

Wall Box Fan

Fiberglass Ventilation



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BPF-FRP Wall Box Fan Table of Contents

| | |
|--|---|
| BPF-FRP Wall Box Fan Table of Contents..... | 1 |
| BPF-FRP Wall Box Fan Product Details..... | 2 |
| BPF-FRP Wall Box Fan Submittal Data | 3 |
| BPF-FRP Direct Drive Performance Data..... | 4 |
| BPF-FRP Direct Drive Performance Data cont..... | 5 |
| BPF-FRP Pictures | 6 |
| BPF-FRP Series Wall Box Fans - Guide Specification | 7 |

BPF-FRP Wall Box Fan Product Details

STANDARD FEATURES

- Size/Diameter: 12" - 60"
- CFM Range: 1,700 – 90,000
- Wall Box: Fiberglass construction with turned in flanges for rigidity.
- Fan Propeller: Highly efficient, air foil shaped fiberglass reinforced blades attached to a fiberglass hub. Bushing protected by a removable cap for easy maintenance.
- Motor Mount: Heavy duty fiberglass construction
- Motor: NEMA Design B, severe duty, industrial continuous duty, totally enclosed with sealed ball bearings.
- Face Flange: 1-1/2" fiberglass flange.
- Ships Assembled

OPTIONAL FEATURES

- Special Resins: Special resins to suit a specific corrosion applications are available
- Carbon impregnation available for explosive applications.
- Hardware:
 - 316 stainless steel
 - Monel
- Disconnect Switch: Non-fused, mounted to the exterior of the unit in a NEMA 3R enclosure. Can be factory pre-wired to motor.
- Shutters: Fiberglass construction, Blades rotate in fiberglass reinforced polypropylene bearings.
 - Automatic
 - 115V motor actuated.
- Rain Hood

BENEFITS

- The wall box design facilitates the attachment of accessories such as dampers, guards, etc.
- Fiberglass venturi orifice is molded into the wall box design to increase airflow efficiency
- Synthetic veil provides smooth interior for air flow and creates a resin rich, impenetrable surface to most airstream corrosives.

APPLICATIONS

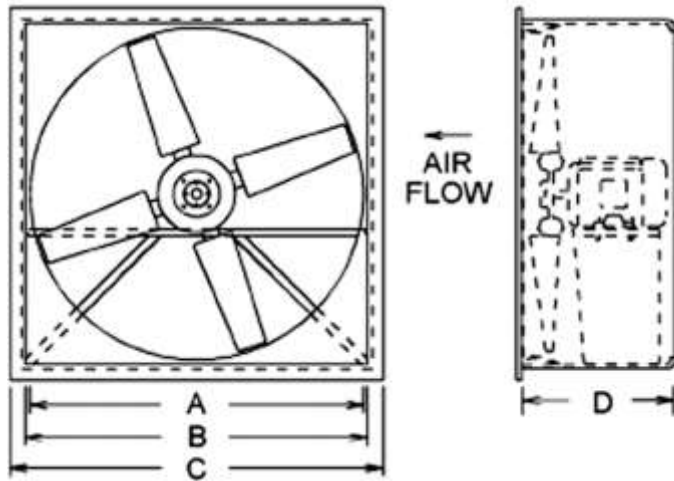
- Wastewater treatment plants
- Chemical plants

PRODUCT DESCRIPTION

Moffitt Corporation BPF Wall Box Fans are a popular choice for general building ventilation. Industrial, Commercial and Institutional applications are where high capacity and low static pressures are required. Because these fans are fiberglass construction they are an excellent choice in unfriendly atmospheres, offering good chemical resistance and serviceability.

BPF-FRP Wall Box Fan Submittal Data

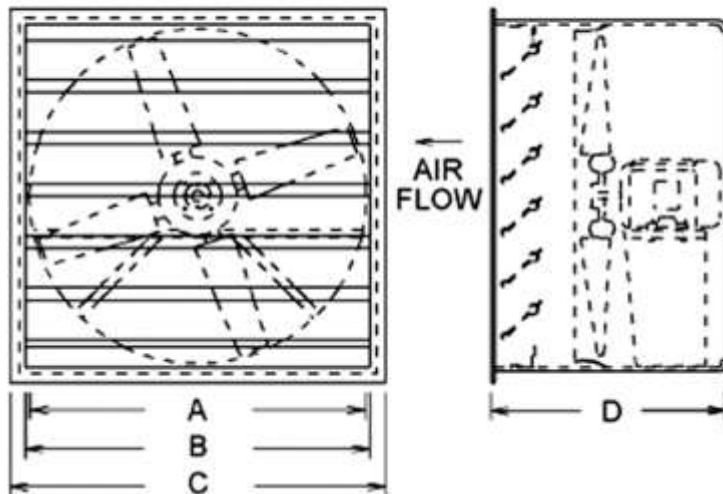
Exhaust Fan



| DIMENSIONS | | | | |
|------------|---|---|---|---|
| Unit | A | B | C | D |
| | | | | |
| | | | | |
| | | | | |

Exhaust Fan with Dampers

*Dimensions may vary with horsepower



| DIMENSIONS | | | | |
|------------|---|---|---|---|
| Unit | A | B | C | D |
| | | | | |
| | | | | |
| | | | | |

BPF-FRP Direct Drive Performance Data

| | MTR HP | FAN RPM | 0" | .125" | .25" | .375" | .5" | .625" | .75" |
|----|--------|---------|------------|------------|------------|------------|------------|------------|------------|
| 12 | 0.17 | 1725 | 1715/.13 | 1580/.13 | 1420/.13 | | | | |
| | 0.25 | 1725 | 1900/.21 | 1800/.21 | 1670/.21 | 1430/.21 | | | |
| | 0.33 | 3450 | 2060/.30 | 1900/.30 | 1890/.30 | 1780/.30 | 1660/.30 | 1500/.30 | |
| | 0.5 | 3450 | 2400/.40 | 2300/.40 | 2190/.40 | 2080/.40 | 1960/.40 | 1810/.40 | |
| | 0.75 | 3450 | 2760/.70 | 2710/.70 | 2670/.7 | 2620/.70 | 2560/.70 | 2480/.70 | 2400/.70 |
| | 1 | 3450 | 3150/.90 | 3100/.90 | 3040/.90 | 2970/.90 | 2900/.90 | 2810/.90 | 2720/.90 |
| | 0.25 | 1725 | 2120/.17 | 2010/.17 | 1840/.17 | 1640/.17 | 1380/.17 | | |
| 16 | 0.33 | 1725 | 2600/.26 | 2480/.26 | 2330/.26 | 2130/.26 | 1860/.26 | | |
| | 0.5 | 1725 | 3520/.45 | 3330/.45 | 3120/.45 | 2880/.45 | 2590/.45 | | |
| | 0.75 | 1725 | 4190/.72 | 3960/.72 | 3770/.72 | 3590/.72 | 3370/.72 | 3090/.72 | |
| | 1.5 | 3450 | 4250/1.38 | 4200/1.38 | 4150/1.38 | 4080/1.38 | 4020/1.38 | 3940/1.38 | 3860/1.38 |
| | 0.5 | 1750 | 3990/.45 | 3700/.47 | 3440/.48 | 3100/.50 | 2730/.51 | | |
| 18 | 0.75 | 1750 | 4400/.61 | 4100/.62 | 3730/.62 | 3460/.64 | 3400/.65 | | |
| | 1 | 1750 | 4810/.85 | 4600/.87 | 4410/.90 | 4190/.92 | 4050/.95 | 3750/.98 | 3510/1.00 |
| | 1.5 | 1750 | 5730/1.32 | 5480/1.34 | 5300/1.35 | 5090/1.37 | 4850/1.38 | 4550/1.42 | 4170/1.40 |
| | 0.5 | 1160 | 4560/.46 | 4210/.48 | 3850/.50 | 3340/.52 | | | |
| 20 | 0.75 | 1160 | 5120/.62 | 4710/.63 | 4350/.64 | 3720/.65 | | | |
| | 1 | 1160 | 5460/.75 | 5120/.80 | 4800/.82 | 4280/.84 | | | |
| | 0.75 | 1750 | 5100/.63 | 4760/.66 | 4400/.68 | 4090/.70 | 3720/.72 | 3300/.73 | 2890/.74 |
| | 1 | 1750 | 5820/.91 | 5500/.93 | 5180/.95 | 4790/.97 | 4350/.98 | 3890/.99 | 3420/.98 |
| | 1.5 | 1750 | 6190/1.21 | 6000/1.26 | 5810/1.31 | 5540/1.34 | 5390/1.38 | 5140/1.43 | 4890/1.47 |
| | 2 | 1750 | 7010/1.66 | 6810/1.68 | 6620/1.71 | 6390/1.74 | 6190/1.77 | 5930/1.80 | 5590/1.83 |
| | 0.5 | 1160 | 5230/.29 | 4800/.34 | 4360/.38 | 3840/.41 | 3090/.43 | | |
| 24 | 0.75 | 1160 | 7230/.64 | 6700/.67 | 6210/.72 | 5650/.75 | 4800/.77 | | |
| | 1 | 1160 | 8090/.89 | 7620/.91 | 7090/.94 | 6470/.97 | 5680/.98 | | |
| | 1 | 1750 | 7370/.75 | 6940/.78 | 6410/.81 | 5890/.84 | 5390/.87 | 4800/.88 | 4210/.88 |
| | 1.5 | 1750 | 9450/1.40 | 8920/1.42 | 8390/1.45 | 7870/1.48 | 7350/1.50 | 6800/1.52 | 6200/1.52 |
| | 2 | 1750 | 10450/1.88 | 9950/1.89 | 9400/1.91 | 8790/1.93 | 8330/1.94 | 7500/1.98 | 6750/1.99 |
| | 3 | 1750 | 11100/2.30 | 10750/2.35 | 10400/2.40 | 10040/2.50 | 9790/2.55 | 9450/2.61 | 9180/2.66 |
| | 0.5 | 870 | 9100/.46 | 7600/.49 | 5400/.50 | | | | |
| 30 | 0.75 | 870 | 9500/.58 | 8650/.64 | 7650/.69 | 6490/.72 | | | |
| | 1 | 870 | 10200/.70 | 9400/.77 | 8360/.81 | 6960/.84 | | | |
| | 0.75 | 1160 | 9600/.58 | 8650/.63 | 7550/.67 | 6300/.69 | 4700/.70 | | |
| | 1 | 1160 | 10500/.72 | 9400/.77 | 8300/.80 | 6900/.82 | 4800/.83 | | |
| | 1.5 | 1160 | 11400/1.11 | 10850/1.19 | 10200/1.27 | 9450/1.33 | 8700/1.38 | 7750/1.42 | 6650/1.46 |
| | 2 | 1160 | 14500/1.87 | 14000/1.91 | 13000/1.94 | 12100/1.94 | 11100/1.94 | 10000/1.92 | 7700/1.91 |
| | 3 | 1750 | 16000/2.62 | 15300/2.70 | 14600/2.78 | 14000/2.85 | 13200/2.91 | 12500/2.95 | 11700/2.98 |
| 36 | 5 | 1750 | 20400/4.89 | 19400/4.85 | 18400/4.81 | 17700/4.75 | 16700/4.78 | 15800/4.79 | 15000/4.72 |
| | 0.5 | 870 | 11400/.42 | 9500/.48 | 7400/.50 | | | | |
| | 0.75 | 870 | 11000/.53 | 9810/.60 | 8630/.67 | 7290/.72 | 5430/.74 | | |
| | 1 | 870 | 13300/.77 | 12100/.86 | 11000/.95 | 9700/1.00 | 7500/1.02 | | |
| | 1.5 | 870 | 15700/1.14 | 14700/1.24 | 13500/1.33 | 12400/1.42 | 10600/1.44 | | |
| | 1 | 1160 | 12300/.63 | 10800/.72 | 9400/.76 | 7800/.79 | 5900/.77 | | |
| | 1.5 | 1160 | 16200/1.21 | 14800/1.29 | 13500/1.33 | 12000/1.39 | 10300/1.39 | | |
| | 2 | 1160 | 19000/1.77 | 17500/1.82 | 16000/1.88 | 14500/1.90 | 13000/1.94 | | |
| | 3 | 1160 | 19300/2.13 | 18500/2.25 | 17700/2.37 | 16800/2.52 | 15800/2.61 | 14900/2.68 | 13800/2.75 |
| | 5 | 1160 | 25400/4.52 | 24700/4.54 | 23700/4.60 | 22700/4.66 | 21800/4.78 | 20600/4.85 | 19000/4.92 |

BPF-FRP Direct Drive Performance Data cont.

| MTR HP | FAN RPM | 0" | .125" | .25" | .375" | .5" | .625" | .75" |
|--------|----------|------------|------------|------------|------------|------------|------------|------------|
| 42 | 1 870 | 11700/.63 | 10300/.70 | 9000/.74 | 7500/.77 | 5900/.78 | 4400/.80 | |
| | 1.5 870 | 15800/1.00 | 14500/1.10 | 13100/1.18 | 11600/1.25 | 9900/1.28 | 7800/1.35 | |
| | 2 870 | 20100/1.46 | 18700/1.60 | 17100/1.72 | 15600/1.83 | 13800/1.90 | 11600/1.90 | |
| | 3 870 | 25700/2.55 | 24100/2.75 | 22500/2.84 | 20800/2.92 | 19100/3.00 | 16200/3.03 | |
| | 3 1160 | 20700/2.22 | 19700/2.33 | 18700/2.46 | 17600/2.60 | 16600/2.70 | 15400/2.76 | 14300/2.82 |
| | 5 1160 | 28900/4.09 | 27900/4.32 | 26800/4.55 | 25500/4.65 | 24500/4.75 | 23300/4.90 | 22000/4.99 |
| | 7.5 1160 | 35000/6.45 | 33900/6.65 | 29900/6.85 | 31700/7.00 | 30500/7.05 | 29200/7.17 | 27800/7.30 |
| 48 | 2 870 | 22100/1.73 | 19400/1.82 | 16700/1.85 | 14100/1.85 | 11200/1.85 | 7900/1.90 | |
| | 3 870 | 26300/2.63 | 24500/2.67 | 21500/2.69 | 18200/2.69 | 14700/2.74 | 11500/2.80 | |
| | 5 870 | 31500/4.15 | 29900/4.29 | 28100/4.41 | 26500/4.52 | 24900/4.60 | 23000/4.64 | |
| | 7.5 870 | 37100/5.88 | 35600/6.15 | 39900/6.30 | 32100/6.35 | 30000/6.37 | 27800/6.42 | |
| | 3 1160 | 22600/2.60 | 20500/2.64 | 18300/2.74 | 16400/2.75 | 14600/2.75 | 12500/2.71 | 10700/2.65 |
| | 5 1160 | 29100/3.85 | 27000/4.06 | 24900/4.02 | 23000/4.05 | 21000/4.07 | 18900/4.06 | 16600/4.07 |
| | 7.5 1160 | 36500/6.32 | 35000/6.37 | 32900/6.42 | 30600/6.46 | 28200/6.48 | 25600/6.53 | 22800/6.54 |
| 54 | 3 695 | 32600/2.45 | 29700/2.58 | 26800/2.70 | 23400/2.79 | 19600/2.80 | | |
| | 5 695 | 41900/4.23 | 39500/4.41 | 37100/4.59 | 34200/4.71 | 30000/4.68 | | |
| | 3 870 | 30000/2.80 | 27400/2.89 | 24900/2.90 | 22300/3.00 | 20000/3.00 | 17900/3.03 | 14700/3.04 |
| | 5 870 | 38300/4.32 | 35900/4.47 | 33500/4.61 | 31200/4.75 | 28600/4.85 | 26000/4.95 | 22900/4.93 |
| | 7.5 870 | 46400/6.47 | 44500/6.66 | 42600/6.85 | 40600/7.03 | 38400/7.23 | 35300/7.34 | 31900/7.34 |
| | 10 870 | 54000/8.78 | 52000/9.01 | 50100/9.25 | 48100/9.49 | 46000/9.65 | 43500/9.73 | 40200/9.68 |
| | 5 695 | 45400/3.89 | 42500/4.11 | 39500/4.32 | 36500/4.57 | 33200/4.73 | 28900/4.74 | 22700/4.51 |
| 60 | 7.5 695 | 55300/6.10 | 52200/6.34 | 49100/6.57 | 46000/6.81 | 42700/7.00 | 38800/7.05 | 33500/6.94 |
| | 5 870 | 48700/4.68 | 45200/4.68 | 41600/4.68 | 37900/4.68 | 33400/4.68 | 27600/4.44 | |
| | 7.5 870 | 59400/7.41 | 55800/7.35 | 52100/7.29 | 48200/7.17 | 43400/7.08 | 38200/6.94 | |
| | 10 870 | 64700/9.29 | 60700/9.22 | 56700/9.15 | 52600/9.04 | 47600/8.99 | 42300/8.95 | |
| | 15 870 | 70500/12.3 | 66400/12.2 | 62200/12.1 | 57700/12.0 | 52500/11 | 0.8 | 45400/11.7 |

For BPF -ED Models add .125" SP for damper

BPF-FRP Pictures



60 inch Diameter Direct Drive wall fans with intake air shutter

Production run of 36 inch diameter Wall Box Fans



48 inch diameter belt drive wall fans with motor out of the air



BPF-FRP Series Wall Box Fans - Guide Specification

1.1. DESCRIPTION

Furnish and Install Wall Box Fans and accessories as indicated on drawings.

1.2. QUALITY ASSURANCE

MOFFITT (Jacksonville, FL, 1 800-474-3267) FRP Products establish the standard of quality required. Manufacturer and erector shall demonstrate a minimum of five (5) years of related industry experience.

1.3. SUBSTITUTIONS

No substitutions will be considered unless written request for approval has been submitted by the bidder and has been received by the designer at least ten (10) days prior to bid date. Any proposed substitutions should meet the standards set by the specification.

SUBMITTALS

- 1.4. Furnish approval drawings prior to fabrication and erection drawings prior to shipment showing all erection procedures and accessories required for the specified product.

2.1. CONSTRUCTION

- 2.1.1. Unit shall be constructed of a premium grade polyester or vinylester resin. If required, a Class 1 flame spread of 25 or less is available. Reference to a Corrosion Chart is recommended for highly acidic or caustic environments.
- 2.1.2. The fiberglass wall box housing shall have a minimum thickness of (1/4" for sizes 12" to 36" and 3/8" for sizes 42" to 60"). The fiberglass encapsulated motor mount shall be integrally molded to the wall box. The fiberglass venturi shall be arranged for either exhaust or supply operation.
- 2.1.3. Fan propeller is to be directly mounted to the motor shaft on direct coupled units and rotate inside the venturi. On belted units, the propeller shall rotate a venturi on a shaft supported by heavy duty pillow blocks. Fiberglass blades shall have an air foil and helical design attached to an encapsulated hub.
- 2.1.4. The fan shall have a capacity of _____CFM at _____inch(es) static pressure standard air and equipped with a _____HP, _____RPM, motor rated for severe duty service and suitable for _____ volt, _____phase, _____cycle operation.
- 2.1.5. All hardware shall be stainless steel.

2.2. OPTIONS/ACCESSORIES

Available accessories include: stainless steel mesh guard and the option for explosion proof motor design disconnect switch mounted and wired, carbon impregnation with static grounding. 1/2" polyethylene mesh guard mounted in a removable PVC frame, fiberglass damper (automatic back draft or 115v motor actuated), and fiberglass rain hood for supply arrangements.