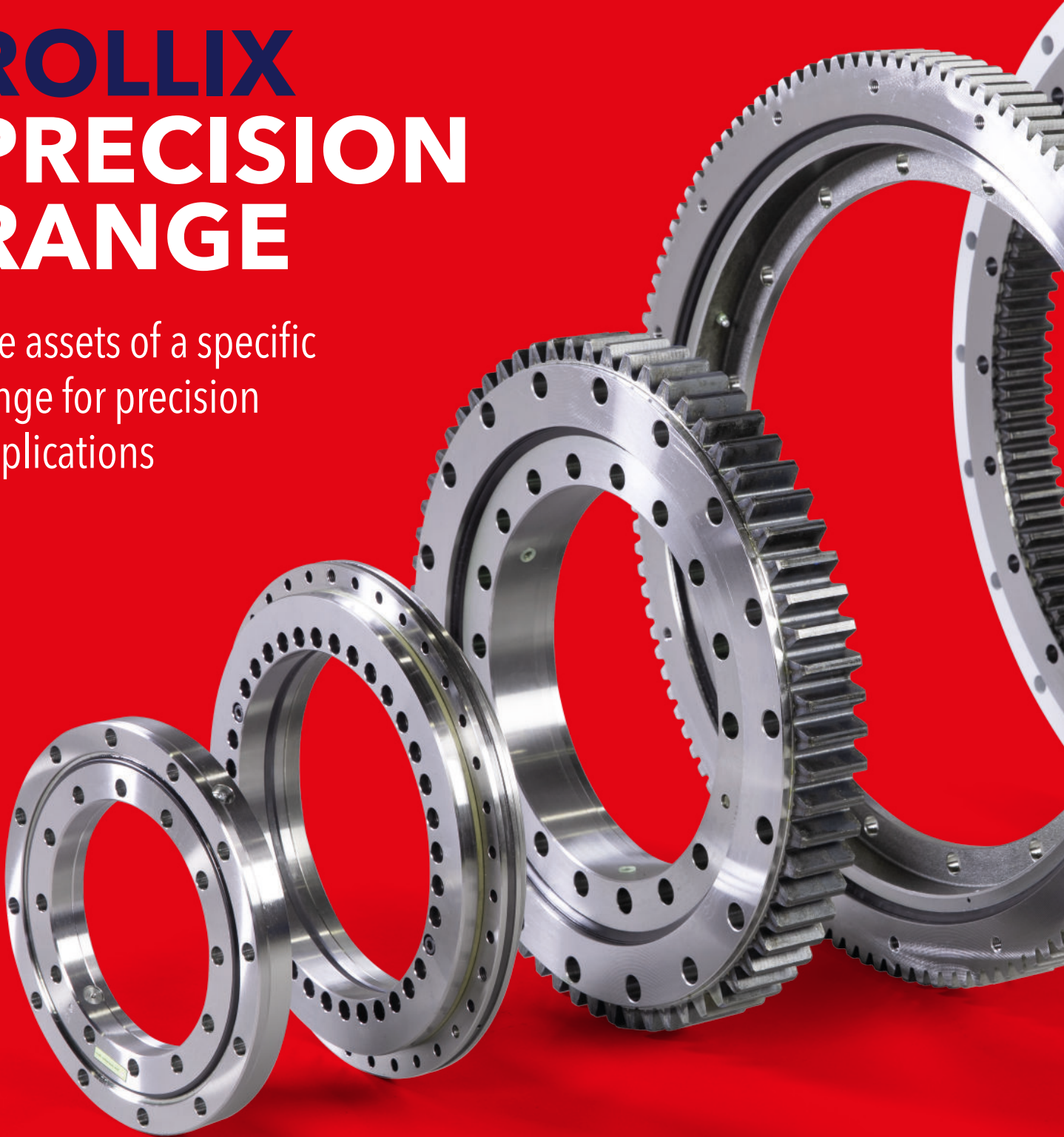




ROLLIX PRECISION RANGE

The assets of a specific
range for precision
applications



DEFONTAINE GROUP



With almost 80 years of experience. Defontaine Group is today one of the world's leading companies in the design and manufacture of complex mechanical parts and sub-assemblies. Our 3 factories in France, China and Tunisia deliver daily to more than 1,300 customers on 5 continents.

OUR VISION

Creating sustainable value

The Defontaine Group creates long-lasting partnerships with its customers. This local support approach for our partners is based on 3 guiding principles:

Sustainable development

New technologies

Commitment to people



Rollix is a worldwide reference and has been designing and manufacturing slewing rings since 1969 for demanding applications in terms of capacity, service life and precision: wind power, machine tool, railway, radar, defence, offshore, medical industry, etc.

PRECISION RANGE

Rollix precision range is designed to fit its customers' specific expectations. This range is developed to give a high precision in positioning, which brings a great advantage for robots, indexing tables, positioners, machine tools, turntables, etc.

ROLLIX KNOW-HOW IN ROBOTICS

- More than 40 years of experience
- More than 150,000 slewing rings in service
- Reliable slewing rings appropriate to the machine life time
- A crossed roller design with preload and ground raceway

A TOP-OF-THE RANGE PRODUCT

- High stiffness
- Homogeneous rotation with low torque
- High geometric quality

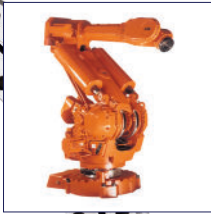
EASY TO USE

- Compact design
- Quick and easy to install
- Ex stock availability
- Reduced prototyping time
- Competitive solution

GENERAL FEATURES

RANGE	MATERIAL	LUBRICATION	INSTALLATION & MAINTENANCE	TEMPERATURE USE
COMPACT	42CrMo4	Mobilux EP2 grease	IT - ETR 941	-25 to +70° C
COMPACT - LIGHT	XC45	Mobilux EP2 grease	IT - ETR 941	-25 to +70° C
RT	100C6	Mobilux EP2 grease	IT - ETR 238	-25 to +120° C

ROLLIX COMPACT - CB
ROLLIX COMPACT - HP & P
ROLLIX COMPACT - XL
ROLLIX COMPACT - LIGHT
ROLLIX - RT

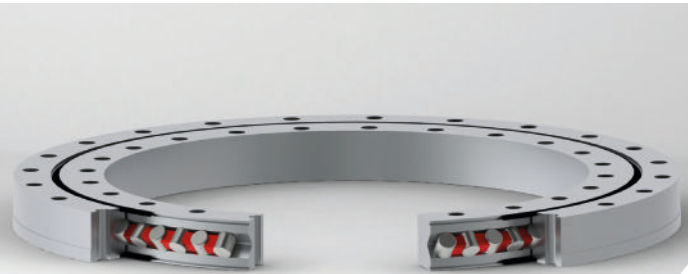


Machine tool
Indexing table
Tool changer
Turntable
Robot
Welding cell

ROLLIX

COMPACT CB

Compact Design
with counterbores
on both rings

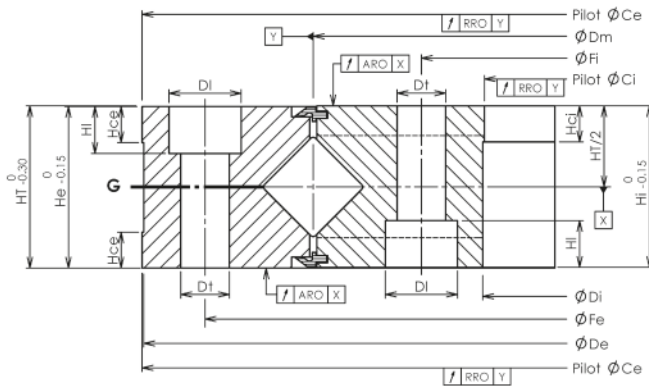


Compact design extra small range

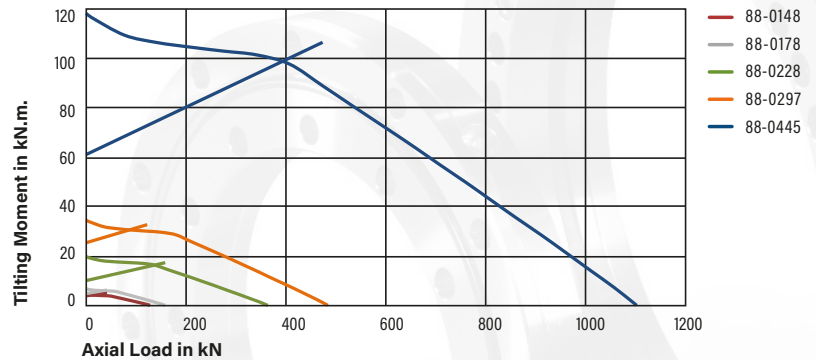


REFERENCES	WEIGHT in kg	DIMENSIONS in mm									FASTENING in mm							2 equispaced grease nipples Dimensions	AXIAL RUN- OUT (ARO) in μm		RADIAL RUN- OUT (RRO) in μm		MAXIMUM STARTING TORQUE (unloaded) in Nm	MAXIMUM ALLOWABLE ROTATION SPEED in rpm
		De	Di	Ce (h5)	CI (H5)	HT	He	Hce	Hi	Hci	Dt	DI	HI	Fe	Ne*	FI	Ni**		OR	IR	OR	IR		
88-0148-00	4	208	91	210	90	25	24.8	6	24.8	10	9	14	8.6	187	12	112	12	M6 x 1.00	4	4	4	4	10	235
88-0178-00	6	239	116	240	115	28	27.8	8	27.8	10	9	14	8.6	217	12	139	12	M6 x 1.00	5	5	5	5	15	195
88-0228-00	11	294	161	295	160	35	34.8	10	34.8	10	11	17.5	10.8	270	12	184	12	M10 x 1.00	6	6	6	6	20	150
88-0297-00	21	379	211	380	210	40	39.8	10	39.8	10	13.5	20	13	350	16	240	16	M10 x 1.00	8	8	8	8	35	115
88-0445-00	41	539	351	540	350	45	44.8	10	44.8	10	13.5	20	13	505	24	385	24	M10 x 1.00	12	12	12	12	55	75

*Ne: Number of holes on Outer Ring - **Ni: Number of holes on Inner Ring.



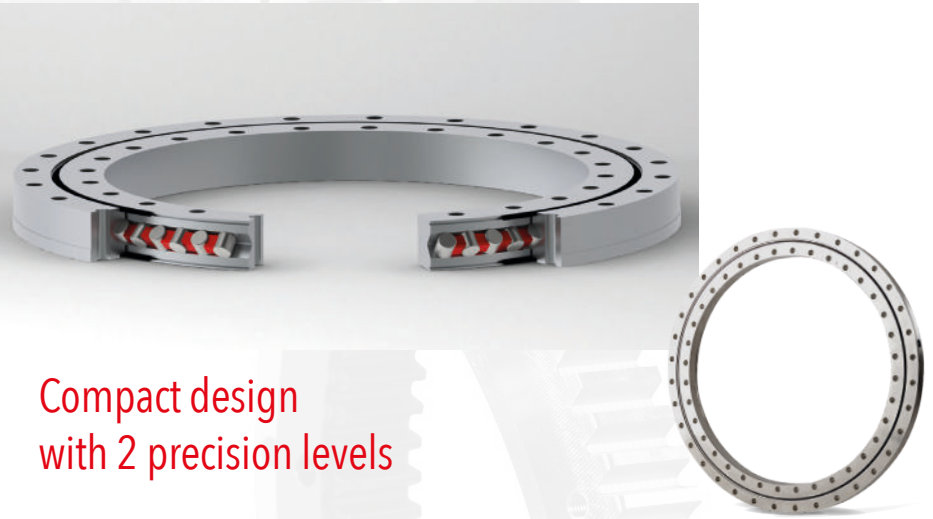
STATIC CAPACITY CURVES



ROLLIX

COMPACT HP & P

A range available
in 5 diameters



Compact design
with 2 precision levels

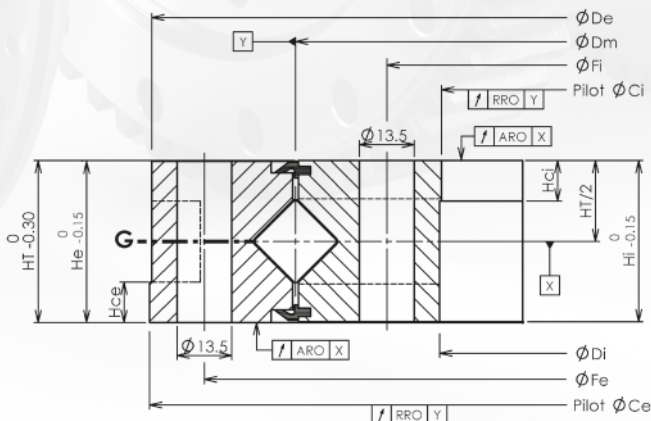
ROLLIX COMPACT HP (HIGH PRECISION)

REFERENCES	WEIGHT in kg	DIMENSIONS in mm								FASTENING in mm					2 equispaced counterbored grease nipples	AXIAL RUN- OUT (ARO) in μm		RADIAL RUN- OUT (RRO) in μm		MAXIMUM STARTING TORQUE (unloaded) in Nm	MAXIMUM ALLOWABLE ROTATION SPEED in rpm
		De	Di	Ce (h5)	Ci (H5)	HT	He	Hce	Hi	Hci	Fe	Ne*	Fi	Ni**	Dimensions	OR	IR	OR	IR		
88-0240-01	9	296	184	297	183	30	29.8	8	29.8	10	275	12	205	12	M6 x 1.00	4	4	4	4	25	145
88-0352-01	23	423	281	424	280	40	39.8	10	39.8	10	396	18	308	18	M10 x 1.00	6	6	6	6	40	95
88-0455-01	30	526	384	527	383	40	39.8	10	39.8	10	500	24	410	24	M10 x 1.00	7	7	7	7	50	75
88-0550-01	36	621	479	622	478	40	39.8	10	39.8	10	595	30	505	30	M10 x 1.00	8	8	8	8	65	60
88-0650-01	42	721	579	722	578	40	39.8	10	39.8	10	695	36	605	36	M10 x 1.00	10	10	10	10	80	50

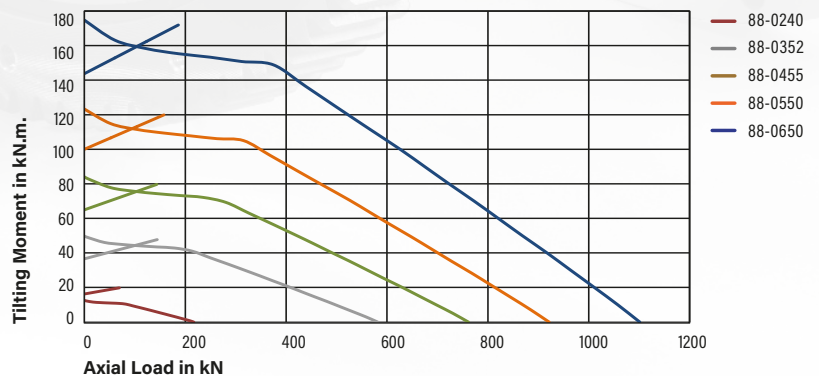
ROLLIX COMPACT P (PRECISION)

REFERENCES	WEIGHT in kg	DIMENSIONS in mm								FASTENING in mm					2 equispaced counterbored grease nipples	AXIAL RUN- OUT (ARO) in μm		RADIAL RUN- OUT (RRO) in μm		MAXIMUM STARTING TORQUE (unloaded) in Nm	MAXIMUM ALLOWABLE ROTATION SPEED in rpm
		De	Di	Ce (h6)	Ci (H6)	HT	He	Hce	Hi	Hci	Fe	Ne*	Fi	Ni**	Dimensions	OR	IR	OR	IR		
88-0240-00	9	296	184	297	183	30	29.8	8	29.8	10	275	12	205	12	M6 x 1.00	10	10	10	10	25	145
88-0352-00	23	423	281	424	280	40	39.8	10	39.8	10	396	18	308	18	M10 x 1.00	15	15	15	15	40	95
88-0455-00	30	526	384	527	383	40	39.8	10	39.8	10	500	24	410	24	M10 x 1.00	15	15	15	15	50	75
88-0550-00	36	621	479	622	478	40	39.8	10	39.8	10	595	30	505	30	M10 x 1.00	20	20	20	20	65	60
88-0650-00	42	721	579	722	578	40	39.8	10	39.8	10	695	36	605	36	M10 x 1.00	20	20	20	20	80	50

*Ne: Number of holes on Outer Ring - **Ni: Number of holes on Inner Ring.



STATIC CAPACITY CURVES

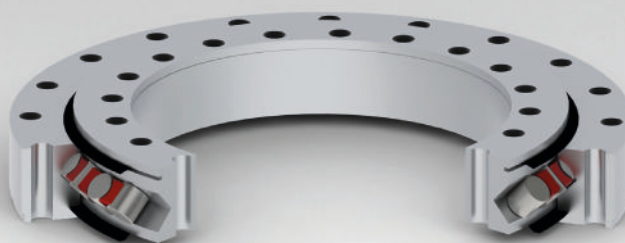


ROLLIX

COMPACT XL

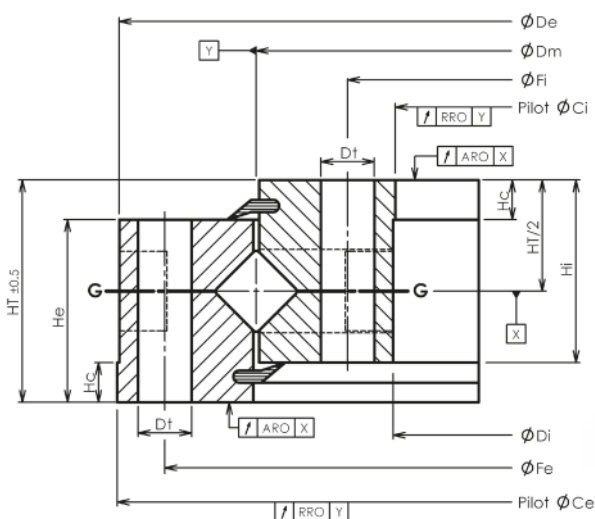
Extended range
for Extra Large
Rotary Tables

Unique existing extra large
precision range on the market

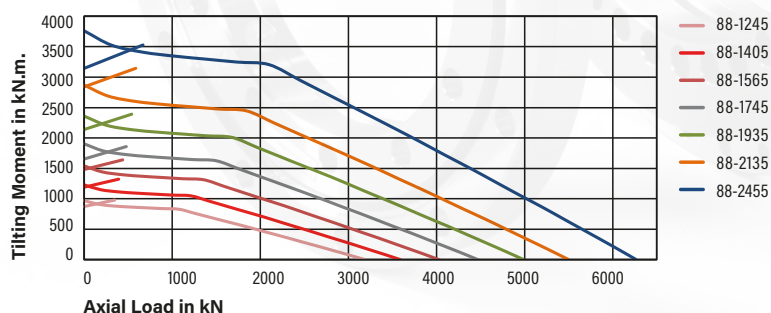
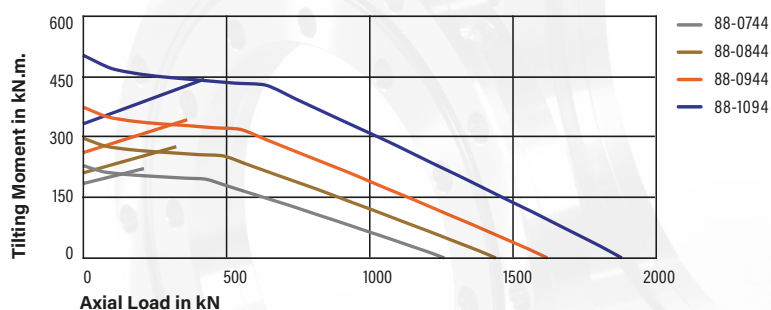


REFERENCES	WEIGHT in kg	DIMENSIONS in mm								FASTENING in mm				Counterbored grease nipples M10 x 1.00	AXIAL RUN-OUT (ARO) in µm		RADIAL RUN-OUT (RRO) in µm		MAXIMUM STARTING TORQUE (unloaded) in Nm	MAXIMUM ALLOWABLE ROTATION SPEED in rpm	
		De	Di	Ce (h6)	Ci (H6)	HT	He	Hi	Hc	Dt	Fe	Ne*	Fi		Ni**	Nb by ring	OR	IR			OR
88-0744-00	54	813	675	814	674	56	46	46	10	13.5	790	40	698	40	4	20	20	20	20	150	47
88-0844-00	62	913	775	914	774	56	46	46	10	13.5	890	40	798	40	4	25	25	25	25	180	41
88-0944-00	69	1013	875	1014	874	56	46	46	10	13.5	990	44	898	44	4	30	30	30	30	200	37
88-1094-00	81	1163	1025	1164	1024	56	46	46	10	13.5	1140	48	1048	48	4	30	30	30	30	250	32
88-1245-00	199	1355	1135	1356	1134	75	65	65	10	175	1305	60	1185	60	6	30	30	30	30	275	28
88-1405-00	224	1515	1295	1516	1294	75	65	65	10	175	1465	72	1345	72	6	30	30	30	30	300	25
88-1565-00	296	1685	1445	1687	1443	80	70	70	10	175	1625	80	1505	80	8	40	40	40	40	350	22
88-1745-00	348	1870	1620	1872	1618	80	70	70	10	175	1805	80	1685	80	8	50	50	50	50	375	20
88-1935-00	645	2095	1775	2097	1773	100	90	90	15	22	2010	60	1860	60	10	50	50	50	50	600	18
88-2135-00	709	2295	1975	2297	1973	100	90	90	15	22	2210	72	2060	72	8	60	60	60	60	650	16
88-2455-00	819	2615	2295	2617	2293	100	90	90	15	22	2530	72	2380	72	8	60	60	60	60	650	14

*Ne: Number of holes on Outer Ring - **Ni: Number of holes on Inner Ring.



STATIC CAPACITY CURVES

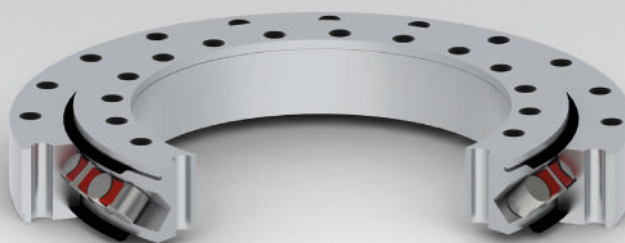


ROLLIX

COMPACT LIGHT LUG

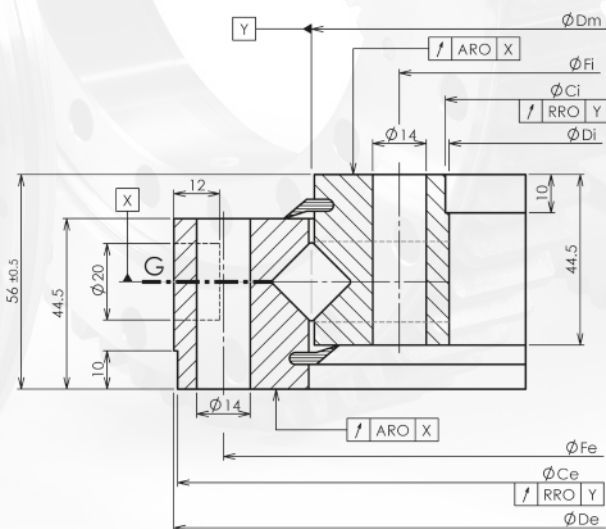
A new range
with intermediate
precision

Compact design ungeared

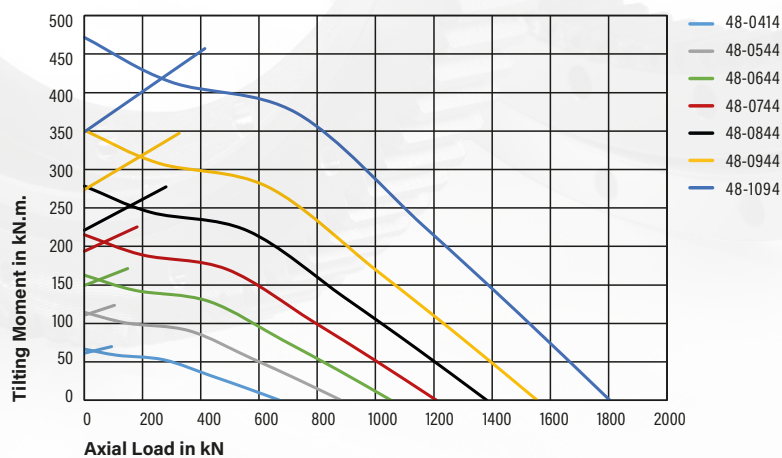


REFERENCES	WEIGHT in kg	DIMENSIONS in mm				FASTENING in mm				4 counterbored equispaced grease holes	AXIAL RUN-OUT (ARO) in μm		RADIAL RUN-OUT (RRO) in μm		MAXIMUM STARTING TORQUE (unloaded) in Nm	MAXIMUM ALLOWABLE ROTATION SPEED in rpm
		De	Di	Ce (h7)	CI (H7)	Fe	Ne*	Fi	Ni**	Dimensions	OR	IR	OR	IR		
48-0414-00	28	486	342	484	344	460	24	368	24	M8 x1.00	40	40	60	60	130	85
48-0544-00	37	616	472	614	474	590	32	498	32	M8 x1.00	40	40	70	70	190	64
48-0644-00	45	716	572	714	574	690	36	598	36	M8 x1.00	50	50	80	70	240	54
48-0744-00	52	816	672	814	674	790	40	698	40	M8 x1.00	50	50	80	80	293	47
48-0844-00	59	916	772	914	774	890	40	798	40	M8 x1.00	50	50	90	80	349	41
48-0944-00	66	1016	872	1014	874	990	44	898	44	M8 x1.00	60	60	90	90	408	37
48-1094-00	77	1166	1022	1164	1024	1140	48	1048	48	M8 x1.00	70	70	110	110	500	32

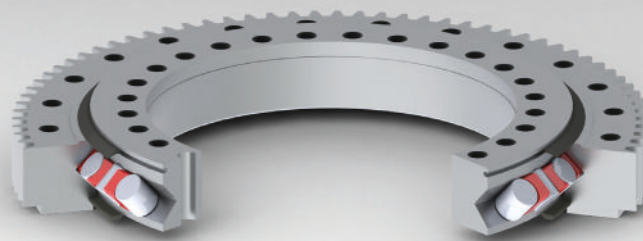
*Ne: Number of holes on Outer Ring - **Ni: Number of holes on Inner Ring.



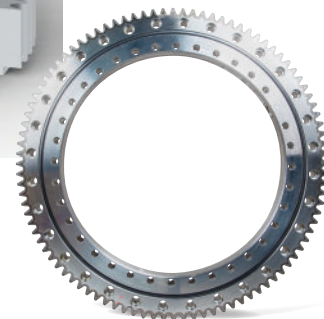
STATIC CAPACITY CURVES



A new range with intermediate precision



Compact design with external gear



*Ne: Number of holes on Outer Ring - **Ni: Number of holes on Inner Ring.

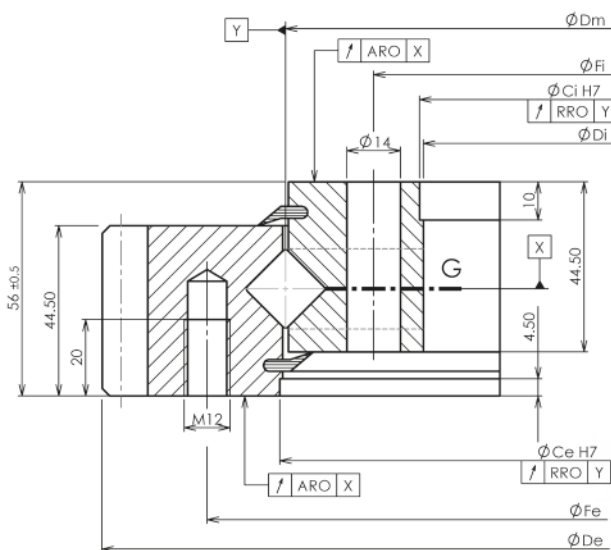


Figure 10 is a line graph showing the relationship between Axial Load (kN) on the x-axis and Tilting Moment (kN.m) on the y-axis for various specimens. The x-axis ranges from 0 to 2000 kN, and the y-axis ranges from 0 to 500 kN.m. The specimens are labeled as 46-0414, 46-0544, 46-0644, 46-0744, 46-0844, 46-0944, and 46-1094. The graph shows that the tilting moment generally decreases as the axial load increases, with some specimens showing a peak moment at low axial loads before decreasing.

ROLLIX

COMPACT LIGHT LIG

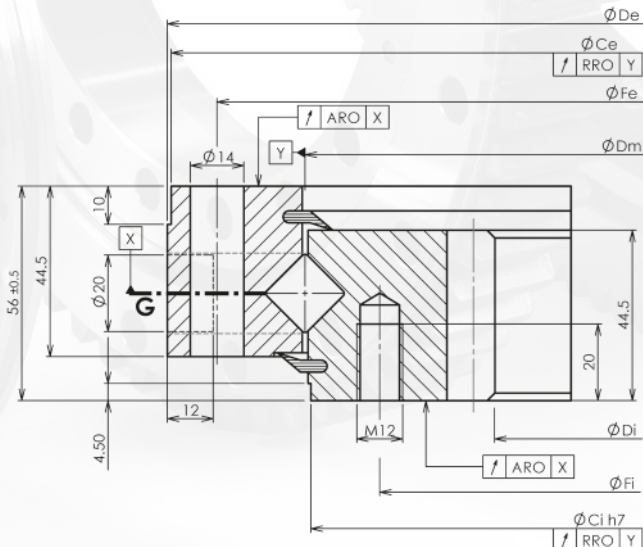
A new range
with intermediate
precision



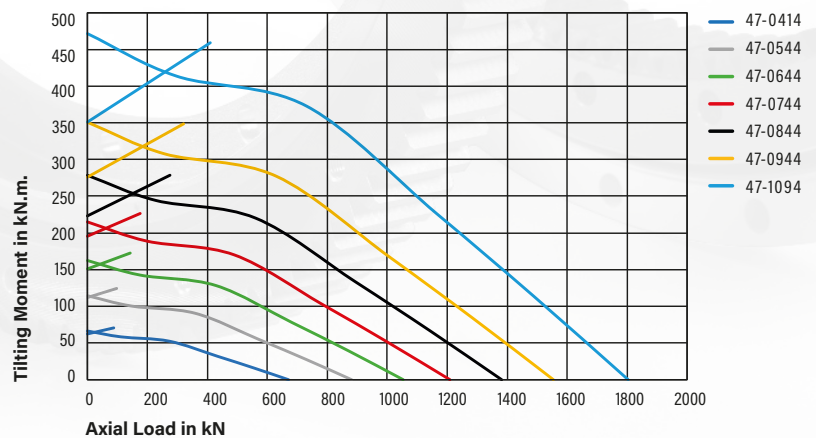
Compact design with internal gear

REFERENCES	WEIGHT in kg	DIMENSIONS in mm				FASTENING in mm				4 grease holes equispaced	AXIAL RUN-OUT (ARO) in μ m		RADIAL RUN-OUT (RRO) in μ m		MAXIMUM STARTING TORQUE (unloaded) in Nm	MAXIMUM ALLOWABLE ROTATION SPEED in rpm	GEAR quality 9 according to ISO 1328			
		De	Di	Ce (h7)	CI (H7)	Fe	Ne*	Fi	Ni**		OR	IR	OR	IR			Module	Nb of teeth	Run-out in mm	Static Gear Resistance (in kN)
47-0414-00	30	486	326	484	411	460	24	375	24	M8 x1.00	40	40	60	60	130	85	5	67	0.11	31
47-0544-00	43	616	445	614	541	590	32	505	32	M8 x1.00	40	40	70	70	190	64	6	76	0.11	38
47-0644-00	50	716	547	714	641	690	36	605	36	M8 x1.00	50	50	80	70	240	54	6	93	0.11	39
47-0744-00	57	816	649	814	741	790	40	705	40	M8 x1.00	50	50	80	80	293	47	6	110	0.12	40
47-0844-00	69	916	738	914	841	890	40	805	40	M8 x1.00	50	50	80	80	349	41	8	94	0.14	52
47-0944-00	76	1016	842	1014	941	990	44	905	44	M8 x1.00	60	60	90	90	408	37	8	107	0.14	53
47-1094-00	91	1166	986	1164	1091	1140	48	1055	48	M8 x1.00	70	70	110	110	500	32	8	125	0.14	53

*Ne: Number of holes on Outer Ring - **Ni: Number of holes on Inner Ring.



STATIC CAPACITY CURVES



ROLLIX

RT

For Rotary Tables
From 200 to 1,030 mm

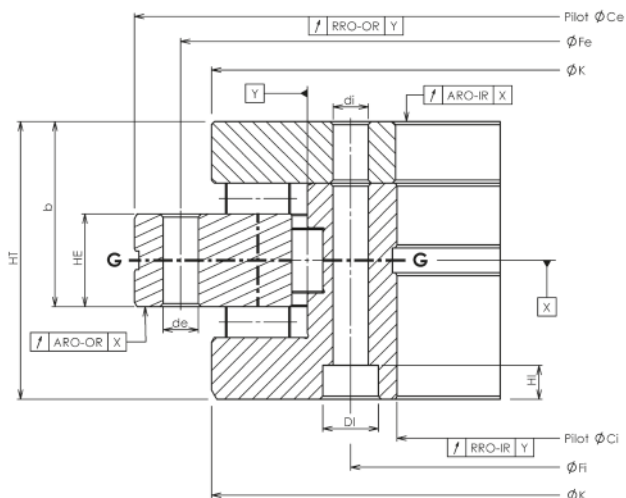


FEATURES

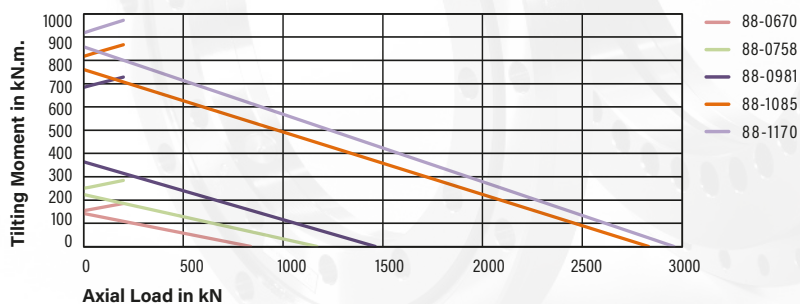
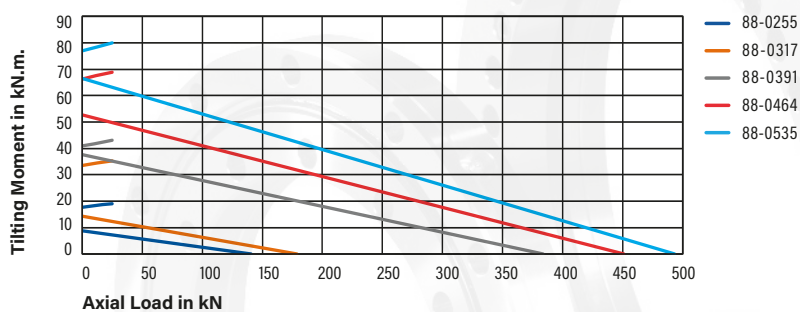
Very high stiffness
High rotation accuracy
High geometric quality
Interchangeable with market established standards: similar range of rotation speed, same accuracy, short lead time, high service

PERFECT FOR APPLICATION REQUIRING A HIGH POSITIONING ACCURACY

- Rotary & indexing tables
- Machining centers
- Milling machines
- Drilling machines



STATIC CAPACITY CURVES



REFERENCES	ARTICLE NUMBER	WEIGHT in kg	DIMENSIONS in mm							FASTENING in mm								GREASE HOLES		AXIAL RUN-OUT (ARO) in µm		RADIAL RUN-OUT (RRO) in µm		MAXIMUM STARTING TORQUE (unloaded) in Nm	MAXIMUM ALLOWABLE ROTATION SPEED in rpm
			Dm	Ce	Cl	K	HT	HE	b	Fe	de	Ne*	Fi	Di	di	Ni**	Dimensions	Nb by ring	OR	IR	OR	IR			
RT 200	88-0255-60	9.7	255	300	200	274	45	15	30	285	7	45	215	11	7	46	3	1	4	4	4	4	15	170	
RT 260	88-0317-60	19	317	385	260	345	55	18	36.5	365	9.3	33	280	15	9.3	34	4	1	6	6	6	6	25	130	
RT 325	88-0391-60	25	391	450	325	415	60	20	40	430	9.3	33	342	15	9.3	34	4	1	6	6	6	6	48	110	
RT 395	88-0464-60	33	464	525	395	486	65	20	42.5	505	9.3	45	415	15	9.3	46	4	1	6	6	6	6	55	90	
RT 460	88-0535-60	45	535	600	460	560	70	22	46	580	9.3	45	482	15	9.3	46	4	3	6	6	6	6	70	80	
RT 580	88-0670-60	90	670	750	580	700	90	30	60	720	11.4	42	610	18	11.4	46	4	3	10	10	10	10	140	60	
RT 650	88-0758-60	170	758	870	650	800	122	34	78	830	14	42	680	20	14	46	4	3	10	10	10	10	200	55	
RT 850	88-0981-60	255	981	1095	850	1018	124	37	80.5	1055	18	54	890	26	18	58	4	3	12	12	12	12	300	40	
RT 950	88-1085-60	312	1085	1200	950	1130	132	40	86	1160	18	54	990	26	18	58	4	3	12	12	12	12	600	40	
RT 1030	88-1170-60	375	1170	1300	1030	1215	145	40	92.5	1255	18	66	1075	26	18	60	6	3	12	12	12	12	800	35	

*Ne: Number of holes on Outer Ring - **Ni: Number of holes on Inner Ring.

MECHANICAL CHARACTERISTICS*

REFERENCES	ARTICLE NUMBER	STATIC CAPACITIES From ISO 76			MAXIMUM LOADS RECOMMENDED BY ROLLIX			DYNAMIC CAPACITIES 1 800 000 REV MAX DYNAMIC LOADS RECOMMENDED		
		AXIAL (in kN)	RADIAL (in kN)	ANGULAR (in kN.m)	AXIAL (in kN)	RADIAL (in kN)	ANGULAR (in kN.m)	AXIAL (in kN)	RADIAL (in kN)	ANGULAR (in kN.m)
RT 200	88-0255-60	599	289	36	141	66	9	112	79	9
RT 260	88-0317-60	761	379	59	179	87	14	125	89	13
RT 325	88-0391-60	1635	619	154	384	141	38	258	147	33
RT 395	88-0464-60	1922	743	216	451	170	53	280	160	43
RT 460	88-0535-60	2099	867	273	492	198	66	289	173	51
RT 580	88-0670-60	3571	1368	581	839	313	142	503	262	110
RT 650	88-0758-60	4982	1543	919	1171	353	225	625	277	155
RT 850	88-0981-60	6226	2028	1493	1463	463	364	694	316	222
RT 950	88-1085-60	12051	3379	3160	2833	770	761	1408	582	498
RT 1030	88-1170-60	12589	3650	3565	2960	832	858	1429	604	546

*Dynamic capacities must be considered as a maximum for dynamic loads to warranty a good reliability for life expectancy calculations.

CONTACT STIFFNESSES*

REFERENCES	ARTICLE NUMBER	TANGENTIAL RIGIDITY FOR LOW LOADS (UNDER PRELOAD)			TANGENTIAL RIGIDITY FOR HIGH LOADS (MAX DYNAMIC LOAD)			SECANT RIGIDITY FOR HIGH LOADS (MAX DYNAMIC LOAD)		
		AXIAL (in kN/µm)	RADIAL (in kN/µm)	ANGULAR (in kN.m/µrad)	AXIAL (in kN/µm)	RADIAL (in kN/µm)	ANGULAR (in kN.m/µrad)	AXIAL (in kN/µm)	RADIAL (in kN/µm)	ANGULAR (in kN.m/µrad)
RT 200	88-0255-60	14.0	4.5	0.11	9.6	4.4	0.078	9.8	3.8	0.080
RT 260	88-0317-60	17.7	5.7	0.24	11.5	5.6	0.159	12.5	4.8	0.166
RT 325	88-0391-60	28.9	7.4	0.55	17.7	6.8	0.357	22.1	5.9	0.418
RT 395	88-0464-60	34.2	8.3	0.92	20.6	8.0	0.582	26.3	6.9	0.704
RT 460	88-0535-60	37.2	9.4	1.34	22.4	9.2	0.837	29.2	7.9	1.032
RT 580	88-0670-60	44.5	12.4	2.56	27.0	11.4	1.58	35.7	10.1	1.98
RT 650	88-0758-60	62.3	14.5	4.45	37.2	12.6	2.80	52.0	11.3	3.65
RT 850	88-0981-60	77.4	17.6	9.22	46.0	16.2	5.91	68.2	14.3	7.96
RT 950	88-1085-60	96.2	18.3	14.1	59.6	18.3	8.9	70.2	15.8	10.3
RT 1030	88-1170-60	100.4	19.9	17.2	62.2	19.7	11.0	74.1	17.0	12.6

*These stiffnesses do not take into account rings and supports' flexion.



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DEFONTAINE GROUP

ROLLIX DEPARTMENT

RUE SAINT-ELOI

85530 LA BRUFFIÈRE

FRANCE

PHONE: +33 2 51 45 94 94

EMAIL: SALES@ROLLIX.COM

WWW.DEFONTAINE.COM



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