

# 100 Series

## METAL CONTROL VALVES

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



Outstanding performance



Extremely versatile



Ultimate durability

## / Benefits & Features

- **Outstanding performance** 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

## / Specifications & Recommendations

- **Maximum Pressure** – 16bar (230psi) and 25bar (365psi)
- **Minimum Recommended flow** – 1m<sup>3</sup>/h (5gpm)
- **Minimum Operating Pressure** – 0.4bar (6psi)\*

\* Available with low pressure diaphragm

## → Hydraulic Performance

Shape	Straight																Angle						
	inch	¾	1	1½	2	2½	3R*	3	4	6	8R*	8	10	12	14	16	1½	2	2½	3R	3	4	6
Diameter	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**	Kv	17	17	65	95	95	95	170	220	600	670	800	1250	1900	1900	2600	60	90	90	90	150	200	570
	Cv	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)<sup>2</sup>

## → Technical Dimensions

### Straight Valves

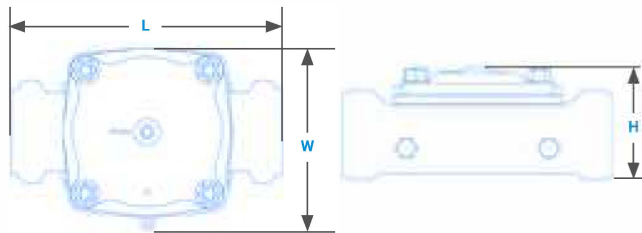
Connection		Threaded									Flanged				
Diameter	inch	¾	1	1½	2	2½	3R	3	2	3R	3	4	6		
	mm	20	25	40	50	65	80	80	50	80	80	100	150		
Height	H	mm/inch	43/1.69	52/2.05	93/3.66	115/4.53	118/4.65	126/4.96	135/5.31	166/6.54	202/7.95	200/7.87	230/9.06	314/12.36	
Width	W	mm/inch	68/2.68	68/2.68	93/3.66	112/4.41	112/4.41	200/7.87	200/7.87	200/7.87	200/7.87	230/9.06	300/11.8		
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	200/7.87	285/11.2	305/12.01	390/15.35		
Vol. Control chamber	cc/gal		30/0.007	70/0.0168	160/0.04	600/0.15	160/0.04	600/0.15	160/0.04	600/0.15	1800/0.50				
Weight	kg/lbs		1/2.2	2.2/4.9	3.2/7	3.6/7.9	4.5/9.9	11/24	7.2/15.8	11/24.3	17/37.5	22/48.5	46/101		

\*Flanged valves are available at all diameters (2" - 24") – contact Netafim representative if any additional data is required

### Angle Valves

Connection		Threaded					Grooved	Flanged			
Diameter	inch	1½	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

## → Material Specifications



#	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

## → Head Loss

