FIRST CO.
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Double Wall Construction

HORIZONTAL

Chilled Water

Hot Water

500 thru 10,000 CFM

Belt Drive

AHRI CERTIFIED www.ahridirectory.org Central Station Air-Handlers AHRI Standard 430

INTERTEK ETL LISTED C US

Table of Contents

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 986FF 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

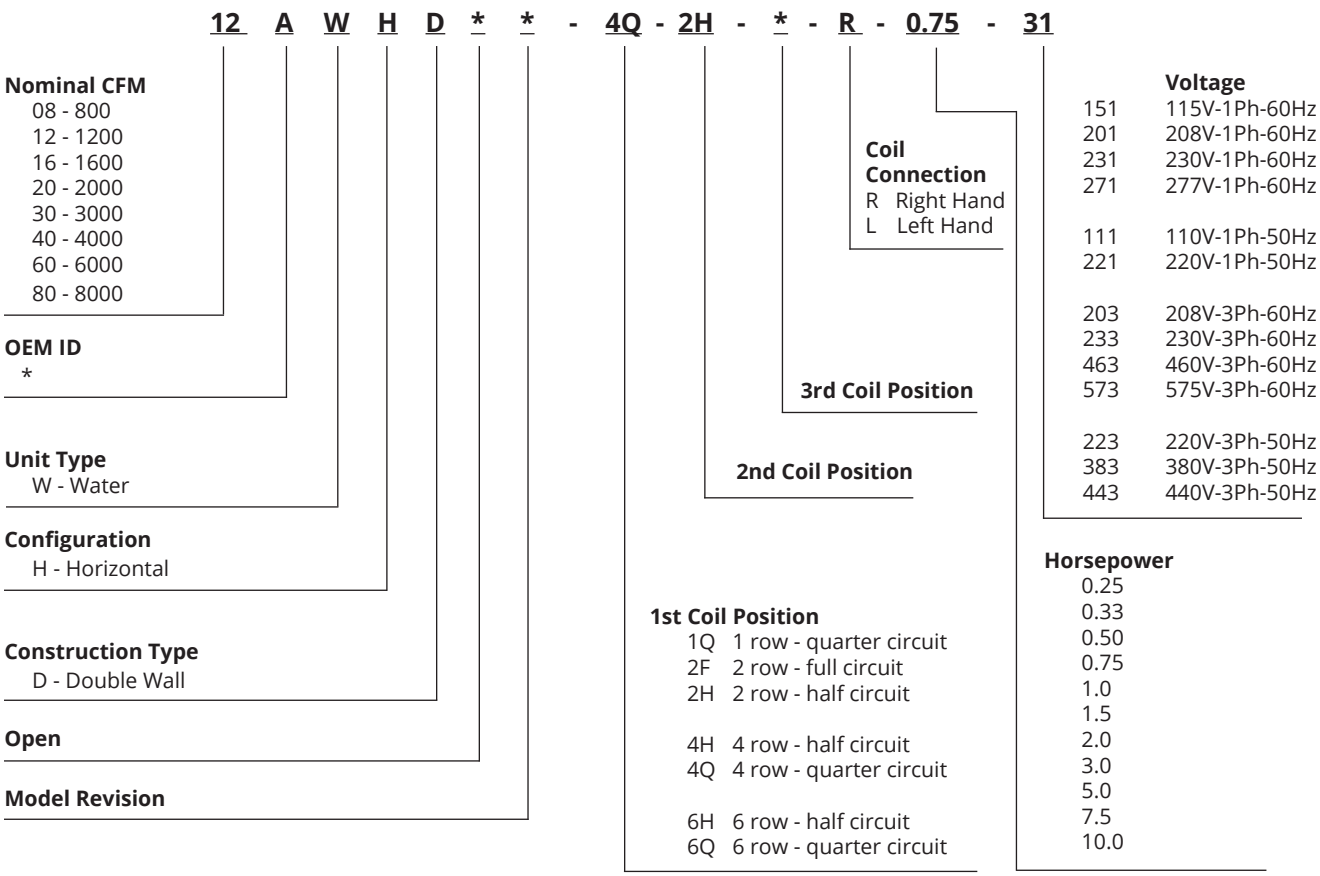
A. Optional mixing box consist of the same construction as described in "2.02 Casings." Section shall include factory mounted outside and return air dampers. Boxes shall be double wall construction with parallel blade, interconnecting outside-air and return-air dampers. Damper blades shall include stiffing 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*

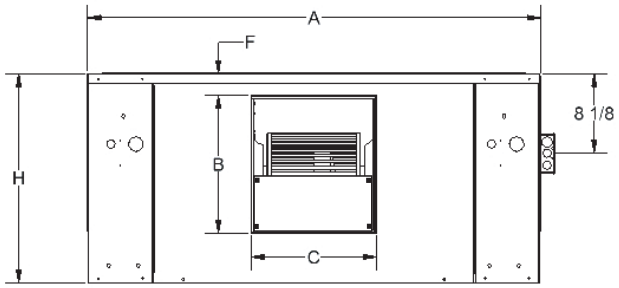


Required Order Information

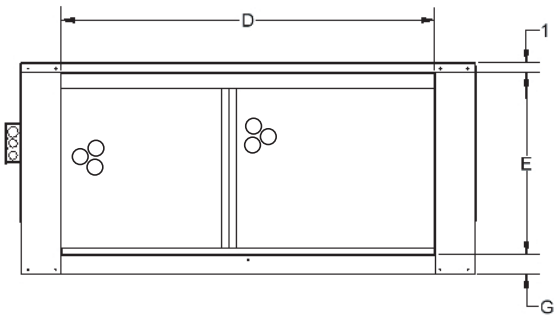
1. Model number with rows and circuit
2. CFM and external static pressure
3. Motor HP
4. Actual voltage motor is to be wired to.
5. Hot water coil installed in preheat or reheat position
6. Hand connections with air hitting you in back of head

PHYSICAL DATA

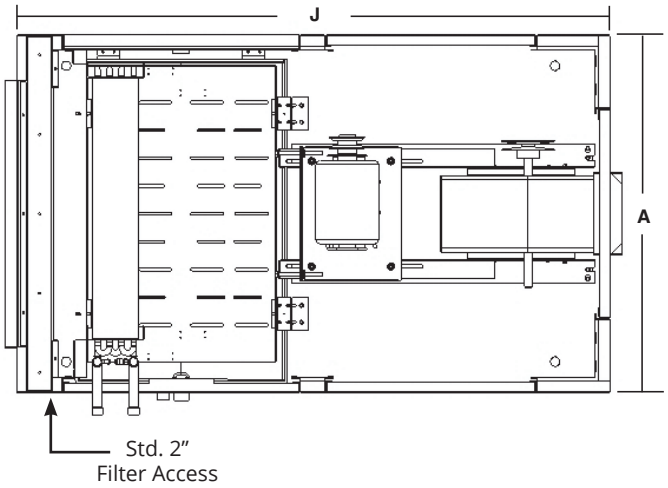
FRONT VIEW
Supply



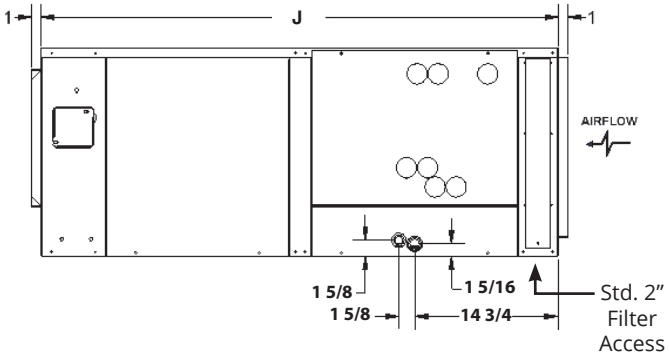
REAR VIEW
Return



PLAN VIEW



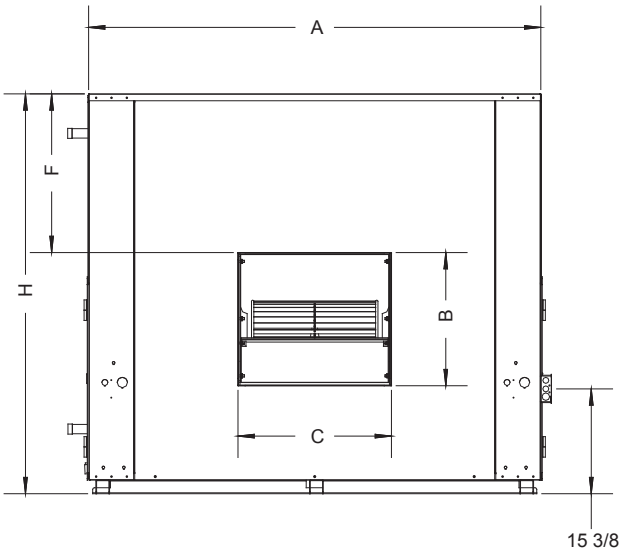
SIDE VIEW
Left Hand Connection



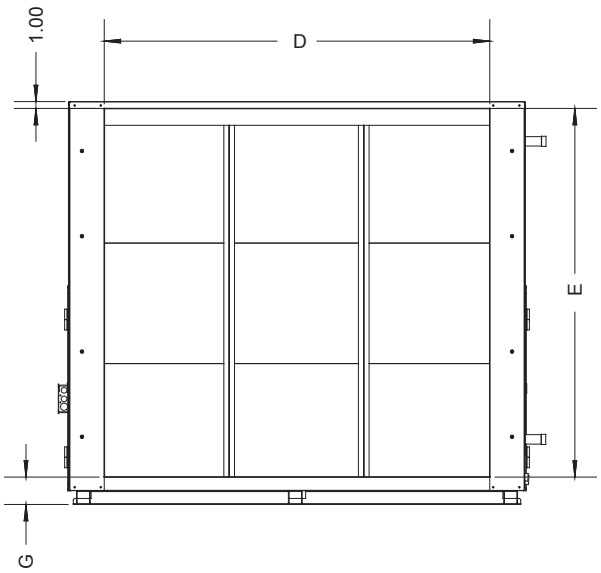
UNIT CABINET DIMENSIONS										
UNIT MODEL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**J**	**FILTERS (MERV7)**
8WH	32-1/4	10-7/8	7-1/2	24	16	1-3/4	2	19	53-1/4	(2) 16X25X2
12WH	36-1/4	10-7/8	8-7/8	24	16	1-3/4	2	19	53-1/4	(2) 16X25X2
16WH	40-1/4	12	10-1/4	32	18-1/2	2-1/4	2	21-1/2	53-1/4	(2) 18X20X2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

PHYSICAL DATA (CONT.)

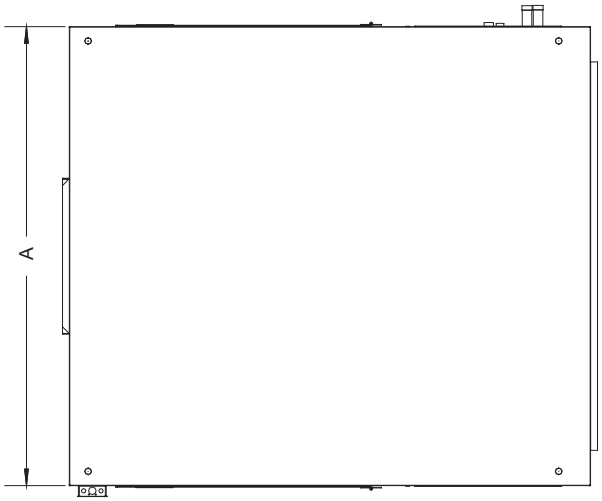
SUPPLY END



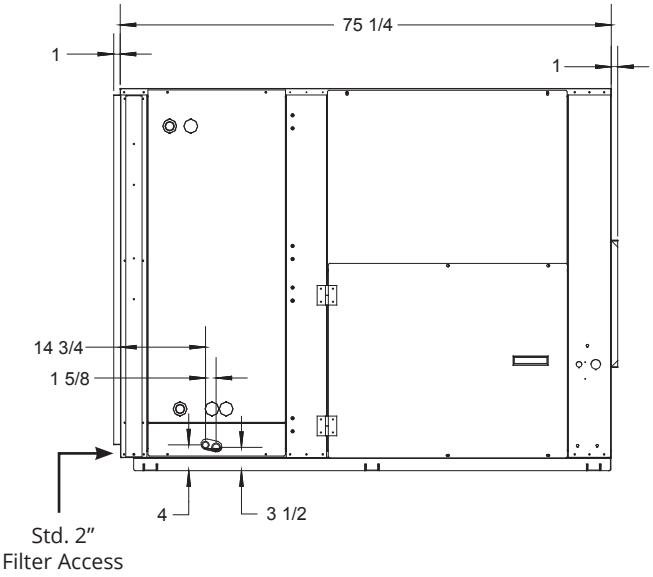
RETURN END



TOP VIEW

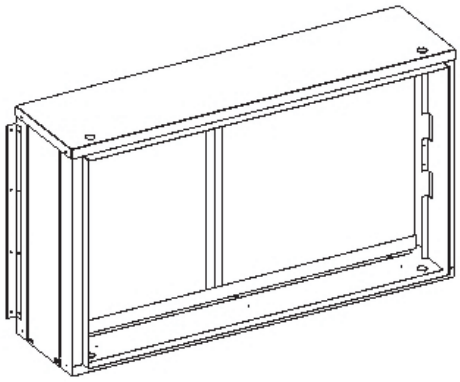


RIGHT SIDE

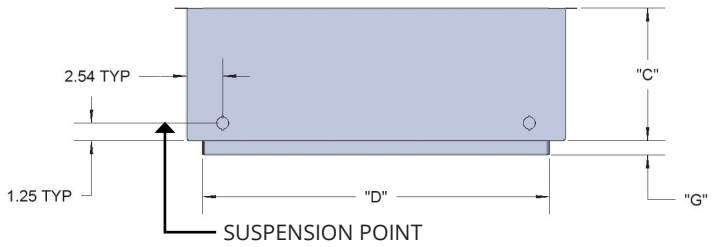


UNIT CABINET DIMENSIONS									
UNIT MODEL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**FILTERS (MERV7)**
60WH	66-1/4	19-1/2	22-1/2	56	41	10-3/4	4	44	(9) 15x20x2
80WH	66-1/4	19-1/2	22-1/2	56	53-1/2	23-1/4	4	58-1/2	(9) 18x20x2

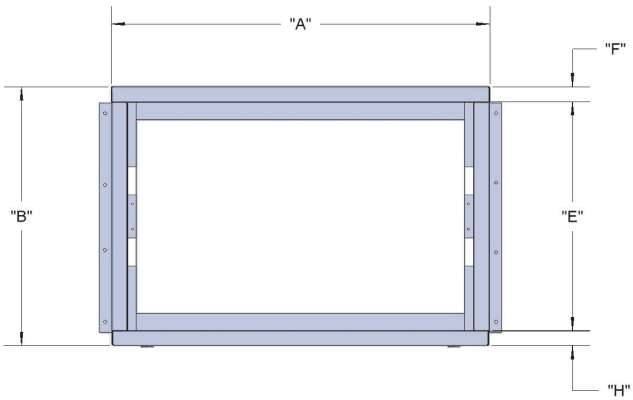
FILTERS - *Optional Flat Filter Section*



TOP VIEW



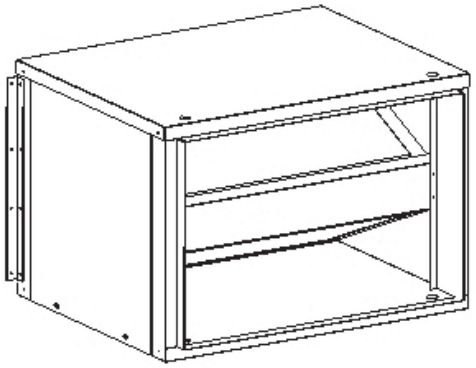
END VIEW



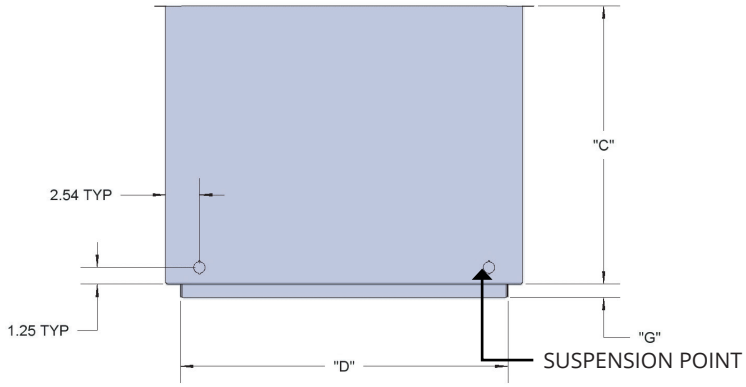
FLAT FILTER BOX											
UNIT SIZE	**PART NUMBER**	**FILTER SIZE**	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**FILTER SIZE (Qty)**
8	**9BDAF12F2** **9BDAF12F4**	2″ 4″	26-13/16	18-3/8	9-7/16	24-1/2	16-1/4	1	1	1	(1) 25 X 16
12	**9BDAF12F2** **9BDAF12F4**	2″ 4″	26-13/16	18-3/8	9-7/16	24-1/2	16-1/4	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)*



TOP VIEW



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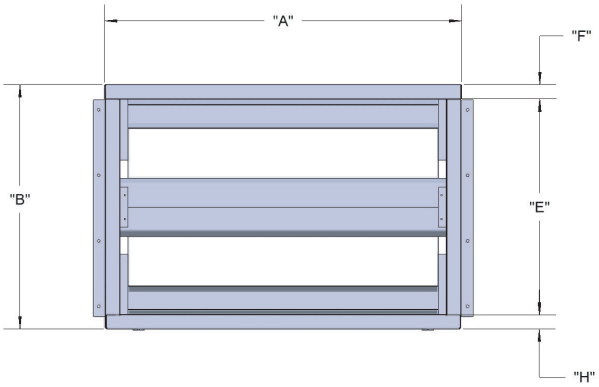
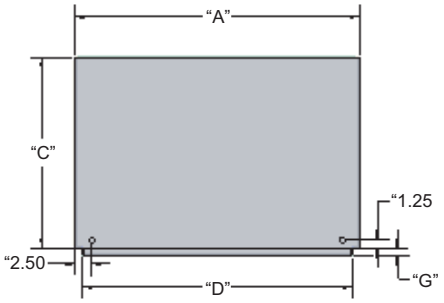
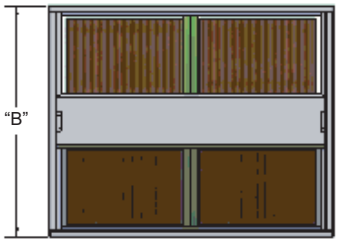
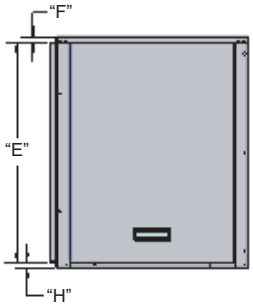


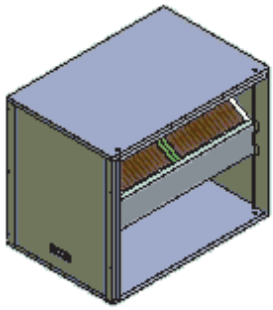
ANGLED FILTER BOX											
UNIT SIZE	**PART NUMBER**	**FILTER SIZE**	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**FILTER SIZE (Qty)**
8	**9BDAF12A2** **9BDAF12A4**	2″ 4″	26.78	18.32	20.88	24.57	16.21	1	1	1	(2) 25 X16
12	**9BDAF12A2** **9BDAF12A4**	2″ 4″	26.78	18.32	20.88	24.57	16.21	1	1	1	(2) 25 X 16
16	**9BDAF16A2** **9BDAF16A4**	2″ 4″	37.28	21.57	28.68	35.07	19.71	1	1	1	(2) 18 X 24
20	**9BDAF20A2** **9BDAF20A4**	2″ 4″	41.28	21.57	28.68	39.07	19.71	1	1	1	(2) 20 X 24

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





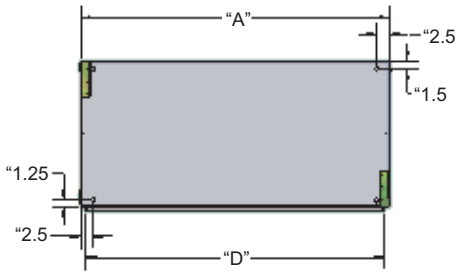


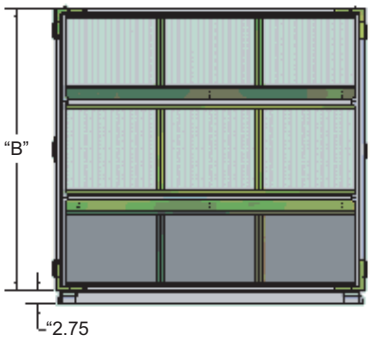


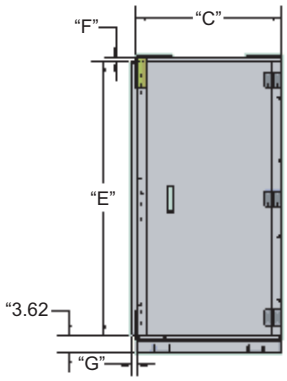
ANGLED FILTER BOX											
UNIT SIZE	**PART NUMBER**	**FILTER SIZE**	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**FILTER SIZE (Qty)**
30	9BDAF30A2 9BDAF30A4	2" 4"	41-13/16	34	28	39-5/8	32	1	1	1	(4) 20 X 25
40	9BDAF40A2 9BDAF40A4	2" 4"	51	34	27	48-7/8	32	1	1	1	(4) 16 X 24 (2) 18 x 24

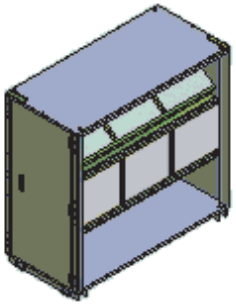
NOTE: Unit comes standard with 2" filter mounted in cabinet

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





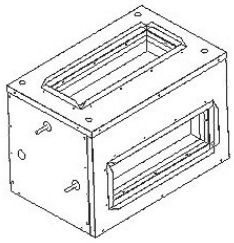


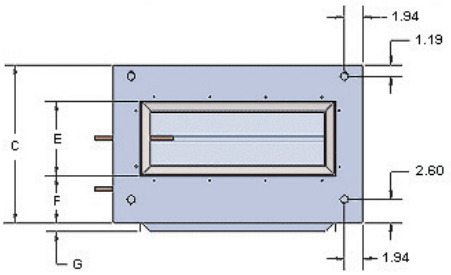


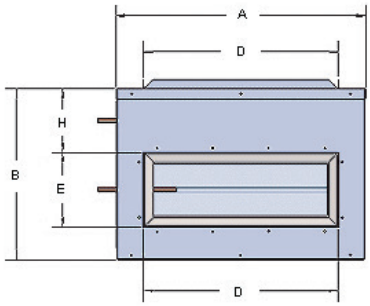
ANGLED FILTER BOX											
UNIT SIZE	**PART NUMBER**	**FILTER SIZE**	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**FILTER SIZE (Qty)**
60	9BDAF60A2 9BDAF60A4	2" 4"	61	44	21-3/8	58-7/8	42	1	1	1	(9) 16 X 20
80	9BDAF80A2 9BDAF80A4	2" 4"	61	56-1/2	28-1/2	58-7/8	54-1/4	1	1	1	(3) 20 X 18 (6) 20 x 25

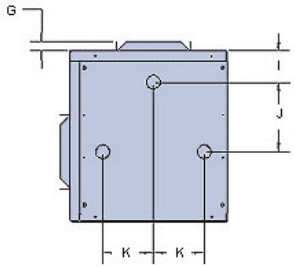
NOTE: Unit comes standard with 2" filter mounted in cabinet

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



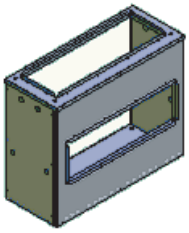


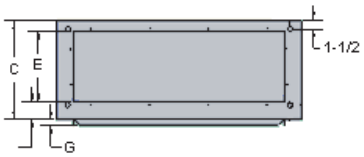


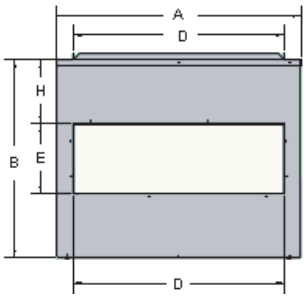


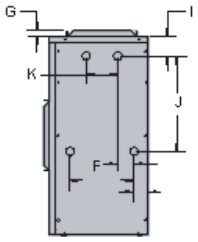
8-20 MIXING BOX DIMENSIONS											
UNIT MODEL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
9BDAM08	26.78	18.31	16.91	21.00	8.00	5.00	1.00	6.81	3.35	7.48	5.44
9BDAM12	26.78	18.31	16.91	21.00	8.00	5.00	1.00	6.81	3.35	7.48	5.44
9BDAM16	37.28	21.57	16.91	32.00	10.00	4.00	1.00	8.05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



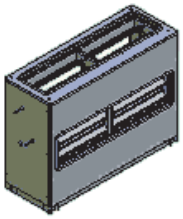


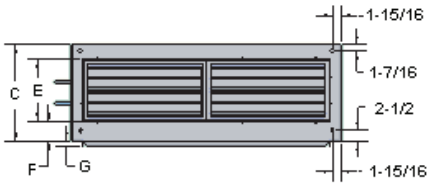


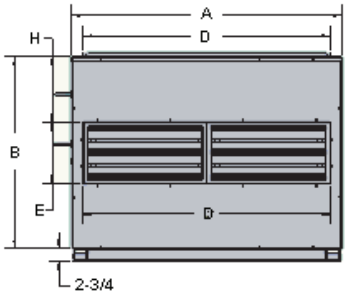


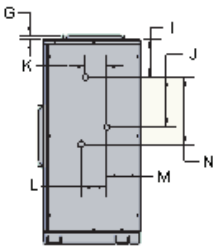
30-40 MIXING BOX DIMENSIONS											
UNIT MODEL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
9BDAM30	37-13/16	34	16-15/16	36	12	3	1	11	3-3/8	16-3/8	5-3/8
9BDAM40	52-13/16	34	17	46	12	3	1	11	3-3/8	16-3/8	5-3/8

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



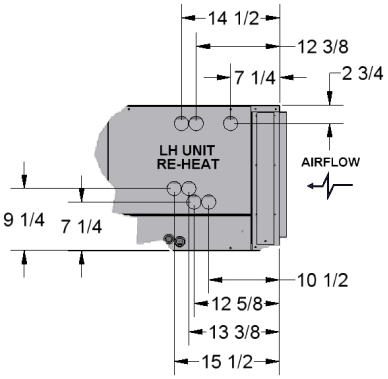


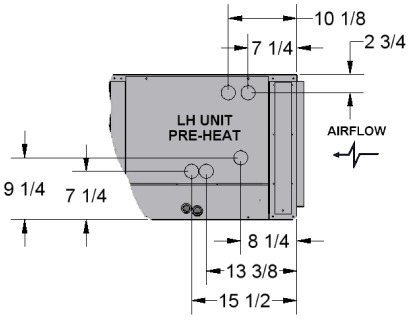


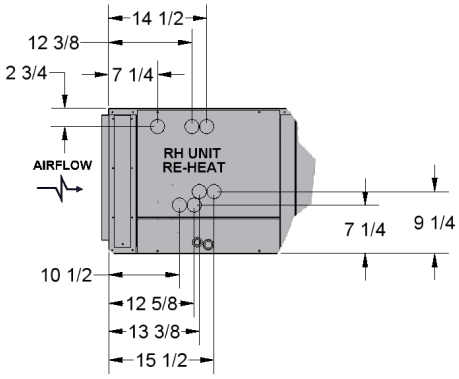


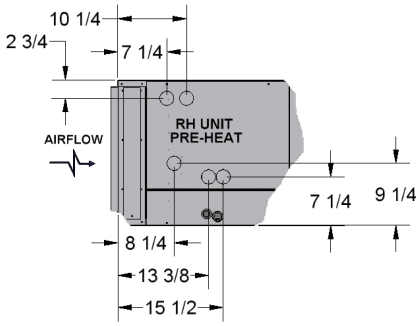
60-80 MIXING BOX DIMENSIONS														
UNIT MODEL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**
9BDAM60	61	43-5/16	22	56	14	4-9/16	1	14-11/16	8-1/2	11-1/4	4-7/8	5-7/8	7-1/2	15-3/16
9BDAM80	61	55-7/8	22	56	14	4-9/16	1	20-15/16	8-1/2	17-1/2	4-7/8	5-13/16	7-9/16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

HYDRONIC MANIFOLD - *8-40WH*



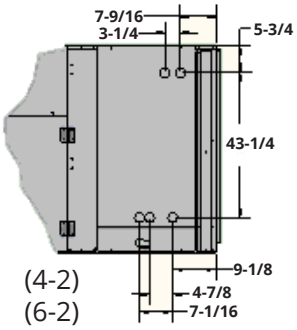


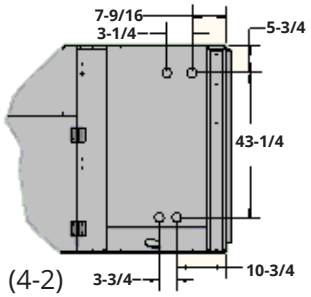


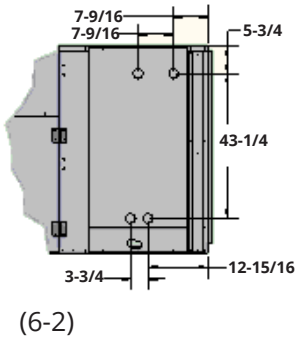


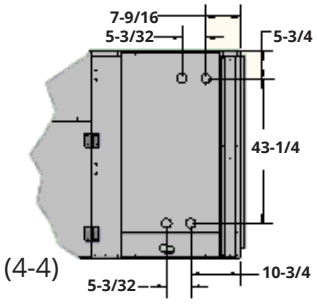
COIL MANIFOLD CONNECTIONS					PLASTIC CONDENSATE PAN CONNECTIONS		SS CONDENSATE PAN CONNECTIONS	
UNIT MODEL	1 ROW	2 ROW	4 ROW	6 ROW	PRIMARY	SECONDARY	PRIMARY	SECONDARY
8WH	7/8" O.D.	7/8" O.D.	7/8" O.D.	7/8" O.D.	3/4" PVC I.D.	1/2" PVC SLIP I.D.	3/4" MPT	3/4" MPT
12WH	7/8" O.D.	7/8" O.D.	7/8" O.D.	7/8" O.D.	3/4" PVC I.D.	1/2" PVC SLIP I.D.	3/4" MPT	3/4" MPT
16WH	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
20WH	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
30WH	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
40WH	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 - *60WH*



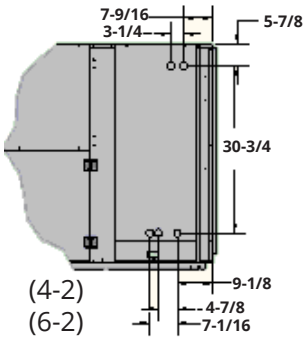


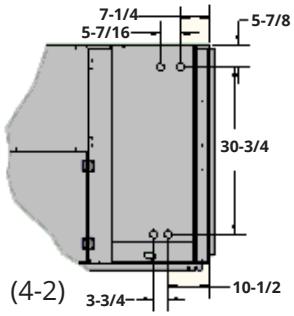


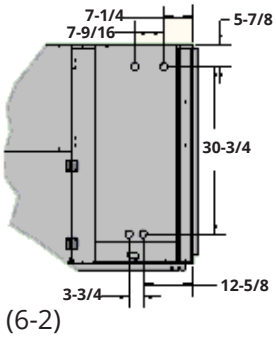


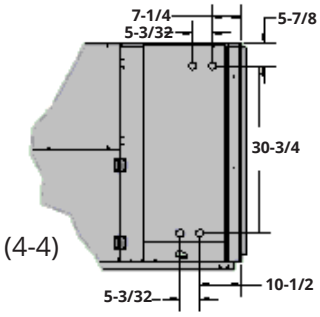
COIL MANIFOLD CONNECTIONS					PLASTIC CONDENSATE PAN CONNECTIONS		SS CONDENSATE PAN CONNECTIONS	
UNIT MODEL	1 ROW	2 ROW	4 ROW	6 ROW	PRIMARY	SECONDARY	PRIMARY	SECONDARY
60WH	1-3/8" O.D.	1-3/8" O.D.	1-3/8" O.D.	1-3/8" O.D.	3/4" PVC I.D.	1/2" PVC SLIP I.D.	3/4" MPT	3/4" MPT
COIL CONNECTIONS ARE COPPER SWEAT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

HYDRONIC MANIFOLD - *80WH*









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
80WH	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 - *8WH*

8WH (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

8WH (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: Capacitys 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 - *12WH*

12WH (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

12WH (6 ROW - QUARTER CIRCUIT) (45° EWT)																
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: Capacitys 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 - *16WH*

16WH (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

16WH (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: Capacitys 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 - *20WH*

20WH (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

20WH (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: Capacitys 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 - *30WH*

30WH (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

30WH (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: Capacitys 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 - *40WH*

40WH (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

40WH (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: Capacitys 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 - *60WH*

60WH (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

60WH (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	51.9	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: Capacitys 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 - *80WH*

80WH (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

80WH (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: Capacitys and pressure drops based on half Circuited coils. For lower pressure drops contact the factory for half to full circuit coils.

HEATING PERFORMANCE - *8-20WH*

8WH

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

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

12WH

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

12WH (2 ROW COIL - HALF CIRCUIT) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
1000 1200 1400	4.0	0.8	63.8 69.5 73.9	32.3 35.0 37.2	126.4 121.0 116.5
1000 1200 1400	7.0	2.3	72.7 80.3 87.0	21.1 23.3 25.1	134.7 129.4 124.9
1000 1200 1400	10.0	406	77.1 85.8 93.7	15.7 17.4 18.9	138.6 133.5 129.2

16WH

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

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

20WH

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

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

HEATING PERFORMANCE - *30-80WH*

30WH

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

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

40WH

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

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

60WH

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

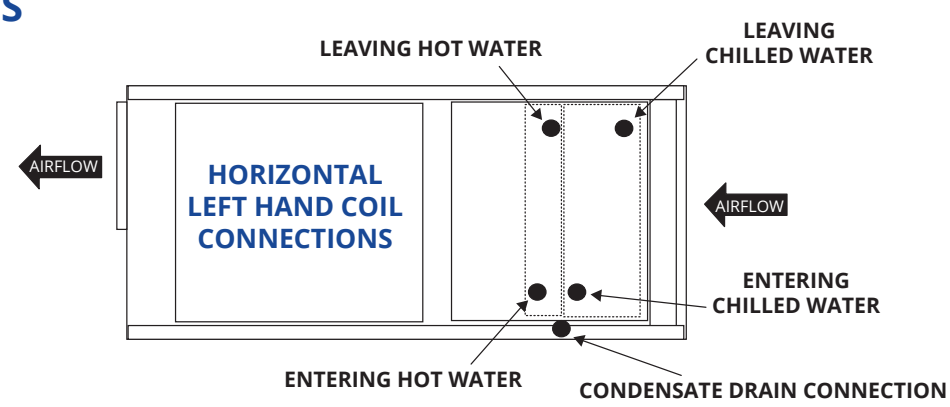
60WH (2 ROW COIL - HALF CIRCUIT) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
5200 6000 6800	11.0	1.1	293.7 310.3 324.2	53.9 56.8 59.3	119.8 115.5 111.9
5200 6000 6800	15.0	1.9	329.8 351.4 369.7	44.4 47.3 49.7	126.0 121.7 117.9
5200 6000 6800	19.0	3.0	354.3 379.9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

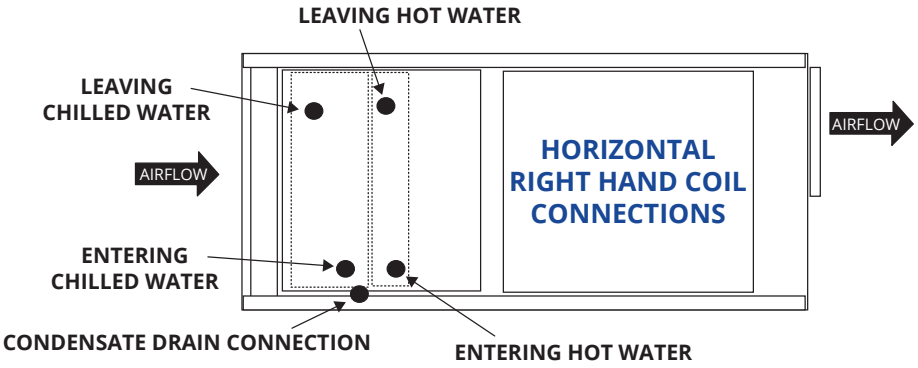
80WH

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

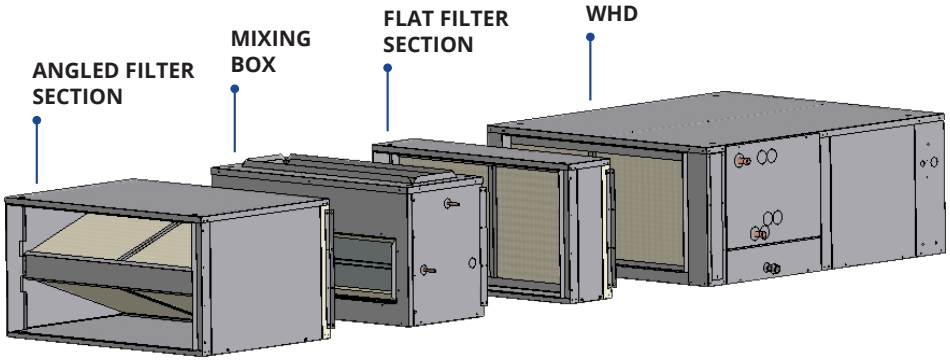
80WH (2 ROW COIL - HALF CIRCUIT) (180° EWT)					
CFM	GPM	P.D. FT.	ENTERING AIR - 70°F DB		
			TOTAL MBH	TEMP. RISE	LADB
6000 8000 10000	14.0	1.4	360.4 407.8 442.6	52.1 58.1 62.4	123.1 114.4 108.1
6000 8000 10000	18.0	2.2	396.9 452.0 496.1	44.5 50.3 54.6	128.3 119.5 113.0
6000 8000 10000	22.0	3.2	421.9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

CONNECTIONS





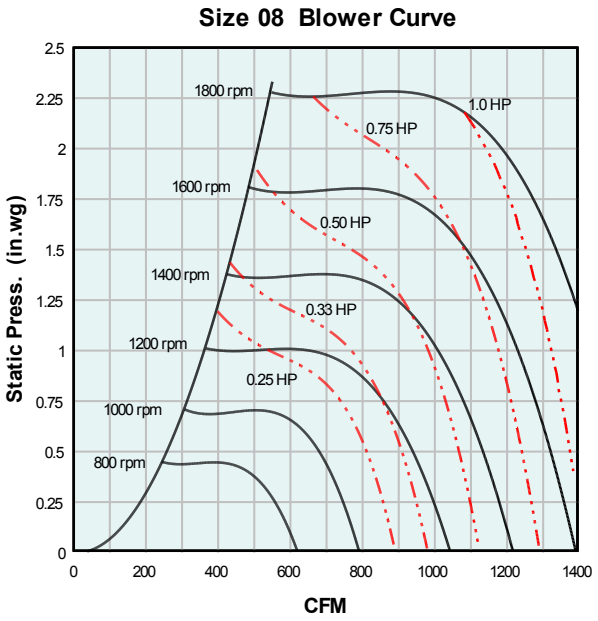
SERVICE CLEARANCE



*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 ANGLED	ALL ROWS			TOP	BOTTOM
8WHD	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
12WHD	42.0″	42.0″	42.0″	42..0″	42.0″	42.0″		
16WHD	48.0″	48.0″	48.0″	48.0″	48.0″	48.0″		
20WHD	52.0″	52.0″	52.0″	52.0″	52.0″	52.0″		
30WHD	52.0″	52.0″	52.0″	52.0″	52.0″	52.0″		
40WHD	54.0″	54.0″	54.0″	54.0″	54.0″	54.0″		
60WHD	64.0″	64.0″	64.0″	64.0″	64.0″	64.0″		
80WHD	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/8WH*



8WH											
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	
600	0.06	0.14	0.18	0.20	0.26	0.05	0.09	0.06	0.05		.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	NA	.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

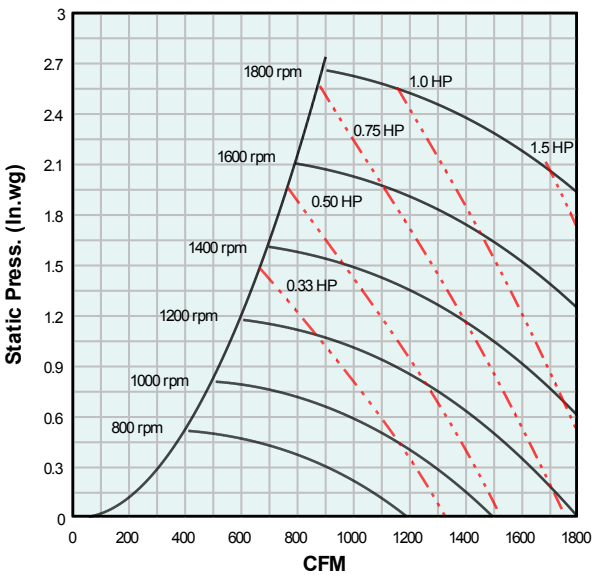
2 Ton (08) Horizontal Belt Drive Information			
HP	Voltage	Blower RPM	Motor / Drive Kit Number
1/4	115-1-60	825 - 1065	9MD08-A1
1/4	115 / 208 - 2301-60	825 - 1065	9MD08-A2
1/4	277-1-60	825 - 1065	9MD08-A3
1/4	115-1-60	955 - 1240	9MD08-A6
1/4	115 / 208 - 230-1-60	955 - 1240	9MD08-A7
1/4	277-1-60	955 - 1240	9MD08-A8
1/3	115-1-60	825 - 1065	9MD08-B1
1/3	115 / 208- 230-1-60	825 - 1065	9MD08-B2
1/3	277-1-60	825 - 1065	9MD08-B3
1/3	208 - 230 / 460-3-60	825 - 1065	9MD08-B4
1/3	575-3-60	825 - 1065	9MD08-B5
1/3	115-1-60	955 - 1240	9MD08-B6
1/3	115 / 208- 230-1-60	955 - 1240	9MD08-B7
1/3	277-1-60	955 - 1240	9MD08-B8
1/3	208 - 230 / 460-3-60	955 - 1240	9MD08-B9
1/3	575-3-60	955 - 1240	9MD08-B10
1/3	115-1-60	1020 - 1330	9MD08-B11
1/3	115 / 208- 230-1-60	1020 - 1330	9MD08-B12
1/3	277-1-60	1020 - 1330	9MD08-B13
1/3	208 - 230 / 460-3-60	1020 - 1330	9MD08-B14
1/3	575-3-60	1020 - 1330	9MD08-B15

2 Ton (08) Horizontal Belt Drive Information			
HP	Voltage	Blower RPM	Motor / Drive Kit Number
1/2	115-1-60	1020 - 1330	9MD08-C1
1/2	115 / 208- 230-1-60	1020 - 1330	9MD08-C2
1/2	277-1-60	1020 - 1330	9MD08-C3
1/2	208 - 230 / 460-3-60	1020 - 1330	9MD08-C4
1/2	575-3-60	1020 - 1330	9MD08-C5
1/2	115-1-60	1165 - 1520	9MD08-C6
1/2	115 / 208- 230-1-60	1165 - 1520	9MD08-C7
1/2	277-1-60	1165 - 1520	9MD08-C8
1/2	208 - 230 / 460-3-60	1165 - 1520	9MD08-C9
1/2	575-3-60	1165 - 1520	9MD08-C10
3/4	115 / 208- 230-1-60	1165 - 1520	9MD08-D2
3/4	277-1-60	1165 - 1520	9MD08-D3
3/4	208 - 230 / 460-3-60	1165 - 1520	9MD08-D4
3/4	575-3-60	1165 - 1520	9MD08-D5
3/4	115 / 208- 230-1-60	1310 - 1710	9MD08-D7
3/4	277-1-60	1310 - 1710	9MD08-D8
3/4	208 - 230 / 460-3-60	1310 - 1710	9MD08-D9
3/4	575-3-60	1310 - 1710	9MD08-D10
1	115 / 208- 230-1-60	1310 - 1710	9MD08-E2
1	277-1-60	1310 - 1710	9MD08-E3
1	208 - 230 / 460-3-60	1310 - 1710	9MD08-E4
1	575-3-60	1310 - 1710	9MD08-E5

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/12WH*

Size 12 Blower Curve



12WH											
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	
1000	0.15	0.15	0.24	0.21	0.34	0.11	0.009	0.06	0.05		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	NA	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

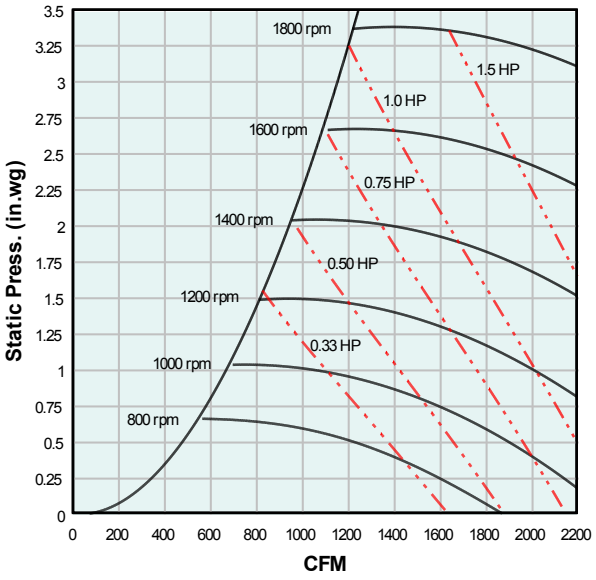
3 Ton (12) Horizontal Belt Drive Information			
HP	Voltage	Blower RPM	Motor / Drive Kit Number
1/3	115-1-60	695 - 890	9MD12-B1
1/3	115 / 208- 230-1-60	695 - 890	9MD12-B2
1/3	277-1-60	695 - 890	9MD12-B3
1/3	208 - 230 / 460-3-60	695 - 890	9MD12-B4
1/3	575-3-60	695 - 890	9MD12-B5
1/3	115-1-60	825 - 1065	9MD12-B6
1/3	115 / 208- 230-1-60	825 - 1065	9MD12-B7
1/3	277-1-60	825 - 1065	9MD12-B8
1/3	208 - 230 / 460-3-60	825 - 1065	9MD12-B9
1/3	575-3-60	825 - 1065	9MD12-B10
1/3	115-1-60	955 - 1240	9MD12-B11
1/3	115 / 208- 230-1-60	955 - 1240	9MD12-B12
1/3	277-1-60	955 - 1240	9MD12-B13
1/3	208 - 230 / 460-3-60	955 - 1240	9MD12-B14
1/3	575-3-60	955 - 1240	9MD12-B15
1/2	115-1-60	695 - 890	9MD12-C1
1/2	115 / 208- 230-1-60	695 - 890	9MD12-C2
1/2	277-1-60	695 - 890	9MD12-C3
1/2	208 - 230 / 460-3-60	695 - 890	9MD12-C4
1/2	575-3-60	695 - 890	9MD12-C5
1/2	115-1-60	825 - 1065	9MD12-C6
1/2	115 / 208- 230-1-60	825 - 1065	9MD12-C7
1/2	277-1-60	825 - 1065	9MD12-C8
1/2	208 - 230 / 460-3-60	825 - 1065	9MD12-C9
1/2	575-3-60	825 - 1065	9MD12-C10
1/2	115-1-60	955 - 1240	9MD12-C11
1/2	115 / 208- 230-1-60	955 - 1240	9MD12-C12
1/2	277-1-60	955 - 1240	9MD12-C13

3 Ton (12) Horizontal Belt Drive Information			
HP	Voltage	Blower RPM	Motor / Drive Kit Number
1/2	208 - 230 / 460-3-60	955 - 1240	9MD12-C14
1/2	575-3-60	955 - 1240	9MD12-C15
1/2	115-1-60	1165 - 1520	9MD12-C16
1/2	115 / 208- 230-1-60	1165 - 1520	9MD12-C17
1/2	277-1-60	1165 - 1520	9MD12-C18
1/2	208 - 230 / 460-3-60	1165 - 1520	9MD12-C19
1/2	575-3-60	1165 - 1520	9MD12-C20
3/4	115 / 208- 230-1-60	825 - 1065	9MD12-D2
3/4	277-1-60	825 - 1065	9MD12-D3
3/4	208 - 230 / 460-3-60	825 - 1065	9MD12-D4
3/4	575-3-60	825 - 1065	9MD12-D5
3/4	115 / 208- 230-1-60	955 - 1240	9MD12-D7
3/4	277-1-60	955 - 1240	9MD12-D8
3/4	208 - 230 / 460-3-60	955 - 1240	9MD12-D9
3/4	575-3-60	955 - 1240	9MD12-D10
3/4	115 / 208- 230-1-60	1165 - 1520	9MD12-D12
3/4	277-1-60	1165 - 1520	9MD12-D13
3/4	208 - 230 / 460-3-60	1165 - 1520	9MD12-D14
3/4	575-3-60	1165 - 1520	9MD12-D15
3/4	115 / 208- 230-1-60	1235 - 1610	9MD12-D17
3/4	277-1-60	1235 - 1610	9MD12-D18
3/4	208 - 230 / 460-3-60	1235 - 1610	9MD12-D19
3/4	575-3-60	1235 - 1610	9MD12-D20
1	115 / 208- 230-1-60	1075 - 1400	9MD12-E2
1	277-1-60	1075 - 1400	9MD12-E3
1	208 - 230 / 460-3-60	1075 - 1400	9MD12-E4
1	575-3-60	1075 - 1400	9MD12-E5
1	115 / 208- 230-1-60	1310 - 1710	9MD12-E7
1	277-1-60	1310 - 1710	9MD12-E8
1	208 - 230 / 460-3-60	1310 - 1710	9MD12-E9
1	575-3-60	1310 - 1710	9MD12-E10
1-1/2	115 / 208- 230-1-60	1310 - 1710	9MD12-F2
1-1/2	277-1-60	1310 - 1710	9MD12-F3
1-1/2	208 - 230 / 460-3-60	1310 - 1710	9MD12-F4
1-1/2	575-3-60	1310 - 1710	9MD12-F5

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/16WH*

Size 16 Blower Curve



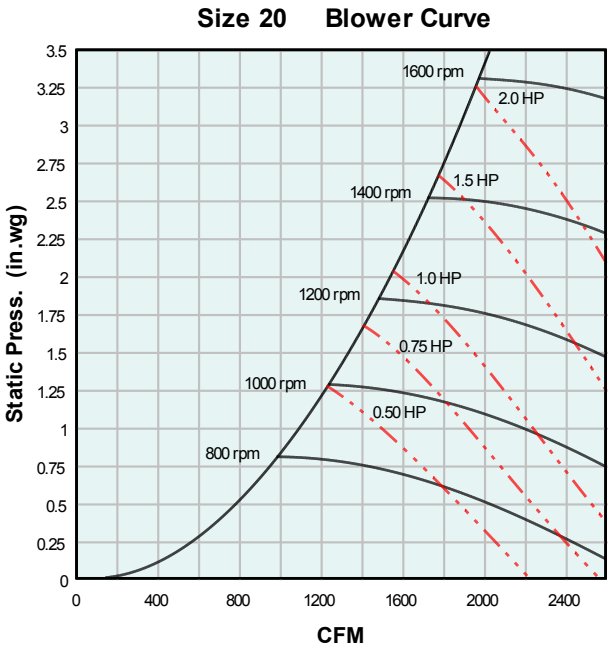
16WH											
CFM	Componet Static Pressure (Inches of Water)										
	CABINET	Chilled Water Coil				Hot Water Coil	Filter Sections				Mixing Box
		Dry Coil		Wet Coil		Dry Coil	2" Flat	4" Flat	2" Angled	4" Angled	
		4 Row	6 Row	4 Row	6 Row	*1-2 Row	Merv 7	Merv 7	Merv 7	Merv 7	
1200	0.12	0.17	0.22	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	115-1-60	695 - 890	9MD16-B1
1/3	115 / 208 - 230-1-60	695 - 890	9MD16-B2
1/3	277-1-60	695 - 890	9MD16-B3
1/3	208 - 230 / 460-3-60	695 - 890	9MD16-B4
1/3	575-3-60	695 - 890	9MD16-B5
1/2	115-1-60	695 - 890	9MD16-C1
1/2	115 / 208 - 230-1-60	695 - 890	9MD16-C2
1/2	277-1-60	695 - 890	9MD16-C3
1/2	208 - 230 / 460-3-60	695 - 890	9MD16-C4
1/2	575-3-60	695 - 890	9MD16-C5
1/2	115-1-60	825 - 1065	9MD16-C6
1/2	115 / 208 - 230-1-60	825 - 1065	9MD16-C7
1/2	277-1-60	825 - 1065	9MD16-C8
1/2	208 - 230 / 460-3-60	825 - 1065	9MD16-C9
1/2	575-3-60	825 - 1065	9MD16-C10
1/2	115-1-60	955 - 1240	9MD16-C11
1/2	115 / 208 - 230-1-60	955 - 1240	9MD16-C12
1/2	277-1-60	955 - 1240	9MD16-C13
1/2	208 - 230 / 460-3-60	955 - 1240	9MD16-C14
1/2	575-3-60	955 - 1240	9MD16-C15
3/4	115 / 208- 230-1-60	695 - 890	9MD16-D2
3/4	277-1-60	695 - 890	9MD16-D3
3/4	208 - 230 / 460-3-60	695 - 890	9MD16-D4
3/4	575-3-60	695 - 890	9MD16-D5
3/4	115 / 208- 230-1-60	825 - 1065	9MD16-D7

4 Ton (16) Horizontal Belt Drive Information			
HP	Voltage	Blower RPM	Motor / Drive Kit Number
3/4	277-1-60	825 - 1065	9MD16-D8
3/4	208 - 230 / 460-3-60	825 - 1065	9MD16-D9
3/4	575-3-60	825 - 1065	9MD16-D10
3/4	115 / 208- 230-1-60	955 - 1240	9MD16-D12
3/4	277-1-60	955 - 1240	9MD16-D13
3/4	208 - 230 / 460-3-60	955 - 1240	9MD16-D14
3/4	575-3-60	955 - 1240	9MD16-D15
3/4	115 / 208- 230-1-60	1075 - 1400	9MD16-D17
3/4	277-1-60	1075 - 1400	9MD16-D18
3/4	208 - 230 / 460-3-60	1075 - 1400	9MD16-D19
3/4	575-3-60	1075 - 1400	9MD16-D20
1	115 / 208- 230-1-60	825 - 1065	9MD16-E2
1	277-1-60	825 - 1065	9MD16-E3
1	208 - 230 / 460-3-60	825 - 1065	9MD16-E4
1	575-3-60	825 - 1065	9MD16-E5
1	115 / 208- 230-1-60	955 - 1240	9MD16-E7
1	277-1-60	955 - 1240	9MD16-E8
1	208 - 230 / 460-3-60	955 - 1240	9MD16-E9
1	575-3-60	955 - 1240	9MD16-E10
1	115 / 208- 230-1-60	1075 - 1400	9MD16-E12
1	277-1-60	1075 - 1400	9MD16-E13
1	208 - 230 / 460-3-60	1075 - 1400	9MD16-E14
1	575-3-60	1075 - 1400	9MD16-E15
1	115 / 208- 230-1-60	1235 - 1610	9MD16-E17
1	277-1-60	1235 - 1610	9MD16-E18
1	208 - 230 / 460-3-60	1235 - 1610	9MD16-E19
1	575-3-60	1235 - 1610	9MD16-E20
1-1/2	115 / 208- 230-1-60	1235 - 1610	9MD16-F2
1-1/2	277-1-60	1235 - 1610	9MD16-F3
1-1/2	208 - 230 / 460-3-60	1235 - 1610	9MD16-F4
1-1/2	575-3-60	1340 - 1620	9MD16-F5

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/20WH*



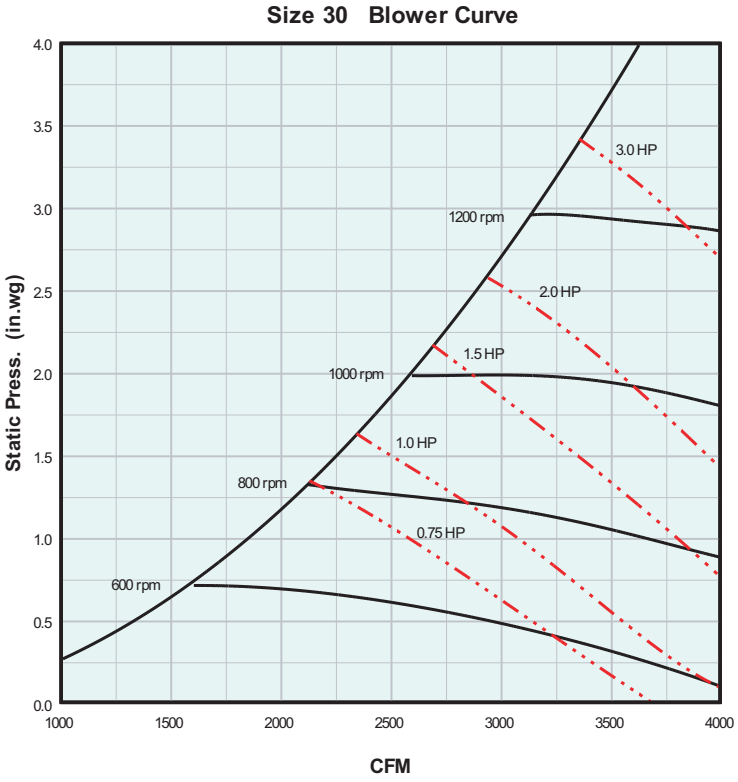
20WH											
CFM	Componet Static Pressure (Inches of Water)										
	CABINET	Chilled Water Coil				Hot Water Coil	Filter Sections				Mixing Box
		Dry Coil		Wet Coil		Dry Coil	2" Flat	4" Flat	2" Angled	4" Angled	
		4 Row	6 Row	4 Row	6 Row	*1-2 Row	Merv 7	Merv 7	Merv 7	Merv 7	
1600	0.13	0.15	0.22	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	115-1-60	540 - 685	9MD20-C1
1/2	115 / 208 - 230-1-60	540 - 685	9MD20-C2
1/2	277-1-60	540 - 685	9MD20-C3
1/2	208 - 230 / 460-3-60	540 - 685	9MD20-C4
1/2	575-3-60	540 - 685	9MD20-C5
1/2	115-1-60	695 - 890	9MD20-C6
1/2	115 / 208 - 230-1-60	695 - 890	9MD20-C7
1/2	277-1-60	695 - 890	9MD20-C8
1/2	208 - 230 / 460-3-60	695 - 890	9MD20-C9
1/2	575-3-60	695 - 890	9MD20-C10
3/4	115 / 208- 230-1-60	540 - 685	9MD20-D2
3/4	277-1-60	540 - 685	9MD20-D3
3/4	208 - 230 / 460-3-60	540 - 685	9MD20-D4
3/4	575-3-60	540 - 685	9MD20-D5
3/4	115 / 208- 230-1-60	695 - 890	9MD20-D7
3/4	277-1-60	695 - 890	9MD20-D8
3/4	208 - 230 / 460-3-60	695 - 890	9MD20-D9
3/4	575-3-60	695 - 890	9MD20-D10
3/4	115 / 208- 230-1-60	825 - 1065	9MD20-D12
3/4	277-1-60	825 - 1065	9MD20-D13
3/4	208 - 230 / 460-3-60	825 - 1065	9MD20-D14
3/4	575-3-60	825 - 1065	9MD20-D15
1	115 / 208- 230-1-60	695 - 890	9MD20-E2
1	277-1-60	695 - 890	9MD20-E3

5 Ton (20) Horizontal Belt Drive Information			
HP	Voltage	Blower RPM	Motor / Drive Kit Number
1	208 - 230 / 460-3-60	695 - 890	9MD20-E4
1	575-3-60	695 - 890	9MD20-E5
1	115 / 208- 230-1-60	825 - 1065	9MD20-E7
1	277-1-60	825 - 1065	9MD20-E8
1	208 - 230 / 460-3-60	825 - 1065	9MD20-E9
1	575-3-60	825 - 1065	9MD20-E10
1	115 / 208- 230-1-60	955 - 1240	9MD20-E12
1	277-1-60	955 - 1240	9MD20-E13
1	208 - 230 / 460-3-60	955 - 1240	9MD20-E14
1	575-3-60	955 - 1240	9MD20-E15
1-1/2	115 / 208- 230-1-60	825 - 1065	9MD20-F2
1-1/2	277-1-60	825 - 1065	9MD20-F3
1-1/2	208 - 230 / 460-3-60	825 - 1065	9MD20-F4
1-1/2	575-3-60	850 - 1010	9MD20-F5
1-1/2	115 / 208- 230-1-60	955 - 1240	9MD20-F7
1-1/2	277-1-60	955 - 1240	9MD20-F8
1-1/2	208 - 230 / 460-3-60	955 - 1240	9MD20-F9
1-1/2	575-3-60	955 - 1140	9MD20-F10
1-1/2	115 / 208- 230-1-60	1075 - 1400	9MD20-F12
1-1/2	277-1-60	1075 - 1400	9MD20-F13
1-1/2	208 - 230 / 460-3-60	1075 - 1400	9MD20-F14
1-1/2	575-3-60	1090 - 1310	9MD20-F15
2	115 / 208- 230-1-60	1025 - 1330	9MD20-G2
2	277-1-60	1025 - 1330	
2	208 - 230 / 460-3-60	1025 - 1330	9MD20-G4
2	575-3-60	1060 - 1270	9MD20-G5
2	115 / 208- 230-1-60	1235 - 1610	9MD20-G7
2	277-1-60	1235 - 1610	
2	208 - 230 / 460-3-60	1235 - 1610	9MD20-G9
2	575-3-60	1340 - 1620	9MD20-G10

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
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/30WH*



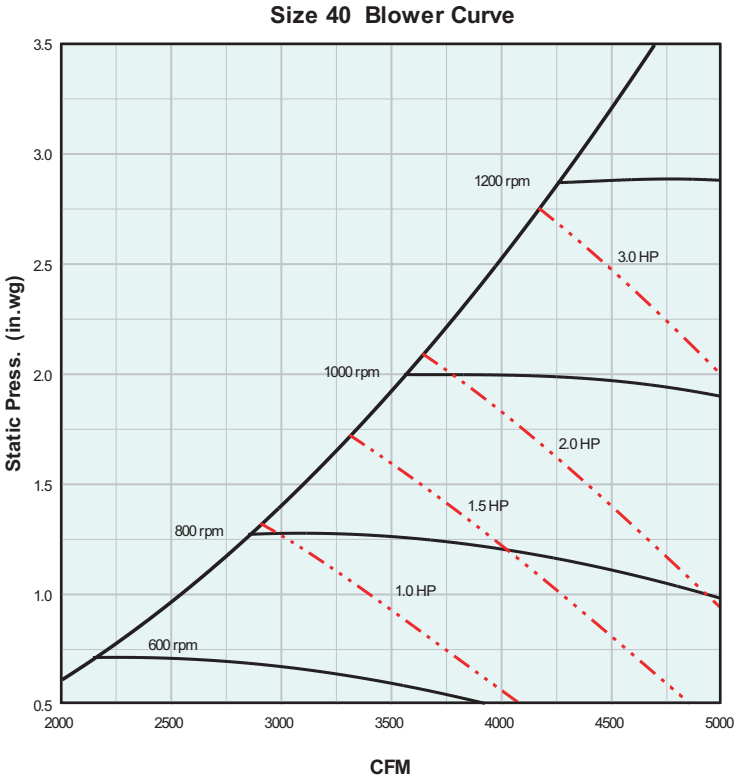
30WH											
CFM	Componet Static Pressure (Inches of Water)										
	CABINET	Chilled Water Coil				Hot Water Coil	Filter Sections				Mixing Box
		Dry Coil		Wet Coil		Dry Coil	2" Flat	4" Flat	2" Angled	4" Angled	
		4 Row	6 Row	4 Row	6 Row	*1-2 Row	Merv 7	Merv 7	Merv 7	Merv 7	
2600	0.17	0.11	0.15	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
3/4	115 / 208 - 230	1	615 - 720	9MD30-D2
3/4	277	1	615 - 720	9MD30-D3
3/4	208 - 230 / 460	3	615 - 720	9MD30-D4
3/4	575	3	615 - 720	9MD30-D5
1	115 / 208- 230	1	615 - 720	9MD30-E2
1	277	1	615 - 720	9MD30-E3
1	208 - 230 / 460	3	615 - 720	9MD30-E4
1	575	3	615 - 720	9MD30-E5
1	115 / 208 - 230	1	665 - 785	9MD30-E7
1	277	1	665 - 785	9MD30-E8
1	208 - 230 / 460	3	665 - 785	9MD30-E9
1	575	3	665 - 785	9MD30-E10
1	115 / 208 - 230	1	730 - 865	9MD30-E12
1	277	1	730 - 865	9MD30-E13
1	208 - 230 / 460	3	730 - 865	9MD30-E14
1	575	3	730 - 865	9MD30-E15
1-1/2	115 / 208 - 230	1	730 - 865	9MD30-F2
1-1/2	277	1	730 - 865	9MD30-F3

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	9MD30-F4
1-1/2	575	3	730 - 865	9MD30-F5
1-1/2	115 / 208 - 230	1	805 - 955	9MD30-F7
1-1/2	277	1	805 - 955	9MD30-F8
1-1/2	208- 230 / 460	3	805 - 955	9MD30-F9
1-1/2	575	3	805 - 955	9MD30-F10
1-1/2	115 / 208 - 230	1	850 - 1010	9MD30-F12
1-1/2	277	1	850 - 1010	9MD30-F13
1-1/2	208- 230 / 460	3	850 - 1010	9MD30-F14
1-1/2	575	3	850 - 1010	9MD30-F15
2	115 / 208 - 230	1	850 - 1010	9MD30-G2
2	277	1	850 - 1010	
2	208- 230 / 460	3	850 - 1010	9MD30-G4
2	575	3	850 - 1010	9MD30-G5
2	115 / 208 - 230	1	955 - 1140	9MD30-G7
2	277	1	955 - 1140	
2	208- 230 / 460	3	955 - 1140	9MD30-G9
2	575	3	955 - 1140	9MD30-G10
3	115 / 208 - 230	1	955 - 1140	9MD30-H2
3	277	1		
3	208- 230 / 460	3	955 - 1140	9MD30-H4
3	575	3	955 - 1140	9MD30-H5
3	115 / 208 - 230	1	1060 - 1270	9MD30-H7
3	277	1		
3	208- 230 / 460	3	1060 - 1270	9MD30-H9
3	575	3	1060 - 1270	9MD30-H10

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/40WH*



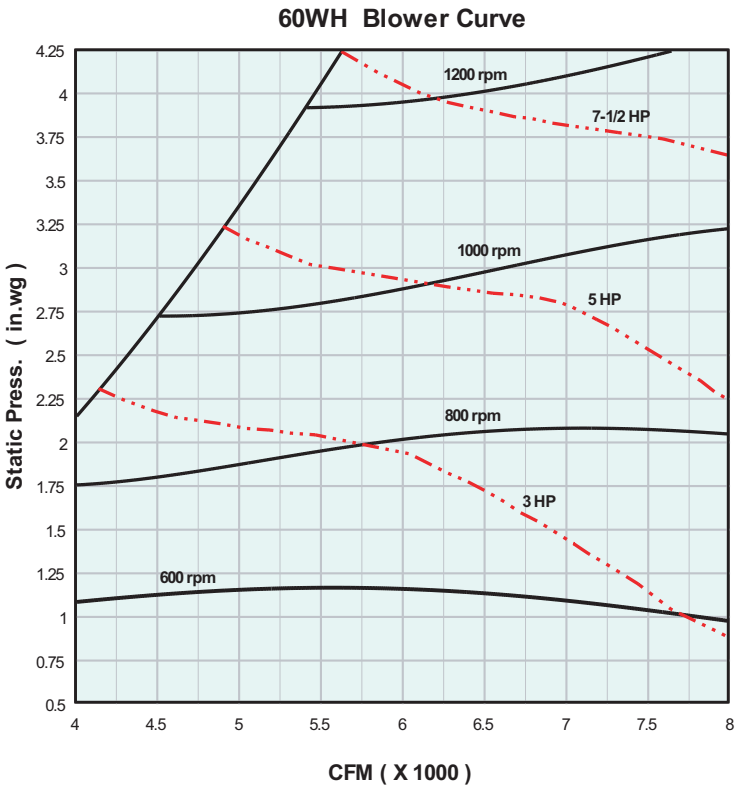
40WH											
CFM	Componet Static Pressure (Inches of Water)										
	CABINET	Chilled Water Coil				Hot Water Coil	Filter Sections				Mixing Box
		Dry Coil		Wet Coil		Dry Coil	2" Flat	4" Flat	2" Angled	4" Angled	
		4 Row	6 Row	4 Row	6 Row	*1-2 Row	Merv 7	Merv 7	Merv 7	Merv 7	
3600	0.14	0.12	0.18	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	9MD40-F2
1-1/2	277	1	695 - 825	9MD40-F3
1-1/2	208- 230 / 460	3	695 - 825	9MD40-F4
1-1/2	575	3	695 - 825	9MD40-F5
1-1/2	115 / 208 - 230	1	765 - 910	9MD40-F7
1-1/2	277	1	765 - 910	9MD40-F8
1-1/2	208- 230 / 460	3	765 - 910	9MD40-F9
1-1/2	575	3	765 - 910	9MD40-F10
2	115 / 208 - 230	1	695 - 825	9MD40-G2
2	277	1	695 - 825	
2	208- 230 / 460	3	695 - 825	9MD40-G4
2	575	3	695 - 825	9MD40-G5

10 Ton (40) Horizontal Belt Drive Information				
HP	Voltage	Phase	Blower RPM	Motor / Drive Kit Number
2	115 / 208 - 230	1	765 - 910	9MD40-G7
2	277	1	765 - 910	
2	208- 230 / 460	3	765 - 910	9MD40-G9
2	575	3	765 - 910	9MD40-G10
2	115 / 208 - 230	1	850 - 1010	9MD40-G12
2	277	1		
2	208- 230 / 460	3	850 - 1010	9MD40-G14
2	575	3	850 - 1010	9MD40-G15
3	115 / 208 - 230	1	765 - 910	9MD40-H2
3	277	1		
3	208- 230 / 460	3	765 - 910	9MD40-H4
3	575	3	765 - 910	9MD40-H5
3	115 / 208 - 230	1	850 - 1010	9MD40-H7
3	277	1		
3	208- 230 / 460	3	850 - 1010	9MD40-H9
3	575	3	850 - 1010	9MD40-H10
3	115 / 208 - 230	1	955 - 1140	9MD40-H12
3	277	1		
3	208- 230 / 460	3	955 - 1140	9MD40-H14
3	575	3	955 - 1140	9MD40-H15
5	208- 230 / 460	3	900 - 1075	9MD40-J4
5	575	3	900 - 1075	9MD40-J5
5	208- 230 / 460	3	1015 - 1220	9MD40-J9
5	575	3	1015 - 1220	9MD40-J10

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/60WH*

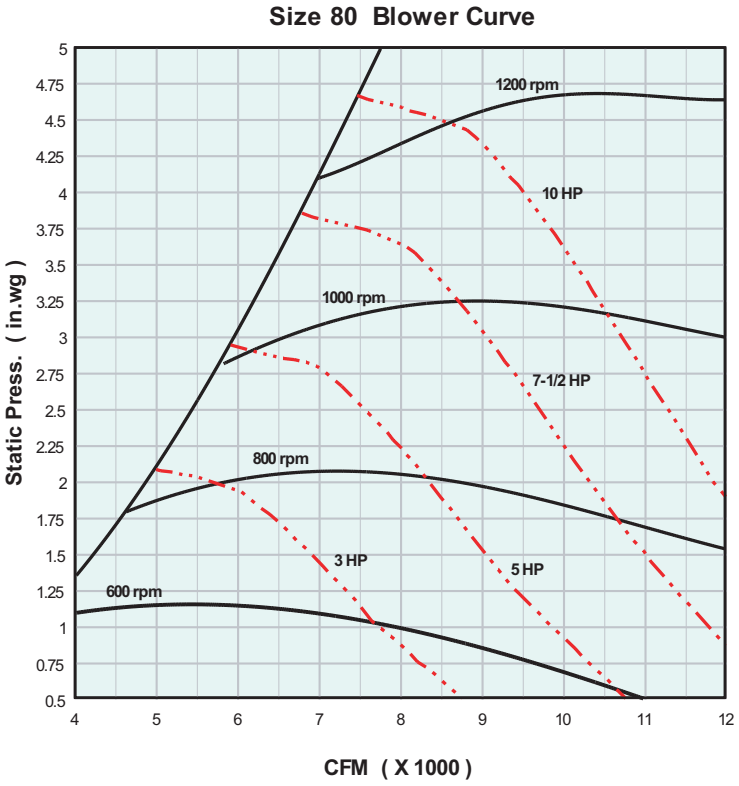


60WH											
CFM	CABINET	Componet Static Pressure (Inches of Water)									
		Chilled Water Coil				Hot Water Coil	Filter Sections				Mixing Box
		Dry Coil		Wet Coil		Dry Coil	2" Flat	4" Flat	2" Angled	4" Angled	
		4 Row	6 Row	4 Row	6 Row	*1-2 Row	Merv 7	Merv 7	Merv 7	Merv 7	
5600	0.01	0.14	0.20	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	9MD60-H2
3	277	1	60		
3	208- 230 / 460	3	60	615 - 720	9MD60-H4
3	575	3	60	615 - 720	9MD60-H5
3	115 / 208 - 230	1	60	665 -785	9MD60-H7
3	277	1	60		
3	208- 230 / 460	3	60	665 -785	9MD60-H9
3	575	3	60	665 -785	9MD60-H10
3	115 / 208 - 230	1	60	730 - 865	9MD60-H12
3	277	1	60		
3	208- 230 / 460	3	60	730 - 865	9MD60-H14
3	575	3	60	730 - 865	9MD60-H15
5	208- 230 / 460	3	60	730 - 865	9MD60-J4
5	575	3	60	730 - 865	9MD60-J5
5	208- 230 / 460	3	60	805 - 955	9MD60-J9
5	575	3	60	805 - 955	9MD60-J10
5	208- 230 / 460	3	60	900 - 1075	9MD60-J14
5	575	3	60	900 - 1075	9MD60-J15
7-1/2	208- 230 / 460	3	60	915 - 1065	9MD60-K4
7-1/2	575	3	60	915 - 1065	9MD60-K5
7-1/2	208- 230 / 460	3	60	1020 - 1195	9MD60-K9
7-1/2	575	3	60	1020 - 1195	9MD60-K10

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/80WH*



80WH											
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	
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	9MD80-H2
3	277	1	60		
3	208- 230 / 460	3	60	615 - 720	9MD80-H4
3	575	3	60	615 - 720	9MD80-H5
3	115 / 208 - 230	1	60	665 -785	9MD80-H7
3	277	1	60		
3	208- 230 / 460	3	60	665 -785	9MD80-H9
3	575	3	60	665 -785	9MD80-H10
3	115 / 208 - 230	1	60	730 - 865	9MD80-H12
3	277	1	60		
3	208- 230 / 460	3	60	730 - 865	9MD80-H14
3	575	3	60	730 - 865	9MD80-H15

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	9MD80-J4
5	575	3	60	615 - 720	9MD80-J5
5	208- 230 / 460	3	60	665 -785	9MD80-J9
5	575	3	60	665 -785	9MD80-J10
5	208- 230 / 460	3	60	730 - 865	9MD80-J14
5	575	3	60	730 - 865	9MD80-J15
5	208- 230 / 460	3	60	805 - 955	9MD80-J19
5	575	3	60	805 - 955	9MD80-J20
7-1/2	208- 230 / 460	3	60	645 - 745	9MD80-K4
7-1/2	575	3	60	645 - 745	9MD80-K5
7-1/2	208- 230 / 460	3	60	700 - 805	9MD80-K9
7-1/2	575	3	60	700 - 805	9MD80-K10
7-1/2	208- 230 / 460	3	60	755 - 875	9MD80-K14
7-1/2	575	3	60	755 - 875	9MD80-K15
7-1/2	208- 230 / 460	3	60	825 - 965	9MD80-K19
7-1/2	575	3	60	825 - 965	9MD80-K20
7-1/2	208- 230 / 460	3	60	915 - 1065	9MD80-K24
7-1/2	575	3	60	915 - 1065	9MD80-K25
7-1/2	208- 230 / 460	3	60	1020 - 1195	9MD80-K29
7-1/2	575	3	60	1020 - 1195	9MD80-K30
10	208- 230 / 460	3	60	915 - 1065	9MD80-L4
10	575	3	60	915 - 1065	9MD80-L5
10	208- 230 / 460	3	60	1020 - 1195	9MD80-L9
10	575	3	60	1020 - 1195	9MD80-L10
10	208- 230 / 460	3	60	1155 - 1360	9MD80-L14
10	575	3	60	1155 - 1360	9MD80-L15

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	484	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	578	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	986FF11M3M	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				3/4	3.5	6	6	3	
		3/4	13.8	20	20	1	986FF11M5M			1	5.6	10	10	3	986FF33M3M
		1	16.4	25	25	1	986FF11M6M			1.5	6.6	10	10	3	
		1.5	20.0	25	25	1				2	7.5	15	15	3	986FF33M4M
		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	986FF71M2M								
		1/2	4.1	6	6	1		460	3	1/3	0.8	3	3	3	986FF63M1M
		3/4	5.7	10	10	1	986FF71M3M			1/2	1.1	3	3	3	
		1	6.8	10	10	1				3/4	1.6	3	3	3	
		1.5	8.5	15	15	1	986FF71M4M			1	3.7	6	6	3	986FF63M2M
		2	10.0	15	15	1				1.5	3.0	6	6	3	
										2	3.7	6	6	3	
208/230	1	1/4	2.9	6	6	2	986FF31M2M			3	4.8	10	10	3	986FF63M3M
		1/3	3.6	6	6	2				5	7.6	10	10	3	
		1/2	4.9	10	10	2	986FF31M3M								
		3/4	6.9	10	10	2		575	3	1/2	0.9	3	3	3	986FF53M1M
		1	8.2	15	15	2	986FF31M4M			3/4	1.3	3	3	3	
		1.5	10.0	15	15	2				1	1.7	3	3	3	986FF53M2M
		2	12.0	20	20	2	986FF31M5M			1.5	2.4	3	3	3	
CONTACT FACTORY FOR MOTOR CONTROLS FOR 7-1/2 & 10 HP MOTORS										2	2.7	6	6	3	
										3	3.9	6	6	3	
										5	6.1	10	10	3	986FF53M3M

SHIPPING WEIGHTS

WHD SERIES WEIGHTS													
MODEL	**BASE UNIT WEIGHTS		COIL WEIGHTS					ACCESSORY WEIGHTS			MOTOR WEIGHTS		
											120/208/240/1PH		277/1/60
	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	HP	LBS	LBS
8HWD	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
12HWD	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		
16HWD	295.0	361.0	1 ROW	8.3	0.37	3.1	11.4	SHIPPING WT	SHIPPING WT	SHIPPING WT	1/4	22.0	
			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	
20HWD	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	N/A
			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	
30HWD	Contact Factory												
40HWD	Contact Factory												
60HWD	Contact Factory												
80HWD	Contact Factory												
**BASE UNIT WEIGHT INCLUDES BLOWER ASSEMBLY, MOTOR SHEAVE, BLOWER PULLEY, BELT AND 2" FILTER													

Catalog No. Double Wall Horizontal