

SONL SERIES BEARING HOUSINGS

The development of SNL Series proved a great impact to various industries in terms of it's benefits and versatility making SNL Series cost effective and reliable yet offering many innovative features.

So advancing the development similarly with SNL Series of bearing housing, the new and versatile bearing housing series, SONL offers many new features duly built in the design itself. In general we can say, SONL Series is an advance version of SOFN Series, maintains all working features with additional many features included to make SONL more adaptable. All boundary dimensions and foundation sizes are maintained in SONL Housing, which make it very easy for fitment and adaption.

For SONL Design the side covers are eliminated (like those provided in SOFN Housings) which attracts many advantages in terms of ease of assembly, better alignment and avoidance of oil leakage.

TECHNICAL DETAIL AND PRODUCT FEATURE

- SONL Housings are very stiff in construction making them stronger and yet simple in design. As a result, their assembly is faster and reliable on one hand where as their maintenance becomes easy and simple on the other hand.
- SONL Housings are suitable for self-aligning ball bearing in 2200 series and spherical roller bearing in 22200 series. Limiting shaft size ranges from 75 mm to 240 mm.
- SONL Housings are dimensionally interchangeable with SOFN Housings without any problem. All features of SOFN are assembly as well as running are maintained in SONL Housing. This makes this new series well acceptable in industries.



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TECHNICAL DETAIL AND PRODUCT FEATURE

- SONL is a horizontally split housing, where cap and base are held together by suitable bolts. Dowel pins are used to enable a good alignment of cap and base repeatedly.
- For located bearing requirement, suitable locating rings are used.
- SONL Housings are designed for oil lubricated bearings. The well proven oil lubrication system of an Oil Pickup Ring is normally used in SONL Housings. The oil pickup ring provides an unique oil splash inside SONL Housing during running of shaft with bearing, resulting in excellent lubricate of bearing running even at high speed.
- In case when the speed and load are very high due to process requirements, the bearing temperature rises beyond specified safe limit. For such event, External Circulating oil lubrication system is provided for SONL Housings, instead of oil pickup ring, which is not required then. In an external circulating oil lubrication system, the circulation is produced by using a pump. The inlet oil comes to SONL Housing, it is passed thru bearing and then collected in an out side tank passing through heat exchanger. Then oil is filtered to remove foreign particles, cooled as required and again re-circulated to housing and bearing by pump. Various controls, valves, filters etc are put in the piping for trouble free functioning of system.
- It is noteworthy that, in the design itself, a deep oil reservoir is provided inside housing cavity which can hold large quantity of oil. This facility makes the oil pickup ring lubrication efficient to splash lubricants.
- For SONL Housing a special sealing collar using labyrinth seal design is provided. The labyrinth grooves help the sealing effect by oil trap that return oil which is passed through labyrinth and back to reservoir in side SONL Housing.

- End Cover is provided in SONL Housings for shaft end option in assembly.
- SONL Housing are supplied with standard accessories like Oil Level Indicator, Drain Plug, Oil Inlet Plug, Oil Outlet Plug, Lifting Hook/Eyebolt etc.
- Suitable connections/tappings are provided on the housing for fitment of temperature and vibration probes whenever required.
- For SONL Series special type of Labyrinth seal is used.

Four-dimensional Series are available in SONL Housings:

SONL 200/500 - suitable for bearing SERIES 2200K... with adapter sleeve.

SONL 200/500 - suitable for bearing SERIES 2200... with cylindrical bore.

SONL 200/500 - suitable for bearing SERIES 22200K... with adapter sleeve.

SONL 200/500 - suitable for bearing SERIES 22200... with cylindrical bore.

- Material for SONL Series:

Following options are available, which allow user to select his suitability depending upon the loading condition for bearing housing.

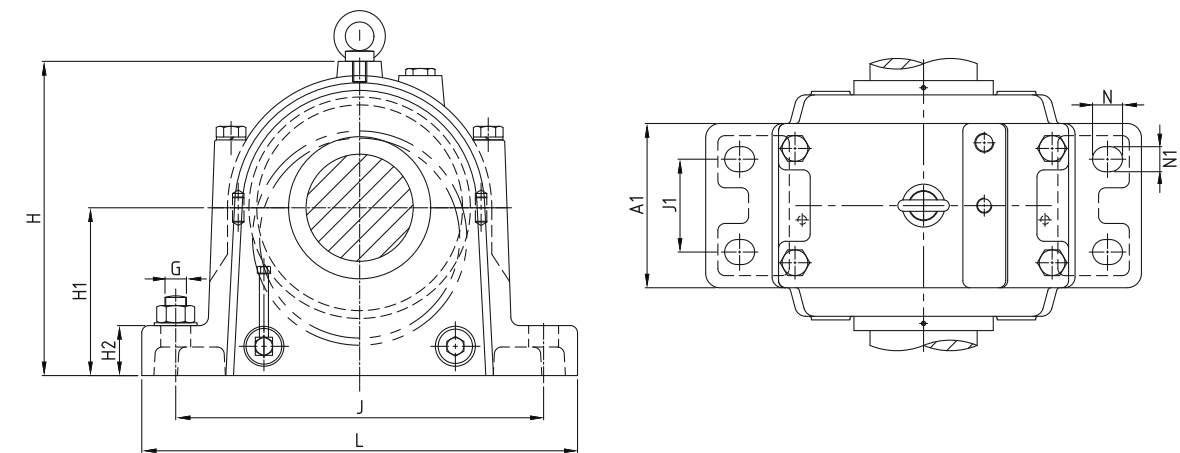
- Graded Cast Iron : Gr FG 260 (IS 210)
- Cast Steel : Gr 230-450 (IS 1030)
- SG (Ductile) Iron : Gr 400/15 (IS 1865)



Bottom View

SONL SERIES

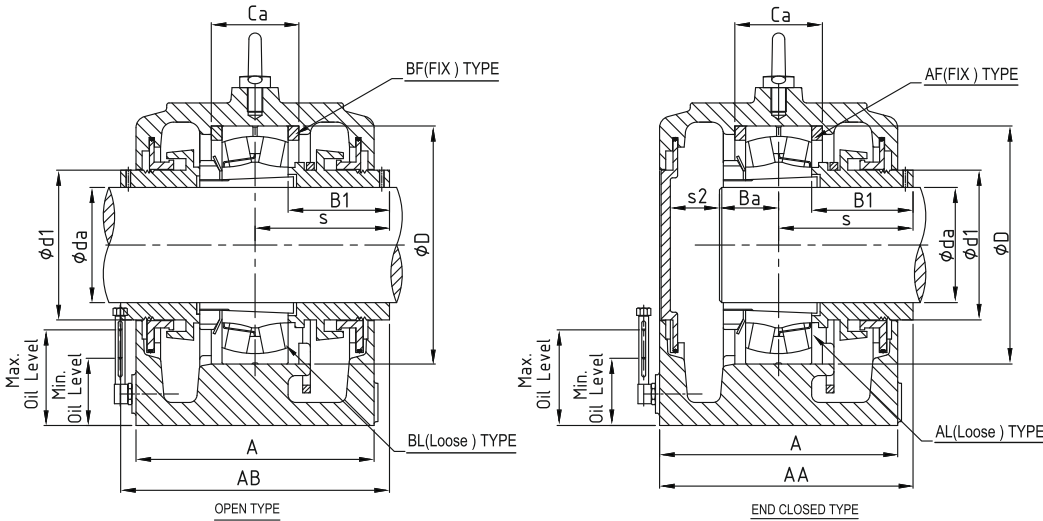
Plummer Blocks (Bearing Housings)
For Straight Cylindrical Bore Bearings



Shaft	Housing Dimension																		Oil Level	
	da mm	A	A1 mm	AA	AB	H	H1	H2	J	J1	L	N	N1	G	S	d1	B1	s2	Ba	Min
75	163	110	172	180	230	125	35	260	60	330	28	22	20	90	96	72	19	40	48	63
80	170	120	180	190	245	135	45	290	70	360	28	22	20	95	100	75	19	42	48	68
90	186	130	196	206	270	145	50	320	75	400	32	26	24	103	112	80	25	47	53	70
100	213	145	221	229	290	160	50	347	75	420	32	26	24	114.5	120	88	32.5	52.5	53	77
110	245	170	261	276	315	170	55	347	90	420	32	26	24	138	135	109	47	56	63	80
115	255	180	263	270	335	180	60	377	100	450	35	28	24	135	145	103	43	60	63	85
125	260	190	270	280	355	190	65	415	100	500	42	35	30	140	160	106	42	63	63	85
135	260	190	270	280	375	200	65	450	115	540	42	35	30	140	170	103.5	37.5	67.5	63	90
140	278	205	297	316	406	215	65	470	120	560	42	35	30	158	178	118	42	73	68	95
150	310	230	330	350	440	235	70	515	130	610	42	35	30	175	195	132	54	77	80	105
160	-	240	-	360	455	245	-	545	150	650	-	-	30	180	-	-	-	78	85	115
170	-	250	-	370	480	260	-	590	150	720	-	-	36	185	-	-	-	82	88	120
180	338	260	358	378	510	275	85	600	160	730	50	42	36	189	227	140	51	86	88	125
200	-	280	-	404	565	305	-	670	180	820	-	-	36	202	-	-	-	95	-	-
220	-	290	-	420	625	340	-	740	190	900	-	-	36	210	-	-	-	105	-	-

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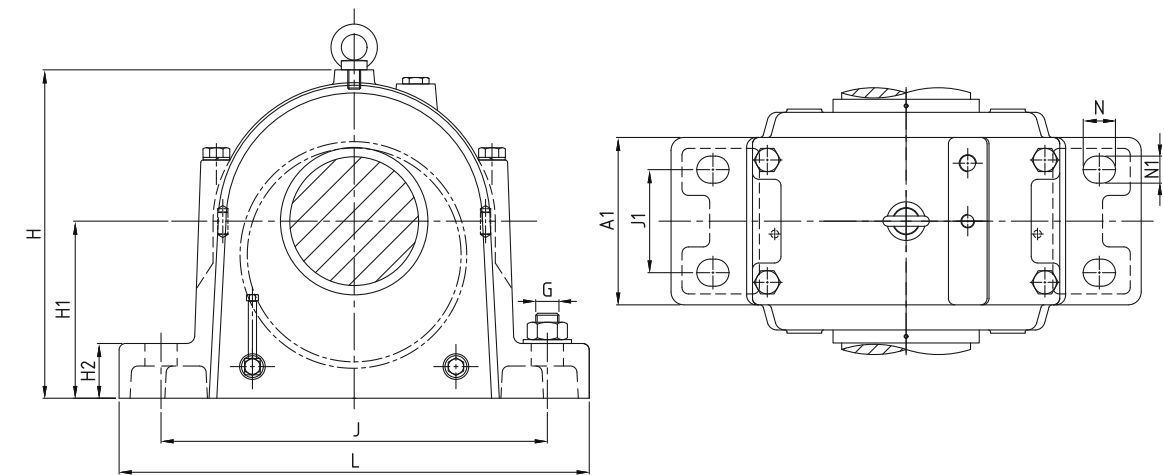


Oil Qty.	Designation Housing	Seal 1 Per Housing	End Cover	Bearing Seating		Appropriate Bearings and Associated Components		
				Ca mm	D	Spherical Roller Bearing CARB Bearing	Adapter Sleeve	Locating Ring 2 Per Housing
Max.								
0.4	SONL 517	TSO 517	ECO 517	46	150	22217 EK	H 317	FRB 5/150
0.5	SONL 518	TSO 518	ECO 518	50	160	22218 EK	H 318	FRB 5/160
0.6	SONL 520	TSO 520	ECO 520	60	180	22220 EK	H 320	FRB 7/180
0.9	SONL 522	TSO 522	ECO 522	71	200	22222 EK	H 322	FRB 9/200
1.3	SONL 524	TSO 524	ECO 524	82	215	22224 EK	H 3124	FRB 12/215
1.4	SONL 526	TSO 526	ECO 526	86	230	22226 EK	H 3126	FRB 11/230
1.5	SONL 528	TSO 528	ECO 528	90	250	22228 EK	H 3128	FRB 11/250
1.7	SONL 530	TSO 530	ECO 530	93	270	22230 EK	H 3130	FRB 10/270
2	SONL 532	TSO 532	ECO 532	104	290	22232 EK	H 3132	FRB 12/290
2.5	SONL 534	TSO 534	ECO 534	106	310	22234 EK	H 3134	FRB 14/310
-	SONL 536	TSO 536	ECO 536	106	320	22236 EK	H 3136	FRB 10/320
-	SONL 538	TSO 538	ECO 538	112	340	22238 EK	H 3138	FRB 10/340
4.5	SONL 540	TSO 540	ECO 540	122	360	22240 EK	H 3140	FRB 14/360
-	SONL 544	TSO 544	ECO 544	128	400	22244 EK	OH 3144 H	FRB 10/400
-	SONL 548	TSO 548	ECO 548	140	440	22248 EK	OH 3148 H	FRB 10/440

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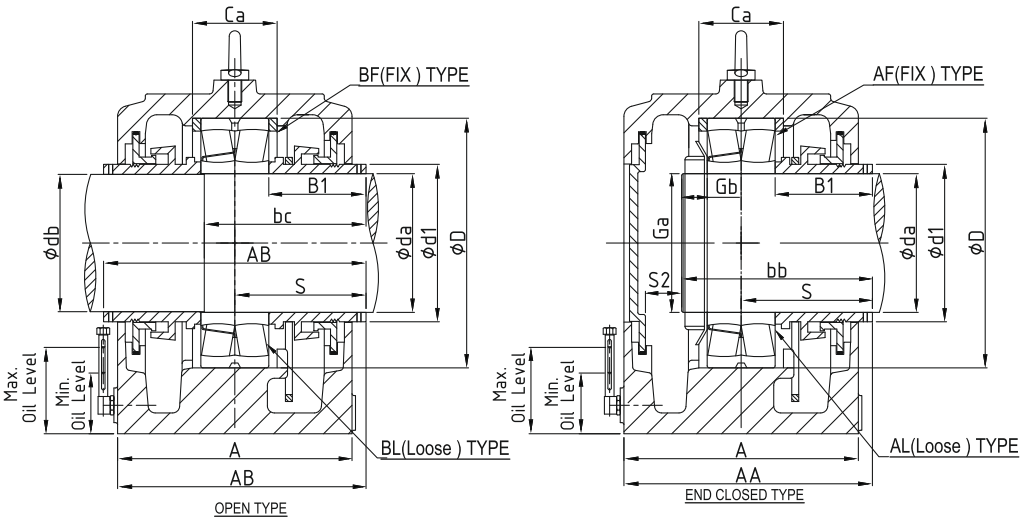


Shaft	Housing Dimension																			Oil Level	
	da mm	A	A1 mm	AA	AB	H	H1	H2	J	J1	L	N	N1	G	S	d1	B1	s2	bb	Ba	Min
85	163	110	172	180	230	125	35	260	60	330	28	22	20	90	96	72	19	130	40	48	63
90	170	120	180	190	245	135	45	290	70	360	28	22	20	95	100	75	19	137	42	48	68
100	186	130	196	206	270	145	50	320	75	400	32	26	24	103	112	80	25	150	47	53	70
110	213	145	221	229	290	160	50	347	75	420	32	26	24	114.5	120	88	32.5	167	52.5	53	77
120	245	170	261	276	315	170	55	347	90	420	32	26	24	138	135	109	47	194	56	63	80
130	255	180	263	270	335	180	60	377	100	450	35	28	24	135	145	103	43	195	60	63	85
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150	260	190	270	280	375	200	65	450	115	540	42	35	30	140	170	107	37.5	207.5	67.5	63	90
160	278	205	297	316	406	215	65	470	120	560	42	35	30	158	178	118	42	231	73	68	95
170	310	230	330	350	440	235	70	515	130	610	42	35	30	175	195	132	54	252	77	80	105
180	-	240	-	360	455	245	-	545	150	650	-	-	30	180	-	-	-	258	78	85	115
190	-	250	-	370	480	260	-	590	150	720	-	-	36	185	-	-	-	267	82	88	120
200	338	260	358	378	510	275	85	600	160	730	50	42	36	189	227	140	51	275	86	88	125
220	-	280	-	404	565	305	-	670	180	820	-	-	36	202	-	-	-	297	95	-	-
240	-	290	-	420	625	340	-	740	190	900	-	-	36	210	-	-	-	315	105	-	-

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Oil Qty.	Designation Housing	Dimensions			Seal 1 Per Housing	End Cover	Shaft	Bearing Seating		Appropriate Bearings and Associated Components	
		Ga	Gb	bc				db mm	Ca mm	D	Spherical Roller Bearing CARB Bearing
Max.											
0.4	SONL 217	M85x2	24	105	TSO 217	ECO 217	83	46	150	22217 E	FRB 5/150
0.5	SONL 218	M90x2	24	112	TSO 218	ECO 218	88	50	160	22218 E	FRB 5/160
0.6	SONL 220	M100x2	26	123	TSO 220	ECO 220	98	60	180	22220 E	FRB 7/180
0.9	SONL 222	M110x2	28	138	TSO 222	ECO 222	108	71	200	22222 E	FRB 9/200
1.3	SONL 224	M120x2	29	164	TSO 224	ECO 224	118	82	215	22224 E	FRB 12/215
1.4	SONL 226	M130x2	31	164	TSO 226	ECO 226	128	86	230	22226 E	FRB 11/230
1.5	SONL 228	M140x2	32	170	TSO 228	ECO 228	138	90	250	22228 E	FRB 11/250
1.7	SONL 230	M150x2	34	173	TSO 230	ECO 230	148	93	270	22230 E	FRB 10/270
2	SONL 232	M160x3	36	195	TSO 232	ECO 232	158	104	290	22232 E	FRB 12/290
2.5	SONL 234	M170x3	38	213	TSO 234	ECO 234	168	106	310	22234 CC/W33	FRB 14/310
-	SONL 236	M180x3	-	-	TSO 236	ECO 236	177	106	320	22236 CC/W33	FRB 10/320
-	SONL 238	M190x3	-	-	TSO 238	ECO 238	188	112	340	22238 CC/W33	FRB 10/340
3	SONL 240	M200x3	41	233	TSO 240	ECO 240	198	122	360	22240 CC/W33	FRB 14/360
-	SONL 244	M220x4	-	-	TSO 244	ECO 244	218	128	400	22244 CC/W33	FRB 10/400
-	SONL 248	M240x4	-	-	TSO 248	ECO 248	238	140	440	22248 CC/W33	FRB 10/440

