



Sheave Bearings

This bearing type is designed as a double-row, full complement Cylindrical Roller bearing with ribs on both inner and outer rings. These bearings will sustain heavy radial load, and will handle moment load and will also take some axial load.

Sheave bearings are suitable for a wide variety of uses in addition to sheaves. They are used for hoisting drum and wheel applications, and other applications which operate under heavy load at low speed.

Bearing series	Description	Bearing series	Description
E50	This bearing series is designed for sheave application. It is a sealed (shield or seal) bearing and has a surface coating. The E50...NR and E50...NRNT have two snap rings in the outer ring. Series E50...NR is made with two shields, while the series E50...NRNT is made with two rubber seals.	RB48, RC48 RB49, RC49	These bearings are designed for general use. When mounting two or more bearings on an axle, the RB type should be used as a fixed side bearing and the RC type used as a free side bearing.

Deviation of bore diameter and bearing width Unit: μm

Nominal bearing bore diameter d (mm)	Deviation of d		Deviation of B	
	Over	Incl.	High	Low
30	50	0	-12	0
50	80	0	-15	0
80	120	0	-20	0
120	150	0	-25	0
150	180	0	-25	0
180	250	0	-30	0
250	315	0	-35	0
315	400	0	-40	0
400	500	0	-45	0

Deviation of outside diameter of outer ring Unit: μm

Nominal bearing outside diameter D (mm)	Deviation of D	
	Over	Incl.
30	50	0
50	80	0
80	120	0
120	150	0
150	180	0
180	250	0
250	315	0
315	400	0
400	500	0
500	630	0
630	800	0

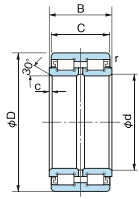
Radial Clearance of Series 5000 Unit: μm

Nominal bearing outside diameter D (mm)	Standard radial clearance	
	Over	Incl.
70	80	35
80	100	40
100	125	45
125	150	55
150	180	65
180	240	65
240	280	70
280	310	70
310	340	75
340	360	90
360	420	90
420	460	100
460	520	110
520	600	125
600	650	140
650	700	155

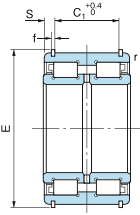
Radial Clearance of Series 4800/4900 Unit: μm

Nominal bearing outside diameter D (mm)	Standard radial clearance	
	Over	Incl.
70	80	40
80	100	40
100	125	45
125	150	55
150	180	65
180	240	65
240	280	70
280	310	70
310	340	75
340	360	90
360	420	90
420	500	100

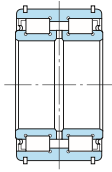
**Sheave Bearings
Series 5000**



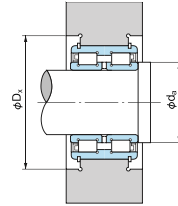
Shield type (E50)



Shield type (E50...NR)
with snap rings



Rubber seal type (E50...NRNT)
with snap rings

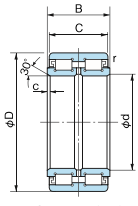


1N=0.102kgf

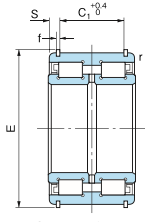
Boundary dimensions (mm)										Bearing No.			Basic load rating		Limiting speed	Abutment and fillet dimensions		Mass (kg)
d	D	B	C	r (min)	c	E	C_1	S	f	Without snap ring with shields	With snap rings with shields	With snap rings and rubber seals	C_r (N)	C_{or} (N)	Grease lubrication	d_a (min)	D_x (min)	
40	68	38	37	0.6	1.5	71.8	28	4.5	2	E5008	E5008NR	E5008NRNT	79000	125000	2500	46	80	0.57
45	75	40	39	0.6	1.5	78.8	30	4.5	2	E5009	E5009NR	E5009NRNT	95000	144000	2200	51	87	0.71
50	80	40	39	0.6	1.5	83.8	30	4.5	2	E5010	E5010NR	E5010NRNT	99500	158000	2000	56	92	0.77
55	90	46	45	0.6	2	94.8	34	5.5	2.5	E5011	E5011NR	E5011NRNT	117000	193000	1800	63	104	1.18
60	95	46	45	0.6	2	99.8	34	5.5	2.5	E5012	E5012NR	E5012NRNT	123000	208000	1650	68	109	1.26
65	100	46	45	0.6	2	104.8	34	5.5	2.5	E5013	E5013NR	E5013NRNT	128000	224000	1500	73	114	1.34
70	110	54	53	0.6	2	114.5	42	5.5	2.5	E5014	E5014NR	E5014NRNT	170000	285000	1400	78	124	1.91
75	115	54	53	0.6	2	119.5	42	5.5	2.5	E5015	E5015NR	E5015NRNT	177000	305000	1350	83	129	2.01
80	125	60	59	0.6	2	129.5	48	5.5	2.5	E5016	E5016NR	E5016NRNT	250000	430000	1250	88	139	2.71
85	130	60	59	0.6	2	134.5	48	5.5	2.5	E5017	E5017NR	E5017NRNT	255000	445000	1150	93	144	2.85
90	140	67	66	0.6	2.5	145.4	54	6	2.5	E5018	E5018NR	E5018NRNT	305000	540000	1100	100	156	3.81
95	145	67	66	0.6	2.5	150.4	54	6	2.5	E5019	E5019NR	E5019NRNT	310000	560000	1050	105	161	3.97
100	150	67	66	0.6	2.5	155.4	54	6	2.5	E5020	E5020NR	E5020NRNT	315000	585000	1000	110	165	4.14
110	170	80	79	1	3	175.4	65	7	2.5	E5022	E5022NR	E5022NRNT	380000	695000	900	122	186	6.69
120	180	80	79	1	3	188.4	65	7	3	E5024	E5024NR	E5024NRNT	400000	750000	850	132	198	7.24
130	200	95	94	1	3	208.4	77	8.5	3	E5026	E5026NR	E5026NRNT	535000	1000000	750	142	218	10.9
140	210	95	94	1	3	218.4	77	8.5	3	E5028	E5028NR	E5028NRNT	540000	1070000	700	152	228	11.9
150	225	100	99	1	3.5	233.4	81	9	3	E5030	E5030NR	E5030NRNT	620000	1210000	650	164	243	14.0
160	240	109	108	1.5	3.5	248.4	89	9.5	3	E5032	E5032NR	E5032NRNT	715000	1390000	600	174	258	17.1
170	260	122	121	1.5	3.5	270	99	11	4	E5034	E5034NR	E5034NRNT	850000	1730000	600	184	283	23.6
180	280	136	135	1.5	3.5	294	110	12.5	5	E5036	E5036NR	E5036NRNT	1060000	2140000	550	194	311	31.7
190	290	136	135	1.5	3.5	306	110	12.5	5	E5038	E5038NR	E5038NRNT	1110000	2230000	500	204	323	32.8
200	310	150	149	1.5	3.5	326	120	14.5	5	E5040	E5040NR	E5040NRNT	1300000	2650000	500	214	343	42.2
220	340	160	159	1.5	4	356	130	14.5	6	E5044	E5044NR	E5044NRNT	1300000	3100000	450	236	378	54.9
240	360	160	159	1.5	4	376	130	14.5	6	E5048	E5048NR	E5048NRNT	1560000	3350000	400	256	398	58.7
260	400	190	189	2	5	416	154	17.5	6	E5052	E5052NR	E5052NRNT	2110000	4500000	350	280	438	88.1
280	420	190	189	2	5	440	154	17.5	7	E5056	E5056NR	E5056NRNT	2200000	4850000	350	300	462	93.9
300	460	218	216	2	5	480	176	20	8	E5060	—	—	2650000	5850000	350	320	508	134
320	480	218	216	2	5	500	176	20	8	E5064	—	—	2680000	6150000	300	340	528	145
340	520	243	241	2.5	6	544	194	23.5	8	E5068	—	—	3350000	7550000	300	362	577	180

Remark: The bearings must be mounted without a clearance between two separate inner rings.

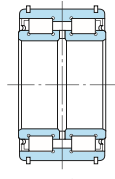
**Sheave Bearings
Series 5000**



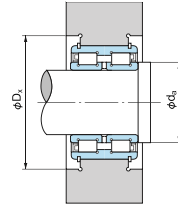
Shield type (E50)



Shield type (E50...NR)
with snap rings



Rubber seal type (E50...NRNT)
with snap rings

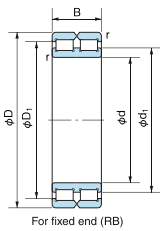


1N=0.102kgf

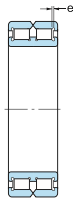
Boundary dimensions (mm)											Bearing No.			Basic load rating		Limiting speed (min ⁻¹) Grease lubrication	Abutment and fillet dimensions (mm)		Mass (kg)
d	D	B	C	r (min)	c	E	C ₁	S	f	Without snap ring with shields	With snap rings with shields	With snap rings and rubber seals	C _r (N)	C _{or} (N)	d _a (min)		D _x (min)		
360	540	243	241	2.5	6	564	194	23.5	10	E5072	—	—	3400000	7950000	250	382	597	190	
380	560	243	241	2.5	6	584	194	23.5	10	E5076	—	—	3550000	8300000	250	402	617	200	
400	600	272	270	2.5	6	630	210	30	12	E5080	—	—	4220000	10100000	250	422	666	265	
420	620	272	270	2.5	6	650	210	30	12	E5084	—	—	4350000	10500000	230	442	686	275	
440	650	280	278	3	8	680	210	34	12	E5088	—	—	4550000	10900000	220	464	719	310	
460	680	300	298	3	8	710	230	34	12	E5092	—	—	5050000	12100000	200	484	749	365	
480	700	300	298	3	8	730	230	34	12	E5096	—	—	5150000	12500000	200	504	769	380	

Remark: The bearings must be mounted without a clearance between two separate inner rings.

Sheave Bearings
Series 4800/4900

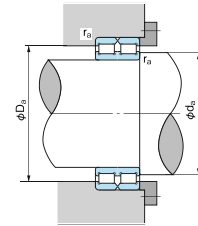


For fixed end (RB)



For free end (RC)

1N=0.102kgf



Boundary dimensions (mm)							Bearing No.		Basic load rating		Limiting speed (min ⁻¹)		Abutment and fillet dimensions (mm)			Mass (kg)	Basic No.
d	D	B	d ₁	D ₁	r (min)	e (°)	For fixed end	For free end	Cr (N)	Cor (N)	Grease lubrication	Oil lubrication	d _a (min)	D _a (max)	r _a (max)		
50	72	22	58	63.5	0.6	1	RB4910	RC4910	49000	83000	2000	4000	56	66	0.6	0.30	4910
60	85	25	69.5	76	1	1	RB4912	RC4912	68000	118000	1700	3400	67	78	1	0.46	4912
70	100	30	81.5	88.5	1	1	RB4914	RC4914	105000	193000	1400	2800	77	93	1	0.79	4914
80	110	30	92.5	99.5	1	1	RB4916	RC4916	113000	221000	1250	2500	87	103	1	0.88	4916
90	125	35	103	111.5	1.1	1	RB4918	RC4918	150000	300000	1100	2200	98	117	1	1.37	4918
100	140	40	116	125.5	1.1	1.5	RB4920	RC4920	194000	400000	1000	2000	108	132	1	2.01	4920
110	150	40	124.5	134	1.1	1.5	RB4922	RC4922	202000	430000	900	1800	118	142	1	2.18	4922
120	165	45	138.5	148.5	1.1	2	RB4924	RC4924	226000	560000	850	1700	128	157	1	2.98	4924
130	180	50	148.5	160.5	1.5	2	RB4926	RC4926	262000	555000	750	1500	140	170	1.5	3.97	4926
140	190	50	159	171	1.5	2	RB4928	RC4928	271000	595000	700	1400	150	180	1.5	4.26	4928
150	190	40	164.5	173.5	1.1	1.5	RB4830	RC4830	233000	575000	650	1300	158	182	1	2.90	4830
150	210	60	171.5	186	2	2	RB4930	RC4930	405000	860000	650	1300	161	199	2	6.70	4930
160	200	40	176	185.5	1.1	1.5	RB4832	RC4832	242000	615000	650	1300	168	192	1	3.05	4832
160	220	60	184.5	199.5	2	2	RB4932	RC4932	425000	935000	600	1200	171	209	2	7.03	4932
170	215	45	186	196.5	1.1	2	RB4834	RC4834	264000	650000	600	1200	178	207	1	4.10	4834
170	230	60	193.5	208.5	2	2	RB4934	RC4934	435000	980000	600	1200	181	219	2	7.44	4934
180	225	45	199	209.5	1.1	2	RB4836	RC4836	273000	695000	550	1100	188	217	1	4.30	4836
180	250	69	205.5	223	2	2.5	RB4936	RC4936	550000	1230000	550	1100	191	239	2	11.0	4936
190	240	50	208	220	1.5	2	RB4838	RC4838	315000	785000	550	1100	200	230	1.5	5.65	4838
190	260	69	216	233	2	2.5	RB4938	RC4938	565000	1290000	500	1000	201	249	2	11.5	4938
200	250	50	218.5	230.5	1.5	2	RB4840	RC4840	320000	825000	500	1000	210	240	1.5	5.90	4840
200	280	80	231.5	251	2.1	3	RB4940	RC4940	665000	1500000	500	1000	211	269	2	15.7	4940
220	270	50	239.5	251.5	1.5	2	RB4844	RC4844	335000	905000	450	900	230	260	1.5	6.40	4844
220	300	80	249	268	2.1	3	RB4944	RC4944	695000	1620000	450	900	231	289	2	17.1	4944
240	300	60	260.5	275	2	2	RB4848	RC4848	510000	1330000	400	800	251	289	2	10.2	4848
240	320	80	271.5	291	2.1	3	RB4948	RC4948	725000	1770000	400	800	253	307	2	18.4	4948
260	320	60	283	297.5	2	2	RB4852	RC4852	530000	1450000	400	800	271	309	2	11.0	4852
260	360	100	296	321	2.1	3	RB4952	RC4952	1070000	2570000	350	700	273	347	2	32.0	4952
280	350	69	307.5	325	2	2.5	RB4856	RC4856	680000	1860000	350	700	291	339	2	16.0	4856
280	380	100	318	342.5	2.1	3	RB4956	RC4956	1110000	2780000	350	700	293	367	2	33.9	4956
300	380	80	329	348	2.1	3	RB4860	RC4860	800000	2160000	350	700	313	367	2	23.0	4860
320	400	80	352	371	2.1	3	RB4864	RC4864	830000	2310000	300	600	333	387	2	24.3	4864
340	420	80	368	389	2.1	3	RB4868	RC4868	850000	2430000	300	600	353	407	2	25.6	4868
360	440	80	392	411.5	2.1	3	RB4872	RC4872	880000	2580000	250	500	373	427	2	27.0	4872
380	480	100	419	446	2.1	3	RB4876	RC4876	1290000	3600000	250	500	393	467	2	45.3	4876

Note (°): Axial permissible movement for free end bearing.
Remark: The bearings must be mounted without a clearance between two separate inner rings.