

MT Series

MTE BELT DRIVEN LINEAR ACTUATOR



Vertical Lift
Light Carriage

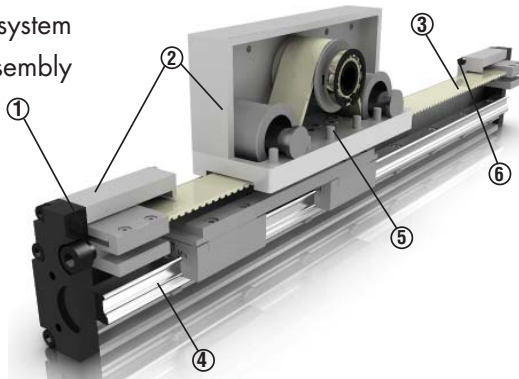


FEATURES & BENEFITS

- High Acceleration, Speed & Rigidity
- Long Travel Length
- Low Friction, Noise & Vibration
- Ideal for Vertical Applications

KEY FEATURES

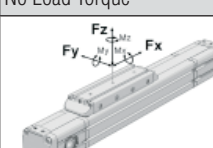
- (1) Adjustable belt tension
- (2) Anodized aluminum housing and carriage
- (3) Steel reinforced belt capable of handling high loads
- (4) Ball guided rail system
- (5) Motor mount assembly
- (6) Rubber buffer



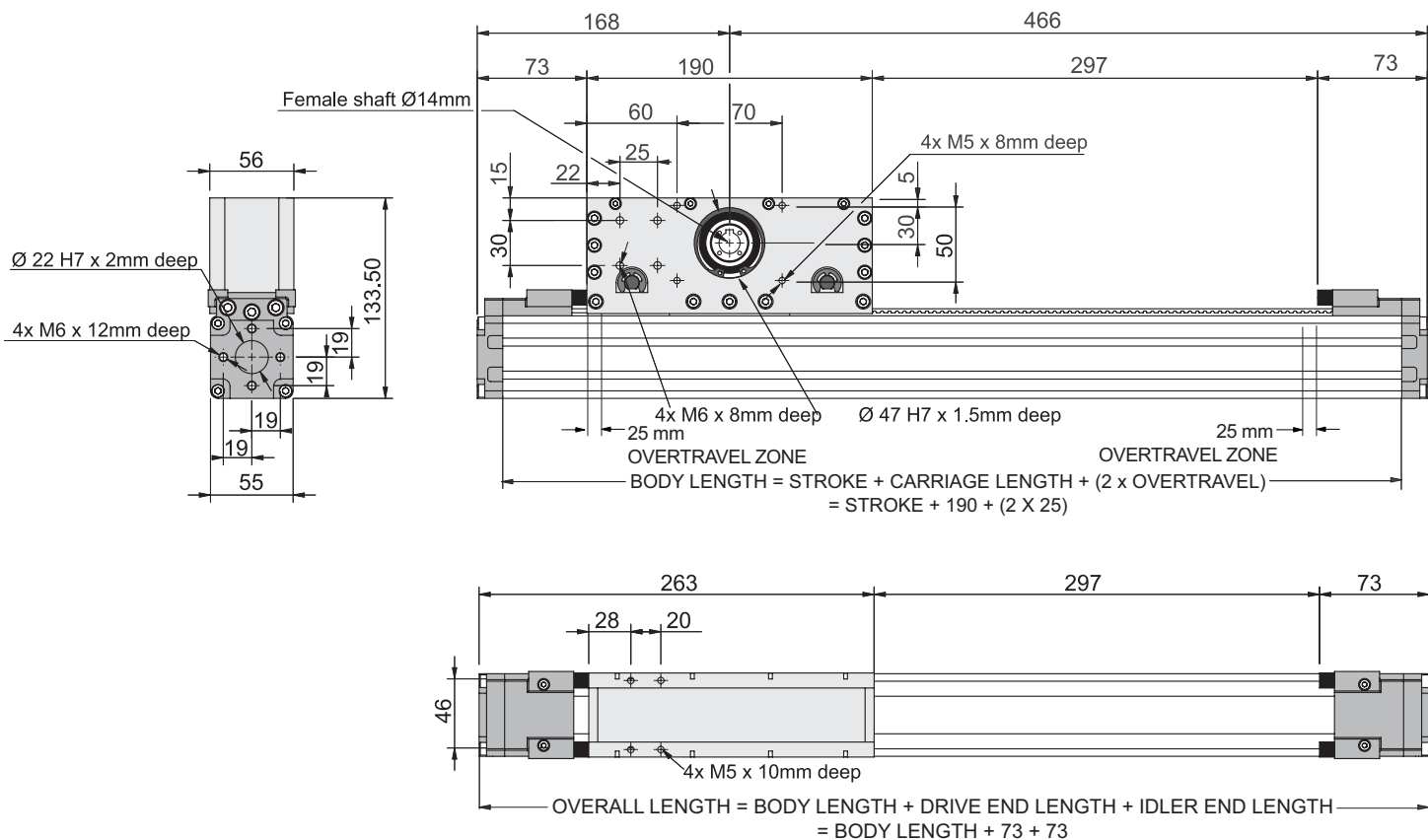
NOTE:

1. Moment arms for calculating moments should be measured from the centerline of the extrusion.
2. Limit switches must be 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.

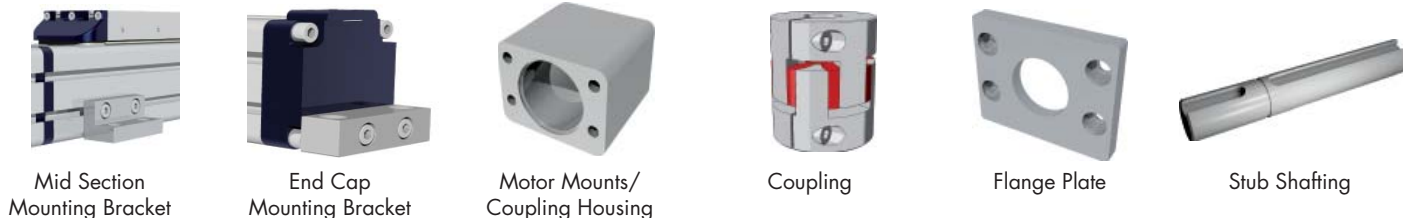
TECHNICAL DATA

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	3.9	lbf	8.6	
Add for 100 mm or 3.94 in of Stroke	Kg	0.3	lbf	0.66	
Max. Load	F_x	N	800	lbf	180
	F_y	N	3300	lbf	742
	F_z	N	3300	lbf	742
Max. Moments	M_x	Nm	40	lbf-in	354
	M_y	Nm	220	lbf-in	1947
	M_z	Nm	220	lbf-in	1947
Moment of Inertia	I_x	cm ⁴	36	in ⁴	0.86
	I_y	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	1.0	lbf-in	8.85	
		<p>For combined loads, the combined loading cannot exceed the following formula.</p> $\frac{F_{yA}}{F_y} + \frac{F_{zA}}{F_z} + \frac{M_{xA}}{M_x} + \frac{M_{yA}}{M_y} + \frac{M_{zA}}{M_z} \leq 1$			

DIMENSIONAL DATA



ACCESSORIES - (Available upon request.)



ORDERING INFORMATION

EXAMPLE: MTE055D-1000-14F12

MTE	055	D	-	XXXX	-	X	X	X	X
Series	Size (mm) (Base x Height)	System Type*		Body Length**		Shaft Diameter	Shaft Type**	#Carriage**	Guidance Type
MTE Belt Driven Unit	55 mm x 55mm	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 **1-888-777-1465**

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.

3/09

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