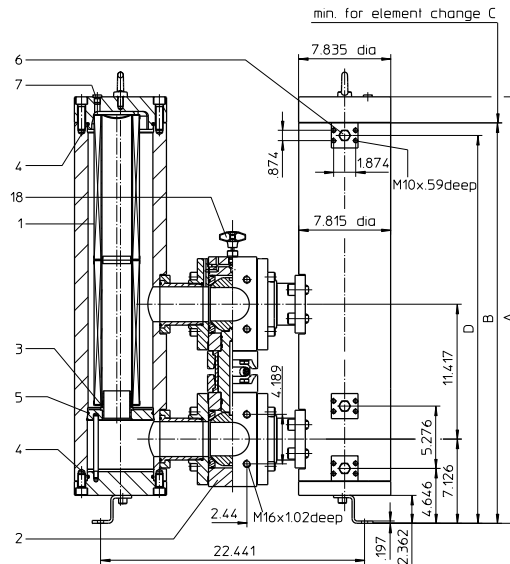
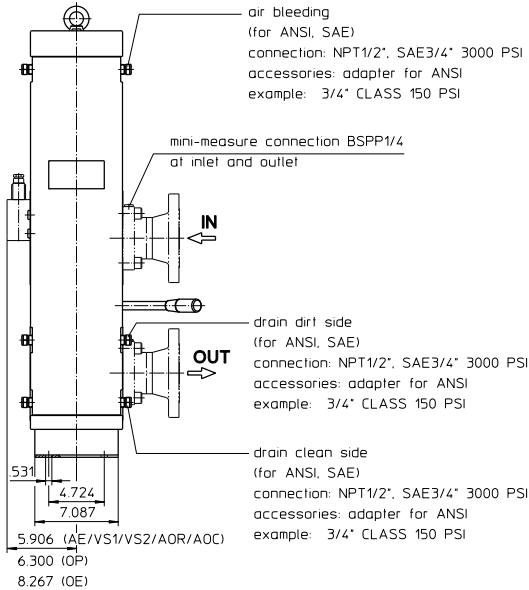
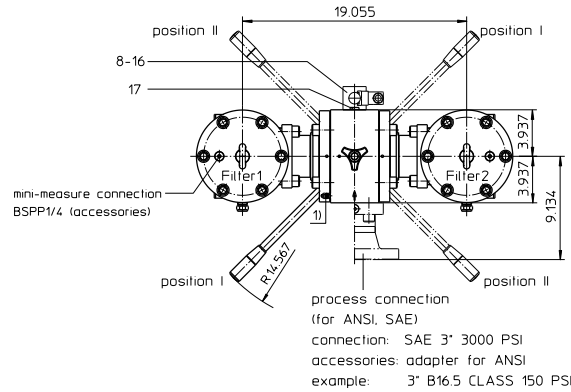


PRESSURE FILTER, change-over
Series DA 630-1000 NPS 3" CLASS 300 PSI

Sheet No.
2156 E

1) Connection for the potential equalisation at inlet and outlet, only for application in the explosive area.

Position I: Filter 1 in operation
 Position II: Filter 2 in operation



2. Dimensions: inch

type	connection size	A	B	C	D	weight lbs.
DA 630	SAE 3"	27.04	24.84	16.14	23.77	approx. 639
DA 1000	SAE 3"	36.10	33.89	25.19	32.83	approx. 771

1. Type index:

1.1. Complete filter: (ordering example)

DA. 1000. 10VG. 30. E. P. -. FS. A. -. -. AE. AV. IS21. F. F

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

- 1 series:
DA = pressure filter change-over, according to ASME-code
- 2 nominal size: 630, 1000
- 3 filter-material and filter-fineness:
80 G = 80 µm, 40 G = 40 µm, 25 G = 25 µm, 10 G = 10 µm stainless steel wire mesh
25 VG = 20 µm_(c), 16 VG = 15 µm_(c), 10 VG = 10 µm_(c), 6 VG = 7 µm_(c), 3 VG = 5 µm_(c) Interpor fleece (glass fiber)
25 API = 20 µm, 10 API = 10 µm Interpor fleece (glass fiber) according to API
10 P = 10 µm paper
- 4 resistance of pressure difference for filter element:
30 = Δp 435 PSI
- 5 filter element design:
E = single-end open, S = with by-pass valve Δp 29 PSI, S1 = with by-pass valve Δp 51 PSI
- 6 sealing material:
P = Nitrile (NBR), V = Viton (FPM)
- 7 filter element specification:
- = standard, VA = stainless steel
- 8 process connection:
FS = SAE-flange connection 3000 PSI
FA1 = ANSI-flange connection CLASS 300 PSI, sealing surface rough grind 1600-3600 µin
FA2 = ANSI-flange connection CLASS 300 PSI, sealing surface rough grind < 640 µin
- 9 process connection size:
A = 3"
- 10 filter housing specification:
- = standard
IS12 = internal parts of change-over armature stainless steel, see sheet-no. 41028
- 11 internal valve:
- = without
- 12 clogging indicator or clogging sensor:
- = without, OP = visual, see sheet-no. 1628
AOR = visual, see sheet-no. 1606, OE = visual-electrical, see sheet-no. 1628
AOC = visual, see sheet-no. 1606, VS1 = electrical, see sheet-no. 1607
AE = visual-electrical, see sheet-no. 1609, VS2 = electrical, see sheet-no. 1608
- 13 shut-off valve:
- = without, AV = shut-off valve, see sheet-no. 1655
- 14 specification pressure vessel:
- = standard (PED 97/23/EC)
IS20 = ASME VIII Div.1 with ASME equivalent material, see sheet-no. 55217
IS21 = ASME VIII Div.1 with U-stamp, see sheet-no. 43415
IS23 = ASME VIII Div.1 without U-stamp, see sheet-no. 55218
- 15 switch lever:
F = toward IN/OUT, B = opposite IN/OUT
- 16 air bleeding/drain:
F = toward IN/OUT, B = opposite IN/OUT

1.2. Filter element: (ordering example)

01NL. 1000. 10VG. 30. E. P. -

1	2	3	4	5	6	7
---	---	---	---	---	---	---

- 1 series:
01NL = standard filter element according to DIN 24550, T3
- 2 nominal size: 630, 1000
- 3 - 7 see type index complete filter

Changes of measures and design are subject to alteration!

3. Accessories:

- SAE-counter flanges, see sheet-no. 1652
- adapter for ANSI-connection B16.5 CLASS 300 PSI, see sheet-no. 1658
- measure- and bleeder-connections, see sheet-no. 1650
- drain- and bleeder connection, see sheet-no. 1659

4. Spare parts:

item	qty.	designation	dimension		article-no.	
			DA 630	DA 1000		
1	2	filter element	01NL.630...	01NL.1000...		
2	1	change over UKK	3"			
3	2	O-ring	60 x 3,5		304377 (NBR)	304398 (FPM)
4	4	O-ring	135 x 4,75		326348 (NBR)	326349 (FPM)
5	2	O-ring	136,12 x 3,53		320162 (NBR)	320163 (FPM)
6	12	screw plug	NPT 1/2		307766	
7	2	screw plug	BSPP 1/4		305003	
8	1	clogging indicator, visual	AOR or AOC		see sheet-no. 1606	
9	1	clogging indicator, visual-electrical	OP		see sheet-no. 1628	
10	1	clogging indicator, visual-electrical	OE		see sheet-no. 1628	
11	1	clogging indicator, visual-electrical	AE		see sheet-no. 1609	
12	1	clogging sensor, electrical	VS1		see sheet-no. 1607	
13	1	clogging sensor, electrical	VS2		see sheet-no. 1608	
14	1	O-ring	15 x 1,5		315357 (NBR)	315427 (FPM)
15	1	O-ring	22 x 2		304708 (NBR)	304721 (FPM)
16	2	O-ring	14 x 2		304342 (NBR)	304722 (FPM)
17	2	screw plug	BSPP 1/4		305003	
18	1	pressure balance valve	3/8"		305000	

item 17 execution only with clogging indicator or clogging sensor

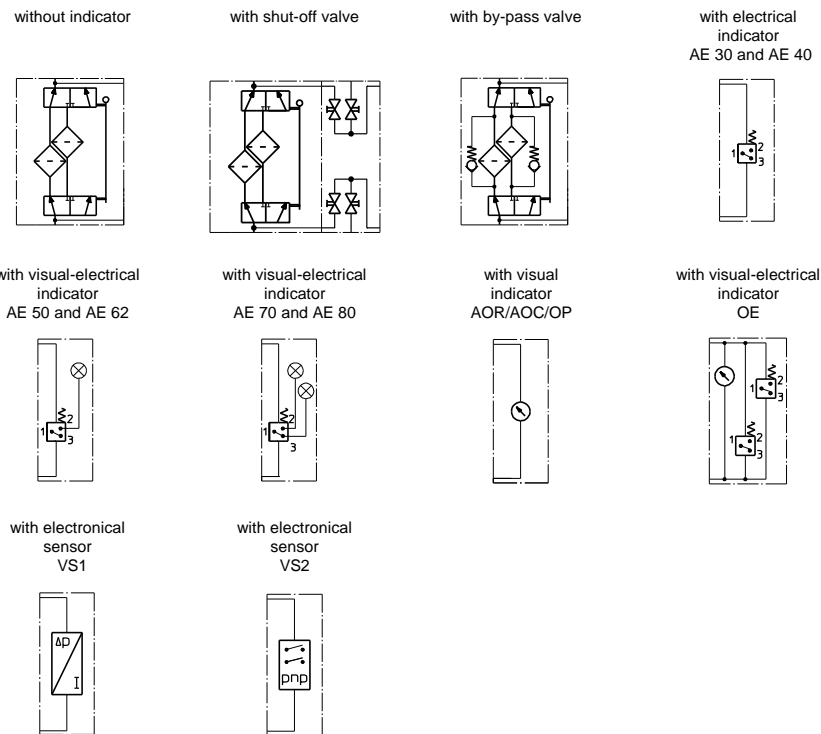
5. Description:

Pressure filters, change-over series DA 630-1000 are suitable for operating pressure up to 580 bar. Pressure peaks can be absorbed with a sufficient margin of safety. Change-over ball valve which, integrated in the middle of the housing, makes it possible to switch from the dirty filter-side to the clean filter-side without interrupting operation. The filter element consists of star-shaped, pleated filter material which is supported on the inside by a perforated core tube and is bonded to the end caps with a high-quality adhesive. The flow direction is from outside to the inside. These filters can be installed as suction filters. For cleaning (see special leaflet 21070-4 and 34448-4) the mesh element respectively to change the glass fiber element remove the cover and take out the element. Filter finer than 40 µm should use throw-away elements made of paper or Interpor fleece (glass fiber). Filter elements as fine as 5 µm_(e) are available; finer filter elements on request. Internormen Product Line filter elements are known as elements with a high intrinsic stability and an excellent filtration capability, a high dirt-retaining capacity and a long service life. Internormen Product Line filter are suitable for all petroleum based fluids, HW-emulsions, most synthetic hydraulic fluids and lubrication oils. The inspection according to TÜV, according to ASME VIII Div.1 and the major „Shipyard Classification Societies“ D.N.V.; B.V.; G.L.; L.R.S.; R.I.N.A.; A.B.S. and others are possible. If inspection is required please indicate in your order.

6. Technical data:

temperature ranges
 - calculation temperature (pressure vessel): +14°F to +212°F
 - medium temperature: +14°F to +176°F
 - ambient temperature: -40°F to +140°F
 - survival temperature: -40°F to +212°F (short-time)
 operating medium: mineral oil, other media on request
 max. operating pressure: 580 PSI
 test pressure acc. to PED 97/23/EC: 1,43 x operating pressure = 827 PSI
 test pressure acc. to ASME VIII Div. 1: 1,3 x operating pressure = 754 PSI
 test pressure acc. to API 614, Chapter 1: 1,5 x operating pressure = 870 PSI
 connection system: SAE-flange connection 3000 PSI
 housing material: steel
 sealing material: Nitrile (NBR) or Viton (FPM), other materials on request
 installation position: vertical
 bleeder connection: NPT 1/2" and SAE 1/4" 3000 PSI
 drain connection dirt side: NPT 1/4" and SAE 1/4" 3000 PSI
 drain connection clean side: NPT 1/2" and SAE 1/4" 3000 PSI
 volume tank DA 630: 2x 2.19 Gal.
 DA 1000: 2x 3.11 Gal.
 operating pressure adapter flanges: according to B16.5 CLASS 300 PSI
 Classified under the Pressure Equipment Directive 97/23/EC for mineral oil (fluid group 2), Article 3, Para. 3.
 Classified under ATEX Directive 94/9/EC according to specific application (see questionnaire sheet-no. 34279-4)

7. Symbols:



8. Pressure drop flow curves:

Precise flow rates see 'Interactive Product Specifier', respectively Δp- curves; depending on filter fineness and viscosity.

9. Test methods:

Filter elements are tested according to the following ISO standards:

- ISO 2941 Verification of collapse/burst resistance
- ISO 2942 Verification of fabrication integrity
- ISO 2943 Verification of material compatibility with fluids
- ISO 3723 Method for end load test
- ISO 3724 Verification of flow fatigue characteristics
- ISO 3968 Evaluation of pressure drop versus flow characteristics
- ISO 16889 Multi-pass method for evaluating filtration performance