



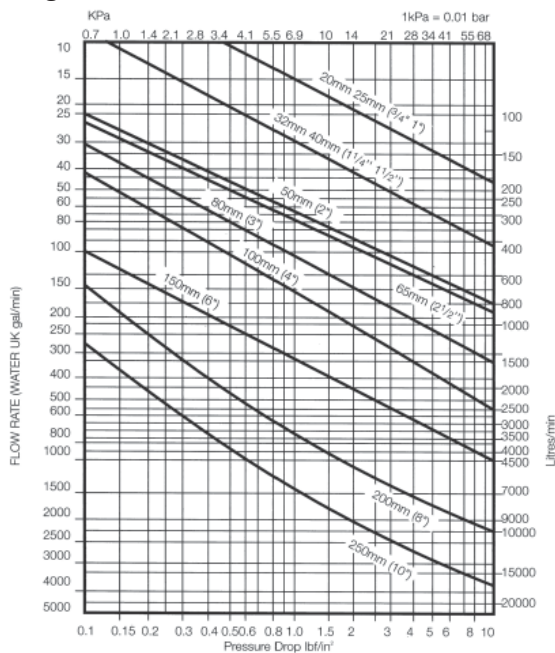
AN SPX BRAND

Complete Solutions for Liquid Filtration



Sizing Data Single & Dual Filters

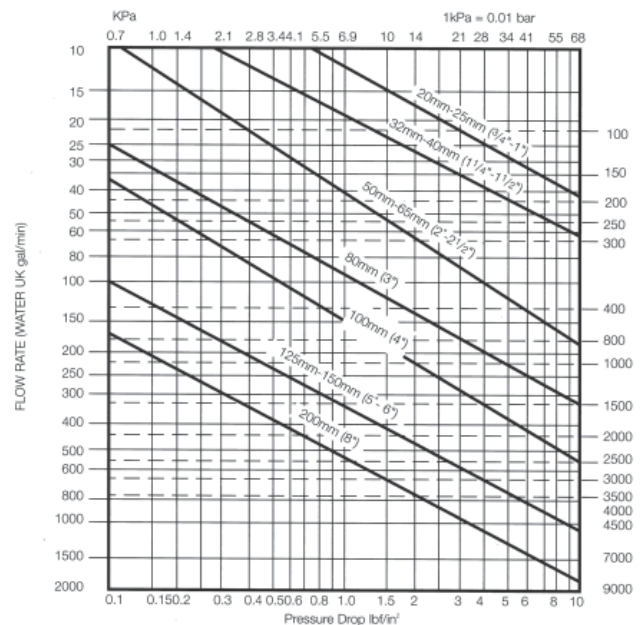
OV Single Filters



A single basket OV filter is required to protect pipeline equipment to a level of 200 microns. The media is water at 20°C, at a pressure of 4 bar g and having a flow rate of 600 litres/min. A clean basket pressure drop of no more than 34 Kpa is acceptable.

1. Check temperature/pressure rating of filter and suitability for application, i.e. 20°C temperature at 4 bar g: Standard Cast Iron Filter suitable.
2. Selection of Mesh: protection to 200 microns or less would require an 80 mesh basket (at 190 microns).
3. Mark flow rate of 600 litres/min on chart to intersect diagonal "filter selection line" and read vertically to obtain pressure drop in Kpa. 600 litres/min intersects 65mm (2 1/2") filter and will have a pressure drop of 28 Kpa.
4. Apply correction factor for 80 mesh basket: Pressure drop = 28 Kpa x 1.1 (see table on reverse) = 30.8 Kpa (This falls within acceptable pressure drop of 34 Kpa).
5. Selection for application would be 65mm (2 1/2") cast iron OV filter with an 80 mesh lined basket.

OW Dual Filters



A dual basket OW filter is required to filter particles the size of 80 microns from lubricating oil which has a viscosity of 230 centistokes at 40°C. The flowrate of oil is 150 litres/min at a pressure of 10 bar g. A clean basket pressure drop of no more than 41 Kpa is acceptable.

1. Check temperature/pressure rating of filter and suitability for application, i.e. 40°C temperature at 10 bar g: Standard Cast Iron Filter suitable.
2. Selection of Mesh: Protection to 80 microns or less would require a 200 mesh basket. (See Standard Basket Data).
3. Mark flowrate of 150 litres/min on chart to intersect diagonal "filter selection line" and read vertically to obtain pressure drop in Kpa. 150 litres/min intersects 50mm (2") — 65mm (2 1/2") filter and will have a pressure drop of 5.5 Kpa.
4. Apply correction factor for oil at 230 centistokes with 200 mesh lined basket: Pressure drop = 5.5 Kpa x 3.75 = 20.6 Kpa (This falls within acceptable pressure at 41 Kpa).
5. Selection for application would be 50mm (2") or 65mm (2 1/2") cast iron OW filter with a 200 mesh lined basket.

OV & OW Basket Identification

Code numbers are used to identify the basket as shown on the end plate. Typical example:

Pressure Drop Chart

The charts are for water flowing through a filter without an element. Use the following correction factors for the chosen filtration rating and for liquids of higher viscosity.

Correction Factors For OV & OW

Either — multiply the pressure drop for water shown in the chart by the following correction factors to obtain the actual pressure drop. (Water has a viscosity of 1 centistoke at 20°C)

Or — divide the acceptable pressure drop by the necessary correction factor in the table below and then use the chart to determine the filter size and flow rate.

2	E-GA	S	80
Mark	Size	Material	Mesh
Mk1—None	A = 3/4"-1	S = St.St	
Mk2—2	B = 1 1/4"-1 1/2"		
	C = 2"-2 1/2"		
	D = 3"		
	E = 4"		
	FT = 6"Multi		
	FV = 6"(OV)		
	G = 8"(OV)		
	GA/GB = 8"/10" (OV)		

Filtration Rating

Viscosity Centistokes	Unlined Perforated Baskets	20 mesh (910 µm)	80 mesh (910 µm)	120 mesh (910 µm)	200 mesh (910 µm)
1	1	1	1.1	1.25	1.35
50	1.6	1.7	2.1	2.3	2.5
230	2.0	2.3	3.0	3.35	3.75
370	2.2	2.6	3.4	3.8	4.3
860	3.0	3.5	4.2	5.0	6.0

Standard Basket Data for OV & OW

Baskets are constructed from stainless steel perforated plate. Welding the appropriate grade of stainless steel mesh to the basket provides the relevant degree of filtration. Pleated elements giving filtration down to 10 microns are also available.

Perf. Plate Holes per square Inch	Diameter of hole			Material Reference	Percentage Clear Area
	Inches	mm	µm		
11	0.25	6.35	6350	S11	54
33	0.125	3.17	3170	S33	39
124	0.063	1.60	1600	S14	38
Square Mesh Meshes per Lin- ear Inch	Diameter of hole			Material Reference	Percentage Clear Area
	Inches	mm	µm		
20	0.036	0.91	910	S20	53
30	0.022	0.56	560	S30	42
40	0.015	0.38	380	S40	40
60	0.01	0.25	250	S60	35
80	0.0075	0.19	190	S80	34
120	0.005	0.13	130	S120	32
200	0.003	0.08	80	S200	36
300	0.002	0.05	50	S300	32

SPX®

FLOW CONTROL

Your local contact:



SPX Flow Control
Hambridge Road
Newbury, Berkshire, RG14 5TR
Phone: +44 (0) 1635 263915 Fax: +44 (0) 1635 36006
E-mail: airpel@spx.com

For more information about our worldwide locations, approvals, certifications, and local representatives, please visit www.spxfc.com.

SPX reserves the right to incorporate our latest design and material changes without notice or obligation. Design features, materials of construction and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing. Certified drawings are available upon request.