



THE SEVERE-SERVICE STANDARD IN VALVE AUTOMATION



LINEAR HYDRAULIC ACTUATORS



LINEAR PNEUMATIC ACTUATORS



ATI LINEAR PNEUMATIC ACTUATORS

ATI SUPERIOR PNEUMATIC AUTOMATION SOLUTIONS

Our L & HDL series are piston operated valve actuators that use air pressure or natural gas to produce the force required to open, close and control rising stem valves.

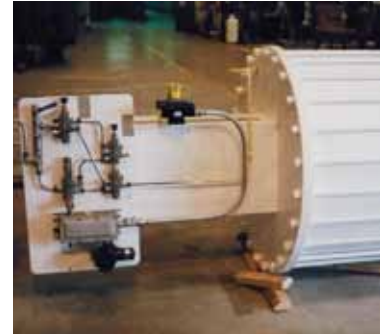
Max. working pressure up to 150 psi. Max. thrust available 216,676 lbs.



Unit after unit, time after time, ATI actuators offer exceptional dependability.

Piston actuators allow for a high thrust to weight ratio because they can operate at higher supply pressures.

The all steel construction can withstand severe-service environments.



A 42" bore size actuator capable of generating over 200,000 lbs. of force.

Performance Highlights

Our L series actuator is perfect for control valves. With smooth operation from speeds as slow as .012 inches per second to speeds as fast as 12 inches in less than a second.

The adaptable nature of our design allows you to automate valves in place without shutting the plant down.



HDL Series Pneumatic Double Acting Actuator on a Thru Conduit Valve.

Our piston actuators are constructed to withstand high temperatures and vibrations.

Actuators are ASME III approved for nuclear regulatory quality specifications.



An entire fleet of Linear Pneumatic Actuators set for a Western Australian LNG facility.

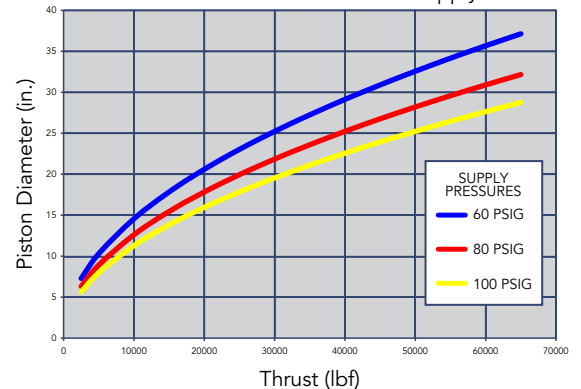
With thousands of units worldwide, ATI has built a strong industry standing.

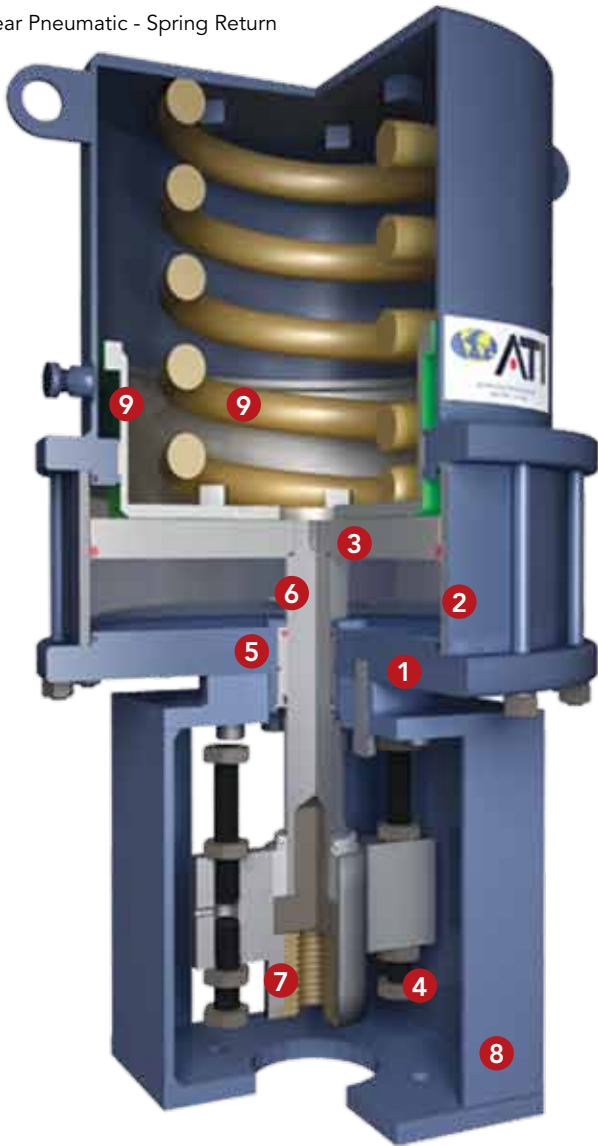
STANDARD SPECIFICATIONS

PISTON DIAMETER	4" THRU 44"
STROKE	1" THRU 50"
MAXIMUM WORKING PRESSURE	150 PSI
STATIC TEST PRESSURE	225 PSI
THRUST	478 lbs. TO 216,676 lbs.
TEMPERATURE RANGE	
STANDARD	-40°F to 200°F
LOW TEMPERATURE	-65°F to 200°F
HIGH TEMPERATURE	-20°F to 400°F

Larger bore sizes, longer strokes and higher pressure are available.

Thrust vs. Piston Diameter at Different Supply Pressures

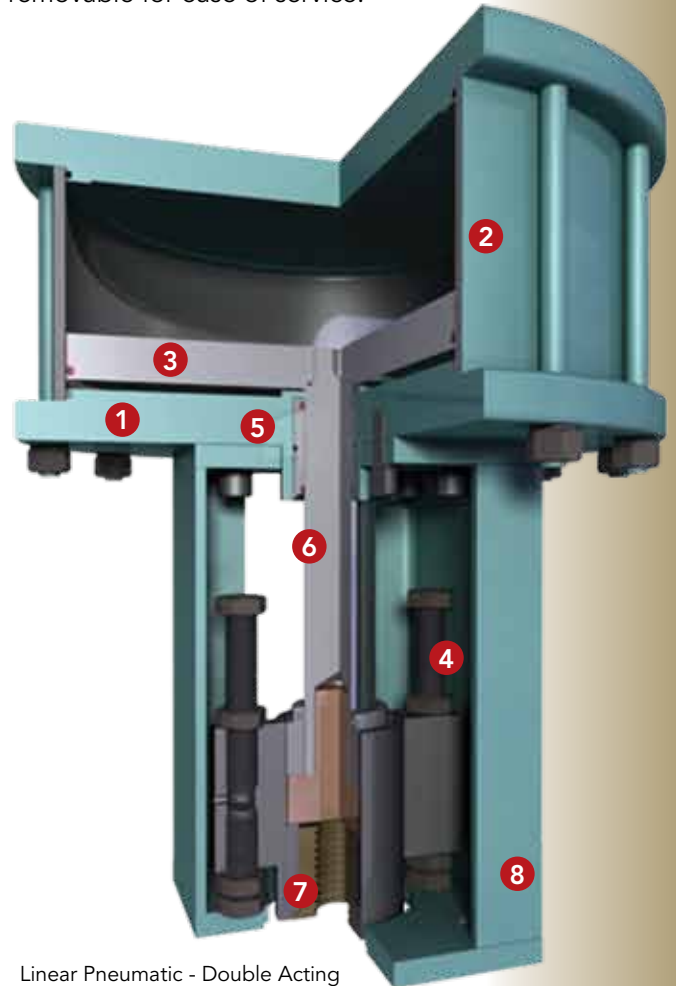




ATI PRODUCT FEATURES

- 1** **Cylinder Heads (Upper and Lower)**
Precision machined steel cylinder heads provide a true parallel surface for alignment of the cylinder and piston rod bearing.
- 2** **Cylinder**
High strength steel cylinder is honed to a 16RMS finished and hard chrome plated or xylan® coated for enhanced performance and corrosion protection.
- 3** **Piston**
Precision machined steel piston incorporates an anti-friction wear ring and bidirectional quad seal for long trouble free service.
- 4** **Travel Stops**
Externally adjustable travel stops are sized to withstand the full output thrust of the actuator and do not intrude into the pressurized power cylinder.
- 5** **Piston Rod Bearing**
Heavy duty, extra long piston rod bearing is externally removable for ease of service.

- 6** **Piston Rod**
The piston rod is made from 100,000 psi minimum yield high strength alloy steel, ground to a 8 RMS finish and hard chrome plated.
- 7** **Coupling Block**
Unique piston rod to valve stem coupling block allows easy installation and removal of the actuator. A split coupling is used for control valve applications.
- 8** **Adaption Bracket**
One piece open adapter allows for access to travel stops, limit switch adjustment, valve packing adjustment, and actuator removal.
- 9** **Spring & Spring Cartridge**
Springs are pre-compressed and welded into a sealed spring cartridge at the factory for safe, maintenance-free service. Spring rates can be designed for maximum stiffness.



Linear Pneumatic - Double Acting

ATI LINEAR HYDRAULIC ACTUATORS

ATI SUPERIOR HYDRAULIC AUTOMATION SOLUTIONS

Think Thrust!

Our H & HDH series are piston operated valve actuators that use hydraulic pressure or high pressure gas to provide the force required to open, close and control rising stem valves.



ATI adapts its systems to yours, even helping older plants meet today's demands.

Built for the rigors of industrial applications, these actuators are designed to take maximum abuse without affecting performance or dependability.



Hydraulic spring return control valve actuators with explosion-proof ATI positioning systems are ready for shipment.

Performance Highlights

- Our H series actuator is ideal for control valves especially when it incorporates the ATI hydraulic positioning system.
- Our HDH series actuator has been effectively used for on/off applications



Linear Hydraulic Double Acting Actuators.

such as steam blow applications that require very fast opening speeds.

- The adaptable nature of our design allows you to automate valves in place without shutting the plant down.



A high quality hydraulic power system and actuator results in an integrated solution.

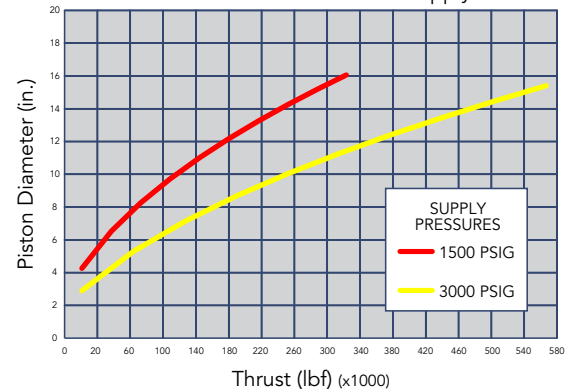
With thousands of units worldwide, ATI has built a strong industry standing.

STANDARD SPECIFICATIONS

PISTON DIAMETER	2" thru 16"
STROKE	1" thru 50"
MAXIMUM WORKING PRESSURE	3000 PSI
STATIC TEST PRESSURE	4500 PSI
THRUST	3000 lbs. to 573,027 lbs.
TEMPERATURE RANGE	
STANDARD	-40°F to 200°F
LOW TEMPERATURE	-65°F to 200°F
HIGH TEMPERATURE	-20°F to 400°F

Larger bore sizes, longer strokes and higher pressure (up to 5000 PSI) are available.

Thrust vs. Piston Diameter at Different Supply Pressures



ATI

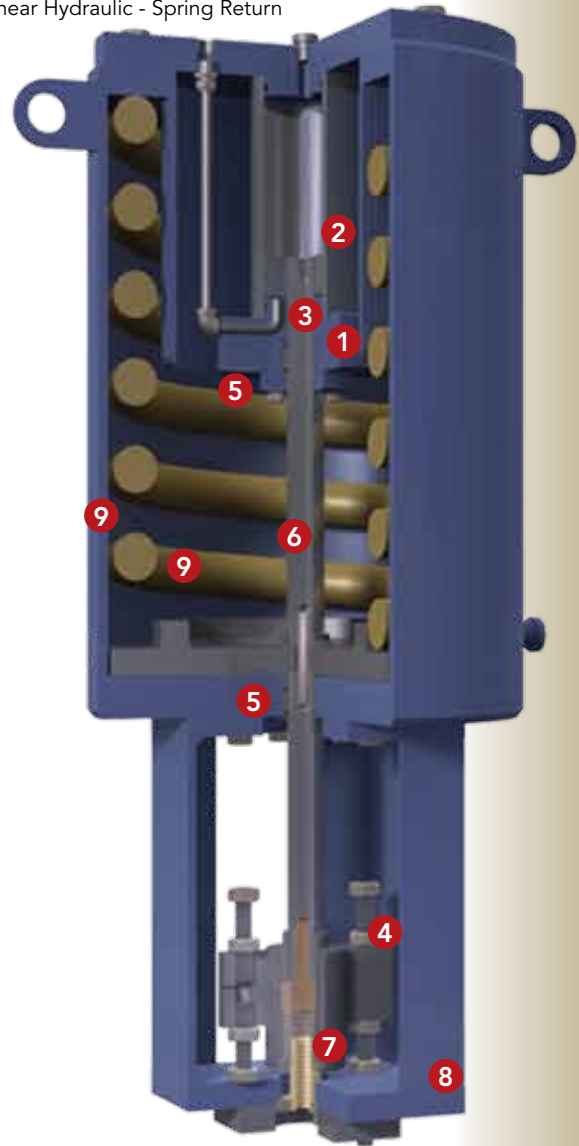
PRODUCT FEATURES

- 1** **Cylinder Heads (Upper and Lower)**
Precision machined steel cylinder heads provide a true parallel surface for alignment of the cylinder and piston rod bearing.
- 2** **Cylinder**
High strength steel cylinder is honed to a 16RMS finished.
- 3** **Piston**
Precision machined steel piston incorporates an anti-friction wear ring and bidirectional quad seal for long trouble free service.
- 4** **Travel Stops**
Externally adjustable travel stops are sized to withstand the full output thrust of the actuator and do not intrude into the pressurized power cylinder.
- 5** **Piston Rod Bearing**
Heavy duty, extra long piston rod bearing is externally removable for ease of service.



Linear Hydraulic - Double Acting

Linear Hydraulic - Spring Return



- 6** **Piston Rod**
The piston rod is made from 100,000 psi minimum yield high strength alloy steel, ground to a 8 RMS finish and hard chrome plated.
- 7** **Coupling Block**
Unique piston rod to valve stem coupling block allows easy installation and removal of the actuator. A split coupling is used for control valve applications.
- 8** **Adaption Bracket**
One piece open adapter allows for access to travel stops, limit switch adjustment, valve packing adjustment, and actuator removal.
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Springs are pre-compressed and welded into a sealed spring cartridge at the factory for safe, maintenance-free service. Spring rates can be designed for maximum stiffness.

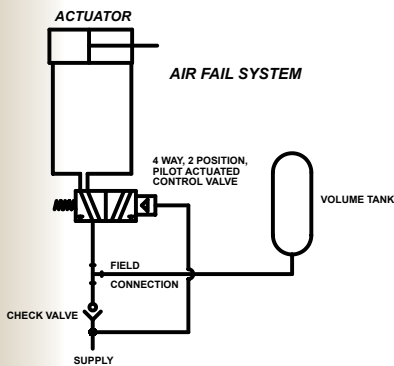
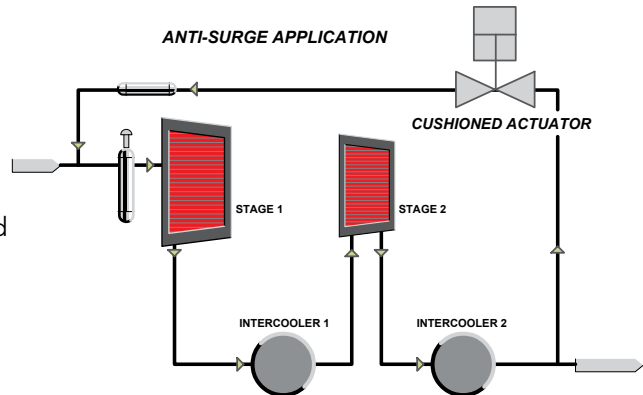
ATI OPTIONS AND ACCESSORIES

ATI SUPERIOR ALTERNATIVES FOR SUPERIOR PRODUCTS

ATI offers a full line of options to complement your actuator.

ATI Cushion Actuators

For high speed applications that need a cushioned stroke to protect the valve, this is an ideal application. This actuator is perfectly suited for anti-surge valves.



Air Fail Systems

Air fail systems provide another line of defense against unforeseeable process failures. An air fail system can provide a cost effective alternative to a spring return unit by using a double acting actuator and an air volume tank as shown schematically on the left.

Stainless Steel Piston Rods

Stainless steel piston rods are necessary for actuators deployed in coastal and offshore environments. The stainless steel helps to deter corrosion making for a higher quality longer lasting actuator.



Valve Mounting Services

ATI can provide mounting of the actuator to a customer supplied valve. We also provide mounting services for customer supplied controls.

Field Installation Services

Our expert field engineers will come to your facility and supervise the installation of the actuator onto the valve.

Lock Out Devices

Lock out devices allow you to lock the actuator in place to ensure a safe work environment during "down the line" repairs.



ATI MANUAL OVERRIDES

The JS-1 override is a single acting mechanism that will extend the actuator piston rod when operated. This override is intended for infrequent use.

The JS-2 override is capable of extending or retracting the actuator and can be engaged at any position from full open to full closed. Since the entire manual override mechanism is incorporated into the actuator adapter bracket it allows for removal or service of the power cylinder while maintaining complete control of the valve.

The HO-1 is a one way hydraulic override for use on spring return actuators. This override compresses the spring and operates the valve, the spring force is used to move the valve to the failure position.

The HO-2 override is used on double acting actuators and is capable of extending or retracting the actuator. The HO-2 also allows for very precise speed control by regulating the flow of the hydraulic fluid in the system.



JS-2 Manual Override

HO-1 Manual Override



JS-1 Manual Override

ATI QUALITY EXAMPLES



A hydraulic spring return actuator for a fail open surge control valve located on the Alaskan pipeline requiring very precise positioning while operating at a very high speed.



A double acting pneumatic actuator with stainless braided hose, solenoid, regulator, and limit switch ready for shipment to an oil refinery.



A spring return pneumatic actuator goes on a fail closed gate valve application requiring a linkage-type limit switch and an HO-1 hydraulic manual override for use in a steam line.



A steam blow application is required during the commissioning of a new power plant. An ATI hydraulic actuator and power system (the blue skid in the background) was required to meet the speed requirement of 20 inches in less than a second. Through the course of use, the valve wore out and had to be replaced, but the actuator is still in use.

WE TAKE
YOU
FROM THIS



TO THIS
IN ONE
EASY STEP!

SAME DAY QUOTE

Visit www.atiactuators.com to receive a same day quote from ATI. Consider the following actuator sizing information when placing your order:

- **THE THRUST**
The amount of force required from the actuator to open and close the valve. Just give us the valve class and type and we can calculate the thrust.
- **THE STROKE**
The stroke of the valve.
- **THE POWER SOURCE**
ATI can accommodate any power source; air, hydraulic, electric, solar, etc.
- **THE FAILURE MODE**
Fail closed, fail open, fail last, etc.

If you are unsure of your needs, a sales representative will be happy to assist you in finding the right solution. Call us today and let's work the problem. ATI also provides valve actuator training at our facility or yours.



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Houston Facility
Assembly and Sales

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Houston, TX 77041

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