



**Falls Filtration
Technologies, Inc**

"Manufacturer of Airmaze Products"

LP LOW PRESSURE OIL BATH



LOW PRESSURE OIL BATH FILTERS

Improved Filter Concepts

Falls Filtration has engineered a self-operating type oil bath filter, which provides extremely low-pressure loss and does not require use of any external power for oil handling.

The type LP Oil Bath Filter is a second-generation design, which operates at a low-pressure loss and a wide range of airflow capacities (see Flow Capacity and Pressure Drop Chart, next page).

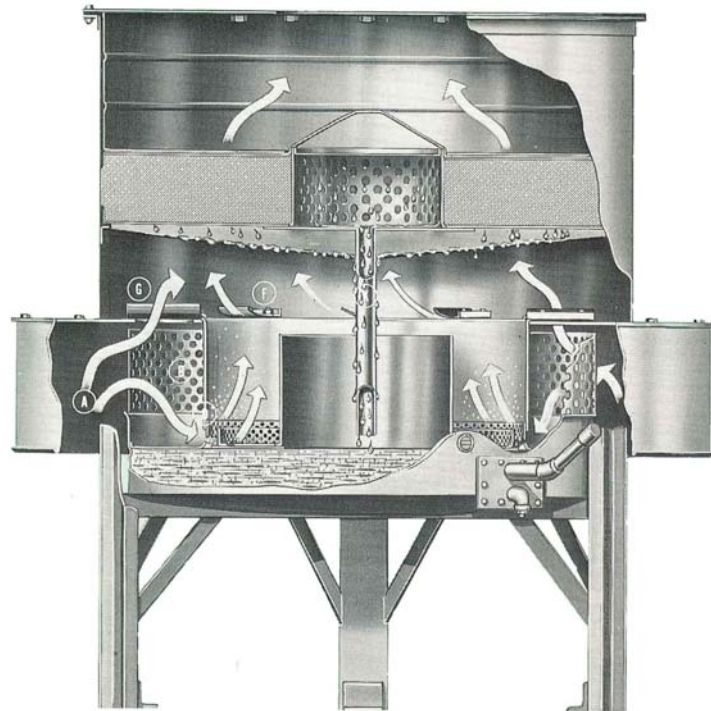
No other filtration method affords such high filtration efficiency combined with the added features of extended operation without attention, small space requirements, and overall economy.

Serious Oil Bath Filter Deterrent Eliminated

Oil Scrubbing is a universally accepted method of cleaning intake air but a serious deterrent has been the relatively high-pressure loss across the filter. The Falls Filtration LP Oil Bath Filter eliminates this problem because it is self-operating and does not require moving oiled curtains or motor driven oil pump arrangements.

Special Advantages

1. Low Pressure Loss.
2. High efficiency.
3. Can be serviced while operating.
4. No external power required
5. Seismic designs available in high capacities
6. Extended service intervals



Applications

Falls Filtration LP Oil Bath Filters are recommended for cleaning intake air of engines, compressors, and blowers.

Operation

Dirt laden air enters under weather hood (A) and trough a trash screen (B). Under normal airflow conditions, approximately 2% of the air passes across the oil control pan (C) and beneath the air deflector skirt (D) where it lifts oil droplets from the oil control ports (E) and carries the oil into the scrubbing chamber (F).

The balance of the air passes directly upward through ports (G) arranged peripherally around the bottom of the scrubbing chamber where it is directly tangentially by

flexible port covers (H).

This forms a rotating air mass that is thoroughly scrubbed by the oil present.

Deflector plates (J) intercept most of the dirty oil droplets and guide them to the center oil return tube (K), which drains oil and dirt into the sump (L). Sufficient oil is carried into the metal mesh filter-separator element (M) to provide adequate adhesive properties. This maintains high filtering efficiency on fine dirt particles and continually flushed collected dirt from the element. The dirty oil also returns to the sump through the oil return tube.

Acting both as an efficient filter media and liquid separator, the filter element permits only clean, oil free air to enter the air using equipment.

Low Pressure Drop (LP) Oil Filters

FLOW CAPACITY * AND PRESSURE DROP					
Filter Model No.	PRESSURE DROP IN INCHES W.G.				
	1.0" CFM	1.5" CFM	2.0" CFM	2.5" CFM	3.0" CFM
LP-20	1350	1850	2250	2600	2900
LP-30	1850	2600	3100	3600	4050
LP-40	2350	3250	3900	4550	5100
LP-50	2950	4100	4900	5700	6400
LP-60	4200	5800	7000	8100	9150
LP-70	5500	7650	9200	10600	12000
LP-80	7000	9750	11700	13600	15300
LP-90	8700	12300	14800	17100	19200
LP-100	11000	15600	18900	22000	24500
LP-110	13500	19000	23000	27000	29500

❖ For steady flow conditions, i.e. turbocharged engines, centrifugal or lube type compressors, blowers. Consult Falls Filtration engineers for recommendations on pulsating flow machines.

High Efficiency

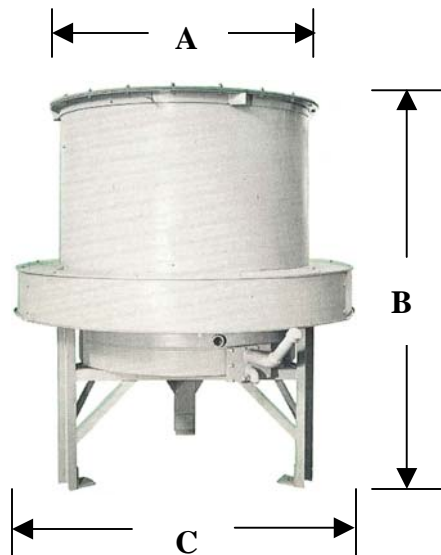
Falls Filtration LP Oil Bath Filters offer highly efficient dust arrestment. Efficiencies vary depending on type of dust and test procedures used: up to 98% using Standard Air Cleaner test dust. The unusually large reservoir for extra dirt holding capacity, plus its low pressure loss, gives the LP Oil Bath Filter a unique advantage in protecting air-using equipment from dirt contaminate.

Construction

A heavy gauge steel housing coated with enamel, insures long life and ability to withstand vibration. The channel iron support legs are installed with the valley or the channel facing outward and located under the drain through spouts. This prevents water from being sucked into the oil bath as it comes off the weather hood

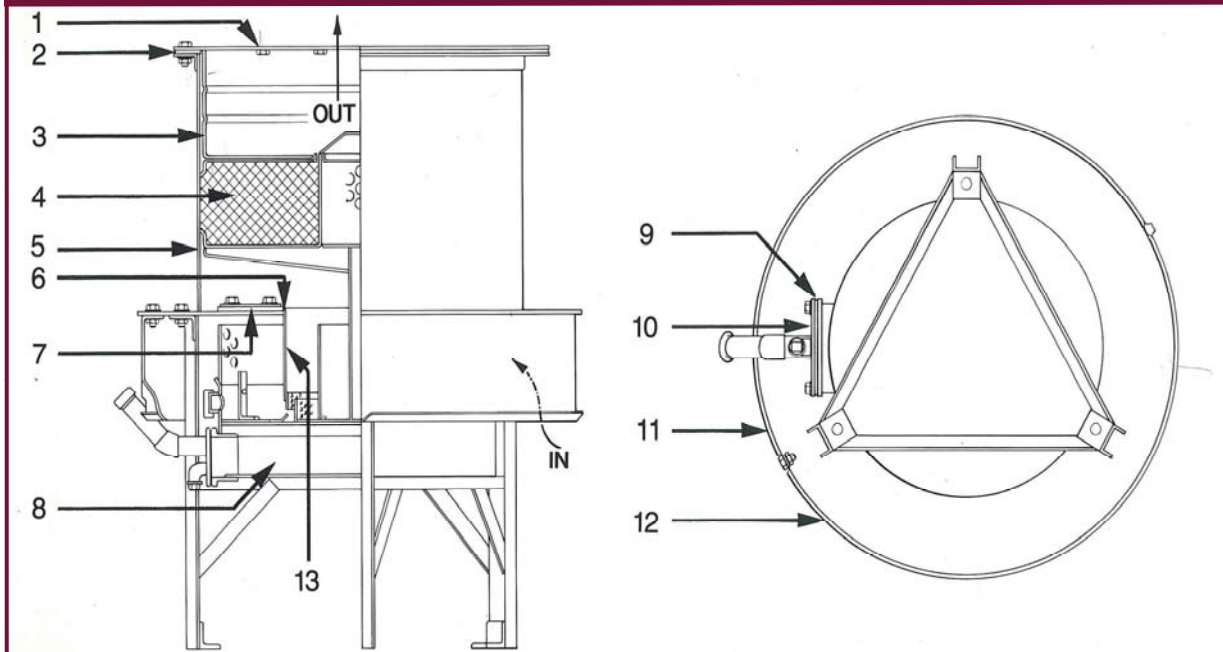
Servicing

Readily accessible drain connection, easy rain hood disassembly, and conveniently located sump cleanout doors facilitate servicing. Sump can be cleaned while the unit is in operation. If necessary, the element can be removed from the top. A sight gauge permits observation of oil levels when the equipment is shut down.



DIMENSION- WEIGHTS							
Model No.	A Element Width	B Overall Height	C Overall Width	Outlet Pipe Size		Approx. Oil Cap. (Gal)	Approx (Dry) (LBS)
				MAX. (INCHES)	MIN. (INCHES)		
LP-20	28.25	52.00	37.00	16	10	13	270
LP-30	33.25	56.00	44.00	20	12	17	380
LP-40	38.25	60.00	50.00	24	14	22	500
LP-50	43.25	64.00	58.00	30	16	30	850
LP-60	50.25	74.00	68.00	36	18	45	1200
LP-70	56.25	75.00	74.00	42	20	55	1550
LP-80	66.25	88.00	88.00	50	24	70	2200
LP-90	76.25	104.00	100.00	54	24	80	3100
LP-100	88.00	110.00	108.00	60	30	90	3900
LP-110	93.00	114.50	114.25	66	32	120	4950

Replacement Parts for Low Pressure Drop Oil Bath Filters (LP)



LP Model No.	LP20	LP30	LP40	LP50	LP60	LP70	LP80
Key Description	QTY. PART	QTY. PART	QTY. PART	QTY. PART	QTY. PART	QTY. PART	QTY. PART
1 Cover Plate S/A	1 LP20*-100	1 LP30*-100	1 LP40*-100	1 LP50*-100	1 LP60*-100	1 LP70*-100	1 LP80*-100
2 Gasket	2 LP20-166	2 LP30-166	2 LP40-166	2 LP50-166	2 LP60-166	2 LP70-166	2 LP80-166
3 Element Hold Down S/A	1 LP20-351	1 LP30-351	1 LP40-351	1 LP50-351	1 LP60-351	1 LP70-351	1 LP80-351
4 Element	1 LP20-826	1 LP30-826	1 LP40-826	1 LP50-826	1 LP60-826	1 LP70-826	1 LP80-826
5 Body S/A	1 LP20-156	1 LP30-156	1 LP40-156	1 LP50-156	1 LP60-156	1 LP70-156	1 LP80-156
6 Clip	3 LP20-57	3 LP20-57	3 LP70-57	3 LP70-57	3 LP70-57	3 LP70-57	3 LP70-57
7 Valve Hold Down	10 LP30-269	12 LP30-269	10 LP50-269	12 LP50-269	12 LP70-269	12 LP70-269	12 LP80-269
8 Bowl S/A	1 LP20-851	1 LP30-851	1 LP40-851	1 LP50-851	1 LP60-851	1 LP70-851	1 LP80-851
9 Gasket	1 LP70-106	1 LP70-106	1 LP70-106	1 LP70-106	1 LP70-106	1 LP70-106	1 LP70-106
10 Clean Out Cover	1 LP40-192	1 LP40-192	1 LP40-192	1 LP70-192	1 LP70-192	1 LP70-192	1 LP80-192
11 Rain Shield	1 LP20-136-1	1 LP30-136-1	1 LP40-136-1	-	1 LP60-136-1	1 LP70-136-1	-
12 Rain Shield	1 LP20-136	1 LP30-136	2 LP40-136	3 LP50-136	2 LP60-136	2 LP70-136	3 LP80-136
13 Air Intake tube S/A	1 LP20-131	1 LP30-131	1 LP40-131	1 LP50-131	1 LP60-131	1 LP70-131	1 LP80-131

* To complete cover plate S/A number add outlet size, i.e. LP40 with a 20" outlet is LP40-20-100
 Consult Factory for replacement parts for models LP90, LP100 and LP110

ISO9001:2000 & AS9100 Certified



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