Baumann™ General Utility and Industrial Process Valves

Uncompromising Customer Service

FISHER®

EMERSON™
Process Management

Baumann™ Products

The Company

Experienced Leaders Providing Quality Industrial Control Solutions Since 1978.

Fisher Controls International LLC, Baumann™ Control Valves, is an ISO 9001 certified, PED compliant manufacturer of general utility, precision micro flow, sanitary control valves, and low noise static resistance plates, serving the food and beverage, fine chemical, industrial semiconductor, pharmaceutical, biotechnology, and renewable fuels industry segments.

Baumann was acquired by Emerson®, a fortune 100 U.S. company listed on the New York stock exchange, and was integrated into the Emerson Process Management family of companies. With this acquisition, Baumann became an integral part of the world's largest global supplier of control valves and instrumentation serving the final control element needs of our global customers

Emerson delivers the true potential of your facility through an unparalleled combination of industry experts, best-in-class technologies, and PlantWeb...the best-in-class systems architecture for next generation digital plants.

Baumann is committed to *Uncompromising* Customer Service and is dedicated in its pursuit to meeting customer application requirements and critical on site delivery schedules.

Reliable Products

Baumann™ General Utility and Industrial Process Control Valves

Best in Class Technologies Through Intelligent Design.

Computer aided design optimization has produced products that are the lowest weight in their class, ensuring the end user of reduced installation, pipe hanger and maintenance costs. Together with our compact, multi-spring diaphragm actuators, our valves provide exceptionally low dead band and hysteresis. We take pride with providing remarkably tight shut-off by lapping every metal seated plug to its mating seat ring. Stainless steel fasteners and powder coat anticorrosion paint for actuator yokes and diaphragm cases assure long service life. Each control valve undergoes three separate tests before it passes rigorous Baumann™ quality inspection procedures.

Baumann™ industrial process control valves are intended for use in general utility service applications such as pressure, flow and temperature control in the textile, pharmaceutical, biotechnology, specialty chemical, semiconductor and industrial heating, ventilation and air conditioning markets.

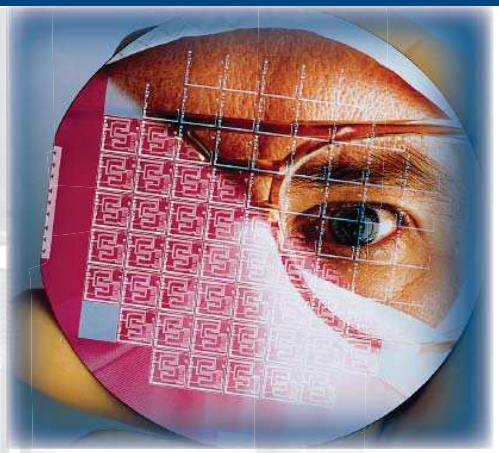
Markets Served:

- Aerospace
- Chemical
- Industrial Gases
- Industrial HVAC
- Biofuels
- Pulp & Paper
- Life Sciences
- Pharmaceuticals
- Food & Beverage
- Cosmetics
- Waste Water Management

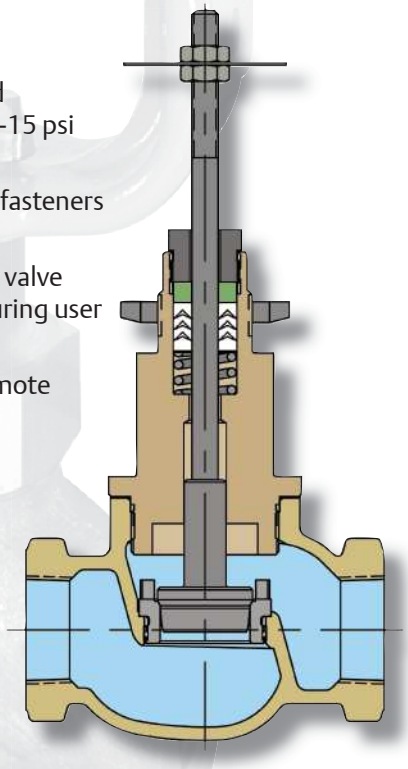
24000 Little Scotty™ Industrial Control Valve

The Little Scotty is the undisputed bronze control valve leader in the general service application range. This valve is suitable for precise temperature, pressure, and flow control of non-corrosive liquids and steam.

Design optimized for the demanding temperature control of Class 100 or better clean rooms as found in the semiconductor and biopharmaceutical industry markets.



- Compact and light weight design reduces installed piping costs.
- Sizes 1/2" through 2"
- NPT and BSPT end connections.
- Superior dual plug and stem guiding provides increased stability during plug travel.
- High quality type 316 or 416 stainless steel valve trim.
- Multiple trim capacity reductions available to meet changing process requirements.
- Multi-spring, field reversible actuator with reduced deadband permits direct operation from remote 3-15 psi signal.
- Epoxy powder coated actuator with stainless steel fasteners for maximum corrosion resistance.
- Entire actuator and yoke can be removed from the valve assembly while maintaining packing integrity ensuring user safety.
- FIELDVUE® Digital Valve Controller available for remote calibration and online diagnostics.



The Little Scotty is unique among bronze globe valves with the ability to handle a wide range of flow requirements. This bronze valve has replaceable stainless steel, alloy, and hard trim options, tight shutoff and low dead band. Like all Baumann™ products, we proudly design and build these valves at our facility located in Portsmouth, NH, USA.

24000C Carbon Steel Control Valves

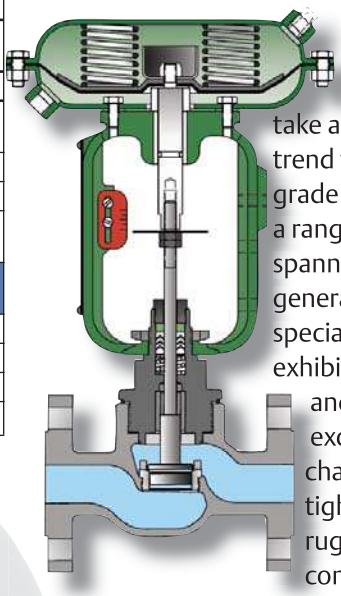
The 24000C is suitable for use in similar applications as the bronze Little Scotty but where a flanged connection is preferred.

Valves can operate via direct pneumatic signal to actuator or with Fisher IP and PP positioners.

24000C Technical Specifications:

VALVE TYPE	ASME		EN
NOMINAL SIZE	0.5, 0.75, 1.0, 1.5, & 2 inch		DN 15, 20, 25, 40, & 50
BODY PRESSURE RATING	CL150 per ASME B16.34		PN 40 per EN 1092-2
END CONNECTIONS	Mates with ASME CL150RF Flanges per ASME B16.5		Mates with PN 10-40 Flanges per EN 1092-2
FLANGE FINISH	ASME 250 to 125 Ra circular lay		EN 500 to 300 Ra circular lay
FACE-TO-FACE DIMENSIONS	Consistent with EN 588-2 (same as ISA S75.03)		Consistent with EN 558-1
TEMPERATURE RANGE	-20°F to 450°F (-29°C to 232°C)		
CHARACTERISTIC	Equal Percentage or Linear		
SEAT LEAKAGE CL IV* (Metal Sealing - std)	0.01% of Rated Valve Capacity (Cv)		
SEAT LEAKAGE CL VI* (PTFE Sealing - optional)	**Nominal Port Diameter (inches)**	**Bubbles / Minute**	**Milliliters / Minute**
	≤1	1	.15
	1.5	2	.30
	2	3	.45

* Tests with air @ 3.5 bar / 50 psi different



INDUSTRIAL GRADE

This compact control valve is positioned to take advantage of the trend toward industrial grade requirements in a range of applications spanning from general utility to special applications. It exhibits low hysteresis and deadband, excellent control characteristics, tight shutoff, and rugged long lasting construction.

Rugged and economical solutions for non-corrosive applications

This industrial control valve is intended for general utility service in pressure, flow and temperature control applications for the food and beverage, textile, pharmaceutical, semiconductor and industrial heating, ventilation and air conditioning markets.

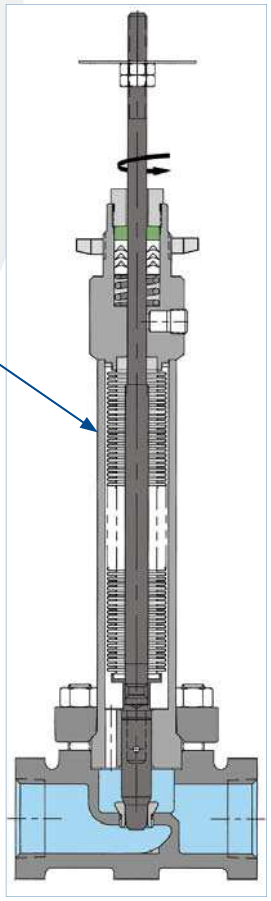
24000S Stainless Steel Control Valves

This economical line of versatile pneumatic control valves may be used for the control of pressure, temperature, level and flow. The type 316 stainless steel body will withstand mildly corrosive fluids, yet is economical enough to use in applications where carbon steel is normally specified.

The ideal choice for mildly corrosive applications.

- Compact and light weight design reduces installed piping costs.
- Sizes 1/2" through 3"
- End Connections: NPT, Buttweld, Specialty Fittings.
- High quality type 316 or 416 stainless steel valve internals.
- Multiple trim capacity reductions available to meet changing process requirements.
- Extension bonnets available for temperatures ranging from -320°F (-160°C) to 1000°F(537°C).
- Unique NOLEEK® bellows seal bonnet system is ideally suited for nonlethal applications where standard packing arrangements are a problem, such as heat transfer fluids in temperature control modules.
- Epoxy powder coated actuator with stainless steel fasteners for maximum corrosion resistance.
- FIELDVUE® Digital Valve Controller available for remote calibration and diagnostics.

24000S Control Valve with Buttwleld Ends



24000CVF Carbon and 24000SVF Stainless Steel Flanged Control Valves

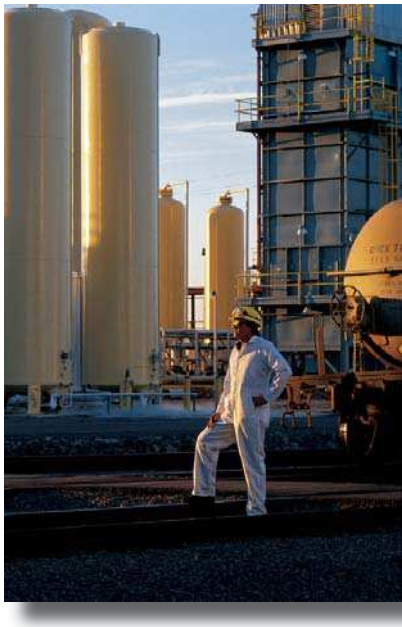
Incorporating some of the latest in control valve technology

24000CVF/SVF Technical Specifications:

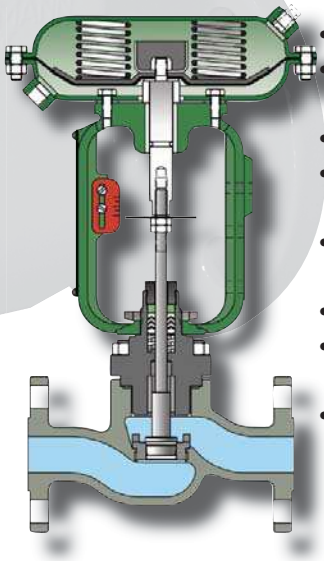
VALVE TYPE	ASME		EN
NOMINAL SIZE	0.5, 0.75, 1.0, 1.5, & 2 inch		DN 15, 20, 25, 40, & 50
BODY PRESSURE RATING	CL150 or CL300 per ASME B16.34		PN 40 per EN 1092-1
END CONNECTIONS	CL150RF or 300RF Flanges per ASME B16.5		PN 10-40 Flanges per EN 1092-1
FACE-TO-FACE DIMENSIONS	Consistent with ISA S75.03		Consistent with EN 558-1
SEATING MATERIAL	PTFE Soft Seat	151 Trim	-20°F to 350°F (-29°C to 177°C)
		177, 577, 677 Trim	-100°F to 450°F (-73°C to 232°C)
	Metal Seat	102, 548, 588, 688 Trim	-320°F to 850°F (-195°C to 454°C)
PACKING AND BONNET COMBINATIONS	**BONNET STYLE**	**PACKING**	**TEMPERATURE LIMIT**
	Standard Bonnet	Spring Loaded PTFE Packing	-100°F to 450°F (-73°C to 232°C)
		ENVIRO-SEAL®	-50°F to 450°F (-46°C to 232°C)
		Graphite	-100°F to 450°F (-73°C to 232°C)
	Extension Bonnet (B)	Spring Loaded PTFE Packing	-100°F to 450°F (-73°C to 232°C)
		ENVIRO-SEAL®	-50°F to 450°F (-46°C to 232°C)
		Graphite	-300°F to 850°F (-184°C to 454°C)
	Bellows (B)	NOLEEK® Bellows	-320°F to 750°F (-195°C to 399°C)
CHARACTERISTIC	Equal Percentage or Linear		

Note A: Temperature limits apply to seating or packing arrangements only. Complete valve assembly temperature limits may differ, refer to appropriate pressure/temperature ratings. For more information on packing selection, reference *Fisher Packing Selection Guidelines for Sliding-Stem Valves*, Bulletin Number 59.1:062.

Note B: Extension bonnets and Bellows bonnets are not available with the 24000CVF carbon steel valves.



The 24000SVF stainless features a wide variety of options to satisfy cryogenic and elevated temperature processes.



- Long life actuator diaphragm
- Rugged ductile iron actuator yoke
- Post guided contoured plug
- Multiple reduced trims available
- Indexed bonnet seating controls gasket compression
- ASME and DN flanges available
- Optimized flow path offers high flow capacity
- 316 and 416 stainless steel trim available.

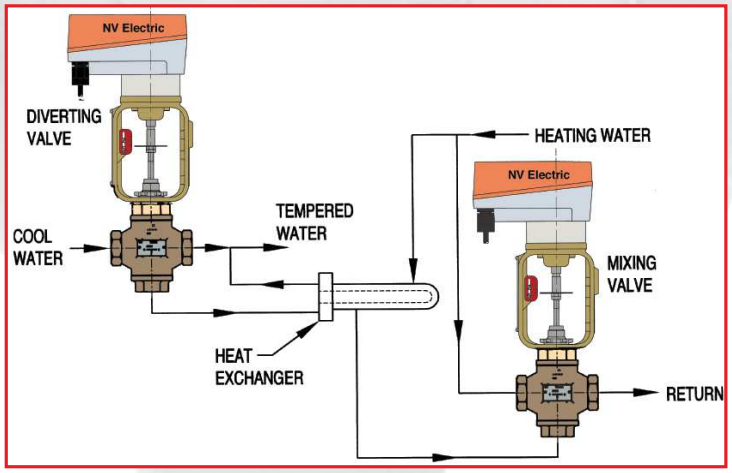
24003 Little Scotty 3-Way Control Valve

This 3-way globe valve is ideally suited for the control of flow or temperature where mixing or diverting service is required.

3-way, bronze or 316 stainless steel control valve is ideally suited for cases where it is necessary to combine two fluids or to divert a single fluid for the temperature control of jacketed vessels and glycol chilling systems as commonly found in the food and beverage industry.

Each valve is equipped with a multi-spring, field reversible pneumatic diaphragm actuator, or the NV electric spring return actuator to provide precise control typical of Baumann™ industrial quality control valves.

- Sizes 1/2" through 2"
- Several end connection options to choose from to meet your piping standards.
- Compact and light weight design reduces installed piping costs.
- ENVIRO-SEAL® packing available for increased packing life and integrity.
- FIELDVUE® Digital Valve Controller available for remote calibration and diagnostics.



24000SB Barstock Control Valve

The type 316L stainless steel barstock valve body and bonnet is suitable for process pressures to 3000 psig (206.9 bar). Ideal for desuperheat or spray control and high pressure tank filling.

- Sizes 1/2", 3/4", and 1' available.
- Multiple trim capacity reductions available to meet changing process requirements.
- Optional extended bonnet for applications ranging from -320°F (-160°C) to 1000°F (537°C).
- Available ENVIRO-SEAL® packing system to meet critical emission control requirements.
- FIELDVUE® Digital Valve Controller available for remote calibration and diagnostics (see photo).

This unique barstock valve is recommended for low flow, high pressure applications.

A variety of end connections ranging from threaded (standard), buttweld, flanged, and specialty fittings add versatility to this high pressure product line.

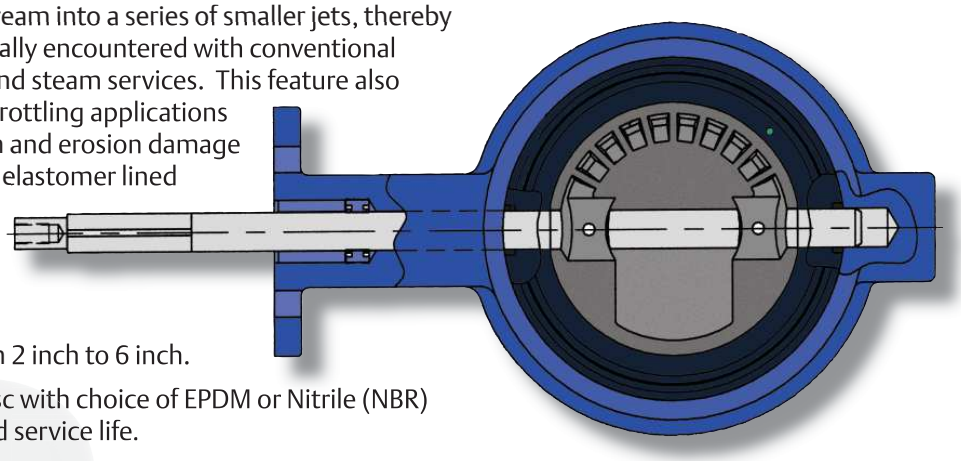
Special alloy constructions available; high nickel based alloys and Alloy 20 round-out the basic type 316L stainless steel offering.

LOW FLOW TRIMS AVAILABLE
(Cv ratings as low as 0.00013)

21000 Elastomer Lined Butterfly Control Valve

The 21000's unique angle seating disk design minimizes liner shearing especially on non-lubricated dry gas service. The point of highest velocity tends to be downstream of the liner surface, thereby reducing potential cavitation and erosion damage.

Unique disk design divides the flow stream into a series of smaller jets, thereby substantially reducing noise levels usually encountered with conventional butterfly valves when utilized on gas and steam services. This feature also reduces pressure recovery on liquid throttling applications minimizing the potential for cavitation and erosion damage typically associated with conventional elastomer lined butterfly valves.



- 21000 valve sizes range from 2 inch to 6 inch.
- Type 316SS angle seating disc with choice of EPDM or Nitrile (NBR) elastomer liners for extended service life.
- DVC2000/6000 FIELDVUE® Digital Valve Controllers.
- 3660 P/P & 3661 I/P Positioners with gain and damping adjustments for tuning valve to process loop dynamics. (Intrinsically safe option).
- 3710 P/P & 3720 I/P characterized cam positioners (NEMA 3 explosion proof).

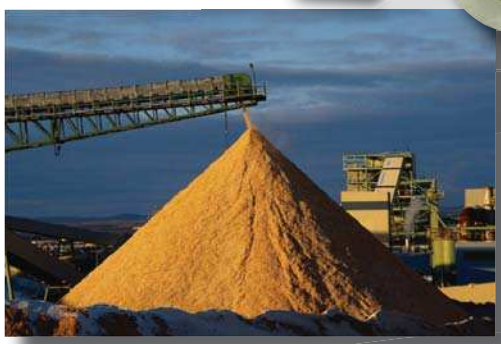
The ideal control valve for larger flow applications requiring tight shutoff.

A combination of low hysteresis actuator, patented anti-backlash linkage, reduced operating torque and characterizable disk opening results in a rangeability exceeding 200:1.

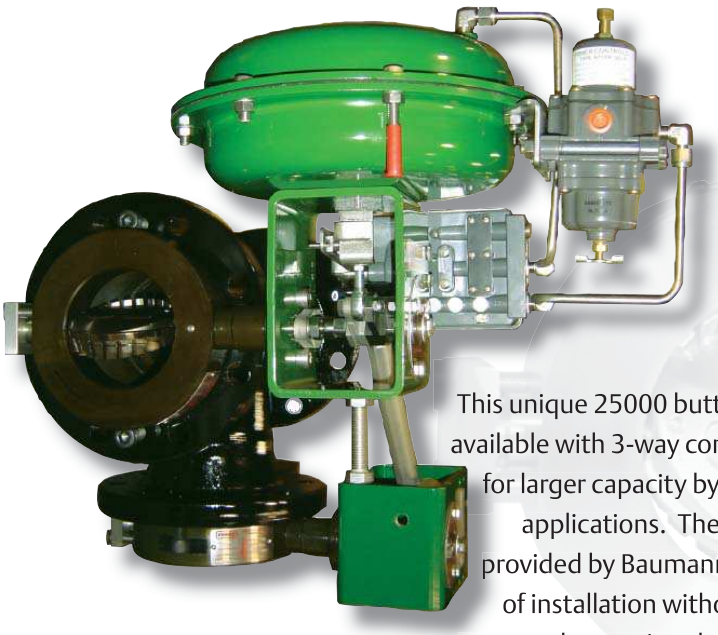
25000 Lo-T® Butterfly Control Valve

The 25000 Lo-T® is a low torque and low noise butterfly valve. Unique metal seated multi-toothed disk reduces noise and cavitation.

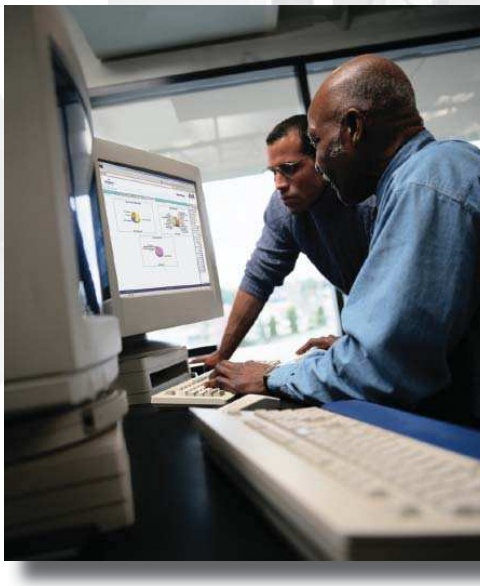
- 25000 valve sizes range from 2 inch to 8 inch.
- Available in carbon steel or 316 SS valve bodies suitable for process temperatures ranging from -320°F (160°C) to 1000°F (537°C).
- DVC2000/6000 FIELDVUE® Digital Valve Controllers.
- 3660 P/P & 3661 I/P Positioners with gain and damping adjustments for tuning valve to process loop dynamics. (Intrinsically safe option).
- 3710 P/P & 3720 I/P characterized cam positioners (NEMA 3 explosion proof).



Angularly offset disk halves combine opposed dynamic torque characteristics, thereby providing a drastic overall torque reduction. This torque reduction allows for a substantial increase in the pressure drop capability of the valve without requiring oversize actuators.



This unique 25000 butterfly design is also available with 3-way construction suitable for larger capacity bypass and diverting applications. The entire assembly is provided by Baumann™ and offers ease of installation without the loose parts commonly associated with other designs.



Baumann™ is a part of Emerson Process Management.

- **Emerson Process Management is a powerful, global, single source of process improvement technology and expertise. Together with Emerson, we help industry optimize their plants and processes to achieve higher quality, greater reliability and faster time to market, while steadily advancing productivity and profitability.**
- **Baumann™ application experience partnered with Emerson technology know-how enables us to deliver the proven performance and reliability you expect.**
- **PlantWeb® architecture, and your favorite brands, including Micro Motion® and Rosemount®, provide the winning**

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