

Thermo Scientific Orbitor RS Microplate Mover

The Thermo Scientific Orbitor RS is the next generation in plate moving technology. Its innovative bi-directional telescoping arm provides exceptional reach and precision while its expansive 360° workspace maximizes productivity. This flexible, compact robot easily accesses the most complicated instruments.



Superior Reach and Rotation

Increasing your throughput with automation has never been easier. The Thermo Scientific Orbitor RS™ automates multiple instruments even in high-density configurations. Extensive vertical reach allows the robot to access virtually any microplate instrument including stacked instruments, and its telescoping arm can reach a variety of distances. The ingenious arm travels right through the base, resulting in the most rapid and efficient movements. The Orbitor RS has a full 360° workspace with unlimited base rotation; this eliminates the need for hard stops and reverse movements. Robust performance and compact design have been merged together in this unique robot.

Flexible Storage

The Orbitor RS has storage for all SBS plate types including deep well plates, racks and tip boxes and it works with both lidded and unlidded plates. Random or sequential access combined with a variety of storage options delivers maximum flexibility. The Orbitor RS comes complete with integrated storage for 72 plates, and its adaptable design expands to accommodate up to 360 plates.

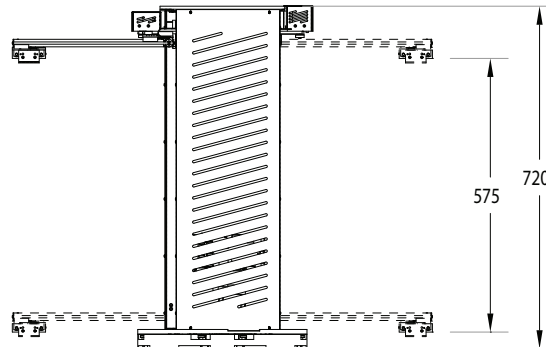
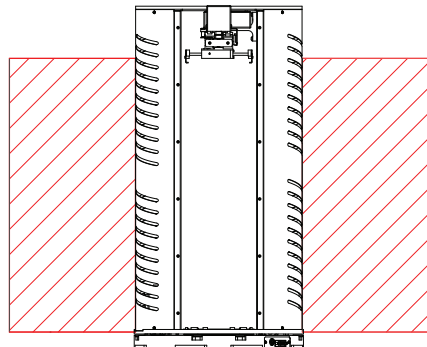
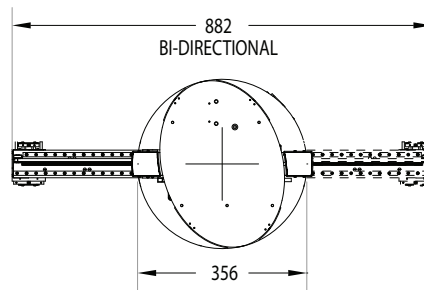
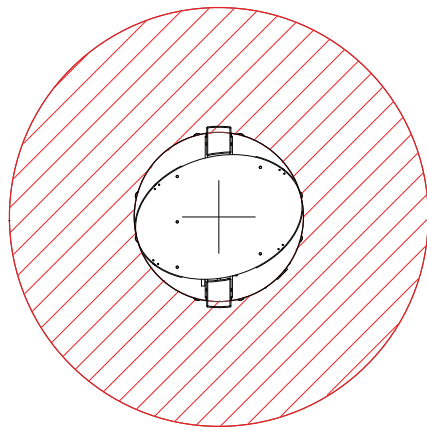
Precise Plate Handling

Advanced closed-loop motion control provides collision detection and position monitoring, allowing the robot to quickly resume without the need to re-home. With a wide range of grip-control functionality, this robot combines performance with innovation. From variable force control to plate detection, the feature-set is designed to impress. The result is remarkable speed, precise motion and consistent, accurate plate placement. You'll walk away with confidence.

Rapid and Reliable

The Orbitor RS is a compact platemover with unmatched speed and accuracy. This hybrid mover combines Thermo Scientific RapidStak and Dimension4 technology to create a superior robot. Built upon our heritage of robotics leadership and integration expertise, the Orbitor RS is a sound, reliable investment for any lab.





 WORKSPACE

ALL DIMENSIONS IN mm

Thermo Scientific Orbitor RS Specifications

Axis/Joint Specifications

Axis	Range	Velocity	Acceleration
Z (height)	575mm	750mm/sec	2250mm/sec ²
Radius (reach)	± 406mm	1200mm/sec	3600mm/sec ²
Theta (rotation)	Infinite	225deg/sec	675deg/sec ²
Gripper Stroke	51mm		

Storage Options

Hotels

Random Access	8 plates per hotel
Sequential Access	40 plates per hotel

Maximum Capacity with Hotels

Random Access	72 plates
Sequential Access	360 plates

General Specifications

Power Requirements	110-230V auto switching
Operating Environment	4 - 40°C, non-condensing
Safety Compliances	CE, CSA
Weight	25kg
Motion Control	Closed Loop Servo, Brushless AC Motor
Control	Directly from PC, requires Windows XP or Windows Vista operating systems

Gripper Details

Handles most SBS conforming plates
Landscape or Portrait
Easily handles lids
Plate detection during grip
Adjustable gripping force and speed
Variable plate/container finger designs

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