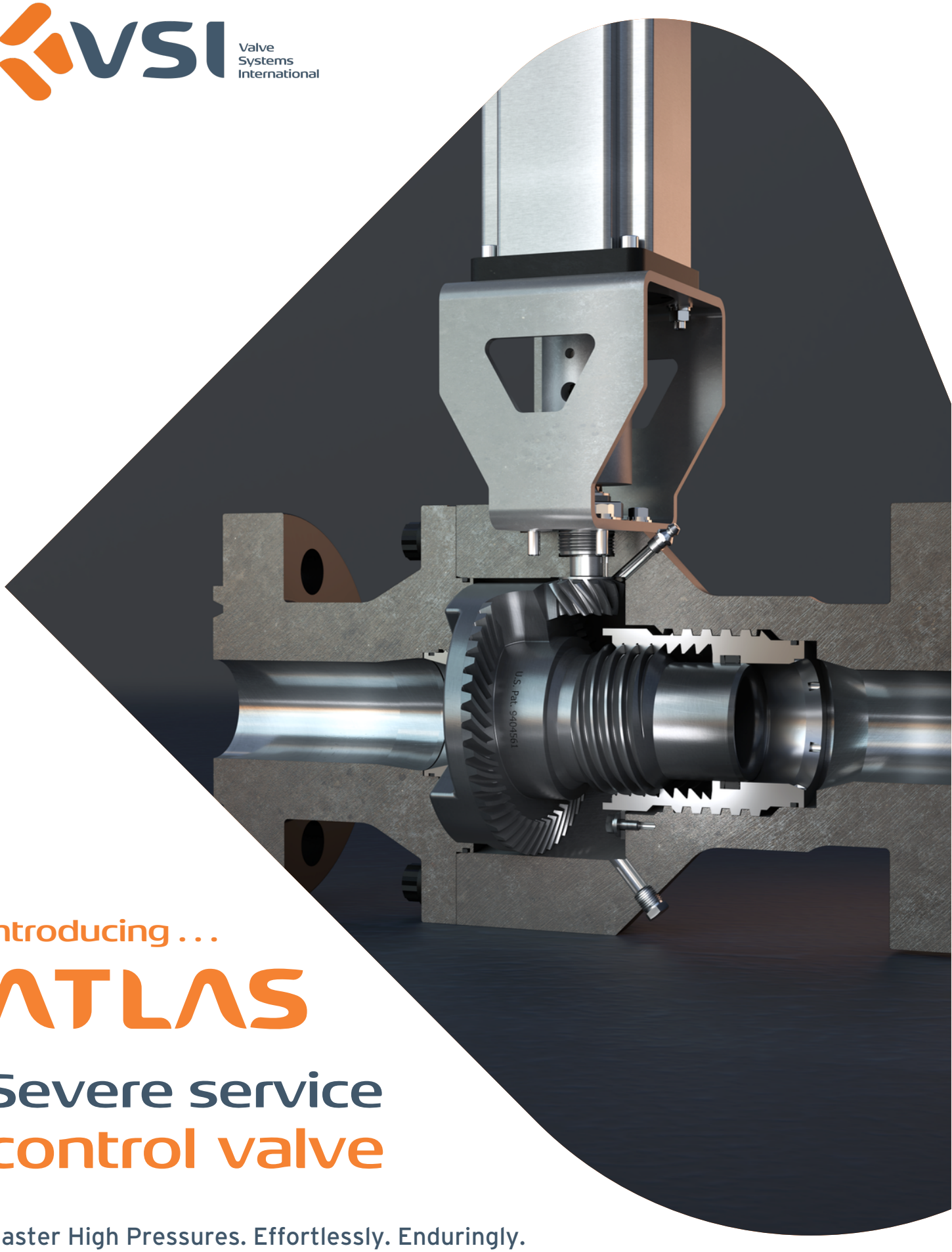
VSI Valve Systems International



Introducing . . .

ATLAS

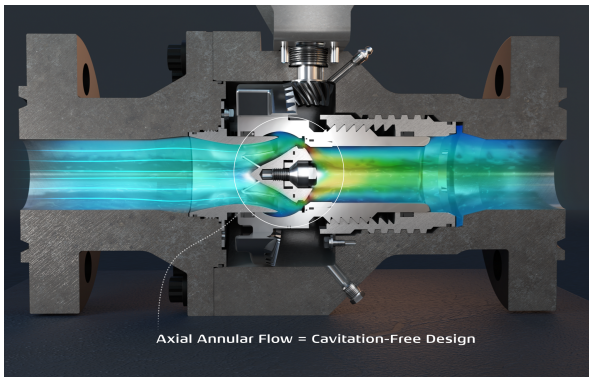
Severe service control valve

Master High Pressures. Effortlessly. Enduringly.
The breakthrough against cavitation and unplanned downtime

With over 10 years of continuous service in pump testing facilities and real-world severe service applications, Atlas has already proven what conventional valves can't deliver: long-term survival in the worst conditions for control valves.

#1 - Erosion, Wear & Cavitation

High-pressure letdown + abrasive particles = accelerated failure in conventional valves.
Cavitation and abrasive particles destroy trim surfaces simultaneously. Performance degrades. Service life shortens. Maintenance becomes unpredictable.



Atlas eliminates both. Axisymmetric flow keeps high-velocity fluid away from trim surfaces. Pressure recovers gradually—no impact zones, no cavitation.

The valve survives the application—cavitation damage seen in conventional valves simply does not occur in Atlas.

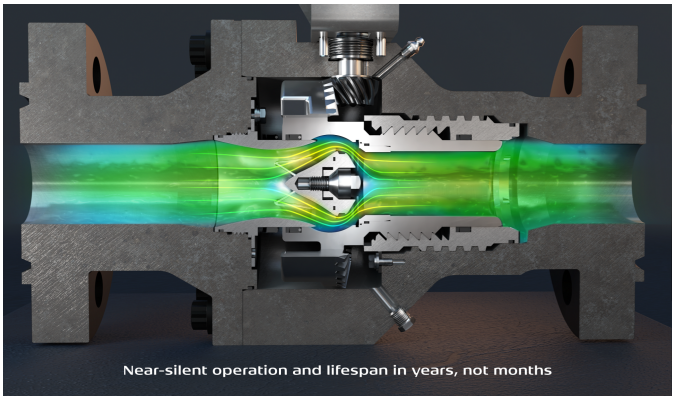
#2 -The Six-Month Surprise

Valves with anti-cavitation trim commission fine. Six months later, operators are troubleshooting loss of control.

Design sees: Successful startup.
Operations sees: Declining performance, unplanned shutdowns, emergency replacements.

Atlas is what operations should have specified from day one.
No performance degradation.
No surprise failures.

#3 - Noise



Atlas reduces noise at the source.

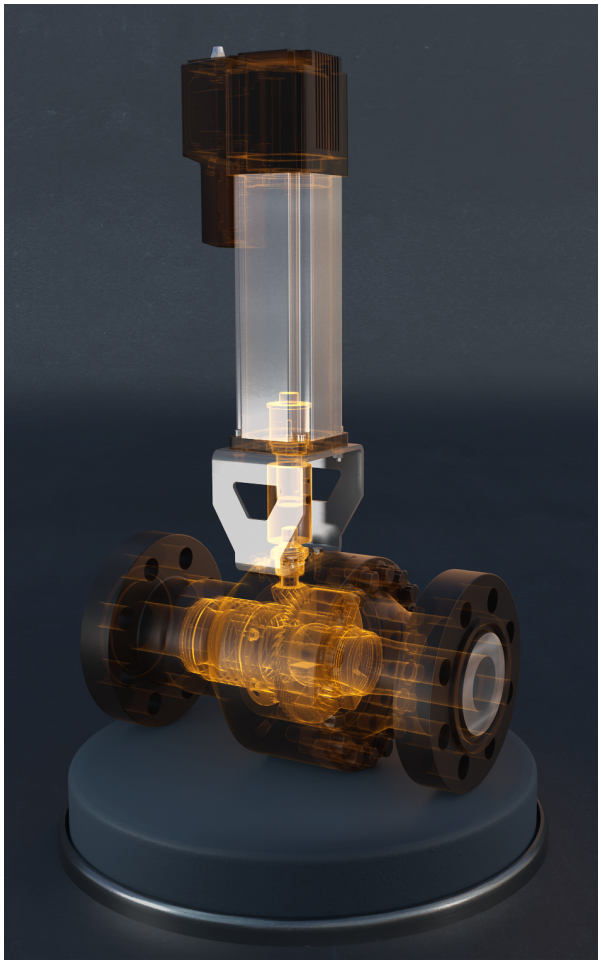
Controlled pressure recovery = less turbulence = lower decibels. Reduced attenuation needs. Safer working conditions.

Field-Proven Performance You Can Trust

Unlike manufacturers who use your facilities as test sites, VSI has already done the work. Atlas has logged thousands of operating hours across demanding applications:

- Zero cavitation damage across 10+ years of continuous pump testing operations
- Operating range: 0 → 6,000 psi DP continuous service (up to 10,000 psi with reduced trim)
- 2+ years continuous operation with minimal maintenance—not the 3-6 month rebuild cycle of conventional valves
- 700:1 control range with +/-3% accuracy—validated, not claimed
- Noise under 60 dB in choked flow—eliminating hearing protection requirements
- 100% signal range with precision-lapped trim and precise, predictable inherent
- characteristic

One Texas pump test facility reported: "Still running strong after 2 years of daily operation, performing with minimal maintenance requirements, maintaining precise control without drift or degradation."



The ROI Case of Atlas

Cost factor	Standard Valve	ATLAS SSCV
Refurbishment Frequency	Every 6 months	2+ years
Rebuilds over 2 years	4 rebuilds	Minor service only
Mobilization events	4+ site visits	Minimal
Downtime Risk	High	Low
Total Cost Impact	**High**	**Lower**

Savings compound:

- Reduced maintenance labor,
- Fewer mobilizations,
- Lower parts inventory,
- Minimal unplanned downtime.

Atlas pays for itself through extended service life.

Engineered for Your Harshest Applications

Atlas delivers proven performance in severe service conditions:

#1 Storage Well Blowdown

- Up to 3,500 PSI down to atmospheric
- Sand, grit, and salt contamination from underground formations
- Extreme erosion resistance where conventional valves fail in months

#2 High-Pressure Injection & Pump Control

- Injection pump pressure control systems
- Pump testing facilities requiring continuous choked flow control
- Boiler feed water injection with precise flow modulation

#3 Hydrocarbon Refining

- High differential pressure precision control
- Any application where cavitation damage has been destroying conventional control valves

#4 Natural Gas Transmission & G&P

- Multi-phase natural gas fluid pressure control
- Compressor station applications
- Meter station pressure control

Why Atlas Survives Where Others Fail

The Fundamental Difference: Conventional globe valves force fluid through abrupt directional changes, creating impact zones where high-velocity particles and cavitation bubbles destroy trim surfaces. Atlas eliminates this problem entirely.

Axisymmetric Annular Flow Path:

- Fluid flows in a directed, least-restrictive path from inlet to discharge
- No sudden directional changes after the trim
- High-velocity fluid directed away from surfaces throughout the entire control range
- Vaporized fluid recovers pressure gradually without surface impact

Result: Zero cavitation damage. Minimal erosion. Extended service life. Consistent control performance.

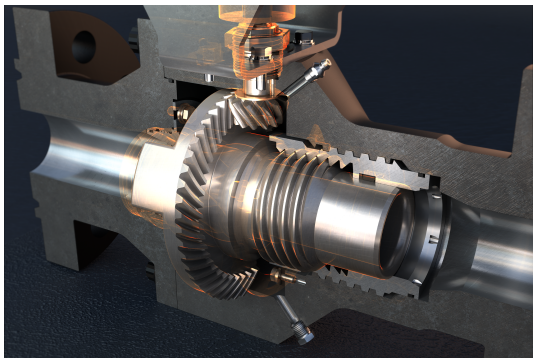
Three Models for Your Application Range

Model	NPS	Flow Capacity (Cv)	Control Range	Ideal for
Atlas 15	2"	up to 70	Up to 80:1	Highest capacity, high pressure, precision control in a 2" valve
Atlas 21	3"	up to 130	Up to 58:1	Pump testing, storage blowdown, severe service control
Atlas 32	4"	up to 300	Up to 58:1	Maximum capacity high-flow applications

Ready to Validate in Your Application?

Field performance matters more than brochure claims. Atlas has proven itself across 10+ years in severe service conditions—now let's prove it in your application.

Field Trial Offer



Contact us to discuss your harshest service challenge. We'll work with your operations team to:

- Validate performance in your specific conditions
- Document actual vs. expected results
- Build the ROI case for broader implementation

No risk. Real data. Your application.

Backed by VSI Engineering and Service

Direct engineer access - we support you directly
Rapid response - on-site when you need it
Complete support - from spec to service life

We work directly with your teams.

Because your operations can't wait.

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