



Filters . Accumulators

Low / Medium Pressure Duplex Filter

Ball Valve Changeover

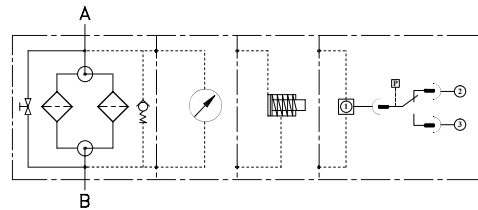
Type : 16/40/45/60-DK

Technical Data

Design	: Duplex
Max. Pressure (PS)	: 16 bar [232 psi] 40 bar [580 psi] 45 bar [652 psi] 60 bar [870 psi].
Test Pressure (PT)	: 1.3 / 1.43 / 1.5 or as per relevant standards
Temperature range	: -20°C to +100°C (Standard) -4°F to +212°F (Standard)
Connection	: Upto 6" ANSI
Element design	: EPE standard
Material of Construction	
	Housing : Carbon Steel / Stainless Steel.
	C/O Vlv : CS with SS Ball / SS with SS Ball.
	Seals : Nitrile / Viton / EPDM.
	Paint : Externally painted in RAL-5010.
Flow Capacity	
0020	200 lpm [50 gpm]
0030	300 lpm [65 gpm]
0045	450 lpm [100 gpm]
0060	600 lpm [150 gpm]
0095	950 lpm [250 gpm]
0120	1200 lpm [300 gpm]
0145	1450 lpm [380 gpm]
0200	2000 lpm [500 gpm]
0270	2700 lpm [700 gpm]
0297	2950 lpm [750 gpm]



Hydraulic Symbol



Description

Designed as per PED / ASME / Standard Engineering Practice, based on project / product requirement, the DK series Filters are used for direct installation in the pipeline and provide wear protection of downstream components & systems. Duplex in design the filter inlet & outlet are located on same side with inlet on the top.

The Filter consists of two filter housings - each with an element locating spigot - connected by a change-over assembly and an integral pressure equalisation valve. The change-over assembly is made of Two Nos. 3-way Ball valves coupled for simultaneous operation with a common handle. The change-over handle points to the housing in operation. Bolts on the filter covers are unscrewed for maintenance.

Accessories

Maintenance indicator - for monitoring the filter element contamination status. Available in various designs including

- Optical (pop-up version) with Electrical option.
- Optical (dual dial version) with Electrical option.
- Optical-Electrical with 2 switching points.

Magnet - to protect the filter from ferrous contamination.

Bypass valve - to protect the filter element during start-up and over pressurisation due to clogging.

Vent valve - for removing the air from the filter during starting and for safe depressurisation.

Drain valve - for draining the filter during servicing.

Filter Element

The Filter Element is of star-pleated design with optimised pleat density for providing prolonged life.

The filter element is of Out-to-In design and the contaminant is retained outside the filter element and collected in the filter bowl.

The elements are available in various media options and selected based on the required oil cleanliness, initial pressure drop and dirt holding capabilities.

Media options for the filter element include
SS Wire Mesh - Cleanable, Nominal filtration.

Paper - Non-cleanable, Nominal filtration.

Non-woven - Non-cleanable, Nominal filtration.

Inorganic glass fibre - Non-cleanable, Absolute filtration acc. to ISO-16889.

Aquasorb - Water absorbing media, Non-cleanable.

For special applications / fluids the filter elements are supplied with SS hardware (end caps & inner tube) and / or different adhesives.

Technical specifications subject to change.

Ordering Code - Filter

1 2 3 4 5 6ab 7 8 9ab 10 11 12 13
60 - **DK** - **0045** - **H10XP** - **A** - **0 P** - **2** - **9** - **AD5.0** - **S093** - **P** - **0** - **0** /

1	Max. working pressure	16 bar [232 psi] 40 bar [580 psi] 45 bar [652 psi] 60 bar [870 psi]	= 16 = 40 = 45 = 60
2	Filter type	Duplex - EPE Standard Element	= DK
3	Nominal Size	Higher pressures on request 60 Bar 45 Bar 16 Bar 45 Bar 16 Bar 45 Bar 16 Bar 40 Bar 16 Bar	= 0020 0030 0045 = 0060 0095 0120 = 0145 0200 0270 = 0297
4	Filtering Media & Filtration Grade	<u>Nominal Filtration Grade</u> SS Wire Mesh Cleanable with additional epoxy layer upstream for 10/25/40µm	= G10 G25 G40 G60 G80 G100 Others on request
		Paper Non-cleanable with epoxy mesh	= P5 P10 P25
		Non-Woven Non-cleanable with epoxy mesh	= VS10 VS25 VS40 VS60
		<u>Absolute Filtration Grade (ISO16889)</u> Glass Fibre Non-cleanable with epoxy mesh	= H1XL H3XL H6XL H10XL H16XL H20XL
		Long Life Glass Fibre Non-cleanable with plastic mesh & outer sleeve	= H3XP H5XP H10XP H15XP H20XP
		Long Life Glass Fibre Non-cleanable with epoxy mesh	= H3XE H5XE H10XE H15XE H20XE
		Glass Fibre - Electrically Conductive Non-cleanable with epoxy mesh	= H3XC H5XC H10XC H15XC H20XC
		Glass Fibre - Water Absorbing Non-cleanable with epoxy mesh	= AS1 AS3 AS6 AS10 AS20
		SS Fibre Cleanable with SS mesh	= M5 M10 M15
5	Differential Pressure of Element	<u>Maximum allowed differential pressure</u> 30 bar [435 psid] 15 bar [217 psid]	= A (std 0020 to 0120) = 0 (std 0145 & above)
6a	Element Adhesive	Standard Adhesive T=100°C [212°F] Epoxy Adhesive (for fuels) High Temp. Adhesive T=160°C [320°F]	= 0 (standard) = 1 = E
6b	Element Hardware (End Caps + Inner Tube)	Carbon Steel + Carbon Steel Polyamide + Carbon Steel Stainless Steel + Stainless Steel Nickel Coated CS + Nickel Coated CS Carbon Steel + Stainless Steel	= C = P (standard) = X = D = M
7	Magnet	Without With magnet	= 0 (standard) = 2

* Before ordering, check for availability.

Ordering Code - Filter

1 2 3 4 5 6ab 7 8 9ab 10 11 12 13
60 - DK - 0045 - H10XP - A - 0 P - 2 - 9 - AD5.0 - S093 - P - 0 - 0 /

8	Bypass Valve	Without With Bypass Valve - 3.5 bar [50.7 psid] With Bypass Valve - 7.0 bar [101.5 psid] Other pressures on request	= 0 (standard) = 7 = 9
9a	Maintenance Indicator - type (multiple options possible)	Without Optical (Pop-up) Optical(Pop-up) + Electrical with DIN Plug Optical(Pop-up) + Electrical with Lamp Optical + Electrical with 2 Switching points - set to operate at 75% and 100% Optical (Dual dial) Optical(dial) + Electrical with DIN Plug Optical(dial) + Electrical with Lamp DP Gauge DP Switch DP Gauge cum Switch	= 0 (standard) = A.. = B.. = D.. = T.. = AD.. = BD.. = DD.. = G.. = S.. = X..
9b	Maintenance Indicator - cracking pressure	Without 2.5 bar [36.2 psid] 5.0 bar [72.5 psid] Other pressure (in bar)	= - (standard) = ..2.5 (for 3.5 bar byp) = ..5.0 (for 7.0 bar byp) = as applicable
10	Inlet / Outlet - connections	SAE #3000 Flange - 2" SAE #3000 Flange - 2-1/2" SAE #3000 Flange - 3" SAE #3000 Flange - 4" ANSI Cl.150 Flange - 6" ANSI Cl.300 Flange - 6" Others	= S093 (0020-0045) = S103 (0060-0120) = S113 (0060-0120) = S133 (0145-0297) = A171 (0297) = A172 (0297) = X0 (to be specified)
11	Seal Material	Nitrile Viton EPDM	= P (standard) = V = E
12	Housing Material	Carbon Steel Nickel coated CS Stainless Steel	= 0 (standard) = N = X
13	Other Options (multiple options possible)	Air Vent & Drain Ports - plugged Standard Size (refer pg.5) Air Vent Valve Standard Size (refer pg.5) CS Drain Valve Filter Element with Handle Inlet / Outlet with mating flanges Foundation Bolts Special Requirements (EPE Internal reference)	= 0 (standard) = E = DV = H = MF = FB = SP-xxx

* Before ordering, check for availability

Ordering Code - Filter Element

1. **0045 - H10XP - A - 0 P - 0 - P -**
 3 4 5 6ab 11 13

Ordering Code - Seal Kit

D - 60 - DK - 0045 - A - S093 - P - 0
 1 2 3 9a 10 11

Maintenance Indicators

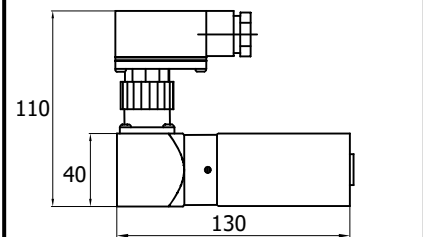
<p>A = Optical (Pop-up)</p>	<p>B = Optical (Pop-up) + Electrical</p>	<p>D = Optical (Pop-up) + Electrical with 2 LEDs</p>
<p>Ordering Code F-xx-A0-00-00-P</p>	<p>Ordering Code F-xx-GW-02-00-P</p>	<p>Ordering Code F-xx-GW-26-00-P</p>
<p>AD = Optical (Dual Dial)</p>	<p>BD = Optical (Dual Dial) + Electrical</p>	<p>DD = Optical (Dual Dial) + Electrical with 2 LEDs</p>
<p>Ordering Code FD-xx-A0-00-00-P</p>	<p>Ordering Code FD-xx-GW-02-00-P</p>	<p>Ordering Code FD-xx-GW-26-00-P</p>

Maintenance Indicator functioning

These indicators work on the differential pressure and operate when a preset pressure differential is reached between the inlet & outlet ports.

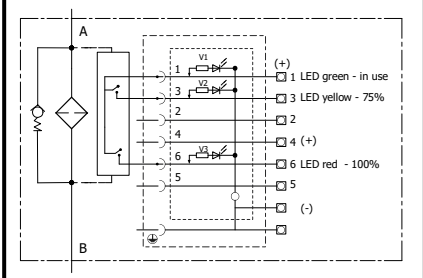
In the pop-up version a red indicator pin pops out in the housing chamber thereby indicating the state whereas in the dual dial version two dial gauges - with green, yellow & red bands - placed on opposite side indicate the condition. If available, the electronic switching element is also triggered.

In the 2-switching points version (type T) the green LED glows in operating condition, yellow LED glows when 75% of the preset pressure differential is reached and red LED at 100%.



T = Optical/Electrical with 3 LEDs & 2 Switching points

Ordering Code
R-xx-GW-09-Z0-P



Dimensions - preferred connections

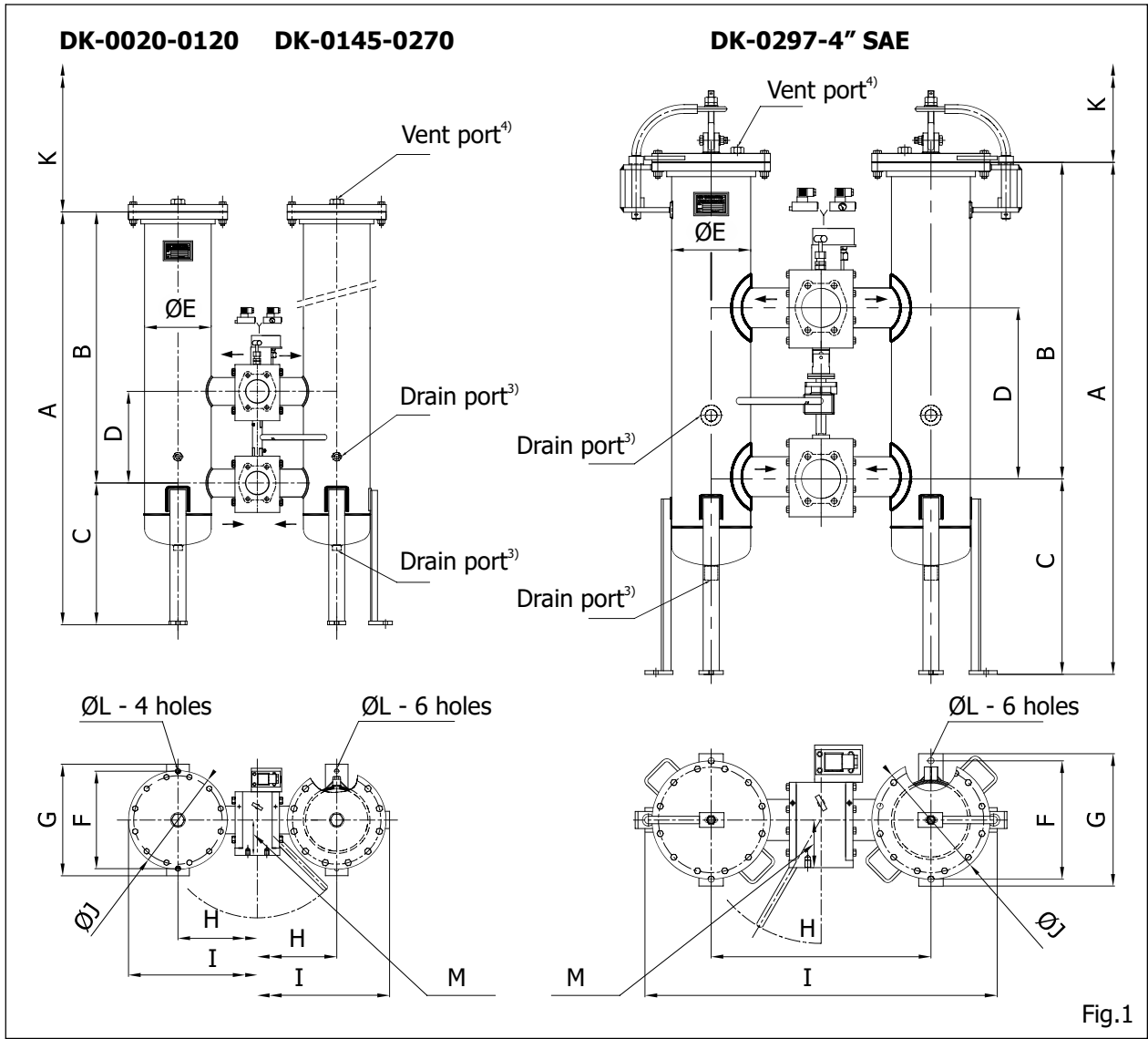


Fig.1

Type	Capacity ltr [gal]	Weight kg [lbs] ¹⁾	Connection	A±5	B	C	D±5	ØE	F±3	~G	H±5	I±10	ØJ	K ²⁾	ØL	M	
16/45-DK 0020	9 [2.38]	Refer Page 7	S093 - SAE 2" #3000	680 [26.77]	320 [12.60]									210 [8.27]			
16/45-DK 0030	9 [2.38]			680 [26.77]	320 [12.60]	360 [14.17]	200 [7.87]	168.3 [6.63]	280 [11.02]	315 [12.40]	500 [19.69]			300 [11.81]	18 [0.71]	75 [2.95]	
16/45-DK 0045	12 [3.17]			830 [32.68]	470 [18.50]										450 [17.72]		
60-DK 0020	10 [2.64]			S093 - SAE 2" #3000	740 [29.13]	380 [14.96]									210 [8.27]		
60-DK 0030	10 [2.64]		740 [29.13]		380 [14.96]	360 [14.17]	200 [7.87]	168.3 [6.63]	280 [11.02]	315 [12.40]	500 [19.69]			300 [11.81]	18 [0.71]	75 [2.95]	
60-DK 0045	13 [3.43]		890 [35.04]		530 [20.87]										450 [17.72]		
16/45-DK 0060	17 [4.49]			S103 - SAE 2-1/2" #3000	835 [32.87]	475 [18.70]									300 [11.81]		
16/45-DK 0095	20 [5.28]		893 [35.16]		533 [20.98]	360 [14.17]	265 [10.43]	193.7 [7.63]	320 [12.60]	360 [14.17]	500 [19.69]			450 [17.72]	18 [0.71]	98 [3.86]	
16/45-DK 0120	27 [7.13]		1250 [49.21]		890 [35.04]										807 [31.77]		
16/45-DK 0145	25 [6.60]			S133 - SAE 4" #3000	1090 [42.91]	590 [23.23]									450 [17.72]		
16/45-DK 0200	36 [9.51]		1448 [57.00]		948 [37.32]	500 [19.69]	375 [14.76]	219.1 [8.63]	345 [13.58] PCD	380 [14.96]	600 [23.62]				810 [31.89]	18 [0.71]	130 [5.12]
16/45-DK 0270	44 [11.62]		1682 [66.22]		1182 [46.53]										1040 [40.94]		
16/40-DK 0297	73 [19.28]		S133 - SAE 4" #3000	1770 [69.68]	1270 [50.00]	580 [22.83]	375 [14.76]	273.1 [10.75]	400 [15.75] PCD	457 [17.99]	650 [25.59]		1040 [40.94]	18 [0.71]	130 [5.12]		

¹⁾ = Weight including standard filter element and maintenance indicator.

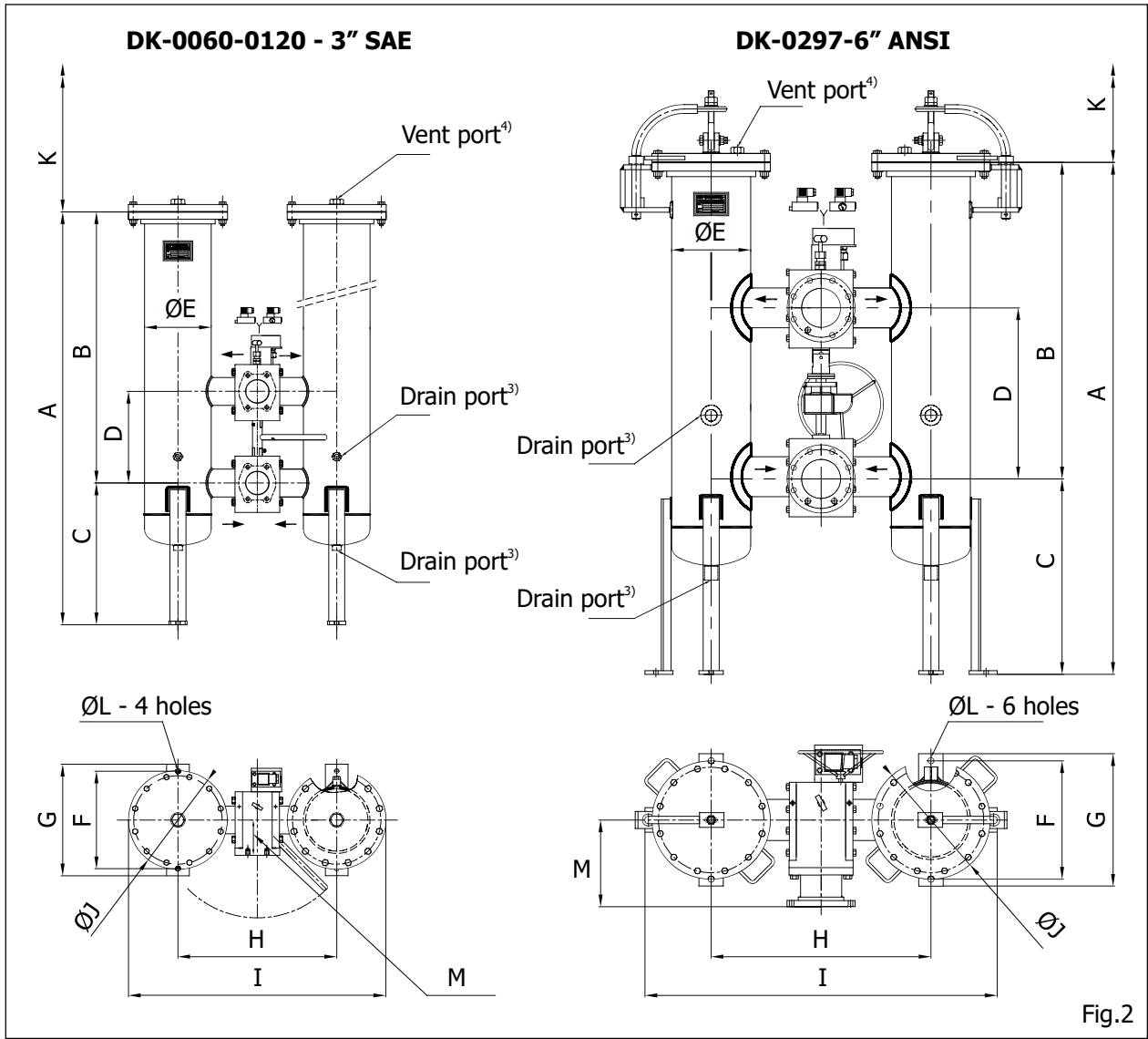
²⁾ = Servicing height for filter element replacement.

³⁾ = Drain ports - G1/2" for 0020-0045, G3/4" for 0060-0270 & G1" for 0297.

⁴⁾ = Vent ports - G1/4" for 0020-0270 & G1/2" for 0297.

Dimensions in mm [inch]

Dimensions - alternate connections



Type	Capacity ltr [gal]	Weight kg [lbs] ¹⁾	Connection	A±5	B	C	D±5	ØE	F±3	~G	H±5	I±10	ØJ	K ²⁾	ØL	M			
16/45-DK 0060	17 [4.49]	Refer Page 7	S113 - SAE 3" #3000	835 [32.87]	475 [18.70]	360 [14.17]	300 [11.81]	193.7 [7.63]	320 [12.60]	360 [14.17]	500 [19.69]	Refer Page 7	Refer Page 7	300 [11.81]	18 [0.71]	104 [4.09]			
16/45-DK 0095	20 [5.28]			893 [35.16]	533 [20.98]									1250 [49.21]			890 [35.04]	450 [17.72]	807 [31.77]
16/45-DK 0120	27 [7.13]			1250 [49.21]	890 [35.04]														
16/40-DK 0297	76 [20.08]	Refer Page 7	A171 - ANSI 6" #150	1820 [71.65]	1170 [46.06]	650 [25.59]	700 [27.56]	273.1 [10.75]	400 [15.75] PCD	457 [17.99]	750 [29.53]	Refer Page 7	Refer Page 7	1040 [40.94]	18 [0.71]	355±5 [13.98]			
			A172 - ANSI 6" #300		1187 [46.73]														

¹⁾ = Weight including standard filter element and maintenance indicator.

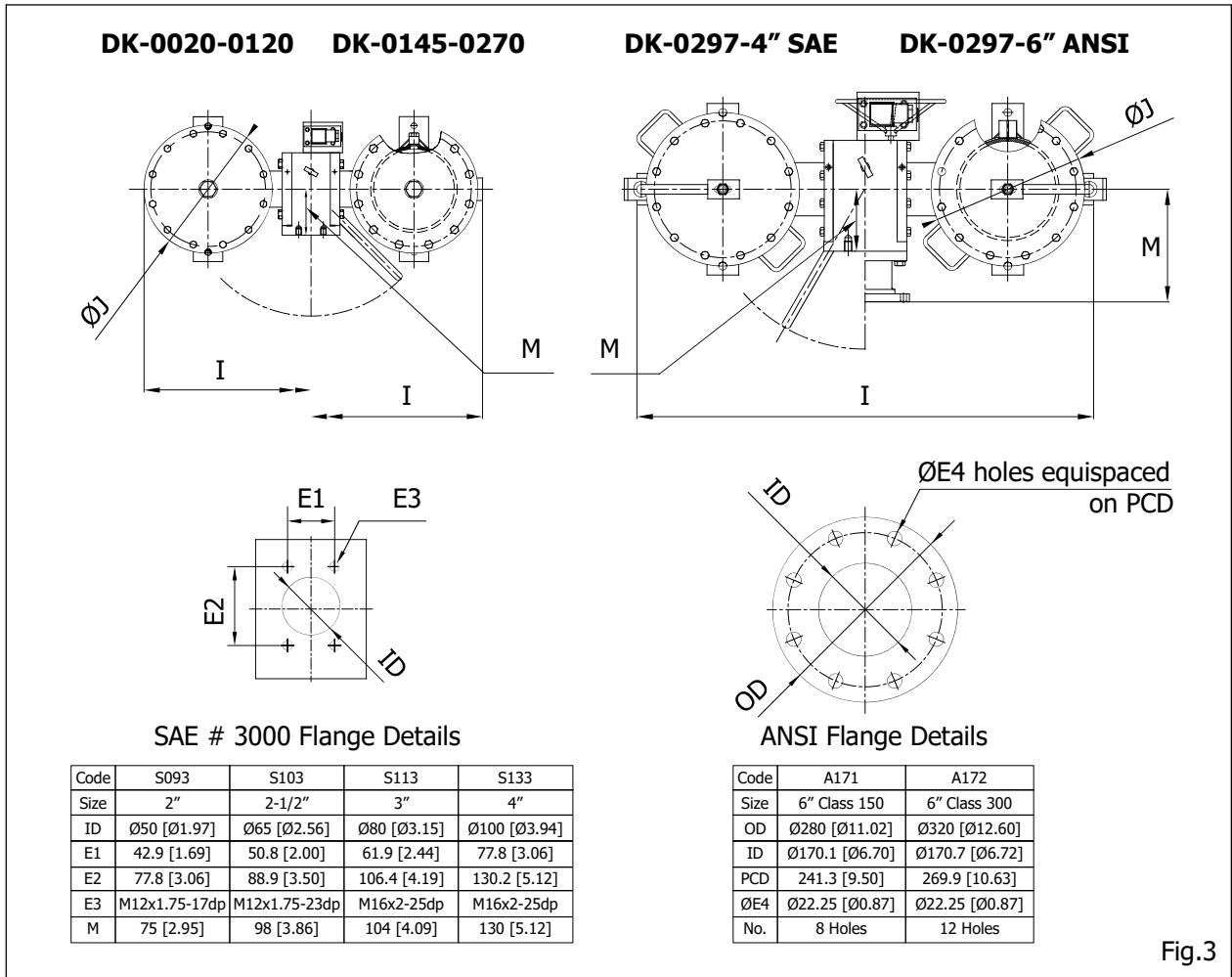
²⁾ = Servicing height for filter element replacement.

³⁾ = Drain ports - G3/4" for 0060-0120 & G1" for 0297.

⁴⁾ = Vent ports - G1/4" for 0060-0120 & G1/2" for 0297.

Dimensions in mm [inch]

Dimensions - specific to pressure



Filter Type	16-DK			40-DK			45-DK			60-DK			
	Series Conn	Weight kg [lbs] ¹⁾	I±10	ØJ	Weight kg [lbs] ¹⁾	I±10	ØJ	Weight kg [lbs] ¹⁾	I±10	ØJ	Weight kg [lbs] ¹⁾	I±10	ØJ
DK 0020 S093		116 [255.7]			Not available			148 [326.3]			207 [456.4]		
DK 0030 S093		116 [255.7]	780 [30.71]	280 [11.02]				148 [326.3]	820 [32.28]	320 [12.60]	207 [456.4]	855 [33.66]	355 [13.98]
DK 0045 S093		123 [271.2]						158 [348.3]			217 [478.4]		
DK 0060 S103		145 [319.7]			Not available			153 [337.3]			Not available		
DK 0095 S103		148 [326.3]	745 [29.33]	245 [9.65]				156 [343.9]	745 [29.33]	245 [9.65]			
DK 0120 S103		175 [385.8]						184 [405.7]					
DK 0060 S113		150 [330.7]			Not available			158 [348.3]			Not available		
DK 0095 S113		153 [337.3]	745 [29.33]	245 [9.65]				162 [357.1]	745 [29.33]	245 [9.65]			
DK 0120 S113		180 [396.8]						189 [416.7]					
DK 0145 S133		378 [833.3]			Not available			432 [952.4]			Not available		
DK 0200 S133		423 [932.5]	945 [37.20]	345 [13.58]				477 [1051.6]	981 [38.62]	380 [14.96]			
DK 0270 S133		438 [965.6]						492 [1084.6]					
DK 0297 S133		480 [1058.2]	1110 [43.70]	406 [15.98]	530 [1168.4]	1110 [43.70]	445 [17.52]	Not available			Not available		
DK 0297 A171		720 [1587.3]	1157 [45.55]	405 [15.94]	-								
DK 0297 A172		-			770 [1697.6]	1195 [47.05]	445 [17.52]						

¹⁾ = Weight is of filter with specified connections and includes standard filter element & maintenance indicator.

Dimensions in mm [inch]

Spare Parts List

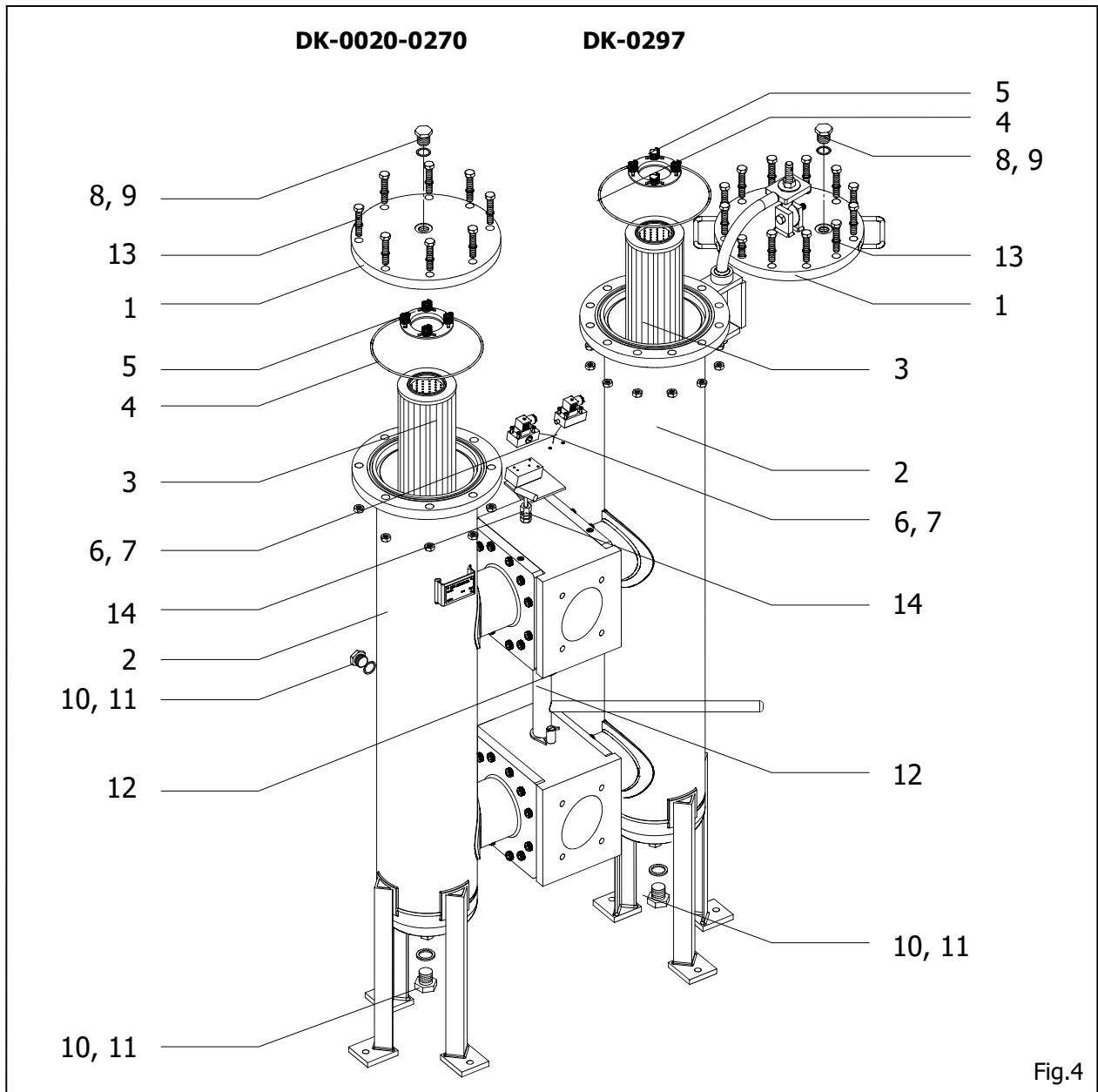


Fig.4

Spare Parts List

		DK Filter size		0020	0030	0045	0060	0095	0120	0145	0200	0270	0297
Item #	Qty.	Description	Material										
1	2	Top Cover	Carbon steel	-									
2	2	Filter Housing	Carbon steel	-									
3	2	Filter Element	Various	As per "Ordering Code - Filter Element"									
4	2	Housing O-Ring	Buna-N/Viton	As per "Ordering Code - Filter Seal Kit"									
5	2	Pressure Plate Assembly	Various	PRP04		PRP05		PRP06		PRP07			
		Bypass Valve Assembly	Various	BYP04/xx		BYP05/xx		BYP06/XX		BYP07/xx			
6	1	Maintenance Indicator	Aluminium	As per Section "Maintenance Indicator"									
7	2	Indicator O-Rings	Buna-N/Viton	Sold as kit - "Ordering Code - Filter Seal Kit"									
8	2	Air Vent Plug	Carbon Steel	BBXXXX		BBXXXX		BBXXXX		EBXXXX			
9	2	Seal Ring for air vent	Copper	Sold as kit - "Ordering Code - Filter Seal Kit"									
10	4	Drain Plug	Carbon Steel	EBXXXX		GBXXXX		GBXXXX		IBXXXX			
11	4	Seal Ring for drain	Various	Sold as kit - "Ordering Code - Filter Seal Kit"									
12	1	Change-Over Valve Assy.	-	-									
13	a.r.	Hex Hd. Bolts + Nuts	8.8	As required.									
14	1	Pre. Equalisation Valve	-	-									

xx - Cracking pressure (bar)

Installation

Before installation, conduct a visual check to ensure that the filter has not suffered any damage during shipping / handling. Verify that the requested type matches with what stamped on the nameplate.

Verify operating pressure with name plate information.

During assembly of the filter the flow paths (inlet on top), the required service height (K in fig.1 & 2) of the filter element and provision for vent & drain valves/piping, if any, are to be taken into consideration.

Mount the filter assembly using the mounting holes on the filter legs ($\emptyset L$ in fig.1 & 2) considering the flow path – inlet on the top. Failure to observe flow path during assembly with cause damage to the filter element and components downstream.

We recommend using a suitable safety relief valve in the system to ensure the user and equipment are protected against possible damage caused by pressure surges.

Provide for the required servicing clearance above the filter for cleaning / replacing the filter element.

These filters must be installed in vertical position ensuring proper venting and draining.

Proceed to the assembly ensuring the filter is not subjected to any abnormal forces and also fastened to avoid the transmission of vibrations. Tighten the inlet and outlet connections.

Make sure the optical part of the indicator is visible and the electricals connected appropriately.

If the maintenance indicator is ignored the bypass valve, if available, will open when the pressure differential increases thereby bypassing the filter element and contaminated fluid will pass to the clean side of the filter outlet thereby compromising the filtration effectiveness and risking the downstream components.

Connecting electrical indicator

Connect indicator using the three wired cable.

Verify electrical ratings on the indicator (6) name plate.

Connection settings:

- | | |
|------------|----------------------------------|
| 1. Closer | 1 (black) + 3 (blue) |
| 2. Opener | 1 (black) + 2 (brown) |
| 3. Changer | 1 (black) + 2 (brown) + 3 (blue) |

Special Instructions

It is strictly forbidden to:

- weld or solder or carry out any mechanical operations on the filter.
- engrave or permanently stamp the surfaces of the filter and / or carry out other operations that could affect or change the mechanical properties of the filter.
- use the filter as a structural element: it should not be subjected to stresses or loads.
- change the data of the nameplate and / or filter without the permission of the manufacturer.
- use a different fluid than those designed for.

Starting Operation

Changeover handle position indicates the housing in use. Other housing will be in idle condition and without any pressure.

Move the change-over handle to the extreme position towards the desired filter housing.

Close the drain valve / plug (10) & open the vent valve / plug (8) in housing.

Tightly close the pressure equalization valve (14) - turn in clockwise direction.

Switch on the service pump.

Once the working fluid starts escaping from the vent close the vent valve.

Filter is now ready for operation.

Maintenance

The filter element is clogged and must be changed or cleaned when at operating temperature the red pointer on the pop-up indicator (6) is hard against the plastic cap / the pointer on the dual dial indicator (6) is at the end of the red marking and / or the switching process on the electrical indicator is triggered.

Filter element service

Refer Service / Maintenance procedure - page 10 & 11.

Operate filter as described above.

Filter element of type H...-XL, H...-XP, H...-XE, H...-XC, AS..., P... and VS ... is to be replaced.

Filter elements with G... & M... media are cleanable. The effectiveness of cleaning depends on the type of dirt and the level of the differential pressure at the time of changing the filter element. If the differential pressure after the filter element's cleaning process exceeds more than 50% of the pre-service value the G... & M... filter element also needs to be replaced.

Pressure Directives

Pressure Line Filters for hydraulic application are pressure holding equipment according to Article 2 Section 5 of the Pressure Equipment Directive 2014/68/EU. However, on the basis of the exception in Article 1, Section 2(f) of the PED the pressure line filters are exempt from the PED if they are not classified higher than category I (Guideline A-19) & do not receive any CE mark.

Disposal / Environmental Protection

Careless disposal of the filter, filter element and the residual fluid contained therein can cause environmental pollution.

Dispose the filter / filter element in accordance with provisions applicable in the country of use.

Fluid residues are to be disposed according to the respective safety data sheets valid for the specific hydraulic fluids.

Service / Maintenance procedure

Initial stage of working Filter – Handle position indicates the housing in use (left housing in this example). Other housing will be in idle condition and without any pressure. - Fig.5a

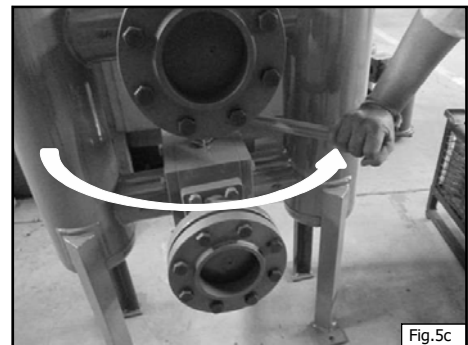
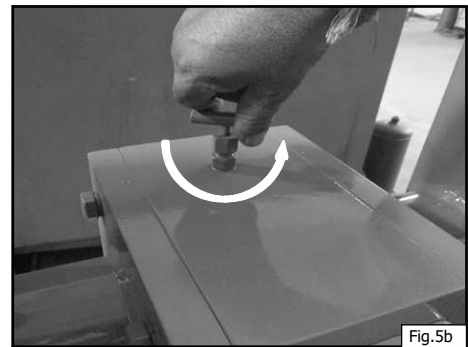
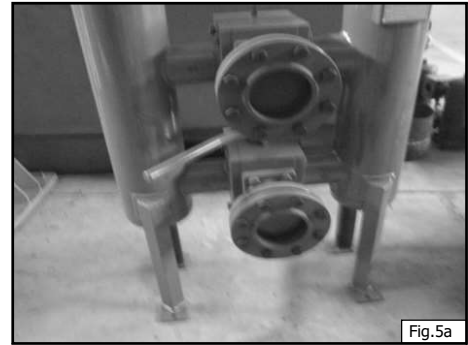
The Maintenance Indicator / DP Gauge mounted on the Filter indicates the filter condition / pressure drop across the filter. When the set limit is reached the filter element in the housing in use needs to be cleaned / replaced.

The following modus-operandi to be adopted for servicing of DK Series filters

- ♦ Open / loosen the pressure equalization valve (turn in anti-clockwise direction) to allow the working fluid flow from the working housing to the idle housing. - Fig.5b
- ♦ Open the vent valve / plug in the idle housing.
- ♦ Once the working fluid starts escaping from the vent close the vent valve.
- ♦ Wait for some time to allow pressure equalization in both the housings.
- ♦ Change the direction of the handle towards the idle housing (right housing in this example). Stop at the extreme position.- Fig.5c

IMPORTANT : At this position both the housings are in operation and under pressure. The initial housing needs to be isolated & de-pressurized before servicing.

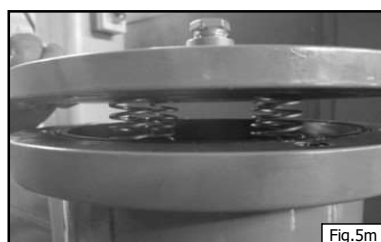
- ♦ Tighten the pressure equalization valve by turning in clockwise direction. - Fig.5d
- ♦ Open the vent valve / plug of the housing under service to relieve the pressure in the housing.
- ♦ Open the drain valve / plug of the housing under service to drain the residual fluid.
- ♦ Loosen the bolts on the top cover of the housing under service.- Fig.5e
- ♦ It is advised to loosen opposite bolts and proceed till all the bolts are removed.
- ♦ Slightly tap the top cover and remove it by pulling upwards taking care to ensure the seals on housing are not damaged.- Fig.5f
- ♦ Care should also be taken so that the springs of the pressure plate are not damaged.
- ♦ Remove the pressure plate by pulling it upwards. Care should be taken not to damage either the springs or the sealing surface.- Fig.5g



Service / Maintenance procedure

- ♦ Pull the filter element upwards with slight forward and backward movement.- Fig.5h
- ♦ Adequate care to be taken to ensure the element does not touch the filter housing.
- ♦ After removing the filter element from the housing cleaning / disposal action for the filter element, as required, may be taken.
- ♦ Inspect the filter housing carefully for any damages.
- ♦ Clean the filter housing internals of the residual contamination.
- ♦ Flush the filter housing with the working fluid and drain.
- ♦ Take a new / replenished filter element from the packing box.
- ♦ Ensure the external plastic cover is removed before installing in the filter housing.- Fig.5i
- ♦ Lubricate the end cap o-rings and slowly insert the element into the housing under service.
- ♦ Care to be taken to ensure the element does not touch the filter housing. Any damage to the element could result in the loss of filtration efficiency and may also effect the components downstream.- Fig.5j
- ♦ Locate the filter element onto the mounting spigot inside the filter housing and press downwards to ensure proper sealing of the o-ring.
- ♦ Check that the element is located straight.
- ♦ Clean the sealing surface of the pressure plate. Place the pressure plate on the filter element carefully ensuring no damage to the element o-ring. - Fig.5k
- ♦ Clean the filter housing flange and top cover.
- ♦ Lubricate the filter housing o-ring and place in the groove on the filter housing flange.
- ♦ Place the filter top cover on the pressure plate assembly.- Fig.5l
- ♦ Ensure the springs of the pressure plate assembly are located in the slot holes of the filter cover.- Fig.5m
- ♦ Ensure filter housing o-ring is not damaged or deformed.
- ♦ Mount the top cover bolts. Tighten the opposite end bolts and proceed to tighten all bolts sequentially.- Fig.5n
- ♦ Close the drain valve / plug & vent valve / plug.

THE FILTER HOUSING IS NOW READY FOR USE.



Performance Curves (Flow rate Vs Pressure Drop) - for complete filters

Oil Viscosity : 30 mm²/s [142 SUS]

Specific gravity < 0.9 kg/dm³

Recommended initial Pressure Drop (ΔP) for assembly = 0.8 bar [11.6 psid]

