



#### APPLICATION

In gas pressure regulating stations in consequence of gas expansion, a considerable gas temperature drop takes place. In order to maintain failure-free action of it is necessary to increase gas temperature prior to regulation to assure a gas temperature within +5 to + 10°C after regulation. One of the most commonly used methods of heating natural gas in pressure regulating stations is the use of heat exchangers with hot fluid used as the heating medium.

#### DESIGN FEATURES

The heating medium temperature in the heat exchanger is controlled depending on gas temperature downstream the regulating unit, while internal mounting of the heating fluid circulation pump improves heat transfer and control accuracy.

Cold gas flows through the inlet in to the large number of small tubes. After being heated, gas flows through the tube side the outlet into the pipeline system. The heating medium flows through a number of baffles, leading it round the small tubes inside heater. The tubes are welded into a mesh bottom, designed (calculated) appropriately to the gas pressure and capacity.

The tube side of the heat exchanger features connector pipes for draining condensate.

PFI heat exchanger has got an unloading nozzle for gas venting into the atmosphere. On the top of the heater shell there is a connection for safety valve installment, so in case of circulation system failure, or breach of gas into the heat medium, the heating medium may be immediately relieved.

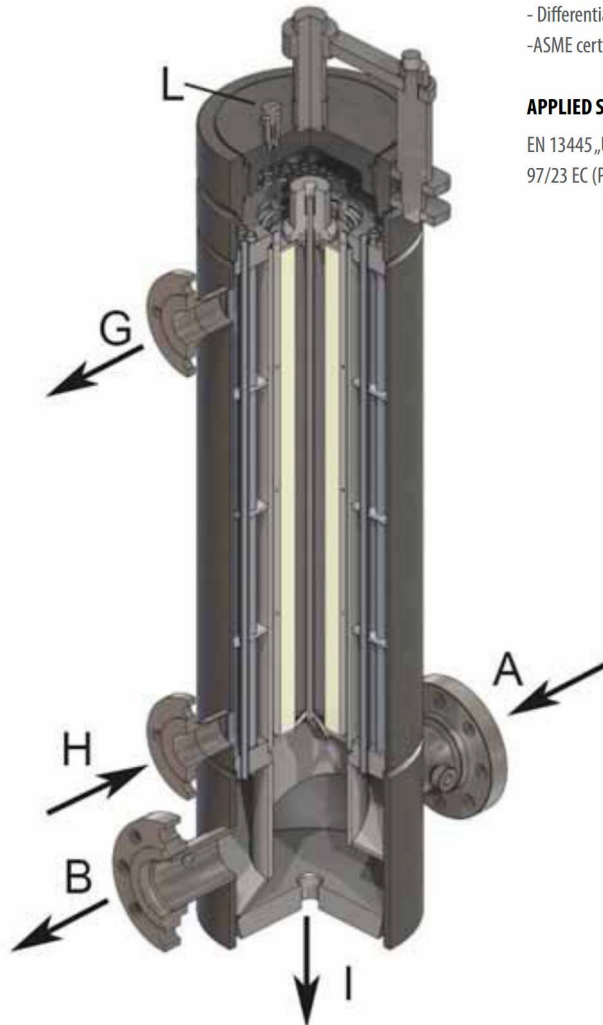
#### ON REQUEST:

- Shell thermo isolated, thickness 80mm
- Installed safety relief valve
- Differential manometer
- Differential thermometer
- ASME certification

#### APPLIED STANDARDS, CODES & DIRECTIVES

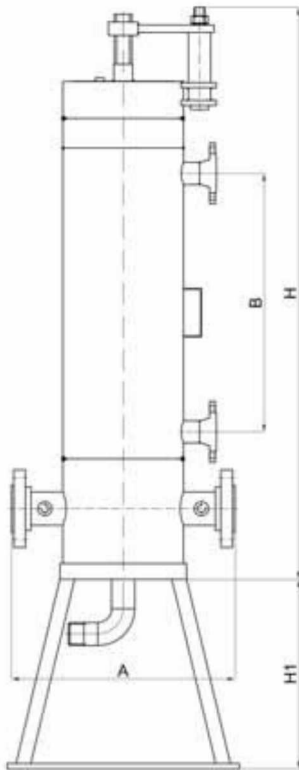
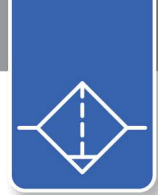
EN 13445 „Unfired pressure vessels“

97/23 EC (PED) “Pressure equipment directive”



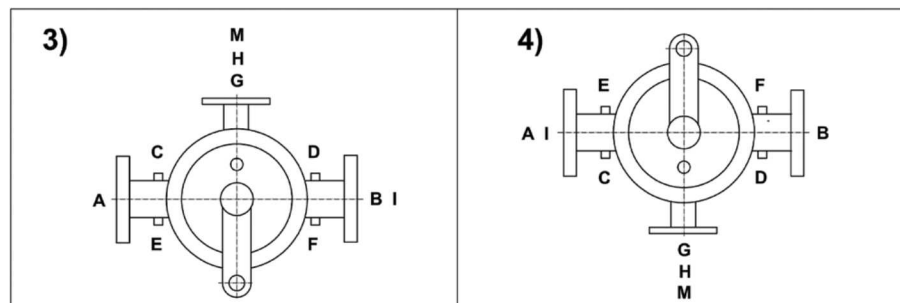
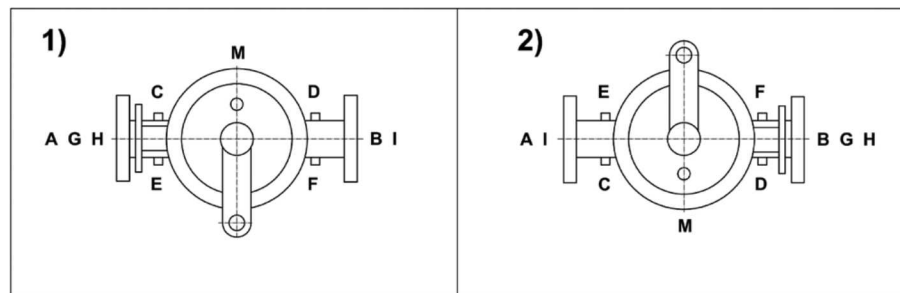
DN	2" –6" (50 – 150)
PN	63, 100
ANSI	300, 600 lb
pmax	50, 75 bar
<b>Temperature</b>	
<b>water (inlet/outlet)</b>	90°C / 80°C
<b>gas (inlet/outlet)</b>	5°C / 10°C
<b>medium</b>	natural gas, LPG
<b>connections</b>	ANSI B.16.5, EN1092

# Gas Filter – Heat Exchanger type PFI-C



CONNECTION	SIZE			
	2" (DN50)	3" (DN80)	4" (DN100)	6" (DN150)
GAS inlet/outlet (A,B)	2" (DN50)	3" (DN80)	4" (DN100)	6" (DN150)
DIF.THERMOMETER (C,D)	3/4"	3/4"	3/4"	3/4"
DIF.MANOMETER (E,F)	1/2"	1/2"	1/2"	1/2"
WATER inlet/outlet (G,H)	1 1/2" (DN40)	2" (DN50)	3" (DN80)	4" (DN100)
DRAINAGE (I)	3/4"	1"	1"	1"
UNLOADING NOZZLE (L)	1/2"	1/2"	1/2"	1/2"
A (mm)	470	600	730	900
B (mm)	550	700	850	1000
H (mm)	1220	1550	1880	2300
H1	ON REQUEST			

## Orientation of filter-exchanger



A	GAS INLET
B	GAS OUTLET
C	DIFFERENTIAL THERMOMETER
D	DIFFERENTIAL THERMOMETER
E	DIFFERENTIAL MANOMETER
F	DIFFERENTIAL MANOMETER
G	WATER OUTLET
H	WATER INLET
I	DRAINAGE
L	UNLOADING NOZZLE
M	IDENTIFICATION PLATE

## ORDERING

CODE  
01104 X - X - XX

- 50,75 (max.pressure)
- 1,2,3,4 (orientation, see picture)
- 6 (2";DN50)
- 7 (3";DN80)
- 8 (4";DN100)
- 9 (6";DN150)