

Unit Heaters

Catalog



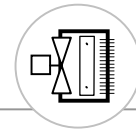
MANUFACTURERS

OF HYDRONIC

HEATING

PRODUCTS

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Sigma horizontal and vertical propeller unit heaters feature a wide performance range for both hot water and steam applications. The performance range is consolidated to reduce the number of different models, simplifying the selection, ordering and installation activities.

All single-phase models may be ordered with a low-cost speed-reducer permitting units to be field tuned. Side entry coil connections on model H units permit installation in clearance-critical low ceiling environments. Special coils, constructed with 0.032" wall Cu-Ni tubes or 0.049" wall copper, are available for more demanding applications. Furthermore, special explosion-proof motors may be ordered for any unit size.

PERFORMANCE

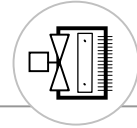
All units are designed for maximum airflow and for optimum air distribution. As a result, outlet temperatures are reduced, avoiding unwanted "hot spots".

Standard units in both horizontal (model H) and vertical configurations (model V) have 12 fpi fin series for enhanced performance.

All model H units are equipped with horizontal louvers for simple vertical air distribution adjustment. Optional Louvre Fin Diffusers on model H units permit enhanced air distribution adjustment with either a wide spread of warmth or focussed warm air for greater unit throw. Optional Louvre Cone Diffusers are available on model V units to permit tailored airflow distribution.

Unit Heaters





Unit Heaters

ROBUST CONSTRUCTION FEATURES

Cabinets are constructed from heavy-duty, cold-rolled, corrosion-resistant steel finished in grey baked enamel.

Model H back panels and Model V discharge panels, both have integral inlet collars for additional stiffness.

All coils are pressure-tested at 350 psig.

Unit fans are statically and dynamically balanced and all motors are resilient-mounted resulting in quiet operation. Model H motors are mounted onto sturdy mounts, which also act as fan guards.

Inherently stable blades on the model V Louvre Cone Diffuser permit louvre blades to be set at any position without flutter.

All louvre blades have rugged retaining springs keeping blades at their set position. These springs permit unlimited blade adjustment over the unit's life without decreasing the blade holding force.

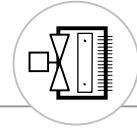
SIMPLE INSTALLATION AND MAINTENANCE

Model H units are designed with all coil connections to the side(s) of the unit, facilitating access to the rear of the unit. Thus, model H motors and motor/fan assemblies are readily accessible.

All model V units are designed with generous spacing between the fan blades, facilitating access to the motor mounting fasteners. This enables easy removal of motor/fan assemblies through the discharge opening on model V units, thus permitting installation close to the ceiling.

All H and V units come equipped with an electrical junction box for simple electrical hook-up.





CABINETS

Cabinets are constructed from heavy duty cold-rolled corrosion-resistant steel finished in grey baked enamel. Fronts have integral double-folded discharge frame for additional cabinet rigidity. Back panels have integral inlet collars for superior stiffness. Suspension tappings securely fastened to top panel.

FANS

Fans are designed and selected for high efficiency. Fans are statically and dynamically balanced for quiet, low vibration operation.



MOTORS

Standard motors are 115/60/1, totally enclosed, with automatic thermal overload protection. Standard motors shall be resilient mounted onto fan guards for quiet, low-vibration operation.

DIFFUSERS

Model H units are equipped with horizontal louvres with individually adjustable blades. The optional louvre fin diffuser consists of vertically arranged, individually adjustable blades for maximum air distribution adaptability.

COILS

Standard coils are constructed from heavy wall 5/8" outside diameter copper tube with mechanically bonded aluminum fins. Coils are pressure tested at 350 psig. Coils with 0.035" copper tubes are suitable for steam applications up to 100 psig.



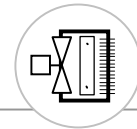


FIGURE 1

DIMENSION DIAGRAM FOR HORIZONTAL UNIT HEATER WITH SERPENTINE COIL (30-H & 40-H)

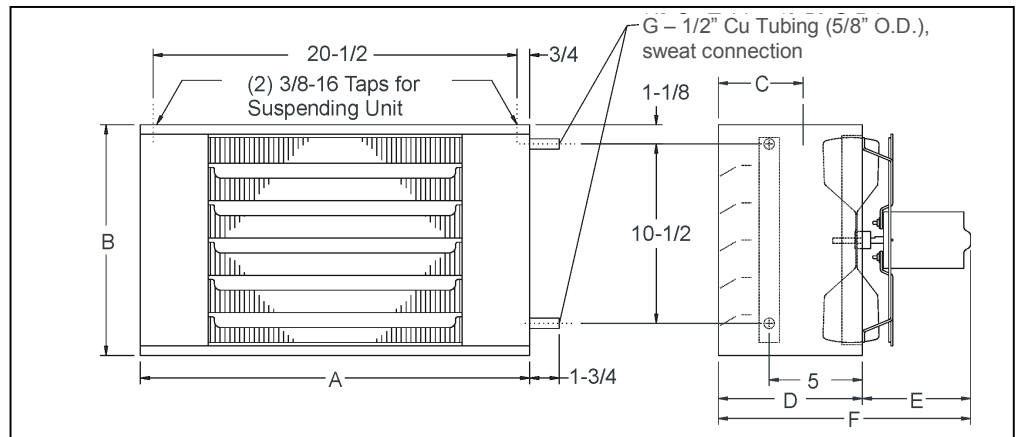


FIGURE 2

DIMENSION DIAGRAM FOR HORIZONTAL UNIT HEATER WITH MULTI-CIRCUITED COIL (47-H TO 245-H)

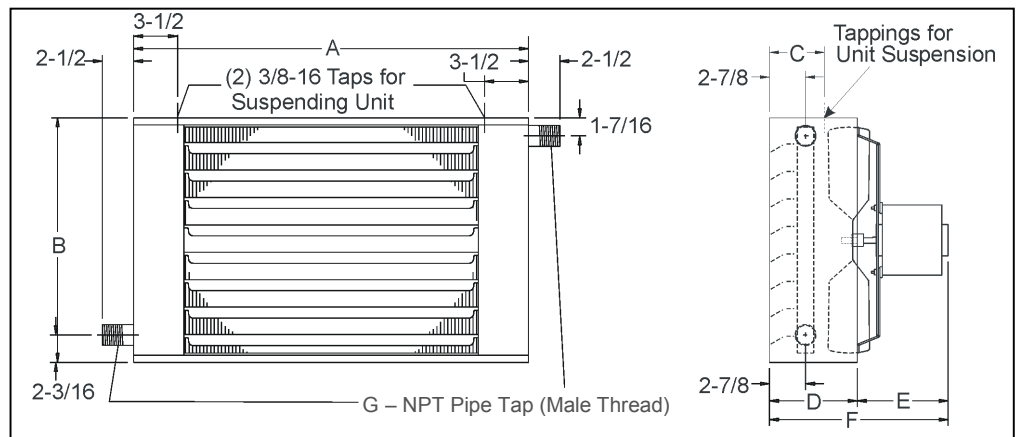


TABLE 1 HORIZONTAL UNIT HEATER SPECIFICATIONS

MODEL	FIGURE REF.	DIMENSIONS (IN)							WT (LB)	MAX. MTG. HT (FT)	MAX THROW (FT)	
		A	B	C	D	E	F	G			w/ HORIZ. LOUVERS	w/ VERT. LOUVERS
015-H	1	20	13.5	5	8	7.5	15.5	FIG. 1	27	9	16	19
025-H	1	22	13.5	4.75	8	7.50	15.5	FIG. 1	36	9	19	24
030-H	1	22	13.5	4.75	8	7.50	15.5	FIG. 1	40	9	18	23
040-H	1	22	13.5	4.75	8	7.50	15.5	FIG. 1	40	10	23	29
047-H	2	27	16.5	5.00	8.5	7.75	16.25	1.25	48	10	23	29
058-H	2	27	16.5	5.00	8.5	9.50	18.0	1.25	48	10	28	35
062-H	2	31.5	19.5	5.625	10	9.50	19.5	1.25	71	10	25	30
084-H	2	31.5	19.5	5.625	10	7.50	17.5	1.25	76	12	32	40
105-H	2	31.5	24	5.625	10	7.50	17.5	1.25	96	12	38	48
133-H	2	37.0	24.0	5.875	10	7.75	17.75	1.50	108	13	40	50
200-H	2	42.5	28.5	5.50	10	9.50	19.5	1.50	148	15	50	64
245-H	2	46.5	31.5	5.50	10	9.50	19.5	1.50	172	16	54	68
260-H	2	46.5	31.5	5.50	10	9.50	19.5	1.50	190	16	56	70
325-H	2	46.5	31.5	5.50	10	9.50	19.5	1.50	230	16	60	75

Note: Model 325H motor mount differs from detail shown above in Fig.2.



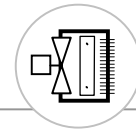


TABLE 2 STANDARD HORIZONTAL UNIT HEATERS PERFORMANCE DATA

	WATER TD (°F)	160 °F EWT				180 °F EWT				200 °F EWT				2 PSIG STEAM	
		CAP (MBH)	FLOW (GPM)	LAT (°F)	WPD (Ft)	CAP (MBH)	FLOW (GPM)	LAT (°F)	WPD (Ft)	CAP (MBH)	FLOW (GPM)	LAT (°F)	WPD (Ft)	CAP (MBH)	FLOW (#/HR)
030H	10	20.3	4.1	104.6	3.1	25.0	5.1	115.0	4.4	29.7	6.1	125.3	5.9	36.6	37.9
CFM 420	20	17.6	1.8	98.7	0.7	22.4	2.3	109.2	1.1	27.2	2.8	119.6	1.5		
RPM 850	30	15.0	1.0	92.8	0.3	19.8	1.4	103.5	0.4	24.6	1.7	114.1	0.6		
1/20HP, 1.1A	40	12.4	0.6	87.2	0.1	17.2	0.9	97.8	0.2	22.1	1.1	108.5	0.3		
030H	10	23.1	4.7	101.0	3.9	28.5	5.9	110.6	5.5	33.9	7.0	120.1	7.4	40.3	41.7
CFM 520	20	20.0	2.0	95.5	0.9	25.5	2.6	105.2	1.3	30.9	3.2	114.8	1.8		
RPM 1050	30	17.0	1.2	90.2	0.3	22.5	1.5	100.0	0.5	28.0	1.9	109.7	0.8		
1/20HP, 1.1A	40	14.1	0.7	85.0	0.1	19.6	1.0	94.8	0.3	25.2	1.3	104.6	0.4		
040H	10	25.6	5.2	98.0	4.7	31.5	6.5	106.9	6.7	37.5	7.7	115.7	8.9	43.8	45.4
CFM 620	20	22.1	2.3	92.9	1.1	28.2	2.9	101.9	1.6	34.2	3.5	110.8	2.2		
RPM 1150	30	18.8	1.3	88.0	0.4	24.9	1.7	97.0	0.6	31.0	2.1	106.1	0.9		
1/8HP, 1.8A	40	15.6	0.8	83.2	0.2	21.7	1.1	92.3	0.3	27.8	1.4	101.4	0.5		
040H	10	27.9	5.7	95.3	5.5	34.4	7.1	103.5	7.8	40.9	8.4	111.7	10.5	47.1	48.8
CFM 730	20	24.2	2.5	90.5	1.3	30.8	3.2	98.9	1.9	37.4	3.8	107.2	2.6		
RPM 1350	30	20.6	1.4	86.0	0.5	27.2	1.9	94.4	0.7	33.9	2.3	102.8	1.1		
1/8HP, 1.8A	40	17.0	0.9	81.5	0.2	23.7	1.2	90.0	0.4	30.4	1.6	98.4	0.5		
040H	10	30.0	6.1	93.0	6.3	37.0	7.6	100.7	8.9	44.0	9.1	108.3	11.9	50.1	51.9
CFM 840	20	26.0	2.7	88.5	1.4	33.1	3.4	96.3	2.1	40.2	4.1	104.1	3.0		
RPM 1550	30	22.1	1.5	84.3	0.5	29.2	2.0	92.1	0.8	36.4	2.5	100.0	1.2		
1/8HP, 1.8A	40	18.3	0.9	80.1	0.2	25.5	1.3	88.0	0.4	32.7	1.7	95.9	0.6		
047H	10	31.1	6.3	102.7	1.4	38.4	7.9	112.9	2.1	45.8	9.4	123.1	2.8	56.3	58.4
CFM 670	20	26.4	2.7	96.3	0.3	33.9	3.5	106.6	0.5	41.3	4.3	116.9	0.7		
RPM 850	30	21.8	1.5	90.0	0.1	29.4	2.0	100.5	0.2	37.0	2.5	110.9	0.3		
1/20HP, 1.1A	40	17.0	0.9	83.4	0.05	25.0	1.3	94.4	0.1	32.7	1.7	105.0	0.1		
047H	10	35.2	7.2	99.2	1.8	43.7	9.0	108.5	2.6	52.0	10.7	117.8	3.5	62.0	64.3
CFM 830	20	29.9	3.0	93.2	0.4	38.4	3.9	102.7	0.6	46.9	4.8	112.1	0.9		
RPM 1050	30	24.7	1.7	87.4	0.1	33.3	2.3	97.0	0.2	42.0	2.9	106.6	0.3		
1/20HP, 1.1A	40	19.4	1.0	81.6	0.1	28.4	1.5	91.5	0.1	37.0	1.9	101.1	0.2		
058H	10	37.1	7.6	97.6	2.0	46.0	9.4	106.6	2.8	54.8	11.3	115.6	3.8	64.7	67.1
CFM 910	20	31.5	3.2	91.9	0.4	40.5	4.1	101.0	0.7	49.4	5.1	110.1	0.9		
RPM 1150	30	26.0	1.8	86.3	0.2	35.1	2.4	95.6	0.3	44.2	3.0	104.8	0.4		
1/8HP, 1.8A	40	20.5	1.0	80.8	0.1	29.9	1.5	90.3	0.1	39.0	2.0	99.5	0.2		
058H	10	40.5	8.3	94.9	2.3	50.2	10.3	103.3	3.3	59.9	12.3	111.6	4.5	69.6	72.2
CFM 1070	20	34.3	3.5	89.6	0.5	44.2	4.5	98.1	0.8	54.0	5.6	106.5	1.1		
RPM 1350	30	28.4	1.9	84.4	0.2	38.3	2.6	93	0.3	48.2	3.3	101.6	0.4		
1/8HP, 1.8A	40	22.4	1.1	79.3	0.1	32.6	1.7	88.1	0.1	42.6	2.2	96.7	0.2		
058H	10	43.4	8.9	92.8	2.6	53.8	11.0	100.6	3.8	64.1	13.2	108.5	5.1	74.1	76.8
CFM 1220	20	36.7	3.7	87.8	0.6	47.3	4.8	95.7	0.9	57.8	5.9	103.7	1.2		
RPM 1550	30	30.3	2.1	82.9	0.2	41.0	2.8	91.0	0.3	51.6	3.5	99.0	0.5		
1/8HP, 1.8A	40	24.0	1.2	78.2	0.1	34.9	1.8	86.4	0.2	45.6	2.3	94.4	0.2		



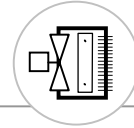
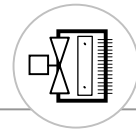


TABLE 2 STANDARD HORIZONTAL UNIT HEATERS PERFORMANCE DATA (CONTINUED)

	WATER TD (°F)	160 °F EWT				180 °F EWT				200 °F EWT				2 PSIG STEAM	
		CAP (MBH)	FLOW (GPM)	LAT (°F)	WPD (Ft)	CAP (MBH)	FLOW (GPM)	LAT (°F)	WPD (Ft)	CAP (MBH)	FLOW (GPM)	LAT (°F)	WPD (Ft)	CAP (MBH)	FLOW (#/HR)
062H	10	38.6	7.9	105.7	0.5	48.1	9.9	116.8	0.7	57.5	11.9	128.0	0.9	76.6	78.3
CFM 780	20	31.9	3.3	97.7	0.1	41.6	4.3	109.1	0.2	51.2	5.3	120.5	0.2		
RPM 850	30	24.9	1.7	89.4	0.05	35.2	2.4	101.6	0.1	45.0	3.1	113.2	0.1		
1/20HP, 1.1A	40					28.3	1.4	93.5	0.05	38.9	2.0	105.9	0.05		
062H	10	44.4	9.1	102.2	0.6	55.3	11.4	112.6	0.9	66.2	13.6	122.9	1.2	83.2	86.2
CFM 970	20	36.6	3.7	94.8	0.1	47.8	4.9	105.4	0.2	58.8	6.1	115.9	0.3		
RPM 1050	30	28.8	2.0	87.4	0.05	40.4	2.8	98.4	0.1	51.7	3.5	109.1	0.1		
1/20HP, 1.1A	40					32.8	1.7	91.2	0.05	44.6	2.3	102.4	0.1		
084H	10	49.0	10.0	99.6	0.7	61.0	12.5	109.3	1.0	73.0	15.0	119.0	1.4	89.5	92.7
CFM 1140	20	40.3	4.1	92.6	0.2	52.6	5.4	102.6	0.2	64.8	6.7	112.4	0.3		
RPM 1150	30	31.8	2.2	85.8	0.1	44.5	3.0	96.0	0.1	56.9	3.9	106.0	0.1		
1/6HP, 2.0A	40	20.4	1.0	76.5	0.05	36.3	1.9	89.4	0.05	49.1	2.5	99.7	0.1		
084H	10	53.5	10.9	97.1	0.8	66.6	13.7	106.2	1.2	79.7	16.4	115.3	1.6	96.2	99.7
CFM 1330	20	44.0	4.5	90.5	0.2	57.4	5.9	99.8	0.3	70.8	7.3	109.1	0.4		
RPM 1350	30	34.8	2.4	84.1	0.1	48.5	3.3	93.6	0.1	62.1	4.3	103.0	0.2		
1/6HP, 2.0A	40	23.0	1.2	76.0	0.05	39.7	2.0	87.5	0.05	53.5	2.7	97.1	0.1		
084H	10	59.3	12.1	94.0	1.0	73.9	15.2	102.3	1.5	88.5	18.2	110.7	2.0	104.7	108.5
CFM 1610	20	48.7	5.0	87.9	0.2	63.6	6.5	96.4	0.3	78.4	8.1	104.9	0.5		
RPM 1625	30	38.6	2.6	82.1	0.1	53.7	3.7	90.7	0.1	68.7	4.7	99.4	0.2		
1/6HP, 2.0A	40	26.3	1.3	75.1	0.05	44.0	2.3	85.2	0.1	59.3	3.0	94.0	0.1		
133H	10	87.4	17.9	99.3	6.9	107.6	22.1	108.4	9.8	127.7	26.3	117.4	13.0	149.0	154.4
CFM 2050	20	76.5	7.8	94.4	1.6	96.8	9.9	103.6	2.4	117.2	12.1	112.7	3.3		
RPM 850	30	65.7	4.5	89.5	0.6	86.3	5.9	98.8	1.0	106.8	7.3	108.0	1.4		
1/4HP, 3.5A	40	55.2	2.8	84.8	0.3	75.9	3.9	94.1	0.5	96.5	5.0	103.4	0.7		
133H	10	99.5	20.3	95.3	8.7	122.5	25.1	103.4	12.3	145.4	30.0	111.6	16.5	165.8	171.8
CFM 2600	20	87	8.9	90.9	2.0	110.3	11.3	99.1	3.0	133.4	13.7	107.3	4.1		
RPM 1075	30	74.8	5.1	86.5	0.8	98.2	6.7	94.8	1.2	121.6	8.3	103.1	1.7		
1/4HP, 3.5A	40	62.9	3.2	82.3	0.3	86.5	4.4	90.7	0.6	109.9	5.6	99.0	0.9		
200H	10	133.1	27.2	96.3	3.0	164.6	33.8	104.9	4.4	196.0	40.4	113.5	5.8	227.7	236
CFM 3380	20	113.8	11.6	91.0	0.7	145.7	14.9	99.8	1.0	177.5	18.3	108.4	1.4		
RPM 850	30	95.1	6.5	86.0	0.3	127.3	8.7	94.7	0.4	159.6	10.9	103.5	0.6		
1/2HP, 5.6A	40	76.9	3.9	81.0	0.1	109.6	5.6	89.9	0.2	141.9	7.3	98.7	0.3		
200H	10	150.5	30.7	92.4	3.8	186.1	38.2	100.1	5.4	221.7	45.7	107.8	7.3	253.4	262.6
CFM 4280	20	128.6	13.1	87.7	0.9	164.8	16.9	95.5	1.3	200.8	20.7	103.3	1.8		
RPM 1075	30	107.5	7.3	83.2	0.3	143.9	9.8	91.0	0.5	180.4	12.4	98.9	0.7		
1/2HP, 5.6A	40	86.9	4.4	78.7	0.1	123.8	6.3	86.7	0.2	160.5	8.2	94.6	0.4		
245H	10	160.5	32.8	99.5	16.3	196.9	40.4	108.4	23.1					268.7	278.4
CFM 3750	20	142.3	14.5	95.0	3.9	179.0	18.3	104.0	5.7	215.7	22.2	113.0	7.8		
RPM 850	30	124.3	8.4	90.6	1.5	161.4	11.0	99.7	2.3	198.4	13.6	108.8	3.3		
1/2HP, 5.6A	40	106.7	5.4	86.2	0.7	143.9	7.4	95.4	1.2	181.1	9.3	104.5	1.7		
245H	10	182.3	37.2	95.5	20.5									298.8	309.7
CFM 4740	20	161.7	16.5	91.4	4.9	203.4	20.8	99.6	7.1	245.0	25.2	107.7	9.8		
RPM 1075	30	141.4	9.6	87.5	1.9	183.4	12.5	95.7	2.9	225.5	15.5	103.9	4.1		
1/2HP, 5.6A	40	121.5	6.2	83.6	0.9	163.8	8.4	91.9	1.5	205.9	10.6	100.0	2.1		





CABINETS

Cabinets are constructed from heavy duty cold-rolled corrosion-resistant steel finished in grey baked enamel. Corners have multiple folds for enhanced cabinet rigidity. Discharge panels have integral discharge collars for superior stiffness. Suspension tappings securely fastened to top panel.

FANS

Fans are designed and selected for high efficiency. Fans are statically and dynamically balanced for quiet, low vibration operation.

COILS

Standard coils are constructed from heavy wall 5/8" outside diameter copper tube with mechanically bonded aluminum fins. Coils are pressure tested at 350 psig. Coils with 0.035" copper tubes are suitable for steam applications up to 100 psig.

MOTORS

Standard motors are 115/60/1, totally enclosed, with automatic thermal overload protection. Motors shall be removable through the air discharge opening.

DIFFUSERS

The optional louvre cone diffuser on the model V consists of radially positioned, individually adjustable blades for maximum air distribution adaptability.



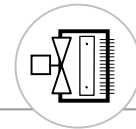


FIGURE 3
DIMENSION DIAGRAM
FOR VERTICAL UNIT
HEATER

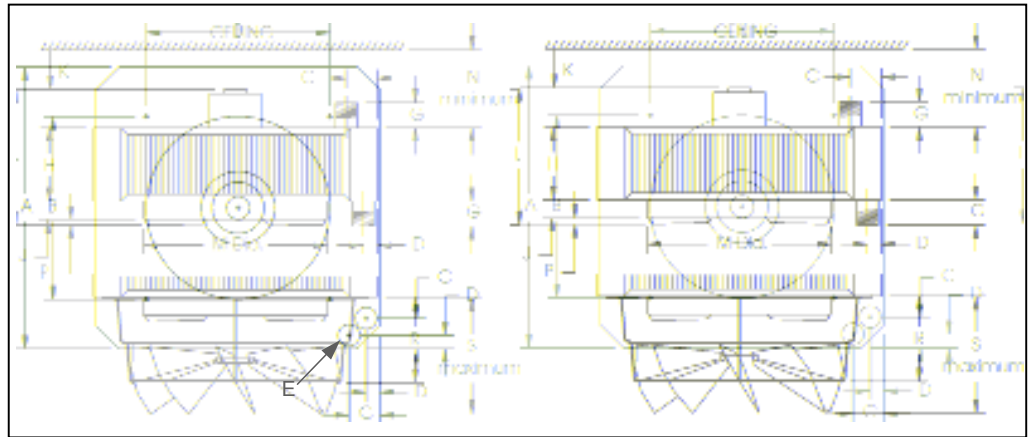


TABLE 3 VERTICAL UNIT HEATER SPECIFICATIONS

MODEL	DIMENSIONS (IN)								
	A	B	C	D	E (NPT)	F	G	H	J
039-V	18.5	10	2.625	1.25	1.5	3/8-16 UNC	2.75	6.125	1.25
050-V	18.5	10	2.625	1.25	1.5	3/8-16 UNC	2.75	6.125	1.25
054-V	22	13	2.625	1.25	1.5	3/8-16 UNC	2.75	6.125	1.5
067-V	22	13	2.625	1.25	1.5	3/8-16 UNC	2.75	6.125	1.5
078-V	26.5	16	2.625	1.25	1.5	3/8-16 UNC	2.75	7.625	1.625
100-V	26.5	16	2.625	1.25	1.5	3/8-16 UNC	2.75	7.625	1.625
145-V	30.875	20	3.375	1.5	2	3/8-16 UNC	2.75	7.625	2
210-V	36.875	25	3.375	1.5	2	3/8-16 UNC	2.75	7.625	2.375
300-V	44.125	30	4.125	2	2.5	1/2-13 UNC	3	9.125	3
370-V	44.125	30	4.125	2	2.5	1/2-13 UNC	3	13.625	3
375-V	44.125	30	4.125	2	2.5	1/2-13 UNC	3	9.125	3
480-V	44.125	30	4.125	2	2.5	1/2-13 UNC	3	13.625	3

MODEL	DIMENSIONS (IN)							WT (LB)	MAX. MTG. HT. (FT)	
	K	L	M	N	P	R	S		WITHOUT LOUVER	WITH LOUVER
039-V	3	11.5	12.25	6	1.125	6.25	8.875	49	12	16
050-V	3	11.5	12.25	6	1.125	6.25	8.875	50	17	22
054-V	3	11.875	14.375	6	1.25	7	10	62	13	16
067-V	3	11.875	14.375	6	1.25	7	10	63	19	23
078-V	2	12.25	16.375	7	1	7.25	10.625	85	14	17
100-V	2	12.25	16.375	7	1	7.25	10.625	90	21	25
145-V	2.375	13.5	20.375	7	1.5	9	13.25	118	23	28
210-V	4	15.25	24.5	7	1.25	8.5	11.875	146	26	32
300-V	3	15.875	30.5	7	0.75	9.5	13.75	200	26	32
370-V	1.875	19.25	30.5	7	0.75	9.5	13.75	265	28	34
375-V	4.5	17.375	30.5	8	0.75	9.5	13.75	205	40	48
480-V	2.5	19.875	30.5	8	0.75	9.5	13.75	270	42	52



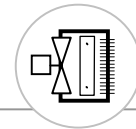


TABLE 4 STANDARD VERTICAL UNIT HEATERS PERFORMANCE DATA

	WATER TD (°F)	160 °F EWT				180 °F EWT				200 °F EWT				2 PSIG STEAM	
		CAP (MBH)	FLOW (GPM)	LAT (°F)	WPD (Ft)	CAP (MBH)	FLOW (GPM)	LAT (°F)	WPD (Ft)	CAP (MBH)	FLOW (GPM)	LAT (°F)	WPD (Ft)	CAP (MBH)	FLOW (#/HR)
040V	10	26.6	5.4	103.1	0.2	33.5	6.9	114.2	0.2	40.3	8.3	125.2	0.3	51.3	53.1
CFM 570	20	20.7	2.1	93.5	0.1	27.9	2.9	105.1	0.1	34.9	3.6	116.5	0.1		
RPM 850	30					21.8	1.5	95.3	0.1	29.6	2.0	108.0	0.1		
1/20HP, 1.1A	40									23.2	1.2	97.5	0.1		
040V	10	30.5	6.2	99.7	0.2	38.4	7.9	109.9	0.3	46.3	9.5	120.1	0.4	56.4	58.5
CFM 710	20	23.8	2.4	90.9	0.05	32.0	3.3	101.5	0.1	40.0	4.1	112.0	0.1		
RPM 1050	30					25.3	1.7	92.9	0.1	33.9	2.3	104.1	0.1		
1/20HP, 1.1A	40									27.2	1.4	95.3	0.1		
050V	10	32.3	6.6	98.2	0.2	40.7	8.3	108.1	0.4	49.0	10.1	117.9	0.5	58.8	60.9
CFM 780	20	25.2	2.6	89.7	0.05	33.8	3.5	99.9	0.1	42.3	4.4	110.0	0.1		
RPM 1150	30					26.8	1.8	91.7	0.1	35.8	2.5	102.4	0.1		
1/8HP, 1.8A	40									28.9	1.5	94.1	0.1		
050V	10	35.2	7.2	95.7	0.3	44.4	9.1	105.0	0.4	53.5	11.0	114.2	0.6	63.2	65.5
CFM 910	20	27.4	2.8	87.8	0.1	36.8	3.8	97.3	0.1	46.1	4.8	106.8	0.1		
RPM 1350	30					29.4	2.0	89.7	0.1	39.0	2.7	99.6	0.1		
1/8HP, 1.8A	40									31.7	1.6	92.2	0.1		
050V	10	37.9	7.7	93.6	0.3	47.7	9.8	102.3	0.5	57.6	11.9	111.0	0.6	67.3	69.8
CFM 1040	20	29.4	3.0	86.1	0.1	39.5	4.1	95.1	0.1	49.6	5.1	104.0	0.1		
RPM 1550	30	18.2	1.2	76.2	0.1	31.6	2.2	88.0	0.1	41.9	2.9	97.2	0.1		
1/8HP, 1.8A	40									34.2	1.8	90.4	0.1		
054V	10	35.7	7.3	104.5	0.4	44.5	9.1	115.5	0.5	53.3	11.0	126.5	0.7	66.5	68.9
CFM 740	20	29.1	3.0	96.3	0.1	38.1	3.9	107.5	0.1	47.1	4.9	118.7	0.2		
RPM 850	30	21.1	1.4	86.3	0.1	31.9	2.2	99.8	0.1	41.1	2.8	111.2	0.1		
1/20HP, 1.1A	40					23.5	1.2	89.3	0.1	35.0	1.8	103.6	0.1		
054V	10	40.9	8.4	101.0	0.5	51.1	10.5	111.2	0.7	61.2	12.6	121.4	0.9	73.2	75.8
CFM 920	20	33.3	3.4	93.4	0.1	43.7	4.5	103.8	0.2	54.0	5.6	114.2	0.2		
RPM 1050	30	24.9	1.7	84.9	0.1	36.5	2.5	96.6	0.1	47.1	3.2	107.2	0.1		
1/20HP, 1.1A	40					28.0	1.4	88.1	0.1	40.2	2.1	100.2	0.1		
067V	10	43.0	8.8	99.7	0.5	53.7	11.0	109.5	0.7	64.4	13.3	119.4	1.0	76.1	78.9
CFM 1000	20	35.0	3.6	92.3	0.1	45.9	4.7	102.3	0.2	56.8	5.8	112.4	0.2		
RPM 1150	30	26.4	1.8	84.3	0.1	38.4	2.6	95.4	0.1	49.4	3.4	105.6	0.1		
1/8HP, 1.8A	40					29.7	1.5	87.4	0.1	42.2	2.2	98.9	0.1		
067V	10	47.3	9.7	97	0.6	59.1	12.1	106.2	0.9	70.8	14.6	115.4	1.2	81.9	84.9
CFM 1180	20	38.4	3.9	90	0.1	50.5	5.2	99.4	0.2	62.4	6.4	108.8	0.3		
RPM 1350	30	29.3	2	82.9	0.05	42.1	2.9	92.9	0.1	54.3	3.7	102.4	0.1		
1/8HP, 1.8A	40					33.1	1.7	85.9	0.05	46.3	2.4	96.2	0.1		
067V	10	50.9	10.4	94.8	0.7	63.6	13.1	103.5	1.0	76.3	15.7	112.1	1.4	87.2	90.4
CFM 1350	20	41.3	4.2	88.2	0.1	54.3	5.6	97.1	0.2	67.2	6.9	105.9	0.3		
RPM 1550	30	31.7	2.2	81.7	0.1	45.2	3.1	90.9	0.1	58.4	4.0	99.9	0.1		
1/8HP, 1.8A	40					35.9	1.8	84.6	0.1	49.8	2.6	94.0	0.1		



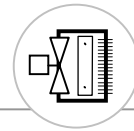


TABLE 4 STANDARD VERTICAL UNIT HEATERS PERFORMANCE DATA (CONTINUED)

	WATER TD (°F)	160 °F EWT				180 °F EWT				200 °F EWT				2 PSIG STEAM	
		CAP (MBH)	FLOW (GPM)	LAT (°F)	WPD (Ft)	CAP (MBH)	FLOW (GPM)	LAT (°F)	WPD (Ft)	CAP (MBH)	FLOW (GPM)	LAT (°F)	WPD (Ft)	CAP (MBH)	FLOW (#/HR)
078V	10	50.9	10.4	108.8	0.6	63.1	12.9	120.6	0.9	75.2	15.5	132.3	1.1	97.2	100.7
CFM 960	20	42.8	4.4	101.1	0.1	55.2	5.7	113.0	0.2	67.6	7.0	124.9	0.3		
RPM 850	30	34.2	2.3	92.8	0.05	47.5	3.2	105.7	0.1	60.1	4.1	117.7	0.1		
1/20HP, 1.1A	40					38.9	2.0	97.3	0.05	52.7	2.7	110.6	0.10		
078V	10	58.9	12.0	105.7	0.8	73.1	15.0	116.7	1.1	87.3	18.0	127.6	1.5	107.0	110.9
CFM 1190	20	49.5	5.0	98.4	0.2	63.9	6.6	109.5	0.3	78.3	8.1	120.7	0.4		
RPM 1050	30	40.0	2.7	91.0	0.10	55.0	3.8	102.6	0.1	69.6	4.8	113.9	0.1		
1/20HP, 1.1A	40					45.7	2.3	95.4	0.05	60.9	3.1	107.2	0.1		
100V	10	62.4	12.7	104.3	0.9	77.5	15.9	114.9	1.2	92.4	19.1	125.6	1.7	111.4	115.5
CFM 1300	20	52.4	5.3	97.2	0.2	67.7	6.9	108.0	0.3	82.9	8.5	118.8	0.4		
RPM 1150	30	42.4	2.9	90.1	0.1	58.2	4.0	101.3	0.1	73.6	5.0	112.2	0.2		
1/6HP, 2.0A	40					48.5	2.5	94.4	0.05	64.5	3.3	105.7	0.1		
100V	10	68.8	14.1	101.7	1.0	85.4	17.5	111.8	1.5	101.9	21.0	121.8	2.0	119.8	124.2
CFM 1520	20	57.7	5.9	95.0	0.2	74.6	7.6	105.2	0.3	91.4	9.4	115.4	0.5		
RPM 1350	30	46.8	3.2	88.4	0.1	64.1	4.4	98.9	0.1	81.1	5.6	109.2	0.2		
1/6HP, 2.0A	40	30.3	1.5	78.4	0.05	53.6	2.7	92.5	0.10	71.0	3.6	103.0	0.1		
100V	10	76.7	15.7	98.7	1.2	95.3	19.5	108.0	1.8	113.7	23.4	117.3	2.4	130.4	135.1
CFM 1830	20	64.3	6.6	92.4	0.3	83.1	8.5	101.9	0.4	101.9	10.5	111.3	0.6		
RPM 1625	30	52.2	3.5	86.3	0.1	71.3	4.9	95.9	0.2	90.4	6.2	105.5	0.2		
1/6HP, 2.0A	40	36.4	1.9	78.3	0.05	59.9	3.1	90.2	0.1	79.0	4.1	99.8	0.1		
145V	10	97	19.8	98.2	2.3	120.0	24.6	107.3	3.2	143.0	29.5	116.3	4.3	160.9	166.8
CFM 2340	20	82.6	8.4	92.5	0.5	106.0	10.9	101.8	0.8	129.2	13.3	110.9	1.1		
RPM 850	30	68.6	4.7	87.0	0.2	92.3	6.3	96.4	0.3	115.9	7.9	105.7	0.4		
1/4HP, 3.5A	40	54.3	2.8	81.4	0.1	79.0	4.0	91.1	0.1	102.6	5.3	100.4	0.2		
145V	10	110	22.5	94.3	2.9	136.3	28.0	102.5	4.1	162.4	33.5	110.6	5.5	179.0	185.5
CFM 2960	20	93.7	9.6	89.2	0.6	120.3	12.3	97.5	1.0	146.8	15.1	105.7	1.3		
RPM 1075	30	77.9	5.3	84.3	0.2	104.7	7.1	92.6	0.4	131.5	9.0	101.0	0.5		
1/4HP, 3.5A	40	62.2	3.2	79.4	0.1	89.6	4.6	87.9	0.2	116.6	6.0	96.3	0.3		
210V	10	139	28.3	95.2	5.4	170.9	35.1	103.4	7.6	203.2	41.9	111.6	10.2	222.2	230.2
CFM 3630	20	120	12.2	90.5	1.2	152.7	15.7	98.8	1.8	185.4	19.1	107.1	2.5		
RPM 850	30	102	6.9	85.9	0.5	134.9	9.2	94.3	0.7	167.9	11.5	102.7	1.0		
1/2HP, 5.6A	40	84.2	4.3	81.4	0.2	117.6	6.0	89.9	0.3	150.7	7.7	98.3	0.5		
210V	10	156	31.9	91.4	6.7	192.8	39.6	98.7	9.5	229.2	47.3	106.0	12.7	247.2	256.1
CFM 4590	20	135	13.8	87.2	1.5	172.2	17.6	94.6	2.3	209.0	21.5	102.0	3.1		
RPM 1075	30	115	7.8	83.1	0.6	152.1	10.4	90.5	0.9	189.4	13.0	98.0	1.3		
1/2HP, 5.6A	40	95	4.8	79.1	0.2	132.6	6.8	86.6	0.4	170.1	8.7	94.2	0.7		



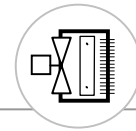
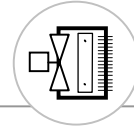


TABLE 4 STANDARD VERTICAL UNIT HEATERS PERFORMANCE DATA (CONTINUED)

	WATER TD (°F)	160 °F EWT				180 °F EWT				200 °F EWT				2 PSIG STEAM	
		CAP (MBH)	FLOW (GPM)	LAT (°F)	WPD (Ft)	CAP (MBH)	FLOW (GPM)	LAT (°F)	WPD (Ft)	CAP (MBH)	FLOW (GPM)	LAT (°F)	WPD (Ft)	CAP (MBH)	FLOW (#/HR)
300V	10	197	40.2	96.1	8.7	242.5	49.8	104.4	12.3	287.8	59.3	112.8	16.4	313.5	324.8
CFM 5030	20	172	17.6	91.6	2.0	218.4	22.4	100.0	3.0	264.1	27.2	108.4	4.1		
RPM 850	30	148	10.1	87.2	0.8	194.7	13.3	95.7	1.2	240.9	16.5	104.2	1.7		
1/2HP, 5.6A	40	125	6.4	82.9	0.3	171.5	8.8	91.4	0.6	217.8	11.2	99.9	0.9		
300V	10	223	45.4	92.3	10.8	273.8	56.2	99.7	15.3	325.0	67.0	107.1	20.5	348.8	361.4
CFM 6360	20	195	19.9	88.2	2.5	246.6	25.3	95.7	3.7	298.3	30.7	103.2	5.1		
RPM 1075	30	168	11.4	84.3	1.0	219.8	15.0	91.9	1.5	272.1	18.7	99.5	2.1		
1/2HP, 5.6A	40	141	7.2	80.4	0.4	193.9	9.9	88.1	0.7	246.3	12.7	95.7	1.1		
370V	10	243	49.6	102.1	6.1	298.7	61.3	111.8	8.6	354.5	73.1	121.4	11.5	401.4	416.0
CFM 5320	20	213	21.7	96.8	1.4	269.0	27.6	106.6	2.1	325.3	33.5	116.4	2.9		
RPM 850	30	183	12.4	91.7	0.5	239.8	16.4	101.6	0.8	296.7	20.3	111.4	1.2		
1/2HP, 5.6A	40	154	7.8	86.6	0.2	210.9	10.8	96.6	0.4	268.2	13.8	106.5	0.6		
370V	10	278	56.7	98.1	7.7	341.8	70.1	106.8	11.0	405.7	83.6	115.6	14.7	446.6	462.8
CFM 6730	20	243	24.8	93.3	1.8	307.8	31.5	102.2	2.7	372.3	38.3	111.0	3.7		
RPM 1075	30	209	14.2	88.6	0.7	274.4	18.7	97.6	1.1	339.6	23.3	106.5	1.5		
1/2HP, 5.6A	40	176	9.0	84.1	0.3	241.6	12.4	93.1	0.5	307.0	15.8	102.1	0.8		
375V	10	279	57.0	85.2	16.3									432.3	448.0
CFM 10200	20	244	24.9	82.1	3.8	309.3	31.7	88.0	5.6	374.3	38.5	93.8	7.7		
RPM 850	30	211	14.3	79.0	1.4	276.1	18.8	85.0	2.2	341.5	23.4	90.9	3.2		
2HP, 7.4A*	40	177	9.0	76.0	0.6	243.5	12.4	82.0	1.1	309.6	15.9	88.0	1.6		
480V	10	355	72.5	90.3	12.0	436.8	89.6	97.3	17.1					553.6	573.7
CFM 10800	20	310	31.7	86.5	2.8	393.3	40.3	93.6	4.1	475.9	49.0	100.6	5.7		
RPM 1075	30	268	18.2	82.8	1.1	350.7	23.9	89.9	1.7	434.1	29.8	97.1	2.4		
2HP, 7.4A*	40	225	11.4	79.2	0.5	309.4	15.8	86.4	0.8	393.2	20.2	93.6	1.2		

* Denotes FLA at 230/60/3 electrical power





DESIGN CONDITIONS

Heating Load = 210 MbH
 Entering Air Temperature = 50°F
 Steam Pressure = 15 psi
 Mounting Height = 12 feet

1. CAPACITY EVALUATION

From Table 5, the correction factor for 15 psig steam and 50°F entering air is 1.275. Equivalent capacity at standard conditions (2 psig steam and 60°F entering air) is:

$$Cap_{\text{equivalent}} = \frac{210}{1.275} = 164.7 \text{ MBH}$$

2. UNIT SELECTION

From Table 2, model 133-H delivers 165.8 MbH at standard conditions and at 1075 rpm and has a maximum mounting height of 13 feet (Table 1).

Thus, Model 133-H should be selected.

3. ACTUAL PERFORMANCE

Actual capacity :

$$Cap_{\text{actual}} = 165.8 \times 1.275 = 211.4 \text{ MBH}$$

Or expressed as Equivalent Direct Radiation (EDR):

$$\text{Sq. ft of radiation} = \frac{\text{Cap (Btu)}}{240} = \frac{211,400}{240} = 880.8 \text{ EDR}$$

The amount of condensate is:

$$\text{Lbs of condensate} = \frac{\text{Sq. ft of radiation}}{4} = \frac{880.8}{4} = 220.2 \text{ lbs per hour.}$$

4. DETERMINING FINAL TEMPERATURE

The air temperature rise through the unit heater can be determined by:

$$\Delta T_{\text{air}} = \frac{\text{Cap (Btu)}}{\text{scfm} \times 1.085} = \frac{211,400}{2600 \times 1.085} = 74.9 \text{ °F}$$

$$\begin{aligned} \text{Leaving Air Temperature} &= \text{Inlet Air Temperature} + \Delta T_{\text{air}} \\ &= 70 + 74.9 \text{ °F} = 144.9 \text{ °F} \end{aligned}$$



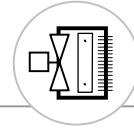


TABLE 5 CORRECTION FACTORS FOR HORIZONTAL UNIT HEATERS AT VARIOUS STEAM CONDITIONS

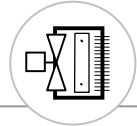
STEAM PRESSURE (PSIG)	ENTERING AIR TEMPERATURE (°F)											
	-10	0	10	20	30	40	50	60	70	80	90	100
0	1.542	1.451	1.363	1.277	1.194	1.113	1.034	0.957	0.883	0.810	0.740	0.671
2	1.587	1.496	1.406	1.320	1.236	1.155	1.075	0.998	0.923	0.850	0.779	0.710
5	1.647	1.554	1.464	1.377	1.293	1.210	1.130	1.053	0.977	0.903	0.831	0.761
10	1.733	1.639	1.547	1.459	1.373	1.290	1.209	1.130	1.053	0.979	0.906	0.835
15	1.805	1.710	1.618	1.528	1.441	1.357	1.275	1.196	1.118	1.043	0.969	0.897
20	1.867	1.771	1.678	1.588	1.500	1.415	1.333	1.252	1.174	1.098	1.024	0.951
25	1.924	1.827	1.734	1.643	1.554	1.468	1.385	1.304	1.225	1.148	1.073	1.000
30	1.973	1.875	1.781	1.689	1.600	1.514	1.430	1.348	1.269	1.191	1.116	1.042
40	2.061	1.962	1.866	1.774	1.683	1.596	1.511	1.428	1.347	1.269	1.193	1.118
50	2.138	2.038	1.941	1.847	1.756	1.667	1.581	1.497	1.416	1.337	1.260	1.184
60	2.202	2.101	2.003	1.909	1.816	1.727	1.640	1.556	1.474	1.394	1.316	1.240
70	2.265	2.163	2.064	1.968	1.876	1.785	1.698	1.613	1.530	1.449	1.370	1.294
75	2.292	2.190	2.090	1.994	1.901	1.811	1.723	1.637	1.554	1.473	1.394	1.317
80	2.320	2.218	2.118	2.022	1.928	1.837	1.749	1.663	1.579	1.498	1.419	1.342
90	2.369	2.266	2.165	2.068	1.974	1.882	1.793	1.707	1.623	1.541	1.461	1.384
100	2.417	2.313	2.212	2.114	2.019	1.927	1.837	1.750	1.666	1.583	1.503	1.425
125	2.521	2.415	2.313	2.214	2.117	2.024	1.933	1.845	1.759	1.676	1.594	1.515
150	2.611	2.504	2.401	2.300	2.203	2.108	2.016	1.927	1.840	1.755	1.673	1.593

TABLE 6 CORRECTION FACTORS FOR VERTICAL UNIT HEATERS AT VARIOUS STEAM CONDITIONS

STEAM PRESSURE (PSIG)	ENTERING AIR TEMPERATURE (°F)											
	-10	0	10	20	30	40	50	60	70	80	90	100
0	1.488	1.408	1.329	1.251	1.176	1.101	1.029	0.957	0.887	0.819	0.751	0.684
2	1.526	1.445	1.366	1.288	1.213	1.139	1.066	0.994	0.924	0.856	0.788	0.721
5	1.575	1.494	1.415	1.337	1.262	1.187	1.115	1.043	0.973	0.904	0.836	0.770
10	1.645	1.564	1.484	1.407	1.331	1.257	1.184	1.112	1.042	0.973	0.905	0.839
15	1.704	1.622	1.543	1.465	1.389	1.315	1.242	1.170	1.100	1.031	0.963	0.896
20	1.754	1.673	1.593	1.516	1.439	1.365	1.292	1.220	1.150	1.081	1.013	0.946
25	1.800	1.719	1.639	1.561	1.485	1.410	1.337	1.265	1.195	1.126	1.058	0.991
30	1.839	1.758	1.678	1.600	1.524	1.449	1.376	1.304	1.233	1.164	1.096	1.029
40	1.910	1.828	1.748	1.670	1.593	1.518	1.445	1.373	1.302	1.233	1.165	1.098
50	1.971	1.889	1.808	1.730	1.653	1.578	1.505	1.433	1.362	1.292	1.224	1.157
60	2.022	1.939	1.859	1.781	1.704	1.629	1.555	1.483	1.412	1.342	1.274	1.207
70	2.071	1.989	1.908	1.829	1.753	1.677	1.603	1.531	1.460	1.390	1.322	1.254
75	2.092	2.010	1.929	1.851	1.774	1.698	1.624	1.552	1.481	1.411	1.342	1.275
80	2.115	2.032	1.952	1.873	1.796	1.720	1.646	1.574	1.503	1.433	1.364	1.297
90	2.153	2.070	1.989	1.910	1.833	1.758	1.684	1.611	1.540	1.470	1.401	1.334
100	2.190	2.107	2.026	1.947	1.870	1.794	1.720	1.648	1.576	1.506	1.437	1.370
125	2.271	2.188	2.107	2.028	1.950	1.874	1.800	1.727	1.655	1.585	1.516	1.448
150	2.341	2.258	2.176	2.097	2.019	1.943	1.868	1.795	1.723	1.653	1.584	1.516

Note: To determine steam heat output of a horizontal/vertical unit heater at other than standard conditions (2 psig steam and 60°F entering air temperature), multiply unit capacity by the correction factor for the desired conditions from the above tables.





DESIGN CONDITIONS

Heating Load = 240 MbH
 Entering Air Temperature = 75°F
 Entering Water Temperature = 195°F
 Water Temperature Drop = 15°F
 Mounting Height = 22 ft
 Configuration = Standard Vertical
 Projection Unit Heater (Model V)

1. CAPACITY EVALUATION

From Table 7, since there are no factors for 75°F entering air nor any for 215°F entering water, hence the correction factor must be interpolated across the pertinent downward diagonal as follows:

Factor at 70°F EAT & 190°F EWT= 0.845

Factor at 80°F EAT & 200°F EWT= 0.838

Factor at 75°F EAT & 195°F EWT(Average) = 0.8415

There is no need to utilize the factors along the upward diagonal (i.e., 70°EAT-200°EWT & 80°EAT-190°EWT). A first approximation of the equivalent capacity at standard conditions (200°F water and 60°F entering air) is:

$$\text{Cap}_{\text{first approximation}} = \frac{240}{0.8415} = 285.2 \text{ MBH}$$

2. ADJUST THE WATER TEMPERATURE DROP

The adjusted water temperature is :

$$\Delta T_{\text{adjusted}} = \frac{15}{0.8415} = 17.8 \text{ °F}$$

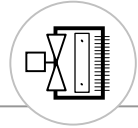
3. UNIT SELECTION AND EQUIVALENT CAPACITY

From Table 4, Model V Hot Water Capacities, at 200°F EWT and 1075 rpm, model 300-V delivers 298.3 MbH at 20°F ΔT and 325.0 MbH at 10°F ΔT and thus meets the capacity requirements of our first approximation. From Table 3, model 300-V may be mounted up to 26 feet above floor level without the need for a louvre cone diffuser and thus complies with the mounting height requirements. Interpolating for 17.8°F ΔT, the equivalent performance at 200°F EWT is:

$$\text{Cap}_{\text{equivalent}} = \frac{325.0 - 298.3}{(20 - 10)} \times (17.8 - 15) + 298.3 = 305.7 \text{ MbH}$$

Continued →





DESIGN CONDITIONS

Heating Load = 240 MbH
 Entering Air Temperature = 75°F
 Entering Water Temperature = 195°F
 Water Temperature Drop = 15°F
 Mounting Height = 22 ft
 Configuration = Standard Vertical
 Projection Unit Heater (Model V)

4. ACTUAL PERFORMANCE

To obtain the actual capacity, multiply the equivalent capacity by the correction factor as follows:

$$Cap_{actual} = Cap_{equivalent} \times 0.8415 = 305.7 \times 0.8415 = 257.2 \text{ MbH}$$

5. DETERMINATION OF GPM AND WATER PRESSURE DROP

The required water flow can be found by:

$$Q_{actual} = \frac{Cap_{actual} \text{ (MbH)}}{0.485 \times \Delta T_{actual}} = \frac{257.2}{0.485 \times 15.0} = 35.4 \text{ GPM}$$

The water pressure drop may be interpolated at 200°F, resulting in:

$$Pressure \text{ Drop}_{actual} = 6.8 \text{ feet of water}$$

6. DETERMINATION OF FINAL TEMPERATURE

Lastly, the final air temperature leaving the unit heater can be determined by:

$$\begin{aligned}
 FAT_{actual} &= EAT + \Delta T_{air} = EAT + \frac{Cap_{actual} \text{ (Btu/hr)}}{CFM \times 1.085} \\
 &= 75^\circ + \frac{257,200}{6360 \times 1.085} = 112.3^\circ \text{ F}
 \end{aligned}$$



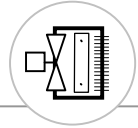


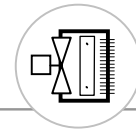
TABLE 7 HOT WATER CORRECTION FACTORS FOR HORIZONTAL AND VERTICAL UNIT HEATERS

ENTERING WATER TEMP. (°F)	ENTERING AIR TEMPERATURE (°F)							
	30	40	50	60	70	80	90	100
160	0.962	0.880	0.795	0.715	0.634	0.568	0.484	0.410
170	1.036	0.954	0.869	0.785	0.704	0.628	0.552	0.478
180	1.110	1.024	0.940	0.859	0.774	0.698	0.622	0.546
190	1.182	1.100	1.011	0.929	0.845	0.768	0.690	0.615
200	1.259	1.171	1.085	1.000	0.917	0.838	0.760	0.684
210	1.331	1.249	1.158	1.071	0.988	0.908	0.829	0.753
220	1.408	1.318	1.230	1.141	1.058	0.978	0.898	0.820
230	1.482	1.391	1.301	1.215	1.129	1.048	0.967	0.889
240	1.554	1.468	1.374	1.285	1.200	1.118	1.036	0.957
250	1.627	1.539	1.448	1.359	1.270	1.188	1.106	1.025
260	1.702	1.612	1.520	1.429	1.340	1.258	1.173	1.095
270	1.780	1.686	1.590	1.500	1.410	1.328	1.244	1.161
280	1.850	1.759	1.664	1.571	1.482	1.398	1.311	1.230
290	1.925	1.831	1.735	1.642	1.552	1.468	1.380	1.300
300	2.000	1.909	1.809	1.715	1.622	1.538	1.450	1.368
310	2.070	1.976	1.882	1.785	1.694	1.604	1.515	1.433
320	2.142	2.048	1.953	1.858	1.764	1.674	1.585	1.499
330	2.220	2.120	2.024	1.930	1.838	1.742	1.655	1.569
340	2.295	2.193	2.095	2.000	1.907	1.815	1.723	1.638
350	2.370	2.268	2.168	2.070	1.976	1.884	1.795	1.705
360	2.440	2.348	2.242	2.140	2.045	1.952	1.862	1.776
370	2.515	2.417	2.312	2.215	2.116	2.020	1.930	1.843
380	2.590	2.488	2.388	2.285	2.188	2.091	1.998	1.910
390	2.660	2.560	2.459	2.360	2.258	2.162	2.067	1.977
400	2.735	2.632	2.530	2.430	2.332	2.230	2.137	2.046



Unit Heaters

Plant Order Form



PO No.: _____

JOB NAME: _____

HORIZONTAL UNIT HEATERS

MODEL	QTY.	TAG	LOUVER FIN DIFFUSERS	SPEED CONTROLLER	MANUAL STARTER	THERMOSTAT IMPERIAL	THERMOSTAT METRIC
030H			<input type="checkbox"/> = LFD12	<input type="checkbox"/> = SPD25	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
040H			<input type="checkbox"/> = LFD12	<input type="checkbox"/> = SPD25	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
047H			<input type="checkbox"/> = LFD14	<input type="checkbox"/> = SPD25	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
058H			<input type="checkbox"/> = LFD14	<input type="checkbox"/> = SPD25	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
062H			<input type="checkbox"/> = LFD16	<input type="checkbox"/> = SPD25	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
084H			<input type="checkbox"/> = LFD16	<input type="checkbox"/> = SPD25	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
133H			<input type="checkbox"/> = LFD20	<input type="checkbox"/> = SPD50	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
200H			<input type="checkbox"/> = LFD24	<input type="checkbox"/> = SPD10	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
245H			<input type="checkbox"/> = LFD24	<input type="checkbox"/> = SPD10	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM

VERTICAL UNIT HEATERS

MODEL	QTY.	TAG	LOUVER CONE DIFFUSERS	SPEED CONTROLLER	MANUAL STARTER	THERMOSTAT IMPERIAL	THERMOSTAT METRIC
040V			<input type="checkbox"/> = LCD12	<input type="checkbox"/> = SPD25	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
050V			<input type="checkbox"/> = LCD12	<input type="checkbox"/> = SPD25	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
054V			<input type="checkbox"/> = LCD14	<input type="checkbox"/> = SPD25	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
067V			<input type="checkbox"/> = LCD14	<input type="checkbox"/> = SPD25	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
078V			<input type="checkbox"/> = LCD16	<input type="checkbox"/> = SPD25	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
100V			<input type="checkbox"/> = LCD16	<input type="checkbox"/> = SPD25	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
145V			<input type="checkbox"/> = LCD20	<input type="checkbox"/> = SPD50	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
210V			<input type="checkbox"/> = LCD24	<input type="checkbox"/> = SPD10	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
300V			<input type="checkbox"/> = LCD30	<input type="checkbox"/> = SPD10	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
370V			<input type="checkbox"/> = LCD30	<input type="checkbox"/> = SPD10	<input type="checkbox"/> = MSTNO	<input type="checkbox"/> = RTI	<input type="checkbox"/> = RTM
375V			<input type="checkbox"/> = LCD30	NA*	NA*	<input type="checkbox"/> = RTI**	<input type="checkbox"/> = RTM**
480V			<input type="checkbox"/> = LCD30	NA*	NA*	<input type="checkbox"/> = RTI**	<input type="checkbox"/> = RTM**

Notes:

* 375V and 480V are equipped with three phase motors, for which speed controllers and manual starters are not available.

** 375V and 480V are equipped with three phase motors; thermostats are for single phase 120/240 and should be applied to pilot circuit of unit heater starter.

