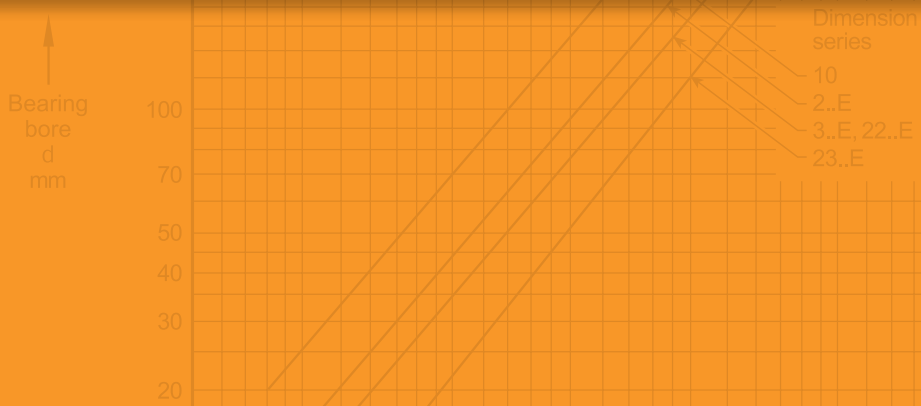


TIMKEN



TIMKEN SPHERICAL ROLLER BEARING CATALOG



SPHERICAL ROLLER BEARINGS – continued

- Shaft and housing fits, internal clearances, tolerances and other technical data for these bearings are found in the engineering section of this catalog and the Timken Engineering Manual (order no. 10424).
- Bearings are available with a tapered bore for adapter-type mounting. To order, add the suffix “K” to bearing number (e.g., 23120K).
- Consult your Timken sales engineer for up-to-date information about the availability of the bearings you have selected.

Continued from previous page.

Bearing Part Number	Bearing Dimensions			Load Ratings		Cage Type	Mounting Data			Equivalent Radial Load Factors ⁽²⁾				Geometry Factor ⁽³⁾ C _g	Speed Reference			Weight
	Bore d	O.D. D	Width B	Dynamic C	Static C ₀		Fillet ⁽¹⁾ (Max.) R	Backing Diameter		Dynamic			Static In All Cases Y ₀		Thermal Reference Speed ⁽⁴⁾		Limiting Speed ⁽⁵⁾	
								Shaft d _a	Housing D _a	e	F _a ≤ e F _r X = 1 Y	F _a > e F _r X = 0.67 Y						
	mm in.	mm in.	mm in.	kN lbf.	kN lbf.		mm in.	mm in.	mm in.						RPM	RPM	RPM	kg lbs.
22213	65 2.5591	120 4.7244	31 1.2205	198 44600	204 45900	EM	1.5 0.06	78 3.1	109 4.3	0.24	2.79	4.15	2.73	0.051	5200	4200	7520	1.6 3.4
21313	65 2.5591	140 5.5118	33 1.2992	259 58200	254 57100	EJ	2 0.08	86 3.4	126 5.0	0.23	2.94	4.37	2.87	0.057	4800	3900	6110	2.4 5.3
22313	65 2.5591	140 5.5118	48 1.8898	344 77400	346 77800	EJ	2 0.08	84 3.3	127 5.0	0.33	2.05	3.05	2.00	0.056	4400	3800	4960	3.6 7.9
22313	65 2.5591	140 5.5118	48 1.8898	344 77400	346 77800	EM	2 0.08	84 3.3	127 5.0	0.33	2.05	3.05	2.00	0.056	4600	3900	5110	3.6 7.9
22214	70 2.7559	125 4.9213	31 1.2205	213 47800	231 52000	EJ	1.5 0.06	84 3.3	114 4.5	0.23	2.90	4.32	2.84	0.055	4800	3900	7040	1.6 3.5
22214	70 2.7559	125 4.9213	31 1.2205	205 46000	219 49200	EM	1.5 0.06	84 3.3	114 4.5	0.23	2.90	4.32	2.84	0.055	4900	4000	7110	1.6 3.5
21314	70 2.7559	150 5.9055	35 1.3780	292 65600	289 65000	EJ	2 0.08	93 3.7	135 5.3	0.23	2.97	4.42	2.90	0.059	4500	3700	5660	3.0 6.6
22314	70 2.7559	150 5.9055	51 2.0079	395 88800	414 93100	EJ	2 0.08	91 3.6	135 5.3	0.33	2.07	3.08	2.02	0.059	4200	3600	4690	4.4 9.7
22314	70 2.7559	150 5.9055	51 2.0079	395 88800	414 93100	EM	2 0.08	91 3.6	135 5.3	0.33	2.07	3.08	2.02	0.059	4200	3600	5020	4.4 9.7
22215	75 2.9528	130 5.1181	31 1.2205	222 49900	240 54100	EJ	1.5 0.06	88 3.5	120 4.7	0.22	3.14	4.67	3.07	0.055	4600	3700	6640	1.7 3.7
21315	75 2.9528	160 6.2992	37 1.4567	322 72400	321 72200	EJ	2 0.08	99 3.9	144 5.7	0.23	2.98	4.43	2.91	0.062	4300	3600	5280	3.5 7.7
22315	75 2.9528	160 6.2992	55 2.1654	450 101000	478 107000	EJ	2 0.08	97 3.8	144 5.7	0.33	2.04	3.04	2.00	0.061	4000	3400	4330	5.2 11.9
22315	75 2.9528	160 6.2992	55 2.1654	450 101000	478 107000	EM	2 0.08	97 3.8	144 5.7	0.33	2.04	3.04	2.00	0.061	4000	3400	4750	5.4 11.9
22216	80 3.1496	140 5.5118	33 1.2992	254 57200	278 62500	EJ	2 0.08	95 3.7	129 5.1	0.22	3.14	4.67	3.07	0.057	4300	3500	6190	2.0 4.5
22216	80 3.1496	140 5.5118	33 1.2992	245 55100	263 59200	EM	2 0.08	95 3.7	129 5.1	0.22	3.14	4.67	3.07	0.057	4400	3600	6650	2.1 4.7
21316	80 3.1496	170 6.6929	39 1.5354	363 81700	363 81700	EJ	2 0.08	105 4.1	153 6.0	0.22	3.01	4.47	2.94	0.065	4100	3400	5050	4.2 9.2
22316	80 3.1496	170 6.6929	58 2.2835	499 112000	534 120000	EJ	2 0.08	103 4.1	153 6.0	0.33	2.06	3.06	2.01	0.064	3700	3200	4160	6.4 14.1
22316	80 3.1496	170 6.6929	58 2.2835	499 112000	534 120000	EM	2 0.08	103 4.1	153 6.0	0.33	2.06	3.06	2.01	0.064	3800	3300	4590	6.4 14.1

⁽¹⁾Maximum shaft or housing fillet radius that bearing corners will clear.

⁽²⁾These factors apply for both inch and metric calculations. See engineering section for instructions on use.

⁽³⁾Geometry constant for Lubrication Life Factor a31 is found in the Bearing Ratings section of the Engineering Manual (order no. 10424).

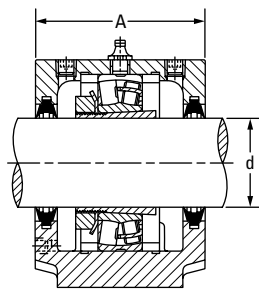
⁽⁴⁾See thermal reference speed in the Engineering Manual (order no. 10424) and on page 61.

⁽⁵⁾See limiting speed on page 61.

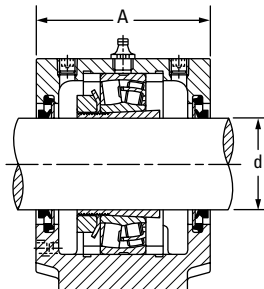
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TWO-BOLT SNT HOUSINGS FOR TAPERED BORE BEARINGS – continued

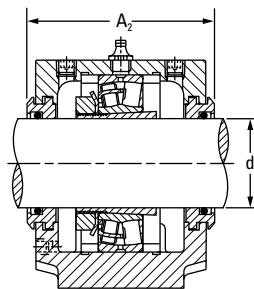
- The basic numbers for ordering plummer block housings and components are listed in the table below.
- Each housing includes the housing cap, base and cap bolts.
- Housings shown are furnished in cast iron. If cast steel is desired, add the letter S to the alpha prefix (e.g., SNTS 518). If ductile iron is desired, add the letter D to the alpha prefix (e.g., SNTD 505).



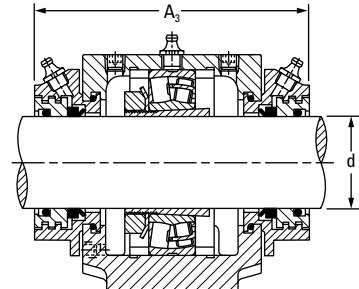
Double-Lip Seal



V-Ring Seal



Labyrinth Seal



Taconite Seal

Continued from previous page.

Shaft Dia.	Housing	Bearing	Locating Rings ⁽¹⁾	Adapter Sleeve ⁽²⁾	Locknut ⁽³⁾	Lockwasher ⁽³⁾	Double-Lip Seal ⁽⁴⁾	V-Ring Seal ⁽⁴⁾	Labyrinth Seal ⁽³⁾	Taconite Seal ⁽³⁾	End Cover ⁽³⁾
d			O.D. x Width								
mm											
55	SNT 512-610	22212K	SR110X10	H312	KM12	MB12	TSNG512	VR512	LO512	TA512	EC512-610
	SNT 515-612	21312K	SR130X12.5	H312	KM12	MB12	TSNG612	VR612	LO612	TA612	EC515-612
	SNT 515-612	22312K	SR130X5	H2312	KM12	MB12	TSNG612	VR612	LO612	TA612	EC515-612
60	SNT 513-611	22213K	SR120X10	H313	KM13	MB13	TSNG513	VR513	LO513	TA513	EC513-611
	SNT 516-613	21313K	SR140X12.5	H313	KM13	MB13	TSNG613	VR613	LO613	TA613	EC516-613
	SNT 516-613	22313K	SR140X5	H2313	KM13	MB13	TSNG613	VR613	LO613	TA613	EC516-613
65	SNT 515-612	22215K	SR130X12.5	H315	KM15	MB15	TSNG515	VR515	LO515	TA515	EC515-612
	SNT 518-615	21315K	SR160X14	H315	KM15	MB15	TSNG615	VR615	LO615	TA615	EC518-615
	SNT 518-615	22315K	SR160X5	H2315	KM15	MB15	TSNG615	VR615	LO615	TA615	EC518-615
70	SNT 516-613	22216K	SR140X12.5	H316	KM16	MB16	TSNG516	VR516	LO516	TA516	EC516-613
	SNT 519-616	21316K	SR170X14.5	H316	KM16	MB16	TSNG616	VR616	LO616	TA616	EC519-616
	SNT 519-616	22316K	SR170X5	H2316	KM16	MB16	TSNG616	VR616	LO616	TA616	EC519-616
75	SNT 517	22217K	SR150X12.5	H317	KM17	MB17	TSNG517	VR517	LO517	TA517	EC517
	SNT 520-617	21317K	SR180X14.5	H317	KM17	MB17	TSNG617	VR617	LO617	TA617	EC520-617
	SNT 520-617	22317K	SR180X5	H2317	KM17	MB17	TSNG617	VR617	LO617	TA617	EC520-617
80	SNT 518-615	22218K	SR160X12.5	H318	KM18	MB18	TSNG518	VR518	LO518	TA518	EC518-615
	SNT 518-615	23218K	SR160X6.25	H2318	KM18	MB18	TSNG518	VR518	LO518	TA518	EC518-615
85	SNT 519-616	22219K	SR170X12.5	H319	KM19	MB19	TSNG519	VR519	LO519	TA519	EC519-616
	SNT 522-619	21319K	SR200X17.5	H319	KM19	MB19	TSNG619	VR619	LO619	TA619	EC522-619
	SNT 522-619	22319K	SR200X6.5	H2319	KM19	MB19	TSNG619	VR619	LO619	TA619	EC522-619

⁽¹⁾Locating rings = minimum two required for fixed position, sold one piece per box.

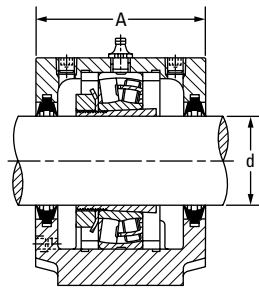
⁽²⁾Adapter sleeve assembly includes one sleeve, one locknut and one lockwasher.

⁽³⁾Labyrinth, taconite seal, end cover, locknut, lockwasher, sold one piece per box.

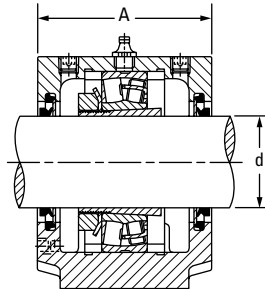
⁽⁴⁾Double-lip and V-ring seals sold two pieces per box.

FOUR-BOLT FSNT HOUSINGS FOR TAPERED BORE BEARINGS

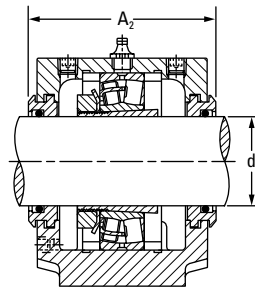
- The basic numbers for ordering plummer block housings and components are listed in the table below.
- Each housing includes the housing cap, base and cap bolts.
- Assemblies shown are furnished in cast iron. If cast steel is desired, add the letter S to the alpha prefix (e.g., FSNTS 518). If ductile iron is desired, add the letter D to the alpha prefix (e.g., FSNTD 505).



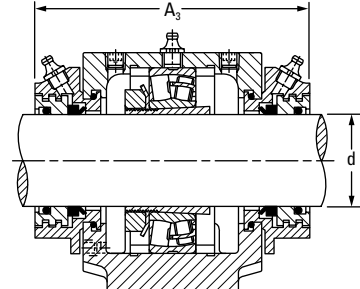
Double-Lip Seal



V-Ring Seal



Labyrinth Seal



Taconite Seal

Shaft Dia. d	Housing	Bearing	Locating Rings ⁽¹⁾ O.D. x Width	Adapter Sleeve ⁽²⁾	Locknut ⁽³⁾	Lockwasher ⁽³⁾	Double-Lip Seal ⁽⁴⁾	V-Ring Seal ⁽⁴⁾	Labyrinth Seal ⁽³⁾	Taconite Seal ⁽³⁾	End Cover ⁽³⁾
mm											
40	FSNT 511-609 FSNT 511-609	21309K 22309K	SR100X9.5 SR100X4	H309 H2309	KM9 KM9	MB9 MB9	TSNG609 TSNG609	VR609 VR609	LO609 LO609	TA609 TA609	EC511-609 EC511-609
45	FSNT 512-610 FSNT 512-610	21310K 22310K	SR110X10.5 SR110X4	H310 H2310	KM10 KM10	MB10 MB10	TSNG610 TSNG610	VR610 VR610	LO610 LO610	TA610 TA610	EC512-610 EC512-610
50	FSNT 511-609 FSNT 513-611 FSNT 513-611	22211K 21311K 22311K	SR100X9.5 SR120X11 SR120X4	H311 H311 H2311	KM11 KM11 KM11	MB11 MB11 MB11	TSNG511 TSNG611 TSNG611	VR511 VR611 VR611	LO511 LO611 LO611	TA511 TA611 TA611	EC511-609 EC513-611 EC513-611
55	FSNT 512-610 FSNT 515-612 FSNT 515-612	22212K 21312K 22312K	SR110X10 SR130X12.5 SR130X5	H312 H312 H2312	KM12 KM12 KM12	MB12 MB12 MB12	TSNG512 TSNG612 TSNG612	VR512 VR612 VR612	LO512 LO612 LO612	TA512 TA612 TA612	EC512-610 EC515-612 EC515-612
60	FSNT 513-611 FSNT 516-613 FSNT 516-613	22213K 21313K 22313K	SR120X10 SR140X12.5 SR140X5	H313 H313 H2313	KM13 KM13 KM13	MB13 MB13 MB13	TSNG513 TSNG613 TSNG613	VR513 VR613 VR613	LO513 LO613 LO613	TA513 TA613 TA613	EC513-611 EC516-613 EC516-613
65	FSNT 515-612 FSNT 518-615 FSNT 518-615	22215K 21315K 22315K	SR130X12.5 SR160X14 SR160X5	H315 H315 H2315	KM15 KM15 KM15	MB15 MB15 MB15	TSNG515 TSNG615 TSNG615	VR515 VR615 VR615	LO515 LO615 LO615	TA515 TA615 TA615	EC515-612 EC518-615 EC518-615
70	FSNT 516-613 FSNT 519-616 FSNT 519-616	22216K 21316K 22316K	SR140X12.5 SR170X14.5 SR170X5	H316 H316 H2316	KM16 KM16 KM16	MB16 MB16 MB16	TSNG516 TSNG616 TSNG616	VR516 VR616 VR616	LO516 LO616 LO616	TA516 TA616 TA616	EC516-613 EC519-616 EC519-616
75	FSNT 517 FSNT 520-617 FSNT 520-617	22217K 21317K 22317K	SR150X12.5 SR180X14.5 SR180X5	H317 H317 H2317	KM17 KM17 KM17	MB17 MB17 MB17	TSNG517 TSNG617 TSNG617	VR517 VR617 VR617	LO517 LO617 LO617	TA517 TA617 TA617	EC517 EC520-617 EC520-617

⁽¹⁾Locating rings = minimum two required for fixed position, sold one piece per box.

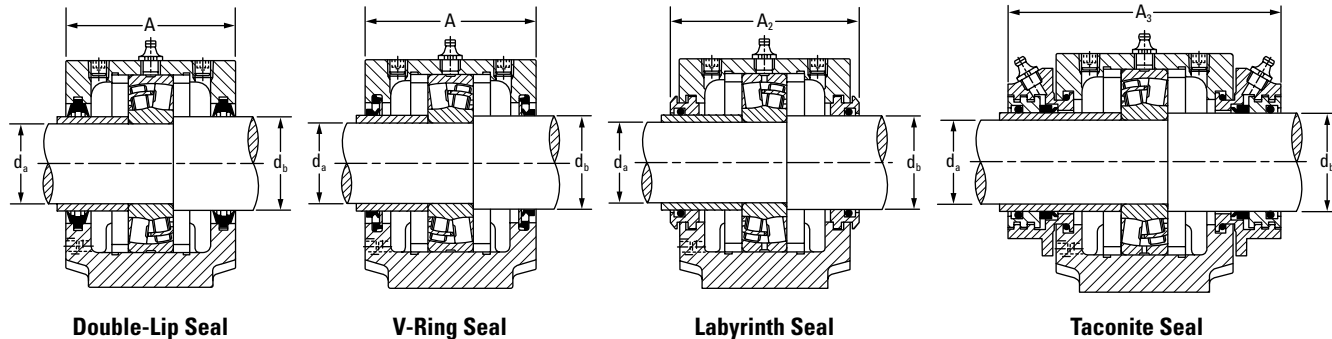
⁽²⁾Adapter sleeve assembly includes one sleeve, one locknut and one lockwasher.

⁽³⁾Labyrinth, taconite seal, end cover, locknut, lockwasher, sold one piece per box.

⁽⁴⁾Double-lip and V-ring seals sold two pieces per box.

TWO-BOLT SNT HOUSINGS FOR CYLINDRICAL BORE BEARINGS – continued

- The basic numbers for ordering plummer block housings and components are listed in the table below.
 - Each housing includes the housing cap, base and cap bolts.
 - Assemblies shown are furnished in cast iron. If cast steel is desired, add the letter S to the alpha prefix (e.g., FSNTS 518).
- If ductile iron is desired, add the letter D to the alpha prefix (e.g., FSNTD 505).
- Seal sleeve for d_a shaft to be supplied by customer and should have same O.D. as d_b .



Continued from previous page.

Shaft Dia.		Housing	Bearing	Locating Rings ⁽¹⁾ O.D. x Width	Double-Lip Seal ⁽²⁾	V-Ring Seal ⁽²⁾	Labyrinth Seal ⁽³⁾	Taconite Seal ⁽³⁾	End Cover ⁽³⁾
d _a	d _b								
mm	mm								
75	85	SNT 215	22215	SR130X12.5	TSNG215	VR215	L0215	TA215	EC518-615
		SNT 518-615	21315	SR160X14	TSNG315	VR315	L0315	TA315	EC518-615
		SNT 518-615	22315	SR160X5	TSNG315	VR315	L0315	TA315	EC518-615
80	90	SNT 216	22216	SR140X10	TSNG216	VR216	L0216	TA216	EC216
		SNT 519-616	21316	SR170X14.5	TSNG316	VR316	L0316	TA316	EC519-616
		SNT 519-616	22316	SR170X5	TSNG316	VR316	L0316	TA316	EC519-616
85	95	SNT 217	22217	SR150X12.5	TSNG217	VR217	L0217	TA217	EC217
		SNT 520-617	21317	SR180X14.5	TSNG317	VR317	L0317	TA317	EC520-617
		SNT 520-617	22317	SR180X5	TSNG317	VR317	L0317	TA317	EC520-617
90	100	SNT 218	22218	SR160X12.5	TSNG218	VR218	L0218	TA218	EC218
		SNT 218	23218	SR160X6.25	TSNG218	VR218	L0218	TA218	EC218
95	110	SNT 522-619	21319	SR200X17.5	TSNG319	VR319	L0319	TA319	EC522-619
		SNT 522-619	22319	SR200X6.5	TSNG319	VR319	L0319	TA319	EC522-619
100	115	SNT 520-617	22220	SR180X12	TSNG220	VR220	L0220	TA220	EC520-617
		SNT 520-617	23220	SR180X4.85	TSNG220	VR220	L0220	TA220	EC520-617
		SNT 524-620	21320	SR215X19.5	TSNG320	VR320	L0320	TA320	EC524-620
		SNT 524-620	22320	SR215X6.5	TSNG320	VR320	L0320	TA320	EC524-620
110	125	SNT 522-619	22222	SR200X13.5	TSNG222	VR222	L0222	TA222	EC522-619
		SNT 522-619	23222	SR200X5.1	TSNG222	VR222	L0222	TA222	EC522-619
120	135	SNT 524-620	22224	SR215X14	TSNG224	VR224	L0224	TA224	EC 524-620
		SNT 524-620	23224	SR215X5	TSNG224	VR224	L0224	TA224	EC 524-620
130	145	SNT 526	22226	SR230X13	TSNG226	VR226	L0226	TA226	EC526
		SNT 526	23226	SR230X5	TSNG226	VR226	L0226	TA226	EC526
140	155	SNT 528	22228	SR250X15	TSNG228	VR228	L0228	TA228	EC528
		SNT 528	23228	SR250X5	TSNG228	VR228	L0228	TA228	EC528
150	165	SNT 530	22230	SR270X16.5	TSNG230	VR230	L0230	TA230	EC530
		SNT 530	23230	SR270X5	TSNG230	VR230	L0230	TA230	EC530
160	175	SNT 532	22232	SR290X17	TSNG232	VR232	L0232	TA232	EC532
		SNT 532	23232	SR290X5	TSNG232	VR232	L0232	TA232	EC532

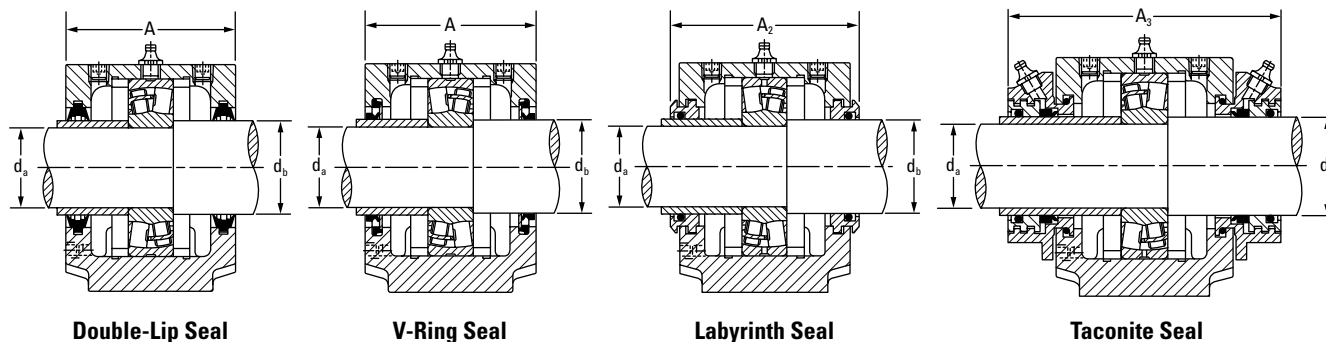
⁽¹⁾Locating rings = minimum two required for fixed position, sold one piece per box.

⁽²⁾Double-lip and V-ring seals sold two pieces per box. Consult your Timken sales engineer for double-lip seal availability.

⁽³⁾Labyrinth, taconite seal and end cover, sold one piece per box.

FOUR-BOLT FSNT HOUSINGS FOR CYLINDRICAL BORE BEARINGS – continued

- The basic numbers for ordering plummer block housings and components are listed in the table below.
- Each housing includes the housing cap, base and cap bolts.
- Assemblies shown are furnished in cast iron. If cast steel is desired, add the letter S to the alpha prefix (e.g., FSNTS 518).
- If ductile iron is desired, add the letter D to the alpha prefix (e.g., FSNTD 505).
- Seal sleeve for d_a shaft to be supplied by customer and should have same O.D. as d_b .



Continued from previous page.

Shaft Dia.		Housing	Bearing	Locating Rings ⁽¹⁾ O.D. x Width	Double-Lip Seal ⁽²⁾	V-Ring Seal ⁽²⁾	Labyrinth Seal ⁽³⁾	Taconite Seal ⁽³⁾	End Cover ⁽³⁾
d_a mm	d_b mm								
85	95	FSNT 217 FSNT 520-617 FSNT 520-617	22217 21317 22317	SR150X12.5 SR180X14.5 SR180X5	TSNG217 TSNG317 TSNG317	VR217 VR317 VR317	LO217 LO317 LO317	TA217 TA317 TA317	EC217 EC520-617 EC520-617
90	100	FSNT 218 FSNT 218	22218 23218	SR160X12.5 SR160X6.25	TSNG218 TSNG218	VR218 VR218	LO218 LO218	TA218 TA218	EC218 EC218
95	110	FSNT 522-619 FSNT 522-619	21319 22319	SR200X17.5 SR200X6.5	TSNG319 TSNG319	VR319 VR319	LO319 LO319	TA319 TA319	EC522-619 EC522-619
100	115	FSNT 520-617 FSNT 520-617 FSNT 524-620 FSNT 524-620	22220 23220 21320 22320	SR180X12 SR180X4.85 SR215X19.5 SR215X6.5	TSNG220 TSNG220 TSNG320 TSNG320	VR220 VR220 VR320 VR320	LO220 LO220 LO320 LO320	TA220 TA220 TA320 TA320	EC520-617 EC520-617 EC524-620 EC524-620
110	125	FSNT 522-619 FSNT 522-619	22222 23222	SR200X13.5 SR200X5.1	TSNG222 TSNG222	VR222 VR222	LO222 LO222	TA222 TA222	EC522-619 EC522-619
120	135	FSNT 524-620 FSNT 524-620	22224 23224	SR215X14 SR215X5	TSNG224 TSNG224	VR224 VR224	LO224 LO224	TA224 TA224	EC 524-620 EC 524-620
130	145	FSNT 526 FSNT 526	22226 23226	SR230X13 SR230X5	TSNG226 TSNG226	VR226 VR226	LO226 LO226	TA226 TA226	EC526 EC526
140	155	FSNT 528 FSNT 528	22228 23228	SR250X15 SR250X5	TSNG228 TSNG228	VR228 VR228	LO228 LO228	TA228 TA228	EC528 EC528
150	165	FSNT 530 FSNT 530	22230 23230	SR270X16.5 SR270X5	TSNG230 TSNG230	VR230 VR230	LO230 LO230	TA230 TA230	EC530 EC530
160	175	FSNT 532 FSNT 532	22232 23232	SR290X17 SR290X5	TSNG232 TSNG232	VR232 VR232	LO232 LO232	TA232 TA232	EC532 EC532

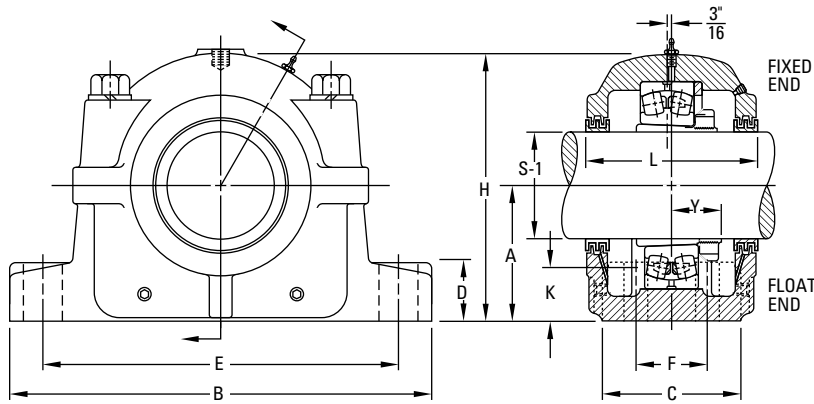
⁽¹⁾Locating rings = minimum two required for fixed position, sold one piece per box.

⁽²⁾Double-lip and V-ring seal sold two pieces per box. Consult with your Timken sales engineer for double-lip seal availability.

⁽³⁾Labyrinth, taconite seal and end cover, sold one piece per box.

SAF SPHERICAL ROLLER BEARING PILLOW BLOCKS

INCH TAPERED BORE MOUNTING SAF225 AND SAF226 SERIES



Oil Level K	L	Y	Base Bolts Required		Bearing Number	Adapter Assembly Number ⁽³⁾	Housing ⁽⁴⁾ Only	Stabilizing Ring ⁽⁵⁾ 1 Req'd	Triple Seal 2 Req'd	Assembly Weight
in.	in.	in.	No.	Size						lbs.
2 ³ / ₁₆	8 ³ / ₄	2 ⁴⁹ / ₆₄	4	1	22232K	SNW-32 x 5 ³ / ₈ SNW-32 x 5 ⁷ / ₁₆ SNW-32 x 5 ¹ / ₂	SAF532	SR-32-0	LER 129 LER 130 LER 131	225
2 ⁵ / ₁₆	9 ³ / ₈	2 ⁵⁹ / ₆₄	4	1	22234K	SNW-34 x 5 ¹³ / ₁₆ SNW-34 x 5 ⁷ / ₈ SNW-34 x 5 ¹⁵ / ₁₆ SNW-34 x 6	SAF534	SR-34-0	LER 138 LER 139 LER 140 LER 141	300
2 ⁹ / ₁₆	9 ¹¹ / ₁₆	2 ⁶¹ / ₆₄	4	1	22236K	SNW-36 x 6 ⁵ / ₁₆ SNW-36 x 6 ³ / ₈ SNW-36 x 6 ⁷ / ₁₆ SNW-36 x 6 ¹ / ₂	SAF536	SR-36-30	LER 146 LER 147 LER 148 LER 149	330
2 ⁵ / ₈	10 ³ / ₄	3 ⁷ / ₆₄	4	1 ¹ / ₄	22238K	SNW-38 x 6 ¹³ / ₁₆ SNW-38 x 6 ⁷ / ₈ SNW-38 x 6 ¹⁵ / ₁₆ SNW-38 x 7	SAF538	SR-38-32	LER 153 LER 154 LER 155 LER 156	375
2 ¹¹ / ₁₆	10 ¹³ / ₁₆	3 ⁹ / ₃₂	4	1 ¹ / ₄	22240K	SNW-40 x 7 ¹ / ₈ SNW-40 x 7 ³ / ₁₆ SNW-40 x 7 ¹ / ₄	SAF540	SR-40-34	LER 158 LER 159 LER 160	445
3 ³ / ₈	11 ¹ / ₂	3 ¹⁷ / ₃₂	4	1 ¹ / ₂	22244K	SNW-44 x 7 ¹³ / ₁₆ SNW-44 x 7 ⁷ / ₈ SNW-44 x 7 ¹⁵ / ₁₆ SNW-44 x 8	SAF544	SR-44-38	LER 165 LER 166 LER 167 LER 168	615
1 ¹⁹ / ₃₂	5 ⁷ / ₈	1 ⁷ / ₈	2, 4	³ / ₄ , ⁵ / ₈	22315K	SNW-115 x 2 ³ / ₈ SNW-115 x 2 ⁷ / ₁₆ SNW-115 x 2 ¹ / ₂	SAF 615	SR-18-15	LER 36 LER 37 LER 38	52
1 ¹¹ / ₁₆	6 ¹ / ₂	1 ¹⁵ / ₁₆	2, 4	³ / ₄ , ⁵ / ₈	22316K	SNW-116 x 2 ⁵ / ₈ SNW-116 x 2 ¹¹ / ₁₆ SNW-116 x 2 ³ / ₄	SAF 616	SR-19-16	LER 43 LER 44 LER 45	71
1 ¹³ / ₁₆	6 ⁵ / ₈	1 ⁵⁷ / ₆₄	2	⁷ / ₈	22317K	SNW-117 x 2 ¹³ / ₁₆ SNW-117 x 2 ⁷ / ₈ SNW-117 x 2 ¹⁵ / ₁₆ SNW-117 x 3	SAF617	SR-20-17	LER 182 LER 183 LER 184 LER 185	81

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METRIC ACCESSORIES INDEX

Bearing Bore mm	Bearing Part Number	Adapter Sleeve		Withdrawal Sleeve	
		Metric Shaft	Hydraulic Metric Shaft	Metric Shaft	Hydraulic Metric Shaft
25	22205K	H305			
30	22206K	H306			
35	22207K	H307			
40	21308K	H308		AH308	
40	22208K	H308		AH308	
40	22308K	H2308		AH2308	
45	21309K	H309		AH309	
45	22209K	H309		AH309	
45	22309K	H2309		AH2309	
50	21310K	H310		AHX310	
50	22210K	H310		AHX310	
50	22310K	H2310		AHX2310	
55	21311K	H311		AHX311	
55	22211K	H311		AHX311	
55	22311K	H2311		AHX2311	
60	21312K	H312		AHX312	
60	22212K	H312		AHX312	
60	22312K	H2312		AHX2312	
65	21313K	H313		AH313G	
65	22213K	H313		AH313G	
65	22313K	H2313		AH2313G	
70	21314K	H314		AH314G	
70	22214K	H314		AH314G	
70	22314K	H2314		AHX2314G	
75	21315K	H315		AH315G	
75	22215K	H315		AH315G	
75	22315K	H2315		AHX2315G	
80	21316K	H316		AH316	
80	22216K	H316		AH316	
80	22316K	H2316		AHX2316	
85	21317K	H317		AHX317	
85	22217K	H317		AHX317	
85	22317K	H2317		AHX2317	
90	21318K	H318		AHX318	
90	22218K	H318		AHX318	
90	22318K	H2318		AHX2318	
90	23218K	H2318		AHX3218	
95	22219K	H319		AHX319	
95	22319K	H2319		AHX2319	
100	22220K	H320		AHX320	
100	22320K	H2320		AHX2320	
100	23120K	H3120		AHX3120	
100	23220K	H2320		AHX3220	
105	23221K	H2321			
110	22222K	H322		AHX3122	
110	22322K	H2322		AHX2322G	
110	23022K	H322		AHX322	
110	23122K	H3122		AHX3122	
110	23222K	H2322		AHX3222G	
110	24122K			AH24122	

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Bearing Number ⁽¹⁾	Accessory Numbers				Shaft Dimensions		Adapter Dimensions			SNW/SNP Assembly Weight
	Assembly	Sleeve	Locknut	Lockwasher Lockplate	Diameter d	Tolerance ⁽²⁾	B ₂	S	D ₁	
					in.	in.	in.	in.	in.	lbs.
SERIES 223K AND 232K										
22308K	SNW-108 x 1 5/16	S-108	N-08	W-08	1 5/16	-0.003	2 1/64	1/2	2 1/4	0.8
22309K	SNW-109 x 1 7/16	S-109	N-09	W-09	1 7/16	-0.003	2 9/64	1/2	2 17/32	0.8
22310K	SNW-110 x 1 11/16	S-110	N-10	W-10	1 11/16	-0.003	2 25/64	9/16	2 11/16	0.9
22311K	SNW-111 x 1 15/16	S-111	N-11	W-11	1 15/16	-0.003	2 33/64	9/16	2 31/32	0.9
22312K	SNW-112 x 2 1/16	S-112	N-12	W-12	2 1/16	-0.004	2 21/32	19/32	3 5/32	1.2
22313K	SNW-113 x 2 3/16	S-113	N-13	W-13	2 3/16	-0.004	2 49/64	5/8	3 3/8	1.7
22314K	SNW-114 x 2 5/16	S-114	N-14	W-14	2 5/16	-0.004	2 61/64	5/8	3 5/8	2.3
	SNW-115 x 2 3/8	S-115 x 2 3/8			2 3/8					
22315K	SNW-115 x 2 7/16	S-115	AN-15	W-15	2 7/16	-0.004	3 5/64	43/64	3 7/8	3.0
	SNW-115 x 2 1/2	S-115 x 2 1/2			2 1/2					
22316K	SNW-116 x 2 5/8	S-116 x 2 5/8			2 5/8					
	SNW-116 x 2 11/16	S-116	AN-16	W-16	2 11/16	-0.004	3 13/64	43/64	4 5/32	3.2
	SNW-116 x 2 3/4	S-116 x 3/4			2 3/4					
22317K	SNW-117 x 2 13/16	S-117 x 2 13/16			2 13/16					
	SNW-117 x 2 7/8	S-117 x 2 7/8			2 7/8					
	SNW-117 x 2 15/16	S-117	AN-17	W-17	2 15/16	-0.004	3 5/16	45/64	4 13/32	3.5
	SNW-117 x 3	S-117 x 3			3					
22318K	SNW-118 x 3 1/16	S-118 x 3 1/16			3 1/16					
	SNW-118 x 3 1/8	S-118 x 3 1/8			3 1/8					
	SNW-118 x 3 3/16	S-118	AN-18	W-18	3 3/16	-0.004	3 35/64	25/32	4 21/32	4.0
	SNW-118 x 3 1/4	S-118 x 3 1/4			3 1/4					
22319K	SNW-119 x 3 5/16	S-119	AN-19	W-19	3 5/16	-0.004	3 45/64	13/16	4 15/16	5.0
22320K	SNW-120 x 3 5/16	S-120 x 3 5/16			3 5/16					
23220K	SNW-120 x 3 3/8	S-120 x 3 3/8			3 3/8					
	SNW-120 x 3 7/16	S-120	AN-20	W-20	3 7/16	-0.004	3 31/32	27/32	5 3/16	6.2
	SNW-120 x 3 1/2	S-120 x 3 1/2			3 1/2					
22322K	SNW-122 x 3 13/16	S-122 x 3 13/16			3 13/16					
23222K	SNW-122 x 3 3/8	S-122 x 3 3/8			3 3/8					
	SNW-122 x 3 15/16	S-122	AN-22	W-22	3 15/16	-0.004	4 11/32	29/32	5 23/32	6.5
	SNW-122 x 4	S-122 x 4			4					

⁽¹⁾Bold shaft sizes are standard. When ordering non-standard accessories, specify shaft size.

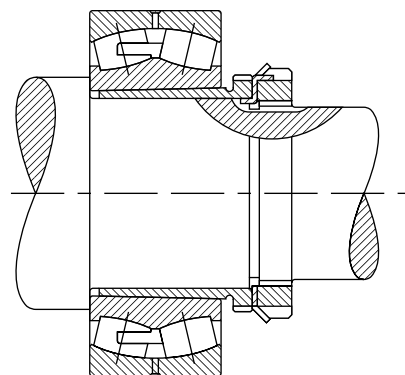
⁽²⁾Tolerance range is from +0 to value listed.

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INCH ACCESSORIES – PUSH-TYPE SLEEVES – continued

PUSH-TYPE REMOVABLE SLEEVE, LOCKNUT AND LOCKWASHER

The chart below shows dimensions for adapter assemblies and components used in the tapered bore bearings on shafts.



Continued from previous page.

Bearing Number	Accessory Numbers				Shaft Dimensions		Adapter Dimensions			Removal Nut O.D. C	Sleeve Weight
	Sleeve	Locknut	Lockwasher Lockplate	Removal Nut	Diameter d	Tolerance ⁽¹⁾	Pitch Diameter B	L	a		
					mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg. lbs.
SERIES 223K											
22308K	SK-4023	N-07	W-07	N-09	35 1.3780	-0.08 -0.003	43.94 1.730	40 1.575	3.00 0.118	64.41 2.536	0.1 0.2
22309K	SK-4523	N-08	W-08	N-10	40 1.5748	-0.08 -0.003	49.02 1.930	44 1.732	3.00 0.118	68.40 2.693	0.1 0.3
22310K	SK-5023	N-09	W-09	RN-10	45 1.7717	-0.08 -0.003	55.04 2.167	50 1.969	3.00 0.118	76.20 3.000	0.2 0.4
22311K	SK-5523	N-10	W-10	RN-11	50 1.9685	-0.08 -0.003	60.20 2.370	54 2.126	3.00 0.118	81.76 3.219	0.2 0.5
22312K	SK-6023	N-11	W-11	RN-12	55 2.1654	-0.10 -0.004	65.76 2.589	57 2.244	3.50 0.138	87.33 3.438	0.3 0.6
22313K	SK-6523	N-12	W-12	AN-15	60 2.3622	-0.10 -0.004	73.10 2.878	61 2.402	3.50 0.138	98.55 3.880	0.3 0.8
22314K	SK-7023	N-12	W-12	AN-16	60 2.3622	-0.10 -0.004	78.28 3.082	65 2.559	3.50 0.138	105.69 4.161	0.6 1.5
22315K	SK-7523	N-13	W-13	AN-17	65 2.5591	-0.10 -0.004	83.44 3.285	69 2.717	3.50 0.138	112.04 4.411	0.8 1.7
22316K	SK-8023	N-14	W-14	AN-18	70 2.7559	-0.10 -0.004	88.19 3.472	72 2.835	3.50 0.138	118.39 4.661	0.9 2.0
22317K	SK-8523	AN-15	W-15	AN-19	75 2.9528	-0.10 -0.004	93.35 3.675	75 2.953	3.50 0.138	125.55 4.943	1.0 2.2
22318K	SK-9023	AN-16	W-16	AN-20	80 3.1496	-0.10 -0.004	98.12 3.863	80 3.150	3.50 0.138	131.90 5.193	1.1 2.5
22319K	SK-9523	AN-17	W-17	AN-21	85 3.3465	-0.10 -0.004	103.28 4.066	85 3.346	4.00 0.157	138.25 5.443	1.3 2.9
22320K	SK-10023	AN-18	W-18	AN-22	90 3.5433	-0.10 -0.004	109.12 4.269	90 3.543	4.00 0.157	145.39 5.724	1.5 3.3

⁽¹⁾Tolerance range is from +0 to value listed.

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