

# Pressure Reducing Valve

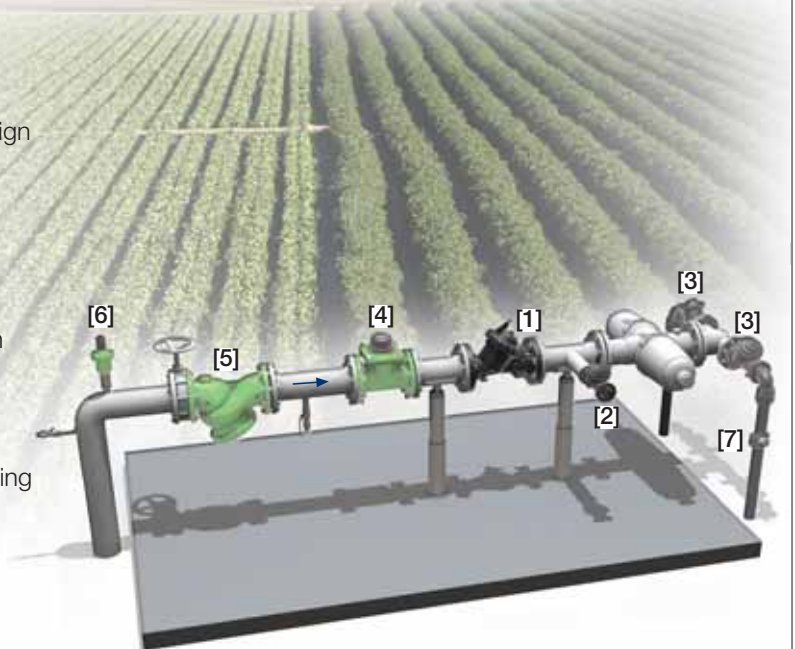
IR-120

The BERMAD Pressure Reducing Valve is a hydraulically operated, diaphragm actuated control valve that reduces higher upstream pressure to lower constant downstream pressure regardless of fluctuating demand or varying upstream pressure.



## Features and Benefits

- Hydraulic Pressure Control
  - Line pressure driven
  - Protects downstream systems
- Engineered Plastic Valve with Industrial Grade Design
  - Adaptable on-site to a wide range of end connection sizes and types
  - Articulated flange connections eliminate mechanical and hydraulic stresses
  - Highly durable, chemical and cavitation resistant
- hYflow 'Y' Valve Body with "Look Through" Design
  - Ultra-high flow capacity - Low pressure loss
- Unitized Flexible Super Travel (FST) Diaphragm and a Guided Plug
  - Accurate and stable regulation with smooth closing
  - Requires low actuation pressure
  - Prevents diaphragm erosion and distortion
- User-Friendly Design
  - Easy pressure setting
  - Simple in-line inspection and service

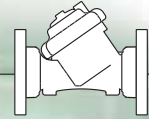


## Typical Applications

- Pressure Reducing Stations
- Low Supplied Pressure Irrigation Systems
- Energy Saving Irrigation Systems

- [1] BERMAD Model IR-120 establishes reduced pressure zone, protecting filter and system.
- [2] BERMAD Relief Valve Model IR-13Q
- [3] BERMAD On/Off Valve Model IR-105-Z
- [4] BERMAD Water Meter Model WPH
- [5] BERMAD Strainer Model 70F
- [6] BERMAD Air Valve Model ARC-A-I-I
- [7] BERMAD Vacuum Breaker Model 1/2" ARV

# BERMAD Irrigation



## IR-I20

For full technical details, refer to Engineering Section.

## 100 Series hYflow

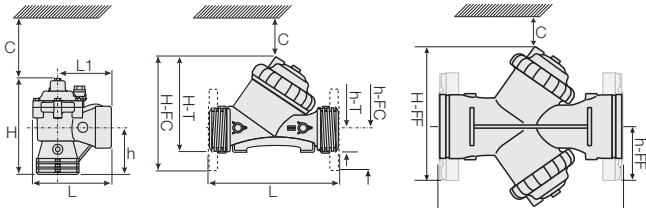
Pressure Reducing

### Technical Specifications

#### Dimensions and Weights

Pattern	Size	DN	Inch	Angle	Y (Oblique)				Y "Boxer"
					80-T <sup>(1)</sup> 3-T <sup>(1)</sup>	80-T <sup>(1)</sup> 3-T <sup>(1)</sup>	80-FC <sup>(2)</sup> 3-FC <sup>(2)</sup>	80L-FC <sup>(2)</sup> 3L-FC <sup>(2)</sup>	100-FC <sup>(2)</sup> 4-FC <sup>(2)</sup>
L (L1)	mm	187	(130)	298	308	310	350	480	
	inch	7.4	(5.1)	11.7	12.1	12.2	13.8	18.9	
H (Hf)	mm	235	(245)	180	(195)	240	(255)	280	
	inch	9.3	(9.6)	7.1	(7.7)	9.4	(10)	11	
C	mm	53		53		600		600	
	inch	2.1		2.1		4		23.6	
h	mm	117		50		100		100	
	inch	4.6		2		3.9		3.9	
Weight	Kg	1.6		1.6		4.4		5.9	
	lb.	3.5		3.5		9.7		13	

(1) "T" = Threaded end connections  
 (2) "FC" = Flanged, Corona (Metal) end connections  
 (3) "FF" = Flanged, Universal Plastic end connections



### Technical Data

**Sizes:** 3, 3L, 4 & 6"; DN80, 80L, 100 & 150

**Patterns:**

Oblique: 3, 3L, 4 & 6"; DN80, 80L, 100 & 150

Angle: 3"; DN80

**End Connections:**

Threaded: 3 & 3"L; DN80 & 80L

Flanged: 3, 3L, 4 & 6"; DN80, 80L, 100 & 150

**Pressure Rating:** 10 bar; 145 psi

**Operating Pressure Range:** 0.35-10 bar; 5-145 psi

**Setting Range:** 1-7 bar; 15-100 psi

Setting ranges vary according to specific pilot spring. Please consult factory.

**Materials:**

**Body, Cover and Plug:** Glass-Filled Nylon

**Diaphragm:** NR, Nylon fabric reinforced

**Seals:** NR

**Spring:** Stainless Steel

**Control Accessories:** Plastic

**Tubing and Fittings:** Plastic

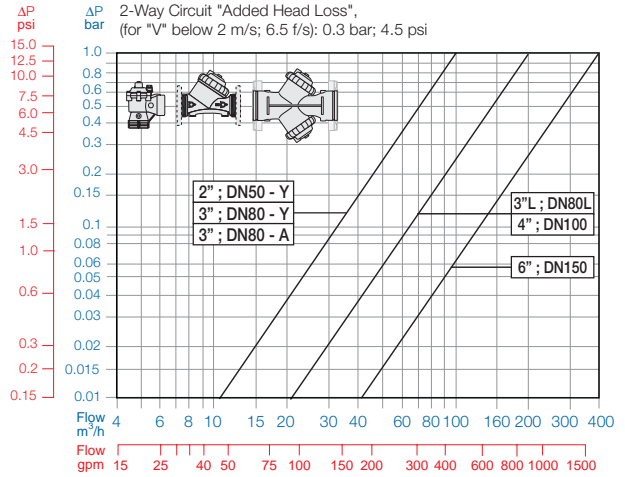
### How to Order

Please specify the requested valve in the following sequence: (for more options, refer to Ordering Guide.)

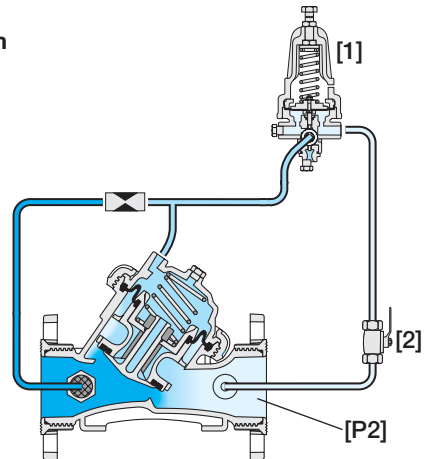
Sector	Size	Primary Feature	Additional Feature	Pattern	Construction Materials	End Connections	Control Type	Voltage - Main Valve Position	Additional Attributes
IR	3-6" <small>Other sizes available on request.</small>	120	00	Y	P	FF	2W	-	-
		Oblique	Y	Threaded BSP (Female)		BP			2
		Angle (3"; DN80 Only)	A	Threaded NPT (Female)		NP			5
				Plastic Flanges*		FF			
				Metal Flanges* ("Corona")		CC			
				Grooved (6"; DN150 Only)		VI			

\* Comply to: ISO PN10, ANSI #125/150, Jis K-10, BS-D

### Flow Chart



### Operation



The Pressure Reducing Pilot [1] commands the Valve to throttle closed should Downstream Pressure [P2] rise above setting, and modulate to open when it drops below setting. The downstream Cock Valve [2] enables manual closing.



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