KLINGER DK

STEAM EQUIPMENT

PRESSURE REDUCING VALVE
RP45

DESCRIPTION

The ADCA RP45 series pressure reducing valves are single seat bellows sealed controllers, operating without auxiliary energy, designed for use on steam, compressed air ,industrial inert gases and liquids compatible with the construction.

They are particularly suitable for reducing steam pressure in all energy and process systems where pressures should be kept constant.

Connections are flanged.

OPERATION

Pressure reduction is achieved by means of variable throttling of the inlet flow at the valve seat by variation of the flow area between seat and disc. The outlet pressure which is transmitted through the feed-back line to the diaphragm chamber counteracts the spring force acting on the valve spindle and controls the valve aperture corresponding to the spring setting and thus to the required outlet pressure.

MAIN FEATURES

Bellows specially designed for high durability.
Robust construction (fit-and-forget).
Suitable for use with high pressure turndowns.

OPTIONS:	Nitrile rubber soft seated version for air and gas applications where tight shut-off is required.
USE:	Saturated steam, compressed air and other gases and liquids compatible with the construction.
AVAILABLE MODELS:	RP45G and RP45GN – PN16 cast iron RP45S and RP45SN– PN40 cast steel Suffix N : soft seated with nitrile rubber
SIZES:	DN 15 to DN 100
CONNECTIONS:	RP45G Flanged DIN PN16 RP45S Flanged DIN PN40
INSTALLATION:	Horizontal installation. An "Y" strainer , steam separator and steam trap should be provided upstream the valve. See IMI, installation and maintenance instructions.

CE MARKING (PED - European Directive 97/23/EC)		
PN 16	PN 40	Category
DN15 to DN50	DN15 to DN32	SEP - art. 3, paragraph3
DN65 to DN100	DN40 to DN80	1 (CE Marked)
/	DN100	2 (CE Marked)

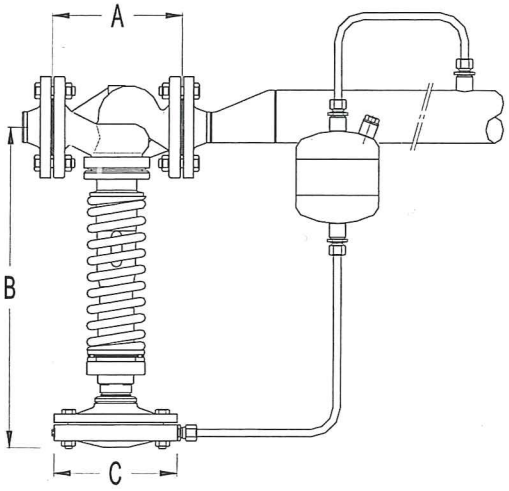
Klinger Danmark A/S
Nyager 12
DK-2605 Brøndby

Tel: +45 43 64 66 11
Fax: +45 43 64 11 42
e-mail: info@klinger.dk
www.klinger.dk

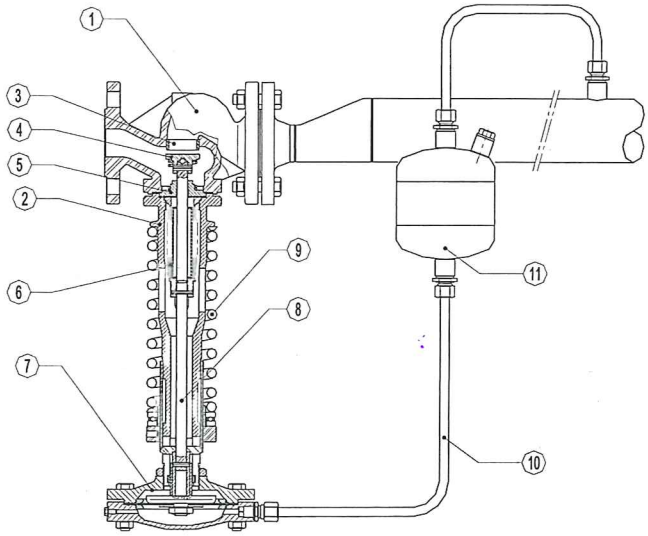
LIMITING CONDITIONS				
	RP45G Cast iron	RP45S Cast steel	RP45GN * Cast iron	RP45SN * Cast steel
Body design conditions	PN16	PN40	PN16	PN40
Max.upstream pressure	13 bar	25 bar	13 bar	25 bar
Max.downstream pressure	13 bar	13 bar	13 bar	13 bar
Min.downstream pressure	0,15 bar	0,15 bar	0,15 bar	0,15 bar
Max.operating temperature	200°C	250°C	90 °C	90 °C
Max.reducing ratio	25:1	25:1	10:1	10:1
Max.cold hydraulic test	24 bar	25 bar	24 bar	25 bar
Max.hydraulic factory valve body test	24 bar	60 bar	24 bar	60 bar

*Suffix N : - a maximum turndown ratio 10:1 should be observed.
PTFE can also be offered in alternative.

DIMENSIONS (mm)						
VALVE				ACTUATOR		
SIZE DN	*A*	*B*	*WGT. Kgs*	*TYPE*	*C*	*WGT. Kgs*
15	130	440	12,7	**A1**	172	4,3
20	150	440	12,7	**A11**	172	4,3
25	160	440	13,7	**A2**	220	7,3
32	180	445	15,7	**A21**	220	7,3
40	200	445	17,7	**A3**	282	11,3
50	230	540	25,7	**A4**	340	16,3
65	290	540	29,7			
80	310	610	36,7			
100	350	650	53,7			



MATERIALS		
POS.	*DESIGNATION*	*MATERIAL*
1	Valve body (PN16)	GJL-250 / 0.6025
1	Valve body (PN40)	GP240GH / 1.0619
2	Piston body	GJS-400-15 / 0.7040
3	Valve seat	HARDENED ST.STEEL
4	* Valve disc	HARDENED ST.STEEL
4	* Soft valve disc	AISI 304 / 1.4301 ; NBR
5	Guide	AISI 304 / 1.4301
6	* Bellows	AISI 316 Ti / 1.4571
7	* Diaphragm chamber	GJL-250 / 0.6025
8	Spindle	AISI 304 / 1.4301
9	Regulating spring	SPRING STEEL
10	* Impulse line	COPPER
11	* Condensate vessel a)	S235JRG2 / 1.0038



* Available spare parts.
a) Not necessary when in operation with low temperature compressed air or water.

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