

Major Markets Served

Chemical

Dia-Flo diaphragm valves, available in a wide variety of metals, solid plastics, plastic, rubber and glass linings, are well suited to the handling of multiple chemical applications. Sulfuric and hydrochloric acid, hydrofluoric acid, and sodium hydroxide are typical applications handled by Dia-Flo diaphragm valves. The broad selection of body materials and diaphragms typically provides a chemically compatible and economical solution for almost any process system not exceeding 200 psi (13.8 bar) or 350°F (177°C). Available in weir and straightway designs, both manual or automated, the Dia-Flo diaphragm valve is capable of handling clear fluids as well as slurries.



Pharmaceutical

Dia-Flo Diaphragm Valves are commonly utilized on the chemical side of pharmaceutical manufacturing. Dia-Flo valves are particularly suitable for this market as they...

- Can be cleaned in place without disassembly or removal from the pipeline
- Have no pockets or cavities to entrap process or cleaning fluids
- Can be steam sterilized
- Are available with ANSI B16.10 face-to-face dimensions for direct replacement of ball and plug valves without making piping modifications

Similar to ITT's Pure-Flo hygienic diaphragm valves, Dia-Flo valves are available in FDA compliant body and diaphragm materials.



Mining

Dia-Flo diaphragm valves, both weir and straightway, are installed in various process lines within gold, copper, zinc and phosphate mines. Common applications include chemical feed, process feed, metal refinery, and filter press lines. The Dia-Flo straightway diaphragm valve, due to the unobstructed flow path and minimal cavities, is well suited for handling abrasive and corrosive slurry applications in line sizes 1" to 12". The chemical feed and process feed areas typically utilize cleaner fluids and utilize Dia-Flo weir diaphragm valves.



Weir type valve in Phosphoric acid service.

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Nuclear Power Plants

The nuclear industry utilizes Dia-Flo diaphragm valves in a variety of nuclear services including radwaste, chemical volume control, boron regeneration, steam generator blow down, and service water systems. ITT maintains the ASME Section III nuclear power plant components "N" stamp - classes 2 & 3 and complies with ANSI B31.1 power piping codes.

Fossil Power Plants

Demineralizer/Condensate Polisher

Dia-Flo diaphragm valves have been proven the most reliable design for demineralizer and condensate polishers for more than fifty years. The plastic lined weir diaphragm valve is the valve of choice because of its clean and versatile design. The diaphragm isolates working parts from the process fluid and there are no packing glands to maintain.

Flue Gas Desulphurization (FGD)

Dia-Flo diaphragm valves provide a reliable and economical solution for limestone and gypsum slurries for on-off and throttling applications. The diaphragm isolates working parts from the process fluid and is able to close over suspended solids. Dia-Flo is also an excellent choice in filtrate, reclaim, mist eliminator wash, and gypsum dewatering due to its reliable performance and low cost. Additionally, Dia-Flo has been used extensively in FGD waste water treatment systems due to the simplicity in design, low maintenance and cost of the diaphragm.

Water Treatment

Dia-Flo diaphragm valves, due to their versatility in body and diaphragm materials, provide an economical solution for demineralizers, deionizers, reverse osmosis systems and filtration systems. The typical valves utilized in these systems are Dia-Flo weir diaphragm valves with PP (Polypropylene) or ETFE lining, PTFE or EPDM diaphragms with either manually operated or Dia-Flo pneumatically operated actuators. Typical accessories include limit switches, adjustable opening stops and handwheel opening devices.

