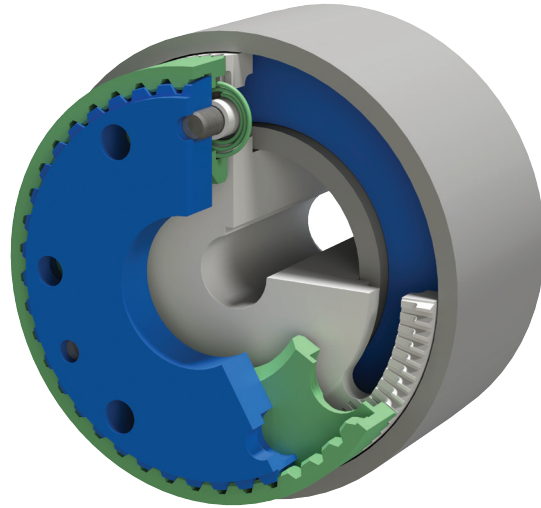


# WMTC Series

## Wall Mounted Tooth Clutches

Eight standard frame sizes available:

- 3 to 10.5" diameter ; 2 to 6.25" length
- Bore sizes from 0.5 to 4.25"
- Static torque from 40 to 5200 lb-ft
- 2500 to 8000 RPM max speed
- Operates both dry and in oil
- Modified designs and customized assemblies available



### Performance/Mechanical Specifications

WMTC Series — Model Size

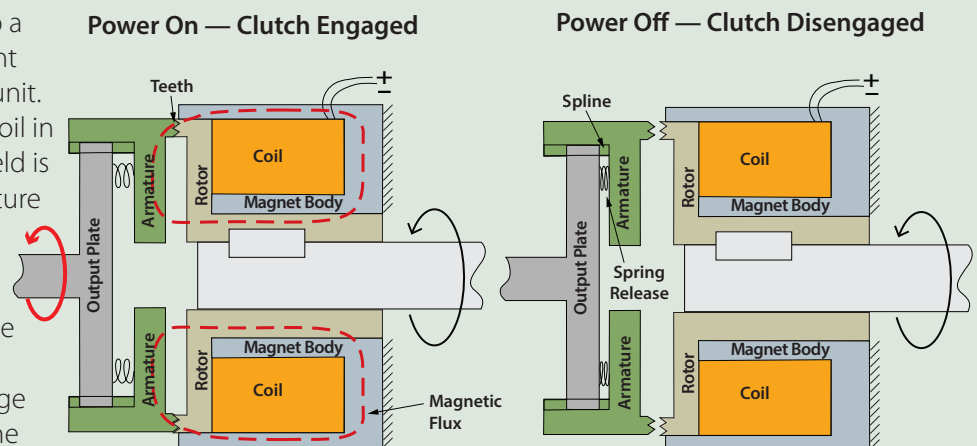
		320	375	450	525	630	760	895	1065
Torque Rating (Static)*	lb-ft	40	80	160	320	650	1300	2600	5200
	Nm	54.2	108.5	216.9	433.9	881.3	1762.6	3525.1	7050.2
Recommended Max Speed	RPM	8000	7500	7000	6500	5500	4500	3500	2500
Coil Data – 24VDC									
	110VDC								
Rotor Inertia	Amps	1.0	1.2	2.0	2.6	3.9	3.7	4.5	4.5
		0.2	0.4	0.5	0.6	0.7	1.0	1.0	1.0
Armature/Adapter Inertia	lb-ft <sup>2</sup>	0.01	0.02	0.03	0.05	0.15	0.31	0.62	1.30
	kg-cm <sup>2</sup>	4.21	8.42	12.63	21.05	63.15	130.51	261.02	547.30
Approximate Weight	lb	3.0	5.0	8.0	12.0	23.0	37.0	48.0	90.0
	kg	1.36	2.27	3.63	5.44	10.43	16.78	21.77	40.82

\*Refer to Design Considerations – General Notes & Data for dynamic rating.

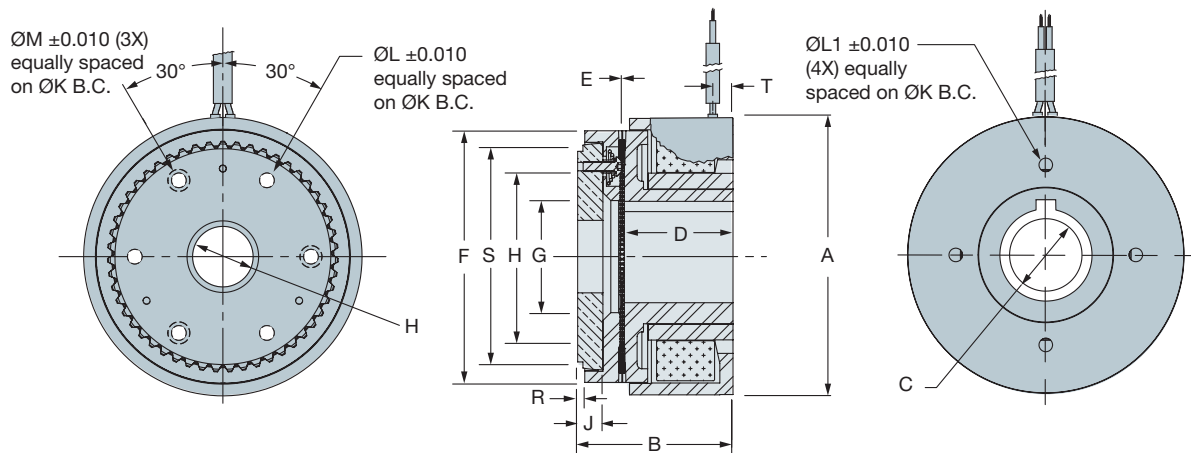
### WMTC Operation:

The magnet body is mounted to a machine plate or wall. This mount also provides grounding to the unit. When current is applied to the coil in the magnet body, a magnetic field is created which attracts the armature toward the rotor. As the teeth engage, torque is transmitted.

When the current is removed, the armature slides on the splined output plate adapter to disengage from the rotor. Springs pull on the armature to assist.



# Tooth Clutches & Brakes



WMTC Series — Model Size

Dimensions — Inches (mm)		320	375	450	525	630	760	895	1065
Magnet Body Diameter	A	3.16 (80.26)	3.75 (95.25)	4.50 (114.30)	5.25 (133.35)	6.32 (160.53)	7.60 (193.04)	8.94 (227.08)	10.65 (270.51)
Overall Length (ref)	B	2.07 (52.58)	2.33 (59.18)	2.61 (66.29)	2.94 (74.68)	3.55 (90.17)	4.23 (107.4)	5.04 (128.02)	6.18 (156.97)
Rotor Bore	Min	C	0.500 (12.700)	0.750 (19.050)	1.000 (25.400)	1.125 (28.575)	1.375 (34.925)	1.750 (44.450)	2.250 (57.150)
	Max	C	1.000 (25.400)	1.250 (31.750)	1.500 (38.100)	1.750 (44.450)	2.250 (57.150)	2.750 (69.85)	3.500 (88.900)
	Length (ref)	D	1.49 (37.85)	1.69 (42.93)	1.85 (46.99)	2.06 (52.32)	2.48 (62.99)	2.97 (75.44)	4.10 (104.14)
Disengaged Clearance	E	0.010 (0.254)	0.012 (0.305)	0.014 (0.356)	0.016 (0.406)	0.018 (0.457)	0.020 (0.508)	0.024 (0.610)	0.028 (0.711)
Armature	Diameter	F	2.87 (72.90)	3.44 (87.38)	4.11 (104.39)	4.78 (121.41)	5.75 (146.05)	6.97 (177.04)	8.19 (208.03)
	Bore	G	1.26 (32.00)	1.52 (38.61)	1.87 (47.50)	2.13 (54.10)	2.74 (69.60)	3.35 (85.09)	4.31 (109.47)
Mounting Adapter	Bore (min.)	H	1.000 (25.400)	1.125 (28.575)	1.250 (31.750)	1.375 (34.925)	1.625 (41.275)	2.000 (50.800)	2.750 (69.85)
	Bore (max.)	H	1.690 (42.926)	2.000 (50.800)	2.340 (59.436)	2.760 (70.104)	3.320 (84.328)	4.120 (104.648)	5.875 (149.225)
Mounting Adapter	Thickness	J	0.31 (7.87)	0.34 (8.64)	0.41 (10.41)	0.48 (12.19)	0.58 (14.73)	0.70 (17.78)	1.00 (25.40)
	Bolt Circle	K	2.12 (53.85)	2.46 (62.48)	2.87 (72.90)	3.42 (86.87)	4.00 (101.60)	4.90 (124.46)	6.00 (152.40)
	Holes - Dowel	L	0.235 (5.969)	0.235 (5.969)	0.297 (7.544)	0.360 (9.144)	0.360 (9.144)	0.485 (12.319)	0.485 (12.319)
	Magnet Body Mounting Holes	L1	#10-24	#10-24	1/4-20	5/16-18	5/16-18	3/8-16-18	7/16-14
	Holes-Screw (Qty)	M	#10 (3)	#10 (3)	1/4 (3)	5/16 (3)	5/16 (6)	3/8 (6)	7/16 (6)
Adapter Protrusion	R	0.09 (2.29)	0.10 (2.54)	0.12 (3.05)	0.14 (3.56)	0.16 (4.06)	0.19 (4.83)	0.22 (5.59)	0.26 (6.60)
Adapter Diameter	S	2.69 (68.33)	3.10 (78.74)	3.70 (93.98)	4.30 (109.22)	5.20 (132.08)	6.10 (154.94)	7.25 (184.15)	8.25 (209.55)
Lead Wire Location	T	0.23 (5.84)	0.25 (6.35)	0.28 (7.11)	0.34 (8.64)	0.39 (9.91)	0.41 (10.41)	0.51 (12.95)	0.57 (14.48)
Pilot Diameter	U	3.150 (80.01)	3.740 (95.00)	4.490 (114.05)	5.240 (133.10)	6.310 (160.27)	7.590 (192.79)	8.930 (226.82)	10.640 (270.26)