

SPHERICAL ROLLER
BEARINGS - RHP



Partnership based on trust – and trust based on quality

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.

In 1990, NSK demonstrated its commitment to global expansion by purchasing the UPI group of companies, and – by this –

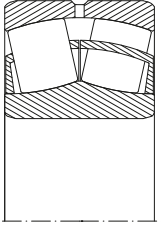
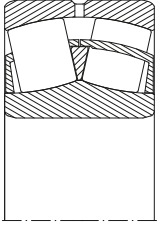
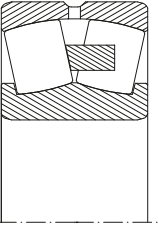
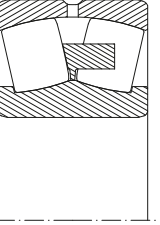
adding the world-renowned brand RHP to its product portfolio. RHP continues to flourish across the globe underneath the banner of NSK – a synergy of European and Japanese production, engineering, sales and marketing.

The RHP brand stands for the principles of NSK's manufacturing and engineering excellence, matching roller bearings made in Europe to our customers' exacting specifications.

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.

Bearing Designation

222 & 223 Series up to 400 mm outside diameter

Cage Design			
Steel cage	Steel cage	Brass cage	Brass cage
			
Design EJW33 Centred on inner ring & rollers	Design CJW33 Centred on floating inner rib	Design EMW33 Cage centred on spherical rollers	Design EMBW33 Cage centred on inner ring
22205 - 22232 22308 - 22326	22234 - 22244 22328 - 22338	22211 - 22232 22312 - 22326	22234 - 22244 22328 - 22338

Oil Groove and Oil Hole Dimensions				
Outside Diameter		Lube Hole Diameter [mm]	Lube Groove Width [mm]	Number of Oil Holes
over	including			
-	150	3	5.5	3
150	220	4.5	8.3	
220	260	6	11.1	
260	310	7.5	13.9	
310	400	9	16.7	

Spherical Roller Bearings

222 & 223 Series

Dimensions (mm)			Load Ratings (kN)		Limiting speed (rpm)		Bearing Numbers *	
d	D	B	C _r	C _{or}	Grease	Oil	Cylindrical Bore	Tapered Bore **
25	52	18	47.5	50.2	8500	11000	22205EJW33	22205EKJW33
30	62	20	62.2	66.4	7500	9500	22206EJW33	22206EKJW33
35	72	23	82.6	93.5	6300	8000	22207EJW33	22207EKJW33
40	80	23	89.6	99.7	6000	7500	22208EJW33	22208EKJW33
45	85	23	95.6	110	5300	6700	22209EJW33	22209EKJW33
50	90	23	102	120	5000	6300	22210EJW33	22210EKJW33
55	100	25	137	147	4500	5600	22211EJW33	22211EKJW33
55	100	25	137	147	4500	5600	22211EMW33	22211EKMW33
60	110	28	168	183	4000	5000	22212EJW33	22212EKJW33
60	110	28	168	183	4000	5000	22212EMW33	22212EKMW33
65	120	31	200	224	3800	4800	22213EJW33	22213EKJW33
65	120	31	200	224	3800	4800	22213EMW33	22213EKMW33
70	125	31	208	239	3600	4500	22214EJW33	22214EKJW33
70	125	31	208	239	3600	4500	22214EMW33	22214EKMW33
75	130	31	216	255	3400	4300	22215EJW33	22215EKJW33
75	130	31	216	255	3400	4300	22215EMW33	22215EKMW33
80	140	33	246	295	3200	4000	22216EJW33	22216EKJW33
80	140	33	246	295	3200	4000	22216EMW33	22216EKMW33
85	150	36	286	337	3000	3800	22217EJW33	22217EKJW33
85	150	36	286	337	3000	3800	22217EMW33	22217EKMW33
90	160	40	339	406	2600	3400	22218EJW33	22218EKJW33
90	160	40	339	406	2600	3400	22218EMW33	22218EKMW33
95	170	43	381	464	2400	3200	22219EJW33	22219EKJW33
95	170	43	381	464	2400	3200	22219EMW33	22219EKMW33
100	180	46	417	510	2200	3000	22220EJW33	22220EKJW33
100	180	46	417	510	2200	3000	22220EMW33	22220EKMW33
110	200	53	537	653	2000	2800	22222EJW33	22222EKJW33
110	200	53	537	653	2000	2800	22222EMW33	22222EKMW33
120	215	58	608	775	1900	2600	22224EJW33	22224EKJW33
120	215	58	608	775	1900	2600	22224EMW33	22224EKMW33
130	230	64	708	948	1800	2400	22226EJW33	22226EKJW33
130	230	64	708	948	1800	2400	22226EMW33	22226EKMW33
140	250	68	822	1080	1700	2200	22228EJW33	22228EKJW33
140	250	68	822	1080	1700	2200	22228EMW33	22228EKMW33
150	270	73	949	1260	1600	2000	22230EJW33	22230EKJW33
150	270	73	949	1260	1600	2000	22230EMW33	22230EKMW33
160	290	80	1080	1440	1500	1900	22232EJW33	22232EKJW33
160	290	80	1080	1440	1500	1900	22232EMW33	22232EKMW33
170	310	86	1190	1600	1300	1700	22234CJW33	22234CKJW33
170	310	86	1190	1600	1300	1700	22234EMB33	22234EKM33
180	320	86	1280	1700	1300	1700	22236CJW33	22236CKJW33
180	320	86	1280	1700	1300	1700	22236EMB33	22236EKM33
190	340	92	1400	1900	1200	1600	22238CJW33	22238CKJW33
190	340	92	1400	1900	1200	1600	22238EMB33	22238EKM33
200	360	98	1560	2140	1100	1500	22240CJW33	22240CKJW33
200	360	98	1560	2140	1100	1500	22240EMB33	22240EKM33
220	400	108	1900	2630	950	1300	22244CJW33	22244CKJW33
220	400	108	1900	2630	950	1300	22244EMB33	22244EKM33

* The suffix W33 indicates that the bearing has an oil groove and holes.

** The suffix K indicates that the bearing has a tapered bore (taper 1:12).



Dimensions (mm)			Load Ratings (kN)		Limiting speed (rpm)		Bearing Numbers *	
d	D	B	C _r	C _{0r}	Grease	Oil	Cylindrical Bore	Tapered Bore **
40	90	33	154	160	4100	5100	22308EJW33	22308EKJW33
45	100	36	184	194	3700	4500	22309EJW33	22309EKJW33
50	110	40	220	238	3300	4000	22310EJW33	22310EKJW33
55	120	43	253	279	3000	3800	22311EJW33	22311EKJW33
60	130	46	304	315	2800	3600	22312EJW33	22312EKJW33
60	130	46	304	315	2800	3600	22312EMW33	22312EKMW33
65	140	48	329	351	2600	3400	22313EJW33	22313EKJW33
65	140	48	329	351	2600	3400	22313EMW33	22313EKMW33
70	150	51	376	402	2400	3100	22314EJW33	22314EKJW33
70	150	51	376	402	2400	3100	22314EMW33	22314EKMW33
75	160	55	436	489	2300	3000	22315EJW33	22315EKJW33
75	160	55	436	489	2300	3000	22315EMW33	22315EKMW33
80	170	58	487	551	2200	2800	22316EJW33	22316EKJW33
80	170	58	487	551	2200	2800	22316EMW33	22316EKMW33
85	180	60	530	603	2000	2600	22317EJW33	22317EKJW33
85	180	60	530	603	2000	2600	22317EMW33	22317EKMW33
90	190	64	590	673	1900	2400	22318EJW33	22318EKJW33
90	190	64	590	673	1900	2400	22318EMW33	22318EKMW33
95	200	67	665	744	1800	2300	22319EJW33	22319EKJW33
95	200	67	665	744	1800	2300	22319EMW33	22319EKMW33
100	215	73	750	842	1700	2200	22320EJW33	22320EKJW33
100	215	73	750	842	1700	2200	22320EMW33	22320EKMW33
110	240	80	868	1000	1500	1900	22322EJW33	22322EKJW33
110	240	80	868	1000	1500	1900	22322EMW33	22322EKMW33
120	260	86	1020	1180	1400	1800	22324EJW33	22324EKJW33
120	260	86	1020	1180	1400	1800	22324EMW33	22324EKMW33
130	280	93	1180	1380	1300	1700	22326EJW33	22326EKJW33
130	280	93	1180	1380	1300	1700	22326EMW33	22326EKMW33
140	300	102	1320	1560	1200	1500	22328EJW33	22328EKJW33
140	300	102	1320	1560	1200	1500	22328EMW33	22328EKMW33
150	320	108	1520	1850	1000	1400	22330EJW33	22330EKJW33
150	320	108	1520	1850	1000	1400	22330EMW33	22330EKMW33
160	340	114	1690	2090	1000	1300	22332EJW33	22332EKJW33
160	340	114	1690	2090	1000	1300	22332EMW33	22332EKMW33
170	360	120	1780	2280	950	1250	22334EJW33	22334EKJW33
170	360	120	1780	2280	950	1250	22334EMW33	22334EKMW33
180	380	126	1950	2530	900	1200	22336EJW33	22336EKJW33
180	380	126	1950	2530	900	1200	22336EMW33	22336EKMW33
190	400	132	2140	2810	850	1100	22338EJW33	22338EKJW33
190	400	132	2140	2810	850	1100	22338EMW33	22338EKMW33

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