



# OPERATING INSTRUCTIONS - DCF-800 FILTER UNIT

## SPECIFICATIONS:

### PIPING CONNECTIONS:

- Inlet or Outlet: 2" NPTE (50 mm) or option ordered
- Purge: 1-1/2" (40 mm) NPTE, or option ordered

FILTER ELEMENT TYPE: Slotted, Defined Pore, or Perforated

FILTER VOLUME: 4 US gallons (15 liters)

CONTAMINANT PURGE VOLUME: 25 US liquid ounces (0.75 liter)



## SERVICE REQUIREMENTS:

### PROCESS LIQUID:

- Maximum Pressure: 150 PSIG (1035 kPa)
- Minimum Pressure: 30 PSIG (207 kPa)
- Maximum Temperature: Defined by the elastomers and cleaning disc selected

## WARNING!

MAXIMUM WORKING PRESSURE IS 150 PSIG (1035 kPa). MAXIMUM DIFFERENTIAL PRESSURE FOR SLOTTED OR PERFORATED ELEMENT IS 110 PSID (760 kPa) AND FOR DEFINED PORE ELEMENT IS 50 PSID (345 kPa). THIS FILTER UNIT MAY BE UNDER PRESSURE – EXTREME CARE MUST BE TAKEN WHEN INSPECTING OR SERVICING THE EQUIPMENT. DO NOT STROKE CYLINDER WHEN BLOCK VALVES ARE CLOSED.

## INSTALLATION:

### Connection to Process Piping

1. Filter can be supported on inlet and outlet connections. Secure filter frame legs to foundation.
2. Attach the inlet and outlet connections to the interconnecting piping (customer supplied). To properly support the filter unit, mount the filter in a vertical position. Take care to avoid excessive nozzle loading at the threaded or flanged filter connections. Consult your pump manufacturer's installation guide for minimum pipe run length between the pump outlet and the inlet of the filter unit. *NOTE: Isolation/block valves (supplied by others) are required on all process connections of the filter unit so the filter can be isolated from the process liquid in the event that service is required. Pressure gauges are also recommended on all process connections.*
3. Connect the drain line (customer supplied) to the filter unit's purge valve. To avoid restricting purge flow the drain line should be: 1) the same or larger diameter as the purge valve size, 2) as short as possible, and 3) at or lower than the height of the purge valve.

### Installation Checklist

**Before operating the filter unit for the first time, complete the following checklist:**

- 1. Verify that all process connections are secure and free of leaks.
- 2. Check the condition of the filter element. It should be clean and free of damage.
- 3. Confirm that top and bottom element seals are installed properly.
- 4. Verify that the gasket sealing the lid to the filter housing is in good condition and properly installed.
- 5. Verify that all lid bolts are tight.
- 6. Verify that the purge valve is closed.

# OPERATION:

1. The DCF-800 cleaning disc should stroke the element clean to keep the differential pressure between the inlet and outlet of the filter below 15 PSID (105 kPa). Stroking too frequently will shorten the life of all wear components. *Note: The burst strength of the filter elements is 110 PSID (760 kPa) differential pressure if using slotted or perforated elements and 50 PSID (345 kPa) if defined pore elements are used.*
2. The filter unit is supplied with a valve used to purge the contaminants from the housing. This valve should be opened before the collected contaminants exceed the purge volume and cause a differential pressure increase.
3. If manually cleaning the filter element, avoid high-pressure washing from the outside of the element. This may force contaminants into the filter media and cause permanent blockage and/or element damage.

## DCF-800 SPARE PARTS

**DEFINED PORE SIZES**

P/N	RETENTION (MICRON)	
63087	0.001"	25
63088	0.0015"	38
63077	0.002"	50
63060	0.003"	75
63061	0.004"	100
63062	0.006"	150
45425	0.007"	180
63063	0.009"	230
63064	0.015"	380
63065	0.024"	610
63066	0.030"	760
63067	0.045"	1140

**TEFLON**

**SLOTTED ELEMENT SIZES**

P/N	RETENTION (MICRON)	
46662	0.0006"	15
40665	0.0015"	25
46663	0.002"	50
46664	0.003"	75
46665	0.004"	100
46666	0.006"	150
46657	0.007"	175
46656	0.008"	200
46667	0.009"	230
46668	0.015"	380
47340	0.024"	610
46659	0.030"	750
46658	0.045"	1125

**PERFORATED ELEMENT SIZES**

P/N	RETENTION (MICRON)	
42674	0.062"	1550
42675	0.125"	3125
42676	0.250"	6250

**BUN, VITON, EPT**

**SLOTTED ELEMENT SIZES**

P/N	RETENTION (MICRON)	
45771	0.0006"	15
45772	0.001"	25
40667	0.0015"	38
45773	0.002"	50
45774	0.003"	75
45775	0.004"	100
45776	0.006"	150
45779	0.007"	175
45789	0.008"	200
45777	0.009"	230
46261	0.015"	380
47339	0.024"	610
45778	0.030"	750
45780	0.045"	1125

**PERFORATED ELEMENT SIZES**

P/N	RETENTION (MICRON)	
42662	0.062"	1550
42670	0.125"	3125
42663	0.250"	6250

**O-RINGS**

MATL	LID	ELEMENT	SEALS
(#9)	(#20)	(#25)	(#35)
BUN	45801	45691	45695
VIT	45802	45692	45696
EPT	45803	45693	45697
TFE	46647	45694	46646
FGL	45418	45420	45419

**CLEANING DISC**

MATL	ASSY (#29)	REP. KIT (#25)
UHMWPE	46741	46744
TFE	46742	46680
KYNAR	46743	46681
URETHANE	46606	40706

**NOTES:**

1. ITEM #29 CONTAINS ITEMS 25-28.
2. ITEM #25 CONTAINS:
  - (1) CLEANING DISC
  - (1) SPRING
  - (4) SCREWS
  - (4) NUTS
3. REPAIR KIT FOR #32 - 46724 (VITON) #5 - 45663

**REVISIONS**

REV	QTY	PART NUMBER	PART DESCRIPTION
41	1	60007	DCF SERIAL TAG BRACKET
40	8	46653	SCREW, 10-24 X 1/2 HEX HD SSK
39	1	45968	RING, RETAINER ELEMENT SEAL
2	45491	Z-SEAL, VITON 5/8" X 1"	
1	42957	PKG. URE SP DCF-400/800 W/INST	
1	42956	PKG. TFL VEE DCF-400/800 W/INST	
1	42953	WHEEL PACKING DCF-800 THREAD	
1	46217	PULLER, ELEMENT DCF-800	
1	SEE CHART	ELEMENT SEAL/O-RING	
2	P-20763-BRZ	ELBOW, 3/8 NPT 45 FLARE 90 DEG	
1	63068	RING, COMP ASSY DCF-800	
1	46690	ACTUATOR, 3-1/4X11-1/2 ST VITON	
1	P-10771-S56	SCREW, 5/16-18X1 HEX HD CAP	
4	P-10807-S54	WASHER, 5/16" FLAT	
1	SEE CHARTS	CLEANING DISC, ASSY DCF-800	
2	45539	PLATE, CLEANING DISC, DCF-800	
2	42925	ADAPTOR, DISC DCF-4/800 L2/3	
4	45542	SPACER, DCF-800 DOCTOR SS	
1	SEE CHARTS	KIT, DISC, REPAIR, DCF-800	
4	63078	SCREW, 10-32 1/4 X 1 SLDR SOC	
2	45925	SCREW, 5/16-18 X 3/4 SOCKET SR	
1	SEE CHART	ELEMENT, DCF-800	
2	SEE CHART	O-RING, ELEMENT, DCF-800	
4	25608	NUT, LID HOLD DOWN F SERIES	
4	45558	EYEBOLT, 1/2" DCF-400/800 LID	
1	45994	RING, RETAINER 3100-50-S52	
4	45994	WASHER, 1/2" FLAT TYPE A SER N	
1	46807	CLAMP, 8" BOTTOM W/ RAD	
1	P-10399-S56	PLUG, PIPE 1/4"	
2	P-30848-S54	SCREW, 1/2-12X1-1/4 HEX HD CAP	
2	46992	NUT, 1/2-13 FLEX-LOC	
1	P-43999-CST	RING, HALF, DCF-800	
1	45452	COMPRESSOR BAR, DCF-800	
1	42910	LID, MACHINED DCF-800 "V"	
1	SEE CHART	O-RING, LID DCF-800	
1	45675	VALVE, B 2W 1-1/2" DCF-400/800	
7	45675	KIT, MTG 1-1/2" BV TO ACT	
1	P-20760-BRZ	ADAPTOR, 1/4" NPT X 45 FLARE	
1	45661	ACTUATOR, R/P 200 LB-IN @ 60PSI	
4	P-10859-CST	NUT, 1/2-13 X 5/16 THK HEX JAM	
2	P-30672-CST	LEG ASSY, HALF	
2	P-43853-CST	SCREW, 1/2-13 X 1-1/2 HEX HD	
1	46811	BODY ASSY, DCF-800 W/2" I/O	

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