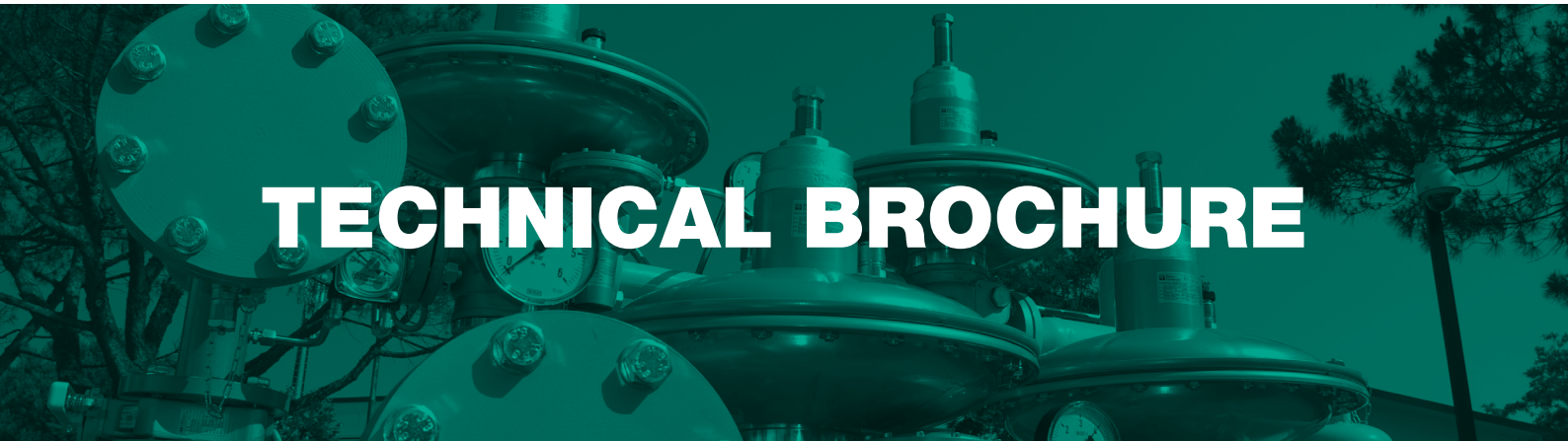
Pietro Fiorentini

# Filters

for low pressure applications



## TECHNICAL BROCHURE

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**www.fiorentini.com**

# Who we are

We are a global organization specialized in designing and manufacturing technologically advanced solutions for natural gas treatment, transmission and distribution systems.

We are the ideal partner for operators in the Oil & Gas sector, with a business offer that goes across the whole natural gas chain.

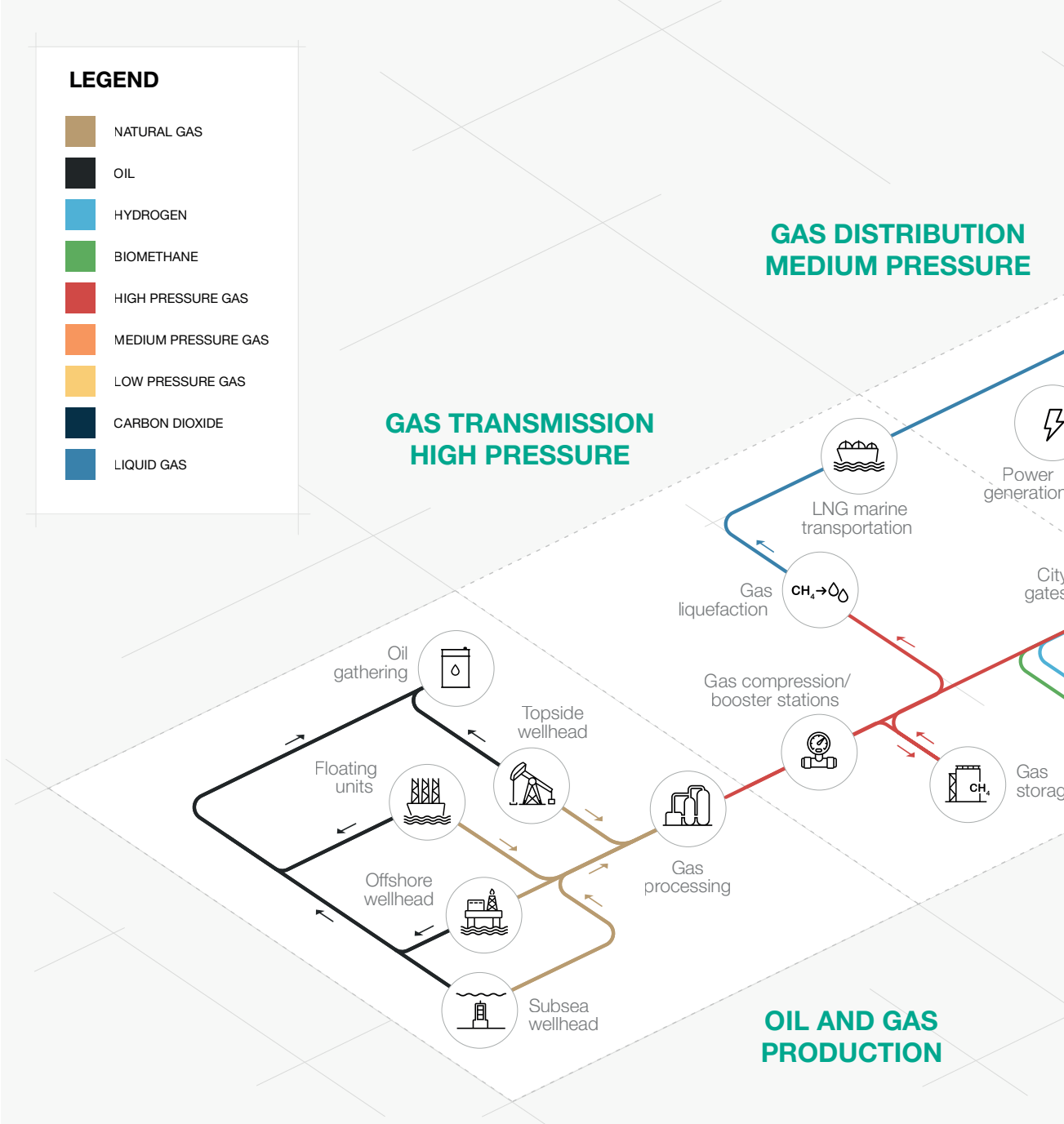
We are in constant evolution to meet our customers' highest expectations in terms of quality and reliability.

Our aim is to be a step ahead of the competition, with customized technologies and an after-sale service program undertaken with the highest grade of professionalism.

## **Pietro Fiorentini** advantages

- Localised technical support
- Experience since 1940
- We operate in over 100 countries

# Area of Application




Green icon indicates the application where this product is suitable for

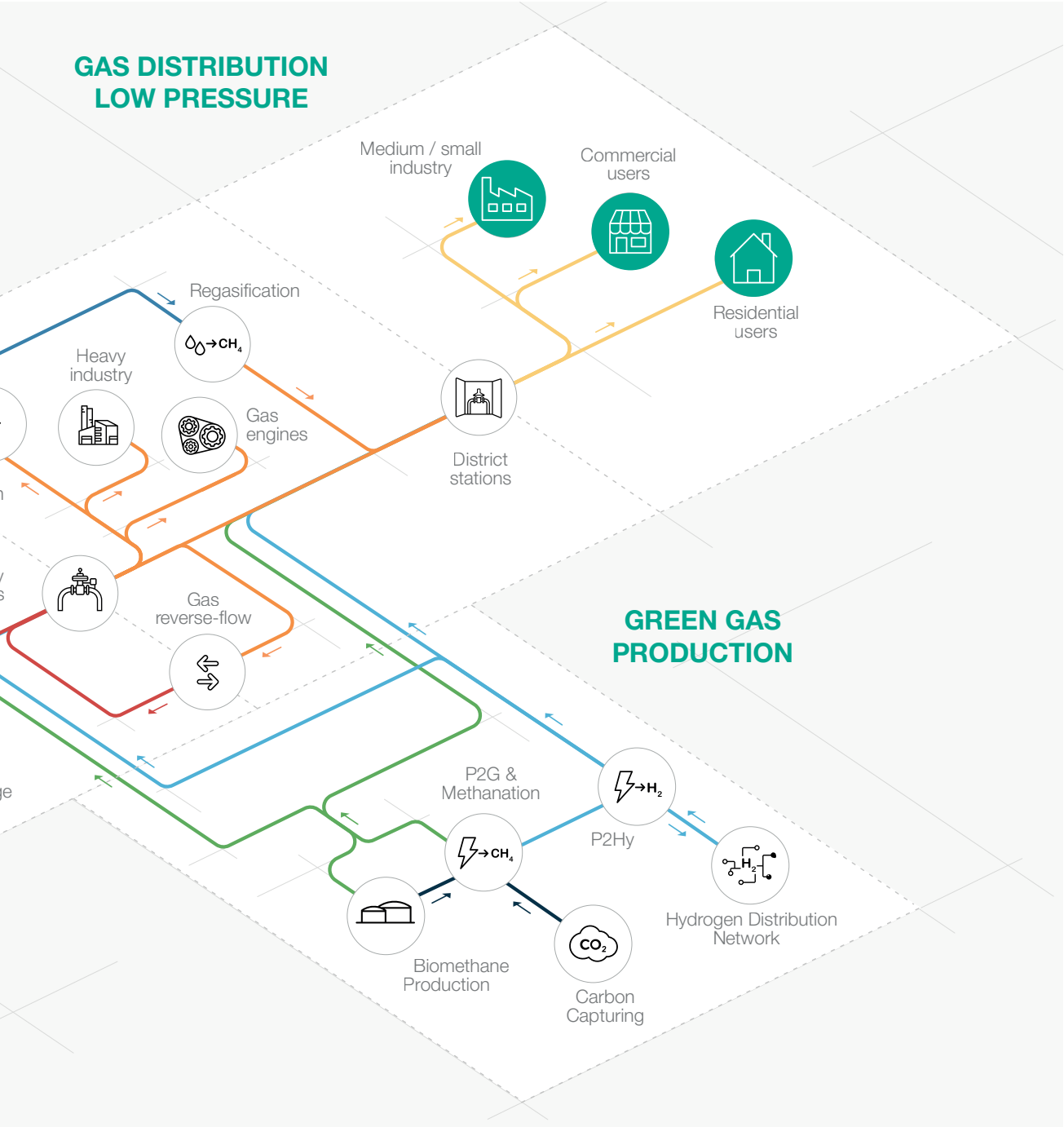



**Figure 1** Area of Application Map

# Introduction

Thanks to the high filtration capacity of the cartridges and their broad surface, the cartridge filter by Pietro Fiorentini allows separation of both dust and solid particles.

Suitable for use with natural gas, LPG and non-corrosive gases, this device is mainly used for low-pressure gas distribution networks.

**Figure 2** Mod. 50000 cartridge filter

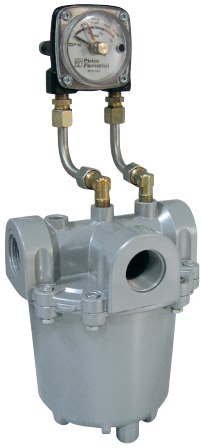


**Figure 3** Mod. 50000 cartridge filter with clogging indicator

**Figure 4** Mod. 10000 gas filter

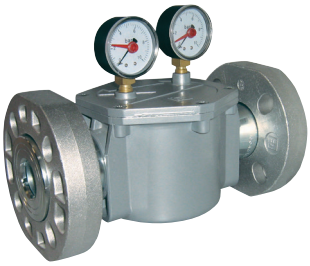


**Figure 5** Mod. 10000 gas filter with flanges

## **Filters** competitive advantages

- Compact design
- Easy maintenance
- Low operation cost
- Wide range of applications

# Cartridge filters

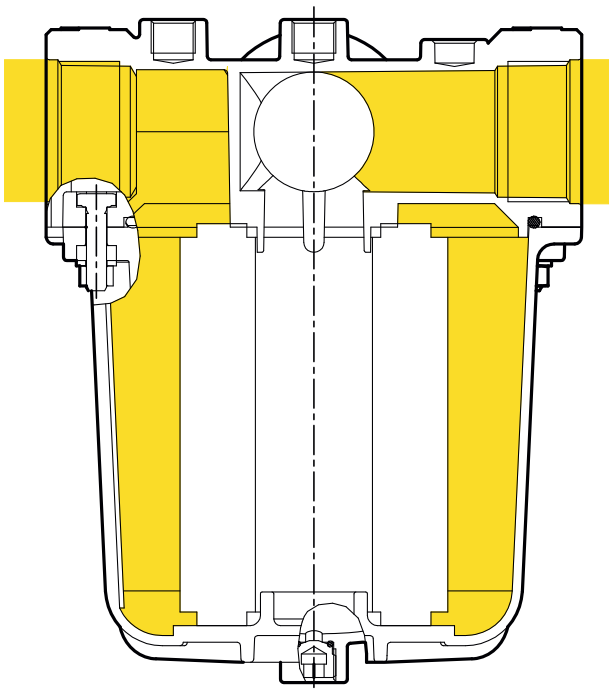


**Figure 6** Mod 50000 cartridge filter

# Filters

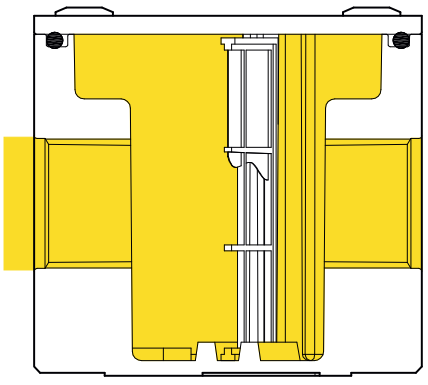


**Figure 7** Mod. 10000 gas filter

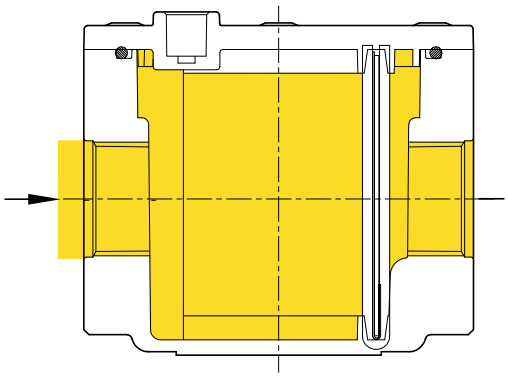


**Figure 8** Mod. 10600 gas filter

Gas pressure

# Mod. 50000
# cartridge filters

Pietro Fiorentini cartridge filters are designed to comply with DIN 3840 and EN 12516 standards and can be used for all types of natural gas, LPG or non corrosive gases.
These filters are widely used for protection of control devices, pressure regulators, meters and on systems requiring a high degree of filtration.
The high filtration capacity of the cartridges and their broad surface allow separation of both dust and solid particles reducing maintenance times for the equipment installed downsteram.

## Features

| Features | Values |
|---|---|
| Maximum working pressure | 1 MPa<br>10 bar |
| Maximum allowable pressure | 1 MPa<br>10 bar |
| Maximum working temperature | From -20 °C up to +80 °C<br>From -4 °F up to +176 °F |
| Collecting capacity | Over 12% of total filter capacity with drain on bottom part |
| Flange connections | EN 1092-4 |
| Threaded connections | UNI-ISO 228/1 |
| Filter type and capacity | Cloth cartridge 5 µm |

**Table 1** Features

## Materials

| Part | Material |
|---|---|
| Body | Aluminium alloy EN AB 46100 |
| Covers | Aluminium alloy vEN AB 46100 |
| **REMARK: The materials indicated above refer to the standard models. Different materials can be provided according to specific needs.** | |

**Table 2** Materials

# Available accessories

- Test point standard
- Manometer
- DP clogging indicator

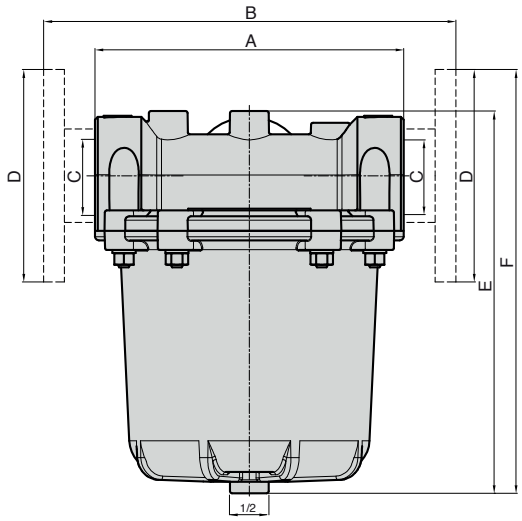



**Figure 9** Mod. 50000 cartridge filter

# Weight and dimensions

| Mod. | Connections | A | | B | | C | D | E | | F | | Weights | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | in | mm | in | in | DN | mm | in | mm | in | kg | lbs |
| 50101 | 1” | 160 | 6.3 | - | - | 1" | - | 195 | 7.7 | - | - | 2,2 | 4.8 |
| 50102 | 1” 1/4 | 160 | 6.3 | - | - | 1" 1/4 | - | 195 | 7.7 | - | - | 2,2 | 4.8 |
| 50103 | 1” 1/2 | 160 | 6.3 | - | - | 1” 1/2 | - | 195 | 7.7 | - | - | 2,2 | 4.8 |
| 50201 | 1” 1/2 | 200 | 7.9 | - | - | 1” 1/2 | - | 258 | 10.2 | - | - | 4 | 8.8 |
| 50202 | 2” | 200 | 7.9 | - | - | 2” | - | 258 | 10.2 | - | - | 4 | 8.8 |
| 50101/F | DN 25/S | - | - | 262 | 10.3 | | DN 25 | - | - | 215 | 8.5 | 4,2 | 9.2 |
| 50102/F | DN 32/S | - | - | 253 | 10.0 | | DN 32 | - | - | 228 | 9.0 | 5 | 11.0 |
| 50103/F | DN 40/S | - | - | 278 | 10.9 | | DN 40 | - | - | 233 | 9.2 | 5,8 | 12.8 |
| 50201/F | DN 40/S | - | - | 318 | 12.5 | | DN 40 | - | - | 287 | 11.3 | 6 | 13.2 |
| 50202/F | DN 50/S | - | - | 318 | 12.5 | | DN 50 | - | - | 295 | 11.6 | 7,6 | 16.7 |

**Table 3** Dimensions and weights

# Mod. 10000 filters

10000 filters are designed to comply with DIN 3386/3840 and EN 12516 standards and can be used for all types of natural gas, LPG or non corrosive gases.
Thanks to their small size, these compact die-cast aluminium filters are suitable for use in wall mounted boilers, hot water heaters and other domestic or light commercial appliances.
The large filtering surface area ensures a high degree of separation of both dust and solid particles, minimizing the maintenance required on all equipment installed downstream the filter.

## Features

| Features | Values |
|---|---|
| Maximum working pressure | 1 MPa<br>10 barg |
| Maximum allowable pressure | 1 MPa<br>10 barg |
| Maximum working temperature | From -20 °C up to +80 °C<br>From -4 °F up to +176 °F |
| Collecting capacity | Over 12% of total filter capacity with drain on bottom part |
| Threaded connections | UNI-ISO 228/1 |
| Filter capacity | 50 µm |

**Table 4** Features

## Materials

| Part | Material |
|---|---|
| Body | Aluminium alloy EN AB 46100 |
| Covers | Aluminium alloy EN AB 46100 |
| **REMARK: The materials indicated above refer to the standard models. Different materials can be provided according to specific needs.** | |

**Table 5** Materials

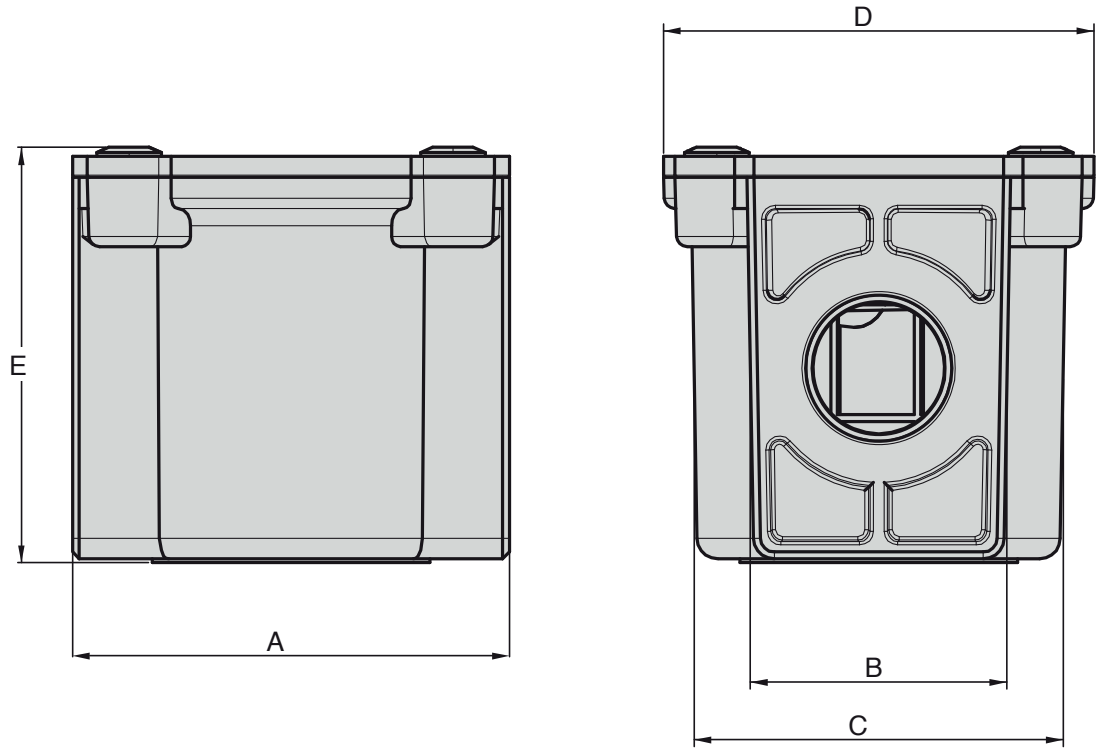



**Figure 10** Mod. 10000 filter

# Weight and dimensions

| Mod. | Connections | A | | B | | C | | D | | E | | Weight | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | in | mm | in | mm | in | mm | in | mm | in | Kg | Lbs |
| 10003 | 1/2” | 63 | 2.5 | 37 | 1.5 | 53 | 2.1 | 62 | 2.4 | 60 | 2.4 | 0,25 | 0.6 |
| 10004 | 3/4” | 63 | 2.5 | 37 | 1.5 | 53 | 2.1 | 62 | 2.4 | 60 | 2.4 | 0,25 | 0.6 |

**Table 6** Dimensions and weights

# Mod. 10600-10600F 10210/F filters

Pietro Fiorentini 106-106/F and 10210/F are gas filters designed to comply with DIN 3386/3840 and EN 12516 standards suitable for all the types of natural gas, LPG and non corrosive gases.

These filters are widely used for protection of control devices, pressure regulators, meters and on systems requiring a high degree of filtration. The high filtration capacity and large surface efficiently remove dust and solid particles, thereby reducing maintenance times for the equipment installed downstream.

## Features

| Features | Values |
|---|---|
| Maximum working pressure | • 106-106/F: 1 MPa \| 10 bar<br>• 10210/F: 0.2 MPa \| 2 bar |
| Maximum allowable pressure | • 106-106/F: 1 MPa \| 10 bar<br>• 10210/F: 0.2 MPa \| 2 bar |
| Maximum working temperature | From -20 °C up to +80 °C<br>From -4 °F up to +176 °F |
| Collecting capacity | Over 12% of total filter capacity with drain on bottom part |
| Flange connections | EN 1092-4 |
| Threaded connections | UNI-ISO 7/1 |
| Filter capacity | 50 µm<br>150 µm - 300 µm on request |

**Table 7** Features

## Materials

| Part | Material |
|---|---|
| Body | Aluminium alloy EN AB 46100 |
| Covers | Aluminium alloy EN AB 46100 |
| **REMARK: The materials indicated above refer to the standard models. Different materials can be provided according to specific needs.** | |

**Table 8** Materials

# Available accessories

- Test point standard
- Manometer

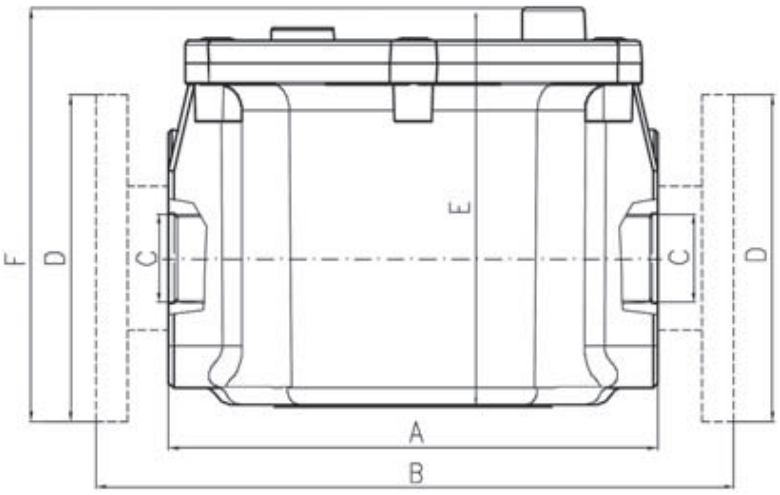



**Figure 11** Mod. 106 / 10210 filter

# Weight and dimensions

| Mod. | Connections | A | | B | | C | D | E | | F | | Weights | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | in | mm | in | in | DN | mm | in | mm | in | kg | lbs |
| 10601 | 1/2" | 114 | 4.5 | - | - | 1/2" | - | 106,5 | 4.2 | - | - | 0,9 | 2.0 |
| 10602 | 3/4" | 114 | 4.5 | - | - | 3/4" | - | 106,5 | 4.2 | - | - | 0,9 | 2.0 |
| 10603 | 1" | 114 | 4.5 | - | - | 1" | - | 106,5 | 4.2 | - | - | 0,9 | 2.0 |
| 10604 | 1" 1/4 | 150 | 5.9 | - | - | 1" 1/4 | - | 135,5 | 5.3 | - | - | 2,6 | 5.7 |
| 10605 | 1" 1/2 | 150 | 5.9 | - | - | 1" 1/2 | - | 135,5 | 5.3 | - | - | 2,6 | 5.7 |
| 10606 | 2" | 180 | 7.1 | - | - | 2" | - | 135,5 | 5.3 | - | - | 2,6 | 5.7 |
| 10603/F | DN 25/S | - | - | 216 | 8.5 | - | DN 25 | 135,5 | 5.3 | - | - | 2,9 | 6.4 |
| 10604/F | DN 32/S | - | - | 243 | 9.6 | - | DN 32 | 135,5 | 5.3 | - | - | 4,1 | 9.0 |
| 10605/F | DN 40/S | - | - | 269 | 10.6 | - | DN 40 | 135,5 | 5.3 | - | - | 5,2 | 11.4 |
| 10606/F | DN 50/S | - | - | 298 | 11.7 | - | DN 50 | 135,5 | 5.3 | - | - | 7,3 | 16.1 |
| 10607 | DN 65 | - | - | 354 | 13.9 | - | DN 65 | 198,5 | 7.8 | 245,5 | 9.7 | 8 | 17.6 |
| 10608 | DN 80 | - | - | 354 | 13.9 | - | DN 80 | 198,5 | 7.8 | 245,5 | 9.7 | 9,6 | 21.1 |
| 10609 | DN 100 | - | - | 354 | 13.9 | - | DN 100 | 198,5 | 7.8 | 245,5 | 9.7 | 11,4 | 25.1 |
| 10210 | DN 150 | - | - | 474 | 18.7 | - | DN 150 | 322 | 12.7 | - | - | 24,2 | 53.2 |

**Table 9** Weight and dimensions

# Customer Centricity

Pietro Fiorentini is one of the main italian international company with high focus on product and service quality.

The main strategy is to create a stable long-term oriented relationship, putting the customer's needs first. Lean management and thinking and customer centricity are used to improve and maintain the highest level of customer experience.

**Support**

One of Pietro Fiorentini's top priorities is to provide support to the client in all phases of project development, during installation, commissioning and operation. Pietro Fiorentini has developed a highly standardized intervention management system, which helps to facilitate the entire process and effectively archive all the interventions carried out, drawing on valuable information to improve the product and service. Many services are available remotely, avoiding long waiting times or expensive interventions.

**Training**

Pietro Fiorentini offers training services available for both experienced operators and new users. The training is composed of the theoretical and the practical parts, and is designed, selected and prepared according to the level of use and the customer's need.

**Customer Relation Management (CRM)**

The centrality of customer is one of the main missions and vision of Pietro Fiorentini. For this reason, Pietro Fiorentini has enhanced the customer relation management system. This enable to track every opportunity and request from Customer in one single point and make free the information flow.

Pietro Fiorentini

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