YORK®

500-YVI
PARALLEL FAN-POWERED AIR TERMINAL UNIT

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ARI CERTIFIED AIR TERMINALS

York International Series 500-YVI 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-YVI 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 International representative.

At York International, 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 International representative to verify product or performance details.

Options and Accessories

INTRODUCTION

Series 500-YVI is a Parallel Fan-Powered Terminal Unit designed to provide superior comfort control to zones with both heating and cooling requirements.

The 500-YVI provides variable volume cooling through the primary air valve. The primary air valve controls the volume of cooled air that is discharged into the space. In a parallel fan-powered terminal unit, the primary air does not pass through the fan.

When heating is required, the 500-YVI 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 fan in a parallel fan-powered terminal runs when space conditions call for heat. When heat is required, the fan provides a constant discharge volume into the space, and uniform air motion.

The 500-YVI 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, analog, or electric, we can meet your control needs.

The 500-YVI 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. The terminal's superior design and construction make the 500-YVI easy to install and maintain.

AVAILABLE OPTIONS AND ACCESSORIES

Hot Water Coils

Series 500-YVI may be specified with one, two, three, or four row hot water coils. Coils are mounted at the discharge of the unit. High Performance Hot Water Coils are available for applications requiring high heat capacities at low pressure drops.

Electric Heaters

Series 500-YVI may be specified with a wide range of ETL listed electric duct heaters that are factory-mounted and wired.

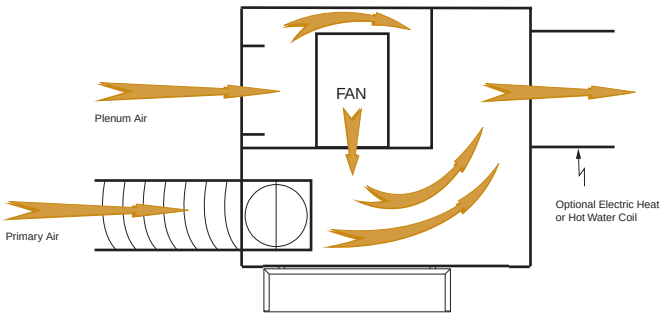
Inlet Attenuator

For the critical areas requiring special consideration for sound, the 500-YVI can be specified with the quite option.

WIDE RANGE OF CONTROL OPTIONS

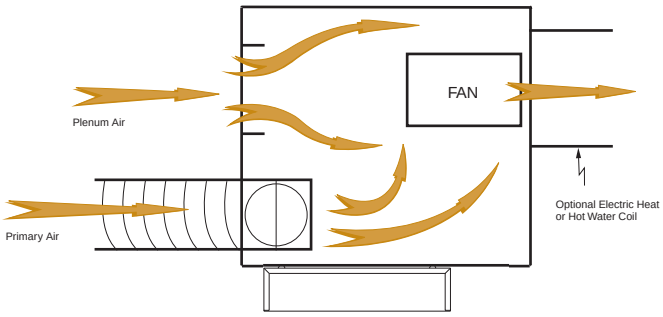
The 500-YVI is available with a wide range of options and accessories including special liners and controls. Contact your local YORK representative to discuss how the 500-YVI can meet your project's needs.

500-YVI PARALLEL FAN-POWERED UNIT



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

500-YCI SERIES FAN-POWERED TERMINAL UNIT



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

Features

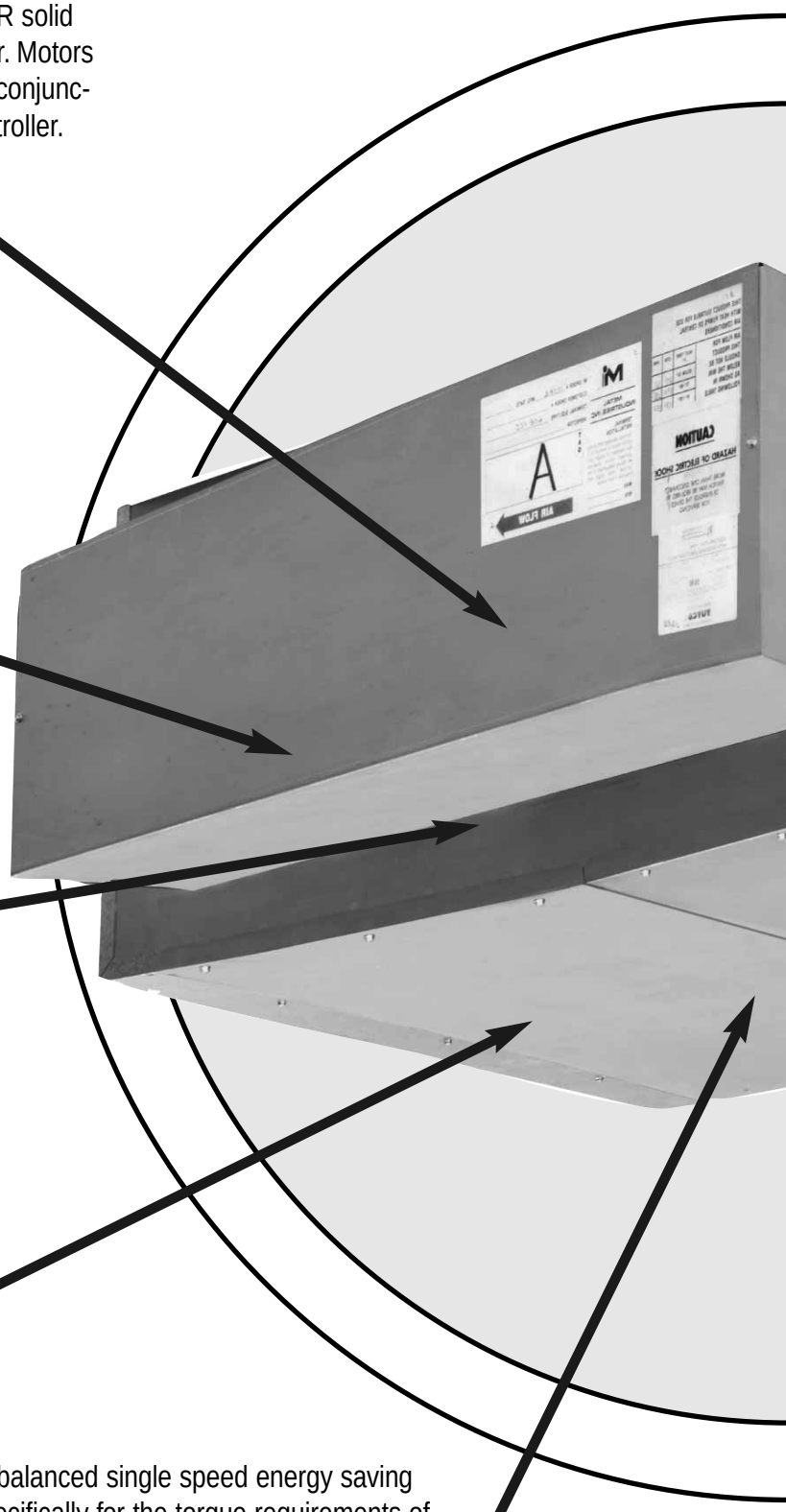
All units include an SCR solid state fan speed controller. Motors are designed to work in conjunction with the SCR controller.

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.

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.



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.

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 ETL® listed to UL® Standard 1995 and CSA-C22.2 No. 236
All electrical components are UL® certified and listed.

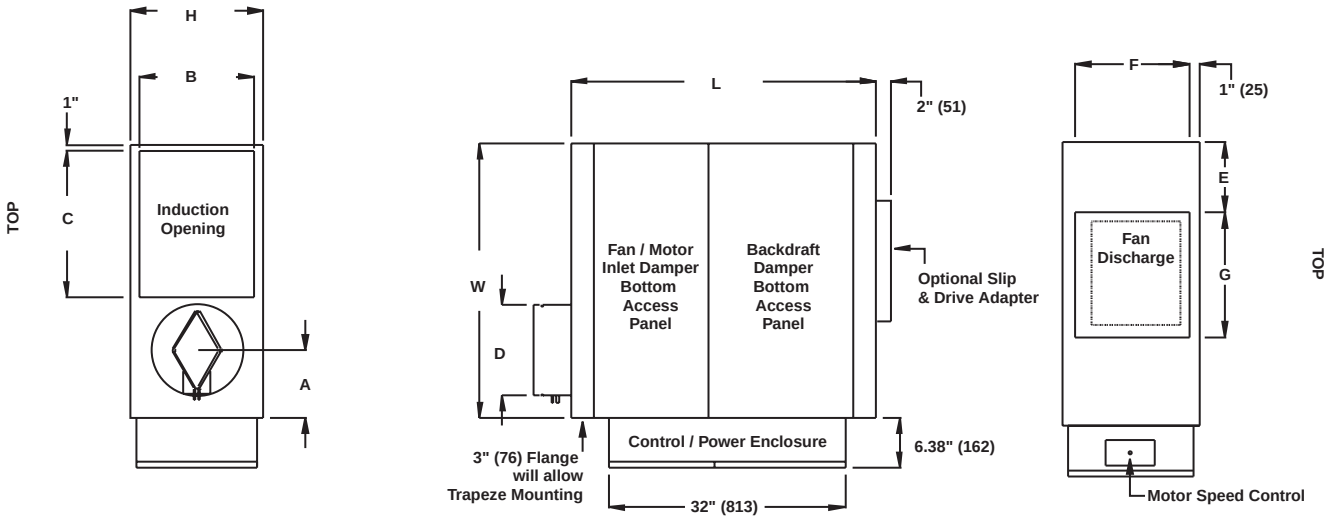
1" thick fiberglass insulation standard

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

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.

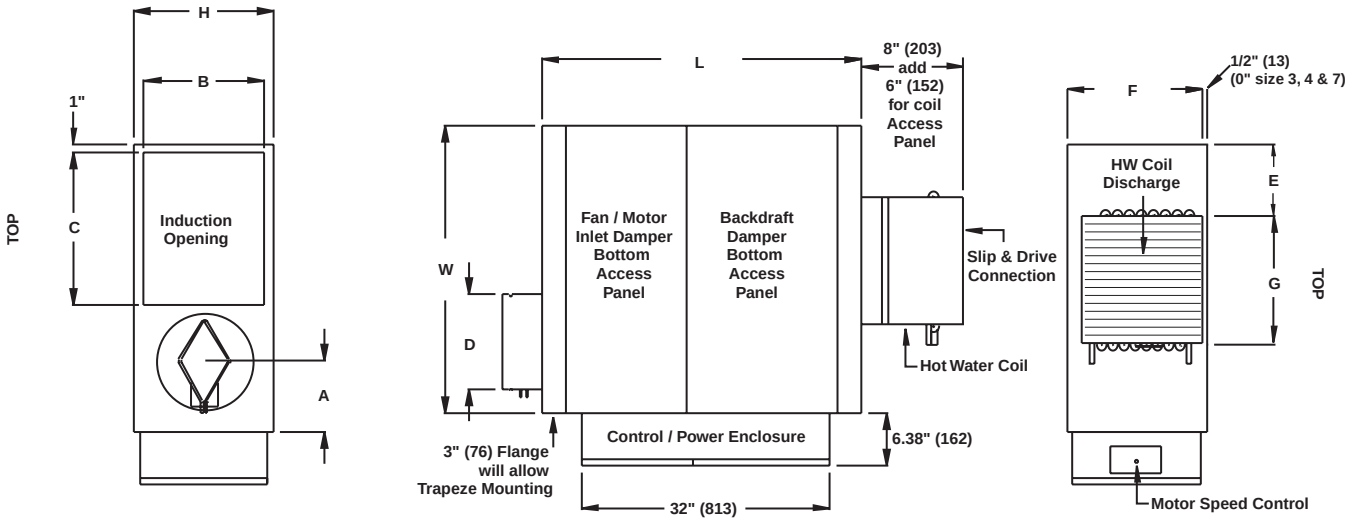
Parallel Fan-Powered Air Terminal



Parallel Fan-Powered Air Terminal

Casing Size	Inlet Diameter D		Horse Power	Max/Min Fan ** Airflow CFM @ external Static Pressure of 0" to 0.7" w.c. (0.5" w.c. size 1 & 2)	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	375/50 (177/24)	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	1/6	610/50 (288/24)	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	1/4	860/225 (406/106)	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	1/3	1200/280 (566/132)	17 1/2 (445)	36 (914)	40 (1016)	9 (229)	14 (356)	18 (457)	8 (203)	17 1/2 (445)	20 (508)
5	14 (356)	10, 12, 16	1/2	1630/280 (769/132)	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	3/4	1875/960 (884/453)	20 (508)	42 (1067)	42 (1067)	11 (279)	18 (457)	22 (559)	11 (279)	17 1/2 (445)	20 (508)
7	16 (406)	12, 14, 18x16	1	3155/1925 (1488/908)	20 (508)	42 (1067)	42 (1067)	11 (279)	18 (457)	22 (559)	6 (152)	20 (508)	30 (762)

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 Pages 29 through 35**

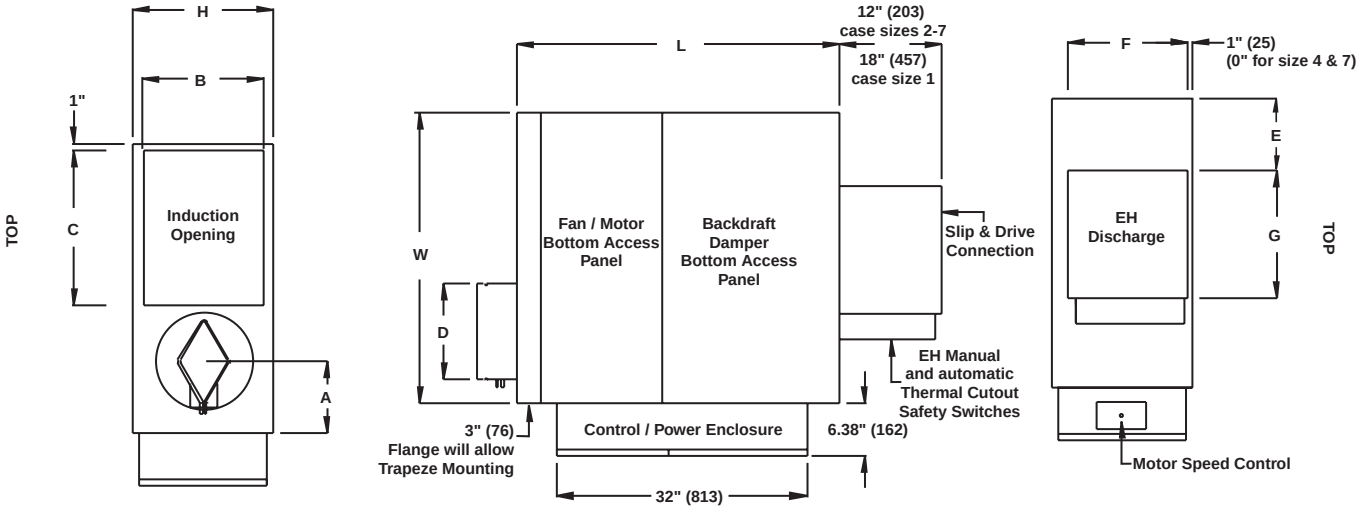


Parallel Fan-Powered Air Terminal with Hot Water Coil

Casing Size	Inlet Diameter D		Horse Power	Max/Min Fan ** Airflow CFM @ external Static Pressure of 0" to 0.7" w.c. (0.5" w.c. size 1 & 2)	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		
											Discharge Loc. E	Discharge Height F	Discharge Width G	Discharge Loc. E	Discharge Height F	Discharge Width H
	Standard	Optional														
1	6 (152)	8, 10	1/8	375/50 (177/24)	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	1/6	610/50 (288/24)	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	1/4	860/225 (406/106)	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	1/3	1200/280 (566/132)	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	1/2	1630/280 (769/132)	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	3/4	1875/960 (884/453)	20 (508)	42 (1067)	42 (1067)	11 (279)	18 (457)	22 (559)	9 (228)	18 (457)	24 (610)	6 (152)	20 (508)	30 (762)
7	16 (406)	12, 14, 18x16	1	3155/1925 (1488/908)	20 (508)	42 (1067)	42 (1067)	11 (279)	18 (457)	22 (559)	6 (152)	20 (508)	30 (762)	2 (51)	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 Pages 29 through 35**

(Parallel Fan Power Air Terminal - continued)



Parallel 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 0.7" w.c. (0.5" w.c. size 1 & 2)	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	375/50 (177/24)	17 1/2 (445)	30 (762)	36 (914)	6 (152)	14 (356)	14 (356)	2 1/4 (57)	15 (381)	16 (406)
2	8 (203)	6, 10, 12	1/6	610/50 (288/24)	17 1/2 (445)	30 (762)	36 (914)	7 (178)	14 (356)	14 (356)	2 1/4 (57)	15 (381)	16 (406)
3	10 (254)	6, 8, 12, 14	1/4	860/225 (406/106)	17 1/2 (445)	36 (914)	40 (1016)	8 (203)	14 (356)	18 (457)	2 1/4 (57)	15 (381)	16 (406)
4	12 (305)	8, 10, 14	1/3	1200/280 (566/132)	17 1/2 (445)	36 (914)	40 (1016)	9 (229)	14 (356)	18 (457)	1/4 (6)	17 1/2 (445)	20 (508)
5	14 (356)	10, 12, 16	1/2	1630/280 (769/132)	20 (508)	40 (1016)	40 (1016)	10 (254)	18 (457)	18 (457)	2 1/4 (57)	17 1/2 (445)	20 (508)
6	16 (406)	10, 12, 14	3/4	1875/960 (884/453)	20 (508)	42 (1067)	42 (1067)	11 (279)	18 (457)	22 (559)	1 1/4 (32)	17 1/2 (445)	20 (508)
7	16 (406)	12, 14, 18x16	1	3155/1925 (1488/908)	20 (508)	42 (1067)	42 (1067)	11 (279)	18 (457)	22 (559)	4 3/4 (121)	20 (508)	30 (762)

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 Pages 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	Electrical Power (Watts)
1	270	62	62	55	53	45	43	150
2	440	65	63	56	52	45	43	160
3	780	69	70	60	59	51	50	290
4	1000	69	68	62	60	52	51	490
5	1200	74	69	62	60	57	54	680
6	1800	76	73	67	63	57	56	760
7	2600	77	74	71	69	62	61	1430

Radiated Sound Power

Unit Size	Primary CFM	Min. Ps	Primary Air @ 1.5" Inlet Static Pressure 2	3	4	5	6	7
106	400	0.162	54	49	48	46	46	44
208	700	0.144	59	53	52	50	48	45
310	1100	0.160	60	52	51	53	50	46
412	1600	0.067	64	58	54	50	47	44
514	2100	0.078	69	64	62	57	53	48
616	2800	0.071	72	66	63	60	55	51
718	3750	0.127	77	71	67	63	58	52

Discharge Sound Power

Case Size	Fan CFM	Fan Only Sound Power(db) 2	3	4	5	6	7	Electrical Power (Watts)
1	270	59	59	53	59	46	43	150
2	440	60	59	51	52	46	46	160
3	780	72	68	61	66	61	71	290
4	1000	69	66	58	62	54	54	490
5	1200	74	69	62	60	57	54	680
6	1800	75	71	67	70	63	66	760
7	2600	79	76	75	73	70	73	1430

Discharge Sound Power

Unit Size	Primary CFM	Min. Ps	Primary Air @ 1.5" Inlet Static Pressure 2	3	4	5	6	7
106	400	0.162	61	57	53	57	47	45
208	700	0.144	66	61	58	54	49	49
310	1100	0.160	68	64	59	52	49	51
412	1600	0.067	72	68	63	60	57	56
514	2100	0.078	74	71	66	64	59	54
616	2800	0.071	77	75	70	68	67	70
718	3750	0.127	84	81	76	75	74	77

STATEMENT OF STANDARD TEST CONFORMITY

YORK tests all 500-YVI 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.

		Motor Amperage Ratings	
		115V-1 Phase 60 Hz	277 V-1 Phase. 60 Hz
Case Size	Motor HP	Name Plate Amps	Name Plate Amps
1	1/8	2.6	0.9
2	1/6	3.1	1.2
3	1/4	4.8	1.9
4	1/3	8.8	3.6
5	1/2	9.8	3.6
6	3/4	11.4	4.3
7	1	N/A	6.2

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

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	Hot Water Coil: 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
		300	2.4	3.3	4.3	0.15	0.08	0.10	0.11	0.08
		335	2.7	3.7	4.8	0.18	0.10	0.12	0.14	0.10
		370	2.9	4.1	†	0.22	0.12	0.14	0.17	0.12
		405	3.2	4.5	†	0.27	0.15	0.17	0.20	0.15
1	6	440	3.5	4.9	†	0.31	0.17	0.20	0.23	0.17
		475	3.8	†	†	0.37	0.20	0.23	0.27	0.20
		510	4.0	†	†	0.42	0.23	0.27	0.31	0.23
		555	4.4	†	†	0.50	0.28	0.32	0.36	0.28
		600	4.7	†	†	0.58	0.32	0.37	0.42	0.32
		500	**4.0**	**5.5**	**7.1**	**0.13**	**0.06**	**0.09**	**0.13**	**0.06**
		570	**4.5**	**6.3**	**†**	**0.17**	**0.07**	**0.11**	**0.16**	**0.07**
		640	**5.1**	**7.1**	**†**	**0.21**	**0.09**	**0.14**	**0.20**	**0.09**
		710	**5.6**	**†**	**†**	**0.26**	**0.11**	**0.17**	**0.24**	**0.11**
2	**8**	**780**	**6.2**	**†**	**†**	**0.31**	**0.13**	**0.20**	**0.29**	**0.13**
		860	**6.8**	**†**	**†**	**0.38**	**0.16**	**0.24**	**0.34**	**0.16**
		940	**7.4**	**†**	**†**	**0.45**	**0.19**	**0.29**	**0.40**	**0.19**
		1020	**†**	**†**	**†**	**0.53**	**0.23**	**0.34**	**0.47**	**0.23**
		1100	**†**	**†**	**†**	**0.62**	**0.27**	**0.39**	**0.54**	**0.27**
		775	6.1	8.6	11.0	0.13	0.05	0.12	0.20	0.05
		855	6.8	9.5	†	0.15	0.07	0.15	0.24	0.07
		935	7.4	10.4	†	0.18	0.08	0.17	0.28	0.08
		1015	8.0	11.2	†	0.22	0.09	0.20	0.33	0.09
3	10	1095	8.7	†	†	0.25	0.11	0.23	0.37	0.11
		1180	9.3	†	†	0.29	0.13	0.27	0.43	0.13
		1270	10.0	†	†	0.34	0.15	0.31	0.49	0.15
		1360	10.8	†	†	0.39	0.17	0.35	0.55	0.17
		1450	11.5	†	†	0.44	0.19	0.39	0.62	0.19
		900	**7.1**	**10.0**	**12.8**	**0.08**	**0.04**	**0.09**	**0.14**	**0.04**
		1010	**8.0**	**11.2**	**14.4**	**0.10**	**0.04**	**0.11**	**0.17**	**0.04**
		1120	**8.9**	**12.4**	**15.9**	**0.13**	**0.06**	**0.13**	**0.21**	**0.06**
		1230	**9.7**	**13.6**	**†**	**0.15**	**0.07**	**0.15**	**0.24**	**0.07**
4	**12**	**1340**	**10.6**	**14.8**	**†**	**0.18**	**0.08**	**0.17**	**0.28**	**0.08**
		1450	**11.5**	**†**	**†**	**0.21**	**0.09**	**0.20**	**0.32**	**0.09**
		1565	**12.4**	**†**	**†**	**0.25**	**0.11**	**0.23**	**0.37**	**0.11**
		1680	**13.3**	**†**	**†**	**0.29**	**0.12**	**0.26**	**0.42**	**0.12**
		1800	**14.2**	**†**	**†**	**0.33**	**0.14**	**0.29**	**0.47**	**0.14**
		1500	11.9	16.6	21.4	0.12	0.07	0.15	0.25	0.07
		1615	12.8	17.9	†	0.14	0.08	0.17	0.28	0.08
		1730	13.7	19.2	†	0.16	0.09	0.20	0.32	0.09
		1845	14.6	20.4	†	0.19	0.10	0.22	0.36	0.10
5	14	1960	15.5	21.7	†	0.21	0.12	0.25	0.40	0.12
		2075	16.4	†	†	0.23	0.13	0.27	0.44	0.13
		2200	17.4	†	†	0.26	0.15	0.31	0.49	0.15
		2325	18.4	†	†	0.29	0.16	0.34	0.54	0.16
		2450	19.4	†	†	0.33	0.18	0.37	0.59	0.18
		1800	**14.2**	**19.9**	**†**	**0.10**	**0.07**	**0.19**	**0.32**	**0.07**
		1950	**15.4**	**21.6**	**†**	**0.12**	**0.08**	**0.21**	**0.37**	**0.08**
		2100	**16.6**	**23.3**	**†**	**0.14**	**0.10**	**0.25**	**0.42**	**0.10**
		2250	**17.8**	**24.9**	**†**	**0.16**	**0.11**	**0.28**	**0.47**	**0.11**
6	**16**	**2400**	**19.0**	**†**	**†**	**0.18**	**0.13**	**0.31**	**0.52**	**0.13**
		2550	**20.2**	**†**	**†**	**0.21**	**0.14**	**0.35**	**0.58**	**0.14**
		2700	**21.4**	**†**	**†**	**0.23**	**0.16**	**0.39**	**0.64**	**0.16**
		2850	**22.5**	**†**	**†**	**0.26**	**0.18**	**0.43**	**0.70**	**0.18**
		3000	**23.7**	**†**	**†**	**0.29**	**0.20**	**0.48**	**0.77**	**0.20**
		2000	15.8	22.2	28.5	0.06	0.06	0.12	0.20	0.06
		2215	17.5	24.5	31.5	0.07	0.07	0.15	0.25	0.07
		2430	19.2	26.9	34.6	0.09	0.09	0.18	0.29	0.09
		2645	20.9	29.3	†	0.10	0.10	0.21	0.34	0.10
7	18 x 16	2860	22.6	31.7	†	0.12	0.12	0.24	0.39	0.12
		3075	24.3	34.1	†	0.14	0.14	0.28	0.44	0.14
		3290	26.0	†	†	0.16	0.16	0.32	0.50	0.16
		3520	27.8	†	†	0.18	0.18	0.36	0.56	0.18
		3750	29.7	†	†	0.20	0.20	0.40	0.63	0.20

For Performance Notes see Page 11

Minimum Static Pressure Requirements

Metric Units

CASE SIZE	INLET SIZE	PRIMARY AIRFLOW (L/S)	ELECTRIC HEAT kW @ 13c EAT @ 35c LAT	ELECTRIC HEAT kW @ 13c EAT @ 40c LAT	ELECTRIC HEAT kW @ 13c EAT @ 46c LAT	Velocity Pressure Pv	Hot Water Coil: MINIMUM INLET STATIC PRESSURE (Unit and Heat Pressure Drop) (Pa)			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
		142	2	3	4	36	20	24	28	20
		158	3	4	5	45	25	30	35	25
		175	3	4	†	55	31	36	42	31
		191	3	4	†	66	37	43	50	37
1	6	208	3	5	†	78	43	50	58	43
		224	4	†	†	91	51	58	67	51
		241	4	†	†	105	58	67	77	58
		262	4	†	†	125	69	79	91	69
		283	5	†	†	146	81	92	105	81
		236	**4**	**6**	**7**	**32**	**14**	**22**	**32**	**14**
		269	**5**	**6**	**†**	**41**	**18**	**28**	**40**	**18**
		302	**5**	**7**	**†**	**52**	**22**	**35**	**50**	**22**
		335	**6**	**†**	**†**	**64**	**28**	**42**	**60**	**28**
2	**8**	**368**	**6**	**†**	**†**	**78**	**33**	**51**	**71**	**33**
		406	**7**	**†**	**†**	**94**	**41**	**61**	**85**	**41**
		444	**7**	**†**	**†**	**113**	**48**	**72**	**100**	**48**
		481	**†**	**†**	**†**	**133**	**57**	**84**	**116**	**57**
		519	**†**	**†**	**†**	**154**	**66**	**98**	**133**	**66**
		366	6	9	11	31	13	31	51	13
		404	7	9	†	38	16	37	60	16
		441	7	10	†	46	20	43	71	20
		479	8	11	†	54	23	50	82	23
3	10	517	9	†	†	63	27	58	93	27
		557	9	†	†	73	31	67	107	31
		599	10	†	†	84	36	76	122	36
		642	11	†	†	97	41	87	138	41
		684	11	†	†	110	47	98	155	47
		425	**7**	**10**	**13**	**20**	**9**	**21**	**34**	**9**
		477	**8**	**11**	**14**	**26**	**11**	**26**	**42**	**11**
		529	**9**	**12**	**16**	**32**	**14**	**32**	**51**	**14**
		580	**10**	**14**	**†**	**38**	**17**	**37**	**61**	**17**
4	**12**	**632**	**11**	**15**	**†**	**45**	**20**	**44**	**70**	**20**
		684	**11**	**†**	**†**	**53**	**23**	**50**	**81**	**23**
		739	**12**	**†**	**†**	**62**	**27**	**57**	**92**	**27**
		793	**13**	**†**	**†**	**71**	**31**	**65**	**104**	**31**
		849	**14**	**†**	**†**	**82**	**36**	**73**	**117**	**36**
		708	12	17	21	31	17	37	62	17
		762	13	18	†	35	19	43	71	19
		816	14	19	†	41	22	49	80	22
		871	15	20	†	46	25	55	89	25
5	14	925	16	22	†	52	29	62	100	29
		979	16	†	†	58	32	68	110	32
		1038	17	†	†	66	36	76	122	36
		1097	18	†	†	73	40	85	134	40
		1156	19	†	†	81	45	93	147	45
		849	**14**	**20**	**†**	**26**	**18**	**46**	**79**	**18**
		920	**15**	**22**	**†**	**30**	**21**	**53**	**91**	**21**
		991	**17**	**23**	**†**	**35**	**24**	**61**	**104**	**24**
		1062	**18**	**25**	**†**	**40**	**28**	**70**	**117**	**28**
6	**16**	**1133**	**19**	**†**	**†**	**46**	**32**	**78**	**130**	**32**
		1203	**20**	**†**	**†**	**52**	**36**	**88**	**145**	**36**
		1274	**21**	**†**	**†**	**58**	**40**	**97**	**160**	**40**
		1345	**23**	**†**	**†**	**64**	**45**	**108**	**175**	**45**
		1416	**24**	**†**	**†**	**71**	**49**	**119**	**191**	**49**
		944	16	22	28	14	14	31	51	14
		1045	18	25	32	18	18	37	61	18
		1147	19	27	35	21	21	45	72	21
		1248	21	29	†	25	25	52	84	25
7	18x16	1350	23	32	†	29	30	60	97	30
		1451	24	34	†	34	34	69	110	34
		1553	26	†	†	39	39	79	124	39
		1661	28	†	†	44	45	89	139	45
		1770	30	†	†	50	51	100	156	51

For Performance Notes see Page 11

Performance Notes

NOTES:

1. D Ps is the static pressure difference across the YVI 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

AT .5", .75", 1" WG

See Pg. 18 For NC Calculations

Case	Inlet	Outlet Ps	Primary Airflow CFM (L/s)	Min Ps in. H20 (PA)	Differential Pressure, Ps = 0.5 inches of water (125 Pa)							Differential Pressure, Ps = 0.75 inches of water (187 Pa)							Differential Pressure, Ps = 1.0 inches of water (250 Pa)						
					Octave Band Sound Power, Lw						NC2	Octave Band Sound Power, Lw						NC2	Octave Band Sound Power, Lw						NC2
					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
			250 (118)	0.063 (15.8)	59	52	46	56	41	38	-	59	54	49	56	43	40	-	59	57	52	56	45	42	-
			300 (142)	0.091 (22.7)	59	53	48	56	43	40	-	59	55	50	56	44	41	-	60	57	52	56	46	42	-
1	6	0.25	400 (189)	0.162 (40.4)	60	55	51	57	45	44	-	61	56	52	57	46	44	-	61	57	53	57	46	44	-
			500 (236)	0.253 (63.1)	62	58	54	58	47	48	-	62	58	54	58	48	47	-	63	58	54	58	48	46	-
			600 (283)	0.365 (90.9)	65	60	56	59	50	51	22	65	60	56	59	50	50	22	65	60	56	59	50	48	22
			500 (236)	**0.074 (18.4)**	**60**	**55**	**50**	**50**	**44**	**41**	**-**	**61**	**56**	**52**	**51**	**44**	**41**	**-**	**62**	**58**	**53**	**52**	**44**	**41**	**-**
			650 (307)	**0.125 (31.0)**	**63**	**57**	**52**	**51**	**46**	**45**	**-**	**63**	**58**	**54**	**52**	**47**	**45**	**-**	**64**	**60**	**55**	**53**	**47**	**45**	**21**
2	**8**	**0.25**	**800 (378)**	**0.189 (47.0)**	**66**	**60**	**55**	**52**	**49**	**49**	**22**	**67**	**61**	**56**	**53**	**50**	**49**	**23**	**67**	**62**	**58**	**55**	**50**	**50**	**25**
			950 (448)	**0.266 (66.3)**	**70**	**63**	**57**	**54**	**52**	**53**	**27**	**70**	**64**	**59**	**55**	**53**	**54**	**27**	**70**	**66**	**61**	**57**	**54**	**55**	**29**
			1100 (519)	**0.357 (88.9)**	**76**	**65**	**60**	**57**	**56**	**58**	**34**	**75**	**67**	**63**	**58**	**58**	**60**	**33**	**74**	**70**	**65**	**59**	**59**	**62**	**34**
			775 (366)	0.079 (19.8)	60	55	48	44	43	40	-	62	57	51	46	44	42	-	64	59	54	48	45	43	21
			925 (437)	0.113 (28.2)	62	56	50	47	45	45	-	64	58	52	48	47	46	-	66	60	55	50	49	48	22
3	10	0.25	1075 (507)	0.153 (38.1)	64	58	52	50	49	51	-	65	59	54	52	51	52	21	67	61	56	54	52	53	24
			1325 (625)	0.232 (57.8)	68	60	56	59	59	64	31	69	62	57	60	59	63	31	70	63	59	62	59	63	30
			1450 (684)	0.278 (69.2)	71	61	58	65	65	71	38	71	63	59	66	64	70	37	71	64	60	67	62	68	36
			900 (425)	**0.021 (5.3)**	**61**	**55**	**50**	**47**	**45**	**41**	**-**	**63**	**58**	**52**	**49**	**47**	**45**	**-**	**65**	**60**	**55**	**51**	**50**	**48**	**22**
			1100 (519)	**0.032 (7.9)**	**63**	**57**	**52**	**50**	**48**	**47**	**-**	**65**	**59**	**54**	**52**	**50**	**49**	**21**	**66**	**61**	**56**	**54**	**52**	**51**	**24**
4	**12**	**0.25**	**1300 (614)**	**0.044 (11.1)**	**65**	**59**	**54**	**55**	**53**	**53**	**22**	**66**	**61**	**56**	**57**	**54**	**54**	**23**	**68**	**63**	**58**	**58**	**55**	**56**	**25**
			1500 (708)	**0.059 (14.8)**	**68**	**60**	**57**	**61**	**59**	**60**	**28**	**69**	**62**	**58**	**62**	**59**	**60**	**28**	**69**	**64**	**60**	**63**	**59**	**60**	**28**
			1800 (849)	**0.085 (21.2)**	**72**	**63**	**61**	**71**	**71**	**72**	**40**	**72**	**64**	**62**	**71**	**68**	**70**	**38**	**72**	**66**	**63**	**72**	**65**	**68**	**36**
			1500 (708)	0.040 (9.9)	63	59	55	54	51	46	21	65	61	57	56	52	48	23	67	63	59	57	54	50	26
			1725 (814)	0.053 (13.1)	65	61	57	56	53	48	23	66	63	59	57	54	50	25	68	64	60	59	55	51	27
5	14	0.25	1950 (920)	0.067 (16.7)	66	62	59	58	54	51	25	68	64	60	59	55	51	27	69	65	61	60	56	52	29
			2200 (1038)	0.085 (21.3)	67	64	61	60	56	53	27	69	65	62	61	57	53	29	71	67	63	62	58	53	30
			2450 (1156)	0.106 (26.4)	69	66	63	62	58	54	29	71	67	63	63	59	54	31	72	68	64	64	59	54	32
			1800 (849)	**0.029 (7.3)**	**66**	**63**	**56**	**55**	**49**	**48**	**26**	**68**	**64**	**58**	**56**	**52**	**52**	**27**	**69**	**64**	**60**	**57**	**55**	**57**	**27**
			2150 (1015)	**0.042 (10.4)**	**68**	**65**	**58**	**57**	**53**	**54**	**29**	**70**	**66**	**60**	**58**	**56**	**58**	**29**	**71**	**67**	**62**	**60**	**58**	**61**	**30**
6	**16**	**0.25**	**2400 (1133)**	**0.052 (12.9)**	**70**	**67**	**59**	**58**	**56**	**58**	**30**	**72**	**68**	**61**	**60**	**58**	**61**	**31**	**73**	**68**	**63**	**62**	**61**	**64**	**33**
			2700 (1274)	**0.066 (16.3)**	**72**	**68**	**61**	**60**	**59**	**62**	**32**	**73**	**69**	**63**	**62**	**61**	**64**	**34**	**75**	**70**	**65**	**64**	**63**	**67**	**35**
			3000 (1416)	**0.081 (20.2)**	**74**	**70**	**63**	**62**	**62**	**65**	**35**	**75**	**71**	**65**	**64**	**64**	**67**	**36**	**76**	**72**	**67**	**66**	**65**	**69**	**37**
			2000 (944)	0.036 (9.0)	69	66	59	58	54	53	30	71	67	61	59	56	58	31	72	68	63	61	59	62	32
			2500 (1180)	0.056 (14.0)	73	69	62	61	59	61	34	74	70	64	63	61	64	35	76	71	66	65	64	67	36
7	18 x 16	0.25	3000 (1416)	0.081 (20.2)	76	72	65	64	64	67	37	77	73	67	66	66	69	38	78	74	69	68	67	71	39
			3300 (1557)	0.098 (24.4)	78	74	67	66	66	70	38	79	75	69	68	68	71	40	80	76	71	69	69	73	41
			3750 (1770)	0.127 (31.5)	81	76	70	69	69	73	41	81	78	72	70	70	74	43	82	79	74	71	71	74	45

(Discharge Sound Power - continued)

AT 1.5", 2", 3" WG

See Pg. 18 For NC Calculations

Case	Inlet	Outlet Ps	Primary Airflow CFM (L/s)	Min Ps in. H20 (PA)	Differential Pressure, Ps = 1.5 inches of water (125 Pa)							Differential Pressure, Ps = 2 inches of water (187 Pa)							Differential Pressure, Ps = 2 inches of water (250 Pa)						
					Octave Band Sound Power, Lw						NC2	Octave Band Sound Power, Lw						NC2	Octave Band Sound Power, Lw						NC2
					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
			250 (118)	0.063 (15.8)	59	56	52	55	46	42	-	59	56	53	57	48	46	-	59	55	53	58	50	50	-
			300 (142)	0.091 (22.7)	60	56	53	56	46	43	-	60	56	53	57	48	46	-	60	56	54	58	50	50	-
1	6	0.25	400 (189)	0.162 (40.4)	61	57	53	57	47	45	-	62	58	54	58	49	47	-	62	58	56	58	51	50	-
			500 (236)	0.253 (63.1)	63	58	55	58	49	47	-	64	59	56	59	50	48	21	65	60	57	59	52	51	22
			600 (283)	0.365 (90.9)	65	59	57	59	51	50	21	66	61	58	59	51	50	23	67	62	59	59	53	52	24
			500 (236)	0.074 (18.4)	63	59	56	53	47	45	-	63	58	55	53	47	45	-	63	59	56	54	51	50	21
			650 (307)	0.125 (31.0)	65	60	58	54	49	48	23	65	61	57	54	50	48	23	66	62	59	56	52	52	24
2	8	0.25	800 (378)	0.189 (47.0)	67	63	60	55	51	51	25	68	63	60	56	52	52	26	69	65	62	58	55	54	28
			950 (448)	0.266 (66.3)	70	66	62	56	54	55	29	71	67	63	58	56	56	30	71	68	65	60	57	57	31
			1100 (519)	0.357 (88.9)	73	70	66	58	57	60	34	74	70	66	60	60	62	35	74	71	68	62	60	61	35
			775 (366)	0.079 (19.8)	65	61	58	49	46	46	24	65	61	57	51	49	48	23	66	63	60	54	52	53	25
			925 (437)	0.113 (28.2)	67	62	58	51	47	48	25	67	63	58	53	52	52	25	68	65	62	56	54	56	28
3	10	0.25	1075 (507)	0.153 (38.1)	68	63	59	52	49	50	26	69	64	60	56	54	56	27	71	67	64	59	57	58	31
			1325 (625)	0.232 (57.8)	71	65	60	55	53	55	29	72	67	63	62	60	63	31	75	70	67	63	61	64	35
			1450 (684)	0.278 (69.2)	72	67	61	57	55	58	30	74	68	64	66	63	67	35	77	72	68	65	64	67	36
			900 (425)	0.021 (5.3)	65	61	57	51	48	45	23	66	62	58	54	52	50	25	68	64	61	56	53	52	27
			1100 (519)	0.032 (7.9)	67	63	58	53	50	48	26	68	64	60	57	54	53	27	70	67	63	59	56	55	31
4	12	0.25	1300 (614)	0.044 (11.1)	69	65	60	56	52	51	28	71	66	62	60	57	57	30	73	70	66	62	59	58	34
			1500 (708)	0.059 (14.8)	71	67	62	58	55	54	30	73	68	64	64	60	61	32	76	72	68	64	62	61	36
			1800 (849)	0.085 (21.2)	75	70	64	63	60	59	34	76	70	67	70	66	67	35	80	75	70	68	66	67	40
			1500 (708)	0.040 (9.9)	70	66	61	59	54	49	30	71	67	63	60	56	52	31	74	72	67	63	59	55	36
			1725 (814)	0.053 (13.1)	72	68	63	61	56	51	32	72	69	65	62	58	53	33	77	74	69	65	60	56	38
5	14	0.25	1950 (920)	0.067 (16.7)	73	70	65	63	58	53	34	74	71	66	64	59	55	35	79	76	71	67	62	58	40
			2200 (1038)	0.085 (21.3)	75	71	67	65	60	55	36	75	72	68	66	61	56	36	80	77	72	69	64	60	42
			2450 (1156)	0.106 (26.4)	76	72	68	67	62	57	37	77	73	69	67	63	58	38	82	79	74	71	66	61	44
			1800 (849)	0.029 (7.3)	70	68	64	61	58	61	32	71	68	65	63	59	60	32	73	71	70	68	63	63	36
			2150 (1015)	0.042 (10.4)	73	71	66	64	61	64	35	73	70	67	65	62	64	35	75	74	72	70	65	66	38
6	16	0.25	2400 (1133)	0.052 (12.9)	75	72	68	65	64	67	37	75	72	68	66	64	66	36	77	75	73	71	67	68	40
			2700 (1274)	0.066 (16.3)	77	74	69	67	66	69	39	77	74	70	68	66	69	38	79	77	75	72	69	70	42
			3000 (1416)	0.081 (20.2)	78	76	71	69	68	71	41	79	76	72	70	68	71	40	81	79	76	73	70	72	44
			2000 (944)	0.036 (9.0)	73	71	67	65	62	65	36	74	71	68	66	62	64	36	76	75	73	71	66	67	39
			2500 (1180)	0.056 (14.0)	77	75	70	68	66	70	39	78	74	71	69	67	69	39	80	78	76	73	70	71	43
7	18 x 16	0.25	3000 (1416)	0.081 (20.2)	80	78	73	71	70	73	43	81	78	74	72	70	73	43	83	81	78	75	72	74	46
			3300 (1557)	0.098 (24.4)	82	79	74	72	72	75	45	82	80	75	73	71	74	45	85	83	80	76	74	76	49
			3750 (1770)	0.127 (31.5)	84	81	76	75	74	77	46	85	82	78	75	73	76	49	87	85	82	78	75	77	52

Discharge Sound Power

FAN ONLY

See Pg. 18 For NC Calculations

Case	Outlet PS	Primary Airflow CFM (L/s)	FAN ONLY Octave Band Sound Power, Lw 2	3	4	5	6	7	NC2 ARI 885-98
		150 (71)	53	52	48	52	41	37	23
		200 (94)	56	54	50	55	43	39	27
1	0.25	250 (118)	58	57	52	58	45	42	30
		275 (130)	60	59	53	59	46	43	32
		300 (142)	61	61	55	61	47	45	33
		300 (142)	**56**	**55**	**48**	**48**	**43**	**40**	**23**
		350 (165)	**57**	**57**	**50**	**50**	**44**	**42**	**25**
2	**0.25**	**400 (189)**	**59**	**58**	**51**	**51**	**45**	**44**	**27**
		425 (201)	**60**	**59**	**51**	**51**	**46**	**45**	**28**
		450 (212)	**60**	**59**	**52**	**52**	**46**	**46**	**29**
		300 (142)	54	51	46	45	42	38	-
		425 (201)	60	55	49	49	44	42	23
3	0.25	550 (260)	65	59	52	54	48	49	29
		675 (319)	69	64	57	60	54	60	35
		800 (378)	72	69	62	67	62	74	40
		600 (283)	**63**	**59**	**55**	**53**	**48**	**47**	**29**
		700 (330)	**66**	**62**	**56**	**57**	**51**	**50**	**31**
4	**0.25**	**800 (378)**	**68**	**64**	**57**	**60**	**52**	**52**	**34**
		900 (425)	**69**	**65**	**58**	**61**	**54**	**53**	**36**
		1000 (472)	**69**	**66**	**58**	**62**	**54**	**54**	**36**
		800 (378)	63	56	50	46	43	40	26
		950 (448)	66	63	58	55	52	49	33
5	0.25	1100 (519)	71	67	62	60	56	53	38
		1200 (566)	74	69	62	60	57	54	39
		1300 (614)	78	69	61	59	56	54	44
		1000 (472)	**63**	**59**	**57**	**64**	**51**	**50**	**37**
		1250 (590)	**66**	**62**	**60**	**66**	**54**	**54**	**38**
6	**0.25**	**1400 (661)**	**68**	**64**	**62**	**67**	**56**	**56**	**39**
		1650 (779)	**72**	**68**	**65**	**69**	**60**	**62**	**41**
		1800 (849)	**75**	**71**	**67**	**70**	**63**	**66**	**42**
		1800 (849)	71	68	70	65	64	67	46
		2100 (991)	74	71	72	68	66	69	46
7	0.25	2400 (1133)	77	74	74	71	69	71	49
		2600 (1227)	79	76	75	73	70	73	50
		2800 (1321)	81	78	76	75	72	74	51

Radiated Sound Power

AT .5", .75", 1" WG

See Pg. 18 For NC Calculations

Case	Inlet	Outlet Ps	Primary Airflow CFM (L/s)	Min Ps in. H20 (PA)	Differential Pressure, Ps = 0.5 inches of water (125 Pa)							Differential Pressure, Ps = 0.75 inches of water (187 Pa)								Differential Pressure, Ps = 1.0 inches of water (250 Pa)						
					Octave Band Sound Power, Lw						NC2	Octave Band Sound Power, Lw						NC2		Octave Band Sound Power, Lw						NC2
					2	3	4	5	6	7	ARI 885-98	2	3	4	5	6	7	ARI 885-98		2	3	4	5	6	885-7	ARI 885-98
1	6	0.25	250 (118)	0.063 (15.8)	49	40	38	40	38	32	-	49	42	40	42	41	36	-	-	50	43	42	44	44	39	-
			300 (142)	0.091 (22.7)	49	42	39	41	40	33	-	50	43	42	43	43	36	-	-	51	44	44	45	45	40	-
			400 (189)	0.162 (40.4)	51	46	42	44	43	36	-	52	46	44	46	45	38	-	-	53	47	47	47	47	40	-
			500 (236)	0.253 (63.1)	54	49	46	48	46	38	-	54	49	47	48	47	39	-	21	54	49	48	49	49	41	22
			600 (283)	0.365 (90.9)	58	52	51	51	48	40	24	57	52	50	51	49	41	22	23	56	52	48	51	50	41	23
2	**8**	**0.25**	**500 (236)**	**0.074 (18.4)**	**52**	**44**	**44**	**41**	**38**	**33**	**-**	**54**	**46**	**45**	**43**	**41**	**37**	**-**	**-**	**55**	**48**	**47**	**44**	**43**	**40**	**-**
			650 (307)	**0.125 (31.0)**	**53**	**48**	**50**	**46**	**42**	**35**	**23**	**55**	**49**	**50**	**47**	**43**	**38**	**-**	**23**	**57**	**50**	**50**	**47**	**45**	**41**	**23**
			800 (378)	**0.189 (47.0)**	**55**	**51**	**55**	**51**	**46**	**38**	**29**	**57**	**52**	**54**	**51**	**47**	**40**	**24**	**29**	**59**	**53**	**54**	**51**	**48**	**42**	**28**
			950 (448)	**0.266 (66.3)**	**58**	**55**	**60**	**56**	**50**	**42**	**34**	**59**	**55**	**59**	**56**	**50**	**43**	**29**	**33**	**61**	**56**	**58**	**55**	**51**	**45**	**33**
			1100 (519)	**0.357 (88.9)**	**61**	**59**	**64**	**61**	**55**	**47**	**38**	**62**	**59**	**63**	**60**	**55**	**47**	**34**	**38**	**63**	**59**	**63**	**60**	**55**	**48**	**38**
3	10	0.25	775 (366)	0.079 (19.8)	51	45	44	43	40	33	-	53	47	46	45	42	37	-	-	56	50	48	47	45	41	21
			925 (437)	0.113 (28.2)	51	47	46	45	41	33	-	54	49	47	47	43	37	-	21	57	51	48	48	46	42	21
			1075 (507)	0.153 (38.1)	51	49	50	48	41	33	23	54	51	49	48	44	37	-	23	56	53	48	48	47	42	22
			1325 (625)	0.232 (57.8)	51	53	58	54	42	32	32	53	53	53	51	46	37	22	27	54	54	48	48	50	43	22
			1450 (684)	0.278 (69.2)	51	56	62	58	42	31	37	52	55	55	53	47	37	25	30	53	54	48	47	52	44	22
4	**12**	**0.25**	**900 (425)**	**0.021 (5.3)**	**60**	**62**	**54**	**50**	**48**	**48**	**32**	**59**	**56**	**50**	**46**	**45**	**42**	**21**	**25**	**57**	**51**	**45**	**42**	**41**	**37**	**-**
			1100 (519)	**0.032 (7.9)**	**62**	**62**	**56**	**51**	**49**	**49**	**32**	**60**	**57**	**51**	**47**	**46**	**44**	**22**	**26**	**59**	**52**	**47**	**44**	**42**	**38**	**21**
			1300 (614)	**0.044 (11.1)**	**63**	**63**	**58**	**52**	**50**	**50**	**33**	**61**	**58**	**53**	**49**	**47**	**45**	**23**	**27**	**60**	**53**	**49**	**45**	**43**	**39**	**22**
			1500 (708)	**0.059 (14.8)**	**64**	**63**	**59**	**54**	**51**	**51**	**34**	**63**	**59**	**55**	**50**	**47**	**46**	**24**	**29**	**61**	**54**	**51**	**47**	**44**	**41**	**24**
			1800 (849)	**0.085 (21.2)**	**65**	**64**	**61**	**55**	**52**	**52**	**36**	**64**	**60**	**57**	**52**	**49**	**47**	**27**	**32**	**63**	**56**	**54**	**49**	**46**	**42**	**28**
5	14	0.25	1500 (708)	0.040 (9.9)	62	54	51	46	39	34	24	62	56	53	49	43	38	23	27	63	59	56	52	47	42	31
			1725 (814)	0.053 (13.1)	62	54	52	47	40	35	25	63	57	54	50	44	39	24	29	64	60	57	53	48	43	31
			1950 (920)	0.067 (16.7)	62	55	53	48	41	36	27	63	58	55	51	45	40	25	30	65	60	58	54	49	44	32
			2200 (1038)	0.085 (21.3)	62	56	54	49	42	37	29	64	59	57	52	46	41	27	31	66	61	59	54	49	45	33
			2450 (1156)	0.106 (26.4)	63	57	56	49	43	38	30	65	60	58	52	47	42	28	32	67	62	60	55	50	46	34
6	**16**	**0.25**	**1800 (849)**	**0.029 (7.3)**	**60**	**48**	**47**	**50**	**41**	**34**	**21**	**62**	**54**	**51**	**52**	**45**	**40**	**22**	**25**	**64**	**59**	**56**	**54**	**49**	**45**	**30**
			2150 (1015)	**0.042 (10.4)**	**63**	**54**	**52**	**52**	**45**	**38**	**26**	**65**	**57**	**55**	**53**	**47**	**42**	**24**	**29**	**67**	**61**	**57**	**55**	**50**	**46**	**32**
			2400 (1133)	**0.052 (12.9)**	**65**	**58**	**55**	**53**	**47**	**41**	**29**	**67**	**60**	**57**	**54**	**49**	**44**	**27**	**31**	**68**	**62**	**59**	**56**	**51**	**46**	**33**
			2700 (1274)	**0.066 (16.3)**	**67**	**61**	**57**	**55**	**49**	**43**	**32**	**69**	**62**	**59**	**56**	**50**	**45**	**29**	**33**	**70**	**63**	**60**	**57**	**52**	**47**	**34**
			3000 (1416)	**0.081 (20.2)**	**69**	**63**	**60**	**56**	**51**	**45**	**34**	**70**	**64**	**60**	**57**	**52**	**47**	**31**	**35**	**71**	**65**	**61**	**58**	**53**	**48**	**36**
7	18x16	0.25	2000 (944)	0.036 (9.0)	62	52	50	51	43	37	24	64	56	53	53	46	41	23	27	66	60	57	55	50	46	31
			2500 (1180)	0.056 (14.0)	66	59	56	54	48	42	30	67	60	57	55	49	44	27	32	69	62	59	56	51	47	34
			3000 (1416)	0.081 (20.2)	69	63	60	56	51	45	34	70	64	60	57	52	47	31	35	71	65	61	58	53	48	36
			3300 (1557)	0.098 (24.4)	70	64	61	57	52	46	36	71	65	62	58	53	48	32	36	73	66	63	59	54	49	38
			3750 (1770)	0.127 (31.5)	71	64	62	59	53	47	36	73	66	63	61	54	49	34	38	74	68	65	62	56	50	40

Radiated Sound Power

AT 1.5", 2", 3" WG

See Pg. 18 For NC Calculations

Case	Inlet	Outlet Ps	Primary Airflow CFM (L/s)	Min Ps in. H20 (PA)	Differential Pressure, Ps = 1.5 inches of water (375 Pa)							Differential Pressure, Ps = 2.0 inches of water (500 Pa)							Differential Pressure, Ps = 3.0 inches of water (750 Pa)						
					Octave Band Sound Power, Lw						NC2 ARI 885-98	Octave Band Sound Power, Lw						NC2 ARI 885-98	Octave Band Sound Power, Lw						NC2 ARI 885-98
					2	3	4	5	6	7		2	3	4	5	6	7		2	3	4	5	6	7	
1	6	0.25	250 (118)	0.063 (15.8)	55	50	48	47	47	42	22	52	46	46	49	49	47	21	54	50	50	54	54	54	26
			300 (142)	0.091 (22.7)	55	50	49	48	48	42	22	53	47	48	50	50	47	22	55	50	51	55	54	55	27
			400 (189)	0.162 (40.4)	56	52	51	50	51	44	24	54	50	50	52	51	48	24	56	52	54	58	56	55	30
			500 (236)	0.253 (63.1)	58	54	53	53	53	45	27	56	52	52	54	53	48	26	58	54	57	60	57	56	32
			600 (283)	0.365 (90.9)	61	57	56	56	54	47	30	58	54	54	56	55	49	29	60	57	59	62	59	56	34
2	8	0.25	500 (236)	0.074 (18.4)	56	50	48	46	46	44	21	57	52	51	49	48	47	24	59	55	55	54	54	53	29
			650 (307)	0.125 (31.0)	58	52	51	49	48	45	25	60	54	54	51	50	47	28	62	58	57	55	55	53	32
			800 (378)	0.189 (47.0)	60	55	55	52	50	46	29	62	57	57	54	52	48	31	65	61	60	57	56	54	34
			950 (448)	0.266 (66.3)	61	57	59	56	52	47	33	64	60	60	57	54	50	35	67	63	62	60	57	54	37
			1100 (519)	0.357 (88.9)	62	60	63	60	55	49	37	66	62	64	61	57	51	38	69	65	64	63	59	55	39
3	10	0.25	775 (366)	0.079 (19.8)	57	55	51	49	47	44	25	58	54	52	52	50	47	26	60	58	57	57	55	53	31
			925 (437)	0.113 (28.2)	59	54	51	51	48	45	25	59	56	54	53	50	47	28	62	61	60	59	55	53	34
			1075 (507)	0.153 (38.1)	60	52	51	52	50	46	24	60	58	56	54	51	48	30	63	64	63	60	55	53	38
			1325 (625)	0.232 (57.8)	61	45	49	55	53	47	27	59	61	59	55	53	48	33	63	69	69	63	56	53	45
			1450 (684)	0.278 (69.2)	61	39	48	56	54	48	28	57	63	60	55	54	48	34	62	71	72	64	56	53	46
4	12	0.25	900 (425)	0.021 (5.3)	59	54	49	45	43	42	22	62	57	53	49	47	46	27	65	61	58	53	51	51	32
			1100 (519)	0.032 (7.9)	61	55	50	47	44	43	24	64	59	54	50	48	47	29	67	63	58	54	51	51	33
			1300 (614)	0.044 (11.1)	62	56	52	48	45	43	25	65	60	55	51	49	47	30	68	64	59	54	52	51	34
			1500 (708)	0.059 (14.8)	63	57	53	49	46	44	27	67	61	56	52	49	48	31	70	65	60	55	52	51	36
			1800 (849)	0.085 (21.2)	66	59	55	51	48	45	30	69	63	58	53	50	48	33	72	66	61	56	53	52	37
5	14	0.25	1500 (708)	0.040 (9.9)	66	63	60	56	51	47	34	69	65	63	59	54	51	37	72	68	66	62	58	55	41
			1725 (814)	0.053 (13.1)	67	63	60	56	51	47	35	70	66	64	60	55	51	38	73	69	68	63	59	55	43
			1950 (920)	0.067 (16.7)	68	64	61	57	52	48	36	72	67	65	61	56	52	39	75	71	69	64	60	56	44
			2200 (1038)	0.085 (21.3)	69	65	62	58	53	48	36	73	68	66	61	57	52	41	77	72	70	65	60	56	46
			2450 (1156)	0.106 (26.4)	70	65	63	58	53	49	37	74	69	67	62	57	53	42	78	73	71	65	61	56	46
6	16	0.25	1800 (849)	0.029 (7.3)	67	62	60	58	53	50	34	68	65	63	63	59	55	38	70	67	67	68	64	60	42
			2150 (1015)	0.042 (10.4)	68	63	61	59	53	50	35	71	66	65	63	59	55	39	73	69	68	68	64	60	44
			2400 (1133)	0.052 (12.9)	70	64	62	59	54	51	36	72	67	65	64	59	55	40	75	70	69	68	65	60	45
			2700 (1274)	0.066 (16.3)	71	65	63	60	54	51	37	74	68	66	64	60	56	41	76	71	70	69	65	61	46
			3000 (1416)	0.081 (20.2)	73	67	64	61	55	51	38	75	69	67	65	61	57	42	77	72	71	70	66	62	46
7	18 x 16	0.25	2000 (944)	0.036 (9.0)	68	63	60	58	53	50	35	70	66	64	63	59	55	39	72	68	68	68	64	60	43
			2500 (1180)	0.056 (14.0)	70	65	62	59	54	51	36	73	68	66	64	59	56	40	75	71	69	69	65	60	45
			3000 (1416)	0.081 (20.2)	73	67	64	61	55	51	38	75	69	67	65	61	57	42	77	72	71	70	66	62	46
			3300 (1557)	0.098 (24.4)	74	68	65	62	56	52	40	76	70	68	66	62	57	44	77	73	71	71	67	63	46
			3750 (1770)	0.127 (31.5)	77	71	67	63	58	52	43	77	72	70	68	64	59	45	77	73	72	72	70	65	46

(Radiated Sound Power - continued)

FAN ONLY

See Pg. 18 For NC Calculations

Case	Outlet PS	Primary Airflow CFM (L/s)	FAN ONLY Octave Band Sound Power, Lw 2	3	4	5	6	7	NC2 ARI 885-98
		150 (71)	59	57	52	48	41	38	25
		200 (94)	60	59	53	50	43	41	28
1	0.25	250 (118)	62	61	55	53	44	43	31
		275 (130)	63	62	56	53	45	44	32
		300 (142)	64	63	56	54	46	45	33
		300 (142)	64	61	56	51	44	41	30
		350 (165)	65	62	56	52	45	42	32
2	0.25	400 (189)	65	63	56	52	45	43	33
		425 (201)	65	63	56	52	45	43	33
		450 (212)	65	63	56	52	45	43	33
		300 (142)	58	58	50	47	41	35	27
		425 (201)	62	61	54	49	43	38	31
3	0.25	550 (260)	65	65	56	53	45	42	35
		675 (319)	68	68	58	56	48	46	38
		800 (378)	70	71	60	60	52	50	42
		600 (283)	63	63	58	54	47	44	33
		700 (330)	65	65	59	56	48	46	35
4	0.25	800 (378)	67	66	60	58	49	48	37
		900 (425)	68	68	61	59	50	50	38
		1000 (472)	69	68	62	60	52	51	39
		800 (378)	63	56	50	46	43	40	26
		950 (448)	66	63	58	55	52	49	33
5	0.25	1100 (519)	71	67	62	60	56	53	38
		1200 (566)	74	69	62	60	57	54	39
		1300 (614)	78	69	61	59	56	54	44
		1000 (472)	66	63	60	55	47	45	35
		1250 (590)	72	69	64	59	52	50	40
6	0.25	1400 (661)	74	72	65	61	54	53	43
		1650 (779)	76	73	67	63	56	55	45
		1800 (849)	76	73	67	63	57	56	45
		1800 (849)	73	65	61	56	47	46	38
		2100 (991)	74	68	62	57	49	48	39
7	0.25	2400 (1133)	75	71	65	62	54	53	42
		2600 (1227)	76	73	68	66	59	58	45
		2800 (1321)	78	75	73	72	66	64	46

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-YVI 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**	**200**	**275**	**350**	**425**	**CFM 500**	**570**	**650**	**725**	**775**
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**	**200**	**275**	**350**	**425**	**CFM 500**	**570**	**650**	**725**	**775**
3	One	1	0.2	15.8	18.4	20.4	21.9	23.5	24.8	25.4	26.3	26.8
		2	0.7	18.0	21.5	24.3	26.6	29.1	31.1	32.0	33.6	34.4
		4	2.6	19.4	23.6	26.9	29.8	33.0	35.7	36.9	39.1	40.1
		6	5.6	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	1.6	28.2	35.6	41.6	46.6	52.3	57.1	-	-	-
		6	3.5	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**	**200**	**275**	**350**	**425**	**CFM 500**	**570**	**650**	**725**	**775**
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**	**200**	**275**	**350**	**425**	**CFM 500**	**570**	**650**	**725**	**775**
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	0.5	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**	**200**	**275**	**350**	**425**	**CFM 500**	**570**	**650**	**725**	**775**
6	One	1	0.3	27.7	28.4	29.2	29.8	30.4	30.9	31.8	32.2	32.8
		2	1.0	35.4	36.5	37.9	39.0	40.0	40.9	42.6	43.3	44.5
		4	3.7	41.0	42.5	44.5	46.0	47.5	48.8	51.2	52.3	54.0
		6	8.1	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**	**200**	**275**	**350**	**425**	**CFM 500**	**570**	**650**	**725**	**775**
7	One	1	0.1	27.6	38.1	44.3	48.7	51.4	53.6	55.5	57.1	58.5
		3	0.9	30.7	44.5	53.6	60.4	64.7	68.4	71.5	74.3	76.8
		6	3.5	32.6	48.7	59.9	68.6	74.3	79.2	83.6	87.5	91.1
		9	7.8	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	1	0.1	37.3	53.2	62.4	68.4	71.9	74.7	-	-	-
		3	0.7	42.5	65.5	80.7	91.7	98.7	104.5	-	-	-
		6	2.7	45.7	73.7	94.0	109.9	120.3	129.3	-	-	-
		9	6.1	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-YVI 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	0.2	17.4	20.8	23.4	25.4	27.0	28.2	29.3	-	-
		2	0.7	19.5	24.3	28.2	31.5	34.3	36.6	38.9	-	-
		4	2.6	20.7	26.3	31.3	35.6	39.4	42.6	45.9	-	-
		6	5.6	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	0.4	21.2	26.8	31.4	35.2	38.4	41.0	-	-	-
		4	1.6	22.3	29.0	34.8	39.9	44.4	48.3	-	-	-
		6	3.5	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	0.2	17.4	20.8	23.4	25.4	27.0	27.9	28.7	-	-
		2	0.7	19.5	24.3	28.2	31.5	34.3	36.0	37.5	-	-
		4	2.6	20.7	26.3	31.3	35.6	39.4	41.7	43.9	-	-
		6	5.6	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	0.4	21.2	26.8	-	-	-	-	-	-	-
		4	1.6	22.3	29.0	-	-	-	-	-	-	-
		6	3.5	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	0.2	26.4	30.8	33.7	36.4	37.9	-	-	-	-
		2	0.7	31.4	38.9	44.5	50.2	53.5	-	-	-	-
		4	2.6	34.2	44.0	52.0	60.7	66.2	-	-	-	-
		6	5.6	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	0.4	34.4	43.1	49.5	-	-	-	-	-	-
		4	1.6	37.4	48.9	58.4	-	-	-	-	-	-
		6	3.5	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**	**750**	**100**	**1100**	**1300**	**CFM 1400**	**1500**	**1600**	**1700**	**1800**
4	Three	1	0.2	35.2	37.9	38.7	40.0	40.5	41.0	-	-	-
		2	0.9	47.5	53.5	55.4	58.6	60.0	61.2	-	-	-
		4	3.3	56.6	66.2	69.4	75.0	77.5	79.9	-	-	-
		6	7.3	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	0.5	52.9	59.5	61.5	65.0	-	-	-	-	-
		4	1.8	63.8	75.1	78.8	85.4	-	-	-	-	-
		5	3.9	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**	**1200**	**1350**	**1475**	**1725**	**CFM 1850**	**1975**	**2100**	**2225**	**2300**
5	Three	1	0.3	41.7	42.6	43.3	44.3	-	-	-	-	-
		2	1.0	61.0	63.4	65.2	68.1	-	-	-	-	-
		4	3.7	77.3	81.7	85.1	90.9	-	-	-	-	-
		6	8.1	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	0.5	67.4	70.0	71.8	-	-	-	-	-	-
		4	1.9	87.5	92.6	96.4	-	-	-	-	-	-
		6	4.1	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**	**1350**	**1475**	**1650**	**1800**	**CFM 1950**	**2100**	**2400**	**2550**	**2800**
6	Three	1	0.3	42.6	43.3	44.0	44.6	45.0	45.5	-	-	-
		2	1.0	63.4	65.2	67.3	68.9	70.3	71.6	-	-	-
		4	3.7	81.7	85.1	89.2	92.5	95.4	98.1	-	-	-
		6	8.1	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	0.5	70.0	71.8	74.0	-	-	-	-	-	-
		4	1.9	92.6	96.4	101.2	-	-	-	-	-	-
		6	4.1	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**	**500**	**1000**	**1500**	**2000**	**CFM 2400**	**2800**	**3200**	**3600**	**4000**
7	Three	1	0.1	48.9	79.9	102.0	118.8	129.6	-	-	-	-
		3	0.9	49.7	82.7	107.2	126.3	138.9	-	-	-	-
		6	3.5	50.2	84.5	110.4	131.1	145.0	-	-	-	-
		9	7.8	50.6	85.7	112.7	134.5	149.4	-	-	-	-
		Airside Ps (in.)		0.01	0.04	0.08	0.13	0.18	-	-	-	-
	Four	1	0.1	53.5	89.8	-	-	-	-	-	-	-
		3	0.7	54.4	93.1	-	-	-	-	-	-	-
		6	2.7	54.9	95.2	-	-	-	-	-	-	-
		9	6.1	55.2	96.5	-	-	-	-	-	-	-
		Airside Ps (in.)		0.02	0.05	-	-	-	-	-	-	-

Hot Water Coils Selection Data – 500-YVI 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	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**	**Water Flow L/s**	**Head Loss kPa**	**95**	**165**	**200**	**235**	**L/s 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**	**Water Flow L/s**	**Head Loss kPa**	**165**	**235**	**305**	**380**	**L/s 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	2.09	5.3	6.3	7.1	7.8	8.5	9.1	9.4	9.8	10.1
		0.25	7.77	5.7	6.9	7.9	8.7	9.7	10.4	10.8	11.4	11.7
		0.38	16.74	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	4.78	8.3	10.4	12.2	13.6	15.3	16.7	-	-	-
		0.38	10.46	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**	**Water Flow L/s**	**Head Loss kPa**	**355**	**470**	**520**	**615**	**L/s 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	10.8
		0.13	1.49	11.2	12.7	13.2	14.0	14.3	14.7	15.0	15.3	15.5
		0.25	5.38	13.2	15.3	16.0	17.3	17.9	18.5	19.0	19.4	19.9
		0.32	11.66	14.0	16.5	17.3	18.8	19.5	20.2	20.8	21.4	21.9
		Airside Ps (Pa)		19.9	29.9	37.4	47.3	54.8	59.8	67.3	74.7	82.2
Unit Size	**Rows**	**Water Flow L/s**	**Head Loss kPa**	**565**	**635**	**695**	**815**	**L/s 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	1.49	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**	**Water Flow L/s**	**Head Loss kPa**	**635**	**695**	**780**	**850**	**L/s 920**	**990**	**1135**	**1205**	**1320**
6	One	0.06	0.90	8.1	8.3	8.5	8.7	8.9	9.0	9.3	9.4	9.6
		0.13	2.99	10.4	10.7	11.1	11.4	11.7	12.0	12.5	12.7	13.0
		0.25	11.06	12.0	12.4	13.0	13.5	13.9	14.3	15.0	15.3	15.8
		0.38	24.21	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**	**Water Flow L/s**	**Head Loss kPa**	**235**	**470**	**710**	**945**	**L/s 1135**	**1320**	**1510**	**1700**	**1890**
7	One	0.06	0.30	8.1	11.1	13.0	14.3	15.1	15.7	16.3	16.7	17.1
		0.19	2.69	9.0	13.0	15.7	17.7	18.9	20.0	21.0	21.8	22.5
		0.38	10.46	9.6	14.3	17.5	20.1	21.7	23.2	24.5	25.6	26.7
		0.57	23.31	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	0.06	0.30	10.9	15.6	18.3	20.0	21.1	21.9	-	-	-
		0.19	2.09	12.4	19.2	23.6	26.9	28.9	30.6	-	-	-
		0.38	8.07	13.4	21.6	27.5	32.2	35.2	37.9	-	-	-
		0.57	18.23	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-YVI METRIC UNITS*

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

Unit Size	Rows	Water Flow L/s	Head Loss kPa	95	130	165	200	235	270	305	340	365
								L/s				
1	Three	0.06	0.60	5.1	6.1	6.8	7.4	7.9	8.3	8.6	-	-
		0.13	2.09	5.7	7.1	8.3	9.2	10.1	10.7	11.4	-	-
		0.25	7.77	6.1	7.7	9.2	10.4	11.5	12.5	13.4	-	-
		0.38	16.74	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	1.20	6.2	7.8	9.2	10.3	11.3	12.0	-	-	-
		0.25	4.78	6.5	8.5	10.2	11.7	13.0	14.1	-	-	-
		0.38	10.46	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	-	-	-
								L/s				
Unit Size	**Rows**	**Water Flow L/s**	**Head Loss kPa**	**95**	**165**	**200**	**235**	**285**	**330**	**400**	**450**	**520**
2	Three	0.06	0.60	5.1	6.1	6.8	7.4	7.9	8.2	8.4	-	-
		0.13	2.09	5.7	7.1	8.3	9.2	10.1	10.5	11.0	-	-
		0.25	7.77	6.1	7.7	9.2	10.4	11.5	12.2	12.9	-	-
		0.38	16.74	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	1.20	6.2	7.8	-	-	-	-	-	-	-
		0.25	4.78	6.5	8.5	-	-	-	-	-	-	-
		0.38	10.46	6.6	8.7	-	-	-	-	-	-	-
		Airside Ps (Pa)		7.5	12.5	-	-	-	-	-	-	-
								L/s				
Unit Size	**Rows**	**Water Flow L/s**	**Head Loss kPa**	**165**	**235**	**305**	**380**	**470**	**565**	**615**	**710**	**755**
3	One	0.06	0.60	7.7	9.0	9.9	10.7	11.1	-	-	-	-
		0.13	2.09	9.2	11.4	13.0	14.7	15.7	-	-	-	-
		0.25	7.77	10.0	12.9	15.2	17.8	19.4	-	-	-	-
		0.38	16.74	10.3	13.4	16.1	19.0	20.9	-	-	-	-
		Airside Ps (Pa)		7.5	14.9	22.4	34.9	47.3	-	-	-	-
	Two	0.06	0.30	8.4	9.8	10.7	-	-	-	-	-	-
		0.13	1.20	10.1	12.6	14.5	-	-	-	-	-	-
		0.25	4.78	11.0	14.3	17.1	-	-	-	-	-	-
		0.38	10.46	11.2	14.9	18.1	-	-	-	-	-	-
		Airside Ps (Pa)		10.0	19.9	29.9	-	-	-	-	-	-
								L/s				
Unit Size	**Rows**	**Water Flow L/s**	**Head Loss kPa**	**355**	**470**	**520**	**615**	**660**	**710**	**755**	**800**	**850**
4	One	0.06	0.60	10.3	11.1	11.3	11.7	11.9	12.0	-	-	-
		0.13	2.69	13.9	15.7	16.2	17.2	17.6	17.9	-	-	-
		0.25	9.86	16.6	19.4	20.3	22.0	22.7	23.4	-	-	-
		0.38	21.82	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	-	-	-
	Two	0.06	0.30	11.2	12.0	12.2	12.5	-	-	-	-	-
		0.13	1.49	15.5	17.4	18.0	19.0	-	-	-	-	-
		0.25	5.38	18.7	22.0	23.1	25.0	-	-	-	-	-
		0.32	11.66	19.9	23.9	25.3	27.7	-	-	-	-	-
		Airside Ps (Pa)		37.4	62.3	72.2	94.7	-	-	-	-	-
								L/s				
Unit Size	**Rows**	**Water Flow L/s**	**Head Loss kPa**	**565**	**635**	**695**	**815**	**875**	**930**	**990**	**1050**	**1085**
5	One	0.06	0.90	12.2	12.5	12.7	13.0	-	-	-	-	-
		0.13	2.99	17.9	18.6	19.1	19.9	-	-	-	-	-
		0.25	11.06	22.6	23.9	24.9	26.6	-	-	-	-	-
		0.38	24.21	24.7	26.3	27.5	29.7	-	-	-	-	-
		Airside Ps (Pa)		47.3	57.3	57.3	84.7	-	-	-	-	-
	Two	0.06	0.30	13.1	13.3	13.5	-	-	-	-	-	-
		0.13	1.49	19.7	20.5	21.0	-	-	-	-	-	-
		0.25	5.68	25.6	27.1	28.2	-	-	-	-	-	-
		0.38	12.25	28.1	30.1	31.5	-	-	-	-	-	-
		Airside Ps (Pa)		62.3	74.7	87.2	-	-	-	-	-	-
								L/s				
Unit Size	**Rows**	**Water Flow L/s**	**Head Loss kPa**	**635**	**695**	**780**	**850**	**920**	**990**	**1135**	**1205**	**1320**
6	One	0.06	0.90	12.5	12.7	12.9	13.1	13.2	13.3	-	-	-
		0.13	2.99	18.6	19.1	19.7	20.2	20.6	21.0	-	-	-
		0.25	11.06	23.9	24.9	26.1	27.1	27.9	28.7	-	-	-
		0.38	24.21	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	-	-	-
	Two	0.06	0.30	13.3	13.5	13.7	-	-	-	-	-	-
		0.13	1.49	20.5	21.0	21.7	-	-	-	-	-	-
		0.25	5.68	27.1	28.2	29.6	-	-	-	-	-	-
		0.38	12.25	30.1	31.5	33.4	-	-	-	-	-	-
		Airside Ps (Pa)		74.7	87.2	104.6	-	-	-	-	-	-
								L/s				
Unit Size	**Rows**	**Water Flow L/s**	**Head Loss kPa**	**235**	**470**	**710**	**945**	**1135**	**1320**	**1510**	**1700**	**1890**
7	One	0.06	0.30	14.3	23.4	29.9	34.8	38.0	-	-	-	-
		0.19	2.69	14.6	24.2	31.4	37.0	40.7	-	-	-	-
		0.38	10.46	14.7	24.7	32.3	38.4	42.5	-	-	-	-
		0.57	23.31	14.8	25.1	33.0	39.4	43.7	-	-	-	-
		Airside Ps (Pa)		2.5	10.0	19.9	32.4	44.8	-	-	-	-
	Two	0.06	0.30	15.7	26.3	-	-	-	-	-	-	-
		0.19	2.09	15.9	27.3	-	-	-	-	-	-	-
		0.38	8.07	16.1	27.9	-	-	-	-	-	-	-
		0.57	18.23	16.2	28.3	-	-	-	-	-	-	-
		Airside Ps (Pa)		5.0	12.5	-	-	-	-	-	-	-

Hot Water Coils Selection Data – HIGH PERFORMANCE IMPERIAL

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	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**	**Water Flow GPM**	**Head Loss FT Water**	**375**	**450**	**525**	**600**	**CFM 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**	**Water Flow GPM**	**Head Loss FT Water**	**350**	**500**	**600**	**800**	**CFM 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**	**Water Flow GPM**	**Head Loss FT Water**	**750**	**900**	**1100**	**1300**	**CFM 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**	**Water Flow GPM**	**Head Loss FT Water**	**1200**	**1400**	**1600**	**1800**	**CFM 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**	**Water Flow GPM**	**Head Loss FT Water**	**1200**	**1400**	**1600**	**1800**	**CFM 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	-
Unit Size	**Rows**	**Water Flow GPM**	**Head Loss FT Water**	**500**	**1000**	**1500**	**2000**	**CFM 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 – *HIGH PERFORMANCE IMPERIAL*

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	-	-

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 – *HIGH PERFORMANCE METRIC*

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

Unit Size	Rows	Water Flow L/s	Head Loss kPa	70	95	120	140	L/s 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**	**175**	**210**	**250**	**285**	**L/s 355**	**415**	**470**	**495**	**520**
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**	**165**	**235**	**285**	**380**	**L/s 425**	**470**	**520**	**615**	**710**
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**	**355**	**425**	**520**	**615**	**L/s 710**	**755**	**800**	**850**	**895**
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**	**565**	**660**	**755**	**850**	**L/s 895**	**945**	**990**	**1040**	**1085**
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**	**565**	**660**	**755**	**850**	**L/s 945**	**1085**	**1180**	**1275**	**1370**
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	-
Unit Size	**Rows**	**Water Flow L/s**	**Head Loss kPa**	**235**	**470**	**710**	**945**	**L/s 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 – *HIGH PERFORMANCE METRIC*

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

Unit Size	Rows	Water Flow L/s	Head Loss kPa	70	95	120	140	L/s 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**	**175**	**210**	**250**	**285**	**L/s 355**	**415**	**470**	**495**	**520**
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**	**165**	**235**	**285**	**380**	**L/s 425**	**470**	**520**	**615**	**710**
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**	**355**	**425**	**520**	**615**	**L/s 710**	**755**	**800**	**850**	**895**
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**	**565**	**660**	**755**	**850**	**L/s 895**	**945**	**990**	**1040**	**1085**
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**	**565**	**660**	**755**	**850**	**L/s 945**	**1085**	**1180**	**1275**	**1370**
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	-	-
Unit Size	**Rows**	**Water Flow L/s**	**Head Loss kPa**	**235**	**470**	**710**	**945**	**L/s 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 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 = $\frac{\textbf{927 x MBH}}{\textbf{CFM}}$

6. Water Temperature Drop = $\frac{\textbf{2.04 x MBH}}{\textbf{GPM}}$

7. For water valve sizing, contact your YORK representative. For data values other than those listed, interpolate or use the YORK International 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

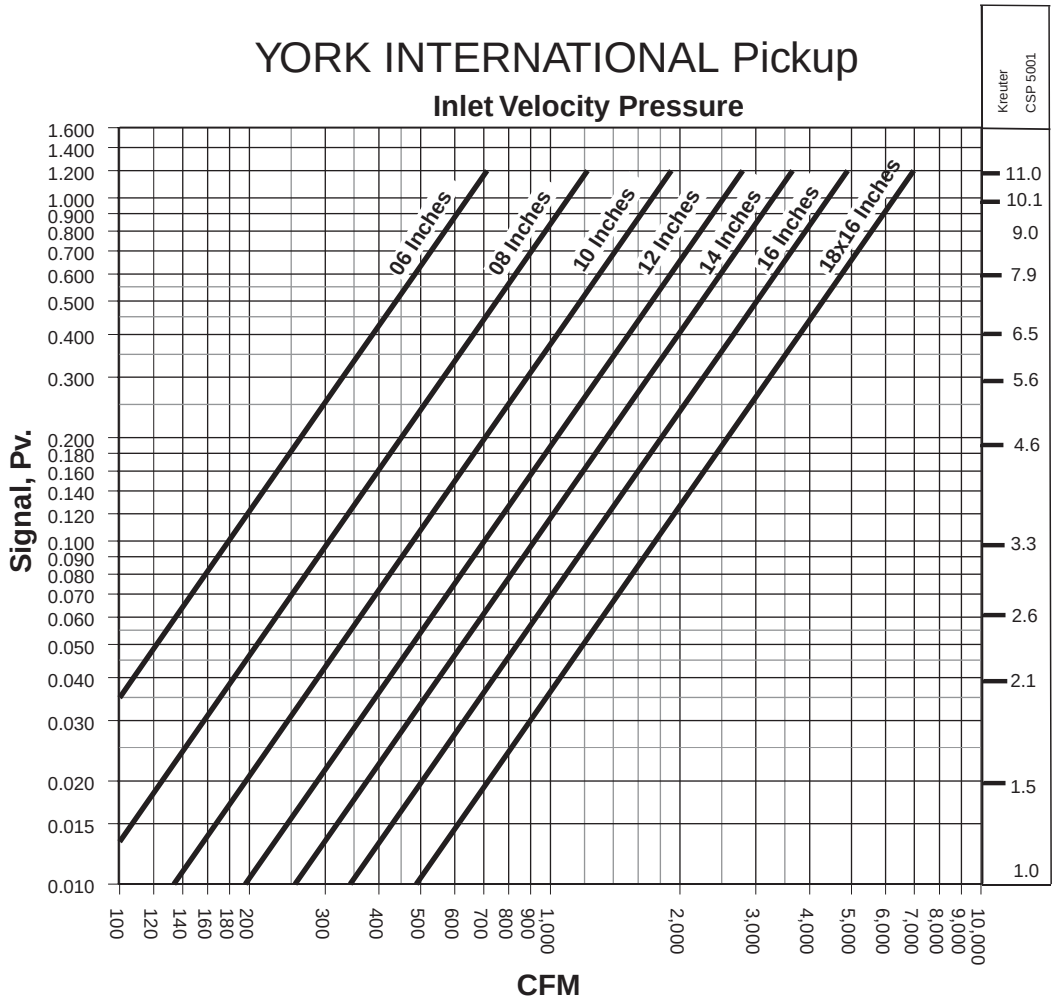
DT	Factor
60	.94
64	**1.00**
70	1.08
80	**1.24**

5. Air Temperature Rise = $\frac{\textbf{kW x 579}}{\textbf{air flow in L/s}}$

6. Water Temperature Drop = $\frac{\textbf{kW x 0.17}}{\textbf{water flow in L/s}}$

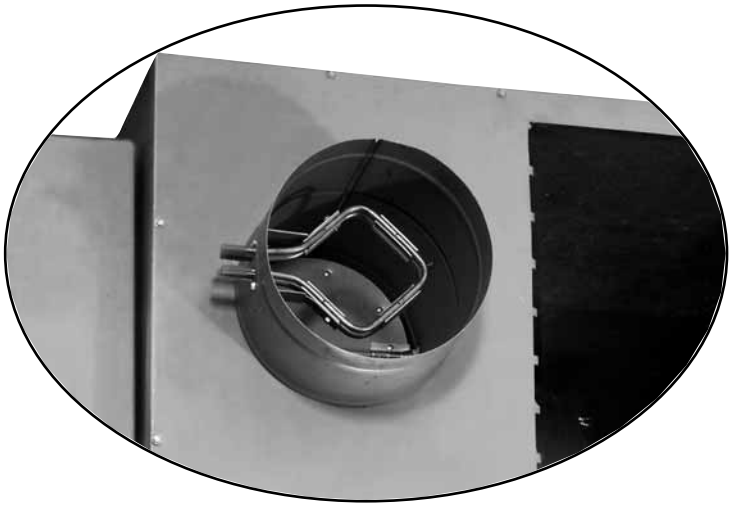
7. For water valve sizing, contact your YORK representative. For data values other than those listed, interpolate or use the YORK International computerized engineering program. Contact your YORK representative for additional information.

Calibration for YI Pickup and Motor Data



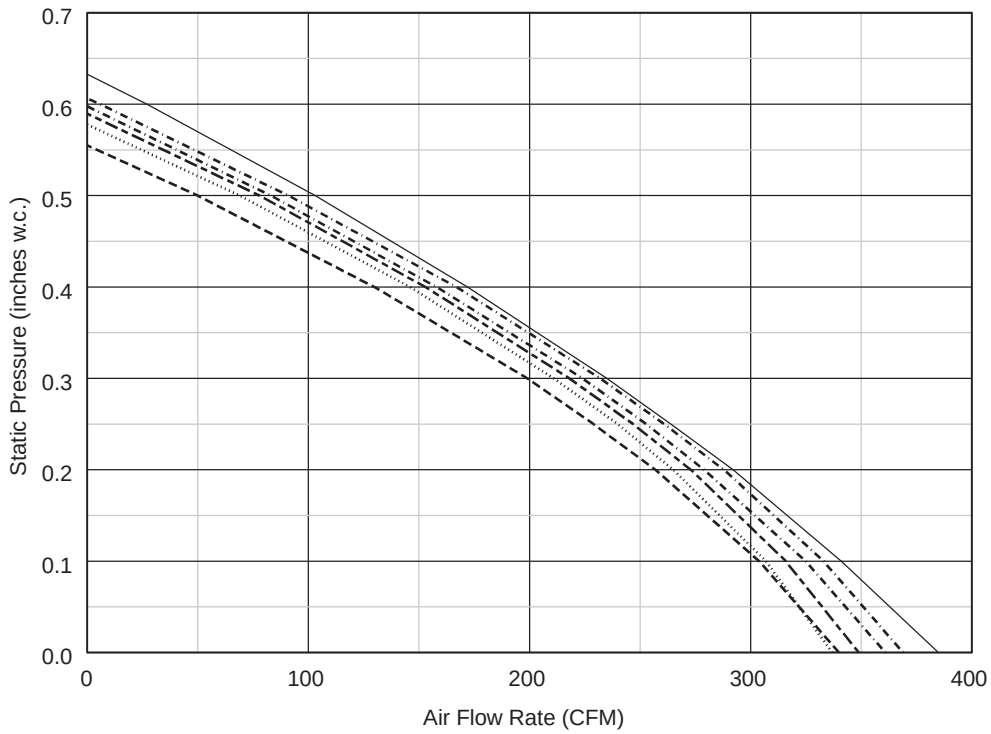
PRIMARY AIR VALVE AND PICKUP

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 Charts

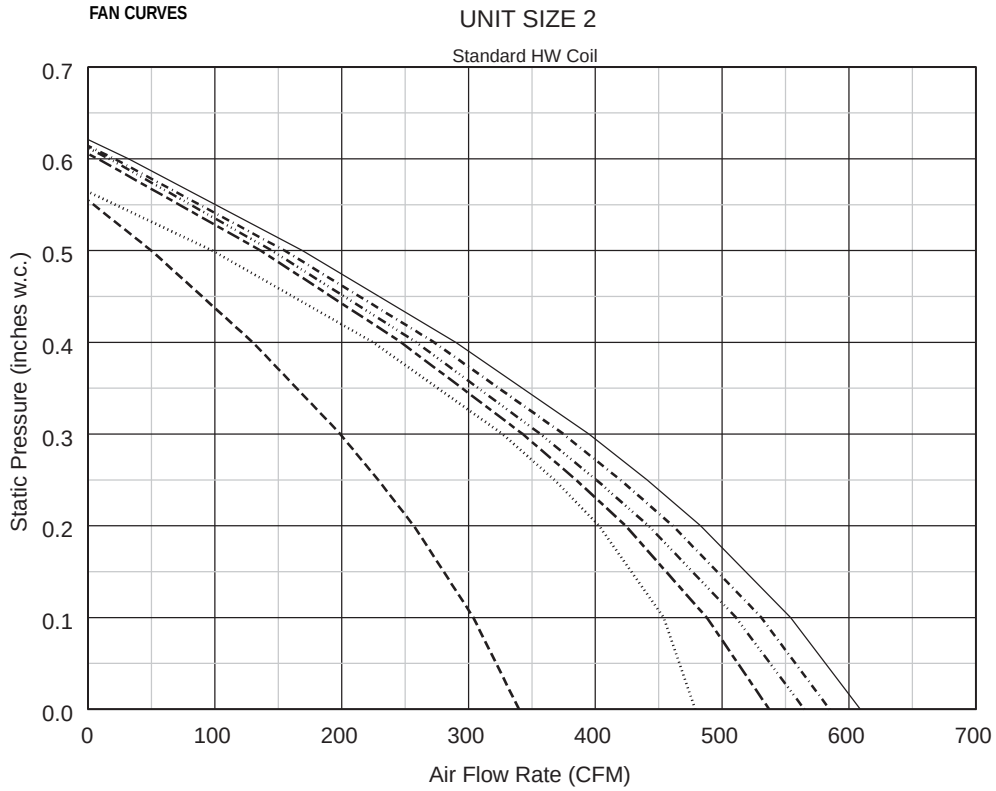
FAN CURVES



Legend

———	Max.
—·—·—	1 Row Hot Water Coil
—··—··—	2 Row Hot Water Coil
— — —	3 Row Hot Water Coil
·····	4 Row Hot Water Coil
- - - - -	Min.

FAN CURVES

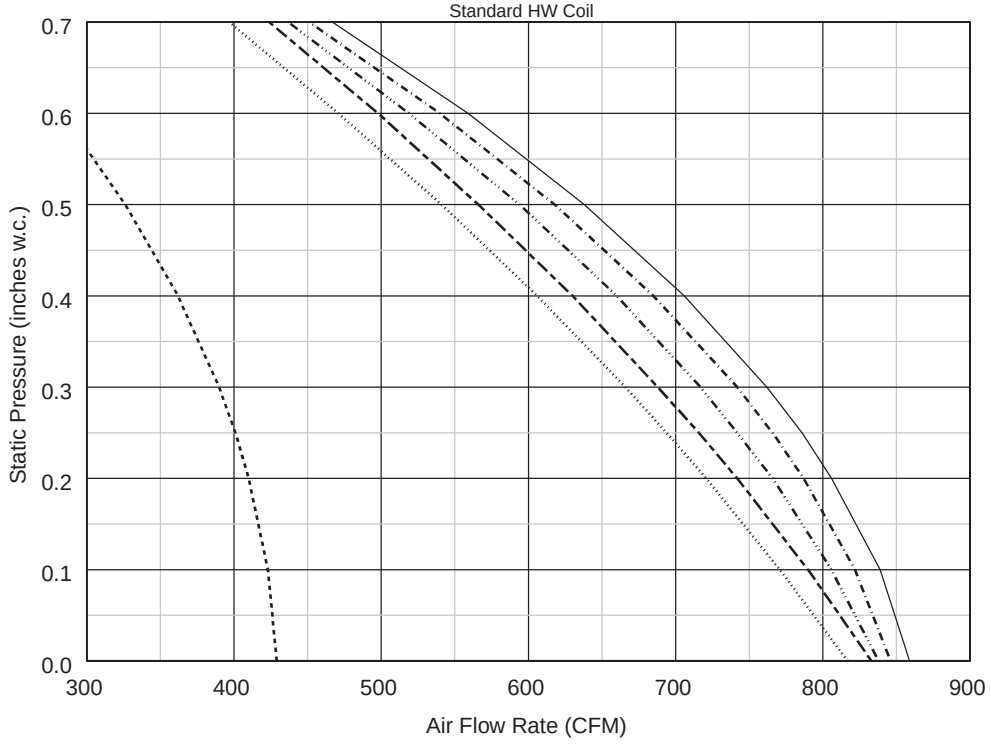


Fan Charts

FAN CURVES

UNIT SIZE 3

Standard HW Coil



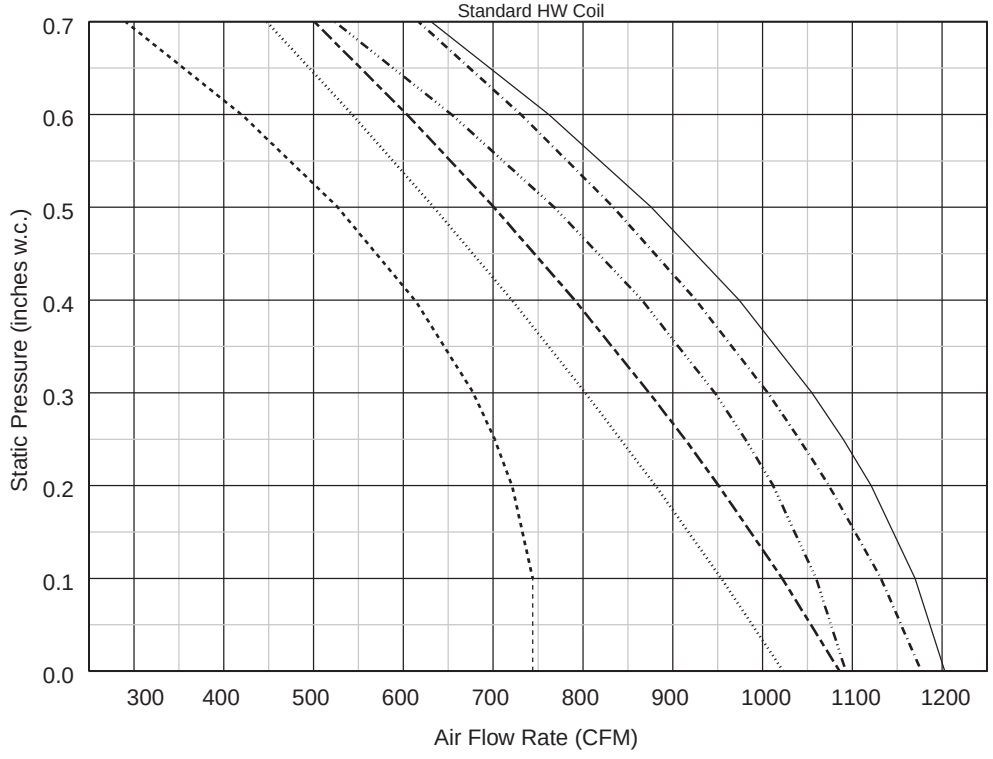
Legend

	Max.
	1 Row Hot Water Coil
	2 Row Hot Water Coil
	3 Row Hot Water Coil
	4 Row Hot Water Coil
	Min.

FAN CURVES

UNIT SIZE 4

Standard HW Coil

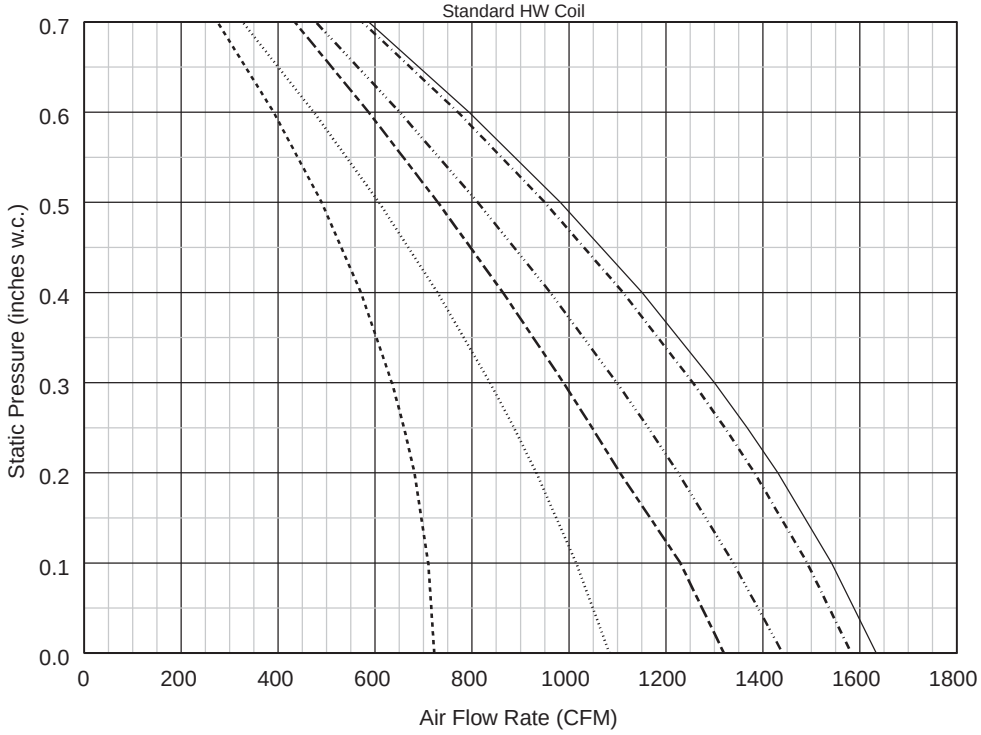


(Fan Charts - continued)

FAN CURVES

UNIT SIZE 5

Standard HW Coil



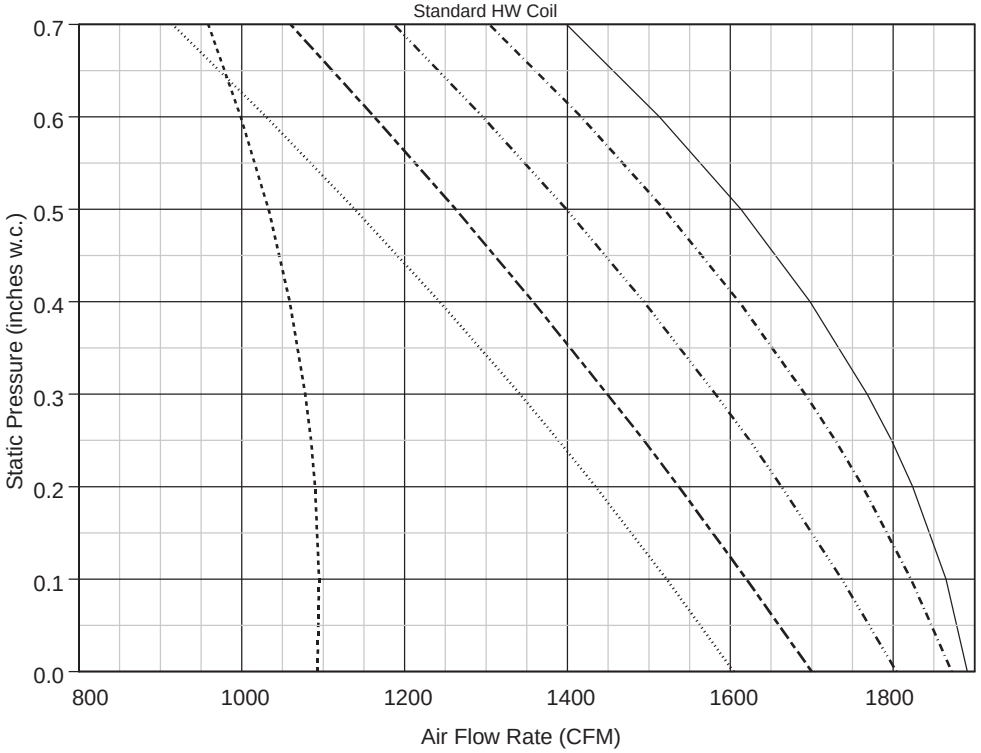
Legend

	Max.
	1 Row Hot Water Coil
	2 Row Hot Water Coil
	3 Row Hot Water Coil
	4 Row Hot Water Coil
	Min.

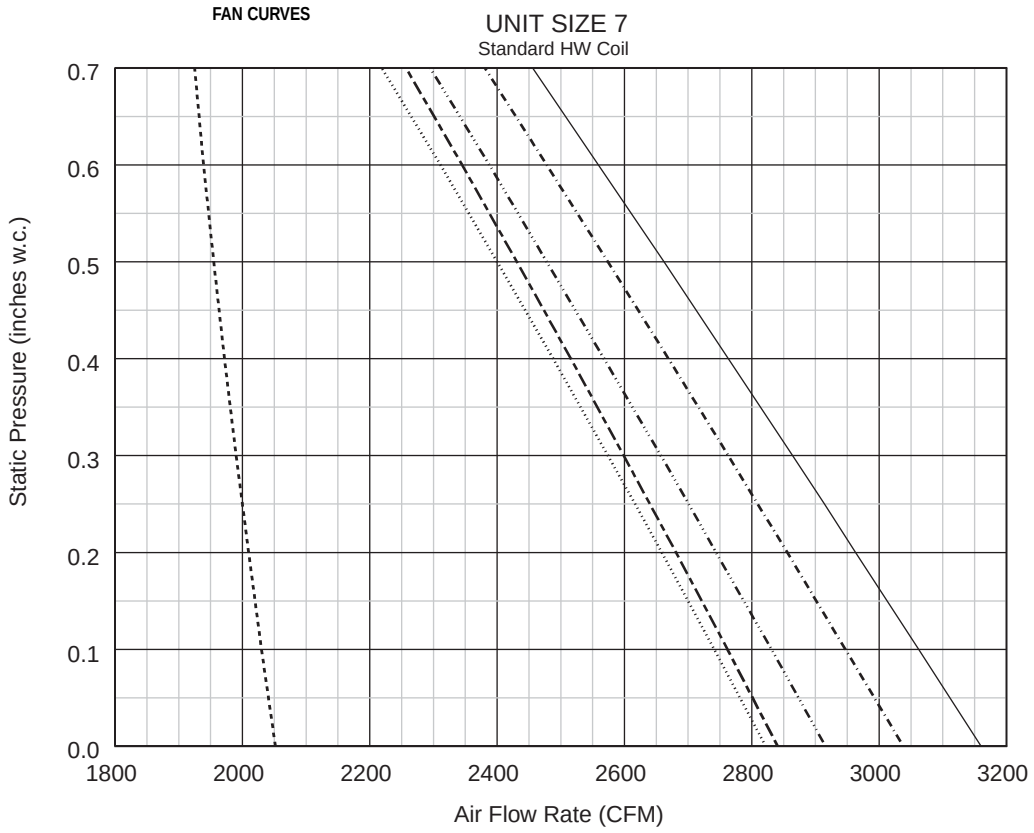
FAN CURVES

UNIT SIZE 6

Standard HW Coil



Fan Charts



Legend

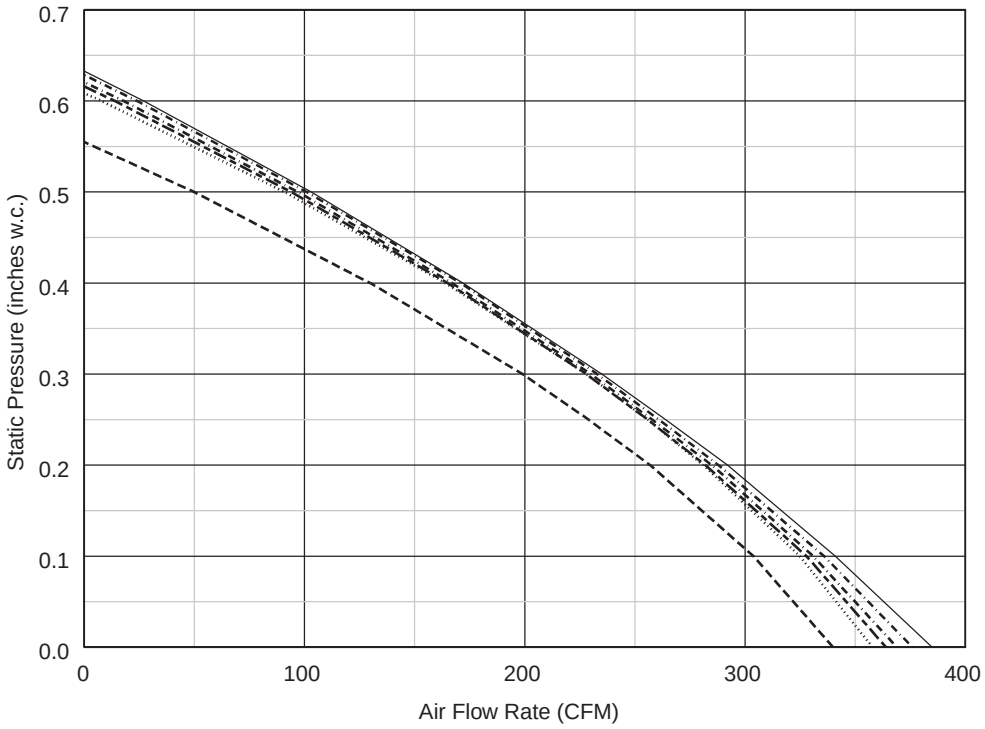
	Max.
	1 Row Hot Water Coil
	2 Row Hot Water Coil
	3 Row Hot Water Coil
	4 Row Hot Water Coil
	Min.

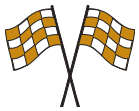
High Performance Fan Charts

FAN CURVES

UNIT SIZE 1

High Performance HW Coil





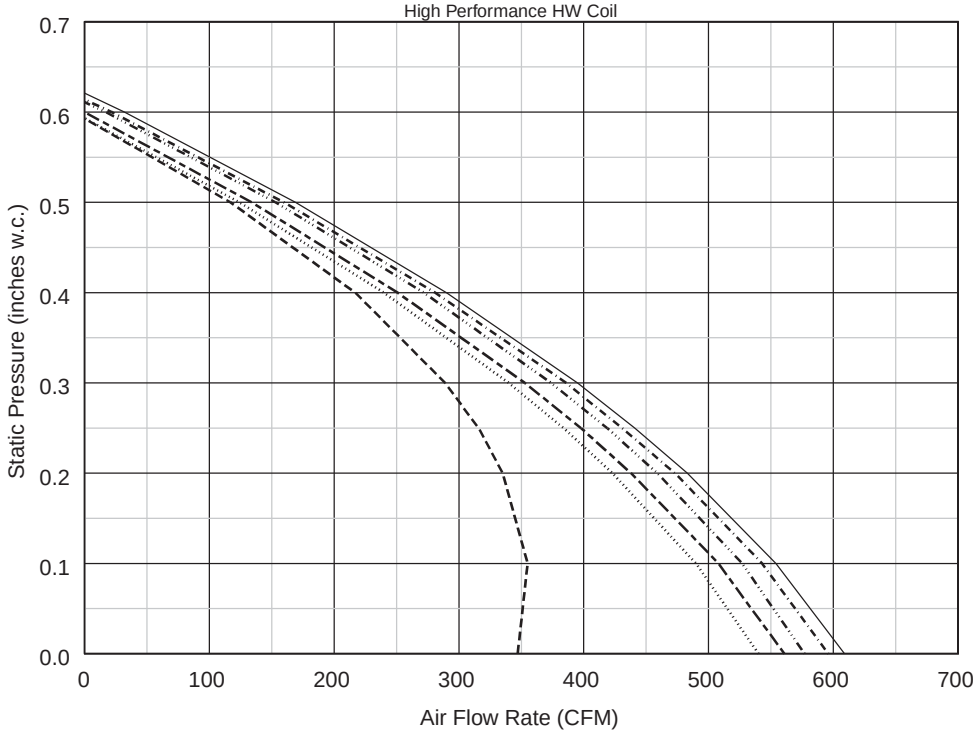
Legend

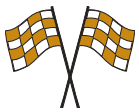
	Max.
	1 Row Hot Water Coil
	2 Row Hot Water Coil
	3 Row Hot Water Coil
	4 Row Hot Water Coil
	Min.

FAN CURVES

UNIT SIZE 2

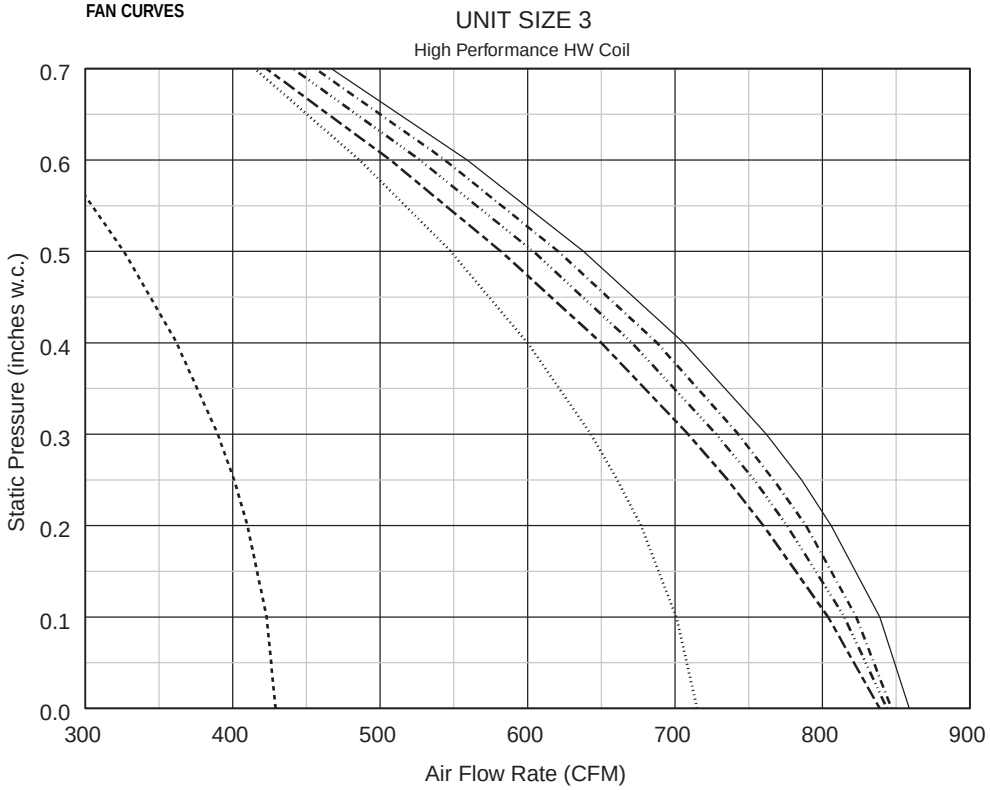
High Performance HW Coil

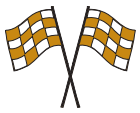




High Performance Fan Charts

FAN CURVES

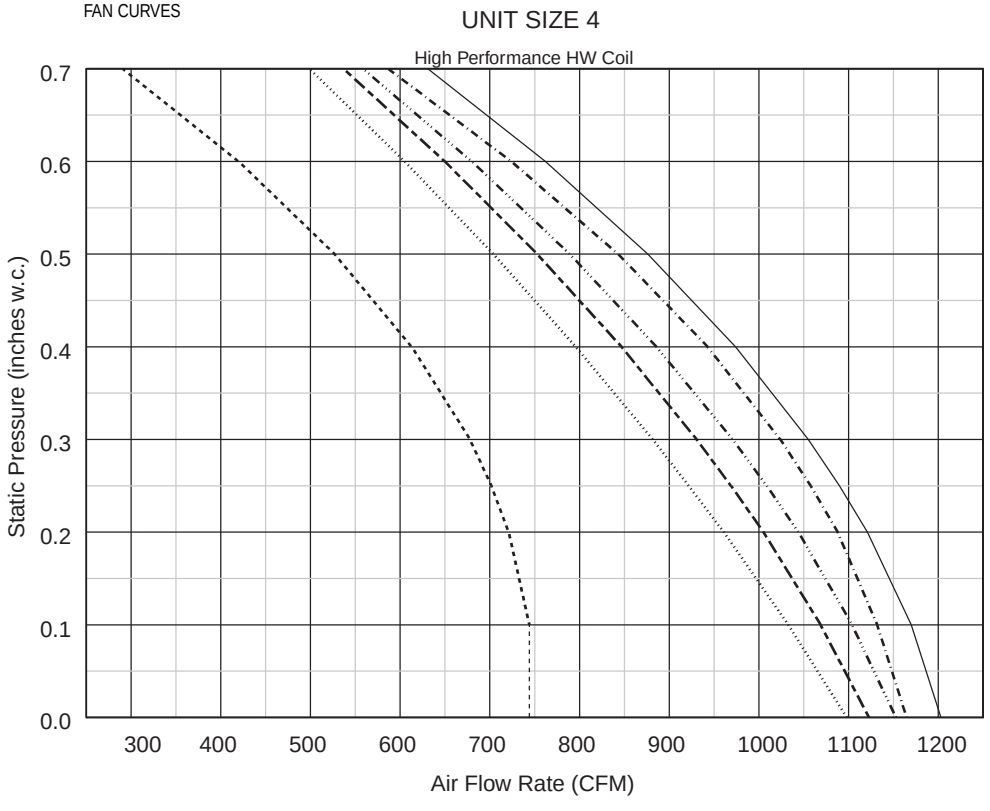


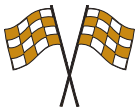


Legend

———	Max.
— · — · —	1 Row Hot Water Coil
— · · — · · —	2 Row Hot Water Coil
— — — — —	3 Row Hot Water Coil
·····	4 Row Hot Water Coil
- - - - - - -	Min.

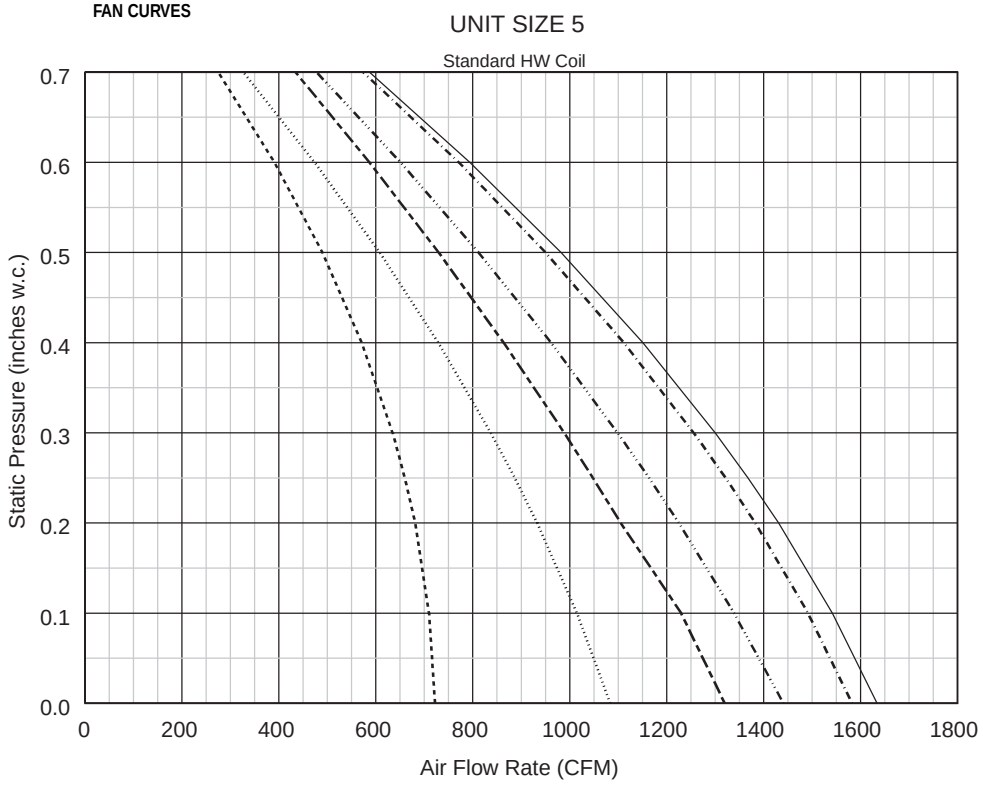
FAN CURVES

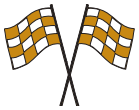




(High Performance Fan Charts - continued)

FAN CURVES

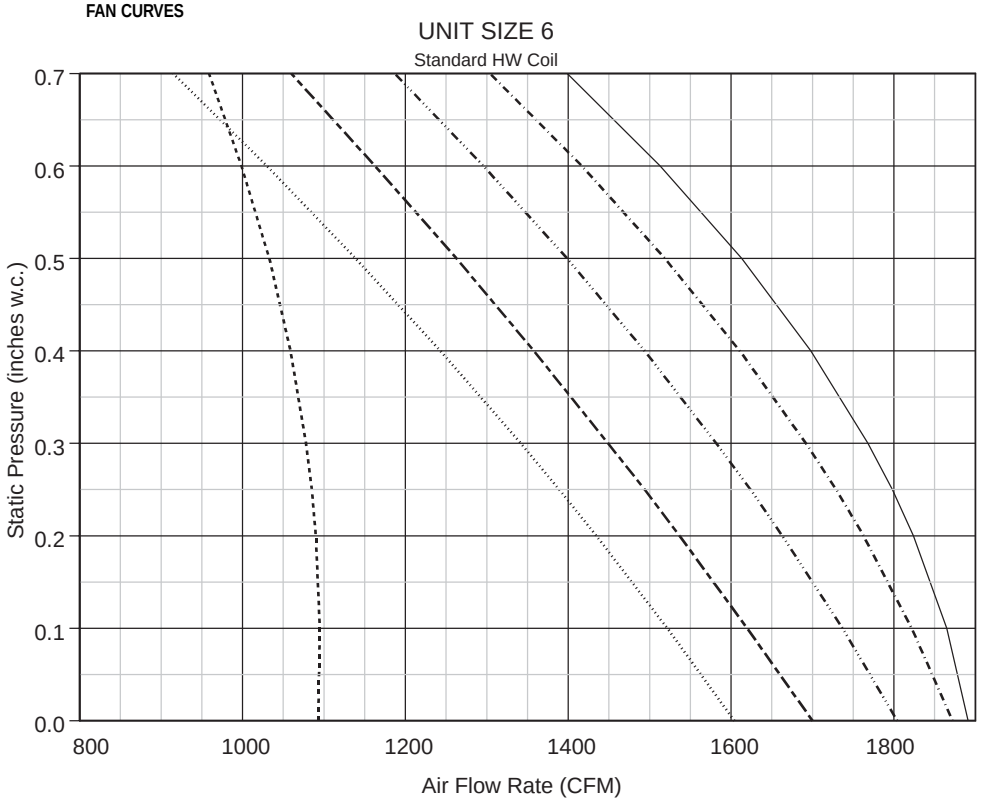


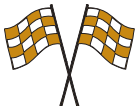


Legend

———	Max.
—·—·—	1 Row Hot Water Coil
— — —	2 Row Hot Water Coil
— — — —	3 Row Hot Water Coil
·····	4 Row Hot Water Coil
- - - - -	Min.

FAN CURVES





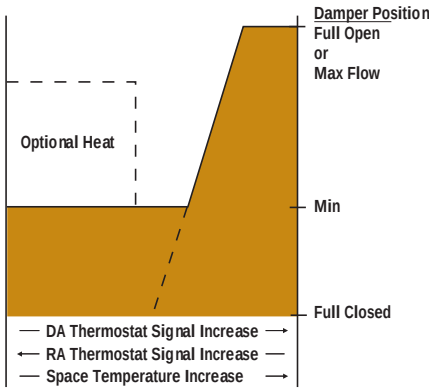
Control Sequences

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.

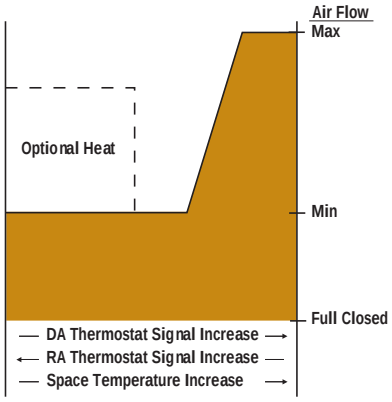
Standard pressure independent control sequences feature the **multi-function VAV controller**. Multi-function flow controllers can be field modified for use with a direct or reverse acting thermostat and the damper actuator can be switched to either normally opened or normally closed without adding control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



Pneumatic
Pressure Dependent

810 - DA/NC Full Closed* to adjustable MAX air stop
812 - 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
814 - DA/NC
815 - DA/NO
816 - RA/NC
817 - RA/NO

(814) 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.
(815) 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.
(816) 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.
(817) 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.

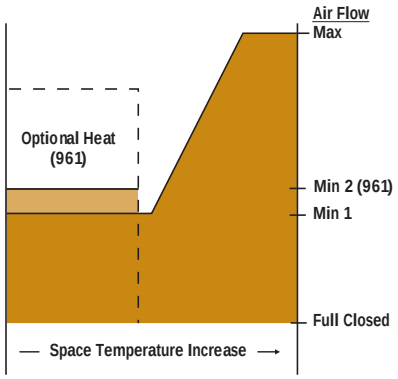
Analog Electronic Control Sequences

ANALOG ELECTRONICALLY CONTROLLED FAN INDUCTION AIR TERMINALS

Analog electronic flow control devices are available for use with electric damper actuators that are 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
860 Cooling Only
861 Cooling with Reheat

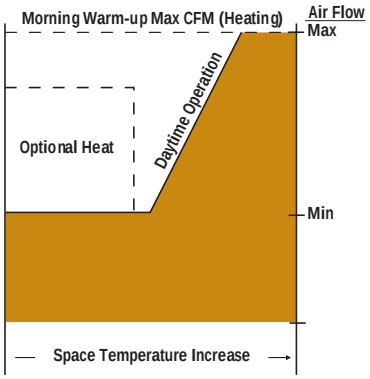
(860) Cooling Only.
Electronic thermostat (analog models with integral, adjustable, maximum and minimum flow limits) signals electronic flow controller to regulate damper position. The damper is rotated to its maximum open position as room temperature rises and to its minimum open position as room temperature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

(861) Cooling with Reheat.
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.

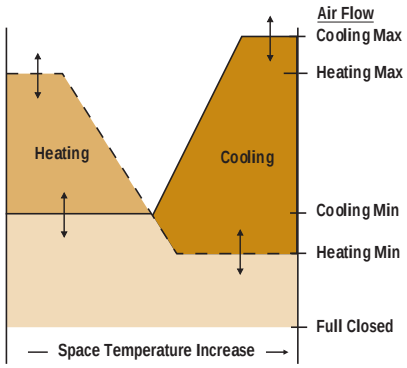
Analog Electronic Control Sequences



Analog Electronic Control
Pressure Independent
864 Morning Warm-up

(864) 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
865 Heating Cooling Changeover

(865) 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

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.

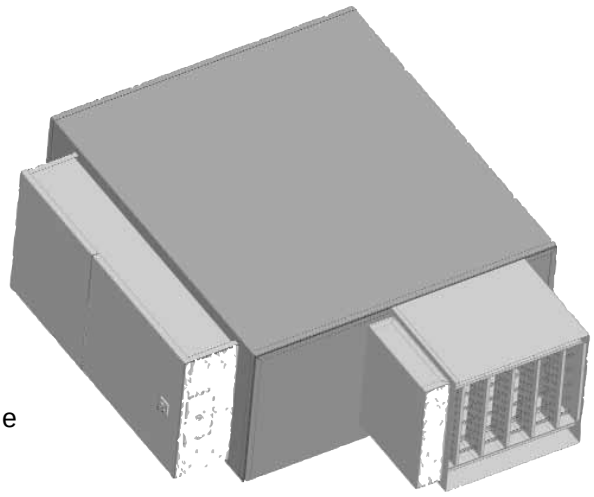
YORK offers a unique service for today’s fast-paced, technology-hungry HVAC markets with high performance air terminals that are compatible with all digital electronic control packages. This approach is highly endorsed by control manufacturers and HVAC design engineers alike. YORK is dedicated to providing 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 YVI
- 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 UL® 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-YVI Air Terminals are not a part of the ARI certification program but ratings can be affected by their use.

Electric Heater Assembly Capacities

NOTES: 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 to or less than 5 kW are specifiable to the nearest .2 kW. Heaters greater than 10 kW are specifiable to the nearest 1 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:

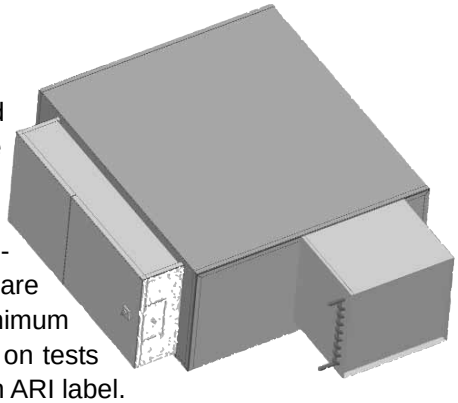
BTU / Hr = Required heating capacity
CFM = volume of air during heating. Typically 30% to 100% of maximum cooling air volume.
dT = desired air temperature rise across the electric heater.
Inlet air temperature = primary air temperature, usually 55°F.

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)	30 (762)	20 (508)	38 (965)

All accessories which can be attached to the Parallel 500-YVI 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	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-YVI 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 UL 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 UL 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.)

OTHER OPTIONS AVAILABLE

- 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	24" x 20" x 1"

Specifications and Highlights

1. Parallel Fan-Powered Terminal Units shall be YORK Model 500-YVI. 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 UL® listed as a complete assembly. Terminal electrical components, including motor and low voltage controls shall be UL® 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 UL-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 UL 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. 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. Linear 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 hydrocarbon-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 nonporous 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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