

spirax sarco

TI-P504-13
CH Issue 2



IC3AM, IC3DM, IC4AM and IC4DM Monnier International Ultraclean Compressed Air Filters

Description

The Monnier International Ultraclean high efficiency oil removing filters have been designed to provide high quality compressed air (free from liquid and solid contaminants) for pneumatic systems.

For use in applications where compressed air of a particularly high quality is required. Typical examples include air bearings on machine tools, air gauging equipment, instrument air supplies, breathing air, etc.

Principal features:

- Internal and external high quality black anodised finish.
- Maximum flow 15.57 dm³/s (33 scfm).
- Efficiency testing carried out in accordance with ISO 12500 at 51 mg/m³ (40 ppm) inlet concentration.
- Oil efficiency = 99.95%.
- Oil carryover less than 0.0255 mg/m³ (0.02 ppm).
- Particle efficiency = 99.6%.
- 100% water removal in liquid or aerosol form at line temperature.
- Polycarbonate bowl.

Available types:

- | | |
|--------------|---|
| IC3AM | With pilot operated automatic drain. |
| IC3DM | With semi-automatic dump valve for quick action manual override. |
| IC4AM | With pilot operated automatic drain and a unique colour change indicator (changes from white to yellow) fitted to show the condition of the element. |
| IC4DM | With semi-automatic dump valve for quick action manual override. This filter is supplied complete with a unique colour change indicator (changes from white to yellow) fitted to show the condition of the element. |

Optional extras

For further technical information regarding the following options see page 2:

- Metal bowl with or without sight level.
- Easy fit stainless steel bowl guard.

Sizes and pipe connections

¼", ⅜" and ½" screwed BSP (BS 21-Rp).



IC4AM

Operating limits

Maximum working pressure	Polycarbonate bowl	10 bar g
	Metal bowl	17 bar g
Maximum working temperature	Polycarbonate bowl	50 °C
	Metal bowl	80 °C

Materials



No.	Part	Material
1	Bowl	Polycarbonate or aluminium (anodised)
2	Head	Anodised aluminium
3	Element	Borosilicate glass with polypropylene support core
4	Auto-drain	Plastic

Optional extras

Metal bowl with sight level



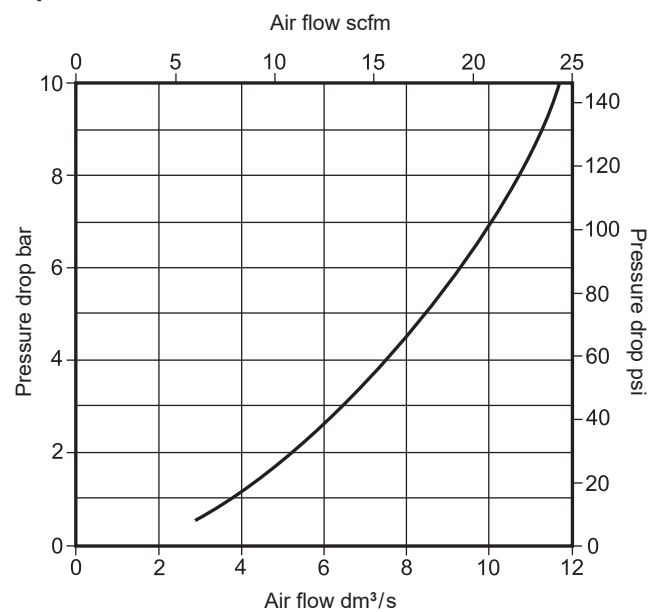
Bowl guard

In the interest of safety Spirax Sarco recommend that a bowl guard should be fitted to polycarbonate bowls - see the 'Warning' under 'Safety information, installation and maintenance'.



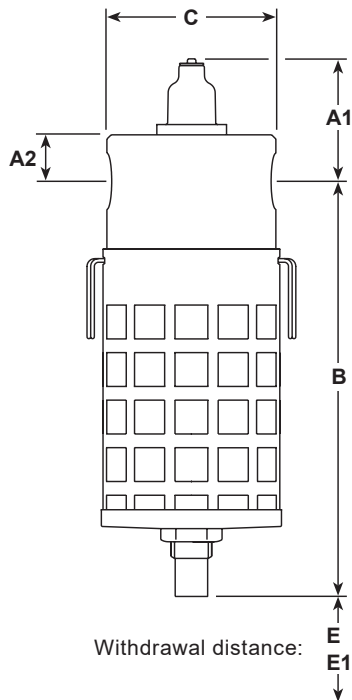
Capacities - For all sizes

5 µm element



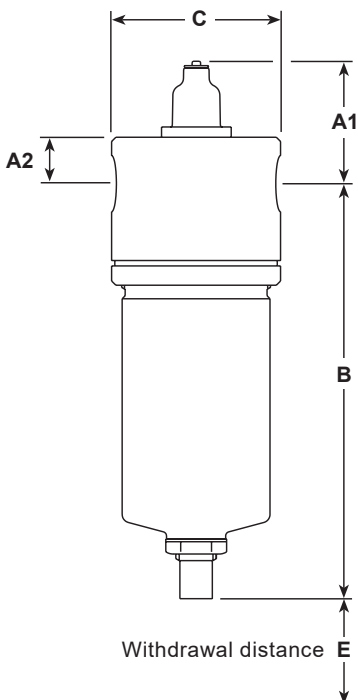
Dimensions/weights (approximate) in mm and kg

Polycarbonate bowl with bowl guard



Unit	A1	A2	B	C	E without bowl guard	E1 with bowl guard	Weight
IC3AM	-	17	152	64	39	82	0.90
IC3DM	-	17	152	64	39	79	0.88
IC4AM	50	-	152	64	39	82	0.97
IC4DM	50	-	152	64	39	79	0.95

Metal bowl



Unit	A1	A2	B	C	E	Weight
IC3AM	-	17	152	64	39	0.95
IC3DM	-	17	152	64	39	0.93
IC4AM	50	-	152	64	39	1.02
IC4DM	50	-	152	64	39	1.00

Application

Monnier Oil-Coalescing Filters remove more than 99.95% of all oil and dirt from the air you use. Oil vapors and aerosols are removed by coalescent action, forming them into drops heavy enough to be separated by gravity. Unlike absorption filters, they do not become filled with oil, and will not clog on oil alone. If dirt particles are removed upstream, these filters will separate oil from air indefinitely.

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P504-14) supplied with the product.

Warning:

Polycarbonate bowls are attacked by phosphate ester fluids, solvents, paint thinners and carbon tetrachloride. These and similar substances should never be allowed to come into contact with the bowl. Certain compressor lubricating oils also contain additives harmful to polycarbonate and, where there is any doubt we recommend, in the interests of safety, that a metal bowl or a bowl guard should be fitted.

Installation note:

Fit into a horizontal pipeline with the air flow in the direction of the arrow and the bowl vertically downwards, as close as possible to the equipment it is protecting.

It is advisable to fit a conventional pneumatic auto-filter, (International IF2M) immediately upstream of the coalescing filter to extend the life of the filter cartridge. On new installations, it is as well to blow through the pipework before fitting the filter to ensure that the initial pipescale and dirt is removed.

Points to note:

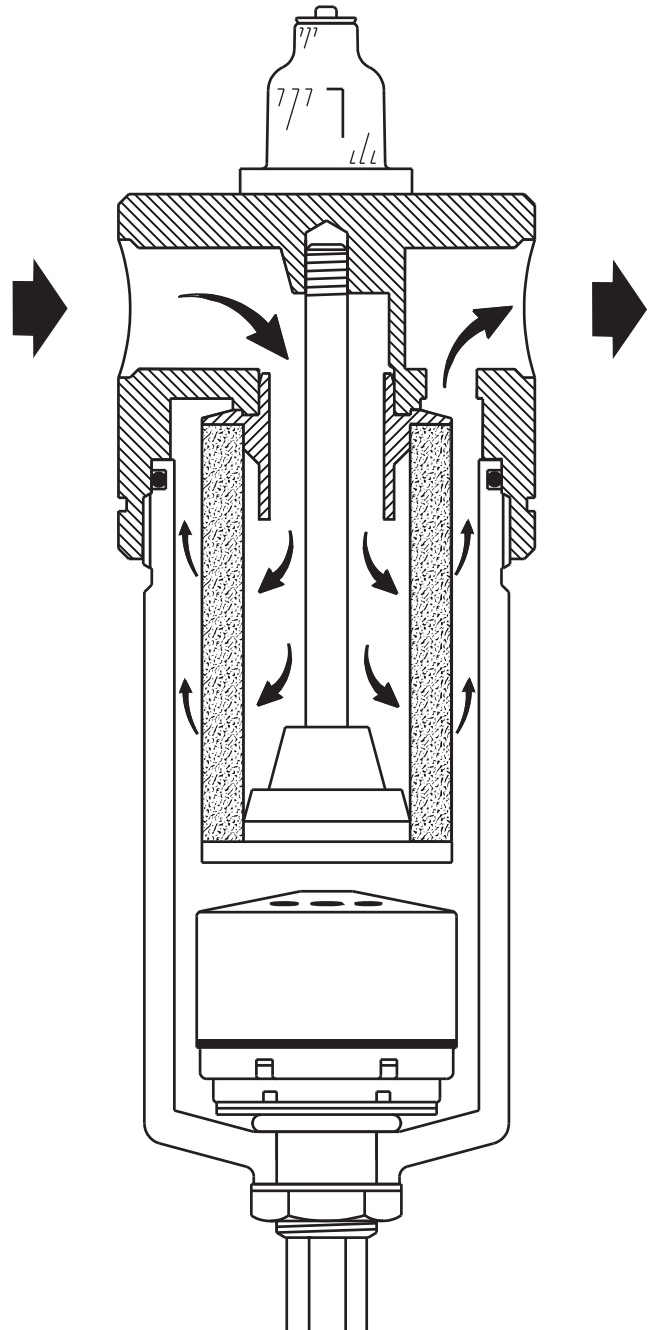
1. Coalescing filters should be installed as close as possible to the equipment they are protecting.
2. Do not exceed the maximum flowrate (for any given pressure) as shown on the graphs or there is chance that some of the coalesced liquids will be re-entrained and carried on downstream.
3. Do not overload the filter cartridge or there will be a reduction in its efficiency and/or life. It is advisable to fit a conventional pneumatic auto-filter (International IF2AM) immediately in front of the coalescing filter for maximum efficiency and life.
4. For hydrocarbon vapour and odour removal use the Monnier IX1M International compressed air filter - For specific product data see Technical Information sheet TI-P504-21.

How to order

Example: 1 off IC3AM Monnier international ultraclean compressed air filter having a female ½" screwed BSP (BS 21 - Rp) connection.

Note 1: The product will be supplied with a polycarbonate bowl as standard. If a metal bowl is required (with or without sight level) it must be clearly specified on the order.

Note 2: If any optional extras are required, they must be clearly specified on the order.



IC4DM
shown

Spare parts

The spare parts available are detailed below. No other parts are supplied as spares.

Available spares

Bowl assembly including the appropriate drain - state polycarbonate or metal (with or without sight level)	A, B
Element set 5 µm	B, C
Flow indicator assembly (IC4DM and IC4AM only)	D, E, F
Auto-drain (IC3AM and IC4AM only)	Not shown

How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the size and type of unit.

Example: 1 off Polycarbonate bowl assembly for a ¼" IC4DM Monnier international ultraclean compressed air filter.

