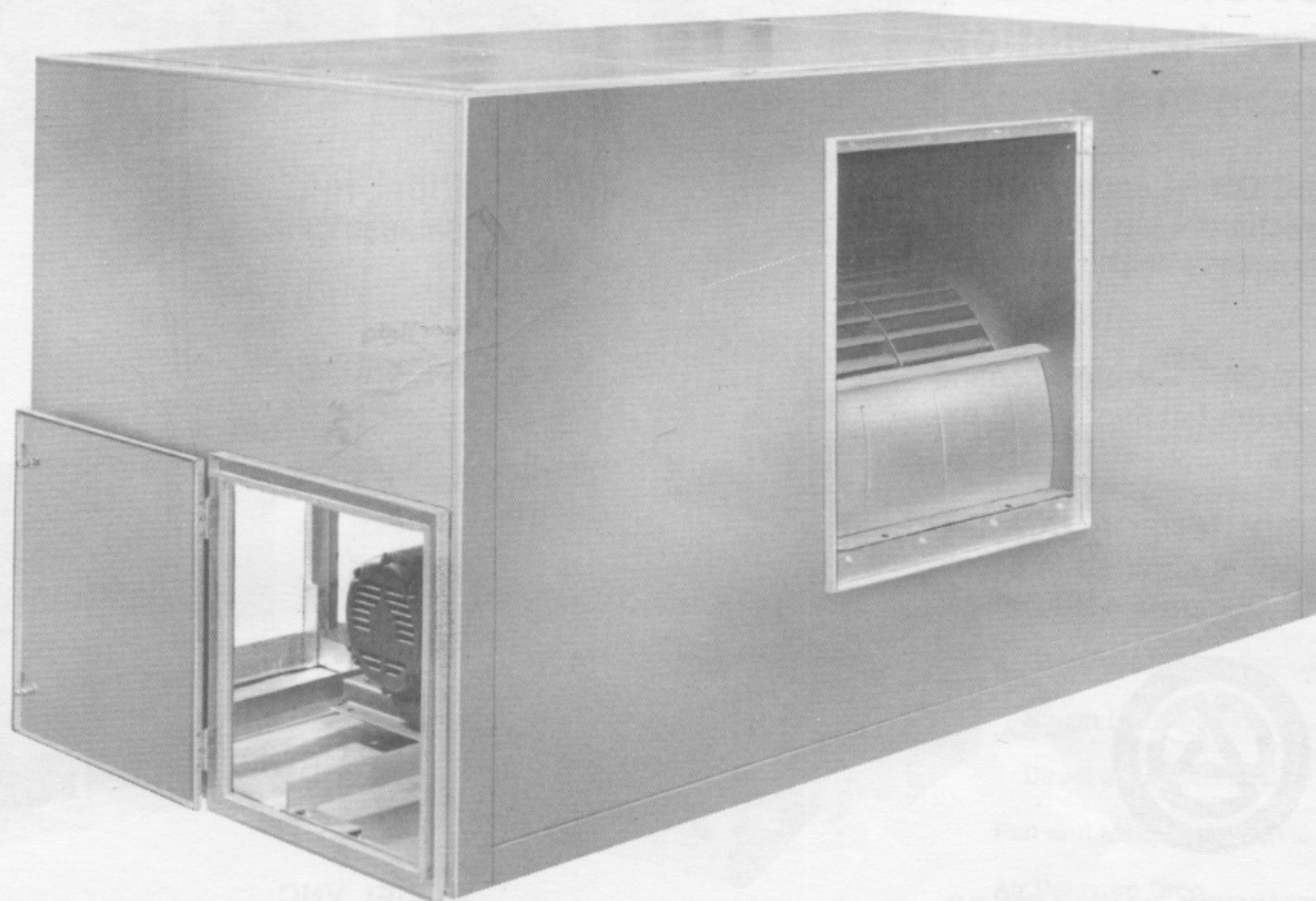




AIRTHERM



CENTRALAIRE III CENTRAL STATION AIR CONDITIONING UNITS ENGINEERING MANUAL

QUALITY PRODUCTS TODAY FOR AN ENERGY EFFICIENT TOMORROW

Centraire III heavy duty Air handlers are built



Features that assure ease of selection and trouble-free installation and maintenance

MODULAR DESIGN—Centraires are designed in sections—lets you select components to satisfy nearly every job requirement.

CHOICE OF COILS—Water cooling and heating, steam heating, direct expansion cooling.

ARI CERTIFIED PERFORMANCE—Coil performance is certified in accordance with ARI Standard 410.



FORWARD CURVED AND AIRFOIL FANS—available for operation from 0"–6" static pressure. Fan performance is certified in accordance with ARI Standard 430.



PRECISION BALANCED—Fans are balanced after assembly at design RPM with motor and drive in place.

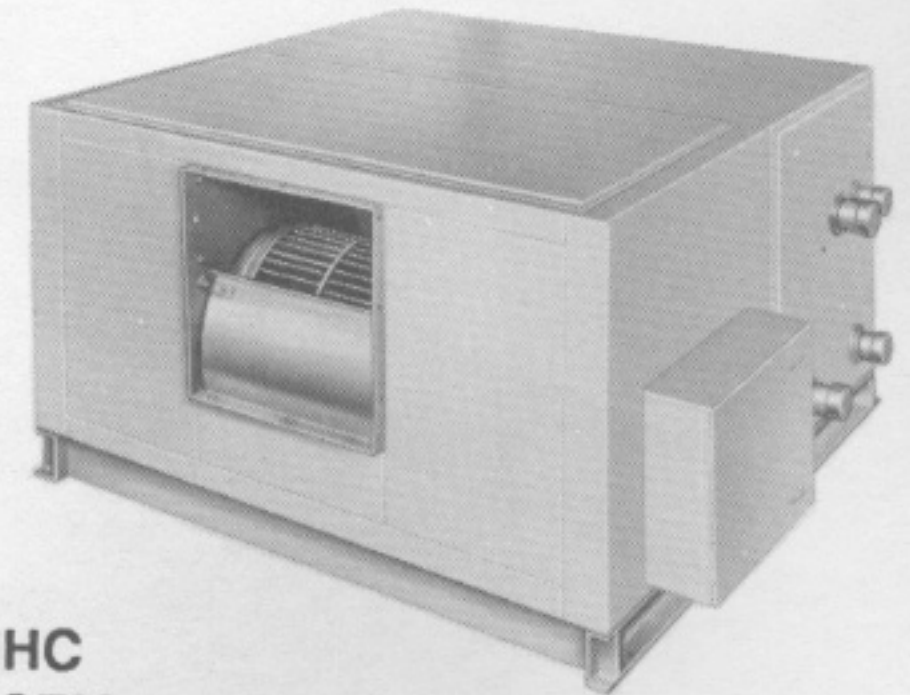
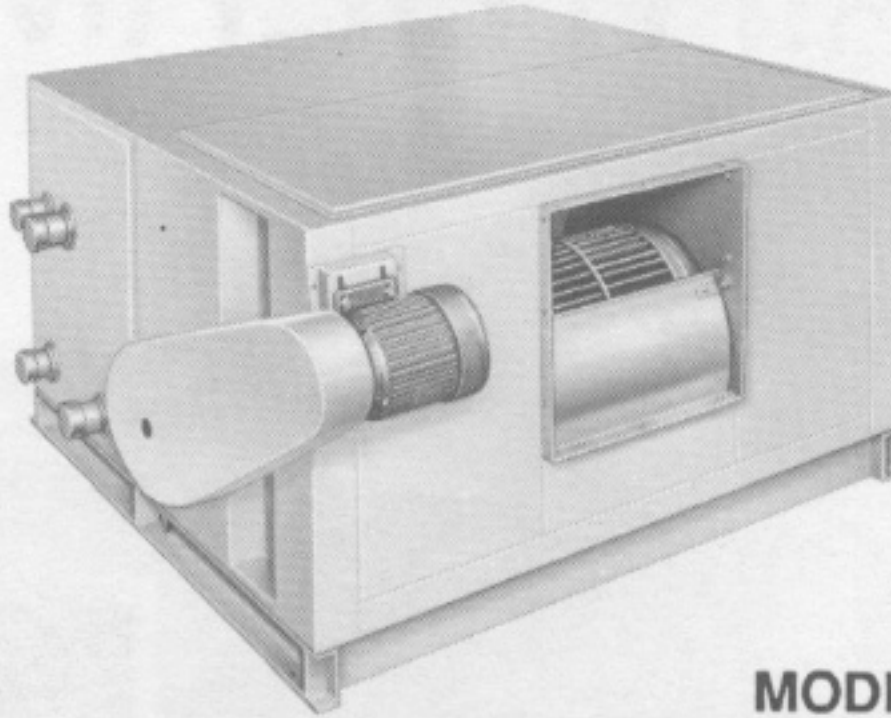
RELIABLE PERFORMANCE—Welded uniframe construction and heavy gauge casing panels ensure trouble-free installation and maintenance.

SINGLE ZONE AIR CONDITIONING UNITS

Externally mounted motor models

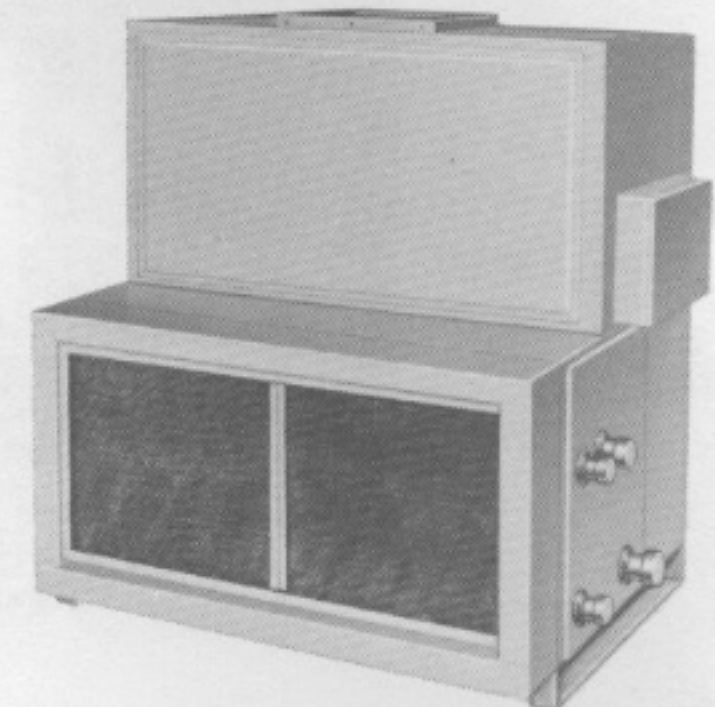
Internally mounted motor models

HORIZONTAL



MODEL HHC
795-43850 CFM

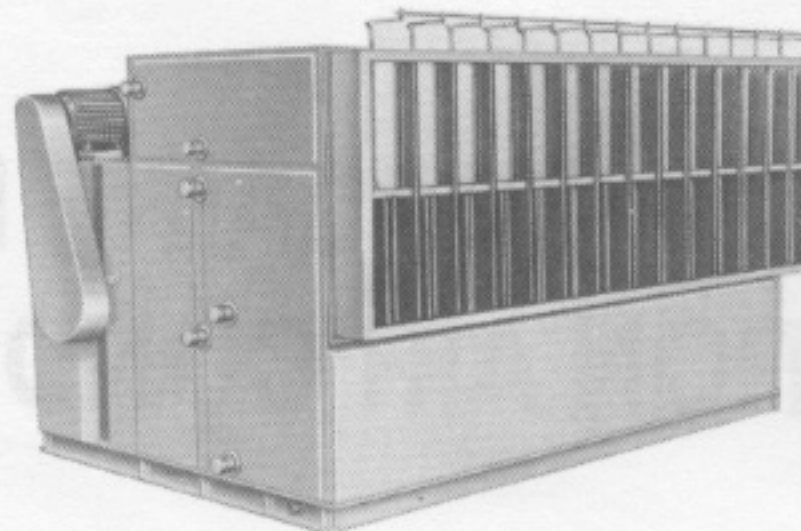
VERTICAL



MODEL VHC
795-24935 CFM

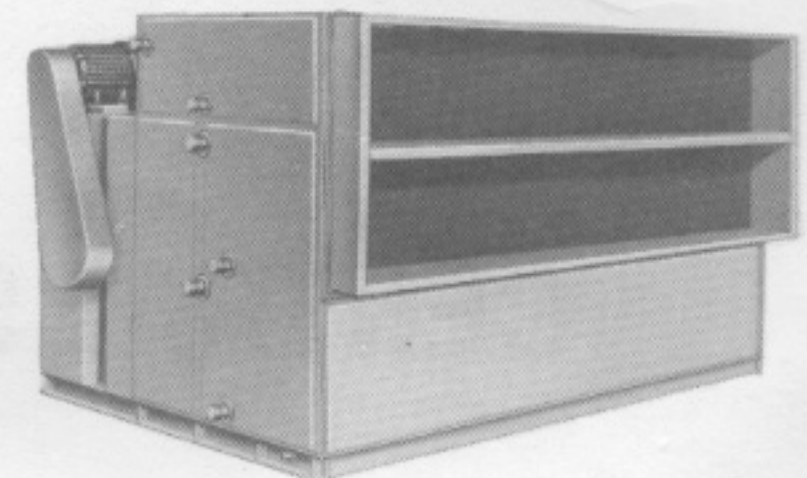
MULTI-ZONE AND DUAL DUCT UNITS

MULTI-ZONE



MODEL MZ
1555-21380 CFM

DUAL DUCT



MODEL MZD
1555-21380 CFM

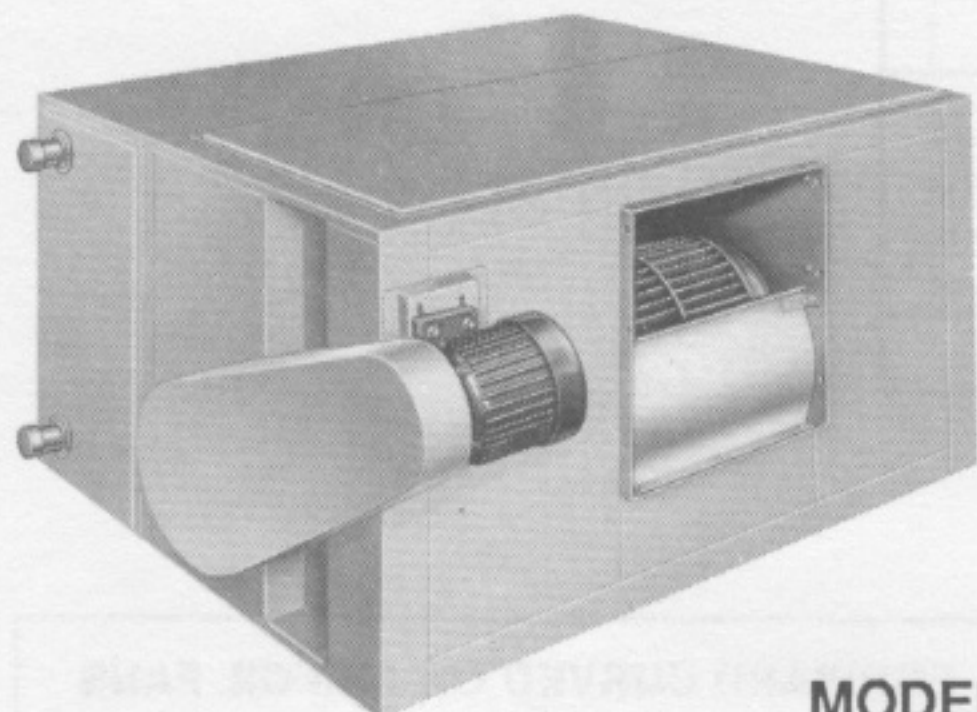
to meet your precise design requirements

SINGLE ZONE HEATING AND VENTILATING MODELS

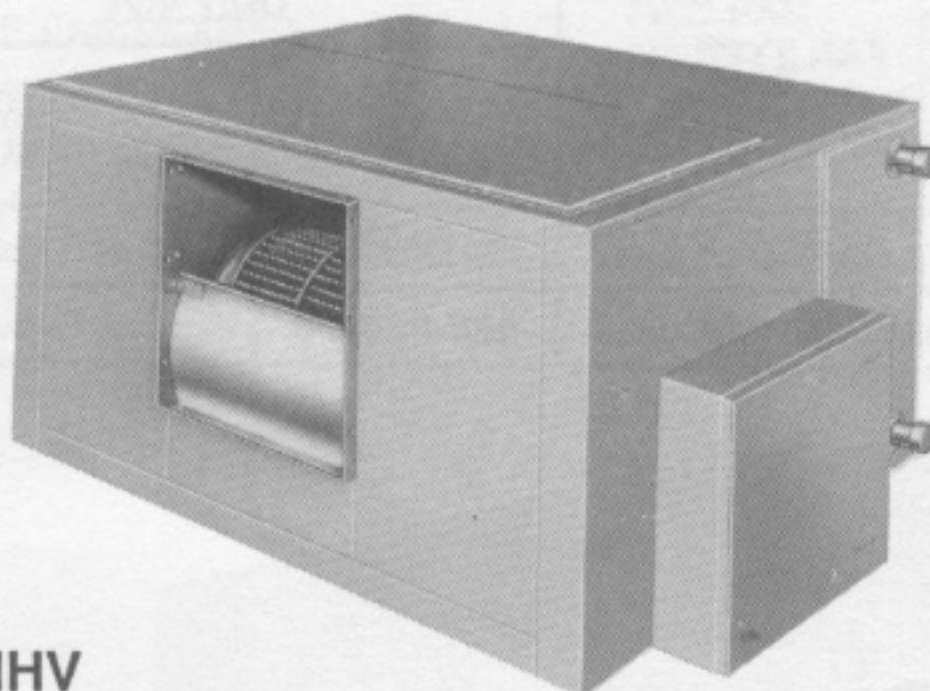
Externally mounted motor models

Internally mounted motor models

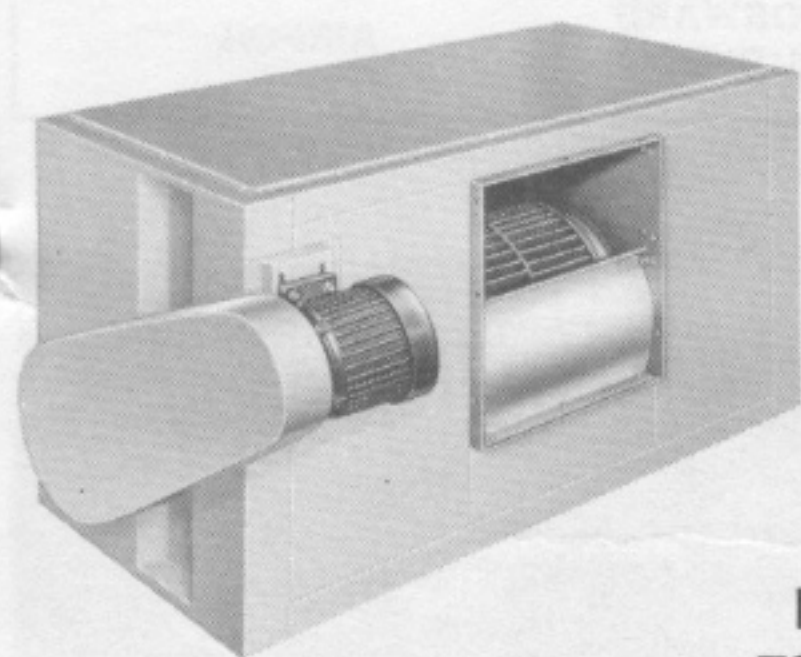
HEATING AND VENTILATING



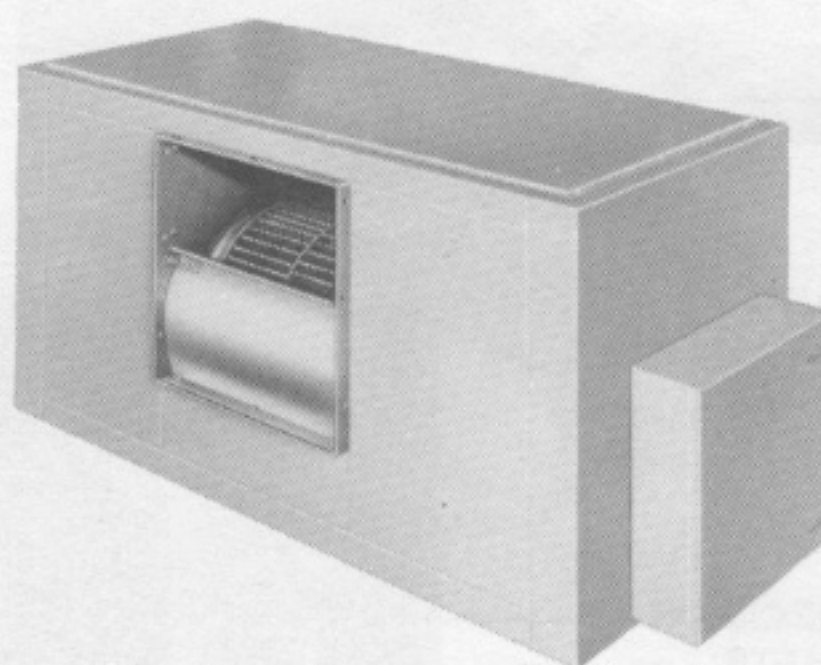
MODEL HHV
795-62640 CFM



FAN CABINETS

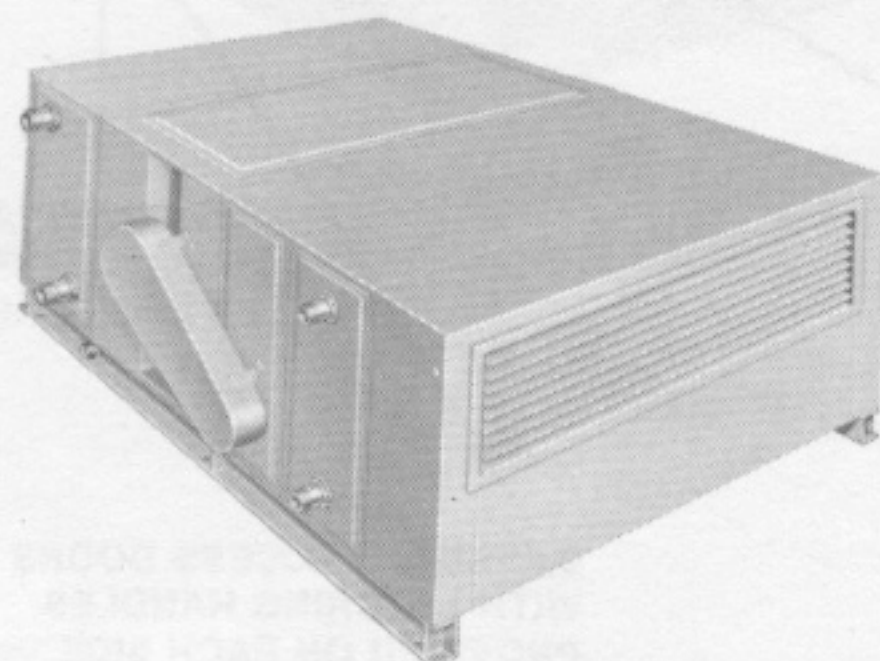


MODEL HVE
795-62640 CFM

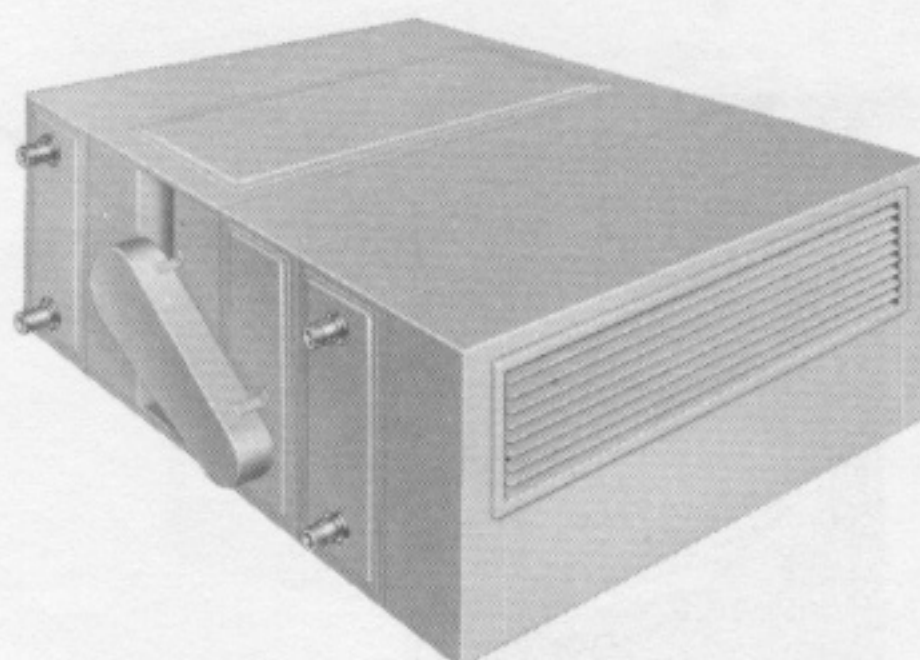


**HORIZONTAL UNITS SHOWN — VERTICAL AND INVERTED
UNITS ARE ALSO AVAILABLE**

AUDITORIUM MODELS



MODEL AHHC
AIR CONDITIONING
9 SIZES
795-15875 CFM

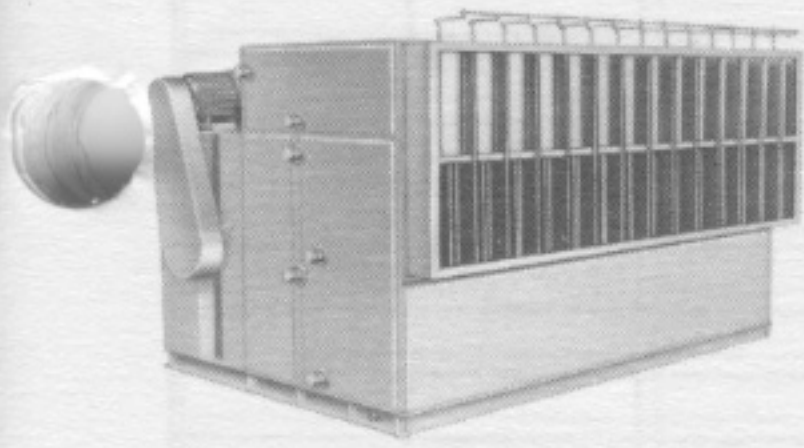


MODELS AHH-AHHV
HEATING AND VENTILATING
9 SIZES
795-24110 CFM

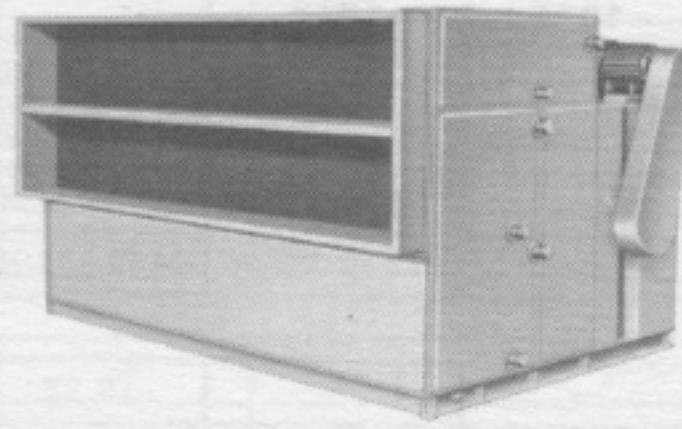
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MULTI-ZONE AND DUAL DUCT UNIT STANDARD SPECIFICATIONS

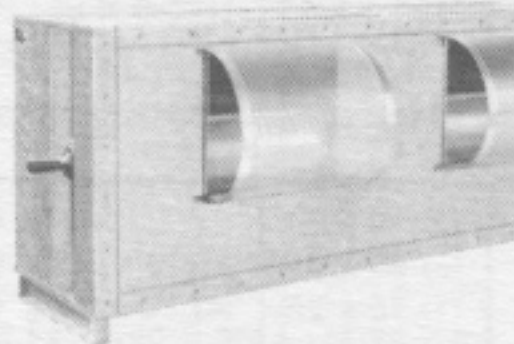


**MODEL MZ
MULTI-ZONE UNIT**



**MODEL MZD
DUAL DUCT UNIT**

MODEL MZ AND MZD—multi-zone and dual duct air conditioning units have a blow-thru fan section, coil and plenum section, hot and cold decks, drain pan, zone dampers, or flanged outlets. A diffusion screen is located on the fan discharge. Coil and plenum sections are galvanized steel with gasketed removable panels and sealed joints. 1" thick 1.5 lb. density glass fiber insulation is installed on the inside of top and end panels. Side panels are insulated inside with 1/2" thick 2 lb. density glass fiber insulation. Insulation is secured with waterproof adhesive. Insulation and adhesive meet NFPA requirements.



AIR DIFFUSION SCREENS
are installed on the fan discharge.

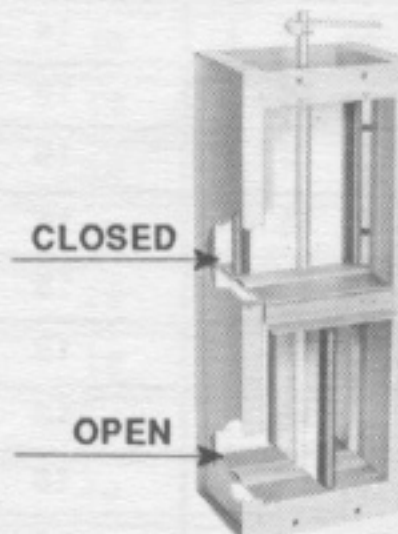
Hot and cold decks are separated by an insulated partition. The heating coil is positioned to prevent air from wiping it before entering the cooling coil. Resistance plates balance air flow between hot and cold decks. Coil sections accommodate up to a 12-1/2" cooling coil depth, or 7-1/2" heating coil depth. A double wall condensate drain pan is installed under the coil and plenum section.



**MULTI-ZONE
COIL SECTION**

The inner condensate drain pan is 14 gauge galvanized steel, coated internally. A 1" thick insulation blanket is installed between the inner pan and a reinforced galvanized steel outer cover. Drain connections are on both sides. Intermediate drain pans are supplied on units with stacked cooling coils.

Zone damper blades are galvanized steel and rotate in nylon bushings. Air leakage at blade ends is minimized by convex flexible aluminum seals. Low-leakage bulb seals are installed on blade edges. Galvanized steel partitions separate damper blades. The cold deck exterior is insulated with 1/2" glass fiber enclosed with sheet metal. Dual duct units have discharge duct connections with no dampers.



**TIGHT CLOSING
ZONE DAMPERS**

Zone dampers are furnished with factory fabricated linkage. This linkage is cut at the jobsite to provide the proper number of damper sections for each zone. The quantity of individual damper sections for each size is listed in the following table.

UNIT SIZE	0613 0815	1016 1218	1420 1820	1715 2016 2422	2418	3024 3627
No. of Sections*	7	8	10	11	13	14

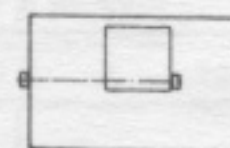
* Fixed for each unit size. Cannot be varied.

FAN SECTIONS—have welded uniframe construction. External bearings are mounted on formed channels that strengthen the cabinet and add support to the shaft. Internal bearings are mounted on heavy-gauge welded galvanized steel frames. Welded uniframe structural supports and gussets ensure lasting durability. Fan sections are uninsulated.

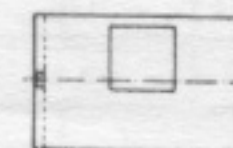
FANS—are DWDI forward curved, statically and dynamically balanced. Wheels and housings are constructed of painted or galvanized steel.

SHAFTS—are solid steel, precision TG&P. Maximum operating RPM is 20% below first critical speed. Fan shafting is furnished with a protective coating to prevent oxidation.

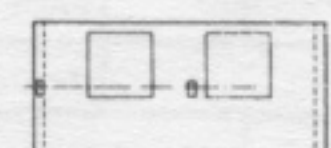
BEARINGS—are self-aligning flange or pillow block type, selected for 200,000 hr. average life. Interior bearings have extended lubrication lines with external grease fittings.



(1)



(2)

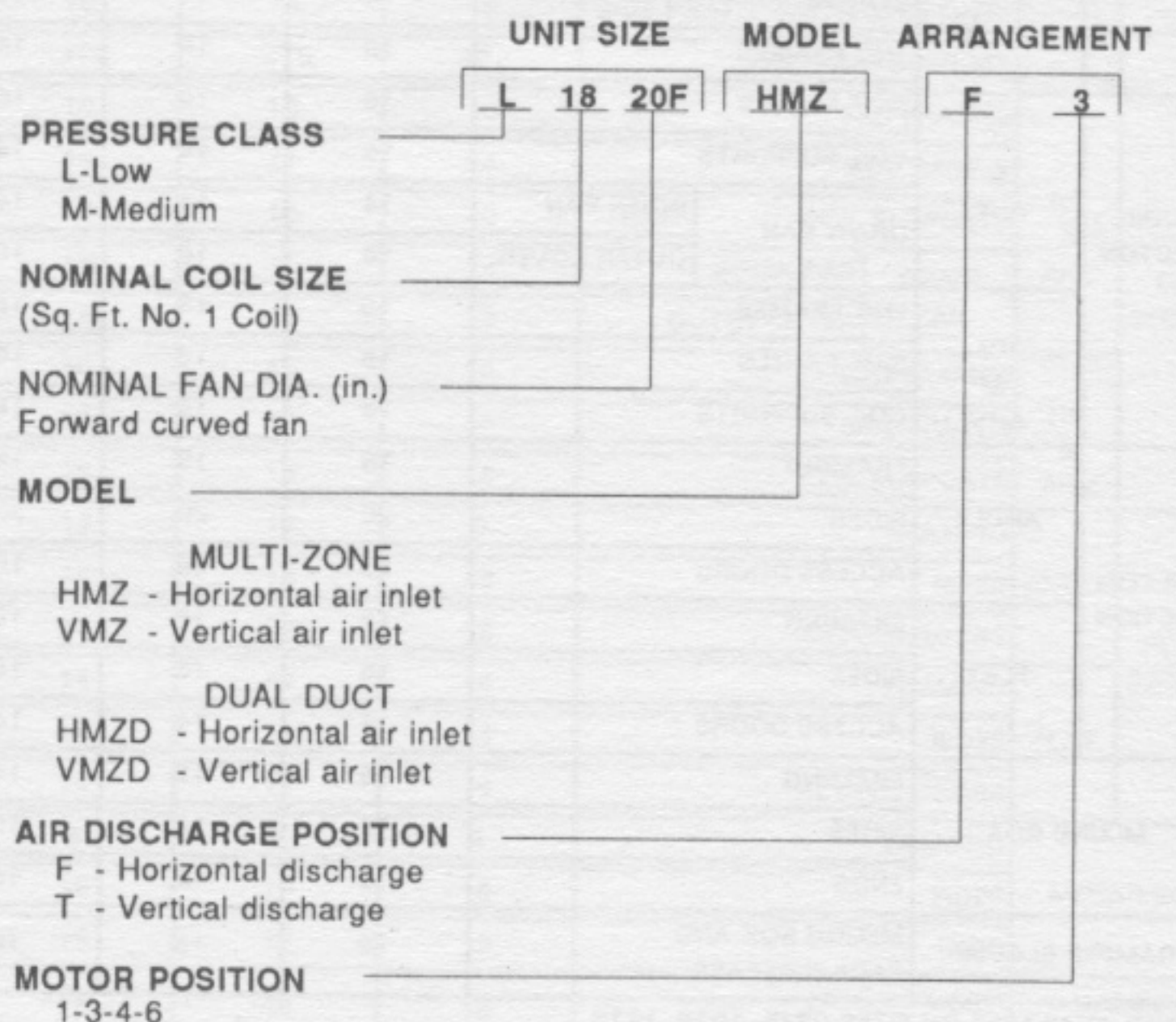


(3)

FAN SHAFT BEARING ARRANGEMENT						
UNIT SIZE	0613	0815	1016	1218	1420	1820
BEARING ARRGT.	2	2	2	2	2	2
UNIT SIZE	1715	2016	2418	2422	3024	3627
BEARING ARRGT.	3	3	3	1	1	1

DRIVES—have 1.5 minimum service factor. Adjustable drives allow 20% nominal speed variation. Sheaves are cast iron heavy-duty. Belts are static free, sized for 150% of BHP. Motor bases are adjustable.

MULTI-ZONE AND DUAL DUCT UNIT NOMENCLATURE



SINGLE ZONE UNIT PHYSICAL DATA

DESCRIPTION				UNIT SIZE								
				0309 0310	0612 0613	0814 0815	1015 1016	1118 1218	1420	1715	1720	1820
CFM RANGE BY UNIT TYPE	(F1) FORWARD CURVED			-	-	-	-	-	4195-13880	-	-	-
	(F2) FORWARD CURVED			795-2390	1555-4490	2370-7570	2965-9460	3530-11690	4195-13880	5335-17030	5820-16600	5810-16435
	(A1) (A1D) AIRFOIL			-	-	-	-	*3530-11690	4195-11105	-	-	-
	(A2) (A2D) AIRFOIL			-	-	*2370-7570	*2965-7570	*3530-11690	4195-11105	-	5820-16600	5810-16435
FAN DATA												
SINGLE ZONE DRAW- THRU UNITS	TYPE F1	FC	DIAMETER(IN.)	-	-	-	-	-	18.13	-	-	-
			OUTLET AREA (SQ.FT.)	-	-	-	-	-	3.46	-	-	-
			SHAFT & BEARING SZ. (IN.)	-	-	-	-	-	2.19	-	-	-
	TYPE A1 A1D	AF	DIAMETER(IN.)	-	-	-	-	*16.19	16.19	-	-	-
			OUTLET AREA (SQ.FT.)	-	-	-	-	*3.43	3.43	-	-	-
			SHAFT & BEARING SZ. (IN.)	-	-	-	-	*1.44	1.44	-	-	-
	TYPE F2	FC	DIAMETER(IN.)	9.5	12.63	15.0	15.0	18.13	20.0	(2)15.0	20.0	20.0
			OUTLET AREA (SQ.FT.)	.836	1.44	2.05	2.62	3.46	4.60	5.12	5.11	5.11
			SHAFT & BEARING SZ. (IN.)	1/1.69	1/1.69	1/1.69	1/1.94	1.19/2.19	1.94	1.69	1.44	1.44
	TYPE A2 A2D	AF	DIAMETER(IN.)	-	-	*13.25	*14.56	*17.81	17.81	-	19.69	19.69
			OUTLET AREA (SQ.FT.)	-	-	*2.38	*2.89	*4.16	4.16	-	5.0	5.0
			SHAFT & BEARING SZ.	-	-	*1.19	*1.19	*1.44	1.44	-	1.69	1.69
COIL DATA												
WATER COOLING AND WATER HEATING	COIL NO. 1	QTY / FH X FL (IN)		(1)14.3 X 30	(1)20.7 X 39	(1)30.3 x 36	(1)30.3 X 45	(1)35.1 x 48	(1)35.1 X 57	(1)30.3 X 81	(1)31.9 X 75	(1)35.1 X 75
		FACE AREA (SQ FT)		2.99	5.61	7.57	9.46	11.69	13.88	17.03	16.6	18.26
	COIL NO.3	QTY / FH X FL (IN)		(1)9.6 X 30	(1)14.3 X 39	(1)23.9 X 36	(1)23.9 X 45	(1) 27.1 x 48	(1)27.1 X 57	(1)23.9 X 81	(1)27.5 X 75	(1)28.7 X 75
		FACE AREA (SQ FT)		1.99	3.89	5.98	7.47	9.03	10.72	13.45	13.28	14.94
FILTER DATA												
FLAT FILTER SECTION		QTY / SIZE (IN) 2" THICK		(2)16 x 20	(2)20 x 25	(4)16 x 20	(4) 16 x 25	(1) 16 x 20 (2) 20 x 20 (2) 16 x 25	(2) 16 x 20 (2) 20 x 20 (1) 16 x 25 (1) 20 x 25	(4)16 x 20 (4) 16 x 25	(3) 16 x 20 (3) 20 x 20 (1) 16 x 25 (1) 20 x 25	(3) 16 x 20 (3) 20 x 20 (1) 16 x 25 (1) 20 x 25
		GROSS FILTER AREA (SQ. FT.)		**4.44	6.94	8.88	11.12	13.34	16.25	20.00	21.25	21.25
MED.CAPACITY FILTER SECTION		QTY / SIZE (IN) 2" THICK		-	-	(2)20 x 20 (2)20 x 25	(2) 16 x 20 (4) 20 x 20	(2) 16 x 25 (4) 20 x 25	(8) 16 x 25	(2) 20 x 20 (6) 20 x 25	(8)20 x 25	(8)20 x 25
		GROSS FILTER AREA (SQ. FT)		-	-	12.50	15.56	19.44	22.24	25.26	27.76	27.76
HIGH-CAPACITY FILTER SECTION		QTY / SIZE (IN) 2" THICK		(4)12 x 20	(4)16 x 25	(8) 16 x 20	(8) 16 x 25	(8) 20 x 25	(12)20 x 20	(8) 16 x 20 (8) 16 x 25	(12) 20 x 20 (4) 20 x 25	(12) 20 x 20 (4)20 x 25
		GROSS FILTER AREA (SQ. FT.)		6.68	11.12	17.76	22.24	27.76	33.36	40.00	47.24	47.24
METAL GAUGES												
FAN SECTION	ALL	ENDS		16	16	16	16	12,14	12,14	12,14	14,16	14,16
		FRAMING MEMBERS		16	16	16	16	16	16	14	12	12
		PANELS (FAN DISCHARGE SIDE)		16	16	16	16	14	14	14	16	16
		SIDE PANELS (WITH STIFFENER)		18	18	18	18	18	18	18	18	18
		BEARING SUPPORT		14	14	14	14	14	14	14	.375	.375
COIL SECTION	HC & AHC	END FRAMES		16	16	16	16	14	14	16	14	14
		SIDE PANELS		16	16	16	16	16	16	14	14	14
		COIL SUPPORTS		16	14	14	14	14	14	14	10	10
		DRAIN PAN	INNER PAN	14	14	14	14	14	14	14	14	14
			OUTER COVER	16	16	16	16	16	16	16	16	16
	HV & AHV	END FRAMES		16	16	16	16	14	14	16	14	14
		SIDE PANELS		16	16	16	16	16	16	14	14	14
		COIL SUPPORTS		16	16	16	16	16	16	16	16	16
FILTER SECTION	ANGLE	FRAMING		18	18	16	16	14	14	16	14	14
		SIDES		20	20	20	20	18	18	20	18	18
		ACCESS DOORS		18	18	18	18	18	18	18	18	18
	FLAT	FRAMING		16	16	16	16	16	16	16	16	16
		SIDES		16	16	16	16	16	16	16	16	16
		ACCESS DOORS		14	14	14	14	14	14	14	14	14
MIXING BOX		FRAMING		16	16	14	14	14	14	14	14	14
		SIDES		18	18	16	16	16	16	16	16	16
		ENDS		16	16	16	16	16	16	16	16	16
DAMPER BLADES		MIXING BOX AND FACE & BYPASS		16	16	16	16	16	16	16	16	16

* ONLY AVAILABLE ON SIZES 0815, 1016, 1218

** FLAT SECTION IN COMBINATION FILTER MIXING BOX HAS: (2) 12 X 20 X 2 FILTERS, 3.34 SQ. FT GROSS AREA

SINGLE ZONE UNIT PHYSICAL DATA

UNIT SIZE									DESCRIPTION			
2016	2122	2418	2422	3024	3627	4133	5037	6440				
-	6505-20450		7485-21760	9355-24175	11180-28505	12655-40540	15910-50370	19780-62640	(F1) FORWARD CURVED	CFM RANGE BY UNIT TYPE		
6505-16360	6505-20450	7285-24110	7485-21760	9355-27200	11180-28505	12655-40540	15910-50370	19780-62640	(F2) FORWARD CURVED			
-	6505-18405	-	7485-19345	9355-21155	11180-24940	12655-40540	15910-45335	19780-56375	(A1) (A1D) AIRFOIL			
-	6505-20450	-	7485-21760	9355-21155	11180-28505	12655-40540	15910-45335	19780-56375	(A2) (A2D) AIRFOIL			
FAN DATA												
-	20.0	-	20	22.38	25.0	30.25	33.0	36	DIAMETER(IN.)	TYPE F1	SINGLE	
-	5.11	-	5.11	6.20	8.14	11.39	14.33	16.0	OUTLET AREA (SQ.FT.)			
-	1.44	-	1.44	1.44	1.69	1.69	2.19	2.19	SHAFT & BEARING SZ. (IN.)			
-	19.69	-	19.69	21.56	24.0	29.13	32.38	35.57	DIAMETER(IN.)	TYPE A1 A1D	ZONE	
-	5.0	-	5.0	6.37	7.52	11.18	13.46	16.72	OUTLET AREA (SQ.FT.)			
-	1.69	-	1.69	1.69	1.94	2.19	2.44	2.44	SHAFT & BEARING SZ. (IN.)			
(2)15.0	22.38	(2)18.13	22.38	25.0	27.63	33.0	36.0	40.25	DIAMETER(IN.)	TYPE F2	DRAW- THRU	
5.12	6.20	6.92	6.20	8.14	9.79	14.33	16.0	21.0	OUTLET AREA (SQ.FT.)			
1.69	1.44	1.69	1.44	1.69	1.69	2.19	2.19	2.94	SHAFT & BEARING SZ. (IN.)			
-	21.56	-	21.56	24.0	26.44	32.38	35.57	39.38	DIAMETER(IN.)	TYPE A2 A2D	UNITS	
-	6.37	-	6.37	7.52	9.07	13.46	16.72	20.33	OUTLET AREA (SQ.FT.)			
-	1.69	-	1.69	1.94	1.94	2.44	2.44	2.69	SHAFT & BEARING SZ. (IN.)			
COIL DATA												
(1)35.1 X 84	(1)35.1 X 84	(1)35.1 x 99	(2)20.7 X 84	(2)20.7 X 105	(1)22.3 X 111 (1)23.9 X 111	(1)28.7 X 99 (1)30.3 X 99	(1)31.9 X 111 (1)33.5 X 111	(3) 27.1 X 111	QTY / FH X FL (IN)	COIL NO. 1	WATER COOLING AND WATER HEATING	
20.45	20.45	24.11	24.18	30.22	35.63	40.54	50.37	62.64	FACE AREA (SQ FT)			
(1)28.7 X 84	(1)28.7 X 84	(1)27.1 X 99	(1)33.5 X 84	(1)33.5 X 105	(1)36.7 X 111	(1)22.3 X 99 (1)23.9 X 99	(2)25.5 X 111	(2) 33.5 X 111	QTY / FH X FL (IN)	COIL NO. 3		
16.73	16.73	18.63	19.52	24.40	28.26	31.78	39.32	51.60	FACE AREA (SQ FT)			
FILTER DATA												
(1)16 x 20 (1)20 X 20 (3)16 X 25 (3)20 X 25	(1)16 X 20 (4)20 X 20 (1)16 X 25 (4)20 X 25	(3)16 X 20 (3)20 X 20 (2)16 X 25 (2)20 X 25	(1)16 X 20 (4)20 X 20 (1)16 X 25 (4)20 X 25	(1)16 x 20 (1)16 X 25 (9)20 X 25	(12)20 X 25	(9) 20 x 20 (6) 20 x 25	(6) 20 x 20 (12) 20 x 25	(12) 20 X 20 (12) 20 X 25	QTY / SIZE (IN) 2" THICK	FLAT FILTER SECTION		
23.75	30.00	27.50	30.00	36.23	41.64	45.84	58.32	75.00	GROSS FILTER AREA (SQ. FT.)			
(4)16 X 25 (6)20 X 25	(3)16 X 20 (12)20 X 20	(10)20 X 25	(3)16 X 20 (12)20 X 20	(3)16 X 20 (12)20 X 25	(18)20 X 25	(12) 20 x 20 (8) 20 x 25	(24)20 x 25	(6)20 X 20 (24)20 x 25	QTY / SIZE (IN) 2" THICK	MED.CAPACITY FILTER SECTION		
31.94	40.00	34.70	40.00	48.30	62.46	61.12	83.28	100.00	GROSS FILTER AREA (SQ. FT.)			
(4)20 x 20 (12)20 X 25	(4)20 X 20 (12)20 X 25	(16)20 X 25	(4)20 X 20 (12)20 X 25	(4)16 X 20 (16)20 X 25	(24)20 x 25	(18)20 x 20 (12)20 X 25	(6)20 x 20 (24)20 x 25	(36)20 x 25	QTY / SIZE (IN) 2" THICK	HIGH-CAPACITY FILTER SECTION		
52.76	52.76	55.52	52.76	64.40	83.28	91.68	100.00	124.92	GROSS FILTER AREA (SQ. FT.)			
METAL GAUGES												
12,14	12,14	12,14	12,14	12,14	12,14	8,14	8,14	8,14	ENDS		ALL	FAN SECTION
14	12	14	12	12	12	12	10	10	FRAMING MEMBERS			
14	12,16	14	12,16	12,14	12,14	8,14,18	8,14,18	8,12,18	PANELS (FAN DISCHARGE SIDE)			
18	18	18	18	18	18	18	18	18	SIDE PANELS (WITH STIFFENER)			
14	.375	14	.375	.375	.375	.375	.375	.375	BEARING SUPPORT		HC & AHC	COIL SECTION
14	14	14	14	12	12	10	10	10	END FRAMES			
14	14	14	14	14	14	14	14	14	SIDE PANELS			
14	10	10	10	10	10	10	10	10	COIL SUPPORTS			
14	14	14	14	14	14	14	14	14	INNER PAN OUTER COVER	DRAIN PAN		
16	16	16	16	16	16	16	16	16				
14	12	14	12	12	12	10	10	10	END FRAMES			
14	14	14	14	14	14	14	14	14	SIDE PANELS			
16	16	16	16	16	16	16	16	16	COIL SUPPORTS			
14	16	14	16	16	12	12	10	8	FRAMING		ANGLE	FILTER SECTION
18	18	18	18	18	16	16	16	16	SIDES			
18	18	18	18	18	18	18	18	18	ACCESS DOORS			
16	16	16	16	14	14	14	14	14	FRAMING			
16	16	14	16	14	14	14	14	14	SIDES		FLAT	FILTER SECTION
14	14	16	14	14	14	14	14	14	ACCESS DOORS			
14	12	14	12	12	12	8	8	8	FRAMING			
16	16	16	16	16	16	16	16	16	SIDES			
16	16	16	16	16	16	16	16	16	ENDS		MIXING BOX	
16	16	16	16	16	16	16	16	16	MIXING BOX AND FACE & BYPASS			

MULTI-ZONE/DUAL DUCT UNIT PHYSICAL DATA

DESCRIPTION			UNIT SIZE					
			L0613F M0613F	L0815F M0815F	L1016F M1016F	L1218F M1218F	L1420F M1420F	L1715F M1715F
MAXIMUM NO. OF ZONES — MODEL MZ			7	7	8	8	10	11
CFM RANGE	LOW PRESSURE — FORWARD CURVE		1555-3365	2370-4540	2965-5675	3530-7015	4195-8330	5335-10220
	MED. PRESSURE — FORWARD CURVE		1750-3365	2370-4540	2965-5675	3530-7015	4195-8330	5335-10220
FAN DATA								
LOW PRESSURE	NO. & DIAMETER (IN.)		(1) 13	(1) 14-5/8	(1) 16-1/4	(1) 17-7/8	(1) 19-1/2	(2) 14-5/8
	OUTLET AREA (SQ. FT.)		1.89	2.67	3.41	4.19	4.99	5.34
	SHAFT & BEARING SZ. (IN.)		1-11/16	1-11/16	1-11/16	1-11/16	1-15/16	1-11/16
MEDIUM PRESSURE	NO. & DIAMETER (IN.)		(1) 11-3/8	(1) 13	(1) 14-5/8	(1) 16-1/4	(1) 17-7/8	(2) 13
	OUTLET AREA (SQ. FT.)		1.70	1.94	2.74	3.01	3.65	3.88
	SHAFT & BEARING SZ. (IN.)		1-15/16	1-11/16	1-15/16	1-15/16	2-3/16	1-15/16
COIL DATA								
WATER COOLING	COIL NO. 1	NUMBER/SIZE (IN.) FH. x FL.	(1) 20.7 x 39	(1) 30.3 x 36	(1) 30.3 x 45	(1) 35.1 x 48	(1) 35.1 x 57	(1) 30.3 x 81
		FACE AREA (SQ. FT.)	5.61	7.57	9.46	11.69	13.88	17.03
	COIL NO. 3	NUMBER/SIZE (IN.) FH. x FL.	(1) 14.3 x 39	(1) 23.9 x 36	(1) 23.9 x 45	(1) 27.1 x 48	(1) 27.1 x 57	(1) 23.9 x 81
		FACE AREA (SQ. FT.)	3.89	5.98	7.47	9.03	10.72	13.45
WATER HEATING	MZ HTG.	NUMBER/SIZE (IN.) FH. x FL.	(1) 11.2 x 39	(1) 15.9 x 36	(1) 15.9 x 45	(1) 19.1 x 48	(1) 19.1 x 57	(1) 15.9 x 81
		FACE AREA (SQ. FT.)	3.02	3.98	4.98	6.37	7.57	8.96
FILTER DATA								
FLAT FILTER SECTION	NUMBER/SIZE (IN.) 2" THICK		(2) 20 x 25	(4) 16 x 20	(4) 16 x 25	(1) 16 x 20 (2) 20 x 20 (2) 16 x 25	(2) 16 x 20 (2) 20 x 20 (1) 16 x 25 (1) 20 x 25	(4) 16 x 20 (4) 16 x 25
	GROSS FILTER AREA (SQ. FT.)		6.94	8.88	11.12	13.34	16.25	20.00
MED.-CAPACITY FILTER SECTION	NUMBER/SIZE (IN.) 2" THICK		—	(2) 20 x 20 (2) 20 x 25	(2) 16 x 20 (4) 20 x 20	(2) 16 x 25 (4) 20 x 25	(8) 16 x 25	(2) 20 x 20 (6) 20 x 25
	GROSS FILTER AREA (SQ. FT.)		—	12.50	15.56	19.44	22.24	25.26
HIGH-CAPACITY FILTER SECTION	NUMBER/SIZE (IN.) 2" THICK		(4) 16 x 25	(8) 16 x 20	(8) 16 x 25	(8) 20 x 25	(12) 20 x 20	(8) 16 x 20 (8) 16 x 25
	GROSS FILTER AREA (SQ. FT.)		11.12	17.76	22.24	27.76	33.36	40.00
METAL GAUGES								
FAN SECTION	ENDS		16	14	14	14	14	14
	FRAMING MEMBERS		16	16	16	16	16	14
	PANELS (FAN DISCHARGE SIDE)		16	16	14	14	14	14
	SIDE PANELS (WITH STIFFENER)		18	18	18	18	18	18
	BEARING SUPPORT		16	16	14	14	14	12
COIL SECTION	END FRAMES		16	14	14	14	14	14
	FRAMING MEMBERS		16	16	16	16	14	14-12
	COIL SUPPORT		10	10	10	10	10	10
	SIDE PANELS WITH STIFFENERS		20-18	20-18	20-18	20-18	20-18	20-18
	DRAIN PAN	INNER PAN	14	14	14	14	14	14
		OUTER COVER (REINFORCED)	16	16	16	16	16	16
FILTER SECTION	ANGLE	FRAMING	18	16	16	14	14	16
		SIDES	20	20	20	18	18	20
		ACCESS DOORS	18	18	18	18	18	18
	FLAT	FRAMING	16	16	16	16	16	16
		SIDES	16	16	16	16	16	16
		ACCESS DOORS	14	14	14	14	14	14
MIXING BOX	FRAMING		16	14	14	14	14	14
	SIDES		18	16	16	16	16	16
	ENDS		16	16	16	16	16	16
DAMPER BLADES	ZONE		18	18	18	18	18	18
	MIXING		16	16	16	16	16	16

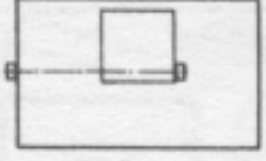
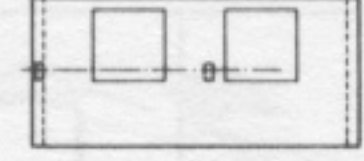
MULTI-ZONE/DUAL DUCT UNIT PHYSICAL DATA

UNIT SIZE						DESCRIPTION			
L1820F M1820F	L2016F M2016F	L2418F M2418F	L2422F M2422F	L3024F M3024F	L3627F M3627F				
10	11	13	11	14	14	MAXIMUM NO. OF ZONES — MODEL MZ			
5810-10955	6505-12270	7285-14465	7485-14510	9355-18130	11180-21380	LOW PRESSURE — FORWARD CURVE	CFM		
5810-10955	6505-12270	7285-14465	7485-14510	9355-18130	11180-21380	MED. PRESSURE — FORWARD CURVE	RANGE		
FAN DATA									
(1) 20	(2) 16-1/4	(2) 17-7/8	(1) 22-1/4	(1) 24-1/2	(1) 27	NO. & DIAMETER (IN.)	LOW PRESSURE		
5.79	6.82	8.38	6.92	8.54	10.29	OUTLET AREA (SQ. FT.)			
2-7/16	1-11/16	1-11/16	1-15/16	2-7/16	2-7/16	SHAFT & BEARING SZ. (IN.)			
(1) 20	(2) 14-5/8	(2) 16-1/4	(1) 22-1/4	(1) 24-1/2	(1) 27	NO. & DIAMETER (IN.)	MEDIUM PRESSURE		
4.30	5.48	6.02	5.23	6.36	7.70	OUTLET AREA (SQ. FT.)			
2-15/16	1-15/16	1-15/16	2-7/16	2-15/16	2-15/16	SHAFT & BEARING SZ. (IN.)			
COIL DATA									
(1) 35.1 x 75	(1) 35.1 x 84	(1) 35.1 x 99	(2) 20.7 x 84	(2) 20.7 x 105	(1) 22.3 x 111 (1) 23.9 x 111	NUMBER/SIZE (IN.) FH. x FL.	COIL NO. 1	WATER COOLING	
18.26	20.45	24.11	24.18	30.22	35.63	FACE AREA (SQ. FT.)			
(1) 28.7 x 75	(1) 28.7 x 84	(1) 27.1 x 99	(1) 33.5 x 84	(1) 33.5 x 105	(1) 36.7 x 111	NUMBER/SIZE (IN.) FH. x FL.	COIL NO. 3	WATER HEATING	
14.94	16.73	18.63	19.52	24.40	28.26	FACE AREA (SQ. FT.)			
(1) 19.1 x 75	(1) 19.1 x 84	(1) 19.1 x 99	(1) 20.7 x 84	(1) 20.7 x 105	(1) 23.9 x 111	NUMBER/SIZE (IN.) FH. x FL.	MZ HTG.	WATER HEATING	
9.96	11.16	13.15	12.09	15.11	18.43	FACE AREA (SQ. FT.)			
FILTER DATA									
(3) 16 x 20 (3) 20 x 20 (1) 16 x 25 (1) 20 x 25	(1) 16 x 20 (1) 20 x 20 (3) 16 x 25 (3) 20 x 25	(3) 16 x 20 (3) 20 x 20 (2) 16 x 25 (2) 20 x 25	(1) 16 x 20 (4) 20 x 20 (1) 16 x 25 (4) 20 x 25	(1) 16 x 20 (1) 16 x 25 (9) 20 x 25	(12) 20 x 25	NUMBER/SIZE (IN.) 2" THICK	FLAT FILTER SECTION		
21.25	23.75	27.50	30.00	36.23	41.64	GROSS FILTER AREA (SQ. FT.)			
(8) 20 x 25	(4) 16 x 25 (6) 20 x 25	(10) 20 x 25	(3) 16 x 20 (12) 20 x 20	(3) 16 x 20 (12) 20 x 25	(18) 20 x 25	NUMBER/SIZE (IN.) 2" THICK	MED.-CAPACITY FILTER SECTION		
27.76	31.94	34.70	40.00	48.30	62.46	GROSS FILTER AREA (SQ. FT.)			
(12) 20 x 20 (4) 20 x 25	(4) 20 x 20 (12) 20 x 25	(16) 20 x 25	(4) 20 x 20 (12) 20 x 25	(4) 16 x 20 (16) 20 x 25	(24) 20 x 25	NUMBER/SIZE (IN.) 2" THICK	HIGH-CAPACITY FILTER SECTION		
47.24	52.76	55.52	52.76	64.40	83.28	GROSS FILTER AREA (SQ. FT.)			
METAL GAUGES									
14	14	14	12	12	12	ENDS	FAN SECTION		
14	14	14	12	12	12	FRAMING MEMBERS			
14	14	14	12	12	12	PANELS (FAN DISCHARGE SIDE)			
18	18	18	18	18	18	SIDE PANELS (WITH STIFFENER)			
14	12	12	12	12	12	BEARING SUPPORT			
14	14	14	12	12	12	END FRAMES	COIL SECTION		
14-12	14-12	12	12-10	12-10	10	FRAMING MEMBERS			
10	10	10	10	10	10	COIL SUPPORT			
20-18	20-18	20-18	20-18	20-18	20-18	SIDE PANELS WITH STIFFENERS			
14	14	14	14	14	14	INNER PAN			
16	16	16	16	16	16	OUTER COVER (REINFORCED)	DRAIN PAN	FILTER SECTION	
14	14	14	16	16	12	FRAMING			
18	18	18	18	18	16	SIDES			
18	18	18	18	18	18	ACCESS DOORS			
16	16	16	16	14	14	FRAMING			
16	16	14	16	14	14	SIDES	FLAT	MIXING BOX	
14	14	16	14	14	14	ACCESS DOORS			
14	14	14	12	12	12	FRAMING			
16	16	16	16	16	16	SIDES			
16	16	16	16	16	16	ENDS			
18	18	18	18	18	18	ZONE	DAMPER BLADES		
16	16	16	16	16	16	MIXING			

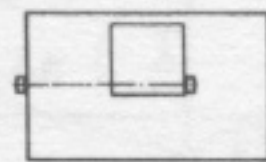
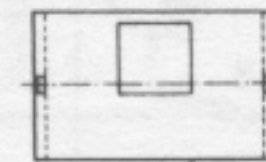
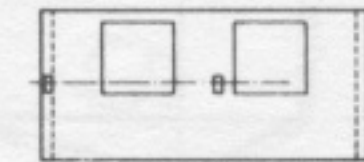
CENTRALAIRE SELECTION

SINGLE ZONE DRAW-THRU UNITS

MODELS WITH FORWARD CURVED FANS AND EXTERNAL MOTORS

FAN SHAFT BEARING ARRANGEMENT		
		
A	B	C
UNIT SIZE		
ONE FAN MODELS		TWO FAN MODELS
0309 0612, 0814 1015, 1118	0310, 0613 0815, 1016 1218, 1420	1715 2016 2418
A	B	C

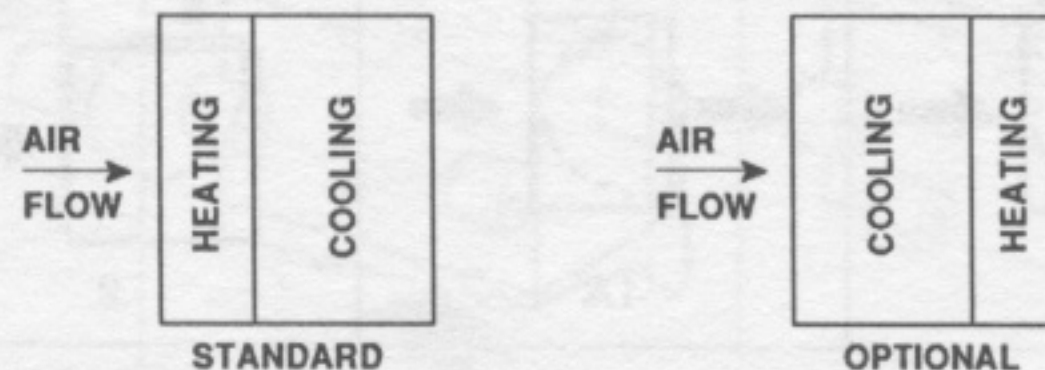
MULTI-ZONE AND DUAL DUCT UNITS WITH FORWARD CURVED FANS

FAN SHAFT BEARING ARRANGEMENT		
		
1	2	3
UNIT SIZE		
ONE FAN MODELS		TWO FAN MODELS
2422 3024 3627	0613, 0815 1016, 1218 1420, 1820	1715 2016 2418
1	2	3

Single-zone, draw-thru units for cooling and heating may be operated at coil velocities up to 700 FPM. Multi-zone and dual-duct blow-thru unit cooling coil face velocity should not exceed 600 FPM. For heating and ventilating or sensible cooling, units may be selected at coil face velocities over 700 FPM.

Two coil sizes are available for single-zone draw-thru units and the cold deck of multi-zone and dual-duct blow-thru units. Coil area data may be found in the Centralaire coil selection sections.

Standard and optional heating and cooling coil locations for single-zone cooling and heating units are indicated below.



The standard coil location will be furnished unless the optional location is specified. Standard location has heating coil in the preheat position. Optional has heating coil in the reheat position.

The unit size can be selected after the CFM has been established. CFM depends on cooling, heating, and ventilating needs. CFM and coil face velocity are normally used for selection of the unit size. The unit size may be determined by dividing the CFM by the maximum allowable coil face velocity. This gives the minimum coil face area that can be used.

$$\frac{\text{CFM specified}}{\text{Face velocity (FPM)}} = \text{Face area (sq. ft.)}$$

Example: Select a Centralaire to deliver 12000 CFM at 500 FPM maximum coil face velocity. This indicates a minimum of 24 sq. ft. of face area. A size 2418 or 2422 with a No. 1 coil, or a size 3024 with a No. 3 coil will meet these requirements.

Since more than one unit can be selected to meet CFM and face velocity requirements, fan performance should be considered in choosing the unit size. CFM, static pressure, air density, if other than standard, and available space can influence fan selection. Fan performance curves and tables are found in the Airtherm Centralaire Fan Performance Data Engineering Manual. They are conveniently arranged to show all fan sizes and types available.

SINGLE ZONE DRAW-THRU UNIT NOMENCLATURE

