

Suction Filter**S0.0426 · S0.0638**

In-tank mounting · Hose connection up to DN 60 · Nominal flow rate up to 160 l/min / 42.3 gpm



Suction Filter S0.0426

Description**Application**

In the suction line of pumps of hydraulic or lubricating circuits.

Performance features*Protection against malfunction:*

By full-flow filtration in the suction line, particularly the pumps are protected from coarse dirt particles that have remained in the system after manufacture or repair, or enter the system when it is filled with oil.

Special features

The robust construction with hose fittings, corpus out of reinforced plastics and embedded mesh screen material offers the following advantages:

- › high reliability at low dead weight
- › enormous shock and vibration resistance
- › easy mounting

Construction

Flow direction from outside to center. By using optimized filter material, pressure drops are kept down.

The suction filters operate without by-pass valves. This guarantees continuous full flow filtration.

Filter maintenance

These suction filters have to be replaced on regular basis, e.g. together with the replacement of the hydraulic fluid. It is recommended to change the filter every 2 years or every 2000 operating hours, depending on what occurs first.

When replacing, it is inevitable to prevent any dirt from entering the inner side (clean oil side) of the filter.

Please refrain from cleaning these suction filters.

Characteristics

Nominal flow rate

Up to 160 l/min / 42.3 gpm (see Selection Chart, column 2).
The nominal flow rates indicated by ARGO-HYTOS are based on the following features:

- › pressure drop Δp < 0.035 bar at $v = 35 \text{ mm}^2/\text{s}$
< 0.507 psi at $v = 162 \text{ SUS}$
- › pressure drop Δp $\leq 0.25 \text{ bar} / 3.62 \text{ psi}$
at 1/3 of the nominal flow rate and
 $v = 4,000 \text{ mm}^2/\text{s} / 18,600 \text{ SUS}$
(~ HLP 46 at $-20 \text{ }^\circ\text{C} / 4 \text{ }^\circ\text{F}$)
- › flow velocity in the connection lines $\leq 1.5 \text{ m/s} / 4.9 \text{ ft/s}$

Connection

Fittings for hoses up to DN 60.
Sizes see Selection Chart, column 6,
(other port threads on request).

Filter fineness

135 μm , 280 μm

Hydraulic fluids

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

Temperature range

$-30 \text{ }^\circ\text{C} \dots +80 \text{ }^\circ\text{C}$ (temporary $-40 \text{ }^\circ\text{C} \dots +100 \text{ }^\circ\text{C}$)
 $-22 \text{ }^\circ\text{F} \dots +176 \text{ }^\circ\text{F}$ (temporary $-40 \text{ }^\circ\text{F} \dots +212 \text{ }^\circ\text{F}$)

Materials

Corpus: Polyamide, GF reinforced
Cap: Polyamide, GF reinforced
Seal: NBR (FPM on request)
Filter mesh: Polyester

Viscosity at nominal flow rate

- › $v < 60 \text{ mm}^2/\text{s} / 280 \text{ SUS}$ at operating temperature
- › as start-up viscosity v_{max} equivalent to the permitted pump inlet pressure (refer to diagram D1), Δp to be determined as a function of the viscosity (take pressure loss in connection lines into account!)

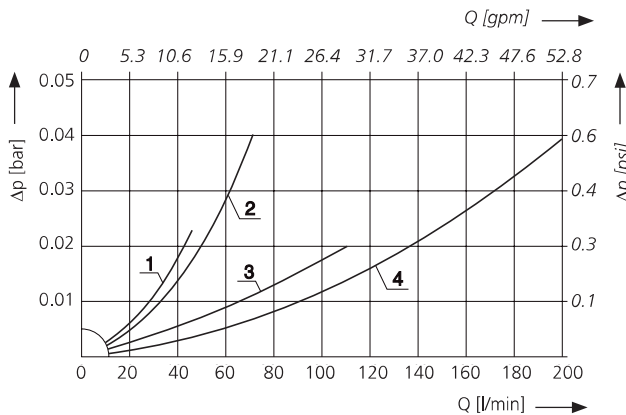
Mounting position

Optional, preferably in horizontal position.
Under all operating conditions (min. oil level, max. inclination)
the suction must occur under the oil level.

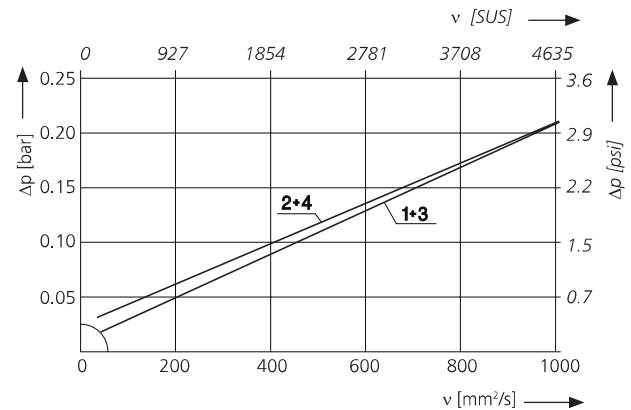
Diagrams

Δp -curves for filters in Selection Chart, column 3

D1 Pressure drop as a function of the
flow volume at $v = 35 \text{ mm}^2/\text{s} / 162 \text{ SUS}$



Pressure drop as a function of the
kinematic viscosity at nominal flow



Selection Chart

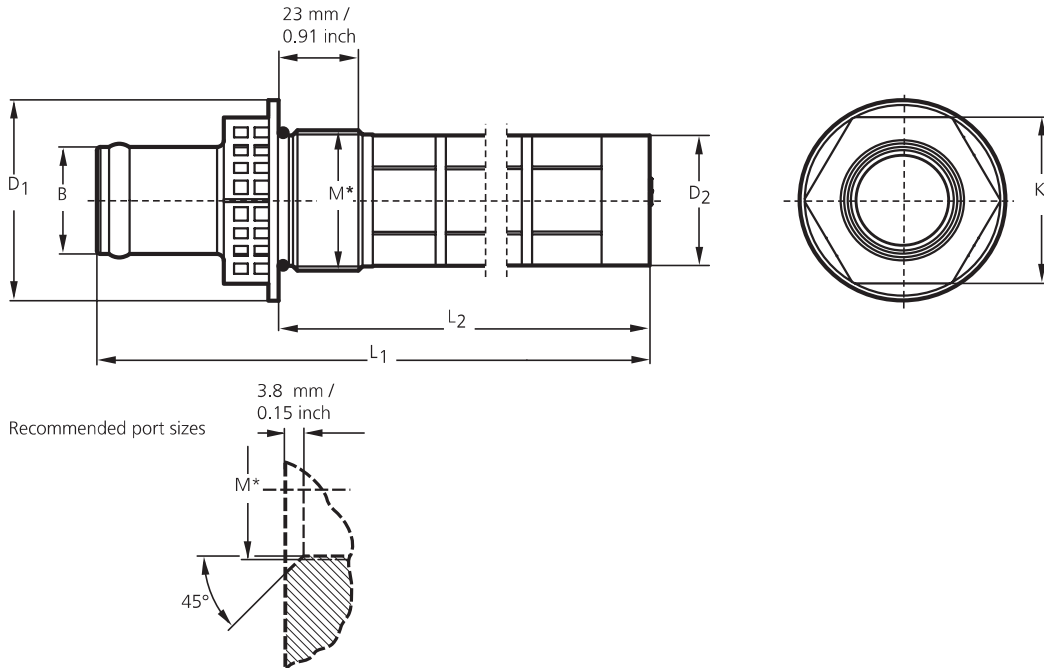
Part No.	Nominal flow rate	Pressure drop see diagram D /curve no.	Filter fineness	Filter surface	Connection B	Connection M*	Diameter D ₁	Diameter D ₂	Length L ₁	Length L ₂	Dimension K	Symbol	Weight
	l/min		µm	cm ²	mm		mm	mm	mm	mm	mm		kg
1	2	3	4	5	6	7	8	9	10	11	12	13	14
S0.0426-02	30	D1/1	135	115	32.0	M42 x 2	60	39	251	198	AF 50	1	0.09
S0.0426-13	60	D1/2	280	115	32.0	M42 x 2	60	39	251	198	AF 50	1	0.09
S0.0638-01	80	D1/3	135	320	60.5	M64 x 2	85	55	370	290	AF 65	1	0.17
S0.0638-03	160	D1/4	280	320	60.5	M64 x 2	85	55	370	290	AF 65	1	0.17

	gpm		µm	inch ²	inch		inch	inch	inch	inch	mm		lbs
1	2	3	4	5	6	7	8	9	10	11	12	13	14
S0.0426-02	7.9	D1/1	135	18	1.3	M42 x 2	2.4	1.5	9.9	7.8	AF 50	1	0.20
S0.0426-13	15.9	D1/2	280	18	1.3	M42 x 2	2.4	1.5	9.9	7.8	AF 50	1	0.20
S0.0638-01	21.1	D1/3	135	50	2.4	M64 x 2	3.3	2.2	14.6	11.4	AF 65	1	0.37
S0.0638-03	42.3	D1/4	280	50	2.4	M64 x 2	3.3	2.2	14.6	11.4	AF 65	1	0.37

Remarks:

The filters listed in this chart are standard filters. If modifications are required we kindly ask for your request.

Dimensions



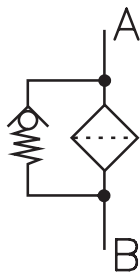
*The thread dimensions do not exactly conform to the DIN ISO standard thread (functioning with the DIN ISO standard thread is guaranteed)

Symbols

1



2



Quality Assurance

Quality management according to DIN EN ISO 9001

To ensure constant quality in production and operation, ARGO-HYTOS filter elements undergo strict controls and tests according to the following ISO standards:

ISO 2941	Verification of collapse / burst pressure rating
ISO 2942	Verification of fabrication integrity (Bubble Point Test)
ISO 2943	Verification of material compatibility with fluids
ISO 3968	Evaluation of pressure drop versus flow characteristics
ISO 16889	Multi-Pass-Test (evaluation of filter fineness and dirt-holding capacity)
ISO 23181	Determination of resistance to flow fatigue using high viscosity fluid

Various quality controls during the production process guarantee the leakfree function and solidity of our filters.

Illustrations may sometimes differ from the original. ARGO-HYTOS is not responsible for any unintentional mistake in this specification sheet