

# SELF CLEANING FILTERS MANUAL & AUTOMATIC MODEL AIRPEL

Leaflet F03-01-UK



**Fluxa  
Filtri  
S.p.A.**

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Standard model  
completely automatic

Self-cleaning filters are designed specifically to provide efficient filtration for liquids, including those of high viscosity, requiring continuous filtration without interruption to the flow during the cleaning process. There is no operator contact with the process fluid. High quality stainless steel elements are highly effective in removing contaminant particles as small as 50 micron ( $\mu\text{m}$ ).

In operation the liquid enters the body and flows through the element from outside to inside. Debris is collected on the outside of the wedge wire or perforated element, which is cleaned without flow interruption by the rotation of elements against blades. The debris accumulated during rotation is deposited into the bottom of the filter body from where it is periodically discharged, manually or automatically.

The filter is available for either manual or fully automatic electric or pneumatic operation. The range of optional control devices makes it particularly suitable for continuous process and for service with high contamination levels.

## RANGE

Airpel Filtration offer four forms of blade type self cleaning filters: standard range, high pressure range, vertical exit and rotor blade, all working on the same generic principle. Airpel also offer both standard element and high pressure element for very demanding duties.

## STANDARD

Models 075, 100, 125, 150, 200, 300 and 400 ( $\frac{3}{4}$ "-4") available in detachable head and bowl form, suitable for working pressures of up to 14 bar and flow rates up to 1500 litres/min.

## BENEFITS

No operator contact with liquid during cleaning operation. Minimised product loss-during both process production and system cleaning. Increased quality output minimum disruption to product flow. Reduced contamination-less possibility of accidents or operator exposure to the fluid. Reduced maintenance costs-automated units can eliminate manual cleaning. Environment friendly-enclosed design with minimal flushing losses.

## HIGH PRESSURE

Models 200, 300, 400 and 600 (2"-6") are of cast construction, available in iron, steel and stainless steel for working pressures up to 35 bar and flow rates up to 3000 litres/min.

## ROTOR BLADE

Model S4 Rotor Blade is of stainless steel construction with stainless steel or plastic blades for working pressure of up to 14 bar and flow rates up to 1000 litres/min.

## FABRICATED

Models 800, 1000, 1200 (8"-12") in fabricated construction for working pressures to customerspecification and flow rates up to 18000 litres/min.

## TYPICAL APPLICATION

Adhesives, Chemicals, Chocolate, Cooling Lines, HVAC Water, Inks, Lacquers, Paint, Stains, Varnishes, Petrochemicals, Printing, Recycling Water, River & Sea Water, Wash Water.



Filter model  
800 automatic

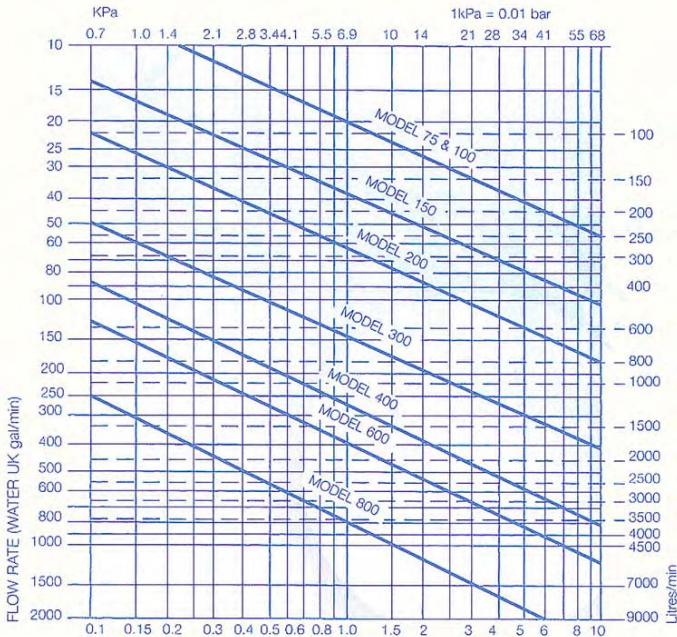


Filter model 400  
automatic



Filters for high  
pressure with jacket

## SIZING CHART



## PRESSURE DROP CHART

The chart is 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.

## PRESSURE DROP CHART

**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.

FILTRATION RATING	CORRECTION FACTORS
1000 micron	1,02
500 micron	1,05
200 micron	1,1
100 micron	1,2
50 micron	1,45
25 micron	2

VISCOSITY		FILTRATION RATING					
Redwood N° 1	Centi-Stokes	1000 micron	500 micron	200 micron	100 micron	50 micron	25 micron
200	49	1,4	1,7	2,1	2,3	2,5	3
950	233	1,7	2,5	3,0	3,35	3,75	4,5
1500	368	1,8	3	3,4	3,8	4,3	5,3
3500	858	2,6	3,7	4,2	5,0	6,0	7,8

## STANDARD SERIES MOD. 075, 100, 125, 150, 200, 300

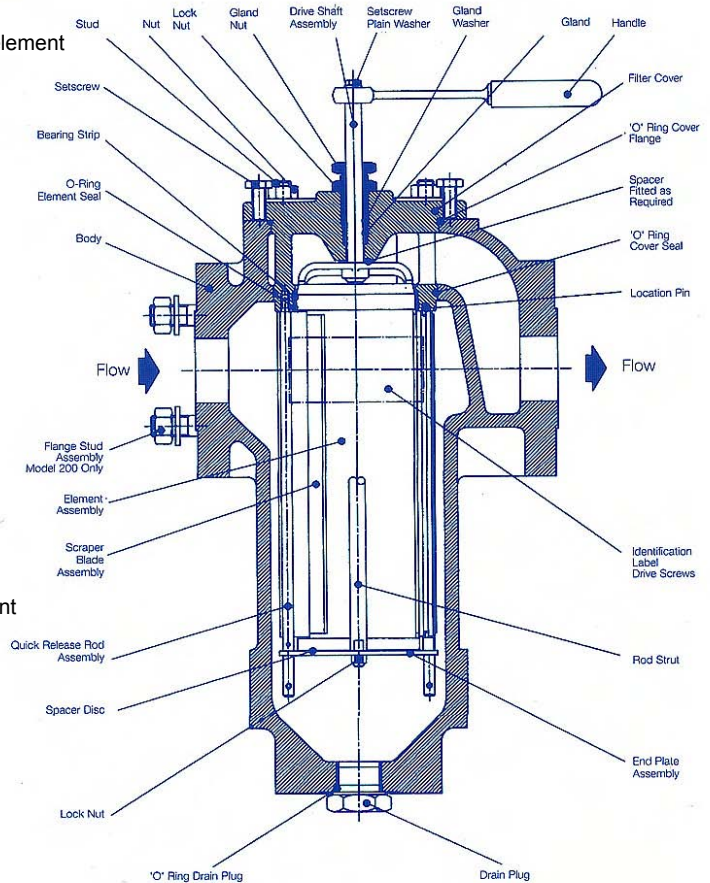
- Filtration levels down to 25 micron
- Separate bowl and head secured by ver clamp allows easy access to element
- Maximum working pressure 13 bar at 50°C
- Maximum working temperature 250°C (dependent on seal material)
- OPTIONS:
- Filters available in the following materials:  
Head: stainless steel, cast steel, cast iron or SG iron  
Bowl: stainless steel or mild steel  
Range of automated control devices available.

## HIGH PRESSURE SERIES

MOD. 200 HP, 300 HP, 400 HP, 600 HP

## MAIN FEATURES

- Simple efficient cleaning process which minimises disruption to flow
- Minimal amount of liquid loss during cleaning process
- Suitable for practically all liquids including those of high viscosity
- Filtration levels down to 50 micron
- Internal cast construction
- Maximum working pressure 35 bar @ 50°C
- Maximum working temperature 260°C (dependent on seal material)
- Available in cast iron, SG iron, cast steel, stainless steel or gun metal
- High quality 316 stainless steel wound wedge wire or perforated element
- OPTIONS
- Range of automated control devices available
- Heating jackets



'O' Rings, Gland Packing and Washers available only in Seal Kit

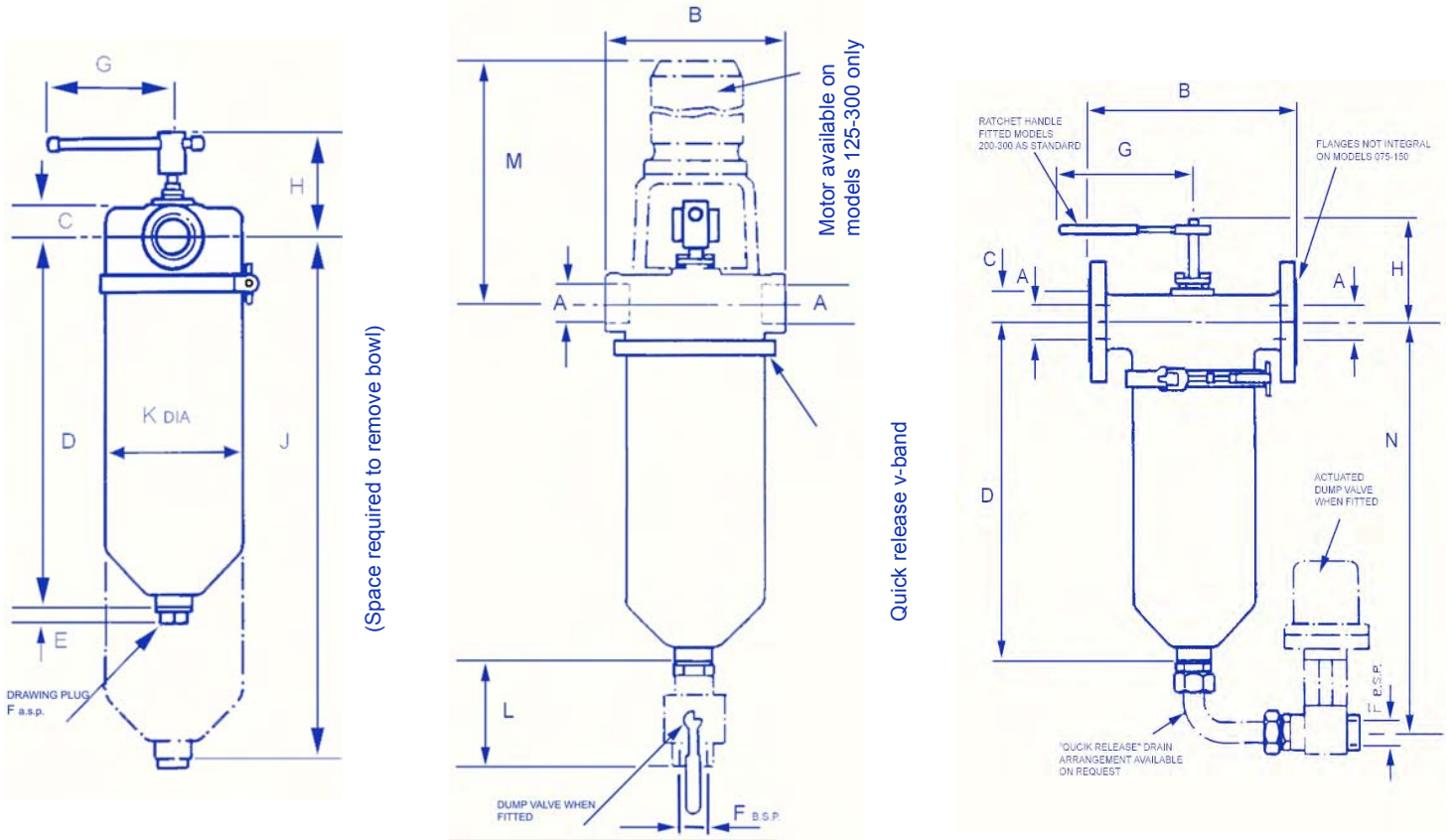


STANDARD RANGE MODELS: 075, 100, 125, 150, 200, 300  
DIMENSIONS & WEIGHTS

**MODEL 075-100**  
Screwed connections  
available on manual version only

**MODEL 125-300**  
Screwed connections  
Motorised Version shown

**MODEL 075-300**  
Flanged connections  
Manual version (illustrated)



**SCREWED FILTERS**

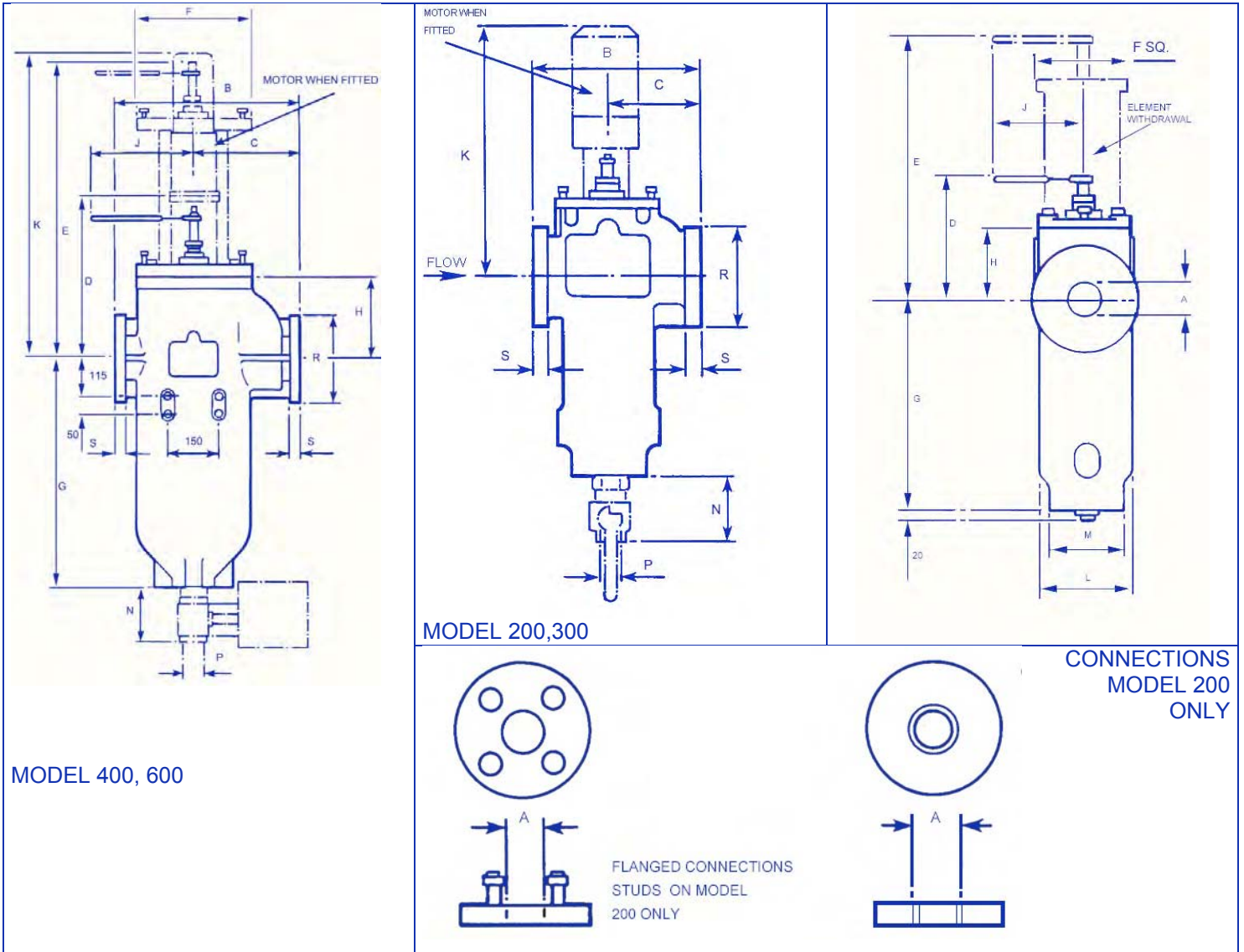
Model	'A' Pipe Size	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'	'K'	'L'	'M'	'N'	Wt. (kg)
075	¾" BSP	150mm	24mm	266mm	13mm	½" BSP	65mm	105mm	450mm	114mm	-	-	-	5.4
100	1" BSP	150mm	24mm	266mm	13mm	½" BSP	65mm	105mm	450mm	114mm	-	-	-	5.4
125	1 ¼" BSP	208mm	32mm	404mm	15mm	1" BSP	120mm (max)	105mm	600mm	155mm	110mm	440mm	490mm	11.2
150	1 ½" BSP	208mm	32mm	404mm	15mm	1" BSP	120mm (max)	105mm	600mm	155mm	110mm	440mm	490mm	11.2
200	2" BSP	220mm	40mm	457mm	15mm	1" BSP	140mm	133mm	650mm	155mm	110mm	447mm	540mm	15.2
250	2 ½" BSP	220mm	40mm	457mm	15mm	1" BSP	140mm	133mm	650mm	155mm	110mm	461mm	540mm	15.2

**FLANGED FILTERS**

Model	'A' Pipe Size	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'	'K'	'L'	'M'	'N'	Wt. (kg)
075	¾"	210mm	24mm	266mm	13mm	½" BSP	65mm	105mm	450mm	114mm	-	-	-	-
100	1"	210mm	24mm	266mm	13mm	½" BSP	65mm	105mm	450mm	114mm	-	-	-	-
125	1 ¼"	270mm	32mm	404mm	15mm	1" BSP	120mm (max)	105mm	600mm	155mm	110mm	440mm	490mm	-
150	1 ½"	270mm	32mm	404mm	15mm	1" BSP	120mm (max)	105mm	600mm	155mm	110mm	440mm	490mm	-
200	2"	270mm	40mm	457mm	15mm	1" BSP	140mm	133mm	650mm	155mm	110mm	447mm	540mm	25.0
300	3"	300mm	56mm	575mm	20mm	2" BSP	140mm	148mm	867mm	190mm	142mm	461mm	710mm	41.0

NOTE: 4" self clean filter information available on request

**HIGH PRESSURE RANGE MODELS: 200HP, 300HP, 400HP, 600HP  
DIMENSIONS & WEIGHTS**



Model	'A' Pipe Size	'B' mm	'C' mm	'D' mm	'E' mm	'F' mm	'G' mm	'H' mm	'J' mm	'K' mm	'L' mm	'M' mm	'N' mm	'P'	'R' mm	'S' mm	Wt. Manual (kg)	Wt. Auto (kg)
200	40 mm*	270	150	195	413	150	325	115	140	540	150	124	110	1" BSP	165	25	36	44
	50 mm 2in																	
300	80 mm 3 in	360	210	230	690	180	430	140	140	575	180	124	142	2" BSP	210	22	55	63
400	100 mm 4 in	550	315	435	115	340	665	235	406	880	332	-	150	2" BSP	254	30	on req.	on req.
600	150 mm 6 in	650	315	435	1550	340	1165	235	406	880	332	-	150	2" BSP	318	35	on req.	on req.

\* 40 mm size units offered in screwed version only: Larger sizes on request.

