



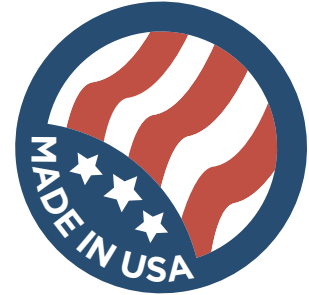
THE GLOBAL LEADER
IN CUSTOMIZED VALVE AUTOMATION



Automation Technology

ATI specializes in customized valve automation, using in-house manufactured actuators, power systems and control systems. With over 20 years of experience, we are a leader in the valve automation industry in performance, reliability and quality. From our initial offering of linear actuators and quarter-turn pipeline actuation, we have expanded our product line to include many other customized product solutions.

Installed in over half the world's refineries and all major pipelines in the United States, ATI continues to expand our global presence so that flow control industries in emerging markets and developing infrastructure can benefit from our proven customized solutions. From an LNG project in Western Australia to a major energy company in South Africa to a mining operation in South America, ATI customized solutions are in place all over the world.



The Energy



The Muscle



The Brains



ATI can customize a valve automation solution for any flow control application.

Actuators

Linear Pneumatic
(Spring Return and Double Acting)

Linear Hydraulic
(Spring Return and Double Acting)

Quarter Turn High Pressure Gas

Quarter Turn Hydraulic

Gas Motor

Valve Compatibility

Gate Valves, Globe Valves, Control Valves, Choke Valves, Rising Stem Ball Valves, and other rising stem valves

Gate Valves, Globe Valves, Control Valves, Choke Valves, Rising Stem Ball Valves, and other rising stem valves

Butterfly Valves, Ball Valves, and Plug Valves

Butterfly Valves, Ball Valves, and Plug Valves

Any valve with a gear operator

Customized

PASSION

WE SHARE A DESIRE TO SPARK
curiosity in each other & to seek
NEW IDEAS, METHODS & SOLUTIONS

MODESTY

WE BELIEVE WE
are here to enable others
TO BE SUCCESSFUL



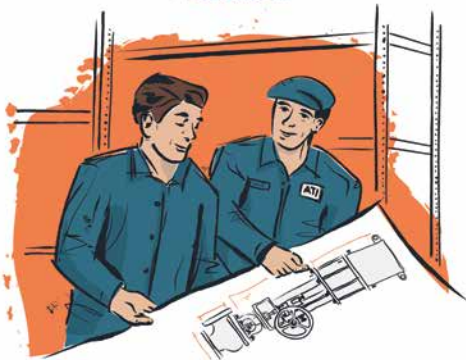
WILLPOWER

WE WILL TRIUMPH THROUGH
hard work, skills & standards
THAT SAY NEVER QUIT



CUSTOMIZATION

WE BELIEVE OUR CUSTOMERS
are our partners in design
&
OUR PRODUCTS, PEOPLE & MANUFACTURING
MUST BE ADAPTABLE



Vision & Values

From the time we opened our doors, we have focused on flow control and valve automation. Our vision is to be the global leader in customized valve automation. We will achieve our vision through applying our core values daily and making the most reliable customized valve automation products available.

The daily culture at ATI is based on a set of core values that begins with our people and ends with our customers. What this means to our customers is that while we focus on Modesty, we are focusing on listening to our customers. While we share a Passion for learning, we are sharing our knowledge with each other as we strive to build the best solutions. We have the Willpower to build the best products for our customers and we stand behind what we build. At the core of our values is our business value of customization. We never forget that we are here to create and build the best valve automation solutions for our customers.

History

Established in 1995 by Wayne Trautwein, known by many to be the father of the linear actuator

- 1990 Founder receives patent for valve stem coupling
- 1995 ATI opens for business
- 2000 Received pipeline technology patent
- 2008 Opened new headquarters in Houston, Texas
- 2009 Implemented Lean manufacturing initiatives
- 2010 Acquired Gevalco, premier pipeline technology
- 2011 Achieved Safety Integrity Level 3 certification
- 2011 Achieved Pressure Equipment Directive certification
- 2011 Achieved GOST certification
- 2011 Major investment in state-of-the-art CNC machinery and ERP Operating System
- 2012 Achieved ISO 9001:2008 certification
- 2013 Expanded Sales offices to UK
- 2015 Implemented SolidWorks® Solid Modeling Design technology

Our History

Customized Valve Actuators

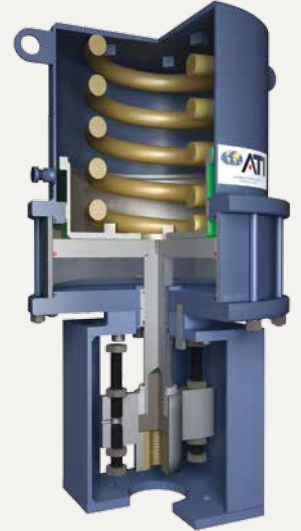
Valve Actuators

ATI piston actuators are used on all types of rising stem valves including gate valves, globe valves, and rising stem ball valves. We offer pneumatic and hydraulic actuators in spring return and double acting varieties depending on the failure mode specified. We also offer quarter-turn, gas motor and gas-over-oil actuators specifically used in pipeline applications.



Linear Pneumatic Spring Return Actuators

- Actuate any rising stem valve
- True mechanical failure mode
- Precision machined steel cylinder and heads maintain linearity
- Springs pre-compressed and welded into sealed spring cartridge at the factory for safe, maintenance-free service
- Spring rates customized for maximum stiffness



Linear Pneumatic Double Acting Actuators

- Actuate any rising stem valve
- Fails in place
- Precision machined steel cylinder heads maintain linearity
- External, adjustable travel stops, easy to reach, no leaking
- Piston rod to valve stem coupling design for easy removal and maintenance



Linear Hydraulic Spring Return Actuators

- Actuate any rising stem valve
- True mechanical failure mode
- Precision machined steel cylinder heads maintain linearity
- Springs pre-compressed and welded into sealed spring cartridge at the factory for safe, maintenance-free service
- Spring rates customized for maximum stiffness
- Hydraulic actuator inside the unit, which reduces height
- Travel stops in place to protect valve and stem



Linear Hydraulic Double Acting Actuators

- Actuate any rising stem valve
- Precision machined steel cylinder heads maintain linearity
- External, adjustable travel stops, easy to reach, no leaking
- Piston rod to valve stem coupling design for easy removal and maintenance
- Double holding valve allows lock-in at any position

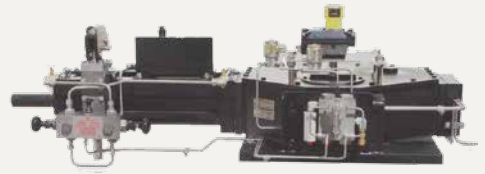
Quarter Turn High Pressure Gas Actuators

- Designed for optimum size-to-output torque for pipeline ball valves
- Powered by direct gas or regulated gas from the pipeline
- Torque outputs over one million lbf/inch-pounds
- Manual hand pump/override
- Eliminate environmental hazards, through the line breaks



Quarter Turn Hydraulic Actuators

- Ideal for operating valves when utilizing high pressure natural gas is a safety concern
- Operates with pressures up to 1500 psi, providing torque outputs over 1 million inch-pounds
- Optimum size to output torque for operating pipeline ball valves
- Manual override option



Gas Motor Actuators

- Operate with unregulated gas up to 1500 psig
- Lightweight design mounts easily to any standard valve gearbox without costly adapters
- Patented high pressure pilot valve poppet technology for reliable, leak proof operation
- 30% less consumption than vane type motors



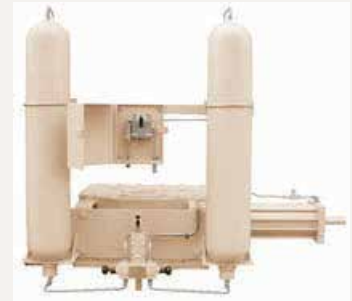
Linear Gas-Over-Oil Actuators

- Designed for rising stem gate valve applications on natural gas pipelines
- Ideal for emergency shutdown
- Spring return or fail in last position
- Lock in last position
- Hydraulic override option
- Failure options



Quarter Turn Gas-over-Oil Actuators

- Designed to operate using direct pipeline gas with pressures up to 1500 psi, providing torque outputs over 1 million inch-pounds
- Long cycle life
- Control modules can be used to implement various control strategies
- Lock in last position
- Failure options



Manual Overrides

- Available for any ATI actuator
- Allow for removal or service of the power cylinder while maintaining complete control of the linear actuated valve
- Incorporate entire mechanism into the actuator adapter
- Hydraulic overrides also available for linear and quarter turn actuators

LINEAR VS. ELECTRIC

Linear actuators go on any rising type valve. If you need a gate valve to fail close upon loss of air pressure, a spring is the only true failure device. Spring Return actuators are industry recognized as the standard over electric actuators for emergency shutdown or failure mode.

Linear

- Only one moving part
- Low operating cost
- Low maintenance
- Fail Safe operation
- Speed of operation
- Operates with existing supply

VS.

Electric

- Multiple moving parts (over 25) (increasing possibility of failure)
- High operating cost
- High maintenance
- Limited to no option for Fail Safe
- Limited speed of operation
- Requires dedicated power supply

Customized Control Strategies

Customized Controls

If you can imagine any kind of control scenario that an end user would want, ATI has seen it. We offer a full line of customized control strategies.

Positioners

- Control valve actuators are custom designed to accommodate any positioner
- Custom designed actuator bracket, positioner attachment, and valve stem coupler to exact dimensions for optimal performance
- Adaptable to all major brands of positioners depending on specified certification



Limit Switches

- Rigidly attached to actuator bracket using custom-designed switch brackets
- Construction ensures accurate reading of valve travel limits, even in the harshest conditions



Directional Control Valves

- Modular directional control valves custom designed to meet most valve applications
- Broad spectrum of commercially tested and approved brand name, field-proven components, valves, spools, poppets or direct acting
- Directional control valves mount directly to all ATI actuators



Actuator Positioning Systems

- Hydraulic Positioning Systems (HPS) provide throttling capability for ATI hydraulic actuators
- Excellent solution for control valve applications that require hydraulic actuation
- Receives a 4 - 20 mA signal from the DCS or PLC and uses ATI proprietary technology to move the actuator to its desired position
- Comparator circuit and feedback mechanism are integral to the explosion proof system
- Severe service, durable positioning actuator with proven track record of success in harshest of conditions

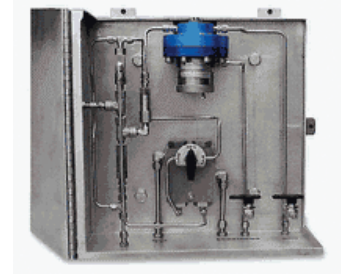
Local Auto-Manual Controls

- Marine-grade, hard-anodized aluminum body with all stainless steel components
- Standard piston provides 4:1 pressure ratio for pilot operation of other control components
- Low-pressure pistons available for retrofit applications
- Compact assembly (4" x 4" x 1") for direct valve mounting
- Integrated in-line filter on power and pilot gas
- Exhaust check valve to prevent atmospheric contaminants from entering the poppet valve
- Suitable for both gas and hydraulic applications



Automatic Station Bypass

- Hi-pressure construction – no regulators, relief valve, or mechanical switching valve
- Differential pilot valve utilizes stainless steel diaphragm for accuracy and repeatability
- Marine-grade, hard-anodized aluminum body for both poppet and differential pilot valve
- Easily adjusted differential trip set point (1.5 psi to 14.5 psi)
- No mechanical linkages
- Limit valve ensures complete opening of bypass valve
- Bi-Directional Station Bypass available for bi-directional flowing pipeline



Hydraulic Hand Pumps

- Provide efficient back-up system for opening and closing valves when power gas is not available
- Utilize balanced piston design to eliminate possibility of cavitation or creating a vacuum
- High flow capacity provides easy and efficient manual opening and closing (even of the largest valves)
- Automatically resets the pump to the neutral position when gas pressure signal is detected
- Pressure relief button provided to relieve any internal pressure after pumping is complete to allow pump ram to retract into pump, out of any hostile atmosphere

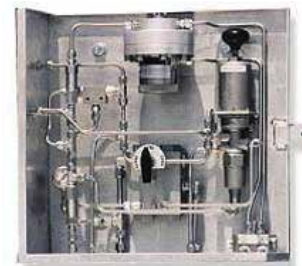
Line Break Systems

- Designed to automatically close main pipeline valves in case of a major leak or pipeline eruption
- Quickly and reliably closes main pipeline block valves
- Gas loss minimized to prevent fires and other catastrophic losses
- Sense a pipeline break or major leak through a unique Rate-of-Drop circuit



Retrofit Kits

- Re-automate old actuators with new controls
- Decrease repair and maintenance costs over actuator life
- Address changes due to wear and age
- Efficient plant control
- Quick and convenient bolt-on solutions
- No service interruption



Gas Motor Actuator Controls

- Components constructed of marine-grade, hard-anodized aluminum and stainless steel for maximum corrosion resistance and longer cycle life
- Built-in pilot pistons provide signal inputs for solenoids or pneumatic devices
- High-flow exhaust valve improves motor efficiency while reducing gas consumption
- Commercially available 3-way SS valve, with SS lockable handle, for local auto/manual selector
- Optional limit switches with two explosion-proof SPDT hermetically sealed proximity switches for position feedback



Rate-of-Drop Test Kits

- Calibrate and simulate various pipeline operating scenarios in order to test automation control strategies
- Portable, self-contained, easily connected to the control system in the field
- Used to calibrate trip points for the Line Break, Station Bypass and Hi and Low Pressure ESD control modules
- Emergency scenarios can be simulated under live conditions to test control action without inadvertently causing a shutdown
- Calibrate and test control modules to ensure valve activates only when desired

Remote Electric Controls

- Designed to operate pipeline valves from remote electric signal
- Explosion-proof, electrically operated hi-pressure solenoid valves are integrated with proven poppet valve to provide reliable, maintenance-free control based on wide range of electrical signals
- Electrical signals can be AC or DC, at any specific voltage
- High-pressure solenoids can be set up for power fail-safe or energized to activate operation depending on requirements
- Explosion-proof limit switches are standard to provide for valve position feedback and reset system on end of travel condition
- Optional manual override control and local reset controls can be integrated



Hi-Lo Pressure Emergency Shutdowns

- Reliable self-contained automatic control of pipeline valves based on high or low pressure at the sensing point
- Hi-Lo pressure construction - no regulator, relief valve, or mechanical switching valve
- Constructed of corrosion resistant marine-grade, hard-anodized aluminum or stainless steel
- Easily adjustable trip set point
- No mechanical linkages
- Limit valve ensures complete opening or closing of the valve



ATI Double Acting Pneumatic Control Valve Actuator with Hydraulic Override

- 1 Positioner
- 2 Limit Switches (2)
- 3 Regulator
- 4 Directional Control Valves (2)
- 5 Solenoids
- 6 Mechanical Feedback Linkage



High Pressure Control Valve

Customized Power Solutions

Customized Power

Every actuator needs power: air or hydraulic fluid pressure, electrical, solar or otherwise. With ATI's products, you will never be restricted by your available power source because we accommodate all power sources.

Hydraulic Power Units

- Completely self-contained
- Designed to operate hydraulic actuators and provide a power reserve when the primary power source is lost
- Powered electrically or pneumatically
- Capacity for one or more actuators
- Electric-powered units can be designed for any voltage, to deliver the required high pressure (typically up to 1500 psi) hydraulic fluid required to operate the actuators
- Accumulator tanks sized based on the cycle requirements under failure conditions
- The proven control components are used to ensure there is always a power source when it is needed

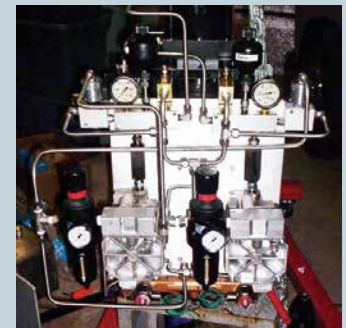


Nitrogen Power Reserve Units

- Utilized to operate direct gas, gas-over-oil and low pressure actuators when primary power source is lost
- DOT compliant high-pressure nitrogen bottles, manifolded together for reliable back-up gas supply for any actuator operating conditions
- Units are custom designed for actuators and customer control requirements (based on actuator displacement volume and cycles required to produce the force required by the valve).
- Supplied in sturdy, ventilated, lockable all-metal cages and painted to customer specification or with two coats of aliphatic polyurethane

Hydraulic Intensifier Systems

- Air-to-hydraulic pressure
- Provide extremely high thrust for low pressure applications that otherwise would require large actuators
- Utilize air to drive small hydraulic pumps which produce higher pressure so that smaller hydraulic actuators could be used
- Eliminate need for large, pneumatic cylinders



Self-Contained Electro Hydraulic Systems

- Designed to be a 50-3,000 psig hydraulic power and control source to drive either linear or quarter-turn valve actuators
- Permit variable torque or thrust by means of an adjustable pressure switch as well as variable actuator speed by means of flow control valves
- The 100% duty cycle motor runs only when the system pressure drops below the pressure switch set point
- Timer and reservoir float/level switch are used as safety devices to shut the system down if there is a leak or line rupture
- Failure modes available



Industries

We recognize that different industries have unique applications and their own specific flow control needs. The key industries that incorporate ATI customized valve automation solutions are Oil & Gas, Power, Chemical, Pulp & Paper, Mining and Water. Whether the application is for high pressure steam control, emergency shutdown, retrofitting, anti-surge for compressors, high vibration, high pressure / low pressure steam bypass, turbine bypass, high thrust valve applications on high pressure processes, or many others, ATI has designed a customized valve automation solution.

Testimonials

“We have 14 of your actuators at this facility, with a clean track record for over a decade.”
- Maintenance Team Member, Industrial Gas Supplier, Louisiana Operations

“You react fast to requests, and that is very much appreciated.”
- Product Manager, EPC

“Job well done for our customer in Sakura Japan. Thanks to all involved!”
- Production Supervisor, Large Valve OEM

“I really appreciated the commitment to deliver the needed products on a very short schedule.”
- Instrument Engineering Section Member, Major Oil & Gas Company, Gulf Coast Refinery

The automated valves you provided look good. Nice workmanship.
- VP of VAC, on his customer site



Select ATI Installed Projects

1. Pneumatic Double Acting (DA) actuators on gas pipeline
2. Pneumatic Spring Return Extend (SRE) actuator with declutchable, side-mounted hand wheel manual override (JS2)
3. Pneumatic SRE actuator installed on anti-surge valve to protect compressor at nitrogen plant
4. Gas Motor Actuator mounted directly to gear operator at compressor station
5. Horizontally mounted Pneumatic DA actuator with boosters for increased operating speed for control valve at power plant
6. Pneumatic DA on ethane pipeline which also utilized a bank of reserve nitrogen bottles
7. Quarter Turn Gas-over-Oil actuators on natural gas pipeline
8. Modulating Pneumatic DA at oxygen and steam mixing point in gas to liquids plant
9. Hydraulic DA for municipal flood control
10. Pneumatic DA, horizontally mounted on gas pipeline metering station
11. Skid-mounted Pneumatic SRE in crude refinery



WE WORK TO BE
★ ★ ★
THE GLOBAL LEADER
IN
customized valve automation



AUTOMATION TECHNOLOGY INC. COMPANY VISION

Take the Next Step
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CONTACT US TODAY



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