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WHDC

Double Wall Construction

HORIZONTAL

Chilled Water

Hot Water

800 thru 8,000 Nominal CFM

Belt Drive



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Double Wall Construction - Horizontal

Unit is a completely factory assembled, single-piece air handler.

Unit includes a fan and coil section with factory installed chilled water, preheat or reheat hot water coil position, and a 2" filter section. Field mounted components include a mixing box, 2" or 4" flat filter section and a 2" or 4" (4" only available for unit sized 16-80) angled filter section.

STANDARD FEATURES

Unit Cabinet, 1" double wall construction fabricated from a minimum of 18 gauge LFQ (lock forming quality) galvanized steel outer panels and a minimum 24 gauge inner liner fabricated from galvanized steel. Post and panel construction allows for large access panels to permit full access to internal components. The structural integrity of the cabinets remain unaffected by the removal of any or all access panels.

Unit panels shall consist of 1" thick 1.5lb fiberglass insulation sandwiched between galvanized steel exterior and interior panels. Panels are fastened with captured thumb-screws that hold panels in place with a closed cell neoprene gasket in between the panel and the post to prevent thermal bridging from the interior to the exterior of the unit.

Coils are 1/2 inch staggered tube type construction with seamless copper tubes and headers, and deep corrugated aluminum fins with straight edges. Fins are manufactured with full depth collars, drawn in the fin stock to provide accurate control of fin spacing and completely cover the copper tubes to lengthen coil life. The tubes are mechanically expanded into the fins for a permanent primary to secondary surface bond, assuring maximum heat transfer efficiency. The coils are to be tested at 450 pounds air pressure for operation at 300 PSI gauge working pressure.

Drain pans are made from an UL94-5V rated, rigid PVC material with a three-way slope for positive drainage.

Fan Wheels are double width, double inlet (DWDI), forward curved, centrifugal type. They are statically and dynamically balanced for smooth, quiet operation. The Class I housing is constructed of heavy gauge steel with die-formed inlet cones.

STANDARD FEATURES (CONT)

Motors and Drives: Belt drive motors are standard duty, 1725 RPM, open, drip-proof construction. Single phase and most three phase motors are resilient mount with automatic reset thermal protection. Motor sheaves are variable pitch, cast iron with a split-tapered hub.

Blower and Motor mounting platform is constructed from 12 gauge LFQ (lock forming quality) galvanized steel. Platform is mounted to cabinet support rails with rubber in compression isolators for quiet vibration free operation. Blower exits cabinet through rubber-isolated frame.

Filter Section includes 2" pleated Merv 7 disposable type fiberglass filters. The 2" filter section is an integral part of the cabinet with easy tool free access. Merv 8,11 and 13 available on request.

OPTIONS

Coils are available with 2 circuit options for high or low flow applications. Coil rows options include 1, 2, 4, or 6 rows with a maximum total of 10 rows.

Drain pan options include stainless steel with an insulating coating.

Electric Heat: Discharge mounted electric heat available in a wide range of KW's and voltages. Available voltages are 120/1/60, 208/230/1/60, 277/1/60, 208/230/460/3/60, 575/3/60, 110/220/1/50, and 220/380/440-3-50.

Spring Isolators: Kits are available by unit size and coil rows with and without mixing boxes.

Motor options include 2-speed, TEFC, or (HE) High Efficient. Voltage options include 120/1/60, 208/1/60, 240/1/60, 277/1/60, 208/3/60, 240/3/60, 480/3/60, 575/3/60. Contact Factory for availability of 50HZ motors.

Motor Control Box: For use with standard motors with internal overload protection. The 986C control box is factory installed and wired. Features include a Disconnect switch, HOA switch, power fusing, motor contactor, 24V control transformer and low voltage terminal block.

Motor Control Starters: For use with non-standard motors without internal overload protection. The 986FR starter box is factory installed and wired. Features include a non-fused disconnect switch with thru-the-door pad lockable handle, HOA switch, built-in overload and magnetic trip, 24V control transformer and low voltage terminal block.

Filter Section options include Double Wall flat filter sections available for filters up to 4". Double Wall angled filter sections accept 2" and 4" (4" only available for unit sized 16-80) deep filters. Filters are arranged in a "V" formation. Double wall access doors are standard on flat and angled filter sections.

Mixing Boxes are double wall construction with parallel blade, interconnecting outside-air and return-air dampers. Damper blades include stiffing breaks and are attached with 1/2" diameter steel rods rotating in nylon bushings and mounted in rigid galvanized steel frames. Dampers are rated as low-leakage, having a leakage rate not to exceed 2% of airflow. Damper blades are gasketed and include edge seal strips.

GUIDE SPECIFICATIONS

Part 1 — General

1.01 SECTION INCLUDES

- A. Air Handling Units

1.02 REFERENCES

- AFBMA 9 – Load Ratings and Fatigue Life for Ball Bearings
- AMCA 99 – Standards Handbook
- AMCA 210 – Laboratory Methods for Testing Fans for Rating Purposes
- AMCA 300 – Test Code for Sound Rating Air Moving Devices
- AMCA 500 – Test Methods for Louver, Dampers, and Shutters
- AG.ARI 430 – Central-Station Air-Handling Units
- ARI 435 – Application of Central-Station Air-Handling Units
- NEMA MGI – Motors and Generators
- NFPA 70 – National Electric Code
- SMACNA – HVAC Duct Construction Standards – Metal and Flexible
- UL 900 – Test Performance of Air Filter Units
- UL 1995 – Standard for Heating and Cooling Equipment

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. Computer generated fan curves for each air handling unit shall be submitted with specific design operating point noted. A computer generated psychometric chart 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, filter assembly, and filter frames.
 - 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. Manufacturer: Company specializing in manufacturing the Products Specified in this section with a minimum 10 years documented experience, which issues complete catalog data on total product.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle product to site
- B. Accept products on site on factory-installed shipping skids. Inspect for damage.
- C. 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, bearings lubricated, 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 Co.

2.02 CASING

- A. Unit panels shall consist of 1" thick 1.5lb fiberglass insulation sandwiched between galvanized steel exterior and interior panels. Panels are fastened to post with captured thumb-screws that hold panels in place with a closed cell neoprene gasket in between the panel and the post to prevent thermal bridging from the interior to the exterior of the unit.
- B. Removable panels on both sides of unit shall provide full access to unit components. Blower and filter access panels shall have tool free fasteners.
- C. Drain pans shall be an UL94-5 rated, rigid PVC material with a three way slope for positive drainage of condensate. Optional drain pan shall be heavy gauge stainless steel with an insulating coating. Secondary drain connections shall extend to cabinet exterior to comply with International Building Code and International Mechanical Code. Drain pans shall be removable for cleaning or replacement without removing coils or disturbing coil connections. Coil vents and drains shall be accessible from separate access panel.

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. Bearings shall be self-aligning , ball or roller bearings.
- C. Fan and motor mounting platform shall be a minimum of 12 gauge LFQ galvanized steel.

2.04 DRIVES

- A. Shafts shall be solid, hot rolled steel, ground and polished, keyed to shaft, and protectively coated with lubricating oil. Hollow shafts are not acceptable.
- B. V-belt drives shall be cast iron or steel sheaves, dynamically balanced, bored to fit shafts and keyed. Variable and adjustable pitch sheaves selected so required RPM is obtained with sheaves set at mid-position and rated based on motor horsepower.

2.05 ELECTRICAL

- A. Motors: provide (ODP) (TEFC) type with (EPACT)(premium) efficiency. Electrical characteristics shall be as shown in schedule.

2.07 COOLING AND HEATING COIL SECTIONS

- A. Provide access to coils from connection side of unit for service and cleaning. Enclose coil headers and return bends fully within unit cabinet. Drain and vent connections shall be accessible by separate access panel. Coil connections must exit manifold panel through grommets on the exterior of unit casing to minimize air leakage and condensation inside panel assembly.
- 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, brazed at joints. Coil connections shall be copper with connection size to be determined by manufacturer based upon the most efficient coil circuiting. Vent connections shall be provided at the highest point of the header 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.

GUIDE SPECIFICATIONS (CONT.)

2.08 FILTERS

- A. Filter sections shall be Double wall construction.
- B. (Angled) (Flat) arrangement with (2") (4") deep pleated panel filters (4" only available for unit sized 16-80)
- C. Filter shall be MERV 8 , 11 or 13
- D. Filter media shall be UL 900listed, Class I or Class II.

2.09 MIXING BOXES

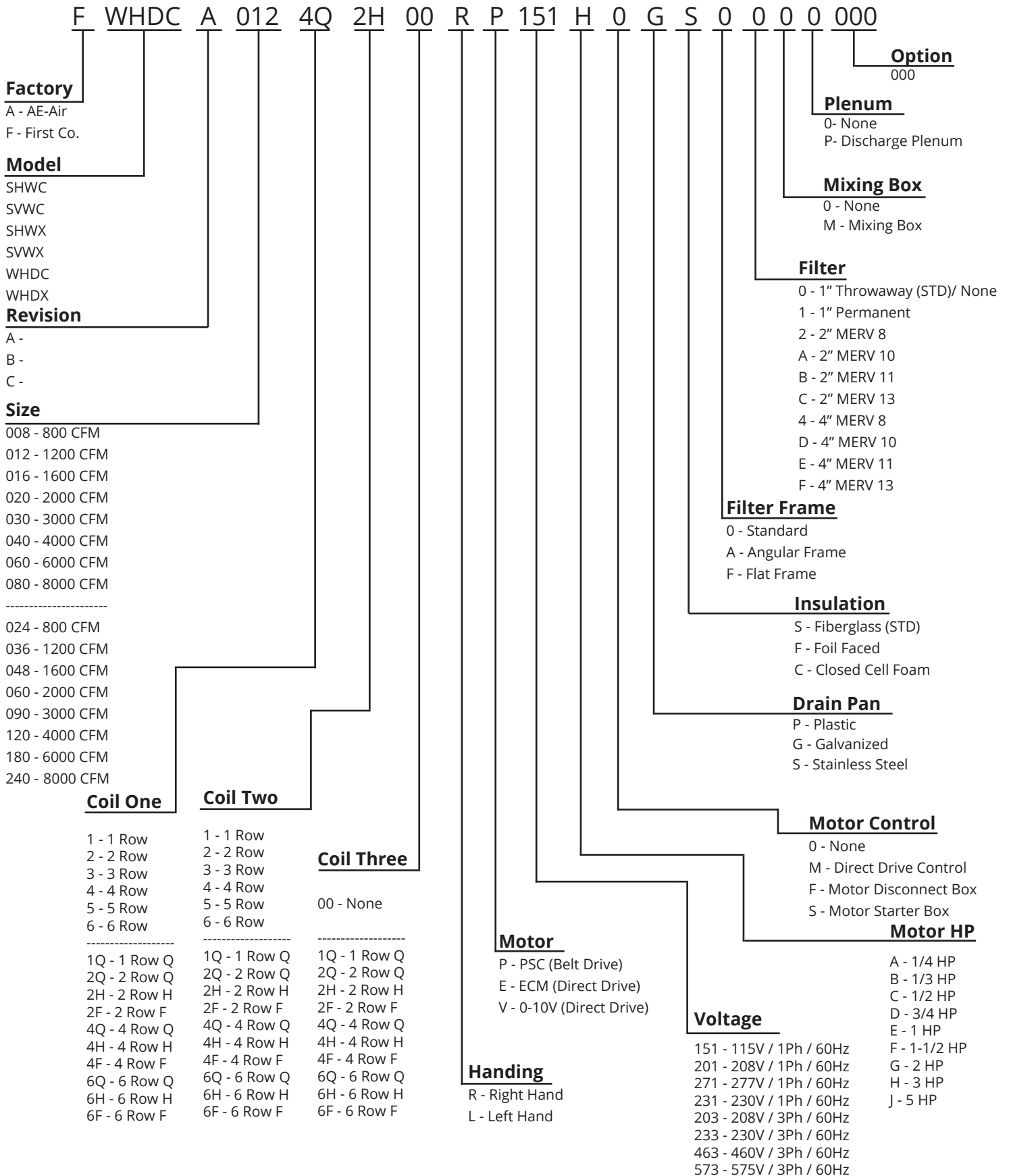
A. Optional mixing box consist of the same construction as described in "2.02 Casings." Section shall include factory mounted outside and return air dampers. Boxes shall be double wall construction with parallel blade, interconnecting outside-air and return-air dampers. Damper blades shall include stiffing breaks and attached with 1/2" diameter steel rods rotating in nylon bushings and mounted in rigid galvanized steel frames. Dampers shall be rated as low-leakage, having a leakage rate not to exceed 2% of airflow. Damper blades shall be gasketed and include edge seal strips.

Part 3 — Execution

3.01 INSTALLATION

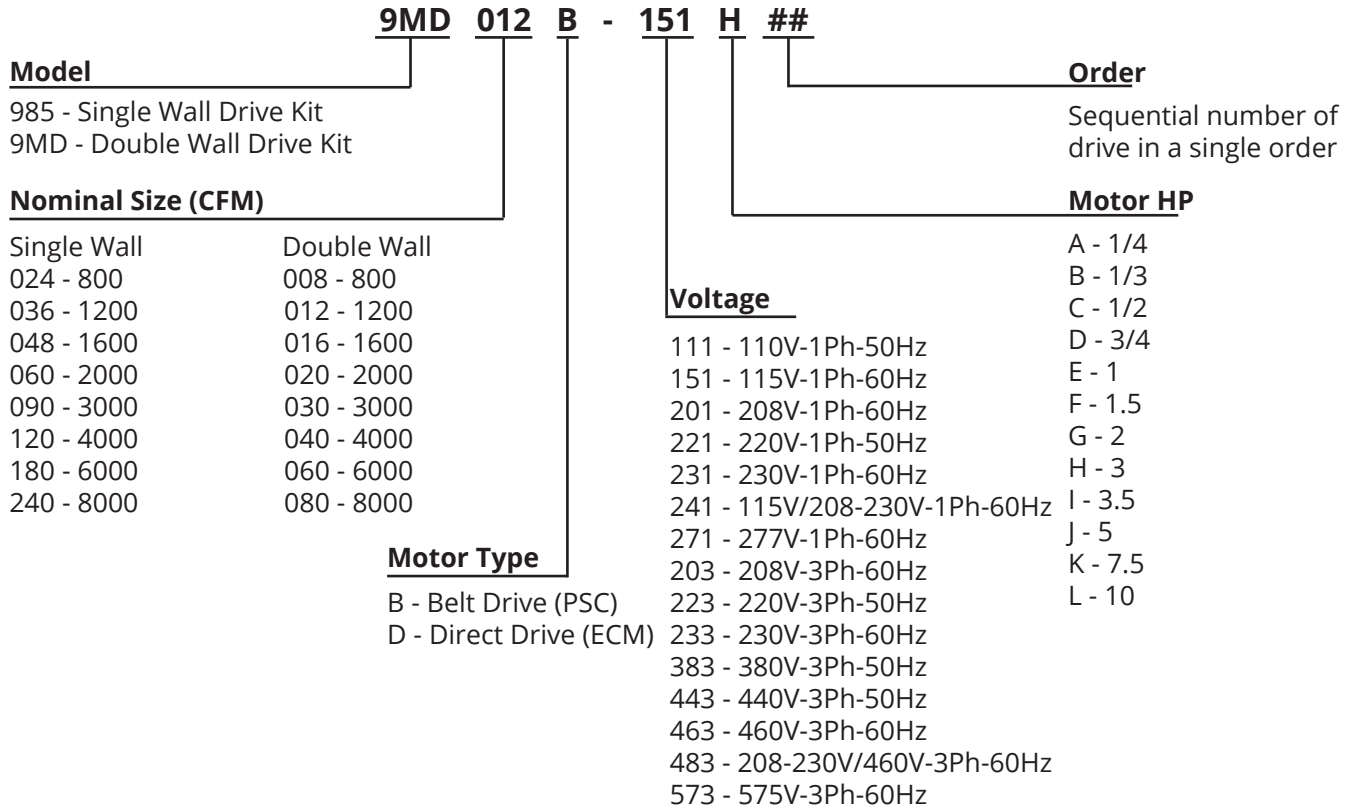
- A. Install in accordance with manufacturer's instructions.

NOMENCLATURE - Selection Procedure



NOMENCLATURE - Selection Procedure

Drive Kit Nomenclature:

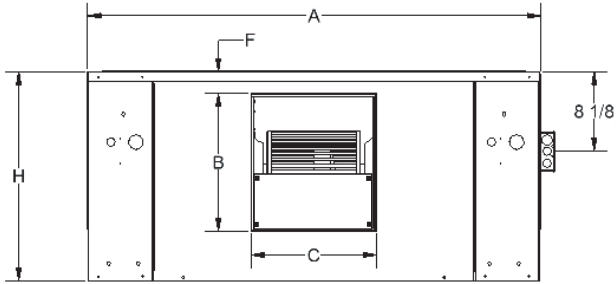


Required Order Information

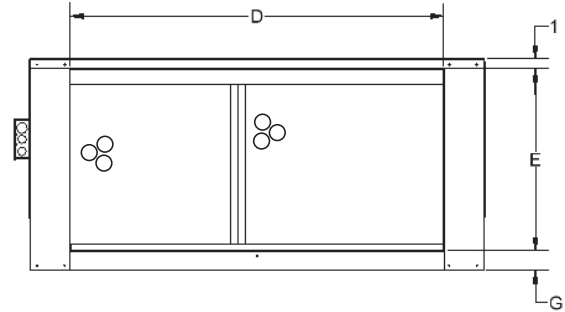
1. Model number with rows and circuit
2. CFM and external static pressure
3. Motor HP
4. Actual voltage motor is to be wired to
5. Hot water coil installed in preheat or reheat position
6. Hand connections with air hitting you in back of head

PHYSICAL DATA

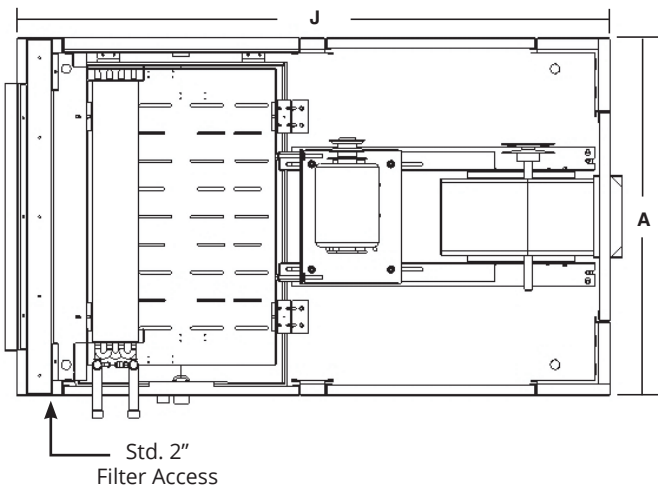
FRONT VIEW
Supply



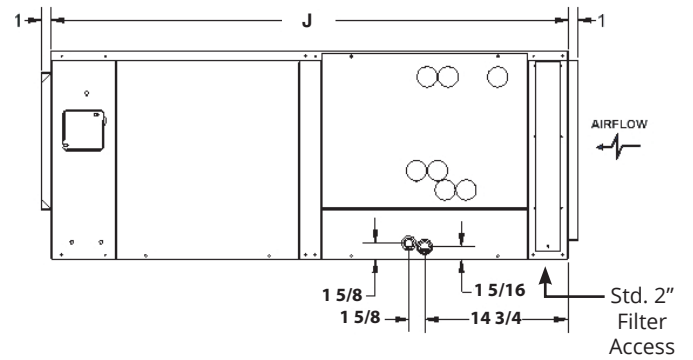
REAR VIEW
Return



PLAN VIEW



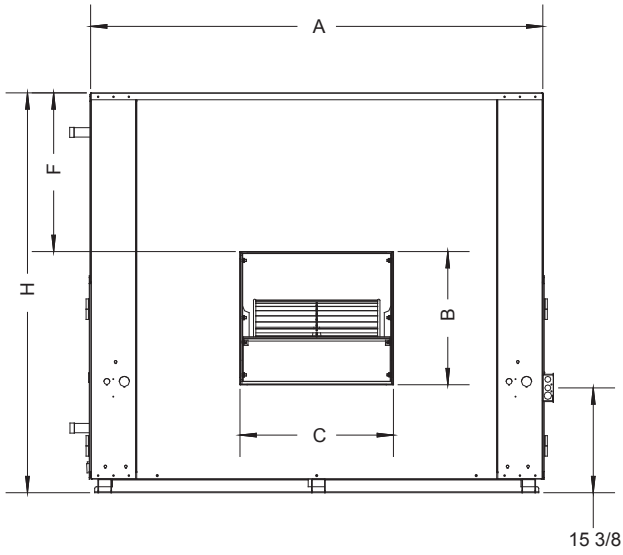
SIDE VIEW
Left Hand Connection



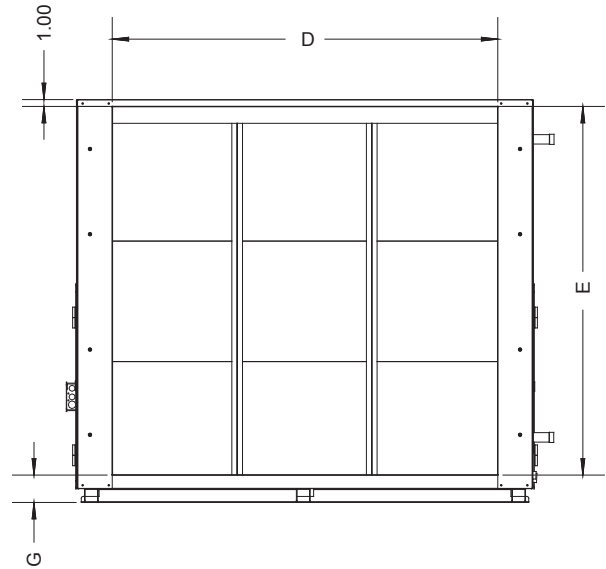
UNIT CABINET DIMENSIONS										
UNIT MODEL	A	B	C	D	E	F	G	H	J	FILTERS (MERV7)
8WHDC	32-1/4	10-7/8	7-1/2	24	16	1-3/4	2	19	53-1/4	(2) 16X25X2
12WHDC	36-1/4	10-7/8	8-7/8	24	16	1-3/4	2	19	53-1/4	(2) 16X25X2
16WHDC	40-1/4	12	10-1/4	32	18-1/2	2-1/4	2	21-1/2	53-1/4	(2) 18X20X2
20WHDC	46-1/4	14-1/8	12-7/8	38	18-1/2	2-1/4	2	21-1/2	53-1/4	(1) 18X20X2 (1) 18X24X2
30WHDC	46-1/4	16-1/2	15-1/4	36	31	8	2	34	66-1/8	(4) 16X20X2
40WHDC	57-1/4	16-1/2	19-1/4	47	31	7-7/8	2	34	66-1/8	(4) 16X25X2

PHYSICAL DATA (CONT.)

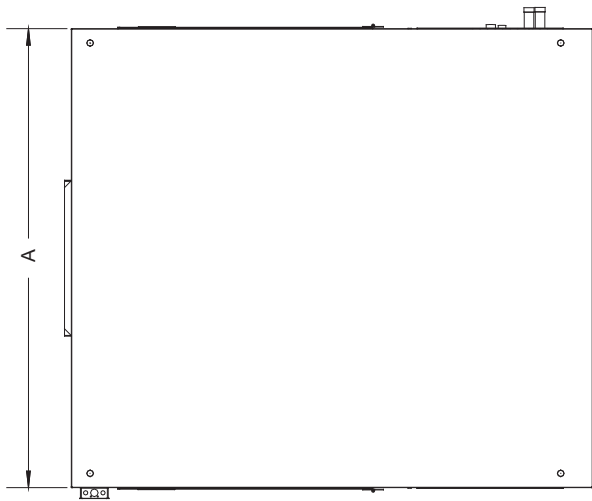
SUPPLY END



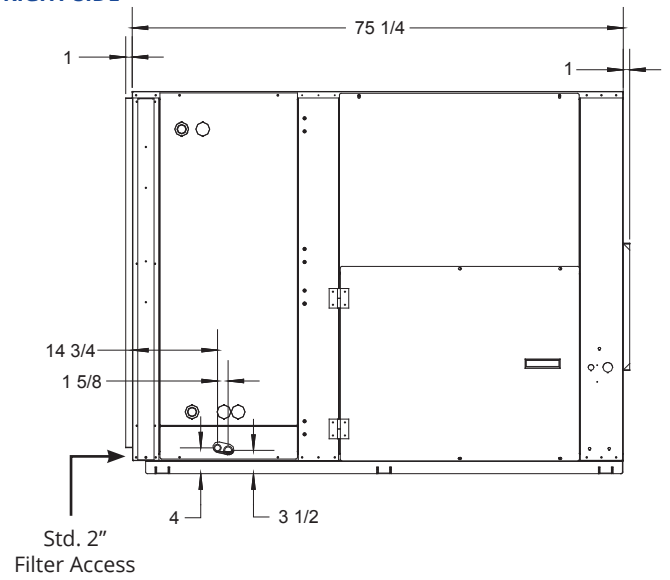
RETURN END



TOP VIEW

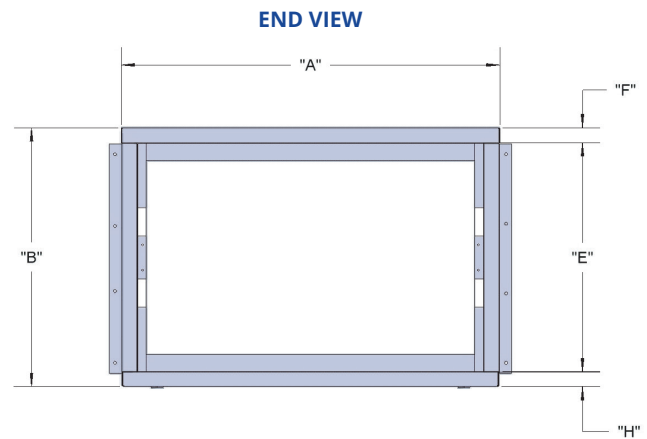
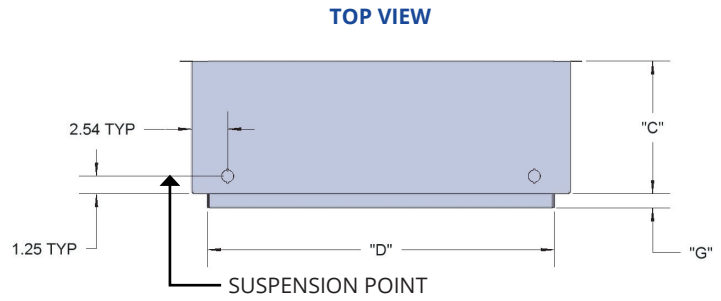
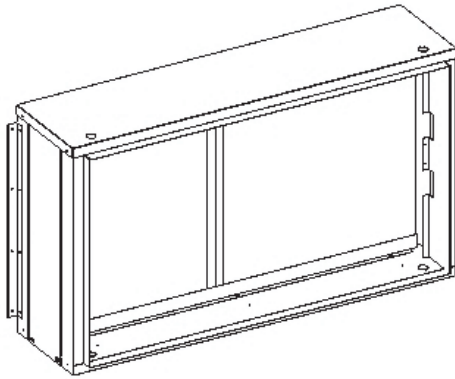


RIGHT SIDE



UNIT CABINET DIMENSIONS									
UNIT MODEL	A	B	C	D	E	F	G	H	FILTERS (MERV7)
60WHDC	66-1/4	19-1/2	22-1/2	56	41	10-3/4	4	44	(9) 15x20x2
80WHDC	66-1/4	19-1/2	22-1/2	56	53-1/2	23-1/4	4	58-1/2	(9) 18x20x2

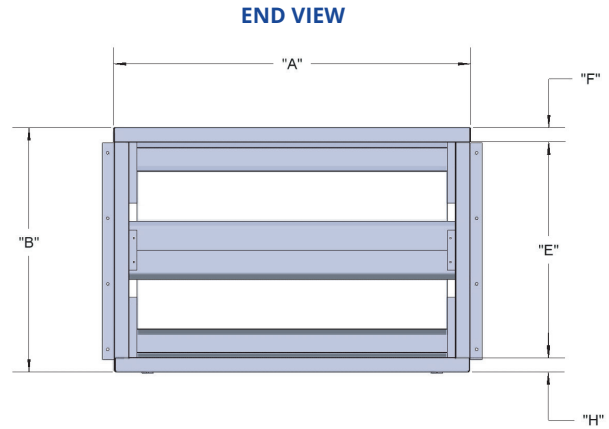
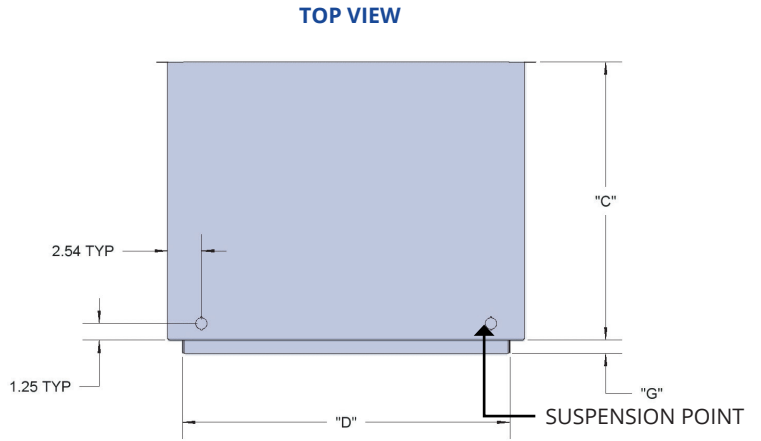
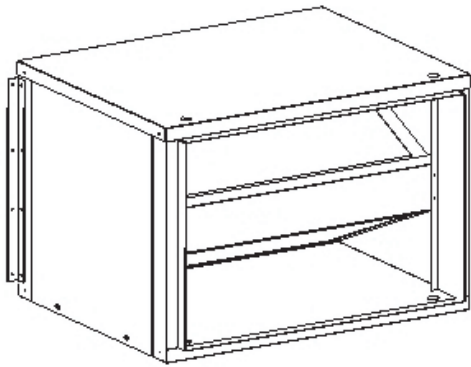
FILTERS - Optional Flat Filter Section



FLAT FILTER BOX											
UNIT SIZE	PART NUMBER	FILTER SIZE	A	B	C	D	E	F	G	H	FILTER SIZE (Qty)
8	9BDAF12F2 9BDAF12F4	2" 4"	26-13/16	18-3/8	9-7/16	24-1/2	16-1/4	1	1	1	(1) 25 X 16
12	9BDAF12F2 9BDAF12F4	2" 4"	26-13/16	18-3/8	9-7/16	24-1/2	16-1/4	1	1	1	(1) 25 X 16
16	9BDAF16F2 9BDAF16F4	2" 4"	37-1/4	21-1/2	9-7/16	35	19-3/4	1	1	1	(1) 16 X 20 (1) 20 X 20
20	9BDAF20F2 9BDAF20F4	2" 4"	41-1/4	21-1/2	9-7/16	39	19-3/4	1	1	1	(2) 20 X 20
30	9BDAF30F2 9BDAF30F4	2" 4"	41-13/16	34	9-3/8	39-5/8	32	1	1	1	(4) 16 X 20
40	9BDAF40F2 9BDAF40F4	2" 4"	51	34	9-3/8	48-7/8	32	1	1	1	(4) 16 X 25
60	9BDAF60F2 9BDAF60F4	2" 4"	61	44	9-3/8	58-7/8	42	1	1	1	(6) 20 X 20
80	9BDAF80F2 9BDAF80F4	2" 4"	61	56-1/2	9-3/8	58-7/8	54-1/4	1	1	1	(9) 20 X 18

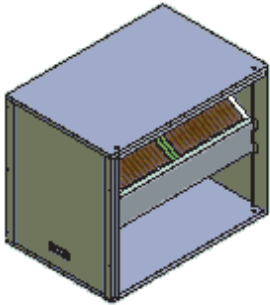
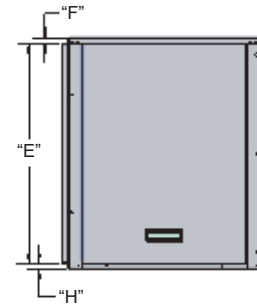
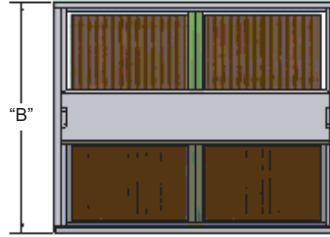
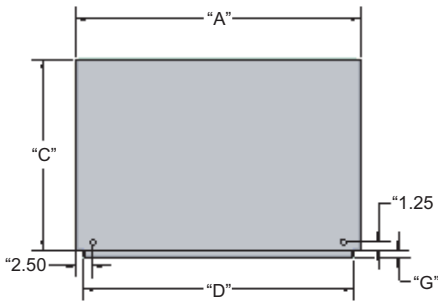
NOTE: Unit comes standard with 2" filter mounted in cabinet

FILTERS - Optional Angled Filter Section (Unit Size 8-20)



ANGLED FILTER BOX											
UNIT SIZE	PART NUMBER	FILTER SIZE	A	B	C	D	E	F	G	H	FILTER SIZE (Qty)
8	9BDAF12A2	2"	26.78	18.32	20.88	24.57	16.21	1	1	1	(2) 25 X 16
	9BDAF12A4	4"									
12	9BDAF12A2	2"	26.78	18.32	20.88	24.57	16.21	1	1	1	(2) 25 X 16
	9BDAF12A4	4"									
16	9BDAF16A2	2"	37.28	21.57	28.68	35.07	19.71	1	1	1	(2) 18 X 24
	9BDAF16A4	4"									
20	9BDAF20A2	2"	41.28	21.57	28.68	39.07	19.71	1	1	1	(2) 20 X 24
	9BDAF20A4	4"									

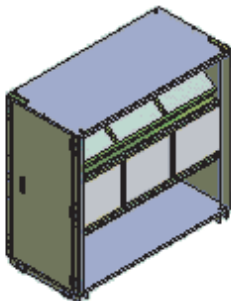
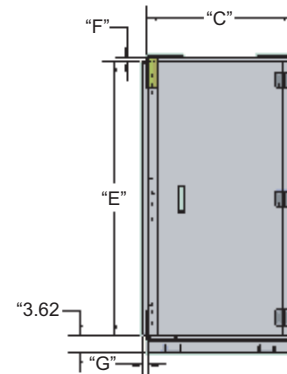
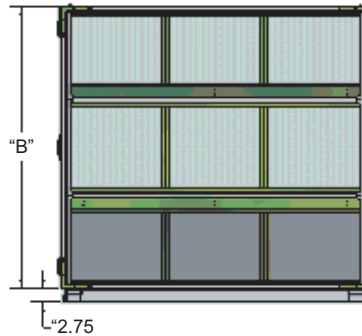
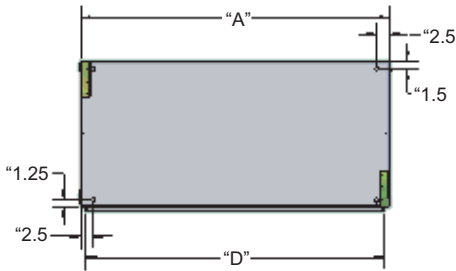
FILTERS - Optional Angled Filter Section (Unit Size 30-40)



ANGLED FILTER BOX											
UNIT SIZE	PART NUMBER	FILTER SIZE	A	B	C	D	E	F	G	H	FILTER SIZE (Qty)
30	9BDAF30A2	2"	41-13/16	34	28	39-5/8	32	1	1	1	(4) 20 X 25
	9BDAF30A4	4"									
40	9BDAF40A2	2"	51	34	27	48-7/8	32	1	1	1	(4) 16 X 24 (2) 18 X 24
	9BDAF40A4	4"									

NOTE: Unit comes standard with 2" filter mounted in cabinet

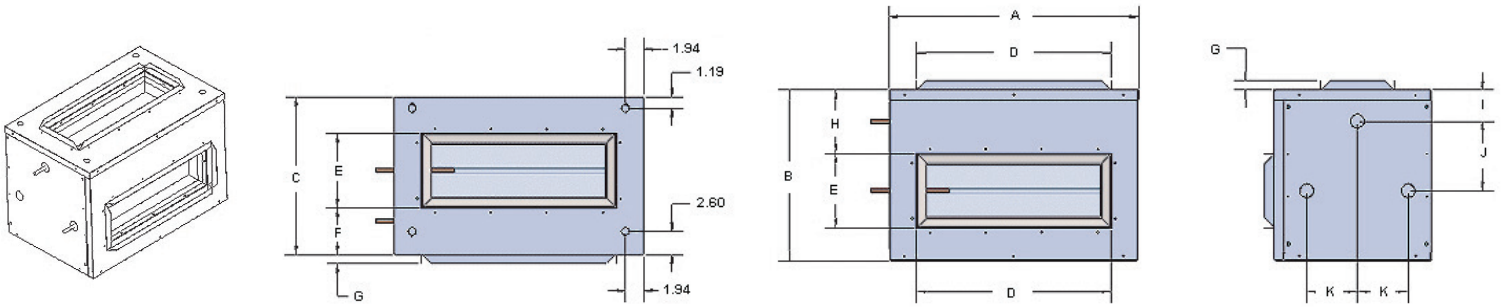
FILTERS - Optional Angled Filter Section (Unit Size 60-80)



ANGLED FILTER BOX											
UNIT SIZE	PART NUMBER	FILTER SIZE	A	B	C	D	E	F	G	H	FILTER SIZE (Qty)
60	9BDAF60A2	2"	61	44	21-3/8	58-7/8	42	1	1	1	(9) 16 X 20
	9BDAF60A4	4"									
80	9BDAF80A2	2"	61	56-1/2	28-1/2	58-7/8	54-1/4	1	1	1	(3) 20 X 18 (6) 20 X 25
	9BDAF80A4	4"									

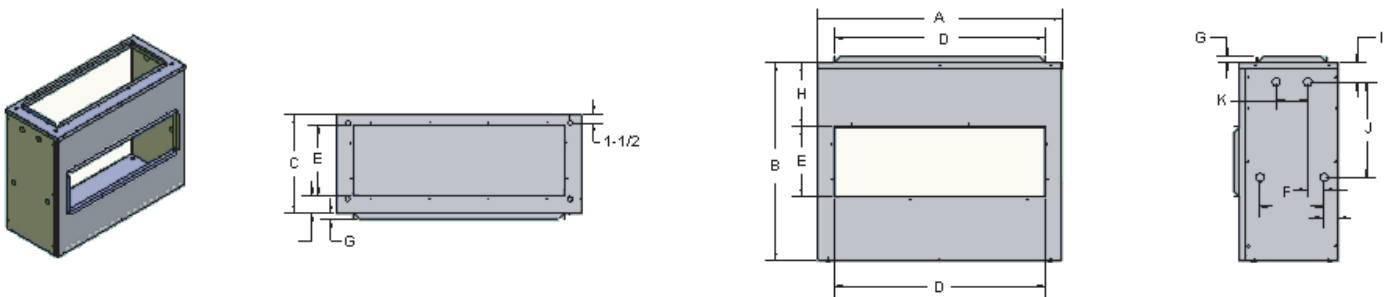
NOTE: Unit comes standard with 2" filter mounted in cabinet

MIXING BOX - Optional Angled Filter Section (Unit Size 8-20)



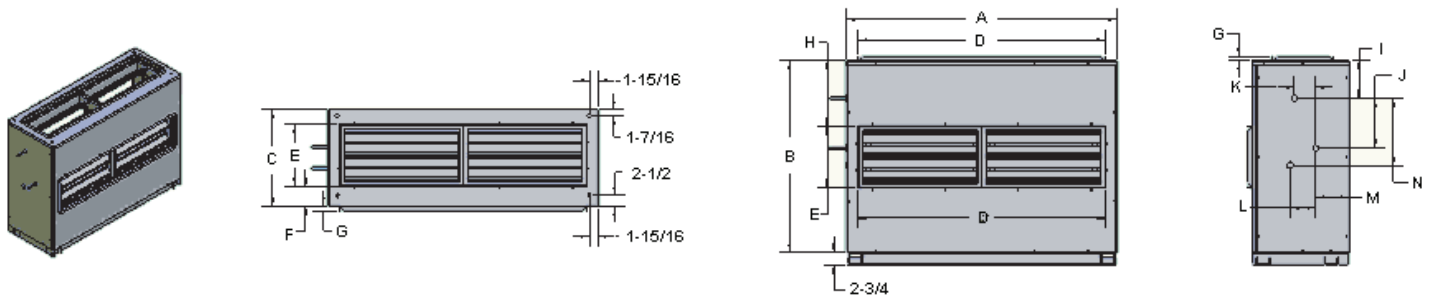
8-20 MIXING BOX DIMENSIONS											
UNIT MODEL	A	B	C	D	E	F	G	H	I	J	K
9BDAM08	26.78	18.31	16.91	21.00	8.00	5.00	1.00	6.81	3.35	7.48	5.44
9BDAM12	26.78	18.31	16.91	21.00	8.00	5.00	1.00	6.81	3.35	7.48	5.44
9BDAM16	37.28	21.57	16.91	32.00	10.00	4.00	1.00	8.05	3.35	9.71	5.44
9BDAM20	41.28	21.57	16.91	36.00	10.00	4.00	1.00	8.05	3.35	9.71	5.44

MIXING BOX - Optional Angled Filter Section (Unit Size 30-40)



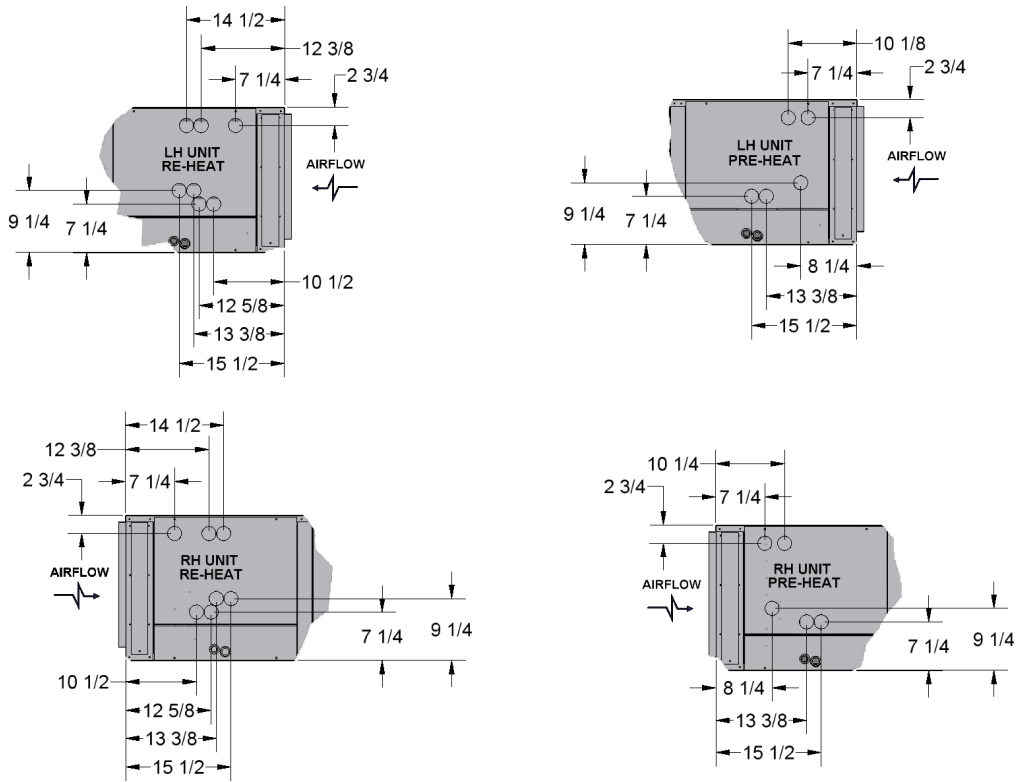
30-40 MIXING BOX DIMENSIONS											
UNIT MODEL	A	B	C	D	E	F	G	H	I	J	K
9BDAM30	37-13/16	34	16-15/16	36	12	3	1	11	3-3/8	16-3/8	5-3/8
9BDAM40	52-13/16	34	17	46	12	3	1	11	3-3/8	16-3/8	5-3/8

MIXING BOX - Optional Angled Filter Section (Unit Size 60-80)



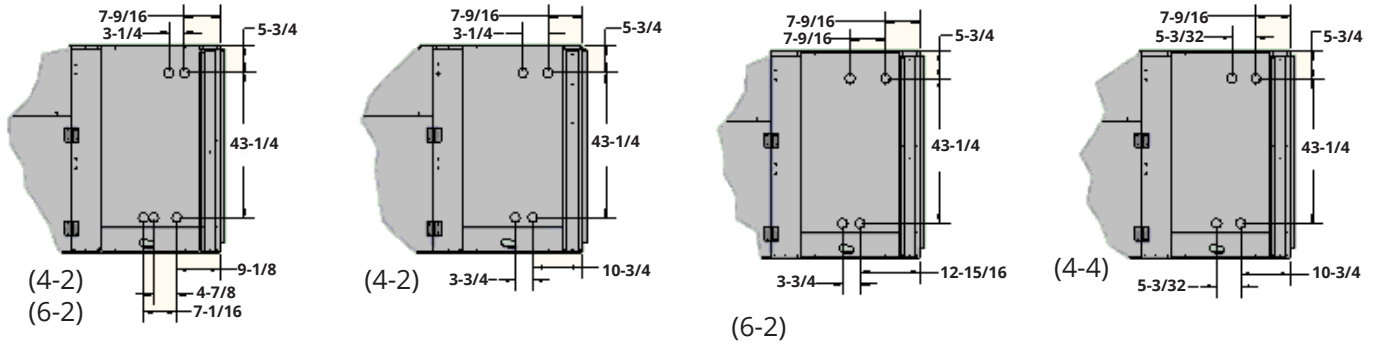
60-80 MIXING BOX DIMENSIONS														
UNIT MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N
9BDAM60	61	43-5/16	22	56	14	4-9/16	1	14-11/16	8-1/2	11-1/4	4-7/8	5-7/8	7-1/2	15-3/16
9BDAM80	61	55-7/8	22	56	14	4-9/16	1	20-15/16	8-1/2	17-1/2	4-7/8	5-13/16	7-9/16	21-7/16

HYDRONIC MANIFOLD - 8-40WHDC



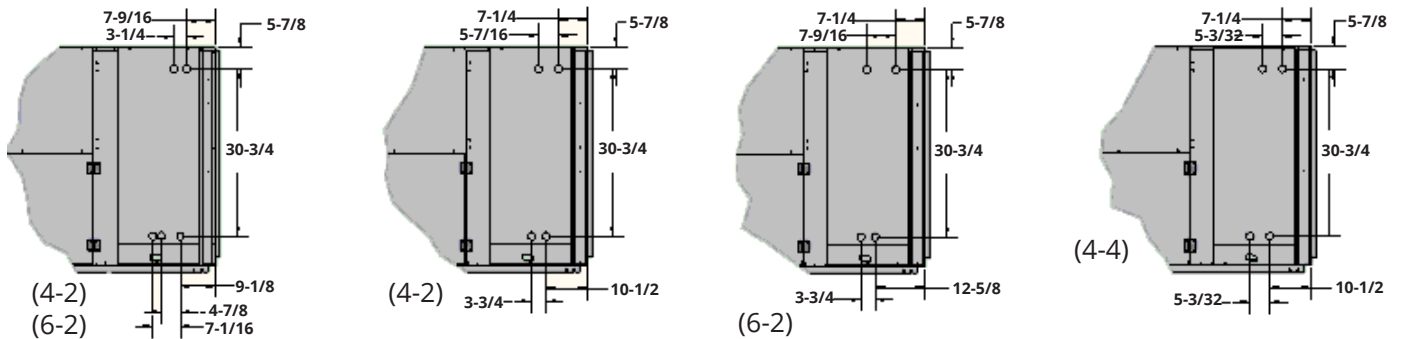
COIL MANIFOLD CONNECTIONS					PLASTIC CONDENSATE PAN CONNECTIONS		SS CONDENSATE PAN CONNECTIONS	
UNIT MODEL	1 ROW	2 ROW	4 ROW	6 ROW	PRIMARY	SECONDARY	PRIMARY	SECONDARY
8WHDC	7/8" O.D.	7/8" O.D.	7/8" O.D.	7/8" O.D.	3/4" PVC I.D.	1/2" PVC SLIP I.D.	3/4" MPT	3/4" MPT
12WHDC	7/8" O.D.	7/8" O.D.	7/8" O.D.	7/8" O.D.	3/4" PVC I.D.	1/2" PVC SLIP I.D.	3/4" MPT	3/4" MPT
16WHDC	7/8" O.D.	7/8" O.D.	1-1/8" O.D.	1-1/8" O.D.	3/4" PVC I.D.	1/2" PVC SLIP I.D.	3/4" MPT	3/4" MPT
20WHDC	7/8" O.D.	7/8" O.D.	1-1/8" O.D.	1-1/8" O.D.	3/4" PVC I.D.	1/2" PVC SLIP I.D.	3/4" MPT	3/4" MPT
30WHDC	1-3/8" O.D.	1-3/8" O.D.	1-3/8" O.D.	1-3/8" O.D.	3/4" PVC I.D.	1/2" PVC SLIP I.D.	3/4" MPT	3/4" MPT
40WHDC	1-3/8" O.D.	1-3/8" O.D.	1-3/8" O.D.	1-3/8" O.D.	3/4" PVC I.D.	1/2" PVC SLIP I.D.	3/4" MPT	3/4" MPT
COIL CONNECTIONS ARE COPPER SWEAT FITTINGS					PVC CONNECTIONS		MPT CONNECTIONS	

HYDRONIC MANIFOLD - 60WHDC



COIL MANIFOLD CONNECTIONS					PLASTIC CONDENSATE PAN CONNECTIONS		SS CONDENSATE PAN CONNECTIONS	
UNIT MODEL	1 ROW	2 ROW	4 ROW	6 ROW	PRIMARY	SECONDARY	PRIMARY	SECONDARY
60WHDC	1-3/8" O.D.	1-3/8" O.D.	1-3/8" O.D.	1-3/8" O.D.	3/4" PVC I.D.	1/2" PVC SLIP I.D.	3/4" MPT	3/4" MPT
COIL CONNECTIONS ARE COPPER SWEAT FITTINGS					PVC CONNECTIONS		MPT CONNECTIONS	

HYDRONIC MANIFOLD - 80WHDC



COIL MANIFOLD CONNECTIONS					PLASTIC CONDENSATE PAN CONNECTIONS		SS CONDENSATE PAN CONNECTIONS	
UNIT MODEL	1 ROW	2 ROW	4 ROW	6 ROW	PRIMARY	SECONDARY	PRIMARY	SECONDARY
80WHDC	1-3/8" O.D.	1-3/8" O.D.	1-3/8" O.D.	1-3/8" O.D.	3/4" PVC I.D.	1/2" PVC SLIP I.D.	3/4" MPT	3/4" MPT
COIL CONNECTIONS ARE COPPER SWEAT FITTINGS					PVC CONNECTIONS		MPT CONNECTIONS	

CHILLED WATER · COOLING PERFORMANCE - 8WHDC

8WHDC (4 ROW - QUARTER CIRCUIT) (45° EWT)																	
CFM	GPM	P.D. FT.	75 F DB / 63 F WB					80 F DB / 67 F WB					85 F DB / 71 F WB				
			TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB
600	4.1	2.7	16.2	13.3	8.1	54.1	53.5	20.4	14.9	10.2	56.5	55.8	25.2	16.7	12.4	59.1	58.3
800			18.3	16.0	9.3	56.0	54.9	22.9	17.9	11.5	58.8	57.7	33.4	21.9	16.3	59.6	58.8
1000			19.9	18.3	10.3	57.3	55.9	24.5	20.5	12.4	60.4	59.0	37.0	25.5	18.1	61.3	60.4
600	6.1	5.8	18.5	14.3	6.2	52.6	52.1	23.4	16.3	7.8	54.6	54.0	33.1	19.6	10.9	54.7	54.1
800			21.2	17.3	7.2	54.4	53.6	26.8	19.6	9.0	56.8	56.0	38.3	23.8	12.6	57.5	56.7
1000			23.1	19.9	7.9	55.8	54.8	29.0	22.4	9.8	58.6	57.5	43.2	27.8	14.2	59.3	58.3
600	8.1	9.8	19.8	14.9	5.0	51.6	51.2	25.4	17.2	6.4	53.3	52.8	25.2	16.7	12.4	59.1	58.3
800			23.1	18.2	5.9	53.4	52.7	29.4	20.8	7.4	55.5	54.9	27.8	19.8	13.9	61.7	60.6
1000			25.4	21.0	6.5	54.8	53.9	32.1	23.7	8.2	57.3	56.4	29.4	22.3	14.9	63.7	62.2

8WHDC (6 ROW - QUARTER CIRCUIT) (45° EWT)																	
CFM	GPM	P.D. FT.	75 F DB / 63 F WB					80 F DB / 67 F WB					85 F DB / 71 F WB				
			TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB
600	3.4	2.6	18.3	14.4	11.0	52.4	52.2	23.3	16.4	13.9	54.4	54.1	28.6	18.4	17.0	56.6	56.3
800			20.7	17.4	12.6	54.3	53.8	20.9	17.1	17.1	59.7	58.5	31.4	21.6	18.9	59.6	59.1
1000			22.6	20.0	14.0	55.6	55.0	22.4	19.4	13.8	61.4	59.7	33.1	24.4	20.1	61.8	61.0
600	5.4	4.6	17.8	14.0	6.7	53.1	52.5	22.7	16.0	8.5	55.1	54.5	34.2	20.7	12.8	53.1	53.0
800			20.3	16.9	7.8	54.9	54.0	25.6	19.1	9.7	57.4	56.5	39.1	24.7	14.7	56.1	55.8
1000			22.1	19.3	8.6	56.3	55.2	27.6	21.8	10.6	59.1	58.0	42.3	28.0	16.1	58.5	58.0
600	7.4	11.2	23.2	16.6	6.4	49.0	48.9	24.8	16.9	6.8	53.7	53.2	37.0	21.9	10.1	51.3	51.2
800			27.4	20.4	7.6	50.8	50.6	28.6	20.5	7.9	55.9	55.2	43.6	26.6	12.0	54.0	53.8
1000			30.5	23.7	8.5	52.3	52.0	31.2	23.4	8.7	57.7	56.8	48.2	30.4	13.3	56.3	56.0

Note: Capacities and pressure drops based on quarter Circuited coils. For lower pressure drops contact the factory for half to full circuit coils.

CHILLED WATER · COOLING PERFORMANCE - 12WHDC

12WHDC (4 ROW - QUARTER CIRCUIT) (45° EWT)																	
CFM	GPM	P.D. FT.	75 F DB / 63 F WB					80 F DB / 67 F WB					85 F DB / 71 F WB				
			TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB
1000	4.7	3.7	22.8	20.0	9.9	56.3	55.1	28.0	22.1	12.2	59.2	58.0	34.3	24.7	14.8	62.2	60.9
1200			24.4	22.3	10.8	57.4	55.9	29.5	24.5	13.1	60.5	59.0	36.0	27.2	15.7	63.8	62.2
1400			25.9	24.4	11.5	58.3	56.5	30.9	26.7	13.8	61.6	59.8	37.2	29.5	16.4	65.0	63.1
1000	6.7	7.3	26.0	21.6	7.9	54.8	53.9	32.5	24.2	9.9	57.4	56.4	40.1	27.1	12.1	60.0	59.0
1200			27.9	24.1	8.6	56.0	54.9	34.7	26.9	10.6	58.8	57.6	42.5	29.9	12.9	61.7	60.4
1400			29.4	26.2	9.2	57.0	55.6	36.2	29.3	11.3	60.0	58.6	44.2	32.3	13.6	63.2	61.6
1000	8.7	11.8	28.1	22.6	6.6	53.9	53.1	35.5	25.5	8.3	56.1	55.4	43.9	28.7	10.2	58.6	57.7
1200			30.3	25.3	7.2	55.1	54.1	38.1	28.4	9.0	57.7	56.6	47.0	31.8	11.0	60.3	59.2
1400			32.1	27.6	7.7	56.1	54.9	40.0	30.9	9.5	58.9	57.7	49.2	34.5	11.6	61.8	60.5

12WHDC (6 ROW - QUARTER CIRCUIT) (45° EWT)																	
CFM	GPM	P.D. FT.	75 F DB / 63 F WB					80 F DB / 67 F WB					85 F DB / 71 F WB				
			TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB
1000	4.0	3.8	25.8	21.8	13.2	54.5	54.0	32.0	24.4	16.3	57.2	56.7	38.9	27.0	19.7	60.0	59.4
1200			27.9	24.6	14.4	55.6	54.9	33.8	27.1	17.4	58.7	57.9	40.6	29.8	20.8	61.8	60.9
1400			29.5	26.9	15.5	56.5	55.5	35.4	29.5	18.4	59.8	58.8	42.0	32.3	21.7	63.2	62.1
1000	6.0	8.0	30.4	23.9	10.3	52.6	52.3	38.6	27.3	13.0	54.6	54.3	47.4	30.5	16.0	56.8	56.5
1200			32.8	26.9	11.2	53.9	53.4	41.3	30.4	14.1	56.2	55.7	50.5	33.8	17.1	58.7	58.2
1400			34.6	29.4	12.0	54.9	54.2	43.2	33.0	14.8	57.6	56.9	52.6	36.6	18.0	60.3	59.6
1000	8.0	13.7	33.4	25.4	8.5	51.3	51.1	42.7	29.1	10.8	53.0	52.7	52.8	32.8	13.3	54.8	54.5
1200			36.4	28.5	9.3	52.6	52.2	46.2	32.6	11.8	54.6	54.2	57.0	36.4	14.4	56.8	56.4
1400			38.6	31.3	10.0	53.7	53.1	48.9	35.6	12.6	55.9	55.5	60.1	39.6	15.4	58.4	57.9
1000	6.0	8.0	30.4	23.9	10.3	52.6	52.3	38.6	27.3	13.0	54.6	54.3	47.4	30.5	16.0	56.8	56.5
1200			32.8	26.9	11.2	53.9	53.4	41.3	30.4	14.1	56.2	55.7	50.5	33.8	17.1	58.7	58.2
1400			34.6	29.4	12.0	54.9	54.2	43.2	33.0	14.8	57.6	56.9	52.6	36.6	18.0	60.3	59.6
1000	8.0	13.7	33.4	25.4	8.5	51.3	51.1	42.7	29.1	10.8	53.0	52.7	52.8	32.8	13.3	54.8	54.5
1200			36.4	28.5	9.3	52.6	52.2	46.2	32.6	11.8	54.6	54.2	57.0	36.4	14.4	56.8	56.4
1400			38.6	31.3	10.0	53.7	53.1	48.9	35.6	12.6	55.9	55.5	60.1	39.6	15.4	58.4	57.9

Note: Capacities and pressure drops based on quarter Circuited coils. For lower pressure drops contact the factory for half to full circuit coils.

CHILLED WATER · COOLING PERFORMANCE - 16WHDC

16WHDC (4 ROW - QUARTER CIRCUIT) (45° EWT)																	
CFM	GPM	P.D. FT.	75 F DB / 63 F WB					80 F DB / 67 F WB					85 F DB / 71 F WB				
			TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB
1400	5.5	5.4	31.0	27.4	11.5	56.7	55.4	37.9	30.5	14.1	59.7	58.3	45.8	33.4	16.9	62.9	61.4
1600			32.6	29.7	12.2	57.4	55.9	39.6	33.0	14.8	60.6	59.1	47.4	36.0	17.6	64.0	62.3
1800			34.0	31.7	12.9	58.2	56.4	41.0	35.1	15.4	61.5	59.7	48.8	38.1	18.3	65.0	63.0
1400	8.5	12.1	36.1	30.0	8.7	54.9	54.0	45.6	33.8	10.9	57.5	56.5	55.7	37.6	13.2	60.2	59.1
1600			38.2	32.6	9.2	55.8	54.7	47.7	36.5	11.4	58.6	57.4	58.3	40.5	13.9	61.5	60.2
1800			39.9	34.9	9.7	56.6	55.3	49.5	38.9	12.0	59.6	58.1	60.1	43.0	14.5	62.6	61.1
1400	11.5	21.2	39.5	31.5	7.0	54.0	53.1	50.1	35.9	8.8	56.2	55.3	61.5	40.0	10.8	58.6	57.7
1600			41.8	34.4	7.4	54.8	53.8	52.9	38.9	9.4	57.3	56.3	64.8	43.3	11.4	59.9	58.8
1800			43.8	36.9	7.9	55.6	54.4	55.0	41.5	9.8	58.2	57.1	67.5	46.1	12.0	61.0	59.7

16WHDC (6 ROW - QUARTER CIRCUIT) (45° EWT)																	
CFM	GPM	P.D. FT.	75 F DB / 63 F WB					80 F DB / 67 F WB					85 F DB / 71 F WB				
			TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB
1400	4.0	4.3	32.7	28.9	16.7	55.7	54.9	39.3	31.8	19.9	58.9	58.1	53.9	37.4	27.0	60.3	56.9
1600			34.5	31.3	17.8	56.5	55.5	41.0	34.4	21.0	59.8	58.8	56.2	40.8	28.1	61.4	61.0
1800			36.1	33.6	18.8	57.2	56.0	42.6	36.7	22.0	60.7	59.4	59.3	44.4	29.7	62.2	61.7
1400	6.5	10.5	39.8	32.3	12.4	53.5	53.0	50.0	36.5	15.5	55.9	54.4	68.9	42.9	21.2	56.6	56.2
1600			42.0	35.0	13.2	54.4	53.8	52.2	39.3	16.3	57.1	56.4	73.4	47.0	22.6	57.8	57.4
1800			44.0	37.6	13.9	55.2	54.4	54.0	42.0	17.0	58.0	57.3	78.3	51.2	24.1	58.7	58.2
1400	9.0	19.0	44.8	34.6	10.1	52.0	51.7	57.1	39.6	12.8	53.9	53.5	77.2	46.1	17.2	54.5	54.1
1600			47.4	37.6	10.7	53.0	52.5	60.1	42.8	13.6	55.1	54.6	83.0	50.6	18.5	55.7	55.3
1800			49.7	40.4	11.3	53.8	53.2	62.5	45.7	14.2	56.1	55.6	89.3	55.3	19.8	56.6	56.1

Note: Capacities and pressure drops based on quarter Circuited coils. For lower pressure drops contact the factory for half to full circuit coils.

CHILLED WATER · COOLING PERFORMANCE - 20WHDC

20WHDC (4 ROW - QUARTER CIRCUIT) (45° EWT)																	
CFM	GPM	P.D. FT.	75 F DB / 63 F WB					80 F DB / 67 F WB					85 F DB / 71 F WB				
			TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB
1800	6.0	6.9	37.8	34.1	12.9	57.3	55.8	45.9	37.8	15.6	60.5	58.9	55.1	41.2	18.6	63.8	52.1
2000			39.4	36.3	13.5	57.9	56.2	47.5	40.1	16.2	61.2	59.5	56.6	43.7	19.2	64.7	62.7
2200			40.9	38.3	14.1	58.5	56.6	48.9	42.3	16.8	61.9	59.9	58.1	45.8	19.8	65.5	63.3
1800	8.5	13.2	43.0	36.9	10.3	55.9	54.7	53.5	41.1	12.8	58.8	57.5	65.0	45.5	15.5	61.7	60.3
2000			45.1	39.5	10.8	56.6	55.3	55.4	43.7	13.3	59.6	58.1	67.0	48.1	16.0	62.7	61.1
2200			46.8	41.8	11.3	57.2	55.7	56.9	46.1	13.7	60.3	58.7	68.6	50.5	16.5	63.6	61.8
1800	11.0	21.3	46.7	38.6	8.6	55.0	54.0	58.8	43.6	10.8	57.6	43.6	71.9	48.5	13.2	60.2	59.1
2000			48.8	41.4	9.0	55.7	54.5	61.1	46.3	11.6	58.5	57.2	74.3	51.3	13.7	61.2	59.9
2200			50.7	43.9	9.4	56.3	55.0	63.0	48.8	11.7	59.2	57.8	76.7	54.0	14.2	62.1	60.7

20WHDC (6 ROW - QUARTER CIRCUIT) (45° EWT)																	
CFM	GPM	P.D. FT.	75 F DB / 63 F WB					80 F DB / 67 F WB					85 F DB / 71 F WB				
			TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB
1800	4.5	5.9	40.1	36.0	18.2	56.3	55.3	47.7	39.4	21.6	59.6	58.6	56.1	42.7	25.3	63.0	61.9
2000			42.2	38.7	19.1	56.9	55.8	49.6	42.1	22.5	60.4	59.1	57.7	45.3	26.2	63.9	62.5
2200			43.6	40.7	20.0	57.5	56.2	51.3	44.6	23.4	61.0	59.6	59.4	47.7	27.1	64.7	63.1
1800	7.0	13.1	48.0	39.9	13.9	54.3	53.7	59.6	44.6	17.3	57.0	56.3	72.5	49.4	21.0	59.6	58.9
2000			50.3	42.8	14.7	55.0	54.2	61.9	47.7	17.9	57.9	57.1	74.4	52.1	21.6	60.8	59.9
2200			52.5	45.6	15.3	55.5	54.7	63.6	50.1	18.5	58.7	57.7	75.7	54.4	22.0	61.6	60.6
1800	9.5	23.0	53.8	42.6	11.5	52.9	52.5	68.1	48.5	14.5	55.0	54.6	83.4	54.0	17.7	57.3	56.9
2000			56.3	45.7	12.1	53.7	53.1	70.6	51.5	15.1	56.0	55.5	86.7	57.3	18.5	58.5	57.9
2200			58.4	48.4	12.6	54.3	53.7	72.9	54.3	15.6	56.9	56.2	88.6	59.7	18.9	59.3	58.6

Note: Capacities and pressure drops based on quarter Circuited coils. For lower pressure drops contact the factory for half to full circuit coils.

CHILLED WATER · COOLING PERFORMANCE - 30WHDC

30WHDC (4 ROW - QUARTER CIRCUIT) (45° EWT)																	
CFM	GPM	P.D. FT.	75 F DB / 63 F WB					80 F DB / 67 F WB					85 F DB / 71 F WB				
			TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB
2500	9.0	7.7	56.6	59.5	12.9	56.4	55.2	69.6	55.1	15.7	59.5	58.1	83.9	60.3	18.9	62.6	61.1
3000			61.1	55.5	14.0	57.5	55.9	73.8	61.0	16.8	60.9	59.1	88.0	66.5	20.0	64.3	62.4
3500			64.6	60.5	15.0	58.4	56.5	77.5	67.1	17.8	61.8	59.9	91.4	72.1	21.0	65.5	63.3
2500	12.0	13.1	63.3	52.9	10.7	55.2	54.2	79.3	59.4	13.4	57.9	56.8	96.4	65.7	16.3	60.7	59.5
3000			68.0	59.1	11.6	56.4	55.1	84.1	66.0	14.3	59.4	58.0	101.8	72.4	17.3	62.5	60.9
3500			72.0	64.5	12.5	57.4	55.8	88.1	72.0	15.1	60.5	58.9	105.6	78.4	18.1	63.9	62.1
2500	15.0	19.8	68.3	55.2	9.2	54.4	53.4	86.2	62.7	11.6	56.7	55.8	105.2	69.5	14.2	59.3	58.3
3000			73.5	62.1	10.0	55.5	54.4	92.0	69.5	12.5	58.3	57.1	112.3	77.0	15.2	61.1	59.8
3500			77.7	67.7	10.7	56.6	55.2	96.5	75.8	13.2	59.6	58.1	117.4	83.5	16.0	62.6	61.0

30WHDC (6 ROW - QUARTER CIRCUIT) (45° EWT)																	
CFM	GPM	P.D. FT.	75 F DB / 63 F WB					80 F DB / 67 F WB					85 F DB / 71 F WB				
			TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB
2500	8.0	8.9	64.1	54.2	16.4	54.7	54.0	78.2	60.0	19.9	57.7	56.9	94.1	66.0	23.8	60.6	59.8
3000			69.4	60.9	17.9	55.8	54.9	83.1	66.8	21.3	59.1	58.1	98.3	72.7	25.1	62.4	61.3
3500			73.8	66.8	19.2	56.8	55.6	87.4	73.2	22.6	60.2	58.9	102.3	78.8	26.3	63.8	62.3
2500	10.0	13.4	70.3	57.2	14.3	53.6	53.1	87.9	64.3	17.8	56.1	55.6	107.3	71.4	21.7	58.6	58.0
3000			75.9	64.1	15.6	54.8	54.1	93.1	71.3	19.0	57.8	57.0	112.2	78.5	22.8	60.7	59.8
3500			80.9	70.7	16.8	55.8	54.9	97.5	77.7	20.1	59.0	58.0	116.4	84.7	23.9	62.2	61.1
2500	12.0	18.7	75.7	59.6	12.8	52.8	52.3	95.7	67.8	16.1	54.8	54.4	117.4	75.6	19.8	57.1	56.6
3000			81.5	66.9	13.9	54.0	53.4	101.5	75.2	17.2	56.6	56.0	123.9	83.3	21.0	59.2	58.5
3500			86.6	73.4	14.9	55.0	54.3	106.3	81.9	18.2	57.9	57.1	128.3	90.0	21.9	60.9	60.0

Note: Capacities and pressure drops based on quarter Circuited coils. For lower pressure drops contact the factory for half to full circuit coils.

CHILLED WATER · COOLING PERFORMANCE - 40WHDC

40WHDC (4 ROW - QUARTER CIRCUIT) (45° EWT)																	
CFM	GPM	P.D. FT.	75 F DB / 63 F WB					80 F DB / 67 F WB					85 F DB / 71 F WB				
			TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB
3400	11.0	13	74.6	65.6	14.1	56.6	55.3	91.2	72.3	17.1	59.9	58.4	109.9	79.5	20.4	63.1	61.4
4000			79.7	72.2	15.2	57.7	56.0	95.9	79.4	18.1	61.1	59.3	114.7	86.7	21.4	64.6	62.5
4600			83.8	78.1	16.1	58.5	56.5	100.1	85.4	19.1	62.1	59.9	118.4	93.0	22.3	65.7	63.4
3400	13.0	17.6	79.3	67.6	12.6	56.1	54.8	98.4	75.6	15.5	59.0	57.6	119.6	83.7	18.7	62.0	60.5
4000			84.7	75.0	13.6	57.0	55.6	103.5	82.8	16.5	60.3	58.6	124.8	91.0	19.7	63.6	61.7
4600			89.3	81.2	14.5	57.9	56.1	107.7	89.5	17.3	61.3	59.4	128.8	97.7	20.5	64.8	62.7
3400	15	22.8	84.0	70.4	11.5	55.5	54.3	105.0	78.8	14.3	58.3	57.0	127.9	87.4	17.3	61.0	59.7
4000			89.5	77.7	12.4	56.5	55.2	110.6	86.3	15.2	59.6	58.1	133.8	95.1	18.3	62.7	61.0
4600			94.3	84.1	13.2	57.4	55.8	115.2	93.2	15.9	60.7	58.9	138.6	101.8	19.1	64	62.0

40WHDC (6 ROW - QUARTER CIRCUIT) (45° EWT)																	
CFM	GPM	P.D. FT.	75 F DB / 63 F WB					80 F DB / 67 F WB					85 F DB / 71 F WB				
			TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB
3400	8	10.4	77.4	68.1	20.1	55.9	55.0	91.8	74.1	23.7	59.4	58.3	108.3	80.9	27.7	62.8	61.6
4000			82.5	75.0	21.6	57.0	55.7	97.0	81.3	25.2	60.6	59.1	113.5	88.2	29.2	64.2	62.6
4600			86.3	80.6	22.9	57.9	56.3	101.5	88.3	26.7	61.5	59.8	117.8	95.2	30.7	65.2	63.4
3400	10.0	10.6	85.1	72.0	17.6	54.9	54.2	103.0	79.1	21.2	58.0	57.2	123.5	87.2	25.2	61.1	60.1
4000			91.0	79.6	19.0	55.9	55.0	108.7	87.2	22.5	59.2	58.2	128.6	94.8	26.4	62.7	61.4
4600			95.9	86.3	20.2	56.8	55.6	113.4	94.0	23.8	60.3	58.9	133.2	102.4	27.6	63.8	62.4
3400	11.5	20.2	90.1	74.5	16.1	54.3	53.7	110.8	83.0	19.7	57.1	56.4	134.0	91.5	23.7	59.9	59.1
4000			96.6	82.7	17.4	55.3	54.5	116.6	90.8	20.9	58.5	57.5	139.2	99.5	24.8	61.6	60.6
4600			102.0	89.8	18.6	56.2	55.2	121.8	98.4	22.0	59.5	58.4	173.7	106.9	25.8	62.9	61.7

Note: Capacities and pressure drops based on quarter Circuited coils. For lower pressure drops contact the factory for half to full circuit coils.

CHILLED WATER · COOLING PERFORMANCE - 60WHDC

60WHDC (4 ROW - HALF CIRCUIT) (45° EWT)																	
CFM	GPM	P.D. FT.	75 F DB / 63 F WB					80 F DB / 67 F WB					85 F DB / 71 F WB				
			TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB
5600	23.0	7.0	124.2	109.1	11.2	56.4	55.2	154.3	121.8	13.8	59.4	58.1	187.4	134.3	16.7	62.5	61.0
6000			127.8	113.8	11.6	56.9	55.5	157.7	126.4	14.2	60.0	58.5	190.9	139.1	17.0	63.2	61.5
6800			134.2	122.8	12.2	57.6	56.0	164.0	137.3	14.8	60.8	59.2	197.5	149.9	17.7	64.2	62.4
5600	27.0	9.5	132.7	113.5	10.2	55.7	54.6	166.3	127.4	12.6	58.5	57.4	204.5	141.8	15.4	61.4	60.1
6000			136.4	118.3	10.5	56.2	55.0	169.7	132.4	12.9	59.1	57.8	208.3	147.4	15.8	62.0	60.6
6800			143.1	127.1	11.1	57.0	55.6	177.7	142.4	13.6	60.1	58.5	215.9	157.0	16.4	63.2	61.6
5600	31.0	12.3	140.1	117.0	9.3	55.2	54.2	177.1	132.1	11.7	57.8	56.7	216.7	147.2	14.2	60.5	59.4
6000			143.8	122.2	9.6	55.6	54.5	181.0	136.9	12.0	58.4	57.2	222.5	153.1	14.6	61.1	59.9
6800			151.7	132.2	10.2	56.4	55.2	188.4	147.8	12.5	59.4	58.0	229.9	163.6	15.2	62.3	60.9

60WHDC (6 ROW - HALF CIRCUIT) (45° EWT)																	
CFM	GPM	P.D. FT.	75 F DB / 63 F WB					80 F DB / 67 F WB					85 F DB / 71 F WB				
			TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB
5600	17.0	5.2	132.6	115.8	16.1	55.4	54.7	160.3	127.4	19.4	58.6	57.7	193.3	139.8	23.2	61.6	60.7
6000			136.6	120.7	16.7	55.9	55.0	164.1	133.3	19.9	59.0	58.2	195.4	145.0	23.6	62.3	61.3
6800			143.9	130.6	17.7	56.6	55.5	171.0	143.0	20.9	60.0	58.9	201.9	154.6	24.5	63.5	62.2
5600	21.0	7.7	145.1	121.5	14.2	54.5	53.9	180.5	136.0	17.6	57.2	56.5	220.5	150.9	21.4	59.8	59.1
6000			149.3	126.8	14.7	54.9	54.2	184.4	141.4	18.0	57.8	57.0	223.6	156.1	21.8	60.6	59.8
6800			157.5	138.0	15.6	55.6	54.8	191.0	151.9	18.8	58.8	57.9	230.1	166.7	22.25	61.9	60.9
5600	25.0	10.6	156.5	126.9	12.9	53.6	53.1	196.6	143.5	16.1	56.0	55.5	243.6	160.7	19.8	58.3	57.8
6000			160.8	132.6	13.3	54.1	53.5	201.8	149.4	16.5	56.6	56.0	247.4	166.3	20.2	59.1	58.5
6800			169.1	143.2	14.0	54.9	54.2	209.8	160.1	17.3	57.7	56.9	256.8	177.4	21.0	60.5	59.6

Note: Capacities and pressure drops based on half Circuited coils. For lower pressure drops contact the factory for half to full circuit coils.

CHILLED WATER · COOLING PERFORMANCE - 80WHDC

80WHDC (4 ROW - HALF CIRCUIT) (45° EWT)																	
CFM	GPM	P.D. FT.	75 F DB / 63 F WB					80 F DB / 67 F WB					85 F DB / 71 F WB				
			TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB
6000	27.0	7.1	142.7	122.2	10.9	55.6	54.6	177.5	136.8	13.5	58.5	57.4	217.7	152.0	16.5	61.3	60.1
8000			159.2	144.1	12.5	57.5	55.9	195.1	162.4	15.1	60.6	59.1	234.4	176.7	18.0	63.9	62.2
10000			171.3	161.9	13.8	58.8	56.8	207.2	181.5	16.4	62.2	60.2	245.2	196.0	19.3	65.8	63.6
6000	32.0	9.8	153.1	127.3	9.9	54.9	54.0	194.0	143.9	12.4	57.4	56.5	237.5	160.0	15.1	60.0	59.0
8000			171.0	150.9	11.2	56.7	55.4	212.0	168.5	13.8	59.8	58.3	258.3	186.0	16.7	62.9	61.3
10000			184.6	170.9	12.5	58.0	56.3	224.3	189.0	15.0	61.4	59.6	270.1	207.3	17.8	64.8	62.8
6000	37.0	13.0	162.5	131.2	9.0	54.3	53.4	205.9	149.6	11.4	56.6	55.8	254.4	167.0	14.0	59.0	58.1
8000			181.7	156.6	10.3	56.1	54.9	227.6	175.6	12.8	59.0	57.7	279.2	194.9	15.6	61.9	60.5
10000			195.4	175.8	11.4	57.6	55.9	240.7	198.1	13.8	60.6	59.0	293.3	215.9	16.7	64.0	62.1

80WHDC (6 ROW - HALF CIRCUIT) (45° EWT)																	
CFM	GPM	P.D. FT.	75 F DB / 63 F WB					80 F DB / 67 F WB					85 F DB / 71 F WB				
			TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB	TOTAL MBH	SENSIBLE MBH	TEMP. RISE	LADB	LAWB
6000	22.0	6.0	156.9	130.8	14.7	54.3	53.7	194.9	146.6	18.2	57.0	56.4	239.1	162.8	22.2	59.6	58.9
8000			176.9	157.0	16.9	56.0	55.1	212.3	173.0	20.1	59.2	58.3	253.2	188.5	23.9	62.6	61.5
10000			190.8	177.7	18.8	57.3	56.1	226.1	194.8	22.0	60.8	59.5	265.3	211.8	25.6	64.3	63.0
6000	27.0	8.8	172.2	138.0	13.1	53.2	52.8	217.2	156.5	16.5	55.5	55.1	268.8	175.3	20.3	57.7	57.3
8000			192.9	164.6	15.1	55.1	54.4	237.4	184.0	18.3	58.0	57.2	288.2	202.9	22.0	60.9	60.1
10000			209.2	187.1	16.7	56.5	55.4	251.9	206.7	19.8	59.7	58.6	300.7	225.4	23.4	63.1	61.9
6000	32.0	12.1	185.2	143.9	11.9	52.3	52.0	237.5	165.2	15.1	54.1	53.8	292.2	185.0	18.5	56.3	55.9
8000			207.8	172.1	13.6	54.3	53.7	261.3	193.8	16.9	56.9	56.2	319.5	215.6	20.5	59.5	58.8
10000			225.5	196.5	15.1	55.6	54.8	275.2	217.2	18.2	58.8	57.8	333.8	239.4	21.8	61.8	60.8

Note: Capacities and pressure drops based on half Circuited coils. For lower pressure drops contact the factory for half to full circuit coils.

HEATING PERFORMANCE - 8-20WHDC

8WHDC

8WHDC (1 ROW COIL) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
600	3.0	1.0	30.7	20.6	115.0
800			35.2	23.6	108.7
1000			38.9	25.8	103.9
600	5.0	2.7	33.6	13.5	119.4
800			39.1	15.7	113.1
1000			43.8	17.5	108.3
600	8.0	6.6	35.5	9.0	122.3
800			41.9	10.5	116.1
1000			47.2	11.8	111.3

8WHDC (2 ROW COIL - HALF CIRCUIT) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
600	3.0	0.4	43.1	29.1	133.6
800			49.8	33.5	124.9
1000			54.9	36.7	118.2
600	5.0	1.2	48.3	19.6	141.4
800			57.1	23.1	133.2
1000			64.2	25.9	126.6
600	8.0	1.9	48.8	12.4	142.1
800			57.9	14.6	134.0
1000			65.2	16.4	127.4

12WHDC

12WHDC (1 ROW COIL) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
1000	4.0	1.8	44.6	22.4	109.2
1200			48.5	24.2	105.3
1400			51.6	25.8	102.2
1000	7.0	5.3	49.1	14.2	113.5
1200			53.8	15.5	109.6
1400			58.1	16.6	106.4
1000	10.0	10.4	51.3	10.4	115.5
1200			56.6	11.4	111.6
1400			61.3	12.3	108.4

12WHDC (2 ROW COIL - HALF CIRCUIT) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
1000	4.0	0.8	63.8	32.3	126.4
1200			69.5	35.0	121.0
1400			73.9	37.2	116.5
1000	7.0	2.3	72.7	21.1	134.7
1200			80.3	23.3	129.4
1400			87.0	25.1	124.9
1000	10.0	4.06	77.1	15.7	138.6
1200			85.8	17.4	133.5
1400			93.7	18.9	129.2

16WHDC

16WHDC (1 ROW COIL) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
1400	4.0	1.2	56.1	28.4	105.4
1600			59.4	29.9	102.7
1800			62.4	31.2	100.3
1400	7.5	4.1	64.7	17.5	110.9
1600			69.0	18.6	108.1
1800			73.1	19.6	105.7
1400	11.0	8.5	68.6	12.6	113.5
1600			73.5	13.5	110.6
1800			78.1	14.3	108.2

16WHDC (2 ROW COIL - HALF CIRCUIT) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
1400	4.0	0.7	80.3	40.7	120.9
1600			84.8	42.9	116.9
1800			88.9	44.8	113.5
1400	7.5	2.4	96.4	26.1	131.2
1600			103.3	27.9	127.3
1800			109.6	29.5	123.9
1400	11.0	5.1	103.8	19.2	136.0
1600			112.0	20.7	132.2
1800			119.5	22.0	128.8

20WHDC

20WHDC (1 ROW COIL) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
1800	5.0	2.0	72.1	28.9	105.1
2000			74.6	30.1	102.9
2200			77.6	31.2	101.0
1800	8.0	4.8	80.2	20.1	109.1
2000			83.5	21.1	106.9
2200			87.2	22.0	105.0
1800	11.0	8.8	84.5	15.4	111.3
2000			88.3	16.2	109.1
2200			92.5	17.0	107.1

20WHDC (2 ROW COIL - HALF CIRCUIT) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
1800	5.0	1.1	103.1	41.7	120.7
2000			107.3	43.5	117.6
2200			111.4	45.1	114.8
1800	8.0	2.8	118.7	30.1	128.5
2000			124.6	31.6	125.3
2200			130.4	33.0	122.5
1800	11.0	5.2	127.2	23.4	132.7
2000			134.2	24.8	129.7
2200			141.0	26.0	126.9

HEATING PERFORMANCE - 30-80WHDC

30WHDC

30WHDC (1 ROW COIL) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
2500	9.0	2.3	114.2	25.6	110.3
3000			124.2	27.7	106.4
3500			133.0	29.5	103.2
2500	12.0	3.9	121.0	20.4	112.8
3000			132.4	22.2	108.8
3500			142.4	23.7	105.6
2500	15.0	6.0	125.6	16.9	114.4
3000			137.9	18.5	110.5
3500			148.7	19.9	107.3

30WHDC (2 ROW COIL - HALF CIRCUIT) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
2500	9.0	0.9	162.4	36.6	127.6
3000			176.7	39.7	122.1
3500			188.4	42.3	117.5
2500	12.0	1.5	175.6	29.7	132.4
3000			192.8	32.5	126.9
3500			207.1	34.9	122.3
2500	15.0	2.3	184.4	25.0	135.5
3000			203.7	27.5	130.2
3500			220.1	29.7	125.7

40WHDC

40WHDC (1 ROW COIL) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
3400	8.0	2.0	141.1	35.5	106.5
4000			151.1	37.9	103.1
4600			160.0	39.8	100.3
3400			153.1	28.1	109.7
4000	11.0	3.7	165.0	30.1	106.2
4600			175.7	31.9	103.4
3400			160.9	23.2	111.8
4000	14.0	5.8	174.2	25.0	108.3
4600			186.1	26.6	105.4

40WHDC (2 ROW COIL - HALF CIRCUIT) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
3400	8.0	0.7	194.6	49.3	120.7
4000			207.8	52.4	115.8
4600			219.1	55.0	111.8
3400			217.7	40.1	126.8
4000	11.0	1.4	234.6	43.1	121.8
4600			249.2	45.6	117.7
3400			233.1	33.8	130.8
4000	14.0	2.1	252.9	36.5	125.9
4600			270.2	38.9	121.8

60WHDC

60WHDC (1 ROW COIL) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
5200	11.0	2.5	215.7	39.3	106.4
6000			228.7	41.6	103.3
6800			239.6	43.5	100.8
5200	15.0	4.5	234.7	31.4	109.6
6000			250.3	33.4	106.5
6800			263.7	35.2	103.9
5200	19.0	7.0	247.2	26.1	111.8
6000			264.6	27.9	108.7
6800			279.8	29.5	106.1

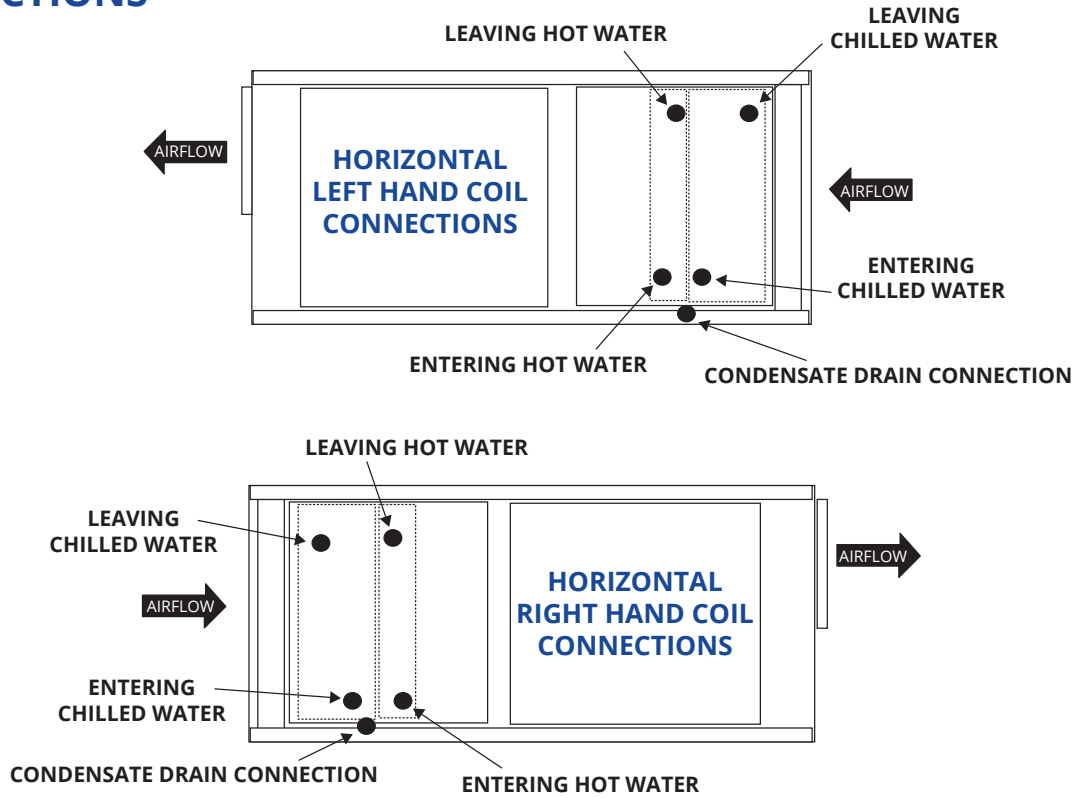
60WHDC (2 ROW COIL - HALF CIRCUIT) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
5200	11.0	1.1	293.7	53.9	119.8
6000			310.3	56.8	115.5
6800			324.2	59.3	111.9
5200	15.0	1.9	329.8	44.4	126.0
6000			351.4	47.3	121.7
6800			369.7	49.7	117.9
5200	19.0	3.0	354.3	37.7	130.3
6000			379.9	40.4	125.9
6800			401.9	42.7	122.2

80WHDC

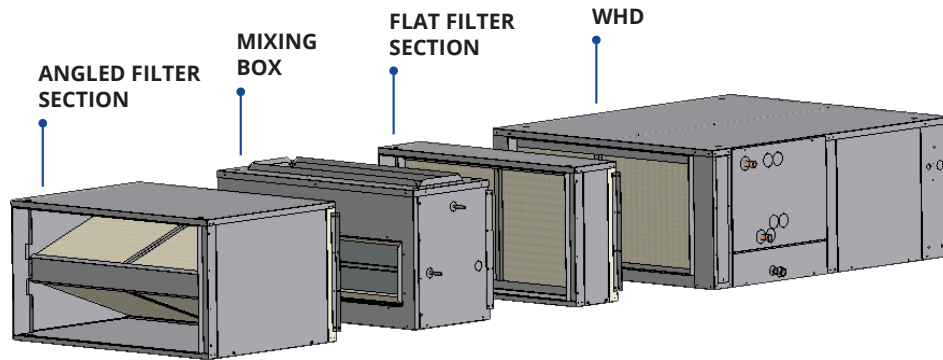
80WHDC (1 ROW COIL) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
6000	14.0	2.5	263.7	37.9	108.7
8000			301.2	42.4	102.5
10000			330.0	45.9	98.1
6000			284.0	31.6	111.4
8000	18.0	4.1	324.7	35.7	105.2
10000			358.7	38.9	100.6
6000			297.1	27.0	113.4
8000	22.0	6.0	341.9	30.8	107.1
10000			379.7	33.8	102.5

80WHDC (2 ROW COIL - HALF CIRCUIT) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
6000	14.0	1.4	360.4	52.1	123.1
8000			407.8	58.1	114.4
10000			442.6	62.4	108.1
6000			396.9	44.5	128.3
8000	18.0	2.2	452.0	50.3	119.5
10000			496.1	54.6	113.0
6000			421.9	38.7	132.1
8000	22.0	3.2	485.7	44.3	123.2
10000			537.0	48.5	116.6

CONNECTIONS



SERVICE CLEARANCE



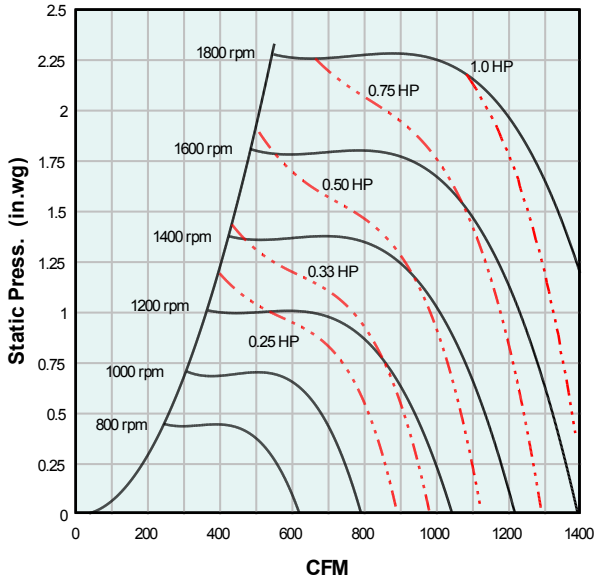
*MINIMUM SIDE SERVICE CLEARANCES (Same for LH or RH units)								
UNIT MODEL	MOTOR	BLOWER	FILTER SECTION	COIL	MOTOR CONTROL BOX	MIXING BOX	CABINET	
			FLAT OR ANGLD	ALL ROWS			TOP	BOTTOM
8WHDC	36.0"	36.0"	36.0"	36.0"	36.0"	36.0"	Allow extra space for spring isolators if applicable	If mounting unit on a platform, leave space for condensate trap
12WHDC	42.0"	42.0"	42.0"	42.0"	42.0"	42.0"		
16WHDC	48.0"	48.0"	48.0"	48.0"	48.0"	48.0"		
20WHDC	52.0"	52.0"	52.0"	52.0"	52.0"	52.0"		
30WHDC	52.0"	52.0"	52.0"	52.0"	52.0"	52.0"		
40WHDC	54.0"	54.0"	54.0"	54.0"	54.0"	54.0"		
60WHDC	64.0"	64.0"	64.0"	64.0"	64.0"	64.0"		
80WHDC	64.0"	64.0"	64.0"	64.0"	64.0"	64.0"		

NOTES:

*Minimum service clearances only allow for removal of largest unit component, it does not allow extra space for service access or local code requirements.
 Blower and motor access panels are on both sides of cabinet.
 Filter access is from either side of cabinet.

BLOWER CURVE - 2 ton/8WHDC

Size 08 Blower Curve



8WHDC											
CFM	CABINET	Componet Static Pressure (Inches of Water)									
		Chilled Water Coil				Hot Water Coil	Filter Sections				Mixing Box
		Dry Coil		Wet Coil		Dry Coil	2" Flat	4" Flat	2" Angled	4" Angled	
		4 Row	6 Row	4 Row	6 Row	*1-2 Row	Merv 7	Merv 7	Merv 7	Merv 7	
600	0.06	0.14	0.18	0.20	0.26	0.05	0.09	0.06	0.05	NA	.10
700	0.08	0.16	0.22	0.23	0.31	0.07	0.12	0.08	0.06		.13
800	0.10	0.19	0.26	0.27	0.37	0.09	0.15	0.10	0.08		.16
900	0.12	0.22	0.30	0.31	0.43	0.11	0.18	0.12	0.10		.20
1000	0.15	0.25	0.34	0.36	0.49	0.13	0.21	0.15	0.12		.24

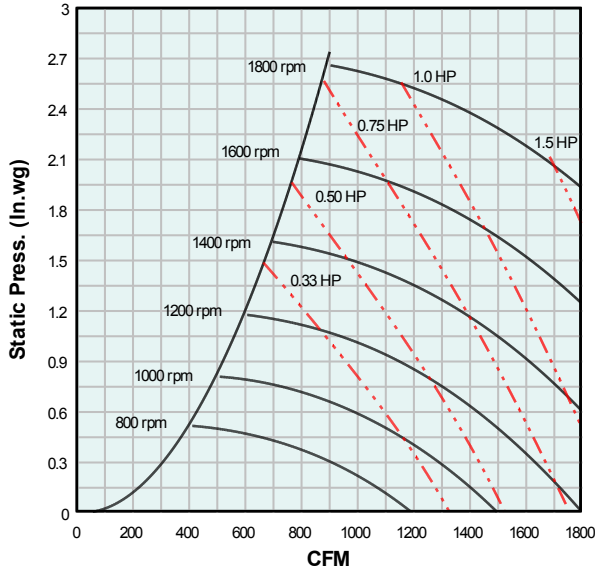
2 Ton (08) Horizontal Belt Drive Information			
HP	Voltage	Blower RPM	Motor / Drive Kit Number
1/4	277-1-60	825 - 1065	9MD008D-271A03
1/4	277-1-60	955 - 1240	9MD008D-271A08
1/3	115 / 208- 230-1-60	825 - 1065	9MD008D-241B02
1/3	277-1-60	825 - 1065	9MD008D-271B03
1/3	208 - 230 / 460-3-60	825 - 1065	9MD008D-483B04
1/3	575-3-60	825 - 1065	9MD008D-573B05
1/3	115 / 208- 230-1-60	955 - 1240	9MD008D-241B07
1/3	277-1-60	955 - 1240	9MD008D-271B08
1/3	208 - 230 / 460-3-60	955 - 1240	9MD008D-483B09
1/3	575-3-60	955 - 1240	9MD008D-573B10
1/3	115 / 208- 230-1-60	1020 - 1330	9MD008D-241B12
1/3	277-1-60	1020 - 1330	9MD008D-271B13
1/3	208 - 230 / 460-3-60	1020 - 1330	9MD008D-483B14
1/3	575-3-60	1020 - 1330	9MD008D-573B15

2 Ton (08) Horizontal Belt Drive Information			
HP	Voltage	Blower RPM	Motor / Drive Kit Number
1/2	115 / 208- 230-1-60	1020 - 1330	9MD008D-241C02
1/2	277-1-60	1020 - 1330	9MD008D-271C03
1/2	208 - 230 / 460-3-60	1020 - 1330	9MD008D-483C04
1/2	575-3-60	1020 - 1330	9MD008D-573C05
1/2	115 / 208- 230-1-60	1165 - 1520	9MD008D-241C07
1/2	277-1-60	1165 - 1520	9MD008D-271C08
1/2	208 - 230 / 460-3-60	1165 - 1520	9MD008D-483C09
1/2	575-3-60	1165 - 1520	9MD008D-573C10
3/4	115 / 208- 230-1-60	1165 - 1520	9MD008D-241D02
3/4	277-1-60	1165 - 1520	9MD008D-271D03
3/4	208 - 230 / 460-3-60	1165 - 1520	9MD008D-483D04
3/4	575-3-60	1165 - 1520	9MD008D-573D05
3/4	115 / 208- 230-1-60	1310 - 1710	9MD008D-241D07
3/4	277-1-60	1310 - 1710	9MD008D-271D08
3/4	208 - 230 / 460-3-60	1310 - 1710	9MD008D-483D09
3/4	575-3-60	1310 - 1710	9MD008D-573D10
1	115 / 208- 230-1-60	1310 - 1710	9MD008D-241E02
1	277-1-60	1310 - 1710	9MD008D-271E03
1	208 - 230 / 460-3-60	1310 - 1710	9MD008D-483E04
1	575-3-60	1310 - 1710	9MD008D-573E05

2 TON FAN PERFORMANCE																					
Model	CFM	TOTAL STATIC PRESSURE - INCHES OF WATER																			
		0.6		0.7		0.8		0.9		1.0		1.2		1.4		1.6		1.8		2.0	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
08	600	986	0.3	1044	0.3	1103	0.3	1161	0.4	1220	0.4	1333	0.5	1439	0.5	1538	0.6	1629	0.7	---	---
	700	1042	0.3	1087	0.3	1134	0.4	1183	0.4	1232	0.4	1333	0.5	1434	0.6	1531	0.6	1624	0.7	---	---
	800	1117	0.4	1153	0.4	1191	0.4	1230	0.4	1271	0.5	1356	0.5	1443	0.6	1531	0.7	1619	0.8	---	---
	900	1204	0.5	1234	0.5	1265	0.5	1298	0.5	1331	0.5	1401	0.6	1475	0.7	1551	0.7	1629	0.8	---	---
	1000	1298	0.6	1324	0.6	1351	0.6	1378	0.6	1406	0.6	1465	0.7	1527	0.7	1592	0.8	1659	0.9	---	---

BLOWER CURVE - 3 ton/12WHDC

Size 12 Blower Curve



12WHDC											
CFM	CABINET	Component Static Pressure (Inches of Water)								Mixing Box	
		Chilled Water Coil				Hot Water Coil	Filter Sections				
		Dry Coil		Wet Coil		Dry Coil	2" Flat	4" Flat	2" Angled		4" Angled
		4 Row	6 Row	4 Row	6 Row	*1-2 Row	Merv 7	Merv 7	Merv 7		Merv 7
1000	0.15	0.15	0.24	0.21	0.34	0.11	0.009	0.06	0.05	NA	0.24
1100	0.18	0.17	0.26	0.24	0.37	0.13	0.12	0.08	0.06		0.28
1200	0.22	0.20	0.29	0.29	0.41	0.15	0.15	0.10	0.08		0.33
1300	0.25	0.23	0.31	0.33	0.44	0.17	0.18	0.12	0.10		0.38
1400	0.29	0.26	0.35	0.37	0.50	0.19	0.21	0.15	0.12		0.43

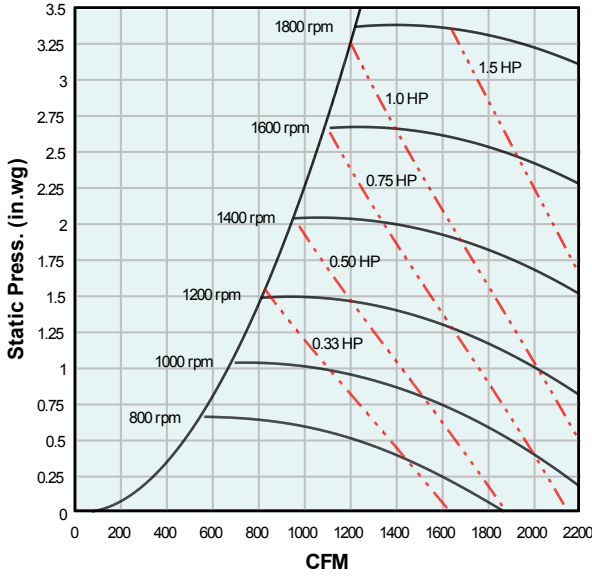
3 Ton (12) Horizontal Belt Drive Information			
HP	Voltage	Blower RPM	Motor / Drive Kit Number
1/3	115 / 208-230-1-60	695 - 890	9MD012D-241B02
1/3	277-1-60	695 - 890	9MD012D-271B03
1/3	208 - 230 / 460-3-60	695 - 890	9MD012D-483B04
1/3	575-3-60	695 - 890	9MD012D-573B05
1/3	115 / 208-230-1-60	825 - 1065	9MD012D-241B07
1/3	277-1-60	825 - 1065	9MD012D-271B08
1/3	208 - 230 / 460-3-60	825 - 1065	9MD012D-483B09
1/3	575-3-60	825 - 1065	9MD012D-573B10
1/3	115 / 208-230-1-60	955 - 1240	9MD012D-241B12
1/3	277-1-60	955 - 1240	9MD012D-271B13
1/3	208 - 230 / 460-3-60	955 - 1240	9MD012D-483B14
1/3	575-3-60	955 - 1240	9MD012D-573B15
1/2	115 / 208-230-1-60	695 - 890	9MD012D-241C02
1/2	277-1-60	695 - 890	9MD012D-271C03
1/2	208 - 230 / 460-3-60	695 - 890	9MD012D-483C04
1/2	575-3-60	695 - 890	9MD012D-573C05
1/2	115 / 208-230-1-60	825 - 1065	9MD012D-241C07
1/2	277-1-60	825 - 1065	9MD012D-271C08
1/2	208 - 230 / 460-3-60	825 - 1065	9MD012D-483C09
1/2	575-3-60	825 - 1065	9MD012D-573C10
1/2	115 / 208-230-1-60	955 - 1240	9MD012D-241C12
1/2	277-1-60	955 - 1240	9MD012D-271C13

3 Ton (12) Horizontal Belt Drive Information			
HP	Voltage	Blower RPM	Motor / Drive Kit Number
1/2	208 - 230 / 460-3-60	955 - 1240	9MD012D-483C14
1/2	575-3-60	955 - 1240	9MD012D-573C15
1/2	115 / 208-230-1-60	1165 - 1520	9MD012D-241C17
1/2	277-1-60	1165 - 1520	9MD012D-271C18
1/2	208 - 230 / 460-3-60	1165 - 1520	9MD012D-483C19
1/2	575-3-60	1165 - 1520	9MD012D-573C20
3/4	115 / 208-230-1-60	825 - 1065	9MD012D-241D02
3/4	277-1-60	825 - 1065	9MD012D-271D03
3/4	208 - 230 / 460-3-60	825 - 1065	9MD012D-483D04
3/4	575-3-60	825 - 1065	9MD012D-573D05
3/4	115 / 208-230-1-60	955 - 1240	9MD012D-241D07
3/4	277-1-60	955 - 1240	9MD012D-271D08
3/4	208 - 230 / 460-3-60	955 - 1240	9MD012D-483D09
3/4	575-3-60	955 - 1240	9MD012D-573D10
3/4	115 / 208-230-1-60	1165 - 1520	9MD012D-241D12
3/4	277-1-60	1165 - 1520	9MD012D-271D13
3/4	208 - 230 / 460-3-60	1165 - 1520	9MD012D-483D14
3/4	575-3-60	1165 - 1520	9MD012D-573D15
3/4	115 / 208-230-1-60	1235 - 1610	9MD012D-241D17
3/4	277-1-60	1235 - 1610	9MD012D-271D18
3/4	208 - 230 / 460-3-60	1235 - 1610	9MD012D-483D19
3/4	575-3-60	1235 - 1610	9MD012D-573D20
1	115 / 208-230-1-60	1075 - 1400	9MD012D-241E02
1	277-1-60	1075 - 1400	9MD012D-271E03
1	208 - 230 / 460-3-60	1075 - 1400	9MD012D-483E04
1	575-3-60	1075 - 1400	9MD012D-573E05
1	115 / 208-230-1-60	1310 - 1710	9MD012D-241E07
1	277-1-60	1310 - 1710	9MD012D-271E08
1	208 - 230 / 460-3-60	1310 - 1710	9MD012D-483E09
1	575-3-60	1310 - 1710	9MD012D-573E10
1-1/2	115 / 208-230-1-60	1310 - 1710	9MD012D-241F02
1-1/2	277-1-60	1310 - 1710	9MD012D-271F03
1-1/2	208 - 230 / 460-3-60	1310 - 1710	9MD012D-483F04
1-1/2	575-3-60	1310 - 1710	9MD012D-573F05

3 TON FAN PERFORMANCE																					
Model	CFM	TOTAL STATIC PRESSURE - INCHES OF WATER																			
		0.6		0.7		0.8		0.9		1.0		1.2		1.4		1.6		1.8		2.0	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
12	1000	1028	0.4	1077	0.4	1125	0.4	1171	0.5	1215	0.50	1301	0.6	1383	0.6	1461	0.7	1536	0.7	---	---
	1100	1068	0.5	1114	0.5	1159	0.5	1203	0.5	1246	0.6	1329	0.6	1408	0.7	1483	0.7	1556	0.8	---	---
	1200	1111	0.5	1155	0.5	1198	0.6	1239	0.6	1280	0.6	1360	0.7	1436	0.8	1509	0.8	1579	0.9	---	---
	1300	1157	0.6	1198	0.6	1239	0.7	1279	0.7	1318	0.7	1394	0.8	1467	0.9	1537	0.9	1606	1	---	---
	1400	1205	0.7	1244	0.7	1283	0.8	1321	0.8	1358	0.8	1431	0.9	1501	1.0	1569	1.0	1635	1.1	---	---

BLOWER CURVE - 4 ton/16WHDC

Size 16 Blower Curve



16WHDC											
CFM	CABINET	Component Static Pressure (Inches of Water)									
		Chilled Water Coil				Hot Water Coil	Filter Sections				Mixing Box
		Dry Coil		Wet Coil		Dry Coil	2" Flat	4" Flat	2" Angled	4" Angled	
		4 Row	6 Row	4 Row	6 Row	*1-2 Row	Merv 7	Merv 7	Merv 7	Merv 7	
1200	0.12	0.17	0.22	0.24	0.31	0.10	0.10	0.08	0.04	0.08	.12
1400	0.16	0.21	0.26	0.30	0.37	0.13	0.14	0.10	0.06	0.10	.16
1600	0.20	0.25	0.31	0.36	0.44	0.16	0.18	0.13	0.08	0.12	.21
1800	0.24	0.29	0.36	0.41	0.51	0.19	0.22	0.17	0.10	0.15	.27
2000	0.28	0.33	0.41	0.47	0.59	0.22	0.27	0.21	0.12	0.19	.33

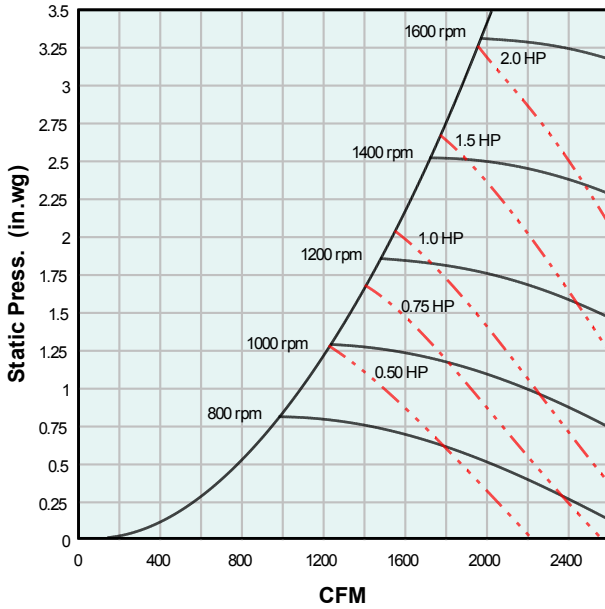
4 Ton (16) Horizontal Belt Drive Information			
HP	Voltage	Blower RPM	Motor / Drive Kit Number
1/3	115 / 208 - 230-1-60	695 - 890	9MD016D-241B02
1/3	277-1-60	695 - 890	9MD016D-271B03
1/3	208 - 230 / 460-3-60	695 - 890	9MD016D-483B04
1/3	575-3-60	695 - 890	9MD016D-573B05
1/2	115 / 208 - 230-1-60	695 - 890	9MD016D-241C02
1/2	277-1-60	695 - 890	9MD016D-271C03
1/2	208 - 230 / 460-3-60	695 - 890	9MD016D-483C04
1/2	575-3-60	695 - 890	9MD016D-573C05
1/2	115 / 208 - 230-1-60	825 - 1065	9MD016D-241C07
1/2	277-1-60	825 - 1065	9MD016D-271C08
1/2	208 - 230 / 460-3-60	825 - 1065	9MD016D-483C09
1/2	575-3-60	825 - 1065	9MD016D-573C10
1/2	115 / 208 - 230-1-60	955 - 1240	9MD016D-241C12
1/2	277-1-60	955 - 1240	9MD016D-271C13
1/2	208 - 230 / 460-3-60	955 - 1240	9MD016D-483C14
1/2	575-3-60	955 - 1240	9MD016D-573C15
3/4	115 / 208 - 230-1-60	695 - 890	9MD016D-241D02
3/4	277-1-60	695 - 890	9MD016D-271D03
3/4	208 - 230 / 460-3-60	695 - 890	9MD016D-483D04
3/4	575-3-60	695 - 890	9MD016D-573D05
3/4	115 / 208 - 230-1-60	825 - 1065	9MD016D-241D07

4 Ton (16) Horizontal Belt Drive Information			
HP	Voltage	Blower RPM	Motor / Drive Kit Number
3/4	277-1-60	825 - 1065	9MD016D-271D08
3/4	208 - 230 / 460-3-60	825 - 1065	9MD016D-483D09
3/4	575-3-60	825 - 1065	9MD016D-573D10
3/4	115 / 208 - 230-1-60	955 - 1240	9MD016D-241D12
3/4	277-1-60	955 - 1240	9MD016D-271D13
3/4	208 - 230 / 460-3-60	955 - 1240	9MD016D-483D14
3/4	575-3-60	955 - 1240	9MD016D-573D15
3/4	115 / 208 - 230-1-60	1075 - 1400	9MD016D-241D17
3/4	277-1-60	1075 - 1400	9MD016D-271D18
3/4	208 - 230 / 460-3-60	1075 - 1400	9MD016D-483D19
3/4	575-3-60	1075 - 1400	9MD016D-573D20
1	115 / 208 - 230-1-60	825 - 1065	9MD016D-241E02
1	277-1-60	825 - 1065	9MD016D-271E03
1	208 - 230 / 460-3-60	825 - 1065	9MD016D-483E04
1	575-3-60	825 - 1065	9MD016D-573E05
1	115 / 208 - 230-1-60	955 - 1240	9MD016D-241E07
1	277-1-60	955 - 1240	9MD016D-271E08
1	208 - 230 / 460-3-60	955 - 1240	9MD016D-483E09
1	575-3-60	955 - 1240	9MD016D-573E10
1	115 / 208 - 230-1-60	1075 - 1400	9MD016D-241E12
1	277-1-60	1075 - 1400	9MD016D-271E13
1	208 - 230 / 460-3-60	1075 - 1400	9MD016D-483E14
1	575-3-60	1075 - 1400	9MD016D-573E15
1	115 / 208 - 230-1-60	1235 - 1610	9MD016D-241E17
1	277-1-60	1235 - 1610	9MD016D-271E18
1	208 - 230 / 460-3-60	1235 - 1610	9MD016D-483E19
1	575-3-60	1235 - 1610	9MD016D-573E20
1-1/2	115 / 208 - 230-1-60	1235 - 1610	9MD016D-241F02
1-1/2	277-1-60	1235 - 1610	9MD016D-271F03
1-1/2	208 - 230 / 460-3-60	1235 - 1610	9MD016D-483F04
1-1/2	575-3-60	1340 - 1620	9MD016D-573F05

4 TON FAN PERFORMANCE																															
Model	CFM	TOTAL STATIC PRESSURE - INCHES OF WATER																													
		0.6		0.7		0.8		0.9		1.0		1.2		1.4		1.6		1.8		2.0		2.25		2.5		2.75		3.0			
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
16	1400	907	0.5	949	0.5	990	0.5	1030	0.6	1069	0.6	1144	0.7	1216	0.7	1285	0.8	1352	0.9	1416	0.9	1493	1.0	1568	1.1	---	---	---	---	---	---
	1500	933	0.5	974	0.6	1013	0.6	1051	0.6	1089	0.7	1161	0.7	1231	0.8	1298	0.9	1363	1.0	1426	1.0	1501	1.1	1575	1.2	---	---	---	---	---	---
	1600	961	0.6	1000	0.6	1037	0.7	1074	0.7	1110	0.7	1180	0.8	1248	0.9	1313	1.0	1376	1.0	1437	1.1	1512	1.2	1583	1.3	---	---	---	---	---	---
	1700	990	0.7	1027	0.7	1063	0.8	1099	0.8	1134	0.8	1201	0.9	1267	1.0	1330	1.0	1391	1.1	1451	1.2	1524	1.3	1593	1.4	---	---	---	---	---	---
	1800	1020	0.8	1055	0.8	1090	0.8	1125	0.9	1158	0.9	1224	1.0	1287	1.1	1349	1.1	1408	1.2	1466	1.3	1538	1.4	1607	1.5	---	---	---	---	---	---

BLOWER CURVE - 5 ton/20WHDC

Size 20 Blower Curve



20WHDC													
CFM	CABINET	Componet Static Pressure (Inches of Water)											
		Chilled Water Coil				Hot Water Coil		Filter Sections				Mixing Box	
		Dry Coil		Wet Coil		Dry Coil	2" Flat		4" Flat		2" Angled		
		4 Row	6 Row	4 Row	6 Row	*1-2 Row	Merv 7	Merv 7	Merv 7	Merv 7	Merv 7		Merv 7
1600	0.13	0.15	0.22	0.21	0.31	0.11	0.15	0.11	0.08	0.10	0.14		
1800	0.17	0.18	0.27	0.26	0.39	0.14	0.18	0.13	0.10	0.12	0.21		
2000	0.21	0.20	0.32	0.29	0.46	0.17	0.22	0.15	0.12	0.15	0.26		
2200	0.25	0.23	0.37	0.33	0.53	0.21	0.26	0.19	0.14	0.18	0.31		
2400	0.29	0.27	0.42	0.39	0.60	0.25	0.30	0.23	0.16	0.22	0.36		

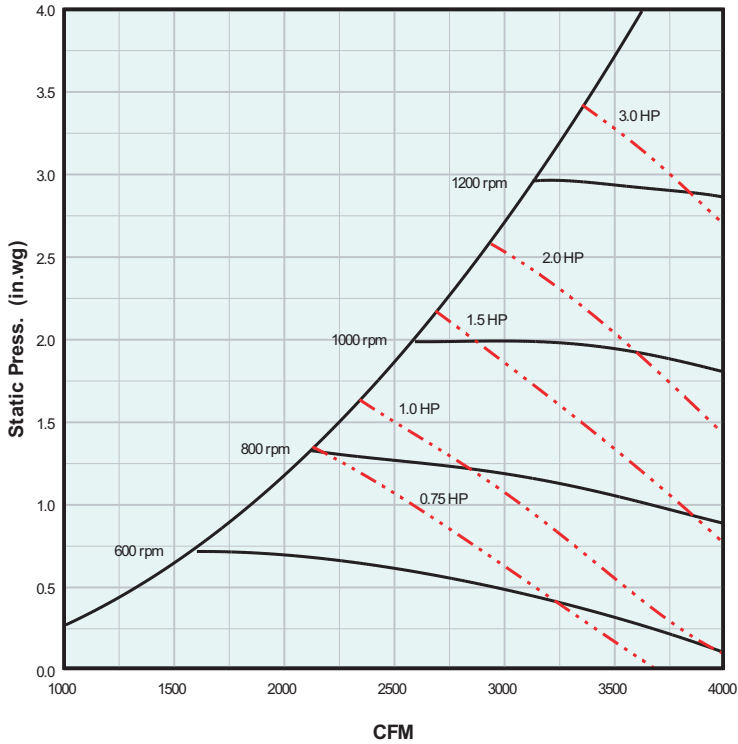
5 Ton (20) Horizontal Belt Drive Information			
HP	Voltage	Blower RPM	Motor / Drive Kit Number
1/2	115 / 208 - 230-1-60	540 - 685	9MD020D-241C02
1/2	277-1-60	540 - 685	9MD020D-271C03
1/2	208 - 230 / 460-3-60	540 - 685	9MD020D-483C04
1/2	575-3-60	540 - 685	9MD020D-573C05
1/2	115 / 208 - 230-1-60	695 - 890	9MD020D-241C07
1/2	277-1-60	695 - 890	9MD020D-271C08
1/2	208 - 230 / 460-3-60	695 - 890	9MD020D-483C09
1/2	575-3-60	695 - 890	9MD020D-573C10
3/4	115 / 208 - 230-1-60	540 - 685	9MD020D-241D02
3/4	277-1-60	540 - 685	9MD020D-271D03
3/4	208 - 230 / 460-3-60	540 - 685	9MD020D-483D04
3/4	575-3-60	540 - 685	9MD020D-573D05
3/4	115 / 208 - 230-1-60	695 - 890	9MD020D-241D07
3/4	277-1-60	695 - 890	9MD020D-271D08
3/4	208 - 230 / 460-3-60	695 - 890	9MD020D-483D09
3/4	575-3-60	695 - 890	9MD020D-573D10
3/4	115 / 208 - 230-1-60	825 - 1065	9MD020D-241D12
3/4	277-1-60	825 - 1065	9MD020D-271D13
3/4	208 - 230 / 460-3-60	825 - 1065	9MD020D-483D14
3/4	575-3-60	825 - 1065	9MD020D-573D15
1	115 / 208 - 230-1-60	695 - 890	9MD020D-241E02
1	277-1-60	695 - 890	9MD020D-271E03

5 Ton (20) Horizontal Belt Drive Information			
HP	Voltage	Blower RPM	Motor / Drive Kit Number
1	208 - 230 / 460-3-60	695 - 890	9MD020D-483E04
1	575-3-60	695 - 890	9MD020D-573E05
1	115 / 208 - 230-1-60	825 - 1065	9MD020D-241E07
1	277-1-60	825 - 1065	9MD020D-271E08
1	208 - 230 / 460-3-60	825 - 1065	9MD020D-483E09
1	575-3-60	825 - 1065	9MD020D-573E10
1	115 / 208 - 230-1-60	955 - 1240	9MD020D-241E12
1	277-1-60	955 - 1240	9MD020D-271E13
1	208 - 230 / 460-3-60	955 - 1240	9MD020D-483E14
1	575-3-60	955 - 1240	9MD020D-573E15
1-1/2	115 / 208 - 230-1-60	825 - 1065	9MD020D-241F02
1-1/2	277-1-60	825 - 1065	9MD020D-271F03
1-1/2	208 - 230 / 460-3-60	825 - 1065	9MD020D-483F04
1-1/2	575-3-60	850 - 1010	9MD020D-573F05
1-1/2	115 / 208 - 230-1-60	955 - 1240	9MD020D-241F07
1-1/2	277-1-60	955 - 1240	9MD020D-271F08
1-1/2	208 - 230 / 460-3-60	955 - 1240	9MD020D-483F09
1-1/2	575-3-60	955 - 1140	9MD020D-573F10
1-1/2	115 / 208 - 230-1-60	1075 - 1400	9MD020D-241F12
1-1/2	277-1-60	1075 - 1400	9MD020D-271F13
1-1/2	208 - 230 / 460-3-60	1075 - 1400	9MD020D-483F14
1-1/2	575-3-60	1090 - 1310	9MD020D-573F15
2	115 / 208 - 230-1-60	1025 - 1330	9MD020D-241G02
2	208 - 230 / 460-3-60	1025 - 1330	9MD020D-483G04
2	575-3-60	1060 - 1270	9MD020D-573G05
2	115 / 208 - 230-1-60	1235 - 1610	9MD020D-241G07
2	208 - 230 / 460-3-60	1235 - 1610	9MD020D-483G09
2	575-3-60	1340 - 1620	9MD020D-573G10

5 TON FAN PERFORMANCE																													
Model	CFM	TOTAL STATIC PRESSURE - INCHES OF WATER																											
		0.6		0.7		0.8		0.9		1.0		1.2		1.4		1.6		1.8		2.0		2.25		2.5		2.75		3.0	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	1800	809	0.6	847	0.7	883	0.7	919	0.8	954	0.8	1020	0.9	1085	1.0	1147	1.1	1207	1.2	1266	1.3	1337	1.4	1406	1.5	1473	1.7	---	---
	1900	827	0.7	864	0.7	899	0.8	933	0.8	967	0.9	1032	1.0	1095	1.0	1155	1.1	1214	1.2	1271	1.3	1341	1.5	1409	1.6	1475	1.8	1538	1.9
	2000	846	0.8	881	.08	915	0.8	949	0.9	962	0.9	1045	1.0	1106	1.1	1165	1.2	1222	1.3	1278	1.4	1347	1.5	1413	1.7	1477	1.8	1540	2.0
	2100	865	0.8	899	0.9	933	.09	965	1.0	997	1.0	1059	1.1	1119	1.2	1176	1.3	1232	1.4	1286	1.5	1354	1.6	1419	1.8	1481	1.9	1543	2.1
	2200	885	0.9	918	1.0	951	1.0	983	1.0	1014	1.1	1074	1.2	1132	1.3	1188	1.4	1243	1.5	1296	1.6	1362	1.7	1426	1.9	1487	2.0	1547	2.2

BLOWER CURVE - 7 1/2 ton/30WHDC

Size 30 Blower Curve



30WHDC											
CFM	CABINET	Componet Static Pressure (Inches of Water)									
		Chilled Water Coil				Hot Water Coil	Filter Sections				Mixing Box
		Dry Coil		Wet Coil		Dry Coil	2" Flat	4" Flat	2" Angled	4" Angled	
		4 Row	6 Row	4 Row	6 Row	*1-2 Row	Merv 7	Merv 7	Merv 7	Merv 7	
2600	0.17	0.11	0.15	0.12	0.16	0.05	0.19	0.14	0.11	0.10	0.22
2800	0.18	0.12	0.17	0.13	0.18	0.06	0.20	0.15	0.12	0.11	0.25
3000	0.19	0.13	0.19	0.14	0.20	0.07	0.21	0.16	0.13	0.12	0.28
3200	0.20	0.14	0.22	0.15	0.24	0.08	0.23	0.17	0.14	0.13	0.32
3400	0.21	0.15	0.24	0.16	0.26	0.09	0.24	0.18	0.14	0.14	0.36

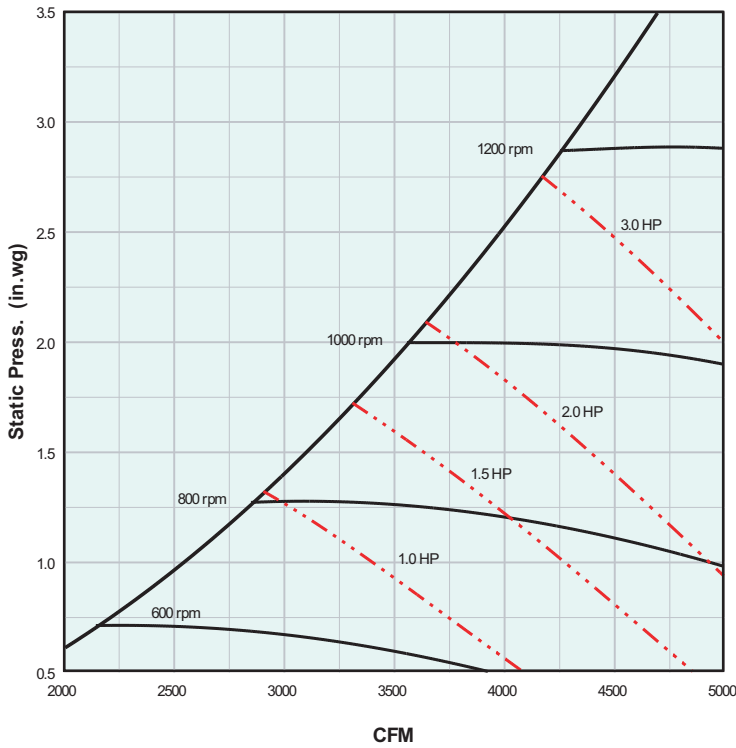
7-1/2 Ton (30) Horizontal Belt Drive Information				
HP	Voltage	Phase	Blower RPM	Motor / Drive Kit Number
1-1/2	208- 230 / 460	3	730 - 865	9MD030D-483F04
1-1/2	575	3	730 - 865	9MD030D-573F05
1-1/2	115 / 208 - 230	1	805 - 955	9MD030D-241F07
1-1/2	277	1	805 - 955	9MD030D-271F08
1-1/2	208- 230 / 460	3	805 - 955	9MD030D-483F09
1-1/2	575	3	805 - 955	9MD030D-573F10
1-1/2	115 / 208 - 230	1	850 - 1010	9MD030D-241F12
1-1/2	277	1	850 - 1010	9MD030D-271F13
1-1/2	208- 230 / 460	3	850 - 1010	9MD030D-483F14
1-1/2	575	3	850 - 1010	9MD030D-573F15
2	115 / 208 - 230	1	850 - 1010	9MD030D-241G02
2	208- 230 / 460	3	850 - 1010	9MD030D-483G04
2	575	3	850 - 1010	9MD030D-573G05
2	115 / 208 - 230	1	955 - 1140	9MD030D-241G07
2	208- 230 / 460	3	955 - 1140	9MD030D-483G09
2	575	3	955 - 1140	9MD030D-573G10
3	115 / 208 - 230	1	955 - 1140	9MD030D-241H02
3	208- 230 / 460	3	955 - 1140	9MD030D-483H04
3	575	3	955 - 1140	9MD030D-573H05
3	115 / 208 - 230	1	1060 - 1270	9MD030D-241H07
3	208- 230 / 460	3	1060 - 1270	9MD030D-483H09
3	575	3	1060 - 1270	9MD030D-573H10

7-1/2 Ton (30) Horizontal Belt Drive Information				
HP	Voltage	Phase	Blower RPM	Motor / Drive Kit Number
3/4	115 / 208 - 230	1	615 - 720	9MD030D-241D02
3/4	277	1	615 - 720	9MD030D-271D03
3/4	208 - 230 / 460	3	615 - 720	9MD030D-483D04
3/4	575	3	615 - 720	9MD030D-573D05
1	115 / 208 - 230	1	615 - 720	9MD030D-241E02
1	277	1	615 - 720	9MD030D-271E03
1	208 - 230 / 460	3	615 - 720	9MD030D-483E04
1	575	3	615 - 720	9MD030D-573E05
1	115 / 208 - 230	1	665 - 785	9MD030D-241E07
1	277	1	665 - 785	9MD030D-271E08
1	208 - 230 / 460	3	665 - 785	9MD030D-483E09
1	575	3	665 - 785	9MD030D-573E10
1	115 / 208 - 230	1	730 - 865	9MD030D-241E12
1	277	1	730 - 865	9MD030D-271E13
1	208 - 230 / 460	3	730 - 865	9MD030D-483E14
1	575	3	730 - 865	9MD030D-573E15
1-1/2	115 / 208 - 230	1	730 - 865	9MD030D-241F02
1-1/2	277	1	730 - 865	9MD030D-271F03

7-1/2 TON FAN PERFORMANCE																													
Model	CFM	TOTAL STATIC PRESSURE - INCHES OF WATER																											
		0.7		0.8		0.9		1.0		1.2		1.4		1.6		1.8		2.0		2.25		2.5		2.75		3.0			
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
30	2500	637	0.7	668	0.7	699	0.8	729	0.8	786	0.9	841	1.1	894	1.2	945	1.3	---	---	---	---	---	---	---	---	---	---	---	---
	2750	654	0.8	684	0.8	713	0.9	741	1.0	796	1.1	849	1.2	899	1.3	948	1.4	996	1.6	1057	1.7	---	---	---	---	---	---	---	---
	3000	672	0.9	701	1.0	729	1.0	756	1.1	809	1.2	859	1.3	908	1.5	955	1.6	1001	1.7	1060	1.9	1114	2.1	---	---	---	---	---	---
	3250	693	1.1	720	1.1	747	1.2	773	1.2	823	1.4	872	1.5	919	1.8	964	1.8	1008	1.9	1066	2.1	1119	2.3	1169	2.5	1219	2.7	---	---
	3500	715	1.2	741	1.3	767	1.3	792	1.4	840	1.5	887	1.7	932	1.8	976	2.0	1018	2.1	1075	2.3	1126	2.5	1175	2.7	1223	2.9	---	---

BLOWER CURVE - 10 ton/40WHDC

Size 40 Blower Curve



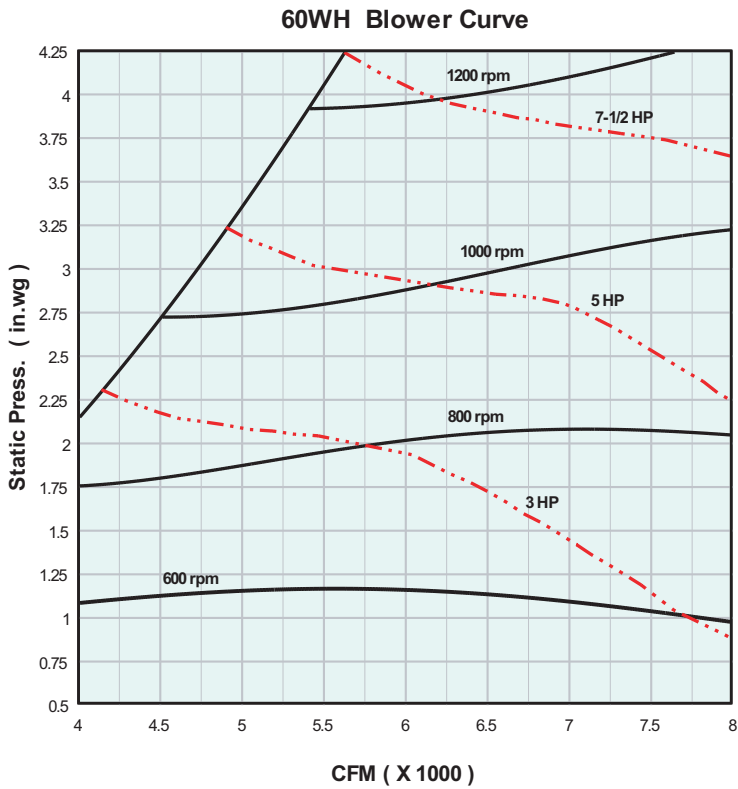
40WHDC											
CFM	Componet Static Pressure (Inches of Water)										
	CABINET	Chilled Water Coil				Hot Water Coil	Filter Sections				Mixing Box
		Dry Coil		Wet Coil		Dry Coil	2" Flat	4" Flat	2" Angled	4" Angled	
		4 Row	6 Row	4 Row	6 Row	*1-2 Row	Merv 7	Merv 7	Merv 7	Merv 7	
3600	0.14	0.12	0.18	0.13	0.19	0.05	0.20	0.13	0.13	0.13	0.20
3800	0.16	0.14	0.21	0.15	0.22	0.06	0.21	0.14	0.14	0.14	0.22
4000	0.18	0.16	0.24	0.17	0.26	0.08	0.22	0.15	0.14	0.14	0.24
4200	0.20	0.18	0.27	0.19	0.29	0.10	0.23	0.15	0.15	0.15	0.27
4400	0.22	0.20	0.31	0.21	0.33	0.12	0.24	0.16	0.16	0.15	0.30

10 Ton (40) Horizontal Belt Drive Information				
HP	Voltage	Phase	Blower RPM	Motor / Drive Kit Number
1-1/2	115 / 208 - 230	1	695 - 825	9MD040D-241F02
1-1/2	277	1	695 - 825	9MD040D-271F03
1-1/2	208- 230 / 460	3	695 - 825	9MD040D-483F04
1-1/2	575	3	695 - 825	9MD040D-573F05
1-1/2	115 / 208 - 230	1	765 - 910	9MD040D-241F07
1-1/2	277	1	765 - 910	9MD040D-271F08
1-1/2	208- 230 / 460	3	765 - 910	9MD040D-483F09
1-1/2	575	3	765 - 910	9MD040D-573F10
2	115 / 208 - 230	1	695 - 825	9MD040D-241G02
2	208- 230 / 460	3	695 - 825	9MD040D-483G04
2	575	3	695 - 825	9MD040D-573G05

10 Ton (40) Horizontal Belt Drive Information				
HP	Voltage	Phase	Blower RPM	Motor / Drive Kit Number
2	115 / 208 - 230	1	765 - 910	9MD040D-241G07
2	208- 230 / 460	3	765 - 910	9MD040D-483G09
2	575	3	765 - 910	9MD040D-573G10
2	115 / 208 - 230	1	850 - 1010	9MD040D-241G12
2	208- 230 / 460	3	850 - 1010	9MD040D-483G14
2	575	3	850 - 1010	9MD040D-573G15
3	115 / 208 - 230	1	765 - 910	9MD040D-483H02
3	208- 230 / 460	3	765 - 910	9MD040D-483H04
3	575	3	765 - 910	9MD040D-573H05
3	115 / 208 - 230	1	850 - 1010	9MD040D-483H07
3	208- 230 / 460	3	850 - 1010	9MD040D-483H09
3	575	3	850 - 1010	9MD040D-573H10
3	115 / 208 - 230	1	955 - 1140	9MD040D-483H12
3	208- 230 / 460	3	955 - 1140	9MD040D-483H14
3	575	3	955 - 1140	9MD040D-573H15
5	208- 230 / 460	3	900 - 1075	9MD040D-483J04
5	575	3	900 - 1075	9MD040D-573J05
5	208- 230 / 460	3	1015 - 1220	9MD040D-483J09
5	575	3	1015 - 1220	9MD040D-573J10

10 TON FAN PERFORMANCE																											
Model	CFM	TOTAL STATIC PRESSURE - INCHES OF WATER																									
		0.7		0.8		0.9		1.0		1.2		1.4		1.6		1.8		2.0		2.25		2.5		2.75		3.0	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40	3400	639	0.9	671	1.0	701	1.1	731	1.1	791	1.3	848	1.5	905	1.6	961	1.7	---	---	---	---	---	---	---	---	---	---
	3700	655	1.1	685	1.2	714	1.2	742	1.3	798	1.4	852	1.6	906	1.8	958	1.9	1010	2.1	---	---	---	---	---	---	---	---
	4000	673	1.2	701	1.3	728	1.4	755	1.5	808	1.6	860	1.8	910	2.2	960	2.1	1009	2.3	1072	2.5	1132	2.7	---	---	---	---
	4300	693	1.4	719	1.5	745	1.6	771	1.7	821	1.8	870	2.0	918	2.2	965	2.4	1011	2.5	1073	2.7	1132	3.0	1184	3.2	---	---
	4600	713	1.6	739	1.7	764	1.8	788	1.9	836	2.1	883	2.2	929	2.4	973	2.6	1018	2.8	1076	3.0	1132	3.2	1184	3.2	1236	3.8

BLOWER CURVE - 15 ton/60WHDC



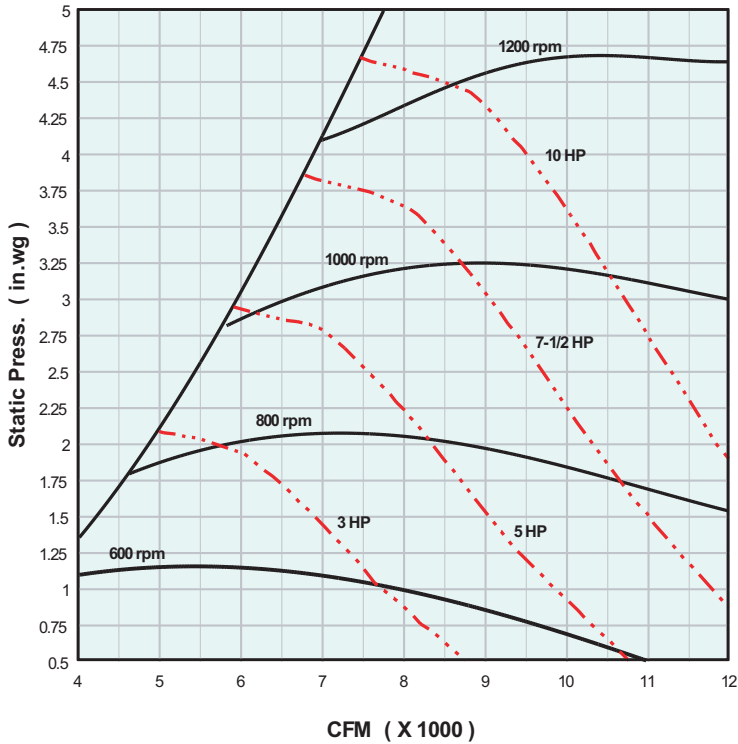
60WHDC											
CFM	CABINET	Componet Static Pressure (Inches of Water)									
		Chilled Water Coil				Hot Water Coil	Filter Sections				Mixing Box
		Dry Coil		Wet Coil		Dry Coil	2" Flat	4" Flat	2" Angled	4" Angled	
		4 Row	6 Row	4 Row	6 Row	*1-2 Row	Merv 7	Merv 7	Merv 7	Merv 7	
5600	0.01	0.14	0.20	0.15	0.21	0.06	0.16	0.16	0.16	0.15	0.23
5800	0.05	0.17	0.23	0.18	0.25	0.09	0.18	0.18	0.17	0.16	0.25
6000	0.12	0.19	0.26	0.21	0.28	0.11	0.21	0.19	0.18	0.17	0.27
6200	0.19	0.22	0.29	0.23	0.31	0.13	0.23	0.20	0.19	0.18	0.28
6400	0.25	0.24	0.32	0.26	0.35	0.15	0.26	0.23	0.20	0.19	0.30

15 Ton (60) Horizontal Belt Drive Information					
HP	Voltage	Phase	Hz	Blower RPM	Motor / Drive Kit Number
3	115 / 208 - 230	1	60	615 - 720	9MD060D-241H02
3	208- 230 / 460	3	60	615 - 720	9MD060D-483H04
3	575	3	60	615 - 720	9MD060D-573H05
3	115 / 208 - 230	1	60	665 - 785	9MD060D-241H07
3	208- 230 / 460	3	60	665 - 785	9MD060D-483H09
3	575	3	60	665 - 785	9MD060D-573H10
3	115 / 208 - 230	1	60	730 - 865	9MD060D-241H12
3	208- 230 / 460	3	60	730 - 865	9MD060D-483H14
3	575	3	60	730 - 865	9MD060D-573H15
5	208- 230 / 460	3	60	730 - 865	9MD060D-483J04
5	575	3	60	730 - 865	9MD060D-573J05
5	208- 230 / 460	3	60	805 - 955	9MD060D-483J09
5	575	3	60	805 - 955	9MD060D-573J10
5	208- 230 / 460	3	60	900 - 1075	9MD060D-483J14
5	575	3	60	900 - 1075	9MD060D-573J15
7-1/2	208- 230 / 460	3	60	915 - 1065	9MD060D-483K04
7-1/2	575	3	60	915 - 1065	9MD060D-573K05
7-1/2	208- 230 / 460	3	60	1020 - 1195	9MD060D-483K09
7-1/2	575	3	60	1020 - 1195	9MD060D-573K10

15 TON FAN PERFORMANCE																											
Model	CFM	TOTAL STATIC PRESSURE - INCHES OF WATER																									
		0.7		0.8		0.9		1.0		1.2		1.4		1.6		1.8		2.0		2.25		2.5		2.75		3.0	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60	5200	488	1.3	515	1.4	542	1.5	568	1.6	621	1.8	672	2.0	727	2.3	784	2.7	837	3.1	901	3.5	1009	4.0	1012	4.5	1060	4.9
	5600	494	1.5	520	1.6	545	1.7	571	1.8	620	2.0	669	2.2	716	2.5	766	2.8	819	3.2	885	3.6	945	4.1	1000	4.6	1052	5.1
	6000	502	1.7	527	1.8	551	1.9	575	2.0	622	2.2	668	2.4	713	2.7	758	3.0	802	3.3	867	3.7	928	4.2	985	4.7	1039	5.3
	6400	511	1.9	535	2.0	558	2.1	581	2.2	626	2.4	670	2.7	712	2.9	755	3.2	797	3.5	853	3.8	910	4.3	968	4.8	1023	5.4
	6800	521	2.1	543	2.2	566	2.4	588	2.5	631	2.7	673	3.0	714	3.2	755	3.5	794	3.8	849	4.1	898	4.5	950	4.9	1005	5.5

BLOWER CURVE - 20 ton/80WHDC

Size 80 Blower Curve



80WHDC											
CFM	CABINET	Componet Static Pressure (Inches of Water)									
		Chilled Water Coil				Hot Water Coil	Filter Sections				Mixing Box
		Dry Coil		Wet Coil		Dry Coil	2" Flat	4" Flat	2" Angled	4" Angled	
		4 Row	6 Row	4 Row	6 Row	*1-2 Row	Merv 7	Merv 7	Merv 7	Merv 7	
6000	0.09	0.17	0.16	0.49	0.18	0.08	0.13	0.10	0.11	0.10	0.42
7000	0.15	0.19	0.21	0.21	0.22	0.11	0.17	0.13	0.14	0.13	0.44
8000	0.32	0.23	0.27	0.25	0.29	0.15	0.22	0.17	0.18	0.17	0.47
9000	0.42	0.30	0.37	0.32	0.39	0.20	0.27	0.22	0.24	0.21	0.49
10000	0.48	0.39	0.47	0.41	0.51	0.23	0.33	0.26	0.33	0.26	0.51

20 Ton (80) Horizontal Belt Drive Information					
HP	Voltage	Phase	Hz	Blower RPM	Motor / Drive Kit Number
3	115 / 208 - 230	1	60	615 - 720	9MD080D-483H02
3	208- 230 / 460	3	60	615 - 720	9MD080D-483H04
3	575	3	60	615 - 720	9MD080D-573H05
3	115 / 208 - 230	1	60	665 - 785	9MD080D-483H07
3	208- 230 / 460	3	60	665 - 785	9MD080D-483H09
3	575	3	60	665 - 785	9MD080D-573H10
3	115 / 208 - 230	1	60	730 - 865	9MD080D-483H12
3	208- 230 / 460	3	60	730 - 865	9MD080D-483H14
3	575	3	60	730 - 865	9MD080D-573H15

20 Ton (80) Horizontal Belt Drive Information					
HP	Voltage	Phase	Hz	Blower RPM	Motor / Drive Kit Number
5	208- 230 / 460	3	60	615 - 720	9MD080D-483J04
5	575	3	60	615 - 720	9MD080D-573J05
5	208- 230 / 460	3	60	665 - 785	9MD080D-483J09
5	575	3	60	665 - 785	9MD080D-573J10
5	208- 230 / 460	3	60	730 - 865	9MD080D-483J14
5	575	3	60	730 - 865	9MD080D-573J15
5	208- 230 / 460	3	60	805 - 955	9MD080D-483J19
5	575	3	60	805 - 955	9MD080D-573J20
7-1/2	208- 230 / 460	3	60	645 - 745	9MD080D-483K04
7-1/2	575	3	60	645 - 745	9MD080D-573K05
7-1/2	208- 230 / 460	3	60	700 - 805	9MD080D-483K09
7-1/2	575	3	60	700 - 805	9MD080D-573K10
7-1/2	208- 230 / 460	3	60	755 - 875	9MD080D-483K14
7-1/2	575	3	60	755 - 875	9MD080D-573K15
7-1/2	208- 230 / 460	3	60	825 - 965	9MD080D-483K19
7-1/2	575	3	60	825 - 965	9MD080D-573K20
7-1/2	208- 230 / 460	3	60	915 - 1065	9MD080D-483K24
7-1/2	575	3	60	915 - 1065	9MD080D-573K25
7-1/2	208- 230 / 460	3	60	1020 - 1195	9MD080D-483K29
7-1/2	575	3	60	1020 - 1195	9MD080D-573K30
10	208- 230 / 460	3	60	915 - 1065	9MD080D-483L04
10	575	3	60	915 - 1065	9MD080D-573L05
10	208- 230 / 460	3	60	1020 - 1195	9MD080D-483L09
10	575	3	60	1020 - 1195	9MD080D-573L10
10	208- 230 / 460	3	60	1155 - 1360	9MD080D-483L14
10	575	3	60	1155 - 1360	9MD080D-573L15

20 TON FAN PERFORMANCE																											
Model	CFM	TOTAL STATIC PRESSURE - INCHES OF WATER																									
		0.7		0.8		0.9		1.0		1.2		1.4		1.6		1.8		2.0		2.25		2.5		2.75		3.0	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80	6000	502	1.7	527	1.8	551	1.9	575	2.0	622	2.2	668	2.4	713	2.7	758	3.0	802	3.3	867	3.7	928	4.2	985	4.7	1039	5.3
	7000	525	2.2	548	2.4	570	2.5	592	2.6	634	2.9	675	3.1	715	3.4	755	3.6	794	4.0	848	4.2	896	4.6	943	5.1	996	5.6
	8000	550	2.9	572	3.1	594	3.3	615	3.4	653	3.7	691	4.0	727	4.2	764	4.5	799	4.8	849	5.1	892	5.5	935	5.9	977	6.4
	9000	578	3.8	599	4.0	619	4.1	639	4.3	678	4.7	713	5.0	746	5.3	780	5.6	812	6.0	860	6.3	899	6.6	938	7.1	977	7.5
	10000	610	4.8	629	5.0	647	5.1	665	5.4	702	5.8	737	6.2	770	6.6	801	7.0	831	7.3	876	7.6	913	8.1	949	8.5	---	---

ELECTRICAL DATA

SINGLE PHASE							THREE PHASE								
Motor Data			Control Box Data			Part Number	Motor Data			Control Box Data			Part Number		
Volt	Phase	HP	FLA	MCA	Fuse/Qty	Part Number	Volt	Phase	HP	FLA	MCA	Fuse/Qty	Part Number		
115	1	1/4	5.8	10	10	1	208/230	3	1/3	1.6	3	3	3	986FF33M1M	
		1/3	7.2	15	15	1			986FF11M4M	1/2	2.4	6	6	3	986FF33M2M
		1/2	9.8	15	15	1			986FF11M5M	3/4	3.5	6	6	3	986FF33M3M
		3/4	13.8	20	20	1			986FF11M6M	1	5.6	10	10	3	
		1	16.4	25	25	1				986FF33M4M	1.5	6.6	10	10	3
		1.5	20.0	25	25	1			2		7.5	15	15	3	
		2	24.0	30	30	1			986FF11M7M		3	10.6	15	15	3
								5	16.7	25	25	3	986FF33M6M		
277	1	1/3	3.0	6	6	1	460	3	1/3	0.8	3	3	3	986FF63M1M	
		1/2	4.1	6	6	1			986FF71M2M	1/2	1.1	3	3		3
		3/4	5.7	10	10	1			986FF71M3M	3/4	1.6	3	3		3
		1	6.8	10	10	1			986FF71M4M	1	3.7	6	6	3	986FF63M2M
		1.5	8.5	15	15	1				1.5	3.0	6	6	3	
2	10.0	15	15	1		2	3.7	6	6	3	986FF63M3M				
						3	4.8	10	10	3					
							5	7.6	10	10		3			
208/230	1	1/4	2.9	6	6	2	575	3	1/2	0.9	3	3	3	986FF53M1M	
		1/3	3.6	6	6	2			986FF31M2M	3/4	1.3	3	3		3
		1/2	4.9	10	10	2			986FF31M3M	1	1.7	3	3	3	986FF53M2M
		3/4	6.9	10	10	2				986FF31M4M	1.5	2.4	3	3	
		1	8.2	15	15	2			986FF31M5M		2	2.7	6	6	
		1.5	10.0	15	15	2				3	3.9	6	6	3	
2	12.0	20	20	2	5	6.1	10	10		3	986FF53M3M				
CONTACT FACTORY FOR MOTOR CONTROLS FOR 7-1/2 & 10 HP MOTORS															

SHIPPING WEIGHTS

WHD SERIES WEIGHTS													
MODEL	**BASE UNIT WEIGHTS		COIL WEIGHTS					ACCESSORY WEIGHTS			MOTOR WEIGHTS		
	OPERATING WEIGHT	SHIPPING WEIGHT	COIL (LESS FLUID)	COIL FLUID VOLUME (GALLONS)	FLUID (LBS.)	COIL (OPERATING) WEIGHT	9BDAF_F2/4 FLAT FILTER SECTION	9BDAF_A2/4 ANGULAR FILTER SECTION	9BDAM_MIXING BOX	120/208/240/1PH		277/1/60	
										HP	LBS	LBS	
8HWDC	243.0	295.0	1 ROW	5.3	0.24	2.0	7.3	SHIPPING WT	SHIPPING WT	SHIPPING WT	1/4	20.0	N/A
			2 ROW	10.5	0.48	4.0	14.5	52.0	89.0	98.0	1/3	23.0	23.0
			4 ROW	21.0	0.96	8.0	29.0	OPERATING WT	OPERATING WT	OPERATING WT	1/2	26.0	26.0
			6 ROW	31.5	1.44	12.0	43.5	32.0	62.0	78.0	3/4	31.0	34.0
12HWDC	257.0	320.0	1 ROW	6.0	0.28	2.3	8.3	SHIPPING WT	SHIPPING WT	SHIPPING WT	1	33.0	42.0
			2 ROW	12.0	0.56	4.7	16.7	56.0	97.0	103.0	1 1/2	42.0	49.0
			4 ROW	24.0	1.13	9.4	33.4	OPERATING WT	OPERATING WT	OPERATING WT	2	44.0	N/A
			6 ROW	36.0	1.72	14.4	50.4	36.0	70.0	83.0	208/240/480/3PH		
16HWDC	295.0	361.0	1 ROW	8.3	0.37	3.1	11.4	SHIPPING WT	SHIPPING WT	SHIPPING WT	1/4	22.0	N/A
			2 ROW	16.5	0.75	6.3	22.8	60.0	123.0	127.0	1/3	22.0	
			4 ROW	33.0	1.50	12.5	45.5	OPERATING WT	OPERATING WT	OPERATING WT	1/2	23.0	
			6 ROW	49.5	2.25	18.8	68.3	49.0	98.0	105.0	3/4	27.0	
20HWDC	332.0	402.0	1 ROW	9.5	0.44	3.7	13.2	SHIPPING WT	SHIPPING WT	SHIPPING WT	1	33.0	
			2 ROW	19.0	0.89	7.4	26.4	67.0	137.0	146.0	1 1/2	33.0	
			4 ROW	38.0	1.78	14.9	52.9	OPERATING WT	OPERATING WT	OPERATING WT	2	41.0	
			6 ROW	57.0	2.67	22.3	79.3	52.0	111.0	121.0	3	58.0	
										5	81.0		
										7 1/2	117.0		
										10	143		
30HWDC	Contact Factory												
40HWDC	Contact Factory												
60HWDC	Contact Factory												
80HWDC	Contact Factory												
**BASE UNIT WEIGHT INCLUDES BLOWER ASSEMBLY, MOTOR SHEAVE, BLOWER PULLEY, BELT AND 2" FILTER													