

# A400 Flow Control Valve

REF **EFC-348** ISSUED 15 Jun 2026

## BUILT ON THE A900 MAIN VALVE BODY

All A900 configurations share the same hydraulically operated body. An existing body can be repiloted in the field for a different duty by swapping the pilot assembly, without body replacement.

## SPECIFICATIONS

Size	<b>DN50–DN400</b>
Pressure	<b>PN16–PN16</b>
End connection	<b>flanged (EN 1092-2)</b>

## STANDARDS

Design	<b>EN 1074-5</b>
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## APPROVALS & CERTIFICATIONS

- WRAS
- ISO 9001

## APPLICATIONS

- Flow limiting
- Bulk supply metering bypass
- Distribution network control

## FEATURES

- The A400 maintains a pre-set maximum flow rate regardless of upstream pressure variation
- A flow control pilot measures differential pressure across an integral orifice and modulates the main valve to limit flow to the set value
- Used to prevent excess draw from transmission mains, control bulk meter bypass flows and protect distribution networks from demand surges

## PILOT ASSEMBLY & ACCESSORIES

### PILOT ASSEMBLY

<b>P400 Flow Rate Control Pilot</b>	Flow sensing pilot — measures differential pressure across the orifice plate and modulates the main valve to hold the set flow rate
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**COMPATIBLE ACCESSORIES**

- Needle Valve** Adjusts response speed and damps oscillation in the pilot circuit
- Alpine Orifice Plate** Creates differential pressure signal for flow measurement

**OTHER CONFIGURATIONS ON THIS BODY**

- A100 Modulating Float Control Valve
- A203 Pressure Reducing with Check Valve
- A500 Pressure Relief / Sustaining Valve
- A76D Pump Control Valve – Double Chamber
- A10A Altitude Control Valve
- A14A Altitude with Rate of Flow Control Valve
- A205 Pressure Sustaining and Reducing Valve
- A20B Pressure Reducing Valve – High Flow
- A506 Pressure Sustaining Valve with Solenoid Control
- A7MD Pump Control Valve – Passive Protection
- A900 Automatic Control Valve – Threaded
- A200 Pressure Reducing Valve
- A300 Slow Control Check Valve
- A600 Solenoid Control Valve
- A900 Automatic Control Valve (Main Valve)
- A10B Bi-Level Float Control Valve
- A204 Pressure Reducing Valve with Flow Limiter
- A206 Pressure Reducing Solenoid Control Valve
- A2A5 Surge Anticipating Control Valve
- A6DV Dual Solenoid Control Valve
- A800 Pressure Differential Valve
- R900 Main Valve – Reduced Bore

**PRESSURE-TEMPERATURE RATING**

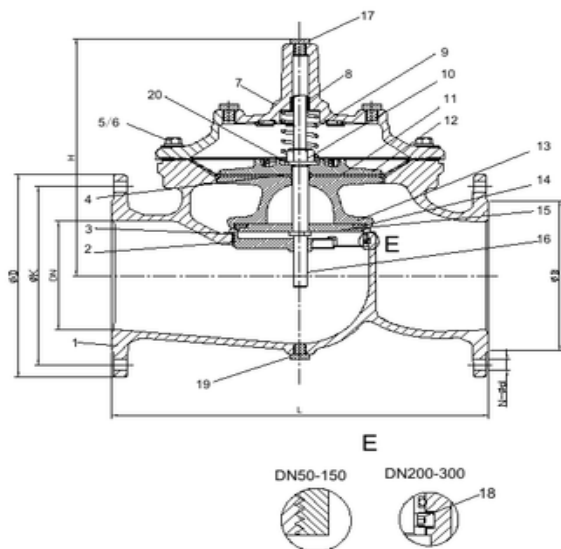
CLASS	TEMPERATURE	MAX PRESSURE
PN25	-10°C	25 bar
PN25	80°C	25 bar

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# A400 Flow Control Valve

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## A900-Main Valve DN50-DN350



### Parts List

No.	Description	Material	Standard
1	Body	Ductlie 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	Ductlie 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	Ductlie Iron	GJS 500-7
13	Disc Holder	Ductlie 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			Unit: mm 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

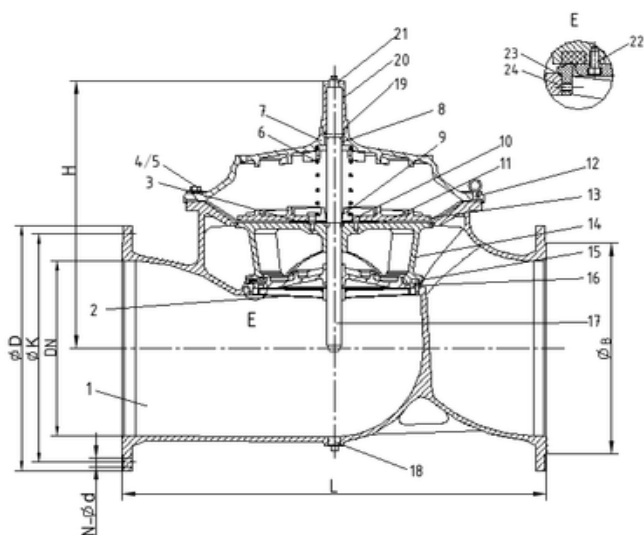
NOTE: 1. \*DN125/350 use same internal as DN100/300  
2. AISI 304 factory standard material. consult factory for AISI 316 material.

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## 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.

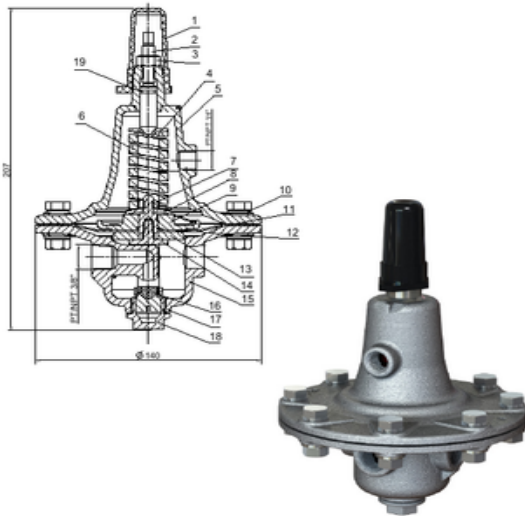
2. AISI 304 factory standard material. consult factory for AISI 316 material.

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# A400 Flow Control Valve

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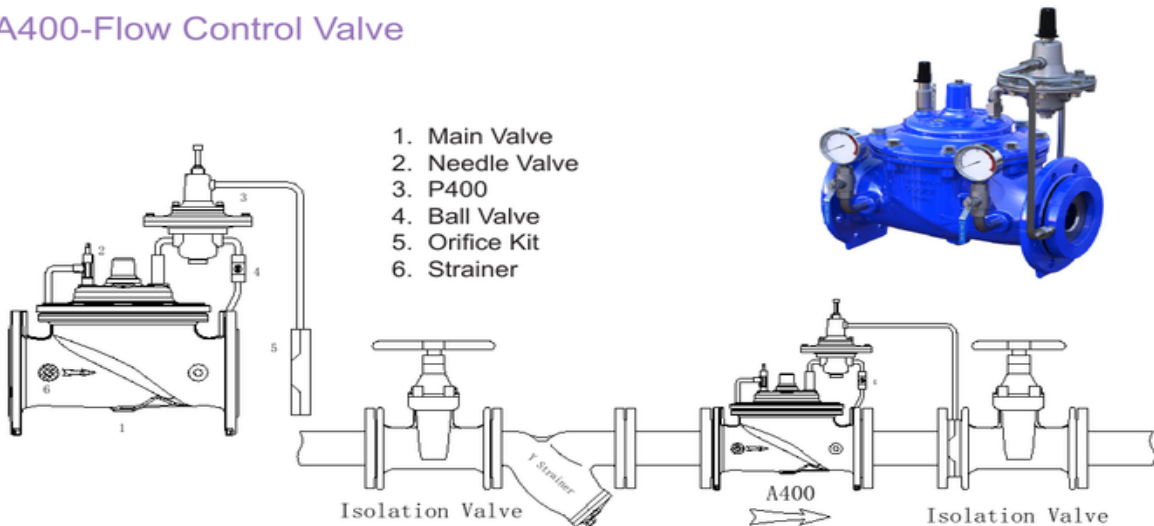
## P400 Flow rate control Pilot



### 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	O-Ring	Rubber	NBR
13	Gasket	Stainless Steel	AISI 304
14	Stem	Stainless Steel	AISI 304
15	Body	Stainless Steel	AISI 304
16	Disc	Stainless Steel+Rubber	AISI 304+EPDM
17	O-Ring	Rubber	NBR
18	Plug	Stainless Steel	AISI 304
19	O-Ring	Rubber	NBR

## A400-Flow Control Valve



### Function:

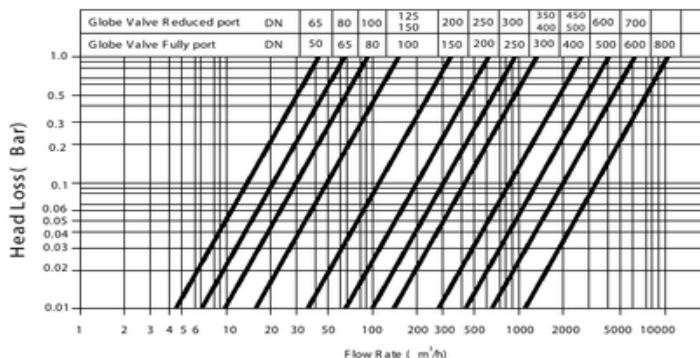
1. Maintains a constant flow, regardless of fluctuations of system pressure.
2. The rate of flow pilot can be adjustable, and senses the pressure differential across an orifice plate mounted in the valve outlet flange.
3. Whenever the system pressure changes, the flow pilot responds and modulate the main valve to maintain the desired flow.

CONTROL VALVE

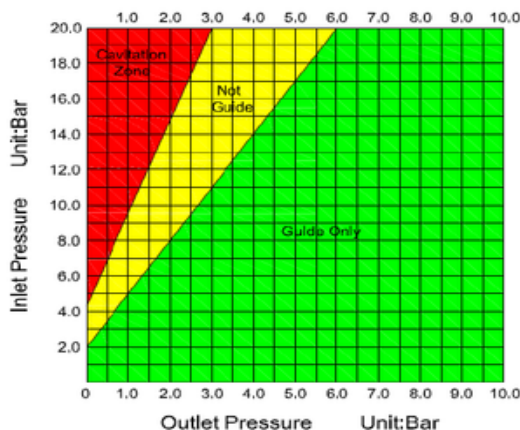
# A400 Flow Control Valve

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## Head Loss Curve



## Cavitation



## Ordering Code

**AXXX-0200-16-YYY**

**Model:**

- A100: Remote Float Valve
- A200: Pressure Reducing Valve
- A300: Slow Control Check Valve
- A400: Flow Control Valve
- A500: Pressure Relief/Sustaining Valve
- A600: Solenoid Control Valve
- A70D: Pump Control Valve
- A800: Pressure Differential Valve
- A900: Main 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

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# A400 Flow Control Valve

SECTION Dimensions per size REF EFC-348

SIZE	L	H	OD_PN10	OD_PN16	OD_PN25	OK_PN10	OK_PN16	OK_PN25	OB_PN10	OB_PN16	OB_PN25
DN50	230	177	165	165	165	125	125	125	99	99	99
DN65	290	202	185	185	185	145	145	145	118	118	118
DN80	310	219	200	200	200	160	160	160	132	132	132
DN100	350	243	220	220	235	180	180	190	156	156	156
DN125	400	243	250	250	270	210	210	220	156	156	156
DN150	480	333	285	285	300	240	240	250	211	211	211
DN200	600	428	340	340	360	295	295	310	266	266	274
DN250	730	478	405	405	425	350	355	370	319	319	330
DN300	850	538	460	460	485	400	410	430	370	370	389
DN350	980	550	520	520	555	460	470	490	429	429	448
DN400	1100	710	580	580	620	515	525	550	480	480	503
DN450	1200	720	640	640	670	565	585	600	530	548	548
DN500	1250	822	715	715	730	620	650	660	582	609	609
DN600	1450	885	840	840	845	725	770	770	682	720	720
DN700	1650	910	910	910	960	840	840	875	682	720	720
DN800	1850	1260	1025	1025	1085	950	950	990	901	901	928

All dimensions in millimetres unless stated otherwise. Values are nominal; tolerances confirmed at quote.