



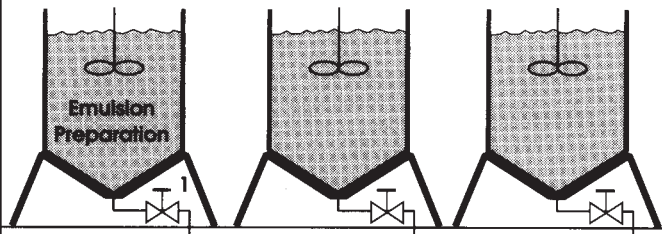
Founded in 1953

Red Valve Company, Inc.

Chemical application study

Chemical Handling • Type A & Series 75

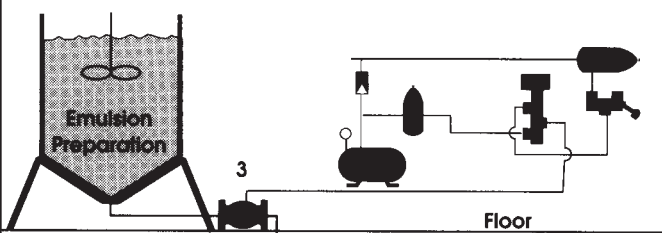
CHEMICAL HANDLING USING TYPE A AND SERIES 75 VALVES



Conveyor

Scale

ORIGINAL APPLICATION



Floor

Conveyor

Scale

REVISED APPLICATION

This bulk chemical company uses pneumatic Type A Valves and Series 75 Red Valve Pinch Valves due to the clumping and clogging nature of its chemical emulsions in this low pressure shear sensitive emulsion production process. This system, with 48 production tanks, previously used diaphragm valves exclusively. Space efficiency is necessary due to the method of tank installation in close proximity to the floor. Very little room was available to get to valve number 1 for emergency operation.

Valve number 2 is awkward to maintain, as its spring return actuator is heavy and causes unnecessary strain on the pipe elbow just above it before the pipe turns downward through the floor. This control valve is a weir diaphragm valve and has created a clogging congestion point in the flow system that requires constant maintenance. Valve number 1 is located between the bottom of the emulsion preparation tank and the floor, and is difficult to reach in the event of emergency shutoff. As a replacement of valve number 1 with Red Valve's Type A and pneumatic fail-safe system 700, valve number 3 has accomplished an improvement in the fluid dynamics of the system. The full port Type A Valve has also removed the necessity for valve 2 in a space restricted location. The Type A fail-safe system 700 from Red Valve is sized to provide air pressure in the reservoir system to operate multiple valves from one reservoir. The net effect is a lower cost, more space efficiency, and a more flow efficient production system.

Valve number 4B is a full port Series 75 that replaces valve number 4A, a handwheel operated weir diaphragm valve. The higher flow capacity and reduced turbulence in the valve allow the barrel filling operation on the scale to be accomplished faster and with less splashing and waste. Still, it allows emergency shutoff of the system.