



Saving time and money with the Unique Diaphragm Valve UltraPure

Bayer HealthCare, Wuppertal, Germany

Case story



Reliable and hygienic, the Unique Diaphragm Valve UltraPure is the workhorse at the Bayer HealthCare fermentation plant in Wuppertal, Germany.

The Bayer HealthCare AG multipurpose fermentation plant in Wuppertal, Germany, employs the most advanced lab-to-large-scale fermentation equipment for demanding biotechnology processes. For the past 20 years, Bayer HealthCare AG has relied extensively on the Alfa Laval Unique Diaphragm Valve UltraPure in its product lines, WFI water systems, demi water systems and steam systems for all of the company's fermentation processes.

The unique design, reliability, versatility and ease of maintenance make the Unique DV-ST UltraPure valve an excellent choice for Bayer HealthCare's high purity fermentation applications.

"We have used Unique DV-ST UltraPure valves for such a long time so we know that they are highly reliable and that the membranes are long-lasting," says Horst Neuland, chief plant engineer in Wuppertal. "We appreciate the simplicity of the valve design and the flexibility of operation afforded by the valve actuators."

Compact, lightweight design

Using the Unique DV-ST UltraPure with forged bodies enables Bayer HealthCare to cut material and installation costs. With a lightweight design that weighs 62% less than conventional welded T or block valve bodies, the diaphragm valves do not add material stress to the installation.

"These are by far the smallest and lightest product on the market," says Neuland. "This makes installation and service easy and prevents unnecessary stress on the piping system."

Hygienic and easy to maintain

Compactness also reduces the cost of sterilizing the Unique DV-ST UltraPure because less energy is required to heat and cool valves with lower mass and lower weight. Because less energy is required to heat the valve to the required temperature, less time is required to sterilize the valves.

For a standard process line, sterilization is quick, generally about 20 to 40 minutes. Sterilization time varies, of course, depending on the application, temperature, media and other factors.

Easy to service

The membranes are easy to service, requiring about five to 10 minutes per valve for replacement. This reduces downtime and cuts maintenance costs, thanks to a unique design that offers easy access to the membranes.

Another feature of the Unique DV-ST UltraPure that drastically reduces wear, downtime and maintenance costs is the adjustable spring, which is standard on all diaphragm valve actuator types. The spring relieves process pressure on the diaphragm and protects it against overstress.

“We don't have to stop fermentation processes as often to change the membranes on these valves and the valves themselves last longer,” explains Neuland. “This translates into minimal downtime, lower overall costs, increased productivity and higher profitability.”

About Bayer Healthcare AG

Bayer HealthCare, a subsidiary of Bayer AG, is one of the world's leading, innovative companies in the healthcare and medical products industry.



Alfa Laval Unique DV-ST UltraPure diaphragm valve for use in sterile and ultra-hygienic processes consists of a wide variety of valve bodies, diaphragms, actuators, handles, automation and control units for every need.

ESE01966EN 1012

How to contact Alfa Laval

Contact details for all countries are continually updated on our website. Please visit www.alfalaval.com to access the information direct.