# **SELF-CLEAN FILTERS**



## 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.
- Element cleaning without interrupting flow or losing system pressure or any fluid loss.
- Fully enclosed system with no operator contact with the fluid therefore ideal for hazardous or sensitive applications and also no chance 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.

# **TECHNICAL DATA**

#### Flanged Filter, automated





Threaded Filter, manual

#### Manifold DN100, flanged unit, automated





Bore	Flanged	Threaded Filters								Mass (dry) kg				
Size	Filters		Common Dimensions (mm)								Flanged Threa		ded	
	Α	Α	В	С	D	Е	F	G	н	J	Manual	Auto	Manual	Auto
DN40	1													
DN50	270	220	157	260	245	555	150	185	250	3/4"	24	35	18	29
DN65	J													
DN80	299	-	192	260	255	645	190	185	250	1.5"	50	55	-	-
DN100	430	-	280	350	380	880	295	510	300	1.5"	285	385	-	-
DN100M	825	-	190	450	255	645	190	185	570	1.5"	220	240	-	-

## **RANGE & APPLICATIONS**

## Range

- 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 Barg (200psi) for the lower pressure range and up to 50 barg (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
- Unique twist and pull cam assembly so cleaning blades and element can be quickly and easily changed without tools

\*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.

#### Applications - Just a Few Examples

- Filtration of highly viscous epoxy and polyester resins during the manufacturing process
- · Protection of a heat exchanger on sea water used for cooling
- Filtration of paints and varnishes replacing open sieves which can be subject to product contamination
- Replacing and extending the lift of filter bags and cartridges in an ink manufacturing facility
- Replacing a basket strainer used for the filtration of flushing water on mechanical seals on pumps in the paper and pulp industry





#### 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	3.67	3.16	2.84	2.1				
500	6.2	4.5	3.8	3.35	2.4				
1000	7.6	6	5	3.9	3.6				
5000	34	27	22	18	17				

# **SELF-CLEAN FILTERS**

## The High Pressure Range

The higher pressure range is dimensionally and functionally similar to the low pressure range up to and including the DN80 model but features a flanged closure. Maximum pressures are specified to order.



Bore Size		Comm	on Dim	Mass (dry)kg				
	Α	в	С	D	Е	J	Manual	Auto
DN50S	270	457	260	245	445	2/4"	25	35
DN50	325	157			555	3/4	30	36
DN80	360	100		450 255	645	1.1/2"	50	55
DN100M		190	450				220	240
DN100	550	280	345	380	880		285	385
DN150		406		560	1170		380	480
DN200	870	700					850	1050
DN250	1000	800					1340	1640
DN300	1100	865					1830	2230

S = Threaded connections M = Manifold unit

### The LPH Range

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 agita- tion 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





