

## MECHANICAL SPECIFICATIONS

**UNIT CASING** — Unit casing is 18 gage or heavier furniture steel reinforced and braced for maximum rigidity. Casing is sound and thermal insulated with glass fiber blanket fastened with waterproof adhesive.

Vertical and horizontal cabinet models are formed by adding insulated cabinets to concealed units. Front panel of vertical and bottom panel of horizontal cabinet units are secured by camlock fasteners.

Free-flo grilles are standard. Adjustable, double or single deflection grilles are available. All metal surfaces, not galvanized, are bonderized and finished with a neutral gray smooth primer finisher baked on enamel.

**COIL** — Coils are two rows deep with 144 fins per foot. Tubes are of  $\frac{3}{8}$ " OD .025" copper with aluminum plate type fins mechanically bonded to tubes.

Coils in vertical units are 26° from the vertical. Coils on horizontal models are vertical. Coils can be reversed.

Circuiting is single tube serpentine with supply at bottom and return at top. Supply and return tubes have cast brass connectors with  $\frac{3}{8}$ " OD female fittings and tapped holes for air vent and drain plug.

Coils are suitable for working pressures to 200 psig.

**DRAIN PAN** — Drain pans are 18 gage steel. Unit drain pans are insulated on all inside surfaces. Vertical unit drain connection takes  $\frac{3}{4}$ " female pipe thread. Drainpan is adjustable to  $\frac{1}{4}$ " pitch. Horizontal unit has  $\frac{3}{8}$ " OD drain connections on right and left sides and pan is pitched for draining.

**FANS** — Centrifugal fans are on a removable 14 gage steel fan board. Forward curved, double width aluminum wheels are mounted on extended shafts. Fan housings are of 18 gage steel with weld-seam construction.

**MOTOR** — Shaded pole motors with built-in thermal overload protection rest on a base with soft rubber isolation. Motor cord has a detachable connector. Motor speed at full voltage is 1550 rpm. Bearings are bronze sleeve with oil reservoirs.

**SPEED CONTROLLER** — A tapped reactor type of input voltage regulator gives three speeds and off. Reactor is mounted on rubber isolators.

Positioned in end pockets of vertical cabinet model, speed controller is reversible from right to left. Wall mounted speed control equipment is available.

**FILTERS** — Throwaway type filters of woven glass fiber are standard. Permanent filters are available.

**OUTSIDE AIR INLET ASSEMBLY** — Vertical units have intake openings in back and bottom panels. Intake is regulated by an assembly consisting of a manually operated damper blade for the opening being used and fixed flat plate which closes opening not being used. A blockoff plate prevents blow-through. All vertical units have a return air opening in the three-inch kick space which passes across the front of the unit.

## ENGINEERING SPECIFICATIONS

1. The contractor shall furnish and install, where shown on the plans, Trane Type DD UNITRANE units of the model and size shown on the plans (Vertical cabinet model/vertical concealed model/horizontal cabinet model/horizontal concealed model) in (Size 22DD/32DD/42DD/62DD). Each unit shall have cooling and heating capacities as shown in the schedule on the plans (.....Btu/hr sensible cooling capacity, .....Btu/hr total cooling capacity with .....cfm of air entering the unit at ..... DB, ..... WB. The design water temperature rise for cooling shall be ..... F; ..... Mbh heating capacity with ..... cfm of air entering the unit at ..... F and with ..... gpm of water entering the coil at ..... F).

NOTE: The following specification may be substituted for that shown above for cooling capacity after selection of all units on the system: (..... Btu/hr. sensible cooling capacity, ..... Btu/hr total cooling capacity with ..... cfm of air entering the unit at ..... DB and ..... WB and with ..... gpm of water entering the coil at ..... F. The pressure drop through the coil shall not exceed ..... ft. of water).

2. The UNITRANE units shall be of blow-through design and shall be complete with a water coil with Delta Flo fin design. Coil shall not be less than two rows deep in the direction of air flow. The unit shall have one or more quiet operating centrifugal fans directly connected to extended motor shafts, and an insulated furniture steel casing. All vertical units shall be provided with (throwaway/permanent) filters and with a three-speed motor controller mounted on the unit. The horizontal cabinet models shall be provided with (throwaway/permanent) filters.

3. The casings of all units shall be of not less than 18 U. S. gage steel bonderized and finished with a zinc chromate base, corrosion resistant, gray primer finisher enamel. The vertical cabinet model and the horizontal cabinet model shall be fitted with a finished outer cabinet which shall have rounded edges and which shall be designed for attractive appearance. This outer finished cabinet shall be completely removable for access to the internal basic assembly.

4. The coil and drain pan on all units shall be readily reversible. The coil on all units shall be fitted with drain and vent connections to provide complete draining and venting of the coil regardless of mounting position. The fan and motor assembly shall be readily removable and shall be provided with a quick disconnect on the motor cord.

5. The filters on all vertical models shall be removable without necessitating removal of the front panel. Filters will be secured in the unit by the front panel which is locked in place with camlock fasteners. Filters on the horizontal cabinet models will be removable after opening the bottom cabinet panel which shall be secured in place with camlock fasteners.

6. Coils shall be installed at no greater than 30° from vertical to assure proper drainage of condensed moisture from the external coil surfaces. The drain pan on each unit shall be so arranged as to collect all moisture condensed on the external surfaces of the coils, whether the fans are off or on.

7. Vertical UNITRANE units shall be no greater than 9" in depth. Horizontal UNITRANE units shall be no greater than 9" in depth from top to bottom.

# ROUGHING-IN DIMENSIONS

## VERTICAL CABINET MODEL

TABLE 2

MODEL	COIL SIZE	FANS	A	B	C	D	E	F
22 DD	9 X 16	ONE	36	15 3/4	18	16	12	12
32 DD	9 X 22	ONE	42	21 3/4	24	22	12	15
42 DD	9 X 28	TWO	48	27 3/4	30	28	16	16
62 DD	9 X 40	TWO	60	39 3/4	42	40	16	22

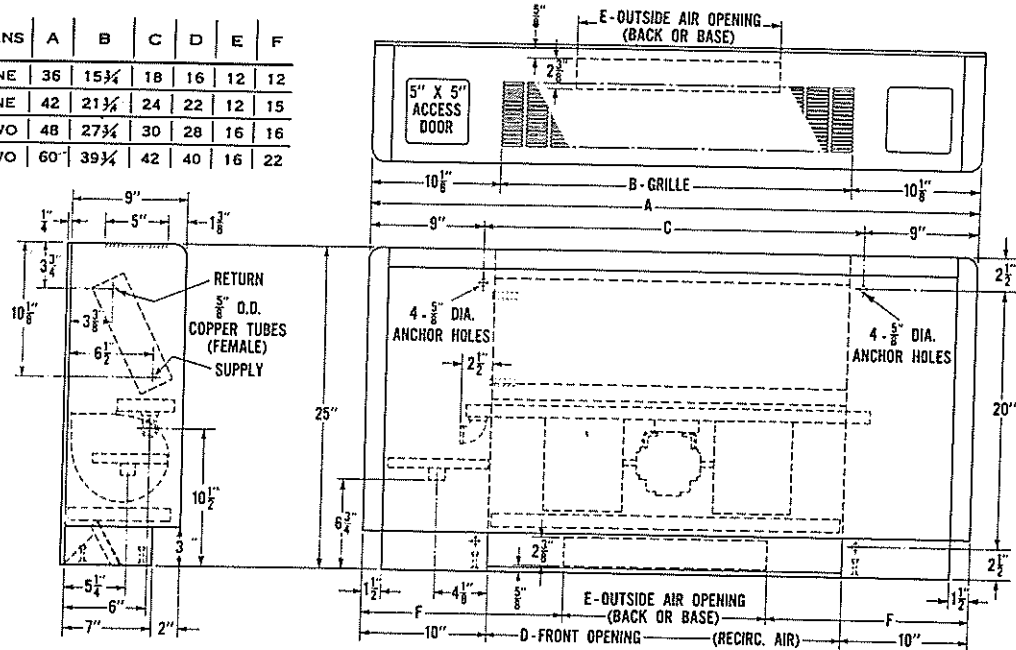


FIGURE 39 — Dimension Drawing of UniTrane Vertical Cabinet Model.  
All Dimensions Approximate. Certified Drawings on Request.

## VERTICAL CONCEALED MODEL

TABLE 3

MODEL	COIL SIZE	FANS	A	B	C	D	E	F	G
22 DD	9 X 16	ONE	20	16	18	16	12	4	17 1/2
32 DD	9 X 22	ONE	26	22	24	22	12	7	23 1/2
42 DD	9 X 28	TWO	32	28	30	28	16	8	29 1/2
62 DD	9 X 40	TWO	44	40	42	40	16	14	41 1/2

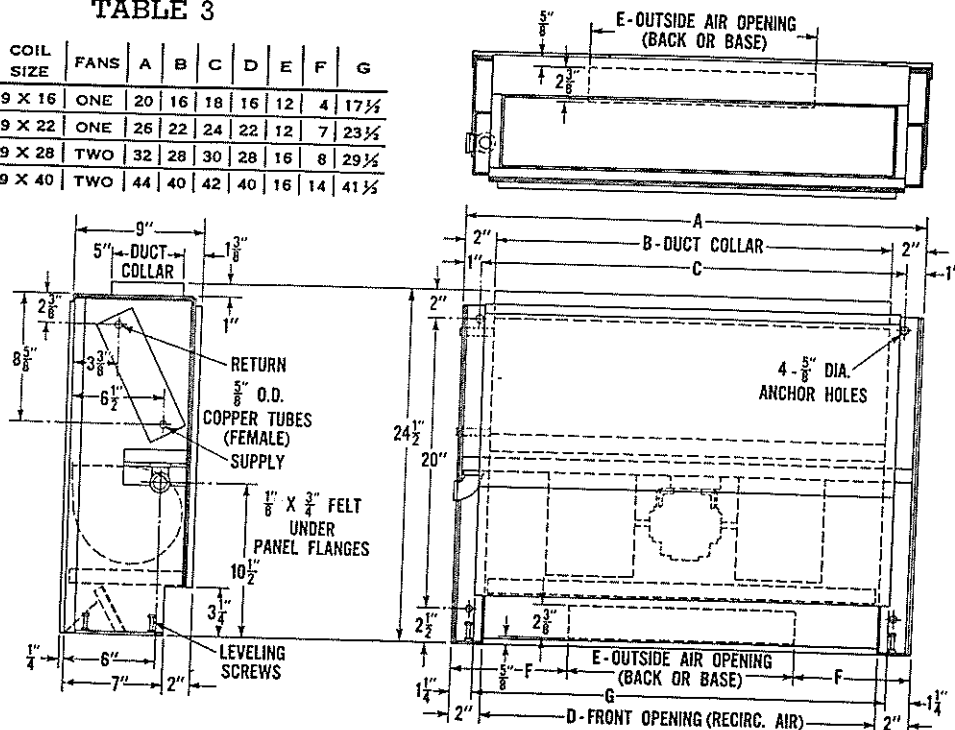


FIGURE 40 — Dimension Drawing of UniTrane Vertical Concealed Model  
All Dimensions Approximate. Certified Drawings on Request.

# ROUGHING-IN DIMENSIONS

## HORIZONTAL CABINET MODEL

TABLE 4

MODEL	COIL SIZE	FANS	A	B	C
22 DD	7½ X 16	ONE	31	15	18
32 DD	7½ X 22	ONE	37	21	24
42 DD	7½ X 28	TWO	43	27	30
62 DD	7½ X 40	TWO	55	39	42

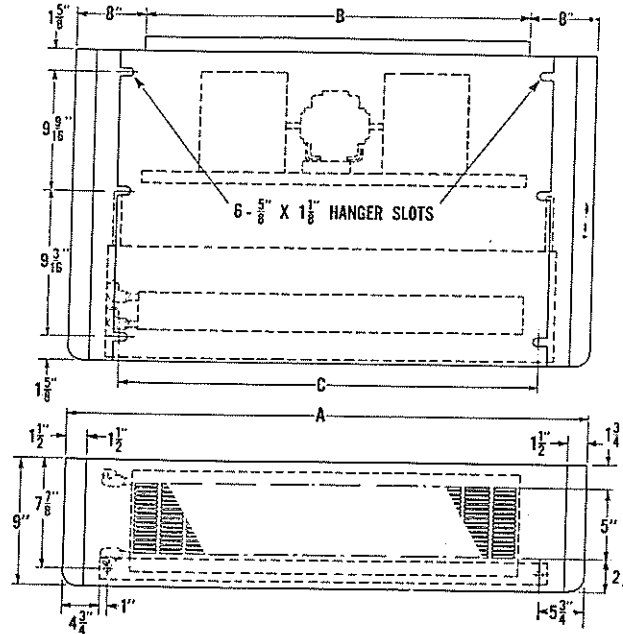
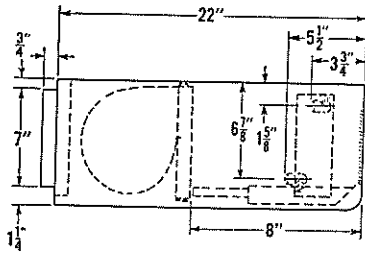


FIGURE 41 — Dimension Drawing of UniTrane Horizontal Cabinet Model.  
All Dimensions Approximate. Certified Drawings on Request.

## HORIZONTAL CONCEALED MODEL

TABLE 5

MODEL	COIL SIZE	FANS	A	B	C
22 DD	7½ X 16	ONE	21½	17½	18
32 DD	7½ X 22	ONE	27½	23½	24
42 DD	7½ X 28	TWO	33½	29½	30
62 DD	7½ X 40	TWO	45½	41½	42

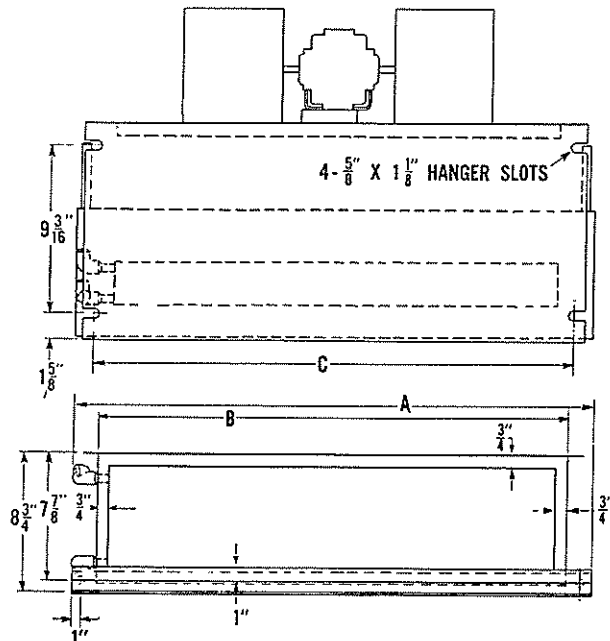
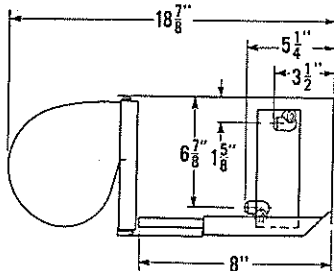


FIGURE 42 — Dimension Drawing of UniTrane Horizontal Concealed Model.  
All Dimensions Approximate. Certified Drawings on Request.

# ACCESSORIES

*Pinski - East East.  
Purd - design*

**WALL INTAKE BOX**

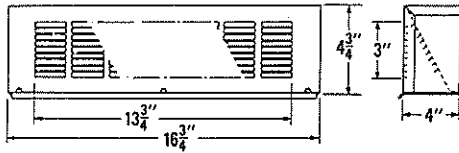


FIGURE 43

All dimensions are approximate. Certified prints upon request.

**DISCHARGE PANEL**

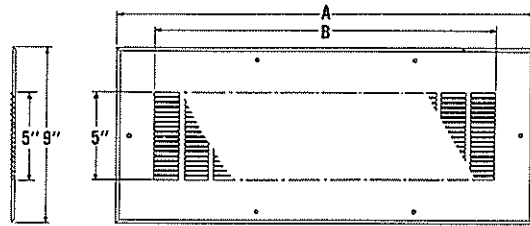


FIGURE 44

All dimensions are approximate. Certified prints upon request.

**RETURN AIR GRILLE**

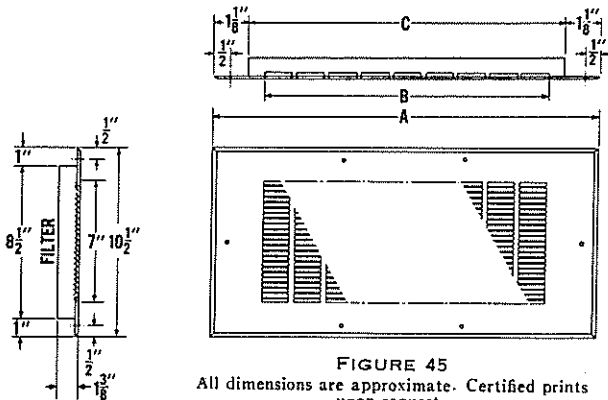


FIGURE 45

All dimensions are approximate. Certified prints upon request.

**TABLE 6**

	A	B
NO. 22	20"	15 3/4"
NO. 32	26"	21 3/4"
NO. 42	32"	27 3/4"
NO. 62	44"	39 3/4"

**TABLE 7**

	A	B	C
NO. 22	18"	13 3/4"	16"
NO. 32	24"	19 3/4"	22"
NO. 42	30"	25 3/4"	28"
NO. 62	42"	37 3/4"	40"

These items are designed for use with UniTrane units to complete installations. They are matched to unit design and can be purchased as standard equipment making it unnecessary for the contractor to have them fabricated for the individual installation. Constructed of heavy gage steel, they are bonderized and finished in baked gray primer finisher enamel. Discharge panels are available with either horizontal or vertical louvers.

Integral free-flo grilles are designed to provide 15° deflection. Where adjustable deflection is desired, single or double deflection grilles of standard manufacture are available for factory installation on vertical cabinet models only. Cabinets have been sized to accommodate adjustable grilles without increasing cabinet size and without a reduction in grille-free area.

Complete identification of UniTrane is as follows:

**42 Type DD**

in which the first digit refers to cfm in 100s, the second digit refers to the design series and DD refers to Direct Drive.

*14125.FAM*

**TABLE 8 — GENERAL DATA — TYPE DD UNITRANE**

MODEL	SIZE	CFM*	COIL SIZE	FILTER SIZE†	NO. FANS	FAN SIZE	COIL CONN.	DRAIN CONN.	MOTOR HP	NET WEIGHT	
										CABINET	CONCEALED
VERTICAL MODELS	NO. 22	200	9" X 16"	8 1/4" X 15 3/4"	1	4 3/4" X 4 1/2"	5/8" OD	3/4" NPT	1/30	90	65
	NO. 32	300	9" X 22"	8 1/4" X 21 3/4"	1	4 3/4" X 6 1/2"	5/8" OD	3/4" NPT	1/25	100	75
	NO. 42	400	9" X 28"	8 1/4" X 27 3/4"	2	4 3/4" X 4 1/2"	5/8" OD	3/4" NPT	1/20	115	90
	NO. 62	600	9" X 40"	8 1/4" X 39 3/4"	2	4 3/4" X 6 1/2"	5/8" OD	3/4" NPT	1/12	145	120
HORIZONTAL MODELS	NO. 22	200	7 1/2" X 16"	8 1/4" X 15 3/4"	1	4 3/4" X 4 1/2"	5/8" OD	5/8" OD	1/30	65	40
	NO. 32	300	7 1/2" X 22"	8 1/4" X 21 3/4"	1	4 3/4" X 6 1/2"	5/8" OD	5/8" OD	1/25	75	50
	NO. 42	400	7 1/2" X 28"	8 1/4" X 27 3/4"	2	4 3/4" X 4 1/2"	5/8" OD	5/8" OD	1/20	95	70
	NO. 62	600	7 1/2" X 40"	8 1/4" X 39 3/4"	2	4 3/4" X 6 1/2"	5/8" OD	5/8" OD	1/12	120	95

\* CFM BASED ON FREE DELIVERY ON BOTH CABINET MODELS. RATED CFM AVAILABLE FROM VERTICAL CONCEALED MODEL WITH ADDITION OF ONE GRILLE OF SIZE EQUIVALENT TO THAT ON CABINET MODEL. RATED CFM AVAILABLE FROM HORIZONTAL CONCEALED MODEL WITH ADDITION OF TWO GRILLES AS DESCRIBED UNDER ACCESSORIES AND WITH 1" FILTER.

† NO FILTER PROVIDED WITH HORIZONTAL CONCEALED MODEL. FILTER MOUNTED ON RETURN AIR GRILLE ASSEMBLY. THE TRANE COMPANY RESERVES THE RIGHT TO MAKE CHANGES IN SPECIFICATION AND DESIGN WITHOUT NOTICE.