

1. Product overview



HIWIN RAB rotary and swivel tables

Page 9

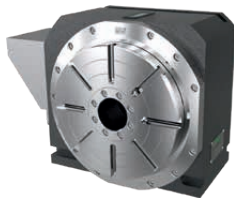
- Heavy-duty rotary and swivel table
- Swivel drive on both sides



HIWIN RAS rotary and swivel tables

Page 12

- Compact rotary and swivel table
- Swivel drive on one side



HIWIN RCV rotary tables

Page 16

- Vertical rotary table



HIWIN RCH rotary tables

Page 19

- Horizontal rotary table

Direct Drive Rotary Tables

General information

2. General information

2.1 Properties of rotary and swivel tables

HIWIN rotary and swivel tables are ready-to-install rotary axes that can be incorporated directly into the machine concept without the need for any design work. The maintenance-free direct drives they use ensure that the rotary axes deliver high-torque performance with exceptional accuracy. Thanks to the range of encoder interfaces provided, the rotary and swivel tables can be integrated easily into all commercially available machine control systems and thus all existing machine concepts.

Advantages

- Ready to install
- Maintenance-free
- Highly precise
- Extremely durable
- Tilt-resistant design
- Large-diameter turntable

2.2 Design of rotary and swivel tables



3. HIWIN RAB rotary and swivel tables

3.1 Properties of RAB rotary and swivel tables

RAB rotary and swivel tables are directly driven, maintenance-free precision axes. They use water-cooled torque motors from the TMRW series, guaranteeing high levels of acceleration and torque. Equipped with various high-resolution encoders, the rotary and swivel tables achieve accuracies of just a few arc seconds and can be integrated into all standard control concepts. Featuring crossed roller and axial/radial bearings, the tilt-resistant mechanical design is able to accommodate maximum loads.

Key features:

- Plug-and-play rotary and swivel table ready for installation
- Maintenance-free direct drives in all axes
- High acceleration, torque and accuracy
- Tilt-resistant mechanical design with large diameter
- Swivel axis with precision crossed roller bearings
- Rotary axis with extremely rigid axial/radial bearing
- Integrated clamp





Typical applications:

- 5-axis milling machines
- Laser processing machines



3.2 Specifications of RAB rotary and swivel tables

Table 3.1 RAB technical data

	Unit	RAB-400		RAB-500		RAB-630		RAB-800	
									
Axis		Rotary axis	Swivel axis ±120°	Rotary axis	Swivel axis ±120°	Rotary axis	Swivel axis ±120°	Rotary axis	Swivel axis ±120°
Drive motor		TMRWA5	TMRWAA	TMRWA7	TMRWAF	TMRWA7	TMRWAF	TMRWDF	TMRWDF
Max. speed	rpm	90	60	100	60	100	60	90	60
Continuous torque	Nm	430	860	600	1,290	600	2,580	2,200	4,400
Peak torque	Nm	810	1,600	1,100	2,400	1,100	4,800	3,900	7,800
Clamp		Pneumatic (6 bar)							
Clamp holding torque	Nm	2,400	3,240	2,400	4,800	2,400	4,800	4,200	8,400
Accuracy	arc sec	2.5/5.0/15.0							
Table diameter	mm	400		500		630		800	
Centre of swivel axis	mm	300		350		250		325	
Table height	mm	300		300		150		225	
T-groove width	mm	14 H8							
Weight	kg	800		1,000		1,200		2,200	
Max. load	kg	350		850		850		1,200	