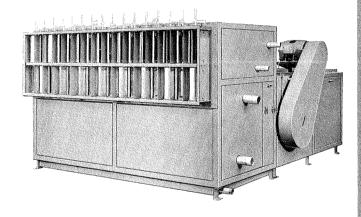


air conditioning

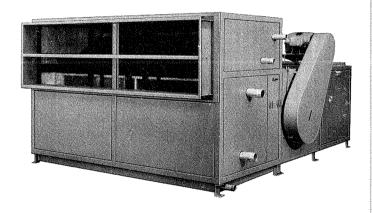
MULTI-ZONE and DUAL DUCT units

low and medium pressure



MULTI-ZONE

12 A



DUAL DUCT

" Z A "

FEATURING:

- NEW LOW PROFILE
- NEW COMPACT LENGTH
- UNITARY DESIGN
- OPPOSED-ACTING ZONE BLADES
- COMPLETE LINE AIR FILTER EQUIPMENT

Leader in environmental control . . .



American Air Filter

BETTER AIR IS OUR BUSINESS

215 CENTRAL AVE., LOUISVILLE, KY. 40208

NEW



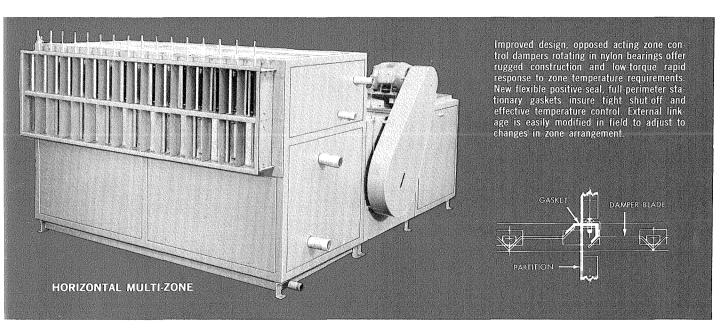
PROFILE DESIGN

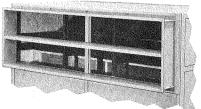
LOW

AAF's Engineering staff, combining technical competence with years of experience, put theory to the test with the result: A new and improved product, designed specifically for today's demanding market and for tomorrow's expanding requirements.

With the AAF blow-through Multi-Zone unit, the zone control dampers are positioned at the discharge of the unit for up to 28 separate zones (2492/2600). Separate and individual zone control provide the advantage of complete job-site adaptability if new conditions require changes in zone size. Entire discharge section may be relocated from one discharge position to the other with minimum field work.

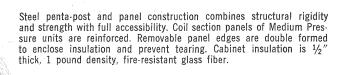
Cabinet finish consists of a 5-stage phosphatizing process followed by coating with an enamel primer containing rust inhibitors, baked at 325°F. After assembly the entire unit is over-sprayed with an exterior grade Medium Gray air dry lacquer; six additional decorator colors are optional for the final overspray. For exterior locations or maximum resistance to corrosion, an epoxy enamel which is U.L. approved is available.



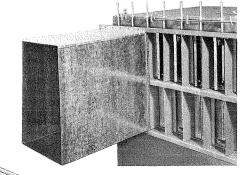


DISCHARGE SECTION OF DUAL DUCT

The AAF Dual Duct unit is identical to the Multi-Zone with the omission of the unit zone control dampers from the discharge section. Separate distribution ducts connected to the hot and cold decks carry the heated or cooled air separately to the space being conditioned where special zone blenders (furnished and installed by others) combine the streams as required.







Full length slip-on type "W" connecting strips facilitate rapid assembly of duct to zone partitions. Perimeter flanges sized to assist easy attachment.

All Components Manufactured by an Acknowledged Leader in Moving, Cleaning and Conditioning of Environment.

The completely redesigned coil and damper sections provide low profile and compact length in 13 unit sizes for 1200 CFM to 36000 CFM without sacrifice of smooth air flow through hot or cold decks. This new design insures the versatility and flexibility of application long associated with AAF. Both Multi-Zone and Dual Duct units may be ordered for horizontal or vertical discharge in standard horizontal or optional horizontal-U arrangement.

Slant mounted heating coils allow low unit dimensions in conjunction with smooth air flow: extensive laboratory tests showed lowered air turbulence. Steam distribution coils have tubes pitched toward condensate return.

Anti-wipe plate essentially eliminates coil wiping.

The sloped drain pan is insulated with 1/2" rigid self-extinguishing multicellular polyurethane, permanently cemented in place and completely sealed with a moisture resistant compound. Drain connections both sides. As an option for special applications, an inner liner may be added with a choice of metals available.

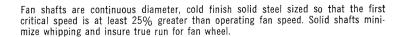


FC FAN WHEEL

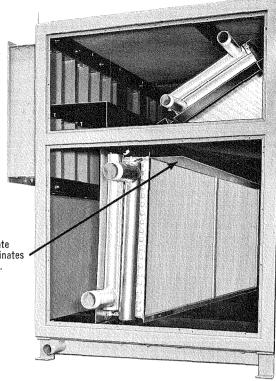
Double inlet-double width forward curved, painted steel centrifugal fan wheels are balanced statically and dynamically for large air volumes and quiet operation. Use of the most modern electronic analyzing equipment insures minimum levels of noise or vibration in the assembled unit. Backwardly inclined fan wheels are optional for unit sizes 2100 through 2600. Fan wheels of aluminum construction are available on all sizes.

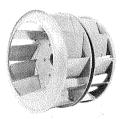


Fan shaft bearings are ball, self-aligning cast iron, flange type on low pressure units (shown) and pillow block on medium pressure units. Bearings are sized to full diameter of the fan shaft, thereby providing an average bearing life in excess of 200,000 hours. Both bearings externally mounted on one-fan unit; easy access provided to internal bearing of two-fan units. Lubrication lines are externally located for convenient access.

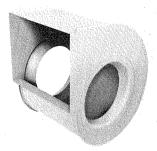


Adjustable pivoting motor bases provide for easy field installation of standard NEMA frame motors. Drives are adjustable up to 71/2 HP; drives for 10 HP and above are constant pitch, with adjustable pitch optional. Removable, solid metal belt guards furnished with tachometer openings are standard equipment.





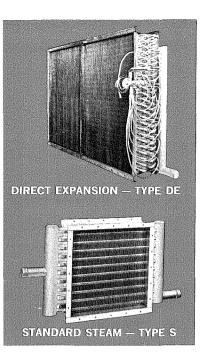
BI FAN WHEEL



Heavy gauge painted steel fan housings sized to permit minimum outlet velocities.

CONTENTS	
Basic Design and Features	2, 3
Coil Design	4
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COILS FOR COOLING, HEATING, PREHEAT



Direct Expansion Coils-Type DE

DE coils have 5/8" O.D. tubing.

Fin spacings of 8, 11, or 14 fins per inch are available. Refrigerant circuiting is custom selected to the job specification. Therefore, it is highly desirable to have the thermal valve and distributor furnished as integral parts of the coil to insure maximum performance.

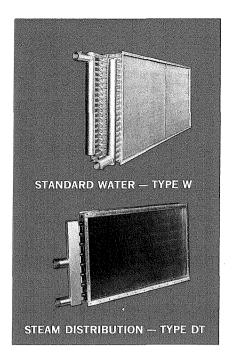
After testing, the coils are thoroughly dehydrated in a 250° F. oven under a vacuum well below 1,000 microns.

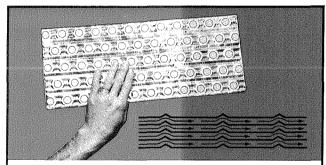
Water Coils-Type W

Water coils have $\frac{5}{8}$ " O.D. tubing. Inlet and outlet tappings are steel MPT sized for each coil. Supply and return tappings are equipped with $\frac{1}{4}$ " MPT plugs for field installation of vents and drains. Fin spacings of 8, 11, or 14 fins per inch are available.

Cleanable Tube Water Coils-Type CW

The standard water coil is available with removable plugs, factory installed at one or both ends of the tubes. Plugs and return bends are made of corrosion resistant brass and require no special tools to remove plugs.





"ACTIVATED AIR" FIN

The newly developed "Activated Air" Fin surface, combined with a staggered tube arrangement, is used with all AAF coils to provide the highest possible rate of heat transfer. The undulations in the AA Fin surface are impressed into the fin during the same operation in which the self spacing fin collars are drawn.

Turbulence created by the fin undulations insures that each and every particle of air passing through the coil comes into contact with the heat transfer surface, thus obtaining maximum performance. Tubes are completely encased by the fin collars and are expanded into the collars for a tight and permanent bond.

"Activated Air" Fin design and performance is the end result of extensive laboratory investigation and testing. New AA Fin ratings represent the latest in a continuing series of product improvements by AAF, aimed at providing our customers with maximum value in heating and air conditioning equipment.

Standard Steam Coils-Type S

All standard steam coils are furnished with $\frac{5}{8}$ " O.D. tubing. Fin spacings of 8, 11, or 14 fins per inch are available. Supply and return tappings may be located on opposite ends of the coils or same end as specified.

Steam Distributing Coils—Type DT

Type DT coils are one row with 1" O.D. condensing tube and 5/8" O.D. steam distributing tube. Fin spacings of 4, 6, 8, 10, or 12 fins per inch. Scientifically oriented orifices and tubes pitched toward condensate return provide rapid condensate removal, even distribution of steam and uniform leaving air temperature to the entire coil face. Freeze-up protection is maintained even with modulation of steam. Available with same end or opposite end connections.

SPECIAL NOTE: Type S coils are furnished with tubing suitable for a maximum operating steam pressure of 30 PSI. Type DT coils with standard tubing are suitable for a maximum operating steam pressure of 200 PSI and temperature of 400° F. However, over 30 PSI, the use of heavy duty tubing is recommended.

Maximum operating steam pressure is 100 PSI for Type S, and 200 PSI for Type DT; same end connections are mandatory over 30 PSI.



To maintain efficient operation at all times, select Illinois Float & Thermostatic Traps for Steam Coils. For Water Coils, select the new Illinois Series 5000 Balancing & Shut-off Valves; available in Sizes 1½"-4"; designed for accurate balancing combined with tight shut-off and tamper-proof setting. For further information, write for Bulletin BLV-100.

Complete Line of Unit Filters and Automatic Filters



UNIT FILTER BOXES

Flat or Angle Bank Filter Sections to Meet All Velocity Needs

Unit filter boxes provide a complete range of options for many filtering needs. Filters are 2" thick and may be quickly removed or replaced through access panels located at each end of the section.

AMER-glas® Throwaway

Media is of continuous interlaced glass fiber filaments impregnated with viscosine.

HV-2 Permanent Cleanable

A high capacity, low resistance filter which is permanent and washable and may be used when the cleanable feature is desired. This filter has a high cleaning efficiency over a wide range of air velocities.

Renu-Filter: Renewable or Polyurethane Media

The Renu-Filter consists of a permanent steel hinged frame with replaceable media. This filter provides the advantage of an option in the type of media. This filter may be ordered with either a glass fiber renewable media, or a permanent cleanable polyurethane media as required.

An outstanding feature of these units is the availability of the Roll-O-Matic automatic air filter. Designed for and made by the same manufacturer as the unit to insure integral performance, design and responsibility. Optional exclusive attachment channel speeds field assembly.

Performance — The Roll-O-Matic filter is designed to operate at an average resistance of 0.35" W.G. Initial resistance is .16" W.G. at 500 FPM. Tested under dynamic conditions using AFI synthetic dust, the Roll-O-Mat media has an efficiency of 80/85%.

TYPE H ROLLOTRON

Traps the dust — and rolls it up automatically!

The Rollotron offers

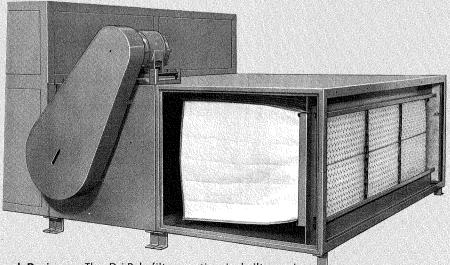
- · the efficiency of an electrostatic precipitator, and
- the minimum maintenance of an automatic-renewing, disposable media air-filter.

both in one space-saving unit and a part of the air handling unit.



Central Station Efficiency — no costly ductwork

The High-Velocity Electro-Cell provides optimum performance at higher capacities for a given face area than any other precipitator available. Efficiency as determined by the National Bureau of Standards Dust Spot Test Method is as high as 95%.



DRI-Pak Filters

Integral Design — The Dri-Pak filter section is built specifically for each size air handling unit to provide clean, flush mounting.

Complete Perimeter Seal — AAF's exclusive full perimeter spring tension pressure frame combines with gasketing on edges of each Dri-Pak header and on the top and bottom of the filter channel to eliminate by-pass air.

Full Side Access — Quick opening access doors on both ends of the filter section facilitate installation and removal of Dri-Pak filters and prefilters.

Built-In Prefilter Section — Any type 2" thick unit filter cell may be used to increase the Dri-Pak filter cartridge life.

Complete Range of Efficiencies — Dri-Pak media provides

Complete Range of Efficiencies — Dri-Pak media provides efficiencies of 50%, 85%, or 95% by the National Bureau of Standards Dust Spot Test using atmospheric dust.

COMPLETE SELECTION OF ACCESSORIES

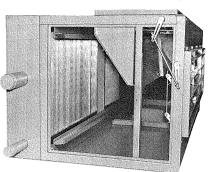


MIXING BOXES BLEND FRESH AND RECIRCULATED AIR

Inter-connected opposed acting damper sections are operated by an externally mounted damper motor (furnished and installed by others). Dampers and the unitary framework are fabricated from galvanized steel. Inlet openings have duct collars.

Combination Unit Filter and Mixing Boxes are also available. Filters are removable from either end through quick opening doors. A mixing baffle mounted at the outside air opening to insure thorough mixture of the air may be ordered at additional cost (flat bank arrangement only).

COMBINATION
FILTER AND
MIXING BOX
showing mixing
baffle



FACE AND BY-PASS DAMPERS WITH OPPOSED ACTING BLADES

Internal or external by-pass damper sections are available. Dampers and the unitary framework are fabricated from galvanized steel. The damper pivot rods rotate in self-lubricating nylon bushings. External interconnecting linkage and damper rods are furnished for easy damper motor connections.

		HUMIE ITY (L)IFIER B./HR.)			HUMID City (Li			HUN	RGET MIDI-
UNIT NO.			STE	AM PRI	ESSURE-	-PSIG			Itila	(1)
	2	5	10	2	\$	10	15	20	No. of Noz.	Cap. Lb. Hr.
1039	62	100	139	1.00	2.99	7.27	11.61	16.02	1	9.8
2060	114	185	256	1.86	5.55	13.60	21.60	29.80	2	19.6
2083	132	214	296	1.96	5.85	14.30	22.80	13.40	2	19.6
2100	138	235	309	2.26	6.75	16.50	26.20	36.20	2	19.6
2125	150	244	336	2.46	7.36	18.00	28.60	39.50	3	29.4
2150	160	259	358	2.62	7.82	19.10	30.40	42.00	3	29.4
2182	174	282	390	2.85	8.53	20.80	33.10	45.70	4	39.2
2225	180	292	403	2.93	8.75	21.30	34.00	47.00	4	39.2
2270	216	350	484	3.54	10.60	25.80	41.11	56.70	5	49.0
2315	216	350	484	3.54	10.60	25.80	41.11	56.70	6	58.8
2390	234	379	524	3.88	11.60	28.20	45.10	62.20	6	58.8
2492	556	900	1250	4.80	14.40	35.00	55.70	77.00	8	78.4
2600	576	932	1290	4.80	14.40	35.00	55.70	77.00	8	78.4

TABLE 1 - HUMIDIFIER CAPACITY

Humidifier capacities based on air temperature across humidifier of 100° D.B. with 40° D.P.

(1) Target humidifier water temperature range of $50^{\circ}F$ to $150^{\circ}F$ and 30 PSIG. See table below for water pressures other than 30 PSIG.

Water Press, PSIG	25	30	40	50	60	70	80	90	100
Target Type	.93	1.00	1.21	1.32	1.32	1.32	1.32	1.32	1.32

TABLE 2 — CORRECTION FACTOR

NOTE: Due to the zoning arrangement and the requirement for individual humidity control for each zone, it is recommended that humidifiers be placed in the individual duct work, external to the Multi-Zone or Dual Duct unit.

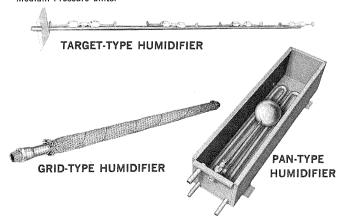


QUICK-ACCESS LATCH



COOLING COIL SECTION ACCESS DOORS

Quick opening access doors on the cooling coil section permit convenient inspection of the cooling coil or valves, or access for cleaning coil face. Optional on entering air or leaving air side of coil. Not available on Medium Pressure units.



HUMIDIFIERS — THREE TYPES FOR ALL MOISTURE REQUIREMENTS

TARGET TYPE — The target humidifier is a series of individual self-cleaning nozzles, each directing a jet of water onto a target plate where it is atomized.

GRID TYPE — An orificed brass pipe introduces steam into the air stream through an asbestos wicking held in place by copper banding.

PAN TYPE — This type has a copper pan in which a constant water level is maintained by means of a float valve. The water is heated by copper steam coils located below the water surface.

SELECTION PROCEDURE

TABLE 3 — Physical Data

Daniel Selection	UNI	T SIZE		1039	2060	2083	2100	2125	2150	2182	2225	2270	2315	2390	2492	2600
CEM	Cooli	ng Coil Fa ocity (FPN	ice 400 4) 500	1550 1940	2380 2950	3300 4120	4025 5030	5000 6250	6000 7500	7260 9080	9000 11250	10800 13500	12600 15750	15600 19500	19700 24600	24000 30000
	YEI		600	2330	3570	4950	6040	7500	9000	10880	13500	16200	18900	23400	29500	36000
	Forward		and Dia. of Wheels Outlet Area (Sq. Ft.)	1-10 1.225	2-9½ 1.86	2-10 2.45	2-12 ¹ / ₄ 3.45	2-15 4.02	2-15 4.88	2-18 5.73	2-18 ¹ / ₄ 6.88	2-20 8.35	2-22 ¹ / ₄ 10.18	2·24½ 12.46	2-27 15.19	2-30 18.50
			x. RPM Std. Shaft & Bearing Dia. (In.)	1850 17/16	2010	1812	1550 17/16	1270 17/16	1300 111/16	1120 115/16	1120 115/16	925 27/16	840 27/16	735 2 ¹¹ ⁄16	665 3½6	600 37/16
Pressure	Wheels	Max.	RPM Low Sp. Shaft	1530	13/16	1% ₆	1250	- 1716	1163	1030	1030	- 2716	- 2716	- 2-716	500	450
Low			& Bearing Dia. (In.) and Dia. of Wheels	13/16	<u> </u>	13/16	13/16 2-12	2-15	1½6 2-15	1 ¹¹ / ₁₆ 2-18	2-18	2-20	2-221/4	2-241/2	215/16 2-27	2 ¹⁵ / ₁₆ 2-30
	Inclined	Tot. (Outlet Area (Sq. Ft.)	l N	OT AVAILA	RIF	3.10	4.61	4.61	6.84	6.84	8.35	10.18	12.46	15.19	18.50
FANS	Steel Wheels	Shaft	Maximum RPM & Bearing Dia. (In.)	"	01 /11/112/1	,,,,	2560 27/16	2190 2½ ₁₆	2100 27/16	1700 211/16	1680 2 ¹¹ / ₁₆	1530 33/16	1440 2 ¹⁵ / ₁₆	1250 33/16	900 37/16	890 37/16
	Forward		and Dia. of Wheels	1-10%	2-91/2	2.10%	2-10%	2-12%	2-15	2-15	2-15	2.181/8	2-181/8	2-221/4	2-241/2	2-27
Pressure	Curved Steel		Outlet Area (Sq. Ft.) Maximum RPM	.96 2460	1.30 2710	1.92	2.42	2.64 1835	3.34 1775	3.85 1529	4.88 1660	5.71 1400	6.85 1400	10.18	12.46 980	15.19 953
2	Wheels		& Bearing Dia. (In.)	17/16	13/16	17/16	111/16	17/16	111/16	111/16	115/16	27/15	27/16	211/16	33/16	37/16
mngew Wedin	Backwardly Inclined		and Dia. of Wheels Outlet Area (Sq. Ft.)	NA NA	NA NA	NA NA	2-12 3.10	2-12 3.10	2-15 4.61	2-15 4.61	2-18 6.84	2·18 6.84	2-20 8.35	2-22 ¹ / ₄ 10.18	2·24½ 12.46	2-27 15.19
Į	Steel		Maximum RPM	NA	NA	NA	3750	3700	2860	3020	2610	2240	2170	1820	1665	1485
	Wheels		& Bearing Dia. (In.) ce Area (Sq. Ft.)	NA 3.88	NA 5.94	NA 8.25	2 ¹¹ / ₁₆ 10.06	2 ¹⁵ / ₁₆ 12.5	2 ¹ 5/16 15.0	-3½ ₆ 18.13	37/ ₁₆ 22.5	37/ ₁₆	37/16 31.5	37/16 39.0	47/ ₁₆ 49.225	47/16 60.05
COOLING							1						ļ		1-24x139	2-30x144
COIL	Y	Tubes		1-18x31 12	1-15x57 10	1 18x66 12	1-21x69 14	1-24x75 16	1-27x80 18	1-30x87 20	1-36x90 24	1-36x108 24	1-42x108 28	1-48x117 32	1-27x139 34 ⁵	405
	Water & S	Max. f	Rows ² Face Area (Sq. Ft.)	1.94	3.56	4.13	5.76	6.25	8.34	9.06	11.25	13.5	15.75	19.5	8 26.1	30.0
	V	idth & Le Tubes	ngth (ln.)1	1-9x31 6	1-9x57 6	1-9x66 6	1-12x69	1-12x75	1-15x80 10	1·15x87	1-18x90 12	1-18x108	1·21x108	1-24x117 16	1·27x139 18	1-30x144 20
HEATING COIL		Max. F	Rows ²	4	4	4	4	4	4	4	4	4	4	4	4	4
	Steam Di	/idth & Lei		1.94 9x31	3.50 9x57	4.13 9x66	5.76 12x69	6.25 12x75	8.34 15x80	9.06 15x87	11.25 18x90	13.5 18x108	15.75 21x108	19.5 24x117	26.1 27x139	30.0 30x144
		Max. F	Rows ² ot Water, Steam	1	1	1	1	1	1	1	1	1	1	1	1	1
	Large	St	eam Distributing Ith & Length (In.)	1-18x31	1-15x57	1-18x66	1-21x69	1-24x75	1-27x80	1-30x87	1-36x90	1-36x108	1-42x108	1-48x117	1-24x139 1-27x139	2-30x144
	Face Area	Н	ot Water, Steam													
	7,100	St Fa	eam Distributing ce Area (Sq. Ft.)	3.88	5.94	8.25	10.06	12.50	15.00	18.13	22.50	27.00	31.50	39.00	49.225	60.005
			ot Water, Steam eam Distributing	1-15x31	1-12x57	1-15x66	1-18x69	1-21x75	1-21x80	1-24x87	1-30x90	1-30x108	1-36x108	1-39x117	2-21x139	1-24-144
PREHEAT	Internal By-Pass	Wid	lth & Length (in.)													1-27x144
COIL	Area	St	ot Water, Steam eam Distributing	3.23	4.75	6.88	8.63	10.92	11.67	14.50	18.75	22.50	27.00	31.70	40.545	51.005
		1	ce Area (Sq. Ft.) Single Coil	3	3	3	3	3	3	3	4	4	4	4	4	4
	Max.	Std. Depth	Combination				_			_	-					
	No. Rows	\vdash	of Two Coils Single Coil	6	6	6	6	6	6	6	6	6	6	6	8	8
	110110	Extra Depth	Combination	4	4	4	4	4	4	4	4	4	4	4	6	6
		Quan		2	4	4	4	4	8	8	10	12	18	16	20	24
FLAT BANK	N) Size ominal Are	a (Sq. Ft.)	20x20 5.56	16x20 8.88	20x20 11.12	20x25 13.88	20x25 13.88	16x20 17.76	16x25 22.25	20x20 27.8	20x20 33.36	16x20 39.96	16x25 44.48	16x25 55.6	16x25 66.7
FILTER SECTION OR MIXING BOX		x. Recom. MER-glas	CFM	2220	3560	4440	5550	5550	7120	8900	11100	13300	16000	17800	22200	26600
] F		ne, Renewable	2500 3480	4000 5560	5000 6950	6250 8700	6250 8700	8000 11100	10000 13900	12500 17400	15000 20800	18000 25000	20450 27800	25000 34800	30000 41700
		Quan		4 16x20	6 16x20	6 16x25	8 16x20	8 16x20	8 20x20	8 20x25	10 20x25	12 20x25	18 20x20	18 20x25	24 20x25	36 16x25
ANGLE BANK	N	Size (ominal Are	a (Sq. Ft.)	8.88	13.32	16.68	15x20 17.76	17.76	20x20 22.24	20x25 27.76	34.7	41.64	50.04	62.46	83.28	100.08
FILTER SECTION OR MIXING BOX		x. Recom. IMER-glas	CFM	3560	5330	6680	7120	7120	8900	11100	13900	16600	20000	25000	33300	40000
OR MIXING BUX		Polyurethar IV2	ne, Renewable	4000 5560	6000 8330	7500 10450	8000 11100	8000 11100	10000 13900	12250 17350	15600 21700	18700 26000	22700 31300	28100 39000	37000 52000	45000 62500
		andard Ar		VEE	VEE 22-59	VEE 22-69	VEE 25-69	VEE 25-73	VEE: 33-78	VEE 33-86	VEE 39-86	VEE 39-100	ZEE 45-100	ZEE 2525-1010	W 3325-132	ZEE-ZEE 3333-132
	Type H Roll-O-Matic	M	Size ax. Recom. CFM	22-36 3380	5540	6500	7380	7920	11400	12600	15120	17760	20880	23700	34020	39180
AUTOMATIC FILTERS	Type H Rollotron	Max. Re	Size com. CFM—90% Eff.	22-38-24 2300	22-58-20 3010	22-68-24 4580	25-68-24 4580	25-78-24 5210	33-78-34 8360	33-88-34 9700	39-88-38 10900	39-108-38 13520	45-108-40 15040	2525-118-50 21300	3325-138-58 29350	3333-138-64 33300
	Electro-Cell		Size com. CFM—85% Eff.	3-20 1470	5-20 2400	6-24 3660	6-24 3660	7-24 4170	7-3 4 6660	8-34 7740	8-38 8700	10-38 9800	10-40 12000	11-50 17340	12-58 21960	13-64 26640
MULTI-ZONE																
ZONING DAMPERS	Quant	ity of Indi	vidual Blades4	7	12	14	14	15	16	18	18	22	22	24	28	28
MIXING BOX INLETS	Inlet A	Ft.) Per Opening	3.79	6.49	7.69	7.69	10.88	11.53	15.90	15.90	18.80	26.20	28.40	34.30	34.30	
												-				
MAXIMUM MOTOR	NE.	MA Motor	Frame Size	215 184T	254U 213T	256U 215T	256U 215T	284U 254T	284U 254T	286U 256T	286U . 256T	324U 284T	326U 286T	364U 324T	364U 324T	365U 326T
SIZE	Mc Mc	unted on I	Fan Section	1041	2131	-101	2201	2071	2071	2001	2001	2071	2001	5471	TI	V2.41

Coil finned lengths are minimum for Multi-Zone units and cannot be reduced because of possible starving of end zones.
4 Maximum number of individual zones.
5 For 2 coil total.

DRI-Pak SELECTION AND PERFORMANCE

DRI-PAK® MEDIA

DATA

"If prefilters are used, add appropriate resistance. Refer to Air Filter bulletin 228-C for complete DRI-Pak® filter data.

	No. 100 Media	No. 90 Media	No. 60 Media
Average Dust Spot Efficiency (Atmospheric Dust)	93-97%	80-85%	50-55%
Initial Resistance— In W.G.*			
Series 2000, 2000H	0.48	0.37	0.30
Series 1000, 1000H	0.37	0.24	0.16
Series 20-22	0.45	0.25	0.20
Series 20-33	0.48	0.37	0.30

To Order: Specify either High Capacity or Low Capacity, media number, unit size, and prefilter type if desired.

	H	IGH CAPACIT	Y	L	OW CAPACIT	Y
	Series	Series	Series	Series	Series	Series
	2000	2000H	20-33	1000	1000H	20-22
apacity	2000 CFM	1000 CFM	1200 CFM	1000 CFM	500 CFM	800 CFM
Size	24" x 24"	12%6" x 24"	20" x 20"	24" x 24"	12%6" x 24"	20" x 20"
	4" Deep, Fold.	4" Deep, Fold.	4" Deep, Fold.	3" Deep, Fold.	3" Deep, Fold.	3" Deep, Fold.
	36" Deep Infla.	36" Deep Infla.	33" Deep, Infla.	18" Deep, Infla.	18" Deep, Infla.	22" Deep, Infl

		MAXIMUM	FILTER CFM
AH UNIT SIZE	CARTRIDGE Qty. & Size (In.)	High Capacity Series 2000, 2000H 20-33	Low Capacity Series 1000, 1000H 20-22
1039	2-20x20	2400	1600
2060	3-20x20	3600	2400
2083	4-20x20	4800	3200
2100	3-24x24	6000	3000
2125	1-24x12 3-24x24	7000	3500
2150	1-24x12 3-24x24	7000	3500
2182	4-24x24	8000	4000
2225	10-20x20	12000	8000
2270	12-20x20	14400	9600
2315	10-24x24	20000	10000
2390	10-24x24 2-24x12	22000	11000
2492	24-20x20	28800	19200
2600	3-24x12 18-24x24	39000	19500

² One coil in direction of airflow. ³

³ Filters are 2" thick.

SELECTION PROCEDURE

I. UNIT SIZE SELECTION

It is assumed that the selection of an Air Conditioning Multi-Zone (ACMZ) or a Dual Duct (DD) unit indicates the unit is for summer and winter use if a multi-zone for winter and ventilating use only is required, a Heating and Ventilating Multi-Zone (HVMZ) unit is recommended; refer to bulletin HV101A. Selection procedures for the ACMZ-or Dual Duct units are the same with the exception that the zone discharge damper selection step is omitted with the Dual Duct. It is also assumed that the air quantities have been predetermined and that the cooling coil face velocity will be the principal governing factor in the unit size selection. Reference should be made to Table 3, page 7, which lists CFM ranges and corresponding cooling coil face velocities by available unit sizes.

II. COIL SELECTION

With the selection of the Multi-Zone or Dual Duct unit size, the heating and cooling coil sizes are fixed. Coil face areas, number of tubes, finned length and maximum number of rows are found in Table 3, page 7. With this information, a capacity check to determine actual rows may be made by reference to the appropriate coil bulletin. Cooling coil selection should be made from bulletin CC100A; both chilled water and direct expansion coil are available. Air velocity through a cooling coil should be kept to a maximum of 600 FPM when the coil is dehumidifying to prevent moisture entrainment.

Heating and preheating coil selection should be made from bulletin HC-103: available types include hot water, standard steam, and steam distribution coils. Electric resistance heating coils cannot be furnished in the hot deck because maintenance of full airflow across the coil is required whenever the coil is energized. Electric coils for preheating are available if by-pass dampers are not used: refer to supplementary bulletin HC603A. Preheat coils are located on the entering air side of the fan section in a separate coil section.

III. ACCESSORY SELECTION

FILTERS

Four types of unit filters in three filter box arrangements and three standard types of electronic filters make for the most complete

selection flexibility available. Filter sizes, quantities and rack types as well as maximum recommended CFM for best filtration are all found in Table 3, page 7.

Unit filters offer a lower initial cost with approximate efficiencies of 65% to 80% by weight. Polyurethane and HV-2 filters provide greater dust holding capacity than Throwaway or Renewable filters, but require cleaning periodically. Total maintenance costs of Throwaway filters are high in comparison with other types.

The DRI-Pak filter offers moderate initial cost combined with low maintenance costs and high efficiency: 95% by NBS Dust Spot at recommended air volume. See page 7 for selection.

Automatic filters have a greater initial cost than unit filters, but provide constant air volume and lower maintenance or replacement costs. In addition, the Rollotron and Electro-Cell filters offer significantly greater filtration efficiency (up to 95% by NBS Dust Spot) of the extremely fine particles found in odor causing gases and smoke. Note: the Electro-Cell canot be furnished with the horizontal-U arrangement.

Refer to the appropriate American Air Filter bulletin for complete information on filter selection.

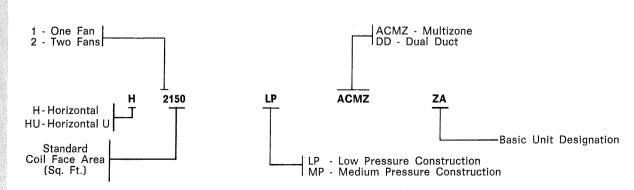
MIXING BOXES

For use where a mixture of ventilation air and recirculated air is to be introduced to the unit. This section uses two sets of multi-leaf, opposed-acting blade dampers inter-connected so that when one set is wide open the other set is fully closed. The damper section is sized so that the full air volume handled by the unit will pass through one set of dampers without excessive air velocity. All damper blades are linked together and may be controlled from a single rod extended from either the right or left side of the unit cabinet.

The standard mixing damper section can also accommodate either the flat or angle bank unit filters to form a combination mixing damper and filter section. A special mixing damper section is **not** required because of the large area designed into the standard section for thorough mixing of the two air streams. See Ordering Information, page 15, for details regarding inlet location combinations.

NOMENCLATURE

The unit model must be specified using the following designations:



FAN AND MOTOR SELECTION

AIR RESISTANCE

Following selection of the cooling coil, heating coil and accessories, the fan speed (RPM) and motor horsepower requirement (BHP) must be determined. Before using the Fan Performance Tables, the total resistance to airflow (total static pressure or T.S.P.) must be determined. Adding the complete unit air resistance to the distribution duct resistance (external static pressure or E.S.P.) provides the system T.S.P. For a Multi-Zone unit the total CFM handled by the fan should equal the sum total of the individual zones.

All unit components have air resistance, including cabinet, coils, filters and any other accessories such as mixing box dampers or preheat coil: refer to Air Resistance, Table 4. In addition, a cooling coil that is dehumidifying has an increased resistance due to moisture on the coil surface: refer to Chart 1 for correction factor to be applied to dry coil resistance.

 It is necessary to use the coil face velocity of a standard area cooling coil when calculating cabinet, filter, and accessory resistances. For coils, the actual coil face velocity of each separate coil is used to calculate resistance; since heating and cooling coils are of different areas, each is calculated as a separate item (assuming all air passing through both coils) and the greater resistance is used to calculate the unit internal resistance. This difference in air resistance between the hot and cold decks often requires the addition of a balance plate (perforated metal baffle). Selection, location and installation of the balance plate is made by the Factory (at no extra cost) when required to provide delivery of the same CFM on both heating and cooling cycles.

NOTE: When a preheat coil is used, its air resistance is always added to the unit air resistance.

Knowing the unit size, CFM and T.S.P., enter the Fan Performance Tables for fan RPM and BHP. Note: Fan Performance Tables are for low and medium pressure, forward curved wheels; if backwardly inclined fan wheels are desired, contact the Factory for complete information.

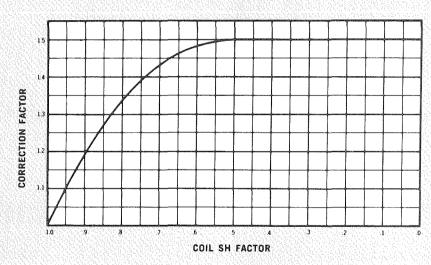


CHART 1:
AIR FRICTION
CORRECTION
FACTOR
FOR WET COILS

TABLE 4 - AIR RESISTANCE — IN. WG

			1711111111	144 - 1			415				Terra.	Mag.			e barb	100	35.30			AMAGN.		<u> </u>		1.35 /	1.00			1000		500 p. 50.				
700 144					Dir	ect Ex	pansi	on, Wa	iter, a	nd Sta	ndard	Steam	(Dry	Coils)										Ca	binet			Filters			natic F	Filters		
Coil	_						,	,					,							Steam I	Distribut	ing Coils				İ	Flat	Angle	Bank	ان	ا ا			B
Face			8	FPI					11	FPI					14	FP1						-		Multi-	Dual	· ·		×.		Mativ	- 1	le l	_ 1	Box
Velocity (FPM)			No.	of Row	rs .				No. o	f Rows		-			No. o	f Rows					One Roy	v		Zone	Duct			Rene		ė.	otro	ctro	e and Pass	Mixing E Dampers
	1	2	3	4	6	8	1	2	3	4	6	8	1	2	3	4	6	8	4 FPI	6 FPI	8 FP1	10 FPI	12 FPI			AG	HV2	AG Poly	HV2	Roll	Rol		Fac By	Mix
300	.04	.08	.10	.13	.18	.23	.06	.10	.13	.18	.24	.31	.03	. 12	.17	.21	.28	.36	.04	.05	.06	.07	.08	.16	.02	.08	.02	.06	.02	.35	.40	.10	.03	.02
400	.08	.12	.17	.22	.31	.40	.10	.16	.22	.28	.41	.53	.13	.20	.27	.34	.47	.61	.06	.08	.10	.11	.13	.29	.04	.12	.04	.08	.03	.35	.40	.16	.05	.04
500		.19	.26	.32	.45	.59	.15		.33			.78		.30	.41	.52	.73	1		.12	.14	.17	.19	.42	.06	.16	.06	.10	.04	.35	.40	.23	.07	.06
600	.17	.26	.35	.44	.63	.81	.21	.33	.47	.59	.85	1.11	.26	.41	.56					.17	.20	.23	.26	.56	.09	.20	.09	.13	.05	.35	.40	.30	.10	.09
700	.22	.34	.47	.59	.84	1.08	.28	.45	.62	.79	1.13	1.47	.34	.54	.74	.93	1.33	1.73	.17	.23	.27	.31	.35	.82	.12	.25	.11	.15	.06	.35	_	.39	.14	.12
800	.27	.42	.58	.74		-	.36	.58	.79		-	-	.43	.69		1.19	_		.22	.29	.34	.39	.45				100	4.1		400	e di dia	14,50	1400	4-356
900	.33	.53	.72	.92	_	_	.43	.70	.96	1.22	-		.53	.84	1.15	1.46			.27	.36	.42	.48	.56											

1. Coil areas shown on page 7.

.96 1.31

1100

.73 1.06 1.34

2. Cooling coil face velocity should not exceed 600 FPM when coil is dehumidifying. Refer to Chart 1 for factor for increased resistance due to wat coil.

.83 1.23 1.70 2.13

3. Air filter resistance shown is approximate for ease of selection. Should greater accuracy be required, determine exact filter face velocity (areas shown on page 7) and refer to appropriate filter bulletin.

Low Pressure (.25" T.S.P. - 3.0" T.S.P.)

UNIT SIZE 1039 (ONE 10" WHEEL - DWDI FORWARD CURVED; OUTLET AREA = 1.225 SQ. FT.)

CFM	Fan										I	OTAL	STATIO	PRES	SURE										
Std.	Outlet	0.	25	0.	50	0.	75	1,	00	1.	25	1.	50	1.	7 5	2.	00	2.	25	2.	50	2.	.75	3.	.00
Air	Vel.	RPM	ВНР	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	внр	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	980	530	.18	702	.25	844	.34	976	.43	1094	.51	1203	.59	1304	.66	1400	.78	1500	.90	1576	1.02	1652	1.13	1724	1.23
1400	1140	562	.22	717	.29	847	.38	970	.47	1085	.56	1190	.64	1290	.72	1385	.84	1476	.97	1561	1.11	1640	1.23	1712	1.35
1600	1305	599	.27	739	.34	859	.43	973	.52	1082	.62	1183	.71	1279	.79	1372	.91	1461	1.05	1546	1.20	1625	1.34	1698	1.46
1800	1470	640	.32	770	.42	880	.50	990	.60	1090	.70	1185	.80	1276	.90	1366	1.00	1450	1.15	1535	1.30	1615	1.45	1685	1.60
2000	1635	680	.38	797	.49	901	.57	1002	-68	1099	.78	1188	.89	1273	.99	1360	1.11	1443	1.26	1524	1.41	1601	1.57	1672	1.72
2200	1795	720	.45	830	.56	930	.69	1025	.78	1120	.88	1205	.97	1282	1.10	1360	1.27	1440	1.40	1520	1.53	1600	1.68	1665	1.80
2400	1960	763	.56	864	.68	960	.79	1051	.90	1136	1.02	1215	1.16	1293	1.27	1372	1.41	1449	1.56	1523	1.71	1600	1.88	1662	2.04
2800	2285	850	.80	940	.94	1028	1.07	1111	1.20	1187	1.37	1260	1.52	1332	1.67	1404	1.81	1475	1.96	1544	2.13	1610	2.29	1672	2.46

UNIT SIZE 2060 (TWO 91/2" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 1.86 SQ. FT.)

CF	M	Fan										J	OTAL	STATIC	PRES	SURE										
St	d.	Outlet	0.:	25	0.	50	0.	75	1.	.00	1.	25	1.	.50	1.	75	2.	00	2.	25	2.	50	2.	75	3.	.00
A	ir	Vel.	RPM	BHP	RPM	ВНР	RPM	BHP	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP •	RPM	BHP	RPM	BHP
18	00	965	603	.26	799	.40	968	.50	1121	.62	1259	.74	1381	.88	1500	1.02	1600	1.16	1700	1.32	1786	1.46	1871	1.60	1952	1.72
21	00	1125	630	.36	811	.46	969	.56	1115	.70	1250	.84	1371	.98	1483	1.12	1588	1.28	1686	1.50	1779	1.60	1865	1.76	1948	1.92
241	00	1287	662	.40	830	.52	978	.64	1115	.78	1244	.92	1363	1.10	1474	1.24	1578	1.42	1677	1.60	1769	1.76	1857	1.94	1941	2.10
270	00	1447	700	.49	856	.62	995	.75	1122	.90	1247	1.05	1362	1.23	1470	1.39	1572	1.57	1670	1.76	1760	1.91	1848	2.12	1932	2.30
300	00	1610	735	.58	882	.72	1012	.86	1133	1.02	1249	1.18	1361	1.36	1466	1.54	1566	1.72	1661	1.92	1751	2.10	1839	2.30	1923	2.50
330	00	1769	775	.71	914	.85	1037	1.02	1150	1.18	1263	1.35	1370	1.54	1471	1.72	1568	1.86	1660	2.06	1748	2.31	1835	2.52	1918	2.73
360	00	1930	816	.84	947	.98	1063	1.18	1170	1.34	1277	1.52	1379	1.72	1477	1.90	1570	2.10	1659	2.30	1746	2.52	1830	2.74	1912	2.96
420	00	2250	903	1.14	1020	1.36	1125	1.56	1224	1.74	1323	1.96	1417	2.16	1507	2.38	1600	2.58	1675	2.80	1755	3.00	1835	3.24	1914	3.50

UNIT SIZE 2083 (TWO 10" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 2.45 SQ. FT.)

Г _с	FM	Fan				1.2						ì	OTAL	STATI	PRES	SURE										
S	td.	Outlet	0.	25	0.	50	0.	75	1.	00	1.	25	1.	50	1.	75	2.	00	2.	25	2.	50	2.	75	3.	.00
/	Air	Vel.	RPM	BHP	RPM	BHP	RPM	ВНР	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
28	300	1140	562	.44	717	.58	847	.76	970	.94	1085	1.12	1190	1.28	1290	1.44	1385	1.68	1476	1.94	1561	2.22	1640	2.06	1712	2.70
32	200	1310	599	.54	739	.68	859	.86	973	1.04	1082	1.24	1183	1.42	1279	1.58	1372	1.82	1461	2.10	1546	2.40	1625	2.68	1698	2.92
3€	000	1470	639	.64	766	.82	877	.98	985	1.18	1087	1.38	1182	1.58	1273	1.76	1363	2.00	1449	2.28	1532	2.60	1612	2.90	1684	3.16
40)00 J	1633	681	.78	798	1.00	905	1.15	1005	1.37	1100	1.58	1190	1.80	1277	2.00	1363	2.25	1446	2.53	1526	2.85	1604	3.15	1675	3.50
44	00	1800	722	.92	830	1.16	929	1.34	1025	1.56	1115	1.78	1199	2.02	1280	2.24	1363	2.50	1443	2.78	1521	3.10	1596	3.43	1665	3.74
	100	1960	764	1.14	865	1.38	961	1.59	1050	1.85	1137	2.07	1220	2.25	1295	2.60	1375	2.85	1450	3.14	1526	3.46	1598	3.78	1665	4.10
	00	2120	806	1.36	901	1.60	993	1.84	1080	2.08	1160	2.36	1236	2.66	1310	2.92	1386	3.20	1460	3.50	1531	3.82	1601	4.14	1665	4.48
60	000	2450	895	1.88	981	2.20	1065	2.46	1143	2.80	1217	3.16	1286	3.50	1357	3.80	1427	4.10	1495	4.42	1561	4.74	1624	5.08	1683	5.42

UNIT SIZE 2100 (TWO 121/4" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 3.45 SQ. FT.)

	EM	Fan										T	OTAL	STATIO	PRES	SURE										
	Std.	Outlet	0.	25	0.	50	0.	75	1.	00	1.	25	1.	50	1.	75	2.	.00	2.	25	2.	50	2.	75	3.	.00
	Air	Vel.	RPM	BHP	RPM	внр	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	ВНР	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3	000	870	431	.34	575	.54	700	.74	820	.90	922	1.12	1017	1.34	1095	1,60	1189	1.84	1255	2.08	1317	2.30	1377	2.52	1436	2.76
3	500	1015	450	.42	582	.62	703	.82	813	.98	902	1.22	995	1.44	1070	1.74	1183	2.00	1251	2.28	1312	2.54	1371	2.78	1430	3.04
4	000	1160	471	.52	595	.72	707	.92	811	1.10	910	1.34	992	1.56	1087	1.88	1175	2.18	1244	2.48	1325	2.76	1363	3.04	1421	3.34
4	500	1304	495	.65	615	.86	720	1.07	817	1.26	910	1.50	988	1.73	1078	2.06	1166	2.40	1237	2.72	1313	3.03	1355	3.34	1440	3.65
	000	1450	520	.78	632	1.00	732	1.22	823	1.42	910	1.66	984	1.90	1070	2.24	1157	2.60	1230	2.96	1300	3.30	1347	3.64	1402	3.96
	500	1594	550	1.00	654	1.20	750	1.42	836	1.55	917	1.90	994	2.15	1071	2.50	1153	2.88	1225	3.27	1290	3.70	1342	4.00	1396	4.35
200	000	1740	577	1.12	676	1.40	768	1.62	850	1.88	924	2.14	1005	2.38	1072	2.76	1149	3.16	1221	3.58	1281	3.96	1337	4.36	1390	4.74
L_7	000	2030	640	1.62	727	1.90	810	2.16	886	2.48	955	2.76	1022	3.08	1089	3,48	1156	3,92	1222	4.38	1282	4.82	1337	5.26	1389	5,68

UNIT SIZE 2125 (TWO 15" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 4.02 SQ. FT.)

Г _с	FM	Fan											TOTAL	STATI	C PRE	SSURE										
	Std.	Outlet	0.:	25	0.	50	0.	75	1.	00 .	1.	25	1.	50	1.	75	2.	00	2.	25	2.	50	2.	75	3.	00
å .	Air	Vel.	RPM	ВНР	RPM	BHP	RPM	ВНР	RPM	ВНР	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP.	RPM	BHP	RPM	BHP
3	750	935	352	.36	483	.58	598	.82	701	1.06	786	1.26	864	1.44	934	1.66	1000	2.00	1057	2.38	1114	2.76	1169	3.08	1222	3.42
4	400	1100	361	.44	485	.68	592	.94	691	1.20	777	1.44	855	1.66	926	1.90	1000	2.26	1050	2.66	1107	3.08	1164	3.44	1218	3.80
5	000	1245	373	.54	490	.80	590	1.08	684	1.34	769	1.62	847	1.86	917	2.12	981	2.50	1042	2.92	1110	3.38	1156	3.88	1211	4.16
	600	1393	390	.67	500	.95	593	1.24	682	1.52	760	1.85	840	2.10	910	2.37	975	2.80	1033	3.25	1095	3.75	1146	4.17	1200	4.56
	250	1550	406	.80	509	1.10	596	1.40	680	1.70	759	2.02	833	2.34	902	2.62	965	3.04	1024	3.50	1080	4.00	1136	4.46	1191	4.92
	900	1716	427	1.00	523	1.30	605	1.63	684	1.93	760	2.28	832	2.63	900	2.94	960	3.40	1020		1074	4.36	1128	4.85	1182	5.32
	500	1870	447	1.16	536	1.48	614	1.84	688	2.14	761	2.52	830	2.90	896	3.24	955	3.70	1012	4.18	1067	4.70	1120	5.22	1174	5.72
8	750	2180	493	1.62	568	2.00	640	2.38	707	2.72	775	3.14	839	3,56	900	3.98	956	4.46	1010	4.98	1062	5.54	1112	6.10	1163	6.64

UNIT SIZE 2150 (TWO 15" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 4.88 SQ. FT.)

CFM	Fan											TOTAL	STATI	C PRES	SSURE										
Std.	Outlet	0.2	25	0.	50	0.	75	1.	00	1.	25	i.	50	1.	75	2.	00	2.	25	2.	50	2.	75 .	3.	.00
Air	Vel.	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP								
4500	920	363	.46	485	.70	591	.96	690	1.22	776	1.48	854	1.68	924	1.92	989	2.30	1049	2.70	1106	3.14	1163	3.50	1217	3.86
5250	1075	378	.58	493	.86	590	1.12	682	1.40	767	1.70	843	1.96	914	2.20	978	2.60	1038	3.04	1110	3.50	1152	3.90	1207	4.32
6000	1230	398	.74	505	1.02	594	1.32	679	1.62	760	1.94	835	2.24	904	2.52	967	2.94	1027	3.38	1084	3.86	1140	4.32	1205	4.79
6750	1383	427	.95	520	1.25	604	1.58	685	1.88	761	2.23	833	2.57	900	2.88	961	3.40	1020	3.78	1076	4.28	1130	4.77	1189	5.25
7500	1535	447	1.16	536	1.48	614	1.84	688	2.14	761	2.52	830	2.90	896	3.24	955	3.85	1012	4.18	1067	4.70	1120	5.22	1174	5.72
8250	1690	475	1.45	554	1.80	630	2.17	700	2.50	770	2.90	836	3.31	900	3.69	956	4.24	1012	4.67	1064	5.21	1116	5.75	1168	6.28
9000	1840	502	1.74	575	2.12	646	2.50	712	2.86	778	3.28	842	3.72	902	4.14	957	4.64	1011	5.16	1062	5.72	1112	6.28	1162	6.84
10500	2150	557	2.56	620	2.96	684	3.38	746	3.82	807	4.28	865	4.76	920	5.26	971	5.82	1021	6.38	1069	6.98	1117	7.58	1164	8.18

Low Pressure (.25" T.S.P.-3.0" T.S.P.)

UNIT SIZE 2182 (TWO 18" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 5.73 SQ. FT.)

T	CFM	Fan											TOTAL	STAT	C PRE	SSURE										
	Std.	Outlet	0.	25	0.	50	0.	75	1.	00	1.	25	1.	50	1.7	75	2.	00	2.	25	2.	50	2.	.75	3.	.00
ůL	Air	Vel.	RPM	BHP	RPM	BHP	RPM	ВНР	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP								
	5250	916	295	.42	419	.82	516	1.10	601	1.48	672	1.86	735	2.24	800	2.60	850	3.00	900	3.60	950	4.00	995	4.40	1030	5.20
	6250	1090	309	.56	417	.96	509	1.28	595	1.72	667	2.14	731	2.56	800	3.00	850	3.50	905	4.00	950	4.40	1000	5.00	1040	5.50
1	7250	1265	323	.74	421	1.16	506	1.48	589	1.96	661	2.44	726	2.90	785	3.34	841	3.82	902	4.32	942	4.86	989	5.42	1034	5.98
	8250	1440	340	.98	430	1.42	510	1.78	588	2.28	658	2.80	720	3.30	780	3.77	833	4.32	891	4.76	936	5.43	985	6.00	1030	6.60
П	9250	1615	357	1.22	440	1.68	514	2.08	587	2.60	654	3.14	716	3.66	775	4.20	825	4.80	880	5.20	930	6.00	980	6.60	1025	7.20
	10250	1789	376	1.61	453	2.04	524	2.50	592	3.05	656	3.59	716	4.14	773	4.70	820	5.40	873	5.80	925	6.60	972	7.20	1015	8.80
	11250	1965	394	1.90	466	2.40	533	2.90	598	3.46	658	4.04	716	4.62	770	5.20	815	6.00	865	6.40	920	7.20	965	7.80	1005	9.40
L	13500	2360	433	2.86	500	3.46	563	4.08	621	4.70	675	5.36	727	6.00	778	6.66	827	7.30	876	8.00	922	8.64	967	9.42	1000	10.00

UNIT SIZE 2225 (TWO 181/4" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 6.88 SQ. FT.)

	CFM	Fan											TOTAL	STAT	C PRE	SSURE										
	Std.	Outlet	0.	25	0.	50	0.	75	1.	00	1.	25	1.	50	1.	75	2.	00	2.	25	2.	50	2.	.75	3.	.00
H	Air	Vel.	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	ВНР	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
ी	6000	872	306	.52	417	.92	510	1.22	596	1.66	668	2.06	732	2.48	791	2.88	845	3.32	906	3.76	944	4.26	1000	4.76	1034	5.26
	7250	1050	323	.74	421	1.16	506	1.48	589	1.96	661	2.44	726	2.90	785	3.34	841	3.82	902	4.32	942	4.86	989	5.42	1034	5.98
	8500	1235	343	1.02	431	1.46	509	1.82	586	2.34	655	2.84	719	3.36	778	3.86	834	4.38	887	4.90	937	5.50	984	6.10	1030	6.72
	9750	1417	366	1.40	447	1.90	520	2.30	591	2.84	656	3.37	717	3.92	775	4.46	829	5.02	881	5.60	931	6.20	978	6.90	1024	7.52
	11000	1600	389	1.80	463	2.30	530	2.78	596	3.34	657	3.90	715	4.48	771	5.06	824	5.66	876	6.24	925	6.90	972	7.60	1018	8.32
1	12250	1781	410	2.35	482	2.90	546	3.43	610	4.02	666	4.63	721	5.24	775	5.86	826	6.64	876	7.10	924	7.77	970	8.50	1011	9.30
	13500	1960	433	2.86	500	3.46	563	4.08	621	4.70	675	5.36	727	6.00	778	6.66	827	7.30	876	7.94	922	8.64	967	9.42	1004	10.22
1	16000	2320	475	4.20	542	4.98	601	5.74	654	6.50	703	7.22	751	7.96	800	8.68	843	9.40	888	10.10	931	10.88	972	11.72	1013	12.58

UNIT SIZE 2270 (TWO 20" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 8.35 SQ. FT.)

CFI	и	Fan	5/6/100										TOTAL	STAT	C PRE	SSURE										
Std	i. 0	Outlet	0.	25	0.	50	0.	.75	1.	00	1.	25	1.	50	1.	.75	2.	00	2.	25	2.	50	2.	75	3.	.00
Air	'	Vel.	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	ВНР
900	00 1	1080	268	.74	360	1.19	445	1.69	520	2.23	587	2.81	648	3.43	703	4.08	753	4.76	800	5.47	844	6.21	886	6.97	925	7.76
102	50 1	1230	283	.95	362	1.44	442	1.98	514	2.56	581	3.17	641	3.83	697	4.51	748	5.22	797	5.97	842	6.74	884	7.53	924	8.35
1150	00 1	1380	301	1.22	369	1.74	441	2.31	510	2.93	575	3.59	635	4.27	690	4.99	742	5.74	791	6.52	837	7.32	880	8.15	921	9.00
127	50 1	1530	320	1.54	380	2.09	445	2.71	509	3.36	571	4.06	629	4.78	684	5.54	736	6.32	784	7.13	831	7.97	874	8.83	916	9.71
1400		1680	340	1.92	394	2.51	451	3.16	511	3.86	569	4.58	626	5.35	679	6.14	730	6.96	778	7.81	824	8.68	868	9.57	910	10.49
1525		1830	358	2.37	410	2.99	461	3.68	516	4.41	570	5.18	624	5.98	675	6.81	725	7.67	772		818	9.46	861	10.39	903	11.35
1650		1980	374	2.89	429	3.55	474	4.27	524	5.04	574	5.85	625	6.69	674	7.55	722	8.45	768	9.37	812	10.31	855	11.28	897	12.27
1900	00 2	2280	402	4.13	469	4.92	507	5.70	547	6.53	590	7.42	634	8.33	678	9.28	721	10.25	764	11.25	806	12.27	847	13.31	887	14.38

UNIT SIZE 2315 (TWO 221/4" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 10.18 SQ. FT.)

	CFM	Fan											FOTAL	STATI	C PRE	SSURE										
	Std.	Outlet	0.	25	0.	.50	0.	75	1.	00	1.	25	1.	50	1.	.75	2	.00	, 2	.25	2.	.50-	2.	.75	3	.00
L	Air	Vel.	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	ВНР	RPM	BHP								
T	10000	970	235	.76	324	1.28	403	1.86	471	2.49	531	3.18	585	3.90	634	4.67	678	5.48	720	6.32	759	7.19	795	8.10	830	9.04
	11500	1120	245	.98	324	1.55	399	2.17	466	2.85	526	3.57	580	4.34	630	5.15	676	5.99	718	6.87	758	7.78	796	8.73	831	9.70
	13000	1270	259	1.26	327	1.87	396	2.54	461	3.26	520	4.03	574	4.84	624	5.69	671	6.57	714	7.49	755	8.44	794	9.42	830	10.44
	14500	1420	276	1.60	334	2.25	397	2.96	458	3.73	515	4.55	569	5.40	619	6.29	665	7.21	709	8.17	750	9.16	789	10.19	827	11.24
	16000	1570	293	2.01	345	2.69	401	3.46	458	4.27	513	5.13	564	6.03	613	6.96	660	7.93	703	8.93	745	9.96	784	11.03	822	12.12
	17500	1720	310	2.49	358	3.21	408	4.02	460	4.88	512	5.79	562	6.73	609	7.71	655	8.72	698	9.76	739	10.84	778	11.94	816	13.08
	19000	1870	326	3.05	373	3.82	418	4.67	465	5.57	513	6.52	561	7.51	606	8.54	651	9.59	693	10.68	734	11.80	773	12.95	810	14.12
L	22000	2160	352	4.42	408	5.31	444	6.23	483	7.22	524	8.26	565	9.34	607	10.46	648	11.61	687	12.79	726	14.01	764	15.23	800	16.51

UNIT SIZE 2390 (TWO $24\frac{1}{2}$ " WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 12.46 SQ. FT.)

Γ	CFM	Fan											TOTAL	STATI	C PRE	SSURE										
	Std.	Outlet	0.	25	0.	.50	0.	75	1.	.00	1.	25	1.	.50	1.	75	2.	00	2.	25	2.	50	2.	75	3.	.00
1	Air	Vel.	RPM	BHP	RPM	BHP	RPM	BHP	RPM	ВНР	RPM	BHP	RPM	ВНР	RPM	BHP	RPM	ВНР	RPM	ВНР	RPM	BHP	RPM	BHP	RPM	ВНР
1	13000	1040	210	.94	287	1.65	355	2.41	414	3.23	465	4.09	511	5.01	553	5.97	592	6.91	628	8.02	661	9.12	693	10.24	722	11.41
	15000	1200	219	1.19	288	1.99	353	2.83	410	3.71	462	4.65	508	5.62	551	6.64	590	7.70	627	8.81	662	9.95	694	11.13	725	12.34
	17000	1360	230	1.51	292	2.36	352	3.31	407	4.26	458	5.27	505	6.31	548	7.39	588	8.52	625	9.68	660	10.88	693	12.11	725	13.38
	19000	1530	244	1.89	299	2.81	354	3.82	407	4.87	456	5.95	501	7.07	544	8.23	584	9.41	621	10.64	657	11.91	691	13.19	722	14.52
1	21000	1690	257	2.39	309	3.30	359	4.41	408	5.54	455	6.71	499	7.91	541	9.14	580	10.41	618	11.69	653	13.01	687	14.37	719	15.76
	23000	1850	271	3.01	320	3.89	366	5.05	411	6.28	456	7.54	498	8.82	539	10.13	577	11.47	614	12.83	650	14.23	683	15.65	716	17.10
	25000	2010	284	3.77	332	4.59	374	5.78	417	7.08	458	8.43	499	9.81	538	11.20	576	12.62	612	14.05	647	15.53	680	16.95	712	18.55
	29000	2330	310	5.48	359	6.38	397	7.56	433	8.97	470	10.47	506	12.02	541	13.59	576	15.19	610	16.80	643	18.44	675	20.09	706	21.77

UNIT SIZE 2492 (TWO 27" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 15.19 SQ. FT.)

Г	CFM	Fan											OTAL	STATI	C PRES	SSURE										
	Std.	Outlet	0.	25	0.	50	0.	75	1.	00	1.	.25	1.	50	1.	75	2.	00	2.	25	2.	50	2.	75	3.	.00
1	Air	Vel.	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	ВНР	RPM	BHP	RPM	BHP	RPM	ВНР	RPM	BHP	RPM	BHP	RPM	BHP	RPM	ВНР
T	15000	980	188	1.05	261	1.89	323	2.78	376	3.75	423	4.77	465	5.86	502	7.01	537	8.21	569	9.47	599	10.77	627	12.12	654	13.52
A	17500	1150	196	1.34	261	2.28	320	3.28	373	4.33	420	5.44	462	6.60	501	7.82	536	9.09	569	10.41	600	11.79	630	13.20	657	14.66
	20000	1320	206	1.71	264	2.74	319	3.84	370	4.99	416	6.19	459	7.43	498	8.73	534	10.08	568	11.47	599	12.91	629	13.40	658	15.92
	22500	1480	218	2.17	270	3.26	321	4.47	369	5.73	414	7.02	456	8.36	494	9.74	531	11.17	565	12.64	597	14.15	627	15.71	656	17.34
	25000	1650	230	2.75	278	3.86	324	5.18	370	6.55	413	7.95	453	9.38	491	10.86	527	12.37	561	13.92	594	15.52	624	17.15	653	18.83
	27500	1810	243	3.49	288	4.57	330	5.97	372	7.45	413	8.96	452	10.50	489	12.07	524	13.68	558	15.33	590	17.01	621	18.72	650	20.48
	30000	1980	255	4.40	299	5.41	338	6.86	377	8.44	415	10.06	452	11.71	488	13.39	523	15.10	556	16.84	587	18.62	618	20.42	647	22.26
	35000	2310	279	6.78	324	7.61	358	9.04	392	10.75	425	12.57	458	14.44	491	16.34	523	18.27	554	20.23	584	22.20	613	24.21	641	26.23

UNIT SIZE 2600 (TWO 30" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 18.5 SQ. FT.)

ा	CFM	Fan											FOTAL	STATI	C PRE	SSURE									(2)	
	Std.	Outlet	0.	.25	0.	50	0.	.75	1.	.00	1	.25 ·	1.	50	1.	.75	2.	00	2.	.25	2.	50 -	2.	75	3.	.00
	Air	Vel.	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	ВНР	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
ſ	18000	980	169	1.26	235	2.26	291	3.34	339	4.50	381	5.75	418	7.06	452	8.45	483	9.91	512	11.43	539	13.01	564	14.65	588	16.34
	21000	1140	175	1.60	235	2.73	288	3.93	336	5.19	378	6.53	416	7.94	451	9.42	483	10.96	512	12.56	540	14.22	566	15.93	591	17.70
	24000	1300	184	2.02	237	3.27	287	4.60	333	5.98	375	7.42	413	8.93	448	10.49	481	12.12	511	13.81	540	15.55	566	17.35	592	19.20
	27000	1460	194	2.56	242	3.88	288	5.34	332	6.85	373	8.41	410	10.03	445	11.69	478	13.42	509	15.20	537	17.03	565	18.91	591	20.85
	30000	1620	191	3.24	249	4.59	291	6.18	332	7.82	371	9.51	408	11.24	442	13.01	475	14.84	506	16.72	535	18.65	562	20.62	588	22.65
	33000	1780	217	4.10	257	5.42	296	7.11	334	8.89	371	10.70	407	12.56	440	14.46	472	16.40	503	18.38	532	20.41	599	22.48	586	24.60
	36000	1940	228	5.15	267	6.40	303	8.16	338	10.06	373	12.01	407	13.40	439	16.02	470	18.08	500	20.18	529	22.32	556	24.50	583	26.72
L	42000	2270	249	7.93	289	8.94	320	10.70	351	12.78	381	14.97	412	17.23	441	19.52	470	21.84	498	24.19	525	26.57	552	28.98	577	31.43

Medium Pressure (2.5" T.S.P. - 5.0" T.S.P.)

UNIT SIZE 1039 (ONE 101/8" x 8" WHEEL - DWDI FORWARD CURVED; OUTLET AREA = .96 SQ. FT.)

					· · · · · ·							TOTAL	STATIC	PRES	SURE									
	CFM	Outlet Vel.	2.	50	2.	75	3.	00	3.	25	3.	50	3.	75	4.	00	4.:	25	4.	50	4.	75	5.0	00
			RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	внр	RPM	ВНР	RPM	ВНР	RPM	ВНР
1	1600	1670	1506	1.08	1579	1.17	1655	1.27	1728	1.37	1797	1.47	1872	1.60	1945	1.74	2015	1.85	2075	1.96	2136	2.07	2210	2.18
	2000	2085	1500	1.36	1566	1.46	1634	1.57	1700	1.70	1762	1.82	1830	1.96	1898	2.11	1962	2.24	2025	2.37	2088	2.48	2147	2.59
44 T	2400 2800	2500 2920	1515 1542	1.71 2.17	1577 1600	1.82	1637 1662	1.93	1701 1719	2.11	1760 1774	2.28	1818 1826	2.42 2.92	1880 1882	2.56	1942 1944	2.67 3.17	2000	2.79 3.35	2058 2046	2.90 3.52	2112 2100	3.00
L	2000	2320	1342	2.1/	1000	2.32	1002	4.40	1/19	4.30	1//4	2.04	1020	2.92	1002	3.00	1344	3.17	2002	3.33	2040	3.32	2100	3.09

UNIT SIZE 2060 (TWO $9\frac{1}{2}$ " x 6" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 1.3 SQ. FT.)

											TOTAL	STATIC	PRES	SURE									
CFM	Outlet Vel.	2.	50	2.	75	3.	00	3.	25	3.	50	3.	75	4.0	00	4.:	25	4.	50	4.	75	5.0	00
		RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	BHP	RPM	ВНР	RPM	ВНР	RPM	внр								
2400	1845	1700	1.70	1782	1.92	1872	2.02	1955	2.42	2055	2.37	2129	2.50	2195	2.68	2267	2.81	2330	3.00	2400	3.21	2471	3.32
3000	2310	1720	2.16	1795	2.32	1875	2.56	1950	2.75	2030	2.86	2107	3.06	2170	3.24	2229	3.46	2300	3.63	2360	3.78	2428	4.00
3600	2770	1750	2.84	1825	3.00	1902	3.22	1975	3.39	2050	3.62	2110	3.78	2175	4.00	2227	4.20	2287	4.36	2345	4.51	2402	4.74
4200	3230	1813	3.75	1880	4.00	1953	4.12	2015	4.25	2077	4.50	2140	4.71	2197	4.93	2250	5.14	2303	5.35	2355	5.51	2410	5.60

UNIT SIZE 2083 (TWO 10%" x 8" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 1.92 SQ. FT.)

											TOTAL	STATIO	PRES	SURE									
CFM	Outlet Vel.	2.	50	2.	75	3.	00	3.	25	3.	50	3.	75	4.	00	4.	25	4.	50	4.	75	5.	00
	, , , ,	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР								
3600	1875	1500	2.44	1570	2.63	1639	2.84	1711	3.07	1784	3.29	1844	3.58	1916	3.87	1978	4.11	2048	4.42	2115	4.60	2175	4.78
4400	2290	1505	3.00	1573	3.26	1632	3.52	1698	3.74	1760	4.00	1818	4.34	1883	4.67	1945	4.93	2013	5.18	2068	5.40	2124	5.59
5200	2710	1528	3.83	1588	4.06	1645	4.41	1706	4.70	1761	5.05	1819	5.31	1878	5.56	1933	5.83	2000	6.00	2048	6.35	2102	6.69
6000	3125	1562	4.94	1621	5.22	1677	5.50	1733	5.76	1791	6.02	1839	6.38	1896	6.74	1948	7.09	2012	7.44	2066	7.76	2105	8.07

UNIT SIZE 2100 (TWO 10%" x 10%" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 2.42 SQ. FT.)

											TOTAL	STATIC	PRES	SURE									
CFM	Outlet Vel.	2.	50	2.	75	3.	00	3.	25	3.	50	3.	75	4.0	00	4.2	25	4.	50	4.	75	5.	.00
		RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР								
4000	1650	1512	2.76	1590	3.00	1660	3.24	1731	3.56	1804	3.88	1862	4.20	1924	4.52	1986	4.80	2042	5.18	2100	5.54	2165	6.04
5000	2060	1539	3.62	1600	3.92	1661	4.20	1720	4.44	1790	4.86	1845	5.22	1900	5.52	1961	5.86	2020	6.20	2065	6.54	2125	7.34
6000	2480	1563	4.76	1631	5.12	1690	5.44	1739	5.80	1808	6.22	1856	6.63	1914	6.94	1968	7.28	2024	7.66	2070	8.08	2132	8.69
7000	2890	1624	6.40	1680	6.74	1736	7.08	1780	7.38	1842	7.82	1890	8.20	1945	8.53	1995	8.95	2049	9.36	2096	9.80	2138	10.30

UNIT SIZE 2125 (TWO 12%" x 91/2" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 2.64 SQ. FT.)

											TOTAL	STATIC	PRES	SURE									
CFM	Outlet Vel.	2.	50	2.	75	3.	00	3.	25	3.	50	3.7	75	4.	00	4.	25	4.	50	4.	75	5.	.00
		RPM	ВНР	RPM	внр	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР								
5000	1890	1230	3.34	1280	3.49	1330	3.64	1404	3.98	1480	4.36	1529	4.98	1585	5.32	1640	5.69	1700	6.20	1760	6.85	1805	7.13
6250	2360	1239	4.21	1288	4.65	1350	5.05	1400	5.36	1465	5.85	1510	6.23	1560	6.65	1595	6.90	1660	7.26	1705	7.70	1752	8.17
7500	2840	1265	6.00	1312	6.36	1362	6.72	1418	7.14	1470	7.48	1520	7.84	1565	8.19	1607	8.60	1648	9.08	1690	9.65	1738	10.12
8750	3310	1305	7.95	1355	8.25	1400	8.66	1440	9.05	1495	9.45	1522	9.83	1585	10.48	1625	10.98	1660	11.27	1705	11.70	1745	12.40

UNIT SIZE 2150 (TWO 15" x $9\frac{1}{2}$ " WHEELS - DWDI FORWARD CURVED; OUTLET AREA \pm 3.34 SQ. FT.)

											TOTAL	STATI	C PRES	SURE									
CFM	Outlet Vel.	2.	50	2.	75	3.	00	3.	25	3	.50	3.	75	4.	00	4.	.25	4.	.50	4.	75	5.	.00
	10	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР								
6000	1795	1035	3.70	1085	4.01	1135	4.40	1182	4.61	1231	5.00	1275	5.22	1319	5.46	1372	5.96	1415	6.42	1451	6.71	1495	7.12
7500	2245	1041	4.90	1086	5.11	1131	5.61	1175	5.92	1221	6.30	1262	6.57	1311	7.12	1345	7.41	1385	7.72	1427	8.33	1471	8.88
9000	2700	1055	6.41	1100	6.74	1141	7.21	1188	7.46	1225	8.00	1270	8.48	1310	8.91	1341	9.41	1382	9.72	1420	10.41	1463	10.82
10500	3140	1085	8.20	1125	8.72	1169	9.10	1210	9.74	1245	10.20	1287	10.56	1321	11.20	1350	11.50	1391	11.95	1426	12.61	1471	13.26

Medium Pressure (2.5"T.S.P. - 5.0"T.S.P.)

UNIT SIZE 2182 (TWO 15" x $11\frac{1}{8}$ " WHEELS - DWDI FORWARD CURVED; OUTLET AREA \equiv 3.85 SQ. FT.)

											TOTAL	. STAT	C PRES	SSURE									
CFM	Outlet Vel.	2	.50	2.	.75	3.	.00	3	.25	3	.50	3.	75	4.	00	4.	25	4.	50	4.	75	5.	.00
		RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	внр	RPM	ВНР	RPM ·	ВНР								
7250	1885	1017	4.45	1072	4.82	1122	5.22	1169	5.67	1213	6.00	1255	6.40	1297	6.82	1343	7.30	1389	7.82	1427	8.15	1465	8.62
9250	2400	1019	6.25	1068	6.62	1114	6.95	1157	7.46	1200	7.84	1239	8.32	1278	8.61	1318	8.87	1360	9.55	1401	10.25	1435	10.63
11250	2920	1040	8.35	1084	8.76	1120	9.10	1162	9.61	1203	10.15	1241	10.53	1279	11.07	1317	11.74	1356	12.43	1395	13.07	1427	13.62
13500	3510	1072	11.73	1118	12.32	1149	12.71	1185	13.24	1224	13.82	1262	14.51	1299	15.21	1334	15.88	1370	16.67	1405	17.36	1435	17.91

UNIT SIZE 2225 (TWO 15" x 15" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 4.88 SQ. FT.)

											TOTAL	STATI	C PRES	SURE									
CFM	Outlet Vel.	2.	.50	2.	75	3.	00	3.	25	3.	50	3.	75	4.	00	4.	25	4.	50	4.	75	5.	00
		RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР								
8500	1740	1060	5.4	1115	6.0	1160	6.4	1215	7.0	1265	7.4	1310	8.0	1360	8.6	1395	9.0	1445	9.6	1490	10.2	1530	10.6
11000	2250	1075	7.6	1120	8.2	1170	9.0	1212	9.4	1255	9.8	1295	10.0	1335	10.6	1375	11.4	1415	12.2	1455	12.8	1492	13.2
13500	2760	1110	10.2	1150	11.0	1195	11.4	1235	12.0	1275	12.6	1315	13.4	1350	14.0	1390	14.8	1425	15.4	1460	15.8	1495	16.2
16000	3280	1160	14.0	1198	15.0	1240	15.4	1275	16.0	1310	17.0	1345	17.4	1380	18.2	1420	19.2	1455	19.8	1485	20.2	1520	21.2

UNIT SIZE 2270 (TWO $18\frac{1}{8}$ " x 18" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 5.71 SQ. FT.)

											TOTAL	STATI	C PRES	SURE									
CFM	Outlet Vel.	2.	50	2.	.75	3.	00	3.	25	3.	.50	3.	75	4.	00	4.	25	4.	50	4.	75	5.	.00
		RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР
11500	2015	918	7.32	963	8.15	1006	8.86	1045	9.43	1084	10.08	1124	10.68	1164	11.52	1203	12.26	1240	13.00	1278	13.76	1315	14.48
14000	2450	920	9.03	962	9.84	1003	10.66	1041	11.42	1079	12.18	1115	12.78	1152	13.74	1190	14.53	1226	15.32	1263	15.06	1300	15.80
16500	2890	930	11.36	964	12.11	1012	13.18	1048	14.01	1084	14.83	1120	15.77	1157	16.69	1195	17.66	1228	18.44	1264	19.28	1300	20.10
19000	3330	958	14.20	991	15.08	1029	16.01	1063	16.95	1100	17.92	1132	18.89	1170	19.96	1208	21.00	1240	22.16	1277	23.22	1313	24.25

UNIT SIZE 2315 (TWO 181/8" x 18" WHEELS - DWDI FORWARD CURVED: OUTLET AREA = 6.85 SQ. FT.)

											TOTAL	STATI	C PRES	SURE									
CFM	Outlet Vel.	2	50	2.	.75	3.	00	3.	.25	3	.50	3.	75	4.	.00	4.	25	4.	50	4.	75	5.	.00
	10	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	внр	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР
13000	1900	917	8.36	952	8.84	1004	9.68	1037	10.38	1077	11.27	1116	11.92	1158	12.82	1191	13.44	1228	14.17	1268	15.21	1310	16.25
16000	2335	931	10.56	966	11.54	1008	12.65	1044	13.02	1079	14.12	1121	15.25	1156	16.16	1191	17.05	1229	17.84	1264	18.86	1300	19.52
19000	2775	958	14.20	991	15.08	1029	16.01	1063	16.95	1100	17.92	1132	18.89	1170	19.96	1208	21.00	1240	22.16	1277	23.22	1313	24.25
22000	3210	991	18.70	1024	19.94	1058	20.85	1092	21.82	1126	22.95	1162	24.22	1198	25.68	1237	27.39	1271	28.41	1293	29.48	1330	31.02

UNIT SIZE 2390 (TWO $22\frac{1}{4}$ " x 22" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 10.18 SQ. FT.)

											TOTAL	STATI	C PRES	SURE									
CFM	Outlet Vel.	2.	50	/2.	.75	3.	00	3.	25	3.	50	3.	75	4.	00	4.	25	4.	50	4.	75	5.	00
		RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	BHP	RPM	ВНР	RPM	ВНР								
17000	1670	735	10.6	770	11.7	810	13.0	845	14.0	885	15.5	910	16.4	945	18.0	975	19.0	1005	20.4	1035	21.5	1065	23.0
21000	2065	725	13.3	760	14.3	800	16.0	835	17.1	865	18.8	895	20.5	925	21.0	950	22.0	985	23.0	1015	24.5	1045	26.5
25000	2460	730	16.4	765	18.0	795	19.5	830	20.8	860	22.3	890	23.0	915	25.0	940	26.5	975	27.5	1002	29.0	1030	31.0
29000	2850	748	21.0	780	22.5	805	24.0	840	25.5	875	27.0	895	28.0	920	30.0	945	31.0	980	33.0	1000	34.0	1025	36.5

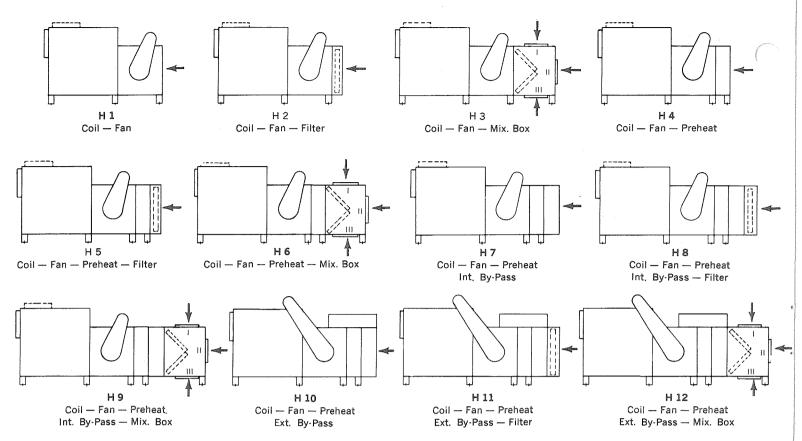
UNIT SIZE 2492 (TWO $24\frac{1}{2}$ " x 24" Wheels - DWDI FORWARD CURVED; OUTLET AREA \pm 12.46 SQ. FT.)

											TOTAL	STATI	C PRES	SURE									
CFM	Outlet Vel.	2.	50	2.	75	3.	00	3.	25	3.	50	3.	75	4.	00	4.	25	4.	50	4.	75	5.	.00
	70	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР								
20000	1605	650	12.6	680	13.9	720	15.5	750	17.3	785	19.0	810	20.5	840	22.0	860	23.0	888	25.0	915	26.5	945	28.5
25000	2050	640	15.0	670	16.4	700	18.2	740	20.5	775	21.5	795	24.0	825	25.5	850	27.0	878	29.0	905	31.0	935	33.0
30000	2410	645	18.5	675	20.5	695	21.5	730	23.4	755	25.5	790	28.0	810	29.0	840	31.0	862	32.5	885	35.0	915	37.0
35000	2810	652	22.8	680	24.5	706	26.3	735	28.0	760	30.0	792	33.0	812	34.5	835	36.0	860	38.0	880	40.5	905	42.5

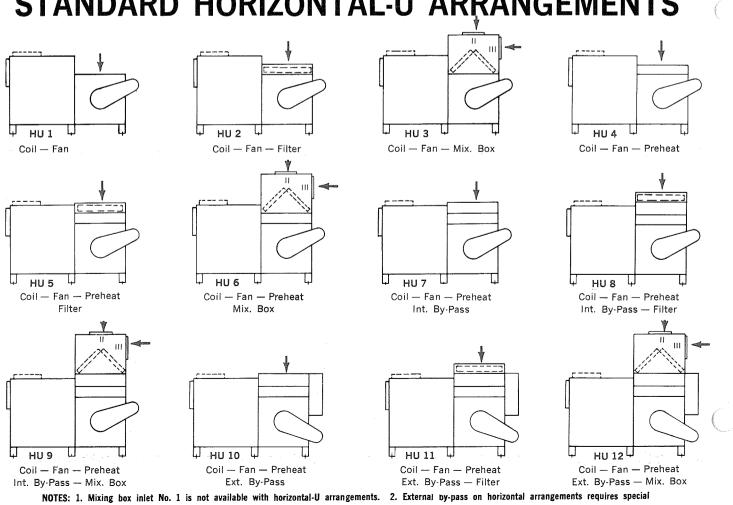
UNIT SIZE 2600 (TWO 27" x 27" WHEELS - DWDI FORWARD CURVED; OUTLET AREA = 15.19 SQ. FT.)

											TOTAL	STATI	PRES	SURE									
CFM	Outlet Vel.	2.	50	2.	75	3.	00	3.	25	3.	.50	3.	75	4.	00	4.	25	4.	50	4.	75	5.	00
	701.	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР								
24000	1580	590	15.0	620	16.5	650	18.8	680	20.6	710	22.5	735	24.0	760	25.5	780	27.0	805	28.5	830	30.9	853	33.3
30000	1975	580	18.0	608	20.3	640	22.5	665	23.7	690	26.0	720	27.7	748	30.0	765	31.5	795	33.9	820	36.9	845	39.3
36000	2370	585	21.8	610	24.3	635	25.8	655	28.2	685	30.0	710	31.5	738	33.0	755	36.3	780	39.0	805	42.0	830	45.0
42000	2760	595	27.8	615	29.2	640	32.3	665	33.8	690	36.0	712	38.1	740	40.9	753	43.5	778	46.0	800	48.2	820	51.0

STANDARD HORIZONTAL ARRANGEMENTS



STANDARD HORIZONTAL-U ARRANGEMENTS



motor location. 3. Units for deck mounting only. 14

ORDERING INFORMATION

GENERAL

To designate motor position, coil connection location, discharge zone damper locations, mixing box damper control rod location, etc., the right and left hand side, front and rear of the unit must be established. The rear is designated as the air inlet of a horizontal unit; therefore, to determine the hand, the unit must be viewed looking into the air inlet (or facing the rear of the unit.) With this view, the right or left hand of the unit is the same as that of the viewer.

When a horizontal-U arrangement is specified, it is only necessary to keep in mind the normal location of the air inlet when viewing a horizontal arrangement.

MOUNTING ARRANGEMENTS

Units are available for deck mounting only, in horizontal or horizontal-U arrangements as shown on page 14.

DISCHARGE AND MOTOR LOCATIONS

Two discharge locations are available, top or front: combination of top and front cannot be furnished. Zoning dampers are furnished in the discharge section of the multi-zone units: see below for zone size selection. Zone damper control rods must be specified as top or bottom, front or rear: see Fig. 2.

Two standard motor locations are available for horizontal units, and two for horizontal-U arrangements: left or right side of fan section: see Fig. 1 and 2. Special motor location on coil section is required for horizontal arrangements when external by-pass is furnished. When motor is relocated to coil section, top discharge is not available and heating coil connections must be on end of unit opposite from motor.

COIL LOCATION AND CONNECTIONS

Heating and cooling coils are mounted for parallel air flow in separate areas of the coil section. Heating coils are slant mounted in the hot deck; therefore, a 3 or 4 row water coil cannot be furnished with ½ serpentine circuiting because it cannot be properly vented nor drained. When a single water coil is mounted in the cold deck and used for combination cooling and heating, a diffuser plate is required: see Fig. 2. When the difference in air resistance between the hot and cold decks requires it, a balance plate is furnished: see Fig. 2. A preheat coil is mounted in a separate coil section located on entering air side of fan section. The location of coil connections must be specified as left hand or right hand when unit is ordered. When a coil has connections on opposite ends, both the supply (or liquid) and return (or suction) must be specified.

MIXING BOX

Mixing box opening locations must be specified as I & II, II & III OR I & III: refer to the standard arrangement sketches, page 14. Exception: unit sizes 2315 and 2390 with an angle bank filter arrangement on which only inlet combinations I and II or II and III are available. Mixing

box inlet I is not available with horizontal-U arrangements. Control rod location must be specified as left hand or right hand.

FACE AND BY-PASS DAMPERS FOR PREHEAT COIL

Either internal, or external with duct. With internal, a small face area coil is mandatory. External face and by-pass on a horizontal arrangement requires relocation of the motor to the top of the coil section. Control rod location must be specified as left hand or right hand.

ZONE SIZE SELECTION FOR MULTI-ZONE UNITS

Zoning dampers are furnished with factory fabricated linkage to operate the quantity of individual blades specified for each zone. This linkage is quickly modified in the field if changes are required in the zone size. To size each zone it is necessary to know: (1) the unit size; (2) total number of zones required; (3) the CFM for each zone; and (4) the quantity of individual blades in each zone.

The total quantity of individual zone blades available for each unit size is found in Table 3, page 7 or in the dimension table, page 16: this quantity is fixed for each unit size and cannot be varied. To determine the number of individual blades for each zone, multiply the total blades available by $\frac{\text{Zone CFM}}{\text{Total CFM}}$. If a fraction of a blade results, round off to

the nearest whole number: in some cases, personal judgment is required to determine whether to use the next higher or lower number of blades on a specific application. In any case, the total quantity of individual zone blades must be identical with the quantity of individual zone blades indicated in Table 3, page 7.

The width of the zone (dimension 0) is then calculated by multiplying the width of a single blade $(5^1\!4'')$ by the quantity of individual blades in that zone. The zone height (dimension N) is found in the dimension table on page 16. NOTE: Zones are numbered from the left hand side to the right hand side of the unit.

EXAMPLE:

2100 unit, 6000 CFM, three zones of 1300 CFM, 2000 CFM, and 2700 CFM.

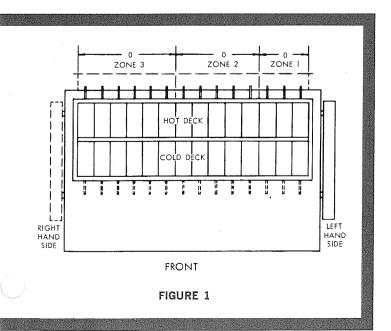
Step 1: Table 3 shows 14 total damper blades.

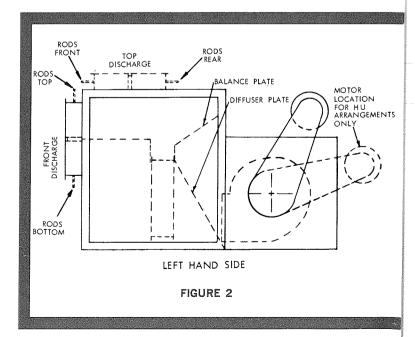
Step 2:
$$14 \times \frac{1300}{6000} = 3.03 \text{ or } 3 \text{ blades}$$

 $14 \times \frac{2000}{6000} = 4.67 \text{ or } 5 \text{ blades}$
 $14 \times \frac{2700}{6000} = 6.3 \text{ or } \frac{6}{14} \text{ blades}$

Step 3: Refer to Fig. 1.

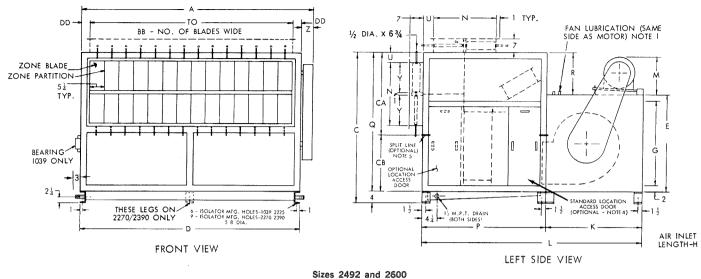
"0" for 3 blades =
$$3 \times 5^1 /_4$$
" = $15^3 /_4$ " (Zone 1) "0" for 5 blades = $5 \times 5^1 /_4$ " = $26^1 /_4$ " (Zone 2) "0" for 6 blades = $6 \times 5^1 /_4$ " = $31^1 /_2$ " (Zone 3)

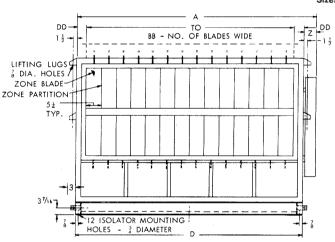




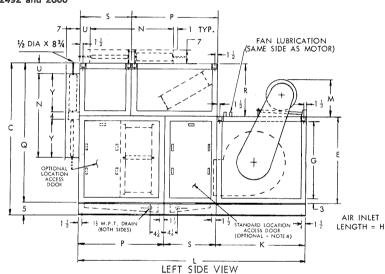
DIMENSIONS MULTI-ZONE AND DUAL DUCT (Note 3)

Sizes 1039 thru 2390





FRONT VIEW



Dimension Table for Sizes 1039 thru 2600, Horizontal and Horizontal-U

Π				Horizon tal	Horizon tal-U			Horiz	tontal	Horiz	ontal-U	M	N	то	Р	Q.	R	S	Ū.	Y	Z	66	DD	CA	СВ
Unit	A	C	D	Ē	E	G	l H	ĸ	L	K	L		1												
1039	48	453/4	42	251/2	251/2	211/2	38	251/2	57	251/2	57	نے ا	151/2	363/4	311/2	413/4	161/4		21/2	71/4	. 6	7	2 1/8	22 1/8	191/8
2060	75	421/4	69	221/2	221/2	181/2	65	221/2	54	221/2	54	ᇦ	131/2	63	311/2	381/4	153/4	_	21/2	61/4	6	12	3	20 %	17%
2083	87	453/4	81	251/2	251/2	211/2	77	251/2	57	251/2	57	S.	151/2	731/2	311/2	413/4	161/4	_	21/2	71/4	6	14	33/4	22 1/8	191/8
2100	88	493/4	81	281/2	281/2	241/2	77	281/2	66	281/2	66	2.≥	191/4	731/2	371/2	453/4	171/4	-	21/2	91/8	7	14	33/4	263/8	19%
2125	94	52 3/4	87	311/2	311/2	271/2	83	311/2	72	311/2	72	10 5	21	783/4	401/2	483/4	171/4	_	21/2	10	7	15	41/8	281/8	20%
2150	99	57 3/8	92	341/2	341/2	301/2	88	341/2	76	341/2	76	200	23	84	411/2	53 %	18 1/8	_	21/2	11	7	16	4	301/8	231/4
2182	110	60 1/2	102	371/2	371/2	331/2	98	371/2	81	371/2	81	- 4	25	941/2	431/2	56 1/8	13%	_	21/2	12	8	18	33/4	321/8	243/4
2225	109	67 1/8	102	431/2	431/2	391/2	98	431/2	90%	431/2	90 1/8	siz	30	941/2	47 3/8	63 1/8	20 %	-	21/2	141/2	7	18	33/4	371/8	263/4
2270	128	67 1/8	120	431/2	431/2	391/2	116	431/2	921/2	431/2	921/2	≢≎	30	1151/2	49	63 1/8	13 %	-	21/2	141/2	8	22	21/4	371/8	263/4
2315	128	77	120	501/2	501/2	461/2	116	371/4	90	501/2	1031/4		34	1151/2	523/4	73	221/2	_	21/2	161/2	8	22	21/4	411/8	31 1/8
2390	138	84	130	561/2	561/2	521/2	126	413/4	1041/2	561/2	1191/4	e se	38	126	623/4	80	231/2	_	21/2	181/2	8	24	2	451/8	34 1/8
2492	166	993/4	158	651/2	56	591/2	152	48	1251/4	651/2	1423/4	2 2	47	147	48	943/4	291/4	291/4	53/4	211/2	8	28	51/2		_
2600	166	1121/4	158	741/2	621/2	681/2	152	53	137%	741/2	1591/8	Se	55	147	51 1/8	1071/4	323/4	323/4	51/4	251/2	8	28	51/2		

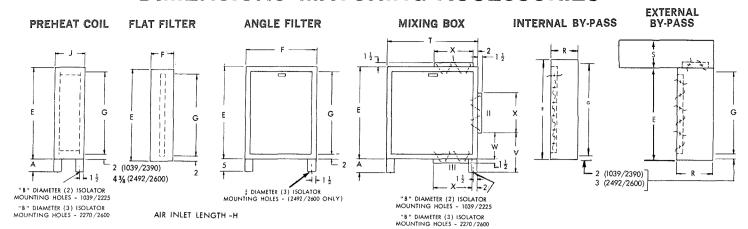
M DIMENSIONS

IVI E		JNS
LIGHTOR	UNIT	SIZE
MOTOR HP	1039-	2492-
	2390	2600
1/4	12	
1/3	12	
1/2	13	
1/2 3/4	13	
1	14	
1½ 2 3 5	14	
2	16	_
3	16	
5	17	22
7½ 10	19	27
10	21	27
15	21	28
20		28
25		30
30	_	30
40	_	30
50		30

Notes

- 1. 1039 unit has one lubrication fitting on each end.
- Dual Duct unit dimensions are identical to Multi-zone with the exception that zone blades are omitted from the Dual Duct discharge and partition between hot and cold decks is not recessed.
- 3. All dimensions are in inches. Dimensions and specifica-
- tions subject to change; certified drawings will be furnished on request.
- Access doors may be ordered in place of standard panels on low pressure units.
- Provision can be made for field dis-assembling and reassembling for coil section only on low pressure units.

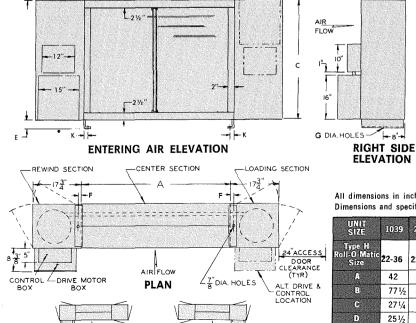
DIMENSIONS-MATCHING ACCESSORIES



		Street de la constant		A constant and the constant			N EGISTATION (SAGNA						5 OHENDROSE SEGULIARIOS
UNIT SIZE	1039	2060	2083	2100	2125	2150	2182	2225	2270	2315	2390	2492	2600
A	4	4	4	4	4	4	4	4	4	4	_4	5	5
В	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	3/4	3/4
E	251/2	221/2	251/2	281/2	311/2	341/2	371/2	431/2	431/2	501/2	561/2	651/2	741/2
F Flat Bank	71/2	71/2	71/2	71/2	71/2	71/2	71/2	71/2	71/2	71/2	71/2	9	9
F Angle Bank	22	22	22	22	22	251/4	251/4	30	30	251/4	30	25	21
@ Filter By-Pass	211/2	181/2	211/2	241/2	271/2	301/2	331/2	391/2	391/2	461/2	521/2	611/2 591/2	701/2 681/
G Preheat Coil	211/2	181/2	211/2	241/2	271/2	301/2	331/2	391/2	391/2	461/2	521/2	56 3/4	65 3/4
Н	38	65	77	77	83	88	98	98	116	116	126	152	152
J Standard Depth	9	9	9	9	.9	9	9	113/4	113/4	113/4	113/4	123/4	123/4
J Extra Depth	131/4	131/4	131/4	131/4	131/4	131/4	131/4	16	16	16	16	25	25
R External By-Pass	81/4	81/4	81/4	91/4	123/4	123/4	123/4	123/4	123/4	171/4	171/4	161/2	21
R Internal By-Pass	81/4	81/4	81/4	91/4	7	7	7	7	7	. 7	7	9	9
S	6	6	6	6	10	10	10	10	10	14	14	14	17
S T	30	281/2	30	281/2	30	34	34	40	40	52	52	48	48
V	91/2	8	91/2	11	101/4	113/4	11	14	14	13	16	211/2	26
WX	51/2	4	51/2	7	6.1/4	7 3/4	7	10	10	9	12	161/2	21
X	14 3/8	14 3/8	143/8	14 %	181/8	187/8	23%	23%	23 3/8	321/2	321/2	321/2	321/2

Note: With Rollotron filter, mixing box height and/or width dimensions change on sizes 2125, 2150, 2270, 2315, 2390, 2492, 2600. See Rollotron dimensions, page 18.

TYPE H ROLL-O-MATIC



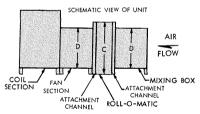
ARR.2 ALT.

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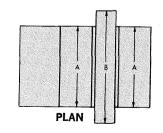
ARR. 2 STD

NOTES:

- 1. Arrangement number must be specified.
- 2. Attachment channel for direct connection of R-O-M to other components is 21/2" deep for all unit sizes.
- 3. 24" clearance required for access doors.



LEFT SIDE ELEVATION



All dimensions in inches.

Dimensions and specifications subject to change. Certified drawings will be furnished upon request.

UNIT SIZE	1039	2060	2083	2100	2125	2150	2182	2225	2270	2315	2390	2492	2600
Type H Roll-O-Matic Size	2 2-36	22-5 9	22-69	25-69	25-73	33-78	33-86	39-86	39-100	45-100	2525- 1010	3325- 132	3333- 132
A	42	69	81	81	87	92	102	102	120	120	130	158	158
В	771/2	1041/2	1161/2	1161/2	1221/2	1271/2	1371/2	1371/2	1551/2	1551/2	1651/2	1931/2	1931/2
C	271/4	271/4	271/4	29 7/8	29 1/8	373/4	373/4	431/2	431/2	493/4	593/4	67 %	751/2
Ð	251/2	221/2	251/2	281/2	311/2	341/2	371/2	431/2	431/2	501/2	561/2	651/2	741/2
E	31/8	1 1/8	31/8	3 1/16	4 13/16	2 %	3 1/8	4	4	4 3/8	2 3/8	315/16	41/2
F	11/4	11/4	1 1/4	11/4	11/4	11/4	11/4	11/4	11/4	11/4	11/4	11/2	11/2
(È	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	3/4	3/4
K	1	1	1	1	1	1	1	1	1	1	1	7/8	7/8

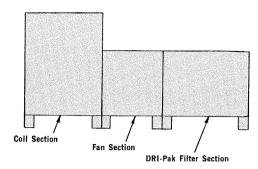
DRI-Pak FILTER DIMENSIONAL DATA

PLAN VIEW AIR FLOW LEFT SIDE VIEW

DIMENSIONAL DATA (In.)

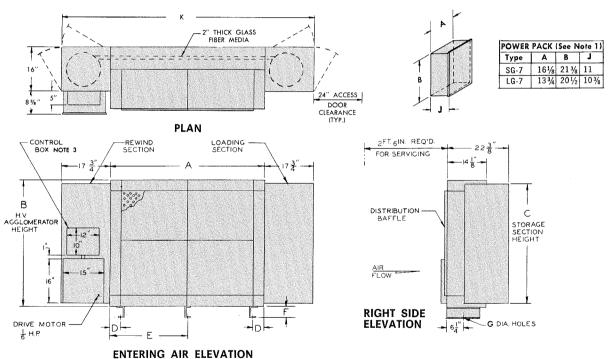
UNIT	D	Ε	G	Н	٧	X	π
1039	42	251/2	211/2	38	6	2	433/4
2060	69	221/2	181/2	65	6	2	433/4
2083	81	251/2	211/2	77	6	2	433/4
2100	81	281/2	241/2	77	6	2	433/4
2125	87	311/2	271/2	83	6	2	433/4
2150	92	34 1/2	301/2	88	6	2	433/4
2182	102	371/2	331/2	98	6	2	433/4
2225	102	431/2	391/2	98	6	2	43¾
2270	120	431/2	391/2	116	6	2	433/4
2315	120	501/2	461/2	116	6	2	433/4
2390	130	561/2	521/2	126	6	2	43¾
2492	158	651/2	591/2	152	8	3	45
2600	158	741/2	681/2	152	8	3	45

SCHEMATIC VIEW FOR HORIZONTAL ARRANGEMENT



Size of duct connecting to Dri-Pak filter section inlet must be ''G x H'' to prevent uneven loading of filter. Any transition should be of sufficient length for smooth air flow.

TYPE H ROLLOTRON DIMENSIONS

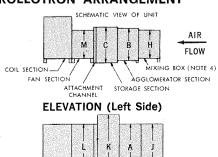


NOTES:

- NOTES:

 1. Power pack may be mounted on unit or remotely.
 2 24" clearance required for media access doors.
 3. Drive motor and control may be located right hand if specified.
 4 Access to agglomer-
- Access to agglomerator cells through an access opening an access opening in mixing box section, if furnished; otherwise, access should be provided in inlet duct.
 Special width mixing box used on sizes 2125, 2270, 2315, 2390, 2492, 2600. Special height mixing box used on sizes 2150, 2390, 2492. 5. Attachment channel for direct connecduct.
- for direct connec-tion of ROLLOTRON to other components is $2\frac{1}{2}$ " deep for all unit sizes. Attachment channel not required be-tween ROLLOTRON and mixing box.

SCHEMATIC VIEW OF UNIT AND **ROLLOTRON ARRANGEMENT**



PLAN

UNIT SIZE	1039	2060	2083	2100	2125	2150	2182	2225	2270	2315	2390	2492	2600
Type H Rollotron Size	22- 38- 24	22- 58- 20	22- 68- 24	25- 68- 24	25- 78- 24	33- 78- 34	33- 88- 34	39- 88- 38	39- 108- 38	45- 108- 40	2525- 118- 50	3325- 138- 58	3333- 138- 64
A	44	68	80	80	92	92	104	104	128	128	140	164	164
В.	28	24	28	28	28	40	40	44	44	48	60	68	76
C	27 1/4	271/4	271/4	29 1/8	29 1/8	373/4	373/4	431/2	431/2	493/4	593/4	67 5/8	751/2
D	2	1/2	1/2	1/2	31/2	1	2	2	5	5	6	37/8	37/8
E	_					I —			64	64	70	82	82
F	23/4	31/4	23/4	4 1/4	5 3/4	11/4	23/4	33/4	33/4	51/4	21/4	33/4	41/4
- G	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	3/4	3/4
Ĥ	251/2	221/2	251/2	281/2	311/2	40	371/2	431/2	431/2	501/2	571/2	68	741/2
Ú	42	69	81	81	92	92	102	102	128	128	140	164	164
K	791/2	1031/2	1151/2	1151/2	1271/2	1271/2	1391/2	1391/2	1631/2	1631/2	1751/2	1991/2	1991/2
L	42	69	81	81	87	92	102	102	120	120	130	158	158
M	251/2	221/2	251/2	281/2	311/2	341/2	371/2	431/2	431/2	501/2	561/2	651/2	741/2

All dimensions in inches.

Dimensions and specifications subject to change. Certified drawings will be furnished upon request.

MPT COIL CONNECTION SIZES (INCHES) WATER AND STEAM

1		(COOLIN	G			HE	ATING (H	OT DECK	()	110000100111111111111111111111111111111	LARGE	FACE	AREA I	PREHEAT (SEPARA	TE PREHEA	T SECT.)
1		Wa	ter Circ	uit	Wa	ter Circ	cuit	Standard Steam		Steam D	Steam Distributing		ater Circ	cuit	Standard	Steam	Steam Di	stributing
	Unit Size	Single Serp.	Half Serp.	Double Serp.	Single Serp.	Half Serp.	Double Serp.	Supply	Return	Supply	Return	Single Serp.	Half Serp.	Double Serp.	Supply	Return	Supply	Return
	1039 2060 2083	1 ½ 1 ½ 1 ½ 1 ½	1 ½ 1 1 ½	2½ 1½ 2½ 2½	1 ½ 1 ½ 1 ½ 1 ¼	1 1 1	1 ½ 1½ 1½ 1½	1 ½ 1 ½ 1 ½ 1 ½	1 ½ 1 ¼ 1 ¼ 1 ¼	1 ½ 1 ½ 1 ½ 1 ½	1 ½ 1 ½ 1 ½ 1 ½	1½ 1½ 1½ 1½	1 1/4 1 1 1/4	2½ 1½ 2½ 2½	2½ 1½ 2½ 2½	2 11/4 2	2½ 1½ 2½ 2½	2 1½ 2
De not to the state	2100 2125 2150	2 2 2	1 ½ 1 ½ 1 ½ 1 ½	2½ 3 3	1½ 1½ 1½ 1½	1 1 1	1½ 1½ 1½ 1½	$1\frac{1}{2}$ $1\frac{1}{2}$ $1\frac{1}{2}$	1 ½ 1 ¼ 1 ¼ 1 ¼	1 ½ 1 ½ 1 ½ 1 ½	1 ½ 1 ½ 1 ½ 1 ¼	2 2 2	1 ½ 1 ½ 1 ½ 1 ½	2½ 3 3	2½ 2½ 2½ 2½	2 2 2	2½ 2½ 2½ 2½	2 2 2
	2182 2225 2270	2 2½ 2½ 2½	$\begin{array}{c} 1\frac{1}{2} \\ 1\frac{1}{2} \\ 1\frac{1}{2} \end{array}$	3 3 3	$1\frac{1}{2}$ $1\frac{1}{2}$ $1\frac{1}{2}$	1 1½ 1¼	1½ 2½ 2½ 2½	1½ 2½ 2½ 2½	1 1/4 2 2	1½ 2½ 2½ 2½	11/ ₄ 2 2	2 2½ 2½ 2½	1½ 1½ 1½ 1½	3 3 3	2½ 2½ 2½ 2½	2 2 2	2½ 2½ 2½ 2½	2 2 2
	2315 2390	2½ 3	2 2	3 3	2 2	1 ½ 1 ½	2½ 3	2½ 2½	2 2	2½ 2½	2 2	2½ 3	2	3 3	2½ 2½	2 2	2½ 2½	2 2
	2492 2600	2-2 2-2	2-1½ 2-1½	2-3 2-3	2	1½ 1½	3	2½ 2½	2 2	2½ 2½	2 2	2-2 2-2	2-1½ 2-1½	2-3 2-3	2-2½ 2-2½	2-2 2-2	2-2½ 2-2½	2-2 2-2

HEADER LOCATION:

WATER COILS
Single Serpentine — 1, 3, 5, 7 Rows — Headers Opposite End.
Single Serpentine — 2, 4, 6, 8 Rows — Headers Same End.
Half Serpentine — 1 thru 8 Rows — Headers Same End.
Double Serpentine — 4, 8 Rows — Headers Same End.
Double Serpentine — 2, 6 Rows — Headers Opposite End.
Cannot Double Serpentine Odd Row Coils

STEAM COILS Headers Opposite End or Same End as Specified. Four row Standard Steam Coil connections are always same end.

Note: When steam pressure exceeds 30 PSI, same end connections are mandatory.

D.E. COILS — CONNECTION SIZES (INCHES)

Connec	Connection Size (In. O.D.)		3/8	1/2	5/8	7/8	11/8	1 3/8	1 5/8	21/8	2 5/8	31/8	3 5/8	41/8
	D 12	Liquid	.9	2.9	4.9	10.5	21.4	36.9	62.0					
CONNECTION	R-12 R-500	Suction			.5	1.1	2.6	4.5	6.8	12.1	24.0	38.2	55.7	78.0
(TONS)	R-22	Liquid	1.2	3.8	6.4	13.7	27.8	48.0	80.6					
	K-22	Suction			.6	1.4	3.4	5.8	8.8	15.7	31.2	49.6	72.3	101.3

Header Location — Determined by factory for optimum coil performance

APPROXIMATE REFRIGERANT CHARGE - 40°F. SUCTION TEMP.

							amanini je kastila						
UNIT SIZE	1039	2060	2083	2100	2125	2150	2182	2225	2270	2315	2390	2492	2600
R-12, Lbs. per Row	2.6	4.0	5.6	6.8	8.5	10.2	12.3	15.3	18.4	21.4	26.5	33.5	40.8
R-22, Lbs. per Row	2.4	3.7	5.2	6.3	7.8	9.4	11.4	14.1	17.0	19.8	24.5	30.9	37.7

METAL GALIGES

		- 1 / 1	. UA	UGES			
UNIT SIZE	1039 Thru 2270	2315 Thru 2390	2492 Thru 2600	UNIT SIZE	1039 Thru 2270	2315 Thru 2390	2492 Thru 2600
FAN SECTION Structure Access Panel Bearing Channel	14 ② 12	12 ② 10	10 ② 10	FLAT FILTER SECTION Structure Panels	16 ③	16 ②	11 ③
COIL SECTION Structure Panels ③	14 16	12 16	10 16	MIXING BOX OR ANGLE FILTER SECTION Structure Panels Damper Blades	14 ② ①	12 ② ①	11 ②
DRAIN PAN	14	14	Sheet 16 Frame 10 12	FACE & BY-PASS SECTION Structure End Panels Damper Blades	14 14 ①	12 14 ①	10 10
inner Liner	10	10	12	By-Pass Duct	16	16	16
ZONE DAMPER SECTION Structure Blades	16 16	14 16	12 16	① Note: Damper Black 2600 — Oster All Panel Ga 7½ Sq. I	18 Ga les 21 16 Ga nel Ga ft. — uges l	25 thru uges u 18 Ga. Over	ı nder
	98,034,000,0	Principle Co.		@ Datafarand a			

® Reinforced on MP units.

HUMIDIFIER CONNECTION SIZES

	PAN HUMID	IFIER
	1039/2390	2492 & 2600
	STEAM INLET % O.D.	15/8 O.D.
	STEAM OUTLET 5/8 O.D.	1% O.D.
	OVERFLOW ¾ O.D.	3/4 O.D.
	MAKE UP VALVE	MAKE UP VALVE
	1/4 COMPRESSION FITTING	1/4 COMPRESSION
	GRID HUMII	DIFIER
	1039/2390	2492 & 2600
ij	(QTY.)	(QTY.)
	STEAM INLET 1 3/4 M.P.T.	2 ³ / ₄ M.P.T.
	TARGET HUM	DIFIER
	1039/2390	2492 & 2600
	(QTY.)	(QTY.)
	WATER INLET 1 1/8 O.D.	2 ½ 0.D.

SUGGESTED ENGINEERING SPECIFICATIONS

The contractor shall furnish and install central station (Multi-Zone) (Dual Duct) units of the type, size, and capacity as set forth in the following schedule. Units shall be installed in strict accordance with the manufacturer's recommendations. Coil and filter face velocities are maximum allowable. The units shall be factory-assembled and tested as manufactured by the American Air Filter Company, Inc.

BASIC UNIT — GENERAL: Basic unit shall be five angle Penta-Post frame fabricated of heavy gauge steel for maximum strength and rigidity and minimum weight. Enclosure panels shall be of heavy gauge steel, flush mounted into the unit framework. All removable panels shall be double formed to enclose insulation edges. Insulation shall consist of ½" thick glass fiber fire-resistant material.

FAN SECTION: Fans shall be centrifugal, double inlet, double width. They shall be of the forward curved type on all sizes, with the option of backwardly inclined on units having 10 sq. ft. coil face area and larger. Bearings shall be self-aligning, grease-lubricated ball bearings sized to provide minimum average bearing life of 200,000 hours, Lubrication fittings must be provided on exterior of cabinet. Fan shaft shall be solid, continuous diameter, cold finished steel. An adjustable pivot base shall be provided in optional positions external to the unit. Fan V-belt drive shall be of variable pitch on all drives through $71/\!\!/_2$ H.P. (Constant Pitch) (Adjustable Pitch) shall be furnished with 10 H.P. motors and larger. Fan belt guards shall be furnished by the unit manufacturer, easily removable, and made of solid steel with tachometer openings.

COIL SECTION shall be constructed of heavy gauge steel with removable panels. Coil section panels shall be reinforced on Medium Pressure units. The coil section shall be arranged for removal of the coil from either end of the unit. Drain pan shall be insulated with $\frac{1}{2}$ " thick, rigid polyurethane and pitched for even flow of condensate with side drain connections on both sides.

Zoning dampers shall be provided for—zones with stationary, full perimeter, flexible gaskets for each damper blade. Damper linkage shall be provided, for required zones, but easily modified in the field.

COILS (Strike out paragraphs not applicable)

Water Coils shall consist of $\frac{5}{8}$ " OD copper tubing spaced on $1\frac{1}{2}$ " centers arranged in a staggered pattern with respect to adjacent tubes. They shall consist of continuous configurated plate-type (aluminum) (copper) fins spaced at (8) (11) (14) fins per inch.

Standard Steam Coil shall consist of $\frac{5}{8}$ " OD copper tubes spaced on $1\frac{1}{2}$ " centers. Continuous configurated plate-type (aluminum) (copper) fins shall be spaced at (8) (11) (14) fins per inch.

Steam Distributing Coil shall have 1'' O.D. condensing and $\frac{5}{8}''$ O.D. distributing seamless copper tubes spaced on 3'' centers. Distributing tubes shall be centered in condensing tubes by integrally formed supports containing steam metering orifices. Continuous configurated plate (aluminum) (copper) fins shall be spaced at (4) (6) (8) (10) (12) fins per inch.

Direct expansion coil shall be $\frac{5}{8}$ " OD seamless copper tubing spaced on $\frac{11}{2}$ " centers arranged in a staggered pattern with respect to adjacent tubes. The fins shall be of continuous configurated plate type (aluminum) (copper) spaced at (8) (11) (14) fins per inch. The coil shall be tested with 300 lbs. pneumatic pressure under water and dehydrated in a 250°F. oven under a vacuum of 1000 microns.

FACE AND BY-PASS DAMPER section shall consist of heavy gauge steel with all panels flush mounted. The dampers shall be precision diestamped opposed-acting blades in a unitary framework. The damper and framework shall be of galvanized steel with damper pivot rods rotating in self-lubricating nylon bushings. Inter-connecting damper linkage shall be furnished.

FILTER BOXES shall be constructed of heavy gauge steel with filters supported by internal slides and removable from either end through quick opening panels.

FILTERS (Strike out paragraphs not applicable)

Throwaway filters in a (flat) (angle) bank arrangement shall be furnished. The filters shall consist of $2^{\prime\prime}$ thick continuous glass fibers coated with an adhesive with progressive packing. The filters shall be type AMERglas and manufactured by the unit manufacturer.

Cleanable filters shall be 2" thick of the high velocity type consisting of pyramid-shape pockets with a double thickness of viscous coated screen wire in the side walls of the pockets. The filters shall be type HV-2 and manufactured by the unit manufacturer.

Renewable filters shall be "Renu Filter" as manufactured by American Air Filter consisting of galvanized steel hinged frame with renewable 2" thick glass fiber pads. (2" thick washable polyurethane pad may be substituted for glass fiber pad.)

DRI-Pak filters shall be as manufactured by American Air Filter, mounted in factory built housing designed by filter manufacturer and shall include full perimeter spring tension pressure frame and quick opening access doors.

AUTOMATIC FILTERS (Strike out paragraphs not applicable)

Air filter shall be of the automatic renewable media type. The filtering media shall be a glass fiber material of progressive density both in number and diameter of the glass fibers. The filter shall be Type H Roll-O-Matic type and manufactured by the unit manufacturer.

Electronic air filter shall be of sufficient capacity to clean specified air volume with an efficiency of not less than 90% as measured by the NBS Dust Spot Test Method using atmospheric dust. It shall consist of agglomerating section and a storage section. The filter shall be of the Type H Rollotron type and manufactured by the unit manufacturer.

Electronic air filter shall be furnished of correct size to clean the specified volume of air with an efficiency of not less than 90% by the U. S. Bureau of Standards Dust Spot Test Method. The filter shall be Type HV Electro-Cell type and manufactured by the unit manufacturer.

MIXING DAMPER section (combination mixing damper section) shall be furnished with opposed acting, inter-connected, galvanized steel blades. The damper pivot rods shall rotate in self-lubricating nylon bushings.

HUMIDIFIERS (Strike out paragraphs not applicable)

Target humidifier shall consist of self-cleaning target type nozzles mounted on a copper header. Nozzle shall be capable of providing suitable spray with not less than 25 PSIG water pressure.

Steam grid humidifier shall consist of an orificed copper tube in which steam is introduced through an asbestos sheathing.

Pan type humidifier shall consist of a copper pan into which make-up water is introduced with a float valve control. The water shall be vaporized with an immersed steam coil.

APPROXIMATE NET WEIGHTS - LBS.

Unit	Coil Section	G-Row Cooling & 2-Row Heating Note 1	8-Row Cooling & 4-Row Heating Note 1	Fan Section	Flat Filter	Angle Filter	Mixing Box	Preheat Coil 4-Rows Notes 1,2	Face and By-Pass
1039	275	100	200	225	50	90	180	150	80
2060	400	225	300	300	70	125	250	225	100
2083	525	275	375	375	95	165	320	300	150
2100	600	325	450	400	115	190	340	350	175
2125	700	375	520	500	130	240	415	375	200
2150	825	475	650	575	140	265	490	450	250
2182	975	550	775	725	160	320	585	525	300
2225	1150	675	950	875	220	390	690	650	350
2270	1350	825	1150	1025	260	470	820	775	400
2315	1550	925	1300	1200	295	525	950	900	450
2390	1850	1100	1500	1425	350	650	1150	1075	525
2492	2475	1425	1975	1925	445	810	1435	1325	625
2600	2850	1675	2275	2300	515	945	1695	1700	750

Notes: 1. Coil weights based on 8FPI, aluminum fins.

2. Preheat coil weight includes section.

3. For water coil operating weight, add 1.06 lb./ft.2 face area per row deep.