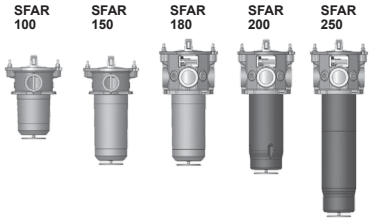
Suction Filter SFAR

Element flow direction from in to out up to 250 l/min



1. TECHNICAL SPECIFICATIONS

1.1 FILTER HOUSING

Construction

The filter housings are designed in accordance with international regulations. They consist of a cover plate, filter head and housing tube. The element is top-removable. These filters can be installed horizontally below the oil level. Standard equipment:

- mounting holes on the filter head
- magnetic core built into cover plate
- foot valve
- connection for a clogging indicator in filter head

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

Contamination retention capacities in g for 0.5 bar

	Polyester (PE)
SFAR	10 µm (nominal)
100	15.5
150	23.2
180	27.5
200	30.4
250	42.7

Filter elements are available with the following pressure stability values:
Polyester (PE): 6 bar
Wire mesh (WR): 6 bar

Other filtration ratings on request.

1.4 FILTER SPECIFICATIONS

Temperature range	-30 °C to +100 °C
Material of housing tube	SFAR 100, 150, 180: PA6 – GF30 SFAR 200, 250: Steel DIN EN 10130-FE P04 A
Material of filter head	SFAR 100, 150: Die-cast EN AC 43300 - F SFAR 180, 200, 250: Chill-cast EN AC 43300-F
Material of cover	PA6 – GF30
Type of clogging indicator	VMFR – Connection thread G 1/8
Pressure setting of the clogging indicator	-0.25 bar (others on request)

1.4 SEALS

NBR (=Perbunan)

1.5 INSTALLATION

Tank-top filter

1.6 SPECIAL MODELS AND ACCESSORIES

- without port, no clogging indicator
- without magnetic core

1.7 SPARE PARTS

See Original Spare Parts List

1.8 CERTIFICATES AND APPROVALS

Test certificate 2.2 Other approvals on request

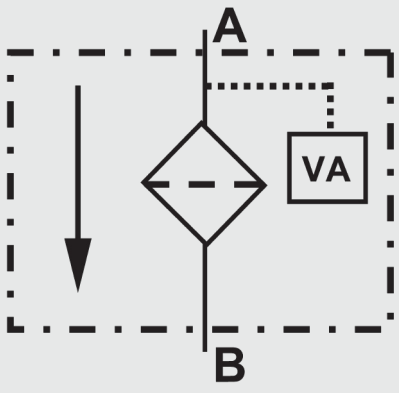
1.9 COMPATIBILITY WITH HYDRAULIC FLUIDS ISO 2943

- 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 245

IMPORTANT INFORMATION

- Filter housings must be earthed.
- When using electrical clogging indicators, the electrical power supply to the system must be switched off before removing the clogging indicator connector.

Symbol for hydraulic systems



VA = clogging indicator

2. MODEL CODE (also order example)

SFAR PE 180 W Z F 10 W 1.0 /-V

2.1 COMPLETE FILTER

Filter type
SFAR

Filter material
PE Polyester
WR Wire mesh

Size of filter or element
SFAR: 100, 150, 180, 200, 250

Operating pressure
W suction operation

Additional connection options multiport head

Type	Connection	Filter size 100	150	180	200	250
Z	to customer spec.			●	●	●

Type and size of connection

Type	Connection	Filter size 100	150	180	200	250
E	G 1 1/4	●	●			
F	G 1 1/2			●	●	●

Filtration rating in µm
PE : 10
WR : 100

Type of clogging indicator
W without port, no clogging indicator A steel blanking plug in indicator port
UE vacuum gauge
UF vacuum switch
for other clogging indicators see brochure no. 7.050../..

Type code
0 without indicator port, no clogging indicator
1-4 see Point 2.5

Modification number
X the latest version is always supplied

Supplementary details
V FPM seals
OM without magnetic core
MPx Multiport head only for SFAR 180, 200, 250 (see Point 2.4)

2.2 REPLACEMENT ELEMENT

0180 RS 010 PE /-V

Size
0100, 0150, 0180, 0200, 0250

Type
RS

Filtration rating in µm
PE : 010
WR : 100

Filter material
PE, WR

Supplementary details
V (for descriptions, see Point 2.1)

2.3REPLACEMENT CLOGGING INDICATOR

VMF 1 UE . X /-V

Type
VMF Thread G 1/8 (SFAR 100, 150)*

Pressure setting
1 1 bar (for type UE)
0.2 0.2 bar (for type UF)

Type of clogging indicator
(see Point 2.1)

Modification number
X the latest version is always supplied

Supplementary details
V (for descriptions, see Point 2.1)

* for SFAR 180, 200 and 250 on request

2.4 PORT CONFIGURATION
SFAR 180, 200, 250

Since there are numerous options for machining the ports on the head of the SFAR 180-250, the code WZF is selected here as standard. In order to determine the position and size of the ports, an MPF, MPI or MPL code is added as a supplementary detail. These three connection options are preferred types, please contact us to discuss other options.

Example:
SFAR PE 200 WZF 10 W 0.0 /-MPI

MPF

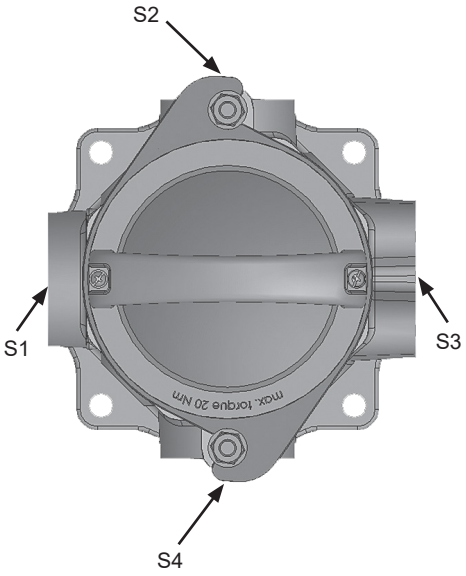
S1: Connection G1½
S2: Connection G1
S3: Connection G1½
S4: Connection G1

MPI

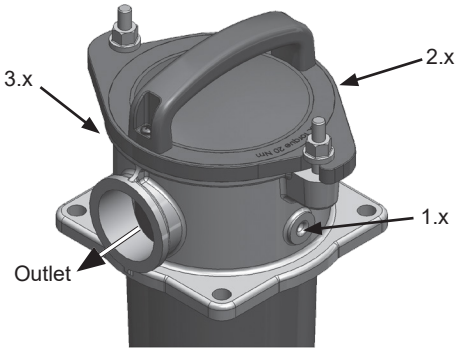
S1: Connection G1½
S2: Connection G1¼
S3: Connection G1½
S4: Connection G1¼

MPL

S1: Connection G1½
S2: Connection G1
S3: Connection SAE DN 50
S4: Connection G1

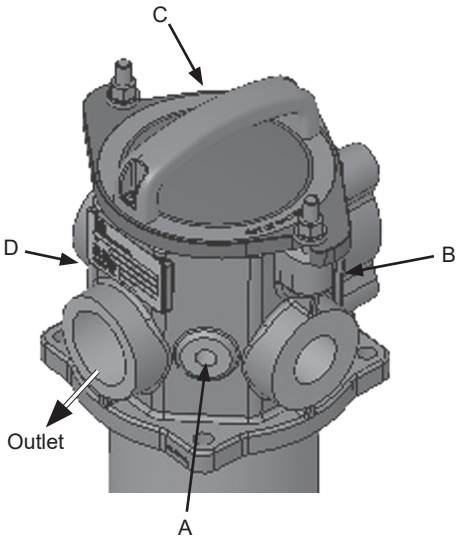


2.5 TYPE CODE
SFAR 100, 150



Type	Mounting position code of clogging indicator
0.x	Plain, undrilled
1.x	To right of filter outlet
2.x	Opposite filter outlet
3.x	To left of filter outlet
4.x	All positions with G 1/8 port and with blanking plug in ports

SFAR 180, 200, 250



Type	Mounting position code of clogging indicator
0.x	All undrilled
1.x*	A = G 1/4; B = G 3/8; C = G 3/8; D = G 3/8
2.x*	A = G 3/8; B = G 3/8; C = G 1/4; D = G 3/8
3.x	A = G 3/8; C = G 3/8; B and D undrilled
4.x	All positions with G 1/8 port and with blanking plug in ports

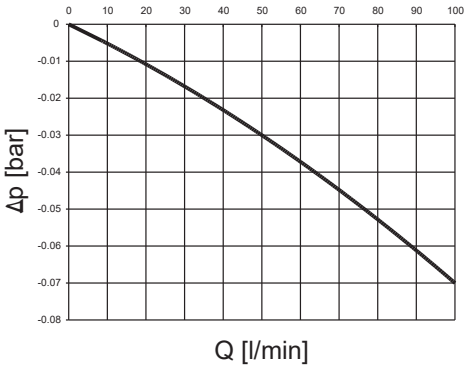
* Preferred range

3. FILTER CALCULATION / SIZING

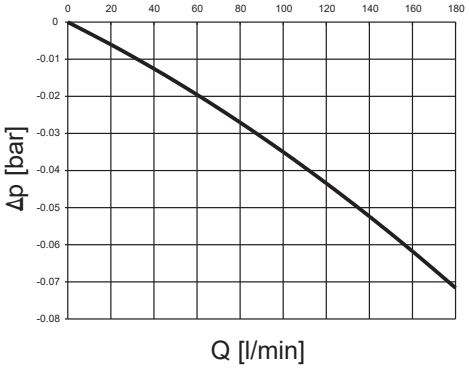
3.1 GRAPHS FOR COMPLETE FILTER

The total pressure drop graphs apply to mineral oil with a density of 0.86 kg/dm³ and a kinematic viscosity of 30mm²/s.

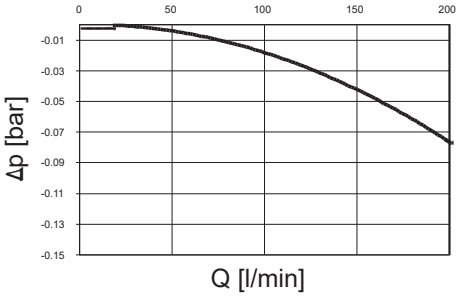
SFAR 100: PE



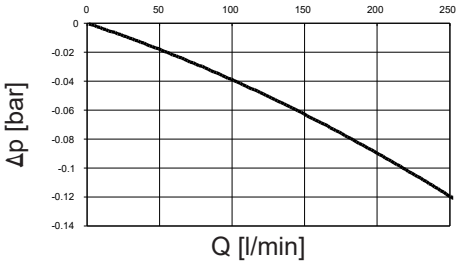
SFAR 150: PE



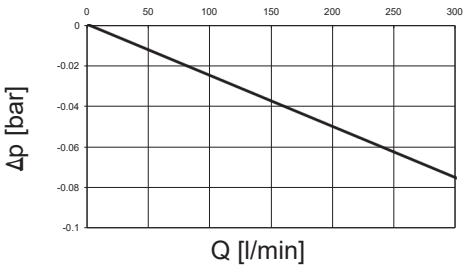
SFAR 180: PE



SFAR 200: PE

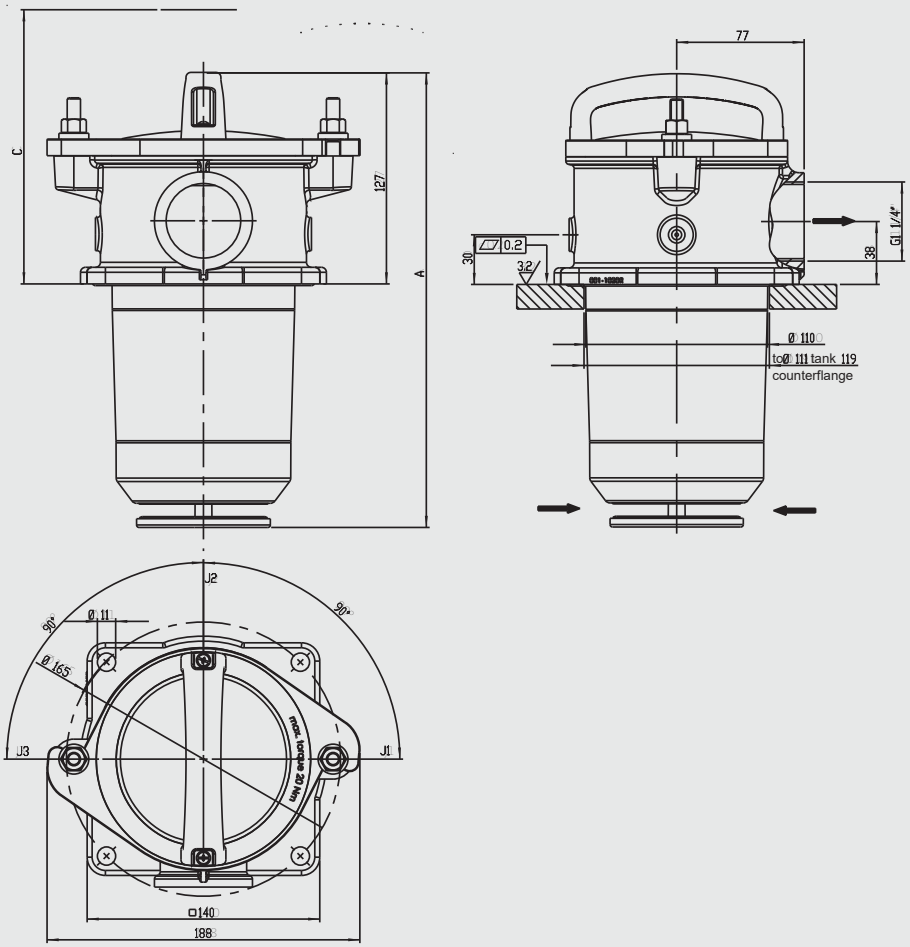


SFAR 250: PE



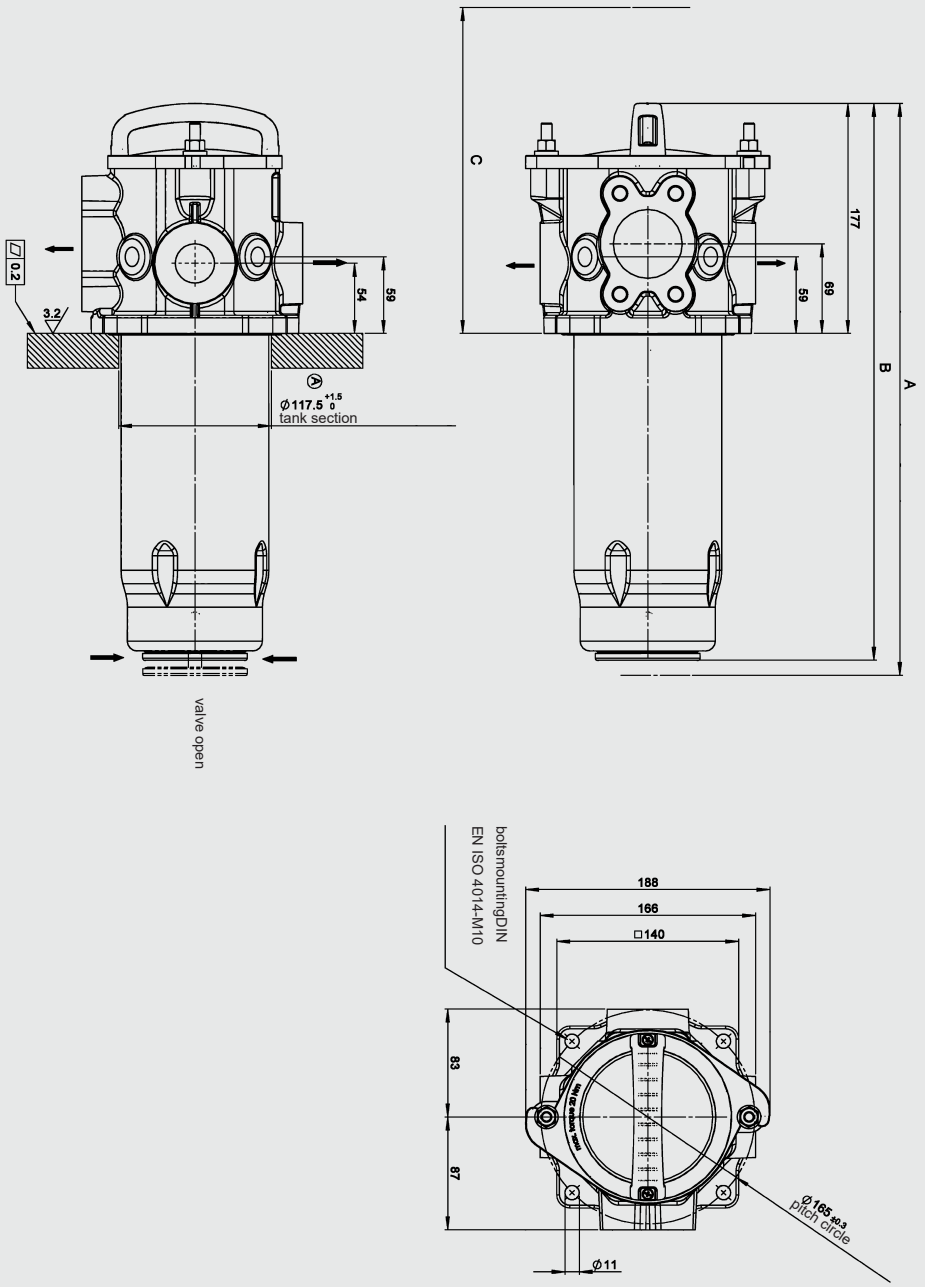
4. DIMENSIONS

SFAR 100 – 150



Type	A	C	Weight incl. element [kg]
SFAR 100	274	250	1.8
SFAR 150	354	330	2.1

SFAR 180 – 250



Type	a	B	C	Weight incl. element [kg]
SFAR 180	404	396	520	3.63
SFAR 200	441	429	580	4.68
SFAR 250	583	571	690	5.38

NOTES

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.