

CYCLONIC GAS FILTER

High pressure cyclonic filter for gas application
Flanged construction for DN100 / 4" pipework



PRODUCT OVERVIEW

The Oxford Flow Cyclonic Gas Filter removes up to 99.5% of solid particles with little pressure drop. The aerodynamic performance of the cyclone has been optimised using the latest computer simulation and experimental techniques. Perfect for both dirty, heavily loaded applications (e.g. black powder in natural gas transmission and during pigging) or for applications requiring reduced maintenance.

Particles are captured in a large collection bin capable of storing up to 5 kg / 11 lb of material. The pressure drop across the cyclonic filter is 3 times less than an equivalent clean 50 um / 0.002" strainer. Unlike a strainer, the pressure drop across the cyclonic filter remains constant as particles are captured.

Our design supports both manual and automatic alarms to identify when the bin is full. Units are designed for working pressures up to 69 barg / 1000 psig. Designed for ease of use, manual handling, and reduced maintenance.

BENEFITS & FEATURES

- Collects all solid particles above 50 um diameter
- 99.5% collection efficiency for typical gas transmission application
- Pressure drop 3 times less than a clean 50 um / 0.002" strainer
- Constant pressure drop characteristic; no strainer, no clogging
- 5 kg / 11 lb collection bin capacity, designed for manual handling and tool-less entry
- Maintenance interval 500 times longer than a conventional in-line strainer
- Bin fill alarm either manual (visual) or automatic (electronic)
- Optional strainer for capturing particles below 50 um / 0.002"



APPLICATIONS

Suitable for use with all non-corrosive gases and solid particles.

| | |
|---------------------|-----------------------------------|
| Max. inlet pressure | Up to 69 barg / 1000 psig |
| Sizes* | DN100 / 4" |
| Flanges | To suit |
| Cut size** | ~50 um / 0.002" |
| Collection capacity | 5 kg / 11 lb |
| Standards | PED, BS EN 13445, GIS E13.1, ATEX |

*Other sizes available on request

**Without optional strainer. Exact cut size dependent on particle density, gas speed and operating pressure

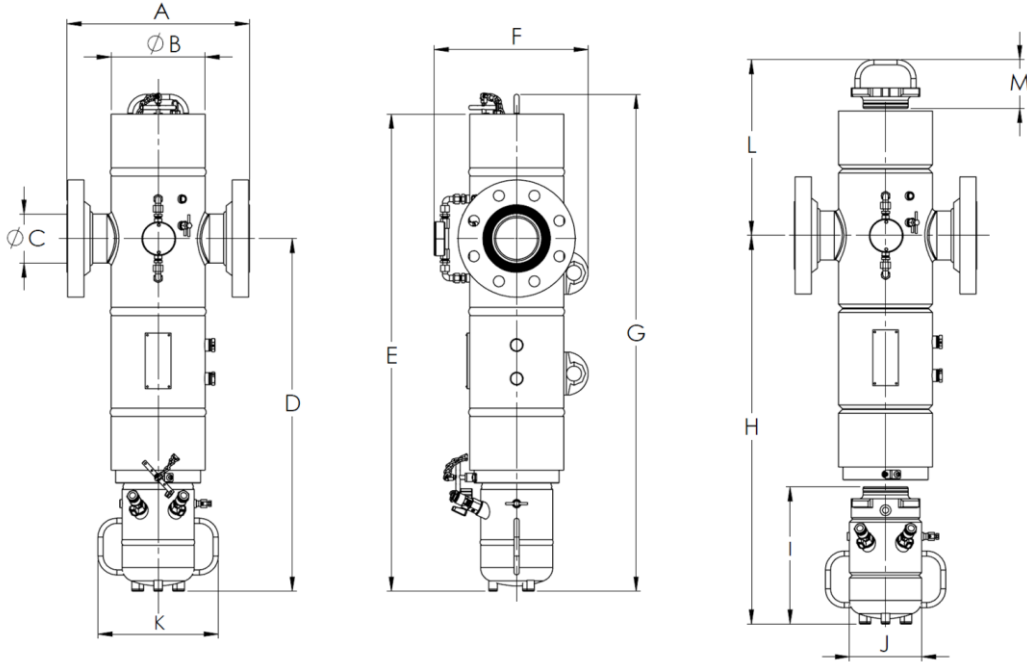


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DIMENSIONS AND WEIGHTS



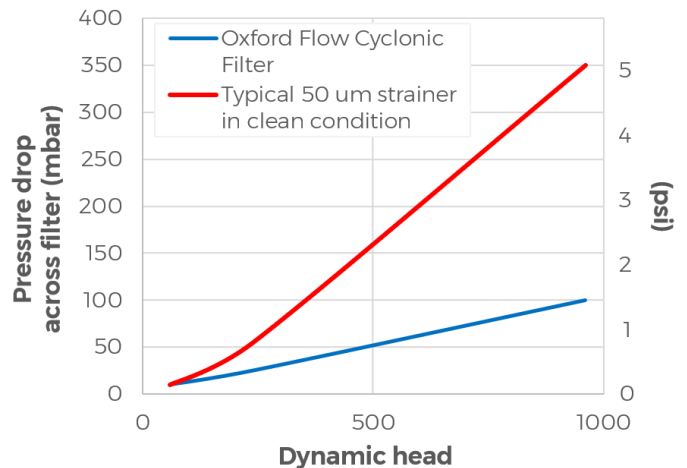
| Size | Key Dimensions (mm) | | | | | | | | | | | | | Weight (kg) | |
|--------------------|---------------------|------------|------------|-------------|--------------|-------------|--------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|
| | (") | | | | | | | | | | | | | All (empty) | Bin (empty) |
| DN (mm) NPS (") | A | B | C | D | E | F | G | H | I | J | K | L | M | | |
| 100 4 | 425 16.7 | 219 8.6 | 114 4.6 | 822 32.4 | 1112 43.8 | 359 14.1 | 1158 45.6 | 905 35.6 | 320 12.6 | 168 6.6 | 280 11.0 | 409 16.1 | 114 4.5 | 131 289 | 14 31 |

CONSTRUCTION MATERIALS

Get in touch to find out how we can optimise materials for your application.

| Components | Materials |
|------------|----------------------------------|
| Body | Welded Stainless steel 304L/316L |
| Seals | HNBR |
| Fittings | Stainless steel 316 |

PRESSURE DROP



Dynamic head

$$= 0.5 \times \text{Gas Density [kg/m}^3\text{]} \times (\text{Gas Speed [m/s]}^2$$

$$= 0.744 \times \text{Gas Density [lb/ft}^3\text{]} \times (\text{Gas Speed [ft/s]}^2$$

