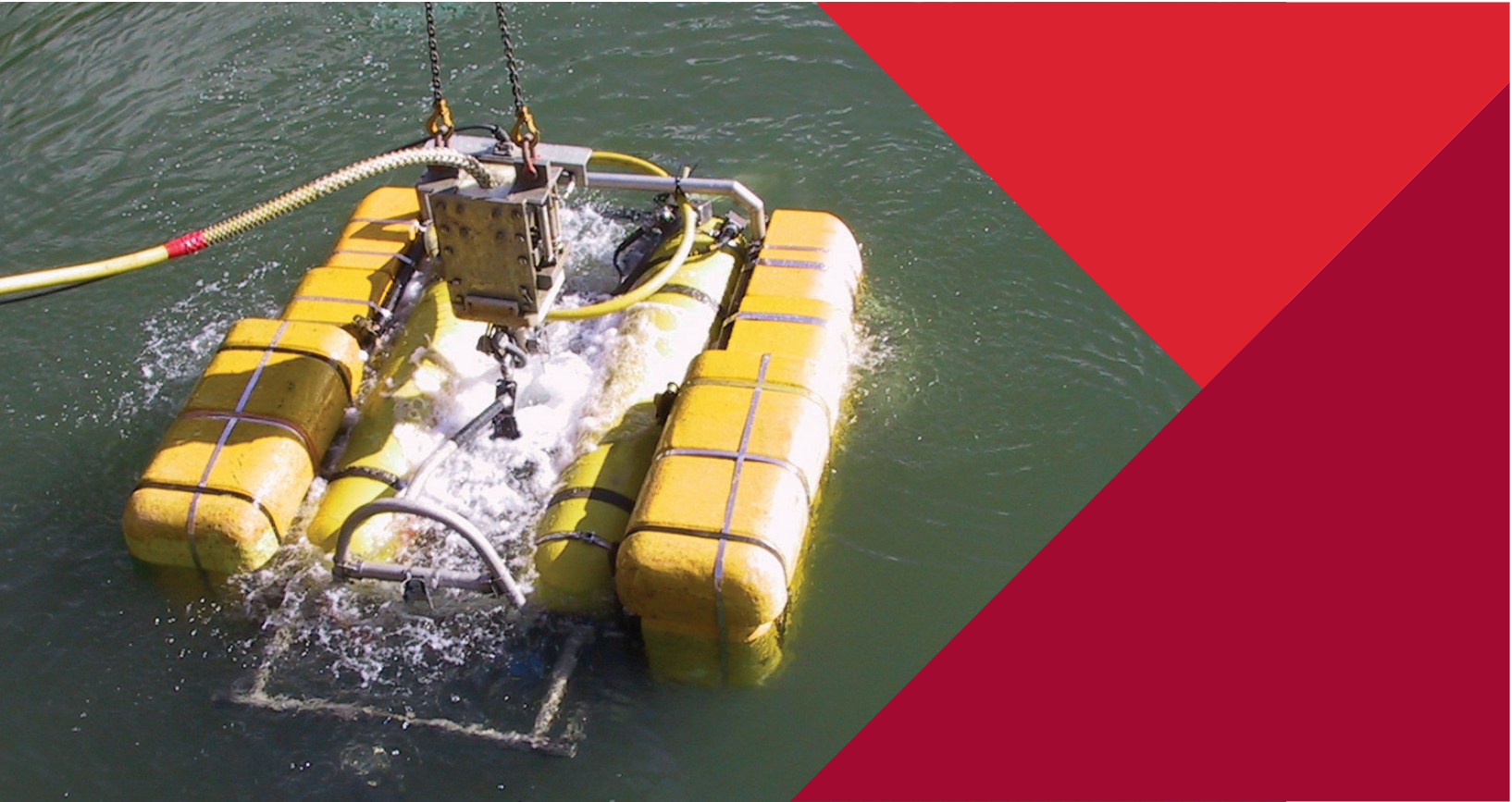


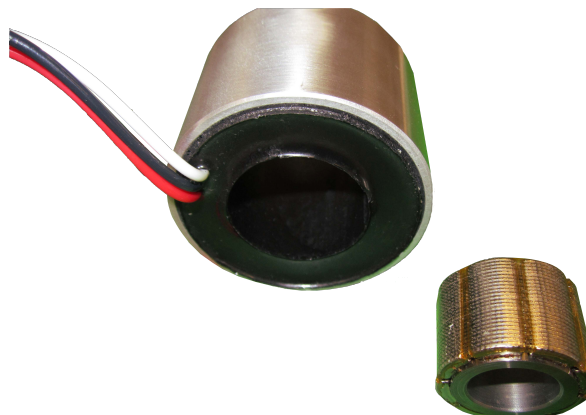


MTI-TORQUE SYSTEMS

MDM Parts Set Product Guide

There is virtually no limit to our unique motor solutions. For applications with limited space that require maximum torque, we offer Direct Drive Sets (frameless motors). Unlike any other Direct Drive Set out there, Torque System's unique design offers a molded stator and polymer shrink wrapped rotor.

MTI-Torque Systems engineers design the MDM Parts Set Series to meet the needs of users and customers in need of a compact, reliable high-performance servo motor solution.

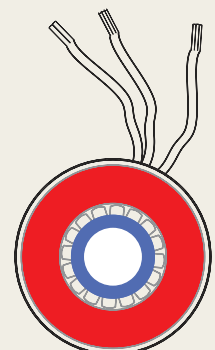
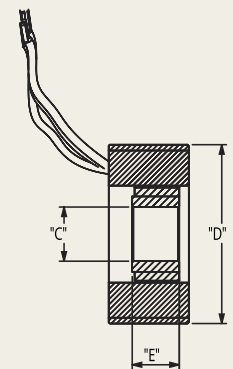
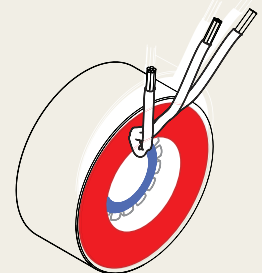


FEATURES	BENEFITS	APPLICATIONS
MDM 5000 Technology - Cut-core/ Segmented Stator Technology	High Torque Density, High Efficiency, Small Foot Print, Reduced Weight. Stator Molded with Thermally Conductive Epoxy, Fail-Safe Banding over Nickel Plated Rotor Magnets to Withstand Harsh Environment	Military and Commercial ROVs, AUVs, UAVs, Land Vehicles, Antenna Pedestal, Turrets and Others; Deep Sea, Land, Outer Space, High Shock and Vibration, Extreme temperatures
Maximum Rate and Position Accuracy Direct Drive With High Magnetic Pole Count	No Backlash, High Servo Stiffness, Smooth Operation	Medical Imaging, Pick and Place, Remote Equipment, High Precision Robotics, Pumps and Others
Flexible Winding Options, Mechanical Options	Customer Friendly	ALL
ROHS Compliant	Environmentally Friendly	ALL

Performance			Mechanical Dimension			
Platform Number	Cont. Stall Torque Nm	Peak Torque Nm	Max Speed RPM	Cmax	D	Without Hall "E"
P0551	0.55	2.5	8000	16	55	21
P0552	0.89	4.4				40
P0553	1.25	5.9				60
P0554	1.5	7				81
P0631	0.55	2.3	8000	28.95	60.35	15
P0632	1	5				28
P0633	1.3	6.6				42
P0634	1.7	8.9				55
P0811	1.1	5.1	8000	32	81.28	20
P0812	2.1	10.1				37
P0813	2.8	16				58
P0814	3.8	20.1				73
P1051	5.2	12	6000	31.75	105	32
P1052	9	21.9				63
P1053	12	29.8				95
P1054	15	37.6				126
P1271	2.3	7.9	6000	63.50	127	13
P1272	4.4	16.9				23
P1273	6	24.9				33
P1274	8.2	32.8				45
P1431	7.3	28	6000	38.05	143	26
P1432	14	47.5				51
P1433	19	71				76
P1434	24	96				101

All dimensions are in MM

Note: All performance ratings are at 25 degrees C Ambient with housed motor mounted to a heat sink and max total winding temperature of 155 degrees C



MDM 5000 DIRECT DRIVE PARTS SET ORDERING GUIDE

	P	XXX	X	XX	X	XX	XXX
STATOR/ROTOR PARTS SET							
STATOR OD in MM "Refer to next page"							
WINDING STACK 1 = One stack 2 = Two stack 3 = Three stack 4 = Four stack							
WINDINGS STANDARD To reference "Standard Winding Guide" refer to next page. Consult factory for other options.							
N = No Thermal Protection T = Thermistor K = Special							
NN = No Halls HA = Hall Commutation							
Special Requirements (Specify)							

Example Part Number Setup: **P1053-EO-N-HA-S**



STANDARD WINDING GUIDE

Winding Designators: Back EMF Constant (Vpeak/Krpm)								
N0 = 5	X0 = 7.5	T0 = 10	U0 = 12.5	P0 = 15	A0 = 20	R0 = 25	B0 = 30	C6 = 34
C0 = 40	D0 = 50	E0 = 60	F5 = 65	F0 = 70	G0 = 80	H0 = 90	J0 = 100	K0 = 120
L0 = 140	M0 = 160	V0 = 180	W0 = 200	SA = 240	SB = 280	SC = 320	SD = 360	SE = 400

MDM-S 5000 Direct Drive Parts Set Winding Option	
P0551	N0, X0, T0, P0, U0, A0, R0, B0, C0
P0552	N0, X0, T0, P0, U0, A0, R0, B0, C0
P0553	N0, X0, T0, P0, U0, A0, R0, B0, C0, E0, F0, K0
P0554	A0, B0, C0, D0,
P0631	N0, X0, T0, P0, U0, A0, R0, B0, C0, D0
P0632	N0, X0, T0, P0, U0, A0, R0, B0, C0, D0, F0, K0
P0633	N0, X0, T0, P0, U0, A0, R0, B0, C0, D0, G0, K0, V0
P0634	N0, X0, T0, P0, U0, A0, R0, B0, C0, D0, E0, J0, K0
P0811	N0, X0, T0, P0, U0, A0, R0, B0, C0, D0, E0
P0812	T0, P0, U0, A0, R0, B0, C0, D0, E0
P0813	T0, P0, U0, A0, R0, B0, C0, D0, E0, J0, K0
P0814	T0, P0, U0, A0, R0, B0, C0, D0, E0, J0, K0
P1051	T0, P0, U0, A0, R0, B0, C0, D0, E0, J0, K0, L0
P1052	A0, R0, B0, C0, D0, E0, F0, G0, J0, K0, L0, M0
P1053	B0, C0, D0, E0, F0, J0, K0, L0, M0
P1054	C0, D0, E0, J0, K0, L0, M0
P1271	T0, P0, U0, A0, R0, B0, C6, C0, D0, E0, J0, K0, L0, M0, V0
P1272	T0, P0, U0, A0, R0, B0, C0, D0, E0, F5, J0, K0, L0, M0, V0, W0, SA
P1273	A0, R0, V0, B0, C0, D0, E0, J0, K0, L0, M0, V0, W0, SA, SB, SC, SD, SE
P1274	B0, C0, D0, E0, J0, K0, L0, M0, V0, W0, SA, SB, SC, SD, SE
P1431	A0, R0, B0, C0, D0, E0, F0, G0, J0, K0, L0, M0, V0, W0, SA, SB, SC, SD, SE
P1432	B0, C0, D0, E0, F0, G0, J0, K0, L0, M0, V0, W0, SA, SB, SC, SD, SE
P1433	D0, E0, F0, G0, J0, K0, L0, M0, V0, W0, SA, SB, SC, SD, SE
P1434	E0, F0, G0, J0, K0, L0, M0, V0, W0, SA, SB, SC, SD, SE
CONSULT FACTORY FOR OTHER OPTIONS	

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