

PRODUCT MANUAL PM - 58C

FETTEROLF RAM-SEAL

SPRAY-RINSE VALVE

Introduced in 1973 by Fetterolf, Spray-Rinse Valves were first used as a means to wash loosely hanging residue from the walls of PVC (polyvinyl chloride) reactors. Simple spraying systems with open-end nozzles could not be utilized due to the formation of solid polymer within the nozzle thereby clogging it during the reaction.

The Fetterolf design features a seal between the reactor atmosphere and the spray orifices thereby rendering them clog-free. Further, during the entire reaction they are submerged in a protective bath of the spraying fluid.

Benefits to users were immediately evident:

1. Less downtime for manhole cover removal and preparing the reactor for the next batch--higher production, -revenue, -profit.
2. Protection from VCM gas emissions which U.S. governmental agencies, OSHA and its medical wing, NIOSH, later declared to be suspect in the development of liver cancer.

Eventually, standards for reactor gas volume releases were established and Closed Reactor Techniques demanded. In short, internal cleaning became a "must" to enable the facility to continue production.

But it must be warned, the internal cleaning between each batch may not be the total answer. Differing recipes produce different products with different adhesive characteristics. Frequently, supplementary high-pressure cleaning procedures must be employed at intervals ranging from ten to one thousand batches.

As the pollution standards of the U.S. were recognized and adopted in other parts of the world, so did the reputation of the Fetterolf Spray-Rinse Valve spread. Currently it is standardized in plants representing approximately 95% of the PVC production in the U.S.A. Overseas, we reference installations on every continent and with every major process licensor.

Aside from PVC, the Fetterolf Spray-Rinse Valve has been successfully utilized for reactors in the production of SBL (styrene-butadiene latex), EPS (expanded polystyrene), Neoprene rubber, Nylon and classified polymer films.

This manual is prepared to assist our customers and customers-to-be in the best choice of hardware and to serve as an introductory training manual for Fetterolf personnel.

Ardy Ritter
President (retired)
FETTEROLF TECHNOLOGIES INT'L

FETTEROLF SPRAY-RINSE VALVES

MODELS

At present there are two distinct models of the FETTEROLF RAM-SEAL SPRAY-RINSE VALVE:

1. The Fig. 9410 models (and the earlier 9412) are single-function designed. Connected to a water supply (150-250 psi), they are utilized to (1) wash the residue from the walls of the reactor and, in some plants, (2) to distribute a water or steam mixture of an anti-stick agent through the same apertures.

2. The Fig. 9420 models are dual-function designed. In addition to the wash-down service, a second inlet and separate channel leads to atomizing spray nozzles through which is distributed the water mixture of an anti-stick fluid prescribed in many process licenses. The secondary channel is of considerably less flow capability to conserve the more concentrated solutions of anti-stick.