

**DIAMOND E5 VACUUM ELEVATOR – GENERAL TECHNICAL SPECIFICATION**

Servo Axis	Z – Vertical travel	
Range of Motions	13.267" (337mm) hard stop to hard stop 13.188" (335mm) usable span with software limits	
Max. speed	8 inch/sec	
Max. acceleration	12 inch/ sec <sup>2</sup>	
Axis Repeatability	+/- 0.001" (0.025mm)	
Wafer Size	2" (50mm) to 12" (300mm)	
Payload	25 kg (55.1 lbs)	
Weight	21 kg (46.5 lbs)	
Motor Type	Brushless, low inertia high response	
Encoders Type	Incremental, 10000 pulse/rev on motor shaft	
Facility requirements	Voltage range: 100-120 VAC, 200-240 VAC	
Control Interface	LDCN Robot Slave Device (daisy chainable RS-232 interface) General purpose digital I/O Optional: Intelligent device with RS-232 and Ethernet (Telnet) interface	
Cleanliness	Class 1	
Vacuum rate	Base Vacuum	Up to 1x10 <sup>-9</sup> Torr
	Leak Rate	< 1x10 <sup>-9</sup> std.cc/sec He
Materials exposed to a vacuum	Aluminum, Stainless Steel , Bellows (AM-350 SST Annealed	
Operating Temperature	Vacuum side	Up to 100°C (212°F)
	Atmosphere side	10°C - 40°C (50°F - 104°F)
Mounting Configuration	Customizable flange (Shown with 200mm Bottom mounting flange)	
Body Dimensions with a built-in controller and power supply. (No external controller required)	8.70" x 7.98" x 22.05" (221mm x 203mm x 560mm)	

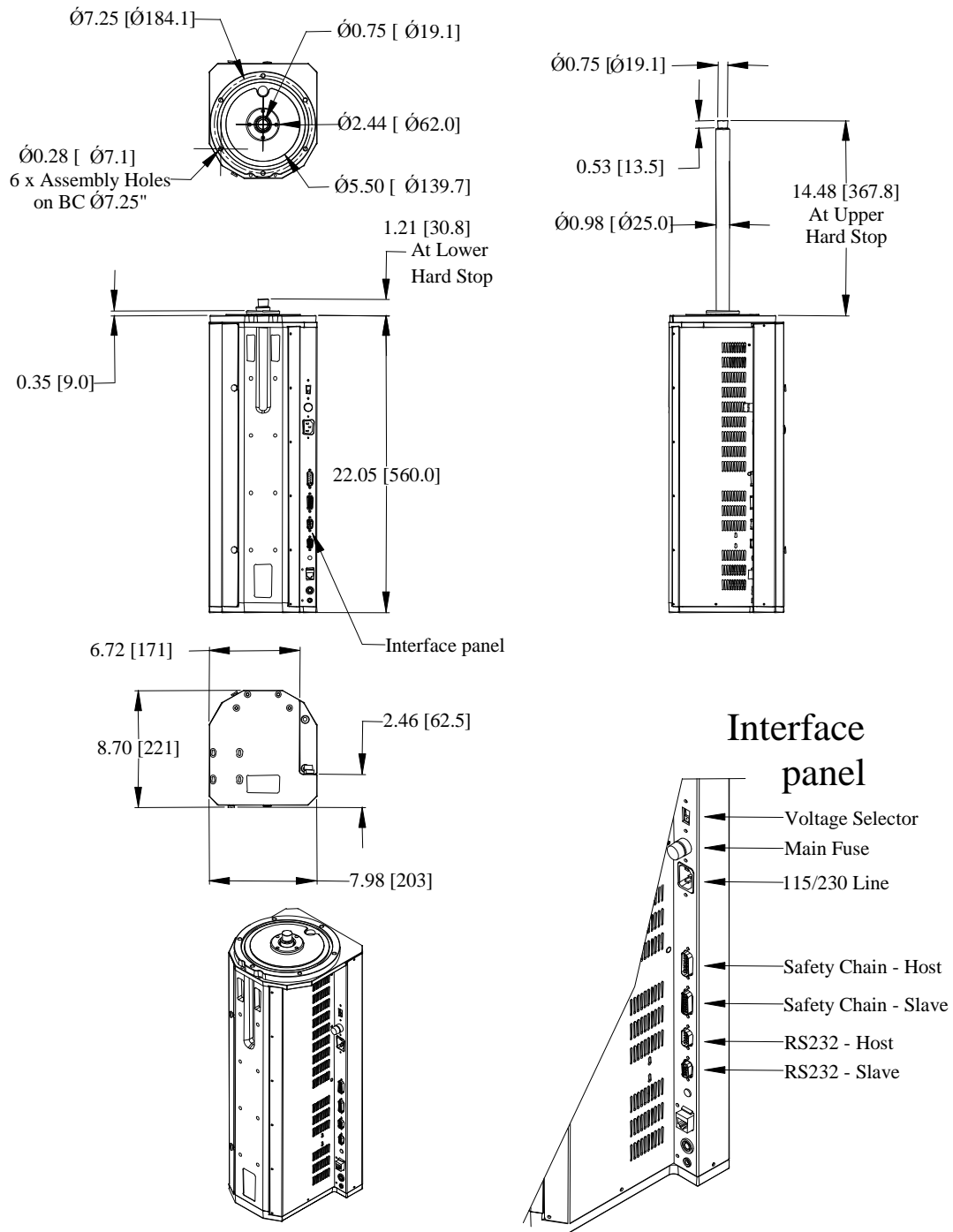


Fig. 1. DIAMOND E5 Vacuum Elevator - Dimensions and Range of Motion