

# HUF Series

## GAS FILTER

### INSTRUCTION SHEET



## APPLICATION

To filter fuel gas and combustion air supply to all gas consuming appliances.

Applicable types of fuel: • manufactured gases (town gas)

- natural gases (group H - methane)
- liquefied petroleum gas (lpg)
- non-aggressive gases
- air

The filter complies with the requirements of DIN 3386.

## SPECIFICATION

### Product range

Model HUF (pipe sizes 1/2" up to DN150)

### Dimensions

See dimensional drawings and table on page 2

### Pipe size

1/2" up to 2" inlet and outlet internal pipe thread according to ISO 7-1

DN25 up to DN150 inlet and outlet flange connections according to ISO 7005 EN1092-4

### Maximum inlet pressure

Threaded version: 6 bar

Flanged version: 6 bar

### Ambient temperature range

-15...80 °C

### Connections

Threaded version: Rp 1/4" connections for inlet or outlet pressure taps

Flanged version: Rp 1/4" connections for inlet or outlet pressure taps

### Capacity

See capacity curves on page 5.

### Torsion and bending stress

Pipe connections meet group 2, according to EN161 requirements.

### Seals and gaskets

Hydrocarbon resistant NBR rubber type, EN549

### Body material

Aluminium ally die cast, EN AB 46100, EN AB 43100

### Filter

Self-Extinguishing synthetic fiber for gases conforming to DVGW-G260/1.

Galvanized electro welded mesh.

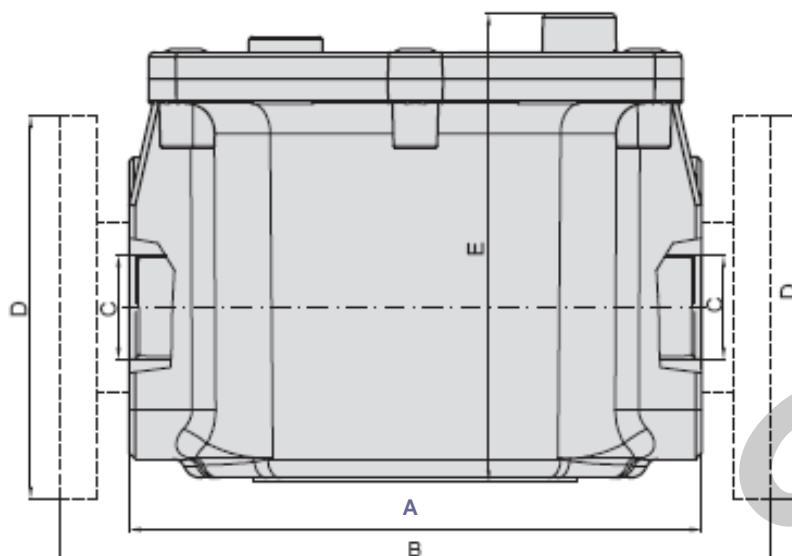
### Standards and Approvals

The HUF Series gas filter conform with the following ECdirectives:

- Gas Appliance Directive (90/396/EWG)

PIN: CE045

Overall dimensions HUF series:



Model	Connection (inch)	Max. operating pressure (bar)	Overall dimensions (mm)				
			A	B	C	D	E
HUF015B160	1/2"	6	114		1/2"		107
HUF020B160	3/4"	6	114		3/4"		107
HUF025B160	1"	6	114		1"		107
HUF032B160	1"1/4	6	150		1"1/4		123
HUF040B160	1"1/2	6	150		1"1/2		123
HUF050B160	2"	6	181		2"		144
HUF025B360	DN25/S	6		216		DN25	107
HUF032B360	DN32/S	6		243		DN32	123
HUF040B360	DN40/S	6		268		DN40	123
HUF050B360	DN50/S	6		299		DN50	144
HUF065B360	DN65	6		306		DN65	178
HUF080B360	DN80	6		323		DN80	178
HUF100B360	DN100	6		354		DN100	227
HUF150B360	DN150	2		474		DN150	325

## INSTALLATION

### Important

1. Read these instructions carefully. Failure to follow the instructions could damage the product or cause a hazardous condition.
2. The installation has to be carried out by qualified personnel only.
3. Carry out a thorough checkout when installation is completed.



### Warning

- Turn off gas supply before installation.
- Do not remove the seal over filter inlet and outlet, until ready to connect piping.
- The filter must be installed so that the arrow on the regulator points in the direction of the gas flow.

### Mounting position

No restrictions, make sure that the filter is assembled in such way, that the cover can be removed easily for inspection or cleaning.

The filter can be installed in different positions provided there is sufficient room above the cover to remove the filter cartridge.

Check that the filter body is at least 30 mm from any hot wall.

### Threaded version

- Take care that dirt cannot enter the gas filter during handling.
- Ensure the gas flow in the same direction as the arrow on the housing of the gas filter.
- Use a sound taper fitting with thread according to ISO 7-1 (BS21, DIN 2999) or a piece of new, properly reamed pipe, free from swarf.
- Do not thread or tighten the pipe or pipe fitting too far. Otherwise filter distortion and malfunction could result.
- Apply a moderate amount of good quality thread compound to the pipe or fitting only, leaving the two end threads bare. PTFE tape may be used as an alternative.
- In order to tighten the pipe in the filter, use a suitable wrench operating on the wrench bosses.

### Flanged version

- Take care that dirt cannot enter the gas filter during handling.
- Ensure the gas flow in the same direction as the arrow on the housing of the gas filter.
- Ensure that inlet and outlet flanges are in line and separated from each other enough to allow the filter to be mounted between them without damaging the gasket.
- Place gasket. If necessary grease it slightly to keep it in place.
- Mount gas filter between flanges using the bolts for each flange.

## MAINTENANCE

Change the filter element when  $\Delta p$  between the pressure taps connections exceeds 10 mbar; it is recommended to replace the filter element at least once a year.

### Replacing filter element

To replace the filter element you need to:

1. Turn off gas supply before replacing.
2. Unscrew the screw and remove the cover; making sure there is no pressure inside the filter.
3. Remove the cartridge and thoroughly clean the filter housing.
4. Replace the old filter element by a new one.
5. Seat the new cartridge inside the body making sure that it adheres perfectly to the side ribs, bearing in mind that inlet stamp on the concave part of the cartridge must be placed at the filter inlet. Tighten the screws.
6. Slowly open the inlet valve and check for any gas leakage from the filter cover.



### Warning

#### Tightness test after installation

- Spray all pipe connections and gaskets with a good quality gas leak detection spray.
- Start the appliance and check for bubbles. If a leak is found in a pipe connection, remake the joint. A gasket leak can usually be stopped by tightening the mounting screws. Otherwise replace the gas filter.

## CAPACITY CURVES

### Important

When reading the diagram you must apply operating cubic meters. The pressure loss  $\Delta p$  then read must be multiplied with the absolute pressure in bar (excess pressure +1), this is to take the density fluctuations into consideration. This pressure loss must not exceed 10 mbar.

#### Calculation example: (see diagram on page 4)

Excess gas pressure:

4 bar

Operating flow rate:

150 m<sup>3</sup>/h natural gas

Filter chosen from the diagram:

HUF DN65 (flanged version)

Pressure loss read:

1,7 mbar

Real pressure loss:

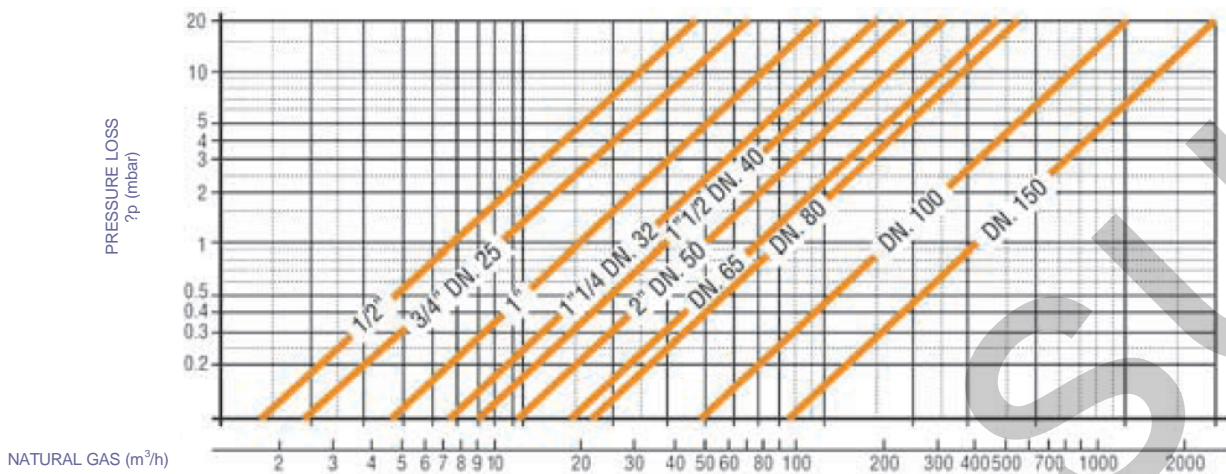
$\Delta p = 5(\text{excess pressure} + 1) \times 1,7 \text{ mbar} = 8,5 \text{ mbar}$

The real pressure loss is less than 10 mbar,

therefore, the

correct filter size has been chosen.

Capacity curves of HUF Series (capacity m<sup>3</sup>/h natural gas at 1013mbar, 15°C)



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