

100 SERIES METAL CONTROL VALVES

DESCRIPTION

The powerful and reliable metal valves of 100 series, display remarkable hydraulic performances and provide impeccable control of irrigation systems.

APPLICATIONS

Complete valves series (3/4" – 24") designed to operate and protect irrigation networks in field crops, vineyards, orchards, and greenhouses.

BENEFITS

- Outstanding performances
High flow capacity and very low head losses achieved by a flexible diaphragm that provides a wide water passage throughout the valve's hydrodynamic body.
- Extremely Versatile
The valves are available in globe and angle shapes, with an extensive selection of materials, a full range of control functions and various end connections.
- Ultimate Durability
Long life and easy inline maintenance accomplished by structural simplicity and the use of high-quality materials that can withstand the harshest conditions.

TECHNICAL SPECIFICATIONS

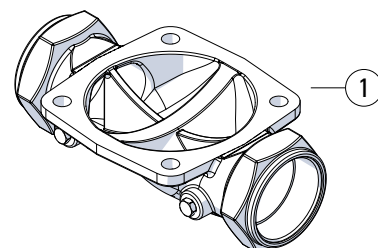
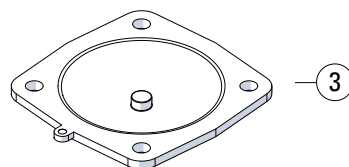
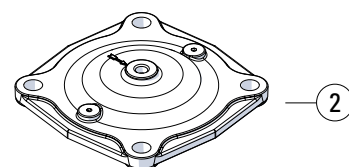
- Maximum pressure - 16 bar (230 psi) and 25 bar (365 psi)
- Minimum recommended flow - 1 m³/h (5 gpm)
- Minimum operating pressure - 0.4 bar (6 psi)

PARTS AND MATERIALS

#	PART	MATERIAL	OPTIONAL*
1	Body	Cast Iron	Ductile Iron, Bronze, Stainless Steel
2	Bonnet	Cast Iron	Ductile Iron, Bronze, Stainless Steel
3	Diaphragm**	Natural rubber	NBR, EPDM, Neoprene
4	Spring	SST 302	SST 316

*. Optional parts for special resistance

** . Wide selection of pressure ranges





HYDRAULIC PERFORMANCES

SHAPE		STRAIGHT															ANGLE						
DIAMETER	inch	3/4	1	1	2	2.5	3R*	3	4	6	8R*	8	10	12	14	16	1.5	2	2.5	3R	3	4	6
	mm	20	25	40	50	65	80	80	100	150	200	200	250	300	350	400	40	50	65	80	80	100	150
FLOW RATE FACTOR**	K _v	17	17	65	95	95	95	170	220	600	670	800	1250	1900	1900	2600	60	90	90	90	150	200	570
	C _v	20	20	75	110	110	110	200	255	695	775	925	1445	2195	2195	3005	70	105	105	105	175	230	660

*. R – “Reduced” - 3R = 323”, 8R = 868” **. In order to calculate the head loss at any desired flow rate, use the following equation: Head loss = (Flow rate/Flow rate factor)²

DIMENSIONS - STRAIGHT VALVES

CONNECTION		THREADED							VICTAULIC						
DIAMETER	inch	3/4	1	1.5	2	2.5	3R	3	1.5	2	3R	3	4	6	
	mm	20	25	40	50	65	80	80	40	50	80	80	100	150	
HEIGHT	H	mm / inch	43 / 1.69	52 / 2.05	93 / 3.66	115 / 4.53	118 / 4.65	126 / 4.96	135 / 5.31	81 / 3.19	100 / 3.94	120 / 4.72	124 / 4.88	133 / 5.24	250 / 9.84
WIDTH	W	mm / inch	68 / 2.68	68 / 2.68	93 / 3.66	112 / 4.41	112 / 4.41	112 / 4.41	200 / 7.87	93 / 3.66	112 / 4.41	112 / 4.41	200 / 7.87	194 / 7.64	300 / 11.81
LENGTH	L	mm / inch	115 / 4.53	120 / 4.72	170 / 6.69	188 / 7.4	219 / 8.62	225 / 8.86	316 / 12.44	177 / 6.97	190 / 7.48	201 / 7.91	286 / 11.26	317 / 12.48	392 / 15.43
VOL. CONTROL CHAMBER		cc / gal	30 / 0.007	30 / 0.007	70 / 0.0168	160 / 0.04	160 / 0.04	160 / 0.04	600 / 0.15	70 / 0.0168	160 / 0.04	160 / 0.04	600 / 0.15	600 / 0.15	1800 / 0.50
WEIGHT		kg / lbs	1 / 2.2	1 / 2.2	2.2 / 4.9	3.2 / 7	3.6 / 7.9	4.5 / 9.9	11 / 24	1.8 / 4	2.6 / 5.7	3 / 6.6	11 / 24.3	12 / 26.4	31 / 68.3

*. Flanged valves are available at all diameters (3/4” – 24”) – contact Netafim representative if any additional data is required

DIMENSIONS - ANGLE VALVES

CONNECTION		THREADED					VICTAULIC	FLANGED			
DIAMETER	inch	1.5	2	3R	3	3	4	3	4	6	
	mm	40	50	80	80	80	100	80	100	150	
HEIGHT	H	mm / inch	75 / 2.95	90 / 3.54	114 / 4.49	145 / 5.71	170 / 6.69	185 / 7.28	174 / 6.85	185 / 7.28	230 / 9.06
WIDTH	W	mm / inch	93 / 3.66	112 / 4.41	112 / 4.41	200 / 7.87	200 / 7.87	200 / 7.87	200 / 7.87	230 / 9.06	300 / 11.80
LENGTH	L	mm / inch	75 / 2.95	90 / 3.54	114 / 4.49	145 / 5.71	170 / 6.69	185 / 7.28	174 / 6.85	185 / 7.28	230 / 9.06
VOL. CONTROL CHAMBER		cc / gal	70 / 0.0168	160 / 0.04	160 / 0.04	600 / 0.15	600 / 0.15	600 / 0.15	600 / 0.15	600 / 0.15	1800 / 0.50
WEIGHT		kg / lbs	1.7 / 3.7	2.4 / 5.3	3.6 / 7.9	10.8 / 23.8	10.5 / 23.1	11.5 / 25.4	18 / 39.70	21 / 46.30	45 / 99.20

HEAD LOSS

