



## Application

Oxford Filtration Model XS Series simplex strainers provide a simple cost-effective way to separate particle impurities from fluid flow systems. Simplex models described in this brochure are designed for applications where temporary interruption of a batch process can be permitted for basket cleaning. Where continuous, uninterrupted flow is required, our duplex strainers or self cleaning filters described in other brochures should be used. All strainers are individually pressure tested.

- Available in cast iron, bronze, carbon and stainless steel and other materials to customer order.
- Pipeline sizes from 20mm (3/4") to 250mm (10") (ask for details of sizes above 150mm).
- Available flanged in all common drillings including PN16 and ANSI150 (ANSI300 and 600 on request) and screwed ports both BSP and NPT or socket weld
- XS range with PN16 drilling up to 16 BarG\*
- XS steel range with ANSI150 drilling up to 19BarG\* (cast iron ANSI125 limited to 13.8 BarG\*)
- Large filter basket areas and manufactured in st. steel 316.
- 100% full flow.
- Extended area basket available.
- Various options including differential pressure indicator, magnets to remove ferrous particles, heating jackets.

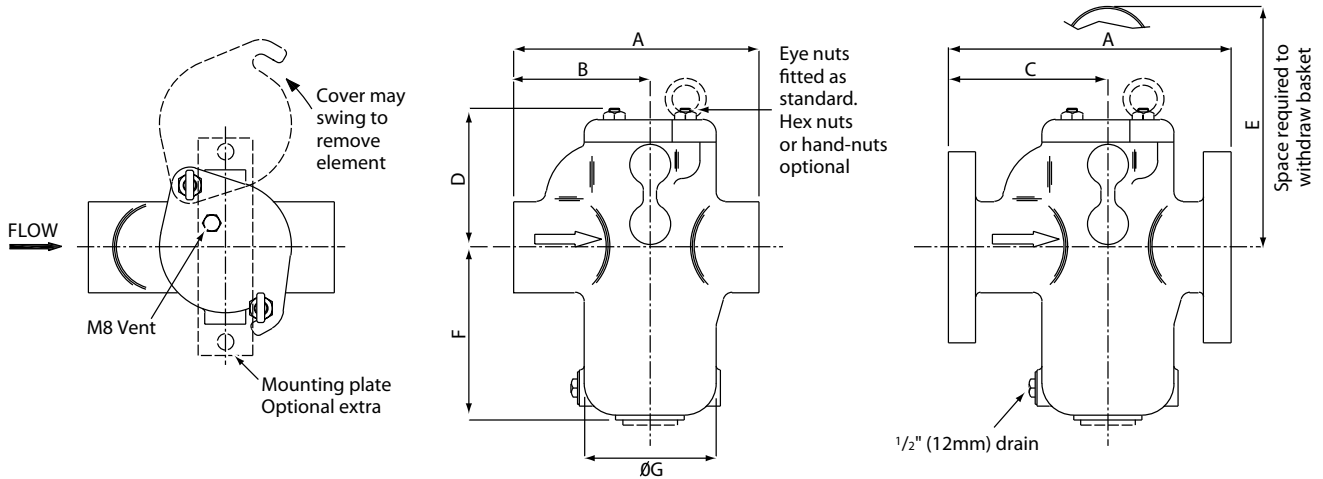
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(\*Note – pressures quoted at 50c max. Pressures will reduce with higher temperatures and are limited to flange)

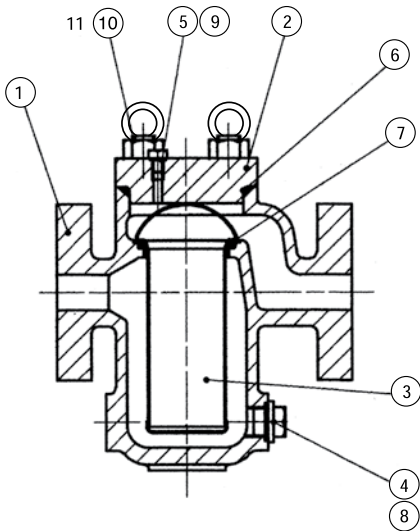
**Dimensional Data**



Bore Size	Flanged Filters	Screwed Filters	Common Dimensions (mm)						Basket Area cm sq	Mass (dry)	
			A	A	B	C	D	E		F	G
DN25	195	160	90	110	95	245	126	100	200	14	10
DN40	210	175	95	115	120	310	160	100	280	14	10
DN50/65	310	270	150	170	155	355	160	145	514	26/30	20
DN80	345	-	-	200	195	455	210	160	770	38	-
DN100	355	-	-	210	225	580	270	160	1018	48	-
DN150	415	-	-	255	270	680	280	170X345	2036	81	-

N.B. Table data refers to PN16 & ANSI125/150 only

**Parts List**



Item No.	No. off	Description
1	1	Body
2	1	Filter Cover
3	1	Basket Assembly
4	1	Drain Plug
5	1	Bleed Screw
6	1	O Ring Cover
7	1	O Ring Basket
8	1	O Ring Drain
9	1	O Ring Bleed
10	3/4	Stud
11	2	Eye-nut

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Designed to provide quick and easily accessible information on material and strainer size selection on specific Oxford Filtration products.

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Model	Body and Cover Material	Seal Material (as standard)	Drain Plug	Colour
XS	Cast Iron* BS EN1561 EN-JL1030 DIN1691 GG25 ASTM A48/76 CLASS 35	Nitrile** max 120°C	Bronze	Blue
XSC	Carbon Steel BS EN10213 1.0625 DIN17245 GS22 Mo 4 ASTM A216 GRADE WCB	Nitrile** max 120°C	St. Steel	Grey
XSS	Stainless Steel BS EN10213 1.4408 DIN 17445 GX5 Cr Ni Mo 18 10 ASTM A351 CF8M	Viton**	St. Steel	Self
XSGM	Bronze BS 1400 LG4C DIN DGS 203 ASTM B62/52T	Nitrile** max 120°C	Bronze	Self

\* Cast iron recommended for use up to 120C on suitable applications. All material specifications to supplied to BS, other specifications closest equivalents.

\*\* PTFE and EP also available. Operating temperatures of seal only. All applications should be checked with our technical department for suitability.

### Examples of Simplex Basket Strainer Model Number Identification

XS (Cast Iron body and cover)	50 (2" connection)	S (screwed BSP, NPT also available)
XSS (Cast Steel body and cover)	80 (3" connection)	F (flanged, specify PN16, ASA150 etc)

### Basket and Mesh Data

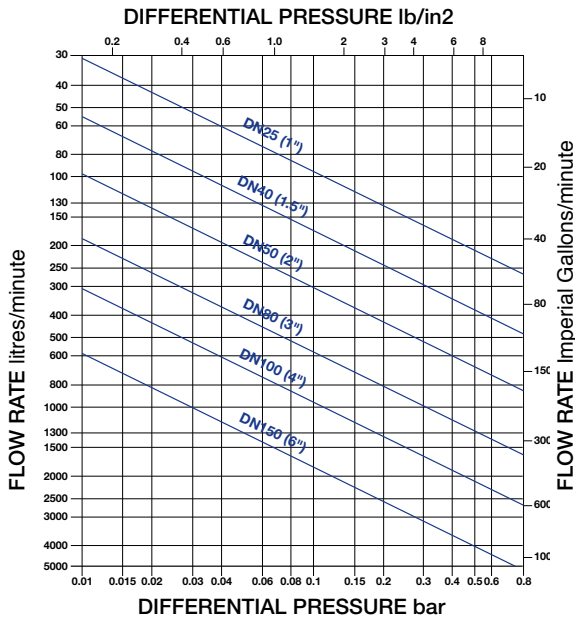
Meshes per linear inch	Size of aperture
20 mesh	0.91mm
30 mesh	0.56mm
40 mesh	0.38mm
60 mesh	0.25mm
80 mesh	0.19mm
120 mesh	0.13mm
200 mesh	0.08mm
300 mesh	0.05mm

Perforated baskets in stainless steel 316 and available with 1mm, 2mm or 3mm or larger diameter holes.

### Example of Basket Model Identification

Basket Identification	Size	Size Mesh/Perf.
B -	25 -	80M (DN25 1" with 80 mesh fitted)
B -	50 -	2P (DN50 2" unit with 2mm perf. fitted)

**Flow Chart for Single Basket Filters**



The chart is for water (1cSt) flowing through a filter with an element coarser than 1 millimeter perforations. Multiply the chart pressure drop by the following factors for different ratings and different viscosities to calculate the actual pressure drop.

Viscosity (Centistokes)	Filtration Rating (mesh size)					
	perf.	20	40	80	120	200
1	1	1	1	1.1	1.2	1.3
50	1.6	1.7	1.9	2.1	2.3	2.5
100	1.7	1.9	2.1	2.4	2.6	2.9
200	2	2.2	2.5	2.9	3.2	3.6
400	2.2	2.7	3.1	3.5	3.9	4.4
800	2.9	3.4	3.8	4.1	4.9	5.8
1500	5	5.8	6.4	6.9	8.1	10.2

**Factors to be Taken Account of when Selecting a Strainer:**

- Fluid type (refer to our compatibility tables)
- Flow
- Viscosity
- Temperature – operating and design
- Pressure – operating and design
- Degree of filtration required
- Connection type i.e. flanged PN16, ASA150, screwed BSP, NPT
- Any special requirements i.e. heating jacket, magnets, mounting brackets, dp indicator/switch etc.

**Choice of Strainer Type:**

- If flow can be interrupted to enable cleaning of the basket use a **Simplex Basket Strainer** and refer to this brochure.
- If flow needs to be continuous even when the basket needs cleaning use a **Duplex Basket Strainer** or a manual or automated **Self Cleaning Filter**. A Manual or Automated Self Clean Filter will enable the operator to clean the filter without actually touching the screen or the process liquid.
- If cleaning of the screen needs to be carried out without operator involvement use an automated **Self Cleaning Filter**.

**Oxford Filtration**

Oxford Filtration is a market leading manufacturer and supplier of pipeline strainers including:

- Simplex and duplex basket strainers
- Self-clean filters
- Temporary strainers
- Y type strainers
- Wedge wire elements

All in a vast range of materials, pressures and sizes.

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*The policy of Oxford Filtration Ltd is one of continuous product improvement. The right is therefore reserved to amend specifications and product dimensions without prior notice.*