5/270 FRB 5/270 FRB 5/270 FRB 16.5/270	TSN 230 L TSN 230 A TSN 230 S TSN 230 ND	ASNH 530	220 220 241 310
160	SNL 532	22232 CC/W33 22232-2CS5 23232 CC/W33 C 3232	FRB 17/290 FRB 17/290 FRB 5/290 FRB 5/290	TSN 232 A TSN 232 S TSN 232 ND	ASNH 532	235 254 325

¹⁾ Only the basic bearing designation is listed. Other bearing variants can also fit the housing. 12(00), 22(00), 13(00) – self-aligning ball bearings, 222(00), 213(00), BS2... – spherical roller bearings, C... – CARB toroidal roller bearing

²⁾ The locating ring fits the bearing in the same line only. Two locating rings are required for each housing.



Shaft diameter		Dimensions												Eye bolt acc. to DIN 580	Mass Housing
d _a	d _b	A	A ₁	C _a	D _a	H	H ₁	H ₂	J	L	N	N ₁	G	-	kg
130	145	190	130	90	230	290	150	50	380	445	35	28	24	M 10	33,0
140	155	205	150	98	250	302	150	50	420	500	42	35	30	M 12	40,0
150	165	220	160	106	270	323	160	60	450	530	42	35	30	M 12	49,0
160	175	235	160	114	290	344	170	60	470	550	42	35	30	M 12	55,0

