



# TFD

LIGHT INDUSTRIAL



The TFD is typically used over medium sized dock doors, or openings in an industrial environment. Available in unheated, hot water heated, steam heated, indirect gas fired (closed combustion heaters are available), and direct gas fired versions.

## OPTIONS

### HEATING

|                       |        |
|-----------------------|--------|
| Electrical. . . . .   | pg 143 |
| Hot Water. . . . .    | pg 147 |
| Steam. . . . .        | pg 147 |
| Indirect Gas. . . . . | pg 149 |

### FILTER

1" Cleanable (Unheated, Hot Water and Steam Units)



## AT A GLANCE

Single Incremental Widths

3' to 14'

Max Installation Height

14'

Heavy Duty Motors

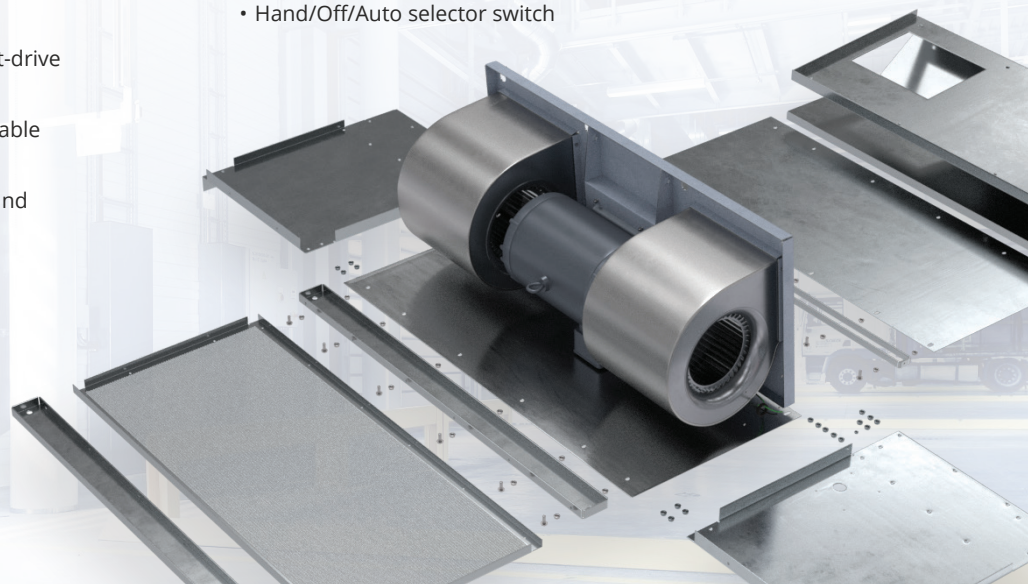
1.5 HP

### KEY DESIGN FEATURES

- AMCA tested performance
- Outer cabinet constructed of 18-gauge 304 stainless steel with #3 finish
- 1.5 HP TEAO (Totally Enclosed Air Over) direct-drive single-speed motor(s)
- High-efficiency discharge plenum with adjustable air foil vane (+/-20°)
- Top and bottom access panels for servicing and removal of motor-blower assembly
- NEMA 12 control panel

### RECOMMENDED CONTROLS

- Activation by 24V magnetic door switch
- Toggle disconnect switch
- Hand/Off/Auto selector switch



## ► TFD | PERFORMANCE

### TFD | Performance Table

| Model     | Nozzle Width (in.) | Max. FPM at Nozzle | Avg. Outlet Velocity FPM | CFM at Nozzle | Outlet Velocity Uniformity | Power Rating (kW) | Number of Motors | Motor HP | Sound Pressure (dBA)* | Sound Power [LWA] (dBA) | Weight (lbs.) |
|-----------|--------------------|--------------------|--------------------------|---------------|----------------------------|-------------------|------------------|----------|-----------------------|-------------------------|---------------|
| TFD-1-36  | 36                 | 4500               | 3108                     | 2331          | 92.0%                      | 1.2               | 1                | 1.5      | 73                    | 87                      | 119           |
| TFD-1-48  | 48                 | 4500               | 3565                     | 2565          | 94.0%                      | 1.3               | 1                | 1.5      | 76                    | 90                      | 152           |
| TFD-1-60  | 60                 | 4500               | 2146                     | 2682          | 73.0%                      | 1.3               | 1                | 1.5      | 69                    | 82                      | 188           |
| TFD-2-72  | 72                 | 4500               | 3108                     | 4662          | 92.0%                      | 2.4               | 2                | 1.5      | 76                    | 90                      | 256           |
| TFD-2-84  | 84                 | 4500               | 2798                     | 4896          | 92.0%                      | 2.6               | 2                | 1.5      | 79                    | 93                      | 290           |
| TFD-2-96  | 96                 | 4500               | 2565                     | 5130          | 94.0%                      | 2.6               | 2                | 1.5      | 79                    | 93                      | 316           |
| TFD-2-108 | 108                | 4500               | 2332                     | 5247          | 73.0%                      | 2.6               | 2                | 1.5      | 79                    | 93                      | 342           |
| TFD-3-108 | 108                | 4500               | 3108                     | 6993          | 92.0%                      | 3.6               | 3                | 1.5      | 77                    | 92                      | 378           |
| TFD-3-120 | 120                | 4500               | 2891                     | 7227          | 92.0%                      | 3.7               | 3                | 1.5      | 80                    | 95                      | 420           |
| TFD-3-132 | 132                | 4500               | 2713                     | 7461          | 92.0%                      | 3.8               | 3                | 1.5      | 80                    | 95                      | 489           |
| TFD-4-144 | 144                | 4500               | 3108                     | 9324          | 92.0%                      | 4.8               | 4                | 1.5      | 79                    | 93                      | 509           |
| TFD-4-156 | 156                | 4500               | 2941                     | 9558          | 92.0%                      | 4.9               | 4                | 1.5      | 82                    | 96                      | 522           |
| TFD-4-168 | 168                | 4500               | 2798                     | 9792          | 92.0%                      | 5.0               | 4                | 1.5      | 82                    | 96                      | 534           |

\*dBA levels are not licensed by AMCA International

dBA levels calculated from some values supplied by AMCA based on spherical free field at 5 ft.

‡ The A-weighted sound power ratings shown have been calculated per AMCA Standard 301

Values shown are for total LWA sound power levels for Installation Type A: free inlet, free outlet.

**!** For a unit over 14 feet long, consult factory.  
For Top Intake, consult factory.

### Velocity Projection Model (Model TFD-1-36)

| Distance from Nozzle | 40 in. | 80 in. | 120 in. | 160 in. | 200 in. |
|----------------------|--------|--------|---------|---------|---------|
| Core Velocity (fpm)  | 2029   | 1525   | 1353    | 1180    | 1071    |

### TFD | Amp Draw and Breaker Options

| Motors                | 208-230V Amp Draw (Breaker size) | 240V Amp Draw (Breaker size) | 480V Amp Draw (Breaker size) | 575V Amp Draw (Breaker size) |
|-----------------------|----------------------------------|------------------------------|------------------------------|------------------------------|
| TFD-1-36, 42, 48, 60  | 5.0A (15)                        | 4.6A (15)                    | 2.6A (15)                    | 1.9A (15)                    |
| TFD-2-72, 84, 96, 108 | 10.0A (15)                       | 9.2A (15)                    | 5.2A (15)                    | 3.8A (15)                    |
| TFD-3-108, 120, 132   | 15.0A (20)                       | 13.8A (20)                   | 7.8A (15)                    | 5.7A (15)                    |
| TFD-4-144, 156, 168   | 20.0A (30)                       | 18.4A (25)                   | 10.4A (15)                   | 7.6A (15)                    |

The AMCA Certified Ratings Seal applies to airflow rate, average outlet velocity, outlet velocity uniformity, velocity projection, sound power, and power rating at free delivery only.

Powered Aire Inc. certifies that the Model TFD Air Curtain shown herein is licensed to bear the AMCA Seal for Air Performance. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

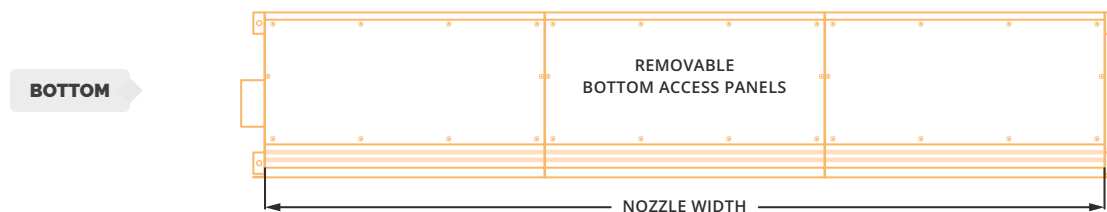
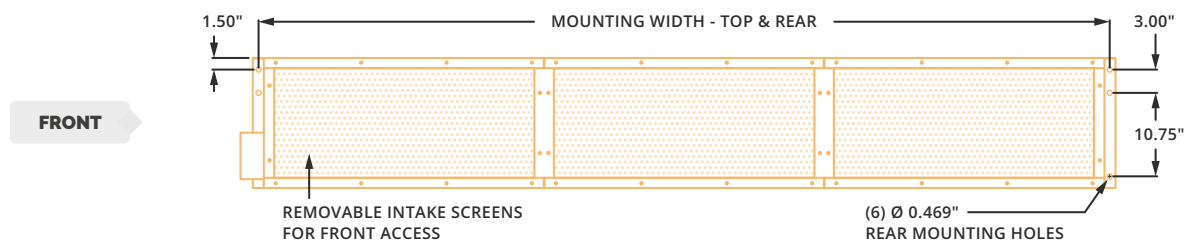
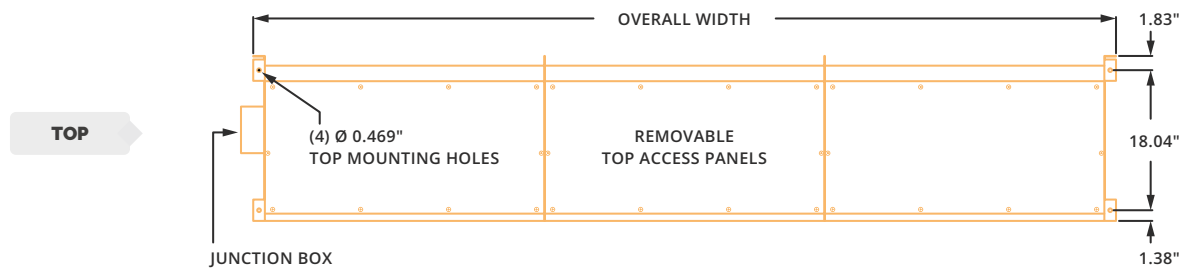
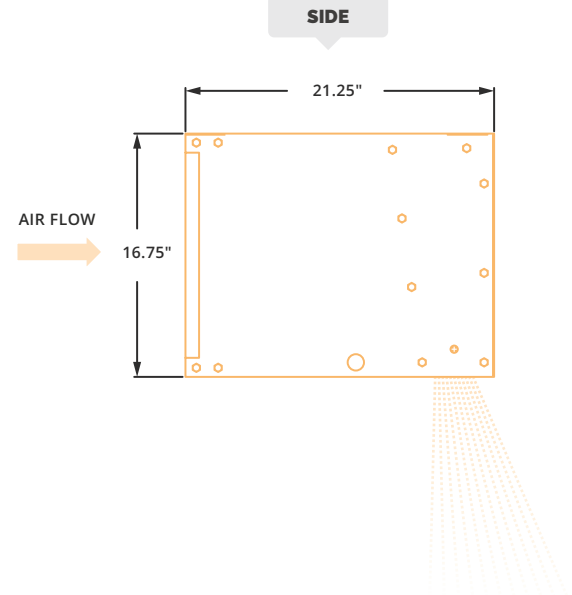
December  
2023  
**PAAC-501**



## ► TFD MECHANICAL DETAILS & DRAWINGS

TFD | Mechanical Information Table

| MODEL     | Overall Width (in.) | Nozzle Width (in.) | Mounting Width Rear and Top (in.) |
|-----------|---------------------|--------------------|-----------------------------------|
| TFD-1-36  | 39                  | 36                 | 37.5                              |
| TFD-1-48  | 51                  | 48                 | 49.5                              |
| TFD-1-60  | 63                  | 60                 | 61.5                              |
| TFD-2-72  | 75.07               | 72.07              | 73.57                             |
| TFD-2-84  | 87.07               | 84.07              | 85.57                             |
| TFD-2-96  | 99.07               | 96.07              | 97.57                             |
| TFD-2-108 | 111.07              | 108.07             | 109.57                            |
| TFD-3-108 | 111.15              | 108.15             | 109.65                            |
| TFD-3-120 | 123.15              | 120.15             | 121.65                            |
| TFD-3-132 | 135.15              | 132.15             | 133.65                            |
| TFD-4-144 | 147.22              | 144.22             | 145.72                            |
| TFD-4-156 | 159.22              | 156.22             | 157.72                            |
| TFD-4-168 | 171.22              | 168.22             | 169.72                            |



## ► TFD, TFD-E & TFD-HW/ST | INSTALLATION



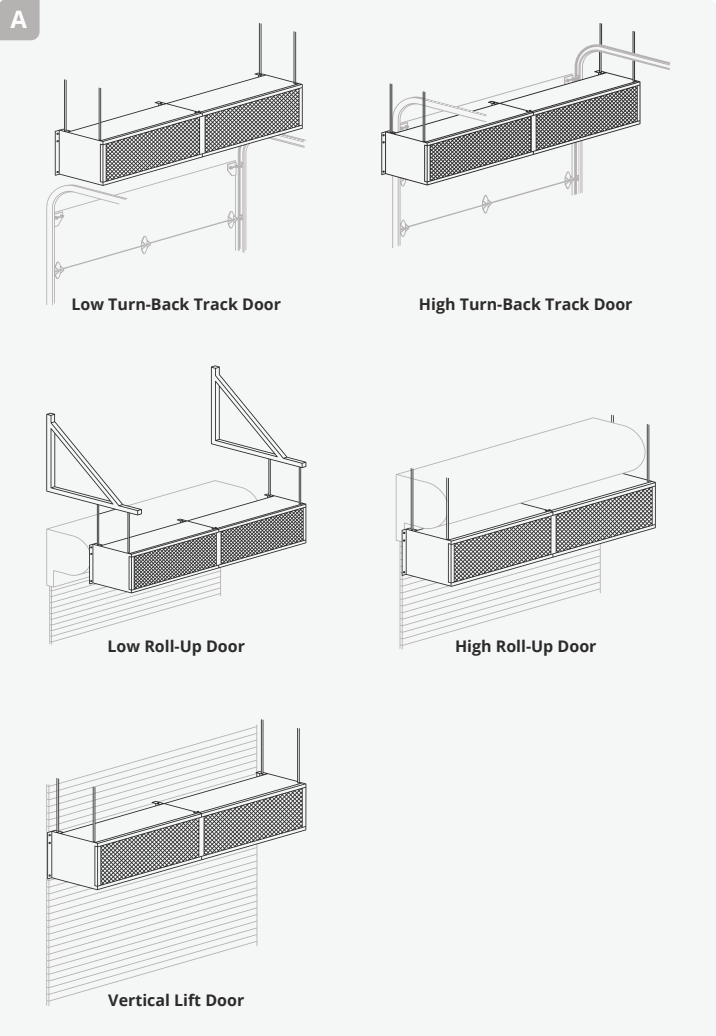
### NOTE

The air curtain should be mounted as close to the door header/opening as possible for maximum performance. For every one inch the bottom of the air curtain is mounted above the door header, the back side of the air curtain should be moved away from the wall ¼ inch.

### A TOP MOUNT

Unit has four 15/32 inch holes for installing one end of 7/16" threaded rods. The other ends of the threaded rods can be attached to the ceiling. Washers and lock washers or locknuts are recommended. Mounting structure should be of sufficient strength to hold air curtain, and hardware (supplied by others) should be of sufficient strength and quality to support the unit safely.

\*Powered Aire does not supply threaded rods.



### B WALL MOUNT

Rear flanges of air curtain have six holes, for six 7/16 inch bolts or lags with washers. When wall mounting use all six holes.

