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Baumann™ Sanitary Valves

FISHER

EMERSON
Process Management

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Introduction

One batch in a biotechnology facility can be worth tens of millions of dollars and any failure in the processing equipment will mean that batch's integrity cannot be validated and the batch must be discarded. Therefore, equipment reliability and ease of maintenance are key issues.

In many pharmaceutical and biotechnology applications, the process fluid will ultimately find itself inside the human body. Food and beverage manufacturers require reliable equipment and stable processes to ensure their products' taste, texture, color, and aroma come out the same every time. It is imperative that the development of bacterial growth and the addition of foreign matter into the process fluid be prevented. If such contamination occurred, it could cause lost product or a costly shutdown of the facility.

Manufacturers of cosmetics and self-care products have some of the same requirements as food and beverage manufacturers whereby they want product texture, color, and aroma to be repeatable and that products remain clean and uncontaminated.

Baumann™ sanitary valves are a different breed: excellent flow control, high rangeability, and compact size designed to meet the stringent demands of today's state-of-the-art facilities. And, as an added benefit, the ability to use the FIELDVUE™ digital valve controller means that your sanitary valves can become a proactive component of your process validation protocols in the life sciences industry.

Baumann™ 83000 and 84000 Sanitary Valves

Do your control valves prevent contaminant build up?

The Baumann 83000 and Baumann 84000 sanitary valves are designed to accurately control high purity fluids and gases without contamination between batches. These sanitary valves have tight control of flow rates by providing high positioning resolution. The valve bodies are designed to be self draining to prevent contaminant build up. The uniquely designed diaphragm in the Baumann 84000 allows for the control of fluids that require low shearing effects. In contrast, a typical parabolic plug design results in high shear which can damage biological cells, add bubbles to a film coating, or change the consistency of a food or cosmetic product.

Baumann 83000 Key Features
- Aseptic
- Polished metal diaphragm control valve
- Angle valve
- Class IV shutoff
- ASME BPE Class III
- Clean-in-Place (CIP) / Steam/Sanitize-in-Place (SIP)

Baumann 84000 Key Features
- Aseptic
- PTFE Diaphragm control valve
- Available in angle or inline valve body configurations
- Class VI shutoff
- ASME BPE Class III
- Clean-in-Place (CIP) / Steam/Sanitize-in-Place (SIP)

PROVEN RESULTS

APPLICATION:	Beer-feed line control
CHALLENGE:	Overfilling and underfilling of kegs and flow rate inconsistencies. Plant managers felt they were wasting up to 150 liters/day across all ten fill lines.
BENEFITS:	The Baumann 84000 sanitary valve with a FIELDVUE DVC2000 instrument is used to provide consistent flow control.
RESULTS:	Fill rates on each of the ten fill lines increased from 3 kegs per minute to 3.15 kegs per minute and the brewery achieved additional sales of $18,360 per day!

Baumann 85000 Sanitary Pinch Valve

Can you repeat tight control?

The Baumann 85000 sanitary pinch valve provides accurate and repeatable positioning to achieve unparalleled flow control. This sanitary valve has no physical contact with the process. The valve body cradles the process tubing which eliminates the need for a liner, thus eliminating the need for testing a liner for leachables and extractables. Reducing risks for cross-contamination can save biotech companies millions of dollars in lost batch product.

Baumann 85000 Key Features

- Automated pinch valve
- Up to 140 psi
- Tubing sizes up to .75 inches

PROVEN RESULTS

APPLICATION:	Automated trans-membrane pressure (TMP) control
CHALLENGE:	Pinching mechanism needs to provide good control, experienced issues with competitor's products.
BENEFITS:	PlantWeb™ digital plant architecture offers consistent product quality and better record keeping. Also, there is improved batch control, reduced operating cost, and lower financial risk.
RESULTS:	Faster, more accurate validation resulting in improved operations.

Baumann 87000 FLEXSLEEV Sanitary Valve

Can your control valve system handle sanitary slurry applications?

The Baumann 87000 FLEXSLEEV sanitary valve is highly recommended for fluids containing particulates such as glucose. This sanitary valve has the ability to control low flow rates and, like the 83000 and 84000, it is self draining, preventing contaminant build up. Process fluids flow around the outside of the tube resulting in low shear effects and therefore is ideal for use with suspended media. The 87000 prevents “dewatering” and clogging that often occurs in typical metal plug designs. This results in more uniform products and reduces unscheduled maintenance shutdowns.

Baumann 87000 Key Features

- Aseptic
- Handle vacuum service
- Class VI shutoff
- ASME BPE Class III
- Clean-in-Place (CIP) / Steam/Sanitize-in-Place (SIP)

PROVEN RESULTS

APPLICATION:	Nutrient feed to a bioreactor. A water and glucose mix that is fed to the cells to allow them to grow.
CHALLENGE:	Ability to pass glucose crystals. Also, required tight shutoff, wide rangeability, and an inline configuration.
BENEFITS:	The Baumann 87000 with a FIELDVUE DVC2000 provides accurate control and tight shutoff of the sanitary slurry process fluid.
RESULTS:	Nutrients were fed to the cells at the right rate, which allowed them to grow.

Baumann 89000 Sanitary Valve

Do you need a sanitary control valve that can handle large flow rates for your process?

The Baumann 89000 sanitary valve is well suited for the continuous control of sterile steam or water for injection. This sanitary valve offers tight control of large flow rates while protecting the process fluid from contamination. The stainless steel construction makes it ideal in corrosive environments. This sanitary valve also includes a self draining valve body which prevents contamination between batches.

Baumann 89000 Key Features

- Aseptic
- Plug style sanitary valve
- Class IV shutoff
- ASME BPE Class I
- Clean-in-Place (CIP) / Steam/Sanitize-in-Place (SIP)
- CIP/SIP

PROVEN RESULTS

APPLICATION:	Water for injection (WFI) back pressure control valve.
CHALLENGE:	To prevent contamination of the water by back-siphoning.
BENEFITS:	The Baumann 89000 sanitary valve is used to provide water for injection. It provides a drainable, electro-polished sanitary interior and has a modified equal percentage flow for optimum performance.
RESULTS:	This valve provides up to 6 inches and high flow capacities with wide rangeability. It controls constant back pressure in the WFI distribution system with multiple user points.




http://www.YouTube.com/user/FisherControlValve

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