

A2A5 Surge Anticipate Control Valve

Function:

The function of this valve is to dissipate damaging pipeline surges resulting from a sudden unscheduled pump stop. This valve has two pilot systems, one controlling the low pressure & one controlling the high pressure. On pump trip or sudden stop, a column of water moves away from the pump at a high velocity downstream.

As the column moves downwards, it creates an area of low pressure behind it. The low pressure pilot senses this low pressure and starts opening the main valve so that by the time the high pressure wave returns, the valve is open. Now the high pressure pilot keeps the valve open until the pressure wave has dissipated.

Features:

- Top and seat ring guided stem and diaphragm assembly for long life and reliability.
- All iron components are fusion epoxy bonded for corrosion resistance.
- Easy maintenance without removal from the main line.
- Nylon reinforced diaphragm for long term service.
- Drip tight shut off.
- Globe design for superior control characteristics.
- Ductile iron bodies for higher strength and durability.
- Corrosion resistant stainless steel seat and disc retainer ring.
- Various pilots and accessories available for configuration into many different applications.
- Special V-Port and double chamber are options, please consult factory.
- Meet standards BS EN 1074-5, ISO 5208, BS EN 12266-1, BS EN 558-1,



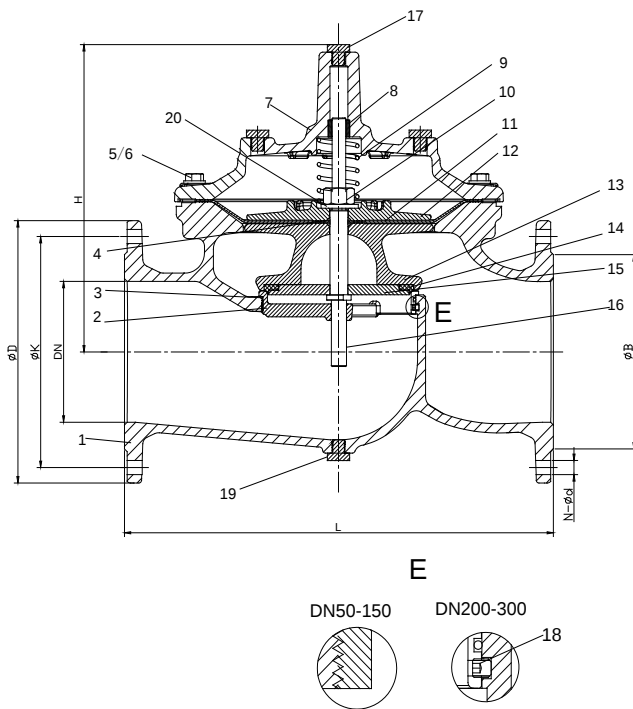
General Application:

For pressure, flow and level control in water applications.

Technical Data:

Size Range: DN50~DN800mm Pressure Ratings: 1.0Mpa; 1.6Mpa; 2.5Mpa Working Temperature:-10°C- 80°C Suitable Media: Water End connection: PN 10/ PN 16/ PN 25 Consult Factory for other applications

A900-Main Valve DN50-DN350



Parts List

No.	Description	Material	Standard
1	Body	Ductile Iron	GJS 500-7
2	Seat	Stainless Steel	AISI 304/316
3	O-ring	Rubber	NBR
4	O-ring	Rubber	NBR
5	Bolt	Stainless Steel	A2/A4
6	Washer	Stainless Steel	A2/A4
7	Bonnet	Ductile Iron	GJS 500-7
8	Bush	Bronze	C61900
9	Spring	Stainless Steel	AISI 304/316
10	Caulking Nut	Stainless Steel	A4
11	Diaphragm	Nylon Reinforced Rubber	EPDM +Nylon Fabric
12	Fixing holder	Ductile Iron	GJS 500-7
13	Disc Holder	Ductile Iron	GJS 500-7
14	Seal	Rubber	EPDM
15	Seat Retainer	Stainless Steel	AISI 304/316
16	Stem	Stainless Steel	AISI 304/316
17	Plug	Stainless Steel	AISI 304/316
18	Screw	Stainless Steel	A2/A4
19	Plug	Stainless Steel	A2/A4
20	Washer	Stainless Steel	A2/A4

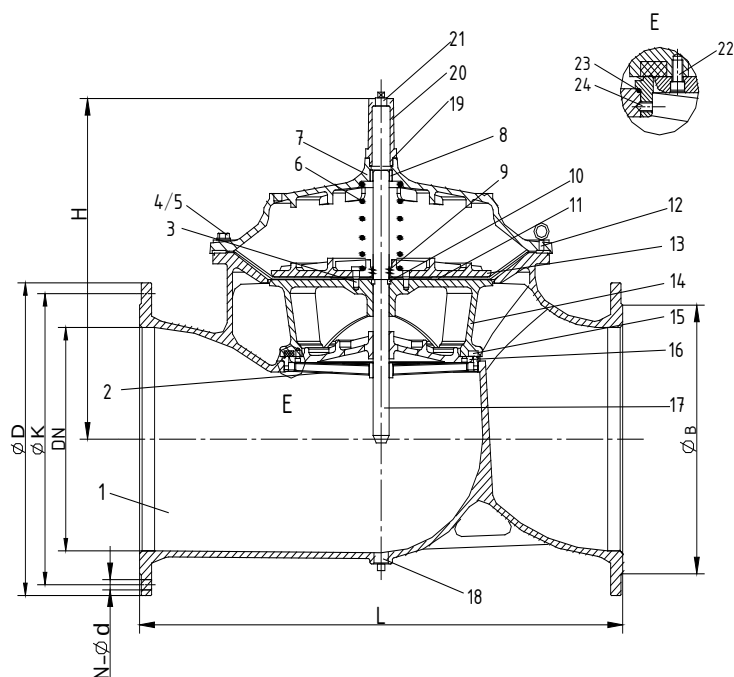
Dimension:

DN	Model Code	L	ØD			ØK			H	N-Ød			ØB		
			PN10	PN16	PN25	PN10	PN16	PN25		PN10	PN16	PN25	PN10	PN16	PN25
50	A900-0050	230	165	165	165	125	125	125	177	4-Ø19	4-Ø19	4-Ø19	Ø99	Ø99	Ø99
65	A900-0065	290	185	185	185	145	145	145	202	4-Ø19	4-Ø19	8-Ø19	Ø118	Ø118	Ø118
80	A900-0080	310	200	200	200	160	160	160	219	8-Ø19	8-Ø19	8-Ø19	Ø132	Ø132	Ø132
100	A900-0100	350	220	220	235	180	180	190	243	8-Ø19	8-Ø19	8-Ø23	Ø156	Ø156	Ø156
*125	A900-0125	400	250	250	270	210	210	220	243	8-Ø19	8-Ø19	8-Ø28	Ø156	Ø156	Ø156
150	A900-0150	480	285	285	300	240	240	250	333	8-Ø23	8-Ø23	8-Ø28	Ø211	Ø211	Ø211
200	A900-0200	600	340	340	360	295	295	310	428	8-Ø23	12-Ø23	12-Ø28	Ø266	Ø266	Ø274
250	A900-0250	730	405	405	425	350	355	370	478	12-Ø23	12-Ø28	12-Ø31	Ø319	Ø319	Ø330
300	A900-0300	850	460	460	485	400	410	430	538	12-Ø23	12-Ø28	16-Ø31	Ø370	Ø370	Ø389
*350	A900-0350	980	520	520	555	460	470	490	550	16-Ø23	16-Ø28	16-Ø34	Ø429	Ø429	Ø448

NOTE: 1. *DN125/350 use same internal as DN100/300

2. AISI 304 factory standard material. consult factory for AISI 316 material.

A900-Main Valve DN400-DN800



Parts List

No.	Description	Material	Standard
1	Body	Ductile Iron	GJS 500-7
2	Seat	Stainless Steel	AISI 304/316
3	Screw	Stainless Steel	A2/A4
4	Screw	Stainless Steel	A2/A4
5	Screw	Stainless Steel	A2/A4
6	Spring	Stainless Steel	AISI 304/316
7	Bonnet	Ductile Iron	GJS 500-7
8	Bush	Bronze	C61900
9	O-ring	Rubber	NBR
10	Fix Washer	Bronze	C61900
11	Diaphragm	Nylon Reinforced Rubber	EPDM +Nylon Fabric
12	Eye Bolts	Carbon Steel	1040
13	Fixing Holder	Ductile Iron	GJS 500-7
14	Disc Holder	Ductile Iron	GJS 500-7
15	Seal	Rubber	EPDM
16	Seal Retainer	Ductile Iron	GJS 500-7
17	Stem	Stainless Steel	AISI 304/316
18	Plug	Stainless Steel	AISI 304/316
19	O-ring	Rubber	NBR
20	Cap	Ductile Iron	GJS 500-7
21	Plug	Stainless Steel	AISI 304/316
22	Screw	Stainless Steel	A2/A4
23	O-ring	Rubber	NBR
24	Screw	Stainless Steel	A2/A4

Dimension:

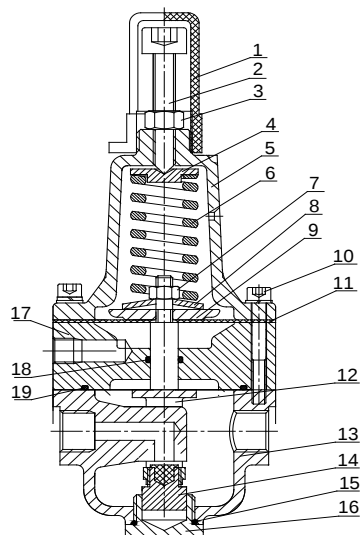
Unit: mm

DN	Model Code	L	H	ØD			ØK			N-Ød			ØB		
				PN10	PN16	PN25	PN10	PN16	PN25	PN10	PN16	PN25	PN10	PN16	PN25
400	A900-0400	1100	710	580	580	620	515	525	550	16-Ø28	16-Ø31	16-Ø37	480	480	503
*450	A900-0450	1200	720	640	640	670	565	585	600	20-Ø28	20-Ø31	20-Ø37	530	548	548
500	A900-0500	1250	822	715	715	730	620	650	660	20-Ø28	20-Ø34	20-Ø37	582	609	609
600	A900-0600	1450	885	840	840	845	725	770	770	20-Ø31	20-Ø37	20-Ø40	682	720	720
*700	A900-0700	1650	910	910	910	960	840	840	875	24-Ø31	24-Ø37	24-Ø43	682	720	720
800	A900-0800	1850	1260	1025	1025	1085	950	950	990	24-Ø34	24-Ø40	24-Ø49	901	901	928

Note: 1. *DN450/700 use same internal as DN400/600.

2. AISI 304 factory standard material. consult factory for AISI 316 material.

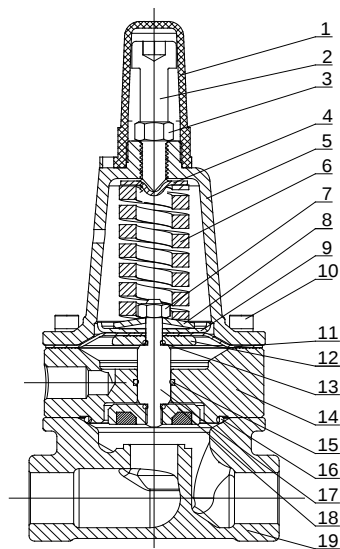
P20A Anticipation Pilot (Preaction)



Part list & Material

No.	Description	Material	Standard
1	Cap	Plastic	ABS
2	Adjusting Screw	Stainless Steel	AISI 304
3	Jam Nut	Stainless Steel	A2
4	Spring table	Stainless Steel	AISI 304
5	Bonnet	Stainless Steel	AISI 304
6	Spring	Spring Steel	SiCrV
7	Nut	Stainless Steel	A2
8	Spring table	Spring Steel	Mn-steel+Ni Plated
9	Fixing Holder	Stainless Steel	AISI 304
10	Screw	Stainless Steel	A2
11	Diaphragm	Rubber	NBR+Nylon
12	Yoke	Stainless Steel	AISI 304
13	Body	Stainless Steel	AISI 304
14	Disc	Stainless Steel+Rubber	AISI 304+EPDM
15	O-Ring	Rubber	NBR
16	Plug	Stainless Steel	AISI 304
17	Internal Body	Stainless Steel	AISI 304
18	O-Ring	Rubber	NBR
19	O-Ring	Rubber	NBR

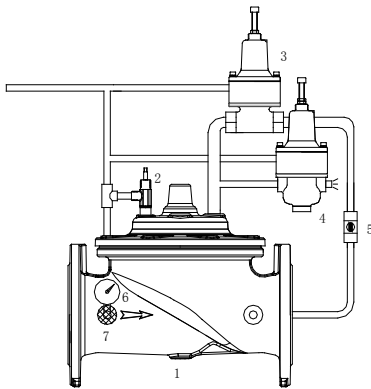
P500-Relief/Sustaining Pilot



Part list & Material

No.	Description	Material	Standard
1	Cap	Plastic	ABS
2	Adjusting Screw	Stainless Steel	AISI 304
3	Jam Nut	Stainless Steel	AISI 304
4	Spring table	Stainless Steel	AISI 304
5	Bonnet	Stainless Steel	AISI 304
6	Spring	Spring Steel	SiCrV
7	Nut	Stainless Steel	A2
8	Spring table	Spring Steel	Mn-steel+Ni Plated
9	Fixing Holder	Stainless Steel	AISI 304
10	Screw	Stainless Steel	A2
11	Diaphragm	Nylon Reinforced Rubber	EPDM+Nylon
12	Gasket	Stainless Steel	AISI 304
13	O-Ring	Rubber	NBR
14	Internal Body	Stainless Steel	AISI 304
15	O-Ring	Rubber	NBR
16	O-Ring	Rubber	NBR
17	Stem	Stainless Steel	AISI 304
18	Disc	Stainless Steel+Rubber	AISI 304+EPDM
19	Body	Stainless Steel	AISI 304

A2A5 Surge Anticipation Valve



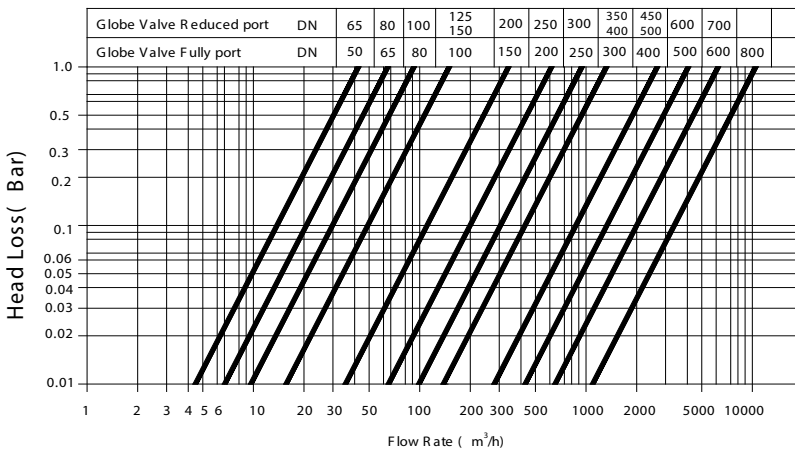
1. Main Valve
2. Needle Valve
3. P500
4. P20A
5. Ball Valve
6. Inlet Pressure Gauge (Optional)
7. Strainer



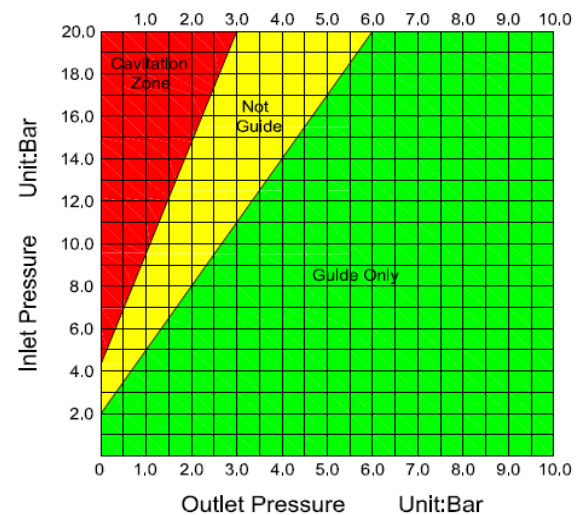
Function:

1. P20A is used for sensing to open at low pressure before surge, for quick relief high pressure wave.
2. The pre-open function eliminates the surge during pump abrupt stoppage.
3. The valve releases excessive system pressure.

Head Loss Curve



Cavitation



Ordering Code

A2A5-0200-16-YYY

Model:

A2A5: Surge Anticipating Valve

YYY: Special Code

Please Consult Factory

Pressure Rating:

10: PN10
16: PN16
25: PN25
A1: ANSI 125 F/F
A5: ANSI 150 R/F

Size:

0080: 80 mm
0200: 200 mm