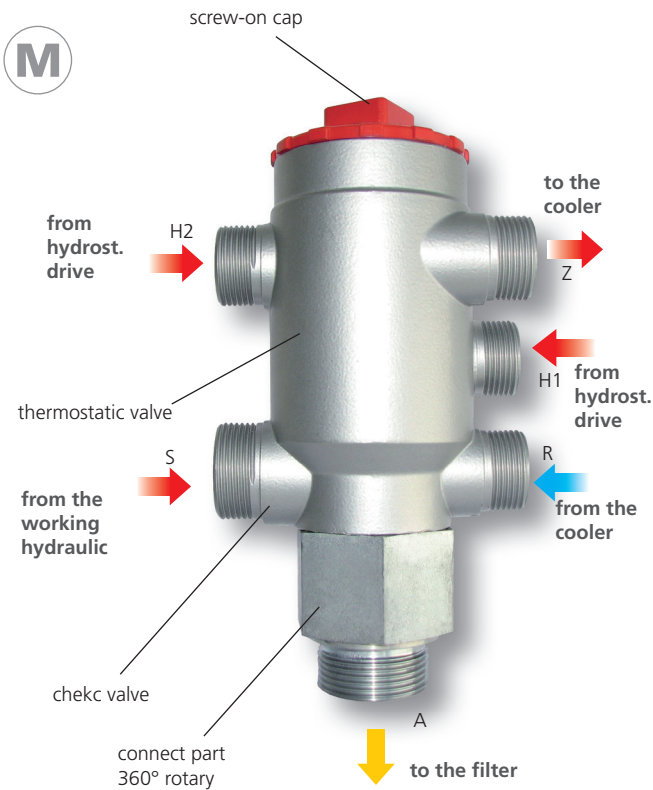


Multifunction Unit
MFE 200

Filter mounting · Connection up to G1¼ · Nominal flow rate up to 200 l/min / 52.8 gpm


Description
Application

In particular for mobile machines with hydrostatic drives (closed circuit) and working hydraulic (open circuit), equipped with an oil cooler.

The multifunction unit can be used as collector with integrated check valve and thermostatic valve in combination with ARGO-HYTOS return-suction filters of the series E 084 / E 198 / E 498 / E 998.

Also separate drain oil-/cooler-circuits can be realized by the help of suitable return filters.

Function

Drain oil (H1, H2) from the hydrostatic drive (pump and drive motor) is routed either through a thermostatic cooler-by-pass directly to the filter (A), or at higher operating temperatures, through the cooler (Z → R), then the filter, and then into the tank.

Bypassing the cooler at cold start-up maintains the back pressure of the drain lines within the permitted range, and allowing the operating temperature of the hydraulic system to be reached more quickly.

The return oil from the working hydraulic (S) flows, optionally pressurized by a check valve, through the filter (A) and into the tank.

Characteristics

Nominal flow rate

Up to 200 l/min / 52.8 gpm (total supply).
 Splitting: H1+H2 = 80 l/min / 21.1 gpm,
 S = 120 l/min / 31.7 gpm.

Connection

All connections for drain oil, return oil, cooler and filter are equipped with external threaded ports (direct installation of hose- / pipelines with union nut).

H1, H2, R, Z M30 x 2 (DKOL* Ø 22)
 S M36 x 2 (DKOL* Ø 28)
 A G1¼ or G1 (see dimensions)
 * acc. to ISO 8433-1 (24° cutting ring)

Hydraulic fluids

Mineral oil and biodegradable fluids
 (HEES or HETG, see info-sheet 00.20).

Temperature range

-20 °C ... +100 °C (short intervals -30 °C ... +120 °C)
 -4 °F ... +212 °F (short intervals -22 °F ... +248 °F)

Operating pressure

Max. 10 bar / 145 psi

Thermostatic valve

Operating range +50 °C ... +70 °C / +122 °F ... +158 °F

Check valve

Opening pressure 1 bar / 14.5 psi

Materials

Screw-on cap: Polyester, GF-reinforced
 Housing: Aluminum alloy
 Connection: Steel
 Seals: NBR (FPM on request)
 Thermostatic valve: Polyamide, GF-reinforced

Mounting position

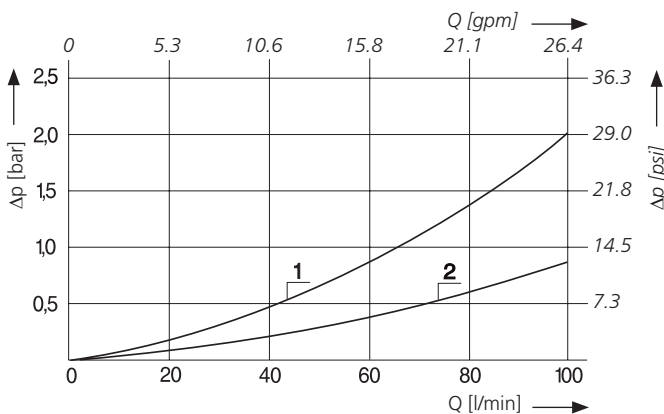
As desired, directly screwed into the filter.

Diagrams

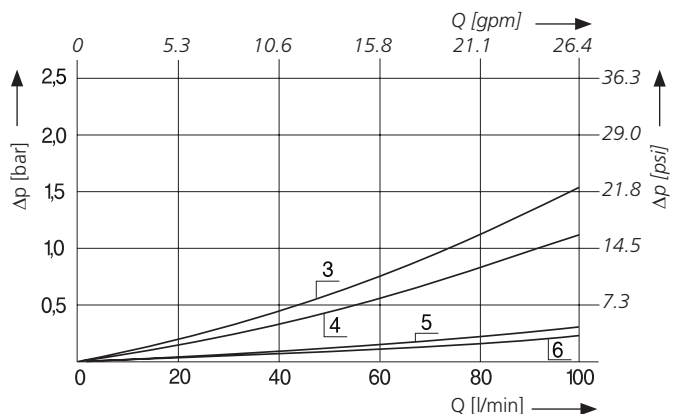
Δp-curves for complete multifunctional units MFE 200-01 (1, 2, 4 and 6) and MFE 200-02 (1, 2, 3 and 5)

Pressure measurement at connection H2 (supply through H1 und H2, S closed, Z hot wired after R)

D1 Pressure drop as a function of the **volume flow**
 at $v = 40 \text{ mm}^2/\text{s} / 186 \text{ SUS}$ (1) and
 $v = 20 \text{ mm}^2/\text{s} / 93 \text{ SUS}$ (2)
 Thermostatic valve open



Pressure drop as a function of the **volume flow**
 at $v = 1000 \text{ mm}^2/\text{s} / 4635 \text{ SUS}$ (3 and 4)
 and $v = 200 \text{ mm}^2/\text{s} / 927 \text{ SUS}$ (5 and 6)
 Thermostatic valve closed



Note

The pressure drop produced by the pipelines, cooler and filter must be added to those of the multifunctional unit.

Order no.

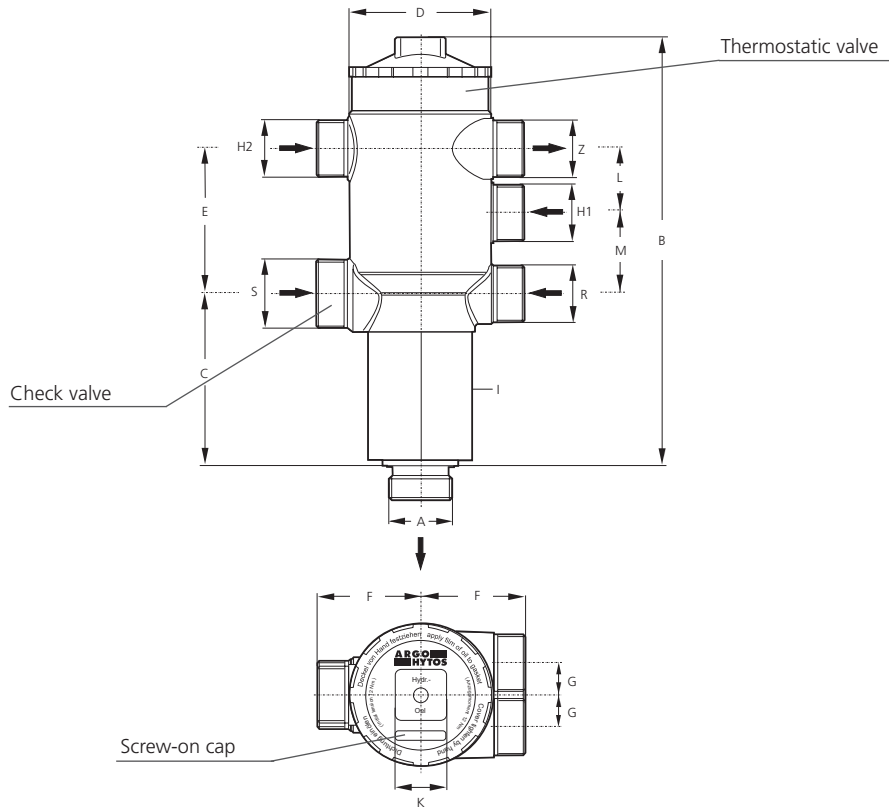
MFE 200-01
 with G1¼ (connection A)

MFE 200-02
 with G1 (connection A)

Note

Other types e.g. with alternative temperature range or without check valve, on request.

Dimensions



Measurements in mm

Type	A	B	C	D	E	F	G	H ₁	H ₂	I	K	L	M	R	S	Z
MFE 200-01	G1¼	200	62	75	77	56	17	M30 x 2	M30 x 2	AF 55	AF 27	34	43	M30 x 2	M36 x 2	M30 x 2
MFE 200-02	G1	230	92	75	77	56	17	M30 x 2	M30 x 2	AF 55	AF 27	34	43	M30 x 2	M36 x 2	M30 x 2

Measurements in inch

Type	A	B	C	D	E	F	G	H ₁	H ₂	I	K	L	M
MFE 200-01	G1¼	7.87	2.44	2.95	3.03	2.20	0.67	M30 x 2	M30 x 2	AF 55	AF 27	1.34	1.69
MFE 200-02	G1	9.06	3.62	2.95	3.03	2.20	0.67	M30 x 2	M30 x 2	AF 55	AF 27	1.34	1.69

Type	R	S	Z
MFE 200-01	M30 x 2	M36 x 2	M30 x 2
MFE 200-02	M30 x 2	M36 x 2	M30 x 2

Symbol

