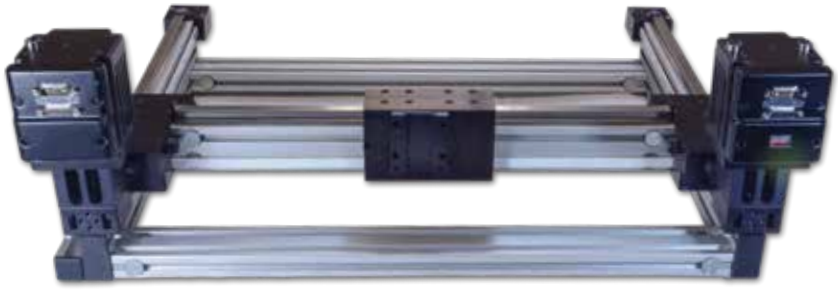
The Moog Animatics H-Bot belt systems use a novel combination of belt actuators to accomplish two-axis motion. The motors remain stationary, removing the traditional requirement for expensive cable tracks and associated high-flex cabling. The intelligence in the SmartMotor™ simplifies and makes motion solutions easy, as the SmartMotor can interpret direct Cartesian coordinates and perform the transforms on the fly to create exactly the motion and positioning you require. The H-Bot belt systems are shipped preassembled with the Moog Animatics SmartMotor of your choice.

Key Features

- Low backlash design
- Adjustable belt tension
- Stroke from 250 – 1000 mm in X and Y axes
- Single belt design
- Inverse kinematics on SmartMotor



Key Benefits

- Precise and accurate positioning for low to medium loads
- Small footprint, appropriate for tabletops and laboratories
- Mechanically simple, robust and reliable
- SmartMotor inverse kinematics simplify programming
- Reduced development time and investment

Technical Specifications

HBOT1 Size and Data			
Actuator Specifications		**Motor Sizing Information**	
Max. Linear Speed, mm/s	1000	Pulley Size, mm	12
Recommended Payload Maximum, lb	10	Weight of Single Shafted Drive Pulley, oz [kg]	4.7 [0.13]
Bidirectional Repeatability, µm	±50	Weight of Idler Pulley, oz [kg]	4.3 [0.12]
Accuracy, mm/mm	0.24 per 300 Stroke	Weight of Complete Y-Axis Beam (Based on Travel), lb [kg]	15 to 40 [6.8 to 18.1]
Maximum Acceleration, g	10 (Dependent on Payload)		
Ultimate Tensile Strength of Belt, lb [N]	800 [3559]		
Recommended Continuous Load, lb [N]	200 [889]	Weight of Cart, lb [kg]	5 [2.3]
Physical Parameters		Displacement/Rev., mm	105
X-Stroke, mm	250 – 1000 in 250 mm Steps	Pulley Pitch Diameter, mm	33.42
Y-Stroke, mm	250 – 1000 in 250 mm Steps	Coefficient of Friction, Multiplier/lb	0.05
Unit Weight (Based on Stroke), lb	(18 to 42) + (2x motor mass)	Pulley Material/Width, mm	Steel / 12

Part Numbering System Guide

For more details, see **www.animatics.com/hbot1**
Also, see the Part Number Generator at www.animatics.com/pngenerator

HBOT1 - □ - □ - □ - □

SERIES

X TRAVEL
250 mm
500 mm
750 mm
1000 mm

Y TRAVEL
250 mm
500 mm
750 mm
1000 mm

INPUT SIZE
A = NEMA23, 0.25 inches
B = NEMA23, 0.375 inches
D = NEMA34, 0.375 inches
E = NEMA34, 0.50 inches

REDUCTION
0, 3, 5, 7 or 10:1