



1-833-METRIC2 (638-7422) • Sales@A2Zmetric.com • www.A2Zmetric.com

PERMANENT MAGNETIC COUPLING

Part Number	HP @ 1750 rpm	KW @ 1750 rpm	Max Speed	Nominal Torque (IN-LB)	Torque Normal Nm	Torque Peak Nm	A mm	B mm	C mm	D mm	G mm
MDC 0.2 <i>STANDARD BORES</i>	0.03 <i>SOLID</i>	0.02 <i>1/8"</i>	42500 <i>3/16"</i>	1 <i>5mm</i>	0.11 <i>6mm</i>	0.16 <i>1/4"</i>	26.9 <i>5/16"</i>	20.6 <i>8mm</i>	6.3	15.9	3.2
MDC 0.3 <i>STANDARD BORES</i>	0.08 <i>SOLID</i>	0.06 <i>3/16"</i>	26000 <i>5mm</i>	4 <i>6mm</i>	0.45 <i>1/4"</i>	.056 <i>5/16"</i>	43.7 <i>8mm</i>	20.6 <i>3/8"</i>	6.4 <i>10mm</i>	15.0	4.8
MDC 0.6 <i>STANDARD BORES</i>	0.17 <i>SOLID</i>	0.13 <i>6mm</i>	23000 <i>1/4"</i>	6 <i>5/16"</i>	0.68 <i>8mm</i>	0.90 <i>3/8"</i>	50.0 <i>10mm</i>	28.5 <i>11mm</i>	6.4 <i>12mm</i>	15.0 <i>1/2"</i>	4.8
MDC 1 <i>STANDARD BORES</i>	0.25 <i>SOLID</i>	0.19 <i>3/8"</i>	19000 <i>10mm</i>	9 <i>11mm</i>	1.0 <i>12mm</i>	1.4 <i>1/2"</i>	59.9 <i>14mm</i>	38.1 <i>5/8"</i>	8.9 <i>18mm</i>	19.1 <i>19mm</i>	4.8 <i>3/4"</i>
MDC 2 <i>STANDARD BORES</i>	0.45 <i>SOLID</i>	0.034 <i>11mm</i>	15500 <i>12mm</i>	15 <i>1/2"</i>	1.7 <i>14mm</i>	2.3 <i>5/8"</i>	73.0 <i>18mm</i>	51.0 <i>19mm</i>	13.5 <i>3/4"</i>	25.4 <i>7/8"</i>	4.8 <i>1"</i>
MDC 5 <i>STANDARD BORES</i>	1.2 <i>SOLID</i>	0.9 <i>11mm</i>	11000 <i>12mm</i>	44 <i>14mm</i>	4.5 <i>5/8"</i>	5.0 <i>19mm</i>	97.5 <i>3/4"</i>	69.9 <i>7/8"</i>	13.5 <i>1"</i>	25.4 <i>28mm</i>	4.8 <i>1 1/8"</i>
MDC 8 <i>STANDARD BORES</i>	2 <i>SOLID</i>	1.49	10500	72	7.5	9.04	106.6	69.7	11.2	25.41	6.4
SPECIFY BOTH BORE SIZE AND KEYWAY											
MDC 12 <i>STANDARD BORES</i>	3 <i>SOLID</i>	2.24	9000	108	12.2	13.6	129.5	76.2	22.9	38.1	6.4
SPECIFY BOTH BORE SIZE AND KEYWAY											
MDC 20 <i>STANDARD BORES</i>	5 <i>SOLID</i>	3.73	9200	181	20.3	22.0	124.9	69.7	12.7	38.1	6.4
SPECIFY BOTH BORE SIZE AND KEYWAY											
MDC 30 <i>STANDARD BORES</i>	7.5 <i>SOLID</i>	5.59	9200	270	25.4	27.7	125	108	23.6	47.8	6.4
SPECIFY BOTH BORE SIZE AND KEYWAY											
MDC 40 <i>STANDARD BORES</i>	10 <i>SOLID</i>	7.46	7800	360	40.67	45.2	147	107.9	27.2	52.6	6.4
SPECIFY BOTH BORE SIZE AND KEYWAY											
MDC 50 <i>STANDARD BORES</i>	13 <i>SOLID</i>	0.69	7800	470	53.1	61.01	146.6	60.2	16.3	41.7	6.4
SPECIFY BOTH BORE SIZE AND KEYWAY											

NOTES:

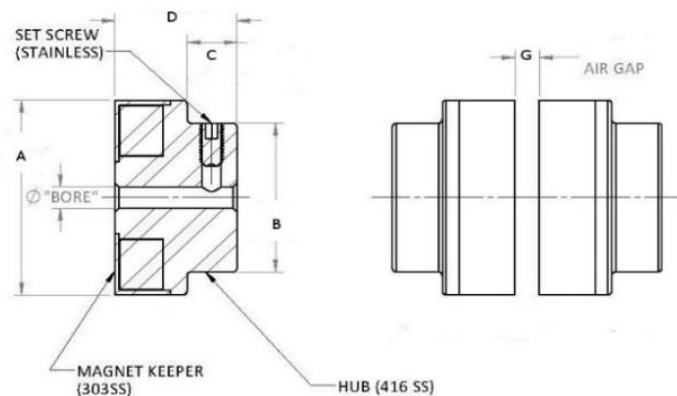
MDC 0.2 has one set screw (grub screw)

MDC 0.3, MDC 0.6, MDC 1, MDC 2, MDC 5 are stocked with the bores shown above, and have two set screws and keyway (for bores 11mm and larger.)

Keyways start with bores 11mm and larger.

MDC 8 - MDC 12 are supplied as solid, with additional cost for boring & keyway machining.

MDC 20 - MDC 50 are typically manufactured to order. We may have solid stock from time to time.



WHY USE MAGNETIC DISC COUPLINGS?

Disc type magnetic couplings consist of two opposing discs with powerful rare earth magnets. The torque applied to one disc is transferred through an air gap to the other disc. Because of its simple flat design, you can have angular misalignment of up to 3° or parallel misalignment up to 1/4" and still transmit nearly full rotational torque. You could also fabricate an inexpensive flat barrier to separate the atmospheres or fluids surrounding the two discs. This is our simplest and most versatile coupling.

Typical applications include magnetic mixers and magnetic drive pumps.

Axial Forces

High axial force which must be restrained

Slip Torque Adjustment

Air gap can be adjusted to increase or decrease slip torque

Angular Misalignment Capacity

3° Max

Parallel Misalignment Capacity

0.25" Max

Containment Barrier

Simple flat barrier

Maximum Torque

Designs available up to ~45 ft-lb

Maximum Operating Temperature

140°C

(Custom high-temp designs available)

