

Milling Rotary Table Milling table size 1000 and larger

by mounting ■ the same value for both mounting systems

- antifriction mounting
- hydrostatic mounting

Type / Designation		MRT 1000			MRT 1250			MRT 1600			MRT 2000			MRT 2500			MRT 3200		
Table sizes	mm	1,400	1,600	1,800	1,600	2,000	2,500	2,000	2,500	3,000	2,500	3,000	3,500	3,000	3,500	4,000	3,500	4,000	4,500
Load capacity, vertical rotation axis	kg	25,000	30,000	35,000	45,000	60,000	70,000	100,000	120,000	150,000	180,000	220,000	260,000	350,000	400,000	420,000	480,000		
Load capacity, horizontal rotation axis ¹	kg	10,000	—	15,000	—	30,000	—	—	—	—	—	—	—	—	—	—	—		
Mounting features																			
Bearing diameter	mm	1,000			1,250			1,600			2,000			2,600			3,200		
Safe max. tilting moment up to	Nm	70,000	80,000	160,000	180,000	220,000	240,000	280,000	310,000	350,000	400,000	420,000	480,000						
Drive gear²																			
Max. speed S6 up to	RPM	9			8			6			5			4			1,5		
Max. torque S6 up to	Nm	18,000			23,000			28,000			35,000			40,000			60,000		
Locking system																			
Tangential moment up to	Nm	35,000			40,000			60,000			90,000			120,000			150,000		
Accuracy																			
Dividing accuracy ³	arcsec	+/- 2			+/- 2			+/- 2			+/- 2			+/- 2			+/- 2		
Lateral runout	mm	0.015			0.02			0.025			0.035			0.05			0.06		
Circular runout ⁴	mm	0.01			0.01			0.01			0.01			0.01			0.01		

Type / Designation		LA 1000				LA 1250				LA 1600				LA 2000				LA 2500				LA 3200			
Travel	mm	1,000	1,500	2,000	2,500	1,000	1,500	2,000	2,500	1,000	1,500	2,000	2,500	1,000	1,500	2,000	2,500	1,000	1,500	2,000	2,500	1,000	1,500	2,000	2,500
Mounting features																									
Number of LM guides	units	2				2				3				4				4				4			
Size of LM guides / LM blocks		55				65				65				65				65				65			
Gearing/ball screw and nut assembly drive²																									
Speed	RPM	20				20				20				15				12				10			
Feed force	N	25,000				25,000				25,000				25,000				25,000				25,000			
Accuracy																									
Position uncertainty P	µm	7				7				7				7				7				7			
Position deviation Pa	µm	5				5				5				5				5				5			

1 Load capacity without counter-bearing
 2 Drive data are not associated one with another; they will be customized according to the application.
 3 Depending on the measuring system
 4 Hub centering
 Further information and customized modifications on request. Technical data are subject to change.

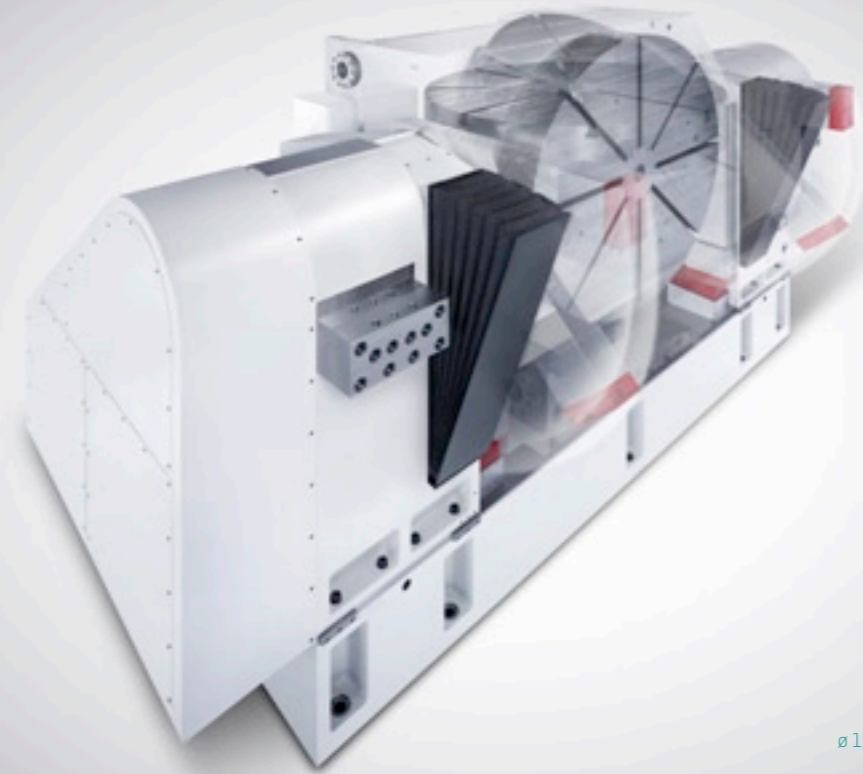
Milling

Rotary Tables for Bore, Drill & Mill Machines in gantry & column design

MRT ≥ 1000



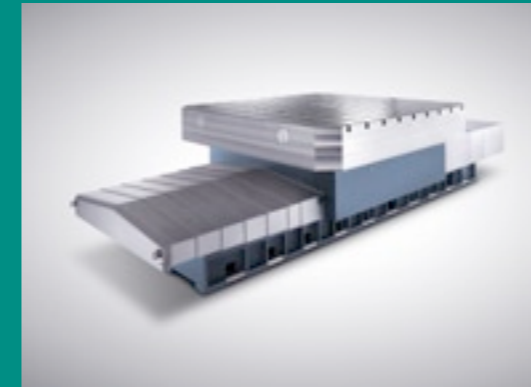
MRT milling



MRT 1000 2xs
ø 1,600 mm, load capacity 15 t



MRT 1600 (ø 2,000 mm, 15 t)



MRT 2000 with LA 2000 (3,000 x 3,000 mm, 100 t, W=2,000 mm)

Engineering solutions

Only if any single element provides optimal performance parameters can a rotary table system be tailored to customer's requirements. The MRT series size 1000 and larger offers a huge variety of table tops. In that series, the tables can be equipped with worm gear, spur gear with double pinion or electronically pre-loaded, as needed. All design types feature a hydraulic locking system. The measuring systems are fitted directly on the table axis for all sizes.

The MRT features a high tilt stiffness and an excellent running smoothness. The mounting options – hydrostatic or antifriction – provide an excellent machining quality of the component, in positioning and continuous operation. The tables may also include temperature control to ensure machining quality even if they run at high ambient temperature. As optional feature, the tables can also be equipped with a Hirth serration which helps compensate extremely high machining forces. Most of the tables can, of course, also be designed as horizontal axis.

Requirements

Customer requirements essentially determine the characteristic features of a product - this is the motto on which the Rückle group acts. For MRT series from size 1000 and larger we concentrate on satisfying customer's demand for several table tops within one construction size, a rigid mounting to bear component weights as high as 200 t and tilting moments up to 300 kNm.

The drive is required to be reliable and backlash-free to obtain an excellent control performance in positioning and continuous operation. The same applies to high accelerations, even during changes of direction, to enhance machining quality on heavy components. The locking system shall withstand machining moments as high as 200 kNm; positioning accuracy must be less than +/- 2 arcsec and repeatability less than +/- 1 arcsec.

A center bore for oil manifolds shall transfer the media to the clamping fixture and a flexibly designed housing shall allow the rotary table be accommodated directly in the machine, when necessary; always keeping in mind that accuracies like a lateral runout of 20 µm through ø 2,500 mm and a circular runout of 5 µm through ø 100 mm must be met.

Linear axes

Rückle's linear axes suit for all rotary tables of the MRT and TRT series. The LM guides are available in different travels. Always tailored to the table's actual bearing diameter, the distance between the guides grant high stiffness of the complete system. The axes also feature generously dimensioned drive systems.

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Your on-site Rückle group

Milling Rotary Table Milling table size 1000 and larger

Designed for bore, drill & mill machines in gantry or traveling column design, MRT series sized 1000 and larger is intended for milling, boring and drilling, in positioning and continuous operation. Their actual design will always be tailored to your machine.

Variable mounting configurations within one and the same construction size allow for different load capacities. We also offer customized linear axes which perfectly suit your current application.



Get in touch with our technical service

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