

Hollow MagiDrive Series

MD100H Series

CF100, 6" OD Flange



The MD100H is selected for demanding high torque and stiffness applications where a large bore is required, such as indexing robots or providing substrate rotation. The MD100H has a 65mm clear bore which enables a component to pass through the centre such as a heater module, cooling tubes or a second MagiDrive rotary feedthrough.

MD100H KEY ADVANTAGES

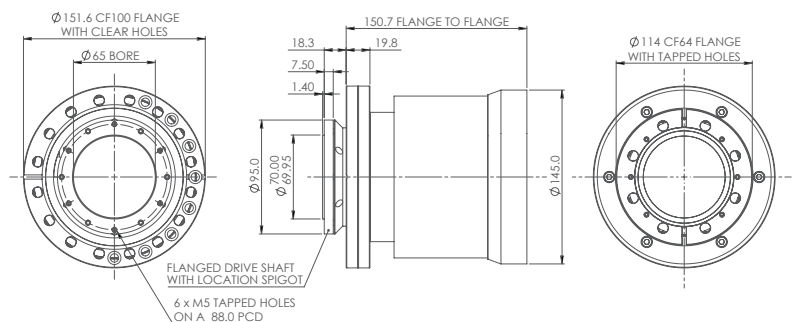
- » 65mm clear bore
- » Powerful, stiff coupling
- » No bellows or dynamic seals
- » Bakeable to 250°C
- » Zero backlash under low load
- » True UHV performance

The production-proven MagiDrive range of rotary feedthroughs enable rotation to be transferred into a vacuum system using a stiff high flux magnetic coupling. With no bellows, fluids or dynamic seals, the MagiDrive range offers reliable and totally leak-tight UHV operation.

The four largest MagiDrives are available in a hollow configuration, terminating with a non-rotating CF flange at the rear. This allows services to be passed through the drive or alternatively, an additional MagiDrive to be mounted to the rear, providing a secondary axes of rotation. Up to four independent axes of rotation can be provided by combining the MD16, MD35H, MD64H and MD100H MagiDrives. This stacking capability is typically used to provide simple solutions to sophisticated manipulation requirements.

Example Dimensions (mm)

For comprehensive 2D drawings & 3D models please contact us.



MD100H Technical Data

SPECIFICATION	VALUE
System mounting flange size	FC100 (6") with clear holes
Rear Flange	FC64 (4 1/2") with taped holes
Drive clear bore	68.3mm
Drive clear bore - with standard copper gasket	65mm
Magnetic breakaway torque	40Nm
Magnetic coupling stiffness	14 Nm/degree
Bakeout temperature	250 °C with motor removed
Shaft options	spigot flange
Shaft radial runout at shaft attachment	0.01mm
Maximum radial load	8000N
Maximum axial load	415N
Calibrated thimble option - resolution	1 degree
Pulley option - type and PCD	AT profile 46 teeth 10mm pitch and 146.42 PCD
Stepper motor option	23 frame 8 wires 3A / phase
Standard stepper option	UTO motor 23HT18C
Stepper motor max speed option 1, output torque & resolution per 1/2 step	150 rpm, 3.7Nm and 0.09 degrees
Stepper motor max speed option 2, output torque & resolution per 1/2 step	75 rpm, 7.3Nm and 0.045 degrees
Stepper motor max speed option 3, output torque & resolution per 1/2 step	30 rpm, 16.8Nm and 0.018 degrees
Stepper motor max speed option 4, output torque & resolution per 1/2 step	15 rpm, 33.6Nm and 0.009 degrees
DC motor option	24V dc brushed geared motor
DC motor option - motor wiring	2 pin generic plug to diagram WD-010
DC motor speed option 1 and output torque	230 rpm and 1.8Nm
DC motor speed option 2 and output torque	92 rpm and 4.6Nm
DC motor speed option 3 and output torque	46 rpm and 8.4Nm
DC motor speed option 4 and output torque	23 rpm and 16.8Nm

For more information:

UHV Design Ltd
 Judges House, Lewes Road,
 Laughton, East Sussex, BN8 6BN, UK
 T: +44(0)1323 811188
 E:sales@uhvdesign.com
 www.uhvdesign.com

To find your nearest UHV Design
 representative please visit www.uhvdesign.com
 and click 'Contact'.