



MRD6 Magnetically coupled rotary drive

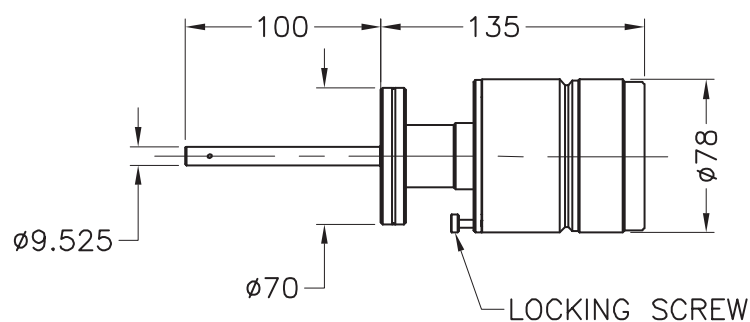
The MRD series magnetic rotary drive uses a high strength magnetic coupling to transfer rotational forces into the vacuum envelope. This is achieved without any dynamic seals or bellows making these devices exceptionally robust.



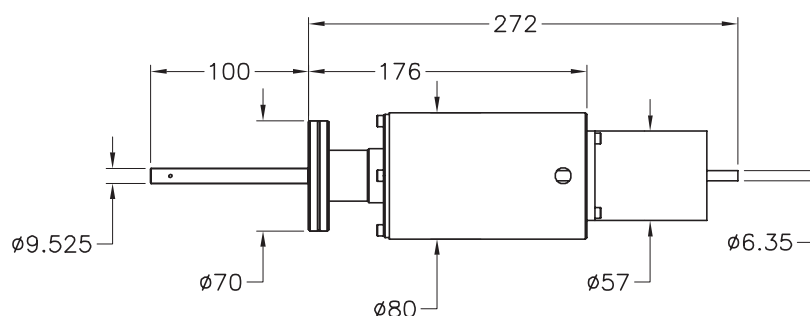
Product Overview

- Vacuum enclosure machined from single piece of 316 stainless steel
- No vacuum seals or bellows - no leaks to atmosphere
- Exceptional torsional rigidity
- Zero angular backlash under low load/acceleration
- Cannot be damaged by application of excessive torque
- Long service life
- Bakeable to 250 °C (standard UHV drive)
- Motor can be fitted/removed in minutes
- Manual drive has V-groove in drive knob for alternative motorisation

MRD6 Manual Rotary Drive



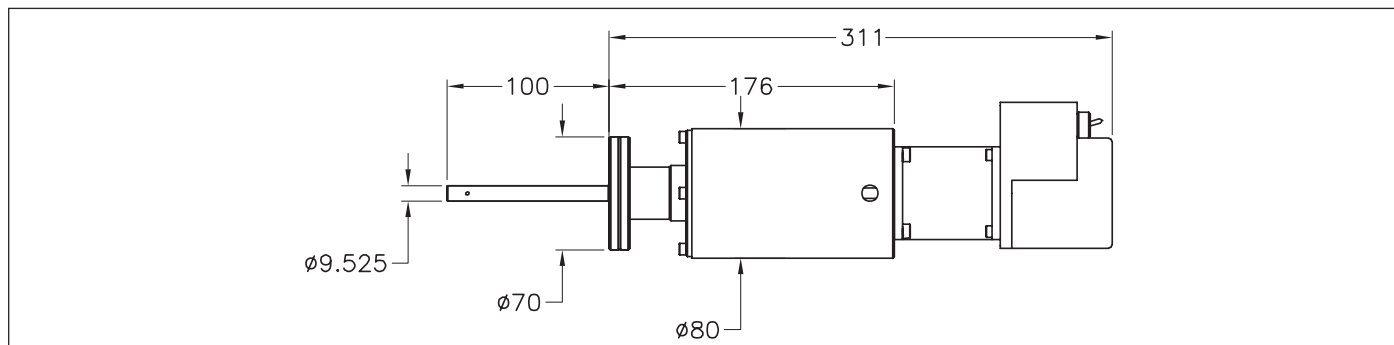
MRD6 Stepper Motor Drive





MRD6 Magnetically coupled rotary drive

MRD6 DC Motor Drive



MRD6 Magnetically-Coupled Rotary Drives

DN Type	Flange OD mm	Type of Operation	Breakaway Torque Nm	Thrust N	Max Rotation RPM	Life	Shipping Weight	Order Code
DN40	70	Manual	4	10	500	Standard	2	ZMRD6
DN40	70	Stepper Motor	4	1	500	Standard	2.3	ZMDR6M
DN40	70	DC Motor	4	10	500	Standard	2.5	ZMDR6D
DN40	70	Encoded Stepper	4	10	500	Standard	2.3	ZMDR6DME

Technical Data - ZMRD6

Leak Rate	1×10^{-10} mbar l.s ⁻¹
Pressure Range	1x10 ⁻¹⁰ mbar – 2 bar absolute
Temperature Range	250°C standard UHV drives (with motor / gearbox removed) 250°C extended UHV drives (with motor / gearbox removed)
Materials	Body - 316 stainless steel Mechanical parts - aluminium alloy - grade 6082 Bearings - stainless steel Magnets - sintered rare-earth
Lubrication	Dry film molybdenum disulphide (standard UHV drives) UHV compatible lubricant (extended life drives)
Actuation	Manual, Stepper Motor, Encoder, DC Motor
Options	Ceramic bearing options, special shaft length / diameters, available on request