

# Irrigation for Agriculture

## Irrigation Control Head

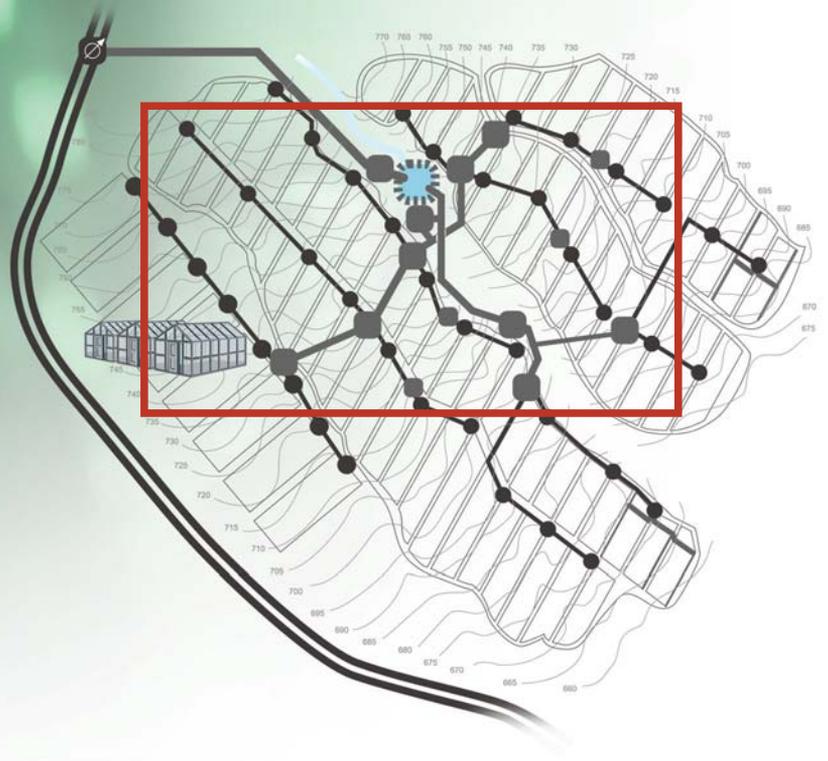
The **Irrigation Control Head** transforms the Main Network into an irrigation system, enabling computerization of irrigation. Including a variety of large size control valves in a variety of applications, the **Irrigation Control Head** features:

- Water metering abilities with outputs to the irrigation controller
- Maintaining of demand and pressure per system design
- Pressure zoning in accordance with crop, equipment, location and elevation
- Differentiation of irrigation regimes to meet the needs of each crop type and stage
- Central fertilization and filtration systems



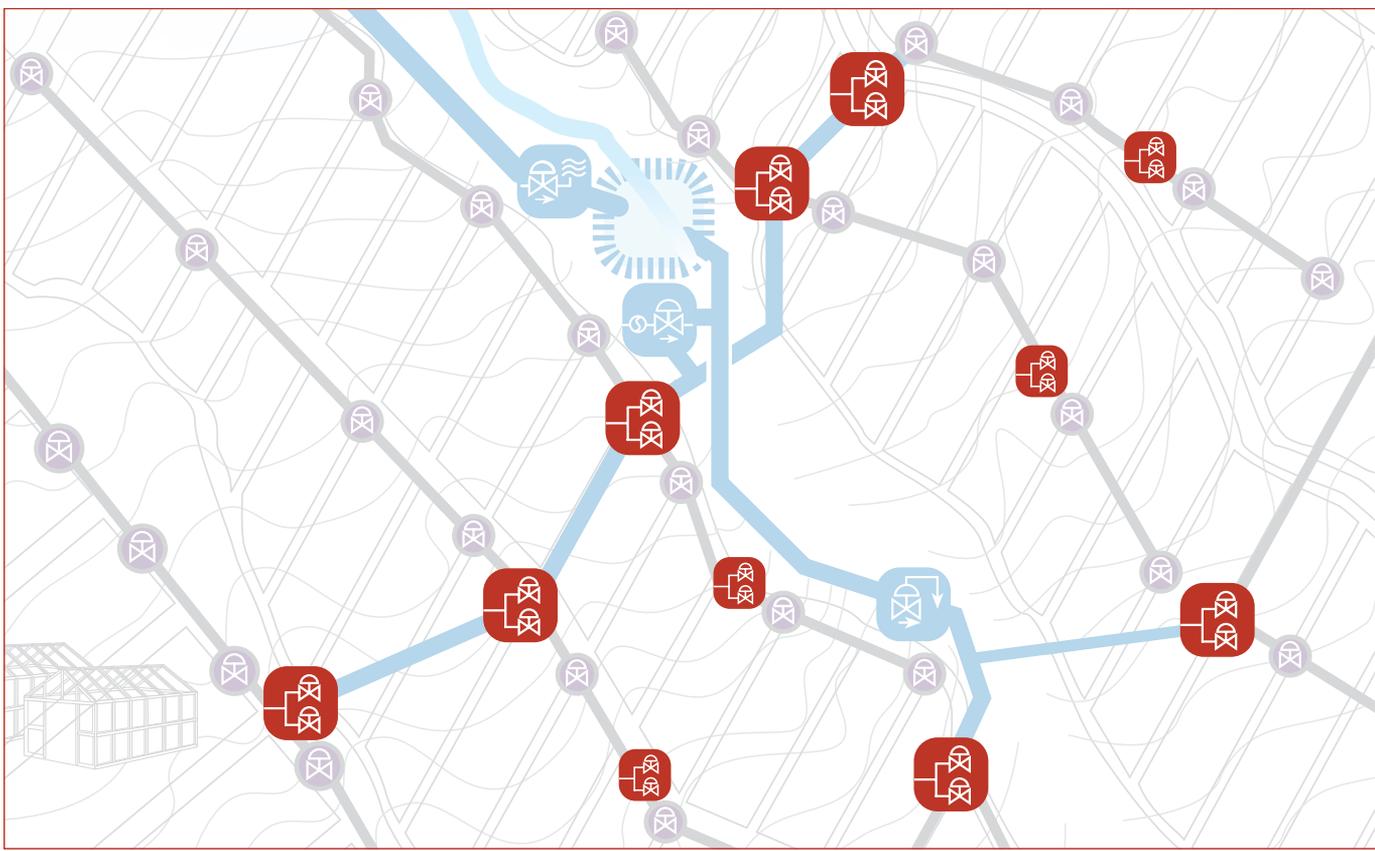
# BERMAD Irrigation

Irrigation Control Head



## Irrigation Control Head

 Irrigation Control Head



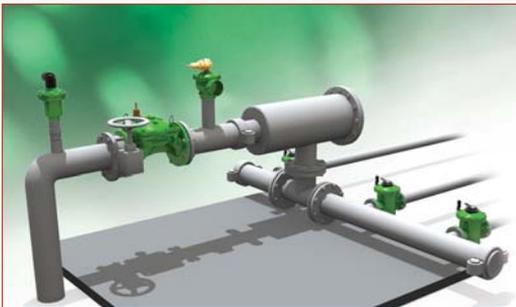
On/Off Control



Pressure Reducing



Pressure Relief



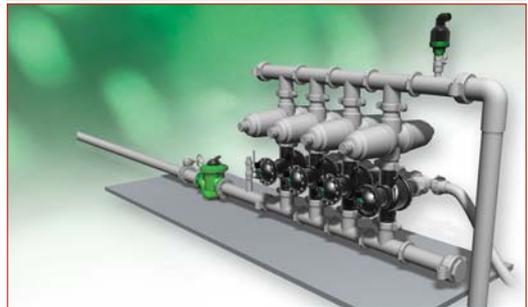
Flow Control



Pressure Sustaining



Filter Stations



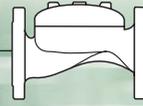
## On/Off Control Valves

On/Off Control Valves are hydraulically or electrically activated valves that can be locally or remotely triggered to open or close. Proper selection of valve types and normal position (Open or Closed), allows for meeting the design requirements of any desired control system and level.



### Typical Applications:

- Computerized Irrigation Systems
- Manual Irrigation Systems Intended for Computerization
- Semi-Automatic Irrigation Systems (IR-900-D2, IR-900-E2)
- Remote and/or Elevated Systems (Additional Features 54 & 55)
- Remote Flow Monitoring & Leakage Control (IR-900-M0)
- Irrigation Machines



### Hydraulic Control BERMAD Valve

**IR-405-Z**

The BERMAD Hydraulic Control Valve is a hydraulically operated, diaphragm actuated control valve that opens and shuts off in response to a local or remote pressure command.



### Hydraulic Control BERMAD Valve, Normally Closed with Hydraulic Relay

**IR-405-54-RXZ**

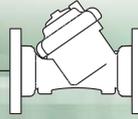
This Normally Closed, line pressure driven, hydraulic control valve opens in response to an external hydraulic pressure rise command and shuts in the absence of that command. Its metal control accessories and circuit ensure a rigid, damage resistant main valve.



### Solenoid Controlled BERMAD Valve

**IR-410-X**

This Solenoid Controlled, line pressure driven, hydraulically operated valve opens or shuts in response to an electric signal. Its metal control accessories and circuit ensure a rigid, damage resistant main valve. The solenoid is compliant with common controllers on the market, and features a manual override.



### Hydraulic Control BERMAD Valve

IR-105-Z

The BERMAD Hydraulic Control Valve is a hydraulically operated, diaphragm actuated control valve that opens and shuts off in response to a local or remote pressure command.



### Hydraulic Control BERMAD Valve, Normally Closed with Hydraulic Relay

IR-105-54-X

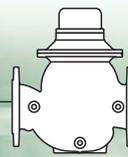
This Normally Closed, line pressure driven, hydraulic control valve opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



### Solenoid Controlled BERMAD Valve

IR-110-X

This Solenoid Controlled, line pressure driven, hydraulically operated valve, opens or shuts in response to an electric signal. The solenoid is compliant with common controllers on the market and it features a manual override.



**Hydrometer BERMAD  
with Magnetic Drive**

**IR-900-MO-Z**

The BERMAD Hydrometer with Magnetic Drive integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. The impeller drive is magnetically coupled to a vacuum-sealed meter register in the control head. As the system's flow meter and main valve. The Hydrometer controls system irrigation together with the irrigation controller. It opens and shuts in response to a local or remote pressure command.



**Hydrometer BERMAD  
Magnetic Drive,  
Normally Closed with Hydraulic Relay**

**IR-900-MO-54-RXZ**

This Normally Closed, line pressure driven Hydrometer with Magnetic Drive opens in response to an external hydraulic pressure rise command and shuts in the absence of that command. Its metal control accessories and circuit ensure a rigid, damage resistant hydrometer.



**Hydrometer BERMAD,  
Magnetic Drive with Solenoid Control**

**IR-910-MO-RX**

This Solenoid Controlled, line pressure driven Hydrometer with Magnetic Drive, opens or shuts in response to an electric signal. The solenoid is compliant with common controllers on the market and features a manual override.



**Automatic Metering Valve (AMV) BERMAD**

**IR-900-D2**

The BERMAD Automatic Metering Valve integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. Equipped with a Mechanical Shut-Off Pilot, the BERMAD IR-900-D2 enables volumetric irrigation in non-computerized systems. It automatically shuts itself off after accurately delivering a manually preset quantity of water.



**Automatic Metering Valve (AMV)  
BERMAD for Sequential Irrigation**

**IR-900-E2**

This BERMAD Automatic Metering Valve is equipped with a mechanical sequential shut-off pilot. When open, it transmutes pressure to the Next AMV, closing it. When the AMV shuts itself, it allows the next AMV to open and deliver a manually preset quantity of water.

Working in a group of manually preset AMV's connected to each other by a control tube and operating in sequence, it enables semi-automatic irrigation in non-computerized systems.

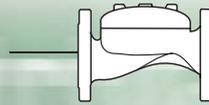
## Pressure Reducing Control Valves

The transformation from the main network into the irrigation system often requires bridging of significant differences in pressure ratings and flow characteristics. Pressure Reducing Valves help accomplish this by reducing high and fluctuating inlet pressure to a lower constant predetermined delivery pressure. They maintain pressure per system design and help to form pressure zones in accordance with crop, equipment, location, elevation and irrigation regimes.



### Typical Applications:

- Pressure Reducing Systems
- Distribution Centers
- Computerized Irrigation Systems
- Manual Irrigation Systems Intended for Computerization
- Semi-Automatic Irrigation Systems (IR-920-D2)
- Remote Flow Monitoring & Leakage Control (IR-920-M0)
- Remote and/or Elevated Systems (Additional Features 54 & 55)
- Irrigation Machines
- Greenhouse irrigation centers



IR-420-R

### Pressure Reducing BERMAD Valve

The BERMAD Pressure Reducing Valve is a line pressure driven control valve that reduces higher upstream pressure to lower constant downstream pressure regardless of fluctuating demand or varying upstream pressure. Its metal control accessories and circuit ensure a rigid, damage resistant valve.

The Model IR-420-RX automatically opens fully upon pressure drop below setting.

- IR-420-R**
- IR-420-RX**



IR-420-50-R

### Pressure Reducing BERMAD Valve with Hydraulic Control

This Normally Open, line pressure driven Pressure Reducing Valve shuts in response to an external hydraulic pressure rise command. Its metal control accessories and circuit ensure a rigid, damage resistant main valve.

The Model IR-420-50-RX automatically opens fully upon pressure drop below setting.

- IR-420-50-R**
- IR-420-50-RX**



IR-420-54-R

### Pressure Reducing BERMAD Valve, Normally Closed with Hydraulic Relay

This Normally Closed, line pressure driven Pressure Reducing Valve opens in response to an external hydraulic pressure rise command and shuts in the absence of that command. Its metal control accessories and circuit ensure a rigid, damage resistant main valve.

The Model IR-420-54-RX automatically opens fully upon pressure drop below setting.

- IR-420-54-R**
- IR-420-54-RX**



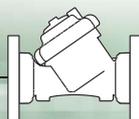
IR-420-55-R

### Pressure Reducing BERMAD Valve with Solenoid Control

This Solenoid Controlled, line pressure driven Pressure Reducing Valve opens or shuts in response to an electric signal. Its metal control accessories and circuit ensure a rigid, damage resistant main valve. The solenoid is compliant with common controllers on the market.

The Model IR-420-55-RX automatically opens fully upon pressure drop below setting.

- IR-420-55-R**
- IR-420-55-RX**



IR-120

### Pressure Reducing BERMAD Valve

IR-120

IR-120-X

The BERMAD Pressure Reducing Valve is a line pressure driven control valve that reduces higher upstream pressure to lower constant downstream pressure regardless of fluctuating demand or varying upstream pressure.

The Model IR-120-X automatically opens fully upon pressure drop below setting.



IR-120-50

### Pressure Reducing BERMAD Valve with Hydraulic Control

IR-120-50

IR-120-50-X

This Normally Open, line pressure driven Pressure Reducing Valve shuts in response to an external hydraulic pressure rise command.

The Model IR-120-50-X automatically opens fully upon pressure drop below setting.



IR-120-54

### Pressure Reducing BERMAD Valve, Normally Closed with Hydraulic Relay

IR-120-54

IR-120-54-X

This Normally Closed, line pressure driven Pressure Reducing Valve opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.

The Model IR-120-54-X automatically opens fully upon pressure drop below setting.



IR-120-55

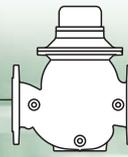
### Pressure Reducing BERMAD Valve with Solenoid Control

IR-120-55

IR-120-55-X

This Solenoid Controlled, line pressure driven Pressure Reducing Valve opens or shuts in response to an electric signal. The solenoid is compliant with common controllers on the market and it features a manual override.

The Model IR-120-55-X automatically opens fully upon pressure drop below setting.



IR-920-M0-R

**Pressure Reducing BERMAD Hydrometer,  
with Magnetic Drive**

- IR-920-M0-R
- IR-920-M0-RX

The BERMAD Pressure Reducing Hydrometer integrates a vertical turbine Woltman-type water meter, with a diaphragm actuated hydraulic control valve. It reduces higher upstream pressure to lower constant downstream pressure regardless of fluctuating demand or varying upstream pressure. Its metal control accessories and circuit provide a rigid, damage resistant valve. The Model IR-920-M0-RX automatically opens fully upon pressure drop below setting.



IR-920-M0-50-R

**Pressure Reducing BERMAD Hydrometer,  
Magnetic Drive with Hydraulic Control**

- IR-920-M0-50-R
- IR-920-M0-50-RX

This Normally Open, Pressure Reducing Hydrometer shuts in response to an external hydraulic pressure rise command. The Model IR-920-M0-50-RX automatically opens fully upon pressure drop below setting.



IR-920-M0-54-R

**Pressure Reducing BERMAD Hydrometer,  
Magnetic Drive Normally Closed with Hydraulic Relay**

- IR-920-M0-54-R
- IR-920-M0-54-RX

This Normally Closed, Pressure Reducing Hydrometer opens in response to an external hydraulic pressure rise command and shuts in the absence of that command. The Model IR-920-M0-54-RX automatically opens fully upon pressure drop below setting.



IR-920-M0-55-R

**Pressure Reducing BERMAD Hydrometer,  
Magnetic Drive with Solenoid Control**

- IR-920-M0-55-R
- IR-920-M0-55-RX

This Solenoid Controlled, Pressure Reducing Hydrometer opens or shuts in response to an electric signal. The solenoid is compliant with common controllers on the market. The Model IR-920-M0-55-RX automatically opens fully upon pressure drop below setting.



IR-920-D2-R

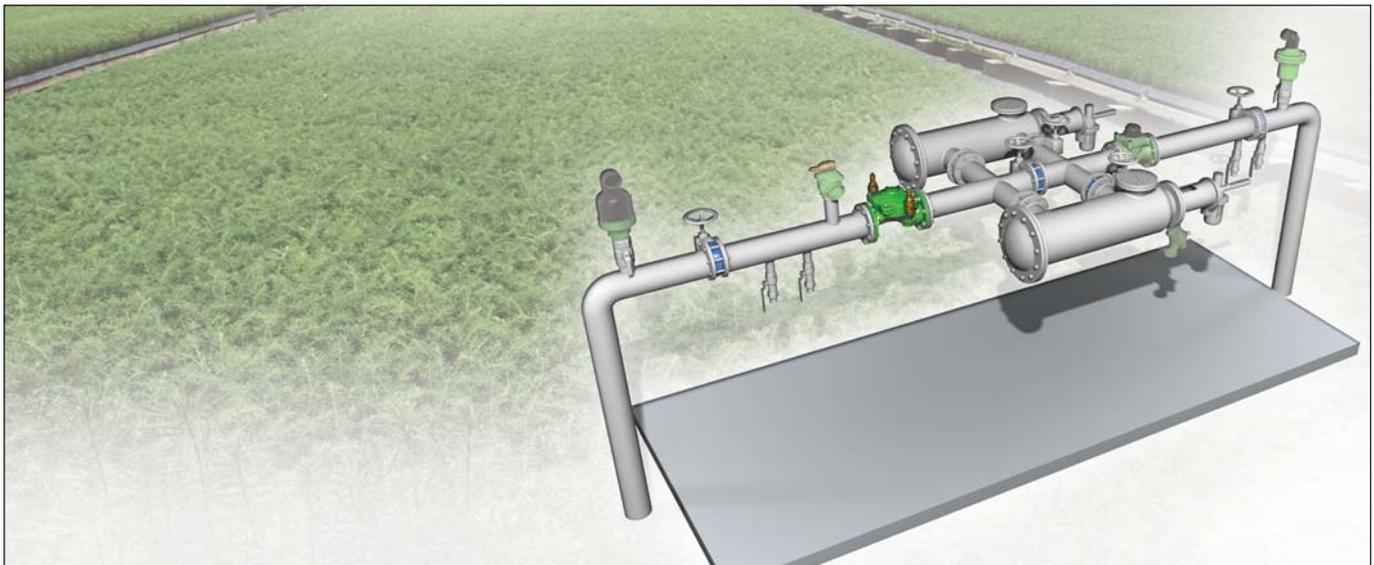
**Pressure Reducing BERMAD  
Automatic Metering Valve (AMV)**

- IR-920-D2-R
- IR-920-D2-RX

The BERMAD Pressure Reducing Automatic Metering Valve integrates a vertical turbine Woltman-type water meter, with a diaphragm actuated hydraulic control valve. Equipped with a Shut-Off Pilot and a Pressure Reducing Pilot, the BERMAD IR-920-D2-R reduces higher upstream pressure to lower constant downstream pressure. It automatically shuts itself off after accurately delivering a preset quantity of water. The Model IR-920-D2-RX automatically opens fully upon pressure drop below setting.

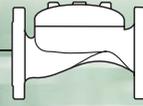
## Pressure Reducing & Sustaining Control Valves

The Main Network is sometimes exposed to supply pressure drop due to system over-demand during unbalanced irrigation, line fill-up, reservoir filling, filter backwash, etc. Pressure Reducing and Sustaining Valves add a pressure sustaining feature to the standard pressure reducing valve, limiting the flow to sustain the minimum required supply pressure, while protecting irrigation systems downstream from the irrigation control head.



### Typical Applications

- Pressure Reducing Systems
- Line Fill-Up Control
- Line Emptying Prevention
- Distribution Centers
- Filter Stations
- Computerized Irrigation Systems
- Manual Irrigation Systems Intended for Computerization
- Semi-Automatic Irrigation Systems (IR-923-D2)
- Remote Flow Monitoring & Leakage Control (IR-923-M0)
- Remote and/or Elevated Systems (Additional Features 54 & 55)
- Irrigation Machines
- Greenhouses Irrigation Centers



IR-423-R

### Pressure Reducing & Sustaining BERMAD Valve

- IR-423-R
- IR-423-RX

The BERMAD Pressure Reducing and Sustaining Valve is a line pressure driven control valve that performs two independent functions. It sustains the preset minimum upstream pressure, and reduces downstream pressure to a constant preset maximum. The metal control accessories and circuit provide a rigid, damage resistant valve.

The Model IR-423-RX automatically opens fully when line pressure is above sustaining pilot set-point and below reducing pilot set-point.



IR-423-50-R

### Pressure Reducing & Sustaining BERMAD Valve with Hydraulic Control

- IR-423-50-R
- IR-423-50-RX

This Normally Open, line pressure driven Pressure Reducing and Sustaining Valve shuts in response to an external hydraulic pressure rise command. Its metal control accessories and circuit provide a rigid, damage resistant main valve.

The Model IR-423-50-RX automatically opens fully when line pressure is above sustaining pilot set-point and below reducing pilot set-point.



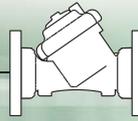
IR-423-55-R

### Pressure Reducing & Sustaining BERMAD Valve with Solenoid Control

- IR-423-55-R
- IR-423-55-RX

This Solenoid Controlled, line pressure driven Pressure Reducing and Sustaining Valve opens or shuts in response to an electric signal. Its metal control accessories and circuit provide a rigid, damage resistant main valve. The solenoid is compliant with common controllers on the market.

The Model IR-423-55-RX automatically opens fully when line pressure is above sustaining pilot set-point and below reducing pilot set-point.



IR-123

### Pressure Reducing & Sustaining BERMAD Valve

IR-123

IR-123-X

The BERMAD Pressure Reducing and Sustaining Valve is a line pressure driven control valve that performs two independent functions. It sustains the preset minimum upstream pressure, and reduces downstream pressure to a constant preset maximum.

The Model IR-123-X automatically opens fully when line pressure is above sustaining pilot set-point and below reducing pilot set-point.



IR-123-50

### Pressure Reducing & Sustaining BERMAD Valve with Hydraulic Control

IR-123-50

IR-123-50-X

This Normally Open, line pressure driven Pressure Reducing and Sustaining Valve shuts in response to an external hydraulic pressure rise command.

The Model IR-123-50-X automatically opens fully when line pressure is above sustaining pilot set-point and below reducing pilot set-point.



IR-123-55

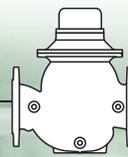
### Pressure Reducing & Sustaining BERMAD Valve with Solenoid Control

IR-123-55

IR-123-55-X

This Solenoid Controlled, line pressure driven Pressure Reducing and Sustaining Valve opens or shuts in response to an electric signal. The solenoid is compliant with common controllers on the market and it features a manual override.

The Model IR-123-55-X automatically opens fully when line pressure is above sustaining pilot set-point and below reducing pilot set-point.



IR-923-M0-R

**Pressure Reducing & Sustaining  
BERMAD Hydrometer,  
Magnetic Drive**

- IR-923-M0-R
- IR-923-M0-RX

The BERMAD Pressure Reducing and Sustaining Hydrometer integrates a vertical turbine Woltman-type water meter, with a diaphragm actuated hydraulic control valve. The impeller drive is magnetically coupled to a vacuum-sealed meter register in the control head. The Hydrometer performs two independent functions. It sustains the preset minimum upstream pressure, and reduces downstream pressure to a constant preset maximum. Its metal control accessories and circuit provide a rigid, damage resistant valve.

The Model IR-923-M0-RX automatically opens fully when line pressure is above sustaining pilot set-point and below reducing pilot set-point.



IR-923-M0-50-R

**Pressure Reducing & Sustaining  
BERMAD Hydrometer,  
Magnetic Drive with Hydraulic Control**

- IR-923-M0-50-R
- IR-923-M0-50-RX

This Normally Open, Pressure Reducing and Sustaining Hydrometer shuts in response to an external hydraulic pressure rise command. As the system's flow meter and main valve, it controls system irrigation together with the irrigation controller. The Model IR-923-M0-50-RX automatically opens fully when line pressure is above sustaining pilot set-point and below reducing pilot set-point.



IR-923-M0-55-R

**Pressure Reducing & Sustaining  
BERMAD Hydrometer,  
Magnetic Drive with Solenoid Control**

- IR-923-M0-55-R
- IR-923-M0-55-RX

This Solenoid Controlled, Pressure Reducing and Sustaining Hydrometer opens or shuts in response to an electric signal. As the system's flow meter and main valve, it controls system irrigation together with the irrigation controller. The solenoid is compliant with controllers on the market.

The Model IR-923-M0-55-RX automatically opens fully when line pressure is above sustaining pilot set-point and below reducing pilot set-point.



IR-923-D2-R

**Pressure Reducing & Sustaining  
BERMAD Automatic Metering Valve (AMV)**

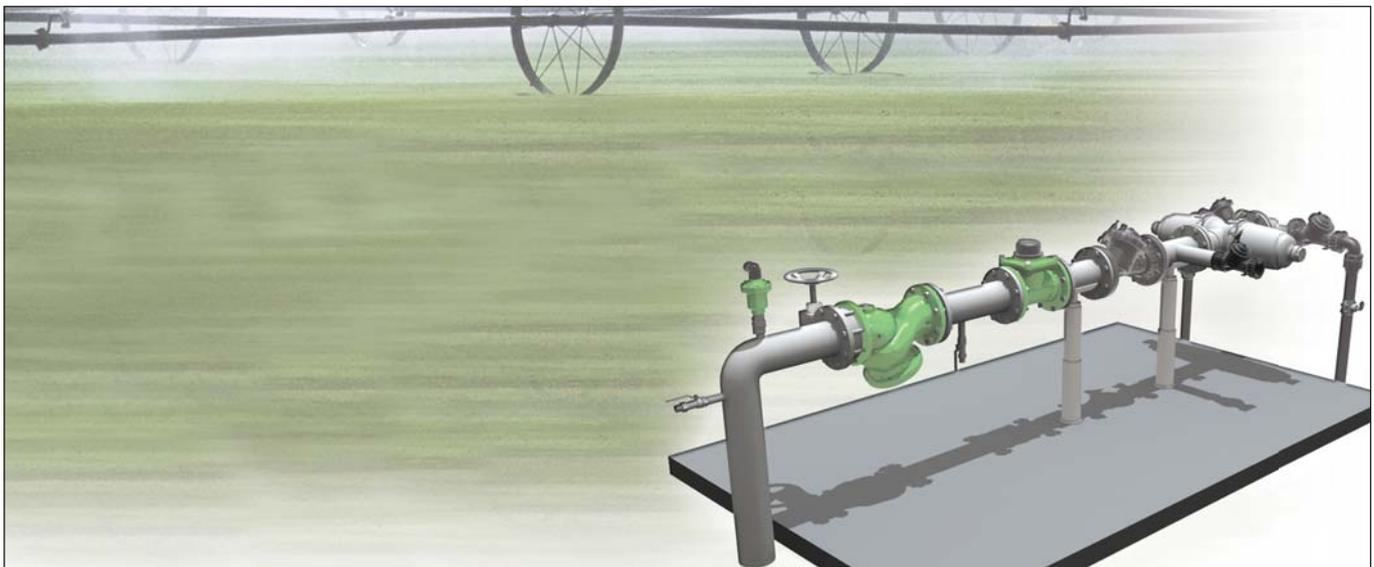
- IR-923-D2-R
- IR-923-D2-RX

The BERMAD Pressure Reducing & Sustaining Automatic Metering Valve integrates a vertical turbine Woltman-type water meter, with a diaphragm actuated hydraulic control valve. The AMV performs three independent functions. It sustains the preset minimum upstream pressure, reduces downstream pressure to a constant preset maximum, and automatically shuts itself off after accurately delivering a preset quantity of water.

The Model IR-923-D2-RX automatically opens fully when line pressure is above sustaining pilot set-point and below reducing pilot set-point.

## Pressure Relief Valves

Sudden changes in demand, switching irrigation shifts, air release valve action, line fill-up ending, and so on, create a high pressure wave, which travels along the line. Pressure Relief Valves, carefully designed, selected, sized, and located are the most simple, secure and cost effective way to deal with such problems. They immediately, accurately, and with high repeatability relieve excessive system pressure by opening fully in response to system pressure rise.



## Typical Applications

- Pressure Reducing Stations
- System Burst Protection
- Momentary Pressure Peak Elimination
- System Failure Visual Indication
- Filter Burst Protection



## Pressure Relief BERMAD Valve

IR-43Q

The BERMAD Quick Pressure Relief Valve is a single chambered, hydraulically operated, diaphragm actuated control valve that immediately, accurately, and with high repeatability relieves excessive system pressure when this pressure rises above the pre-set value. The Model IR-43Q provides smooth drip tight closing.



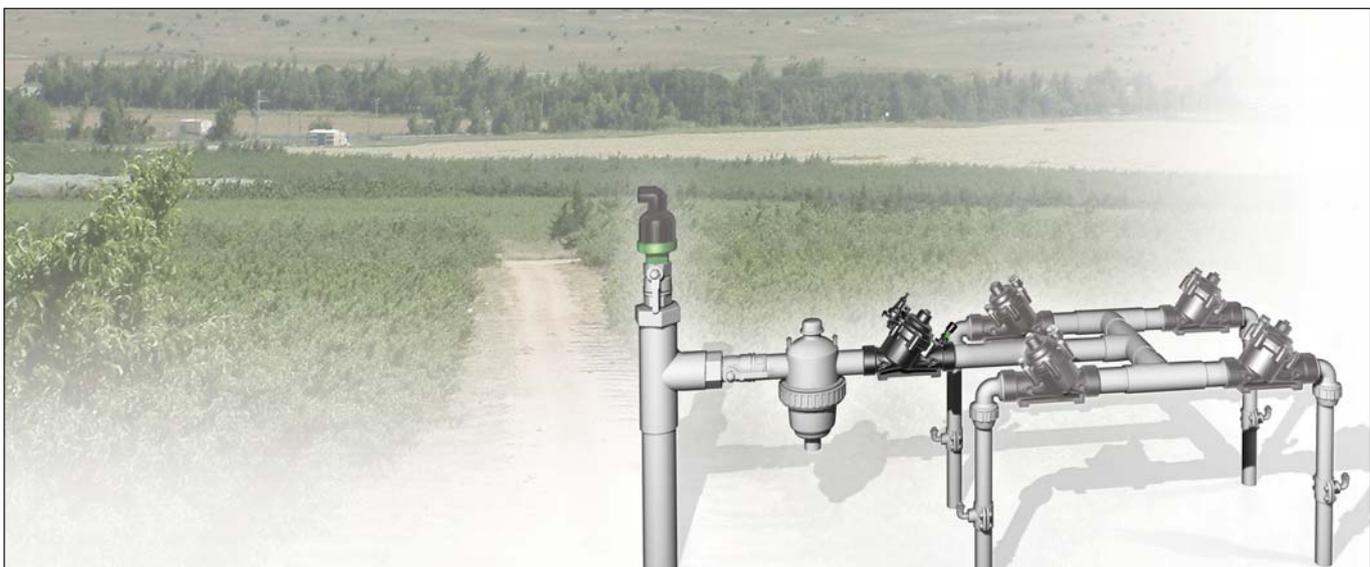
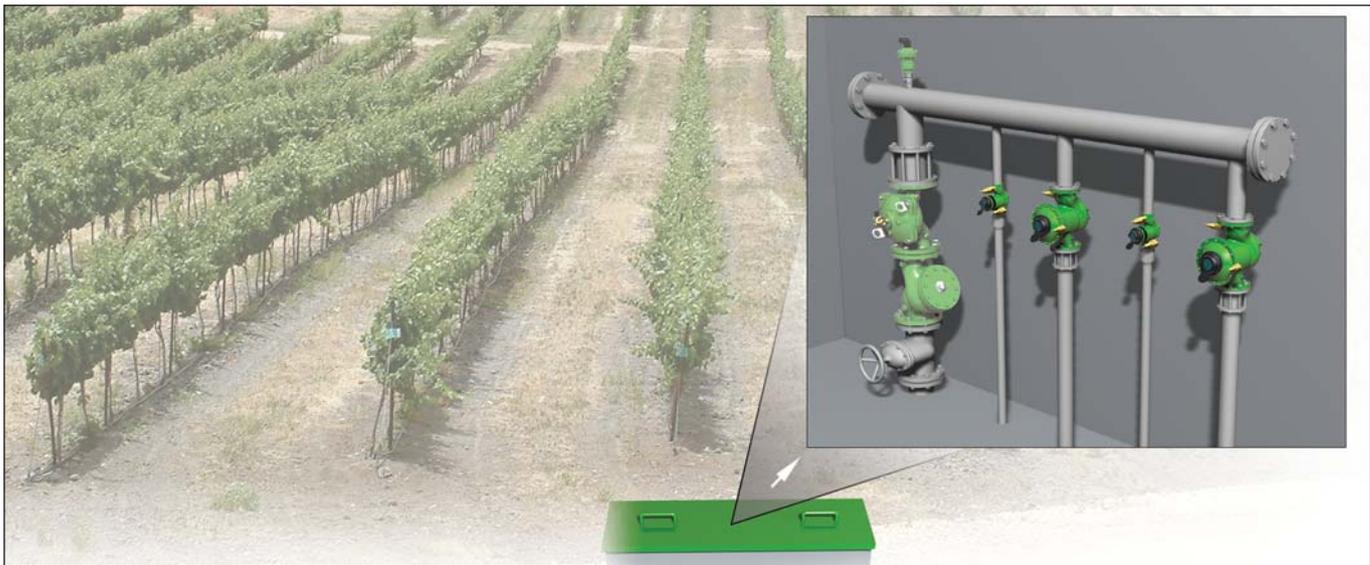
## Pressure Relief BERMAD Valve

IR-13Q

This quick-acting pressure relief valve is an engineered plastic control valve. It excels in its high durability, chemical and cavitation resistance, hYflow 'Y' valve body with "look through" design providing ultra-high flow capacity, and unitized flexible diaphragm with a guided plug preventing diaphragm distortion.

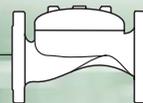
## Flow Control Valves

Meters, filters, pumps and other distribution equipment might experience flows that exceed their operating capacity due to system over-demand during unbalanced irrigation, line fill-up, reservoir filling, filter backwash, etc. Flow Control Valves maintain a preset maximum flow rate regardless of variations in demand or upstream/downstream pressure.



### Typical Applications

- Multiple Independent Consumer Systems
- Pressure Reducing Systems (IR-472, IR-172, IR-972)
- Line Fill-Up Control
- Distribution Centers
- Computerized Irrigation Systems
- Manual Irrigation Systems Intended for Computerization
- Semi-Automatic Irrigation Systems (IR-970-D2)
- Remote Flow Monitoring & Leakage Control (IR-970-M0)
- Remote and/or Elevated Systems (Additional Features 54 & 55)
- Greenhouse Irrigation Centers



### Flow Control BERMAD Valve with Hydraulic Control

IR-470-50-bRUZ

The BERMAD Normally Open, Flow Control Valve is a line pressure driven control valve that controls system demand maintaining a preset maximum flow rate. It is commanded by a flow pilot, which senses the  $\Delta P$  across an orifice installed upstream from the valve. The valve shuts in response to an external hydraulic pressure rise command. The metal control accessories and circuit provide a rigid, damage resistant main valve.



### Flow Control BERMAD Valve with Solenoid Control

IR-470-55-bRU

This Solenoid Controlled, line pressure driven Flow Control Valve opens or shuts in response to an electric signal. Its metal control accessories and circuit provide a rigid, damage resistant main valve. The solenoid is compliant with common controllers on the market.



### Flow Control & Pressure Reducing BERMAD Valve with Hydraulic Control

IR-472-50-bRUZ

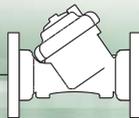
The BERMAD Normally Open, Flow Control and Pressure Reducing Valve is a line pressure driven control valve that performs two independent functions. It controls system demand maintaining a preset maximum flow rate, and reduces downstream pressure to a constant preset maximum. The metal control accessories and circuit provide a rigid, damage resistant main valve.



### Flow Control & Pressure Reducing BERMAD Valve with Solenoid Control

IR-472-55-bRU

This Solenoid Controlled, line pressure driven Flow Control and Pressure Valve opens or shuts in response to an electric signal. Its metal control accessories and circuit provide a rigid, damage resistant main valve. The solenoid is compliant with common controllers on the market.



### Flow Control BERMAD Valve with Hydraulic Control

IR-170-50-bDZ

The BERMAD Normally Open, Flow Control Valve is a line pressure driven control valve that controls system demand maintaining a preset maximum flow rate. It is commanded by a flow pilot, which senses the  $\Delta P$  across a Differential Pressure Duct installed in the valve. The valve shuts in response to an external hydraulic pressure rise command.



### Flow Control BERMAD Valve with Solenoid Control

IR-170-55-bD

This Solenoid Controlled, line pressure driven Flow Control Valve opens or shuts in response to an electric signal. The solenoid is compliant with common controllers on the market and it features a manual override.



### Flow Control & Pressure Reducing BERMAD Valve with Hydraulic Control

IR-172-50-bDZ

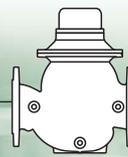
The BERMAD Normally Open, Flow Control and Pressure Reducing Valve is a line pressure driven control valve that performs two independent functions. It controls system demand maintaining a preset maximum flow rate, and reduces downstream pressure to a constant preset maximum.



### Flow Control & Pressure Reducing BERMAD Valve with Solenoid Control

IR-172-55-bD

This Solenoid Controlled, line pressure driven Flow Control and Pressure Valve opens or shuts in response to an electric signal. The solenoid is compliant with common controllers on the market and it features a manual override.



### **Flow Control BERMAD Hydrometer, Magnetic Drive with Hydraulic Control**

**IR-970-MO-50-RVZ**

The BERMAD Normally Open, Flow Control Hydrometer integrates a vertical turbine Woltman-type water meter, with a diaphragm actuated hydraulic control valve. The impeller drive is magnetically coupled to a vacuum-sealed meter register in the control head. The Hydrometer controls system demand maintaining a preset maximum flow rate. It is commanded by a paddle flow pilot, which includes a paddle that is positioned within the flow stream. As the system's flow meter and main valve, it controls system irrigation together with the irrigation controller. It shuts in response to an external hydraulic pressure rise command.



### **Flow Control BERMAD Hydrometer, Magnetic Drive with Solenoid Control**

**IR-970-MO-55-RV**

This Solenoid Controlled, line pressure driven Flow Control Hydrometer opens or shuts in response to an electric signal. As the system's flow meter and main valve, it controls system irrigation together with the irrigation controller. The solenoid is compliant with common controllers on the market.



### **Flow Control & Pressure Reducing BERMAD Hydrometer, Magnetic Drive with Hydraulic Control**

**IR-972-MO-50-RVZ**

The BERMAD Normally Open, Flow Control and Pressure Reducing Hydrometer performs two independent functions. It controls system demand maintaining a preset maximum flow rate, and reduces downstream pressure to a constant preset maximum. As the system's flow meter and main valve, it controls system irrigation together with the irrigation controller.



### **Flow Control & Pressure Reducing BERMAD Hydrometer, Magnetic Drive with Solenoid Control**

**IR-972-MO-55-RV**

This Solenoid Controlled, line pressure driven Flow Control and Pressure Reducing Hydrometer opens or shuts in response to an electric signal. As the system's flow meter and main valve, it controls system irrigation together with the irrigation controller. The solenoid is compliant with common controllers on the market.



### **Flow Control & Pressure Reducing BERMAD Automatic Metering Valve (AMV)**

**IR-972-D2-RV**

The BERMAD Flow Control and Pressure Reducing Automatic Metering Valve integrates a vertical turbine Woltman-type water meter, with a diaphragm actuated hydraulic control valve. The AMV performs three independent functions. It controls system demand maintaining a preset maximum flow rate, reduces downstream pressure to a constant preset maximum, and automatically shuts itself off after accurately delivering a preset quantity of water.

## Pressure Sustaining Control Valves

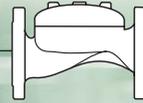
Pressure Sustaining Valves protect pumps and water distribution systems from two extreme situations:

- When installed in-line, they sustain minimum back pressure thus prioritizing pressure zones, controlling line fill-up, ensuring filter backwash pressure, preventing line emptying and pump overload, etc.
- When installed off-line, they relieve damaging excessive pressure, protecting pump and system.



### Typical Applications

- Line Fill-Up Control
- Pressure Zone Prioritizing
- Line Emptying Prevention
- Pump Circulation
- Computerized Irrigation Systems
- Manual Irrigation Systems Intended for Computerization
- Semi-Automatic Irrigation Systems (IR-930-D2)
- Remote Flow Monitoring & Leakage Control (IR-930-M0)
- Remote and/or Elevated Systems (Additional Features 54 & 55)
- Irrigation Machines
- Greenhouse Irrigation Centers



IR-430-50-R

### Pressure Sustaining BERMAD Valve with Hydraulic Control

- IR-430-50-R
- IR-430-50-RX

The BERMAD Normally Open, Pressure Sustaining Valve is a line pressure driven control valve that sustains minimum preset upstream (back) pressure regardless of fluctuating flow or varying downstream pressure. When installed offline, the BERMAD Model IR-430-50-R relieves line pressure in excess of preset. The valve shuts in response to an external hydraulic pressure rise command. The metal control accessories and circuit provide a rigid, damage resistant main valve. The Model IR-430-50-RX automatically opens fully when line pressure is in excess of setting.

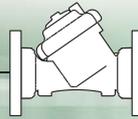


IR-430-55-R

### Pressure Sustaining BERMAD Valve with Solenoid Control

- IR-430-55-R
- IR-430-55-RX

This Solenoid Controlled, line pressure driven Pressure Sustaining Valve opens or shuts in response to an electric signal. Its metal control accessories and circuit provide a rigid, damage resistant main valve. The solenoid is compliant with common controllers on the market. The Model IR-430-55-RX automatically opens fully when line pressure is in excess of setting.



IR-130-50

### Pressure Sustaining BERMAD Valve with Hydraulic Control

IR-130-50

IR-130-50-X

The BERMAD Normally Open, Pressure Sustaining Valve is a line pressure driven control valve that sustains minimum preset upstream (back) pressure regardless of fluctuating flow or varying downstream pressure. When installed offline, the Model IR-130-50 relieves line pressure in excess of preset. The valve shuts in response to an external hydraulic pressure rise command.

The Model IR-130-50-X automatically opens fully when line pressure is in excess of setting.



IR-130-55

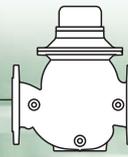
### Pressure Sustaining BERMAD Valve with Solenoid Control

IR-130-55

IR-130-55-X

This Solenoid Controlled, line pressure driven Pressure Sustaining Valve opens or shuts in response to an electric signal. The solenoid is compliant with common controllers on the market and it features a manual override.

The Model IR-130-55-X automatically opens fully when line pressure is in excess of setting.



IR-930-M0-50-R

**Pressure Sustaining  
BERMAD Hydrometer,  
Magnetic Drive with Solenoid Control**

- IR-930-M0-50-R
- IR-930-M0-50-RX

The BERMAD Normally Open, Pressure Sustaining Hydrometer integrates a vertical turbine Woltman-type water meter, with a diaphragm actuated hydraulic control valve. The impeller drive is magnetically coupled to a vacuum-sealed meter register in the control head. The Hydrometer sustains minimum preset upstream (back) pressure and shuts in response to an external hydraulic pressure rise command. As the system's flow meter and main valve, it controls system irrigation together with the irrigation controller. The metal control accessories and circuit provide a rigid, damage resistant Hydrometer.

The Model IR-930-M0-50-RX automatically opens fully when line pressure is in excess of setting.



IR-930-M0-55-R

**Pressure Sustaining  
BERMAD Hydrometer,  
Magnetic Drive with Solenoid Control**

- IR-930-M0-55-R
- IR-930-M0-55-RX

This Solenoid Controlled, line pressure driven Pressure Sustaining Hydrometer opens or shuts in response to an electric signal. Its metal control accessories and circuit provide a rigid, damage resistant Hydrometer. The solenoid is compliant with common controllers on the market.

The Model IR-930-M0-55-RX automatically opens fully when line pressure is in excess of setting.



IR-930-D2-R

**Pressure Sustaining  
BERMAD Automatic Metering Valve (AMV)**

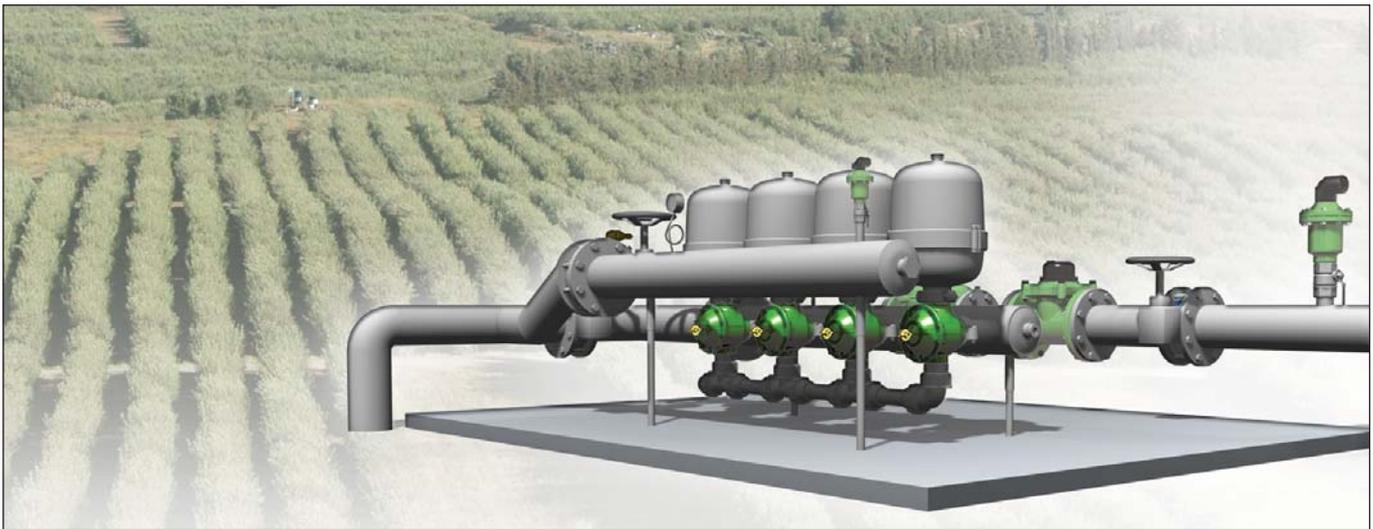
- IR-930-D2-R
- IR-930-D2-RX

The BERMAD Pressure Sustaining Automatic Metering Valve integrates a vertical turbine Woltman-type water meter, with a diaphragm actuated hydraulic control valve. The AMV sustains minimum preset upstream (back) pressure and automatically shuts itself off after accurately delivering a preset quantity of water.

The Model IR-930-D2-RX automatically opens fully when line pressure is in excess of setting.

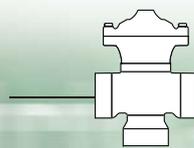
## Filter Station Control Valves

One of the most common ways to clean sand, gravel, disk or strainer filter elements in filters used for the irrigation sector, is by backwashing them. **Filter Backwash Valves** close the inlet into the filter and divert filtered water to flow in the opposite direction through the filter element to the drain. The high flow velocity and  $\Delta P$  create hydraulic forces which flush the filter-cake to the atmosphere, cleaning the filter element. **Flow Control Valves** limit the backwash flow to protect the filter element from excessive flow velocity and  $\Delta P$ .



## Typical Applications

- Automatic Backwash of Filter Batteries
  - Gravel Filters
  - Sand Filters
  - Disk Filters
  - Screen Filters
- Single Filter Autonomic Backwash System
- Angled or Straight Installations (IR-350 Series, Double Chamber Valves)
- Backwash Flow Limit (IR-470-beKU, IR-170-beU)



Angle Flow



Straight Flow

### Filter Backwash Hydraulic BERMAD Valve, 2x2 Plastic

**IR-2x2-350-P**

The BERMAD Model IR-2x2-350-P is a compact 3-port valve, in a T configuration, constructed from reinforced plastic. It is a double chambered, hydraulically operated, and diaphragm actuated valve, designed for automatic backwashing of filters with 2" inlet and outlet ports. In response to a pressure rise command, its diaphragm actuated plug assembly closes the supply port drip tight, while opening the backwash port. The valve's short travel guarantees smooth flow direction changes, conserves water supply, prevents filter site flooding, and eliminates mixing of supply and waste water. The BERMAD Model IR-2x2-350-P is available in Angle flow (A) and Straight flow (S) configurations.



Angle Flow



Straight Flow

### Filter Backwash Hydraulic BERMAD Valve, 2x2 Metal Body

**IR-2x2-350-R**

This 2x2 Filter Backwash Hydraulic Valve features a metal body, providing rigid construction. It is available in Angle flow (A) and Straight flow (S) configurations.



Angle Flow



Straight Flow

### Filter Backwash Hydraulic BERMAD Valve, 3x3 Plastic

**IR-3x3-350-P**

This Double Chambered, Filter Backwash Hydraulic Valve suits filters with 3" Inlet and outlet Ports. It is available in Angle flow (A) and Straight flow (S) configurations.



Angle Flow

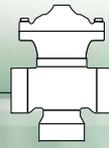


Straight Flow

### Filter Backwash Hydraulic BERMAD Valve, 3x3 Metal Body

**IR-3x3-350-I**

This 3x3 Filter Backwash Hydraulic Valve features a metal body, providing rigid construction. It is available in Angle flow (A) and Straight flow (S) configurations.



### Filter Backwash Hydraulic BERMAD Valve, 4x3 Metal

**IR-4x3-350-A-I**

The BERMAD Model IR-4x3-350-A-I is a compact 3-port valve, in a T configuration. It is a hydraulically operated and diaphragm actuated valve, designed for automatic backwashing of filters with 4" inlet and outlet ports. In response to a pressure rise command, its diaphragm actuated plug assembly closes the supply port drip tight, while opening the backwash port. The valve's short travel guarantees smooth flow direction changes, conserves water supply, prevents filter site flooding, and eliminates mixing of supply and waste water. The valve's metal construction ensures a rigid, damage resistant valve.



### Filter Backwash Hydraulic BERMAD Valve, 4x4 Metal

**IR-4x4-350-A-I**

This Filter Backwash Hydraulic Valve suits filters with 4" inlet and outlet ports and high backwash flow requirements.



## Filter Backwash Flow Control BERMAD Valve

IR-470-beKU

The BERMAD Normally Open, Flow Control Valve is a line pressure driven control valve that controls filter backwash flow maintaining a preset maximum flow rate. It is commanded by a flow pilot, which senses the  $\Delta P$  across an orifice installed upstream from the valve. The valve shuts in response to an external hydraulic pressure rise command.



## Filter Backwash Flow Control BERMAD Valve

IR-I70-beU

This BERMAD Normally Open, Flow Control Valve is constructed of reinforced plastic.

# Irrigation for Agriculture

## Infield Head-Works

Located at the entrance from the supply network to the distribution lines and laterals, the **Infield Head-Works** serves as the system's final control of the water's actual enter the distribution lines. Including various types of electric or hydraulic on/off remote control valves, which combine a variety of features, the **Infield Head-Works**:

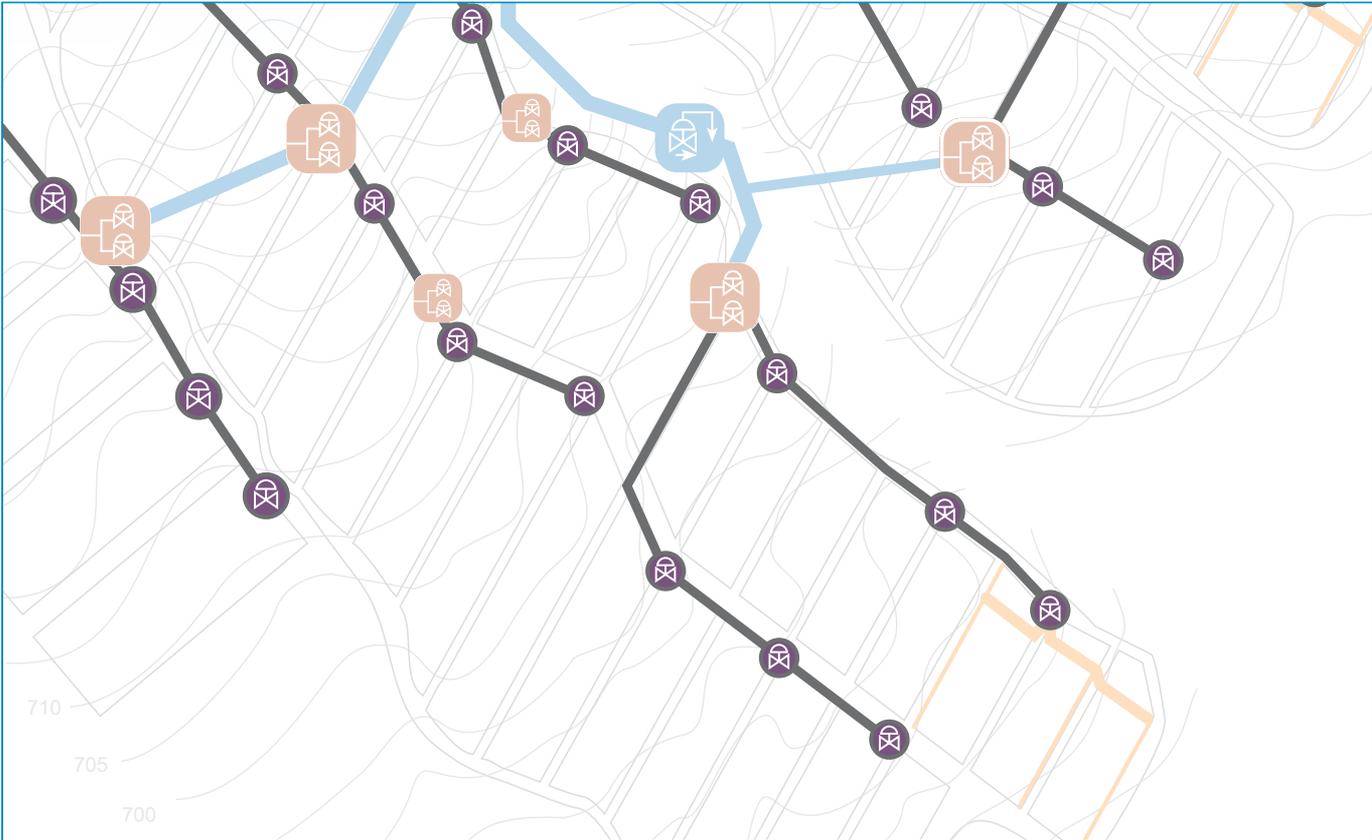
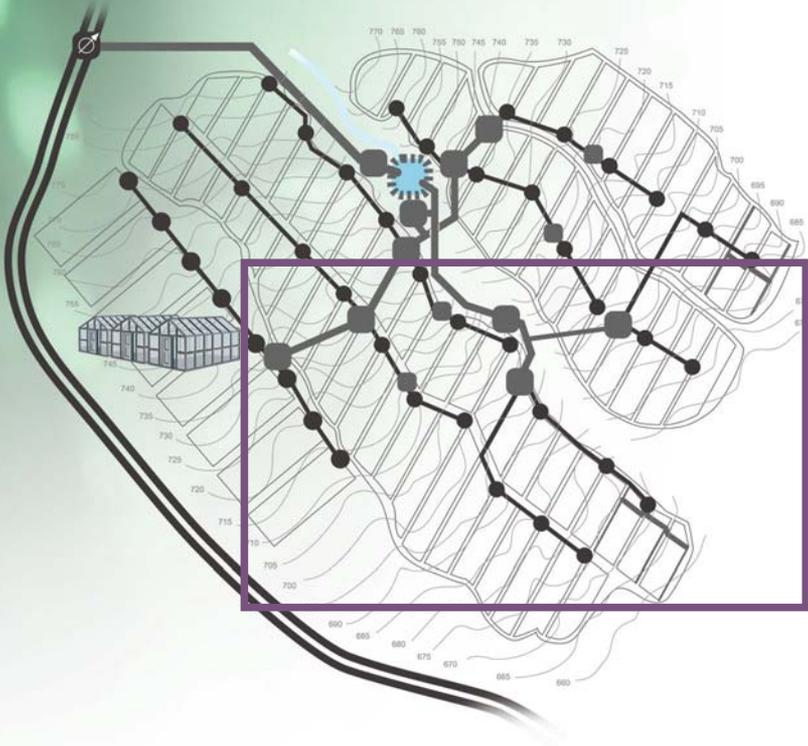
- Controls irrigation shifts, applying water metering abilities with outputs to the irrigation controller
- Maintains pre-designed system demand and pressure
- Establishes pressure zones, protecting the distribution lines and the laterals
- Differentiates irrigation regimes to meet changing crop stage
- Incorporates local fertilization arrangements and final filtration solutions

# BERMAD Irrigation

Infield Head-Works

## Infield Head-Works

-  Infield Head-Works
-  Hydrants Line



On/Off Control



Pressure Reducing, Standard



Pressure Reducing, Drip-Tape



Pressure Reducing & Sustaining



Pressure Sustaining



Flow Control



Flow Control & Pressure Reducing



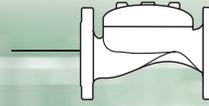
## On/Off Control Valves

On/Off Control Valves are hydraulically or electrically activated valves that can be locally or remotely triggered to open or close. Proper selection of valve types and normal position (Open or Closed), ensures meeting the design requirements of every control system and level.



### Typical Applications:

- Computerized Irrigation Systems
- Manual Irrigation Systems Intended for Computerization
- Semi-Automatic Irrigation Systems (IR-900-D0, IR-900-DD)
- Remote and/or Elevated Systems (Additional Features 54 & 55)
- Remote Flow Monitoring & Leakage Control (IR-900-M0)



### Hydraulic Control BERMAD Valve

**IR-405-Z**

The BERMAD Hydraulic Control Valve is a hydraulically operated, diaphragm actuated control valve that opens and shuts off in response to a local or remote pressure command.



### Hydraulic Control BERMAD Valve, Normally Closed with Hydraulic Relay

**IR-405-54-KX**

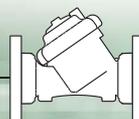
This Normally Closed, line pressure driven hydraulic control valve opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



### Solenoid Controlled BERMAD Valve

**IR-410-KX**

This Solenoid Controlled, line pressure driven, hydraulically operated valve, opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



### Hydraulic Control BERMAD Valve

IR-105-Z

The BERMAD Hydraulic Control Valve is a hydraulically operated, diaphragm actuated control valve that opens and shuts off in response to a local or remote pressure command.



### Hydraulic Control BERMAD Valve, Normally Closed with Hydraulic Relay

IR-105-54-X

This Normally Closed, line pressure driven, hydraulic control valve opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



### Solenoid Controlled BERMAD Valve

IR-110-X

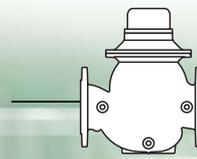
This Solenoid Controlled, line pressure driven, hydraulically operated valve, opens and closes drip-tight in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



### Solenoid Controlled BERMAD Valve with 2-Way Internal Controls

IR-110-NI-2W

This 2-Way Solenoid Controlled, line pressure driven, hydraulically operated valve includes an internal hydraulic Feed & Bleed control loop. The valve opens and closes drip-tight in response to an electric signal, which causes the solenoid to open or close the valve's internal hydraulic loop. The solenoid is compliant with the common controllers on the market and it features a manual override.



**Hydrometer BERMAD  
with Magnetic Drive**

**IR-900-MO-Z**

The BERMAD Hydrometer with Magnetic Drive integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. The impeller drive is magnetically coupled to a vacuum-sealed meter register in the control head. Serving as Flow Meter and Main Valve, it controls system irrigation together with the irrigation controller. The Hydrometer opens and shuts in response to a local or remote pressure command.



**Hydrometer BERMAD  
Magnetic Drive,  
Normally Closed with Hydraulic Relay**

**IR-900-MO-54-KX**

This Normally Closed, line pressure driven Hydrometer with Magnetic Drive opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



**Hydrometer BERMAD,  
Magnetic Drive with Solenoid Control**

**IR-910-KX**

This Solenoid Controlled, line pressure driven Hydrometer with Magnetic Drive, opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



**Automatic Metering Valve (AMV) BERMAD**

**IR-900-DO**

The BERMAD Automatic Metering Valve integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. Equipped with a Mechanical Shut-Off Pilot, the BERMAD IR-900-DO enables volumetric irrigation in non-computerized systems. It automatically shuts itself off after accurately delivering a manually preset quantity of water.



**Automatic Metering Valve (AMV) BERMAD  
for Sequential Irrigation**

**IR-900-DD**

This BERMAD Automatic Metering Valve is equipped with a mechanical sequential shut-off pilot. When open it transmutes pressure to the Next AMV, closing it. When the AMV shuts itself, it allows the next AMV to open and deliver a manually preset quantity of water.

Working in a group of manually preset AMV's connected to each other by a control tube and operating in sequence, it enables semi-automatic irrigation in non-computerized systems.

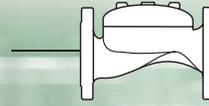
## Pressure Reducing Control Valves for Standard Systems

The transformation from the hydrants line into the lower grade distribution lines and laterals, requires over-pressure protection. Pressure Reducing Valves help accomplish this by reducing higher inlet pressure to a lower constant predetermined delivery pressure. They maintain pressure per system design in accordance with crop, irrigation equipment, location, elevation, etc.



### Typical Applications:

- Pressure Reducing Systems
- Systems Subject to Varying Supply Pressure (3-Way Control)
- Distribution Centers
- Computerized Irrigation Systems
- Manual Irrigation Systems Intended for Computerization
- Semi-Automatic Irrigation Systems (IR-920-D0)
- Remote Flow Monitoring & Leakage Control (IR-920-M0)
- Remote and/or Elevated Systems (Additional Features 54 & 55)
- Greenhouse Irrigation Centers



**Pressure Reducing BERMAD Valve**

**IR-420-KXZ**

**IR-420-RXZ**

The BERMAD Pressure Reducing Valve is a line pressure driven control valve that reduces higher upstream pressure to lower preset downstream pressure. The valve automatically opens fully upon pressure drop below setting. Its advanced globe, hydro-efficient design and fully supported and balanced diaphragm ensure an unobstructed flow path, excellent low-flow regulation performance, and trouble-free, long life operation. The Model IR-420-RXZ includes Metal Accessories.



**Pressure Reducing BERMAD Valve with Hydraulic Control**

**IR-420-50-KXZ**

**IR-420-50-RXZ**

This Normally Open, line pressure driven Pressure Reducing Valve shuts in response to an external hydraulic pressure rise command. The Model IR-420-50-RXZ includes Metal Accessories.



IR-420-54-KX

IR-420-54-3Q-KX

**Pressure Reducing BERMAD Valve, Normally Closed with Hydraulic Relay**

**IR-420-54-KX**

**Pressure Reducing BERMAD Valve, Normally Closed with Relief Override**

**IR-420-54-3Q-KX**

This Normally Closed, line pressure driven Pressure Reducing Valve opens in response to an external hydraulic pressure rise command, and shuts in the absence of that command. The model IR-420-54-3Q-KX Pressure Relief Override feature enables it to serve also as a Pressure Relief Valve, protecting the system even when in closed position.



IR-420-55-KX

IR-420-55-3Q-KX

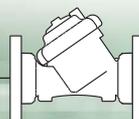
**Pressure Reducing BERMAD Valve with Solenoid Control**

**IR-420-55-KX**

**Pressure Reducing BERMAD Valve Solenoid Controlled with Relief Override**

**IR-420-55-3Q-KX**

This Solenoid Controlled, line pressure driven Pressure Reducing Valve opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override. The model IR-420-55-3Q-KX Pressure Relief Override feature enables it to serve also as a Pressure Relief Valve, protecting the system even when in closed position.



### Pressure Reducing BERMAD Valve

**IR-120-XZ**

The BERMAD Pressure Reducing Valve is a line pressure driven control valve that reduces higher upstream pressure to lower preset downstream pressure. The valve automatically opens fully upon pressure drop below setting. Its engineered plastic industrial grade, hYflow 'Y' body with "look through" design and unitized Flexible Super Travel (FST) diaphragm and guided plug ensure superior durability with high chemical and cavitation resistance, ultra-high flow capacity, and accurate and stable regulation with smooth closing.



### Pressure Reducing BERMAD Valve with Hydraulic Control

**IR-120-50-XZ**

This Normally Open, line pressure driven Pressure Reducing Valve shuts in response to an external hydraulic pressure rise command.

### Pressure Reducing BERMAD Valve, Normally Closed with Hydraulic Relay

**IR-120-54-X**

### Pressure Reducing BERMAD Valve, Normally Closed with Relief Override

**IR-120-54-3Q-X**



IR-120-54-X



IR-120-54-3Q-X

This Normally Closed, line pressure driven Pressure Reducing Valve opens in response to an external hydraulic pressure rise command, and shuts in the absence of that command.

The model IR-120-54-3Q-X Pressure Relief Override feature enables it to serve also as a Pressure Relief Valve, protecting the system even when in closed position.

### Pressure Reducing BERMAD Valve with Solenoid Control

**IR-120-55-X**

### Pressure Reducing BERMAD Valve Solenoid Controlled with Relief Override

**IR-120-55-3Q-X**



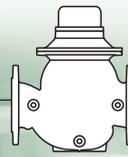
IR-120-55-X



IR-120-55-3Q-X

This Solenoid Controlled, line pressure driven Pressure Reducing Valve opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.

The model IR-120-55-3Q-X Pressure Relief Override feature enables it to serve also as a Pressure Relief Valve, protecting the system even when in closed position.



**Pressure Reducing  
BERMAD Hydrometer,  
Magnetic Drive**

- IR-920-MO-KXZ**
- IR-920-MO-RXZ**

The BERMAD Pressure Reducing Hydrometer integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. Serving as Flow Meter and Main Valve, it controls irrigation together with the irrigation controller reducing higher upstream pressure to lower preset downstream pressure. The hydrometer automatically opens fully upon pressure drop below setting. The Model IR-920-MO-RXZ includes Metal Accessories.



**Pressure Reducing  
BERMAD Hydrometer,  
Magnetic Drive with Hydraulic Control**

- IR-920-MO-50-KXZ**
- IR-920-MO-50-RXZ**

This Normally Open, line pressure driven Pressure Reducing Hydrometer shuts in response to an external hydraulic pressure rise command. The Model IR-920-MO-50-RXZ includes Metal Accessories.



**Pressure Reducing  
BERMAD Hydrometer,  
Magnetic Drive,  
Normally Closed with Hydraulic Relay**

- IR-920-MO-54-KX**

This Normally Closed, line pressure driven Pressure Reducing Hydrometer opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



**Pressure Reducing  
BERMAD Hydrometer,  
Magnetic Drive with Solenoid Control**

- IR-920-MO-55-KX**

This Solenoid Controlled, line pressure driven Pressure Reducing Hydrometer opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



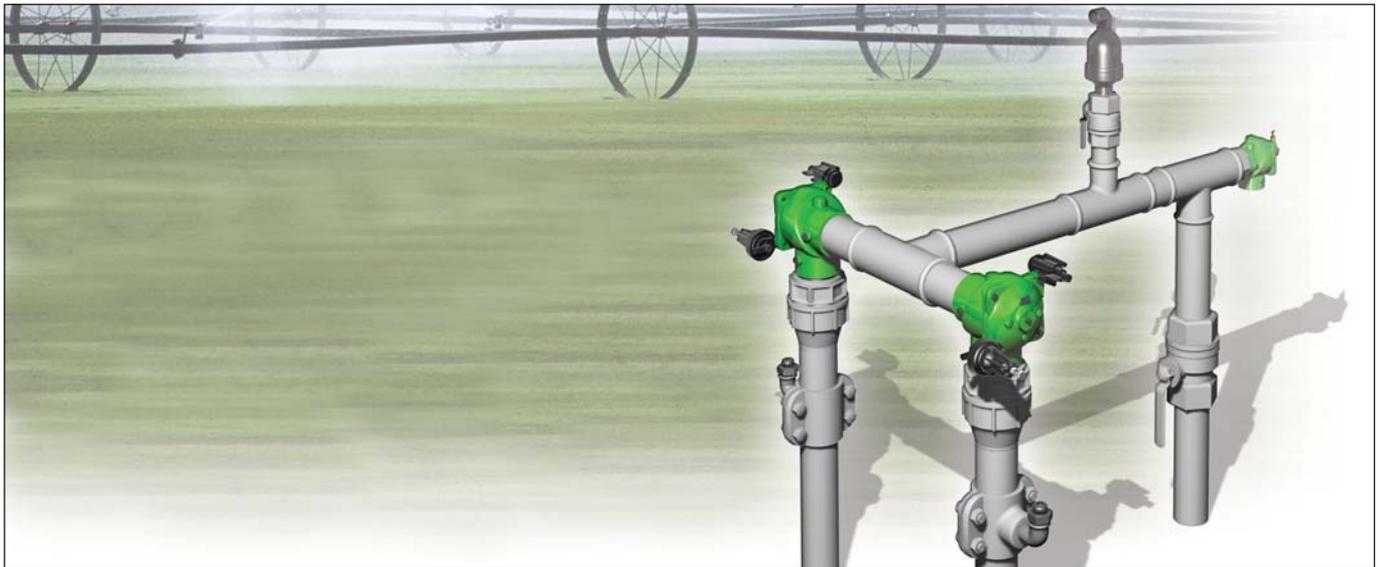
**Pressure Reducing  
BERMAD Automatic  
Metering Valve (AMV)**

- IR-920-DO-KX**

The BERMAD Pressure Reducing AMV integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. Equipped with a Mechanical Shut-Off Pilot and a Pressure Reducing 3-Way Pilot, it reduces higher upstream pressure to lower preset downstream pressure, opens fully upon pressure drop below setting, and automatically shuts itself off after accurately delivering a manually preset quantity of water.

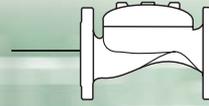
## Pressure Reducing Valves for Drip-Tape Applications

The unique low pressure requirements and sensitivity of laterals in Drip-Tape projects demand special care in the selection and functioning of Pressure Reducing Valves. Equipped with Servo Pilot, BERMAD Pressure Reducing Valves for Drip-Tape Applications provide a very low set point (0.5 bar; 7 psi) and a dynamic integrated needle valve resulting in very high accuracy and pressure repeatability.



### Typical Applications:

- Drip-Tape Systems
- Non-Compensated Drip Lines
- Low Set Pressure Applications
- Pressure Reducing Systems
- Systems Subject to Varying Supply Pressure
- Computerized Irrigation Systems
- Manual Irrigation Systems Intended for Computerization
- Semi-Automatic Irrigation Systems (IR-920-D0)
- Remote Flow Monitoring & Leakage Control (IR-920-M0)
- Remote and/or Elevated Systems (Additional Features 54 & 55)



**Pressure Reducing  
BERMAD Valve**  
For Drip-Tape Applications

**IR-420-bKZ**

**IR-420-bRZ**

The BERMAD Pressure Reducing Valve is a line pressure driven control valve that reduces higher upstream pressure to very low and stable preset downstream pressure. Its advanced globe hydro-efficient design, and fully supported and balanced diaphragm, ensure an unobstructed flow path, excellent low-flow regulation performance, and trouble-free long life operation. The Model IR-420-bRZ includes Metal Accessories.



**Pressure Reducing  
BERMAD Valve**  
with Hydraulic Control  
For Drip-Tape Applications

**IR-420-50-bKZ**

**IR-420-50-bRZ**

This Normally Open, line pressure driven Pressure Reducing Valve shuts in response to an external hydraulic pressure rise command. The Model IR-420-50-bRZ includes Metal Accessories.

**Pressure Reducing  
BERMAD Valve,**  
Normally Closed with Hydraulic Relay  
For Drip-Tape Applications

**IR-420-54-bK**

**Pressure Reducing  
BERMAD Valve,**  
Normally Closed with Relief Override  
For Drip-Tape Applications

**IR-420-54-3Q-bK**



IR-420-54-bX

IR-420-54-3Q-bX

This Normally Closed, line pressure driven Pressure Reducing Valve opens in response to an external hydraulic pressure rise command, and shuts in the absence of that command. The model IR-420-54-3Q-bK Pressure Relief Override feature enables it to serve also as a Pressure Relief Valve, protecting the system even when in closed position.

**Pressure Reducing  
BERMAD Valve**  
with Solenoid Control  
For Drip-Tape Applications

**IR-420-55-bK**

**Pressure Reducing  
BERMAD Valve**  
Solenoid Controlled with Relief Override  
For Drip-Tape Applications

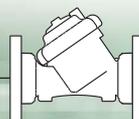
**IR-420-55-3Q-bK**



IR-420-55-bX

IR-420-55-3Q-bX

This Solenoid Controlled, line pressure driven Pressure Reducing Valve opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override. The model IR-420-55-3Q-bK Pressure Relief Override feature enables it to serve also as a Pressure Relief Valve, protecting the system even when in closed position.



### Pressure Reducing BERMAD Valve For Drip-Tape Applications

IR-120-bZ

The BERMAD Pressure Reducing Valve is a line pressure driven control valve that reduces higher upstream pressure to very low and stable preset downstream pressure. Its engineered plastic industrial grade, hYflow 'Y' body with "look through" design and unitized Flexible Super Travel (FST) diaphragm and guided plug excels in its highly durable chemical and cavitation resistance, ultra-high flow capacity, and accurate and stable regulation with smooth closing.



### Pressure Reducing BERMAD Valve with Hydraulic Control For Drip-Tape Applications

IR-120-50-bZ

This Normally Open, line pressure driven Pressure Reducing Valve shuts in response to an external hydraulic pressure rise command.

### Pressure Reducing BERMAD Valve, Normally Closed with Hydraulic Relay For Drip-Tape Applications

IR-120-54-b

### Pressure Reducing BERMAD Valve, Normally Closed with Relief Override For Drip-Tape Applications

IR-120-54-3Q-b



IR-120-54-b



IR-120-54-3Q-b

This Normally Closed, line pressure driven Pressure Reducing Valve opens in response to an external hydraulic pressure rise command, and shuts in the absence of that command.

The model IR-120-54-3Q-b Pressure Relief Override feature enables it to serve also as a Pressure Relief Valve, protecting the system even when in closed position.

### Pressure Reducing BERMAD Valve with Solenoid Control For Drip-Tape Applications

IR-120-55-b

### Pressure Reducing BERMAD Valve Solenoid Controlled with Relief Override For Drip-Tape Applications

IR-120-55-3Q-b



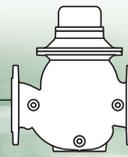
IR-120-55-b



IR-120-55-3Q-b

This Solenoid Controlled, line pressure driven Pressure Reducing Valve opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.

The model IR-120-55-3Q-b Pressure Relief Override feature enables it to serve also as a Pressure Relief Valve, protecting the system even when in closed position.



**Pressure Reducing BERMAD Hydrometer, Magnetic Drive For Drip-Tape Applications**

- IR-920-M0-bKZ
- IR-920-M0-bRZ

The BERMAD Pressure Reducing Hydrometer integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. Serving as Flow Meter and Main Valve, it controls irrigation together with the irrigation controller, reducing higher upstream pressure to very low and stable preset downstream pressure. The Model IR-920-M0-bRZ includes Metal Accessories.



**Pressure Reducing BERMAD Hydrometer, Magnetic Drive with Hydraulic Control For Drip-Tape Applications**

- IR-920-M0-50-bKZ
- IR-920-M0-50-bRZ

This Normally Open, line pressure driven Pressure Reducing Hydrometer shuts in response to an external hydraulic pressure rise command. The Model IR-920-M0-50-bRZ includes Metal Accessories.



**Pressure Reducing BERMAD Hydrometer, Magnetic Drive, Normally Closed with Hydraulic Relay For Drip-Tape Applications**

- IR-920-M0-54-bK

This Normally Closed, line pressure driven Pressure Reducing Hydrometer opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



**Pressure Reducing BERMAD Hydrometer, Magnetic Drive with Solenoid Control For Drip-Tape Applications**

- IR-920-M0-55-bK

This Solenoid Controlled, line pressure driven Pressure Reducing Hydrometer opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



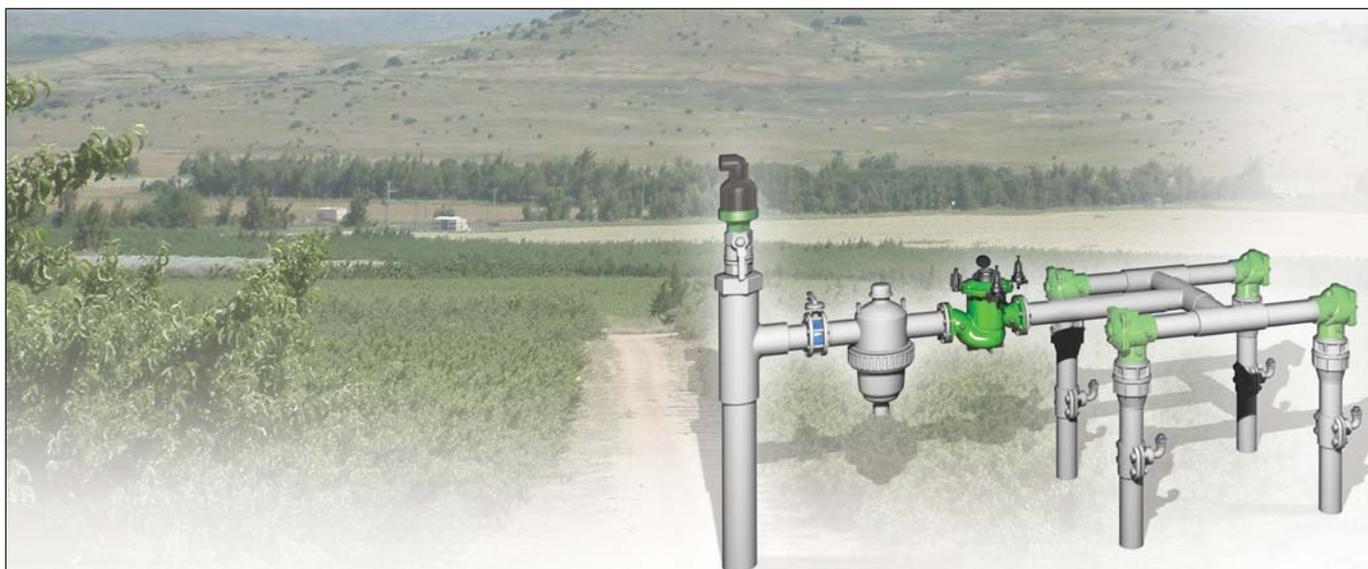
**Pressure Reducing BERMAD Automatic Metering Valve (AMV) For Drip-Tape Applications**

- IR-920-DO-bK

The BERMAD Pressure Reducing AMV integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. Equipped with a Mechanical Shut-Off Pilot and a Pressure Reducing Servo Pilot, it reduces higher upstream pressure to very low and stable preset downstream pressure, and automatically shuts itself off after accurately delivering a manually preset quantity of water.

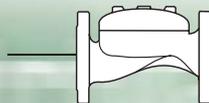
## Pressure Reducing & Sustaining Control Valves

The hydrants line is sometimes exposed to supply pressure drops due to system over-demand during unbalanced irrigation, line fill-up, filter backwash, etc. Pressure reducing and sustaining valves add a pressure sustaining feature to the standard pressure reducing valve, limiting the flow to sustain the minimum required supply pressure, while protecting irrigation systems downstream from the Infield Head-Works.



### Typical Applications:

- Pressure Reducing Systems
- Line Fill-Up Control
- Line Emptying Prevention
- Distribution Centers
- Filter Stations
- Computerized Irrigation Systems
- Manual Irrigation Systems Intended for Computerization
- Semi-Automatic Irrigation Systems (IR-923-D0)
- Remote Flow Monitoring & Leakage Control (IR-923-M0)
- Remote and/or Elevated Systems (Additional Features 54 & 55)
- Greenhouse Irrigation Centers



### **Pressure Reducing & Sustaining BERMAD Valve**

**IR-423-KXZ**

The BERMAD Pressure Reducing and Sustaining Valve is a line pressure driven control valve that sustains minimum preset upstream (back) pressure and reduces higher upstream pressure to lower preset downstream pressure. Its advanced globe hydro-efficient design and fully supported and balanced diaphragm ensure an unobstructed flow path, excellent low-flow regulation performance, and trouble-free long life operation.



### **Pressure Reducing & Sustaining BERMAD Valve, Normally Closed with Hydraulic Relay**

**IR-423-54-KX**

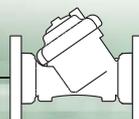
This Normally Closed, line pressure driven Pressure Reducing and Sustaining Valve opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



### **Pressure Reducing & Sustaining BERMAD Valve with Solenoid Control**

**IR-423-55-KX**

This Solenoid Controlled, line pressure driven Pressure Reducing and Sustaining Valve opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



#### **Pressure Reducing & Sustaining BERMAD Valve**

**IR-123-XZ**

The BERMAD Pressure Reducing and Sustaining Valve is a line pressure driven control valve that sustains minimum preset upstream (back) pressure and reduces higher upstream pressure to lower preset downstream pressure. Its engineered plastic industrial grade, hYflow 'Y' body with "look through" design and unitized Flexible Super Travel (FST) diaphragm and guided plug excels in its highly durable chemical and cavitation resistance, ultra-high flow capacity, and accurate and stable regulation with smooth closing.



#### **Pressure Reducing & Sustaining BERMAD Valve, Normally Closed with Hydraulic Relay**

**IR-123-54-X**

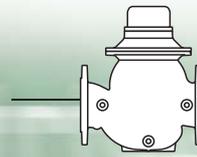
This Normally Closed, line pressure driven Pressure Reducing and Sustaining Valve opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



#### **Pressure Reducing & Sustaining BERMAD Valve with Solenoid Control**

**IR-123-55-X**

This Solenoid Controlled, line pressure driven Pressure Reducing and Sustaining Valve opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override. The Solenoid is compliant with the common controllers on the market and it features a manual override.



**Pressure Reducing & Sustaining  
BERMAD Hydrometer  
with Magnetic Drive**

**IR-923-MO-KXZ**

The BERMAD Pressure Reducing and Sustaining Hydrometer integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. Serving as Flow Meter and Main Valve, it controls irrigation together with the irrigation controller. The Hydrometer sustains minimum preset upstream (back) pressure and reduces higher upstream pressure to lower preset downstream pressure. Its integrated “All-in-One” design saves space, cost and maintenance. The internal inlet and outlet flow straighteners save on straightening distances while maintaining accuracy.



**Pressure Reducing & Sustaining  
BERMAD Hydrometer,  
Magnetic Drive,  
Normally Closed with Hydraulic Relay**

**IR-923-MO-54-KX**

This Normally Closed, line pressure driven Pressure Reducing and Sustaining Hydrometer opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



**Pressure Reducing & Sustaining  
BERMAD Hydrometer,  
Magnetic Drive with Solenoid Control**

**IR-923-MO-55-KX**

This Solenoid Controlled, line pressure driven Pressure Reducing and Sustaining Hydrometer opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



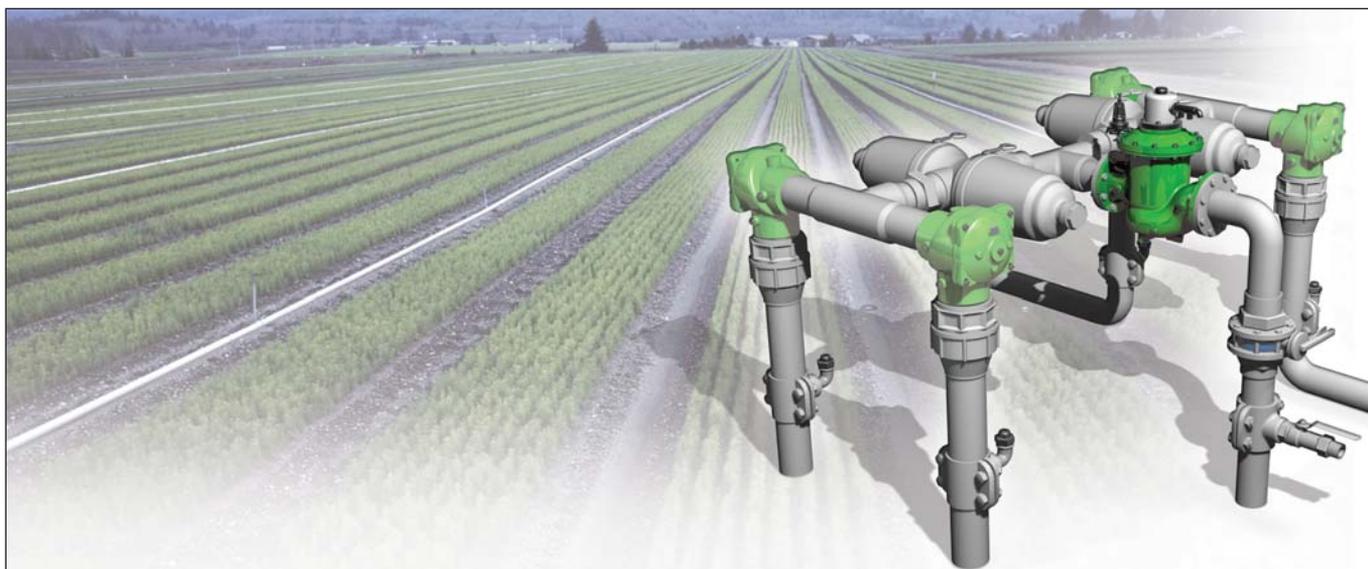
**Pressure Reducing & Sustaining  
BERMAD Automatic Metering Valve (AMV)**

**IR-923-DO-KX**

The BERMAD Pressure Reducing and Sustaining AMV integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. Equipped with a Mechanical Shut-Off Pilot, a Pressure Reducing Pilot, and a Pressure Sustaining Pilot, it sustains minimum preset upstream (back) pressure, reduces higher upstream pressure to lower preset downstream pressure, and automatically shuts itself off after accurately delivering a manually preset quantity of water. It enables volumetric irrigation in non-computerized systems.

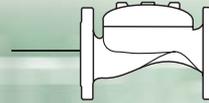
## Pressure Sustaining Control Valves

Pressure Sustaining Valves sustain minimum back pressure, thus prioritizing pressure zones, preventing hydrants line emptying, controlling line fill-up, ensuring filter backwash pressure, etc.



### Typical Applications:

- Line Fill-Up Control
- Pressure Zone Prioritizing
- Line Emptying Prevention
- Infield Filter Backwash Pressure Sustaining
- Computerized Irrigation Systems
- Manual Irrigation Systems Intended for Computerization
- Semi-Automatic Irrigation Systems (IR-930-D0)
- Remote Flow Monitoring & Leakage Control (IR-930-M0)
- Remote and/or Elevated Systems (Additional Features 54 & 55)
- Greenhouse Irrigation Centers



### Pressure Sustaining BERMAD Valve

**IR-430-KXZ**

**IR-430-RXZ**

The BERMAD Pressure Sustaining Valve is a line pressure driven control valve that sustains minimum preset upstream (back) pressure and opens fully when line pressure is in excess of setting. Its advanced globe, hydro-efficient design, and fully supported and balanced diaphragm ensure an unobstructed flow path, excellent low-flow regulation performance, and trouble-free long life operation. The Model IR-430-RXZ includes Metal Accessories.



### Pressure Sustaining BERMAD Valve with Hydraulic Control

**IR-430-50-KXZ**

**IR-430-50-RXZ**

This Normally Open, line pressure driven Pressure Sustaining Valve shuts in response to an external hydraulic pressure rise command. The Model IR-430-50-RXZ includes Metal Accessories.



### Pressure Sustaining BERMAD Valve, Normally Closed with Hydraulic Relay

**IR-430-54-KX**

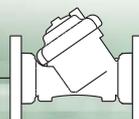
This Normally Closed, line pressure driven Pressure Sustaining Valve opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



### Pressure Sustaining BERMAD Valve with Solenoid Control

**IR-430-55-KX**

This Solenoid Controlled, line pressure driven Pressure Sustaining Valve opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



### Pressure Sustaining BERMAD Valve

**IR-130-XZ**

The BERMAD Pressure Sustaining Valve is a line pressure driven control valve that sustains minimum preset upstream (back) pressure and opens fully when line pressure is in excess of setting. Its engineered plastic industrial grade, hYflow 'Y' body with "look through" design and unitized Flexible Super Travel (EST) diaphragm and guided plug excels in its highly durable chemical and cavitation resistance, ultra-high flow capacity, and accurate and stable regulation with smooth closing.



### Pressure Sustaining BERMAD Valve, Normally Closed with Hydraulic Relay

**IR-130-54-X**

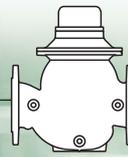
This Normally Closed, line pressure driven Pressure Sustaining Valve opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



### Pressure Sustaining BERMAD Valve with Solenoid Control

**IR-130-55-X**

This Solenoid Controlled, line pressure driven Pressure Sustaining Valve opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



### Pressure Sustaining BERMAD Hydrometer with Magnetic Drive

**IR-930-MO-KXZ**

The BERMAD Pressure Sustaining Hydrometer integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. Serving as Flow Meter and Main Valve, it controls irrigation together with the irrigation controller. The Hydrometer sustains minimum preset upstream (back) pressure and opens fully when line pressure is in excess of setting. Its integrated "All-in-One" design saves space, cost and maintenance. The internal inlet and outlet flow straighteners save on straightening distances while maintaining accuracy.



### Pressure Sustaining BERMAD Hydrometer, Magnetic Drive, Normally Closed with Hydraulic Relay

**IR-930-MO-54-KX**

This Normally Closed, line pressure driven Pressure Sustaining Hydrometer opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



### Pressure Sustaining BERMAD Hydrometer, Magnetic Drive with Solenoid Control

**IR-930-MO-55-KX**

This Solenoid Controlled, line pressure driven Pressure Sustaining Hydrometer opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



### Pressure Sustaining BERMAD Automatic Metering Valve (AMV)

**IR-930-DO-KX**

The BERMAD Pressure Sustaining AMV integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. Equipped with a Mechanical Shut-Off Pilot and a 3-Way Pressure Sustaining Pilot, it sustains minimum preset upstream (back) pressure, opens fully when line pressure is in excess of setting, and automatically shuts itself off after accurately delivering a manually preset quantity of water. It enables volumetric irrigation in non-computerized systems.

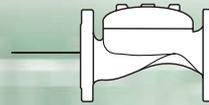
## Flow Control Valves

Meters, filters, pumps and other distribution equipment might experience flows that exceed their operating capacity due to system over-demand during unbalanced irrigation, line fill-up, filter backwash, etc. Flow Control Valves maintain a preset maximum flow rate regardless of variations in demand or upstream/downstream pressure.



### Typical Applications:

- Multiple Independent Consumer Systems
- Line Fill-Up Control
- Distribution Centers
- Computerized Irrigation Systems
- Manual Irrigation Systems Intended for Computerization
- Semi-Automatic Irrigation Systems (IR-970-D0)
- Remote Flow Monitoring & Leakage Control (IR-970-M0)
- Remote and/or Elevated Systems (Additional Features 54 & 55)
- Greenhouse Irrigation Centers



### Flow Control BERMAD Valve with Hydraulic Control

IR-470-bKUZ

The BERMAD Flow Control Valve is a line pressure driven control valve that limits system demand to a constant preset maximum flow rate. It is commanded by a flow pilot, which senses the  $\Delta P$  across an orifice installed upstream of the valve. Its advanced globe, hydro-efficient design and fully supported and balanced diaphragm ensure an unobstructed flow path, excellent low-flow regulation performance, and trouble-free long life operation.



### Flow Control BERMAD Valve, Normally Closed with Hydraulic Relay

IR-470-54-bKU

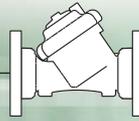
This Normally Closed, line pressure driven Flow Control Valve opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



### Flow Control BERMAD Valve with Solenoid Control

IR-470-55-bKU

This Solenoid Controlled, line pressure driven Flow Control Valve opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



### Flow Control BERMAD Valve

**IR-I70-bDZ**

The BERMAD Flow Control Valve is a line pressure driven control valve that limits system demand to a constant preset maximum flow rate. It is commanded by a flow pilot, which senses the  $\Delta P$  across a Differential Pressure Duct installed in the valve. Its engineered plastic industrial grade, hYflow 'Y' body with "look through" design and unitized Flexible Super Travel (FST) diaphragm and guided plug excels in its highly durable chemical and cavitation resistance, ultra-high flow capacity, and accurate and stable regulation with smooth closing.



### Flow Control BERMAD Valve, Normally Closed with Hydraulic Relay

**IR-I70-54-bD**

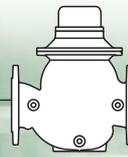
This Normally Closed, line pressure driven Flow Control Valve opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



### Flow Control BERMAD Valve with Solenoid Control

**IR-I70-55-bD**

This Solenoid Controlled, line pressure driven Flow Control Valve opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



### Flow Control BERMAD Hydrometer with Magnetic Drive

**IR-970-MO-KVZ**

The BERMAD Flow Control Hydrometer integrates a vertical turbine Woltman-type water meter, with a diaphragm actuated hydraulic control valve. Commanded by a paddle flow pilot, which includes a paddle positioned within the flow stream, it limits system demand to a constant preset maximum flow rate. Its integrated “All-in-One” design saves space, cost and maintenance. The internal inlet and outlet flow straighteners save on straightening distances while maintaining accuracy.



### Flow Control BERMAD Hydrometer, Magnetic Drive, Normally Closed with Hydraulic Relay

**IR-970-MO-54-KV**

This Normally Closed, line pressure driven Flow Control Hydrometer opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



### Flow Control BERMAD Hydrometer, Magnetic Drive with Solenoid Control

**IR-970-MO-55-KV**

This Solenoid Controlled, line pressure driven Flow Control Hydrometer opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



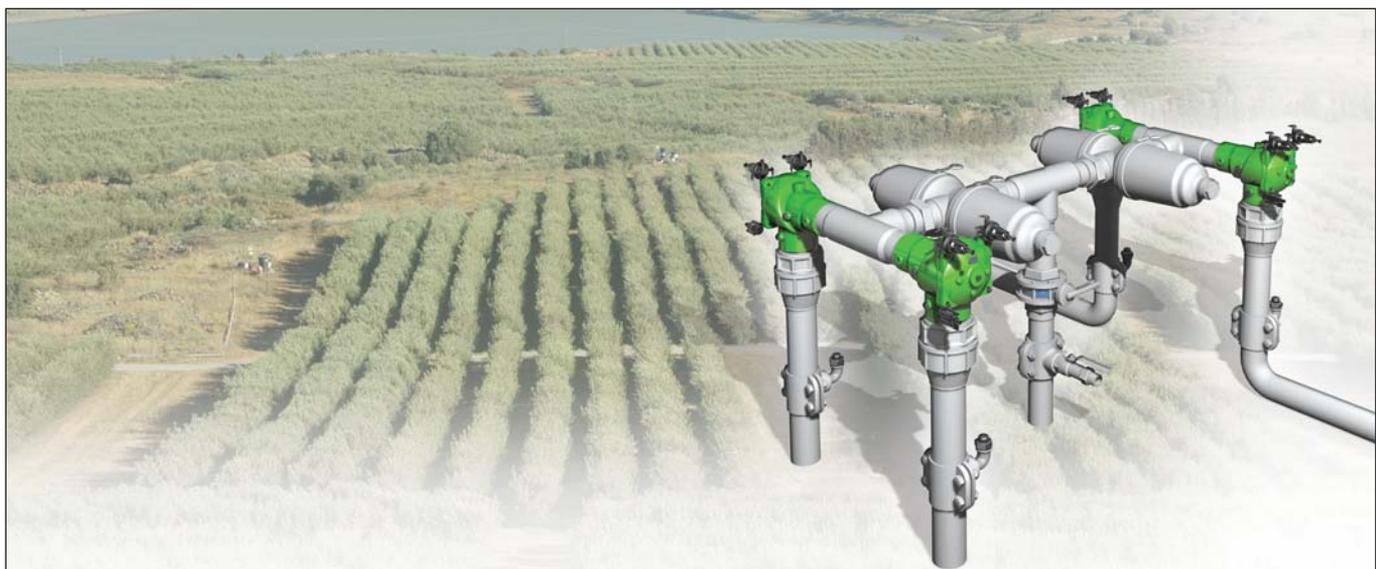
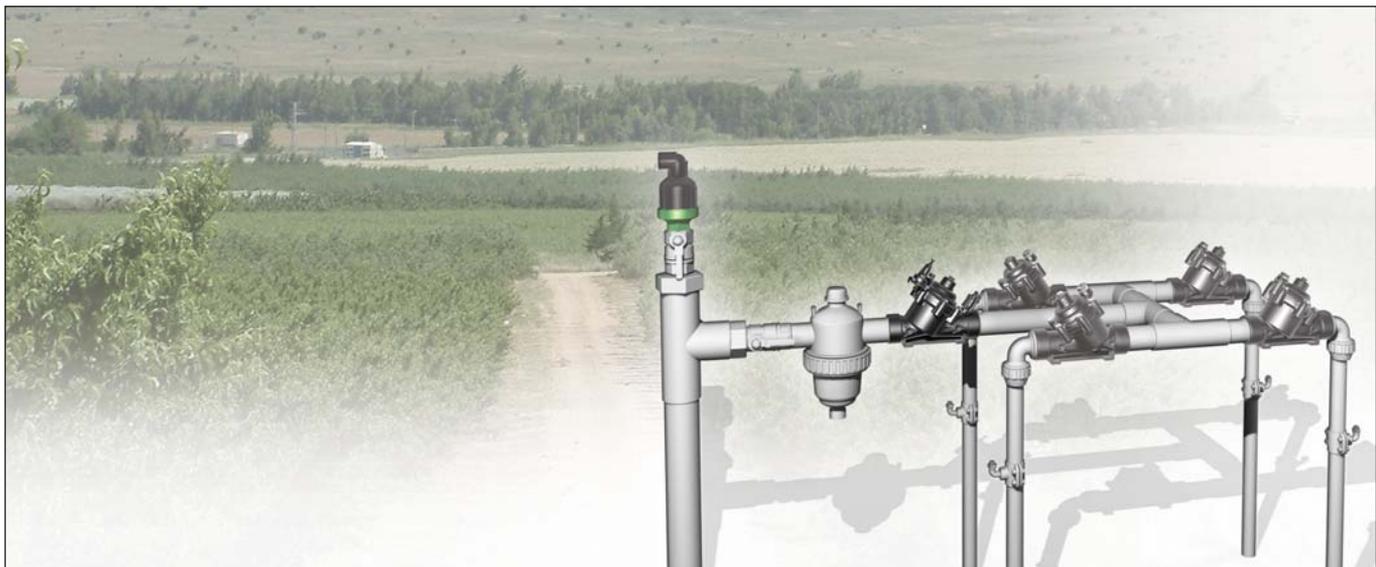
### Flow Control BERMAD Automatic Metering Valve (AMV)

**IR-970-DO-KV**

The BERMAD Flow Control AMV integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. Equipped with a Mechanical Shut-Off Pilot and a paddle flow pilot, which includes a paddle positioned within the flow stream, it limits system demand to a constant preset maximum flow rate and automatically shuts itself off after accurately delivering a manually preset quantity of water. It enables volumetric irrigation in non-computerized systems.

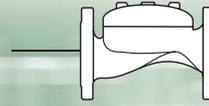
## Flow Control & Pressure Reducing Valves

Flow Control Valves maintain system preset maximum flow rate, preventing flows from exceeding the designed flow rates caused by system over-demand during unbalanced irrigation, line fill-up, etc. **Flow Control and Pressure Reducing Valves** add a pressure reducing feature to the standard Flow Control Valve, preventing system over-demand while protecting irrigation systems downstream from the Infield Head-Works.



### Typical Applications:

- Multiple Independent Consumer Systems
- Pressure Reducing Systems
- Line Fill-Up Control
- Distribution Centers
- Computerized Irrigation Systems
- Manual Irrigation Systems Intended for Computerization
- Semi-Automatic Irrigation Systems (IR-972-D0)
- Remote Flow Monitoring & Leakage Control (IR-972-M0)
- Remote and/or Elevated Systems (Additional Features 54 & 55)
- Greenhouse Irrigation Centers



**Flow Control & Pressure Reducing  
BERMAD Valve**

**IR-472-bKUZ**

The BERMAD Flow Control and Pressure Reducing Valve is a line pressure driven control valve that limits system demand and reduces downstream pressure to constant preset maximum values. Its advanced globe hydro-efficient design and fully supported and balanced diaphragm ensure an unobstructed flow path, excellent low-flow regulation performance, and trouble-free long life operation.



**Flow Control & Pressure Reducing  
BERMAD Valve,  
Normally Closed with Hydraulic Relay**

**IR-472-54-bKU**

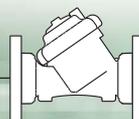
This Normally Closed, line pressure driven Flow Control and Pressure Reducing Valve opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



**Flow Control & Pressure Reducing  
BERMAD Valve  
with Solenoid Control**

**IR-472-55-bKU**

This Solenoid Controlled, line pressure driven Flow Control and Pressure Reducing Valve opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



## Flow Control & Pressure Reducing BERMAD Valve

**IR-172-bDZ**

The BERMAD Flow Control and Pressure Reducing Valve is a line pressure driven control valve that limits system demand and reduces downstream pressure to constant preset maximum values. Its engineered plastic industrial grade, hYflow 'Y' body with "look through" design and unitized Flexible Super Travel (FST) diaphragm and guided plug excels in its highly durable chemical and cavitation resistance, ultra-high flow capacity, and accurate and stable regulation with smooth closing.



## Flow Control & Pressure Reducing BERMAD Valve, Normally Closed with Hydraulic Relay

**IR-172-54-bD**

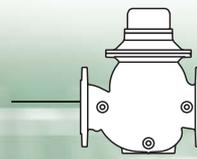
This Normally Closed, line pressure driven Flow Control and Pressure Reducing Valve opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



## Flow Control & Pressure Reducing BERMAD Valve with Solenoid Control

**IR-172-55-bD**

This Solenoid Controlled, line pressure driven Flow Control and Pressure Reducing Valve opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



**Flow Control & Pressure Reducing  
BERMAD Hydrometer  
with Magnetic Drive**

**IR-972-MO-KVZ**

The BERMAD Flow Control and Pressure Reducing Hydrometer integrates a vertical turbine Woltman-type water meter, with a diaphragm actuated hydraulic control valve. It limits system demand and reduces downstream pressure to constant preset maximum values. Its integrated “All-in-One” design saves space, cost and maintenance. The internal inlet and outlet flow straighteners save on straightening distances while maintaining accuracy.



**Flow Control & Pressure Reducing  
BERMAD Hydrometer,  
Magnetic Drive,  
Normally Closed with Hydraulic Relay**

**IR-972-MO-54-KV**

This Normally Closed, line pressure driven Flow Control and Pressure Reducing Hydrometer opens in response to an external hydraulic pressure rise command and shuts in the absence of that command.



**Flow Control & Pressure Reducing  
BERMAD Hydrometer,  
Magnetic Drive with Solenoid Control**

**IR-972-MO-55-KV**

This Solenoid Controlled, line pressure driven Flow Control and Pressure Reducing Hydrometer opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



**Flow Control & Pressure Reducing  
BERMAD Automatic Metering Valve (AMV)**

**IR-972-DO-KV**

The BERMAD Flow Control and Pressure Reducing AMV integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. Equipped with a Mechanical Shut-Off Pilot, a paddle flow pilot and a Pressure Reducing Pilot, it limits system demand and reduces downstream pressure to constant preset maximum values, and automatically shuts itself off after accurately delivering a manually preset quantity of water. It enables volumetric irrigation in non-computerized systems.

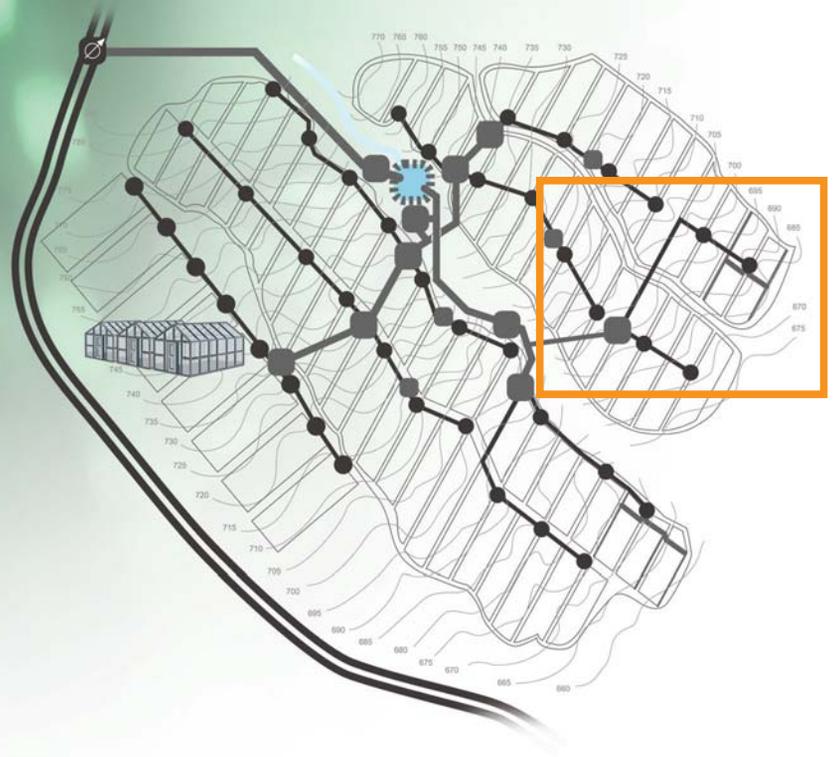
# Irrigation for Agriculture

## Infield System

Systems irrigated by non-compensated emitters, systems with high elevation differential, systems with turbid water, systems including sloppy margins, and so on, require additional control before being applied directly to the distribution lines. Some of the most common components in the **Infield System** are:

- Pressure Reducers for maintaining constant supply flow and protecting laterals
- Pressure Reducing Valves for distribution lines requiring additional reduction to compensate for steep slopes
- Pressure Reducing On/Off Valves for complex plots with multiple zones to control
- Flush-'n-Stop Valves for flushing the distribution line at the beginning and end of each shift
- Anti-Drain Valves to prevent line emptying and maintain irrigation uniformity in blocks with sloppy margins

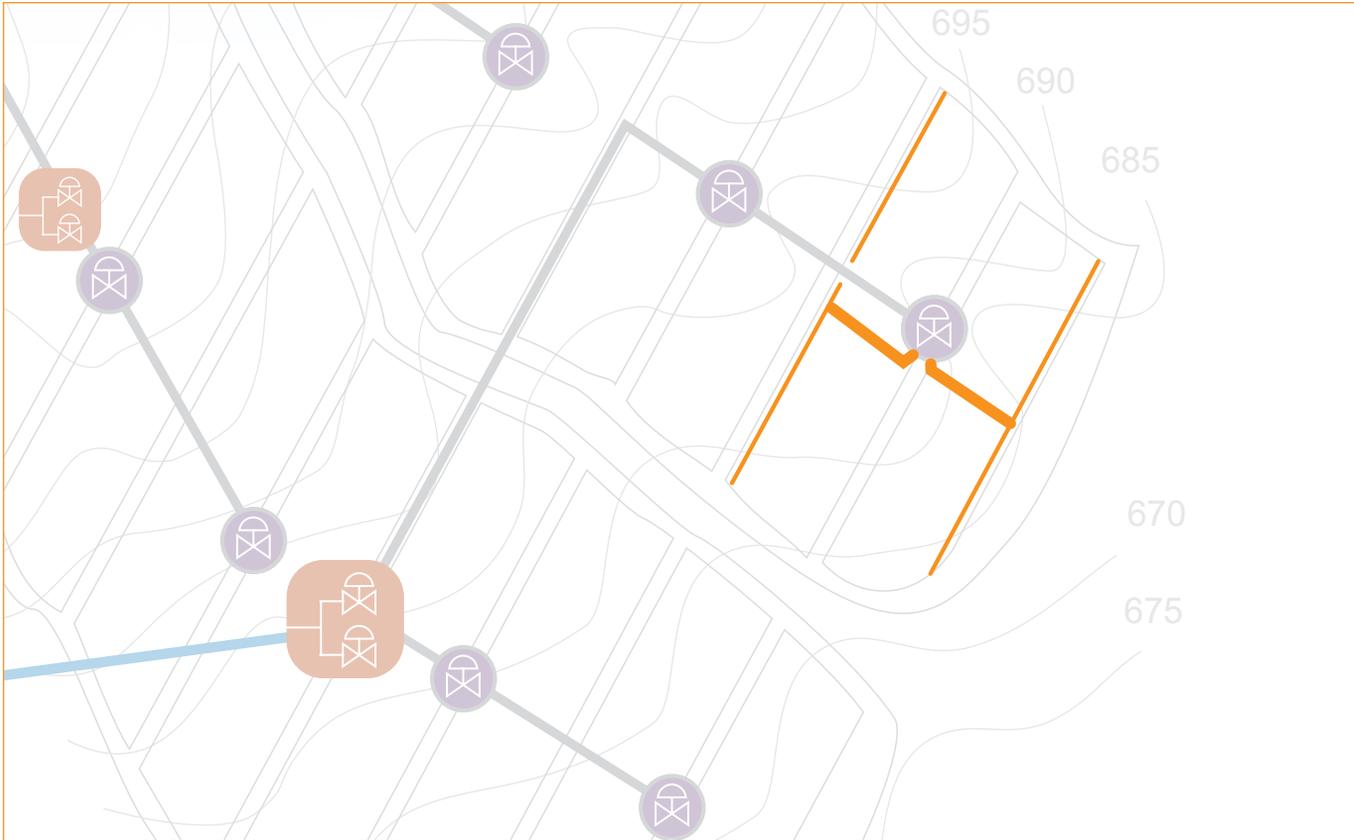
# BERMAD Irrigation



**Infield System**

- Distribution Line
- Laterals

Infield System



Pressure Reducing



Anti-Drain



Flush-'n-Stop



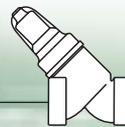
## Pressure Reducing for Infield Systems

Non-compensated irrigation emitters and drip-tape laterals often require a means of final pressure reduction, compensating for elevation differences and line friction, and providing laterals with burst protection. Direct acting pressure reducers and pressure reducing valves provide simple and cost effective solutions for this purpose.



### Typical Applications:

- Non-Compensating Drip-Line Flow Fixation
- Lateral Final Burst Protection
- Primary PRV for High  $\Delta P$  Pressure Reducing Systems
- Secondary Protection of Sensitive Lines
- Pressure Zoning in Topographic Areas
- Pressure Reduction for Marginal Plots
- Distribution Line Lateral Risers (PRV Series)
- Irrigation Machine Sprinkler Flow Control (PRV Series)
- Single Sprinkler Flow Fixation (PRV Series)



3/4"-PRV



3/4"-PRV-05  
Low-Flow

### Adjustable Direct Acting BERMAD Plastic Pressure Reducers

3/4"-PRV

3/4"-PRV-05

The BERMAD Adjustable Direct Acting Pressure Reducer is actuated by a pressure responsive diaphragm, which seeks to reach equilibrium between hydraulic and set spring force. The BERMAD Mode 3/4"-PRV is built of reinforced plastic that endows it with excellent hydraulic performance capabilities and high mechanical strength. It reduces higher upstream pressure to lower constant downstream pressure regardless of fluctuating demand or varying upstream pressure. The Model 3/4"-PRV-05 is supplied with a special throttling plug and elastomeric seal, and reduces pressure even under conditions of near zero demand.



1"-PRV



1"-PRV-05  
Low-Flow

### Adjustable Direct Acting BERMAD Plastic Pressure Reducer

1"-PRV

1"-PRV-05

This BERMAD Adjustable Direct Acting Pressure Reducer suits Flow Range of 0.45-7 m<sup>3</sup>/h; 2-31 gpm. The Model 1"-PRV-05 is supplied with a special throttling plug and elastomeric seal, and suits Flow Ranges of 0.1-7 m<sup>3</sup>/h; 0.4-31 gpm



### Adjustable Direct Acting BERMAD Metal Pressure Reducer

1 1/2"-PRV

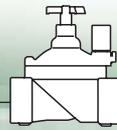
This BERMAD Adjustable Direct Acting Pressure Reducer has a brass body and reinforced plastic actuator assembly, which endow it with particularly high mechanical strength. It is supplied with a special throttling plug and elastomeric seal. It reduces pressure even under conditions of near zero demand, and seals drip-tight under no-flow conditions. It suits Flow Ranges of 0.45-18 m<sup>3</sup>/h; 2-80 gpm.



### Direct Acting BERMAD Metal Pressure Reducer with Manual Closure

2"-PRV

This BERMAD Direct Acting Pressure Reducer has a brass body and reinforced plastic actuator assembly, which endow it with excellent hydraulic performance capabilities and particularly high mechanical strength. Supplied with a special throttling plug, it reduces higher upstream pressure to lower constant downstream pressure even under conditions of near zero demand, and seals drip-tight under no-flow conditions.



## Pressure Reducing BERMAD Valve For Drip-Tape Applications

IR-220-bZ

The BERMAD Pressure Reducing Valve is a line pressure driven control valve that reduces higher upstream pressure to very low and stable preset downstream pressure. Equipped with a Servo Pilot, the BERMAD Pressure Reducing Valve for Drip-Tape Applications provides a very low set point (0.5 bar; 7 psi) and a dynamic integrated needle valve resulting in very low hysteresis.

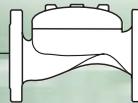
Its plastic globe, hydro-efficient design, and fully supported and balanced unitized diaphragm and guided plug excel in its highly durable chemical and cavitation resistance, and accurate and stable regulation with smooth closing.



## Pressure Reducing BERMAD Valve with Solenoid Control For Drip-Tape Applications

IR-220-55-b

This Solenoid Controlled, line pressure driven Pressure Reducing Valve opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.



**Pressure Reducing BERMAD Valve  
For Drip-Tape Applications**

**GR-420-bKZ**

The BERMAD Pressure Reducing Valve is a line pressure driven control valve that reduces higher upstream pressure to very low and stable preset downstream pressure. Equipped with a Servo Pilot, the BERMAD Pressure Reducing Valve for Drip-Tape Applications provides a very low set point (0.5 bar; 7 psi) and dynamic integrated needle valve resulting in very low hysteresis.

Its advanced globe, hydro-efficient design, and fully supported and balanced diaphragm ensure an unobstructed flow path, excellent low-flow regulation performance, and trouble-free long life operation.



**Pressure Reducing BERMAD Valve  
with Solenoid Control  
For Drip-Tape Applications**

**GR-420-55-bK**

This Solenoid Controlled, line pressure driven Pressure Reducing Valve opens or shuts in response to an electric signal. The solenoid is compliant with the common controllers on the market and it features a manual override.

## Anti-Drain Valves

Line emptying or fill-up have a damaging effect on irrigation lines and equipment, and on irrigation uniformity.

**Anti-drain valves** prevent line emptying when installed at the beginning of plain plot sloppy margins or on risers from downhill distribution lines or irrigation machines. The main distribution line is then remain under low pressure preventing damage from line emptying or fill-up, and enabling all areas of the plot to start/stop irrigation simultaneously, thereby contributing to irrigation uniformity.



### Typical Applications:

- Plain Plots with Sloppy Margins
- Downhill Sprinkler Lines
- Hillside Irrigation Machines



### Anti-Drain BERMAD Valve

IR-205-05

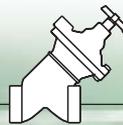
The BERMAD Anti-Drain Valve is a spring loaded, diaphragm actuated valve that opens upon pressurizing the irrigation system and shuts off drip-tight when the system reaches closure pressure. Maintained pressure is determined by the valve's auxiliary closing spring force.



### Anti-Drain BERMAD Valve

GR-405-05

The BERMAD Anti-Drain Valve is a spring loaded diaphragm actuated valve that opens upon pressurizing the irrigation system and shuts off drip-tight when the system reaches closure pressure. Maintained pressure is determined by the valve's auxiliary closing spring force.



## Flush-'n-Stop Valves

Automatic flushing of distribution lines at the beginning and end of each irrigation cycle helps prevent dirt from accumulating at the end of the line, where flow velocity is low. This reduces the risk of emitters clogging, resulting in more uniformity and less maintenance.



### Typical Applications:

- Distribution Line Flush-'n-Stop
  - Drip Systems
  - Sprinklers & Micro-Sprinklers
  - Greenhouses
- Flooding Tables Drainage (with External Pressure)
- Irrigation Machine Line Flush-'n-Stop



### Flush-'n-Stop BERMAD Valve

IR-300-eLMO

The BERMAD Flush-'n-Stop Valve is a double chambered, hydraulically operated, diaphragm actuated control valve. Equipped with an auxiliary opening spring and a flow stem, it enables automatic opening when the system reaches closure pressure and settable opening rate, ensuring line pressure build-up for secure closing.