

# MAXIFLOW FILTER



- Designed with two integral visual indicators (sizes 1 and 2) for all-round visibility and visual read-out of filter condition.
- Full-flow, inline filter for flows up to 360 l/min.
- Three sizes. Multi-purpose filter for return or suction.
- 3 $\mu$ Abs. (size 2), 10 $\mu$ Abs. and 25 $\mu$ Abs. disposable spin-on elements – 'Multipass' tested to ISO 4572.
- Maximum working pressure 7 bar.



MAXIFLOW



# MAXIFLOW FILTER

FULL FLOW FILTER FOR SUCTION OR RETURN

## SPECIFICATIONS

<b>Construction:</b>	Aluminium head castings. Steel bowl
<b>Seals:</b>	Nitrile
<b>Max. working pressure:</b>	7 bar
<b>Operating temperature:</b>	-30°C to +90°C
<b>Fluid compatibility:</b>	Mineral and petroleum based fluids.
<b>Flows:</b>	Up to 360 l/min
<b>By-pass crack pressure:</b>	1.05 bar (return line) 0.17 bar (suction line)
<b>Filtration media:</b>	3µ (Abs.) glassfibre comp. (Size 2) 10µ (Abs.) glassfibre composite 25µ (Abs.) Nitrile Phenolic resin impregnated cellulose
<b>Port sizes:</b>	UC. MXA. 8*** Series = G¾ UC. MXA. 9*** Series = G1¼ UC. MXA. 7*** Series = G1½

### Weights:

Size	Overall weight Kg	Element weight Kg
8*** Series	0.8	0.51
9*** Series	1.6	1.04
7*** Series	4.42	1.04

## FILTER CONDITION INDICATORS

### VISUAL INTEGRAL INDICATORS

Size 1 and 2 Maxiflow filters feature two integral red/green indicators incorporated into the head casting design. Fitted as standard, they ensure maximum indicator visibility and early warning of filter condition.  
Size 3 Maxiflow features one integral indicator.

### ELECTRICAL INDICATOR

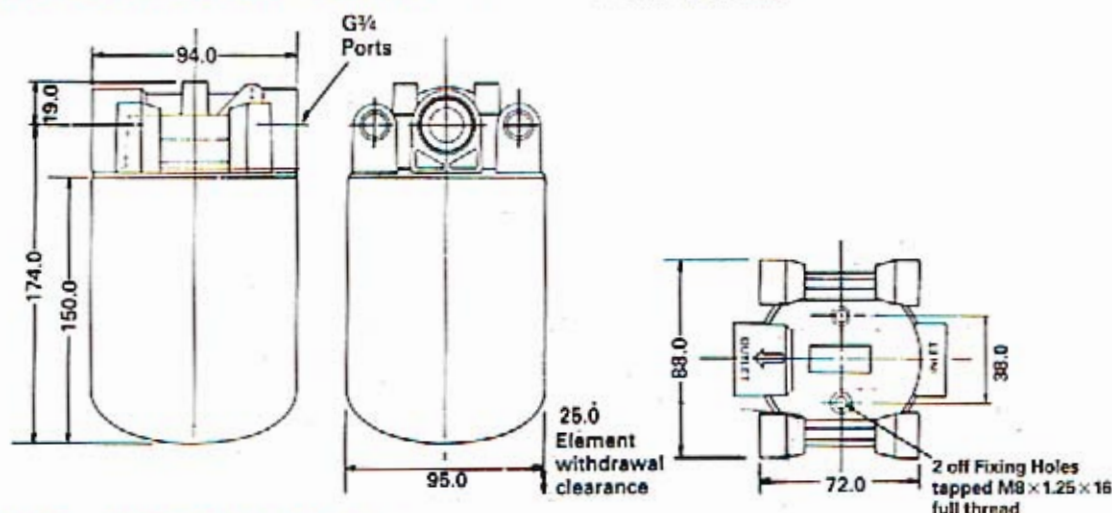
Consult UCC.

**UCC recommend** that the clean pressure differential across the element assembly should not exceed 50% of the bypass crack pressures, ensuring at least a 2:1 Factor for an effective filter life.

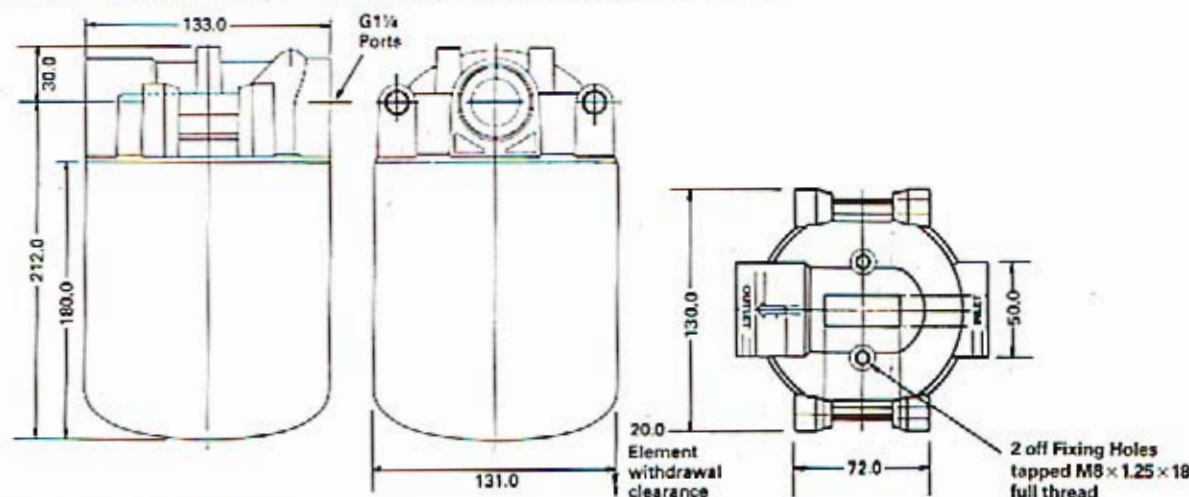
**A GUARANTEE WILL ONLY BE GIVEN  
IF ORIGINAL UCC REPLACEMENT ELEMENTS AND  
SPARES ARE USED.**

125µ stainless steel elements available for  
7\*\*\* and 9\*\*\* Series. Consult UCC.

## SIZE 1 – UC.MXA.8\*\*\* Series INSTALLATION DETAILS

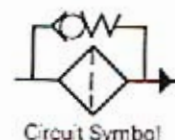


## SIZE 2 – UC.MXA.9\*\*\* Series INSTALLATION DETAILS



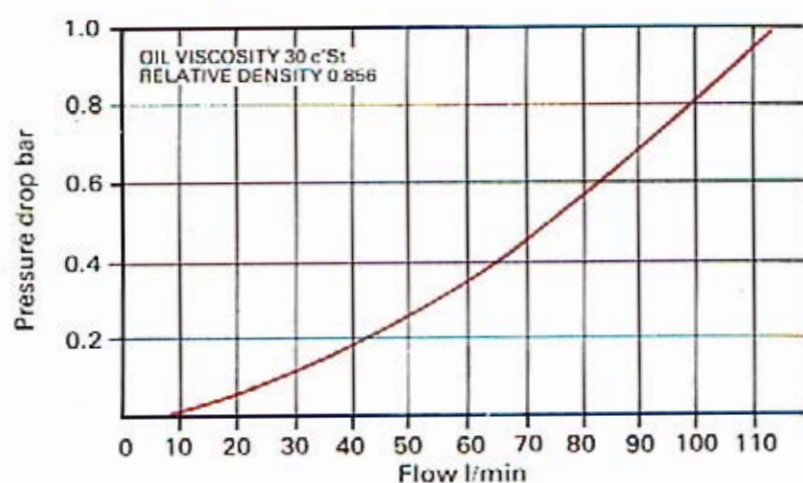
## FILTER SELECTION

To select the correct filter use the appropriate pressure drop graphs. For details and an example of how to select the correct filter, see page 18.

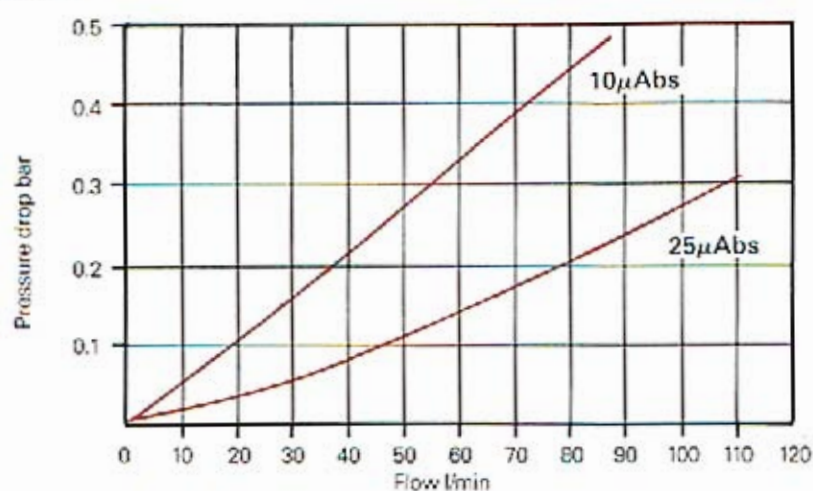


## SIZE 1 MAXIFLOW (UC.MXA.8\*\*\* SERIES) FILTER SELECTION

Filter housing pressure drop ( $\Delta p$ ) against flow curves



Element pressure drop ( $\Delta p$ ) against flow curves



## ORDERING INFORMATION (UC.MXA.8\*\*\* SERIES)

RETURN LINE SIZE 1, G $\frac{3}{4}$  PORT

Part Number	Description	Supersedes	Replacement Element
MXA.8551.424	10μ Abs. with by-pass, with indicator	—	MXR.8550
MXA.8511.424	25μ Abs. with by-pass, with indicator	UC-MX-1518-101/102	MX.1518.4.10x4*

SUCTION LINE SIZE 1 G $\frac{3}{4}$  Port

Part Number	Description	Supersedes	Replacement Element
MXA.8551.223	10μ Abs. with by-pass, with Indicator	—	MXR.8550
MXA.8551.023	10μ Abs. without by-pass, with Indicator	—	MXR.8550
MXA.8511.223	25μ Abs. with by-pass, with indicator	UC-MX-1518-103/104	MX.1518.4.10x4*
MXA.8511.023	25μ Abs. without by-pass, with Indicator	UC-MX-1518-105/106	MX.1518.4.10x4*

\*Note: These replacement elements are only available in 4 element packs.  
Please consult UCC for other Filter options.

Replacement Element Part Numbers	
MXR.8550	10μ Abs. Replacement element for UC.MXA.8*** Series
MXR.1518.4.10x4*	25μ Abs. Replacement element for UC.MXA.8*** Series

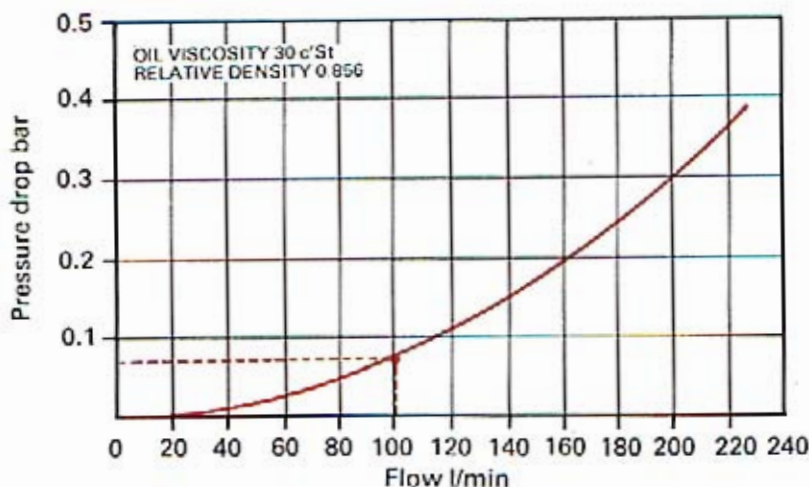


# MAXIFLOW FILTER

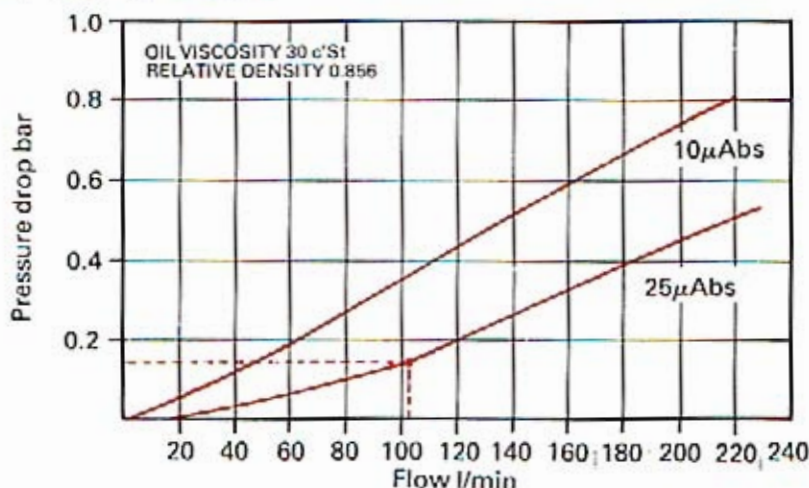
FULL FLOW FILTER FOR SUCTION OR RETURN

## SIZE 2 MAXIFLOW (UC.MXA.9\*\*\* SERIES) FILTER SELECTION

Filter housing pressure drop ( $\Delta p$ ) against flow



Element pressure drop ( $\Delta p$ ) against flow



## ORDERING INFORMATION (UC.MXA.9\*\*\* SERIES)

RETURN LINE SIZE 2. G1½ PORT

Part Number	Description	Supersedes	Replacement Element
MXA.9561.424	3μ Abs with by-pass, with indicator	—	MXR.9560
MXA.9551.424	10μ Abs with by-pass, with indicator	—	MXR.9550
MXA.9511.424	25μ Abs with by-pass, with indicator	UX-MX-1591-101/102	MX.1591.4.10x4*

## SUCTION LINE SIZE 2. G1½ Port

Part Number	Description	Supersedes	Replacement Element
MXA.9551.223	10μ Abs with by-pass, with indicator	—	MXR.9550
MXA.9551.023	10μ Abs without by-pass, with indicator	—	MXR.9550
MXA.9511.223	25μ Abs with by-pass, with indicator	UC-MX-1591-103/104	MX.1591.4.10x4*
MXA.9511.023	25μ Abs without by-pass, with indicator	UC-MX-1591-105/106	MX.1591.4.10x4*

\*Note: These replacement elements are only available in 4 element packs.  
Consult UCC for other Filter options.

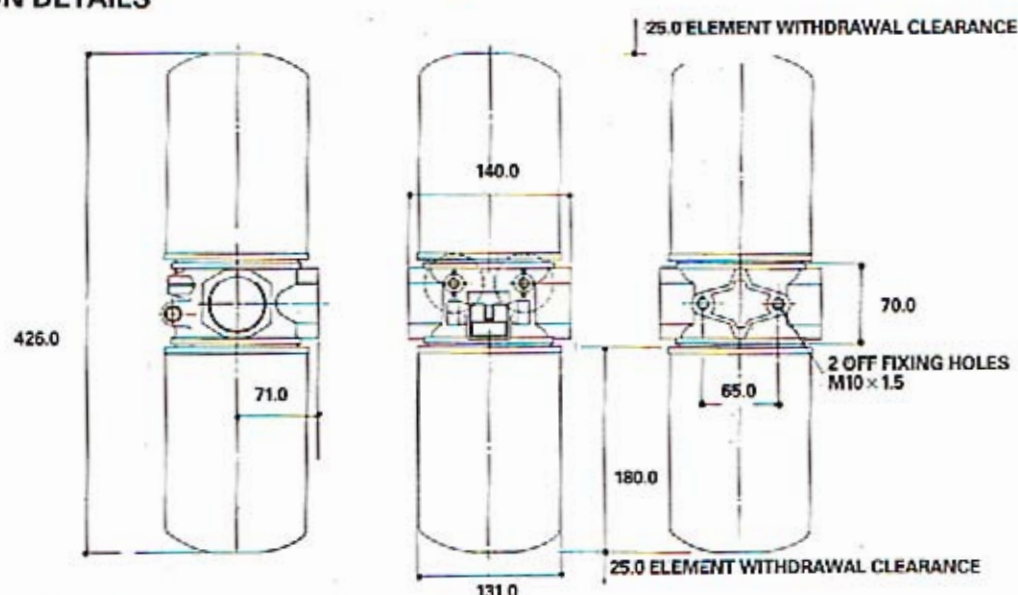
Replacement Element Part Numbers	
MXR.9560	3μ Abs. Replacement element for UC.MXA.9xxx Series
MXR.9550	10μ Abs. Replacement element for UC.MXA.9xxx Series
MXR.1591.4.10x4*	25μ Abs. Replacement element for UC.MXA.9xxx Series

### 3μ Abs. FILTRATION FOR OFF-LINE SYSTEM CLEAN-UP

With a recommended maximum flow rate of 30 l/min. Maxiflow 3μ Abs elements are ideal for off-line clean-up applications. 3μ Abs. filtration can be specified for the 9\*\*\* and 7\*\*\* Series return line filters.

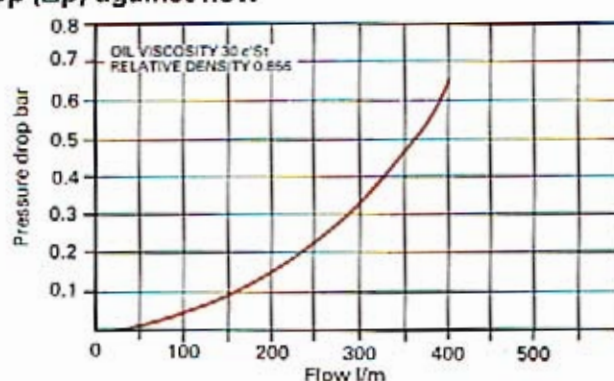


# **SIZE 3 MAXIFLOW (UC.MXA.7\*\*\* SERIES)** **INSTALLATION DETAILS**

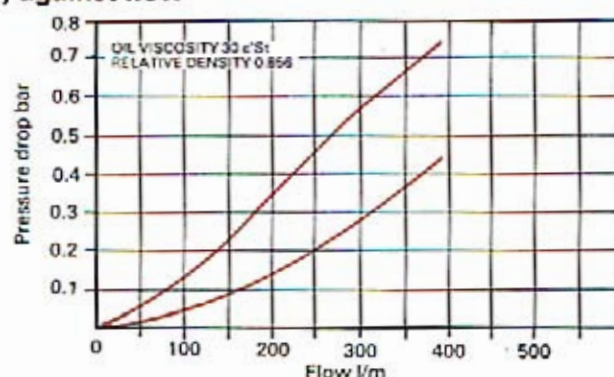


## **FILTER SELECTION**

Filter Housing pressure drop ( $\Delta p$ ) against flow



Element pressure drop ( $\Delta p$ ) against flow



## **ORDERING INFORMATION (UC.MXA.7\*\*\* SERIES)** **RETURN LINE SIZE 3, G1½ PORT**

Part Number	Description	Supersedes	Replacement Element
MXA.7551.424	10 $\mu$ Abs. with by-pass, with indicator	-	MXR.9550 (2 off)
MXA.7511.424	25 $\mu$ Abs. with by-pass, with indicator	UC.MX.1720.101/102	MX.1591.4.10 x 4 * (2 off)

## **SUCTION LINE SIZE 3, G1½ PORT**

Part Number	Description	Supersedes	Replacement Element
MXA.7551.223	10 $\mu$ Abs. with by-pass, with indicator	-	MXR.9550 (2 off)
MXA.7551.023	10 $\mu$ Abs. without by-pass, with indicator	-	MXR.9550 (2 off)
MXA.7511.223	25 $\mu$ Abs. with by-pass, with indicator	UC.MX.1720.103/104	MX.1591.4.10 x 4 * (2 off)
MXA.7511.023	25 $\mu$ Abs. without by-pass, with Indicator	UC.MX.1720.105/105	MX.1591.4.10 x 4 * (2 off)

\* Note: These replacement elements are only available in 4 element packs.

# MAXIFLOW FILTER

FULL FLOW FILTER FOR SUCTION OR RETURN

## MAXIFLOW TECHNICAL INFORMATION FILTER SELECTION

To establish total pressure drop through the filter assembly use this formulae:

Total Filter  $\Delta p$  = Housing  $\Delta p$  + Element  $\Delta p$

where Element  $\Delta p$  is proportional to viscosity and for practical purposes relative density remains constant.

### NOTE

Filters tested in accordance with ISO 3968 – pressure drop flow characteristics of hydraulic fluid power filters.

## FILTER SELECTION EXAMPLE

(The pressure drop graphs for this example can be found on page 16)

To find the pressure drop  $\Delta p$  across a complete filter with a clean element, where the flow rate is 100 l/min and the filtration required is 25 micron absolute, with mineral oil fluid at 50 cSt viscosity.

Consider a **Maxiflow MXA.9511.424** Filter, with a 25 micron absolute element.

The pressure drop across the complete filter is:

Total Filter  $\Delta p$  = Housing  $\Delta p$  + Element  $\Delta p$ .

Therefore Housing  $\Delta p$  (at 100 l/min) = 0.06 bar (see graph)

Clean element  $\Delta p$  (30 cSt) (at 100 l/min) = 0.16 bar (see graph)

Clean element  $\Delta p$  is proportional to viscosity

Therefore clean element  $\Delta p$  at 50 cSt =  $0.16 \times \frac{50}{30}$  cSt = 0.27 bar

Therefore total filter  $\Delta p$  at 50 cSt =  $0.06 + 0.27 = 0.33$  bar

The clean element pressure drop should be less than 50% of the bypass valve setting

The Bypass setting for a Maxiflow MXA.9511.424 return line filter is 1.05 bar.

Therefore the **Maxiflow MXA.9511.424 Filter with 25 micron absolute element** is satisfactory for this application.

**UCC recommend** that the clean pressure differential across the element assembly should not exceed 50% of the bypass crack pressures, ensuring at least a 2:1 Factor for an effective filter life.

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SPARES ARE USED.

### SUCTION LINE FILTERS

Use the pressure drop against flow graph to establish pressure drop (sub-atmospheric). It is important to ensure that the total pressure loss due to filter and pipes, etc, does not create a depression at the pump inlet exceeding the pump manufacturer's recommendations, cold start conditions must be taken into account. For further data consult UCC. Suction filters are supplied fitted with a by-pass valve set to crack at 0.17 bar or with no by-pass.