



**MOTION TECHNOLOGIES
PTY LTD**

OUTSIZE BALL & ROLLER BEARINGS





Motion Technologies Bearing Products

- **LARGE DIAMETER BEARINGS (conventional design)**
 - Deep groove ball to 1900mm bore page 3
 - Four point contact ball to 500mm bore page 3
 - Single row angular contact to 750mm bore page 4
 - Double row angular contact to 1000mm bore page 4
 - Single row cylindrical roller to 1900mm bore page 5
 - Double row cylindrical roller to 1320mm bore page 5
 - Four row cylindrical roller to 1000mm bore page 5
 - Spherical roller to 1180mm bore page 6
 - Split cylindrical roller 950mm bore page 6
 - Split spherical roller to 1200mm bore page 6
 - Single row taper roller to 900mm/33" bore page 7
 - Double row taper roller to 1120mm/19^{5/8}" bore page 7
 - Four row taper roller to 750mm bore page 7
 - Thrust ball to 670mm bore page 8
 - Thrust cylindrical roller to 1320mm bore page 8
 - Thrust taper roller to 1290mm bore page 9
 - Thrust spherical roller to 1060mm bore page 9

- **SLEW RINGS (conventional design)** page 10
 - Crossed roller
 - 4 point ball
 - 2 row ball
 - 3 row roller
 - Turntable type
 - Geared internal, external or none
 - Custom designs to 8 meters diameter



- **DRIVE SLEW RINGS** page 11
 - **Size 7**
 - **Size 9**
 - **Size 14**
 - **Size 17**
 - **Size 21**



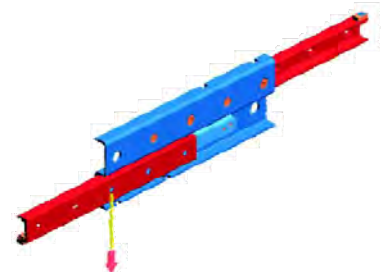
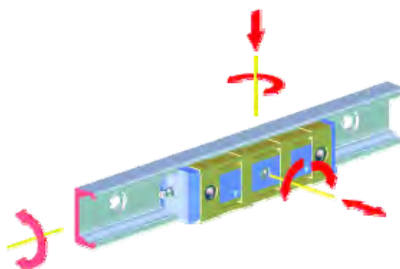
BALL SCREWS

- Contact us for further details



LINEAR BEARINGS

- Contact us for further details



Deep Groove Ball Bearings

Deep groove ball bearings are versatile, self-retaining bearings with solid outer rings, inner rings and ball and cage assemblies. These products, which are of simple design and double, robust in operation and easy to maintain, are available in single and double row designs and in open and sealed variants. Due to the manufacturing processes used, open bearings can have turned recesses in the outer ring for seals or shields. Due to their low frictional torque, deep groove ball bearings are suitable for high speeds.



163 sizes	Principal Diameters		Width	Basic Load Ratings		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	mm			KN			r/min		kg
From	190	240	24	68	88	61838	2200	2800	2.8
To	1900	2430	230	2210	7785	619/1900	-	-	2600

Four-Point Contact Ball Bearings

Four-point contact ball bearing are single row angular contact ball bearings and therefore require significantly less space in an axial direction than double row designs. The bearings comprise solid outer rings, split inner rings and ball and cage assemblies with brass or polyamide cages. The two-piece inner rings allow a large complement of balls to be accommodated. The inner rings halves are matched to the particular bearing and must not be interchanged with those of other bearings of the same size. The outer ring with the ball and cage assembly can be mounted separately from the two inner rings halves.



69 sizes	Principal Diameters		Width	Basic Load Ratings		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	mm			KN			r/min		kg
From	150	225	35	195	275	QJL030/QJF1030	2000	2600	5.3
To	500	720	100	1000	2550	Qj10500/Qj10500	530	700	140

Angular Contact Bearings

a) Single Row

Single row angular contact ball bearings are self-retaining units with solid inner and outer rings and ball and cage assemblies with polyamide, sheet metal or brass cages. The raceways of the inner and outer rings are offset from each other along the bearings axis. The bearings are available in open and sealed designs. Their angular adjustment facility is very limited.



49 sizes	Principal Diameters		Width	Basic Load Ratios		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	mm		KN		r/min		kg		
From	220	400	65	290	420	7244B	1400	1800	37.5
To	750	920	78	585	1620	718/750AC	450	600	100

b) Double Row

Double row angular contact ball bearings are units with solid inner and outer rings and ball and cage assemblies with polyamide, sheet steel or brass cages. Their construction is similar to a pair of single row angular contact ball bearings in an O arrangement but they are narrower to a certain extent. They differ in the size of the contact angle and the design on the bearing rings.



38 sizes	Principal Diameters		Width	Basic Load Ratios		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	mm		KN		r/min		kg		
From	150	225	73	180	250	305286D	-	-	10
To	1000	1170	140	840	3000	-	-	-	250

Cylindrical Roller Bearings

Cylindrical roller bearings with cage are units comprising solid inner and outer rings and cylindrical roller and cage assemblies. The outer rings have rigid ribs on both sides or no ribs, the inner rings have one or two rigid ribs or are designed without ribs. The cage prevents the cylindrical rollers from coming into contact with each other during rolling.



a) Single Row

256 sizes	Principal Diameters		Width	Basic Load Ratios		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	mm			KN		r/min		kg	
From	130	230	40	350	495	NJ226E	2200	2800	7.38
To	1900	2300	175	7750	22500	N18/1900	-	-	1480

b) Double Row



284 sizes	Principal Diameters		Width	Basic Load Ratios		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	mm			KN		r/min		kg	
From	150	190	40	190	450	NN4830	2400	3000	2.8
To	1320	1720	400	12500	38300	NN49/1320K	-	-	3060

c) Four Row



236 sizes	Principal Diameters		Width	Basic Load Ratios		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	mm			KN		r/min		kg	
From	150	230	156	815	1660	FC3046156	2000	2600	23.5
To	1000	1360	800	22000	80000	FCDP200272800	-	-	-

Spherical Roller Bearings

Spherical roller bearings are double row, self-retaining units comprising solid outer rings with a concave raceway, solid inner rings and barrel rollers with cages. The inner rings have cylindrical or tapered bores.



236 sizes	Principal Diameters		Width	Basic Load Ratios		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	mm		KN		r/min		kg		
From	140	210	53	410	700	23028CA	1800	2400	62
To	1180	1660	355	14420	35880	230/1180	110	150	2460

Split Roller Bearings

Split bearings are used at locations of restricted access and as replacement bearings. Split designs are available for cylindrical and spherical roller bearings with outer diameters up to 1750mm. Areas of application are converters, continuous casting machines, drive shafts and cold pilger machines.

a) Split Cylindrical Roller Bearings

12 sizes	Principal Diameters		Width	Basic Load Ratios		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	mm		KN		r/min		kg		
From	220	393.7	156	1210	1800	-	-	-	90
To	1200	1520	185	12900	39700	-	-	-	698



b) Split Spherical Roller Bearings

16 sizes	Principal Diameters		Width	Basic Load Ratios		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	mm		KN		r/min		kg		
From	120	200	142	552	900	-	-	-	17
To	950	1360	470	8970	25500	-	-	-	1300

Taper Roller Bearings

Tapered roller bearings comprise solid inner and outer rings with tapered raceways and tapered rollers with cages made from pressed sheet steel. The bearings are not self-retaining. As a result, the inner ring with the rollers and the cage can be fitted separately from the outer ring.

a) Single Row



88 sizes	Principal Diameters		Width	Basic Load Ratios		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	mm			KN			r/min		kg
From	150	210	38.5	200	385	32930	1500	2000	4.56
To	838.2	1041.4	93.66	2280	6280	EE763330/76941	200	260	168

b) Double Row



133 sizes	Principal Diameters		Width	Basic Load Ratios		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	mm			KN			r/min		kg
From	140	210	95	455	950	-	1200	1700	8.41
To	1120	1460	250	4900	15100	3519/750X2	230	310	535

c) Four Row



53 sizes	Principal Diameters		Width	Basic Load Ratios		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	mm			KN			r/min		kg
From	200	310	200	1970	4520	77740	-	-	55.6
To	750	1220	840	16100	68500	-	-	-	3985

Thrust Ball Bearings

Thrust ball bearings are classified into those with flat seats or aligning seats depending on the shape of the outer ring seat (housing washer). They can sustain axial loads but no radial loads.



27 sizes	Principal Diameters		Height	Basic Load Ratings		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	mm		KN		r/min		kg		
From	240	300	45	268	588	51148	800	1100	7.75
To	670	800	105	859	5780	511/670	300	400	102.8

Thrust Cylindrical Roller Bearings

There are thrust bearings containing cylindrical rollers. They can sustain only axial loads, but they are suitable for heavy loads and have high axial rigidity.



16 size	Principal Diameters		Height	Basic Load Ratings		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	mm		KN		r/min		kg		
From	260	360	79	1045	4170	81252	350	600	26.4
To	1320	1700	175	10300	105400	872/1320	67	90	105

Thrust Taper Roller Bearings

Tapered roller thrust bearings are engineered for true rolling motion, increased bearing life and additional load bearing capacity in a variety of industrial applications. Tapered thrust bearings are available in heavy duty, v-flat, screw down, oscillating and crossed roller designs.



18 sizes	Principal Diameters		Height	Basic Load Rations		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	Mm		KN		r/min		kg		
From	170	305	70.35	-	-	T661	400	560	21.4
To	1290	1550	134	6970	55950	917/1290	75	100	495

Thrust Spherical Roller Bearings

These are thrust bearings containing convex rollers. They have a self-aligning capability and are free of any influence of mounting error or shaft deflection. Besides the original type, the H type with pressed cages for high load capacity is also available.



17 sizes	Principal Diameters		Height	Basic Load Rations		Designations	Speed ratings		Weight
	Inside	Outside		dyn	stat		Grease	Oil	
	mm		KN		r/min		kg		
From	260	420	95	1780	8020	9039352	530	750	50.5
To	1060	1400	206	9600	62000	90392/1060	180	260	767

Slew Rings

For a full catalogue please contact us at info@motiontechnologies.com.au

- **Type 1, Cylindrical Cross Roller**
 - a) Internal Gear Bearing
 - b) External Gear Bearing
 - c) Non-Geared Bearing
- **Type 2, Ball Bearing**
 - a) Non-geared Four Point Contact
 - b) External Gear
 - c) Internal Gear
- **Type 3, with Flanged 4 Point Contact Ball bearing**
 - a) Non-geared
 - b) External Gear
 - c) Internal Gear
- **Type 4, Turnable Type Ball bearing**
 - a) Double Flanged, Non-geared
- **Type 5, 2 Row Ball Bearing**
 - a) Internal Geared
 - b) External Geared
- **Special Designs**
 - a) 3 Row Roller Bearing
 - b) 1 Row Roller Ball + 1 Row Roller Bearing
 - c) Internal or External Gears



Drive Slew Rings

For a full catalogue please contact us at info@motiontechnologies.com.au

- **Size 7**

- 73:1 reduction ratio
- Nom. Output Torque = 2,800Nm (SF=1, N=1rpm)
- Max. Output Torque = 5,500Nm.

- **Size 9**

- 61:1 reduction ratio
- Nom. Output Torque = 4,500Nm (SF=1, N=1rpm)
- Max. Output Torque = 9,000Nm

- **Size 14**

- 85:1 reduction ratio
- Nom. Output Torque = 10,000Nm (SF=1, N=1rpm)
- Max. Output Torque = 12,500Nm

- **Size 17**

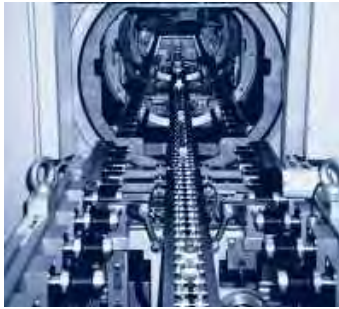
- 102:1 reduction ratio
- Nom. Output Torque = 15,500Nm (SF=1, N=1rpm)
- Max. Output Torque = 18,000Nm

- **Size 21**

- 125:1 reduction ratio
- Nom. Output Torque = 23,500Nm (SF=1, N=1rpm)
- Max. Output Torque = 25,000Nm



Other Motion Technologies products



BONENG

HB Series



CR Series



MOTION TECHNOLOGIES PTY LTD



24/22-30 Northumberland Road
Caringbah NSW 2229 Australia
Phone: (02) 9524 4782
Fax: (02) 9525 3878

Unit 13/54 Smith Road
Springvale VIC 3171 Australia
Phone: (03) 8555 3586
Fax: (03) 8555 3553

sales@motiontech.com.au

www.motiontech.com.au