



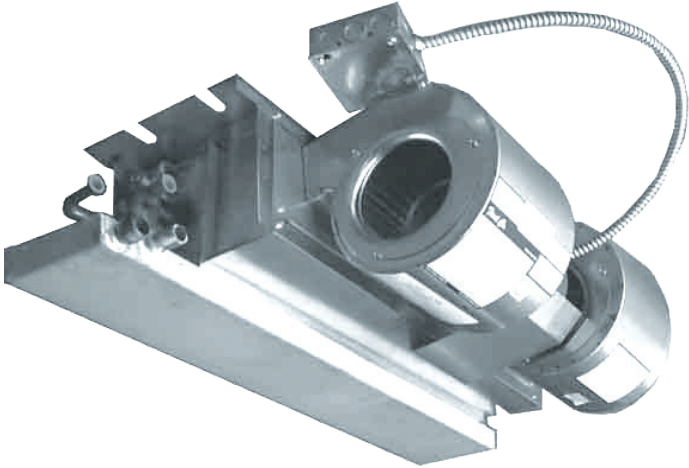
# HBC

*Commercial Chilled Water Ceiling Fan Coil*

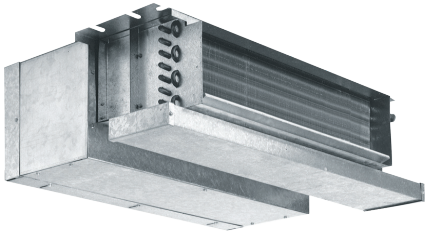
Horizontal 300-1200 CFM

HBC - PSC Motor

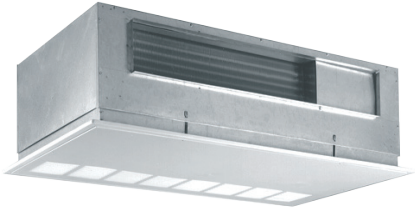
HBCX - ECM Motor



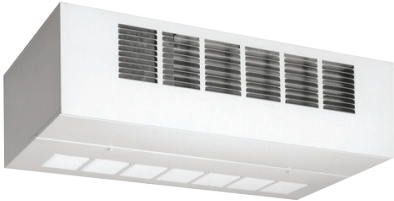
**HBC**  
*Ceiling Concealed*



**PHBC**  
*Ceiling Concealed with Plenum*



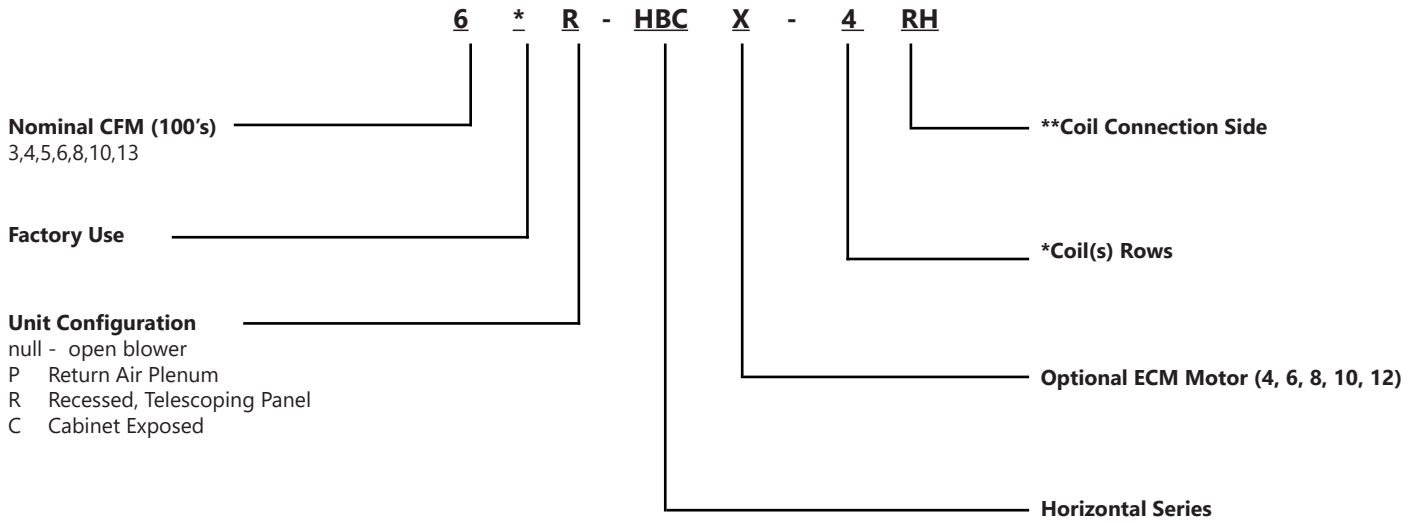
**RHBC**  
*Ceiling Recessed*



**CHBC**  
*Ceiling Exposed*



# NOMENCLATURE



## \*Coil Configurations

Rows	Description
3	2-Pipe 3 Row
4	2-Pipe 4 Row
31	4-Pipe 3 Row Cooling, 1-Row Hot Water
32	4-Pipe 3 Row Cooling, 2-Row Hot Water
41	4-Pipe 4 Row Cooling, 1-Row Hot Water

## \*\*Coil Connection Side

RH Right Hand (default)  
LH Left Hand

Hand connection is determined by looking with airflow

## Available Voltage (PSC Motors)

120V/1/60  
208-230V/1/60  
277V/1/60

## Available Voltage (ECM Motors) - Must order HBC(X)

120V/1/60  
277V/1/60

# STANDARD FEATURES

## Basic Unit

All fan coils are manufactured with heavy gauge galvanized steel to resist corrosion. All models are approved for installation with "0" clearance to combustible material.

## Insulation

Plenums and cabinets are insulated with Tuf-Skin dual density fiber glass blanket insulation with an anti-microbial agent.

## Ceiling Panels

Hinged access/return panels are manufactured with heavy gauge galvanized steel with captive mounting screws and an attractive white baked powder finish.

## Condensate Pans

Positive sloped drain pans are galvanized steel, coated on the inside surface with insulation. Pan includes both primary and secondary drain connections.

## Return Air Plenums

Return air plenums are manufactured from galvanized steel insulated with dual density fiber glass blanket insulation and a 1" TA fiber glass filter.

## Coils

Constructed with seamless copper tubes and headers. The tubes are mechanically expanded into corrugated aluminum fin material for a permanent primary to secondary surface bond. Coils are tested under water at 450 PSI for operation at 300 PSI. Coils include manual air vents.

## Fan Wheels-Housing

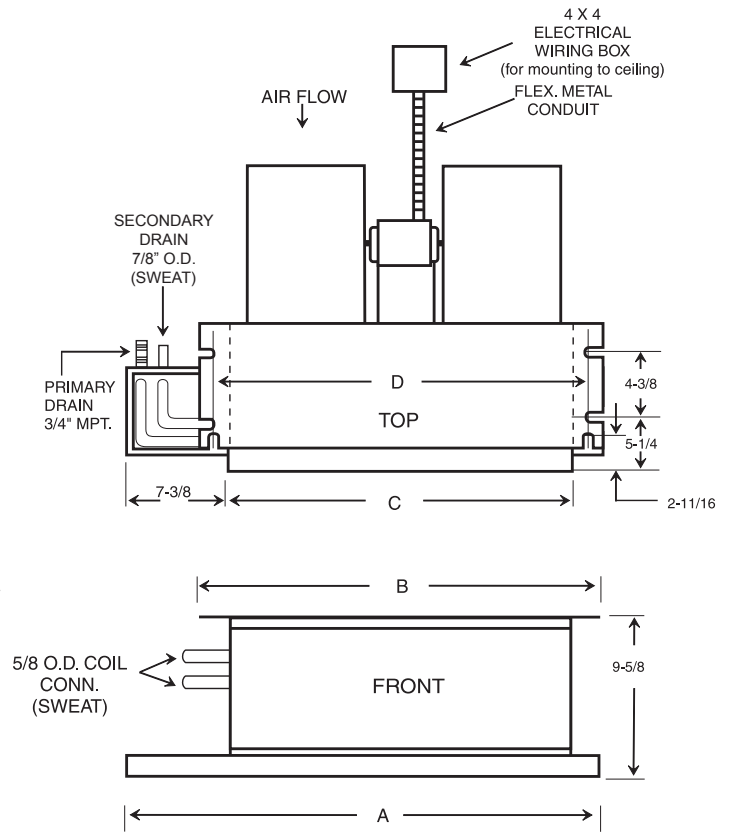
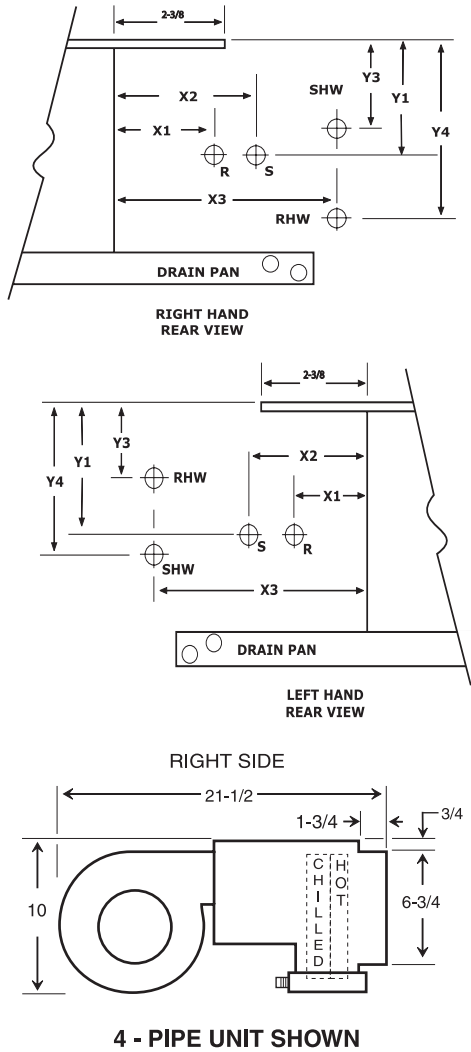
The fan wheels are double width, double inlet (DWDI) forward curved, centrifugal type. Wheels are statically and dynamically balanced for smooth, quiet operation. The housing is constructed from heavy gauge galvanized steel with die-formed inlet cones.

## Motors

Standard motors are PSC, permanently lubricated type with internal thermal overload protection.

## Options

Factory mounted options include ECM motors (HBC(X)), stainless steel drain pans, foil faced cabinet insulation, Multi-24 3-speed 24V control, valve packages, thermostats, aqua stats, service switches. 120V, 208V/230V, 277V, 60hz



GENERAL DIMENSIONS				
MODEL	A	B	C	D
3*HBC	30-1/8	27-1/4	20-1/8	25-1/4
4*HBC(X)	36-1/8	33-1/4	26-1/8	31-1/4
5*HBC	40-1/8	37-1/4	30-1/8	35-1/4
6*HBC(X)	40-1/8	37-1/4	30-1/8	35-1/4
8*HBC(X)	46-1/8	43-1/4	36-1/8	41-1/4
10*HBC(X)	52-1/8	49-1/4	42-1/8	47-1/4
12*HBC(X)	59-1/8	56-1/4	49-1/8	54-1/4
13*HBC	59-1/8	56-1/4	49-1/8	54-1/4

- NOTES:**
- ALL DIMENSIONS IN INCHES.
  - COIL CONNECTION TOLERANCE  $\pm 1/4"$ .
  - RIGHT HAND UNIT SHOWN - LEFT HAND MODEL HAS DRAIN AND PIPING CONNECTIONS ON OPPOSITE SIDE OF THE FAN COIL. (HAND IS DETERMINED BY FACING THE BLOWER END)

OPTIONAL FIELD MOUNTED RETURN AIR PLENUM KITS			
PART NO	FOR MODEL NO.	DIMENSIONS (H X W X D)	SHIP WT.
916-1-STK	3*HBC	10 X 24 X 12-1/2	18
916-2-STK	4*HBC(X)	10 X 30 X 12-1/2	22
916-3-STK	5*HBC	10 X 34 X 12-1/2	22
916-3-STK	6*HBC(X)	10 X 34 X 12-1/2	22
916-4-STK	8*HBC(X)	10 X 40 X 12-1/2	24
916-5-STK	10*HBC(X)	10 X 46 X 12-1/2	27
916-6-STK	13*HBC	10 X 53 X 12-1/2	30

HBC HEADER LOCATIONS							
RIGHT HAND	X1	Y1	X2	Y2	X3	Y3	Y4
3 ROW	3	4-1/4	5	4	---	---	---
3/1 Split	3	4-1/4	5	4	8	3-1/2	5-1/2
3/2 Split	3	4-1/4	5	4	8	3-1/2	5-1/2
4 ROW	3	4-1/4	5	4	---	---	---
4/1 Split	3	4-1/4	5	4	8	4	6

HBC HEADER LOCATIONS							
LEFT HAND	X1	Y1	X2	Y2	X3	Y3	Y4
3 ROW	3	3-3/4	5	4	---	---	---
3/1 Split	3	3-3/4	5	4	8	2-1/2	4-1/2
3/2 Split	3	3-3/4	5	4	8	2-1/2	4-1/2
4 ROW	3	3-3/4	5	4	---	---	---
4/1 Split	3	3-3/4	5	4	8	2	4

# COOLING CAPACITIES

## PSC MOTOR

### HBC-3

(3-Row Coil) All capacities are based on nominal CFM.

COOLING CAPACITY (1000 BTUH)																	
MODEL	NOMINAL CFM	45°F ENTERING WATER									42°F ENTERING WATER						
		GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)			GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)		
				TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
3*HBC-3	300	3.0	12.6	10.8	7.4	7.2	8.3	6.5	5.5	3.0	12.6	11.8	7.8	7.9	9.0	6.8	6.0
		2.5	9.0	10.4	7.3	8.3	8.0	6.3	6.4	2.5	9.0	11.4	7.6	9.1	8.7	6.6	6.9
		2.0	6.0	9.9	7.1	9.9	7.5	6.2	7.5	2.0	6.0	10.8	7.4	10.8	8.2	6.4	8.2
		1.5	3.6	9.0	6.7	12.1	6.9	5.9	9.2	1.5	3.6	9.9	7.1	13.1	7.5	6.2	10.0
4*HBC-3	400	3.0	14.7	13.8	9.6	9.2	10.6	8.4	7.0	3.0	14.7	15.1	10.2	10.1	11.5	8.8	7.7
		2.5	10.7	13.2	9.4	10.5	10.0	8.2	8.0	2.5	10.7	14.3	9.8	11.5	11.0	8.6	8.8
		2.0	7.2	12.3	9.1	12.3	9.4	8.0	9.4	2.0	7.2	13.4	9.5	13.4	10.2	8.3	10.2
		1.5	4.4	10.5	8.5	14.4	8.3	7.5	11.0	1.5	4.4	11.8	8.9	15.7	9.0	7.8	12.0
5*HBC-3	500	6.0	13.8	17.9	12.2	6.0	13.7	10.7	4.6	6.0	13.8	19.6	12.9	6.5	14.9	11.1	5.0
		5.0	9.8	17.3	12.0	6.9	13.2	10.5	5.3	5.0	9.8	18.9	12.6	7.5	14.4	10.9	5.8
		4.0	6.5	16.5	11.7	8.2	12.6	10.2	6.3	4.0	6.5	17.9	12.3	9.0	13.7	10.7	6.9
		3.0	3.8	15.0	11.3	10.0	11.5	9.8	7.7	3.0	3.8	16.4	11.7	10.9	12.5	10.2	8.3
6*HBC-3	600	6.0	13.8	20.6	14.1	6.9	15.7	12.3	5.2	6.0	13.8	22.4	14.8	7.5	17.1	12.9	5.7
		5.0	9.8	19.8	13.8	7.9	15.1	12.1	6.0	5.0	9.8	21.6	14.5	8.6	16.5	12.6	6.6
		4.0	6.5	18.7	13.4	9.4	14.3	11.8	7.2	4.0	6.5	20.4	14.1	10.2	15.6	12.3	7.8
		3.0	3.8	17.0	12.8	11.3	13.0	11.2	8.6	3.0	3.8	18.5	13.4	12.3	14.1	11.7	9.4
8*HBC-3	800	6.5	13.7	24.7	17.6	7.6	18.9	15.5	5.8	6.5	13.7	27.0	18.5	8.3	20.6	16.1	6.3
		5.5	10.0	23.7	17.3	8.6	18.1	15.1	6.6	5.5	10.0	25.8	18.1	9.4	19.7	15.8	7.2
		4.5	6.9	22.3	16.8	9.9	17.0	14.7	7.6	4.5	6.9	24.3	17.5	10.8	18.6	15.3	8.3
		3.5	4.3	20.1	16.0	11.5	15.4	14.1	8.8	3.5	4.3	21.9	16.6	12.5	16.7	14.6	9.6
10*HBC-3	1000	8.0	17.9	30.3	21.7	7.6	23.2	19.0	5.8	8.0	17.9	33.0	22.7	8.3	25.2	19.8	6.3
		7.0	13.7	29.2	21.3	8.4	22.3	18.7	6.4	7.0	13.7	31.9	22.3	9.1	24.3	19.4	7.0
		6.0	10.1	27.9	20.8	9.3	21.3	18.3	7.1	6.0	10.1	30.4	21.7	10.1	23.2	19.0	7.7
		5.0	7.0	26.2	20.1	10.5	20.0	17.8	8.0	5.0	7.0	28.5	21.0	11.4	21.8	18.5	8.7
13*HBC-3	1300	8.0	18.2	36.0	25.4	8.8	26.7	22.3	6.7	8.0	18.2	38.2	26.6	9.5	29.1	23.2	7.3
		7.0	14.1	33.6	24.9	9.6	25.7	21.9	7.3	7.0	14.1	36.7	26.0	10.5	28.0	22.8	8.0
		6.0	10.5	31.9	24.3	10.6	24.4	21.4	8.1	6.0	10.5	34.8	25.3	11.6	26.6	22.3	8.9
		5.0	7.4	29.7	23.5	11.9	22.7	20.8	9.1	5.0	7.4	32.4	24.4	12.9	24.7	21.5	9.9

### HBC-4

(4-Row Coil) All capacities are based on nominal CFM.

COOLING CAPACITY (1000 BTUH)																	
MODEL	NOMINAL CFM	45°F ENTERING WATER									42°F ENTERING WATER						
		GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)			GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)		
				TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
3*HBC-4	300	2.5	11.4	11.5	7.8	9.2	8.8	6.8	7.0	2.5	11.4	12.5	8.2	10.0	9.6	7.1	7.7
		2.0	7.6	10.9	7.6	10.9	8.3	6.6	8.3	2.0	7.6	11.9	8.0	11.9	9.1	6.9	9.1
		1.5	4.5	10.0	7.2	13.3	7.6	6.3	10.1	1.5	4.5	10.9	7.6	14.5	8.3	6.6	11.1
		1.0	2.2	8.3	6.6	16.5	6.3	5.8	12.6	1.0	2.2	9.0	6.9	18.0	6.9	6.1	13.7
4*HBC-4	400	2.5	13.2	14.5	10.1	11.6	11.1	8.8	8.9	2.5	13.2	15.8	10.6	12.7	12.1	9.2	9.7
		2.0	8.9	13.5	9.7	13.5	10.3	8.5	10.3	2.0	8.9	14.7	10.2	14.7	11.3	8.9	11.3
		1.5	5.3	11.9	9.1	15.9	9.1	8.0	12.2	1.5	5.3	13.0	9.6	17.4	9.9	8.4	13.3
		1.2	3.6	10.5	8.6	17.5	8.0	7.6	17.1	1.2	3.6	11.5	9.0	19.1	8.8	7.9	14.6
5*HBC-4	500	3.5	6.5	17.5	12.4	10.0	13.4	10.8	7.7	3.5	6.5	19.1	13.3	10.9	14.6	11.3	8.3
		3.0	4.9	16.6	12.0	11.1	12.7	10.5	8.5	3.0	4.9	18.1	12.6	12.1	13.8	11.0	9.2
		2.5	3.5	15.4	11.6	12.3	11.8	10.2	9.4	2.5	3.5	16.8	12.1	13.5	12.9	10.6	10.3
		2.0	2.3	13.9	11.0	13.9	10.6	9.7	10.6	2.0	2.3	15.2	11.5	15.2	11.6	10.1	11.6
6*HBC-4	600	5.0	12.6	21.9	15.1	8.8	16.8	13.1	6.7	5.0	12.6	23.9	15.8	9.6	18.3	13.7	7.3
		4.0	8.3	20.8	14.6	10.4	15.9	12.7	7.9	4.0	8.3	22.6	15.3	11.3	17.3	13.3	8.6
		3.0	4.9	18.8	13.9	12.5	14.4	12.2	9.6	3.0	4.9	20.5	14.5	13.7	15.7	12.7	10.4
		2.0	2.3	15.6	12.7	15.6	11.9	11.2	11.9	2.0	2.3	17.0	13.2	17.0	13.0	11.6	13.0
8*HBC-4	800	6.0	14.7	27.0	19.1	9.0	20.6	16.7	6.9	6.0	14.7	29.4	20.0	9.8	22.5	17.4	7.5
		5.0	10.7	25.7	18.6	10.3	19.6	16.3	7.8	5.0	10.7	28.0	19.5	11.2	21.4	17.0	8.6
		4.0	7.2	23.7	17.8	11.9	18.1	15.7	7.2	4.0	7.2	25.9	18.6	12.9	19.7	16.3	9.9
		3.0	4.4	20.8	16.8	13.9	15.9	14.8	10.6	3.0	4.4	22.7	17.5	15.1	17.3	15.4	11.5
10*HBC-4	1000	7.0	14.1	32.6	23.3	9.3	24.9	20.4	7.1	7.0	14.1	35.5	24.4	10.2	27.1	21.3	7.8
		6.0	10.5	31.1	22.8	10.4	23.8	19.9	7.9	6.0	10.5	33.9	23.8	11.3	25.9	20.8	8.6
		5.0	7.4	29.2	22.0	11.7	22.3	19.4	8.9	5.0	7.4	31.8	23.0	12.7	24.3	20.1	9.7
		4.0	4.9	26.4	21.0	13.2	20.2	18.6	10.1	4.0	4.9	28.8	21.9	14.4	22.0	19.3	11.0
13*HBC-4	1300	7.0	16.1	37.5	27.3	10.7	28.7	23.9	8.2	7.0	16.1	40.9	28.6	11.7	31.2	24.9	8.9
		6.0	12.0	35.7	26.6	11.9	27.2	23.4	9.1	6.0	12.0	38.9	27.8	13.0	29.7	24.3	9.9
		5.0	8.5	33.1	25.7	13.3	25.3	22.6	10.1	5.0	8.5	36.1	26.8	14.4	27.6	23.5	11.0
		4.0	5.6	29.7	24.4	14.8	24.6	24.6	12.3	4.0	5.6	22.3	25.4	16.2	24.7	22.4	12.4

# COOLING CAPACITIES

## PSC MOTOR

### HBC-31

(3-Row Coil) All capacities are based on nominal CFM.

COOLING CAPACITY (1000 BTUH)																	
MODEL	NOMINAL CFM	45°F ENTERING WATER									42°F ENTERING WATER						
		GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)			GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)		
				TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
3*HBC-31	300	3.0	12.6	10.4	7.1	6.9	7.9	6.2	5.	3.0	12.6	11.3	7.5	7.5	8.6	6.5	5.8
		2.5	9.0	10.0	7.0	8.0	7.6	6.1	6.1	2.5	9.0	10.9	7.3	8.7	8.3	6.3	6.6
		2.0	6.0	9.4	6.8	9.4	7.2	5.9	7.2	2.0	6.0	10.	7.1	10.3	7.9	6.2	7.9
		1.5	3.6	8.6	6.5	11.5	6.6	5.7	8.8	1.5	3.6	9.4	6.7	12.6	1.2	5.9	9.6
4*HBC-31	400	3.0	14.7	13.2	9.2	8.8	10.1	8.0	6.7	3.0	14.7	14.4	9.7	9.6	11.0	8.4	7.3
		2.5	10.7	12.6	9.0	10.0	9.6	7.9	7.7	2.5	10.7	13.7	9.4	11.0	10.5	8.2	8.4
		2.0	7.2	11.7	8.7	11.7	8.9	7.6	8.9	2.0	7.2	12.8	9.1	12.8	9.7	7.9	9.7
		1.5	4.4	10.3	8.2	13.8	7.9	7.2	10.5	1.5	4.4	11.3	8.5	15.0	8.6	7.5	11.5
5*HBC-31	500	6.0	13.8	17.1	11.7	5.7	13.0	10.2	4.3	6.0	13.8	18.6	12.3	6.2	14.2	10.6	4.7
		5.0	9.8	16.5	11.5	6.6	12.6	10.0	5.0	5.0	9.8	18.0	12.0	7.2	13.7	10.4	5.5
		4.0	6.5	15.7	11.2	7.8	12.0	9.8	6.0	4.0	6.5	17.1	11.7	8.5	13.1	10.2	6.5
		3.0	3.8	14.3	10.7	9.5	10.9	9.4	7.3	3.0	3.8	15.6	11.1	10.4	11.9	9.7	.0
6*HBC-31	600	6.0	13.8	19.5	13.4	6.5	14.9	11.7	5.0	6.0	13.8	21.3	14.1	7.1	16.2	12.3	5.4
		5.0	9.8	18.8	13.2	7.5	14.3	11.5	5.7	5.0	9.8	20.5	13.8	8.2	15.6	12.0	6.2
		4.0	6.5	17.8	12.8	8.9	13.6	11.2	6.8	4.0	6.5	19.4	13.4	9.7	14.8	11.7	7.4
		3.0	3.8	16.1	12.2	10.7	12.3	10.7	8.2	3.0	3.8	17.5	12.7	11.7	13.4	11.2	8.9
8*HBC-31	800	6.5	13.7	23.4	16.8	7.2	17.9	14.7	5.5	6.5	13.7	25.5	17.6	7.9	19.5	15.3	6.0
		5.5	10.0	22.4	16.4	8.2	17.1	14.4	6.2	5.5	10.0	24.5	17.2	8.9	18.7	15.0	6.8
		4.5	6.9	21.1	15.9	9.4	16.1	14.0	7.2	4.5	6.9	23.0	16.6	10.2	17.6	14.6	7.8
		3.5	4.3	29.1	15.2	10.9	14.6	13.4	8.3	3.5	4.3	20.8	15.8	11.9	15.9	13.9	9.1
10*HBC-31	1000	8.0	17.9	28.7	20.6	7.2	21.9	18.1	5.5	8.0	17.9	31.3	21.6	7.8	23.9	18.8	6.0
		7.0	13.7	27.7	20.2	7.9	21.1	17.8	6.0	7.0	13.7	30.2	21.1	8.6	23.0	15.8	6.6
		6.0	10.1	26.4	19.8	8.8	20.2	17.4	6.7	6.0	10.1	28.8	20.6	9.6	22.0	18.1	7.3
		5.0	7.0	24.8	19.2	9.9	18.9	16.9	7.6	5.0	7.0	27.0	20.0	10.8	20.6	17.6	8.2
13*HBC-31	1300	8.0	18.2	33.1	24.4	8.3	25.3	21.2	6.3	8.0	18.2	36.1	25.3	9.0	27.6	22.1	6.9
		7.0	14.1	31.8	23.7	9.1	24.3	20.9	6.9	7.0	14.1	34.7	24.7	9.9	26.5	21.7	7.6
		6.0	10.5	30.2	23.1	10.1	23.1	20.4	7.7	6.0	10.5	33.0	24.1	11.0	25.2	21.2	8.4
		5.0	7.4	28.1	22.3	11.2	21.5	19.8	8.6	5.0	7.4	30.6	23.2	12.3	23.4	20.5	9.4

### HBC-32

(4-Row Coil) All capacities are based on nominal CFM.

COOLING CAPACITY (1000 BTUH)																	
MODEL	NOMINAL CFM	45°F ENTERING WATER									42°F ENTERING WATER						
		GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)			GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)		
				TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
3*HBC-32	300	3.0	12.6	9.6	6.5	6.4	7.3	5.7	4.9	3.0	12.6	10.5	6.9	7.0	8.0	6.0	5.3
		2.5	9.0	9.3	6.4	7.4	7.1	5.6	5.7	2.5	9.0	10.1	6.7	8.1	7.7	5.8	6.2
		2.0	6.0	8.8	6.2	8.8	6.7	5.4	6.7	2.0	6.0	9.6	6.5	9.6	7.3	5.7	7.3
		1.5	3.6	8.0	5.9	10.7	6.1	5.2	8.2	1.5	3.6	8.7	6.2	11.7	6.7	5.4	8.9
4*HBC-32	400	3.0	14.7	12.2	8.5	8.2	9.4	7.4	6.2	3.0	14.7	13.4	8.9	8.9	10.2	7.7	6.8
		2.5	10.7	11.7	8.2	9.3	8.9	7.2	7.1	2.5	10.7	12.7	8.6	10.2	9.7	7.5	7.8
		2.0	7.2	10.9	8.0	10.9	8.3	7.0	8.3	2.0	7.2	11.9	8.3	11.9	9.1	7.3	9.1
		1.5	4.4	9.6	7.5	12.8	7.3	6.6	9.8	1.5	4.4	10.5	7.8	14.0	8.0	6.9	10.7
5*HBC-32	500	6.0	13.8	15.9	10.7	5.3	12.1	9.4	4.0	6.0	13.8	17.3	11.3	5.8	13.2	9.8	4.4
		5.0	9.8	15.3	10.5	6.1	11.7	9.2	4.7	5.0	9.8	16.7	11.0	6.7	12.8	9.6	5.1
		4.0	6.5	14.6	10.2	7.3	11.1	9.0	5.6	4.0	6.5	15.9	10.7	7.9	12.1	9.4	6.1
		3.0	3.8	13.3	9.8	8.9	10.2	8.6	6.8	3.0	3.8	14.5	10.2	9.7	11.1	8.9	7.4
6*HBC-32	600	6.0	13.8	18.2	12.3	6.1	13.9	10.7	5.1	6.0	13.8	19.8	12.9	6.6	15.2	11.2	5.1
		5.0	9.8	17.5	12.0	7.0	13.4	10.5	5.8	5.0	9.8	19.1	12.6	7.6	14.6	11.0	5.8
		4.0	6.5	16.6	11.7	8.3	12.6	10.3	6.7	4.0	6.5	18.1	12.2	9.0	13.8	10.7	6.9
		3.0	3.8	15.0	11.1	10.0	11.5	9.8	7.8	3.0	3.8	16.4	11.6	10.9	12.5	10.2	8.3
8*HBC-32	800	6.5	13.7	21.9	15.3	7.2	16.7	13.4	5.1	6.5	13.7	23.8	16.0	7.3	18.2	14.0	5.6
		5.5	10.0	20.9	14.9	7.6	16.0	13.1	5.8	5.5	10.0	22.8	15.6	8.3	17.4	13.7	6.3
		4.5	6.9	19.7	14.5	8.8	15.1	12.8	6.7	4.5	6.9	21.5	15.1	9.6	16.4	13.3	7.3
		3.5	4.3	17.8	13.8	10.2	13.6	12.2	7.8	3.5	4.3	19.4	14.4	11.1	14.8	12.7	8.5
10*HBC-32	1000	8.0	17.9	26.8	18.7	6.7	20.5	16.4	5.1	8.0	17.9	29.2	19.6	7.3	22.3	17.1	5.6
		7.0	13.7	25.8	18.3	7.4	19.7	16.1	5.8	7.0	13.7	28.2	19.2	8.0	21.5	16.8	6.1
		6.0	10.1	24.7	17.9	8.2	18.8	15.8	6.7	6.0	10.1	26.9	18.7	9.0	20.5	16.4	6.8
		5.0	7.0	23.1	17.4	9.2	17.6	15.3	7.1	5.0	7.0	25.2	18.1	10.1	19.2	15.9	7.7
13*HBC-32	1300	8.0	18.2	30.9	21.9	7.7	23.6	19.2	5.9	8.0	18.2	33.7	22.9	8.4	25.8	20.	6.4
		7.0	14.1	29.7	21.4	8.5	22.7	18.9	6.5	7.0	14.1	32.4	22.4	9.3	24.7	19.7	7.1
		6.0	10.5	28.2	20.9	9.4	21.6	18.5	7.2	6.0	10.5	30.8	21.8	10.3	23.5	19.2	7.8
		5.0	7.4	26.2	20.2	10.5	20.0	17.9	8.0	5.0	7.4	28.6	21.0	11.4	21.8	18.6	8.7

# COOLING CAPACITIES

## PSC MOTOR

### HBC-41

(4-Row Coil) All capacities are based on nominal CFM.

COOLING CAPACITY (1000 BTUH)																	
MODEL	NOMINAL CFM	45°F ENTERING WATER									42°F ENTERING WATER						
		GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)			GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)		
				TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
3*HBC-41	300	3.0	15.9	11.2	7.5	7.5	8.6	6.5	5.7	3.0	15.9	12.3	7.9	8.2	9.4	6.8	6.2
		2.5	11.4	10.8	7.4	8.7	8.3	6.4	6.6	2.5	11.4	11.8	7.7	9.4	9.0	6.7	7.2
		2.0	7.6	10.2	7.1	10.2	7.8	6.2	7.8	2.0	7.6	11.2	7.5	11.2	8.5	6.5	8.5
		1.5	4.5	9.4	6.8	12.5	7.2	6.0	9.5	1.5	4.5	10.2	7.1	13.6	7.8	6.2	10.4
4*HBC-41	400	3.0	18.2	14.3	9.8	9.6	10.9	8.5	7.3	3.0	18.2	15.6	10.3	10.4	11.9	8.9	8.0
		2.5	13.2	13.6	9.5	10.9	10.4	8.3	8.3	2.5	13.2	14.9	10.0	11.9	11.4	8.7	9.1
		2.0	8.9	12.7	9.2	12.7	9.7	8.0	9.7	2.0	8.9	13.9	9.6	13.9	10.6	8.4	10.6
		1.5	5.3	11.2	8.6	15.0	8.6	7.6	11.4	1.5	5.3	12.2	9.0	16.3	9.4	7.9	12.5
5*HBC-41	500	6.0	17.6	18.9	12.6	6.3	14.5	10.9	4.8	6.0	17.6	20.6	13.3	6.9	15.8	11.5	5.3
		5.0	12.6	18.3	12.3	7.3	14.0	10.7	5.6	5.0	12.6	19.9	13.0	8.0	15.2	11.2	6.1
		4.0	8.3	17.4	12.0	8.7	13.3	10.5	6.6	4.0	8.3	19.0	12.6	9.5	14.5	10.9	7.2
		3.0	4.9	15.9	11.4	10.6	12.1	10.0	8.1	3.0	4.9	17.3	12.0	11.5	13.2	10.4	8.8
6*HBC-41	600	6.0	17.6	21.5	14.4	7.2	16.4	12.6	5.5	6.0	17.6	23.5	15.2	7.8	17.9	13.1	6.0
		5.0	12.6	20.7	14.1	8.3	15.8	12.3	6.3	5.0	12.6	22.6	14.8	9.0	17.2	12.9	6.9
		4.0	8.3	19.6	13.7	9.8	15.0	12.0	7.5	4.0	8.3	21.3	14.4	10.7	16.3	12.5	8.2
		3.0	4.9	17.7	13.0	11.8	13.6	11.4	9.0	3.0	4.9	19.3	13.6	12.9	14.8	11.9	9.8
8*HBC-41	800	6.5	16.9	26.0	18.1	8.0	19.6	15.8	6.1	6.5	16.9	28.3	19.0	8.7	21.6	16.5	6.7
		5.5	12.6	24.9	17.7	9.1	19.0	15.5	6.9	5.5	12.6	27.1	18.5	9.9	20.7	16.1	7.5
		4.5	8.9	23.4	17.1	10.4	17.9	15.0	8.0	4.5	8.9	25.6	17.9	11.4	19.5	16.7	8.7
		3.5	5.7	21.1	16.3	12.1	16.1	14.4	9.2	3.5	5.7	23.0	17.0	13.2	17.6	14.9	10.1
10*HBC-41	1000	8.0	18.2	31.9	22.3	8.0	24.4	19.5	6.1	8.0	18.2	34.8	23.3	8.7	26.6	20.3	6.6
		7.0	14.1	30.8	21.8	8.8	23.5	19.1	6.7	7.0	14.1	33.6	22.9	9.6	25.7	19.9	7.3
		6.0	10.5	29.4	21.3	9.8	22.5	18.7	7.5	6.0	10.5	32.1	22.3	10.7	24.5	19.5	8.2
		5.0	7.4	27.6	20.6	11.0	21.1	18.2	8.4	5.0	7.4	20.0	21.6	12.0	22.9	18.9	9.2
13*HBC-41	1300	8.0	20.8	37.0	26.1	9.2	28.2	22.9	7.1	8.0	20.8	40.3	27.4	10.1	30.8	23.9	7.7
		7.0	16.1	35.5	25.6	10.1	27.1	22.4	7.7	7.0	16.1	38.7	26.8	11.1	29.6	23.4	8.4
		6.0	12.0	33.7	24.9	11.2	25.8	21.9	8.6	6.0	12.0	36.8	26.1	12.3	28.1	22.8	9.4
		5.0	8.5	31.3	24.1	12.5	23.9	21.2	9.6	5.0	8.5	34.2	25.1	13.7	26.1	22.0	10.4

# HEATING CAPACITIES

## HBC-3 3-Row Coil

HEATING CAPACITY (1000 BTUH)							
MODEL	NOMINAL CFM	GPM	P.D. (F. WTR)	ENTERING WATER TEMP.			
				180°F	160°F	140°F	120°F
3*HBC-3	300	3.0	12.6	26.9	22.0	17.1	12.2
		2.0	3.0	26.0	21.2	16.5	11.8
		1.0	1.7	23.4	19.1	14.9	10.6
4*HBC-3	400	3.5	19.3	35.8	29.3	22.8	16.3
		2.5	10.7	34.6	28.3	22.0	15.7
		1.5	4.4	32.1	26.3	20.4	14.6
5*HBC-3	500	5.0	9.8	43.7	35.7	27.8	19.8
		3.5	5.1	42.2	34.5	26.8	19.2
		2.0	1.8	38.6	31.6	24.6	17.5
6*HBC-3	600	5.0	9.8	49.7	40.6	31.6	22.6
		3.5	5.1	47.8	39.1	30.4	21.7
		2.0	1.8	43.5	35.6	27.7	19.8
8*HBC-3	800	7.0	15.7	65.0	53.2	41.4	29.6
		5.0	8.4	62.7	51.3	39.9	28.5
		3.0	3.2	57.7	47.2	39.7	26.2
10*HBC-3	1000	8.0	17.9	79.2	64.8	50.4	36.0
		6.0	10.1	76.6	62.7	48.8	34.8
		4.0	4.5	71.9	58.8	45.7	32.7
13*HBC-3	1300	8.0	18.2	93.3	76.4	59.4	42.4
		6.0	10.5	90.0	73.6	57.2	40.9
		4.0	4.9	83.8	68.6	53.3	38.1

## HBC-31 1-Row Coil

HEATING CAPACITY (1000 BTUH)							
MODEL	NOMINAL CFM	GPM	P.D. (F. WTR)	ENTERING WATER TEMP.			
				180°F	160°F	140°F	120°F
3*HBC-31	300	2.0	11.3	15.2	12.4	9.6	6.9
		1.5	6.7	14.7	12.0	9.4	6.7
		1.0	3.2	13.9	11.4	8.8	6.3
4*HBC-31	400	2.0	14.4	19.6	16.1	12.5	8.9
		1.5	8.9	18.9	15.5	12.0	8.6
		1.0	4.5	17.5	14.4	11.2	8.0
5*HBC-31	500	2.0	15.0	23.3	19.1	14.8	10.6
		1.5	9.0	22.3	18.2	14.2	10.1
		1.0	4.4	20.4	16.7	13.0	9.3
6*HBC-31	600	2.0	15.0	25.7	21.0	16.4	11.7
		1.5	9.0	24.5	20.0	15.6	11.1
		1.0	4.4	22.4	18.3	14.2	10.2
8*HBC-31	800	2.0	18.8	31.6	25.9	20.1	14.4
		1.5	11.3	29.8	24.4	19.0	13.6
		1.0	5.5	26.8	21.9	17.0	12.2
10*HBC-31	1000	2.0	19.9	37.0	30.3	23.5	16.8
		1.5	12.3	34.6	28.3	22.0	15.7
		1.0	6.2	30.8	25.2	19.6	14.0
13A*HBC-31	1300	2.0	23.4	42.3	34.6	26.9	19.2
		1.5	14.0	39.4	32.2	25.1	17.9
		1.0	6.8	35.2	28.8	22.4	16.0

## HBC-4 4-Row Coil

HEATING CAPACITY (1000 BTUH)							
MODEL	NOMINAL CFM	GPM	P.D. (F. WTR)	ENTERING WATER TEMP.			
				180°F	160°F	140°F	120°F
3*HBC-4	300	3.0	15.9	28.6	23.4	18.2	13.0
		2.0	7.6	27.6	22.6	17.6	12.6
		1.0	2.2	14.9	20.3	15.8	11.3
4*HBC-4	400	3.0	18.2	37.6	30.7	23.9	17.1
		2.0	8.9	35.8	29.3	22.8	16.3
		1.0	2.6	31.3	25.6	19.9	14.2
5*HBC-4	500	4.0	8.3	45.6	37.3	29.0	20.7
		3.0	4.9	44.0	36.0	28.0	20.0
		2.0	2.3	41.2	33.7	26.2	18.7
6*HBC-4	600	5.0	12.6	53.2	43.5	33.9	24.2
		4.0	8.3	52.0	42.6	33.1	23.6
		3.0	4.9	50.1	41.0	31.9	22.8
8*HBC-4	800	6.0	14.7	68.8	56.3	43.8	31.3
		4.5	8.9	66.4	54.3	42.3	30.2
		3.0	4.4	62.0	50.7	39.4	28.2
10*HBC-4	1000	7.5	16.1	84.7	69.3	53.9	38.5
		6.0	10.5	82.5	67.5	52.5	37.5
		4.5	4.5	79.0	64.6	50.3	35.9
13*HBC-4	1300	8.0	20.8	100.5	92.2	63.9	45.7
		6.5	14.0	97.9	80.1	62.3	44.5
		5.0	8.5	94.1	77.0	69.9	42.8

## HBC-32 2-Row Coil

HEATING CAPACITY (1000 BTUH)							
MODEL	NOMINAL CFM	GPM	P.D. (F. WTR)	ENTERING WATER TEMP.			
				180°F	160°F	140°F	120°F
3*HBC-32	300	3.0	10.5	18.3	15.0	11.7	8.3
		2.0	5.1	17.7	14.5	11.2	8.0
		1.0	1.5	15.9	13.0	10.1	7.2
4*HBC-32	400	3.0	11.2	24.0	19.6	15.2	10.9
		2.0	5.4	22.8	18.7	14.5	10.4
		1.0	1.6	20.0	16.4	12.7	9.1
5*HBC-32	500	3.0	13.4	28.8	23.5	18.3	13.1
		2.0	6.4	27.2	22.3	17.3	12.4
		1.0	1.9	23.4	19.1	14.9	10.6
6*HBC-32	600	3.0	13.4	32.1	26.2	20.4	14.6
		2.0	6.4	30.3	24.8	19.3	13.8
		1.0	1.9	25.8	21.1	16.4	11.7
8*HBC-32	800	4.0	8.4	40.5	33.1	25.8	18.4
		3.0	4.8	38.6	31.6	24.6	17.5
		2.0	2.2	35.4	28.9	22.5	16.1
10*HBC-32	1000	4.0	8.1	48.2	39.5	30.7	21.9
		3.0	4.7	45.7	37.4	29.1	20.8
		2.0	2.2	41.3	33.8	26.3	18.8
13*HBC-32	1300	4.0	7.8	56.1	45.9	35.7	25.5
		3.0	4.3	52.8	43.2	33.6	24.0
		2.0	1.9	47.3	38.7	30.1	21.5

## HBC-41 1-Row Coil

HEATING CAPACITY (1000 BTUH)							
MODEL	NOMINAL CFM	GPM	P.D. (F. WTR)	ENTERING WATER TEMP.			
				180°F	160°F	140°F	120°F
3*HBC-41	300	2.0	11.3	14.1	11.6	9.0	6.4
		1.5	6.7	13.7	11.2	8.7	6.2
		1.0	3.2	13.0	10.6	8.2	5.9
4*HBC-341	400	2.0	14.4	18.2	14.9	11.6	8.3
		1.5	8.9	17.6	14.4	11.2	8.0
		1.0	4.5	16.3	13.36	10.4	7.4
5*HBC-41	500	2.0	15.0	21.4	17.5	13.6	9.7
		1.5	9.0	20.5	16.8	13.0	9.3
		1.0	4.4	18.8	15.3	11.9	8.5
6*HBC-41	600	2.0	15.0	23.2	19.0	14.8	10.5
		1.5	9.0	22.1	18.1	14.1	10.0
		1.0	4.4	20.2	16.5	12.8	9.2
8*HBC-41	800	2.0	18.8	28.4	23.2	18.1	12.9
		1.5	11.3	26.8	21.9	17.1	12.2
		21.0	5.5	24.1	19.7	15.3	10.9
10*HBC-41	1000	2.0	19.9	33.3	27.2	21.2	15.1
		1.5	12.3	31.1	25.5	19.8	14.1
		1.0	6.2	27.7	22.7	17.6	12.6
13*HBC-41	1300	2.0	23.4	38.1	31.2	24.2	17.3
		1.5	14.0	35.4	29.0	22.5	16.1
		1.0	6.8	31.6	25.9	20.1	14.4

### NOTES

1. Ratings at 70 degree entering air temp.
2. Contact factory for capacities at other conditions

- \* - null - open blower
- P - with insulated return plenum
- R - recessed with telescoping panel
- C - cabinet exposed



# CORRECTION FACTORS

COOLING CAPACITY CORRECTION FACTORS														
MODEL	3HBC		4HBC		5HBC		6HBC		8HBC		10HBC		13HBC	
CFM	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
150	.70	.64												
175	.75	.70												
200	.80	.76												
225	.85	.82												
250	0.9	.88	.70	.64										
300	1.00	1.00	.76	.71	.70	.64								
325	1.04	1.06	.79	.75	.72	.67								
350	1.10	1.12	.82	.78	.75	.70	.69	.63						
400			.88	.86	.80	.76	.73	.68						
450			.94	.93	.85	.82	.77	.73	.71	.66				
500			1.00	1.00	.90	.88	.81	.77	.74	.69				
550			1.06	1.07	.95	.94	.85	.82	.78	.73	.71	.65		
600			1.12	1.14	1.00	1.00	.89	.87	.81	.78	.74	.68		
700					1.10	1.12	.98	.98	.88	.85	.79	.75	.70	.64
800							1.05	1.06	.95	.94	.85	.82	.74	.69
900							1.14	1.16	1.02	1.02	.90	.88	.78	.74
1000									1.09	1.11	.96	.95	.83	.79
1100									1.15	1.18	1.02	1.02	.87	.85
1200											1.07	1.09	.92	.90
1300											1.12	1.14	1.06	1.05
1400													1.00	1.00
1500													1.04	1.05

TH - Total Heat      SH - Sensible Heat

ARI APPROVED STANDARD RATINGS							
PSC MOTOR	MODEL	COIL	CFM	PRESS DROP (FT.WTR.)	COOLING (1000 BTUH)		POWER INPUT (WATTS)
					TH	SH	
					3*HBC-3	3-ROW	
4*HBC-3	510	12.5	13.4	9.5	120		
5*HBC-3	600	8.0	16.3	11.0	130		
6*HBC-3	730	10.5	20.0	14.0	230		
8*HBC-3	870	8.0	22.5	17.0	340		
10*HBC-3	1070	8.0	27.8	20.8	450		
13*HBC-3	1400	14.0	35.5	26.5	530		
3*HBC-4	4-ROW	310	12.0	10.8	7.0	120	
4*HBC-4		510	23.2	16.0	10.6	120	
5*HBC-4		600	12.0	18.0	11.8	130	
6*HBC-4		730	18.0	23.0	15.6	230	
8*HBC-4		870	14.0	26.9	18.9	340	
10*HBC-4		1070	14.0	32.2	23	450	
13*HBC-4		1400	24.0	41.5	29.5	530	

Rated in accordance with ARI Standard 440.

# HBC 120 VOLT PSC

## BLOWER PERFORMANCE

CFM vs EXTERNAL STATIC PRESSURE (3 ROW 120 Volt)													
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3*HBC-3	1/20	1050	.09	HI	335	300	270	235	---	---	---	---	---
				MED	275	245	220	---	---	---	---	---	
				LOW (4)	230	210	---	---	---	---	---		
4*HBC-3	1/12	1050	1.1	HI	525	480	425	350	---	---	---	---	---
				MED	410	375	330	260	---	---	---	---	
				LOW	350	325	280	---	---	---	---		
5*HBC-3	1/12	1050	1.3	HI	610	560	510	450	375	---	---	---	---
				MED	500	465	425	370	---	---	---	---	
				LOW	355	345	325	290	---	---	---	---	
6*HBC-3	1/8	1550	1.9	HI	755	730	705	680	650	620	---	---	---
				MED	675	650	620	595	565	540	---	---	
				LOW	570	550	530	510	485	450	---	---	
8*HBC-3	1/5	1550	3.0	HI	950	920	895	870	840	810	775	740	635
				MED	775	755	730	710	690	665	635	605	530
				LOW	690	605	585	560	540	515	485	460	405
10*HBC-3	1/4	1550	3.6	HI	1175	1145	1115	1085	1055	1025	995	960	890
				MED	950	930	915	900	885	870	850	820	745
				LOW	805	795	785	775	755	735	710	680	620
13*HBC-3	1/5 (two)	1550	2.3 Ea.	HI	1545	1500	1455	1450	1365	1320	1280	1235	1120
				MED	1355	1320	1280	1230	1205	1165	1125	1085	975
				LOW	1190	1160	1130	1150	1075	1035	990	940	830
CFM vs EXTERNAL STATIC PRESSURE (4 ROW or 3/1 Split 120 Volt)													
3*HBC-4 -31	1/20	1050	0.9	HI	315	280	250	---	---	---	---	---	---
				MED	260	230	200	---	---	---	---	---	
				LOW (4)	220	195	---	---	---	---	---	---	
4*HBC-4 -31	1/12	1050	1.1	HI	490	450	395	320	---	---	---	---	---
				MED	405	370	320	250	---	---	---	---	
				LOW	350	320	280	---	---	---	---	---	
5*HBC-4 -31	1/12	1050	1.3	HI	605	550	500	445	375	---	---	---	---
				MED	500	455	415	365	---	---	---	---	
				LOW	360	340	315	275	---	---	---	---	
6*HBC-4 -31	1/8	1550	1.9	HI	745	710	675	645	610	580	---	---	---
				MED	745	615	590	560	535	500	---	---	
				LOW	650	535	510	485	455	420	---	---	
8*HBC-4 -31	1/5	1550	3.0	HI	915	885	855	825	800	765	735	705	625
				MED	755	730	705	675	650	620	590	555	480
				LOW	620	595	575	550	530	500	475	440	370
10*HBC-4 -31	1/4	1550	3.6	HI	1140	1110	1080	1045	1010	975	935	890	825
				MED	940	915	895	875	850	825	795	765	680
				LOW	790	775	755	735	715	690	660	630	555
13*HBC-4 -31	1/5 (two)	1550	2.3 Ea.	HI	1495	1450	1405	1360	1310	1165	1215	1165	1055
				MED	1310	1270	1235	1200	1160	1115	1070	1020	930
				LOW	1165	1130	1095	1060	1020	985	940	895	780
CFM vs EXTERNAL STATIC PRESSURE (4/1 or 3/2 Split 120 Volt)													
3*HBC-41 -32	1/20	1050	0.9	HI	305	270	230	---	---	---	---	---	---
				MED	250	225	200	---	---	---	---	---	
				LOW (4)	210	190	---	---	---	---	---	---	
4*HBC-41 -32	1/12	1050	1.1	HI	470	420	365	290	---	---	---	---	---
				MED	395	355	300	235	---	---	---	---	
				LOW	345	305	270	---	---	---	---	---	
5*HBC-41 -32	1/12	1050	1.3	HI	575	520	470	415	---	---	---	---	---
				MED	480	440	400	350	---	---	---	---	
				LOW	345	325	300	---	---	---	---	---	
6*HBC-41 -32	1/8	1550	1.9	HI	660	625	595	565	530	495	---	---	---
				MED	555	520	485	445	425	395	---	---	
				LOW	475	440	410	380	350	320	---	---	
8*HBC-41 -32	1/5	1550	3.0	HI	905	875	845	815	785	750	715	680	605
				MED	755	725	705	680	650	620	590	555	495
				LOW	635	615	595	570	550	525	495	465	405
10*HBC-41 -32	1/4	1550	3.6	HI	1115	1075	1040	1005	970	935	900	860	765
				MED	925	905	880	860	835	805	765	725	630
				LOW	790	765	745	725	700	675	640	605	530
13*HBC-41 -32	1/5 (two)	1550	2.3 Ea.	HI	1470	1420	1370	1320	1270	1220	1165	1105	965
				MED	1355	1315	1265	1220	1170	1115	1060	1005	870
				LOW	1195	1160	1120	1080	1035	985	935	875	745

- Notes**
- Motors are 120v/60Hz, high efficiency PSC type
  - Maximum HACR breaker is 15 amp
  - Coil fins-per-inch varies to allow consistent air flow
  - The size 3 motor (models 3(P/R/C) (HBC) may not start on low speed due to low starting torque. These units must be wired to start on either Medium or High speed.

# HBC 277 VOLT PSC

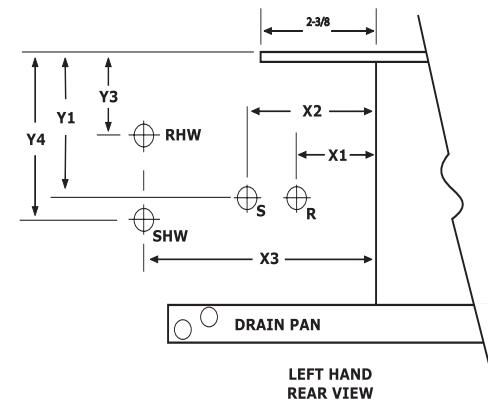
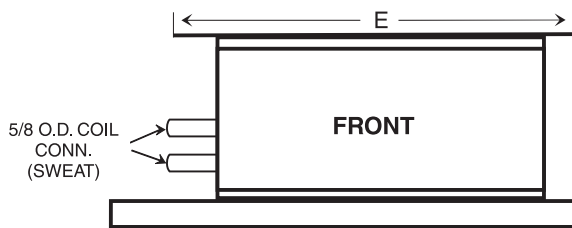
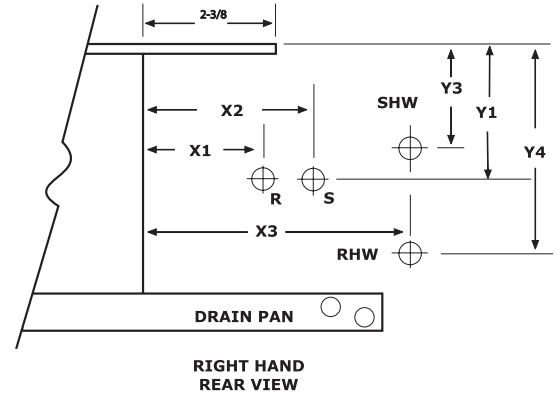
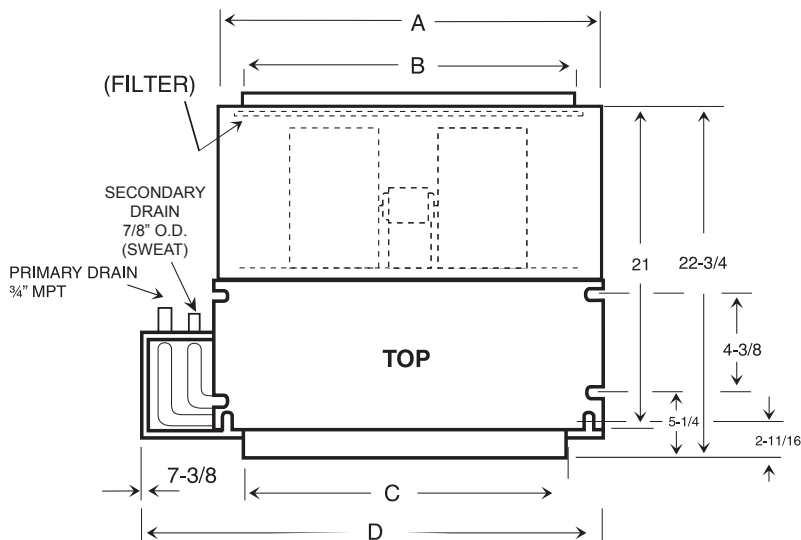
## BLOWER PERFORMANCE

CFM vs EXTERNAL STATIC PRESSURE (3 ROW 277 Volt)													
MODEL	HP	MAX RPM	AMPS (277V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3*HBC-3	1/20	1100	0.48	HI	315	285	255	---	---	---	---	---	---
				MED	245	220	195	---	---	---	---	---	---
				LOW	180	160	---	---	---	---	---	---	---
4*HBC-3	1/15	1050	0.52	HI	510	450	390	---	---	---	---	---	---
				MED	410	365	305	---	---	---	---	---	---
				LOW	350	315	265	---	---	---	---	---	---
5*HBC-3	1/15	1050	0.52	HI	575	535	490	---	---	---	---	---	---
				MED	405	375	340	---	---	---	---	---	---
				LOW	335	305	275	---	---	---	---	---	---
6*HBC-3	1/812	1625	0.56	HI	700	670	640	615	590	560	530	495	---
				MED	570	545	520	490	465	430	400	360	---
				LOW	475	455	430	400	370	340	300	255	---
8*HBC-3	1/6	1550	0.80	HI	905	880	855	830	800	765	725	685	---
				MED	720	700	675	650	625	595	565	535	---
				LOW	605	585	560	530	505	475	450	420	---
10*HBC-3	1/4	1625	1.526	HI	1170	1140	1105	1070	1035	995	950	905	---
				MED	945	920	900	875	850	820	785	740	---
				LOW	780	755	730	705	680	655	625	590	---
13*HBC-3	1/6 (two)	1550	0.80 Ea.	HI	1580	1535	1490	1450	1400	1355	1300	1245	1130
				MED	1380	1340	1300	1260	1215	1170	1125	1075	960
				LOW	1180	1140	1105	1070	1030	990	945	895	775
CFM vs EXTERNAL STATIC PRESSURE (4 ROW or 3/1 Split 277 Volt)													
3*HBC-4 -31	1/20	1100	0.48	HI	300	270	---	---	---	---	---	---	---
				MED	230	215	---	---	---	---	---	---	---
				LOW	195	175	---	---	---	---	---	---	---
4*HBC-4 -31	1/15	1050	0.52	HI	485	435	380	---	---	---	---	---	---
				MED	395	355	300	---	---	---	---	---	---
				LOW	350	315	265	---	---	---	---	---	---
5*HBC-4 -31	1/125	1050	0.52	HI	565	525	480	---	---	---	---	---	---
				MED	390	360	325	---	---	---	---	---	---
				LOW	330	300	270	---	---	---	---	---	---
6*HBC-4 -31	1/12	1625	0.56	HI	700	665	635	600	575	545	510	470	---
				MED	570	540	515	490	465	435	400	355	---
				LOW	470	445	420	390	360	330	290	255	---
8*HBC-4 -31	1/6	1550	0.80	HI	865	835	805	780	745	710	670	625	---
				MED	705	680	660	630	605	570	535	495	---
				LOW	580	555	535	505	475	445	415	395	---
10*HBC-4 -31	1/4	1625	1.526	HI	1140	1100	1065	1025	990	950	915	880	---
				MED	915	890	870	845	820	790	755	715	---
				LOW	770	745	720	695	670	640	615	585	---
13*HBC-4 -31	1/6 (two)	1550	0.80 Ea.	HI	1510	1465	1420	1370	1325	1275	1225	1170	1050
				MED	1320	1280	1245	1205	1165	1120	1075	1025	905
				LOW	1140	1110	1075	1040	1005	965	920	865	745
CFM vs EXTERNAL STATIC PRESSURE (4/1 or 3/2 Split 277 Volt)													
3*HBC-41 -32	1/20	1100	0.48	HI	295	265	---	---	---	---	---	---	---
				MED	235	210	---	---	---	---	---	---	---
				LOW	190	160	---	---	---	---	---	---	---
4*HBC-41 -32	1/15	1050	0.52	HI	485	440	390	---	---	---	---	---	---
				MED	400	360	310	---	---	---	---	---	---
				LOW	345	315	270	---	---	---	---	---	---
5*HBC-41 -32	1/15	1050	0.52	HI	525	475	430	---	---	---	---	---	---
				MED	385	350	310	---	---	---	---	---	---
				LOW	320	285	250	---	---	---	---	---	---
6*HBC-41 -32	1/12	1625	0.56	HI	660	630	600	575	545	515	480	---	---
				MED	540	510	485	460	430	395	360	---	---
				LOW	455	430	405	380	350	315	280	---	---
8*HBC-41 -32	1/6	1550	0.80	HI	865	830	800	775	740	705	665	625	---
				MED	690	660	630	605	575	545	515	485	---
				LOW	580	550	525	495	470	440	415	385	---
10*HBC-41 -32	1/4	1625	1.26	HI	1100	1065	1030	995	950	900	850	795	---
				MED	940	905	870	845	820	790	750	675	---
				LOW	770	750	730	710	685	645	600	454	---
13*HBC-41 -32	1/6 (two)	1550	0.80 Ea.	HI	1460	1415	1365	1320	1270	1225	1175	1120	1005
				MED	1285	1245	1210	1170	1125	1085	1035	985	855
				LOW	1130	1090	1050	1005	970	930	885	840	710

- Notes**
- Motors are 120v/60Hz, high efficiency PSC type
  - Maximum HACR breaker is 15 amp
  - Coil fins-per-inch varies to allow consistent air flow

# PHBC

## PHYSICAL DATA

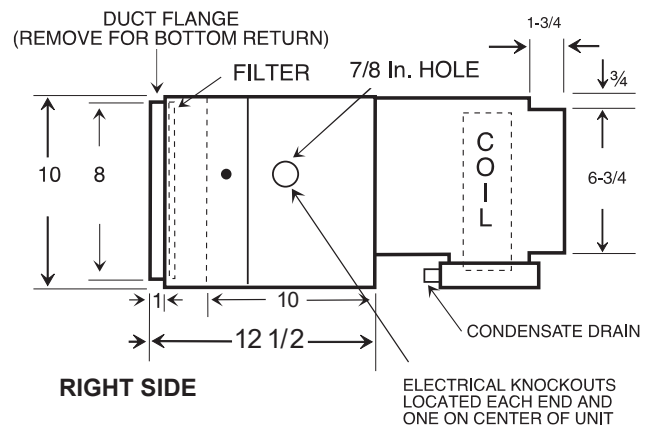


GENERAL DIMENSIONS							
MODEL	A	B	C	D	E	FILTER SIZE (INCL.)	CONNECTIONS PRIMARY O.D.
3*PHBC	24	22	20-1/8	30-1/8	27-1/4	10 X 24	5/8"
4*PHBC(X)	30	28	26-1/8	36-1/8	33-1/4	10 X 30	
5*PHBC	34	32	30-1/8	40-1/8	37-1/4	10 X 34	
6*PHBC(X)	34	32	30-1/8	40-1/8	37-1/4	10 X 34	
8*PHBC(X)	40	38	36-1/8	46-1/8	43-1/4	10 X 40	
10*PHBC(X)	46	44	42-1/8	52-1/8	49-1/4	10 X 46	
12*PHBC(X)	53	51	49-1/8	59-1/8	56-1/4	10 X 53	
13*PHBC	53	51	49-1/8	59-1/8	56-1/4	10 X 53	

(X) - Available with ECM motor

**NOTES:**

1. ALL DIMENSIONS IN INCHES.
2. COIL CONNECTION TOLERANCE  $\pm 1/4"$ .
3. RIGHT HAND UNIT SHOWN - LEFT HAND MODEL HAS DRAIN AND PIPING CONNECTIONS ON OPPOSITE SIDE OF THE FAN COIL. (HAND IS DETERMINED BY FACING THE BLOWER END)



PHBC HEADER LOCATIONS							
RIGHT HAND	X1	Y1	X2	Y2	X3	Y3	Y4
3 ROW	3	4-1/4	5	4	---	---	---
3/1 Split	3	4-1/4	5	4	8	3-1/2	5-1/2
3/2 Split	3	4-1/4	5	4	8	3-1/2	5-1/2
4 ROW	3	4-1/4	5	4	---	---	---
4/1 Split	3	4-1/4	5	4	8	4	6

**NOTES:**

1. Return plenums are insulated.
2. All plenums include throw-away filter.
3. Standard plenums are end return and can be field converted to bottom return.
4. Filter has separate access panel.

PHBC HEADER LOCATIONS							
LEFT HAND	X1	Y1	X2	Y2	X3	Y3	Y4
3 ROW	3	3-3/4	5	4	---	---	---
3/1 Split	3	3-3/4	5	4	8	2-1/2	4-1/2
3/2 Split	3	3-3/4	5	4	8	2-1/2	4-1/2
4 ROW	3	3-3/4	5	4	---	---	---
4/1 Split	3	3-3/4	5	4	8	2	4

# PHBC 120 VOLT PSC

## BLOWER PERFORMANCE

CFM vs EXTERNAL STATIC PRESSURE (3 ROW 120 Volt)													
MODEL	HP	MAX RPM	AMPS	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3PHBC-3	1/20	1050	.09	HI	320	285	250	---	---	---	---	---	---
				MED	260	230	205	---	---	---	---	---	
				LOW (4)	220	200	---	---	---	---	---	---	
4PHBC-3	1/12	1050	1.1	HI	405	355	295	---	---	---	---	---	
				MED	360	315	255	---	---	---	---	---	
				LOW	340	305	245	---	---	---	---	---	
5PHBC-3	1/12	1050	1.3	HI	545	500	445	385	---	---	---	---	
				MED	475	440	395	335	---	---	---	---	
				LOW	345	320	290	250	---	---	---	---	
6PHBC-3	1/8	1550	1.9	HI	705	675	650	620	590	555	---	---	
				MED	645	620	595	565	535	505	---	---	
				LOW	560	540	515	490	460	430	---	---	
8PHBC-3	1/5	1550	3.0	HI	890	855	820	780	745	710	670	630	
				MED	760	725	695	665	630	595	565	530	460
				LOW	620	595	565	540	515	485	455	420	360
10PHBC-3	1/4	1550	3.6	HI	1165	1130	1095	1060	1020	975	930	880	
				MED	1065	1025	990	955	915	875	835	795	710
				LOW	890	865	840	815	790	765	735	700	625
13PHBC-3	1/5 (two)	1550	2.3 Ea.	HI	1345	1295	1250	1205	1155	1100	1045	980	
				MED	1255	1210	1170	1120	1075	1025	970	915	795
				LOW	1165	1125	1080	1035	985	930	875	820	710
CFM vs EXTERNAL STATIC PRESSURE (4 ROW or 3/1 Split 120 Volt)													
3PHBC-4 -31	1/20	1050	0.9	HI	290	260	230	---	---	---	---	---	
				MED	245	220	---	---	---	---	---	---	
				LOW (4)	215	185	---	---	---	---	---	---	
4PHBC-4 -31	1/12	1050	1.1	HI	380	335	285	---	---	---	---	---	
				MED	345	295	---	---	---	---	---	---	
				LOW	315	275	---	---	---	---	---	---	
5PHBC-4 -31	1/12	1050	1.3	HI	540	490	435	370	---	---	---	---	
				MED	475	435	365	290	---	---	---	---	
				LOW	365	340	305	---	---	---	---	---	
6PHBC-4 -31	1/8	1550	1.9	HI	695	660	630	595	560	520	---	---	
				MED	620	590	560	530	500	465	---	---	
				LOW	560	525	490	460	425	390	---	---	
8PHBC-4 -31	1/5	1550	3.0	HI	870	830	795	755	720	685	645	605	
				MED	745	715	680	645	615	580	545	510	440
				LOW	605	580	555	535	505	480	445	415	355
10PHBC-4 -31	1/4	1550	3.6	HI	1120	1075	1030	990	945	905	865	820	
				MED	1035	1000	960	920	880	840	795	755	675
				LOW	905	875	845	815	780	750	715	675	600
13PHBC-4 -31	1/5 (two)	1550	2.3 Ea.	HI	1300	1255	1210	1165	1115	1060	1005	940	
				MED	1225	1180	1130	1080	1035	950	935	880	755
				LOW	1125	1080	1035	990	945	895	845	795	690
CFM vs EXTERNAL STATIC PRESSURE (4/1 or 3/2 Split 120 Volt)													
3PHBC-41 -32	1/20	1050	0.9	HI	285	250	220	---	---	---	---	---	
				MED	235	210	---	---	---	---	---	---	
				LOW (4)	205	180	---	---	---	---	---	---	
4PHBC-41 -32	1/12	1050	1.1	HI	370	320	265	---	---	---	---	---	
				MED	325	280	---	---	---	---	---	---	
				LOW	295	250	---	---	---	---	---	---	
5PHBC-41 -32	1/12	1050	1.3	HI	505	450	395	335	---	---	---	---	
				MED	445	400	350	295	---	---	---	---	
				LOW	325	300	270	---	---	---	---	---	
6PHBC-41 -32	1/8	1550	1.9	HI	665	625	590	555	515	480	---	---	
				MED	605	570	535	505	470	430	---	---	
				LOW	535	505	470	440	405	370	---	---	
8PHBC-41 -32	1/5	1550	3.0	HI	845	810	780	750	715	680	640	605	
				MED	725	700	670	640	610	580	550	520	435
				LOW	605	580	560	535	505	480	455	425	370
10PHBC-41 -32	1/4	1550	3.6	HI	1015	975	940	900	865	825	785	750	
				MED	890	855	825	795	765	735	700	665	590
				LOW	770	740	710	685	660	630	600	570	510
13PHBC-41 -32	1/5 (two)	1550	2.3 Ea.	HI	1295	1245	1195	1145	1090	1035	975	915	
				MED	1215	1165	1120	1065	1015	960	905	845	725
				LOW	1120	1075	1025	975	930	885	835	785	625

- Notes**
- Motors are 120v/60Hz, high efficiency PSC type
  - Maximum HACR breaker is 15 amp
  - Coil fins-per-inch varies to allow consistent air flow
  - The size 3 motor (models 3(P/R/C)(HBC) may not start on low speed due to low starting torque. These units must be wired to start on either Medium or High speed.

# PHBC 277 VOLT PSC

## BLOWER PERFORMANCE

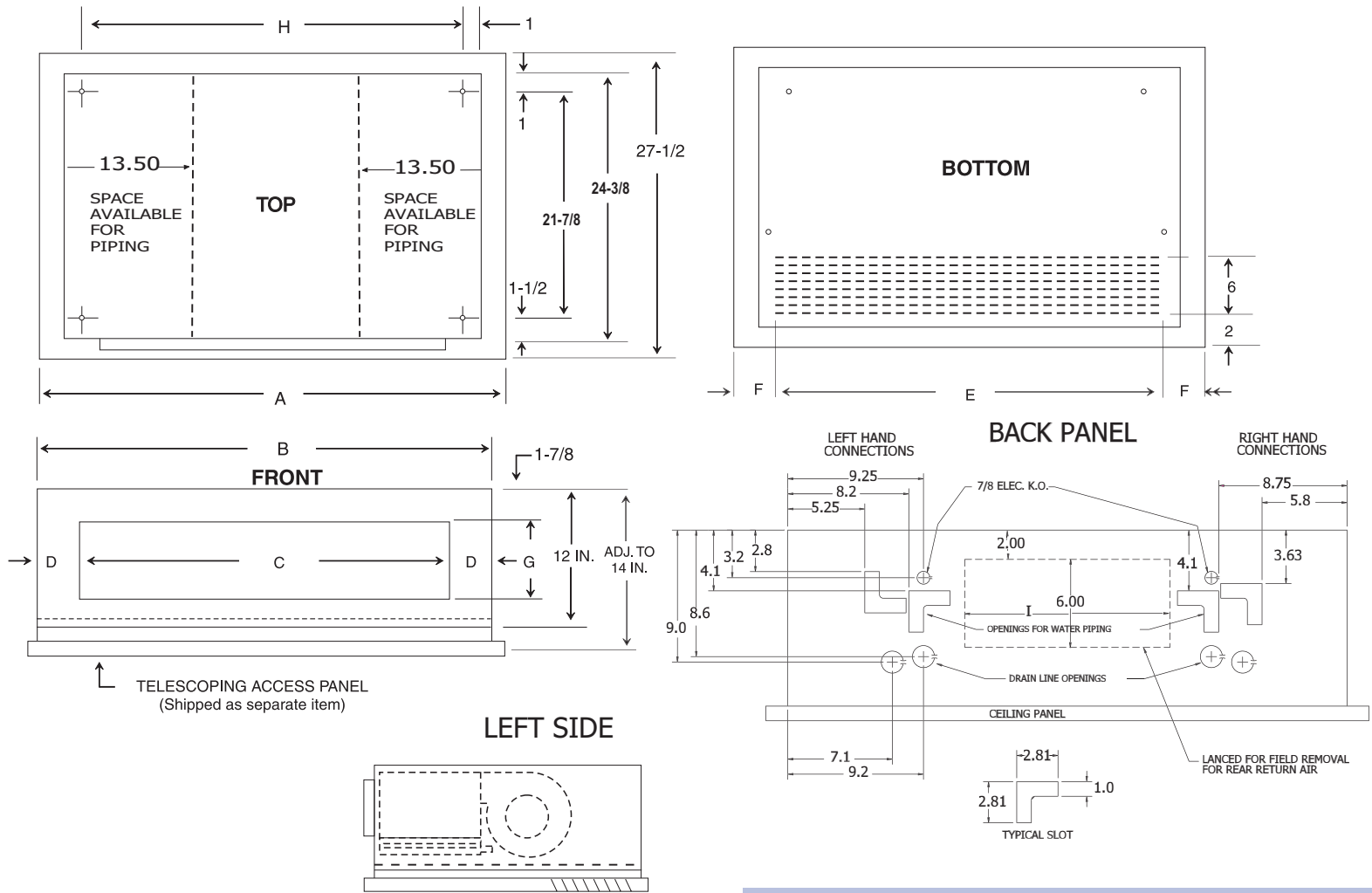
CFM vs EXTERNAL STATIC PRESSURE (3 ROW 277 Volt)													
MODEL	HP	MAX RPM	AMPS (277V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3*PHBC-3	1/20	1100	0.48	HI	290	260	---	---	---	---	---	---	---
				MED	230	200	---	---	---	---	---	---	---
				LOW	180	155	---	---	---	---	---	---	---
4*PHBC-3	1/15	1050	0.52	HI	395	340	---	---	---	---	---	---	---
				MED	345	295	---	---	---	---	---	---	---
				LOW	310	265	---	---	---	---	---	---	---
5*PHBC-3	1/15	1050	0.52	HI	500	460	415	---	---	---	---	---	---
				MED	385	350	310	---	---	---	---	---	---
				LOW	330	295	260	---	---	---	---	---	---
6*PHBC-3	1/12	1625	0.56	HI	665	630	595	565	540	510	475	430	---
				MED	545	515	490	465	440	410	375	335	---
				LOW	460	430	400	375	350	320	290	250	---
8*PHBC-3	1/6	1550	0.80	HI	850	820	790	760	725	685	645	605	---
				MED	695	665	640	610	585	555	525	490	---
				LOW	575	550	525	500	470	445	420	395	---
10*PHBC-3	1/4	1625	1.26	HI	1040	1000	960	920	885	850	810	775	---
				MED	885	850	810	780	745	720	690	665	---
				LOW	710	680	655	635	610	590	565	540	---
13*PHBC-3	1/6 (two)	1550	0.80 Ea.	HI	1385	1340	1295	1250	1205	1155	1100	1040	905
				MED	1250	1210	1170	1130	1085	1040	985	930	795
				LOW	1110	1070	1030	990	945	900	850	800	675
CFM vs EXTERNAL STATIC PRESSURE (4 ROW or 3/1 Split 277 Volt)													
3*PHBC-4 -31	1/20	1100	0.48	HI	280	255	---	---	---	---	---	---	---
				MED	230	200	---	---	---	---	---	---	---
				LOW	185	160	---	---	---	---	---	---	---
4*PHBC-4 -31	1/15	1050	0.52	HI	395	340	---	---	---	---	---	---	---
				MED	345	295	---	---	---	---	---	---	---
				LOW	305	255	---	---	---	---	---	---	---
5*PHBC-4 -31	1/15	1050	0.52	HI	500	455	405	---	---	---	---	---	---
				MED	380	340	305	---	---	---	---	---	---
				LOW	330	295	260	---	---	---	---	---	---
6*PHBC-4 -31	1/12	1625	0.56	HI	650	615	585	555	525	490	450	405	---
				MED	540	510	480	450	425	390	355	320	---
				LOW	460	430	400	375	345	315	280	230	---
8*PHBC-4 -31	1/6	1550	0.80	HI	825	790	760	725	685	650	610	570	---
				MED	670	640	615	585	560	530	495	465	---
				LOW	560	530	500	475	445	420	395	365	---
10*PHBC-4 -31	1/4	1625	1.26	HI	1020	980	940	905	865	830	790	750	---
				MED	890	855	820	790	755	725	695	660	---
				LOW	740	710	685	660	635	610	585	555	---
13*PHBC-4 -31	1/6 (two)	1550	0.80 Ea.	HI	1335	1290	1245	1200	1155	1105	1045	985	835
				MED	1205	1170	1135	1095	1050	1000	940	875	755
				LOW	1075	1040	1000	960	915	870	820	765	645
CFM vs EXTERNAL STATIC PRESSURE (4/1 or 3/2 Split 277 Volt)													
3*PHBC-41 -32	1/20	1100	0.48	HI	275	245	---	---	---	---	---	---	---
				MED	225	200	---	---	---	---	---	---	---
				LOW	185	155	---	---	---	---	---	---	---
4*PHBC-41 -32	1/15	1050	0.52	HI	395	345	---	---	---	---	---	---	---
				MED	340	300	---	---	---	---	---	---	---
				LOW	300	260	---	---	---	---	---	---	---
5*PHBC-41 -32	1/15	1050	0.52	HI	465	405	365	---	---	---	---	---	---
				MED	365	325	280	---	---	---	---	---	---
				LOW	305	270	235	---	---	---	---	---	---
6*PHBC-41 -32	1/12	1625	0.56	HI	610	580	550	520	485	450	415	370	---
				MED	515	485	455	430	400	370	335	300	---
				LOW	440	410	385	355	325	295	260	215	---
8*PHBC-41 -32	1/6	1550	0.80	HI	805	775	740	710	675	640	605	570	---
				MED	665	635	605	575	550	520	490	460	---
				LOW	560	530	505	475	450	425	400	370	---
10*PHBC-41 -32	1/4	1625	1.26	HI	990	950	915	885	850	815	760	690	---
				MED	875	835	805	775	745	715	680	620	---
				LOW	735	700	675	650	625	595	560	510	---
13*PHBC-41 -32	1/6 (two)	1550	0.80 Ea.	HI	1285	1230	1195	1150	1100	1045	990	925	795
				MED	1170	1130	1090	1050	1005	955	900	840	730
				LOW	1045	1010	975	940	895	845	795	735	625

**Notes**

1. Motors are 120v/60Hz, high efficiency PSC type
2. Maximum HACR breaker is 15 amp
3. Coil fins-per-inch varies to allow consistent air flow

# RHBC

## PHYSICAL DATA



### NOTES

1. ALL DIMENSIONS IN INCHES.
2. COIL CONNECTION TOLERANCE  $\pm 1/4"$ .
3. LEFT HAND UNIT SHOWN, RIGHT HAND MIRROR IMAGE.  
(HAND IS DETERMINED BY FACING THE BLOWER END)

### NOTES

1. Telescoping panel allows the cabinet to be installed to within 2 inches of the ceiling line. The adjustable panel frame ensures a flush installation.
2. Louvered access panel (bottom return) is standard. Specify solid panel if ducted rear return air is required.

GENERAL DIMENSIONS												
MODEL	A	B	C	D	E	F	G	H	I	TELESCOPING LOUVERED ACCESS PANEL	TELESCOPING SOLID ACCESS PANEL	FILTER SIZE (INCL)
3*RHBC	41	38-1/8	29	4-1/2	36-5/8	2-3/16	5-1/2	36	14	968-1	968-1S	10 X 37
4*RHBC(X)	47	44-1/8	35	4-1/2	42	2-1/2	5-1/2	42	20	968-2	968-2S	10 X 43
5*RHBC	51	48-1/8	39	4-1/2	47-1/4	1-7/8	5-1/2	46	24	968-3	968-3S	10 X 47.5
6*RHBC(X)	51	48-1/8	39	4-1/2	47-1/4	1-7/8	5-1/2	46	24	968-3	968-3S	10 X 47.5
8*RHBC(X)	57	54-1/8	45	4-1/2	52-1/2	2-1/4	5-1/2	52	30	968-4	968-4S	10 X 53
10*RHBC(X)	63	60-1/8	51	4-1/2	57-7/8	2-9/16	5-1/2	58	36	968-5	968-5S	10 X 59
12*RHBC(X)	70	67-1/8	58	4-1/2	63-1/8	3-7/16	5-1/2	65	42	968-6	968-6s	10 x 65
13*RHBC	70	67-1/8	58	4-1/2	63-1/8	3-7/16	5-1/2	65	42	968-6	968-6S	10 X 65

(X) - Available with ECM motor

# RHBC 120 VOLT PSC

## BLOWER PERFORMANCE

CFM vs EXTERNAL STATIC PRESSURE (3 ROW 120 Volt)													
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3RHBC-3	1/20	1050	.09	HI	320	285	250	---	---	---	---	---	---
				MED	260	230	205	---	---	---	---	---	---
				LOW (4)	220	200	---	---	---	---	---	---	---
4RHBC-3	1/12	1050	1.1	HI	405	355	295	---	---	---	---	---	---
				MED	360	315	255	---	---	---	---	---	---
				LOW	340	305	245	---	---	---	---	---	---
5RHBC-3	1/12	1050	1.3	HI	545	500	445	385	---	---	---	---	---
				MED	475	440	395	335	---	---	---	---	---
				LOW	345	320	290	250	---	---	---	---	---
6RHBC-3	1/8	1550	1.9	HI	705	675	650	620	590	555	---	---	---
				MED	645	620	595	565	535	505	---	---	---
				LOW	560	540	515	490	460	430	---	---	---
8RHBC-3	1/5	1550	3.0	HI	890	855	820	780	745	710	670	630	540
				MED	745	725	695	665	630	600	565	530	460
				LOW	620	595	565	540	515	485	455	420	360
10RHBC-3	1/4	1550	3.6	HI	1165	1130	1095	1060	1020	975	930	880	785
				MED	1065	1025	990	955	915	875	835	795	710
				LOW	890	865	840	815	790	765	735	700	625
13RHBC-3	1/5 (two)	1550	2.3 Ea.	HI	1345	1295	1250	1200	1155	1100	1045	980	855
				MED	1255	1210	1170	1120	1075	1025	970	915	795
				LOW	1165	1125	1080	1035	985	930	875	820	710
CFM vs EXTERNAL STATIC PRESSURE (4 ROW or 3/1 Split 120 Volt)													
3RHBC-4 -31	1/20	1050	0.9	HI	290	260	230	---	---	---	---	---	---
				MED	245	220	---	---	---	---	---	---	---
				LOW (4)	215	185	---	---	---	---	---	---	---
4RHBC-4 -31	1/12	1050	1.1	HI	380	335	285	---	---	---	---	---	---
				MED	345	295	---	---	---	---	---	---	---
				LOW	315	275	---	---	---	---	---	---	---
5RHBC-4 -31	1/12	1050	1.3	HI	540	490	435	370	---	---	---	---	---
				MED	475	435	365	290	---	---	---	---	---
				LOW	365	340	305	---	---	---	---	---	---
6RHBC-4 -31	1/8	1550	1.9	HI	695	660	630	595	560	520	---	---	---
				MED	620	590	560	530	500	465	---	---	---
				LOW	560	525	490	460	425	390	---	---	---
8RHBC-4 -31	1/5	1550	3.0	HI	870	830	795	755	720	685	645	605	520
				MED	745	715	680	645	615	580	545	510	440
				LOW	605	580	555	535	505	480	445	415	355
10RHBC-4 -31	1/4	1550	3.6	HI	1120	1075	1030	990	945	905	865	820	725
				MED	1035	1000	960	920	880	840	795	755	675
				LOW	905	875	845	815	780	750	715	675	600
13RHBC-4 -31	1/5 (two)	1550	2.3 Ea.	HI	1300	1255	1210	1165	1115	1060	1005	940	820
				MED	1225	1180	1130	1080	1035	950	935	880	755
				LOW	1125	1080	1035	990	945	895	845	795	690
CFM vs EXTERNAL STATIC PRESSURE (4/1 or 3/2 Split 120 Volt)													
3RHBC-41 -32	1/20	1050	0.9	HI	285	250	220	---	---	---	---	---	---
				MED	235	210	---	---	---	---	---	---	---
				LOW (4)	205	180	---	---	---	---	---	---	---
4RHBC-41 -32	1/12	1050	1.1	HI	370	320	265	---	---	---	---	---	---
				MED	325	280	---	---	---	---	---	---	---
				LOW	295	250	---	---	---	---	---	---	---
5PRHBC-41 -32	1/12	1050	1.3	HI	505	450	395	335	---	---	---	---	---
				MED	445	400	350	295	---	---	---	---	---
				LOW	325	300	270	---	---	---	---	---	---
6RHBC-41 -32	1/8	1550	1.9	HI	665	625	590	555	515	480	---	---	---
				MED	605	570	535	505	470	430	---	---	---
				LOW	535	505	470	440	405	370	---	---	---
8RHBC-41 -32	1/5	1550	3.0	HI	845	810	780	750	715	680	640	605	530
				MED	725	700	670	640	610	580	550	520	455
				LOW	605	580	560	535	505	480	455	425	370
10RHBC-41 -32	1/4	1550	3.6	HI	1015	975	940	900	865	825	785	750	670
				MED	890	855	825	795	765	735	700	665	590
				LOW	770	740	710	685	660	630	600	570	510
13RHBC-41 -32	1/5 (two)	1550	2.3 Ea.	HI	1295	1245	1195	1145	1090	1035	975	915	795
				MED	1215	1165	1120	1065	1015	960	905	845	725
				LOW	1120	1075	1025	975	930	885	835	785	655

- Notes**
1. Motors are 120v/60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow
  4. The size 3 motor (models 3(P/R/C)(HBC) may not start on low speed due to low starting torque. These units must be wired to start on either Medium or High speed.



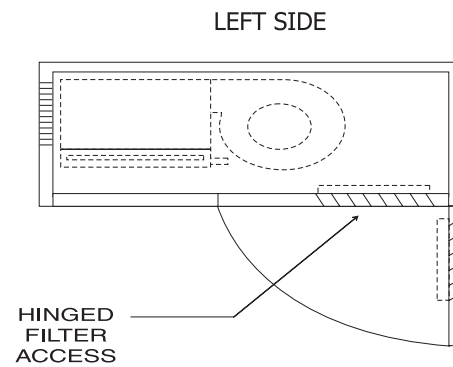
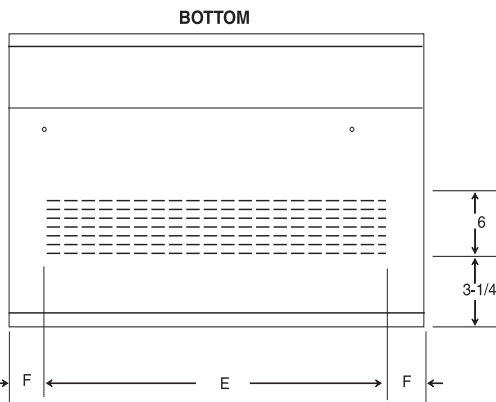
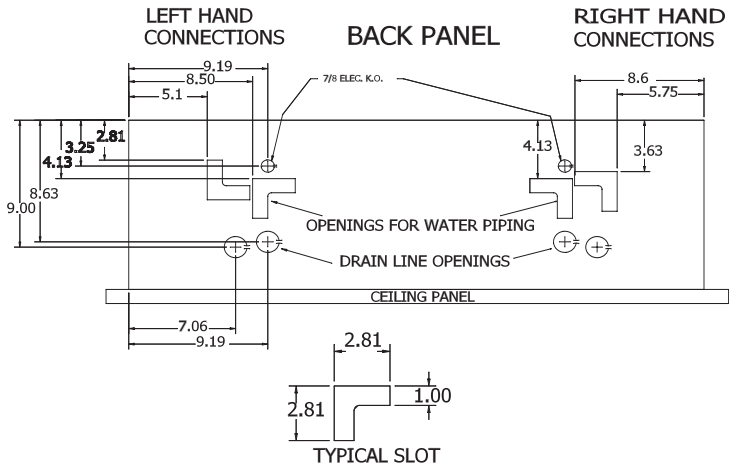
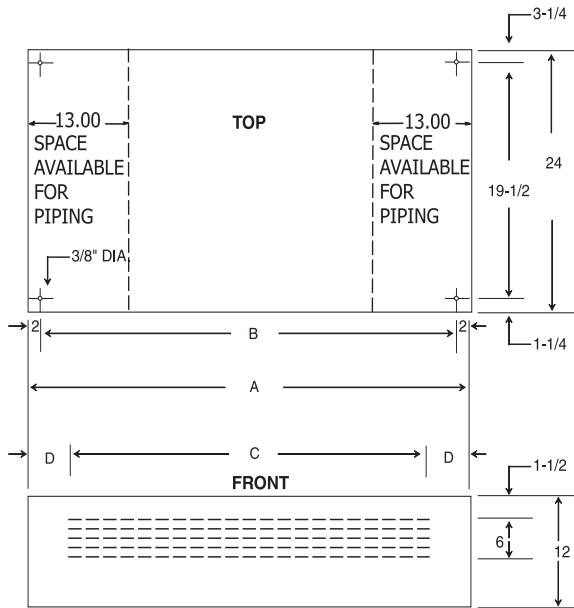
# RHBC 277 VOLT PSC

## BLOWER PERFORMANCE

CFM vs EXTERNAL STATIC PRESSURE (3 ROW 277 Volt)													
MODEL	HP	MAX RPM	AMPS (277V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3*RHBC-3	1/20	1100	0.48	HI	290	260	---	---	---	---	---	---	---
				MED	230	200	---	---	---	---	---	---	---
				LOW	180	155	---	---	---	---	---	---	---
4*RHBC-3	1/15	1050	0.52	HI	395	340	---	---	---	---	---	---	---
				MED	345	295	---	---	---	---	---	---	---
				LOW	310	265	---	---	---	---	---	---	---
5*RHBC-3	1/15	1050	0.52	HI	500	460	415	---	---	---	---	---	---
				MED	385	350	310	---	---	---	---	---	---
				LOW	330	295	260	---	---	---	---	---	---
6*RHBC-3	1/12	1625	0.56	HI	665	630	595	565	540	510	475	430	---
				MED	545	515	490	465	440	410	375	335	---
				LOW	460	430	400	375	350	320	290	250	---
8*RHBC-3	1/6	1550	0.80	HI	850	820	790	760	725	685	645	605	---
				MED	695	665	640	610	585	555	525	490	---
				LOW	575	550	525	500	470	445	420	395	---
10*RHBC-3	1/4	1625	1.26	HI	1040	1000	960	920	885	850	810	775	---
				MED	885	850	810	780	745	720	690	665	---
				LOW	710	680	655	635	610	590	565	540	---
13*RHBC-3	1/6 (two)	1550	0.80 Ea.	HI	1385	1340	1295	1250	1205	1155	1100	1040	905
				MED	1250	1210	1170	1130	1085	1040	985	930	765
				LOW	1110	1070	1030	990	945	900	850	800	675
CFM vs EXTERNAL STATIC PRESSURE (4 ROW or 3/1 Split 277 Volt)													
3*RHBC-4-31	1/20	1100	0.48	HI	280	255	---	---	---	---	---	---	---
				MED	230	200	---	---	---	---	---	---	---
				LOW	185	160	---	---	---	---	---	---	---
4*RHBC-4-31	1/15	1050	0.52	HI	395	340	---	---	---	---	---	---	---
				MED	345	295	---	---	---	---	---	---	---
				LOW	305	255	---	---	---	---	---	---	---
5*RHBC-4-31	1/15	1050	0.52	HI	500	455	405	---	---	---	---	---	---
				MED	380	340	305	---	---	---	---	---	---
				LOW	330	295	260	---	---	---	---	---	---
6*RHBC-4-31	1/12	1625	0.56	HI	650	615	585	555	525	490	450	405	---
				MED	540	510	480	450	425	390	355	320	---
				LOW	460	430	400	375	345	315	280	230	---
8*RHBC-4-31	1/6	1550	0.80	HI	825	790	760	725	685	650	610	570	---
				MED	670	640	615	585	560	530	495	465	---
				LOW	560	530	500	475	445	420	395	365	---
10*RHBC-4-31	1/4	1625	1.26	HI	1020	980	940	905	865	830	790	750	---
				MED	890	855	820	790	755	725	685	660	---
				LOW	740	710	685	660	635	610	585	555	---
13*RHBC-4-31	1/6 (two)	1550	0.80 Ea.	HI	1335	1290	1245	1200	1155	1105	1045	985	835
				MED	1205	1170	1135	1095	1050	1000	940	875	755
				LOW	1075	1040	1000	960	915	870	820	765	645
CFM vs EXTERNAL STATIC PRESSURE (4/1 or 3/2 Split 277 Volt)													
3*RHBC-41-32	1/20	1100	0.48	HI	275	245	---	---	---	---	---	---	---
				MED	225	200	---	---	---	---	---	---	---
				LOW	185	155	---	---	---	---	---	---	---
4*RHBC-41-32	1/15	1050	0.52	HI	395	345	---	---	---	---	---	---	---
				MED	340	300	---	---	---	---	---	---	---
				LOW	300	260	---	---	---	---	---	---	---
5*RHBC-41-32	1/15	1050	0.52	HI	465	415	365	---	---	---	---	---	---
				MED	365	325	280	---	---	---	---	---	---
				LOW	305	270	235	---	---	---	---	---	---
6*RHBC-41-32	1/12	1625	0.56	HI	610	580	550	520	485	450	415	370	---
				MED	515	485	455	430	400	370	335	300	---
				LOW	440	410	385	355	325	295	260	215	---
8*RHBC-41-32	1/6	1550	0.80	HI	805	775	740	710	675	640	605	570	---
				MED	665	635	605	575	550	520	490	460	---
				LOW	560	530	505	475	450	425	400	370	---
10*RHBC-41-32	1/4	1625	1.26	HI	990	950	915	885	850	815	760	690	---
				MED	875	835	805	775	745	715	680	620	---
				LOW	735	700	675	650	625	595	560	510	---
13*RHBC-41-32	1/6 (two)	1550	0.80 Ea.	HI	1285	1230	1195	1150	1100	1045	990	925	795
				MED	1170	1130	1090	1050	1005	955	900	840	730
				LOW	1045	1010	975	940	895	845	795	735	625

### Notes

1. Motors are 120v/60Hz, high efficiency PSC type
2. Maximum HACR breaker is 15 amp
3. Coil fins-per-inch varies to allow consistent air flow



### NOTES

1. ALL DIMENSIONS IN INCHES.
2. COIL CONNECTION TOLERANCE  $\pm 1/4"$ .
3. LEFT HAND UNIT SHOWN, RIGHT HAND MIRROR IMAGE. (HAND IS DETERMINED BY FACING THE BLOWER END)

### NOTES

1. Side panels are removable for easier valve access.

GENERAL DIMENSIONS								
MODEL	A	B	C	D	E	F	FILTER SIZE (INCL)	CONNECTIONS PRIMARY O.D.
3*CHBC	38	34	26	6	31-1/2	3-1/2	10 X 37	5/8"
4*CHBC(X)	44	40	31-1/2	6	37	3-1/2	10 X 43	
5*CHBC	48	44	37	5-1/2	42-1/2	3	10 X 46	
6*CHBC(X)	48	44	37	5-1/2	42-1/2	3	10 X 46	
8*CHBC(X)	54	50	42-1/2	6	48	3	10 X 53	
10*CHBC(X)	60	56	48	6	53	3-1/2	10 X 59	
12*CHBC(X)	67	63	53	7	58-1/2	4	10 X 65	
13*CHBC	67	63	53	7	58-1/2	4	10 X 65	

(X) - Available with ECM motor

# CHBC (ALL) PSC BLOWER PERFORMANCE

CHBC (120 Volt)					
(3 ROW 120 Volt)					
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	CFM
3*CHBC-3	1/20	1050	.09	HI	300
				MED	245
				LOW	210
4*CHBC-3	1/12	1050	1.1	HI	480
				MED	375
				LOW	325
5*CHBC-3	1/12	1050	1.3	HI	560
				MED	465
				LOW	345
6*CHBC-3	1/8	1550	1.9	HI	730
				MED	650
				LOW	550
8*CHBC-3	1/5	1550	3.0	HI	920
				MED	750
				LOW	605
10*CHBC-3	1/4	1550	3.6	HI	1145
				MED	930
				LOW	795
13*CHBC-3	1/5 (two)	1550	2.3 Ea.	HI	1500
				MED	1320
				LOW	1160
(4 ROW or 3/1 Split 120 Volt)					
3*CHBC-4 -31	1/20	1050	0.9	HI	280
				MED	230
				LOW	195
4*CHBC-4 -31	1/12	1050	1.1	HI	450
				MED	370
				LOW	320
5*CHBC-4 -31	1/12	1050	1.3	HI	550
				MED	455
				LOW	340
6*CHBC-4 -31	1/8	1550	1.9	HI	710
				MED	615
				LOW	535
8*CHBC-4 -31	1/5	1550	3.0	HI	885
				MED	730
				LOW	595
10*CHBC-4 -31	1/4	1550	3.6	HI	1110
				MED	915
				LOW	770
13*CHBC-4 -31	1/5 (two)	1550	2.3 Ea.	HI	1450
				MED	1270
				LOW	1130
(4/1 or 3/2 Split 120 Volt)					
3*CHBC-41 -32	1/20	1050	0.9	HI	270
				MED	225
				LOW	190
4*CHBC-41 -32	1/12	1050	1.1	HI	420
				MED	355
				LOW	305
5*CHBC-41 -32	1/12	1050	1.3	HI	520
				MED	440
				LOW	325
6*CHBC-41 -32	1/8	1550	1.9	HI	625
				MED	520
				LOW	440
8*CHBC-41 -32	1/5	1550	3.0	HI	875
				MED	725
				LOW	615
10*CHBC-41 -32	1/4	1550	3.6	HI	1075
				MED	900
				LOW	765
13*CHBC-41 -32	1/5 (two)	1550	2.3 Ea.	HI	1420
				MED	1315
				LOW	1160

CHBC (277 Volt)					
(3 ROW 277 Volt)					
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	CFM
3*CHBC-3	1/20	1100	0.48	HI	285
				MED	220
				LOW	160
4*CHBC-3	1/15	105	0.52	HI	450
				MED	365
				LOW	315
5*CHBC-3	1/15	1050	0.52	HI	535
				MED	375
				LOW	305
6*CHBC-3	1/12	1625	0.56	HI	670
				MED	545
				LOW	455
8*CHBC-3	1/6	1550	0.80	HI	880
				MED	700
				LOW	585
10*CHBC-3	1/4	1625	1.26	HI	1140
				MED	920
				LOW	755
13*CHBC-3	1/6 (two)	1550	0.80 Ea.	HI	1535
				MED	1340
				LOW	1140
(4 ROW or 3/1 Split 277 Volt)					
3*CHBC-4 -31	1/20	1100	0.48	HI	270
				MED	215
				LOW	175
4*CHBC-4 -31	1/15	1050	0.52	HI	435
				MED	355
				LOW	315
5*CHBC-4 -31	1/15	1050	0.52	HI	525
				MED	360
				LOW	300
6*CHBC-4 -31	1/12	1625	0.56	HI	665
				MED	540
				LOW	445
8*CHBC-4 -31	1/6	1550	0.80	HI	835
				MED	680
				LOW	555
10*CHBC-4 -31	1/4	1625	1.26	HI	1100
				MED	890
				LOW	745
13*CHBC-4 -31	1/56 (two)	1550	0.80 Ea.	HI	1465
				MED	1280
				LOW	1110
(4/1 or 3/2 Split 277 Volt)					
3*CHBC-41 -32	1/20	1100	0.48	HI	265
				MED	210
				LOW	160
4*CHBC-41 -32	1/15	1050	0.52	HI	440
				MED	355
				LOW	315
5*CHBC-41 -32	1/15	1050	0.52	HI	480
				MED	350
				LOW	285
6*CHBC-41 -32	1/12	1625	0.56	HI	630
				MED	510
				LOW	430
8*CHBC-41 -32	1/6	1550	0.80	HI	830
				MED	660
				LOW	550
10*CHBC-41 -32	1/4	1625	1.26	HI	1065
				MED	905
				LOW	750
13*CHBC-41 -32	1/6 (two)	1550	0.80 Ea.	HI	1415
				MED	1245
				LOW	1090

# ACCESS PANELS /FILTER



*STANDARD PANEL OPTIONS FOR HBC SERIES					*IAQ MERV 8 PANEL OPTIONS FOR HBC SERIES				
PART #	UNIT SIZE	PANEL TYPE	FRAME DIMENSIONS	*FILTER SIZE	PART #	UNIT SIZE	PANEL TYPE	FRAME DIMENSIONS	*FILTER SIZE
965	3,4,5,6	LOUVERED	27-1/2 X 43	20X20X1 (1)	965-M8	3,4,5,6	LOUVERED	27-1/2 X 43	20X30X1 (1)
965-1		SOLID							
966	8	LOUVERED	27-1/2 X 49	20X20X1 (1)	966-M8	8	LOUVERED	27-1/2 X 49	20X20X1 (2)
966-1		SOLID							
967	10	LOUVERED	27-1/2 X 55-1/2	20X20X1 (1)	967-M8	10	LOUVERED	27-1/2 X 55-1/2	20X20X1 (2)
967-1		SOLID							
967-4	12/13	LOUVERED	27-5/8 X 70-1/8	10X65X1 (1)	967-8M8	12/13	LOUVERED	27-5/8 X 70-1/8	20X30X1 (2)
967-5		SOLID							

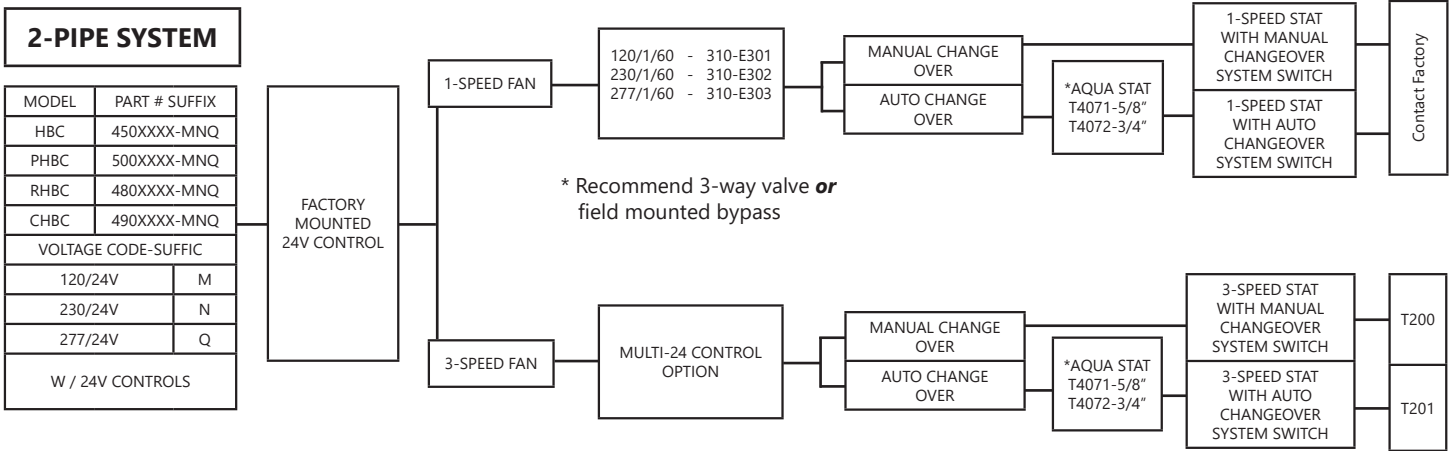
NOTE: \* Filters not included

IAQ PANEL PERFORMANCE DATA (4) (Clean Filter)											
	CFM										
	500	600	700	800	900	1000	1100	1200	1300	1500	
965-M8 with AF20301HV (20x030, Merv 8) Filters (2)	0.04	0.06	0.06	0.08	0.09	0.10	---	---	---	---	
966-M8 with AF20201HV (20x020, Merv 8) Filters (2)	0.04	0.06	0.06	0.08	0.09	0.10	---	---	---	---	
967-M8 with AF20201HV (20x020, Merv 8) Filters (2)	---	0.05	0.05	0.07	0.08	0.10	---	---	---	---	
967-6-M8 with AF20251HV (20x025, Merv 8) Filters (2)	---	---	---	0.05	0.06	0.07	0.08	0.09	---	---	
967-8-M8 with AF20301HV (20x30, Merv 8) Filters (2)	---	---	---	---	---	0.06	0.06	0.08	0.08	0.10	

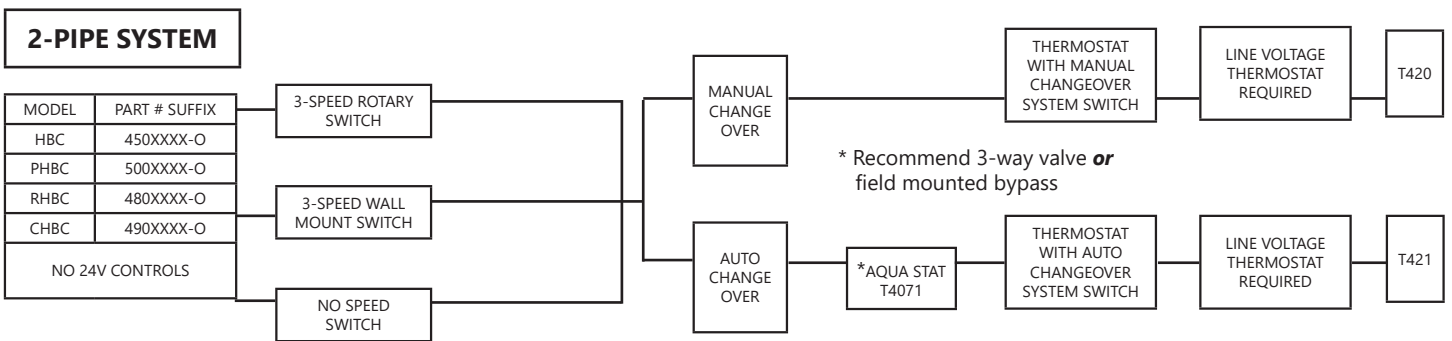
**NOTES:**

1. The above is the actual laboratory test data or these panels.
2. Glassfloss® Industries HV series Merv 8 filters were used to generate above data (**filters must be field supplied**)
3. Alternate Merv 8 filters would be acceptable provided they have equal or less resistance.
4. Refer to fan coil specification sheets for fan coil blower data.

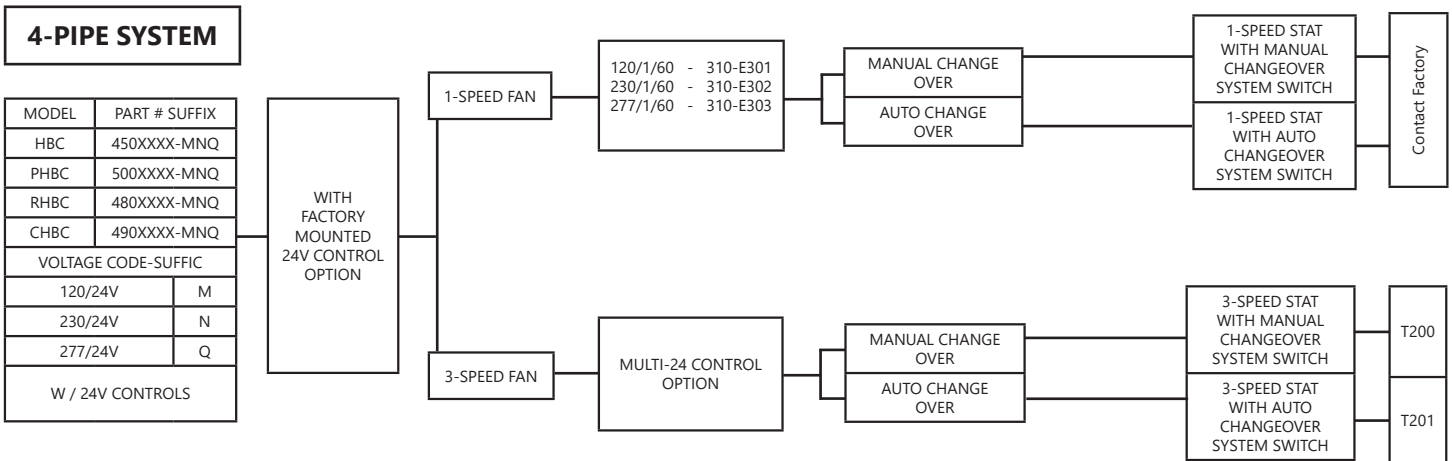
## LOW VOLTAGE 24V CONTROLS



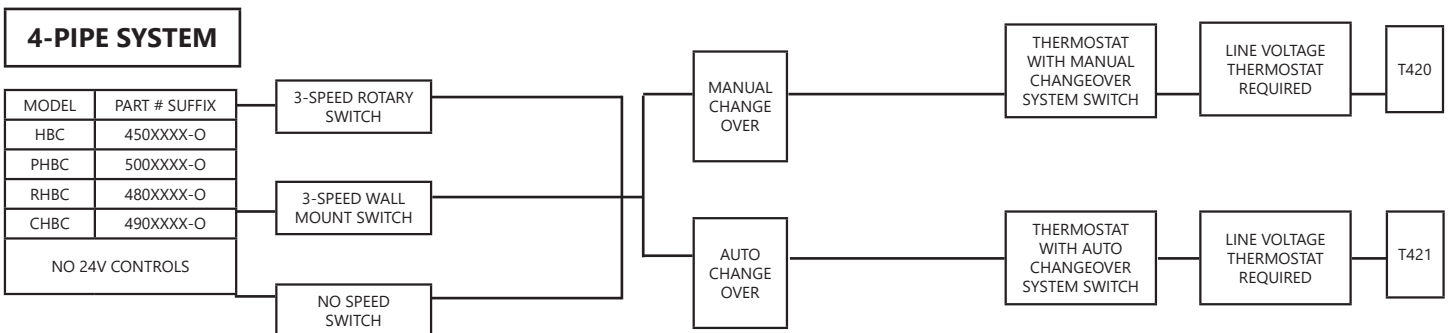
## LINE VOLTAGE 120/230/277V CONTROLS



## LOW VOLTAGE 24V CONTROLS


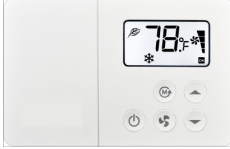


## LINE VOLTAGE 120/230/277V CONTROLS





# ACCESSORIES

## THERMOSTATS

<p>T420 - Manual Changeover with 3 speed fan switch</p> <p>T421 - Auto Changeover with 3 speed fan switch</p>	<p>3-Speed Fan Switching</p> 	<p>HEAT-OFF-COOL System Switch          Accepts 24 to 277 VAC., 50 or 60 Hz          Maximum Ambient: 130°F          Optional Remote Thermistor Probe          Set Point Range: 50-90°F          Agency Approvals: ETL, UL Canada CE          Mounting: Installs to a standard 2" x 4" devise box</p>
<p>T200 - Manual Changeover with Digital Display with Auto Speed Fan Switch</p> <p>T201 - **Auto Changeover with Digital Display with Auto Speed Fan Switch</p>	<p>3-Speed Fan Switching</p> 	<p>HEAT/COOL System Switch, Manual or Auto          3-Speed Fan switch with Auto Speed Feature          Separate On-Off Switch          18-30 VAC, 50/60 Hz          Temperature Accuracy: <math>\pm 1.8^\circ\text{F}</math>          Ambient Temperature: 50-122°F          Set Point Range: 64-88°F</p>

## SINGLE SPEED THERMOSTATS


<p>T630 - Manual Changeover Digital Display, Single Speed Fan</p>	<p>1-Speed Fan (on-Auto)</p> 	<p>HEAT-OFF-COOL System Switch Manual Changeover          18-30 VAC, 50/60 Hz          Temperature Accuracy: <math>\pm 1.0^\circ\text{F}</math>          Ambient Temperature: 14-140°F          Set Point Range: 45-90°F          DC Power: 3.0 Volt DC          (2 AA Alkaline batteries included)</p>
<p>T832          7-Day Programmable          1 heat, 1 cool,          Single Speed,          Touch Screen display,          C7189 Remote sensor          available</p>	<p>1-Speed Fan (On-Auto)</p> 	<p>HEAT-OFF-COOL-AUTO          Fan Options: Auto-on Circ          20 - 30 Vac, 50/60 Hz          Ambient Temperature: 0-120o F          Set Point Range: Clg. 50-99°F Htg. 40-90°F          Powering methods:              Battery only              Common wire only              Common wire with battery backup</p>
<p>T4071 5/8          T4072 7/8          Auto Changeover Requires Aquastat          (2-pipe applications)</p>		<p>Strap-on Aquastat 5/8" O.D. Tubing          10 amps induction          60 amps locked rotor          25 amps resistive          Temperature Changes at 95°F + 10°F          Resets at 65°F + 5°F</p>

# ACCESSORIES


## 3-SPEED ROTARY SWITCH

W/OFF POSITION	E332		<p><b>Resistive Load (Switching Capacity) Rating</b>                      10 Amps at 125 VAC                      5 Amps at 250/277 VAC</p> <p><b>Inductive (Motorload) Ratings</b>                      1/4 HP at 125/277 VAC                      1/2 HP at 250 VAC</p> <p><b>Standard Switch and Shaft Dimensions</b>                      2" x 1-1/2" x 11/16"                      3/16" Square Shaft with 13/32" Extension                      15/32" Double D 32 Threaded Bushing with 1/4" Extension                      6-1/2" Long Leads</p>
NO OFF POSITION	E332-1		


## WALL MOUNT 3-SPEED SWITCH

3-SPEED SWITCH ON/OFF WALL MOUNT	T422		<p><b>Resistive Load (Switching Capacity) Rating</b>                      6 Amps at 125 VAC                      5 Amps at 230 VAC                      4.2 Amps at 277 VAC</p> <p><b>Inductive (Motorload) Ratings</b>                      1/4 HP at 125/277 VAC                      1/2 HP at 250 VAC</p> <p>Horizontal mount with manual on/off switch and manual three speed fan switch.                      Operation with system switch in on position, fan operation is continuous, can be set at one of three speeds.                      With system switch in off position, all outputs are off.</p>
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## OPTIONAL SERVICE SWITCH (15 AMP)

Voltage	Part #		<p>2 x 4 Service Switch                      Toggle Switch 15 Amp                      Single Pole                      2 X 4 J-Box                      2 X 4 Switch Cover - Galvanized Steel</p>
120/1/60	945-6		
230/1/60	945-7		
277/1/60	945-7		
220/1/50	945-7		

## SINGLE SPEED FAN (24V Control Circuit)

Voltage	Part #		<p>Relay Transformer Assembly                      30 Amp, single pole, normally open, 24v coil                      18 GA. 4.25 X 4.25 mounting plate                      Factory assembled and wired</p>
120/1/60	310-E301		
230/1/60	310-E302		
277/1/60	310-E303		

## THREE SPEED FAN (24V Control Circuit)

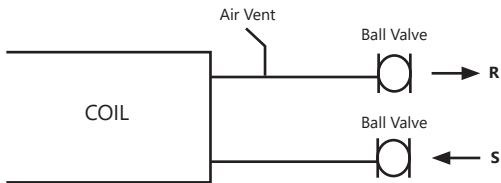
Multi-24		<p>3-SPEED CONTROL OPTION FOR HBC SERIES FAN COILS                      FACTORY MOUNTED CONTROLS INCLUDE CB500 RELAY BOARD, 24V TRANSFORMER, (15 AMP) SERVICE SWITCH</p>
FACTORY MOUNTED OPTION ONLY		

# PIPING PACKAGE OPTIONS

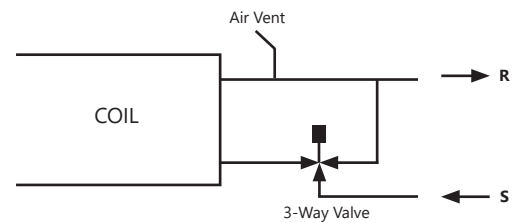
## TWO POSITION OR MODULATING

Manual air vents are standard and are factory mounted on all chilled water and hot water coils. All pre-piped on/off or modulating valve packages are factory assembled with sweat connections.

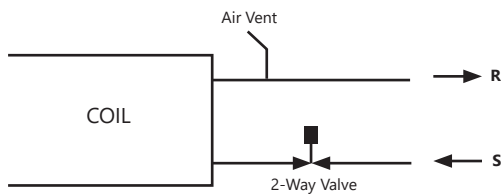
**Ball Valves only, No Control Valve**



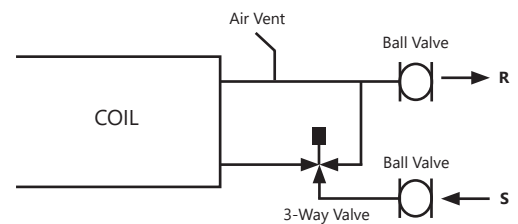
**3-Way Valve, No Ball Valves**



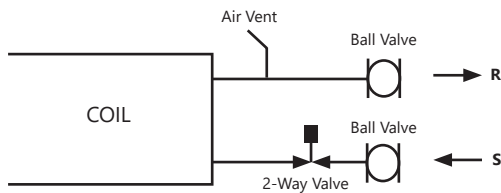
**2-Way Valve, No Ball Valves**



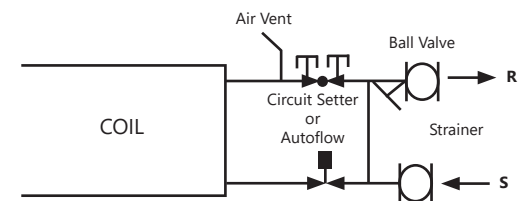
**3-Way Valve, with 2-Ball Valves**



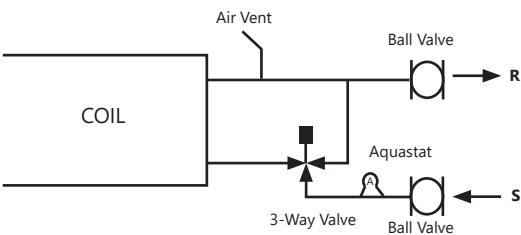
**2-Way Valve with 2-Ball Valves**



**3-Way Valve, with 2-Ball valve and Manual Circuit Setter or Automatic Flow Control, Y-Strainer, PT's**



**3-Way Valve with 2-Ball Valves and Aquastat**



### Add Options:


Y-Strainers, Pete's Plugs, Cleanout Blow-down, SS hose kits, Aquastats



**Additional options and configurations may be available. Contact factory for availability.**

**Valve packages are available as kits or factory mounted on certain products. Contact factory for availability.**



# VALVE PACKAGES & ACCESSORIES







ACTUATOR		
<b>2-POSITION (ON-OFF) 50/60HZ</b>		 <p>2-Way Valve and Actuator</p>
VOLTAGE	PART #	
24V	E50131180	
120/1/60	E50132180	
230/1/60	E50138180	
277/1/60	E50137180	

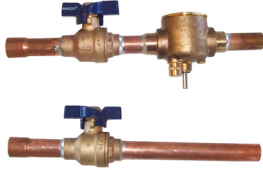
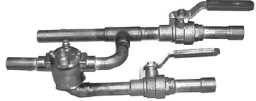
VALVE BODIES (2-POSITION)	
E43XXXX 3-WAY	E42XXXX 2-WAY
	

ACTUATOR MATERIALS		
BASE	POLYCARBONATE	<b>APPROVALS</b> ETL Cul CE
COVER	POLYCARBONATE	
BASE PLATE	ALUMINUM	
LEAD LENGTH	6" - (24V 18")	
POWER REQUIREMENTS	6.5W, 7 VA	
AMBIENT TEMPERATURE RANGE	32 TO 170 F	
MICRO SWITCH	5 A, 250 V	
HUMIDITY	95% NON-CONDENSING	

VALVE BODY MATERIALS	
BODY	BRASS
STEM	STAINLESS STEEL
TWO O-RINGS SEALS	EPDM
PADDLE	EPDM
FLUID	WATER/GLYCOL
MAXIMUM % OF GLYCOL	50%
TEMPERATURE RANGE	32 TO 230
MAXIMUM STATIC PRESSURE	300 PSI
SWEAT CONNECTION	1/2", 3/4", 1"

FLOW CHARACTERISTICS		
Connection Size	Flow Coefficient	Maximum Close-Off Pressure AP
1/2"	1.0 Cv	75
1/2"	2.5 Cv	50
3/4"		
1/2"	3.5 Cv	30
3/4"		
3/4"	5 Cv	25
1"		
3/4"	7.5 Cv	20
1"		
1"	8 Cv	20

VALVE PACKAGE ACCESSORIES				
Automatic Fixed Flow Control			Manual Adj. Flow Setter	
1/2"	3/4"		1/2"	3/4"
CP654XXXXX	CP655XXXXX		CP601	CP6011
PETE'S PLUG	Requires CP6025 CP61712			
Ball Valves (Sweat) Full Port (T-Handle)			Y-Strainer (Sweat)	
1/2"	3/4"	1"	1/2"	3/4"
CP-9	CP-90	CP-905	CP603	CP6031
				
EXTENDED DRIP LIPS	919-1 15"			
	919-1X1ss 15"			
	919-1EXT 19"			

STANDARD VALVE PACKAGE FACTORY MOUNTED 2-POSITION (ON-OFF)	
2-WAY 9VH*22BM WITH 2-BV'S	
3-WAY 9VH*23BM WITH 2-BV'S	

# GUIDE SPECIFICATIONS

## Part 1 — General

### 1.01 SECTION INCLUDES

A. Fan Coil Units

### 1.02 REFERENCES

AMCA 99 – Standards Handbook

AMCA 210 -- Laboratory Methods for Testing Fans for Rating Purposes

AMCA 300 – Test Code for Sound Rating Air Moving Devices

ARI 440 – Room Fan-Coil Unit

ASTMB117 – Standard Practice for Operating Salt Spray Apparatus

NEMA MG1 – Motors and Generators

NFPA 70 – National Electric Code

SMACNA – HVAC Duct Construction Standards – Metal and Flexible

UL 723 – Test for Surface Burning Characteristics of Building Materials

UL 900 – Test Performance of Air Filter Units

UL 1995 – Standard for Heating and Cooling Equipment

UL 94 – Test for Flammability of Plastic Materials for Parts in Devices and Appliances

### 1.03 SUBMITTALS

A. Shop drawings: Indicate assembly, unit dimensions, weight loading, required clearances, construction details, field connection details, and electrical characteristics and connection requirements. A computer generated capacity selection shall be submitted for each cooling coil with design points and final operating point clearly noted.

B. Product Data:

1. Provide literature that indicates dimensions, weights, capacities, ratings, fan performance, finishes of materials, and electrical characteristics and connection requirements.

2. Provide data of filter media, filter performance data.

3. Manufacturer's installation instructions.

### 1.04 OPERATION AND MAINTENANCE DATA

A. Maintenance Data: Include instructions for lubrication, filter replacement and motor and drive replacement.

### 1.05 QUALIFICATIONS

A. Maintenance Data: Include instructions for lubrication, filter replacement and motor and drive replacement.

### 1.06 DELIVERY, STORAGE, AND HANDLING

A. Accept products on site on factory-installed shipping skids. Inspect for damage.

B. Store in clean dry place and protect from weather and construction traffic. Handle carefully to avoid damage to components, enclosures, and finish.

### 1.07 ENVIRONMENTAL REQUIREMENTS

A. Do not operate units for any purpose, temporary or permanent, until ductwork is clean, filters are in place, and fan has been test run under observation.

# GUIDE SPECIFICATIONS (CONT.)

## Part 2 — Products

### 2.01 MANUFACTURERS

A. The following manufacturers are approved for use. No substitutions will be permitted.

1. First Company, Dallas TX

### 2.02 CASING

A. Unit shall have corrosion resistant casing consisting of galvanized steel panels. Unit panels shall be fully insulated with 1.5lb fiberglass insulation with anti-microbial agent. Removable panels shall provide full access to unit components..

B. Drain pans shall be heavy gauge galvanized steel with an insulating coating. Optional stainless steel drain pan shall include an insulating coating. Drain pans shall be removable for cleaning or replacement without removing coils or disturbing coil connections.

### 2.03 SUPPLY FAN

A. Provide DWDI forward-curved supply fans. Fan assemblies shall be statically and dynamically balanced by manufacturer. The housings are constructed from heavy gauge galvanized steel with die-formed inlet cones.

B. Fan and motor mounting platform shall be a minimum of 12 gauge LFQ galvanized steel.

### 2.04 MOTORS

A. Direct drive motors to be PSC or ECM type, permanently lubricated type with internal thermal overload protection and mounted with rubber isolation bushings.

### 2.05 ELECTRICAL

A. Provide units with 115, 208-230, or 277V, 3-speed with 24v control transformer, and 15 amp service switch or optional ECM motor with 120/24V control transformer, 15 amp service switch, 4 speed taps. Controls to be factory mounted and tested.

### 2.07 COOLING AND HEATING COIL SECTIONS

A. Provide access to coils for service and cleaning..

B. Water Coils: fins shall have full drawn collars to provide a continuous surface cover over the entire tube for maximum heat transfer. Tubes shall be mechanically expanded into the fins to provide a continuous primary-to-secondary compression bond over the entire finned length for maximum heat transfer rates. Bare copper tube shall not be visible between fins. Coil tubes shall be seamless copper, expanded into fins, and brazed at joints. Coil connections shall be copper with sweat connection size to be determined by manufacturer based upon the most efficient coil circuiting. Manual air vent connections shall be provided at the highest point to assure proper venting. Coils shall be tested with 350 pounds air pressure and suitable for 300 psig working pressure. Coil casings shall be a formed channel frame of galvanized steel.

### 2.08 FILTERS

A. Filter to be disposable type and media shall be UL 900 listed, Class I or Class II.

## Part 3 — Execution

### 3.01 INSTALLATION

A. Install in accordance with manufacturer's instructions.





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