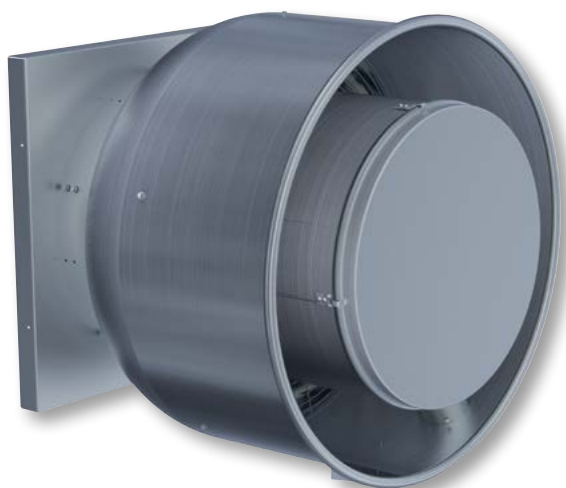


**TURNING AIR INTO SOLUTIONS.**

Fan & Blower  
**Twin City**



## **UPBLAST ROOF, WALL & KITCHEN EXHAUSTERS**

**DCRU | DCRUR | DCRW | DCRWR | BCRU | BCRUR | BCRW | BCRWR | BCRUSH**

**CATALOG 4105**  
**May 2016**

# ROOF & WALL EXHAUSTERS

## General Exhaust



**Upblast Roof Exhausters**

Fan & Blower  
**Twin City**

### Overview

Twin City Fan & Blower's line of quiet, efficient, and economical spun aluminum centrifugal power roof and wall exhausters are designed to offer value and long-lasting service in a wide variety of commercial and industrial ventilating applications.

Other applications for the DCRU/BCRU & DCRW/BCRW include fume hood, paint booth, and carbon monoxide exhaust.

### Models DCRU & BCRU

Models DCRU/BCRU are designed for roof mounted exhaust of clean air in applications where it is desirable to move the exhausted air up and away from the building, and where re-entry into the building supply air is possible.

#### Model DCRU (Direct Drive)

- > Available in 14 sizes from size 071 to 180
- > All sizes are speed controllable with ODP 115V motors
- > Available with EC Motor
- > Airflow to 4,600 CFM
- > Static pressure to 1.5" w.g.
- > AMCA Licensed for Sound, Air, and Fan Efficiency Grade
- > UL 705 listed

#### Model BCRU (Belt Driven)

- > Available in 20 sizes from size 110 to 480, including seven high-pressure models
- > Airflow to 29,100 CFM
- > Static pressure to 3.25" w.g.
- > AMCA Licensed for Sound, Air, and Fan Efficiency Grade
- > UL 705 listed



Twin City Fan & Blower certifies that the DCRU, DCRUR, DCRW, DCRWR, BCRU, BCRUR, BCRW, BCRWR, and BCRUSH Series shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



Fan Efficiency Grade (FEG) certification applies to the models and sizes shown in the table on page 11.



DCRU, DCRUR, DCRW, DCRWR, BCRU, BCRUR, BCRW, BCRWR, and BCRUSH models are cULus 705 listed, for electrical, File No. E158680.



DCRUR, DCRWR, BCRUR, and BCRWR models are cULus 762 listed, for the exhaust of grease-laden air, File No. E158680.

Model BCRUSH is UL listed for Smoke Control Systems, File No. E158680, 500°F for 4 hours and 1000°F for 15 minutes.



For complete product performance, drawings, and available accessories, download Fan Selector at [tcf.com](http://tcf.com).



## General Exhaust

### Models DCRW & BCRW

Models DCRW/BCRW are designed for general exhaust of clean air in a wall-mounted, horizontal configuration. The wall-mounted fans are supplied with a heavy-duty 4" wall-mounting bracket. A 10" wall-mounting bracket is supplied when a gravity or motorized damper is utilized.

### Model DCRW (Direct Drive)

- > Available in 14 sizes from size 071 to 180
- > All sizes are speed controllable with ODP 115V motors
- > Available with EC Motor
- > Airflow to 4,600 CFM
- > Static pressure to 1.5" w.g.
- > AMCA Licensed for Sound, Air, and Fan Efficiency Grade
- > UL 705 listed

### Model BCRW (Belt Driven)

- > Available in 16 sizes from size 110 to 300, including six high-pressure models
- > Airflow to 15,100 CFM
- > Static pressure to 3.25" w.g.
- > AMCA Licensed for Sound, Air, and Fan Efficiency Grade
- > UL 705 listed



Wall Exhausters

## Smoke & Heat Exhaust

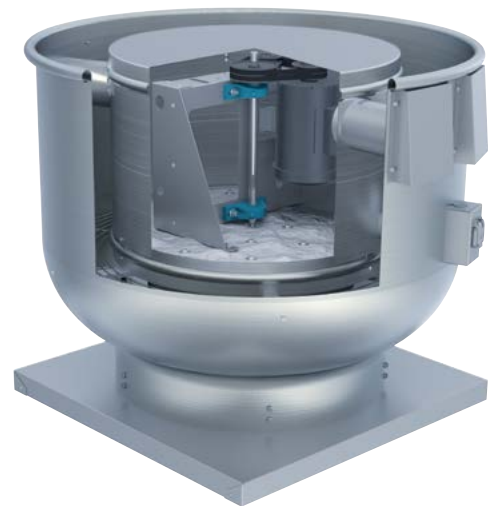
### Model BCRUSH (Belt Driven)

Model BCRUSH is specifically designed for smoke control applications where temperatures can reach 1000°F and is designed to remove smoke from buildings in the event of a fire. The BCRUSH is UL listed for Smoke Control Systems, 500°F (260°C) for 4 hours and 1000°F (537°C) for 15 minutes.

- > Available in 11 sizes from 110 to 480
- > Airflow to 29,100 CFM
- > Static pressure to 3.25" w.g.
- > AMCA Licensed for Sound, Air, and Fan Efficiency Grade
- > UL listed for Smoke Control Systems

### Unique Features

- > Steel Wheel – Provides rigidity when exposed to high temperature airstreams.
- > Multiple Cooling Tubes – Provide cooling by drawing outside air into the motor and drive compartment.
- > Insulation – Bottom of motor compartment and wireway are insulated with ceramic insulation rated to 2000°F.
- > Dual Groove Drive – Oversized for added assurance.
- > Aluminum Nameplate – For future identification.



Upblast Roof Exhausters

## Kitchen Exhaust



**Upblast Roof Exhausters**

### Models DCRUR & BCRUR

Models DCRUR/BCRUR are similar to the DCRU/BCRU, but are specifically designed for exhausting grease-laden air from kitchens, restaurants, cooking and dishwasher hoods. Twin City Fan & Blower also offers grease collection systems for kitchen and restaurant use.

#### Model DCRUR (Direct Drive)

- > Available in 14 sizes from size 071 to 180
- > All sizes are speed controllable with ODP 115V motors
- > Available with EC Motor
- > Airflow to 4,600 CFM
- > Static pressure to 1.5" w.g.
- > AMCA Licensed for Sound, Air, and Fan Efficiency Grade
- > UL 762 listed for Grease Laden Air

#### Model BCRUR (Belt Driven)

- > Available in 18 sizes from size 110 to 360, including seven high-pressure models
- > Airflow to 20,700 CFM
- > Static pressure to 3.25" w.g.
- > AMCA Licensed for Sound, Air, and Fan Efficiency Grade
- > UL 762 listed for Grease Laden Air



**Wall Exhausters**

### Models DCRWR & BCRWR

Models DCRWR/BCRWR are designed for general exhaust of clean air in a wall-mounted, horizontal configuration.

#### Model DCRWR (Direct Drive)

- > Available in 14 sizes from size 071 to 180
- > All sizes are speed controllable with ODP 115V motors
- > Available with EC Motor
- > Airflow to 4,600 CFM
- > Static pressure to 1.5" w.g.
- > AMCA Licensed for Sound, Air, and Fan Efficiency Grade
- > UL 762 Listed

#### Model BCRWR (Belt Driven)

- > Available in 16 sizes from size 110 to 300, including six high-pressure models
- > Airflow to 15,100 CFM
- > Static pressure to 3.25" w.g.
- > AMCA Licensed for Sound, Air, and Fan Efficiency Grade
- > UL 762 Listed

## Exploded View

**Motor Cover** Provides complete protection for the motor and drive assembly, while allowing quick access to these components without the need for tools.

**Motor Housing** Constructed from heavy-gauge aluminum for durability and appearance. Includes conduit tubing for routing electrical wiring through the outer shroud and into the motor compartment.

**Motors** ODP, TEFC, and explosion proof, single and three phase motors are carefully matched to the fan load.

**Vibration Isolation** Motor and drive assembly is completely isolated from the fan supports by rubber isolators to reduce transmission of noise and vibration (all models except BCRUSH).

**Drive (Belt Driven)** Adjustable pitch V-belt drives with cast iron sheaves and heat resistant belts are selected at 150% of the driven motor horsepower. Drives on model BCRUSH are dual groove as standard.

**Bearings (Belt Driven)** Heavy-duty re-greaseable pillow block ball bearings are specifically designed for air handling applications to provide an average life (L-50) of 500,000 hours or more at maximum cataloged operating speeds.

**Shaft (Belt Driven)** Precision ground and polished with a first critical speed of at least 125% of the fan's maximum operating speed.

**Galvanized Birdscreen** Protects the wheel, inlet, and internal components from entry of birds. Optional on models BCRUR and DCRUR. Standard on 'WR' models.

**Wheel** Quiet and efficient non-overloading, heavy-gauge wheels with backwardly curved blades are precisely matched to a deep spun venturi. All wheels are statically and dynamically balanced to ensure smooth and quiet operation.

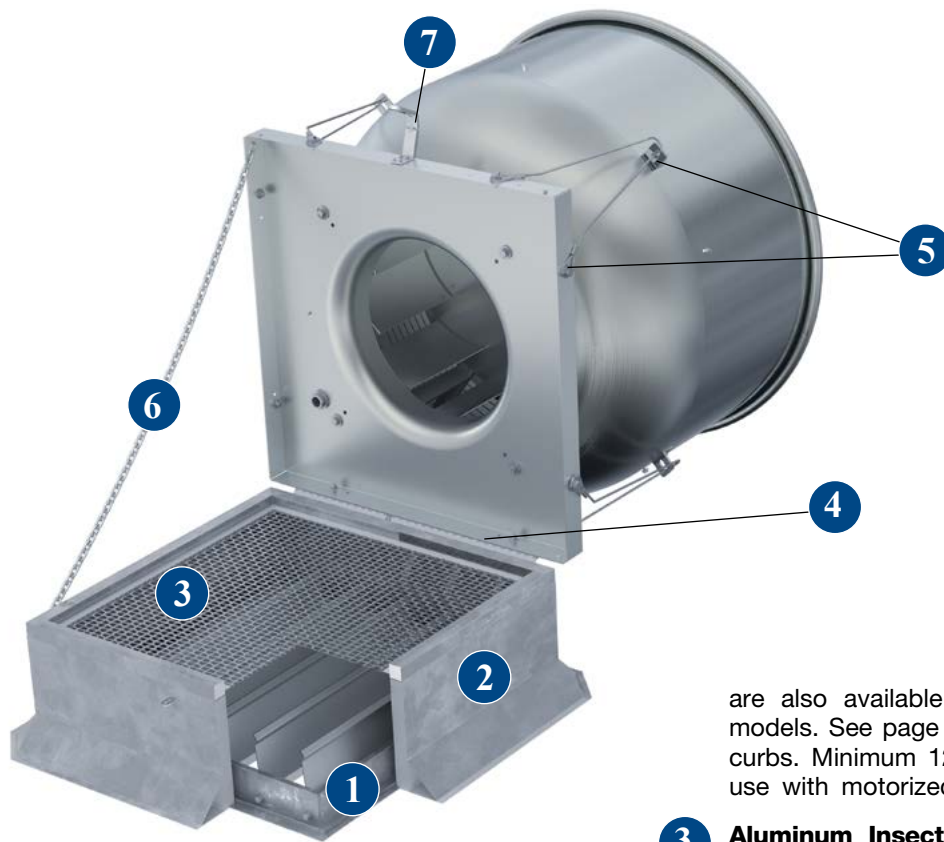
**Fan Shroud** Heavy-gauge spun aluminum with rolled bead edge provides rigidity. Motor Cooling Tubes are incorporated into the exterior of shroud to draw outside air into the motor and drive compartment.

**Curb Cap** One-piece curb cap/inlet venturi assembly provides protection from weather. Pre-punched mounting holes provide easy and accurate attachment to the roof curb.





# OPTIONS/ACCESSORIES



- 1 Backdraft Damper (DCRU, BCRU)** with automatic or motorized operation, feature a felt seal on the edge of the damper blades for quiet operation. Damper frames are constructed of 19-gauge galvanized steel and blades are constructed of 26-gauge aluminum.

Motorized dampers are recommended for low CFM applications to assure unrestricted airflow. Motorized dampers are available with 115, 208, 230, 460, 575 or 24 volt service. End switches are available. When a motorized damper option is selected a 12" (or greater) high roof curb is required.

**(DCRW, BCRW)** with automatic or motorized operation, feature a vinyl seal on the edge of the damper blades for quiet operation. Damper frames are constructed of 20-gauge galvanized steel and blades are constructed of 26-gauge aluminum.

Motorized dampers are available with 115, 208, 230, 460, or 575 volt service, and have end switches as standard.

- 2 Canted Roof Curb** Prefabricated roof curbs are available in heavy duty galvanized steel or aluminum construction, in heights of 8", 12" or 18". The canted curb is provided with a factory installed wood nailer. Curbs are provided with 1.5" of insulation as standard and feature continuously welded seams for added rigidity and moisture protection. Prefabricated curbs

are also available in raised cant, pitched and peak models. See page 10 for additional information on roof curbs. Minimum 12" high curbs are recommended for use with motorized dampers.

- 3 Aluminum Insect Screen** Provides protection from entry of insects into wheel, inlet and interior of building. Available for DCRU, DCRW, BCRU, and BCRW fans only.
- 4 Curb Hinge** The curb hinge arrangement provides easy access to the exhaust fan, backdraft damper and duct for servicing and cleaning. The curb hinge is of the piano type, running the entire length of the fan's curb base. The curb hinge option ships loose and is designed for use with a standard canted curb only (1.5" less than fan base). This option cannot be used with self-flashing curbs. Available as an option on models DCRU, DCRUR, BCRU, BCRUR, and BCRUSH.
- 5 Tie-Down Brackets** A quantity of four brackets are mounted to the fan shroud to allow the fan to be secured to the roof in areas where high winds are a concern. Guy wires are supplied and installed by others.
- 6 Retaining Chain** is available in conjunction with the curb hinge arrangement to stabilize the unit and to prevent damage from occurring to the unit while servicing and cleaning.
- 7 Security Hasp** is available in conjunction with the curb hinge arrangement to prevent removal of the unit from the roof curb and prevent entrance into the building through the roof's ductwork.



**1 Grease Box** Removable, for disposal of collected grease. Available for DCRUR & BCRUR fans only.

**2 Drain Connection (Downspout)** Removable, for disposal of collected grease. Available for DCRUR & BCRUR fans only.

**3 Vented Roof Curbs** Self-flashing style curbs with ventilation louvers allow ambient air in to cool and dilute grease- or smoke-laden airstreams. Available for DCRUR, BCRUR and BCRUSH fans only.

**4 Variable Speed Control** Variable speed control is an optional accessory on all DCRU, DCRUR, DCRW, and DCRWR models with 115 volt, open type speed-controllable motors, to allow the adjustment of airflow for system balancing. Variable speed controllers are solid-state (Tri-ac) design and feature an RFI filter, minimum speed trim adjustment capability, and a built-in on/off line switch. The speed controller is designed to start the motor on high speed for better startup characteristics. Variable speed controls have the option of being shipped separately, factory installed, or field installed on the unit at a later date. Motor must be ODP 115V PSC or shaded pole type.

## OTHER OPTIONS/ACCESSORIES INCLUDE:

- > Special Coatings
- > 2-Speed Switch (Single Phase, 1 HP and below)
- > Firestat (Single Phase)
- > AMCA Spark B
- > Performance Baffle
- > Aluminum Bird Screen
- > Miami Dade Construction
- > Stainless Steel Hardware
- > Stainless Steel Shaft
- > NEMA-4 Disconnect Switch (see page 9)
- > NEMA-3R Disconnect Switch (see page 9)

Fan & Blower  
**Twin City**



# ELECTRICALLY COMMUTATED MOTORS

## EC Motors



DCRU Direct Drive  
With ECTEFC Motor



Motor Mounted  
Speed Control Dial



Remote Mounted  
Speed Control Dial



0-10V DC Lead  
For Building Control  
Systems



ECTEFC Motors  
Available in 1 & 2 HP

Twin City Fan is now offering its own line of custom engineered Electronically Commutated (EC) motors. Electronic commutation is the latest motor technology to be used in direct drive fans. Also known in the industry as Brush Free or Brushless DC, the EC motors utilize an electronic circuitboard to control the functionality of the motor. The motor operates off of single phase AC power, which is converted to DC power within the motor's circuitry. TCF has motor options available for 115 or 208-230V single phase electrical power. The result is a highly efficient motor, even at part load, with an expanded speed control range and a variety of speed control options from which to choose. EC motors are available in ODP, TENV and TEFC enclosures.

### Benefits

- Efficiencies up to 85%
- Constant efficiency as the motor speed is varied
- Up to 66% energy savings over traditional PSC motors
- Performance range comparable to a belt drive fan with reduced maintenance benefits of a direct drive fan
- 80% usable turndown range as compared with 40% maximum on PSC motors
- Soft start gives fans smooth, quiet start
- Lower operating temperatures result in longer life and reduces energy consumption
- Heavy duty ball bearings are permanently lubricated
- Elimination of VFD results in lower initial cost

### Speed Control Options

- Motor Mounted Dial – A potentiometer is mounted to the motor housing offering full speed control range. Speed adjustment is made with a small flat head screwdriver making system balance simple and easy. Also eliminates the need to mount or wire a speed controller.
- 0-10V DC Lead – A 36" long control lead is prewired to the motor which accepts a 0-10V DC signal and can be wired into building control systems.
- Remote Mounted Dial – A wall mounted dial allows the fan to be controlled from within the building by sending the motor a 0-10V DC signal. This option includes a 115V to 24V AC transformer mounted in a NEMA 1 electrical enclosure.

Fan & Blower  
**Twin City**



## Overview

### NEMA-1 Disconnect Switch

A NEMA-1 disconnect switch provides positive electrical shutoff during fan cleaning or maintenance of fan. DCRU, DCRW, BCRU, and BCRW fans are provided with a NEMA-1 type disconnect switch in the motor compartment when ODP or TEFC motors are used.

### NEMA-3R Disconnect Switch

DCRUR, DCRWR, BCRUR, BCRWR, and BCRUSH fans are provided with a NEMA-3R rain-tight disconnect switch, externally mounted when ODP or TEFC motors are used. NEMA-3R, rain proof, disconnects are available shipped loose for field mounting and wiring or factory mounted and wired on models DCRU, DCRW, BCRU and BCRW.

### NEMA-4 Disconnect Switch

A NEMA-4 disconnect switch (optional) is mounted externally and is water- and dust-tight. Switch is available shipped loose for field mounting and wiring or factory mounted and wired. NEMA 3R enclosure is also available.

### NEMA-7/9 Disconnect Switch

NEMA-7/9 disconnect switches are provided as standard on fan packages with explosion proof motors. The NEMA-7/9 switch is designed for use with fans operating in hazardous environments. When explosion proof motors are specified, NEMA-7/9 disconnects will be shipped loose for field mounting and wiring.



NEMA-1 Disconnect Switch



NEMA-3R Disconnect Switch



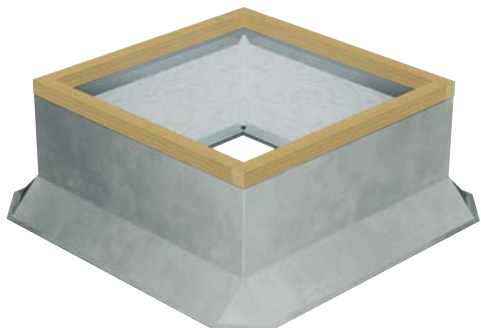
NEMA-4 Disconnect Switch

MODEL	STANDARD DISCONNECT SWITCH			
	NEMA-1	NEMA-3R	NEMA-4	NEMA-7/9
DCRU	Standard	Optional	Optional	Standard, w/EXP motor*
DCRUR	—	Standard	Optional	Standard, w/EXP motor*
DCRW	Standard	Optional	Optional	Standard, w/EXP motor*
DCRWR	—	Standard	Optional	Standard, w/EXP motor*
BCRU	Standard	Optional	Optional	Standard, w/EXP motor*
BCRUR	—	Standard	Optional	Standard, w/EXP motor*
BCRW	Standard	Optional	Optional	Standard, w/EXP motor*
BCRWR	—	Standard	Optional	Standard, w/EXP motor*
BCRUSH	—	Standard	Optional	Standard, w/EXP motor*

\* Always ships loose

# PREFABRICATED ROOF CURBS

## Overview



### Canted Roof Curbs

- Constructed of 18-gauge galvanized steel with continuous welded seams
- Large 3" built-in 45° cant to accommodate roofing material to top of curb. Cant is beveled at corners for better support of roofing material
- Wood nailer (1½") secured to top ledge
- Lined with 1½" fiberglass fire-resistant, sound-absorbing insulation
- Damper shelf standard
- **Options:** Aluminum (16-gauge) construction, Burglar security bars, Metal liner (galvanized or aluminum), Special heights up to 24", Single or double pitched curbs for sloping roofs



### Self Flashing & Straight Sided Roof Curbs

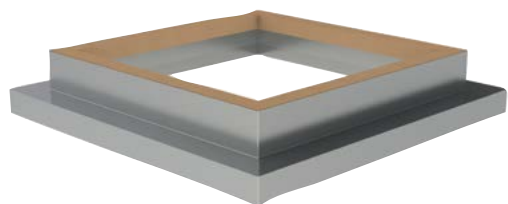
- Constructed of 18-gauge galvanized steel with continuous welded seams
- Wide base plate (flashing) to insure watertight seal to roof
- Top ledge covered with ¾" polystyrene gasket for weather seal and to reduce metal-to-metal conducted noise
- Lined with 1½" fiberglass fire-resistant, sound-absorbing insulation
- Damper shelf standard
- Straight-sided roof curbs are constructed with the same features as the self-flashing curbs, but are one dimensional to allow for field supplied cants and roofing material to be brought up to the top of the curb
- **Options:** Aluminum (16-gauge) construction, Burglar security bars, Metal liner (galvanized or aluminum), Special heights up to 24", Wood nailer (1½") secured to top ledge in lieu of polystyrene gasket, Single or double pitched curbs for sloping roofs



### Self Flashing Vented Roof Curbs

#### For High Temperature Applications

- Completely assembled unit, easier to install and less expensive than a field constructed curb
- Constructed of 18-gauge galvanized steel with continuous welded seams and wide base flashing for watertight seal to roof
- Meets NFPA-96 code requirements
- Top ledge covered with ¾" polystyrene gasket
- Furnished with ventilation slots



### Curb Adapters

- Constructed of heavy-gauge galvanized steel with continuous welded seams
- Top ledge covered with ¾" polystyrene gasket to reduce metal-to-metal conducted noise and act as a weather seal
- Available in enlarger or reducer (shown) models



## Direct Drive



### DCRU / DCRUR / DCRW / DCRWR

EC MOTOR		PSC MOTOR		RPM	MAX. INPUT WATTS	STATIC PRESSURE (INCHES W.G.)																				
SIZE	MTR HP	SIZE	MTR HP			0		0.125		0.25		0.375		0.50		0.625		0.75		1.00		1.25		1.50		
						CFM	Sone	CFM	Sone	CFM	Sone	CFM	Sone	CFM	Sone	CFM	Sone	CFM	Sone	CFM	Sone	CFM	Sone	CFM	Sone	CFM
---	---	071B	1/8	860	67	224		91																		
						---	4.2	---	4.1																	
---	---	072B	1/8	1160	72	292		211																		
						---	4.6	---	4.4																	
---	---	073B	1/8	1650	---	370		320		264		185														
						0.10	5.3	0.10	5.0	0.10	4.1	0.10	4.2													
073BE	1/4	---	---	1750	---	392		345		294		226														
						0.12	5.9	0.12	5.7	0.12	4.6	0.12	5.0													
083BE	1/4	081B	1/8	860	82	259		80																		
					---	2.6	---	3.2																		
					496	426		334																		
		082B	1/8	1160	85	---	6.6	---	6.2	---	6.2															
		083B	1/3	1750	146	780		732		681		626		561		492		418								
						---	9.2	---	9.2	---	9.0	---	8.4	---	8.4	---	8.9	---	8.6							
093BE	1/4	091B	1/8	860	79	656		463																		
					---	7.0	---	6.9																		
					836	694		534		307																
		092B	1/8	1160	81	---	7.5	---	6.8	---	7.1	---	6.5													
		093B	1/3	1750	168	1307		1209		1105		998		885		748		597								
						---	10.0	---	10.0	---	9.4	---	8.9	---	9.3	---	9.4	---	9.1							
110BE	1/2	110B	1/8	860	---	805		698		566																
						0.04	4.9	0.05	4.3	0.05	4.5															
						1086	1008		926		833		720		537											
			1/8	1160	---	0.10	8.2	0.11	8.0	0.11	7.0	0.11	7.2	0.11	7.0	0.10	6.1									
			1/2	1750	---	1638		1588		1536		1482		1427		1371		1311		1173		1005				
						0.35	15.7	0.36	15.7	0.37	15.7	0.37	14.2	0.38	13.5	0.38	12.9	0.39	12.9	0.39	14.0	0.39	12.1			
120BE	3/4	120B	1/8	860	---	1109		982		862		691														
						0.06	6.3	0.07	5.6	0.07	5.5	0.07	4.9													
						1495	1399		1309		1225		1122		997											
			1/4	1160	---	0.16	10.0	0.17	9.9	0.17	8.6	0.18	8.5	0.18	9.2	0.18	8.8									
			3/4	1750	---	2256		2190		2127		2065		2006		1950		1895		1773		1620		1448		
						0.54	18.5	0.55	18.5	0.57	18.5	0.58	17.5	0.59	16.4	0.60	16.1	0.61	15.5	0.62	16.0	0.63	17.1	0.62	16.0	
140BE	1, 2	140B	1/8	860	---	1676		1512		1358		1155														
						0.11	8.6	0.12	7.8	0.13	7.3	0.13	7.7													
						2261	2138		2019		1907		1785		1634		1465									
			1/2	1160	---	0.27	13.6	0.29	13.6	0.30	12.0	0.31	11.2	0.32	11.8	0.32	12.2	0.32	11.1							
			---	---	---	3411		3329		3248		3168		3089		3012		2938		2786		2608		2397		
						0.94	27	0.96	27	0.98	27	1.00	26	1.02	24	1.04	22	1.06	21	1.09	21	1.10	22	1.10	22	
160BE	1	160B	1/4	860	---	2167		1914		1769		1597		1380												
						0.18	11.3	0.19	9.4	0.20	8.7	0.20	9.5	0.20	8.6											
						2923	2700		2561		2453		2344		2216		2075		1713							
			1/2	1160	---	0.43	17.2	0.46	17.0	0.47	14.3	0.48	13.4	0.49	13.4	0.49	14.3	0.49	14.5	0.49	11.2					
						3024		2805		2665		2559		2456		2337		2206		1886						
						0.48	18.1	0.50	18.1	0.52	15.2	0.53	14.2	0.54	14.2	0.54	15.1	0.55	15.3	0.55	13.4					
180BE	2	---	---	1750	---	4410		4234		4105		3997		3906		3830		3759		3619		3462		3288		
						1.48	33	1.53	33	1.56	33	1.58	29	1.60	27	1.61	26	1.63	26	1.65	25	1.68	26	1.69	27	
						2866		2685		2504		2321		2091		1839		1550								
		1	180B	1/2	860	---	0.29	11.9	0.31	11.9	0.32	10.6	0.33	9.6	0.34	10.1	0.34	9.9	0.33	8.8						
							3665	3524		3382		3240		3102		2955		2780		2389		1931				
							0.61	16.4	0.63	16.4	0.65	16.7	0.66	15.5	0.68	14.8	0.69	14.2	0.71	14.7	0.71	15.1	0.68	13.2		
		1		1160	---	3865		3731		3597		3462		3330		3196		3047		2685		2296				
						0.71	17.6	0.73	17.6	0.75	18.5	0.77	17.5	0.79	16.4	0.81	15.8	0.82	15.8	0.84	16.8	0.83	15.6			
						4665		4554		4443		4331		4219		4109		4000		3773		3496		3188		
						1.25	23	1.28	23	1.30	23	1.33	23	1.35	22	1.37	22	1.39	22	1.43	22	1.46	22	1.48	23	

EC Motor is an Electronically Commutated Motor.  
PSC Motor is a Permanent Split Capacitor Motor.

#### NOTES:

- Performance certified is for Installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
- Values shown are for Installation Type A: Free inlet hemispherical sone levels.
- All sizes are available with variable speed control.

### Fan Efficiency Grade

MODEL	FAN SIZE	OUTLET AREA (ft²)	FEG
DCRU/DCRUR/ DCRW/DCRWR	140B	2.68	FEG63
	140BE	2.68	FEG63
	160B	2.68	FEG60
	160BE	2.68	FEG60
	180B	3.86	FEG60
	180BE	3.86	FEG60
BCRU/BCRUR/ BCRW/BCRWR/ BCRUSH	140B	2.68	FEG63
	160BMP	2.68	FEG60
	160BHP	2.68	FEG63
	180BMP	3.86	FEG60
	180BHP	3.86	FEG63
	180BHP	3.86	FEG63

MODEL	FAN SIZE	OUTLET AREA (ft²)	FEG
BCRU/BCRUR/ BCRW/BCRWR/ BCRUSH	210B	6.07	FEG63
	210BHP	6.07	FEG67
	240B	6.07	FEG60
	240BHP	6.07	FEG63
	300B	9.23	FEG71
	300BHP	9.23	FEG71
	360B	11.91	FEG63
	360BHP	11.91	FEG67
	420B	14.29	FEG67
	480B	16.91	FEG63

# PERFORMANCE DATA



## Belt Driven

### 110B BCRU / BCRUR / BCRUSH / BCRW / BCRWR

Max. Motor Frame = 56

HP	RPM	STATIC PRESSURE (INCHES W.G.)											
		0	0.125	0.25	0.375	0.50	0.625	0.75	0.875	1.00	1.125	1.25	1.50
		CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone
1/4	625	585	423										
		0.02   2.7	0.02   2.4										
	750	702	576	384									
		0.03   3.9	0.03   3.1	0.03   2.8									
	925	866	767	652	485								
		0.05   5.6	0.06   5.1	0.06   5.1	0.06   4.2								
	1025	959	871	774	653	433							
		0.07   6.7	0.08   6.3	0.08   5.6	0.08   5.9	0.07   5.0							
	1125	1053	973	887	789	666							
		0.09   7.7	0.10   7.6	0.10   6.6	0.10   7.0	0.10   6.4							
	1250	1170	1098	1023	942	846	732						
		0.13   9.3	0.13   9.2	0.14   8.0	0.14   7.6	0.14   8.3	0.14   7.4						
1/3	1330	1245	1178	1107	1033	950	853	732					
		0.15   10.3	0.16   10.3	0.17   9.2	0.17   8.5	0.17   9.0	0.17   9.0	0.17   7.7					
	1375	1287	1222	1154	1084	1006	915	811	643				
		0.17   10.6	0.18   10.6	0.18   9.8	0.19   9.0	0.19   9.1	0.19   9.5	0.19   8.7	0.17   8.1				
	1515	1418	1360	1299	1236	1170	1097	1015	923	802			
		0.23   12.6	0.23   12.6	0.24   11.8	0.25   10.8	0.25   10.3	0.25   10.7	0.25   11.2	0.25   10.6	0.24   9.3			
	1585	1484	1428	1370	1310	1248	1182	1108	1025	932	800		
		0.26   13.3	0.27   13.3	0.28   13.1	0.28   11.8	0.28   11.2	0.29   11.2	0.29   12.0	0.29   12.0	0.29   10.6	0.27   9.9		
	1670	1563	1510	1456	1399	1341	1281	1214	1141	1061	970	841	
		0.30   14.7	0.31   14.7	0.32   14.2	0.33   13.3	0.33   12.5	0.33   12.0	0.34   12.7	0.34   12.9	0.34   12.8	0.34   11.3	0.32   10.9	
	1795	1680	1631	1581	1529	1475	1421	1363	1301	1233	1159	1078	825
		0.38   16.3	0.39   16.3	0.40   16.3	0.40   15.1	0.41   14.2	0.41   13.6	0.42   13.6	0.42   14.2	0.42   14.4	0.42   14.3	0.42   13.3	0.38   12.0
1/2	1920	1797	1751	1704	1656	1607	1557	1505	1451	1392	1392	1261	1106
		0.46   17.8	0.47   17.8	0.48   17.8	0.49   17.5	0.50   16.5	0.50   15.6	0.51   15.1	0.51   15.1	0.51   15.3	0.51   16.1	0.52   16.1	0.51   14.0

### 120B BCRU / BCRUR / BCRUSH / BCRW / BCRWR

Max. Motor Frame = 56

HP	RPM	STATIC PRESSURE (INCHES W.G.)											
		0	0.125	0.25	0.375	0.50	0.625	0.75	0.875	1.00	1.125	1.25	1.50
		CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone
1/4	650	838	677										
		0.03   3.5	0.03   3.0										
	975	1257	1143	1042	918	753							
		0.09   7.6	0.10   7.1	0.11   6.5	0.11   7.0	0.10   5.6							
1/3	1305	1682	1596	1513	1438	1362	1268	1159	1035				
		0.22   11.6	0.23   11.6	0.24   10.8	0.25   10.2	0.26   10.1	0.26   10.8	0.26   10.6	0.25   9.5				
	1370	1766	1683	1604	1531	1460	1379	1282	1174	1040			
		0.26   12.5	0.27   12.5	0.28   11.8	0.29   11.0	0.29   10.6	0.30   11.2	0.31   11.8	0.30   11.3	0.29   9.6			
1/2	1435	1850	1771	1695	1623	1556	1485	1399	1300	1195	1047		
		0.30   13.6	0.31   13.6	0.32   12.8	0.33   12.0	0.33   11.4	0.34   11.5	0.35   12.2	0.35   12.5	0.34   11.7	0.33   10.3		
	1545	1992	1918	1847	1779	1715	1653	1583	1502	1411	1314	1200	
		0.37   14.9	0.38   14.9	0.39   14.6	0.40   13.8	0.41   13.1	0.42   12.9	0.43   13.0	0.43   13.8	0.43   14.0	0.43   13.6	0.42   12.1	
1/2	1655	2133	2064	1998	1933	1872	1814	1754	1688	1612	1527	1438	1202
		0.46   16.6	0.47   16.6	0.48   16.6	0.49   15.5	0.50   14.6	0.51   14.4	0.52   14.3	0.52   14.4	0.53   15.2	0.53   15.4	0.53   15.3	0.51   13.1

### 140B BCRU / BCRUR / BCRUSH / BCRW / BCRWR

Max. Motor Frame = 143T

HP	RPM	STATIC PRESSURE (INCHES W.G.)											
		0	0.125	0.25	0.375	0.50	0.625	0.75	0.875	1.00	1.125	1.25	1.50
		CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone
1/4	850	1657	1491	1334	1126								
		0.11   8.4	0.12   7.7	0.13   7.2	0.13   7.3								
	1080	2105	1973	1847	1726	1578	1402						
		0.22   12.1	0.23   12.0	0.25   10.4	0.25   10.2	0.26   10.9	0.26   10.2						
1/3	1140	2222	2097	1976	1862	1732	1577						
		0.26   12.9	0.27   12.9	0.29   11.7	0.30   11.0	0.30   11.6	0.31   11.8						
	1200	2339	2220	2104	1995	1882	1745	1586					
		0.30   14.2	0.32   14.2	0.33   12.8	0.34   12.0	0.35   12.0	0.36   12.7	0.36   12.1					
1/2	1305	2543	2434	2327	2224	2125	2015	1885	1739				
		0.39   16.8	0.41   16.8	0.42   15.5	0.43   13.9	0.45   13.5	0.45   13.8	0.46   14.6	0.46   13.9				
	1370	2670	2566	2464	2364	2269	2171	2058	1926	1785			
		0.45   18.5	0.47   18.5	0.48   17.5	0.50   15.6	0.51   14.6	0.52   14.6	0.53   15.2	0.53   15.2	0.53   14.5			
3/4	1475	2875	2778	2682	2589	2499	2411	2318	2210	2089	1958		
		0.56   21	0.58   21	0.60   21	0.61   18.0	0.63   17.1	0.64   16.1	0.65   16.6	0.66   16.7	0.66   17.5	0.66   16.6		
	1565	3050	2959	2869	2780	2693	2611	2527	2436	2332	2217	2094	
		0.67   23	0.69   23	0.71   23	0.73   21	0.74   19.0	0.76   17.8	0.77   17.6	0.78   18.0	0.79   18.7	0.79   18.8	0.79   18.1	
1	1650	3216	3129	3043	2959	2876	2796	2718	2637	2547	2447	2338	2102
		0.79   25	0.81   25	0.83   25	0.85   23	0.86   21	0.88   19.8	0.89   19.1	0.91   19.1	0.92   19.6	0.92   20	0.93   20	0.92   18.4
	1720	3352	3269	3187	3105	3025	2947	2872	2796	2716	2627	2529	2310
		0.89   27	0.92   27	0.94   27	0.95   25	0.97   23	0.99   21	1.01   21	1.02   20	1.03   20	1.04   21	1.05   22	1.05   21

**NOTES:** 1. Performance certified is for Installation Type A: Free inlet, free outlet. 2. Power rating (BHP) does not include transmission losses. 3. Performance ratings do not include the effects of appurtenances (accessories). 4. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. 5. Values shown are for Installation Type A: Free inlet hemispherical sone levels.



## Belt Driven



### 140BHP BCRU / BCRUR / BCRUSH / BCRW / BCRWR

Max. Motor Frame = 56

HP	RPM	STATIC PRESSURE (INCHES W.G.)											
		0.50	0.625	0.75	0.875	1.00	1.125	1.25	1.50	1.75	2.00	2.25	2.50
		CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone
1/4	1450	1095	1015	924	816								
		0.22   9.6	0.22   10.4	0.22   10.2	0.22   8.8								
1/3	1525	1181	1109	1028	938	823							
		0.25   10.5	0.26   11.0	0.26   11.3	0.26   10.7	0.25   9.3							
1/2	1600	1265	1199	1127	1046	956	836						
		0.29   11.3	0.29   11.3	0.30   12.0	0.30   12.1	0.30   11.2	0.29   10.3						
3/4	1680	1352	1292	1227	1155	1075	987	866					
		0.34   12.6	0.34   12.1	0.34   12.7	0.34   12.9	0.35   12.8	0.34   11.8	0.33   10.9					
1	1810	1491	1437	1381	1319	1253	1180	1102	870				
		0.42   14.3	0.42   14.0	0.43   13.6	0.43   14.3	0.43   14.5	0.43   14.5	0.43   13.7	0.40   12.3				
1 1/2	1940	1628	1578	1527	1474	1417	1355	1288	1139	895			
		0.51   16.9	0.52   15.9	0.52   15.1	0.52   15.1	0.53   15.4	0.53   16.1	0.53   16.2	0.53   14.7	0.48   13.4			
2	2075	1767	1722	1675	1627	1577	1524	1467	1341	1197	960		
		0.62   18.6	0.63   17.8	0.63   17.1	0.64   16.8	0.64   16.6	0.65   17.0	0.65   17.7	0.65   17.7	0.64   15.6	0.59   14.8		
3	2205	1900	1857	1814	1770	1725	1677	1627	1519	1397	1256	1031	
		0.74   21	0.75   19.8	0.76   18.9	0.76   18.6	0.77   17.9	0.77   17.9	0.77   18.1	0.78   19.1	0.78   19.0	0.77   16.6	0.71   16.5	

### 160B BCRU / BCRUR / BCRUSH / BCRW / BCRWR

Max. Motor Frame = 143T

HP	RPM	STATIC PRESSURE (INCHES W.G.)											
		0	0.125	0.25	0.375	0.50	0.625	0.75	0.875	1.00	1.125	1.25	1.50
		CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone
1/4	780	2207	1989	1708	1299								
		0.17   8.6	0.18   8.1	0.19   7.4	0.18   7.3								
1/3	865	2448	2255	2023	1714	1291							
		0.24   10.2	0.25   10.0	0.26   8.7	0.26   9.3	0.24   8.4							
1/2	900	2547	2363	2145	1866	1496							
		0.27   11.1	0.28   11.1	0.29   9.4	0.29   10.0	0.28   9.3							
3/4	950	2688	2515	2315	2071	1753	1324						
		0.31   12.1	0.33   12.0	0.34   10.7	0.34   10.5	0.34   10.9	0.31   9.4						
1	1000	2830	2666	2481	2263	1984	1638						
		0.36   13.4	0.38   13.4	0.39   12.0	0.40   11.4	0.40   12.1	0.38   11.1						
1 1/2	1100	3113	2966	2803	2620	2404	2137	1819	1338				
		0.48   15.5	0.50   15.5	0.52   14.6	0.53   13.5	0.53   13.6	0.53   14.6	0.51   13.3	0.45   12.3				
2	1160	3283	3144	2992	2824	2632	2401	2130	1805				
		0.57   16.9	0.59   16.9	0.60   16.1	0.61   15.1	0.62   15.0	0.62   15.7	0.61   15.4	0.59   13.6				
3	1250	3538	3409	3271	3121	2955	2766	2541	2286	1988	1546		
		0.71   19.3	0.73   19.3	0.75   18.7	0.76   18.2	0.77   17.1	0.78   17.2	0.78   18.3	0.77   17.6	0.74   15.9	0.67   15.2		
4	1320	3736	3615	3486	3347	3195	3028	2835	2612	2363	2074	1655	
		0.84   21	0.86   21	0.88   21	0.89   19.8	0.91   19.2	0.92   19.0	0.92   19.3	0.91   19.6	0.90   19.2	0.87   17.1	0.79   16.6	
5	1380	3905	3790	3668	3537	3396	3242	3071	2872	2651	2404	2118	
		0.96   23	0.98   23	1.00   23	1.02   22	1.03   21	1.04   20	1.05   20	1.05   22	1.04   21	1.02   20	0.99   18.1	

### 160BMP BCRU / BCRUR / BCRUSH / BCRW / BCRWR

Max. Motor Frame = 143T

HP	RPM	STATIC PRESSURE (INCHES W.G.)											
		0	0.125	0.25	0.375	0.50	0.625	0.75	0.875	1.00	1.25	1.50	1.75
		CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone
1/4	825	2079	1823	1671	1483	1233							
		0.16   10.5	0.17   8.7	0.17   8.1	0.18   8.9	0.18   6.9							
1/3	930	2344	2097	1958	1812	1636	1412						
		0.22   12.5	0.24   10.7	0.25   10.0	0.25   10.0	0.26   10.7	0.23   8.6						
1/2	975	2457	2215	2077	1944	1786	1595	1343					
		0.26   13.2	0.27   11.7	0.28   10.7	0.29   10.6	0.29   11.4	0.30   10.5	0.29   8.4					
3/4	1020	2570	2333	2195	2073	1928	1760	1552					
		0.29   14.2	0.31   13.0	0.32   11.5	0.33   11.0	0.33   12.1	0.34   11.9	0.34   9.8					
1	1100	2772	2543	2404	2293	2169	2028	1866	1669				
		0.37   16.0	0.39   15.1	0.40   13.0	0.41   12.4	0.42   12.6	0.42   13.5	0.42   13.3	0.42   11.0				
1 1/2	1185	2986	2765	2626	2520	2414	2292	2157	2005	1823			
		0.46   18.0	0.48   17.7	0.50   15.2	0.51   14.2	0.52   14.1	0.52   14.4	0.53   15.2	0.53   14.7	0.53   12.7			
2	1265	3188	2971	2834	2730	2634	2528	2410	2281	2136	1766		
		0.56   19.7	0.59   19.7	0.60   17.0	0.61   16.0	0.62   15.5	0.63   15.5	0.64   16.5	0.64   16.7	0.64   16.4	0.63   12.8		
3	1345	3389	3183	3044	2939	2848	2755	2650	2537	2414	2122		
		0.67   22	0.70   22	0.72   19.1	0.73   17.8	0.74   17.1	0.75   17.0	0.76   17.1	0.77   18.0	0.77   18.8	0.78   16.5		
4	1415	3566	3365	3227	3121	3032	2947	2854	2751	2641	2391	2073	
		0.78   24	0.82   24	0.84   21	0.85   19.5	0.86   18.6	0.87   18.5	0.88   18.6	0.89   18.7	0.89   19.8	0.90   19.9	0.89   16.2	
5	1490	3755	3560	3424	3317	3229	3147	3064	2972	2872	2653	2392	2055
		0.91   26	0.95   26	0.97   24	0.99   22	1.00   20	1.01   20	1.02   19.4	1.03   19.5	1.04   20	1.05   22	1.05   20	1.03   17.9

#### NOTES:

- Performance certified is for Installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
- Values shown are for Installation Type A: Free inlet hemispherical sone levels.



### 160BHP BCRU / BCRUR / BCRUSH / BCRW / BCRWR

Max. Motor Frame = 143T

HP	RPM	STATIC PRESSURE (INCHES W.G.)											
		0.50	0.625	0.75	0.875	1.00	1.125	1.25	1.50	1.75	2.00	2.25	2.50
		CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
		BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone
1/4	950	1205											
		0.18   8.1											
	1085	1592	1417										
1/3	1155	0.26   11	0.26   10.2										
		1772	1620	1450									
	1195	0.32   11.6	0.32   11.9	0.32   10.6									
1/2	1320	1870	1731	1571									
		0.35   11.9	0.35   12.7	0.35   12									
	1365	2158	2052	1926	1783	1630							
3/4	1500	0.46   13.8	0.47   13.9	0.47   14.7	0.47   14.2	0.47   12.6							
		2258	2160	2045	1912	1770							
	1560	0.51   14.3	0.52   14.6	0.52   15.2	0.52   15.2	0.52   14.4							
1	1680	2553	2467	2377	2274	2158	2031	1899					
		0.66   17.4	0.67   16.7	0.68   16.7	0.69   17.6	0.70   17.8	0.69   17.2	0.69   16					
	1715	2683	2600	2515	2424	2319	2203	2079					
		0.74   18.8	0.75   17.8	0.76   17.6	0.78   17.8	0.78   18.7	0.78   18.7	0.78   17.9					
		2940	2861	2784	2706	2621	2525	2421	2193				
		0.91   22	0.93   21	0.94   19.8	0.96   19.6	0.97   19.8	0.97   20	0.98   21	0.97   19.5				
		3014	2936	2861	2785	2704	2615	2515	2296				
		0.96   23	0.98   21	1.00   21	1.01   20	1.03   20	1.03   21	1.04   21	1.04   21				

### 180B BCRU / BCRUR / BCRUSH / BCRW / BCRWR

Max. Motor Frame = 145T

HP	RPM	STATIC PRESSURE (INCHES W.G.)											
		0	0.125	0.25	0.375	0.5	0.625	0.75	0.875	1.00	1.25	1.50	1.75
		CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
		BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone
1/4	525	2469	1988	1251									
		0.12   5.9	0.13   5.1	0.12   4.7									
	665	3127	2758	2338	1736								
1/3	700	0.24   9.1	0.25   8.5	0.26   8.1	0.25   7.9								
		3292	2942	2558	2030								
	730	0.28   10.1	0.29   9.5	0.30   8.7	0.30   9.3								
1/2	785	3433	3099	2738	2274	1629							
		0.32   10.8	0.33   10.3	0.34   9.3	0.34   10.0	0.31   8.5							
	840	3692	3382	3056	2669	2149							
3/4	900	0.39   12.3	0.41   11.9	0.42   10.6	0.43   10.9	0.41   10.7							
		3951	3662	3361	3025	2602	2074						
	965	0.48   13.6	0.50   13.1	0.52   12.1	0.52   11.7	0.52   12.6	0.49   10.9						
1	1010	4233	3965	3685	3389	3039	2590	2065					
		0.59   15.0	0.61   15.0	0.63   13.5	0.64   13.2	0.64   13.7	0.63   13.7	0.59   11.6					
	1060	4538	4289	4030	3763	3462	3107	2662	2146				
1-1/2	1135	0.73   17.1	0.75   17.1	0.77   15.8	0.79   14.9	0.79   14.9	0.79   15.9	0.77   14.7	0.71   13.1				
		4750	4512	4266	4013	3739	3423	3037	2600	1995			
	1210	0.84   18.2	0.86   18.2	0.88   17.2	0.90   16.2	0.91   16.1	0.91   17.0	0.90   16.7	0.87   15.4	0.76   14.0			
2	1270	4985	4759	4526	4286	4035	3751	3425	3024	2600			
		0.97   20	0.99   20	1.02   19.0	1.04   17.9	1.05   17.1	1.05   17.9	1.04   18.2	1.03   17.7	0.98   15.6			
	1330	5338	5127	4910	4688	4461	4215	3940	3625	3248	2318		
		1.19   22	1.21   22	1.24   21	1.26   20	1.28   19.7	1.29   19.6	1.29   20	1.28   20	1.26   19.5	1.10   16.7		
		5691	5493	5291	5084	4874	4655	4415	4151	3850	3133		
		1.44   24	1.47   24	1.50   24	1.52   23	1.54   22	1.56   21	1.57   21	1.56   22	1.55   23	1.49   20		
		5973	5785	5593	5396	5197	4993	4776	4539	4279	3640	2888	
		1.66   26	1.69   26	1.72   26	1.75   25	1.77   24	1.80   23	1.81   23	1.81   23	1.80   24	1.77   23	1.64   19.7	
		6255	6076	5893	5706	5516	5324	5125	4909	4676	4129	3471	2543
		1.91   28	1.94   28	1.97   28	2.00   27	2.03   26	2.05   25	2.07   25	2.08   25	2.08   25	2.05   26	1.98   23	1.71   21

#### NOTES:

1. Performance certified is for Installation Type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
5. Values shown are for Installation Type A: Free inlet hemispherical sone levels.



## Belt Driven



### 180BMP BCRU / BCRUR / BCRUSH / BCRW / BCRWR

Max. Motor Frame = 145T

HP	RPM	STATIC PRESSURE (INCHES W.G.)													
		0		0.125		0.25		0.50		0.75		1.00		1.25	
		CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone
1/4	650	2166		1926		1673									
		0.13   7.4		0.14   6.9		0.15   6.2									
1/3	790	2632		2435		2240		1750							
		0.22   10.4		0.24   10.2		0.25   8.9		0.26   8.8							
1/2	830	2766		2578		2391		1946							
		0.26   11.2		0.28   11.2		0.29   9.7		0.31   9.6							
3/4	870	2899		2720		2541		2139		1613					
		0.30   11.9		0.32   11.9		0.33   10.8		0.35   10.3		0.34   9.0					
1	930	3099		2932		2763		2414		1952					
		0.37   13.6		0.38   13.6		0.40   12.3		0.42   11.1		0.43   11.3					
1-1/2	995	3315		3159		3002		2688		2279		1802			
		0.45   13.9		0.47   13.9		0.48   14.1		0.51   12.3		0.53   13.0		0.51   11.1			
2	1060	3532		3385		3238		2947		2593		2179			
		0.54   15.4		0.56   15.4		0.58   15.7		0.61   13.8		0.64   14.2		0.63   13.6			
3	1130	3765		3628		3490		3216		2916		2538		2123	
		0.66   17.1		0.68   17.1		0.70   17.5		0.73   15.6		0.76   15.0		0.78   15.9		0.75   14.0	
4	1190	3965		3835		3703		3443		3175		2831		2463	
		0.77   18.4		0.79   18.4		0.81   18.7		0.85   16.8		0.88   16.3		0.90   17.3		0.90   16.8	
5	1250	4165		4041		3916		3667		3419		3117		2772	
		0.89   19.7		0.91   19.7		0.94   19.7		0.98   18.9		1.01   18.2		1.04   18.3		1.05   19.0	
6	1340	4465		4349		4223		3999		3771		3521		3211	
		1.09   22		1.12   22		1.14   22		1.19   21		1.23   20		1.26   19.9		1.29   21	
7	1430	4765		4656		4547		4329		4113		3894		3635	
		1.33   24		1.36   24		1.38   24		1.43   23		1.48   22		1.52   22		1.55   23	
8	1500	4998		4895		4791		4583		4376		4171		3945	
		1.53   26		1.56   26		1.59   26		1.64   25		1.69   24		1.74   24		1.77   24	
9	1575	5248		5149		5051		4852		4654		4461		4258	
		1.78   28		1.81   28		1.84   28		1.89   27		1.94   26		1.99   25		2.03   25	

### 180BHP BCRU / BCRUR / BCRUSH / BCRW / BCRWR

Max. Motor Frame = 145T

HP	RPM	STATIC PRESSURE (INCHES W.G.)													
		0.50		0.625		0.75		0.875		1.00		1.25		1.50	
		CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone
1/4	875	1475		1193											
		0.21   9.3		0.21   8.4											
1/3	935	1692		1484											
		0.26   10.8		0.26   10.0											
1/2	980	1848		1655		1428									
		0.30   11.5		0.30   11.5		0.30   10.2									
3/4	1030	2014		1837		1649									
		0.34   11.9		0.35   12.4		0.35   11.9									
1	1105	2251		2097		1928		1751		1498					
		0.42   12.6		0.42   13.8		0.43   13.8		0.43   12.9		0.42   12.1					
1-1/2	1180	2480		2343		2194		2034		1867					
		0.51   14.0		0.51   14.2		0.52   15.1		0.53   14.4							
2	1265	2731		2608		2477		2337		2187		1843			
		0.62   15.7		0.63   15.1		0.63   16.1		0.64   17.0		0.64   16.8		0.64   14.6			
3	1350	2976		2865		2747		2623		2490		2207		1812	
		0.75   17.4		0.76   17.0		0.76   17.1		0.77   17.6		0.78   18.3		0.79   17.5		0.76   15.9	
4	1415	3159		3056		2946		2832		2711		2447		2159	
		0.85   18.8		0.87   18.3		0.87   17.7		0.88   18.4		0.89   19.3		0.90   19.3		0.90   17.0	
5	1485	3354		3258		3156		3050		2939		2699		2441	
		0.98   20		0.99   19.4		1.01   19.0		1.01   19.0		1.02   19.6		1.04   21		1.05   19.7	
6	1595	3656		3569		3477		3382		3284		3074		2844	
		1.21   22		1.22   22		1.24   21		1.25   21		1.26   21		1.27   22		1.29   22	
7	1705	3953		3873		3791		3705		3616		3428		3226	
		1.47   24		1.48   24		1.50   24		1.51   23		1.52   22		1.54   23		1.56   24	
8	1790	4181		4106		4028		3948		3866		3692		3507	
		1.69   26		1.71   26		1.72   25		1.74   25		1.75   24		1.78   24		1.80   25	
9	1870	4394		4322		4249		4174		4097		3934		3762	
		1.92   27		1.94   27		1.96   27		1.97   26		1.99   26		2.01   25		2.04   26	

#### NOTES:

1. Performance certified is for Installation Type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
5. Values shown are for Installation Type A: Free inlet hemispherical sone levels.

# PERFORMANCE DATA



## Belt Driven

### 210B BCRU / BCRUR / BCRUSH / BCRW / BCRWR

Max. Motor Frame = 145T

HP	RPM	STATIC PRESSURE (INCHES W.G.)													
		0		0.125		0.25		0.375		0.50		0.625		0.75	
		CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone
1/4	500	3288		2895		2472		1957							
		0.14   8.5		0.16   6.9		0.19   6.7		0.20   5.4							
1/3	550	3616		3260		2892		2462		1861					
		0.19   10.0		0.21   8.9		0.24   7.8		0.26   7.3		0.26   6.5					
1/2	570	3748		3404		3053		2648		2167					
		0.21   10.7		0.24   9.6		0.26   8.2		0.28   8.4		0.29   6.9					
3/4	600	3945		3619		3288		2919		2506		1843			
		0.24   11.6		0.27   10.8		0.30   8.9		0.32   9.5		0.34   7.3		0.32   7.7			
1	650	4274		3974		3669		3348		2982		2580		1899	
		0.31   13.2		0.34   12.5		0.37   10.3		0.40   10.4		0.42   10.1		0.43   8.7			
1-1/2	695	4570		4289		4005		3714		3389		3037		2611	
		0.38   14.8		0.41   14.8		0.44   12.1		0.48   11.3		0.50   12.1		0.52   10.6		0.53   9.8	
2	750	4931		4672		4408		4144		3861		3547		3219	
		0.47   16.3		0.51   16.3		0.55   14.0		0.58   12.8		0.61   13.3		0.64   13.4		0.66   11.5	
3	795	5227		4983		4735		4486		4229		3947		3642	
		0.56   18.0		0.60   18.0		0.64   16.0		0.68   14.4		0.71   14.2		0.75   15.1		0.77   14.3	
4	830	5457		5223		4986		4747		4506		4246		3962	
		0.64   19.3		0.68   19.3		0.72   17.7		0.76   15.5		0.80   15.1		0.84   16.0		0.87   16.0	
5	875	5753		5531		5307		5080		4854		4617		4359	
		0.75   20		0.79   20		0.84   19.1		0.88   17.2		0.92   15.7		0.96   16.2		0.99   17.2	
6	950	6246		6042		5836		5628		5419		5209		4988	
		0.96   22		1.01   22		1.05   22		1.10   19.7		1.14   18.0		1.19   17.2		1.23   17.7	
8	1000	6575		6381		6186		5988		5790		5592		5389	
		1.12   24		1.17   24		1.22   24		1.27   21		1.31   20		1.36   18.8		1.41   18.4	
10	1050	6904		6719		6533		6346		6157		5968		5778	
		1.29   25		1.35   25		1.40   25		1.45   23		1.50   21		1.55   20		1.60   19.5	
12	1100	7232		7056		6879		6700		6520		6340		6160	
		1.49   26		1.54   26		1.60   26		1.65   25		1.70   24		1.76   22		1.81   21	

### 210BHP BCRU / BCRUR / BCRUSH / BCRW / BCRWR

Max. Motor Frame = 182T

HP	RPM	STATIC PRESSURE (INCHES W.G.)											
		0.5		0.75		1.00		1.25		1.50		1.75	
		CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone	CFM	BHP Sone
1/2	730	2726		2180									
		0.38   9.7		0.42   8.8									
3/4	790	3117		2628		2040							
		0.45   10.8		0.51   10.3		0.53   10.1							
1	850	3491		3041		2574		1800					
		0.54   11.3		0.61   12.5		0.66   11.1		0.63   11.4					
1-1/2	895	3762		3344		2913		2400					
		0.61   12.1		0.69   13.5		0.75   12.3		0.77   12.3					
2	950	4085		3705		3296		2876		2287			
		0.72   13.4		0.79   14.2		0.87   14.3		0.92   13.3		0.91   14.0			
3	990	4317		3959		3569		3180		2720			
		0.80   14.8		0.87   14.8		0.96   15.4		1.02   14.2		1.05   14.7			
4	1050	4661		4330		3972		3602		3224		2751	
		0.94   16.5		1.01   15.7		1.10   17.0		1.19   16.8		1.23   15.6		1.25   16.4	
6	1135	5141		4837		4520		4181		3840		3489	
		1.15   19.1		1.24   18.1		1.32   18.3		1.43   19.5		1.51   18.8		1.56   18.1	
8	1200	5504		5216		4924		4611		4286		3967	
		1.34   21		1.43   19.4		1.52   19.3		1.62   21		1.73   21		1.80   20	
10	1250	5781		5503		5226		4934		4625		4314	
		1.50   23		1.59   21		1.68   20		1.78   21		1.90   22		1.99   22	
12	1330	6221		5958		5699		5434		5152		4859	
		1.77   26		1.88   24		1.98   22		2.07   22		2.19   24		2.31   25	
15	1430	6765		6520		6278		6036		5786		5522	
		2.16   29		2.28   27		2.39   25		2.50   25		2.60   26		2.73   27	

#### NOTES:

1. Performance certified is for Installation Type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
5. Values shown are for Installation Type A: Free inlet hemispherical sone levels.



## Belt Driven



### 240B BCRU / BCRUR / BCRUSH / BCRW / BCRWR

Max. Motor Frame = 145T

HP	RPM	STATIC PRESSURE (INCHES W.G.)															
		0	0.125	0.25	0.375	0.50	0.625	0.75	0.875	1.00	1.25	1.50	1.75				
		CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone
1/4	420	3969 0.15   6.7	3503 0.19   6.2	2928 0.22   6.5	1910 0.21   5.0												
	445	4206 0.18   7.2	3768 0.22   7.0	3260 0.25   7.0	2498 0.26   5.5												
	470	4442 0.21   8.1	4031 0.26   7.8	3571 0.29   7.5	2931 0.31   6.9												
1/3	485	4584 0.23   8.3	4186 0.28   8.1	3748 0.31   7.8	3163 0.34   7.9	2207 0.32   6.4											
	530	5009 0.30   9.7	4648 0.35   9.6	4259 0.40   8.9	3797 0.43   9.5	3176 0.45   7.8	2085 0.40   7.3										
	560	5293 0.36   10.5	4953 0.41   10.5	4588 0.46   9.7	4182 0.50   9.9	3651 0.52   9.8	2917 0.51   8.3										
3/4	600	5671 0.44   12.0	5355 0.50   12.0	5019 0.55   11.1	4661 0.59   10.9	4223 0.63   11.3	3675 0.65   10.3	2863 0.61   9.5									
	635	6001 0.52   13.1	5704 0.58   13.1	5389 0.64   12.4	5059 0.69   11.9	4683 0.73   12.1	4214 0.76   12.5	3640 0.77   10.4	2730 0.70   10.4								
	660	6238 0.59   13.8	5952 0.65   13.8	5651 0.71   13.3	5337 0.76   12.7	4993 0.80   12.8	4572 0.84   13.4	4070 0.86   12.5	3391 0.84   11.4								
1	705	6663 0.71   15.3	6396 0.78   15.3	6118 0.85   14.9	5827 0.91   14.2	5522 0.96   14.1	5173 1.00   14.6	4753 1.04   15.2	4267 1.05   14.2	3612 1.02   13.4							
	750	7088 0.86   16.8	6838 0.93   16.8	6578 1.00   16.6	6308 1.07   16.2	6029 1.12   15.4	5728 1.17   15.8	5376 1.22   16.3	4967 1.25   16.7	4500 1.27   15.7	2966 1.12   15.3						
	810	7655 1.08   19.1	7424 1.16   19.1	7186 1.24   19.1	6939 1.31   18.3	6684 1.38   18.0	6421 1.43   17.6	6135 1.49   17.7	5806 1.54   18.6	5430 1.58   19.0	4512 1.58   18.5						
2	850	8033 1.25   20	7814 1.34   20	7587 1.42   20	7354 1.49   19.6	7113 1.56   19.2	6867 1.63   18.9	6608 1.68   18.9	6321 1.74   19.4	5993 1.79   21	5221 1.84   20	4087 1.75   19.8					
	890	8411 1.44   22	8202 1.53   22	7987 1.61   22	7765 1.69   22	7537 1.77   21	7305 1.84   20	7065 1.90   20	6808 1.96   21	6521 2.01   21	5841 2.10   22	4996 2.10   21	3602 1.89   21				

### 240BHP BCRU / BCRUR / BCRUSH / BCRW / BCRWR

Max. Motor Frame = 182T

HP	RPM	STATIC PRESSURE (INCHES W.G.)													
		0.50	0.625	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00		
		CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone
1/2	600	2837 0.39   9.8	2384 0.41   8.5	1774 0.39   8.6											
	650	3330 0.47   11.6	2953 0.50   10.9	2523 0.52   9.9											
	700	3789 0.56   12.6	3464 0.60   13.3	3104 0.63   12.3	2184 0.63   11.3										
3/4	745	4181 0.65   13.2	3894 0.70   14.1	3578 0.73   14.4	2844 0.78   12.2										
	780	4473 0.73   13.5	4213 0.78   14.4	3924 0.82   15.2	3264 0.89   13.0	2394 0.87   13.0									
	825	4838 0.83   14.1	4607 0.89   14.7	4348 0.94   15.6	3765 1.02   15.3	3078 1.06   13.9	1820 0.92   13.1								
1-1/2	880	5273 0.98   15.3	5066 1.04   15.3	4841 1.09   16.0	4329 1.19   17.0	3741 1.27   15.3	3043 1.28   15.2								
	940	5741 1.16   16.5	5549 1.22   16.2	5352 1.28   16.5	4904 1.40   17.9	4395 1.50   18.0	3819 1.56   15.9	3125 1.55   16.5							
	990	6127 1.32   17.8	5944 1.39   17.6	5761 1.46   17.3	5359 1.58   18.2	4900 1.69   19.3	4390 1.79   18.4	3818 1.84   17.1	3090 1.79   17.3						
2	1035	6473 1.48   19.2	6295 1.55   18.6	6121 1.62   18.2	5753 1.76   18.5	5333 1.88   19.6	4870 1.99   19.9	4355 2.07   18.3	3781 2.10   18.4	2985 2.00   18.4					
	1110	6969 1.75   22	6798 18.2   21	6633 1.89   20	6300 2.04   19.8	5931 2.18   21	5519 2.30   22	5072 2.41   22	4580 2.50   20	4040 2.52   20	3328 2.43   20				
	1185	7612 2.13   25	7450 2.21   25	7293 2.29   23	6987 2.45   22	6670 2.61   22	6316 2.75   24	5931 2.88   25	5518 3.00   25	5069 3.10   23	4585 3.15   23	4021 3.12   23	3210 2.94   23		

#### NOTES:

- Performance certified is for Installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
- Values shown are for Installation Type A: Free inlet hemispherical sone levels.



### 300B BCRU / BCRUR / BCRUSH / BCRW / BCRWR

Max. Motor Frame = 184T

HP	RPM	STATIC PRESSURE (INCHES W.G.)													
		0	0.125	0.25	0.375	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25		
		CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone
1/3	365	5626 0.17   7.4	4852 0.21   6.0	4145 0.26   5.8											
	390	6011 0.21   8.5	5269 0.25   7.0	4640 0.30   6.3	3686 0.33   6.3										
1/2	430	6628 0.27   9.9	5934 0.32   8.7	5383 0.38   7.5	4716 0.43   7.9	3459 0.43   6.3									
	460	7090 0.34   11.3	6431 0.38   10.2	5908 0.45   8.7	5338 0.51   8.7	4545 0.55   8.7									
3/4	500	7707 0.43   13.1	7091 0.48   12.3	6589 0.55   10.3	6105 0.62   9.7	5522 0.68   10.4									
	530	8169 0.51   14.3	7582 0.56   13.8	7092 0.63   11.7	6652 0.71   10.9	6141 0.78   11.3	4406 0.82   9.1								
1	550	8478 0.58   15.3	7908 0.62   15.3	7426 0.69   12.6	7004 0.78   11.8	6532 0.85   11.7	5163 0.94   11.6								
	575	8863 0.66   16.6	8314 0.71   16.3	7842 0.78   14.2	7436 0.86   13.1	7005 0.95   12.5	5882 1.06   13.7								
1-1/2	620	9557 0.82   18.8	9042 0.87   18.8	8589 0.95   16.9	8198 1.04   15.7	7823 1.13   14.8	6926 1.28   15.7	5433 1.33   13.1							
	660	10173 0.99   21	9686 1.05   21	9252 1.12   19.1	8868 1.21   17.6	8518 1.31   16.7	7736 1.49   16.5	6688 1.61   17.5							
2	700	10790 1.19   23	10328 1.24   23	9911 1.31   22	9534 1.40   19.8	9199 1.51   18.6	8501 1.71   18.1	7654 1.86   19.2	6328 1.93   17.3						
	725	11175 1.32   25	10727 1.37   25	10321 1.45   23	9949 1.54   21	9619 1.64   20	8965 1.86   19.0	8188 2.03   20	7120 2.14   20						
3	780	12023 1.64   28	11604 1.70   28	11219 1.78   27	10862 1.87   24	10538 1.97   23	9944 2.21   22	9279 2.42   21	8499 2.58   23	7371 2.67   22					
	830	12794 1.98   31	12397 2.04   31	12031 2.12   31	11689 2.21   28	11369 2.31   26	10803 2.57   24	10220 2.81   23	9550 3.00   24	8741 3.16   25	7549 3.21   23				
5	900	13873 2.52   35	13505 2.59   35	13162 2.67   35	12838 2.76   33	12532 2.87   31	11983 3.12   27	11470 3.40   27	10905 3.65   26	10275 3.85   27	9526 4.02   28	8490 4.11   26			
	985	15183 3.31   40	14845 3.37   40	14526 3.46   40	14224 3.56   40	13935 3.67   37	13401 3.92   34	12925 4.22   31	12453 4.52   30	11929 4.79   30	11359 5.01   31	10713 5.20   32	9897 5.35   32		

### 300BHP BCRU / BCRUR / BCRUSH / BCRW / BCRWR

Max. Motor Frame = 184T

HP	RPM	STATIC PRESSURE (INCHES W.G.)													
		0.50	0.625	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00		
		CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone
1/2	480	3604 0.42   7.5	2806 0.42   7.8												
	515	4180 0.50   8.9	3631 0.53   8.7	2693 0.51   8.8											
3/4	550	4707 0.58   10.3	4258 0.62   9.8	3689 0.64   10.0											
	590	5280 0.68   11.4	4892 0.73   11.8	4451 0.78   10.8	2891 0.75   11.4										
1	600	5420 0.71   11.5	5042 0.76   11.9	4622 0.81   11.4	3313 0.82   11.9										
	645	6035 0.84   12.4	5696 0.90   13.2	5339 0.96   13.5	4466 1.04   13.4										
1-1/2	700	6753 1.02   14.0	6463 1.10   14.3	6146 1.16   15.2	5457 1.28   15.4	4536 1.33   16.0									
	740	7256 1.17   15.4	6998 1.25   15.2	6710 1.32   16.0	6091 1.46   16.7	5357 1.55   17.1	4232 1.55   17.4								
2	760	7503 1.24   16.2	7259 1.33   15.8	6986 1.41   16.1	6393 1.55   17.1	5716 1.66   17.1	4803 1.70   18.1								
	815	8172 1.48   18.7	7959 1.57   18.0	7723 1.66   17.6	7192 1.83   18.7	6620 1.96   18.6	5948 2.07   19.5	5035 2.09   20							
3	900	9185 1.89   22	9002 2.00   20	8808 2.11   20	8372 2.30   19.7	7881 2.48   21	7364 2.63   21	6777 2.75   20	6063 2.82   22	4969 2.76   22					
	930	9537 2.06   23	9363 2.17   22	9180 2.28   21	8772 2.49   20	8308 2.68   21	7818 2.84   22	7285 2.98   21	6663 3.09   22	5862 3.12   22	4414 2.92   22				
5	1020	10584 2.62   25	10431 2.74   25	10271 2.86   24	9931 3.10   22	9545 3.32   22	9118 3.53   23	8674 3.72   24	8203 3.88   23	7675 4.01   23	7064 4.10   23	6267 4.1   23	4905 3.87   23		
	1110	11619 3.27   28	11482 3.41   28	11340 3.54   27	11042 3.81   26	10718 4.06   25	10358 4.30   25	9965 4.53   26	9560 4.73   26	9137 4.92   26	8681 5.08   25	8172 5.21   25	7588 5.29   25		

#### NOTES:

1. Performance certified is for Installation Type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
5. Values shown are for Installation Type A: Free inlet hemispherical sone levels.

## Belt Driven



### 360B BCRU / BCRUR / BCRUSH

Max. Motor Frame = 184T

HP	RPM	STATIC PRESSURE (INCHES W.G.)													
		0	0.125	0.25	0.375	0.50	0.75	0.875	1.00	1.125	1.25	1.50	1.75		
		CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone
1/2	300	9106 0.31   8.7	7953 0.38   7.2	6246 0.44   6.7	3068 0.36   5.4										
	320	9714 0.38   10.0	8645 0.46   8.7	7220 0.53   7.7	4962 0.51   6.4										
3/4	340	10321 0.45   11.4	9326 0.54   10	8110 0.62   8.5	6174 0.63   8.1										
	360	10928 0.54   12.4	9997 0.63   12	8911 0.72   9.4	7270 0.76   9.9	4901 0.70   8.2									
1	380	11535 0.63   13.9	10659 0.72   13.7	9664 0.82   10.8	8270 0.89   10.9	6400 0.88   9.2									
	400	12142 0.74   14.9	11315 0.83   14.9	10390 0.94   12.2	9217 1.02   12.1	7548 1.04   11.4	5207 0.94   9.9								
1-1/2	420	12749 0.85   16.2	11966 0.96   16.2	11098 1.06   13.4	10082 1.16   12.5	8617 1.20   13.1	6860 1.18   10.9								
	460	13963 1.12   18.6	13254 1.23   18.6	12481 1.35   16.6	11636 1.47   14.7	10557 1.56   14.7	9135 1.58   14.7	7509 1.54   12.6	4855 1.31   11.9						
2	480	14570 1.27   19.9	13893 1.39   19.9	13161 1.51   18.2	12369 1.63   16.5	11435 1.74   15.7	10158 1.79   16.4	8684 1.78   14.7	6866 1.69   13.6						
	494	14995 1.39   21	14339 1.51   21	13632 1.63   19.4	12871 1.76   17.4	12009 1.88   16.4	10843 1.95   16.8	9471 1.95   16.5	7929 1.91   14.5	5402 1.64   13.7					
	505	15329 1.48   21	14688 1.61   21	14000 1.73   20	13262 1.86   17.9	12443 1.98   16.9	11371 2.07   17.6	10065 2.09   17.4	8603 2.06   14.9	6481 1.87   14.6					
	550	16695 1.92   25	16109 2.05   25	15489 2.18   25	14828 2.32   22	14128 2.46   20	13334 2.59   19.9	12304 2.68   20	11110 2.70   20	9784 2.67   18.2	5821 2.24   16.6				
3	575	17454 2.19   26	16895 2.33   26	16306 2.47   26	15682 2.61   25	15026 2.76   23	14312 2.91   21	13451 3.02   22	12365 3.08   22	11186 3.08   21	8327 2.91   18.1				
	630	19124 2.88   32	18616 3.03   32	18085 3.19   32	17530 3.34   30	16947 3.50   28	16340 3.66   27	15682 3.82   25	14915 3.95   25	13964 4.03   26	11797 4.04   24	9133 3.83   22			
5	685	20793 3.70   38	20327 3.87   38	19845 4.03   38	19343 4.20   38	18821 4.37   36	18278 4.54   33	17715 4.72   31	17111 4.90   30	16429 5.04   30	14669 5.20   30	12634 5.19   28	10251 4.99   24		

### 360BHP BCRU / BCRUR / BCRUSH

Max. Motor Frame = 213T

HP	RPM	STATIC PRESSURE (INCHES W.G.)											
		0.50	0.625	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
		CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone
1	420	6363 0.79   9.1	5408 0.83   8.3	3478 0.74   8.1									
	450	7209 0.93   10.6	6513 1.00   10.1	5477 1.02   9.6									
1-1/2	480	8024 1.08   11.4	7415 1.16   12.0	6695 1.23   10.8									
	503	8640 1.20   12.1	8057 1.29   12.9	7451 1.38   12.9	5428 1.39   11.7								
	515	8956 1.27   12.8	8385 1.36   13.6	7810 1.45   13.7	6099 1.53   12.3								
	530	9345 1.36   13.6	8791 1.46   13.8	8242 1.55   14.6	6787 1.67   13.0								
2	570	10346 1.62   15.3	9861 1.73   15.3	9344 1.84   16.2	8264 2.02   15.6	6514 2.06   14.8							
	600	11067 1.84   17.1	10638 1.96   16.9	10153 2.07   16.9	9174 2.28   18.0	7897 2.42   16.3	5501 2.24   15.8						
3	655	12345 2.29   21	11996 2.43   19.9	11596 2.56   19.7	10703 2.80   20	9791 3.02   20	8558 3.15   18.4	6490 3.00   18.5					
	700	13367 2.70   23	13057 2.86   23	12717 3.00   22	11916 3.27   22	11081 3.52   23	10183 3.74   22	8930 3.86   21	6922 3.66   21				
5	775	15038 3.51   27	14773 3.69   26	14493 3.85   25	13862 4.18   24	13118 4.47   24	12365 4.74   26	11584 5.00   25	10611 5.19   24	9274 5.22   24	7137 4.83   24		
	820	16026 4.07   30	15782 4.26   30	15526 4.44   28	14969 4.79   27	14310 5.11   26	13590 5.41   27	12882 5.70   27	12125 5.96   27	11180 6.15   26	9924 6.19   26	8056 5.87   26	
7-1/2	885	17441 4.99   33	17221 5.19   33	16992 5.39   32	16506 5.77   31	15959 6.14   29	15328 6.48   29	14660 6.81   30	14005 7.12   31	13322 7.41   31	12525 7.65   30	11510 7.78   29	10198 7.72   30

#### NOTES:

- Performance certified is for Installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
- Values shown are for Installation Type A: Free inlet hemispherical sone levels.





## Belt Driven

### 420B BCRU / BCRUSH

Max. Motor Frame = 213T

HP	RPM	STATIC PRESSURE (INCHES W.G.)													
		0	0.125	0.25	0.375	0.50	0.625	0.75	1.00	1.25	1.50	1.75	2.00		
		CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	CFM BHP Sone	
1/2	230	9194 0.24   5.4	8009 0.32   4.3	6065 0.38   4											
	260	10393 0.35   6.9	9364 0.44   6	8097 0.54   6.2											
3/4	290	11592 0.48   8.6	10684 0.59   8	9667 0.70   7.2	8042 0.77   7										
	320	12791 0.65   10.5	11977 0.76   10.1	11084 0.88   8.6	10008 1.00   9.7	8157 1.03   7.8									
1-1/2	365	14590 0.96   12.9	13884 1.09   12.9	13122 1.23   11.4	12313 1.37   11.2	11292 1.49   12	9693 1.53   10.7								
	405	16189 1.31   15.2	15557 1.46   15.2	14886 1.61   14.4	14176 1.76   13.4	13420 1.91   13.6	12439 2.04   14.3	11003 2.09   12.7							
3	435	17388 1.62   16.6	16802 1.78   16.6	16185 1.94   16.4	15533 2.10   14.6	14859 2.27   14.5	14107 2.43   15.4	13082 2.54   15.4	9819 2.52   12.8						
	460	18387 1.92   17.8	17834 2.09   17.8	17256 2.26   17.6	16648 2.43   16.4	16019 2.60   15.5	15356 2.78   16	14574 2.93   17	12131 3.07   14.6						
5	505	20186 2.54   19.9	19684 2.73   19.9	19164 2.91   19.9	18622 3.10   18.8	18057 3.28   17.7	17481 3.47   17.4	16874 3.67   17.6	15280 3.97   18.7	12817 4.05   15.5					
	550	21985 3.28   22	21525 3.48   22	21051 3.69   22	20562 3.89   22.0	20056 4.09   21	19532 4.29   19.5	19002 4.50   19.2	18599 4.91   20.0	18119 5.18   20	13768 5.23   18				
7-1/2	590	23583 4.05   25	23156 4.27   25	22717 4.48   25	22266 4.70   25.0	21801 4.92   24	21322 5.13   23	20832 5.35   22	19817 5.81   22	18599 6.21   23	16790 6.43   23	14511 6.44   20			
	630	25182 4.94   27	24783 5.17   27	24374 5.40   27	23955 5.63   27	23525 5.86   27	23084 6.09   26	22630 6.32   25	21705 6.80   24	20704 7.27   25	19426 7.65   26	17623 7.84   25	15446 7.84   22		

### 480B BCRU / BCRUSH

Max. Motor Frame = 213T

HP	RPM	STATIC PRESSURE (INCHES W.G.)													
		0	0.125	0.25	0.375	0.50	0.625	0.75	0.875	1.125	1.00	1.25	1.50		
		CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM		
		BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone	BHP Sone		
1/2	195	10945 0.28   4.9	9191 0.37   4.1	5902 0.39   3.1											
	210	11787 0.35   5.7	10139 0.44   5.0	7771 0.52   4.6											
	240	13471 0.53   7.4	11992 0.63   6.7	10523 0.73   6.8	7433 0.74   4.7										
3/4	265	14874 0.71   8.9	13524 0.82   8.3	12298 0.93   7.6	10274 1.03   7.8	5367 0.80   5.2									
	305	17119 1.08   11.7	15938 1.21   11.7	14837 1.34   10.3	13724 1.47   10.2	11769 1.58   10.3	8678 1.46   7.5								
1	335	18803 1.43   14.2	17723 1.58   14.2	16688 1.72   12.4	15742 1.86   11.9	14525 2.00   12.6	12580 2.10   11.9	9692 1.95   9.4							
	355	19925 1.70   15.3	18905 1.86   15.3	17916 2.01   14.2	17013 2.16   13.2	16048 2.30   13.2	14490 2.45   13.7	12557 2.49   12.2	8406 2.08   10.1						
1-1/2	380	21329 2.09   17.3	20373 2.26   17.3	19444 2.42   16.2	18572 2.58   15.0	17735 2.73   14.7	16681 2.89   14.9	15024 3.03   15.1	13180 3.05   13.5	9183 2.58   12.0					
	420	23574 2.82   20	22707 3.01   20	21860 3.19   20	21035 3.37   17.8	20277 3.54   17.3	19510 3.71   17.2	18564 3.88   17.5	17141 4.06   17.6	15543 4.13   17.3	13549 4.04   14.8	8741 3.23   13.8			
3	455	25538 3.59   23	24737 3.79   23	23951 3.99   23	23180 4.18   21	22446 4.37   19.9	21756 4.56   19.3	21036 4.74   19.0	20155 4.93   19.8	18891 5.12   20	17415 5.24   19.9	15845 5.23   17.9			
	490	27503 4.48   25	26757 4.70   25	26025 4.91   25	25304 5.12   25	24598 5.33   23	23940 5.53   22	23300 5.73   21	22624 5.93   21	21817 6.13   22	20713 6.34   23	19342 6.51   23	16340 6.48   19.3		
7-1/2	520	29187 5.35   28	28483 5.59   28	27791 5.82   28	27109 6.04   28	26437 6.26   26	25791 6.48   25	25184 6.69   24	24577 6.90   23	23930 7.11   23	23162 7.32   24	22143 7.55   25	19588 7.84   24		

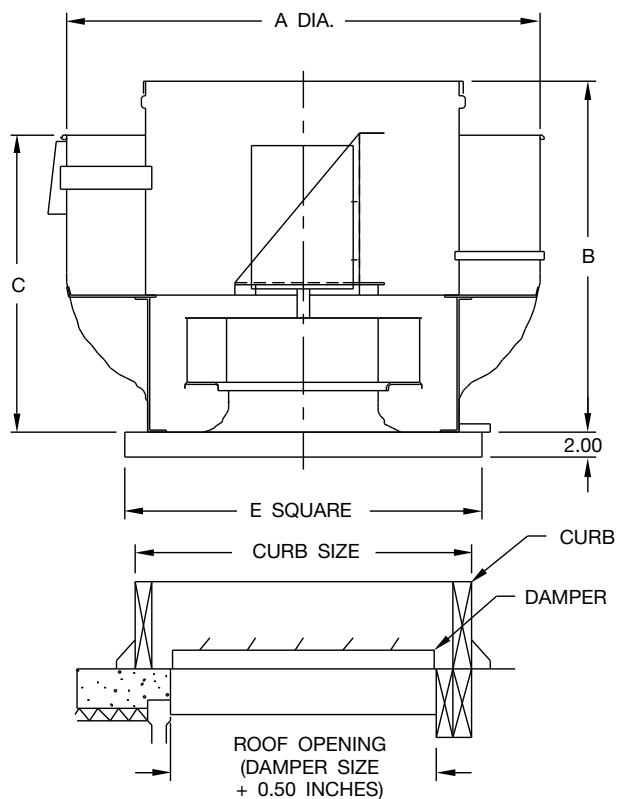
#### NOTES:

- Performance certified is for Installation Type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
- Values shown are for Installation Type A: Free inlet hemispherical sone levels.



## Models

DCRU | DCRUR



\* Damper not available on DCRUR.

### Dimensional Data and Weights

MODEL		A	B	C	E	AVG. UNIT WT. (LB.)
EC MTR	PSC MTR					
073BE	071-073B	22.00	24.44	18.00	17.00	100
083BE	081-083B	22.00	24.44	18.00	17.00	100
093BE	091-093B	22.00	26.13	18.00	20.00	120
110BE	110B	30.00	28.31	28.00	24.00	135
120BE	120B	30.00	27.19	28.00	24.00	135
140BE	140B	30.00	27.68	28.00	24.00	145
160BE	160B	30.00	29.81	28.00	24.00	180
180BE	180B	36.00	29.17	30.00	30.00	180

### Dampers and Roof Curbs

MODEL		DAMPER SIZE*	STANDARD CURB SIZE	SELF FLASH CURB SIZE	ROOF OPENING
DCRU	DCRUR				
073BE	073BE	10 x 10	15½ x 15½	16½ x 16½	10½ x 10½
083BE	083BE	10 x 10	15½ x 15½	16½ x 16½	10½ x 10½
093BE	093BE	14 x 14	18½ x 18½	19½ x 19½	14½ x 14½
110BE	110BE	18 x 18	22½ x 22½	23½ x 23½	18½ x 18½
120BE	120BE	18 x 18	22½ x 22½	23½ x 23½	18½ x 18½
140BE	140BE	18 x 18	22½ x 22½	23½ x 23½	18½ x 18½
160BE	160BE	18 x 18	22½ x 22½	23½ x 23½	18½ x 18½
180BE	180BE	24 x 24	28½ x 28½	29½ x 29½	24½ x 24½

\*DCRU Only

D-4407E

D-4408E

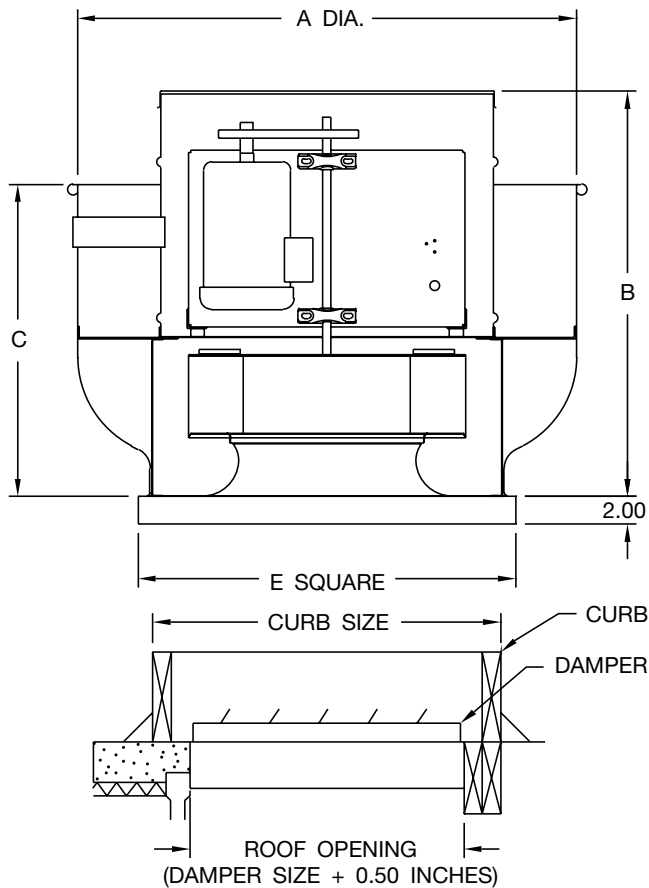
#### Notes:

1. All dimensions are in inches unless otherwise noted.
2. Dimensions are not to be used for construction.
3. Damper sizes are nominal.
4. Outside dimensions of roof curb should be 1" to 1.50" less than inside curb cap dimension 'E', depending on thickness of flashing material used. If curb hinges are used, specify 1.50" difference.
5. DCRUR (Kitchen Exhaust) provided with self flashing, vented, 12" high curb, built to 'standard' curb size dimensions above.



## Models

BCRU | BCRUR



\* Damper not available on BCRUR.



### Dimensional Data and Weights

MODEL		A	B	C	E	AVG. UNIT WT. (LBS.)
BCRU	BCRUR					
110B	110B	30.00	28.56	28.00	24.00	135
120B	120B	30.00	27.19	28.00	24.00	135
140B	140B	30.00	27.68	28.00	24.00	145
140BHP	140BHP	30.00	28.58	28.00	24.00	135
160B	160B	30.00	29.81	28.00	24.00	180
160BHP	160BHP	30.00	27.68	28.00	24.00	135
160BMP	160BMP	30.00	28.44	28.00	24.00	180
180B	180B	36.00	32.31	30.00	30.00	180
180BMP	180BMP	36.00	29.19	30.00	30.00	180
180BHP	180BHP	36.00	31.00	30.00	30.00	180
210B	210B	45.00	35.61	28.25	34.00	245
210BHP	210BHP	45.00	32.94	28.25	34.00	245
240B	240B	45.00	37.56	28.25	34.00	245
240BHP	240BHP	45.00	34.31	28.25	34.00	245
300B	300B	54.00	38.25	31.00	40.00	365
300BHP	300BHP	54.00	34.88	31.00	40.00	365
360B	360B	63.00	43.88	34.00	46.00	375
360BHP	360BHP	63.00	39.68	34.00	46.00	375
420B	—	69.00	46.75	36.00	52.00	385
480B	—	75.00	49.13	39.00	58.00	490

### Dampers and Roof Curbs

MODEL		DAMPER SIZE*	STANDARD CURB SIZE	SELF FLASH CURB SIZE	ROOF OPENING
BCRU	BCRUR				
110B	110B	18 x 18	22½ x 22½	23½ x 23½	18½ x 18½
120B	120B	18 x 18	22½ x 22½	23½ x 23½	18½ x 18½
140B	140B	18 x 18	22½ x 22½	23½ x 23½	18½ x 18½
160B	160B	18 x 18	22½ x 22½	23½ x 23½	18½ x 18½
180B	180B	24 x 24	28½ x 28½	29½ x 29½	24½ x 24½
210B	210B	28 x 28	32½ x 32½	33½ x 33½	28½ x 28½
240B	240B	28 x 28	32½ x 32½	33½ x 33½	28½ x 28½
300B	300B	34 x 34	38½ x 38½	39½ x 39½	34½ x 34½
360B	360B	40 x 40	44½ x 44½	45½ x 45½	40½ x 40½
420B	—	46 x 46	50½ x 50½	51½ x 51½	46½ x 46½
480B	—	50 x 50	56½ x 56½	57½ x 57½	50½ x 50½

\*BCRU Only

D-4401H  
D-4402H

#### Notes:

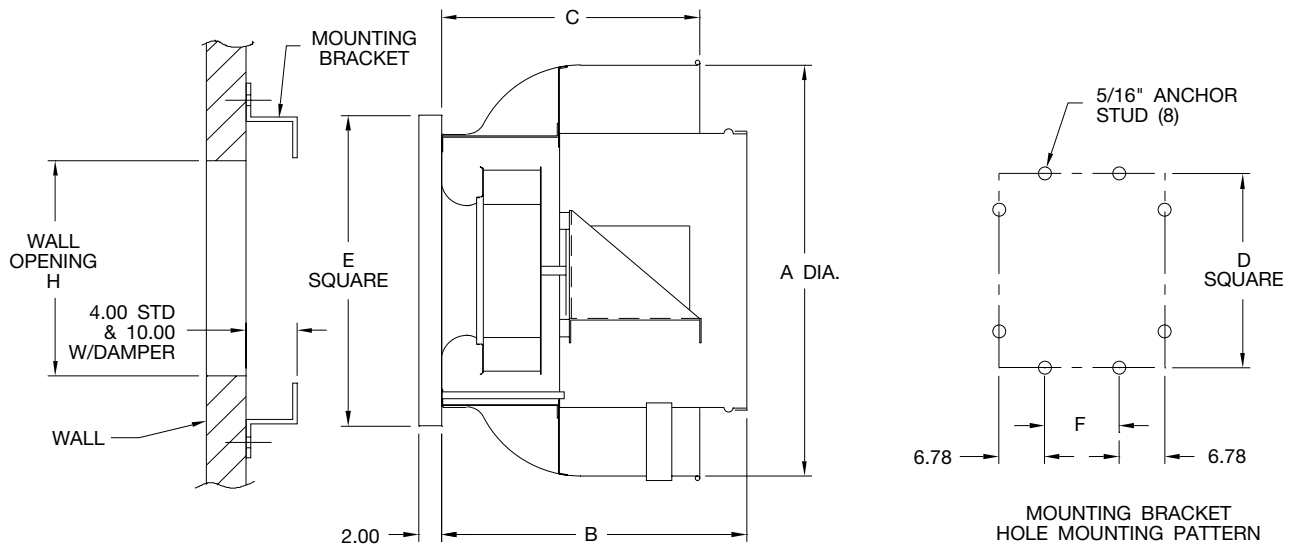
1. All dimensions are in inches unless otherwise noted.
2. Dimensions are not to be used for construction.
3. Damper sizes are nominal.
4. BCRUR (Kitchen Exhaust) provided with self flashing, vented, 12" high curb, built to 'standard' curb size dimensions above.

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**Twin City**



## Models

DCRW | DCRWR



\* Damper not available on DCRWR.

### Dimensional Data and Weights

MODEL		A	B	C	D	E	F	AVG. UNIT WT. (LB.)	DAMPER SIZE*	WALL MTG. BRACKET	WALL OPENING (H)
EC MTR	PSC MTR										
073BE	071-073B	22.00	24.44	18.00	18.56	17.00	5.00	100	10 x 10	16 <sup>3</sup> / <sub>4</sub> x 16 <sup>3</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>2</sub> x 10 <sup>1</sup> / <sub>2</sub>
083BE	081-083B	22.00	24.44	18.00	18.56	17.00	5.00	100	10 x 10	16 <sup>3</sup> / <sub>4</sub> x 16 <sup>3</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>2</sub> x 10 <sup>1</sup> / <sub>2</sub>
093BE	091-093B	22.00	26.13	18.00	21.56	20.00	8.00	120	14 x 14	19 <sup>3</sup> / <sub>4</sub> x 19 <sup>3</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>2</sub> x 14 <sup>1</sup> / <sub>2</sub>
110BE	110B	30.00	28.31	28.00	25.56	24.00	12.00	135	17 x 17	23 <sup>3</sup> / <sub>4</sub> x 23 <sup>3</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>2</sub> x 17 <sup>1</sup> / <sub>2</sub>
120BE	120B	30.00	27.19	28.00	25.56	24.00	12.00	135	17 x 17	23 <sup>3</sup> / <sub>4</sub> x 23 <sup>3</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>2</sub> x 17 <sup>1</sup> / <sub>2</sub>
140BE	140B	30.00	27.68	28.00	25.56	24.00	12.00	145	17 x 17	23 <sup>3</sup> / <sub>4</sub> x 23 <sup>3</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>2</sub> x 17 <sup>1</sup> / <sub>2</sub>
160BE	160B	30.00	29.81	28.00	25.56	24.00	12.00	180	17 x 17	23 <sup>3</sup> / <sub>4</sub> x 23 <sup>3</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>2</sub> x 17 <sup>1</sup> / <sub>2</sub>
180BE	180B	36.00	29.17	30.00	31.56	30.00	18.00	180	24 x 24	29 <sup>3</sup> / <sub>4</sub> x 29 <sup>3</sup> / <sub>4</sub>	24 <sup>1</sup> / <sub>2</sub> x 24 <sup>1</sup> / <sub>2</sub>

\*DCRW Only

D-4409H  
D-4410F

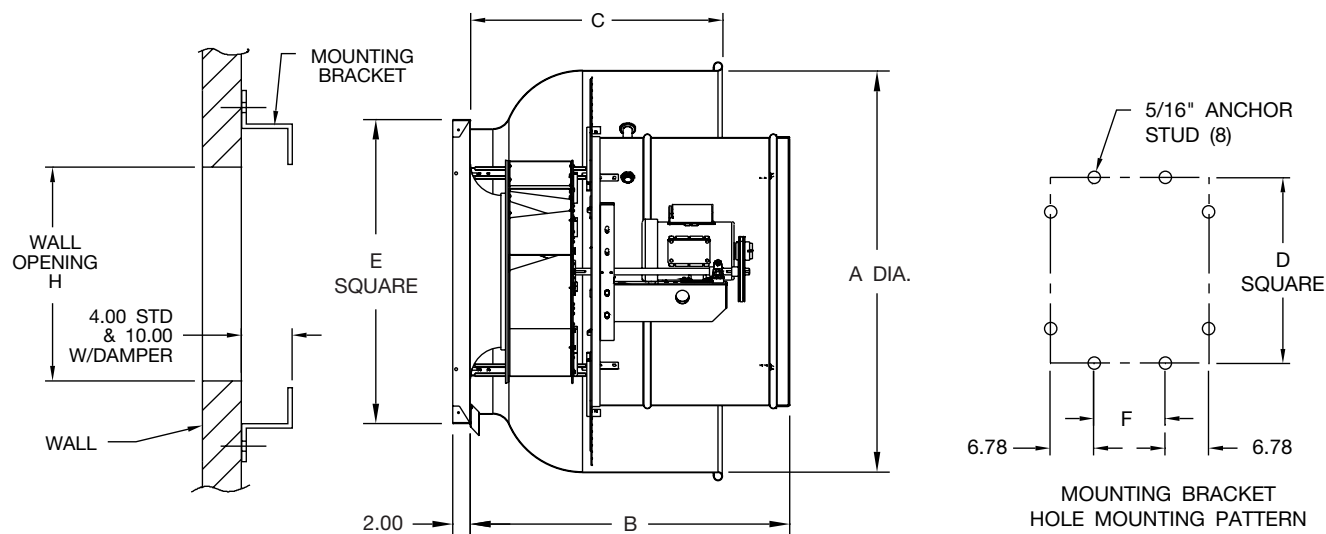
#### Notes:

1. All dimensions are in inches unless otherwise noted.
2. Dimensions are not to be used for construction.
3. Damper sizes are nominal.



Models

BCRW | BCRWR



\* Damper not available on BCRWR.

Dimensional Data and Weights

MODEL		A	B MAX.	C	D	E	F	AVG. UNIT WT. (LB.)	DAMPER SIZE*	WALL MTG. BRACKET	WALL OPENING (H)
BCRW	BCRWR										
110B	110B	30.00	28.56	28.00	25.56	24.00	12.00	135	17 x 17	23¾ x 23¾	17½ x 17½
120B	120B	30.00	27.19	28.00	25.56	24.00	12.00	135	17 x 17	23¾ x 23¾	17½ x 17½
140B	140B	30.00	28.56	28.00	25.56	24.00	12.00	145	17 x 17	23¾ x 23¾	17½ x 17½
160B	160B	30.00	29.81	28.00	25.56	24.00	12.00	180	17 x 17	23¾ x 23¾	17½ x 17½
180B	180B	36.00	32.31	30.00	31.56	30.00	18.00	180	24 x 24	29¾ x 29¾	24½ x 24½
210B	210B	45.00	35.61	28.25	35.56	34.00	22.00	245	27 x 27	33¾ x 33¾	27½ x 27½
240B	240B	45.00	37.56	28.25	35.56	34.00	22.00	245	27 x 27	33¾ x 33¾	27½ x 27½
300B	300B	54.00	38.25	31.00	41.56	40.00	28.00	365	33 x 33	39¾ x 39¾	33½ x 33½

\*BCRW Only

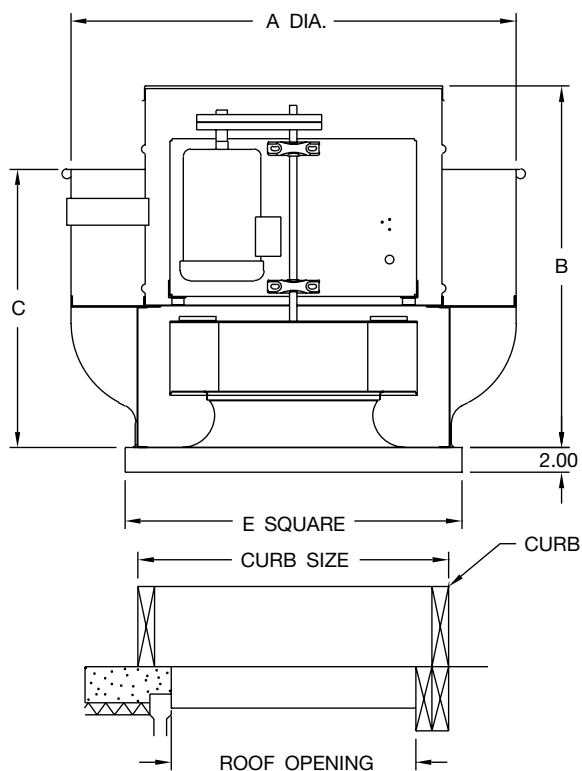
D-4403J  
D-4406G

- Notes:
1. All dimensions are in inches unless otherwise noted.
  2. Dimensions are not to be used for construction.
  3. Damper sizes are nominal.



## Model

### BCRUSH



#### Dimensional Data and Weights

MODEL BCRUSH	A	B MAX.	C	E	AVG. UNIT WT. (LB.)
110B	30.00	28.56	28.00	24.00	153
120B	30.00	27.19	28.00	24.00	158
140B	30.00	28.56	28.00	24.00	173
160B	30.00	29.81	28.00	24.00	183
180B	36.00	32.31	30.00	30.00	223
210B	45.00	35.61	28.25	34.00	252
240B	45.00	37.56	28.25	34.00	272
300B	54.00	38.25	31.00	40.00	437
360B	63.00	43.88	34.00	46.00	629
420B	69.00	46.75	36.00	52.00	647
480B	75.00	49.13	39.00	58.00	823

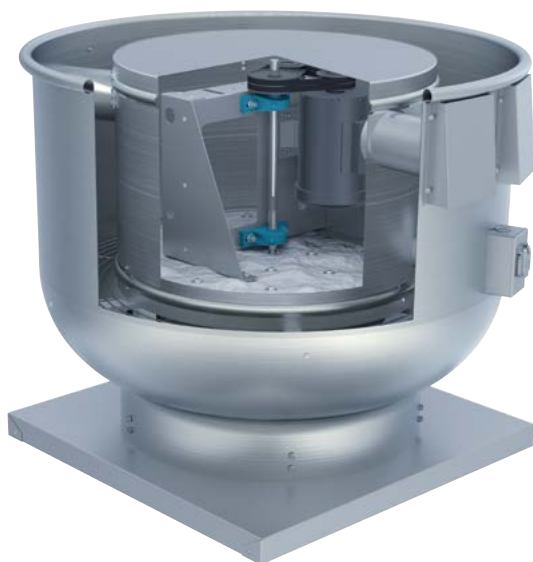
#### Dampers and Roof Curbs

MODEL BCRUSH	STANDARD CURB SIZE	ROOF OPENING
110B	22½ x 22½	18½ x 18½
120B	22½ x 22½	18½ x 18½
140B	22½ x 22½	18½ x 18½
160B	22½ x 22½	18½ x 18½
180B	28½ x 28½	24½ x 24½
210B	32½ x 32½	28½ x 28½
240B	32½ x 32½	28½ x 28½
300B	38½ x 38½	34½ x 34½
360B	44½ x 44½	40½ x 40½
420B	50½ x 50½	46½ x 46½
480B	56½ x 56½	50½ x 50½

D-4401-1E

#### Notes:

1. Standard curb is self-flashing, vented.
2. All dimensions are in inches unless otherwise noted.
3. Dimensions are not to be used for construction.



Fan & Blower  
**Twin City**



# TYPICAL SPECIFICATIONS



## Models

**DCRU, DCRUR, DCRW, DCRWR**

Roof and wall mounted exhaust fans shall be of the direct drive centrifugal type and shall be DCRU (upblast); DCRUR (upblast kitchen exhaust); DCRW (wall mount); and DCRWR (wall mount kitchen exhaust) as manufactured by Twin City Fan & Blower, Minneapolis, Minnesota.

**PERFORMANCE** — Fans shall be tested in accordance with AMCA 210 and AMCA 300 test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels. Fans shall be licensed to bear the AMCA certified ratings seal for both sound and air. Models DCRU, and DCRW shall be cULus 705 listed. Models DCRUR and DCRWR shall be cULus 762 listed for the exhaust of grease-laden air.

**CONSTRUCTION** — Fans shall be constructed of aluminum for durability and appearance. Fan spinnings shall have a rolled bead edge for rigidity. Units shall have a deep venturi inlet to prevent snow and rain entry into the building. The curb cap shall include prepunched mounting holes for ease of installation. A conduit chase constructed of electrical metallic tubing shall be provided to the motor compartment. The curb base shall provide protection from weather. Lifting lugs shall be provided inside the motor compartment for ease of handling and installation. Fans shall bear a permanently attached nameplate displaying model and serial number of the unit for future identification.

**MOTOR ASSEMBLY** — Motor assembly shall be mounted on vibration isolators to eliminate vibration and noise transmission into the ductwork. Motors shall be mounted out of the exhaust airstream and shall have a cooling tube that provides air separate from the exhaust.

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

**MOTOR** — Motors shall be heavy-duty ball bearing type, closely matched to the fan load. All single-phase ODP motors shall contain thermal overload protection. All motors shall be cULus recognized. Motors for use with speed control shall provide good speed controllability without any objectionable noise.

**DISCONNECT SWITCH** — A NEMA 1 disconnect switch shall be supplied with wiring leading from the motor to the junction box on models DCRU and DCRW. A NEMA 3R disconnect switch shall be supplied with wiring leading from the motor to a junction box located outside of the motor compartment on models DCRUR and DCRWR.

**FINISH AND COATING** — Fans shall be constructed of aluminum. Optional coatings shall be available.

**ACCESSORIES** — When specified, accessories such as backdraft damper, roof curb, curb hinge, retaining chain, security hasp, variable speed controller, NEMA-4 disconnect switch, 2-speed switch, firestat, aluminum bird screen, aluminum insect screen, and special coatings shall be provided by Twin City Fan & Blower to maintain one source responsibility.

**FACTORY RUN TEST** — All fans prior to shipment shall be completely assembled and test run as a unit at operating speed or maximum RPM allowed for the particular construction type. Each wheel shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical, and horizontal directions. Records shall be maintained and a written copy shall be available upon request.

**GUARANTEE** — The manufacturer shall guarantee the workmanship and materials for its roof and wall mounted centrifugal exhaust fans for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.



# TYPICAL SPECIFICATIONS

## Models



### BCRU, BCRUR, BCRW, BCRWR, BCRUSH

Roof and wall mounted exhaust fans shall be of the belt driven centrifugal type and shall be BCRU (upblast); BCRUR (upblast kitchen exhaust); BCRUSH (smoke and heat exhaust); BCRW (wall mount); and BCRWR (wall mount kitchen exhaust) as manufactured by Twin City Fan & Blower, Minneapolis, Minnesota.

**PERFORMANCE** — Fans shall be tested in accordance with AMCA 210 and AMCA 300 test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels. Fans shall be licensed to bear the AMCA certified ratings seal for both sound and air. Models BCRU, and BCRW shall be cULus 705 listed. Models BCRUR and BCRWR shall be cULus 762 listed for the exhaust of grease-laden air. Model BCRUSH shall be UL listed for Smoke Control Systems (500°F for 4 hours and 1000°F for 15 minutes).

**CONSTRUCTION** — Models BCRU, BCRUR, BCRW, BCRWR and BCRUSH shall be constructed of aluminum for durability and appearance. Fan spinings shall have a rolled bead edge for rigidity. Units shall have a deep venturi inlet to prevent snow and rain entry into the building. The curb cap shall include prepunched mounting holes for ease of installation. A conduit chase constructed of electrical metallic tubing shall be provided to the motor compartment. The curb base shall provide protection from weather. Lifting lugs shall be provided inside the motor compartment for ease of handling and installation. Fans shall bear a permanently attached nameplate displaying model and serial number of the unit for future identification. Model BCRUSH shall have aluminum nameplate. Fiberglass insulation on model BCRUSH shall line the bottom of the motor compartment to protect motor and drive components from heat.

**MOTOR AND DRIVE ASSEMBLY** — Motor and drive assembly shall be mounted on vibration isolators to eliminate vibration and noise transmission into the ductwork. Motors and drives shall be mounted out of the exhaust airstream and shall have a cooling tube that provides air separate from the exhaust. Model BCRUSH shall have a minimum of three cooling tubes.

**WHEEL** — Fan wheels shall be of the centrifugal backward inclined type, containing a matching inlet venturi for optimum unit performance. Fan wheels on models BCRU, BCRUR, BCRW and BCRWR shall be constructed of aluminum. Fan wheels on model BCRUSH shall be constructed of steel. Wheels shall be statically and dynamically balanced.

**SHAFT** — Fan shafts shall be precision-ground and polished. Shafts shall have a first critical speed of at least 125% of the fan's maximum operating speed.

**BEARINGS** — Bearings shall be of the one-piece, pillow block type with relubricable zerk fittings. Bearings shall be designed for air handling service with a minimum L-10 life in excess of 100,000 hours; L-50 500,000 hours at the maximum cataloged operating speed. Bearing mounting plate shall have self-aligning tabs for exact locating and alignment of bearings.

**DRIVE** — Drive assembly shall be constructed of heavy-gauge galvanized steel. Drives shall be sized for a minimum of 150% of driven horsepower. Machined, cast iron motor sheaves shall be adjustable for final system balance. Model BCRUSH shall have 2-groove drives.

**MOTOR** — Motors shall be heavy-duty ball bearing type, closely matched to the fan load. All single-phase ODP motors shall contain thermal overload protection. All motors shall be cULus recognized. Motor adjustment shall allow precise belt tensioning for optimum belt life and one-person adjustment and servicing.

**DISCONNECT SWITCH** — A NEMA 1 disconnect switch shall be supplied with wiring leading from the motor to the junction box on models BCRU and BCRW. A NEMA 3R disconnect switch shall be supplied with wiring leading from the motor to a junction box located outside of the motor compartment on models BCRUR, BCRWR and BCRUSH.

**FINISH AND COATING** — Models BCRU, BCRUR, BCRW, BCRWR and BCRUSH shall be constructed of aluminum. Optional coatings shall be available.

**ACCESSORIES** — When specified, accessories such as backdraft damper, roof curb, curb hinge, retaining chain, security hasp, NEMA-4 disconnect switch, 2-speed switch, firestat, steel premium grease fan construction, aluminum bird screen, aluminum insect screen, and special coatings shall be provided by Twin City Fan & Blower to maintain one source responsibility.

**FACTORY RUN TEST** — All fans prior to shipment shall be completely assembled and test run as a unit at operating speed or maximum RPM allowed for the particular construction type. Each wheel shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical, and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

**GUARANTEE** — The manufacturer shall guarantee the workmanship and materials for its roof and wall mounted centrifugal exhaust fans for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.



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