

Pinch Valves Ideal for Control of Influent Flow

Red Valve offers great alternatives to your most demanding control valve needs

Controlling influent into wastewater treatment plants is a serious valve problem. Because most valves with restricted ports trap debris, objects found in typical street run-off bottle neck inside most valves causing failure. Stringy material also found in collection and sewage systems can spin, wind, and ultimately bind valves with exposed stem shafts or discs in the flow pattern.

Red Valve Company offers great alternatives to your most demanding control valve needs for these applications. Pinch valves are designed to be like a straight piece of pipe when open. A 100% full bore opening allows high flow and minimum pressure drop. Large objects such as cans, bottles, even telephone poles can easily pass through a pinch valve. Pinch valves are designed so that when closed they will squeeze closed and seal around entrapped solids drip-tight.

Red Valve's two most popular style valves for Wastewater Treatment Plants are the Series 5800 electrically operated pinch valve and the Type A valve which is an air or hydraulically operated pinch valve (both shown below). The uniqueness of a Pinch Valve is that all mechanical parts are isolated from the process by the rugged pinch valve sleeve. Better known as Mega-flex, large diameter Red Valves are an economical solution to plant operators' control valve needs for large diameter pipe.

Lancaster Wastewater Treatment purchased a 36" electrically operated pinch valve for on-off control. During storm conditions the valve is called upon to close, diverting storm water to a holding pond until peak flows

have subsided. Later a signal is sent opening the valve which allows flow back into the plant at a controllable rate. If a valve needs to be installed in a remote location, the electrically operated pinch valve is a great alternative. The double acting pinch mechanism which closes the valve on centerline creating a Venturi, is always isolated from the process by the sleeve. Since the stem shaft won't bind or freeze, the motor will break free at the same torque even if the valve is unused for months. Pinch valves have been proven cost effective in applications where grit, sand and gravel have destroyed other valves.

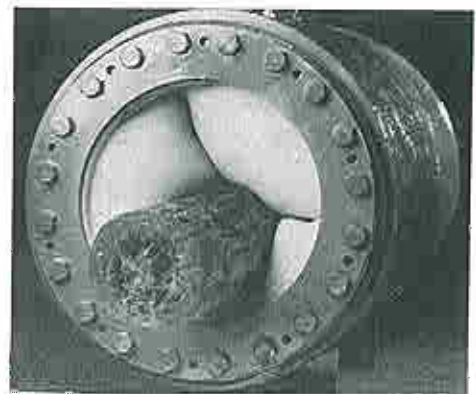
Recently the St. Louis Metropolitan Sewage District installed 20" and 24" electric operated pinch valves for flow equalization. These large diameter Control Valves are designed to equalize flow to the Secondary Filter. As the flow passes through the Valves, flow is diverted to four filters at an equal rate. Should a filter need to be shut down the valve can close bypassing the flow from the troubled filter.

Type A valves offer the same excellent control as the electric valves, but at a more economical price. Just like the electric operated Pinch Valve, the Type A Valve is also 100% full bore when open and seals drip-tight when closed. The Type A Valve uses the same Pinch Valve sleeve technology as the Series 5800. However, instead of depending on a mechanical pinch device, air or hydraulics are used. The valve housing is the valve actuator. By applying pneumatics or hydraulic pressure into the annular space between the outside of the sleeve and the inside of the valve housing, the pressure

build-up will close the sleeve. Type A valves are ideal for on-off or throttling control.

Red Valve provided (1) 18", (2) 20" and (2) 24" Type A Mega-flex Valves on a recent project for Laguna Beach, California. The valves are located in the head works of the plant. Subjected to grit, sand, silt, sludge and large particles which destroy most other valves, the pinch valve sleeve resists abrasion. The Pinch Valves were installed on the primary and secondary clarifier recycle lines as well as the bypass lines to the primary clarifier. Because Type A Valves are economically priced, the contractor exercised his option to use an additional Type A pinch valve in place of a gate valve.

For additional information please contact Red Valve Company, Inc., 700 N. Bell Ave., Carnegie, PA 15106, phone (412) 279-0057.



Type A valve sealing drop tight around a telephone pole.