Irrigation

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BERMAD Worldwide

With representation on every continent and across some 86 countries, BERMAD is an undisputed world leader in control valves, maintaining broad training and parts distribution networks all over the globe. Wherever your location, BERMAD is there.

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Irrigation
Hydraulic
Control Valves

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Water Control Solutions

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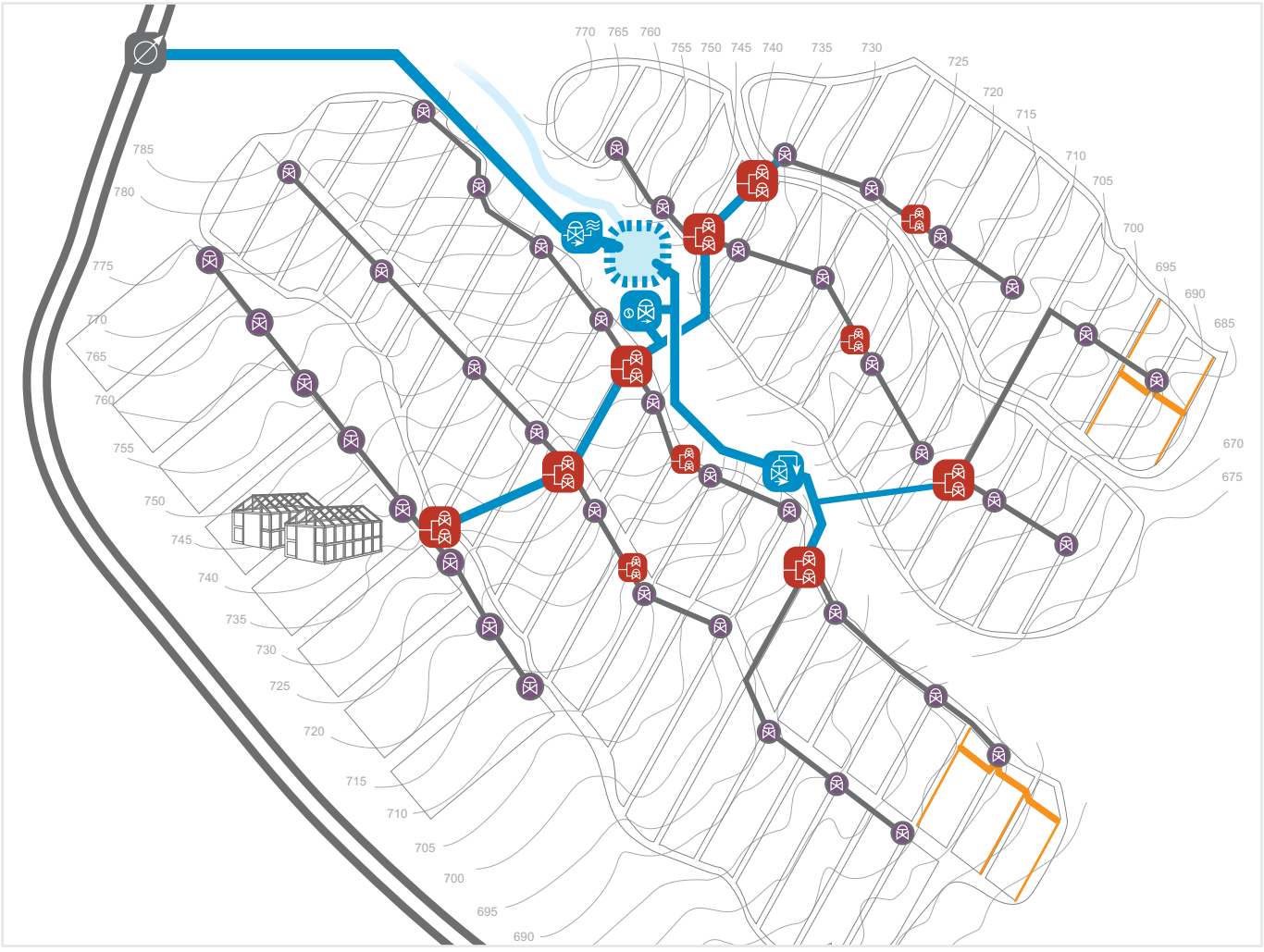
Project Design



Main Network	IR Control Head	Infield Head-Works	Infield System
Reservoirs	On/Off Control	On/Off Control	Pressure Reducing
Pumping Stations	Pressure Reducing	Pressure Reducing, Standard	Anti-Drain
Pressure Reducing	Pressure Relief	Pressure Reducing, Drip-Tape	Flush-'n-Stop
Pressure Relief	Flow Control	Pressure Reducing & Sustaining	
Pressure Relief/Sustaining	Pressure Sustaining	Pressure Sustaining	
	Filter Stations	Flow Control	
		Flow Control & Pressure Reducing	

Irrigation Control Valves

BERMAD Control Valves is a global leader in automation and hydraulic control valves for agricultural, municipal, professional, gardening, turf and residential irrigation systems.

BERMAD develops and markets a complete range of irrigation valves and accessories, including hydraulic valves, pressure control, hydrometers and metering valves, solenoids, air valves, and assorted accessories.

With BERMAD, irrigation system and product designers benefit from the engineering support and know-how of an extensive, worldwide network of suppliers.

BERMAD Irrigation

Irrigation Project References

Italy - Carboj, Sicily

- Pumping “Arancio lake” water, supplying it to reservoirs on a mountain & irrigating 25000 Ha of various crops
- 6 units 18”-740, 4 units 8”-735, 1,000 units 3-8” hydrometers, and 20,000 units of various control valves
- Bermad Italy, 1992

Italy - Iter, Sicily

- Infrastructure for new farming.
- 7,000 3” 310 valves with RTU, 2.8 M$ for Bermad valves and Motorola controllers
- One of the biggest projects in Sicely
- Bermad Italy, 2002-2005

Spain - Aquifer 23 & 24

- Controlling 10,000 private farmers pumping from the same aquifer by hydrometers 927
- More then 1.7 M$ through the years 1995-1998
- Uralita Tuberias De Systemas

Japan - Miyako

- Head works of small plots for vegetable private growers
- 2800 units 900-D AMV’s, estimated total project - 750 K$
- Government financed project
- E.S. Water Net, 2002-2003

Brazil - Fischer Cargill S.A

- Full irrigation system for 1377 hectare of citrus new plantation
- 24 units 6” pump control valves, and more then 200 units 3” PRV's
- Total project: 1.2 M$ Bermad part: 250 K$,
- Bermad Brazil & Irrigarplan, 2001-2002

Argentina - Rio Colorado

- Water carrier for irrigation
- 90 units 3”, 4” & 6” models 720, 727-55, 718-03, 73Q & 710-03
- The biggest project in the province of Neuquen, Argentina
- Techint Skanska S.A.

USA - Strawberry Farms, Salinas California

- Strawberry farm, buried irrigation application
- 160 units 3”L 120-55 + 50 units 2” 220-55
- Bermad USA

China - Yangze River

- Irrigation of new plantation from the flood of the three gorges dam
- More then 250 valves 4”-8” 420, first phase of one of the biggest projects in the world
- Bermad China & Netafim

Israel - Hof Karmel

- Water desalination for Irrigation through a reservoir with pump station
- 10 units 6-12" 750/720/730 + 50 un. 4-8" AMV's + 300 2" AMV's, Bermad Part -More then 250 K$
- Bermad & Netafim

Palestinian Authority - Jericho

- Conversion from open canals flood irrigation to pressurized drip irrigation
- 250 units 927-DD installed on hydrants
- Bermad Part - 250 K$
- Italian finance, USA supervision
- Anera, 2003

Philippines - Mindanao Irrigation

- Banana plantation for Dole & Delmonte companies
- 120 units 4–6” 420 & 740
- Netafim

Hydraulic Control Metal Valves

400 Series

The Model IR-400 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. The diaphragm performs universally under all service conditions, maintains perfect balance with no distortion from uneven hydraulic forces, and is totally immune to pressure surges. These automatic water control valves are designed for vertical or horizontal installation and are available in diameter sizes of ¾-16”; DN20-DN400, in a wide range of materials and end connections.

High-Performance Plastic Valves

100 Series hYflow

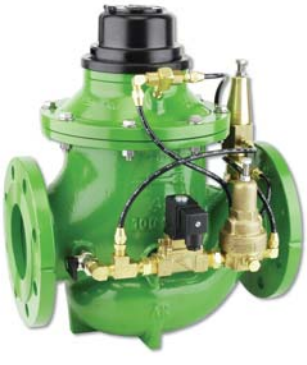
The Model IR-100 hYflow, made from industrial durable glass-filled nylon, is engineered to withstand rough service conditions with high chemical and cavitation resistance. The hYflow 'Y' valve body design together with its unitized Flexible Super Travel (FST) diaphragm and guided plug, provide a significantly 'look through' passage from end to end resulting in ultra-high flow capacity with minimal pressure loss.
Available in sizes of 2”, 2½”, 3”, 4” & 6”; DN: 50, 65, 80, 100 & 150, the IR-100 hYflow excels in its:

- Simple design with few parts guaranteeing easy in-line inspection and service.
- Adaptability on-site to a wide range of end connection types and sizes.
- Articulated flange connections eliminating mechanical and hydraulic stresses.
- New IR-100 hYflow 3"; DN80 Angle Pattern and Tee Pattern Hydrant Valves.

Hydrometers and Automatic Metering Valves

900 Series

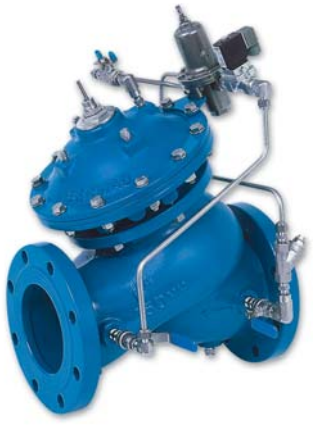
The IR-900 provides the full spectrum of metering functions - from simple visual readout, to pulse output for computerized data capture and control - while simultaneously allowing for numerous control valve features such as pressure, level and flow control. The flow metering unit is vertical to the pipeline and includes an impeller with integrated inlet and outlet flow straighteners. This eliminates the need for straightening distances and ensures accuracy even when the valve is partially open during pressure or flow control tasks. The relatively high impeller housing raises the location of the vulcanized seal seat above the valve body. This results in remarkable cavitation resistance and a smooth mushroom-shaped flow where the valve body is at maximum distance from the flow.
Ranging in size from 1½"; DN40 through 10"; DN250, the 900 Series is specifically designed for metering and control applications in agricultural and landscape irrigation as well as in municipal and industrial water supply systems.



Industrial Double Chamber, Hydraulic Control Valves

WW-700 Series

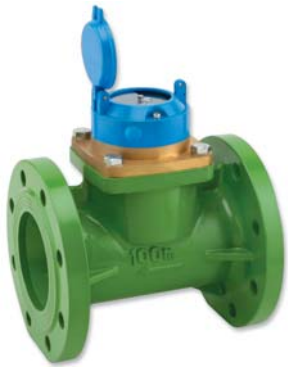
The 700 series valve comprises two major components: the body-seat assembly and the actuator assembly.
The body, in either oblique (Y) or angle pattern design, includes a replaceable, raised, stainless steel seat ring and an unobstructed flow path, with no stem guides, bearings, or supporting ribs.
The actuator assembly is unitized and is removable from the body as an integral unit. It consists of both an upper and a lower control chamber. Each basic valve can easily be configured, on-site, either as a single chamber or a double chamber control valve. The shaft sub-assembly, in both single and double-chambered versions is center guided, providing an unobstructed seat area. The lower control chamber, which serves to cushion the closing of the valve, is exposed to the downstream pressure through a fixed orifice connected to the downstream side of the valve.
These automatic water control valves are designed for vertical or horizontal installation and are available in diameter sizes of 1½-32"; DN40-DN800, in a wide range of materials, pressure ratings and end connections.



Water Meters for Irrigation and Waste Water

TURBO-IR Series

The BERMAD TURBO-IR uses a multi-blade plastic paddle mounted at the top of the water passage, where disturbance from solids suspended in the water is minimal, permitting accuracy of metering in water containing up to 30% solid debris. It is the ideal solution for water metering in irrigation and wastewater Applications.
TURBO-IR water meters are available in diameter sizes of 2-12"; DN50-DN300.

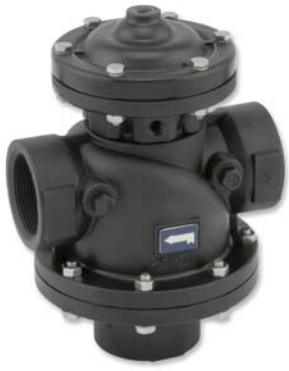


Filter Backwash Hydraulic Valves

350 Series

The 350 Series is ideal for automatic backwashing of filtration systems. The simple design of these compact, 3-port valves guarantees smooth operation and extended, trouble-free service. Their diaphragm-actuated plug assembly keeps the water supply port closed when opening the backwash port allowing dirty water from the filter to flow through the valve's open filter and drain ports to waste. The dynamic seal ensures drip-tight closure of supply and drain ports. The valve short travel provides smooth flow direction change and water conservation. Available sizes:

- 2"x 2" & 3"x 3" plastic or metal valves with a double chamber actuator, available in Angle flow (A) and Straight flow (S) configurations.
- 4"x 3", & 4"x 4" metal valves with Single chamber actuator, available in Angle flow (A) configuration.



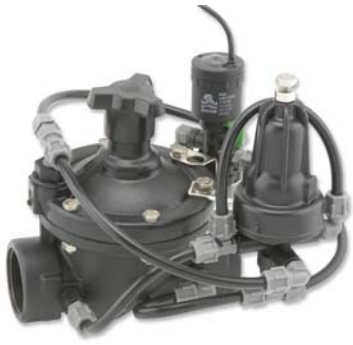
Plastic Hydraulic/Electric Control Valves

200 Series

The IR-200 valves are divided into two main types - Hydraulic Valve and Electric Valve. The Electric Valve control circuit is internal providing significant benefits such as:

- No external tubes and accessories
- Compact and protected construction
- Self-cleaning orifice for reliable valve operation, even with brackish water.

The construction material of the IR-200 body, cover, and seal disk assembly includes Glass-Filled Nylon to withstand rough service conditions with high chemical and cavitation resistance.
The IR-200 Series is available in sizes of 3/4 & 1"; DN20 & 25 Globe and 1½" & 2"; DN40 & 50 Globe or Angle patterns.



Double Chamber Hydraulic Control Valves

300 Series

Each IR-300 valve comprises two major components: the body seat assembly and the actuator assembly. The actuator assembly is unitized and is removable from the body as an integral unit. It consists of both an upper and a lower control chamber. The shaft sub-assembly in both single and double chambered versions is center guided, providing an unobstructed seat area.
The Main benefits of the double chambered valve include:

- Full-powered opening & closing (even under zero pressure by external control)
- Decreased pressure loss (no spring)
- Non-slam closing characteristic
- Isolated and protected diaphragm

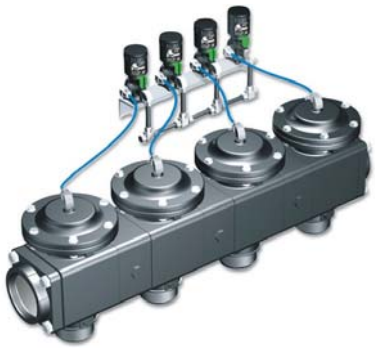
The IR-300 Series is available in sizes of 1½" & 3"; DN40 & 80 "Y" pattern, and 2"; DN50 "Y" or Angle patterns.

Manifold Valve

MV-300

The MV-300 is a unique product, which significantly saves on labor and investment. It provides many diverse functions in a single unit.

- Single or double chambered valves with common 2" inlet and up to four outlets of 1½" each.
- Straight or reverse-flow with multiple N.C. and N.O. options.
- Multi-option system with range of control features such as On/Off Hydraulic or Solenoid Controlled, Pressure Reducing, Pressure Sustaining and combinations of these.
- Modular system that enables supreme flexibility in arranging the Irrigation Head Works.
- Dramatically saves on installation time, space, and resources.



Hydrant Hydraulic Control Valves

R00 Series

The IR-R00 Series 3"; DN80 Hydrant valves combine simple and reliable construction with superior performance. These automatic water control valves are available in three different configurations: Angle, Tee and Dual-actuator-tee patterns. The design of the IR-R00 valve body includes a full bore raised seat with unobstructed flow path. The flow hits the seal disk vertically minimizing diaphragm distortion. The cone-shaped seal disk penetrates the seat as the valve modulates closed, providing:

- Guidance as conditions get rough
- No chattering and slamming closed
- Accurate and stable low flow regulation

Direct Acting Pressure Reducers

PRV Series

The BERMAD Adjustable Direct Acting Pressure Reducers are actuated by a pressure responsive diaphragm, which seeks to reach equilibrium between hydraulic and set spring force. The BERMAD PRV's are built of reinforced plastic or brass (1½ & 2") that endows it with excellent hydraulic performance capabilities and high mechanical strength.
They feature a wide range of setting springs, reducing higher upstream pressure to lower constant downstream pressure.

Solenoid Valves

S-Series

The S-Series solenoids are widely used in conjunction with hydraulic control valves such as the BERMAD 100, 200, 300, 400, and 900 Series, providing reliable irrigation control.
BERMAD **Continuous Current Solenoids** excel in their low power consumption and their low sensitivity to both dirt and voltage variations and are compliant with all Continuous Current Controllers on the market.
BERMAD **Latching Solenoids** for irrigation systems controlled by Battery Operated Controllers, consume power only when switching positions, using a very short electric impulse. This prolongs life of batteries and enables solar recharging.
The S-Series includes a variety of 2-way and 3-way Continuous Current and Latching solenoids.