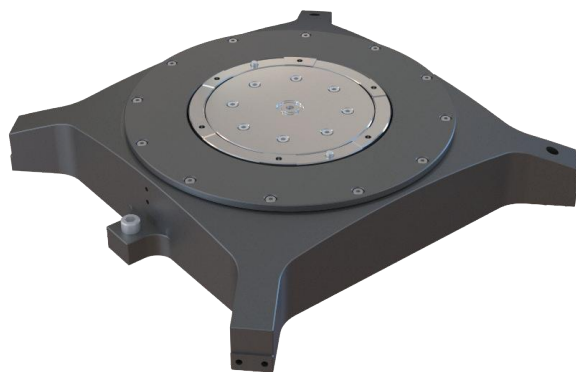


Mechanical-Bearing Rotary Stage



Features

- Zero cogging force motor technology for high velocity stability
- Optical linear encoder for high precision
- Infinition angle motion with optional rotation angle hard limit
- Vacuum feed-through to the chuck level, support for multi-airway air supply
- Excellent positioning accuracy and dynamic performance
- High accuracy of axial runout and radial runout

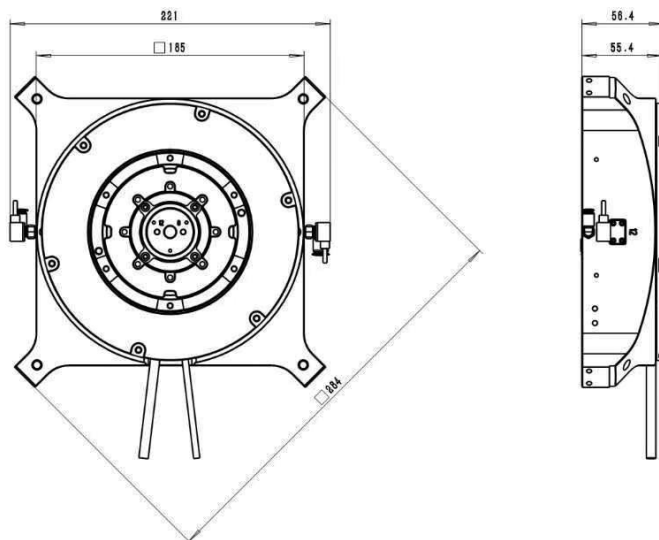
Description

The stage adopts low-profile design. High-precision, high-stiffness, infinition rotation in the T axis.

Applications

- Wafer process control
- Wafer dicing
- Wafer scribing
- Laser heat processing
- Photovoltaic cell production

Interface Definition



*Interface dimensions from RD180

Technical Specifications

RD180-00	
Accuracy_indicative value*	±30 arcsec
Accuracy_calibration value*	±3 arcsec
Bidirectional repeatability*	±2 arcsec
Axial runout	±3 μm
Radial runout	±3.5 μm
Tilt error motion	10 arcsec
Continuous torque	2.4 N·m
Max. velocity	150 rpm
Position stability (3σ) *	±0.072 arcsec
Move1:1 deg within ±40μdeg*	100 ms
Move2:180 deg within ±40μdeg*	500 ms
Mechanical properties	
Dimensions	284 mm X 284 mm
Max. load_Axial	7 Kg
Max. load_Radial	3 Kg
Inertia (No load)	0.00038 Kg·m ²

*Technical data specified with 20μm pitch encoder and under active vibration isolation environment.

Customization Information

The series is configured with options that can be selected based on the user's actual application. Options include encoder, Chuck air supply, control system and more.

Table 1 Encoder Options

-S1	Standard, Renishaw Encoder
-S2	High-end model, Heidenhain encoder

Table 2 Chuck Air Supply Options

-C1	Chuck with single air supply
-C2	Chuck with dual air supply
-C3	Chuck with triple air supply