

MODEL CWD CENTRIFUGAL SIDEWALL EXHAUSTERS

Application

Models CWD are high capacity sidewall mounted centrifugal exhaust fans rated from 170 to 3360 CFM, with static pressure capabilities to 1 inch. They 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.

The nonoverloading 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.

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.

Model CWD is compatible with belt driven Model DB and companion gravity units to make up a complete ventilation system. 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.

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.
- Nonoverloading 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 (except explosion proof and two speed units).

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.

Automatic Damper: Automatic (gravity operated) damper for ease in installation and effective backdraft protection.

Aluminum Birdscreen: Integrated birdscreen provides protection from birds and other objects. Easily removable to allow access to wheel.

Epoxy Finish: Epoxy forms an excellent hard, heavy film barrier against chemical attack as well as physical damage from direct impact and abrasion.

Other Finishes: Heresite and Eisenheiss are also available when special coatings are required.

Quickship Program

All CWD Models and many optional accessories are available on the Quickship Program. This program provides rapid delivery of standard products so that tight project deadlines can be met and downtime on replacement work can be held to a minimum.

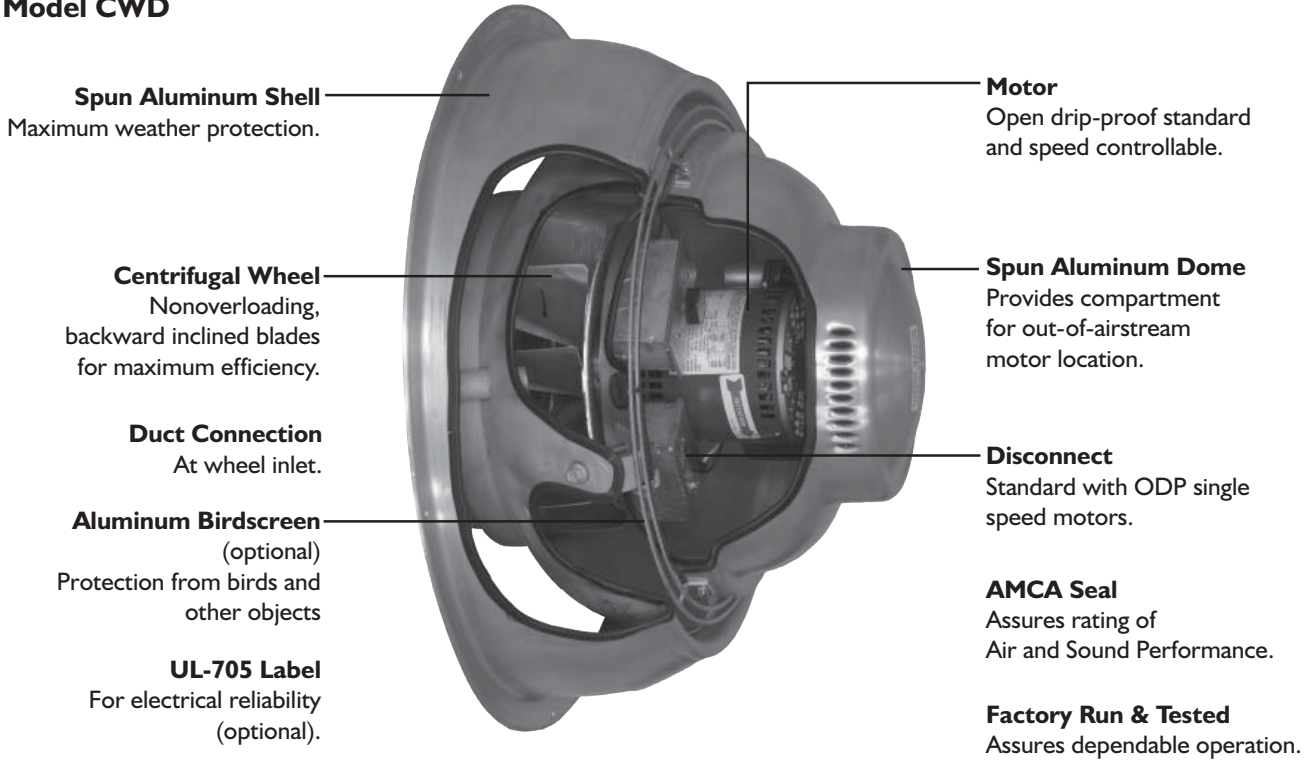
Optimizer Fan Selection Program

Please refer to Breidert's Optimizer program for fan curve, submittal information, and other details of the CWD series and other Breidert products.

All specifications are subject to change without notice unless approved in submittal.

CONSTRUCTION FEATURES

Model CWD



Typical Specifications

Wall exhaust fan shall be of the centrifugal direct drive type. Units shall be constructed of aluminum for durability and appearance. Units shall have a deep spun venturi inlet to help prevent the entry of snow and rain into the building.

Fan wheels shall be of the centrifugal backward inclined type, constructed of all aluminum and containing a matching inlet venturi for optimum unit performance. Wheels shall be statically and dynamically balanced.

Motor assembly shall be isolated from unit to eliminate vibration and noise transmission. Motor and wheel assemblies shall be removable as a complete module without complete disassembly of the unit for service and maintenance. Motors shall be mounted out of the exhaust airstream and cooled by air separate from the exhaust. Motors for use with speed

control shall be closely matched to the fan load and provide good speed controllability without any objectionable noise. Motor shall contain thermal overload protection and be UL705 listed.

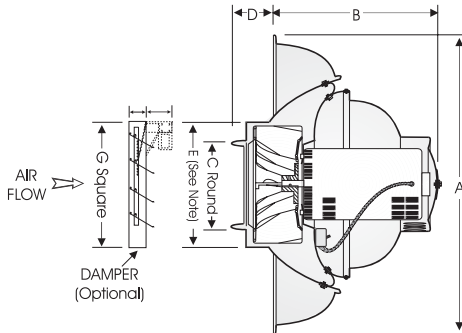
A disconnect shall be provided on all standard single speed ODP motors. A conduit chase shall be provided through to the motor compartment.

Fans shall bear the AMCA ratings seal for Air and Sound Performance. Fans shall bear a permanently attached nameplate displaying model and serial number of unit for future identification.

Fans shall be Models CWD as manufactured by Breidert Air Products.



PERFORMANCE/DIMENSIONS



DIMENSIONAL DATA							
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

SIZES 7, 8 & 9

	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

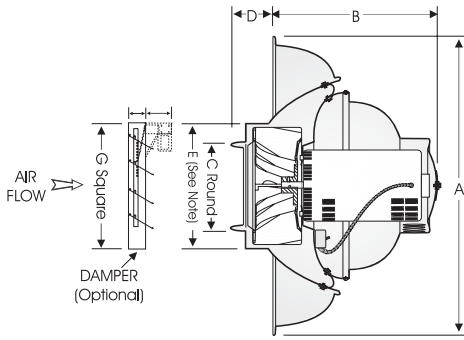
Performance certified is for installation type A - free inlet, free outlet.
 Performance ratings include the effects of birdscreen in the airstream.
 The sound ratings shown are loudness values in fan sones @ 5' (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for free inlet fan 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.



Breidert Air Products, 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.





DIMENSIONAL DATA							
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

SIZES 10 & 11

	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 .04/3.0	326 .03/2.6	-	-	-	-	-	-	-	101A S	1/4	685	2093
	734 .05/4.2	474 .04/3.7	224 .04/3.6	-	-	-	-	-	-	101A S	1/4	800	2444
	826 .07/5.3	618 .07/4.9	369 .05/4.7	142 .05/4.6	-	-	-	-	-	101A S	1/4	900	2750
	936 .10/6.7	773 .10/6.3	527 .08/6.1	335 .07/6.0	128 .06/6.0	-	-	-	-	101A S	1/4	1020	3116
	1046 .14/8.1	903 .13/7.7	682 .11/7.5	503 .10/7.4	329 .09/7.4	143 .08/7.3	-	-	-	101A *	1/4	1140	3483
	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	777 .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	748 .31/15.6	642 .29/14.9	100A50*	1/2	1725	5269
CWD 11	810 .06/3.9	525 .05/3.3	240 .04/3.1	-	-	-	-	-	-	111A S	1/4	705	2291
	919 .08/5.3	684 .07/4.6	410 .06/4.5	164 .06/4.3	-	-	-	-	-	111A 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	-	-	-	-	111A S	1/4	900	2925
	1171 .16/8.1	1019 .15/7.5	783 .14/7.2	571 .13/7.1	382 .11/7.0	183 .11/6.9	-	-	-	111A S	1/4	1020	3315
	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
	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	736 .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.
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S RPM range capable with solid state speed control.

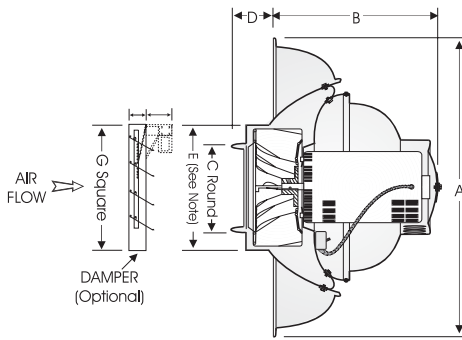
Speed (RPM) shown is nominal. Performance is based on actual speed of test.

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



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DIMENSIONAL DATA							
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

SIZES 12, 14 & 16

	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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S RPM range capable with solid state speed control.

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

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