



DATA SHEET

(PN 25)



600 SERIES

Pressure Reducing Valve

DESCRIPTION

Armaş “PR” model pressure reducer control valve is the hydraulic control valve which reduces high upstream pressure value into desired lower pressure value by means of built-in pressure reducing pilot valves. Pressure reducer control valve controls downstream pressure value continuously and maintains it constant without being affected from flow rate and upstream pressure values. When no flow exists in the system, it is closer by itself automatically. When valve upstream pressure value decreases below adjusted downstream pressure value, it is opened fully by itself. Valve may be user in vertical and horizontal positions in the system.

SPECIFICATIONS

- **Model:** 67D-PR
- **Pattern:** Straight
- **Control:** Diaphragm Actuated, Diaphragm Closed
- **Operate:** Pilot
- **Pressure Rate:** 25 bar
- **Body&Bonnet:** Ductile Iron (GGG50)
- **Tubing:** Air Brake Nylon (PN64)
- **Pilot&Fittings:** Brass
- **Pressure Gauge:** Glycerine (1 pc.)
- **Diaphragm:** Natural Rubber
- **Coating:** Epoxy (RAL 3002)
- **Connection:** Flanged (EN 7005-2)

HYDRAULIC PERFORMANCE

Valve Size	mm	40	50	65	80	80	100	125	150	200	250	300
	inch	1½	2	2½	3-2-3	3	4	5	6	8	10	12
Kv	m ³ /h @ 1 bar	35	50	50	50	130	200	200	450	800	1250	1800
Cv	gpm @ 1 psi	45	60	60	60	150	231	231	520	925	1450	2080

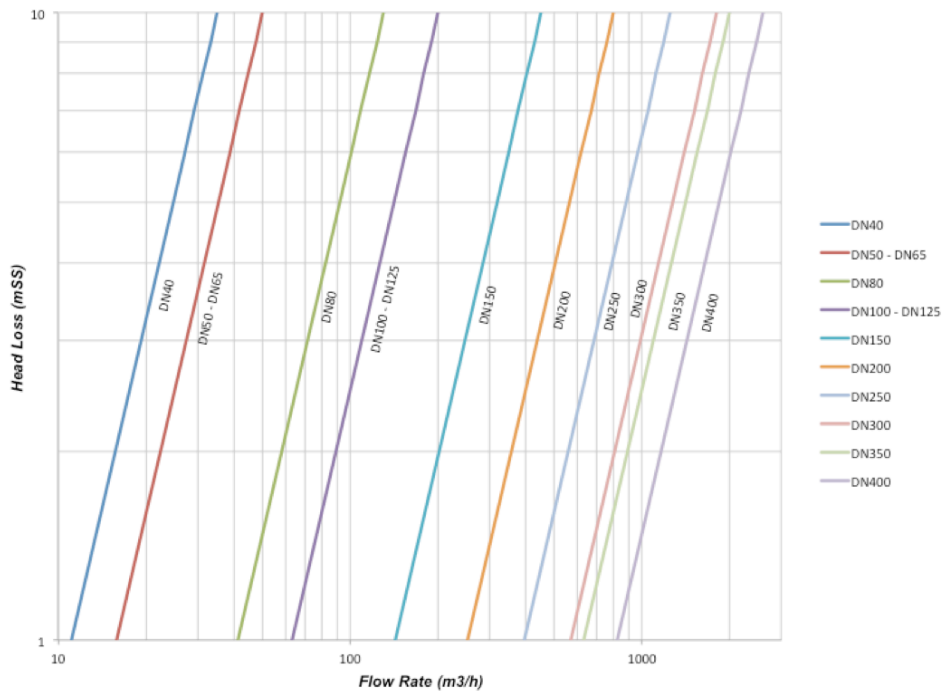
Valve Flow Coefficient

Kv: Valve Flow Coefficient (fluid passing in 1 bar pressure lose in m³/h and 1 bar)

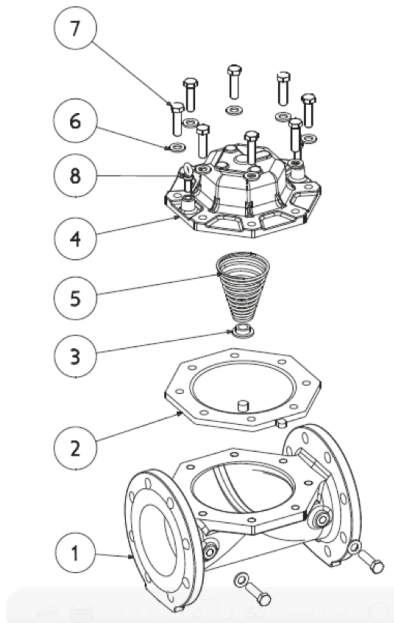
Cv: Valve Flow Coefficient (fluid passing in 1 bar pressure lose in gpm and 1 psi)

Valve Size	mm	40	50	65	80	80	100	125	150	200	250	300
	inch	1½	2	2½	3-2-3	3	4	5	6	8	10	12
Maximum Flow Continuance	m ³ /h	25	40	40	40	100	160	245	350	620	970	1400
	gpm	110	176	176	176	440	700	1078	1540	2730	4268	6160
Maximum Flow Intermittent	m ³ /h	68	109	109	109	245	273	665	955	1309	2645	3818
	gpm	300	480	480	480	1080	1200	2926	4200	5760	11640	16800

HEAD LOSS CHART

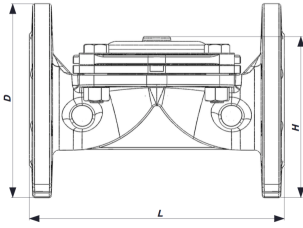


MAIN PARTS

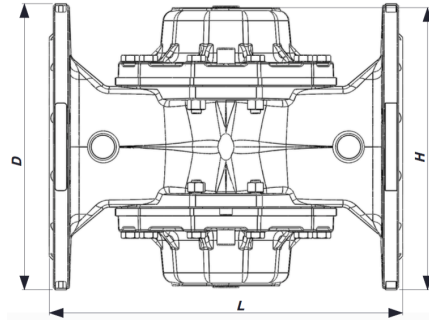


No	Part Name	Material
1	Valve Body	Ductile Iron (GGG50)
2	Diaphragm	Natural Rubber
3	Spring Thrust Ring	Poliamide
4	Bonnet	Ductile Iron (GGG50)
5	Spring	Stainless Steel
6	Washer	Coated Steel
7	Bolt	Coated Steel
8	Lifting Eye Bolt	Coated Steel

DIMENSION&WEIGHT



Ø50-Ø250



Ø300

DN		D		L		H		Weight (kg)	
inch	mm	inch	mm	inch	mm	inch	mm	Lbs.	kg.
2	50	6,49	165	7,87	200	5,9	150	15,4	7
2½	65	7,28	185	8,46	215	6,1	155	21	9,5
3-2-3	80-50	7,87	200	8,46	215	6,3	160	22,2	10
3	80	7,87	200	11,4	290	6,7	172	36,3	16,5
4	100	8,66	220	12	305	7	180	40,7	18,5
5	125	9,84	250	14,3	365	7,87	200	52,8	24
6	150	11,2	285	15,7	400	12	305	104,5	47,5
8	200	13,3	340	19,2	490	15	383	177,1	80,5
10	250	15,5	395	21	535	17,5	445	255,2	116
12	300	17,5	445	22,8	580	19,6	495	343,2	156

INSTALLATION

- The valve can be installed horizontally or vertically.
- Flush pipeline before installing the valve.
- Flow direction should match the engraved arrow on the bonnet.
- Installation of isolating valves; both sides, is recommended.

MAINTENANCE

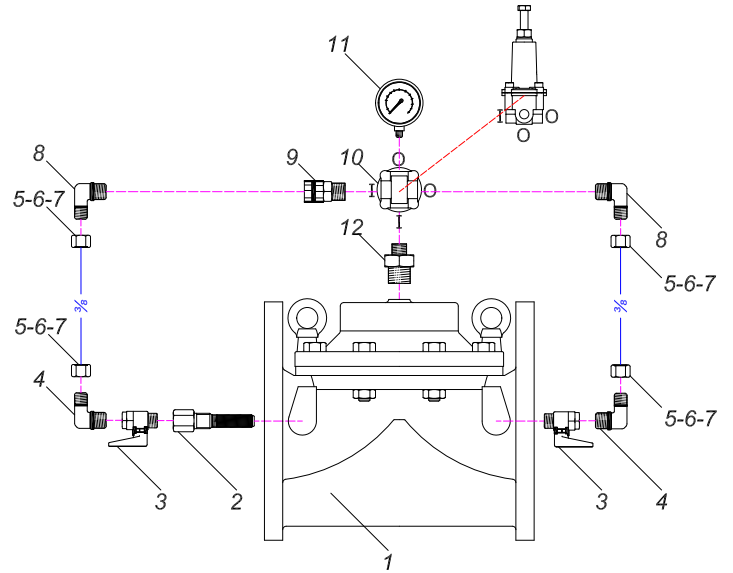
- Inspect and clean the in-line filter, as water quality dictates. Unless the water is very dirty, this service should once in a few months.
- Control maximum water level a few times.

ADJUSTMENT

- Assembly the valve and signal line correctly.
- Open ball valves.
- Turn adjusting bolt in clockwise direction until the maximum water level reaches the desired value.

PARTS

No	Parts
1	Basic Valve
2	Finger Filter
3	Ball Valve
4	Elbow
5	Pin
6	Ring
7	Nut
8	Elbow
9	Orifice
10	Pilot (Forged)
11	Pressure Gauge
12	Nipple
13	Tube



TROUBLESHOOTING

FAILURE	CAUSES	CORRECTING/REPAIR
Valve not opening	<ul style="list-style-type: none"> • Valve upstream pressure may be too low. • Adjustment pressure of pilot valve may be higher than line pressure. • Needle valve on pilot valve may be closed. 	<ul style="list-style-type: none"> • Check your system. • Decrease adjustment pressure in accordance with adjusting instruction by means of adjustment bolt. • Open needle valve one or two turns according to system adjustment.
Valve not closing	<ul style="list-style-type: none"> • Diaphragm may be punctured. • Ball valves in valve upstream may be closed. • Foreign substances may exist in diaphragm seat. • Connections of pilot valve may be clogged because of foreign substances. • Finger filter may be clogged. 	<ul style="list-style-type: none"> • Check diaphragm and replace with the new one if it is punctured. • Check ball valves and open them if they are closed. • Check diaphragm seat and remove foreign substances if any. • Check connections and clean them. • Clean if it is clogged.
Nonuniform Operation	<ul style="list-style-type: none"> • Movable parts of pilot valve may be clogged because of calcification. 	<ul style="list-style-type: none"> • Replace with new one.