

HYDAC INTERNATIONAL

Inline Filter ACSSF

up to 100 l/min, up to 1379 bar



1. TECHNICAL SPECIFICATIONS

1.1 FILTER HOUSING Construction

The filter housings are designed in accordance with international regulations. They consist of a filter head and a screw-on filter bowl. Standard equipment:

- · without bypass valve
- connection for a clogging indicator(s)
- · oil drain plug in filter bowl

1.2 FILTER ELEMENTS

HYDAC filter elements are validated and their quality is constantly monitored according to the following standards:

- ISO 2941
- ISO 2942
- ISO 2943
- ISO 3724
- ISO 3968
- ISO 11170
- ISO 16889

Filter elements are available with the following pressure stability values:
Betamicron® (BH4HC): 210 bar
Betamicron® (BH4HC)
/-SS-SO361: 210 bar

/-SS-SO361: 210 ba Stainless steel wire mesh (D): 210 bar Chemicron⊚ (M): 210 bar

1.3 FILTER SPECIFICATIONS

Nominal pressure	1035 bar (higher at request)
Test pressure	1707 bar (design pressure: 1138.5 bar)
Temperature range	-20 °C to +80 °C
Material of filter head	ASTM 316 L EN 1.4404 stainless steel
Material of filter bowl	UNS S31803
	EN 1.4462 Duplex stainless steel
Type of clogging indicator	VDAC (Differential pressure indicator up to 1035 bar operating pressure)
D # 6 1 1 1 1 1	, , , , , , , , , , , , , , , , , , , ,
Pressure setting of clogging indicator	5 bar
Bypass cracking pressure (optional)	6 bar

1.4 SEALS

NBR (Nitrile)

1.5 INSTALLATION

Inline filter

1.6 SPECIAL MODELS AND ACCESSORIES

- Seals in FKM, EPDM, FFKM, FVMQ
- Without bypass valve
- Without port for clogging indicator
- With 2 clogging indicators (visual and electrical)
- With gauge ports (for external piping of pressure sensors)
- Higher pressures on request

1.7 SPARE PARTS

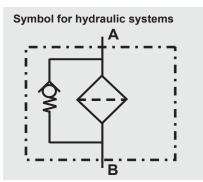
See Original Spare Parts List

1.8 CERTIFICATES AND APPROVALS

Filters comply with the Pressre Equipment Directive (PED) 2014/68/ EU. For group 2 fluids.

1.9 COMPATIBILITY WITH HYDRAULIC FLUIDS ISO 2943

- Hydraulic oils H to HLPD DIN 51524
- Lubrication oils DIN 51517, API, ACEA, DIN 51515, ISO 6743
- Compressor oils DIN 51506
- Biodegradable operating fluids VDMA 24568 HETG, HEES, HEPG
- Fire-resistant fluids HFA, HFB, HFC and HFD
- Waterglycols





Filter type ACSSF1035 ACSSF1379	1035 bar 1379 bar							
ilter material H/HC H/HC		3H4HC) Betamicr ith "SO361"! Cher		y use for water-glyco	ol .			
Л)	stainless steel	wire mesh						
Size of filter Size 30, 60, 110 Size 60 and 160	, 160, 330 in 1035 ba in 1379 bar	r						
ype and size o								
HYDAC code	Connection type	Tube outside	Thread size	_				
AA .	SF250CX20	1/4"	7/16"	_				
A0	SF375CX20	3/8"	9/16"	_				
A1	SF562CX20	9/16"	13/16"	_				
A2	SF750CX20	3/4"	3/4"	_				
/ 3	SF1000CX20	1	1-3/8"	-				
Itration rating	in µm							
H/HC: 003, 003 H/HC (/-SS-SC	5, 010, 020 0361): 003, 010							
: ` ` `	001, 003, 005,		5 0					
:		100, 150, 200, 2	50					
ype of cloggin	ig indicator no clogging indicator)							
without port (r	io cloadina indicatori							-
titanium blanki	ng plug in indicator po	ort						1
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Size 030. 060.	, 110, 160, 24	0. 330				<u>DH - 100 - D -</u>
Type DH	,,					
Filtration Chemicro	n rating in µn on⊚ (M): 001, 040, 060, 10	003, 005, 01	0, 020 Wire 250	mesh		
Filter ma M, D	terial					
Supplem N, V, NLT	entary detai , HNBR, EPD	Is DM, K (for de	scriptions, s	ee Point 2.1)	
2.4 REP	LACEMEN	T CLOGGII	NG INDICA	TOR	VDA	C 5 B . X /-V
Type VDAC c	differential pre up to 1035 ba	essure meas ir operating p	urement oressure			
	standard 5 ba		request			
Type of contract (see Poin	clogging indi nt 2.1)	icator				
Modificat X t	tion number he latest vers	sion is alway	s supplied			
Supplem V, W (for	entary detai descriptions,	ls see Point 2.	1)			



3. FILTER CALCULATION /SIZING

The total pressure drop of a filter at a certain flow rate Q is the sum of the housing Δp and the element Δp and is calculated as follows:

$$\begin{array}{l} \Delta p_{total} = \Delta p_{housing} + \Delta p_{element} \\ \Delta p_{housing} = (see\ Point\ 3.1) \\ \Delta p_{element} = Q \bullet \underbrace{SK^*}_{1000} \bullet \underbrace{viscosity}_{30} \\ (*see\ Point\ 3.2) \end{array}$$

For ease of calculation, our Filter Sizing Program is available on request free of charge.

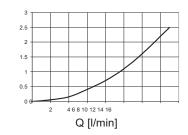
NEW: Sizing online at www.hydac.com

3.1 $\Delta p\text{-}Q$ HOUSING CURVES BASED ON ISO 3968

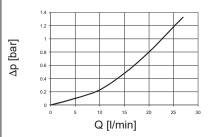
The housing curves apply to mineral oil with a density of 0.86 kg/dm³ and a kinematic viscosity of 30 mm²/s. In this case, the differential pressure changes proportionally to the density.

Size 30: 1/4" MP

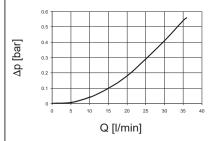
∆p [bar]



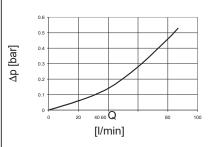
Size 60: 3/8" MP



Size 60-110: 9/16" MP



Size 160: 3/4" MP

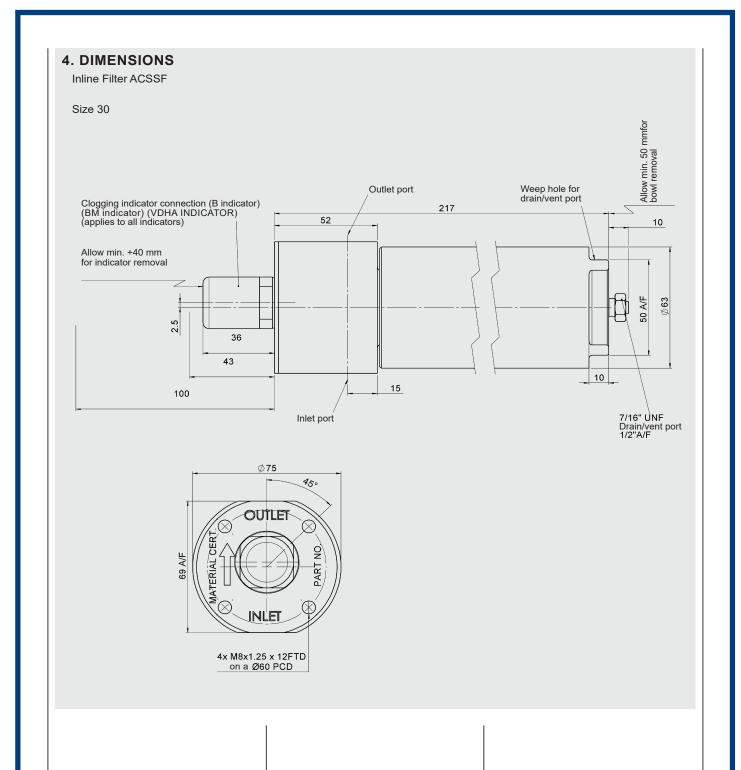


3.2 GRADIENT COEFFICIENTS (SK) FOR FILTER ELEMENTS

The gradient coefficients in mbar/(l/min) apply to mineral oils with a kinematic viscosity of 30 mm²/s. The pressure drop changes proportionally to the change in viscosity.

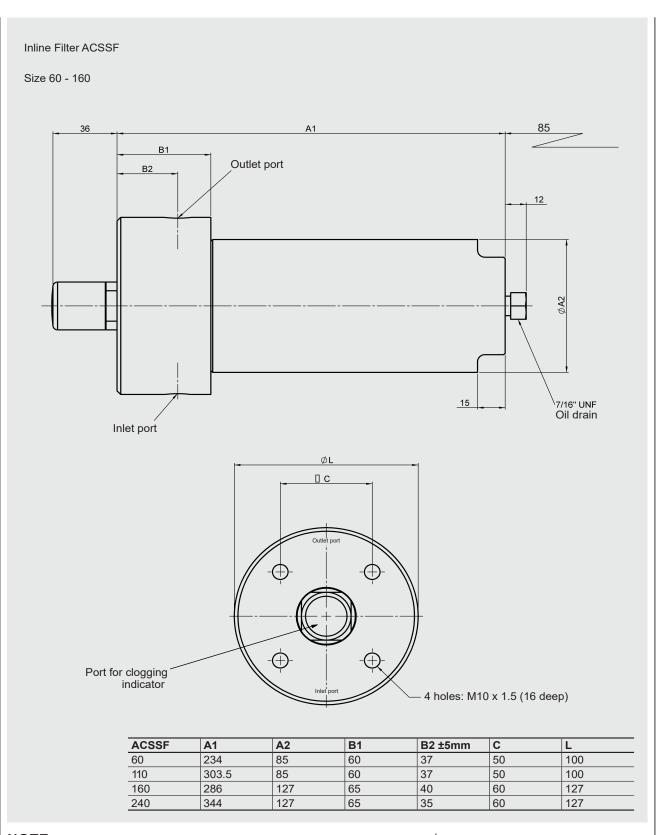
ACSSF BH4HC							
	3 µm	5 µm	10 μm	20 μm			
30	91.2	50.7	36.3	19.0			
60	58.6	32.6	18.1	12.2			
110	25.4	14.9	8.9	5.6			
160	16.8	10.4	5.9	4.4			
240	10.6	6.8	3.9	2.9			





HYDAC | 555





NOTE

The information in this brochure relates to the operating conditions and applications described.

For applications or operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

556 | **HYDAC**