



BERMAD Irrigation



Basic Valve

400 Series

IR-400 Basic Valve

The basic Model IR-400 diaphragm actuated hydraulically operated valve is at the leading edge of control valve design. It combines simple and reliable construction with superior performance, while at the same time being virtually free of the typical limitations associated with other single chambered valves. These automatic water control valves are designed for vertical or horizontal installation and are available in diameter sizes of 2-16"; DN50- DN400, in a wide range of materials and end connections.

The design of the IR-400 valve body includes a full bore seat with unobstructed flow path, free of any in-line ribs, supporting cage, or shafts.

The unique hydro-dynamic globe design provides high flow capabilities with minimum head loss. The cover is removable via four (4) fastening bolts (up to 10") for quick in-line inspection and service. The internal design of the IR-400 valve is based on innovative technology using advanced rubber-based materials to achieve a solid, one piece elastomeric assembly including a flexible fabric reinforced diaphragm, vulcanized with a rugged radial seal disk. The diaphragm is carefully balanced and peripherally supported to avoid distortion and to protect the elastomer, resulting in long-life and controlled actuation even under harsh conditions. One diaphragm and spring fully meet the valve's operating pressure range requirements. The diaphragm assembly can be easily removed from the valve body with no need for disassembling the valve from the line.

The Model IR-400 Basic Valve uses valve differential pressure to power the diaphragm assembly open or closed. The lower side of the diaphragm, which serves to cushion the closing of the valve, is exposed to downstream pressure through a dynamic peripheral passageway that its width responds to differential pressure and flow along the downstream side of the valve. The pressure in the control chamber varies, usually resulting from the combined action of a regulating pilot and a fixed orifice. This varying pressure modulates the valve to open or close.

