

## Flow Control Valve

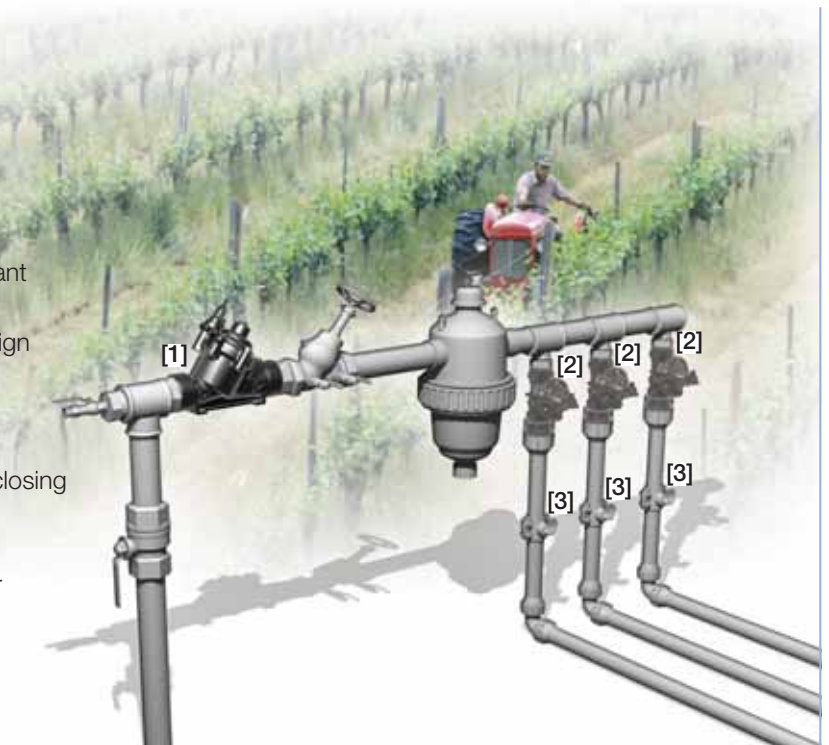
IR-170-bDZ

The BERMAD Flow Control Valve is a hydraulically operated, diaphragm actuated control valve that limits system demand to a constant preset maximum flow rate.



### Features and Benefits

- Line Pressure Driven Hydraulic Flow Control
  - Limits fill-up rate and consumer over-demand
- Adjustable Servo Flow Pilot Controlled
  - Dynamic integrated needle valve
  - Easy flow setting
- Engineered Plastic Valve with Industrial Grade Design
  - Highly durable, chemical and cavitation resistant
  - No internal bolts and nuts
- hYflow 'Y' Valve Body with "Look Through" Design
  - Ultra-high flow capacity - Low pressure loss
- Unitized Flexible Super Travel (FST) Diaphragm and Guided Plug
  - Accurate and stable regulation with smooth closing
  - Requires low actuation pressure
  - Prevents diaphragm erosion and distortion
- Internal "Differential Pressure Duct" Flow Sensor
  - No moving parts
  - Saves space and simplifies installation



### Typical Applications

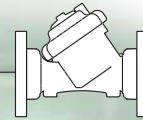
- Line Fill-Up Control
- Multiple Independent Consumer Systems
- Systems Subject to Varying Supply Pressure
- Distribution Centers

[1] BERMAD Model IR-170-bDZ protects supply system from excessive flow, and limits fill-up rate and consumer over-demand.

[2] BERMAD Pressure Reducing Valve Model IR-220-XZ

[3] BERMAD Vacuum Breaker Model 1/2"-ARV

# BERMAD Irrigation



## IR-170-bDZ

For full technical details, refer to Engineering Section.

## 100 Series hYflow

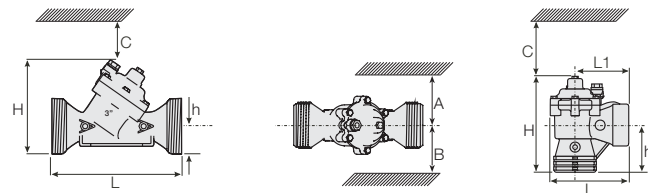
Flow Control

### Technical Specifications

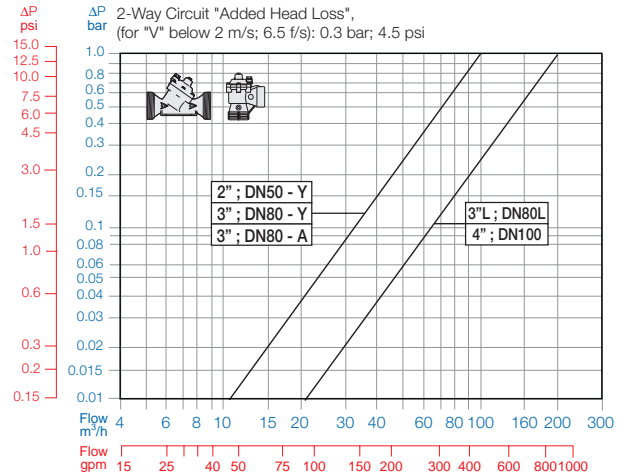
#### Dimensions and Weights

Pattern Size	DN Inch	Angle 80-T 3-T	Y (Oblique)			
			50-T 2-T	65-T* 21/2-T*	80-T 3-T	80L-T 3L-T
L (L1)	mm	187 (130)	230	230	298	300
	inch	7.4 (5.1)	9.1	9.1	11.7	11.8
H (Hf)	mm	235 (245)	170 (185)	170 (185)	180 (195)	240
	inch	9.3 (9.6)	6.7 (7.3)	6.7 (7.3)	7.1 (7.7)	9.5
C	mm	53	140	140	140	180
	inch	2.1	6	6	6	8
h	mm	117	40	40	50	60
	inch	4.6	1.6	1.6	2.0	2.4
A; B	mm	320	135	135	190	190
	inch	12.6	6	6	8	8
Weight	Kg	1.6	1.35	1.4	1.6	3.0
	lb.	3.5	3.0	3.1	3.5	6.6

\* 2 1/2"; DN65 Male Thread BSP-F, for PVC glue Unions.



#### Flow Chart



### Technical Data

#### Valve Configurations & Size:

Oblique: 2, 2 1/2, 3, 3L 4 & 6"; DN50, 65, 80, 80L, 100 & 150

Angle: 3"; DN80

#### End Connections:

Threaded: 2, 2 1/2, 3 & 3"L; DN50, 65, 80 & 80L

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

Grooved: 6"; DN150 Pressure Rating: 10 bar; 145 psi

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

**Setting Range:**  $\pm 20\%$  from valve predetermined flow

The "Differential Pressure Duct" is pre-determined in accordance with the desired flow.

#### Materials:

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

**Diaphragm:** NR, Nylon Fabric Reinforced

**Seals:** NR

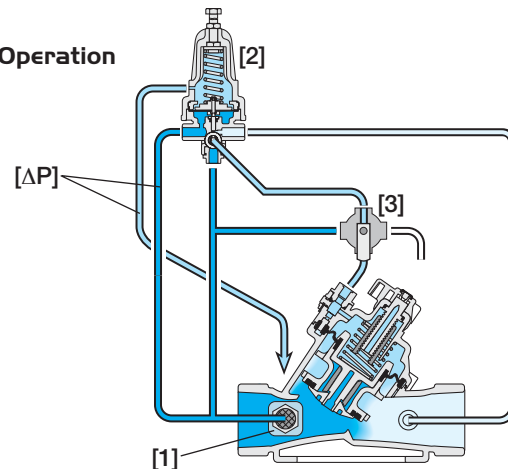
**Spring:** Stainless Steel

**Cover Bolts:** Stainless Steel

**Control Accessories:** Plastic

**Tubing and Fittings:** Plastic

#### Operation



Pressure Differential  $[\Delta P]$  across the Differential Pressure Duct [1] is in direct proportion to demand. The Flow Pilot [2] continuously senses  $[\Delta P]$  commanding the Valve to throttle closed should demand rise above pilot setting, and to modulate open when demand is below pilot setting. The Manual Selector [3] enables local manual closing.

### 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	2-4"	170	00	Y	P	FF	2W/3W	-	bDZ
	Other sizes available on request.								
		Oblique Angle (3"; DN80 Only)	Y A		Threaded BSP (Female) Threaded NPT (Female) Plastic Flanges* Metal Flanges* ("Corona")	BP NP FF CC	Servo Differential Pressure Duct Manual Selector Flow Stem Flow Stem with Position Indicator		b D Z M MP
					* Comply to: ISO PN10, ANSI #125/150, Jis K-10, BS-D				Other attributes available on request



info@bermad.com • www.bermad.com

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