

Self-Clean Filters and Strainers – Series OXF

**OXFORD
FILTRATION
LIMITED**



Benefits of Self-Clean Filters

- Provides an efficient filtration solution for virtually any fluid with viscosity from a thick viscous resin and adhesive to water and oils.
- Element cleaning without interrupting flow, loss of system pressure or fluid loss.
- Fully enclosed system with no operator contact with the fluid. Ideal for hazardous or sensitive applications and also no risk of externally introduced contamination into the product.
- Cleaner and safer operating area.
- Manual or fully automated operation.
- Reduces labour cost associated with more traditional filtering methods such as strainers and bag filters and also minimises any production down time.

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Oxford Blade-type self-clean filters

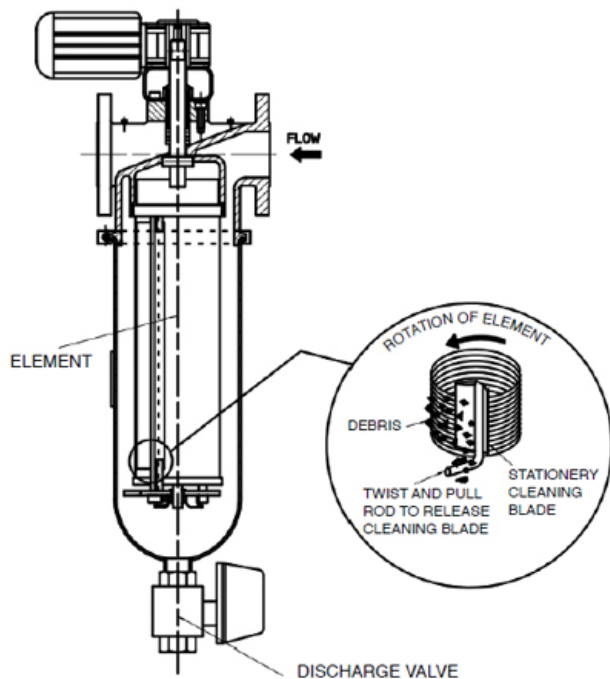
These blade style self-clean filters are used for the filtration of virtually all fluids from water to very high viscosity fluids where the filter is cleaned without the operator accessing the unit or even on a completely automatic basis with no operator involvement in the cleaning operation.

Oxford Filtration's innovative self-clean filter technology offers you improved output, greater efficiency and consistent quality in a cost-effective and reliable package which is supported by our excellent pre and after sales care.



The Advantages

- Element cleaning without stopping or disrupting the fluid flow.
- Element cleaning without fluid loss.
- Suitable for virtually all fluids of all viscosity levels.
- Fully enclosed system:
 - No operator contact with the fluid - ideal for hazardous or sensitive applications.
 - No externally introduced contamination problems - increases confidence in the quality of the filtered product.
 - Clean operating area and easy environmental contamination control.
- Unique twist and pull cam assembly so cleaning blades and element can be quickly and easily changed without tools
- Debris removed by the cleaning blade and sinks to base of the bowl ready to be flushed out of the filter via the discharge valve



Range Options

316 stainless steel wedge wire or perforated elements with filtration level from a coarse 6mm down to 50 micron and on some models 25 micron

Available in cast iron, carbon steel or stainless steel. Other materials offered but not stocked

Working pressure to 14 Bar(g) (200psi) for the lower pressure range and up to 50 bar(g) (725psi) for the higher pressure range*

Manually cleaned by simply turning a ratchet handle or fully automated so no operator involvement is required

High viscosity unit can feature reinforced elements and isolated pressure switch and heating jackets if required

*Pressure stated at 50C. Pressure reduces with increasing temperature. We do not recommend the use of cast iron above 100C. For any application above 100C talk to our technical sales team. Max pressure on high pressure range specified to order.

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Automation option:

- Eliminates operator involvement.
- Optimises the cleaning frequency.
- 'Fit and forget' philosophy.
- 'Operational status' indication on the filter control panel.
- Remote 'operational status' indication feature.



Example of Applications

Paint and coatings industry - Used as a fully automated quality control measure to ensure paint, ink, varnish etc is free of unwanted particulates in the process and filling lines. Used to replace paint bag filters, open sieves and other more labour intensive filtration methods.

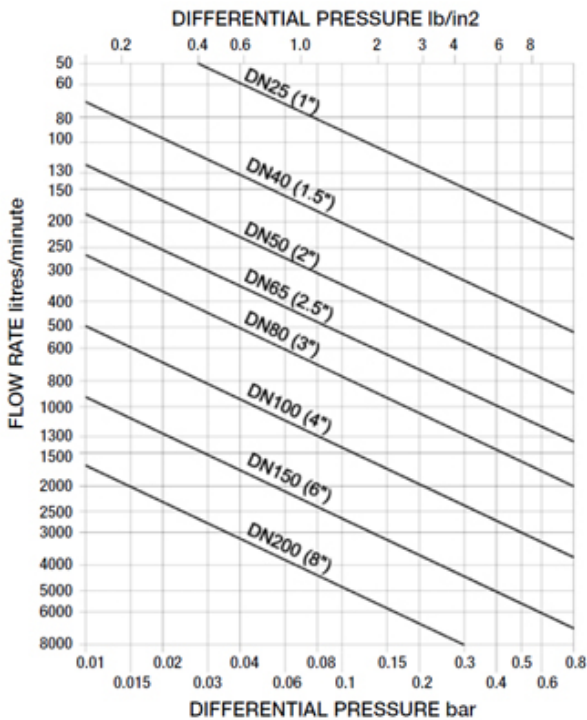
Chemical industry - Used for filtering process chemical liquids on an automated basis to protect pipeline equipment, as a quality control measure and replacing more manual methods of filtration generally.

Paper industry - Frequently used for process water for example in the protection of spray nozzles on paper making machinery and also used on raw water intake and cooling water.

Power - Used on industrial water for cooling and the filtration of sealing water to increase the service life of turbine shaft seals.

Water industry - Used throughout the industry for straining of raw water usually before other finer filtration methods and on waste water treatment plant etc...

Food - Used on suitable applications for example in the chocolate industry as a quality control measure and in the meat industry for process water filtration.



Flow Chart for Blade Type Self-Clean Filters

The chart is for water (1cSt) flowing through a filter with an element coarser than 1000 microns. Multiply the pressure drop by the following factors for different element micron ratings and different viscosities.

| Viscosity (Centistokes) | Filtration Rating (Microns) | | | | |
|----------------------------|-----------------------------|------|------|------|------|
| | 50 | 100 | 200 | 500 | 1000 |
| 1 | 1.5 | 1.2 | 1.13 | 1.08 | 1.0 |
| 50 | 3.6 | 2.75 | 2.4 | 2.2 | 1.75 |
| 200 | 5.0 | 3.67 | 3.16 | 2.84 | 2.1 |
| 500 | 6.2 | 4.5 | 3.8 | 3.35 | 2.4 |
| 1000 | 7.6 | 6.0 | 5 | 3.9 | 3.6 |
| 5000 | 34 | 27 | 22 | 18 | 17 |

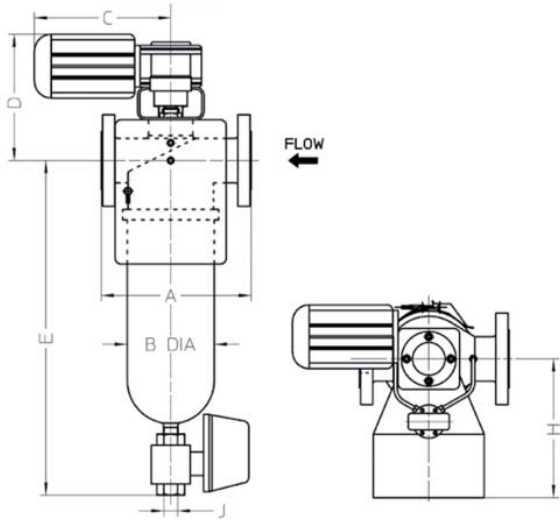
Technical Data for units rated to 14 bar(g)

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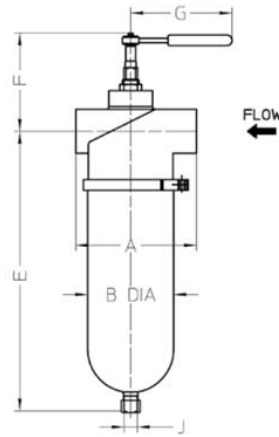
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Flanged unit – With Automation

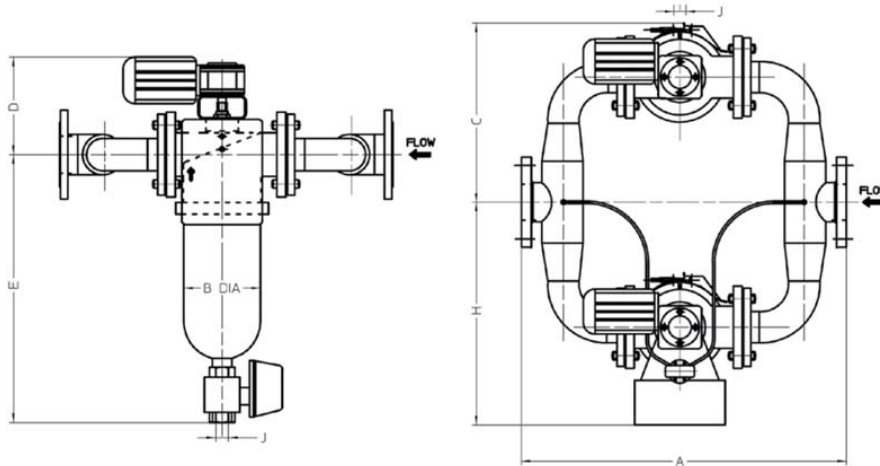


Threaded unit – Manual Clean



| Unit Size DN | Flanged Filter A | Thread Filter A | Common Dimensions (mm) | | | | | | | | Mass (dry) kg Flanged | | Mass (dry) kg Threaded | |
|-----------------|---------------------|--------------------|------------------------|-----|-----|-----|-----|-----|-----|------|--------------------------|------|---------------------------|------|
| | | | B | C | D | E | F | G | H | J | Manual | Auto | Manual | Auto |
| 40 | 270 | 220 | 157 | 260 | 245 | 555 | 150 | 185 | 250 | 3/4" | 24 | 35 | 18 | 29 |
| 50 | 270 | 220 | 157 | 260 | 245 | 555 | 150 | 185 | 250 | 3/4" | 24 | 35 | 18 | 29 |
| 65 | 270 | 220 | 157 | 260 | 245 | 555 | 150 | 185 | 250 | 3/4" | 24 | 35 | 18 | 29 |
| 80 | 299 | - | 192 | 260 | 255 | 645 | 190 | 185 | 250 | 1.5" | 50 | 55 | - | - |
| 100 | 430 | - | 280 | 350 | 380 | 880 | 295 | 510 | 300 | 1.5" | 285 | 385 | - | - |
| 100M | 825 | - | 190 | 450 | 255 | 645 | 190 | 185 | 570 | 1.5" | 220 | 240 | - | - |

DN100 Manifold – Flanged unit with automation

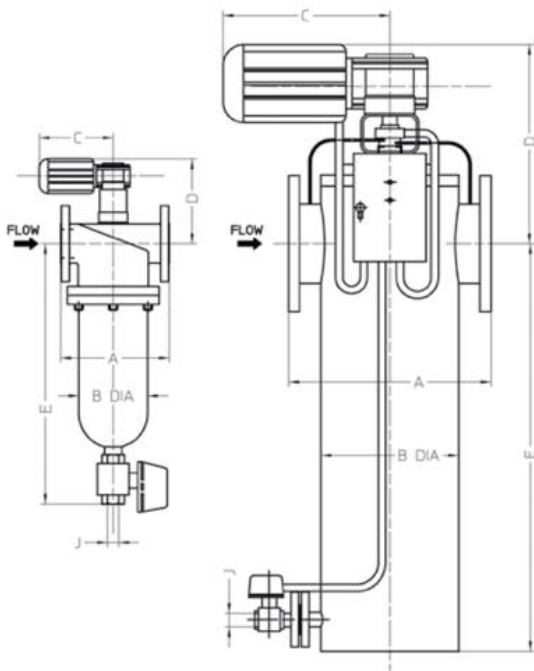


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Technical Data for units rated up to 50 bar(g)

High Pressure Filter – With Automation



| Bore Size DN | Dimensions (mm) | | | | | | Mass (dry) kg | |
|--------------|-----------------|-----|-----|-----|------|--------|---------------|------|
| | A | B | C | D | E | J | Manual | Auto |
| 50S | 270 | 157 | 260 | 245 | 445 | ¾" | 25 | 35 |
| 50 | 325 | 157 | 260 | 245 | 555 | ¾" | 30 | 36 |
| 80 | 360 | 190 | 260 | 255 | 645 | 1-1/2" | 50 | 55 |
| 100M | 550 | 190 | 450 | 255 | 546 | 1-1/2" | 220 | 240 |
| 100 | 550 | 280 | 345 | 380 | 880 | 1-1/2" | 285 | 385 |
| 150 | 550 | 406 | 345 | 560 | 1170 | 1-1/2" | 380 | 480 |
| 200 | 870 | 700 | 345 | 560 | 1170 | 1-1/2" | 850 | 1050 |
| 250 | 1000 | 800 | 345 | 560 | 1170 | 1-1/2" | 1340 | 1640 |
| 300 | 1100 | 865 | 345 | 560 | 1170 | 1-1/2" | 1830 | 2230 |

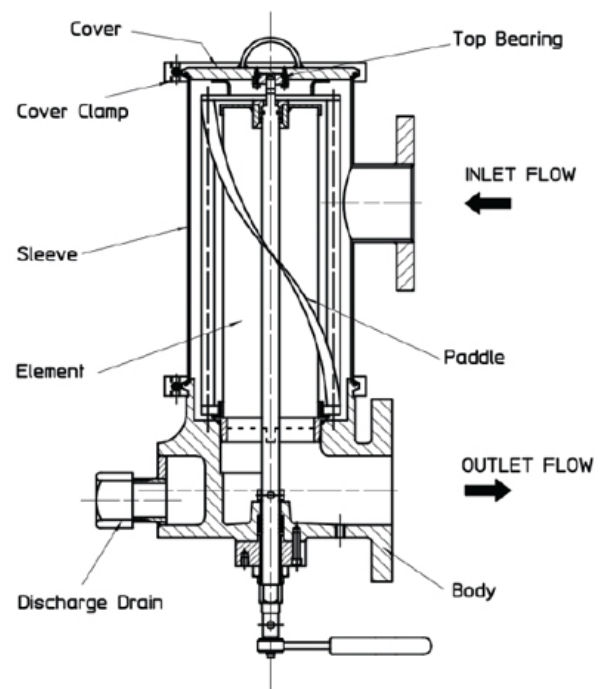
S = Threaded Connections

M = Manifold Unit

The LPH Series of Self Clean Filters

The LPH self-clean filter is ideally suited to those applications where regular stirring of fluid is beneficial and very low product loss is essential.

- Lift-out element and blade assembly for quick and easy change-over or cleaning
- Paddle stirs the fluid on the 'dirty' side of the element allowing agitation of the product and restricting build up of solids on the bowl
- Paddle directs the debris towards the discharge valve
- Optional paddle to stir the fluid on the 'clean' side of the element
- Self-draining at the end of a batch, minimising product losses
- Optional heating jacket
- High Pressure version available



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