



TSD



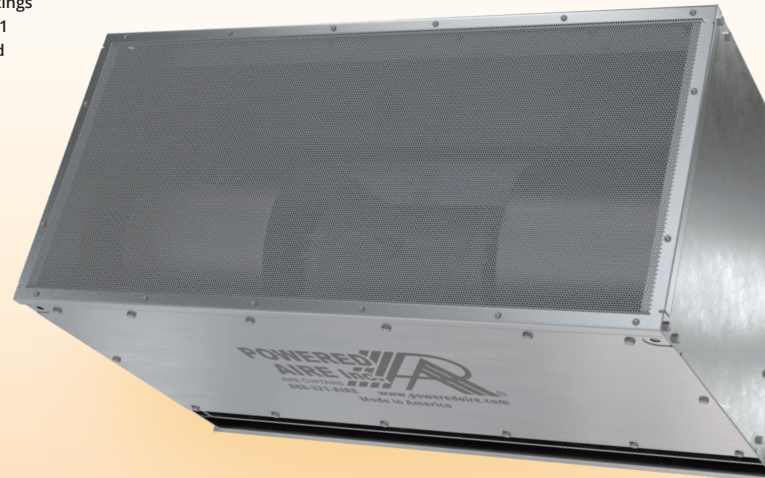
The TSD is typically used over dock doors, ground level doors or large openings in an industrial environment. All industrial units are direct drive, which avoids misalignment of couplers and outboard bearings and eliminates periodic belt replacement.

Powered Aire, Inc. certifies model TSD shown herein is licensed to bear the AMCA Seal. 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. The AMCA Certified Ratings Seal applies to airflow rate, average outlet velocity, outlet velocity uniformity, velocity projection and power rating at free delivery only. (May 2016)

OPTIONS

HEATING

Electric	pg 157
Hot Water	pg 163
Steam	pg 163
Indirect Gas	pg 167
Direct Gas	pg 173



AT A GLANCE

Single Incremental Widths

4' to 30'

Max Installation Height

17'

Heavy Duty Motors

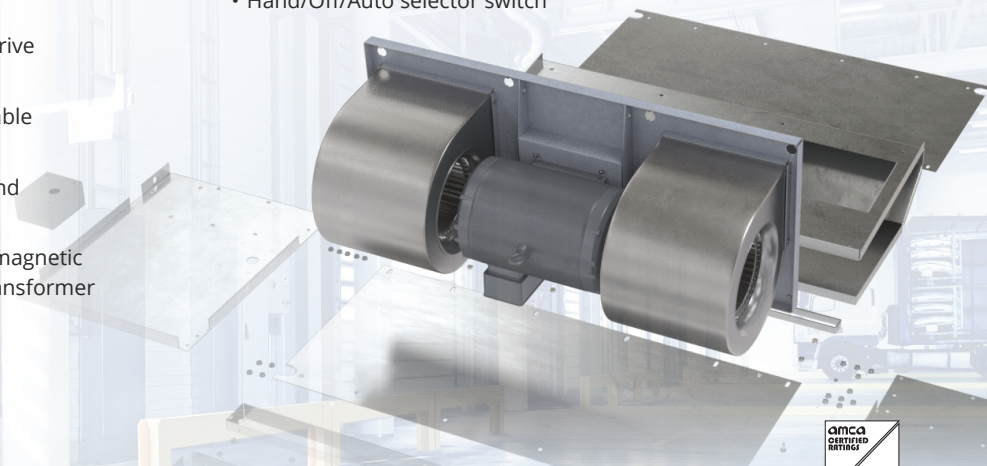
3 HP

KEY DESIGN FEATURES

- AMCA tested performance
- Outer cabinet constructed of 18-gauge 304 stainless steel with #3 finish
- 3 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 with factory installed magnetic motor starter, overload relays, and control transformer

RECOMMENDED CONTROLS

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



► TSD | PERFORMANCE

TSD | Performance Table

Model	Nozzle Width (in.)	Max. FPM at Nozzle	Avg. Outlet Velocity FPM	CFM at Nozzle	Outlet Velocity Uniformity	Number of Motors	Motor HP	Weight (lbs.)
TSD-1-48	48	6200	3209	4268	95.10%	1	3	342
TSD-1-60	60	5800	3006	4855	92.00%	1	3	380
TSD-1-72	72	5900	2891	5579	86.30%	1	3	400
TSD-2-96	96	6200	3209	8536	95.10%	2	3	681
TSD-2-108	108	6200	3108	9123	92.00%	2	3	719
TSD-2-120	120	5800	3006	9710	92.00%	2	3	757
TSD-2-132	132	5900	2943	10434	86.30%	2	3	777
TSD-2-144	144	5900	2891	11158	86.30%	2	3	797
TSD-3-144	144	6200	3209	12804	95.10%	3	3	1020
TSD-3-156	156	6200	3141	13391	92.00%	3	3	1058
TSD-3-168	168	6200	3074	13978	86.30%	3	3	1078
TSD-3-180	180	6200	3200	15608	86.30%	3	3	1116
TSD-3-192	192	6200	3145	16332	86.30%	3	3	1136
TSD-4-192	192	6200	3209	17072	95.10%	4	3	1359
TSD-3-204	204	5900	2925	16013	86.30%	3	3	1174
TSD-4-204	204	6200	3158	17072	92.00%	4	3	1397
TSD-3-216	216	5900	2891	16737	86.30%	3	3	1194
TSD-4-216	216	6200	3108	18246	86.30%	4	3	1417
TSD-4-228	228	6200	3057	18833	86.30%	4	3	1455
TSD-4-240	240	6200	3295	21560	86.30%	4	3	1475
TSD-5-240	240	6200	3209	21340	95.10%	5	3	1698
TSD-4-252	252	6200	2977	20144	86.30%	4	3	1513

TSD | Velocity Projection Model (Model TSD-1-48)

Distance From Nozzle	40 in.	80 in.	120 in.	160 in.	200 in.
Core Velocity (fpm)	3020	2060	1710	1420	1225

TSD | Sound Levels

High Speed 69 dBA Measured 10 ft. from unit in a free field based on a 1 motor unit

TSD | Amp Draw and Breaker Options

Model/Number of Motors	208V Amp Draw (Breaker size)	240V Amp Draw (Breaker size)	480V Amp Draw (Breaker size)	575V Amp Draw (Breaker size)
TSD-1-48, 60, 72	13.1A (25)	12.2A (20)	6.1A (15)	3.9A (15)
TSD-2-96, 108, 120, 132, 144	26.2A (40)	24.4A (40)	12.2A (20)	7.8A (15)
TSD-3-144, 156, 168, 180, 192, 204, 216	39.3A (60)	36.6A (60)	18.3A (30)	11.7A (20)
TSD-4-192, 204, 216, 228, 240, 252	52.4A (80)	48.8A (70)	24.4A (35)	15.6A (25)
TSD-5-240	20.0A (90)	61.0A (90)	30.5A (45)	19.5A (30)

The AMCA Certified Ratings Seal applies to airflow rate, average outlet velocity, outlet velocity uniformity, velocity projection and power rating at free delivery only. Rated data shown are based on tests of units with heating elements present but not in use.

Powered Aire Inc. certifies that the Model TSD 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.

May 2016
PAAC-401



► **TSD | MECHANICAL DETAILS**



Mechanical Drawings

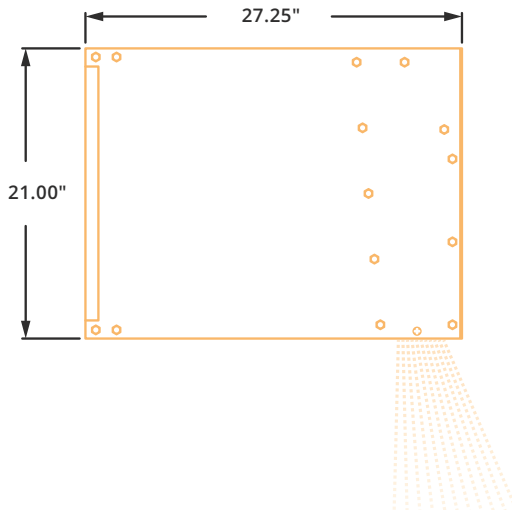
TSD Mechanical Drawings can be found on the next page, Page 156.

TSD | Mechanical Information Table

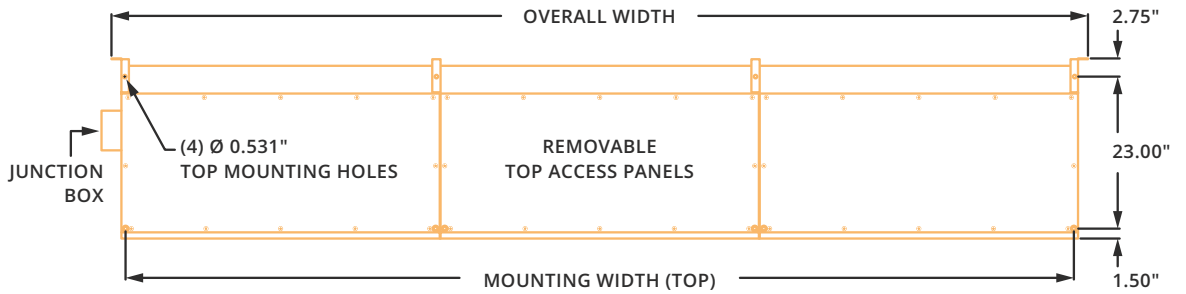
MODEL	Overall Width (in)	Nozzle Width (in)	Mounting Width Rear (in)	Mounting Width Top (in)	MODEL	Overall Width (in)	Nozzle Width (in)	Mounting Width Rear (in)	Mounting Width Top (in)
TSD-1-48	51	48	49.5	47	TSD-4-264	267.36	264.36	265.86	263.36
TSD-1-60	63	60	61.5	59	TSD-5-264	267.48	264.48	265.98	263.48
TSD-1-72	75	72	73.5	71	TSD-4-276	279.36	276.36	277.86	275.36
TSD-2-96	99.12	96.12	97.62	95.12	TSD-5-276	279.48	276.48	277.98	275.48
TSD-2-108	111.12	108.12	109.62	107.12	TSD-4-288	291.36	288.36	289.86	287.36
TSD-2-120	123.12	120.12	121.62	119.12	TSD-5-288	291.48	288.48	289.98	287.48
TSD-2-132	135.12	132.12	133.62	131.12	TSD-6-288	291.6	288.6	290.1	287.6
TSD-2-144	147.12	144.12	145.62	143.12	TSD-5-300	303.48	300.48	301.98	299.48
TSD-3-144	147.24	144.24	145.74	143.24	TSD-6-300	303.6	300.6	302.1	299.6
TSD-3-156	159.24	156.24	157.74	155.24	TSD-5-312	315.48	312.48	313.98	311.48
TSD-3-168	171.24	168.24	169.74	167.24	TSD-6-312	315.6	312.6	314.1	311.6
TSD-3-180	183.24	180.24	181.74	179.24	TSD-5-324	327.48	324.48	325.98	323.48
TSD-3-192	195.24	192.24	193.74	191.24	TSD-6-324	327.6	324.6	326.1	323.6
TSD-4-192	195.36	192.36	193.86	191.36	TSD-5-336	339.48	336.48	337.98	335.48
TSD-3-204	207.24	204.24	205.74	203.24	TSD-6-336	339.6	336.6	338.1	335.6
TSD-4-204	207.36	204.36	205.86	203.36	TSD-7-336	339.72	336.72	338.22	335.72
TSD-3-216	219.24	216.24	217.74	215.24	TSD-5-348	351.48	348.48	349.98	347.48
TSD-4-216	219.36	216.36	217.86	215.36	TSD-6-348	351.6	348.6	350.1	347.6
TSD-4-228	231.36	228.36	229.86	227.36	TSD-7-348	351.72	348.72	350.22	347.72
TSD-4-240	243.36	240.36	241.86	239.36	TSD-5-360	363.48	360.48	361.98	359.48
TSD-5-240	243.48	240.48	241.98	239.48	TSD-6-360	363.6	360.6	362.1	359.6
TSD-4-252	255.36	252.36	253.86	251.36	TSD-7-360	363.72	360.72	362.22	359.72
TSD-5-252	255.48	252.48	253.98	251.48					

► TSD | MECHANICAL DRAWINGS

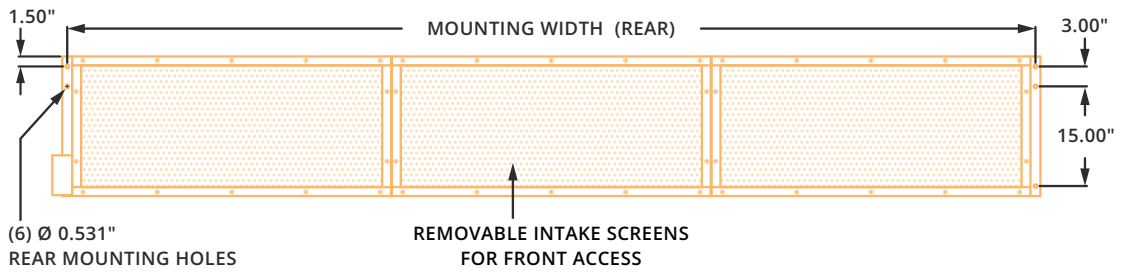
SIDE



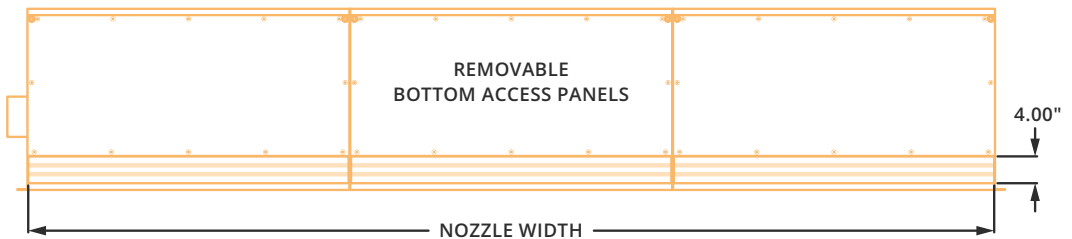
TOP



FRONT



BOTTOM



► TSD & TSD-E | INSTALLATION

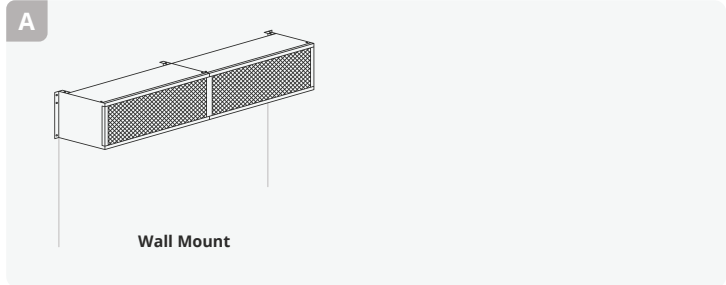


NOTE

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 WALL MOUNT

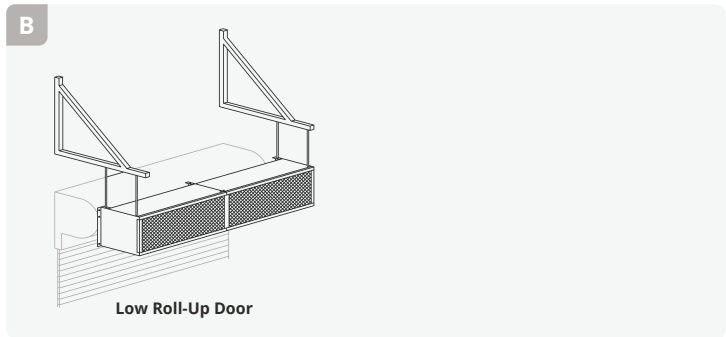
Rear flanges of air curtain have six holes, for six 1/2 inch bolts or lags with washers. When wall mounting use all six holes.



B MOUNTING BRACKETS

Mounting brackets (also called knee, angle or L-brackets) can be flush to the wall or constructed to account for a projection from the wall. For proper size brackets measure standoff distance from wall to back of where air curtain will be.

If required, angle iron or steel tubing can be attached to the top of the air curtain, typically one foot longer at each end, to reach brackets that are mounted outside of the door system.



C TOP MOUNT

Unit has four 17/32 holes for installing one end of 1/2 inch threaded rods. The other ends of the threaded rods can be attached to the ceiling. 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. Additional mounting holes are provided on larger units for buildings where structural support is not adequate for supporting the air curtain from ends only.

*Powered Aire does not supply threaded rods.

