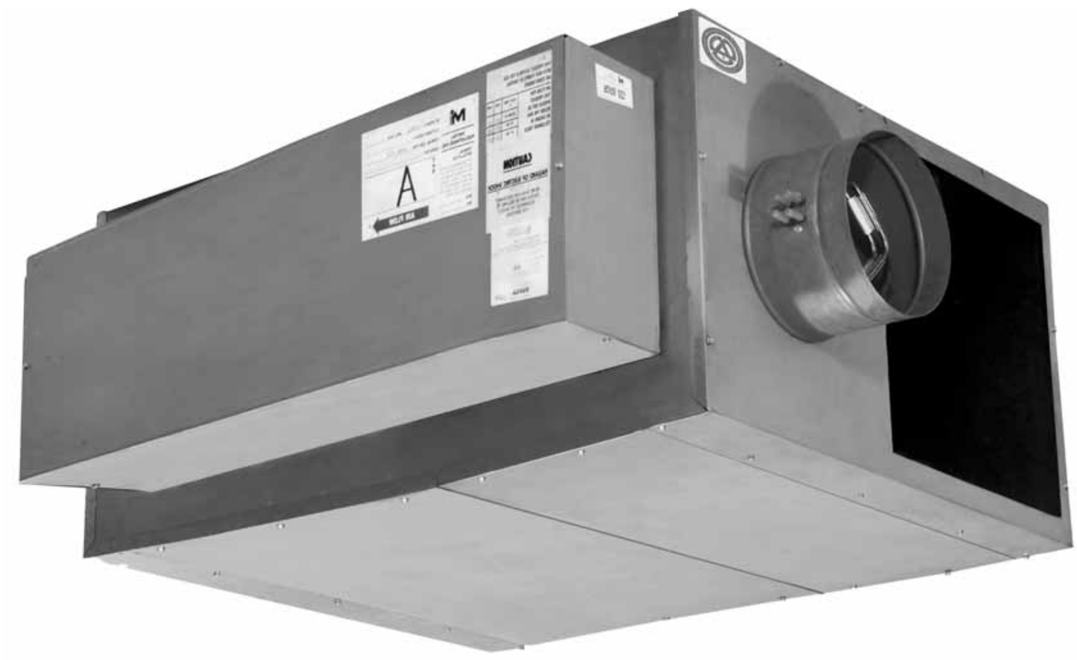
FORM 130.12-EG2 (404)

500-YCI SERIES FAN-POWERED AIR TERMINAL UNIT



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ARI CERTIFIED AIR TERMINALS

YORK Series 500-YCI Air Terminals have been tested by the Air-Conditioning and Refrigeration Institute (ARI) and have been found qualified to bear the certification mark of this independent testing agency.

ARI Certification testing is conducted in accordance with Industry Standard 880 which ensures that the performance data published in this catalog have been independently tested and found to be accurate and repeatable. Accessories which can be attached to the Series 500-YCI Air Terminals are not a part of the ARI certification program but ratings can be affected by their use.

Additional information on these testing programs can be obtained from your local YORK representative.

At YORK, we continually work to improve our products. Product descriptions, dimensions, and performance are subject to change without notice. For the most current available literature visit our web page at www.york.com. Contact your local YORK representative to verify product or performance details.

General Information

INTRODUCTION

Series 500-YCI series fan-powered terminal units are designed to provide superior comfort control to zones with both heating and cooling requirements. The fan in a constant volume (or series) fan-powered terminal, runs continuously during occupied hours. Because the fan provides a constant discharge volume into the space, air motion is uniform and the sound level is constant providing maximum occupant comfort.

The 500-YCI provides cooling through the primary air valve. The primary air valve controls the volume of air that is discharged into the terminal unit. The cooled air is delivered to the space through the terminal's fan. When heating is required, the 500-YCI initially provides plenum air that is drawn through the induction inlet. This is an economical way of heating a space using the wasted heat located in the ceiling plenum. As additional heat is required, optional electric or hot water heat can be turned on to meet the load requirement of the zone.

The 500-YCI is available with a wide range of control options and accessories to meet your design requirements. Whether your requirements are for factory-mounted direct digital controls, pneumatic, or analog, we can meet your control needs.

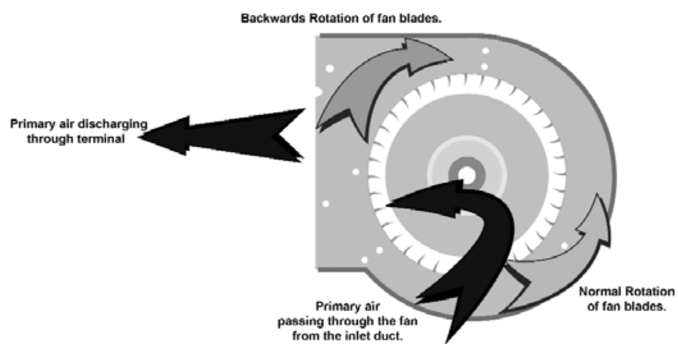
The 500-YCI is available in 7 casing sizes and with a wide range of primary inlet sizes offering the flexibility to meet both your capacity and sound requirements. Superior design and construction make the 500-YCI easy to install and maintain.

OPTIONAL ELECTRONIC ANTI-REVERSE ROTATION DEVICE

The fan wheel in a constant fan box may rotate backwards whenever the fan motor is not running and primary air from the inlet duct is passing through the fan. In some cases the torque developed by the fan wheel when rotating backwards cannot be overcome by the starting torque of the fan motor. In this condition the fan motor will run in reverse rotation, resulting in insufficient airflow delivery.

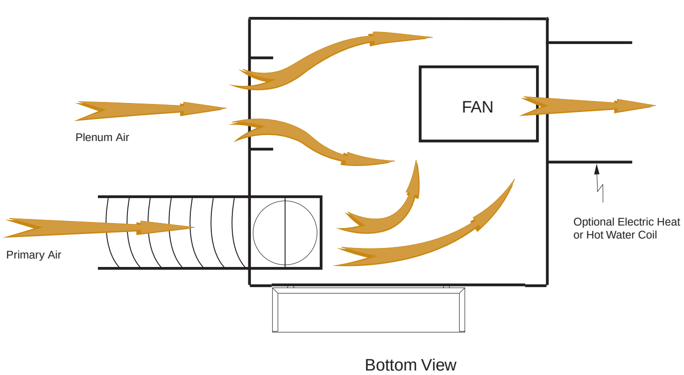
Constant fan boxes must have means to coordinate energizing the fan motor with start up of the Primary Fan System to prevent the reverse rotation or a positive method to create enough motor torque to reverse the rotation of the fan wheel.

Other manufacturers choose to deal with this issue by running their motors with larger capacitors than recommended by the motor manufacturers. The oversized capacitor will cause the motors to run less efficiently, run hotter than normal and draw more current than with a proper capacitor. All of this will result in reduced motor life and increased energy costs.



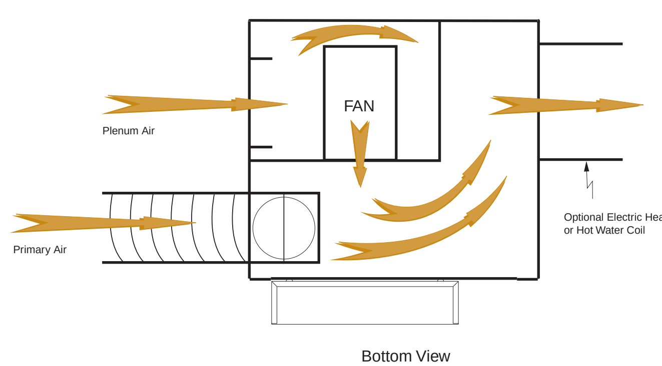
YORK's Model 500-YCI is available with an optional Electronic Anti-Reverse Rotation Device which will positively prevent running in reverse. This option does not draw additional current while running and will not cause the motor to run at higher temperatures. The results are greater efficiency, quieter motors, longer motor life and happier building owners.

500-YCI SERIES FAN-POWERED TERMINAL UNIT



In a Constant Volume (or series) fan-powered terminal, the fan runs continually. Both primary and induced air are discharged through the fan.

500-YVI VARIABLE VOLUME AIR TERMINAL



In a variable volume terminal unit the fan runs only when heating in required. In cooling, the unit functions the same as a single duct VAV terminal.

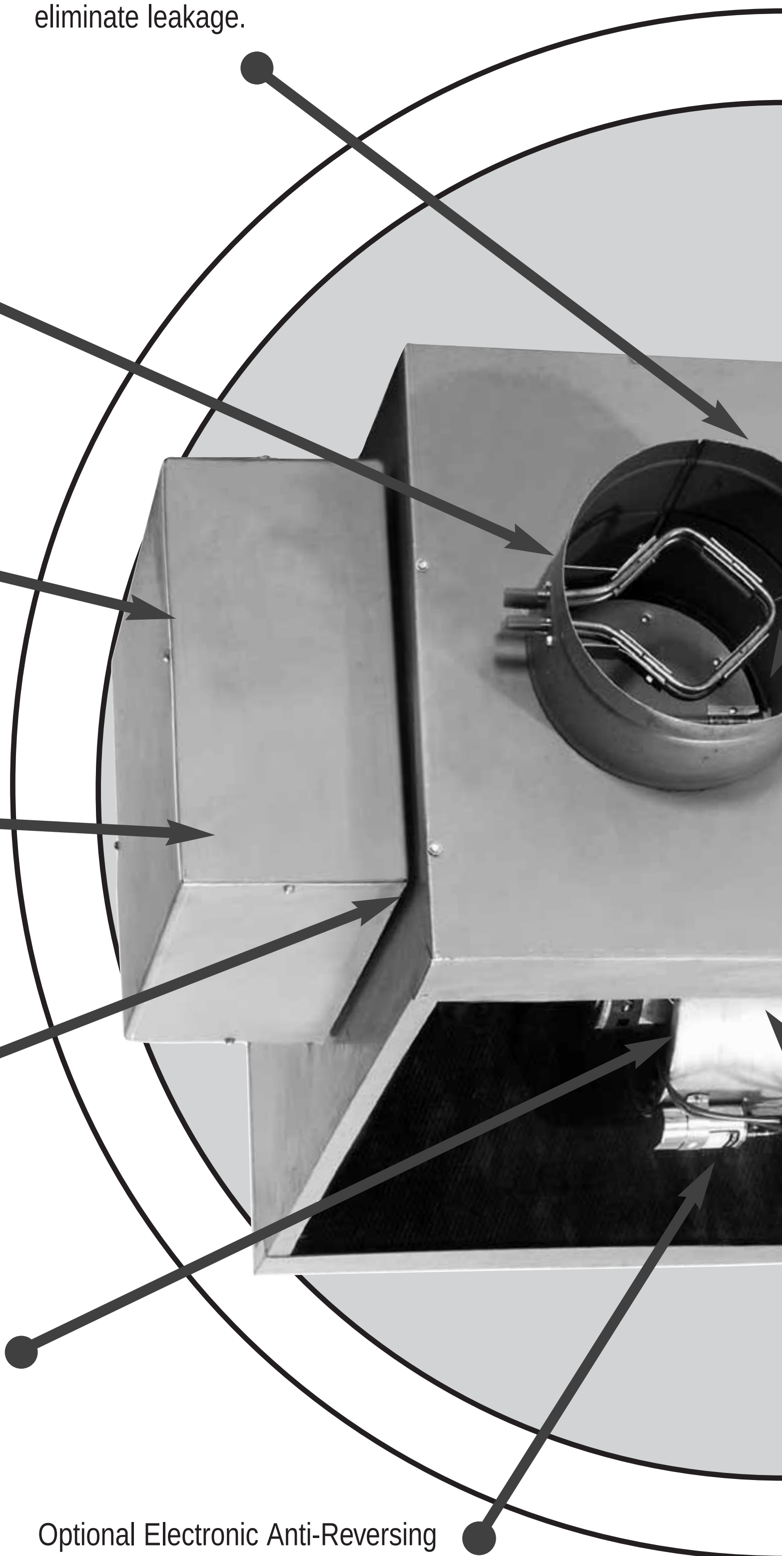
Constant Volume Features

Round primary inlet tubes are constructed with a seamless butt weld for rigidity and to eliminate leakage.

All units are shipped with easy access balancing taps. The extra ports can be used to read CFM (through velocity pressure) directly at the unit.

All units include an SCR solid state fan speed controller. Motors are designed to work in conjunction with the SCR controller.

All electrical wiring is connected using quick-disconnect bulkhead fittings allowing easy servicing of electrical components.



Control panel includes stand-offs to allow mounting of controls without penetrating the casing.

18-gauge fan mounting bracket is designed to allow easy removal of fan assembly for servicing.

Optional Electronic Anti-Reversing Rotation Device is available to prevent backwards rotation of fan.

For long life and continuous operation, the damper shaft rotates in a self-lubricating Kepital® (acetal resin) bearing.

Optional filter rack available for 1" thick filters

Inlet panel is one-piece construction to increase rigidity and to reduce radiated sound.

All units are E.T.L.® listed to U.L.® Standard 1995 and CSA-C22.2 No. 236.
All electrical components are U.L.® certified and listed.

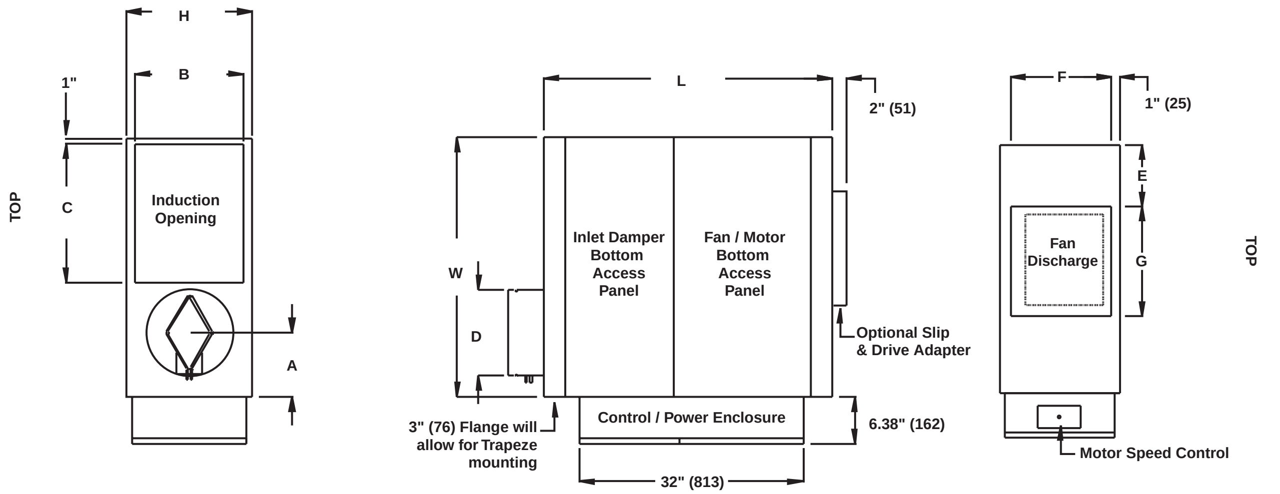
1" thick fiberglass insulation standard

Induced Air Inlet Baffles ensure uniform loading of the fan and reduce radiated sound levels.

3" wide mounting lip provides easy installation and removal of access panel. Panels can be removed without disturbing trapeze-type hangers.

Units are shipped with balanced single speed energy saving motors manufactured specifically for the torque requirements of each terminal. Motors are of energy efficient design.

Series Fan Power Air Terminal

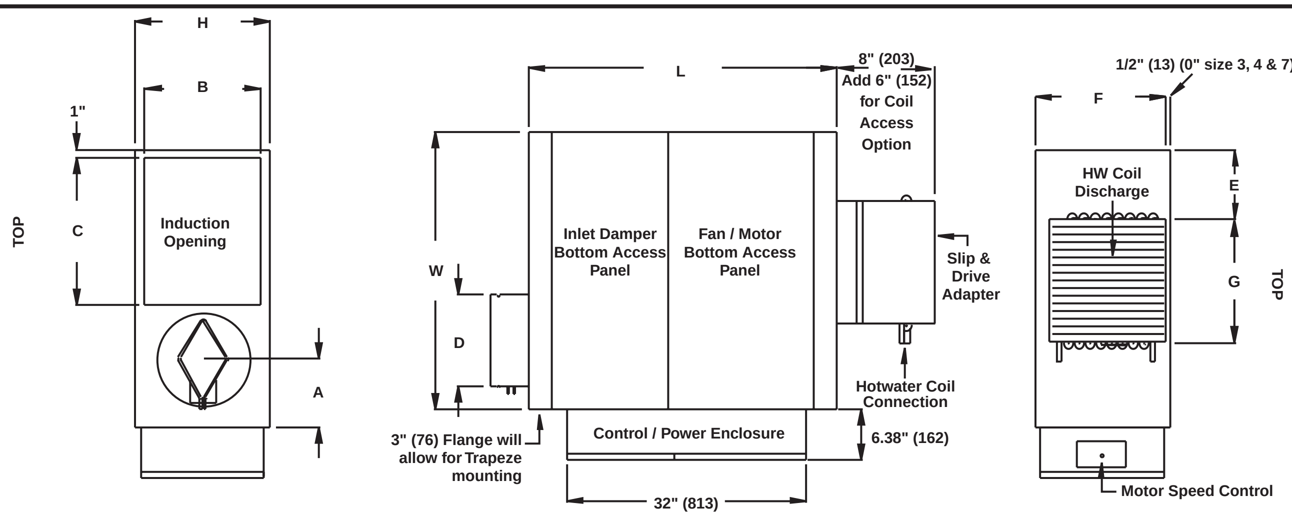


BOTTOM VIEW

Series Fan-Powered Air Terminal

Casing Size	Inlet Diameter D		Horse Power	Max/Min Fan ** Airflow-CFM @ External Static Pressure of 0" to 0.70" w.c.	Unit Height H	Unit Width W	Unit Length L	Inlet Loc. A*	Ind.Inlet Height B	Ind.Inlet Width C	Discharge Loc. E	Discharge Height F	Discharge Width G
	Standard	Optional											
1	6 (152)	8, 10	1/8	800/0 (377/0)	17 1/2 (445)	30 (762)	36 (914)	6 (152)	14 (356)	14 (356)	7 (178)	15 (381)	16 (406)
2	8 (203)	6, 10, 12	1/4	1350/100 (637/47)	17 1/2 (445)	30 (762)	36 (914)	7 (178)	14 (356)	14 (356)	7 (178)	15 (381)	16 (406)
3	10 (254)	6, 8, 12, 14	1/3	1725/350 (814/165)	17 1/2 (445)	36 (914)	40 (1016)	8 (203)	14 (356)	18 (457)	10 (254)	15 (381)	16 (406)
4	12 (305)	8, 10, 14	1/2	1925/975 (908/460)	17 1/2 (445)	36 (914)	40 (1016)	9 (229)	14 (356)	18 (457)	10 (254)	17 1/2 (445)	20 (508)
5	14 (356)	10, 12, 16	3/4	2650/1180 (1250/556)	20 (508)	40 (1016)	40 (1016)	10 (254)	18 (457)	18 (457)	10 (254)	17 1/2 (445)	20 (508)
6	16 (406)	10, 12, 14	1	3150/1200 (1486/566)	20 (508)	42 (1067)	42 (1067)	11 (279)	18 (457)	22 (559)	11 (279)	17 1/2 (445)	20 (508)
7	18x16 (457x406)	12, 14, 16	3/4 (2)	4500/1600 (2122/755)	20 (508)	46 (1168)	46 (1168)	12 (305)	18 (457)	22 (559)	4 (102)	20 (508)	38 (952)

Dimensions are in inches (mm); Airflow CFM (L/s)
* "A" Dim will increase or decrease 1" as the optional inlet diameter increases or decreases 2" from the standard inlet diameter.
** For Fan CFM @ a specific ESP see Fan Curves on Pgs 29 through 35



BOTTOM VIEW

Series Fan-Powered Air Terminal with Hot Water Coil

Casing Size	Inlet Diameter D		Horse Power	Max/Min Fan ** Airflow-CFM @ External Static Pressure of 0" to 0.70" w.c.	Unit Height H	Unit Width W	Unit Length L	Inlet Loc. A*	Ind.Inlet Height B	Ind.Inlet Width C	Standard HW Coil			High Performance HW Coil		
	Standard	Optional									Discharge Loc. E	Discharge Height F	Discharge Width G	Discharge Loc. E	Discharge Height F	Discharge Width H
1	6 (152)	8, 10	1/8	800/0 (377/0)	17 1/2 (445)	30 (762)	36 (914)	6 (152)	14 (356)	14 (356)	7 (178)	15 (381)	16 (406)	5 (127)	17 1/2 (445)	20 (508)
2	8 (203)	6, 10, 12	1/4	1350/100 (637/47)	17 1/2 (445)	30 (762)	36 (914)	7 (178)	14 (356)	14 (356)	7 (178)	15 (381)	16 (406)	5 (127)	17 1/2 (445)	20 (508)
3	10 (254)	6, 8, 12, 14	1/3	1725/350 (814/165)	17 1/2 (445)	36 (914)	40 (1016)	8 (203)	14 (356)	18 (457)	8 (203)	17 1/2 (445)	20 (508)	6 (152)	18 (457)	24 (610)
4	12 (305)	8, 10, 14	1/2	1925/975 (908/460)	17 1/2 (445)	36 (914)	40 (1016)	9 (229)	14 (356)	18 (457)	8 (203)	17 1/2 (445)	20 (508)	6 (152)	18 (457)	24 (610)
5	14 (356)	10, 12, 16	3/4	2650/1180 (1250/556)	20 (508)	40 (1016)	40 (1016)	10 (254)	18 (457)	18 (457)	8 (203)	18 (457)	24 (610)	5 (127)	20 (508)	30 (762)
6	16 (406)	10, 12, 14	1	3150/1200 (1486/566)	20 (508)	42 (1067)	42 (1067)	11 (279)	18 (457)	22 (559)	9 (229)	18 (457)	24 (610)	6 (152)	20 (508)	30 (762)
7	18x16 (457x406)	12, 14, 16	3/4 (2)	4500/1600 (2122/755)	20 (508)	46 (1168)	46 (1168)	12 (305)	18 (457)	22 (559)	4 (102)	20 (508)	38 (952)	-	-	-

Dimensions are in inches (mm); Airflow CFM (L/s)
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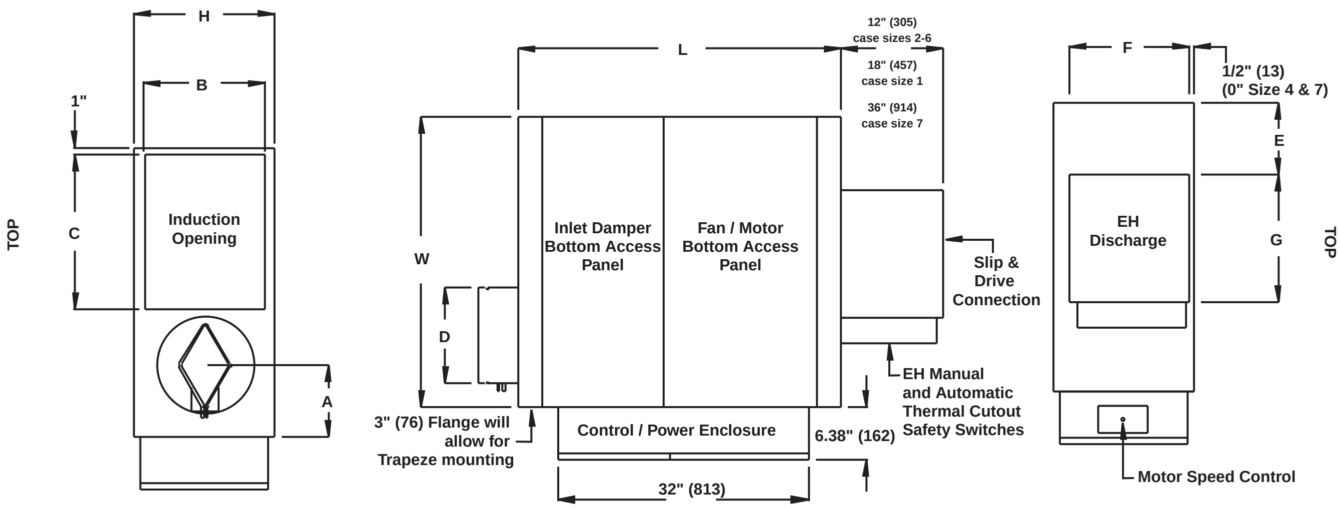
** For Fan CFM @ a specific ESP see Fan Curves on Pgs 29 through 35

(Series Fan Power Air Terminal - continued)



BOTTOM VIEW

Series Fan-Powered Air Terminal with Electric Heat

Casing Size	Inlet Diameter D		Horse Power	Max/Min Fan ** Airflow-CFM @ External Static Pressure of 0" to 0.70" w.c.	Unit Height H	Unit Width W	Unit Length L	Inlet Loc. A*	Ind.Inlet Height B	Ind.Inlet Width C	Discharge Loc. E	Discharge Height F	Discharge Width G
	Standard	Optional											
1	6 (152)	8, 10	1/8	800/0 (377/0)	17 1/2 (445)	30 (762)	36 (914)	6 (152)	14 (356)	14 (356)	5 (127)	15 (381)	16 (406)
2	8 (203)	6, 10, 12	1/4	1350/100 (637/47)	17 1/2 (445)	30 (762)	36 (914)	7 (178)	14 (356)	14 (356)	5 (127)	15 (381)	16 (406)
3	10 (254)	6, 8, 12, 14	1/3	1725/350 (814/165)	17 1/2 (445)	36 (914)	40 (1016)	8 (203)	14 (356)	18 (457)	7 1/4 (184)	15 (381)	16 (406)
4	12 (305)	8, 10, 14	1/2	1925/975 (908/460)	17 1/2 (445)	36 (914)	40 (1016)	9 (229)	14 (356)	18 (457)	3 1/4 (83)	17 1/2 (445)	20 (508)
5	14 (356)	10, 12, 16	3/4	2650/1180 (1250/556)	20 (508)	40 (1016)	40 (1016)	10 (254)	18 (457)	18 (457)	6 5/8 (168)	17 1/2 (445)	20 (508)
6	16 (406)	10, 12, 14	1	3150/1200 (1486/566)	20 (508)	42 (1067)	42 (1067)	11 (279)	18 (457)	22 (559)	8 (203)	17 1/2 (445)	20 (508)
7	18x16 (457x406)	12, 14, 16	3/4 (2)	4500/1600 (2122/755)	20 (508)	46 (1168)	46 (1168)	12 (305)	18 (457)	22 (559)	4 (102)	20 (508)	38 (952)

Dimensions are in inches (mm); Airflow CFM (L/s)
*** "A" Dim will increase or decrease 1" as the optional inlet diameter increases or decreases 2" from the standard inlet diameter.**
**** For Fan CFM @ a specific ESP see Fan Curves on Pgs 29 through 35**

Approximate Shipping Weight	
CASE	FCI
1	120 LBS.
2	**124 LBS.**
3	165 LBS.
4	**165 LBS.**
5	198 LBS.
6	**220 LBS.**
7	260 LBS.

ARI Rating Points

Radiated Sound Power

Case Size	Fan CFM	Fan Only Sound Power(db) 2	3	4	5	6	7
1	600	60	61	52	49	44	39
2	**1100**	**62**	**64**	**58**	**52**	**48**	**44**
3	1450	67	68	62	59	57	54
4	**1800**	**75**	**76**	**65**	**61**	**57**	**54**
5	2300	75	76	68	65	61	58
6	**3000**	**78**	**78**	**70**	**66**	**63**	**58**
7	4000	82	82	77	74	72	72

Radiated Sound Power

Unit Size	Fan CFM	Primary CFM	Min. Ps	Fan Plus Primary Air @ 1.5" Inlet Static Pressure 2	3	4	5	6	7
106	600	600	0.32	65	65	59	54	50	45
208	**1100**	**1100**	**0.27**	**68**	**69**	**62**	**57**	**52**	**49**
310	1450	1450	0.19	74	72	66	64	60	57
412	**1800**	**1800**	**0.14**	**76**	**77**	**67**	**63**	**60**	**56**
514	2300	2300	0.15	79	79	70	65	62	59
616	**3000**	**3000**	**0.20**	**82**	**81**	**74**	**68**	**65**	**61**
718	4000	4000	0.23	83	82	75	70	68	67

Discharge Sound Power

Case Size	CFM	Fan Only Sound Power(db) 2	3	4	5	6	7	Electrical Power (Watts)
1	600	66	65	65	64	62	60	290
2	**1100**	**71**	**71**	**69**	**70**	**66**	**65**	**300**
3	1450	76	74	73	75	71	71	700
4	**1800**	**78**	**78**	**74**	**75**	**73**	**72**	**800**
5	2300	79	80	77	78	75	73	900
6	**3000**	**78**	**81**	**80**	**79**	**76**	**74**	**1600**
7	4000	79	81	79	80	77	76	1800

STATEMENT OF STANDARD TEST CONFORMITY

YORK tests all 500-YCI air terminal units for engineering performance in accordance with the following standards: American National Standards Institute (ANSI) / American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) / International Organization for Standardization (ISO) / Air-Conditioning & Refrigeration Institute (ARI).

- **ARI Standard 880-98**
  Standard for Air Terminals
- **ANSI/ASHRAE 130-1996**
  Methods of Testing for Rating Ducted Air Terminal Units
- **ASHRAE Standard 41.1-1986 (RA 91)**
  Standard Method for Temperature Measurement
- **ASHRAE Standard 41.2-1987**
  Standard Methods for Laboratory Air Measurements
- **ASHRAE Standard 41.3-1989**
  Standard Methods for Pressure Measurement
- **ISO 5219-1984 Air distribution and air diffusion -**
  Laboratory aerodynamic testing and rating of air terminal devices.

Leakage Rates

Inlet Size	Damper Leakage, CFM 1.5" DPs	3.0" DPs	6.0" DPs
6	3	4	7
8	2	4	7
10	4	5	7
12	4	5	7
14	4	6	8
16	4	6	8

Case Size	Motor HP	Motor Amperage Ratings: 115V-1 Phase 60 Hz Name Plate Amps	277 V-1 Phase. 60 Hz Name Plate Amps
1	1/8	2.6	0.9
2	**1/4**	**4.8**	**1.9**
3	1/3	8.8	3.6
4	**1/2**	**9.8**	**3.6**
5	3/4	11.4	4.3
6	**1**	**N/A**	**6.2**
7	3/4 (Qty 2)	22.8 (2 motors)	8.6 (2 motors)

Minimum Static Pressure Requirements

Imperial Units

CASE SIZE	INLET SIZE	PRIMARY AIRFLOW CFM	ELECTRIC HEAT kW @ 65F EAT @ 90F LAT	ELECTRIC HEAT kW @ 65F EAT @ 100F LAT	ELECTRIC kW @ 65F EAT @ 110F LAT	Velocity Pressure Pv	MINIMUM INLET STATIC PRESSURE (Unit and Heat Pressure Drop) (Inches w.c.) Basic Unit D Ps	Hot Water Coil: Basic + 1 R HW Coil D Ps	Hot Water Coil: Basic + 2 R HW Coil D Ps	Electric Heat: Basic + Electric Heat D Ps
		375	3.0	4.2	5.5	0.23	0.13	0.15	0.17	0.13
		410	3.2	4.6	6.0	0.27	0.15	0.18	0.20	0.15
		445	3.6	5.0	6.5	0.32	0.18	0.21	0.24	0.18
		480	3.8	5.5	7.0	0.37	0.21	0.24	0.28	0.21
1	6	515	4.2	5.5	7.5	0.43	0.24	0.27	0.32	0.24
		550	4.4	6.0	8.0	0.49	0.27	0.31	0.36	0.27
		585	4.6	6.5	†	0.56	0.31	0.35	0.40	0.31
		620	5.0	7.0	†	0.62	0.35	0.39	0.45	0.35
		650	5.0	7.0	†	0.69	0.38	0.43	0.49	0.38
		575	**4.6**	**6.5**	**8.0**	**0.17**	**0.07**	**0.11**	**0.16**	**0.07**
		625	**5.0**	**7.0**	**9.0**	**0.20**	**0.09**	**0.13**	**0.19**	**0.09**
		675	**5.5**	**7.5**	**9.5**	**0.23**	**0.10**	**0.15**	**0.22**	**0.10**
		725	**5.5**	**8.0**	**10.5**	**0.27**	**0.12**	**0.18**	**0.25**	**0.12**
2	**8**	**775**	**6.0**	**8.5**	**11.0**	**0.31**	**0.13**	**0.20**	**0.28**	**0.13**
		825	**6.5**	**9.0**	**12.0**	**0.35**	**0.15**	**0.23**	**0.32**	**0.15**
		875	**7.0**	**9.5**	**12.5**	**0.39**	**0.17**	**0.25**	**0.35**	**0.17**
		925	**7.5**	**10.0**	**13.0**	**0.44**	**0.19**	**0.28**	**0.39**	**0.19**
		1000	**8.0**	**11.0**	**†**	**0.51**	**0.22**	**0.33**	**0.45**	**0.22**
		850	6.5	9.5	12.0	0.15	0.07	0.15	0.24	0.07
		925	7.5	10.0	13.0	0.18	0.08	0.17	0.28	0.08
		1000	8.0	11.0	14.0	0.21	0.09	0.20	0.32	0.09
		1075	8.5	12.0	15.5	0.24	0.10	0.22	0.36	0.10
3	10	1150	9.0	12.5	16.5	0.28	0.12	0.25	0.41	0.12
		1225	9.5	13.5	17.5	0.31	0.14	0.29	0.46	0.14
		1300	10.5	14.5	18.5	0.35	0.15	0.32	0.51	0.15
		1375	11.0	15.0	†	0.40	0.17	0.36	0.56	0.17
		1450	11.5	16.0	†	0.44	0.19	0.39	0.62	0.19
		1000	**8.0**	**11.0**	**14.0**	**0.10**	**0.04**	**0.10**	**0.17**	**0.04**
		1100	**8.5**	**12.0**	**15.5**	**0.12**	**0.05**	**0.12**	**0.20**	**0.05**
		1200	**9.5**	**13.5**	**17.0**	**0.15**	**0.06**	**0.14**	**0.23**	**0.06**
		1300	**10.5**	**14.5**	**18.5**	**0.17**	**0.07**	**0.17**	**0.27**	**0.07**
4	**12**	**1400**	**11.0**	**15.5**	**20.0**	**0.20**	**0.09**	**0.19**	**0.31**	**0.09**
		1500	**12.0**	**16.5**	**21.5**	**0.23**	**0.10**	**0.21**	**0.34**	**0.10**
		1600	**12.5**	**17.5**	**23.0**	**0.26**	**0.11**	**0.24**	**0.38**	**0.11**
		1700	**13.5**	**19.0**	**†**	**0.29**	**0.13**	**0.27**	**0.43**	**0.13**
		1800	**14.0**	**20.0**	**†**	**0.33**	**0.14**	**0.29**	**0.47**	**0.14**
		1500	12.0	16.5	21.5	0.12	0.07	0.15	0.25	0.07
		1585	12.5	17.5	22.5	0.14	0.08	0.17	0.27	0.08
		1670	13.0	18.5	24.0	0.15	0.08	0.18	0.30	0.08
		1755	14.0	19.5	†	0.17	0.09	0.20	0.33	0.09
5	14	1840	14.5	20.5	†	0.18	0.10	0.22	0.36	0.10
		1925	15.0	21.5	†	0.20	0.11	0.24	0.39	0.11
		2010	16.0	22.5	†	0.22	0.12	0.26	0.42	0.12
		2095	16.5	23.0	†	0.24	0.13	0.28	0.45	0.13
		2200	17.5	†	†	0.26	0.15	0.31	0.49	0.15
		1600	**12.5**	**17.5**	**23.0**	**0.08**	**0.06**	**0.15**	**0.26**	**0.06**
		1775	**14.0**	**19.5**	**†**	**0.10**	**0.07**	**0.18**	**0.31**	**0.07**
		1950	**15.5**	**21.5**	**†**	**0.12**	**0.08**	**0.21**	**0.37**	**0.08**
		2125	**17.0**	**23.5**	**†**	**0.14**	**0.10**	**0.25**	**0.42**	**0.10**
6	**16**	**2300**	**18.0**	**†**	**†**	**0.17**	**0.12**	**0.29**	**0.49**	**0.12**
		2475	**19.5**	**†**	**†**	**0.19**	**0.13**	**0.33**	**0.55**	**0.13**
		2650	**21.0**	**†**	**†**	**0.22**	**0.15**	**0.38**	**0.62**	**0.15**
		2825	**22.5**	**†**	**†**	**0.25**	**0.18**	**0.43**	**0.69**	**0.18**
		3000	**23.5**	**†**	**†**	**0.29**	**0.20**	**0.48**	**0.77**	**0.20**
		2100	16.5	23.5	†	0.06	0.06	0.14	0.22	0.06
		2340	18.5	†	†	0.08	0.08	0.17	0.27	0.08
		2580	20.5	†	†	0.10	0.10	0.20	0.32	0.10
		2820	22.5	†	†	0.11	0.12	0.24	0.38	0.12
7	18x16	3060	†	†	†	0.13	0.14	0.28	0.44	0.14
		3300	†	†	†	0.16	0.16	0.32	0.50	0.16
		3540	†	†	†	0.18	0.18	0.36	0.57	0.18
		3780	†	†	†	0.21	0.21	0.41	0.63	0.21
		4000	†	†	†	0.23	0.23	0.45	0.70	0.23

For Performance Notes see page 11

Minimum Static Pressure Requirements

Metric Units

CASE SIZE	INLET SIZE	PRIMARY AIRFLOW L/S	ELECTRIC HEAT kW @ 18c EAT @ 32c LAT	ELECTRIC HEAT kW @ 18c EAT @ 38c LAT	ELECTRIC HEAT kW @ 18c EAT @ 43c LAT	Velocity Pressure Pv	MINIMUM INLET STATIC PRESSURE (Unit and Heat Pressure Drop) (Pa)			
								Hot Water Coil		Electric Heat
							Basic Unit D Ps	Basic + 1 R HW Coil D Ps	Basic + 2 R HW Coil D Ps	Basic + Electric Heat D Ps
		177	3.0	4.2	5.5	57	32	37	43	32
		193	3.2	4.6	6.0	68	38	44	51	38
		210	3.6	5.0	6.5	80	44	51	60	44
		227	3.8	5.5	7.0	93	52	59	69	52
1	6	243	4.2	5.5	7.5	107	59	68	79	59
		260	4.4	6.0	8.0	122	68	78	89	68
		276	4.6	6.5	†	138	77	87	100	77
		293	5.0	7.0	†	155	86	98	112	86
		307	5.0	7.0	†	171	95	107	123	95
		271	**4.6**	**6.5**	**8.0**	**42**	**18**	**29**	**41**	**18**
		295	**5.0**	**7.0**	**9.0**	**50**	**21**	**33**	**48**	**21**
		319	**5.5**	**7.5**	**9.5**	**58**	**25**	**39**	**55**	**25**
		342	**5.5**	**8.0**	**10.5**	**67**	**29**	**44**	**62**	**29**
2	**8**	**366**	**6.0**	**8.5**	**11.0**	**77**	**33**	**50**	**70**	**33**
		389	**6.5**	**9.0**	**12.0**	**87**	**37**	**56**	**79**	**37**
		413	**7.0**	**9.5**	**12.5**	**98**	**42**	**63**	**88**	**42**
		437	**7.5**	**10.0**	**13.0**	**109**	**47**	**70**	**97**	**47**
		472	**8.0**	**11.0**	**†**	**127**	**55**	**81**	**112**	**55**
		401	6.5	9.5	12.0	38	16	36	60	16
		437	7.5	10.0	13.0	45	19	42	69	19
		472	8.0	11.0	14.0	52	22	49	79	22
		507	8.5	12.0	15.5	60	26	56	90	26
3	10	543	9.0	12.5	16.5	69	30	63	102	30
		578	9.5	13.5	17.5	78	34	71	114	34
		614	10.5	14.5	18.5	88	38	80	127	38
		649	11.0	15.0	†	99	42	89	141	42
		684	11.5	16.0	†	110	47	98	155	47
		472	**8.0**	**11.0**	**14.0**	**25**	**11**	**26**	**41**	**11**
		519	**8.5**	**12.0**	**15.5**	**30**	**13**	**31**	**49**	**13**
		566	**9.5**	**13.5**	**17.0**	**36**	**16**	**36**	**58**	**16**
		614	**10.5**	**14.5**	**18.5**	**43**	**19**	**41**	**67**	**19**
4	**12**	**661**	**11.0**	**15.5**	**20.0**	**49**	**21**	**47**	**76**	**21**
		708	**12.0**	**16.5**	**21.5**	**57**	**25**	**53**	**86**	**25**
		755	**12.5**	**17.5**	**23.0**	**65**	**28**	**60**	**96**	**28**
		802	**13.5**	**19.0**	**†**	**73**	**32**	**66**	**106**	**32**
		849	**14.0**	**20.0**	**†**	**82**	**36**	**73**	**117**	**36**
		708	12.0	16.5	21.5	31	17	37	62	17
		748	12.5	17.5	22.5	34	19	41	68	19
		788	13.0	18.5	24.0	38	21	46	75	21
		828	14.0	19.5	†	42	23	50	82	23
5	14	868	14.5	20.5	†	46	25	55	89	25
		908	15.0	21.5	†	50	28	60	96	28
		949	16.0	22.5	†	55	30	65	104	30
		989	16.5	23.0	†	60	33	70	112	33
		1038	17.5	†	†	66	36	76	122	36
		755	**12.5**	**17.5**	**23.0**	**20**	**14**	**37**	**64**	**14**
		838	**14.0**	**19.5**	**†**	**25**	**17**	**45**	**77**	**17**
		920	**15.5**	**21.5**	**†**	**30**	**21**	**53**	**91**	**21**
		1003	**17.0**	**23.5**	**†**	**36**	**25**	**63**	**106**	**25**
		1085	**18.0**	**†**	**†**	**42**	**29**	**72**	**121**	**29**
6	**16**	**1168**	**19.5**	**†**	**†**	**49**	**34**	**83**	**137**	**34**
		1251	**21.0**	**†**	**†**	**56**	**38**	**94**	**155**	**38**
		1333	**22.5**	**†**	**†**	**63**	**44**	**106**	**173**	**44**
		1416	**23.5**	**†**	**†**	**71**	**49**	**119**	**191**	**49**
		991	16.5	23.5	†	16	16	34	56	16
		1104	18.5	†	†	20	20	42	68	20
		1218	20.5	†	†	24	24	50	80	24
		1331	22.5	†	†	29	29	59	94	29
7	18x16	1444	†	†	†	34	34	69	109	34
		1557	†	†	†	39	39	79	124	39
		1671	†	†	†	45	45	90	141	45
		1784	†	†	†	51	52	102	158	52
		1888	†	†	†	57	58	113	175	58

For Performance Notes see page FCI-11

Performance Notes

NOTES:

1. D Ps is the static pressure difference across the YCI assembly, with the damper in the fully open position.
2. To obtain total pressure (Pt), add the velocity pressure (Pv) for a given CFM to the static pressure (Ps) of the desired configuration.
3. It is recommended that air terminals be selected in the upper middle range of their listed capacity for maximum efficiency.
4. The lowest CFM flows shown above only imply a range; all terminals are capable of shut-off. The minimum pressure independent controlled flow is dependent on the controller specified.
5. Low flows: High gain sensors are available for flow control down to 0.01 inches water column if desired. Warning: Most flow controllers are limited to a 5/1 flow control range.
6. Air terminals are not recommended for operation in ambient temperatures over 95°F. For protection of controls, do not store in ambient temperatures over 115°F.
7. † Consult Factory

LAT = Leaving Air Temperature
EAT = Entering Air Temperature

Discharge Sound Power

FAN ONLY, .5", .75" WG

See Pg. 18 For NC Calculations

Case	Inlet	Outlet Ps	CFM (L/s)	Min Ps in. H_2O (Pa)	Fan Only – Octave Band Sound Power, Lw, dB 2	3	4	5	6	7	Fan Only NC2 ARI 885-98	Ps = 0.5 inches of water (125.Pa) – Octave Band Sound Power, Lw, dB 2	3	4	5	6	7	NC2 ARI 885-98	Ps = 0.75 inches of water (187.Pa) – Octave Band Sound Power, Lw, dB 2	3	4	5	6	7	NC2 ARI 885-98
			375 (177)	0.127 (31.5)	57	57	57	56	53	53	21	55	56	57	55	54	53	21	55	56	57	55	54	53	21
			445 (210)	0.178 (44.4)	58	58	59	57	55	55	24	58	59	59	57	56	56	24	58	59	59	58	56	56	24
1	6	.25	515 (243)	0.239 (59.5)	58	60	61	59	57	57	26	61	61	62	60	58	58	26	61	62	62	60	58	58	27
			585 (276)	0.308 (76.7)	59	61	62	61	59	59	27	63	64	64	63	60	61	29	63	64	63	63	60	61	29
			650 (307)	0.380 (94.7)	60	62	63	63	60	61	28	64	65	65	65	62	64	31	65	65	65	65	62	63	31
			575 (271)	**0.073 (18.1)**	**61**	**62**	**62**	**60**	**57**	**58**	**23**	**63**	**63**	**62**	**61**	**57**	**59**	**24**	**63**	**63**	**62**	**61**	**57**	**59**	**24**
			680 (321)	**0.102 (25.3)**	**62**	**63**	**63**	**62**	**59**	**60**	**25**	**65**	**65**	**64**	**63**	**59**	**60**	**26**	**65**	**65**	**64**	**63**	**59**	**61**	**26**
2	**8**	**.25**	**785 (370)**	**0.136 (33.8)**	**63**	**64**	**64**	**63**	**60**	**61**	**26**	**67**	**67**	**65**	**64**	**61**	**62**	**28**	**67**	**67**	**65**	**64**	**61**	**62**	**28**
			890 (420)	**0.174 (43.4)**	**64**	**65**	**65**	**65**	**62**	**63**	**27**	**68**	**69**	**67**	**66**	**62**	**64**	**30**	**68**	**69**	**67**	**66**	**63**	**64**	**30**
			1000 (472)	**0.220 (54.8)**	**65**	**66**	**66**	**66**	**63**	**64**	**29**	**69**	**70**	**68**	**68**	**64**	**66**	**32**	**69**	**70**	**68**	**67**	**64**	**66**	**31**
			850 (401)	0.065 (16.2)	61	59	64	63	60	63	23	65	64	64	64	61	63	24	65	64	64	64	61	63	24
			1000 (472)	0.090 (22.4)	66	66	66	66	63	66	26	66	66	65	65	62	65	25	66	66	66	65	62	65	25
3	10	.25	1150 (543)	0.119 (29.6)	68	68	67	68	65	68	28	67	67	67	67	64	66	27	67	67	67	67	64	66	27
			1300 (614)	0.152 (37.9)	69	69	68	70	67	70	30	68	69	68	68	65	68	29	68	69	68	69	65	68	29
			1450 (684)	0.189 (47.1)	70	70	69	72	68	71	31	70	70	69	70	67	70	31	70	70	69	70	67	70	30
			1000 (472)	**0.044 (11.0)**	**64**	**66**	**64**	**63**	**60**	**63**	**23**	**66**	**68**	**63**	**62**	**60**	**63**	**24**	**66**	**68**	**63**	**62**	**60**	**63**	**24**
			1200 (566)	**0.063 (15.8)**	**67**	**69**	**67**	**66**	**63**	**66**	**26**	**68**	**70**	**66**	**65**	**63**	**66**	**26**	**68**	**70**	**66**	**65**	**63**	**66**	**26**
4	**12**	**.25**	**1400 (661)**	**0.086 (21.5)**	**69**	**72**	**69**	**69**	**66**	**69**	**29**	**70**	**72**	**69**	**68**	**66**	**69**	**29**	**70**	**72**	**69**	**68**	**66**	**69**	**29**
			1600 (755)	**0.113 (28.1)**	**71**	**73**	**70**	**71**	**68**	**71**	**31**	**72**	**75**	**71**	**71**	**69**	**72**	**32**	**72**	**75**	**71**	**71**	**69**	**72**	**32**
			1800 (849)	**0.143 (35.5)**	**72**	**74**	**71**	**72**	**70**	**72**	**32**	**76**	**79**	**74**	**74**	**72**	**75**	**36**	**75**	**78**	**73**	**73**	**72**	**74**	**35**
			1500 (708)	0.068 (16.8)	68	70	70	70	67	68	26	67	68	68	66	65	66	24	67	68	68	66	65	67	24
			1700 (802)	0.087 (21.6)	68	71	71	72	68	70	27	68	69	69	68	67	69	27	68	70	69	68	67	69	27
5	14	.25	1900 (897)	0.108 (27.0)	69	73	72	73	69	71	28	69	71	70	69	69	72	29	69	71	70	70	69	72	30
			2000 (944)	0.120 (29.9)	70	73	72	73	70	71	29	70	72	71	70	70	73	31	70	72	71	71	70	73	31
			2200 (1038)	0.145 (36.2)	71	75	73	74	71	72	30	71	74	72	72	72	76	34	71	74	72	72	71	76	34
			1600 (755)	**0.056 (14.0)**	**67**	**72**	**71**	**72**	**69**	**70**	**26**	**63**	**64**	**62**	**60**	**59**	**60**	**-**	**63**	**64**	**62**	**60**	**59**	**59**	**-**
			1950 (920)	**0.084 (20.8)**	**66**	**73**	**73**	**73**	**70**	**70**	**27**	**65**	**67**	**65**	**63**	**62**	**63**	**20**	**66**	**67**	**65**	**63**	**62**	**63**	**20**
6	**16**	**.25**	**2300 (1085)**	**0.116 (29.0)**	**67**	**74**	**75**	**74**	**71**	**71**	**28**	**68**	**70**	**68**	**66**	**65**	**67**	**23**	**68**	**70**	**68**	**66**	**65**	**67**	**24**
			2650 (1251)	**0.154 (38.5)**	**69**	**76**	**76**	**75**	**72**	**72**	**29**	**71**	**73**	**71**	**69**	**69**	**70**	**27**	**71**	**73**	**72**	**70**	**69**	**70**	**27**
			3000 (1416)	**0.198 (49.3)**	**72**	**77**	**77**	**76**	**73**	**74**	**31**	**75**	**76**	**75**	**73**	**72**	**74**	**31**	**75**	**77**	**75**	**73**	**72**	**74**	**31**
			2100 (991)	0.064 (15.9)	59	67	68	66	63	65	20	60	68	69	67	64	66	21	60	68	69	67	64	66	21
			2500 (1180)	0.091 (22.6)	64	69	70	`	66	68	24	65	70	71	70	67	69	25	66	70	72	70	67	69	25
7	18	.25	3000 (1416)	0.131 (32.5)	69	72	73	73	70	72	27	70	73	74	74	71	73	28	71	73	74	73	71	73	28
			3500 (1652)	0.178 (44.2)	72	75	75	75	72	74	30	73	76	76	76	73	75	31	74	76	76	76	73	75	31
			4000 (1888)	0.232 (57.8)	73	77	76	77	74	76	31	74	78	77	78	75	77	32	74	78	77	78	75	77	32

(Discharge Sound Power - continued)

AT 1", 1.5", 2" WG

See Pg. 18 For NC Calculations

					Static Pressure Ps = 1.0 inches of water (250.Pa)							Static Pressure Ps = 1.5 inches of water (375.Pa)							Static Pressure Ps = 2.0 inches of water (500.Pa)						
					Octave Band Sound Power, Lw, dB						NC2 ARI 885-98	Octave Band Sound Power, Lw, dB						NC2 ARI 885-98	Octave Band Sound Power, Lw, dB						NC2 ARI 885-98
Case	Inlet	Outlet Ps	CFM (L/s)	Min Ps in. H_2O (Pa)	2	3	4	5	6	7		2	3	4	5	6	7		2	3	4	5	6	7	
			375 (177)	0.127 (31.5)	56	56	57	55	53	53	21	56	56	57	56	53	52	21	56	57	57	55	53	52	21
			445 (210)	0.178 (44.4)	59	59	59	58	56	56	24	59	60	59	58	56	56	24	60	60	60	58	56	56	25
1	6	.25	515 (243)	0.239 (59.5)	61	62	62	60	58	59	27	62	63	62	60	58	59	27	63	63	62	61	59	59	27
			585 (276)	0.308 (76.7)	63	64	63	63	60	61	29	64	64	63	62	60	61	29	64	65	64	63	61	62	29
			650 (307)	0.380 (94.7)	65	65	65	65	62	63	31	66	66	65	64	62	63	31	65	66	65	65	62	64	31
			575 (271)	0.073 (18.1)	63	63	62	61	57	59	24	63	63	62	61	57	59	24	63	64	62	61	58	59	24
			680 (321)	0.102 (25.3)	65	65	64	63	59	61	26	65	65	64	63	59	61	26	65	66	64	63	60	61	27
2	8	.25	785 (370)	0.136 (33.8)	67	67	66	64	61	62	28	66	67	66	64	61	63	27	66	68	66	65	62	63	29
			890 (420)	0.174 (43.4)	68	68	67	66	63	64	30	68	68	67	66	63	64	29	68	69	67	66	63	65	30
			1000 (472)	0.220 (54.8)	69	70	69	67	65	66	31	69	70	69	67	65	66	31	69	70	69	68	65	67	32
			850 (401)	0.065 (16.2)	65	64	64	64	61	63	24	66	65	64	63	60	63	23	69	68	65	64	62	64	25
			1000 (472)	0.090 (22.4)	66	66	66	65	62	65	25	67	66	66	65	62	65	25	69	69	66	66	63	66	26
3	10	.25	1150 (543)	0.119 (29.6)	68	67	67	67	64	67	27	68	68	67	67	64	67	27	70	70	68	67	64	67	28
			1300 (614)	0.152 (37.9)	69	69	68	69	65	68	29	70	69	68	69	66	68	29	71	71	69	69	66	69	29
			1450 (684)	0.189 (47.1)	70	71	69	70	67	70	30	71	71	69	70	67	70	30	72	72	70	70	67	70	31
			1000 (472)	0.044 (11.0)	66	68	63	62	60	63	24	66	68	63	62	61	64	24	66	68	64	63	61	64	24
			1200 (566)	0.063 (15.8)	68	70	66	66	64	67	27	68	71	67	66	64	67	27	69	70	67	66	64	67	27
4	12	.25	1400 (661)	0.086 (21.5)	70	73	69	69	67	70	29	70	73	70	69	67	70	30	70	73	69	68	67	70	29
			1600 (755)	0.113 (28.1)	73	75	71	71	69	72	32	73	75	71	71	69	72	32	72	74	71	70	68	71	31
			1800 (849)	0.143 (35.5)	75	77	73	72	71	74	34	75	75	72	71	70	73	33	74	76	72	71	70	73	33
			1500 (708)	0.068 (16.8)	67	69	68	67	65	67	24	68	70	68	67	65	67	25	69	70	69	68	66	69	26
			1700 (802)	0.087 (21.6)	68	70	69	68	67	70	27	69	71	70	69	67	70	27	71	72	70	70	68	71	29
5	14	.25	1900 (897)	0.108 (27.0)	69	72	71	70	69	72	30	70	73	71	71	68	72	30	72	74	72	71	70	74	31
			2000 (944)	0.120 (29.9)	70	73	71	71	69	73	31	71	74	72	71	69	73	31	72	74	72	72	71	75	32
			2200 (1038)	0.145 (36.2)	72	74	73	72	71	76	33	72	75	73	73	71	75	33	74	76	73	73	72	76	34
			1600 (755)	0.056 (14.0)	64	64	62	60	59	59	-	65	64	63	60	59	59	-	65	65	63	61	59	60	-
			1950 (920)	0.084 (20.8)	66	67	65	63	62	63	20	67	68	66	63	63	63	21	67	68	66	64	63	63	21
6	16	.25	2300 (1085)	0.116 (29.0)	69	70	69	66	66	67	24	70	71	69	67	66	67	24	70	71	69	67	66	67	24
			2650 (1251)	0.154 (38.5)	72	74	72	70	69	71	27	73	74	72	70	69	71	28	73	74	72	70	69	71	28
			3000 (1416)	0.198 (49.3)	75	77	75	74	73	74	31	75	78	75	74	73	75	32	76	77	75	74	73	74	31
			2100 (991)	0.064 (15.9)	61	68	69	66	64	66	21	62	69	70	66	64	66	21	62	69	69	67	64	66	22
			2500 (1180)	0.091 (22.6)	66	71	72	70	67	69	25	67	71	72	69	67	69	25	68	71	72	70	68	70	25
7	18	.25	3000 (1416)	0.131 (32.5)	71	74	74	73	71	73	28	72	74	75	73	71	73	28	73	74	75	73	71	73	29
			3500 (1652)	0.178 (44.2)	74	76	76	76	73	75	31	75	77	77	75	73	75	31	76	77	77	76	74	76	31
			4000 (1888)	0.232 (57.8)	75	79	78	77	75	77	32	76	79	78	77	75	77	33	76	79	78	78	75	77	33

Discharge Sound Power

AT 3" WG

See Pg. 18 For NC Calculations

					Static Pressure Ps = 3.0 inches of water (750.Pa)						
					Octave Band Sound Power, Lw, dB						NC2
Case	Inlet	Outlet Ps	CFM (L/s)	Min Ps in. H_2O (Pa)	2	3	4	5	6	7	ARI 885-98
1	6	.25	375 (177)	0.127 (31.5)	57	57	56	54	52	52	21
			445 (210)	0.178 (44.4)	61	61	60	58	56	56	25
			515 (243)	0.239 (59.5)	64	64	62	61	59	60	28
			585 (276)	0.308 (76.7)	65	66	64	64	61	62	30
			650 (307)	0.380 (94.7)	66	67	65	65	62	64	31
2	**8**	**.25**	**575 (271)**	**0.073 (18.1)**	**63**	**65**	**63**	**61**	**58**	**59**	**25**
			680 (321)	**0.102 (25.3)**	**65**	**67**	**64**	**63**	**60**	**61**	**28**
			785 (370)	**0.136 (33.8)**	**66**	**68**	**66**	**65**	**62**	**64**	**30**
			890 (420)	**0.174 (43.4)**	**68**	**70**	**68**	**67**	**64**	**65**	**31**
			1000 (472)	**0.220 (54.8)**	**69**	**71**	**69**	**69**	**65**	**67**	**33**
3	10	.25	850 (401)	0.065 (16.2)	72	72	67	65	63	65	29
			1000 (472)	0.090 (22.4)	73	72	67	67	64	67	30
			1150 (543)	0.119 (29.6)	73	72	68	68	65	68	30
			1300 (614)	0.152 (37.9)	73	73	69	69	66	69	30
			1450 (684)	0.189 (47.1)	74	74	70	70	68	70	31
4	**12**	**.25**	**1000 (472)**	**0.044 (11.0)**	**67**	**68**	**65**	**63**	**62**	**65**	**24**
			1200 (566)	**0.063 (15.8)**	**69**	**71**	**67**	**66**	**65**	**68**	**27**
			1400 (661)	**0.086 (21.5)**	**71**	**72**	**69**	**68**	**67**	**70**	**29**
			1600 (755)	**0.113 (28.1)**	**72**	**74**	**70**	**69**	**68**	**71**	**30**
			1800 (849)	**0.143 (35.5)**	**72**	**75**	**71**	**69**	**68**	**71**	**31**
5	14	.25	1500 (708)	0.068 (16.8)	71	72	70	70	67	70	28
			1700 (802)	0.087 (21.6)	73	74	71	71	69	73	31
			1900 (897)	0.108 (27.0)	74	75	73	73	71	75	33
			2000 (944)	0.120 (29.9)	75	76	73	73	72	76	34
			2200 (1038)	0.145 (36.2)	76	77	74	74	73	77	35
6	**16**	**.25**	**1600 (755)**	**0.056 (14.0)**	**66**	**66**	**64**	**61**	**60**	**60**	**-**
			1950 (920)	**0.084 (20.8)**	**69**	**68**	**66**	**64**	**63**	**64**	**22**
			2300 (1085)	**0.116 (29.0)**	**71**	**71**	**69**	**67**	**66**	**67**	**25**
			2650 (1251)	**0.154 (38.5)**	**74**	**74**	**72**	**70**	**69**	**71**	**28**
			3000 (1416)	**0.198 (49.3)**	**76**	**78**	**75**	**74**	**73**	**74**	**32**
7	18	.25	2100 (991)	0.064 (15.9)	64	70	70	67	65	67	22
			2500 (1180)	0.091 (22.6)	69	72	72	70	68	70	26
			3000 (1416)	0.131 (32.5)	74	75	75	74	72	74	29
			3500 (1652)	0.178 (44.2)	77	78	77	76	74	76	32
			4000 (1888)	0.232 (57.8)	78	80	78	78	76	78	34

Radiated Sound Power

FAN ONLY, AT .5", .75" WG

See Pg. 18 For NC Calculations

					Fan Only							Static Pressure Ps = 0.5 inches of water (125.Pa)							Static Pressure Ps = 0.75 inches of water (187.Pa)						
					Octave Band Sound Power, Lw, dB						NC2	Octave Band Sound Power, Lw, dB						NC2	Octave Band Sound Power, Lw, dB						NC2
Case	Inlet	Outlet Ps	CFM (L/s)	Min Ps in. H_2O (Pa)	2	3	4	5	6	7	ARI 885-98	2	3	4	5	6	7	ARI 885-98	2	3	4	5	6	7	ARI 885-98
			375 (177)	0.127 (31.5)	54	56	47	43	37	30	24	64	67	50	45	36	31	37	62	62	51	45	39	35	32
			445 (210)	0.178 (44.4)	56	57	49	46	40	34	26	65	68	51	46	37	32	38	63	64	52	47	41	36	34
1	6	.25	515 (243)	0.239 (59.5)	58	59	51	48	42	37	28	65	68	51	47	38	33	39	64	65	53	48	42	37	35
			585 (276)	0.308 (76.7)	60	61	52	49	44	38	30	66	69	52	47	39	34	40	65	66	54	50	43	38	36
			650 (307)	0.380 (94.7)	61	62	52	50	44	39	32	66	70	53	48	40	35	41	66	67	55	51	44	39	37
			575 (271)	**0.073 (18.1)**	**55**	**54**	**48**	**40**	**33**	**28**	**22**	**58**	**55**	**48**	**43**	**38**	**31**	**23**	**59**	**56**	**50**	**46**	**41**	**37**	**25**
			680 (321)	**0.102 (25.3)**	**56**	**55**	**49**	**42**	**36**	**30**	**23**	**59**	**57**	**50**	**45**	**40**	**35**	**26**	**60**	**58**	**52**	**47**	**42**	**39**	**27**
2	**8**	**.25**	**785 (370)**	**0.136 (33.8)**	**58**	**57**	**51**	**45**	**39**	**34**	**26**	**61**	**60**	**53**	**48**	**43**	**38**	**29**	**62**	**61**	**54**	**49**	**44**	**41**	**30**
			890 (420)	**0.174 (43.4)**	**59**	**59**	**53**	**47**	**42**	**38**	**28**	**62**	**62**	**56**	**51**	**46**	**41**	**32**	**63**	**63**	**56**	**51**	**46**	**43**	**33**
			1000 (472)	**0.220 (54.8)**	**60**	**62**	**55**	**50**	**45**	**41**	**32**	**64**	**64**	**58**	**53**	**48**	**44**	**35**	**65**	**65**	**58**	**54**	**48**	**44**	**36**
			850 (401)	0.065 (16.2)	61	57	53	47	43	39	27	62	56	54	49	44	40	28	64	59	56	51	47	43	31
			1000 (472)	0.090 (22.4)	62	57	55	49	46	43	30	63	57	57	53	48	44	31	66	60	59	55	50	47	33
3	10	.25	1150 (543)	0.119 (29.6)	63	58	58	53	50	47	32	65	60	60	55	51	47	34	68	62	61	57	53	50	36
			1300 (614)	0.152 (37.9)	65	61	60	57	54	51	34	67	62	61	57	54	50	36	70	64	63	60	56	52	37
			1450 (684)	0.189 (47.1)	67	64	62	59	57	54	36	69	65	63	60	56	53	37	72	66	65	62	58	55	39
			1000 (472)	**0.029 (7.2)**	**61**	**61**	**54**	**46**	**39**	**39**	**30**	**62**	**59**	**57**	**47**	**41**	**40**	**31**	**64**	**61**	**57**	**49**	**43**	**42**	**31**
			1200 (566)	**0.044 (11.0)**	**64**	**62**	**57**	**50**	**44**	**45**	**32**	**65**	**63**	**58**	**50**	**45**	**46**	**33**	**66**	**63**	**59**	**51**	**45**	**46**	**33**
4	**12**	**.25**	**1400 (661)**	**0.056 (13.9)**	**67**	**64**	**59**	**54**	**48**	**49**	**35**	**68**	**66**	**60**	**53**	**48**	**49**	**36**	**68**	**66**	**61**	**53**	**48**	**49**	**36**
			1600 (755)	**0.075 (18.7)**	**69**	**68**	**62**	**57**	**51**	**52**	**39**	**70**	**68**	**62**	**56**	**51**	**52**	**39**	**71**	**68**	**63**	**56**	**51**	**52**	**39**
			1800 (849)	**0.116 (28.9)**	**74**	**71**	**65**	**61**	**55**	**56**	**43**	**75**	**73**	**66**	**61**	**55**	**56**	**44**	**75**	**73**	**66**	**61**	**56**	**56**	**45**
			1500 (708)	0.068 (16.8)	65	60	55	53	50	44	30	70	63	57	54	50	47	34	70	64	58	55	51	48	35
			1700 (802)	0.087 (21.6)	68	63	58	56	53	48	33	72	66	59	57	53	50	37	72	67	60	58	54	50	37
5	14	.25	1900 (897)	0.108 (27.0)	71	66	60	59	57	52	36	74	69	62	60	56	53	40	74	69	62	60	56	53	40
			2000 (944)	0.120 (29.9)	72	67	61	61	58	53	38	75	70	63	61	57	54	41	75	71	63	61	58	54	42
			2200 (1038)	0.145 (36.2)	74	70	64	65	62	57	41	76	73	65	63	60	57	44	77	73	65	64	60	57	45
			1600 (755)	**0.001 (0.2)**	**68**	**62**	**61**	**55**	**48**	**44**	**36**	**68**	**62**	**61**	**56**	**50**	**45**	**35**	**69**	**62**	**61**	**56**	**50**	**46**	**35**
			1950 (920)	**0.018 (4.5)**	**71**	**65**	**65**	**59**	**53**	**49**	**39**	**74**	**65**	**63**	**59**	**54**	**50**	**40**	**74**	**66**	**63**	**60**	**54**	**50**	**40**
6	**16**	**.25**	**2300 (1085)**	**0.018 (4.5)**	**73**	**67**	**66**	**62**	**56**	**53**	**40**	**75**	**68**	**64**	**62**	**57**	**54**	**41**	**76**	**68**	**65**	**62**	**57**	**54**	**42**
			2650 (1251)	**0.023 (5.7)**	**77**	**70**	**68**	**66**	**60**	**57**	**43**	**78**	**70**	**67**	**65**	**60**	**57**	**45**	**79**	**71**	**67**	**66**	**61**	**58**	**45**
			3000 (1416)	**0.030 (7.5)**	**78**	**72**	**69**	**68**	**63**	**60**	**45**	**81**	**73**	**69**	**68**	**63**	**60**	**46**	**81**	**73**	**69**	**68**	**63**	**61**	**46**
			2100 (991)	0.064 (15.9)	73	71	67	64	62	62	42	73	71	67	64	62	62	42	73	71	67	64	62	62	42
			2500 (1180)	0.091 (22.6)	75	73	69	66	64	64	45	75	73	69	66	64	64	45	75	73	69	66	64	64	45
7	18	.25	3000 (1416)	0.131 (32.5)	77	76	72	69	67	67	46	77	76	72	69	67	67	46	77	76	72	69	67	67	46
			3500 (1652)	0.178 (44.2)	80	79	74	71	69	69	52	80	79	74	71	69	69	52	80	79	74	71	69	69	52
			4000 (1888)	0.232 (57.8)	82	82	77	74	72	72	56	82	82	77	74	72	72	56	82	82	77	74	72	72	56

Radiated Sound Power

AT 1", 1.5", 2" WG

See Pg. 18 For NC Calculations

					Static Pressure Ps = 1.0 inches of water (250.Pa)							Static Pressure Ps = 1.5 inches of water (375.Pa)							Static Pressure Ps = 2.0 inches of water (500.Pa)						
					Octave Band Sound Power, Lw, dB						NC2 ARI 885-98	Octave Band Sound Power, Lw, dB						NC2 ARI 885-98	Octave Band Sound Power, Lw, dB						NC2 ARI 885-98
Case	Inlet	Outlet Ps	CFM (L/s)	Min Ps in. H_2O (Pa)	2	3	4	5	6	7		2	3	4	5	6	7		2	3	4	5	6	7	
			375 (177)	0.127 (31.5)	60	58	52	46	43	39	26	59	59	53	48	44	42	28	60	60	55	50	46	44	30
			445 (210)	0.178 (44.4)	61	60	53	48	45	40	29	61	61	55	50	46	43	31	62	62	56	51	48	45	32
1	6	.25	515 (243)	0.239 (59.5)	63	61	55	50	46	41	31	63	63	57	52	48	44	33	64	64	58	53	49	45	34
			585 (276)	0.308 (76.7)	64	63	56	52	47	42	33	65	65	59	54	50	45	35	66	65	59	54	50	46	35
			650 (307)	0.380 (94.7)	65	64	57	53	48	43	34	66	66	61	56	51	46	36	67	66	60	55	51	47	37
			575 (271)	0.073 (18.1)	59	57	51	48	44	44	26	62	60	54	50	47	44	30	63	62	57	53	49	49	32
			680 (321)	0.102 (25.3)	61	60	53	49	45	44	29	62	61	55	51	47	45	31	65	64	58	54	50	50	34
2	8	.25	785 (370)	0.136 (33.8)	63	62	55	50	46	44	32	64	63	56	52	48	46	33	66	65	59	54	51	50	35
			890 (420)	0.174 (43.4)	64	64	56	52	47	44	35	65	65	58	54	49	47	36	67	66	60	55	51	50	37
			1000 (472)	0.220 (54.8)	66	66	59	54	49	45	37	67	68	60	56	51	48	38	69	68	61	57	53	51	38
			850 (401)	0.065 (16.2)	67	61	58	54	49	46	33	70	63	62	58	54	50	36	66	60	58	54	51	49	33
			1000 (472)	0.090 (22.4)	68	62	61	57	52	50	35	70	64	62	60	55	52	37	67	62	60	56	53	51	35
3	10	.25	1150 (543)	0.119 (29.6)	71	64	63	60	55	52	37	71	65	63	60	56	53	38	70	63	62	58	56	54	36
			1300 (614)	0.152 (37.9)	73	66	64	62	58	55	39	72	67	64	62	58	54	39	72	65	64	61	58	56	38
			1450 (684)	0.189 (47.1)	74	68	66	64	60	57	41	74	68	66	64	60	57	41	73	68	66	64	61	58	41
			1000 (472)	0.029 (7.2)	65	62	57	50	44	44	32	65	63	58	52	46	46	33	66	64	59	53	48	49	34
			1200 (566)	0.044 (11.0)	66	63	59	51	45	46	34	66	64	60	52	47	47	35	67	66	61	54	49	49	36
4	12	.25	1400 (661)	0.056 (13.9)	68	66	61	54	48	49	37	69	67	62	55	49	50	38	70	68	63	56	51	51	39
			1600 (755)	0.075 (18.7)	71	69	63	56	51	52	39	72	69	64	57	52	53	40	72	70	65	58	53	54	41
			1800 (849)	0.116 (28.9)	75	73	66	61	56	56	45	75	74	67	61	56	57	45	76	74	68	62	57	57	46
			1500 (708)	0.068 (16.8)	71	65	59	56	52	48	36	73	68	61	59	54	52	39	75	70	67	63	57	54	42
			1700 (802)	0.087 (21.6)	73	67	61	58	54	51	38	75	69	62	60	55	53	40	76	71	67	64	58	56	42
5	14	.25	1900 (897)	0.108 (27.0)	75	70	62	60	57	53	40	76	71	63	61	57	55	42	77	73	68	65	60	57	44
			2000 (944)	0.120 (29.9)	76	71	63	61	58	55	42	77	72	64	62	58	56	44	78	74	68	66	60	58	45
			2200 (1038)	0.145 (36.2)	77	73	65	64	60	57	45	78	74	66	64	60	58	46	79	75	69	68	62	59	46
			1600 (755)	0.001 (0.2)	70	63	61	57	51	47	36	71	64	62	58	53	50	37	72	66	64	60	55	52	38
			1950 (920)	0.018 (4.5)	74	66	62	60	55	51	40	75	67	64	61	56	53	41	77	69	66	62	57	54	43
6	16	.25	2300 (1085)	0.018 (4.5)	77	69	65	63	58	54	43	78	70	67	64	59	56	45	79	72	68	66	61	58	46
			2650 (1251)	0.023 (5.7)	79	71	67	66	61	58	46	79	72	68	66	62	59	46	80	72	69	67	62	59	46
			3000 (1416)	0.030 (7.5)	81	73	69	68	64	61	46	82	74	70	69	64	61	49	82	74	70	69	64	61	50
			2100 (991)	0.064 (15.9)	76	73	69	65	63	63	45	79	75	71	67	65	64	46	80	76	72	68	66	65	46
			2500 (1180)	0.091 (22.6)	77	75	70	67	65	64	46	80	77	72	68	66	65	49	81	77	73	68	66	65	50
7	18	.25	3000 (1416)	0.131 (32.5)	79	77	72	69	67	66	50	81	79	73	69	67	66	52	82	79	74	69	67	66	52
			3500 (1652)	0.178 (44.2)	81	80	74	70	68	68	53	82	80	74	69	67	66	54	83	81	75	70	68	67	54
			4000 (1888)	0.232 (57.8)	83	82	76	72	70	69	55	83	82	75	70	68	67	55	84	82	76	70	68	67	56

(Radiated Sound Power - continued)

AT 3" WG

See Pg. 18 For NC Calculations

Case	Inlet	Outlet Ps	CFM (L/s)	Min Ps in. H_2O (Pa)	Static Pressure Ps = 3.0 inches of water (750.Pa)						
					Octave Band Sound Power, Lw, dB						NC2 ARI 885-98
					2	3	4	5	6	7	
			375 (177)	0.127 (31.5)	61	62	59	54	49	48	33
			445 (210)	0.178 (44.4)	64	64	59	55	50	49	35
1	6	.25	515 (243)	0.239 (59.5)	66	66	60	55	51	50	36
			585 (276)	0.308 (76.7)	67	67	61	56	52	51	38
			650 (307)	0.380 (94.7)	69	69	62	57	53	51	39
			575 (271)	**0.073 (18.1)**	**67**	**67**	**63**	**58**	**55**	**55**	**38**
			680 (321)	**0.102 (25.3)**	**68**	**68**	**63**	**58**	**55**	**55**	**38**
2	**8**	**.25**	**785 (370)**	**0.136 (33.8)**	**69**	**68**	**63**	**59**	**55**	**55**	**38**
			890 (420)	**0.174 (43.4)**	**70**	**68**	**63**	**59**	**56**	**56**	**39**
			1000 (472)	**0.220 (54.8)**	**71**	**69**	**64**	**60**	**56**	**56**	**40**
			850 (401)	0.065 (16.2)	65	59	59	54	53	53	33
			1000 (472)	0.090 (22.4)	66	61	59	55	54	53	34
3	10	.25	1150 (543)	0.119 (29.6)	68	63	61	57	56	55	36
			1300 (614)	0.152 (37.9)	70	65	63	60	59	58	38
			1450 (684)	0.189 (47.1)	73	67	66	63	61	60	40
			1000 (472)	**0.029 (7.2)**	**66**	**65**	**62**	**56**	**52**	**53**	**36**
			1200 (566)	**0.044 (11.0)**	**68**	**68**	**63**	**57**	**52**	**53**	**39**
4	**12**	**.25**	**1400 (661)**	**0.056 (13.9)**	**71**	**70**	**65**	**59**	**54**	**54**	**41**
			1600 (755)	**0.075 (18.7)**	**73**	**72**	**66**	**60**	**55**	**56**	**44**
			1800 (849)	**0.116 (28.9)**	**77**	**76**	**69**	**63**	**58**	**58**	**46**
			1500 (708)	0.068 (16.8)	76	72	72	67	61	57	46
			1700 (802)	0.087 (21.6)	78	73	72	68	62	58	46
5	14	.25	1900 (897)	0.108 (27.0)	79	74	72	70	62	59	46
			2000 (944)	0.120 (29.9)	79	75	72	70	62	59	46
			2200 (1038)	0.145 (36.2)	80	76	72	71	64	60	49
			1600 (755)	**0.001 (0.2)**	**73**	**67**	**65**	**63**	**59**	**56**	**39**
			1950 (920)	**0.018 (4.5)**	**78**	**71**	**68**	**65**	**60**	**57**	**44**
6	**16**	**.25**	**2300 (1085)**	**0.018 (4.5)**	**79**	**72**	**68**	**66**	**61**	**58**	**46**
			2650 (1251)	**0.023 (5.7)**	**82**	**74**	**71**	**68**	**64**	**61**	**49**
			3000 (1416)	**0.030 (7.5)**	**83**	**76**	**72**	**70**	**65**	**62**	**51**
			2100 (991)	0.064 (15.9)	80	76	72	68	66	65	49
			2500 (1180)	0.091 (22.6)	81	78	73	69	67	66	51
7	18	.25	3000 (1416)	0.131 (32.5)	82	80	74	70	68	67	53
			3500 (1652)	0.178 (44.2)	83	81	75	70	68	67	55
			4000 (1888)	0.232 (57.8)	84	83	76	71	69	68	56

Sound Path Attenuation

ASSUMPTIONS BASED ON ARI 885-98

RADIATED SOUND PATH ATTENUATION ASSUMPTIONS						
ARI 885-98	Octave Band Sound Power Reductions					
NC2	2	3	4	5	6	7
Environmental Effect	2	1	0	0	0	0
Mineral Tile Ceiling/ Space Effect*	16	18	20	26	31	36
Total dB Reduction	18	19	20	26	31	36

NOTE: Attenuation assumptions are based upon factors located in the ARI Standard 885-98.

Parameters: 1) Mineral fiber ceiling tile, 5/8" thick (35 lb/ft^3 density).
2) The plenum space is at least 3 ft deep and either wide (>30 ft) or insulated.

** Combined effect including absorption of the ceiling tile, plenum absorption and room absorption, (New to ARI 885-98. ARI 885-90 had separate lines for these absorptions)*

DISCHARGE SOUND PATH ATTENUATION ASSUMPTIONS						
ARI 885-98	Octave Band Sound Power Reductions					
NC2	2	3	4	5	6	7
Environmental Effect	2	1	0	0	0	0
Duct Lining	2	3	9	18	17	12
End Reflection	9	5	2	0	0	0
5 ft., 8 in. Flex Duct	6	10	18	20	2	12
Space Effect	5	6	7	8	9	10
Total dB Reduction plus flow division	24	25	36	46	47	34

NOTE: Attenuation assumptions are based upon factors located in the ARI Standard 885-98.

Parameters:
1) 12"x12"x5' duct with 1 inch thick fiberglass lining.
2) Flex duct is 8 inches in diameter and 5 feet in length for run to diffuser.
3) Flex duct has a vinyl core.
4) Room size is 2400 ft^3 (size of standard test room).
5) Unit is located 5 ft from measurement point.

The following dB attenuation credits have been taken in the calculations of NC Values. These attenuation credits are based on a 300 CFM flow division. These values are deducted in each band.

FLOW DIVISION	
Case Size	(dB)
1	0
2	3
3	7
4	8
5	10
6	11
7	12

Hot Water Coils Selection Data – *500-YCI IMPERIAL UNITS*

CAPACITY (MBH) — See Table A on page 27 for performance notes

Unit Size	Rows	Water flow GPM	Head Loss (FT Water)	CFM 200	275	350	425	500	570	650	725	775
1	One	1	0.2	10.4	12.2	13.5	14.7	15.6	16.4	17.2	17.8	18.2
		2	0.7	11.5	13.6	15.4	16.9	18.2	19.3	20.4	21.4	21.9
		4	2.6	12.1	14.6	16.6	18.4	20.0	21.3	22.6	23.8	24.5
		6	5.6	12.3	14.9	17.1	19.0	20.6	22.0	23.5	24.7	25.5
		Airside Ps (in.)		0.01	0.01	0.02	0.02	0.03	0.04	0.05	0.06	0.07
	Two	1	0.1	14.3	17.0	19.1	20.8	22.2	23.3	24.4	25.3	25.8
		2	0.4	16.2	19.9	22.9	25.4	27.6	29.4	31.2	32.7	33.7
		4	1.6	17.4	21.7	25.4	28.6	31.5	33.9	36.3	38.5	39.8
		6	3.5	17.8	22.4	26.4	29.9	33.0	35.7	38.5	40.9	42.4
		Airside Ps (in.)		0.02	0.03	0.04	0.06	0.07	0.09	0.11	0.14	0.15

Unit Size	Rows	Water flow GPM	Head Loss (FT Water)	CFM 200	350	425	500	600	700	850	950	1100
2	One	1	0.2	10.4	13.5	14.7	15.6	16.7	17.6	18.8	19.4	20.2
		2	0.7	11.5	15.4	16.9	18.2	19.8	21.1	22.7	23.7	25.0
		4	2.6	12.1	16.6	18.4	20.0	21.8	23.4	25.5	26.7	28.4
		6	5.6	12.3	17.1	19.0	20.6	22.6	24.3	26.6	28.0	29.8
		Airside Ps (in.)		0.01	0.02	0.02	0.03	0.04	0.06	0.08	0.10	0.13
	Two	1	0.1	14.3	17.0	19.1	20.8	22.2	23.0	23.8	24.4	25.0
		2	0.4	16.2	19.9	22.9	25.4	27.6	28.9	30.1	31.2	32.2
		4	1.6	17.4	21.7	25.4	28.6	31.5	33.2	34.8	36.3	37.8
		6	3.5	17.8	22.4	26.4	29.9	33.0	35.0	36.8	38.5	40.1
		Airside Ps (in.)		0.02	0.03	0.04	0.06	0.07	0.09	0.10	0.11	0.13

Unit Size	Rows	Water flow GPM	Head Loss (FT Water)	CFM 350	500	650	800	1000	1200	1300	1500	1600
3	One	1	0.2	15.8	18.4	20.4	21.9	23.5	24.8	25.4	26.3	26.8
		2	0.9	18.0	21.5	24.3	26.6	29.1	31.1	32.0	33.6	34.4
		4	3.3	19.4	23.6	26.9	29.8	33.0	35.7	36.9	39.1	40.1
		6	6.3	19.9	24.3	28.0	31.1	34.6	37.6	38.9	41.4	42.5
		Airside Ps (in.)		0.01	0.02	0.03	0.04	0.06	0.08	0.09	0.11	0.13
	Two	1	0.1	21.5	25.3	28.0	30.0	32.1	33.6	-	-	-
		2	0.4	25.6	31.3	35.8	39.4	43.3	46.4	-	-	-
		4	1.8	28.2	35.6	41.6	46.6	52.3	57.1	-	-	-
		6	3.9	29.3	37.3	43.9	49.7	56.2	61.8	-	-	-
		Airside Ps (in.)		0.02	0.04	0.06	0.09	0.12	0.17	-	-	-

Unit Size	Rows	Water flow GPM	Head Loss (FT Water)	CFM 750	1000	1100	1300	1400	1500	1600	1700	1800
4	One	1	0.2	-	23.5	24.2	25.4	25.9	26.3	26.8	27.2	27.5
		2	0.9	-	29.1	30.1	32.0	32.9	33.6	34.4	35.1	35.7
		4	3.3	-	33.0	34.4	36.9	38.0	39.1	40.1	41.0	41.9
		6	7.3	-	34.6	36.1	38.9	40.2	41.4	42.5	43.6	44.6
		Airside Ps (in.)		-	0.06	0.07	0.09	0.10	0.11	0.13	0.14	0.15
	Two	1	0.1	29.4	32.1	32.9	34.3	34.9	35.4	35.9	36.4	36.8
		2	0.5	38.3	43.3	44.9	47.8	49.0	50.1	51.2	52.1	53.1
		4	1.8	45.0	52.3	54.8	59.2	61.2	63.0	64.7	66.4	67.9
		5	3.9	47.8	56.2	59.1	64.3	66.7	68.9	71.0	73.0	74.9
		Airside Ps (in.)		0.08	0.12	0.15	0.19	0.22	0.24	0.27	0.30	0.33

Unit Size	Rows	Water flow GPM	Head Loss (FT Water)	CFM 1200	1350	1475	1725	1850	1975	2100	2225	2300
5	One	1	0.3	26.8	27.7	28.4	29.5	30.0	30.5	30.9	31.3	31.5
		2	1.0	33.9	35.4	36.5	38.5	39.3	40.2	40.9	41.7	42.1
		4	3.7	38.9	41.0	42.5	45.3	46.5	47.7	48.8	49.8	50.4
		6	8.1	41.0	43.3	45.0	48.1	49.5	50.9	52.1	53.3	54.0
		Airside Ps (in.)		0.06	0.07	0.08	0.10	0.12	0.13	0.15	0.16	0.17
	Two	1	0.1	35.8	36.8	37.5	38.8	39.3	39.8	-	-	-
		2	0.8	49.6	51.8	53.4	56.2	57.4	58.6	-	-	-
		4	1.9	61.1	64.6	67.3	72.0	74.1	76.0	-	-	-
		6	4.1	66.2	70.4	73.6	79.3	81.9	84.3	-	-	-
		Airside Ps (in.)		0.12	0.15	0.17	0.23	0.26	0.28	-	-	-

Unit Size	Rows	Water flow GPM	Head Loss (FT Water)	CFM 1350	1475	1650	1800	1950	2100	2400	2550	2800
6	One	1	0.2	27.7	28.4	29.2	29.8	30.4	30.9	31.8	32.2	32.8
		2	0.9	35.4	36.5	37.9	39.0	40.0	40.9	42.6	43.3	44.5
		4	3.3	41.0	42.5	44.5	46.0	47.5	48.8	51.2	52.3	54.0
		6	7.2	43.3	45.0	47.2	49.0	50.6	52.1	54.9	56.2	58.2
		Airside Ps (in.)		0.07	0.08	0.10	0.11	0.13	0.15	0.19	0.21	0.22
	Two	1	0.1	36.8	37.5	38.4	39.1	39.7	40.2	41.1	41.5	-
		2	0.5	51.8	53.4	55.4	57.0	58.3	59.6	61.8	62.7	-
		4	1.9	64.6	67.3	70.6	73.2	75.6	77.9	81.8	83.6	-
		6	4.1	70.4	73.6	77.6	80.9	83.8	86.6	91.6	93.9	-
		Airside Ps (in.)		0.15	0.17	0.21	0.24	0.28	0.32	0.39	0.44	-

Unit Size	Rows	Water flow GPM	Head Loss (FT Water)	CFM 500	1000	1500	2000	2400	2800	3200	3600	4000
7	One	2	0.4	27.6	38.1	44.3	48.7	51.4	53.6	55.5	57.1	58.5
		4	1.7	30.7	44.5	53.6	60.4	64.7	68.4	71.5	74.3	76.8
		8	6.6	32.6	48.7	59.9	68.6	74.3	79.2	83.6	87.5	91.1
		10	10.3	33.0	49.7	61.4	70.5	76.6	81.9	86.5	90.7	94.6
		Airside Ps (in.)		0.00	0.01	0.03	0.05	0.07	0.09	0.11	0.13	0.16
	Two	2	0.3	37.3	53.2	62.4	68.4	71.9	74.7	-	-	-
		4	1.3	42.5	65.5	80.7	91.7	98.7	104.5	-	-	-
		8	5.1	45.7	73.7	94.0	109.9	120.3	129.3	-	-	-
		10	8	46.4	75.6	97.3	114.3	125.8	135.7	-	-	-
		Airside Ps (in.)		0.01	0.03	0.07	0.11	0.15	0.19	-	-	-

Hot Water Coils Selection Data – *500-YCI IMPERIAL UNITS*

CAPACITY (MBH) — See Table A on page 27 for performance notes

Unit Size	Rows	Water flow GPM	Head Loss (FT Water)	CFM								
				200	275	350	425	500	570	650	725	775
1	Three	1	0.1	17.4	20.8	23.4	25.4	27.0	28.2	29.3	-	-
		2	0.3	19.5	24.3	28.2	31.5	34.3	36.6	38.9	-	-
		4	1.1	20.7	26.3	31.3	35.6	39.4	42.6	45.9	-	-
		6	2.6	21.1	27.1	32.4	37.1	41.4	45.0	48.8	-	-
		Airside Ps (in.)		0.02	0.04	0.06	0.08	0.11	0.14	0.17	-	-
	Four	1	0.1	19.0	22.9	25.7	27.9	29.6	31.0	-	-	-
		2	0.2	21.2	26.8	31.4	35.2	38.4	41.0	-	-	-
		4	0.9	22.3	29.0	34.8	39.9	44.4	48.3	-	-	-
		6	2.1	22.7	29.7	36.0	41.6	46.7	51.1	-	-	-
		Airside Ps (in.)		0.03	0.05	0.08	0.11	0.15	0.18	-	-	-

Unit Size	Rows	Water flow GPM	Head Loss (FT Water)	CFM								
				200	350	425	500	600	700	850	950	1100
2	Three	1	0.1	17.4	20.8	23.4	25.4	27.0	27.9	28.7	-	-
		2	0.3	19.5	24.3	28.2	31.5	34.3	36.0	37.5	-	-
		4	1.1	20.7	26.3	31.3	35.6	39.4	41.7	43.9	-	-
		6	2.6	21.1	27.1	32.4	37.1	41.4	44.0	46.5	-	-
		Airside Ps (in.)		0.02	0.04	0.06	0.08	0.11	0.13	0.15	-	-
	Four	1	0.1	19.0	22.9	-	-	-	-	-	-	-
		2	0.2	21.2	26.8	-	-	-	-	-	-	-
		4	0.9	22.3	29.0	-	-	-	-	-	-	-
		6	2.1	22.7	29.7	-	-	-	-	-	-	-
		Airside Ps (in.)		0.03	0.05	-	-	-	-	-	-	-

Unit Size	Rows	Water flow GPM	Head Loss (FT Water)	CFM								
				350	500	650	800	1000	1200	1300	1500	1600
3	Three	1	0.1	26.4	30.8	33.7	36.4	37.9	-	-	-	-
		2	0.3	31.4	38.9	44.5	50.2	53.5	-	-	-	-
		4	1.2	34.2	44.0	52.0	60.7	66.2	-	-	-	-
		6	2.7	35.2	45.9	54.9	65.0	71.5	-	-	-	-
		Airside Ps (in.)		0.03	0.06	0.09	0.14	0.19	-	-	-	-
	Four	1	0.1	28.8	33.6	36.7	-	-	-	-	-	-
		2	0.3	34.4	43.1	49.5	-	-	-	-	-	-
		4	1.0	37.4	48.9	58.4	-	-	-	-	-	-
		6	2.2	38.4	51.0	61.7	-	-	-	-	-	-
		Airside Ps (in.)		0.04	0.08	0.12	-	-	-	-	-	-

Unit Size	Rows	Water flow GPM	Head Loss (FT Water)	CFM								
				750	100	1100	1300	1400	1500	1600	1700	1800
4	Three	1	0.1	35.2	37.9	38.7	40.0	40.5	41.0	-	-	-
		2	0.3	47.5	53.5	55.4	58.6	60.0	61.2	-	-	-
		4	1.2	56.6	66.2	69.4	75.0	77.5	79.9	-	-	-
		6	2.7	60.2	71.5	75.4	82.4	85.5	88.5	-	-	-
		Airside Ps (in.)		0.11	0.19	0.22	0.29	0.33	0.37	-	-	-
	Four	1	0.1	38.2	40.8	41.6	42.8	-	-	-	-	-
		2	0.3	52.9	59.5	61.5	65.0	-	-	-	-	-
		4	1.0	63.8	75.1	78.8	85.4	-	-	-	-	-
		5	2.2	68.0	81.6	86.3	94.6	-	-	-	-	-
		Airside Ps (in.)		0.15	0.25	0.29	0.38	-	-	-	-	-

Unit Size	Rows	Water flow GPM	Head Loss (FT Water)	CFM								
				1200	1350	1475	1725	1850	1975	2100	2225	2300
5	Three	1	0.1	41.7	42.6	43.3	44.3	-	-	-	-	-
		2	0.3	61.0	63.4	65.2	68.1	-	-	-	-	-
		4	1.3	77.3	81.7	85.1	90.9	-	-	-	-	-
		6	2.8	84.3	89.8	94.0	101.5	-	-	-	-	-
		Airside Ps (in.)		0.19	0.23	0.23	0.34	-	-	-	-	-
	Four	1	0.1	44.6	45.4	46.0	-	-	-	-	-	-
		2	0.3	67.4	70.0	71.8	-	-	-	-	-	-
		4	1.0	87.5	92.6	96.4	-	-	-	-	-	-
		6	2.3	96.1	102.7	107.7	-	-	-	-	-	-
		Airside Ps (in.)		0.25	0.30	0.35	-	-	-	-	-	-

Unit Size	Rows	Water flow GPM	Head Loss (FT Water)	CFM								
				1350	1475	1650	1800	1950	2100	2400	2550	2800
6	Three	1	0.1	42.6	43.3	44.0	44.6	45.0	45.5	-	-	-
		2	0.3	63.4	65.2	67.3	68.9	70.3	71.6	-	-	-
		4	1.3	81.7	85.1	89.2	92.5	95.4	98.1	-	-	-
		6	4.7	89.8	94.0	99.4	103.6	107.5	111.0	-	-	-
		Airside Ps (in.)		0.23	0.26	0.32	0.37	0.42	0.47	-	-	-
	Four	1	0.1	45.4	46.0	46.7	-	-	-	-	-	-
		2	0.3	70.0	71.8	74.0	-	-	-	-	-	-
		4	1.0	92.6	96.4	101.2	-	-	-	-	-	-
		6	2.3	102.7	107.7	114.0	-	-	-	-	-	-
		Airside Ps (in.)		0.30	0.35	0.42	-	-	-	-	-	-

Unit Size	Rows	Water flow GPM	Head Loss (FT Water)	CFM								
				500	1000	1500	2000	2400	2800	3200	3600	4000
7	Three	6	0.9	48.9	79.9	102.0	118.8	129.6	-	-	-	-
		8	1.6	49.7	82.7	107.2	126.3	138.9	-	-	-	-
		10	2.5	50.2	84.5	110.4	131.1	145.0	-	-	-	-
		12	3.6	50.6	85.7	112.7	134.5	149.4	-	-	-	-
		Airside Ps (in.)		0.01	0.04	0.08	0.13	0.18	-	-	-	-
	Four	6	0.5	53.5	89.8	-	-	-	-	-	-	-
		8	0.9	54.4	93.1	-	-	-	-	-	-	-
		10	1.5	54.9	95.2	-	-	-	-	-	-	-
		12	2.1	55.2	96.5	-	-	-	-	-	-	-
		Airside Ps (in.)		0.02	0.05	-	-	-	-	-	-	-

Hot Water Coils Selection Data – *500-YCI METRIC UNITS*

CAPACITY (kW) — See Table B on page 27 for performance notes

Unit Size	Rows	Waterflow L/s	Head Loss kPa	L/s 95	130	165	200	235	270	305	340	365
1	One	0.06	0.60	3.0	3.6	4.0	4.3	4.6	4.8	5.0	5.2	5.3
		0.13	2.09	3.4	4.0	4.5	5.0	5.3	5.7	6.0	6.3	6.4
		0.25	7.77	3.5	4.3	4.9	5.4	5.8	6.2	6.6	7.0	7.2
		0.38	16.74	3.6	4.4	5.0	5.6	6.0	6.5	6.9	7.2	7.5
		Airside Ps (Pa)		2.5	2.5	5.0	5.0	7.5	10.0	12.5	14.9	17.4
	Two	0.06	0.30	4.2	5.0	5.6	6.1	6.5	6.8	7.1	7.4	7.6
		0.13	1.20	4.7	5.8	6.7	7.4	8.1	8.6	9.1	9.6	9.9
		0.25	4.78	5.1	6.4	7.4	8.4	9.2	9.9	10.6	11.3	11.6
		0.38	10.46	5.2	6.6	7.7	8.8	9.7	10.5	11.3	12.0	12.4
		Airside Ps (Pa)		5.0	7.5	10.0	14.9	17.4	22.4	27.4	34.9	37.4

Unit Size	Rows	Waterflow L/s	Head Loss kPa	L/s 95	165	200	235	285	330	400	450	520
2	One	0.06	0.60	3.0	4.0	4.3	4.6	4.9	5.2	5.5	5.7	5.9
		0.13	2.09	3.4	4.5	5.0	5.3	5.8	6.2	6.7	6.9	7.3
		0.25	7.77	3.5	4.9	5.4	5.8	6.4	6.9	7.5	7.8	8.3
		0.38	16.74	3.6	5.0	5.6	6.0	6.6	7.1	7.8	8.2	8.7
		Airside Ps (Pa)		2.5	5.0	5.0	7.5	10.0	14.9	19.9	24.9	32.4
	Two	0.06	0.30	4.2	5.0	5.6	6.1	6.5	6.7	7.0	7.1	7.3
		0.13	1.20	4.7	5.8	6.7	7.4	8.1	8.5	8.8	9.1	9.4
		0.25	4.78	5.1	6.4	7.4	8.4	9.2	9.7	10.2	10.6	11.1
		0.38	10.46	5.2	6.6	7.7	8.8	9.7	10.2	10.8	11.3	11.7
		Airside Ps (Pa)		5.0	7.5	10.0	14.9	17.4	22.4	24.9	27.4	32.4

Unit Size	Rows	Waterflow L/s	Head Loss kPa	L/s 165	235	305	380	470	565	615	710	755
3	One	0.06	0.60	4.6	5.4	6.0	6.4	6.9	7.3	7.4	7.7	7.8
		0.13	2.69	5.3	6.3	7.1	7.8	8.5	9.1	9.4	9.8	10.1
		0.25	9.86	5.7	6.9	7.9	8.7	9.7	10.4	10.8	11.4	11.7
		0.38	18.83	5.8	7.1	8.2	9.1	10.1	11.0	11.4	12.1	12.4
		Airside Ps (Pa)		2.5	5.0	7.5	10.0	14.9	19.9	22.4	27.4	32.4
	Two	0.06	0.30	6.3	7.4	8.2	8.8	9.4	9.9	-	-	-
		0.13	1.20	7.5	9.2	10.5	11.5	12.7	13.6	-	-	-
		0.25	5.38	8.3	10.4	12.2	13.6	15.3	16.7	-	-	-
		0.38	11.66	8.6	10.9	12.9	14.5	16.5	18.1	-	-	-
		Airside Ps (Pa)		5.0	10.0	14.9	22.4	29.9	42.3	-	-	-

Unit Size	Rows	Waterflow L/s	Head Loss kPa	L/s 355	470	520	615	660	710	755	800	850
4	One	0.06	0.60	-	6.9	7.1	7.4	7.6	7.7	7.8	8.0	8.1
		0.13	2.69	-	8.5	8.8	9.4	9.6	9.8	10.1	10.3	10.5
		0.25	9.86	-	9.7	10.1	10.8	11.1	11.4	11.7	12.0	12.3
		0.38	21.82	-	10.1	10.6	11.4	11.8	12.1	12.4	12.8	13.1
		Airside Ps (Pa)		-	14.9	17.4	22.4	24.9	27.4	32.4	34.9	37.4
	Two	0.06	0.30	8.6	9.4	9.6	10.0	10.2	10.4	10.5	10.6	-
		0.13	1.49	11.2	12.7	13.2	14.0	14.3	14.7	15.0	15.3	-
		0.25	5.38	13.2	15.3	16.0	17.3	17.9	18.5	19.0	19.4	-
		0.32	11.66	14.0	16.5	17.3	18.8	19.5	20.2	20.8	21.4	-
		Airside Ps (Pa)		19.9	29.9	37.4	47.3	54.8	59.8	67.3	74.7	-

Unit Size	Rows	Waterflow L/s	Head Loss kPa	L/s 565	635	695	815	875	930	990	1050	1085
5	One	0.06	0.90	7.9	8.1	8.3	8.6	8.8	8.9	9.0	9.2	9.2
		0.13	2.99	9.9	10.4	10.7	11.3	11.5	11.8	12.0	12.2	12.3
		0.25	11.06	11.4	12.0	12.4	13.3	13.6	14.0	14.3	14.6	14.8
		0.38	24.21	12.0	12.7	13.2	14.1	14.5	14.9	15.3	15.6	15.8
		Airside Ps (Pa)		14.9	17.4	19.9	24.9	29.9	32.4	37.4	39.9	42.3
	Two	0.06	0.30	10.5	10.8	11.0	11.4	11.5	11.7	-	-	-
		0.13	2.39	14.5	15.2	15.6	16.5	16.8	17.1	-	-	-
		0.25	5.68	17.9	18.9	19.7	21.1	21.7	22.3	-	-	-
		0.38	12.25	19.4	20.6	21.5	23.2	24.0	24.7	-	-	-
		Airside Ps (Pa)		29.9	37.4	42.3	57.3	64.8	69.7	-	-	-

Unit Size	Rows	Waterflow L/s	Head Loss kPa	L/s 635	695	780	850	920	990	1135	1205	1320
6	One	0.06	0.60	8.1	8.3	8.5	8.7	8.9	9.0	9.3	9.4	9.6
		0.13	2.69	10.4	10.7	11.1	11.4	11.7	12.0	12.5	12.7	13.0
		0.25	9.86	12.0	12.4	13.0	13.5	13.9	14.3	15.0	15.3	15.8
		0.38	21.52	12.7	13.2	13.8	14.3	14.8	15.3	16.1	16.5	17.0
		Airside Ps (Pa)		17.4	19.9	24.9	27.4	32.4	37.4	47.3	52.3	55.8
	Two	0.06	0.30	10.8	11.0	11.3	11.5	11.6	11.8	12.0	12.2	-
		0.13	1.49	15.2	15.6	16.2	16.7	17.1	17.5	18.1	18.4	-
		0.25	5.68	18.9	19.7	20.7	21.4	22.1	22.8	24.0	24.5	-
		0.38	12.25	20.6	21.5	22.7	23.7	24.5	25.4	26.8	27.5	-
		Airside Ps (Pa)		37.4	42.3	52.3	59.8	69.7	79.7	97.1	109.6	-

Unit Size	Rows	Waterflow L/s	Head Loss kPa	L/s 235	470	710	945	1135	1320	1510	1700	1890
7	One	0.13	1.20	8.1	11.1	13.0	14.3	15.1	15.7	16.3	16.7	17.1
		0.25	5.08	9.0	13.0	15.7	17.7	18.9	20.0	21.0	21.8	22.5
		0.50	19.73	9.6	14.3	17.5	20.1	21.7	23.2	24.5	25.6	26.7
		0.63	30.79	9.7	14.6	18.0	20.6	22.4	24.0	25.3	26.6	27.7
		Airside Ps (Pa)		0.0	2.5	7.5	12.5	17.4	22.4	27.4	32.4	39.9
	Two	0.13	0.90	10.9	15.6	18.3	20.0	21.1	21.9	-	-	-
		0.25	3.89	12.4	19.2	23.6	26.9	28.9	30.6	-	-	-
		0.50	15.24	13.4	21.6	27.5	32.2	35.2	37.9	-	-	-
		0.63	23.91	13.6	22.1	28.5	33.5	36.8	39.7	-	-	-
		Airside Ps (Pa)		2.5	7.5	17.4	27.4	37.4	47.3	-	-	-

Hot Water Coils Selection Data – 500-YCI METRIC UNITS

CAPACITY (kW) — See Table B on page 27 for performance notes

Unit Size	Rows	Water Flow L/s	Head Loss kPa	L/s 95	130	165	200	235	270	305	340	365
1	Three	0.06	0.30	5.1	6.1	6.8	7.4	7.9	8.3	8.6	-	-
		0.13	0.90	5.7	7.1	8.3	9.2	10.1	10.7	11.4	-	-
		0.25	3.29	6.1	7.7	9.2	10.4	11.5	12.5	13.4	-	-
		0.38	7.77	6.2	7.9	9.5	10.9	12.1	13.2	14.3	-	-
		Airside Ps (Pa)		5.0	10.0	14.9	19.9	27.4	34.9	42.3	-	-
	Four	0.06	0.30	5.6	6.7	7.5	8.2	8.7	9.1	-	-	-
		0.13	0.60	6.2	7.8	9.2	10.3	11.3	12.0	-	-	-
		0.25	2.69	6.5	8.5	10.2	11.7	13.0	14.1	-	-	-
		0.38	6.28	6.6	8.7	10.5	12.2	13.7	15.0	-	-	-
		Airside Ps (Pa)		7.5	12.5	19.9	27.4	37.4	44.8	-	-	-

Unit Size	Rows	Water Flow L/s	Head Loss kPa	L/s 95	165	200	235	285	330	400	450	520
2	Three	0.06	0.30	5.1	6.1	6.8	7.4	7.9	8.2	8.4	-	-
		0.13	0.90	5.7	7.1	8.3	9.2	10.1	10.5	11.0	-	-
		0.25	3.29	6.1	7.7	9.2	10.4	11.5	12.2	12.9	-	-
		0.38	7.77	6.2	7.9	9.5	10.9	12.1	12.9	13.6	-	-
		Airside Ps (Pa)		5.0	10.0	14.9	19.9	27.4	32.4	37.4	-	-
	Four	0.06	0.30	5.6	6.7	-	-	-	-	-	-	-
		0.13	0.60	6.2	7.8	-	-	-	-	-	-	-
		0.25	2.69	6.5	8.5	-	-	-	-	-	-	-
		0.38	6.28	6.6	8.7	-	-	-	-	-	-	-
		Airside Ps (Pa)		7.5	12.5	-	-	-	-	-	-	-

Unit Size	Rows	Water Flow L/s	Head Loss kPa	L/s 165	235	305	380	470	565	615	710	755
3	Three	0.06	0.30	7.7	9.0	9.9	-	-	-	-	-	-
		0.13	0.90	9.2	11.4	13.0	-	-	-	-	-	-
		0.25	3.59	10.0	12.9	15.2	-	-	-	-	-	-
		0.38	8.07	10.3	13.4	16.1	-	-	-	-	-	-
		Airside Ps (Pa)		7.5	14.9	22.4	-	-	-	-	-	-
	Four	0.06	0.30	8.4	9.8	-	-	-	-	-	-	-
		0.13	0.90	10.1	12.6	-	-	-	-	-	-	-
		0.25	2.99	11.0	14.3	-	-	-	-	-	-	-
		0.38	6.58	11.2	14.9	-	-	-	-	-	-	-
		Airside Ps (Pa)		10.0	19.9	-	-	-	-	-	-	-

Unit Size	Rows	Water Flow L/s	Head Loss kPa	L/s 355	470	520	615	660	710	755	800	850
4	Three	0.06	0.30	10.3	11.1	11.3	11.7	11.9	12.0	-	-	-
		0.13	0.90	13.9	15.7	16.2	17.2	17.6	17.9	-	-	-
		0.25	3.59	16.6	19.4	20.3	22.0	22.7	23.4	-	-	-
		0.38	8.07	17.6	20.9	22.1	24.1	25.0	25.9	-	-	-
		Airside Ps (Pa)		27.4	47.3	54.8	72.2	82.2	92.2	-	-	-
	Four	0.06	0.30	11.2	12.0	12.2	12.5	-	-	-	-	-
		0.13	0.90	15.5	17.4	18.0	19.0	-	-	-	-	-
		0.25	2.99	18.7	22.0	23.1	25.0	-	-	-	-	-
		0.32	6.58	19.9	23.9	25.3	27.7	-	-	-	-	-
		Airside Ps (Pa)		37.4	62.3	72.2	94.7	-	-	-	-	-

Unit Size	Rows	Water Flow L/s	Head Loss kPa	L/s 565	635	695	815	875	930	990	1050	1085
5	Three	0.06	0.30	12.2	12.5	12.7	13.0	-	-	-	-	-
		0.13	0.90	17.9	18.6	19.1	19.9	-	-	-	-	-
		0.25	3.89	22.6	23.9	24.9	26.6	-	-	-	-	-
		0.38	8.37	24.7	26.3	27.5	29.7	-	-	-	-	-
		Airside Ps (Pa)		47.3	57.3	-	-	-	-	-	-	-
	Four	0.06	0.30	13.1	13.3	-	-	-	-	-	-	-
		0.13	0.90	19.7	20.5	-	-	-	-	-	-	-
		0.25	2.99	25.6	27.1	-	-	-	-	-	-	-
		0.38	6.87	28.1	30.1	-	-	-	-	-	-	-
		Airside Ps (Pa)		62.3	74.7	-	-	-	-	-	-	-

Unit Size	Rows	Water Flow L/s	Head Loss kPa	L/s 635	695	780	850	920	990	1135	1205	1320
6	Three	0.06	0.30	12.5	12.7	12.9	13.1	13.2	13.3	-	-	-
		0.13	0.90	18.6	19.1	19.7	20.2	20.6	21.0	-	-	-
		0.25	3.89	23.9	24.9	26.1	27.1	27.9	28.7	-	-	-
		0.38	14.05	26.3	27.5	29.1	30.3	31.5	32.5	-	-	-
		Airside Ps (Pa)		57.3	64.8	79.7	92.2	104.6	117.1	-	-	-
	Four	0.06	0.30	13.3	13.5	13.7	-	-	-	-	-	-
		0.13	0.90	20.5	21.0	21.7	-	-	-	-	-	-
		0.25	2.99	27.1	28.2	29.6	-	-	-	-	-	-
		0.38	6.87	30.1	31.5	33.4	-	-	-	-	-	-
		Airside Ps (Pa)		74.7	87.2	104.6	-	-	-	-	-	-

Unit Size	Rows	Water Flow L/s	Head Loss kPa	L/s 235	470	710	945	1135	1320	1510	1700	1890
7	Three	0.38	2.69	14.3	23.4	29.9	34.8	38.0	-	-	-	-
		0.50	4.78	14.6	24.2	31.4	37.0	40.7	-	-	-	-
		0.63	7.47	14.7	24.7	32.3	38.4	42.5	-	-	-	-
		0.76	10.76	14.8	25.1	33.0	39.4	43.7	-	-	-	-
		Airside Ps (Pa)		2.5	10.0	19.9	32.4	44.8	-	-	-	-
	Four	0.38	1.49	15.7	26.3	-	-	-	-	-	-	-
		0.50	2.69	15.9	27.3	-	-	-	-	-	-	-
		0.63	4.48	16.1	27.9	-	-	-	-	-	-	-
		0.76	6.28	16.2	28.3	-	-	-	-	-	-	-
		Airside Ps (Pa)		5.0	12.5	-	-	-	-	-	-	-

Hot Water Coils Selection Data

500-YCI HIGH PERFORMANCE IMPERIAL UNITS

CAPACITY (MBH) — See Table B on page 27 for performance notes

Unit Size	Rows	Waterflow GPM	Head Loss FT Water	CFM 150	200	250	300	350	425	550	650	750
1	One	1	0.2	10.1	11.9	13.4	14.7	15.8	17.2	19.1	20.4	21.4
		2	0.9	10.9	13.1	14.9	16.6	18.0	19.9	22.5	24.3	25.9
		4	3.3	11.4	13.8	15.9	17.7	19.4	21.6	24.8	26.9	28.9
		6	6.3	11.6	14.1	16.2	18.1	19.9	22.2	25.6	28.0	30.1
		Airside Ps (in.)		0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.03	0.03
	Two	1	0.1	13.1	15.7	18.0	19.9	21.5	23.4	26.3	28.0	29.4
		2	0.5	14.3	17.7	20.6	23.2	25.6	28.5	32.9	35.8	38.3
		4	1.8	15.1	18.9	22.3	25.4	28.2	31.8	37.7	41.6	45.0
		6	3.9	15.3	19.3	22.9	26.2	29.3	33.5	39.6	43.9	47.8
		Airside Ps (in.)		0.01	0.01	0.01	0.02	0.02	0.03	0.05	0.06	0.08

Unit Size	Rows	Waterflow GPM	Head Loss FT Water	CFM 375	450	525	600	750	875	1000	1050	1100
2	One	1	0.2	16.3	17.6	18.8	19.8	21.4	22.5	23.5	23.9	24.2
		2	0.9	18.7	20.5	22.0	23.4	25.9	27.6	29.1	29.7	30.1
		4	3.3	20.1	22.3	24.2	25.9	28.9	31.0	33.0	33.7	34.4
		6	7.3	20.7	23.0	25.0	26.8	30.1	32.4	34.6	35.3	36.1
		Airside Ps (in.)		0.01	0.01	0.02	0.02	0.03	0.04	0.06	0.06	0.07
	Two	1	0.1	18.9	24.1	25.8	27.1	29.4	30.8	32.1	-	-
		2	0.5	22.0	29.6	32.1	34.4	38.3	41.0	43.3	-	-
		4	1.8	23.9	33.3	36.6	39.7	45.0	48.9	52.3	-	-
		5	3.9	30.7	34.8	38.4	41.8	47.8	52.2	56.2	-	-
		Airside Ps (in.)		0.02	0.03	0.04	0.05	0.08	0.10	0.12	-	-

Unit Size	Rows	Waterflow GPM	Head Loss FT Water	CFM 350	500	600	800	900	1000	1100	1300	1500
3	One	1	0.3	16.9	19.8	21.3	23.6	24.6	25.4	26.1	27.4	28.5
		2	1.0	19.3	23.2	25.3	28.8	30.2	31.6	32.8	34.9	36.7
		4	3.7	20.7	25.4	28.0	32.3	34.2	35.9	37.5	40.3	42.8
		6	8.1	21.3	26.2	28.9	33.7	35.8	37.6	39.4	42.5	45.3
		Airside Ps (in.)		0.01	0.01	0.02	0.03	0.03	0.04	0.05	0.06	0.08
	Two	1	0.1	22.5	26.6	28.7	31.8	33.0	34.0	35.0	-	-
		2	0.5	26.8	33.0	36.4	41.9	44.1	46.2	48.0	-	-
		4	1.9	29.5	37.5	41.9	49.6	52.8	55.8	58.6	-	-
		6	4.1	30.6	39.2	44.2	52.8	56.5	60.0	63.2	-	-
		Airside Ps (in.)		0.02	0.03	0.04	0.06	0.08	0.09	0.11	-	-

Unit Size	Rows	Waterflow GPM	Head Loss FT Water	CFM 750	900	1100	1300	1500	1600	1700	1800	1900
4	One	1	0.3	23.1	24.6	26.1	27.4	28.5	29.0	29.4	29.8	30.2
		2	1.0	28.0	30.2	32.8	34.9	36.7	37.5	38.3	39.0	39.7
		4	3.7	31.3	34.2	37.5	40.3	42.8	43.9	45.0	46.0	47.0
		6	7.2	32.6	35.8	39.4	42.5	45.3	46.6	47.8	49.0	50.1
		Airside Ps (in.)		0.03	0.03	0.05	0.06	0.08	0.09	0.10	0.11	0.12
	Two	1	0.1	31.1	33.0	35.0	36.5	37.7	38.2	38.7	39.1	-
		2	0.5	40.7	44.1	48.0	51.1	53.7	54.9	56.0	57.0	-
		4	1.9	47.8	52.8	58.6	63.5	67.8	69.7	71.5	73.2	-
		6	4.1	50.8	56.5	63.2	69.0	74.2	76.5	78.7	80.9	-
		Airside Ps (in.)		0.06	0.08	0.11	0.14	0.18	0.20	0.22	0.24	-

Unit Size	Rows	Waterflow GPM	Head Loss FT Water	CFM 1200	1400	1600	1800	1900	2000	2100	2200	2300
5	One	1	0.1	28.2	29.4	30.3	31.2	31.5	31.9	32.2	32.5	32.8
		3	0.9	42.3	43.9	46.2	48.3	49.2	50.1	51.0	51.8	52.5
		6	3.5	46.7	50.2	53.2	56.0	57.3	58.6	59.7	60.9	61.9
		9	7.8	48.9	52.7	56.2	59.3	60.7	62.1	63.4	64.7	66.0
		Airside Ps (in.)		0.03	0.04	0.05	0.06	0.07	0.07	0.08	0.09	0.09
	Two	1	0.1	37.7	39.1	40.2	41.1	41.5	41.9	42.2	42.5	-
		3	0.7	61.8	66.2	69.9	73.1	74.6	76.0	77.3	78.5	-
		6	2.7	73.2	79.5	85.0	90.1	92.4	94.6	96.7	98.8	-
		9	6.1	77.9	85.1	91.7	97.6	100.3	103.0	105.5	108.0	-
		Airside Ps (in.)		0.07	0.09	0.11	0.13	0.15	0.16	0.17	0.19	-

Unit Size	Rows	Waterflow GPM	Head Loss FT Water	CFM 1200	1400	1600	1800	2000	2300	2500	2700	2900
6	One	1	0.1	28.2	29.4	30.3	31.2	31.9	32.8	33.3	33.7	34.2
		3	0.9	42.3	43.9	46.2	48.3	50.1	52.5	54.0	55.3	56.5
		6	3.5	46.7	50.2	53.2	56.0	58.6	61.9	64.0	65.9	67.7
		9	7.8	48.9	52.7	56.2	59.3	62.1	66.0	68.3	70.5	72.5
		Airside Ps (in.)		0.03	0.04	0.05	0.06	0.07	0.09	0.11	0.12	0.14
	Two	1	0.1	37.7	39.1	40.2	41.1	41.9	42.8	43.3	43.8	-
		3	0.7	61.8	66.2	69.9	73.1	76.0	79.7	81.9	83.9	-
		6	2.7	73.2	79.5	85.0	90.1	94.6	100.7	104.3	107.7	-
		9	6.1	77.9	85.1	91.7	97.6	103.0	110.3	114.7	118.9	-
		Airside Ps (in.)		0.07	0.09	0.11	0.13	0.16	0.20	0.23	0.26	-

Hot Water Coils Selection Data

500-YCI HIGH PERFORMANCE IMPERIAL UNITS

CAPACITY (MBH) — See Table A on page 27 for performance notes

Unit Size	Rows	Water Flow GPM	Head Loss FT Water	CFM 150	200	250	300	350	425	550	650	750
1	Three	1	0.1	15.6	19.1	22.0	24.4	26.4	28.8	31.9	33.7	35.2
		2	0.3	16.7	21.0	24.9	28.3	31.4	35.4	40.9	44.5	47.5
		4	1.2	17.2	22.0	26.4	30.5	34.2	39.4	46.8	52.0	56.6
		6	2.8	17.3	22.3	26.9	31.2	35.2	40.8	49.1	54.9	60.2
		Airside Ps (in.)		0.01	0.01	0.02	0.02	0.03	0.04	0.07	0.09	0.11
	Four	1	0.1	16.7	20.6	23.9	26.6	28.8	31.5	34.8	36.7	38.2
		2	0.3	17.6	22.5	26.9	30.9	34.4	39.1	45.4	49.5	52.9
		4	1.0	18.0	23.3	28.4	33.0	37.4	43.4	52.2	58.4	63.8
		6	2.2	18.1	23.6	28.8	33.7	38.4	44.9	54.7	61.7	63.8
		Airside Ps (in.)		0.01	0.01	0.02	0.02	0.04	0.06	0.09	0.12	0.15
Unit Size	**Rows**	**Water Flow GPM**	**Head Loss FT Water**	**CFM 375**	**450**	**525**	**600**	**750**	**875**	**1000**	**1050**	**1100**
2	Three	1	0.1	27.3	29.5	31.4	32.9	35.2	-	-	-	-
		2	0.3	32.8	36.6	39.9	42.8	47.5	-	-	-	-
		4	1.2	36.0	41.0	45.4	49.5	56.6	-	-	-	-
		6	2.7	36.8	42.0	47.5	51.3	60.2	-	-	-	-
		Airside Ps (in.)		0.04	0.05	0.06	0.08	0.11	-	-	-	-
	Four	1	0.1	29.8	32.2	34.2	35.8	-	-	-	-	-
		2	0.3	36.1	40.5	44.3	47.5	-	-	-	-	-
		4	1.0	39.5	45.3	50.6	55.4	-	-	-	-	-
		6	2.2	40.6	47.0	52.9	58.3	-	-	-	-	-
		Airside Ps (in.)		0.05	0.07	0.08	0.11	-	-	-	-	-
Unit Size	**Rows**	**Water Flow GPM**	**Head Loss FT Water**	**CFM 350**	**500**	**600**	**800**	**900**	**1000**	**1100**	**1300**	**1500**
3	Three	1	0.1	27.8	32.6	34.8	38.0	-	-	-	-	-
		2	0.3	32.8	40.9	45.2	52.0	-	-	-	-	-
		4	1.3	35.5	46.1	52.1	62.2	-	-	-	-	-
		6	2.8	36.4	47.9	54.6	66.2	-	-	-	-	-
		Airside Ps (in.)		0.02	0.04	0.06	0.09	-	-	-	-	-
	Four	1	0.1	30.2	35.4	37.8	-	-	-	-	-	-
		2	0.3	35.7	45.1	50.0	-	-	-	-	-	-
		4	1.0	38.5	50.8	57.9	-	-	-	-	-	-
		6	2.3	39.4	52.7	60.6	-	-	-	-	-	-
		Airside Ps (in.)		0.03	0.06	0.08	-	-	-	-	-	-
Unit Size	**Rows**	**Water Flow GPM**	**Head Loss FT Water**	**CFM 750**	**900**	**1100**	**1300**	**1500**	**1600**	**1700**	**1800**	**1900**
4	Three	1	0.1	37.3	39.2	41.0	42.4	43.4	43.8	44.2	-	-
		2	0.3	50.5	54.7	59.1	62.7	65.5	66.7	67.9	-	-
		4	1.3	59.9	66.5	74.0	80.3	85.7	88.1	90.4	-	-
		6	2.8	63.5	71.3	80.3	88.0	94.8	97.9	100.8	-	-
		Airside Ps (in.)		0.08	0.11	0.16	0.21	0.27	0.30	0.33	-	-
	Four	1	0.1	40.3	42.2	43.9	45.2	46.1	-	-	-	-
		2	0.3	56.0	60.6	65.4	69.2	72.1	-	-	-	-
		4	1.0	67.1	74.9	83.6	90.9	97.1	-	-	-	-
		6	2.3	71.2	80.5	91.3	100.5	108.6	-	-	-	-
		Airside Ps (in.)		0.11	0.15	0.21	0.28	0.36	-	-	-	-
Unit Size	**Rows**	**Water Flow GPM**	**Head Loss FT Water**	**CFM 1200**	**1400**	**1600**	**1800**	**1900**	**2000**	**2100**	**2200**	**2300**
5	Three	1	0	42.3	43.6	44.6	45.4	45.8	46.1	-	-	-
		3	0.2	71.1	76.1	80.4	84.1	85.8	87.4	-	-	-
		6	0.8	83.5	91.1	97.8	103.9	106.7	109.4	-	-	-
		9	1.8	88.3	97.1	105.0	112.2	115.6	118.8	-	-	-
		Airside Ps (in.)		0.08	0.10	0.13	0.16	0.18	0.19	-	-	-
	Four	1	0.05	44.5	45.7	46.6	47.3	47.6	-	-	-	-
		3	0.1	79.1	84.5	89.1	93.1	94.8	-	-	-	-
		6	0.5	94.7	103.6	111.4	118.4	121.6	-	-	-	-
		9	1.1	100.9	111.3	120.7	129.3	133.2	-	-	-	-
		Airside Ps (in.)		0.11	0.14	0.18	0.22	0.24	-	-	-	-
Unit Size	**Rows**	**Water Flow GPM**	**Head Loss FT Water**	**CFM 1200**	**1400**	**1600**	**1800**	**2000**	**2300**	**2500**	**2700**	**2900**
6	Three	1	0.1	42.3	43.6	44.6	45.4	46.1	46.9	65.0	47.8	-
		3	0.2	71.1	76.1	80.4	84.1	87.4	91.6	94.0	96.2	-
		6	0.8	83.5	91.1	97.8	103.9	109.4	116.7	121.1	125.1	-
		9	1.8	88.3	97.1	105.0	112.2	118.8	127.8	133.2	138.3	-
		Airside Ps (in.)		0.08	0.10	0.13	0.16	0.19	0.25	0.29	0.33	-
	Four	1	0.05	44.5	45.7	46.6	47.3	47.9	48.6	48.9	-	-
		3	0.1	79.1	84.5	89.1	93.1	96.4	100.7	103.2	-	-
		6	0.5	94.7	103.6	111.4	118.4	124.6	132.9	137.8	-	-
		9	1.1	100.9	111.3	120.7	129.3	137.1	147.6	153.9	-	-
		Airside Ps (in.)		0.11	0.14	0.18	0.22	0.26	0.33	0.38	-	-

Hot Water Coils Selection Data

500-YCI HIGH PERFORMANCE METRIC UNITS

CAPACITY (kW) — See Table B on page 27 for performance notes

Unit Size	Rows	Water Flow L/s	Head Loss kPa	L/s 70	95	120	140	165	200	260	305	355
1	One	0.06	0.60	3.0	3.5	3.9	4.3	4.6	5.0	5.6	6.0	6.3
		0.13	2.69	3.2	3.8	4.4	4.8	5.3	5.8	6.6	7.1	7.6
		0.25	9.86	3.3	4.0	4.6	5.2	5.7	6.3	7.2	7.9	8.5
		0.38	18.83	3.4	4.1	4.7	5.3	5.8	6.5	7.5	8.2	8.8
		Airside Ps (Pa)		0.0	0.0	2.5	2.5	2.5	2.5	5.0	7.5	7.5
	Two	0.06	0.30	3.8	4.6	5.3	5.8	6.3	6.9	7.7	8.2	8.6
		0.13	1.49	4.2	5.2	6.0	6.8	7.5	8.3	9.6	10.5	11.2
		0.25	5.38	4.4	5.5	6.5	7.4	8.3	9.3	11.0	12.2	13.2
		0.38	11.66	4.5	5.7	6.7	7.7	8.6	9.8	11.6	12.9	14.0
		Airside Ps (Pa)		2.5	2.5	2.5	5.0	5.0	7.5	12.5	14.9	19.9
Unit Size	**Rows**	**Water Flow L/s**	**Head Loss kPa**	**L/s 70**	**95**	**120**	**140**	**165**	**200**	**260**	**305**	**355**
2	One	0.06	0.60	4.8	5.2	5.5	5.8	6.3	6.6	6.9	7.0	7.1
		0.13	2.69	5.5	6.0	6.5	6.9	7.6	8.1	8.5	8.7	8.8
		0.25	9.86	5.9	6.5	7.1	7.6	8.5	9.1	9.7	9.9	10.1
		0.38	21.82	6.1	6.7	7.3	7.9	8.8	9.5	10.1	10.4	10.6
		Airside Ps (Pa)		2.5	2.5	5.0	5.0	7.5	10.0	14.9	14.9	17.4
	Two	0.06	0.30	5.5	7.1	7.6	7.9	8.6	9.0	9.4	-	-
		0.13	1.49	6.4	8.7	9.4	10.1	11.2	12.0	12.7	-	-
		0.25	5.38	7.0	9.7	10.7	11.6	13.2	14.3	15.3	-	-
		0.32	11.66	9.0	10.2	11.3	12.2	14.0	15.3	16.5	-	-
		Airside Ps (Pa)		5.0	7.5	10.0	12.5	19.9	24.9	29.9	-	-
Unit Size	**Rows**	**Water Flow L/s**	**Head Loss kPa**	**L/s 70**	**95**	**120**	**140**	**165**	**200**	**260**	**305**	**355**
3	One	0.06	0.90	4.9	5.8	6.2	6.9	7.2	7.4	7.7	8.0	8.3
		0.13	2.99	5.6	6.8	7.4	8.4	8.9	9.2	9.6	10.2	10.7
		0.25	11.06	6.1	7.4	8.2	9.5	10.0	10.5	11.0	11.8	12.5
		0.38	24.21	6.2	7.7	8.5	9.9	10.5	11.0	11.5	12.5	13.3
		Airside Ps (Pa)		2.5	2.5	5.0	7.5	7.5	10.0	12.5	14.9	19.9
	Two	0.06	0.30	6.6	7.8	8.4	9.3	9.7	10.0	10.2	-	-
		0.13	1.49	7.8	9.7	10.7	12.3	12.9	13.5	14.0	-	-
		0.25	5.68	8.6	11.0	12.3	14.5	15.5	16.4	17.2	-	-
		0.38	12.25	9.0	11.5	12.9	15.5	16.6	17.6	18.5	-	-
		Airside Ps (Pa)		5.0	7.5	10.0	14.9	19.9	22.4	27.4	-	-
Unit Size	**Rows**	**Water Flow L/s**	**Head Loss kPa**	**L/s 70**	**95**	**120**	**140**	**165**	**200**	**260**	**305**	**355**
4	One	0.06	0.90	6.8	7.2	7.7	8.0	8.3	8.5	8.6	8.7	8.8
		0.13	2.99	8.2	8.9	9.6	10.2	10.7	11.0	11.2	11.4	11.6
		0.25	11.06	9.2	10.0	11.0	11.8	12.5	12.9	13.2	13.5	13.8
		0.38	21.52	9.6	10.5	11.5	12.5	13.3	13.7	14.0	14.3	14.7
		Airside Ps (Pa)		7.5	7.5	12.5	14.9	19.9	22.4	24.9	27.4	29.9
	Two	0.06	0.30	9.1	9.7	10.2	10.7	11.0	11.2	11.3	11.5	-
		0.13	1.49	11.9	12.9	14.0	15.0	15.7	16.1	16.4	16.7	-
		0.25	5.68	14.0	15.5	17.2	18.6	19.8	20.4	20.9	21.4	-
		0.38	12.25	14.9	16.6	18.5	20.2	21.7	22.4	23.1	23.7	-
		Airside Ps (Pa)		14.9	19.9	27.4	34.9	44.8	49.8	54.8	59.8	-
Unit Size	**Rows**	**Water Flow L/s**	**Head Loss kPa**	**L/s 70**	**95**	**120**	**140**	**165**	**200**	**260**	**305**	**355**
5	One	0.06	0.30	8.3	8.6	8.9	9.1	9.2	9.3	9.4	9.5	9.6
		0.19	2.69	12.4	12.9	13.5	14.1	14.4	14.7	14.9	15.2	15.4
		0.38	10.46	13.7	14.7	15.6	16.4	16.8	17.1	17.5	17.8	18.1
		0.57	23.31	14.3	15.4	16.5	17.4	17.8	18.2	18.6	19.0	19.3
		Airside Ps (Pa)		7.5	10.0	12.5	14.9	17.4	17.4	19.9	22.4	22.4
	Two	0.06	0.30	11.0	11.4	11.8	12.0	12.2	12.3	12.4	12.5	-
		0.19	2.09	18.1	19.4	20.5	21.4	21.8	22.3	22.6	23.0	-
		0.38	8.07	21.4	23.3	24.9	26.4	27.1	27.7	28.3	28.9	-
		0.57	18.23	22.8	24.9	26.8	28.6	29.4	30.2	30.9	31.6	-
		Airside Ps (Pa)		17.4	22.4	27.4	32.4	37.4	39.9	42.3	47.3	-
Unit Size	**Rows**	**Water Flow L/s**	**Head Loss kPa**	**L/s 70**	**95**	**120**	**140**	**165**	**200**	**260**	**305**	**355**
6	One	0.06	0.30	8.3	8.6	8.9	9.1	9.3	9.6	9.7	9.9	10.0
		0.19	2.69	12.4	12.9	13.5	14.1	14.7	15.4	15.8	16.2	16.6
		0.38	10.46	13.7	14.7	15.6	16.4	17.1	18.1	18.7	19.3	19.8
		0.57	23.31	14.3	15.4	16.5	17.4	18.2	19.3	20.0	20.6	21.2
		Airside Ps (Pa)		7.5	10.0	12.5	14.9	17.4	22.4	27.4	29.9	34.9
	Two	0.06	0.30	11.0	11.4	11.8	12.0	12.3	12.5	12.7	12.8	-
		0.19	2.09	18.1	19.4	20.5	21.4	22.3	23.3	24.0	24.6	-
		0.38	8.07	21.4	23.3	24.9	26.4	27.7	29.5	30.6	31.5	-
		0.57	18.23	22.8	24.9	26.8	28.6	30.2	32.3	33.6	34.8	-
		Airside Ps (Pa)		17.4	22.4	27.4	32.4	39.9	49.8	57.3	64.8	-

Hot Water Coils Selection Data

500-YCI HIGH PERFORMANCE METRIC UNITS

CAPACITY (kW) — See Table B on page 27 for performance notes

Unit Size	Rows	Water Flow L/s	Head Loss kPa	L/s 70	95	120	140	165	200	260	305	355
1	Three	0.06	0.30	4.6	5.6	6.4	7.1	7.7	8.4	9.3	9.9	10.3
		0.13	0.90	4.9	6.2	7.3	8.3	9.2	10.4	12.0	13.0	13.9
		0.25	3.59	5.0	6.4	7.7	8.9	10.0	11.5	13.7	15.2	16.6
		0.38	8.37	5.1	6.5	7.9	9.1	10.3	11.9	14.4	16.1	17.6
		Airside Ps (Pa)		2.5	2.5	5.0	5.0	7.5	10.0	17.4	22.4	27.4
	Four	0.06	0.30	4.9	6.0	7.0	7.8	8.4	9.2	10.2	10.7	11.2
		0.13	0.90	5.1	6.6	7.9	9.0	10.1	11.4	13.3	14.5	15.5
		0.25	2.99	5.3	6.8	8.3	9.7	11.0	12.7	15.3	17.1	18.7
		0.38	6.58	5.3	6.9	8.4	9.9	11.2	13.2	16.0	18.1	18.7
		Airside Ps (Pa)		2.5	2.5	5.0	5.0	10.0	14.9	22.4	29.9	37.4
Unit Size	Rows	Water Flow L/s	Head Loss kPa	L/s 70	95	120	140	165	200	260	305	355
2	Three	0.06	0.30	8.0	8.6	9.2	9.6	10.3	-	-	-	-
		0.13	0.90	9.6	10.7	11.7	12.5	13.9	-	-	-	-
		0.25	3.59	10.5	12.0	13.3	14.5	16.6	-	-	-	-
		0.38	8.07	10.8	12.3	13.9	15.0	17.6	-	-	-	-
		Airside Ps (Pa)		10.0	12.5	14.9	19.9	27.4	-	-	-	-
	Four	0.06	0.30	8.7	9.4	10.0	10.5	-	-	-	-	-
		0.13	0.90	10.6	11.8	13.0	13.9	-	-	-	-	-
		0.25	2.99	11.6	13.3	14.8	16.2	-	-	-	-	-
		0.38	6.58	11.9	13.8	15.5	17.1	-	-	-	-	-
		Airside Ps (Pa)		12.5	17.4	19.9	27.4	-	-	-	-	-
Unit Size	Rows	Water Flow L/s	Head Loss kPa	L/s 70	95	120	140	165	200	260	305	355
3	Three	0.06	0.30	8.1	9.5	10.2	11.1	-	-	-	-	-
		0.13	0.90	9.6	12.0	13.2	15.2	-	-	-	-	-
		0.25	3.89	10.4	13.5	15.2	18.2	-	-	-	-	-
		0.38	8.37	10.7	14.0	16.0	19.4	-	-	-	-	-
		Airside Ps (Pa)		5.0	10.0	14.9	22.4	-	-	-	-	-
	Four	0.06	0.30	8.8	10.4	11.1	-	-	-	-	-	-
		0.13	0.90	10.5	13.2	14.7	-	-	-	-	-	-
		0.25	2.99	11.3	14.9	16.9	-	-	-	-	-	-
		0.38	6.87	11.5	15.4	17.8	-	-	-	-	-	-
		Airside Ps (Pa)		7.5	14.9	19.9	-	-	-	-	-	-
Unit Size	Rows	Water Flow L/s	Head Loss kPa	L/s 70	95	120	140	165	200	260	305	355
4	Three	0.06	0.30	10.9	11.5	12.0	12.4	12.7	12.8	13.0	-	-
		0.13	0.90	14.8	16.0	17.3	18.3	19.2	19.5	19.9	-	-
		0.25	3.89	17.5	19.5	21.7	23.5	25.1	25.8	26.5	-	-
		0.38	8.37	18.6	20.9	23.5	25.8	27.8	28.7	29.5	-	-
		Airside Ps (Pa)		19.9	27.4	39.9	52.3	67.3	74.7	82.2	-	-
	Four	0.06	0.30	11.8	12.3	12.9	13.2	13.5	-	-	-	-
		0.13	0.90	16.4	17.8	19.2	20.3	21.1	-	-	-	-
		0.25	2.99	19.6	21.9	24.5	26.6	28.4	-	-	-	-
		0.38	6.87	20.9	23.6	26.7	29.4	31.8	-	-	-	-
		Airside Ps (Pa)		27.4	37.4	52.3	69.7	89.7	-	-	-	-
Unit Size	Rows	Water Flow L/s	Head Loss kPa	L/s 70	95	120	140	165	200	260	305	355
5	Three	0.06	0.00	12.4	12.8	13.1	13.3	13.4	13.5	-	-	-
		0.19	0.60	20.8	22.3	23.5	24.6	25.1	25.6	-	-	-
		0.38	2.39	24.4	26.7	28.7	30.4	31.2	32.0	-	-	-
		0.57	5.38	25.9	28.4	30.8	32.9	33.9	34.8	-	-	-
		Airside Ps (Pa)		19.9	24.9	32.4	39.9	44.8	47.3	-	-	-
	Four	0.06	0.15	13.0	13.4	13.6	13.8	13.9	-	-	-	-
		0.19	0.30	23.2	24.8	26.1	27.3	27.8	-	-	-	-
		0.38	1.49	27.7	30.3	32.6	34.7	35.6	-	-	-	-
		0.57	3.29	29.5	32.6	35.4	37.9	39.0	-	-	-	-
		Airside Ps (Pa)		27.4	34.9	44.8	54.8	59.8	-	-	-	-
Unit Size	Rows	Water Flow L/s	Head Loss kPa	L/s 70	95	120	140	165	200	260	305	355
6	Three	0.06	0.30	12.4	12.8	13.1	13.3	13.5	13.7	19.0	14.0	-
		0.19	0.60	20.8	22.3	23.5	24.6	25.6	26.8	27.5	28.2	-
		0.38	2.39	24.4	26.7	28.7	30.4	32.0	34.2	35.5	36.6	-
		0.57	5.38	25.9	28.4	30.8	32.9	34.8	37.4	39.0	40.5	-
		Airside Ps (Pa)		19.9	24.9	32.4	39.9	47.3	62.3	72.2	82.2	-
	Four	0.06	0.15	13.0	13.4	13.6	13.8	14.0	14.2	14.3	-	-
		0.19	0.30	23.2	24.8	26.1	27.3	28.2	29.5	30.2	-	-
		0.38	1.49	27.7	30.3	32.6	34.7	36.5	38.9	40.3	-	-
		0.57	3.29	29.5	32.6	35.4	37.9	40.1	43.2	45.1	-	-
		Airside Ps (Pa)		27.4	34.9	44.8	54.8	64.8	82.2	94.7	-	-

Hot Water Coils – Notes

Table A

IMPERIAL NOTES

1. Values shown in the above charts assume the following conditions: 180°F EWT, and 65°F EAT. For other conditions of entering water, air temperatures and air flow, see note 4.
2. Tabulated values are in MBH (thousands of BTU per hour).
3. Head loss is in feet of water.
4. MBH values are based on a DT (temperature difference) of 115° F between entering air and entering water. For other DTs, multiply the MBH values by the factors below:

DT	Factor
50	**.44**
60	.52
70	**.61**
80	.70
90	**.79**

DT	Factor
100	0.88
115	**1.00**
125	1.07
140	**1.20**
150	1.30

5. Air Temperature Rise = $\dfrac{927 \times MBH}{CFM}$

6. Water Temperature Drop = $\dfrac{2.04 \times MBH}{GPM}$

7. For water valve sizing, contact your YORK representative. For data values other than those listed, interpolate or use the YORK Terminal Selection Program. Contact your YORK representative for additional information.

Table B

METRIC NOTES

1. Values shown in the above charts assume the following conditions: Standard Atmospheric Conditions, 82°C EWT, and 18°C EAT. For other conditions of entering water, air temperatures and air flows, see note 4.
2. Tabulated values are in kW (thousands of watts).
3. Head loss is in kPa.
4. kW values are based on a DT (temperature difference) between entering air and entering water of 64°C. For other DTs, multiply the kW values by the factors below:

DT	Factor
30	**.48**
35	.55
40	**.63**
50	.78

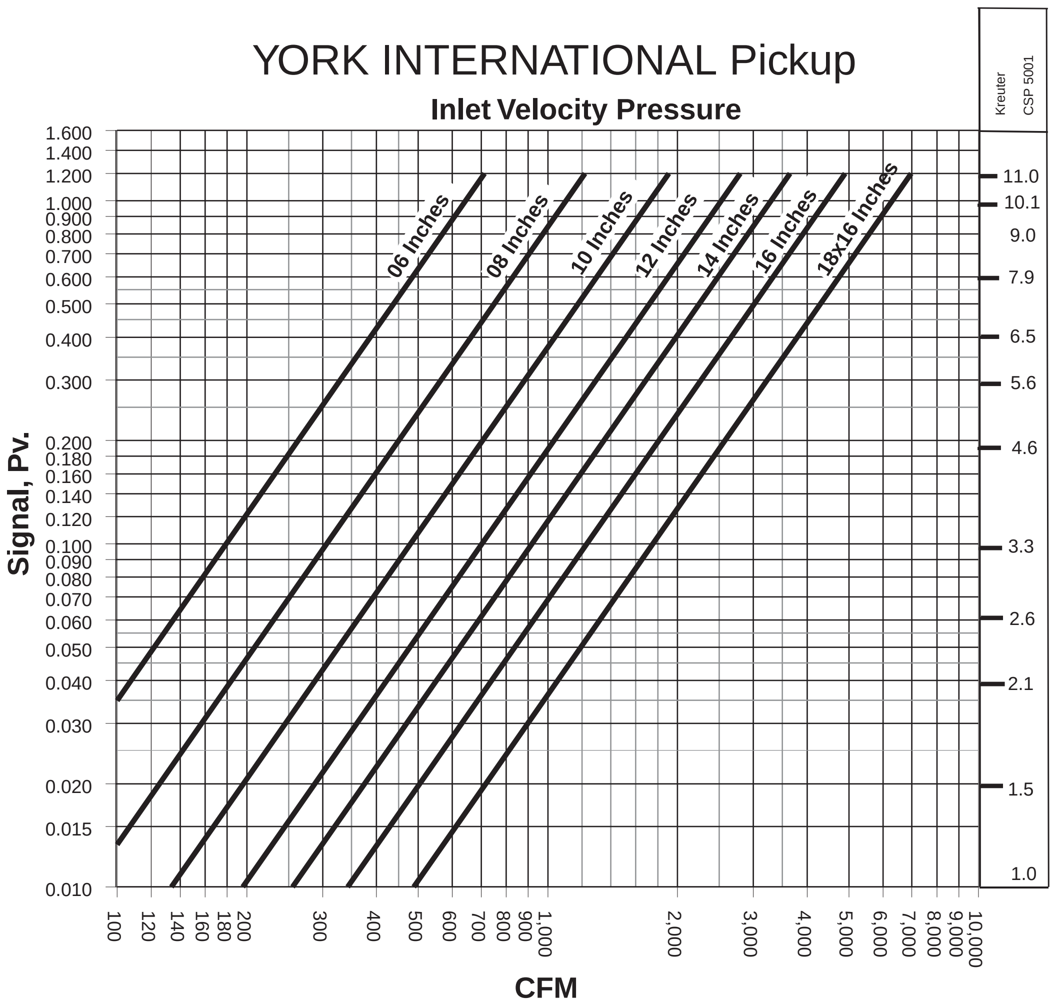
DT	Factor
60	.94
64	**1.00**
70	1.08
80	**1.24**

5. Air Temperature Rise = $\dfrac{kW \times 579}{\text{air flow in L/s}}$

6. Water Temperature Drop = $\dfrac{kW \times 0.17}{\text{water flow in L/s}}$

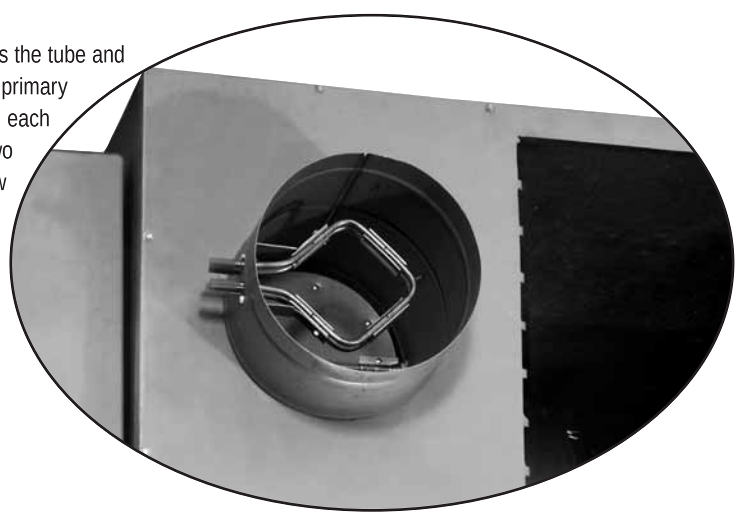
7. For water valve sizing, contact your YORK representative. For data values other than those listed, interpolate or use the York International computerized engineering program. Contact your YORK representative for additional information.

Flow Sensor Drawing Calibration for YI Pickup

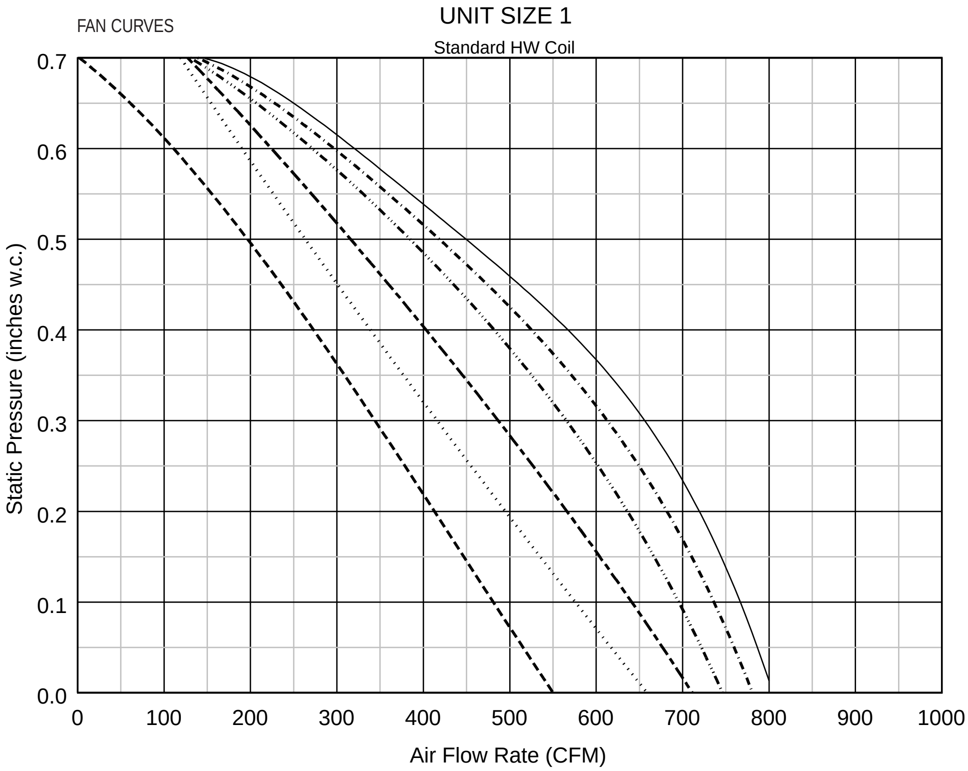


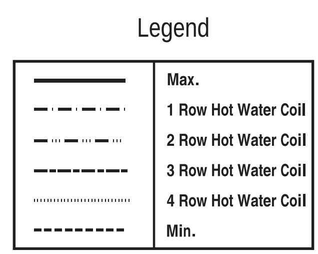
PRIMARY AIR VALVE AND PICKUP

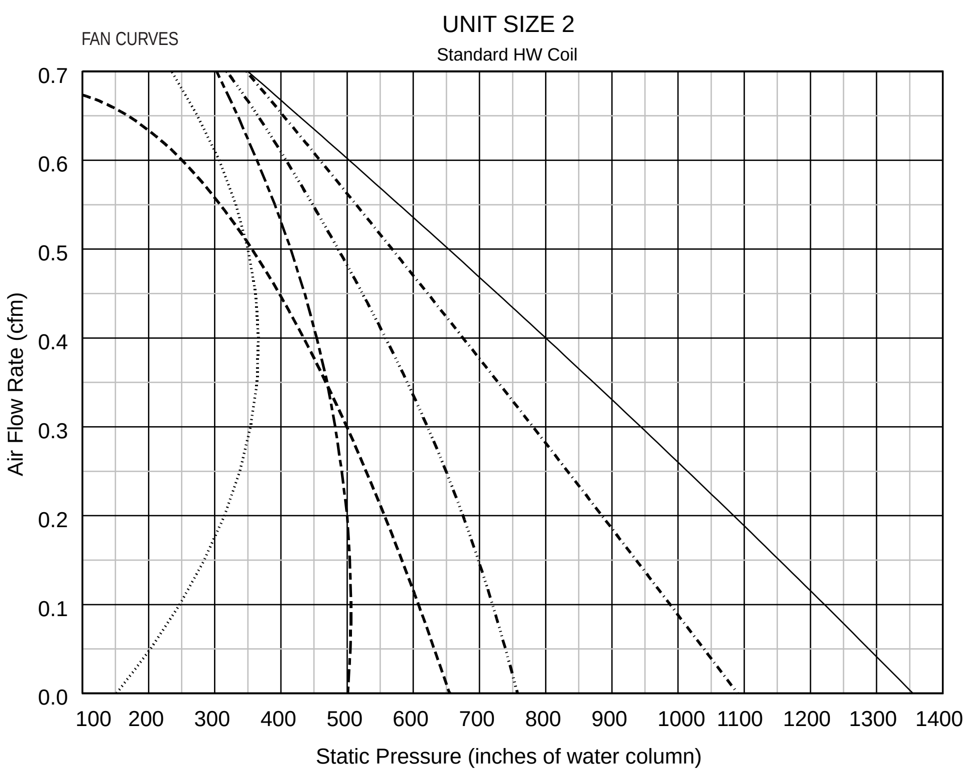
Primary air valve has a bead rolled into the tube, which strengthens the tube and serves as a stop to prevent field-attached flex duct from slipping. The primary valve velocity sensor is multi-ported and arranged to sense velocity in each of four quadrants of the inlet. The sensor has two control ports and two accessory ports. Piping connections are made externally. The Air Flow sensor is constructed of durable copper tubing.



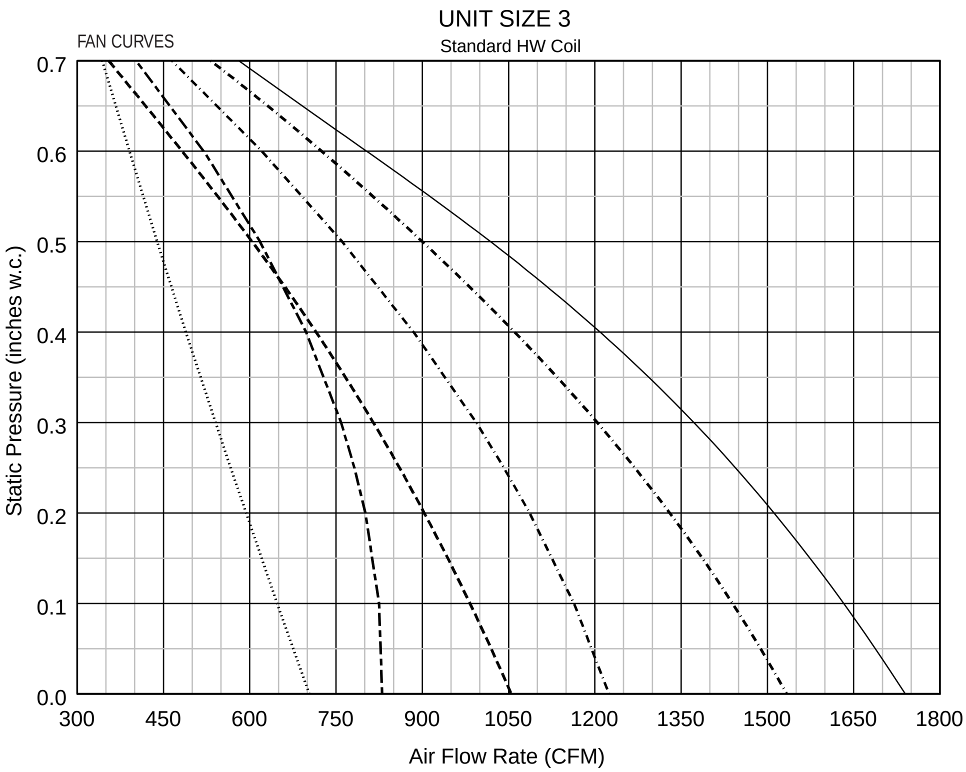
Fan Performance Charts

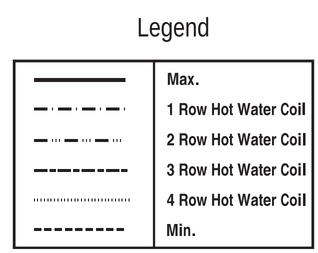


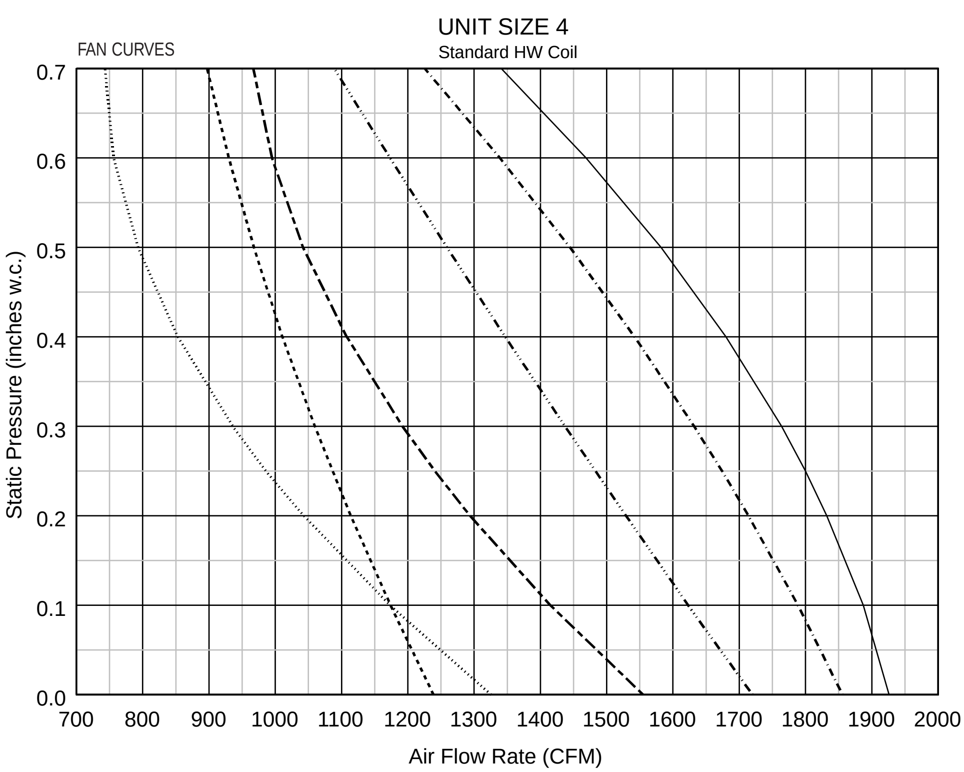




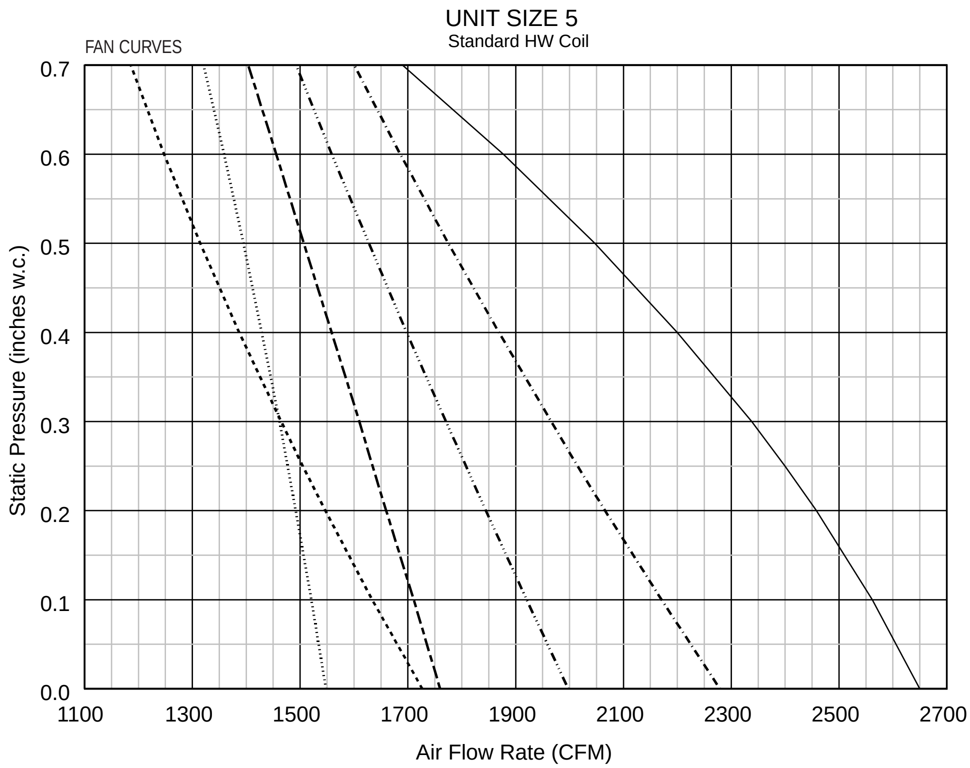
Fan Performance Charts

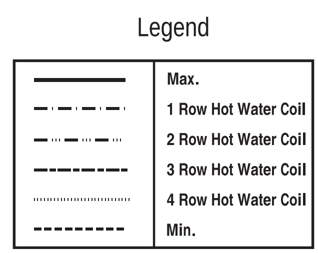


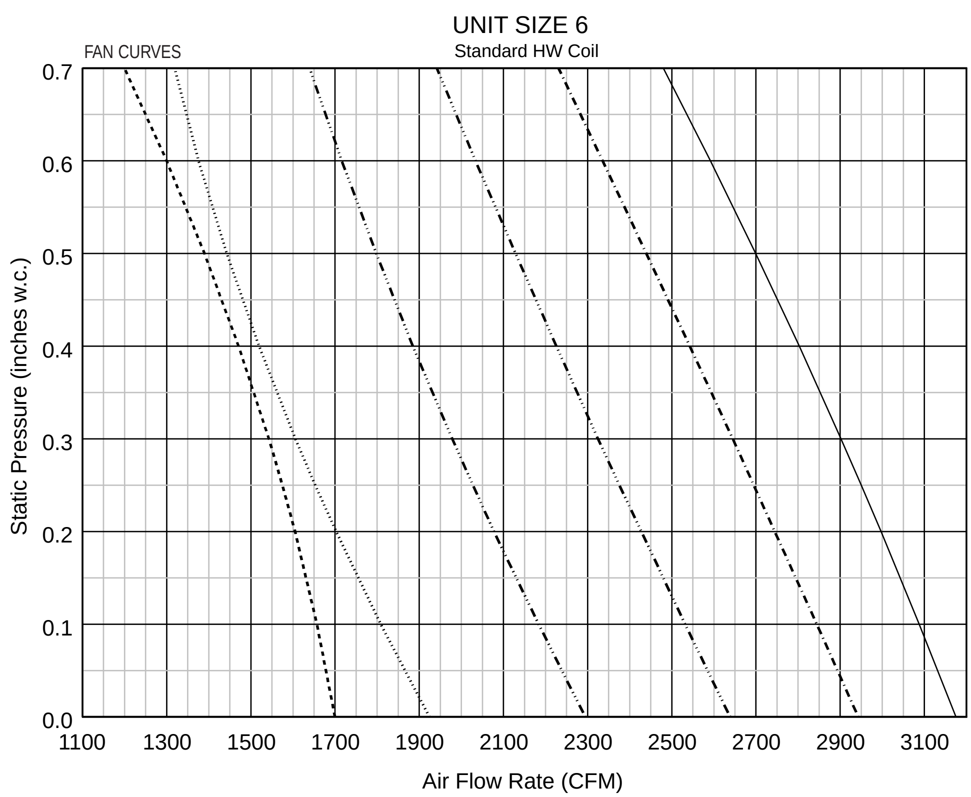




(Fan Performance Charts - continued)

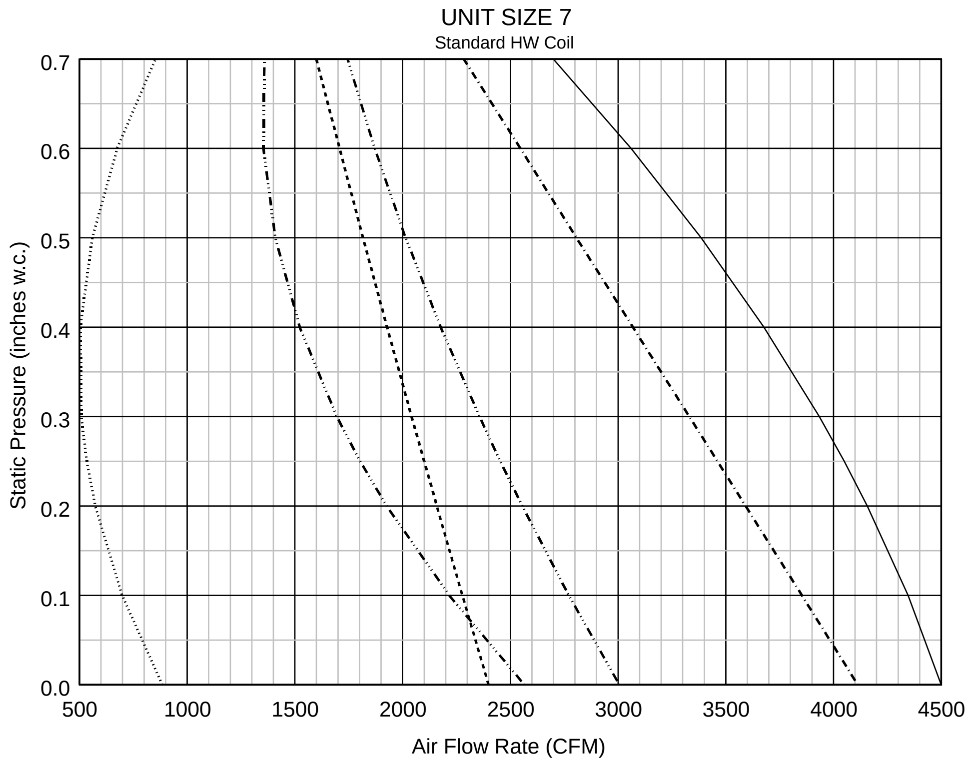


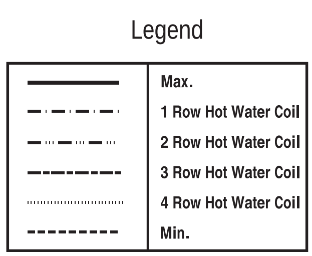




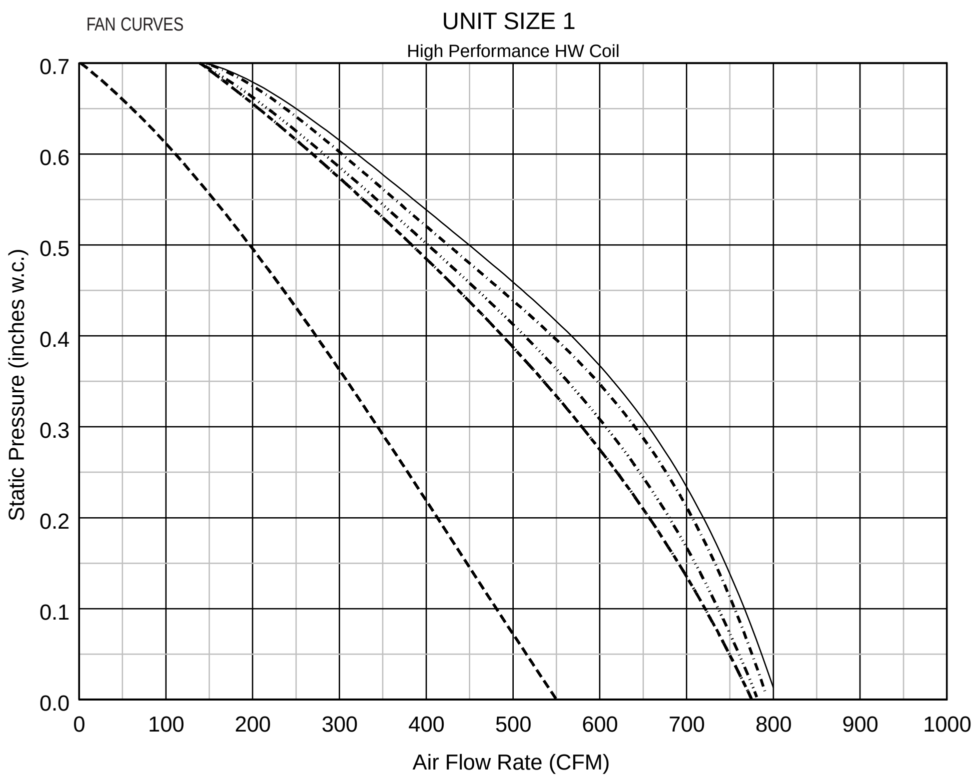
Fan Performance Charts

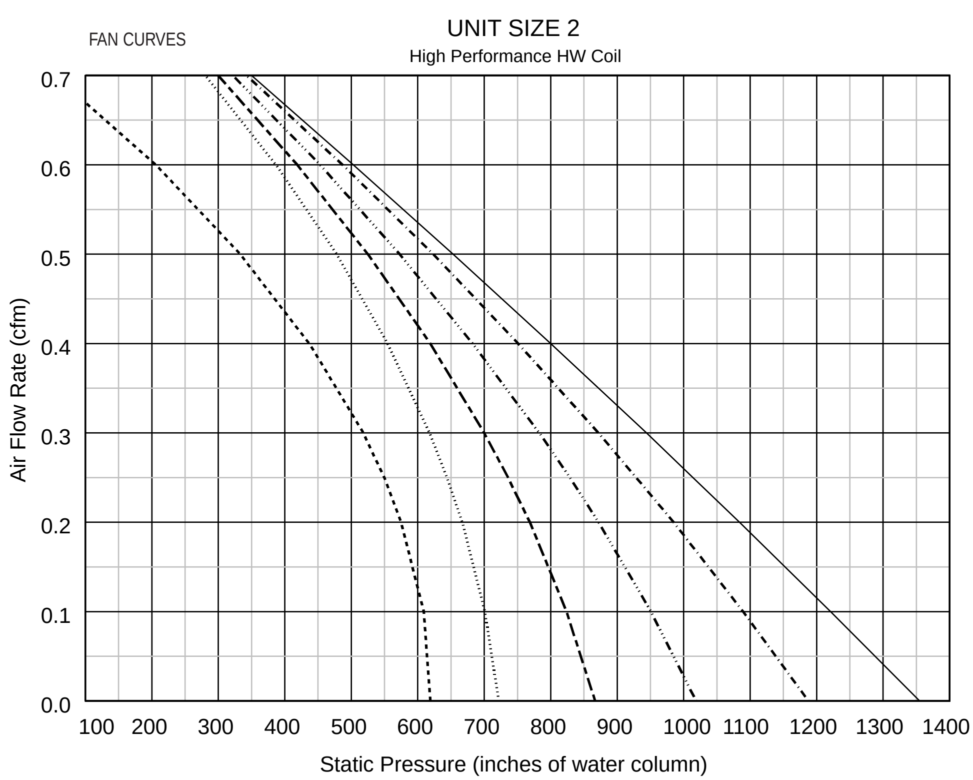
FAN CURVES





High Performance Fan Curves

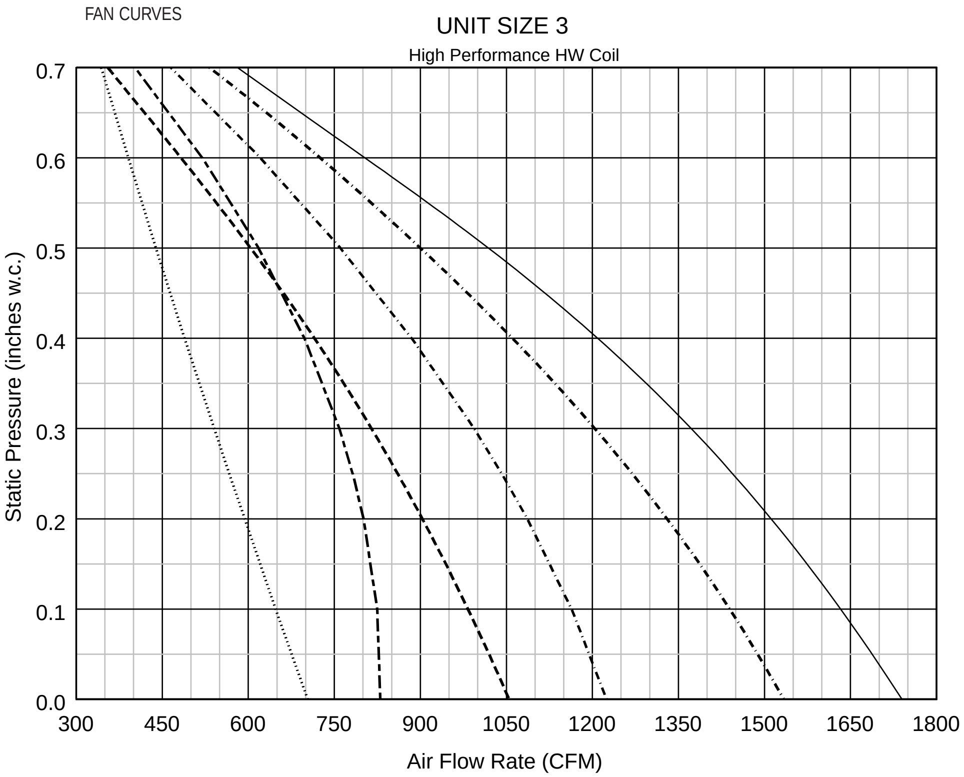




Legend

solid	Max.
dash-dot	1 Row Hot Water Coil
dash-dot-dot	2 Row Hot Water Coil
long dash	3 Row Hot Water Coil
dotted	4 Row Hot Water Coil
short dash	Min.

High Performance Fan Curves



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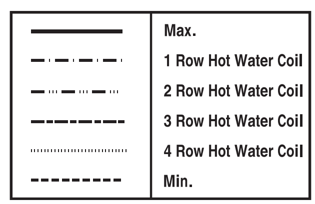
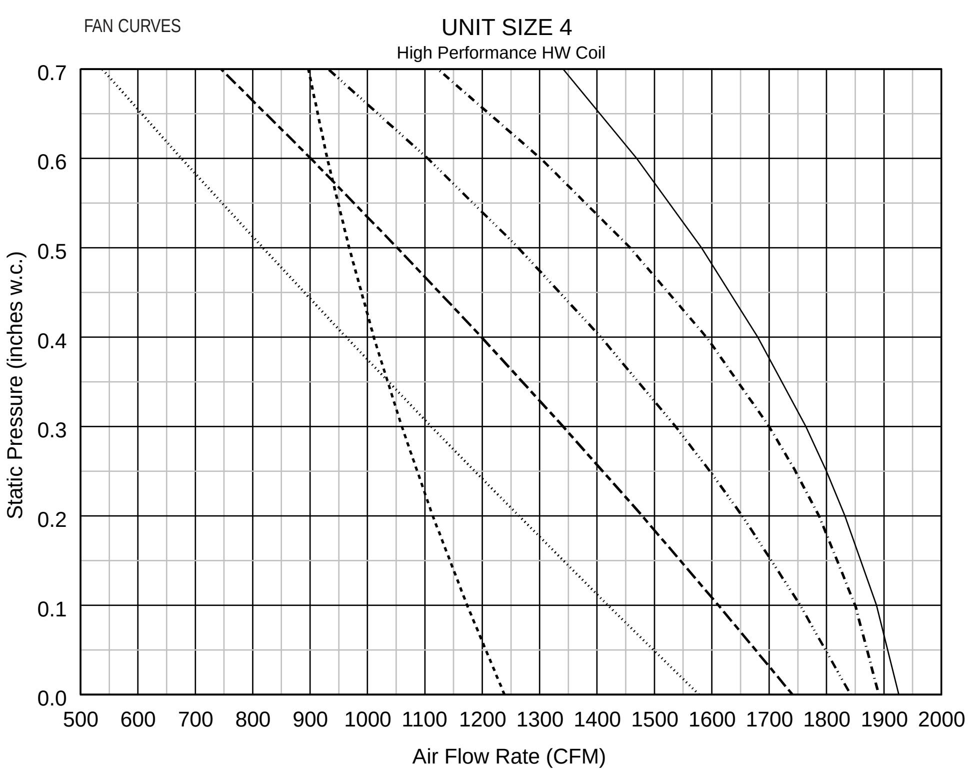
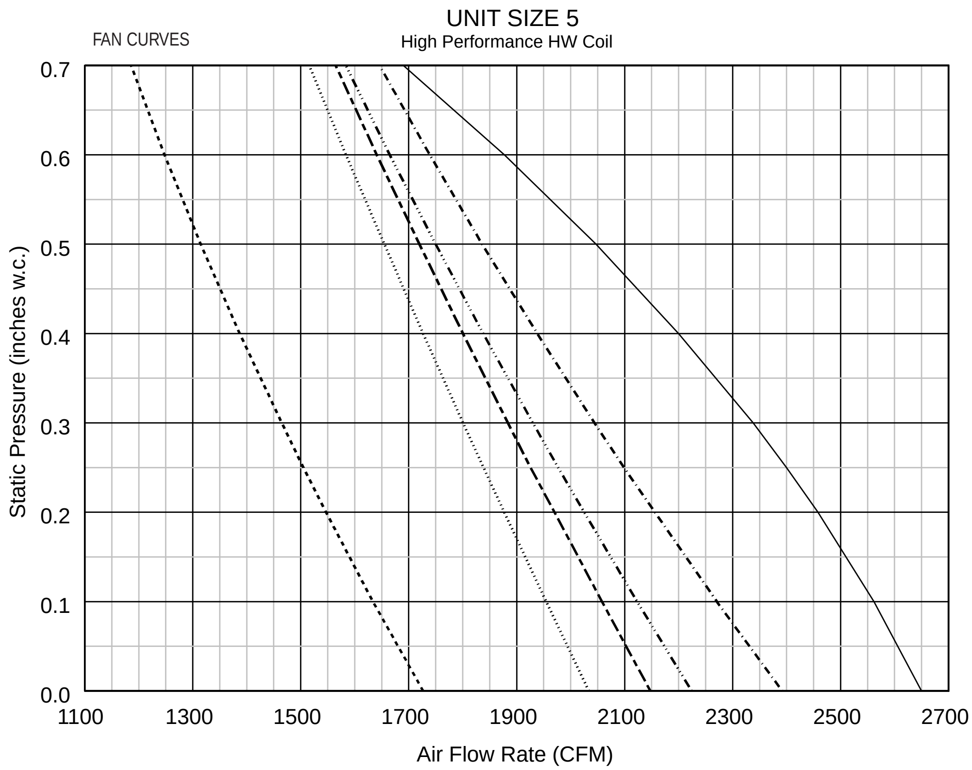
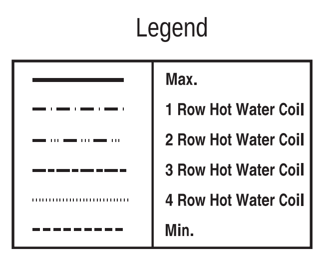
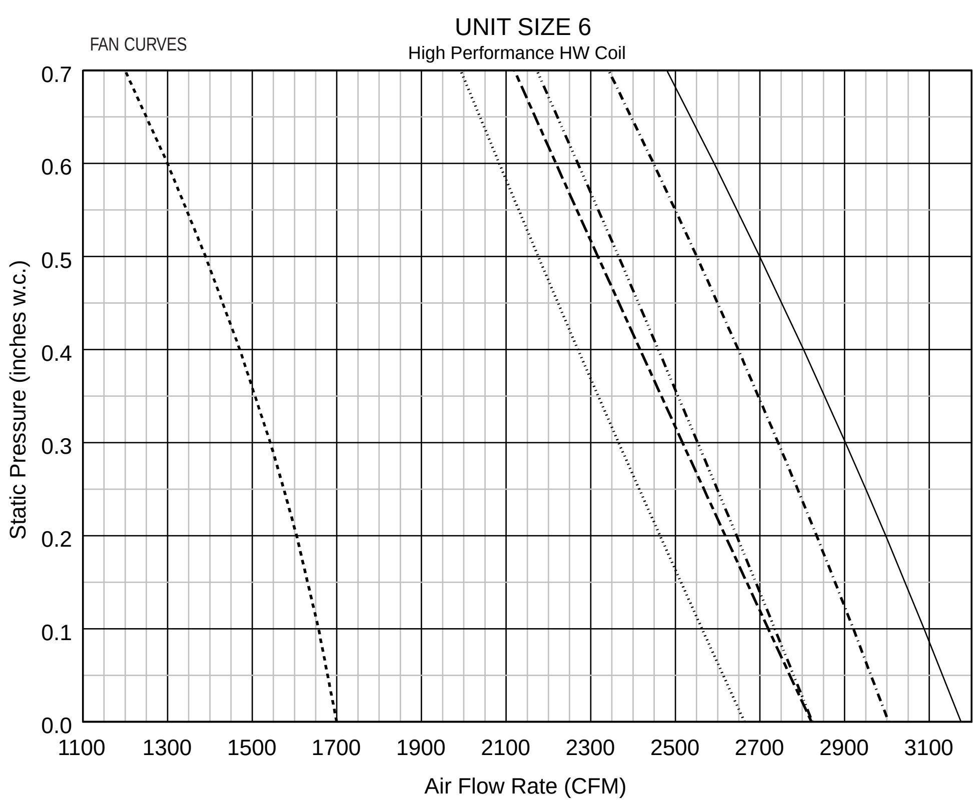




(High Performance Fan Curves - continued)







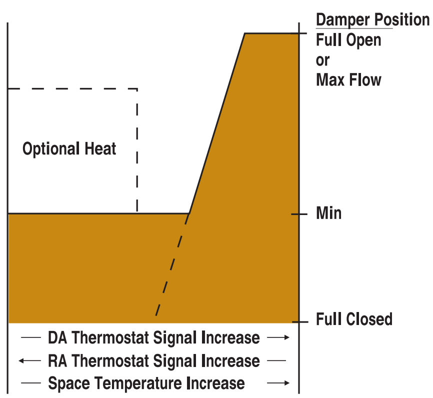
Control Sequences

PNEUMATICALLY CONTROLLED AIR TERMINALS

Pressure dependent pneumatic air terminal actuators are powered directly by branch line pressure signals from the room thermostat. Pressure independent pneumatic air terminal actuators are powered by signals from a flow control device which balances pressure readings from the main air supply and the branch air pressure from the thermostat. The damper's position is regulated by the flow controller which operates within preset minimum and maximum flow rates.

A **direct acting (DA) thermostat** causes an increase in branch pressure as the room temperature rises. A reverse acting (RA) thermostat causes a decrease in branch pressure as the room temperature rises. Since the pneumatic actuator is a spring return device, the damper can be connected so that without main pressure it will return to normally closed (NC) position to shut off air flow to the room, or to a normally open (NO) position to permit unobstructed air flow to the room.

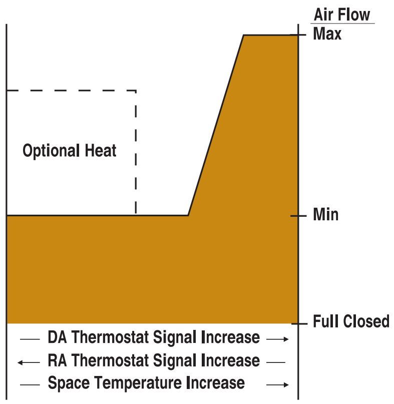
Standard pressure independent control sequences feature the multi-function VAV controller. Multi-function flow controllers can be field modified for use with a direct or reverse acting thermostat and the damper actuator can be switched to either normally opened or normally closed without adding control components.



Pneumatic
Pressure Dependent

910 - DA/NC Full Closed* to adjustable MAX air stop
912 - RA/NO Full Open to adjustable MIN air stop

* Damper normal position can be field set by rotating actuator on the control panel, resulting in an adjustable default start/stop position.



Pneumatic
Pressure Independent
914 - DA/NC
915 - DA/NO
916 - RA/NC
917 - RA/NO

(914) Variable Volume. Normally closed. For use with direct acting thermostat. Optional heat is energized by the thermostat after air flow has reached a preset minimum.
(915) Variable Volume. Normally open. For use with direct acting thermostat. Optional heat is energized by the thermostat after air flow has reached a preset minimum.
(916) Variable Volume. Normally closed. For use with reverse acting thermostat. Optional heat is energized by the thermostat after air flow has reached a preset minimum.
(917) Variable Volume. Normally open. For use with reverse acting thermostat. Optional heat is energized by the thermostat after air flow has reached a preset minimum.

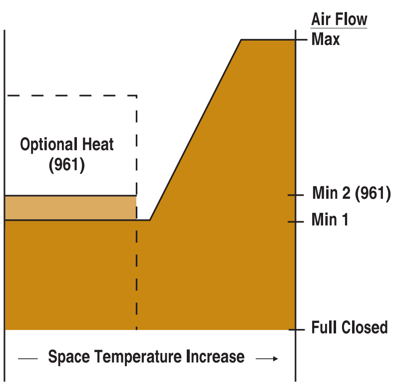
Analog Electronic Control Sequences

ANALOG ELECTRONICALLY CONTROLLED SERIES FAN-POWERED TERMINAL UNITS

Analog electronic flow controls are electrical devices that achieve pressure independent control. Variations in supply static pressure do not affect air flow conditions to the room. The analog electronic room thermostats supplied with the control sequences detailed on this page have field adjustable flow limit setpoints. The thermostat electronically signals the actuator to open or close the damper in response to the temperature of the room within preset air flow limits. The electric actuators are not spring return devices. If there is a loss of power to the air terminal, the damper will remain in the position it occupied at the time of the power failure.

Numerous control arrangements are possible with electronic control sequencing which are not discussed in this catalog. Contact the factory for special sequence requirements.

All of the electric and electronic components used in these sequences use low voltage (24 volt) controls and are enclosed with a standard control panel cover. A standard 50 VA transformer that reduces 120, 240 or 277 line voltage to 24 control voltage is wired into the control sequence as a standard component.



Analog Electronic Control
Pressure Independent
960 Cooling Only
961 Cooling with Reheat

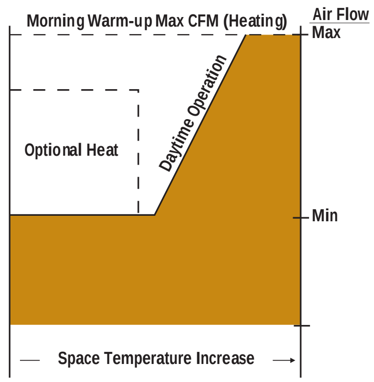
(960) Cooling Only.
Electronic thermostat (analog models with integral, adjustable, maximum and minimum flow limits) signals electronic flow controller to regulate damper position. The damper is rotated to its maximum open position as room temperature rises and to its minimum open position as room temperature falls.

With both 960 and 961 sequences, the constantly operating fan maintains constant airflow to the room by supplementing the varying flows of cooled primary air with induced plenum air.

(961) Cooling with Heat.
Electronic thermostat (analog models with integral, adjustable, maximum and minimum flow limits) signals electronic flow controller to regulate damper position. The damper is rotated to its maximum open position as room temperature rises and to its minimum open position as room temperature falls. After the damper has reached its minimum position, the thermostat actuates optional heat at an independently selected set point. Up to three stages of heat are available.

Analog Electronic Control Sequences

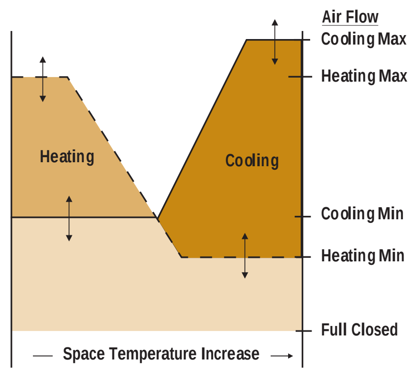
Analog Electronic Control
Pressure Independent
964 Morning Warm-up



(964) Night Shutdown/Morning Warm-up.
Daytime Operation: Electronic thermostat (analog models with integral, adjustable, maximum and minimum flow limits) signals electronic flow controller to regulate damper position. The damper is rotated to its maximum open position as room temperature rises and to its minimum open position as room temperature falls. After the damper has reached its minimum position, the thermostat actuates optional heat at an independently selected setpoint. Up to three stages of heat are available.

Morning Warm-up: Upon reception of a morning warm-up signal, the electronic controller modulates the primary air damper position to its maximum flow position and warm central air is supplied to the air terminal. The optional heat is de-energized while the system operates in this mode.

Analog Electronic Control
Pressure Independent
965 Heating Cooling Changeover



(965) Heating/Cooling Changeover: Either a duct thermostat or remote input signal switches a heat/cool relay to make the system operate in the appropriate heating or cooling mode.

Cooling Mode: Electronic thermostat signals electronic flow controller to regulate primary air damper position. The damper is modulated to its adjustable maximum flow position as room temperature rises and to its adjustable minimum flow position as room temperature falls. Since the primary air damper is at its minimum airflow position, fan induced plenum air is supplied to the room until the room temperature reaches the setpoint.

Heating Mode: In the heating mode, the primary air damper is modulated in response to signals from the electronic room thermostat. Plenum air is induced proportionally to maintain a constant volume of airflow to the room.

DDC Electronic Control Capability

DDC ELECTRONIC CONTROL CAPABILITY SERIES FAN-POWERED TERMINAL UNITS

The majority of controls installed in HVAC systems are direct digital electronic. YORK will mount and wire any manufacturer’s controls regardless of the brand.

In those cases where it is desirable to have the controls field-mounted and wired, a basic air terminal without controls can be purchased from YORK. The basic unit includes a control panel, and cover.

Whether controls are to be factory-mounted and wired by YORK or field-installed by the control manufacturer, many types of DDC controllers require a flow sensor. YORK will provide its own multi-point flow sensor which is compatible with most electronic control devices currently on the market, or mount a control manufacturer's compatible sensor.

YORK offers a unique service for today’s fast-paced, technology-hungry HVAC markets with high performance air terminals that are compatible with all digital electronic control packages. This approach is highly endorsed by control manufacturers and HVAC design engineers alike. YORK is dedicated to providing the best air terminal device to operate with any control manufacturer’s equipment.

For answers to specific compatibility questions, please contact your local YORK representative.

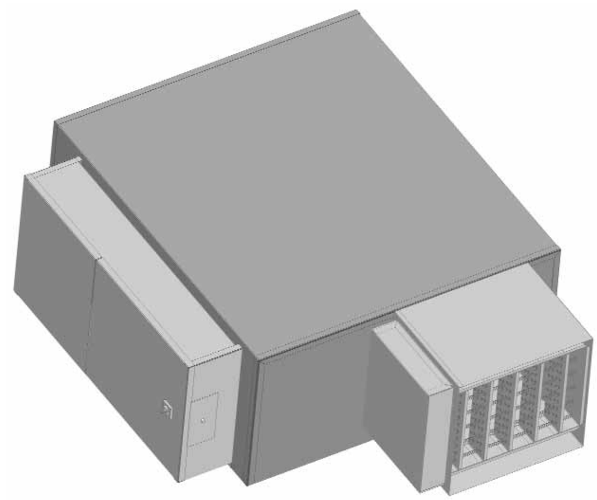
Accessories and Components

ELECTRIC HEAT

Electric heater elements, as illustrated on this page, are integral to the air terminal.
The discharge end has slip and drive connections for easy connection to downstream ductwork. E.T.L.® listed heaters are provided with a fan interlock relay. Heaters that will be controlled electronically must include a 24VAC control circuit to operate compatibly with the low voltage controls on the air terminal. Heater plenums are internally insulated with 1", 1.5-lb density fiberglass insulation. When an air terminal is ordered with clean room lining and electric heat, the heater plenum is either internally lined with optional foil backed insulation or closed cell foam or may be externally insulated in the field.

INCLUDED WITH EACH HEATER ASSEMBLY:

- Heater and cabinet mounted on the discharge of the YCI
- Electric heater is interlocked into fan control relay
- De-energizing magnetic contactors per step
- Primary automatic reset high temperature limit (disc type)
- Backup manual reset high temperature limit (disc type)
- Non-fused transformer with voltage to match heater voltage
- Single point power wiring connection
- Heater is shipped factory-mounted and wired



ELECTRIC HEATER ASSEMBLY CONSTRUCTION DETAILS

Electric Reheat Coils are factory-mounted on the discharge of the Air Terminal. The heaters are E.T.L.® listed for zero clearance, are tested in accordance with U.L.® Standard 1995, CSA-C22.2 No. 236 and the National Electric Code (N.E.C.). Heater casings are constructed of heavy-duty zinc-coated steel. Element wire is high grade nichrome alloy derated to 50 watts per square inch density. Element wire is supported by moisture-resistant steatite ceramics. Ceramics are enclosed in reinforcement brackets spaced across the heater element rack at 2" to 4" intervals. Controls are contained in a NEMA 1 control cabinet with a hinged, latching door. A permanent wiring diagram is affixed to the inside of the control cabinet door for field reference.

All accessories which can be attached to the Series 500-YCI Air Terminals are not a part of the ARI certification program but ratings can be affected by their use.

Electric Heater Assembly Capacities

Single Phase

Case Size	Heater Voltage	Minimum kW per step	Maximum kW	Maximum Steps
	120	.5	5.0	2
	208	.5	8.5	2
1	240	.5	9.0	2
	277	.5	4.0	2
	480	.5	5.0	2
	120	.5	5.0	3
	208	.5	8.5	3
2	240	.5	9.0	3
	277	.5	8.0	3
	480	.5	5.0	3
	120	.5	5.0	3
	208	.5	8.5	3
3	240	.5	9.0	3
	277	.5	11.5	3
	480	.5	5.0	3
	120	.5	5.0	3
	208	.5	8.5	3
4	240	.5	9.0	3
	277	.5	11.5	3
	480	.5	8.0	3
	120	.5	5.0	3
	208	.5	8.5	3
5	240	.5	9.0	3
	277	.5	11.5	3
	480	.5	8.0	3
	120	.5	5.0	3
	208	.5	8.5	3
6	240	.5	9.0	3
	277	.5	11.5	3
	480	.5	8.0	3
	120	.5	5.0	3
	208	.5	8.5	3
7	240	.5	9.0	3
	277	.5	11.5	3
	480	.5	8.0	3

Three Phase

Case Size	Heater Voltage	Minimum kW per step	Maximum kW	Maximum Steps
	208	.5	13.0	2
1	240	.5	14.5	2
	480	1.5	17.0	2
	208	.5	13.0	3
2	240	.5	14.5	3
	480	1.5	17.0	3
	208	.5	13.0	3
3	240	.5	14.5	3
	480	1.5	17.0	3
	208	.5	13.0	3
4	240	1.5	15.0	3
	480	1.5	25.0	3
	208	.5	13.0	3
5	240	1.5	15.0	3
	480	1.5	25.0	3
	208	.5	13.0	3
6	240	1.5	15.0	3
	480	1.5	25.0	3
	208	.5	13.0	3
7	240	1.5	15.0	3
	480	1.5	25.0	3

NOTES:

1. Heaters equal or less than 5 kW are specifiable to the nearest .2 kW. Heaters greater than 5 kW and less than 10 kW are specifiable to the nearest .5 kW
2. **Minimum flow rate for electric heat is 70 CFM / kW. Lower CFM's can cause nuisance tripping, excessive discharge temperatures, rapid cycling, and rapid element failure. Electric Heat units running below 70 CFM / kW will void all warranties**
3. For optimum thermal comfort, the suggested discharge temperature should not exceed 20°F above room setpoint.
4. We do not recommend discharge temperatures in excess of 105°F to protect heater coils.
5. Maximum number of steps at minimum kW is one step.
6. Where the kW value exceeds the maximum kW without power side fusing, a minimum of 2 steps are required.
7. If more than 1 heater is wired into a building's circuit breaker (multi-outlet branch circuit) each heater will require the addition of power side fusing.

Electric heat selection:

A. Specify electric duct heaters using voltage, kW, and number of steps.
B. Use above chart to select voltage. Calculate required kW using following equations:

$$kW = \frac{BTU/hr}{3413} \qquad kW = \frac{CFM \times dT \times 1.085^*}{3413} \qquad dT = \frac{kW \times 3413}{CFM \times 1.085^*}$$

$$CFM = \frac{kW \times 3413}{dT \times 1.085^*} \qquad CFM = \frac{kW \times 3413}{dT \times 1.085^*}$$

* air density at sea level - reduce by 0.036 for each 1000 feet of altitude above sea level

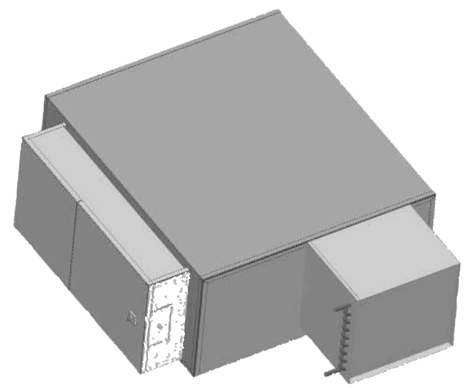
Where:

BTU / Hr = Required heating capacity
CFM = volume of air during heating. Typically 30% to 100% of maximum cooling air volume.
dT = desired air temperature rise across the electric heater.
Inlet air temperature = primary air temperature, usually 55°F.

Accessories and Components

HOT WATER COILS

When ordered with the air terminal, the hot water coil is shipped attached with slip and drive connections to the air terminal casing. The discharge end of the casing has slip and drive connections for easy connection to downstream ductwork. The hot water coil is constructed of aluminum fin and copper serpentine-type tubes with sweat connections tested at 300 PSIG. Coil selection may be made using YORK Terminal Selection Program on CD. Contact your YORK representative for a copy. The hot water housing must be externally insulated after installation in the field. Hot water coils are tested in accordance to ARI. Options, at an additional charge on hot water coils, include access doors for inspection and cleaning, and inlet/outlet on opposite sides of coils.



HOT WATER COIL CONSTRUCTION DETAILS

Hot Water Coils are factory-mounted to the discharge of the terminal and include a factory-mounted discharge plenum section. Hot water coils are enclosed in a 20-gauge coated steel casing allowing attachment to metal ductwork with a slip and drive connection. Fins are rippled and sine wave type constructed from heavy gauge aluminum. Tubes are copper with a minimum wall thickness of .016" with male solder header connections. Fins are mechanically bonded to the tubes. Coils are leak tested to 300 psi with minimum burst of 2000 psi at ambient temperature. Coil performance data is based on tests run in accordance with ARI standard 410. Coils are ARI rated and include an ARI label.

Tubing Connections (outside dimension)

Case Size	Standard HW Coil inches (mm)				High Performance HW Coil inches (mm)			
	1 Row	2 Row	3 Row	4 Row	1 Row	2 Row	3 Row	4 Row
1	0.875 (22.2)	0.875 (22.2)	0.875 (22.2)	0.625 (15.9)	0.875 (22.2)	0.875 (22.2)	0.875 (22.2)	0.875 (22.2)
2	**0.875 (22.2)**	**0.875 (22.2)**	**0.875 (22.2)**	**0.625 (15.9)**	**0.875 (22.2)**	**0.875 (22.2)**	**0.875 (22.2)**	**0.875 (22.2)**
3	0.625 (19.2)	0.875 (22.2)	0.875 (22.2)	0.875 (22.2)	0.875 (22.2)	0.875 (22.2)	0.875 (22.2)	0.875 (22.2)
4	**0.625 (22.2)**	**0.875 (22.2)**	**0.875 (22.2)**	**0.875 (22.2)**	**0.875 (22.2)**	**0.875 (22.2)**	**0.875 (22.2)**	**0.875 (22.2)**
5	0.875 (22.2)	0.875 (22.2)	0.875 (22.2)	0.875 (22.2)	0.875 (22.2)	0.875 (22.2)	1.125 (28.6)	1.125 (28.6)
6	**0.875 (22.2)**	**0.875 (22.2)**	**0.875 (22.2)**	**0.875 (22.2)**	**0.875 (22.2)**	**0.875 (22.2)**	**1.125 (28.6)**	**1.125 (28.6)**
7	0.875 (22.2)	0.875 (22.2)	1.125 (28.6)	1.125 (22.2)				

OUTLET Dimensions

Case Size	Standard HW Coil inches (mm) 1, 2, 3, 4 Row		High Performance HW Coil inches (mm) 1, 2, 3, 4 Row	
	H	W	H	W
1	15 (381)	16 (406)	17.5 (445)	20 (508)
2	**15 (381)**	**16 (406)**	**17.5 (445)**	**20 (508)**
3	17.5 (445)	20(406)	18 (457)	24 (610)
4	**17.5 (445)**	**20(406)**	**18 (457)**	**24 (610)**
5	18 (457)	24 (610)	20 (508)	30 (762)
6	**18 (457)**	**24 (610)**	**20 (508)**	**30 (762)**
7	20 (508)	38 (965)		

All accessories which can be attached to the Series 500-YCI Air Terminals are not a part of the ARI certification program but ratings can be affected by their use.

Fin Spacing

Case Size	Standard HW Coil inches (mm)		High Performance HW Coil inches (mm)	
	1 & 2 Row	3 & 4 Row	1 & 2 Row	3 & 4 Row
1	10	10	10	10
2	**10**	**10**	**10**	**10**
3	10	10	10	10
4	**10**	**10**	**10**	**10**
5	10	10	10	8
6	**10**	**8**	**10**	**8**
7	10	8		

(Accessories and Components - continued)

CLEAN ROOM LINERS

YORK has developed two types of "clean room" liners for use in health care, laboratory and penal institutions when required by specification.

FOIL BACKED LINER

An optional foil backed lining can be applied to the Series 500-YCI Air Terminal. 4lbs./cu.ft. density, 1" thick foil backed fiberglass material is available as a clean room liner in applications where discharge noise performance is more critical. Foil backed liner meets the requirements of U.L. 181 and NFPA 90A. (Hot water coils are shipped without insulation and must be externally insulated in the field.)

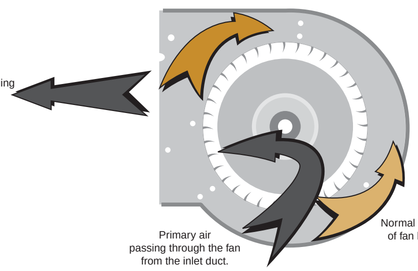
THERMOPURE

This innovative closed cell foam eliminates fiberglass completely, while meeting or exceeding the performance of fiberglass. ThermoPure has a 25/50 fire/smoke rating, 1.5lbs./cu.ft. density, 6000 ft./min. velocity rating, and holds its thermal integrity, even when wet. It meets the U.L. 181 tests for mold and mildew resistance. Surfaces are washable if desired. (Hot water coils are shipped without insulation and must be externally insulated in the field.)

OPTIONAL ELECTRONIC ANTI-REVERSE ROTATION DEVICE

The fan wheel in a constant fan box may rotate backwards whenever the fan motor is not running and primary air from the inlet duct is passing through the fan. In some cases the torque developed by the fan wheel when rotating backwards cannot be overcome by the starting torque of the fan motor. In this condition the fan motor will run in reverse rotation, resulting in insufficient airflow delivery.

Constant fan boxes must have means to coordinate energizing the fan motor with start up of the Primary Fan System to prevent the reverse rotation or a positive method to create enough motor torque to reverse the rotation of the fan wheel.



Other manufacturers choose to deal with this issue by running their motors with larger capacitors than recommended by the motor manufacturers. The oversized capacitor will cause the motors to run less efficiently, run hotter than normal and draw more current than with a proper capacitor. All of this will result in reduced motor life and increased energy costs.

YORK's Model 500-YCI is available with an optional Electronic Anti-Reverse Rotation Device which will positively prevent the reverse rotation of any fan. This option does not draw additional current while running and will not cause the motor to run at higher temperatures.

The results are greater efficiency, quieter motors, longer motor life and happier building owners.

OTHER AVAILABLE OPTIONS

- 20-gauge construction
- Filter rack with 1" thick filter
- Inlet attenuator
- Hot water coil access panel
- Insulated end caps for hot water coils.

FILTER SIZES PER CASE SIZE	
Case Size	Filter Size
1	16" x 16" x 1"
2	**16" x 16" x 1"**
3	20" x 16" x 1"
4	**20" x 16" x 1"**
5	20" x 20" x 1"
6	**24" x 20" x 1"**
7	20" x 20" x 1"

Specifications and Highlights

1. Fan-Powered Constant Volume (Series) Air Terminals shall be YORK Model 500-YCI. The units shall be the size and capacity as outlined in the plans and specifications. Casing dimensions shall be checked to ensure the terminals fit the available space.

2. Air terminals shall be certified under the American Refrigeration Institute (ARI) Standard 880-98 Certification Program and carry the ARI seal. Terminal unit shall be either E.T.L.® or U.L.® listed as a complete assembly. Terminal electrical components, including motor and low voltage controls shall be U.L.® listed. All electrical components including both line voltage and low voltage shall be mounted in a metal control enclosure. Units shall have a single point field wiring connection. Units shall be manufactured and wired per U.L.-1995 and the National Electric Code.

3. All terminals shall be shipped as a single unit requiring no field assembly. Accessories including hot water coils, electric heaters, and fan and motor assemblies shall be factory-mounted.

4. The air terminals shall be constructed of zinc coated steel. The casing shall be a minimum of 22-gauge. The terminal primary air inlet valve shall have a round inlet collar for field duct connection. The primary control damper shall be a single blade, round damper operating within a 20-gauge round tube. The terminal unit discharge shall allow for a rectangular flanged duct connection. Units shall have a universal control-mounting panel constructed of 20-gauge steel. Panel shall include stand-offs to allow controls to be mounted without penetrating the terminal casing. Fan mounting plate shall be a minimum of 18-gauge.

Optional: Unit shall include filter rack in the induced air inlet and shipped from the manufacturer with a 1" thick construction filter.

5. Primary inlet valve assembly shall have a seamless butt weld on round inlet tube to minimize leakage and prevent the damper from binding. Inlet tubes with overlapping welds or non-continuous, skipped welds are not acceptable. Damper shaft shall rotate in a self-lubricating Kepital® (acetal resin material) bearing. Damper shaft shall be die cast aluminum. Damper shaft end shall include a casted damper position indicator. End of shaft where actuator is installed shall be square to prevent actuator tightening screw(s) from slipping. Round damper shaft ends are not acceptable.

Damper tube shall be free of obstructions including damper stops to allow the free rotation of the damper. Mechanical damper stops located in the inlet tube are not allowed. A flexible gasket mounted in the damper blade without adhesives shall provide damper seal. Damper gasket shall include slits around the perimeter to prevent damper noise at low turn down. Damper gaskets without perimeter slits are not acceptable. Damper shall be a double thickness of 24-gauge steel and leakage around the damper shall be less than 1% of maximum CFM at 3" static pressure.

Primary air valve shall have a bead rolled into the tube, which will strengthen the tube and serve as a stop to prevent field attached flex duct from slipping. Primary valve velocity sensor shall be multi-ported and arranged to sense velocity in each of four quadrants of the inlet, and shall contain two control ports and two accessory ports. Sensors reading differential pressure with less than 8 measuring points are not acceptable. All piping connections to the flow sensor must be made with external ports that extend through damper tube. Units with piping connections made in the primary air stream are not acceptable. Flow sensors with plastic piping connections of any kind are not acceptable.

At an inlet velocity of 2000 fpm, the differential static pressure required to operate any terminal size shall not exceed .14" wg. for the primary air valve.

6. Unit shall have a bottom fan access panel and a separate bottom primary inlet access panel. Single bottom access panels are not acceptable.

7. Terminal shall include 3" wide bottom-mounting surfaces on opposite ends designed to accept bottom-mounting hardware including trapeze type. Bottom-mounting surfaces shall allow mounting hardware to be installed without interfering with access or removal of the bottom access panels. Units designed for installation using sheet metal straps only are not acceptable. (Optional: Unit shall include factory-mounted hangers designed to accept treaded rod up to 5/16" in diameter.)

8. Air Terminals shall be internally insulated with 1" thick, 1 1/2 lbs. dual density glass fiber, coated to prevent airflow erosion to 6000 FPM surface velocity. Insulation to comply with U.L. 181 and NFPA 90A. Units shall be constructed so that no insulation edges are exposed to the air stream. Insulation edges at induction inlet shall be encapsulated in a metal strip to prevent exposure in the air stream. Sealants to prevent erosion of insulation ends are not acceptable.

9. Fan shall be a forward curve, dynamically balanced with a direct drive motor. Motors shall be an energy efficient design, single phase, 60 cycle, (120) (277) volts. The motor shall be single speed manufactured specifically to meet the torque requirements for each size terminal. Motors shall be permanent split capacitor type and include thermal load protection. (Optional: Terminal shall include an electronic anti-reverse rotation device.) The use of capacitors larger than recommended by the motor manufacturer to prevent backwards rotation is not permitted. Units to include isolation between the motor and fan housing.

Units shall include an SCR solid state fan speed controller allowing manual adjustment of fan from maximum to minimum settings. The SCR shall include a minimum voltage stop. Motors shall be specifically designed to work in conjunction with the SCR controller.

10. Sound ratings for the terminal shall not exceed ____ NC at ____ static pressure. Sound performance shall be ARI certified. The specified NC for the radiated and discharge path attenuation function shall be based upon the calculations found in current ARI Standard 885-98 (data submitted per the previous ARI Standard 885-90 are not acceptable).

(Specifications and Highlights - continued)

OPTIONS AND ACCESSORIES

1. Hot Water Coils

Hot Water Coils are to be factory-mounted to the discharge of the terminal and include a factory-mounted, discharge plenum section. The number of rows and circuits shall meet the capacities as shown in the schedule. Hot water coils shall be enclosed in a minimum 20-gauge coated steel casing allowing attachment to metal ductwork with a slip and drive connection. Fins shall be rippled and sine wave type constructed from heavy gauge aluminum. Corrugated configured coils are not acceptable. Tubes shall be copper with a minimum wall thickness of .016" with male solder header connections. Fins shall be mechanically bonded to the tubes. Coils shall be leak tested to 300 psi with minimum burst of 2000 psi at ambient temperature. Coil performance data shall be based on tests run in accordance with ARI standard 410. Coils must be ARI rated and include an ARI label.

2. Electric Reheat Coils

Electric Reheat Coils are to be factory-mounted on the discharge of the air terminal with the sizes and with kilowatts, operating and control voltages, steps and accessories as outlined in the plans and specifications. The heaters shall be E.T.L.® listed for zero clearance, tested in accordance with U.L.® Standard 1995, CSA-C22.2 No. 236 and the National Electric Code (N.E.C.). Heater casings shall be constructed of heavy-duty zinc-coated steel. Element wire shall be high grade nichrome alloy derated to 50 watts per square inch density. Element wire shall be supported by moisture-resistant steatite ceramics. Ceramics to be enclosed in reinforcement brackets spaced across the heater element rack at 2" to 4" intervals. Controls shall be contained in a NEMA 1 control cabinet with a hinged, latching door. A permanent wiring diagram shall be affixed to the inside of the control cabinet door for field reference.

Optional Insulations

1. Insulation shall be ThermoPure Fibre-Free Liner internally located. Liner shall be 1" thick, 1.5 lbs. dual density fiber-free liner, rated to prevent air flow erosion to 6000 FPM surface velocity. Insulation to comply with U.L. 181 and NFPA 255 (25/50). Material shall be chemically resistant to most hydro-carbon based solvents. Material shall not support mold growth or demonstrated degradation while subject to air erosion when tested in accordance to U.L. 181 and UMC 10-1.
2. Foil Face Liner shall be internally insulated with 1" thick, 4 lbs. dual density fibrous glass with foil face, rated to prevent air flow erosion to 6000 FPM surface velocity. Insulation to comply with U.L. 181 and NFPA 90A. No liner edges shall be exposed to the air stream. All liner must be non-porous and have all cut edges sealed to prevent erosion by means of longitudinal galvanized metal sealing strips the length of the casing, adding to the rigidity of the terminal unit. Additionally, all discharge edges must be sealed to prevent erosion by means of mechanically-fastened galvanized steel sealing strips in each corner. Liners made of Mylar, Tedlar, Silane, or woven fiberglass cloths are not acceptable.

CONTROL OPTIONS AIR TERMINAL

Manufacturer shall provide:

1. Factory mounting and wiring of DDC controls shall be as specified in section 15. Mounting shall include manufacturer's flow sensor, transformer (if required by DDC controls manufacturer), and an enclosure protecting DDC controls and wiring.
2. Analog electronic controls with flow adjustments shall be as specified in section 15 and be provided by the terminal unit manufacturer.
3. Pneumatic controls shall be as specified in section 15.

   Manufacturer shall provide terminal units with factory set flow adjustments as required per the terminal unit schedule.

Notes

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Form 130.12-EG2 (404)
Supersedes: 130.12-EG2 (503)