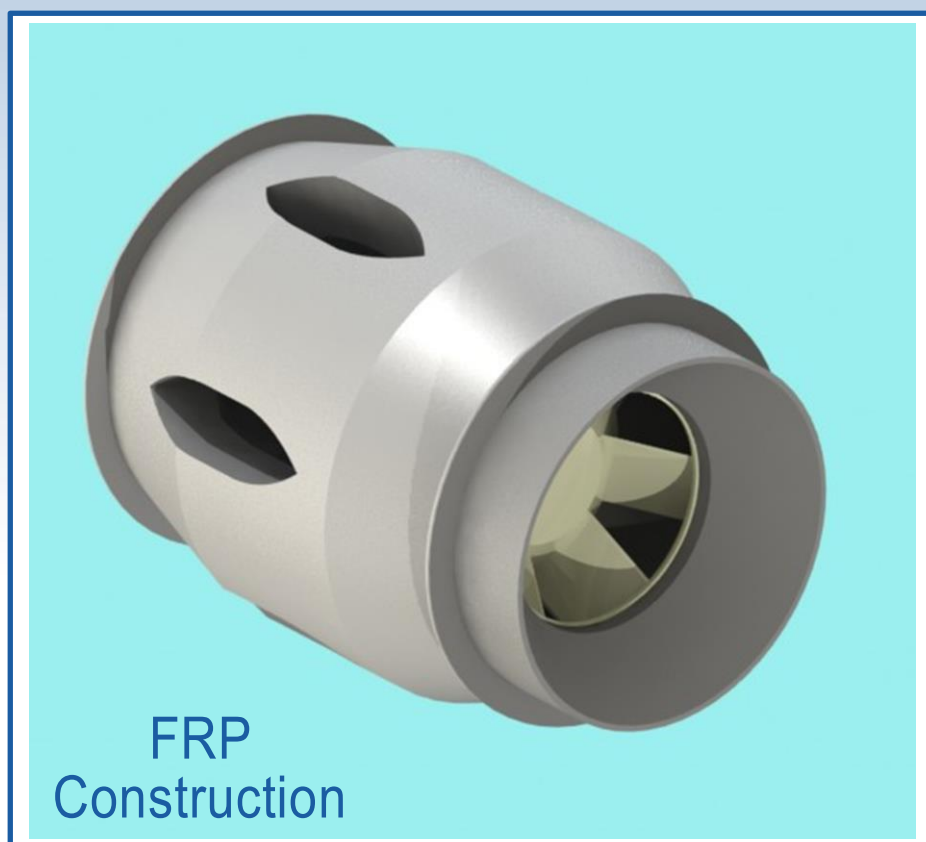


# DMF Series Fans

## Direct Drive Mixedflow



- Roof Top Mounting • Fourteen Sizes
- Industrial and Commercial Applications
- Static pressures up to 7.25" W.G. (1801 Pa)
- Volume Range 1300 CFM (614 l/sec) up to 65,000 CFM (30,680 l/sec)

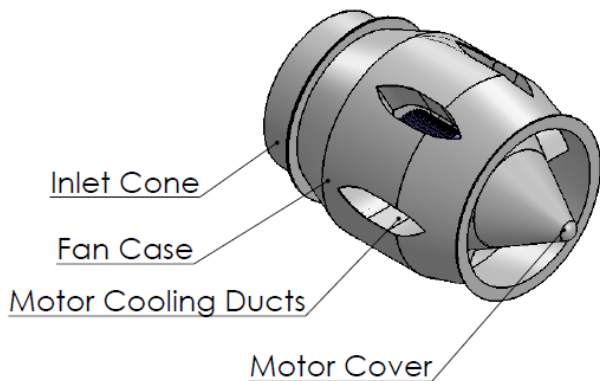


## Plasticair

# The Plasticair DMF Series

Plasticair's DMF Series of FRP Exhaust Fans have been specifically designed for exposure to gas streams containing corrosive fumes. The rugged mixedflow impeller and robust housing offer favourable features such as corrosion resistant FRP construction for all gas contact parts, high efficiencies and quiet operation. Industries such as Waste Water Treatment, Pulp and Paper, Research Laboratories and Chemical Manufacturing can benefit from this product as it provides Industrial quality, and long life.

The DMF Series is available in fourteen sizes and covers volume ranges of 1300 CFM (614 l/sec) up to 65,000 CFM (30,680 l/sec), and the industrial heavy duty Class 2 construction allows for smooth operation up to 7.25"W.G. (1801 Pa).



Plasticair Inc. certifies that the DMF Mixed Flow Fans shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 210, publication 300, energy efficiency classification 205 and comply with the requirements of the AMCA certified ratings program.

## Shaft and Teflon Seal:

This effective design has completely protects the motor steel shaft from the corrosive gas stream. The shaft is encapsulated with a solid FRP shaft sleeve, which protrudes out from the teflon disk shaft seal, located on the inner tube wall. The teflon seal and shaft sleeve are a machine fit for the best possible elimination of leaking gas.

**FRP Housing Construction:** Designed for industrial applications, the housing is solid FRP throughout. All FRP exposed to the corrosive gas stream is constructed with a resin rich corrosion barrier complete with C-veil. Airstream straightening blades are fixed into the housing from the motor plate to the end of inner tube. Motor is completely protected from the corrosive air- stream by the FRP inner tube. Features 6 cooling ducts that protrudes from outside fan housing to inside tube. Motor is accessible from inner cooling ducts. Direct drive setup offers best efficiency due to 0% friction loss on drive set.

**Fasteners:** 316 stainless steel

**Flanged outlet:** Supplied as standard not drilled

**Inlet connection:** Slip type, supplied as standard (Flanged inlet available as option)

**Wheel Construction:** The DMF Series impeller is of a high efficiency non-overloading design. The mixedflow wheel is constructed of solid vinyl ester resin and reinforcing glass. A sprocket and bushing are used for shaft attachment and are completely covered with a minimum 3/16" (5 mm) of FRP lay-up. All gas contact points are FRP, complete with corrosion barrier. Plasticair's commitment to quality ensures that only hand lay-up methods are utilized for fabrication. This Class 2 impeller is comfortably rated to handle 18,000 feet per minute (91.4 m/sec) tip speed.



## Option for Roof Top Accessories

### Roof Mounted

For Roof mounted applications Plasticair offers the roof top package complete with FRP Roof Curb Cap, FRP windband and Gravity operated Back Draft Dampers. The Roof Curb Cap can be sized for custom fit.



## Option for Heavy Industrial Particulate Handling

### Particulate Handling

Plasticair offers the DMF Series with a Solid FRP radial impeller and a spray wash-down nozzle for periodical impeller cleaning. The impeller is designed to throw particulate by way of radial forces, however, in some applications, not all particulate will be removed by radial forces alone, this is when the wash-down can be utilized for diluting and breaking up particulate. Consult your local Plasticair Representative or the Factory for attached performance data.

# Accessories



## Access Door

The bolt-on access door is designed to be flush with the inner surface of the fan housing, therefore, the flowing gas stream encounters minimal turbulence when passing the access door. The door is fastened to the fan housing with 304 stainless steel hardware and is sealed air tight with neoprene gasket (exotic gasket is available upon request). The fastening bolts are encapsulated with full thickness FRP to give maximum corrosion resistance protection.



## Threaded PVC Drains

Threaded PVC drains can be installed at the lowest point of the fan for horizontal and vertical installations.

## Solid FRP Drains

Plasticair's PVC drain can be upgraded to a solid FRP drain and is supplied flanged and drilled to standard pipe flange specification.



## Motors

Plasticair offers a full range of motors to meet all our customers needs. Advise your local representative for any special requirements.

## Mounting Brackets

FRP brackets factory mounted, ideal for horizontal or vertical installations.



## Flanged Inlet

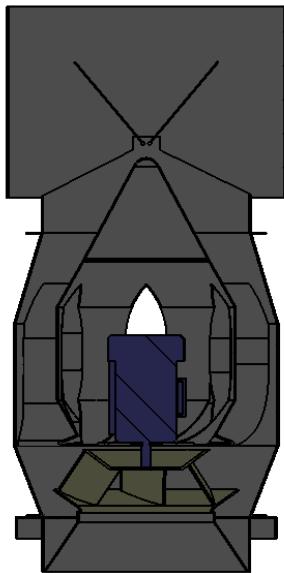
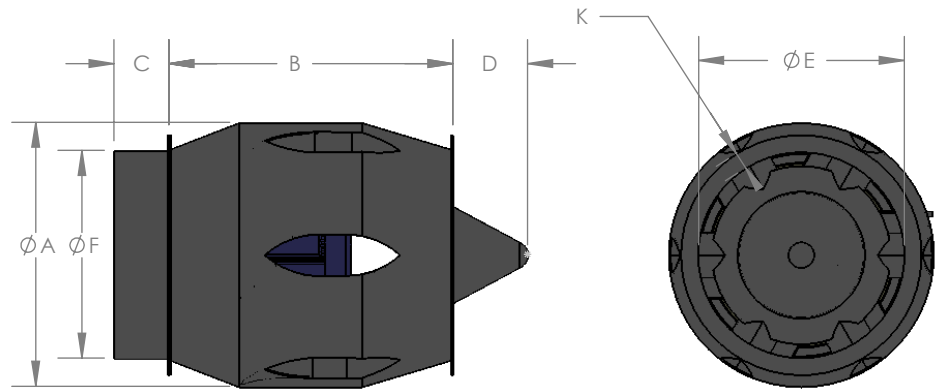
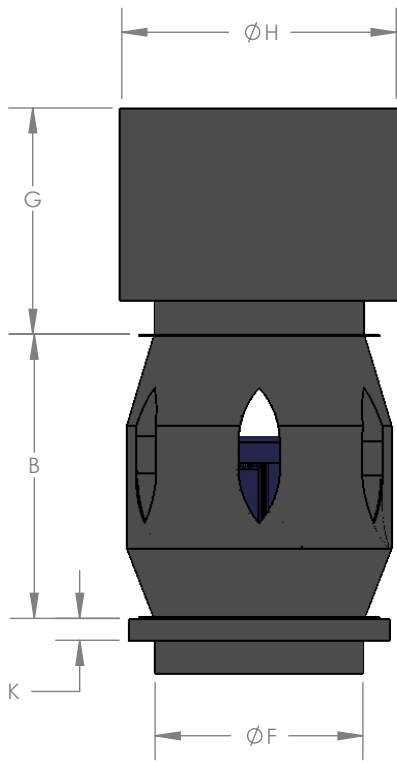
An FRP flange may be supplied for the inlet of the fan. The flange is laminated directly to the spigot of the scroll and is supplied standard not drilled.

## PVC Connections

PVC flexible inlet & outlet connections are available and are supplied complete with 316 stainless steel banding straps.

### Roof Top Mount

### Horizontal Mount



Airflow ↑

SECTION A-A

SCALE 1 : 28

Size	Wheel Diam.	A	B	C	D	E	F	G	H	K
<b>DMF-150</b>	18.25	26.00	28.00	5.5	6.00	24.00	20.50	22.5	27.25	2.25
<b>DMF-165</b>	20.00	28.50	30.959	6.027	6.56	26.3125	22.50	24.75	30.0	2.25
<b>DMF-182</b>	22.25	31.6875	34.442	6.705	7.3	29.25	25.00	27.25	33.0	2.25
<b>DMF-200</b>	24.50	35.00	37.925	7.384	8.00	32.25	27.50	30.0	36.375	2.5
<b>DMF-222</b>	27.00	38.5	41.4375	8.5	11.00	35.50	30.3125	33.0	40.0	2.5
<b>DMF-245</b>	30.00	42.77	46.00	9.444	12.25	39.50	33.6875	36.25	44.0	2.5
<b>DMF-270</b>	33.00	47.00	50.625	10.389	13.47	43.375	37.00	39.875	48.375	2.75
<b>DMF-300</b>	36.50	52.00	56.00	11.491	14.82	48.0	41.00	43.875	53.25	2.75
<b>DMF-330</b>	40.25	57.375	61.75	12.671	16.31	52.9375	45.25	48.25	58.50	2.75
<b>DMF-365</b>	44.50	63.375	68.25	14.009	18.0	58.50	50.00	53.00	64.375	2.75
<b>DMF-402</b>	49.00	69.8125	75.125	15.426	19.963	64.4375	55.00	58.25	70.812	3.0
<b>DMF-445</b>	54.25	77.35	83.25	17.079	22.102	71.3125	60.9375	64.00	77.875	3.0
<b>DMF-490</b>	60.00	85.50	92.00	18.889	24.444	79.00	67.375	70.375	85.625	3.0
<b>DMF-542</b>	66.00	94.00	101.25	20.778	26.889	86.75	74.125	77.375	94.125	3.0

**PROPRIETARY AND CONFIDENTIAL**

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# DMF PERFORMANCE DATA

DMF - 490			Outlet Area = 23.98ft <sup>2</sup> MAX Speed = 1146 RPM																		Fan Efficiency Grade:FEG71													
Fan Inlet CFM	OV FPM	0.5' S.P.			1' S.P.			1.5' S.P.			2' S.P.			2.5' S.P.			3' S.P.			3.5' S.P.			4' S.P.			5' S.P.			6' S.P.			7' S.P.		
		RPM	BHP	% EFF	RPM	BHP	% EFF	RPM	BHP	% EFF	RPM	BHP	% EFF	RPM	BHP	% EFF	RPM	BHP	% EFF	RPM	BHP	% EFF	RPM	BHP	% EFF	RPM	BHP	% EFF	RPM	BHP	% EFF			
10000	417.0	319	1.20	65.2	412.9	2.56	61.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
14000	583.8	365	1.73	63.7	450.2	3.38	65.1	521.1	5.19	63.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
18000	750.6	421	2.47	57.2	493.8	4.35	65.0	560.3	6.51	65.2	619.2	8.80	64.3	672.1	11.13	63.5	721	13.68	62.1	-	-	-	-	-	-	-	-	-	-	-	-			
22000	917.4	485	3.56	48.6	546.1	5.63	61.5	604.3	7.98	65.0	660.1	10.61	65.2	710.6	13.29	65.1	758	16.14	64.3	801	18.99	63.7	843	21.85	63.3	-	-	-	-	-	-			
26000	1084.2	551	4.97	41.1	604.1	7.25	56.4	656	9.84	62.3	704.5	12.58	65.0	753.4	15.69	65.1	798.3	18.80	65.2	841	21.99	65.1	881	25.36	64.5	955.6	32.09	63.7	1024	39.23	62.5			
30000	1251.0	-	-	-	667.9	9.40	50.2	711.2	12.03	58.8	757.2	15.14	62.3	799.5	18.27	64.5	842.1	21.74	65.1	883	25.33	65.2	922	28.92	65.2	994	36.42	64.7	1061	44.19	64.0			
35000	1459.5	-	-	-	749.9	12.71	43.3	789.9	13.80	52.3	826.7	18.84	58.4	866.4	22.42	61.3	904	26.07	63.3	939	29.71	64.8	976	33.82	65.1	1046.1	42.20	65.2	1110	50.58	65.3			
40000	1668.1	-	-	-	834.5	16.87	37.3	871	20.33	46.4	905.5	23.84	52.8	937.8	27.34	57.5	971.8	31.26	60.3	1006	35.43	62.1	1038	39.59	63.5	1104.4	48.34	65.0	-	-	-			
45000	1876.6	-	-	-	-	-	-	954.1	25.80	41.1	986.3	29.75	47.6	1016.8	33.69	52.5	1045.8	37.63	56.4	1075	41.73	59.3	1106	46.42	61.0	-	-	-	-	-	-			
50000	2085.1	-	-	-	-	-	-	-	-	-	1068.9	36.70	42.8	1097.7	41.08	47.8	1125.2	45.46	51.9	-	-	-	-	-	-	-	-	-	-	-	-	-		

DMF - 542			Outlet Area = 29.36ft <sup>2</sup> MAX Speed = 1042 RPM																		Fan Efficiency Grade:FEG71													
Fan Inlet CFM	OV FPM	0.5' S.P.			1' S.P.			1.5' S.P.			2' S.P.			2.5' S.P.			3' S.P.			3.5' S.P.			4' S.P.			5' S.P.			6' S.P.			7' S.P.		
		RPM	BHP	% EFF	RPM	BHP	% EFF	RPM	BHP	% EFF	RPM	BHP	% EFF	RPM	BHP	% EFF	RPM	BHP	% EFF	RPM	BHP	% EFF	RPM	BHP	% EFF	RPM	BHP	% EFF	RPM	BHP	% EFF			
12000	408.7	290	1.45	65.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
17000	579.0	333	2.10	63.6	409.8	4.10	65.2	474.2	6.30	63.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
22000	749.3	386	3.04	56.8	450.8	5.32	65.0	511.2	7.95	65.2	564.5	10.74	64.4	612.5	13.59	63.6	656.8	16.66	62.3	-	-	-	-	-	-	-	-	-	-	-	-			
27000	919.6	446	4.43	47.9	500.4	6.94	61.1	552.6	9.79	65.0	603.2	13.02	65.2	648.8	16.27	65.2	691.8	19.77	64.4	732	23.27	63.8	768.9	26.77	63.4	-	-	-	-	-	-			
32000	1089.9	508	6.24	40.3	555.6	9.04	55.6	601.9	12.19	61.9	645.5	15.52	64.8	689.4	19.31	65.1	730.1	23.14	65.2	768	26.99	65.2	804.8	31.14	64.6	872.6	39.43	63.8	935	48.00	62.9			
37000	1260.2	-	-	-	615.7	11.79	49.3	654.7	15.03	58.0	695.5	18.80	61.9	733.7	22.66	64.2	771.5	26.82	65.0	809	31.25	65.1	843.5	35.68	65.2	908.8	44.80	64.9	970	54.39	64.2			
42800	1457.8	-	-	-	687.4	15.71	42.8	723.5	19.46	51.8	756.8	23.21	58.0	792.3	27.53	61.1	826.4	31.99	63.1	859	36.45	64.6	891.4	41.37	65.0	954.7	51.61	65.2	1012.7	61.86	65.3			
48600	1655.3	-	-	-	761.3	20.61	37.1	794.3	24.80	46.2	825.6	29.06	52.6	854.9	33.32	57.3	885.6	38.05	60.2	917	43.11	62.0	946	48.17	63.4	1003	58.74	65.0	-	-	-			
54400	1852.9	-	-	-	-	-	-	866.7	31.16	41.2	896	35.93	47.6	923.8	40.70	52.5	950.2	45.47	56.4	976	50.43	59.3	1004.8	56.09	61.0	-	-	-	-	-	-			
60200	2050.4	-	-	-	-	-	-	-	-	-	968	43.95	43.1	994.2	49.23	48.1	1019.3	54.50	52.1	-	-	-	-	-	-	-	-	-	-	-	-	-		

**Notes:**

1. Performance Installation Type C: Ducted Inlet, Free Outlet. Ratings include the effects of duct end correction
2. Power Rating (watts, kW, bhp) does not include transmission losses.
3. Performance Ratings do not include the effects of appurtenances (accessories)

# Plasticair Inc., Servicing Industry



FRP Fans



Scrubbing Equipment



Laboratory Fumehoods

## Plasticair Product List

### Scrubbers:

- Horizontal Packed Bed - Single/Double (HS-Series)
- Vertical Packed Bed Towers (VS-Series)
- Odour Control Scrubbers (HCS, VCS-Series)
- Demisters - Vane Type (P-Series)
- Demisters - Mesh Type (M-Series)
- Demisters - Multiple Stage Type (E-Series)
- Venturi Scrubbers (ECE-Series)
- Laboratory Fume Hood Scrubbers (FHS-Series)

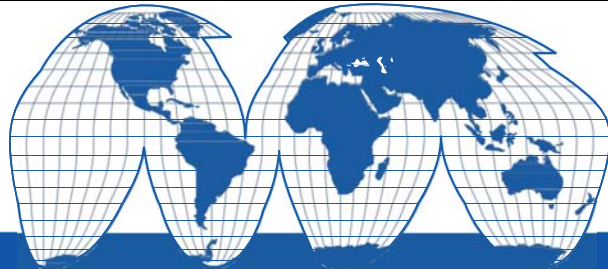
### Scrubber Applications:

- Oil/Air Separators
- Chlorine Scrubbers
- Micro Chip Manufacturing Scrubbers
- Plating Plant Scrubbers
- Pickling Line Scrubbers
- Chromic Acid Scrubbers And Demisters

### FRP Fans:

- Axial Fans - Vane / Tube
- Panel Fans - Wall Mount / Box Mount Inline
- Centrifugal - Backward Curved Laboratory Fans
- B.I. Utility Sets / B.I. Tubular High Pressure Fans - Radial Blade
- Medium Pressure Fans - Radial Blade
- Medium Pressure Fans - Backward Curved
- Mini Industrial Vent Sets - Radial Blade / B.I.

Plasticair's Sales Forces are located in major cities around the world.



Contact the factory for the agent closest to you.

Your Local Plasticair Representative is:

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