De Dietrich
PROCESS SYSTEMS

CLEAN VALVE
CASE STUDY

A common problem with traditional bottom flush valves is the inconvenience of having to remove the valve and manually wash it between batches in order to ensure a thorough cleaning. This procedure is not only inefficient but a safety concern, as it increases the possibility of damaging the vessel outlet nozzle due to the repeated removal and reinstallation of the valve.

The Problem

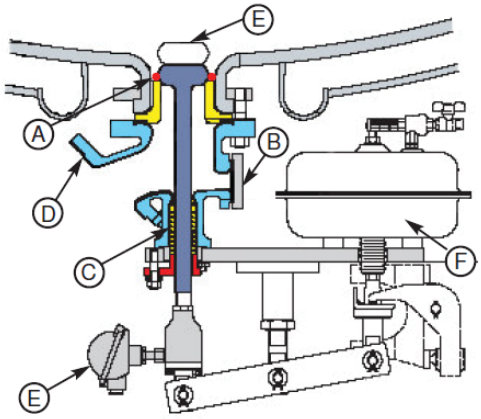
A primary pharmaceutical manufacturer was in search of a valve that would inhibit costly product contamination from batch to batch. Previously, they were forced to destroy a considerable amount of product because of contamination - a direct result of residue left in the valve from past operation.

The Solution

The pharmaceutical company solved this issue by incorporating the Clean Valve from De Dietrich Process Systems into their applications. Designed to meet the most demanding process specifications for cleanliness and safety, the Clean Valve eliminates product contamination using a patented sealing design that prevents product build-up between the valve seat and nozzle. There is no need to remove or dismantle the valve for cleaning between batches thanks to the extra flush port in the valve body. In addition to quick and easy cleaning, the port can be used for sampling or to introduce gases and/or liquids to the reaction.

Results

The customer confirmed with quality assurance tests that the Clean Valve maintained a sanitary environment in their reactors. This resulted in a very short payback for the valve from the savings realized by not having to remove and clean it each time between batches. Most importantly the risk of losing valuable product to contamination was eliminated.



Clean Valve Features

- **A** Lip seal valve seat design prevents material getting between the seat and the bottom outlet nozzle
- **B** Additional side nozzle for cleaning lance or other purposes
- **C** Chevron packing with o-rings for seal and cleanability in place of difficult-to-clean bellows
- **D** Glass-lined steel valve body designed to drain completely
- **E** Glass-lined head and stem with temperature sensor that can be replaced without having to remove the valve from service
- **F** Available in manual, actuated in-line and actuated low profile types (shown)

De Dietrich Process Systems, Inc.

244 Sheffield Street
Mountainside, NJ 07092

P 908.317.2585
F 908.889.4960

www.ddpsinc.com
sales@ddpsinc.com

QVF
ROSENMUND
De Dietrich

C003
6/2011