

# 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

**Spun Aluminum Shell**  
Maximum weather protection.

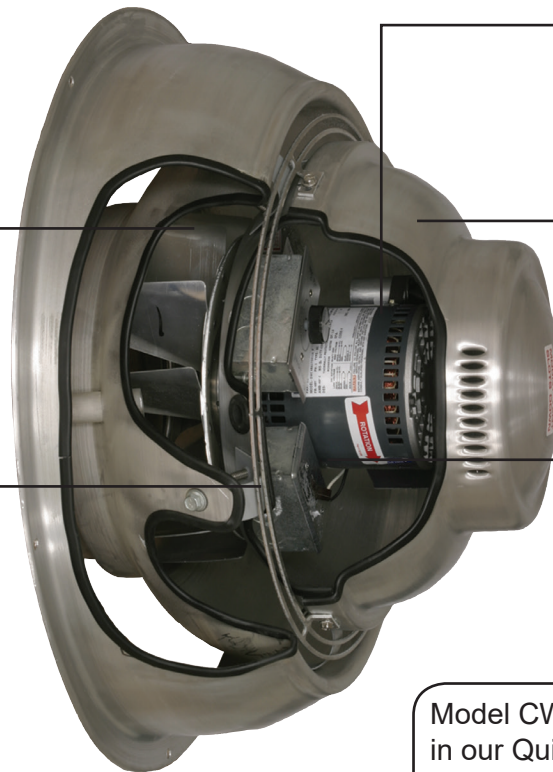
**Centrifugal Wheel**  
Non-overloading, backward inclined blades for maximum efficiency.

**Duct Connection**  
At wheel inlet.

**Aluminum Birdscreen**  
(optional)  
Protection from birds and other objects

**Factory Run & Tested**  
Assures dependable operation

**AMCA Seal**  
Assures rating of Sound and Air performance



**Motor**  
Open drip-proof standard and speed controllable.

**Spun Aluminum Dome**  
Provides compartment for out-of-airstream motor location.

**Disconnect**  
Standard with ODP single speed motors.

**UL Label**  
For electrical reliability

Model CWD is available in our Quickship program. Sizes 7-14 are available for next day or 10-day shipping from stock.



**Industry best 5 year fan housing warranty, 1 year motor warranty**

All specifications are subject to change without notice unless approved in submittal by S&P USA.



## **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.



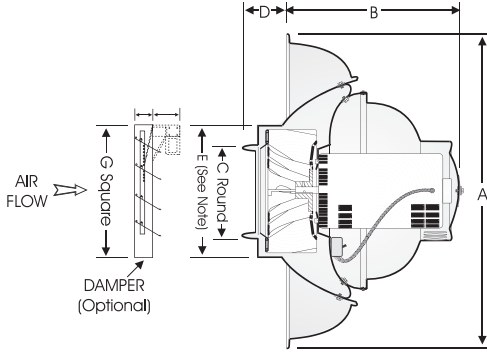
**Automatic Damper:** Automatic aluminum damper for ease in installation and effective backdraft protection.

**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, 8 & 9



Size	A	B	C	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

	CFM / BHP @ Static Pressure / Sones									Catalog Number	HP	RPM	Tip Speed
	0	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1				
CWD 7	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
	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
CWD 8	320 .03/4.0	209 .02/3.5	98 .02/4.0	-	-	-	-	-	-	080A S	1/15	930	2267
	369 .04/5.0	275 .03/4.7	175 .02/5.0	-	-	-	-	-	-	080A S	1/15	1075	2620
	421 .05/6.7	339 .04/6.4	251 .04/6.3	167 .03/6.8	-	-	-	-	-	080A S	1/15	1225	2986
	473 .06/8.9	403 .06/8.5	324 .05/8.2	243 .05/8.3	172 .04/8.7	92 .04/9.1	-	-	-	080A S	1/15	1375	3352
	524 .07/11.8	463 .07/11.4	390 .06/11.1	320 .06/10.7	249 .05/10.9	186 .04/11.1	132 .04/11.4	-	-	080A *	1/15	1550	3778
CWD 9	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
	741 .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	-	-	-	-	-	091A S	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	771 .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.  
 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.

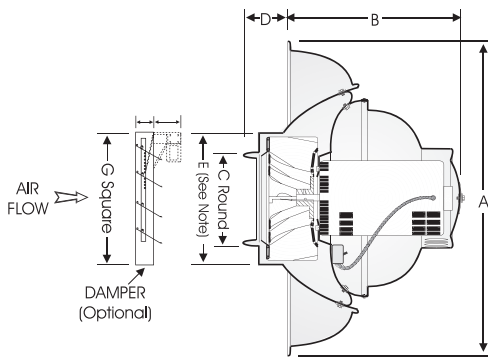


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SIZES 10 & 11



Size	A	B	C	D	E	G	Avg. Ship Wt. (lbs.)
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 @ Static Pressure / Sones									Catalog Number	HP	RPM	Tip Speed
	0	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1				
CWD 10	629	326	-	-	-	-	-	-	-	101A S	1/4	685	2093
	.04/3.0	.03/2.6	-	-	-	-	-	-	-				
	734	474	224	-	-	-	-	-	-	101A S	1/4	800	2444
	.05/4.2	.04/3.7	.04/3.6	-	-	-	-	-	-				
	826	618	369	142	-	-	-	-	-	101A S	1/4	900	2750
	.07/5.3	.07/4.9	.05/4.7	.05/4.6	-	-	-	-	-				
	936	773	527	335	128	-	-	-	-	101A S	1/4	1020	3116
	.10/6.7	.10/6.3	.08/6.1	.07/6.0	.06/6.0	-	-	-	-				
	1046	903	682	503	329	143	-	-	-	101A *	1/4	1140	3483
	.14/8.1	.13/7.7	.11/7.5	.10/7.4	.09/7.4	.08/7.3	-	-	-				
CWD 11	950	794	540	357	173	-	-	-	-	100A S	1/3	1030	3147
	.10/7.5	.09/7.2	.08/6.5	.07/5.7	.06/5.4	-	-	-	-				
	1107	976	777	581	427	274	-	-	-	100A S	1/3	1200	3666
	.15/9.7	.15/9.3	.12/9.0	.11/8.2	.10/7.5	.09/6.8	-	-	-				
	1268	1155	1028	813	657	523	391	250	-	100A S	1/3	1375	4201
	.23/12.2	.22/12.0	.20/11.8	.18/11.3	.16/10.5	.15/9.7	.14/9.1	.13/9.0	-				
	1453	1355	1252	1118	921	785	663	548	433	100A *	1/3	1575	4812
	.33/15.6	.33/15.4	.32/15.3	.30/15.2	.26/14.7	.24/13.8	.23/13.0	.21/12.3	.20/11.6				
	1591	1502	1409	1308	1144	981	859	748	642	100A50*	1/2	1725	5269
	.45/18.1	.44/18.0	.43/17.9	.42/17.8	.38/17.7	.34/17.0	.32/16.2	.31/15.6	.29/14.9				
CWD 11	810	525	240	-	-	-	-	-	-	111A S	1/4	705	2291
	.06/3.9	.05/3.3	.04/3.1	-	-	-	-	-	-				
	919	684	410	164	-	-	-	-	-	111A S	1/4	800	2600
	.08/5.3	.07/4.6	.06/4.5	.06/4.3	-	-	-	-	-				
	1034	837	579	362	134	-	-	-	-	111A S	1/4	900	2925
	.11/6.5	.11/6.0	.09/5.7	.08/5.6	.08/5.4	-	-	-	-				
	1171	1019	783	571	382	183	-	-	-	111A S	1/4	1020	3315
	.16/8.1	.15/7.5	.14/7.2	.13/7.1	.11/7.0	.11/6.9	-	-	-				
	1309	1182	981	772	595	427	251	-	-	111A *	1/4	1140	3705
	.24/9.7	.23/9.2	.21/8.7	.19/8.6	.17/8.6	.16/8.5	.15/8.4	-	-				
CWD 11	1162	1010	813	620	439	-	-	-	-	110A S	1/2	1030	3348
	.14/9.1	.13/8.6	.12/7.8	.11/6.9	.08/6.6	-	-	-	-				
	1354	1243	1069	900	733	577	-	-	-	110A S	1/2	1200	3900
	.22/11.6	.21/11.1	.19/10.6	.18/9.6	.17/8.7	.15/8.6	-	-	-				
	1495	1405	1245	1095	941	792	651	-	-	110A S	1/2	1325	4306
	.29/13.5	.28/13.1	.26/12.6	.25/11.8	.23/11.0	.22/10.9	.20/10.8	-	-				
	1636	1560	1419	1281	1140	1001	865	736	-	110A S	1/2	1450	4713
	.38/15.6	.37/15.2	.35/14.8	.33/14.4	.32/13.5	.30/12.6	.29/11.8	.28/11.6	-				
	1805	1741	1624	1493	1370	1242	1116	991	873	110A *	1/2	1600	5200
	.50/18.4	.49/18.0	.48/17.7	.45/17.3	.44/16.8	.42/15.9	.39/15.0	.38/14.4	.36/13.6				

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.

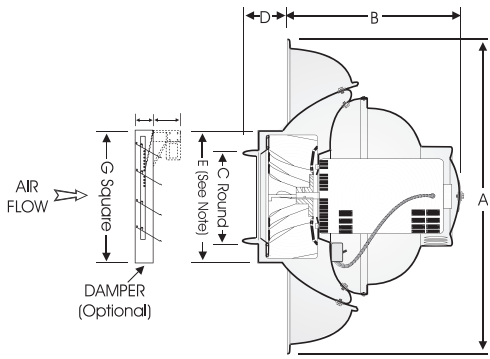


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SIZES 12, 14 & 16



Size	A	B	C	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

	CFM / BHP @ Static Pressure / Sones								Catalog Number	HP	RPM	Tip Speed	
	0	1/8	1/4	3/8	1/2	5/8	3/4	7/8					1
CWD 12	986 .07/5.4	670 .06/3.6	365 .05/3.1	-	-	-	-	-	-	121A S	1/4	685	2471
	1152 .12/6.9	885 .10/5.4	621 .09/4.1	348 .08/4.5	-	-	-	-	-	121A S	1/4	800	2886
	1296 .15/8.5	1058 .13/7.0	816 .12/5.8	589 .11/5.3	340 .10/5.8	-	-	-	-	121A S	1/4	900	3247
	1439 .21/10.2	1227 .20/8.7	1007 .17/7.4	801 .15/6.5	591 .13/6.5	363 .13/7.0	-	-	-	121A 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	-	121A *	1/4	1100	3968
CWD 14	1640 .14/7.0	1382 .12/6.7	913 .10/6.2	498 .09/5.5	-	-	-	-	-	141A S	1/2	685	2939
	1915 .21/9.2	1714 .20/8.8	1366 .18/8.4	971 .15/7.6	614 .14/6.8	-	-	-	-	141A S	1/2	800	3432
	2154 .30/11.4	1987 .29/11.0	1730 .27/10.7	1346 .25/10.1	1028 .22/9.5	711 .21/8.8	390 .20/8.7	-	-	141A S	1/2	900	3861
	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	-	141A S	1/2	1000	4290
CWD 16	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	141A *	1/2	1080	4633
	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 A - free inlet, free outlet.  
 Performance ratings include the effects of birdscreen in the airstream.  
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