

# 100 Series

The powerful and reliable metal valves of 100 series displays remarkable hydraulic performance, providing ultra-precise control of leaching and other mining systems.



Stainless Steel



Ductile Iron



High durability



Very high efficiency



Versatility

## / Benefits & Features

- **High durability** Offers superior resistance to chemicals and acids, minimizing maintenance and repair costs. Components are crafted from materials designed to withstand high acid concentrations found in mines.
- **Very high efficiency** Excellent regulation capabilities achieved by a flexible diaphragm mechanism that is designed to allow maximal to near zero flow while operation.
- **Versatility** Includes a full selection of control functions and end connections. Ensures compatibility and seamless integration.

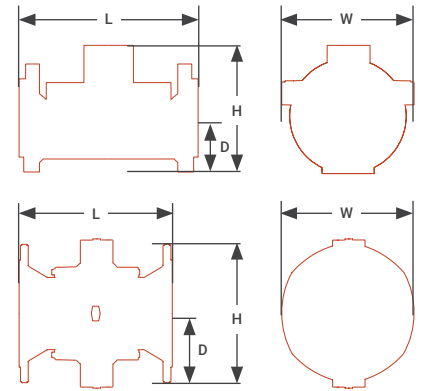
## / Specifications

- Maximum pressure - 16 bar (230psi) and 25 bar (365 psi).
- Minimum recommended flow - 1 m<sup>3</sup>/h (5 gpm).
- Minimum operating pressure - 0.4 bar (6 psi).

→ **Technical dimensions**

Straight flow, flanged connection - standard models 16 Bar / 250 psi

Valve size		L		H		D		W		Weight	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs
50	2	200	7.87	166	6.54	85	3.35	166	6.54	8	18
65	2.5	214	8.43	185	7.28	92.5	3.64	185	7.28	12	25
80	3	285	11.22	200	7.87	105	4.13	200	7.87	19	42
100	4	395	15.55	230	9.06	110	4.33	230	9.06	25	54
150	6	490	19.29	314	12.36	145	5.71	300	11.8	51	113
200	8	560	22.05	400	15.75	170	6.69	365	14.4	89	197
250	10	635	25.00	445	17.52	205	8.07	440	17.3	131	288
300	12	710	27.95	495	19.49	240	9.45	490	19.3	174	384
350	14	785	30.90	495	19.49	270	10.6	530	20.9	203	448

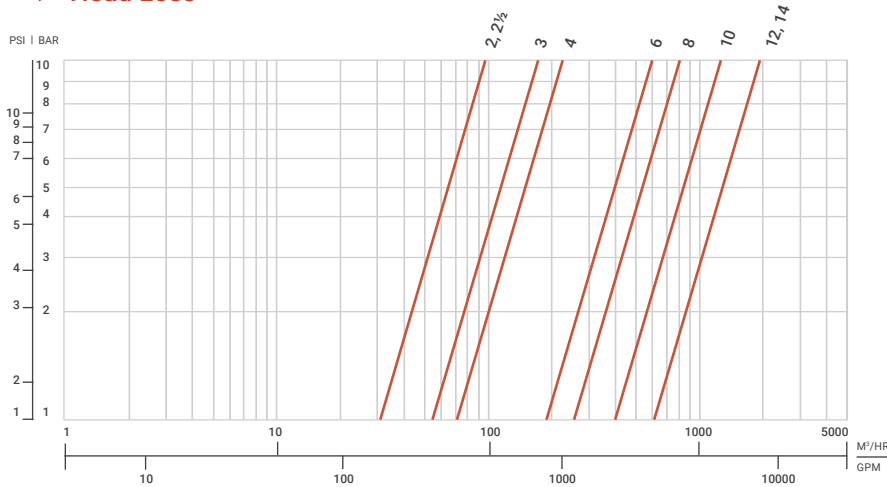


→ **Hydraulic performance**

Shape	Straight										Angle			
	inch	2	2½	3	4	6	8	10	12	14	3	4	6	
Diameter	mm	50	65	80	100	150	200	250	300	350	80	100	150	
	Flow rate factor**	Kv	95	95	170	220	600	800	1250	1900	1900	150	200	570
		Cv	110	110	200	255	695	925	1445	2195	2195	175	230	660

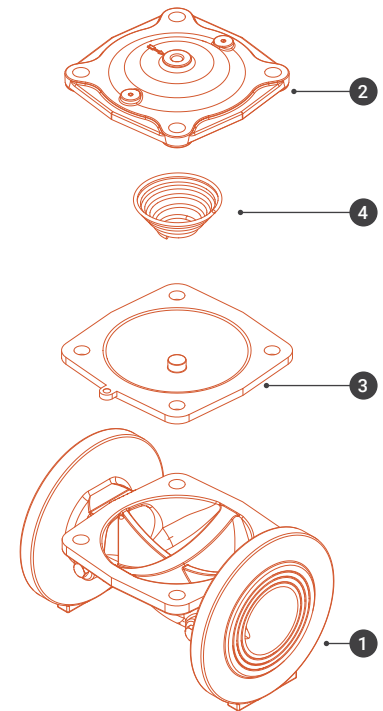
\* In order to calculate the head loss at any desired flow rate, use the following equation:  
Head loss = (Flow rate/Flow rate factor)<sup>2</sup>

→ **Head Loss**



→ **Components raw materials**

#	Part name	Material	Optional
1	Body	SST 316	Ductile iron
2	Bonnet	SST 316	Ductile iron
3	Diaphragm	ALD70	Natural rubber
4	Spring	SST 316	SST 302



## → Description guide

To correctly define a valve with its respective accessories and according to the needs, the following selection parameters can be used.

## → Flowchart to determine the desired product definition

1 Serie	2 Material		3 Nominal diameter		4 Configuration		5 Conection		6 Main function	
S100	CI	Cast iron	2"	2" (50 mm)	H	Horizontal	DN10	ISO PN10	BAS	Basic
	DI	Ductile iron	2½"	2½" (65 mm)	A	Angle	DN16	ISO PN16	MAN	Manual control on/off
	BR	Bronze	3"	3" (80 mm)	*Angle model only in 3", 4" and 6"		AN12	ANSI 125	HYD	Hydraulic control on/off
	ST	Stainless steel	4"	4" (100 mm)			AN15	ANSI 150	ELE	Electric control on/off
			6"	6" (150 mm)	BSTD	BSTD	PRV	Pressure reducing		
			8"	8" (200 mm)	BSTE	BSTE	PSV	Pressure sustaining (& relief)		
			10"	10" (250 mm)	ABNT	ABNT	PRS	Pressure reducing & sustaining		
			12"	12" (300 mm)			FLV	Flow control		
			14"	14" (350 mm)			QRV	Quick relief		
							LCV	Level control		
						SAV	Surge anticipating			
						TOV	Pressure reducing, two stage opening			
						TSV	Pressure reducing, two sets of pressure			
						PCV	Pump control valve			

7 Pilot		8 Pilot spring		9 Solenoid type		10 Valve's mode		11 Accessories	
PP	Plastic pilot	Y	Yellow spring	AQAC	Solenoid Aqautive 24AC	3WNC	3-Way N.C	C/2C	Check point (1 unit, 2 unit)
MP	Metal pilot*	G	Green spring	AQDC	Solenoid Aqautive 12-40VDC latch	2WNC	2-Way N.C	P/2P	Pressure gauge (1 unit, 2 unit)
* for metal valve only		R	Red spring	D24A	Dorot solenoid 24VAC	3WNO	3-Way N.O	H	Hydraulic relay
		D24D	Dorot solenoid 24VDC	2WNO	2-Way N.O	F	Float		
		D12D	Dorot solenoid 12VDC	2W	2-Way*	O	Orifice		
		D12L	Dorot solenoid 12VDC latch	3W	3-Way*	T	Shuttle T		
		24AC	Other solenoid 24VAC	* Manual control only		N	Non-return feature		
		24DC	Other solenoid 24VDC			S	3 Way manual valve		
		12DC	Other solenoid 12VDC			LP	Low pressure diaphragm		
		12DL	Other solenoid 12VDC latch			HP	High pressure diaphragm		
						MIN	Mining		
						SV	Shreader		

## → Catalog numbers

The type of valve and his catalog number will be determined according to the specific conditions in each application. For a correct configuration of a required valve please contact us at [Mining@netafim.orbia.com](mailto:Mining@netafim.orbia.com) or contact your Netafim™ local representative.