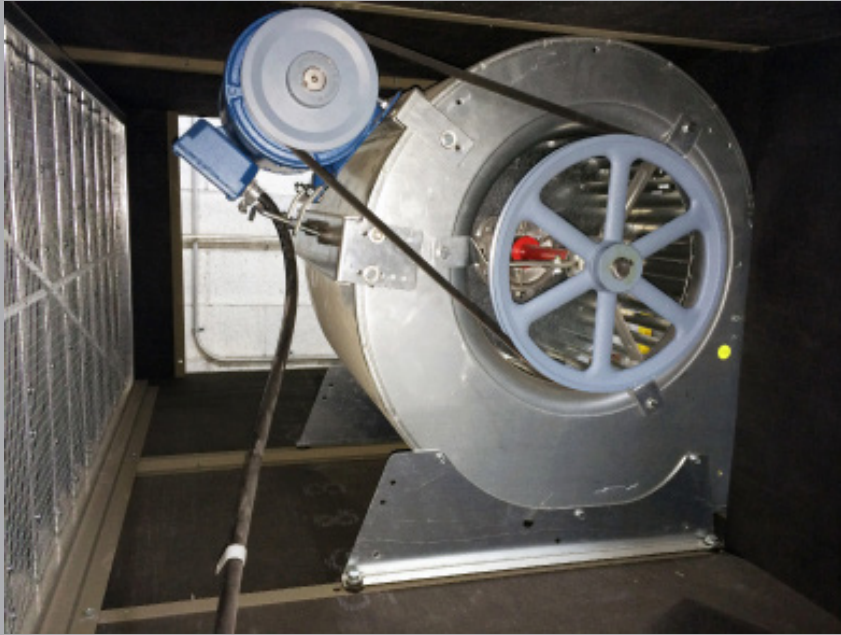


BDH SERIES

BELT DRIVE HORIZONTAL HEATING
AND COOLING AIR CONDITIONERS



BELT DRIVE HORIZONTAL HEATING AND COOLING AIR CONDITIONERS

OPTIONS AVAILABLE

- Access panels with locking handles
- Pre-wired motor with external junction box
- Copper finned coil
- Steam heating coil
- Direct expansion refrigerant coil
- Stainless steel drain pan
- External face & by-pass dampers
- T.E.F.C. motor
- Two speed motor
- Angle filter section
- Mixing box section with or without filters
- Permanent filters
- Replaceable core filters
- Special casing finishes
- For special requirements or computer printed coil selections, consult our nearest sales office.

General:

Rosemex bdh units are available in 6 sizes with a range of 500 to 5,000 cfm. All units include internally mounted motors, variable pitch drives, forward curved fans, 1" acoustic insulation and 1" thick slide in filters.

Cabinet:

Cabinet is of horizontal draw-thru design suitable for ceiling suspended applications. Service access to motor, blower and coil is through easily removable access panels.

Fan and motor:

Fans are forward curved centrifugal type statically and dynamically balanced and selected for quiet, efficient operation. Standard motors are 1725 rpm, open drip proof type. Added acoustical treatment is achieved by isolating the entire motor-fan assembly from the blower casing.

Coils:

All models suitable for up to 2 row hot water heating and 6 row chilled water cooling coils, available in a wide range of series. All coils are fully drainable and are self venting.

Drain pan:

Insulated 304 stainless steel.

Filters:

One inch throwaway filters are provided with the units. Filter access is on coil connection side of the unit and is field reversible. 2" and 4" alters are available.

FEATURES

TABLE 1

GENERAL DATA

MODEL	BDH-080	BDH-120	BDH-160	BDH-200	BDH-300	BDH-400
CFM RANGE	500 - 1000	1000 -1500	1200 - 2000	1500 - 2500	2000 - 4000	3500 - 5000
FAN WHEEL DIAM	9 1/2"	9 1/2"	10 5/8"	12 5/8"	15"	15"
MOTOR MAX. HP	1/2 HP	3/4 HP	1 HP	1 1/2 HP	2 HP	2 HP
COIL SIZE	15" x 20"	15" x 29"	18" x 32"	18" x 40"	24" x 45"	24" x 56"
MAXIMUM ROWS	6	6	6	6	6	6
FILTER SIZE	16" x 25" x 1"	16" x 20" x 1"	16" x 20" 20" x 20"	20" x 20" 20" x 25"	16" x 25" x 1"	16" x 25" x 1"
QUANTITY	1	2	1 1	1 1	2	4

SHIPPING WEIGHT (POUNDS)

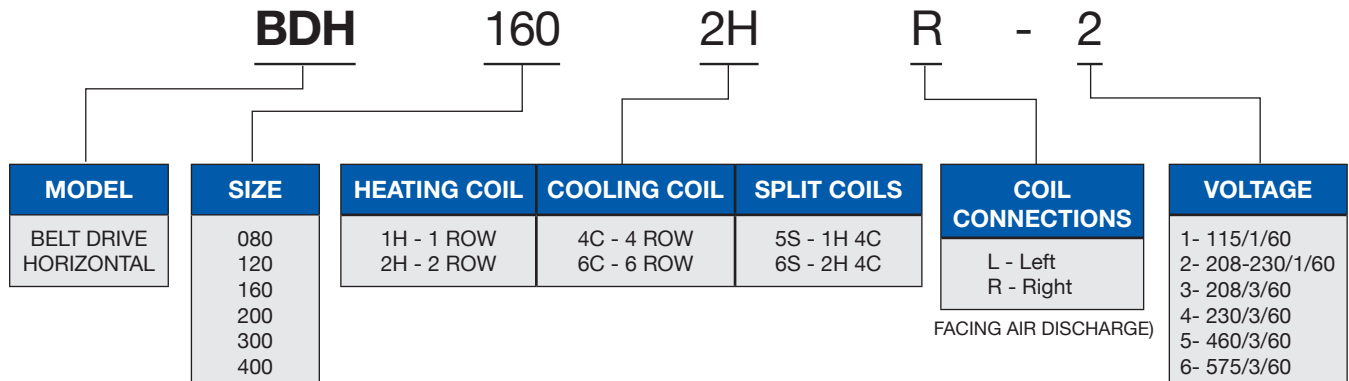
1 ROW	180	205	245	290	380	420
2 ROWS	190	215	260	310	410	455
4 ROWS	210	245	295	355	465	535
6 ROWS	235	275	325	395	530	605

BDH SERIES

BELT DRIVE HORIZONTAL HEATING AND COOLING AIR CONDITIONERS



MODEL NOMENCLATURE



UNIT SELECTION (EXAMPLE)

COOLING EXAMPLE

JOB REQUIREMENTS:

Total cooling load: 50,000 BTUH
Sensible cooling load: 38,000 BTUH
Air delivery: 1,400 CFM
External static pressure: 0.6 In. WG.
Entering air temperature: 80°F DB / 67°F WB
Entering water temperature: 45 °F
Water temperature rise: 10 °F
Filter: throwaway

- NOMINAL COOLING CAPACITIES**
From table 8 (page 10) 80°F DB, 67°F wb, cooling capacities for a BDH-160 at nominal 1,600 CFM, 4 row coil, 45 EWT and 10°F water temperature rise is: 52,900 BTUH total and 40,500 BTUH sensible at 10.6 GPM.
- COOLING CAPACITIES**
From table 12 (page 14) the air flow capacity correction factors for a BDH-160, 4 row at 1,400 CFM is: 0.94 total and 0.91 sensible.
(nominal cooling cap. x air flow cap. correction factor)
52,900 BTUH x 0.94 = 49,700 BTUH total
40,500 BTUH x 0.91 = 36,800 BTUH sensible
- WATER FLOW RATE**
 $\text{BTUH total} / (500 \times \text{water temperature rise}) = \text{GPM}$
 $49,700 / (500 \times 10) = 9.9 \text{ GPM}$
- WATER PRESSURE DROP**
From chart 2 (page 15) water pressure drop for a BDH-160, 4 row coil at 9.9 GPM : = 2.4 feet of water
- FAN RPM AND MOTOR HP**
 - Total static pressure at the fan discharge:
From chart 8 (page 18) the static resistance for the components of a BDH-160 at 1,400 CFM with a 4 row coil is: 0.56 in. WG.
Plus 0.6 in. WG external static pressure = 1.16 total static pressure. (static resistance of cabinet + coil + filter + external static pressure = total static pressure)
 - From chart 7 (page 18) the fan RPM and motor HP for a BDH-160 at 1,400 CFM and with 1.16 in. WG total static

pressure at the fan discharge is: 1050 RPM with a 1/2 HP motor. (See note below)

HEATING EXAMPLE

JOB REQUIREMENTS:

Heating load: 59,000 BTUH
Air delivery: 1,400 CFM
External static pressure: 0.6 In. WG
Entering air temperature: 60 °F DB
Entering water temperature: 180 °F

- NOMINAL HEATING CAPACITY**
From chart 1 (page 6): 180°F EWT, 70°F EAT. Heating capacity for a BDH-160 at 3 GPM, 1 row coil and nominal 1600 CFM is: 58,200 BTU/H.
- CORRECTED HEATING CAPACITY**
From table 4 (page 6): heating capacity correction factor for 60°F EAT and 180°F EWT is: 1.091.
(nominal heating capacity x heating capacity correction factor) 58,200 x 1.091 = 63,500
- HEATING CAPACITY**
From table 12 (page 14): the air flow capacity correction factor for a BDH-160, 1 row coil at 1400 CFM is: 0.94.
(corrected heating factor x air flow capacity correction factor) 63,500 x 0.94 = 59,700
- LEAVING AIR TEMPERATURE**
BDH standard O.D.P. motors are rated for a maximum ambient air temperature of 104°F when fully loaded.
Since these units are draw-thru design it is necessary to calculate the air temperature leaving the coil to insure the maximum air temperature is not exceeded. If maximum air temperature is exceeded, motor HP is derated. Contact your local motor manufacturer or Rosemex sales office for derating factors in this type of application.
(leaving air temp. = (BTUH / 1.08 x CFM) + entering air temperature)
 $(59,700 / (1.08 \times 1400)) + 60 = 99.5^\circ\text{F}$
- WATER PRESSURE DROP**
From chart 2 (page 15) water pressure drop for a BDH-160, 1 row coil at 3 GPM = 7 feet of water.
- FAN RPM AND MOTOR HP**
See cooling example.

NOTE: For 208 volt single phase motor use of next higher HP Motors rated 230 volt will operate satisfactorily on 208 volt system on most applications requiring nominal starting torques. Starting and maximum running torques of a 230 volt motor will be reduced approximately 25% when operated on 208 volt systems.

BELT DRIVE HORIZONTAL HEATING AND COOLING AIR CONDITIONERS

TABLE 2
NOMINAL COOLING CAPACITIES

Entering air: 80°F DB 67°F WB
Entering water: 45°F
Water temp. rise: 10°F

UNIT SIZE	NOMINAL CFM	COIL ROWS	COOLING			
			MBH		GPM	PRESSURE DROP (FT WG)
			TOTAL	SENSIBLE		
BDH-080	800	4	22.9	18.9	4.6	0.7
		6	32.1	22.9	6.4	1.9
BDH-120	1200	4	38.6	30.0	7.7	1.9
		6	51.8	35.8	10.4	4.9
BDH-160	1600	4	52.9	40.5	10.6	2.5
		6	70.1	48.2	14.0	6.3
BDH-200	2000	4	69.9	52.1	14.0	4.6
		6	90.8	61.6	18.1	10.9
BDH-300	3000	4	107.5	79.3	21.5	6.4
		6	138.3	93.3	27.6	14.8
BDH-400	4000	4	145.9	106.5	29.2	12.2
		6	185.9	125.0	37.2	27.7

TABLE 3
NOMINAL HEATING CAPACITIES

Entering air: 70°F
Entering water: 180°F
Water temp. drop: 20°F

UNIT SIZE	NOMINAL CFM	COIL ROWS	HEATING		
			MBH	GPM	PRESSURE DROP (FT WG)
BDH-080	800	1	33.0	4.3	4.8
		2	52.2	5.2	10.1
BDH-120	1200	1	46.2	4.6	5.5
		2	71.6	7.2	11.6
BDH-160	1600	1	58.2	5.8	7.0
		2	88.2	8.8	14.6
BDH-200	2000	1	69.1	6.9	7.8
		2	102.0	10.2	16.2
BDH-300	3000	1	91.5	9.2	11.2
		2	126.9	12.7	23.5
BDH-400	4000	1	106.4	10.6	12.7
		2	140.5	14.1	26.5

BDH SERIES

BELT DRIVE HORIZONTAL HEATING AND COOLING AIR CONDITIONERS



CHART 1
HEATING CAPACITIES AT NOMINAL AIR FLOW

Entering water (EWT): 180°F
Entering air (EAT): 70°F

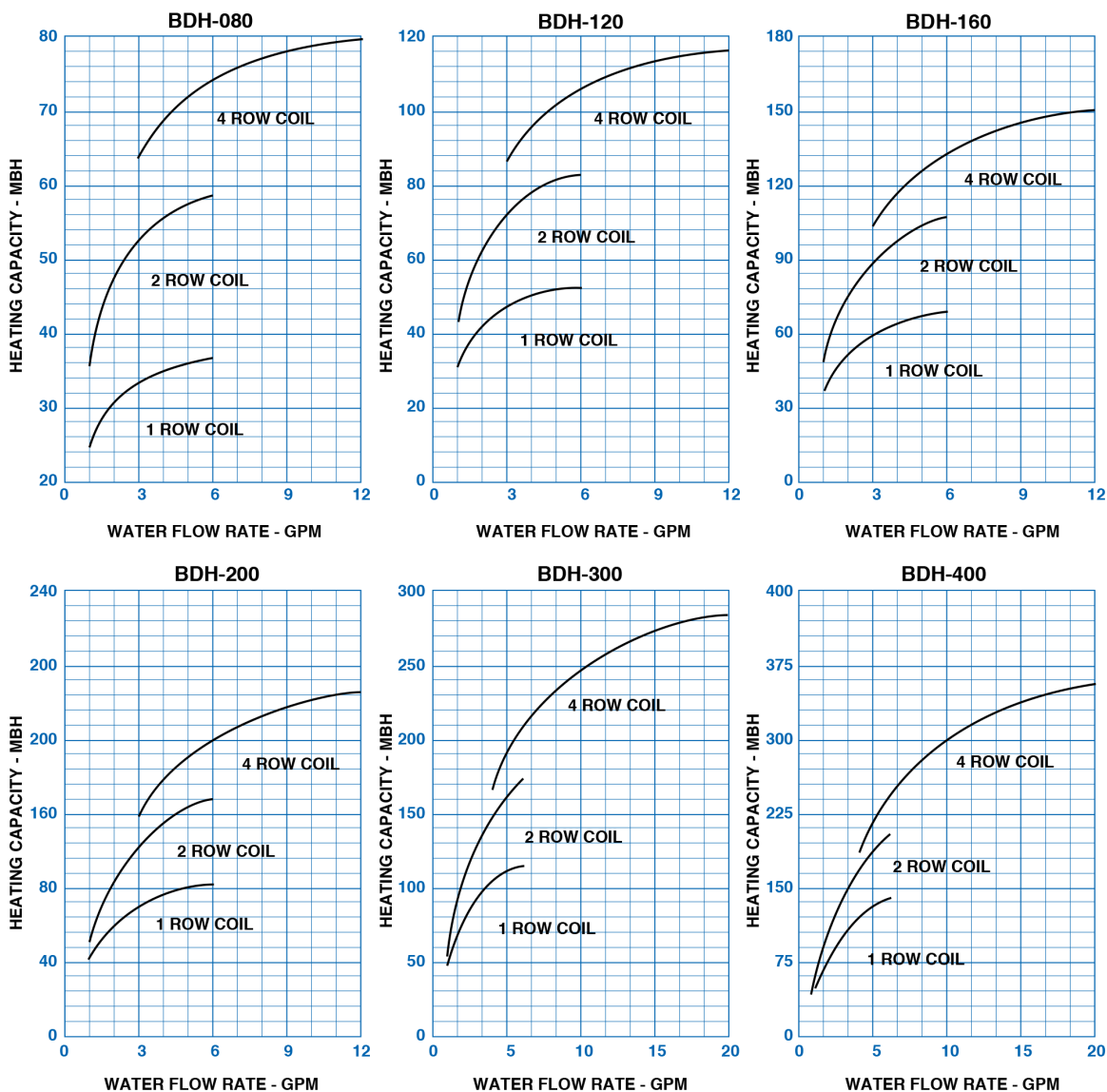


TABLE 4
HEATING CAPACITIES EAT & EWT CORRECTION FACTORS

EAT °F	HEATING										
	100°F	110°F	120°F	130°F	140°F	150°F	160°F	170°F	180°F	190°F	200°F
50°	0.455	0.545	0.636	0.727	0.818	0.909	1.000	1.091	1.182	1.273	1.364
55°	0.409	0.500	0.591	0.682	0.773	0.864	0.955	1.045	1.136	1.227	1.318
60°	0.363	0.455	0.545	0.636	0.727	0.818	0.909	1.000	1.091	1.182	1.273
65°	0.318	0.409	0.500	0.591	0.682	0.773	0.864	0.955	1.045	1.136	1.227
70°	0.272	0.363	0.455	0.545	0.636	0.727	0.818	0.909	1.000	1.091	1.182
75°	0.227	0.318	0.409	0.500	0.591	0.682	0.773	0.864	0.955	1.045	1.136
80°	0.182	0.272	0.363	0.455	0.545	0.636	0.727	0.818	0.909	1.000	1.091

BELT DRIVE HORIZONTAL HEATING AND COOLING AIR CONDITIONERS

TABLE 5
COOLING CAPACITIES

Entering DB: 72°F
Entering WB: 60°F

UNIT SIZE	NOMINAL CFM	COIL ROWS	EWT	WATER TEMPERATURE RISE											
				6°F			8°F			10°F			12°F		
				MBH		GPM	MBH		GPM	MBH		GPM	MBH		GPM
				SENS	TOTAL		SENS	TOTAL		SENS	TOTAL		SENS	TOTAL	
BDH-080	800	4	40	19.6	23.5	7.8	18.3	20.7	5.2	17.3	18.2	3.6	16.0	16.0	2.7
			42	18.4	20.9	6.9	17.3	18.3	4.6	16.1	16.1	3.2	14.2	14.2	2.4
			44	17.3	18.4	6.1	16.2	16.2	4.0	14.3	14.3	2.9	NA	NA	NA
			45	16.8	17.2	5.7	15.2	15.2	3.8	13.5	13.5	2.7	NA	NA	NA
			46	16.2	16.2	5.4	14.3	14.3	3.6	12.8	12.8	2.6	NA	NA	NA
		6	48	14.3	14.3	4.8	12.8	12.8	3.2	11.2	11.2	2.2	NA	NA	NA
			50	12.8	12.8	4.3	11.3	11.3	2.8	NA	NA	NA	NA	NA	NA
			40	23.2	30.5	10.1	21.9	27.8	6.9	20.7	25.3	5.0	19.7	22.9	3.8
			42	21.6	27.2	9.0	20.5	24.7	6.2	19.4	22.3	4.5	18.5	20.1	3.4
			44	20.1	23.9	8.0	19.1	21.6	5.4	18.2	19.6	3.9	17.4	17.7	2.9
BDH-120	1200	4	45	19.4	22.4	7.4	18.5	20.2	5.1	17.7	18.3	3.7	16.6	16.6	2.8
			46	18.8	20.8	6.9	17.9	18.9	4.7	17.2	17.2	3.4	15.5	15.5	2.6
			48	17.6	18.1	6.0	16.5	16.5	4.1	15.1	15.1	3.0	13.7	13.7	2.3
			50	15.9	15.9	5.3	14.7	14.7	3.7	13.3	13.3	2.7	NA	NA	NA
		6	40	30.6	38.0	12.6	28.9	34.1	8.5	27.3	30.7	6.1	26.0	27.5	4.6
			42	28.7	33.7	11.2	27.1	30.2	7.6	25.8	27.1	5.4	24.4	24.4	4.1
			44	26.9	29.7	9.9	25.6	26.6	6.7	24.0	24.0	4.8	21.5	21.5	3.6
			45	26.1	27.8	9.3	24.9	25.0	6.2	22.5	22.5	4.5	20.3	20.3	3.4
			46	25.3	26.0	8.7	23.4	23.4	5.9	21.2	21.2	4.2	19.1	19.1	3.2
BDH-160	1600	4	48	22.8	22.8	7.6	20.8	20.8	5.2	18.8	18.8	3.8	16.7	16.7	2.8
			50	20.4	20.4	6.8	18.5	18.5	4.6	16.5	16.5	3.3	14.3	14.3	2.4
		6	40	35.7	47.7	15.9	34.1	44.3	11.1	32.5	41.0	8.2	31.0	37.7	6.3
			42	33.3	42.7	14.2	31.8	39.4	9.8	30.3	36.2	7.2	29.0	33.2	5.5
			44	31.0	37.7	12.5	29.6	34.7	8.7	28.4	31.8	6.4	27.2	29.1	4.8
BDH-200	2000	4	45	29.9	35.2	11.7	28.6	32.4	8.1	27.5	29.7	5.9	26.4	27.2	4.5
			46	28.8	32.8	10.9	27.7	30.2	7.5	26.6	27.8	5.5	25.5	25.5	4.2
		6	48	26.9	28.4	9.5	26.0	26.3	6.6	24.3	24.3	4.9	22.4	22.4	3.7
			50	24.7	24.7	8.2	23.1	23.1	5.8	21.5	21.5	4.3	19.6	19.6	3.3
		4	40	41.2	51.5	17.1	38.9	46.5	11.6	36.9	42.0	8.4	35.1	37.8	6.3
BDH-300	3000	4	42	38.6	45.8	15.2	36.6	41.2	10.3	34.8	37.1	7.4	33.2	33.5	5.6
			44	36.1	40.3	13.4	34.4	36.3	9.1	32.7	32.7	6.5	29.6	29.6	4.9
			45	35.0	37.7	12.6	33.4	34.0	8.5	30.8	30.8	6.1	27.8	27.8	4.6
			46	34.0	35.2	11.7	31.9	31.9	8.0	28.9	28.9	5.8	26.2	26.2	4.4
		6	48	30.9	30.9	10.3	28.2	28.2	7.1	25.7	25.7	5.1	23.0	23.0	3.8
BDH-400	4000	4	50	27.6	27.6	9.2	25.1	25.1	6.3	22.5	22.5	4.5	19.8	19.8	3.3
			40	47.9	64.1	21.4	45.8	59.9	15.0	43.8	55.6	11.1	41.8	51.3	8.5
			42	44.7	57.5	19.1	42.7	53.3	13.3	40.8	49.2	9.8	39.1	45.2	7.5
			44	41.6	50.8	16.9	39.8	46.9	11.7	38.1	43.1	8.6	36.6	39.6	6.6
		6	45	40.1	47.5	15.8	38.4	43.8	10.9	36.9	40.3	8.1	35.5	37.1	6.2

BDH SERIES

BELT DRIVE HORIZONTAL HEATING AND COOLING AIR CONDITIONERS



TABLE 6
COOLING CAPACITIES

Entering DB: 75°F
Entering WB: 63°F

UNIT SIZE	NOMINAL CFM	COIL ROWS	EWT	WATER TEMPERATURE RISE											
				6°F			8°F			10°F			12°F		
				MBH		GPM	MBH		GPM	MBH		GPM	MBH		GPM
				SENS	TOTAL		SENS	TOTAL		SENS	TOTAL		SENS	TOTAL	
BDH-080	800	4	40	21.5	29.2	9.7	20.0	25.7	6.4	18.6	22.6	4.5	17.5	19.8	3.3
			42	20.2	26.2	8.7	18.8	22.9	5.7	17.6	20.0	4.0	16.6	17.5	2.9
			44	18.9	23.2	7.7	17.6	20.2	5.0	16.6	17.6	3.5	15.5	15.5	2.6
			45	18.3	21.8	7.2	17.1	18.9	4.7	16.2	16.6	3.3	14.5	14.5	2.4
			46	17.7	20.4	6.8	16.6	17.7	4.4	15.5	15.5	3.1	13.6	13.6	2.3
			48	16.7	17.8	5.9	15.5	15.5	3.9	13.7	13.7	2.7	NA	NA	NA
		6	50	15.5	15.5	5.2	13.7	13.7	3.4	12.1	12.1	2.4	NA	NA	NA
			40	25.5	37.3	12.4	24.2	34.4	8.6	22.8	31.5	6.3	21.5	28.6	4.8
			42	23.9	33.8	11.3	22.6	30.9	7.7	21.3	28.1	5.6	20.1	25.3	4.2
			44	22.3	30.3	10.1	21.1	27.5	6.9	19.9	24.8	5.0	18.8	22.2	3.7
			45	21.5	28.5	9.5	20.3	25.8	6.4	19.2	23.2	4.6	18.2	20.8	3.5
			46	20.8	26.8	8.9	19.6	24.1	6.0	18.6	21.7	4.3	17.7	19.4	3.2
			48	19.3	23.3	7.8	18.3	21.0	5.2	17.4	18.8	3.8	16.7	16.9	2.8
			50	18.0	20.1	6.7	17.2	18.1	4.5	16.4	16.4	3.3	14.8	14.8	2.5
BDH-120	1200	4	40	33.6	46.8	15.6	31.6	42.3	10.6	29.7	38.1	7.6	28.1	34.1	5.7
			42	31.5	42.2	14.0	29.6	37.9	9.5	27.9	33.9	6.8	26.4	30.3	5.0
			44	29.5	37.6	12.5	27.8	33.5	8.4	26.3	29.9	6.0	25.0	26.7	4.4
			45	28.6	33.3	11.8	26.9	29.4	7.3	24.8	26.2	5.2	24.3	25.0	4.2
			46	27.6	33.1	11.0	26.1	29.4	7.3	24.8	26.2	5.2	23.4	23.4	3.9
			48	25.8	28.8	9.6	24.6	25.7	6.4	23.0	23.0	4.6	20.5	20.5	3.4
		6	50	24.3	25.0	8.3	22.4	22.4	5.6	20.2	20.2	4.0	18.1	18.1	3.0
			40	39.3	58.0	19.3	37.6	54.5	13.6	35.8	50.7	10.1	34.1	46.9	7.8
			42	36.8	52.9	17.6	35.1	49.2	12.3	33.5	45.5	9.1	31.8	41.8	7.0
			44	34.4	47.6	15.8	32.8	44.0	11.0	31.2	40.3	8.1	29.7	36.8	6.1
			45	33.2	44.9	15.0	31.6	41.3	10.3	30.1	37.8	7.6	28.7	34.4	5.7
			46	32.0	42.2	14.1	30.5	38.7	9.7	29.1	35.3	7.1	27.7	32.1	5.4
			48	29.7	36.9	12.3	28.4	33.7	8.4	27.1	30.7	6.1	26.0	27.9	4.7
			50	27.6	31.8	10.6	26.5	29.0	7.3	25.5	26.5	5.3	24.2	24.2	4.0
BDH-160	1600	4	40	45.2	63.3	21.1	42.6	57.6	14.4	40.2	52.1	10.4	38.0	50.7	7.8
			42	42.4	57.1	19.0	39.9	51.6	12.9	37.7	46.4	9.3	35.8	41.6	6.9
			44	39.6	50.9	17.0	37.4	45.7	11.4	35.5	40.9	8.2	33.7	36.7	6.1
			45	38.3	47.9	15.9	36.2	42.8	10.7	34.4	38.4	7.7	32.8	34.4	5.7
			46	37.1	44.9	14.9	35.1	40.1	10.0	33.4	35.9	7.2	31.9	32.2	5.4
			48	34.7	39.1	13.0	33.0	35.0	8.7	31.4	31.4	6.3	28.2	28.2	4.7
		6	50	32.6	33.9	11.3	30.5	30.5	7.6	27.5	27.5	5.5	24.8	24.8	4.1
			40	52.7	78.0	26.0	50.5	73.5	18.3	48.2	68.7	13.7	46.0	63.7	10.6
			42	49.4	71.1	23.7	47.2	66.5	16.6	45.1	61.7	12.3	42.9	56.9	9.5
			44	46.1	64.0	21.3	44.0	59.4	14.8	42.0	54.7	10.9	40.0	50.1	8.4
			45	44.5	60.5	20.1	42.5	55.9	14.0	40.5	51.3	10.3	38.7	46.9	7.8
			46	42.9	56.9	18.9	41.0	52.4	13.1	39.1	48.0	9.6	37.4	43.8	7.3
			48	39.9	49.7	16.6	38.1	45.6	11.4	36.5	41.7	8.3	35.0	38.0	6.3
			50	37.0	42.9	14.3	35.5	39.3	9.8	34.2	36.0	7.2	33.0	33.0	5.5
BDH-200	2000	4	40	57.7	81.8	27.2	54.7	75.3	18.8	51.9	68.9	13.8	49.2	62.7	10.4
			42	54.1	74.0	24.6	51.3	67.6	16.9	48.6	61.4	12.3	46.2	55.7	9.3
			44	50.6	66.1	22.0	48.0	60.0	15.0	45.6	54.3	10.8	43.5	49.1	8.2
			45	48.9	62.2	20.7	46.4	56.3	14.1	44.2	50.9	10.2	42.2	46.0	7.7
			46	47.3	58.3	19.4	44.9	52.7	13.2	42.9	41.6	9.5	41.0	43.0	7.2
			48	44.2	50.9	16.9	42.2	45.9	11.5	40.4	41.5	8.3	37.6	37.6	6.3
		6	50	41.4	44.0	14.7	39.8	39.9	10.0	36.3	36.3	7.3	32.9	32.9	5.5
			40	66.7	99.3	33.0	64.3	94.2	23.5	61.7	88.8	17.7	59.0	83.1	13.8
			42	62.6	90.7	30.2	60.1	85.5	21.3	57.6	80.0	16.0	55.1	74.3	12.4
			44	58.5	81.8	27.3	56.1	76.6	19.1	53.7	71.1	14.2	51.3	65.7	10.9
			45	56.4	77.4	25.8	54.1	72.1	18.0	51.8	66.8	13.3	49.5	61.5	10.2
			46	54.4	72.8	24.3	52.2	67.7	16.9	49.9	62.5	12.5	47.8	57.4	9.6
			48	50.5	63.8	21.3	48.4	58.9	14.7	46.5	54.2	10.8	44.7	59.8	8.3
			50	46.8	55.0	18.3	45.1	50.8	12.7	43.5	46.8	9.4	42.0	43.1	7.2
BDH-300	3000	4	40	87.4	124.5	41.5	83.1	115.2	28.8	79.0	105.9	21.2	75.1	97.0	16.1
			42	82.0	112.7	37.5	77.9	103.5	25.9	74.0	94.6	18.9	70.4	86.2	14.4
			44	76.7	100.9	33.6	72.9	92.0	23.0	69.3	83.7	16.7	66.2	75.9	12.7
			45	74.1	94.9	31.6	70.5	86.4	21.6	67.2	78.4	15.7	64.2	71.1	11.9
			46	71.6	89.1	29.7	68.2	80.9	20.2	65.1	73.4	14.7	62.3	66.5	11.1
			48	66.8	77.7	25.9	63.9	70.5	17.6	61.3	64.0	12.8	58.1	58.1	9.7
		6	50	62.5	67.2	22.4	60.2	61.2	15.3	55.8	55.8	11.2	50.8	50.8	8.5
			40	100.7	150.1	50.0	97.2	143.0	35.7	93.5	135.2	27.0	89.6	127.0	21.1
			42	94.4	137.2	45.7	91.0	129.8	32.4	87.3	122.0	24.4	83.6	113.7	18.9
			44	88.2	124.0	41.3	84.8	116.5	29.1	81.3	108.6	21.7	77.9	100.6	16.8
			45	85.2	117.3	39.1	81.8	109.7	27.4	78.4	102.0	20.4	75.1	94.2	15.7
			46	82.2	110.5	36.8	78.9	103.0	25.7	75.6	95.4	19.1	72.5	88.0	14.7
			48	76.2	96.9	32.3	73.2	89.8	22.4	70.4	82.9	16.6	67.7	76.4	12.7
			50	70.6	83.5	27.8	68.1	77.3	19.3	65.8	71.5	14.3	63.6	66.0	11.0
BDH-400	4000	4	40	NA	NA	NA	111.4	155.1	38.7	106.2	143.7	28.7	101.3	132.5	22.1
			42	109.4	151.0	50.3	104.4	139.7	34.9	99.8	128.6	25.7	98.0	117.9	19.6
			44	102.4	135.3	45.1	97.6	124.3	31.1	93.2	113.9	22.8	89.1	104.1	17.3
			45	99.0	127.4	42.4	94.4	116.8	29.2	90.3	106.8	21.3	86.4	97.5	16.2
			46	95.6	119.7	39.9	91.3	109.4	27.3	87.4	99.9	20.0	83.9	91.2	15.2
			48	89.2	104.5	34.8	85.5	95.4	23.8	82.3	87.2	17.4	79.3	79.7	13.3
		6	50	83.5	90.3	30.1	80.5	82.8	20.7	75.9	75.9	15.2	69.5	69.5	11.6
			40	NA	NA	NA	129.8	191.3	47.8	125.2	181.7	36.3	120.4	171.5	28.6
			42	NA	NA	NA	121.6	173.9	43.4	117.1	164.1	32.8	112.4	153.8	25.6
			44	NA	NA	NA	113.5	156.2	39.0	109.1	146.4	29.3	104.7	136.3	22.7
			45	113.7	156.7	52.2	109.5	147.3	36.8	105.2	137.6	27.5	101.0	127.8	21.3
			46	109.6	147.7	49.2	105.6	138.4	34.6	101.5	128.8	25.8	97.5	119.4	19.9
			48	101.8	129.6	43.2	98.0	120.7	30.2	94.4	112.0	22.4	91.0	103.6	17.3
			50	94.3	111.9	37.3	91.1	104.0	26.0	88.1	96.6	19.3	85.3	89.6	14.9

BELT DRIVE HORIZONTAL HEATING AND COOLING AIR CONDITIONERS

TABLE 7
COOLING CAPACITIES

Entering DB: 78°F
Entering WB: 65°F

UNIT SIZE	NOMINAL CFM	COIL ROWS	EWT	WATER TEMPERATURE RISE											
				6°F			8°F			10°F			12°F		
				MBH		GPM	MBH		GPM	MBH		GPM	MBH		GPM
				SENS	TOTAL		SENS	TOTAL		SENS	TOTAL		SENS	TOTAL	
BDH-080	800	4	40	23.7	33.4	11.1	22.1	29.7	7.4	20.7	26.3	5.3	19.4	23.3	3.9
			42	22.3	30.3	10.1	20.8	26.8	6.7	19.5	23.6	4.7	18.4	20.8	3.5
			44	21.0	27.2	9.1	19.6	23.9	6.0	18.5	21.0	4.2	17.5	18.5	3.1
			45	20.4	25.7	8.5	19.1	22.5	5.6	18.0	19.8	3.9	17.1	17.4	2.9
			46	19.7	24.2	8.0	18.5	21.1	5.3	17.5	18.6	3.7	16.4	16.4	2.7
		6	48	18.6	21.3	7.1	17.6	18.6	4.7	16.4	16.4	3.3	14.6	14.6	2.4
			50	17.6	18.6	6.2	16.4	16.4	4.1	14.6	14.6	2.9	13.0	13.0	2.2
			40	28.0	42.2	14.0	26.6	39.3	9.8	25.3	36.2	7.2	23.9	33.2	5.5
			42	26.4	38.7	12.9	25.0	35.7	8.9	23.7	32.8	6.5	22.5	29.8	5.0
			44	24.7	35.1	11.7	23.5	32.2	8.0	22.2	29.3	5.9	21.1	26.5	4.4
BDH-120	1200	4	45	24.0	33.3	11.1	22.7	30.4	7.6	21.5	27.6	5.5	20.4	24.9	4.2
			46	23.2	31.5	10.5	22.0	28.7	7.2	20.8	25.9	5.2	19.8	23.4	3.9
			48	21.6	27.9	9.3	20.5	25.2	6.3	19.6	22.7	4.5	18.7	20.5	3.4
			50	20.2	24.4	8.1	19.3	22.0	5.5	18.4	19.9	4.0	17.7	18.0	3.0
		6	40	36.9	53.3	17.7	34.8	48.6	12.1	32.9	44.1	8.8	31.1	39.9	6.6
			42	34.8	48.5	16.2	32.8	44.0	11.0	31.0	39.7	7.9	29.4	35.7	5.9
			44	32.7	43.8	14.6	30.9	39.4	9.8	29.2	35.4	7.1	27.8	31.7	5.3
			45	31.7	41.4	13.8	29.9	37.1	9.3	28.4	33.3	6.7	27.0	29.9	5.0
			46	30.7	39.0	13.0	29.1	34.9	8.7	27.6	31.3	6.3	26.4	28.1	4.7
BDH-160	1600	4	48	28.8	34.4	11.5	27.4	30.8	7.7	26.2	27.6	5.5	24.8	24.8	4.1
			50	27.1	30.1	10.0	25.9	27.0	6.7	24.3	24.3	4.9	21.9	21.9	3.7
		6	40	43.0	65.4	21.8	41.3	61.8	15.4	39.5	58.0	11.6	37.8	54.1	9.0
			42	40.5	60.2	20.0	38.9	56.5	14.1	37.1	52.7	10.5	35.4	48.8	8.1
			44	38.1	54.9	18.3	36.4	51.2	12.8	34.8	47.4	9.5	33.2	43.6	7.3
BDH-200	2000	4	45	36.9	52.1	17.4	35.2	48.4	12.1	33.6	44.7	8.9	32.1	41.0	6.8
			46	35.7	49.4	16.5	34.1	45.7	11.4	32.5	42.1	8.4	31.1	38.5	6.4
			48	33.3	43.9	14.6	31.8	40.4	10.1	30.5	36.9	7.4	29.2	33.8	5.6
			50	31.0	38.4	12.8	29.8	35.2	8.8	28.6	32.2	6.4	27.5	29.5	4.9
		6	40	49.6	72.0	23.9	47.0	66.0	16.5	44.5	60.2	12.0	42.1	54.7	9.1
BDH-300	3000	4	42	46.8	65.6	21.9	44.2	59.8	14.9	41.9	54.2	10.8	39.8	49.0	8.2
			44	44.0	59.2	19.7	41.6	53.6	13.4	39.5	48.4	9.7	37.6	43.6	7.3
			45	42.6	56.1	18.7	40.4	50.6	12.6	38.3	45.5	9.1	36.5	41.0	6.8
			46	41.3	52.9	17.6	39.1	47.6	11.9	37.2	42.8	8.6	35.6	38.6	6.4
			48	38.8	46.7	15.6	36.9	41.9	10.5	35.2	37.7	7.5	33.8	34.0	5.7
BDH-400	4000	4	50	36.4	40.8	13.6	34.8	36.7	9.2	33.2	33.2	6.6	30.0	30.0	5.0
			40	57.6	87.8	29.2	55.5	83.3	20.8	53.2	78.5	15.7	50.9	73.4	12.2
			42	54.3	80.9	26.9	52.2	76.2	19.0	50.0	71.4	14.3	47.8	66.3	11.0
			44	51.1	73.8	24.6	48.9	69.1	17.3	46.8	64.2	12.8	44.7	59.3	9.9
			45	49.4	70.2	23.4	47.4	65.4	16.3	45.3	60.6	12.1	43.3	55.8	9.3

BDH SERIES

BELT DRIVE HORIZONTAL HEATING AND COOLING AIR CONDITIONERS



TABLE 8
COOLING CAPACITIES

Entering DB: 80°F
Entering WB: 67°F

UNIT SIZE	NOMINAL CFM	COIL ROWS	EWT	WATER TEMPERATURE RISE											
				6°F			8°F			10°F			12°F		
				MBH		GPM	MBH		GPM	MBH		GPM	MBH		GPM
				SENS	TOTAL		SENS	TOTAL		SENS	TOTAL		SENS	TOTAL	
BDH-080	800	4	40	25.0	37.8	12.6	23.3	33.9	8.5	21.7	30.2	6.0	20.3	26.7	4.5
			42	23.6	34.6	11.5	22.0	30.8	7.7	20.6	27.2	5.4	19.3	23.9	4.0
			44	22.3	31.4	10.4	20.8	27.6	6.9	19.4	24.3	4.9	18.3	21.3	3.6
			45	21.6	29.7	9.9	20.1	26.1	6.5	18.9	22.9	4.6	17.8	20.1	3.3
			46	20.9	28.1	9.4	19.5	24.6	6.1	18.4	21.5	4.3	17.4	18.9	3.1
		6	48	19.7	24.9	8.3	18.4	21.7	5.4	17.4	19.0	3.8	16.6	16.7	2.8
			50	18.5	21.9	7.3	17.4	19.0	4.8	16.6	16.7	3.3	14.7	14.7	2.5
			40	29.6	47.3	15.7	28.2	44.3	11.1	26.8	41.2	8.2	25.4	38.0	6.3
			42	28.0	43.8	14.6	26.6	40.7	10.2	25.2	37.5	7.5	23.8	34.4	5.7
			44	26.3	40.1	13.4	25.0	37.0	9.3	23.6	33.9	6.8	22.4	30.8	5.1
BDH-120	1200	4	45	25.5	38.3	12.8	24.2	35.2	8.8	22.9	32.1	6.4	21.6	29.0	4.8
			46	24.7	36.4	12.1	23.4	33.3	8.3	22.1	30.2	6.0	21.0	27.3	4.5
			48	23.1	32.7	10.9	21.9	29.6	7.4	20.7	26.7	5.3	19.7	24.0	4.0
			50	21.6	28.9	9.6	20.4	26.0	6.5	19.4	23.3	4.7	18.5	20.9	3.5
		6	40	39.0	60.1	20.0	36.7	55.2	13.8	34.6	50.3	10.1	32.7	45.7	7.6
BDH-160	1600	4	42	36.8	55.2	18.4	34.7	50.3	12.6	32.8	45.6	9.1	31.0	41.1	6.8
			44	34.7	50.3	16.7	32.7	45.5	11.4	30.9	40.9	8.2	29.2	36.7	6.1
			45	33.7	47.8	15.9	31.7	43.1	10.8	30.0	38.6	7.7	28.4	34.6	5.8
			46	32.6	45.3	15.1	30.8	40.7	10.2	29.1	36.4	7.3	27.6	32.5	5.4
			48	30.6	40.3	13.4	28.9	36.0	9.0	27.4	32.1	6.4	26.2	28.7	4.8
BDH-200	2000	4	50	28.7	35.5	11.8	27.2	31.5	7.9	26.0	28.1	5.6	24.9	25.2	4.2
			40	45.5	73.1	24.3	43.7	69.4	17.3	41.9	65.6	13.1	40.1	61.5	10.2
			42	43.0	67.9	22.6	41.2	64.1	16.0	39.4	60.1	12.0	37.6	56.0	9.3
			44	40.5	62.5	20.8	38.8	58.6	14.6	37.0	54.6	10.9	35.3	50.5	8.4
			45	39.2	59.7	19.8	37.5	55.8	13.9	35.8	51.8	10.4	34.1	47.7	7.9
BDH-300	3000	4	46	38.0	56.9	19.0	36.3	53.0	13.2	34.7	49.0	9.8	33.0	44.9	7.5
			48	35.6	51.2	17.1	34.0	47.3	11.8	32.4	43.4	8.7	30.9	39.6	6.6
			50	33.2	45.4	15.1	31.7	41.7	10.4	30.3	38.0	7.6	29.0	34.6	5.8
		6	40	52.4	81.0	27.0	49.5	74.8	18.7	46.8	68.7	13.7	44.3	62.7	10.4
			42	49.5	74.6	24.8	46.9	68.4	17.1	44.3	62.3	12.4	41.9	56.5	9.4
BDH-400	4000	4	44	46.7	68.0	22.7	44.1	61.9	15.5	41.7	56.0	11.2	39.5	50.4	8.4
			45	45.3	64.7	21.5	42.8	58.6	14.6	40.5	52.9	10.6	38.4	47.5	7.9
			46	43.9	61.3	20.4	41.5	55.4	13.8	39.3	49.8	10.0	37.3	44.7	7.4
			48	41.2	54.7	18.2	38.9	49.0	12.3	37.0	43.9	8.8	35.3	39.4	6.6
			50	38.6	48.1	16.0	36.6	43.0	10.8	35.0	38.5	7.7	33.5	34.6	5.8

TABLE 9 COOLING CAPACITIES

Entering DB: 85°F
Entering WB: 71°F

Unit Size	Nominal CFM	Coil Rows	EWT	Water Temperature Rise											
				6°F			8°F			10°F			12°F		
				MBH		GPM	MBH		GPM	MBH		GPM	MBH		GPM
				Sens	Total		Sens	Total		Sens	Total		Sens	Total	
BDH-080	800	4	40	28.5	47.4	15.8	20.7	43.3	10.8	25.0	39.1	7.8	23.5	35.1	5.9
			42	27.1	44.1	14.7	25.4	39.9	10.0	23.7	35.8	7.2	22.3	32.0	5.3
			44	25.7	40.8	13.6	24.0	36.6	9.1	22.5	32.5	6.5	21.1	28.8	4.8
			45	25.1	39.0	13.0	23.4	34.9	8.7	21.9	30.9	6.2	20.6	27.3	4.6
			46	24.4	37.3	12.4	22.8	33.2	8.3	21.4	29.3	5.9	20.1	25.8	4.3
			48	23.0	33.8	11.3	21.5	29.8	7.4	20.2	26.2	5.2	19.1	23.0	3.8
		6	50	21.7	30.3	10.1	20.3	26.5	6.6	19.2	23.2	4.6	18.2	20.3	3.4
			40	33.7	58.2	19.4	32.3	55.2	13.8	30.8	51.9	10.4	29.4	48.6	8.1
			42	32.1	54.7	18.2	30.6	51.5	12.9	29.2	48.2	9.6	27.8	44.8	7.5
			44	30.4	51.0	17.0	29.0	47.8	11.9	27.6	44.4	8.9	26.2	41.0	6.8
			45	29.6	49.2	16.4	28.2	45.9	11.5	26.8	42.5	8.5	25.4	39.0	6.5
			46	28.8	47.3	15.7	27.4	43.9	11.0	26.0	40.5	8.1	24.7	37.1	6.2
BDH-120	1200	4	48	27.1	43.4	14.4	25.8	40.0	10.0	24.5	36.6	7.3	23.2	33.2	5.5
			50	25.5	39.3	13.1	24.2	36.0	5.0	23.0	32.6	6.5	21.8	29.4	4.9
			40	44.2	74.5	24.8	42.0	09.5	17.4	39.8	64.4	12.9	37.7	59.2	9.9
			42	42.1	69.6	23.2	39.9	64.5	16.1	37.8	59.3	11.9	35.8	54.2	5.0
			44	40.0	64.7	21.5	37.8	59.4	14.8	35.8	54.2	10.8	33.8	49.2	8.2
			45	39.0	62.1	20.7	36.8	56.8	14.2	34.8	51.7	10.3	32.9	46.7	7.8
		6	46	37.9	59.5	19.8	35.9	54.2	13.5	33.8	49.1	9.8	32.0	44.3	7.4
			48	35.8	54.1	18.0	33.8	49.0	12.2	32.0	44.0	8.8	30.4	39.5	6.6
			50	33.8	48.8	16.3	31.9	43.7	10.9	30.2	39.1	7.8	28.8	35.0	5.8
			40	51.6	89.6	29.8	49.9	85.9	21.4	48.0	81.9	16.4	46.2	77.8	12.9
			42	49.1	84.3	28.1	47.4	80.5	20.1	45.6	76.4	15.3	43.7	72.1	12.0
			44	46.6	78.9	26.3	44.9	74.9	18.7	43.1	70.7	14.1	41.2	66.3	11.0
BDH-160	1600	4	45	45.4	76.1	25.3	43.7	72.1	18.0	41.9	67.8	13.6	40.0	63.4	10.6
			46	44.2	73.2	24.4	42.4	69.2	17.3	40.6	64.9	13.0	38.8	60.4	10.1
			48	41.7	67.4	22.5	40.0	63.2	15.8	38.2	58.9	11.8	36.5	54.4	9.1
			50	39.2	61.4	20.5	37.6	57.2	14.3	35.9	52.8	10.6	34.2	48.4	8.1
			40	59.4	100.3	33.4	50.6	94.0	23.5	53.8	87.5	17.5	51.1	80.9	13.5
			42	56.5	93.9	31.2	53.8	87.4	21.8	51.0	80.8	16.1	48.4	74.2	12.4
		6	44	53.7	87.2	29.0	51.0	80.6	20.1	48.3	73.9	14.8	45.8	67.4	11.2
			45	52.4	83.8	27.9	49.6	77.1	19.3	47.0	70.5	14.1	44.5	64.1	10.7
			46	51.0	80.3	26.8	48.3	73.6	18.4	45.7	67.0	13.4	43.3	60.8	10.1
			48	48.2	73.2	24.4	45.6	66.6	16.6	43.2	60.2	12.0	41.1	54.2	5.0
			50	45.4	66.0	22.0	43.0	59.6	14.9	40.8	53.5	10.7	38.9	48.0	8.0
			40	69.1	120.0	40.0	66.9	115.4	28.8	64.6	110.4	22.1	62.2	105.1	17.5
BDH-200	2000	4	42	85.8	113.1	37.6	63.6	108.3	27.0	61.3	103.1	20.6	58.9	97.6	16.3
			44	62.5	105.8	35.3	60.3	100.8	25.2	58.0	95.5	19.1	55.6	89.9	15.0
			45	60.8	102.1	34.0	58.6	97.0	24.2	56.3	91.6	18.3	54.0	85.9	14.3
			46	59.2	98.4	32.8	57.0	93.2	23.3	54.7	87.7	17.5	52.4	81.9	13.7
			48	55.9	90.6	30.2	53.7	85.3	21.3	51.4	79.7	15.9	49.2	73.9	12.3
			50	52.6	82.6	27.5	50.5	77.2	19.3	48.3	71.6	14.3	46.1	65.9	11.0
		6	40	NA	NA	NA	72.4	121.3	30.3	69.3	114.1	22.8	66.1	106.5	17.7
			42	71.9	120.3	40.0	68.9	113.1	28.3	65.7	105.6	21.1	62.6	98.0	16.3
			44	68.6	112.0	37.3	65.3	104.6	26.1	62.2	97.0	19.4	59.2	89.4	14.9
			45	66.8	107.8	35.9	63.5	100.2	25.0	60.5	92.6	18.5	57.6	85.1	14.2
			46	65.0	103.4	34.5	61.9	95.8	23.9	58.8	88.2	17.6	55.9	80.8	13.5
			48	61.4	94.5	31.5	58.4	86.9	21.7	55.6	79.5	15.9	53.0	72.3	12.1
BDH-300	3000	4	50	57.8	85.5	28.5	55.0	78.0	19.5	52.4	70.8	14.2	50.0	64.2	10.7
			40	NA	NA	NA	84.9	146.9	36.7	82.3	141.3	28.2	79.5	135.3	22.5
			42	NA	NA	NA	80.7	138.0	34.5	78.1	132.2	26.4	75.3	126.0	21.0
			44	NA	NA	NA	76.5	128.7	32.2	73.9	122.7	24.5	71.2	116.3	19.4
			45	NA	NA	NA	74.4	124.0	31.0	71.8	117.9	23.6	69.1	111.4	18.6
			46	NA	NA	NA	72.4	119.2	29.8	69.7	113.0	22.6	67.0	106.4	17.7
		6	48	70.7	115.3	38.4	68.2	109.3	27.3	65.6	102.9	20.6	63.0	96.3	16.0
			50	66.6	105.4	35.1	64.1	99.2	24.8	61.6	92.7	18.5	59.1	86.0	14.3
			40	NA	NA	NA	109.8	184.6	46.1	105.3	174.4	34.8	100.7	163.6	27.2
			42	NA	NA	NA	104.4	172.3	43.0	99.9	161.7	32.3	95.4	150.8	25.1
			44	NA	NA	NA	99.0	159.6	39.9	94.6	148.7	29.7	90.3	137.8	23.0
			45	NA	NA	NA	96.3	153.0	38.2	92.0	142.1	28.4	87.7	131.2	21.9
BDH-400	4000	4	46	98.3	157.2	52.4	93.9	146.4	36.6	89.6	135.5	27.1	85.2	124.7	20.8
			48	92.9	143.9	47.9	88.6	133.0	33.2	84.5	122.2	24.4	80.7	111.8	18.6
			50	87.5	130.2	43.4	83.5	119.4	29.9	79.6	109.0	21.8	76.1	99.2	16.5
			40	NA	NA	NA	NA	NA	NA	124.4	214.3	42.8	120.5	205.7	34.3
			42	NA	NA	NA	121.9	208.8	52.1	118.1	200.5	40.1	114.2	191.7	31.9
			44	NA	NA	NA	115.6	195.0	48.7	111.8	186.4	37.3	107.9	177.3	29.5
		6	45	NA	NA	NA	112.5	187.8	46.9	108.7	179.2	35.8	104.8	169.8	28.3
			46	NA	NA	NA	109.3	180.6	45.1	105.6	171.8	34.3	101.7	162.3	27.1
			48	NA	NA	NA	103.1	165.9	41.5	99.4	156.7	31.3	95.5	147.1	24.5
			50	100.5	159.5	53.2	97.0	150.7	37.7	93.3	141.3	28.3	89.6	131.7	21.9
			40	NA	NA	NA	NA	NA	NA	141.1	234.5	46.8	135.5	221.4	36.9
			42	NA	NA	NA	NA	NA	NA	134.0	217.9	43.5	128.4	204.5	34.1
BDH-400	4000	4	44	NA	NA	NA	132.4	214.1	53.5	126.9	200.7	40.1	121.5	187.2	31.2
			45	NA	NA	NA	128.8	205.5	51.3	123.4	192.0	38.4	118.1	178.5	29.7
			46	NA	NA	NA	125.3	196.7	49.2	119.9	183.3	36.6	114.7	169.8	28.3
			48	NA	NA	NA	118.6	179.0	44.7	113.5	165.6	33.1	108.6	152.5	25.4
			50	NA	NA	NA	111.7	161.1	40.3	106.9	148.1	29.6	102.4	135.6	22.6
			40	NA	NA	NA	NA	NA	NA	NA	NA	NA	161.4	275.9	45.9
		6	42	NA	NA	NA	NA	NA	NA	157.9	268.4	53.6	153.0	257.4	42.9
			44	NA	NA	NA	NA	NA	NA	149.6	249.7	49.9	144.7	238.3	39.7
			45	NA	NA	NA	NA	NA	NA	145.4	240.1	48.0	140.5	228.6	38.1
			46	NA	NA	NA	NA	NA	NA	141.3	230.4	46.1	136.4	218.6	36.4
			48	NA	NA	NA	NA	NA	NA	133.1	210.5	42.1	128.2	198.4	33.1
			50	NA	NA	NA	129.5	201.8	50.4	124.9	190.1	38.0	120.3	177.9	29.7

BELT DRIVE HORIZONTAL HEATING AND COOLING AIR CONDITIONERS



TABLE 10
COOLING CAPACITIES

Entering DB: 90°F
Entering WB: 75°F

Unit Size	Nominal CFM	Coil Rows	EWT	Water Temperature Rise											
				6°F			8°F			10°F			12°F		
				MBH		GPM	MBH		GPM	MBH		GPM	MBH		GPM
				Sens	Total		Sens	Total		Sens	Total		Sens	Total	
BDH-080	800	4	40	32.0	57.9	19.3	30.2	53.6	13.4	28.5	49.3	9.8	26.8	44.9	7.5
			42	30.6	54.6	18.2	28.9	50.2	12.5	27.1	45.8	9.2	25.5	41.5	6.9
			44	29.2	51.2	17.0	27.5	46.8	11.7	25.8	42.3	8.5	24.3	38.0	6.3
			45	28.5	49.4	16.5	26.8	45.0	11.2	25.2	40.5	8.1	23.7	36.3	6.0
			46	27.8	47.7	15.9	26.1	43.2	10.8	24.5	38.7	7.7	23.1	34.5	5.8
			48	26.5	44.1	14.7	24.8	39.5	9.9	23.3	35.2	7.0	21.9	31.2	5.2
		6	50	25.2	40.3	13.4	23.5	35.8	9.0	22.2	31.7	6.3	20.9	27.9	4.6
			40	37.8	70.2	23.4	36.4	67.1	16.8	34.9	63.8	12.8	33.4	60.4	10.1
			42	36.2	66.7	22.2	34.7	63.5	15.9	33.3	60.1	12.0	31.8	56.5	9.4
			44	34.5	63.0	21.0	33.1	59.7	14.9	31.6	56.2	11.2	30.2	52.6	8.8
			45	33.7	61.1	20.4	32.3	57.8	14.4	30.8	54.2	10.8	29.4	50.5	8.4
			46	32.9	59.2	19.7	31.5	55.8	13.9	30.0	52.2	10.4	28.6	48.5	8.1
BDH-120	1200	4	48	31.2	55.3	18.4	29.8	51.7	12.9	28.4	48.1	9.6	27.0	44.3	7.4
			50	29.6	51.2	17.1	28.2	47.6	11.9	26.8	43.8	8.8	25.5	40.1	6.7
			40	49.4	90.2	30.0	47.3	85.1	21.3	45.1	79.9	16.0	42.9	74.5	12.4
			42	47.3	85.3	28.4	45.2	80.2	20.0	43.0	74.8	15.0	40.9	69.3	11.5
			44	45.2	80.3	26.7	43.1	75.0	18.7	41.0	69.5	13.9	38.9	63.9	10.7
			45	44.2	77.7	25.9	42.1	72.4	18.1	39.9	66.8	13.4	37.9	61.2	10.2
		6	46	43.2	75.1	25.0	41.0	69.7	17.4	38.9	64.1	12.8	36.9	58.5	9.8
			48	41.1	69.8	23.3	39.0	64.2	16.0	36.9	58.6	11.7	35.0	53.2	8.9
			50	39.1	64.3	21.4	36.9	58.5	14.6	35.0	53.1	10.6	33.2	47.8	8.0
			40	NA	NA	NA	56.0	103.8	25.9	54.2	99.9	20.0	52.3	95.7	15.9
			42	NA	NA	NA	53.5	98.4	24.6	51.7	94.3	18.9	49.8	89.9	15.0
			44	52.8	96.8	32.2	51.1	92.9	23.2	49.2	88.6	17.7	47.3	84.1	14.0
BDH-160	1600	4	45	51.6	94.0	31.3	49.8	90.0	22.5	48.0	85.6	17.1	46.1	81.0	13.5
			46	50.3	91.2	30.4	48.6	87.1	21.8	46.8	82.6	16.5	44.9	78.0	13.0
			48	47.9	85.3	28.4	46.1	81.0	20.3	44.3	76.5	15.3	42.5	71.7	12.0
			50	45.4	79.3	26.4	43.7	74.8	18.7	41.9	70.1	14.0	40.1	65.3	10.9
			40	66.4	121.3	40.4	63.6	114.9	28.7	60.8	108.3	21.6	58.1	101.5	16.9
			42	63.5	114.8	38.2	60.8	108.3	27.0	58.1	101.5	20.3	55.3	94.5	15.7
		6	44	60.7	108.1	36.0	58.0	101.5	25.3	55.3	94.5	18.9	52.6	87.3	14.6
			45	59.4	104.7	34.9	56.7	98.0	24.5	53.9	90.9	18.2	51.3	83.7	14.0
			46	58.0	101.2	33.7	55.3	94.4	23.6	52.5	87.2	17.4	49.9	80.1	13.3
			48	55.2	94.1	31.4	52.5	87.0	21.8	49.8	79.8	16.0	47.4	73.0	12.2
			50	52.5	86.8	28.9	49.7	79.5	19.9	47.2	72.5	14.5	44.9	65.6	10.9
			40	NA	NA	NA	75.1	139.3	34.8	72.8	134.4	26.8	70.4	129.0	21.5
BDH-200	2000	4	42	NA	NA	NA	71.8	132.2	33.0	69.5	127.0	25.4	67.1	121.4	20.2
			44	NA	NA	NA	68.5	124.8	31.2	66.2	119.4	23.9	63.7	113.6	18.9
			45	NA	NA	NA	66.8	121.0	30.2	64.5	115.4	23.1	62.1	109.6	18.3
			46	67.4	122.3	40.7	65.2	117.1	29.3	62.9	111.4	22.3	60.5	105.5	17.6
			48	64.1	114.5	38.2	61.9	109.1	27.3	59.6	103.3	20.7	57.2	97.1	16.2
			50	60.8	106.5	35.5	58.6	100.8	25.2	56.3	94.8	19.0	54.0	88.6	14.8
		6	40	NA	NA	NA	81.2	147.6	36.8	78.1	140.3	28.0	74.9	132.7	22.1
			42	NA	NA	NA	77.7	139.3	34.8	74.6	131.9	26.3	71.4	124.0	20.7
			44	NA	NA	NA	74.2	130.8	32.7	71.1	123.1	24.6	67.9	115.0	19.2
			45	NA	NA	NA	72.4	126.5	31.6	69.3	118.6	23.7	66.2	110.4	18.4
			46	NA	NA	NA	70.7	122.1	30.5	67.6	114.0	22.8	64.5	105.8	17.6
			48	70.2	120.8	40.3	67.2	112.9	28.2	64.1	104.7	20.9	61.1	96.5	16.1
BDH-300	3000	4	50	66.9	111.7	37.2	63.6	103.4	25.9	60.8	95.5	19.1	57.9	87.3	14.6
			40	NA	NA	NA	NA	NA	NA	92.6	171.3	34.2	89.9	165.4	27.5
			42	NA	NA	NA	NA	NA	NA	88.4	162.2	32.4	85.7	156.0	26.0
			44	NA	NA	NA	86.8	158.7	39.7	84.2	152.7	30.5	81.5	146.2	24.4
			45	NA	NA	NA	84.8	154.0	38.5	82.1	147.9	29.6	79.4	141.2	23.5
			46	NA	NA	NA	82.7	149.2	37.3	80.0	142.9	28.6	77.3	136.1	22.7
		6	48	NA	NA	NA	78.5	139.3	34.8	75.9	132.7	26.5	73.1	125.7	21.0
			50	NA	NA	NA	74.4	128.9	32.2	71.8	122.1	24.4	69.0	115.0	19.2
			40	NA	NA	NA	NA	NA	NA	118.5	213.8	42.7	114.0	203.0	33.8
			42	NA	NA	NA	117.7	211.7	52.9	113.2	201.1	40.2	108.8	190.1	31.7
			44	NA	NA	NA	112.4	199.0	49.7	108.0	188.1	37.6	103.4	176.5	29.4
			45	NA	NA	NA	109.7	192.5	48.1	105.3	181.4	36.3	100.8	169.6	28.3
BDH-400	4000	4	46	NA	NA	NA	107.1	185.9	46.4	102.7	174.5	34.9	98.2	162.6	27.1
			48	NA	NA	NA	101.8	172.3	43.1	97.4	160.4	32.1	93.0	148.6	24.8
			50	NA	NA	NA	96.8	158.0	39.5	92.3	146.0	29.3	88.1	134.7	22.5
			40	NA	NA	NA	NA	NA	NA	139.9	259.3	51.8	136.1	250.9	41.8
			42	NA	NA	NA	NA	NA	NA	133.6	245.7	49.1	129.8	236.9	39.5
			44	NA	NA	NA	NA	NA	NA	127.4	231.5	46.3	123.4	222.3	37.0
		6	45	NA	NA	NA	NA	NA	NA	124.2	224.2	44.8	120.3	214.8	35.8
			46	NA	NA	NA	NA	NA	NA	121.1	216.8	43.3	117.1	207.2	34.5
			48	NA	NA	NA	118.6	210.9	52.7	114.8	201.5	40.3	110.9	191.5	31.9
			50	NA	NA	NA	112.4	195.4	48.9	108.6	185.7	37.1	104.7	175.4	29.2
			40	NA	NA	NA	NA	NA	NA	NA	NA	NA	153.0	273.5	45.5
			42	NA	NA	NA	NA	NA	NA	151.5	269.9	53.9	146.1	256.6	42.7
6	44	NA	NA	NA	NA	NA	NA	144.6	252.9	50.5	139.1	238.9	39.8		
	45	NA	NA	NA	NA	NA	NA	141.1	244.1	48.8	135.6	229.7	38.3		
	46	NA	NA	NA	NA	NA	NA	137.6	235.2	47.0	132.3	221.2	36.9		
	48	NA	NA	NA	NA	NA	NA	130.8	217.1	43.4	125.2	202.1	33.7		
	50	NA	NA	NA	129.1	212.7	53.2	123.7	197.7	39.6	118.4	182.9	30.5		
	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
42	NA	NA	NA	NA	NA	NA	NA	NA	NA	173.6	317.4	52.9			
44	NA	NA	NA	NA	NA	NA	NA	NA	NA	165.2	298.1	49.7			
45	NA	NA	NA	NA	NA	NA	NA	NA	NA	161.1	288.2	48.0			
46	NA	NA	NA	NA	NA	NA	NA	NA	NA	156.9	278.2	46.3			
48	NA	NA	NA	NA	NA	NA	153.5	269.9	54.0	148.6	257.5	42.9			
50	NA	NA	NA	NA	NA	NA	145.5	249.7	49.9	140.5	236.6	39.4			

BELT DRIVE HORIZONTAL HEATING AND COOLING AIR CONDITIONERS

TABLE 11
COOLING CAPACITIES

Entering DB: 95°F
Entering WB: 78°F

UNIT SIZE	NOMINAL CFM	COIL ROWS	EWT	WATER TEMPERATURE RISE											
				6°F			8°F			10°F			12°F		
				MBH		GPM	MBH		GPM	MBH		GPM	MBH		GPM
				SENS	TOTAL		SENS	TOTAL		SENS	TOTAL		SENS	TOTAL	
BDH-080	800	4	40	35.4	69.3	23.1	33.6	64.9	16.2	31.9	60.5	12.1	30.2	56.0	9.3
			42	34.1	66.0	22.0	32.3	61.5	15.4	30.6	57.0	11.4	28.9	52.5	8.7
			44	32.7	62.6	20.8	31.0	58.0	14.5	29.3	53.6	10.7	27.6	48.7	8.1
			45	32.0	60.8	20.3	30.3	56.3	14.1	28.6	51.7	10.3	26.9	46.8	7.8
			46	31.3	59.0	19.7	29.7	54.6	13.6	27.9	49.7	9.9	26.3	44.9	7.5
		6	48	30.0	55.4	18.5	28.3	50.8	12.7	26.6	45.8	9.2	25.0	41.1	6.8
			50	28.6	51.7	17.2	26.9	46.8	11.7	25.3	41.9	8.4	23.8	37.3	6.2
			40	41.9	83.3	27.7	40.4	80.2	20.0	39.0	76.9	15.4	37.5	73.4	12.2
			42	40.2	79.7	26.5	38.8	76.5	19.1	37.4	73.1	14.6	35.9	69.5	11.6
			44	38.6	76.0	25.3	37.2	72.8	18.2	35.7	69.2	13.8	34.2	65.5	10.9
BDH-120	1200	4	45	37.8	74.2	24.7	36.4	70.8	17.7	34.9	67.2	13.4	33.4	63.4	10.6
			46	37.0	72.2	24.1	35.6	68.8	17.2	34.1	65.2	13.0	32.6	61.3	10.2
			48	35.3	68.3	22.8	33.9	64.8	16.2	32.5	61.1	12.2	31.1	57.1	9.5
			50	33.7	64.2	21.4	32.4	60.7	15.2	30.9	56.7	11.3	29.4	52.6	8.8
		6	40	NA	NA	NA	52.4	102.2	25.5	50.3	96.9	19.4	48.1	91.5	15.2
BDH-160	1600	4	42	NA	NA	NA	50.4	97.2	24.3	48.2	91.8	18.3	46.2	86.5	14.4
			44	50.5	97.4	32.5	48.3	92.1	23.0	46.3	86.8	17.4	44.1	80.9	13.5
			45	49.4	94.9	31.6	47.3	89.4	22.3	45.3	84.0	16.8	43.1	78.0	13.0
			46	48.4	92.2	30.7	46.4	87.2	21.7	44.2	81.1	16.2	42.0	75.0	12.5
			48	46.3	86.9	28.9	44.3	81.3	20.3	42.1	75.2	15.0	40.0	69.1	11.5
BDH-200	2000	4	50	44.3	81.4	27.1	42.2	75.4	18.9	40.0	69.2	13.8	38.0	63.1	10.5
			40	NA	NA	NA	62.1	123.4	30.8	60.3	119.5	23.9	58.5	115.3	19.2
			42	NA	NA	NA	59.6	118.0	29.5	57.9	113.9	22.8	56.0	109.6	18.3
			44	NA	NA	NA	57.2	112.4	28.1	55.4	108.2	21.6	53.5	103.7	17.3
		6	45	NA	NA	NA	56.0	109.6	27.4	54.2	105.3	21.0	52.3	100.6	16.8
BDH-300	3000	4	46	NA	NA	NA	54.7	106.7	26.7	52.9	102.3	20.4	51.1	97.5	16.2
			48	NA	NA	NA	52.3	100.7	25.2	50.6	96.3	19.3	48.6	91.3	15.2
			50	51.6	98.9	33.0	49.9	94.6	23.7	48.0	89.7	17.9	46.1	84.5	14.1
		6	40	NA	NA	NA	70.5	137.7	34.4	67.7	131.0	26.2	65.0	124.1	20.7
			42	NA	NA	NA	67.7	131.1	32.7	65.0	124.2	24.8	62.4	117.6	19.6
BDH-400	4000	4	44	NA	NA	NA	65.0	124.2	31.0	62.3	117.2	23.4	59.6	110.1	18.3
			45	NA	NA	NA	63.6	120.7	30.2	61.1	113.9	22.8	58.3	106.3	17.7
			46	NA	NA	NA	62.3	117.1	29.3	59.6	110.1	22.0	56.8	102.3	17.0
			48	62.2	116.9	39.0	59.6	109.9	27.5	56.8	102.3	20.5	54.1	94.3	15.7
			50	59.5	109.7	36.6	56.8	102.1	25.5	54.0	94.2	18.8	51.4	86.3	14.4

BDH SERIES

BELT DRIVE HORIZONTAL HEATING AND COOLING AIR CONDITIONERS



TABLE 12
AIR FLOW CAPACITY CORRECTION FACTORS

UNIT SIZE	CFM	4 & 6 ROWS COOLING		1 & 2 ROWS HEATING SENSIBLE
		SENSIBLE	TOTAL	
BDH-080	500	.72	.81	.78
	600	.82	.88	.86
	700	.91	.94	.94
	800	1.00	1.00	1.00
	900	1.08	1.05	1.06
	1000	1.16	1.09	1.11
BDH-120	1000	.88	.92	.92
	1100	.94	.96	.96
	1200	1.00	1.00	1.00
	1300	1.06	1.04	1.03
	1400	1.11	1.07	1.07
	1500	1.16	1.10	1.10
BDH-160	1200	.82	.86	.88
	1300	.87	.90	.91
	1400	.91	.94	.94
	1500	.96	.97	.97
	1600	1.00	1.00	1.00
	1700	1.04	1.03	1.01
	1800	1.08	1.06	1.04
	1900	1.12	1.08	1.06
	2000	1.17	1.10	1.08
BDH-200	1500	.81	.86	.89
	1700	.89	.92	.94
	1900	.96	.97	.98
	2100	1.04	1.03	1.02
	2300	1.10	1.07	1.05
	2500	1.17	1.12	1.08
BDH-300	2000	.74	.80	.88
	2200	.80	.84	.91
	2400	.85	.88	.94
	2600	.90	.92	.96
	2800	.95	.96	.98
	3000	1.00	1.00	1.00
	3200	1.05	1.04	1.02
	3400	1.09	1.07	1.03
	3600	1.14	1.10	1.04
	3800	1.18	1.12	1.06
	4000	1.22	1.15	1.07
BDH-400	3500	.91	.92	.97
	3650	.94	.95	.98
	3800	.96	.97	.99
	3950	.98	.99	1.00
	4100	1.01	1.01	1.00
	4250	1.04	1.03	1.01
	4400	1.06	1.05	1.02
	4550	1.09	1.07	1.02
	4700	1.11	1.09	1.03
	4850	1.14	1.11	1.03
	5000	1.16	1.13	1.04

CHART 2
WATER PRESSURE DROP

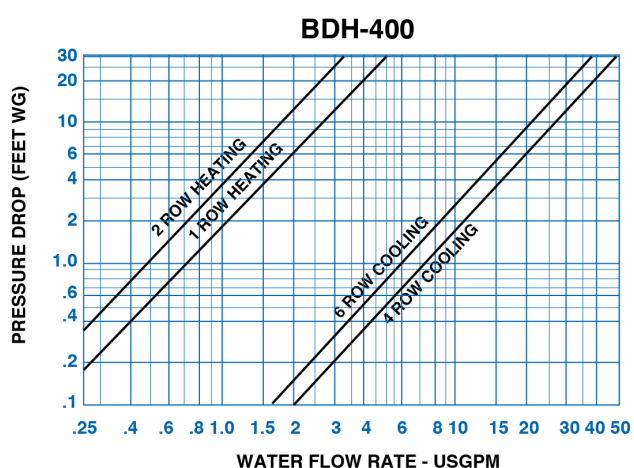
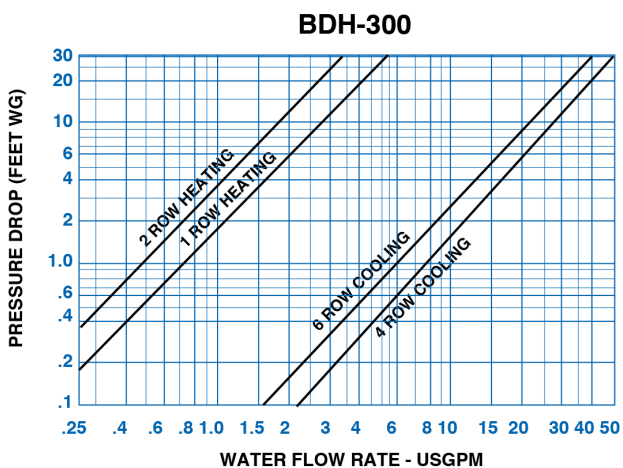
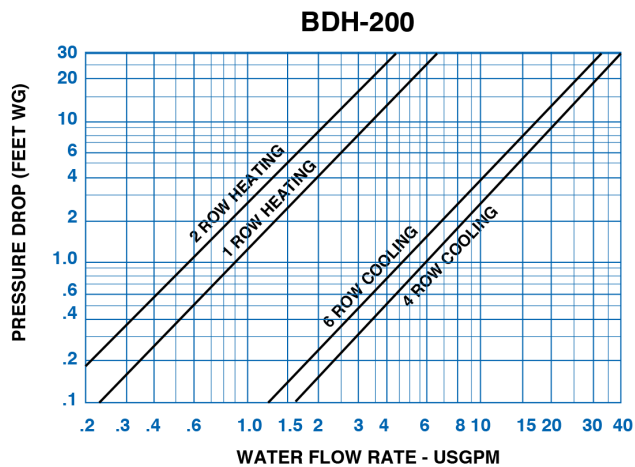
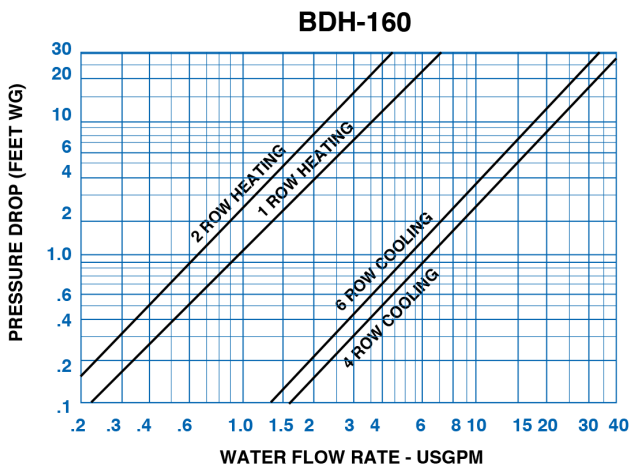
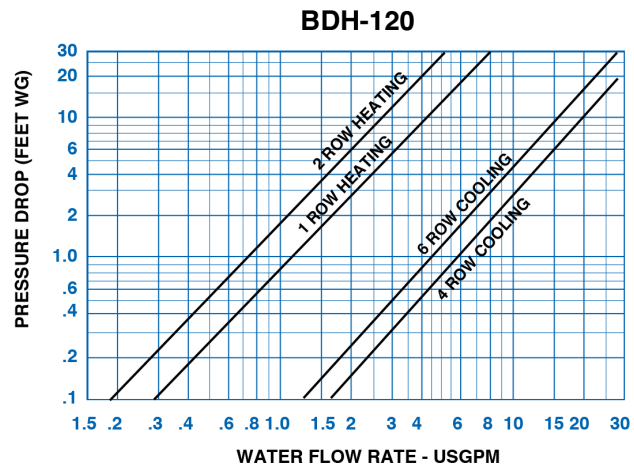
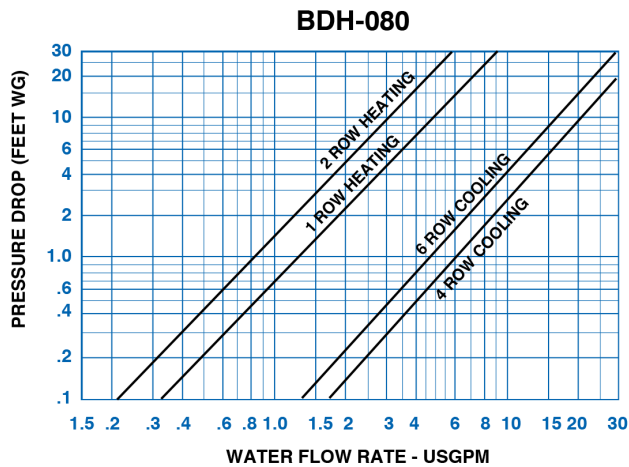


CHART 3
FAN PERFORMANCE (WITH OUTLET DUCT)

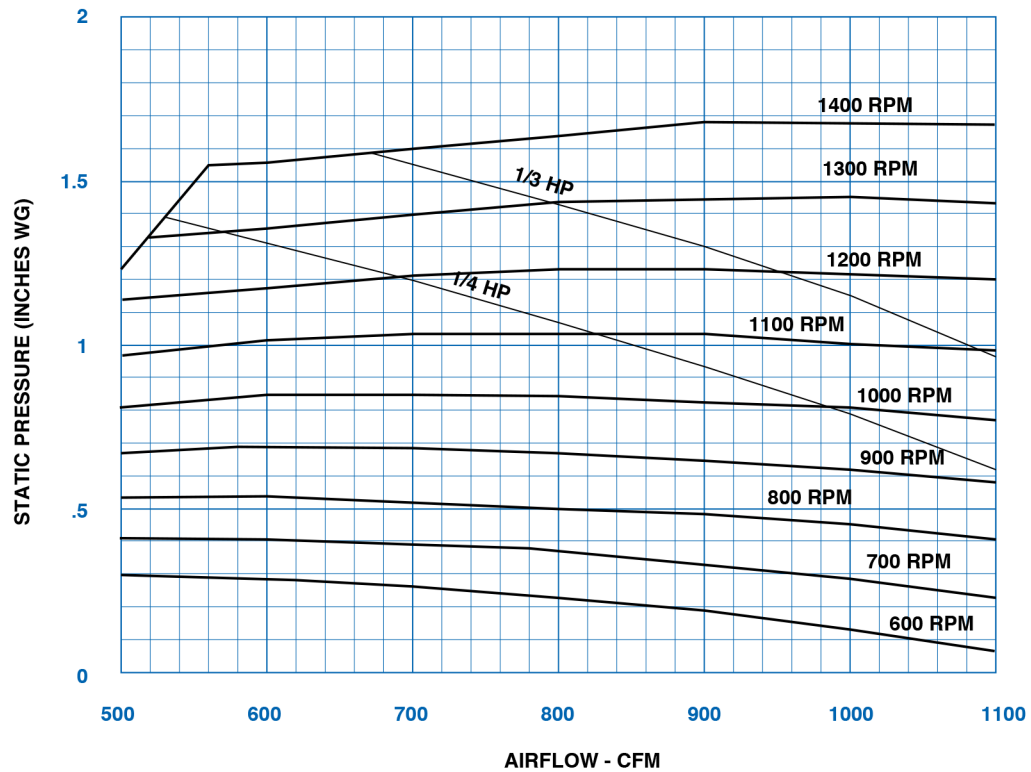


CHART 4
COMPONENT STATIC RESISTANCE (COIL, FILTER AND CASING)

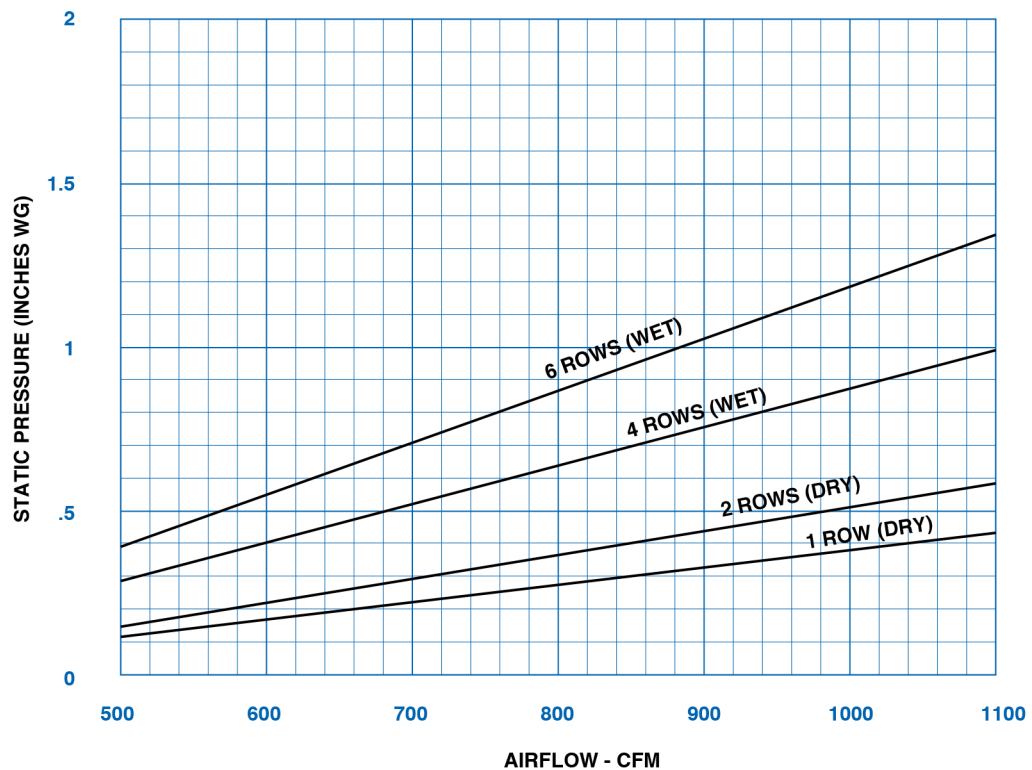


CHART 5
FAN PERFORMANCE (WITH OUTLET DUCT)

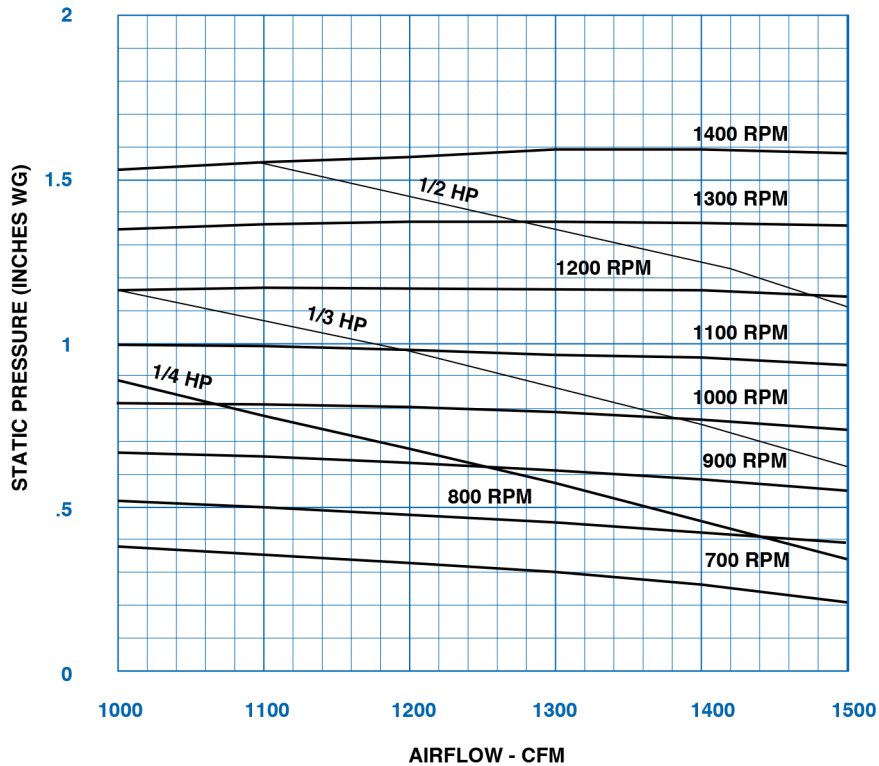


CHART 6
COMPONENT STATIC RESISTANCE (COIL, FILTER AND CASING)

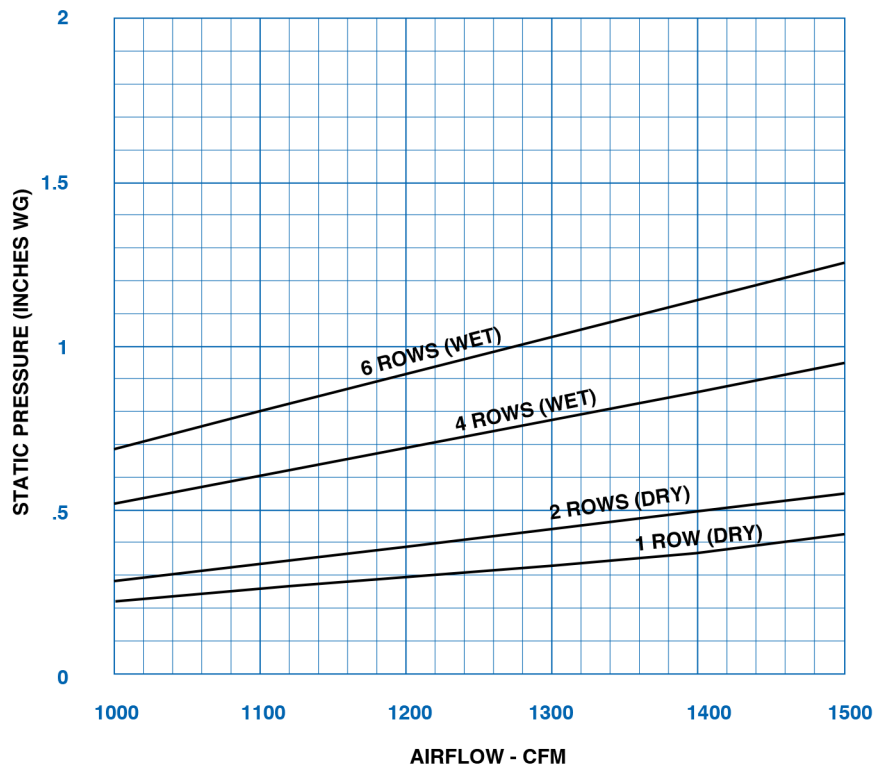


CHART 7
FAN PERFORMANCE (WITH OUTLET DUCT)

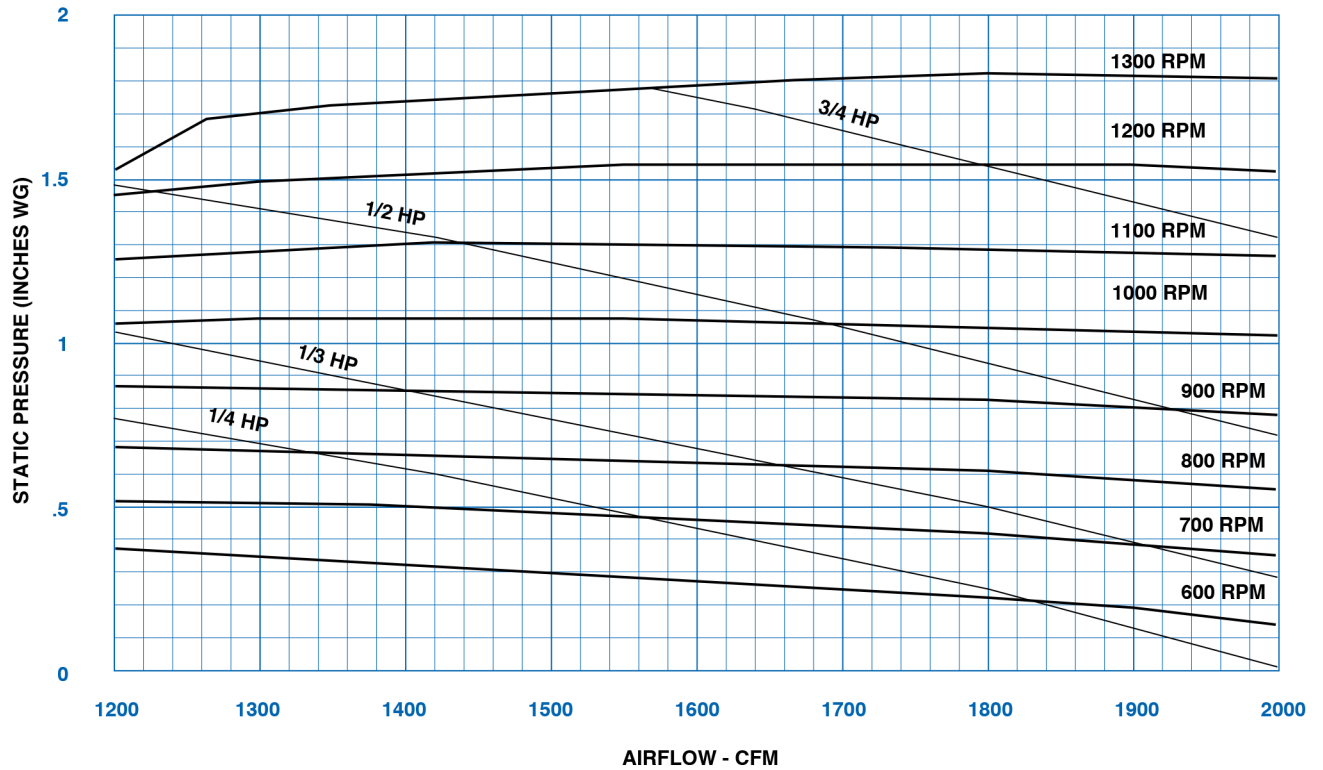


CHART 8
COMPONENT STATIC RESISTANCE (COIL, FILTER AND CASING)

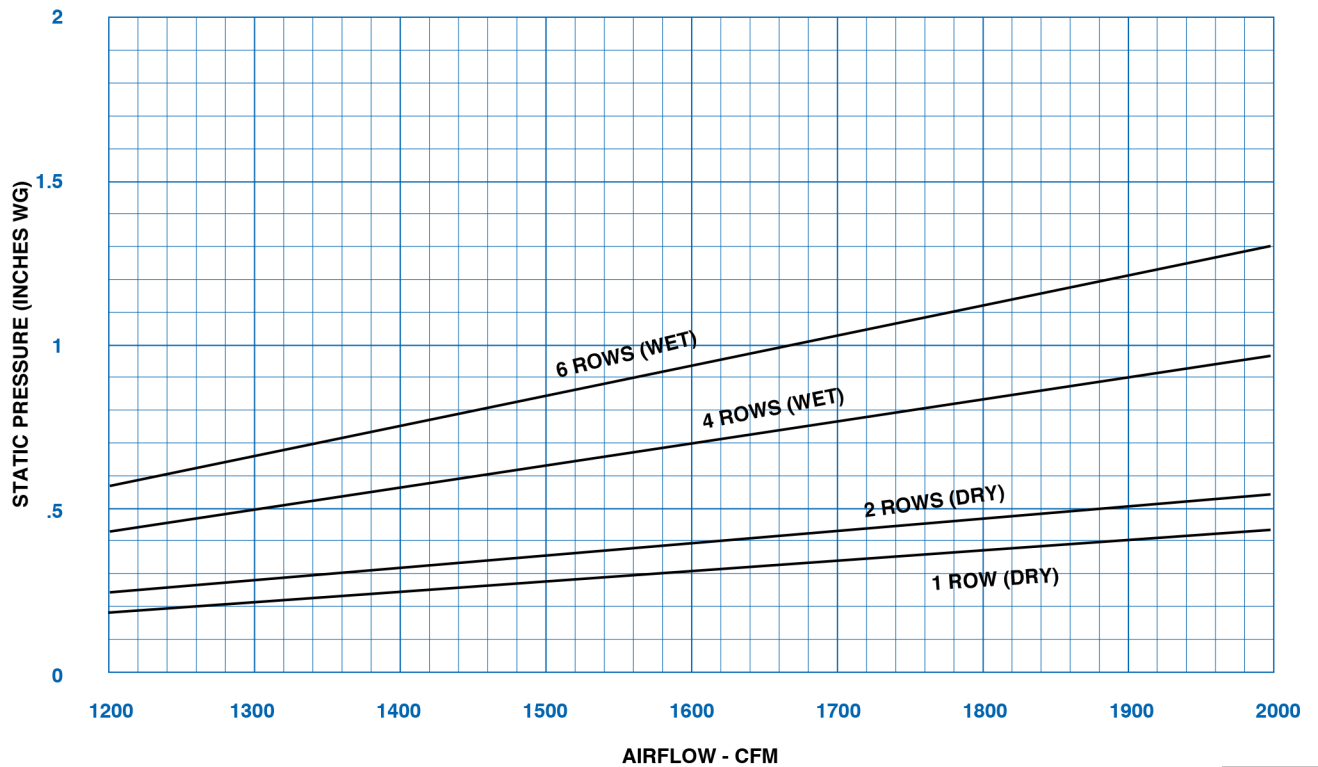


CHART 9
FAN PERFORMANCE (WITH OUTLET DUCT)

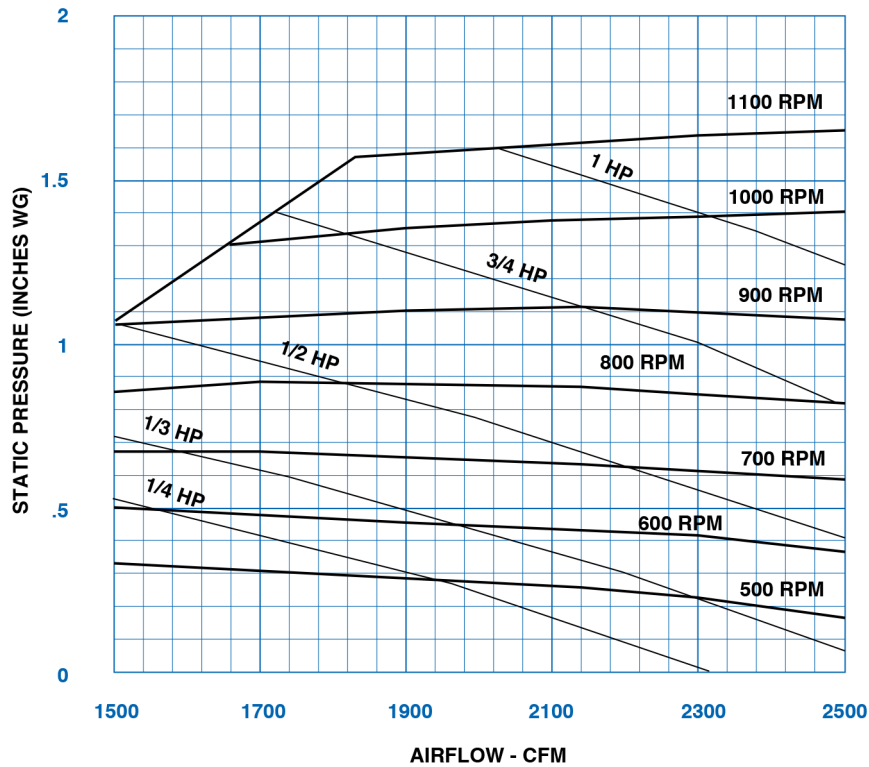


CHART 10
COMPONENT STATIC RESISTANCE (COIL, FILTER AND CASING)

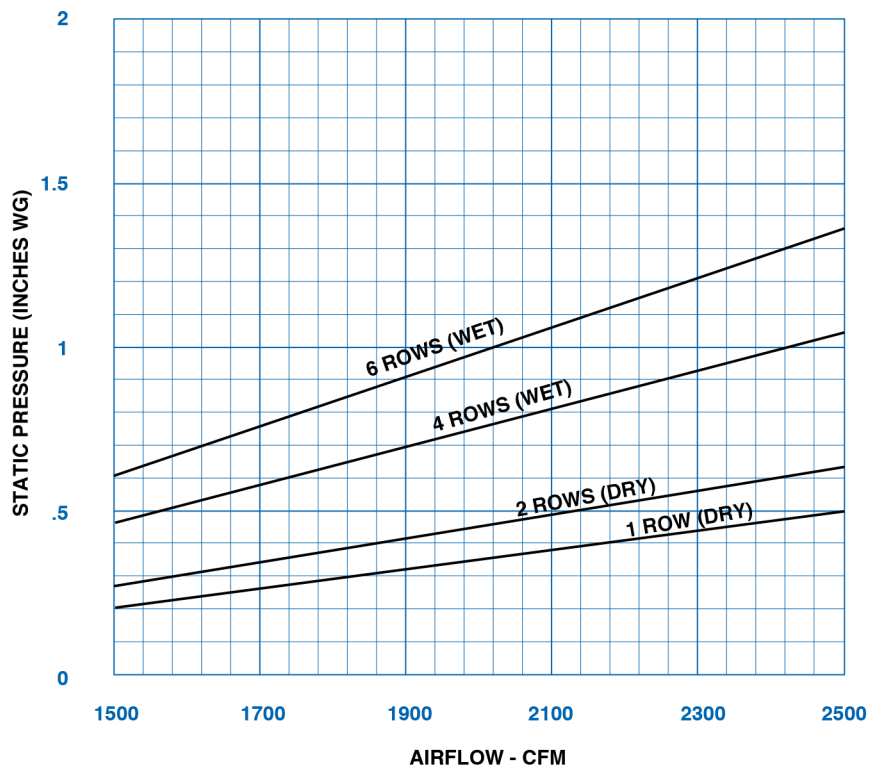


CHART 11
FAN PERFORMANCE (WITH OUTLET DUCT)

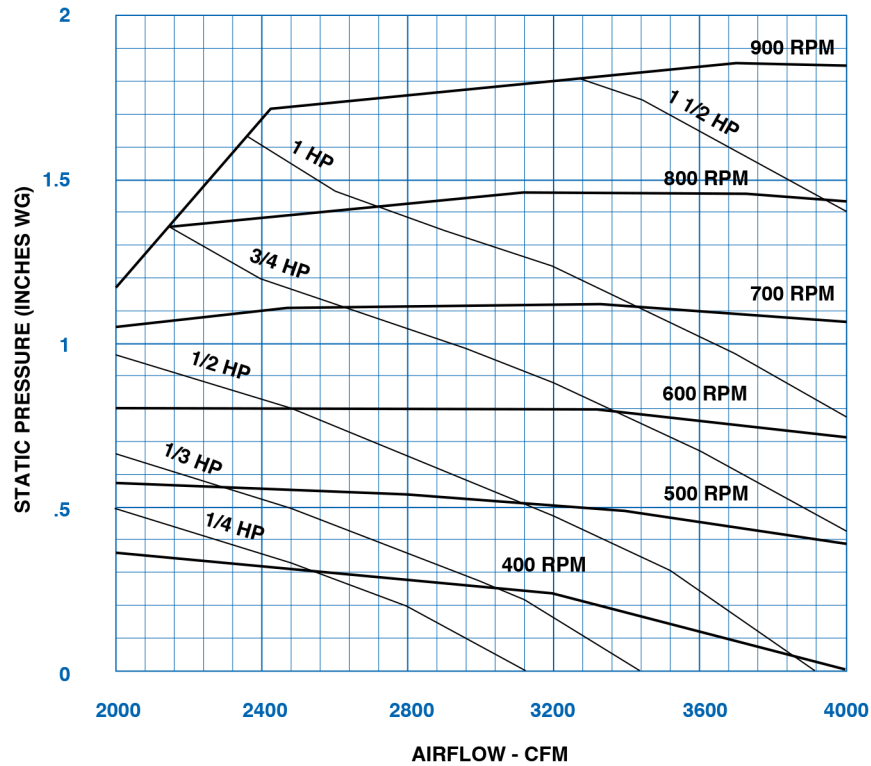


CHART 12
COMPONENT STATIC RESISTANCE (COIL, FILTER AND CASING)

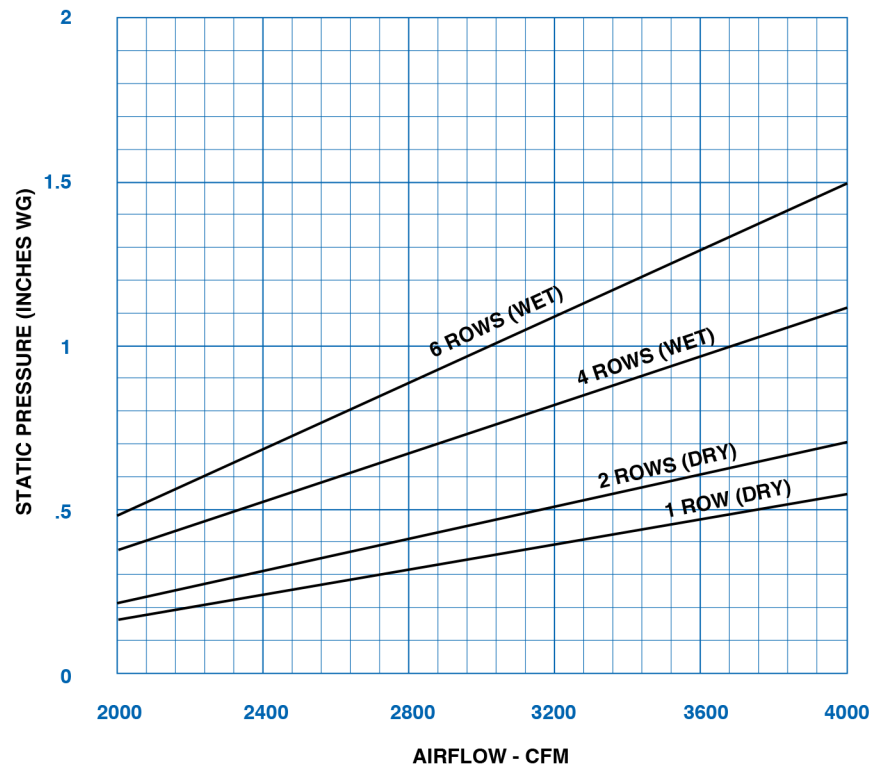


CHART 13
FAN PERFORMANCE (WITH OUTLET DUCT)

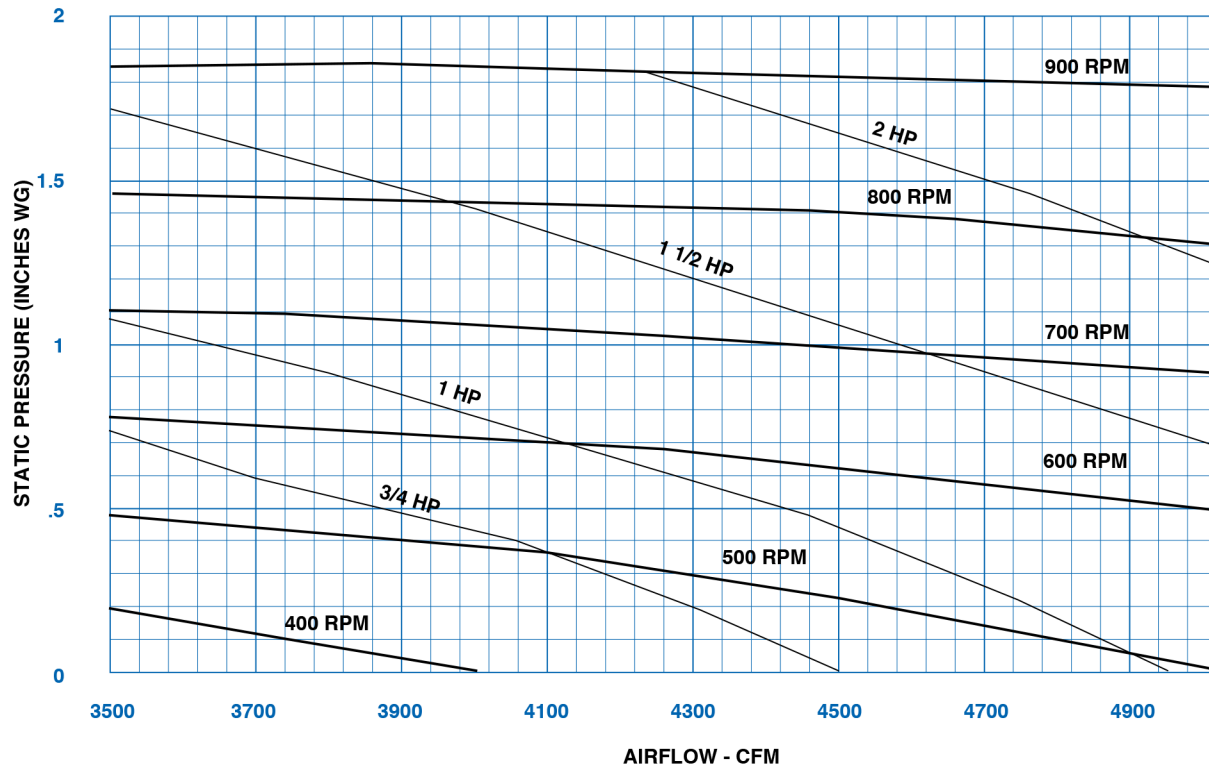
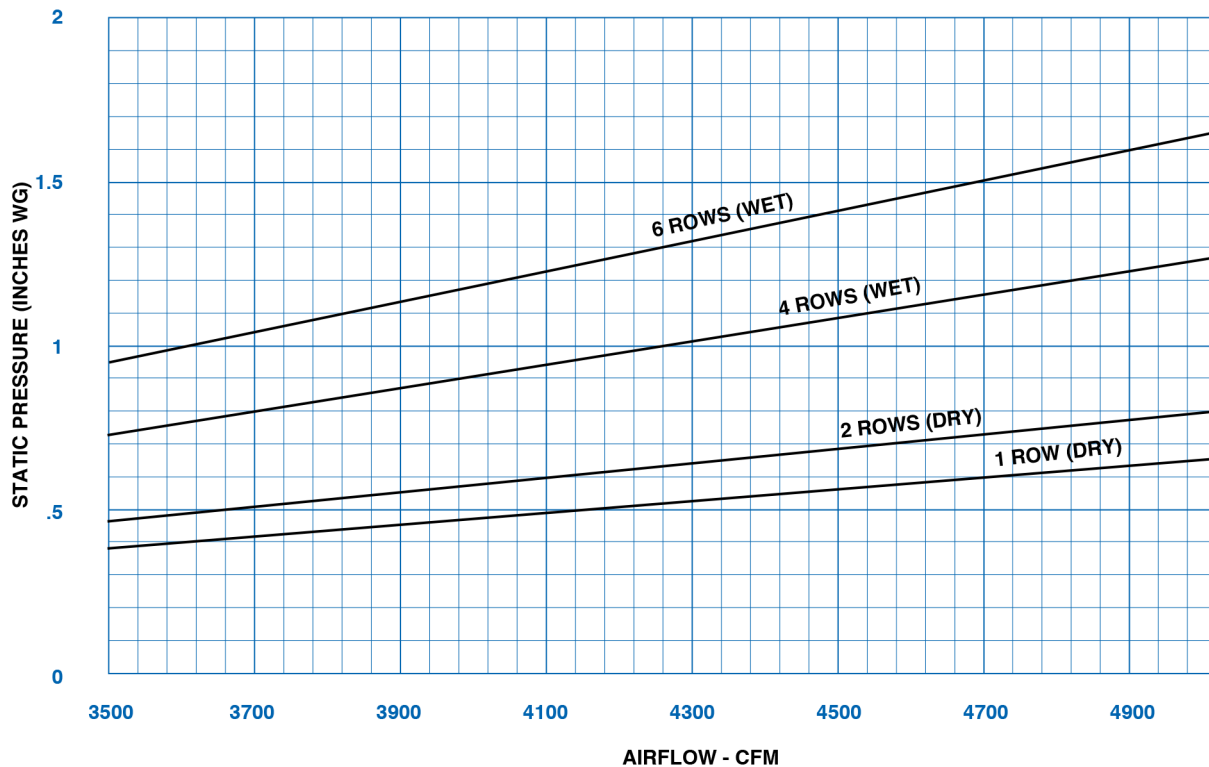


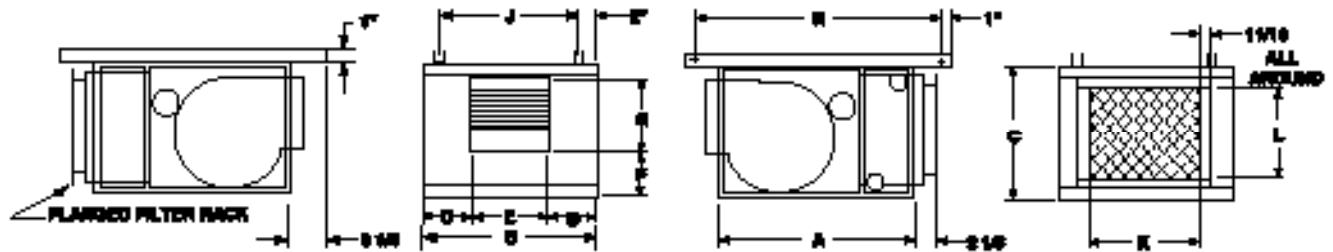
CHART 14
COMPONENT STATIC RESISTANCE (COIL, FILTER AND CASING)



BDH SERIES

BELT DRIVE HORIZONTAL HEATING AND COOLING AIR CONDITIONERS

TABLE 13
PHYSICAL DATA



MODEL	BDH-080	BDH-120	BDH-160	BDH-200	BDH-300	BDH-400
CFM RANGE	500 - 1000	1000 - 1500	1200 - 2000	1500 - 2500	2000 - 4000	3500 - 5000
A	35"	35"	38"	38"	43 1/2"	43 1/2"
B	32"	41 "	44"	52"	57"	68"
C	18 1/4"	18 1/4"	21 1/4"	21 1/4"	27 1/4"	27 1/4"
D	11 3/8"	14 1/16"	14 15/16"	17 11/16"	18 11/16"	24 3/16"
E	9 1/4"	12 7/8"	14 1/8"	16 5/8"	19 5/8"	19 5/8"
F	5 3/4"	5 3/4"	6 1/2"	4 3/8"	8 7/8"	8 7/8"
G	11 1/4"	11 1/4"	12 3/8"	14 1/2"	16 7/8"	16 7/8"
H	39 1/2"	39 1/2"	42 1/2"	42 1/2"	48"	48"
J	28"	37"	40"	48"	53"	64"
K	22 7/8"	30 3/4"	34 1/2"	42 1/2"	46 5/8"	57 7/8"
L	15"	15"	18 3/4"	18 3/4"	23 3/4"	23 3/4"

TABLE 14
MOTOR SPECIFICATIONS

O.D.P. CAPACITOR START (60 Hz SINGLE PHASE 1725 RPM)

HP	VOLTAGE	* NAME PLATE AMPS
1/4	115-208/230	6.2 / 3.1
1/3	115-208/230	5.8 / 2.9
1/2	115-208/230	7.2 / 3.6
3/4	115-208/230	10.6 / 5.3
1	115-208/230	12.8 / 6.4
1 1/2	115-208/230	18.0 / 9.0
2	115-208/230	21.0 / 10.5

O.D.P. (60 Hz THREE PHASE 1725 RPM)

HP	VOLTAGE	* NAME PLATE AMPS
1/3	200/208	1.8
1/3	230/460	1.6 / 0.8
1/2	200/208	2.8
1/2	230/460	2.4 / 1.2
1/2	575	1.0
3/4	200/208	3.45
3/4	230/460	3.0 / 1.5
3/4	575	1.2
1	200/208	4.15
1	230/460	3.6 / 1.8
1	575	1.45
1 1/2	200/208	5.5
1 1/2	230/460	4.8 / 2.4
1 1/2	575	1.9
2	200/208	7.1
2	230/460	6.2 / 3.1
2	575	2.5

COIL CONNECTIONS

(Right Hand Shown)

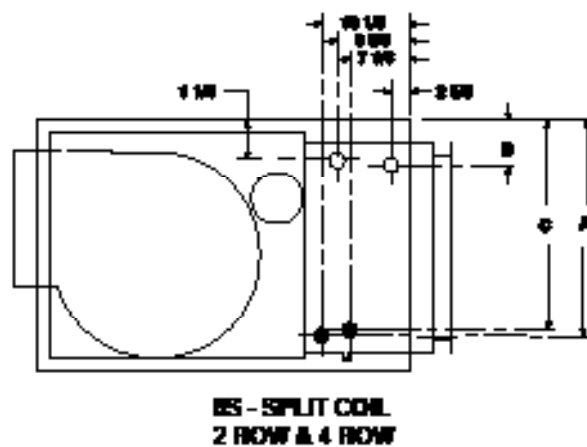
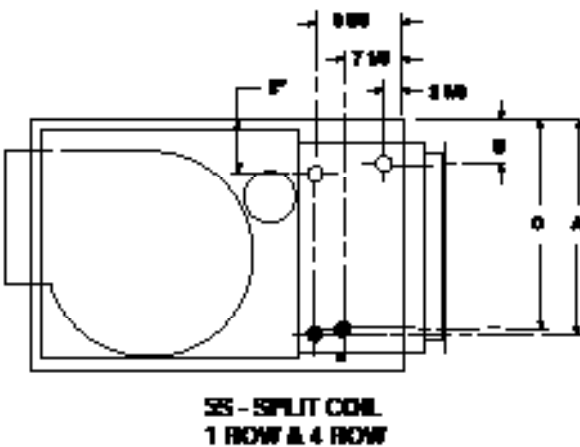
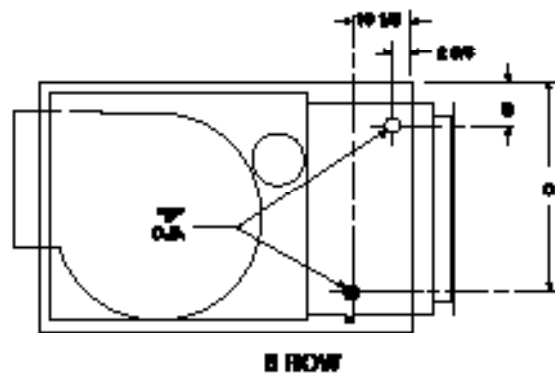
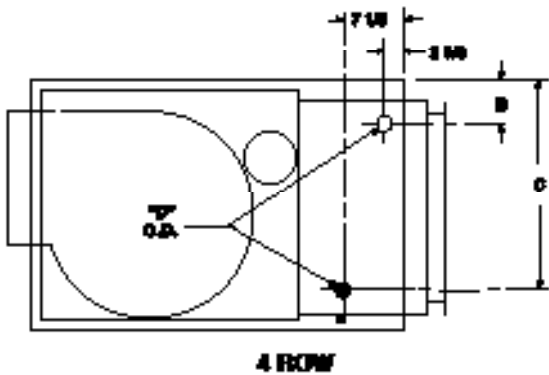
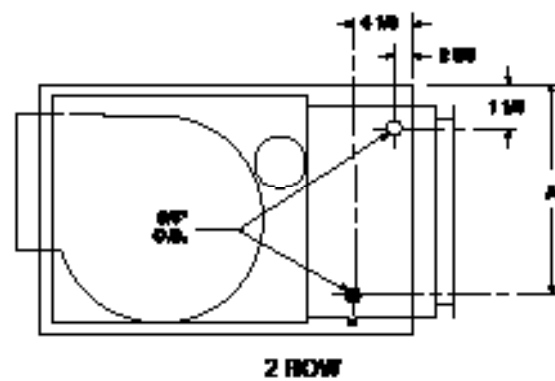
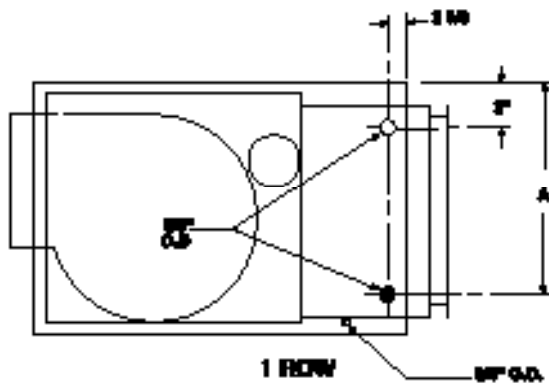


TABLE 15

UNIT SIZE	A	B	C	D
BDH-080 — BDH 120	15 1/2	1 3/8	15 3/8	1 1/8
BDH-160	18 1/2	1 3/8	18 3/8	1 1/8
BDH-200	18 1/2	1 5/8	18 1/8	1 5/8
BDH-300 — BDH-400	24 1/2	1 5/8	24 1/8	1 5/8

□ Outlet

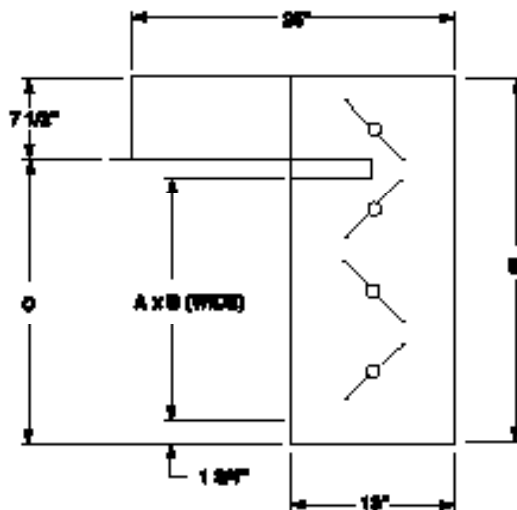
■ Intel

Left right hand connectings :
Specified facing airstream

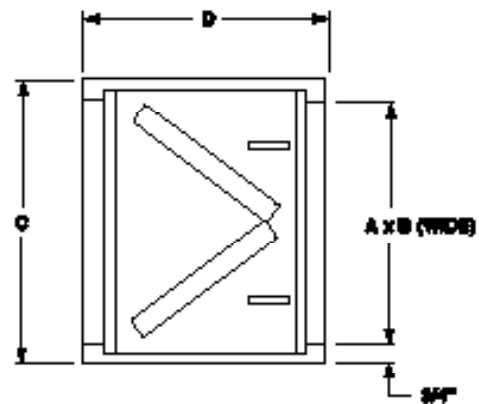
BDH SERIES

BELT DRIVE HORIZONTAL HEATING AND COOLING AIR CONDITIONERS

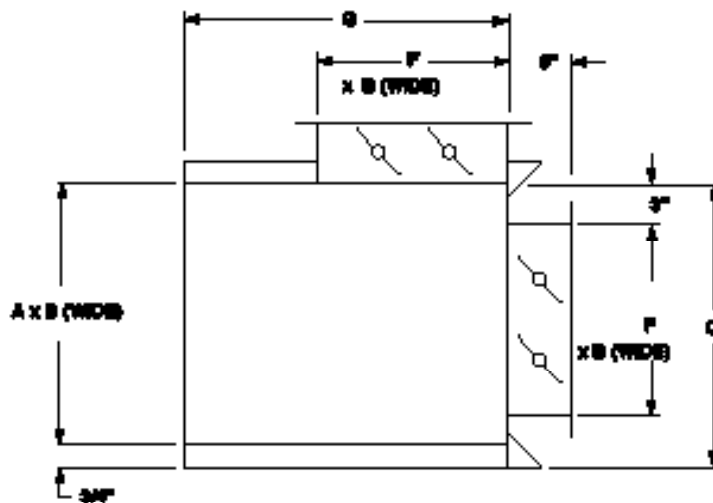
ACCESSORIES



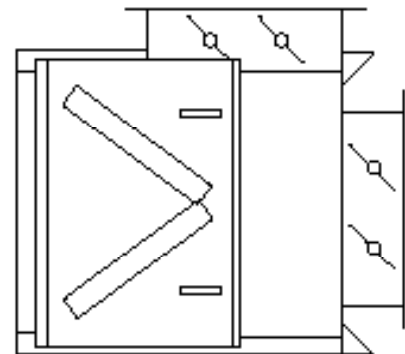
EXTERNAL FACE & BY-PASS DAMPER



ANGLE FILTER SECTION



MIXING BOX SECTION



MIXING BOX SECTION WITH FILTERS

TABLE 16

UNIT	A	B	C	D	E	F	G
BDH-080	15	22 7/8	18 1/4	13	25 3/4	9 3/8	20
BDH-120	15	30 3/4	18 1/4	16 1/2	25 3/4	9 3/8	22
BDH-160	18 3/4	34 1/2	21 1/4	16 1/2	28 3/4	12 3/8	22
BDH-200	18 3/4	42 1/2	21 1/4	16 1/2	28 3/4	12 3/8	22
BDH-300	23 3/4	46 5/8	27 1/4	20	34 3/4	18 3/8	26
BDH-400	23 3/4	57 7/8	27 1/4	20	34 3/4	18 3/8	26

GENERAL

Supply and install ROSEMEX belt drive fan coil, model BDH, as indicated on the plans.

CABINET

The cabinet shall be fabricated of 18 gauge steel, reinforced where necessary for greater rigidity. Access panel shall be provided on both sides of cabinet. Cabinet interior surfaces shall be acoustically and thermally insulated with one-inch coated glass fibre insulation, meeting NFPA-90A requirements. A flanged filter rack suitable for side removal, shall be provided on air inlet. Filter rack shall be field reversible to permit filter access from either side. The air discharge shall be provided with a one inch duct collar. The motorblower assembly shall be completely isolated from the blower housing. The exterior and interior of the unit shall be degreased, phosphatized and finished with a grey primer.

COILS

All coils shall be manufactured by ROSEMEX. Casing shall be constructed of heavy gauge galvanized steel. Tubes shall be 5/8" O.D. copper, mechanically expanded to the fins. Fins shall be aluminum, 6, 9 or 12 fins per inch and the number of rows shall be as specified. Coils shall be tested to 350 psig. All coils shall be fully drainable and self venting.

DRAIN PAN

Drain pans shall be complete with sweat drain connection. All pans shall be made of 304 Stainless steel for corrosion resistance.

FAN

Fan shall be of a double width, forward curved type. Fan wheels shall be dynamically and statically balanced.

MOTOR

Motors shall be capacitor start type, open drip proof, ball bearing, NEMA service factors, 1725 RPM, either singlephase (resiliently mounted) or three-phase (welded-base mounted) and bolted to an adjustable platform to permit easy belt adjustment.

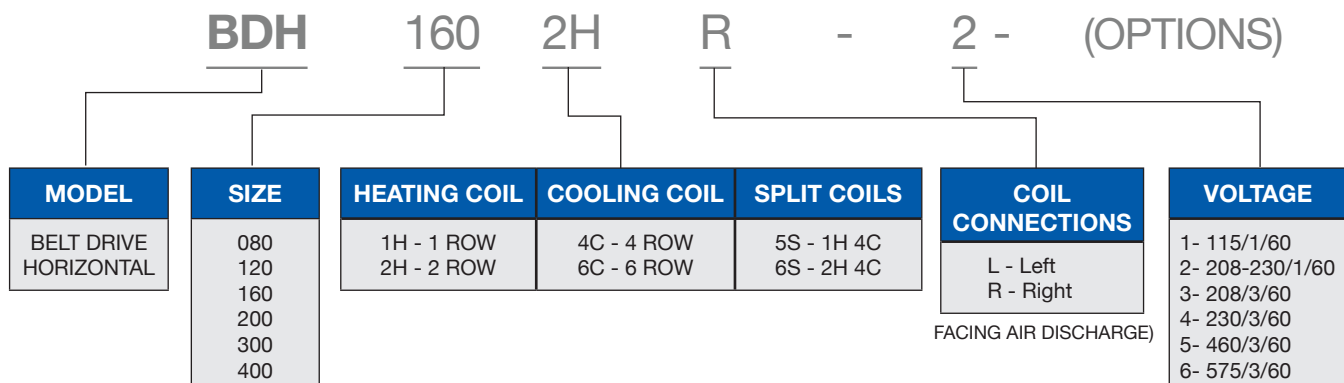
DRIVE

Variable pitch sheave on motor and constant pitch sheave on blower, shall be provided.

FILTER

All units shall be furnished with one-inch throwaway filters. 2" and 4" filters as option.

MODEL NOMENCLATURE



OPTIONS

A F		M B		M B F		E B P
ANGLE FILTER		MIXING BOX		MIXING BOX C/W FILTER		EXTERNAL FACE AND BY-PASS



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