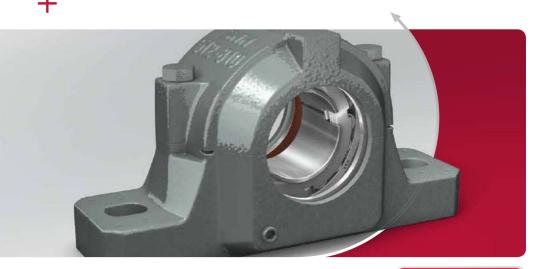


## **POCKET GUIDE**

MAINTENANCE OF PLUMMER BLOCKS



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#### **About NSK**

As one of the world's leading manufacturers of rolling bearings, linear technology components and steering systems, we can be found on almost every continent – with production facilities, sales offices and technology centres – because our customers appreciate short decision-making channels, prompt deliveries and local service.





#### The NSK company

NSK commenced operations as the first Japanese manufacturer of rolling bearings back in 1916. Ever since, we have been continuously expanding and improving not only our product portfolio but also our range of services for various industrial sectors. In this context, we develop technologies in the fields of rolling bearings, linear systems, components for the automotive industry and mechatronic systems. Our research and production facilities in Europe, Americas and Asia are linked together in a global technology network. Here we concentrate not only on the development of new technologies, but also on the continuous optimisation of quality – at every process stage.

Among other things, our research activities include product design, simulation applications using a variety of analytical systems and the development of different steels and lubricants for rolling bearings.

## Plummer Blocks SNN 500 - 600 Series



## Plummer Block Concept

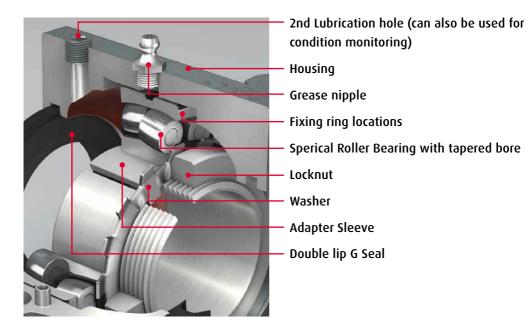


Easy to handle and maintain, the Plummer Block concept offers many advantages:

- > Self-Aligning
- Can be equiped with different sealing arrangements to match application requirements
- Accept heavy loads
- Easy Mounting and dismounting
- Reduced Maintenance costs

## Typical Assembly

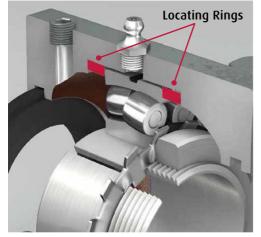


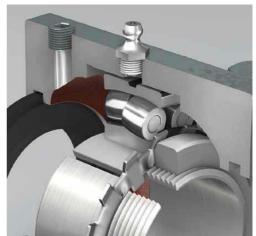


## Typical Arrangement

Typical arrangement is one fixed unit (Fig. 1) and one or several free end units (Fig. 2).

Fig. 1 Fig. 2





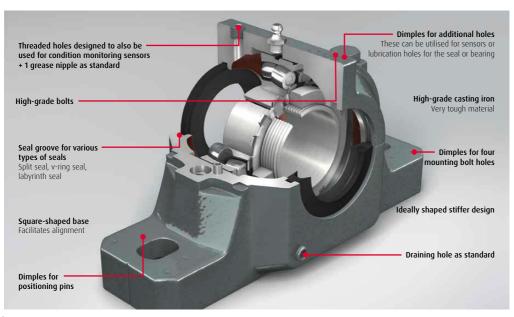
## Cap & Fixing Bolts Sizes

## NSK

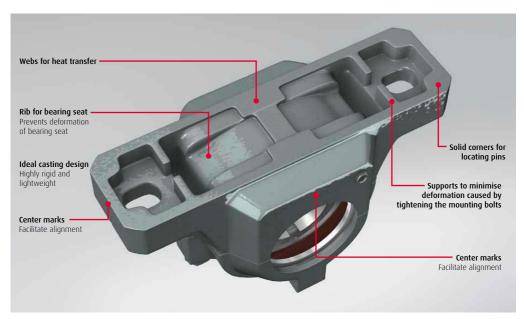
## **Recommended Tightening Torques**

SNN Housing	Cap Bolt Size Grade 8.8	Recommended max. Tightening Torque Nm	Base Bolts Size Grade 8.8	Recommended max. Tightening Torque Nm
SNN505	M10	50	M12	80
SNN506-605	M10	50	M12	80
SNN507-606	M10	50	M12	80
SNN508-607	M10	50	M12	80
SNN509	M10	50	M12	80
SNN510-608	M10	50	M12	80
SNN511-609	M12	80	M16	200
SNN512-610	M12	80	M16	200
SNN513-609	M12	80	M16	200
SNN515-612	M12	80	M16	200
SNN516-613	M16	150	M20	385
SNN517	M16	150	M20	385
SNN518-615	M16	150	M20	385
SNN519-616	M16	150	M20	385
SNN520-617	M20	200	M24	665
SNN522-619	M20	200	M24	665
SNN524-620	M20	200	M24	665
SNN526	M24	350	M24	665
SNN528	M24	350	M30	1310
SNN530	M24	350	M30	1310
SNN532	M24	350	M30	1310

## **Housing Features**

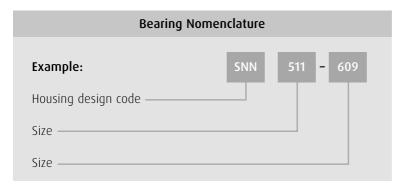






## Housing Features & Designation

The Plummer Block housings detailed in this brochure are manufactured in accordance with ISO/R113 standards.





#### **Housings Features**

- > Colour: RAL 7001, Pantone 444C
- Housing Material: Cast Iron Grade 200
- > Cap bolts: Mild steel AISI1010 Grade 8.8
- Metal plugs: Mild steel AISI 1010
- > Tolerance of bearing seating: H7
- The bearing seating is protected against corrosion, all the non machined internal parts are primed.
- Each housing is supplied with a straight grease nipple (see dimensions in the lubrication section).
- Each SNN housing is supplied with 2 lubrication holes on the cap and 1 drain hole on the base.

#### **Housings Designation**

#### 500 Series

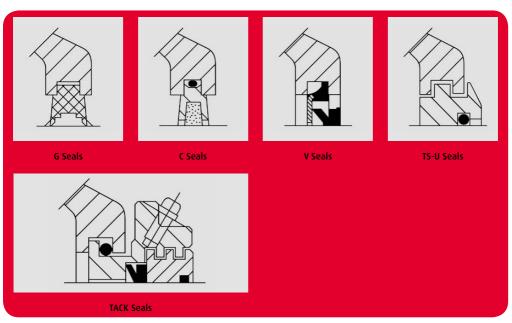
for light series bearings with tapered bore 1200K, 2200K, 22200K, 23200K

#### 600 Series

for medium series bearings with tapered bore 1300K, 2300K, 21300K, 22300K

The SNN 500 and 600 series comprise a number of housings which, when combined with different seal options and ball or spherical roller bearings, provide an answer for most Plummer Block applications with shaft diameters ranging from 20 mm to 140 mm.

## **Standard Sealing Arrangements**





Seal Type	G Туре	С Туре	V Туре	тѕ-и туре	ТАСК Туре
Material	Thermo-plastic Polyurethane	Mild steel + Wool & Rayon	Mild steel & NBR	Cast Iron + NBR	Cast Iron + NBR
Temperature	-35°C to +80°C	-40°C to +100°C	-20°C to +100°C	-40°C to +120°C	-40°C to +100°C
Max. Speed	5m/s (1)	4m/s	7m/s (2)	Same as Bearing	7m/s (3)
Max. Misalignment	0.5 to 1°	up to 0.5°	1 to 1.5°	up to 0.3°	up to 0.5°
Grease Lubrication	Excellent	Good	Excellent	Good	Good
Low Friction Torque	Good	Poor	Good	Excellent	Good
Axial Shaft Displacement	Excellent	Excellent	Poor	Fair	Poor
	Pe	rformance when exposed to	D:		
Dust	Excellent	Excellent	Excellent	Good	Excellent
Large Particles	Good	Good	Poor	Good	Good
Water	Good	Fair	Good	Poor	Good

- (1) With grease lubrication (2) Up to 12m/s with v-ring securing ring (3) Depends on shaft diameter

## Supply of Seals

- Double lip seals G type (designation example: G509-kit) are supplied in pairs in a plastic bag (4 halves, to equip both sides of the housing)
- Felt seals C type (designation example: C509-kit) are supplied in pairs in a plastic bag (4 NBR o-rings, 4 halves/steel adapters, 4 felt strips, to equip both sides of the housing)
- V-ring seals V type (designation example: V509-kit) are supplied in pairs in a plastic bag (2 NBR v-rings, 2 mild steel + NBR plates, to equip both sides of the housing)
- Labyrinth seals TS-U type (designation example: TS509U) are supplied as a single item in a plastic bag (1 cast iron labyrinth + 1 NBR o-ring, to equip 1 side of the housing)



- Taconite seals TACK type (designation example: TACK509) are supplied as a single item in a plastic bag (1 cast iron labyrinth, 2 NBR o-ring, 1 NBR v-ring, 1 cast iron body and 1 grease nipple, to equip 1 side of the housing)
- End cover A (designation example: 509A)
   are supplied as a single item in a plastic bag
   (1 NBR + Mild steel plate to equip 1 side of
   the housing)

Seals for high temperature applications can be supplied on request. For more information, please consult NSK.

## Seals Table



Shaft Diam.	Housing	G Seals KIT	C Seals KIT	V Seals KIT	TS-U Seals	TACK Seals	End Cover
D (mm)	nousing	d Jeans Kil	C Jedis Kii	(B1: Fitted Width)	13-0 36013	IACK Jedis	Liid Covei
20	SNN505	G505-KIT	C505-KIT	V505-KIT (6 ±0.8)	TS505U	TACK505	505A
20	SNN506-605	G605-KIT	C605-KIT	V605-KIT (6 ±0.8)	TS605U	TACK605	505A
25	SNN506-605	G506-KIT	C506-KIT	V506-KIT (6 ±0.8)	TS506U	TACK506	506A
25	SNN507-606	G606-KIT	C606-KIT	V606-KIT (6 ±0.8)	TS606U	TACK606	507A
30	SNN507-606	G507-KIT	C507-KIT	V507-KIT (6 ±0.8)	TS507U	TACK507	507A
30	SNN508-607	G607-KIT	C607-KIT	V607-KIT (6 ±0.8)	TS607U	TACK607	508A
25	SNN508-607	G508-KIT	C508-KIT	V508-KIT (6 ±0.8)	TS508U	TACK508	508A
35	SNN510-608	G608-KIT	C608-KIT	V608-KIT (6 ±0.8)	TS608U	TACK608	510A
40	SNN509	G509-KIT	C509-KIT	V509-KIT (7 ±1)	TS509U	TACK509	509A
40	SNN511-609	G609-KIT	C609-KIT	V609-KIT (7 ±1)	TS609U	TACK609	511A
45	SNN510-608	G510-KIT	C510-KIT	V510-KIT (7 ±1)	TS510U	TACK510	510A
45	SNN512-610	G610-KIT	C610-KIT	V610-KIT (7 ±1)	TS610U	TACK610	512A



Shaft Diam. D (mm)	Housing	G Seals KIT	C Seals KIT	V Seals KIT (B1: Fitted Width)	TS-U Seals	TACK Seals	End Cover
	SNN511-609	G511-KIT	C511-KIT	V511-KIT (7 ±1)	TS511U	TACK511	511A
50	SNN513-611	G611-KIT	C611-KIT	V611-KIT (7 ±1)	TS611U	TACK611	513A
FF	SNN512-610	G512-KIT	C512-KIT	V512-KIT (7 ±1)	TS512U	TACK512	512A
55	SNN515-612	G612-KIT	C612-KIT	V612-KIT (7 ±1)	TS612U	TACK612	515A
60	SNN513-611	G513-KIT	C513-KIT	V513-KIT (7 ±1)	TS513U	TACK513	513A
00	SNN516-613	G613-KIT	C613-KIT	V613-KIT (7 ±1)	TS613U	TACK613	516A
65	SNN515-612	G515-KIT	C515-KIT	V515-KIT (7 ±1)	TS515U	TACK515	515A
00	SNN518-615	G615-KIT	C615-KIT	V615-KIT (7 ±1)	TS615U	TACK615	518A
70	SNN516-613	G516-KIT	C516-KIT	V516-KIT (9 ±1.2)	TS516U	TACK516	516A
70	SNN519-616	G616-KIT	C616-KIT	V616-KIT (9 ±1.2)	TS616U	TACK616	519A
75	SNN517	G517-KIT	C517-KIT	V517-KIT (9 ±1.2)	TS517U	TACK517	517A
/5	SNN520-617	G617-KIT	C617-KIT	V617-KIT (9 ±1.2)	TS617U	TACK617	520A
80	SNN518-615	G518-KIT	C518-KIT	V518-KIT (9 ±1.2)	TS518U	TACK518	518A
85	SNN519-616	G519-KIT	C519-KIT	V519-KIT (9 ±1.2)	TS519U	TACK519	519A
δɔ	SNN522-619	G619-KIT	C619-KIT	V619-KIT (9 ±1.2)	TS619U	TACK619	522A
90	SNN520-617	G520-KIT	C520-KIT	V520-KIT (9 ±1.2)	TS520U	TACK520	520A
90	SNN524-620	G620-KIT	C620-KIT	V620-KIT (9 ±1.2)	TS620U	TACK620	524A
100	SNN522-619	G522-KIT	C522-KIT	V522-KIT (9 ±1.2)	TS522U	TACK522	522A
110	SNN524-620	G524-KIT	C524-KIT	V524-KIT (9 ±1.2)	TS524U	TACK524	524A
115	SNN526	G526-KIT	C526-KIT	V526-KIT (9 ±1.2)	TS526U	TACK526	526A
125	SNN528	G528-KIT	C528-KIT	V528-KIT (9 ±1.2)	TS528U	TACK528	528A
135	SNN530	G530-KIT	C530-KIT	V530-KIT (9 ±1.2)	TS530U	TACK530	530A
140	SNN532	G532-KIT	C532-KIT	V532-KIT (9 ±1.2)	TS532U	TACK532	532A

## Relationship between Circumferential and Rotational Speed

	Circumferential Speed				
Shaft Diameter (mm)	4 m/s	5 m/s	7 m/s	12 m/s	
()		Corresponding Rota	ational Speed min <sup>-1</sup>		
20	3820	4775	6685	11460	
25	3060	3825	5355	9170	
30	2550	3188	4463	7640	
35	2180	2725	3815	6550	
40	1910	2388	3343	5730	
45	1700	2125	2975	5090	
50	1530	1913	2678	4580	
55	1390	1738	2433	4170	
60	1270	1588	2223	3820	
65	1180	1475	2065	3530	
70	1090	1363	1908	3270	
75	1020	1275	1785	3060	
80	950	1188	1663	2860	
85	900	1125	1575	2700	
90	850	1063	1488	2550	



	Circumferential Speed				
Shaft Diameter (mm)	4 m/s	5 m/s	7 m/s	12 m/s	
()		Corresponding Rota	ational Speed min <sup>-1</sup>		
95	800	1000	1400	2410	
100	760	950	1330	2290	
110	690	863	1208	2080	
115	660	825	1155	1990	
120	640	800	1120	1910	
125	610	763	1068	1830	
130	590	738	1033	1760	
135	570	713	998	1700	
140	550	688	963	1640	
145	530	663	928	1580	
150	510	638	893	1530	
155	490	613	858	1480	
165	460	575	805	1390	
175	440	550	770	1310	

## How to order SNN complete Plummer Blocks from NSK

#### Example 1 - Application with 2 Plummer Blocks

#### Free end

Through shaft diam 50 mm, equiped with 1 spherical roller bearing 22211EAK, double lip seals on both sides.

#### Parts required:

- 1 NSK housing SNN511-609
- 1 NSK bearing 22211EAKE4
- 1 NSK adapter sleeve H311
- 1 seal pack G511-KIT (2 seals included)

#### Fixed end

Shaft end, diam 50 mm, equiped with 1 spherical roller bearing 22211EAK, double lip seal on 1 side.

#### Parts required:

- 1 NSK housing SNN511-609
- 1 NSK bearing 22211EAKE4
- > 1 NSK adapter sleeve H311
- 1 locating ring kit SR100/9.5-KIT (2 rings included)
- 1 seal pack G511-KIT (2 seals included)
- > 1 end cover 511A



#### Example 2 - Application with 2 Plummer Blocks

#### Free end

Through shaft diam 75 mm, equiped with 1 spherical roller bearing 22217EAK, labyrinth seals on both sides.

#### Parts required:

- 1 NSK housing SNN517
- 1 NSK bearing 22217EAKE4
- 1 NSK adapter sleeve H317
- 2 seals TS517U (the kit includes 1 labyrinth and o-ring)

#### Fixed end

Shaft end, diam 75 mm, equiped with 1 spherical roller bearing 22217EAK, labyrinth seal on 1 side.

#### Parts required:

- 1 NSK housing SNN517
- 1 NSK bearing 22217EAKE4
- 1 NSK adapter sleeve H317
- 1 locating ring kit SR150/12.5-KIT (2 rings included)
- 1 seal TS517U (the kit includes 1 labyrinth and o-ring)
- > 1 end cover 517A

#### Lubrication

#### **Grease quantity**

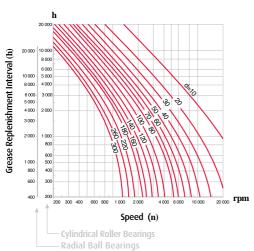
The quantity of grease in a bearing depends on the application, rotational speed of the bearing, characteristics of the selected grease, and the ambient temperature conditions. These factors are critical to satisfactory performance.

	Quantity of grease for	Replenishment time interval (see graphs on following page)		
Conditions	Quantity of Grease	Conditions	Quantity of Grease	Application Conditions
Speed is less than 50% of the bearing limiting speed	Between <b>1/3</b> & <b>2/3</b> of the free internal space	Speed is more than 50% of the bearing limiting speed	Between <b>1/3</b> & <b>1/2</b> of the free internal space	These graphs are applicable if the Bearing temperature is < 70°C.  If the Bearing temperature exceeds 70°C, the replenishment time interval must be reduced by half for every 15°C temperature rise

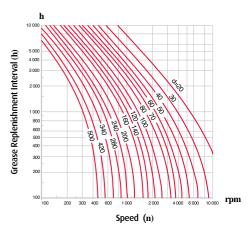
Care should be taken to avoid excessive greasing as this will cause bearings to overheat.



## Radial Ball Bearings / Cylindrical Roller Bearings



## Tapered Roller Bearings / Spherical Roller Bearings



#### Lubrication

SNN Plummer Blocks have been developed primarily for grease lubrication.

NSK SNN housings are equiped as standard with 1 straight grease nipple, 2 lubrication holes, 1 on one side of the cap, the other in the centre of the cap to enable lubrication through the bearing outer ring grease groove. This relubrication method is preferred as fresh grease is delivered directly to the bearing. SNN housings are also equiped with a threaded drain hole.

The application conditions (speeds, loads, temperature) will determine the grease relubrication intervals and quantity.

However, in addition to the bearing grease fill, it is necessary to fill the housing with a certain quantity of grease before the first use. For recommended grease weight/initial fill, please refer to the table on the right side.





SNN Housing	Grease Weight Initial Fill (g)
SNN505	25
SNN506-605	40
SNN507-606	50
SNN508-607	60
SNN509	65
SNN510-608	75
SNN511-609	100
SNN512-610	150
SNN513-611	180
SNN515-612	230
SNN516-613	280
SNN517	330
SNN518-615	430
SNN519-616	480
SNN520-617	630
SNN522-619	850
SNN524-620	1000
SNN526	1100
SNN528	1400
SNN530	1700
SNN532	2000

Housing	Size of Grease Nipple	Size of Threaded Drain Hole
SNN505 to SNN515-612	R1/8	R1/8
SNN516-613 to SNN522-619	R1/4	R1/4
SNN524-620 to SNN532	R3/8	R3/8

## Mounting



## Mounting of Spherical Roller Bearings

#### on adapter sleeves

- With bearing on bench check clearance using the feeler gauges over the top of the rollers at the top of the bearing as shown in Fig. 1 and note the clearance.
- Before mounting, smear the thread and the side face of the nut with a molybdenum disulphide paste or similar lubricant.
- **3.** Smear the shaft and outside diameter of sleeve with a light oil.

- 4. Open the sleeve slightly by inserting and twisting a screw driver into the slit in the sleeve and position the sleeve on the shaft.
- **5.** Slide bearing, lockwasher and locknut onto sleeve and tighten nut with a 'C' spanner until all slackness is removed.
- **6.** Further tighten the nut until the clearance has been reduced by the amount shown in the chart on pages 54/55 but when the bearing is mounted on the shaft the clearance should be checked under the rollers at the bottom of the bearing as shown in Fig. 2.

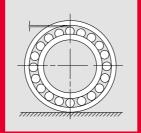


- 7. Check the clearance has not been reduced below the minimum permissible residual clearance shown in the chart on pages 54/55 for the size and clearance of bearing.
- 8. Align one tab on the lock washer with a slot in the locknut and bend it into the slot, if no tabs line up with the slots slightly tighten the locknut until one lines up. Never back off the nut to line up the tab with the slot.
- **9.** Check the bearing rotates freely without any binding.

## Mounting of Spherical Roller Bearings

on adapter sleeves





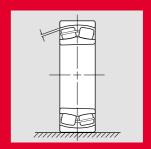


Fig. 1: Checking bearing clearance with bearing on bench.



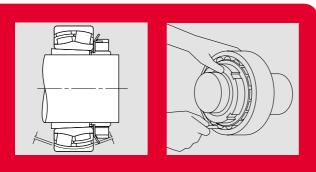


Fig. 2: Checking bearing clearance with bearing mounted on shaft.

# Mounting of Spherical Roller Bearings on an adapter sleeve using the Axial Drive-Up Method

- Before mounting, smear the thread and the side face of the nut with a molybdenum disulphide paste or similar lubricant.
- **2.** Smear the shaft and outside diameter of sleeve with a light oil.
- Open the sleeve slightly by inserting and twisting a screwdriver into the slit in the sleeve and position the sleeve on the shaft.
- Slide bearing, lockwasher and locknut onto sleeve and tighten nut with a 'C' spanner until all slackness is removed.

- **5.** Measure dimension  ${}'X'$  as shown in Fig. 3.
- **6.** Tighten the nut and **decrease** dimension 'X' by the amount of axial drive-up shown in the chart on pages 54/55 for the correct size of bearing.
- 7. Check bearing clearance as shown on pages 50/51 to ensure the clearance is not less than the minimum permissible residual clearance shown in the chart on pages 54/55 for the size and clearance of bearing.



- 8. Align one tab on the lock washer with a slot in the locknut and bend it into the slot, if no tabs line up with the slots slightly tighten the locknut until one lines up. Never back off the nut to line up the tab with the slot.
- **9.** Check the bearing rotates freely without binding.

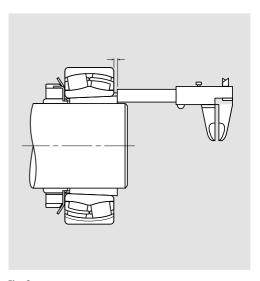


Fig. 3

### Mounting of Spherical Roller Bearings

on an adapter sleeve (dimensions in mm) Taper 1:12

Bearin Diamet			Initial I	Radial Int	ternal Cle	arance		Reduc Radial C		Axial D	rive-Up	Nominal tightening angle		um Perm lual Clea	
over	incl.	min	N max	min C	3 max	min C	4 max	min	max	min	max	nominal	CN	СЗ	<b>C</b> 4
30	40	0.035	0.050	0.050	0.065	0.065	0.085	0.25	0.030	0.40	0.45	100°	0.010	0.25	0.035
40	50	0.045	0.060	0.060	0.080	0.080	0.100	0.030	0.035	0.45	0.55	120°	0.015	0.030	0.045
50	65	0.055	0.075	0.075	0.095	0.095	0.120	0.030	0.035	0.45	0.55	90°	0.025	0.035	0.060
65	80	0.070	0.095	0.095	0.120	0.120	0.150	0.040	0.040	0.60	0.70	120°	0.030	0.040	0.075
80	100	0.080	0.110	0.110	0.140	0.140	0.180	0.045	0.055	0.070	0.85	140°	0.035	0.050	0.085
100	120	0.100	0.135	0.135	0.170	0.170	0.220	0.050	0.060	0.75	0.90		0.045	0.065	0.110
120	140	0.120	0.160	0.160	0.200	0.200	0.260	0.060	0.070	0.90	1.10		0.055	0.080	0.130
140	160	0.130	0.180	0.180	0.230	0.230	0.300	0.065	0.080	1.00	1.30		0.060	0.100	0.150



Bearin Diamet			Initial f	Radial Int	ternal Cle	arance		Reduc Radial C		Axial D	rive-Up	Nominal tightening angle		um Perm lual Clea	
over	incl.	min	N max	min C	3 max	C min	4 max	min	max	min	max	nominal	CN	С3	<b>C</b> 4
160	180	0.140	0.200	0.200	0.260	0.260	0.340	0.070	0.090	1.10	1.40		0.070	0.110	0.170
180	200	0.160	0.220	0.220	0.290	0.290	0.370	0.080	0.100	1.30	1.60		0.070	0.110	0.190
200	225	0.180	0.250	0.250	0.320	0.320	0.410	0.090	0.110	1.40	1.70		0.080	0.130	0.210
225	250	0.200	0.270	0.270	0.350	0.350	0.450	0.100	0.120	1.60	1.90		0.090	0.140	0.230
250	280	0.220	0.300	0.300	0.390	0.390	0.490	0.110	0.140	1.70	2.20		0.100	0.150	0.250
280	315	0.240	0.330	0.330	0.430	0.430	0.540	0.120	0.150	1.90	2.40		0.110	0.160	0.280
315	355	0.270	0.360	0.360	0.470	0.470	0.590	0.140	0.170	2.20	2.70		0.120	0.180	0.300
355	400	0.300	0.400	0.400	0.520	0.520	0.650	0.150	0.190	2.40	3.00		0.130	0.200	0.330

### Mounting of Self-Aligning Ball Bearings

on an adapter sleeve

#### **Axial Drive-Up Method**

- Before mounting, smear the thread and the side face of the nut with a molybdenum disulphide paste or similar lubricant.
- **2.** Smear the shaft and outside diameter of sleeve with a light oil.
- Open the sleeve slightly by inserting and twisting a screw driver into the slit in the sleeve and position the sleeve on the shaft

- **4.** Slide bearing, lockwasher and locknut onto sleeve and tighten nut wit a 'C' spanner until all slackness is removed.
- **5.** Measure distance from end tapered sleeve to the face of locknut or to the face of the inner ring and note the dimension.



- **6.** From the chart note the required "axial drive up" and tighten the locknut until the bearing has moved the required distance up the taper of the sleeve indicated by the reduction or increase in the measured distance originally noted. If the original dimension was from the end of the tapered sleeve to the face of the locknut then the dimension will increase but if the measurement was from the end of the tapered sleeve to the face of the inner ring the dimension will be reduced.
- 7. A self-aligning ball bearing with normal clearance when adjusted correctly should rotate freely but should have some resistance to swivelling.
- 8. Align one tab on the lock washer with a slot in the locknut and bend it into the slot, if no tabs line up with the slots slightly tighten the locknut until one lines up.
  Never back off the nut to line up the tab with the slot.

### Mounting of Self-Aligning Ball Bearings

on an adapter sleeve

#### **Tightening Angle Method**

- Before mounting, smear the thread and the side face of the nut with a molybdenum disulphide paste or similar lubricant.
- **2.** Smear the shaft and outside diameter of sleeve with a light oil.
- Open the sleeve slightly by inserting and twisting a screw driver into the slit in the sleeve and position the sleeve on the shaft.

- Slide bearing, lockwasher and locknut onto sleeve and tighten nut with a 'C' spanner until all slackness is removed.
- 5. Tighten locknut through the required angle  $\alpha$ , taken from chart, and then reposition the 'C' spanner to 180° from its original position and give it a sharp tap with the hammer to straighten the bearing on its seating.

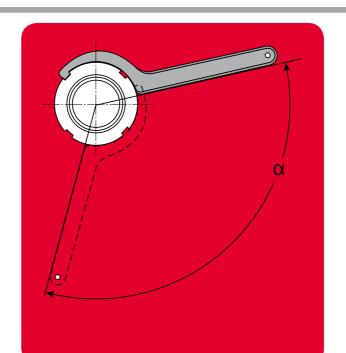


- 6. A self-aligning ball bearing with normal clearance when adjusted correctly should rotate freely but should have some resistance to swivelling.
- 7. Align one tab on the lock washer with a slot in the locknut and bend it into the slot, if no tabs line up with the slots slightly tighten the locknut until one lines up. Never back off the nut to line up the tab with the slot.

## Mounting of Double Row Self-Aligning Ball Bearings with 1:12 Tapered Bores on to adapter sleeves

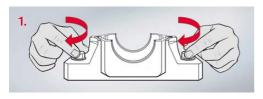
Bearing Bore	Diameter mm	Tightening Angle	Approximate Axial	
over	inclusive	(a) degrees	Drive-Up mm	
24	30	70	0.22	
30	40	70	0.30	
40	50	70	0.30	
50	65	90	0.40	
65	80	90	0.45	
80	100	90	0.45	
100	120	120	0.55	
120	140	120	0.65	
140	160	120	0.75	

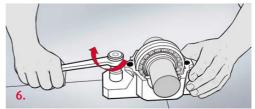




### Mounting of SNN Plummer Blocks

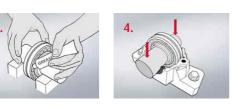
using "G" Seals

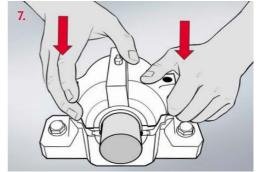














- **1.** Place the housing base in position and hand tighten the fixing bolts.
- 2. Fit the seal halves into the seal grooves, in the base (a) and top (b) of the housings. Fill the section between the 2 lips of the seal with grease.
- Mount the bearing on shaft (detailed information on bearing fitting from page 32 to 45) and charge with grease.
- **4.** Place the shaft and bearing assembly in the lower half of the split housing.
- **5.** (Without picture) Insert the locating ring on both sides of the bearing (for fixed end).
- **6.** Check housings alignment is correct and tighten the fixing bolts.

**7.** Assemble the housing cap over the base and tighten the cap bolts (recommended max. torque on page 11).

Before starting the Plummer Block installation, ensure that the environment is clean, and that the accuracies and tolerances of associated components are in accordance with the following recommendations:

Plummer Block seating flatness: IT7 to IT8, Ra max. 12.5 µm

Shaft: h9 IT5 to h10 IT7

### Mounting of SNN Plummer Blocks

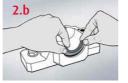
using "C" Seals



















- **1.** Place the housing base in position and hand tighten the fixing bolts.
- 2. Fit the nitrile rings (a) into the grooves in the base and cap (c) of the housing, followed by the steel adapters (b), containing the oil soaked felt strips.
- **3.** Mount the bearing on shaft (detailed information on bearing fitting from page 32 to 45) and charge with grease.
- **4.** Place the shaft and bearing assembly in the lower half of the housing.
- (Without picture) Insert locating rings on both sides of the bearing (fixed end only).
- **6.** Check housing alignment is correct and tighten the fixing bolts (recommended max. torque on page 11).

**7.** Assemble the housing cap and tighten the cap bolts (recommended max. torque on page 11).

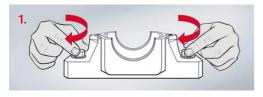
Before starting the Plummer Block installation, ensure that the environment is clean, and that the accuracies and tolerances of associated components are in accordance with the following recommendations:

Plummer Block seating flatness: IT7 to IT8, Ra max. 12.5 µm

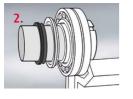
Shaft: h9 IT5 to h10 IT7

### Mounting of SNN Plummer Blocks

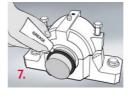
using "V" Seals

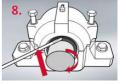
















- **1.** Place the housing base in position and hand tighten the fixing bolts.
- 2. Mount the bearing on shaft (detailed information on bearing fitting from page 32 to 45) and charge with grease. Place counterface washers and v-ring on shaft (shaft end side).
- **3.** Place the shaft and bearing assembly in the lower half of the housing, aligning the counterface washers into the grooves.
- (Without picture) Insert locating rings on both sides of the bearing (fixed end only).
- **5.** Check housing alignment is correct and tighten the fixing bolts (recommended max. torque on page 11).
- **6.** Assemble the housing cap and tighten the cap bolts (recommended max. torque on page 11).

- **7.** Smear the surface of the counterface washers with grease to reduce friction.
- **8.** While rotating the shaft, push the v-rings along the shaft into position.

Before starting the Plummer Block installation, ensure that the environment is clean, and that the accuracies and tolerances of associated components are in accordance with the following recommendations:

Plummer Block seating flatness: IT7 to IT8, Ra max. 12.5 µm

Shaft: h9 IT5 to h10 IT7

### Mounting of SNN Plummer Blocks

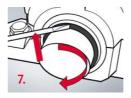
using "TS-U" Seals















- **1.** Place the housing base in position and hand tighten the fixing bolts.
- 2. Place the labyrinth on shaft (through shaft side). Mount the bearing on shaft (detailed information on bearing fitting from page 32 to 45) and charge with grease. Place the second labyrinth on shaft (shaft end side).
- **3.** Place the shaft and bearing assembly in the lower half of the housing aligning the labyrinth into the grooves.
- **4.** (Without picture) Insert the locating rings on both sides of the bearing (fixed end only).
- **5.** Check housing alignment is correct and tighten the fixing bolts (recommended max. torque on page 11).
- **6.** Assemble the housing cap and tighten the

- cap bolts (recommended max. torque on page 11).
- **7.** While rotating the shaft, insert the o-rings into position.

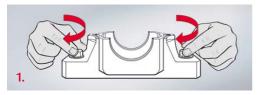
Before starting the Plummer Block installation, ensure that the environment is clean, and that the accuracies and tolerances of associated components are in accordance with the following recommendations:

Plummer Block seating flatness: IT7 to IT8, Ra max. 12.5 µm

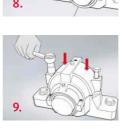
Shaft: h9 IT5 to h10 IT7

### Mounting of SNN Plummer Blocks

using "TACK" Seals

















- **1.** Place the housing base in position and hand tighten the fixing bolts.
- **2.** Mount the v-ring (lip towards bearing) and labyrinth on shaft (through shaft side). Mount the split ring, covering the labyrinth and the



- v-ring. Tighten the split ring and insert the o-ring, fixing the labyrinth in position.
- **3.** Mount the bearing on shaft (detailed information on bearing fitting from page 32 to 45) and charge with grease.
- **4.** Fit the second seal on the shaft (shaft end side).
- **5.** Mount the o-rings on each seal outer diameter.
- **6.** Place the shaft and bearing assembly in the lower half of the housing, positioning the labyrinth in the grooves.
- (Without picture) Insert locating rings on both sides of the bearing (fixed end only).
- **8.** Check housing alignment is correct and tighten the fixing bolts (recommended max. torque on page 11).

- Place the housing cap and tighten the cap bolts (recommended max. torque on page 11).
- **10.** Before starting the machine, grease the seals while rotating the shaft until a small amount of grease oozes from the labyrinth rings.

Before starting the Plummer Block installation, ensure that the environment is clean, and that the accuracies and tolerances of associated components are in accordance with the following recommendations: Plummer Block seating flatness: IT7 to IT8, Ra max. 12.5 µm Shaft: h9 IT5 to h10 IT7

### Plummer Blocks Interchange Section



### Plummer Blocks Interchange Section





The purpose of the following lists is to make it easy for bearing users to identify the NSK parts that correspond to various non NSK Plummer Blocks and accessories which have been removed from equipment and need replacing.

The list identifies the different components using part numbering systems. Users should then consult the relevant table to check the dimensions and select the precise designation. The NSK product is a functional equivalent in respect of the key features, although secondary dimensions may differ.

If you cannot find a part number in the list or if you are unsure about anything, please contact your local NSK office to ensure you get the right NSK part number.

This list is provided in good faith, but no responsibility can be accepted for errors or omissions.

The manufacturers included are:

- > SKF
- → SNR
- > FAG
- > RHP

#### Plummer Block Housings for Tapered Bore Bearings

SKF / SNL	FAG / SNV	SNR / SNC	RHP / SNU	NSK / SNN
SNL505V	SNV052-L	SNC505	SNU505	SNN505
SNL506-605V	SNV062-L	SNC506-605	SNU506-605	SNN506-605
SNL507-606V	SNV072-L	SNC507-606	SNU507-606	SNN507-606
SNL508-607V	SNV080-L	SNC508-607	SNU508-607	SNN508-607
SNL509V	SNV085-L	SNC509	SNU509	SNN509
SNL510-608V	SNV090-L	SNC510-608	SNU510-608	SNN510-608
SNL511-609V	SNV100-L	SNC511-609	SNU511-609	SNN511-609
SNL512-610V	SNV110-L	SNC512-610	SNU512-610	SNN512-610
SNL513-611V	SNV120-L	SNC513-611	SNU513-611	SNN513-611
SNL515-612V	SNV130-L	SNC515-612	SNU515-612	SNN515-612
SNL516-613V	SNV140-L	SNC516-613	SNU516-613	SNN516-613
SNL517V	SNV150-L	SNC517	SNU517	SNN517
SNL518-615V	SNV160-L	SNC518-615	SNU518-615	SNN518-615
SNL519-616V	SNV170-L	SNC519-616	SNU519-616	SNN519-616
SNL520-617V	SNV180-L	SNC520-617	SNU520-617	SNN520-617
SNL522-619V	SNV200-L	SNC522-619	SNU522-619	SNN522-619
SNL524-620V	SNV215-L	SNC524-620	SNU524-620	SNN524-620
SNL526V	SNV230-L	SNC526	SNU526	SNN526
SNL528V	SNV250-L	SNC528	SNU528	SNN528
SNL530V	SNV270-L	SNC530	SNU530	SNN530
SNL532V	SNV290-L	SNC532	SNU532	SNN532



SKF / SNL	FAG / SNV	SNR / SNC	RHP / SNU	NSK / SNN
SNL3134	SD3134	=	SD3134	=
SNL3136	SD3136	-	SD3136	-
SNL3138	SD3138	-	SD3138	-
SNL3140	SD3140	-	SD3140	-
SNL3144	SD3144	-	SD3144	-
SNL3148	SD3148	-	SD3148	-
SNL3152	SD3152	-	SD3152	-
SNL3156	SD3156	-	SD3156	-
SNL3160	SD3160	-	SD3160	-
SNL3164	SD3164	-	SD3164	-
SNL3168	SD3168	-	SD3168	-
SNL3172	SD3172	-	SD3172	-
SNL3176	SD3176	-	SD3176	-
SNL3180	SD3180	-	SD3180	-

#### Felt Seals for Plummer Blocks 500-600 Series

SKF / SNL	FAG / SNV	SNR / SNC	RHP / SNU	NSK / SNN
TSN505C	FSV505	SC505FS	-	C505-KIT
TSN506C	FSV506	SC506FS	-	C506-KIT
TSN507C	FSV507	SC507FS	=	C507-KIT
TSN508C	FSV508	SC508FS	=	C508-KIT
TSN509C	FSV509	SC509FS	=	C509-KIT
TSN510C	FSV510	SC510FS	-	C510-KIT
TSN511C	FSV511	SC511FS	-	C511-KIT
TSN512C	FSV512	SC512FS	=	C512-KIT
TSN513C	FSV513	SC513FS	=	C513-KIT
TSN515C	FSV515	SC515FS	=	C515-KIT
TSN516C	FSV516	SC516FS	=	C516-KIT
TSN517C	FSV517	SC517FS	-	C517-KIT
TSN518C	FSV518	SC518FS	-	C518-KIT
TSN519C	FSV519	SC519FS	=	C519-KIT
TSN520C	FSV520	SC520FS	=	C520-KIT
TSN522C	FSV522	SC522FS	=	C522-KIT
TSN524C	FSV524	SC524FS	=	C524-KIT
TSN526C	FSV526	SC526FS	-	C526-KIT
TSN528C	FSV528	SC528FS	=	C528-KIT
TSN530C	FSV530	SC530FS	-	C530-KIT
TSN532C	FSV532	SC532FS	=	C532-KIT



SKF / SNL	FAG / SNV	SNR / SNC	RHP / SNU	NSK / SNN
TSN605C	FSV605	SC605FS	-	C605-KIT
TSN606C	FSV606	SC606FS	-	C606-KIT
TSN607C	FSV607	SC607FS	=	C607-KIT
TSN608C	FSV608	SC608FS	-	C608-KIT
TSN609C	FSV609	SC609FS	=	C609-KIT
TSN610C	FSV610	SC610FS	-	C610-KIT
TSN611C	FSV611	SC611FS	-	C611-KIT
TSN612C	FSV612	SC612FS	-	C612-KIT
TSN613C	FSV613	SC613FS	-	C613-KIT
TSN615C	FSV615	SC615FS	-	C615-KIT
TSN616C	FSV616	SC616FS	-	C616-KIT
TSN617C	FSV617	SC617FS	-	C617-KIT
TSN619C	FSV619	SC619FS	-	C619-KIT
TSN620C	FSV620	SC620FS	-	C620-KIT

#### Double Lip Seals for Plummer Blocks 500-600 Series

SKF / SNL	FAG / SNV	SNR / SNC	RHP / SNU	NSK / SNN
TSN505G	DH505	SC505DS	U505	G505-KIT
TSN506G	DH506	SC506DS	U506	G506-KIT
TSN507G	DH507	SC507DS	U507	G507-KIT
TSN508G	DH508	SC508DS	U508	G508-KIT
TSN509G	DH509	SC509DS	U509	G509-KIT
TSN510G	DH510	SC510DS	U510	G510-KIT
TSN511G	DH511	SC511DS	U511	G511-KIT
TSN512G	DH512	SC512DS	U512	G512-KIT
TSN513G	DH513	SC513DS	U513	G513-KIT
TSN515G	DH515	SC515DS	U515	G515-KIT
TSN516G	DH516	SC516DS	U516	G516-KIT
TSN517G	DH517	SC517DS	U517	G517-KIT
TSN518G	DH518	SC518DS	U518	G518-KIT
TSN519G	DH519	SC519DS	U519	G519-KIT
TSN520G	DH520	SC520DS	U520	G520-KIT
TSN522G	DH522	SC522DS	U522	G522-KIT
TSN524G	DH524	SC524DS	U524	G524-KIT
TSN526G	DH526	SC526DS	U526	G526-KIT
TSN528G	DH528	SC528DS	U528	G528-KIT
TSN530G	DH530	SC530DS	U530	G530-KIT
TSN532G	DH532	SC532DS	U532	G532-KIT



SKF / SNL	FAG / SNV	SNR / SNC	RHP / SNU	NSK / SNN
TSN605G	DH605	SC605DS	U605	G605-KIT
TSN606G	DH606	SC606DS	U606	G606-KIT
TSN607G	DH607	SC607DS	U607	G607-KIT
TSN608G	DH608	SC608DS	U608	G608-KIT
TSN609G	DH609	SC609DS	U609	G609-KIT
TSN610G	DH610	SC610DS	U610	G610-KIT
TSN611G	DH611	SC611DS	U611	G611-KIT
TSN612G	DH612	SC612DS	U612	G612-KIT
TSN613G	DH613	SC613DS	U613	G613-KIT
TSN615G	DH615	SC615DS	U615	G615-KIT
TSN616G	DH616	SC616DS	U616	G616-KIT
TSN617G	DH617	SC617DS	U617	G617-KIT
TSN619G	DH619	SC619DS	U619	G619-KIT
TSN620G	DH620	SC620DS	U620	G620-KIT

#### V-Ring Seals for Plummer Blocks 500-600 Series

SKF / SNL	FAG / SNV	SNR / SNC	RHP / SNU	NSK / SNN
TSN505A	DHV505	SC505SV	TSNA505	V505-KIT
TSN506A	DHV506	SC506SV	TSNA506	V506-KIT
TSN507A	DHV507	SC507SV	TSNA507	V507-KIT
TSN508A	DHV508	SC508SV	TSNA508	V508-KIT
TSN509A	DHV509	SC509SV	TSNA509	V509-KIT
TSN510A	DHV510	SC510SV	TSNA510	V510-KIT
TSN511A	DHV511	SC511SV	TSNA511	V511-KIT
TSN512A	DHV512	SC512SV	TSNA512	V512-KIT
TSN513A	DHV513	SC513SV	TSNA513	V513-KIT
TSN515A	DHV515	SC515SV	TSNA515	V515-KIT
TSN516A	DHV516	SC516SV	TSNA516	V516-KIT
TSN517A	DHV517	SC517SV	TSNA517	V517-KIT
TSN518A	DHV518	SC518SV	TSNA518	V518-KIT
TSN519A	DHV519	SC519SV	TSNA519	V519-KIT
TSN520A	DHV520	SC520SV	TSNA520	V520-KIT
TSN522A	DHV522	SC522SV	TSNA522	V522-KIT
TSN524A	DHV524	SC524SV	TSNA524	V524-KIT
TSN526A	DHV526	SC526SV	TSNA526	V526-KIT
TSN528A	DHV528	SC528SV	TSNA528	V528-KIT
TSN530A	DHV530	SC530SV	TSNA530	V530-KIT
TSN532A	DHV532	SC532SV	TSNA532	V532-KIT



SKF / SNL	FAG / SNV	SNR / SNC	RHP / SNU	NSK / SNN
TSN605A	DHV605	SC605SV	TSNA605	V605-KIT
TSN606A	DHV606	SC606SV	TSNA606	V606-KIT
TSN607A	DHV607	SC607SV	TSNA607	V607-KIT
TSN608A	DHV608	SC608SV	TSNA608	V608-KIT
TSN609A	DHV609	SC609SV	TSNA609	V609-KIT
TSN610A	DHV610	SC610SV	TSNA610	V610-KIT
TSN611A	DHV611	SC611SV	TSNA611	V611-KIT
TSN612A	DHV612	SC612SV	TSNA612	V612-KIT
TSN613A	DHV613	SC613SV	TSNA613	V613-KIT
TSN615A	DHV615	SC615SV	TSNA615	V615-KIT
TSN616A	DHV616	SC616SV	TSNA616	V616-KIT
TSN617A	DHV617	SC617SV	TSNA617	V617-KIT
TSN619A	DHV619	SC619SV	TSNA619	V619-KIT
TSN620A	DHV620	SC620SV	TSNA620	V620-KIT

#### Labyrinth Seals for Plummer Blocks 500-600 Series

SKF / SNL	FAG / SNV	SNR / SNC	RHP / SNU	NSK / SNN
TSN505S	TSV505	SC505LA	TS505U	TS505U
TSN506S	TSV506	SC506LA	TS506U	TS506U
TSN507S	TSV507	SC507LA	TS507U	TS507U
TSN508S	TSV508	SC508LA	TS508U	TS508U
TSN509S	TSV509	SC509LA	TS509U	TS509U
TSN510S	TSV510	SC510LA	TS510U	TS510U
TSN511S	TSV511	SC511LA	TS511U	TS511U
TSN512S	TSV512	SC512LA	TS512U	TS512U
TSN513S	TSV513	SC513LA	TS513U	TS513U
TSN515S	TSV515	SC515LA	TS515U	TS515U
TSN516S	TSV516	SC516LA	TS516U	TS516U
TSN517S	TSV517	SC517LA	TS517U	TS517U
TSN518S	TSV518	SC518LA	TS518U	TS518U
TSN519S	TSV519	SC519LA	TS519U	TS519U
TSN520S	TSV520	SC520LA	TS520U	TS520U
TSN522S	TSV522	SC522LA	TS522U	TS522U
TSN524S	TSV524	SC524LA	TS524U	TS524U
TSN526S	TSV526	SC526LA	TS526U	TS526U
TSN528S	TSV528	SC528LA	TS528U	TS528U
TSN530S	TSV530	SC530LA	TS530U	TS530U
TSN532S	TSV532	SC532LA	TS532U	TS532U



SKF / SNL	FAG / SNV	SNR / SNC	RHP / SNU	NSK / SNN
TSN605S	TSV605	SC605LA	TS605U	TS605U
TSN606S	TSV606	SC606LA	TS606U	TS606U
TSN607S	TSV607	SC607LA	TS607U	TS607U
TSN608S	TSV608	SC608LA	TS608U	TS608U
TSN609S	TSV609	SC609LA	TS609U	TS609U
TSN610S	TSV610	SC610LA	TS610U	TS610U
TSN611S	TSV611	SC611LA	TS611U	TS611U
TSN612S	TSV612	SC612LA	TS612U	TS612U
TSN613S	TSV613	SC613LA	TS613U	TS613U
TSN615S	TSV615	SC615LA	TS615U	TS615U
TSN616S	TSV616	SC616LA	TS616U	TS616U
TSN617S	TSV617	SC617LA	TS617U	TS617U
TSN619S	TSV619	SC619LA	TS619U	TS619U
TSN620S	TSV620	SC620LA	TS620U	TS620U

#### Taconite Seals for Plummer Blocks 500-600 Series

SKF / SNL	FAG / SNV	SNR / SNC	RHP / SNU	NSK / SNN
TSN505ND	-	SC505TA	-	TACK505
TSN506ND	-	SC506TA	-	TACK506
TSN507ND	=	SC507TA	=	TACK507
TSN508ND	TCV508	SC508TA	=	TACK508
TSN509ND	TCV509	SC509TA	=	TACK509
TSN510ND	TCV510	SC510TA	=	TACK510
TSN511ND	TCV511	SC511TA	=	TACK511
TSN512ND	TCV512	SC512TA	=	TACK512
TSN513ND	TCV513	SC513TA	=	TACK513
TSN515ND	TCV515	SC515TA	=	TACK515
TSN516ND	TCV516	SC516TA	=	TACK516
TSN517ND	TCV517	SC517TA	-	TACK517
TSN518ND	TCV518	SC518TA	-	TACK518
TSN519ND	TCV519	SC519TA	=	TACK519
TSN520ND	TCV520	SC520TA	=	TACK520
TSN522ND	TCV522	SC522TA	=	TACK522
TAN524ND	TCV524	SC524TA	=	TACK524
TSN526ND	TCV526	SC526TA	=	TACK526
TSN528ND	TCV528	SC528TA	=	TACK528
TSN530ND	TCV530	SC530TA	-	TACK530
TSN532ND	TCV532	SC532TA	=	TACK532



SKF / SNL	FAG / SNV	SNR / SNC	RHP / SNU	NSK / SNN
TSN605ND	-	SC605TA	-	TACK605
TSN606ND	TCV606	SC606TA	-	TACK606
TSN607ND	TCV607	SC607TA	-	TACK607
TSN608ND	TCV608	SC608TA	-	TACK608
TSN609ND	TCV609	SC609TA	-	TACK609
TSN610ND	TCV610	SC610TA	-	TACK610
TSN611ND	TCV611	SC611TA	-	TACK611
TSN612ND	TCV612	SC612TA	-	TACK612
TSN613ND	TCV613	SC613TA	-	TACK613
TSN615ND	TCV615	SC615TA	-	TACK615
TSN616ND	TCV616	SC616TA	-	TACK616
TSN617ND	TCV617	SC617TA	-	TACK617
TSN619ND	TCV619	SC619TA	-	TACK619
TSN620ND	-	SC620TA	-	TACK620

#### End Covers for Plummer Blocks 500-600 Series

SKF / SNL	FAG / SNV	SNR / SNC	RHP / SNU	NSK / SNN
ASNH505	DKV052	SC505EC	505A	505A
ASNH506-605	DKV062	SC506-605EC	506A	506A
ASNH507-606	DKV072	SC507-606EC	507A	507A
ASNH508-607	DKV080	SC508-607EC	508A	508A
ASNH509	DKV085	SC509EC	509A	509A
ASNH510-608	DKV090	SC510-608EC	510A	510A
ASNH511-609	DKV100	SC511-609EC	511A	511A
ASNH512-610	DKV110	SC512-610EC	512A	512A
ASNH513-611	DKV120	SC513-611EC	513A	513A
ASNH515-612	DKV130	SC515-612EC	515A	515A
ASNH516-613	DKV140	SC516-613EC	516A	516A
ASNH517	DKV150	SC517EC	517A	517A
ASNH518-615	DKV160	SC518-615EC	518A	518A
ASNH519-616	DKV170	SC519-616EC	519A	519A
ASNH520-617	DKV180	SC520-617EC	520A	520A
ASNH522-619	DKV200	SC522-619EC	522A	522A
ASNH524-620	DKV215	SC524-620EC	524A	524A
ASNH526	DKV230	SC526EC	526A	526A
ASNH528	DKV250	SC528EC	528A	528A
ASNH530	DKV270	SC530EC	530A	530A
ASNH532	DKV290	SC532EC	532A	532A

#### Labyrinth Seals for Plummer Blocks SD 3100 Series



SKF / SD	FAG / SD	SNR / -	RHP / SD	NSK / -
TS34	TS34	-	TS34	-
TS36	TS36	-	TS36	-
TS38	TS38	-	TS38	-
TS40	TS40	-	TS40	-
TS44	TS44	-	TS44	-
TS48	TS48	-	TS48	-
TS52	TS52	-	TS52	-
TS56	TS56	-	TS56	-
TS60	TS60	-	TS60	-
TS64	TS64	-	TS64	-
TS68	TS68	-	TS68	-
TS72	TS72	-	TS72	-
TS76	TS76	-	TS76	-
TS80	TS80	-	TS80	-

#### End Covers for Plummer Blocks SD 3100 Series

SKF / SD	FAG / SD	SNR / -	RHP / SD	NSK / -
ETS34		=	TSA34	=
ETS36		-	TSA36	-
ETS38		-	TSA38	-
ETS40		-	TSA40	-
ETS44	Included	-	TSA44	-
ETS48		-	TSA48	-
ETS52	in Housing	-	TSA52	-
ETS56	Part Number	-	TSA56	-
ETS60	(Suffix AF or AL)	-	TSA60	-
ETS64		-	TSA64	-
ETS68		-	TSA68	-
ETS72		-	TSA72	-
ETS76		-	TSA76	-
ETS80		-	TSA80	-

#### Taconite Seals for Plummer Blocks SD 3100 Series



SKF / SD	FAG / SD	SNR / -	RHP / SD	NSK / -
TNF34	=	=	TACSD34	-
TNF36	-	-	TACSD36	-
TNF38	-	-	TACSD38	-
TNF40	-	-	TACSD40	-
TNF44	-	-	TACSD44	-
TNF48	-	-	TACSD48	-
TNF52	-	-	TACSD52	-
TNF56	-	-	TACSD56	-
TNF60	-	-	TACSD60	-
TNF64	-	-	TACSD64	-
TNF68	=	=	TACSD68	-
TNF72	-	-	TACSD72	-
TNF76	-	-	TACSD76	-
TNF80	-	-	TACSD80	-

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