

SET SERIES FILTERS – HIGH PRESSURE

MFM SET Series

Manifold Cartridge Filters
4060 PSI • up to 25 GPM

Manifold cavity is only for representation and not HYDAC's scope of supply



Features

- Non-welded housing design reduces stress concentrations and prevents fatigue failure.
- O-ring seals are used to provide positive, reliable sealing. Choice of O-ring materials (*nitrile rubber, fluorocarbon elastomer, ethylene propylene rubber*) provides compatibility with petroleum oils, synthetic fluids, water-glycols, oil/water emulsions, and high water based fluids.
- Screw-in bowl requires minimal clearance to remove the element for replacement, and contaminated fluid cannot be washed downstream when element is serviced.
- HYDAC differential Pressure Indicators (*optional*) have no external dynamic seal. This results in a high system reliability due to magnetic actuation, thus eliminating a potential leak point.
- For special finishes and coatings – consult HYDAC for minimum quantities, availability and pricing.

Applications



Agricultural



Automotive



Construction



Gearboxes



Industrial



Commercial
Municipal

Installation

The MFM Set Manifold Cartridge Filter is installed into a threaded cavity that is machined in the manifold (*manifold not included - see cavity drawing*). A bushing is provided for proper element installation, as well as a bowl with o-ring seal and back-up ring. An element can be provided as a option. The bushing holds the element in place during filtration operation, and facilitates easy removal for element change out.

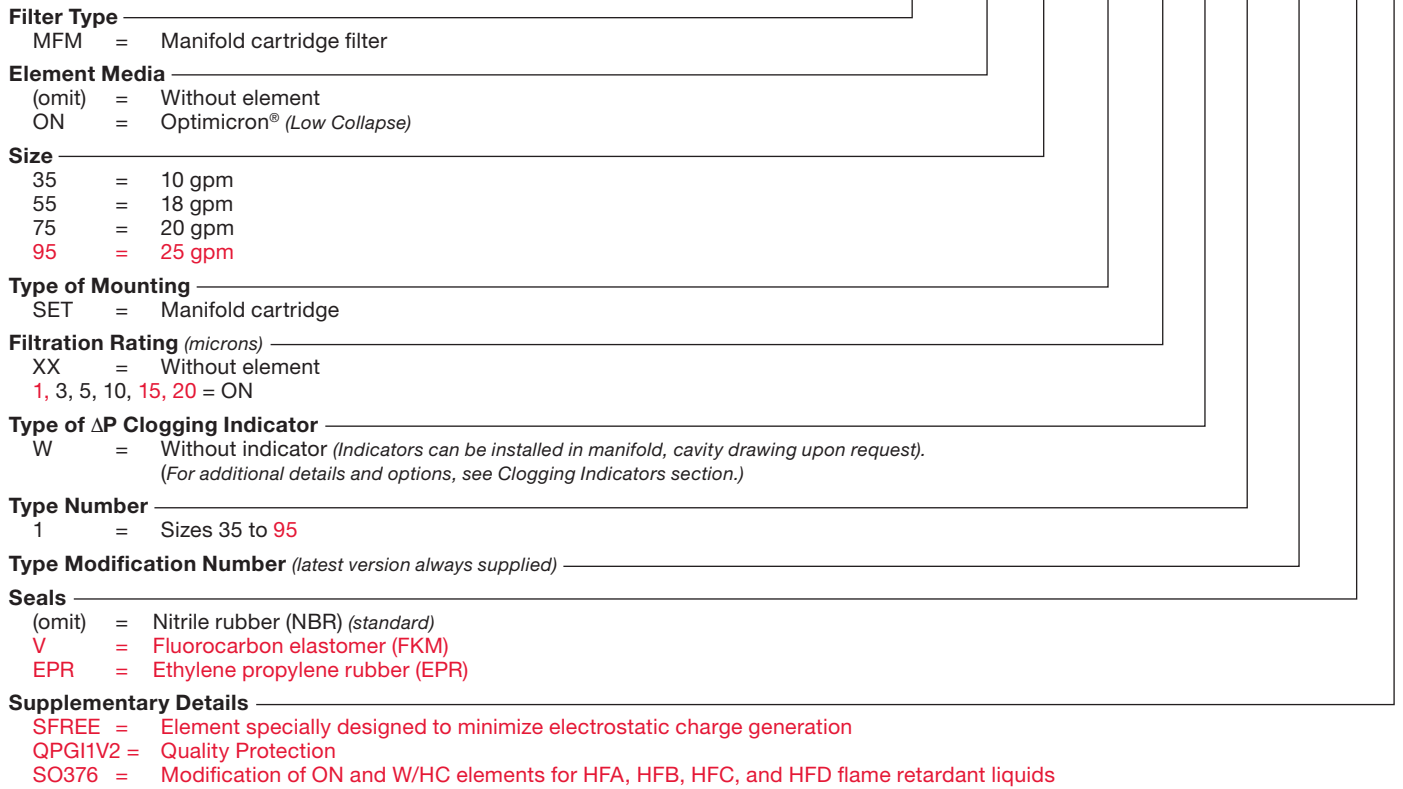
More than one SET may be installed in the manifold if required for capacity. A differential pressure clogging indicator, to warn of high upstream pressure (*element clogged*), can be attached to the manifold as well (*cavity drawings for that upon request*). For additional information, contact HYDAC.

Technical Specifications

Mounting Method	Threaded bowl
Flow Direction	
Element	Out-to-in
Construction Materials	
Bowl	Steel
Flow Capacity	
35	10 gpm (35 lpm)
55	18 gpm (68 lpm)
75	20 gpm (76 lpm)
95	25 gpm (95 lpm)
Housing Pressure Rating	
Max. Allowable Working Pressure	4060 psi (280 bar)
Fatigue Pressure	4060 psi (280 bar) @ 1 million cycles
	4641 psi (320 bar) @ 100,000 cycles
Burst Pressure	13,920 psi (960 bar)
Element Collapse Pressure Rating (<i>optional</i>)	
ON	290 psid (20 bar)
Fluid Temperature Range	14°F to 212°F (-10°C to 100°C)
	Consult HYDAC for applications operating below 14°F (-10°C)
Fluid Compatibility	
	Compatible with all hydrocarbon based, synthetic, water glycol, oil/water emulsion, and high water based fluids when the appropriate seals are selected.
Indicator Trip Pressure (<i>optional</i>)	
	$\Delta P = 72 \text{ psid (5 bar) } -10\%$
	$\Delta P = 100 \text{ psid (7 bar) } +10\%$ (<i>standard</i>)

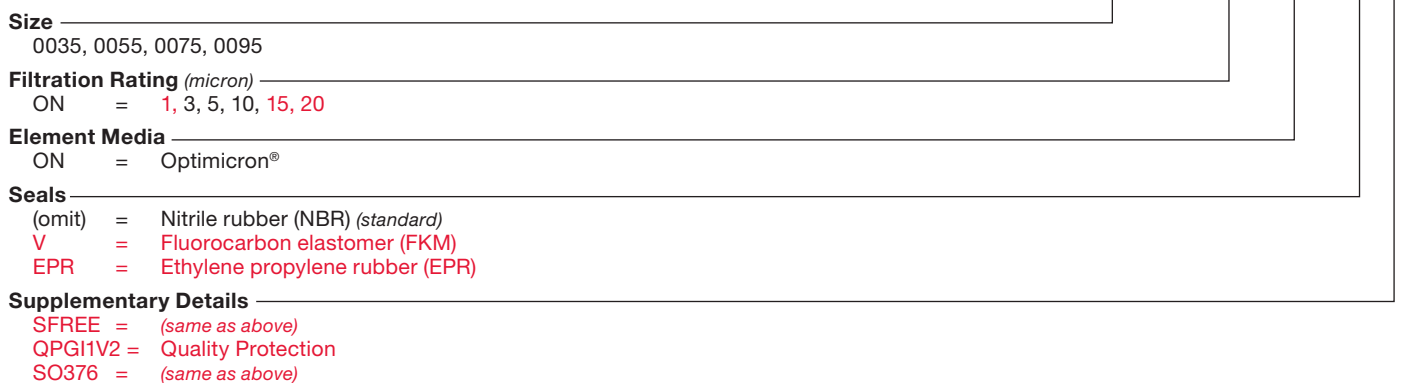
Model Code

MFM ON 35 SET 3 W 1 . 0 /



Replacement Element Model Code

0035 D 010 ON / V

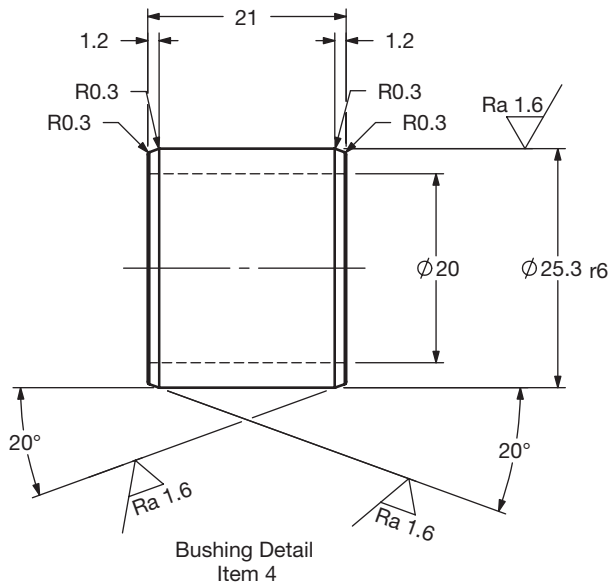
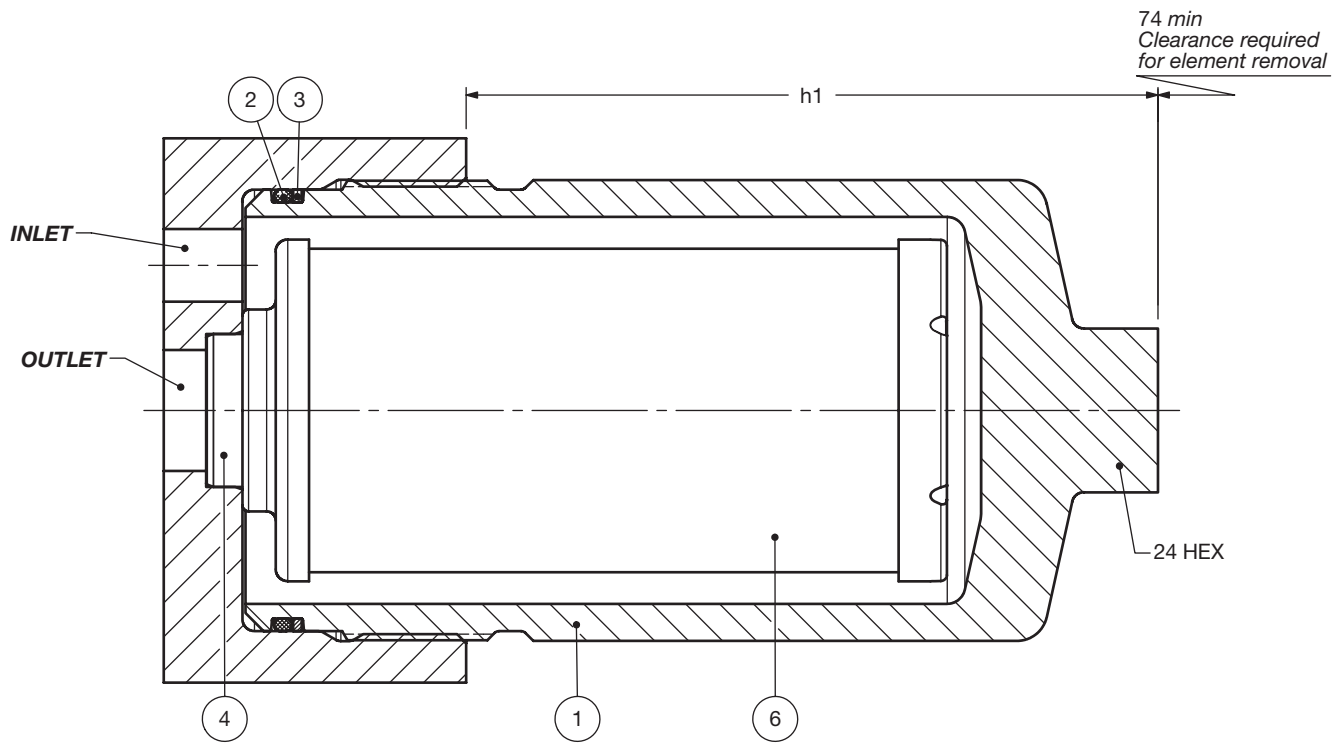


Model Codes Containing RED are non-stock items – Minimum quantities may apply – Contact HYDAC for information and availability

SET SERIES FILTERS – HIGH PRESSURE

Dimensions

MFM SET 35 - 95



Item No	SET Components
1	Bowl
2	Bowl back-up ring
3	Bowl o-ring
4	Bushing
5	Drain plug (Std - sizes 330/660, Opt - sizes 60-280 - use code SO184)
6	Element (optional)

Size	h1
MFM 35 SET	~ 70
MFM 55 SET	~ 116
MFM 75 SET	~ 169
MFM 95 SET	~ 209

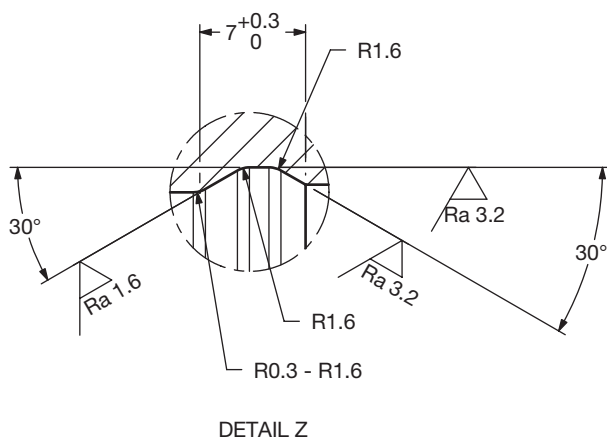
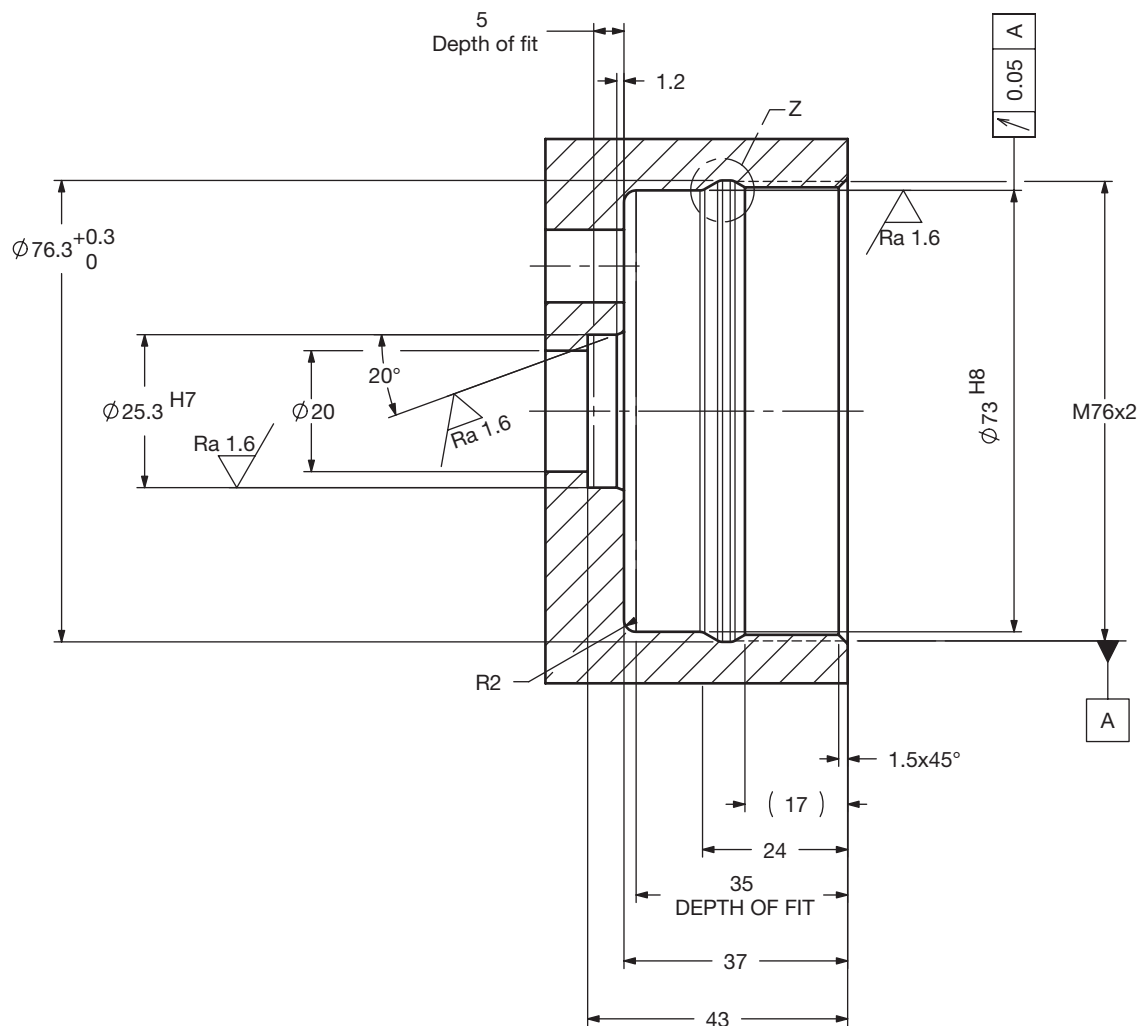
Unspecified Tolerances

From	0.5	3	6	30	120
To	3	6	30	120	400
	±0.1	±0.1	±0.2	±0.3	±0.5

Size	35	55	75	95
Weight (lbs.)	3	4.5	5.7	6.7

Dimensions shown are [inches] millimeters for general information and overall envelope size only. Weights listed include element. For complete dimensions please contact HYDAC to request a certified print.

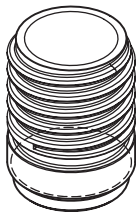
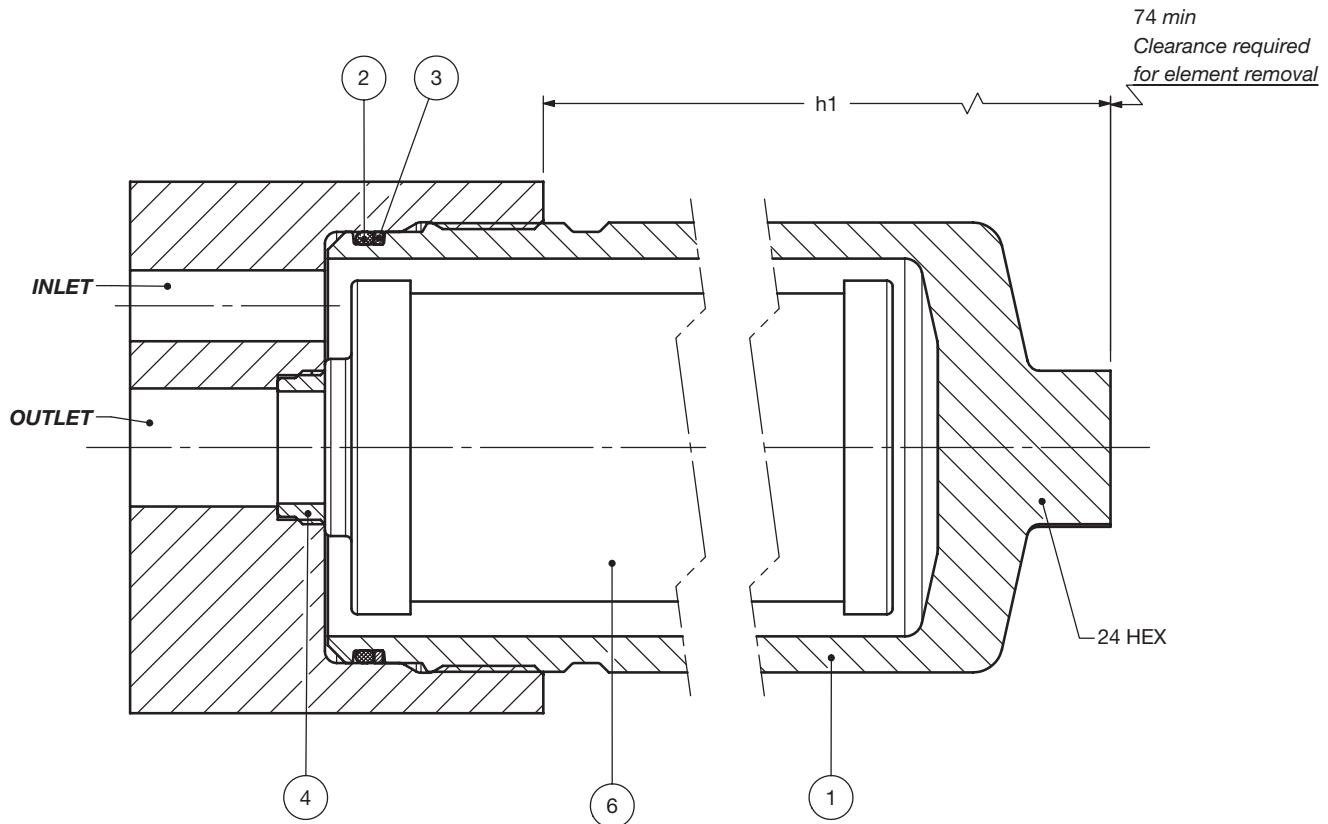
Customer Manifold Machining
MFM SET 35 - 95



SET SERIES FILTERS – HIGH PRESSURE

Dimensions

MFM SET QPGI1V2 35 - 95



Bushing
Item 4
(Supplied by HYDAC)

Item No	SET Components
1	Bowl
2	Bowl back-up ring
3	Bowl o-ring
4	Bushing
5	Drain plug (Std - sizes 330/660, Opt - sizes 60-280 - use code SO184)
6	Element (optional)

Size	h1
MFM 35 QP SET	~ 70
MFM 55 QP SET	~ 116
MFM 75 QP SET	~ 169
MFM 95 QP SET	~ 209

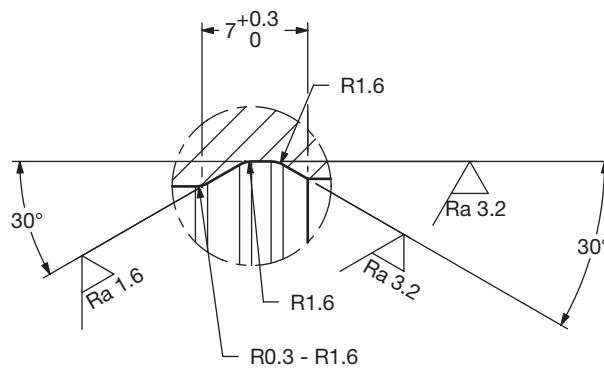
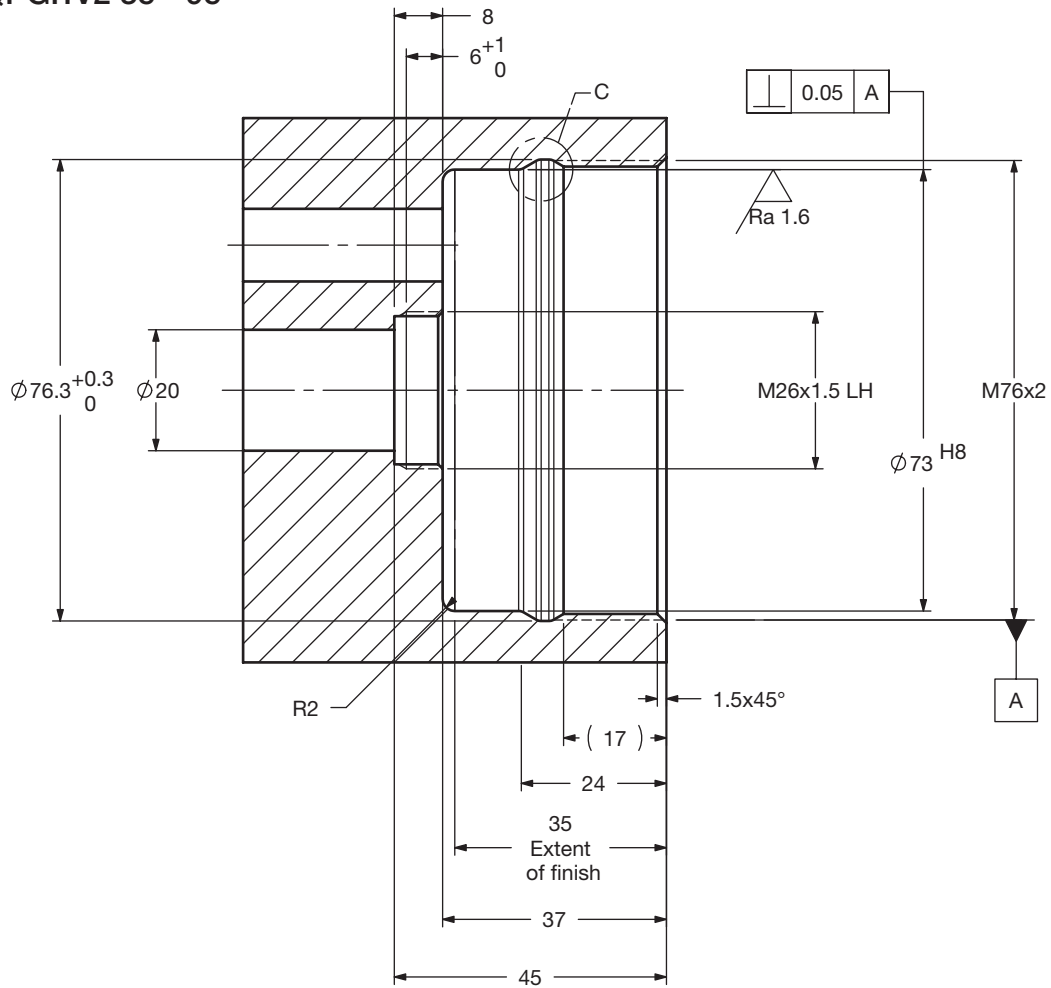
Unspecified Tolerances

From	0.5	3	6	30	120
To	3	6	30	120	400
	±0.1	±0.1	±0.2	±0.3	±0.5

Size	35	55	75	95
Weight (lbs.)	3.2	4.7	5.9	6.9

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Customer Manifold Machining MFM SET QPG11V2 35 - 95



Detail C

Element K Factors

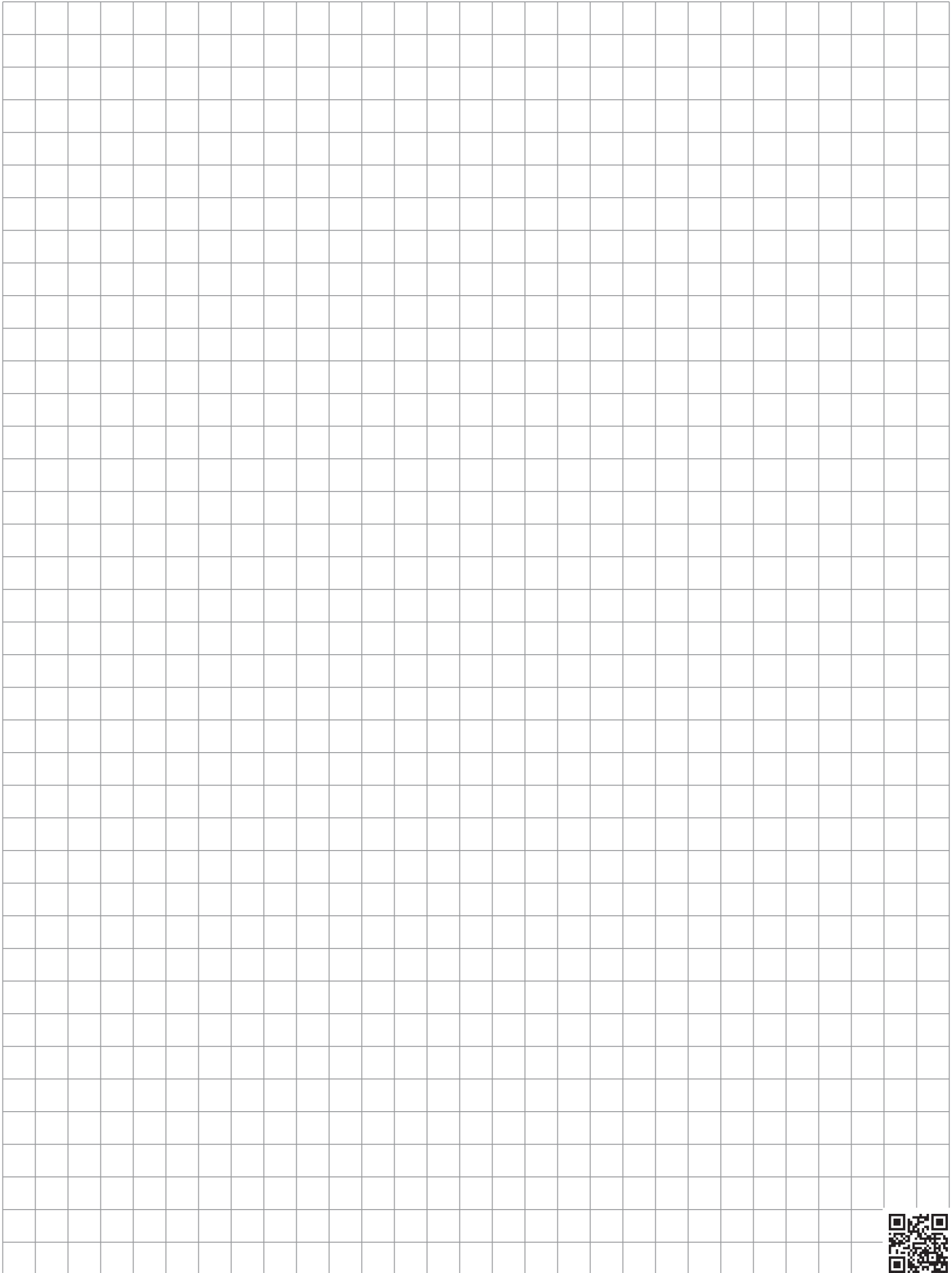
ΔP Elements = Elements (K) Flow Factor x Flow Rate (gpm) x $\frac{\text{Actual Viscosity (SUS)}}{141 \text{ SUS}}$ x $\frac{\text{Actual Specific Gravity}}{0.86}$
(From Tables Below)

Optimicron	...D...ON (Pressure Elements)					
Size	1 μm	3 μm	5 μm	10 μm	15 μm	20 μm
0035 D XXX ON	2.755	1.169	0.938	0.752	0.549	0.408
0055 D XXX ON	1.427	0.675	0.543	0.434	0.284	0.211
0075 D XXX ON	0.916	0.461	0.37	0.296	0.183	0.136
0095 D XXX ON	0.724	0.37	0.296	0.238	0.144	0.105

All Element K Factors in psi / gpm.

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Notes

A large grid of graph paper for taking notes, consisting of 20 columns and 30 rows of small squares.