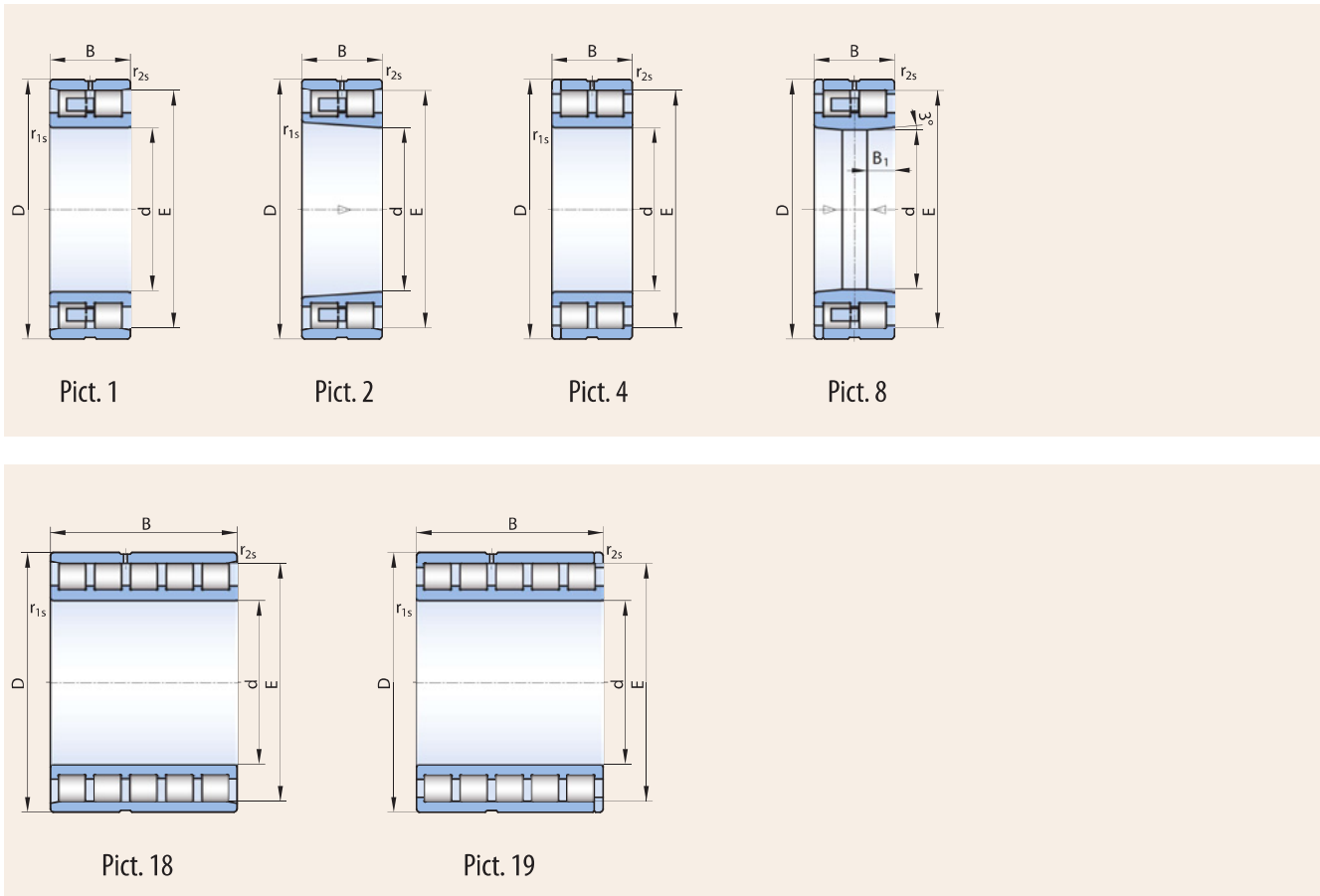




CYLINDRICAL ROLLER BEARINGS

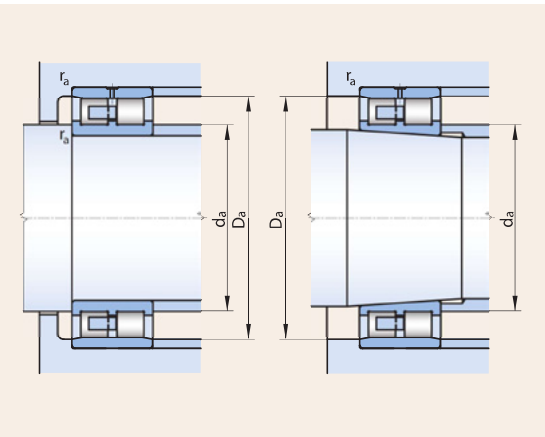
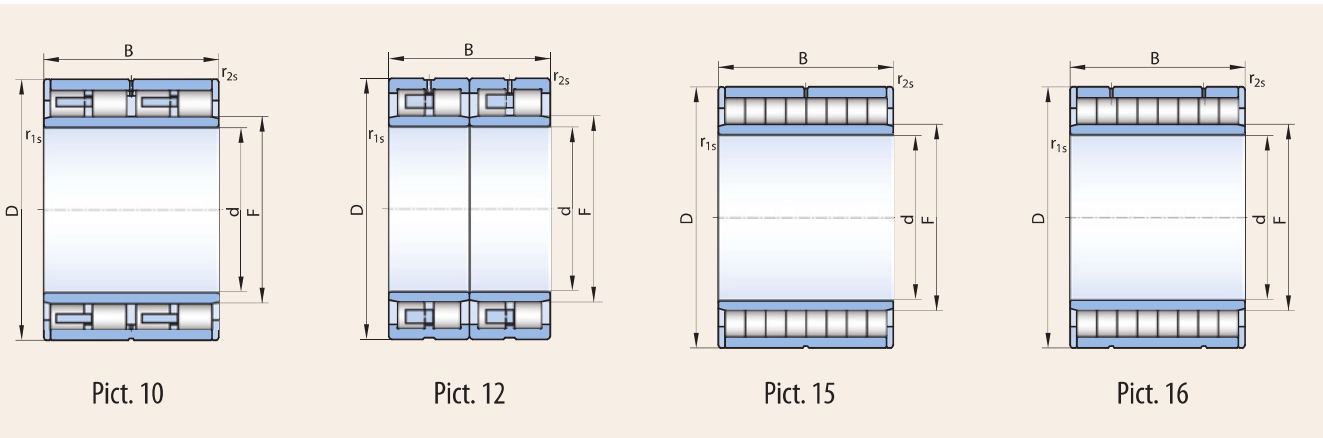
multi row



Dimensions								Basic Load Ratings		Limited Speed for Lubrication		Bearing Designation
d	D	B	r1s min	r2s min	E	F	S ¹⁾	C _r dyn.	C _{0r} stat.	with greaseoil		PSL
[mm]								[kN]		[min ⁻¹]		
120	180	109	3	3		138	3	625	1575	970	1800	NNU6024V
130	200	125	3	3		152	3	820	2070	920	1700	NNU6026V
165.1	225.45	168.3	1.5	1.5		181		930	2420	540	1010	PSL510-201
170	230	109	3	3		188	3	735	2145	700	1300	NNU6934V
170	230	144	2.1	2.1	214		1.5	840	2270	540	1010	PSL510-13
170	230	144	2.1	2.1	214			840	2270	540	1010	PSL510-14
200	310	200	2.1	2.1		229	4	1723	3953	1700	2200	NNU6040M
220	300	60	3.5	3.5	278		2	299	668	1800	2200	NN3944MB
220	300	60 /27/		2	278		0.7	340	705	1500	1800	PSL510-12
220	310	192	2	2		246	5.5	1455	3640	1400	1700	PSL511-10-1
240	320	60	3.5	3.5	298		2	316	750	1600	2000	NN3948MB
260	360	100	2.1	2.1	332		2	1045	2530	480	900	NNP4952V
260	360	100	2.1	2.1		292	3.5	760	1780	1470	1700	NNU4952W33M
260	370	220	3	3		292	5	1945	4975	1200	1400	PSL511-11-1
280	380	100	2.1	2.1		312	3.5	766	1836	1380	1610	NNU4956W33M
280	420	106	5	5	384		6	1100	2000	1300	1600	NN3056K
300	420	118	3	3	385		2	1375	3375	400	750	NNP4960V
300	420	300	3	1.1		332	5	3255	9110	1000	1200	PSL512-18-1
320	440	118	3	3		355	5	1230	2780			NNU4964W33M
320	480	121	5	5	438		8	1360	2510	1200	1400	NN3064K
340	520	133	6	6	473		9	1680	3100	1100	1300	NN3068K
340	480	350	8x20°	1.5		378		3981	11244	763	1015	PSL512-301
360	540	134	6	6	493		9	1740	3350	1000	1200	NN3072K

1) Permissible axial displacement from the central position

2) Permissible axial displacement in axially free direction



Weight	Pict.	Abutment and Fillet Dimensions				
		d	da min	Da min	Da max	ra max
[kg]						
				[mm]		
10.6	15	120	135	163	168	2.5
15.9	15	130	150	182	187	2.5
20	12					1.5
14.4	15	170	186	213	218	2.5
17	18					2
17.1	19					2
60	10	200	220	270	290	2
12	1	220	238	280	285	3
12.6	8					2
48.2	12					2
13	1	240	258	300	305	3
31.8	4	260	278	335	345	2
31	1	260	278	330	345	2
80.3	12					2.5
34	1	280	298	350	365	2
49.6	2	280	298	388	402	4
51.5	4	300	318	388	402	2.5
138	12					1
54	12	320				2.5
74.2	2	320	338	442	462	4
99	2	340	362	477	498	5
205	16					1.5
105	2	360	382	497	518	5

Double row cylindrical roller bearings are distinguished by great rigidity and are mostly used for spindle arrangements of machine tools and similar equipment. Bearings of the NN30...K are manufactured in higher tolerance classes and with smaller radial clearance.

Suffixes

- .B - Cage guided on the inner ring (it is connected with the cage material)
- C1, C2, - Radial clearance less than normal
- F - Machined steel cage guided by rollers
- K - Tapered bore, taper 1:12
- M - Machined brass cage guided by rollers
- P6 - Higher tolerance class than standard
- P5 - Higher tolerance class than P6
- P4 - Higher tolerance class than P5
- R... - Radial clearance in non-standard range
- ..S - Cage with lubricating grooves
- S0 - Stabilization of dimensions for operating temperature up to 150 °C
- V - Full complement roller bearing (without cage)
- W33 - Lubrication groove and holes in outer ring

Cages

The cylindrical roller bearings have the basic design cages as indicated in the following table:

Bearing type	Cage type
NN 30..K	M
NN 39..	MB
NNU 49..	F, M
NNU 60..	F, M

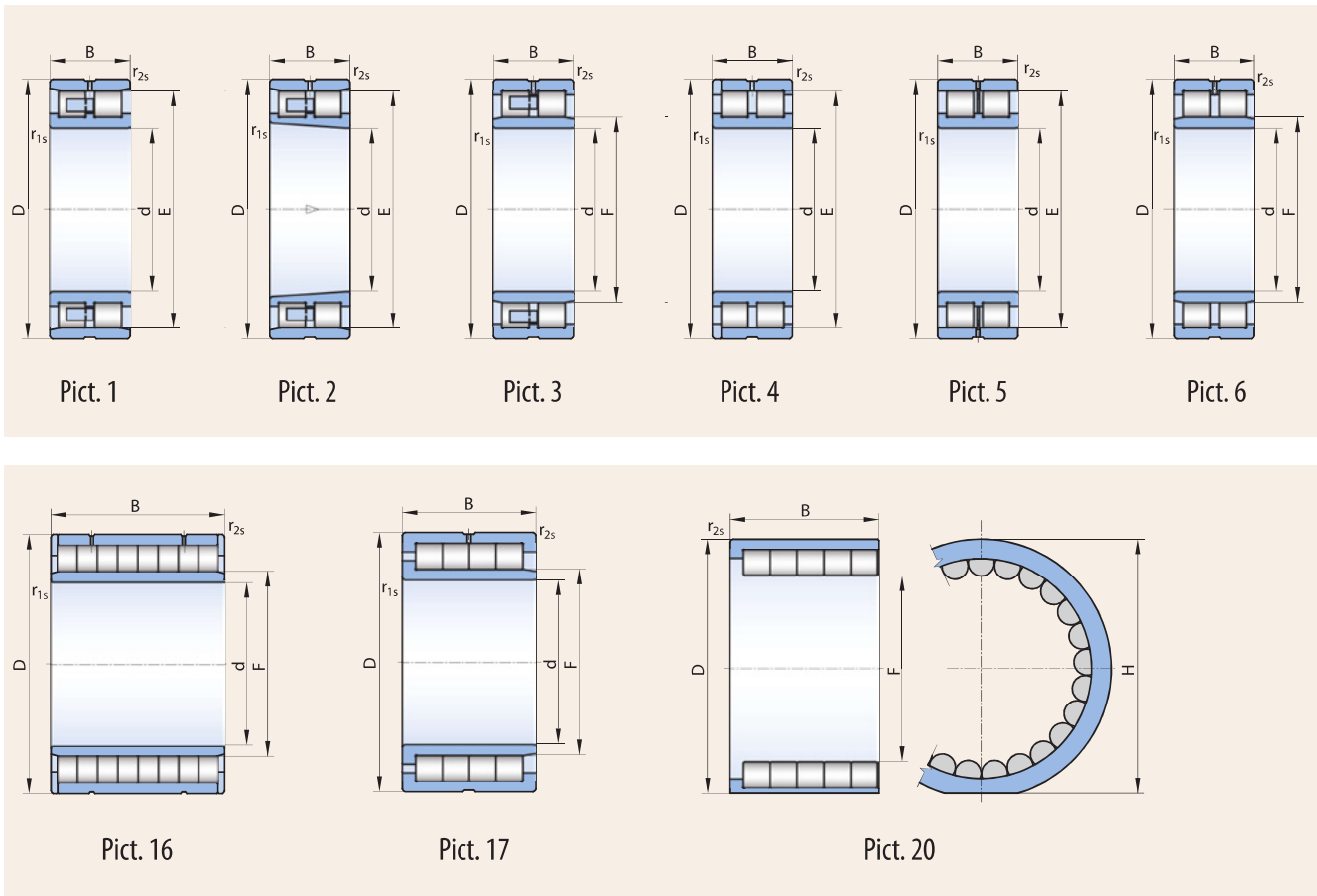
Radial equivalent load:

- dynamic: $P_r = F_r$ [kN]
- static: $P_{Or} = F_{Or}$ [kN]



CYLINDRICAL ROLLER BEARINGS

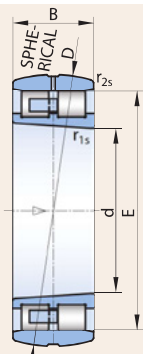
multi row



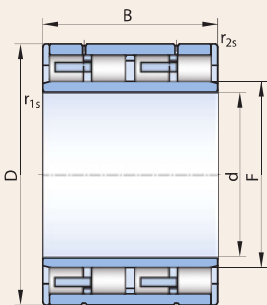
Dimensions								Basic Load Ratings		Limited Speed for Lubrication		Bearing Designation
d	D	B	r1s min	r2s min	E	F	S ¹⁾	C _r dyn.	C _{0r} stat.	with grease oil		PSL
[mm]								[kN]		[min ⁻¹]		
370	440	60	3.5	3.5		393.3	3	585	1955	210	400	PSL512-6
370	520	380	1.5	1.5		409	6	5220	12520			PSL512-304
374.65	431.8	57.15	2.1	2.1	417.225		3	439	1249	1120	1490	PSL512-300
380	480	100	3.5	3.5	452			1250	3585	850	1000	PSL512-24
380	480	100	3.5	3.5	452		4.8	1250	3585	850	1000	PSL512-25
380	520	140	4	4	481.5			2150	5525	260	500	NNCL4976V
380	520	250	5	5		412		3300	8960			PSL512-303
380	520	256	5	5		418	11 ²⁾	3910	11400	180	340	PSL512-17
380	540	300	6	3		421	5.5	4337	11120	700	880	PSL512-23-1
400	500	100	2.1	2.1	471.0			1360	3760	260	500	NNCL4880V NNC4880V
400	540	140	4	4	501.6			2250	5900	240	480	NNCL4980V
400	540	380	4	4		436	2.5	6540	14760	520	740	PSL512-200
420	560	140	4	4	522.5		16	2330	6320	850	990	NNCL4984V
420	560	140	4	4	522.5		7	2320	6200			PSL512-302
440	650	157	8	8	596		13	2460	4920	750	890	NN3088K
560	750	190	5	5		617		3290	8580	760	950	NNU49/560KW33M
600	810	200	3	3	740		8	3570	10085	400	570	PSL512-29
630	850	218	8	8		704	5	3910	10200	470	600	NNU49/630
630	920	515	10	10		719	17	8775	26880	430	500	NNU60/630
630	920	515	10	10		719	17	11725	39320	110	210	NNU60/630V
730	1030	750	6	6		809	8	19415	59615			PSL512-305
	245 /236.5/	143		2.1		177.5		1185	2935	540	1010	PSL510-3
	310 /298/	170		3		229		1560	4545	420	780	PSL511-3

1) Permissible axial displacement from the central position

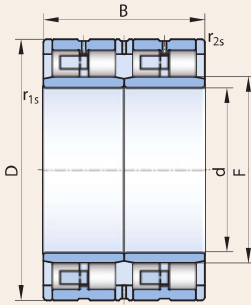
2) Permissible axial displacement in axially free direction



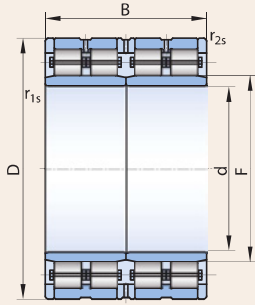
Pict. 7



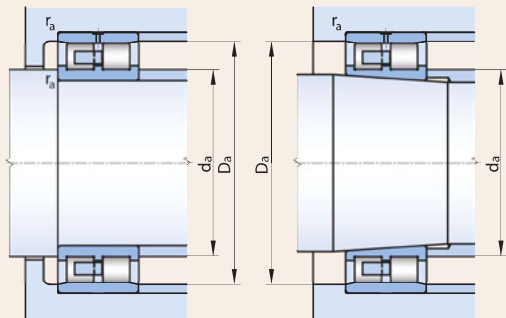
Pict. 11



Pict. 13



Pict. 14



Weight	Pict.	Abutment and Fillet Dimensions				
		d	da min	Da min	Da max	ra max
[kg]		[mm]				
18	6					3
251	14					1.5
13	1					2
44	4					3
42.9	1					3
86	5	380	396	486	504	3
153	-					4
171	17					4
246	13					2.5
48.8	5	400	411	475	489	2
94	5	400	416	506	524	3
263	14					3
101	5	420	438		541	3
101	4					3
169.4	2	440	468	602	622	6
233	3	560	580	776	730	4
232	7					2.5
363	3	630	670	775	810	6
1235	11	630	670	775	810	8
1280	16	630	670	775	810	8
2055	14					5
19	20					2
39.6	20					2.5

For accommodating great radial forces it is suitable to use special multi row cylindrical roller bearings, especially in arrangements with limited space – e. g. for rolling mill roll arrangements, calenders and in metallurgy and rubber industry, etc.