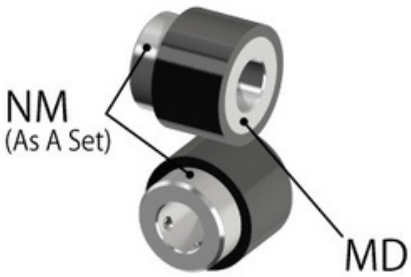
NON-CONTACT BONDED MAGNETIC SCREW GEARS

A cost-effective non-contact magnetic screw gear

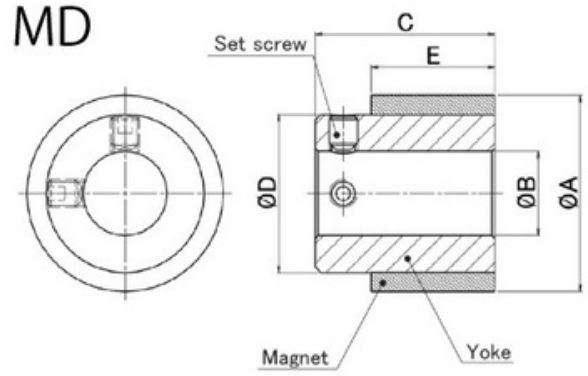
Non-Contact Technology Enables Clean, Quiet, and Safe Power Transmission

- No particle generation caused by contact surface wear
- Lubrication-free operation
- Barrier transmission enables seal-less structures
- Low noise and vibration through non-contact power transmission
- Easier assembly with high angular and eccentric misalignment
- tolerance Magnetic slip under overload helps improve safety



Bonded Magnetic Screw Gears are non-contact power transmission devices that replace convention screw gears, which transmit power between non-intersecting and non-parallel shafts, with permanen magnetic force. While conventional screw gears transmit power through sliding contact between heli
tooth surfaces, Bonded Magnetic Screw Gears transmit torque through magnetic interaction. Because there is no physical contact between the tooth surfaces, lubrication is not required. This enables low- noise and low-vibration operation while eliminating particle generation caused by tooth wear. As a result, these gears are well suited for applications requiring clean operating environments. The prima difference between Bonded Magnetic Screw Gears and the Magnetic Screw Gears introduced on a separate page is the magnetic material used. While Magnetic Screw Gears employ sintered neodymium magnets, Bonded Magnetic Screw Gears utilize bonded neodymium magnets, which consist of neodymium magnetic powder bound with resin. As a result, the maximum transmissible torque is lower than that of products using sintered neodymium magnets; however, manufacturing costs can be reduced, making these products available at a more economical price point. All product
presented on this page are standard models with a 1:1 speed ratio, consisting of a pair of cylindrical
rotors.

Magnet Material : Bonded neodymium
magnet Surface Treatment :
Magnets - Epoxy coating
Yoke - No surface treatment / A5060



Standard Stock Item

Model (Set)	Model (Individual)	Dimensions							Unit weight (g)	Maximum transmissible torque (N·m) and Air gap		
		A	B(Dimensions)	B(Tolerance)	C	D	E	Set screw		0.5 mm	1 mm	2 mm
NM1616-08	MD16-08	16	8	+0.05 0	19.5	15	12	M3	15	0.02	0.015	0.008
NM2626-08	MD26-08	26	12		25	24	14	M4	40	0.098	0.08	0.053
NM3535-12	MD35-12	35	15		32	32	22	M5	100	0.24	0.191	0.121

The above product data are values measured under ambient temperature conditions.