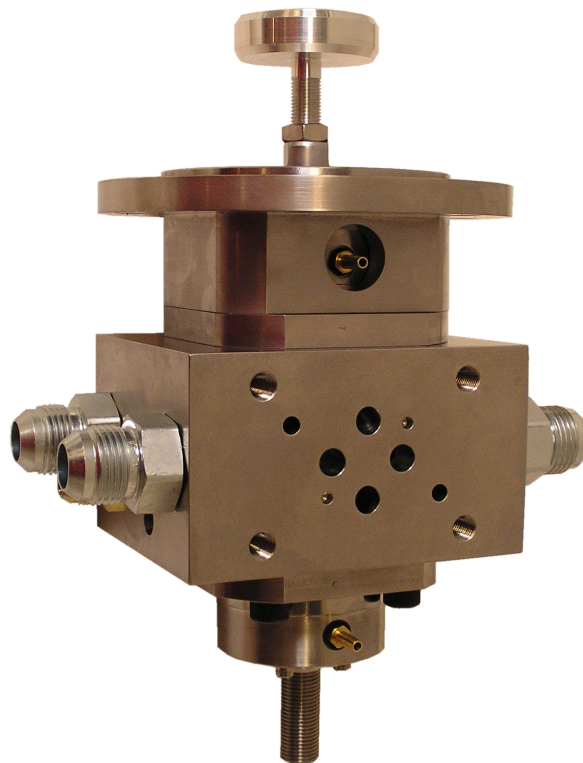


## HYDRAULIC LINEAR ACTUATOR – HIGH PERFORMANCE

Model HLA - HP

### Description

The HLA line of hydraulic linear actuators provide an integrated high-performance solution for dynamic force generation requirements. Ideal Aerosmith linear actuators simplify the process of designing and building high performance testing systems. Our actuators are designed to meet the performance requirements in high dynamic, structural fatigue, and component test applications. The actuator contains a non-contact, high dynamic transducer, and interface electronics to provide an accurate indication of piston rod displacement. A pedestal base is available which allows the actuator to be rigidly mounted to a reaction mass. Ideal actuators are designed to provide precision performance and reliable operation with only minimal preventative maintenance.



### Standard Features

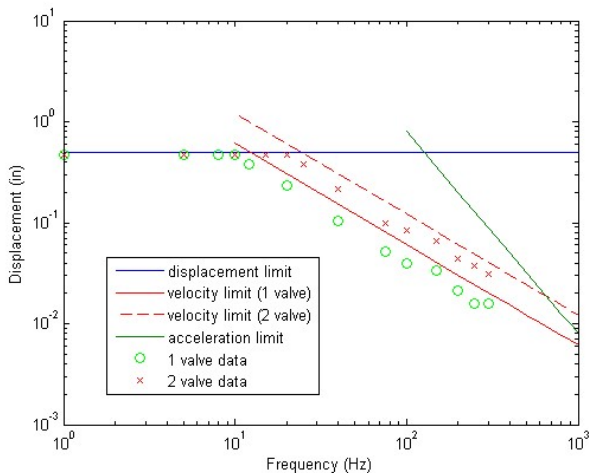
- High displacement response bandwidth with payloads up to 10 lbs.
  - 90-degree phase lag; Bandwidth near 200 Hz
  - 3 dB magnitude decrease; Bandwidth near 500 Hz
- Maximized hydraulic resonant frequency achieved by reducing cylinder dead volume
- Laminar flow piston rod bearings
- Two Stage piston rod seals with case drain
- Low friction
- Static force saturation: 5,480 lbs. at 3000 psi supply pressure; with 100 psi return pressure
- Double-ended fatigue rated design with symmetric piston rod
- Reliable operation under multi-axial accelerations

## Company Experience

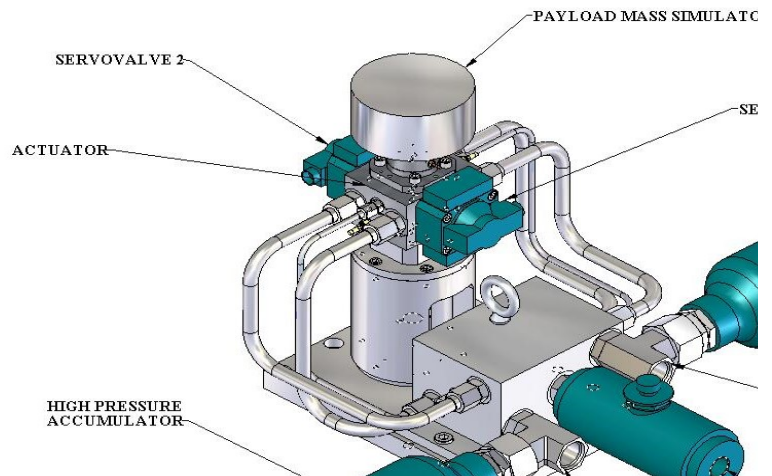
Ideal Aerosmith has been in the precision motion simulation business for more than 75 years providing turnkey state-of-the-art direct-drive electric and hydraulic motion systems to support the development, testing and evaluation of inertial navigation devices and guidance systems required by the commercial and defense markets. Our team of experienced mechanical engineers have a combined more than 90+ years' experience designing precision mechanical systems that are used in the most high-dynamic hydraulic missile flight motion simulators in the industry. Ideal has applied our expertise in mechanical design and made it transferable to all industries by offering our hydraulic linear actuators as a singular component or as part of an integrated test solution which may be used in an array of industries such as agriculture, automotive, construction, energy, marine, material handling and mining to name a few.

Physical Specifications		
Model No.	Unit Size	HLA - HP
Piston Rod Material		Maraging Steel 17-4 PH
Piston Diameter	inches	1.55
Piston effective area	Inches <sup>2</sup>	0.625
Maximum Operating Pressure Range	psi	3000
Stroke, Maximum	Inches	±0.25

The above values represent our standard actuators which are able to be customized for your specific application. Please contact Ideal Aerosmith for additional information.



**Displacement Performance  
w/ 1 or 2 valves and 10 lb. payload**



**Typical Hydraulic Linear Actuator Configuration**

HLA-HP Rev A