5. HIWIN RCV rotary tables

5.1 Properties of RCV rotary tables

RCV rotary 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 tables achieve accuracies of just a few arc seconds and can be integrated into all standard control concepts. Featuring crossed roller bearings, the tilt-resistant mechanical design is able to accommodate maximum loads.
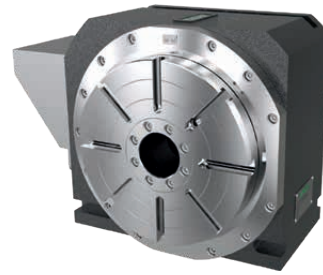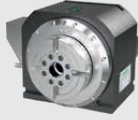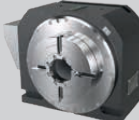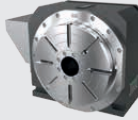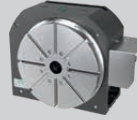
Key features:
- Plug-and-play rotary table ready for installation
- Maintenance-free direct drives
- High acceleration, torque and accuracy
- Tilt-resistant mechanical design with large diameter
- Extremely rigid crossed roller bearings
- Integrated clamp
- With option of tailstock as additional support bearing
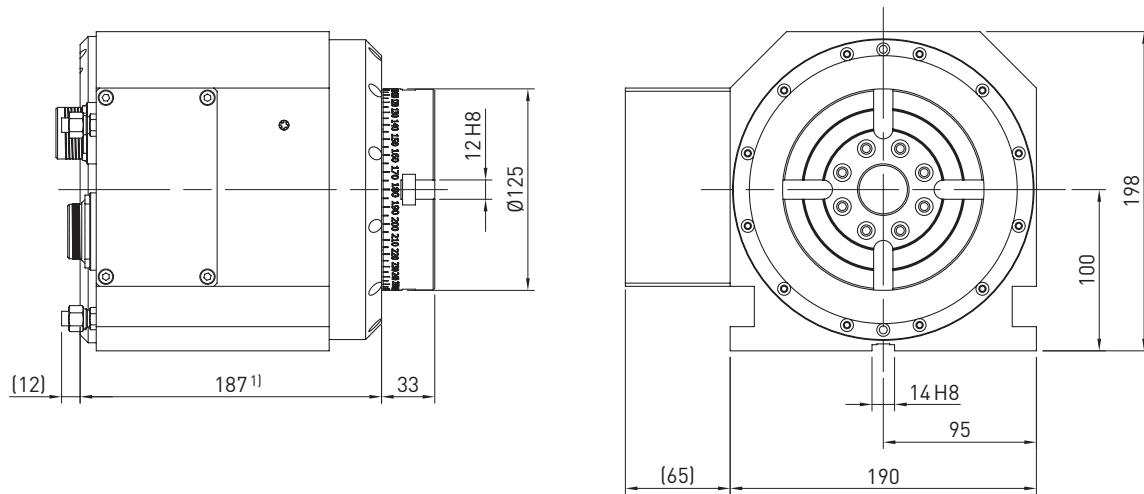
Typical applications:
- Additional rotary axis in machine tools
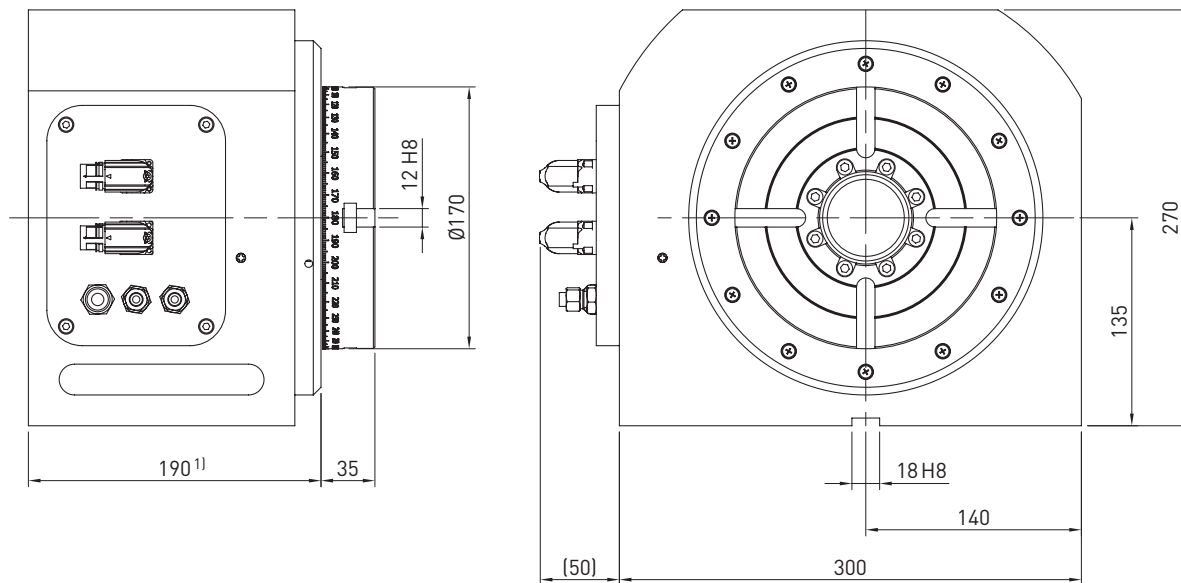- Laser processing machines

5.2 Specifications of RCV rotary tables

Table 5.1 **RCV technical data**					
	Unit	RCV-125	RCV-170	RCV-250	RCV-320
Drive motor		TMRW15	TMRW45	TMRW47	TMRWA5
Max. speed	rpm	400	200	140	90
Continuous torque	Nm	31.3	106	148	430
Peak torque	Nm	59.4	203	280	810
Clamp		Pneumatic (6 bar)			
Clamp holding torque	Nm	100	300	600	900
Accuracy	arc sec	2.5/5.0/15.0			
Table diameter	mm	125	170	250	320
Centre of swivel axis	mm	100	135	160	220
Diameter of hollow shaft	mm	Ø30 × 26L	Ø60	Ø60	Ø60
T-groove width	mm	12 H8	12 H8	12 H8	14 H8
Weight	kg	30	95	150	320
Max. load	kg	20	50	160	250

5.3 Dimensions of RCV rotary tables

RCV-125 dimensions

12 H8
Ø125
(12)   187 [1]   33

198
100
14 H8
95
(65)   190

RCV-170 dimensions

12 H8
Ø170
190 [1]   35
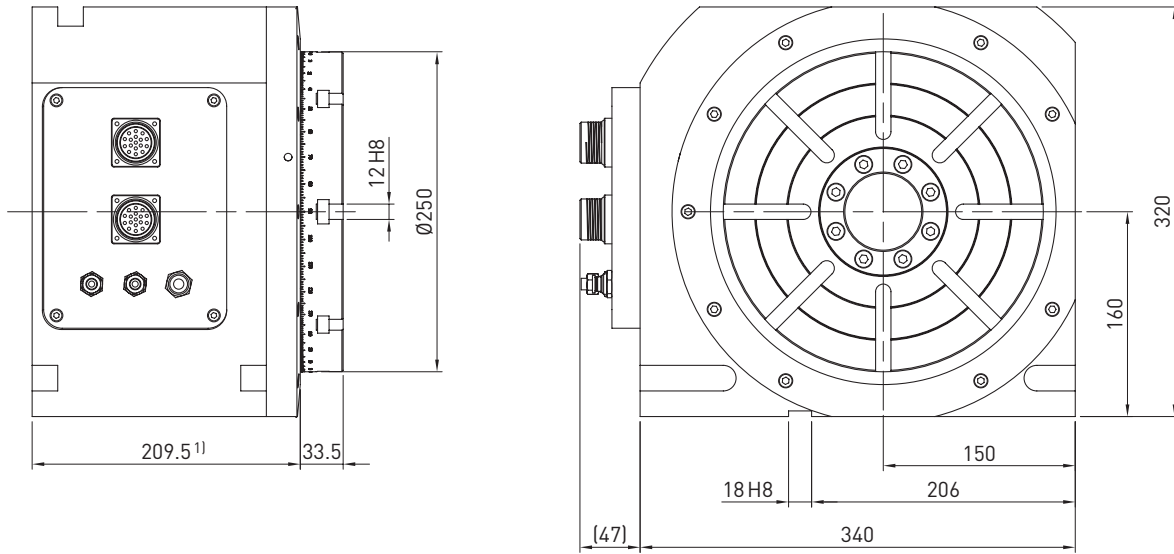
270
135
18 H8
140
(50)   300

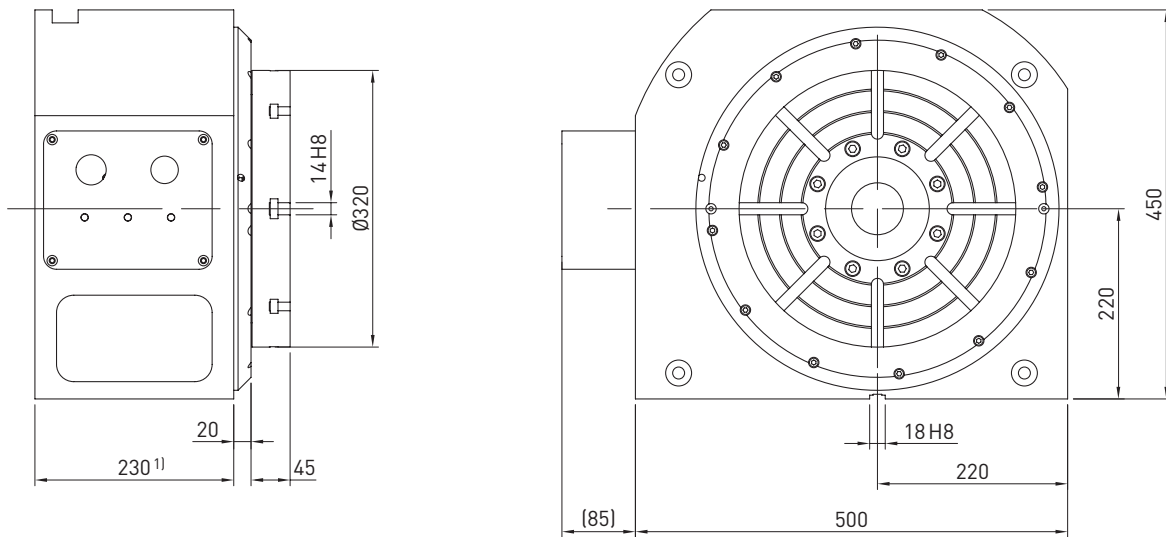[1] Size varies depending on the choice of distance measuring system

Direct Drive Rotary Tables

HIWIN RCV rotary tables

RCV-250 dimensions

RCV-320 dimensions

[1] Size varies depending on the choice of distance measuring system