MT Series

MTD 42 BELT DRIVEN LINEAR ACTUATOR



The MTD belt driven unit features a flat profile design and bidirectional movement.

Available with one or two railway runner blocks per carriage.

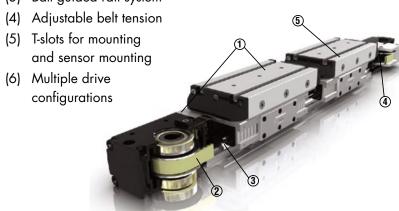
Carriages move in opposite direction

FEATURES & BENEFITS

- High Acceleration, Speed & Rigidity
- Long Travel Length
- Low Friction, Noise & Vibration
- Strong yet Lightweight & Corrosion Resistant

KEY FEATURES

- (1) Anodized aluminum housing and carriage
- (2) Steel reinforced belt capable of handling high loads
- (3) Ball guided rail system



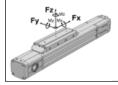
NOTE:

- Moment arms for calculating moments should be measured from the centerline of the extrusion.
- Limit switches must be used in order to prevent the carriage from contacting the actuator end blocks, resulting in damage.
- 25mm of over-travel has been added to the body length in each direction to allow for carriage over-travel. 25 mm is the recommended over-travel; although a minimum of 10mm may be specified for special applications.

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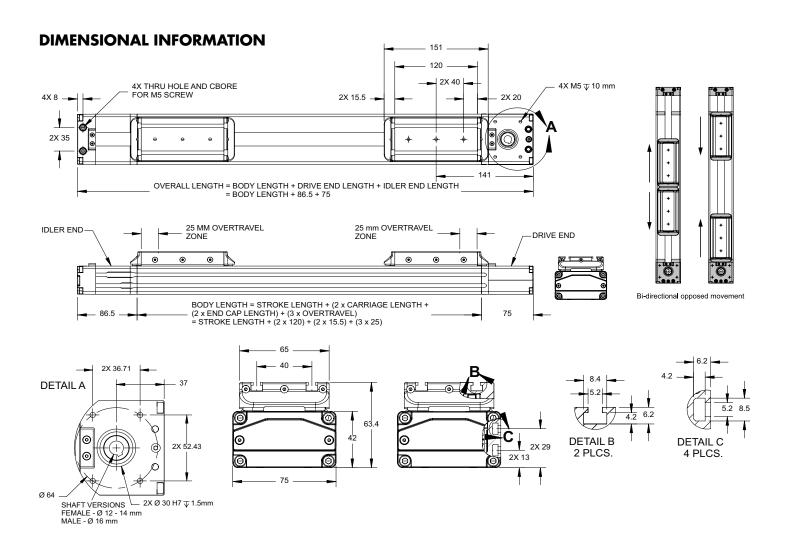


Size		mm	42 x 75	in	1.65 x 2.95		
Max. Speed	m/s	3	in/s	118			
Max. Stroke Length			3000	in	118		
Min. Stroke Length		mm	100	in	3.94		
Min. Stroke Length Pulley Drive Ratio Number of Pulley Teeth Max RPM Base Weight Add for 100 mm or 3.94 in of Stroke Max. Load Fx Fy		mm	130	in	5.12		
Number of Pulley Teeth			2	26			
Max RPM	2000						
Base Weight	Kg	3.7	lbf	8.14			
Add for 100 mm or 3.94 in of Str	Kg	0.50	lbf	1.10			
Max. Load	Fx	N	615	lbf	138		
	Fy	N	1275	lbf	287		
	Fz	N	1275	lbf	287		
Max. Moments	Mx	Nm	18	lbf-in	159		
	Му	Nm	110	lbf-in	974		
	Mz	Nm	110	lbf-in	974		
Moment of Inertia	lx	cm ⁴	28	in ⁴	0.67		
	ly	cm ⁴	37	in ⁴	0.89		
Max. Radial Load on Input S	N	250	lbf	56.2			
No Load Torque	No Load Torque			lbf-in	12.4		



For combined loads, the combined loading cannot exceed the following formula.

$$\frac{Fy_A}{Fy} + \frac{Fz_A}{Fz} + \frac{Mx_A}{Mx} + \frac{My_A}{My} + \frac{Mz_A}{Mz} <= 1$$



ACCESSORIES (Available upon request.)



Mid Section Mounting Bracket



End Cap Mounting Bracket



Motor Mounts/ Coupling Housings



Coupling



Flange Plate



Stub Shafting

EXAMPLE: MTD42D-1000-12F22

ORDERING INFORMATION

MTD	042	D	- XXXX	- X	X	X	X
Series	Size (mm) (Base x Height)	System Type*	Body Length**	Shaft Diameter	Shaft Type	#Carriage**	Guidance Type
MTD Belt Driven Unit		N - Undriven D - Driven	6000 mm (max.) Must include 50mm over-travel	(undriven system) 12 = 12mm 14 = 14mm	0 = No shaft (undriven system) F = Female hollow (12, 14) L = Left Male (16) R = Right Male (16) B = Both Male (16)	3 4	2 = Profile rail w/2 runner blocks per carriage Future Option C = CRT/IVT - V-wheel roller G = GST - Gliding polymer

^{*}No belt or motor mount, contact manufacturer for "N" version.

^{**}Contact manufacturer for other options and availability.



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