

PAAC-301

The TSD has 3 hp motors and is typically used over dock doors, ground level doors or large openings in an industrial environment. It is available in unheated, hot water heated, steam heated, indirect gas fired and direct gas fired versions. Industrial units are manufactured in single increments that can be provided up to 30 ft. wide. The TSD has top and bottom access panels to replace or service motors or blowers without lowering entire unit or bottom half of unit. The motor/blower plate comes out as an entire piece. All industrial units are direct drive, which avoids misalignment of couplers and outboard bearings and eliminates periodic belt replacement. The unheated unit is AMCA rated.

## Key Design Features

- All weight bearing structural support will be made of formed 11-gauge stainless steel and galvanized steel. Outer casing shall be constructed of 16-gauge stainless steel.
- TSD has heavy duty 3 HP Total Enclosed Aire Over (TEAO) motors at 1160 rpm each, 50/60 cycle. Single speed.
- Galvanized fans.
- Air intake screen is perforated stainless steel.
- Access panels for inspection, cleaning or removal of motor blower assembly, without having to lower the unit.
- High efficiency discharge plenum.
- Directional air foil vane factory set to facilitate deflection of air stream +/- 20 degrees.

Includes NEMA 12 control panel with magnetic motor starter, overload relays and control transformer. An optional Hand/Off/Auto switch can be mounted to the panel cover.



### Recommended Controls

- Panel Mounted Hand/Off/Auto Switch
- Magnetic Door Switch for activation

### Unheated

Sound level: 69 dBA (Measured 10 ft. from unit in a free field based on a 1 motor unit)

Model	TSD 1-48	TSD 1-60	TSD 1-72	TSD 2-96	TSD 2-108	TSD 2-120	TSD 2-132	TSD 2-144	TSD 3-144	TSD 3-156	TSD 3-168	TSD 3-180
Door Width Feet	4	5	6	8	9	10	11	12	12	13	14	15
Nozzle Width Inches	48	60	72	96	108	120	132	144	144	156	168	180
Max. FPM at Nozzle	6200	5800	5900	6200	6200	5800	5900	5900	6200	6200	6200	6200
Avg. Outlet Velocity FPM	3881	3006	2891	3881	3402	3006	2943	2891	3881	3551	3465	3200
CFM at Nozzle	5174	4855	5579	10348	10029	9710	10434	11158	15522	15203	15927	15608
Outlet Velocity Uniformity	95.1%	92%	86.3%	95.1%	92%	92%	86.3%	86.3%	95.1%	92%	86.3%	86.3%
Power Rating KW	3.0	2.1	2.5	6.0	5.1	4.2	4.6	5.0	9.0	8.1	8.5	7.6
Number of Motors	1	1	1	2	2	2	2	2	3	3	3	3
Horse Power	3	3	3	3	3	3	3	3	3	3	3	3
Weight (Lbs)	342	380	400	681	719	757	777	797	1020	1058	1078	1116

Three Phase Motor Voltage Available: 208 240 480 575

Amp Draw Per Motor: 13.1 12.2 6.1 5.0

# CASE STUDY

## Typical Heating Season Application



Outside temperature: 36.5° F



Temperature inside door with door closed: 67.6° F



### Overhead door opened for 2 minutes

Temperature inside door after 2 minutes

**WITHOUT air curtain operating: 42.2° F**

Temperature inside door after 2 minutes

**WITH air curtain model TSD-2-120 operating: 66.7° F**



*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.*



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**Unheated**

Model	TSD 3-192	TSD 4-192	TSD 3-204	TSD 4-204	TSD 3-216	TSD 4-216	TSD 4-228	TSD 4-240	TSD 5-240	TSD 4-252
Door Width Feet	16	16	17	17	18	18	19	20	20	21
Nozzle Width Inches	192	192	204	204	216	216	228	240	240	252
Max. FPM at Nozzle	6200	6200	5900	6200	5900	6200	6200	6200	6200	6200
Avg. Outlet Velocity FPM	3145	3881	2925	3630	2891	3559	3346	3295	3881	3112
CFM at Nozzle	16332	20696	16013	20377	16737	21101	20782	21506	25870	21187
Outlet Velocity Uniformity	86.3%	95.1%	86.3%	92%	86.3%	86.3%	86.3%	86.3%	95.1%	86.3%
Power Rating KW	8.0	12.0	7.1	11.1	7.5	11.5	10.6	11.0	15.0	10.1
Number of Motors	3	4	3	4	3	4	4	4	5	4
Horse Power	3	3	3	3	3	3	3	3	3	3
Weight (Lbs)	1136	1359	1174	1397	1194	1417	1455	1475	1698	1513

Consult factory for electric heat

**Velocity Projection Model: TSD 1-48**

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



**MADE IN THE USA**