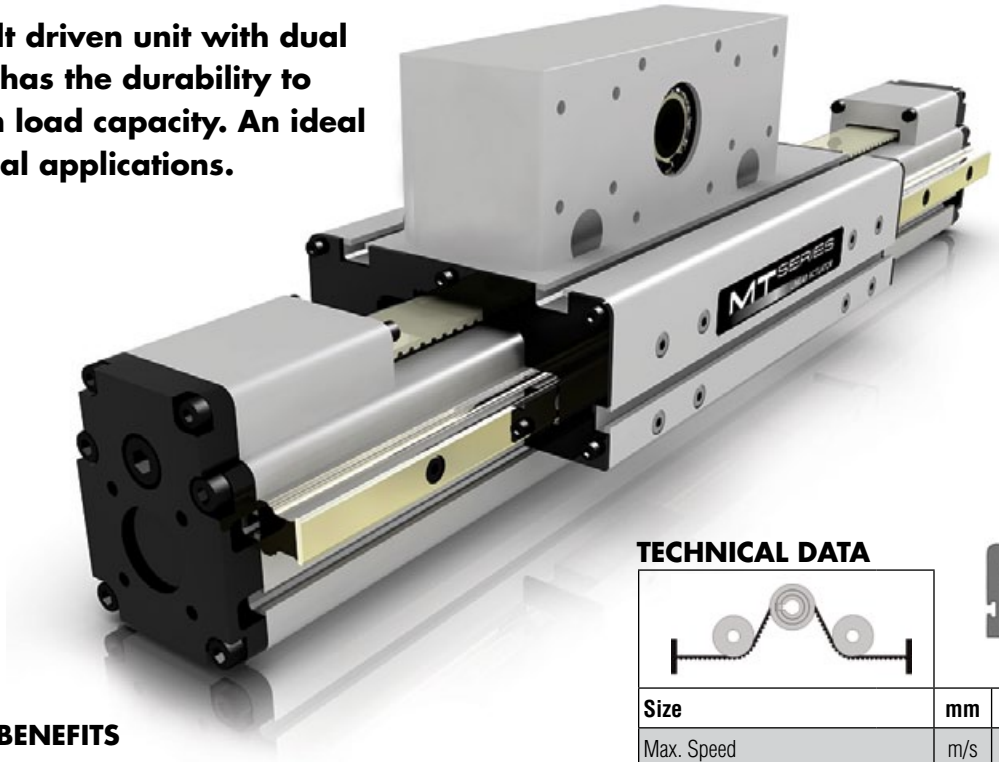
LINEAR ACTUATOR TECHNOLOGY

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.



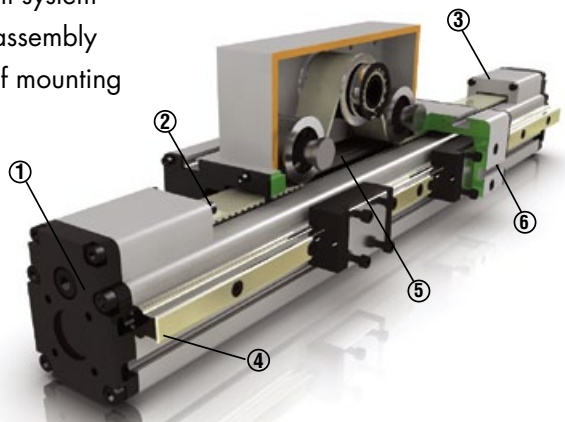
Vertical Lift
Strong Carriage

FEATURES & BENEFITS

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

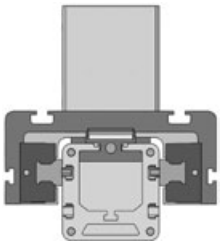
KEY FEATURES

(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

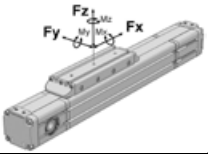


NOTE:
1. Moment arms for calculating moments should be measured from the centerline of the extrusion.
2. Limit switches must be used in order to prevent the carriage from contacting the actuator end blocks, resulting in damage.
3. 25 mm of over-travel has been added to the body length in each direction 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



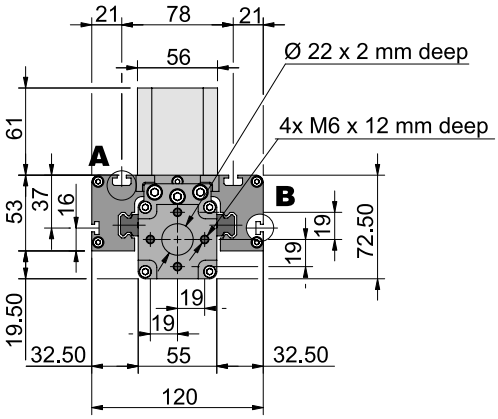
Size		mm	55 x 55	in	2.17 x 2.17
Max. Speed		m/s	1	in/s	39
Max. Stroke Length		mm	1000	in	39
Min. Stroke Length		mm	100	in	3.94
Pulley Drive Ratio		mm	130	in	5.12
Number of Pulley Teeth		26			
Max RPM		460			
Base Weight		Kg	5.1	lbf	11.2
Add for 100 mm or 3.94 in of Stroke		Kg	0.51	lbf	1.12
Max. Load	**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
Max. Radial Load on Input Shaft		N	200	lbf	45
No Load Torque		Nm	1.2	lbf-in	10.6

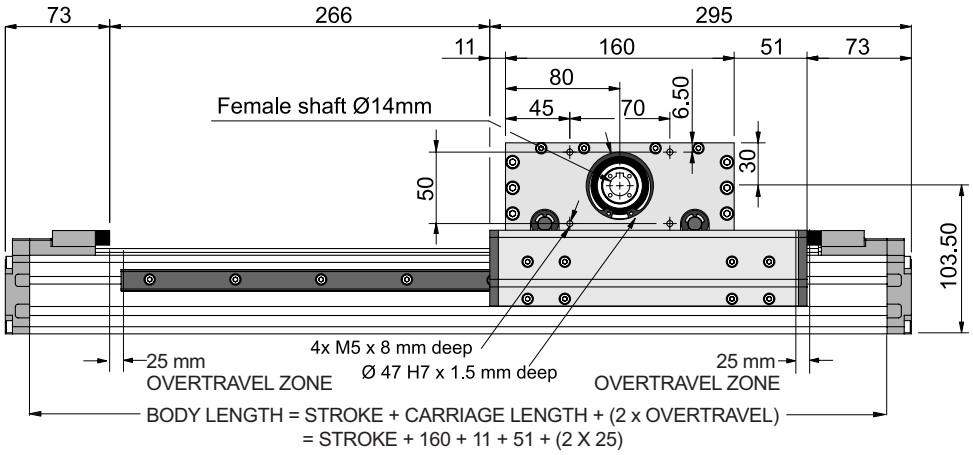


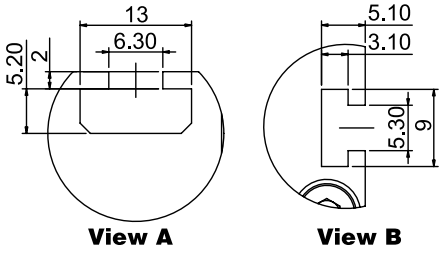
For combined loads, the combined loading cannot exceed the following formula.

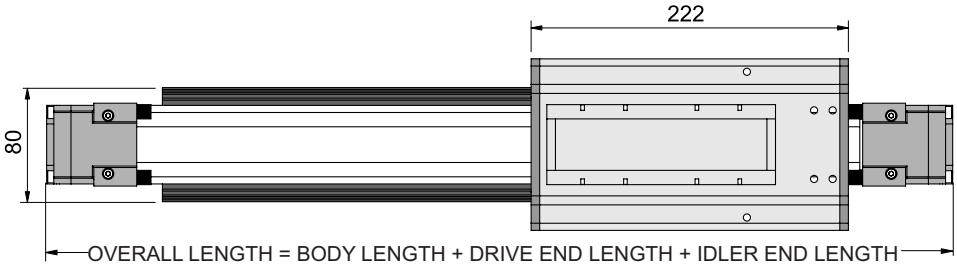
$$\frac{Fy_A}{Fy} + \frac{Fz_A}{Fz} + \frac{Mx_A}{Mx} + \frac{My_A}{My} + \frac{Mz_A}{Mz} <= 1$$

DIMENSIONAL INFORMATION

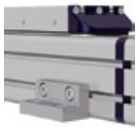






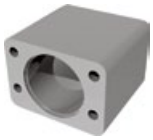


ACCESSORIES (Available upon request.)



Mid Section Mounting Bracket

End Cap Mounting Bracket



Motor Mounts/ Coupling Housings

Coupling

Flange Plate

Stub Shafting

ORDERING INFORMATION

EXAMPLE: MTF055D-1000-14F12

MTF	055	D	-	XXXX	-	X	X	X	X

Series	Size (mm) *(Base x Height)*	System Type*	Body Length	Shaft Diameter	Shaft Type**	#Carriage**	Guidance Type
MTF Belt Driven Unit	**55** mm x **55**mm	**N** - Undriven **D** - Driven	**1000 mm (max.)** *Must include 50mm over-travel*	**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 **1-888-962-8979**.

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