

POWERED AIRE INC.

Air Curtains



Model TSD/EHD



Model CED



Chameleon



Direct Gas Fired



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888-321-AIRE
www.poweredaire.com

COMMERCIAL Applications

MODEL CED/CHS

Customer Entrance Aire Curtain

For openings up to 11 feet high

"For high traffic customer and personnel doors"

Unheated and Electric Heat

	CED-1-36	CED-1-42	CED-1-48	CED-1-60
Nozzle width (in.)	36	42	48	60
Max. FPM	1904	1904	1904	1904
Avg. FPM	1570	1346	1178	942
Max. CFM	1309	1527	1745	1790
CFM @ Nozzle	1005	1079	1094	1084
Outlet Velocity Uniformity	95%	93%	92%	91%
Motors @ HP	1 @ 1/2	1 @ 1/2	1 @ 1/2	1 @ 1/2
Electric Heat (KW)	10	10	10	10
UNHEATED VOLTAGE: 120,208,240,480,575/1 or 3/50,60				
ELECTRIC HEAT VOLTAGE: 208,240,480,575/1 or 3/50,60				



CED aire curtains are dual speed. Data is based on High Speed / Sound level: High speed 53 dBA, Low speed 51 dBA



	CED-2-60	CED-2-72	CED-2-84	CED-2-96	CED-3-108	CED-3-120	CED-3-132	CED-4-144
Nozzle Width (in.)	60	72	84	96	108	118	133	145
Max. FPM	1904	1904	1904	1904	1904	1904	1904	1904
Avg. FPM	1413	1570	1346	1178	1570	1421	1178	1570
Max. CFM	2332	2618	3054	3490	3928	4364	4950	5236
CFM @ Nozzle	1620	2159	2093	2170	3239	3230	3247	4318
Outlet Velocity Uniformity	95%	95%	93%	92%	92%	95%	95%	95%
Motors @ HP	2 @ 1/2	2 @ 1/2	2 @ 1/2	2 @ 1/2	3 @ 1/2	3 @ 1/2	3 @ 1/2	4 @ 1/2
Electric Heat (KW)	15	20	20	20	30	30	30	40
UNHEATED VOLTAGE: 120,208,240,480,575/1 or 3/50,60								
ELECTRIC HEAT VOLTAGE: 208,240,480,575/3/50,60								



Hot Water & Steam Heat

All other performance data is same as CED	CHS 1-36	CHS 1-48	CHS 1-60	CHS 2-72	CHS 2-84	CHS 2-96	CHS 2-108	CHS 3-108	CHS 3-120	CHS 3-132	CHS 4-144
Hot Water (mbtu/hr)	45	47	45	82	87	87	85	127	131	138	174
Steam (mbtu/hr)	59	60	60	104	111	108	104	155	162	162	107

MODEL MP

Low Profile Aire Curtain

For openings up to 10 feet high

"Use where head room is limited"

Only 8.5 inches high and 13.5 inches deep!



Unheated and Electric Heat (Hot Water or Steam Heat is also available)

	MP-1-30	MP-1-36	MP-1-42	MP-1-48	MP-1-60	MP-2-72	MP-2-84	MP-2-96	MP-2-108	MP-2-120
Nozzle Width (in.)	29	35	41	47	59	71	83	95	107	117
Max. FPM	3050	3050	3050	3050	3050	3050	3050	3050	3050	3050
Avg. FPM	2045	2142	2086	2045	1928	2142	2087	2045	2142	2103
CFM at nozzle	897	1178	1339	1500	1767	2356	2678	3005	3534	3856
Outlet Velocity Uniformity	92%	95%	95%	92%	92%	95%	95%	95%	95%	95%
Motors @ HP	1 @ 1/5	1 @ 1/5	1 @ 1/5	1 @ 1/2	1 @ 1/5	2 @ 1/5	2 @ 1/5	2 @ 1/5	2 @ 1/5	2 @ 1/5
Electric Heat (KW)	8	8	8	16	16	16	24	32	32	32
ELEC. HEAT VOLTAGE: 208,240,480,575/1,3/50,60						ELECTRIC HEAT VOLTAGE: 208,240,480,575/3/50,60*				
UNHEATED VOLTAGE: 120,208,240,480,575/1 or 3/50,60										



* MP is variable speed except for 480,575/1,3/50,60 models, which are dual speed / Sound level: 53 dBA

Chameleon™

Flush Mounted Air Curtain

- One piece unit installs above the ceiling
- CLD Model: (1/2 hp motors)
 - For customer entrances up to 11 feet high
- CHD Model: (3/4 hp motors)
 - For customer entrances up to 14 feet high
- High and low speeds
- Hinged grille for easy filter access
- Unheated or heated
- No ducting required



Chameleon



The 'Chameleon' can blend in with its surroundings...



...or just show off!

For openings up to 11 feet high

* The white grille is standard with this model. There is an additional charge for other colors or metals.

Model CLD	CLD-1-36	CLD-1-48	CLD-1-60	CLD-2-72	CLD-2-84	CLD-2-96	CLD-2-108	CLD-3-108	CLD-3-120	CLD-3-132	CLD-4-144
Nozzle Width (in.)	36	48	60	72	84	96	108	108	120	132	144
Max. FPM	1904	1904	1904	1904	1904	1904	1904	1904	1904	1904	1904
Avg. FPM	1570	1178	942	1570	1346	1178	1058	1570	1421	1178	1570
Max. CFM	1309	1745	1790	2618	3054	3490	3710	3928	4364	4950	5236
CFM @ Nozzle	1005	1094	1084	2159	2093	2170	2182	3239	3230	3247	4318
Outlet Velocity Uniformity	95%	92%	91%	95%	93%	92%	95%	92%	95%	95%	95%
Motors @ HP	1@1/2	1@1/2	1@1/2	2@1/2	2@1/2	2@1/2	2@1/2	3@1/2	3@1/2	3@1/2	4@1/2
Hot Water (mbtu/hr)	45	47	45	82	87	87	85	127	131	138	174
Steam (mbtu/hr)	59	60	60	104	111	108	104	155	162	162	107
Electric Heat (KW)	10	10	10	20	20	20	20	30	30	30	40
ELEC. HEAT VOLTAGE: 208,240,480,575/1 or 3/50,60						ELECTRIC HEAT VOLTAGE: 208,240,480,575/3/50,60					
UNHEATED VOLTAGE: 120,208,240,480,575/1 or 3/50,60											

CLD air curtains are dual speed. Above data is based on High Speed / Sound level: High speed 53 dBA, Low speed 51 dBA

For openings up to 14 feet high

(Hot Water or Steam Heat is also available)

Model CHD	CHD-1-36	CHD-1-48	CHD-1-60	CHD-2-72	CHD-2-84	CHD-2-96	CHD-2-108	CHD-3-108	CHD-3-120	CHD-3-132	CHD-4-144
Nozzle Width (in.)	36	48	60	72	84	96	108	108	120	132	144
Max. FPM	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218
Avg. FPM	3695	2771	2218	3696	3169	2773	2472	3702	3174	2792	3696
Max. CFM	2899	3867	4374	5803	6766	7732	8216	8702	9668	10853	11606
CFM @ Nozzle	2541	2559	2528	5082	5063	5081	5090	7623	7614	7589	10164
Outlet Velocity Uniformity	95%	92%	91%	95%	93%	92%	95%	95%	94%	94%	95%
Motors @ HP	1@3/4	1@3/4	1@3/4	2@3/4	2@3/4	2@3/4	2@3/4	3@3/4	3@3/4	3@3/4	4@3/4
Hot Water (mbtu/hr)	97	102	100	194	205	194	192	283	307	307	388
Steam (mbtu/hr)	108	108	114	202	210	215	198	292	305	326	390
Electric Heat (KW)	10	NA	10	20	20	20	20	30	30	30	40
ELEC. HEAT VOLTAGE: 208,240,480,575/1 or 3/50,60						ELECTRIC HEAT VOLTAGE: 208,240,480,575/3/50,60					
UNHEATED VOLTAGE: 120,208,240,480,575/1,3/50,60											

CHD air curtains are dual speed. Above data is based on High Speed / Sound level: High speed 63 dBA, Low speed 56 dBA

INSECT Control

MODEL BCE

Bug Control Aire Curtain
For openings up to 8 feet high



“The BCE and BCT models are ideally suited for delivery doors to kitchens, food prep and storage areas”

	BCE-1-36	BCE-1-42	BCE-1-48	BCE-1-60	BCE-2-60	BCE-2-72
Nozzle Width (in.)	36	42	48	60	60	72
Max. FPM	3516	3516	3516	3516	3516	3516
Avg. FPM	3146	2697	2359	2125	2822	3147
Max. CFM	2418	2820	3223	3552	4250	4838
CFM @ Nozzle	2170	2163	2155	2167	3245	4326
Outlet Velocity Uniformity	95%	93%	92%	91%	95%	95%
Motors @ HP	1@1/2	1@1/2	1@1/2	1@1/2	2@1/2	2@1/2
UNHEATED VOLTAGE: 120,208,240,480,575/1 or 3/50,60						

BCE is single speed / Sound level: 60 dBA

	BCE-2-84	BCE-2-96	BCE-3-108	BCE-3-120	BCE-3-132	BCE-4-144
Nozzle Width (in.)	84	96	108	118	133	145
Max. FPM	3516	3516	3516	3516	3516	3516
Avg. FPM	2697	2360	3139	2684	2343	3147
Max. CFM	5640	6445	7254	8059	9088	9676
CFM @ Nozzle	4314	4334	6489	6472	6475	8652
Outlet Velocity Uniformity	93%	92%	95%	94%	95%	95%
Motors @ HP	2@1/2	2@1/2	3@1/2	3@1/2	3@1/2	4@1/2
UNHEATED VOLTAGE: 120,208,240,480,575/1 or 3/50,60						



Can be ETL listed for indoor or outdoor use

MODEL BCT

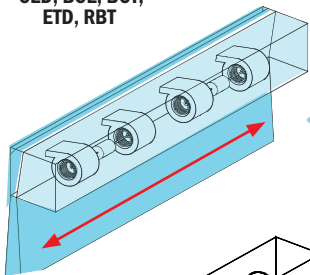
Bug Control Aire Curtain
For openings up to 10 feet high

	BCT-1-36	BCT-1-42	BCT-1-48	BCT-1-60	BCT-2-60	BCT-2-72	BCT-2-84	BCT-2-96	BCT-3-108	BCT-3-120	BCT-3-132	BCT-4-144
Nozzle Width (in.)	36	42	48	60	60	72	84	96	108	118	133	145
Max. FPM	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218
Avg. FPM	3695	3169	2771	2218	3315	3696	3169	2773	3702	3174	2792	3696
Max. CFM	2899	3384	3867	4374	5050	5803	6766	7732	8702	9668	10853	11606
CFM @ Nozzle	2541	2532	2559	2528	3812	5082	5063	5081	7623	7614	7589	10164
Outlet Velocity Uniformity	95%	93%	92%	91%	95%	95%	93%	92%	95%	94%	95%	95%
Motors @ HP	1@3/4	1@3/4	1@3/4	1@3/4	2@3/4	2@3/4	2@3/4	2@3/4	3@3/4	3@3/4	3@3/4	4@3/4
UNHEATED VOLTAGE: 120,208,240,480,575/1,3/50,60												

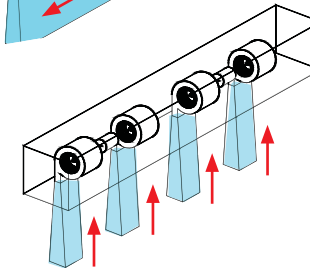
BCT is single speed / Sound level: 63 dBA

Powered Aire's Unique Plenum Design

Models:
CED, BCE, BCT,
ETD, RBT



Powered Aire aims the air from the blowers towards the back of the air curtain, where it fills a plenum and is then forced out evenly across the width and length of the air curtain.



Other air curtain manufacturers aim the discharge of each blower down, resulting in dead spots wherever there are spaces between the blowers.

MODEL BAC

Sanitation Standard NSF-37
Certified Aire Curtain*



Aluminized Steel

* NSF certified in
36, 42 and 48 inch models

	BAC-36	BAC-42	BAC-48	BAC-60
Nozzle Width (in.)	36	42	48	60
Max. FPM	3900	3900	3900	3900
Max. CFM	3900	4550	5200	6500
Outlet Velocity Uniformity	79%	79%	79%	79%
Motors @ HP	1@3/4	1@3/4	1@3/4	1@3/4
UNHEATED VOLTAGE: 115,208,230/1/60				

BAC is single speed/ Sound level: 64 dBA

CLIMATE Control

MODEL ETD / THS

Climate Control Aire Curtain
For openings up to 8-12 feet high

"For dock and ground level doors"



Unheated and Electric Heat

	ETD-1-36	ETD-1-42	ETD-1-48	ETD-1-60
Nozzle Width (in.)	36	42	48	60
Max. FPM	4218	4218	4218	4218
Avg. FPM	3695	3169	2771	2218
Max. CFM	2899	3384	3867	4374
CFM @ Nozzle	2541	2532	2559	2528
Outlet Velocity Uniformity	95%	93%	92%	91%
Motors @ HP	1 @ 3/4	1 @ 3/4	1 @ 3/4	1 @ 3/4
Electric Heat (KW)	10	10	10	10
HEATED VOLTAGE: 208,240,480,575/1,3/50,60				
UNHEATED VOLTAGE: 120,208,240,480,575/1 or 3/50,60				



ETD aire curtains are dual speed. Data is based on High Speed
Sound level: High speed 63 dBA, Low speed 56 dBA



	ETD-2-60	ETD-2-72	ETD-2-84	ETD-2-96	ETD-3-108	ETD-3-120	ETD-3-132	ETD-4-144
Nozzle Width (in.)	60	72	84	96	108	118	133	145
Max. FPM	4218	4218	4218	4218	4218	4218	4218	4218
Avg. FPM	3315	3696	3169	2773	3702	3174	2792	3696
Max. CFM	5050	5803	6766	7732	8702	9668	10853	11606
CFM @ Nozzle	3812	5082	5063	5081	7623	7614	7589	10164
Outlet Velocity Uniformity	94%	95%	93%	92%	95%	94%	94%	95%
Motors @ HP	2 @ 3/4	2 @ 3/4	2 @ 3/4	2 @ 3/4	3 @ 3/4	3 @ 3/4	3 @ 3/4	4 @ 3/4
Electric Heat (KW)	15	20	20	20	30	30	30	40
HEATED VOLTAGE: 208,240,480,575/3/50,60								
UNHEATED VOLTAGE: 120,208,240,480,575/1 or 3/50,60								



Hot Water & Steam Heat

All other performance data is same as ETD	THS 1-36	THS 1-48	THS 1-60	THS 2-72	THS 2-84	THS 2-96	THS 2-108	THS 3-108	THS 3-120	THS 3-132	THS 4-144
Hot Water (mbtu/hr)	97	102	100	194	205	194	192	283	307	307	388
Steam (mbtu/hr)	108	108	114	202	210	215	198	292	305	326	390

MODEL RBT

Sanitation Standard NSF-37
Certified Aire Curtain

Stainless Steel



	RBT-1-36	RBT-1-42	RBT-1-48	RBT-1-60	RBT-2-60	RBT-2-72	RBT-2-84	RBT-2-96	RBT-3-108	RBT-3-120	RBT-3-132	RBT-4-144
Nozzle Width (in.)	36	42	48	60	60	72	84	96	108	118	133	145
Max. FPM	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218
Avg. FPM	3695	3169	2771	2218	3315	3696	3169	2773	3702	3174	2792	3696
Max. CFM	2899	3384	3867	4374	5050	5803	6766	7732	8702	9668	10853	11606
CFM @ Nozzle	2541	2532	2559	2528	3812	5082	5063	5081	7623	7614	7589	10164
Outlet Velocity Uniformity	95%	93%	92%	91%	95%	95%	93%	92%	95%	94%	95%	95%
Motors @ HP	1 @ 3/4	1 @ 3/4	1 @ 3/4	1 @ 3/4	2 @ 3/4	2 @ 3/4	2 @ 3/4	2 @ 3/4	3 @ 3/4	3 @ 3/4	3 @ 3/4	4 @ 3/4
UNHEATED VOLTAGE: 120,208,240,480,575/1,3/50,60												

RBT is single speed / Sound level: 63 dBA

INDUSTRIAL Applications

“Use at dock doors and other large openings in industrial settings”

- Heavy Duty -

- Direct drive -- No belts to replace.
- Motor/blower plate is one removable assembly.
- TEAO motors and galvanized blower wheels mount directly to 1-inch shaft.
- Non-corrosive 304 stainless steel casing for long lasting performance.

- User Friendly -

- Top and bottom access panels allow easy access for inspection, cleaning or servicing, so that entire unit does not have to be lowered to ground. Unheated units also have front access panels.



Industrial Aire Curtain
For openings up to 17 feet high

Unheated, Hot Water, Steam, Indirect Gas Fired and Direct Gas Fired

	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
Nozzle Width (ft.)	4	5	6	8	9	10	11	12	12	13	14	15
Max. FPM	6200	5800	5900	6200	6200	5800	5900	5900	6200	6200	6200	6200
*Avg. FPM	3530	3006	2891	3530	3239	3006	2943	2891	3530	3328	3257	3100
*CFM at nozzle	4554	4855	5579	9108	9409	9710	10434	11158	13662	13963	14687	14988
*Outlet Velocity Uniformity	92%	92%	86.3%	92%	92%	92%	86.3%	86.3%	92%	92%	86.3%	86.3%
Motors @ HP	1@3	1@3	1@3	2@3	2@3	2@3	2@3	2@3	3@3	3@3	3@3	3@3
Weight	342	380	400	681	719	757	777	797	1020	1058	1078	1116
*Power Rating KW	2.0	2.1	2.5	4.0	4.1	4.2	4.6	5.0	6.0	6.1	6.5	6.6
Hot Water (mbtu/hr)	169	185	201	357	379	402	421	474	474	578	592	588
Steam (mbtu/hr)	218	243	261	427	441	487	489	547	547	670	704	702
Indirect Gas (mbtu/hr)	230	230	290	460	460	460	460	580	870	1035	1035	1035
Direct Gas (mbtu/hr)	NA	NA	NA	1042	1077	1111	1194	1277	1564	1598	1681	1715

Velocity Projection Model: TSD-1-48
Distance From Nozzle: 4" 12" 18"
Core Velocity (fpm): (4") 2800 (12")1800 (18")1482



* Powered Aire Inc. certifies that the UNHEATED TSD air curtains are licensed to bear the AMCA seal. The ratings are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings program.

	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
Nozzle Width (ft..)	16	16	17	17	18	18	19	20	20
Max. FPM	6200	6200	5900	6200	5900	6200	6200	6200	6200
*Avg. FPM	3051	3530	2925	3376	2891	3317	3191	3147	3530
*CFM at nozzle	15712	18216	16013	18517	16737	19241	19542	20266	22770
*Outlet Velocity Uniformity	86.3%	92%	86.3%	92%	86.3%	86.3%	86.3%	86.3%	92%
Motors @ HP	3@3	4@3	3@3	4@3	3@3	4@3	4@3	4@3	5@3
Weight	1136	1359	1174	1397	1194	1417	1455	1475	1698
*Power Rating KW	7.0	8.0	7.1	8.1	7.5	8.5	8.6	9.0	10.0
Hot Water (mbtu/hr)	651	651	698	698	711	711	788	834	839
Steam (mbtu/hr)	788	788	785	785	821	821	916	1016	1016
Indirect Gas (mbtu/hr)	1035	1600	1200	1600	1200	1380	1380	1380	1725
Direct Gas (mbtu/hr)	1798	2085	For larger units Consult Factory						
VOLTAGE: 208, 240, 480, 575/3/50,60									



* The AMCA Certified Ratings Seal applies to airflow rate, average outlet velocity, velocity projection and power rating at free deliver only.
* Powered Aire offers AMCA licensed UNHEATED TSD air curtains in widths up to 30 feet.

CASE STUDY

OUTSIDE TEMPERATURE 36.5° F

INSIDE TEMPERATURE 67.6° F

Overhead door is left open for 2 minutes

FINDINGS:

After 2 minutes **WITH** the air curtain operating, the temperature directly **inside of the door is 66.7°**

After 2 minutes **WITHOUT** the air curtain operating, the temperature directly inside of the door **drops to 42.2°**

TSD aire curtains are single speed / Sound level measured 10 feet from a one motor unit in a free field: 69 dBA



Extra High Door
For openings up to 22 feet high

Unheated, Hot Water, Steam, Indirect Gas Fired and Direct Gas Fired

	EHD-1-48	EHD-1-60	EHD-1-72	EHD-2-96	EHD-2-108
Nozzle Width (ft.)	4	5	6	8	9
Max. FPM	6572	6572	6572	6572	6572
Avg. FPM	5499	4358	5128	4842	4600
Max. CFM	6994	9924	12854	15926	17888
CFM @ Nozzle	6305	7480	9256	12977	13769
Outlet Velocity Uniformity	95%	94%	94%	95%	94%
Motors @ HP	1@5	1@5	1@5	2@5	2@5
Weight (lbs.)	387	420	440	748	781
Hot Water (mbtu/hr)	234	278	333	509	555
Steam (mbtu/hr)	302	365	434	608	645
Indirect Gas (mbtu/hr)	290	345	400	580	690
Direct Gas (mbtu/hr)	NA	NA	NA	1485	1576



	EHD-2-120	EHD-2-132	EHD-2-144	EHD-3-156	EHD-3-168	EHD-3-180	EHD-3-192	EHD-3-204	EHD-3-216	EHD-4-228	EHD-4-240
Nozzle Width (ft.)	10	11	12	13	14	15	16	17	18	19	20
Max. FPM	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572
Avg. FPM	4358	4842	4842	4681	4520	4358	4842	4358	4600	4842	4358
Max. CFM	19848	21291	23891	25850	27812	29772	30355	31114	31850	37736	39696
CFM @ Nozzle	15750	16120	19168	20257	22825	23004	23335	23400	24570	28329	29120
Outlet Velocity Uniformity	94%	95%	95%	94%	94%	94%	95%	94%	95%	94%	95%
Motors @ HP	2@5	2@5	2@5	3@5	3@5	3@5	3@5	3@5	3@5	4@5	4@5
Weight (lbs.)	814	834	854	1145	1180	1210	1227	1248	1268	1615	1645
Hot Water (mbtu/hr)	603	650	733	839	872	881	916	950	1006	1192	1254
Steam (mbtu/hr)	730	756	852	972	1032	1071	1094	1120	1145	1357	1427
Indirect Gas (mbtu/hr)	690	800	800	1035	1035	1035	1035	1200	1200	1600	1600
Direct Gas (mbtu/hr)	1666	1845	2079	2318	2409	2500	2671	For larger units Consult Factory			

VOLTAGE: 208, 240, 480, 575/3/50,60

EHD aire curtains are single speed. / Sound level measured 10 feet from a one motor unit in a free field: 71 dBA



Big Powered Aire Curtain
For openings up to 30 feet high



	BPA-1-60	BPA-1-72	BPA-1-84	BPA-2-120	BPA-2-132	BPA-2-144	BPA-2-156	BPA-2-168
Nozzle Width (ft.)	5	6	7	10	11	12	13	14
Max. FPM	5950	5950	5950	5950	5950	5950	5950	5950
Avg. FPM	3975	4296	3995	4388	4082	4449	4341	4541
Max. CFM	12901	16710	17500	25802	27678	31058	33605	36155
CFM @ Nozzle	9724	12030	13050	20475	20956	24915	26335	29670
Outlet Velocity Uniformity	94%	94%	92%	94%	95%	95%	92%	92%
Motors @ HP	1@7.5	1@7.5	1@7.5	2@7.5	2@7.5	2@7.5	2@7.5	2@7.5
Weight (lbs.)	466	490	530	903	930	950	998	1035

	BPA-3-180	BPA-3-192	BPA-3-204	BPA-3-216	BPA-3-228	BPA-3-240	BPA-4-240
Nozzle Width (ft.)	15	16	17	18	19	20	20
Max. FPM	5950	5950	5950	5950	5950	5950	5950
Avg. FPM	4272	4063	3834	3803	4153	4056	4309
Max. CFM	38703	39435	40448	41405	49055	51604	55067
CFM @ Nozzle	29905	30335	30420	31948	36827	37856	40217
Outlet Velocity Uniformity	94%	95%	94%	95%	94%	92%	95%
Motors @ HP	3@7.5	3@7.5	3@7.5	3@7.5	3@7.5	3@7.5	4@240
Weight (lbs.)	1343	1360	1372	1407	1460	1505	1800

VOLTAGE: 208, 240, 480, 575/3/50,60

For heating options contact factory

BPA aire curtains are single speed. / Sound level measured 10 feet from a one motor unit in a free field: 73 dBA

GAS Heated air curtains



Direct Gas Fired

With the Direct Gas Fired air curtain, the intake air goes directly through the flame prior to being discharged. This air curtain will provide up to a 105° F instant temperature rise. (Certain codes apply; Contact factory for details)

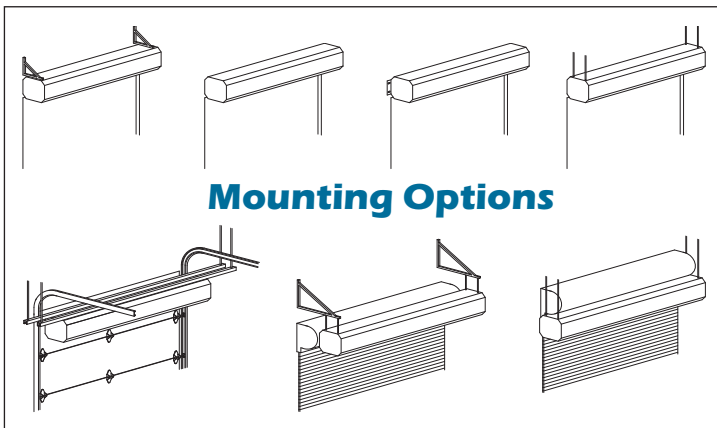


Custom Heat Application

Let our experienced engineering department design a custom heated unit for your application.

Indirect Gas Fired

The Indirect Gas Fired air curtain works like a home furnace. The flame heats a tube, air flows over the tube, and then the heated air is discharged. This air curtain will provide a 35° F temperature rise.



Mounting Options

MB 1,2,3

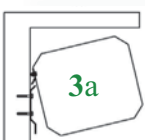
FAST Mount for CED, BCE, BCT, ETD & RBT



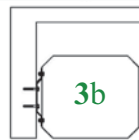
Bottom mounting bracket (1) attaches to wall.



Top mounting bracket (2) attaches to back of air curtain.



Air curtain is placed over bottom bracket and locks into place (3). Pre-punched hole pattern allows for universal mounting.



Weight of unit does not have to be supported while lags are installed. Use when air curtain mounting holes don't line up with wall studs or other structural supports.

Recommended Controls

CEB, CHS & CHAMELEON

Remote mounted High/Off/Low Switch
Thermostat (if electrically heated unit)
Time Delay Relay
Door Switch

MP

Remote mounted Variable Speed Switch
Thermostat (if electrically heated unit)
Time Delay Relay
Door Switch

BCE & BCT

Remote mounted Hand/Off/Auto Switch
Door Switch

BAC & RBT

Door Switch

ETD & THS

Remote mounted High/Off/Low Switch
Thermostat (if electrically heated unit)
Door Switch

TSD, EHD, BPA

Panel mounted Hand/Off/Auto Switch
Thermostat (if heated unit)
Door Switch



Powered Air Inc.

109 Mortensen Rd., Greenville, PA 16125

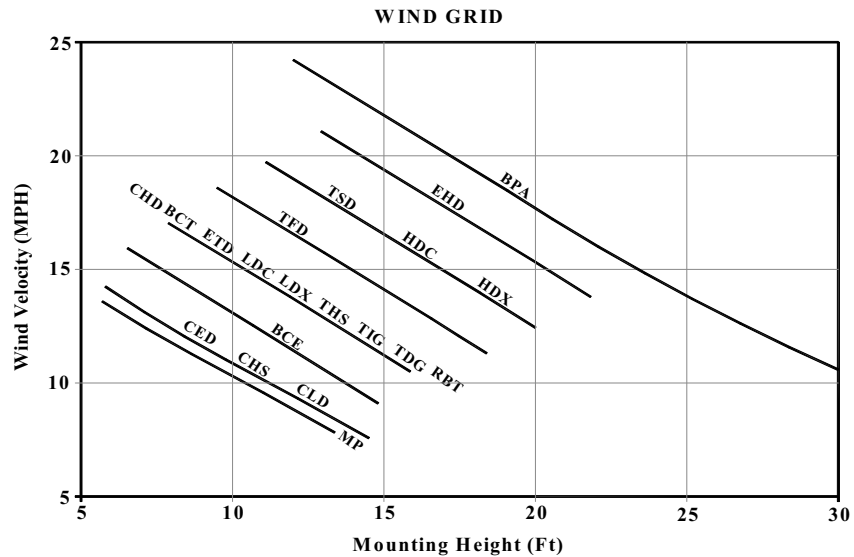
Phone: 724-588-3305 - Toll-Free: 888-321-AIRE - Fax: 724-588-3371

www.poweredaire.com



AIRE CURTAIN SELECTION GUIDE

MOUNTING HEIGHT	WIND STOPPING CAPABILITY (MPH)							
	MP	CED CHS CLD	BCE	ETD, LDC, LDX, THS, TIG, TDG, BCT, CHD, RBT	TFD	TSD HDC HDX	EHD	BPA
4	15.0							
5	13.9							
6	13.1							
7	12.2							
8	11.5	12.8	14.7	16.4				
9	10.9	11.9	14.0	15.5				
10	10.2	11.0	13.2	14.8	18.2			
11	9.3	10.1	12.1	13.9	17.4	19.8		
12	8.6	9.2	11.2	13.1	16.6	19.0	21.3	24.2
13		8.3	10.4	12.4	15.7	18.0	20.6	23.5
14		7.4	9.7	11.9	14.9	17.2	20.0	22.8
15				11.5	14.1	16.6	19.1	21.9
16					13.3	15.8	18.0	21.0
17					12.5	15.0	17.5	20.1
18					11.6	14.1	16.9	19.3
19						13.5	16.1	18.5
20						12.9	15.2	17.8
21							14.7	16.9
22							13.2	16.0
23								15.2
24								14.6
25								13.8
26								13.1
27								12.5
28								11.8
29								11.2
30								10.7



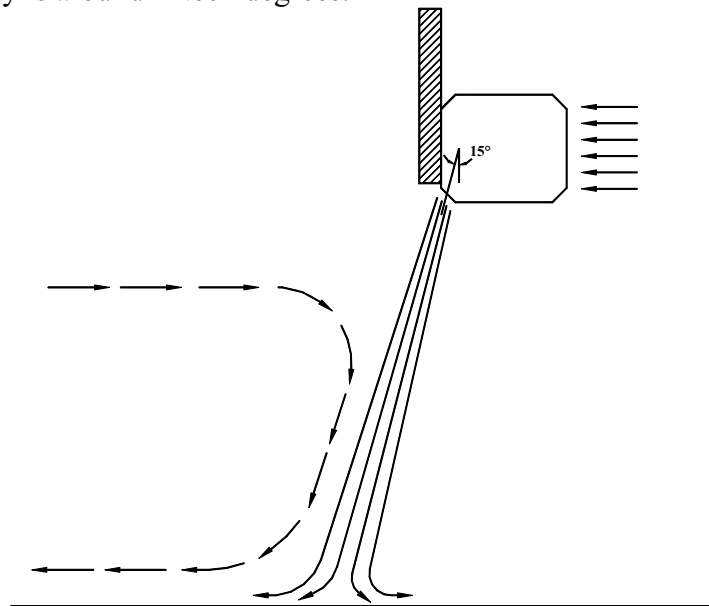


POWERED AIRE INC.

www.poweredaire.com

HOW AIRE CURTAINS WORK

An aire curtain is most often used to separate one environment from another. It does this by creating a “curtain” of moving air that is projected over the opening of a doorway. The wall of air acts as an invisible barrier that will not allow air to flow through it. Typically, the aire curtain is mounted over a doorway on the inside, as a result, the air pulled into the intake of the unit is from the conditioned environment. This air is accelerated and forced through a narrow discharge along the length of the aire curtain creating a laminar airflow. The discharge angle can be adjusted using the provided turning vanes to achieve optimum performance. As the discharge angle increases, the air has to travel further until it hits the floor. Since the velocity of the air decreases as it gets further away from the aire curtain, if the discharge angle is too large the aire curtain won't be able to stop much wind from entering near the floor. If the discharge angle is too small, the air leaving the unit will not have enough horizontal force to stop a significant gust of wind from entering. Usually the ideal discharge angle for maximum wind-stopping capability is around fifteen degrees.



When the discharged air reaches the floor it splits, forcing some air outward and some inward. This is why when a unit is used for climate control, it should be placed on the opposite side of the doorway from that of the air that is to be kept out. For example, if it is winter and you are trying to keep cold outside air from entering a building, the aire curtain would be placed on the inside so that it is blowing warm air. When the warm air hits the floor, some is leaked to the outside and some is blown back inside. If the unit was on the other side of the opening, some of the cold air that you are trying to keep out would be blown inside, defeating the purpose. If the unit is to be used for insect control, the aire curtain can be mounted on the outside of the doorway as long as the discharge is adjusted so the air is blowing back toward the outside. In this situation it doesn't matter if some of the outside air is blown inside after it splits at the floor. This air should already be free of insects because they will not fit through the intake screen.



AIRE CURTAIN MODEL DESCRIPTIONS AND ADVANTAGES

mini-power™ (MP) -Compact low profile design ideal for drive through windows and entrances where space is limited. Available in unheated and electrically heated versions. **mini-power™** units are manufactured in single increments that can be provided up to ten feet long. Units are stainless steel with a perforated stainless intake screen. These low profile aire curtains have a variable speed controller and are available with a 120-volt cord to plug into a wall receptacle when unheated. The **MP** units are often seen in toll booths (for fume control), zoos/amusements parks, butterfly houses, restaurants (to separate smoking and non smoking sections), offices, and in all applications where the distance between the door header and ceiling is not sufficient to mount a standard aire curtain. The tangential blower wheels used in this model come in various lengths to cover most of the discharge and allow the unit to have a lower overall size. The outer case of the **MP** is used as the scroll housing which eliminates the need for an extruded or rolled scroll housing, reducing overall cost. Since a separate scroll housing is not required inside the case, this unit can fit a larger diameter tangential blower wheel than competitors' models to increase performance without increasing size. The motor/blower plate comes out of the unit as an entire piece and the electrical connections can be made on the top or sides of the unit for more versatility.

CUSTOMER ENTRANCE DOOR (CED) -**Customer Entrance Door** was specially designed for high traffic retail facilities where customer satisfaction is key. The **CED** has the least objectionable airflow and its unique plenum design helps make it one of the quietest aire curtains in the industry. The **Customer Entrance Door** is commonly used in wholesale merchandisers, grocery stores, retail facilities, schools, banks, casinos, and hospitals (for comfort in vestibules and also at ambulatory doors to prevent exhaust fumes from entering). If required, this unit can be recess mounted in the ceiling. Available in unheated and electrically heated versions (see Customer Entrance Door with Hot Water or Steam Heat for additional heating options). Electrically heated versions are constructed so the electric heaters are in the plenum, downstream of the motors. This increases motor life since the ambient temperature the motor sees is lower. **Customer Entrance Door** units are manufactured in single increments that can be provided up to twelve feet long. All units are direct drive, which avoids misalignment of couplers and outboard bearings and eliminates periodic belt replacement.

THE CHAMELEON (CLD & CHD) -The **Chameleon** was specifically designed to be dropped into the ceiling above customer entry ways where a standard air curtain cannot be exposed mounted or wasn't an option. The **Chameleon** still has the least objectionable airflow and its unique plenum design helps make it one of the quietest aire curtains in the industry. The **Chameleon** is commonly used in high end retail facilities, schools, banks, casinos, and hospitals. The **Chameleon** is available in unheated, electrically heated and hot water or steam heat. The **Chameleon Light Duty (CLD)** is for customer entry ways up to 11 feet high and the **Chameleon Heavy Duty (CHD)** is for customer entry ways up to 14 feet high.

BUG CONTROL (BCE & BCT) -**Bug Control** was designed to stop insects, dust, and other debris from entering through doors. Comes in light duty model (**BCE**) and heavy duty (**BCT**). The **BCE** and **BCT** are available in unheated versions only. The **Bug Control** series is often used in restaurants, hospitals, cafeterias, boardwalk shops, and clean environments (HEPA filter available if required). These units are rated for outdoor use. **Bug Control** units are manufactured in single increments that can be provided up to twelve feet long. All units are direct drive, which avoids misalignment of couplers and outboard bearings and eliminates periodic belt replacement. The motor/blower plate comes out of unit as an entire piece. This commercial line's stainless steel construction, stainless steel intake screen, and 45 degree beveled edges give it a modern, pleasing look.



AIRE CURTAIN MODEL DESCRIPTIONS AND ADVANTAGES (Continued)

RESTAURANT BUG TESTED – ETL SANITATION LISTED FOR STANDARD NSF 37 (RBT)

Restaurant Bug Tested was designed to satisfy local health codes. The **Restaurant Bug Tested** models are **ETL Sanitation Listed for Standard NSF 37**. The **RBT** units are available in unheated versions only and are used in restaurants, cafeterias, and other food service establishments for stopping insects, dust and other debris from entering through doors. These units are listed for indoor/outdoor use. All **RBT** units are equipped with totally enclosed motors. The motor/blower plate comes out of unit as an entire piece. The **RBT** units are **available in (13) thirteen sizes**, manufactured in single increments **from three feet up to twelve feet long**. This food service line's stainless steel construction, stainless steel intake screen, and 45 degree beveled edges give it a modern, pleasing look.

CLIMATE CONTROL (ETD) -Climate Control is used in stopping cold or warm air from entering a climate controlled environment. Available in unheated and electrically heated versions (see Climate Control with Hot Water or Steam Heat and Climate Control with Indirect and Direct Gas Heat for additional heating options). Electrically heated versions are constructed so the electric heaters are in the plenum, downstream of the motors. The **ETD** is commonly used in correctional facilities, trash compactors (odor control), beer distributors, walk in coolers, airports, and loading dock doors. **Climate Control** units are manufactured in single increments that can be provided up to twelve feet long. All units are direct drive, which avoids misalignment of couplers and outboard bearings and eliminates periodic belt replacement. The motor/blower plate comes out of unit as an entire piece. This commercial line's stainless steel construction, stainless steel intake screen, and 45 degree beveled edges give it a modern, pleasing look.

Light INDUSTRIAL (TFD) -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. The **TFD** has top and bottom access panels to replace or service motors or blowers without lowering entire unit or bottom half of unit. With hot water and steam heat these access panels enable service to the unit without removing the coils. All units are direct drive, which avoids misalignment of couplers and outboard bearings and eliminates periodic belt replacement. The motor/blower plate comes out as an entire piece and all parts on the outside of the unit are constructed of stainless steel.

INDUSTRIAL (TSD) -Used over dock doors or large 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. **Industrial** units are manufactured in single increments that can be provided up to thirty feet long. The **TSD** has top and bottom access panels to replace or service motors or blowers without lowering entire unit or bottom half of unit. With hot water and steam heat these access panels enable service to the unit without removing the coils. The unheated unit is AMCA rated. All units are direct drive, which avoids misalignment of couplers and outboard bearings and eliminates periodic belt replacement. The motor/blower plate comes out as an entire piece and all parts on the outside of the unit are constructed of stainless steel.

EXTRA HIGH DOOR (EHD) -For use in industrial settings where maximum air capacity is desired. Available in unheated, hot water heated, steam heated, indirect gas fired (closed combustion heaters are available), and direct gas fired versions. **Extra High Door** units are manufactured in single increments that can be provided up to thirty feet long. The **EHD** has top and bottom access panels to replace or service motors or blowers without lowering entire unit or bottom half of unit. With hot water and steam heat these access panels enable service to the unit without removing the coils. All units are direct drive, which avoids misalignment of couplers and outboard bearings and eliminates periodic belt replacement. The motor/blower plate comes out as an entire piece and all parts on the outside of the unit are constructed of stainless steel.

BIG POWERED AIRE (BPA)- This is the most powerful air curtain that Powered Aire manufactures. It is recommended for doors up to 30 feet high. The **BPA** has top and bottom access panels to replace or service motors or blowers without lowering entire unit or bottom half of unit. All units are direct drive, which avoids misalignment of couplers and outboard bearings and eliminates periodic belt replacement. The motor/blower plate comes out as an entire piece and all parts on the outside of the unit are constructed of stainless steel.



AIRE CURTAIN MODEL DESCRIPTIONS AND ADVANTAGES (Continued)

CORROSION DUTY (LDC & HDC) -For use in corrosive atmospheres. Comes in light duty model (**LDC**) and heavy duty model (**HDC**). Available in unheated version only. The **Corrosion Duty** units are often seen in car washes, seaboard applications, and food production facilities. All units are direct drive, which avoids misalignment of couplers and outboard bearings and eliminates periodic belt replacement. The motor/blower plate comes out as an entire piece. The **LDC** can be manufactured up to twelve feet wide and the **HDC** up to fourteen feet wide as single units to be supported at both ends without need for intermediate support.

EXPLOSIVE AREA AIRE CURTAINS (LDX & HDX) -Spark resistant construction for hazardous areas. Comes in light duty model (**LDX**) and heavy duty model (**HDX**). Available in unheated version only. The Hazardous Environment aire curtains have been used in dewatering, pharmaceutical, and hazardous warehousing facilities. All units are direct drive, which avoids misalignment of couplers and outboard bearings and eliminates periodic belt replacement. The motor/blower plate comes out as an entire piece. The **LDX** can be manufactured up to twelve feet wide and the **HDX** up to fourteen feet wide as single units to be supported at both ends without need for intermediate support. These units are manufactured for Class I Division Group C & D and Class II Group F & G hazardous areas.

CUSTOMER ENTRANCE DOOR WITH HOT WATER OR STEAM HEAT (CHS) -Unit equipped with a hot water or steam coil for use in retail applications to separate inside and outside environments for comfort and energy savings. **CHS** units are equipped with top and bottom access panels, which can be used to service the motors or blowers without lowering the entire unit or removing the coil. All units are direct drive, which avoids misalignment of couplers and outboard bearings and eliminates periodic belt replacement. All parts on the outside of the unit are constructed of stainless steel and optional top air intake is available.

CLIMATE CONTROL WITH HOT WATER OR STEAM HEAT (THS) -Unit equipped with a hot water or steam coil for use in stopping cold or warm air from entering a climate controlled environment. **THS** units are equipped with top and bottom access panels, which can be used to service the motors or blowers without lowering the entire unit or removing the coil. All units are direct drive, which avoids misalignment of couplers and outboard bearings and eliminates periodic belt replacement. All parts on the outside of the unit are constructed of stainless steel and optional top air intake is available.

CLIMATE CONTROL WITH INDIRECT GAS HEAT (TIG) -Climate Control with Indirect Gas Heat is used in stopping cold drafts from entering while providing warm air produced by indirect gas heaters. The gas heater pushes air into the stainless steel duct transition and blankets the full width and length of door. **TIG** provides a temperature rise of 33° F to the ambient entering air. Closed combustion heaters are available upon request. The **TIG** is recommended for doors up to ten feet tall (anything higher would require an industrial **TSD** or **EHD**). The **TIG** has top and bottom access panels to replace or service motors or blowers without lowering entire unit or bottom half of unit. All units are direct drive, which avoids misalignment of couplers and outboard bearings and eliminates periodic belt replacement. The motor/blower plate comes out as an entire piece and all parts on the outside of the unit are constructed of stainless steel.

CLIMATE CONTROL WITH DIRECT GAS HEAT (TDG) -Climate Control with Direct Gas Heat is used in stopping cold drafts from entering while providing warm air produced by direct gas heaters. The aire curtain pulls the air directly through the flame of the direct gas heater. The **TDG** blankets the full length and width of the door with warm air. The **Climate Control with Direct Gas** will discharge a temperature of 105° F, even if the entering air temperature is 0° F. The **TDG** provides a maximum temperature rise of 105° F and can draw 100% inside air as long as the door is open. This unit is commonly used where temperature is critical to maintain. The **TDG** is recommended for doors up to ten feet tall (anything higher would require an industrial **TSD** or **EHD**). The **TDG** has top and bottom access panels to replace or service motors or blowers without lowering entire unit or bottom half of unit. All units are direct drive, which avoids misalignment of couplers and outboard bearings and eliminates periodic belt replacement. The motor/blower plate comes out as an entire piece and all parts on the outside of the unit are constructed of stainless steel. ***Must be ducted to the outside for 100% fresh air**



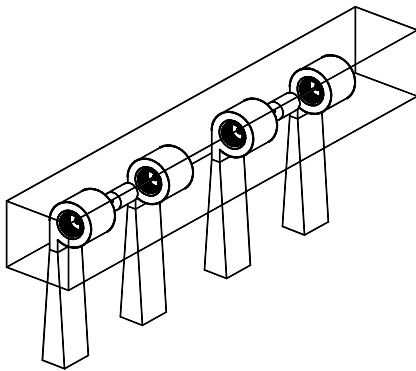
ADDITIONAL ADVANTAGES OF POWERED AIRE UNITS

SPECIAL PLENUM DESIGN

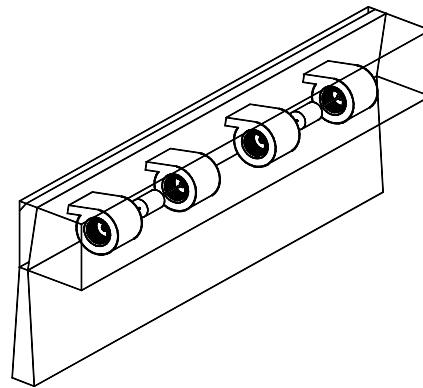
CED, CLD, CHD, BCE, BCT, RBT, ETD, TFD, TSD, EHD, BPA, LDC, HDC, LDX, HDX, CHS, THS, TIG, & TDG

The use of plenums in our aire curtains makes the air flowing out of the discharge more uniform across the entire length of the nozzle. Most of our competitors aim the discharge of each blower directly down and the air flows right out of the nozzle. These blowers cannot be placed directly beside each other since the return air enters from the sides. There are also motors in between the blowers spreading them out further. When the blowers force air directly out of the discharge of the air curtain, there will be dead spots wherever there are spaces between the blowers.

In Powered Aire's units, the air coming out of the blowers is pointed toward the back of the aire curtain. Here it fills a specially designed plenum. When the plenum is pressurized, the air is then forced out evenly across the entire length of the plenum discharge.



Traditional Air Curtains



Powered Aire Air Curtains

Another benefit of this design is a reduction in the noise level. Some of the noise generated by the turbulent air being discharged from the blowers that can be heard in our competitors' models is absorbed by the plenum. The air discharged from the plenum is more evenly dispersed across a larger cross-section, drastically lowering the sound levels.

STAINLESS STEEL AND COMPETITIVELY PRICED

MP, CED, BCE, BCT, RBT, ETD, TFD, TSD, EHD, BPA, LDC, HDC, LDX, HDX, CHS, THS, TIG, & TDG

Another advantage of using Powered Aire air doors is that every aire curtain we manufacture is constructed of stainless steel. We still remain competitive with other manufacturers who make their units out of plastics, painted steel, or aluminum by avoiding costs associated with expensive molds, disposing of chemicals, maintaining a paint booth, extra labor, etc. Along with being corrosion resistant, stainless steel also gives our air doors an aesthetically pleasing look. The reflective properties of the metal allow our aire curtains to blend in with the architecture by mirroring the color of their surroundings.

NO EXTERNAL MOUNTING HARDWARE

MP, CED, BCE, BCT, RBT, ETD, TFD, TSD, EHD, BPA, LDC, HDC, LDX, HDX, CHS, THS, TIG, & TDG

Another advantage of Powered Aire aire curtains is the way our units are mounted. Each unit comes with integral top and wall mounts so that for standard installations no external hardware needs to be installed or purchased.



POWERED AIRE INC.

www.poweredaire.com

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Greenville, PA 16125

Phone: 724-588-3305
Fax: 724-588-3371

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL CED (CSI formatted specifications available at www.poweredaire.com)

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of a stainless steel casing, centrifugal fans, raised stainless steel inlet screen, discharge nozzle, motor(s), and an optional 1/2 inch recleanable filter. The aire curtain unit provides a specific CFM and a uniform velocity across the entire length of the discharge area.

Units shall be furnished in single increments of sufficient structural strength to be supported from both ends without intermediate support. Multiple units shall not be permitted. Unit casing shall be a minimum of 18 gauge 304 stainless steel in a number three finish.

Motors at 1/2 H.P. 1075 rpm each shall be heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230/480/575 volts 50/60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted. Inlet screen shall be perforated stainless steel with mill grain finish.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional air foil vane. The vane shall facilitate deflection of air stream ± 20 degrees. Unit shall have multiple speed motor(s) to control air volume down from maximum speed.

Electric Heat Option

Unit(s) shall be provided with a factory mounted electric heating element (capacities as shown on data sheet). The heater shall consist of a factory wired heating coil, with automatic reset thermal overloads. Heating elements shall be mounted inside the plenum, on the discharge side of the blowers (where heat can't affect motor life). Protective screening will not be required on discharge nozzle. A remote or factory mounted heat on/off switch and thermostat available, please specify.

Steam / Hot Water Coil

For steam or hot water heated aire curtains see Hot Water / Steam Heated section of catalog.

Consult factory for optional top air intake.

Aire Curtain unit shall be ETL or UL listed. Unheated units shall have a 24 month warranty on all parts. Heated units shall have an 18 month warranty on all parts.

Control Options for Model CED

Unheated

* Recommended

***Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

***High/Off/Low Selector Switch (Remote or Unit Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

Electrically Heated Options

* Recommended

***Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

***High/Off/Low Selector Switch (Remote or Unit Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

***Heat On/Off Selector Switch (Remote or Unit Mounted)** -- Turns the electric heat on and off while the fans are running, or when used in conjunction with a thermostat can disable the heat.

***Thermostat (Remote or Unit Mounted)** -- Turns the electric heat in the unit on and off while the fans are running based on the room temperature.

***Single Point Power Connection** -- For units that would typically require more than one power source due to high amp draws according to the National Electric Code, branch fusing can be added so that the unit can be run from a single power source.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch, Heat On/Off Switch, High/Low Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection (single point power connection may be required).

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected (single point power connection may be required).

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Hand/Off/Auto Selector Switch (Remote or Unit Mounted) -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

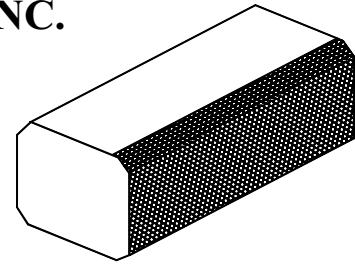
On/Off Selector Switch (Remote or Unit Mounted) -- Switches the air curtain on and off.

Programmable Digital Thermostat -- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day).



POWERED AIRE INC.

www.poweredaire.com



**MODEL: CED - Dual Speed Unheated
Customer Entrance Door
Door Height: Up to Eleven Feet**

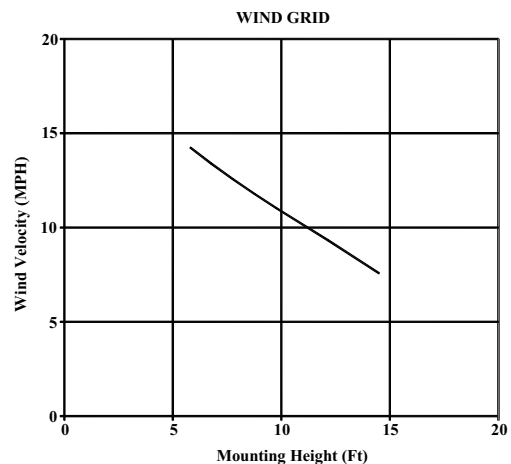
PRODUCT DATA DUAL SPEED UNITS (H) HIGH SPEED (L) LOW SPEED

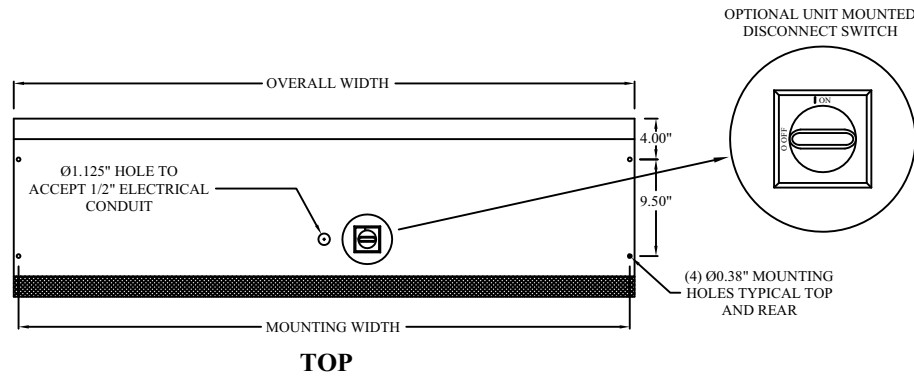
Model	CED 1-36	CED 1-42	CED 1-48	CED 1-60	CED 2-60	CED 2-72	CED 2-84	CED 2-96	CED 3-108	CED 3-120	CED 3-132	CED 4-144
Nozzle Width Inches	36	42	48	60	60	72	84	96	108	118	133	145
Max. FPM at Nozzle	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748
Max. CFM at Nozzle	H 1309 L 1202	H 1527 L 1402	H 1745 L 1603	H 1790 L 1650	H 2332 L 2254	H 2618 L 2404	H 3054 L 2804	H 3490 L 3204	H 3928 L 3606	H 4364 L 4006	H 4950 L 4658	H 5236 L 4808
Avg. FPM at Nozzle	H 1570 L 1408	H 1346 L 1207	H 1178 L 1056	H 942 L 845	H 1413 L 1268	H 1570 L 1408	H 1346 L 1207	H 1178 L 1056	H 1570 L 1408	H 1421 L 1274	H 1178 L 1056	H 1570 L 1408
CFM at Nozzle	H 1005 L 961	H 1079 L 968	H 1094 L 983	H 1084 L 977	H 1620 L 1453	H 2159 L 1936	H 2093 L 1896	H 2170 L 1942	H 3239 L 2905	H 3230 L 2900	H 3247 L 2912	H 4318 L 3872
Outlet Velocity Uniformity	95%	93%	92%	91%	95%	95%	93%	92%	92%	95%	95%	95%
Number of Motors	1	1	1	1	2	2	2	2	3	3	3	4
Horse Power	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Weight (Lbs)	83	90	97	111	140	162	182	196	239	267	276	324

Sound Level: High Speed 53 dba Low Speed 51 dba
Sound level measured 10 feet from the unit in a free field based on a one motor unit.

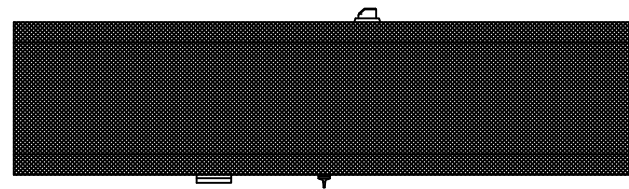
Single Phase Motor Voltage Available: **120 208/230 480 575**
Amp Draw Per Motor: **2.5 1.4 0.7 0.6**

** For unit over twelve feet long consult factory.

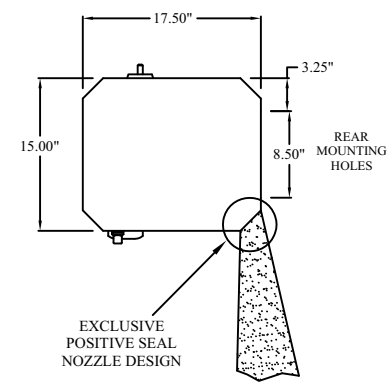




TOP

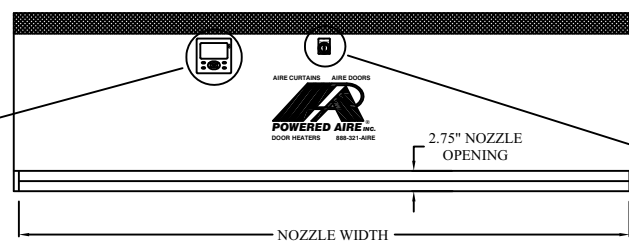
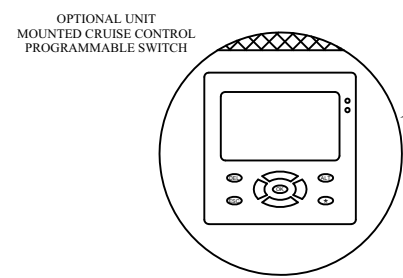


FRONT

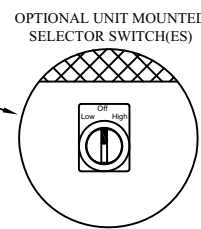


REAR MOUNTING HOLES

EXCLUSIVE POSITIVE SEAL NOZZLE DESIGN




BOTTOM



MODEL NUMBER	CED 1-36	CED 1-42	CED 1-48	CED 1-60	CED 2-60	CED 2-72	CED 2-84	CED 2-96	CED 3-108	CED 3-120	CED 3-132	CED 4-144
OVERALL WIDTH	37	43	49	61	61	73	85	97	109	119	134	146
NOZZLE WIDTH	36	42	48	60	60	72	84	96	108	118	133	145
MOUNTING WIDTH	36 1/16	42 1/16	48 1/16	60 1/16	60 1/16	72 1/16	84 1/16	96 1/16	108 1/16	118 1/16	133 1/16	145 1/16

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIR TM **INC.**
 109 Mortensen Rd. Greenville, PA 16125



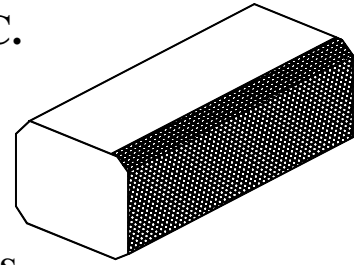
DATE: 10/01/13	PART DESCRIPTION: POWERED AIR SYSTEMS MODEL CED UNHEATED CUSTOMER ENTRANCE DOOR
DRAWN BY: B.K.J.	
PART/FILE# CED	



POWERED AIRE INC.

www.poweredaire.com

MODEL: CED - Dual Speed Electric Heat
Customer Entrance Door
Door Height: Up to Eleven Feet



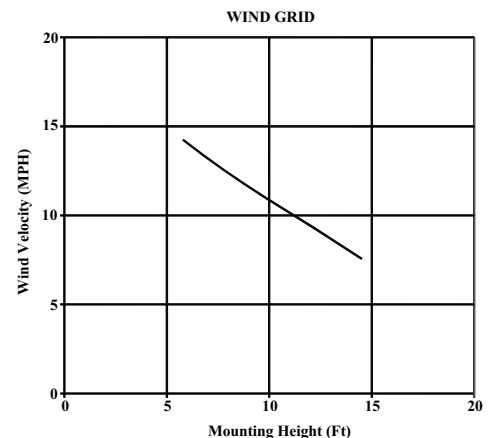
PRODUCT DATA DUAL SPEED UNITS (H) HIGH SPEED (L) LOW SPEED

Model	CED 1-36E	CED 1-42E	CED 1-48E	CED 1-60E	CED 2-60E	CED 2-72E	CED 2-84E	CED 2-96E	CED 3-108E	CED 3-120E	CED 3-132E	CED 4-144E
Nozzle Width Inches	36	42	48	60	60	72	84	96	108	118	133	145
Max. FPM at Nozzle	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748
Max. CFM at Nozzle	H 1309 L 1202	H 1527 L 1402	H 1745 L 1603	H 1790 L 1650	H 2332 L 2254	H 2618 L 2404	H 3054 L 2804	H 3490 L 3204	H 3928 L 3606	H 4364 L 4006	H 4950 L 4658	H 5236 L 4808
Avg. FPM at Nozzle	H 1570 L 1408	H 1346 L 1207	H 1178 L 1056	H 942 L 845	H 1413 L 1268	H 1570 L 1408	H 1346 L 1207	H 1178 L 1056	H 1570 L 1408	H 1421 L 1274	H 1178 L 1056	H 1570 L 1408
CFM at Nozzle	H 1005 L 961	H 1079 L 968	H 1094 L 983	H 1084 L 977	H 1620 L 1453	H 2159 L 1936	H 2093 L 1896	H 2170 L 1942	H 3239 L 2905	H 3230 L 2900	H 3247 L 2912	H 4318 L 3872
Outlet Velocity Uniformity	95%	93%	92%	91%	95%	95%	93%	92%	92%	95%	95%	95%
Number of Motors	1	1	1	1	2	2	2	2	3	3	3	4
Horse Power	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Heater Kilo Watts	10	10	10	10	15	20	20	20	30	30	30	40
Temperature Rise Deg. (F)	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33
Heater Amps Only	Amp Draw 208/1/60	48.1	48.1	48.1	48.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Amp Draw 240/1/60	41.6	41.6	41.6	41.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Amp Draw 208/3/60	27.7	27.7	27.7	27.7	41.6	55.4	55.4	55.4	83.1	83.1	83.1
	Amp Draw 240/3/60	24.0	24.0	24.0	24.0	36.0	48.0	48.0	48.0	72.0	72.0	72.0
	Amp Draw 480/3/60	12.0	12.0	12.0	12.0	18.0	24.0	24.0	24.0	36.0	36.0	36.0
	Amp Draw 575/3/60	10.1	10.1	10.1	10.1	15.1	20.1	20.1	20.1	30.1	30.1	30.1
Weight (Lbs)	88	95	102	113	150	172	192	206	244	272	285	344

Sound Level: High Speed 53 dba Low Speed 51 dba
Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Single Phase Motor Voltage Available: **120 208/230 480 575**
Amp Draw Per Motor: **2.5 1.4 0.7 0.6**

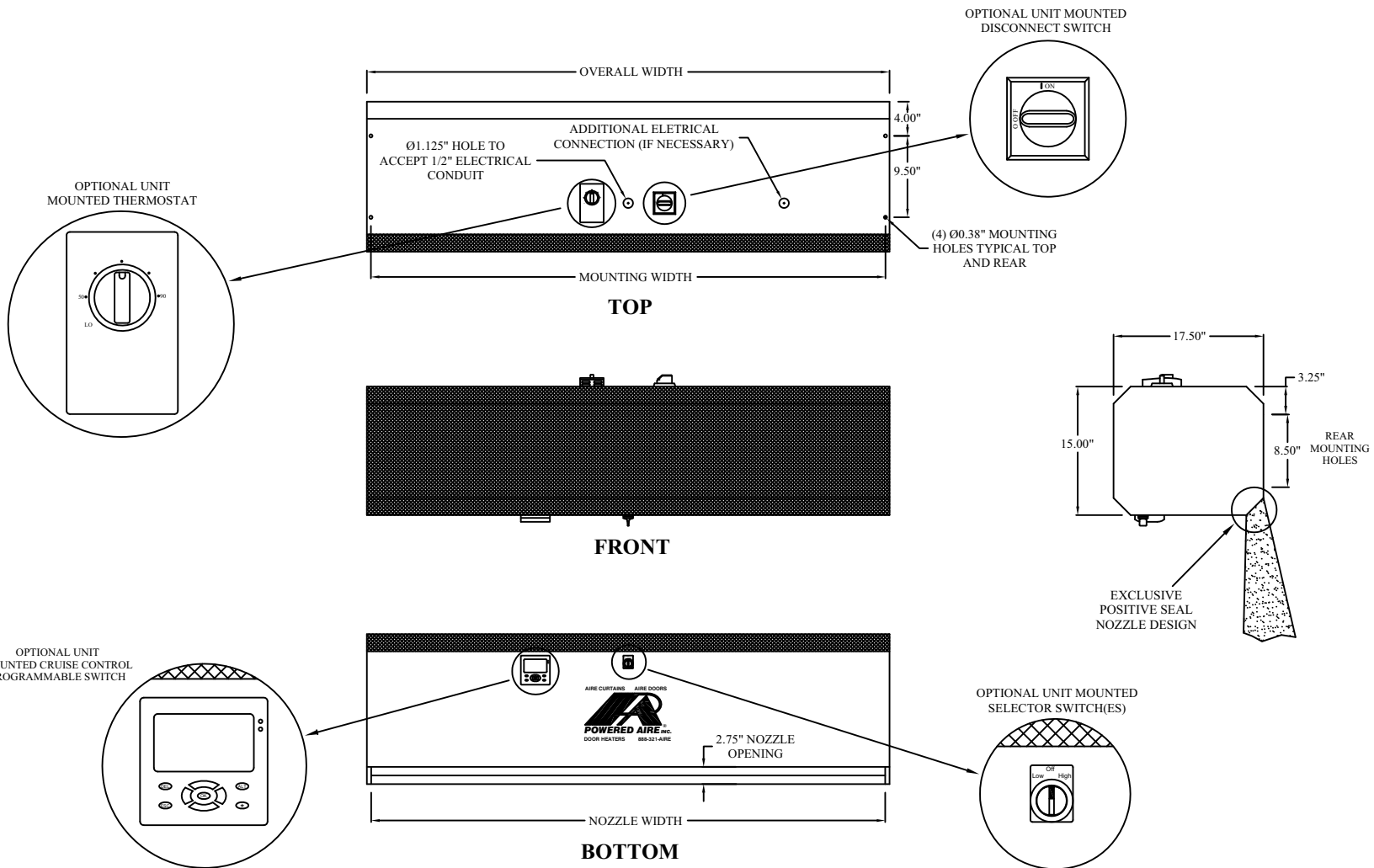
- ** Nozzle width equals door width.
- ** For three phase motors consult factory.
- ** For unit over twelve feet long and nonstandard electric heater consult factory.



109 Mortensen Rd. Greenville, PA 16125

PHONE: 724-588-3305
October, 2013


FAX: 724-588-3371



MODEL NUMBER	CED 1-36E	CED 1-42E	CED 1-48E	CED 1-60E	CED 2-60E	CED 2-72E	CED 2-84E	CED 2-96E	CED 3-108E	CED 3-120E	CED 3-132E	CED 4-144E
OVERALL WIDTH	37	43	49	61	61	73	85	97	109	119	134	146
NOZZLE WIDTH	36	42	48	60	60	72	84	96	108	118	133	145
MOUNTING WIDTH	36 1/16	42 1/16	48 1/16	60 1/16	60 1/16	72 1/16	84 1/16	96 1/16	108 1/16	118 1/16	133 1/16	145 1/16

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIR TM **INC.**
 109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13	PART DESCRIPTION: POWERED AIR SYSTEMS MODEL CED ELECTRICALLY HEATED CUSTOMER ENTRANCE DOOR
DRAWN BY: B.K.J.	
PART/FILE# CED-E	



Powered Aire Model CED





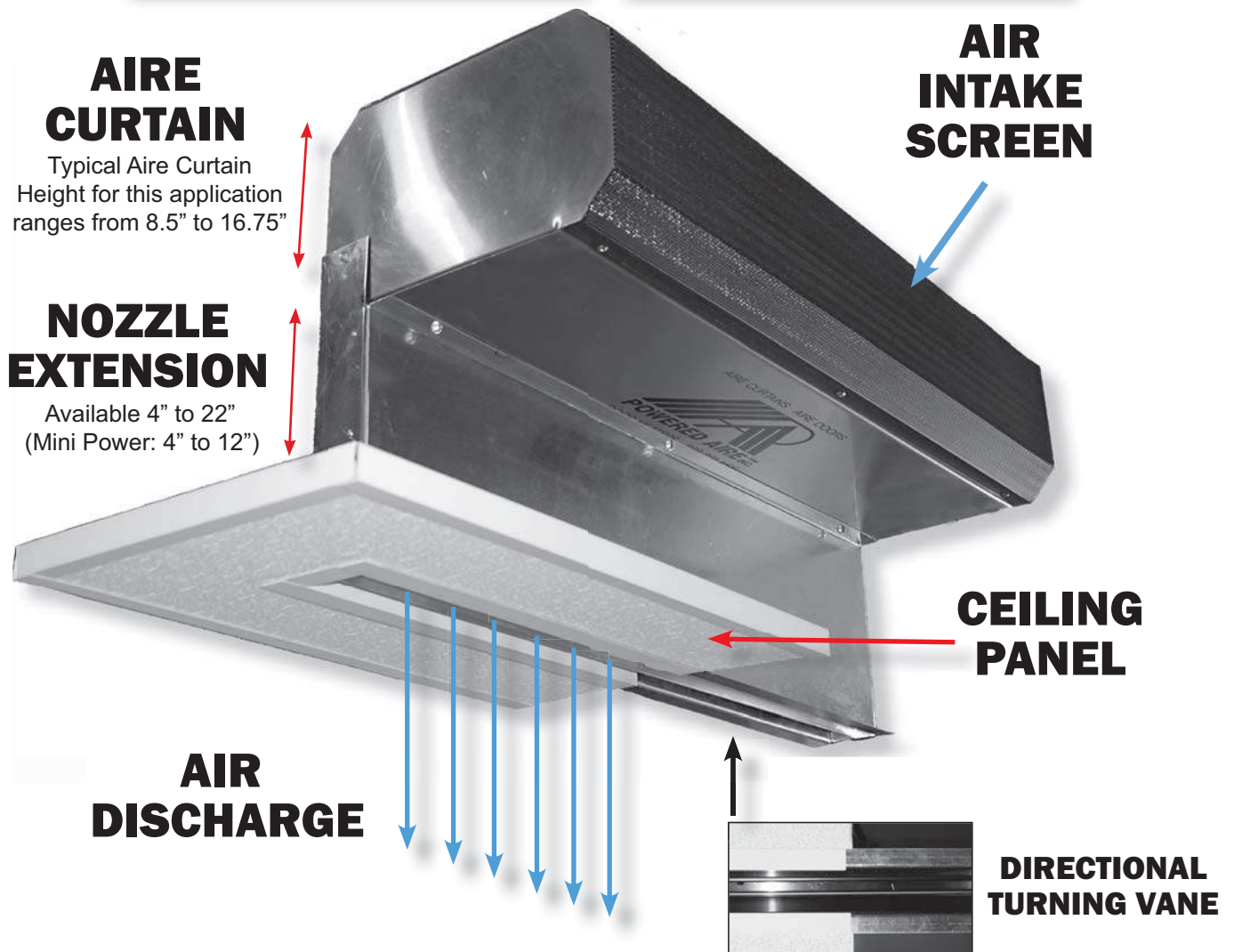




Recess Mounted Aire Curtains

Any **OF OUR AIRE CURTAINS CAN BE RECESS MOUNTED**

Consult factory for details



**Powered Aire
Inc.**



www.poweredaire.com

888-321-AIRE

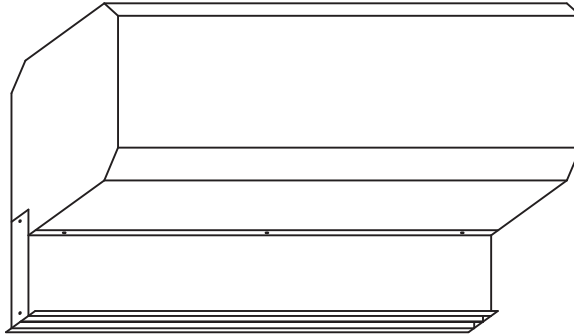


POWERED AIRE INC.

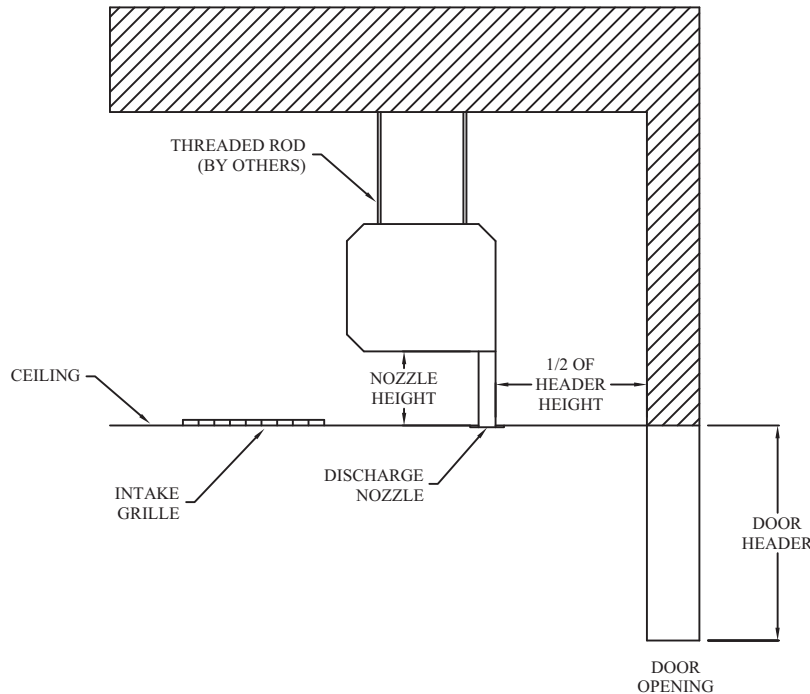
www.poweredaire.com

AIRE CURTAIN RECESSED IN CEILING USING NOZZLE EXTENSION

When there is insufficient room between the top of the door and the ceiling to mount an aire curtain or if it is not desirable to see the aire curtain, the aire curtain can be recess mounted in the ceiling with the use of a custom nozzle extension supplied by Powered Aire, Inc. When an aire curtain is used in a recessed installation, the steering vane that is typically installed in the aire curtain discharge to deflect the air stream is removed. It is instead installed on the discharge side of the nozzle extension. The nozzle extension ships loose and is installed in the field. After the aire curtain is installed above the ceiling, a slot is cut in the ceiling tile for the nozzle to slide up through from the bottom. When it is all the way through, the one inch flanges on the bottom of the extension will be flush with the ceiling. The top of the extension is like a sleeve that fits over the discharge of the aire curtain. It is attached to the aire curtain using self tapping screws fastened to the case of the unit.



When ordering a nozzle extension, the distance the aire curtain is going to be mounted above the ceiling will need to be supplied so that the nozzle extension can be manufactured accordingly. A finished trim piece (supplied by others) may be placed over the flush flanges on the exposed side of the ceiling so that the colors match. It is not recommended to use a slot diffuser that in any way obstructs the airflow. If there is not a supply of air in the ceiling, an intake grille will need to be put in the ceiling to supply return air to the aire curtain. The grille should be just in front of the aire curtain intake and should be large enough to provide access to the front of the aire curtain for maintenance. If there is an air supply in the ceiling, it is recommended that an access panel be put in the ceiling to provide access. The standard nozzle extension is constructed of galvanized steel but can be made of stainless steel upon request.



The chameleon has the unique ability to change its skin color to blend in with its surroundings.....



Chameleon™

Flush Mounted Aire Curtain

FEATURES



Unit installs above ceiling, flush with ceiling panel - No nozzle extension or ducting required

High & Low speeds

One-Piece Installation

For openings up to 14 feet high

Unheated or

*Electric heat *Steam heat

* Hot water heat

Length: 36" to 144"



Decorative air discharge grille available in MULTIPLE Colors

CLD Model
Light Duty - 1/2 HP motors

CHD Model
Heavy Duty - 3/4 HP motors



Powered Aire Inc.®

888-321-AIRE (2473) www.poweredaire.com



POWERED AIRE INC.

www.poweredaire.com

AIRE CURTAIN INSTALLATION INSTRUCTIONS (Chameleon Models CLD & CHD)

***Trained and experienced mechanic / electrician required.**

Warning: Risk of electrical shock, can cause injury or death: Disconnect all remote electrical supplies before servicing. Visible or Concealed Damage:

Claims should be made immediately to the transportation company. Do not delay filing a claim. Powered Aire will not be liable for damage claims submitted late.

Unpacking:

Carefully remove enough of crate to expose aire curtain hold down screws. (Used to keep aire curtain in place during transit).

Electrical Installation:

Units must be field wired in accordance with all applicable local, state, provincial and national laws, including wire size and materials.

Mounting Note:

For every one inch the bottom of the aire curtain is mounted above the door header, the back side of aire curtain should be moved away from the wall 1/2 inch.

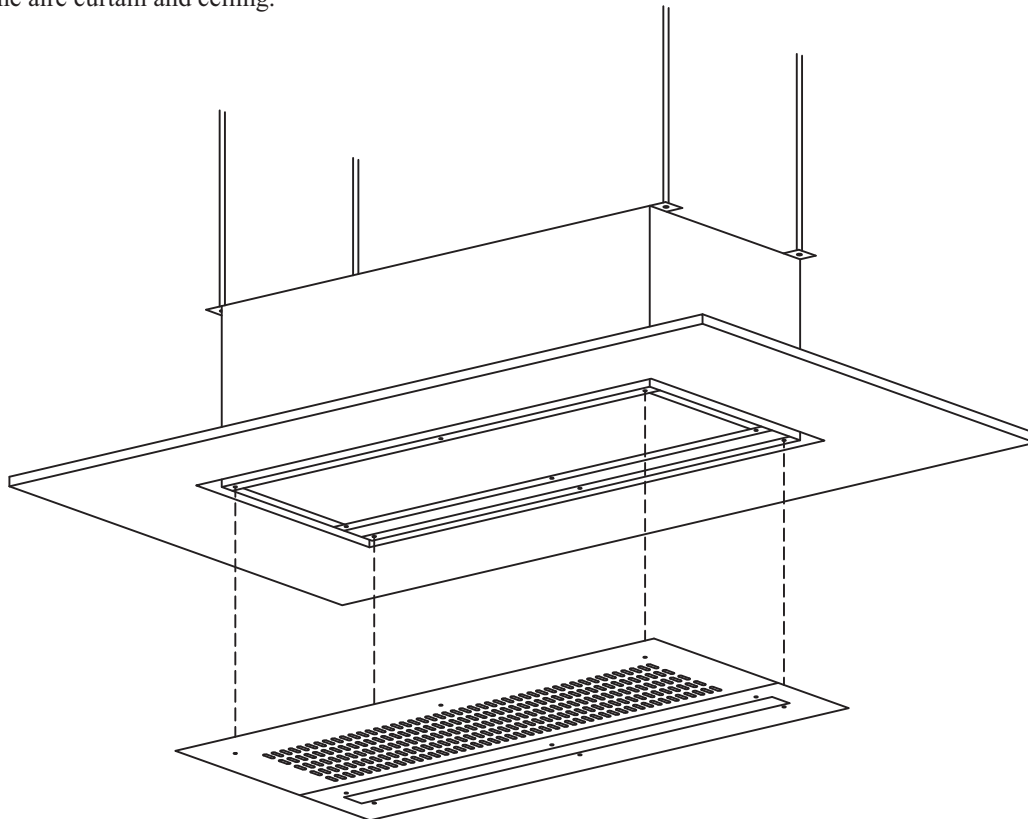
Mounting:

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 aire curtain, and hardware (supplied by others) should be of sufficient strength and quality to support the unit safely

A. Remove intake screen from bottom of aire curtain. If ceiling is already in place, determine where aire curtain location will be and cut a rectangular hole in the ceiling. The hole will be 1 inch longer and wider than the bottom length and width of the air curtain without the intake screen.

B. Suspend aire curtain using threaded rods so that the bottom of the unit is centered within the cut out in the ceiling. There will be a 1/2 inch gap around the aire curtain. Mount the unit so that the bottom is flush with the ceiling.

C. Attach the intake screen to the bottom of the aire curtain. The intake screen is larger than the air curtain to cover the gaps between the aire curtain and ceiling.





POWERED AIRE INC.

www.poweredaire.com

109 Mortensen Road
Greenville, PA 16125

Phone: 724-588-3305
Fax: 724-588-3371

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL CLD (CSI formatted specifications available at www.poweredaire.com)

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of a casing, motors, centrifugal fans, protective inlet screen, and discharge nozzle. Aire curtains will be equipped with a bottom access panel along with front and top access panels for motor and fan assembly. Aire curtain unit to provide uniform velocity across the entire length of the discharge area. The units will be bottom air intake. Units are universally manufactured for top mount.

Units to be constructed with sufficient rigidity to span the length of the opening without intermediate support. All weight bearing structural support will be made of formed 14-gauge galvanized steel. Outer casing shall be constructed of 18-gauge steel. Intake screen will be painted steel. Casing will be equipped with access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Motors at 1/2 H.P. 1075 rpm each shall be heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230/480/575 volts 50/60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional air foil vane. The vane shall facilitate deflection of air stream ± 20 degrees. Unit shall have multiple speed motor(s) to control air volume down from maximum speed.

Electric Heat Option

Unit(s) shall be provided with a factory mounted electric heating element (capacities as shown on data sheet). The heater shall consist of a factory wired heating coil, with automatic reset thermal overloads. Heating elements shall be mounted inside the plenum, on the discharge side of the blowers (where heat can't affect motor life). Protective screening will not be required on discharge nozzle. A remote mounted heat on/off switch and thermostat available, please specify.

Steam / Hot Water Coil

For steam or hot water heated aire curtains see Hot Water / Steam Heated section of catalog.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors.

Aire Curtain unit shall be ETL or UL listed. Unheated units shall have a 24 month warranty on all parts. Heated units shall have an 18 month warranty on all parts.

October, 2013

Control Options for Model CLD

Unheated

*** Recommended**

***Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

***High/Off/Low Selector Switch (Remote Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

Electrically Heated Options

*** Recommended**

***Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

***High/Off/Low Selector Switch (Remote Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

***Heat On/Off Selector Switch (Remote Mounted)** -- Turns the electric heat on and off while the fans are running, or when used in conjunction with a thermostat can disable the heat.

***Thermostat (Remote Mounted)** -- Turns the electric heat in the unit on and off while the fans are running based on the room temperature.

***Single Point Power Connection** -- For units that would typically require more than one power source due to high amp draws according to the National Electric Code, branch fusing can be added so that the unit can be run from a single power source.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch, Heat On/Off Switch, High/Low Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection (single point power connection may be required).

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected (single point power connection may be required).

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Hand/Off/Auto Selector Switch (Remote Mounted) -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Remote Mounted) -- Switches the air curtain on and off.

Programmable Digital Thermostat -- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day)



POWERED AIRE INC.

www.poweredaire.com

MODEL: CLD - Dual Speed Unheated
The Chameleon (Light Duty)- Customer Entrance- In Ceiling
Door Height: Up to Eleven Feet

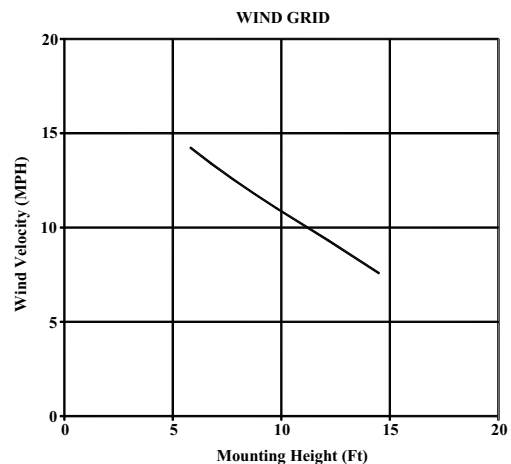
PRODUCT DATA DUAL SPEED UNITS
(H) HIGH SPEED (L) LOW SPEED

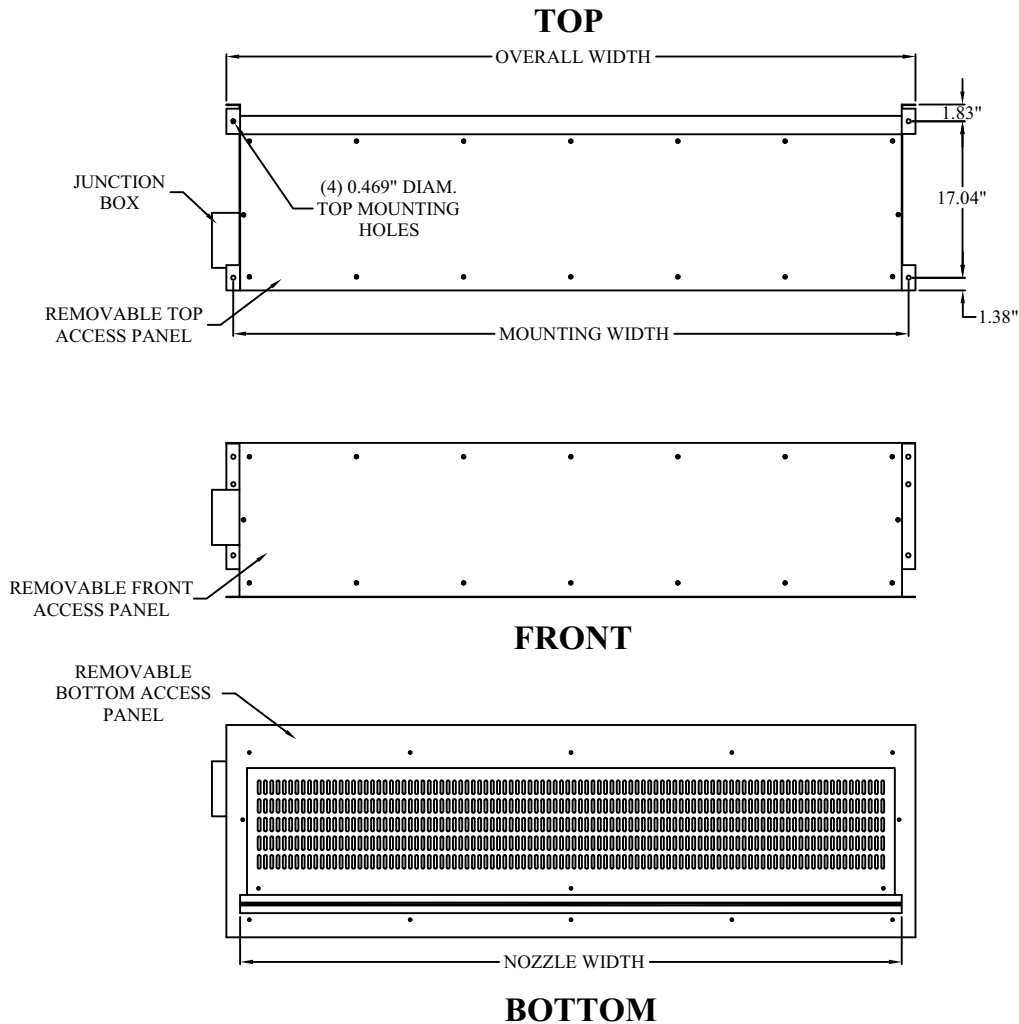
Model	CLD 1-36	CLD 1-48	CLD 1-60	CLD 2-72	CLD 2-84	CLD 2-96	CLD 2-108	CLD 3-108	CLD 3-120	CLD 3-132	CLD 4-144
Nozzle Width Inches	36	48	60	72	84	96	108	108	120	132	144
Max. FPM at Nozzle	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748
Max. CFM at Nozzle	H 1309 L 1202	H 1745 L 1603	H 1790 L 1650	H 2618 L 2404	H 3054 L 2804	H 3490 L 3204	H 3710 L 3403	H 3928 L 3606	H 4364 L 4006	H 4950 L 4658	H 5236 L 4808
Avg. FPM at Nozzle	H 1570 L 1408	H 1178 L 1056	H 942 L 845	H 1570 L 1408	H 1346 L 1207	H 1178 L 1056	H 1058 L 945	H 1570 L 1408	H 1421 L 1274	H 1178 L 1056	H 1570 L 1408
CFM at Nozzle	H 1005 L 961	H 1094 L 983	H 1084 L 977	H 2159 L 1936	H 2093 L 1896	H 2170 L 1942	H 2182 L 1949	H 3239 L 2905	H 3230 L 2900	H 3247 L 2912	H 4318 L 3872
Outlet Velocity Uniformity	95%	92%	91%	95%	93%	92%	95%	92%	95%	95%	95%
Number of Motors	1	1	1	2	2	2	2	3	3	3	4
Horse Power	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Weight (Lbs)	171	189	220	342	355	370	395	513	530	545	684

Sound Level: High Speed 53 dba Low Speed 51 dba
 Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Single Phase Motor Voltage Available: 120 208/230 480 575
Amp Draw Per Motor: 2.5 1.4 0.7 0.6


**** For unit over twelve feet long consult factory.**





MODEL NUMBER	CLD 1-36	CLD 1-48	CLD 1-60	CLD 2-72	CLD 2-84	CLD 2-96	CLD 2-108	CLD 3-108	CLD 3-120	CLD 3-132	CLD 4-144
OVERALL WIDTH	39.00	51.00	63.00	75.07	87.07	99.07	111.07	111.15	123.15	135.15	147.22
NOZZLE WIDTH	36.00	48.00	60.00	72.07	84.07	96.07	108.07	108.15	120.15	132.15	144.22
MOUNTING WIDTH	37.50	49.50	61.50	73.57	85.57	97.57	109.57	109.65	121.65	133.65	145.72

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIR ™ INC. 109 Mortensen Rd. Greenville, PA 16125 	
DATE: 10/01/13	PART DESCRIPTION: POWERED AIR SYSTEMS MODEL CLD UNHEATED BOTTOM AIR INTAKE
DRAWN BY: B.K.J.	
PART/FILE# CLD	



POWERED AIRE INC.

www.poweredaire.com

MODEL: CLD - Dual Speed Electric Heat
The Chameleon (Light Duty)- Customer Entrance- In Ceiling
Door Height: Up to Eleven Feet

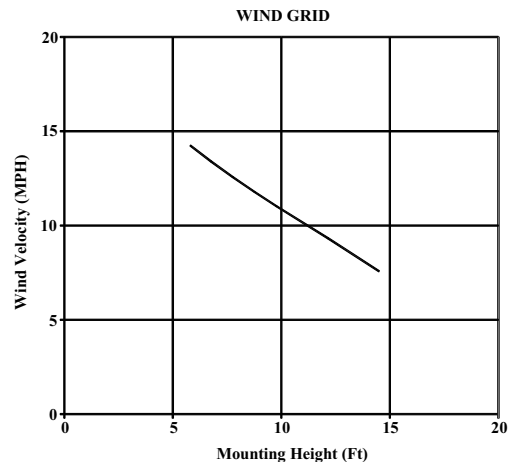
PRODUCT DATA DUAL SPEED UNITS (H) HIGH SPEED (L) LOW SPEED

Model	CLD 1-36E	CLD 1-48E	CLD 1-60E	CLD 2-72E	CLD 2-84E	CLD 2-96E	CLD 2-108E	CLD 3-108E	CLD 3-120E	CLD 3-132E	CLD 4-144E
Nozzle Width Inches	36	48	60	72	84	96	108	108	120	132	144
Max. FPM at Nozzle	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748
Max. CFM at Nozzle	H 1309 L 1202	H 1745 L 1603	H 1790 L 1650	H 2618 L 2404	H 3054 L 2804	H 3490 L 3204	H 3710 L 3403	H 3928 L 3606	H 4364 L 4006	H 4950 L 4658	H 5236 L 4808
Avg. FPM at Nozzle	H 1570 L 1408	H 1178 L 1056	H 942 L 845	H 1570 L 1408	H 1346 L 1207	H 1178 L 1056	H 1058 L 945	H 1570 L 1408	H 1421 L 1274	H 1178 L 1056	H 1570 L 1408
CFM at Nozzle	H 1005 L 961	H 1094 L 983	H 1084 L 977	H 2159 L 1936	H 2093 L 1896	H 2170 L 1942	H 2182 L 1949	H 3239 L 2905	H 3230 L 2900	H 3247 L 2912	H 4318 L 3872
Outlet Velocity Uniformity	95%	92%	91%	95%	93%	92%	95%	92%	95%	95%	95%
Number of Motors	1	1	1	2	2	2	2	3	3	3	4
Horse Power	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Heater Kilo Watts	10	10	10	20	20	20	20	30	30	30	40
Temperature Rise Deg. (F)	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33
Heater Amps Only	Amp Draw 208/1/60	48.1	48.1	48.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Amp Draw 240/1/60	41.6	41.6	41.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Amp Draw 208/3/60	27.7	27.7	27.7	55.4	55.4	55.4	55.4	83.1	83.1	110.8
	Amp Draw 240/3/60	24.0	24.0	24.0	48.0	48.0	48.0	48.0	72.0	72.0	96.0
	Amp Draw 480/3/60	12.0	12.0	12.0	24.0	24.0	24.0	24.0	36.0	36.0	48.0
	Amp Draw 575/3/60	10.1	10.1	10.1	20.1	20.1	20.1	20.1	30.1	30.1	40.2
Weight (Lbs)	174	196	224	348	365	379	402	522	547	559	696

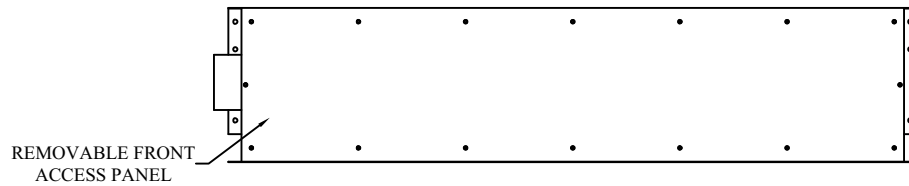
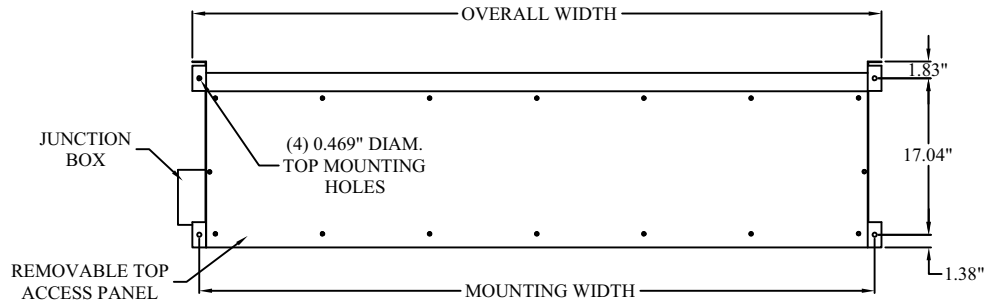
Sound Level: High Speed 53 dba Low Speed 51 dba
Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Single Phase Motor Voltage Available: **120 208/230 480 575**
Amp Draw Per Motor: **2.5 1.4 0.7 0.6**

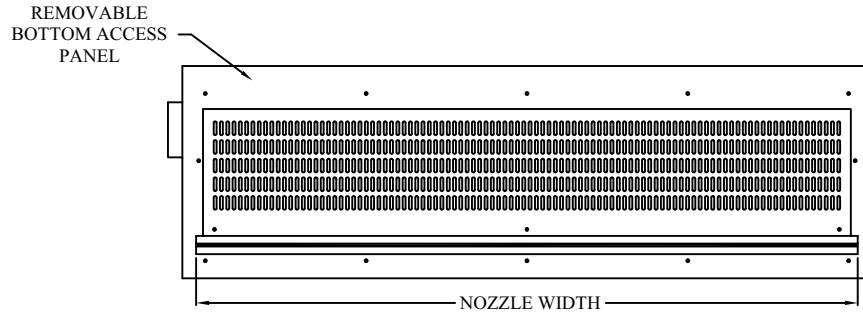
- ** Nozzle width equals door width.
- ** For three phase motors consult factory.
- ** For unit over twelve feet long and nonstandard electric heater consult factory.



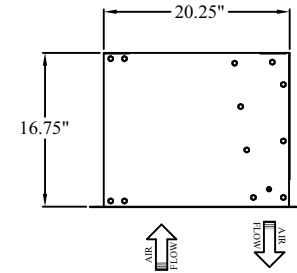
TOP



FRONT




BOTTOM



MODEL NUMBER	CLD 1-36E	CLD 1-48E	CLD 1-60E	CLD 2-72E	CLD 2-84E	CLD 2-96E	CLD 2-108E	CLD 3-108E	CLD 3-120E	CLD 3-132E	CLD 4-144E
OVERALL WIDTH	39.00	51.00	63.00	75.07	87.07	99.07	111.07	111.15	123.15	135.15	147.22
NOZZLE WIDTH	36.00	48.00	60.00	72.07	84.07	96.07	108.07	108.15	120.15	132.15	144.22
MOUNTING WIDTH	37.50	49.50	61.50	73.57	85.57	97.57	109.57	109.65	121.65	133.65	145.72

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC. 109 Mortensen Rd. Greenville, PA 16125		
DATE: 10/01/13 DRAWN BY: B.K.J. PART/FILE# CLD-E	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL CLD ELECTRICALLY HEATED BOTTOM AIR INTAKE	



POWERED AIRE INC.

www.poweredaire.com

**109 Mortensen Road
Greenville, PA 16125**

**Phone: 724-588-3305
Fax: 724-588-3371**

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL CHD (CSI formatted specifications available at www.poweredaire.com)

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of a casing, motors, centrifugal fans, protective inlet screen, and discharge nozzle. Aire curtains will be equipped with a bottom access panel along with front and top access panels for motor and fan assembly. Aire curtain unit to provide uniform velocity across the entire length of the discharge area. The units will be bottom air intake. Units are universally manufactured for top mount.

Units to be constructed with sufficient rigidity to span the length of the opening without intermediate support. All weight bearing structural support will be made of formed 14-gauge galvanized steel. Outer casing shall be constructed of 18-gauge steel. Intake screen will be painted steel. Casing will be equipped with access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Motors at 3/4 H.P. 1630 rpm each shall be heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230/480/575 volts 50/60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional air foil vane. The vane shall facilitate deflection of air stream ± 20 degrees. Unit shall have multiple speed motor(s) to control air volume down from maximum speed.

Electric Heat Option

Unit(s) shall be provided with a factory mounted electric heating element (capacities as shown on data sheet). The heater shall consist of a factory wired heating coil, with automatic reset thermal overloads. Heating elements shall be mounted inside the plenum, on the discharge side of the blowers (where heat can't affect motor life). Protective screening will not be required on discharge nozzle. A remote mounted heat on/off switch and thermostat available, please specify.

Steam / Hot Water Coil

For steam or hot water heated aire curtains see Hot Water / Steam Heated section of catalog.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors.

Aire Curtain unit shall be ETL or UL listed. Unheated units shall have a 24 month warranty on all parts. Heated units shall have an 18 month warranty on all parts.



POWERED AIRE INC.

www.poweredaire.com

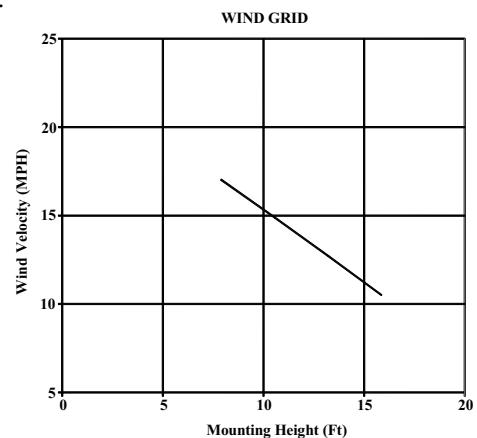
MODEL: CHD - Dual Speed Unheated
The Chameleon (Heavy Duty)- Customer Entrance- In Ceiling
Door Height: Up to Fourteen Feet

PRODUCT DATA DUAL SPEED UNITS (H) HIGH SPEED (L) LOW SPEED

Model	CHD 1-36	CHD 1-48	CHD 1-60	CHD 2-72	CHD 2-84	CHD 2-96	CHD 2-108	CHD 3-108	CHD 3-120	CHD 3-132	CHD 4-144
Nozzle width inches	36	48	60	72	84	96	108	108	120	132	144
Max. FPM at Nozzle	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837
Max. CFM at Nozzle	H 2899 L 1950	H 3867 L 2601	H 4374 L 2792	H 5803 L 3903	H 6766 L 4551	H 7732 L 5201	H 8216 L 5520	H 8702 L 5853	H 9668 L 6503	H 10853 L 7155	H 11606 L 7806
Avg. FPM at Nozzle	H 3695 L 2487	H 2771 L 1865	H 2218 L 1493	H 3696 L 2488	H 3169 L 2133	H 2773 L 1866	H 2472 L 1661	H 3702 L 2486	H 3174 L 2134	H 2792 L 1885	H 3696 L 2488
CFM at Nozzle	H 2541 L 1710	H 2559 L 1721	H 2528 L 1703	H 5082 L 3420	H 5063 L 3382	H 5081 L 3417	H 5090 L 3421	H 7623 L 5130	H 7614 L 5127	H 7589 L 5104	H 10164 L 6840
Outlet Velocity Uniformity	95%	92%	91%	95%	93%	92%	95%	95%	94%	94%	95%
Number of Motors	1	1	1	2	2	2	2	3	3	3	4
Horse Power	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Weight (Lbs)	179	195	225	358	371	384	397	537	550	563	716

Sound Level: High Speed 63 dba Low Speed 56 dba
 Sound level measured 10 feet from unit in a free field based on a 1 motor unit.

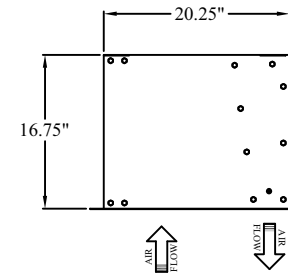
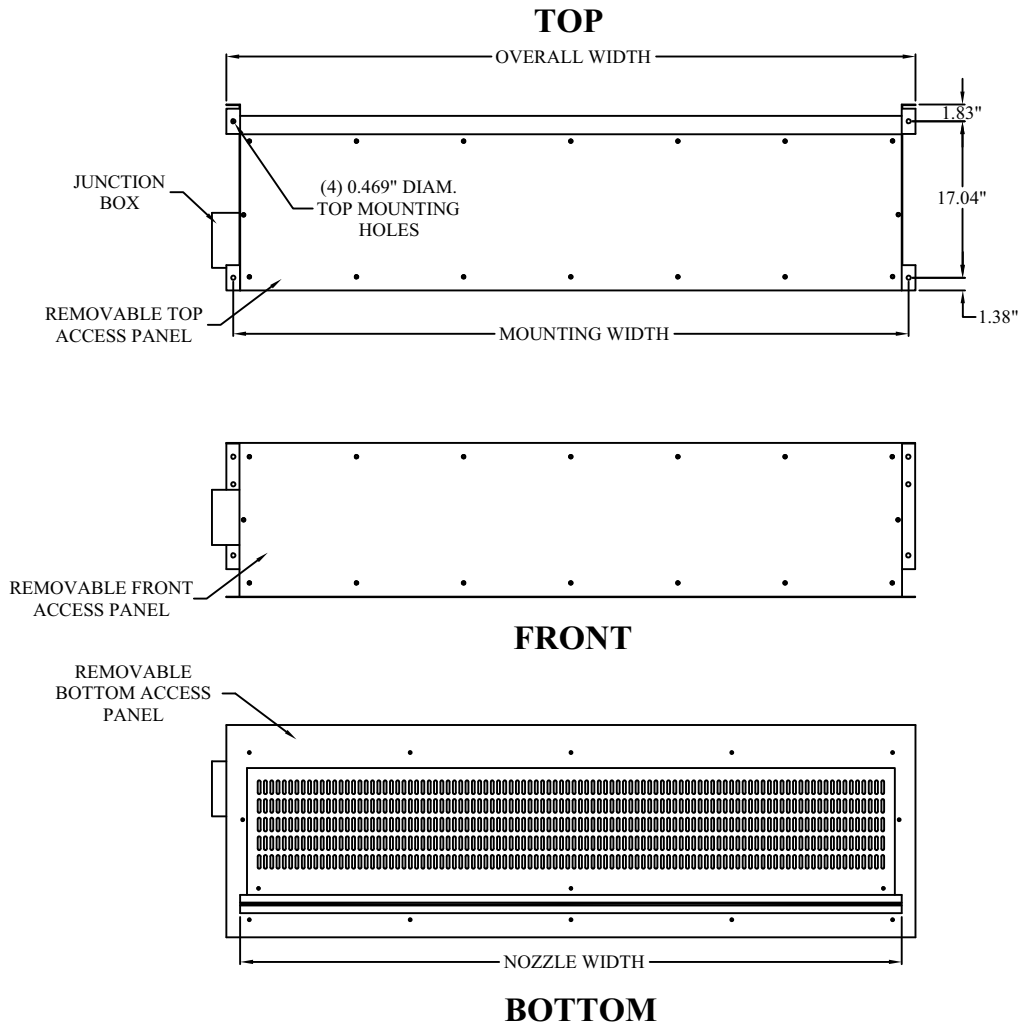
Single Phase Motor Voltage Available: 120 208/230 480 575
Amp Draw Per Motor: 8.0 3.6 2.2 1.5
 ** Nozzle width equals door width.
 ** For three phase motors consult factory.
 ** For unit over twelve feet long consult factory.



109 Mortensen Rd. Greenville, PA 16125


PHONE: 724-588-3305
 October, 2013

FAX: 724-588-3371



MODEL NUMBER	CHD 1-36	CHD 1-48	CHD 1-60	CHD 2-72	CHD 2-84	CHD 2-96	CHD 2-108	CHD 3-108	CHD 3-120	CHD 3-132	CHD 4-144
OVERALL WIDTH	39.00	51.00	63.00	75.07	87.07	99.07	111.07	111.15	123.15	135.15	147.22
NOZZLE WIDTH	36.00	48.00	60.00	72.07	84.07	96.07	108.07	108.15	120.15	132.15	144.22
MOUNTING WIDTH	37.50	49.50	61.50	73.57	85.57	97.57	109.57	109.65	121.65	133.65	145.72

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIR TM INC. 109 Mortensen Rd. Greenville, PA 16125		
DATE: 10/01/13	PART DESCRIPTION:	
DRAWN BY: B.K.J.	POWERED AIR SYSTEMS	
PART/FILE# CHD	MODEL CHD UNHEATED BOTTOM AIR INTAKE	

Control Options for Model CHD

Unheated

* Recommended

***Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

***High/Off/Low Selector Switch (Remote Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

Electrically Heated Options

* Recommended

***Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

***High/Off/Low Selector Switch (Remote Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

***Heat On/Off Selector Switch (Remote Mounted)** -- Turns the electric heat on and off while the fans are running, or when used in conjunction with a thermostat can disable the heat.

***Thermostat (Remote Mounted)** -- Turns the electric heat in the unit on and off while the fans are running based on the room temperature.

***Single Point Power Connection** -- For units that would typically require more than one power source due to high amp draws according to the National Electric Code, branch fusing can be added so that the unit can be run from a single power source.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch, Heat On/Off Switch, High/Low Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection (single point power connection may be required)..

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected (single point power connection may be required)..

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Hand/Off/Auto Selector Switch (Remote Mounted) -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Remote Mounted) -- Switches the air curtain on and off.

Programmable Digital Thermostat -- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day)



POWERED AIRE INC.

www.poweredaire.com

MODEL: CHD - Dual Speed Electric Heat
The Chameleon (Heavy Duty)- Customer Entrance- In Ceiling
Door Height: Up to Fourteen Feet

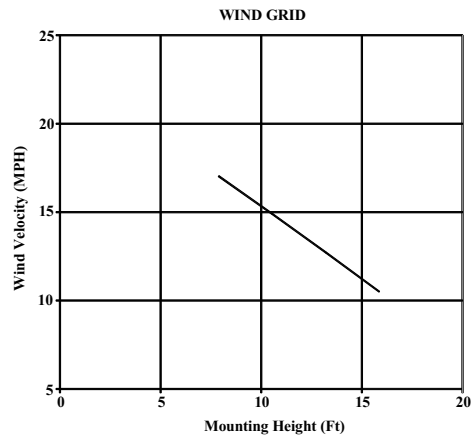
PRODUCT DATA DUAL SPEED UNITS
(H) HIGH SPEED (L) LOW SPEED

Model	CHD 1-36E	CHD 1-48E	CHD 1-60E	CHD 2-72E	CHD 2-84E	CHD 2-96E	CHD 2-108E	CHD 3-108E	CHD 3-120E	CHD 3-132E	CHD 4-144E
Nozzle Width Inches	36	48	60	72	84	96	108	108	120	132	144
Max. FPM at Nozzle	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837
Max. CFM at Nozzle	H 2899 L 1950	H 3867 L 2601	H 4374 L 2792	H 5803 L 3903	H 6766 L 4551	H 7732 L 5201	H 8216 L 5520	H 8702 L 5853	H 9668 L 6503	H 10853 L 7155	H 11606 L 7806
Avg. FPM at Nozzle	H 3695 L 2487	H 2771 L 1865	H 2218 L 1493	H 3696 L 2488	H 3169 L 2133	H 2773 L 1866	H 2472 L 1661	H 3702 L 2486	H 3174 L 2134	H 2792 L 1885	H 3696 L 2488
CFM at Nozzle	H 2541 L 1710	H 2559 L 1721	H 2528 L 1703	H 5082 L 3420	H 5063 L 3382	H 5081 L 3417	H 5090 L 3421	H 7623 L 5130	H 7614 L 5127	H 7589 L 5104	H 10164 L 6840
Outlet Velocity Uniformity	95%	92%	91%	95%	93%	92%	95%	92%	95%	95%	95%
Number of Motors	1	1	1	2	2	2	2	3	3	3	4
Horse Power	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Heater Kilo Watts	10	10	10	20	20	20	20	30	30	30	40
Temp. Rise Deg. (F)	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19
Heater Amps Only	Amp Draw 208/1/60	48.1	48.1	48.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Amp Draw 240/1/60	41.6	41.6	41.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Amp Draw 208/3/60	27.7	27.7	27.7	55.4	55.4	55.4	55.4	83.1	83.1	110.8
	Amp Draw 240/3/60	24.0	24.0	24.0	48.0	48.0	48.0	48.0	72.0	72.0	96.0
	Amp Draw 480/3/60	12.0	12.0	12.0	24.0	24.0	24.0	24.0	36.0	36.0	48.0
	Amp Draw 575/3/60	10.1	10.1	10.1	20.1	20.1	20.1	20.1	30.2	30.2	40.2
Weight (Lbs)	182	204	230	364	382	397	417	546	570	584	728

Sound Level: High Speed 63 dba Low Speed 56 dba
 Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Single Phase Motor Voltage Available: 120 208/230 480 575
Amp Draw Per Motor: 8.0 3.6 2.2 1.5

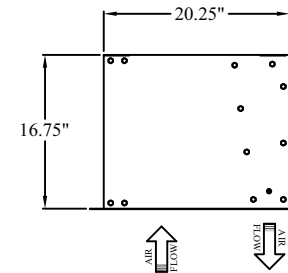
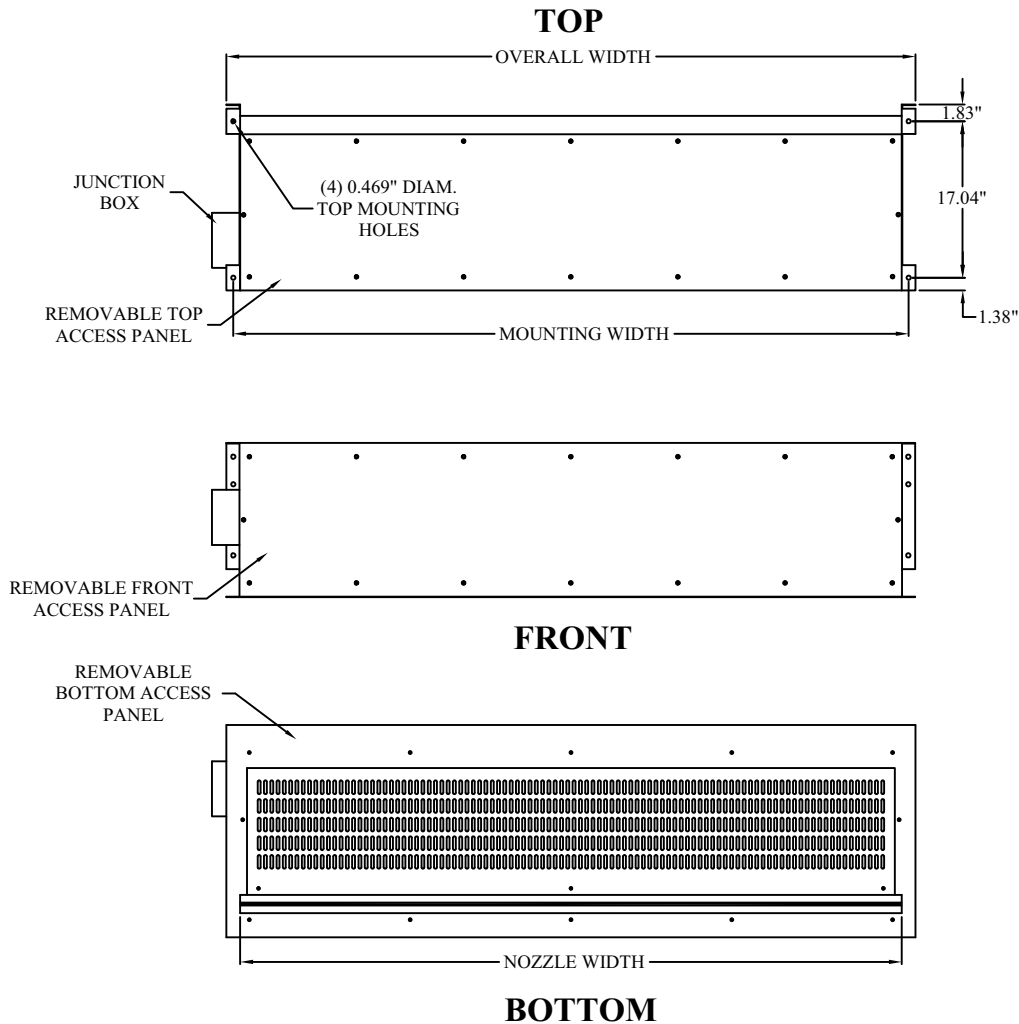
- ** Nozzle width equals door width.
- ** For three phase motors consult factory.
- ** For unit over twelve feet long and nonstandard electric heater consult factory.



109 Mortensen Rd. Greenville, PA 16125


PHONE: 724-588-3305
 October, 2013

FAX: 724-588-3371



MODEL NUMBER	CHD 1-36E	CHD 1-48E	CHD 1-60E	CHD 2-72E	CHD 2-84E	CHD 2-96E	CHD 2-108E	CHD 3-108E	CHD 3-120E	CHD 3-132E	CHD 4-144E
OVERALL WIDTH	39.00	51.00	63.00	75.07	87.07	99.07	111.07	111.15	123.15	135.15	147.22
NOZZLE WIDTH	36.00	48.00	60.00	72.07	84.07	96.07	108.07	108.15	120.15	132.15	144.22
MOUNTING WIDTH	37.50	49.50	61.50	73.57	85.57	97.57	109.57	109.65	121.65	133.65	145.72

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIR TM INC. 109 Mortensen Rd. Greenville, PA 16125		
DATE: 10/01/13	PART DESCRIPTION: POWERED AIR SYSTEMS MODEL CHD ELECTRICALLY HEATED BOTTOM AIR INTAKE	
DRAWN BY: B.K.J.		
PART/FILE# CHD-E		



Standard White
Decorative Grille



Stainless Steel
Decorative Grille*



**Chameleon™**

Powered Aire
Model
CLD & CHD



Brass Grille*

* There is an additional charge for custom colors, stainless steel or other metals.





POWERED AIRE INC.

www.poweredaire.com

109 Mortensen Road
Greenville, PA 16125

Phone: 724-588-3305
Fax: 724-588-3371

mini-power[™]

SUGGESTED AIRE CURTAIN SPECIFICATIONS (CSI formatted specifications available at www.poweredaire.com)

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of a stainless steel casing, tangential fan wheel(s), raised stainless steel inlet screen, discharge nozzle and motor(s). The aire curtain unit provides a specific CFM and a uniform velocity across the entire length of the discharge area.

Units shall be furnished in single increments of sufficient structural strength to be supported from both ends without intermediate support. Multiple units shall not be permitted. Unit casing shall be a minimum of 18 gauge 304 stainless steel in a number three finish.

Motors shall be 1/5 H.P., double shaft, resiliently mounted, heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end. Primary motor voltage shall be 115/208/230/480/575 volts 50/60 Hz single phase.

Aluminum fans shall be balanced forward curved tangential (crossflow) wheels with flexible hubs. Plastic fan wheels and rolled fan scrolls shall not be permitted. Inlet screen shall be perforated stainless steel with mill grain finish.

Discharge nozzle shall be integral part of housing with adjustable aluminum steering vane(s) to facilitate deflection of air stream ± 20 degrees.

Electric Heat Option

Unit(s) shall be provided with a factory mounted electric heating element (capacities as shown on data sheet). The heater shall consist of a factory wired heating coil, with automatic reset thermal overloads. A remote heat on/off switch and thermostat available, please specify.

Steam / Hot Water Coil

For steam or hot water heated units consult factory.

Aire Curtain unit shall be ETL or UL listed. Unheated units shall have a 24 month warranty on all parts. Heated units shall have an 18 month warranty on all parts.

October, 2013

Control Options for Model MP

Unheated

* Recommended

***Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

***Variable Speed Selector Switch (Remote or Unit Mounted)** -- Varies the speed between high and low ranges or turns the air curtain off. (Voltage: 120,208,240/1/50,60 and 208,240/3/50,60)

***High/Off/Low Selector Switch (Remote or Unit Mounted)** -- Switches between the high and low speeds or turns the air curtain off. (Voltage: 480,575/3/50,60).

Electric, Hot Water or Steam Heated Options

* Recommended

***Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

***Door Switch/Magnetic** -- Non-mechanical door switch that turns air curtain on when the door is opened.

***Variable Speed Selector Switch (Remote or Unit Mounted)** -- Varies the speed between high and low ranges or turns the air curtain off. (Voltage: 120,208,240/1/50,60 and 208,240/3/50,60)

***High/Off/Low Selector Switch (Remote or Unit Mounted)** -- Switches between the high and low speeds or turns the air curtain off. (Voltage: 480,575/3/50,60).

***Heat On/Off Selector Switch (Remote or Unit Mounted)** -- Turns the electric heat on and off while the fans are running, or when used in conjunction with a thermostat can disable the heat.

***Thermostat (Remote or Unit Mounted)** -- Turns the electric or gas heat in the unit on and off while the fans are running based on the room temperature.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch, Heat On/Off Switch, High/Low Switch.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected (not available on units with electric heat).

Door Switch/Roller-Plunger -- Mechanical door switch that turns air curtain on when the door is opened.

Hand/Off/Auto Selector Switch (Remote or Unit Mounted) -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Remote or Unit Mounted) -- Switches the air curtain on and off.

Programmable Digital Thermostat -- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day). For hot water or steam units, this will only control the fans.



POWERED AIRE INC.

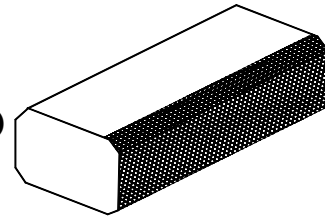
www.poweredaire.com

mini-power™

Variable Speed Unheated Low Profile Unit (120/208/230)

Dual Speed Unheated Low Profile Unit (480/575)

Door Height: Up to Ten Feet



PRODUCT DATA

Model	MP 1-30	MP 1-36	MP 1-42	MP 1-48	MP 1-60	MP 2-72	MP 2-84	MP 2-96	MP 2-108	MP 2-120
Nozzle Width Inches	29	35	41	47	59	71	83	95	107	117
Max. FPM at Nozzle	3050	3050	3050	3050	3050	3050	3050	3050	3050	3050
Avg. FPM at Nozzle	2045	2142	2086	2045	1928	2142	2087	2045	2142	2103
CFM at Nozzle	897	1178	1339	1500	1767	2356	2678	3005	3534	3856
Outlet Velocity Uniformity	92%	95%	95%	92%	92%	95%	95%	95%	95%	95%
Number of Motors	1	1	1	1	1	2	2	2	2	2
Horse Power	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/5
Weight (Lbs)	42	53	60	67	85	94	105	114	130	141

Sound Level: 53 dba

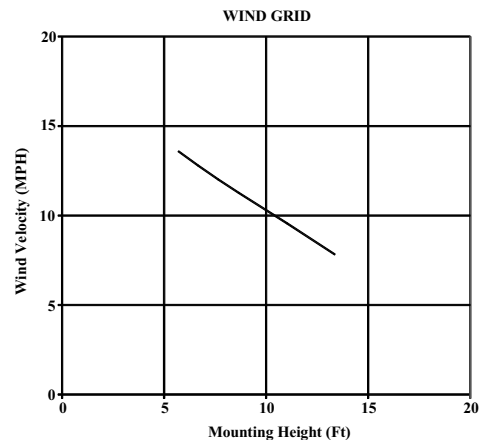
Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Single Phase Motor Voltage Available: 120 208/230 480 575

Amp Draw Per Motor: 4.4 2.0 1.1 0.9

** Nozzle width equals door width.

** Data shown is for highest speed setting.



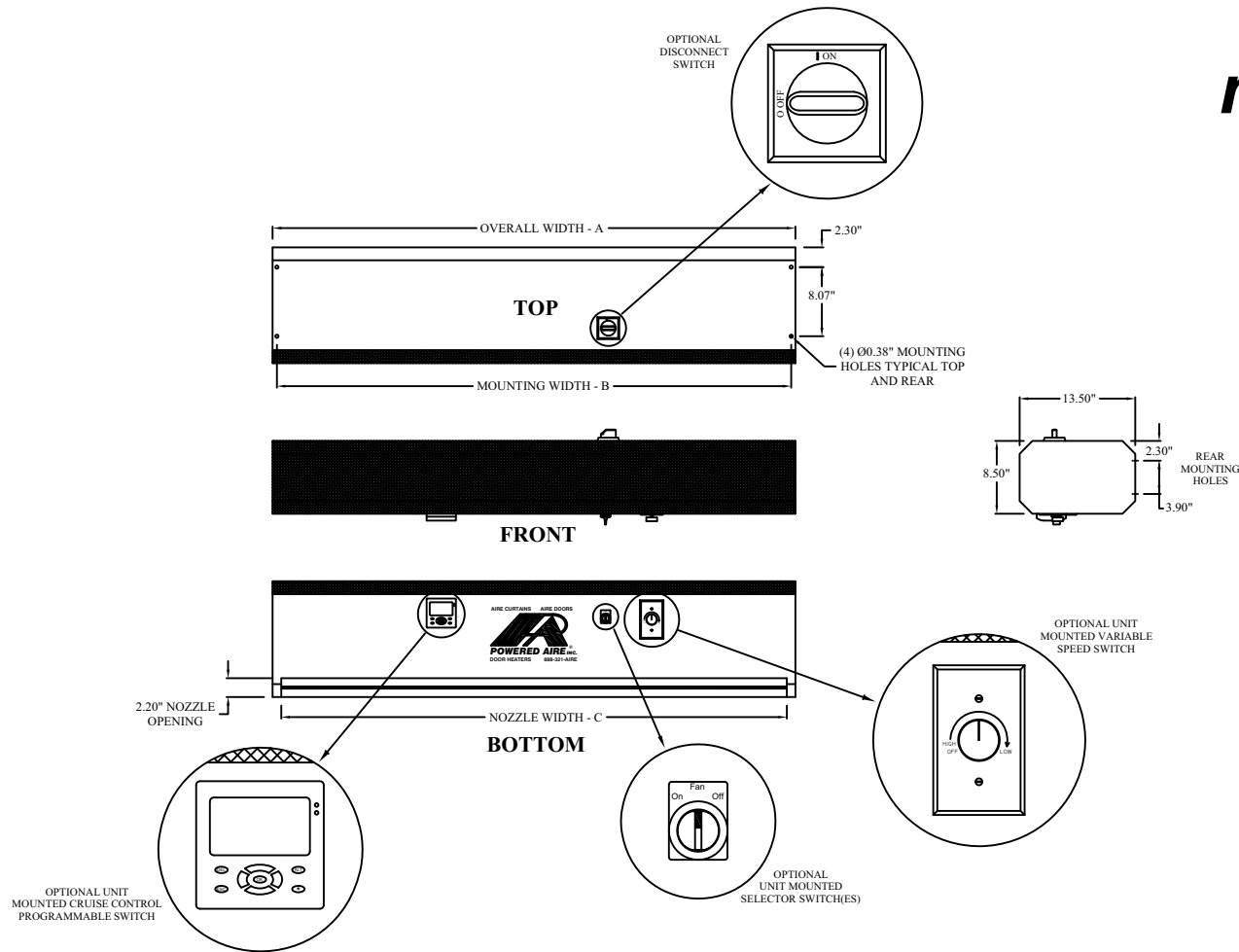
109 Mortensen Rd. Greenville, PA 16125

PHONE: 724-588-3305

FAX: 724-588-3371


October, 2013

mini-power™



MODEL NUMBER	MP 1-30	MP 1-36	MP 1-42	MP 1-48	MP 1-60	MP 2-72	MP 2-84	MP 2-96	MP 2-108	MP 2-120
OVERALL WIDTH - A	31	37	43	49	61	73	85	97	109	119
MOUNTING WIDTH - B	30	36	42	48	60	72	84	96	108	118
NOZZLE WIDTH - C	29	35	41	47	59	71	83	95	107	117

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC. 109 Mortensen Rd. Greenville, PA 16125		
DATE: 10/01/13	PART DESCRIPTION:	
DRAWN BY: B.K.J.	POWERED AIRE SYSTEMS	mini-power™ UNHEATED LOW PROFILE AIRE CURTAIN
PART/FILE# MPU		



POWERED AIRE INC.

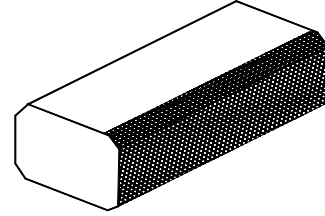
www.poweredaire.com

mini-power™

Variable Speed Electric Heated Low Profile Unit (120/208/240)

Dual Speed Electric Heated Low Profile Unit (480/575)

Door Height: Up to Ten Feet



PRODUCT DATA

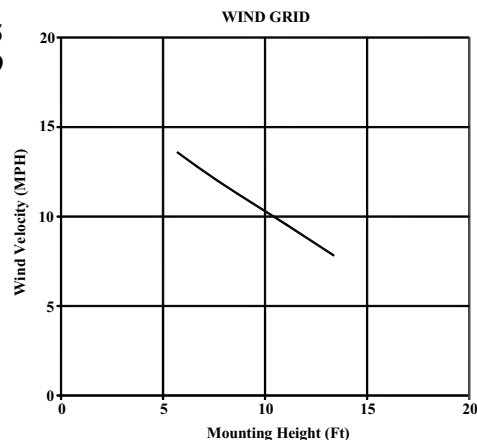
Model	MP 1-30E	MP 1-36E	MP 1-42E	MP 1-48E	MP 1-60E	MP 2-72E	MP 2-84E	MP 2-96E	MP 2-108E	MP 2-120E
Nozzle Width Inches	29	35	41	47	59	71	83	95	107	117
Max. FPM at Nozzle	3050	3050	3050	3050	3050	3050	3050	3050	3050	3050
Avg. FPM at Nozzle	2045	2142	2086	2045	1928	2142	2087	2045	2142	2103
CFM at Nozzle	897	1178	1339	1500	1767	2356	2678	3005	3534	3856
Outlet Velocity Uniformity	92%	95%	95%	92%	92%	95%	95%	95%	95%	95%
Number of Motors	1	1	1	1	1	2	2	2	2	2
Horse Power	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/5
Heater KiloWatts	8	8	8	16	16	16	24	32	32	32
Temperature Rise Deg. (F)	24	22	20	33	29	22	29	33	29	27
Heater Amps Only	Amp Draw 208/1/60	38.5	38.5	38.5	NA	NA	NA	NA	NA	NA
	Amp Draw 240/1/60	33.3	33.3	33.3	NA	NA	NA	NA	NA	NA
	Amp Draw 208/3/60	22.2	22.2	22.2	44.5	44.5	44.5	66.7	88.9	88.9
	Amp Draw 240/3/60	19.3	19.3	19.3	38.5	38.5	38.5	57.8	77.1	77.1
	Amp Draw 480/3/60	9.6	9.6	9.6	19.3	19.3	19.3	28.9	38.5	38.5
	Amp Draw 575/3/60	8.0	8.0	8.0	16.1	16.1	16.1	24.1	32.2	32.2
Weight (Lbs)	47	59	69	77	91	102	115	123	139	152

Sound Level: 53 dba

Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Single Phase Motor Voltage Available: **120 208/240 480 575**
 Amp Draw Per Motor: **4.4 2.0 1.1 0.9**

** Nozzle width equals door width.
 ** Data shown is for highest speed setting.

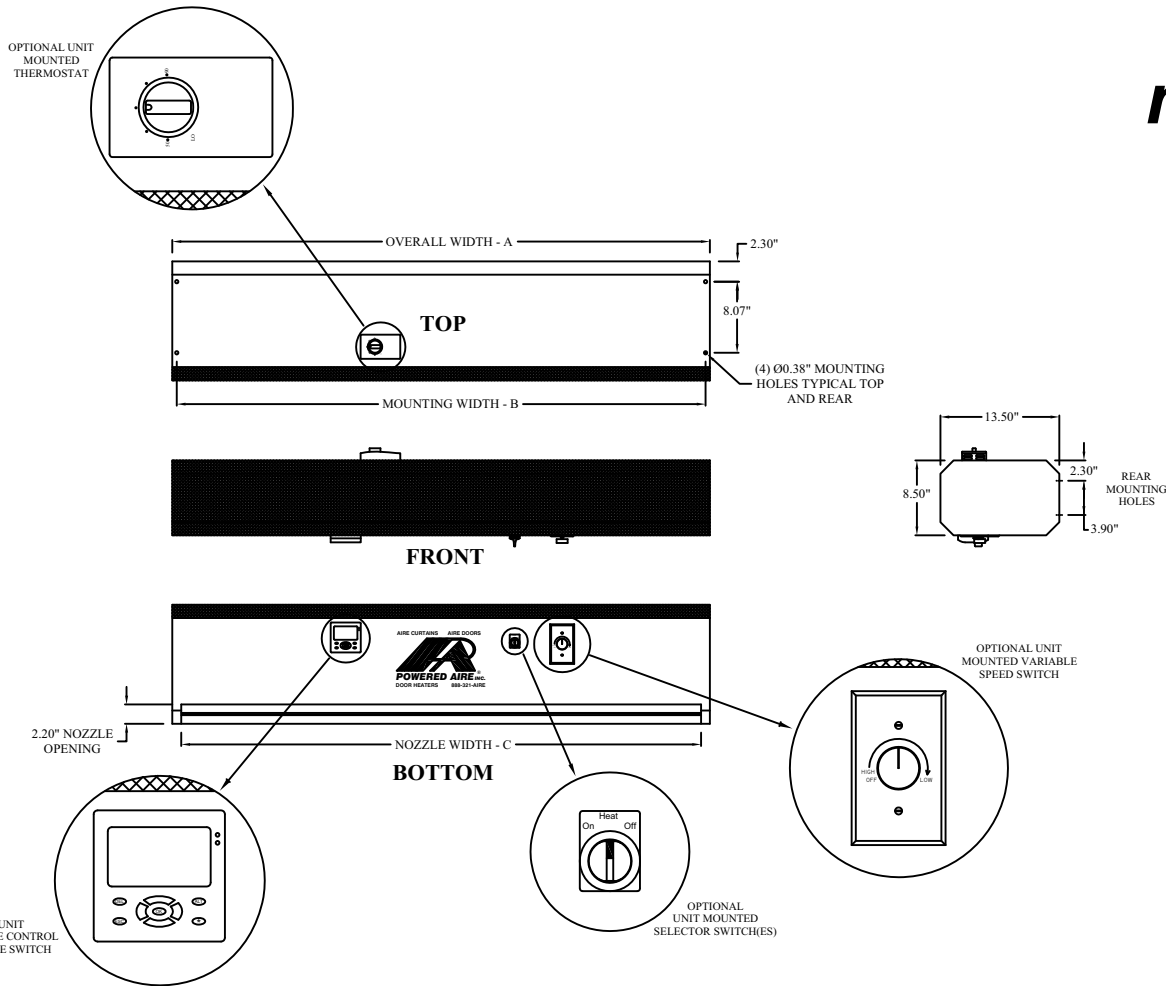


109 Mortensen Rd. Greenville, PA 16125

PHONE: 724-588-3305
 October, 2013

FAX: 724-588-3371

mini-power™



MODEL NUMBER	MP 1-30E	MP 1-36E	MP 1-42E	MP 1-48E	MP 1-60E	MP 2-72E	MP 2-84E	MP 2-96E	MP 2-108E	MP 2-120E
OVERALL WIDTH - A	31	37	43	49	61	73	85	97	109	119
MOUNTING WIDTH - B	30	36	42	48	60	72	84	96	108	118
NOZZLE WIDTH - C	29	35	41	47	59	71	83	95	107	117

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC. 109 Mortensen Rd. Greenville, PA 16125 	
DATE: 10/01/13	PART DESCRIPTION:
DRAWN BY: B.K.J.	POWERED AIRE SYSTEMS
PART/FILE# MPE	mini-power™ ELECTRICALLY HEATED LOW PROFILE AIRE CURTAIN



Powered Aire Model MP



What Keeps the Bugs Out?



*Powered
Aire's*

**BUDGET
BAC**

AIRE CURTAIN

A fly fan that fits into
ANYONE'S budget!

**Recommended for
insect control at
food service,
storage doors, etc.**

**Economically
Priced!**

**ETL
sanitation
listed for
NSF-37
Standard ***

- Aluminized steel construction
- 36*, 42*, 48* and 60-inch wide units
- 13 inches high -- 11.5 inches deep
- Rear and top mounting holes for easy installation
- Includes door switch for activation
- 3/4 HP motor
- ETL listed for indoor or outdoor installation.
- USDA, FDA & AIB compliance



888-321-AIRE (2473) www.poweredaire.com



POWERED AIRE INC.

www.poweredaire.com

**109 Mortensen Road
Greenville, PA 16125**

Phone: 724-588-3305

Fax: 724-588-3371

**SUGGESTED AIRE CURTAIN SPECIFICATIONS
MODEL BAC – STANDARD NSF-37 CERTIFIED**

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of aluminized steel casing, centrifugal fans, 1/2 inch recleanable filter, discharge nozzle, and motor.

Motor at 3/4 H.P. 1610 rpm each shall be heavy duty (totally enclosed) type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230 volts 60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted.

Aire curtain creates a positive air seal with directional air foil vanes. The vanes shall facilitate deflection of air stream ± 20 degrees.

Complete Aire Curtain unit shall be ETL or UL listed. When unit(s) will be mounted outdoors, unit(s) must bear ETL or UL label for outdoor use.

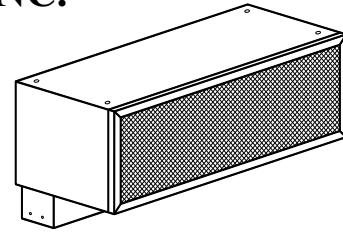
Unit shall be ETL Sanitation Listed per the NSF-37 Standard.

Unheated units shall have a 24 month warranty on all parts.



POWERED AIRE INC.

www.poweredaire.com



MODEL: BAC
Maximum Mounting Height: Seven Feet
Conforms to NSF 37 Standard

PRODUCT DATA

Model	BAC-36	BAC-42	BAC-48	BAC-60
Nozzle Width (Inches)	36	42	48	60
Max. FPM at Nozzle	3900	3900	3900	3900
Max. CFM at Nozzle	3900	4550	5200	6500
Avg. FPM at Nozzle	2700	2314	2025	1620
CFM at Nozzle	2700	2700	2700	2700
Outlet Velocity Uniformity	79%	79%	79%	79%
Number of Motors	1	1	1	1
Horse Power	3/4	3/4	3/4	3/4
Weight (Lbs)	71	74	76	81

Sound Level: 64 dba
 Sound level measured 10 feet from the unit in a free field.

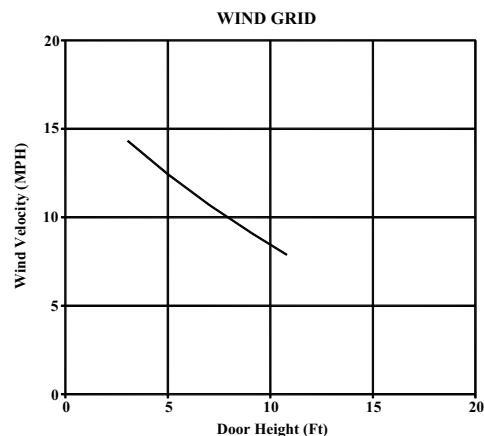
Single Phase Motor Voltage Available: 120 208/230

Amp Draw Per Motor: 8.0 3.6

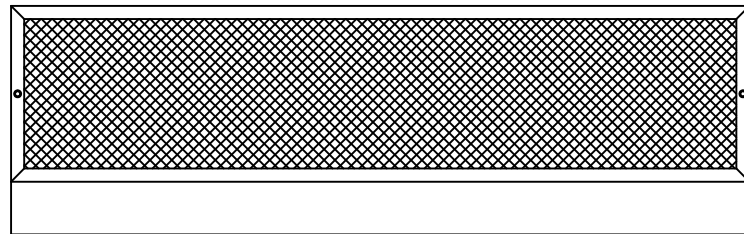
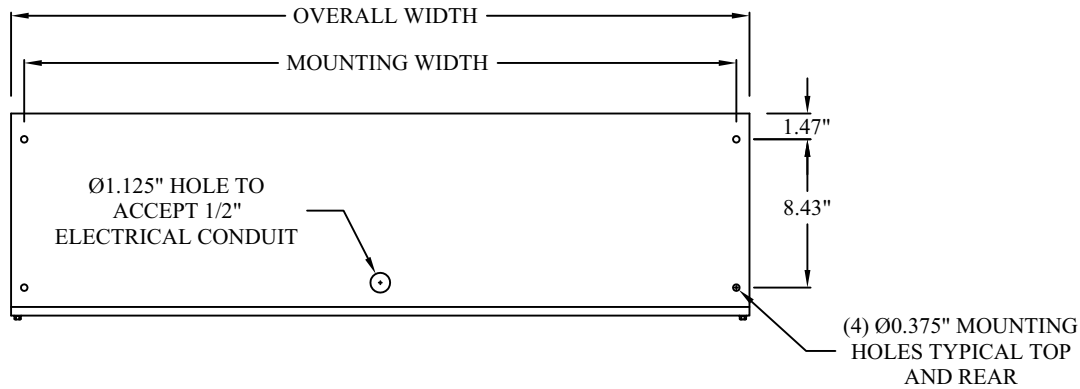
Indoor, Outdoor listed.



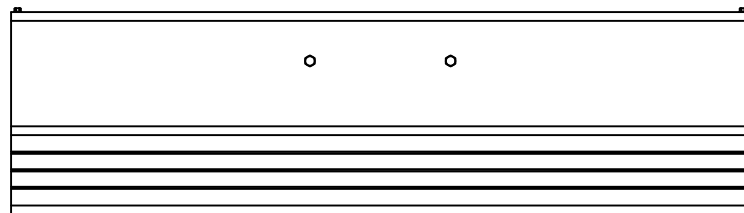
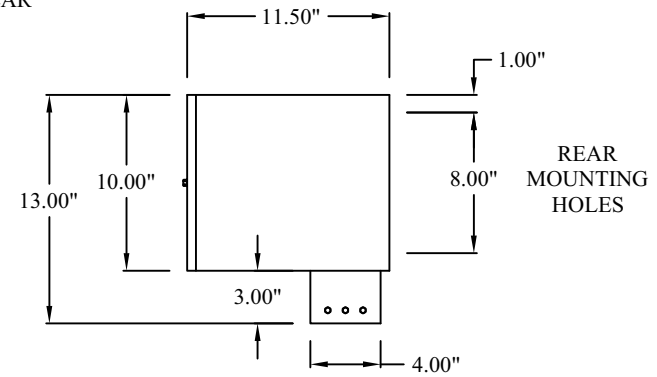
* Only 36, 42, and 48 models are ETL Sanitation Listed.



TOP




FRONT



BOTTOM

MODEL NUMBER	BAC-36	BAC-42	BAC-48	BAC-60
OVERALL WIDTH	36	42	48	60
MOUNTING WIDTH	34-1/2	40-1/2	46-1/2	58-1/2

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC. 109 Mortensen Rd. Greenville, PA 16125		
DATE: 10/01/13	PART DESCRIPTION:	
DRAWN BY: B.K.J.	POWERED AIRE SYSTEMS	
PART/FILE# BAC	MODEL BAC BUDGET AIR CURTAIN	
	TESTED UP TO SEVEN FEET HIGH	



POWERED AIRE INC.

www.poweredaire.com

**109 Mortensen Road
Greenville, PA 16125**

Phone: 724-588-3305

Fax: 724-588-3371

SUGGESTED AIRE CURTAIN SPECIFICATIONS

MODEL BCE

(CSI formatted specifications available at www.poweredaire.com)

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of a stainless steel casing, centrifugal fans, raised stainless steel inlet screen, discharge nozzle, motor(s), and an optional 1/2 inch recleanable filter. The aire curtain unit provides a specific CFM and a uniform velocity across the entire length of the discharge area.

Units shall be furnished in single increments of sufficient structural strength to be supported from both ends without intermediate support. Multiple units shall not be permitted. Unit casing shall be a minimum of 18 gauge 304 stainless steel in a number three finish.

Motors at 1/2 H.P. 1400 rpm each shall be heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230/480/575 volts 50/60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted. Inlet screen shall be perforated stainless steel with mill grain finish.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional air foil vane. The vane shall facilitate deflection of air stream ± 20 degrees.

Consult factory for optional top air intake.

Complete Aire Curtain unit shall be ETL or UL listed, for the United States and Canada. When unit(s) will be mounted outdoors, unit(s) must bear ETL or UL label for outdoor use.

Unit shall be built to USDA and FDA compliance.

Unheated units shall have a 24 month warranty on all parts.

October, 2013

Control Options for Model BCE

Unheated * Recommended

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

* **Hand/Off/Auto Selector Switch (Remote or Unit Mounted)** -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Other Options

Outdoor installation – Outdoor mount can be specified when ordered. Switches must be remote mounted if unit is installed outdoors.

Built-in Time Delay Relay -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch and High/Low Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

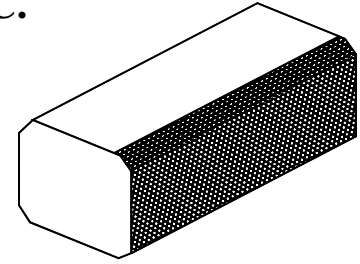
Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Remote or Unit Mounted) -- Switches the air curtain on and off.



POWERED AIRE INC.

www.poweredaire.com



MODEL: BCE
Bug Control Eight
Door Height: Up to Eight Feet

PRODUCT DATA

Model	BCE 1-36	BCE 1-42	BCE 1-48	BCE 1-60	BCE 2-60	BCE 2-72	BCE 2-84	BCE 2-96	BCE 3-108	BCE 3-120	BCE 3-132	BCE 4-144
Nozzle Width Inches	36	42	48	60	60	72	84	96	108	118	133	145
Max. FPM at Nozzle	3516	3516	3516	3516	3516	3516	3516	3516	3516	3516	3516	3516
Max. CFM at Nozzle	2418	2820	3223	3552	4250	4838	5640	6445	7254	8059	9088	9676
Avg. FPM at Nozzle	3146	2697	2359	2125	2822	3147	2697	2360	3139	2684	2343	3147
CFM at Nozzle	2170	2163	2155	2167	3245	4326	4314	4334	6489	6472	6475	8652
Outlet Velocity Uniformity	95%	93%	92%	91%	95%	95%	93%	92%	95%	94%	95%	95%
Number of Motors	1	1	1	1	2	2	2	2	3	3	3	4
Horse Power	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Weight (Lbs)	85	92	99	113	142	164	184	198	241	269	279	328

Sound Level: 60 dba

Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Single Phase Motor Voltage Available: 120 208/230 480 575

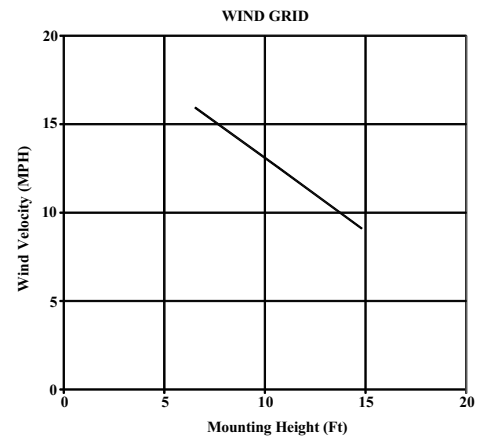
Amp Draw Per Motor: 7.3 3.0 1.7 1.3

** Nozzle width equals door width.

** For three phase motors consult factory.

** For unit over twelve feet long consult factory.

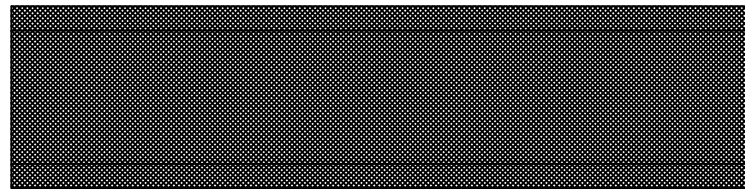
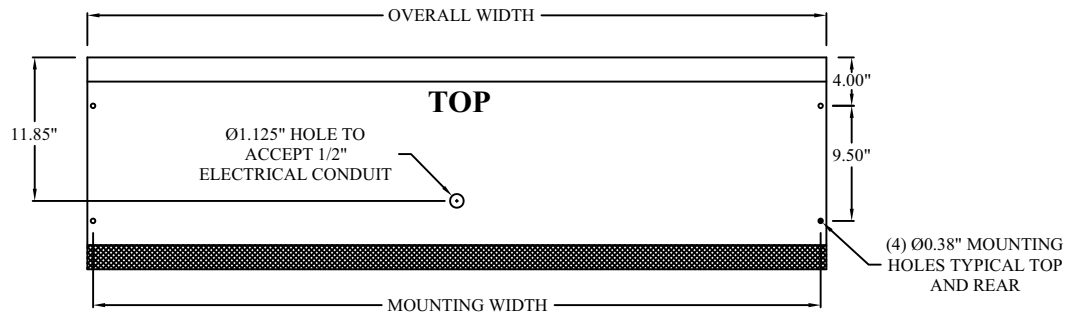
Indoor, Outdoor listed.



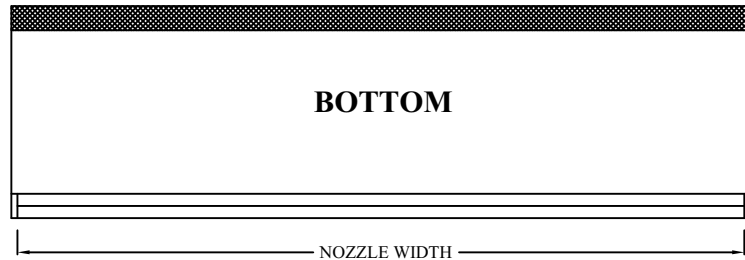
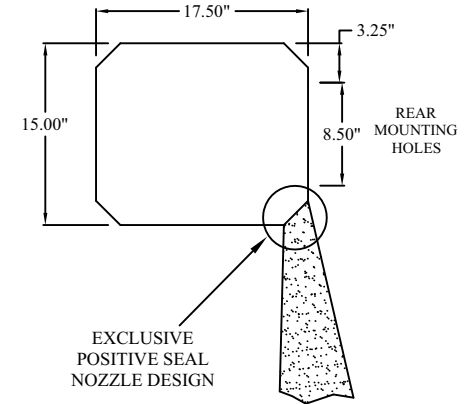
109 Mortensen Rd. Greenville, PA 16125

PHONE: 724-588-3305
 October, 2013

FAX: 724-588-3371



FRONT




BOTTOM

MODEL NUMBER	BCE 1-36	BCE 1-42	BCE 1-48	BCE 1-60	BCE 2-60	BCE 2-72	BCE 2-84	BCE 2-96	BCE 3-108	BCE 3-120	BCE 3-132	BCE 4-144
OVERALL WIDTH	37	43	49	61	61	73	85	97	109	119	134	146
NOZZLE WIDTH	36	42	48	60	60	72	84	96	108	118	133	145
MOUNTING WIDTH	36 1/16	42 1/16	48 1/16	60 1/16	60 1/16	72 1/16	84 1/16	96 1/16	108 1/16	118 1/16	133 1/16	145 1/16

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC.
109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL BCE BUG CONTROL UP TO EIGHT FEET HIGH
DRAWN BY: B.K.J.	
PART/FILE# BCE	



POWERED AIRE INC.

www.poweredaire.com

**109 Mortensen Road
Greenville, PA 16125**

Phone: 724-588-3305

Fax: 724-588-3371

SUGGESTED AIRE CURTAIN SPECIFICATIONS

MODEL BCT

(CSI formatted specifications available at www.poweredaire.com)

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of stainless steel casing, centrifugal fans, raised stainless steel inlet screen, discharge nozzle, motor(s), and an optional 1/2 inch recleanable filter. The aire curtain unit provides a specific CFM and a uniform velocity across the entire length of the discharge area.

Units shall be furnished in single increments of sufficient structural strength to be supported from both ends without intermediate support. Multiple units shall not be permitted. Unit casing shall be a minimum of 18 gauge 304 stainless steel in a number three finish.

Motors at 3/4 H.P. 1630 rpm each shall be heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230/480/575 volts 50/60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted. Inlet screen shall be perforated stainless steel with mill grain finish.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional air foil vane. The vane shall facilitate deflection of air stream ± 20 degrees.

Consult factory for optional top air intake.

Complete Aire Curtain unit shall be ETL or UL listed. When unit(s) will be mounted outdoors, unit(s) must bear ETL or UL label for outdoor use.

Unit shall be built to USDA and FDA compliance.

Unheated units shall have a 24 month warranty on all parts.

October, 2013

Control Options for Model BCT

Unheated * Recommended

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

* **Hand/Off/Auto Selector Switch (Remote or Unit Mounted)** -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Other Options

Outdoor installation – Outdoor mount can be specified when ordered. Switches must be remote mounted if unit is installed outdoors.

Built-in Time Delay Relay -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch, and High/Low Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

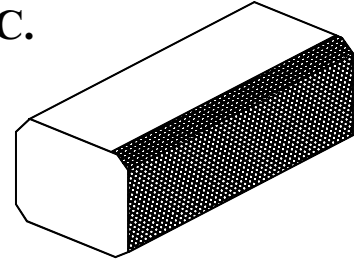
Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Remote or Unit Mounted) -- Switches the air curtain on and off.



POWERED AIRE INC.

www.poweredaire.com



MODEL: BCT
Bug Control Ten
Door Height: Up to Ten Feet

PRODUCT DATA

Model	BCT 1-36	BCT 1-42	BCT 1-48	BCT 1-60	BCT 2-60	BCT 2-72	BCT 2-84	BCT 2-96	BCT 3-108	BCT 3-120	BCT 3-132	BCT 4-144
Nozzle Width Inches	36	42	48	60	60	72	84	96	108	118	133	145
Max. FPM at Nozzle	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218
Max. CFM at Nozzle	2899	3384	3867	4374	5050	5803	6766	7732	8702	9668	10853	11606
Avg. FPM at Nozzle	3695	3169	2771	2218	3315	3696	3169	2773	3702	3174	2792	3696
CFM at Nozzle	2541	2532	2559	2528	3812	5082	5063	5081	7623	7614	7589	10164
Outlet Velocity Uniformity	95%	93%	92%	91%	95%	95%	93%	92%	95%	94%	95%	95%
Number Of Motors	1	1	1	1	2	2	2	2	3	3	3	4
Horse Power	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Weight (Lbs)	90	97	104	117	147	169	187	203	245	274	290	338

Sound Level: 63 dba

Sound level measured 10 feet from the unit in a free field based on one motor unit.

Single Phase Motor Voltage Available: **120 208/230 480 575**

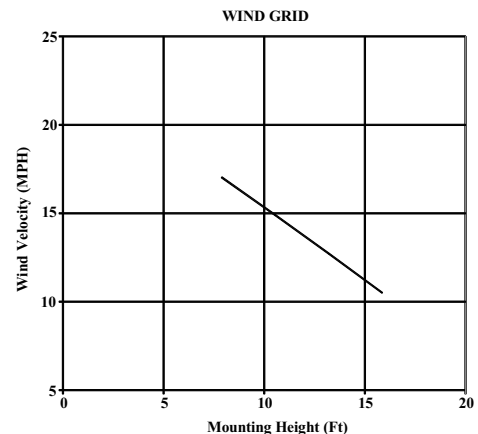
Amp Draw Per Motor: **8.0 3.6 2.0 1.5**

** Nozzle width equals door width.

** For three phase motors consult factory.

** For unit over twelve feet long consult factory.

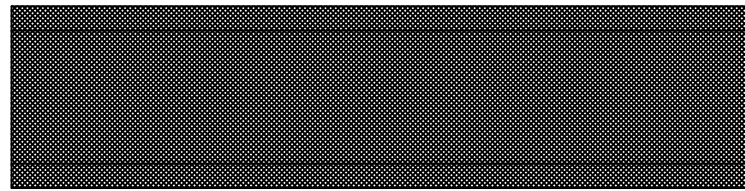
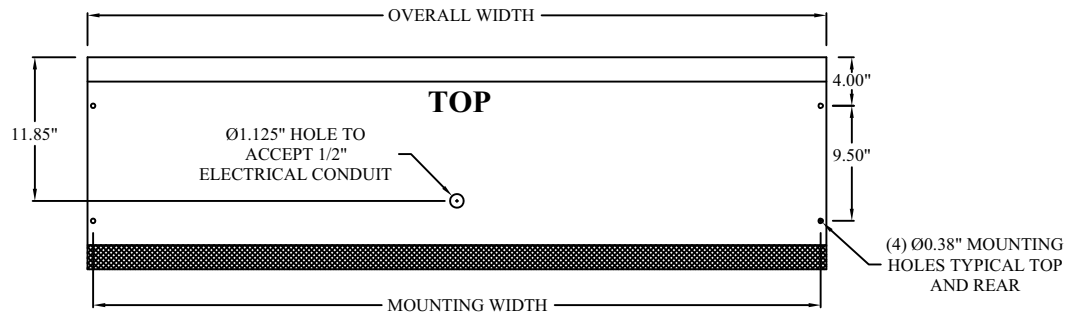
Indoor, Outdoor listed.



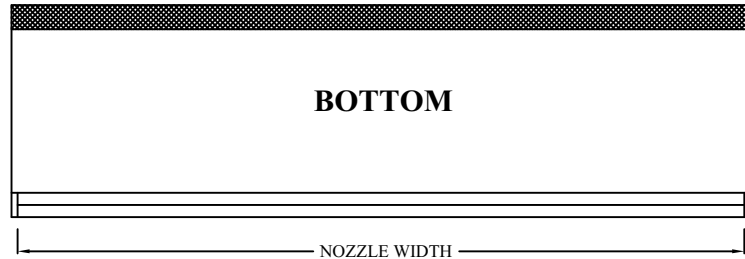
109 Mortensen Rd. Greenville, PA 16125

PHONE: 724-588-3305
 October, 2013

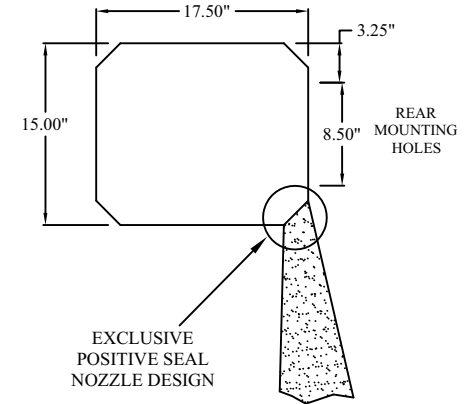
FAX: 724-588-3371



FRONT




BOTTOM



MODEL NUMBER	BCT 1-36	BCT 1-42	BCT 1-48	BCT 1-60	BCT 2-60	BCT 2-72	BCT 2-84	BCT 2-96	BCT 3-108	BCT 3-120	BCT 3-132	BCT 4-144
OVERALL WIDTH	37	43	49	61	61	73	85	97	109	119	134	146
NOZZLE WIDTH	36	42	48	60	60	72	84	96	108	118	133	145
MOUNTING WIDTH	36 1/16	42 1/16	48 1/16	60 1/16	60 1/16	72 1/16	84 1/16	96 1/16	108 1/16	118 1/16	133 1/16	145 1/16

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC.
109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL BCT BUG CONTROL UP TO TEN FEET HIGH
DRAWN BY: B.K.J.	
PART/FILE# BCT	



Powered Aire Models BCE & BCT







POWERED AIRE INC.

www.poweredaire.com

**109 Mortensen Road
Greenville, PA 16125**

**Phone: 724-588-3305
Fax: 724-588-3371**

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL RBT – STANDARD NSF-37 CERTIFIED

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of stainless steel casing, centrifugal fans, raised stainless steel inlet screen, discharge nozzle, motor(s), and an optional 1/2 inch recleanable filter. The aire curtain unit provides a specific CFM and a uniform velocity across the entire length of the discharge area.

Units shall be furnished in single increments of sufficient structural strength to be supported from both ends without intermediate support. Multiple units shall not be permitted. Unit casing shall be a minimum of 18 gauge 304 stainless steel in a number three finish.

Motors at 3/4 H.P. 1610 rpm each shall be heavy duty (totally enclosed) type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230/480/575 volts 60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted. Inlet screen shall be perforated stainless steel with mill grain finish.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional air foil vane. The vane shall facilitate deflection of air stream ± 20 degrees.

Consult factory for top air intake.

Complete Aire Curtain unit shall be ETL or UL listed. When unit(s) will be mounted outdoors, unit(s) must bear ETL or UL label for outdoor use.

Unit shall be ETL Sanitation Listed per the NSF-37 Standard.

Unheated units shall have a 24 month warranty on all parts.

October, 2013

Control Options for Model RBT

Unheated * Recommended

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

* **Hand/Off/Auto Selector Switch (Remote or Unit Mounted)** -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Other Options

Outdoor installation – Outdoor mount can be specified when ordered. Switches must be remote mounted if unit is installed outdoors.

Built-in Time Delay Relay -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Remote or Unit Mounted) -- Switches the air curtain on and off.



POWERED AIRE INC.

www.poweredaire.com

MODEL: RBT

Maximum Mounting Height: Seven Feet

Conforms to NSF 37 Standard

PRODUCT DATA

Model	RBT 1-36	RBT 1-42	RBT 1-48	RBT 1-60	RBT 2-60	RBT 2-72	RBT 2-84	RBT 2-96	RBT 3-108	RBT 3-120	RBT 3-132	RBT 4-144
Nozzle Width Inches	36	42	48	60	60	72	84	96	108	118	133	145
Max. FPM at Nozzle	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218
Max. CFM at Nozzle	2899	3384	3867	4374	5050	5803	6766	7732	8702	9668	10853	11606
Avg. FPM at Nozzle	3695	3169	2771	2218	3315	3696	3169	2773	3702	3174	2792	3696
CFM at Nozzle	2541	2532	2559	2528	3812	5082	5063	5081	7623	7614	7589	10164
Outlet Velocity Uniformity	95%	93%	92%	91%	95%	95%	93%	92%	95%	94%	95%	95%
Number Of Motors	1	1	1	1	2	2	2	2	3	3	3	4
Horse Power	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Weight (Lbs)	90	97	104	117	147	169	187	203	245	274	290	338

Sound Level: 63 dba

Sound level measured 10 feet from the unit in a free field based on one motor unit.

Single Phase Motor Voltage Available: 120 208/230 480 575

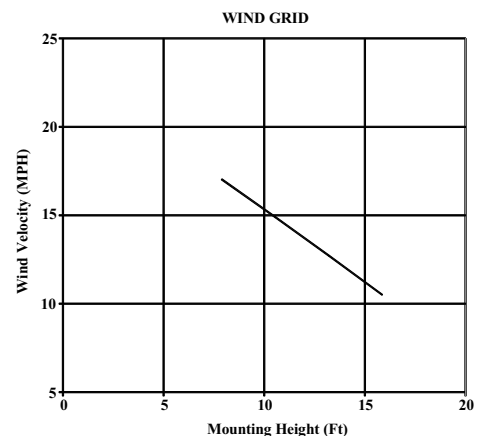
Amp Draw Per Motor: 8.0 3.6 2.0 1.5

** Nozzle width equals door width.

** For three phase motors consult factory.

** For unit over twelve feet long consult factory.

Indoor, Outdoor listed.

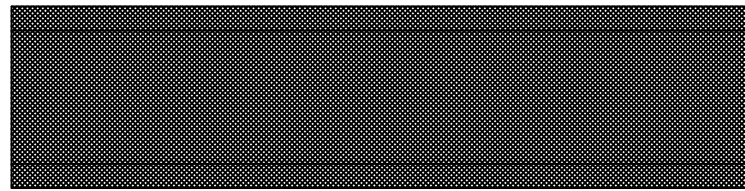
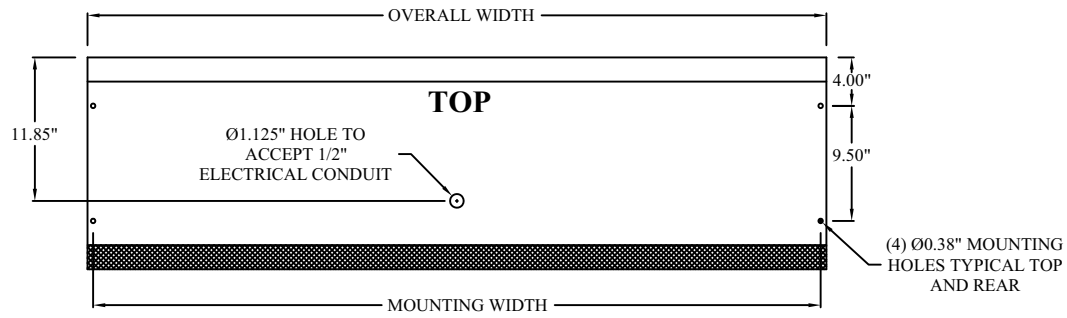


109 Mortensen Rd. Greenville, PA 16125

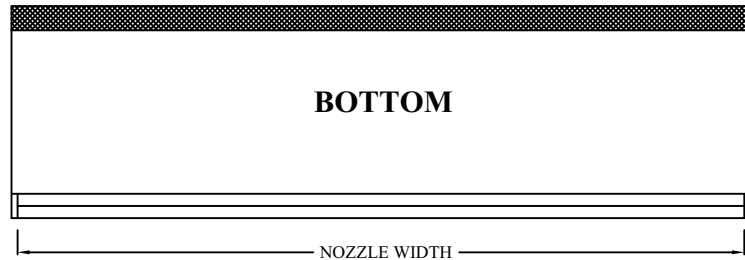
PHONE: 724-588-3305

FAX: 724-588-3371

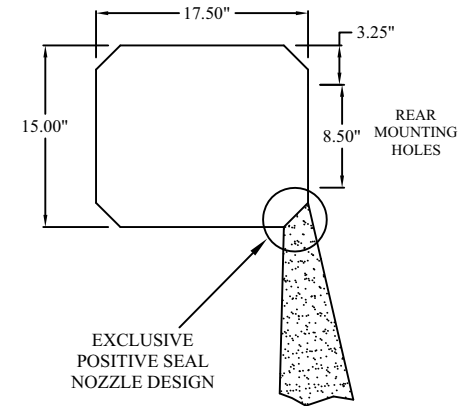
October, 2013



FRONT




BOTTOM



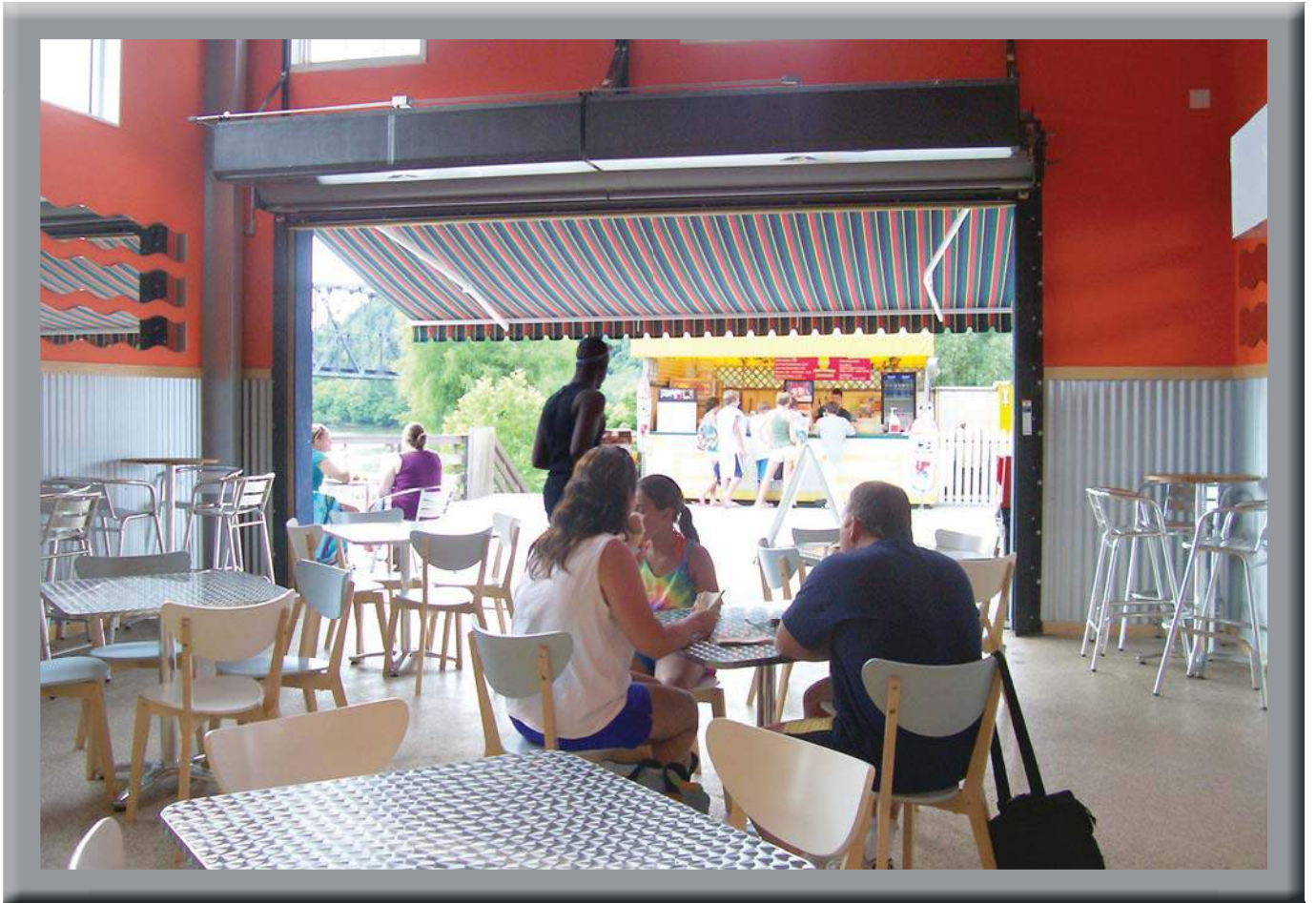
ETL-Sanitation Syndol-2.png

MODEL NUMBER	RBT 1-36	RBT 1-42	RBT 1-48	RBT 1-60	RBT 2-60	RBT 2-72	RBT 2-84	RBT 2-96	RBT 3-108	RBT 3-120	RBT 3-132	RBT 4-144
OVERALL WIDTH	37	43	49	61	61	73	85	97	109	119	134	146
NOZZLE WIDTH	36	42	48	60	60	72	84	96	108	118	133	145
MOUNTING WIDTH	36 1/16	42 1/16	48 1/16	60 1/16	60 1/16	72 1/16	84 1/16	96 1/16	108 1/16	118 1/16	133 1/16	145 1/16

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE TM <i>INC.</i> 109 Mortensen Rd. Greenville, PA 16125		
DATE: 10/01/13	PART DESCRIPTION:	
DRAWN BY: B.K.J.	POWERED AIRE SYSTEMS	
PART/FILE# RBT	MODEL RBT BUG TESTED UP TO SEVEN FEET HIGH	

Powered Aire Model RBT





POWERED AIRE INC.

www.poweredaire.com

**109 Mortensen Road
Greenville, PA 16125**

**Phone: 724-588-3305
Fax: 724-588-3371**

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL ETD (CSI formatted specifications available at www.poweredaire.com)

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of stainless steel casing, centrifugal fans, raised stainless steel inlet screen, discharge nozzle, motor(s), and an optional 1/2 inch recleanable filter. The aire curtain unit provides a specific CFM and a uniform velocity across the entire length of the discharge area.

Units shall be furnished in single increments of sufficient structural strength to be supported from both ends without intermediate support. Multiple units shall not be permitted. Unit casing shall be a minimum of 18 gauge 304 stainless steel in a number three finish.

Motors at 3/4 H.P. 1630 rpm each shall be heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230/480/575 volts 50/60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted. Inlet screen shall be perforated stainless steel with mill grain finish.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional airfoil vane. The vane shall facilitate deflection of air stream ± 20 degrees. Unit shall have multiple speed motor(s) to control air volume down from maximum speed.

Electric Heat Option

Unit(s) shall be provided with a factory mounted electric heating element (capacities as shown on data sheet). The heater shall consist of a factory wired heating coil with automatic reset thermal overloads. Heating elements shall be mounted inside the plenum, on the discharge side of the blowers, where heat can't affect motor life. Protective screening is not required on discharge nozzle. A remote or factory mounted heat on/off switch and thermostat available, please specify.

Steam / Hot Water Coil

For steam or hot water heated aire curtains see Hot Water / Steam Heated section of catalog.

Direct and Indirect Gas Heat

For direct or indirect gas heated aire curtains see Gas Heated section of catalog.

Consult factory for optional top air intake.

Aire Curtain unit shall be ETL or UL listed, for the United States and Canada.

Unheated unit(s) shall have a 24 month warranty on all parts. Heated unit(s) shall have an 18 month warranty on all parts.

October, 2013

Control Options for Model ETD

Unheated

* Recommended

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

*** Hand/Off/Auto Selector Switch (Remote or Unit Mounted)** -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

***High/Off/Low Selector Switch (Remote or Unit Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

Electrically Heated Options

* Recommended

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

*** Hand/Off/Auto Selector Switch (Remote or Unit Mounted)** -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

***High/Off/Low Selector Switch (Remote or Unit Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

***Heat On/Off Selector Switch (Remote or Unit Mounted)** -- Turns the electric heat on and off while the fans are running, or when used in conjunction with a thermostat can disable the heat.

***Thermostat (Remote or Unit Mounted)** -- Turns the electric heat in the unit on and off while the fans are running based on the room temperature.

***Single Point Power Connection** -- For units that would typically require more than one power source due to high amp draws according to the National Electric Code, branch fusing can be added so that the unit can be run from a single power source.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch, Heat On/Off Switch, High/Low Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection (single point power connection may be required)..

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected (single point power connection may be required)..

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Hand/Off/Auto Selector Switch (Remote or Unit Mounted) -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Remote or Unit Mounted) -- Switches the air curtain on and off.

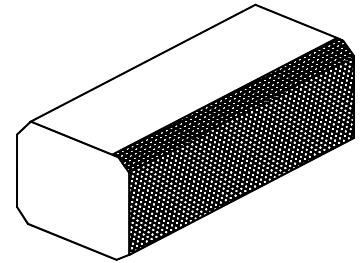
Programmable Digital Thermostat -- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day)

Built-in Time Delay Relay -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.



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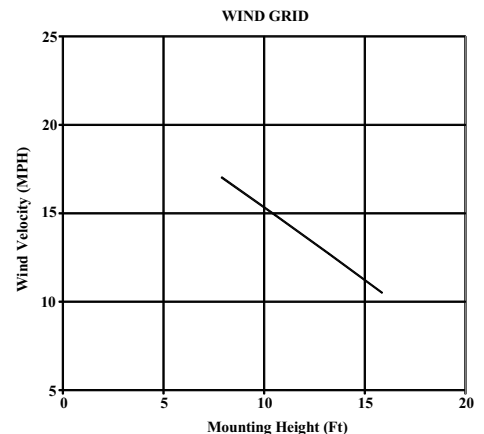
**MODEL: ETD - Dual Speed Unheated
Climate Control Eight Twelve Door
Door Height: Up to Twelve Feet**

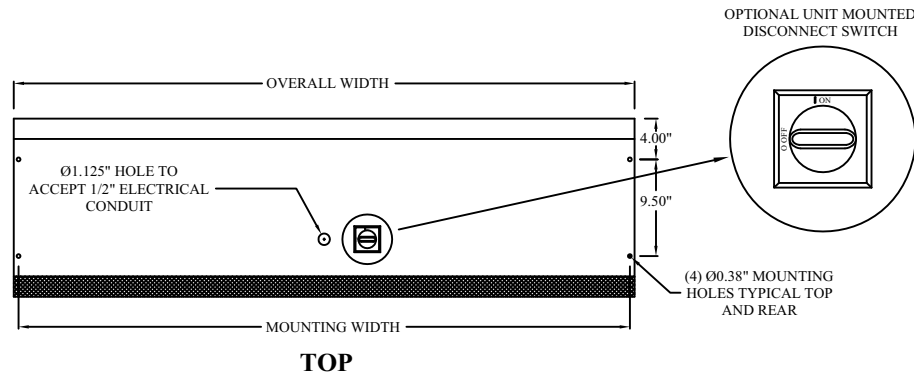
PRODUCT DATA DUAL SPEED UNITS (H) HIGH SPEED (L) LOW SPEED

Model	ETD 1-36	ETD 1-42	ETD 1-48	ETD 1-60	ETD 2-60	ETD 2-72	ETD 2-84	ETD 2-96	ETD 3-108	ETD 3-120	ETD 3-132	ETD 4-144
Nozzle width inches	36	42	48	60	60	72	84	96	108	118	133	145
Max. FPM at Nozzle	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837
Max. CFM at Nozzle	H 2899 L 1950	H 3384 L 2276	H 3867 L 2601	H 4374 L 2792	H 5050 L 3252	H 5803 L 3903	H 6766 L 4551	H 7732 L 5201	H 8702 L 5853	H 9668 L 6503	H 10853 L 7155	H 11606 L 7806
Avg. FPM at Nozzle	H 3695 L 2487	H 3169 L 2133	H 2771 L 1865	H 2218 L 1493	H 3315 L 2231	H 3696 L 2488	H 3169 L 2133	H 2773 L 1866	H 3702 L 2486	H 3174 L 2134	H 2792 L 1885	H 3696 L 2488
CFM at Nozzle	H 2541 L 1710	H 2532 L 1696	H 2559 L 1721	H 2528 L 1703	H 3812 L 2565	H 5082 L 3420	H 5063 L 3382	H 5081 L 3417	H 7623 L 5130	H 7614 L 5127	H 7589 L 5104	H 10164 L 6840
Outlet Velocity Uniformity	95%	93%	92%	91%	94%	95%	93%	92%	95%	94%	94%	95%
Number of Motors	1	1	1	1	2	2	2	2	3	3	3	4
Horse Power	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Weight (Lbs)	90	97	104	117	147	169	187	203	245	274	290	338

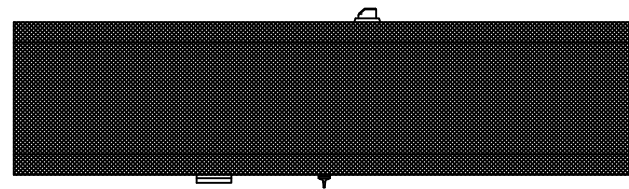
Sound Level: High Speed 63 dba Low Speed 56 dba
Sound level measured 10 feet from unit in a free field based on a 1 motor unit.

Single Phase Motor Voltage Available: 120 208/230 480 575
Amp Draw Per Motor: 8.0 3.6 2.0 1.5
**** Nozzle width equals door width.**
**** For three phase motors consult factory.**
**** For unit over twelve feet long consult factory.**

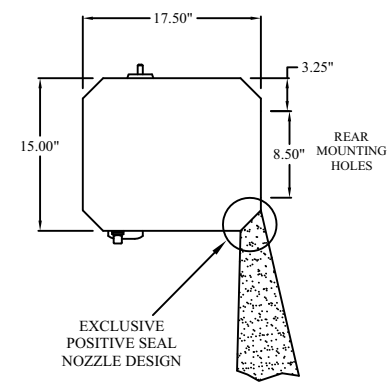




TOP

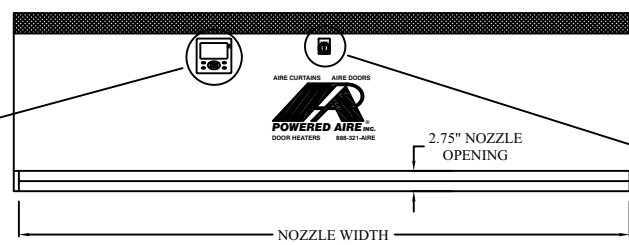
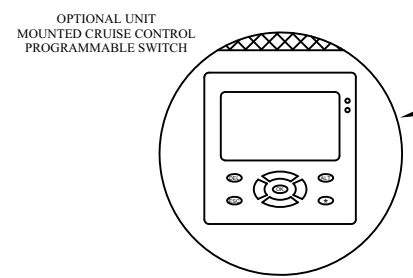


FRONT

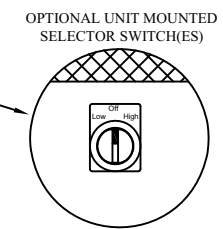


REAR MOUNTING HOLES

EXCLUSIVE POSITIVE SEAL NOZZLE DESIGN




BOTTOM



MODEL NUMBER	ETD 1-36	ETD 1-42	ETD 1-48	ETD 1-60	ETD 2-60	ETD 2-72	ETD 2-84	ETD 2-96	ETD 3-108	ETD 3-120	ETD 3-132	ETD 4-144
OVERALL WIDTH	37	43	49	61	61	73	85	97	109	119	134	146
NOZZLE WIDTH	36	42	48	60	60	72	84	96	108	118	133	145
MOUNTING WIDTH	36 1/16	42 1/16	48 1/16	60 1/16	60 1/16	72 1/16	84 1/16	96 1/16	108 1/16	118 1/16	133 1/16	145 1/16

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE TM INC.
109 Mortensen Rd. Greenville, PA 16125

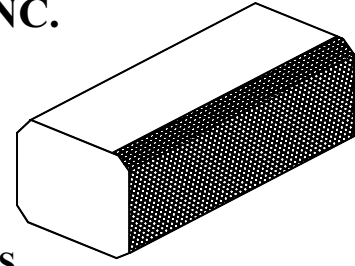


DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL ETD UNHEATED CLIMATE CONTROL DOOR
DRAWN BY: B.K.J.	
PART/FILE# ETD	



POWERED AIRE INC.

www.poweredaire.com



**MODEL: ETD - Dual Speed Electric Heat
Climate Control Eight Twelve Door
Door Height: Up to Twelve Feet**

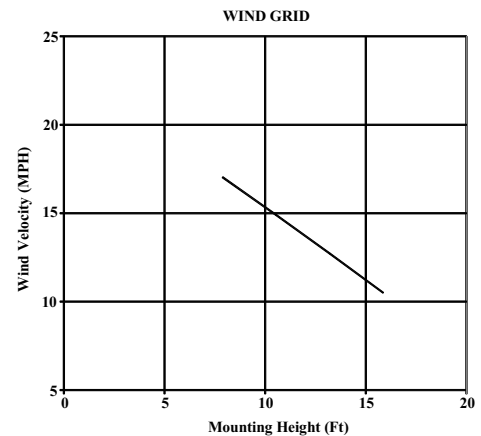
**PRODUCT DATA DUAL SPEED UNITS
(H) HIGH SPEED (L) LOW SPEED**

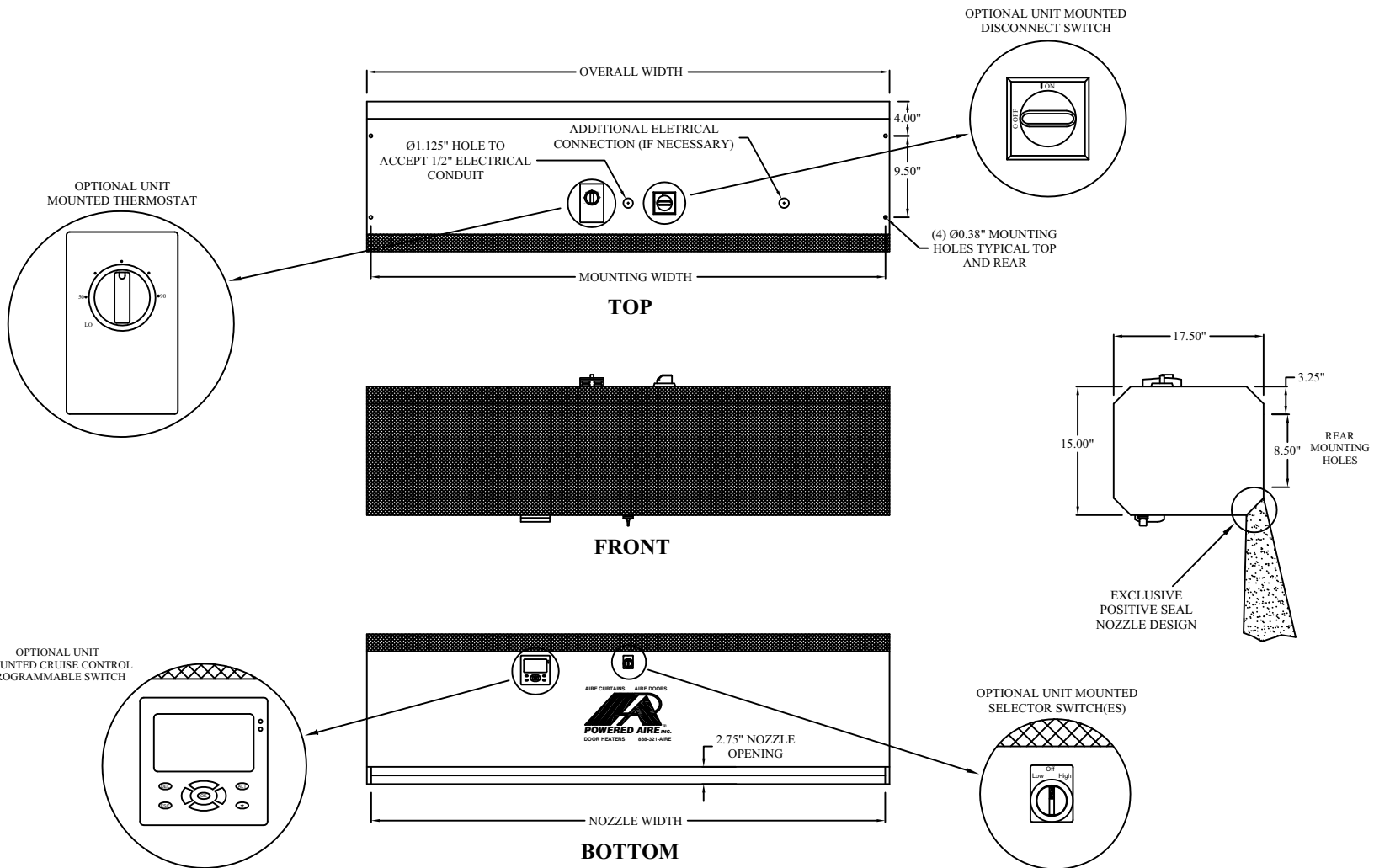
Model	ETD 1-36E	ETD 1-42E	ETD 1-48E	ETD 1-60E	ETD 2-60E	ETD 2-72E	ETD 2-84E	ETD 2-96E	ETD 3-108E	ETD 3-120E	ETD 3-132E	ETD 4-144E
Nozzle Width Inches	36	42	48	60	60	72	84	96	108	118	133	145
Max. FPM at Nozzle	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837
Max. CFM at Nozzle	H 2899 L 1950	H 3384 L 2276	H 3867 L 2601	H 4374 L 2792	H 5050 L 3252	H 5803 L 3903	H 6766 L 4551	H 7732 L 5201	H 8702 L 5853	H 9668 L 6503	H 10853 L 7155	H 11606 L 7806
Avg. FPM at Nozzle	H 3695 L 2487	H 3169 L 2133	H 2771 L 1865	H 2218 L 1493	H 3315 L 2231	H 3696 L 2488	H 3169 L 2133	H 2773 L 1866	H 3702 L 2486	H 3174 L 2134	H 2792 L 1885	H 3696 L 2488
CFM at Nozzle	H 2541 L 1710	H 2532 L 1696	H 2559 L 1721	H 2528 L 1703	H 3812 L 2565	H 5082 L 3420	H 5063 L 3382	H 5081 L 3417	H 7623 L 5130	H 7614 L 5127	H 7589 L 5104	H 10164 L 6840
Outlet Velocity Uniformity	95%	93%	92%	91%	95%	95%	93%	92%	92%	95%	95%	95%
Number of Motors	1	1	1	1	2	2	2	2	3	3	3	4
Horse Power	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Heater Kilo Watts	10	10	10	10	15	20	20	20	30	30	30	40
Temp. Rise Deg. (F)	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19	H 13 L 19
Heater Amps Only	Amp Draw 208/1/60	48.1	48.1	48.1	48.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Amp Draw 240/1/60	41.6	41.6	41.6	41.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Amp Draw 208/3/60	27.7	27.7	27.7	27.7	41.6	55.4	55.4	55.4	83.1	83.1	83.1
	Amp Draw 240/3/60	24.0	24.0	24.0	24.0	36.0	48.0	48.0	48.0	72.0	72.0	72.0
	Amp Draw 480/3/60	12.0	12.0	12.0	12.0	18.0	24.0	24.0	24.0	36.0	36.0	36.0
	Amp Draw 575/3/60	10.1	10.1	10.1	10.1	15.1	20.1	20.1	20.1	30.2	30.2	30.2
Weight (Lbs)	95	102	109	121	155	177	195	210	255	284	301	354

Sound Level: High Speed 63 dba Low Speed 56 dba
Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Single Phase Motor Voltage Available: 120 208/230 480 575
Amp Draw Per Motor: 8.0 3.6 2.0 1.5

- ** Nozzle width equals door width.
- ** For three phase motors consult factory.
- ** For unit over twelve feet long and nonstandard electric heater consult factory.






MODEL NUMBER	ETD 1-36E	ETD 1-42E	ETD 1-48E	ETD 1-60E	ETD 2-60E	ETD 2-72E	ETD 2-84E	ETD 2-96E	ETD 3-108E	ETD 3-120E	ETD 3-132E	ETD 4-144E
OVERALL WIDTH	37	43	49	61	61	73	85	97	109	119	134	146
NOZZLE WIDTH	36	42	48	60	60	72	84	96	108	118	133	145
MOUNTING WIDTH	36 1/16	42 1/16	48 1/16	60 1/16	60 1/16	72 1/16	84 1/16	96 1/16	108 1/16	118 1/16	133 1/16	145 1/16

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIR TM **INC.**
 109 Mortensen Rd. Greenville, PA 16125



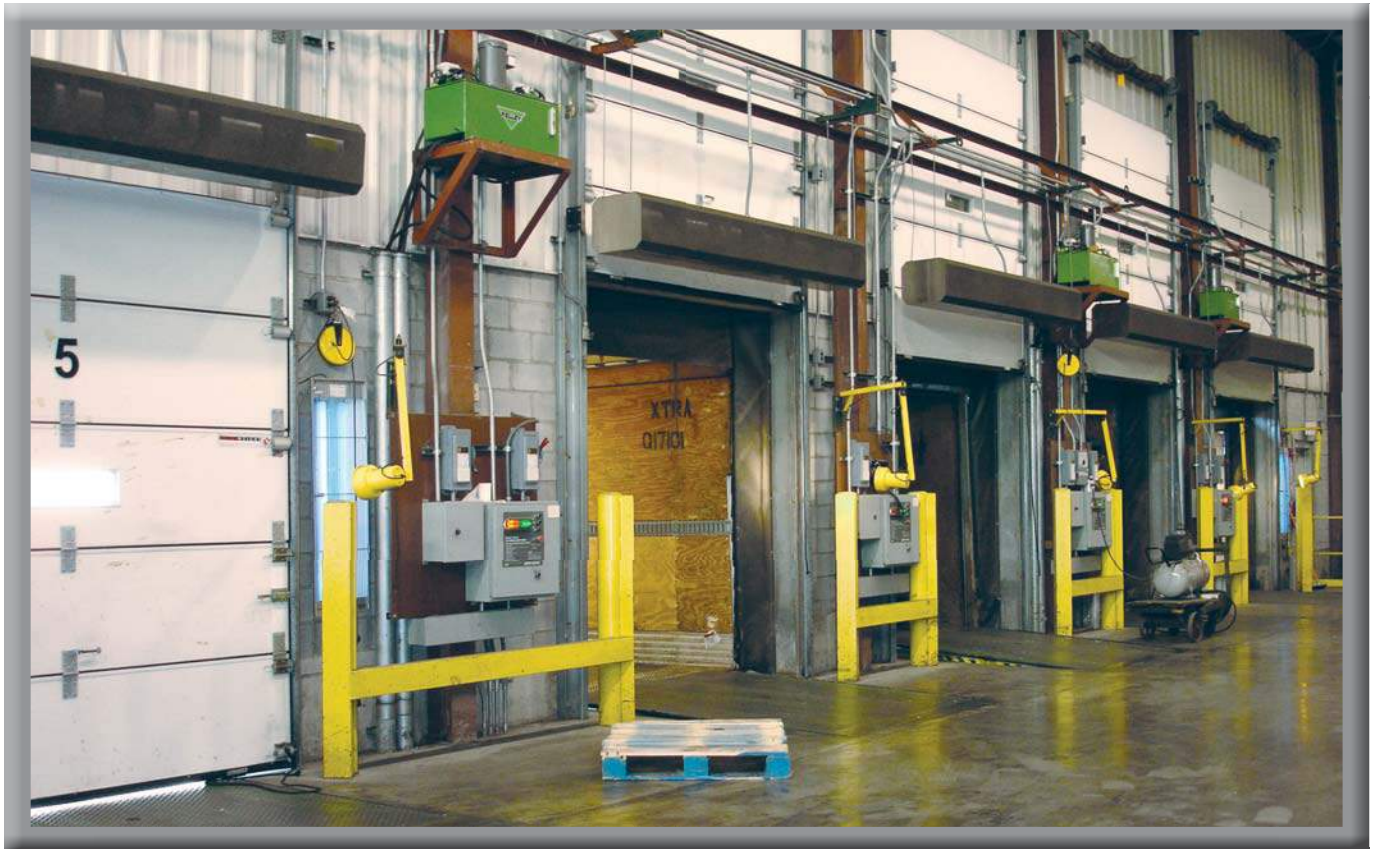
DATE: 10/01/13	PART DESCRIPTION: POWERED AIR SYSTEMS MODEL ETD ELECTRICALLY HEATED CLIMATE CONTROL DOOR
DRAWN BY: B.K.J.	
PART/FILE# ETD-E	



Powered Aire Model ETD









POWERED AIRE INC.

www.poweredaire.com

109 Mortensen Road
Greenville, PA 16125

Phone: 724-588-3305
Fax: 724-588-3371

SUGGESTED AIR CURTAIN SPECIFICATIONS MODEL TFD

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of a casing, motors, centrifugal fans, protective inlet screen, discharge nozzle, and an optional 1 inch recleanable filter. Air curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or lowering the bottom half of the unit. Air Curtain unit to provide uniform velocity across the entire length of the discharge area. The units will be front air intake. Units are universally manufactured for wall mount or top mount.

Units to be constructed with sufficient rigidity to span the length of the opening without intermediate support up to 192" length. All weight bearing structural support will be made of formed 14-gauge stainless steel and galvanized steel. Outer casing shall be constructed of 18-gauge stainless steel. Intake screen will be 20 gauge perforated type stainless steel. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Motors will be 1.5 horse power 1725 RPM each shall be heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 208/240/480/575 volts 50/60 Hz three phase or 120/208/240/480/575 volts 50/60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional air foil vane. The vanes shall facilitate deflection of air stream ± 20 degrees.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors.

Consult factory for optional top air intake.

Unheated unit(s) shall have a 24 month warranty on all parts.

Aire Curtain unit shall be ETL or UL listed. Unheated units shall have a 24 month warranty on all parts.

October, 2013

Looking for an air curtain with a little extra



Powered Aire Inc.
introduces
the

TFD
AIR CURTAIN



Provides
BETTER
PROTECTION
at 10-14 ft.
high Dock,
Ground Level
& Service Door
openings!

Designed for
1) **ENERGY**
SAVINGS
2) **INSECT**
CONTROL
3) **CLIMATE**
CONTROL

Featuring
Powered Aire's
signature
STAINLESS
STEEL
construction!

Available
with 3-phase
motors.

with **1.5 HP Motors**

PRODUCT DATA

Model	TFD 1-36	TFD 1-48	TFD 1-60	TFD 2-72	TFD 2-84	TFD 2-96	TFD 2-108	TFD 3-108	TFD 3-120	TFD 3-132	TFD 4-144	TFD 4-156	TFD 4-168
Door Width Feet	3	4	5	6	7	8	9	9	10	11	12	13	14
Nozzle Width Inches	36	48	60	72	84	96	108	108	120	132	144	156	168
Max FPM at Nozzle	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800
Max CFM at Nozzle	4214	4232	4301	8426	8445	8463	8532	12641	12659	12677	16855	16873	16891
Avg. FPM at Nozzle	4047	3048	2478	4047	3476	3048	2731	4046	3647	3320	4047	3740	3476
CFM at Nozzle	3541	3556	3614	7082	7097	7112	7170	10623	10638	10653	14164	14179	14194
Outlet Velocity Uniformity	95%	93%	92%	95%	93%	92%	91%	95%	94%	95%	95%	94%	95%
Number of Motors	1	1	1	2	2	2	2	3	3	3	4	4	4
Horse Power / Motor	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Weight (Lbs)	119	152	188	256	290	316	342	378	420	489	509	522	534

Sound level: 66 dba

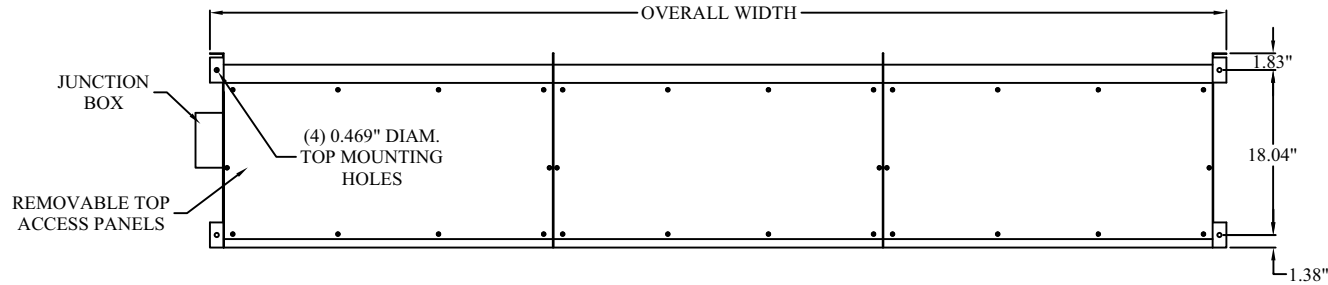
Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Call today and ask for a free Energy Savings Analysis of your application



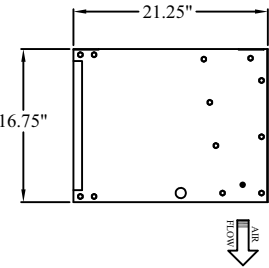
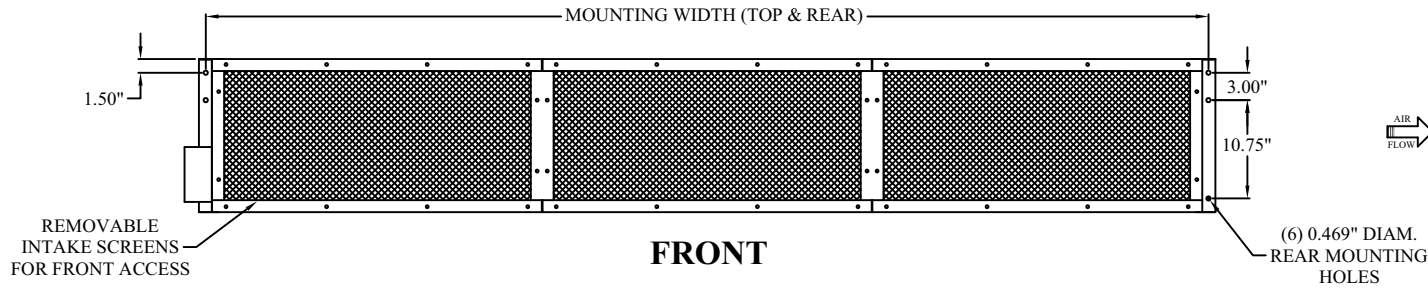
Phone: 888-321-AIRE (2473) - www.poweredaire.com

TOP

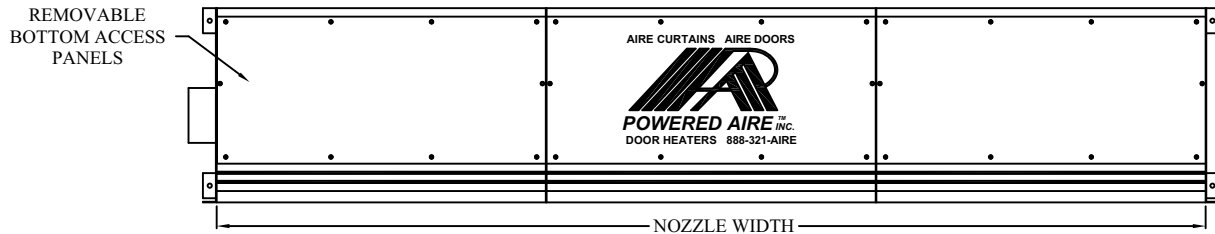


NOTES:

1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
3. IF FILTERS ARE REQUIRED ADD 2 1/8" TO AIRE CURTAIN DEPTH (21.25" DIMENSION).



FRONT



BOTTOM

MODEL NUMBER	TFD 1-36	TFD 1-48	TFD 1-60	TFD 2-72	TFD 2-84	TFD 2-96	TFD 2-108	TFD 3-108	TFD 3-120	TFD 3-132	TFD 4-144	TFD 4-156	TFD 4-168
OVERALL WIDTH	39.00	51.00	63.00	75.07	87.07	99.07	111.07	111.15	123.15	135.15	147.22	159.22	171.22
NOZZLE WIDTH	36.00	48.00	60.00	72.07	84.07	96.07	108.07	108.15	120.15	132.15	144.22	156.22	168.22
MOUNTING WIDTH (TOP & REAR)	37.50	49.50	61.50	73.57	85.57	97.57	109.57	109.65	121.65	133.65	145.72	157.72	169.72

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC. 109 Mortensen Rd. Greenville, PA 16125	
DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL TFD UNHEATED AIR CURTAIN
DRAWN BY: B.K.J.	
PART/FILE# TFD	

Whether your job is a 24-inch wide door opening...or a 30-foot wide door opening....

We've got you covered!

If unwanted cold air, or hot air enters your door every time it opens...***We've got you covered!***

If you want to lower your heating or air conditioning costs, keep insects out, and maintain draft-free interior areas...

Don't forget—

We've Got You Covered!

2 ft.

30 ft.

Powered Aire
Stainless Steel
EHD-6-360 built
for a major industrial
equipment manufacturer.

**Our aire curtains
are available:**

- **Unheated**
- **Heated (electric, indirect gas fired, direct gas fired, hot water or steam heat)**
- **Cooled (chilled water)**

Call for details!

888-321-AIRE
(2473)

Powered Aire Inc.

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We've Got You Covered!

CASE STUDY: Typical Heating Season Application

Powered Aire Industrial Unheated Model TSD-2-120



- 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** aire curtain operating: 42.2° F
- Temperature inside door after 2 minutes **WITH** aire curtain operating: 66.7° F

CASE STUDY: Typical Cooling Season Application

Powered Aire Commercial Unheated Model ETD-3-108



- Outside temperature: 94.9° F
- Tests conducted after overhead door had been open for 3 hours*

- Inside temperature after 3 hours **WITHOUT** aire curtain operating: 86.6° F
- Inside temperature after 3 hours **WITH** aire curtain operating: 74.4° F



Call for details!



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109 Mortensen Road
Greenville, PA 16125

Phone: 724-588-3305
Fax: 724-588-3371

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL TSD

(CSI formatted specifications available at www.poweredaire.com)

Aire curtains are to be furnished as factory assembled units manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of casing, motors, centrifugal fans, protective inlet screen and discharge nozzle. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or lowering the bottom half of the unit. Aire Curtain unit to provide uniform velocity across the entire length of the discharge area. Units are universally manufactured for wall mount or top mount.

Units to be constructed with sufficient rigidity to span the length of the opening without intermediate support. Additional mounting holes to be provided on larger units for buildings where structural support is not adequate for supporting the aire curtain from ends only. 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. Intake screen will be 20 gauge perforated type stainless steel. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Units shall be equipped with dynamically balanced curved double inlet double width galvanized blower wheels with brazed hubs and matched blower housings. Fan scrolls or formed fiberglass air diverters shall not be acceptable.

Motors will be 3 horse power Total Enclosed Air Over (TEAO) 1160 RPM 50/60 cycle equipped with sealed ball bearings of equal size at each end and double extended shafts. To prevent a misalignment from occurring, no outboard bearings or flexible couplings will be acceptable. Aire curtain discharge to distribute outlet air evenly at and between blowers for the entire length of aire curtain through the use of a plenum.

Discharge nozzle shall be adjustable to ± 20 degrees with no dampers or grills to add turbulence and create a pressure drop or a sound pressure increase.

The unit design shall allow for addition of heating sections or filters without altering the base unit.

Unit performance rating shall be tested in accordance with AMCA air curtain test procedure #220 and shall be licensed to bear the AMCA Certified Ratings Seal. The AMCA Certified Ratings Seal applies to airflow rate, average outlet velocity, outlet velocity uniformity, velocity projection and power rating at free delivery only.

Electric Heat Option

For electric heating option consult factory.

Steam / Hot Water Coil

For steam or hot water heated aire curtains see Hot Water / Steam Heated section of catalog.

Direct and Indirect Gas Heat

For direct or indirect gas heated aire curtains see Gas Heated section of catalog.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors.

Consult factory for optional top air intake.

Aire Curtain unit shall be ETL or UL listed. Unheated unit(s) shall have a 24 month warranty on all parts. Heated unit(s) shall have an 18 month warranty on all parts.

Control Options for Model TSD

Unheated * Recommended

* **Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

* **Hand/Off/Auto Selector Switch (Panel Mounted)** -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch, and Heat On/Off Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Panel Mounted) -- Switches the air curtain on and off.

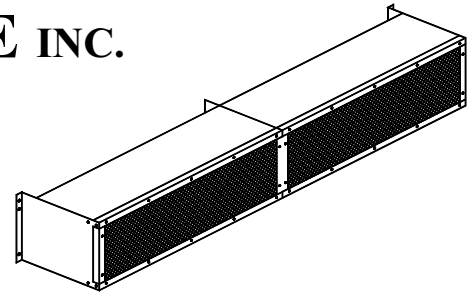
Programmable Digital Thermostat -- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day)

Built-in Time Delay Relay -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.



POWERED AIRE INC.

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MODEL: TSD Unheated
Door Height: Up to Seventeen Feet

PAAC-101

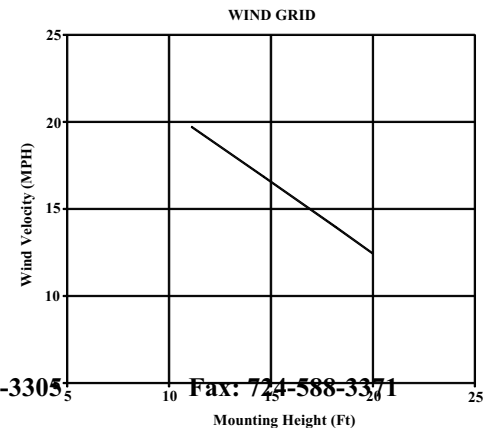
Model	Door Width Feet	Nozzle Width Inches	Max FPM At Nozzle	Avg. Outlet Velocity FPM	CFM At Nozzle	Outlet Velocity Uniformity	Power Rating KW	Number Of Motors	Horse Power	Weight Lbs.
TSD 1-48	4	48	6200	3530	4554	92%	2.0	1	3	342
TSD 1-60	5	60	5800	3006	4855	92%	2.1	1	3	380
TSD 1-72	6	72	5900	2891	5579	86.3%	2.5	1	3	400
TSD 2-96	8	96	6200	3530	9108	92%	4.0	2	3	681
TSD 2-108	9	108	6200	3239	9409	92%	4.1	2	3	719
TSD 2-120	10	120	5800	3006	9710	92%	4.2	2	3	757
TSD 2-132	11	132	5900	2943	10434	86.3%	4.6	2	3	777
TSD 2-144	12	144	5900	2891	11158	86.3%	5.0	2	3	797
TSD 3-144	12	144	6200	3530	13662	92%	6.0	3	3	1020
TSD 3-156	13	156	6200	3328	13963	92%	6.1	3	3	1058
TSD 3-168	14	168	6200	3257	14687	86.3%	6.5	3	3	1078
TSD 3-180	15	180	6200	3100	14988	86.3%	6.6	3	3	1116
TSD 3-192	16	192	6200	3051	15712	86.3%	7.0	3	3	1136
TSD 4-192	16	192	6200	3530	18216	92%	8.0	4	3	1359
TSD 3-204	17	204	5900	2925	16013	86.3%	7.1	3	3	1174
TSD 4-204	17	204	6200	3376	18517	92%	8.1	4	3	1397
TSD 3-216	18	216	5900	2891	16737	86.3%	7.5	3	3	1194
TSD 4-216	18	216	6200	3317	19241	86.3%	8.5	4	3	1417
TSD 4-228	19	228	6200	3191	19542	86.3%	8.6	4	3	1455
TSD 4-240	20	240	6200	3147	20266	86.3%	9.0	4	3	1475
TSD 5-240	20	240	6200	3530	22770	92%	10.0	5	3	1698
TSD 4-252	21	252	6200	3040	20567	86.3%	9.1	4	3	1513

*See Reverse Side For Larger Sizes

The AMCA Certified Ratings Seal applies to air performance ratings only.
 Sound level measured 10 feet from a one motor unit in a free field: 69 dBA

Three Phase Motor Voltage Available: 208 240 480 575
Amp Draw Per Motor: 13.1 12.2 6.1 5.0

Velocity Projection Model: TSD 1-48
 Distance From Nozzle: 4' 12' 18'
 Core Velocity (fpm): 2800 1800 1482



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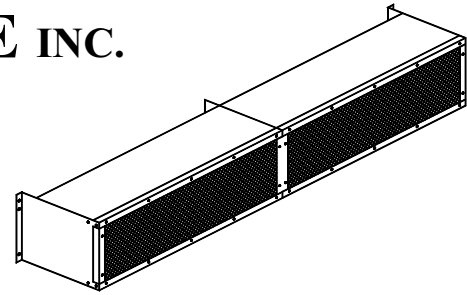
Phone: 724-588-3305
 October, 2013

Fax: 724-588-3371



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MODEL: TSD Unheated
Door Height: Up to Seventeen Feet

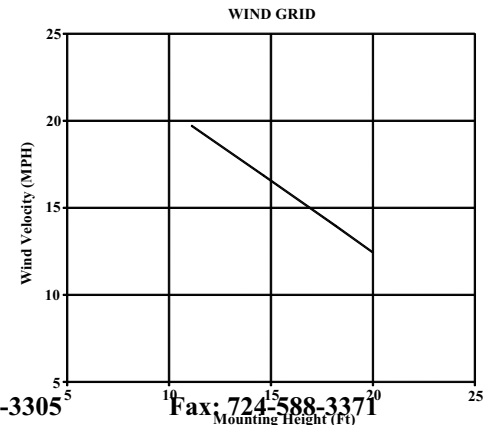
PAAC-102

Model	Door Width Feet	Nozzle Width Inches	Max FPM At Nozzle	Avg. Outlet Velocity FPM	CFM At Nozzle	Outlet Velocity Uniformity	Power Rating KW	Number Of Motors	Horse Power	Weight Lbs.
TSD 5-252	21	252	6200	3405	23071	92%	10.1	5	3	1736
TSD 4-264	22	264	6200	3007	21291	86.3%	9.5	4	3	1533
TSD 5-264	22	264	6200	3356	23795	86.3%	10.5	5	3	1756
TSD 4-276	23	276	5900	2916	21592	86.3%	9.6	4	3	1571
TSD 5-276	23	276	6200	3250	24096	86.3%	10.6	5	3	1794
TSD 4-288	24	288	5900	2891	22316	86.3%	10.0	4	3	1591
TSD 5-288	24	288	6200	3211	24820	86.3%	11.0	5	3	1814
TSD 6-288	24	288	6200	3530	27324	92%	12.0	6	3	2037
TSD 5-300	25	300	6200	3119	25121	86.3%	11.1	5	3	1852
TSD 6-300	25	300	6200	3425	27625	92%	12.1	6	3	2075
TSD 5-312	26	312	6200	3088	25845	86.3%	11.5	5	3	1872
TSD 6-312	26	312	6200	3383	28349	86.3%	12.5	6	3	2095
TSD 5-324	27	324	6200	3007	26146	86.3%	11.6	5	3	1910
TSD 6-324	27	324	6200	3291	28650	86.3%	12.6	6	3	2133
TSD 5-336	28	336	6200	2982	26870	86.3%	12.0	5	3	1930
TSD 6-336	28	336	6200	3257	29374	86.3%	13.0	6	3	2153
TSD 7-336	28	336	6200	3530	31878	92%	14.0	7	3	2376
TSD 5-348	29	348	5900	2911	27171	86.3%	12.1	5	3	1968
TSD 6-348	29	348	6200	3175	29675	86.3%	13.1	6	3	2191
TSD 7-348	29	348	6200	3440	32179	92%	14.1	7	3	2414
TSD 5-360	30	360	5900	2891	27895	86.3%	12.5	5	3	1988
TSD 6-360	30	360	6200	3147	30399	86.3%	13.5	6	3	2211
TSD 7-360	30	360	6200	3403	32903	86.3%	14.5	7	3	2434

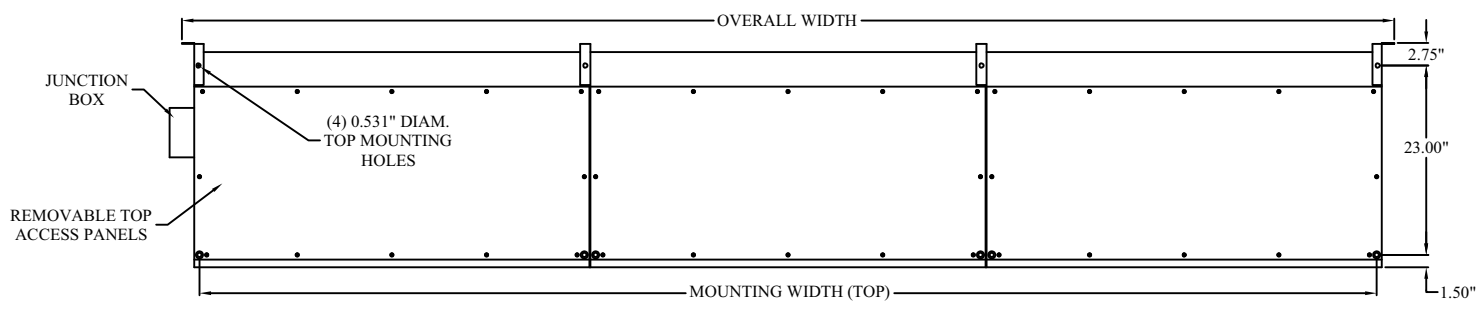
The AMCA Certified Ratings Seal applies to air performance ratings only.
 Sound level measured 10 feet from a one motor unit in a free field: 69 dBA

Three Phase Motor Voltage Available: 208 240 480 575
Amp Draw Per Motor: 13.1 12.2 6.1 5.0

Velocity Projection Model: TSD 1-48
 Distance From Nozzle: 4' 12' 18'
 Core Velocity (fpm): 2800 1800 1482

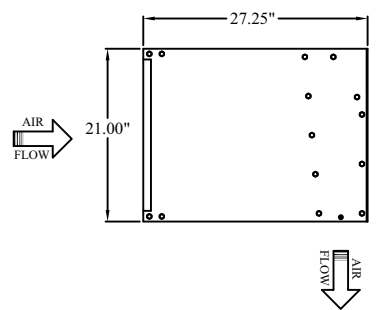
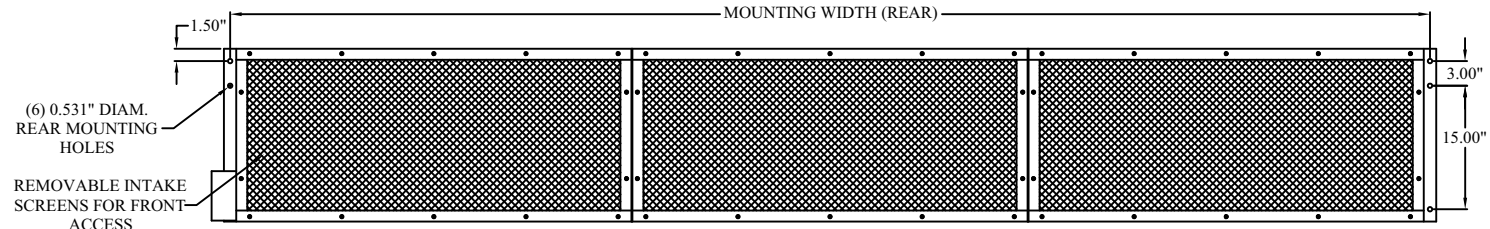


TOP



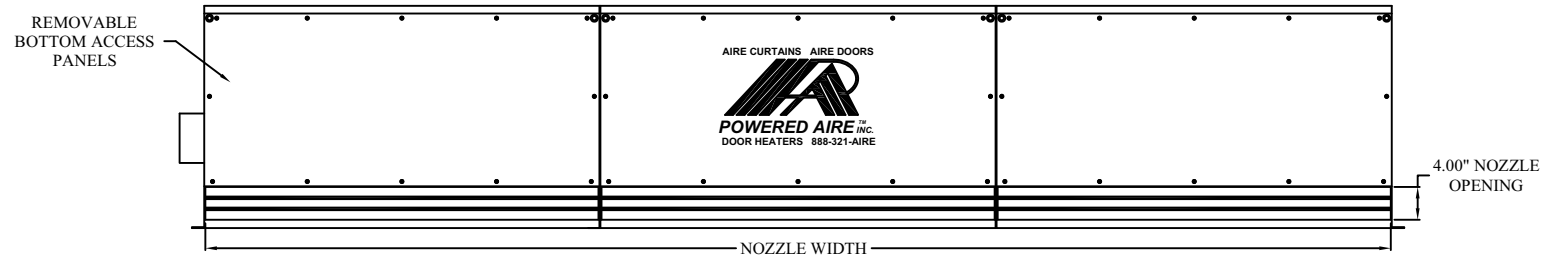
- NOTES:
 1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
 2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.

FRONT



FRONT


BOTTOM



MODEL NUMBER	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	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	*See Reverse Side For Larger Sizes	
OVERALL WIDTH	51.00	63.00	75.00	99.12	111.12	123.12	135.12	147.12	147.24	159.24	171.24	183.24	195.24	195.36	207.24	207.36	219.24	219.36	231.36	243.36	243.48	255.36		
NOZZLE WIDTH	48.00	60.00	72.00	96.12	108.12	120.12	132.12	144.12	144.24	156.24	168.24	180.24	192.24	192.36	204.24	204.36	216.24	216.36	228.36	240.36	240.48	252.36		
MOUNTING WIDTH REAR	49.50	61.50	73.50	97.62	109.62	121.62	133.62	145.62	145.74	157.74	169.74	181.74	193.74	193.86	205.74	205.86	217.74	217.86	229.86	241.86	241.98	253.86		
MOUNTING WIDTH TOP	47.00	59.00	71.00	95.12	107.12	119.12	131.12	143.12	143.24	155.24	167.24	179.24	191.24	191.36	203.24	203.36	215.24	215.36	227.36	239.36	239.48	251.36		

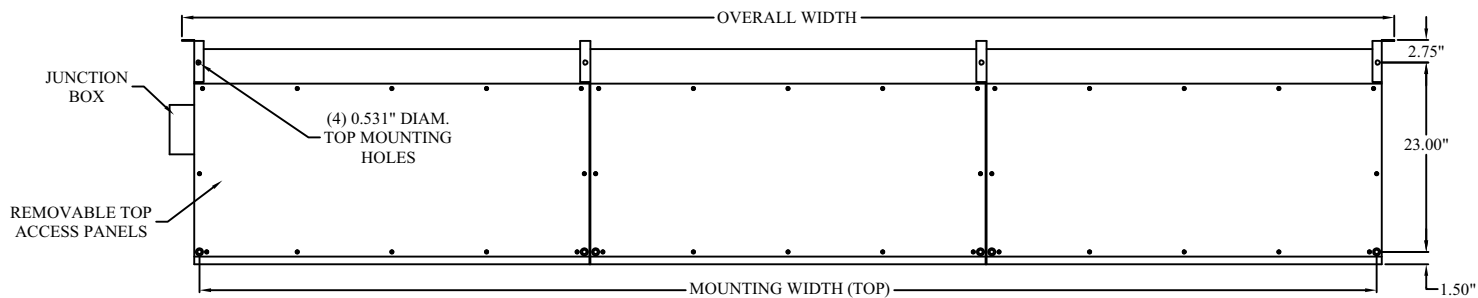
JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

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 109 Mortensen Rd. Greenville, PA 16125



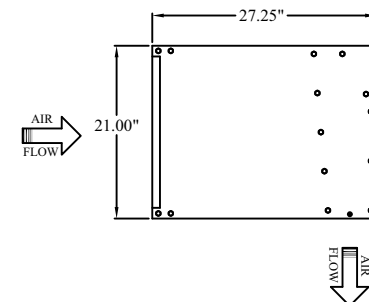
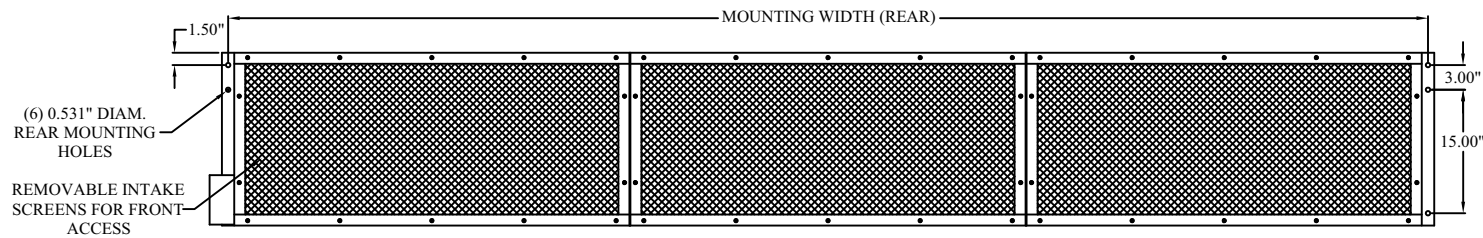
DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL TSD FRONT INTAKE 4 - 21 FEET DOOR WIDTH
DRAWN BY: B.K.J.	
PART/FILE# TSD	

TOP



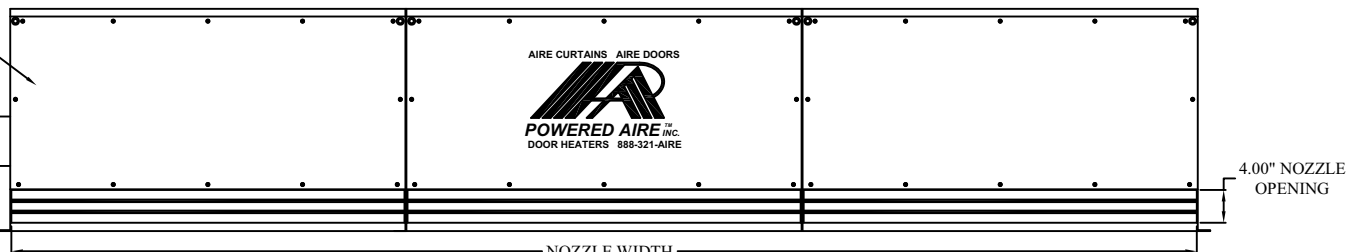
- NOTES:
 1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
 2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.

FRONT



FRONT

REMOVABLE BOTTOM ACCESS PANELS




BOTTOM

MODEL NUMBER	TSD 5-252	TSD 4-264	TSD 5-264	TSD 4-276	TSD 5-276	TSD 4-288	TSD 5-288	TSD 6-288	TSD 5-300	TSD 6-300	TSD 5-312	TSD 6-312	TSD 5-324	TSD 6-324	TSD 5-336	TSD 6-336	TSD 7-336	TSD 5-348	TSD 6-348	TSD 7-348	TSD 5-360	TSD 6-360	TSD 7-360
OVERALL WIDTH	255.48	267.36	267.48	279.36	279.48	291.36	291.48	291.60	303.48	303.60	315.48	315.60	327.48	327.60	339.48	339.60	339.72	351.48	351.60	351.72	363.48	363.60	363.72
NOZZLE WIDTH	252.48	264.36	264.48	276.36	276.48	288.36	288.48	288.60	300.48	300.60	312.48	312.60	324.48	324.60	336.48	336.60	336.72	348.48	348.60	348.72	360.48	360.60	360.72
MOUNTING WIDTH REAR	253.98	265.86	265.98	277.86	277.98	289.86	289.98	290.10	301.98	302.10	313.98	314.10	325.98	326.10	337.98	338.10	338.22	349.98	350.10	350.22	361.98	362.10	362.22
MOUNTING WIDTH TOP	251.48	263.36	263.48	275.36	275.48	287.36	287.48	287.60	299.48	299.60	311.48	311.60	323.48	323.60	335.48	335.60	335.72	347.48	347.60	347.72	359.48	359.60	359.72

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC.
 109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL TSD FRONT INTAKE 21 - 30 FEET DOOR WIDTH
DRAWN BY: B.K.J.	
PART/FILE# TSD	



Powered Aire Model TSD







POWERED AIRE INC.

www.poweredaire.com

**109 Mortensen Road
Greenville, PA 16125**

**Phone: 724-588-3305
Fax: 724-588-3371**

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL EHD

(CSI formatted specifications available at www.poweredaire.com)

Aire curtains are to be furnished as factory assembled units manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of casing, motors, centrifugal fans, protective inlet screen and discharge nozzle. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or lowering the bottom half of the unit. Aire Curtain unit to provide uniform velocity across the entire length of the discharge area. The units will be front or top air intake. Units are universally manufactured for wall mount or top mount.

Units to be constructed with sufficient rigidity to span the length of the opening without intermediate support. Additional mounting holes to be provided on larger units for buildings where structural support is not adequate for supporting the aire curtain from ends only. 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. Intake screen will be 20 gauge perforated type stainless steel. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Units shall be equipped with dynamically balanced curved double inlet double width galvanized blower wheels with brazed hubs and matched blower housings. Fan scrolls or formed fiberglass air diverters shall not be acceptable.

Motors will be 5 horse power Total Enclosed Air Over (TEAO) 1160 RPM 50/60 cycle equipped with sealed ball bearings of equal size at each end and double extended shafts. To prevent a misalignment from occurring, no outboard bearings or flexible couplings will be acceptable. Aire curtain discharge to distribute outlet air evenly at and between blowers for the entire length of aire curtain through the use of a plenum.

Discharge nozzle shall be adjustable to ± 20 degrees with no dampers or grills to add turbulence and create a pressure drop or a sound pressure increase.

The unit design shall allow for addition of heating sections or filters without altering the base unit.

Electric Heat Option

For electric heating option consult factory.

Steam / Hot Water Coil

For steam or hot water heated aire curtains see Hot Water / Steam Heated section of catalog.

Direct and Indirect Gas Heat

For direct or indirect gas heated aire curtains see Gas Heated section of catalog.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors.

Aire Curtain unit shall be ETL or UL listed. Unheated unit(s) shall have a 24 month warranty on all parts. Heated unit(s) shall have an 18 month warranty on all parts.

October, 2013

Control Options for Model EHD

Unheated * Recommended

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

* **Hand/Off/Auto Selector Switch (Panel Mounted)** -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, and On/Off/Auto Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Panel Mounted) -- Switches the air curtain on and off.

Programmable Digital Thermostat -- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day)

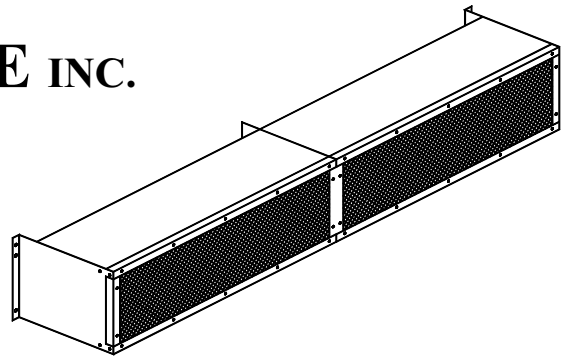
Built-in Time Delay Relay -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.



POWERED AIRE INC.

www.poweredaire.com

MODEL: EHD Unheated
Extra High Door
Door Height: Up to Twenty-Two Feet



PRODUCT DATA

Model	EHD 1-48	EHD 1-60	EHD 1-72	EHD 2-96	EHD 2-108	EHD 2-120	EHD 2-132	EHD 2-144	EHD 3-156	EHD 3-168	EHD 3-180	EHD 3-192	EHD 3-204	EHD 3-216	EHD 4-228	EHD 4-240
Door Width Feet	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	20
Nozzle Width Inches	48	60	72	96	108	120	132	144	156	168	180	192	204	216	228	240
Max FPM at Nozzle	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572
Max CFM at Nozzle	6994	9924	12854	15926	17888	19848	21291	23891	25850	27812	29772	30355	31114	31850	37736	39696
Avg. FPM at Nozzle	5499	4358	5128	4842	4600	4358	4842	4842	4681	4520	4358	4842	4358	4600	4842	4358
CFM at Nozzle	6305	7480	9256	12977	13769	15750	16120	19168	20257	22825	23004	23335	23400	24570	28329	29120
Outlet Velocity Uniformity	95%	94%	94%	95%	94%	94%	95%	95%	94%	94%	94%	95%	94%	95%	94%	95%
Number of Motors	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4
Horse Power	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Weight (Lbs)	387	420	440	748	781	814	834	854	1145	1180	1210	1227	1248	1268	1615	1645

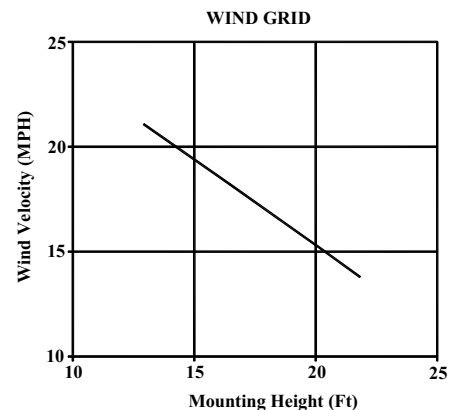
Sound level: 71 dba

Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Three Phase Motor Voltage Available: 208 240 480 575

Amp Draw Per Motor: 17.0 15.8 7.9 6.3

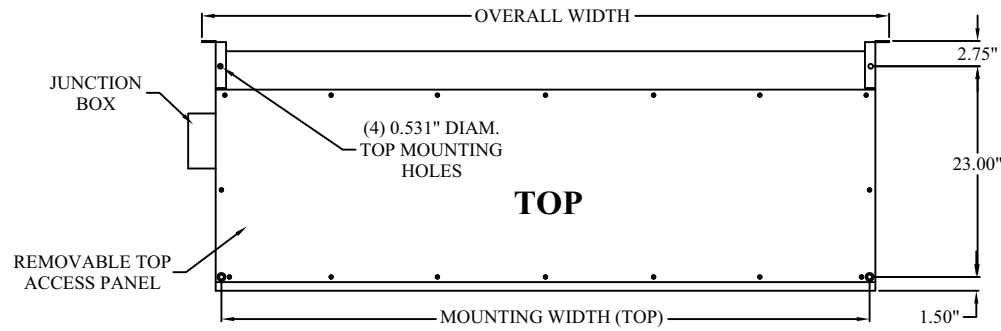
**** Units over 240 inches contact factory**



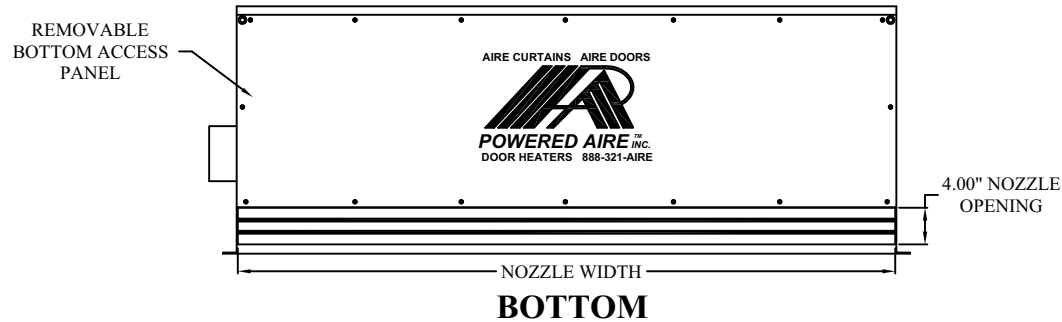
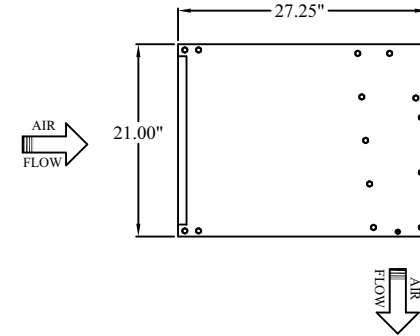
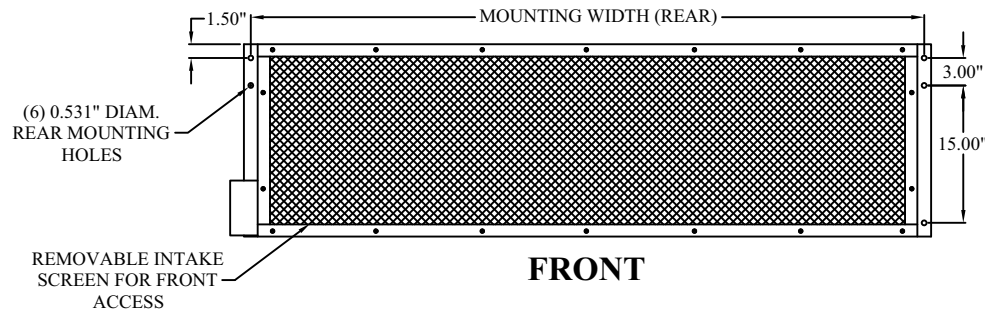
109 Mortensen Rd. Greenville, PA 16125

PHONE: 724-588-3305
 March, 2011

FAX: 724-588-3371



- NOTES:
 1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
 2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.



MODEL NUMBER	EHD 1-48	EHD 1-60	EHD 1-72	EHD 2-96	EHD 2-108	EHD 2-120	EHD 2-132	EHD 2-144	EHD 3-156	EHD 3-168	EHD 3-180	EHD 3-192	EHD 3-204	EHD 3-216	EHD 4-228	EHD 4-240
OVERALL WIDTH	51.00	63.00	75.00	99.12	111.12	123.12	135.12	147.12	159.24	171.24	183.24	195.24	207.24	219.24	231.36	243.36
NOZZLE WIDTH	48.00	60.00	72.00	96.12	108.12	120.12	132.12	144.12	156.24	168.24	180.24	192.24	204.24	216.24	228.36	240.36
MOUNTING WIDTH REAR	49.50	61.50	73.50	97.62	109.62	121.62	133.62	145.62	157.74	169.74	181.74	193.74	205.74	217.74	229.86	241.86
MOUNTING WIDTH TOP	47.00	59.00	71.00	95.12	107.12	119.12	131.12	143.12	155.24	167.24	179.24	191.24	203.24	215.24	227.36	239.36

JOB NAME : _____


LOCATION : _____

CONTRACTOR : _____

TAG(S) : _____

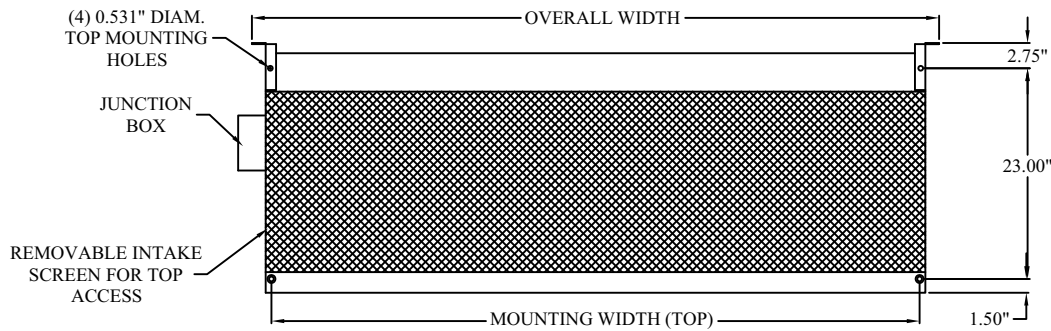
MODEL # : _____

ENGINEER : _____

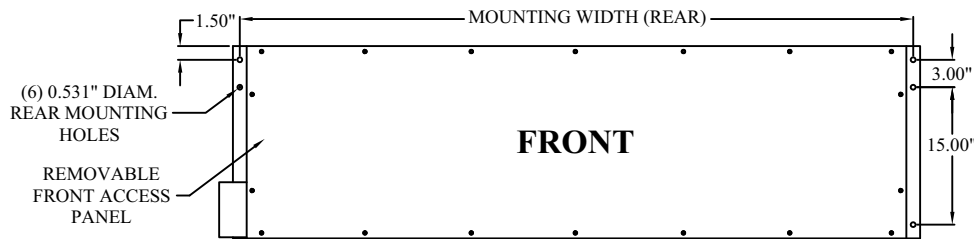
POWERED AIRE TM INC. 
 109 Mortensen Rd. Greenville, PA 16125

DATE: 10/01/13
 DRAWN BY: B.K.J.
 PART/FILE# EHD

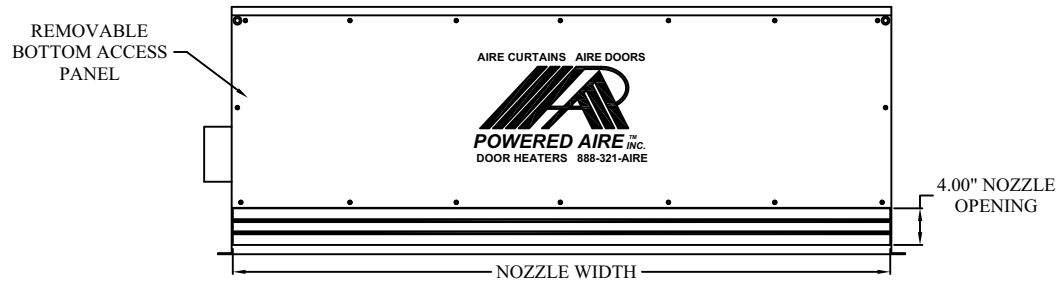
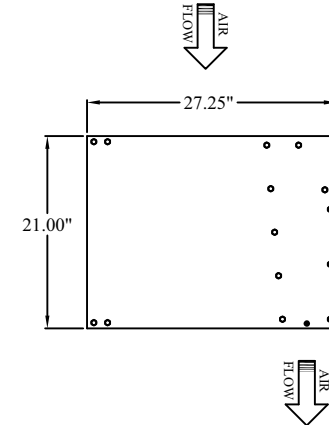
PART DESCRIPTION:
 POWERED AIRE SYSTEMS
 MODEL EHD FRONT INTAKE



TOP




FRONT

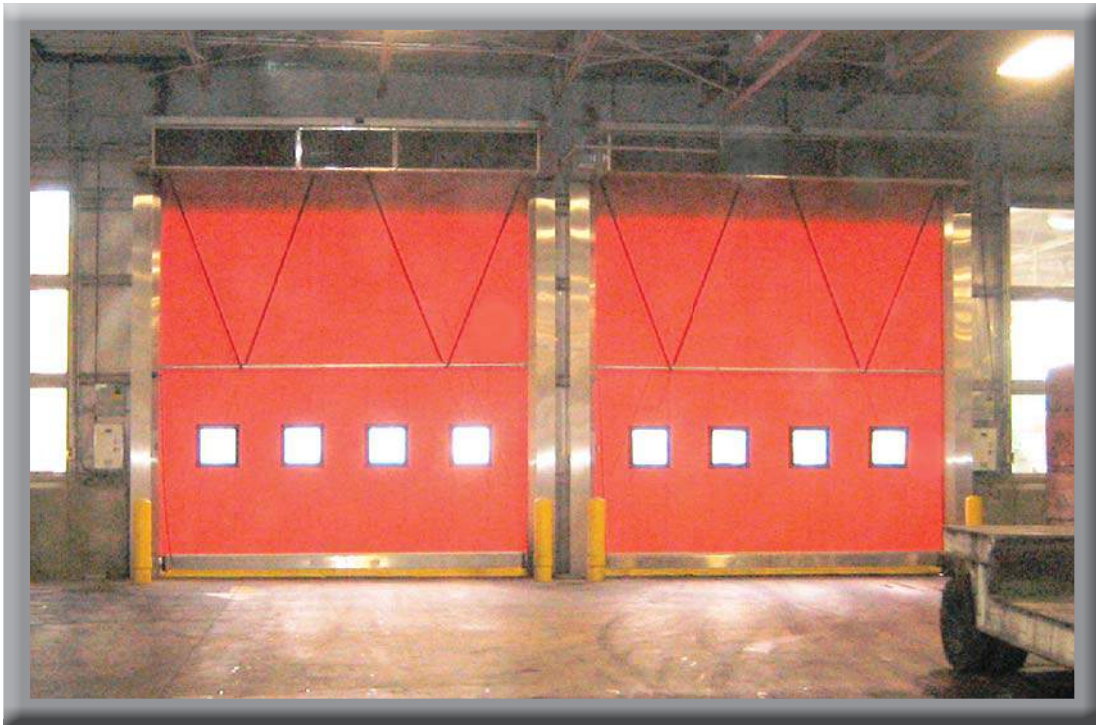


BOTTOM

- NOTES:
 1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
 2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.

MODEL NUMBER	EHD 1-48	EHD 1-60	EHD 1-72	EHD 2-96	EHD 2-108	EHD 2-120	EHD 2-132	EHD 2-144	EHD 3-156	EHD 3-168	EHD 3-180	EHD 3-192	EHD 3-204	EHD 3-216	EHD 4-228	EHD 4-240
OVERALL WIDTH	51.00	63.00	75.00	99.12	111.12	123.12	135.12	147.12	159.24	171.24	183.24	195.24	207.24	219.24	231.36	243.36
NOZZLE WIDTH	48.00	60.00	72.00	96.12	108.12	120.12	132.12	144.12	156.24	168.24	180.24	192.24	204.24	216.24	228.36	240.36
MOUNTING WIDTH REAR	49.50	61.50	73.50	97.62	109.62	121.62	133.62	145.62	157.74	169.74	181.74	193.74	205.74	217.74	229.86	241.86
MOUNTING WIDTH TOP	47.00	59.00	71.00	95.12	107.12	119.12	131.12	143.12	155.24	167.24	179.24	191.24	203.24	215.24	227.36	239.36

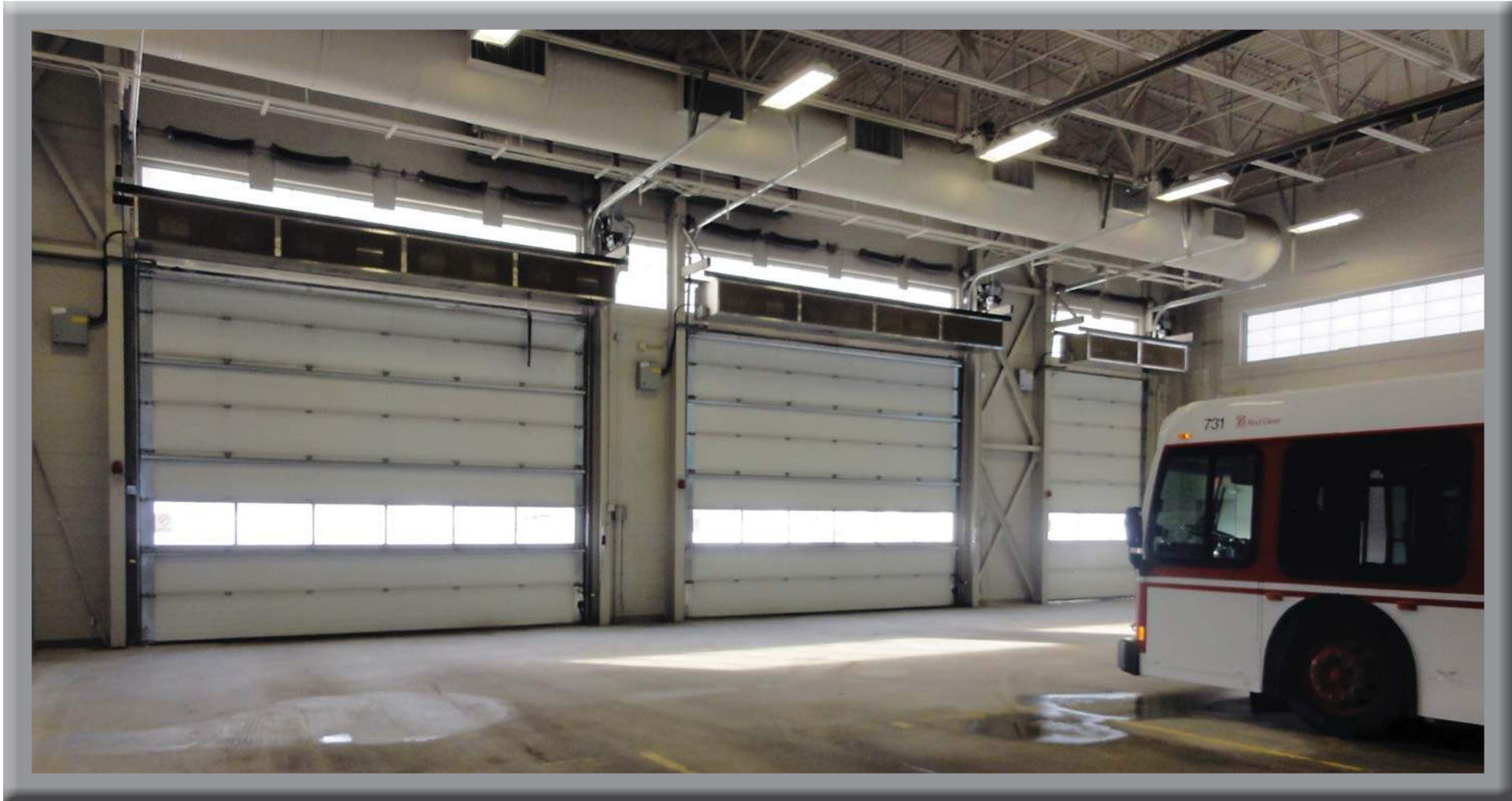
JOB NAME :	TAG(S) :	POWERED AIRE™ INC. 109 Mortensen Rd. Greenville, PA 16125 
LOCATION :	MODEL # :	
CONTRACTOR :	ENGINEER :	
		DATE: 10/01/13
		DRAWN BY: B.K.J.
		PART/FILE# EHD
		PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL EHD TOP INTAKE



Powered Aire Model EHD









POWERED AIRE INC.

www.poweredaire.com

**109 Mortensen Road
Greenville, PA 16125**

**Phone: 724-588-3305
Fax: 724-588-3371**

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL BPA

Aire curtains are to be furnished as factory assembled units manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of casing, motors, centrifugal fans, protective inlet screen and discharge nozzle. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or lowering the bottom half of the unit. Aire Curtain unit to provide uniform velocity across the entire length of the discharge area. The units will be front or top air intake. Units are universally manufactured for wall mount or top mount.

Units to be constructed with sufficient rigidity to span the length of the opening without intermediate support. Additional mounting holes to be provided on larger units for buildings where structural support is not adequate for supporting the aire curtain from ends only. 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. Intake screen will be 20 gauge perforated type stainless steel. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Units shall be equipped with dynamically balanced curved double inlet double width galvanized blower wheels with brazed hubs and matched blower housings. Fan scrolls or formed fiberglass air diverters shall not be acceptable.

Motors will be 7.5 horse power Total Enclosed Air Over (TEAO) 1160 RPM 50/60 cycle equipped with sealed ball bearings of equal size at each end and double extended shafts. To prevent a misalignment from occurring, no outboard bearings or flexible couplings will be acceptable. Aire curtain discharge to distribute outlet air evenly at and between blowers for the entire length of aire curtain through the use of a plenum.

Discharge nozzle shall be adjustable to ± 20 degrees with no dampers or grills to add turbulence and create a pressure drop or a sound pressure increase.

The unit design shall allow for addition of heating sections or filters without altering the base unit.

Electric Heat Option

For electric heating option consult factory.

Steam / Hot Water Coil

For steam or hot water heated aire curtains consult factory.

Direct and Indirect Gas Heat

For direct or indirect gas heated aire curtains see consult factory.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors.

Aire Curtain unit shall be ETL or UL listed. Unheated unit(s) shall have a 24 month warranty on all parts.

Control Options for Model BPA

Unheated * Recommended

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

* **Hand/Off/Auto Selector Switch (Panel Mounted)** -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, and On/Off/Auto Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Panel Mounted) -- Switches the air curtain on and off.

Programmable Digital Thermostat -- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day).

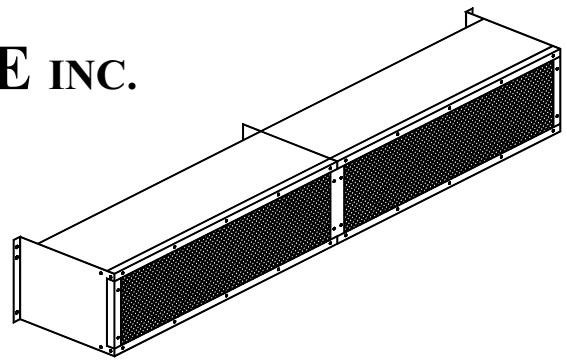
Built-in Time Delay Relay -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.



POWERED AIRE INC.

www.poweredaire.com

MODEL: BPA Unheated
Big Powered Aire
Door Height: Up to Thirty Feet



PRODUCT DATA

Model	BPA 1-60	BPA 1-72	BPA 1-84	BPA 2-120	BPA 2-132	BPA 2-144	BPA 2-156	BPA 2-168	BPA 3-180	BPA 3-192	BPA 3-204	BPA 3-216	BPA 3-228	BPA 3-240	BPA 4-240
Door Width Feet	5	6	7	10	11	12	13	14	15	16	17	18	19	20	20
Nozzle Width Inches	60	72	84	120	132	144	156	168	180	192	204	216	228	240	240
Max FPM at Nozzle	5950	5950	5950	5950	5950	5950	5950	5950	5950	5950	5950	5950	5950	5950	5950
Max CFM at Nozzle	12901	16710	17500	25802	27678	31058	33605	36155	38703	39435	40448	41405	49055	51604	55067
Avg. FPM at Nozzle	3975	4296	3995	4388	4082	4449	4341	4541	4272	4063	3834	3803	4153	4056	4309
CFM at Nozzle	9724	12030	13050	20475	20956	24915	26335	29670	29905	30335	30420	31948	36827	37856	40217
Outlet Velocity Uniformity	94%	94%	92%	94%	95%	95%	92%	92%	94%	95%	94%	95%	94%	92%	95%
Number of Motors	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4
Horse Power per Motor	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Weight (Lbs)	466	490	530	903	930	950	998	1035	1343	1360	1372	1407	1460	1505	1800

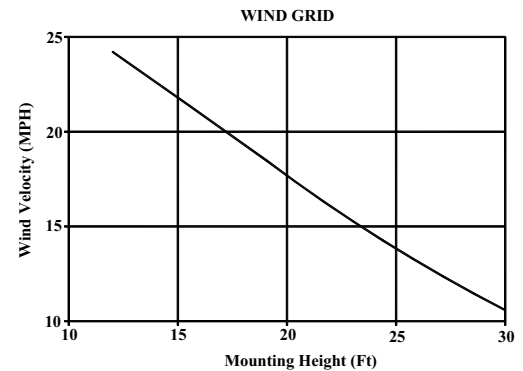
Sound level: 73 dba

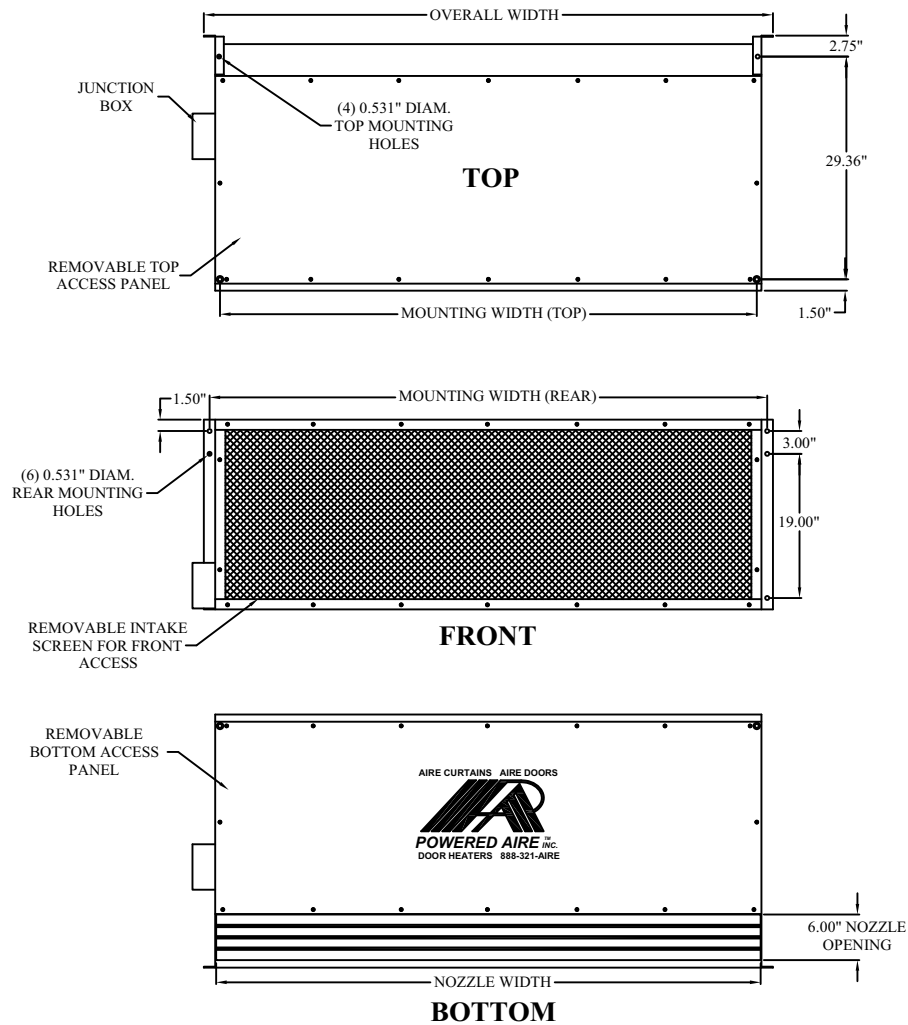
Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Three Phase Motor Voltage Available: 208 240 480 575

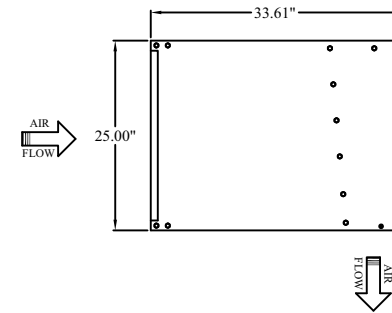
Amp Draw Per Motor: 26.8 23.2 11.6 9.7

**** Units over 240 inches contact factory**





- NOTES:
1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
 2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.



MODEL NUMBER	BPA 1-60	BPA 1-72	BPA 1-84	BPA 2-120	BPA 2-132	BPA 2-144	BPA 2-156	BPA 2-168	BPA 3-180	BPA 3-192	BPA 3-204	BPA 3-216	BPA 3-228	BPA 3-240	BPA 4-240
OVERALL WIDTH	63.00	75.00	87.00	123.12	135.12	147.12	159.12	171.12	183.24	195.24	207.24	219.24	231.24	243.24	243.36
NOZZLE WIDTH	60.00	72.00	84.00	120.12	132.12	144.12	156.12	168.12	180.24	192.24	204.24	216.24	228.24	240.24	240.36
MOUNTING WIDTH REAR	61.50	73.50	85.50	121.62	133.62	145.62	157.62	169.62	181.74	193.74	205.74	217.74	229.74	241.74	241.86
MOUNTING WIDTH TOP	59.00	71.00	83.00	119.12	131.12	143.12	155.12	167.12	179.24	191.24	203.24	215.24	227.24	239.24	239.36

JOB NAME :		TAG(S) :		POWERED AIRE Inc. 109 Mortensen Rd. Greenville, PA 16125	
LOCATION :		MODEL # :			
CONTRACTOR :		ENGINEER :			
				DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL BPA FRONT INTAKE
				DRAWN BY: B.K.J.	
				PART/FILE# BPA	





POWERED AIRE INC.

www.poweredaire.com

109 Mortensen Road
Greenville, PA 16125

Phone: 724-588-3305
Fax: 724-588-3371

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL CHS WITH HOT WATER OR STEAM HEAT (CSI formatted specifications available at www.poweredaire.com)

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of a casing, motors, centrifugal fans, protective inlet screen, discharge nozzle, and an optional 1 inch re-cleanable filter. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or lowering the bottom half of the unit. Aire curtain unit to provide uniform velocity across the entire length of the discharge area. The units will be front air intake. Units are universally manufactured for wall mount or top mount.

Units to be constructed with sufficient rigidity to span the length of the opening without intermediate support. All weight bearing structural support will be made of formed 14-gauge stainless steel and galvanized steel. Outer casing shall be constructed of 18-gauge stainless steel. Intake screen will be 20 gauge perforated type stainless steel. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Motors at 1/2 H.P. 1075 rpm each shall be heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230/480/575 volts 50/60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional air foil vane. The vane shall facilitate deflection of air stream ± 20 degrees. Unit shall have multiple speed motor(s) to control air volume down from maximum speed.

Steam / Hot Water Coil

Unit(s) shall be provided with a factory mounted steam or hot water coil. The coil shall be mounted to the intake of aire curtain. Coil will consist of 5/8 inch O.D. copper tubes and aluminum fins. Coils will be certified to ARI standard 410.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors.

Consult factory for optional top air intake.

Aire Curtain unit shall be ETL or UL listed. Units shall have an 18 month warranty on all parts.

October, 2013

Control Options for Model CHS

Hot Water or Steam Heated Options

*** Recommended**

***Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

***High/Off/Low Selector Switch (Remote or Unit Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch and High/Low Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Hand/Off/Auto Selector Switch (Remote or Unit Mounted) -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

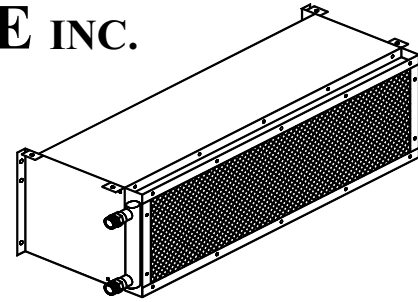
On/Off Selector Switch (Remote or Unit Mounted) -- Switches the air curtain on and off.

Programmable Digital Thermostat -- A thermostat, that will only control the fans, that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day)



POWERED AIRE INC.

www.poweredaire.com



MODEL: CHS - Hot Water / Steam Heated
Customer Entrance Door
Door Height: Up to Eleven Feet

PRODUCT DATA
(H) HIGH SPEED (L) LOW SPEED

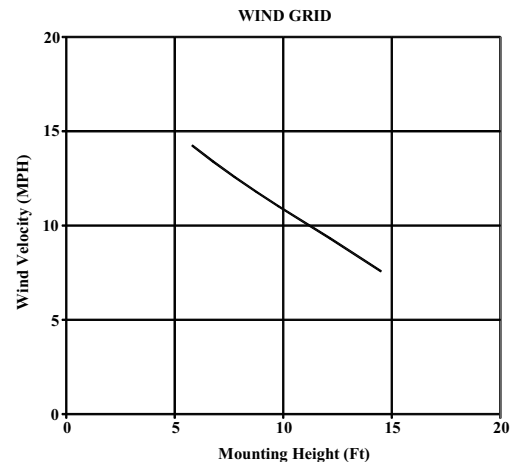
Model	CHS 1-36	CHS 1-48	CHS 1-60	CHS 2-72	CHS 2-84	CHS 2-96	CHS 2-108	CHS 3-108	CHS 3-120	CHS 3-132	CHS 4-144
Nozzle Width (In.)	36	48	60	72	84	96	108	108	120	132	144
Max. FPM at Nozzle	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748
Max. CFM at Nozzle	H 1309 L 1202	H 1745 L 1603	H 1790 L 1650	H 2618 L 2404	H 3054 L 2804	H 3490 L 3204	H 3710 L 3403	H 3928 L 3606	H 4364 L 4006	H 4950 L 4658	H 5236 L 4808
Avg. FPM at Nozzle	H 1570 L 1408	H 1178 L 1056	H 942 L 845	H 1570 L 1408	H 1346 L 1207	H 1178 L 1056	H 1058 L 945	H 1570 L 1408	H 1421 L 1274	H 1178 L 1056	H 1570 L 1408
CFM at Nozzle	H 1005 L 961	H 1094 L 983	H 1084 L 977	H 2159 L 1936	H 2093 L 1896	H 2170 L 1942	H 2182 L 1949	H 3239 L 2905	H 3230 L 2900	H 3247 L 2912	H 4318 L 3872
Outlet Velocity Uniformity	95%	92%	91%	95%	93%	92%	95%	92%	95%	95%	95%
Number of Motors	1	1	1	2	2	2	2	3	3	3	4
Horse Power	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
mbtu/hr Hot Water	45	47	45	82	87	87	85	127	131	138	174
Temperature Rise Deg. (F)	H 38 L 43	H 40 L 45	H 38 L 43	H 35 L 39	H 37 L 41	H 37 L 41	H 36 L 40	H 36 L 40	H 37 L 41	H 39 L 44	H 37 L 41
mbtu/hr Steam	59	60	60	104	111	108	104	155	162	162	107
Temperature Rise Deg. (F)	H 50 L 56	H 51 L 57	H 51 L 57	H 44 L 49	H 47 L 53	H 46 L 51	H 44 L 49	H 44 L 49	H 46 L 51	H 46 L 51	H 44 L 49
Weight (Lbs)	123	134	170	240	271	295	318	355	396	459	480

Sound Level: High Speed 53 dba Low Speed 51 dba
 Sound level measured 10 feet from the unit in a free field based on a one motor unit.

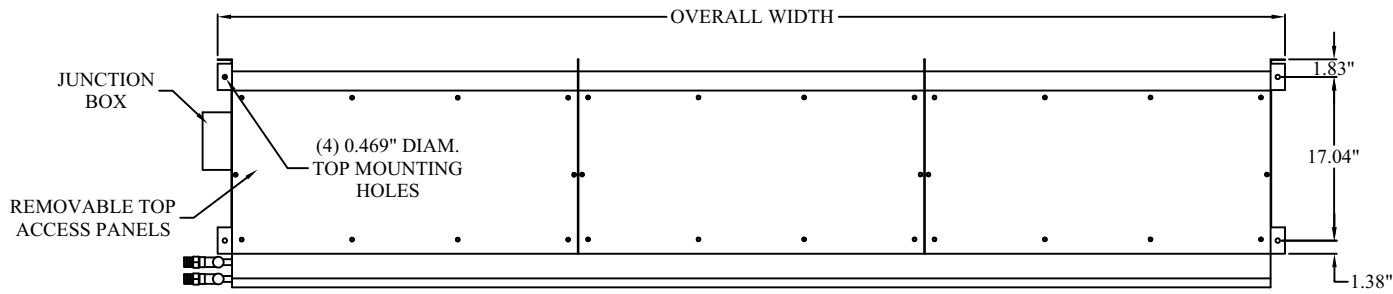


Single Phase Motor Voltage Available: **120 208/230 480 575**
 Amp Draw Per Motor: **2.5 1.4 0.7 0.6**

- ** Nozzle width equals door width.
- ** For three phase motors consult factory.
- ** For unit over twelve feet long consult factory.

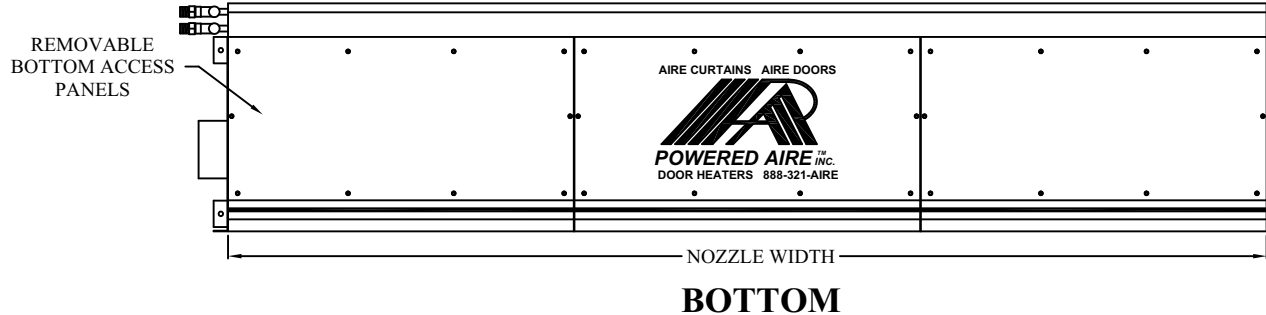
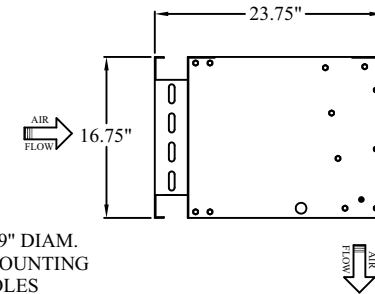
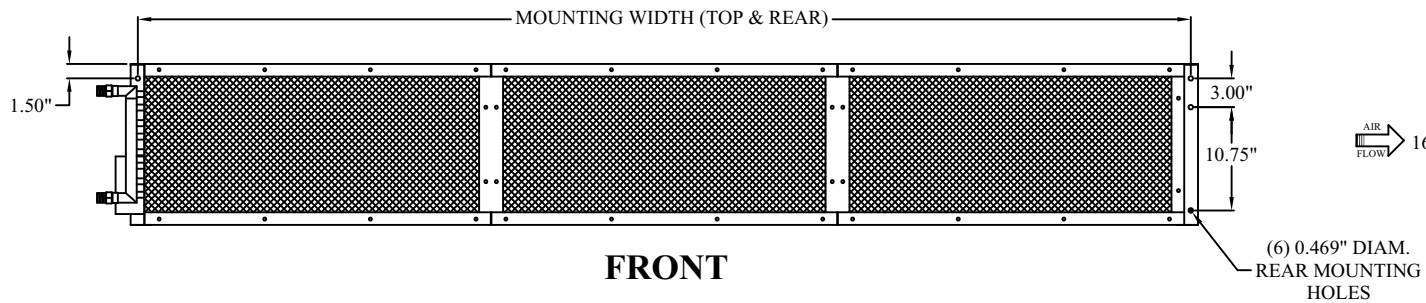


TOP



NOTES:

1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
3. COIL CONNECTIONS SHOWN ON LEFT HAND SIDE. CAN BE EITHER RIGHT OR LEFT. PLEASE SPECIFY BELOW.
4. IF FILTERS ARE REQUIRED ADD 2 1/8" TO AIRE CURTAIN DEPTH (23.75" DIMENSION).
5. SIZE STREAM TRAP (PROVIDED BY OTHERS) BY 3 TIMES THE MANUFACTURER'S RECOMMENDED SIZE FOR SATISFACTORY OPERATION.



- RIGHT HAND SUPPLY AND RETURN
- LEFT HAND SUPPLY AND RETURN

MODEL NUMBER	CHS 1-36	CHS 1-48	CHS 1-60	CHS 2-72	CHS 2-84	CHS 2-96	CHS 2-108	CHS 3-108	CHS 3-120	CHS 3-132	CHS 4-144
OVERALL WIDTH	39.00	51.00	63.00	75.07	87.07	99.07	111.07	111.15	123.15	135.15	147.22
NOZZLE WIDTH	36.00	48.00	60.00	72.07	84.07	96.07	108.07	108.15	120.15	132.15	144.22
MOUNTING WIDTH (TOP & REAR)	37.50	49.50	61.50	73.57	85.57	97.57	109.57	109.65	121.65	133.65	145.72

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE <small>INC.</small> 109 Mortensen Rd. Greenville, PA 16125	
DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL CHS HOT WATER/ STEAM HEATED AIRE CURTAIN
DRAWN BY: B.K.J.	
PART/FILE# CHS	



POWERED AIRE INC.

www.poweredaire.com

109 Mortensen Road
Greenville, PA 16125

Phone: 724-588-3305
Fax: 724-588-3371

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL CLD WITH HOT WATER OR STEAM HEAT (CSI formatted specifications available at www.poweredaire.com)

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of a casing, motors, centrifugal fans, protective inlet screen, and discharge nozzle. Aire curtains will be equipped with a front and top access panels for motor and fan assembly. Aire curtain unit to provide uniform velocity across the entire length of the discharge area. The units will be bottom air intake. Units are universally manufactured for top mount.

Units to be constructed with sufficient rigidity to span the length of the opening without intermediate support. All weight bearing structural support will be made of formed 14-gauge galvanized steel. Outer casing shall be constructed of 18-gauge steel. Intake screen will be painted steel. Casing will be equipped with access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Motors at 1/2 H.P. 1075 rpm each shall be heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230/480/575 volts 50/60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional air foil vane. The vane shall facilitate deflection of air stream ± 20 degrees. Unit shall have multiple speed motor(s) to control air volume down from maximum speed.

Steam / Hot Water Coil

Unit(s) shall be provided with a factory mounted steam or hot water coil. The coil shall be mounted to the intake of aire curtain. Coil will consist of 5/8 inch O.D. copper tubes and aluminum fins. Coils will be certified to ARI standard 410.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors.

Aire Curtain unit shall be ETL or UL listed. Heated units shall have an 18 month warranty on all parts.

Control Options for CLD HW/ST

Hot Water or Steam Heated Options

* Recommended

***Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

***High/Off/Low Selector Switch (Remote Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch and High/Low Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Hand/Off/Auto Selector Switch (Remote Mounted) -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Remote Mounted) -- Switches the air curtain on and off.

Programmable Digital Thermostat -- A thermostat, that will only control the fans, that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day).



POWERED AIRE INC.

www.poweredaire.com

MODEL: CLD - Hot Water / Steam Heated
The Chameleon (Light Duty)- Customer Entrance- In Ceiling
Door Height: Up to Eleven Feet

PRODUCT DATA

Model	CLD 1-36HS	CLD 1-48HS	CLD 1-60HS	CLD 2-72HS	CLD 2-84HS	CLD 2-96HS	CLD 2-108HS	CLD 3-108HS	CLD 3-120HS	CLD 3-132HS	CLD 4-144HS
Nozzle Width (In.)	36	48	60	72	84	96	108	108	120	132	144
Max. FPM at Nozzle	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748
Max. CFM at Nozzle	H 1309 L 1202	H 1745 L 1603	H 1790 L 1650	H 2618 L 2404	H 3054 L 2804	H 3490 L 3204	H 3710 L 3403	H 3928 L 3606	H 4364 L 4006	H 4950 L 4658	H 5236 L 4808
Avg. FPM at Nozzle	H 1570 L 1408	H 1178 L 1056	H 942 L 845	H 1570 L 1408	H 1346 L 1207	H 1178 L 1056	H 1058 L 945	H 1570 L 1408	H 1421 L 1274	H 1178 L 1056	H 1570 L 1408
CFM at Nozzle	H 1005 L 961	H 1094 L 983	H 1084 L 977	H 2159 L 1936	H 2093 L 1896	H 2170 L 1942	H 2182 L 1949	H 3239 L 2905	H 3230 L 2900	H 3247 L 2912	H 4318 L 3872
Outlet Velocity Uniformity	95%	92%	91%	95%	93%	92%	95%	92%	95%	95%	95%
Number of Motors	1	1	1	2	2	2	2	3	3	3	4
Horse Power	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
mbtu/hr Hot Water	45	47	45	82	87	87	85	127	131	138	174
Temperature Rise Deg. (F)	H 38 L 43	H 40 L 45	H 38 L 43	H 35 L 39	H 37 L 41	H 37 L 41	H 36 L 40	H 36 L 40	H 37 L 41	H 39 L 44	H 37 L 41
mbtu/hr Steam	59	60	60	104	111	108	104	155	162	162	107
Temperature Rise Deg. (F)	H 50 L 56	H 51 L 57	H 51 L 57	H 44 L 49	H 47 L 53	H 46 L 51	H 44 L 49	H 44 L 49	H 46 L 51	H 46 L 51	H 44 L 49
Weight (Lbs)	123	134	170	240	271	295	318	355	396	459	480

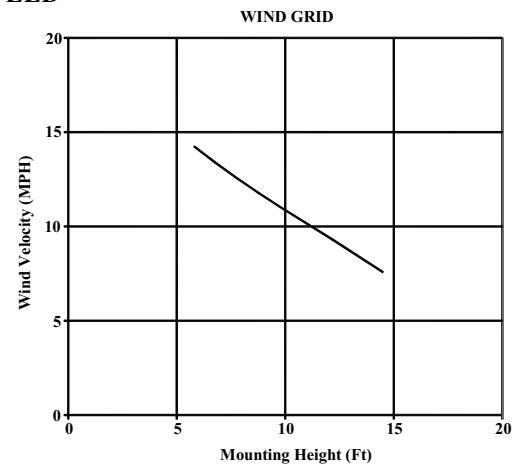
(H) HIGH SPEED (L) LOW SPEED

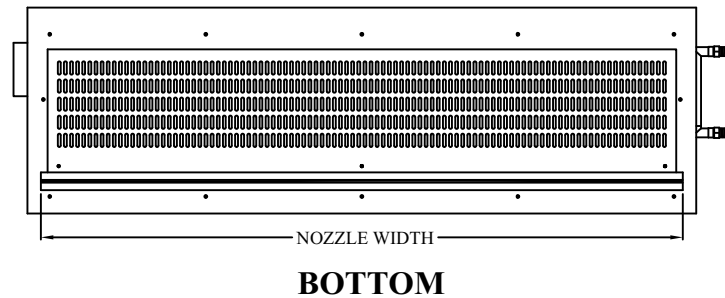
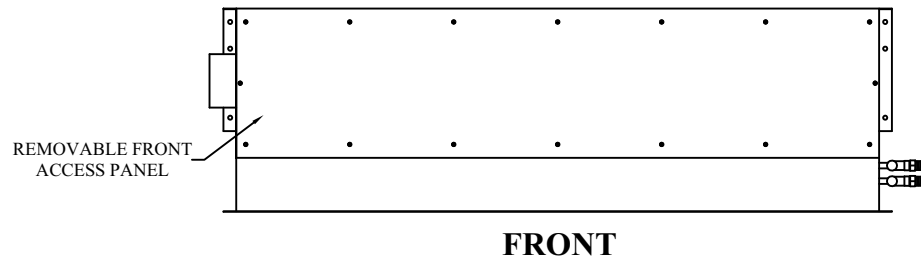
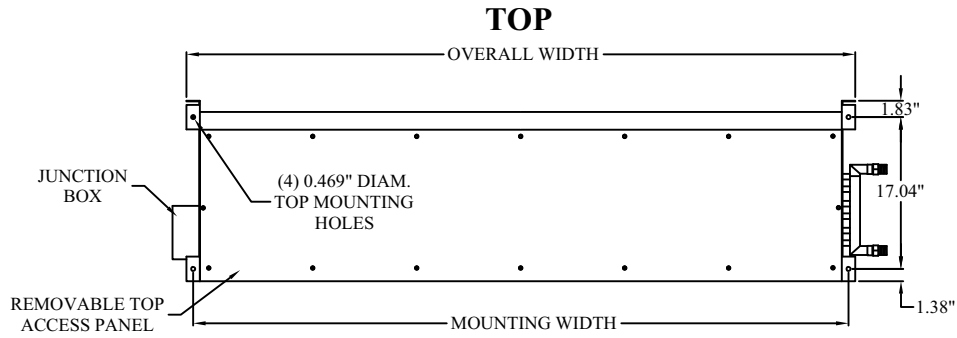
Sound Level: High Speed 53 dba Low Speed 51 dba
 Sound level measured 10 feet from the unit in a free field
 based on a one motor unit.



Single Phase Motor Voltage Available: 120 208/230 480 575
 Amp Draw Per Motor: 2.5 1.4 0.7 0.6

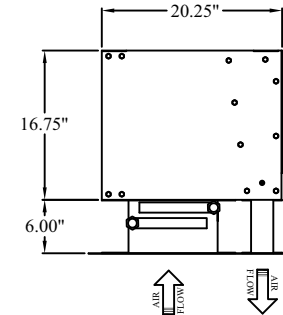
- ** Nozzle width equals door width.
- ** For three phase motors consult factory.
- ** For unit over twelve feet long consult factory.





NOTES:


1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
3. COIL CONNECTIONS SHOWN ON RIGHT HAND SIDE. CAN BE EITHER RIGHT OR LEFT. PLEASE SPECIFY BELOW.
4. SIZE STREAM TRAP (PROVIDED BY OTHERS) BY 3 TIMES THE MANUFACTURER'S RECOMMENDED SIZE FOR SATISFACTORY OPERATION.



- RIGHT HAND SUPPLY AND RETURN
- LEFT HAND SUPPLY AND RETURN

MODEL NUMBER	CLD 1-36HS	CLD 1-48HS	CLD 1-60HS	CLD 2-72HS	CLD 2-84HS	CLD 2-96HS	CLD 2-108HS	CLD 3-108HS	CLD 3-120HS	CLD 3-132HS	CLD 4-144HS
OVERALL WIDTH	39.00	51.00	63.00	75.07	87.07	99.07	111.07	111.15	123.15	135.15	147.22
NOZZLE WIDTH	36.00	48.00	60.00	72.07	84.07	96.07	108.07	108.15	120.15	132.15	144.22
MOUNTING WIDTH	37.50	49.50	61.50	73.57	85.57	97.57	109.57	109.65	121.65	133.65	145.72

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC. 109 Mortensen Rd. Greenville, PA 16125			
DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL CLD HOT WATER/ STEAM HEATED AIRE CURTAIN		
DRAWN BY: B.K.J.			
PART/FILE# CLD-HS			



POWERED AIRE INC.

www.poweredaire.com

109 Mortensen Road
Greenville, PA 16125

Phone: 724-588-3305
Fax: 724-588-3371

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL THS WITH HOT WATER OR STEAM HEAT (CSI formatted specifications available at www.poweredaire.com)

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of a casing, motors, centrifugal fans, protective inlet screen, discharge nozzle, and an optional 1 inch re-cleanable filter. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or lowering the bottom half of the unit. Aire Curtain unit to provide uniform velocity across the entire length of the discharge area. The units will be front air intake. Units are universally manufactured for wall mount or top mount.

Units to be constructed with sufficient rigidity to span the length of the opening without intermediate support. All weight bearing structural support will be made of formed 14-gauge stainless steel and galvanized steel. Outer casing shall be constructed of 18-gauge stainless steel. Intake screen will be 20 gauge perforated type stainless steel. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Motors at 3/4 H.P. 1630 rpm each shall be heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230/480/575 volts 50/60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional air foil vane. The vane shall facilitate deflection of air stream ± 20 degrees. Unit shall have multiple speed motor(s) to control air volume down from maximum speed.

Steam / Hot Water Coil

Unit(s) shall be provided with a factory mounted steam or hot water coil. The coil shall be mounted to the intake of aire curtain. Coil will consist of 5/8 inch O.D. copper tubes and aluminum fins. Coils will be certified to ARI standard 410.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors.

Consult factory for optional top air intake.

Aire Curtain unit shall be ETL or UL listed. Units shall have an 18 month warranty on all parts.

October, 2013

Control Options for Model THS

Hot Water or Steam Heated Options

*** Recommended**

***Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

***High/Off/Low Selector Switch (Remote or Unit Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch and High/Low Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Hand/Off/Auto Selector Switch (Remote or Unit Mounted) -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

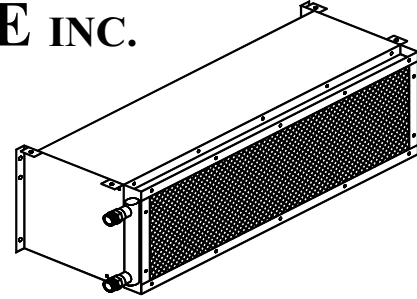
On/Off Selector Switch (Remote or Unit Mounted) -- Switches the air curtain on and off.

Programmable Digital Thermostat -- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day)



POWERED AIRE INC.

www.poweredaire.com



**MODEL: THS - Hot Water / Steam Heated
Climate Control Eight Twelve Door
Door Height: Up to Twelve Feet**

**PRODUCT DATA
(H) HIGH SPEED (L) LOW SPEED**

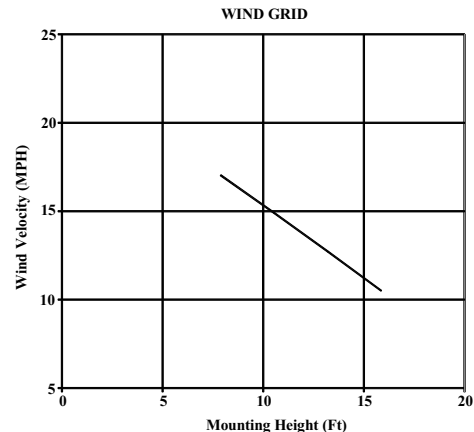
Model	THS 1-36	THS 1-48	THS 1-60	THS 2-72	THS 2-84	THS 2-96	THS 2-108	THS 3-108	THS 3-120	THS 3-132	THS 4-144
Nozzle Width (In.)	36	48	60	72	84	96	108	108	120	132	144
Max. FPM at Nozzle	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837
Max. CFM at Nozzle	H 2899 L 1950	H 3867 L 2601	H 4374 L 2792	H 5803 L 3903	H 6766 L 4551	H 7732 L 5201	H 8216 L 5520	H 8702 L 5853	H 9668 L 6503	H 10177 L 7155	H 11606 L 7806
Avg. FPM at Nozzle	H 3695 L 2487	H 2771 L 1865	H 2218 L 1493	H 3696 L 2488	H 3169 L 2133	H 2773 L 1866	H 2472 L 1661	H 3702 L 2486	H 3174 L 2134	H 2792 L 1885	H 3696 L 2488
CFM at Nozzle	H 2541 L 1710	H 2559 L 1721	H 2528 L 1703	H 5082 L 3420	H 5063 L 3382	H 5081 L 3417	H 5090 L 3421	H 7623 L 5130	H 7614 L 5127	H 7589 L 5104	H 10164 L 6840
Outlet Velocity Uniformity	95%	92%	91%	95%	93%	92%	95%	92%	95%	95%	95%
Number of Motors	1	1	1	2	2	2	2	3	3	3	4
Horse Power	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
mbtu/hr Hot Water	97	102	100	194	205	194	192	283	307	307	388
Temperature Rise Deg. (F)	H 35 L 52	H 37 L 54	H 36 L 54	H 35 L 52	H 37 L 55	H 35 L 52	H 35 L 52	H 34 L 51	H 37 L 55	H 37 L 55	H 35 L 52
mbtu/hr Steam	108	108	114	202	210	215	198	292	305	326	390
Temperature Rise Deg. (F)	H 39 L 58	H 39 L 58	H 41 L 61	H 36 L 54	H 38 L 57	H 39 L 58	H 36 L 54	H 35 L 52	H 37 L 55	H 39 L 59	H 35 L 52
Weight (Lbs)	113	145	180	249	281	306	329	365	406	470	491

Sound Level: High Speed 63 dba Low Speed 56 dba
Sound level measured 10 feet from the unit in a free field based on a one motor unit.

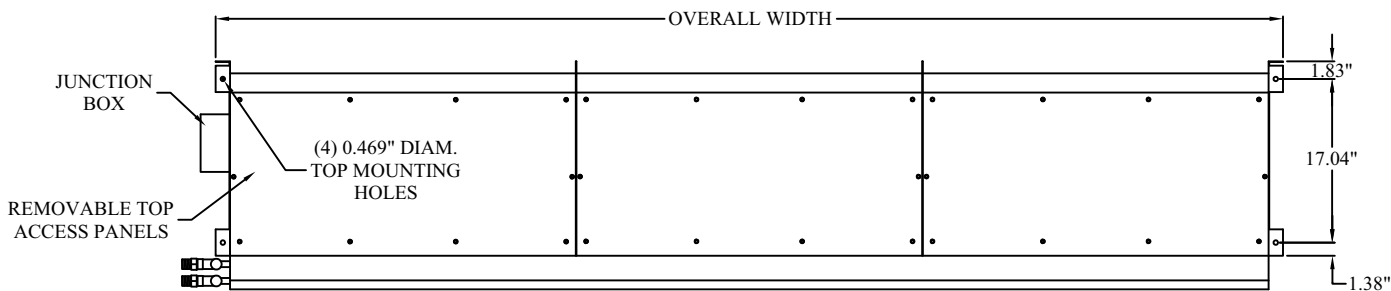


Single Phase Motor Voltage Available: 120 208/230 480 575
Amp Draw Per Motor: 8.0 3.6 2.0 1.5

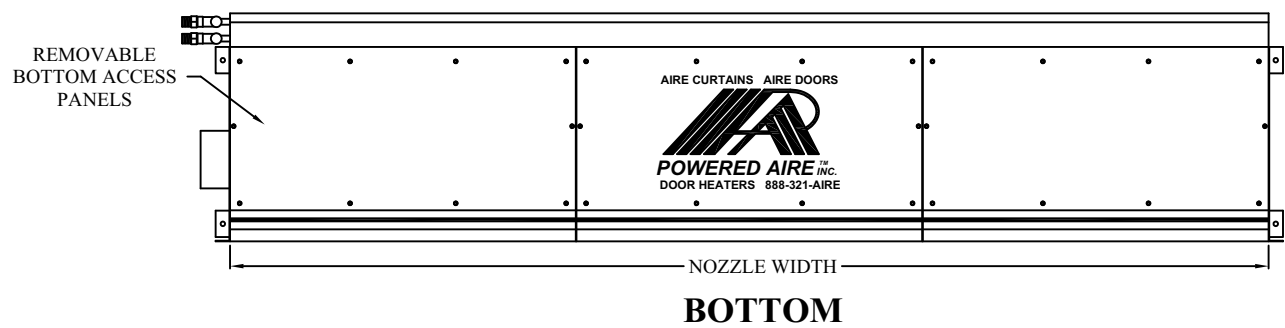
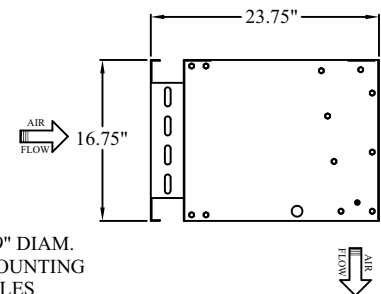
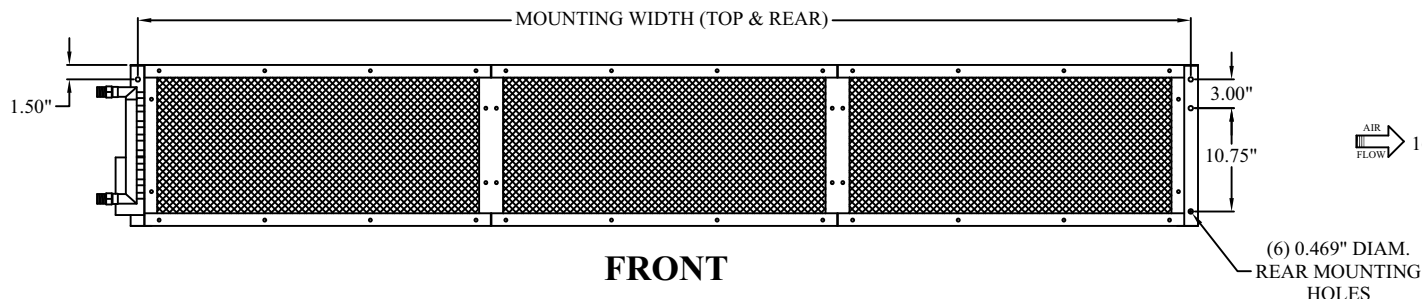
- ** Nozzle width equals door width.
- ** For three phase motors consult factory.
- ** For unit over twelve feet long consult factory.



TOP



- NOTES:
1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
 2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
 3. COIL CONNECTIONS SHOWN ON LEFT HAND SIDE. CAN BE EITHER RIGHT OR LEFT. PLEASE SPECIFY BELOW.
 4. IF FILTERS ARE REQUIRED ADD 2 1/8" TO AIRE CURTAIN DEPTH (23.75" DIMENSION).
 5. SIZE STREAM TRAP (PROVIDED BY OTHERS) BY 3 TIMES THE MANUFACTURER'S RECOMMENDED SIZE FOR SATISFACTORY OPERATION.




- RIGHT HAND SUPPLY AND RETURN
- LEFT HAND SUPPLY AND RETURN

MODEL NUMBER	THS 1-36	THS 1-48	THS 1-60	THS 2-72	THS 2-84	THS 2-96	THS 2-108	THS 3-108	THS 3-120	THS 3-132	THS 4-144
OVERALL WIDTH	39.00	51.00	63.00	75.07	87.07	99.07	111.07	111.15	123.15	135.15	147.22
NOZZLE WIDTH	36.00	48.00	60.00	72.07	84.07	96.07	108.07	108.15	120.15	132.15	144.22
MOUNTING WIDTH (TOP & REAR)	37.50	49.50	61.50	73.57	85.57	97.57	109.57	109.65	121.65	133.65	145.72

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE INC.
109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL THS HOT WATER/ STEAM HEATED AIRE CURTAIN
DRAWN BY: B.K.J.	
PART/FILE# THS	



POWERED AIRE INC.

www.poweredaire.com

109 Mortensen Road
Greenville, PA 16125

Phone: 724-588-3305
Fax: 724-588-3371

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL CHD WITH HOT WATER OR STEAM HEAT (CSI formatted specifications available at www.poweredaire.com)

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of a casing, motors, centrifugal fans, protective inlet screen, and discharge nozzle. Aire curtains will be equipped with a front and top access panels for motor and fan assembly. Aire curtain unit to provide uniform velocity across the entire length of the discharge area. The units will be bottom air intake. Units are universally manufactured for top mount.

Units to be constructed with sufficient rigidity to span the length of the opening without intermediate support. All weight bearing structural support will be made of formed 14-gauge galvanized steel. Outer casing shall be constructed of 18-gauge steel. Intake screen will be painted steel. Casing will be equipped with access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Motors at 3/4 H.P. 1630 rpm each shall be heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230/480/575 volts 50/60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional air foil vane. The vane shall facilitate deflection of air stream ± 20 degrees. Unit shall have multiple speed motor(s) to control air volume down from maximum speed.

Steam / Hot Water Coil

Unit(s) shall be provided with a factory mounted steam or hot water coil. The coil shall be mounted to the intake of aire curtain. Coil will consist of 5/8 inch O.D. copper tubes and aluminum fins. Coils will be certified to ARI standard 410.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors.

Aire Curtain unit shall be ETL or UL listed. Heated units shall have an 18 month warranty on all parts.

Control Options for Model CHD HW/ST

Unheated

* Recommended

***Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

***High/Off/Low Selector Switch (Remote Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

Hot Water or Steam Heated Options

* Recommended

***Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

***High/Off/Low Selector Switch (Remote Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch and High/Low Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Hand/Off/Auto Selector Switch (Remote Mounted) -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Remote Mounted) -- Switches the air curtain on and off.

Programmable Digital Thermostat -- A thermostat that will only control the fans, that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day)



POWERED AIRE INC.

www.poweredaire.com

MODEL: CHD - Hot Water / Steam Heated
The Chameleon (Heavy Duty)- Customer Entrance- In Ceiling
Door Height: Up to Fourteen Feet

PRODUCT DATA

Model	CHD 1-36HS	CHD 1-48HS	CHD 1-60HS	CHD 2-72HS	CHD 2-84HS	CHD 2-96HS	CHD 2-108HS	CHD 3-108HS	CHD 3-120HS	CHD 3-132HS	CHD 4-144HS
Nozzle Width (In.)	36	48	60	72	84	96	108	108	120	132	144
Max. FPM at Nozzle	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837	H 4218 L 2837
Max. CFM at Nozzle	H 2899 L 1950	H 3867 L 2601	H 4374 L 2792	H 5803 L 3903	H 6766 L 4551	H 7732 L 5201	H 8216 L 5520	H 8702 L 5853	H 9668 L 6503	H 10177 L 7155	H 11606 L 7806
Avg. FPM at Nozzle	H 3695 L 2487	H 2771 L 1865	H 2218 L 1493	H 3696 L 2488	H 3169 L 2133	H 2773 L 1866	H 2472 L 1661	H 3702 L 2486	H 3174 L 2134	H 2792 L 1885	H 3696 L 2488
CFM at Nozzle	H 2541 L 1710	H 2559 L 1721	H 2528 L 1703	H 5082 L 3420	H 5063 L 3382	H 5081 L 3417	H 5090 L 3421	H 7623 L 5130	H 7614 L 5127	H 7589 L 5104	H 10164 L 6840
Outlet Velocity Uniformity	95%	92%	91%	95%	93%	92%	95%	92%	95%	95%	95%
Number of Motors	1	1	1	2	2	2	2	3	3	3	4
Horse Power	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
mbtu/hr Hot Water	97	102	100	194	205	194	192	283	307	307	388
Temperature Rise Deg. (F)	H 35 L 52	H 37 L 54	H 36 L 54	H 35 L 52	H 37 L 55	H 35 L 52	H 35 L 52	H 34 L 51	H 37 L 55	H 37 L 55	H 35 L 52
mbtu/hr Steam	108	108	114	202	210	215	198	292	305	326	390
Temperature Rise Deg. (F)	H 39 L 58	H 39 L 58	H 41 L 61	H 36 L 54	H 38 L 57	H 39 L 58	H 36 L 54	H 35 L 52	H 37 L 55	H 39 L 59	H 35 L 52
Weight (Lbs)	113	145	180	249	281	306	329	365	406	470	491

(H) HIGH SPEED (L) LOW SPEED

Sound Level: High Speed 63 dba Low Speed 56 dba
 Sound level measured 10 feet from the unit in a free field
 based on a one motor unit.



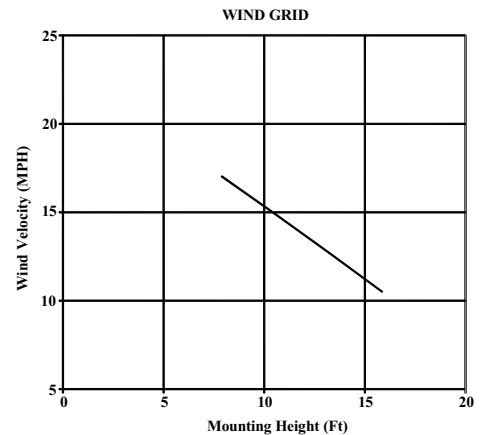
Single Phase Motor Voltage Available: 120 208/230 480 575

Amp Draw Per Motor: 8.0 3.6 2.2 1.5

** Nozzle width equals door width.

** For three phase motors consult factory.

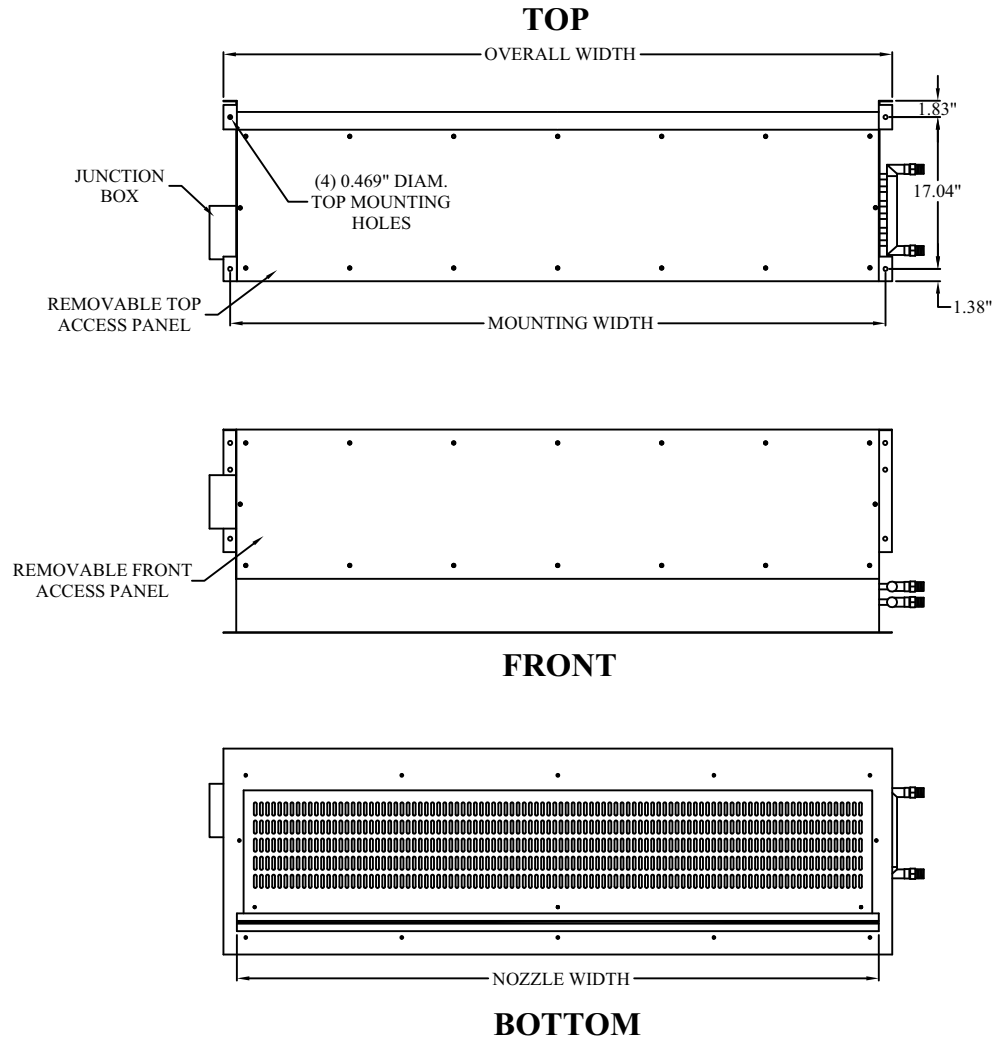
** For unit over twelve feet long consult factory.



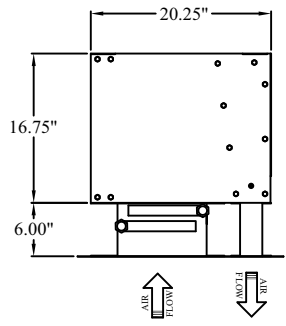
109 Mortensen Rd. Greenville, PA 16125

PHONE: 724-588-3305
 October, 2013

FAX: 724-588-3371



- NOTES:
1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
 2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
 3. COIL CONNECTIONS SHOWN ON RIGHT HAND SIDE. CAN BE EITHER RIGHT OR LEFT. PLEASE SPECIFY BELOW.
 4. SIZE STREAM TRAP (PROVIDED BY OTHERS) BY 3 TIMES THE MANUFACTURER'S RECOMMENDED SIZE FOR SATISFACTORY OPERATION.



- RIGHT HAND SUPPLY AND RETURN
- LEFT HAND SUPPLY AND RETURN

MODEL NUMBER	CHD 1-36HS	CHD 1-48HS	CHD 1-60HS	CHD 2-72HS	CHD 2-84HS	CHD 2-96HS	CHD 2-108HS	CHD 3-108HS	CHD 3-120HS	CHD 3-132HS	CHD 4-144HS
OVERALL WIDTH	39.00	51.00	63.00	75.07	87.07	99.07	111.07	111.15	123.15	135.15	147.22
NOZZLE WIDTH	36.00	48.00	60.00	72.07	84.07	96.07	108.07	108.15	120.15	132.15	144.22
MOUNTING WIDTH	37.50	49.50	61.50	73.57	85.57	97.57	109.57	109.65	121.65	133.65	145.72

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIR TM *INC.*

109 Mortensen Rd. Greenville, PA 16125

DATE: 10/01/13	PART DESCRIPTION: POWERED AIR SYSTEMS MODEL CHD HOT WATER/ STEAM HEATED AIR CURTAIN
DRAWN BY: B.K.J.	
PART/FILE# CHD-HS	



POWERED AIRE INC.

www.poweredaire.com

109 Mortensen Road
Greenville, PA 16125

Phone: 724-588-3305
Fax: 724-588-3371

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL TSD WITH HOT WATER OR STEAM HEAT (CSI formatted specifications available at www.poweredaire.com)

Aire curtains are to be furnished as factory assembled units manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of casing, motors, centrifugal fans, protective inlet screen and discharge nozzle. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or lowering the bottom half of the unit. Aire Curtain unit to provide uniform velocity across the entire length of the discharge area. Units are universally manufactured for wall mount or top mount.

Units to be constructed with sufficient rigidity to span the length of the opening without intermediate support. Additional mounting holes to be provided on larger units for buildings where structural support is not adequate for supporting the aire curtain from ends only. 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. Intake screen will be 20 gauge perforated type stainless steel. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Units shall be equipped with dynamically balanced curved double inlet double width galvanized blower wheels with brazed hubs and matched blower housings. Fan scrolls or formed fiberglass air diverters shall not be acceptable.

Motors will be 3 horse power Total Enclosed Air Over (TEAO) 1160 RPM 50/60 cycle equipped with sealed ball bearings of equal size at each end and double extended shafts. To prevent a misalignment from occurring, no outboard bearings or flexible couplings will be acceptable. Aire curtain discharge to distribute outlet air evenly at and between blowers for the entire length of aire curtain through the use of a plenum.

Discharge nozzle shall be adjustable to ± 20 degrees with no dampers or grills to add turbulence and create a pressure drop or a sound pressure increase.

Steam / Hot Water Coil

Unit(s) shall be provided with a factory mounted steam or hot water coil. The coil shall be mounted to the intake of aire curtain. Coil will consist of 5/8 inch O.D. copper tubes and aluminum fins. Coils will be certified to ARI standard 410.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors.

Consult factory for optional top air intake.

Unit(s) shall have an 18 month warranty on all parts.

Aire Curtain unit shall be ETL or UL listed. Unit(s) shall have an 18 month warranty on all parts.

October, 2013

Control Options for Model TSD HW/ST

Hot Water or Steam Heated Options

* Recommended

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

* **Hand/Off/Auto Selector Switch (Panel Mounted)** -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, and On/Off/Auto Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Panel Mounted) -- Switches the air curtain on and off.

Programmable Digital Thermostat -- A thermostat, that only controls the fans, that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day).

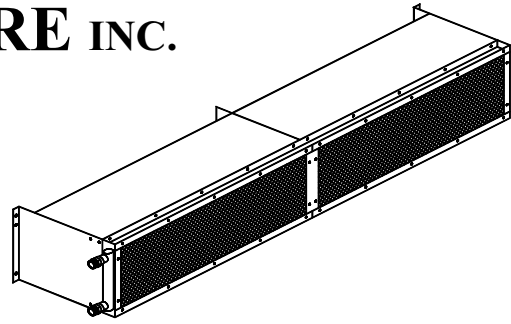
Built-in Time Delay Relay -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.



POWERED AIRE INC.

www.poweredaire.com

MODEL: TSD Hot Water / Steam Heated
Door Height: Up to Seventeen Feet
PAAC-106



PRODUCT DATA

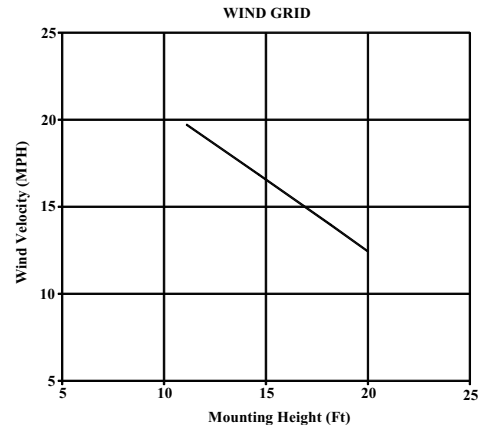
Model	Door Width Feet	Nozzle Width Inches	Max FPM At Nozzle	Avg. Outlet Velocity FPM	CFM At Nozzle	Outlet Velocity Uniformity	Number Of Motors	Horse Power	mbtu/hr Hot Water	Temp. Rise °F	mbtu/hr Steam	Temp. Rise °F	Weight Lbs.
TSD 1-48HS	4	48	6200	3530	4554	92%	1	3	169	34	218	44	416
TSD 1-60HS	5	60	5800	3006	4855	92%	1	3	185	35	243	46	473
TSD 1-72HS	6	72	5900	2891	5579	86.3%	1	3	201	33	261	43	511
TSD 2-96HS	8	96	6200	3530	9108	92%	2	3	357	36	427	43	829
TSD 2-108HS	9	108	6200	3239	9409	92%	2	3	379	37	441	43	886
TSD 2-120HS	10	120	5800	3006	9710	92%	2	3	402	38	487	46	942
TSD 2-132HS	11	132	5900	2943	10434	86.3%	2	3	421	37	489	43	981
TSD 2-144HS	12	144	5900	2891	11158	86.3%	2	3	474	39	547	45	1019
TSD 3-144HS	12	144	6200	3530	13662	92%	3	3	474	32	547	37	1242
TSD 3-156HS	13	156	6200	3328	13963	92%	3	3	578	38	670	44	1299
TSD 3-168HS	14	168	6200	3257	14687	86.3%	3	3	592	37	704	44	1337
TSD 3-180HS	15	180	6200	3100	14988	86.3%	3	3	588	36	702	43	1394
TSD 3-192HS	16	192	6200	3051	15712	86.3%	3	3	651	38	788	46	1432
TSD 4-192HS	16	192	6200	3530	18216	92%	4	3	651	33	788	40	1655
TSD 3-204HS	17	204	5900	2925	16013	86.3%	3	3	698	40	785	45	1489
TSD 4-204HS	17	204	6200	3376	18517	92%	4	3	698	35	785	39	1712
TSD 3-216HS	18	216	5900	2891	16737	86.3%	3	3	711	39	821	45	1527
TSD 4-216HS	18	216	6200	3317	19241	86.3%	4	3	711	34	821	39	1750
TSD 4-228HS	19	228	6200	3191	19542	86.3%	4	3	788	37	916	43	1807
TSD 4-240HS	20	240	6200	3147	20266	86.3%	4	3	834	38	1016	46	1845
TSD 5-240HS	20	240	6200	3530	22770	92%	5	3	839	34	1016	41	2068

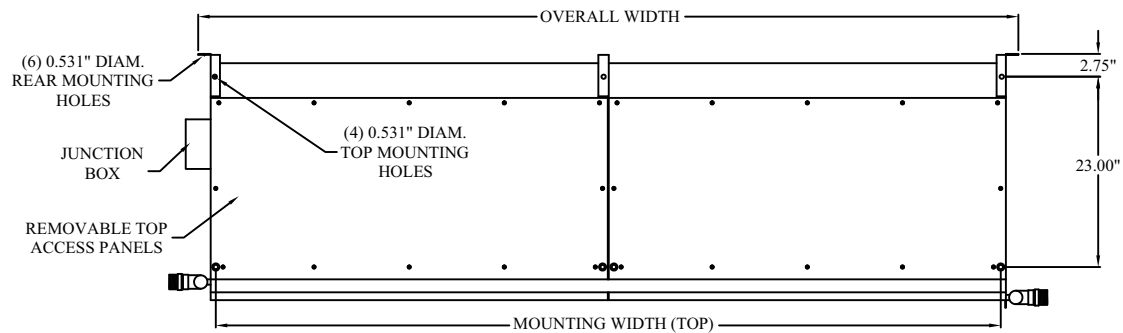
Sound level measured 10 feet from a one motor unit in a free field: 69 dbA

Three Phase Motor Voltage Available: 208 240 480 575
Amp Draw Per Motor: 13.1 12.2 6.1 5.0

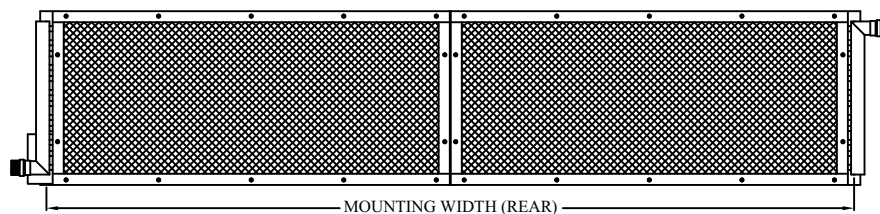
** Consult factory for coil values different from above.
 ** Consult factory for units over 20 feet wide.

Velocity Projection Model: TSD 1-48
 Distance From Nozzle: 4' 12' 18'

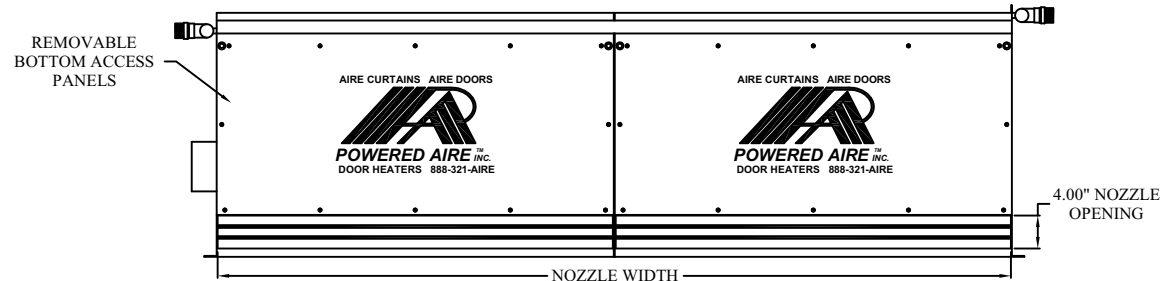




TOP



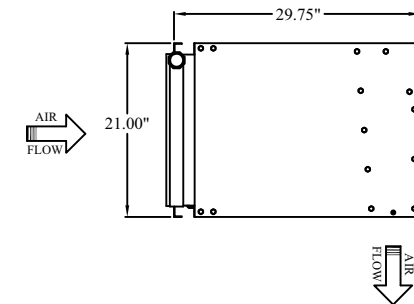
FRONT



BOTTOM

NOTES:

1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
3. COIL SUPPLY CONNECTION ON TOP FOR STEAM COIL, SUPPLY ON BOTTOM FOR HOT WATER COIL. PLEASE SPECIFY CONNECTIONS BELOW.
4. SIZE STEAM TRAP (PROVIDED BY OTHERS) BY 3 TIMES THE MANUFACTURER'S RECOMMENDED SIZE FOR SATISFACTORY OPERATION.
5. FOR UNITS OVER 16 FEET CONSULT FACTORY.



COIL OPTIONS

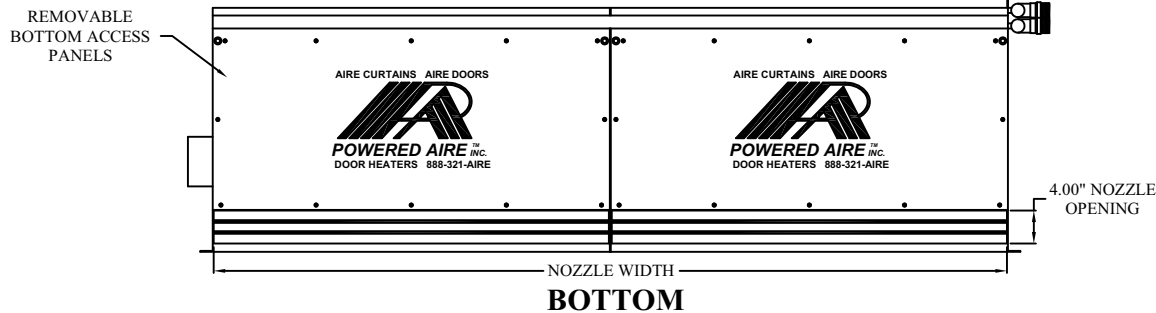
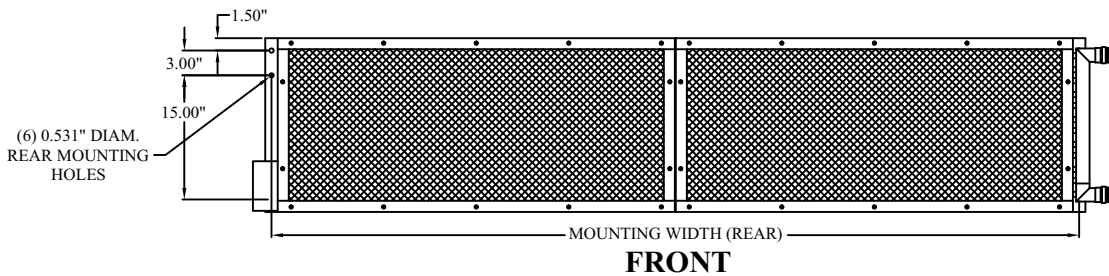
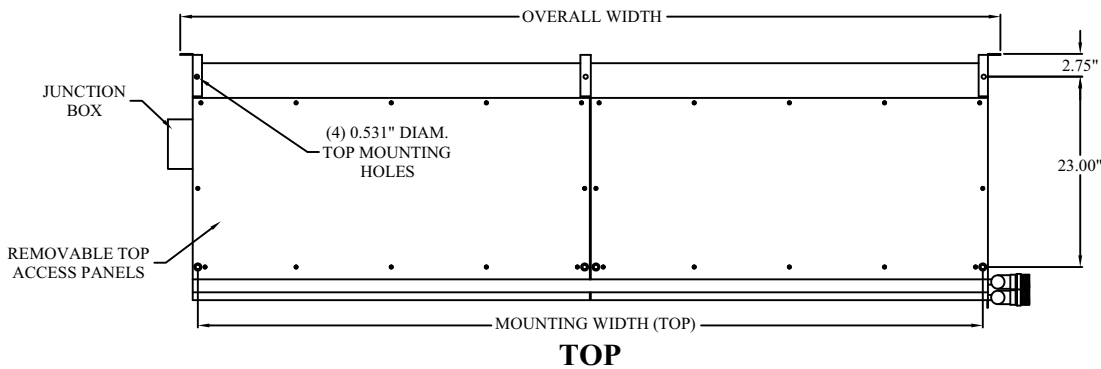
- RIGHT HAND SUPPLY
LEFT HAND RETURN
- LEFT HAND SUPPLY
RIGHT HAND RETURN

MODEL NUMBER	TSD 1-48HS	TSD 1-60HS	TSD 1-72HS	TSD 2-96HS	TSD 2-108HS	TSD 2-120HS	TSD 2-132HS	TSD 2-144HS	TSD 3-144HS	TSD 3-156HS	TSD 3-168HS	TSD 3-180HS	TSD 3-192HS	TSD 4-192HS
OVERALL WIDTH	51.00	63.00	75.00	99.12	111.12	123.12	135.12	147.12	147.25	159.25	171.25	183.25	195.25	195.37
NOZZLE WIDTH	48.00	60.00	72.00	96.12	108.12	120.12	132.12	144.12	144.25	156.25	168.25	180.25	192.25	192.37
MOUNTING WIDTH (REAR)	49.50	61.50	73.50	97.62	109.62	121.62	133.62	145.62	145.75	157.75	169.75	181.75	193.75	193.87
MOUNTING WIDTH (TOP)	47.00	59.00	71.00	95.12	107.12	119.12	131.12	143.12	143.25	155.25	167.25	179.25	191.25	191.37

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

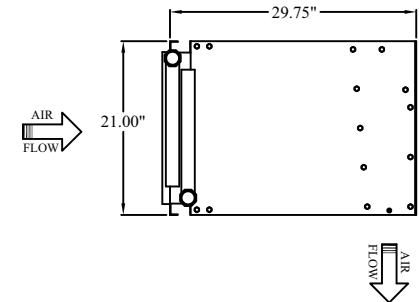
POWERED AIRE INC.
109 Mortensen Rd. Greenville, PA 16125

DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL TSD FRONT INTAKE HOT WATER / STEAM HEATED WITH OPPOSITE SIDE CONNECTIONS
DRAWN BY: B.K.J.	
PART/FILE# TSD-HS	



NOTES:

1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
3. COIL CONNECTIONS SHOWN ON RIGHT HAND SIDE. THEY CAN BE EITHER RIGHT HAND SUPPLY AND RETURN (RHS&R) OR LEFT HAND SUPPLY AND RETURN (LHS&R). PLEASE SPECIFY.
4. SIZE STEAM TRAP (PROVIDED BY OTHERS) BY 3 TIMES THE MANUFACTURER'S RECOMMENDED SIZE FOR SATISFACTORY OPERATION.
5. FOR UNITS OVER 16 FEET CONSULT FACTORY.




COIL OPTIONS

- RIGHT HAND SUPPLY AND RETURN
- LEFT HAND SUPPLY AND RETURN

MODEL NUMBER	TSD 1-48HS	TSD 1-60HS	TSD 1-72HS	TSD 2-96HS	TSD 2-108HS	TSD 2-120HS	TSD 2-132HS	TSD 2-144HS	TSD 3-144HS	TSD 3-156HS	TSD 3-168HS	TSD 3-180HS	TSD 3-192HS	TSD 4-192HS
OVERALL WIDTH	51.00	63.00	75.00	99.12	111.12	123.12	135.12	147.12	147.25	159.25	171.25	183.25	195.25	195.37
NOZZLE WIDTH	48.00	60.00	72.00	96.12	108.12	120.12	132.12	144.12	144.25	156.25	168.25	180.25	192.25	192.37
MOUNTING WIDTH (REAR)	49.50	61.50	73.50	97.62	109.62	121.62	133.62	145.62	145.75	157.75	169.75	181.75	193.75	193.87
MOUNTING WIDTH (TOP)	47.00	59.00	71.00	95.12	107.12	119.12	131.12	143.12	143.25	155.25	167.25	179.25	191.25	191.37

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE INC.
109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL TSD FRONT INTAKE HOT WATER / STEAM HEATED WITH SAME SIDE CONNECTIONS
DRAWN BY: B.K.J.	
PART/FILE# TSD-HS	



POWERED AIRE INC.

www.poweredaire.com

**109 Mortensen Road
Greenville, PA 16125**

**Phone: 724-588-3305
Fax: 724-588-3371**

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL EHD WITH HOT WATER OR STEAM HEAT (CSI formatted specifications available at www.poweredaire.com)

Aire curtains are to be furnished as factory assembled units manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of casing, motors, centrifugal fans, protective inlet screen and discharge nozzle. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or lowering the bottom half of the unit. Aire Curtain unit to provide uniform velocity across the entire length of the discharge area. Units are universally manufactured for wall mount or top mount.

Units to be constructed with sufficient rigidity to span the length of the opening without intermediate support. Additional mounting holes to be provided on larger units for buildings where structural support is not adequate for supporting the aire curtain from ends only. 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. Intake screen will be 20 gauge perforated type stainless steel. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Units shall be equipped with dynamically balanced curved double inlet double width galvanized blower wheels with brazed hubs and matched blower housings. Fan scrolls or formed fiberglass air diverters shall not be acceptable.

Motors will be 5 horse power Total Enclosed Air Over (TEAO) 1160 RPM 50/60 cycle equipped with sealed ball bearings of equal size at each end and double extended shafts. To prevent a misalignment from occurring, no outboard bearings or flexible couplings will be acceptable. Aire curtain discharge to distribute outlet air evenly at and between blowers for the entire length of aire curtain through the use of a plenum.

Discharge nozzle shall be adjustable to ± 20 degrees with no dampers or grills to add turbulence and create a pressure drop or a sound pressure increase.

Steam / Hot Water Coil

Unit(s) shall be provided with a factory mounted steam or hot water coil. The coil shall be mounted to the intake of aire curtain. Coil will consist of 5/8 inch O.D. copper tubes and aluminum fins. Coils will be certified to ARI standard 410.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors.

Consult factory for optional top air intake.

Aire Curtain unit shall be ETL or UL listed. Unit(s) shall have an 18 month warranty on all parts.

Control Options for Model EHD HW/ST

Hot Water or Steam Heated Options

* Recommended

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

* **Hand/Off/Auto Selector Switch (Panel Mounted)** -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, and On/Off/Auto Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Panel Mounted) -- Switches the air curtain on and off.

Programmable Digital Thermostat -- A thermostat, that will only control the fans, that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day).

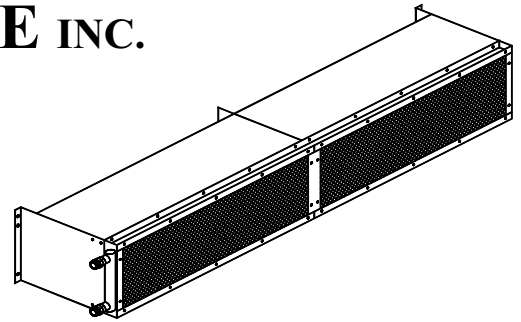
Built-in Time Delay Relay -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.



POWERED AIRE INC.

www.poweredaire.com

MODEL: EHD Hot Water / Steam
Extra High Door
Door Height: Up to Twenty-Two Feet



PRODUCT DATA

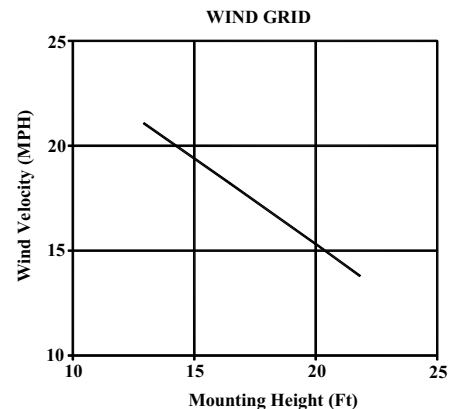
Model	EHD 1-48HS	EHD 1-60HS	EHD 1-72HS	EHD 2-96HS	EHD 2-108HS	EHD 2-120HS	EHD 2-132HS	EHD 2-144HS	EHD 3-156HS	EHD 3-168HS	EHD 3-180HS	EHD 3-192HS
Door Width Feet	4	5	6	8	9	10	11	12	13	14	15	16
Nozzle Width Inches	48	60	72	96	108	120	132	144	156	168	180	192
Max. FPM at Nozzle	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572
Max. CFM at Nozzle	6994	9924	12854	15926	17888	19848	21291	23891	25850	27812	29772	30355
Avg. FPM at Nozzle	5499	4358	5128	4842	4600	4358	4842	4842	4681	4520	4358	4842
CFM at Nozzle	6305	7480	9256	12977	13769	15750	16120	19168	20257	22825	23004	23335
Outlet Velocity Uniformity	95%	94%	94%	95%	94%	94%	95%	95%	94%	94%	94%	95%
Number of Motors	1	1	1	2	2	2	2	2	3	3	3	3
Horse Power	5	5	5	5	5	5	5	5	5	5	5	5
mbtu/hr Hot Water	234	278	333	509	555	603	650	733	839	872	881	916
Temperature Rise Deg.(F)	34	35	33	36	37	38	37	37	38	38	37	36
mbtu/hr Steam	302	365	434	608	645	730	756	852	972	1032	1071	1094
Temperature Rise Deg.(F)	44	46	43	43	43	46	43	43	44	45	45	43
Weight (Lbs)	463	515	560	895	955	1008	1030	1065	1335	1390	1450	1477

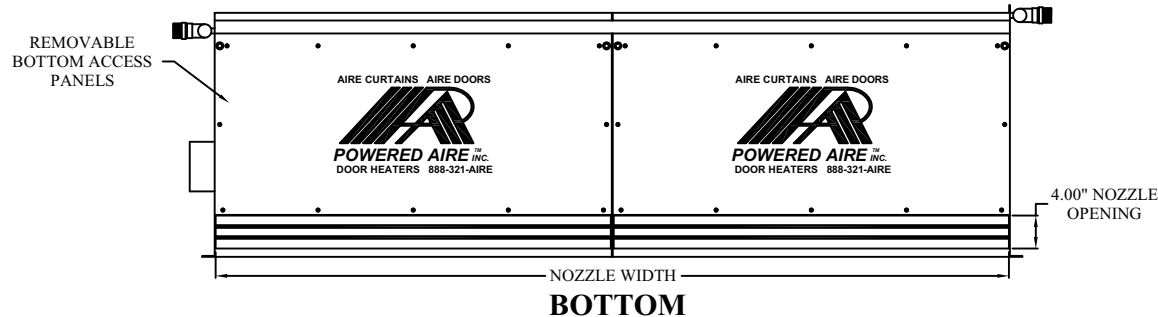
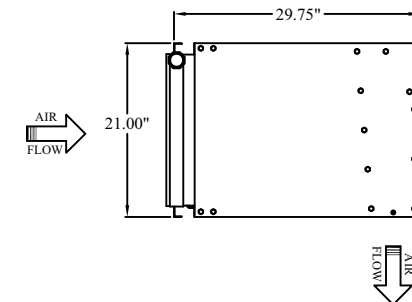
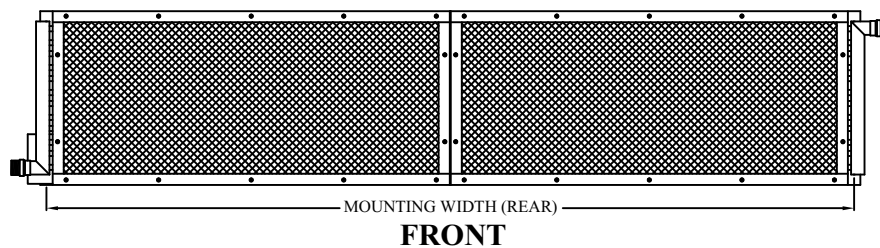
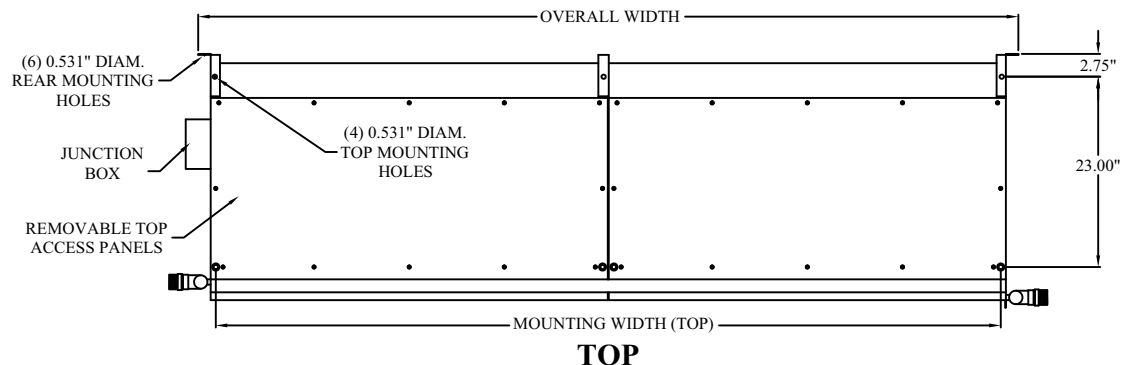
Sound level: 71 dba

Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Three Phase Motor Voltage Available: 208 240 480 575
Amp Draw Per Motor: 17.0 15.8 7.9 6.3

**** Units over 192 inches contact factory**
**** Consult factory for coil values different from above.**





COIL OPTIONS

- RIGHT HAND SUPPLY
LEFT HAND RETURN
- LEFT HAND SUPPLY
RIGHT HAND RETURN

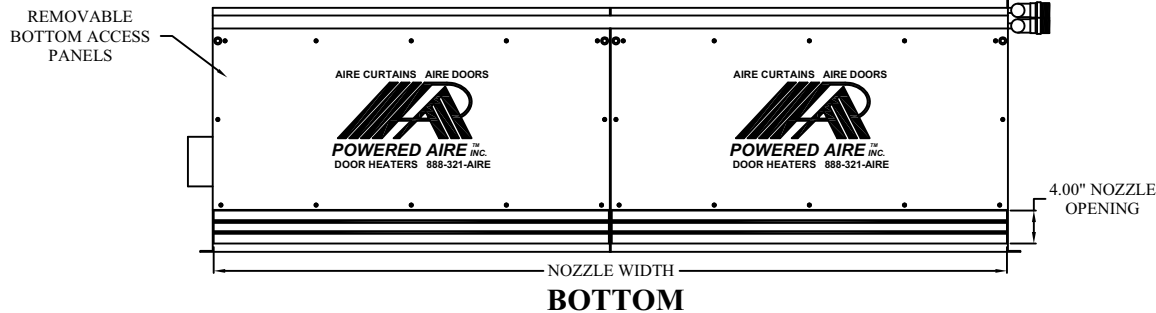
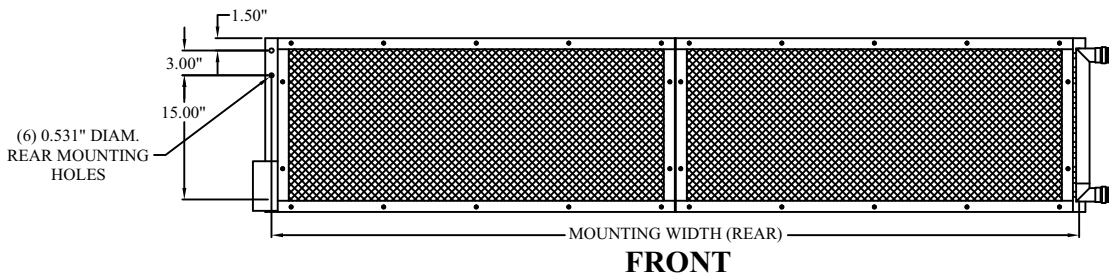
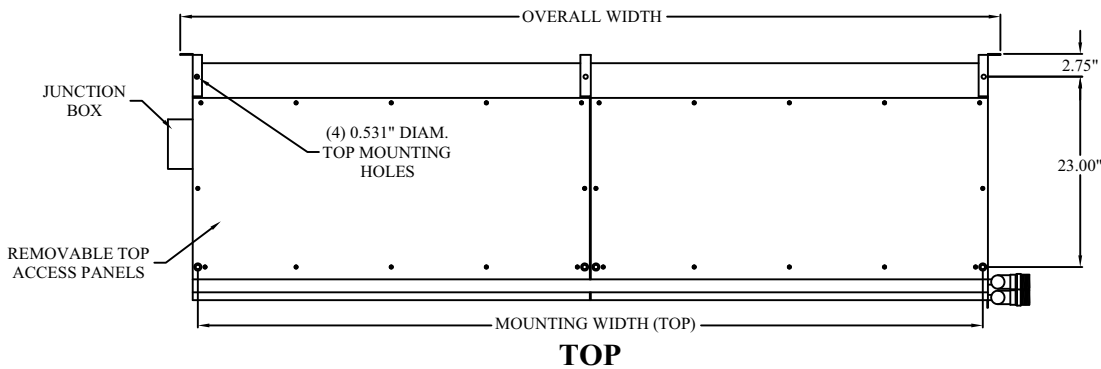
NOTES:

1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
3. COIL SUPPLY CONNECTION ON TOP FOR STEAM COIL, SUPPLY ON BOTTOM FOR HOT WATER COIL. PLEASE SPECIFY CONNECTIONS BELOW.
4. SIZE STEAM TRAP (PROVIDED BY OTHERS) BY 3 TIMES THE MANUFACTURER'S RECOMMENDED SIZE FOR SATISFACTORY OPERATION.
5. FOR UNITS OVER 16 FEET CONSULT FACTORY.

MODEL NUMBER	EHD 1-48HS	EHD 1-60HS	EHD 1-72HS	EHD 2-96HS	EHD 2-108HS	EHD 2-120HS	EHD 2-132HS	EHD 2-144HS	EHD 3-156HS	EHD 3-168HS	EHD 3-180HS	EHD 3-192HS
OVERALL WIDTH	51.00	63.00	75.00	99.12	111.12	123.12	135.12	147.12	159.25	171.25	183.25	195.25
NOZZLE WIDTH	48.00	60.00	72.00	96.12	108.12	120.12	132.12	144.12	156.25	168.25	180.25	192.25
MOUNTING WIDTH (REAR)	49.50	61.50	73.50	97.62	109.62	121.62	133.62	145.62	157.75	169.75	181.75	193.75
MOUNTING WIDTH (TOP)	47.00	59.00	71.00	95.12	107.12	119.12	131.12	143.12	155.25	167.25	179.25	191.25

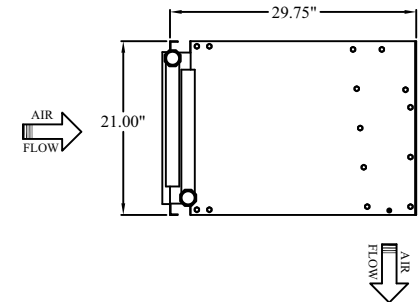
JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE INC. 109 Mortensen Rd. Greenville, PA 16125		
DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL EHD FRONT INTAKE HOT WATER / STEAM HEATED WITH OPPOSITE SIDE CONNECTIONS	
DRAWN BY: B.K.J.		
PART/FILE# EHD-HS		



NOTES:

1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
3. COIL CONNECTIONS SHOWN ON RIGHT HAND SIDE. THEY CAN BE EITHER RIGHT HAND SUPPLY AND RETURN (RHS&R) OR LEFT HAND SUPPLY AND RETURN (LHS&R). PLEASE SPECIFY.
4. SIZE STEAM TRAP (PROVIDED BY OTHERS) BY 3 TIMES THE MANUFACTURER'S RECOMMENDED SIZE FOR SATISFACTORY OPERATION.
5. FOR UNITS OVER 16 FEET CONSULT FACTORY.




COIL OPTIONS

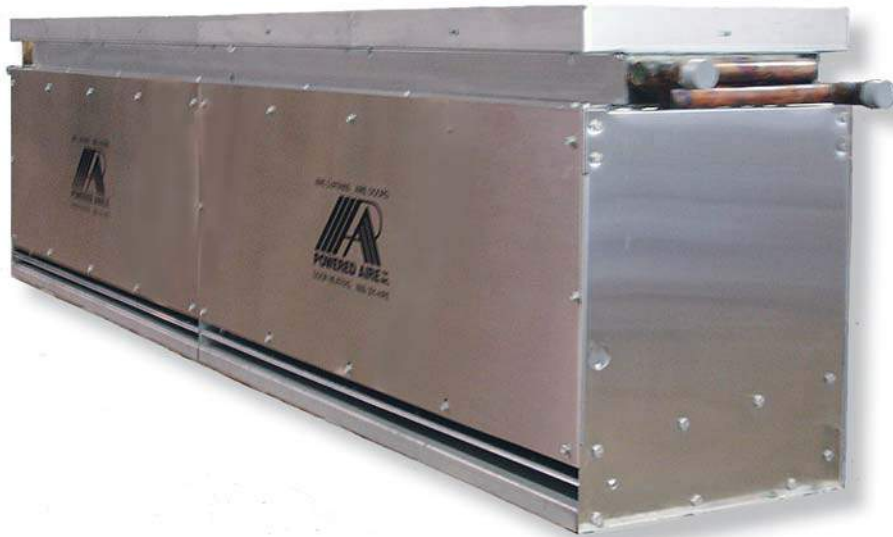
- RIGHT HAND SUPPLY AND RETURN
- LEFT HAND SUPPLY AND RETURN

MODEL NUMBER	EHD 1-48HS	EHD 1-60HS	EHD 1-72HS	EHD 2-96HS	EHD 2-108HS	EHD 2-120HS	EHD 2-132HS	EHD 2-144HS	EHD 3-156HS	EHD 3-168HS	EHD 3-180HS	EHD 3-192HS
OVERALL WIDTH	51.00	63.00	75.00	99.12	111.12	123.12	135.12	147.12	159.25	171.25	183.25	195.25
NOZZLE WIDTH	48.00	60.00	72.00	96.12	108.12	120.12	132.12	144.12	156.25	168.25	180.25	192.25
MOUNTING WIDTH (REAR)	49.50	61.50	73.50	97.62	109.62	121.62	133.62	145.62	157.75	169.75	181.75	193.75
MOUNTING WIDTH (TOP)	47.00	59.00	71.00	95.12	107.12	119.12	131.12	143.12	155.25	167.25	179.25	191.25

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE <small>INC.</small> 109 Mortensen Rd. Greenville, PA 16125		
DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL EHD FRONT INTAKE HOT WATER / STEAM HEATED WITH SAME SIDE CONNECTIONS	
DRAWN BY: B.K.J.		
PART/FILE# EHD-HS		

Powered Aire
Hot Water or Steam Heat
Models CHS, THS
TSD-HW, TSD-ST OR
EHD-HW, EHD-ST





POWERED AIRE INC.

www.poweredaire.com

**109 Mortensen Road
Greenville, PA 16125**

**Phone: 724-588-3305
Fax: 724-588-3371**

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL TIG INDIRECT GAS FIRED (CSI formatted specifications available at www.poweredaire.com)

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of casing, motors, centrifugal fans, and discharge nozzle. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or lowering the bottom half of the unit. The aire curtain unit provides a specific CFM and a uniform velocity across the entire length of the discharge area through the use of a plenum.

All weight bearing structural support will be made of formed 14-gauge stainless steel and galvanized steel. Outer casing shall be constructed of 18-gauge stainless steel. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Motors at 3/4 H.P. 1630 rpm each shall be heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230/480/575 volts 50/60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional airfoil vane. The vane shall facilitate deflection of air stream ± 20 degrees.

Indirect Gas Heat

Unit(s) shall be provided with a factory matched indirect gas heater. The heater will be equipped with power exhaust, direct spark ignition, electronic flame supervision, and gas pressure switches. Tubular heat exchangers shall be constructed of aluminized steel. Optional stainless steel heat exchangers are available upon request. Heater to be independently supported 2 inches away from duct transition. Duct transition will be bolted to aire curtain and will need to be supported.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors.

Units shall have an 18 month warranty on all parts.

October, 2013

Control Options for Model TIG

Indirect Gas Heated Options * Recommended

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

* **Hand/Off/Auto Selector Switch (Panel Mounted)** -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

***Heat On/Off Selector Switch (Panel Mounted)** -- Turns the heat on and off while the fans are running, or when used in conjunction with a thermostat can disable the heat.

***Thermostat (Panel Mounted)** -- Turns the gas heat in the unit on and off while the fans are running based on the room temperature.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch, Heat On/Off Switch, High/Low Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Panel Mounted) -- Switches the air curtain on and off.

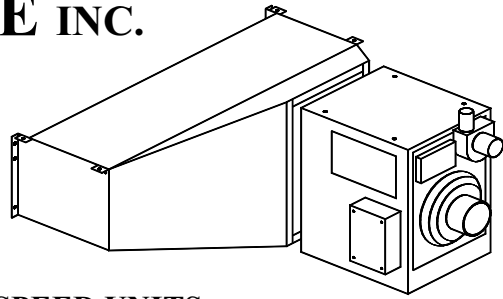
Programmable Digital Thermostat -- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day).

Built-in Time Delay Relay -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.



POWERED AIRE INC.

www.poweredaire.com



MODEL: TIG – Indirect Gas Heated
Door Height: Up to Twelve Feet

PRODUCT DATA SINGLE SPEED UNITS

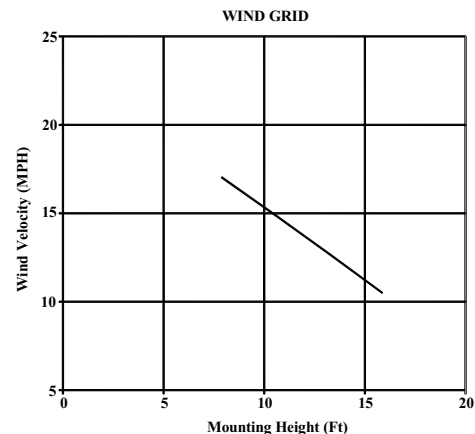
Model	TIG 1-36	TIG 1-48	TIG 1-60	TIG 2-72	TIG 2-84	TIG 2-96	TIG 3-108	TIG 3-120	TIG 3-132	TIG 4-144
Nozzle Width (in)	36	48	60	72	84	96	108	120	132	144
Max. FPM At Nozzle	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218
Max. CFM At Nozzle	2899	3867	4374	5803	6766	7732	8702	9668	10853	11606
Avg. FPM At Nozzle	3695	2771	2218	3696	3169	2773	3702	3174	2792	3696
CFM at Nozzle	2541	2559	2528	5082	5063	5081	7623	7614	7589	10164
Outlet Velocity Uniformity	95%	92%	91%	95%	93%	92%	92%	95%	94%	95%
Number of Motors	1	1	1	2	2	2	3	3	3	4
Horse Power	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Input mbtu/hr per Heater	150	150	150	250	250	250	350	200	200	250
Number of Heaters	1	1	1	1	1	1	1	2	2	2
Total Output mbtu/hr	120	120	120	200	200	200	280	320	320	400
Temperature Rise (°F)	44	43	44	36	37	36	34	39	39	36
Weight (Lbs)	250	282	337	496	526	569	638	679	833	992

Sound Level: 63 dba
 Sound level measured 10 feet from the unit in a free field based on a one motor unit.

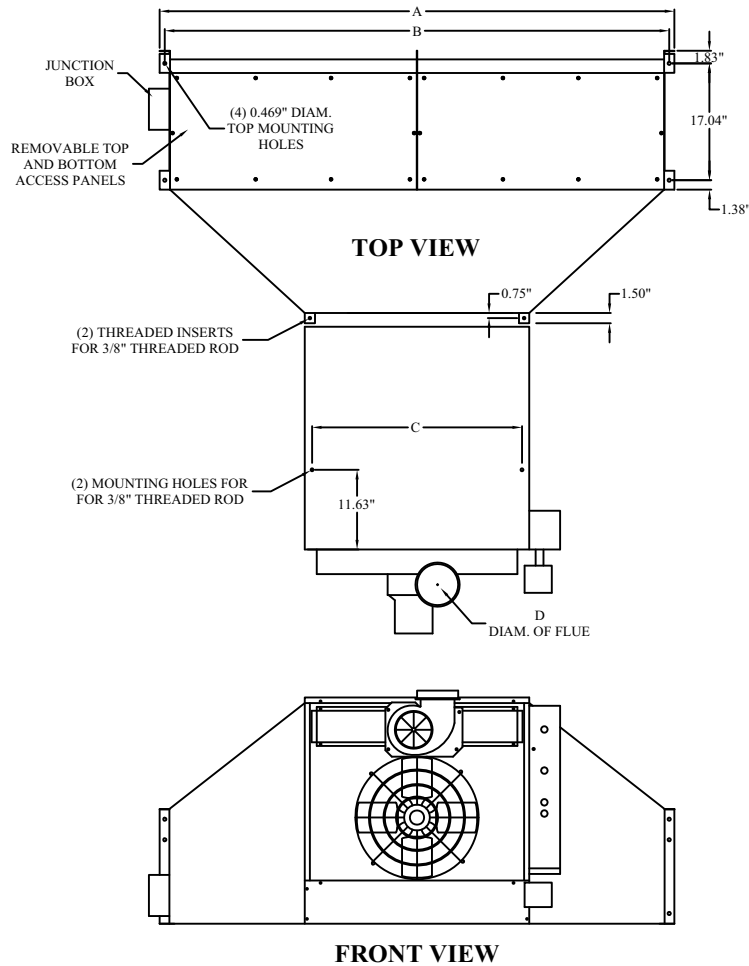
Indirect gas heaters used are certified by the American Gas Association. Standard equipment: includes power-vented flues, spark-ignited pilots, stainless steel duct transition and stainless steel aire curtain housing.

Single Phase Motor Voltage Available: 120 208/230 480 575
Amp Draw Per Motor: 8.0 3.6 2.0 1.5

- ** Nozzle width equals door width.
- ** For three phase motors consult factory.
- ** For unit over twelve feet long consult factory.

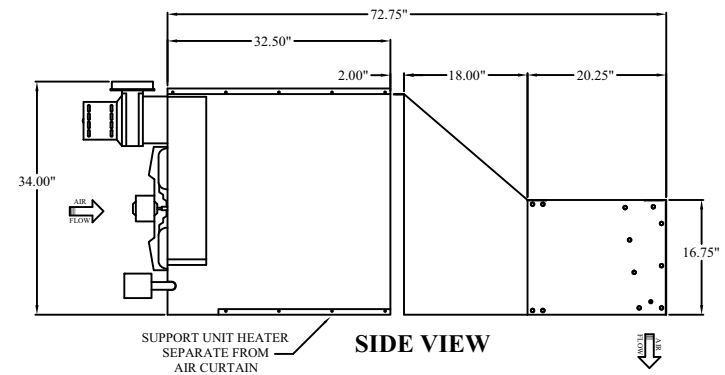


AIR CURTAIN SERIES TIG WITH ONE INDIRECT GAS HEATER




NOTES:

1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
3. AIR CURTAIN TO BE INSTALLED SO THAT THE AIR STREAM IS UNOBSTRUCTED.



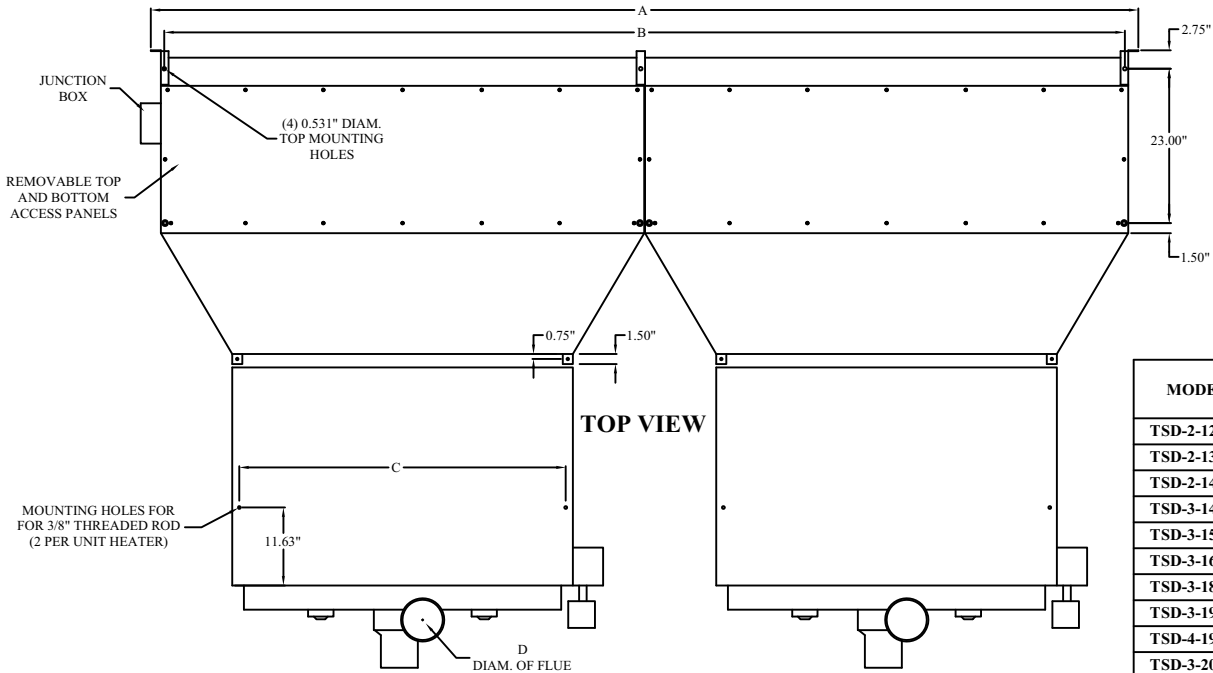
MODEL	AIR CURTAIN WIDTH (A)	MOUNTING WIDTH (B)	HANGING WIDTH (C)	FLUE DIAMETER (D)	HEATER SIZE	GAS INLET
TIG-1-36	39.00"	37.50"	18.63"	5"	150	1/2"
TIG-1-48	51.00"	49.50"	18.63"	5"	150	1/2"
TIG-1-60	63.00"	61.50"	18.63"	5"	150	1/2"
TIG-2-72	75.07"	73.57"	30.63"	5"	250	3/4"
TIG-2-84	87.07"	85.57"	30.63"	5"	250	3/4"
TIG-2-96	99.07"	97.57"	30.63"	5"	250	3/4"
TIG-3-108	111.15"	109.65"	48.63"	6"	350	3/4"

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

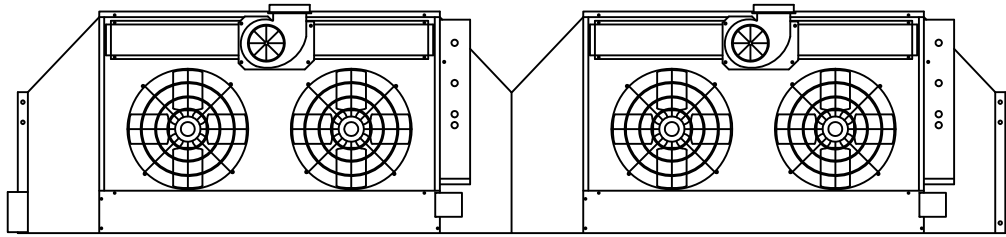
POWERED AIR ™ INC. 109 Mortensen Rd. Greenville, PA 16125 	
DATE: 10/01/13	PART DESCRIPTION: POWERED AIR SYSTEMS TIG AIR CURTAIN WITH INDIRECT GAS HEAT
DRAWN BY: B.K.J.	
PART/FILE# TIG	

AIR CURTAIN SERIES TSD WITH TWO INDIRECT GAS HEATERS

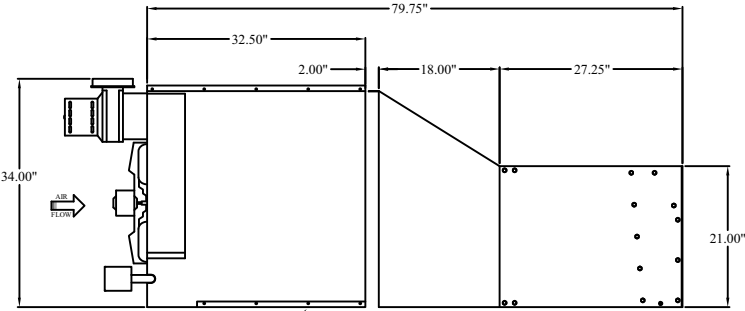
- NOTES:
 1. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
 2. ADEQUACY OF SUPPORT STRUCTURE TO BE VERIFIED BY A PROFESSIONAL STRUCTURAL ENGINEER.
 3. AIR CURTAIN TO BE INSTALLED SO THAT THE AIR STREAM IS UNOBSTRUCTED.



MODEL	AIR CURTAIN WIDTH (A)	MOUNTING WIDTH (B)	HANGING WIDTH (C)	FLUE DIAMETER (D)	HEATER SIZE	GAS INLET
TSD-2-120IG	123.13"	119.13"	30.63"	5"	2 X 250	3/4"
TSD-2-132IG	135.13"	131.13"	30.63"	5"	2 X 250	3/4"
TSD-2-144IG	147.13"	143.13"	30.63"	5"	2 X 250	3/4"
TSD-3-144IG	147.25"	143.25"	30.63"	5"	2 X 250	3/4"
TSD-3-156IG	159.25"	155.25"	48.63"	6"	2 X 350	3/4"
TSD-3-168IG	171.25"	167.25"	48.63"	6"	2 X 350	3/4"
TSD-3-180IG	183.25"	179.25"	48.63"	6"	2 X 350	3/4"
TSD-3-192IG	195.25"	191.25"	48.63"	6"	2 X 350	3/4"
TSD-4-192IG	195.38"	191.38"	48.63"	6"	2 X 400	3/4"
TSD-3-204IG	207.25"	203.25"	48.63"	6"	2 X 400	3/4"
TSD-4-204IG	207.38"	203.38"	48.63"	6"	2 X 400	3/4"
TSD-3-216IG	219.25"	215.25"	48.63"	6"	2 X 400	3/4"
TSD-4-216IG	219.38"	215.38"	48.63"	6"	2 X 400	3/4"




FRONT VIEW



SUPPORT UNIT HEATER SEPARATE FROM AIR CURTAIN SIDE VIEW

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC.
 109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL TSD AIR CURTAIN WITH INDIRECT GAS HEAT
DRAWN BY: B.K.J.	
PART/FILE# TSD-IG	



POWERED AIRE INC.

www.poweredaire.com

**109 Mortensen Road
Greenville, PA 16125**

**Phone: 724-588-3305
Fax: 724-588-3371**

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL TDG DIRECT GAS FIRED (CSI formatted specifications available at www.poweredaire.com)

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of casing, motors, centrifugal fans, and discharge nozzle. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or lowering the bottom half of the unit. The aire curtain unit provides a specific CFM and a uniform velocity across the entire length of the discharge area through the use of a plenum.

All weight bearing structural support will be made of formed 14-gauge stainless steel and galvanized steel. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Motors at 3/4 H.P. 1630 rpm each shall be heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230 volts 50/60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional airfoil vane. The vane shall facilitate deflection of air stream ± 20 degrees.

Direct Gas Heat

Unit(s) shall be provided with a factory mounted direct gas heater. Heater will be equipped with a temperature sensor that controls the heater output by way of modulating gas valves. An air flow switch along with a motor contactor will ensure that the burner will not fire without the fans spinning. In the case of a flame failure, the flame safety relay energizes the alarm lockout relay shutting down the entire system. The system will only restart if the flame safety relay is manually reset. Unit(s) can be equipped with optional proof of closure on the main and auxiliary gas valves, as well as optional high and low gas pressure switches. Unit must be ducted to the outside to burn 100% fresh air.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors. Direct gas fired panels will be mounted to the unit and will contain a 24 volt control transformer, flame safety relay, temperature sensors, air flow sensors, and modulating gas valve controls.

Units shall have an 18 month warranty on all parts.

October, 2013

Control Options for Model TDG

Direct Gas Heated Options

* Recommended

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

* **Hand/Off/Auto Selector Switch (Panel Mounted)** -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated (Use only if ducting the intake to the outside).

***Heat On/Off Selector Switch (Panel Mounted)** -- Turns the heat on and off while the fans are running, or when used in conjunction with a thermostat can disable the heat.

***Thermostat (Panel Mounted)** -- Turns the gas heat in the unit on and off while the fans are running based on the room temperature.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch, Heat On/Off Switch, High/Low Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Panel Mounted) -- Switches the air curtain on and off.

Programmable Digital Thermostat -- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day)

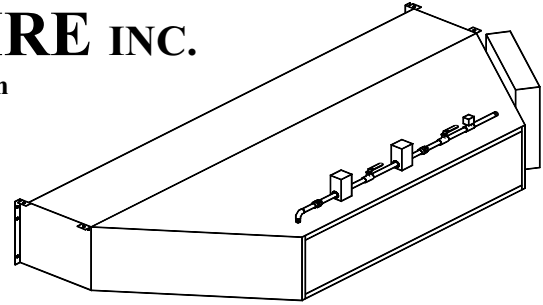
Built-in Time Delay Relay -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.



POWERED AIRE INC.

www.poweredaire.com

**MODEL: TDG – Single Speed Direct
Gas Heated Air Curtain
Door Height: Up to Twelve Feet**



PRODUCT DATA SINGLE SPEED UNITS

Model	TDG 2-72	TDG 2-84	TDG 2-96	TDG 3-108	TDG 3-120	TDG 3-132	TDG 4-144
Nozzle width Inches	72	84	96	108	120	132	144
Max. FPM at Nozzle	4218	4218	4218	4218	4218	4218	4218
Max. CFM at Nozzle	5803	6766	7732	8702	9668	10853	11606
Avg. FPM at Nozzle	3696	3169	2773	3702	3174	2792	3696
CFM at Nozzle	5082	5063	5081	7623	7614	7589	10164
Outlet Velocity Uniformity	95%	93%	92%	92%	95%	94%	95%
Number of Motors	2	2	2	3	3	3	4
Horse Power	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Heater Output mbtu/hr	576	574	576	865	864	861	1,153
Max. Output Temperature* Deg.(F)	105	105	105	105	105	105	105
Weight (Lbs)	499	547	593	655	764	775	858

Sound Level: 63 dba

Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Three Phase Motor Voltage Available: 208 240 480 575

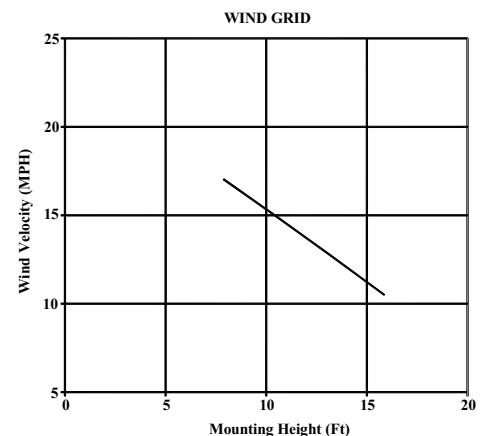
Amp Draw Per Motor: 3.0 2.8 1.5 1.1

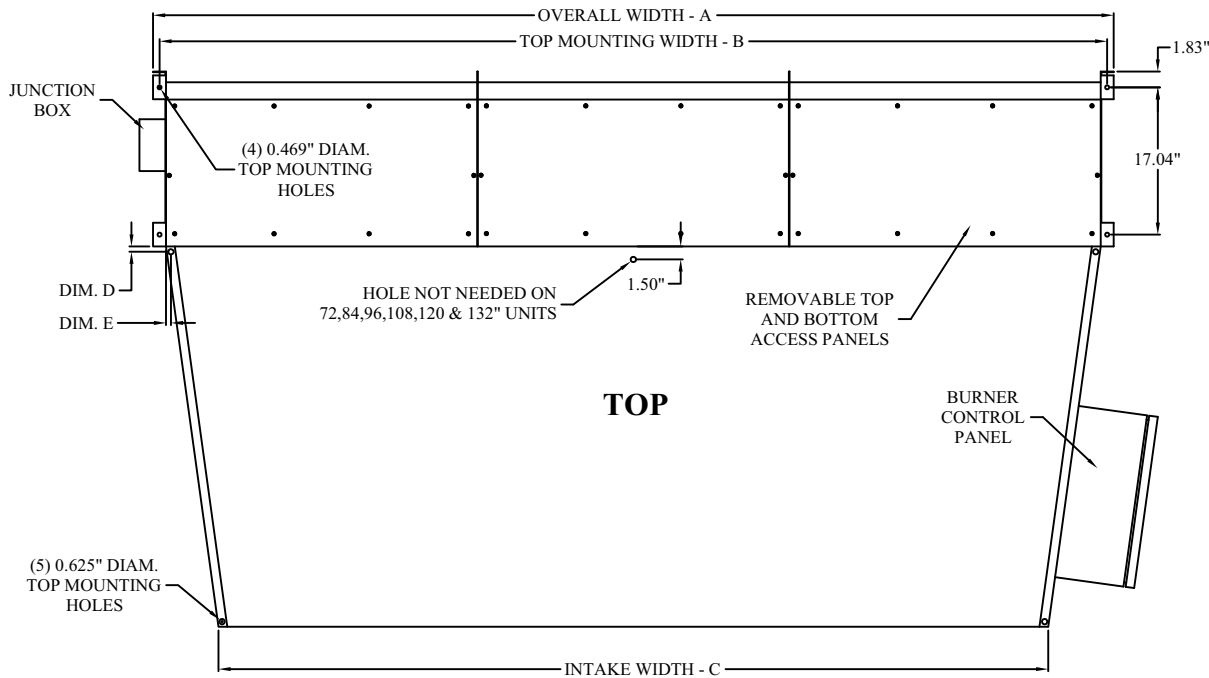
* Consult factory to adjust heater mbtu/hr to meet a customer specification for temperature output other than 105 deg F.

** Nozzle width equals door width.

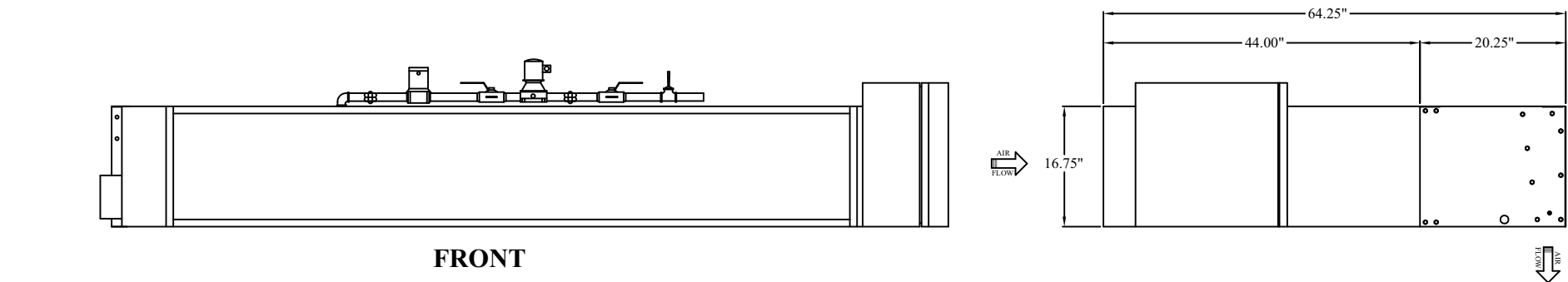
** For three phase motors consult factory.

** For unit over twelve feet long consult factory.






- NOTES:
1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
 2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
 3. 1 PSI MINIMUM GAS INLET PRESSURE. 5 PSI MAXIMUM.



MODEL NUMBER	TDG-2-72	TDG-2-84	TDG-2-96	TDG-3-108	TDG-3-120	TDG-3-132	TDG-4-144
OVERALL WIDTH - A	75.07"	87.07"	99.07"	111.15"	123.15"	135.15"	147.22"
MOUNTING WIDTH - B	73.57"	85.57"	97.57"	109.65"	121.65"	133.65"	145.72"
INTAKE WIDTH - C	73.00"	73.00"	73.00"	96.00"	96.00"	96.00"	120.00"
DIMENSION D	1.00"	1.00"	1.00"	1.19"	1.19"	1.19"	1.19"
DIMENSION E	0.75"	0.75"	0.75"	1.06"	1.06"	1.06"	1.06"

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC.
109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL TDG DIRECT GAS FIRED AIRE CURTAIN
DRAWN BY: B.K.J.	
PART/FILE# TDG	



POWERED AIRE INC.

www.poweredaire.com

**109 Mortensen Road
Greenville, PA 16125**

**Phone: 724-588-3305
Fax: 724-588-3371**

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL TSD INDIRECT GAS FIRED UNITS (CSI formatted specifications available at www.poweredaire.com)

Aire curtains to be furnished as factory assembled units manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of casing, motors, centrifugal fans, and discharge nozzle. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or the bottom half of the unit. Aire curtain unit to provide uniform velocity across the entire length of the discharge area.

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. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Units shall be equipped with dynamically balanced curved double inlet double width galvanized blower wheels with brazed hubs and matched blower housings. Fan scrolls or formed fiberglass air diverters shall not be acceptable.

Motors will be 3 horse power Total Enclosed Air Over (TEAO) 1160 RPM 50/60 cycle equipped with sealed ball bearings of equal size at each end and double extended shafts. To prevent a misalignment from occurring, no outboard bearings or flexible couplings will be acceptable. Aire curtain discharge to distribute outlet air evenly at and between blowers for the entire length of aire curtain through the use of a plenum.

Discharge nozzle shall be adjustable to ± 20 degrees with no dampers or grills to add turbulence and create a pressure drop or a sound pressure increase.

Indirect Gas Heat

Unit(s) shall be provided with a factory matched indirect gas heater. The heater will be equipped with power exhaust, direct spark ignition, electronic flame supervision, and gas pressure switches. Tubular heat exchangers shall be constructed of aluminized steel. Optional stainless steel heat exchangers are available upon request. Heater to be independently supported 2 inches away from duct transition. Duct transition will be bolted to aire curtain and will need to be supported.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors.

Units shall have an 18 month warranty on all parts.

October, 2013

Control Options for Model TSD IG

Indirect Gas Heated Options

* Recommended

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

* **Hand/Off/Auto Selector Switch (Panel Mounted)** -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

***Heat On/Off Selector Switch (Panel Mounted)** -- Turns the heat on and off while the fans are running, or when used in conjunction with a thermostat can disable the heat.

***Thermostat (Panel Mounted)** -- Turns the gas heat in the unit on and off while the fans are running based on the room temperature.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch, and Heat On/Off Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Panel Mounted) -- Switches the air curtain on and off.

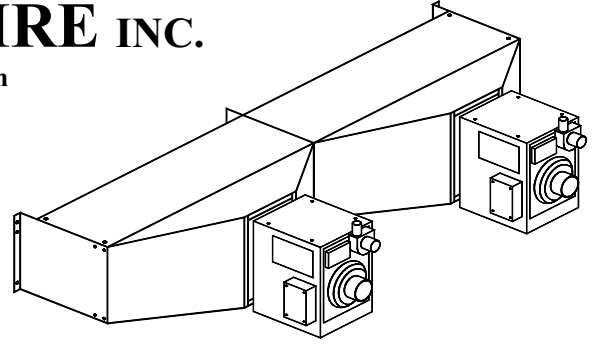
Programmable Digital Thermostat -- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day).

Built-in Time Delay Relay -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.



POWERED AIRE INC.

www.poweredaire.com



MODEL: TSD Indirect Gas Heated
Door Height: Up to Seventeen Feet

PAAC-114

PRODUCT DATA

Model	Door Width Feet	Nozzle Width Inches	Max FPM At Nozzle	Avg. Outlet Velocity FPM	CFM At Nozzle	Outlet Velocity Uniformity	Number Of Motors	Horse Power	Input mbtu/hr Per Heater	Number Of Heaters	Total Output mbtu/hr	Temp. Rise °F	Weight Lbs.
TSD 1-48IG	4	48	6200	3530	4554	92%	1	3	200	1	160	33	597
TSD 1-60IG	5	60	5800	3006	4855	92%	1	3	250	1	200	38	635
TSD 1-72IG	6	72	5900	2891	5579	86.3%	1	3	250	1	200	33	670
TSD 2-96IG	8	96	6200	3530	9108	92%	2	3	400	1	320	33	1191
TSD 2-108IG	9	108	6200	3239	9409	92%	2	3	400	1	320	32	1229
TSD 2-120IG	10	120	5800	3006	9710	92%	2	3	250	2	400	38	1267
TSD 2-132IG	11	132	5900	2943	10434	86.3%	2	3	250	2	400	36	1287
TSD 2-144IG	12	144	5900	2891	11158	86.3%	2	3	250	2	400	33	1337
TSD 3-144IG	12	144	6200	3530	13662	92%	3	3	250	2	400	27	1560
TSD 3-156IG	13	156	6200	3328	13963	92%	3	3	350	2	560	37	1628
TSD 3-168IG	14	168	6200	3257	14687	86.3%	3	3	350	2	560	35	1648
TSD 3-180IG	15	180	6200	3100	14988	86.3%	3	3	350	2	560	35	1686
TSD 3-192IG	16	192	6200	3051	15712	86.3%	3	3	350	2	560	33	1706
TSD 4-192IG	16	192	6200	3530	18216	92%	4	3	400	2	640	33	1929
TSD 3-204IG	17	204	5900	2925	16013	86.3%	3	3	400	2	640	37	1744
TSD 4-204IG	17	204	6200	3376	18517	92%	4	3	400	2	640	32	1967
TSD 3-216IG	18	216	5900	2891	16737	86.3%	3	3	400	2	640	35	1764
TSD 4-216IG	18	216	6200	3317	19241	86.3%	4	3	400	2	640	31	2272
TSD 4-228IG	19	228	6200	3191	19542	86.3%	4	3	350	3	840	40	2310
TSD 4-240IG	20	240	6200	3147	20266	86.3%	4	3	350	3	840	38	2330
TSD 5-240IG	20	240	6200	3530	22770	92%	5	3	350	3	840	34	2553

Sound level measured 10 feet from a one motor unit in a free field: 69 dBA

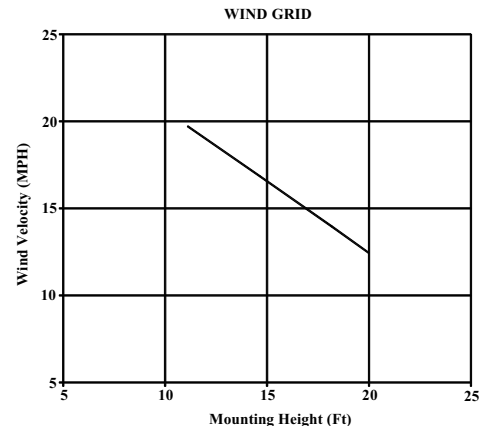
Indirect gas heaters used are certified by the American Gas Association (AGA). Standard equipment includes power-vented flues, spark-ignited pilots, stainless Steel duct transition and stainless steel air curtain housing.

Three Phase Motor Voltage Available: 208 240 480 575
Amp Draw Per Motor: 13.1 12.2 6.1 5.0

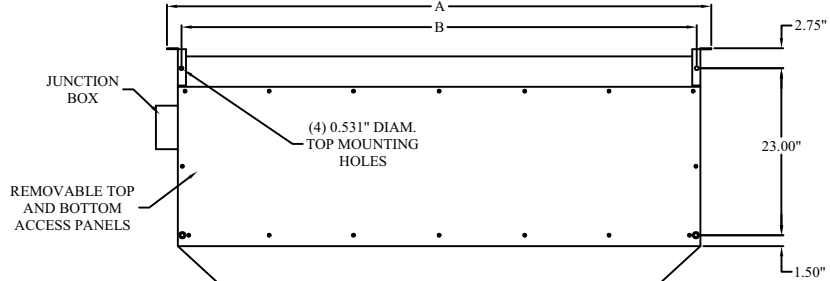
**** Consult factory for units over 20 feet wide.**

Velocity Projection Model: TSD 1-48

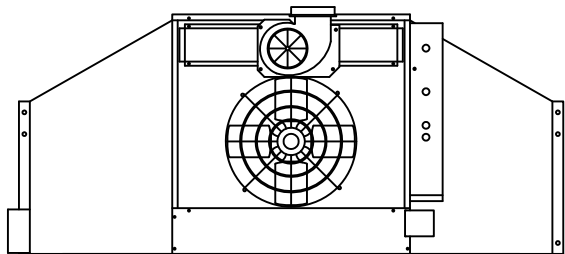
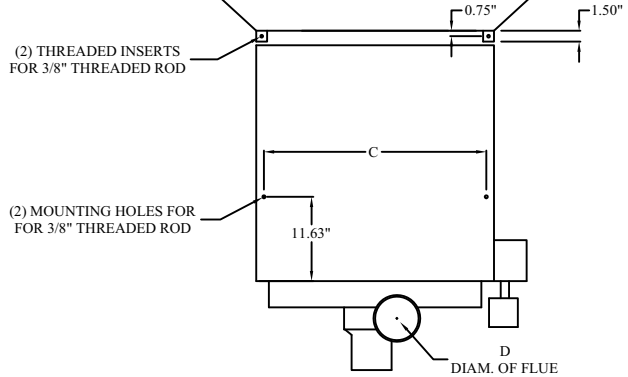
Distance From Nozzle: 4' 12' 18'
 Core Velocity (fpm): 2800 1800 1482



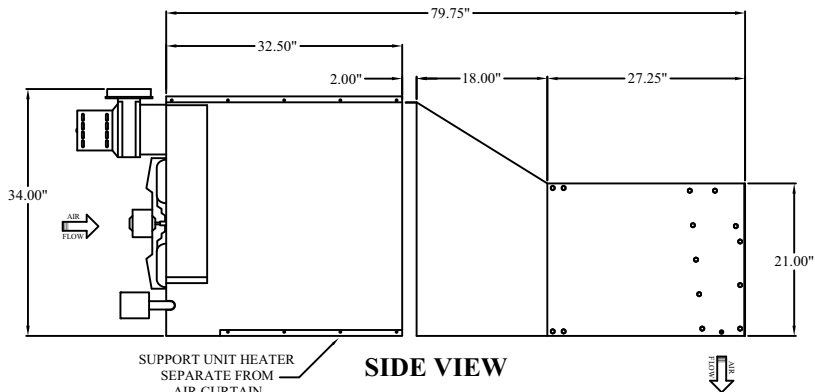
AIR CURTAIN SERIES TSD WITH ONE INDIRECT GAS HEATER



TOP VIEW



FRONT VIEW




SIDE VIEW

- NOTES:
1. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
 2. ADEQUACY OF SUPPORT STRUCTURE TO BE VERIFIED BY A PROFESSIONAL STRUCTURAL ENGINEER.
 3. AIR CURTAIN TO BE INSTALLED SO THAT THE AIR STREAM IS UNOBSTRUCTED.

MODEL	AIR CURTAIN WIDTH (A)	MOUNTING WIDTH (B)	HANGING WIDTH (C)	FLUE DIAMETER (D)	HEATER SIZE	GAS INLET
TSD-1-48IG	51.00"	47.00"	30.63"	5"	200	1/2"
TSD-1-60IG	63.00"	59.00"	30.63"	5"	250	3/4"
TSD-1-72IG	75.00"	71.00"	30.63"	5"	250	3/4"
TSD-2-96IG	99.13"	95.13"	48.63"	6"	400	3/4"
TSD-2-108IG	111.13"	107.13"	48.63"	6"	400	3/4"

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

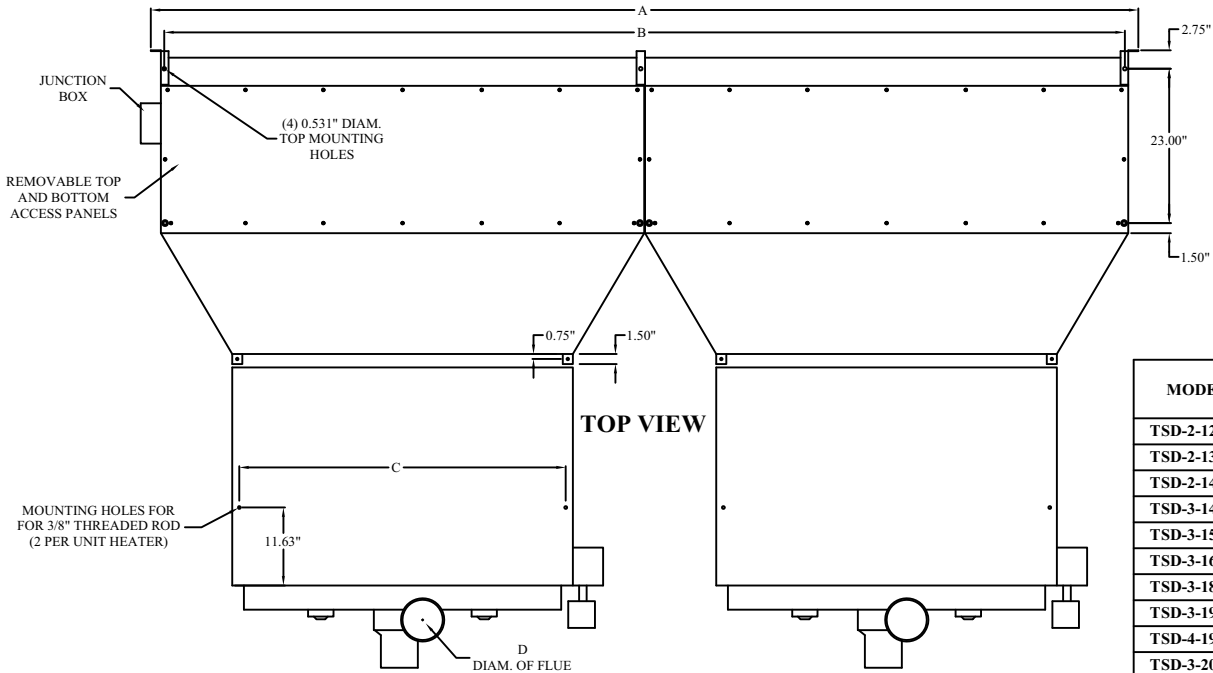
POWERED AIR TM **INC.**
 109 Mortensen Rd. Greenville, PA 16125



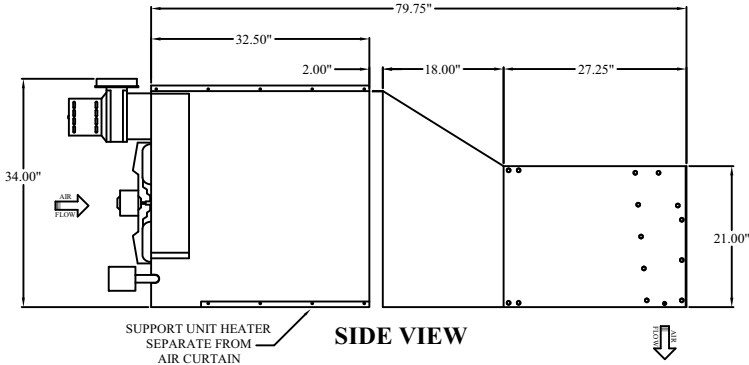
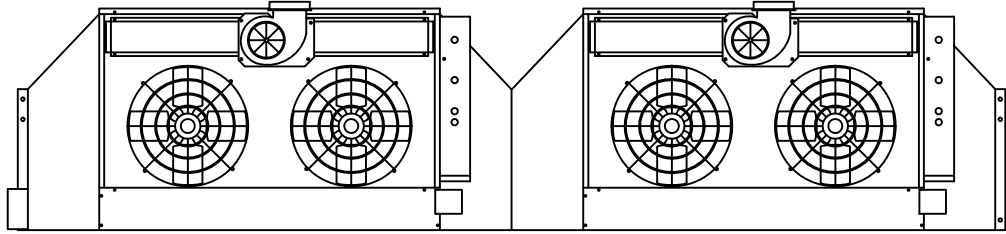
DATE: 10/01/13	PART DESCRIPTION: POWERED AIR SYSTEMS MODEL TSD AIR CURTAIN WITH INDIRECT GAS HEAT
DRAWN BY: B.K.J.	
PART/FILE# TSD-IG	

AIR CURTAIN SERIES TSD WITH TWO INDIRECT GAS HEATERS

- NOTES:
 1. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
 2. ADEQUACY OF SUPPORT STRUCTURE TO BE VERIFIED BY A PROFESSIONAL STRUCTURAL ENGINEER.
 3. AIR CURTAIN TO BE INSTALLED SO THAT THE AIR STREAM IS UNOBSTRUCTED.



MODEL	AIR CURTAIN WIDTH (A)	MOUNTING WIDTH (B)	HANGING WIDTH (C)	FLUE DIAMETER (D)	HEATER SIZE	GAS INLET
TSD-2-120IG	123.13"	119.13"	30.63"	5"	2 X 250	3/4"
TSD-2-132IG	135.13"	131.13"	30.63"	5"	2 X 250	3/4"
TSD-2-144IG	147.13"	143.13"	30.63"	5"	2 X 250	3/4"
TSD-3-144IG	147.25"	143.25"	30.63"	5"	2 X 250	3/4"
TSD-3-156IG	159.25"	155.25"	48.63"	6"	2 X 350	3/4"
TSD-3-168IG	171.25"	167.25"	48.63"	6"	2 X 350	3/4"
TSD-3-180IG	183.25"	179.25"	48.63"	6"	2 X 350	3/4"
TSD-3-192IG	195.25"	191.25"	48.63"	6"	2 X 350	3/4"
TSD-4-192IG	195.38"	191.38"	48.63"	6"	2 X 400	3/4"
TSD-3-204IG	207.25"	203.25"	48.63"	6"	2 X 400	3/4"
TSD-4-204IG	207.38"	203.38"	48.63"	6"	2 X 400	3/4"
TSD-3-216IG	219.25"	215.25"	48.63"	6"	2 X 400	3/4"
TSD-4-216IG	219.38"	215.38"	48.63"	6"	2 X 400	3/4"




FRONT VIEW

SIDE VIEW

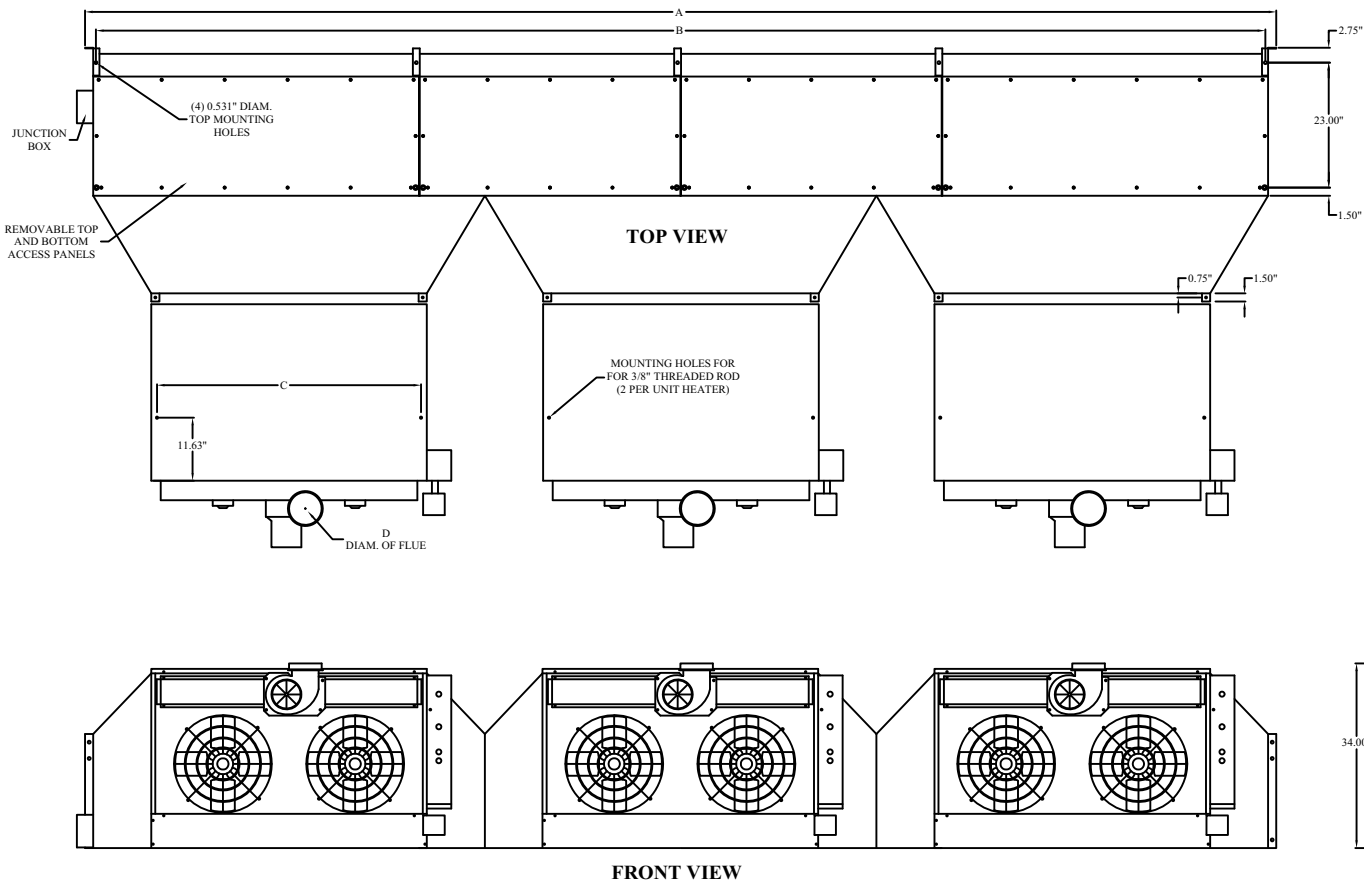
JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC.
 109 Mortensen Rd. Greenville, PA 16125

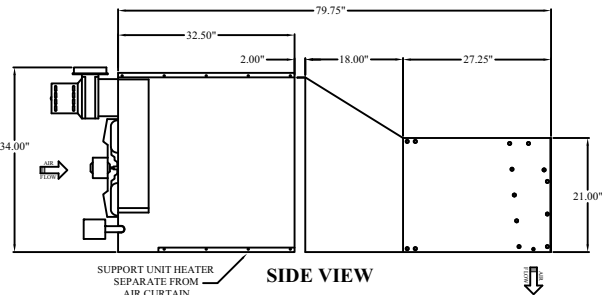


DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL TSD AIR CURTAIN WITH INDIRECT GAS HEAT
DRAWN BY: B.K.J.	
PART/FILE# TSD-IG	

AIR CURTAIN SERIES TSD WITH THREE INDIRECT GAS HEATERS




- NOTES:
1. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
 2. ADEQUACY OF SUPPORT STRUCTURE TO BE VERIFIED BY A PROFESSIONAL STRUCTURAL ENGINEER.
 3. AIR CURTAIN TO BE INSTALLED SO THAT THE AIR STREAM IS UNOBSTRUCTED.



MODEL	AIR CURTAIN WIDTH (A)	MOUNTING WIDTH (B)	HANGING WIDTH (C)	FLUE DIAMETER (D)	HEATER SIZE	GAS INLET
TSD-5-240IG	243.50"	239.50"	48.63"	6"	3 X 350	3/4"
TSD-4-228G	231.38"	227.38"	48.63"	6"	3 X 350	3/4"
TSD-4-240IG	243.38"	239.38"	48.63"	6"	3 X 350	3/4"

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC.
 109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL TSD AIR CURTAIN WITH INDIRECT GAS HEAT
DRAWN BY: B.K.J.	
PART/FILE# TSD-IG	



POWERED AIRE INC.

www.poweredaire.com

**109 Mortensen Road
Greenville, PA 16125**

**Phone: 724-588-3305
Fax: 724-588-3371**

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL TSD DIRECT GAS FIRED UNITS (CSI formatted specifications available at www.poweredaire.com)

Aire curtains to be furnished as factory assembled units manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of casing, motors, centrifugal fans, and discharge nozzle. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or the bottom half of the unit. Aire curtain unit to provide uniform velocity across the entire length of the discharge area.

All weight bearing structural support will be made of formed 11-gauge stainless steel and galvanized steel. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Units shall be equipped with dynamically balanced curved double inlet double width galvanized blower wheels with brazed hubs and matched blower housings. Fan scrolls or formed fiberglass air diverters shall not be acceptable.

Motors will be 3 horse power Total Enclosed Air Over (TEAO) 1160 RPM 50/60 cycle equipped with sealed ball bearings of equal size at each end and double extended shafts. To prevent a misalignment from occurring, no outboard bearings or flexible couplings will be acceptable. Aire curtain discharge to distribute outlet air evenly at and between blowers for the entire length of aire curtain through the use of a plenum.

Discharge nozzle shall be adjustable to ± 20 degrees with no dampers or grills to add turbulence and create a pressure drop or a sound pressure increase.

Direct Gas Heat

Unit(s) shall be provided with a factory mounted direct gas heater. Heater will be equipped with a temperature sensor that controls the heater output by way of modulating gas valves. An airflow switch along with a motor contactor will ensure that the burner will not fire without the fans spinning. In the case of a flame failure, the flame safety relay energizes the alarm lockout relay shutting down the entire system. The system will only restart if the flame safety relay is manually reset. Unit(s) can be equipped with optional proof of closure on the main and auxiliary gas valves, as well as optional high and low gas pressure switches.

Unit must be ducted to the outside to burn 100% fresh air.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors. Direct gas fired panels will be mounted to the unit and will contain a 24 volt control transformer, flame safety relay, temperature sensors, air flow sensors, and modulating gas valve controls.

Units shall have an 18 month warranty on all parts.

October, 2013

Control Options for Model TSD DG

Direct Gas Heated Options * Recommended

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

* **Hand/Off/Auto Selector Switch (Panel Mounted)** -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated (Use only if ducting the intake to the outside).

***Heat On/Off Selector Switch (Panel Mounted)** -- Turns the heat on and off while the fans are running, or when used in conjunction with a thermostat can disable the heat.

***Thermostat (Panel Mounted)** -- Turns the gas heat in the unit on and off while the fans are running based on the room temperature.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch, and Heat On/Off Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Panel Mounted) -- Switches the air curtain on and off.

Programmable Digital Thermostat -- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day)

Built-in Time Delay Relay -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.



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SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL TSD DIRECT GAS FIRED UNITS (CSI formatted specifications available at www.poweredaire.com)

Aire curtains to be furnished as factory assembled units manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of casing, motors, centrifugal fans, and discharge nozzle. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or the bottom half of the unit. Aire curtain unit to provide uniform velocity across the entire length of the discharge area.

All weight bearing structural support will be made of formed 11-gauge stainless steel and galvanized steel. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Units shall be equipped with dynamically balanced curved double inlet double width galvanized blower wheels with brazed hubs and matched blower housings. Fan scrolls or formed fiberglass air diverters shall not be acceptable.

Motors will be 3 horse power Total Enclosed Air Over (TEAO) 1160 RPM 50/60 cycle equipped with sealed ball bearings of equal size at each end and double extended shafts. To prevent a misalignment from occurring, no outboard bearings or flexible couplings will be acceptable. Aire curtain discharge to distribute outlet air evenly at and between blowers for the entire length of aire curtain through the use of a plenum.

Discharge nozzle shall be adjustable to ± 20 degrees with no dampers or grills to add turbulence and create a pressure drop or a sound pressure increase.

Direct Gas Heat

Unit(s) shall be provided with a factory mounted direct gas heater. Heater will be equipped with a temperature sensor that controls the heater output by way of modulating gas valves. An airflow switch along with a motor contactor will ensure that the burner will not fire without the fans spinning. In the case of a flame failure, the flame safety relay energizes the alarm lockout relay shutting down the entire system. The system will only restart if the flame safety relay is manually reset. Unit(s) can be equipped with optional proof of closure on the main and auxiliary gas valves, as well as optional high and low gas pressure switches.

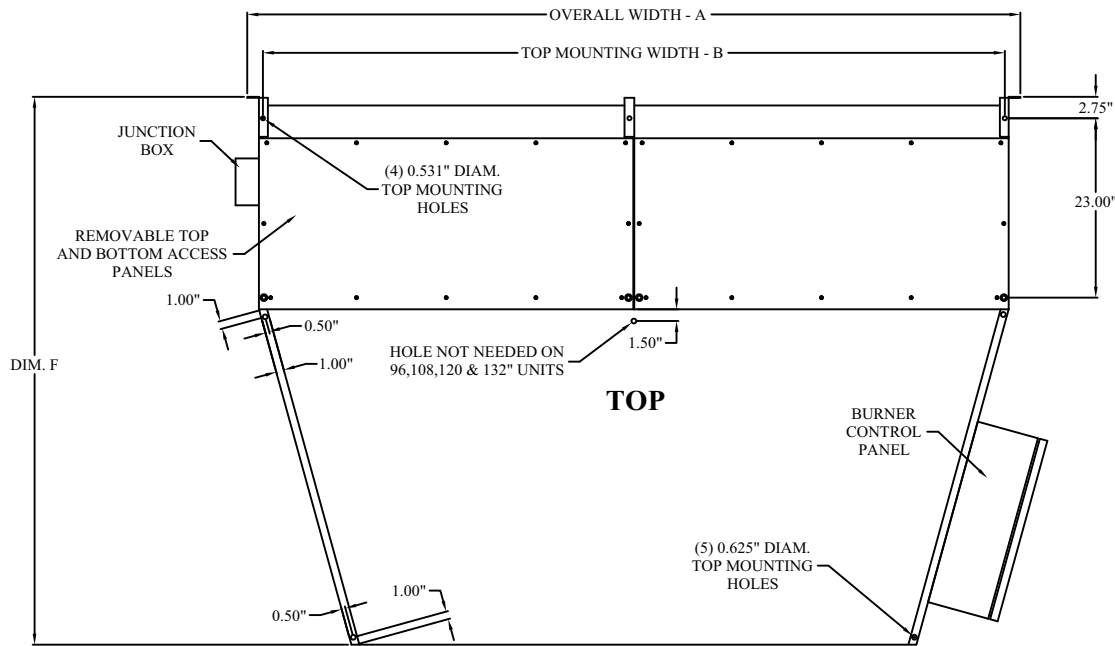
Unit must be ducted to the outside to burn 100% fresh air.

Controls

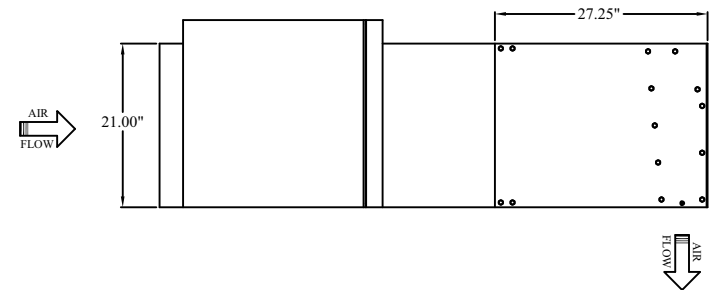
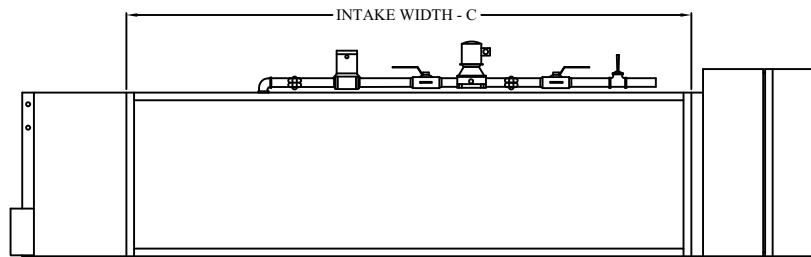
Standard control panel shall be NEMA 12 enclosure with overload relays and contactors. Direct gas fired panels will be mounted to the unit and will contain a 24 volt control transformer, flame safety relay, temperature sensors, air flow sensors, and modulating gas valve controls.

Units shall have an 18 month warranty on all parts.

October, 2013



- NOTES:
 1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
 2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
 3. 1 PSI MINIMUM GAS INLET PRESSURE. 5 PSI MAXIMUM.




FRONT

MODEL NUMBER	TSD 2-96DG	TSD 2-108DG	TSD 2-120DG	TSD 2-132DG	TSD 2-144DG	TSD 3-144DG	TSD 3-156DG	TSD 3-168DG	TSD 3-180DG	TSD 3-192DG	TSD 4-192DG
OVERALL WIDTH - A	99 1/8"	111 1/8"	123 1/8"	135 1/8"	147 1/8"	147 1/4"	159 1/4"	171 1/4"	183 1/4"	195 1/4"	195 3/8"
MOUNTING WIDTH - B	95 1/8"	107 1/8"	119 1/8"	131 1/8"	143 1/8"	143 1/4"	155 1/4"	167 1/4"	179 1/4"	191 1/4"	191 3/8"
INTAKE WIDTH - C	72 1/16"	72 1/16"	84 7/16"	84 7/16"	96 7/16"	96 7/16"	96 7/16"	96 7/16"	107 13/16"	107 13/16"	107 13/16"
DIMENSION F	70 1/4"	70 1/4"	70 1/4"	70 1/4"	70 1/4"	70 1/4"	88 1/4"	88 1/4"	88 1/4"	94 1/4"	94 1/4"

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIR™ INC.
 109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13	PART DESCRIPTION: POWERED AIR SYSTEMS MODEL TSD DIRECT GAS FIRED AIR CURTAIN
DRAWN BY: B.K.J.	
PART/FILE# TSD-DG	



POWERED AIRE INC.

www.poweredaire.com

**109 Mortensen Road
Greenville, PA 16125**

**Phone: 724-588-3305
Fax: 724-588-3371**

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL EHD INDIRECT GAS FIRED UNITS (CSI formatted specifications available at www.poweredaire.com)

Aire curtains to be furnished as factory assembled units manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of casing, motors, centrifugal fans, and discharge nozzle. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or the bottom half of the unit. Aire curtain unit to provide uniform velocity across the entire length of the discharge area.

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. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Units shall be equipped with dynamically balanced curved double inlet double width galvanized blower wheels with brazed hubs and matched blower housings. Fan scrolls or formed fiberglass air diverters shall not be acceptable.

Motors will be 5 horse power Total Enclosed Air Over (TEAO) 1160 RPM 50/60 cycle equipped with sealed ball bearings of equal size at each end and double extended shafts. To prevent a misalignment from occurring, no outboard bearings or flexible couplings will be acceptable. Aire curtain discharge to distribute outlet air evenly at and between blowers for the entire length of aire curtain through the use of a plenum.

Discharge nozzle shall be adjustable to ± 20 degrees with no dampers or grills to add turbulence and create a pressure drop or a sound pressure increase.

Indirect Gas Heat

Unit(s) shall be provided with a factory matched indirect gas heater. The heater will be equipped with power exhaust, direct spark ignition, electronic flame supervision, and gas pressure switches. Tubular heat exchangers shall be constructed of aluminized steel. Optional stainless steel heat exchangers are available upon request. Heater to be independently supported 2 inches away from duct transition. Duct transition will be bolted to aire curtain and will need to be supported.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors.

Units shall have an 18 month warranty on all parts.

October, 2013

Control Options for Model EHD IG

Indirect Gas Heated Options

* Recommended

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

*** Hand/Off/Auto Selector Switch (Panel Mounted)** -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

***Heat On/Off Selector Switch (Panel Mounted)** -- Turns the heat on and off while the fans are running, or when used in conjunction with a thermostat can disable the heat.

***Thermostat (Panel Mounted)** -- Turns the gas heat in the unit on and off while the fans are running based on the room temperature.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch, and Heat On/Off Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Panel Mounted) -- Switches the air curtain on and off.

Programmable Digital Thermostat -- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day).

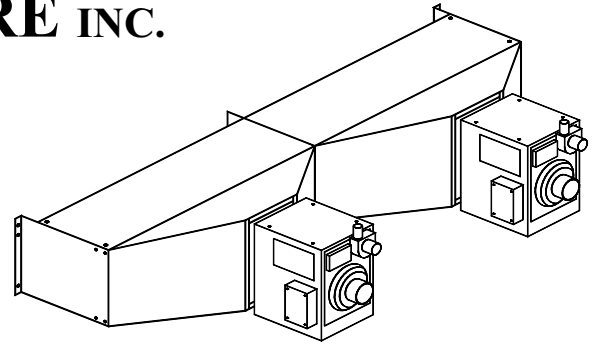
Built-in Time Delay Relay -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.



POWERED AIRE INC.

www.poweredaire.com

MODEL: EHD INDIRECT GAS HEATED
Extra High Door
Door Height: Up to Twenty-Two Feet



PRODUCT DATA

Model	EHD 1-48 IG	EHD 1-60 IG	EHD 1-72 IG	EHD 2-96 IG	EHD 2-108 IG	EHD 2-120 IG	EHD 2-132 IG	EHD 2-144 IG	EHD 3-156 IG	EHD 3-168 IG	EHD 3-180 IG	EHD 3-192 IG	EHD 3-204 IG	EHD 3-216 IG	EHD 4-228 IG	EHD 4-240 IG
Door Width Feet	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	20
Nozzle Width Inches	48	60	72	96	108	120	132	144	156	168	180	192	204	216	228	240
Max FPM at Nozzle	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572	6572
Max CFM at Nozzle	6994	9924	12854	15926	17888	19848	21291	23891	25850	27812	29772	30355	31114	31850	37736	39696
Avg. FPM at Nozzle	5499	4358	5128	4842	4600	4358	4842	4842	4681	4520	4358	4842	4358	4600	4842	4358
CFM at Nozzle	6305	7480	9256	12977	13769	15750	16120	19168	20257	22825	23004	23335	23400	24570	28329	29120
Outlet Velocity Uniformity	95%	94%	94%	95%	94%	94%	95%	95%	94%	94%	94%	95%	94%	95%	94%	95%
Number Of Motors	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4
Horse Power	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Input mbtu/hr Per Heater	200	250	250	400	400	250	250	250	350	400	400	400	400	400	350	350
Number Of Heaters	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3
Total Output mbtu/hr	160	200	200	320	320	400	400	400	560	640	640	640	640	640	840	840
Temp. Rise Deg. (F)	24	25	20	23	22	24	23	19	26	26	26	25	25	24	27	27
Weight (Lbs)	670	700	730	1205	1295	1378	1598	1650	1950	2005	2065	2120	2225	2278	2796	2865

Sound level: 71 dba

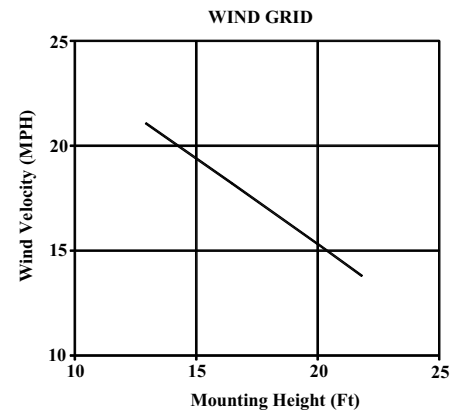
Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Indirect gas heaters used are certified by the American Gas Association (AGA).
 Standard equipment: includes power-vented flues, spark-ignited pilots, stainless steel duct transition and stainless steel aire curtain housing.

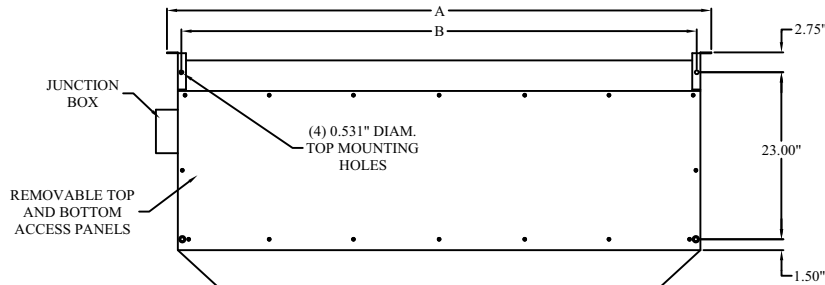
Three Phase Motor Voltage Available: 208 240 480 575

Amp Draw Per Motor: 17.0 15.8 7.9 6.3

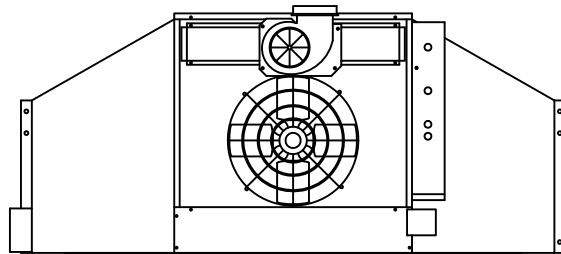
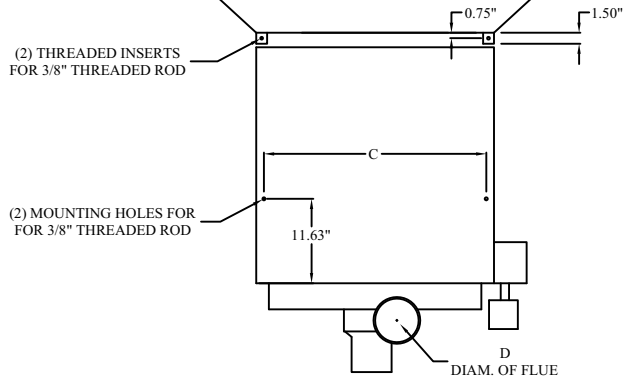
**** Units over 240 inches contact factory**



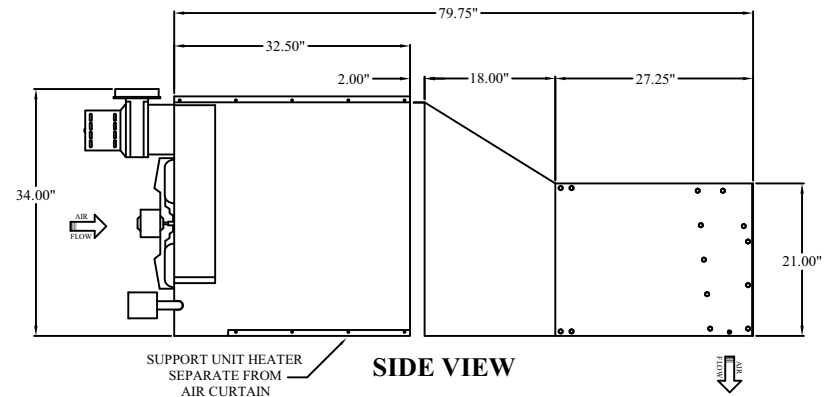
AIR CURTAIN SERIES EHD WITH ONE INDIRECT GAS HEATER



TOP VIEW



FRONT VIEW




SIDE VIEW

NOTES:

1. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
2. ADEQUACY OF SUPPORT STRUCTURE TO BE VERIFIED BY A PROFESSIONAL STRUCTURAL ENGINEER.
3. AIR CURTAIN TO BE INSTALLED SO THAT THE AIR STREAM IS UNOBSTRUCTED.

MODEL	AIR CURTAIN WIDTH (A)	MOUNTING WIDTH (B)	HANGING WIDTH (C)	FLUE DIAMETER (D)	HEATER SIZE	GAS INLET
EHD-1-48IG	51.00"	47.00"	30.63"	5"	200	1/2"
EHD-1-60IG	63.00"	59.00"	30.63"	5"	250	3/4"
EHD-1-72IG	75.00"	71.00"	30.63"	5"	250	3/4"
EHD-2-96IG	99.13"	95.13"	48.63"	6"	400	3/4"
EHD-2-108IG	111.13"	107.13"	48.63"	6"	400	3/4"

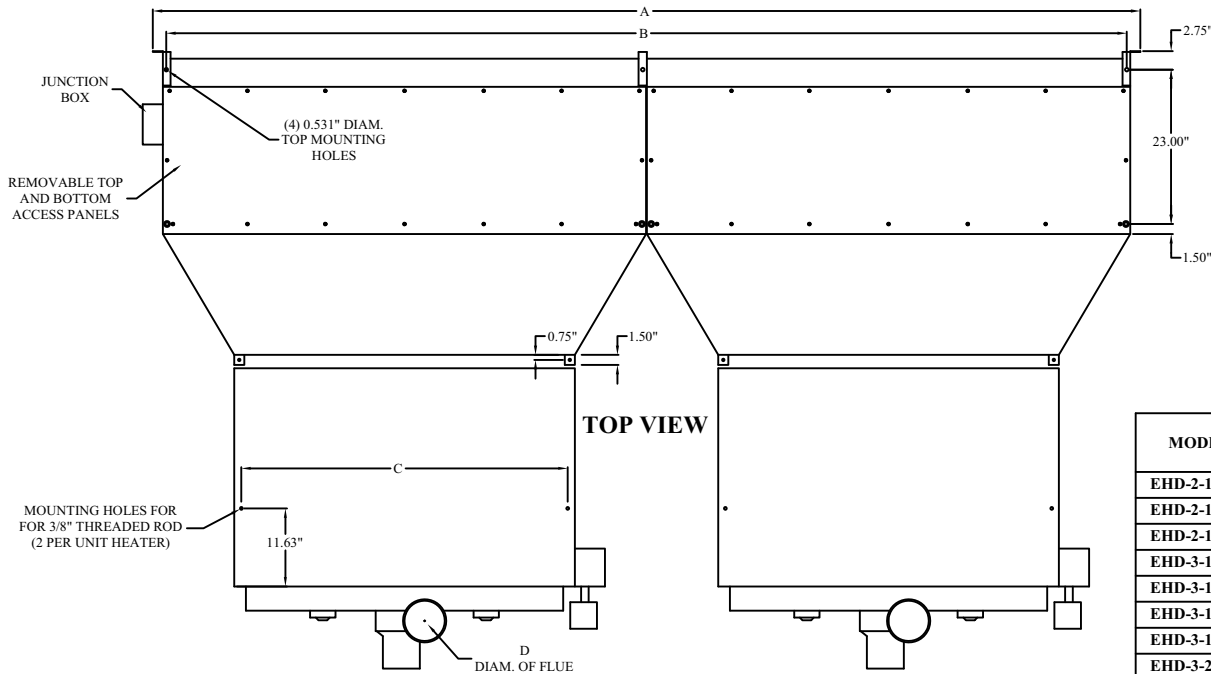
JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIR TM INC. 109 Mortensen Rd. Greenville, PA 16125 	
DATE: 10/01/13	PART DESCRIPTION: POWERED AIR SYSTEMS MODEL EHD AIR CURTAIN WITH INDIRECT GAS HEAT
DRAWN BY: B.K.J.	
PART/FILE# EHD-IG	

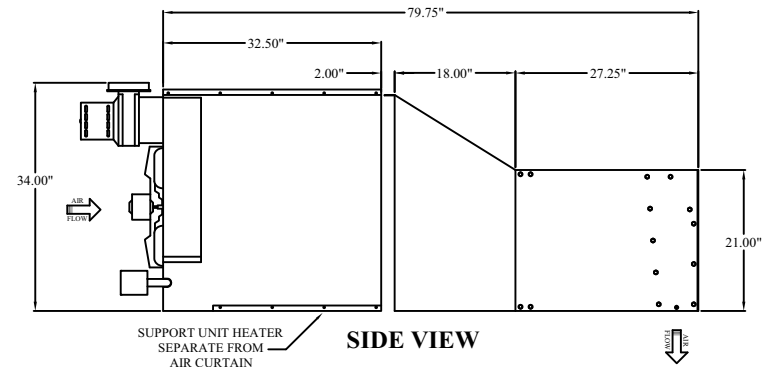
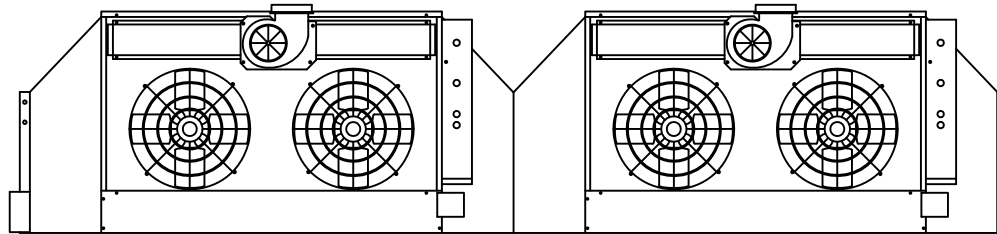
AIR CURTAIN SERIES EHD WITH TWO INDIRECT GAS HEATERS

NOTES:

1. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
2. ADEQUACY OF SUPPORT STRUCTURE TO BE VERIFIED BY A PROFESSIONAL STRUCTURAL ENGINEER.
3. AIR CURTAIN TO BE INSTALLED SO THAT THE AIR STREAM IS UNOBSTRUCTED.




MODEL	AIR CURTAIN WIDTH (A)	MOUNTING WIDTH (B)	HANGING WIDTH (C)	FLUE DIAMETER (D)	HEATER SIZE	GAS INLET
EHD-2-120IG	123.13"	119.13"	30.63"	5"	2 X 250	3/4"
EHD-2-132IG	135.13"	131.13"	30.63"	5"	2 X 250	3/4"
EHD-2-144IG	147.13"	143.13"	30.63"	5"	2 X 250	3/4"
EHD-3-156IG	159.25"	155.25"	48.63"	6"	2 X 350	3/4"
EHD-3-168IG	171.25"	167.25"	48.63"	6"	2 X 400	3/4"
EHD-3-180IG	183.25"	179.25"	48.63"	6"	2 X 400	3/4"
EHD-3-192IG	195.25"	191.25"	48.63"	6"	2 X 400	3/4"
EHD-3-204IG	207.25"	203.25"	48.63"	6"	2 X 400	3/4"
EHD-3-216IG	219.25"	215.25"	48.63"	6"	2 X 400	3/4"



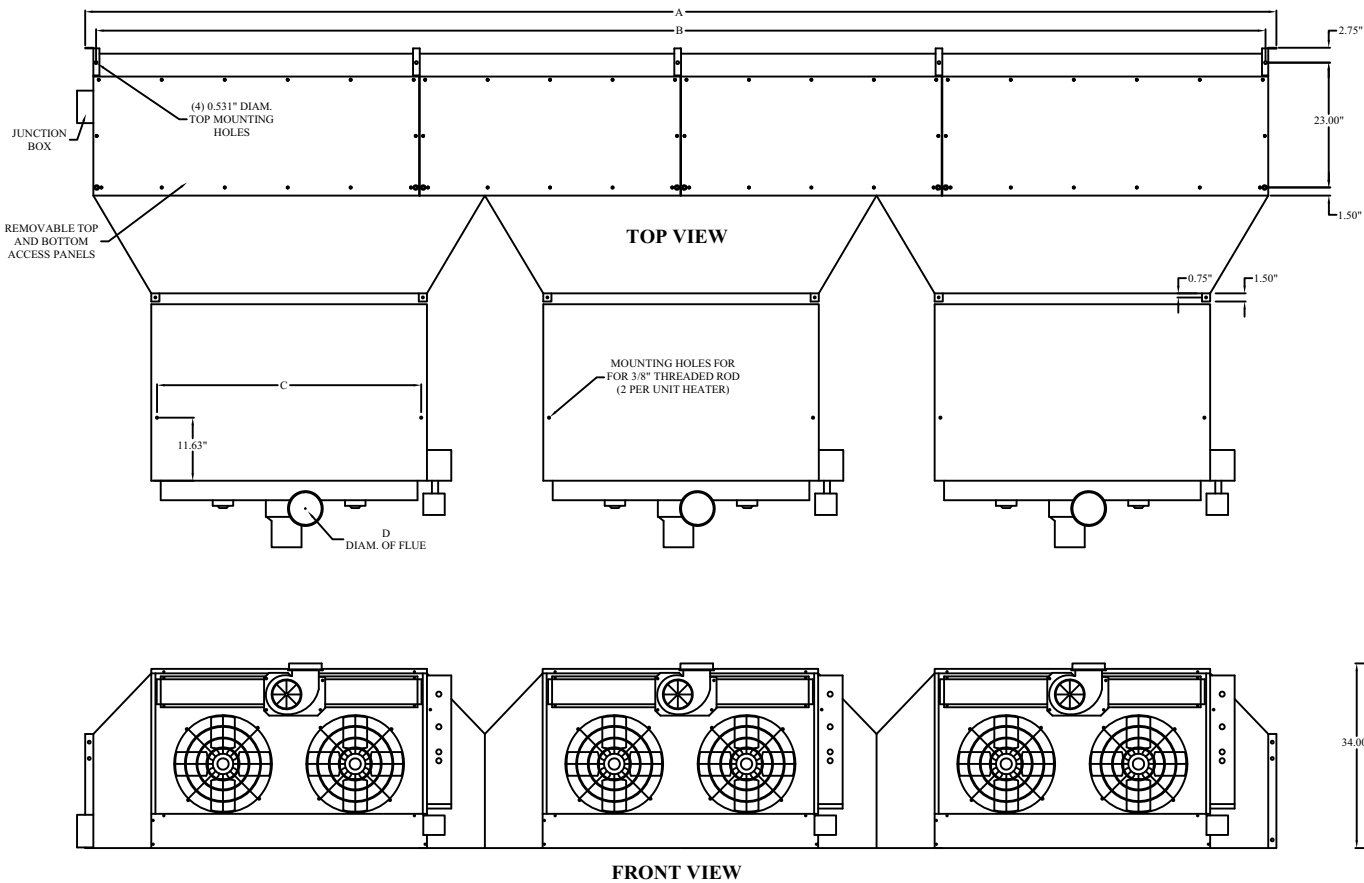
JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC.
109 Mortensen Rd. Greenville, PA 16125

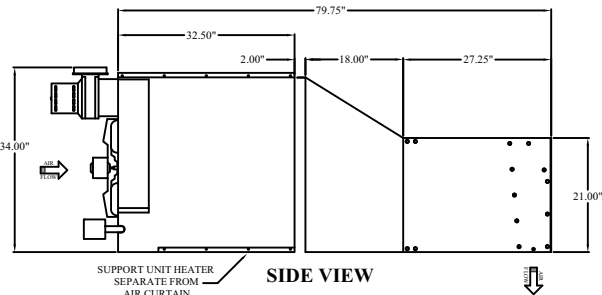


DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL EHD AIR CURTAIN WITH INDIRECT GAS HEAT
DRAWN BY: B.K.J.	
PART/FILE# EHD-IG	

AIR CURTAIN SERIES EHD WITH THREE INDIRECT GAS HEATERS




- NOTES:
1. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
 2. ADEQUACY OF SUPPORT STRUCTURE TO BE VERIFIED BY A PROFESSIONAL STRUCTURAL ENGINEER.
 3. AIR CURTAIN TO BE INSTALLED SO THAT THE AIR STREAM IS UNOBSTRUCTED.



MODEL	AIR CURTAIN WIDTH (A)	MOUNTING WIDTH (B)	HANGING WIDTH (C)	FLUE DIAMETER (D)	HEATER SIZE	GAS INLET
EHD-4-228G	231.38"	227.38"	48.63"	6"	3 X 350	3/4"
EHD-4-240IG	243.38"	239.38"	48.63"	6"	3 X 350	3/4"

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC.
109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL EHD AIR CURTAIN WITH INDIRECT GAS HEAT
DRAWN BY: B.K.J.	
PART/FILE# EHD-IG	



POWERED AIRE INC.

www.poweredaire.com

**109 Mortensen Road
Greenville, PA 16125**

**Phone: 724-588-3305
Fax: 724-588-3371**

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL EHD DIRECT GAS FIRED UNITS (CSI formatted specifications available at www.poweredaire.com)

Aire curtains to be furnished as factory assembled units manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of casing, motors, centrifugal fans, and discharge nozzle. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or the bottom half of the unit. Aire curtain unit to provide uniform velocity across the entire length of the discharge area.

All weight bearing structural support will be made of formed 11-gauge stainless steel and galvanized steel. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Units shall be equipped with dynamically balanced curved double inlet double width galvanized blower wheels with brazed hubs and matched blower housings. Fan scrolls or formed fiberglass air diverters shall not be acceptable.

Motors will be 5 horse power Total Enclosed Air Over (TEAO) 1160 RPM 50/60 cycle equipped with sealed ball bearings of equal size at each end and double extended shafts. To prevent a misalignment from occurring, no outboard bearings or flexible couplings will be acceptable. Aire curtain discharge to distribute outlet air evenly at and between blowers for the entire length of aire curtain through the use of a plenum.

Discharge nozzle shall be adjustable to ± 20 degrees with no dampers or grills to add turbulence and create a pressure drop or a sound pressure increase.

Direct Gas Heat

Unit(s) shall be provided with a factory mounted direct gas heater. Heater will be equipped with a temperature sensor that controls the heater output by way of modulating gas valves. An airflow switch along with a motor contactor will ensure that the burner will not fire without the fans spinning. In the case of a flame failure, the flame safety relay energizes the alarm lockout relay shutting down the entire system. The system will only restart if the flame safety relay is manually reset. Unit(s) can be equipped with optional proof of closure on the main and auxiliary gas valves, as well as optional high and low gas pressure switches.

Unit must be ducted to the outside to burn 100% fresh air.

Controls

Standard control panel shall be NEMA 12 enclosure with overload relays and contactors. Direct gas fired panels will be mounted to the unit and will contain a 24 volt control transformer, flame safety relay, temperature sensors, air flow sensors, and modulating gas valve controls.

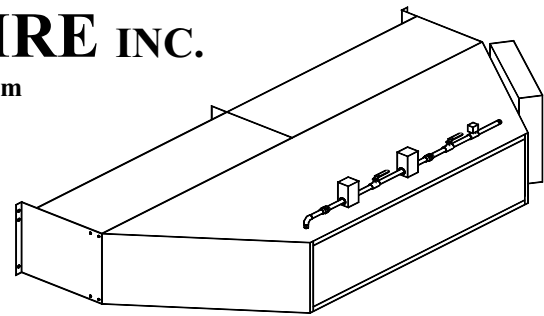
Units shall have an 18 month warranty on all parts.

October, 2013



POWERED AIRE INC.

www.poweredaire.com



**MODEL: EHD DIRECT GAS HEATED
Extra High Door
Door Height: Up to Twenty-Two Feet**

PRODUCT DATA

Model	EHD 2-96 DG	EHD 2-108 DG	EHD 2-120 DG	EHD 2-132 DG	EHD 2-144 DG	EHD 3-156 DG	EHD 3-168 DG	EHD 3-180 DG	EHD 3-192 DG
Door Width Feet	8	9	10	11	12	13	14	15	16
Nozzle Width Inches	96	108	120	132	144	156	168	180	192
Max. FPM at Nozzle	6572	6572	6572	6572	6572	6572	6572	6572	6572
Max. CFM at Nozzle	15926	17888	19848	21291	23891	25850	27812	29772	30355
Avg. FPM at Nozzle	4842	4600	4358	4842	4842	4681	4520	4358	4842
CFM at Nozzle	12977	13769	15750	16120	19168	20257	22825	23004	23335
Outlet Velocity Uniformity	95%	94%	94%	95%	95%	94%	94%	94%	95%
Number of Motors	2	2	2	2	2	3	3	3	3
Horse Power	5	5	5	5	5	5	5	5	5
Heater Output mbtu/hr	1485	1576	1666	1845	2079	2318	2409	2500	2671
Max. Output Temperature Deg (F)*	105	105	105	105	105	105	105	105	105
Weight (Lbs)	1368	1451	1534	1604	1664	2005	2100	2180	2237

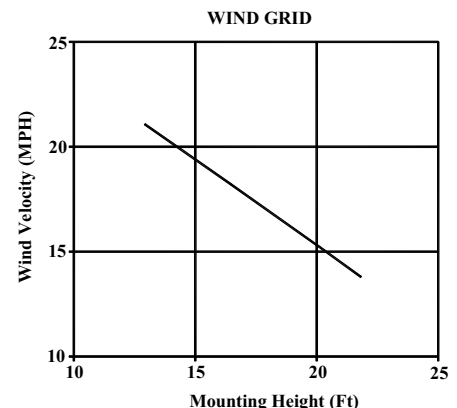
Sound level: 71 dba

Sound level measured 10 feet from the unit in a free field based on a one motor unit.

**Three Phase Motor Voltage Available: 208 240 480 575
Amp Draw Per Motor: 17.0 15.8 7.9 6.3**

* Consult factory to adjust heater mbtu/hr to meet a customer specification for temperature output other than 105 deg F.

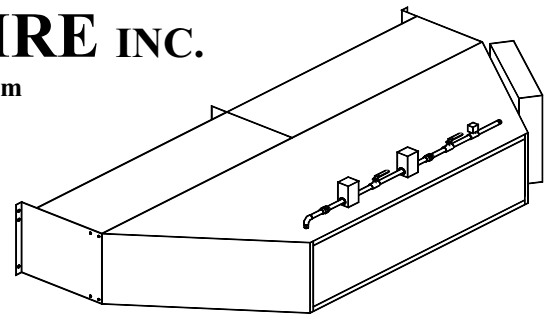
** Units over 192 inches contact factory





POWERED AIRE INC.

www.poweredaire.com



**MODEL: EHD DIRECT GAS HEATED
Extra High Door
Door Height: Up to Twenty-Two Feet**

PRODUCT DATA

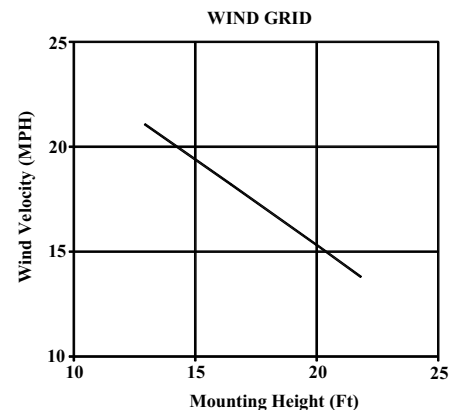
Model	EHD 2-96 DG	EHD 2-108 DG	EHD 2-120 DG	EHD 2-132 DG	EHD 2-144 DG	EHD 3-156 DG	EHD 3-168 DG	EHD 3-180 DG	EHD 3-192 DG
Door Width Feet	8	9	10	11	12	13	14	15	16
Nozzle Width Inches	96	108	120	132	144	156	168	180	192
Max. FPM at Nozzle	6572	6572	6572	6572	6572	6572	6572	6572	6572
Max. CFM at Nozzle	15926	17888	19848	21291	23891	25850	27812	29772	30355
Avg. FPM at Nozzle	4842	4600	4358	4842	4842	4681	4520	4358	4842
CFM at Nozzle	12977	13769	15750	16120	19168	20257	22825	23004	23335
Outlet Velocity Uniformity	95%	94%	94%	95%	95%	94%	94%	94%	95%
Number of Motors	2	2	2	2	2	3	3	3	3
Horse Power	5	5	5	5	5	5	5	5	5
Heater Output mbtu/hr	1485	1576	1666	1845	2079	2318	2409	2500	2671
Max. Output Temperature Deg (F)*	105	105	105	105	105	105	105	105	105
Weight (Lbs)	1368	1451	1534	1604	1664	2005	2100	2180	2237

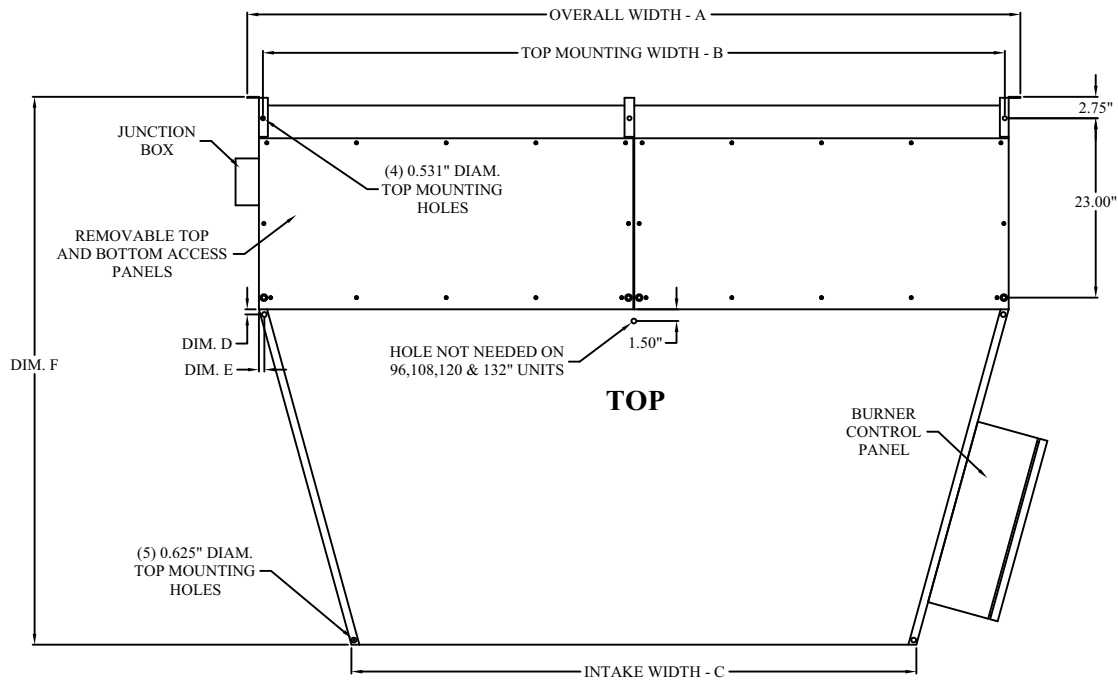
Sound level: 71 dba

Sound level measured 10 feet from the unit in a free field based on a one motor unit.

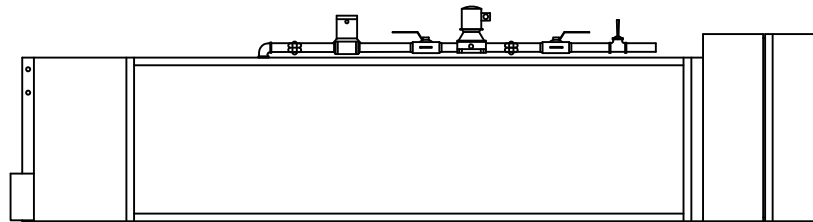
**Three Phase Motor Voltage Available: 208 240 480 575
Amp Draw Per Motor: 17.0 15.8 7.9 6.3**

* Consult factory to adjust heater mbtu/hr to meet a customer specification for temperature output other than 105 deg F.
** Units over 192 inches contact factory

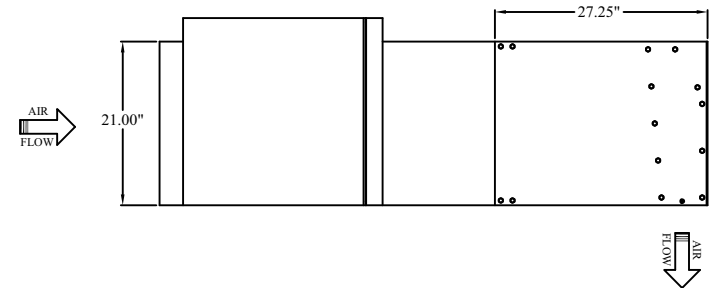




- NOTES:
 1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
 2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.
 3. 1 PSI MINIMUM GAS INLET PRESSURE. 5 PSI MAXIMUM.



FRONT



MODEL NUMBER	EHD 2-96DG	EHD 2-108DG	EHD 2-120DG	EHD 2-132DG	EHD 2-144DG	EHD 3-144DG	EHD 3-156DG	EHD 3-168DG	EHD 3-180DG	EHD 3-192DG	EHD 4-192DG
OVERALL WIDTH - A	99 1/8"	111 1/8"	123 1/8"	135 1/8"	147 1/8"	147 1/4"	159 1/4"	171 1/4"	183 1/4"	195 1/4"	195 3/8"
MOUNTING WIDTH - B	95 1/8"	107 1/8"	119 1/8"	131 1/8"	143 1/8"	143 1/4"	155 1/4"	167 1/4"	179 1/4"	191 1/4"	191 3/8"
INTAKE WIDTH - C	72 1/16"	72 1/16"	84 7/16"	84 7/16"	96 7/16"	96 7/16"	96 7/16"	96 7/16"	107 13/16"	107 13/16"	107 13/16"
DIMENSION D	1 3/16"	1 3/16"	1 3/16"	1 3/16"	1 3/16"	1 3/16"	1 3/16"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
DIMENSION E	1 1/16"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 9/16"	1 9/16"	1 9/16"	1 9/16"
DIMENSION F	70 1/4"	70 1/4"	70 1/4"	70 1/4"	70 1/4"	70 1/4"	88 1/4"	88 1/4"	88 1/4"	94 1/4"	94 1/4"

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIR™ INC.
 109 Mortensen Rd. Greenville, PA 16125



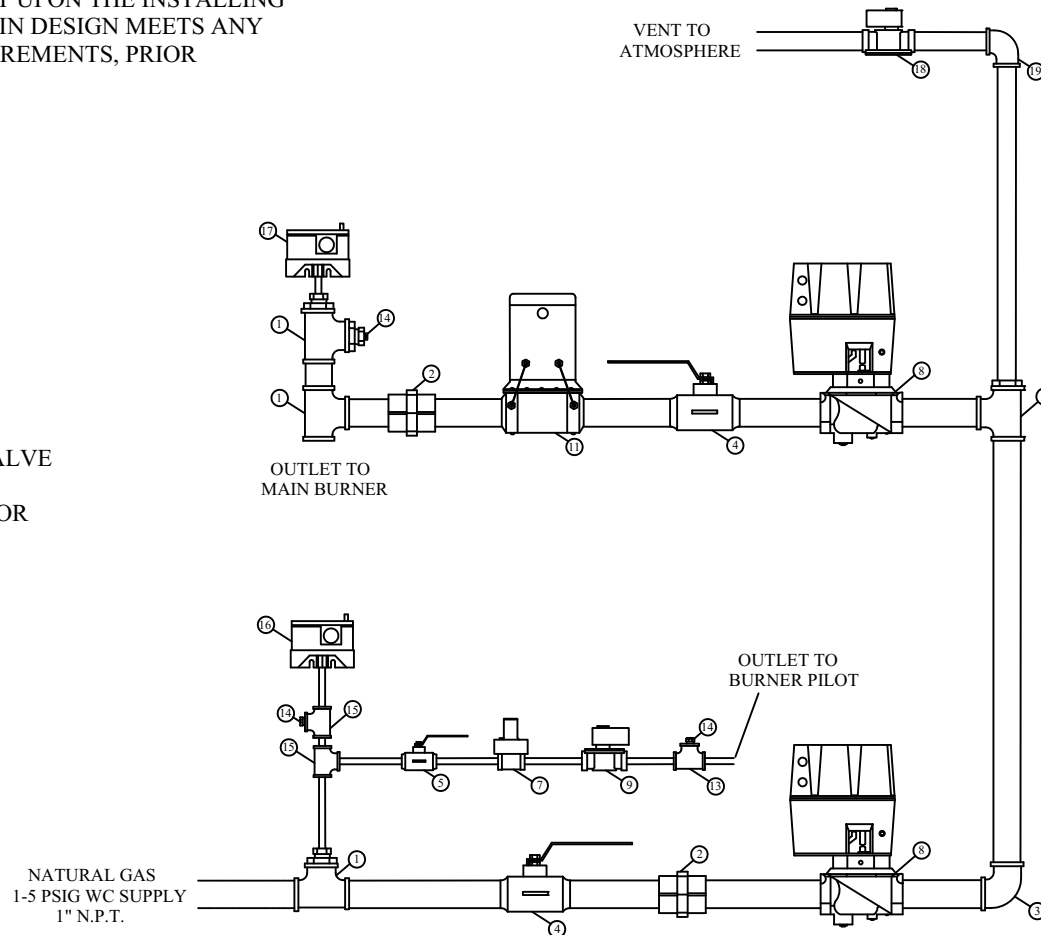
DATE: 10/01/13	PART DESCRIPTION: POWERED AIR SYSTEMS MODEL EHD DIRECT GAS FIRED AIR CURTAIN
DRAWN BY: B.K.J.	
PART/FILE# EHD-DG	

TYPICAL GAS TRAIN FOR DIRECT GAS FIRED UNITS

NOTE:

THIS GAS TRAIN MEETS OR EXCEEDS ANSI, FM AND IRI DESIGN REQUIREMENTS FOR THE SPECIFIED BTU RANGE. IT IS INCUMBENT UPON THE INSTALLING CONTRACTOR TO ASCERTAIN THAT THIS GAS TRAIN DESIGN MEETS ANY ADDITIONAL STATE, CITY, OR LOCAL CODE REQUIREMENTS, PRIOR TO RELEASE FOR FABRICATION.

MARK	DESCRIPTION
1	1" x 1" x 1" TEE
2	1" - 150 # UNION
3	1" 90° ELBOW
4	1" MANUAL MAIN SHUT-OFF VALVE
5	1/2" MANUAL PILOT SHUT-OFF VALVE
7	1/2" PILOT PRESSURE REGULATOR
8	MAIN AUTOMATIC SAFETY & BLOCKING VALVE
9	AUTOMATIC PILOT SHUT-OFF VALVE
11	BURNER MODULATION VALVE & REGULATOR
13	1/8" x 1/8" x 1/8" TEE
14	1/8" PIPE PLUG
15	1/2" TEE
16	LOW GAS PRESSURE SWITCH
17	HIGH GAS PRESSURE SWITCH
18	3/4" N.O. VENT VALVE
19	3/4" 90° ELBOW

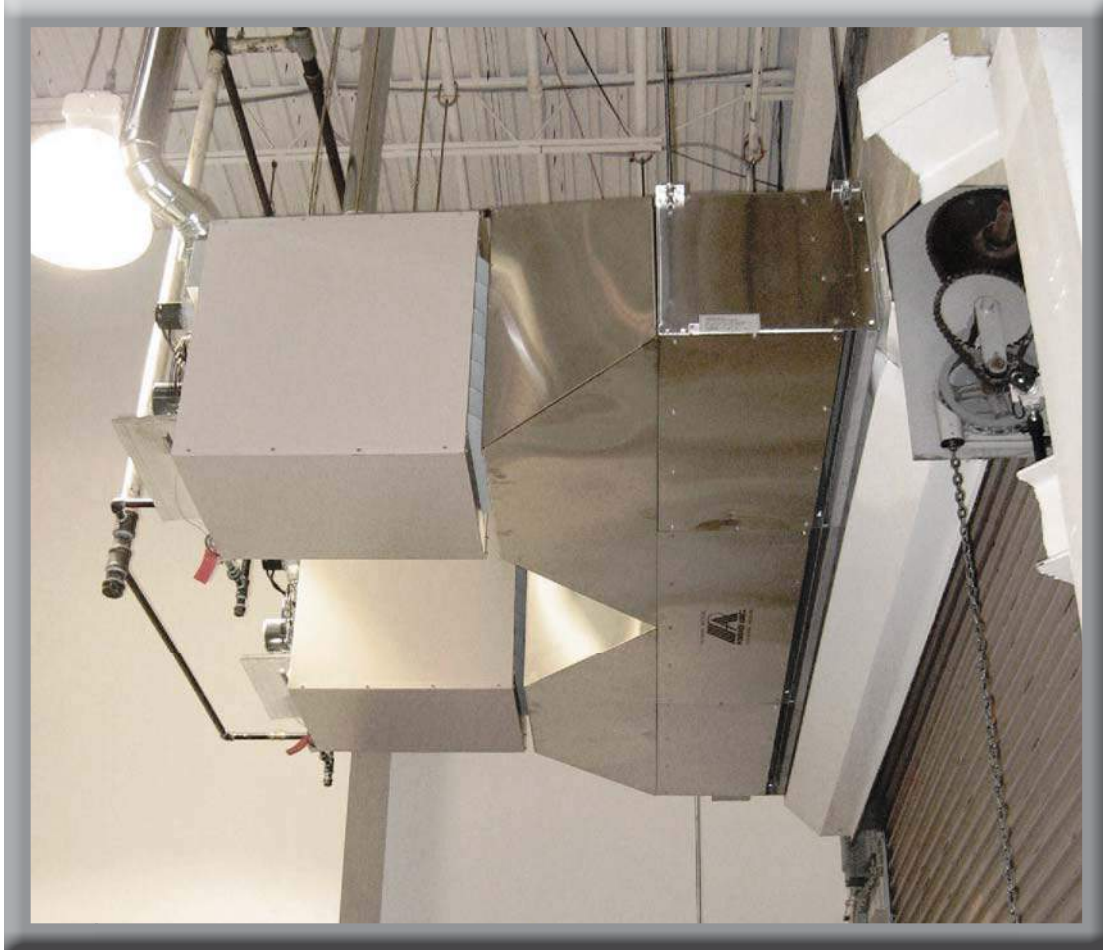


UP TO 2,500,000 BTUH OUTPUT ANSI AND FM/IRI APPROVED GAS TRAIN

POWERED AIR <small>INC.</small> 109 Mortensen Rd. Greenville, PA 16125		
DATE: 10/01/13	PART DESCRIPTION: POWERED AIR SYSTEMS GAS TRAIN FOR DIRECT GAS FIRED AIRE CURTAIN	
DRAWN BY: B.K.J.		
DWG# S03690B		

Powered Aire
Indirect Gas Fired Heat
Models TIG, TSD-IG,
& EHD-IG





Powered Aire Inc.

INDUSTRIAL

Direct Gas Fired Aire Curtain

Outside
Temperature
26.5 ° F

Heated Air
Curtain Stream

Threshold
Temperature
87 ° F

Feb. 20, 2008 Greenville, PA



**Give it
some Gas**

This air curtain's thermal capabilities are demonstrated by the dramatic temperature difference registered at the threshold where the air curtain is producing a stream of air that is 87° F at only 33% of its firing capacity. The outside temperature, registered at arm's length outside the door opening, is still a chilly 26.5° F. Meanwhile, the factory is maintaining its usual 60° F inside working temperature.



888-321-AIRE
www.poweredaire.com



Powered Air
Direct Gas Fired Heat
Models TDG, TSD-DG,
& EHD-DG







POWERED AIRE INC.

www.poweredaire.com

109 Mortensen Road
Greenville, PA 16125

Phone: 724-588-3305
Fax: 724-588-3371

SUGGESTED CONTROL PANEL SPECIFICATIONS



Control panels are to be furnished as factory assembled and wired units manufactured by Powered Aire Inc. Greenville, PA. Standard control panel shall be Nema 12 enclosure with magnetic motor starter, overload relays, 115 volt control transformer and terminal provisions for field wiring of a remote hand off automatic selector switch and a door switch. Panels shall be ETL listed.

Enclosures

Construction - Body formed from 16 gauge or 14 gauge steel. Covers are formed from 14 gauge steel. Smooth, continuously welded seams without knockouts, cutouts, or holes. Welded brackets provide for enclosure mounting. Continuously hinged cover is secured with stainless steel clamps and plated steel screws. Oil resistant gaskets are permanently secured. Include a removable 14 gauge inner panel. Weldnuts are provided for mounting inner panels. A bonding stud is provided on the door and a grounding stud is provided in the enclosure.

Finish - Cover and enclosure are phosphatized and finished in ANSI/ASA 61 gray recoatable powder coating. Removable inner panel is finished in white powder coating.

Standards - UL508 Type 12, CSA Typer 12 Complies with Nema Type 12 and 13, JIC EGP-1-1967, IEC 529, IP65 Optional NEMA 4X stainless steel enclosures and Nema type 9, Class II, Division I and Group E, F, or G enclosures for hazardous areas are available.

Disconnects

The disconnect shall be of the door-interlocked type; the door can not be opened when the switch is in the "On" position. Handles can be padlocked in the "Off" position with up to three padlocks. Additionally, the switch mechanism can be directly padlocked in the "Off" position when the door is open. Fused disconnects may be provided if specified.

Wiring and Terminations

All wiring shall be PVC insulated with a minimum cross sectional area of 1mm². Where wiring is to be carried across door hinges, this shall be achieved by the use of flexible cable and cable groups shall be loomed and provided with flexible protective sheathing. All line voltage wiring shall be black. All control wiring shall be red. Termination of cables at both equipment and terminal rail end shall be by solderless crimped terminals wherever possible.

Starters

All starters shall be fitted with interchangeable thermal overloads with differing adjustable ranges and will include single phasing protection. All starters shall have accessible overload reset buttons, back contacts on the overload trip switch and electrically separate auxiliary contacts as required for interlocking and monitoring.

Inspection, Testing, and Packing

Upon completion of manufacture, all control panels shall be thoroughly inspected and tested in the manufacturers workshops and a comprehensive test certificate issued showing the test conditions applied. The control panels shall be adequately crated to afford a high degree of protection during transit and for a reasonable period of storage on site.

Options

Optional equipment may include Hand/Off/Auto selector switch, Emergency Stop Button, Door Switch, Time Delay Off relay, indicator lights, On/Off Switch, etc.

Panels shall have a 24 month warranty on all parts.

October, 2013



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NEMA STANDARDS FOR CONTROL PANEL ENCLOSURES



Definitions Pertaining to Non-Hazardous Locations

Type 1 Enclosures constructed for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment, and to provide a degree of protection against falling dirt. NEMA 250-1997.

Type 2 Enclosures constructed for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment, to provide a degree of protection against falling dirt, and to provide a degree of protection against dripping and light splashing of liquids. NEMA 250-1997.

Type 3 Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, snow, and windblown dust; and that will be undamaged by the external formation of ice on the enclosure. NEMA 250-1997.

Type 3R Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, snow; and that will be undamaged by the external formation of ice on the enclosure. NEMA 250-1997.

Type 3S Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, snow, and windblown dust; and in which the external mechanism(s) remain operable when ice laden. NEMA 250-1997.

Type 4 Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, snow, windblown dust, splashing water, and hose-directed water; and that will be undamaged by the external formation of ice on the enclosure. NEMA 250-1997.

Type 4X Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, snow, windblown dust, splashing water, hose-directed water; and corrosion; and that will be undamaged by the external formation of ice on the enclosure. NEMA 250-1997.

Type 5 Enclosures constructed for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt; against setting airborne dust, lint, fibers, and flyings; and to provide a degree of protection against dripping and light splashing of liquids. NEMA 250-1997.

Type 6 Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt; against hose-directed water and the entry of water during occasional temporary submersion at a limited depth; and that will be undamaged by the external formation of ice on the enclosure. NEMA 250-1997.

Type 6P Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt; against hose-directed water and the entry of water during prolonged submersion at a limited depth; and that will be undamaged by the external formation of ice on the enclosure. NEMA 250-1997.

Type 12 Enclosures constructed (without knockouts) for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt; against circulating dust, lint, fibers, and flyings; and against dripping and light splashing of liquids. NEMA 250-1997.

Type 12K Enclosures constructed (with knockouts) for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt; against circulating dust, lint, fibers, and flyings; and against dripping and light splashing of liquids. NEMA 250-1997.

Type 13 Enclosures constructed for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt; against circulating dust, lint, fibers, and flyings; and against spraying splashing, and seepage of water, oil and noncorrosive coolants. NEMA 250-1997.

Definitions Pertaining to Hazardous (Classified) Locations

Type 7 Enclosures constructed for indoor use in hazardous locations classified as Class I, Division 1, Groups A, B, C, or D, as defined in NFPA70. NEMA 250-1997.

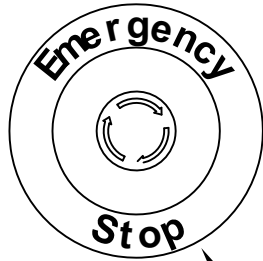
Type 8 Enclosures constructed for either indoor or outdoor use in hazardous locations classified as Class I, Division 1, Groups A, B, C, or D, as defined in NFPA70. NEMA 250-1997.

Type 9 Enclosures constructed for indoor use in hazardous locations classified as Class II, Division 1, Groups E, F, or G, as defined in NFPA70. NEMA 250-1997.

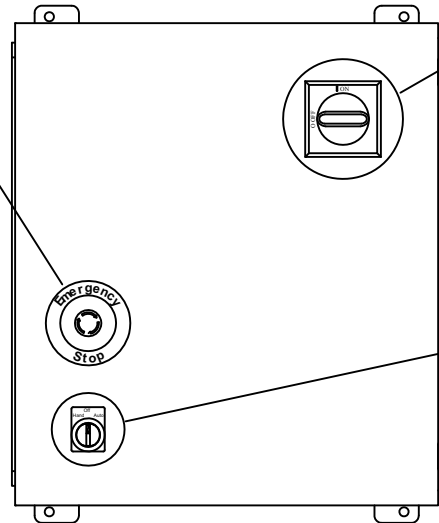
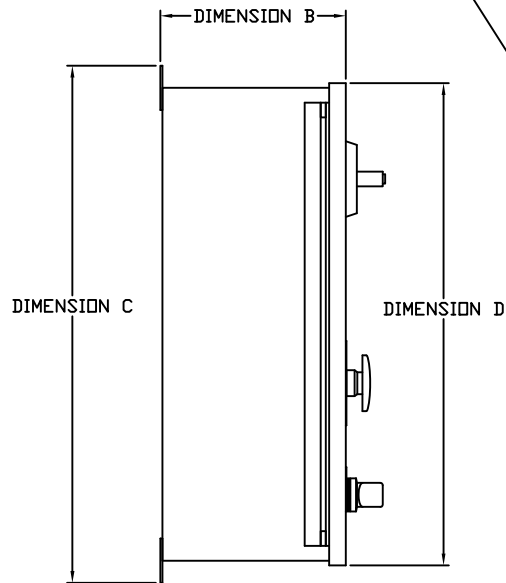
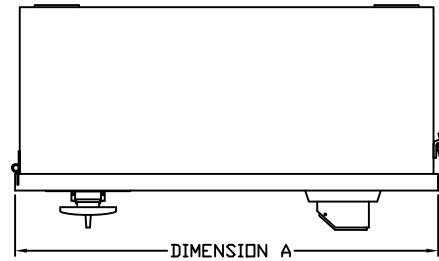
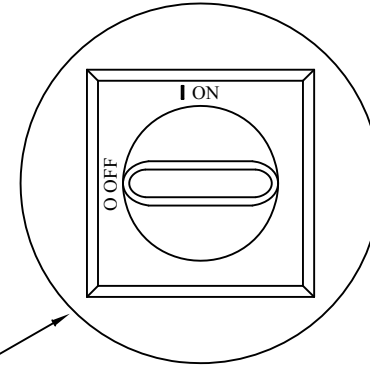
Type 10 Enclosures constructed to meet the requirements of the Mine Safety and Health Administration, 30 CFR, Part 18. NEMA 250-1997.

STANDARD ENCLOSURE DIMENSIONS

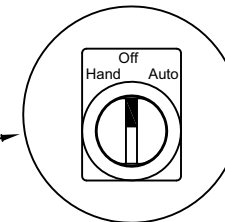
OPTIONAL PANEL MOUNTED
EMERGENCY STOP BUTTON



OPTIONAL PANEL MOUNTED
DISCONNECT SWITCH



OPTIONAL PANEL
MOUNTED HAND/OFF/AUTO
SWITCH



PART #	DIM. A	DIM. B	DIM. C	DIM. D
1414PHH4	8.31"	4.2"	9.5"	8.31"
1414PHI	10.31"	4.2"	11.5"	8.31"
1414PHK	12.31"	5.2"	13.5"	10.31"
1414PHRK	10.31"	5.2"	11.5"	12.31"
1414PHM6	14.31"	6.2"	15.5"	12.31"
1414PHRM6	12.31"	6.2"	13.5"	14.31"
1414PHO6	16.31"	6.2"	17.5"	14.31"
1414PHO8	16.31"	8.2"	17.5"	14.31"
1414PHO10	16.31"	10.2"	17.5"	14.31"

CONTACT FACTORY FOR WHICH ENCLOSURE WILL BE REQUIRED. ENCLOSURE IS DEPENDENT ON AIR CURTAIN MODEL, SIZE, AND OPTIONS SELECTED.

POWERED AIRE™ INC.
109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13

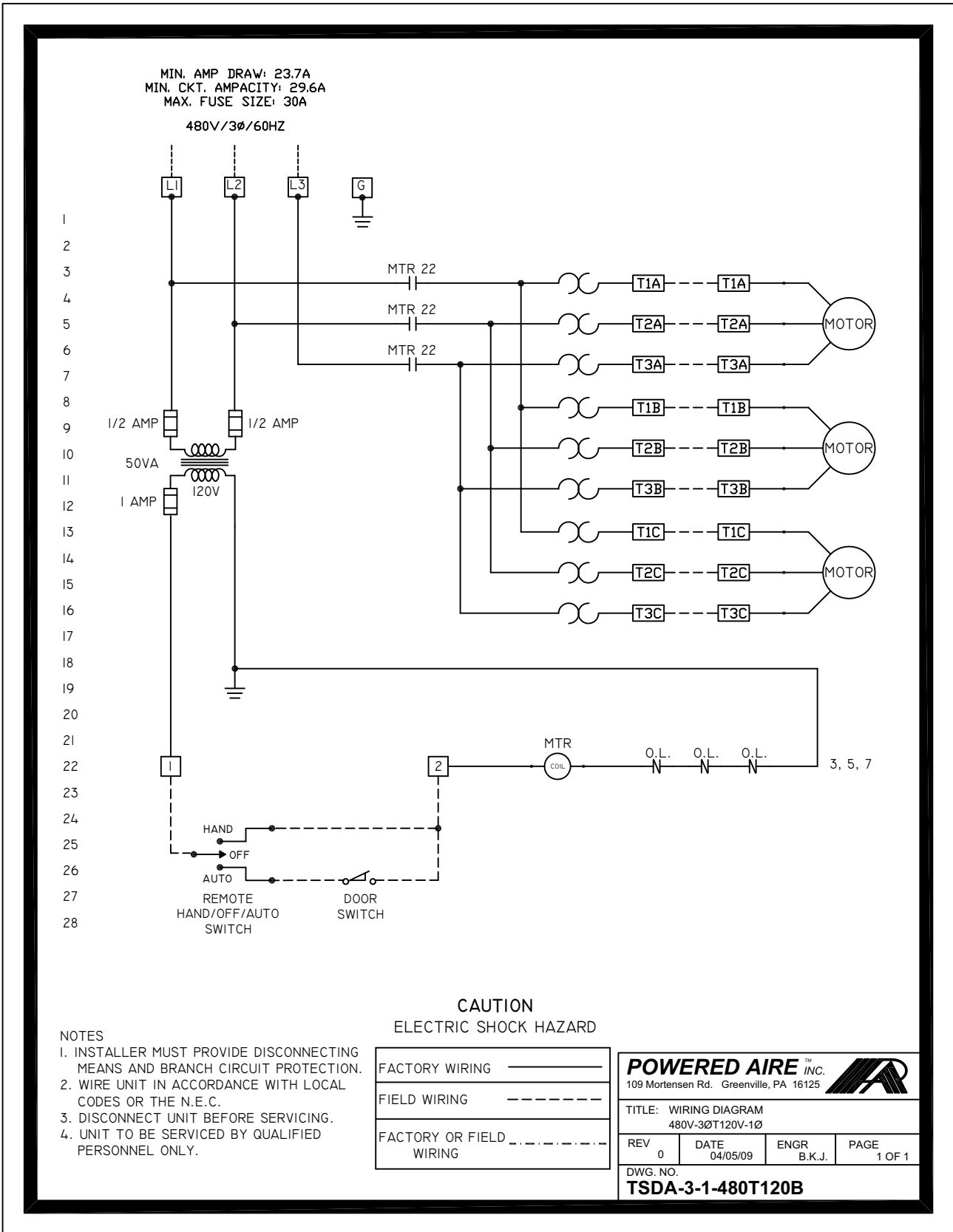
DRAWN BY: B.K.J.

REVISED BY:

PART DESCRIPTION:
POWERED AIR SYSTEMS
STANDARD CONTROL PANEL
ENCLOSURE DIMENSIONS

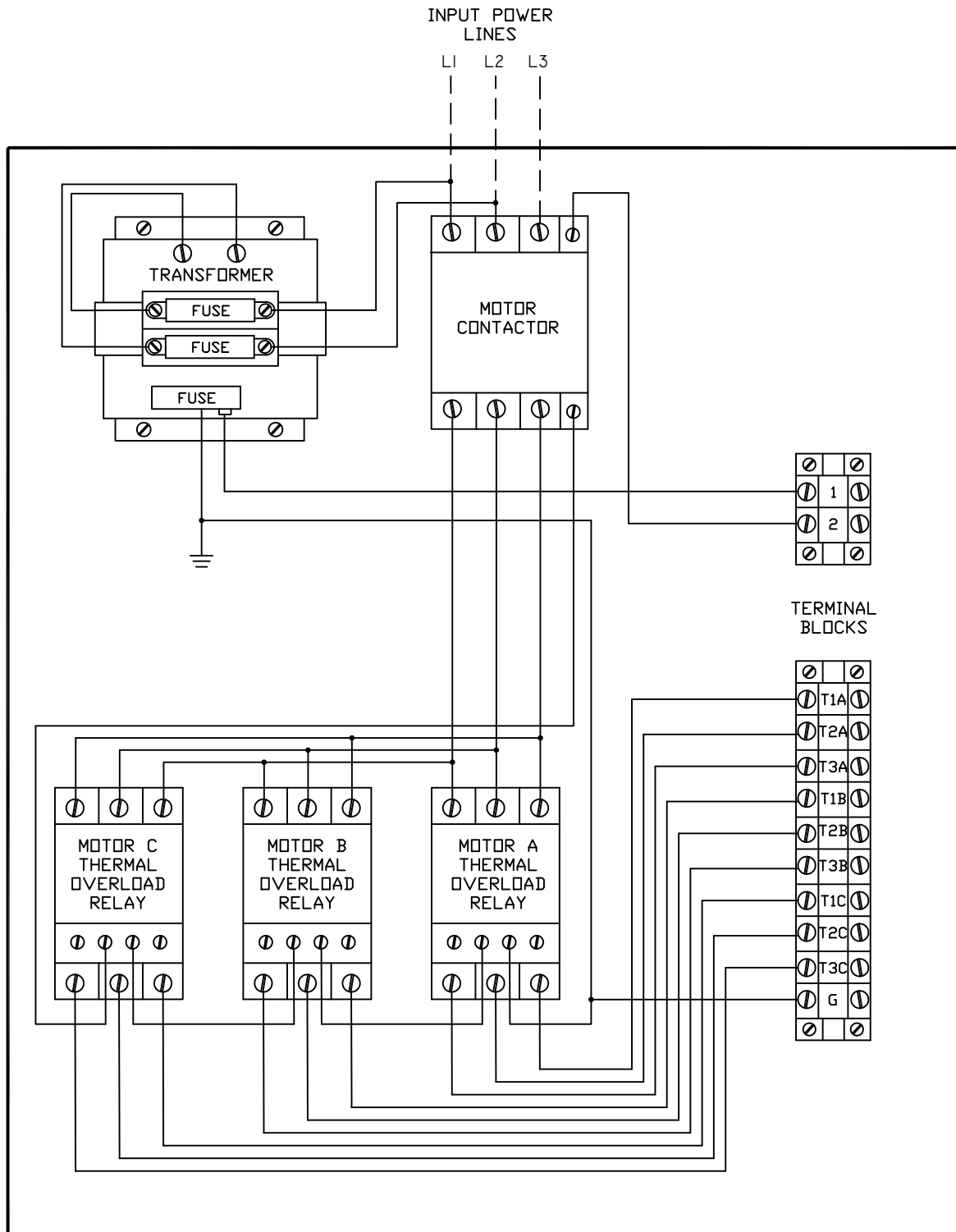


TYPICAL CONTROL PANEL WIRING DIAGRAM





TYPICAL CONTROL PANEL LAYOUT



STANDARD CONTROL OPTIONS

NOTE: All remote controls will require field wiring by a qualified electrician. Remote hand switches and thermostats are recommended to be installed 48-in. above the floor, within 36-in. of the opening or as required by local code.



Motion Sensor



Cruise Control



Time Delay Relay (1-100 seconds)



Flush Mounted 2-Speed Wall Switch



On/Off Switch



High/Off/Low Heat On/Off



Hand/Off/Auto High/Low Heat On/Off



Variable Speed Switch



Integration with Building Mgmt. System (Consult Factory)



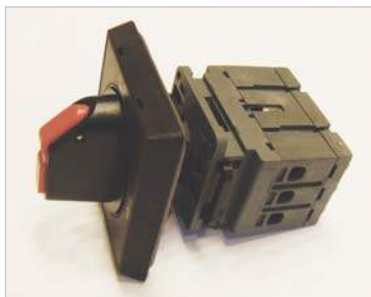
Remote Sensing Programmable Thermostat



Thermostat



Disconnect Switch



Motor Control Panel

FOR CONTROLS NOT LISTED ABOVE CONTACT FACTORY



POWERED AIRE INC.

www.poweredaire.com

109 Mortensen Road
Greenville, PA 16125

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Air Curtain Control Options

Built-in Time Delay Relay- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day.

Cruise Control Programmable Switch- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch, Heat On/Off Switch, High/Low Switch.

Disconnect-Fused- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection.

Disconnect-Non Fused- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

Door Switch/Magnetic- A non-mechanical door switch that turns the air curtain on when the door is opened.

Door Switch/Roller-Plunger- A mechanical door switch that turns the air curtain on when the door is opened.

Hand/Off/Auto Selector Switch- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Heat On/Off Selector Switch- Turns the electric heat on and off while the fans are running, or when used in conjunction with a thermostat can disable the heat.

High/Off/Low Selector Switch- Switches between the high and low speeds or turns the air curtain off.

Motion Detector- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch- Switches the air curtain on and off.

Programmable Digital Thermostat- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day).

Single Point Power Connection- For units that would typically require more than one power source due to high amp draws according to the National Electric Code, branch fusing can be added so that the unit can be run from a single power source.

Thermostat- Turns the electric or gas heat in the unit on and off while the fans are running based on the room temperature.

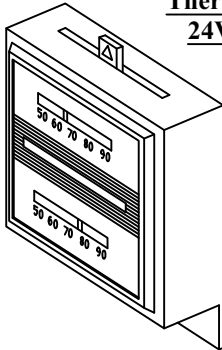
Variable Speed Selector Switch- Directly varies the speed of a Mini Power air curtain or turns the unit off.



AIR CURTAIN CONTROL OPTIONS

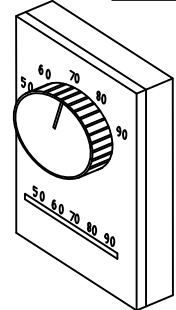
THERMOSTAT OPTIONS

Thermostat
24V AC

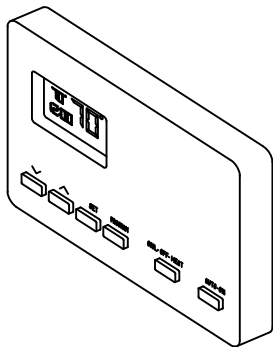


Manual thermostat that turns the electric or gas heat in the unit on and off while the fans are running based on the room temperature. Can be 24 volts or line voltage.

Line Voltage
Thermostat

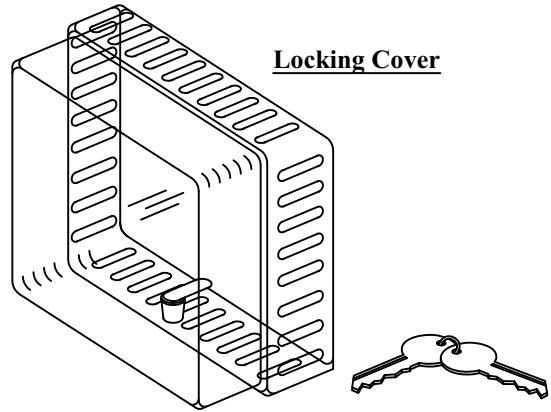


Programmable
Thermostat



A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day).

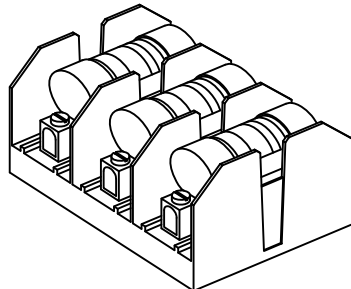
Locking Cover



Limits access to thermostat.

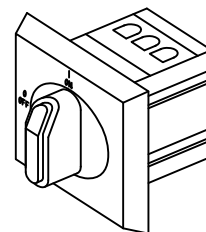
POWER SAFETY OPTIONS

Branch Fusing for Single
Point Power Connection



For units that would typically require more than one power source due to high amp draws according to the National Electric Code, branch fusing can be added so that the unit can be run from a single power source.

Disconnect Switch

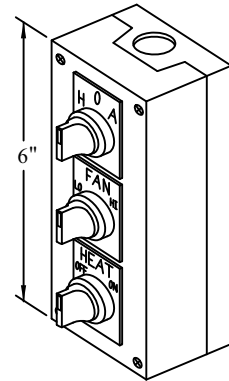
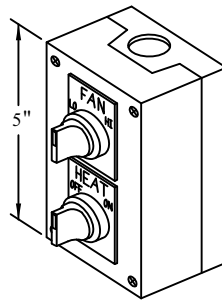
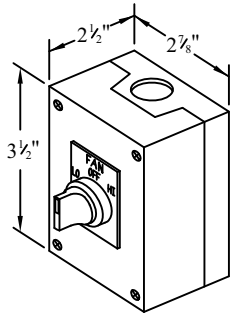


A switch that will disconnect all power from the unit so that the unit can be serviced or inspected. May be fused or non-fused.



AIR CURTAIN CONTROL OPTIONS

ENCLOSURES AND SWITCHES



For remote mounting of selector switches, our switch enclosures can accommodate any combination of up to three switches. Control power can enter enclosure from top, bottom, or back of enclosure through knockouts. Enclosures are secured in place through 4 screw holes in the back inside of enclosure. Selector switches can also be unit mounted to most air curtains. Available selector switches include:

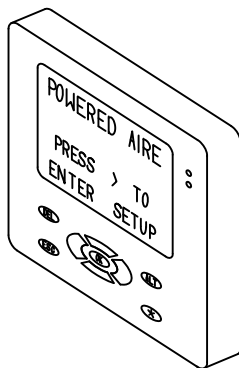
Hand/Off/Auto Selector Switch- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Heat On/Off Selector Switch-Turns the electric heat on and off while the fans are running, or when used in conjunction with a thermostat can disable the heat.

High/Off/Low Selector Switch- Switches between the high and low speeds or turns the air curtain off.

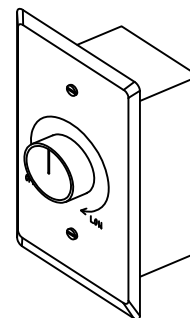
On/Off Selector Switch- Switches the air curtain on and off.

Cruise Control Programmable Switch



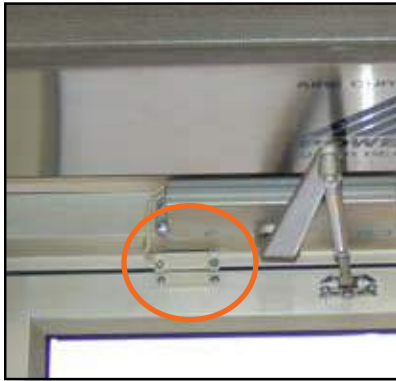
Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch, Heat On/Off Switch, High/Low Switch.

Variable Speed Switch



Directly varies the speed of a Mini Power air curtain or turns the unit off. Can be used with 120 and 208/240 volt motors only.

STANDARD DOOR SWITCHES



Commercial Magnetic Door Switch



**Commercial
Concealed
Magnetic Door
Switch**



Plunger Door Switch
(Can also serve as a Roller Switch)



**Wobble
Door
Switch**



**Industrial Magnetic
Door Switch**



Weatherproof die-cast aluminum switch mounts to floor. Able to withstand heavy vehicle pressure without damage.

L-shaped bracket minimizes the effect of steel door on magnets. Flexible armored cable protects switch wiring.

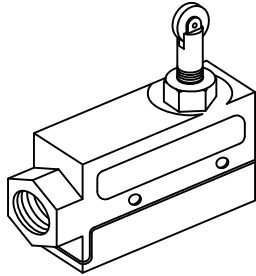


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AIR CURTAIN CONTROL OPTIONS

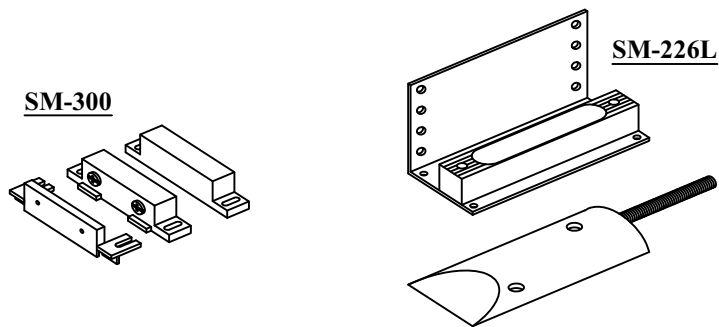
ACTIVATION OPTIONS

Combination Roller/Plunger Door Switch



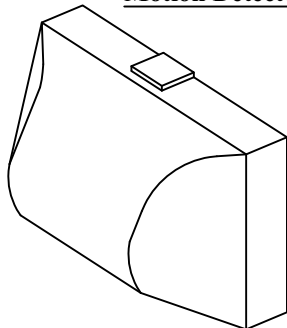
Door switches are used for the automatic starting and stopping of our air curtain systems, as doors are opened and closed. Our standard is a roller/plunger combination door switch that can be used to replace tradition roller and plunger limit switches. It can be used on hinge doors, sliding doors, and on roll up doors. Operating force can either be applied perpendicular to the switch to operate as a plunger door switch, or parallel to the switch for it to act as a roller door switch.

Magnetic Door Switch



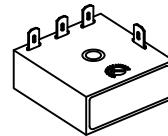
A non-mechanical door switch that turns the air curtain on when the door is opened. Comes in two styles as shown here.

Motion Detector



Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

Built-in Time Delay Relay

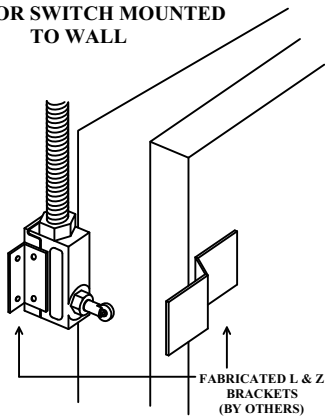


Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day.

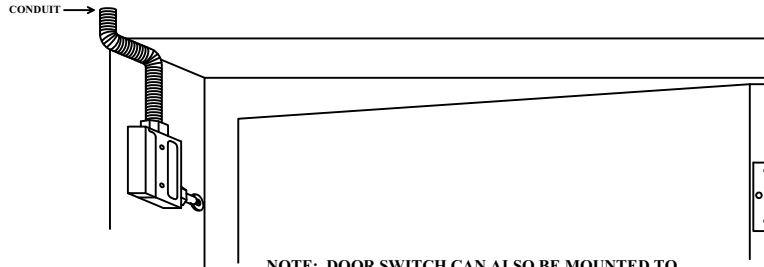


SUGGESTED DOOR SWITCH MOUNTINGS

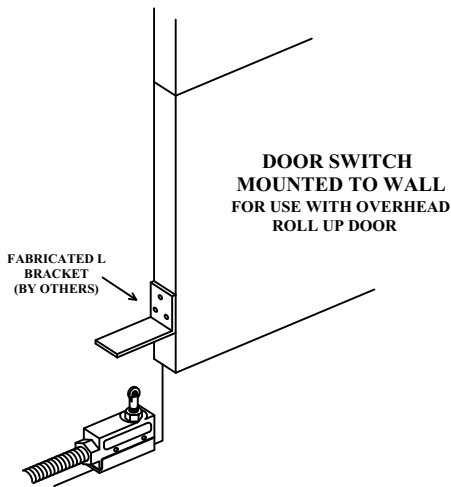
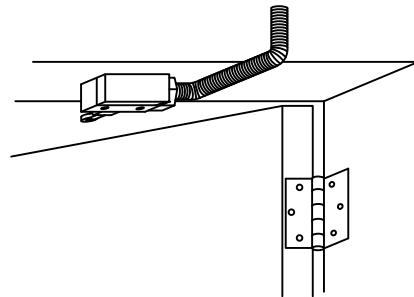
DOOR SWITCH MOUNTED TO WALL



DOOR SWITCH MOUNTED TO SIDE OF DOOR JAMB

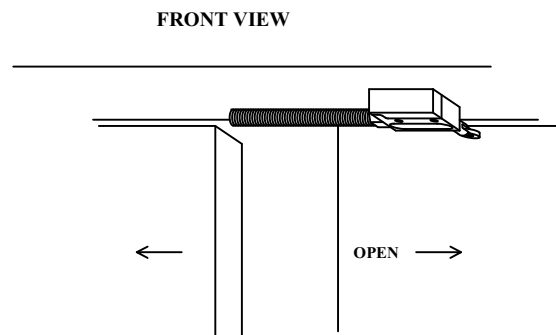
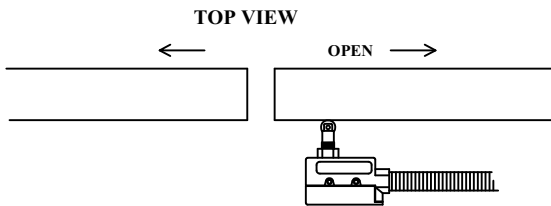


DOOR SWITCH MOUNTED TO TOP OF JAMB



WARNING
DO NOT USE A FASTENER LARGER THAN A #6 SHEET METAL SCREW OR A #8 MACHINE SCREW TO MOUNT THESE MICRO SWITCHES. FORCING SCREWS THROUGH THE MOUNTING HOLES DESTROYS THE SWITCH AND VOIDS THE WARRANTY.

DOOR SWITCH MOUNTED TO UPPER DOOR JAMB FOR USE WITH SLIDING DOORS

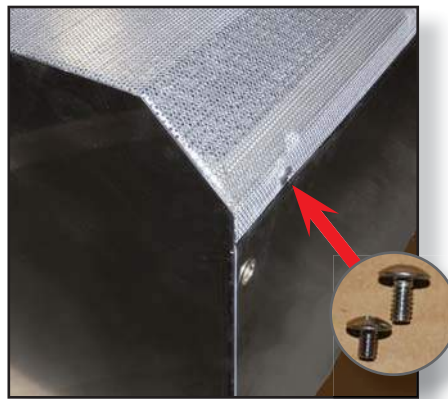


Air Curtain Installation Instructions

IMPORTANT -- When you receive your air curtain, please check for visible or concealed damage. Claims should be made immediately to the transportation company. Powered Aire will not be liable for damage claims submitted late.

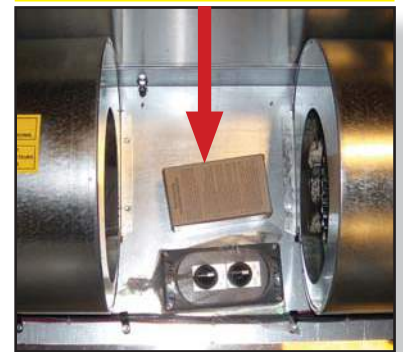
Powered Aire's commitment to quality continues after the air curtain is assembled. We package your unit in a sturdy wooden crate and shrink-wrap it for its journey to your site. Please review the following instructions for unpacking your air curtain and preparing it for installation.

- 1** Remove shrink-wrap and wood slats from top and sides of crate.



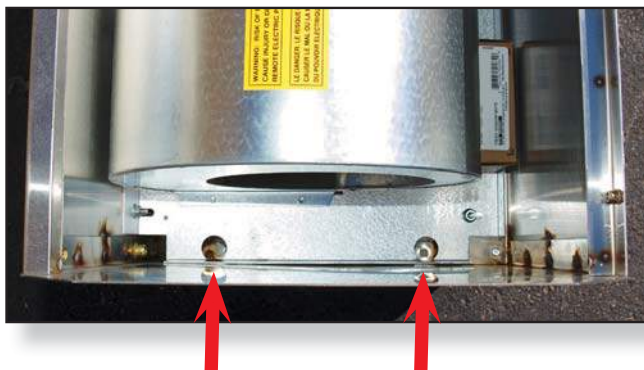
- 2** Using a Phillips head screwdriver, unscrew the truss head screws that hold intake screen in place. Save screws. Remove intake screen and filter (if supplied).

IMPORTANT



- 3** If remote controls or switches are supplied with commercial models, remove them from inside of unit. If remote controls or switches are supplied for units with control panels, those items will be inside the enclosure (pictured below). **Powered Aire will not be responsible for misplaced switches.**

Trained and experienced mechanic and electrician are required for installation



- 4** The air curtain is bolted to the bottom of the crate frame. Use a 3/8" socket with extension and remove the 4 lag bolts (one in each corner) that attach the air curtain to the skid. Unit is now ready for installation. Lag bolt holes are used to bolt the air curtain to the wall.

- 5** Replace the intake screen and screw in place. (If air curtain is to be mounted flush to the surface, do not replace intake screen until mounting is complete.) For other mounting options see reverse side of this sheet.



Flush mounted...

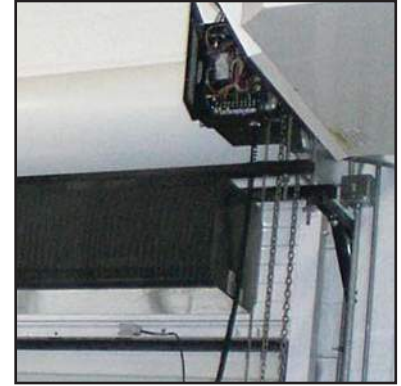


This example shows an air curtain mounted flush with the wall for an exterior application.

Rolling steel door.....



This air curtain is suspended via threaded rod from a high ceiling to hang in front of the canister of a steel roll-up service door.



Unistrut is attached to the top of the air curtain and extended to brackets that are located outside the door track system.

Vertical high lift door...



Custom brackets attach to top mounting holes and to wall outside of door track system.

Sectional door...



Inverted angle brackets and unistrut facilitate installation outside of door track system.

High-speed door...



A combination of angle brackets and threaded rod (by others) suspends this air curtain in front of a high-speed roll-up door.

Industrial door....



Steel tubing attached to the top of the air curtain can extend to structural supports.

Via threaded rod...



Installing with threaded rod (by others) from the ceiling gives a clean look at customer entrance ways.

Mounting vertically...



The air curtain can be connected to the floor with brackets and if necessary attached to the wall at top for stability.



POWERED AIRE INC.

www.poweredaire.com

INSTALLATION INSTRUCTIONS (Model BAC)

***Trained and experienced mechanic / electrician required**

Visible or Concealed Damage:

Claims should be made immediately to the transportation company. Do not delay filing a claim. Powered Aire will not be liable for damage claims submitted late.

Unpacking:

Carefully remove unit from packaging. Unlatch clips on intake to remove filter during installation.

Electrical Installation:

Units must be field wired in accordance with all local and national electric codes, including wire size and materials.

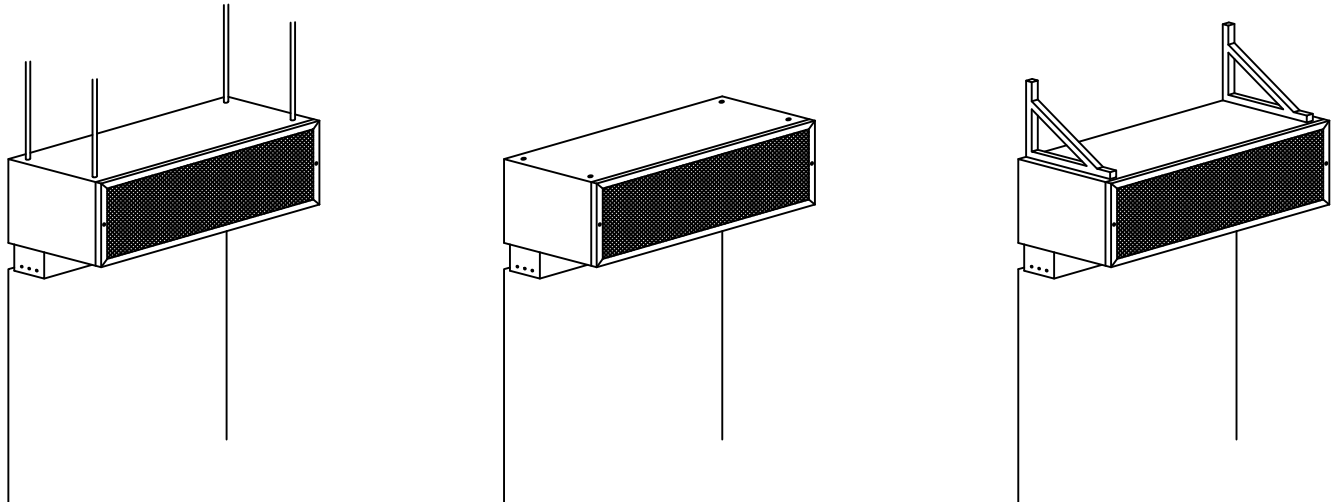
Mounting Note:

For every one inch the bottom of the aire curtain nozzle is mounted above the door header, the back side of aire curtain should be moved away from the wall 1/2 inch. The unit is to be installed such that the bottom of the air curtain is no more than 7' above the finished floor in order to comply with the NSF/ANSI 37 standard.

Mounting Option 1:

Top Mount - Unit has four 3/8-16 threaded inserts for installing one end of threaded rods. The other ends of the threaded rods can be attached to the ceiling. Threaded rod should not extend more than 3/4 inch into aire curtain.

Threaded rods, angle brackets, and struts provided by others.



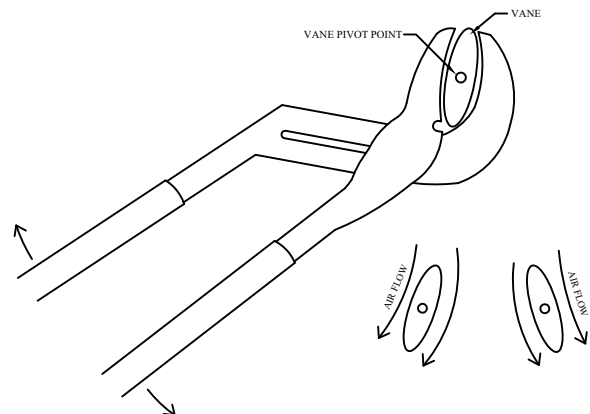
Note: All hardware and brackets must be of sufficient strength to safely support aire curtain.

Mounting Option 2:

Wall Mount - Back side of aire curtain has 4 mounting holes capable of accepting four 3/8 mounting bolts or lags, with washers (use these holes only for mounting). Mark and pre-drill mounting surface accurately. Mounting bolts or lags must be of sufficient size and strength.

Air Directional Adjustment:

Air curtain comes equipped with three steering vanes in the discharge nozzle to allow for the outward adjustment of the discharge air direction. To adjust, first wrap a rag around the vane so it is not scratched. Grip the vane near the end on one side with a pair of channel locks and rotate it in the direction that you want the air to flow. Repeat for the other side and for the other vanes. Periodic cleaning of the steering vanes may be required by wiping them down with a damp rag.





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INSTALLATION INSTRUCTIONS (Models CED, BCE, BCT, & ETD)

***Trained and experienced mechanic / electrician required**

Visible or Concealed Damage:

Claims should be made immediately to the transportation company. Do not delay filing a claim. Powered Aire will not be liable for damage claims submitted late.

Unpacking:

Carefully remove enough of crate to expose inlet screws. Remove Phillips head screws holding intake screen in place. Remove screen and filters (if provided), save screws. Use 3/8" socket and extension to remove four lag bolts. Unit is now ready for removal. Unit can be lifted by blower housing inlets. (Caution - Be careful not to grasp by blower wheels. They will bend and throw wheels out of balance, affecting safety and performance of air curtain.)

Electrical Installation:

Units must be field wired in accordance with all local and national electric codes, including wire size and materials.

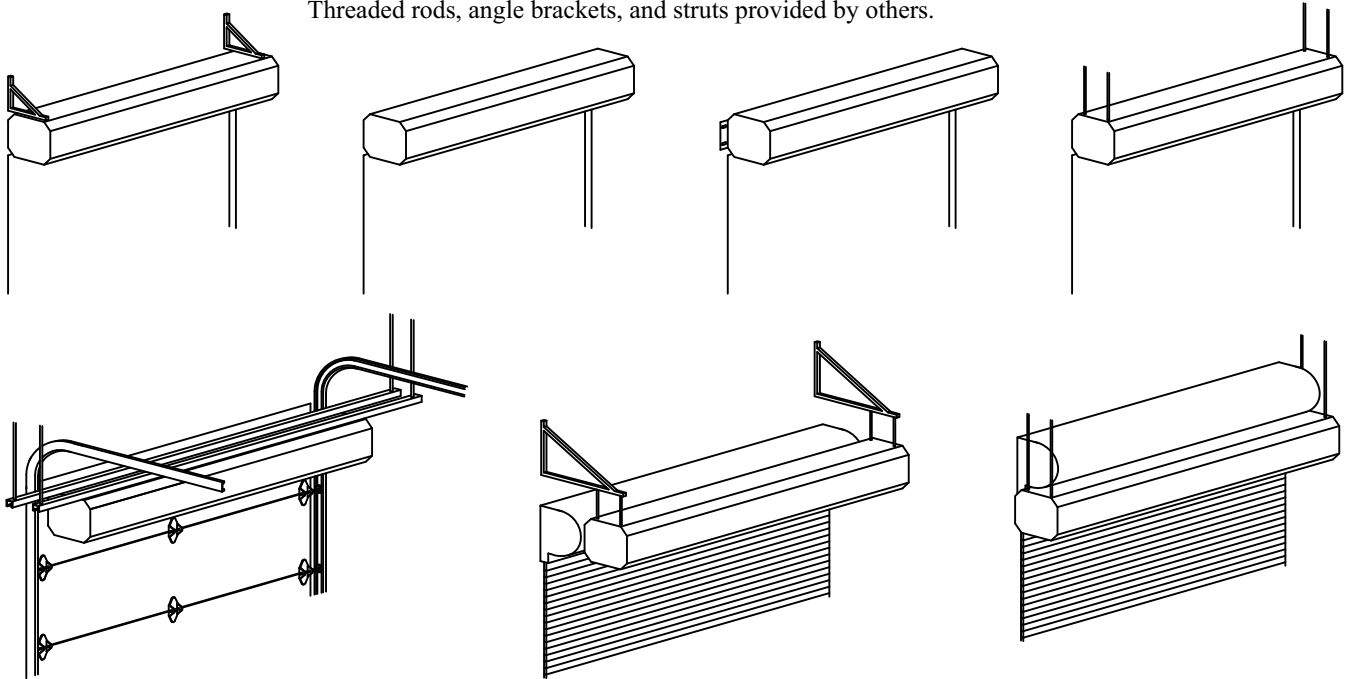
Mounting Note:

The aire curtain should be mounted as close to the door header/opening as possible for maximum performance. For every one inch the bottom of the aire curtain is mounted above the door header, the back side of aire curtain should be moved away from the wall 1/2 inch.

Mounting Option 1:

Top Mount - Unit has four 3/8-16 threaded inserts for installing one end of threaded rods. The other ends of the threaded rods can be attached to the ceiling. Threaded rod should not extend more than 3/4 inch into aire curtain.

Threaded rods, angle brackets, and struts provided by others.



Note: All hardware and brackets must be of sufficient strength to safely support aire curtain.

Mounting Option 2:

Wall Mount - Back side of aire curtain has 4 mounting holes capable of accepting four 3/8 mounting bolts or lags, with washers (use these holes only for mounting). Mark and pre-drill mounting surface accurately. A long extension and ratchet will negate the need to remove the motor/blower plate when installing. Mounting bolts or lags of sufficient size and strength should be installed and tightened through the four 7/8 inch holes in motor/blower plate. If motor/blower plate has to be removed, the junction box inside the unit must be removed along with any electrical switches that may be in the way. The electrical switches have a lever that slides in one direction to release the switch contacts from the switch body. All wires will then stay intact for easy installation when replacing blower plate. Remove 7/16 whizlock nuts holding plate in place, and slide plate out, rotating top portion of plate so it comes out first. Remember when installing plate to put bottom of plate in first and rotate top in last.

Mounting Option 3:

Wall mount, extension brackets - Extension brackets bolt on to the back of the unit, utilizing the 4 original mounting holes, and allowing for external mounting of unit to wall. Brackets have elongated mounting slots that extend the mounting width by 2 1/2 to 3 1/2 inches.



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OPTIONAL MB-1,2,3 MOUNTING SYSTEM FOR COMMERCIAL AIR CURTAINS (FOR MODELS CED, BCE, BCT, ETD, RCE, RBE, RIT, RBT, & RCC)

When mounted, bottom of air curtain is to be flush with door header.

Step 1: Attach top mounting bracket to back of air curtain using the top mounting holes on the back of the unit.

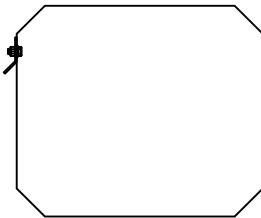
Step 2: Attach the bottom mounting bracket to the wall. Make sure there is sufficient room between mounting plate and ceiling to mount air curtain.

Step 3: (a) Place air curtain over bottom mounting bracket.

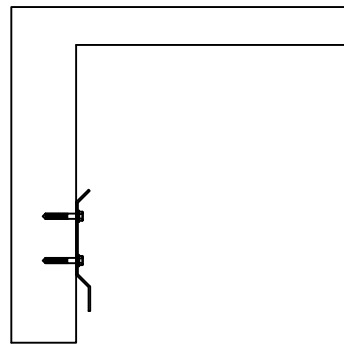
(b) The top and bottom brackets will lock into place supporting the weight of the air curtain.

(c) Attach the bottom bracket to the air curtain using the lower mounting holes.

Step 1

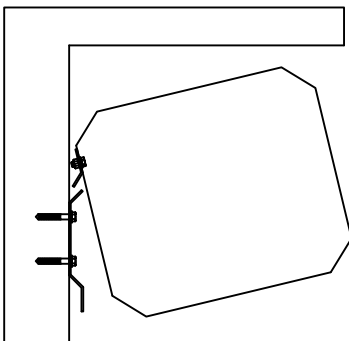


Step 2

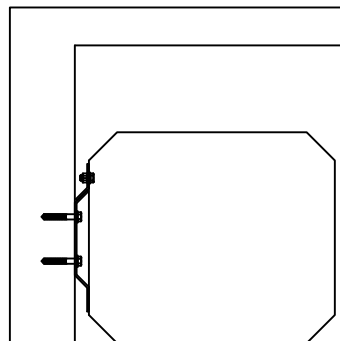


Step 3

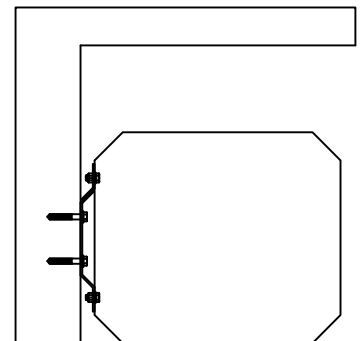
(a)

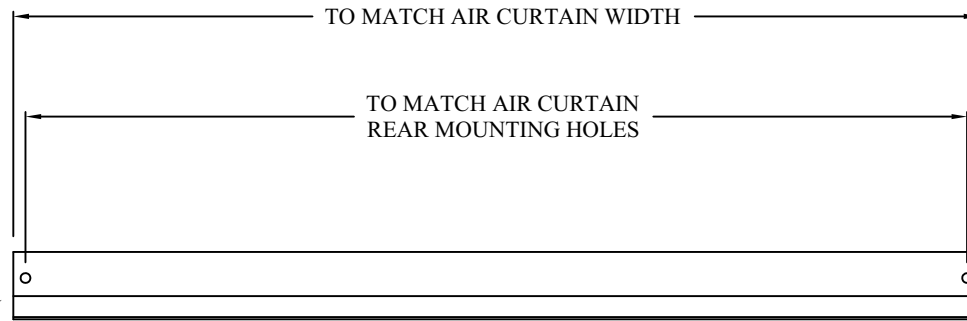


(b)

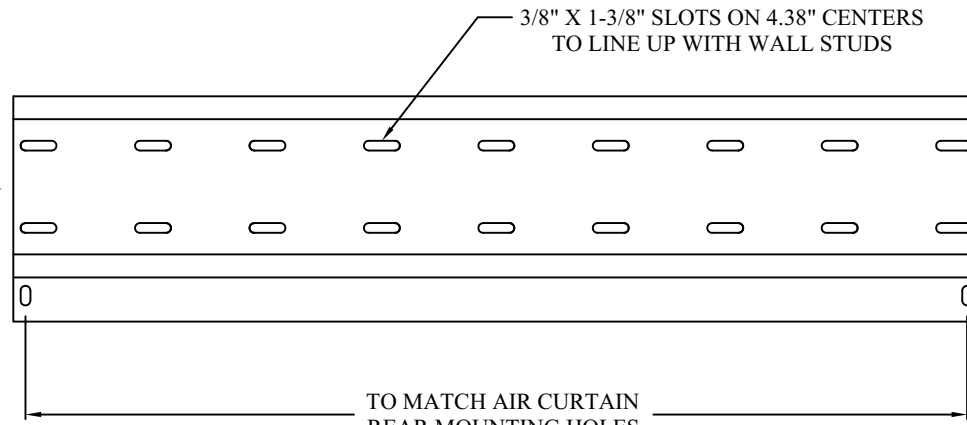
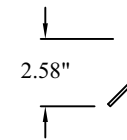


(c)

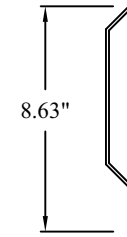




TOP MOUNTING BRACKET




BOTTOM MOUNTING BRACKET



FRONT VIEW

SIDE VIEW

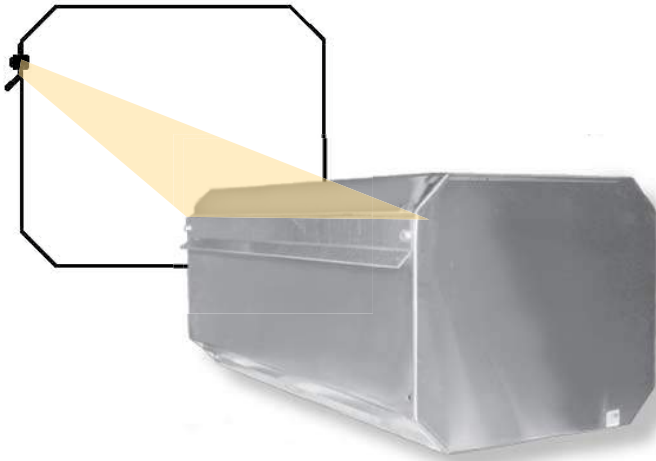
POWERED AIR TM <i>INC.</i> 109 Mortensen Rd. Greenville, PA 16125		
DATE: 10/01/13	PART DESCRIPTION:	
DRAWN BY: B.K.J.	POWERED AIR SYSTEMS	
PART/FILE# MB-1,2,3	MB-1,2,3 COMMERCIAL MOUNTING SYSTEM	

Optional **MB 1,2,3** Mounting System for Commercial Air Curtains

When mounted, bottom of air curtain is to be flush with door header

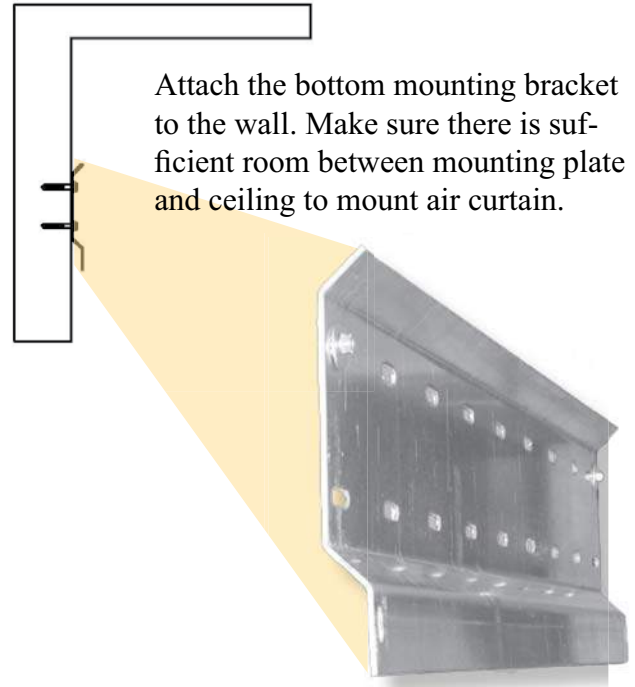
Step 1

Attach top mounting bracket to back of air curtain using the top mounting holes on the back of the unit.



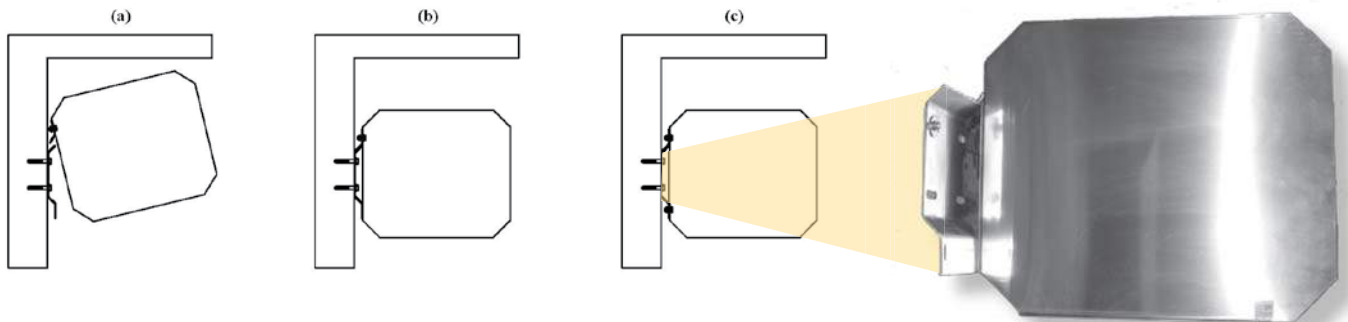
Step 2

Attach the bottom mounting bracket to the wall. Make sure there is sufficient room between mounting plate and ceiling to mount air curtain.



Step 3

- Place air curtain over bottom mounting bracket.
- The top and bottom brackets will lock into place supporting the weight of the air curtain.
- Attach the bottom bracket to the air curtain using the lower mounting holes.





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mini-power[™] INSTALLATION INSTRUCTIONS

***Trained and experienced mechanic / electrician required**

Visible or Concealed Damage:

Claims should be made immediately to the transportation company. Do not delay filing a claim. Powered Aire will not be liable for damage claims submitted late.

Unpacking:

Carefully remove enough of crate to expose inlet screws. Remove Phillips head screws holding intake screen in place. Remove screen and filters (if provided), save screws. Use 3/8" socket and extension to remove four lag bolts mounting unit to skid. Unit is now ready for removal.

Electrical Installation:

Units must be field wired in accordance with all local National Electric Codes, including wire size and materials. Units can accept 1/2" conduit by punching out knockouts on top or either side of unit. Wires from conduit are to be ran to junction box inside of unit.

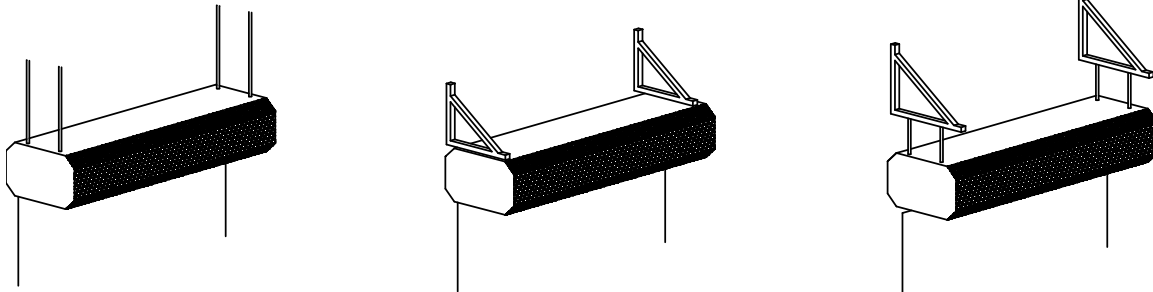
Mounting Note:

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 air curtain should be moved away from the wall 1/2 inch.

Mounting Option 1:

Top mount – Unit has four 3/8 – 16 threaded inserts for installing one end of threaded rods. The other ends of the threaded rods can be attached to the ceiling. Threaded rod should not extend more than 3/4 inch into air curtain.

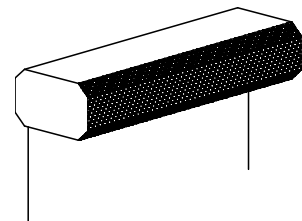
Threaded rods and angle brackets provided by others.



Note: All hardware and brackets must be of sufficient strength to safely support air curtain.

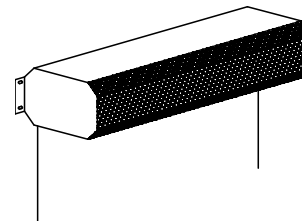
Mounting Option 2:

Wall mount – Back side of air curtain has 4 mounting holes capable of accepting four 3/8 mounting bolts or lags, with washers (use these holes only for mounting). Mark and pre-drill mounting surface accurately. A long extension and ratchet will negate the need to remove the motor/blower plate when installing. Mounting bolts or lags of sufficient size and strength should be installed and tightened through the four slots in motor/blower plate. If motor/blower plate has to be removed, the junction box inside the unit must be removed along with any electrical switches that may be in the way. Remove 7/16 whizlock nuts holding plate in place, and slide plate out, rotating top portion of plate so it comes out first. Remember when installing plate to put bottom of plate in first and push and rotate top in last.



Mounting Option 3:

Wall mount, extension brackets – Extension brackets bolt on to the back of the unit, utilizing the 4 original mounting holes, and allowing for external mounting of unit to wall. Brackets have elongated mounting slots that extend the mounting width by 2 1/2 to 3 1/2 inches.





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INSTALLATION INSTRUCTIONS (Model RBT)

***Trained and experienced mechanic / electrician required**

Visible or Concealed Damage:

Claims should be made immediately to the transportation company. Do not delay filing a claim. Powered Aire will not be liable for damage claims submitted late.

Unpacking:

Carefully remove enough of crate to expose inlet screws. Remove Phillips head screws holding intake screen in place. Remove screen and filters (if provided), save screws. Use 3/8" socket and extension to remove four lag bolts. Unit is now ready for removal. Unit can be lifted by blower housing inlets. (Caution - Be careful not to grasp by blower wheels. They will bend and throw wheels out of balance, affecting safety and performance of air curtain.)

Electrical Installation:

Units must be field wired in accordance with all local and national electric codes, including wire size and materials.

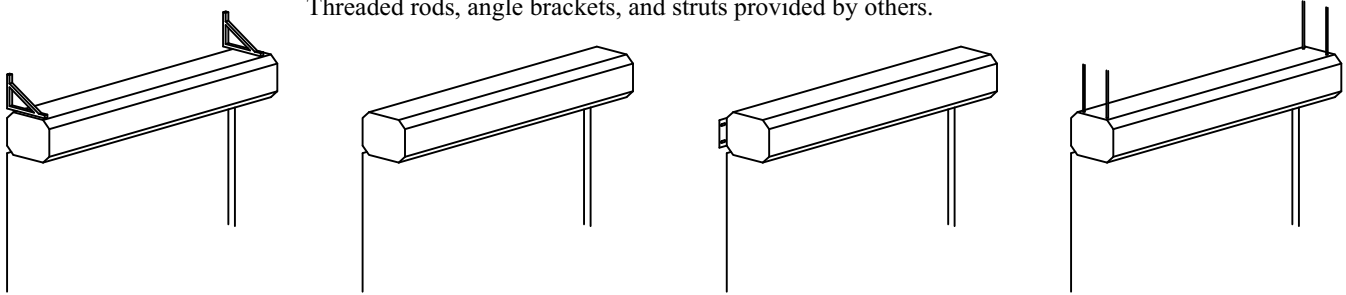
Mounting Note:

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 aire curtain is mounted above the door header, the back side of aire curtain should be moved away from the wall 1/2 inch. The unit is to be installed such that the bottom of the air curtain is no more than 7' above the finished floor in order to comply with the NSF/ANSI 37 standard.

Mounting Option 1:

Top Mount - Unit has four 3/8-16 threaded inserts for installing one end of threaded rods. The other ends of the threaded rods can be attached to the ceiling. Threaded rod should not extend more than 3/4 inch into aire curtain.

Threaded rods, angle brackets, and struts provided by others.



For mounting over turnback doors, roll up canister doors, or other special applications consult factory.

Note: All hardware and brackets must be of sufficient strength to safely support aire curtain.

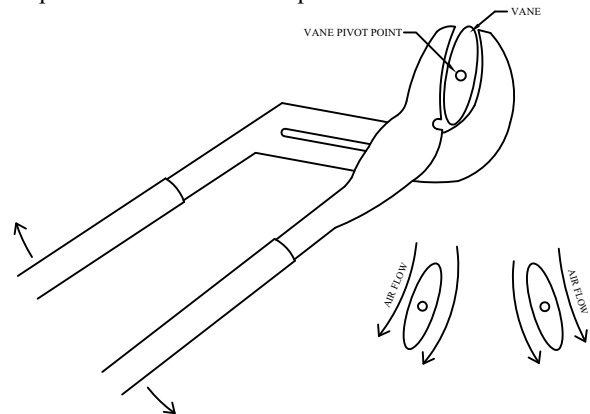
Mounting Option 2:

Wall Mount - Back side of aire curtain has 4 mounting holes capable of accepting four 3/8 mounting bolts or lags, with washers (use these holes only for mounting). Mark and pre-drill mounting surface accurately. A long extension and ratchet will negate the need to remove the motor/blower plate when installing. Mounting bolts or lags of sufficient size and strength should be installed and tightened through the four 7/8 inch holes in motor/blower plate. If motor/blower plate has to be removed, the junction box inside the unit must be removed along with any electrical switches that may be in the way. The electrical switches have a lever that slides in one direction to release the switch contacts from the switch body. All wires will then stay intact for easy installation when replacing blower plate. Remove 7/16 whizlock nuts holding plate in place, and slide plate out, rotating top portion of plate so it comes out first. Remember when installing plate to put bottom of plate in first and rotate top in last.

Air Directional Adjustment:

Air curtain comes equipped with a steering vane in the discharge to allow for the outward adjustment of the discharge air direction. To adjust, first wrap a rag around the vane so it is not scratched. Grip the vane near the end on one side with a pair of channel locks and rotate it in the direction that you want the air to flow. Repeat for the other side.

Periodic cleaning of the steering vane may be required. To clean it just wipe it down with a damp rag.





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INDUSTRIAL AIRE CURTAIN INSTALLATION INSTRUCTIONS (Models TSD, EHD & BPA)

***Trained and experienced mechanic / electrician required.**

Warning: Risk of electrical shock, can cause injury or death: Disconnect all remote electrical supplies before servicing. Visible or Concealed Damage:

Claims should be made immediately to the transportation company. Do not delay filing a claim. Powered Aire will not be liable for damage claims submitted late.

Unpacking:

Carefully remove enough of crate to expose aire curtain hold down screws. (Used to keep aire curtain in place during transit).

Electrical Installation:

Units must be field wired in accordance with all applicable local, state, provincial and national laws, including wire size and materials.

Mounting Note:

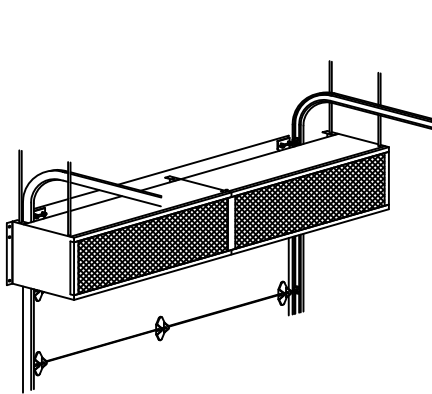
The aire curtain should be mounted as close to the door header/opening as possible for maximum performance. For every one inch the bottom of the aire curtain is mounted above the door header, the back side of aire curtain should be moved away from the wall 1/2 inch.

Mounting Option 1:

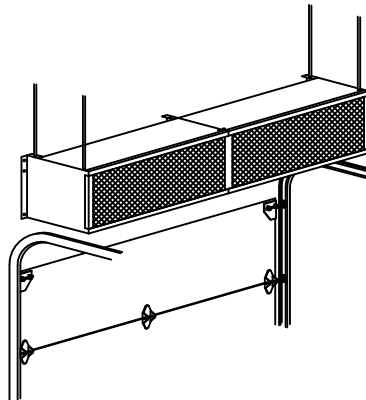
Top Mount - Unit has four 17/32 inch holes for installing one end of 1/2" threaded rods. The other ends of the threaded rods can be attached to the ceiling. Washers and lock washers or locknuts are recommended. Mounting structure should be of sufficient strength to hold aire curtain, and hardware (supplied 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 aire curtain from ends only.

Mounting Option 2:

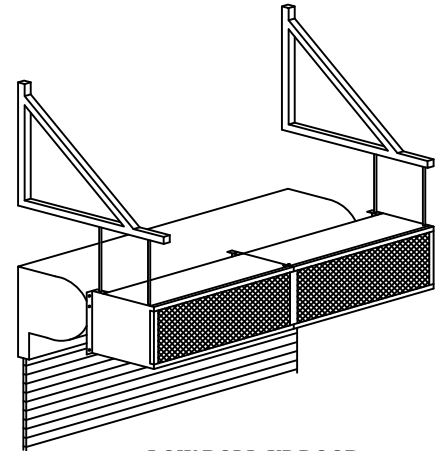
Wall Mount - Rear flanges of aire curtain have six holes, for six 1/2 inch bolts or lags with washers. When wall mounting use all six holes.



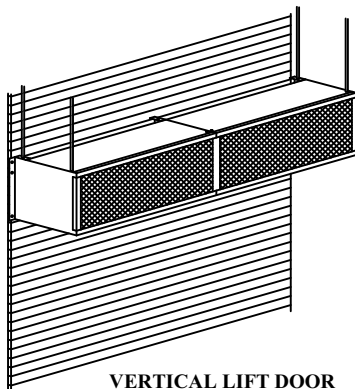
HIGH TURN-BACK TRACK DOOR



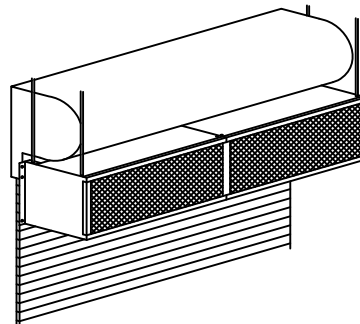
LOW TURN-BACK TRACK DOOR



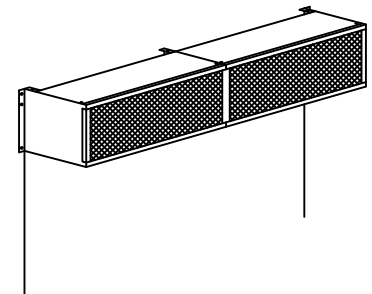
LOW ROLL-UP DOOR



VERTICAL LIFT DOOR



HIGH ROLL-UP DOOR



WALL MOUNT



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AIRE CURTAIN INSTALLATION INSTRUCTIONS (Models CHS, THS & TFD)

***Trained and experienced mechanic / electrician required.**

Warning: Risk of electrical shock, can cause injury or death: Disconnect all remote electrical supplies before servicing. Visible or Concealed Damage:

Claims should be made immediately to the transportation company. Do not delay filing a claim. Powered Aire will not be liable for damage claims submitted late.

Unpacking:

Carefully remove enough of crate to expose aire curtain hold down screws. (Used to keep aire curtain in place during transit).

Electrical Installation:

Units must be field wired in accordance with all applicable local, state, provincial and national laws, including wire size and materials.

Mounting Note:

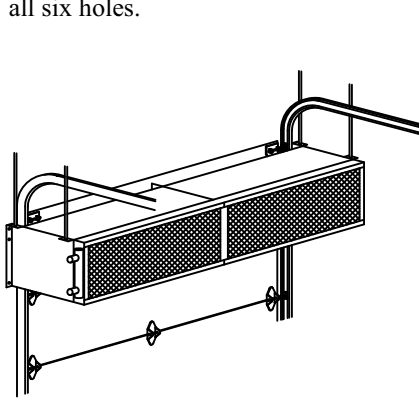
The aire curtain should be mounted as close to the door header/opening as possible for maximum performance. For every one inch the bottom of the aire curtain is mounted above the door header, the back side of aire curtain should be moved away from the wall 1/2 inch.

Mounting Option 1:

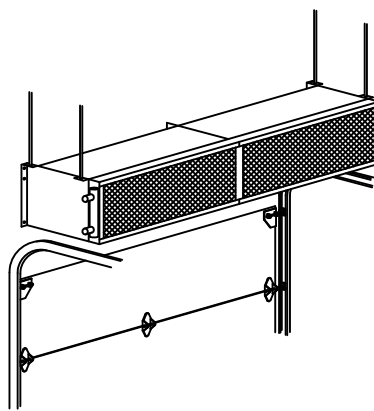
Top Mount - Unit has four 15/32 inch holes for installing one end of 7/16" threaded rods. The other ends of the threaded rods can be attached to the ceiling. Washers and lock washers or locknuts are recommended. Mounting structure should be of sufficient strength to hold aire curtain, and hardware (supplied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

Mounting Option 2:

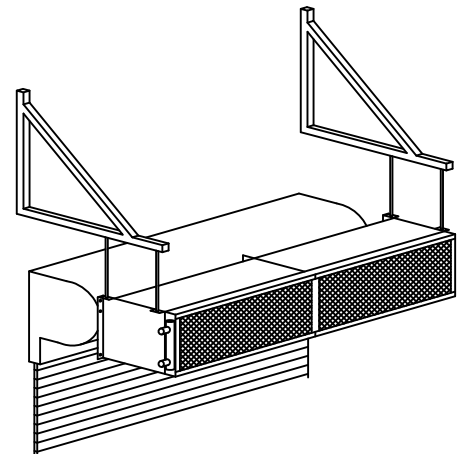
Wall Mount - Rear flanges of aire curtain have six holes, for six 7/16 inch bolts or lags with washers. When wall mounting use all six holes.



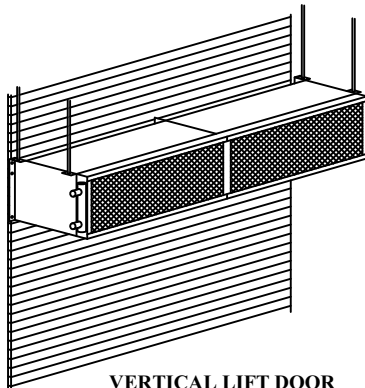
HIGH TURN-BACK TRACK DOOR



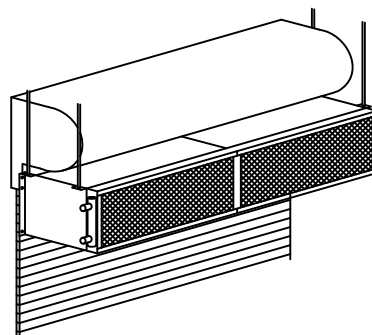
LOW TURN-BACK TRACK DOOR



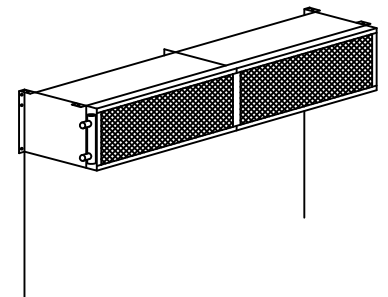
LOW ROLL-UP DOOR



VERTICAL LIFT DOOR



HIGH ROLL-UP DOOR



WALL MOUNT



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GAS HEATED AIRE CURTAIN INSTALLATION INSTRUCTIONS

***Trained and experienced mechanic / electrician required**

Visible or Concealed Damage:

Claims should be made immediately to the transportation company. Do not delay filing a claim. Powered Aire will not be liable for damage claims submitted late.

Electrical Installation:

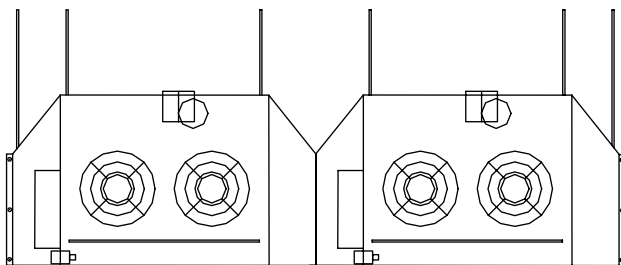
Units must be field wired in accordance with all local National Electric Codes, including wire size and materials.

Mounting Note:

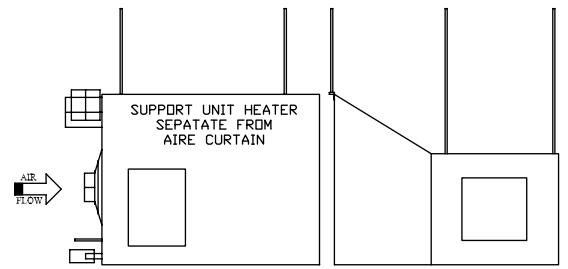
The air curtain should be mounted as close to the door header/opening as possible for maximum performance. For every one inch the bottom of the air curtain is mounted above the door header, the back side of air curtain should be moved away from the wall 1/2 inch.

TSDIG/EHDIG/TIG Indirect Mounting:

Unit will be suspended with threaded rods. Aire curtain has two holes on each end for installing one end of threaded rods, each transition duct has two 3/8 – 16 spotnuts, and each heater has two or four 3/8 – 16 spotnuts depending on the model. The other ends of the threaded rods can be attached to the ceiling. Heater is to be mounted separately, 2" from aire curtain / transition assembly. Models TSDIG and EHDIG require 1/2" threaded rod. Model TIG requires 7/16" threaded rod. Washers and lock washers or locknuts are recommended. Mounting structure should be of sufficient strength to hold unit, 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 aire curtain from ends only.



FRONT VIEW

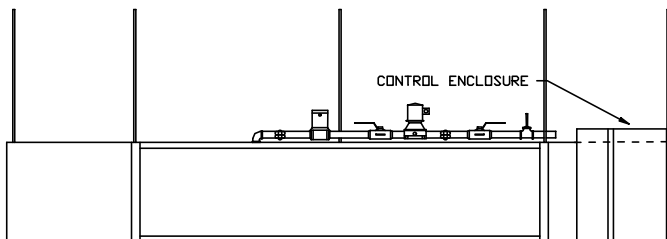


SIDE VIEW

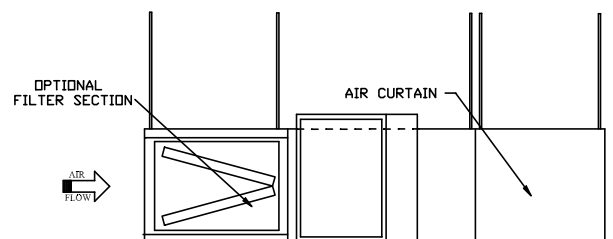


TSDDG/EHDDG/TDG Direct Mounting:

Unit will be suspended with threaded rods. Aire curtain has two holes on each end for installing one end of threaded rods, burner and filter section has five 5/8 holes on top and bottom of unit. The other ends of the threaded rods can be attached to the ceiling. Models TSDDG and EHDDG require 1/2" threaded rod. The rods in the front of the unit will go through the entire unit and be secured from the bottom. Model TDG requires 7/16" threaded rod. Washers and lock washers or locknuts are recommended. Mounting structure should be of sufficient strength to hold unit, 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 aire curtain from ends only. Unit must be ducted to the outside to burn 100% fresh air.



FRONT VIEW



SIDE VIEW





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AIRE CURTAIN INSTALLATION INSTRUCTIONS (Chameleon Models CLD & CHD)

***Trained and experienced mechanic / electrician required.**

Warning: Risk of electrical shock, can cause injury or death: Disconnect all remote electrical supplies before servicing.

Visible or Concealed Damage:

Claims should be made immediately to the transportation company. Do not delay filing a claim. Powered Aire will not be liable for damage claims submitted late.

Unpacking:

Carefully remove enough of crate to expose aire curtain hold down screws. (Used to keep aire curtain in place during transit).

Electrical Installation:

Units must be field wired in accordance with all applicable local, state, provincial and national laws, including wire size and materials.

Mounting Note:

For every one inch the bottom of the aire curtain is mounted above the door header, the back side of aire curtain should be moved away from the wall 1/2 inch.

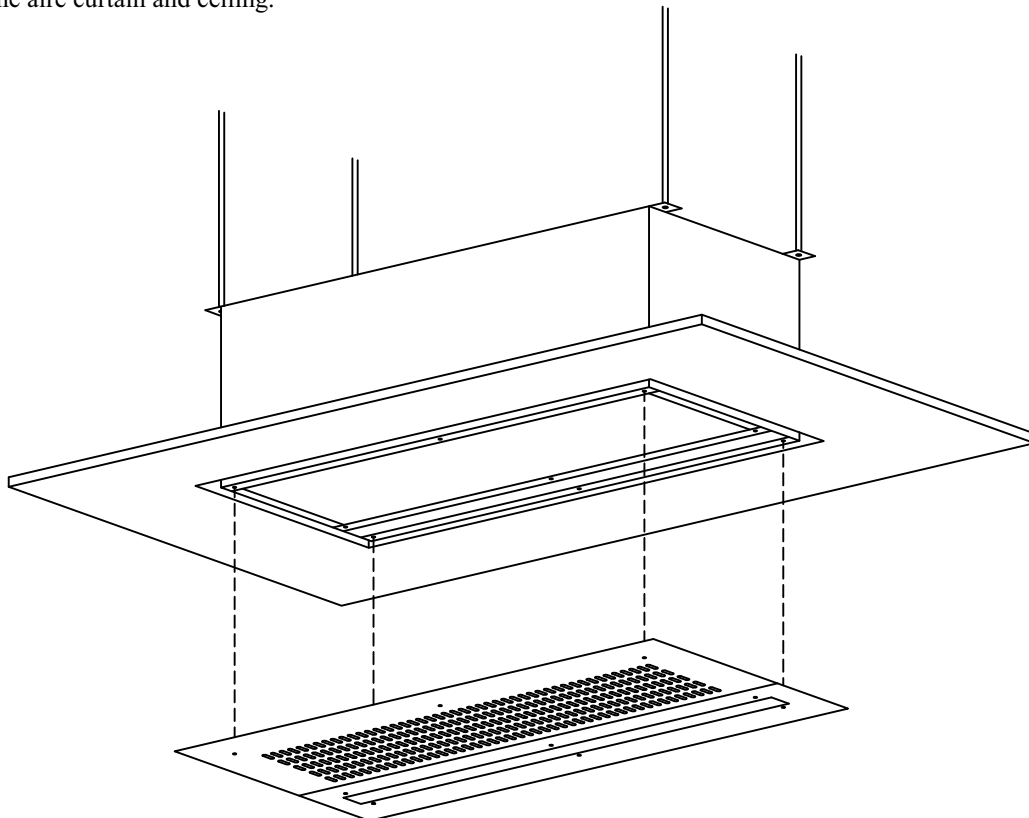
Mounting:

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 aire curtain, and hardware (supplied by others) should be of sufficient strength and quality to support the unit safely

A. Remove intake screen from bottom of aire curtain. If ceiling is already in place, determine where aire curtain location will be and cut a rectangular hole in the ceiling. The hole will be 1 inch longer and wider than the bottom length and width of the air curtain without the intake screen.

B. Suspend aire curtain using threaded rods so that the bottom of the unit is centered within the cut out in the ceiling. There will be a 1/2 inch gap around the aire curtain. Mount the unit so that the bottom is flush with the ceiling.

C. Attach the intake screen to the bottom of the aire curtain. The intake screen is larger than the air curtain to cover the gaps between the aire curtain and ceiling.



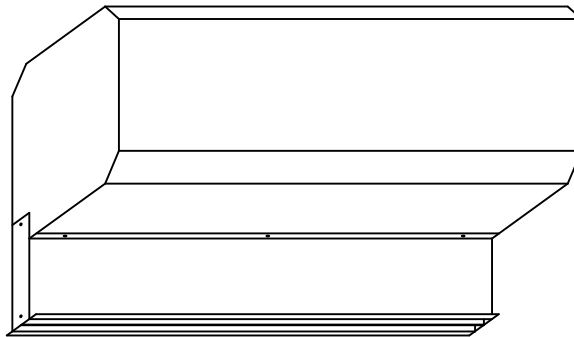


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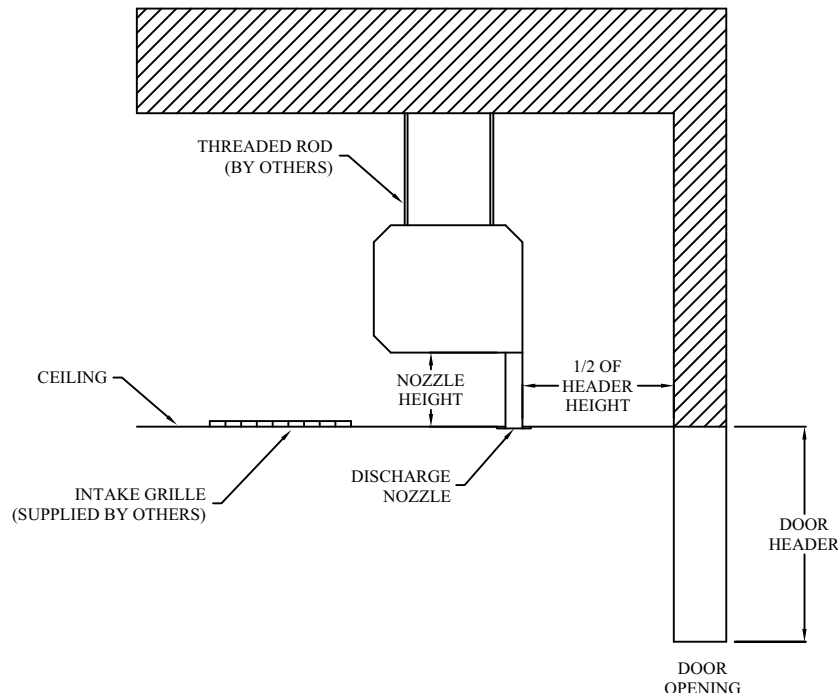
www.poweredaire.com

AIRE CURTAIN RECESSED IN CEILING USING NOZZLE EXTENSION

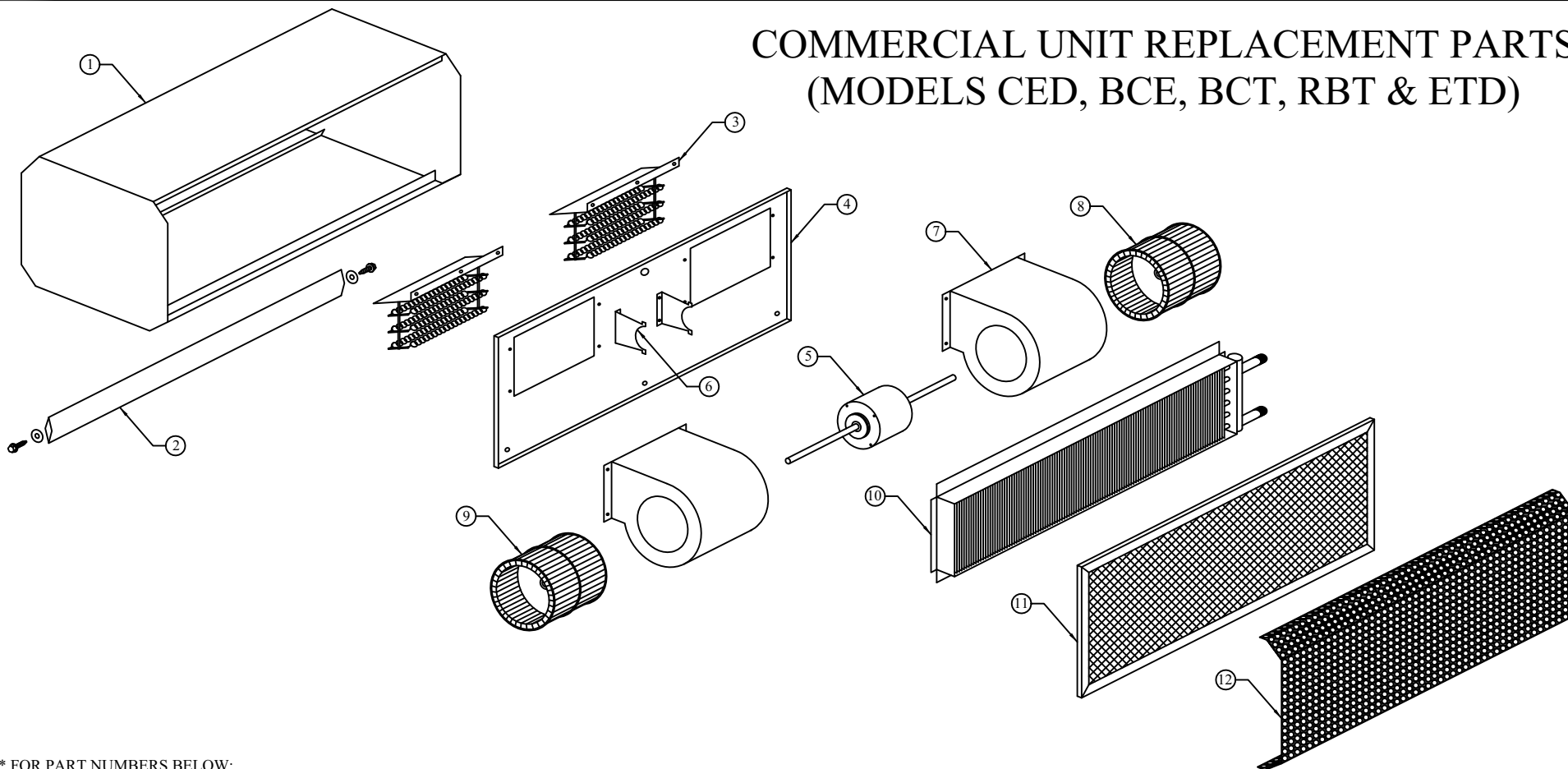
When there is insufficient room between the top of the door and the ceiling to mount an aire curtain or if it is not desirable to see the aire curtain, the aire curtain can be recessed mounted in the ceiling with the use of a custom nozzle extension supplied by Powered Aire, Inc. When an aire curtain is used in a recessed installation, the steering vane that is typically installed in the aire curtain discharge to deflect the air stream is removed. It is instead installed on the discharge side of the nozzle extension. The nozzle extension ships loose and is installed in the field. After the aire curtain is installed above the ceiling, a slot is cut in the ceiling tile for the nozzle to slide up through from the bottom. When it is all the way through, the one inch flanges on the bottom of the extension will be flush with the ceiling. The top of the extension is like a sleeve that fits over the discharge of the aire curtain. It is attached to the aire curtain using self tapping screws fastened to the case of the unit.



When ordering a nozzle extension, the distance the aire curtain is going to be mounted above the ceiling will need to be supplied so that the nozzle extension can be manufactured accordingly. A finished trim piece (supplied by others) may be placed over the flush flanges on the exposed side of the ceiling so that the colors match. It is not recommended to use a slot diffuser that in any way obstructs the airflow. If there is not a supply of air in the ceiling, an intake grille (supplied by others) will need to be put in the ceiling to supply return air to the aire curtain. The grille should be just in front of the aire curtain intake and should be large enough to provide access to the front of the aire curtain for maintenance. If there is an air supply in the ceiling, it is recommended that an access panel be put in the ceiling to provide access. The standard nozzle extension is constructed of galvanized steel but can be made of stainless steel upon request.



COMMERCIAL UNIT REPLACEMENT PARTS (MODELS CED, BCE, BCT, RBT & ETD)



* FOR PART NUMBERS BELOW:

REPLACE XXX WITH THE UNIT SIZE - 036, 042, 048, 060, 072, 084, 096, 108, OR 120

REPLACE YYY WITH THE MODEL - CED, BCE, BCT, OR ETD

ITEM #	DESCRIPTION	PART #
1	OUTER CASE	CMCAS-XXX
2	STEERING VANE	CMSV-XXX
3	ELECTRIC HEATER (208 VOLT, DOUBLE COIL)	21-3307-00
3	ELECTRIC HEATER (240 VOLT, DOUBLE COIL)	21-3307-01
3	ELECTRIC HEATER (480 VOLT, DOUBLE COIL)	21-3307-02
3	ELECTRIC HEATER (575 VOLT, DOUBLE COIL)	21-3307-03
3	ELECTRIC HEATER (208 VOLT, SINGLE COIL)	21-3317-00
3	ELECTRIC HEATER (240 VOLT, SINGLE COIL)	21-3317-01
3	ELECTRIC HEATER (480 VOLT, SINGLE COIL)	21-3317-02
3	ELECTRIC HEATER (575 VOLT, SINGLE COIL)	21-3317-03
4	MOTOR / BLOWER PLATE	MBPLATE-XXX

ITEM #	DESCRIPTION	PART #
5	MOTOR (120 VOLT, SINGLE PHASE)	7124-120-YYY
5	MOTOR (208/230 VOLT, SINGLE PHASE)	7124-230-YYY
5	MOTOR (480 VOLT, SINGLE PHASE)	7124-480-YYY
5	MOTOR (575 VOLT, SINGLE PHASE)	7124-575-YYY
6	MOTOR MOUNT (FOR SINGLE PHASE MOTOR)	2120-051
7	BLOWER HOUSING	CMBLR-HS
8	BLOWER WHEEL (RIGHT)	CMBLR-WH-R
9	BLOWER WHEEL (LEFT)	CMBLR-WH-L
10	HOT WATER / STEAM COIL	CONSULT FACTORY
11	FILTER	CMFLT-XXX
12	SCREEN	CMSCR-XXX

POWERED AIR INC.
109 Mortensen Rd. Greenville, PA 16125



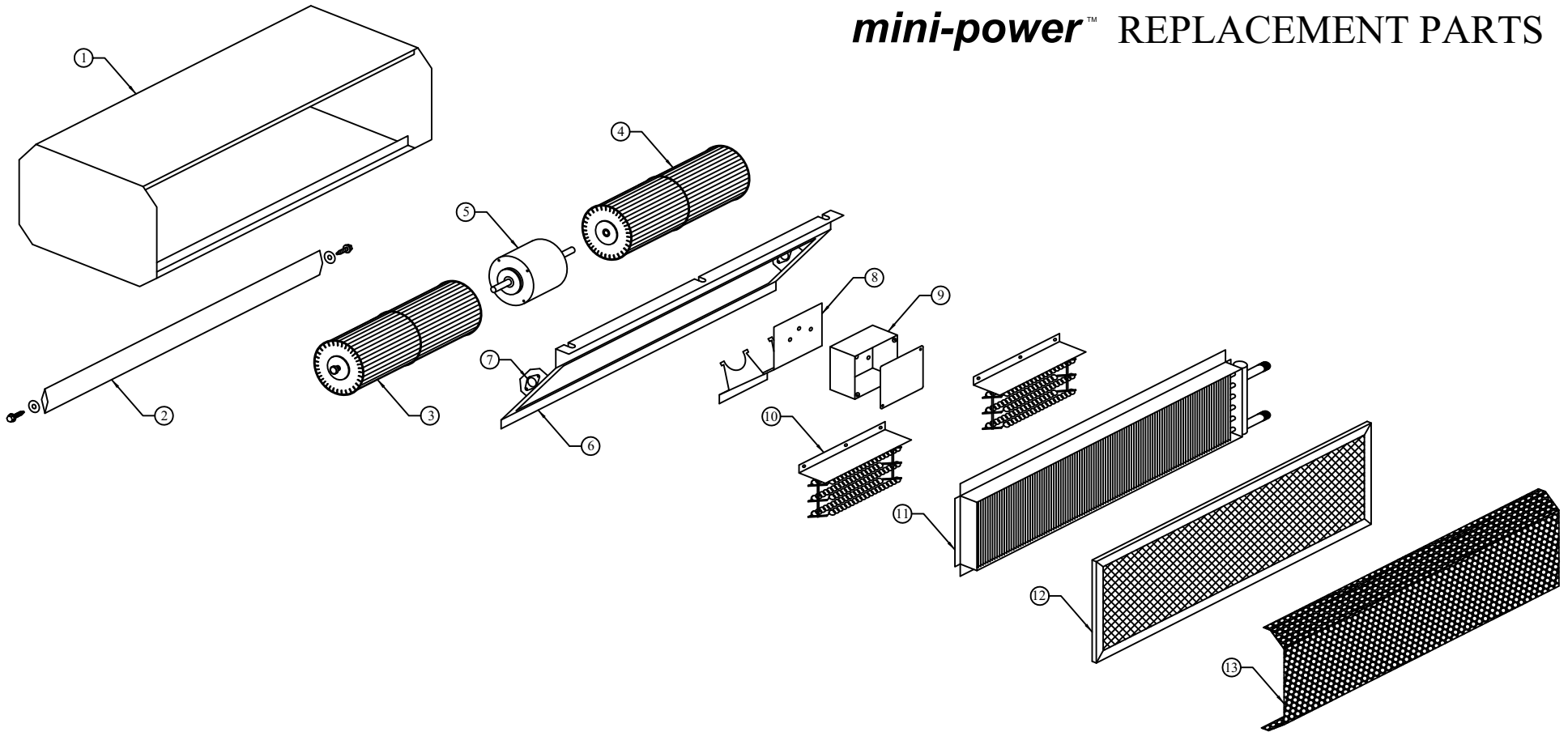
DATE: 10/01/13

POWERED AIR SYSTEMS

DRAWN BY: B.K.J.

COMMERCIAL REPLACEMENT PARTS

mini-power™ REPLACEMENT PARTS



* FOR PART NUMBERS BELOW:
REPLACE XXX WITH THE UNIT SIZE - 030, 036, 042, 048, 060, 072, 084, 096, 108, OR 120

ITEM #	DESCRIPTION	PART #
1	OUTER CASE	MPCAS-XXX
2	STEERING VANE	MPSV-XXX
3	14" BLOWER WHEEL (LEFT)	MPBLR-14L
3	20" BLOWER WHEEL (LEFT)	MPBLR-20L
3	22" BLOWER WHEEL (LEFT)	MPBLR-22L
3	26" BLOWER WHEEL (LEFT)	MPBLR-26L
4	14" BLOWER WHEEL (RIGHT)	MPBLR-14R
4	20" BLOWER WHEEL (RIGHT)	MPBLR-20R
4	22" BLOWER WHEEL (RIGHT)	MPBLR-22R
4	26" BLOWER WHEEL (RIGHT)	MPBLR-26R
5	MOTOR (120 VOLT, SINGLE PHASE)	MPMOT-120
5	MOTOR (208/230 VOLT, SINGLE PHASE)	MPMOT-230

ITEM #	DESCRIPTION	PART #
6	MOTOR / BLOWER PLATE	MBPLATE-XXX
7	BEARING CAP	MPBRCAP
8	MOTOR BRACKET	MPMTRBR
9	JUNCTION BOX WITH LID	MPJBOX
10	ELECTRIC HEATER (208 VOLT)	MPHT-208
10	ELECTRIC HEATER (240 VOLT)	MPHT-240
10	ELECTRIC HEATER (480 VOLT)	MPHT-480
10	ELECTRIC HEATER (575 VOLT)	MPHT-575
11	HOT WATER / STEAM COIL	CONSULT FACTORY
12	FILTER	MPFLT-XXX
13	SCREEN	MPSCR-XXX

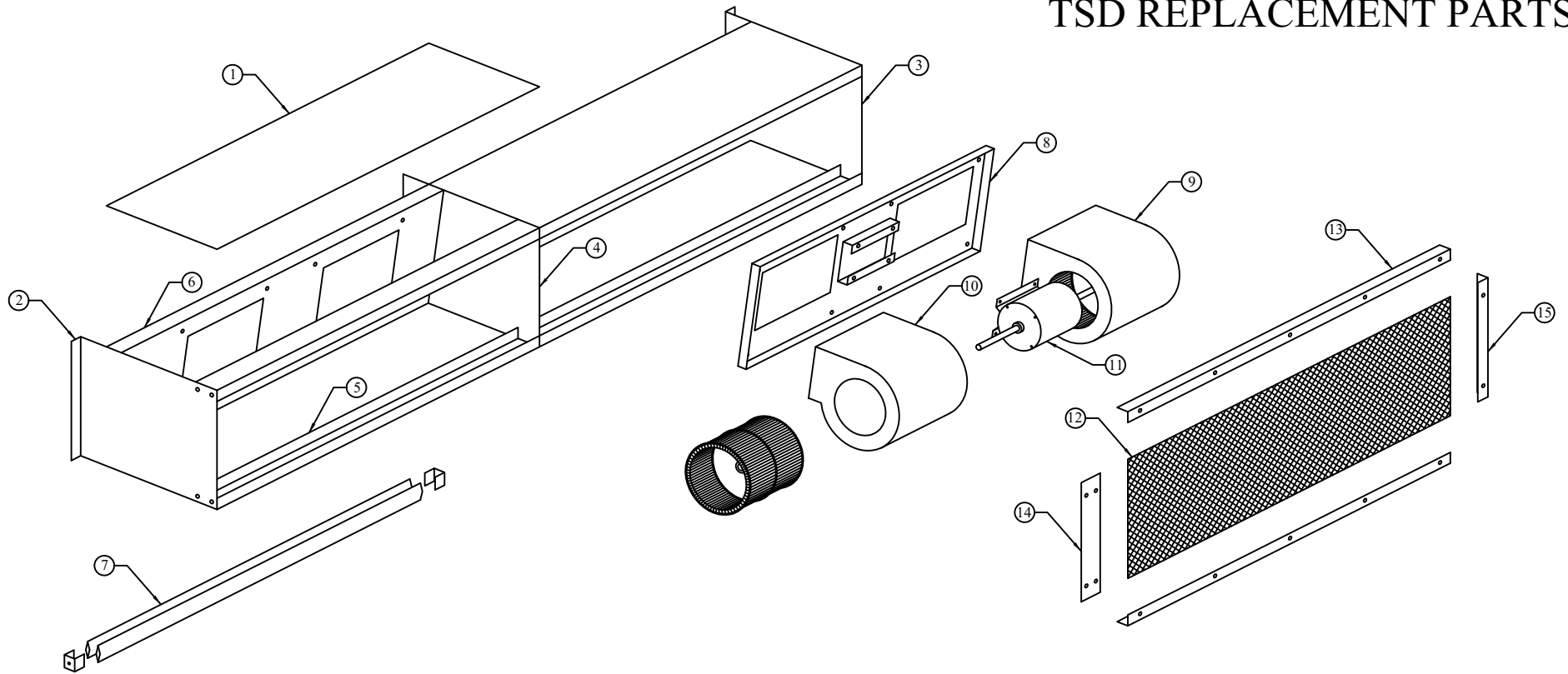
POWERED AIR™ INC.
109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13
DRAWN BY: B.K.J.

POWERED AIR SYSTEMS
MODEL MP REPLACEMENT PARTS

TSD REPLACEMENT PARTS



ITEM #	DESCRIPTION	PART #
1	48" TOP / BOTTOM PANEL	2148-051
1	60" TOP / BOTTOM PANEL	2152-051
1	72" TOP / BOTTOM PANEL	2167-051
2	LEFT SIDE PANEL	2148-052L
3	RIGHT SIDE PANEL	2148-052R
4	INTERIOR SIDE PANEL	2148-057
5	48" STRUT	2148-055
5	60" STRUT	2152-055
5	72" STRUT	2167-055
6	48" PLENUM	2148-011
6	60" PLENUM	2152-011
6	72" PLENUM	2167-011
7	48" STEERING VANE ASSEMBLY	SVA-48
7	60" STEERING VANE ASSEMBLY	SVA-60
7	72" STEERING VANE ASSEMBLY	SVA-72

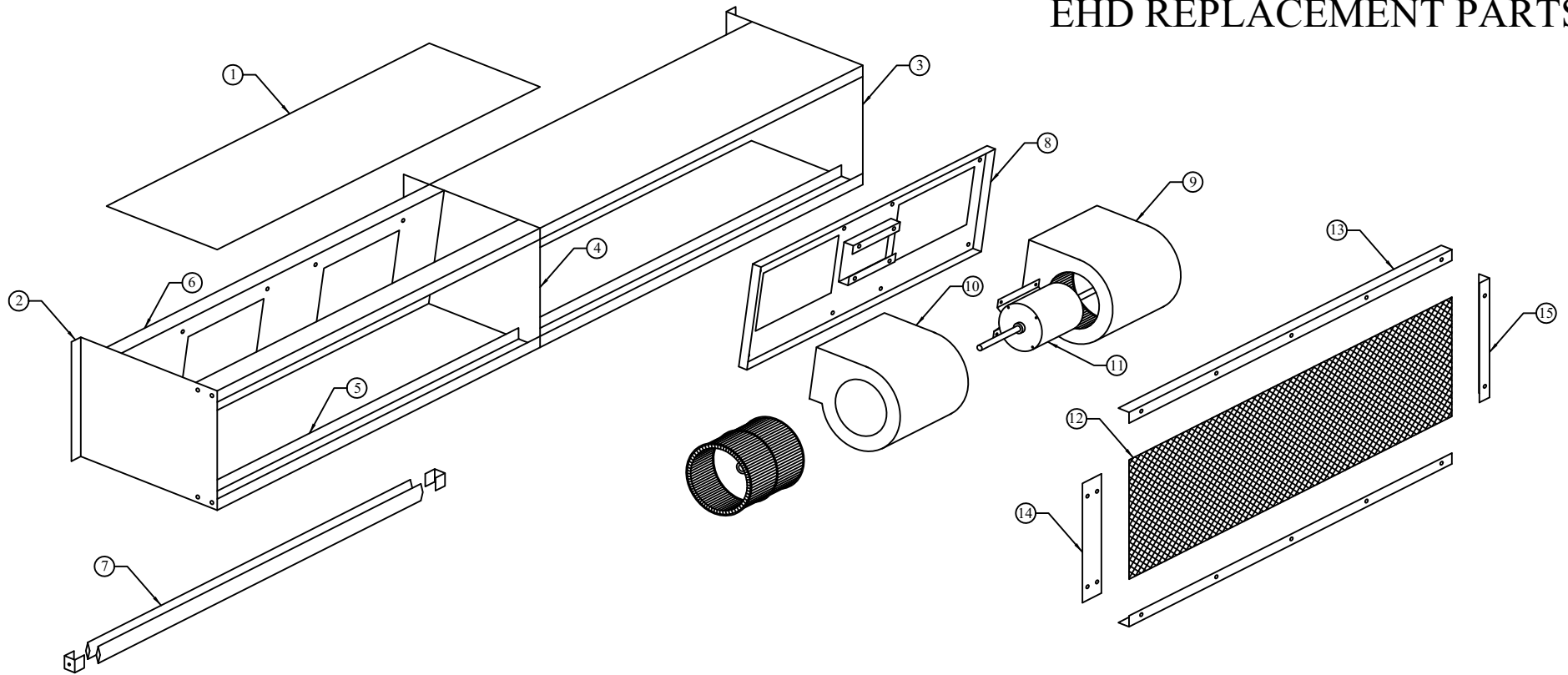
ITEM #	DESCRIPTION	PART #
8	MOTOR / BLOWER PLATE	2148-056
9	RIGHT BLOWER WITH HOUSING	TSDBLWR-R
10	LEFT BLOWER WITH HOUSING	TSDBLWR-L
11	MOTOR, 3 H.P. (208-230/480V)	37G561-3-480
11	MOTOR, 3 H.P. (575V)	37G561-3-575
12	48" INTAKE SCREEN	2148-061
12	60" INTAKE SCREEN	2152-061
12	72" INTAKE SCREEN	2167-061
13	48" TOP / BOTTOM SCREEN SUPPORT	2148-064
13	60" TOP / BOTTOM SCREEN SUPPORT	2152-064
13	72" TOP / BOTTOM SCREEN SUPPORT	2167-064
14	CENTER SCREEN SUPPORT	2148-063
15	SIDE SCREEN SUPPORT	2148-062

POWERED AIRE TM **INC.**
109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13	POWERED AIR SYSTEMS
DRAWN BY: B.K.J.	MODEL TSD REPLACEMENT PARTS

EHD REPLACEMENT PARTS



ITEM #	DESCRIPTION	PART #
1	48" TOP / BOTTOM PANEL	EHD-48-BPL
1	60" TOP / BOTTOM PANEL	EHD-60-BPL
1	72" TOP / BOTTOM PANEL	EHD-72-BPL
2	LEFT SIDE PANEL	EHD-LSP
3	RIGHT SIDE PANEL	EHD-RSP
4	INTERIOR SIDE PANEL	EHD-ISP
5	48" STRUT	EHD-48-STRT
5	60" STRUT	EHD-60-STRT
5	72" STRUT	EHD-72-STRT
6	48" PLENUM	EHD-48-PLSA
6	60" PLENUM	EHD-60-PLSA
6	72" PLENUM	EHD-72-PLSA
7	48" STEERING VANE ASSEMBLY	EHD-SVA-48
7	60" STEERING VANE ASSEMBLY	EHD-SVA-60
7	72" STEERING VANE ASSEMBLY	EHD-SVA-72

ITEM #	DESCRIPTION	PART #
8	MOTOR / BLOWER PLATE	EHD-MTRPLT
9	RIGHT BLOWER WITH HOUSING	EHDBLWR-R
10	LEFT BLOWER WITH HOUSING	EHDBLWR-L
11	MOTOR, 5 H.P. (208-230/480V)	EHD-MTR-480
11	MOTOR, 5 H.P. (575V)	EHD-MTR-575
12	48" INTAKE SCREEN	EHD-48-SCR
12	60" INTAKE SCREEN	EHD-60-SCR
12	72" INTAKE SCREEN	EHD-72-SCR
13	48" TOP / BOTTOM SCREEN SUPPORT	EHD-48-TBSS
13	60" TOP / BOTTOM SCREEN SUPPORT	EHD-60-TBSS
13	72" TOP / BOTTOM SCREEN SUPPORT	EHD-72-TBSS
14	CENTER SCREEN SUPPORT	EHD-CSS
15	SIDE SCREEN SUPPORT	EHD-SSS

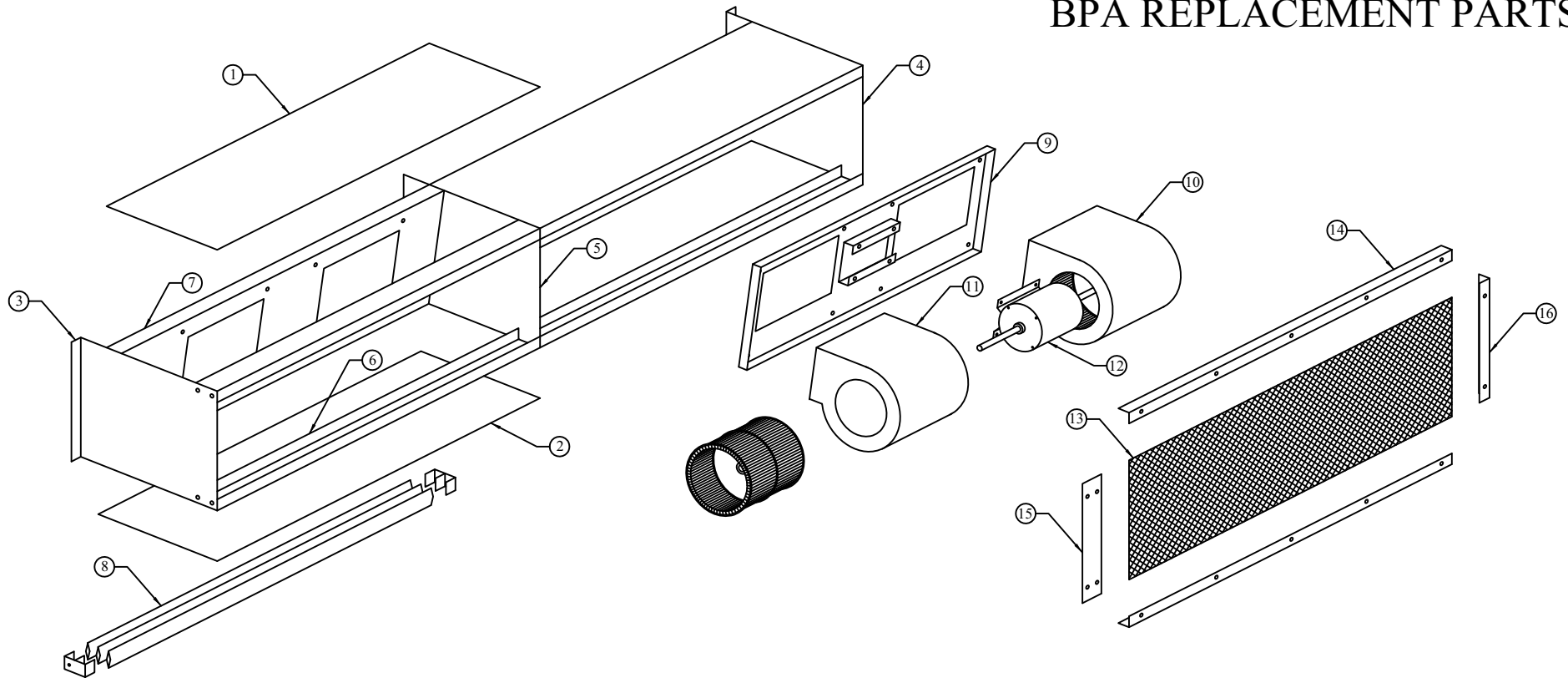
POWERED AIR INC.

109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13	POWERED AIR SYSTEMS
DRAWN BY: B.K.J.	MODEL EHD REPLACEMENT PARTS

BPA REPLACEMENT PARTS

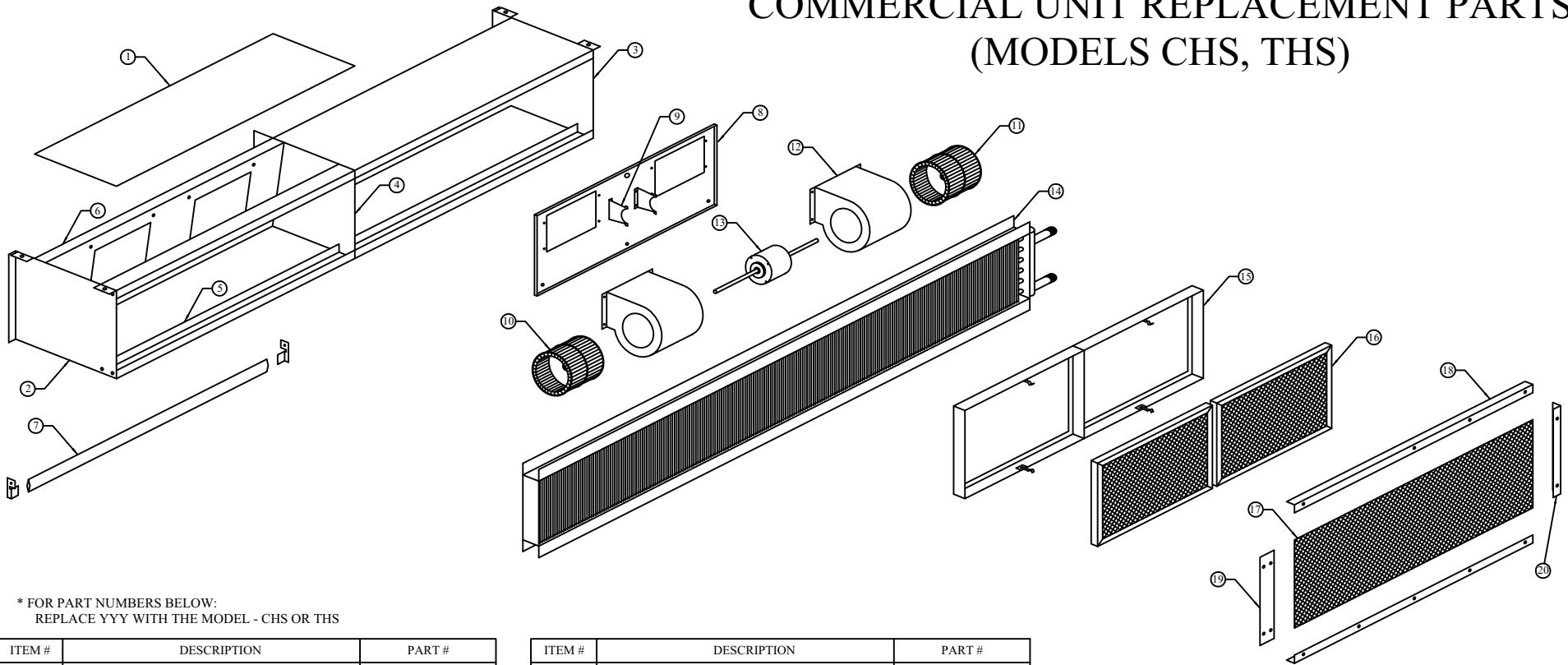


ITEM #	DESCRIPTION	PART #
1	60" TOP PANEL	BPA-60-TPL
1	72" TOP PANEL	BPA-72-TPL
1	84" TOP PANEL	BPA-84-TPL
2	60" BOTTOM PANEL	BPA-60-BPL
2	72" BOTTOM PANEL	BPA-72-BPL
2	84" BOTTOM PANEL	BPA-84-BPL
3	LEFT SIDE PANEL	BPA-LSP
4	RIGHT SIDE PANEL	BPA-RSP
5	INTERIOR SIDE PANEL	BPA-ISP
6	60" STRUT	BPA-60-STRT
6	72" STRUT	BPA-72-STRT
6	84" STRUT	BPA-84-STRT
7	60" PLENUM	BPA-60-PSA
7	72" PLENUM	BPA-72-PSA
7	84" PLENUM	BPA-84-PSA
8	60" STEERING VANE ASSEMBLY	BPA-60-SVA

ITEM #	DESCRIPTION	PART #
8	72" STEERING VANE ASSEMBLY	BPA-72-SVA
8	84" STEERING VANE ASSEMBLY	BPA-84-SVA
9	MOTOR / BLOWER PLATE	BPA-MTRPLT
10	RIGHT BLOWER WITH HOUSING	BPABLWR-R
11	LEFT BLOWER WITH HOUSING	BPABLWR-L
12	MOTOR, 7-1/2 H.P. (208-230/480V)	BPA-MTR-480
12	MOTOR, 7-1/2 H.P. (575V)	BPA-MTR-575
13	60" INTAKE SCREEN	BPA-60-SCR
13	72" INTAKE SCREEN	BPA-72-SCR
13	84" INTAKE SCREEN	BPA-84-SCR
14	60" TOP / BOTTOM SCREEN SUPPORT	BPA-60-TBSS
14	72" TOP / BOTTOM SCREEN SUPPORT	BPA-72-TBSS
14	84" TOP / BOTTOM SCREEN SUPPORT	BPA-84-TBSS
15	CENTER SCREEN SUPPORT	BPA-CSS
16	SIDE SCREEN SUPPORT	BPA-SSS

POWERED AIRE <small>TM</small> INC. 109 Mortensen Rd. Greenville, PA 16125 	
DATE: 10/01/13	POWERED AIR SYSTEMS MODEL BPA REPLACEMENT PARTS
DRAWN BY: B.K.J.	

COMMERCIAL UNIT REPLACEMENT PARTS (MODELS CHS, THS)




* FOR PART NUMBERS BELOW:
REPLACE YYY WITH THE MODEL - CHS OR THS

ITEM #	DESCRIPTION	PART #
1	36" TOP / BOTTOM PANEL	CMCL-36-TBPL
1	48" TOP / BOTTOM PANEL	CMCL-48-TBPL
1	60" TOP / BOTTOM PANEL	CMCL-60-TBPL
2	LEFT SIDE PANEL	CMCL-SDPL-L
3	RIGHT SIDE PANEL	CMCL-SDPL-R
4	INTERIOR SIDE PANEL	CMCL-ISPL
5	36" STRUT	CMCL-36-STRT
5	48" STRUT	CMCL-48-STRT
5	60" STRUT	CMCL-60-STRT
6	36" PLENUM	CMCL-36-PLSA
6	48" PLENUM	CMCL-48-PLSA
6	60" PLENUM	CMCL-60-PLSA
7	36" STEERING VANE ASSEMBLY	CMCL-36-SVA
7	48" STEERING VANE ASSEMBLY	CMCL-48-SVA
7	60" STEERING VANE ASSEMBLY	CMCL-60-SVA
8	MOTOR / BLOWER PLATE	CMCL-MTPL
9	MOTOR MOUNT (FOR SINGLE PHASE MOTOR)	2120-051
10	BLOWER WHEEL (LEFT)	CMBLR-WH-L
11	BLOWER WHEEL (RIGHT)	CMBLR-WH-R
12	BLOWER HOUSING	CMBLR-HS

ITEM #	DESCRIPTION	PART #
13	MOTOR (120 VOLT, SINGLE PHASE)	7124-120-YYY
13	MOTOR (208/230 VOLT, SINGLE PHASE)	7124-230-YYY
13	MOTOR (480 VOLT, SINGLE PHASE)	7124-480-YYY
13	MOTOR (575 VOLT, SINGLE PHASE)	7124-575-YYY
14	HOT WATER / STEAM COIL	CONSULT FACTORY
15	18" FILTER FRAME	CMCL-FLT-18
15	24" FILTER FRAME	CMCL-FLT-24
15	30" FILTER FRAME	CMCL-FLT-30
16	18" FILTER	CMCL-FLT-18
16	24" FILTER	CMCL-FLT-24
16	30" FILTER	CMCL-FLT-30
17	36" INTAKE SCREEN	CMCL-36-SCRN
17	48" INTAKE SCREEN	CMCL-48-SCRN
17	60" INTAKE SCREEN	CMCL-60-SCRN
18	36" TOP / BOTTOM SCREEN SUPPORT	CMCL-36-TBSB
18	48" TOP / BOTTOM SCREEN SUPPORT	CMCL-48-TBSB
18	60" TOP / BOTTOM SCREEN SUPPORT	CMCL-60-TBSB
19	CENTER SCREEN SUPPORT	CMCL-SOCS
20	SIDE SCREEN SUPPORT	CMCL-SSBR

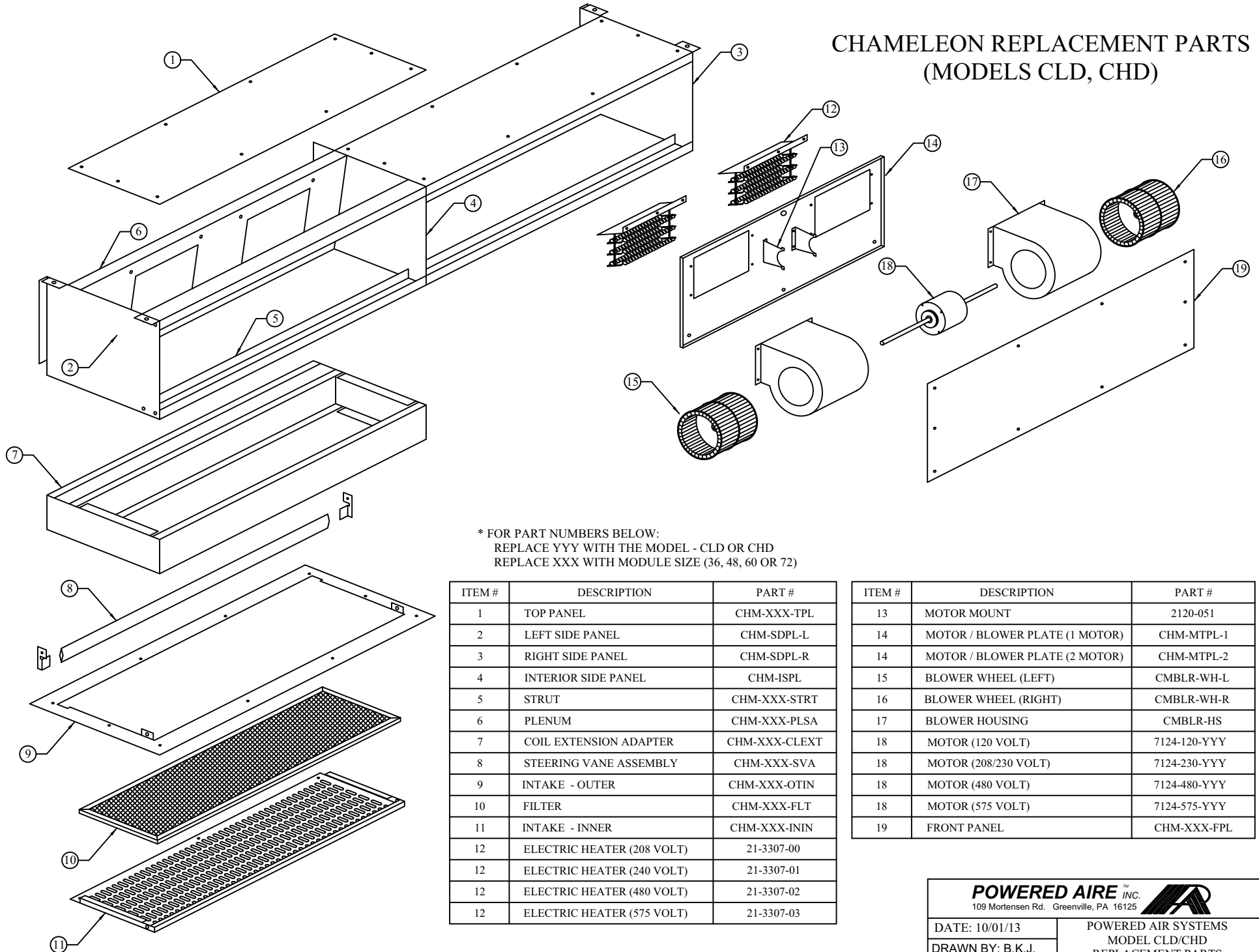
POWERED AIR™ INC.
109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13
DRAWN BY: B.K.J.

POWERED AIR SYSTEMS
MODEL CHS/THS
REPLACEMENT PARTS

CHAMELEON REPLACEMENT PARTS (MODELS CLD, CHD)



* FOR PART NUMBERS BELOW:
REPLACE YYY WITH THE MODEL - CLD OR CHD
REPLACE XXX WITH MODULE SIZE (36, 48, 60 OR 72)

ITEM #	DESCRIPTION	PART #
1	TOP PANEL	CHM-XXX-TPL
2	LEFT SIDE PANEL	CHM-SDPL-L
3	RIGHT SIDE PANEL	CHM-SDPL-R
4	INTERIOR SIDE PANEL	CHM-ISPL
5	STRUT	CHM-XXX-STRT
6	PLENUM	CHM-XXX-PLSA
7	COIL EXTENSION ADAPTER	CHM-XXX-CLEXT
8	STEERING VANE ASSEMBLY	CHM-XXX-SVA
9	INTAKE - OUTER	CHM-XXX-OTIN
10	FILTER	CHM-XXX-FLT
11	INTAKE - INNER	CHM-XXX-ININ
12	ELECTRIC HEATER (208 VOLT)	21-3307-00
12	ELECTRIC HEATER (240 VOLT)	21-3307-01
12	ELECTRIC HEATER (480 VOLT)	21-3307-02
12	ELECTRIC HEATER (575 VOLT)	21-3307-03

ITEM #	DESCRIPTION	PART #
13	MOTOR MOUNT	2120-051
14	MOTOR / BLOWER PLATE (1 MOTOR)	CHM-MTPL-1
14	MOTOR / BLOWER PLATE (2 MOTOR)	CHM-MTPL-2
15	BLOWER WHEEL (LEFT)	CMBLR-WH-L
16	BLOWER WHEEL (RIGHT)	CMBLR-WH-R
17	BLOWER HOUSING	CMBLR-HS
18	MOTOR (120 VOLT)	7124-120-YYY
18	MOTOR (208/230 VOLT)	7124-230-YYY
18	MOTOR (480 VOLT)	7124-480-YYY
18	MOTOR (575 VOLT)	7124-575-YYY
19	FRONT PANEL	CHM-XXX-FPL

POWERED AIR™ INC.
109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13

DRAWN BY: B.K.J.

POWERED AIR SYSTEMS
MODEL CLD/CHD
REPLACEMENT PARTS



POWERED AIRE INC.

www.poweredaire.com

109 Mortensen Road
Greenville, PA 16125

Phone: 724-588-3305
Fax: 724-588-3371

EXPLOSIVE AREA AIRE CURTAINS

SPARK RESISTANT CONSTRUCTION FOR HAZARDOUS AREAS

(DOORS UP TO TWELVE FEET HIGH)

SUGGESTED AIRE CURTAIN SPECIFICATIONS

MODEL LDX

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Units will be manufactured for Class I Division I Group C & D and Class II Group F & G hazardous areas. Each unit consists of stainless steel casing, centrifugal fans, raised stainless steel inlet screen, discharge nozzle, and motor(s). The aire curtain unit provides a specific CFM and a uniform velocity across the entire length of the discharge area.

Units shall be furnished in single increments of sufficient structural strength to be supported from both ends without intermediate support. Multiple units shall not be permitted. Unit casing shall be a minimum of 18 gauge 304 stainless steel in a number three finish.

Motors will be $\frac{3}{4}$ horsepower explosion proof suitable for Class I Group D and Class II Group F & G. All internal wiring will be encased in hard pipe and ran to an explosion proof junction box. Motor(s) will be 1630 rpm each and shall be heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230 volts 50/60 Hz single phase or 208/240/480/575 volts 50/60 Hz three phase.

Aluminum fans shall be forward curved centrifugal type, double inlet design. Tangential type blowers and coupling connection shall not be permitted in order to prevent sparks. Inlet screen shall be perforated stainless steel with mill grain finish.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional airfoil vane. The aluminum vane shall facilitate deflection of air stream ± 20 degrees.

Steam / Hot Water Coil

For steam or hot water heated units consult factory.

CONTROLS

OPTION I

Non Sparking construction for explosion proof areas control panel shall be an explosion proof Nema type 9, Class II, Division I and Group E, F, or G. Enclosure will encase magnetic motor starter, overload relays, 115 volt control transformer and terminal provisions for field wiring. A remote mounted explosion proof hand/off/automatic selector switch and an explosion proof door switch can be utilized for turning unit on while the door is open in the automatic position, or having the unit run continuously regardless of the door in the hand position if specified.

OPTION II

If standard controls are to be remote mounted in a non-explosion proof area, a standard control panel and on/off switch can be utilized. Standard control panel shall be a Nema 12 enclosure. Enclosure will encase magnetic motor starter, overload relays, 115 volt control transformer and terminal provisions for field wiring. On/off selector switch will also need to be placed in a non-explosion proof area if specified. If a door switch is required, it will need to be explosion proof type.

Unheated unit(s) shall have an 18 month warranty on all parts.

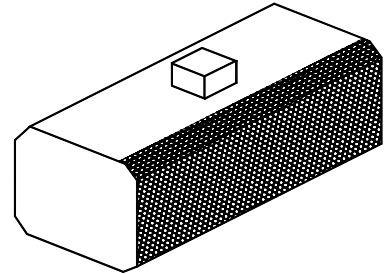
October, 2013



POWERED AIRE INC.

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EXPLOSIVE AREA AIRE CURTAINS



MODEL: LDX Unheated
Door Height: Up to Twelve Feet

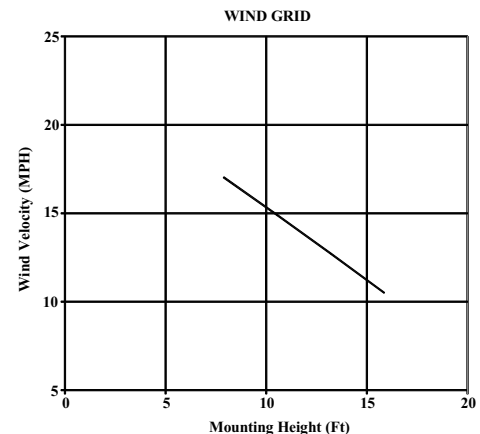
PRODUCT DATA

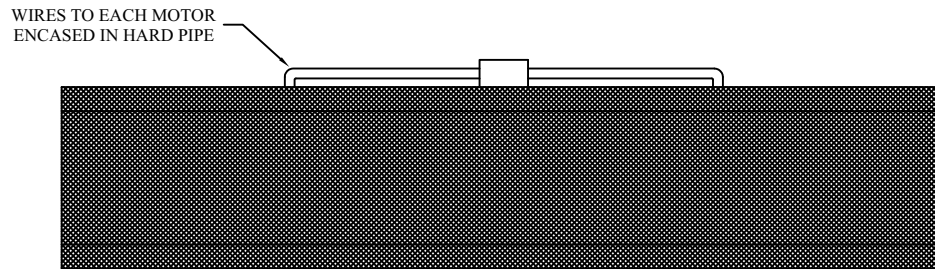
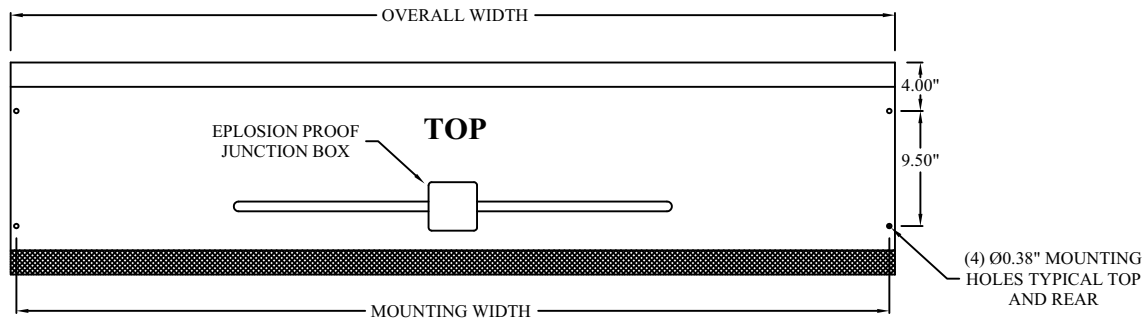
Model	LDX 1-36	LDX 1-42	LDX 1-48	LDX 1-60	LDX 2-60	LDX 2-72	LDX 2-84	LDX 2-96	LDX 3-108	LDX 3-120	LDX 3-132	LDX 4-144
Nozzle Width Inches	36	42	48	60	60	72	84	96	108	118	133	145
Max. FPM at Nozzle	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218
Max. CFM at Nozzle	2899	3384	3867	4374	5050	5803	6766	7732	8702	9668	10853	11606
Outlet Velocity Uniformity	95%	93%	92%	91%	95%	95%	93%	92%	95%	94%	95%	95%
Number Of Motors	1	1	1	1	2	2	2	2	3	3	3	4
Horse Power	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Weight (Lbs)	98	106	115	125	162	185	205	223	271	302	318	370

Sound Level: 63 dba
Sound level measured 10 feet from the unit in a free field based on one motor unit.

**Voltage Available: 115/208/230V-1Ø-50/60Hz,
208/240/480/575V-3Ø-50/60Hz**

- ** Nozzle width equals door width.
- ** For unit over twelve feet long consult factory.

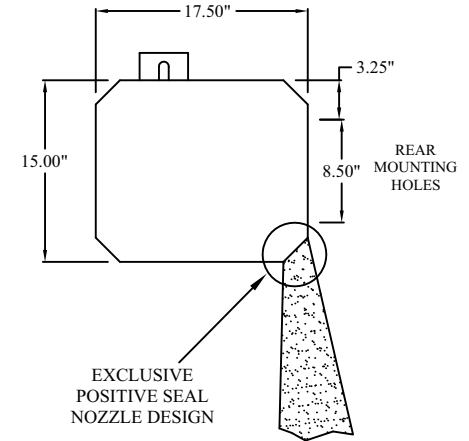




FRONT




BOTTOM



MODEL NUMBER	LDX 1-36	LDX 1-42	LDX 1-48	LDX 1-60	LDX 2-60	LDX 2-72	LDX 2-84	LDX 2-96	LDX 3-108	LDX 3-120	LDX 3-132	LDX 4-144
OVERALL WIDTH	37	43	49	61	61	73	85	97	109	119	134	146
NOZZLE WIDTH	36	42	48	60	60	72	84	96	108	118	133	145
MOUNTING WIDTH	36 1/16	42 1/16	48 1/16	60 1/16	60 1/16	72 1/16	84 1/16	96 1/16	108 1/16	118 1/16	133 1/16	145 1/16

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC.
109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL LDX LIGHT DUTY SPARK PROOF AIRE CURTAIN
DRAWN BY: B.K.J.	
PART/FILE# LDX	



POWERED AIRE INC.

www.poweredaire.com

109 Mortensen Road
Greenville, PA 16125

Phone: 724-588-3305

Fax: 724-588-3371

EXPLOSIVE AREA AIRE CURTAINS

SPARK RESISTANT CONSTRUCTION FOR HAZARDOUS AREAS

(DOORS FROM TWELVE TO SEVENTEEN FEET HIGH)

SUGGESTED AIRE CURTAIN SPECIFICATIONS

MODEL HDX

Aire curtains are to be furnished as factory assembled units manufactured by Powered Aire Inc. Greenville, PA. Units will be manufactured for Class I, Division I, Group C & D and Class II, Group F & G hazardous areas. Each unit consists of casing, motors, centrifugal fans, protective inlet screen and discharge nozzle. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or lowering the bottom half of the unit. Aire Curtain unit to provide uniform velocity across the entire length of the discharge area. The units will be front or top air intake. Units are universally manufactured for wall mount or top mount.

Units to be constructed with sufficient rigidity to span the length of the opening without intermediate support. Additional mounting holes to be provided on larger units for buildings where structural support is not adequate for supporting the aire curtain from ends only. 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. Intake screen will be 20 gauge perforated type stainless steel. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Units shall be equipped with dynamically balanced curved double inlet double width aluminum blower wheels and matched blower housings. Fan scrolls or formed fiberglass air diverters shall not be acceptable.

Motors will be 3 horse power explosion proof suitable for Class I, Group D and Class II, Group F & G Total Enclosed Air Over. All internal wiring will be encased in hard pipe and ran to an explosion proof junction box. Motor will be 1160 RPM 215 T-Frame with a service factor of 1.0, 84% efficiency, rated for use in 40°C maximum ambient temperature. To prevent a misalignment or a possible spark from occurring, no outboard bearings or flexible couplings will be acceptable. Primary voltage shall be 208/240/480/575 volts 50/60 Hz three phase.

Aire curtain discharge to distribute outlet air evenly at and between blowers for the entire length of aire curtain through the use of a plenum.

Discharge nozzle shall be aluminum and adjustable to ± 20 degrees with no dampers or grills to add turbulence and create a pressure drop or a sound pressure increase.

The unit design shall allow for addition of heating sections or filters without altering the base unit.

Steam / Hot Water Coil

For steam or hot water heated units consult factory.

CONTROLS

OPTION I

Non Sparking construction for explosion proof areas. Control panel shall be an explosion proof Nema type 9, Class II, Division I and Group E, F, or G. Enclosure will encase magnetic motor starter, overload relays, 115 volt control transformer and terminal provisions for field wiring. A remote mounted explosion proof hand/off/automatic selector switch and an explosion proof door switch can be utilized for turning unit on while the door is open in the automatic position, or having the unit run continuously regardless of the door in the hand position if specified.

OPTION II

If standard controls are to be remote mounted in a non-explosion proof area, a standard control panel and on/off switch can be utilized. Standard control panel shall be a Nema 12 enclosure. Enclosure will encase magnetic motor starter, overload relays, 115 volt control transformer and terminal provisions for field wiring. On/off selector switch will also need to be placed in a non-explosion proof area if specified. If a door switch is required, it will need to be explosion proof type.

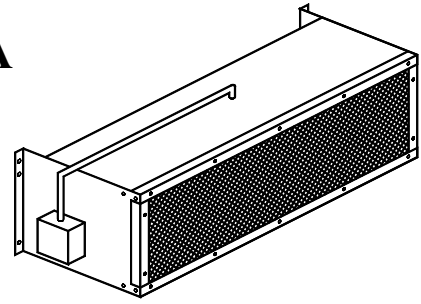
Unheated unit(s) shall have an 18 month warranty on all parts.



POWERED AIRE INC.

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EXPLOSIVE AREA AIRE CURTAINS



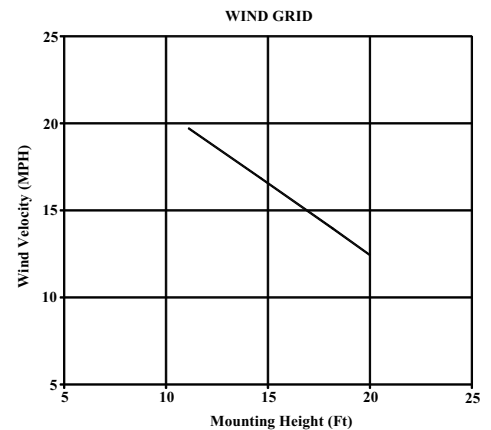
MODEL: HDX Unheated
Door Height: Up to Seventeen Feet

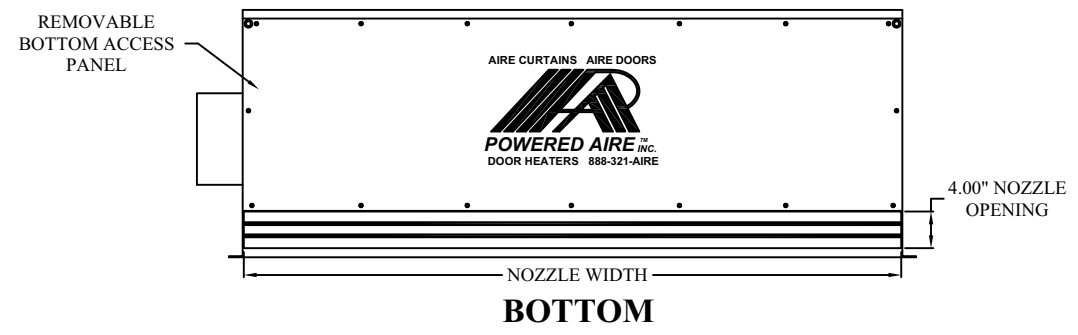
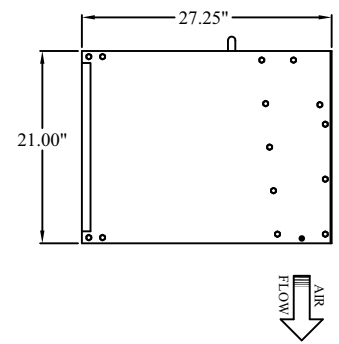
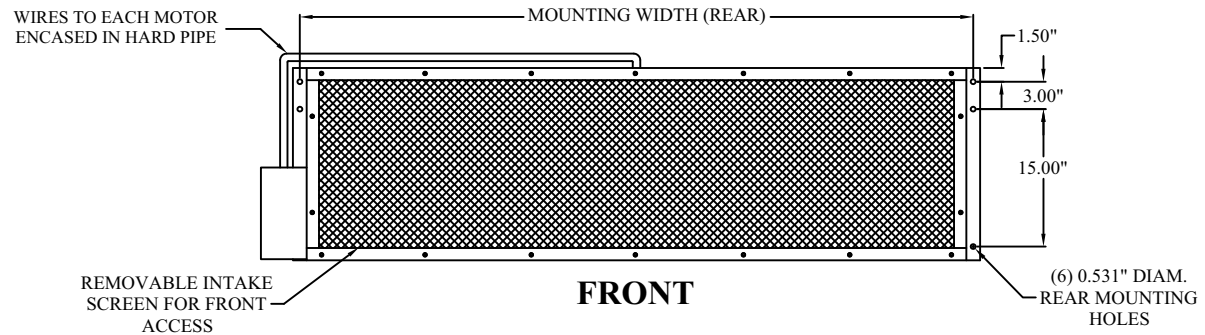
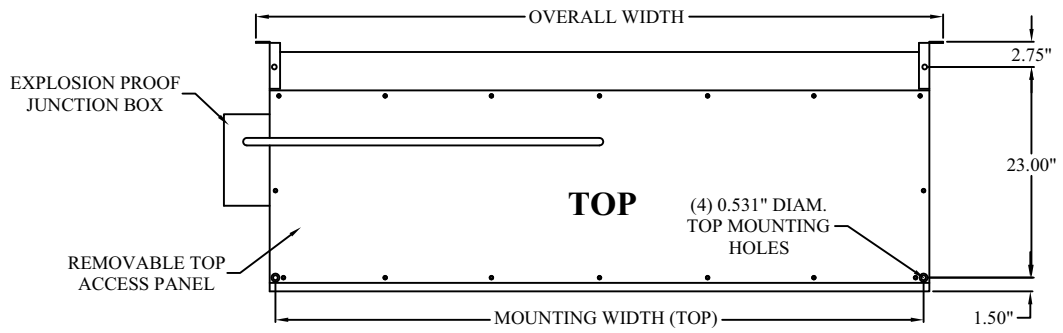
PRODUCT DATA

Model	HDX 1-60	HDX 1-72	HDX 2-120	HDX 2-132	HDX 2-144	HDX 3-180	HDX 3-192
Nozzle Width Inches	60	72	120	132	144	180	192
Max FPM at Nozzle	5800	5900	5800	5900	5900	6200	6200
CFM at Nozzle	4855	5579	9710	10434	11158	14988	15712
Outlet Velocity Uniformity	92%	86.3%	92%	86.3%	86.3%	86.3%	86.3%
Number of Motors	1	1	2	2	2	3	3
Horse Power	3	3	3	3	3	3	3
Weight	396	418	785	805	826	1152	1173

Voltage Available: 208/240/480/575V-3Ø-50/60Hz

- ** For unit over sixteen feet consult factory.**
- ** Consult factory to mount HDX higher than 17 feet,
a 5HP version is available.**






NOTES:
 1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
 2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.

MODEL NUMBER	HDX 1-60	HDX 1-72	HDX 2-120	HDX 2-132	HDX 2-144	HDX 3-180	HDX 3-192
OVERALL WIDTH	63.00	75.00	123.12	135.12	147.12	183.24	195.24
NOZZLE WIDTH	60.00	72.00	120.12	132.12	144.12	180.24	192.24
MOUNTING WIDTH REAR	61.50	73.50	121.62	133.62	145.62	181.74	193.74
MOUNTING WIDTH TOP	59.00	71.00	119.12	131.12	143.12	179.24	191.24

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC.
 109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL HDX HEAVY DUTY SPARK PROOF AIRE CURTAIN
DRAWN BY: B.K.J.	
PART/FILE# HDX	



POWERED AIRE INC.

www.poweredaire.com

109 Mortensen Road
Greenville, PA 16125

Phone: 724-588-3305
Fax: 724-588-3371

CORROSIVE DUTY

316 STAINLESS STEEL AIRE CURTAINS FOR CORROSIVE ATMOSPHERES

DOORS UP TO TWELVE FEET HIGH

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL LDC

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of 316 stainless steel casing, 316 stainless steel fan and housing, raised 316 stainless steel inlet screen, discharge nozzle, and "Mill and Chemical" duty motor(s). The aire curtain unit provides a specific CFM and a uniform velocity across the entire length of the discharge area.

Units shall be furnished in single increments of sufficient structural strength to be supported from both ends without intermediate support. Multiple units shall not be permitted. Unit casing shall be a minimum of 18 gauge 316 stainless steel in a number three finish.

Motors will be 3/4 H.P. 1725 rpm. Each shall be Totally Enclosed Air Over (TEAO) "Mill and Chemical" type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended 316 stainless steel shafts requiring no outboard bearings. Primary motor voltage shall be 208/240/480/575 volts 50/60 Hz.

316 stainless steel fans shall be forward curved centrifugal type, double inlet design in matching 316 stainless steel fan housings. Tangential type blowers and coupling connection shall not be permitted. Inlet screen shall be perforated 316 stainless steel with mill grain finish.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional airfoil vane. The vane shall facilitate deflection of air stream ± 20 degrees.

All unit fastening components, including screws and bolts, shall be type 316 stainless steel.

If 316 stainless steel is not required, 304 stainless steel can be substituted.

Heating Options

Please consult factory.

Controls

Control panel shall be factory furnished with a Nema 4X enclosure, constructed of 16-gauge type 316 stainless steel, including a 24 volt or 120 volt control transformer, magnetic motor starters, overloads, terminal strips and disconnect switch. Control panel can be factory provided with a door mounted hand/off/automatic selector switch if specified.

A door switch can be provided to activate the aire curtain when the door opens while the selector switch is in the automatic position if specified.

Unheated units will have an 18 month warranty on all parts.

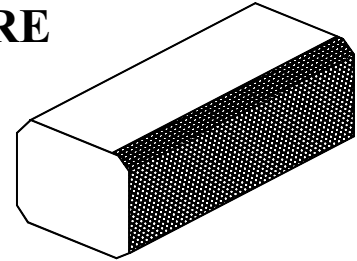
October, 2013



POWERED AIRE INC.

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CORROSIVE ATMOSPHERE AIRE CURTAINS



MODEL: LDC Unheated
Door Height: Up to Twelve Feet

PRODUCT DATA

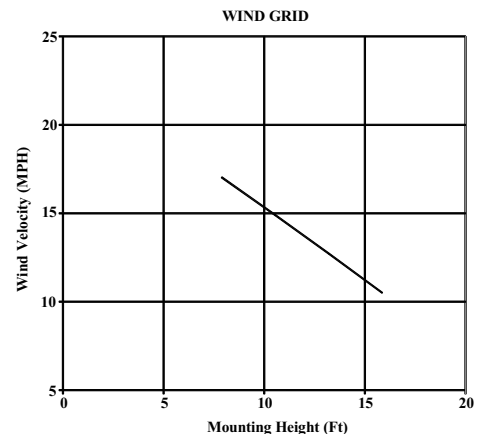
Model	LDC 1-36	LDC 1-42	LDC 1-48	LDC 1-60	LDC 2-60	LDC 2-72	LDC 2-84	LDC 2-96	LDC 3-108	LDC 3-120	LDC 3-132	LDC 4-144
Nozzle Width Inches	36	42	48	60	60	72	84	96	108	118	133	145
Max. FPM at Nozzle	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218	4218
Max. CFM at Nozzle	2899	3384	3867	4374	5050	5803	6766	7732	8702	9668	10853	11606
Outlet Velocity Uniformity	95%	93%	92%	91%	95%	95%	93%	92%	95%	94%	95%	95%
Number Of Motors	1	1	1	1	2	2	2	2	3	3	3	4
Horse Power	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Weight (Lbs)	90	97	104	117	147	169	187	203	245	274	290	338

Sound Level: 63 dba

Sound level measured 10 feet from the unit in a free field based on one motor unit.

Voltage Available: 115/208/230V-1Ø-50/60Hz,
208/240/480/575V-3Ø-50/60Hz

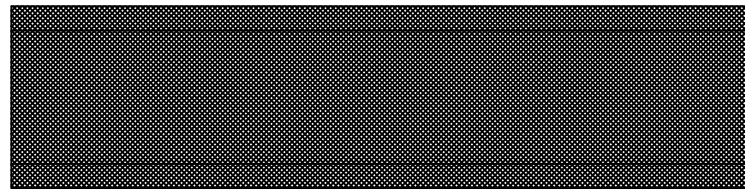
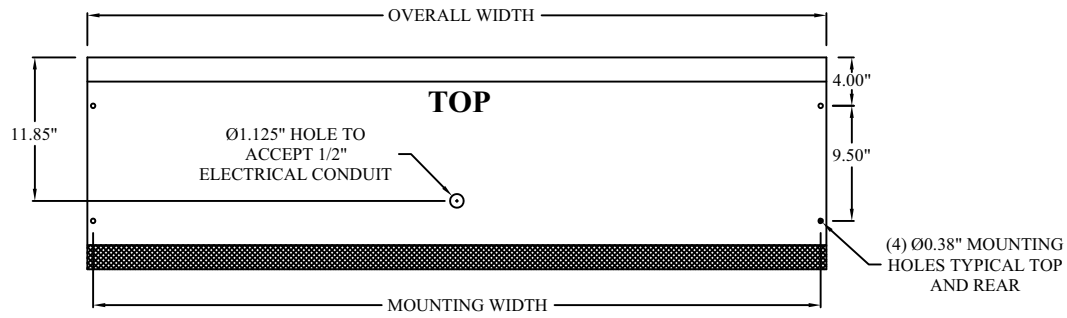
- ** Nozzle width equals door width.
- ** For unit over twelve feet long consult factory.



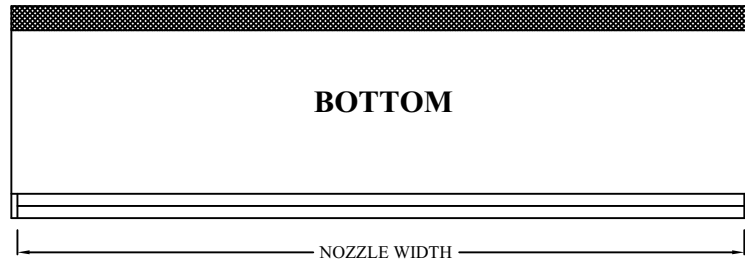
109 Mortensen Rd. Greenville, PA 16125

PHONE: 724-588-3305
October, 2013

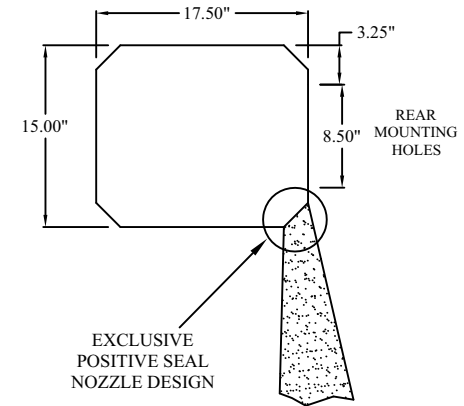
FAX: 724-588-3371



FRONT




BOTTOM



MODEL NUMBER	LDC 1-36	LDC 1-42	LDC 1-48	LDC 1-60	LDC 2-60	LDC 2-72	LDC 2-84	LDC 2-96	LDC 3-108	LDC 3-120	LDC 3-132	LDC 4-144
OVERALL WIDTH	37	43	49	61	61	73	85	97	109	119	134	146
NOZZLE WIDTH	36	42	48	60	60	72	84	96	108	118	133	145
MOUNTING WIDTH	36 1/16	42 1/16	48 1/16	60 1/16	60 1/16	72 1/16	84 1/16	96 1/16	108 1/16	118 1/16	133 1/16	145 1/16

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE™ INC.
109 Mortensen Rd. Greenville, PA 16125



DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL LDC LIGHT DUTY CORROSION DUTY AIRE CURTAIN
DRAWN BY: B.K.J.	
PART/FILE# LDC	



POWERED AIRE INC.

www.poweredaire.com

109 Mortensen Road
Greenville, PA 16125

Phone: 724-588-3305
Fax: 724-588-3371

CORROSIVE DUTY

316 STAINLESS STEEL AIRE CURTAINS FOR CORROSIVE ATMOSPHERES

DOORS FROM TWELVE TO SEVENTEEN FEET HIGH

SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL HDC

Aire curtains are to be furnished as factory assembled units manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of casing, motors, centrifugal fans, protective inlet screen and discharge nozzle. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or lowering the bottom half of the unit. Aire Curtain unit to provide uniform velocity across the entire length of the discharge area. The units will be front or top air intake. Units are universally manufactured for wall mount or top mount.

Units to be constructed with sufficient rigidity to span the length of the opening without intermediate support. Additional mounting holes to be provided on larger units for buildings where structural support is not adequate for supporting the aire curtain from ends only. All weight bearing structural support will be made of formed 11-gauge 316 stainless steel. Outer casing shall be constructed of 16-gauge 316 stainless steel. Intake screen will be 20 gauge perforated type 316 stainless steel. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Units shall be equipped with dynamically balanced curved double inlet double width 316 stainless steel blower wheels and matched 316 stainless steel blower housings. Fan scrolls or formed fiberglass air diverters shall not be acceptable.

Motors will be 3 horse power Totally Enclosed Air Over (TEAO) 1160 rpm "Mill and Chemical" type equipped with sealed ball bearings of equal size at each end and double extended 316 stainless steel shafts. To prevent a misalignment from occurring, no outboard bearings or flexible couplings will be acceptable. Motors shall be easily accessible without disassembly of aire curtain. Aire curtain discharge to distribute outlet air evenly at and between blowers for the entire length of aire curtain through the use of a plenum. Primary voltage shall be 208/240/480/575 volts 50/60 Hz three phase.

Discharge nozzle shall be adjustable to ± 20 degrees with no dampers or grills to add turbulence and create a pressure drop or a sound pressure increase.

All unit fastening components, including screws and bolts, shall be type 316 stainless steel.

If 316 stainless steel is not required, 304 stainless steel can be substituted.

Heating Options

Please consult factory.

Controls

Control panel shall be factory furnished with a Nema 4X enclosure, constructed of 16-gauge type 316 stainless steel, including a 24 volt or 120 volt control transformer, magnetic motor starters, overloads, terminal strips and disconnect switch. Control panel can be factory provided with a door mounted hand/off/automatic selector switch if specified.

A door switch can be provided to activate the aire curtain when the door opens while the selector switch is in the automatic position if specified.

Unheated units will have an 18 month warranty on all parts.

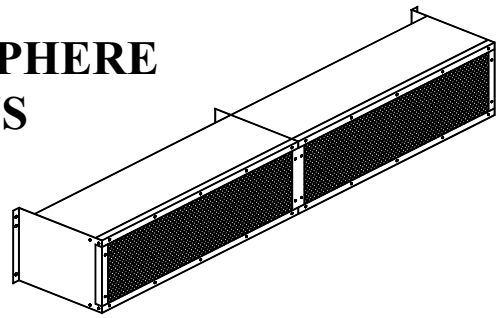
October, 2013



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CORROSIVE ATMOSPHERE AIRE CURTAINS



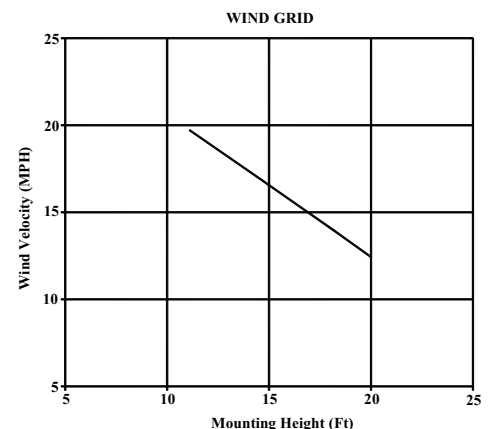
MODEL: HDC Unheated
Door Height: Up to Seventeen Feet

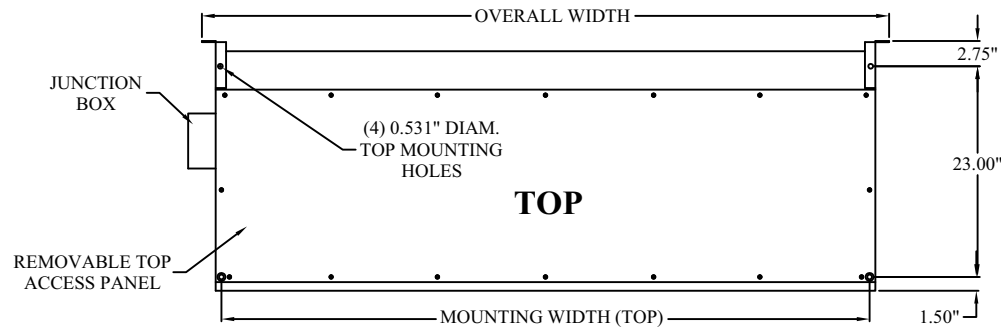
PRODUCT DATA

Model	HDC 1-48	HDC 1-60	HDC 1-72	HDC 2-96	HDC 2-108	HDC 2-120	HDC 2-132	HDC 2-144	HDC 3-144	HDC 3-156	HDC 3-168	HDC 3-180	HDC 3-192
Nozzle Width Inches	48	60	72	96	108	120	132	144	144	156	168	180	192
Max FPM at Nozzle	6200	5800	5900	6200	6200	5800	5900	5900	6200	6200	6200	6200	6200
CFM at Nozzle	4554	4855	5579	9108	9409	9710	10434	11158	13662	13963	14687	14988	15712
Outlet Velocity Uniformity	92%	92%	86.3%	92%	92%	92%	86.3%	86.3%	92%	92%	86.3%	86.3%	86.3%
Number of Motors	1	1	1	2	2	2	2	2	3	3	3	3	3
Horse Power	3	3	3	3	3	3	3	3	3	3	3	3	3
Weight	342	380	400	681	719	757	777	797	1020	1058	1078	1116	1136

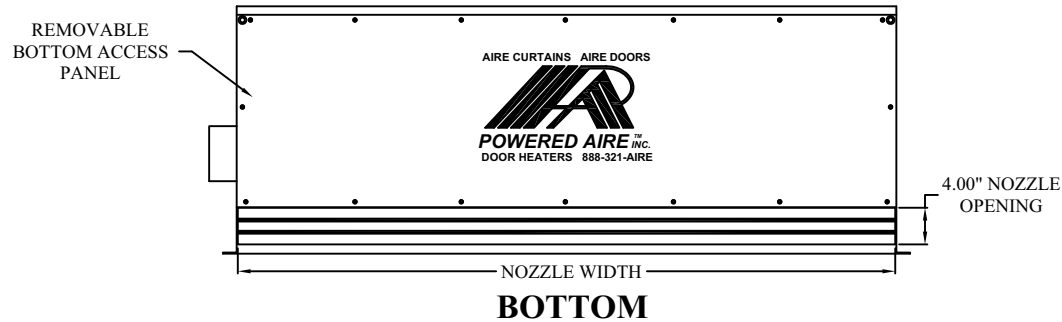
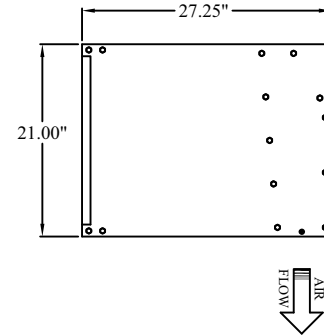
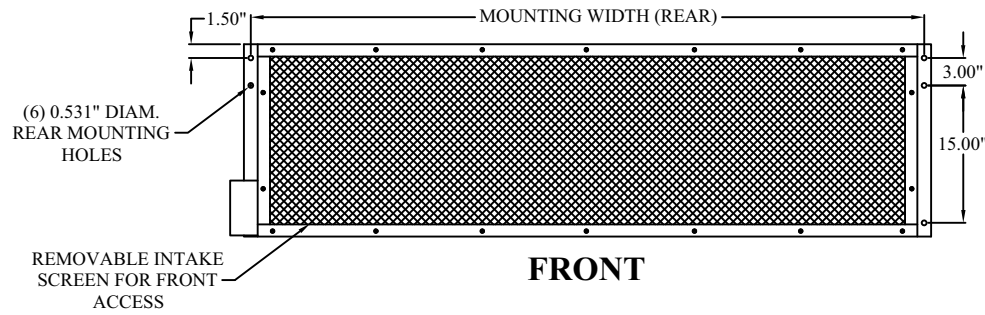
Voltage Available: 208/240/480/575V-3Ø-50/60Hz

- ** For unit over sixteen feet consult factory.**
- ** Consult factory to mount HDC higher than 17 feet, a 5HP version is available.**





- NOTES:
1. INSTALLER IS RESPONSIBLE FOR STRUCTURALLY SOUND MOUNTING OF THE UNIT.
 2. VERIFY THAT OVERALL DIMENSIONS WILL FIT IN OPENING.



MODEL NUMBER	HDC 1-48	HDC 1-60	HDC 1-72	HDC 2-96	HDC 2-108	HDC 2-120	HDC 2-132	HDC 2-144	HDC 3-144	HDC 3-156	HDC 3-168	HDC 3-180	HDC 3-192
OVERALL WIDTH	51.00	63.00	75.00	99.12	111.12	123.12	135.12	147.12	147.24	159.24	171.24	183.24	195.24
NOZZLE WIDTH	48.00	60.00	72.00	96.12	108.12	120.12	132.12	144.12	144.24	156.24	168.24	180.24	192.24
MOUNTING WIDTH REAR	49.50	61.50	73.50	97.62	109.62	121.62	133.62	145.62	145.74	157.74	169.74	181.74	193.74
MOUNTING WIDTH TOP	47.00	59.00	71.00	95.12	107.12	119.12	131.12	143.12	143.24	155.24	167.24	179.24	191.24

JOB NAME :	TAG(S) :
LOCATION :	MODEL # :
CONTRACTOR :	ENGINEER :

POWERED AIRE ™ INC. 109 Mortensen Rd. Greenville, PA 16125	
DATE: 10/01/13	PART DESCRIPTION: POWERED AIRE SYSTEMS MODEL HDC HEAVY DUTY CORROSION DUTY AIRE CURTAIN
DRAWN BY: B.K.J.	
PART/FILE# HDC	



POWERED AIRE INC.

www.poweredaire.com

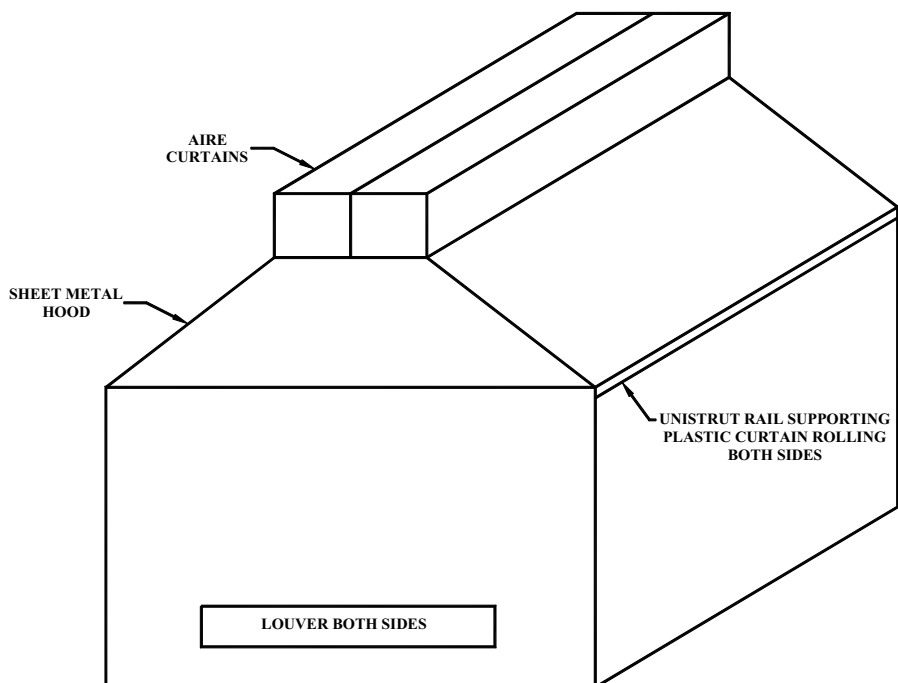
CUSTOM ENGINEERED DESIGNS

Often times situations arise where a customer wants to use an aire curtain in a non-traditional way to solve a particular problem with manufacturing processes, drying processes, etc. In these cases Powered Aire works with the customer to come up with a custom design to suit their needs. Listed below are a few examples of custom designed aire curtains used to solve specific problems.

Auto Manufacturer

Plastic molding for the outside of the cars was stored in non-conditioned warehouses. When the molding was being applied to the cars, it would not adhere to the metal. The plastic was not in a pliable state. It was cold and rigid.

Engineering firm designed a doghouse type shelter and consulted Powered Aire Inc.'s Engineering Department. Above the shelter, they mounted two (2) 6 ft. aire curtains with 20 kW heat for each unit. The aire curtains were used to heat the air and blow it down on the hanging racks of plastic molding. The end result was a very pliable piece of molding that adhered to the metal evenly and straight. Conventional heating system was not able to move the air evenly through the rack the way the aire curtain could with its laminar flow.



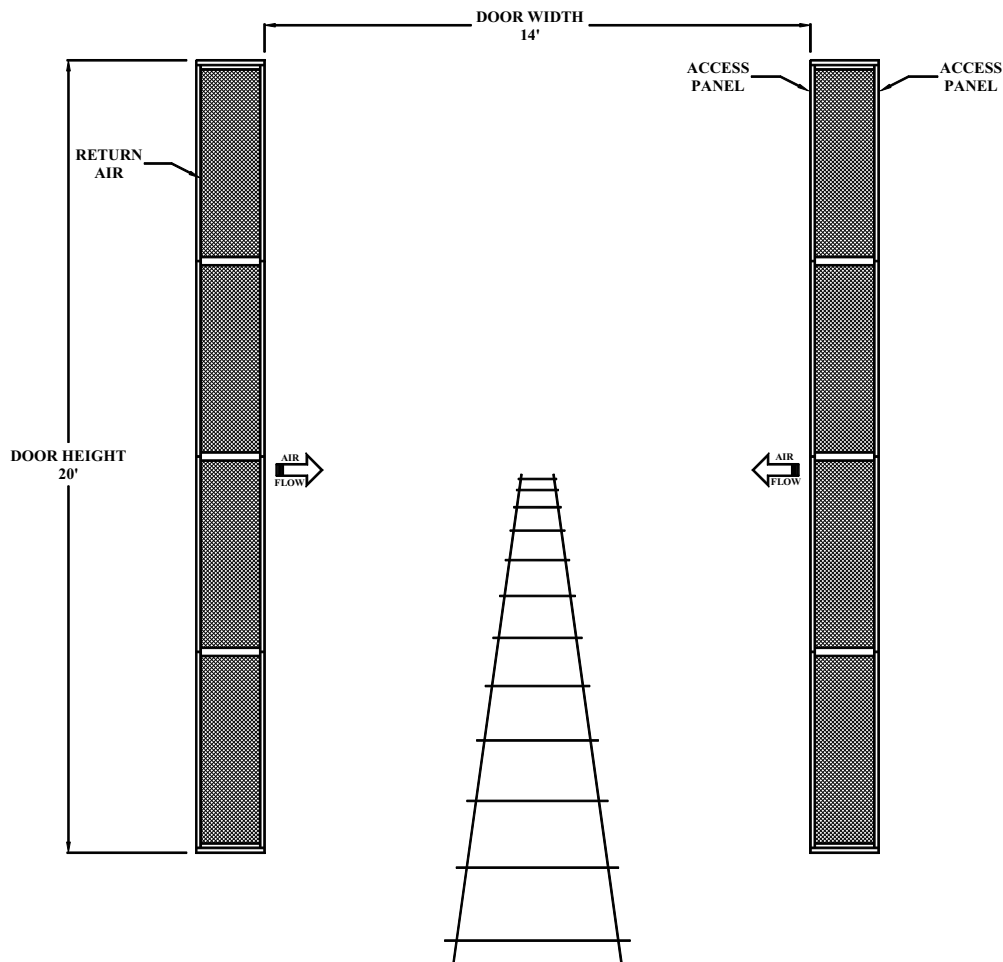


CUSTOM ENGINEERED DESIGNS (CONT.)

Train Washer

Trains move through the train washer until they reach the drying area. In the drying area, the dryers/blowers are mounted above. They blow air down and push the water down the sides of the train. The dryers/blowers would get the water off the eaves but the sides under the eaves would remain wet.

Engineering firm and Powered Aire Inc.'s Engineering Department designed two (2) TSD-4-240 aire curtains to mount vertically. As the train passed under the dryers/blowers, they would travel to the vertically mounted aire curtains. As the train moves through the vertically mounted TSD aire curtains, the water would be blown down the sides and off the back resulting in a completely dried train ready for operation.





CUSTOM ENGINEERED DESIGNS (CONT.)

Paint Booth

A car manufacturer had a unique problem in which they wanted to utilize an aire curtain as the solution. Where the under coating process was performed they had a doorway (shown in Figure 1), that was allowing the paint to escape the paint booth and land on nearby parts and processes. Space limitations above this doorway made traditional horizontal mounting impossible. Vertical mounting looked to be a possible solution but because of ductwork the aire curtain would not fit within the fourteen inches of space. Powered Aire's Engineering Department devised a solution that would facilitate the use of nozzle extensions. The aire curtain could now be mounted vertically on the back side of the duct work. The special nozzle extensions were designed to keep the air together and uniform until it passed the obstructions (see Figure 2). With this type of creative thinking it was possible to utilize an aire curtain and not drive costs sky high.

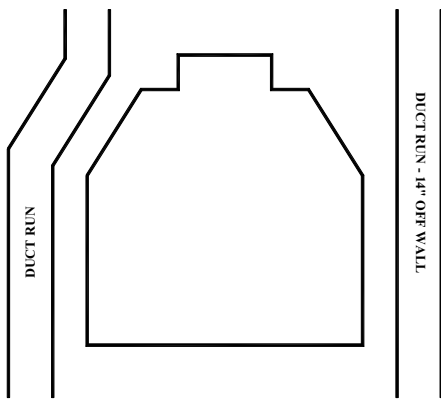


FIGURE 1

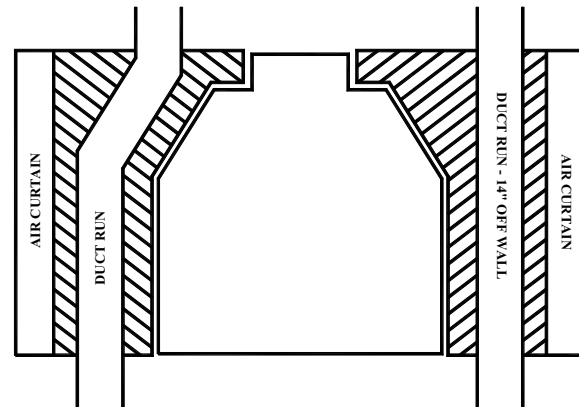


FIGURE 2

Nozzle extensions can also be used in horizontal mounting when the aire curtain must be mounted higher than the opening to clear pipe and raceways, etc. Nozzle extensions keep the air together and uniform so it does not deflect before delivering the air at the opening where it's needed.

Concession Trailers

A concession trailer manufacturer was receiving feedback from customers that they were having a problem with insects entering the trailers through constantly opened windows and landing in and around food, creating unsanitary conditions. The trailer manufacturer was aware of the benefits of aire curtains, but was concerned with the limited available space. Powered Aire's standard Mini Power unit would not fit in the 9 inches high by 9 inches in depth opening, so our engineering team went to work redesigning a smaller Mini Power. We were able to shave 5 inches off the standard unit, which made the dimensions 8 ½ inches in height and 8 ¾ inches in depth. The new Mini Power design was a perfect fit for the concession trailers, and was effective at keeping the insects out.



POWERED AIRE INC.

Aire Time

FOR ARCHITECTS & ENGINEERS

9-09

888-321-2473

www.poweredaire.com

Your Source For Information on Aire Curtains

Custom Design Engineering

Problem

- #1 Aesthetic concerns
- #2 Space limitations

Solution

There was a beam that would have blocked the intake of our Mini-Power unit, so we manufactured the unit with a top air intake. This enabled the aire curtain to fit between the wall and the beam without affecting the air flow.



I didn't know you could do that!

- Custom sizes
- Heated motors for freezer applications
- Custom duct for indirect gas heated aire curtains
- Baffles on discharge for air volume control
- V-bank filters on industrial units
- Heresite coated blowers and housings
- Special bracket designs
- Vertical mounting struts
- Extra heaters on intake
- PVC side shields

Problem

- #1 Aesthetic concerns

Solution

A custom black powder coated case was constructed to blend into the ambiance of its surroundings.



Problem

- #1 Corrosive atmosphere

Solution

Powered Aire offers two lines of stainless steel air curtains for corrosive atmospheres. These units consist of a 316 stainless steel casing, fan and housing, inlet screen and discharge nozzle, and 'Mill and Chemical' duty motors.



Problem

- #1 Heat needed
- #2 Space limitations

Solution

Powered Aire's engineering dept. designed a vertically mounted direct gas fired aire curtain.



Problem

- #1 Existing building management system

Solution



We install an automated building control system on our aire curtains for our clients.

Problem

- #1 Cooling & heating needed

Solution

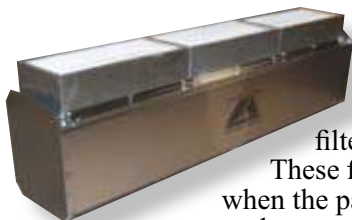


Powered Aire's chilled water aire curtain system will provide an 8 to 18 degree decrease in temperature. This same unit can also be used as a hot water heated aire curtain.

Problem

- #1 Reduce airborne contaminants

Solution



Powered Aire can customize aire curtains with HEPA filters on the air intake screen. These filters are 99.97% efficient when the particle size is .3 micron diameter or larger.



Problem

- #1 Explosive atmosphere

Solution

Powered Aire offers two lines of spark resistant air curtains for hazardous areas. The units in these lines are manufactured for use in Class I Division I Group C & D and Class II Group F & G hazardous areas.



POWERED AIRE INC.

Aire Time

FOR ARCHITECTS & ENGINEERS

6-09

888-321-2473

www.poweredaire.com

Your Source For Information on Aire Curtains

They're only
Obstacles if you can't work around them...

That's why we call them SOLUTIONS

SITUATION

- ★ The high ceiling of this major warehouse store harbored stratified heat layers. Cold air rushed in with the opening and closing of the doors, dropping the temperature to an undesirable level.
- ★ The glass transom above the doorway was a light source and could not be blocked.
- ★ A traditional indirect gas heated aire curtain, if installed above the glass transom, would not throw enough heat down to reach the floor, especially with outside air coming into the vestibule when the door opened.
- ★ A traditional indirect gas heated aire curtain installed above the door was not aesthetically appropriate for this retail environment.



BENEFITS ARE TWO-FOLD

This custom designed Powered Aire air curtain reduces air coming through the open door. It also redistributes the heated air from the unit heater and stratified layers for even heat throughout the area.

SOLUTION

- ★ Through research and prototype testing, a custom designed transition duct was installed to capture the heat above the transom.
- ★ The aire curtain, with a top air intake, takes the air from the transition and forces it to the ground, mixing the stratified air with the heated air for even temperature distribution.
- ★ The door is blanketed with heat that normally would have drifted out the top of the door and stops the incoming air while tempering the space.
- ★ The end result is a reduction in the amount of infiltration and redistribution of the stratified heat layers for an even temperature within the space.
- ★ The customer entrance remains aesthetically pleasing and provides the solution required.



The traditional indirect gas aire curtain, although appropriate in an industrial setting, may not be aesthetically pleasing in a retail environment



Can You Take the Heat?

A Powered Aire Direct Gas Fired Aire Curtain can provide up to a 105° constant discharge temperature, which is achieved through a 30 to 1 turndown capability. When used where negative air pressure is present, warm heated air will penetrate the incoming makeup air. This unit can use 100 percent outside air and be a small makeup air unit and aire curtain all in one.

Call us for a complete package of information - 888-321-2473



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COMMON APPLICATIONS

Restaurants-smoking/non-smoking sections- Our variable speed Mini Power is great for mounting in restaurants to separate smoking from non-smoking sections. With the air curtain mounted on the non-smoking side, the air discharged from the unit will prevent smoke from drifting to unwanted parts of the building.

Zoos & Amusement Parks- Our low profile unit can be mounted above concession stand windows at zoo, amusement parks, and food court trailers to prevent insects from entering the buildings and contaminating food products. The aire curtain will also keep conditioned air inside and non-conditioned air outside.

Toll Booths/Turnpike- The windows in toll booths are constantly open, so the conditioned air inside, up until this point, has been impossible to contain. Now our Mini Power electric heated units can be mounted inside toll booths to provide heat and prevent the unconditioned air from entering. Unheated units can come equipped with a power cord to plug into a receptacle.

Recess Mount- Retail Entrance, School Entrances, Hospitals- Often, due to obstructions and aesthetics, aire curtains are mounted above the ceiling tile. Powered Aire can supply a nozzle extension to keep the air uniform until it passes through a linear slot diffuser (supplied by others). An architecturally pleasing return air grille (supplied by others) is utilized to allow the aire curtain to draw the conditioned air from the space and allow access to the unit for maintenance.

Casinos/Banks/Bars/Health Spas- With the heavy flow of traffic in and out of casinos, banks, health spas, and bars maintaining the conditioned air and providing customer comfort are major concerns. Our Customer Entrance aire curtains, when placed above entry doors, will prevent conditioned inside air from escaping and extreme hot or cold outside air from entering. In turn this will provide substantial energy cost savings and provide unparalleled customer comfort.

Botanical Gardens/Butterfly Houses- Aire curtains used in Botanical Gardens and Butterfly Houses can serve numerous purposes. First, the butterflies are unable to break through the wall of air that is produced, preventing them from escaping when visitors come through the doors. Also, the temperature inside these facilities is a key factor to their ongoing success; our Customer Entrance aire doors help them maintain these critical temperatures.

Bakeries/Rising Rooms

Correctional Facilities- Tamperproof aire curtains are often supplied to correctional facilities for use on doors in areas where sanitary conditions are a concern.

Hepa Filter Aire Curtains- We can provide aire curtains with Hepa filters for use in contaminant free environments such as Operating Rooms, Electronic Assembly Rooms, Veterinary Laboratories, and Photographic Laboratories. These filters are 99.97% efficient when the micron size particle is .3 micron diameters or larger.

Trash Compactors- Powered Aire's aire doors are effective at containing foul odors. For example, four air curtains can be placed in a box formation above a trash compactor in an open area and the odors will not leak to other parts of the facility.

Open Boardwalk Restaurants/Shops- The Bug Control Series is often used on boardwalk's restaurants and shops. The aire curtains allow the doors to be left open, which will attract business, without letting bugs and unconditioned air enter the establishment.

Airports- Airports lose a lot of money in energy costs due to terminal gates that are constantly being opened. Aire curtains, when placed above gate entrances, will prevent the loss of conditioned air and also help the airport keep conditioning costs at a minimum.

Breweries/ Beer Distributors - Maintaining a consistent temperature is vital in the operation of breweries and beer distributors. Aire doors are great for helping maintain desired temperatures in the cooler areas while also providing a safer workplace for employees by providing clear visibility to operate machinery.

Ovens

Smelting Operations- Smelting operations produce harsh odors that can leak from the plant into employee's offices. Aire curtains can be utilized to prevent this leakage.

Removes condensation on see thru freezer doors

Cargo Warehouses

Conveyor Openings

Interior Partitions

Dewatering Facilities- The odors from dewatering facilities can become extremely malodorous. Our Industrial aire curtains are placed at the entrances to these facilities to prevent the odors from escaping to other parts of the facility.



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MAKE UP AIR REQUIRES NO FUEL

MAKES USE OF PROCESS HEAT AND STRATIFIED HEAT LAYERS

WHY MAKE UP AIR?

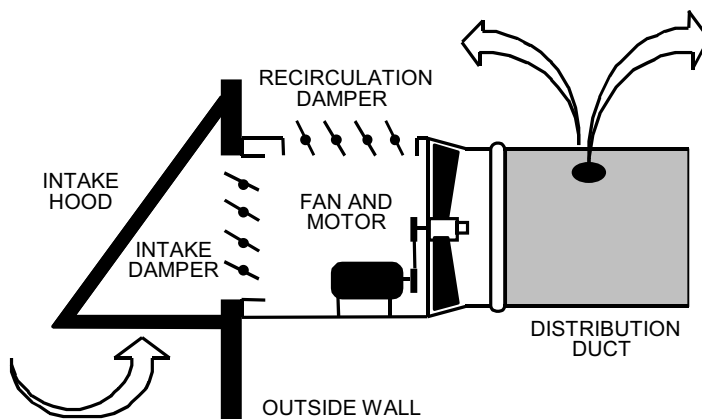
Exhaust fans running in your buildings remove smoke fumes and contaminated air. If you do not have a make up air system or a large enough make up air system you have a negative air pressure condition.

Negative air pressure means that air is sucked into the building to replace the air removed by the exhaust system.

Negative air pressure creates problems :

- * Drafts at the floor level
- * Back drafting down furnace stacks
- * Cold spots and wind chills in working areas
- * Exhaust fans start to operate inefficiently
- * Strong air inrush when a door is opened

How Powered Aire's Make Up Air Fans Work.



Powered Aire Model MAF fan is turned on, the damper opens and air is drawn through the shutters and forced into the tube. Tube inflated, air is discharged out the holes at high velocity. This high velocity causes turbulence, which in turn causes the cool outside air to mix with the stratified heat at the ceilings.

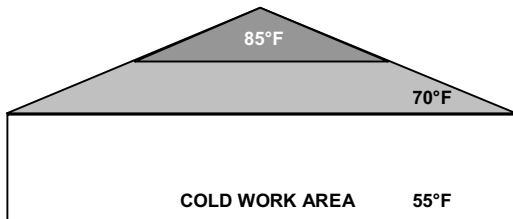


POWERED AIRE INC.

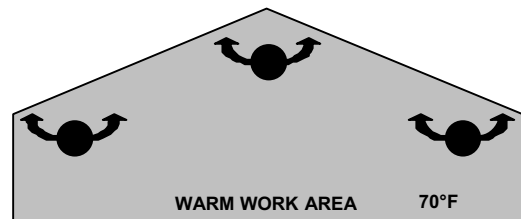
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MAKE UP AIR

EXAMPLE: 0 degree F outside air will fill the tube, then the high velocity jets will throw and mix with the stratified heat. When the air has moved 4 ft. from the tube the air temperature will be 70 degrees.



WITHOUT MAKE-UP AIRE SYSTEM

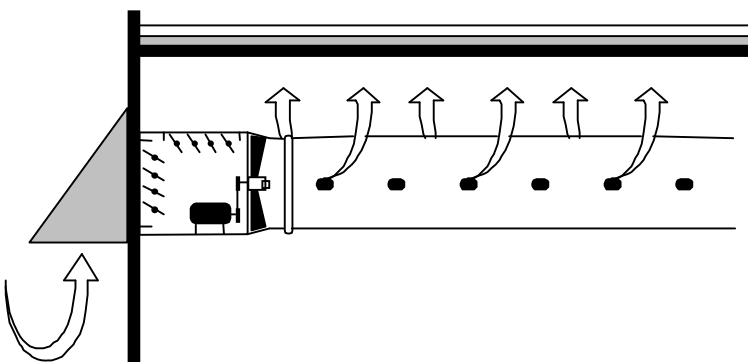


WITH MAKE-UP AIRE SYSTEM

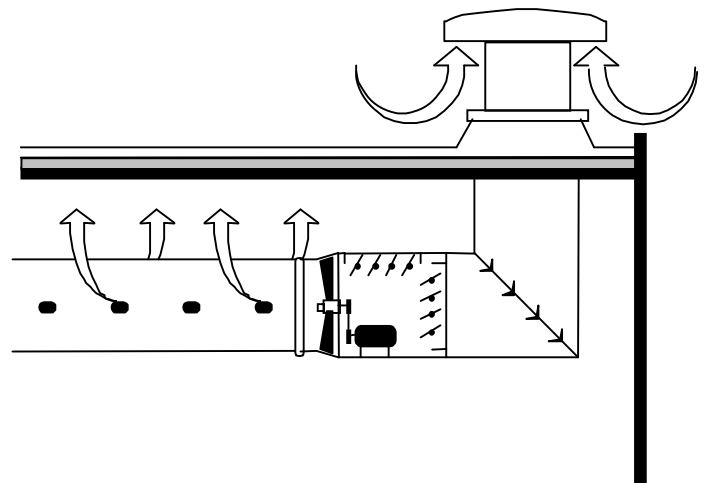
Many manufacturing process generate heat as a by-product. Powered Aire's Make Up Aire Systems can make use of this heat, that is normally wasted, to temper incoming make - up air.

TYPICAL MODEL MAF INSTALLATIONS

SIDE WALL INSTALLATION



ROOF INSTALLATION





POWERED AIRE INC.

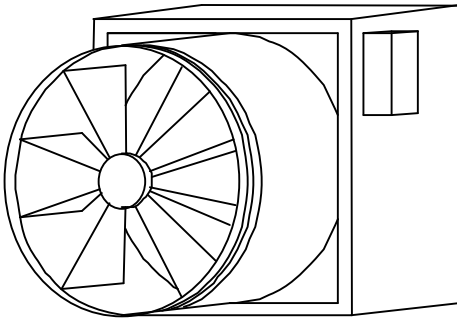
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MAKE UP AIR FANS

CONSTRUCTION DETAILS

HOUSING:

Constructed of heavy gauge galvanized steel welded and bolted to make a rigid unit of industrial quality. Removable side panel provides access to fan motor and shutter.



FAN

The high performance propeller mounted in a deep spun orifice provides a high efficiency unit. Unitized construction is used throughout. Heavy duty oversized ball bearings assure long life.

MOTOR

The motor is a heavy duty totally enclosed type with ball bearings and is designed for continuous operation.

FACTORY WIRED

Factory wiring offers big savings in installation time and costs. Fan and 50% recirculating shutter motor are factory wired with flexible conduit to an outside junction box. (100% recirculation shutter available, see pricing).

INDUSTRIAL TUBE VENT SPECIFICATIONS

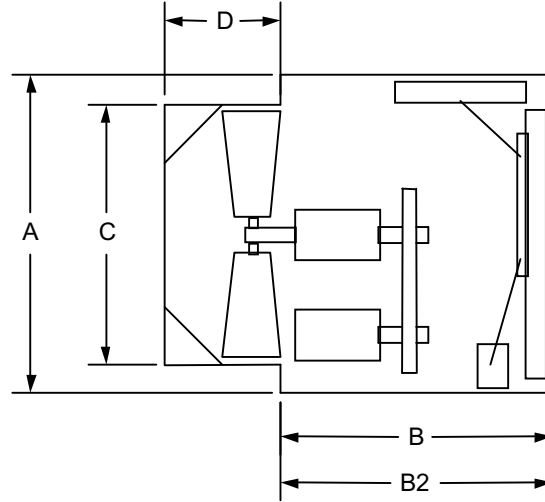
MODEL	BLADE DIA.	0 SP	1/8 SP	1/4 SP	3/8 SP	1/2 SP	HP	RPM DRIVE	DRIVE	WEIGHT
MAF 2675	26	8190	7520	6630	3600	-	3/4	810	BELT	325
MAF 26100	26	9020	8450	7500	6100	3850	1	892	BELT	330
MAF 32100	32	12100	11000	9130	-	-	1	662	BELT	390
MAF 32150	32	13890	13050	11630	9740	-	1-1/2	760	BELT	395
MAF 32200	32	15250	14720	13350	11780	9700	2	834	BELT	410
MAF38200	38	16880	15834	13904	11347	8662	2	722	BELT	470
MAF38300	38	19288	18145	16813	15295	12747	3	825	BELT	495
MAF38500	38	22888	21917	20905	19723	18439	5	979	BELT	510
MAF 44300	44	24720	22778	20706	18402	15782	3	724	BELT	635
MAF 44500	44	29296	27650	25977	24197	22243	5	858	BELT	650
MAF 44750	44	33564	32108	30703	29183	27626	7-1/2	983	BELT	670
MAF 50500	50	35278	33194	30750	28291	25486	5	725	BELT	665
MAF 50750	50	40387	38554	36545	34396	32241	7-1/2	830	BELT	685
MAF 501000	50	44572	42932	41249	39224	37287	10	916	BELT	710
MAF 56500	56	41049	38207	34997	31395	-	5	645	BELT	820
MAF 56750	56	46968	44969	44494	41757	38876	7-1/2	738	BELT	835
MAF 561000	56	51805	49972	49542	47111	44678	10	814	BELT	865



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MAKE UP AIR FANS DIMENSIONS AND ACCESSORIES



OPTIONAL MOTORIZED LOUVERS TO RECIRCULATE INSIDE AIR

DIMENSIONS IN INCHES

MODEL	A	B	B2	C	D
MAF 18	23	18	34	18 ¾	15
MAF 26	32	32	44	26 ¾	15
MAF 32	38	38	49	32 ¾	15
MAF 38	44	44	55	38 ¾	15
MAF 44	50	50	67	44 ¾	30
MAF 50	56	56	79	50 ¾	30
MAF 56	62	62	85	56 ¾	30
MAF 62	68	68	97	62 ¾	30

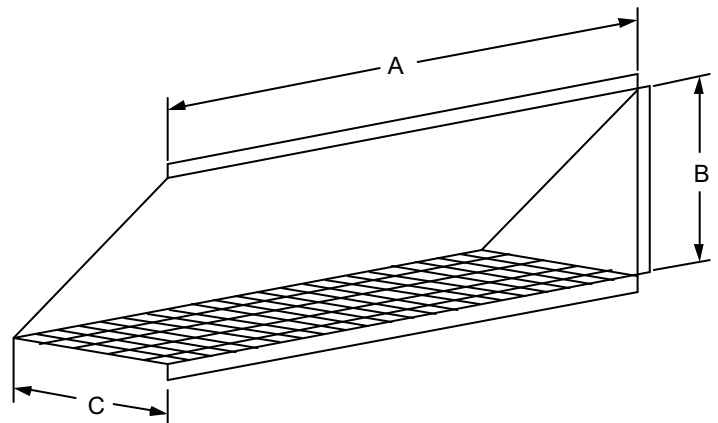
DIMENSION B2 IS FOR FULL SIZE RECIRCULATING SHUTTER

WALL WEATHER HOODS

DESIGNED TO REDUCE THE ENTRANCE OF RAIN OR SNOW INTO THE TUBE VENT SYSTEM. CONSTRUCTED OF GALVANIZED STEEL AND FURNISHED WITH BIRD SCREEN AND MOUNTING FLANGES.

MODEL	A	B	C
WH 18	45	30	30
WH 26	51	42	36
WH 32	60	42	36
WH 38	72	58	45
WH 44	117	58	45
WH 50	126	58	45
WH 56	144	74	59
WH 62	160	74	59

DIMENSIONS IN INCHES



109 Mortensen Rd. Greenville, PA 16125

PHONE: 724-588-3305
October, 2013

FAX: 724-588-3371



Powered
AIR

Polyester Vinyl
Polyethylene

*Fabric Duct
Air Handling Systems*

Wide open interior spaces pose a challenge when it comes to energy management. There are people to keep comfortable, products to protect and processes that must keep functioning.



Fabric Duct Air Diffusers are the most cost-effective, and attractive, way to evenly distribute heated or cooled air throughout large open interior areas.



A fabric duct system improves distribution of heated or cooled air

Fabric duct is attached at one end to an air handler, and then unrolled and suspended by cables throughout the service area. The supply fan creates the air that inflates the cylinder-shaped ducts. The air is then diffused evenly from the full length of the tubes.

A fabric duct system is an innovative alternative to exposed metal duct work

With its simple hookup and suspension system, fabric duct air diffusers cost less to install than metal duct work. Plus, there's no metal to scratch or dent.

A fabric duct system is a no-fuss system

Fabric duct is quiet, flame retardant, does not collect condensation, is washable, is easy to maintain, comes completely prefabricated and is ready to install.

USE IN

**Gyms,
Pools,
Schools,
Restaurants,
Offices,
Retail Stores,
Manufacturing
Plants,
Factories,
Warehouses,
Auditoriums,
Churches,
Supermarkets,
Health Clubs,
Studios,
Museums,
etc.**

A fabric duct system can help save energy costs by utilizing existing heat within a building

Fresh make-up air is brought into the building by a fan and forced into the fabric distribution duct. Cool outside air is blended with heat that naturally accumulates at the ceiling. This stratified heat is saved and re-used rather than wasted.

A fabric duct system helps eliminate negative air pressure within a building

When used in conjunction with a Powered Aire Inc. Make Up Air Fan (MAF), this fabric duct system relieves negative air pressure caused by exhaust fans that are used to eliminate fumes or other contaminated air.

A fabric duct system can improve the quality of air

A fabric duct system can improve air quality by replacing contaminated air with cooler air as the warmer, contaminated air is exhausted by ceiling fans.

FABRIC OPTIONS

Polyester

WEIGHT: 7.5 oz. per sq. yard

CONSTRUCTION: 300 denier acrylic coated polyester

MELT TEMPERATURE: 350 degrees F.

FLAME RESISTANCE: California State Fire Marshall
ASTM E84 Class A Material

TONGUE TEAR: Warp 43 lb. / Weft 48 lb. ASTM D2261-96

*Features an
anti-microbial
agent*

Consult
Factory
for Colors

Launder in small sections

When looks as well as effectiveness are a factor, choose a polyester fabric duct system. Coated polyester is an impressive way to maintain your building's interior environment. Used for machine washability, high temperature applications and aesthetics.

Polyethylene

WEIGHT: 6 oz. per sq. yard

CONSTRUCTION: 10x10 woven HDPE scrim

MELT TEMPERATURE: 180 degrees F.

FLAME RESISTANCE: CAN/ULC S-109, Cal. Fire Marshall, NFPA-701
CPAI-84, Boston Fire Marshall

TONGUE TEAR: Warp 56 lb. 248 N / Weft 60 lb. 267N, ASTM D2261-96

Consult
Factory
for Colors

*Clean with spray
hose and brush*

Woven Polyethylene is a super tough, rip-stop fabric. It is coated for non-permeability and to improve wearability.

Vinyl

WEIGHT: 10 oz. per sq. yard

CONSTRUCTION: 10x10 500x500 denier

MELT TEMPERATURE: 180 degrees F.

FLAME RESISTANCE: California State Fire Marshall,
ASTM E84 Class A Material

*Clean with
spray hose
and brush*

Consult
Factory
for Colors

Vinyl is a flexible thermoplastic material that is both durable and resilient.

Anti-static

CONSTRUCTION: Polyester-based anti-static fabric

MELT TEMPERATURE: 180 degrees F.

FLAME RESISTANCE: ASTM E84 Class 1

*Premium
Fabric*

Consult
Factory
for Colors

*Launder in
small sections*

High temperature

CONSTRUCTION: Coated fiberglass fabric

MELT TEMPERATURE: 500 degrees F.

FLAME RESISTANCE: ASTM E84 Class 1 Classified by UL

*Melt Temp
of 500° F!!*

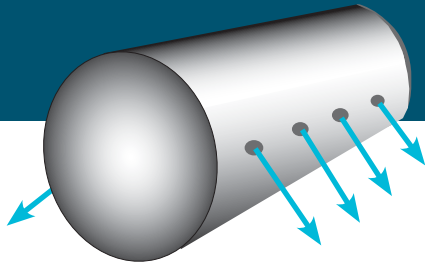
Consult
Factory
for Colors

AIR DISTRIBUTION OPTIONS

Our fabric duct systems feature discharge options, differentiated by the size and number of ports that distribute the air, and the static pressure required.

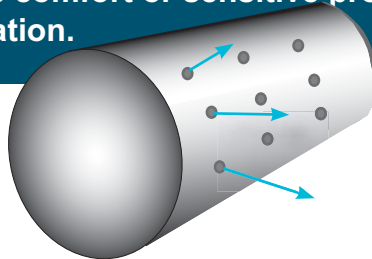
POWER-PORT

Power-Ports are the largest airflow ports and can throw air 10 to 40 feet beyond the diffuser duct. A typical use of this design is to provide cooling ventilation in very hot work environments.



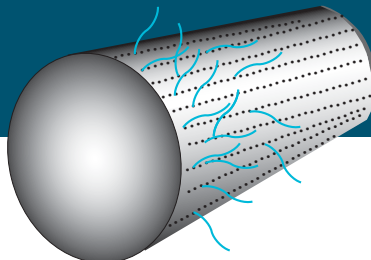
MINI-PORT

Mini-Port has smaller air distribution openings than Power-Port, which allow it to diffuse air more quickly and over broad areas with less noticeable air movement. Air movement range is 2 to 10 feet beyond the duct. This design is used where comfort or sensitive processes are a consideration.



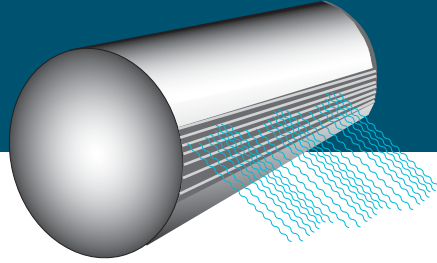
PERMEABLE FABRIC

Permeable fabric air diffusers have millions of tiny air jets that diffuse very quickly and within 2 inches of the diffuser surface. Primarily used in confined areas, where drafts cannot be tolerated.



CONTINUOUS FLOW

A Continuous Flow fabric duct air handling system features vents, rather than ports, down the entire length of the duct. This results in a constant, gentle flow of air. It may also create a laminar effect.



FLUSH MOUNT

This air handling system is used where ceiling height is a concern. Air movement is between 5 and 20 feet from the duct.

ADD-ONS

LOGOS

Want to promote your business, school, etc.? Logos can be applied as vinyl adhesive, screen printed or digitally printed, depending on logo and fabric type.

AIR JET PLUGS

Use to close off port openings. Easy to install and available in sizes from 1.5" to 6". Also can be used to downsize larger port openings.

DRAW CORD

Use to adjust volume of air coming out of a diffuser port.

FABRIC DAMPER

Use to regulate the flow of air in a fabric duct system. Can be used to regain some static pressure in a system.

CONDENSATE DRAIN

Use when there is a possibility of moisture collecting on the inside of the fabric duct.

ZIPPER / VELCRO

Both of these can be used to connect sections of fabric duct or fittings to facilitate installation or cleaning.

INTERNAL END CAP

Use to reduce uneven air pressure in a loop fabric duct system.

APPLICATIONS

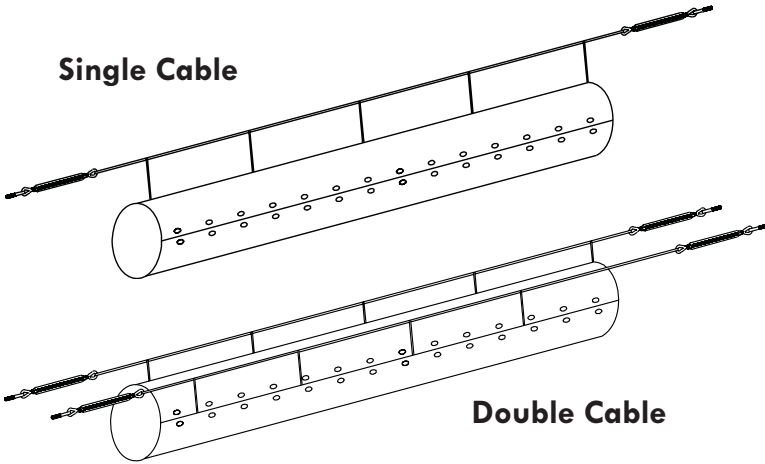


Comparison is based on 15,000 CFM air system delivered at .5-inch WG static pressure; 36-inch diffuser	POWER PORT	MINI PORT	PERMEABLE FABRIC	CONTINUOUS FLOW
Diffuser Port Diameter	1" to 6"	.25" to .75"	420,000 per square foot of surface	Vent size, diameter to be determined in design phase
CFM per Diffuser Port	100	Less than .5	Less than .00004	-----
Number of Ports in Diffuser	150	3,000	500 million	-----
Port Velocity	Approx. 200 FPM at 10-ft. from diffuser	Less than 50 FPM at 3-ft. from diffuser	Diffused within 6" of surface	-----
Noticeable Air Movement	10-40 ft. from diffuser	2-10 ft. from diffuser	Not noticeable beyond a few inches	5 to 20 ft. from diffuser
Suggested Fabric	<ul style="list-style-type: none"> • Polyethylene • Polyester • Vinyl Coated Polyester • Anti-Static/ Anti-Microbial • High Temperature 	<ul style="list-style-type: none"> • Polyethylene • Polyester • Vinyl Coated Polyester • Anti-Static/ Anti-Microbial • High Temperature 	<ul style="list-style-type: none"> • Polyester (It is important to use a filter in conjunction with this port) 	<ul style="list-style-type: none"> • Polyester • Vinyl Coated Polyester • Anti-Static/ Anti-Microbial
Suspension	<ul style="list-style-type: none"> • Cable • Rail • Premium Rail 	<ul style="list-style-type: none"> • Cable • Rail • Premium Rail • Flush Rail 	<ul style="list-style-type: none"> • Cable • Rail • Premium Rail • Flush Rail 	<ul style="list-style-type: none"> • Cable • Rail • Premium Rail • Flush Rail
Suggested Application	Manufacturing Industrial Warehouse Gyms Pools Retail Grocery stores Temp. Structures	Office Space Restaurant Food Processing Auditoriums Pools Churches Classrooms	Office Space Telecommunications Food Processing Classroom Clean Rooms Test Labs Other sensitive areas	Office Space Restaurant Retail Grocery stores

TYPICAL MOUNTING OPTIONS

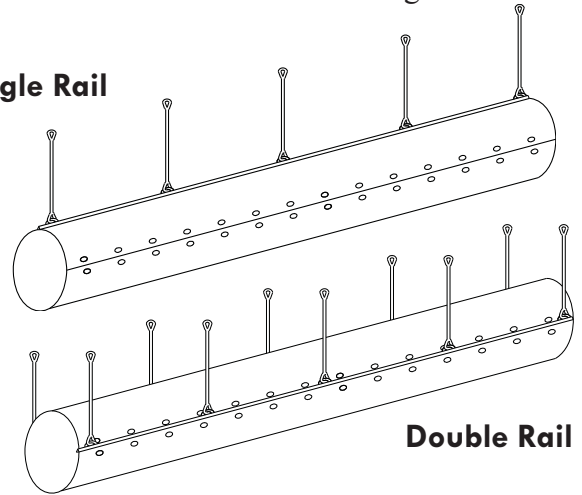
A fabric duct work system is designed to be installed within, and to complement, existing open ceiling architecture. It can be installed in a straight line or angled to follow the curvature of the ceiling or other structural elements. A suspension system is used to mount the duct to the ceiling.

Single Cable



Double Cable

Single Rail



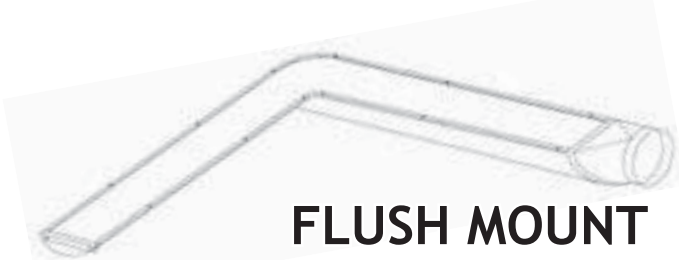
Double Rail

CABLE MOUNT

- Economical galvanized, stainless steel or vinyl coated tension cable
- Single up to 30" duct; double up to 48" duct *
- Snaphooks: Plastic or Stainless Steel; spaced 36"
- System: 3/16" cable, turnbuckle, eyebolts, clamps

RAIL MOUNT

- Economical plastic rails or premium anodized aluminum rails
- Single up to 30" duct; double up to 48" duct *
- Plastic gliders spaced 36" on center
- System: Rail, support brackets, couplers, end caps, vertical supports
- Bends available



FLUSH MOUNT

- Anodized aluminum rail for mounting close to ceiling
- Special duct required 6"-18" radius duct (12"-36" wide)
- Double rail system (flat ceiling or T-bar required)
- System: Flush mount rail, end piece
- Bends available

FITTINGS INCLUDE

Elbows
 Tees
 Wye branches
 Take-off ports
 Reductions
 1.5" wide fabric support
 straps also available

* Triple Suspension Available -- Consult factory for details



MAKE UP AIR FANS

A Positive Approach to Negative Air Pressure

Negative pressure results when air is removed from the inside of a building by an exhaust system. With a HI-velocity diffuser system connected to a Powered Aire make up air unit, incoming air can be distributed evenly over a large interior area, reversing the negative air pressure.

Negative air pressure creates

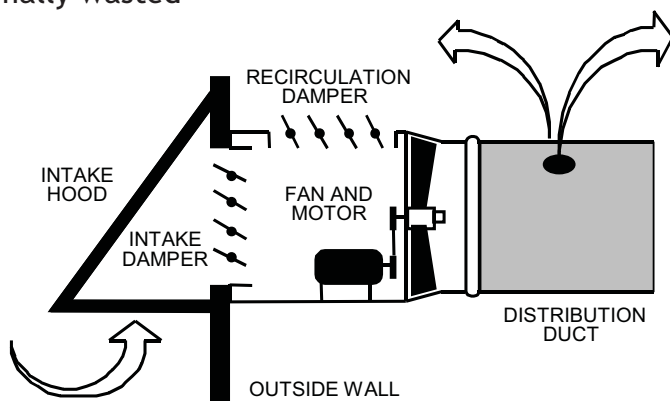
- Drafts at floor level
- Back drafting down furnace stacks
- Cold spots in work areas
- Exhaust fans that are less efficient
- Strong air rushing in when a door is opened

Powered Aire Make Up Fan

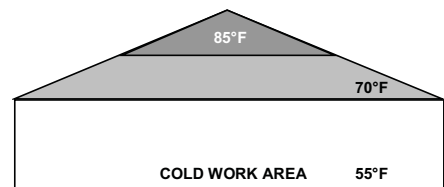


How Powered Aire's Make Up Air Fans Work

When the Powered Aire Model MAF fan is turned on, the damper opens and air is drawn through the shutters and forced into the distribution duct. The duct tube inflates and air is discharged out of the holes at high velocity. This high velocity air mixes with the stratified heat at the ceiling, making use of heat already within the building and normally wasted



EXAMPLE



WITHOUT MAKE-UP AIR SYSTEM

Fresh air provided by a Powered Aire Make Up Air Fan fills the diffuser tube and is forced out of the tube's ports where it mixes with the stratified heat that naturally accumulates at the ceiling. This blending of air results in a uniform temperature throughout the building.



WITH MAKE-UP AIR SYSTEM

For more information contact:



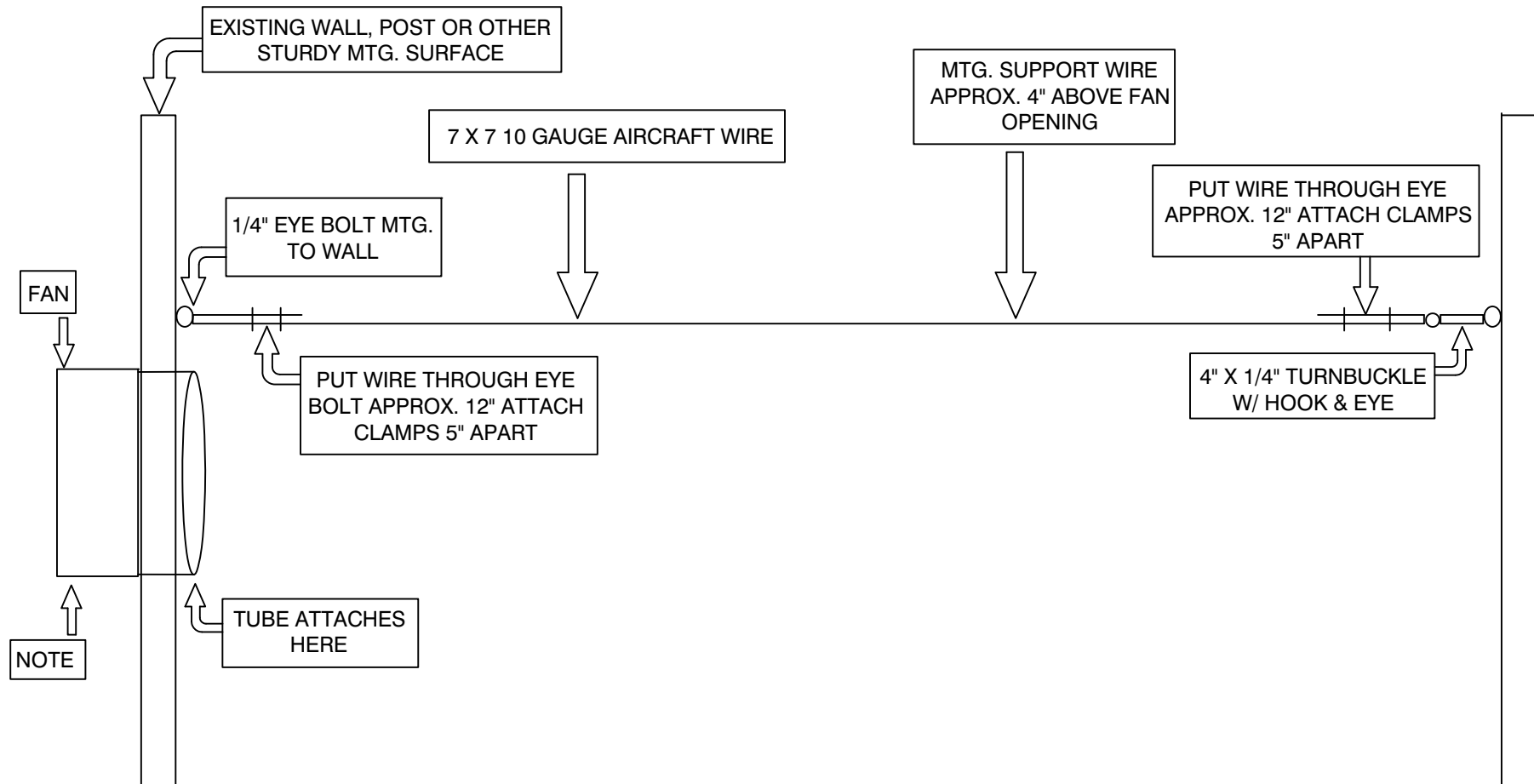
Powered Aire Inc.

1-888-321-AIRE (2473)

www.poweredaire.com

3/2008

TYPICAL TUBING WIRE SUPPORT INSTALLATION



NOTE: THIS EQUIPMENT COULD BE A HEATER OR OTHER UNIT MTG. INSIDE THE BLDG.

Powered Aire Inc.

www.poweredaire.com

FABRIC DUCT SIZING CHART

CFM	← OPTIMUM RANGE →							
	1000 fpm	1250 fpm	1500 fpm	1750 fpm	2000 fpm	2250 fpm	2500 fpm	3000 fpm
1500	17	15	14	13	12	11	10	10
2000	19	17	16	14	14	13	12	11
2500	21	19	17	16	15	14	14	12
3000	23	21	19	18	17	16	15	14
3500	25	23	21	19	18	17	16	15
4000	27	24	22	20	19	18	18	16
4500	29	26	23	22	20	19	18	17
5000	30	27	25	23	21	20	19	17
5500	32	28	26	24	22	21	20	18
6000	33	30	27	25	23	22	21	19
6500	35	31	28	26	24	23	22	20
7000	36	32	29	27	25	24	23	21
7500	37	33	30	28	26	25	23	21
8000	38	34	31	29	27	26	24	22
8500	39	35	32	30	28	26	25	23
9000	41	36	33	31	29	27	26	23
9500	42	37	34	32	30	28	26	24
10000	43	38	35	32	30	29	27	25
10500	44	39	36	33	31	29	28	25
11000	45	40	37	34	32	30	28	26
11500	46	41	37	35	32	31	29	27
12000	47	42	38	35	33	31	30	27
12500	48	43	39	36	34	32	30	28
13000	49	44	40	37	35	33	31	28
13500	50	44	41	38	35	33	31	29
14000	51	45	41	38	36	34	32	29
14500	52	46	42	39	36	34	33	30
15000	52	47	43	40	37	35	33	30
15500	53	48	44	40	38	36	34	31
16000	54	48	44	41	38	36	34	31
16500	55	49	45	42	39	37	35	32
17000	56	50	46	42	39	37	35	32
17500	57	51	46	43	40	38	36	33
18000	57	51	47	43	41	38	36	33
18500	58	52	48	44	41	39	37	34
19000	59	53	48	45	42	39	37	34
19500	60	53	49	45	42	40	38	35
20000	61	54	49	46	43	40	38	35
21000	62	55	51	47	44	41	39	36
22000	64	57	52	48	45	42	40	37
23000	65	58	55	49	46	43	41	37
24000	66	59	54	50	47	44	42	38

Powered Aire Inc.

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FABRIC DUCT SIZING CHART

	← OPTIMUM RANGE →							
	1000 fpm	1250 fpm	1500 fpm	1750 fpm	2000 fpm	2250 fpm	2500 fpm	3000 fpm
CFM 25000	68	61	55	51	48	45	43	39
26000	69	62	56	52	49	46	44	40
27000	70	63	57	53	50	47	44	41
28000	72	64	59	54	51	48	45	41
29000	73	65	60	55	52	49	46	42
30000	74	66	61	56	52	49	47	43
31000	75	67	62	57	53	50	48	44
32000	77	69	63	58	54	51	48	44
33000	78	70	64	59	55	52	49	45
34000	79	71	64	60	56	53	50	46
35000	80	72	65	61	57	53	51	46
36000	81	73	66	61	57	54	51	47
37000	82	74	67	62	58	55	52	48
38000	83	75	68	63	59	56	53	48
39000	85	76	69	64	60	56	53	49
40000	86	77	70	65	61	57	54	49
41000	87	78	71	66	61	58	55	50
42000	88	78	72	66	62	59	55	51
43000	89	79	72	67	63	59	56	51
44000	90	80	73	68	64	60	57	52
45000	91	81	74	69	64	61	57	52
50000	96	86	78	72	68	64	61	55
55000	100	90	82	76	71	67	64	58
60000	105	94	86	79	74	70	66	61
65000	109	98	89	83	77	73	69	63
70000	113	101	92	86	80	76	72	65
75000	117	105	96	89	83	78	74	68
80000	121	108	99	92	86	81	77	70
85000	125	112	102	94	88	83	79	72
90000	128	115	105	97	91	86	81	74
95000	132	118	108	100	93	88	83	76
100000	136	121	111	102	96	90	86	78
105000	139	124	113	105	98	92	88	80
110000	142	127	116	107	100	95	90	82
115000	145	130	119	110	103	97	92	84
120000	148	133	121	112	105	99	94	86
125000	151	153	124	114	107	101	96	87
130000	154	138	126	117	109	103	98	89
135000	157	141	128	119	111	105	100	91
140000	160	143	131	121	113	107	101	92
145000	163	146	133	123	115	109	103	94
150000	166	148	135	125	117	111	105	96

Powered Aire Inc.
109 Mortensen Rd.
Greenville, PA 16125

October, 2013

Phone: 724-588-3305
Toll Free: 888-321-2473
Fax: 724-588-3371



POWERED AIRE INC. LIMITED WARRANTY

Scope of warranty: Powered Aire's products are warranted against defects in Powered Aire workmanship and materials.

Powered Aire Inc. and its employees are committed to providing our customers with the best designed and manufactured Aire Curtains / Door Heaters. We welcome comments and questions regarding our products. Please contact us at Powered Aire Inc. Phone: 724-588-3305.

Warranty Period: Powered Aire models LDC and HDC aire curtains are warranted for 60 months from the date of shipment. All other Powered Aire unheated aire curtains are warranted for 24 months from the date of shipment. All other Powered Aire heated aire curtains are warranted for 18 months from the date of shipment. All warranty claims must be submitted to Powered Aire prior to the expiration date of the warranty period. All warranties cover parts only. If Powered Aire does not supply the controls for the air curtain, the unit will not be warranted.

Procedure to Receive Warranty Service: Customer should take or ship prepaid the Powered Aire product requiring warranty service to Powered Aire. Contact the Home Office for authorization number. Include an explanation of the defect or problem, a description of the way in which the Powered Aire product is used, and your name, telephone number and address. Tag shipment with authorization number.

Repair by Other than Powered Aire: Customers who are unable to take or ship the Powered Aire product to the factory, should contact the home office. A repair by anyone other than Powered Aire authorized personnel must be approved in advance by Powered Aire.

Repairs Outside the Scope of Warranty: Problems with Powered Aire products can be due to improper maintenance, faulty installation, non Powered Aire additions or modifications, or other problems not due to defects in Powered Aire workmanship or materials. If the authorized Powered Aire Service Company determines that the problem with a Powered Aire product is not due to defects in Powered Aire workmanship or materials, then the customer will be responsible for the cost of any necessary repairs. Customers not satisfied with a determination that a problem is outside of warranty coverage should contact the Powered Aire Home Office.

Repairs or Replacement Within the Scope of the Warranty: If a Powered Aire product is defective due to Powered Aire workmanship or materials and the defect occurs during the warranty period, then Powered Aire will either repair the product or replace it with a new one, whichever Powered Aire believes to be appropriate under the circumstances. Powered Aire is not responsible for the removal and shipping of the Powered Aire product to the home office, the reinstallation of Powered Aire product upon its return to the customer, or any incidental or consequential damages resulting from the defect, removal, reinstallation, shipment or otherwise.

Intended Use: Powered Aire products are designed for industrial / commercial applications.

Product Specifications: All product specifications, applications and other information provided in Powered Aire's catalog and publications are subject to correction and change without notice and should be confirmed by the Home Office.

Extended Warranties: Extended warranties are available. They will be negotiated individually. Extended warranties are subject to the terms and procedures of this Limited Warranty and Service Policy as modified by the additional terms of the extended warranty.

No Other Warranties and Liability Limitation: This Limited Warranty represents Powered Aire's sole and exclusive warranty obligation with respect to Powered Aire products. Powered Aire's liability to customer or any other person shall not exceed the Powered Aire's sales price of the applicable Powered Aire Product. Powered Aire disclaims all other expenses and implied warranties including the implied warranties of fitness for a particular purpose and merchantability.

*Performance Warranty

All Powered Aire aire curtains correctly selected and installed carry a performance guarantee.



POWERED AIRE INC. RESTOCKING FEE POLICY

For orders canceled after a purchase order has been issued and received by Powered Aire, Inc, Powered Aire, Inc. reserves the right to charge a restocking fee according to the following schedule.

Restocking Fee Schedule

Conditions of Cancellation	Restocking Fee <i>As a Percent of Invoice Price</i>
For orders cancelled not requiring custom parts and before being placed into production	3%
For orders cancelled not requiring custom parts after being placed into production but before order ships	25%
For orders cancelled requiring custom parts before being placed into production	5% plus cost of custom parts
For orders cancelled requiring custom parts after being placed into production but before order ships	25% plus cost of custom parts
For orders that already have been shipped that have not been installed and not requiring custom parts	25% if unit arrives undamaged (Customer is responsible for crating and return shipping charges.)
For orders that already have been shipped that have not been installed and requiring custom parts	25% plus cost of custom parts if unit arrives undamaged (Customer is responsible for crating and return shipping charges.)

Once units have been installed, no returns will be allowed.
Units that are returned damaged will not be accepted and full payment will be required.
No returns will be allowed after 10 working days from shipment.

Expedited Shipments- Please contact the factory.

Warranty Issues- For all warranty issues please contact the factory.

Returned Goods- All returned goods must be accompanied by a Returned Goods Authorization Number