

# VAV DIFFUSERS

## THERMA-FUSER - TF-HC

- Thermal Control Power
- Self Contained Control System
- VAV Room Temperature Control
- Field Adjustable Heating Volume Control



Therma-Fuser is equivalent to having a thermostat in every room. It is self-contained and thermally powered - - no pneumatic piping or electrical wiring is required. Room temperature settings for heating and cooling are separately adjustable. Therma-Fuser is maintenance free with no requirement for lubrication or costly pneumatics or electronics to maintain.

**Now... Control Both Heating and Cooling With Your Variable Air Volume System!**

### PERFORMANCE GUIDE

Model	(Inches) Listed Size	Inlet SP In W.G.	Max. CFM	Throw @ Max. CFM		Throw @ 25% of CFM		NC @ Max. CFM*	Price Each
				Vt 50 / Vt 100	Vt 50 / Vt 100	Vt 50 / Vt 100	Vt 50 / Vt 100		
TFHC	6	.05	100	5 / 3	3 / 1	*	CALL		
		.10	140	6 / 3	3 / 2	20			
		.15	175	7 / 4	4 / 3	24			
		.20	200	8 / 5	6 / 4	28			
		.25	220	8 / 6	7 / 4	33			
TFHC	8	.05	160	6 / 4	4 / 2	*	CALL		
		.10	225	8 / 5	5 / 3	20			
		.15	275	9 / 5	6 / 4	25			
		.20	320	10 / 6	8 / 5	29			
		.25	335	12 / 7	9 / 6	33			
TFHC	10	.05	260	7 / 4	5 / 3	*	CALL		
		.10	370	9 / 5	6 / 4	22			
		.15	450	11 / 6	7 / 4	26			
		.20	520	12 / 7	8 / 5	29			
		.25	580	13 / 8	10 / 7	32			
TFHC	12	.05	380	8 / 5	6 / 4	*	CALL		
		.10	550	11 / 7	8 / 5	23			
		.15	650	12 / 7	8 / 6	27			
		.20	740	14 / 8	10 / 7	30			
		.25	820	15 / 10	11 / 8	33			
		.30	890	17 / 11	12 / 9	36			

Acutherm optimizes variable volume systems and meet your sustainable design goals:

- ✓ Thermafuser systems result in less energy use:
  - Matching zone loads
  - Minimize fan energy
  - Low Turndown Ratio's
- ✓ Individual Temperature Control
- ✓ Maintain excellent Thermal Comfort
- ✓ High room Air Change Effectiveness
- ✓ Monitor Individual Spaces
- ✓ Innovative Design Benefits

Exceed your client's expectations with truly sustainable VAV system design.

Acutherm provides cost effective solutions that will lower first cost, contribute to LEED® points, and maximize the amount of energy saved in any building.

To see how Thermafuser designs meet your LEED application needs, scan this link!



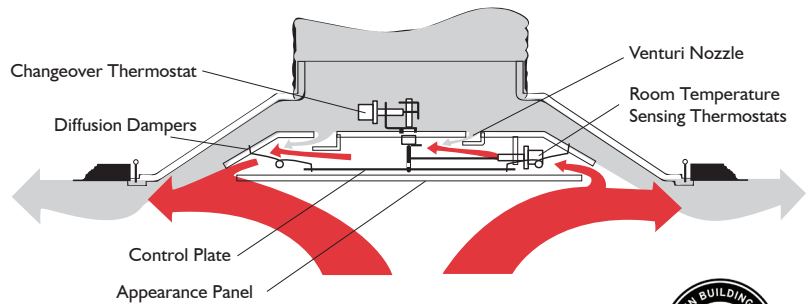
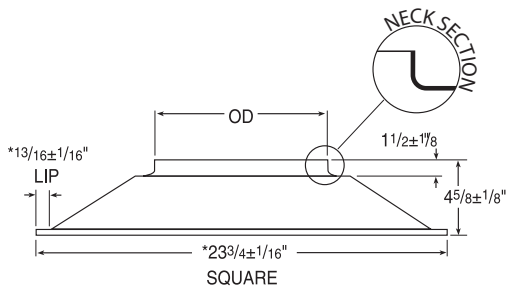
- Denotes nominal rating
- $V_t$  Terminal velocity in fpm

NC based on LW 10 - 12W - 10 db

\* less than NC 20

\* With blades in full open position

Nominal Neck Size	Inches			
	A	B	ID	OD
6	1-1/4	4-1/4	5-1/2	5-15/16
8	1-5/16	4-3/8	7-5/16	7-15/16
10	1-7/16	4-9/16	9-11/16	9-15/16
12	1-5/16	4-3/8	11-9/16	12



**Notes:**

- Relief rings available
- Auxiliary frame for surface mounting on page 10.



## VARIABLE AIR VOLUME TERMINAL UNITS

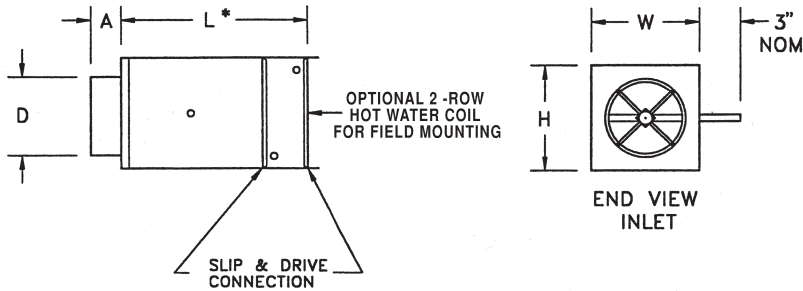
### TUTTLE & BAILEY Model SDV - Single Duct Terminal Units

*Bare Terminal Units Include:*

- Flo-Cross® Sensor
- Enviro-Seal™ Insulation w/zero water vapor permeability
- UL181, NFPA 90A, ASTM C665
- Low leakage damper w/ shaft position indicator
- Controls by others or **ADD** optional control packages shown below



Model/Inlet Size	CFM Range Max - Min	Min Ps	Weight (lbs.) Less Controls	L	H	W	A	D	Coil Conn. O.D. 2 Rows	Price Base Unit	Price Add 2 Row HWC
SDV 6	500-100/0	0.23	20	20 1/2	8	12	3 3/8	5 7/8	5/8	\$141	\$74
SDV 8	900-175/0	0.08	24	20 1/2	10	12	3 3/8	7 7/8	5/8	151	84
SDV 10	1400-250/0	0.06	30	20 1/2	12 1/2	14	3 3/8	9 7/8	5/8	161	114
SDV 12	2000-400/0	0.02	35	20 1/2	15	16	3 3/8	11 7/8	7/8	181	144
SDV 14	3500-700/0	0.02	45	23	17 1/2	20	3 3/8	13 7/8	7/8	201	194
SDV 16	4200-700/0	0.02	45	23	18	24	3 3/8	15 7/8	7/8	221	214



**Optional control packages:**

**CP-163 - STK** Analog Electronic, VAV Cooling, VAV Heating With Duct Changeover Sensor. 277/120V Transformer and Wall Thermostat Included.

**CP-133 - STK** Pneumatic Pressure Independent VAV Cooling, Constant Volume Heating at Min. CFM Set Point. N.O. Valve for use with D.A. T-stat by others. Re-heat control valves or P.E. Switches by others.

**Notes:**

- 1) Control Packages are provided loose on factory mounting plate. No control enclosure required.
- 2) Electronic Control Components are pre-wired on factory mounting plate ready for field installation.

**ACCESSORIES**

Model	Description	Price Each
CP-163	Electronic Control - Autochange	\$438
CP-133	Pneumatic Control	214
CTC-1611	D.A. Pneumatic Wall T-Stat	94
TF-241	Transformer 120V/277V - 24V AC	38

# FAN POWERED VAV TERMINALS

## REDD-I Model NRFHE - Fan-powered VAV terminal

Parallel, intermittent fan-powered, VAV terminal unit provided with the following features:

- ETL label with electric heat options
- Permanent split capacitor motors with thermal overload protection
- Two-sided access for easy access to motor and blower
- 1" fiberglass insulation with 4# density core meeting NFPA-90A requirements

*All units are provided with:*

- 277V blower motors with Speed Control, Size 500, Size 750 and Size 1500
- Electric Heat: Size 500 Heater is 277v/1 phase, and Size 750 & 1500 Heater is 480v/3 phase.
- Single point power connection, non-fused, door interlock disconnect.
- 75 VA transformer, multi-step magnetic contractors and fan/heater relay with pilot relay.
- Primary valve with Flow-cross velocity sensor.

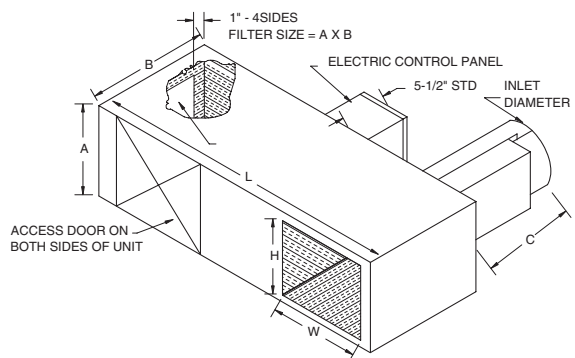
NRFHE Model Size	Fan CFM Range @ 0.2 ESP	Blower HP@ 277V	Primary Valve (MVA) Size	Primary Valve CFM Range	Electric Heat KW	Heater Stages (Note 1)	Unit MCA	NRFHE Complete Unit Price	NRFHE Freight Surcharge	Model MV Primary Valve ONLY Price
500	250-640	1/6	6	150-510	2.5 & 5	1 or 2	23.8	\$644	\$55	\$76
			8	300-905	2.5 & 5	1 or 2	23.8	664	55	96
			10	600-1415	2.5 & 5	1 or 2	23.8	684	55	116
750	440-1200	1/4	8	300-905	3.5, 7 & 10.5	1, 2 or 3	19.9	769	55	96
			10	600-1415	3.5, 7 & 10.5	1, 2 or 3	19.9	779	55	116
			12	800-2040	3.5, 7 & 10.5	1, 2 or 3	19.9	789	55	126
1500	750-1500	1/2	12	800-2040	3.5, 7 & 10.5	1, 2 or 3	19.9	826	55	126
			14	1000-2780	3.5, 7 & 10.5	1, 2, or 3	19.9	846	55	146

**Notes:**

1) Heat KW changes are made by combing Stages on the Control Terminal Strip.

Model 500, 2.5 KW Heat is (1) stage only, 5KW may be (1) or (2) stage.  
 Model 750 & 1500; 3.5 KW Heat is (1) stage only, 7KW Heat may be (1) or (2) stages and 10.5 KW may be (1), (2), or (3) stages.

2) Model MV rectangular outlet adapter dimensions are available upon request.



**DIMENSIONS**

NRFH MODEL SIZE	A	B	C	L	DISCHARGE	
					W	H
500-06	14	18	17	53	14	10
500-08			17		10	
500-10			19		12	
750-08	18	18	17	63	14	14
750-10			19			
750-12			19			
1500-12						
1500-14						

**ACCESSORIES**

Model	Description	Price Each
CP-133	Pneumatic Control	\$214
CTC-1611	D.A. Pneumatic Wall T-Stat	94
CTR-116	3 Stage Heat w/T-Stat	505
	PE Switch	24