

D4PMO Mix Proof Valve – Global Dairy Company in Wisconsin

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Date: April 2020
Bulletin No: VA-2-20

Waukesha
Cherry-Burrell®

Valve:

[D4PMO Double Seat Mix Proof Valve](#)



Application:

Cheese and whey processing

Challenge:

A global leading dairy company wanted to upgrade a section of their receiving bay at their Belmont, Wisconsin facility which loaded their various whey products from silos into outgoing tanker trucks. The setup included a flow plate with swing connections and multiple ferrule styles which required operators to make manual connections that had no proximity sensors to verify the correct procedures. The complicated jumpers and multiple ferrule types required many different tools and gaskets, additional operator knowledge, and overall, more labor hours than any other flow plate in the facility. The inefficient setup caused production downtime for cleaning and manual intervention as well as waste of any valuable whey product left in the discharge lines.



Solution:

SPX FLOW in nearby [Delavan, WI](#) helped to replace the flow panel with a manifold of D4PMO mix proof valves. This setup: allows automatic and continuous production, discharge, and cleaning of the whey silos; adds more flexibility to the plant's production and cleaning schedules; and helps maximize product recovery with the addition of a new water supply line. Complicated jumpers and swing connections were eliminated, and control units on the valves verify the correct position and operation as part of a fail-safe controls system.

The D4PMO valve was selected due to its reliable operation and innovative control unit technology. The [CU4plus control unit](#) with integrated seat lift detection helps minimize downtime as it eliminates the need for an external yoke sensor which could get exposed to the environment and require frequent adjustment. The control unit also makes setup fast and easy with its "Teach-in" function.



The D4PMO lightweight design was preferred because it is easier for handling and would allow the dairy to use mix proof valves in more difficult to access locations. The dairy proved out the [3-A Sanitary Standard 85-02](#) design for cleanability through swab test results. The "one seal kit for all" feature reduces burden on the plant's inventory and helps ensure a seal kit is available for multiple size valves (1.5" to 3").

With the automated D4PMO valve and CU4plus control unit manifold, a payback period of less than 1-year is estimated on this upgrade project as well as saving ~400 lbs. of product per week.

To learn more about SPX FLOW's innovative D4 valves, visit our [website](#) or view the [D4 animation](#).