



MODEL SQD & eSQD

DIRECT DRIVE SQUARE INLINE CENTRIFUGAL DUCT FAN



MODEL FEATURES

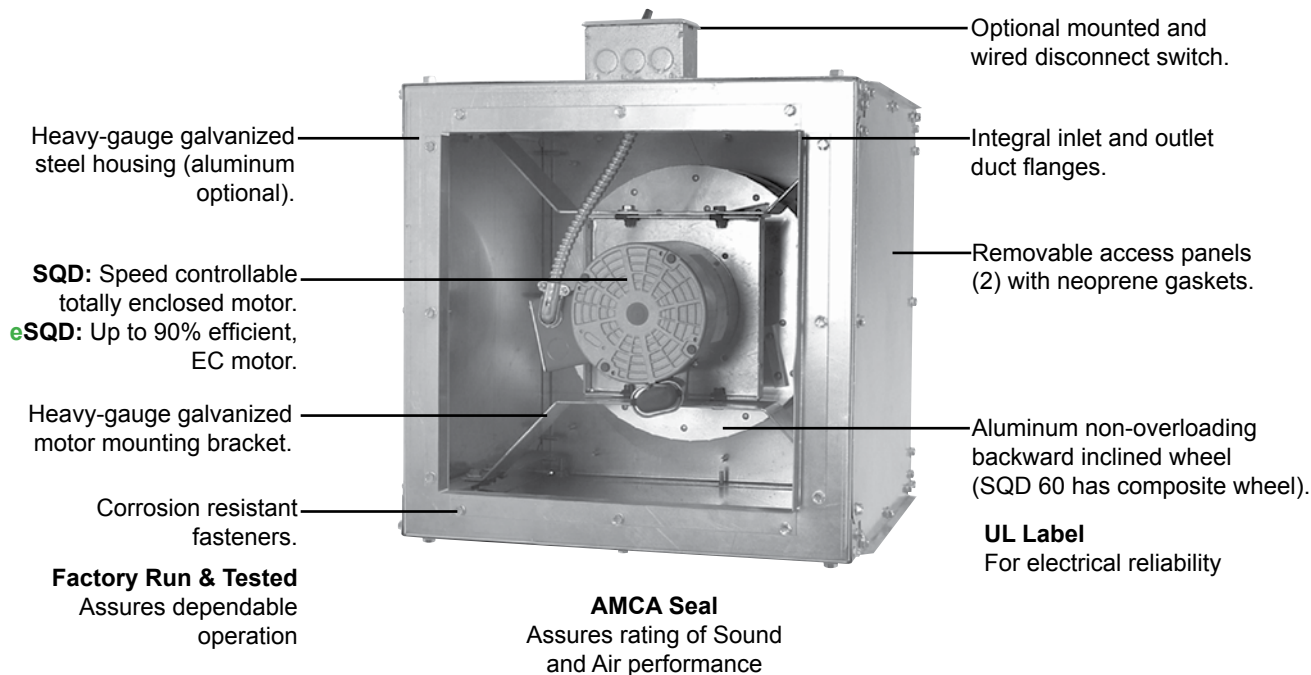
- Exhaust air up to 2,800 CFM in high static pressure applications up to 1" w.g.
- Direct drive units have low sound levels and quiet operation
- Ideal for applications where space is limited
- Non-overloading backward inclined wheel for efficiency at higher static pressures
- AMCA Air and Sound Licensed
- cULus 705 Listed

MODEL OVERVIEW

Model SQD fans are available in sizes 6 through 15, moving up to 2,800 CFM, with static pressure capabilities to 1". SQD units are the perfect selection for clean air applications where space is a leading consideration. The compact housing with removable access doors can be mounted in any orientation.

The eSQD comes with S&P's electronically commutated (EC) motor (eMotor) which offers the energy efficiency of a DC motor with the ease of maintenance of DD motors. The eMotor has a motor mounted potentiometer, and can be controlled by a 0-10V signal. Model eSQD is available in sizes 8, 10 and 12.

CONSTRUCTION FEATURES AND OPTIONS



2 year fan housing warranty, 1 year motor warranty

All specifications are subject to change without notice unless approved in submittal by Soler & Palau

CGV_SQD_1014

October 2014



CONSTRUCTION/SPECIFICATION CHECKLIST

Blower/Housing

- Aluminum, non-overloading, backward inclined centrifugal wheel statically and dynamically balanced. SQD 60 has composite wheel.
- Deep spun venturi inlet.
- Heavy-gauge galvanized steel housing.
- Integral inlet and outlet duct collars.
- Universal mounting - horizontal, vertical, or any angle.
- Easy access to interior of unit with removable side panels with closed cell neoprene gasketing
- Motor and wheel removable from unit without disconnecting duct.

Speed Controllable Motors (SQD)

- Brands are nationally recognized and locally serviced.
- Standard motors are single speed, speed controllable and totally enclosed.
- All motors are rated for continuous duty.
- Disconnect is standard with totally enclosed motors.
- Motors ship mounted as standard.

Electronically Commutated Motors (eSQD)

- Brands are nationally recognized and locally serviced.
- Motor mounted potentiometer for easy speed adjustment.
- Easy speed control by DC 0-10 V variation.
- Motor has 80% usable turndown vs. 30% on a PSC motor.
- Internal motor circuitry converts 115V single phase AC power to DC voltage for increased efficiencies.
- All motors are rated for continuous duty.
- Motor is 115V and 60 Hz.
- Disconnect is standard.
- Motors ship mounted as standard.

Certifications

- AMCA - the AMCA Seal on all units assures certified rating of air and sound performance.
- cULus - most models are available as listed by Underwriters Laboratories under Standard 705 when specified.



eMotor - Electronically Commutated Motor

S&P's eMotor is 115V and 60 Hz and is available in 1/4, 1/3 and 1/2 HP. This fully controllable motor offers both reliability and low maintenance in one of the most efficient motor fan combinations in the industry.

When used in S&P's eSQD inline fan, the eMotor is the ideal solution for a low cost, fully controlled ventilation system. This motor in the eSQD can move air volumes up to 2,300 CFM, equal to that of a belt drive fan, with all the benefits and low maintenance of a direct drive fan.

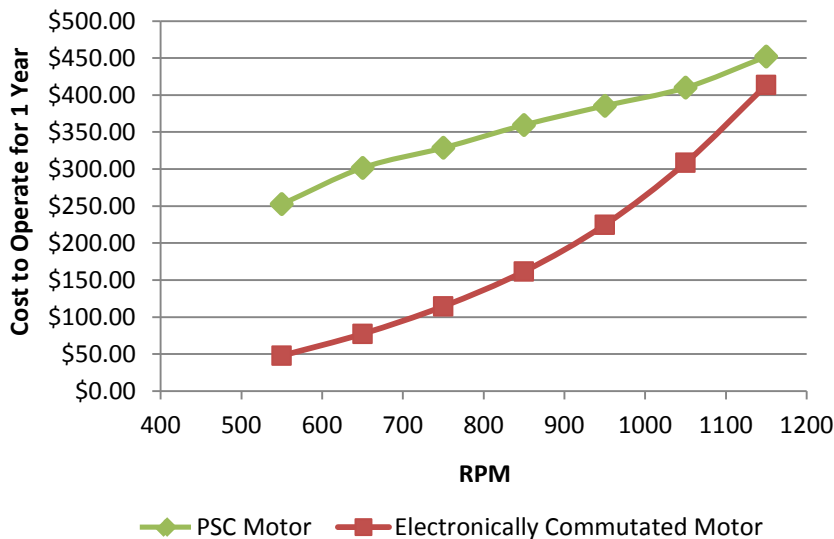


Features and Advantages

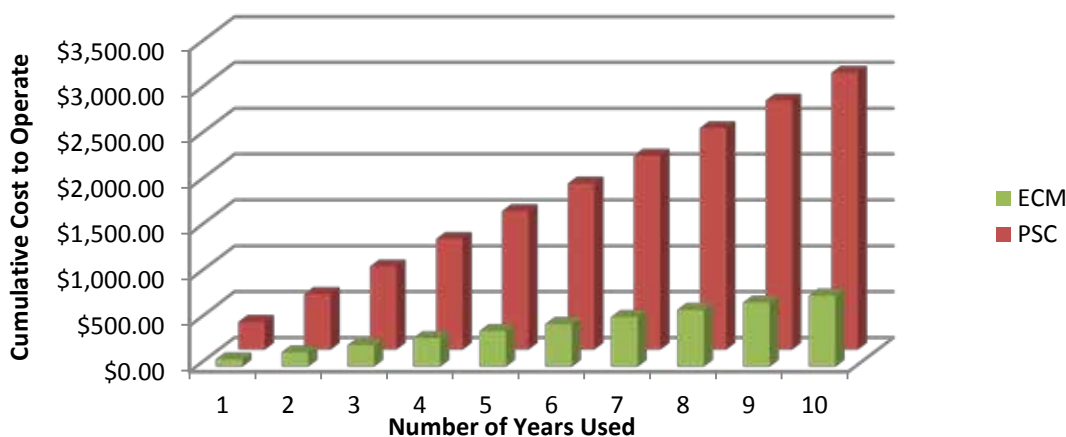
- Motor mounted potentiometer for easy speed adjustment.
- Easy speed control by DC 0-10 V variation.
- Motor has 80% usable turndown vs. 30% on a PSC motor.
- Internal motor circuitry converts 115V single phase AC power to DC voltage for increased efficiencies.
- Motor is 115V and 60 Hz.
- cULus 705 Listing.

Energy Savings = \$ Savings

eSQD with 1/2 HP Motor - Continuous Ventilation



Cost to Operate Motors @ 650 RPM Continuous Ventilation





OPTIONS/ACCESSORIES

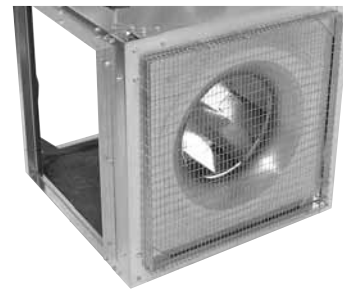
Mounted and Wired Disconnect



Side Discharge



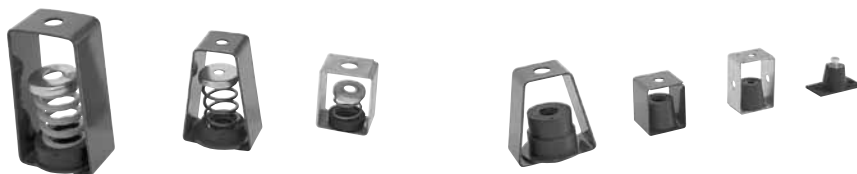
Inlet/Outlet Guard



**Hanging Bracket/
Mounting Foot with
Hanging Spring Isolator**



Hanging Spring Isolators



**Hanging Rubber in
Shear Isolators**

Backdraft Damper



Insulated Housing



Assorted Disconnects



Speed Controls

For SQD models only, not compatible with eSQD



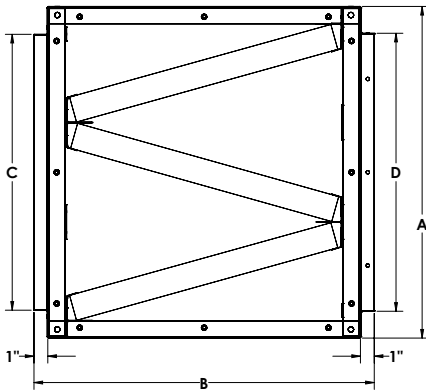


FILTER BOX OPTIONS



Features

- Designed for use with SQD Fans
- Designed to handle 1" or 2" filters
- Galvanized or aluminum construction
- Standard filter is washable aluminum
- MERV 7 (1") or MERV 8 (2") disposable pleated filters available by special quote
- Removable side panels for easy access to filters



Dimensions - Filter Box with 1" Aluminum Filters

Fan Size	Filter Box Dimensions				Avg. Ship Wgt. (lbs)		No. of Filters	1" Filter Nominal Size
	A	B	C	D	Galv.	Alum.		
06	12	17-3/16	8-7/8	9	16	8	1	11x14x1
07-08	25	25	11-7/8	12	28	15	2	15x20x1
10	18	24-1/2	13-7/8	14	35	17	2	16x20x1
12	22	29-1/8	15-7/8	16	48	24	2	20x25x1
15	24	24-5/8	19-7/8	20	49	24	3	20x25x1

Dimensions - Filter Box with 2" Aluminum Filters

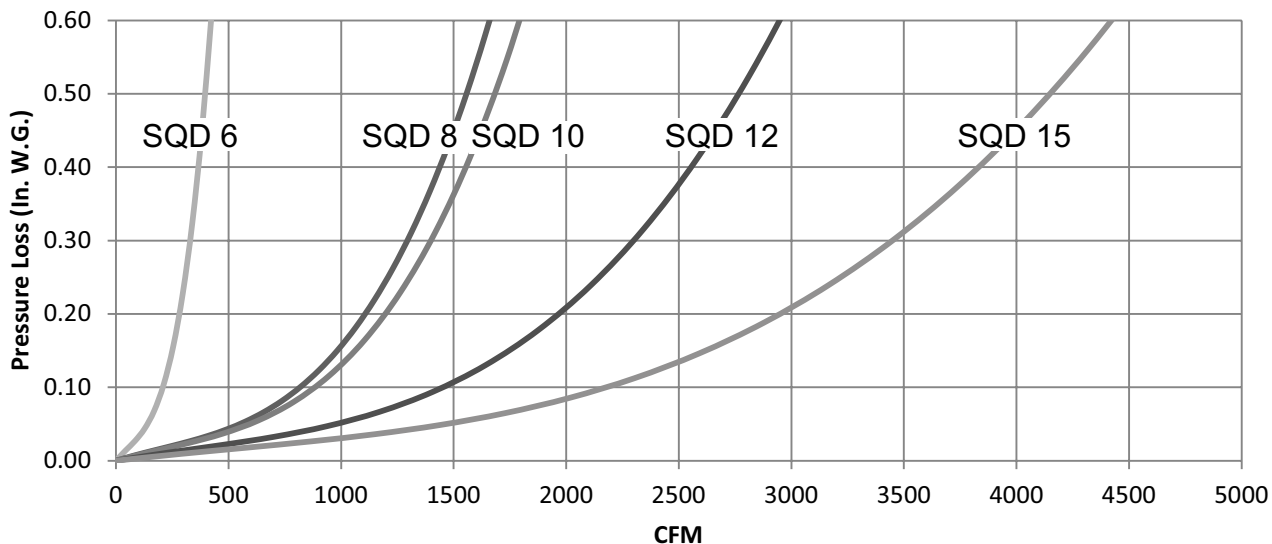
Fan Size	Filter Box Dimensions				Avg. Ship Wgt. (lbs)		No. of Filters	2" Filter Nominal Size
	A	B	C	D	Galv.	Alum.		
06	12	17-3/16	8-7/8	9	17	9	1	11x14x2
07-08	25	25	11-7/8	12	29	16	2	15x20x2
10	18	24-1/2	13-7/8	14	37	19	2	16x20x2
12	22	29-1/8	15-7/8	16	52	27	2	20x25x2
15	24	24-5/8	19-7/8	20	51	26	3	20x25x2



FILTER BOX OPTIONS Cont.

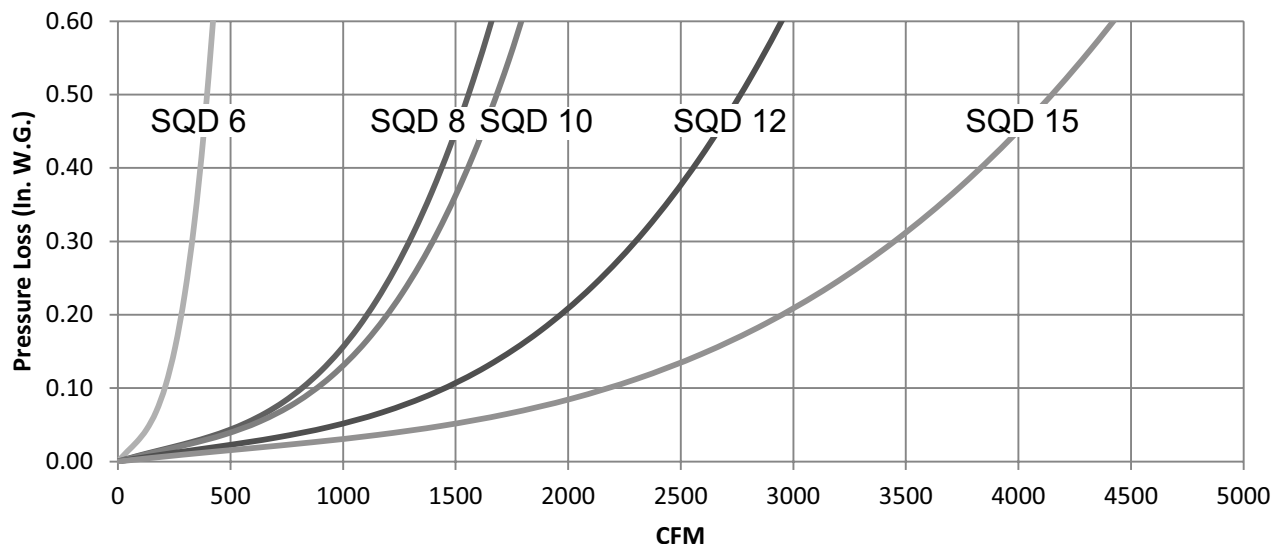
PRESSURE LOSS GUIDE FOR 1" FILTER BOX

Use the estimated pressure drop graphs to help select the proper fan that will deliver the desired airflow. Enter the graph from the bottom at the specified CFM and move vertically upward to the fan curve for the desired size, then horizontally to the left and read the estimated static pressure drop resulting from these typical accessory packages. Add the accessory pressure loss to the system (or building) design static pressure loss to obtain the total static pressure loss to be used for the proper fan selection.



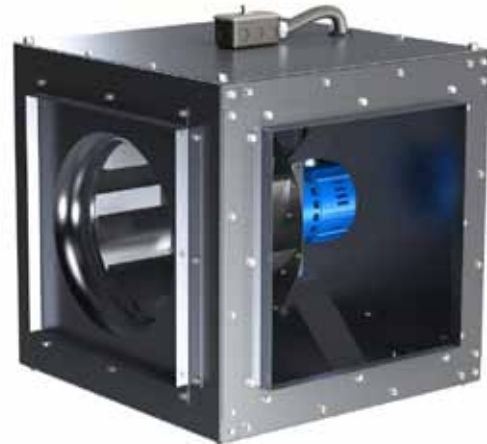
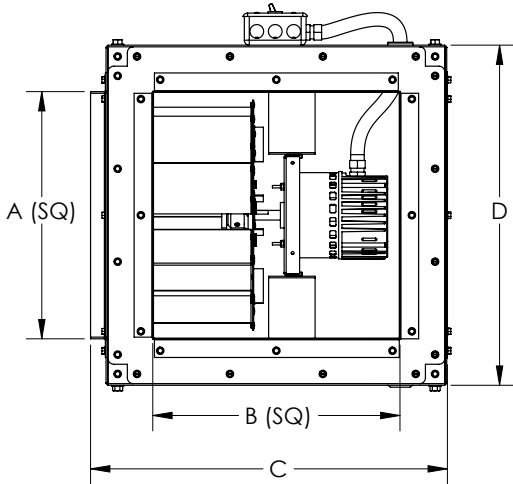
PRESSURE LOSS GUIDE FOR 2" FILTER BOX

Use the estimated pressure drop graphs to help select the proper fan that will deliver the desired airflow. Enter the graph from the bottom at the specified CFM and move vertically upward to the fan curve for the desired size, then horizontally to the left and read the estimated static pressure drop resulting from these typical accessory packages. Add the accessory pressure loss to the system (or building) design static pressure loss to obtain the total static pressure loss to be used for the proper fan selection.





SIDE DISCHARGE OPTION



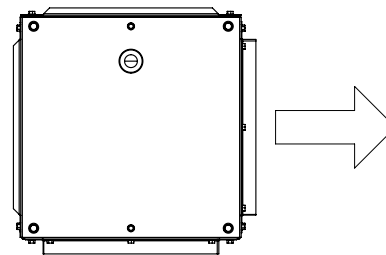
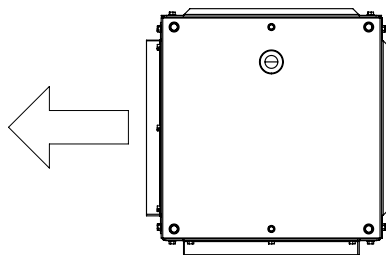
Side Discharge Dimensions

MODEL	A (IN)	B (IN)	C (IN)	D (IN)
SQD 60	8-7/8	8-7/8	13-3/4	13
SQD 610	8-7/8	8-7/8	13-3/4	13
SQD 8125	11-7/8	17-7/8	16-3/4	16
SQD 825	11-7/8	17-7/8	16-3/4	16
SQD 1025	13-7/8	13-7/8	19-3/4	19
SQD 1050	13-7/8	13-7/8	19-3/4	19
SQD 1225	15-7/8	15-7/8	23	23
SQD 1250	15-7/8	15-7/8	23	23
SQD 1550	19-7/8	19-7/8	28-3/8	28

Side Discharge Directions

SIDE DISCHARGE LEFT

SIDE DISCHARGE RIGHT

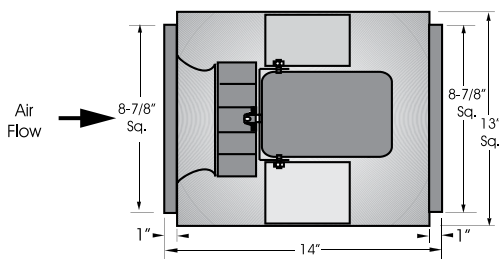


AIRFLOW

AIRFLOW



PERFORMANCE/DIMENSIONS



Unit Specifications

- 18 Ga. galvanized housing.
- Approximate unit weight 30 lbs.
- Aluminum backward inclined wheel. (SQD 60 has composite wheel)
- Removable access panels.
- Integral inlet & outlet duct collars.
- AMCA Licensed Air & Sound.
- Disconnect switch.
- Universal/any angle mounting.

SQD 60

Motor HP	CFM / Sones @ Static Pressure								RPM
	0	1/8	1/4	3/8	1/2	5/8	3/4	1	
100 WATT 2700 RPM	151	93	-	-	-	-	-	-	950
	1.9	1.0	-	-	-	-	-	-	
	199	162	102	-	-	-	-	-	1250
	3.4	2.5	2.2	-	-	-	-	-	
.95 Max Amps @ 115/60/1	238	208	174	116	-	-	-	-	1500
	4.6	3.7	3.5	3.4	-	-	-	-	
	294	269	245	215	170	130	-	-	1850
	6.6	5.6	5.4	5.3	5.2	5.1	-	-	
	334	312	290	268	240	201	158	-	2100
	8.1	7.1	6.8	6.7	6.6	6.5	6.5	-	
	382	362	343	324	304	281	250	176	2400
	10.1	9.2	8.6	8.5	8.5	8.4	8.3	8.3	
	424	406	389	372	355	337	316	257	2700*
	12.0	11.1	10.4	10.3	10.2	10.2	10.1	10.0	

SQD 610

Motor HP	CFM / BHP / Sones @ Static Pressure					RPM
	0	1/8	1/4	3/8	1/2	
1/10 HP 1550 RPM	198	109	-	-	-	950
	.01/2.3	.01/1.8	-	-	-	
	229	158	-	-	-	1100
	.01/3.3	.01/3.0	-	-	-	
	260	200	115	-	-	1250
	.01/4.8	.01/4.6	.01/4.1	-	-	
	291	239	174	-	-	1400
	.01/5.8	.01/5.6	.01/5.2	-	-	
	322	276	222	150	-	1550
	.02/6.8	.02/6.7	.02/6.3	.02/5.9	-	
	343	300	251	190	-	1650
	.02/7.5	.02/7.3	.02/7.1	.02/6.7	-	
	357	316	269	214	137	1710*
	.03/8.0	.03/7.8	.03/7.6	.02/7.2	.02/6.8	

* Base Unit-AMCA seal for sound Rating does not apply to units with speed control installed.
 + RPM range capable with solid state speed control.
 Speed (RPM) shown is nominal. Performance is based on actual speed of test.

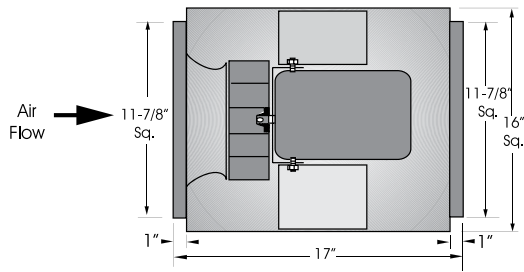
Performance certified is for installation type B - free inlet, ducted outlet.
 Power Ratings (BHP) does not include drive losses.
 Performance ratings do not include the effects of appurtenances in the airstream.

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 fan sone levels.



S&P Canada Ventilation Products, Inc., Div. of Soler & Palau Ventilation Group, certifies that the Models SQD 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.





Unit Specifications

- 18 Ga. galvanized housing.
- Approximate unit weight 60 lbs.
- Aluminum backward inclined wheel.
- Removable access panels.
- Integral inlet & outlet duct collars.
- AMCA Licensed Air & Sound.
- Disconnect switch.
- Universal/any angle mounting.

SQD 8125

Motor HP	CFM / BHP / Sones @ Static Pressure			RPM
	0	1/8	1/4	
1/25 HP 1050 RPM	329	149	-	700
	.01/1.6	.01/1.0	-	
	376	235	-	800
	.01/2.5	.02/1.8	-	
	423	304	-	900
	.02/3.3	.02/2.7	-	
	446	336	164	950
	.03/3.8	.03/3.1	.02/2.7	
	470	336	221	1000
	.03/4.2	.03/3.6	.03/3.1	
493	396	267	1050	
.03/4.7	.03/4.1	.03/3.6		
503	407	284	1070*	
.04/4.9	.04/4.3	.04/3.8		

SQD 825 / eSQD 825

Motor HP	CFM / BHP / Sones @ Static Pressure							RPM
	0	1/8	1/4	3/8	1/2	5/8	3/4	
1/4 HP 1625 RPM	352	202	-	-	-	-	-	750
	.01/2.2	.01/1.6	-	-	-	-	-	
	423	308	-	-	-	-	-	900
	.03/3.4	.03/2.8	-	-	-	-	-	
	493	398	276	-	-	-	-	1050
	.04/4.7	.04/4.1	.04/3.8	-	-	-	-	
	564	482	388	259	-	-	-	1200
	.06/6.4	.06/5.7	.06/5.4	.06/5.1	-	-	-	
	658	588	514	427	313	-	-	1400
	.09/8.3	.09/7.6	.09/7.2	.09/7.0	.09/6.7	-	-	
728	665	600	528	444	335	-	1550	
.13/9.6	.13/9.0	.13/8.5	.13/8.3	.13/8.0	.13/7.8	-		
820	763	706	646	580	504	412	1740*	
.18/11.7	.18/11.1	.18/10.5	.18/10.3	.18/10.0	.18/9.8	.18/9.6		



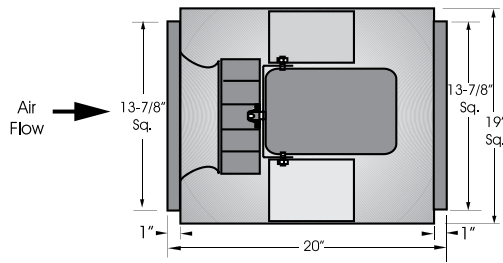
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* Base Unit-AMCA seal for sound Rating does not apply to units with speed control installed.
 + RPM range capable with solid state speed control.
 Speed (RPM) shown is nominal. Performance is based on actual speed of test.

Performance certified is for installation type B - free inlet, ducted outlet.
 Power Ratings (BHP) does not include drive losses.
 Performance ratings do not include the effects of appurtenances 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 fan sone levels.



Unit Specifications

- 18 Ga. galvanized housing.
- Approximate unit weight 75 lbs.
- Aluminum backward inclined wheel.
- Removable access panels.
- Integral inlet & outlet duct collars.
- AMCA Licensed Air & Sound.
- Disconnect switch.
- Universal/any angle mounting.

SQD 1025

Motor HP	CFM / BHP / Sones @ Static Pressure					RPM
	0	1/8	1/4	3/8	1/2	
1/4 HP 1075 RPM	562	305	-	-	-	600
	.02/2.3	.02/1.5	-	-	-	
	655	451	-	-	-	700
	.04/3.3	.04/2.7	-	-	-	
	749	575	-	-	-	800
	.05/4.5	.05/3.9	-	-	-	
	842	692	514	-	-	900
	.08/5.8	.08/5.2	.08/4.5	-	-	
	936	804	651	434	-	1000
	.10/7.1	.11/6.6	.11/6.0	.10/5.2	-	
983	858	714	547	-	1050	
.12/7.8	.12/7.2	.12/6.8	.12/6.0	-		
1076	964	836	698	473	1150*	
.16/9.2	.16/8.7	.16/8.3	.16/7.7	.16/7.0		

SQD 1050 / eSQD 1050

Motor HP	CFM / BHP / Sones @ Static Pressure								RPM
	0	1/8	1/4	3/8	1/2	5/8	3/4	1	
1/2 HP 1625 RPM	553	292	-	-	-	-	-	-	600
	.02/2.2	.02/1.5	-	-	-	-	-	-	
	738	567	321	-	-	-	-	-	800
	.04/4.2	.04/3.5	.03/3.1	-	-	-	-	-	
	968	845	703	524	-	-	-	-	1050
	.08/7.1	.09/6.4	.09/6.0	.08/5.6	-	-	-	-	
	1106	1000	883	748	584	-	-	-	1200
	.13/9.1	.13/8.5	.13/8.1	.13/7.7	.12/7.3	-	-	-	
	1245	1151	1050	940	815	667	-	-	1350
	.18/11.0	.19/10.5	.19/10.1	.19/9.6	.18/9.3	.18/8.9	-	-	
1337	1250	1158	1058	949	826	680	-	1450	
.22/12.3	.23/11.7	.23/11.2	.23/10.9	.23/10.6	.22/10.2	.21/9.9	-		
1521	1445	1366	1283	1194	1098	993	740	1650	
.33/15.2	.34/14.5	.34/13.9	.34/13.6	.34/13.2	.34/12.9	.33/12.6	.31/12.0		
1578	1505	1430	1350	1266	1175	1078	852	1710*	
.37/16.2	.38/15.4	.38/14.7	.38/14.4	.38/14.1	.38/13.8	.38/13.5	.36/13.0		

* Base Unit-AMCA seal for sound Rating does not apply to units with speed control installed.
 + RPM range capable with solid state speed control.
 Speed (RPM) shown is nominal. Performance is based on actual speed of test.

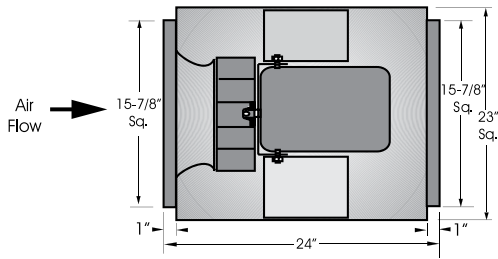
Performance certified is for installation type B - free inlet, ducted outlet.
 Power Ratings (BHP) does not include drive losses.
 Performance ratings do not include the effects of appurtenances in the airstream.

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 fan sone levels.



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Unit Specifications

- 18 Ga. galvanized housing.
• Approximate unit weight 90 lbs.
• Aluminum backward inclined wheel.
• Removable access panels.
• Integral inlet & outlet duct collars.
• AMCA Licensed Air & Sound.
• Disconnect switch.
• Universal/any angle mounting.

SQD 1225

Table with Motor HP (1/4 HP 1075 RPM) and CFM / BHP / Sones @ Static Pressure (0, 1/8, 1/4, 3/8, 1/2) columns, and RPM (650, 800, 900, 1000, 1050, 1100, 1120*) rows.

SQD 1250 / eSQD 1275

Table with Motor HP (1/2 HP 1625 RPM) and CFM / BHP / Sones @ Static Pressure (0, 1/8, 1/4, 3/8, 1/2, 5/8, 3/4, 1) columns, and RPM (600, 800, 950, 1050, 1300, 1500, 1620*) rows.

* Base Unit-AMCA seal for sound Rating does not apply to units with speed control installed.
+ RPM range capable with solid state speed control.
Speed (RPM) shown is nominal. Performance is based on actual speed of test.

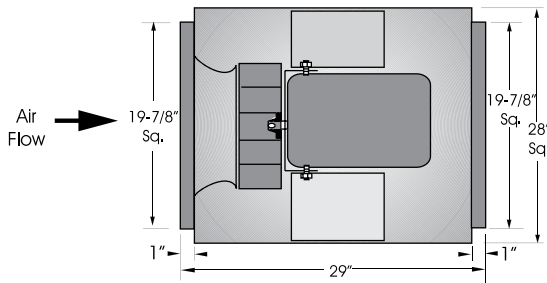
Performance certified is for installation type B - free inlet, ducted outlet.
Power Ratings (BHP) does not include drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.

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 fan sone levels.



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Unit Specifications

- 18 Ga. galvanized housing.
- Approximate unit weight 120 lbs.
- Aluminum backward inclined wheel.
- Removable access panels.
- Integral inlet & outlet duct collars.
- AMCA Licensed Air & Sound.
- Disconnect switch.
- Universal/any angle mounting.

SQD 1550

Motor HP	CFM / BHP / Sones @ Static Pressure							RPM
	0	1/8	1/4	3/8	1/2	5/8	3/4	
1/2 HP 1075 RPM	1348	847	-	-	-	-	-	500
	.05/3.8	.05/3.1	-	-	-	-	-	
	1618	1187	797	-	-	-	-	600
	.09/5.5	.09/4.8	.08/4.3	-	-	-	-	
	1887	1517	1174	793	-	-	-	700
	.14/7.2	.14/6.6	.14/6.1	.12/5.8	-	-	-	
	2157	1839	1515	1233	833	-	-	800
	.22/9.2	.22/8.6	.21/8.0	.20/7.7	.18/7.4	-	-	
	2426	2152	1849	1585	1335	994	-	900
	.31/11.5	.31/10.8	.31/10.2	.30/9.8	.29/9.5	.26/9.2	-	
2696	2456	2178	1924	1695	1469	1187	1000	
.42/14.0	.42/13.4	.42/12.7	.42/12.2	.41/11.8	.39/11.5	.37/11.2		
2879	2658	2399	2151	1928	1719	1501	1060*	
.51/15.8	.51/15.2	.51/14.6	.51/14.1	.51/13.7	.49/13.3	.47/13.0		

* Base Unit-AMCA seal for sound Rating does not apply to units with speed control installed.
 + RPM range capable with solid state speed control.
 Speed (RPM) shown is nominal. Performance is based on actual speed of test.

Performance certified is for installation type B - free inlet, ducted outlet.
 Power Ratings (BHP) does not include drive losses.
 Performance ratings do not include the effects of appurtenances 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 fan sone levels.



S&P Canada Ventilation Products, Inc. Div. of Soler & Palau Ventilation Group, certifies that the Models SQD 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.

