Valtek® Valdisk™
High-Performance Butterfly
Control Valve

Experience In Motion
Maintain process integrity and ensure a smooth production flow

Control valves play a critical role in process applications by maintaining process integrity and ensuring a smooth production flow. They assure process variables remain close to the desired setpoint and facilitate improvements in process productivity, plant uptime and employee safety.

Control valve reliability is even more vital in demanding, high-cycle applications — such as pressure swing adsorption (PSA) and air separation in oil and gas refineries and chemical refining — that experience more than 200,000 cycles per year.

Operators in these and other industries are challenged with selecting durable control valves that deliver reliable performance, high control and throttling accuracy while minimizing operating, maintenance and ownership costs.

The Valtek Valdisk control valve from Flowserve is a high-performance butterfly valve designed to improve uptime and minimize operating and ownership costs. It is engineered to deliver bubble-tight shutoff, reliable control and throttling accuracy in a variety of standard and high-cycle applications.

Improved uptime

The Valdisk control valve features a soft seat designed to provide long-lasting, tight shutoff in both flow directions. This allows for optimum leakage resistance in demanding applications to minimize downtime and improve plant productivity.

Lower maintenance costs

The double-offset disc design minimizes seat and disc wear as well as leakage, which extends seat life and reduces maintenance costs.

High-performance throttling

The Valdisk control valve has a high-thrust cylinder actuator coupled with an eccentric-cammed disc, which enables unmatched, high-performance throttling.

Flowserve is everywhere you are

Flowserve manufacturing sites and Quick Response Centers are located all around the world, so customers have on-the-spot availability for technical support and experienced field service technicians.

Wherever your operations are, Flowserve is there to help you be successful.
Logix™ 3800 positioner
Digital positioner for high reliability and simplified installation with an innovative, one-button, quick-calibration feature

Piston cylinder actuator
High thrust for high-performance throttling, air pressure up to 150 psi (10.3 bar)

Actuator and positioner interface
A spring-biased linkage provides repeatability and reduces hysteresis.

Clamped/splined actuator lever
Eliminates lost motion between shaft and actuator to improve throttling control

Stroke stops
Adjustable stroke stops prevent excessive rotation to avoid shaft damage.
Splined shaft end
One-piece, splined shaft end provides a tight connection between shaft and actuator to improve throttling control.

Shaft retention
Anti-blowout protection for safety compliance to industry standards

Pinned shaft to disc
Tapered pins provide tight connection for excellent control without the need to drill the shaft.

Packing options
Low-emissions for variety of applications, complying with industry standards

Excellent shut-off
Soft seat/jam-lever toggle (Class VI) and metal seat (Class IV) provide reliable, long-life, shut-off capability.

Heavy-duty end post
Robust design for safety and easy maintenance
### Specifications and certifications

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<tr>
<th>Options</th>
<th>ASME</th>
<th>DIN</th>
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<td><strong>Sizes</strong></td>
<td>NPS 3 to 60</td>
<td>DIN 80 to 600</td>
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<td><strong>Pressure classes</strong></td>
<td>PN 10 to 40</td>
<td>ASME CL 150 to 1500</td>
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<td><strong>End connection</strong></td>
<td>ASME 16.5 and ASME B16.47</td>
<td>EN 1092-1 raised face</td>
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<td><strong>Body materials</strong></td>
<td>WCC, CF8M; alloys upon request</td>
<td>1.0619, 1.4408; alloys upon request</td>
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<td><strong>Face to face</strong></td>
<td>API 609 (Valtek standard for large sizes)</td>
<td>EN 558 Series 20</td>
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<tr>
<td><strong>Body style</strong></td>
<td>Lug, wafer (flangeless), double-flanged</td>
<td>Lug, wafer</td>
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<td><strong>Temperature</strong></td>
<td>-268°C to 427°C (-450°F to 800°F)</td>
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<td><strong>Packing</strong></td>
<td>PTFE V-ring, braided PTFE, graphite braid, SureGuard XT, SafeGuard</td>
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<td><strong>Packing type</strong></td>
<td>Single, twin, vacuum, live-loaded, fire-safe</td>
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<tr>
<td><strong>Temperature</strong></td>
<td>-196°C to 427°C (-320°F to 800°F)</td>
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<td><strong>Shut-off</strong></td>
<td>ANSI/FCI 70-2-2006: Class IV (metal seat) and VI (soft seat)</td>
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**Design standards**
ASME (B16.34, B16.10, B16.25), PED, DIN, CRN, ISO, NACE, EN

**Test standards**
ASME B16.34, ASME/FCI — 70.2

**Certifications/approvals**
ISO 9001, PED, CRN, TRCU, SIL
Actuation and instrumentation

**VR spring cylinder rotary actuator**

The Flowserve VR spring cylinder rotary actuator combines high torque and pneumatic stiffness with excellent throttling capabilities. These characteristics are designed into a lightweight, rugged and compact assembly, making this actuator an ideal choice for quarter-turn applications.

**Limiterque® LPS pneumatic Scotch yoke actuator**

The Limitorque LPS actuator is ideal for medium or large valve actuation and any application requiring robust design, long service life and high-speed operation. Its modular construction allows easy on-site maintenance without special tools or valve removal. The actuator’s 25-year design life and maintenance intervals of up to six years lower its total cost of ownership.

**Logix 3800 digital positioner**

Compatible with linear and rotary valves and actuators, the Logix 3800 digital positioner delivers high reliability in harsh environments. It provides unparalleled modularity and versatility within a single unit. Its ability to handle double- or single-acting, linear and rotary applications reduces inventory and operating costs. An innovative, one-button, quick-calibration feature simplifies installation.
Flowserve Corporation has established industry leadership in the design and manufacture of its products. When properly selected, this Flowserve product is designed to perform its intended function safely during its useful life. However, the purchaser or user of Flowserve products should be aware that Flowserve products might be used in numerous applications under a wide variety of industrial service conditions. Although Flowserve can provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser/user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation, and maintenance of Flowserve products. The purchaser/user should read and understand the Installation Instructions included with the product, and train its employees and contractors in the safe use of Flowserve products in connection with the specific application.

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