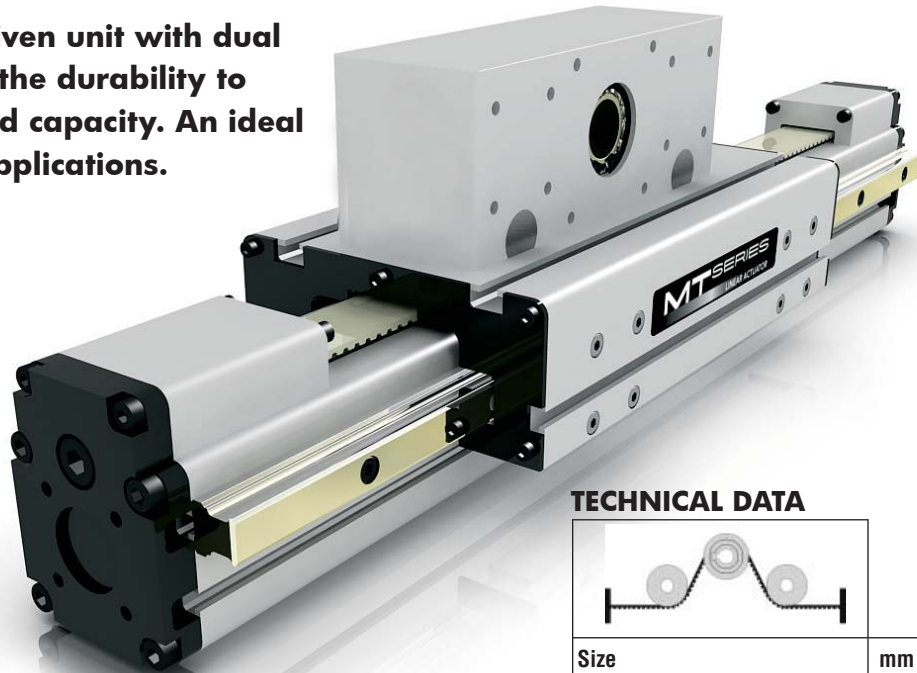


MT Series

MTF Belt Driven Linear Actuator

The MTF belt driven unit with dual rail system has the durability to handle high load capacity. An ideal fit for vertical applications.



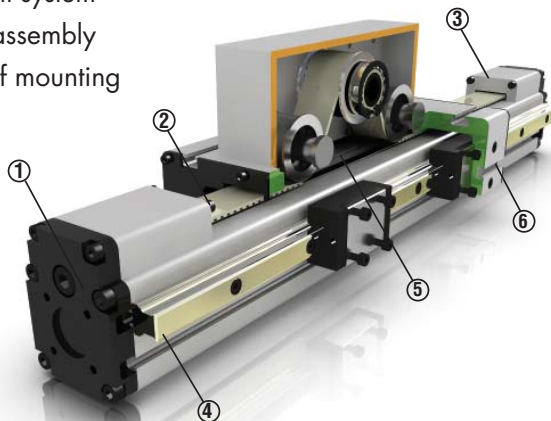
Vertical Lift
Strong Carriage

FEATURES & BENEFITS

- High Load Capacity - (2) ball guided rail system
- Low Friction, Noise & Vibration
- Ideal for Vertical Movement

KEY FEATURES

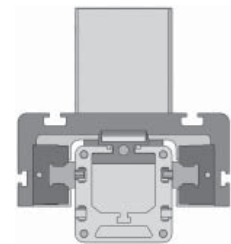
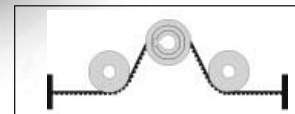
- (1) Adjustable belt tension
- (2) Steel reinforced belt capable of handling high loads
- (3) Anodized aluminum housing and carriage
- (4) Ball guided rail system
- (5) Motor mount assembly
- (6) T-slots - ease of mounting



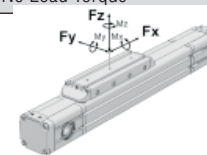
NOTE:

1. Moment arms for calculating moments should be measured from the centerline of the extrusion.
2. Limit switches must be used in order to prevent the carriage from contacting the actuator end blocks, resulting in damage.
3. 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.

TECHNICAL DATA



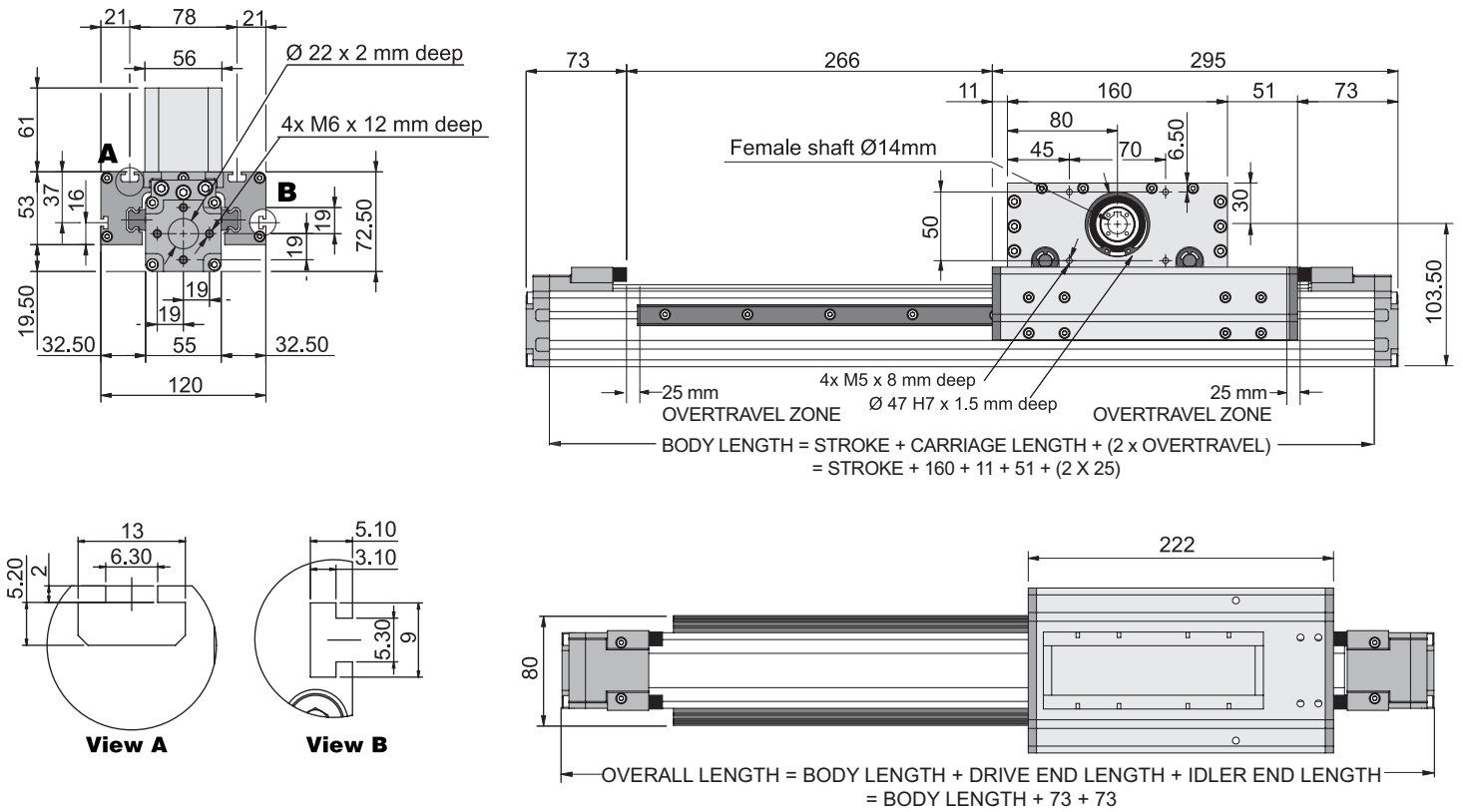
Size	mm	55 x 55	in	2.17 x 2.17	
Max. Speed	m/s	1	in/s	39	
Max. Stroke Length	mm	1000	in	39	
Min. Stroke Length	mm	100	in	3.94	
Pulley Drive Ratio	mm	130	in	5.12	
Number of Pulley Teeth	26				
Max RPM	460				
Base Weight	Kg	5.1	lbf	11.2	
Add for 100 mm or 3.94 in of Stroke	Kg	0.51	lbf	1.12	
Max. Load	Fx	N	800	lbf	180
	Fy	N	7800	lbf	1753
	Fz	N	7800	lbf	1753
Max. Moments	Mx	Nm	265	lbf-in	2345
	My	Nm	480	lbf-in	4248
	Mz	Nm	480	lbf-in	4248
Moment of Inertia	Ix	cm ⁴	36	in ⁴	0.86
	Iy	cm ⁴	46	in ⁴	1.10
Repeatability	mm	± 0.05	in	± 0.002	
Max. Radial Load on Input Shaft	N	200	lbf	45	
No Load Torque	Nm	1.2	lbf-in	10.6	



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

$$\frac{F_{yA}}{F_y} + \frac{F_{zA}}{F_z} + \frac{M_{xA}}{M_x} + \frac{M_{yA}}{M_y} + \frac{M_{zA}}{M_z} \leq 1$$

DIMENSIONAL DATA



ACCESSORIES - (Available upon request.)



Mid Section Mounting Bracket



End Cap Mounting Bracket



Motor Mounts/ Coupling Housing



Coupling



Flange Plate



Stub Shafting

ORDERING INFORMATION

EXAMPLE: MTF055D-1000-14F12

MTF	055	D	-	XXXX	-	X	X	X	X
Series	Size (mm) <i>(Base x Height)</i>	System Type*		Body Length		Shaft Diameter	Shaft Type**	#Carriage**	Guidance Type
MTF Belt Driven Unit	55 mm x 55mm	N - Undriven D - Driven		1000 mm (max.) <i>Must include 50mm over-travel</i>		00 = No shaft (undriven system) 14 = 14mm	F = Female Hollow (14) L = Left Male R = Right Male B = Both Male	1 2 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.

Product information and 2D/3D CAD drawings available for download at www.pbclinear.com
 For technical & application information call **1-888-777-1465**

The data and specifications in this publication have been carefully compiled and are believed to be accurate and correct. However, it is the responsibility of the user to determine and ensure the suitability of PBC Linear™ products for a specific application. PBC Linear™ only obligation will be to repair or replace without charge, any defective components if returned promptly. No liability is assumed beyond such replacement. Specifications are subject to change without notice.