



INVOLUTE TOOLING CORPORATION

Manufacturers of Drives and Transmissions

Slewing Rings

Four point ball contact slewing rings are bearings capable of simultaneously enduring radial and axial forces along with the resulting moment.

They are made of rolling elements installed between two races clamped to the support structure.

The slewing rings are currently manufactured in three configurations:

- **Gearless**
- **External Gear**
- **Internal Gear**

Single Row & Multi Row designs are available from diameter of 200 mm to 1600 mm with various types and sizes of mounting holes.

The material of construction is **C45 or 42CrMo4**

Gear: The external and internal slewing rings are supplied with a spur gear.

Drive System: Matching pinion or planetary gearboxes for slewing ring operation are also available according to customer specifications.

Heat Treatment: As an optional feature the slewing ring raceway and gear can be hardened.

Seals: The slewing rings are supplied with lip-type seals to prevent ingestion of dust in the rolling elements.

Customization: Modifications to hole dimensions, material of construction, material hardening and seals according to customer specifications.

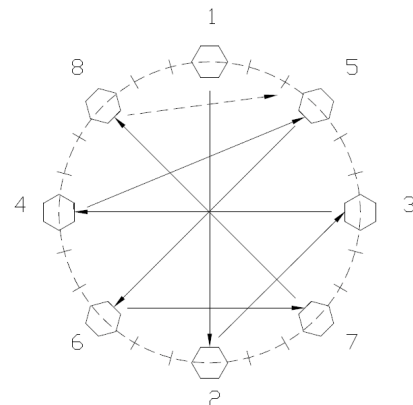
Hole Configuration: Four configurations are available and can be drilled as per customer requirements.



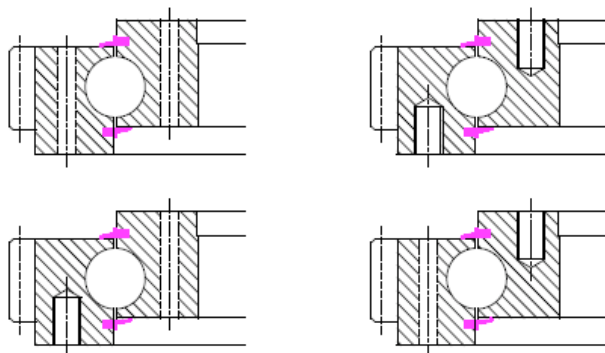
Slewing Ring Lubrication & Maintenance: The slewing rings are provided with sufficient number of grease nipples for lubrication. While lubricating the slewing ring it should be ensured that the lubricant is applied uniformly to the inner race of the slewing ring. The most appropriate way is to apply the lubricant while the slewing ring rotates at a slow speed.

It is recommended that regular checks be carried out for the lubrication, the bolt tensioning & oil seals. The interval between inspections depends on the operating conditions. But nonetheless the slewing ring must be checked for bolt tensioning & lubrication every 100 operating hours.

Bolt Fastening Sequence:



Applications: Slewing Rings are used for slewing conveyors, wind power generation, medical equipment, welding arm and positioners, light and medium duty cranes, excavators, shovel and digging excavators, machine tools and special equipments such as radar antennas, packaging machinery, tunnel machinery, drilling equipments, cleaning and bottling machines.



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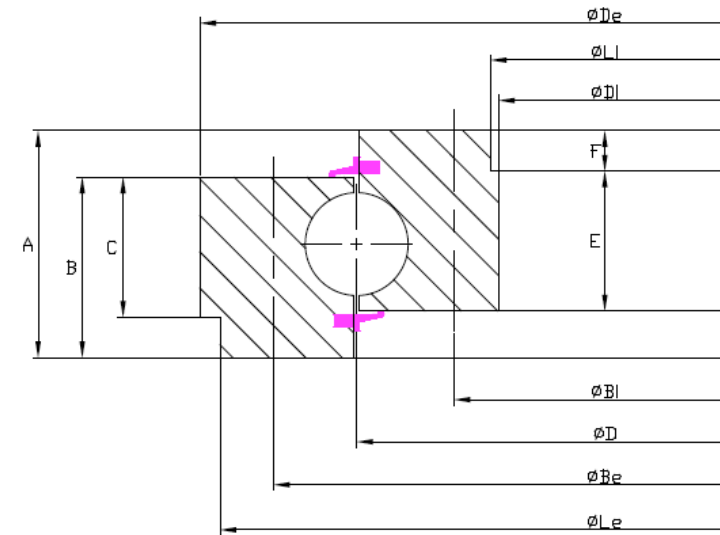
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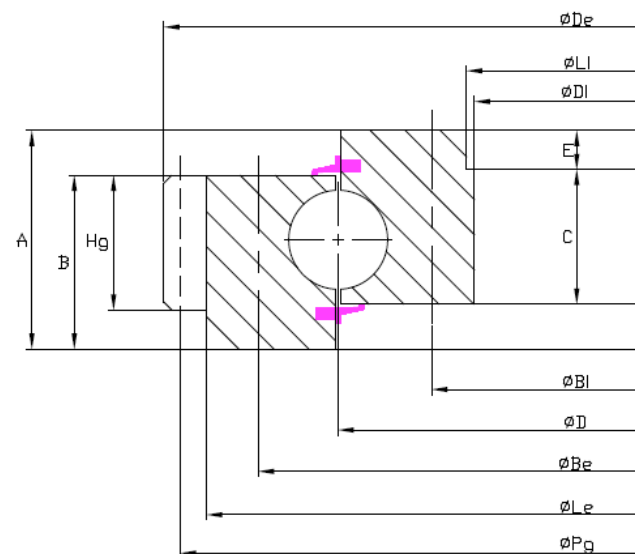
Four Point Ball Contact - Gearless Slewing Ring



Model	Dimensional Data (mm)										Bolt Data			
	ϕDe	ϕDi	A	B	C	ϕD	E	F	ϕLi	ϕLe	ϕBi	Ni	ϕBe	Ne
GL209	300	140	36	30	-	209	30	-	-	-	170	12	270	12
GL402	475	335	475	44	34	402	34	10	474	336	360	24	450	24
GL381	486	265	63	54	44	381	44	10	270	485	314	16	442	16
GL415	505	325	66	64.5	-	415	50	-	-	-	355	24	475	24
GL400	535	300	63	53	43	400	47	6	305	535	335	18	466	18
GL444	558	333	72	63	-	444	63	-	-	-	377	20	514	20
GL544	616	472	56	45	-	544	45	-	-	-	498	32	590	32
GL568	642	468	63	54	44	568	44	10	470	640	520	20	615	20
GL661	752	570	63	53	43	661	43	10	575	750	605	20	750	20
GL744	816	672	56	45	-	744	45	-	-	-	698	40	790	40
GL785	900	670	85	77	10	785	67	10	672	898	710	36	860	36
GL944	1016	872	56	45	-	944	45	-	-	-	898	44	990	44
GL1094	1166	1022	56	45	-	1094	45	-	-	-	1048	48	1140	48
GL1227	1327	1091	103.5	74.5	-	1227	92	0.5	1154	-	1291	31	1184.5	36



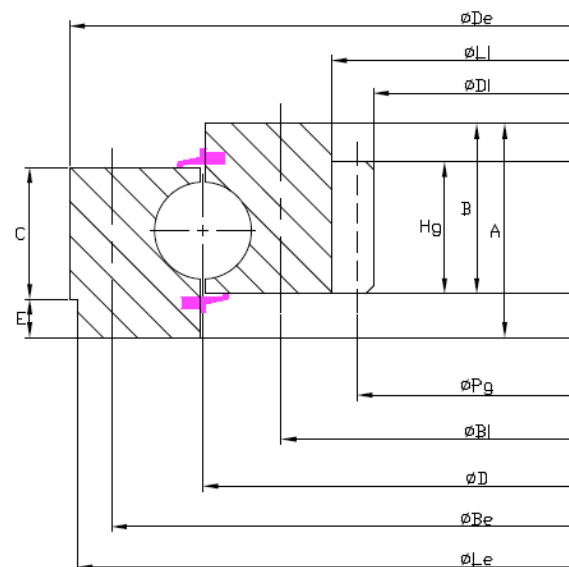
Four Point Ball Contact - External Gear Slewing Ring



Model	Dimensional Data (mm)									Gear Data							Bolt Data			
	ϕD_e	ϕD_i	A	B	C	ϕD	E	ϕL_i	ϕL_e	P_g	H_g	m	z	α°	xm	km	ϕB_i	Ni	ϕB_e	Ne
EG222	313.5	145	50	44	44	222	-	-	-	306	44	4.5	68	20	-	0.75	175	16	270	16
EG308	403.5	234	55±1	47	35	308.5	10	235	380	396	39	4.5	88	20	-	0.75	259	28	358	24
EG344	434	265	50	43	43	344	-	-	-	425	43	5	85	20	-	0.50	295	24	390	24
EG415	503.5	344	56	44.5	44.5	415	-	-	-	495	44.5	5	99	20	-	0.85	386	24	455	20
EG400	536	300	75	63	53	400	10	305.4	495	520	55	8	65	20	-	-	335	18	466	18
EG475	595	382	65	55	55	475	-	-	565	585	50	5	117	20	-	-	410	18	540	18
EG544	640	472	56	46	46	544	-	-	-	630	46	6	105	20	-	1	498	40	585	40
EG576	695	479	77	64	57	576	10	480	670	685	42	5	137	20	-	-	508	36	640	36
EG644	742.3	572	56	46	46	644	-	-	-	732	46	6	122	20	-	0.85	598	16	685	16
EG744	838.8	672	56	45.5	45.5	744	-	-	-	828	45.5	6	138	20	-	0.60	698	40	785	36
EG844	950.4	772	56	45.5	45.5	844	-	-	-	936	45.5	8	117	20	-	0.80	798	40	885	36
EG856	972	764	70	60	60	856	-	-	-	960	60	6	160	20	-	-	796	36	912	36
EG880	1022	769	82	72	56	880	10	775	-	1008	72	8	125	20	4	1	815	36	945	36
EG982	1144	869	100	79	84	982	-	-	1090	1126	67	10	111	20	8	1	910	36	1050	36
EG1117	1289.5	985	114	90	94	1117	-	-	1240	1271	75	10	125	20	10.5	0.75	1035	40	1198	40
EG1355	1498	1255	80	71	54	1355	-	-	-	1480	71	10	148	20	-	1.0	1295	40	1416	40



Four Point Ball Contact - Internal Gear Slewing Ring



Model	Dimensional Data (mm)									Gear Data						Bolt Data				
	ϕD_e	ϕD_i	A	B	C	ϕD	E	ϕL_i	ϕL_e	P_g	H_g	m	z	α°	xm	km	ϕB_i	N_i	ϕB_e	N_e
IG414	486	325	56	44.5	44.5	414	-	342	-	335	31.5	5	67	20	-	-	375	24	460	24
IG465	535	379	50	45	53	465	-	400	-	387	40	4	96	20	1.5	-	420	16	510	16
IG488	570	378	63	53	53	488	-	410	-	390	49	6	65	20	-	-	436	18	540	18
IG568	642	471	55	45	-	568	-	-	-	480	45	5	96	20	-	0.5	520	20	615	20
IG644	716	546	56	44.5	44.5	644	-	-	-	558	44.5	6	93	20	-	-	605	36	690	36
IG663	750	546	63	53	53	663	-	575	-	558	49	6	93	20	-	-	605	20	720	20
IG763	850	648	67	58	54	763	-	677	-	660	50	6	110	20	-	-	705	24	820	24
IG863	950	736	63	53	53	863	-	775	-	752	49	8	94	20	-	-	805	30	920	30
IG944	1016	840	56	44.5	44.5	944	-	-	-	856	44.5	8	107	20	-	-	905	44	990	44
IG962	1050	840	82	70	66	962.5	-	880	-	856	62	8	107	20	-	-	905	36	1020	36
IG996	1066	901	55	45	45	996	-	-	-	912	45	6	152	20	-	0.5	952	18	1042	18

Other Products

*Worm Drive Slewing Rings
Geared Exciters*

*Parallel Shaft Speed Reducers
Shaft Mounted Speed Reducers*

*Planetary Gearboxes
Counterflow Mixer Drives*