Low Flow Valves and Specialty Products

BAUMANN

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Process Management

Baumann Inc.

Company History

Baumann Inc. 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 fine chemicals, industrial semiconductor, pharmaceuticals and biotechnology industry segments.

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

Reliable Control in Compact, Quality, Customizable Products

Low Flow Valves and Specialty Products

What is important to you? Economy? High quality? Quick delivery? Baumann Inc. combines all these by manufacturing products that meet or exceed your criteria. Baumann valves are the lowest weight in their class, reducing your installation, pipe hanger and maintenance costs. Incorporate our compact, field reversible, multi-spring diaphragm actuators, low flow trim and increasing rangeability with decreasing C_v, packless designs, corrosion resistance and application specific engineering, and you have a winning combination!

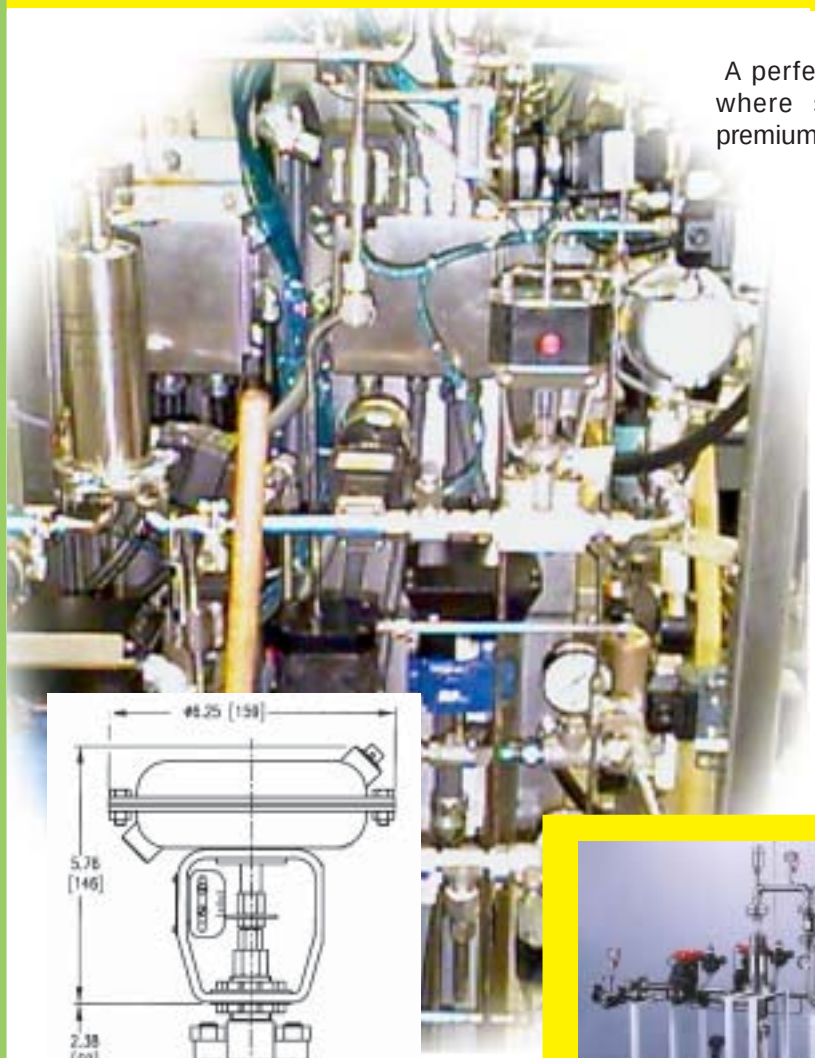
The valves combine rugged, corrosion resistant design suitable for exacting chemical applications found in pharmaceutical or biotechnology laboratories, food and beverage , CIP systems and the demanding pH control of acid or caustic solutions for the pulp and paper industry. The pneumatic controller is designed for use in hazardous combustible areas and our multi-ported resistance plates may be just what you need to quiet that noisy valve.

Delivery is fast, with standard products shipping within three weeks of your order and custom resistance plates in as little as eight weeks.

51000 Series Low Flow Control Valve

Optimally designed for demanding low flow control found in laboratories and pilot plants, the 51000 is your best possible choice.

- Investment cast stainless steel body, 1/4 inch or 1/2 inch, with optional alloy construction available.
- Small footprint, less than 10 inches tall.
- Light weight, a mere 6 pounds before adding a positioner.
- Cv's as low as 0.00013.
- Rugged design with solid stem connection and durable bolted bonnet.
- Corrosion resistant actuator with stainless steel yoke for long service life.



A perfect fit for areas where space is at a premium!

Inches(Millimeters)

24000F Series Wafer Body Control Valve

The 24000F wafer body control valve has the strength of a flanged body globe valve , but is significantly lighter and easier to install.

Paper Mills

Utility - Roller Pressure Control

An extension bonnet is available for applications ranging from -320ºF(-160ºC) to 1000ºF(537ºC).

Food and Beverage

CIP Systems - Caustic or Acid
Heat Exchangers - Ammonia, Refrigerants R12-R22, Syltherm
Blending Systems, Product Transfer or Purification - Oils, Water, Air, Sugar and Juice Syrup

Pharmaceutical and Biotechnology

Caustic Solutions - pH Control
CIP - Chemical (detergent)

- Universal valve body construction mates with ANSI Class 150, 300 & 600FF and PN10-40 line flanges.
- Multiple trim capacity reductions available to meet changing process requirements with Cv ratings as low as 0.0005.
- Optional extension bonnet for applications ranging from -320ºF (-160ºC) to 1000ºF (537ºC).
- Hastelloy “C”, Alloy 20 and Monel construction are also available as a special order.
- ENVIRO-SEAL® packing system is available to meet critical emission control requirements.

96000 Series Pneumatic Pressure Controller

The 96000 series is an economical and compact pressure instrument for control of steam, gases, and liquids.

- All pneumatic design of the 96000 controller allows for use in hazardous combustible areas.
- Adjustable dynamic characteristic (Sensitivity)
- Extremely compact & economical (Only 7 inches total height).

SANITARY VERSION INCLUDES:

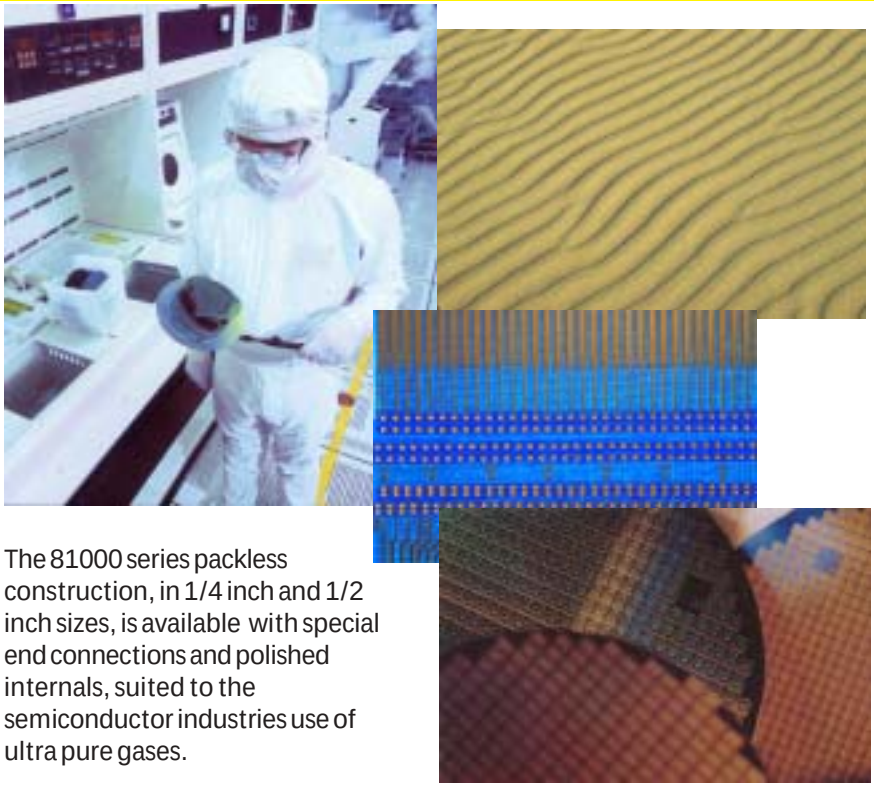
- Double diaphragm seal assures process isolation.
- Available tell-tale pressure connection.
- Self-draining sensing connection which allows for clean-in place(CIP) and sanitize-in-place(SIP) procedures.
- 3-A Standards Council approved.

Designed for use in either pressure reducing or pressure relieving installations, the 96000 series controller commands a pneumatic control valve with a 3-15 psi output signal in response to an offset in line fluid pressure.

For sanitary applications, the 96000 series controller is available with Tri-clover® connections.

81000 Series Mikroseal Packless Control Valve

The 81000 series presents a moderately priced alternative for high accuracy metering of corrosive or hazardous fluids. Available in type 316 stainless steel or Hastelloy "C" body material.



The 81000 series packless construction, in 1/4 inch and 1/2 inch sizes, is available with special end connections and polished internals, suited to the semiconductor industries use of ultra pure gases.

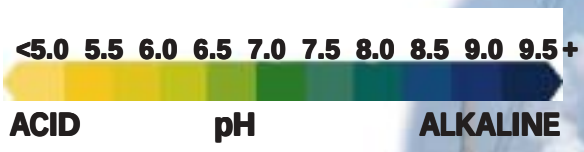
Remote Mounting - With today's unique process environments, you can't always mount a positioner on the valve. For high temperature environments up to 257°F (125°C), smaller valves, small footprints, low level radiation areas in nuclear applications and inaccessible locations, use a remote-mounted DVC.

- Suited for applications where leakage prone stem packing cannot be tolerated.
- Force amplification mechanism promotes 1000:1 rangeability.
- Force amplification mechanism has minimal friction so a positioner is required only for increased shut-off or electronic signal.
- 1/2 inch actuator travel converts to as little as 0.007 inch diaphragm travel.
- Stainless steel ball bearings and PTFE guide bushings assure very precise positioning with negligible deadband.
- FIELDVUE Digital Valve Controller available for remote calibration and diagnostics.

86000 Series FLEXSLEEV Packless Control Valve

The 86000 series Flexsleev valve incorporates the benefits of packless valves with the corrosion resistance of all-plastic wetted parts.

- Ideal product for control of acids or caustic process media.
- A flexing PTFE sleeve surrounds a machined HALAR® ECTFE valve core. Fluid passes between the sleeve and the core.
- External stainless steel amplifying lever with PTFE guides provides very sensitive control action.
- Incorporates the benefits of packless valves with the corrosion resistance of all-plastic wetted parts.
- Available with a wide range of analog pneumatic and electropneumatic positioners and transducers.
- FIELDVUE Digital Valve Controller available for remote calibration and diagnostics.



Baumann's Flexsleev design is more durable than a bellows seal.

This valve is compact, light weight and offers multiple trim capacity reductions to meet changing process requirements.

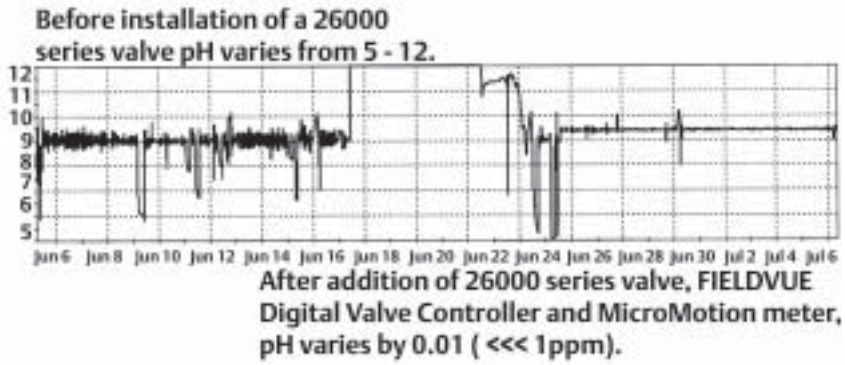
26000 Series Corrosion Resistant Control Valve

The 26000 series PTFE lined control valve is available with a solid Tantalum or Hastelloy “C” plug and pressure assisted seat.

A Case-In-Point

A carton manufacturer in Europe solved their problem of pH control involving a pH sensitive glue. The glue, added to the cartons to give them fluid resistance, had a target 9.4 pH that was varying by 2 pH.

The customer installed a 26000 Series Valve and the variation of the pH decreased down to 0.5 pH. With the addition of a FIELDVUE Digital Valve Controller and MicroMotion Meter, the end result has been a variation of a mere .01 pH.



- Provides tight Class VI shut-off.
- Rangeabiity in excess of 1000:1.
- Suited to demanding pH control of acid or caustic solutions in paper mills, chemical and pharmaceutical plants.
- One inch 316 stainless steel body with PTFE interior.
- Solid tantalum or hastelloy “C” valve plug.
- Flangeless body construction, unique thru-hole wafer design, is available for installation between 1” (DN25) Class 150 or 300RF and PN10 through PN25 line flanges.
- FIELDVUE Digital Valve Controller available for remote calibration and diagnostics.

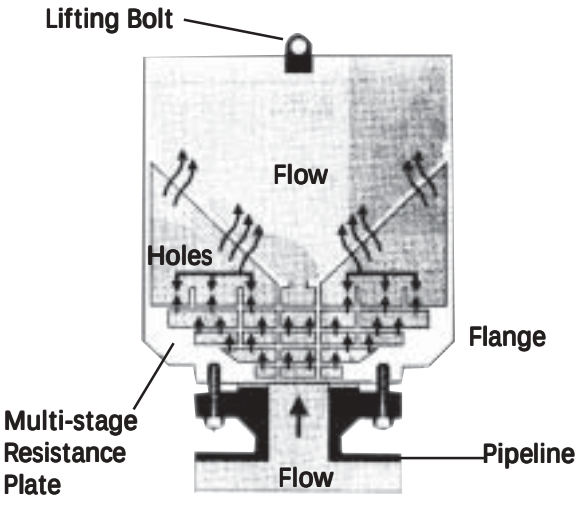
FIELDVUE DVCs are available with stainless steel housing that allows their use in highly corrosive environments.

Multi-Ported Resistance Plates

Baumann multi-ported resistance plates are custom engineered and fabricated to meet individual flow, pressure drop, and noise application requirements.

- Reduces aerodynamic and hydrodynamic noise and cavitation effects.
- Sizes 1 inch to 28 inches.
- Multiple stages available in single housing.
- Carbon steel or stainless steel with stainless steel screen.
- Alloy construction available.
- Class 150 to Class 2500.
- Every plate is sized and engineered for each specific process condition to provide the optimal solution.
- Economical, effective and individualized to reduce aerodynamic sound pressure levels (dBA) and liquid cavitation.
- Sanitary construction also available.

Sanitary Resistance Design



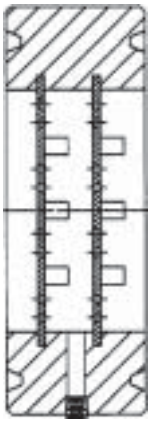
The design above, for a portable 6 X 24 inch multistage pressure reduction system, has been successfully used to relieve gas pressures of up to 1250 psi.

Multi-Ported Resistance Plates

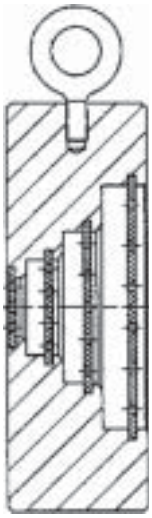
This table illustrates some static pressure-reducing plates and the operating conditions for which they are suitable.

Size, inches	Class (see notes)	Rated C_v	Fluid	Flow (see notes)	Temperature, °F	Specific Gravity	P_1 psig	P_2 psig	Number of stages
14	600 RF	540	Crude Oil	14,000*	180	0.82	850	250	2
1.5	1,500 RTJ	0.6	Water	13*	Ambient	1.0	1,520	460	2
6	900RTJ	12.5	Hydrocarbon gas	1,250,000+	400	0.26	1,420	70	4
16	300 RF	484	Saturated Steam	147,294++	388	-	152	27	3
8	600 RF	135	Natural gas	360,000++	Ambient	0.65	1,480	0	6
28	Butt Weld	1786	Oxygen	1,616,000+	Ambient	1.1	15	0	2
2	1500 RTJ	2.3	Liquid propane	117*	90	0.5	1,538	250	4
12	300 RF	215	Nitrogen	1,883,000+	96	0.97	203	15	3
8	900RF	151	Boiler feedwater	4,000*	375	0.95	1,150	50	3
6	600 RF	102	Methane vapor	770,600+	143	0.71	150	11	2
16	300 RF	1034	Carbon dioxide	3,890,000+	9	0.77	78	30	1
8	300 RF	371	Superheated steam	50,000++	335	0.91	68	15	2

NOTES: RF- Raised Face RTJ-Ring Joint *gallon/ minute +scfh ++lb/h



Two Stage Resistance Plate with Lower Drain Connection



Four Stage Resistance Plate with Expanding Area Ratio

A simple plate with a number of drilled holes can be the most cost effective solution!

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