# **MODEL CWD**

## DIRECT DRIVE CENTRIFUGAL SIDEWALL EXHAUSTER



## **MODEL FEATURES**

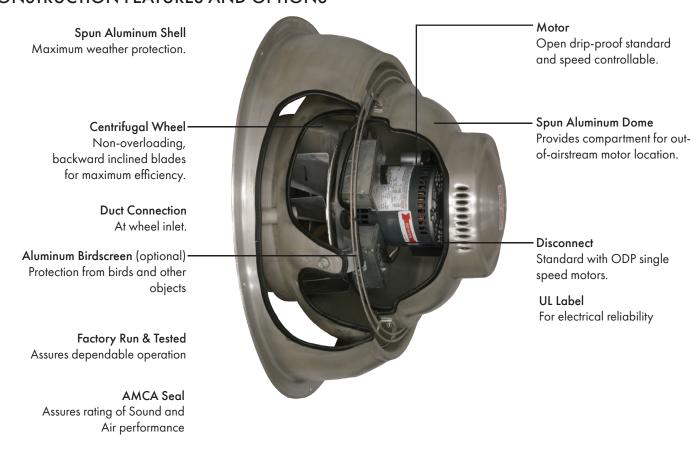
- Exhaust air up to 3,360 CFM in high static pressure applications up to 1" w.g.
- Attractive spun aluminum exterior
- Direct drive units have low sound levels and quiet operation
- Non-overloading backward inclined wheel for efficiency at higher static pressures
- AMCA Air and Sound Licensed
- UL 705 Listed

### **MODEL OVERVIEW**

Model CWD direct drive fans are designed to exhaust air up to 3,360 CFM in high static pressure applications to 1". The spun aluminum exterior provides a pleasing appearance, weatherproof construction and resistance to corrosion. The low silhouette design is less noticeable on the building exterior and the removable dome provides easy access to the fan interior for service and cleaning. The non-overloading backward inclined centrifugal wheel with its high static pressure capability, makes it suitable for either ducted or nonducted applications. It should be used where a sidewall mounted location is preferred to roof mounting. Direct drive units use smaller diameter wheels with lower rpm's, resulting in low sound levels and quiet operation. They have no belts or fan bearings to maintain or adjust and consequently require very little maintenance.

CWDs are used to exhaust relatively clean air from a variety of industrial, commercial and institutional buildings such as machinery and equipment rooms, storage areas, office buildings, restaurants, retail stores, schools and similar buildings.

## CONSTRUCTION FEATURES AND OPTIONS



## CONSTRUCTION/SPECIFICATION CHECKLIST

### Housing

- Integral spun inlet for efficient performance.
- Spun aluminum dome for weather protection and attractive appearance.
- Motor support of heavy-gauge aluminum for rigidity and strength.
- Ventilated motor compartment with motor out of air stream for long trouble-free service.
- Dome easily removes for access to motor compartment.
- Water-tight construction.
- Duct connection provided at wheel inlet.

### Centrifugal Wheel

- Backward inclined for efficiency at higher static pressure.
- Non-overloading for safe operation in ducted systems.
- Statically and dynamically balanced for smooth, quiet operation.
- Heavy aluminum hub for extra strength.
- All aluminum construction.

#### Motors

- Speed controllable motors available on most models.
- · Brands are nationally recognized and locally serviced.
- Single speed open drip-proof are standard.
- Two speed drip-proof and single speed explosion-proof motors are available for most models.
- Disconnect switch standard with single speed drip-proof motors.

#### AMCA Seal

Models CWD are licensed for Air and Sound Performance.

### **UL Label**

• UL 705 available when specified.

## **OPTIONS/ACCESSORIES**

**Solid State Speed Control:** Available with direct drive models. Control is matched to the motor and blower wheel to allow reduction in performance from full motor speed to 60% of full speed. CFM is reduced in direct proportion to motor speed reduction. Exhauster performance can be controlled from the ventilated area.

Motor Operated Damper: Motor operated aluminum damper for positive closure against backdraft.

**Automatic Damper:** Automatic aluminum damper for ease in installation and effective backdraft protection.

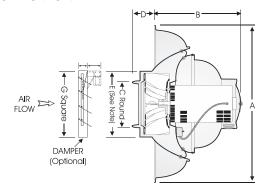
**Special Coatings:** For protective and decorative purposes. Available coatings include: Synthetic Resin, Epoxy, and Heresite (air-dried phenolic). Contact your representative or the factory for more information on available coatings and colors.



## PERFORMANCE/DIMENSIONS

## **SIZES 7 & 9**

CWD 7



Size	A	В	С	D	E	G	Avg. Ship Wt. (lbs.)
7	15	8	5-15/16	1-1/2	8	8	12
8	20	9	9-15/16	2	12	11	20
9	26	13-1/2	11-15/16	3	15	14	37

			C	CFM / BHP @	Static Pres	Catalog	LID	DDAA	Tip				
	0	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1	Number	HP	RPM	Speed
	152 .02/2.3	84 .01/1.5	-	-	-	-	-	-	-	070A S	1/25	930	1723
	175 .02/3.1	120 .02/2.3	-	-	-	-	-	-	-	070A S	1/25	1070	1982
1	202 .02/4.1	156 .02/3.4	93 .02/3.2	-	-	-	-	-	-	070A S	1/25	1230	2279
	228 .03/5.2	189 .03/4.6	139 .03/4.1	75 .02/4.3	-	-	-	-	-	070A S	1/25	1390	2575
	254 .04/6.5	220 .04/5.9	179 .03/5.3	127 .03/5.3	66 .03/5.4	-	-	-	-	070A *	1/25	1550	2871
	540 .03/2.5	258 .02/1.9	-	-	-	-	-	-	-	091A S	1/4	685	2004
	630 .05/3.5	392 .04/2.9	-	-	-	-	-	-	-	091A S	1/4	800	2340
	<i>7</i> 41 .08/4.9	554 .06/4.3	330 .05/4.0	-	-	-	-	-	-	091A S	1/4	940	2750
	804 .09/5.7	637 .08/5.1	426 .07/4.7	236 .05/4.6	-	-	-	-	-	091AS	1/4	1020	2984
	898 .12/7.0	755 .11/6.4	564 .09/5.9	390 .08/5.8	221 .07/5.6	-	-	-	-	091A *	1/4	1140	3335
)	811 .09/6.1	651 .08/5.6	467 .07/4.8	313 .06/4.7	-	-	-	-	-	090A S	1/4	1030	3012
	965 .14/8.1	834 .13/7.5	687 .12/7.0	528 .10/6.4	401 .09/5.8	-	-	-	-	090A S	1/4	1225	3583
	1083 .19/9.7	970 .18/9.2	842 .17/8.7	704 .16/8.2	565 .14/7.8	454 .12/7.4	-	-	-	090A S	1/4	1375	4021
	1221 .26/12.1	1126 .25/11.4	1009 .25/10.9	894 .23/10.5	<i>77</i> 1 .22/10.2	645 .20/9.8	545 .18/9.5	-	-	090A *	1/4	1550	4534
	1320 .34/13.8	1255 .33/13.4	1149 .32/13.1	1047 .31/12.8	937 .30/12.5	823 .28/12.1	709 .26/11.6	617 .24/11.6	532 .23/11.5	090A 33*	1/3	1700	4973

Performance certified is for installation type A - free inlet, free outlet. Performance ratings include the effects of birdscreen in the airstream.

The sound ratings shown are loudness values in fan sones @ 5' (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels.

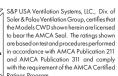
\* Base Unit- AMCA Seal for Sound Rating does not apply to units with speed control.

S RPM range capable with solid state speed control.



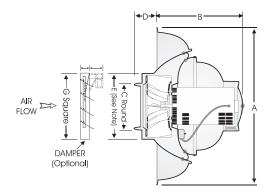
Note: For round duct connection directly to unit without damper, cut a circular hole equal to dimension E above.







## **SIZES 10 & 11**



Size	A	В	С	D	E	G	Avg. Ship Wt. (Ibs.)
10	26	13- 1/2	11-15/16	3	15	14	37
11	30	15- 1/2	13-15/16	3	17- 1/2	14	50

				CFM / BHP	Catalog			Tip					
	0	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1	Number	HP	RPM	Speed
	629 .04/3.0	326 .03/2.6	-	-	-	-	-	-	-	101 A S	1/4	685	2093
	734 .05/4.2	474 .04/3.7	224 .04/3.6	-	-	-	-	-	-	101 A S	1/4	800	2444
	826 .07/5.3	618 .07/4.9	369 .05/4.7	142 .05/4.6	-	-	-	-	-	101 A S	1/4	900	2750
0	936 .10/6.7	<i>77</i> 3 .10/6.3	527 .08/6.1	335 .07/6.0	128 .06/6.0	-	-	-	-	101 A S	1/4	1020	3116
CWD 10	1046 .14/8.1	903 .13 <i>/7.7</i>	682 .11 <i>/7</i> .5	503 .10/7.4	329 .09/7.4	143 .08/7.3	-	-	-	101A *	1/4	1140	3483
$\mathcal{S}$	950 .10/7.5	794 .09/7.2	540 .08/6.5	357 .07/5.7	173 .06/5.4	-	-	-	-	100A S	1/3	1030	3147
	1107 .15/9.7	976 .15/9.3	<i>777</i> .12/9.0	581 .11/8.2	427 .10/7.5	274 .09/6.8	-	-	-	100A S	1/3	1200	3666
	1268 .23/12.2	1155 .22/12.0	1028 .20/11.8	813 .18/11.3	657 .16/10.5	523 .15/9.7	391 .14/9.1	250 .13/9.0	-	100A S	1/3	1375	4201
	1453 .33/15.6	1355 .33/15.4	1252 .32/15.3	1118 .30/15.2	921 .26/14.7	785 .24/13.8	663 .23/13.0	548 .21/12.3	433 .20/11.6	100A *	1/3	1575	4812
	1591 .45/18.1	1502 .44/18.0	1409 .43/17.9	1308 .42/17.8	1144 .38/17.7	981 .34/17.0	859 .32/16.2	<i>7</i> 48 .31/15.6	642 .29/14.9	100A50*	1/2	1725	5269
	810 .06/3.9	525 .05/3.3	240 .04/3.1	-	-	-	-	-	-	111 A S	1/4	705	2291
	919 .08/5.3	684 .07/4.6	410 .06/4.5	164 .06/4.3	-	-	-	-	-	111 A S	1/4	800	2600
	1034 .11/6.5	837 .11/6.0	579 .09/5.7	362 .08/5.6	134 .08/5.4	-	-	-	-	111 A S	1/4	900	2925
Ξ	1171 .16/8.1	1019 .15/7.5	783 .14/7.2	<i>57</i> 1 .13/7.1	382 .11/7.0	183 .11/6.9	-	-	-	111 A S	1/4	1020	3315
CWD	1309 .24/9.7	1182 .23/9.2	981 .21/8.7	772 .19/8.6	595 .17/8.6	427 .16/8.5	251 .15/8.4	-	-	111A *	1/4	1140	3705
O	1162 .14/9.1	1010 .13/8.6	813 .12/7.8	620 .11/6.9	439 .08/6.6	-	-	-	-	110A S	1/2	1030	3348
	1354 .22/11.6	1243 .21/11.1	1069 .19/10.6	900 .18/9.6	733 .17/8.7	577 .15/8.6	-	-	-	110A S	1/2	1200	3900
	1495 .29/13.5	1405 .28/13.1	1245 .26/12.6	1095 .25/11.8	941 .23/11.0	792 .22/10.9	651 .20/10.8	-	-	110A S	1/2	1325	4306
	1636 .38/15.6	1560 .37/15.2	1419 .35/14.8	1281 .33/14.4	1140 .32/13.5	1001 .30/12.6	865 .29/11.8	<i>7</i> 36 .28/11.6	-	110A S	1/2	1450	4713
	1805 .50/18.4	1741 .49/18.0	1624 .48/17.7	1493 .45/17.3	1370 .44/16.8	1242 .42/15.9	1116 .39/15.0	991 .38/14.4	873 .36/13.6	110A *	1/2	1600	5200

Performance certified is for installation type A - free inlet, free outlet.

Performance ratings include the effects of birdscreen in the airstream.

The sound ratings shown are loudness values in fan sones @ 5' (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels.

\* Base Unit- AMCA Seal for Sound Rating does not apply to units with speed control.

S RPM range capable with solid state speed control.

Speed (RPM) shown is nominal. Performance is based on actual speed of test.

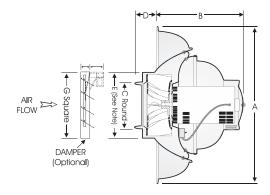
Note: For round duct connection directly to unit without damper, cut a circular hole equal to dimension E above.



S&P USA Ventilation Systems, LLC., Div. of Soler & Palau Ventilation Group, certifies that the Models CWD shown herein are licensed to bear the AMCA Seal. The ratings shown are based on test and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirement of the AMCA Certified Ratings Program.



## SIZES 12, 14 & 16



Size	A	В	С	D	E	G	Avg. Ship Wt. (lbs.)
12	30	15- 1/2	13-15/16	3	17- 1/2	14	50
14	36	16- 1/2	17-15/16	4	22	18	84
16	36	16- 1/2	17-15/16	4	22	18	84

				Catalog	НР	RPM	Tip						
	0	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1	Number	пг	KPM	Speed
	986 .07/5.4	670 .06/3.6	365 .05/3.1	-	-	-	-	-	-	121 A S	1/4	685	2471
12	1152 .12/6.9	885 .10/5.4	621 .09/4.1	348 .08/4.5	-	-	-	-	-	121 A S	1/4	800	2886
CWD	1296 .15/8.5	1058 .13/7.0	816 .12/5.8	589 .11/5.3	340 .10/5.8	-	-	-	-	121 A S	1/4	900	3247
Ó	1439 .21/10.2	1227 .20/8.7	1007 .17/7.4	801 .15/6.5	591 .13/6.5	363 .13/7.0	-	-	-	121 A S	1/4	1000	3608
	1583 .26/12.0	1393 .25/10.6	1195 .24/9.2	995 .22/8.3	813 .20/7.4	618 .18/7.8	410 .18/8.3	193 .17/8.8	-	121 A *	1/4	1100	3968
	1640 .14/7.0	1382 .12/6.7	913 .10/6.2	498 .09/5.5	-	-	-	-	-	141 A S	1/2	685	2939
7	1915 .21/9.2	1714 .20/8.8	1366 .18/8.4	971 .15/7.6	614 .14/6.8	-	-	-	-	141 A S	1/2	800	3432
CWD	2154 .30/11.4	1987 .29/11.0	1730 .27/10.7	1346 .25/10.1	1028 .22/9.5	<i>7</i> 11 .21/8.8	390 .20/8.7	-	-	141 A S	1/2	900	3861
O	2394 .41/13.7	2249 .40/13.4	2049 .38/13.1	1749 .35/12.8	1407 .32/12.3	1124 .28/11.7	839 .27/11.2	551 .26/10.7	-	141 A S	1/2	1000	4290
	2585 .50/15.9	2454 .49/15.7	2281 .47/15.3	2040 .44/15.0	1722 .41/14.7	1433 .38/14.2	1170 .36/13.8	906 .34/13.3	670 .33/12.9	141 A *	1/2	1080	4633
CWD	3360 .75/19.2	3158 .73/18.3	2937 .72/17.4	2669 .68/16.5	2349 .63/15.7	2005 .58/14.6	1692 .54/13.5	1364 .49/12.4	1032 .44/11.6	161A *	3/4	1140	4835

Performance certified is for installation type  ${\bf A}$  - free inlet, free outlet.

Performance ratings include the effects of birdscreen in the airstream.

The sound ratings shown are loudness values in fan sones @ 5' (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels.

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S RPM range capable with solid state speed control.

Speed (RPM) shown is nominal. Performance is based on actual speed of test.

Note: For round duct connection directly to unit without damper, cut a circular hole equal to dimension E above.



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