

## PILOT OPERATED PRESSURE REDUCING VALVES PRV47 (Steel) PRV47I (St. Steel)

### DESCRIPTION

The ADCA PRV47 pilot operated pressure reducing valves are designed for use on steam, compressed air, nitrogen and other gases compatible with the construction and they can be installed on pressure reducing stations throughout all industries. Connections are flanged or threaded.

### MAIN FEATURES

Robust complete steel or stainless steel construction.  
Suitable for dead end conditions.  
Guided piston and valve stem.  
Hardened plug.

**OPTIONS:**           Soft faced valve plug for gases and steam  
                          Special pressure top for low pressures  
                          Drain connection in bottom cover  
                          Stellited plug and seat

**USE:**                 Saturated steam, compressed air and other gases (Group 2) compatible with the construction ( except oxygen).



### AVAILABLE

**MODELS:**           PRV47 - standard model for steam  
                          PRV47G - compressed air and gases

**VALVE SIZES:**     DN15 to DN50

**CONNECTIONS:**   Flanged EN 1092-1 or ANSI  
                          Threaded BSP, NPT, SW.

**INSTALLATION:**   Horizontal installation.  
                          An "Y" strainer, steam separator and steam trap should be provided upstream the valve.  
                          See IMI, installation and maintenance instructions.

### ORDER

**REQUIREMENTS:** Type of fluid  
                          Maximum operating temperature  
                          Inlet and outlet pressure  
                          Flow rate (maximum and minimum )

**HOW TO SELECT:** Never size the valve according to the pipe diameter in which has to be fitted but according to the required actual flow of fluid.

Refer to valve calculation table or consult the factory.

CE MARKING (PED - European Directive 97/23/EC)	
PN 40	Category
DN15 to DN32	SEP - art. 3, paragraph3
DN40 to DN50	1 (CE Marked)

BODY LIMITING CONDITIONS		
FLANGED PN40 / ANSI 300 *	FLANGED ANSI 150 **	RELATED TEMP.
ALLOW. PRES.	ALLOW. PRES.	
40 bar	19,3 bar	50 °C
37 bar	17,7 bar	100 °C
31 bar	12,5 bar	239 °C
28 bar	10,2 bar	300 °C

Minimum working temperature : - 10°C

\* Rating according to EN1092-1:2007

\*\* Rating according to EN1759-1:2004

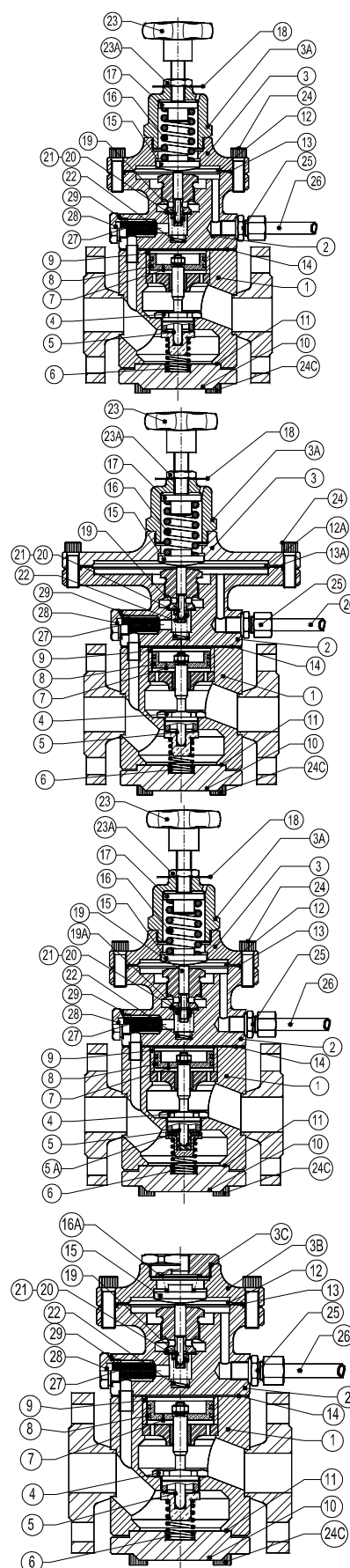
Maximum upstream pressure (steam) :           25 bar  
Maximum upstream pressure (air) :               31 bar  
Maximum downstream pressure:                   17 bar  
Minimum downstream pressure :                 0,35 bar\*  
\* 0,07 bar with low pressure top (limited at 7 bar inlet).  
Pressure and temperature may change if soft seating or piston rings are used.

**USEFUL NOTES ON VALVE AND PIPE SIZING**  
A special low pressure top assembly should be fitted for outlet pressures from 0,07 up to 0,5 bar (Fig.2).  
Two regulators in parallel should be used on larger systems where minimum flow is less than 10% of maximum. If the flow is unknown it is possible to estimate it based on pipe sizing or equipment heat requirement - please consult.

The balance pipe connection is recommended to enter the downstream pipe at a minimum of 1 meter from valv  
A spool piece can be supplied to house the balancing the pipe.

MATERIALS - PRV47 Steel construction		
POS.	DESIGNATION	MATERIAL
1	VALVE BODY	S355J2G3 / 1.0570 ; P250GH / 1.0460
2	PILOT VALVE BODY	CF8 / 1.4308
3	TOP COVER	C45E / 1.1191
3A	COVER NUT	C45E / 1.1191
3B	TOP COVER	C45E / 1.1191
3C	COVER NUT	C45E / 1.1191
4	*MAIN VALVE SEAT	AISI316 / 1.4401
5	*MAIN VALVE	HARDENED ST.STEEL
5A	*MAIN VALVE (SOFT)	SS316 W/ PTFE/GR; RULON,...
6	*MAIN VALVE SPRING	AISI 302 / 1.4300
7	*PISTON	BRONZE B62 / ASTM B148.97
8	*PISTON RINGS	BRONZE / FKM / EPDM / NBR
9	PISTON LINER	AISI304L / 1.4306
10	BOTTOM COVER	S355J2G3 / 1.0570
11	*BOTTOM COVER GASKET	ST.ST/GRAPHITE
12	*DIAPHRAGM	AISI301 / 1.4310
12A	*LOW PRESSURE DIAPHRAGM	AISI301 / 1.4310
13	*DIAPHRAGM GASKET	ST.STEEL/GRAPHITE
13A	*DIAPHRAGM GASKET	ST.STEEL/GRAPHITE
14	*PILOT VALVE GASKET	ST.STEEL/GRAPHITE
15	LOWER SPRING CARRIER	BRASS
16	*ADJUSTMENT SPRING	STEEL
16A	DIAPHRAGM SPRING	STAINLESS STEEL
17	TOP SPRING CARRIER	BRASS
18	SPRING IDENT. PLATE	ALUMINIUM
19	*PILOT VALVE	AISI316 / 1.4401
19A	*PILOT VALVE (SOFT)	PTFE/GR; RULON, ETC
20	*PILOT VALVE SEAT	AISI316 / 1.4401
21	*PILOT VALVE GASKET	COPPER
22	*PILOT VALVE SPRING	AISI302 / 1.4300
23	HANDWHEEL	PLASTIC/ST.STEEL
23A	LOCKNUT	AISI304 / 1.4301
24	BOLTS	STEEL 10.9
24C	BOLTS	STEEL 10.9
25	COMPRESSION FITTING	PLATED CARBON STEEL
26	BALANCE PIPE	COPPER
27	*PILOT VALVE STRAINER	AISI304 / 1.4301
28	STRAINER NUT	AISI304 / 1.4301
29	GASKET	COPPER
100	* PRESSURE REGULATOR (Relieving)	ADCA P-10
102	** STEAM TRAP	ADCA TH-21
103	** GLOBE VALVE	ADCA GV32B
104	** DRAIN CONNECTION NIPPLE	STEEL DN1/2" x 3/8"
105	SOLENOID VALVE	BRASS
106	SUSTAINING VALVE	ADCA PS15
107	STRAINER	ADCA IS100I-ST.STEEL

\* Available spare parts



**MATERIALS - PRV47I Stainless steel construction**

POS.	DESIGNATION	MATERIAL
1	VALVE BODY	AISI316 / 1.4401
2	PILOT VALVE BODY	CF8 / 1.4308
3	TOP COVER	AISI316 / 1.4401
3A	COVER NUT	AISI316 / 1.4401
3B	TOP COVER	AISI316 / 1.4401
3C	COVER NUT	AISI316 / 1.4401
4	*MAIN VALVE SEAT	AISI316 / 1.4401
5	*MAIN VALVE	HARDENED ST.STEEL
5A	*MAIN VALVE (SOFT)	SS317 W/ PTFE/GR / RULON,...
6	*MAIN VALVE SPRING	AISI302 / 1.4300
7	*PISTON	STAINLESS STEEL
8	*PISTON RINGS	BRONZE / FKM/ EPDM / NBR
9	PISTON LINER	AISI304L / 1.4306
10	*BOTTOM COVER	AISI316 / 1.4401
11	*BOTTOM COVER GASKET	ST.ST/GRAPHITE / PTFE
12	*DIAPHRAGM	AISI301 / 1.4310
12A	*LOW PRESSURE DIAPHRAGM	AISI301 / 1.4310
13	*DIAPHRAGM GASKET	ST.STEEL/GRAPHITE
13A	*DIAPHRAGM GASKET	ST.STEEL/GRAPHITE
14	*PILOT VALVE GASKET	ST.STEEL/GRAPHITE
15	LOWER SPRING CARRIER	BRASS / ST.STEEL
16	*ADJUSTMENT SPRING	STEEL / ST.STEEL
16A	DIAPHRAGM SPRING	STAINLESS STEEL
17	TOP SPRING CARRIER	BRASS
18	SPRING IDENT. PLATE	ALUMINIUM / ST.STEEL
19	*PILOT VALVE	AISI316 / 1.4401
19A	*PILOT VALVE (SOFT)	PTFE/GR; RULON, ETC
20	*PILOT VALVE SEAT	AISI316 / 1.4401
21	*PILOT VALVE GASKET	COPPER / PTFE
22	*PILOT VALVE SPRING	AISI302 / 1.4300
23	HANDWHEEL	PLASTIC/ST.STEEL
23A	LOCKNUT	AISI304 / 1.4301
24	BOLTS	ST.STEEL A-4
24C	BOLTS	ST.STEEL A-4
25	COMPRESSION FITTING	STAINLESS STEEL
26	BALANCE PIPE	STAINLESS STEEL
27	*PILOT VALVE STRAINER	AISI304 / 1.4301
28	STRAINER NUT	AISI304 / 1.4301
29	GASKET	COPPER / PTFE
100	** PRESSURE REGULATOR (Relieving)	ADCA P-10
102	** STEAM TRAP	ADCA TH-21
103	** GLOBE VALVE	ADCA GV32B
104	** DRAIN CONNECTION NIPPLE	STAINLESS STEEL DN1/2" x 3/8"
105	SOLENOID VALVE	STAINLESS STEEL
106	SUSTAINING VALVE	ADCA PS15 - ST.STEEL
107	STRAINER	ADCA IS100I -ST.STEEL

\*Available spare parts

