

Automatic Metering Valve (AMV)

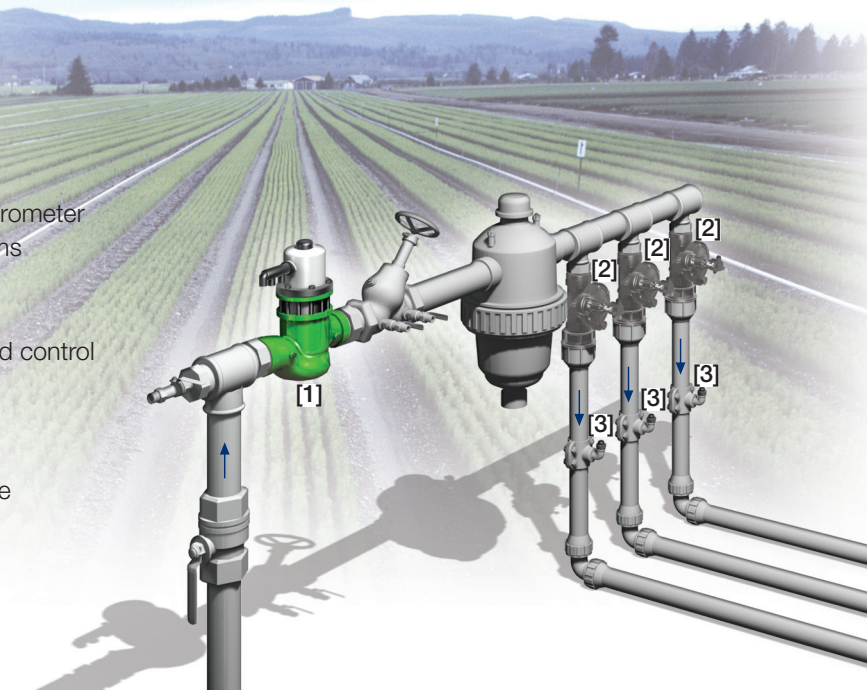
IR-900-D0

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-D0 enables volumetric irrigation in non-computerized systems. The AMV automatically shuts itself after accurately delivering a manually preset quantity of water.



Features and Benefits

- Integrated "All-in-One" Control Valve
 - ▢ Saves space, cost and maintenance
- Easy Modification to Mechanical Drive Hydrometer
 - ▢ Adaptable to future computerized systems
- Hydraulic Batch Control
 - ▢ Line pressure driven
 - ▢ Non-computerized quantity follow-up and control
- Internal Inlet & Outlet Flow Straighteners
 - ▢ Saves on straightening distances
 - ▢ Maintains accuracy
- Integrated Flow Metering Calibration Device
 - ▢ Measurement precision to $\pm 2\%$
- User-Friendly Design
 - ▢ Easy dose setting
 - ▢ Simple in-line inspection and service



Typical Applications

- Semi-Automatic Irrigation Systems
- Manual Irrigation - Intended for Computerization
- Distanced and/or Elevated Plots
- Volumetric Irrigation Systems

- [1] BERMAD Model IR-900-D0 delivers precise water quantity.
- [2] BERMAD Pressure Reducing Valve Model IR-220-bKZ
- [3] BERMAD Vacuum Breaker Model 1/2" -ARV

900 Series

On/Off Control

Flow Chart

Three side-view diagrams of ball valves are shown, each with its own set of dimensions:

- 1 1/2"-T to 3/8"-T:** Dimensions include overall height H , mounting height C , body height h , length Lg , and mounting bracket length M' .
- 3"-F to 4"-F:** Dimensions include overall height H , mounting height C , body height h , and length Lg .
- 2"-A to 4"-A-F:** Dimensions include overall height H , mounting height C , body height h , and length La .

Size	Accuracy	DN inch	40 1½	50 2	3"R 80R	80 3	100 4
Q1		m³	1.5	2.0	3.2	3.2	4.8
Minimum Flow (AMV)	5%	gpm	6.5	8.8	14.1	14.1	21.1
Qn		m³	15	15	17	40	60
Nominal flow	2%	gpm	66	66	75	176	264
Q3		m³	25	40	40	100	160
Permanent flow	2%	gpm	110	176	176	440	704

Capacity	Cubic Meter (m³)										1000 Gallon					
	40	80	120	150	200	350	600	800	1,200	2,100	13	50	130	200	500	870
Graduation	Cubic Meter (m³)										Gallon					
	1	1	2	5	10	10	10	20	20	50	100	1000	2,500	5,000	10,000	20,000
1½" & 2"	■	■		■	■	■	■				■	■	■			
3"R		■	■	■	■			■				■	■	■		
3"				■	■	■	■	■	■			■	■	■	■	
4"					■					■		■	■		■	

For lower pressure requirements, consult factory

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

Sector	Size	Primary Feature	Control Categories	Additional Feature	Pattern	Construction Materials	End Connections	Coating	Voltage & Position	Tubing & Fittings	Dial Capacity	Pulse Rate	Additional Attributes
IR	1½-4"	900	D0	00	G	I	BP	PG	-	PP	120	NPS	-
		Other sizes available on request.											
Globe Angle 90° 120° (2½ & 4" only)		G A H	Plastic Tubing & Fittings Plastic Tubing & Brass Fittings		PP PB		40 m³ 80 m³ 120 m³ 150 m³ 200 m³ 350 m³ 600 m³ 800 m³ 1,200 m³	040 080 120 150 200 350 600 800 1K0	2,100 m³ 3,500 m³ 13,000 Gal. 50,000 Gal. 130,000 Gal. 200,000 Gal. 510,000 Gal. 875,000 Gal.	2K0 3K0 1G0 5G0 1KG 2KG 5KG 8KG	Homologation Approved Other attributes available on request		L
BSP (1½, 2 & 3"R only) NPT (1½, 2 & 3"R only) ISO-16 ISO-10 ISO-14 (ISO-10/4 Holes) ANSI-125 JIS-10 BST-D		BP NP 16 10 14 A1 J1 BD											

on

[1] [2] [3] [4] [5]

The diagram shows a cross-section of a pump assembly. A blue fluid is being pumped from a reservoir at the bottom into a chamber above. The assembly includes a central vertical shaft with a piston and a valve mechanism. Callout [1] points to the top of the shaft, [2] to a side inlet, [3] to the piston, [4] to the valve, and [5] to the outlet. A label 'on' is positioned to the left of the assembly.

Upon delivering the preset water quantity, the AMV manually preset Control Head Mechanism **[1]** mechanically shifts the Shut-Off Pilot **[2]**, which directs line pressure into the AMV Control Chamber **[3]** thereby shutting the AMV, and stopping the flow of water.