

PERFORMANCE DATA

water source / air handlers

Coil And Filter Data

Titus offers hot water, chilled water, direct expansion (DX), and standard steam coils for specific application with all TBM units. Coils tested in accordance with AHRI 410, and strict on-site inspection before, during, and after installation guarantees the highest quality and performance available.

Standard Features

- » All coils are designed, manufactured and tested by Titus
- » ½" O.D. seamless copper tubes
- » Aluminum fin construction with die-formed spacer collars for uniform spacing
- » Mechanically expanded copper tubes leak tested to a minimum 350 PSIG air pressure under water
- » Manual air vent plug on all water coils
- » Copper ODM sweat connections
- » 450 PSIG working pressure at 200°F
- » Refrigerant coils are factory sealed and charged with a minimum of 5 PSIG nitrogen or refrigerated dry air
- » Thermal expansion valves are not included
- » Steam coils rated at maximum for 15 PSIG
- » 0.016" tube wall thickness (0.025" on steam)

Optional Features

- » Stainless steel coil casings
- » Automatic air vents on water coils
- » Elevated working pressure ratings
- » Heat pump compatible cooling coils
- » Double circuit DX coils (50-50 split)
- » 0.025" tube wall thickness



COIL AND FILTER DATA

Unit Size	Coil Face Area	Flat Filter			V-Bank Filter		
		Oty.	Dimensions	Face Area	Oty.	Dimensions	Filter Face Area
02	2.1 [0.20]	1	16 x 20 x 2 [406 x 508 x 51]	2.2 [0.20]	2	16 x 20 x 2 [406 x 508 x 51]	4.4 [0.41]
03	2.9 [0.27]	1	16 x 25 x 2 [406 x 635 x 51]	2.8 [0.26]	2	16 x 25 x 2 [406 x 635 x 51]	5.6 [0.52]
04	3.8 [0.35]	2	16 x 20 x 2 [406 x 508 x 51]	4.4 [0.41]	2	20 x 25 x 2 [508 x 635 x 51]	6.9 [0.64]
06	5.6 [0.52]	2	20 x 25 x 2 [508 x 635 x 51]	6.9 [0.64]	4	20 x 20 x 2 [508 x 508 x 51]	11.1 [1.03]
08	7.4 [0.69]	2	20 x 25 x 2 [508 x 635 x 51]	6.9 [0.64]	2	16 x 20 x 2 [406 x 508 x 51]	11.4
					2	20 x 25 x 2 [508 x 635 x 51]	[1.06]
10	9.7 [0.90]	1	16 x 25 x 2 [406 x 635 x 51]	9.7 [0.90]	2	16 x 20 x 2 [406 x 508 x 51]	15.6
		2	20 x 25 x 2 [508 x 635 x 51]		4	20 x 20 x 2 [508 x 508 x 51]	[1.45]
12	12.6 [1.17]	4	20 x 25 x 2 [508 x 635 x 51]	13.9 [1.29]	6	20 x 25 x 2 [508 x 635 x 51]	20.8 [1.93]
14	14.3 [1.33]	8	16 x 20 x 2 [406 x 508 x 51]	17.8 [1.65]	3	20 x 25 x 2 [508 x 635 x 51]	27.1
					6	20 x 20 x 2 [508 x 508 x 51]	[2.52]
17	17.0 [1.58]	6	20 x 25 x 2 [508 x 635 x 51]	20.8 [1.93]	12	20 x 20 x 2 [508 x 508 x 51]	33.3 [3.09]

Notes:

1. Standard filters are 2" throwaway; optional filters are 2" pleated
2. Filter sizes are nominal and standard size, measured in inches [millimeters]
3. Coil and filter face areas are measured in square feet [square meters]
4. Cooling and heating coils have same face area
5. For coil connection sizes, refer to the Titus Selection Program

STATIC PRESSURE DROPS

SECTION PRESSURE DROPS

		Component Air Pressure Drop (IN. W.G.)									
Unit Size	CFM	Cabinet Losses						Damper Losses		Electric Heater Losses	
		Mixing Box	Fan Modules		Filter Modules	Coil Modules		Access Modules	Plenum Modules	Mixing Box	
		MFM LFM MMM LMM	FCM	VFM	SFM MVM	SCM MCM	VCM	SAM MAM LAM	LPM	MFM LFM	MMM LMM
2	600	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.04	0.02
	850	0.02	0.02	0.02	0.03	0.03	0.04	0.03	0.04	0.06	0.04
	975	0.02	0.02	0.02	0.04	0.04	0.04	0.04	0.04	0.07	0.05
	1100	0.03	0.03	0.03	0.05	0.05	0.05	0.05	0.05	0.08	0.06
3	900	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.06	0.02
	1250	0.02	0.02	0.02	0.03	0.03	0.04	0.03	0.04	0.09	0.03
	1425	0.03	0.02	0.02	0.04	0.04	0.05	0.04	0.05	0.11	0.04
	1600	0.03	0.03	0.03	0.05	0.05	0.06	0.05	0.06	0.13	0.05
4	1200	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.04	0.02
	1600	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.06	0.03
	1800	0.02	0.02	0.02	0.04	0.04	0.04	0.04	0.04	0.07	0.04
	2000	0.03	0.02	0.02	0.04	0.04	0.05	0.04	0.05	0.09	0.05
6	1800	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.04	0.02
	2500	0.02	0.02	0.02	0.03	0.03	0.04	0.03	0.04	0.06	0.03
	2850	0.03	0.02	0.02	0.04	0.04	0.05	0.04	0.05	0.08	0.04
	3200	0.03	0.03	0.03	0.05	0.05	0.06	0.05	0.06	0.09	0.05
8	2300	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.02
	3250	0.02	0.02	0.02	0.03	0.03	0.04	0.03	0.04	0.05	0.03
	3725	0.03	0.02	0.02	0.04	0.04	0.05	0.04	0.05	0.06	0.04
	4200	0.03	0.03	0.03	0.05	0.05	0.06	0.05	0.06	0.07	0.05
10	2900	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	4100	0.02	0.02	0.02	0.03	0.03	0.04	0.03	0.04	0.04	0.03
	4700	0.03	0.02	0.02	0.04	0.04	0.05	0.04	0.05	0.06	0.04
	5300	0.03	0.03	0.03	0.05	0.05	0.06	0.05	0.06	0.07	0.05
12	3800	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.02
	5325	0.02	0.01	0.01	0.02	0.02	0.03	0.02	0.03	0.07	0.04
	6090	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.09	0.05
	6850	0.02	0.02	0.02	0.03	0.03	0.04	0.03	0.04	0.11	0.06
14	4400	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.02	0.02
	6200	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.03
	7100	0.02	0.02	0.02	0.03	0.03	0.04	0.03	0.04	0.05	0.04
	8000	0.03	0.02	0.02	0.04	0.04	0.05	0.04	0.05	0.07	0.05
17	5100	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.02	0.02
	7225	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04
	8290	0.02	0.02	0.02	0.03	0.03	0.04	0.03	0.04	0.05	0.05
	9350	0.02	0.02	0.02	0.04	0.04	0.04	0.04	0.04	0.06	0.06

Notes:

- Figures do not include pressure drop of internal filter media. Refer to Air Pressure Drop Through Filter Section table for filter air pressure drop adders.
- Figures do not include pressure drop of internal heating and/or cooling coils. Refer to Air Pressure Drop Through Dry Coil Section table for coil air pressure drop adders.
- Mixing box with single damper in fully opened position operating at 100% air volume
- Economizer with outside air and exhaust dampers in fully opened position operating at 100% air volume

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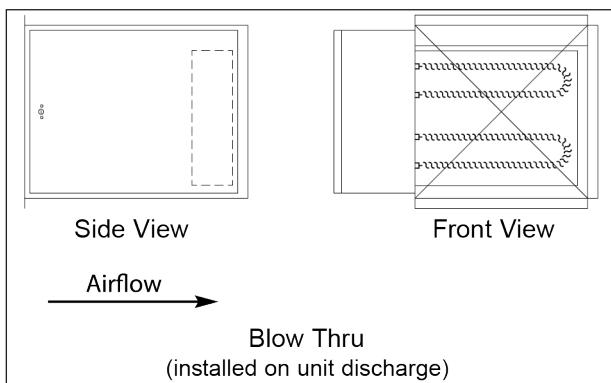
Electric Heat

Standard Features

- » G60 galvanized steel casing
- » Flanged construction for direct unit mounting, in blow-thru configuration
- » Listed for zero clearance installation
- » Meets National Electrical Code requirements
- » Ni-Chrome wire in ceramic insulators
- » Stainless steel element terminals and hardware
- » Element support brackets on maximum 3 ½" centers
- » Solid cover with continuous full height hinge
- » Overtemperature protection
- » All internal wiring rated for 105°C minimum
- » Airow switch
- » Incoming line power distribution block
- » ETL Listed in compliance with UL/ANSI Standard 1995
- » Single point power connection
- » Heater factory mounted to unit with ETL listing as an assembly

Optional Features

- » Main incoming power disconnect (non-fused) (fused)
- » Fusing (main) (per stage)
- » Magnetic contactors wired for disconnecting operation
- » Solid state relay with 4-20 mA, thermistor 0-135 Ohm, 0-16 VDC, or 6-9 VDC control
- » Fan control package with heater interlock contacts (required for single point power connection)
- » De-rated elements (for longer life)



Heater Amp Calculation	
Voltage	Amps per KW
115/1	8.70
208/1	4.81
230/1	4.35
277/1	3.61
208/3	2.78
230/3	2.51
460/3	1.26
575/3	1.00



1. Non-Fused Door Interlock Disconnect Switch shall be sized according to MCA
2. Fused Door Interlock Disconnect Switch and Main Fusing shall be sized according to MOP
3. Heaters above 480v must utilize one time secondary limits only



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ELECTRIC HEAT

Unit Voltage And Phase			Blow-Thru Electric Heat																	
			Unit Size																	
			2		3		4		6		8		10		12		14		17	
Single Phase	115	kW	3	5	3	5	4	5												
		AMPs	26.1	43.5	26.1	43.5	34.8	43.5												
	208	kW	3	9	3	9	4	9	6	9	7	9								
		AMPs	14.4	43.3	14.4	43.3	19.2	43.3	28.8	43.3	33.7	43.3								
	230	kW	3	11	3	11	4	11	6	11	7	11	9	11						
		AMPs	13.0	47.8	13.0	47.8	17.4	47.8	26.1	47.8	30.4	47.8	39.1	47.8						
	277	kW	3	13	3	13	4	13	6	13	7	13	9	13						
		AMPs	10.8	46.9	10.8	46.9	14.4	46.9	21.7	46.9	25.3	46.9	32.5	46.9						
Three Phase	208	kW	3	13	3	16	4	16	4	16	7	16	9	16	12	16	14	16		
		AMPs	8.3	36.1	8.3	44.4	11.1	44.4	11.1	44.4	19.4	44.4	25.0	44.4	33.3	44.4	38.9	44.4		
	230	kW	3	13	3	18	4	18	4	18	7	18	9	18	12	18	14	18	16	18
		AMPs	7.5	32.6	7.5	45.2	7.5	45.2	10.0	45.2	10.0	45.2	17.6	45.2	30.1	45.2	35.1	45.2	40.2	45.2
	460	kW	3	13	3	20	4	26	4	26	7	38	9	38	12	38	14	38	16	38
		AMPs	3.8	16.3	3.8	25.1	5.0	32.6	5.0	32.6	8.8	47.7	11.3	47.7	15.1	47.7	17.6	47.7	20.1	47.7
	575	kW	3	13	3	20	4	26	4	26	7	46	9	46	12	46	14	46	16	46
		AMPs	3.0	13.1	3.0	20.1	4.0	26.1	4.0	26.1	7.0	46.2	9.0	46.2	12.0	46.2	14.1	46.2	16.1	46.2

Notes:

1. Blow-thru heaters can have a maximum of two stages
2. VFD controllers cannot be supplied with blow-thru heaters
3. Specific kW ratings are available within the ranges shown. Refer to selection program.
4. Heaters above 480v must utilize one time secondary limits only

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PERFORMANCE DATA

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PHYSICAL DATA

FILTER PRESSURE DROPS

Filter Type	Size & Efficiency	Air Velocity (FPM)												
		200	250	300	350	400	450	500	550	600	650	700	750	800
High Efficiency Pleated	2" @ 30%	0.12	0.15	0.18	0.21	0.24	0.27	0.30	0.33	0.36	0.39	0.42	0.45	0.48
	4" @ 65%	0.18	0.23	0.27	0.32	0.36	0.41	0.45	0.50	0.54	0.59	0.63	0.68	0.72
	4" @ 85%	0.26	0.33	0.39	0.46	0.52	0.59	0.65	0.72	0.78	0.85	0.91	0.98	1.04
	4" @ 95%	0.30	0.38	0.45	0.53	0.60	0.68	0.75	0.83	0.90	0.98	1.05	1.13	1.20

Notes:

1. Figures listed represent air pressure drop of clean filters
2. Usable pressure drop across pleated media not recommended to exceed 1.0 inch w.g.
3. Air velocities associated with pressure drops in the shaded region not recommended

COIL PRESSURE DROPS

Rows	Fins per Inch	Air Pressure Drop Through Dry Coil Section (IN. W.G.)												
		200	250	300	350	400	450	500	550	600	650	700	750	800
1	8	0.01	0.02	0.03	0.04	0.05	0.05	0.06	0.08	0.09	0.10	0.11	0.13	0.14
	10	0.02	0.03	0.03	0.04	0.05	0.06	0.07	0.09	0.10	0.11	0.13	0.15	0.16
	12	0.02	0.03	0.04	0.05	0.06	0.07	0.09	0.10	0.11	0.13	0.15	0.16	0.18
	14	0.02	0.03	0.04	0.05	0.07	0.08	0.11	0.11	0.13	0.14	0.16	0.18	0.20
2	8	0.03	0.04	0.06	0.07	0.09	0.11	0.13	0.15	0.17	0.20	0.23	0.25	0.28
	10	0.04	0.05	0.07	0.09	0.11	0.13	0.15	0.17	0.20	0.23	0.26	0.29	0.32
	12	0.04	0.06	0.08	0.10	0.12	0.14	0.17	0.20	0.23	0.26	0.29	0.33	0.36
	14	0.05	0.07	0.09	0.11	0.13	0.16	0.19	0.22	0.25	0.33	0.33	0.36	0.40
3	8	0.04	0.06	0.09	0.11	0.14	0.16	0.19	0.23	0.26	0.30	0.34	0.38	0.42
	10	0.05	0.08	0.10	0.13	0.16	0.19	0.22	0.26	0.30	0.34	0.39	0.44	0.48
	12	0.06	0.09	0.12	0.15	0.18	0.22	0.26	0.30	0.34	0.39	0.44	0.49	0.55
	14	0.07	0.10	0.13	0.16	0.20	0.24	0.29	0.33	0.38	0.43	0.49	0.55	0.61
4	8	0.06	0.09	0.11	0.15	0.18	0.22	0.26	0.30	0.35	0.40	0.45	0.51	0.57
	10	0.07	0.10	0.13	0.17	0.21	0.25	0.30	0.35	0.40	0.46	0.52	0.58	0.65
	12	0.08	0.12	0.15	0.19	0.24	0.29	0.34	0.40	0.46	0.52	0.58	0.65	0.73
	14	0.09	0.13	0.17	0.22	0.27	0.32	0.38	0.44	0.51	0.58	0.65	0.73	0.81
6	8	0.09	0.13	0.17	0.22	0.27	0.33	0.39	0.45	0.52	0.60	0.68	0.76	0.85
	10	0.11	0.15	0.20	0.26	0.32	0.38	0.45	0.52	0.60	0.69	0.78	0.87	0.97
	12	0.12	0.17	0.23	0.29	0.36	0.43	0.51	0.59	0.68	0.78	0.88	0.98	1.09
	14	0.14	0.20	0.26	0.33	0.40	0.48	0.57	0.66	0.76	0.87	0.98	1.09	1.21
8	8	0.12	0.17	0.23	0.29	0.36	0.44	0.52	0.61	0.70	0.80	0.90	1.01	1.13
	10	0.14	0.20	0.27	0.34	0.42	0.51	0.60	0.70	0.80	0.92	1.04	1.16	1.29
	12	0.16	0.23	0.31	0.39	0.48	0.58	0.68	0.79	0.91	1.04	1.17	1.31	1.45
	14	0.19	0.26	0.35	0.44	0.54	0.65	0.76	0.89	1.02	1.15	1.30	1.46	1.62

Note: Dehumidifying cooling coils with face velocities exceeding 525 fpm not recommended

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WEIGHT DATA

COIL WEIGHT DATA

Unit Size	Coil Rows	Dry Coil				100% Water				40% Glycol			
		8 FPI	10 FPI	12 FPI	14 FPI	8 FPI	10 FPI	12 FPI	14 FPI	8 FPI	10 FPI	12 FPI	14 FPI
2	1	10 [5]	11 [5]	11 [5]	11 [5]	12 [5]	12 [5]	13 [6]	13 [6]	12 [5]	12 [5]	13 [6]	13 [6]
	2	16 [7]	16 [7]	17 [8]	18 [8]	19 [9]	20 [9]	21 [10]	21 [10]	20 [9]	20 [9]	21 [10]	22 [10]
	3	21 [10]	22 [10]	23 [11]	24 [11]	27 [12]	28 [13]	29 [13]	30 [14]	27 [12]	28 [13]	29 [13]	30 [14]
	4	28 [13]	29 [13]	30 [14]	32 [14]	35 [16]	36 [16]	37 [17]	39 [18]	35 [16]	36 [16]	37 [17]	39 [18]
	6	40 [18]	42 [19]	44 [20]	46 [21]	51 [23]	53 [24]	55 [25]	57 [26]	51 [23]	53 [24]	55 [25]	58 [26]
	8	57 [26]	61 [28]	65 [30]	69 [31]	71 [32]	75 [34]	79 [36]	83 [38]	72 [33]	76 [34]	80 [36]	84 [38]
	1	13 [6]	13 [6]	13 [6]	14 [6]	15 [7]	16 [7]	17 [8]	15 [7]	16 [7]	16 [7]	17 [8]	
	2	19 [9]	20 [9]	21 [10]	22 [10]	24 [11]	25 [12]	26 [12]	27 [12]	25 [12]	26 [12]	27 [12]	28 [13]
3	3	26 [12]	28 [13]	29 [13]	31 [14]	34 [15]	35 [16]	37 [17]	38 [17]	34 [15]	36 [16]	37 [17]	39 [17]
	4	34 [15]	36 [16]	38 [17]	40 [18]	44 [20]	46 [21]	48 [22]	50 [23]	44 [20]	46 [21]	48 [22]	50 [23]
	6	50 [23]	53 [24]	56 [25]	59 [27]	64 [29]	67 [31]	70 [32]	73 [33]	65 [30]	68 [31]	71 [32]	74 [34]
	8	71 [32]	76 [34]	81 [37]	86 [39]	89 [41]	95 [43]	100 [45]	105 [47]	91 [41]	96 [43]	101 [46]	106 [48]
	1	15 [7]	15 [7]	16 [7]	17 [8]	18 [8]	18 [8]	19 [9]	20 [9]	18 [8]	19 [9]	19 [9]	20 [9]
	2	23 [11]	24 [11]	26 [12]	27 [12]	29 [13]	30 [14]	32 [14]	33 [15]	30 [14]	31 [14]	32 [14]	33 [15]
	3	32 [14]	33 [15]	35 [16]	37 [17]	40 [18]	42 [19]	44 [20]	46 [21]	41 [19]	43 [19]	45 [20]	47 [21]
	4	41 [19]	44 [20]	46 [21]	49 [22]	53 [24]	55 [25]	58 [26]	60 [27]	54 [24]	56 [25]	59 [27]	61 [28]
4	6	60 [27]	64 [29]	68 [31]	72 [33]	78 [35]	82 [37]	86 [39]	89 [41]	79 [36]	83 [38]	87 [39]	90 [41]
	8	80 [36]	85 [38]	90 [41]	95 [43]	103 [47]	108 [49]	113 [51]	118 [54]	105 [47]	110 [50]	115 [52]	120 [54]
	1	19 [9]	20 [9]	21 [10]	22 [10]	24 [11]	25 [11]	26 [12]	27 [12]	24 [11]	25 [11]	26 [12]	27 [12]
	2	32 [14]	34 [15]	36 [16]	38 [17]	41 [19]	43 [20]	45 [20]	47 [21]	42 [19]	43 [20]	45 [20]	47 [21]
	3	45 [20]	48 [22]	50 [23]	53 [24]	58 [26]	61 [28]	64 [29]	67 [30]	59 [27]	62 [28]	65 [29]	67 [30]
	4	59 [27]	62 [28]	66 [30]	70 [32]	76 [35]	80 [36]	84 [38]	88 [40]	77 [35]	81 [37]	85 [39]	89 [40]
	6	87 [39]	92 [42]	98 [44]	104 [47]	113 [51]	119 [54]	124 [56]	130 [59]	115 [52]	120 [55]	126 [57]	132 [60]
	8	117 [53]	125 [57]	133 [61]	142 [64]	152 [69]	160 [73]	169 [77]	177 [80]	155 [70]	163 [74]	171 [78]	179 [81]
6	1	23 [11]	25 [11]	26 [12]	27 [12]	30 [14]	31 [14]	32 [15]	33 [15]	30 [14]	31 [14]	32 [15]	34 [15]
	2	40 [18]	43 [19]	45 [20]	48 [22]	52 [24]	54 [25]	57 [26]	59 [27]	53 [24]	55 [25]	58 [26]	60 [27]
	3	57 [26]	61 [27]	64 [29]	68 [31]	75 [34]	78 [36]	82 [37]	86 [39]	76 [34]	79 [36]	83 [38]	87 [39]
	4	75 [34]	80 [36]	85 [38]	90 [41]	98 [45]	103 [47]	108 [49]	113 [51]	100 [45]	105 [47]	110 [50]	115 [52]
	6	111 [50]	118 [54]	126 [57]	133 [60]	146 [66]	153 [69]	161 [73]	168 [76]	148 [67]	155 [70]	163 [74]	170 [77]
	8	157 [71]	169 [77]	182 [83]	195 [88]	204 [92]	216 [98]	229 [104]	241 [110]	207 [94]	219 [99]	232 [105]	245 [111]
	1	28 [13]	30 [13]	31 [14]	33 [15]	36 [16]	37 [17]	39 [18]	40 [18]	36 [16]	38 [17]	39 [18]	41 [18]
	2	48 [22]	51 [23]	54 [25]	57 [26]	63 [28]	66 [30]	69 [31]	72 [33]	64 [29]	67 [30]	70 [32]	73 [33]
10	3	68 [31]	73 [33]	77 [35]	82 [37]	90 [41]	95 [43]	99 [45]	104 [47]	91 [41]	96 [44]	101 [46]	106 [48]
	4	89 [41]	96 [43]	102 [46]	108 [49]	119 [54]	125 [57]	131 [60]	138 [62]	120 [55]	127 [58]	133 [60]	139 [63]
	6	133 [60]	142 [64]	152 [69]	161 [73]	176 [80]	186 [84]	195 [88]	204 [93]	179 [81]	188 [85]	198 [90]	207 [94]
	8	183 [83]	197 [90]	212 [96]	226 [103]	241 [109]	255 [116]	270 [122]	284 [129]	244 [111]	259 [117]	273 [124]	288 [131]
	1	35 [16]	37 [17]	39 [18]	42 [21]	45 [21]	48 [22]	50 [23]	52 [24]	46 [21]	48 [22]	50 [23]	52 [24]
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	8	233 [106]	251 [114]	269 [122]	287 [130]	311 [141]	329 [149]	347 [157]	365 [165]	316 [143]	334 [151]	352 [160]	370 [168]
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	2	69 [31]	74 [33]	78 [36]	83 [38]	91 [41]	96 [43]	101 [46]	106 [48]	92 [42]	97 [44]	102 [46]	107 [49]
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	4	130 [59]	140 [63]	149 [68]	159 [72]	174 [79]	184 [83]	194 [88]	203 [92]	177 [80]	187 [85]	197 [89]	206 [94]
	6	194 [88]	208 [94]	223 [101]	237 [108]	260 [118]	274 [124]	289 [131]	303 [138]	264 [120]	279 [126]	293 [133]	308 [140]
	8	272 [123]	295 [134]	318 [144]	341 [155]	359 [163]	382 [173]	405 [184]	428 [194]	365 [166]	388 [176]	411 [186]	434 [197]
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	2	79 [36]	85 [39]	91 [41]	97 [44]	106 [48]	112 [51]	117 [53]	123 [56]	108 [49]	113 [51]	119 [54]	125 [57]
	3	114 [52]	122 [56]	131 [59]	140 [63]	153 [69]	162 [73]	170 [77]	179 [81]	155 [71]	164 [74]	173 [78]	181 [82]
	4	150 [68]	162 [73]	173 [79]	185 [84]	203 [92]	214 [97]	226 [102]	237 [108]	206 [93]	217 [99]	229 [104]	240 [109]
	6	224 [102]	241 [109]	259 [117]	276 [125]	302 [137]	319 [145]	336 [153]	354 [160]	307 [139]	324 [147]	341 [155]	359 [163]
	8	206 [93]	206 [93]	206 [93]	206 [93]	309 [140]	309 [140]	309 [140]	309 [140]	315 [143]	315 [143]	315 [143]	315 [143]

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PERFORMANCE DATA

water source / air handlers

WEIGHT AND ELECTRICAL DATA

MOTOR/DRIVE WEIGHT DATA

Motor Type	Motor Horsepower										
	1/3	1/2	3/4	1	1 1/2	2	3	5	7 1/2	10	15
ODP	25 [11]	28 [13]		35 [16]	45 [20]	35 [16]	75 [34]	100 [45]	125 [57]	125 [57]	220 [100]
TEFC	28 [13]	35 [16]		45 [20]	65 [29]	70 [32]	85 [39]	105 [48]	145 [66]	160 [73]	295 [134]
E+	N/A	N/A	N/A	40 [18]	55 [25]	55 [25]	90 [41]	100 [45]	145 [66]	130 [59]	300 [136]
2 Speed	45 [20]	35 [16]	33	45 [20]	40 [18]	70 [32]	75 [34]	N/A	N/A	N/A	N/A

Notes:

1. Includes motor, pulleys, belts, and motor base
2. Motor/drive weight data is shipping weight in pounds [kilograms]

MOTOR ELECTRICAL DATA

Horsepower	Maximum Motor Amperage							
	Voltage							
	115/1	208/1	230/1	277/1	208/3	230/3	460/3	575/3
1/3	6.3	3.5	3.2	2.6	1.7	1.5	0.8	-
1/2	7.8	4.3	3.9	3.6	2.2	2.1	1.1	0.9
3/4	10.6	5.4	5.3	5.0	3.2	3.0	1.5	1.2
1	15.0	8.3	7.5	5.5	4.0	3.6	1.8	1.4
1 1/2	-	-	-	-	5.3	5.0	2.5	1.9
2	-	-	-	-	7.0	6.4	3.2	2.5
3	-	-	-	-	9.1	9.0	4.5	3.2
5	-	-	-	-	14.2	12.8	6.4	5.2
7 1/2	-	-	-	-	22.2	21.6	10.8	8.2
10	-	-	-	-	28.6	28.4	14.2	11.4
15	-	-	-	-	44.9	40.6	20.3	16.2

Notes:

1. Actual motor nameplate AMPs may vary, but will not exceed values shown
2. Consult factory for applications requiring special motors

GENERAL FAN NOTES

Forward curved Fans (Belt Drive)

1. Consult Titus for applications at operating conditions not in the following table and curves
2. Fan motor voltage, fan rotation, and fan RPM may require field setting/adjustment
3. Drive losses not included in fan performance table and curves
4. In direction of airflow, after fan discharge – only LPM (Large Plenum) and EHB (Electric Heat Blow-thru) are available
5. Section will have internal isolation

Plenum Fans (Direct Drive)

1. Consult Titus for applications at specific operating conditions
2. VFD's are recommended for operation and field balancing of units whether factory supplied and factory mounted, field supplied and factory mounted, or field supplied and field mounted
3. In direction of airflow, there must be space prior to the plug fan inlet. For sizes 02 through 06, the minimum requirement is either an SAM (Small Access) or an MCM (Medium Coil). For sizes 08 through 17, the minimum requirement is an MAM (Medium Access).
4. Section will have internal isolation

PERFORMANCE DATA

water source / air handlers

Fan Performance Data



FORWARD CURVED FAN PERFORMANCE DATA

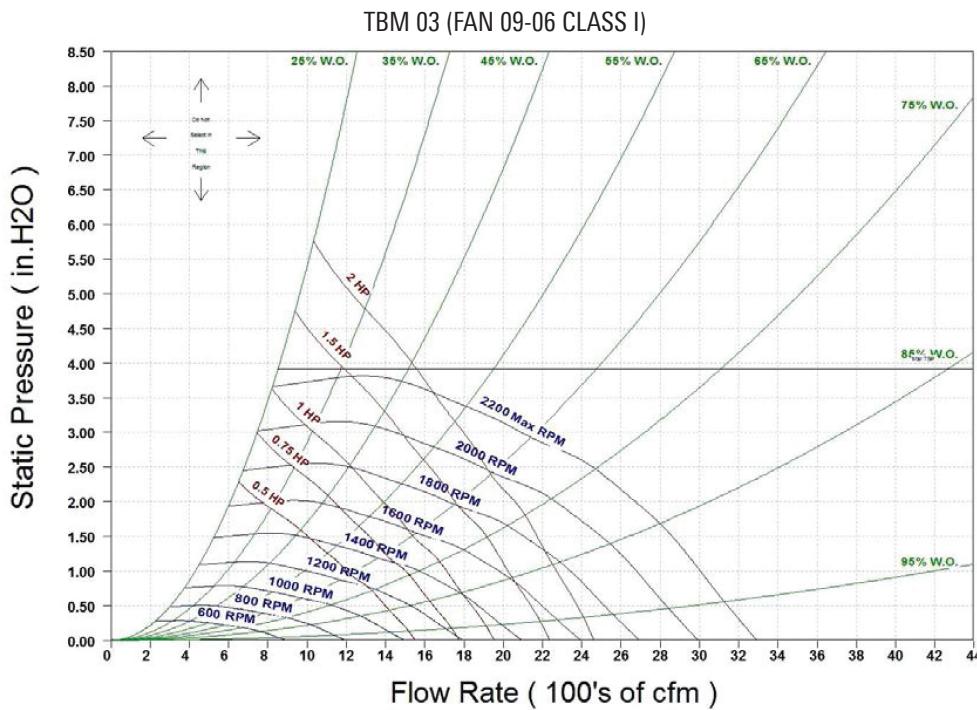
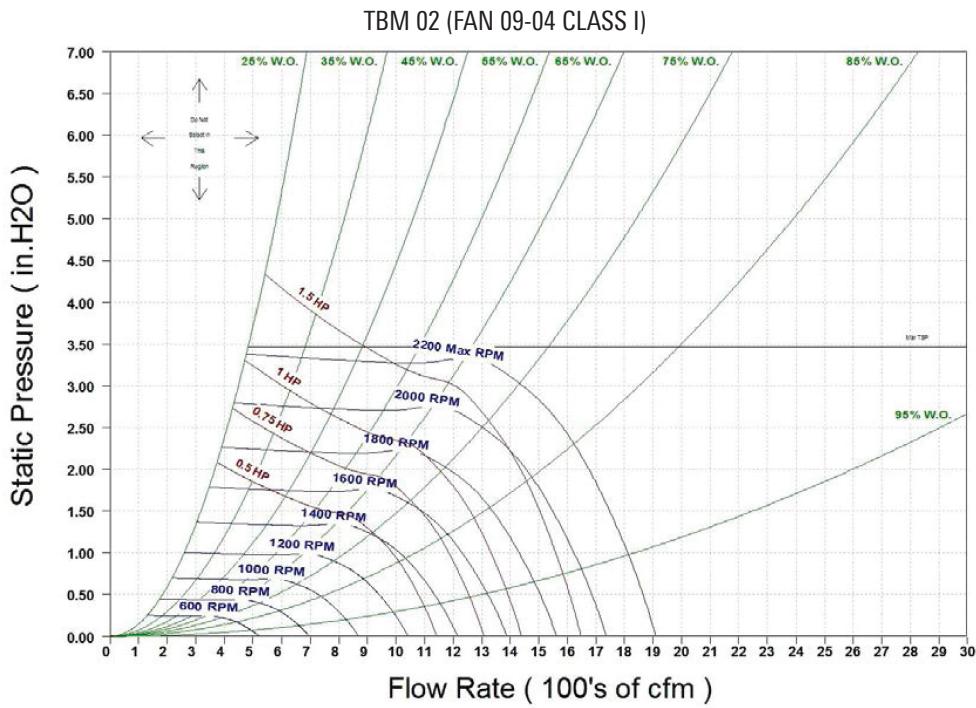
TSP [in-wg]	Unit Size	02					03					04						
		Actual CFM	650	750	850	950	1050	950	1100	1250	1400	1550	1200	1400	1600	1800	2000	
3.5	RPM	-	-	-	-	-	-	-	-	-	-	2160	-	-	-	-	1880	
	BHP	-	-	-	-	-	-	-	-	-	-	1.82	-	-	-	-	2.09	
3.0	RPM	-	-	-	-	-	-	-	-	-	1990	2025	-	-	-	-	1740	1750
	BHP	-	-	-	-	-	-	-	-	-	1.39	1.60	-	-	-	-	1.60	1.84
2.5	RPM	-	-	-	-	-	-	-	-	1810	1845	1890	-	-	-	-	1595	1625
	BHP	-	-	-	-	-	-	-	-	1.03	1.20	1.40	-	-	-	-	1.37	1.62
2.0	RPM	-	-	-	-	1725	-	1615	1650	1695	1740	-	-	-	-	1425	1455	1490
	BHP	-	-	-	-	0.86	-	0.72	0.86	1.01	1.19	-	-	-	-	0.97	1.17	1.39
1.5	RPM	-	-	1485	1515	1570	1400	1435	1475	1525	1575	-	1235	1265	1305	1355	*	
	BHP	-	-	0.53	0.59	0.69	0.47	0.57	0.69	0.83	1.00	-	0.64	0.79	0.97	1.18	*	
1.0	RPM	1200	1225	1275	1345	1430	1185	1230	1280	1330	1390	1015	1050	1095	1145	*		
	BHP	0.27	0.31	0.37	0.45	0.56	0.34	0.42	0.53	0.66	0.80	0.37	0.48	0.61	0.78	*		
0.5	RPM	935	1020	1110	*	*	930	985	*	*	*	790	*	*	*	*		
	BHP	0.15	0.20	0.27	*	*	0.22	0.29	*	*	*	0.24	*	*	*	*		

TSP [in-wg]	Unit Size	06					08					10					
		Actual CFM	1900	2200	2500	2800	3100	2400	2800	3200	3600	4000	3100	3600	4100	4600	5100
3.5	RPM	-	-	-	-	1615	-	-	-	-	1555	-	-	-	-	1345	1375
	BHP	-	-	-	-	3.41	-	-	-	-	4.24	-	-	-	-	4.62	5.41
3.0	RPM	-	-	-	1490	1510	-	-	-	1435	1460	-	-	-	1235	1260	1295
	BHP	-	-	-	2.61	3.01	-	-	-	3.23	3.80	-	-	-	3.43	4.09	4.80
2.5	RPM	-	-	1360	1375	1400	-	-	1305	1330	1360	-	1125	1145	1180	1220	
	BHP	-	-	1.93	2.25	2.63	-	-	2.36	2.83	3.38	-	2.46	3.01	3.60	4.37	
2.0	RPM	-	1215	1230	1255	1280	-	1165	1190	1220	1250	1000	1020	1055	1095	1135	
	BHP	-	1.35	1.61	1.91	2.25	-	1.64	2.01	2.45	2.95	1.65	2.10	2.56	3.18	3.90	
1.5	RPM	1050	1070	1090	1125	1160	1010	1030	1060	1100	1140	885	915	955	1000	1045	
	BHP	0.87	1.07	1.30	1.59	1.92	1.05	1.32	1.66	2.07	2.56	1.36	1.69	2.18	2.76	3.42	
1.0	RPM	880	905	945	990	*	850	885	925	970	*	760	805	850	*	*	
	BHP	0.63	0.80	1.02	1.29	*	0.78	1.03	1.34	1.71	*	1.02	1.38	1.81	*	*	
0.5	RPM	690	*	*	*	*	670	*	*	*	*	*	*	*	*	*	
	BHP	0.42	*	*	*	*	0.54	*	*	*	*	*	*	*	*	*	

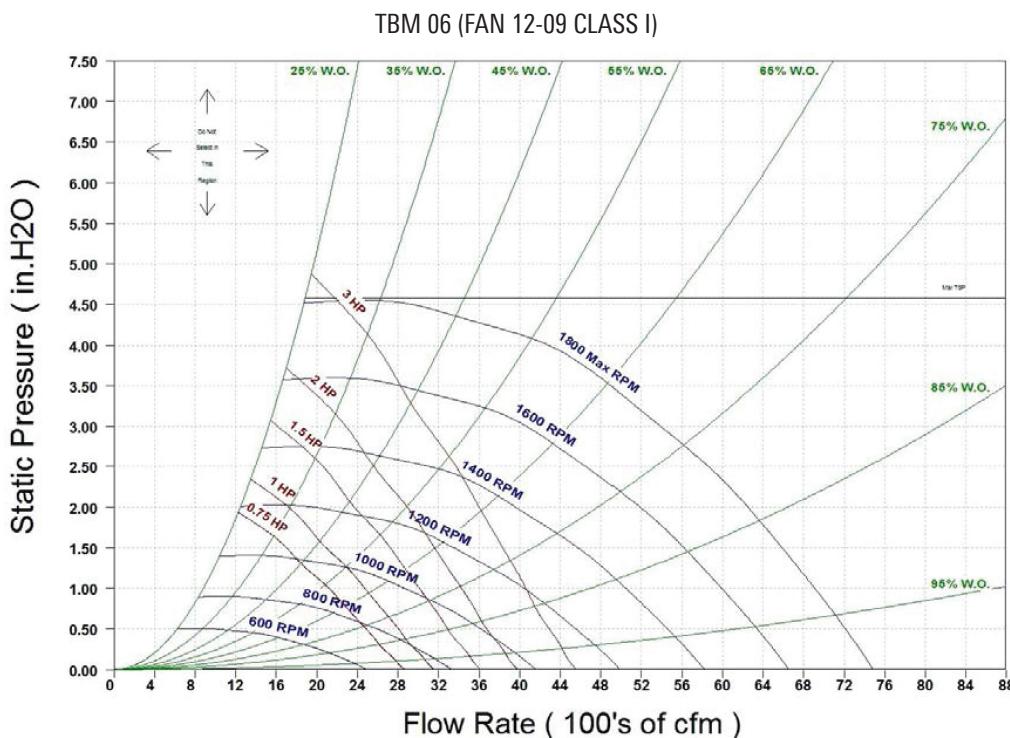
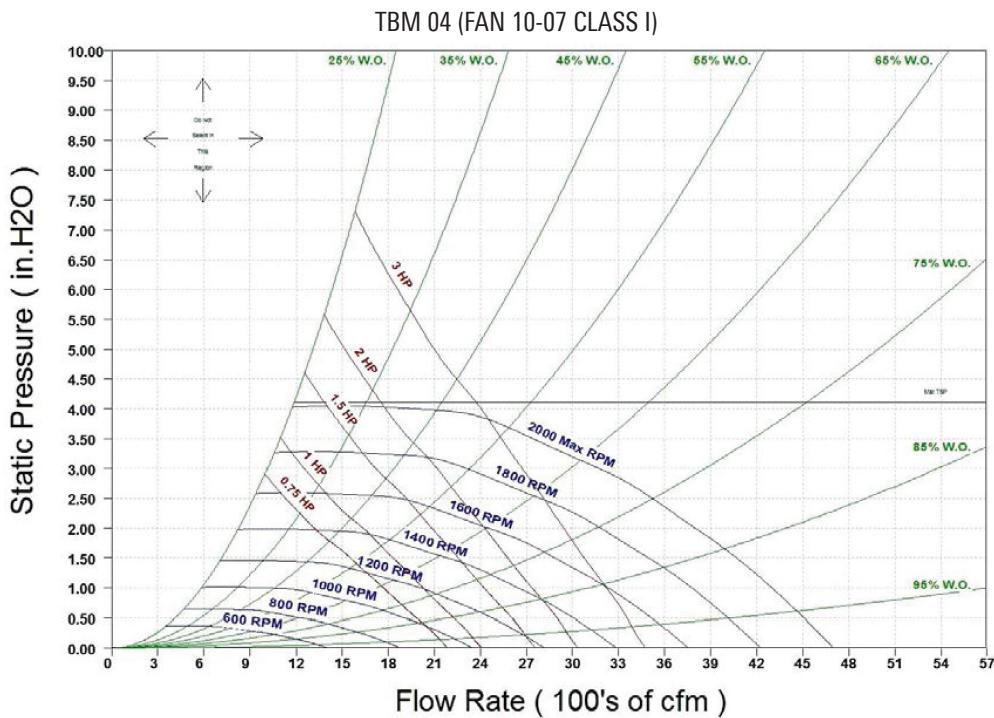
TSP [in-wg]	Unit Size	12					14					17						
		Actual CFM	3900	4600	5300	6000	6700	4600	5400	6200	7000	7800	5200	6200	7200	8200	9200	
3.5	RPM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1095	
	BHP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.25	
3.0	RPM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1010	1025
	BHP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.98	8.34
2.5	RPM	-	-	-	-	900	-	-	-	-	905	-	-	-	-	920	930	950
	BHP	-	-	-	-	4.50	-	-	-	-	5.33	-	-	-	-	5.05	6.06	7.42
2.0	RPM	-	-	-	805	815	-	-	-	810	820	-	-	-	-	830	850	875
	BHP	-	-	-	3.22	3.88	-	-	-	3.84	4.58	-	-	-	-	4.20	5.29	6.52
1.5	RPM	-	-	695	710	725	-	-	705	715	730	-	720	740	760	785		
	BHP	-	-	2.15	2.67	3.24	-	-	2.60	3.16	3.83	-	2.71	3.53	4.43	5.48		
1.0	RPM	-	575	590	605	*	-	580	590	610	635	590	610	635	*	*		
	BHP	-	1.31	1.68	2.05	*	-	1.57	1.97	2.48	3.11	1.55	2.11	2.77	*	*		
0.5	RPM	420	*	*	*	*	425	445	*	*	450	*	*	*	*	*		
	BHP	0.63	*	*	*	*	0.77	1.05	*	*	1.01	*	*	*	*	*		

* Contact Titus

FAN CURVES

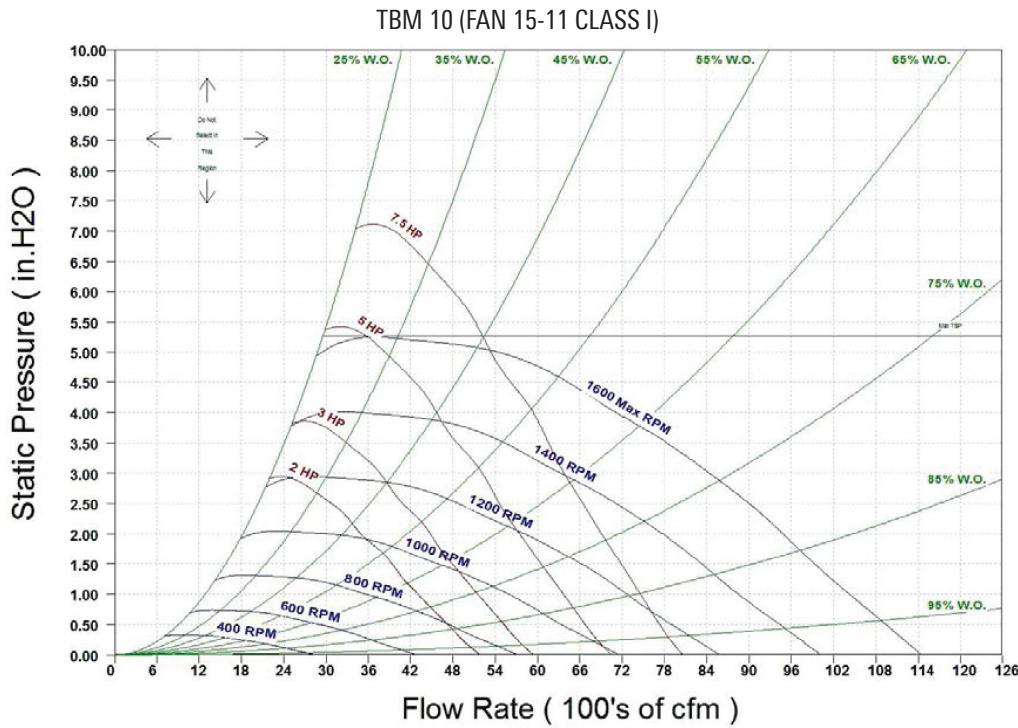
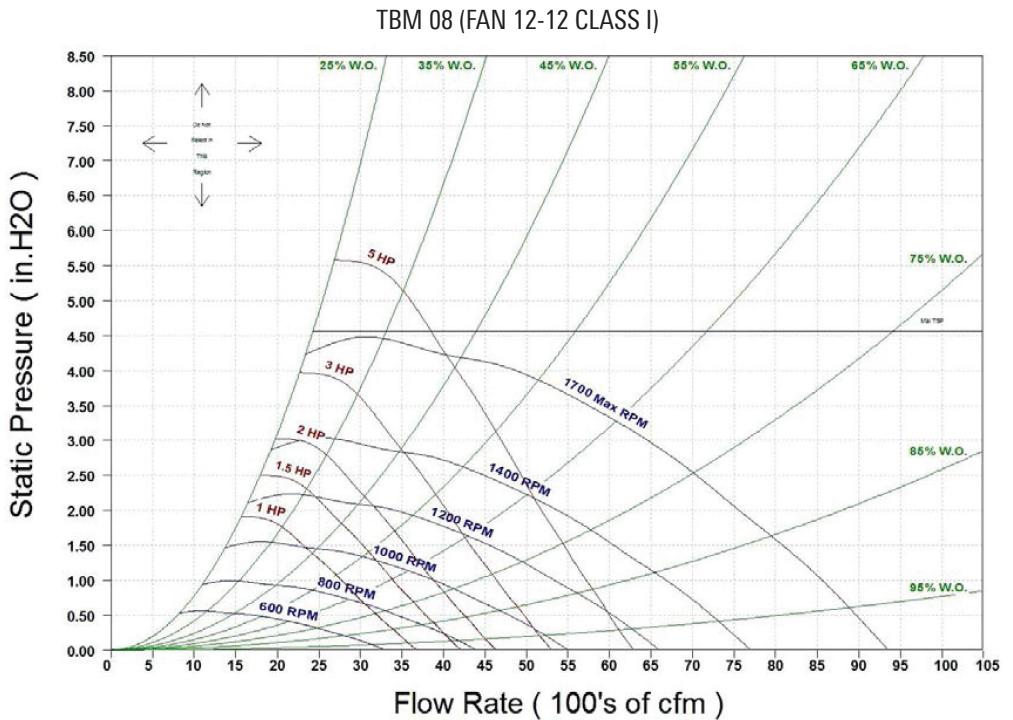


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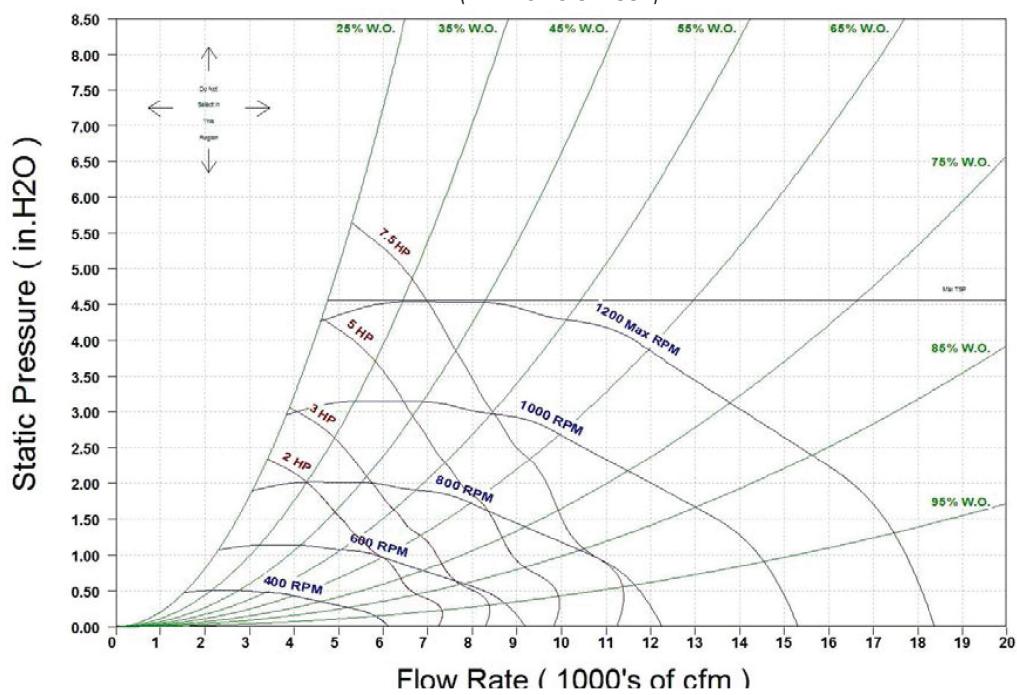
FAN CURVES

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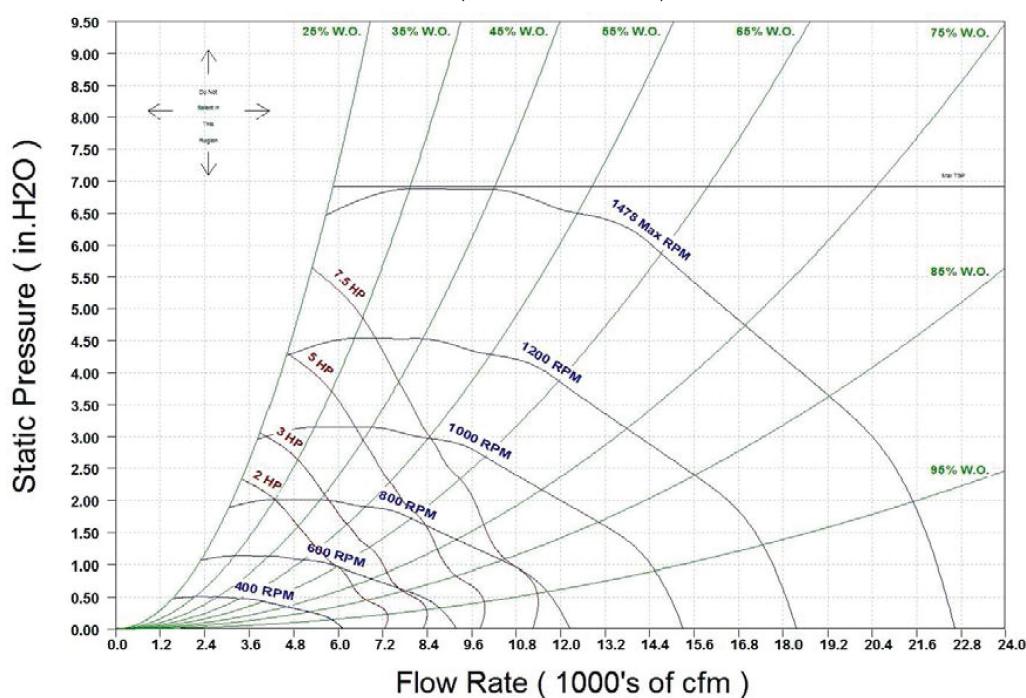


FAN CURVES

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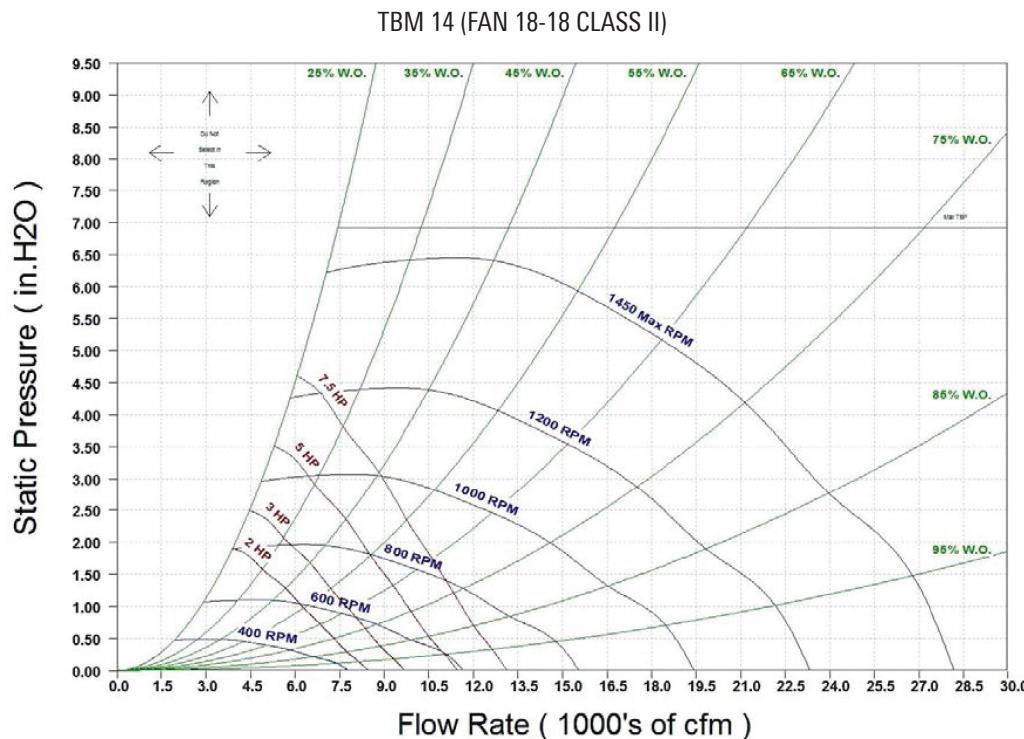
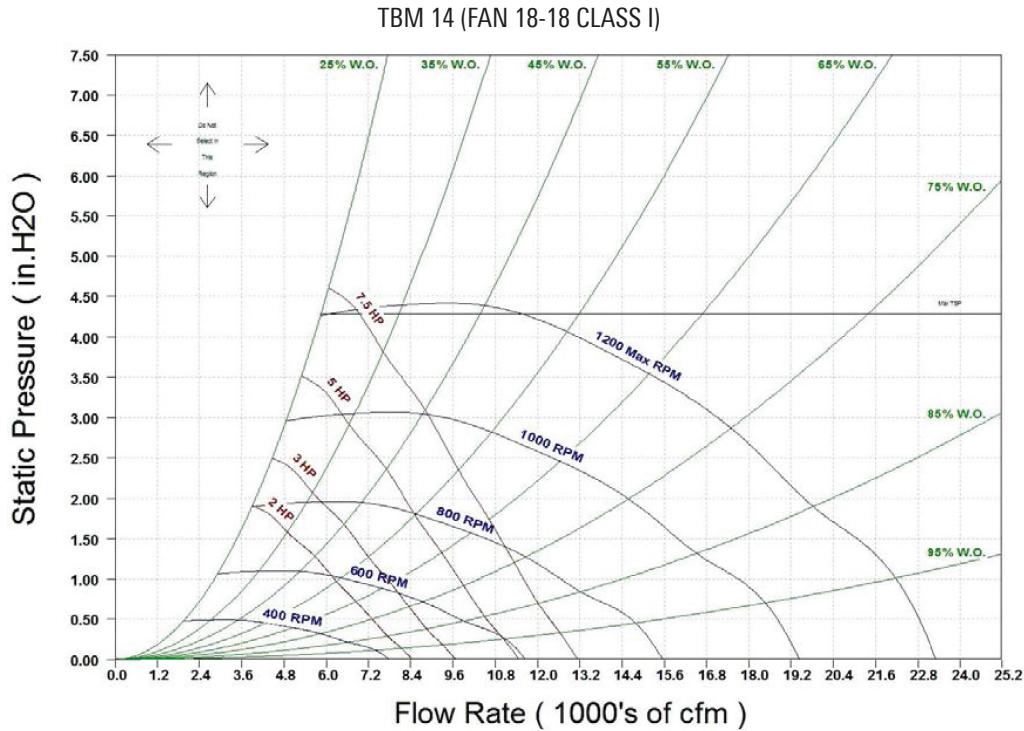
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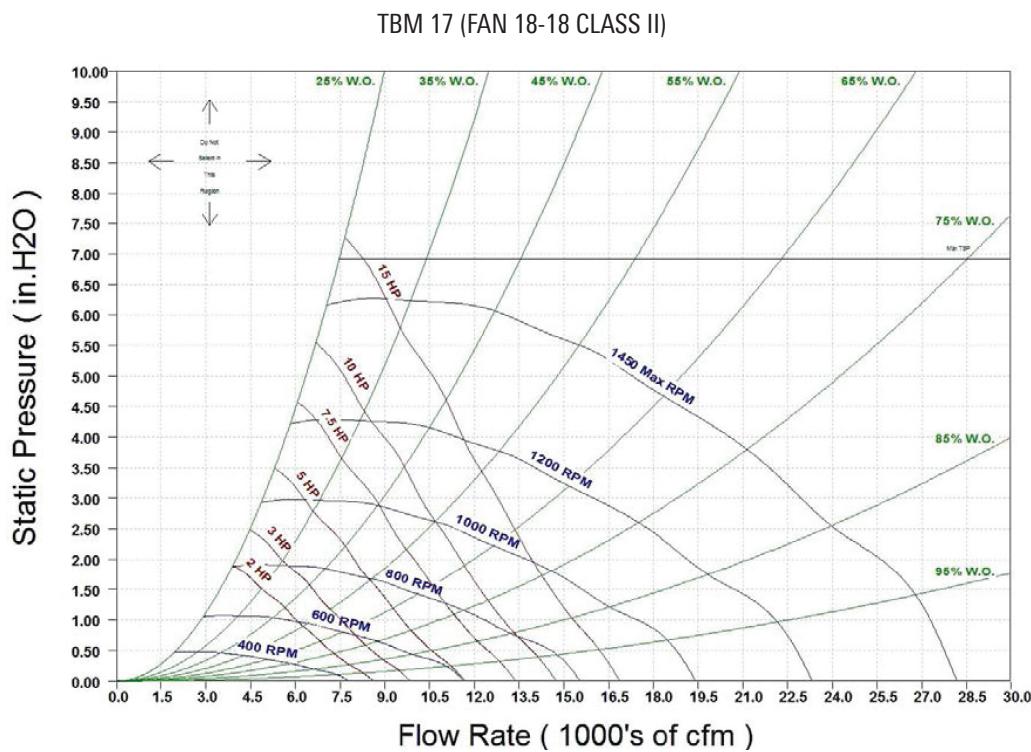
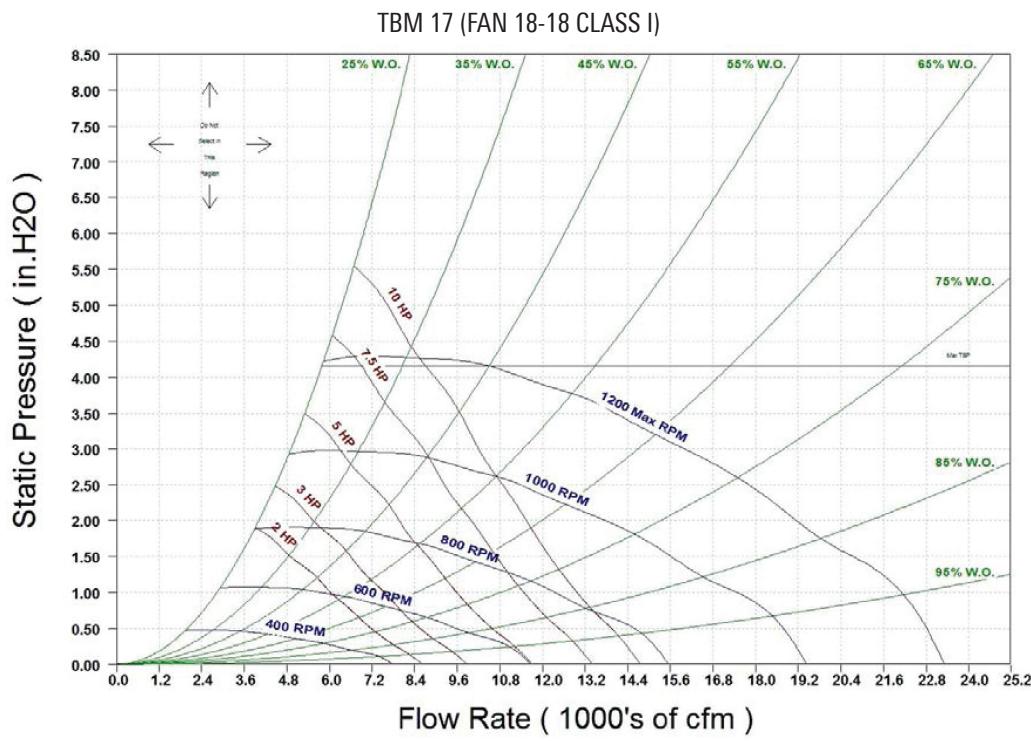
PERFORMANCE DATA

water source / air handlers

FAN CURVES



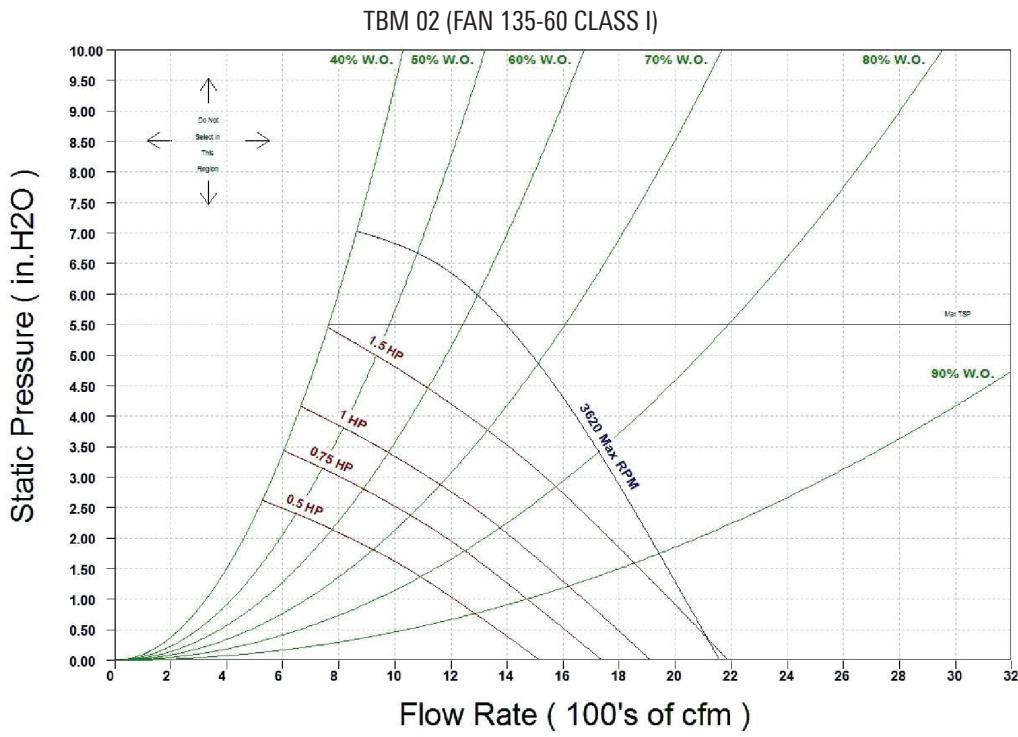
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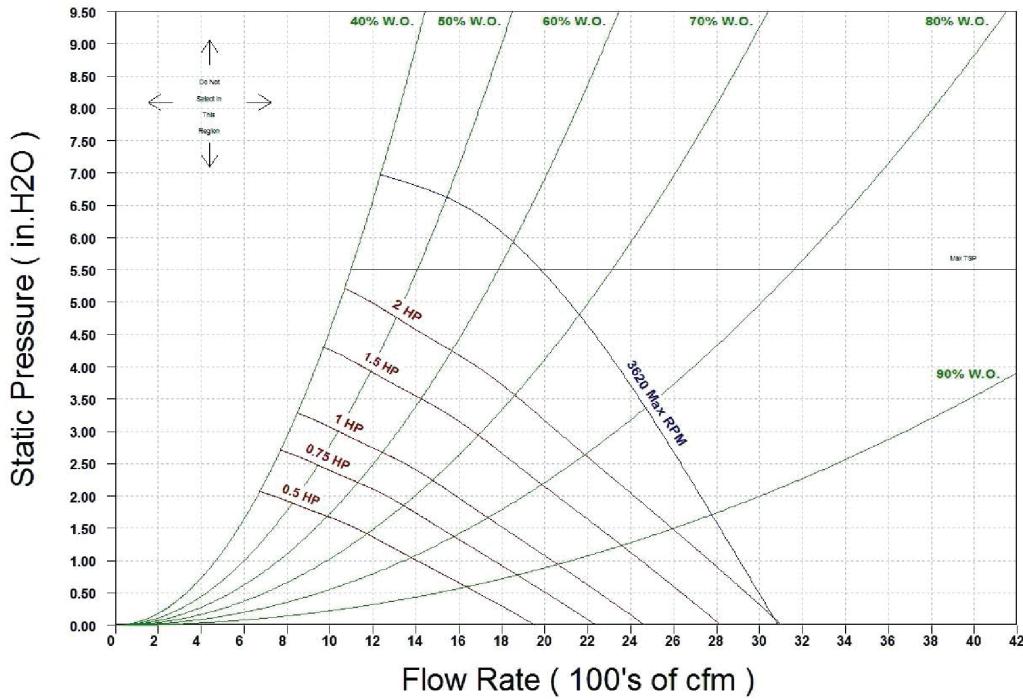
PERFORMANCE DATA

water source / air handlers

FAN CURVES

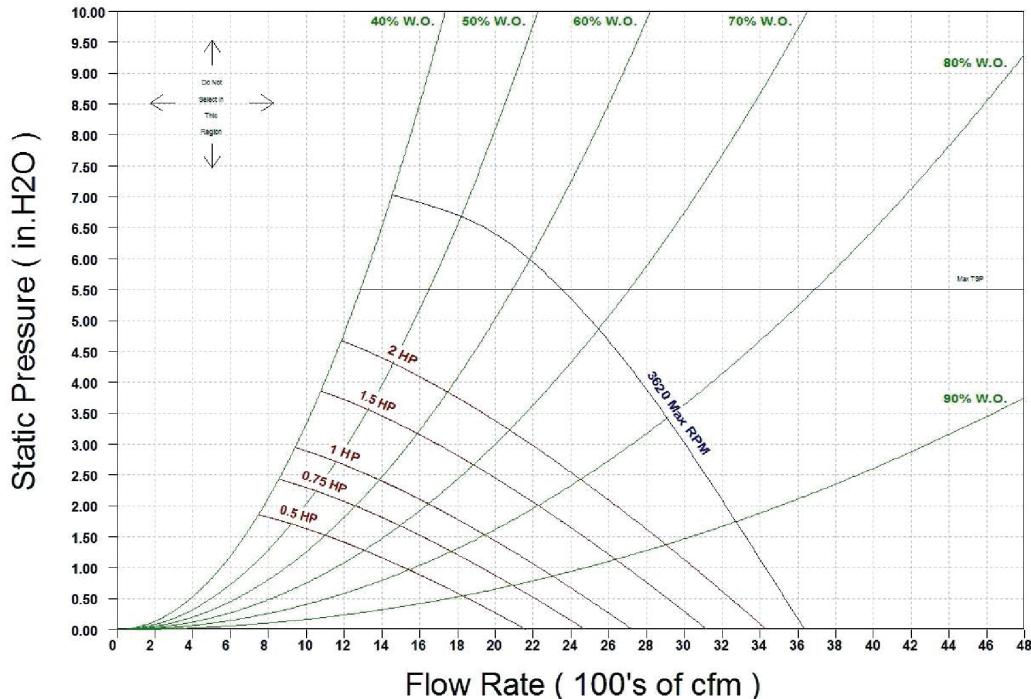


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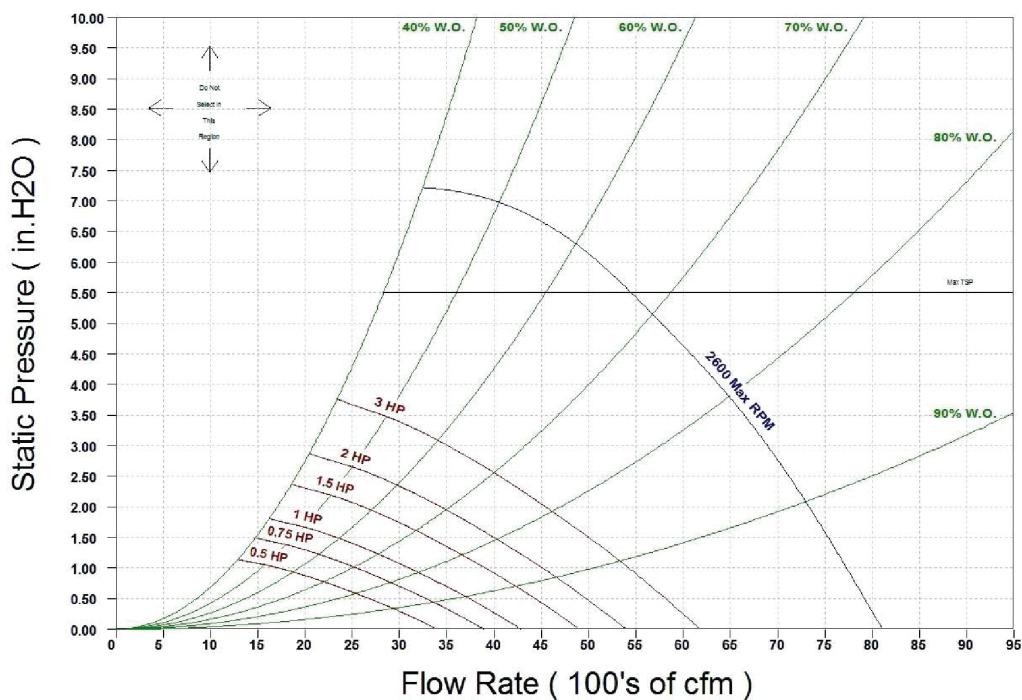


FAN CURVES

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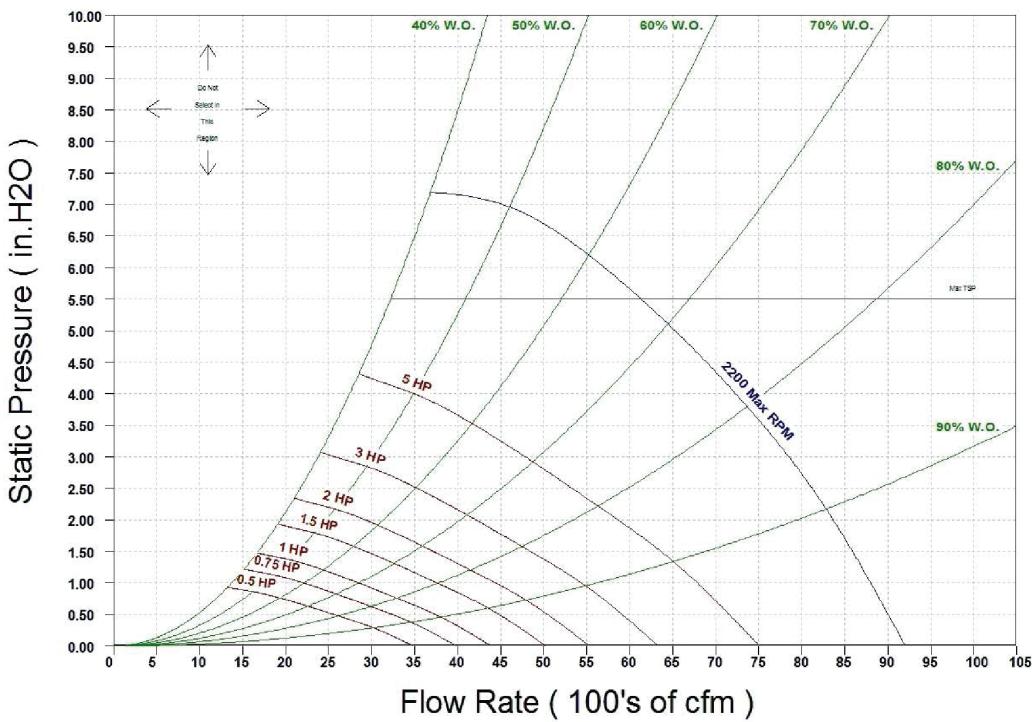


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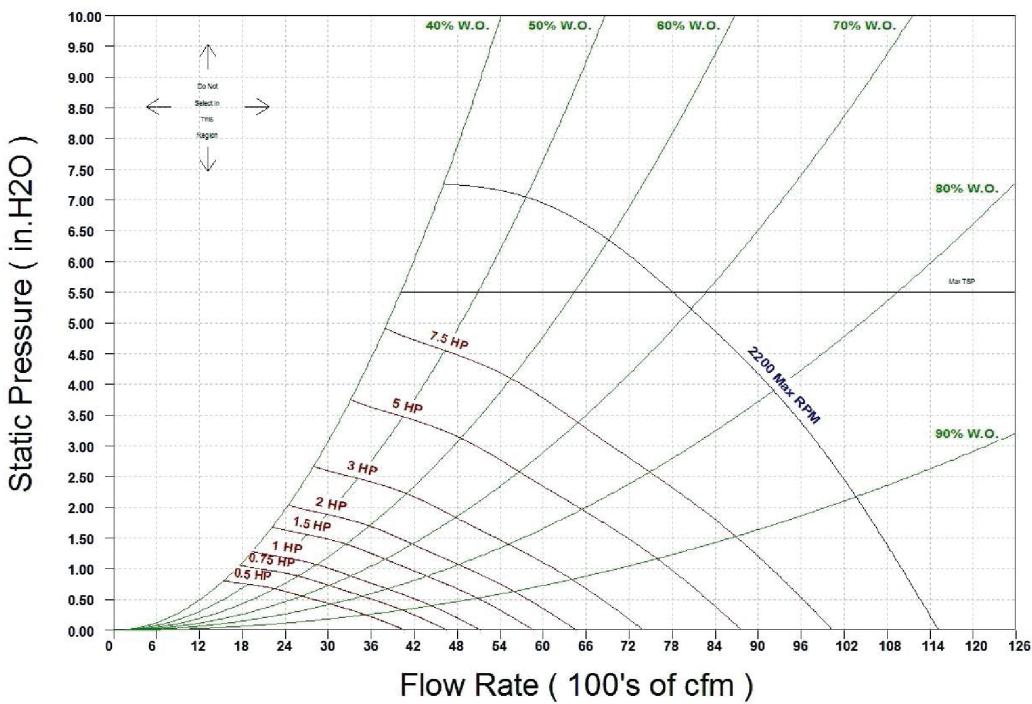
water source / air handlers

FAN CURVES

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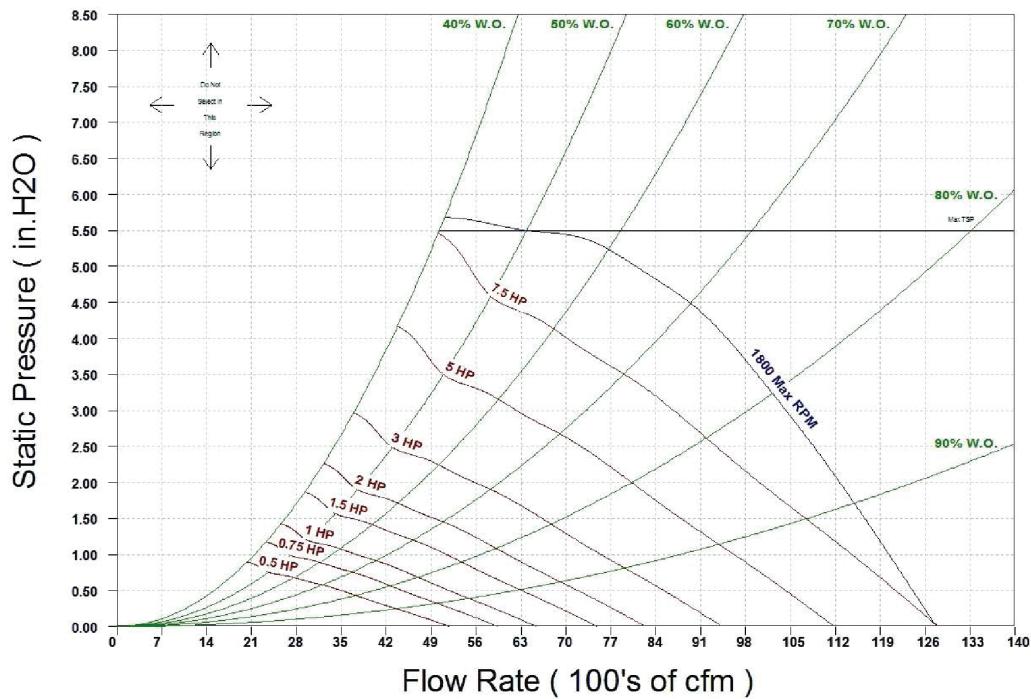


PERFORMANCE DATA

water source / air handlers

FAN CURVES

TBM 12 (FAN 245-100 CLASS I)



TBM 17 (FAN 270-100 CLASS I)

