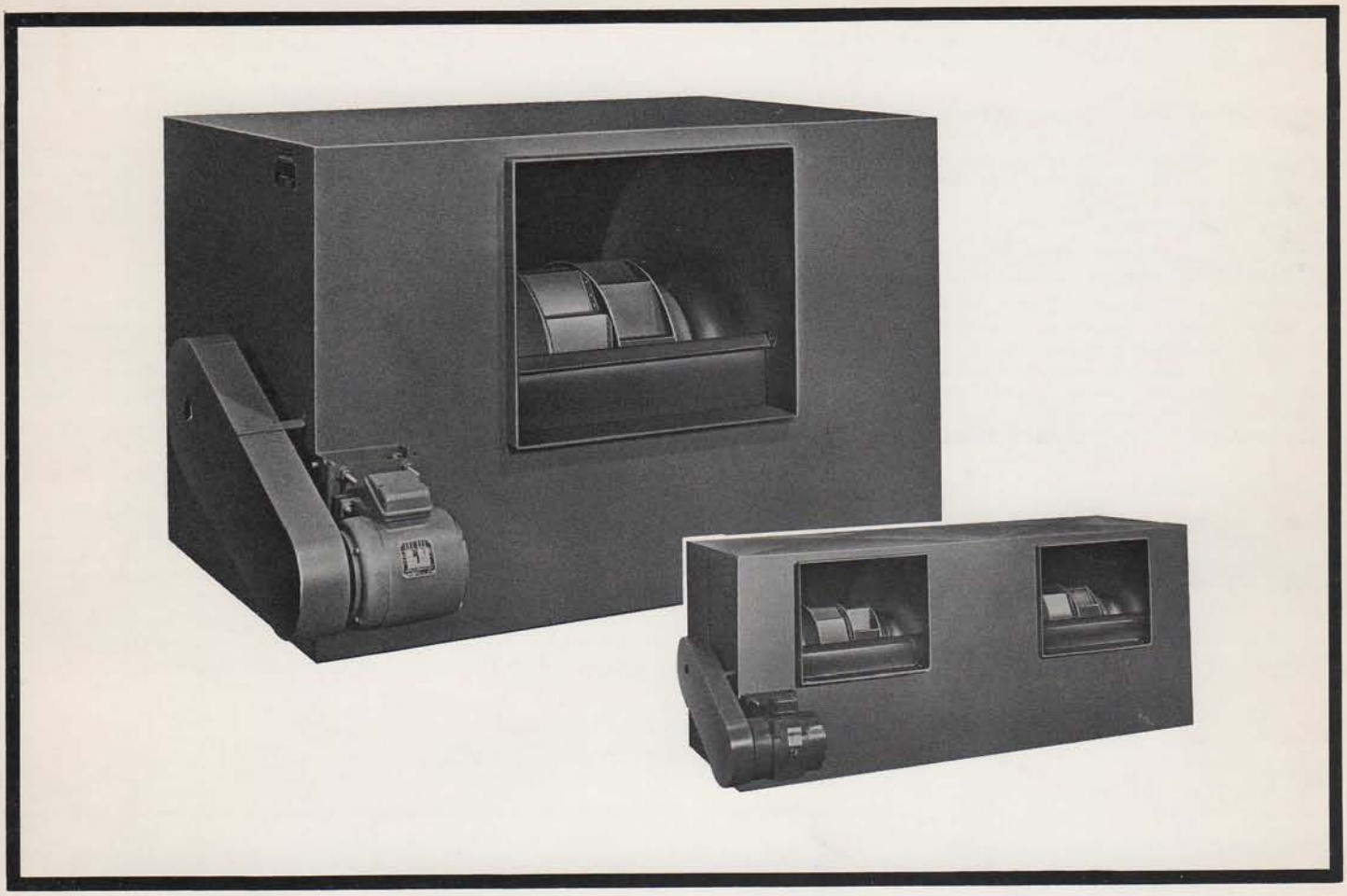
SHELDONS



STANDARD MODULAR AIR CONDITIONING UNITS

capacity range:	920 – 65,000 cfm
pressure range:	low 0″ – 3″ sp
	med 3″ – 5½″ sp
	high 5½″ – 10″ sp

Catalogue No. 1037A

Sheldons Engineering.

Leaders in fan technology

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STANDARD MODULAR AIR CONDITIONING UNITS

Draw Thru
Blow Thru
Multi-Zone

Low Pressure — 0 - 3" wg
Medium Pressure — 3" - 5½" wg
High Pressure — 5½" - 10" wg

INTRODUCTION

Sheldons Engineering Limited have introduced with this catalogue a new concept in the manufacture and design of commercial air-conditioning units. Using the 4" (10 cms) International module recently adopted by the Federal Department of Public Works, a new range of Modular Air-Conditioning Units has been designed using the modular concept.

In order to limit the number of sizes possible with such a 4" module, only 25 standard sizes have been adopted for this catalogue to provide the range of flexibility usually required in commercial air-conditioning units.

A significant advantage to Consulting Engineers and users of Sheldons Modular Air-Conditioning Units is that where a Standard Modular Air-Conditioning Unit cannot be used, a specially designed Modular Air-Conditioning Unit can readily and easily be supplied in any multiple of 4". Thus, any configuration to suit unusual space limitations can be provided without the delay that special units normally incur.

Details on the flexibility of special Modular Air-Conditioning Units can readily be obtained from our Head Office or local Branch Office.

Most internal components such as dampers, coil supports, etc., are made in modular sizes, and stocked for easy, fast and economical assembly. All accessories available with Sheldons air-conditioning units are designed on the modular principle, from the fan section through cooling and heating sections, spray sections, to the filter and mixing box sections. Details of all components available for each Standard Modular Air-Conditioning Unit are listed in this catalogue.

DESIGN FLEXIBILITY

Modular Air-conditioning units in 25 standard sizes are available to cover a range of capacities from 900 cfm to 65,000 cfm. Both single and double outlet configurations are used to provide wide flexibility in the choice of units to fit the most exacting space and design requirements.

All Standard Modular air-conditioning units are available in either Low, Medium or High pressure construction. Special attention to the design of the large capacity high pressure units, based on over 70 years in the air handling business, has ensured a rugged reliable unit.

Single responsibility is thus provided on the larger capacity, pre-fabricated air-conditioning units.

SELECTION

To make selection easier, all information pertaining to each Standard Modular air-conditioning unit, including the performance ratings in the 3 pressure ranges available, has been presented on a single easy-to-read data sheet for each unit size.

Physical dimensions of all the normal components that could be used in an air-conditioning unit in either Draw-thru, Blow-thru, or Multizone applications, are shown on one page. Also shown are complete engineering details of Filters, Humidifiers, Motor limitations, air friction of all components, Air Washer data, coil connections, and weights in simple chart form.

The opposite page provides the performance ratings in each of the 3 pressure ranges, with a choice of 2 wheel types for each pressure range. Coil performance and selection is shown at the end of this catalogue, starting on Page 56. Hot water and steam heating coils, and chilled water and direct expansion cooling coil data is clearly shown, complete with examples on the use of the Charts and Tables.

SIZE DESIGNATION

The method of designating the size of a Standard Modular Air-Conditioning Unit is arbitrarily based on the size of the coil face area and the number of fan outlets. Thus, the larger number, the larger the coil face area. For example, a size 6.1 means a size 6 unit (whose standard coil face area is approximately 15.00 sq. ft.) having a single fan outlet. Similarily, a size 6.2 would have a double fan outlet with approximately the same coil face area as 6.1. The quick selection table below locates the size of unit required for a given cfm and chosen coil face velocity.

INDEX

QUICK SELECTION TABLE

TABLE 1

SIZE	COIL AREA Sq. Ft.	CFM at Coil Velocity of			Available in Pressure Range			PAGE
		350 fpm	550 fpm	750 fpm	0" - 3"	3" - 5½"	5½" - 10"	
1.1	2.63	920	1446	1972	YES	NO	NO	6-7
2.1	3.56	1246	1958	2670	YES	NO	NO	8-9
3.1	5.04	1764	2772	3780	YES	YES	NO	10-11
3.2	5.44	1904	2992	4080	YES	NO	NO	12-13
4.1	9.10	3185	5005	6825	YES	YES	YES	14-15
4.2	8.56	2996	4708	6420	YES	YES	NO	16-17
5.1	11.62	4067	6391	8715	YES	YES	YES	18-19
5.2	12.38	4333	6809	9285	YES	YES	NO	20-21
6.1	14.37	5029	7903	10777	YES	YES	YES	22-23
6.2	15.26	5341	8393	11455	YES	YES	NO	24-25
7.1	18.28	6391	10054	13710	YES	YES	YES	26-27
7.2	18.82	6587	10351	14115	YES	YES	NO	28-29
8.1	22.69	7941	12479	17017	YES	YES	YES	30-31
8.2	22.10	7735	12155	16575	YES	YES	NO	32-33
9.1	27.54	9639	15147	20655	YES	YES	YES	34-35
9.2	26.95	9432	14822	20212	YES	YES	NO	36-37
10.1	32.97	11539	18133	24727	YES	YES	YES	38-39
10.2	32.32	11312	17776	24240	YES	YES	NO	40-41
11.1	39.70	13895	21835	29775	YES	YES	YES	42-43
11.2	38.13	13345	20971	28597	YES	YES	NO	44-45
12.1	48.93	17125	26911	36697	YES	YES	YES	46-47
12.2	48.54	16989	26697	36405	YES	YES	NO	48-49
13.1	59.20	20720	32560	44400	YES	YES	YES	50-51
14.1	73.66	25781	40513	55245	YES	YES	YES	52-53
15.1	86.69	30341	47679	65017	YES	YES	YES	54-55

CONSTRUCTION DETAILS AND NOTES

GENERAL

SHELDONS Standard Modular Air-Conditioning Units are fabricated from 14 ga. minimum galvanized steel, with all welded construction.

All weld areas are protected with 96% zinc-rich protective coating before unit is completely painted with suitable primer.

High pressure units are designed with heavier gauges, extra bracing, and heavy channel supports in the fan section. Particular care is taken to provide extra heavy reinforcing in High pressure multizone units, to avoid distortion of the casing.

FAN HEAD

A choice of two Sheldons wheel designs, in each pressure range, is available with each size of fan head. The choice of fan wheel type is dependent on the pressure for each size of unit.

2. The overall size of the fan head is constant in each Standard Modular size and is designed to accommodate the largest wheel diameter listed for that size.

3. Available wheels are:

Type B — Backward inclined blades, non-overloading, good efficiency. Not usually recommended on wheel sizes smaller than 15" due to higher operating speed.

Type F — Forward curved blades. Used on smaller sizes for lower speed and lower mechanical noise level. Motor HP should be selected liberally.

Type A — Airfoil blades for maximum efficiency and non-overloading characteristics.

Type RB — Radial tipped blades for higher pressures. Used in place of the type "A" Airfoil to achieve a lower operating speed.

4. Motor mounted on outside of unit is standard. The motor can also be mounted inside unit, especially on high pressure units. **NOTE**—The maximum frame size which can be installed inside the **standard** fan head length is shown under "MOTORS" table at bottom L.H. corner of each data sheet. Frame sizes larger than those shown will require additional access space dependent on the frame size of motor.

5. Available in top horizontal, bottom horizontal, up blast and down blast discharge.

6. The class of fan wheel, shaft and bearings supplied in each particular pressure range has been designed to cover the complete performance ratings shown in that pressure range.

7. When motor is installed inside unit, or where internal bearings are used, access doors will be provided for servicing.

8. Fan heads can be supplied with a free-standing fan mounted on isolators inside the unit, and connected at the fan discharge with flexible connections. Additional space is required for this arrangement. For further details consult with Branch or Head Office.

9. Sound power levels in 8 octave bands for all sizes of fans listed in this catalogue are available on request.

BEARINGS AND SHAFTS

1. All bearings are grease lubricated ball or roller bearings.

2. To ensure vibration free operation in the field the fan wheels and shaft are electronically balanced as a complete assembly before shipment from the factory.

MOTORS AND MOTOR BASES

1. Special attention has been given to providing a rigid, well supported motor base for larger motors, particularly on the large size units. Adequate bracing is provided for both internally and externally mounted motors. However, it is good practice to mount 50 h.p. and above on a concrete base integral with the fan section for optimum results. (fig. 3-4-5).

2. Larger HP motors (say up to 150 HP) can more economically and more satisfactorily be mounted inside the fan head section. For limits to motors mounted internally, see under "MOTORS" on each dimension sheet.

BELT GUARDS

1. Solid belt guards are supplied as standard on all externally mounted drives.

2. With internally mounted drives, open mesh belt guards will be provided only on those fans where access by personnel is feasible.

3. All belt guards are supplied with tachometer holes for checking fan speeds.

VIBRATION ISOLATION

1. Spring isolation may be used for floor mounting or ceiling suspension. Rubber-in-shear mounts, although less effective are often adequate for hanger or floor mounting.

2. On large, medium and high pressure units, when flexible discharge connections are used, reaction snubbers are recommended to prevent fan section rocking back on isolators due to air thrust at discharge.

3. Flexible connections are available to isolate the fan head section from the remainder of the unit.

COIL SECTIONS

1. Aerofin coils are supplied as standard on all Standard Modular air conditioning units. The following coils are available:

Chilled water cooling coils	— Type C, CD, R and RC.
Direct expansion cooling coils	— Type DP
Steam heating coils	— Type ANF and BNF
Hot water heating coils	— Type CH

Copper tube, copper fin solder coated are recommended with all cooling coils. Heating coils are normally copper tube, aluminum fin for economy.

2. Where a cooling coil is supplied, the coil section will be fitted with a drain connection, and a water-tight gasketted door for access to coil.

3. Soft rubber discs are supplied to seal the unit at the coil pipe connections.

4. Coil velocities may be as high as 750 fpm. Eliminators are required with cooling coil velocities above 550 fpm.

5. Heating and cooling coils slide in formed channel track, with all coils individually removable.

ELECTRIC COIL SECTION

1. This is based on manufacturers available sizes, the given dimensions providing sufficient space for all normal controls, contactors and safety devices. **NOTE**—Electric coils as supplied are manufactured to the latest C.S.A. standards for "duct mounted coils". When installed in air conditioning units, electrical field inspection is required for each particular installation.

FILTER SECTIONS

1. Standard Modular units can be supplied with all types and styles of filters.

2. Flat and angle sections are based on 2" thick filters.

3. High performance filter section is based on 8" high performance filters. 12" and 24" filters are available and would require a filter box length of 16" or 28" respectively.

4. Full size hinged access doors are provided for easy access to filters.

MIXING BOX SECTIONS

1. Standard mixing boxes are available with or without filters.

2. All mixing boxes are supplied with full width parallel damper blades as standard, but can be furnished without dampers where required. EVEN-TEMP mixing boxes MUST have integral dampers supplied to ensure efficient operation.

DAMPERS

1. Dampers are available in face, face and internal bypass and face and external bypass arrangements.

2. All dampers are mounted with parallel blades, and can be supplied with either felt or neoprene edges.

3. All dampers are inter-connected, and furnished with a damper rod extension for damper operator by others.

SPRAYED COIL SECTION

1. This section's length of 44" is based on a 6 row coil (10" wide). Additional 4" length is required if 8 row coil is used.

2. Eliminators supplied as standard. Entry baffles may be specified to prevent partial recirculation caused by unusual air inlet conditions.

3. Close coupled pump is standard. All external piping to the unit connections by others.

4. Tank fitted with float valve, quick-fill, drain and trapped overflow connections, suitable for low pressure Blow-thru or Draw-thru units. For Medium and High pressure Blow-thru units trapped overflow must be provided external to the unit by others.

5. Service door to suction strainer and float valve supplied as standard.

6. Inside of tank is coated with mastic emulsion for corrosion resistance.

CAPILLARY® CELL SECTION

1. Close coupled pump is standard. All external piping to the unit connections by others.

2. Tank fitted with float-valve, quick-fill, and trapped overflow connections suitable for low pressure Blow-thru or Draw-thru units.

3. Eliminators supplied as standard.

4. Inside of tank is coated with mastic emulsion for corrosion resistance.

PLENUM OR ACCESS SECTIONS

1. Access space is available in muliples of 4" from a minimum of 8". This may be used to provide space for controls, access to coils, dampers, motors, etc. These access spaces may be fitted with inspection doors, or be full access doors, hinged and gasketted for easy entry. A minimum of 16" is recommended for a practical access door.

2. The plenum sections may be used to provide space for special components which are not shown as standard accessories.

HUMIDIFIERS

1. Four types of humidifier are available as follows:
   (a) Mist spray nozzles—for moderate humidification.
   (b) Steam grid type—for higher humidification.
   (c) Pan Humidifier, with steam coil—for high humidification.
   (d) Pan humidifier, with electric immersion heater—for high humidification where no steam is available.

2. Mist spray humidifiers have city water connection and drain connection.

3. Pan humidifiers are complete with float valve, make-up, overflow and drain connections.

4. Pan humidifiers using hot water coils are also available, but these are usually designed for the job conditions and usually require very much larger surface areas than steam or electric pan himidifiers.

INSULATION

1. ½" thick Neoprene coated fibreglass insulation, bonded to inside of unit and held by spot pins, is standard on all required surfaces not in direct contact with moisture. All exposed edges of fibreglass are sealed with compound to provide a continuous moisture barrier.

2. All surfaces in direct contact with moisture are insulated with ½" polystyrene bonded to inside of unit and held by spot pins as standard. The seams of all insulation are sealed with waterproof compound.

MULTIZONE UNITS

1. Damper section on Multizones is available in multiples of 8" across full width of unit, with each pair of dampers (hot-cold) mounted on a common damper rod. Sets of dampers are linked together externally to form zones.

2. Discharge positions available are either top horizontal discharge, or up blast discharge.

3. Access doors are provided as standard before and after the cooling coil, with an inspection door after the heating coil.

4. Drain is provided in cooling section as standard.

5. Diffuser plate supplied as standard at discharge side of fans.

6. Coils individually removable.

VERTICAL UNITS (Fig. No. 1 below)

1. In general the different sections available for horizontal mounted air conditioning units apply to vertically mounted air conditioning units.

2. In most cases the fan and coil sections are mounted above a BASE PLENUM, the dimensions of which are shown in the Table below.

3. The washer and filter sections are normally mounted on the inlet side of the plenum as shown on back page. However, other combinations are suitable but **all** require a BASE PLENUM if used with a vertical Standard Modular air conditioning unit.

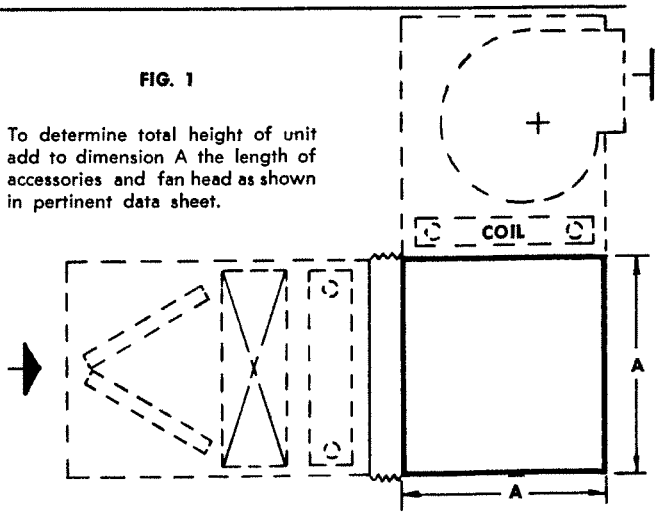
BASE PLENUM — For Vertical Units Only

TABLE 2

SIZE	A	SIZE	A
1.1	24"	8.2	44"
2.1	24"	9.1	64"
3.1	28"	9.2	48"
3.2	24"	10.1	68"
4.1	36"	10.2	56"
4.2	28"	11.1	76"
5.1	44"	11.2	60"
5.2	32"	12.1	84"
6.1	48"	12.2	72"
6.2	36"	13.1	100"
7.1	56"	14.1	112"
7.2	44"	15.1	124"
8.1	60"	—	—

FIG. 1

To determine total height of unit add to dimension A the length of accessories and fan head as shown in pertinent data sheet.



MOTOR PROJECTION

TABLE 3

Frame Size	A	B	Frame Size	A	B
143T	13"	12½"	286T	29"	20"
145T	14"	12½"	324T	30"	22"
182T	16"	14½"	364T	33"	—
184T	17"	14½"	365T	34"	—
213T	19"	16"	404T	37"	—
215T	20"	16"	405T	38"	—
254T	24"	18½"	444T	42"	—
256T	26"	18½"	445T	44"	—
284T	27"	20"	—	—	—

FIG. 2

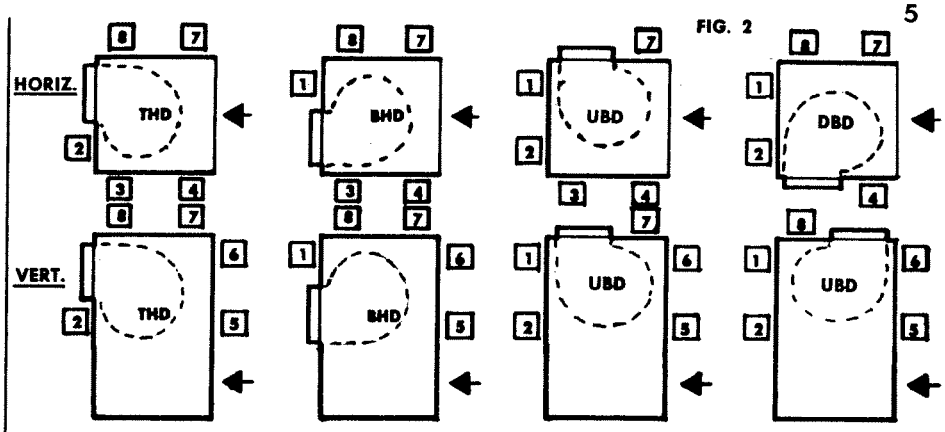
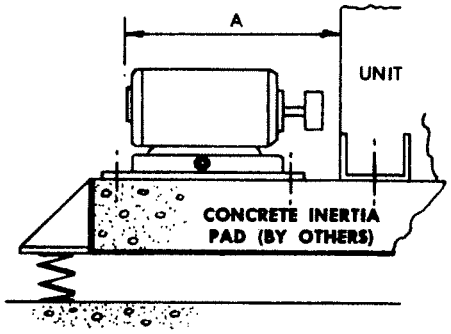
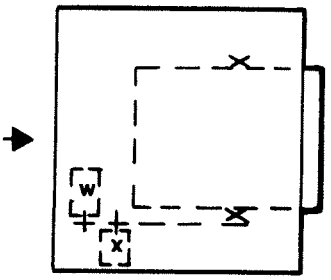


FIG. 3



TYPICAL MOTOR MOUNTING
75 HP AND ABOVE



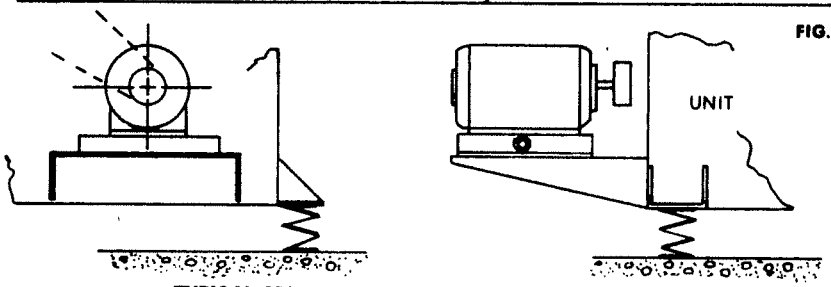
1. 2. 7. 8. } EXTERNALLY MOUNTED MOTOR ON FLOOR MOUNTED UNITS.

1. 2. 3. 4. } EXTERNALLY MOUNTED MOTORS ON CEILING SUSPENDED UNITS.

X W } INTERNALLY MOUNTED MOTORS.

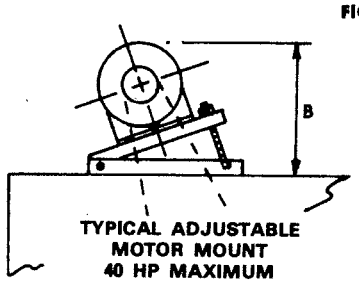
N.B. Motors may be mounted on L.H. or R.H. side of unit for all positions as shown.

FIG. 4



TYPICAL MOTOR MOUNTING — USING SLIDE BASE
(60 H.P. MAXIMUM)

FIG. 5



TYPICAL ADJUSTABLE MOTOR MOUNT
40 HP MAXIMUM

EVEN-TEMP MIXING BOX

To meet the need for improved mixing of the fresh and return air in heating, ventilating and air conditioning units, Sheldons have designed the EVEN-TEMP Mixing Box to provide practically 100% uniform temperature air across the entire outlet area of the mixing box, under almost any condition of fresh or return air.

Sheldons EVEN-TEMP mixing box has a maximum temperature gradient 3° to 6°F across the whole discharge area, over the range from 5% to 75% fresh air, with fresh air entering at 0°F. Variations in fresh air temperature from −15° to + 10°F have no measurable effect on the final temperature gradients.

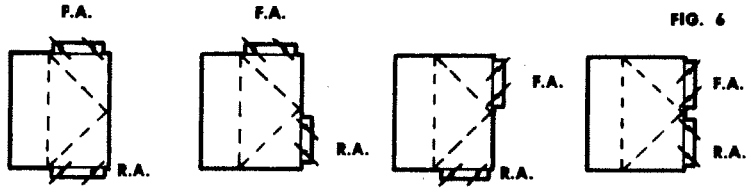
Special internal baffles and carefully placed air passages have been effectively designed to force the hot and cold air streams into direct contact with each other and thus achieve complete and thorough mixing. Mixing can be obtained with either one or two stages of baffling, depending on the desired conditions and the space available. Tests on several different configurations of baffles showed that complete mixing of fresh air and return air down to 5° temperature gradient could not be achieved with a single stage mixing box.

SINGLE-STAGE UNIT — This design provides very good mixing of the two air streams, giving a maximum temperature gradient of about 15°F as shown in Fig. 7. This is achieved with a short box and may be satisfactory when space is limited.

TWO-STAGE UNIT — Where an improved temperature gradient is required, the addition of a second stage of baffles completes the intimate mixing of the air stream and effectively reduces the maximum temperature gradient to approximately 5°F as shown in Fig. 7.

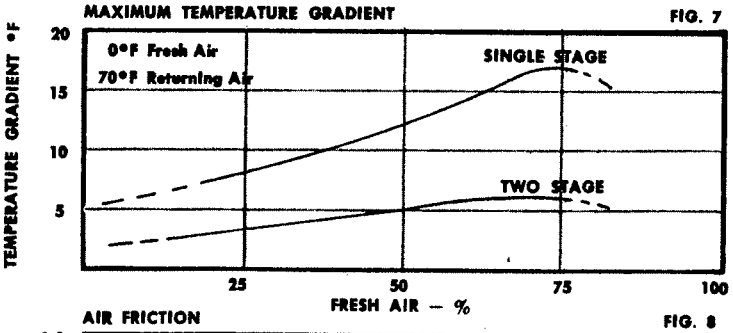
NOTE: To obtain the results indicated in Fig. 7, the fresh air MUST ALWAYS ENTER ABOVE THE HORIZONTAL CENTRE-LINE. Four alternate positions of FA and RA supply connections are available as shown.

FIG. 6



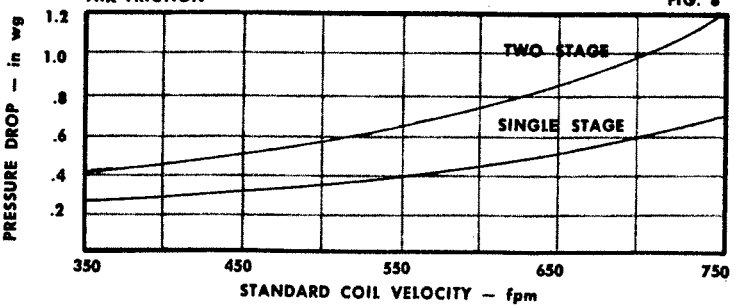
MAXIMUM TEMPERATURE GRADIENT

FIG. 7



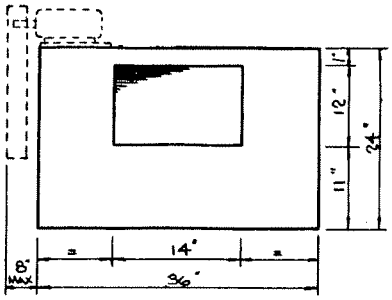
AIR FRICTION

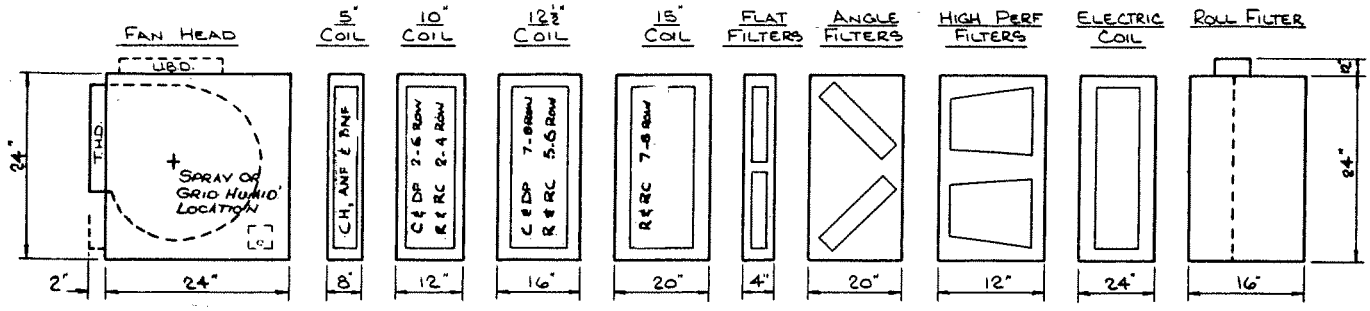
FIG. 8

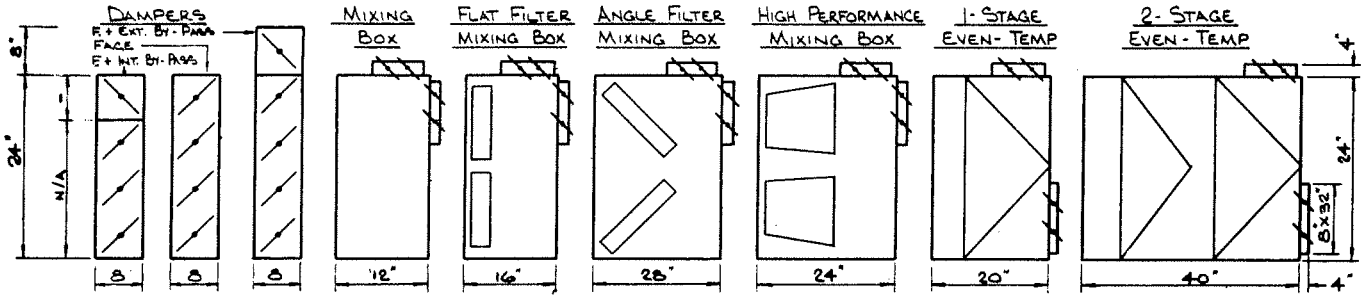


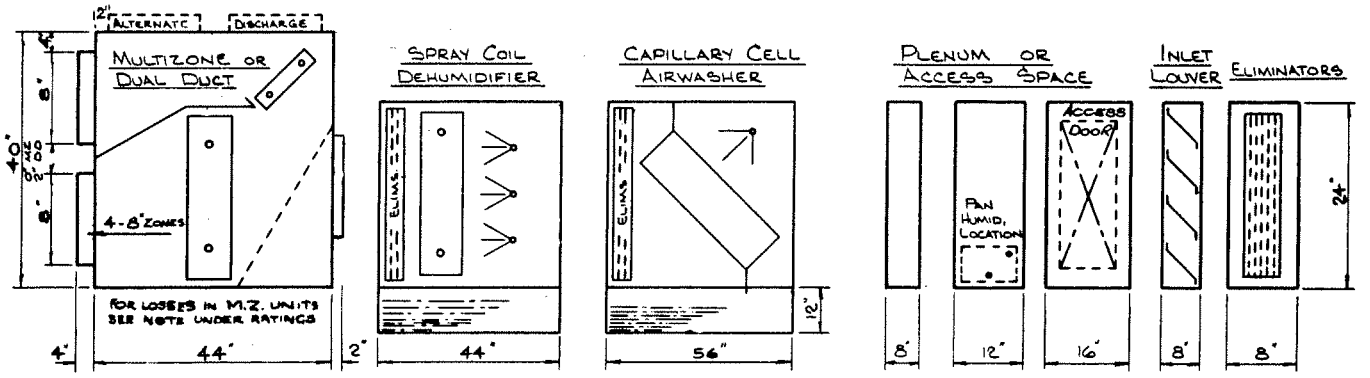
SHELDONS
MODULAR A/C UNIT
SIZE 1.1

standard coil	=2.63 sq ft	12 tf x 24"	ntl
internal by-pass htg coil	= – sq ft	– tf x –	ntl
multizone heating coil	=2.63 sq ft	12 tf x 24"	ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	1-16"x20"x2", 1-20"x20"x2"	4.8 sq ft
ANGLE FILTER	2-16"x16"x2", 2-16"x20"x2"	7.2 sq ft
HIGH VELOCITY	1-16"x20"x2", 1-20"x20"x2"	4.8 sq ft
HIGH PERFORMANCE	1-16"x20"x8", 1-20"x20"x8"	4.28 sq ft
ROLL FILTER	1-2'-0"x 5'-0"	4.12 sq ft

HUMIDIFIERS

CAPACITY – LBS./HR.

WATER SPRAY 50 PSI.	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
10	60	120	24	48	12	4

FACTORS FOR STEAM OTHER THAN 5"

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS – STEAM

½"	¾"	¾"	½"	1"	–	–

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM 'T' FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	–	–	–	–	—
HORIZ	–	–	–	–	—
VERT	–	–	–	–	—

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	–	–	–	–	–	–	–
THROW-AWAY FLAT	.08"	.095"	.110"	.125"	.145"	.17"	.185"
THROW-AWAY ANGLE	—	—	—	—	.06"	.08"	.095"
HIGH VELOCITY FLAT	—	—	—	.05"	.06"	.07"	.08"
HIGH PERFORMANCE	—	—	.02"	.03"	.04"	.05"	.07"
ROLL	.02"	.035"	.05"	.075"	.05"	.11"	.15"
SPRAY COIL DEHUMID.	.16"	.24"	.33"	.41"	.5"	.58"	.67"
CAPILLARY AIRWASHER	.10"	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 1-STAGE	.10"	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 2-STAGE	.17"	.22"	.29"	.38"	.50"	.63"	.76"
ELIMINATORS	.10"	.12"	.14"	.16"	.19"	.22"	.25"

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI	PUMP HP
	3.0	15	¼		1750	6.5	15	¼

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	210	MIXING BOX	78
5" COIL	59	FLAT FILTER MIXING BOX	112
10" COIL	82	ANGLE FILTER MIXING BOX	162
12½" COIL	105	HIGH PERFORMANCE FILTER & MIXING BOX	138
15" COIL	129	1-STAGE EVEN-TEMP	130
FLAT FILTER	43	2-STAGE EVEN-TEMP	222
ANGLE FILTER	97	MULTIZONE	953
HIGH PERF. FILTER	60	SPRAY COIL DEHUMIDIFIER	1197
ELECTRIC COIL	132	CAPILLARY CELL AIRWASHER	N/A
ROLL FILTER	54	PLENUM / FT	42
FACE + INTERNAL BY-PASS DAMPER	63	ACCESS SPACE	56
FACE DAMPER	57	INLET LOUVER	72
FACE + EXTERNAL BY-PASS DAMPER	80	ELIMINATORS	188

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	'C' SUPPLY & RETURN	R+RC SUPPLY & RETURN	'DP' (DIRECT EXPANSION)					'ANF'		'BNF'				FLEXITUBE				'CH'	
			2	3	4.5	6	R	S	R	1-ROW		2-ROW		1-ROW		2-ROW		1	2
STANDARD	2	2	⅞	⅞	⅞	⅞	2⅛	2	1½	1½	1½	2	1½	1½	1	2	1½	1½	2
INT. BY-PASS	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
M.Z. HEAT	2	2	–	–	–	–	–	2	1½	1½	1½	2	1½	1½	1	2	1½	1½	2

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (M.Z.)
② 12 — 27 TF = 1-COIL; 30 — 54 TF = 2-COIL; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 1.1

LOW PRESSURE

100 B wheel — **outlet area = 1.16 sq ft**

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'Pass	M.Z. Heat	½" SP RPM	½" SP HP	¾" SP RPM	¾" SP HP	1" SP RPM	1" SP HP	1¼" SP RPM	1¼" SP HP	1½" SP RPM	1½" SP HP	1¾" SP RPM	1¾" SP HP	2" SP RPM	2" SP HP	2¼" SP RPM	2¼" SP HP	2½" SP RPM	2½" SP HP	2¾" SP RPM	2¾" SP HP	3" SP RPM	3" SP HP
1030	890	392	¼	392	1520	.15	1690	.21	1890	.27	2060	.34	2230	.42	2310	.48	2470	.57	2610	.65	2560	.73	2770	.85	2870	.99	2970	1.12
1235	1065	470	½	470	1660	.19	1820	.27	1970	.33	2130	.40	2310	.48	2470	.57	2610	.65	2560	.73	2770	.85	2870	.99	2970	1.12		
1440	1240	545	¾	545	1850	.23	1980	.32	2110	.41	2250	.49	2430	.57	2480	.65	2700	.74	2750	.84	2880	.96	2970	1.10	3060	1.29		
1650	1420	625	1	625	2010	.29	2150	.39	2270	.49	2390	.60	2510	.70	2640	.78	2800	.88	2850	.96	3000	1.10	3070	1.27	3150	1.46		
1860	1600	705	1½	705	2210	.36	2380	.47	2470	.57	2570	.69	2670	.79	2740	.93	2890	1.02	2960	1.14	3090	1.28	3160	1.45	3240	1.60		
2060	1775	780	—	780	2380	.44	2500	.55	2610	.68	2710	.81	2810	.93	2960	1.04	3010	1.18	3090	1.32	3180	1.41	3250	1.58	3330	1.73		
2270	1960	860	—	860	2560	.53	2700	.66	2810	.78	2920	.92	3000	1.08	3100	1.26	3160	1.35	3240	1.49	3300	1.61	3360	1.73	3420	1.85		

100 F wheel — **outlet area = 1.16 sq ft**

1030	890	392	—	392	810	.16	945	.23	1070	.32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1235	1065	470	—	470	820	.23	970	.29	1080	.38	1220	.47	1300	.56	—	—	—	—	—	—	—	—	—	—	—	—
1440	1240	545	—	545	850	.29	980	.37	1130	.46	1240	.56	1320	.66	1420	.77	1510	.88	—	—	—	—	—	—	—	—
1650	1425	625	—	625	900	.39	1020	.48	1150	.57	1260	.67	1340	.77	1450	.88	1540	1.0	1620	1.13	—	—	—	—	—	—
1860	1605	705	—	705	975	.49	1070	.6	1180	.71	1280	.80	1360	.92	1470	1.03	1570	1.15	1640	1.27	1675	1.4	—	—	—	—
2060	1780	780	—	780	1045	.61	1110	.76	1220	.86	1290	.99	1380	1.09	1490	1.21	1580	1.33	1660	1.46	1700	1.6	1785	1.6	1867	1.9
2270	1960	860	—	860	1120	.75	1230	.9	1270	1.02	1340	1.15	1400	1.31	1520	1.4	1590	1.56	1680	1.64	1720	1.8	1817	1.9	1885	2.1

MEDIUM PRESSURE

wheel — **outlet area** — **sq ft**

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'Pass	M.Z. Heat	3" SP RPM	3" SP HP	3¼" SP RPM	3¼" SP HP	3½" SP RPM	3½" SP HP	3¾" SP RPM	3¾" SP HP	4" SP RPM	4" SP HP	4¼" SP RPM	4¼" SP HP	4½" SP RPM	4½" SP HP	4¾" SP RPM	4¾" SP HP	5" SP RPM	5" SP HP	5¼" SP RPM	5¼" SP HP	5½" SP RPM	5½" SP HP
									not	available																

wheel — **outlet area** — **sq ft**

									not	available																

HIGH PRESSURE

wheel — **outlet area** — **sq ft**

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'Pass	M.Z. Heat	5½" SP RPM	5½" SP HP	5¾" SP RPM	5¾" SP HP	6" SP RPM	6" SP HP	6½" SP RPM	6½" SP HP	7" SP RPM	7" SP HP	7½" SP RPM	7½" SP HP	8" SP RPM	8" SP HP	8½" SP RPM	8½" SP HP	9" SP RPM	9" SP HP	9½" SP RPM	9½" SP HP	10" SP RPM	10" SP HP
									not	available																

wheel — **outlet area** — **sq ft**

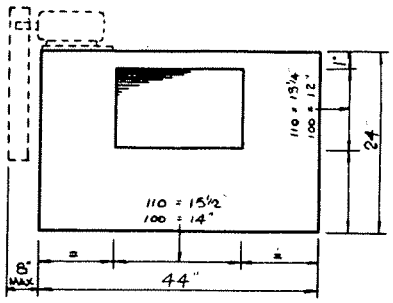
									not	available																

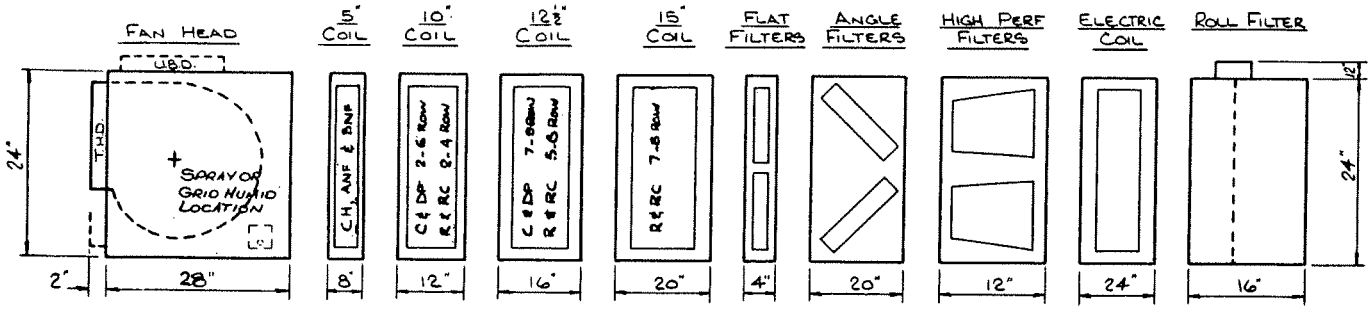
NOTE. WHEN USING BLOW-THRU MZ UNITS ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

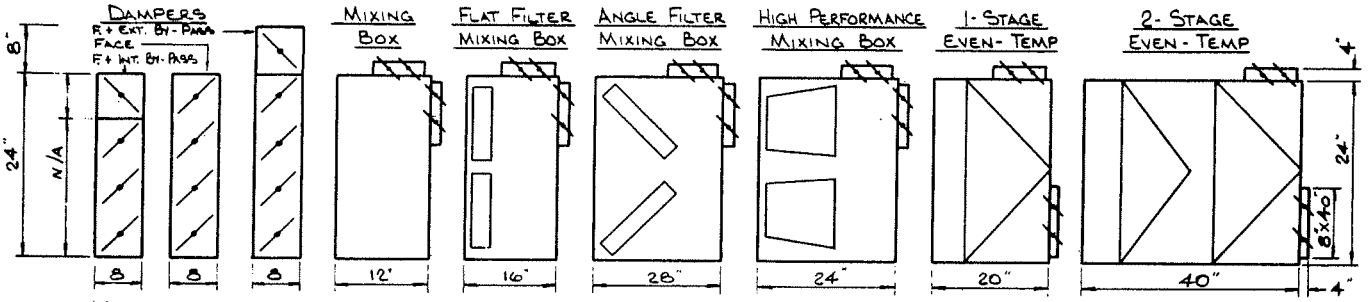
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

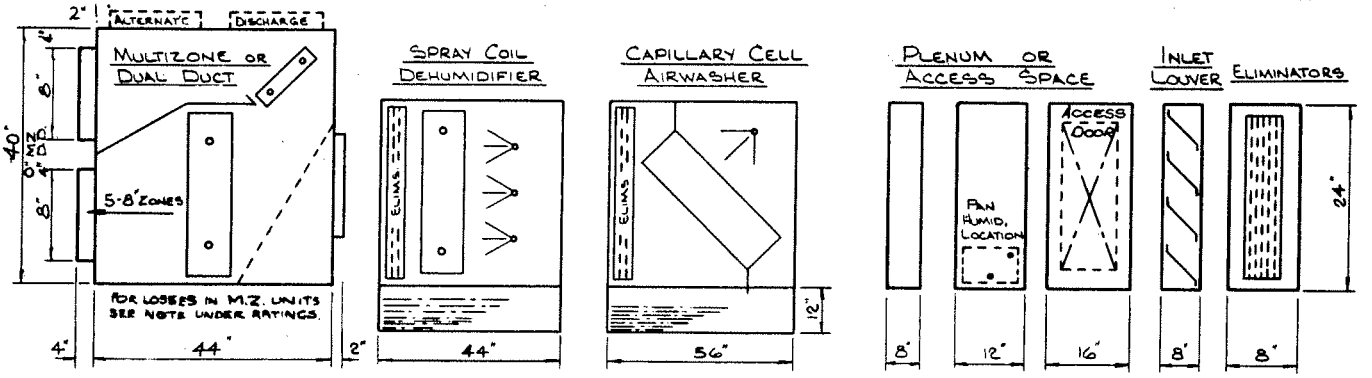
SHELDONS
MODULAR A/C UNIT
SIZE 2.1

standard coil	**=3.56 sq ft**	**12 tf x 32″ ntl**
internal by-pass htg coil	**= — sq ft**	**— tf x — ntl**
multizone heating coil	**=3.56 sq ft**	**12 tf x 32″ ntl**









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	2-20"x20"x2"	5.34 SqFt
ANGLE FILTER	4-16"x20"x2"	8.54 SqFt
HIGH VELOCITY	2-20"x20"x2"	5.34 SqFt
HIGH PERFORMANCE	2-20"x20"x8"	4.62 SqFt
ROLL FILTER	1-2'-0"x3'-6"	4.87 SqFt

HUMIDIFIERS

CAPACITY — LBS/HR.

WATER SPRAY 50 PSI.	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD	HIGH	1 COIL	2 COIL	1 ELEMT	KW
20	73	146	30	60	15	5

FACTORS FOR STEAM OTHER THAN 5#

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS — STEAM

½"	¾"	¾"	¾"	1"	—	—

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD FAN HEAD

FAN	POSITION W				POSITION X
DISCH	—	—	—	—	—
HORIZ	—	—	—	—	—
VERT	—	—	—	—	—

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	—	—	—	—	—	—	—
THROW-AWAY FLAT	.10"	.12"	.14"	.16"	.18"	.20"	.225"
THROW-AWAY ANGLE	—	—	—	.07"	.09"	.11"	.13"
HIGH VELOCITY FLAT	—	—	.06"	.07"	.083	.095	.11"
HIGH PERFORMANCE	.02"	.03"	.04"	.06"	.08	.105	.135"
ROLL	.04"	.06"	.08"	.105	.13	.155	.18
SPRAY COIL DEHUMID.	.16"	.24"	.33"	.41"	.5"	.58"	.67
CAPILLARY AIRWASHER	.10"	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 1-STAGE	.10"	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 2-STAGE	.17"	.22"	.25"	.38"	.50"	.63"	.76"
ELIMINATORS	.10"	.12"	.14"	.16"	.19"	.22"	.25"

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI	PUMP HP
	4	15	¼		2200	8	15	¼

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	250	MIXING BOX	94
5" COIL	69	FLAT FILTER MIXING BOX	150
10" COIL	97	ANGLE FILTER MIXING BOX	195
12½" COIL	126	HIGH PERFORMANCE FILTER & MIXING BOX	166
15" COIL	155	1-STAGE EVEN-TEMP	156
FLAT FILTER	41	2-STAGE EVEN-TEMP	267
ANGLE FILTER	116	MULTIZONE	406
HIGH PERF FILTER	72	SPRAY COIL DEHUMIDIFIER	1442
ELECTRIC COIL	157	CAPILLARY CELL AIRWASHER	1716
ROLL FILTER	63	PLENUM / FT	48
FACE & INTERNAL BY-PASS DAMPER	74	ACCESS SPACE	64
FACE DAMPER	67	INLET LOUVER	82
FACE & EXTERNAL BY-PASS DAMPER	94	ELIMINATORS	232

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3'-5½" SP
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	C SUPPLY & RETURN	R & RC SUPPLY & RETURN	DP (DIRECT EXPANSION) 2	3	4.5	6	R	ANF S	ANF R	BNF 1-ROW	BNF 2-ROW	FLEXITUBE 1-ROW	FLEXITUBE 2-ROW	CH 1	CH 2
STANDARD	2"	2"	⅞"	⅞"	⅞"	⅞"	2⅛"	2"	1½"	1½"	2"	1½"	1"	2"	1½"	1½"	2"
INT BY-PASS	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M.Z. HEAT	2"	2"	—	—	—	—	—	2"	1½"	1½"	2"	1½"	1"	2"	1½"	1½"	2"

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 2.1

LOW PRESSURE

110 B wheel — **outlet area = 1.48 sq ft**

C.F.M.	Outlet Velocity	Coil Velocity Std.	Coil Velocity Int. & Parallel	Coil Velocity M.Z. Heat	½" SP RPM	½" SP HP	¾" SP RPM	¾" SP HP	1" SP RPM	1" SP HP	1¼" SP RPM	1¼" SP HP	1½" SP RPM	1½" SP HP	1¾" SP RPM	1¾" SP HP	2" SP RPM	2" SP HP	2½" SP RPM	2½" SP HP	2¾" SP RPM	2¾" SP HP	3" SP RPM	3" SP HP
1250	845	350	—	350	1320	.182	1490	.25	1640	.325	1880	.41	1920	.50	2080	.59	2210	.675	2250	.78	2300	.87	2350	.96	2400	1.08
1490	1010	420	—	420	1480	.225	1620	.318	1770	.398	1960	.48	2050	.58	2130	.681	2290	.782	2410	.895	2430	1.00	2500	1.11	2560	1.21
1740	1180	490	—	490	1640	.28	1770	.386	1910	.494	2050	.59	2150	.682	2250	.79	2340	.9	2500	1.02	2570	1.14	2640	1.26	2710	1.38
2000	1350	560	—	560	1800	.346	1940	.451	2050	.595	2150	.715	2180	.85	2340	.95	2420	1.06	2520	1.175	2690	1.33	2720	1.46	2800	1.59
2260	1530	635	—	635	1960	.445	2090	.58	2200	.695	2300	.84	2370	.99	2450	1.12	2530	1.26	2650	1.38	2730	1.52	2810	1.66	2890	1.8
2500	1650	700	—	700	2130	.52	2250	.65	2350	.81	2470	.955	2540	.945	2590	1.25	2680	1.43	2780	1.58	2800	1.74	2880	1.89	2960	2.03
2770	1870	775	—	775	2300	.642	2430	.78	2530	.875	2650	1.09	2690	1.28	2780	1.47	2830	1.65	2850	1.82	2880	1.97	2960	2.12	3040	2.27

100 F wheel — **outlet area = 1.16 sq ft**

1440	1240	405	—	405	850	.29	980	.37	1130	.46	1240	.56	1320	.66	1420	.77	1510	.88	—	—	—	—	—	—	—	—
1650	1425	465	—	465	900	.39	1020	.48	1150	.57	1260	.67	1340	.77	1450	.88	1540	1.0	1620	1.13	—	—	—	—	—	—
1860	1605	520	—	520	975	.49	1070	.6	1180	.71	1280	.80	1360	.92	1470	1.03	1570	1.15	1640	1.27	1675	1.4	—	—	—	—
2060	1780	580	—	580	1045	.61	1110	.76	1220	.86	1290	.99	1380	1.09	1490	1.21	1580	1.33	1660	1.46	1700	1.6	1785	1.6	1867	1.9
2270	1960	635	—	635	1120	.75	1230	.9	1270	1.02	1340	1.15	1400	1.31	1520	1.4	1590	1.56	1680	1.64	1720	1.8	1817	1.9	1885	2.1
2470	2130	695	—	695	1190	.85	1270	1.08	1330	1.21	1400	1.35	1460	1.5	1540	1.67	1620	1.81	1710	1.9	1760	2.0	1847	2.2	1910	2.4
2670	2300	750	—	750	1270	1.0	1420	1.26	1400	1.4	1440	1.65	1510	1.76	1580	1.95	1650	2.05	1720	2.2	1800	2.4	1857	2.5	1922	2.7

MEDIUM PRESSURE

wheel — **outlet area** — **sq ft**

C.F.M.	Outlet Velocity	Coil Velocity Std.	Coil Velocity Int. & Parallel	Coil Velocity M.Z. Heat	3" SP RPM	3" SP HP	3¼" SP RPM	3¼" SP HP	3½" SP RPM	3½" SP HP	3¾" SP RPM	3¾" SP HP	4" SP RPM	4" SP HP	4¼" SP RPM	4¼" SP HP	4½" SP RPM	4½" SP HP	4¾" SP RPM	4¾" SP HP	5" SP RPM	5" SP HP	5¼" SP RPM	5¼" SP HP	5½" SP RPM	5½" SP HP
											not	available														

wheel — **outlet area** — **sq ft**

											not	available														

HIGH PRESSURE

wheel — **outlet area** — **sq ft**

C.F.M.	Outlet Velocity	Coil Velocity Std.	Coil Velocity Int. & Parallel	Coil Velocity M.Z. Heat	5½" SP RPM	5½" SP HP	5¾" SP RPM	5¾" SP HP	6" SP RPM	6" SP HP	6½" SP RPM	6½" SP HP	7" SP RPM	7" SP HP	7½" SP RPM	7½" SP HP	8" SP RPM	8" SP HP	8½" SP RPM	8½" SP HP	9" SP RPM	9" SP HP	9½" SP RPM	9½" SP HP	10" SP RPM	10" SP HP
											not	available														

wheel — **outlet area** — **sq ft**

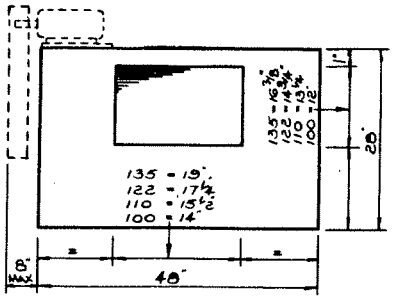
											not	available														

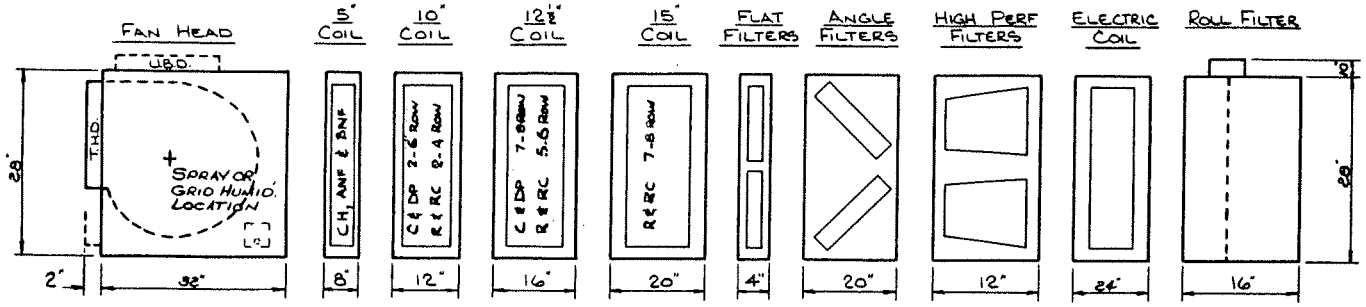
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

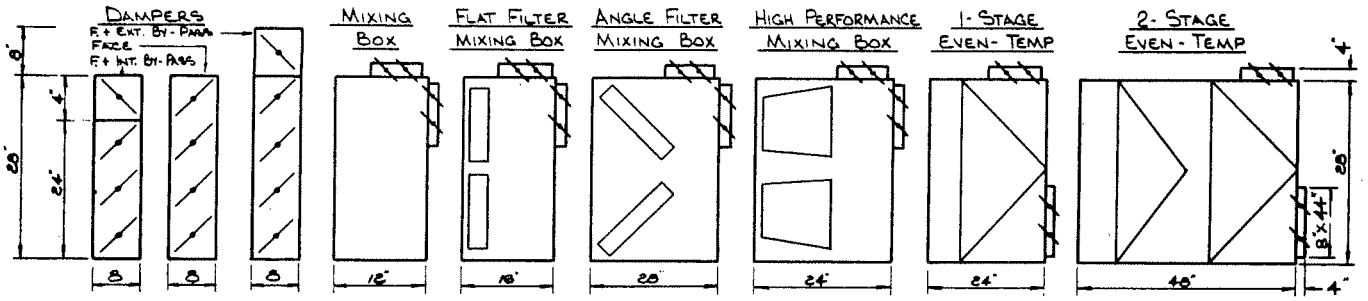
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

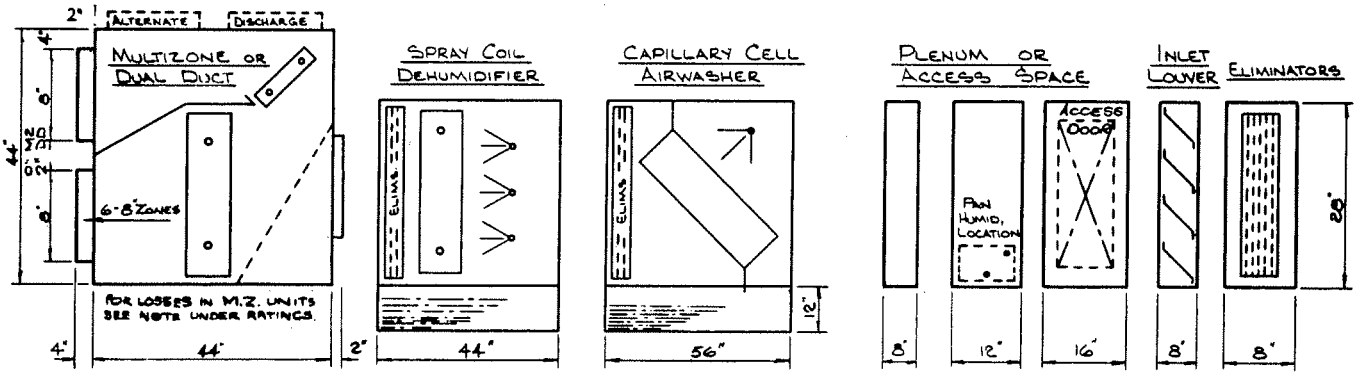
SHELDONS
MODULAR A/C UNIT
SIZE 3.1

standard coil	=5.04 sq ft	15 tf x	36" ntl
internal by-pass htg coil	=4.03 sq ft	12 tf x	36" ntl
multizone heating coil	=4.03 sq ft	12 tf x	36" ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	3-25"x16"x2"	8.9 sq ft
ANGLE FILTER	2-20"x20"x2" 2-20"x25"x2"	12.5 sq ft
HIGH VELOCITY	9-25"x16"x2"	8.9 sq ft
HIGH PERFORMANCE	2-24"x24"x8"	6655 sq ft
ROLL FILTER	2'-0"x4'-0"	5625 sq ft

HUMIDIFIERS

CAPACITY – LBS./HR.

WATER SPRAY 50 PSI	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
20	80	160	32	64	18	6

FACTORS FOR STEAM OTHER THAN 5"

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS – STEAM

½"	¾"	¾"	¾"	1"	—	—

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM 'T' FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	100	110	122	135	135
HORIZ.	184T	145T	—	—	—
VERT	184T	145T	—	—	—

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	—	—	—	—	—	—	—
THROW-AWAY FLAT	.09"	.11"	.13"	.15"	.17"	.19"	.21"
THROW-AWAY ANGLE	—	—	—	.08"	.095"	.11"	.125"
HIGH VELOCITY FLAT	—	—	—	.06"	.07"	.085"	.10"
HIGH PERFORMANCE	.02"	.03"	.04"	.06"	.08"	.105"	.135"
ROLL	.07"	.10"	.13"	.16"	.19"	.22"	.28"
SPRAY COIL DEHUMID.	.16"	.24"	.33"	.41"	.5"	.58"	.67"
CAPILLARY AIRWASHER	.10"	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 1-STAGE	.10"	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 2-STAGE	.17"	.22"	.29"	.38"	.50"	.63"	.76"
ELIMINATORS	.10"	.12"	.14"	.16"	.19"	.22"	.25"

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI.	PUMP HP
	55	15	¼		4400	16	15	⅛

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	362	MIXING BOX	110
5" COIL	78	FLAT FILTER MIXING BOX	155
10" COIL	107	ANGLE FILTER MIXING BOX	220
12½" COIL	139	HIGH PERFORMANCE FILTER & MIXING BOX	190
15" COIL	171	1-STAGE EVEN-TEMP	203
FLAT FILTER	46	2-STAGE EVEN-TEMP	348
ANGLE FILTER	129	MULTIZONE	450
HIGH PERF FILTER	80	SPRAY COIL DEHUMIDIFIER	1600
ELECTRIC COIL	174	CAPILLARY CELL AIRWASHER	1950
ROLL FILTER	70	PLENUM/FT.	54
FACE & INTERNAL BY-PASS DAMPER	90	ACCESS SPACE	72
FACE DAMPER	82	INLET LOUVER	99
FACE & EXTERNAL BY-PASS DAMPER	115	ELIMINATORS	280

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP.
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK + PUMP

COIL CONNECTIONS (ONE COIL)

COIL	'C' SUPPLY & RETURN	R+RC SUPPLY & RETURN	DP (DIRECT EXPANSION) 2	DP 3	DP 4.5	DP 6	DP R	ANF S	ANF R	BNF 1-ROW	BNF 2-ROW	FLEXITUBE 1-ROW	FLEXITUBE 2-ROW	CH 1	CH 2
STANDARD	2"	2"	1⅜"	1⅜"	1⅜"	1⅜"	2⅛"	2"	1½"	1½"	2"	1½"	1½"	2"	1½"	2"
INT. BY-PASS	2"	2"	⅛"	⅛"	⅛"	⅛"	2⅛"	2"	1½"	1½"	2"	1½"	1"	2"	1½"	2"
M.Z. HEAT	2"	2"	—	—	—	—	—	2"	1½"	1½"	2"	1½"	1"	2"	1½"	2"

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 3.1

LOW PRESSURE — 135 B wheel — outlet area = 2.21 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	½" SP RPM	½" SP HP	¾" SP RPM	¾" SP HP	1" SP RPM	1" SP HP	1¼" SP RPM	1¼" SP HP	1½" SP RPM	1½" SP HP	1¾" SP RPM	1¾" SP HP	2" SP RPM	2" SP HP	2¼" SP RPM	2¼" SP HP	2½" SP RPM	2½" SP HP	2¾" SP RPM	2¾" SP HP	3" SP RPM	3" SP HP
1870	845	371	465	465	1130	.28	1260	.38	1390	.51	1510	.62	1620	.75	1720	.87	1830	.92	1850	.98	1860	1.31	2010	1.51	2150	1.83
2244	1020	445	555	555	1250	.38	1370	.49	1480	.62	1580	.75	1690	.88	1800	1.03	1885	1.03	1935	1.29	1975	1.50	2100	1.72	2220	1.95
2618	1185	520	650	650	1375	.52	1470	.65	1590	.77	1675	.90	1790	1.06	1870	1.20	1920	1.36	2000	1.52	2095	1.72	2190	1.93	2290	2.07
2992	1355	595	740	740	1510	.69	1610	.83	1700	.98	1790	1.12	1880	1.27	1960	1.44	2050	1.62	2120	1.79	2200	1.95	2280	2.15	2360	2.35
3366	1525	670	835	835	1645	.90	1745	1.06	1840	1.22	1920	1.37	1995	1.54	2070	1.70	2140	1.88	2210	2.07	2285	2.27	2358	2.45	2430	2.63
3740	1695	740	925	925	1770	1.15	1875	1.34	1960	1.50	2040	1.68	2120	1.86	2190	2.03	2260	2.21	2330	2.40	2385	2.59	2453	2.81	2520	3.03
4114	1860	816	1020	1020	1920	1.44	2010	1.66	2090	1.84	2170	2.03	2240	2.23	2310	2.42	2370	2.60	2440	2.80	2500	3.00	2560	3.22	2620	3.44

122 F wheel — outlet area = 1.77 sq ft

2170	1230	490	540	540	714	.45	806	.56	894	.69	985	.84	1072	1.01	1155	1.15	1200	1.29	—	—	—	—	—	—	—	—
2480	1400	492	615	615	752	.58	850	.73	938	.86	1010	1.01	1090	1.17	1165	1.34	1245	1.48	1280	1.68	1338	1.75	1396	2.10	—	—
2790	1575	553	690	690	790	.73	890	.91	970	1.07	1040	1.21	1110	1.37	1180	1.55	1260	1.74	1300	1.9	1363	2.0	1421	2.33	1478	2.43
3100	1750	615	770	770	846	.93	930	1.11	1010	1.29	1082	1.47	1145	1.64	1210	1.80	1280	1.99	1325	2.2	1388	2.31	1446	2.61	1503	2.8
3410	1930	675	845	845	906	1.18	970	1.35	1050	1.56	1125	1.75	1185	1.95	1245	2.16	1300	2.30	1360	2.51	1413	2.71	1471	2.95	1528	3.17
3720	2100	738	923	923	970	1.48	1020	1.63	1090	1.84	1165	2.07	1230	2.29	1285	2.51	1340	2.70	1395	2.88	1442	3.10	1494	3.32	1547	3.55
4090	2275	800	1000	1000	1030	1.82	1080	1.97	1130	2.18	1200	2.43	1270	2.67	1330	2.9	1380	3.15	1430	3.36	1479	3.55	1525	3.74	1576	4.01

MEDIUM PRESSURE — 110 B wheel — outlet area = 1.48 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	3" SP RPM	3" SP HP	3¼" SP RPM	3¼" SP HP	3½" SP RPM	3½" SP HP	3¾" SP RPM	3¾" SP HP	4" SP RPM	4" SP HP	4¼" SP RPM	4¼" SP HP	4½" SP RPM	4½" SP HP	4¾" SP RPM	4¾" SP HP	5" SP RPM	5" SP HP	5¼" SP RPM	5¼" SP HP	5½" SP RPM	5½" SP HP
2016	1362	400	497	497	2644	2.08	2745	2.30	2841	2.53	2935	2.76	3025	3.00	3113	3.24	3198	3.49	—	—	—	—	—	—	—	—
2268	1533	450	560	560	2674	2.20	2772	2.43	2866	2.67	2957	2.91	3048	3.16	3135	3.41	3220	3.67	3303	3.93	3384	4.20	3462	4.47	3539	4.75
2520	1703	500	622	622	2705	2.34	2803	2.57	2897	2.82	2988	3.07	3075	3.32	3161	3.58	3243	3.85	3325	4.12	3406	4.40	3485	4.68	3561	4.97
2772	1873	550	684	684	2742	2.50	2837	2.74	2929	2.98	3018	3.23	3106	3.50	3191	3.77	3274	4.04	3355	4.32	3433	4.61	3509	4.90	3584	5.19
3024	2044	600	746	746	2780	2.68	2874	2.92	2966	3.18	3054	3.44	3140	3.70	3223	3.97	3305	4.24	3386	4.53	3464	4.82	3540	5.12	3615	5.42
3276	2214	650	809	809	2823	2.86	2915	3.12	3004	3.38	3091	3.65	3177	3.92	3260	4.20	3341	4.48	3419	4.77	3496	5.06	3571	5.35	3646	5.67
3528	2384	700	871	871	2867	3.05	2959	3.32	3047	3.59	3133	3.87	3216	4.15	3297	4.44	3377	4.73	3456	5.03	3532	5.33	3607	5.63	3680	5.94

100 F wheel — outlet area = 1.16 sq ft

2060	1775	409	511	511	1067	1.9	1941	2.1	2015	2.2	2060	2.4	2105	2.5	—	—	—	—	—	—	—	—	—	—	—	—
2270	1955	450	563	563	1885	2.1	1958	2.3	2030	2.4	2075	2.6	2130	2.7	2223	2.9	2315	3.1	—	—	—	—	—	—	—	—
2470	2130	490	612	612	1910	2.4	1974	2.6	2036	2.7	2092	2.9	2145	3.0	2236	3.2	2327	3.3	2369	3.4	2410	3.4	2453	3.8	2495	4.1
2670	2300	531	662	662	1922	2.7	1992	2.9	2062	3.0	2110	3.2	2157	3.3	2249	3.5	2340	3.6	2380	3.7	2430	3.7	2466	4.1	2512	4.4
2880	2480	578	714	714	1965	3.0	2025	3.2	2088	3.3	2128	3.5	2170	3.7	2263	3.9	2355	4.0	2396	4.2	2440	4.4	2483	4.6	2525	4.8
3090	2660	615	766	766	1998	3.4	2054	3.6	2115	3.7	2168	3.9	2220	4.1	2304	4.3	2387	4.4	2426	4.6	2465	4.8	2513	5.0	2560	5.2
3300	2850	657	818	818	2030	3.8	2083	4.0	2146	4.1	2206	4.3	2270	4.5	2345	4.7	2422	4.8	2554	5.0	2490	5.2	2543	5.4	2605	5.6

HIGH PRESSURE — wheel — outlet area — sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	5½" SP RPM	5½" SP HP	5¾" SP RPM	5¾" SP HP	6" SP RPM	6" SP HP	6½" SP RPM	6½" SP HP	7" SP RPM	7" SP HP	7½" SP RPM	7½" SP HP	8" SP RPM	8" SP HP	8½" SP RPM	8½" SP HP	9" SP RPM	9" SP HP	9½" SP RPM	9½" SP HP	10" SP RPM	10" SP HP
									not available																	

wheel — outlet area — sq ft

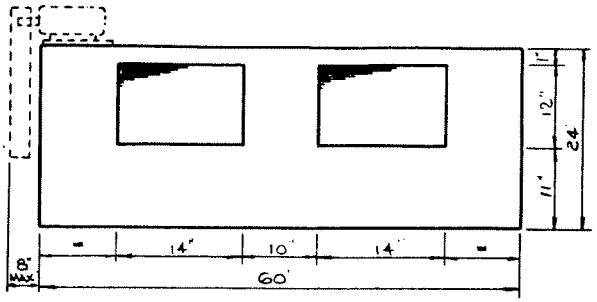
									not available																	

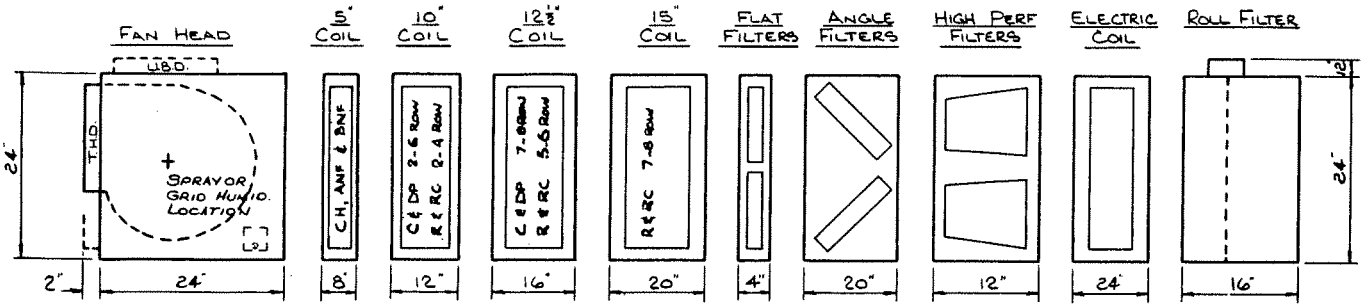
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

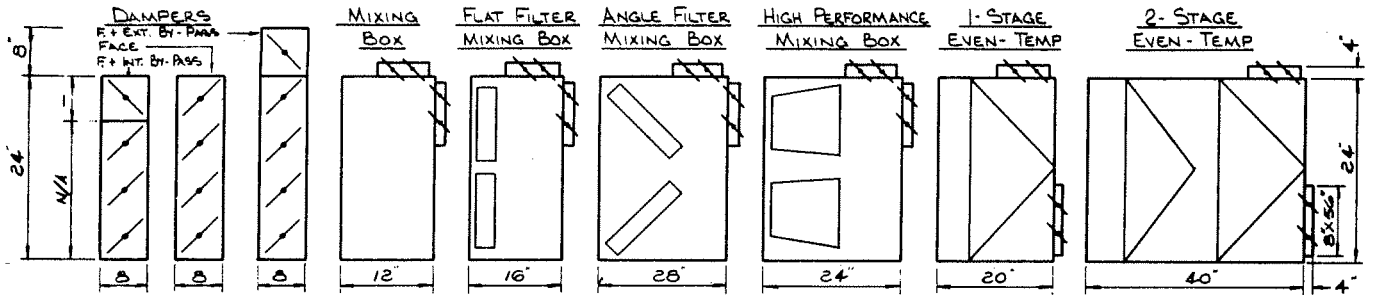
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

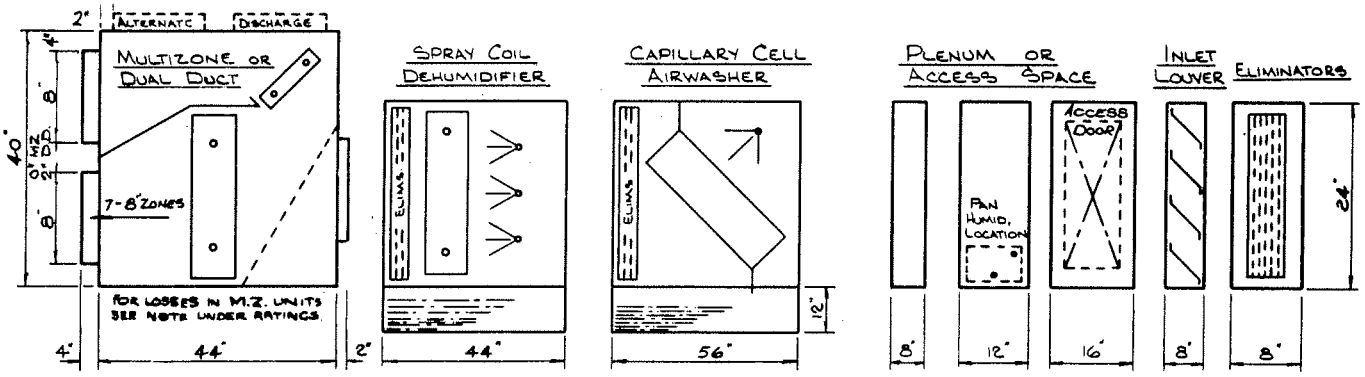
SHELDONS
MODULAR A/C UNIT
SIZE 3.2

standard coil = 5.44 sq ft 12 tf x 48" ntl
internal by-pass htg coil = – sq ft – tf x – ntl
multizone heating coil = 5.44 sq ft 12 tf x 48" ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	3-20"x20"x2"	8.5 Sq Ft
ANGLE FILTER	6-16"x20"x2"	12.8 Sq Ft
HIGH VELOCITY	3-20"x20"x2"	8.5 Sq Ft
HIGH PERFORMANCE	3-20"x20"x8"	6.9 Sq Ft
ROLL FILTER	2'-0"x5'-0"	7.1 Sq Ft

HUMIDIFIERS

CAPACITY – LBS./HR.

WATER SPRAY 50 PSI	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
30	100	200	40	80	24	8

FACTORS FOR STEAM OTHER THAN 5#

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS – STEAM

½"	¾"	¾"	1"	1¼"	–	–

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD FAN HEAD

FAN	POSITION W				POSITION X
DISCH	100	-	-	-	100
HORIZ	–	-	-	-	–
VERT	–	-	-	-	–

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	–	–	–	–	–	–	–
THROW-AWAY FLAT	.10	.12	.14	.16	.18	.20	.22
THROW-AWAY ANGLE	–	–	.08	.095	.11	.125	.14
HIGH VELOCITY FLAT	–	–	.06	.07	.09	.10	.12
HIGH PERFORMANCE	.02	.03	.04	.06	.08	.105	.135
ROLL	.04	.065	.09	.115	.14	.175	.19
SPRAY COIL DEHUMID.	.16	.24	.33	.41	.50	.58	.67
CAPILLARY AIRWASHER	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 1-STAGE	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 2-STAGE	.17	.22	.29	.38	.50	.63	.76
ELIMINATORS	.10	.12	.14	.16	.19	.22	.25

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI	PUMP HP
	6	15	¼		4400	16	15	⅓

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	380	MIXING BOX	135
5" COIL	91	FLAT FILTER MIXING BOX	189
10" COIL	127	ANGLE FILTER MIXING BOX	264
12½" COIL	161	HIGH PERFORMANCE FILTER & MIXING BOX	227
15" COIL	200	1-STAGE EVEN-TEMP	217
FLAT FILTER	54	2-STAGE EVEN-TEMP	356
ANGLE FILTER	148	MULTIZONE	516
HIGH PERF FILTER	92	SPRAY COIL DEHUMIDIFIER	1902
ELECTRIC COIL	398	CAPILLARY CELL AIRWASHER	2307
ROLL FILTER	76	PLENUM/FT	60
FACE & INTERNAL BY-PASS DAMPER	97	ACCESS SPACE	80
FACE DAMPER	88	INLET LOUVER	100
FACE & EXTERNAL BY-PASS DAMPER	123	ELIMINATORS	314

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP.
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	C SUPPLY & RETURN	R+RC SUPPLY & RETURN	DP (DIRECT EXPANSION) 2	3	4&5	6	R	ANF S	ANF R	BNF 1-ROW	BNF 2-ROW	FLEXITUBE 1-ROW	FLEXITUBE 2-ROW	CH 1	CH 2
STANDARD	2"	2"	⅞"	1⅜"	1⅜"	1⅜"	2⅛"	2"	1½"	1½"	1½"	1½"	1"	2"	1½"	1½"	2"
INT. BY-PASS	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
M.Z. HEAT	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 – 27 TF = 1-COIL ; 30 – 54 TF = 2-COIL ; 57 – 75 TF = 3-COIL

PERFORMANCE RATINGS

size 3.2

LOW PRESSURE

2-100 B wheel — outlet area =2.32 sq ft

C.F.M.	Outlet Velocity	Coil Velocity			½" SP		¾" SP		1" SP		1¼" SP		1½" SP		1¾" SP		2" SP		2¼" SP		2½" SP		2¾" SP		3" SP	
		Std.	Int. B'Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
2060	890	379	—	379	1520	.30	1690	.42	1890	.54	2060	.68	2230	.84	2310	.96	2430	1.12	2550	1.28	2670	1.44	2790	1.60	2910	1.80
2470	1065	455	—	455	1660	.38	1820	.54	1970	.66	2130	.80	2310	.96	2470	1.14	2610	1.30	2560	1.46	2720	1.62	2880	1.79	3040	1.97
2880	1240	530	—	530	1850	.46	1980	.64	2110	.82	2250	.98	2430	1.14	2480	1.30	2700	1.48	2750	1.68	2855	1.88	2960	2.10	3090	2.32
3300	1420	607	—	607	2010	.58	2150	.78	2270	.98	2390	1.20	2510	1.40	2640	1.56	2800	1.76	2850	1.82	2900	1.96	3060	2.12	3150	2.61
3720	1605	684	—	684	2210	.72	2330	.94	2470	1.14	2570	1.38	2670	1.58	2740	1.86	2890	2.04	2960	2.28	3060	2.41	3160	2.60	3270	2.96
4120	1775	757	—	757	2380	.88	2500	1.10	2610	1.36	2710	1.62	2810	1.86	2960	2.08	3010	2.36	3090	2.64	3190	2.83	3300	2.90	3410	3.59
4540	1960	835	—	835	2560	1.06	2700	1.32	2810	1.56	2920	1.84	3000	2.16	3100	2.52	3160	2.70	3240	2.98	3300	3.33	3380	3.73	3460	4.23

2-100 F wheel — outlet area =2.32 sq ft

2060	890	379	—	379	810	.32	945	.46	1070	.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2470	1065	455	—	455	820	.46	970	.58	1090	.76	1220	.94	1300	1.12	—	—	—	—	—	—	—	—	—	—	—	—
2880	1240	530	—	530	850	.58	990	.74	1130	.92	1240	1.12	1320	1.32	1420	1.54	1510	1.76	—	—	—	—	—	—	—	—
3300	1420	607	—	607	900	.78	1020	.96	1150	1.14	1260	1.34	1340	1.54	1450	1.76	1540	2.00	1620	2.26	1700	2.30	—	—	—	—
3720	1605	684	—	684	975	.98	1070	1.20	1180	1.42	1280	1.60	1360	1.84	1470	2.06	1570	2.30	1640	2.54	1710	2.61	1780	2.75	1850	2.94
4120	1775	757	—	757	1045	1.22	1110	1.52	1220	1.72	1290	1.98	1380	2.18	1490	2.42	1580	2.66	1660	2.92	1740	3.02	1820	3.32	1900	4.31
4540	1960	835	—	835	1120	1.50	1230	1.80	1270	2.04	1340	2.30	1400	2.62	1520	2.80	1590	3.12	1680	3.28	1770	3.41	1860	4.73	1950	6.45

MEDIUM PRESSURE

wheel — outlet area — sq ft

C.F.M.	Outlet Velocity	Coil Velocity			3" SP		3¼" SP		3½" SP		3¾" SP		4" SP		4¼" SP		4½" SP		4¾" SP		5" SP		5¼" SP		5½" SP	
		Std.	Int. B'Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
									not available																	

wheel — outlet area — sq ft

									not available																	

HIGH PRESSURE

wheel — outlet area — sq ft

C.F.M.	Outlet Velocity	Coil Velocity			5½" SP		5¾" SP		6" SP		6½" SP		7" SP		7½" SP		8" SP		8½" SP		9" SP		9½" SP		10" SP	
		Std.	Int. B'Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
									not available																	

wheel — outlet area — sq ft

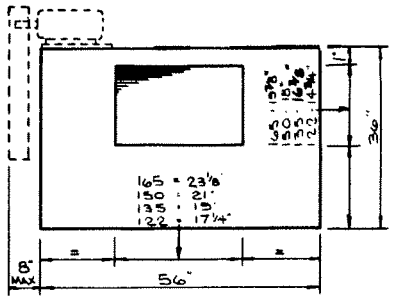
									not available																	

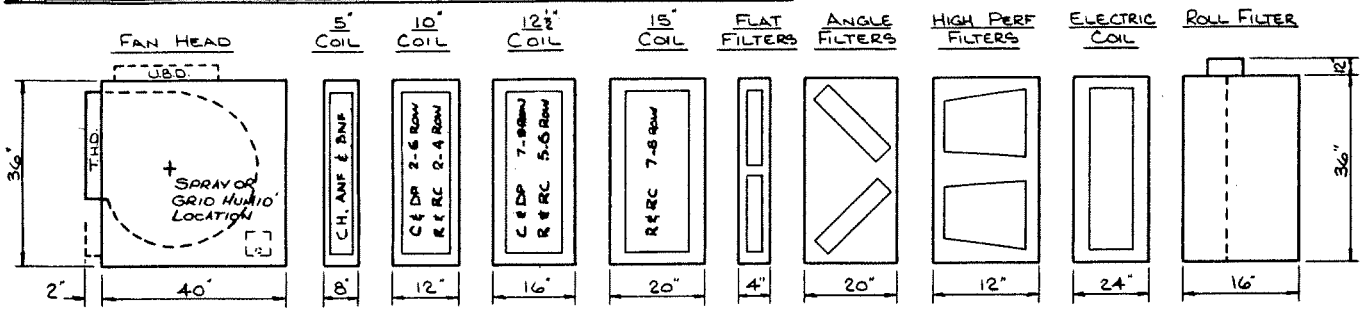
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

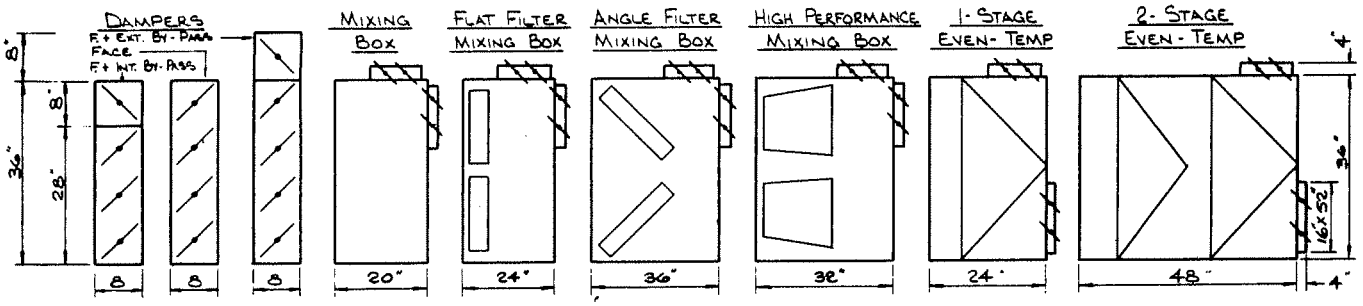
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. ft (70°F) & 29.92" Hg BAROMETER.

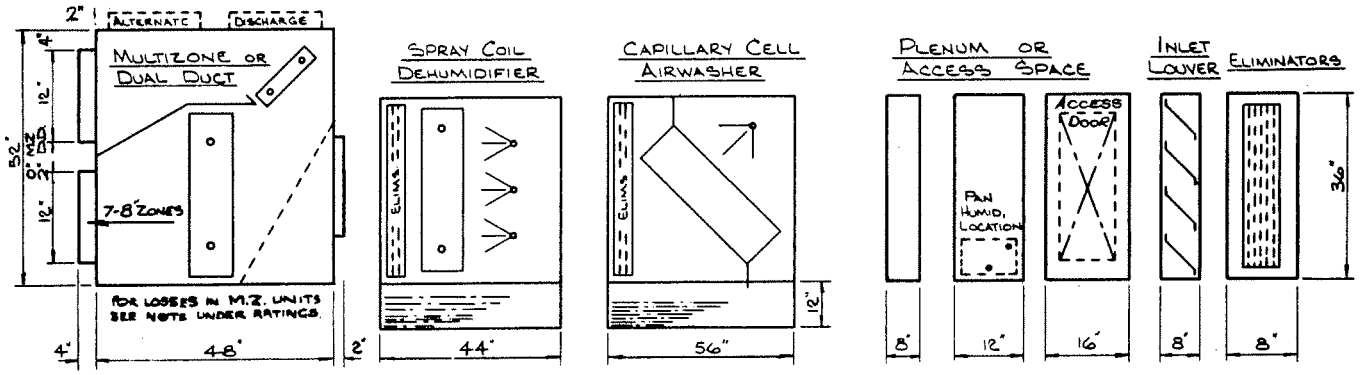
SHELDONS
MODULAR A/C UNIT
SIZE 4.1

standard coil	=9.10 sq ft	21 tf x 44″ ntl
internal by-pass htg coil	=6.50 sq ft	15 tf x 44″ ntl
multizone heating coil	=5.21 sq ft	12 tf x 44″ ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	4-25″ x 16″ x 2″	10.7 SQ FT
ANGLE FILTER	6-25″ x 16″ x 2″	16.0 SQ FT
HIGH VELOCITY	4-25″ x 16″ x 2″	10.7 SQ FT
HIGH PERFORMANCE	4-20″ x 16″ x 8″	7.9 SQ FT
ROLL FILTER	3'-0″ x 4'-6″	10.6 SQ FT

HUMIDIFIERS

CAPACITY — LBS./HR.

WATER SPRAY 50 PSI	5″ STEAM GRID		PAN			
			5″ STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
20	93	186	38	76	21	7

FACTORS FOR STEAM OTHER THAN 5″

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS — STEAM

½″	¾″	¾″	¾″	1¼″	—	—

NOTE: 12″ PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD FAN HEAD

FAN	POSITION W				POSITION X
DISCH	122	135	150	165	165
HORIZ	256T	215T	184T	145T	143T
VERT	256T	215T	184T	145T	143T

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	—	—	—	—	—	—	—
THROW-AWAY FLAT	.14″	.16″	.18″	.21″	.24″	.27″	—
THROW-AWAY ANGLE	.08″	.095″	.110″	.125″	.14″	.16″	.18″
HIGH VELOCITY FLAT	.06″	.07″	.085″	.105″	.135″	.16″	.19″
HIGH PERFORMANCE	.085″	.105″	.14″	.19″	.27″	—	—
ROLL	.06″	.075″	.105″	.125″	.155″	.19″	.22″
SPRAY COIL DEHUMID	.16″	.24″	.33″	.41″	.5″	.58″	.67″
CAPILLARY AIRWASHER	.10″	.13″	.17″	.22″	.28″	.36″	.44″
EVEN-TEMP 1-STAGE	.10″	.13″	.17″	.22″	.28″	.36″	.44″
EVEN-TEMP 2-STAGE	.17″	.22″	.29″	.36″	.50″	.63″	.76″
ELIMINATORS	.10″	.12″	.14″	.16″	.19″	.22″	.25″

NOTE: FOR COIL AIR FRICTION SEE *COIL DATA*

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI	PUMP HP
	10	15	¼		6600	24	15	½

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	523	MIXING BOX	154
5″ COIL	92	FLAT FILTER MIXING BOX	238
10″ COIL	125	ANGLE FILTER MIXING BOX	322
12½″ COIL	164	HIGH PERFORMANCE FILTER & MIXING BOX	280
15″ COIL	198	1-STAGE EVEN-TEMP	267
FLAT FILTER	64	2-STAGE EVEN-TEMP	447
ANGLE FILTER	168	MULTIZONE	587
HIGH PERF. FILTER	105	SPRAY COIL DEHUMIDIFIER	1925
ELECTRIC COIL	205	CAPILLARY CELL AIRWASHER	2199
ROLL FILTER	83	PLENUM / FT	63
FACE & INTERNAL BY-PASS DAMPER	112	ACCESS SPACE	84
FACE DAMPER	112	INLET LOUVER	120
FACE & EXTERNAL BY-PASS DAMPER	142	ELIMINATORS	388

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3″-5½″ SP.
③ ADD 25% FOR 5½″-10″ SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	C SUPPLY & RETURN	R+RC SUPPLY & RETURN	DP (DIRECT EXPANSION) 2	DP 3	DP 4.5	DP 6	DP R	ANF S	ANF R	BNF 1-ROW	BNF 2-ROW	FLEXITUBE 1-ROW	FLEXITUBE 2-ROW	CH 1	CH 2
STANDARD	2″	2½″	2-1⅛	2-1⅜	2-1⅝	2-1⅞	2⅛	2½″	1½″	2″	1½″	2½″	1½″	1½″	2″
INT. BY-PASS	2″	2″	1⅜	1⅜	1⅜	1⅜	2⅛	2	1½	1½	1½	2″	1½″	1½	2″
M.Z. HEAT	2″	2″	—	—	—	—	—	2″	1½″	1½″	1½″	2″	1½″	1½″	1½″	2″

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ).
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 4.1

LOW PRESSURE — 165 B wheel — outlet area - 3.19 sq ft

C.F.M.	Outlet Velocity	Coil Velocity			½" SP		¾" SP		1" SP		1¼" SP		1½" SP		1¾" SP		2" SP		2¼" SP		2½" SP		2¾" SP		3" SP	
		STD.	INT. B'PASS	MZ. HEAT	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
3372	1055	370	520	645	1025	.55	1122	.75	1215	.93	1300	1.11	1390	1.33	1470	1.55	1520	1.77	1630	2.01	1664	2.12	—	—	—	—
3934	1233	432	605	755	1135	.79	1225	.96	1310	1.15	1380	1.36	1460	1.6	1530	1.8	1610	2.04	1690	2.3	1734	2.58	1800	2.89	1869	3.12
4496	1410	454	692	863	1240	1.05	1330	1.25	1410	1.47	1480	1.68	1540	1.92	1610	2.16	1680	2.42	1750	2.67	1804	2.94	1866	3.23	1930	3.53
5058	1586	556	778	970	1350	1.37	1440	1.6	1510	1.84	1570	2.09	1640	2.33	1700	2.56	1760	2.83	1820	3.12	1874	3.4	1933	3.67	1991	3.94
5620	1760	618	865	1080	1450	1.73	1540	2.03	1610	2.28	1680	2.54	1740	2.8	1810	3.05	1860	3.34	1910	3.62	1958	3.91	2012	4.24	2066	4.56
6182	1938	680	950	1187	1570	2.17	1650	2.51	1720	2.78	1780	3.07	1840	3.38	1900	3.65	1950	3.94	2010	4.24	2052	4.53	2101	4.85	2145	5.17
6744	2115	740	1040	1295	1680	2.68	1760	3.04	1830	3.4	1890	3.7	1950	4.0	2000	4.32	2050	4.64	2110	4.97	2146	5.24	2195	5.57	2243	5.9

150 F wheel — outlet area = 2.63 sq ft

3680	1400	405	565	706	615	.86	690	1.07	760	1.26	822	1.48	887	1.73	950	1.99	985	2.22	1020	2.49	1087	2.69	—	—	—	—
4140	1575	455	635	795	645	1.09	727	1.34	790	1.58	848	1.78	905	2.02	967	2.3	1010	2.54	1050	2.83	1100	3.14	1163	3.20	—	—
4600	1750	505	708	883	688	1.37	758	1.64	826	1.91	881	2.18	932	2.41	985	2.68	1040	2.9	1090	3.24	1131	3.59	1181	3.73	1230	4.16
5060	1924	556	778	970	736	1.73	790	1.99	858	2.3	910	2.6	967	2.89	1015	3.14	1080	3.4	1110	3.72	1153	4.02	1195	4.36	1246	4.71
5520	2100	607	850	1060	786	2.17	833	2.41	888	2.73	950	3.07	1000	3.38	1050	3.7	1100	3.98	1140	4.25	1175	4.57	1217	4.89	1262	5.25
5980	2275	657	920	1148	837	2.66	875	2.89	920	3.2	977	3.55	1030	3.94	1080	4.28	1126	4.62	1162	4.95	1203	5.23	1242	5.53	1283	5.90
6440	2450	708	990	1236	890	3.25	925	3.5	964	3.78	1010	4.14	1064	4.44	1115	4.94	1160	5.29	1200	5.69	1237	6.02	1274	6.34	1309	6.66

MEDIUM PRESSURE — 135 B wheel — outlet area = 2.21 sq ft

C.F.M.	Outlet Velocity	Coil Velocity			3" SP		3¼" SP		3½" SP		3¾" SP		4" SP		4¼" SP		4½" SP		4¾" SP		5" SP		5¼" SP		5½" SP	
		STD.	INT. B'PASS	MZ. HEAT	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
2618	1185	288	403	503	2282	2.07	2356	2.26	2430	2.46	2498	2.66	2567	2.85	2633	3.05	2698	3.25	2761	3.47	2823	3.69	—	—	—	—
3366	1523	370	518	646	2434	2.65	2501	2.86	2568	3.06	2634	3.28	2700	3.51	2762	3.74	2824	3.96	2884	4.2	2944	4.43	3002	4.69	3060	4.94
4114	1875	456	638	796	2628	3.45	2688	3.68	2747	3.91	2806	4.15	2864	4.39	2921	4.63	2978	4.86	3034	5.11	3090	5.36	3144	5.63	3198	5.89
4862	2200	535	749	934	2858	4.45	2912	4.74	2966	4.99	3018	5.24	3069	5.49	3119	5.75	3169	6.01	3219	6.3	3268	6.58	3318	6.86	3367	7.14
5610	2540	617	864	1077	3104	5.88	3154	6.14	3204	6.40	3252	6.66	3299	6.92	3346	7.20	3393	7.48	3439	7.77	3484	8.06	3528	8.35	3571	8.64
6358	2880	699	979	1221	3356	7.45	3404	7.8	3452	8.10	3499	8.43	3545	8.75	3588	9.04	3631	9.33	3673	9.62	3715	9.9	3758	10.2	3800	10.5
7106	3215	782	1094	1364	3617	9.52	3663	9.81	3708	10.1	3751	10.5	3794	10.8	3837	11.1	3879	11.4	3921	11.8	3962	12.2	4001	12.5	4040	12.8

122 F wheel — outlet area - 1.77 sq ft

3099	1750	340	477	595	1484	2.65	1547	2.9	1602	3.1	1643	3.45	1723	3.16	—	—	—	—	—	—	—	—	—	—	—	—
3719	2100	405	573	714	1547	3.55	1600	3.80	1651	4.05	1704	4.31	1756	4.57	1806	4.83	1856	5.12	1895	4.99	1920	5.3	—	—	—	—
4339	2455	477	668	833	1610	4.53	1653	4.75	1700	5.02	1745	5.27	1789	5.53	1835	5.83	1881	6.02	1902	6.21	1942	6.45	1989	6.70	2035	7.91
4955	2800	545	764	952	1636	5.82	1736	6.09	1776	6.35	1815	6.55	1852	6.84	1891	7.10	1932	7.41	1972	7.71	2009	7.97	2050	8.31	2090	8.64
5579	3155	614	859	1071	1780	7.26	1822	7.57	1863	7.90	1902	8.23	1938	8.54	1973	8.84	2007	9.13	2042	9.39	2076	9.66	2111	9.98	2145	10.3
6354	3590	699	979	1220	1862	9.6	1911	9.9	1958	8.3	1994	8.7	2016	9.1	2055	10.0	2117	11.5	2151	12.0	2184	12.3	2215	12.7	2245	13.0
6974	3940	767	1074	1339	1950	11.3	2002	11.8	2035	12.5	2067	13.1	2091	13.3	2133	13.6	2198	13.9	2233	14.2	2267	14.6	2300	15.1	2333	15.5

HIGH PRESSURE — 135 B wheel — outlet area = 2.21 sq ft

C.F.M.	Outlet Velocity	Coil Velocity			5½" SP		5¾" SP		6" SP		6½" SP		7" SP		7½" SP		8" SP		8½" SP		9" SP		9½" SP		10" SP	
		STD.	INT. B'PASS	MZ. HEAT	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
3366	1525	370	518	646	3060	4.94	3116	5.22	3171	5.50	3278	5.96	3381	6.47	3480	7.01	3579	7.54	3673	8.10	3767	8.66	3859	9.26	3950	9.85
3927	1775	431	604	753	3170	5.71	3223	5.99	3276	6.26	3379	6.78	3480	7.33	3576	7.91	3673	8.47	3764	9.35	3856	10.2	3945	10.6	4034	10.9
4488	2030	494	691	862	3279	6.48	3330	6.75	3380	7.02	3479	7.59	3578	8.15	3672	8.80	3766	9.40	3855	10.6	3944	11.7	4031	11.9	4117	12.0
5049	2280	554	776	967	3425	7.56	3473	7.85	3519	8.13	3612	6.75	3704	9.40	3794	10.1	3883	10.7	3969	11.6	4055	12.4	4138	12.9	4221	13.3
5610	2540	617	864	1077	3571	8.64	3615	8.94	3658	9.24	3744	9.90	3829	10.6	3913	11.3	4000	11.9	4083	12.5	4165	13.1	4245	13.9	4324	14.6
6171	2790	679	950	1185	3744	9.72	3786	10.5	3827	10.8	3910	11.4	3990	12.2	4070	12.9	4149	13.5	4227	14.2	4304	14.8	4379	15.6	4454	16.4
6732	3045	741	1037	1293	3917	11.1	3957	12.0	3996	12.3	4075	12.9	4150	13.7	4224	14.4	4297	15.1	4370	15.8	4442	16.5	4513	17.3	4584	18.1

135 RB wheel — outlet area - 2.21 sq ft

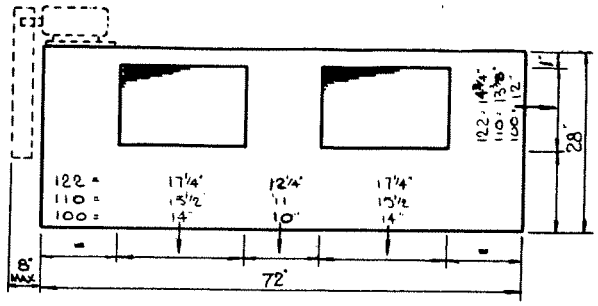
3640	1647	400	560	698	2697	5.48	2752	5.74	2806	6.00	2911	6.53	3011	7.07	3109	7.61	3203	8.16	3295	8.72	3384	9.30	3471	9.87	3556	10.46
4095	1853	450	630	765	2732	6.15	2785	6.42	2838	6.70	2941	7.26	3042	7.85	3139	8.44	3233	9.03	3324	9.63	3413	10.24	3499	10.85	3582	11.46
4550	2059	500	700	873	2772	6.88	2825	7.18	2877	7.48	2976	8.08	3076	8.69	3170	9.30	3263	9.93	3354	10.58	3443	11.23	3529	11.89	3613	12.55
5005	2265	550	770	960	2816	7.69	2867	7.99	2917	8.31	3018	8.96	3115	9.61	3209	10.27	3300	10.94	3389	11.60	3474	12.28	3559	12.97	3643	13.68
5460	2471	600	840	1047	2865	8.57	2916	8.91	2966	9.24	3066	9.92	3157	10.59	3249	11.29	3340	12.00	3428	12.72	3514	13.44	3597	14.17	3678	14.89
5915	2676	650	910	1134	2910	9.53	2965	9.87	3015	10.24	3112	10.96	3205	11.69	3296	12.42	3383	13.15	3468	13.89	3554	14.66	3637	15.44	3718	16.21
6370	2882	700	980	1222	2974	10.60	3022	10.97	3070	11.34	3163	12.08	3254	12.85	3345	13.63	3432	14.42	3516	15.20	3599	15.99	3679	16.76	3758	17.58

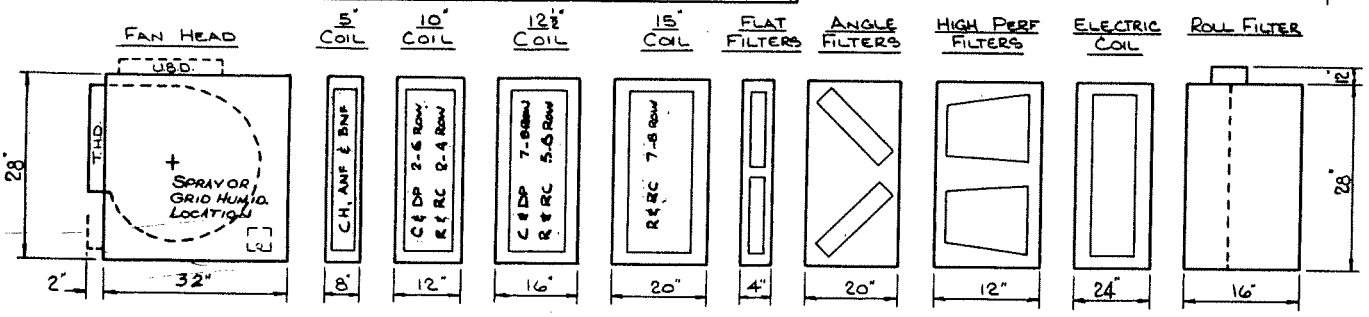
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

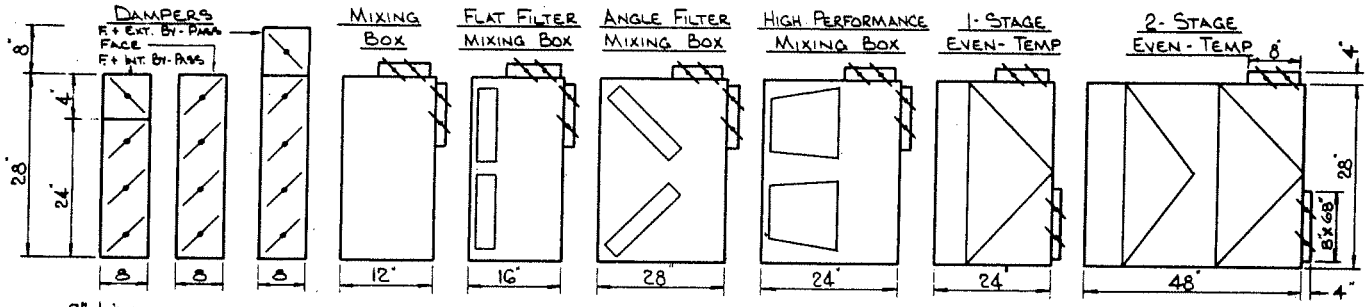
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

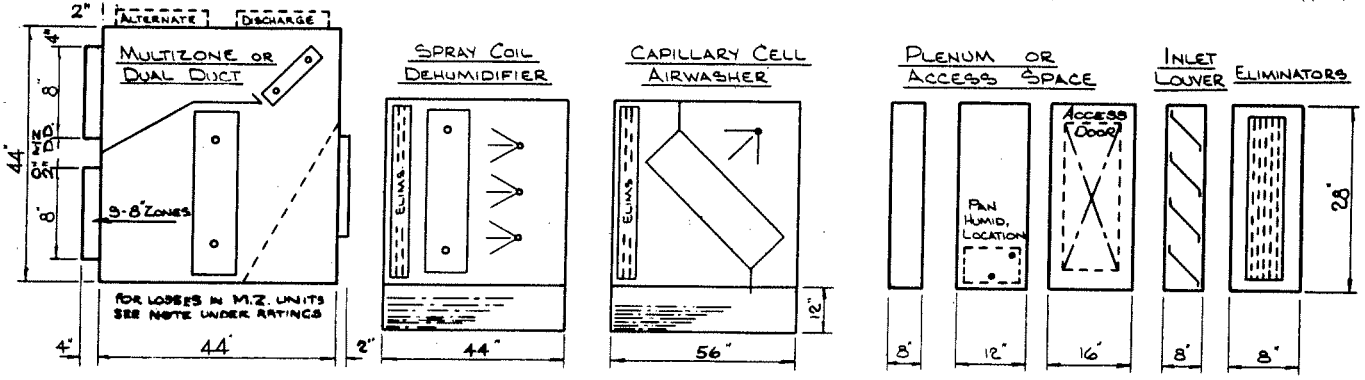
SHELDONS
MODULAR A/C UNIT
SIZE 4.2

standard coil	=8.56sq ft	15 tf x 60″ ntl
internal by-pass htg coil	=6.84sq ft	12 tf x 60″ ntl
multizone heating coil	=6.84sq ft	12 tf x 60″ ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	2 - 25"x16"x2" 2 - 25"x20"x2"	12 SQ FT
ANGLE FILTER	2 - 20"x20"x2" 4 - 20"x25"x2"	18.6 SQ FT
HIGH VELOCITY	2 - 20"x12"x2" 2 - 25"x20"x2"	12.0 SQ FT
HIGH PERFORMANCE	3 - 24"x24"x8"	9.95 SQ FT
ROLL FILTER	2'0" x 6'0"	8.7 SQ FT

HUMIDIFIERS

CAPACITY — LBS./HR.

WATER SPRAY 50 PSI	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
30	120	240	48	96	30	10

FACTORS FOR STEAM OTHER THAN 5"

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS — STEAM

½"	¾"	¾"	1"	1½"	-	-

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD FAN HEAD

FAN	POSITION W				POSITION X
DISCH	100	110	122	-	-
HORIZ.	145T	-	-	-	-
VERT.	145T	-	-	-	-

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	-	-	-	-	-	-	-
THROW-AWAY FLAT	.08	.11	.14	.17	.20	.23	.25
THROW-AWAY ANGLE	-	-	.08	.095	.11	.125	.14
HIGH VELOCITY FLAT	-	.06	.07	.08	.09	.10	.12
HIGH PERFORMANCE	.03	.04	.06	.08	.11	.145	.19
ROLL	.06	.075	.105	.125	.155	.19	.22
SPRAY COIL DEHUMID	.16	.24	.33	.41	.50	.58	.67
CAPILLARY AIRWASHER	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 1-STAGE	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 2-STAGE	.17	.22	.29	.38	.50	.63	.76
ELIMINATORS	.10	.12	.14	.16	.19	.22	.25

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI	PUMP HP
	9.5	15	¼		4400	24	15	½

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	533	MIXING BOX	158
5" COIL	110	FLAT FILTER MIXING BOX	224
10" COIL	153	ANGLE FILTER MIXING BOX	317
12½" COIL	198	HIGH PERFORMANCE FILTER & MIXING BOX	271
15" COIL	242	1-STAGE EVEN-TEMP	282
FLAT FILTER	67	2-STAGE EVEN-TEMP	476
ANGLE FILTER	182	MULTIZONE	624
HIGH PERF. FILTER	113	SPRAY COIL DEHUMIDIFIER	2318
ELECTRIC COIL	245	CAPILLARY CELL AIRWASHER	2832
ROLL FILTER	93	PLENUM / FT	72
FACE & INTERNAL BY-PASS DAMPER	129	ACCESS SPACE	96
FACE DAMPER	117	INLET LOUVER	124
FACE & EXTERNAL BY-PASS DAMPER	164	ELIMINATORS	419

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" S.P.
③ ADD 25% FOR 5½"-10" S.P.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	"C" SUPPLY & RETURN	R&RC SUPPLY & RETURN	"DP" (DIRECT EXPANSION) 2	3	4.5	6	R	"ANF" S	R	"BNF" 1-ROW	2-ROW	FLEXITUBE 1-ROW	2-ROW	"CH" 1	2
STANDARD	2	2	1⅜	1⅜	1⅜	1⅜	2⅛	2	1½	1½	2	1½	1¼	2	1½	1½	2
INT. BY-PASS	2	2	⅞	1⅜	1⅜	1⅜	2⅛	2	1½	1½	2	1½	1	2	1½	1½	2
M.Z. HEAT	2	2	-	-	-	-	-	2	1½	1½	2	1½	1	2	1½	1½	2

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 4.2

LOW PRESSURE

2 - 122 B wheel — **outlet area = 3.54 sq ft**

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. & Rear	M.Z. Heat	½" SP RPM	½" SP HP	¾" SP RPM	¾" SP HP	1" SP RPM	1" SP HP	1¼" SP RPM	1¼" SP HP	1½" SP RPM	1½" SP HP	1¾" SP RPM	1¾" SP HP	2" SP RPM	2" SP HP	2¼" SP RPM	2¼" SP HP	2½" SP RPM	2½" SP HP	2¾" SP RPM	2¾" SP HP	3" SP RPM	3" SP HP
3100	876	362	454	454	1250	0.48	1390	0.64	1535	0.82	1665	1.02	1790	1.24	1900	1.44	1990	1.68	2100	1.93	2189	2.10	2291	2.38	2375	2.67
3720	1050	435	545	545	1380	0.64	1515	0.82	1635	1.02	1750	1.24	1870	1.46	1980	1.70	2100	1.96	2190	2.22	2268	2.48	2357	2.76	2446	3.05
4340	1225	507	635	635	1520	0.88	1645	1.08	1755	1.28	1855	1.50	1960	1.76	2060	2.00	2140	2.26	2275	2.54	2343	2.84	2429	3.14	2515	3.43
4960	1400	580	725	725	1670	1.16	1790	1.38	1890	1.60	1985	1.84	2080	2.10	2165	2.38	2250	2.68	2350	2.92	2428	3.24	2510	3.56	2593	3.88
5580	1575	653	816	816	1815	1.50	1930	1.76	2030	2.02	2120	2.30	2200	2.54	2290	2.82	2370	3.12	2450	3.44	2526	3.75	2604	4.08	2682	4.41
6200	1750	725	907	907	1960	1.92	2070	2.24	2165	2.50	2250	2.80	2340	3.10	2420	3.38	2500	3.66	2570	4.00	2640	4.30	2711	4.66	2783	5.02
6820	1925	797	997	997	2110	2.40	2220	2.76	2310	3.08	2400	3.38	2480	3.72	2560	4.02	2610	4.34	2700	4.66	2764	5.79	2830	6.16	2897	6.53

2 - 110 F wheel — **outlet area = 2.96 sq ft**

3480	1175	407	509	509	755	0.70	880	0.83	1000	1.14	1140	1.32	1800	1.57	1300	1.82	1350	2.08	—	—	—	—	—	—	—	—
4000	1350	467	585	585	815	0.91	910	1.16	1010	1.38	1150	1.60	1220	1.88	1310	2.12	1390	2.40	1440	2.70	—	—	—	—	—	—
4520	1525	528	661	661	865	1.18	955	1.44	1040	1.70	1190	1.89	1240	2.22	1320	2.52	1420	2.76	1500	3.08	1580	3.41	—	—	—	—
5000	1690	585	732	732	925	1.43	985	1.82	1080	2.02	1220	2.24	1260	2.60	1330	2.94	1440	3.18	1510	3.52	1590	3.89	1620	4.31	1660	4.75
5540	1870	648	810	810	1000	1.75	1060	2.18	1140	2.42	1250	2.64	1300	3.08	1340	3.48	1460	3.72	1520	4.06	1600	4.41	1670	4.75	1720	5.01
6000	2025	702	877	877	1060	2.06	1140	2.52	1180	2.92	1310	3.04	1330	3.50	1410	3.90	1470	4.30	1530	4.64	1610	4.95	1690	5.40	1760	5.73
6500	2195	760	950	950	1140	2.44	1200	2.78	1240	3.42	1330	3.70	1380	4.14	1440	4.48	1480	5.00	1580	5.22	1660	5.64	1740	6.10	1820	6.51

MEDIUM PRESSURE

2 - 100 B wheel — **outlet area = 2.32 sq ft**

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. & Rear	M.Z. Heat	3" SP RPM	3" SP HP	3¼" SP RPM	3¼" SP HP	3½" SP RPM	3½" SP HP	3¾" SP RPM	3¾" SP HP	4" SP RPM	4" SP HP	4¼" SP RPM	4¼" SP HP	4½" SP RPM	4½" SP HP	4¾" SP RPM	4¾" SP HP	5" SP RPM	5" SP HP	5¼" SP RPM	5¼" SP HP	5½" SP RPM	5½" SP HP
3528	1521	407	515	515	3308	3.00	3423	3.12	3495	3.42	3585	3.61	3669	3.80	3754	4.16	3849	4.45	3922	4.72	4003	5.03	4081	5.31	4156	5.60
4032	1738	465	589	589	3481	3.63	3571	3.88	3658	4.14	3743	4.39	3825	4.65	3907	4.92	3988	5.21	4067	5.49	4144	5.79	4219	6.08	4293	6.38
4536	1955	523	662	662	3654	4.25	3739	4.54	3821	4.82	3901	5.11	3981	5.40	4060	5.68	4137	5.97	4212	6.26	4285	6.55	4357	6.85	4430	7.17
5040	2172	582	736	736	3838	5.00	3917	5.28	3996	5.58	4074	5.89	4150	6.21	4225	6.52	4297	6.84	4369	7.16	4441	7.48	4512	7.79	4582	8.11
5544	2390	640	809	809	4031	5.88	4108	6.18	4183	6.49	4256	6.80	4328	7.11	4400	7.45	4471	7.79	4541	8.13	4609	8.48	4676	8.83	4741	9.18
6048	2607	698	883	883	4236	6.86	4306	7.20	4377	7.54	4448	7.87	4518	8.21	4586	8.54	4653	8.88	4719	9.22	4784	9.58	4850	9.95	4915	10.3
6552	2824	756	957	957	4447	8.02	4516	8.37	4583	8.72	4649	9.07	4713	9.43	4779	9.79	4845	10.2	4909	10.5	4972	10.9	5033	11.3	5094	11.6

2 - 100 F wheel — **outlet area = 2.32 sq ft**

4120	1775	475	601	601	1867	3.80	1941	4.10	2015	4.40	2060	4.70	2105	5.00	2175	5.60	—	—	—	—	—	—	—	—	—	—
4540	1955	524	663	663	1885	4.20	1955	4.50	2025	4.80	2078	5.10	2130	5.40	2223	5.80	2315	6.20	2360	6.60	—	—	—	—	—	—
4940	2130	570	721	721	1910	4.80	1974	5.10	2038	5.40	2092	5.70	2145	6.00	2236	6.30	2327	6.60	2369	6.70	2410	6.80	2453	7.50	2495	8.20
5340	2290	625	780	780	1922	5.40	1992	5.70	2062	6.00	2110	6.30	2157	6.60	2249	6.90	2340	7.20	2380	7.10	2420	7.40	2466	8.10	2512	8.80
5760	2460	665	841	841	1965	6.00	2025	6.30	2085	6.60	2128	6.90	2170	7.20	2263	7.60	2355	8.00	2398	8.40	2440	8.80	2483	9.20	2525	9.60
6180	2630	713	902	902	1992	6.80	2054	7.00	2115	7.20	2169	7.70	2222	8.20	2305	8.50	2387	8.80	2426	9.20	2465	9.60	2513	10.0	2560	10.4
6600	2850	762	964	964	2019	7.60	2082	7.70	2145	7.80	2210	8.50	2274	9.20	2347	9.40	2419	9.60	2455	10.0	2490	10.4	2543	10.8	2595	11.2

HIGH PRESSURE

wheel — **outlet area** — **sq ft**

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. & Rear	M.Z. Heat	5½" SP RPM	5½" SP HP	5¾" SP RPM	5¾" SP HP	6" SP RPM	6" SP HP	6½" SP RPM	6½" SP HP	7" SP RPM	7" SP HP	7½" SP RPM	7½" SP HP	8" SP RPM	8" SP HP	8½" SP RPM	8½" SP HP	9" SP RPM	9" SP HP	9½" SP RPM	9½" SP HP	10" SP RPM	10" SP HP
									not		available															

wheel — **outlet area** — **sq ft**

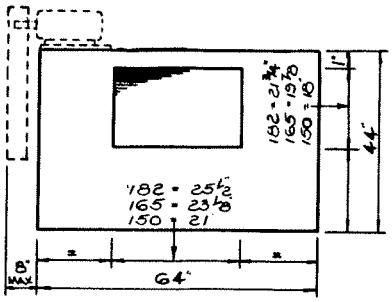
									not		available															

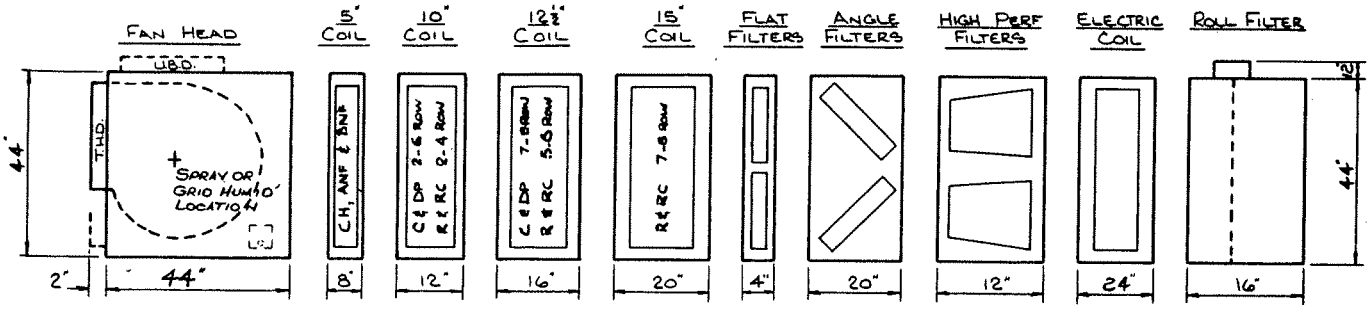
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

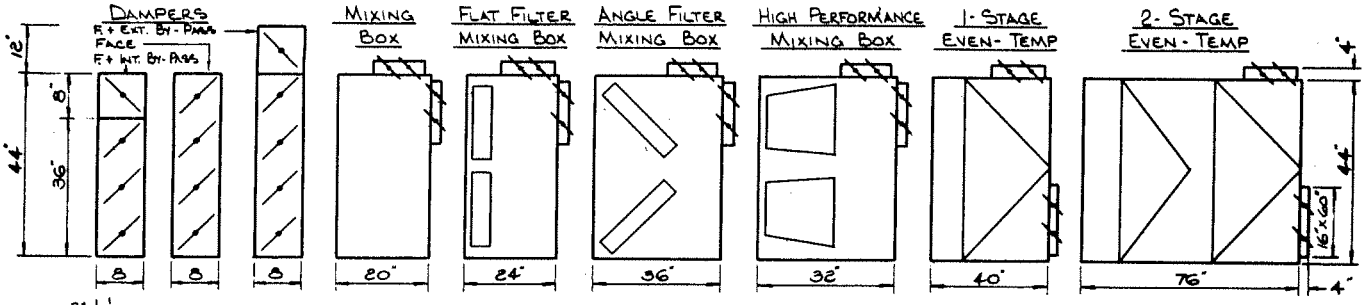
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

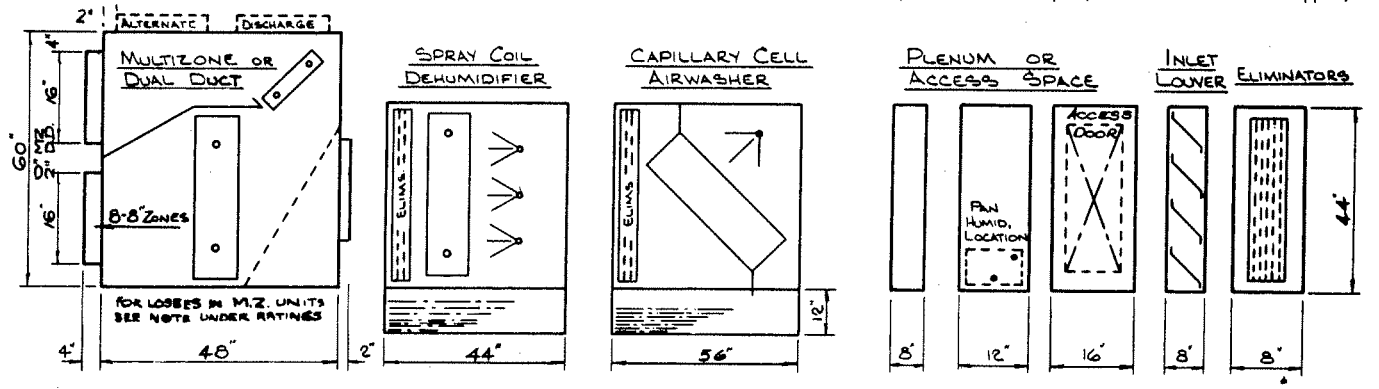
SHELDONS
MODULAR A/C UNIT
SIZE 5.1

standard coil	=11.62 sq ft	24 tf x	52" ntl
internal by-pass htg coil	=9.93 sq ft	21 tf x	52" ntl
multizone heating coil	= 5.9 sq ft	12 tf x	52" ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	6-20"x20"x2"	16 SQ FT
ANGLE FILTER	9-20"x20"x2"	24 SQ FT
HIGH VELOCITY	6-20"x20"x2"	16 SQ FT
HIGH PERFORMANCE	6-20"x20"x6"	13.85 SQ FT
ROLL FILTER	3'-6"x5'-0"	14.28 SQ FT

HUMIDIFIERS

CAPACITY — LBS./HR.

WATER SPRAY 50 PSI	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD	HIGH	1 COIL	2 COIL	1 ELEMT	KW
30	106	213	43	86	24	8

FACTORS FOR STEAM OTHER THAN 5"

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS — STEAM

½"	½"	¾"	1"	1½"	—	—

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	150	165	182	200	200
HORIZ.	326T	286T	215T	184T	145T
VERT.	326T	286T	215T	215T	145T

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	—	—	—	—	—	—	—
THROW-AWAY FLAT	.12"	.14"	.16"	.18"	.20"	.22"	.245"
THROW-AWAY ANGLE	—	.08"	.095"	.11"	.125"	.14"	.155"
HIGH VELOCITY FLAT	—	.06"	.07"	.085"	.10"	.12"	.14"
HIGH PERFORMANCE	.03"	.04"	.06"	.08"	.11"	.145"	.19"
ROLL	.06"	.075"	.105"	.125"	.155"	.19"	.22"
SPRAY COIL DEHUMID	.16"	.24"	.33"	.41"	.50"	.58"	.67"
CAPILLARY AIRWASHER	.10"	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 1-STAGE	.10"	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 2-STAGE	.17"	.22"	.29"	.38"	.50"	.63"	.76"
ELIMINATORS	.10"	.12"	.14"	.16"	.19"	.22"	.25"

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI	PUMP HP
	13	15	¼		6600	24	15	½

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	752	MIXING BOX	259
5" COIL	106	FLAT FILTER MIXING BOX	331
10" COIL	147	ANGLE FILTER MIXING BOX	428
12½" COIL	187	HIGH PERFORMANCE FILTER & MIXING BOX	390
15" COIL	232	1-STAGE EVEN-TEMP	440
FLAT FILTER	73	2-STAGE EVEN-TEMP	719
ANGLE FILTER	194	MULTIZONE	717
HIGH PERF FILTER	121	SPRAY COIL DEHUMIDIFIER	2316
ELECTRIC COIL	236	CAPILLARY CELL AIRWASHER	2746
ROLL FILTER	98	PLENUM/FT.	75
FACE & INTERNAL BY-PASS DAMPER	162	ACCESS SPACE	100
FACE DAMPER	147	INLET LOUVER	166
FACE & EXTERNAL BY-PASS DAMPER	206	ELIMINATORS	521

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP.
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	"C" SUPPLY & RETURN	R+RC SUPPLY & RETURN	"DP" (DIRECT EXPANSION) 2	3	4.5	6	"ANF" R	S	R	"BNF" 1-ROW	2-ROW	FLEXITUBE 1-ROW	2-ROW	"CH" 1	2
STANDARD	2"	2½"	⅛"	1⅜"	1⅜"	1⅜"	2⅛"	2½"	1½"	2"	1½"	2½"	1½"	2"	1¼"	2½"	1½"	1½"	2"
INT. BY-PASS	2"	2½"	1⅜"	1⅜"	1⅜"	1⅜"	2⅛"	2½"	1½"	2"	1½"	2½"	1½"	2"	1¼"	2½"	1½"	1½"	2"
M.Z. HEAT	2"	2"	—	—	—	—	—	2"	1½"	1½"	1½"	2"	1½"	1½"	1"	2"	1½"	1½"	2"

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 5.1

LOW PRESSURE — 182 B wheel — outlet area - 3.85 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'pass	M.Z. Heat	½" SP RPM	½" SP HP	¾" SP RPM	¾" SP HP	1" SP RPM	1" SP HP	1¼" SP RPM	1¼" SP HP	1½" SP RPM	1½" SP HP	1¾" SP RPM	1¾" SP HP	2" SP RPM	2" SP HP	2¼" SP RPM	2¼" SP HP	2½" SP RPM	2½" SP HP	2¾" SP RPM	2¾" SP HP	3" SP RPM	3" SP HP
4788	1245	412	483	815	527	.84	1010	1.08	1080	1.30	1150	1.53	1220	1.78	1275	2.03	1340	2.35	1390	2.65	1430	2.95	1470	3.25	1510	3.55
5472	1420	470	552	930	1010	1.07	1090	1.37	1160	1.65	1225	1.87	1285	2.15	1340	2.43	1400	2.72	1450	2.95	1495	3.25	1543	3.55	1592	3.86
6156	1600	529	622	1050	1085	1.37	1170	1.70	1240	2.02	1310	2.32	1360	2.6	1420	2.87	1465	3.19	1520	3.5	1565	3.81	1609	4.12	1654	4.44
6840	1780	588	692	1162	1170	1.73	1250	2.07	1320	2.43	1385	2.78	1440	3.12	1490	3.44	1540	3.73	1585	4.07	1633	4.39	1678	4.75	1724	5.11
7524	1950	647	760	1280	1260	2.17	1330	2.57	1390	2.9	1460	3.29	1520	3.68	1570	4.07	1620	4.42	1660	4.76	1703	5.04	1747	5.42	1792	5.81
8208	2130	706	830	1395	1360	2.68	1410	3.04	1475	3.43	1540	3.86	1580	4.29	1650	4.72	1700	5.14	1750	5.55	1787	5.90	1824	6.24	1861	6.58
8892	2340	765	898	1515	1450	3.26	1500	3.65	1560	4.06	1610	4.5	1670	4.98	1720	5.42	1770	5.9	1820	6.35	1866	6.79	1906	7.20	1946	7.61

182 F wheel — outlet area = 3.85 sq ft

4788	1245	412	483	815	426	.83	496	1.08	562	1.35	623	1.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5472	1420	470	552	930	454	1.09	510	1.34	572	1.63	630	1.95	685	2.28	738	2.63	—	—	—	—	—	—	—	—	—	—
6156	1600	529	622	1050	475	1.35	532	1.67	583	1.97	640	2.30	690	2.65	742	3.03	778	3.46	—	—	—	—	—	—	—	—
6840	1780	588	692	1162	490	1.64	560	2.09	604	2.38	654	2.72	701	3.09	750	3.48	780	4.02	810	4.45	877	5.53	921	508	—	—
7524	1950	647	760	1280	520	2.06	582	2.48	632	2.90	672	323	715	360	762	4.00	805	4.42	847	4.87	886	5.29	927	5.74	965	6.20
8208	2130	706	830	1395	556	2.60	595	2.90	656	3.45	698	383	735	4.21	775	4.62	816	5.05	856	550	895	5.95	932	6.40	971	6.92
8892	2340	765	898	1515	595	3.24	620	3.44	674	3.96	725	4.53	760	4.90	792	5.31	830	5.78	869	620	905	668	942	7.16	978	7.69

MEDIUM PRESSURE — 165 B wheel — outlet area = 3.19 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'pass	M.Z. Heat	3" SP RPM	3" SP HP	3¼" SP RPM	3¼" SP HP	3½" SP RPM	3½" SP HP	3¾" SP RPM	3¾" SP HP	4" SP RPM	4" SP HP	4¼" SP RPM	4¼" SP HP	4½" SP RPM	4½" SP HP	4¾" SP RPM	4¾" SP HP	5" SP RPM	5" SP HP	5¼" SP RPM	5¼" SP HP	5½" SP RPM	5½" SP HP
3934	1235	339	397	668	1868	3.10	1928	340	1988	370	2045	3.99	2101	4.29	2154	4.59	2207	4.90	2259	5.22	2310	5.53	2340	5.18	—	—
4777	1495	410	482	810	1956	3.74	2013	4.05	2070	4.36	2125	4.68	2180	5.00	2231	5.34	2283	5.67	2333	6.03	2383	6.38	2410	6.45	2459	6.90
5620	1760	483	567	957	2066	4.56	2119	4.88	2171	5.20	2222	5.53	2272	587	2320	6.23	2369	6.58	2417	6.96	2465	7.33	2512	7.72	2558	8.10
6463	2120	555	652	1095	2208	5.66	2251	6.00	2299	6.35	2346	6.70	2392	7.06	2436	7.44	2481	7.81	2526	8.21	2569	8.66	2614	9.01	2657	9.40
7306	2290	628	740	1245	2338	6.76	2382	7.13	2426	7.49	2469	7.87	2511	8.25	2552	8.64	2593	9.03	2634	9.46	2674	9.89	2715	10.30	2755	10.70
8149	2550	702	823	1385	2490	8.36	2532	8.77	2574	9.20	2615	9.59	2655	9.98	2694	10.30	2732	10.80	2771	11.20	2809	11.70	2847	12.10	2885	12.50
8992	2720	767	908	1545	2642	9.96	2682	10.40	2722	10.90	2760	11.30	2798	11.70	2835	12.10	2871	12.50	2908	13.00	2944	13.50	2979	13.90	3014	14.30

150 F wheel — outlet area = 2.63 sq ft

4593	1745	395	464	783	1225	3.99	1274	443	1323	665	1370	509	1418	5.50	—	—	—	—	—	—	—	—	—	—	—	—
5289	2010	455	533	900	1254	4.97	1296	533	1343	570	1387	607	1430	645	1473	684	1497	7.20	—	—	—	—	—	—	—	—
5979	2270	513	603	1015	1283	590	1322	623	1363	665	1404	705	1442	744	1483	787	1513	8.30	1528	8.80	1663	9.30	—	—	—	—
6669	2550	576	677	1140	1327	7.10	1361	743	1397	782	1434	822	1469	8.60	1505	9.02	1531	9.10	1567	9.50	1600	9.90	1635	10.4	1671	10.9
7359	2790	633	743	1255	1380	8.56	1412	8.96	1444	9.34	1476	9.70	1506	10.0	1540	10.5	1574	10.9	1605	11.3	1637	11.7	1670	12.2	1703	12.7
8049	3050	692	813	1370	1430	10.10	1465	10.60	1498	11.00	1528	11.40	1557	11.90	1587	12.30	1617	12.60	1644	13.0	1674	13.5	1705	14.0	1735	14.5
8739	3320	752	883	1485	1479	11.80	1515	12.30	1548	12.80	1581	13.30	1612	1380	1640	14.30	1668	14.80	1695	15.3	1723	15.7	1749	16.1	1775	16.5

HIGH PRESSURE — 150 B wheel — outlet area = 2.63 sq ft

CFM	Outlet Velocity	Coil Velocity Std.	Int. B'pass	M.Z. Heat	5½" SP RPM	5½" SP HP	5¾" SP RPM	5¾" SP HP	6" SP RPM	6" SP HP	6½" SP RPM	6½" SP HP	7" SP RPM	7" SP HP	7½" SP RPM	7½" SP HP	8" SP RPM	8" SP HP	8½" SP RPM	8½" SP HP	9" SP RPM	9" SP HP	9½" SP RPM	9½" SP HP	10" SP RPM	10" SP HP
4600	1745	395	465	783	2813	6.63	2862	6.95	2911	7.26	3006	7.92	3098	8.62	3186	9.31	3273	10.0	3356	10.7	3439	11.4	3519	12.2	3599	12.9
5290	2010	456	535	900	2922	771	2968	8.04	3015	8.37	3106	9.06	3193	9.76	3279	10.5	3363	11.3	3445	12.0	3526	12.8	3604	13.6	3682	14.3
5980	2270	515	604	1015	3030	879	3074	9.14	3118	948	3205	10.2	3288	10.9	3371	11.7	3453	12.5	3533	13.3	3612	14.1	3688	14.9	3764	15.7
6670	2550	573	673	1130	3173	10.3	3214	10.7	3254	11.0	3335	11.8	3413	12.5	3490	13.4	3567	14.2	3644	15.0	3719	15.8	3792	16.7	3865	12.5
7360	2790	632	743	1255	3316	11.8	3353	12.2	3390	12.5	3464	13.3	3537	14.1	3609	15.0	3681	15.8	3754	16.7	3826	17.5	3896	18.4	3966	19.3
8050	3320	692	813	1370	3476	13.8	3512	14.2	3548	14.6	3618	15.4	3688	15.7	3757	17.1	3825	18.0	3892	18.9	3960	19.7	4026	20.7	4092	21.6
8740	3320	752	883	1485	3636	15.8	3671	16.2	3705	16.6	3772	17.4	3839	18.3	3904	19.2	3969	20.1	4030	21.0	4093	21.9	4155	22.9	4217	23.9

150 RB wheel — outlet area = 2.63 sq ft

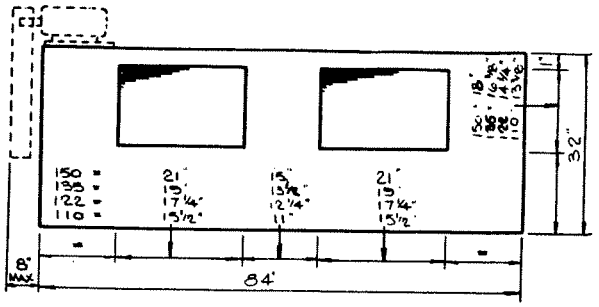
4648	1767	400	468	787	2435	6.98	2484	7.31	2533	7.64	2627	8.31	2718	8.99	2805	9.67	2890	10.4	2972	11.1	3052	11.8	3131	12.5	3207	13.2
5229	1988	450	526	886	2470	787	2518	8.21	2566	8.56	2656	9.26	2746	9.99	2833	10.7	2918	11.5	3000	12.2	3080	13.0	3157	13.8	3233	14.6
5810	2209	500	585	984	2507	882	2555	9.20	2602	9.58	2693	10.3	2780	11.1	2865	11.9	2947	12.7	3028	13.5	3108	14.3	3185	15.1	3261	16.0
6391	2430	550	643	1082	2551	9.89	2597	10.3	2642	10.7	2730	11.5	2817	12.3	2902	13.2	2984	14.0	3063	14.8	3140	15.7	3215	16.5	3289	17.4
6972	2651	600	702	1181	2596	11.0	2642	11.5	2687	11.9	2775	12.8	2859	13.6	2940	14.5	3021	15.4	3100	16.3	3177	17.2	3252	18.1	3325	19.1
7553	2872	650	760	1279	2648	12.3	2693	12.8	2735	13.2	2820	14.1	2904	15.1	2986	16.0	3064	16.9	3141	17.9	3215	18.8	3289	19.8	3362	20.8
8134	3093	700	819	1378	2702	13.7	2745	14.2	2788	14.7	2871	15.6	2951	16.6	3031	17.6	3110	18.6	3186	19.6	3260	20.6	3332	21.6	3402	22.6

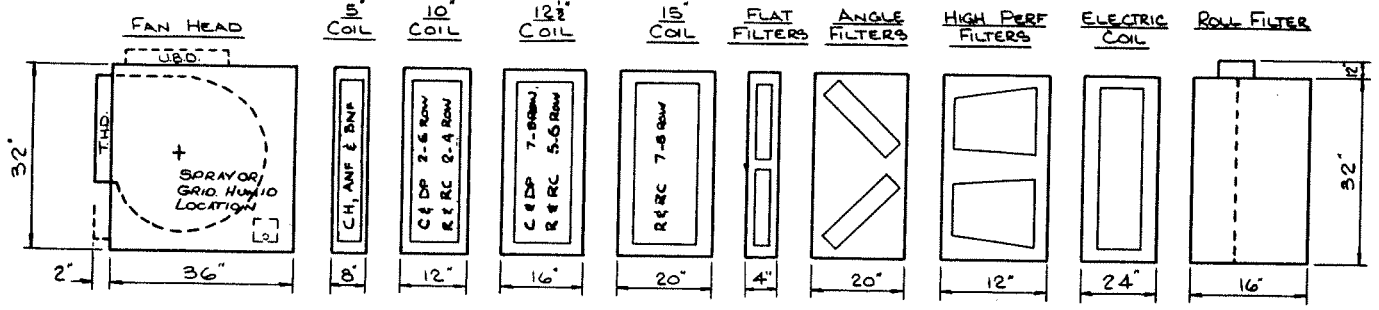
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

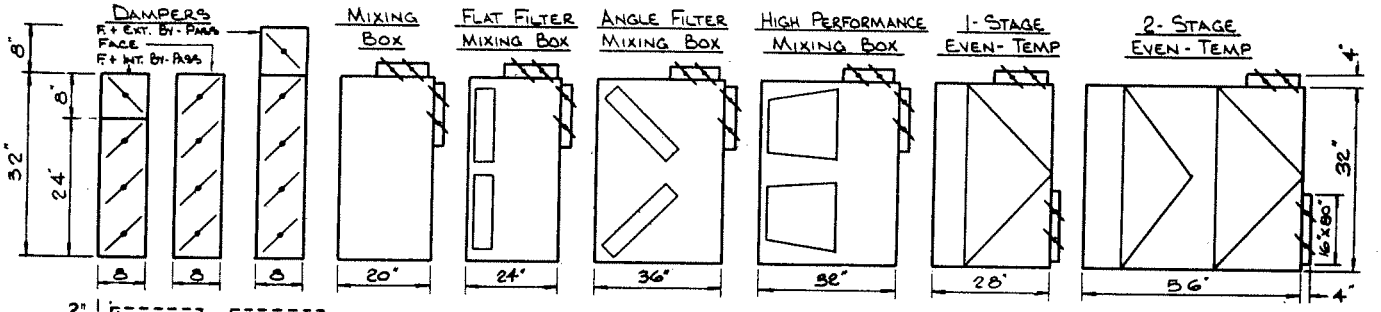
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

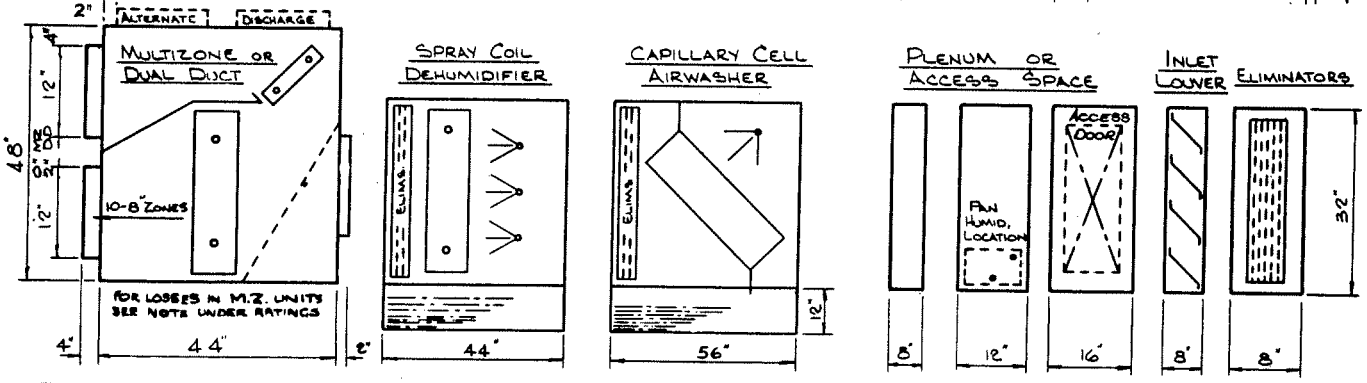
SHELDONS
MODULAR A/C UNIT
SIZE 5.2

standard coil	=12.38 sq ft	18 tf x	72" ntl
internal by-pass htg coil	=8.24 sq ft	12 tf x	72" ntl
multizone heating coil	=8.24 sq ft	12 tf x	72" ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	4-25 x 16 x 2 1-28 x 20 x 2	14
ANGLE FILTER	8-20 x 20 x 2	31.3
HIGH VELOCITY	4-28 x 16 x 2 1-25 x 20 x 2	14
HIGH PERFORMANCE	4-25 x 20 x 8	11.5
ROLL FILTER	2'-6" x 7'-0"	13.5

HUMIDIFIERS

CAPACITY — LBS./HR.

WATER SPRAY 50 PSI	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	ELEMT	KW
40	140	280	56	112	36	12

FACTORS FOR STEAM OTHER THAN 5#

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS — STEAM

½"	¾"	¾"	1"	1½"	—	—

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	110	122	135	150	150
HORIZ.	215T	184T	145T	—	—
VERT.	215T	184T	145T	—	—

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	—	—	—	—	—	—	—
THROW-AWAY FLAT	.14	.17	.20	.23	.26	—	—
THROW-AWAY ANGLE	.08	.095	.11	.13	.15	.17	.19
HIGH VELOCITY FLAT	.07	.085	.10	.12	.14	.16	.19
HIGH PERFORMANCE	.05	.08	.12	.17	.23	.28	—
ROLL	.07	.10	.13	.16	.19	.22	.28
SPRAY COIL DEHUMID.	.16	.24	.33	.41	.50	.58	.67
CAPILLARY AIRWASHER	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 1-STAGE	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 2-STAGE	.17	.22	.29	.38	.50	.63	.76
ELIMINATORS	.10	.12	.14	.16	.19	.22	.25

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI.	PUMP HP
	13.5	15	¼		5800	32	15	½

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	784	MIXING BOX	241
5" COIL	127	FLAT FILTER MIXING BOX	317
10" COIL	175	ANGLE FILTER MIXING BOX	420
12½" COIL	229	HIGH PERFORMANCE FILTER & MIXING BOX	319
15" COIL	275	1-STAGE EVEN-TEMP	382
FLAT FILTER	76	2-STAGE EVEN-TEMP	626
ANGLE FILTER	205	MULTIZONE	757
HIGH PERF. FILTER	128	SPRAY COIL DEHUMIDIFIER	2740
ELECTRIC COIL	281	CAPILLARY CELL AIRWASHER	5147
ROLL FILTER	104	PLENUM /FT.	78
FACE & INTERNAL BY-PASS DAMPER	160	ACCESS SPACE	104
FACE DAMPER	146	INLET LOUVER	147
FACE & EXTERNAL BY-PASS DAMPER	220	ELIMINATORS	537

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP.
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	"C" SUPPLY & RETURN	R+RC SUPPLY & RETURN	DP (DIRECT EXPANSION)				ANF		BNF				FLEXITUBE				CH	
			2	3	4.5	6	R	S	R	1-ROW		2-ROW		1-ROW		2-ROW		
STANDARD	2"	2"	1⅝"	1⅝"	1⅝"	1⅝"	2⅛"	2"	1½"	2	1⅛"	2"	1⅛"	2"	1¼"	2"	1½"	1½"	2"
INT. BY-PASS	2"	2"	1⅜"	1⅜"	1⅜"	1⅜"	2⅛"	2"	1½"	1½"	1½"	2"	1½"	1½	1"	2"	1½"	1½"	2"
M.Z. HEAT	2"	2"	—	—	—	—	—	2"	1⅛"	1½"	1⅛"	2"	1½"	1½	1"	2"	1½"	1½"	2"

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 5.2

LOW PRESSURE

2 - 150 B wheel — outlet area = 5.26 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'Pass	M.Z. Heat	½" SP RPM	½" SP HP	¾" SP RPM	¾" SP HP	1" SP RPM	1" SP HP	1¼" SP RPM	1¼" SP HP	1½" SP RPM	1½" SP HP	1¾" SP RPM	1¾" SP HP	2" SP RPM	2" SP HP	2¼" SP RPM	2¼" SP HP	2½" SP RPM	2½" SP HP	2¾" SP RPM	2¾" SP HP	3" SP RPM	3" SP HP
4600	874	371	558	558	1020	.68	1140	.94	1250	1.22	1360	1.52	1460	1.84	1560	2.16	1640	2.50	1680	2.86	1720	3.32	1750	3.81	—	—
5520	1048	446	670	670	1125	.92	1240	1.22	1330	1.52	1430	1.82	1530	2.16	1620	2.56	1710	2.90	1770	3.30	1830	3.76	1890	4.21	1950	4.72
6440	1223	520	782	782	1240	1.28	1340	1.58	1430	1.90	1520	2.22	1600	2.64	1690	2.98	1750	3.32	1830	3.76	1910	4.15	1990	4.61	2070	5.12
7360	1398	594	894	894	1360	1.70	1450	2.06	1540	2.40	1620	2.76	1700	3.14	1770	3.52	1840	3.94	1920	4.38	1980	4.81	2050	5.29	2119	5.77
8280	1573	669	1006	1006	1480	2.22	1570	2.60	1650	3.00	1730	3.40	1800	3.78	1870	4.18	1930	4.62	2000	5.12	2056	5.55	2120	6.01	2184	6.47
9200	1748	743	1117	1117	1590	2.82	1680	3.28	1770	3.68	1840	4.12	1900	4.56	1970	5.00	2030	5.48	2100	5.92	2143	6.36	2203	6.90	2263	7.44
10120	1922	817	1229	1229	1710	3.52	1810	4.08	1880	4.52	1960	5.00	2020	5.48	2080	5.96	2150	6.42	2200	6.92	2246	7.36	2300	7.89	2353	8.42

2 - 135 F wheel — outlet area = 4.42 sq ft

5230	1181	422	635	635	645	1.10	730	1.36	810	1.68	895	2.02	975	2.40	1050	2.80	1120	3.14	1145	3.54	—	—	—	—	—	—
5984	1352	483	727	727	682	1.40	770	1.74	840	2.06	912	2.40	983	2.82	1055	3.24	1140	3.60	1160	4.20	1210	4.48	—	—	—	—
6732	1521	543	817	817	717	1.76	807	2.20	868	2.58	941	2.92	1010	3.30	1070	3.72	1160	4.16	1200	4.62	1230	5.10	1290	5.68	1350	6.10
7480	1690	604	908	908	765	2.24	842	2.68	917	3.10	967	3.56	1035	3.94	1095	4.36	1175	4.80	1220	5.22	1265	5.75	1305	6.22	1365	6.80
8228	1859	664	999	999	820	2.84	875	3.24	955	3.72	1020	4.24	1075	4.70	1125	5.14	1180	5.56	1230	6.04	1280	6.52	1335	7.10	1385	7.64
8976	2028	725	1090	1090	875	3.54	925	3.92	985	4.46	1055	5.00	1110	5.50	1170	6.04	1215	6.52	1265	6.92	1310	7.44	1350	7.96	1400	8.54
9724	2197	785	1181	1181	930	4.34	975	4.70	1010	5.24	1090	5.80	1150	6.42	1210	7.98	1250	7.56	1300	8.06	1340	8.50	1380	9.00	1425	9.60

MEDIUM PRESSURE

2 - 122 B wheel — outlet area = 3.54 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'Pass	M.Z. Heat	3" SP RPM	3" SP HP	3¼" SP RPM	3¼" SP HP	3½" SP RPM	3½" SP HP	3¾" SP RPM	3¾" SP HP	4" SP RPM	4" SP HP	4¼" SP RPM	4¼" SP HP	4½" SP RPM	4½" SP HP	4¾" SP RPM	4¾" SP HP	5" SP RPM	5" SP HP	5¼" SP RPM	5¼" SP HP	5½" SP RPM	5½" SP HP
4030	1136	325	489	489	2480	3.24	2562	3.55	2644	3.86	2721	4.17	2798	4.47	2871	4.81	2944	5.15	3014	5.49	3084	5.83	3154	6.01	3224	6.11
4960	1398	400	602	602	2593	3.88	2672	4.21	2750	4.54	2824	4.89	2898	5.24	2970	5.61	3041	5.98	3108	6.35	3175	6.72	3242	7.05	3309	7.34
5890	1660	475	715	715	2731	4.71	2804	5.06	2876	5.41	2946	5.77	3015	6.13	3084	6.52	3152	6.91	3217	7.32	3282	7.72	3345	8.12	3407	8.62
6820	1923	551	828	828	2897	5.70	2962	6.10	3027	6.49	3092	6.88	3156	7.27	3219	7.67	3282	8.06	3344	8.48	3405	8.90	3465	9.33	3524	9.75
7750	2185	626	941	941	3090	7.12	3151	7.52	3212	7.92	3272	8.33	3332	8.74	3390	9.16	3448	9.58	3505	10.0	3561	10.5	3617	11.0	3672	11.4
8680	2447	701	1054	1054	3283	8.54	3340	8.95	3397	9.35	3453	9.78	3508	10.2	3561	10.7	3614	11.1	3665	11.6	3716	12.0	3768	12.5	3819	13.0
9610	2710	776	1167	1167	3376	9.72	3430	10.51	3483	11.12	3534	11.53	3584	12.17	3632	12.53	3688	13.61	3725	13.95	3751	14.3	3813	14.72	3868	15.21

2 - 110 F wheel — outlet area = 2.96 sq ft

4952	1672	400	600	600	1741	4.91	1810	5.32	1879	5.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5571	1882	450	676	676	1758	5.66	1821	6.05	1884	6.48	1947	6.91	2009	7.36	2070	7.85	—	—	—	—	—	—	—	—	—	—
6190	2091	500	751	751	1790	6.53	1849	6.95	1906	7.38	1964	7.83	2020	8.28	2078	8.75	2134	9.23	2190	9.72	2246	10.2	2301	10.8	2355	11.3
6809	2300	550	826	826	1830	7.57	1886	8.02	1941	8.47	1995	8.91	2048	9.38	2100	9.85	2152	10.4	2204	10.8	2256	11.2	2307	11.9	2359	12.4
7428	2509	600	901	901	1875	8.76	1928	9.21	1982	9.70	2034	10.2	2084	10.7	2134	11.2	2183	11.6	2232	12.2	2280	12.7	2328	13.2	2376	13.7
8047	2718	650	976	976	1927	10.1	1977	10.6	2028	11.1	2077	11.6	2126	12.1	2175	12.6	2222	13.2	2268	13.7	2314	14.2	2359	14.7	2405	15.3
8666	2927	700	1051	1057	1989	11.7	2033	12.2	2079	12.7	2126	13.2	2172	13.7	2219	14.3	2264	14.8	2310	15.4	2355	15.9	2398	16.5	2441	17.1

HIGH PRESSURE

wheel — outlet area — sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'Pass	M.Z. Heat	5½" SP RPM	5½" SP HP	5¾" SP RPM	5¾" SP HP	6" SP RPM	6" SP HP	6½" SP RPM	6½" SP HP	7" SP RPM	7" SP HP	7½" SP RPM	7½" SP HP	8" SP RPM	8" SP HP	8½" SP RPM	8½" SP HP	9" SP RPM	9" SP HP	9½" SP RPM	9½" SP HP	10" SP RPM	10" SP HP
									not available																	

wheel — outlet area — sq ft

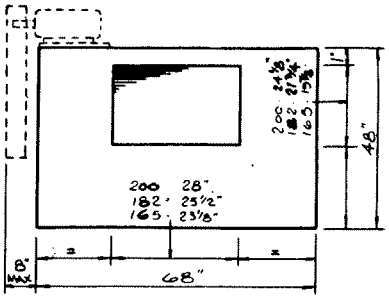
									not available																	

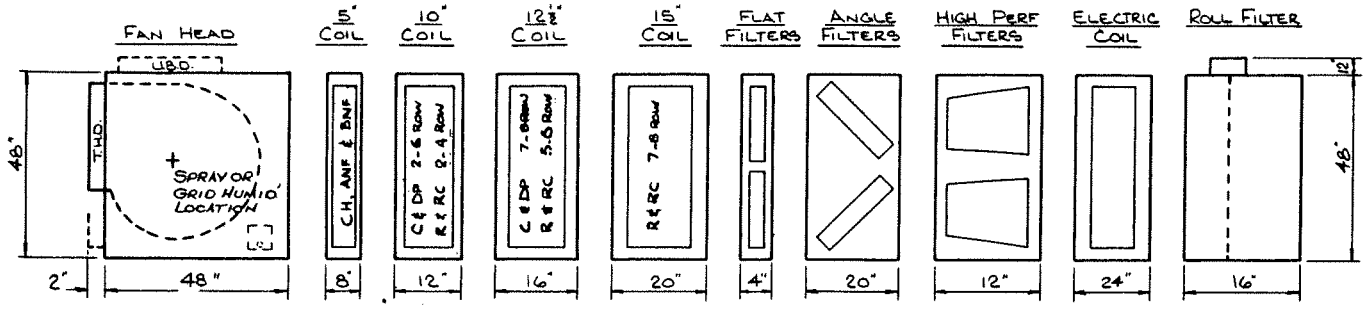
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

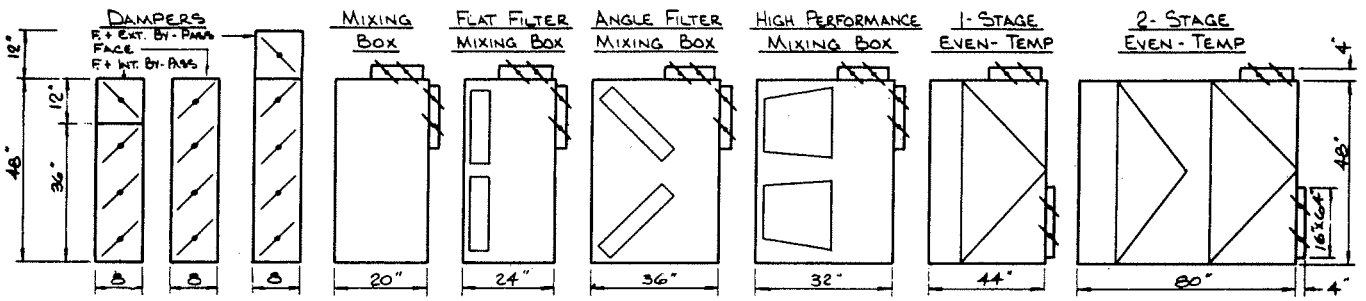
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs / cu. ft (70°F) & 29.92" Hg BAROMETER.

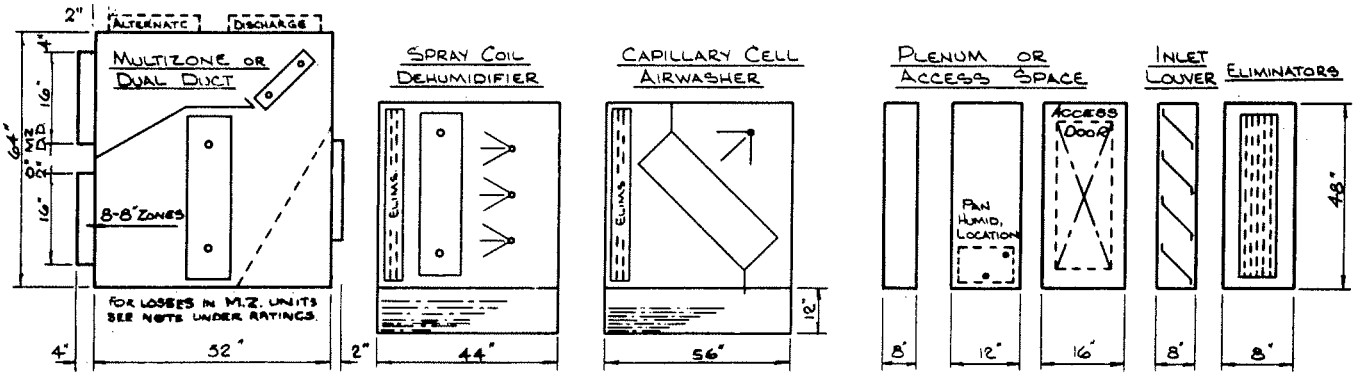
SHELDONS
MODULAR A/C UNIT
SIZE 6.1

standard coil	=14.37sq ft	27 tf x	56" ntl
internal by-pass htg coil	= 11.2 sq ft	21 tf x	56" ntl
multizone heating coil	= 7.96sq ft	15 tf x	56" ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	4-20"x20"x2", 2-20"x25"x2"	17.3 SqFt
ANGLE FILTER	6-20"x20"x2", 3-20"x25"x2"	26.0 SqFt
HIGH VELOCITY	4-20"x20"x2", 2-20"x25"x2"	17.3 SqFt
HIGH PERFORMANCE	4-20"x20"x5", 2-20"x25"x5"	15.0 SqFt
ROLL FILTER	1-4'-0" x 5'-6"	18.4 SqFt

HUMIDIFIERS

CAPACITY — LBS./HR.

WATER SPRAY 80 PSI	5" STEAM GRID		PAN			
	5" STEAM		ELECTRIC			
	STD.	HIGH	1 COIL	2 COIL	1 ELEMENT	KW
30	113	226	46	92	27	9

FACTORS FOR STEAM OTHER THAN 5#

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS — STEAM

½"	¾"	¾"	1"	1½"	-	-

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	165	182	200	222	222
HORIZ.	326T	326T	256T	215T	145T
VERT	365T	326T	256T	215T	145T

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	–	–	–	–	–	–	–
THROW-AWAY FLAT	.14"	.16"	.18"	.21"	.24"	.27	
THROW-AWAY ANGLE	.07"	.09"	.11"	.125"	.14"	.155"	.17
HIGH VELOCITY FLAT	.06"	.07"	.085	.10"	.125	.145"	.165"
HIGH PERFORMANCE	.04"	.06"	.08"	.11"	.16"	.22"	.28"
ROLL	.045"	.07"	.09"	.12"	.15"	.175	.195
SPRAY COIL DEHUMID.	.16"	.24"	.33"	.41"	.5"	.58"	.67"
CAPILLARY AIRWASHER	.10"	.13"	.17"	.22	.28"	.36"	.44"
EVEN-TEMP 1-STAGE	.10	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 2-STAGE	.17"	.22"	.29"	.38"	.50"	.63"	.76"
ELIMINATORS	.10"	.12"	.14"	.16"	.19"	.22"	.25"

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI.	PUMP HP
	16	15	⅓		4600	24	15	½

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	873	MIXING BOX	280
5" COIL	113	FLAT FILTER MIXING BOX	356
10" COIL	159	ANGLE FILTER MIXING BOX	459
12½" COIL	202	HIGH PERFORMANCE FILTER & MIXING BOX	418
15" COIL	250	1-STAGE EVEN-TEMP	500
FLAT FILTER	76	2-STAGE EVEN-TEMP	795
ANGLE FILTER	205	MULTIZONE	807
HIGH PERF. FILTER	128	SPRAY COIL DEHUMIDIFIER	2496
ELECTRIC COIL	253	CAPILLARY CELL AIRWASHER	2933
ROLL FILTER	104	PLENUM / FT	78
FACE & INTERNAL BY-PASS DAMPER	96	ACCESS SPACE	101
FACE DAMPER	87	INLET LOUVER	185
FACE & EXTERNAL BY-PASS DAMPER	122	ELIMINATORS	596

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP.
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	"C" SUPPLY & RETURN	R & RC SUPPLY & RETURN	"DP" (DIRECT EXPANSION)					"ANF"		"BNF"				FLEXITUBE				"CH"	
			2	3	4.5	6	R	5	R	1-ROW	2-ROW	1-ROW		2-ROW		1	2
STANDARD	2"	2½"	⅜"	1⅜"	1⅜"	1⅜"	2⅛"	2½"	1½"	2"	1½"	2½"	1½"	2"	1¼"	2½"	1½"	1½"	2"
INT. BY-PASS	2"	2½"	1⅜"	1⅜"	1⅜"	1⅜"	2⅛"	2½"	1½"	2"	1½"	2½"	1½"	2"	1¼"	2½"	1½"	1½"	2"
M.Z. HEAT	2	2"	—	—	—	—	—	2"	1½"	1½"	1½"	2"	1½"	1½"	1¼"	2"	1½"	1½"	2"

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 6.1

LOW PRESSURE

200 B wheel — **outlet area = 4.68 sq ft**

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	½" SP RPM	½" SP HP	¾" SP RPM	¾" SP HP	1" SP RPM	1" SP HP	1¼" SP RPM	1¼" SP HP	1½" SP RPM	1½" SP HP	1¾" SP RPM	1¾" SP HP	2" SP RPM	2" SP HP	2¼" SP RPM	2¼" SP HP	2½" SP RPM	2½" SP HP	2¾" SP RPM	2¾" SP HP	3" SP RPM	3" SP HP
5796	1235	402	517	723	850	1.04	930	1.33	990	1.58	1055	1.87	1115	2.17	1170	2.47	1260	2.85	1280	3.20	1286	3.31	1354	3.70	1422	4.10
6624	1410	460	590	828	925	1.32	1000	1.67	1065	2.00	1125	2.30	1175	2.62	1230	2.96	1280	3.30	1330	3.65	1368	3.95	1413	4.32	1456	4.68
7452	1590	517	664	931	995	1.68	1070	2.06	1140	2.46	1200	2.84	1250	3.18	1290	3.50	1345	3.88	1390	4.27	1433	4.63	1474	5.01	1515	5.35
8280	1765	575	738	1035	1075	2.12	1145	2.54	1210	2.97	1270	3.40	1325	3.83	1370	4.21	1415	4.57	1455	4.95	1495	5.34	1537	5.78	1579	6.21
9108	1940	633	812	1138	1165	2.65	1220	3.08	1285	3.55	1335	4.02	1395	4.50	1445	4.96	1485	5.40	1530	5.80	1562	6.14	1601	6.61	1641	7.01
9936	2120	690	886	1242	1243	3.26	1295	3.69	1350	4.17	1406	4.70	1459	5.21	1510	5.74	1556	6.25	1595	6.73	1637	7.18	1671	7.60	1706	8.02
10764	2300	750	962	1355	1331	3.98	1395	4.46	1429	4.96	1481	5.50	1531	6.06	1578	6.61	1626	7.18	1668	7.72	1710	8.27	1746	8.77	1782	9.27

200 F wheel — **outlet area = 4.68 sq ft**

6624	1410	461	592	834	416	1.33	466	1.63	522	1.98	575	2.35	626	2.77	674	3.18	—	—	—	—	—	—	—	—	—	—
7452	1587	519	666	938	434	1.65	487	2.03	535	2.4	584	2.79	635	3.22	680	3.67	695	4.27	—	—	—	—	—	—	—	—
8280	1764	577	740	1043	450	2.0	515	2.55	553	2.91	597	3.31	643	3.75	686	4.22	714	4.92	774	5.3	804	5.62	—	—	—	—
9108	1940	635	814	1148	476	2.53	532	3.03	580	3.53	616	3.94	655	4.38	696	4.87	735	5.35	777	5.9	810	6.41	847	6.96	881	7.5
9936	2116	693	888	1252	512	3.2	545	3.55	604	4.2	642	4.7	673	5.13	709	5.64	747	6.14	785	6.68	817	7.22	852	7.77	886	8.4
10764	2293	750	962	1356	548	3.96	570	4.2	615	4.84	663	5.52	697	5.98	725	6.5	760	7.0	792	7.55	826	8.12	861	8.69	893	9.35
11592	2470	808	1036	1460	580	4.85	600	5.1	630	5.54	680	6.3	720	7.0	750	7.5	780	8.02	810	8.6	839	9.16	871	9.75	902	10.4

MEDIUM PRESSURE

182 B wheel — **outlet area = 3.85 sq ft**

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	3" SP RPM	3" SP HP	3¼" SP RPM	3¼" SP HP	3½" SP RPM	3½" SP HP	3¾" SP RPM	3¾" SP HP	4" SP RPM	4" SP HP	4¼" SP RPM	4¼" SP HP	4½" SP RPM	4½" SP HP	4¾" SP RPM	4¾" SP HP	5" SP RPM	5" SP HP	5¼" SP RPM	5¼" SP HP	5½" SP RPM	5½" SP HP
5130	1334	357	459	646	1569	3.63	1621	3.96	1673	4.29	1722	4.64	1771	4.98	1819	5.33	1866	5.68	1912	6.04	1958	6.40	1978	6.52	2001	701
6156	1600	430	550	775	1653	4.42	1696	4.76	1739	5.09	1782	5.44	1825	5.78	1870	6.17	1914	6.55	1957	6.96	2000	7.36	2042	7.77	2083	8.17
7182	1867	500	642	905	1758	5.31	1799	5.88	1840	6.25	1882	6.64	1924	7.03	1965	7.44	2005	7.84	2043	8.25	2081	8.65	2186	9.09	2170	9.49
8208	2134	572	734	1034	1862	6.59	1902	6.99	1941	7.40	1982	7.84	2022	8.28	2059	8.71	2095	9.13	2128	9.54	2161	9.94	2209	10.4	2256	10.8
9235	2400	644	825	1164	1983	8.18	2023	8.65	2062	9.10	2099	9.57	2136	10.0	2169	10.4	2200	10.8	2232	11.3	2263	11.7	2304	12.2	2344	12.7
10260	2668	715	917	1293	2103	9.77	2143	10.3	2182	10.8	2216	11.3	2250	11.8	2278	12.2	2306	12.5	2336	13.0	2365	13.5	2399	14.0	2432	14.5
11286	2935	787	1010	1422	2216	11.7	2255	12.3	2294	12.8	2329	13.4	2364	13.9	2396	14.4	2428	14.9	2459	15.5	2489	16.0	2521	16.6	2552	17.2

165 F wheel — **outlet area = 3.19 sq ft**

5900	1853	411	527	743	1130	5.45	1173	5.86	1216	6.30	1257	6.72	1296	7.13	—	—	—	—	—	—	—	—	—	—	—	—
6743	2117	470	603	850	1149	6.43	1188	6.89	1226	7.33	1266	7.81	1304	8.29	1341	8.76	1350	8.9	—	—	—	—	—	—	—	—
7586	2382	528	678	955	1180	7.67	1217	8.15	1251	8.59	1285	9.05	1321	9.58	1356	10.1	1375	10.7	1395	11.2	1430	12.4	—	—	—	—
8429	2647	587	753	1062	1226	9.36	1257	9.75	1287	10.2	1318	10.6	1350	11.1	1381	11.6	1400	12.8	1434	13.6	1466	14.5	1497	14.9	1524	15.2
9272	2911	646	830	1168	1275	11.1	1306	11.7	1333	12.2	1363	12.6	1390	13.0	1417	13.6	1445	14.0	1475	14.6	1503	15.2	1531	15.7	1558	16.2
10115	3175	705	905	1275	1321	13.1	1353	13.7	1383	14.3	1412	14.8	1438	15.5	1464	16.0	1490	16.4	1516	17.0	1540	17.5	1566	18.1	1592	18.6
10958	3440	764	980	1380	1364	15.3	1397	16.0	1428	16.6	1458	17.3	1486	17.8	1514	18.6	1539	19.2	1564	19.7	1587	20.4	1611	20.9	1634	21.4

HIGH PRESSURE

165 B wheel — **outlet area = 3.19 sq ft**

CFM	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	5½" SP RPM	5½" SP HP	5¾" SP RPM	5¾" SP HP	6" SP RPM	6" SP HP	6½" SP RPM	6½" SP HP	7" SP RPM	7" SP HP	7½" SP RPM	7½" SP HP	8" SP RPM	8" SP HP	8½" SP RPM	8½" SP HP	9" SP RPM	9" SP HP	9½" SP RPM	9½" SP HP	10" SP RPM	10" SP HP
5620	1764	390	502	708	2558	8.10	2602	8.48	2646	8.86	2733	9.68	2816	10.5	2895	11.4	2973	12.2	3050	13.1	3126	14.0	3199	14.9	3271	15.8
6463	2029	450	578	814	2657	9.4	2699	9.80	2741	10.2	2823	11.0	2903	12.0	2980	12.9	3057	13.8	3131	14.7	3205	15.6	3276	16.6	3346	17.5
7306	2295	510	653	920	2755	10.7	2795	11.2	2835	11.6	2913	12.4	2990	13.4	3065	14.4	3140	15.3	3212	16.3	3283	17.2	3352	18.2	3421	19.2
8149	2560	568	728	1027	2885	12.5	2922	13.0	2959	13.5	3031	14.3	3103	15.3	3174	16.3	3244	17.3	3313	18.3	3381	19.3	3448	20.4	3514	21.4
8992	2823	627	805	1183	3014	14.3	3048	14.8	3082	15.3	3149	16.2	3216	17.2	3282	18.3	3347	19.3	3413	20.4	3478	21.4	3542	22.5	3606	23.5
9835	3088	685	880	1240	3160	16.8	3193	17.3	3225	17.8	3289	18.8	3353	19.8	3416	20.9	3478	22.0	3539	23.1	3600	24.1	3660	25.3	3720	26.4
10678	3353	744	955	1345	3306	19.3	3337	19.8	3367	20.2	3429	21.3	3490	22.4	3549	23.5	3608	24.6	3665	25.7	3721	26.7	3777	28.0	3833	29.2

165 RB wheel — **outlet area = 3.19 sq ft**

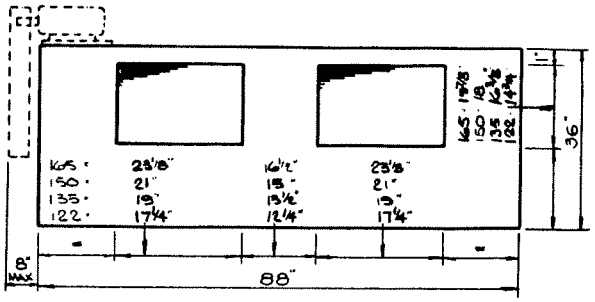
5748	1802	400	513	722	2218	8.61	2263	9.02	2307	9.43	2393	10.25	2475	11.09	2555	11.93	2632	12.78	2706	13.63	2779	14.50	2850	15.40	2919	16.30
6466	2027	450	577	812	2252	9.74	2295	10.17	2338	10.60	2421	11.46	2501	12.34	2581	13.25	2658	14.18	2732	15.11	2805	16.05	2875	16.99	2944	17.95
7185	2252	500	641	902	2287	10.94	2330	11.40	2373	11.87	2455	12.81	2535	13.76	2612	14.71	2687	15.67	2759	16.64	2831	17.65	2901	18.67	2970	19.70
7903	2478	550	705	992	2329	12.30	2371	12.79	2412	13.28	2491	14.26	2570	15.26	2646	16.29	2721	17.33	2793	18.38	2863	19.43	2931	20.48	2998	21.54
8622	2703	600	769	1083	2371	13.75	2413	14.28	2454	14.81	2534	15.88	2610	16.94	2684	18.00	2756	19.07	2827	20.19	2897	21.32	2965	22.45	3032	23.59
9340	2928	650	833	1173	2421	15.41	2461	15.95	2500	16.50	2576	17.59	2652	18.74	2726	19.89	2797	21.04	2867	22.19	2934	23.35	3000	24.51	3066	25.73
10059	3153	700	898	1263	2471	17.17	2511	17.76	2550	18.35	2625	19.53	2698	20.70	2769	21.87	2840	23.11	2909	24.35	2976	25.59	3041	26.83	3105	28.07

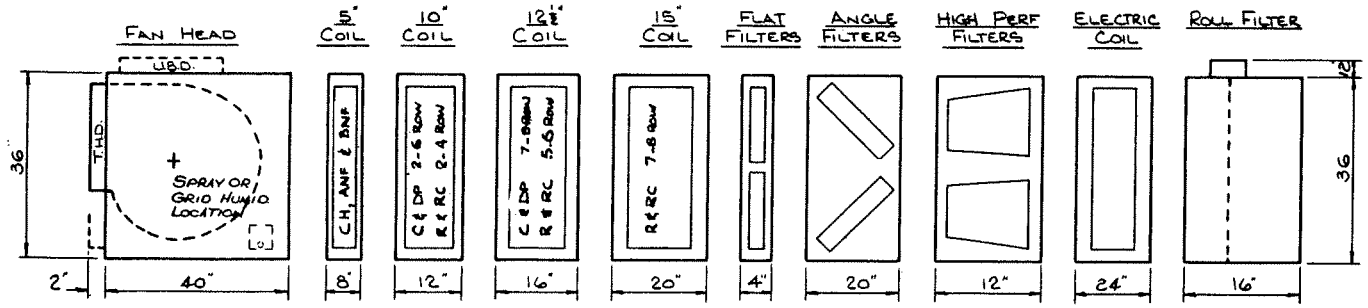
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

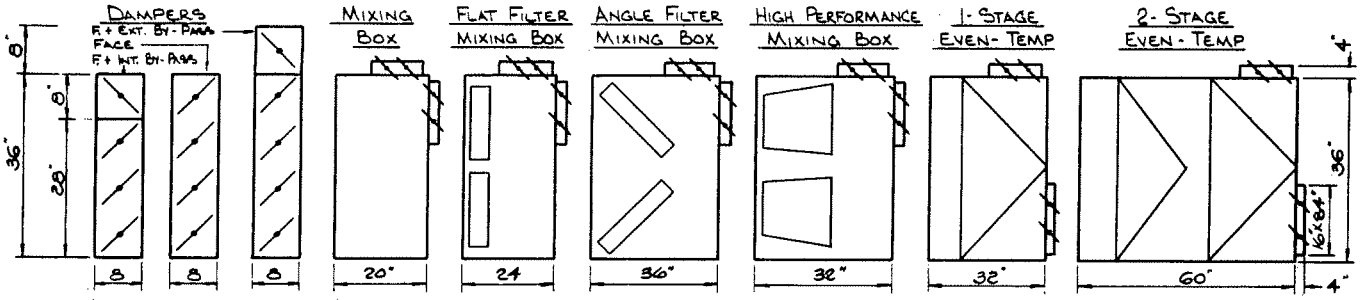
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. ft (70°F) & 29.92" Hg BAROMETER.

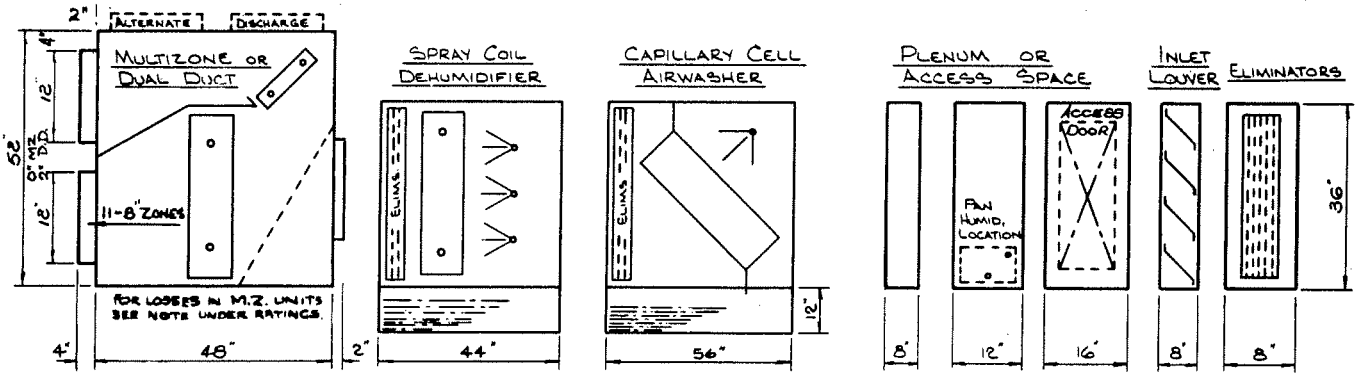
SHELDONS
MODULAR A/C UNIT
SIZE 6.2

standard coil	=15.26 sq ft	21 tf x 76" ntl	
internal by-pass htg coil	=10.89 sq ft	15 tf x 76" ntl	
multizone heating coil	=8.70 sq ft	12 tf x 76" ntl	









FILTERS

		NET AREA
THROW-AWAY FLAT FILTER	6-16"x20"x2" 2-16"x25"x2"	18.1 SQ FT
ANGLE FILTER	3-16"x20"x2" 3-16"x25"x2"	27.2 SQ FT
HIGH VELOCITY	6-16"x20"x2" 2-16"x25"x2"	18.1 SQ FT
HIGH PERFORMANCE	8-16"x20"x8"	15.7 SQ FT
ROLL FILTER	3'-0"x7'-0"	16.8 SQ FT

HUMIDIFIERS

CAPACITY — LBS./HR.

WATER SPRAY 50 PSI.	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
40	146	293	59	118	36	12

FACTORS FOR STEAM OTHER THAN 5"

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS — STEAM

½	¾	¾	1"	1½"	—	—

NOTE : 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	122	135	150	165	165
HORIZ.	256T	215T	184T	145T	—
VERT	256T	215T	184T	145T	—

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	—	—	—	—	—	—	—
THROW-AWAY FLAT	.14	.165	.185	.21	.24	.27	—
THROW-AWAY ANGLE	.08	.095	.11	.125	.14	.155	.170
HIGH VELOCITY FLAT	.06	.07	.09	.110	.135	.16	.19
HIGH PERFORMANCE	.04	.06	.08	.110	.16	.22	.28
ROLL	.07	.10	.13	.16	.19	.22	.28
SPRAY COIL DEHUMID.	.16	.24	.33	.41	.50	.58	.67
CAPILLARY AIRWASHER	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 1-STAGE	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 2-STAGE	.17	.22	.29	.38	.50	.63	.76
ELIMINATORS	.10	.12	.14	.16	.19	.22	.25

NOTE : FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI.	PUMP HP
	17	15	⅓		8800	32	15	½

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	935	MIXING BOX	259
5" COIL	134	FLAT FILTER MIXING BOX	338
10" COIL	186	ANGLE FILTER MIXING BOX	449
12½" COIL	241	HIGH PERFORMANCE FILTER & MIXING BOX	394
15" COIL	288	1-STAGE EVEN-TEMP	436
FLAT FILTER	80	2-STAGE EVEN-TEMP	693
ANGLE FILTER	216	MULTIZONE	845
HIGH PERF FILTER	135	SPRAY COIL DEHUMIDIFIER	2936
ELECTRIC COIL	296	CAPILLARY CELL AIRWASHER	3540
ROLL FILTER	112	PLENUM/FT.	84
FACE & INTERNAL BY-PASS DAMPER	183	ACCESS SPACE	112
FACE DAMPER	166	INLET LOUVER	176
FACE & EXTERNAL BY-PASS DAMPER	232	ELIMINATORS	612

NOTES : ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP.
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	"C" SUPPLY & RETURN	R+RC SUPPLY & RETURN	"DP" (DIRECT EXPANSION) 2	3	4&5	6	R	S	R	"ANF"	"BNF" 1-ROW	2-ROW	FLEXITUBE 1-ROW	2-ROW	"CH"	
STANDARD	2"	2½	1⅜	1⅜	1⅜	1⅜	2⅛	2½	1½	2	1½	2½	1½	2	1¼	2½	1½	2
INT. BY-PASS	2"	2	1⅜	1⅜	1⅜	1⅜	2⅛	2	1½	1½	1½	2	1½	1½	2	1½	1½	2
M.Z. HEAT	2	2	—	—	—	—	—	2	1½	1½	1½	2	1½	1	2	1½	1½	2"

NOTE : ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 6.2

LOW PRESSURE

2 - 165 B wheel

outlet area =6.38 sq ft

C.F.M.	Outlet Velocity	Coil Velocity			½" SP		¾" SP		1" SP		1¼" SP		1½" SP		1¾" SP		2" SP		2¼" SP		2½" SP		2¾" SP		3" SP	
		Std.	Int. B'Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
5620	880	362	516	646	928	.64	1035	1.16	1135	1.46	1245	1.86	1325	2.22	1410	2.60	1490	3.04	1560	3.5	1595	3.7	1665	3.9	1750	4.4
6754	1060	443	620	777	1025	1.06	1122	1.50	1215	1.86	1300	2.22	1390	2.66	1470	3.10	1520	3.54	1630	4.02	1665	4.3	1739	4.5	1810	5.2
7868	1235	515	722	904	1135	1.58	1225	1.96	1310	2.30	1380	2.72	1460	3.20	1530	3.60	1610	4.08	1690	4.6	1735	4.9	1803	5.3	1870	6.3
8992	1410	539	825	1033	1240	2.10	1330	2.50	1410	2.94	1460	3.36	1540	3.84	1610	4.32	1680	4.84	1750	5.34	1805	5.9	1867	6.5	1930	7.1
10116	1590	663	928	1163	1350	2.74	1440	3.20	1510	3.68	1570	4.16	1640	4.66	1700	5.12	1760	5.66	1820	6.24	1875	6.8	1932	7.2	1990	7.7
11240	1765	736	1032	1292	1450	3.46	1540	4.06	1610	4.56	1680	5.08	1740	5.60	1810	6.10	1880	6.68	1910	7.24	1960	7.6	2015	8.5	2070	9.1
12364	1940	810	1135	1420	1570	4.34	1650	5.02	1720	5.56	1780	6.14	1840	6.76	1900	7.30	1950	7.88	2010	8.46	2050	9.05	2100	9.7	2150	10.4

2 - 150 F wheel

outlet area =5.26 sq ft

6440	1222	422	591	740	582	1.32	657	1.66	732	2.08	810	2.50	880	2.96	945	3.42	965	3.86	—	—	—	—	—	—	—	—
7360	1400	482	676	846	615	1.72	690	2.14	760	2.52	822	2.96	887	3.46	950	3.98	985	4.44	1020	4.98	1087	5.3	—	—	—	—
8280	1572	542	760	951	645	2.18	727	2.68	790	3.16	848	3.56	905	4.04	967	4.60	1010	5.08	1050	5.86	1109	6.2	1166	6.6	1215	7.3
9200	1750	603	845	1070	688	2.74	758	3.28	8.26	3.82	881	4.36	932	4.82	985	5.36	1040	5.8	1090	6.48	1131	7.07	1183	7.6	1230	8.35
10120	1925	662	929	1163	736	3.46	790	3.98	858	4.60	910	5.20	967	5.78	1015	6.28	1060	6.80	1110	7.44	1153	8.03	1200	8.71	1246	9.41
11040	2100	723	1015	1270	786	4.34	833	4.82	888	5.46	950	6.14	1000	6.76	1050	7.40	1100	7.96	1140	8.50	1175	9.14	1217	9.77	1262	10.5
11960	2270	784	1098	1375	837	5.32	8.75	5.78	920	6.4	977	7.1	1030	7.88	1080	8.56	1126	9.24	1162	9.9	1204	10.5	1242	11.1	1283	11.8

MEDIUM PRESSURE

2 - 135 B wheel

outlet area =4.42 sq ft

C.F.M.	Outlet Velocity	Coil Velocity			3" SP		3¼" SP		3½" SP		3¾" SP		4" SP		4¼" SP		4½" SP		4¾" SP		5" SP		5¼" SP		5½" SP	
		Std.	Int. B'Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
5236	1185	343	481	602	2282	4.13	2356	4.53	2430	4.92	2498	5.31	2567	5.70	2633	6.11	2698	6.51	2761	6.95	2823	7.38	2921	8.2	3020	8.10
6358	1440	417	583	731	2391	5.00	2463	5.41	2535	5.81	2601	6.25	2667	6.68	2729	7.13	2791	7.57	2851	8.01	2911	8.44	2968	8.89	3025	9.33
7480	1692	490	687	860	2519	6.06	2584	6.47	2649	6.87	2712	7.35	2775	7.82	2837	8.32	2899	8.82	2959	9.29	3018	9.75	3074	10.3	3130	10.8
8602	1948	564	791	990	2678	7.34	2734	7.81	2789	8.27	2847	8.78	2904	9.29	2961	9.75	3018	10.2	3073	10.7	3127	11.2	3182	11.8	3237	12.4
9924	2245	650	911	1140	2849	8.97	2903	9.44	2957	9.90	3009	10.4	3060	10.9	3109	11.5	3158	12.0	3210	12.6	3261	13.2	3312	13.7	3363	14.2
10846	2455	720	997	1248	3032	11.0	3082	11.5	3131	12.0	3182	12.5	3232	13.0	3279	13.6	3326	14.1	3372	14.7	3417	15.2	3461	15.8	3504	16.4
11968	2705	783	1098	1375	3221	13.3	3268	13.9	3315	14.4	3363	15.0	3411	15.5	3453	16.1	3498	16.6	3544	17.2	3589	17.8	3631	18.4	3673	19.0

2 - 122 F wheel

outlet area =3.54 sq ft

6198	1480	406	568	715	1498	5.8	1558	6.4	1620	6.9	1677	7.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7128	2015	467	654	820	1537	6.72	1591	7.19	1646	7.70	1699	8.20	1751	8.71	1803	9.22	1810	9.7	—	—	—	—	—	—	—	—
8058	2275	528	740	926	1576	8.01	1624	8.46	1672	8.97	1721	9.52	1769	10.0	1818	10.6	1844	11.2	1874	11.6	1917	12.1	1964	12.5	—	—
8988	2535	588	825	1033	1631	9.67	1673	10.1	1716	10.6	1761	11.2	1803	11.7	1846	12.2	1878	12.7	1923	13.2	1963	13.7	2007	13.6	2049	15.1
9918	2800	650	910	1140	1696	11.6	1736	12.2	1776	12.7	1815	13.2	1852	13.7	1891	14.2	1932	14.8	1972	15.4	2009	15.9	2050	16.6	2090	17.3
10848	3065	712	995	1248	1760	13.7	1801	14.4	1842	15.0	1880	15.6	1915	16.2	1951	16.8	1986	17.3	2021	17.8	2055	18.3	2093	19.0	2131	19.7
11778	3315	771	1080	1353	1819	16.1	1863	16.8	1904	17.5	1943	18.1	1982	18.9	2018	19.5	2051	20.2	2084	20.8	2118	21.4	2150	22.0	2182	22.5

HIGH PRESSURE

wheel **outlet area** **sq ft**

C.F.M.	Outlet Velocity	Coil Velocity			5½" SP		5¾" SP		6" SP		6½" SP		7" SP		7½" SP		8" SP		8½" SP		9" SP		9½" SP		10" SP	
		Std.	Int. B'Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
									not available																	

wheel **outlet area** **sq ft**

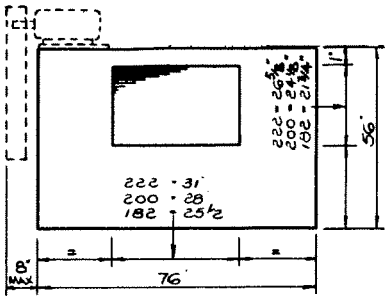
									not available																	

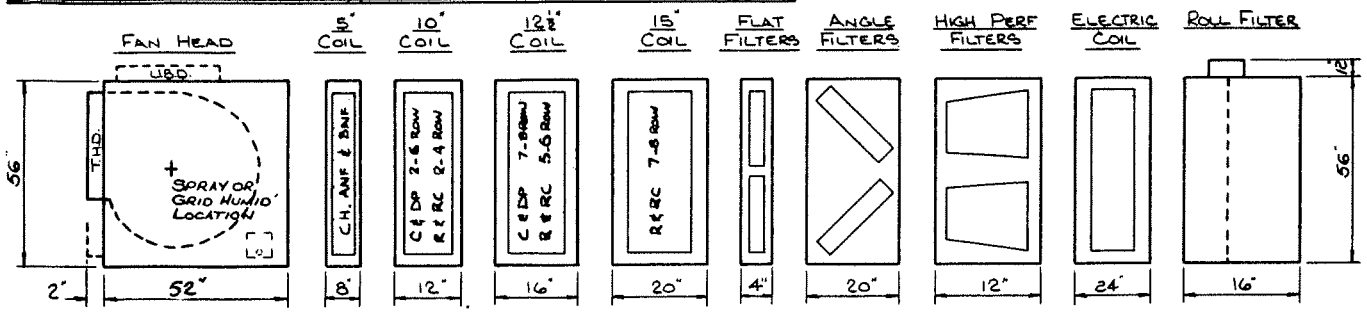
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

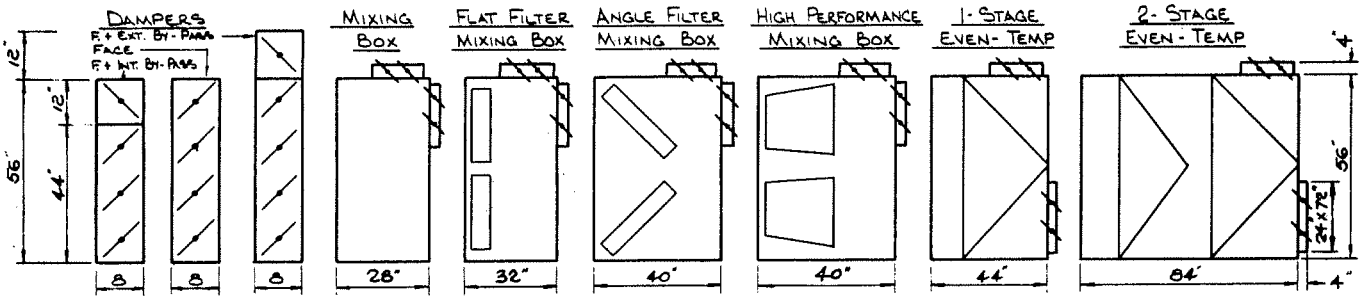
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

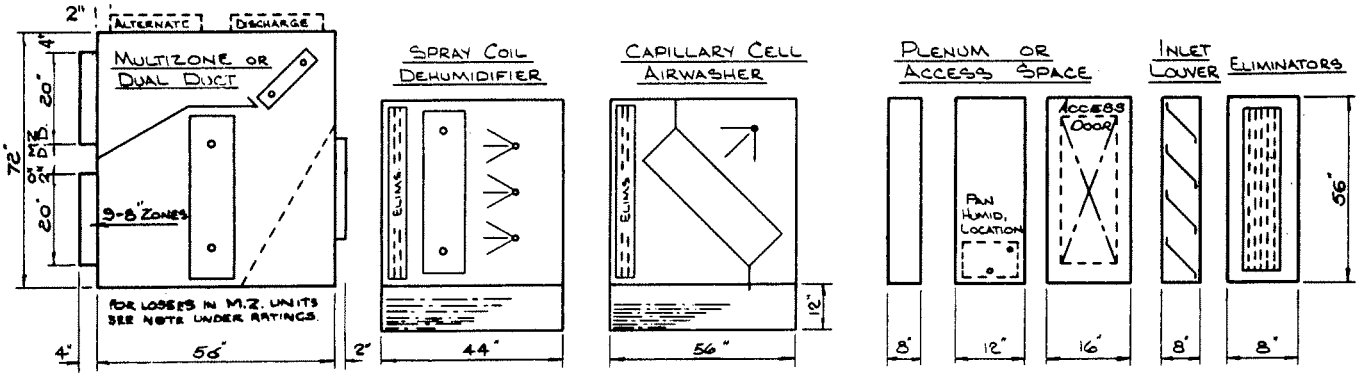
SHELDONS
MODULAR A/C UNIT
SIZE 7.1

standard coil	=18.28 sq ft	30 tf x 64" ntl
internal by-pass htg coil	=14.62 sq ft	24 tf x 64" ntl
multizone heating coil	= 9.14 sq ft	15 tf x 64" ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	2-25"x16"x2" 6-25"x20"x2"	253 SQ FT
ANGLE FILTER	12-20"x25"x2"	40 SQ FT
HIGH VELOCITY	2-25"x16"x2" 6-25"x20"x2"	253 SQ FT
HIGH PERFORMANCE	6-24"x24"x8"	20 SQ FT
ROLL FILTER	4'-6"x6'-0"	23 SQ FT

HUMIDIFIERS

CAPACITY - LBS./HR.

WATER SPRAY 50 PSI	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
30	126	253	51	102	30	10

FACTORS FOR STEAM OTHER THAN 5#

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS - STEAM

½"	¾"	¾"	1"	1½"	-	-

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	182	200	222	245	245
HORIZ	405T	365T	326T	256T	182T
VERT	444T	405T	326T	286T	182T

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	-	-	-	-	-	-	-
THROW-AWAY FLAT	.11	.135	.16	.18	.20	.22	.245
THROW-AWAY ANGLE	-	.07	.08	.095	.11	.125	.14
HIGH VELOCITY FLAT	-	.06	.07	.08	.095	.115	.135
HIGH PERFORMANCE	.04	.06	.08	.11	.16	.22	.28
ROLL	.045	.07	.09	.12	.15	.175	.195
SPRAY COIL DEHUMID.	.16	.24	.33	.41	.50	.58	.67
CAPILLARY AIRWASHER	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 1-STAGE	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 2-STAGE	.17	.22	.29	.38	.50	.63	.76
ELIMINATORS	.10	.12	.14	.16	.19	.22	.25

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI.	PUMP HP
	25	15	½		5000	32	15	½

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	1100	MIXING BOX	384
5" COIL	195	FLAT FILTER MIXING BOX	503
10" COIL	264	ANGLE FILTER MIXING BOX	637
12½" COIL	338	HIGH PERFORMANCE FILTER & MIXING BOX	562
15" COIL	407	1-STAGE EVEN-TEMP	644
FLAT FILTER	120	2-STAGE EVEN-TEMP	1050
ANGLE FILTER	282	MULTIZONE	1100
HIGH PERF FILTER	178	SPRAY COIL DEHUMIDIFIER	3109
ELECTRIC COIL	396	CAPILLARY CELL AIRWASHER	3652
ROLL FILTER	120	PLENUM/FT	90
FACE + INTERNAL BY-PASS DAMPER	228	ACCESS SPACE	120
FACE DAMPER	207	INLET LOUVER	227
FACE + EXTERNAL BY-PASS DAMPER	290	ELIMINATORS	882

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP.
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK + PUMP

COIL CONNECTIONS (ONE COIL)

COIL	"C" SUPPLY & RETURN	R & RC SUPPLY & RETURN	DP (DIRECT EXPANSION) 2	DP 3	DP 4.5	DP 6	DP R	ANF S	ANF R	BNF 1-ROW	BNF 2-ROW	FLEXITUBE 1-ROW	FLEXITUBE 2-ROW	CH 1	CH 2
STANDARD	2	2	1⅜	1⅜	1⅜	1⅜	2⅝	2	1½	1½	1½	2	1½	1½	2
INT. BY-PASS	2	2½	⅞	1⅜	1⅜	1⅜	2⅝	2½	1½	2	1½	2½	1½	1½	2
M.Z. HEAT	2	2	-	-	-	-	-	2	1½	1½	1½	2	1½	1½	2

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (M.Z.)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 7.1

LOW PRESSURE — 222 B wheel — outlet area = 5.73 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'Pass	M.Z. Heat	½" SP RPM	½" SP HP	¾" SP RPM	¾" SP HP	1" SP RPM	1" SP HP	1¼" SP RPM	1¼" SP HP	1½" SP RPM	1½" SP HP	1¾" SP RPM	1¾" SP HP	2" SP RPM	2" SP HP	2¼" SP RPM	2¼" SP HP	2½" SP RPM	2½" SP HP	2¾" SP RPM	2¾" SP HP	3" SP RPM	3" SP HP
7126	1247	359	486	776	762	1.25	835	1.62	890	1.93	945	2.25	1000	2.67	1050	3.04	1100	3.51	1140	3.85	1183	4.21	1233	4.73	1284	5.15
8144	1425	445	556	887	827	1.62	898	2.04	955	2.45	1010	2.8	1060	3.2	1105	3.63	1150	4.04	1195	4.47	1226	4.85	1267	5.31	1307	5.76
9162	1603	501	625	998	895	2.05	960	2.53	1020	3.01	1075	3.45	1125	3.87	1160	4.27	1210	4.75	1250	5.23	1285	5.68	1321	6.15	1358	6.61
10180	1781	556	695	1109	965	2.57	1025	3.10	1085	3.62	1140	4.16	1190	4.67	1230	5.12	1270	5.56	1310	6.06	1340	6.55	1378	7.09	1416	7.62
11198	1960	612	764	1220	1040	3.24	1050	3.74	1145	4.31	1200	4.9	1250	5.5	1295	6.07	1335	6.6	1370	7.10	1398	7.52	1434	8.09	1471	8.66
12216	2130	668	834	1331	1111	3.97	1159	4.51	1208	5.10	1259	5.74	1306	6.37	1352	7.02	1394	7.65	1432	8.23	1466	8.79	1496	9.29	1527	9.80
13234	2310	723	903	1442	1189	4.85	1233	5.43	1278	6.05	1324	6.72	1370	7.40	1413	8.07	1456	8.75	1495	9.47	1532	10.12	1564	10.6	1597	11.3

222 F wheel — outlet area = 5.73 sq ft

7126	1247	390	487	780	350	1.24	407	1.60	456	2.00	507	2.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8144	1425	446	557	890	373	1.62	419	1.99	462	2.40	511	2.89	556	3.37	—	—	—	—	—	—	—	—	—	—	—	—
9162	1603	502	627	1003	390	2.02	438	2.49	472	2.89	517	3.37	560	3.91	602	4.47	630	5.23	—	—	—	—	—	—	—	—
10180	1780	558	696	1115	402	2.45	461	3.10	486	3.48	527	3.99	568	4.54	607	5.12	645	6.05	670	6.54	713	6.90	—	—	—	—
11198	1960	614	766	1226	427	3.07	477	3.70	510	4.20	541	4.71	578	5.28	616	5.90	654	6.53	685	7.15	718	7.83	751	8.50	782	9.20
12216	2138	670	835	1338	457	3.87	490	4.34	530	5.05	562	5.60	593	6.15	625	6.75	660	7.42	695	7.98	723	8.78	756	9.49	786	10.3
13234	2315	725	905	1450	490	4.83	510	5.14	542	5.80	582	6.50	610	7.15	640	7.75	669	8.45	700	9.10	731	9.84	762	10.6	792	11.3

MEDIUM PRESSURE — 200 B wheel — outlet area = 4.68 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'Pass	M.Z. Heat	3" SP RPM	3" SP HP	3¼" SP RPM	3¼" SP HP	3½" SP RPM	3½" SP HP	3¾" SP RPM	3¾" SP HP	4" SP RPM	4" SP HP	4¼" SP RPM	4¼" SP HP	4½" SP RPM	4½" SP HP	4¾" SP RPM	4¾" SP HP	5" SP RPM	5" SP HP	5¼" SP RPM	5¼" SP HP	5½" SP RPM	5½" SP HP
6624	1417	363	453	725	1451	4.66	1497	5.07	1542	5.48	1587	5.91	1631	6.34	1673	6.78	1715	7.22	1756	7.67	1796	8.12	1815	8.10	1857	9.0
7866	1683	430	538	860	1541	5.77	1579	6.16	1616	6.55	1653	6.98	1690	7.41	1728	7.86	1766	8.31	1803	8.81	1841	9.30	1879	9.80	1916	10.3
9108	1949	500	623	997	1634	7.02	1673	7.50	1712	7.98	1747	8.44	1781	8.90	1814	9.36	1846	9.82	1878	10.3	1910	10.8	1943	11.3	1975	11.8
10350	2215	567	708	1133	1742	8.76	1779	9.30	1816	9.79	1847	10.3	1877	10.7	1909	11.2	1939	11.7	1972	12.3	2004	12.8	2036	13.4	2067	13.9
11592	2480	635	793	1270	1850	10.5	1885	11.1	1919	11.6	1946	12.1	1973	12.5	2003	13.1	2032	13.6	2065	14.2	2096	14.8	2128	15.4	2158	16.0
12853	2750	704	880	1407	1953	12.6	1988	13.3	2023	13.9	2054	14.5	2084	15.1	2114	15.8	2144	16.4	2175	16.9	2206	17.6	2233	18.2	2259	18.8
14076	3012	771	963	1540	2059	14.6	2091	15.4	2127	16.2	2161	16.9	2194	17.6	2225	18.4	2256	19.1	2285	19.7	2313	20.3	2337	20.9	2361	21.5

182 F wheel — outlet area = 3.85 sq ft

7865	2045	431	538	860	968	6.55	1005	7.02	1041	7.53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8891	2312	487	608	973	978	7.70	1014	8.18	1050	8.76	1083	9.30	1116	9.83	1149	10.4	—	—	—	—	—	—	—	—	—	—
9917	2578	543	678	1086	995	9.03	1028	9.57	1062	10.1	1093	10.7	1125	11.2	1157	11.9	1185	12.2	1214	12.8	1244	13.5	—	—	—	—
10943	2845	600	748	1198	1016	10.6	1047	11.1	1078	11.7	1109	12.3	1139	12.9	1170	13.6	1200	14.2	1228	14.8	1257	15.5	1286	16.2	1314	16.9
11969	3112	655	820	1310	1049	12.5	1075	13.0	1102	13.7	1130	14.3	1158	14.8	1186	15.5	1215	16.2	1242	16.8	1270	17.5	1297	18.2	1324	18.9
12995	3379	712	888	1423	1091	14.8	1114	15.4	1134	16.0	1160	16.5	1184	17.2	1209	17.8	1235	18.4	1261	19.2	1287	19.8	1313	20.6	1339	21.3
14021	3645	768	960	1535	1133	16.9	1153	17.5	1166	18.3	1190	18.7	1210	19.6	1232	20.1	1263	21.2	1286	21.9	1309	22.6	1334	23.3	1358	24.0

HIGH PRESSURE — 182 B wheel — outlet area = 3.85 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'Pass	M.Z. Heat	5½" SP RPM	5½" SP HP	5¾" SP RPM	5¾" SP HP	6" SP RPM	6" SP HP	6½" SP RPM	6½" SP HP	7" SP RPM	7" SP HP	7½" SP RPM	7½" SP HP	8" SP RPM	8" SP HP	8½" SP RPM	8½" SP HP	9" SP RPM	9" SP HP	9½" SP RPM	9½" SP HP	10" SP RPM	10" SP HP
6840	1778	375	468	749	2118	8.89	2157	9.33	2196	9.77	2272	10.7	2345	11.6	2416	12.6	2487	13.5	2693	14.5	2627	15.4	2693	16.4	2759	17.3
7866	2045	431	538	860	2207	10.4	2242	10.9	2277	11.3	2344	12.3	2411	13.2	2476	14.2	2541	15.1	2736	16.2	2672	17.2	2736	18.3	2799	19.3
8892	2311	487	610	973	2296	12.0	2327	12.4	2357	12.8	2416	13.8	2476	14.7	2535	15.7	2594	16.7	2777	17.8	2716	18.9	2777	20.1	2838	21.2
9918	2579	543	680	1086	2399	14.0	2429	14.5	2458	14.9	2520	16.0	2580	17.1	2637	18.2	2694	19.2	2860	21.8	2805	24.4	2860	24.1	2914	23.7
10944	2845	600	750	1198	2501	16.0	2530	16.5	2559	17.0	2624	18.2	2683	19.4	2739	20.5	2793	21.6	2941	22.8	2893	23.9	2941	25.0	2989	26.1
11970	3112	656	820	1310	2625	18.8	2654	19.4	2683	20.0	2742	21.2	2793	22.3	2844	23.4	2894	24.5	3045	25.8	2996	27.0	3045	28.3	3094	29.5
12996	3380	712	889	1423	2749	21.6	2778	22.3	2807	22.9	2859	24.1	2903	25.1	2949	26.2	2994	27.3	3143	28.7	3099	30.0	3149	31.4	3195	32.8

182 RB wheel — outlet area = 3.85 sq ft

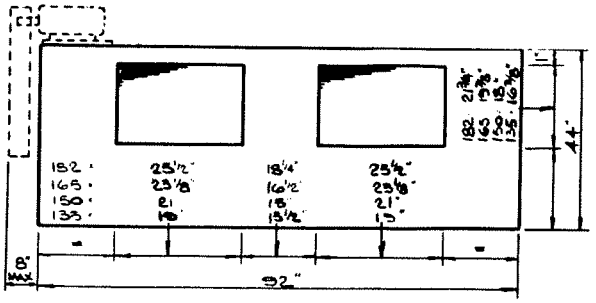
7312	1899	400	500	800	1950	9.75	1990	10.2	2028	10.7	2106	11.6	2181	12.4	2254	13.3	2324	14.1	2392	15.0	2456	15.8	2523	16.7	2586	17.5
8226	2137	450	562	900	1973	10.9	2013	11.5	2052	11.9	2127	13.0	2200	14.0	2270	15.0	2338	16.0	2406	17.0	2472	17.9	2536	18.9	2599	19.9
9140	2374	500	625	1000	2002	12.3	2040	12.8	2078	13.4	2150	14.4	2222	15.5	2293	16.6	2360	17.7	2426	18.8	2490	20.0	2552	21.1	2613	22.2
10054	2611	550	687	1100	2032	13.8	2070	14.3	2108	14.9	2180	16.4	2250	17.2	2318	18.3	2383	19.5	2449	20.7	2512	21.9	2574	23.1	2635	24.4
10968	2849	600	750	1200	2070	15.5	2106	16.1	2142	16.7	2211	17.8	2280	19.0	2347	20.2	2413	21.5	2476	22.7	2537	24.0	2597	25.2	2657	26.6
11882	3086	650	812	1300	2108	17.4	2144	18.0	2179	18.6	2248	19.9	2315	21.1	2379	22.3	2443	23.6	2506	24.9	2567	26.3	2627	27.6	2685	29.0
12796	3324	700	875	1400	2151	19.6	2186	20.2	2220	20.8	2286	22.0	2352	23.4	2416	24.7	2478	26.0	2539	27.3	2597	28.7	2657	30.1	2715	31.5

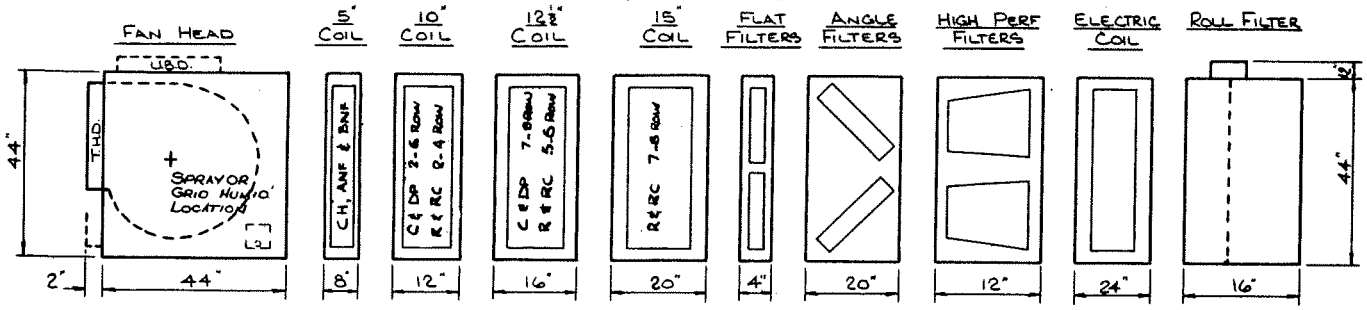
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

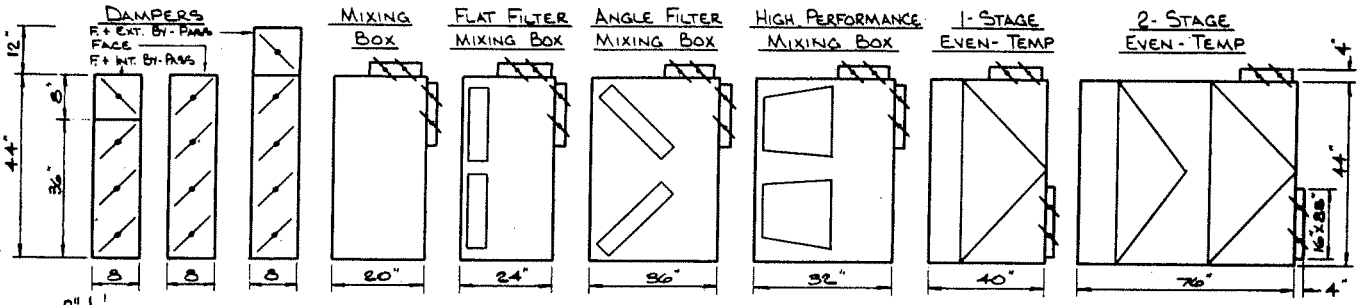
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

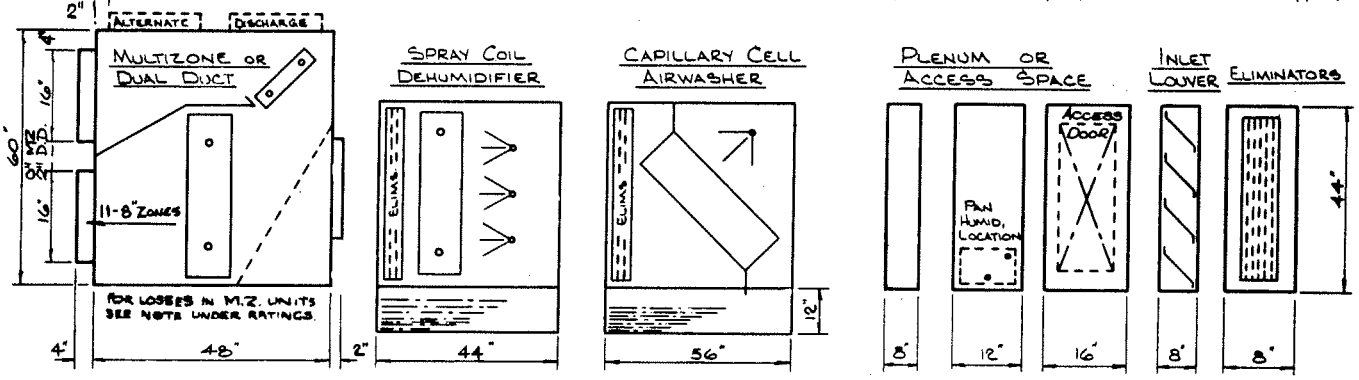
SHELDONS
MODULAR A/C UNIT
SIZE 7.2

standard coil	=18.82 sq ft	24 tf x	80" ntl
internal by-pass htg coil	=16.07 sq ft	21 tf x	80" ntl
multizone heating coil	= 9.41 sq ft	12 tf x	80" ntl









FILTERS

		NET AREA
THROW-AWAY FLAT FILTER	4-20"x20"x2" 4-20"x25"x2"	24 Sq Ft
ANGLE FILTER	6-20"x20"x2" 6-20"x22"x2" 4-20"x25"x2"	36 Sq Ft
HIGH VELOCITY	4-20"x20"x8" 4-20"x25"x8"	24 Sq Ft
HIGH PERFORMANCE	7-20"x20"x8" 1-20"x25"x8"	20.8 Sq Ft
ROLL FILTER	9'-6" x 9'-6"	21.8 Sq Ft

HUMIDIFIERS

CAPACITY — LBS./HR.

WATER SPRAY 50 PSI.	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
40	153	306	62	124	39	13

FACTORS FOR STEAM OTHER THAN 5#

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS — STEAM

½"	¾"	¾"	1"	1½"	-	-

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	135	150	165	182	182
HORIZ	326T	326T	215T	215T	145T
VERT	365T	326T	256T	215T	145T

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	—	—	—	—	—	—	—
THROW-AWAY FLAT	.12"	.14"	.17"	.20"	.23"	.26"	—
THROW-AWAY ANGLE	—	.08"	.095"	.11"	.125"	.14"	.16"
HIGH VELOCITY FLAT	—	.06"	.07"	.09"	.11"	.13"	.15"
HIGH PERFORMANCE	.04"	.06"	.08"	.11"	.16"	.22"	.28"
ROLL	.06"	.075"	.105"	.125"	.155"	.19"	.22"
SPRAY COIL DEHUMID.	.16"	.24"	.33"	.41"	.5"	.58"	.67"
CAPILLARY AIRWASHER	.10"	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 1-STAGE	.10"	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 2-STAGE	.17"	.22"	.29"	.38"	.50"	.63"	.76"
ELIMINATORS①	.10"	.12"	.14"	.16"	.19"	.22"	.25"

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI.	PUMP HP
	21	15	⅓		11000	40	15	¾

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	1127	MIXING BOX	351
5" COIL	141	FLAT FILTER MIXING BOX	437
10" COIL	202	ANGLE FILTER MIXING BOX	557
12½" COIL	258	HIGH PERFORMANCE FILTER & MIXING BOX	498
15" COIL	308	1-STAGE EVEN-TEMP	574
FLAT FILTER	86	2-STAGE EVEN-TEMP	919
ANGLE FILTER	236	MULTIZONE	964
HIGH PERF FILTER	147	SPRAY COIL DEHUMIDIFIER	3220
ELECTRIC COIL	319	CAPILLARY CELL AIRWASHER	3870
ROLL FILTER	123	PLENUM / FT	98
FACE & INTERNAL BY-PASS DAMPER	221	ACCESS SPACE	124
FACE DAMPER	201	INLET LOUVER	212
FACE & EXTERNAL BY-PASS DAMPER	281	ELIMINATORS	745

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP.
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	"C" SUPPLY & RETURN	R+RC SUPPLY & RETURN	"DP" (DIRECT EXPANSION) 2	3	4.5	6	R	"ANF" S	R	"BNF" 1-ROW		2-ROW		FLEXITUBE 1-ROW		2-ROW		"CH" 1	2
STANDARD	2"	2½"	⅜"	⅜"	⅜"	⅜"	2⅛"	2½"	1½"	2"	1½"	2½"	1½"	2"	1¼"	2½"	1½"	1½"	2"
INT. BY-PASS	2"	2½"	⅜"	⅜"	⅜"	⅜"	2⅛"	2½"	1½"	2"	1½"	2½"	1½"	2"	1¼"	2½"	1½"	1½"	2"
M.Z. HEAT	2	2"	—	—	—	—	—	2"	1½"	1½"	1½"	2"	1½"	1½"	1¼"	2"	1½"	1½"	2"

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 7.2

LOW PRESSURE

2 - 182 B wheel — **outlet area = 7.70 sq ft**

C.F.M.	Outlet Velocity	Coil Velocity			½" SP		¾" SP		1" SP		1¼" SP		1½" SP		1¾" SP		2" SP		2¼" SP		2½" SP		2¾" SP		3" SP	
		Std.	Int. B' Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
6840	889	363	426	727	767	.94	865	1.28	954	1.64	1030	2.02	1100	2.46	1170	2.90	1240	3.36	1270	4.9	1350	3.25	1400	4.2	—	—
8208	1067	435	511	872	850	1.30	935	1.66	1015	2.08	1081	2.52	1150	2.94	1210	3.40	1280	4.06	1340	4.56	1400	4.31	1460	4.9	1520	5.49
9576	1244	508	596	1017	927	1.68	1010	2.16	1080	2.60	1150	3.06	1220	3.56	1275	4.06	1340	4.7	1390	5.3	1440	5.43	1490	6.0	1540	6.61
10944	1422	581	681	1163	1010	2.14	1090	2.74	1160	3.30	1225	3.74	1285	4.30	1340	4.86	1400	5.44	1450	5.98	1495	6.51	1543	7.12	1592	7.74
12312	1600	653	767	1308	1085	2.74	1170	3.40	1240	4.04	1310	4.64	1360	5.20	1420	5.74	1465	6.38	1520	7.00	1566	7.63	1610	8.25	1654	8.88
13680	1778	726	852	1454	1170	3.46	1250	4.14	1320	4.86	1385	5.56	1440	6.24	1490	6.88	1540	7.46	1586	8.14	1633	8.80	1679	9.5	1725	10.2
15048	1956	799	937	1599	1260	4.34	1330	5.02	1390	5.80	1460	6.58	1520	7.36	1570	8.14	1620	8.84	1660	9.52	1703	10.1	1748	10.9	1792	11.6

2 - 165 F wheel — **outlet area = 6.38 sq ft**

7868	1231	417	490	836	530	1.64	600	2.06	666	2.52	733	3.08	800	3.62	860	4.20	870	4.72	—	—	—	—	—	—	—	—
8592	1407	477	560	955	560	2.12	630	2.64	690	3.12	746	3.62	810	4.24	865	4.86	890	5.4	920	6.06	1020	6.7	1050	7.4	—	—
10116	1583	537	630	1075	587	2.68	643	3.30	720	3.90	772	4.38	825	5.00	876	5.64	910	6.18	945	7.7	1030	7.7	1070	8.4	1120	9.1
11240	1759	596	700	1194	627	3.40	690	4.04	750	4.70	802	5.36	850	5.94	900	6.56	950	7.22	980	8.0	1040	8.7	1080	9.4	1125	10.2
12364	1934	656	770	1314	674	4.30	720	4.90	782	5.70	835	6.40	882	7.10	925	7.74	968	8.36	1010	9.12	1050	9.7	1090	10.7	1135	11.5
13488	2110	716	840	1433	720	5.36	760	5.96	810	6.70	865	7.20	915	8.34	955	9.12	1000	9.84	1035	10.5	1070	11.2	1110	12.0	1145	12.8
14612	2286	775	910	1553	765	6.6	800	7.18	842	7.9	890	8.8	945	9.7	985	10.5	1040	11.4	1060	12.2	1095	12.9	1130	13.6	1170	14.5

MEDIUM PRESSURE

2 - 150 B wheel — **outlet area = 5.26 sq ft**

C.F.M.	Outlet Velocity	Coil Velocity			3" SP		3¼" SP		3½" SP		3¾" SP		4" SP		4¼" SP		4½" SP		4¾" SP		5" SP		5¼" SP		5½" SP	
		Std.	Int. B' Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
6440	1223	341	401	684	2054	5.09	2121	5.57	2187	6.04	2249	6.53	2311	7.02	2370	7.52	2429	8.01	2485	8.54	2541	9.07	—	—	—	—
7820	1485	415	487	831	2150	6.15	2215	6.65	2279	7.14	2339	7.69	2399	8.23	2454	8.77	2509	9.31	2563	9.86	2617	10.4	2669	11.0	2721	11.5
9200	1748	488	573	977	2263	7.44	2322	7.94	2381	8.44	2439	9.03	2496	9.62	2552	10.3	2607	10.9	2660	11.5	2713	12.0	2764	12.7	2815	13.3
10580	2010	561	659	1124	2406	9.01	2456	9.61	2506	10.2	2558	10.8	2605	11.4	2661	12.0	2713	12.6	2763	13.2	2812	13.8	2861	14.5	2910	15.2
11960	2272	635	745	1271	2555	11.0	2608	11.6	2656	12.1	2703	12.8	2749	13.4	2794	14.1	2839	14.8	2886	15.5	2930	16.2	2976	16.9	3022	17.5
13340	2534	708	831	1418	2723	13.3	2768	14.1	2812	14.6	2858	15.3	2904	16.0	2946	16.7	2988	17.3	3029	18.0	3070	18.7	3110	19.4	3149	20.1
14720	2796	781	917	1564	2893	16.3	2935	17.0	2976	17.6	3020	18.3	3063	19.0	3103	19.7	3143	20.4	3184	21.1	3224	21.8	3263	22.5	3301	23.1

2 - 135 F wheel — **outlet area = 4.42 sq ft**

7104	1605	337	442	755	1357	5.71	1416	6.31	1465	7.5	1525	8.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8226	1859	436	512	874	1385	7.65	1438	8.23	1488	8.80	1538	9.41	1587	10.0	1634	10.6	—	—	—	—	—	—	—	—	—	—
9348	2112	496	582	993	1413	9.03	1460	9.65	1507	10.3	1551	10.9	1598	11.6	1643	12.2	1663	13.3	1683	14.2	—	—	—	—	—	—
10470	2366	555	652	1112	1458	10.9	1498	11.4	1541	12.1	1581	12.7	1622	13.3	1664	14.1	1693	15.7	1730	16.1	1773	17.3	1813	18.1	—	—
11552	2615	615	722	1232	1515	13.2	1552	13.8	1588	14.3	1624	14.9	1662	15.6	1699	16.3	1736	16.9	1772	17.6	1811	18.4	1848	19.2	1885	20.0
12714	2873	675	792	1351	1573	15.6	1612	16.3	1647	17.1	1680	17.8	1715	18.4	1747	19.0	1779	19.6	1814	20.3	1849	21.1	1883	21.8	1916	22.5
13836	3126	734	861	1470	1625	18.4	1668	19.2	1704	19.9	1740	20.8	1774	21.4	1805	22.3	1836	22.9	1868	23.7	1897	24.4	1927	25.1	1956	25.7

HIGH PRESSURE

wheel — **outlet area** — **sq ft**

CFM	Outlet Velocity	Coil Velocity			5½" SP		5¾" SP		6" SP		6½" SP		7" SP		7½" SP		8" SP		8½" SP		9" SP		9½" SP		10" SP	
		Std.	Int. B' Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
									not		available															

wheel — **outlet area** — **sq ft**

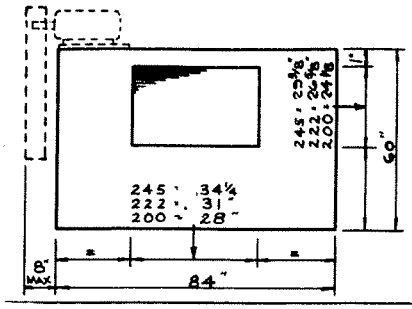
									not		available															

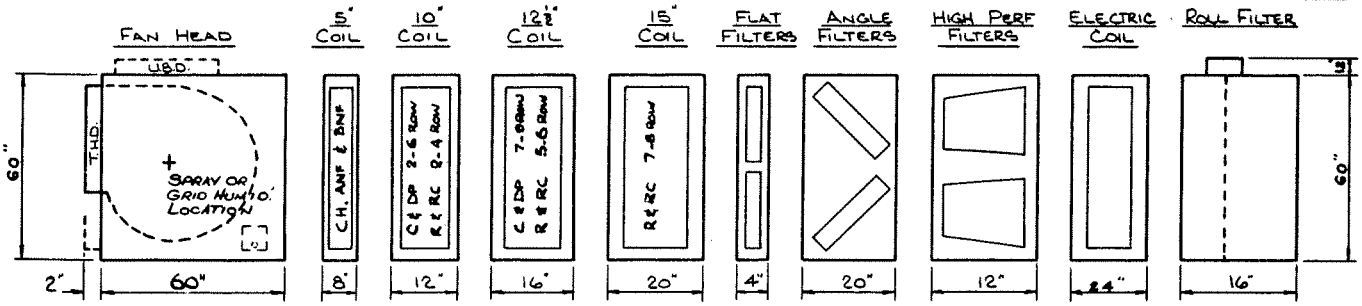
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

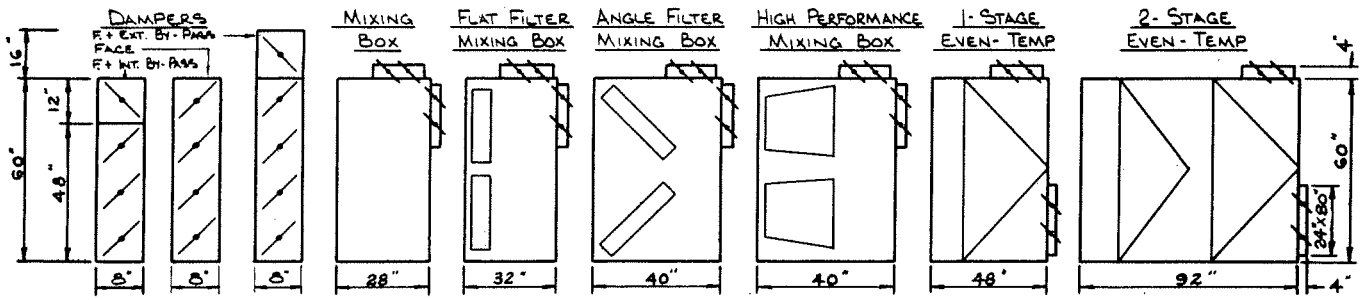
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

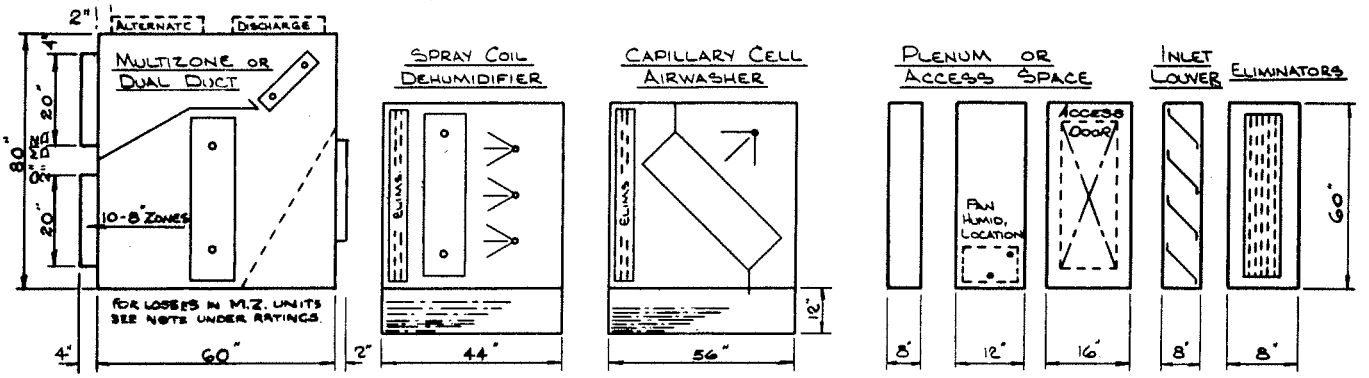
SHELDONS
MODULAR A/C UNIT
SIZE 8.1

standard coil - 22.69sq ft 33 tf x 72" ntl
internal by-pass htg coil - 18.56sq ft 27 tf x 72" ntl
multizone heating coil - 12.38sq ft 18 tf x 72" ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	8-10"x25"x2" 2-25"x20"x2"	28 Sq.Ft.
ANGLE FILTER	16-20"x20"x2"	42.7Sq.Ft.
HIGH VELOCITY	8-10"x25"x2" 2-25"x20"x2"	28 Sq. Ft.
HIGH PERFORMANCE	8-10"x20"x8" 2-25"x20"x8"	24.2Sq.Ft.
ROLL FILTER	5'-0"x7'-0"	30.4Sq.Ft.

HUMIDIFIERS

CAPACITY - LBS./HR.

WATER SPRAY 50 PSI	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD	HIGH	1 COIL	2 COIL	1 ELEMT	KW
40	140	280	56	112	36	12

FACTORS FOR STEAM OTHER THAN 5#

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS - STEAM

½	¾	¾	1	1½	—	—

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	200	222	245	270	270
HORIZ.	444T	365T	326T	286T	213T
VERT	444T	405T	364T	286T	213T

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	—	—	—	—	—	—	—
THROW-AWAY FLAT	.135	.155	.180	.205	.23	.26	—
THROW-AWAY ANGLE	.06	.08	.10	.12	.14	.155	.17
HIGH VELOCITY FLAT	.06	.07	.08	.095	.12	.14	.16
HIGH PERFORMANCE	.04	.06	.08	.11	.16	.22	.28
ROLL	.04	.06	.08	.105	.13	.155	.18
SPRAY COIL DEHUMID.	.16	.24	.33	.41	.50	.58	.67
CAPILLARY AIRWASHER	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 1-STAGE	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 2-STAGE	.17	.22	.29	.38	.50	.63	.76
ELIMINATORS	.10	.12	.14	.16	.19	.22	.25

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI.	PUMP HP
	25	15	½		11/200	48	15	¾

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	1284	MIXING BOX	457
5" COIL	210	FLAT FILTER MIXING BOX	589
10" COIL	292	ANGLE FILTER MIXING BOX	703
12½" COIL	378	HIGH PERFORMANCE FILTER & MIXING BOX	653
15" COIL	450	1-STAGE EVEN-TEMP	742
FLAT FILTER	132	2-STAGE EVEN-TEMP	1219
ANGLE FILTER	310	MULTIZONE	1330
HIGH PERF FILTER	196	SPRAY COIL DEHUMIDIFIER	3487
ELECTRIC COIL	442	CAPILLARY CELL AIRWASHER	4162
ROLL FILTER	378	PLENUM / FT.	96
FACE & INTERNAL BY-PASS DAMPER	263	ACCESS SPACE	128
FACE DAMPER	239	INLET LOUVER	257
FACE & EXTERNAL BY-PASS DAMPER	335	ELIMINATORS	1025

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP.
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	"C" SUPPLY & RETURN	R+RC SUPPLY & RETURN	"DP" (DIRECT EXPANSION) 2	3	4 & 5	6	R	"ANF" S	R	"BNF" 1-ROW	2-ROW	FLEXITUBE 1-ROW	2-ROW	"CH" 1	2
STANDARD	2"	2"	1⅛	1⅛	1⅛	1⅛	2⅛	2"	1½"	1½ & 2	1½"	2"	1½"	1½"	2"
INT. BY-PASS	2"	2½"	1⅜	1⅜	1⅜	1⅜	2⅛	2½"	1½"	2"	1½"	2½"	1½"	2"	1¼"	2½"	1½"	1½"	2"
M.Z. HEAT	2"	2"	—	—	—	—	—	2"	1½"	2"	1½"	2"	1½"	2"	1¼"	2"	1½"	1½"	2"

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12" — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 8.1

LOW PRESSURE — 245 B wheel — outlet area - 7.05 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	½" SP RPM	½" SP HP	¾" SP RPM	¾" SP HP	1" SP RPM	1" SP HP	1¼" SP RPM	1¼" SP HP	1½" SP RPM	1½" SP HP	1¾" SP RPM	1¾" SP HP	2" SP RPM	2" SP HP	2¼" SP RPM	2¼" SP HP	2½" SP RPM	2½" SP HP	2¾" SP RPM	2¾" SP HP	3" SP RPM	3" SP HP
8722	1238	383	470	706	698	1.56	765	2.00	845	2.38	864	2.82	914	3.28	957	3.73	1000	4.20	1035	4.84	1067	4.93	1105	5.45	1142	6.01
9968	1415	438	538	807	757	2.00	821	2.52	876	3.02	924	3.47	967	3.94	1010	4.45	1050	4.97	1090	5.50	1118	5.95	1155	6.51	1190	7.06
11214	1592	493	605	908	818	2.53	880	3.12	932	3.70	985	4.27	1025	4.78	1060	5.16	1100	5.84	1140	6.43	1171	6.99	1205	7.56	1238	8.12
12460	1770	548	672	1009	882	3.19	938	3.82	990	4.47	1040	5.12	1085	5.75	1120	6.34	1160	6.87	1195	7.45	1222	8.06	1257	8.71	1290	9.36
13706	1946	603	740	1110	965	4.02	1000	4.64	1050	5.35	1100	6.06	1145	6.80	1185	7.50	1220	8.12	1255	8.75	1276	9.28	1309	9.94	1341	10.6
14952	2120	657	807	1210	1016	4.92	1059	5.59	1104	6.30	1150	7.05	1193	7.87	1235	8.67	1271	9.42	1307	10.15	1339	10.81	1366	11.44	1395	12.08
16198	2300	712	874	1312	1089	6.03	1128	6.75	1147	7.49	1168	8.23	1210	9.13	1252	9.96	1291	10.8	1330	11.5	1364	12.4	1398	13.1	1457	13.8

245 F wheel — outlet area = 7.05 sq ft

8722	1238	384	470	704	319	1.52	370	1.97	420	2.46	465	3.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9968	1415	439	537	805	340	2.00	381	2.46	427	2.98	470	3.54	512	4.16	550	4.77	—	—	—	—	—	—	—	—	—	—
11214	1591	494	604	906	356	2.49	399	3.07	437	3.62	477	4.20	517	4.85	552	5.52	—	—	—	—	—	—	—	—	—	—
12460	1769	549	671	1006	367	3.02	420	3.83	442	4.38	487	4.99	523	5.65	560	6.37	590	7.40	625	8.00	655	9.10	—	—	—	—
13706	1945	604	738	1107	390	3.91	434	4.55	474	5.32	502	5.94	535	6.62	568	7.30	603	8.07	632	8.89	661	9.67	690	10.5	719	11.2
14952	2122	659	805	1208	419	4.83	445	5.32	492	6.32	524	7.06	550	7.75	580	8.47	610	9.22	640	10.1	667	10.8	696	11.7	724	12.6
16198	2298	714	873	1308	446	6.00	466	6.35	500	7.30	540	8.30	568	9.05	592	9.80	620	10.6	648	11.4	675	12.2	703	13.0	730	14.0

MEDIUM PRESSURE — 222 B wheel — outlet area = 5.73 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	3" SP RPM	3" SP HP	3¼" SP RPM	3¼" SP HP	3½" SP RPM	3½" SP HP	3¾" SP RPM	3¾" SP HP	4" SP RPM	4" SP HP	4¼" SP RPM	4¼" SP HP	4½" SP RPM	4½" SP HP	4¾" SP RPM	4¾" SP HP	5" SP RPM	5" SP HP	5¼" SP RPM	5¼" SP HP	5½" SP RPM	5½" SP HP
8144	1425	359	438	658	1305	5.73	1346	6.23	1386	6.73	1426	7.26	1466	7.79	1504	8.34	1541	8.88	1578	9.44	1615	9.99	1635	10.3	1670	10.9
9671	1692	426	521	781	1385	7.08	1419	7.57	1452	8.05	1486	8.59	1519	9.12	1553	9.66	1586	10.2	1620	10.8	1654	11.4	1688	12.1	1722	12.7
11198	1958	493	603	904	1469	8.63	1504	9.23	1538	9.82	1570	10.4	1601	10.9	1631	11.5	1660	12.1	1689	12.7	1717	13.3	1746	13.9	1775	14.5
12725	2226	561	685	1028	1567	10.8	1600	11.4	1632	12.0	1660	12.6	1687	13.2	1716	13.8	1743	14.4	1773	15.1	1802	15.8	1830	16.5	1858	17.1
14252	2493	628	768	1151	1664	12.9	1695	13.6	1725	14.2	1749	14.8	1773	15.4	1800	16.0	1826	16.6	1856	17.4	1886	18.2	1913	19.0	1940	19.7
15779	2759	695	850	1274	1756	15.5	1787	16.3	1818	17.1	1846	17.8	1873	18.5	1900	19.3	1927	20.0	1955	20.8	1983	21.6	2007	22.4	2032	23.1
17306	3028	763	932	1398	1847	18.0	1879	19.0	1911	19.9	1942	20.8	1972	21.6	2000	22.5	2028	23.4	2054	24.2	2079	25.0	2101	25.8	2123	26.5

200 F wheel — outlet area = 4.68 sq ft

9521	2037	419	513	769	884	7.95	917	8.52	951	9.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10763	2303	474	580	869	893	9.35	925	9.93	958	10.6	989	11.2	1019	11.9	1048	12.5	1065	13.3	—	—	—	—	—	—	—	—
12005	2569	529	647	970	909	10.9	939	11.6	970	12.3	999	12.9	1027	13.7	1057	14.4	1080	15.2	1114	16.0	1135	16.8	1162	17.6	—	—
13247	2834	584	714	1070	929	12.9	957	13.6	985	14.3	1013	14.9	1041	15.7	1069	16.4	1095	17.2	1121	18.0	1148	18.8	1174	19.6	1200	20.3
14489	3100	638	780	1170	960	15.3	984	16.0	1008	16.6	1033	17.4	1059	18.1	1084	18.9	1110	19.7	1135	20.5	1161	21.2	1186	22.1	1210	23.0
15731	3366	693	847	1271	1000	18.1	1020	18.8	1039	19.5	1061	20.2	1083	21.0	1106	21.7	1129	22.6	1153	23.3	1176	24.1	1200	25.0	1223	25.9
16973	3632	748	914	1371	1040	20.9	1060	21.6	1079	22.4	1102	23.0	1125	23.9	1143	24.5	1156	25.9	1177	26.7	1196	27.6	1219	28.4	1241	29.1

HIGH PRESSURE — 200 B wheel — outlet area = 4.68 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	5½" SP RPM	5½" SP HP	5¾" SP RPM	5¾" SP HP	6" SP RPM	6" SP HP	6½" SP RPM	6½" SP HP	7" SP RPM	7" SP HP	7½" SP RPM	7½" SP HP	8" SP RPM	8" SP HP	8½" SP RPM	8½" SP HP	9" SP RPM	9" SP HP	9½" SP RPM	9½" SP HP	10" SP RPM	10" SP HP
8280	1771	365	446	669	1932	10.8	1968	11.4	2003	11.9	2073	12.9	2140	14.0	2205	15.2	2270	16.3	2334	17.5	2397	18.6	2458	19.8	2518	20.9
9522	2037	419	513	769	2013	12.6	2045	13.5	2077	13.7	2138	14.7	2200	15.9	2259	17.1	2318	18.3	2378	19.5	2438	20.7	2496	22.0	2554	23.3
10764	2303	474	580	869	2095	14.5	2123	15.1	2151	15.6	2204	16.6	2259	17.8	2313	19.0	2367	20.2	2423	21.5	2479	22.8	2535	24.2	2590	25.6
12006	2569	529	647	970	2189	16.9	2217	17.5	2243	18.1	2300	19.3	2354	20.6	2405	21.9	2457	23.2	2508	24.5	2560	25.8	2610	27.2	2658	28.6
13248	2835	584	714	1070	2283	19.3	2310	20.0	2336	20.6	2395	22.0	2448	23.4	2498	24.8	2548	26.2	2594	27.5	2640	28.8	2684	30.2	2727	31.5
14490	3100	639	781	1170	2396	22.8	2422	23.5	2448	24.2	2501	25.6	2548	26.9	2594	28.3	2639	29.7	2686	31.1	2734	32.6	2778	34.1	2823	35.6
15732	3366	693	847	1271	2508	26.2	2535	27.0	2561	27.8	2608	29.2	2649	30.4	2690	31.8	2731	33.1	2779	34.8	2827	36.4	2879	38.1	2918	39.7

200 RB wheel — outlet area = 4.68 sq ft

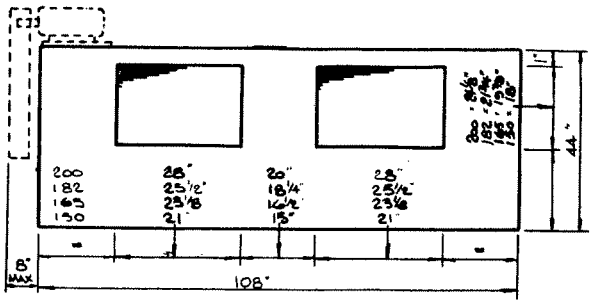
9076	1939	400	488	732	1785	12.09	1822	12.65	1857	13.21	1926	14.34	1993	15.44	2060	16.49	2124	17.55	2186	18.61	2247	19.67	2305	20.73	2363	21.79
10210	2182	450	549	824	1808	13.63	1843	14.22	1879	14.83	1947	16.07	2014	17.32	2077	16.57	2139	19.84	2199	21.11	2259	22.31	2318	23.50	2375	24.70
11345	2424	500	611	916	1836	15.37	1871	16.02	1905	16.66	1971	17.95	2035	19.24	2099	20.60	2161	21.98	2221	23.36	2279	24.75	2335	26.15	2390	27.56
12479	2667	550	672	1007	1867	17.32	1900	17.96	1936	18.61	1999	20.02	2063	21.44	2125	22.85	2184	24.27	2242	25.70	2300	27.20	2357	28.71	2412	30.23
13614	2909	600	733	1099	1902	19.54	1936	20.25	1968	20.95	2031	22.36	2092	23.76	2153	25.27	2212	26.81	2270	28.35	2326	29.90	2381	31.45	2434	33.00
14748	3151	650	794	1190	1941	22.01	1972	22.72	2004	23.44	2066	24.98	2127	26.51	2186	28.03	2242	29.55	2298	31.12	2354	32.79	2409	34.46	2462	36.13
15883	3394	700	855	1282	1982	24.80	2014	25.57	2044	26.34	2104	27.86	2163	29.42	2221	31.07	2278	32.72	2332	34.36	2386	35.99	2436	37.63	2490	39.38

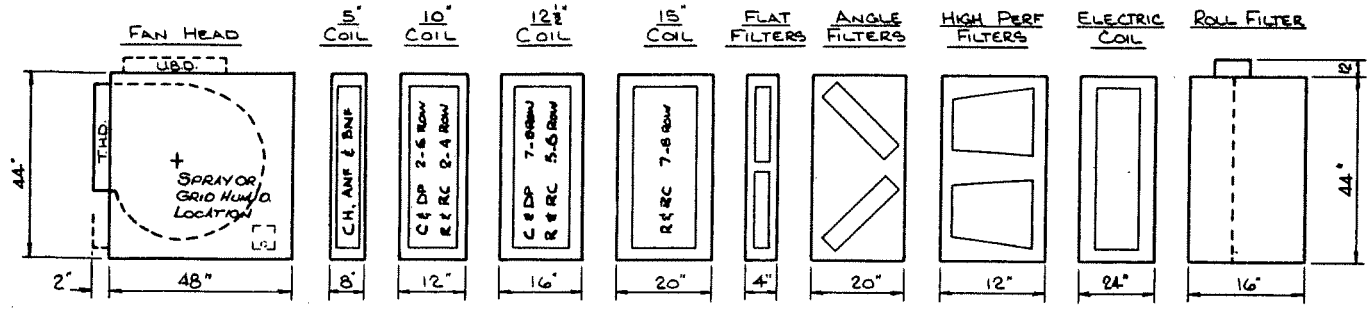
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

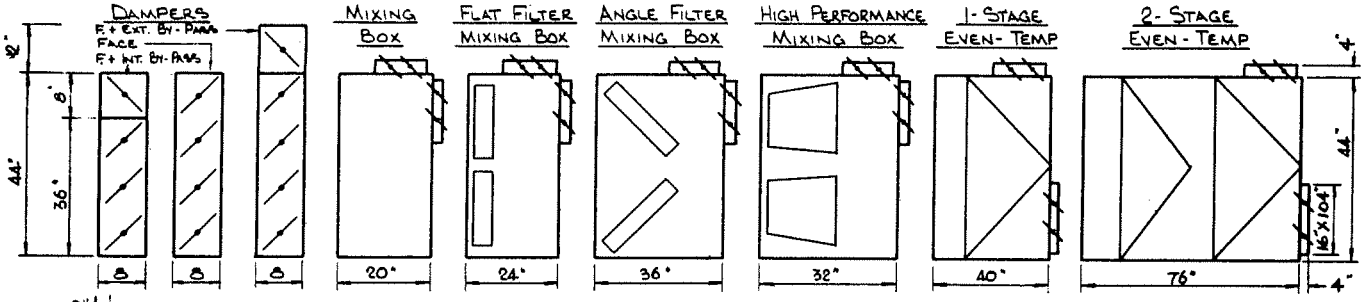
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs / cu. FT (70°F) & 29.92" Hg BAROMETER.

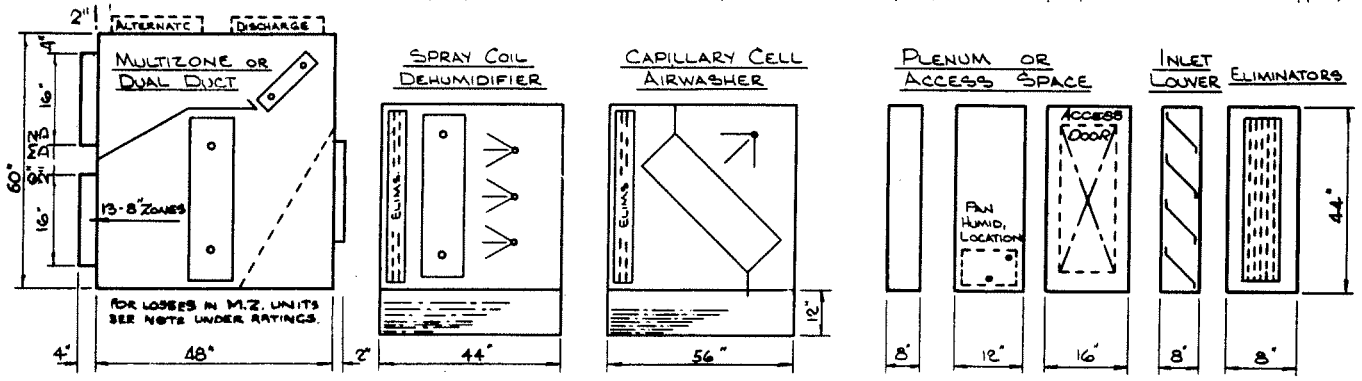
SHELDONS
MODULAR A/C UNIT
SIZE 8.2

standard coil - 22.10sq ft 24 tf x 96" ntl
internal by-pass htg coil - 19.35sq ft 21 tf x 96" ntl
multizone heating coil - 11.05sq ft 12 tf x 96" ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	8-20x20x2 2-20x25x2	25.3Sqft
ANGLE FILTER	12-20x20x2 3-20x25x2	38.0Sqft
HIGH VELOCITY	8-20x20x2 2-20x25x2	25.3Sqft
HIGH PERFORMANCE	8-20x20x8 2-20x25x8	24.2Sqft
ROLL FILTER	3'-6"x9'-0"	26.2Sqft

HUMIDIFIERS

CAPACITY - LBS./HR.

WATER SPRAY 80 PSI.	5# STEAM GRID		PAN			
			5# STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
50	180	360	72	144	48	16

FACTORS FOR STEAM OTHER THAN 5#

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS - STEAM

½"	¾"	¾"	1¼"	1½"	-	-

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM 'T' FRAME MOTOR IN STD FAN HEAD

FAN	POSITION W				POSITION X
	150	165	182	200	200
DISCH	326T	286T	215T	184T	-
HORIZ.	326T	286T	215T	184T	-
VERT	326T	286T	215T	215T	-

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	-	-	-	-	-	-	-
THROW-AWAY FLAT	.14	.17	.20	.23	.26	-	-
THROW-AWAY ANGLE	.08	.095	.11	.13	.15	.17	.20
HIGH VELOCITY FLAT	.06	.07	.085	.10	.115	.13	.15
HIGH PERFORMANCE	.04	.06	.08	.11	.16	.22	.28
ROLL	.06	.075	.105	.125	.155	.19	.22
SPRAY COIL DEHUMID.	.16	.24	.33	.41	.5	.58	.67
CAPILLARY AIRWASHER	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 1-STAGE	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 2-STAGE	.17	.22	.29	.38	.50	.63	.76
ELIMINATORS	.10	.12	.14	.16	.19	.22	.25

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI.	PUMP HP
	24	15	½		11000	40	15	¾

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	1358	MIXING BOX	406
5" COIL	161	FLAT FILTER MIXING BOX	503
10" COIL	232	ANGLE FILTER MIXING BOX	637
12½" COIL	291	HIGH PERFORMANCE FILTER + MIXING BOX	571
15" COIL	355	1-STAGE EVEN-TEMP	655
FLAT FILTER	97	2-STAGE EVEN-TEMP	1040
ANGLE FILTER	265	MULTIZONE	1106
HIGH PERF. FILTER	330	SPRAY COIL DEHUMIDIFIER	3748
ELECTRIC COIL	359	CAPILLARY CELL AIRWASHER	4472
ROLL FILTER	136	PLENUM / FT.	102
FACE & INTERNAL BY-PASS DAMPER	157	ACCESS SPACE	136
FACE DAMPER	233	INLET LOUVER	238
FACE & EXTERNAL BY-PASS DAMPER	326	ELIMINATORS	878

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP.
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	'C' SUPPLY & RETURN	R'RC SUPPLY & RETURN	'DP' (THREE EXPANSION) 2	3	4.5	6	R	'ANF' S	R	'BNF' 1-ROW	2-ROW	FLEXITUBE 1-ROW	2-ROW	'CH' 1	2
STANDARD	2"	2½"	1⅜"	1⅜"	1⅜"	1⅜"	2⅛"	2½"	1½"	2"	2½"	1½"	2½"	1½"	2"
INT. BY-PASS	2"	2½"	1⅜"	1⅜"	1⅜"	1⅜"	2⅛"	2½"	1½"	2"	2½"	1½"	2½"	1½"	2"
M.Z. HEAT	2"	2"	-	-	-	-	-	2"	1½"	1½"	2"	1½"	2"	1½"	2"

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 8.2

LOW PRESSURE

2 - 200 B wheel — outlet area - 9.36 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	½" SP RPM	½" SP HP	¾" SP RPM	¾" SP HP	1" SP RPM	1" SP HP	1¼" SP RPM	1¼" SP HP	1½" SP RPM	1½" SP HP	1¾" SP RPM	1¾" SP HP	2" SP RPM	2" SP HP	2¼" SP RPM	2¼" SP HP	2½" SP RPM	2½" SP HP	2¾" SP RPM	2¾" SP HP	3" SP RPM	3" SP HP
7452	797	356	365	674	670	.98	758	1.36	835	1.76	914	2.23	989	2.73	1059	3.24	1109	3.8	1151	4.2	1163	4.9	—	—	—	—
9108	975	411	471	823	741	1.34	820	1.76	895	2.25	959	2.71	1023	3.22	1086	3.77	1136	4.2	1178	4.7	1190	5.5	1274	6.4	1324	7.0
10764	1152	485	556	973	813	1.80	891	2.31	956	2.82	1022	3.37	1080	3.92	1134	4.47	1184	5.2	1226	5.9	1278	6.5	1322	7.3	1372	8.1
12420	1329	560	642	1123	883	2.33	963	2.97	1029	3.56	1085	4.11	1142	4.75	1197	5.41	1247	6.04	1292	6.66	1341	7.36	1385	8.09	1435	8.82
14076	1506	635	728	1272	956	2.97	1033	3.71	1102	4.43	1159	5.11	1208	5.68	1260	6.40	1310	7.14	1358	7.87	1401	8.59	1442	9.29	1484	10.0
15732	1683	710	813	1422	1035	3.77	1105	4.56	1171	5.38	1231	6.19	1283	6.93	1330	7.63	1374	8.33	1420	9.14	1465	9.96	1506	10.8	1547	11.6
17388	1861	784	899	1572	1116	4.73	1177	5.53	1242	6.47	1302	7.38	1356	8.27	1404	9.12	1447	9.90	1486	10.6	1528	11.5	1569	12.4	1610	13.3

2 - 182 F wheel — outlet area - 7.70 sq ft

8206	1067	370	424	742	407	1.25	486	1.74	557	2.25	616	2.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9574	1245	432	495	865	424	1.65	494	2.14	561	2.69	622	3.29	676	3.81	—	—	—	—	—	—	—	—	—	—	—	—
10942	1422	493	566	989	453	2.16	508	2.67	570	3.24	628	3.88	683	4.54	736	5.24	776	5.92	—	—	—	—	—	—	—	—
12310	1600	555	636	1113	473	2.69	531	3.33	582	3.92	638	4.58	690	5.28	741	6.02	785	6.81	825	6.7	868	8.5	—	—	—	—
13678	1778	617	707	1236	489	3.26	559	4.16	603	4.75	651	5.41	700	6.15	748	6.93	794	7.75	835	8.71	877	9.6	921	10.7	959	11.3
15046	1956	679	778	1360	517	4.09	579	4.94	631	5.77	670	6.42	713	7.17	759	7.97	803	8.80	845	9.67	886	10.6	927	11.5	965	12.4
16414	2134	740	849	1484	555	5.19	594	5.79	656	6.87	697	7.63	733	8.40	772	9.20	814	10.00	855	10.9	895	11.9	932	12.8	971	13.8

MEDIUM PRESSURE

2 - 165 B wheel — outlet area - 6.38 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	3" SP RPM	3" SP HP	3¼" SP RPM	3¼" SP HP	3½" SP RPM	3½" SP HP	3¾" SP RPM	3¾" SP HP	4" SP RPM	4" SP HP	4¼" SP RPM	4¼" SP HP	4½" SP RPM	4½" SP HP	4¾" SP RPM	4¾" SP HP	5" SP RPM	5" SP HP	5¼" SP RPM	5¼" SP HP	5½" SP RPM	5½" SP HP
6744	1058	305	347	610	1817	5.53	1878	6.06	1939	6.59	1997	7.16	2054	7.72	2110	8.31	2166	8.90	2220	9.55	2274	10.2	—	—	—	—
8430	1323	381	434	762	1895	6.61	1954	7.20	2013	7.78	2070	8.42	2126	9.05	2179	9.68	2232	10.3	2283	11.0	2333	11.6	2383	12.3	2432	13.0
10116	1588	458	521	918	1991	7.97	2046	8.60	2101	9.22	2155	9.91	2208	10.6	2260	11.3	2311	11.9	2360	12.6	2408	13.3	2456	14.1	2503	14.8
11802	1852	534	608	1068	2117	9.94	2168	10.6	2218	11.3	2267	12.0	2316	12.7	2364	13.4	2411	14.1	2457	14.9	2503	15.6	2548	16.4	2593	17.1
13488	2117	611	695	1220	2243	11.9	2289	12.6	2334	13.3	2379	14.0	2423	14.7	2467	15.5	2510	16.3	2554	17.1	2598	17.9	2641	18.7	2683	19.4
15174	2382	687	782	1373	2392	14.8	2435	15.6	2478	16.3	2520	17.1	2561	17.8	2602	18.6	2643	19.4	2684	20.3	2725	21.1	2764	22.0	2803	22.7
16860	2647	763	869	1525	2540	17.7	2581	18.5	2621	19.2	2660	20.0	2699	20.8	2738	21.7	2776	22.5	2814	23.4	2851	24.2	2887	25.1	2922	25.9

2 - 150 F wheel — outlet area - 5.26 sq ft

8278	1572	374	427	749	1221	8.1	1275	8.3	1325	9.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9658	1835	437	498	874	1242	8.90	1289	9.58	1336	10.3	1382	11.0	1426	11.7	—	—	—	—	—	—	—	—	—	—	—	—
11038	2097	500	569	998	1262	10.5	1305	11.3	1347	12.0	1391	12.8	1433	13.5	1475	14.3	1492	15.1	—	—	—	—	—	—	—	—
12418	2359	562	640	1123	1295	12.5	1335	13.3	1372	14.0	1412	14.8	1450	15.7	1488	16.5	1510	17.3	1545	18.1	1578	19.0	—	—	—	—
13798	2621	625	711	1248	1344	15.2	1378	15.8	1411	16.5	1446	17.3	1482	18.2	1516	18.9	1539	19.7	1576	20.5	1610	21.7	1644	23.2	1677	24.9
15178	2883	687	783	1373	1397	18.1	1430	19.0	1462	19.8	1493	20.6	1524	21.2	1553	21.8	1586	22.9	1619	23.7	1649	24.6	1681	25.6	1712	26.5
16558	3146	750	845	1498	1447	21.2	1481	22.1	1515	23.1	1546	24.2	1576	25.0	1604	25.9	1633	26.7	1662	27.6	1688	28.4	1718	29.4	1747	30.3

HIGH PRESSURE

wheel — outlet area — sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	5½" SP RPM	5½" SP HP	5¾" SP RPM	5¾" SP HP	6" SP RPM	6" SP HP	6½" SP RPM	6½" SP HP	7" SP RPM	7" SP HP	7½" SP RPM	7½" SP HP	8" SP RPM	8" SP HP	8½" SP RPM	8½" SP HP	9" SP RPM	9" SP HP	9½" SP RPM	9½" SP HP	10" SP RPM	10" SP HP
									not available																	

wheel — outlet area — sq ft

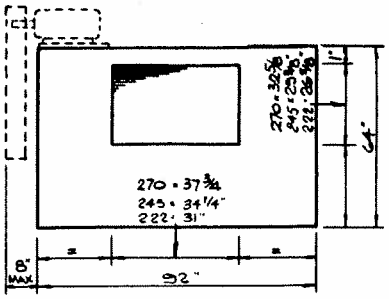
									not available																	

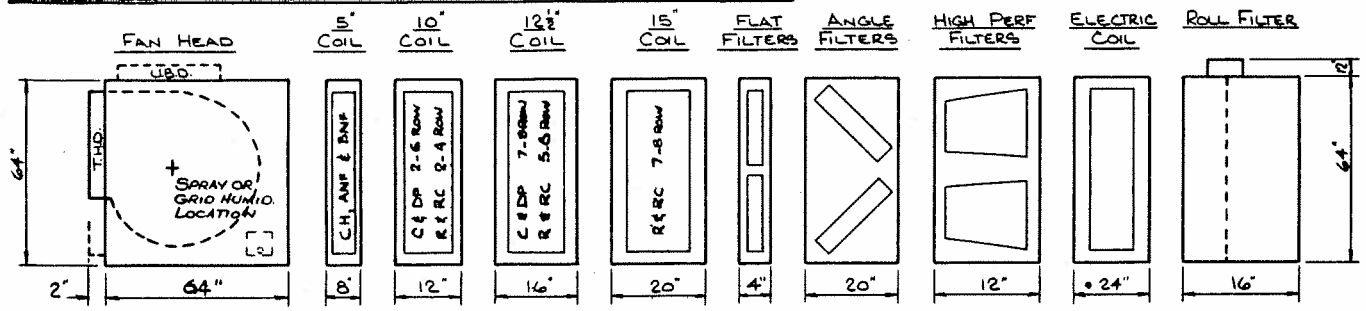
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

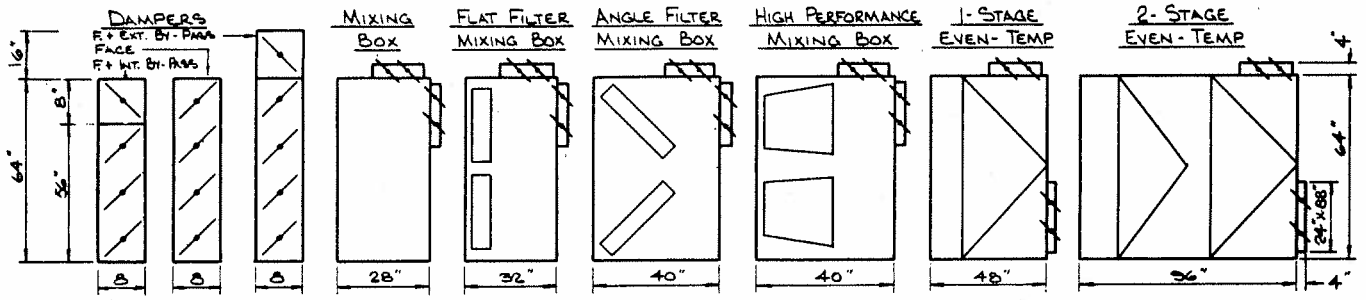
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

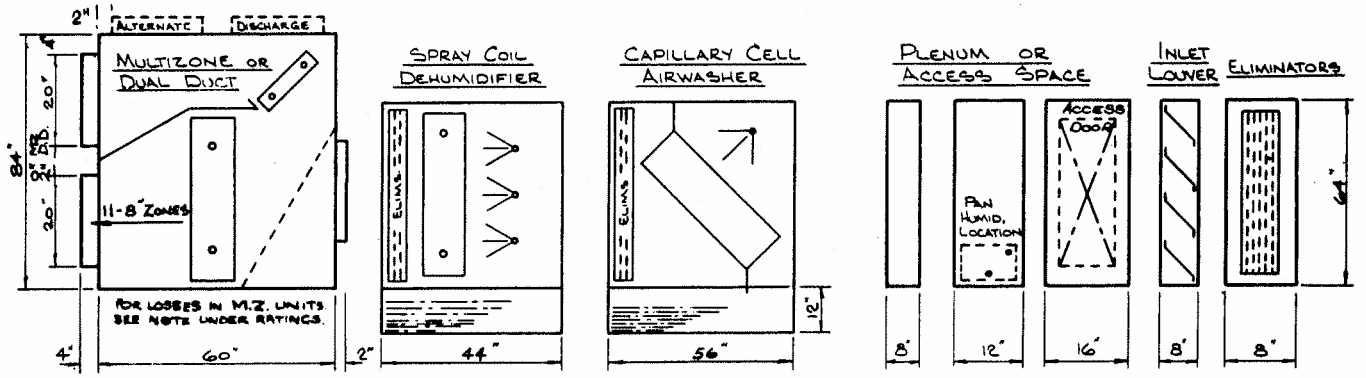
SHELDONS
MODULAR A/C UNIT
SIZE 9.1

standard coil	- 27.54sq ft	36 tf x 80" ntl
internal by-pass htg coil	- 23.14sq ft	30 tf x 80" ntl
multizone heating coil	- 13.77sq ft	18 tf x 80" ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	6-20"x20"x2", 6-20"x25"x2	36.9 sq ft
ANGLE FILTER	12-16"x20"x2", 12-16"x25"x2	57.6 sq ft
HIGH VELOCITY	6-20"x20"x2", 6-20"x25"x2	36 sq ft
HIGH PERFORMANCE	6-20"x20"x8", 6-20"x25"x8	31.2 sq ft
ROLL FILTER	5'-0" x 7'-6"	32.7 sq ft

HUMIDIFIERS

CAPACITY - LBS./HR.

WATER SPRAY 50 PSI.	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
40	153	306	62	124	39	13

FACTORS FOR STEAM OTHER THAN 5#

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS - STEAM

½"	¾"	¾"	1"	1½"	—	—

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM 'T' FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	222	245	300	—	300
HORIZ	444T	444T	286T	—	215T
VERT	444T	444T	324T	—	215T

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	-	-	-	-	-	-	-
THROW-AWAY FLAT	.120"	.145"	.17"	.15"	.21"	.24"	.27"
THROW-AWAY ANGLE	—	.07"	.085"	.10"	.115"	.135"	.15"
HIGH VELOCITY FLAT	—	.06"	.07"	.085"	.10"	.12"	.14"
HIGH PERFORMANCE	.03"	.04"	.06"	.08"	.11"	.145"	.21"
ROLL	.06"	.075"	.105"	.125"	.155"	.19"	.22"
SPRAY COIL DEHUMID.	.16"	.24"	.33"	.41"	.5"	.58"	.67"
CAPILLARY AIRWASHER	.10"	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 1-STAGE	.10"	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 2-STAGE	.17"	.22"	.25"	.38"	.50"	.63"	.76"
ELIMINATORS	.10"	.12"	.14"	.16"	.19"	.22"	.25"

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM.	USGPM	PSI.	PUMP HP
	30	15	½		7600	64	15	1.0

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	1532	MIXING BOX	586
5" COIL	230	FLAT FILTER MIXING BOX	728
10" COIL	324	ANGLE FILTER MIXING BOX	851
12½" COIL	409	HIGH PERFORMANCE FILTER & MIXING BOX	758
15" COIL	483	1-STAGE EVEN-TEMP	854
FLAT FILTER	141	2-STAGE EVEN-TEMP	1442
ANGLE FILTER	332	MULTIZONE	1468
HIGH PERF FILTER	210	SPRAY COIL DEHUMIDIFIER	3869
ELECTRIC COIL	478	CAPILLARY CELL AIRWASHER	4639
ROLL FILTER	140	PLENUM / FT	108
FACE & INTERNAL BY-PASS DAMPER	150	ACCESS SPACE	140
FACE DAMPER	173	INLET LOUVER	291
FACE & EXTERNAL BY-PASS DAMPER	242	ELIMINATORS	1160

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½"-6" SP
③ ADD 25% FOR 5½"-10" SP
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	'C' SUPPLY & RETURN	R+RC SUPPLY & RETURN	'DP' (TO REST EXPANSION) 2	3	4.5	6	R	'ANF' S	R	'BNF' 1-ROW		2-ROW		FLEXITUBE 1-ROW		2-ROW		'CH' 1	2
STANDARD	2"	2"	1⅝"	1⅝"	1⅝"	1⅝"	2⅛"	2"	1½"	2"	1½"	2"	1½"	2"	1¼"	2"	1½"	1½"	2"
INT. BY-PASS	2"	2"	1⅜"	1⅜"	1⅜"	1⅜"	2⅛"	2"	1½"	1½"	1½"	2"	1½"	1½"	1¼"	2"	1½"	1½"	2"
M.Z. HEAT	2"	2"	—	—	—	—	—	2"	1½"	2"	1½"	2"	1½"	2"	1¼"	2"	1½"	1½"	2"

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF • 1-COIL ; 30 — 54 TF • 2-COIL ; 57 — 75 TF • 3-COIL

PERFORMANCE RATINGS

size 9.1

LOW PRESSURE — 270 B wheel — outlet area - 8.55 sq ft

C.F.M.	Outlet Velocity	Coil Velocity			½" SP		¾" SP		1" SP		1¼" SP		1½" SP		1¾" SP		2" SP		2¼" SP		2½" SP		2¾" SP		3" SP	
		Std.	Int. B'Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
11325	1324	411	489	833	655	2.12	714	2.71	763	3.25	804	3.75	847	4.32	887	4.93	924	5.51	958	6.07	993	6.71	1028	7.38	1063	8.04
12835	1501	465	554	944	709	2.70	766	3.38	816	4.03	855	4.65	895	5.19	933	5.84	971	6.50	1006	7.17	1038	7.84	1069	8.50	1099	9.16
14345	1677	520	619	1055	767	3.44	818	4.15	868	4.91	913	5.65	951	6.33	985	6.96	1018	7.61	1052	8.34	1085	9.09	1116	9.85	1146	10.6
15855	1854	575	684	1166	827	4.32	872	5.05	921	5.90	964	6.72	1004	7.54	1040	8.31	1073	9.03	1102	9.65	1132	10.5	1162	11.3	1192	12.1
17365	2025	630	750	1278	890	5.38	931	6.17	974	7.03	1017	7.94	1056	8.83	1092	9.72	1127	10.6	1158	11.3	1186	12.1	1213	12.9	1240	13.7
18120	2120	657	782	1333	922	5.95	959	6.76	1000	7.63	1042	8.57	1081	9.51	1118	10.5	1153	11.3	1185	12.3	1213	13.0	1238	13.8	1263	14.6
19630	2290	712	848	1444	986	7.28	1022	8.15	1058	9.06	1097	10.0	1134	11.0	1169	12.0	1205	13.0	1237	14.0	1267	15.0	1294	15.9	1321	16.8

270 RB wheel — outlet area - 8.55 sq ft

11016	1288	400	480	810	482	1.90	547	2.39	606	2.92	661	3.50	712	4.05	761	4.71	805	5.34	845	6.00	891	6.68	930	7.35	968	8.04
12393	1445	450	532	900	509	2.46	570	2.97	627	3.53	675	4.12	725	4.77	775	5.40	819	6.10	861	6.80	901	7.51	940	8.25	978	9.01
13770	1611	500	590	1000	535	3.12	595	3.66	649	4.25	700	4.88	747	5.54	792	6.25	835	6.96	875	7.69	915	8.46	953	9.25	989	10.03
15147	1772	550	650	1100	572	3.90	623	4.50	673	5.09	721	5.75	767	6.46	811	7.19	852	7.95	892	8.73	930	9.51	967	10.32	1003	11.18
16524	1933	600	710	1200	607	4.77	653	5.47	700	6.12	745	6.79	789	7.51	831	8.27	871	9.07	910	9.87	947	10.73	983	11.58	1018	12.43
17901	2094	650	770	1300	644	5.93	685	6.61	728	7.28	771	7.98	813	8.74	853	9.51	892	10.33	930	11.20	966	12.06	1001	12.95	1035	13.88
19278	2255	700	830	1400	681	7.30	719	7.83	758	8.62	799	9.38	838	10.12	877	10.95	915	11.78	951	12.64	986	13.38	1020	14.51	1053	15.43

MEDIUM PRESSURE — 245 B wheel — outlet area - 7.05 sq ft

C.F.M.	Outlet Velocity	Coil Velocity			3" SP		3¼" SP		3½" SP		3¾" SP		4" SP		4¼" SP		4½" SP		4¾" SP		5" SP		5¼" SP		5½" SP	
		Std.	Int. B'Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
9345	1345	340	405	677	1172	6.63	1210	7.23	1248	7.83	1285	8.45	1322	9.06	1357	9.68	1392	10.3	1427	11.0	1461	11.6	1494	12.3	1527	12.9
11214	1615	408	485	813	1238	8.12	1270	8.72	1302	9.32	1334	9.95	1365	10.6	1398	11.2	1430	11.9	1462	12.7	1493	13.4	1524	14.1	1554	14.8
13083	1884	476	566	948	1316	9.99	1347	10.6	1378	11.3	1407	12.0	1435	12.6	1462	13.3	1489	14.0	1517	14.8	1544	15.5	1571	16.3	1598	17.0
14552	2153	545	647	1084	1395	12.1	1426	12.9	1456	13.6	1485	14.4	1513	15.2	1541	15.9	1568	16.6	1594	17.4	1619	18.2	1643	19.0	1666	19.7
16821	2422	612	728	1219	1487	14.8	1514	15.6	1541	16.4	1566	17.1	1591	17.8	1618	18.7	1644	19.6	1670	20.5	1695	21.3	1720	22.2	1745	23.1
18690	2690	680	810	1355	1575	17.8	1604	18.8	1633	19.7	1658	20.6	1683	21.4	1706	22.2	1728	23.0	1751	23.9	1774	24.7	1798	25.7	1822	26.7
20559	2960	748	890	1490	1661	21.0	1690	22.2	1719	23.3	1746	24.3	1773	25.3	1797	26.3	1820	27.2	1843	28.2	1866	29.1	1886	30.0	1905	30.8

245 RB wheel — outlet area - 7.05 sq ft

11016	1563	400	435	800	1086	8.00	1126	8.67	1164	9.34	1201	10.01	1237	10.69	1271	11.38	1305	12.05	1339	12.70	1372	13.34	1404	13.98	1436	14.62
12393	1758	450	489	900	1104	9.14	1143	9.84	1180	10.55	1215	11.26	1251	12.00	1285	12.56	1319	13.51	1352	14.27	1383	15.03	1415	15.80	1445	16.58
13770	1953	500	544	1000	1125	10.41	1161	11.12	1198	11.90	1234	12.68	1268	13.46	1301	14.24	1334	15.03	1366	15.84	1398	16.67	1429	17.51	1459	18.35
15147	2149	550	598	1100	1148	11.88	1184	12.66	1219	13.44	1253	14.22	1287	15.04	1320	15.89	1352	16.75	1384	17.61	1414	18.47	1444	19.33	1473	20.20
16524	2344	600	652	1200	1173	13.54	1208	14.33	1243	15.18	1276	16.04	1309	16.89	1341	17.74	1372	18.59	1402	19.48	1433	20.42	1463	21.35	1492	22.29
17901	2539	650	707	1300	1201	15.41	1235	16.28	1269	17.14	1301	17.99	1333	18.89	1364	19.83	1395	20.75	1425	21.68	1454	22.60	1482	23.52	1511	24.47
19278	2734	700	761	1400	1231	17.54	1263	18.38	1296	19.32	1328	20.26	1359	21.19	1389	22.12	1418	23.04	1448	24.05	1477	25.05	1506	26.05	1533	27.04

HIGH PRESSURE — 222 B wheel — outlet area = 5.73 sq ft

C.F.M.	Outlet Velocity	Coil Velocity			5½" SP		5¾" SP		6" SP		6½" SP		7" SP		7½" SP		8" SP		8½" SP		9" SP		9½" SP		10" SP	
		Std.	Int. B'Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
10180	1781	370	440	738	1737	13.2	1769	13.9	1801	14.5	1864	15.9	1923	17.3	1982	18.7	2040	20.0	2097	21.5	2154	22.9	2209	24.3	2263	25.7
11707	2048	426	506	849	1810	15.5	1839	16.2	1867	16.8	1923	18.2	1977	19.6	2031	21.0	2084	22.4	2138	24.0	2192	25.5	2244	27.0	2296	28.6
13234	2315	482	573	960	1884	17.8	1909	18.5	1934	19.2	1982	20.5	2031	21.9	2080	23.4	2128	24.8	2175	26.5	2225	28.1	2279	29.8	2328	31.5
14761	2583	537	640	1070	1967	20.7	1993	21.5	2017	22.3	2067	23.8	2116	25.4	2163	26.9	2209	28.5	2256	30.1	2301	31.7	2345	33.4	2390	35.1
16288	2850	593	705	1180	2051	23.7	2076	24.5	2100	25.3	2152	27.1	2201	28.8	2246	30.5	2291	32.2	2332	33.8	2373	35.4	2412	37.1	2451	38.7
17815	3118	648	771	1290	2153	27.9	2177	28.8	2201	29.7	2248	31.4	2290	33.0	2332	34.7	2373	36.4	2416	38.2	2457	40.0	2497	41.9	2537	43.8
19342	3385	704	837	1402	2255	32.2	2279	33.2	2302	34.1	2345	35.8	2380	37.3	2418	39.0	2455	40.6	2500	42.6	2542	44.6	2583	46.8	2623	48.9

222 RB wheel — outlet area = 5.73 sq ft

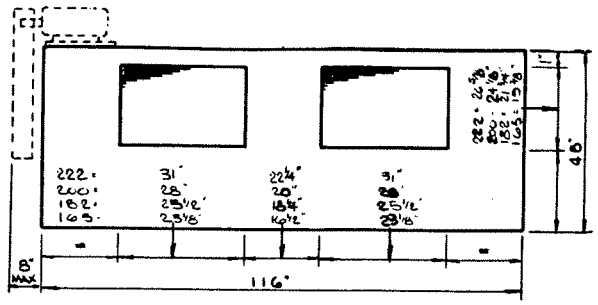
11016	1923	400	435	800	1623	14.68	1656	15.35	1689	16.03	1751	17.40	1813	18.74	1873	20.03	1931	21.31	1988	22.56	2043	23.88	2096	25.17	2148	26.45
12393	2163	450	489	900	1644	16.55	1676	17.26	1708	18.00	1771	19.51	1831	21.02	1889	22.54	1945	24.08	2000	25.62	2054	27.09	2108	28.53	2160	29.98
13770	2403	500	544	1000	1670	18.67	1702	19.45	1733	20.23	1793	21.79	1851	23.36	1909	25.01	1965	26.68	2019	28.35	2072	30.04	2124	31.74	2174	33.45
15147	2643	550	598	1100	1698	21.04	1729	21.82	1758	22.61	1819	24.32	1877	26.03	1933	27.75	1987	29.47	2039	31.20	2092	33.01	2143	34.84	2193	36.69
16524	2884	600	652	1200	1731	23.74	1761	24.60	1790	25.46	1848	27.16	1903	28.86	1958	30.69	2012	32.56	2065	34.43	2116	36.31	2165	38.19	2214	40.07
17901	3124	650	707	1300	1766	26.77	1794	27.62	1823	28.49	1880	30.36	1935	32.21	1988	34.06	2040	35.91	2091	37.80	2141	39.82	2191	41.84	2239	43.87
19278	3364	700	761	1400	1864	30.16	1832	31.10	1860	32.03	1914	33.88	1967	35.75	2021	37.76	2072	39.76	2122	41.76	2170	43.74	2218	45.73	2265	47.83

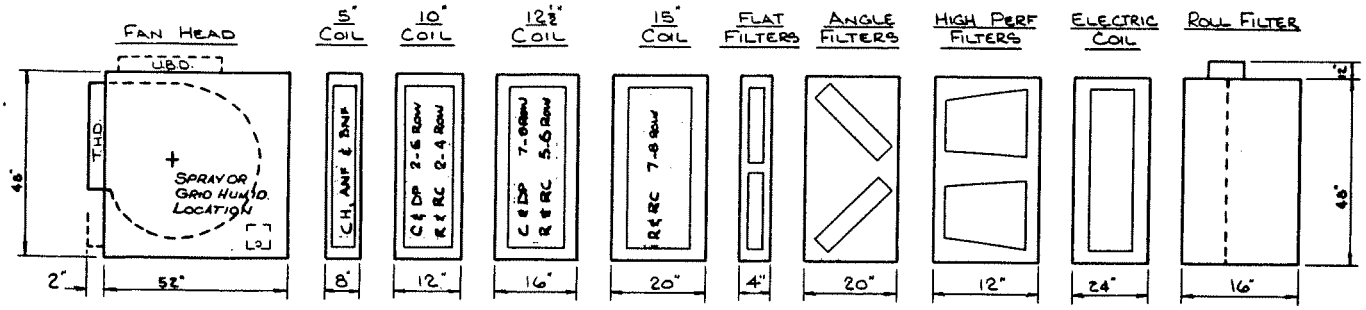
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

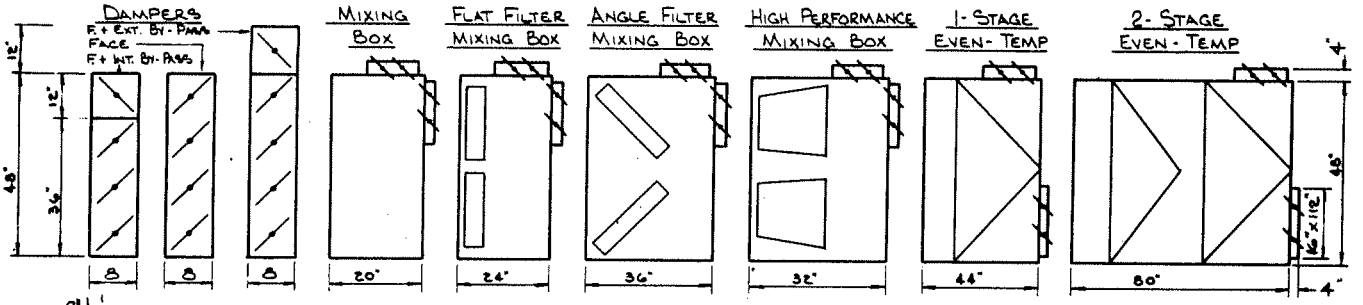
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

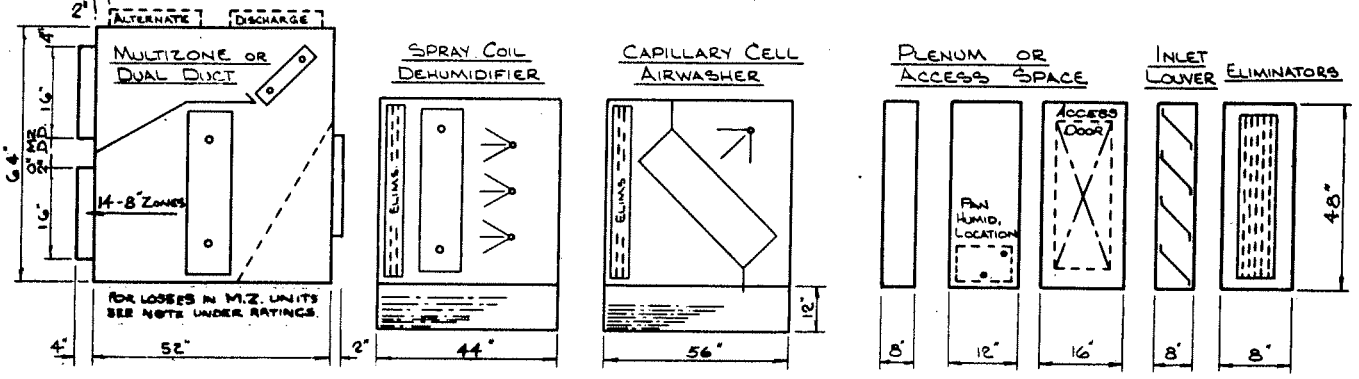
SHELDONS
MODULAR A/C UNIT
SIZE 9.2

standard coil	26.95sq ft	27 tf x	104"ntl
internal by-pass htg coil	20.99sq ft	21 tf x	104"ntl
multizone heating coil	14.99sq ft	15 tf x	104"ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	4-20x20x2 6-20x25x2	30.7 SQ.FT.
ANGLE FILTER	6-20x20x2 3-20x25x2	46.0 SQ.FT.
HIGH VELOCITY		
HIGH PERFORMANCE	4-20x20x6 6-20x25x6	27.5 SQ.FT.
ROLL FILTER	4'-0" x 9'-6"	32.4 SQ.FT.

HUMIDIFIERS

CAPACITY – LBS./HR.

WATER SPRAY 50 PSI.	5" STEAM GRID		PAN 5" STEAM		PAN ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
50	193	386	78	156	51	17

FACTORS FOR STEAM OTHER THAN 5"

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS – STEAM

½"	¾"	¾"	1¼"	2"	—	—

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	165	182	200	222	222
HORIZ	326T	326T	256T	215T	143T
VERT	365T	326T	256T	215T	143T

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	—	—	—	—	—	—	—
THROW-AWAY FLAT	.14	.17	.20	.23	.26	—	—
THROW-AWAY ANGLE	.08	.095	.11	.13	.15	.17	.19
HIGH VELOCITY FLAT	.06	.07	.09	.11	.135	.165	.19
HIGH PERFORMANCE	.04	.07	.10	.14	.19	.24	—
ROLL	.06	.075	.105	.125	.155	.19	.22
SPRAY COIL DEHUMID.	.16	.24	.33	.41	.50	.58	.67
CAPILLARY AIRWASHER	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 1-STAGE	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 2-STAGE	.17	.22	.29	.38	.50	.63	.76
ELIMINATORS	.10	.12	.14	.16	.19	.22	.25

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI.	PUMP HP
	30	15	½		11000	40	15	¾

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	1612	MIXING BOX	442
5" COIL	178	FLAT FILTER MIXING BOX	547
10" COIL	245	ANGLE FILTER MIXING BOX	691
12½" COIL	315	HIGH PERFORMANCE FILTER + MIXING BOX	620
15" COIL	378	1-STAGE EVEN-TEMP	747
FLAT FILTER	105	2-STAGE EVEN-TEMP	1162
ANGLE FILTER	285	MULTIZONE	1239
HIGH PERF. FILTER	178	SPRAY COIL DEHUMIDIFIER	4094
ELECTRIC COIL	388	CAPILLARY CELL AIRWASHER	4839
ROLL FILTER	150	PLENUM/FT.	111
FACE + INTERNAL BY-PASS DAMPER	293	ACCESS SPACE	148
FACE DAMPER	266	INLET LOUVER	271
FACE + EXTERNAL BY-PASS DAMPER	372	ELIMINATORS	1007

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP
③ ADD 25% FOR 5½"-10" SP
④ WASHER WEIGHT INCLUDES WATER IN TANK + PUMP

COIL CONNECTIONS (ONE COIL)

COIL	"C" SUPPLY & RETURN	R+RC SUPPLY & RETURN	"DP" (DIRECT EXPANSION) 2	3	4.5	6	R	"ANF" S	R	"BNF" 1-ROW	2-ROW	FLEXITUBE 1-ROW		2-ROW		"CH" 1	2
STANDARD	2"	2½"	⅜	⅜	⅜	⅜	2⅛	2½	1½	2	1½	2½	1½	2	1¼	2½	1½	1½	2
INT. BY-PASS	2"	2½"	⅜	⅜	⅜	⅜	2⅛	2½	1½	2	1½	2½	1½	2	1¼	2½	1½	1½	2
M.Z. HEAT	2"	2	—	—	—	—	—	2	1½	1½	1½	2	1½	1½	1¼	2	1½	1½	2

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 9.2

LOW PRESSURE

2 - 222 B wheel — **outlet area =11.46 sq ft**

C.F.M.	Outlet Velocity	Coil Velocity			½" SP		¾" SP		1" SP		1¼" SP		1½" SP		1¾" SP		2" SP		2¼" SP		2½" SP		2¾" SP		3" SP	
		Std.	Int. B'Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
10180	888	377	484	678	633	1·38	711	1·92	777	2·42	841	3·02	902	3·66	967	4·34	1000	5·00	1040	5·64	1080	6·31	—	—	—	—
12360	1079	459	588	823	700	1·92	767	2·46	835	3·10	892	3·72	947	4·36	1000	5·06	1030	6·10	1080	6·86	1120	7·52	1165	8·13	1205	9·01
14252	1244	529	678	950	762	2·50	835	3·24	890	3·86	945	4·58	1000	5·34	1050	6·08	1100	7·02	1140	7·90	1167	8·75	1210	9·56	1255	10·3
16288	1421	604	774	1082	827	3·24	898	4·08	955	4·90	1010	5·60	1060	6·40	1105	7·26	1150	8·08	1195	8·94	1226	9·71	1267	11·5	1307	11·5
18324	1599	680	873	1221	895	4·10	960	5·06	1020	6·02	1075	6·90	1125	7·74	1160	8·54	1210	9·50	1250	10·5	1285	11·4	1322	13·2	1358	13·2
20360	1774	754	968	1355	965	5·14	1025	6·20	1085	7·24	1140	8·32	1190	9·34	1230	10·2	1270	11·1	1310	12·1	1340	13·1	1378	15·2	1416	15·2
22396	1955	830	1064	1489	1040	6·48	1090	7·48	1145	8·62	1200	9·80	1250	11·0	1295	12·14	1335	13·2	1370	14·2	1398	15·0	1435	17·3	1471	17·3

2 - 200 F wheel — **outlet area - 9.36 sq ft**

11592	1235	430	550	772	391	2·02	453	2·62	513	3·28	572	4·00	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13248	1415	492	631	883	416	2·66	466	3·26	522	3·96	575	4·70	626	5·54	674	6·36	—	—	—	—	—	—	—	—	—	—
14904	1591	553	710	995	434	3·30	487	4·06	535	4·80	584	5·58	635	6·44	680	7·34	695	8·54	—	—	—	—	—	—	—	—
16560	1766	614	788	1104	450	4·00	515	5·10	553	5·82	597	6·62	643	7·50	686	8·44	714	9·84	774	10·6	760	11·6	817	12·6	—	—
18216	1946	676	866	1213	476	5·06	532	6·06	580	7·06	616	7·88	655	8·76	696	9·74	735	10·7	777	11·8	810	12·8	846	14·0	881	15·0
19872	2120	738	946	1324	512	6·40	545	7·10	604	8·40	642	9·40	673	10·3	705	11·3	747	12·3	785	13·4	816	14·4	852	15·5	886	16·8
21528	2295	798	1025	1432	548	7·92	570	8·40	615	9·68	663	11·0	697	12·0	725	13·0	760	14·0	792	15·1	826	16·2	860	17·4	894	18·7

MEDIUM PRESSURE

2 - 182 B wheel — **outlet area - 7.70 sq ft**

C.F.M.	Outlet Velocity	Coil Velocity			3" SP		3¼" SP		3½" SP		3¾" SP		4" SP		4¼" SP		4½" SP		4¾" SP		5" SP		5¼" SP		5½" SP	
		Std.	Int. B'Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
8892	1152	330	423	592	1533	6·47	1586	7·09	1643	7·70	1696	8·32	1748	8·93	1798	9·57	1848	10·2	1896	10·8	1944	11·3	—	—	—	—
10944	1423	406	521	731	1591	7·72	1641	8·35	1690	9·05	1739	9·78	1787	10·5	1833	11·2	1879	11·9	1924	12·7	1968	13·4	1990	14·1	2045	14·9
12996	1685	464	618	865	1685	9·52	1730	10·2	1771	10·8	1812	11·6	1852	12·3	1893	13·0	1934	13·7	1976	14·6	2018	15·4	2059	16·2	2100	17·0
15048	1953	559	716	1004	1791	11·6	1834	12·4	1876	13·2	1914	14·0	1952	14·7	1988	15·5	2024	16·2	2059	17·0	2093	17·8	2128	18·7	2163	19·5
17100	2221	636	815	1140	1910	14·5	1950	15·4	1989	16·2	2023	17·0	2057	17·7	2092	18·6	2126	19·4	2161	20·8	2196	21·2	2230	22·1	2264	23·0
19152	2485	711	912	1278	2028	17·4	2065	18·3	2102	19·2	2132	20·0	2162	20·7	2195	21·6	2227	22·5	2263	23·6	2299	24·6	2332	25·6	2365	26·5
22204	2885	825	1055	1480	2146	20·3	2190	21·2	2205	22·4	2241	23·0	2267	23·7	2298	24·6	2328	25·6	2365	26·9	2399	28·0	2434	29·1	2468	30·0

2 - 165 F wheel — **outlet area - 6.38 sq ft**

10114	1586	375	482	675	1111	8·90	1156	9·60	1206	10·5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11800	1694	438	562	788	1150	10·3	1173	11·7	1216	12·6	1257	13·4	1296	14·3	—	—	—	—	—	—	—	—	—	—	—	—
13486	2110	496	636	898	1145	12·5	1188	13·8	1226	14·7	1266	15·6	1304	16·6	1341	17·5	1371	18·8	—	—	—	—	—	—	—	—
15172	2382	562	722	1010	1180	15·3	1217	16·3	1251	17·2	1285	18·1	1321	19·2	1356	20·2	1387	21·1	1423	22·1	1461	23·2	—	—	—	—
16858	2642	625	803	1122	1226	18·7	1257	19·5	1287	20·4	1318	21·2	1350	22·3	1381	23·1	1420	24·0	1461	24·9	1489	25·7	1512	26·7	1533	27·9
18544	2905	688	884	1238	1275	22·3	1306	23·3	1333	24·4	1363	25·3	1390	26·1	1417	27·1	1445	28·0	1475	29·3	1503	30·3	1531	31·4	1559	32·4
20230	3170	752	965	1350	1321	26·3	1353	27·3	1383	28·6	1412	29·7	1438	31·0	1464	32·0	1490	32·9	1516	33·9	1540	35·0	1566	36·1	1592	37·1

HIGH PRESSURE

wheel — **outlet area** — **sq ft**

C.F.M.	Outlet Velocity	Coil Velocity			5½" SP		5¾" SP		6" SP		6½" SP		7" SP		7½" SP		8" SP		8½" SP		9" SP		9½" SP		10" SP	
		Std.	Int. B'Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
									not available																	

wheel — **outlet area** — **sq ft**

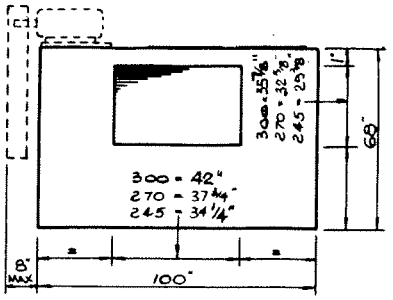
									not available																	

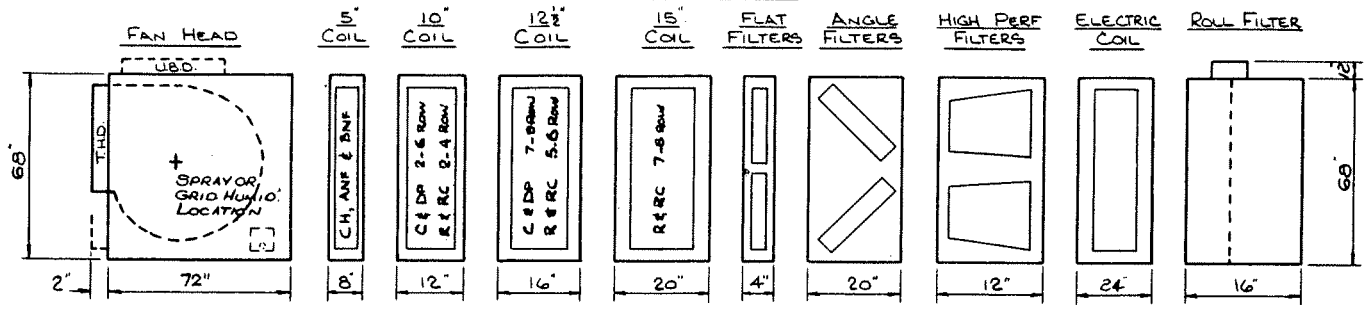
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

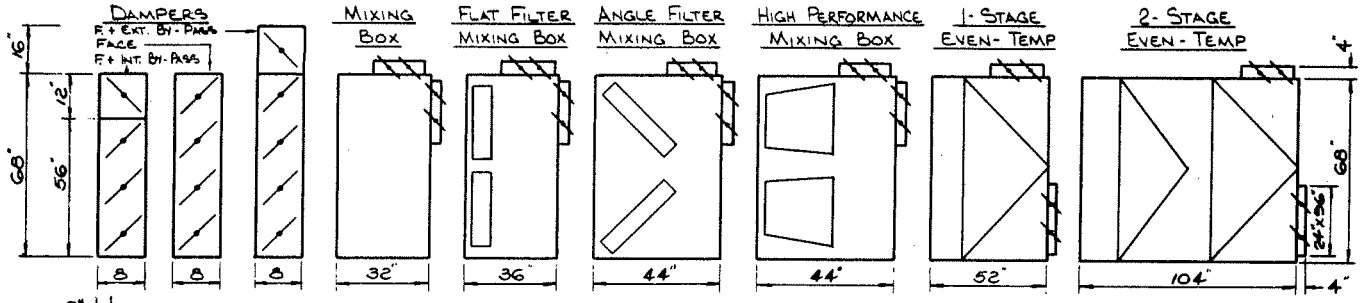
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

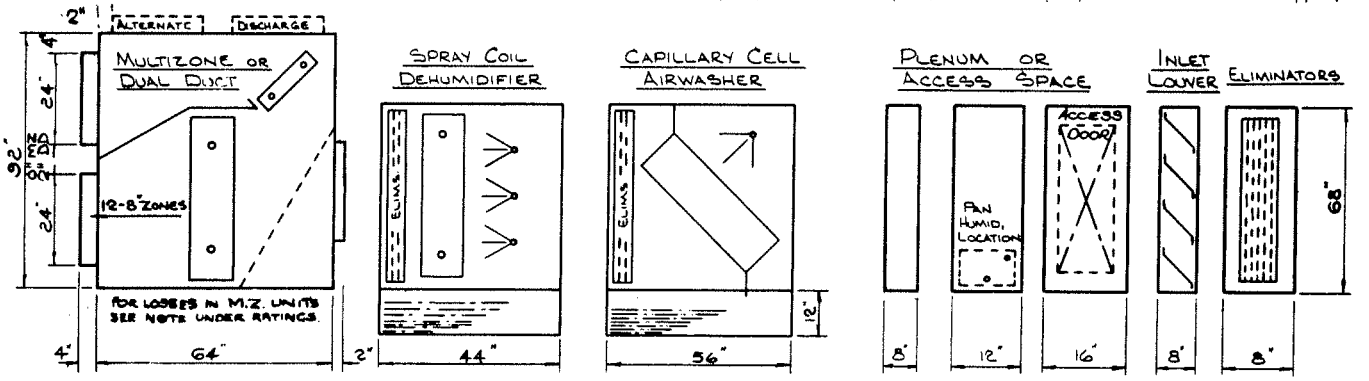
SHELDONS
MODULAR A/C UNIT
SIZE 10.1

standard coil - 32.97sq ft 39 tf x 88″ ntl
internal by-pass htg coil - 25.30sq ft 30 tf x 88″ ntl
multizone heating coil - 17.71sq ft 21 tf x 88″ ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	16-16"x25"x2"	42.7SqFt
ANGLE FILTER	20-20"x25"x2"	67.5SqFt
HIGH VELOCITY	16-16"x25"x2"	42.7SqFt
HIGH PERFORMANCE	20-16"x20"x8"	39.5 SqFt
ROLL FILTER	5'-6"x8'-0"	35.5SqFt

HUMIDIFIERS

CAPACITY - LBS./HR.

WATER SPRAY 50 PSI	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
50	166	333	67	134	42	14

FACTORS FOR STEAM OTHER THAN 5"

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS - STEAM

½"	¾"	¾"	1¼"	1½"	-	-

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD FAN HEAD

FAN	POSITION W				POSITION X
DISCH	245	270	330	-	330
HORIZ	444T	444T	286T	-	254T
VERT	444T	444T	324T	-	254T

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	-	-	-	-	-	-	-
THROW-AWAY FLAT	.125	.145	.165	.185	.21	.24	.27
THROW-AWAY ANGLE	.065	.08	.095	.11	.125	.14	.155
HIGH VELOCITY FLAT	.06	.07	.09	.105	.12	.40	.16
HIGH PERFORMANCE	.03	.04	.06	.08	.11	.145	.19
ROLL	.075	.105	.135	.170	.21	.265	.33
SPRAY COIL DEHUMID.	.16	.24	.33	.41	.50	.58	.67
CAPILLARY AIRWASHER	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 1-STAGE	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 2-STAGE	.17	.22	.29	.38	.50	.63	.76
ELIMINATORS	.10	.12	.14	.16	.19	.22	.25

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI	PUMP HP
	56	15	½		42000	80	15	1½

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	1780	MIXING BOX	629
5" COIL	249	FLAT FILTER MIXING BOX	786
10" COIL	352	ANGLE FILTER MIXING BOX	921
12½" COIL	440	HIGH PERFORMANCE FILTER & MIXING BOX	861
15" COIL	527	1-STAGE EVEN-TEMP	965
FLAT FILTER	157	2-STAGE EVEN-TEMP	1600
ANGLE FILTER	367	MULTIZONE	1704
HIGH PERF FILTER	232	SPRAY COIL DEHUMIDIFIER	4266
ELECTRIC COIL	514	CAPILLARY CELL AIRWASHER	5186
ROLL FILTER	150	PLENUM/FT	111
FACE + INTERNAL BY-PASS DAMPER	342	ACCESS SPACE	148
FACE DAMPER	311	INLET LOUVER	323
FACE + EXTERNAL BY-PASS DAMPER	435	ELIMINATORS	1330

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½"-6P.
③ ADD 25% FOR 5½"-10"-6P.
④ WASHER WEIGHT INCLUDES WATER IN TANK + PUMP

COIL CONNECTIONS (ONE COIL)

COIL	"C" SUPPLY & RETURN	R+RC SUPPLY & RETURN	"DP" (DIRECT EXPANSION) 2	3	4	5	6	R	"ANF" S	R	"BNF" 1-ROW	2-ROW	FLEXITUBE 1-ROW	2-ROW	"CH" 1	2
STANDARD	2"	2½"x2	1⅜"x2	1⅜"x2	1⅜"x2	1⅜"x2	1⅜"x2	2⅛"	2½"x2	1½"	2"	1½"	2½"x2	1½"	2"	1¼"	2½"x2	1½"	1½"	2"
INT. BY-PASS	2"	2"	1⅜"	1⅜"	1⅜"	1⅜"	1⅜"	2⅛"	2"	1½"	1½"	1½"	2"	1½"	1½"	1¼"	2"	1½"	1½"	2"
M.Z. HEAT	2"	2½"	-	-	-	-	-	-	2½"	1½"	2"	1½"	2½"	1½"	2"	1¼"	2½"	1½"	1½"	2"

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 10.1

LOW PRESSURE — 300 B wheel — outlet area - 10.45 sq ft

C.F.M.	Outlet Velocity	Coil Velocity STD.	Coil Velocity INT. B'PASS	Coil Velocity M.Z. HEAT	½" SP RPM	½" SP HP	¾" SP RPM	¾" SP HP	1" SP RPM	1" SP HP	1¼" SP RPM	1¼" SP HP	1½" SP RPM	1½" SP HP	1¾" SP RPM	1¾" SP HP	2" SP RPM	2" SP HP	2½" SP RPM	2½" SP HP	2¾" SP RPM	2¾" SP HP	3" SP RPM	3" SP HP
13505	1328	421	549	784	588	2.60	641	3.32	684	3.98	722	4.60	760	5.31	797	6.03	829	6.75	861	7.45	893	8.23	925	9.06	956	9.88
15759	1505	477	622	888	635	3.31	686	4.12	732	4.95	771	5.69	803	6.35	838	7.16	872	7.98	903	8.79	932	9.60	960	10.4	988	11.2
17613	1682	533	695	993	687	4.20	734	5.08	778	6.00	815	6.91	853	7.74	884	8.52	914	9.32	945	10.2	974	11.1	1002	12.0	1030	12.9
19467	1860	589	768	1097	742	5.26	782	6.17	826	7.21	865	8.23	901	9.21	933	10.2	963	11.0	988	11.8	1017	12.7	1044	13.7	1071	14.7
21321	2036	646	842	1202	799	6.57	835	7.53	874	8.59	912	9.70	948	10.7	980	11.9	1012	12.9	1038	13.9	1064	14.9	1089	15.8	1114	16.7
23175	2220	702	915	1307	853	7.9	887	9.21	923	10.1	960	11.3	995	12.5	1028	13.7	1058	14.9	1088	16.1	1112	17.2	1136	18.3	1160	19.3
25956	2480	787	1025	1463	944	10.7	973	11.9	1002	12.9	1032	14.1	1065	15.6	1097	16.9	1127	18.2	1155	19.6	1185	20.9	1208	22.2	1232	23.5

300 RB wheel — outlet area - 10.45 sq ft

13770	1318	417	543	776	436	2.41	494	3.01	548	3.68	597	4.39	642	5.12	686	5.90	726	6.68	765	7.50	802	8.34	838	9.19	872	10.04
15147	1449	458	598	855	456	2.97	511	3.59	562	4.28	610	5.02	654	5.80	696	6.59	736	7.444	774	8.30	810	9.17	846	10.09	879	11.0
16524	1581	502	653	933	477	3.60	525	4.25	578	4.97	624	5.75	667	6.56	708	7.41	747	8.27	784	9.18	820	10.11	854	11.05	887	12.0
17901	1713	543	707	1010	501	4.36	549	5.05	596	5.78	639	6.56	682	7.43	721	8.30	759	9.23	796	10.15	830	11.10	864	12.11	897	13.13
19278	1845	585	761	1087	526	5.17	570	5.93	614	6.68	657	7.52	697	8.38	736	9.32	772	10.24	808	11.25	842	12.24	875	13.23	907	14.3
20655	1975	627	815	1165	551	5.98	591	6.81	632	7.58	675	8.48	712	9.33	751	10.4	785	11.25	820	12.35	834	13.4	886	14.3	917	15.6
22032	2110	670	872	1260	576	6.79	612	7.64	650	8.48	693	9.44	727	10.3	766	11.4	798	12.3	832	13.45	846	14.5	897	15.4	927	16.8

MEDIUM PRESSURE — 270 B wheel — outlet area - 8.55 sq ft

C.F.M.	Outlet Velocity	Coil Velocity STD.	Coil Velocity INT. B'PASS	Coil Velocity M.Z. HEAT	3" SP RPM	3" SP HP	3¼" SP RPM	3¼" SP HP	3½" SP RPM	3½" SP HP	3¾" SP RPM	3¾" SP HP	4" SP RPM	4" SP HP	4¼" SP RPM	4¼" SP HP	4½" SP RPM	4½" SP HP	4¾" SP RPM	4¾" SP HP	5" SP RPM	5" SP HP	5¼" SP RPM	5¼" SP HP	5½" SP RPM	5½" SP HP
11325	1325	343	448	640	1063	8.06	1098	8.77	1132	9.49	1166	10.2	1199	10.9	1232	11.7	1264	12.5	1295	13.3	1325	14.1	1355	14.8	1385	15.7
13590	1590	412	538	768	1122	9.84	1151	10.5	1180	11.2	1209	12.0	1237	12.8	1267	13.6	1296	14.4	1326	15.3	1355	16.2	1383	17.1	1411	18.0
15855	1855	480	628	896	1192	12.1	1221	12.9	1250	13.7	1276	14.5	1302	15.3	1326	16.2	1350	17.0	1375	17.9	1400	18.7	1425	19.7	1449	20.6
18120	2120	549	718	1024	1264	14.6	1292	15.5	1319	16.4	1346	17.4	1372	18.3	1397	19.3	1421	20.2	1472	21.1	1523	22.0	1517	23.0	1510	23.9
20385	2385	618	807	1152	1348	18.0	1373	18.9	1397	19.8	1420	20.7	1443	21.6	1466	22.7	1490	23.7	1514	24.8	1537	25.9	1560	27.0	1582	28.0
22650	2650	686	897	1280	1428	21.6	1454	22.8	1480	23.9	150.3	25.0	1525	26.0	1546	27.0	1567	27.9	1588	29.0	1609	30.0	1630	31.2	1651	32.3
24915	2915	755	987	1408	1505	25.5	1532	26.9	1559	28.2	1583	29.5	1607	30.7	1625	31.9	1649	33.0	1670	34.2	1690	35.3	1709	36.3	1727	37.3

270 RB wheel — outlet area - 8.55 sq ft

13188	1542	400	521	744	984	9.58	1020	10.4	1055	11.2	1088	12.0	1121	12.8	1152	13.6	1184	14.4	1214	15.2	1244	160	1274	16.7	1302	175
14836	1735	450	586	837	1000	10.9	1035	11.8	1068	12.6	1101	13.5	1133	14.4	1165	15.3	1195	16.2	1225	17.1	1254	18.0	1282	18.9	1310	198
16485	1928	500	651	930	1017	12.4	1051	13.3	1085	14.2	1117	15.1	1148	16.1	1178	17.0	1208	18.0	1238	19.0	1266	20.0	1295	21.0	1322	22.0
18133	2121	550	716	1023	1038	14.1	1071	15.1	1103	16.0	1134	16.9	1165	18.0	1195	19.0	1224	20.0	1253	21.0	1281	22.1	1308	23.1	1335	24.2
19782	2314	600	781	1116	1061	16.1	1092	17.0	1124	18.1	1155	19.1	1184	20.1	1213	21.1	1241	22.1	1270	23.3	1297	24.4	1324	25.5	1351	26.6
21430	2506	650	846	1209	1085	18.3	1116	19.3	1147	20.3	1176	21.4	1205	22.5	1234	23.6	1262	24.7	1289	25.8	1315	26.9	1341	28.0	1368	29.2
23079	2699	700	912	1302	1111	20.7	1141	21.8	1171	22.9	1200	24.0	1228	25.2	1255	26.3	1283	27.4	1310	28.6	1336	29.8	1362	31.0	1387	32.2

HIGH PRESSURE — 245 A wheel — outlet area - 7.05 sq ft

C.F.M.	Outlet Velocity	Coil Velocity STD.	Coil Velocity INT. B'PASS	Coil Velocity M.Z. HEAT	5½" SP RPM	5½" SP HP	5¾" SP RPM	5¾" SP HP	6" SP RPM	6" SP HP	6½" SP RPM	6½" SP HP	7" SP RPM	7" SP HP	7½" SP RPM	7½" SP HP	8" SP RPM	8" SP HP	8½" SP RPM	8½" SP HP	9" SP RPM	9" SP HP	9½" SP RPM	9½" SP HP	10" SP RPM	10" SP HP
12460	1769	376	493	704	1647	146	1672	152	1696	158	1745	173	1798	184	1831	190	1870	201	1911	213	1950	227	2005	241	—	—
14329	2035	434	567	810	1735	177	1759	184	1783	191	1831	201	1874	214	1917	226	1956	240	1997	252	2035	269	2071	278	2106	290
16198	2300	491	641	915	1822	207	1846	215	1870	223	1916	239	1961	254	2003	269	2044	284	2083	299	2121	314	2158	329	2194	343
18067	2566	547	715	1022	1910	240	1934	249	1957	258	2001	277	2048	294	2089	312	2130	329	2169	346	2207	363	2245	380	2288	397
19936	2831	604	789	1128	1998	272	2021	283	2043	293	2086	314	2134	334	2175	354	2216	373	2255	392	2293	411	2332	431	2370	451
21805	3096	661	863	1235	2101	315	2122	326	2142	336	2183	358	2225	379	2265	401	2304	421	2343	443	2381	464	2419	486	2500	508
23674	3362	717	937	1340	2203	350	2222	369	2241	379	2279	402	2316	424	2354	447	2391	469	2430	493	2468	516	2506	541	2543	565

245 RB wheel — outlet area - 7.05 sq ft

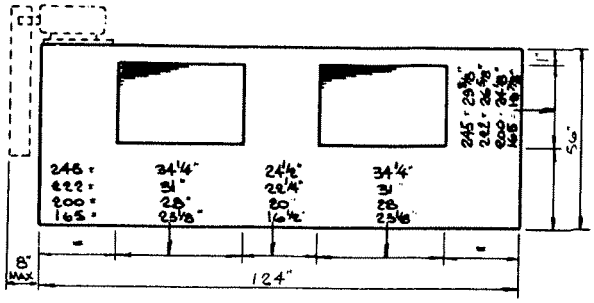
13188	1871	400	521	744	1453	176	1483	184	1512	192	1568	208	1625	224	1679	239	1731	255	1782	270	1831	285	1879	301	1926	316
14836	2104	450	586	837	1470	198	1500	207	1528	216	1585	234	1639	252	1691	270	1741	289	1792	306	1841	323	1889	341	1936	358
16485	2338	500	651	930	1491	222	1520	232	1548	241	1602	260	1656	279	1708	299	1758	320	1807	340	1855	360	1901	381	1946	401
18133	2572	550	716	1023	1514	249	1542	259	1570	269	1624	289	1676	310	1727	331	1775	351	1824	373	1872	395	1918	417	1963	439
19782	2806	600	781	1116	1542	280	1569	291	1596	301	1647	321	1699	343	1749	365	1797	388	1844	410	1890	433	1935	455	1980	479
21430	3040	650	846	1209	1570	314	1597	325	1624	336	1675	358	1725	380	1772	403	1820	426	1867	450	1912	474	1957	498	2000	523
23079	3274	700	912	1302	1603	353	1629	364	1654	375	1703	398	1752	422	1800	446	1846	470	1891	493	1935	517	1979	543	2023	569

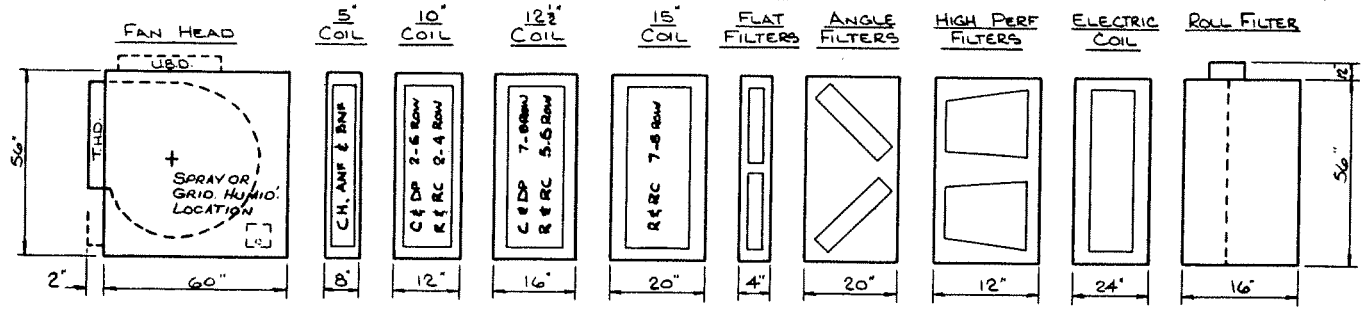
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

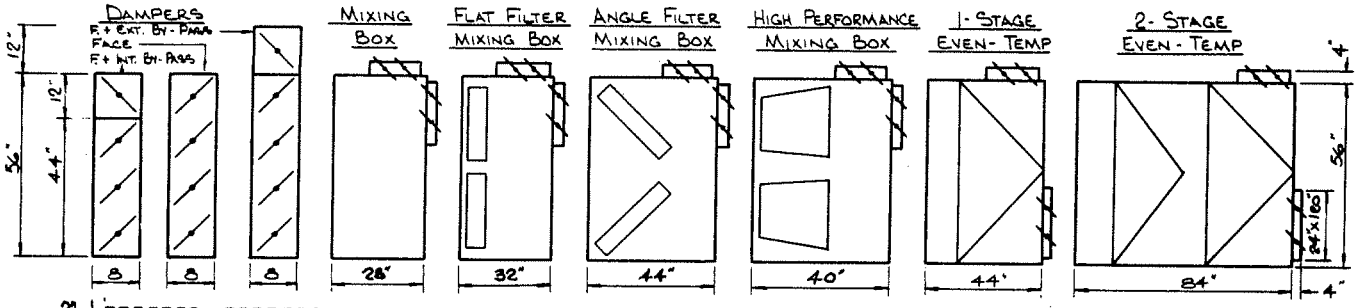
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

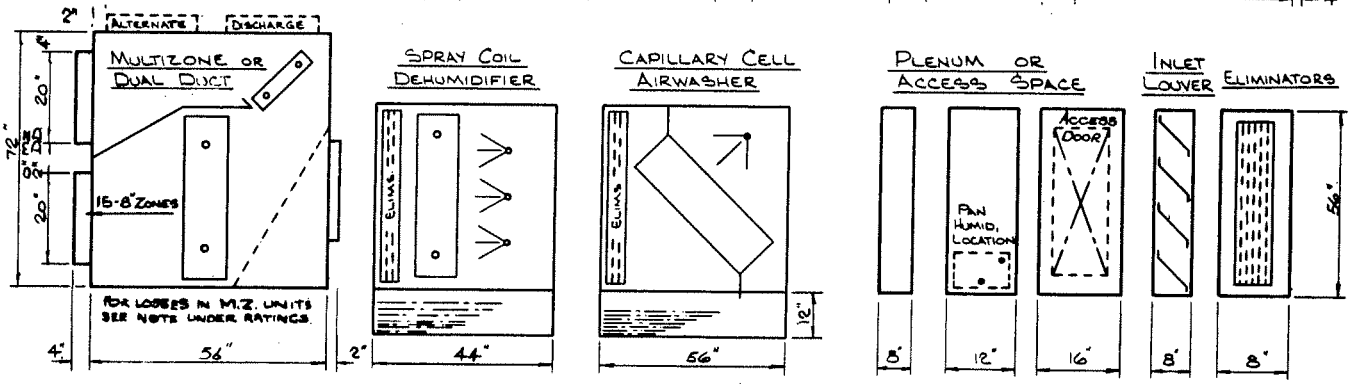
SHELDONS
MODULAR A/C UNIT
SIZE 10.2

standard coil - 32.32sq ft 30 tf x 112" ntl
internal by-pass htg coil-25.84sq ft 24 tf x 112" ntl
multizone heating coil - 16.16sq ft 15 tf x 112" ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	8-25"x16"x2" 6-25"x20"x2"	41.3 SQ FT
ANGLE FILTER	4-20"x20"x2" 16-20"x25"x2"	64.0 SQ FT
HIGH VELOCITY	8-25"x16"x2" 6-25"x20"x2"	41.3 SQ FT
HIGH PERFORMANCE	12-25"x20"x8"	34.6 SQ FT
ROLL FILTER	4'-6"x10'-0"	34.0 SQ FT

HUMIDIFIERS

CAPACITY - LBS./HR.

WATER SPRAY 50 PSI	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
60	413	826	83	166	54	18

FACTORS FOR STEAM OTHER THAN 5#

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS - STEAM

½"	¾"	¾"	1"	1½"	—	—

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM 'T' FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	165	200	222	245	245
HORIZ	444T	365T	326T	256T	—
VERT	444T	405T	326T	286T	—

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	—	—	—	—	—	—	—
THROW-AWAY FLAT	.12"	.14"	.17"	.195"	.22"	.245"	.27"
THROW-AWAY ANGLE	.06"	.08"	.095"	.11"	.125"	.14"	.155"
HIGH VELOCITY FLAT	.05"	.065"	.08"	.095"	.11"	.13"	.15"
HIGH PERFORMANCE	.04"	.06"	.08"	.11"	.16"	.22"	.28"
ROLL	.075"	.105"	.135"	.170"	.21"	.265"	.33"
SPRAY COIL DEHUMID	.16"	.24"	.33"	.41"	.5"	.58"	.67"
CAPILLARY AIRWASHER	.10"	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 1-STAGE	.10"	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 2-STAGE	.17"	.22"	.29"	.36"	.50"	.63"	.76"
ELIMINATORS	.10"	.12"	.14"	.16"	.19"	.22"	.25"

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI.	PUMP HP
	35	15	½		19800	72	15	1.0

COIL CONNECTIONS (ONE COIL)

COIL	"C" SUPPLY & RETURN	R+RC SUPPLY & RETURN	DP (CORRECT EXPANSION) 2	3	4,5	6	R	ANF S	ANF R	BNF 1-ROW	BNF 2-ROW	FLEXITUBE 1-ROW	FLEXITUBE 2-ROW	"CH" 1	"CH" 2
STANDARD	2"	2"	1⅜"	1⅜"	1⅜"	1⅜"	2⅛"	2"	1½"	1½"	1½"	2"	1½"	1½"	2"
INT. BY-PASS	2"	2½"	1⅜"	1⅜"	1⅜"	1⅜"	2⅛"	2½"	1½"	2"	1½"	2½"	1⅛"	2"	1¼"	2½"	1½"	1½"	2"
M.Z. HEAT	2"	2"	—	—	—	—	—	2"	1½"	1½"	1½"	2"	1⅛"	1½"	1¼"	2"	1½"	1½"	2"

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	1970	MIXING BOX	577
5" COIL	290	FLAT FILTER MIXING BOX & FILTER	761
10" COIL	410	ANGLE FILTER MIXING BOX	953
12½" COIL	520	HIGH PERFORMANCE FILTER & MIXING BOX	841
15" COIL	620	1-STAGE EVEN-TEMP	957
FLAT FILTER	184	2-STAGE EVEN-TEMP	1537
ANGLE FILTER	416	MULTIZONE	1673
HIGH PERF FILTER	264	SPRAY COIL DEHUMIDIFIER	4950
ELECTRIC COIL	500	CAPILLARY CELL AIRWASHER	5973
ROLL FILTER	160	PLENUM / FT	120
FACE & INTERNAL BY-PASS DAMPER	362	ACCESS SPACE	160
FACE DAMPER	329	INLET LOUVER	323
FACE & EXTERNAL BY-PASS DAMPER	465	ELIMINATORS	1465

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP.
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

PERFORMANCE RATINGS

size 10.2

LOW PRESSURE — 2 - 245 B wheel — outlet area -14.10 sq ft

C.F.M.	Outlet Velocity	Coil Velocity			½" SP		¾" SP		1" SP		1¼" SP		1½" SP		1¾" SP		2" SP		2¼" SP		2½" SP		2¾" SP		3" SP	
		Std.	Int. B'pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
11214	795	347	434	694	548	1.46	619	2.03	682	2.65	746	3.35	808	4.11	865	4.88	907	5.7	963	6.7	992	7.3	—	—	—	—
13706	972	424	530	848	607	2.01	671	2.67	731	3.37	783	4.07	835	4.85	887	5.68	943	6.71	1001	7.62	1031	8.61	1064	9.25	1091	10.3
16198	1148	501	627	1003	665	2.71	729	3.50	782	4.24	835	5.08	883	5.91	926	6.74	979	7.61	1032	8.53	1075	9.45	1100	10.3	1125	11.12
18690	1325	578	723	1157	722	3.52	787	4.47	842	5.38	887	6.19	933	7.14	978	8.14	1019	9.09	1056	10.0	1095	11.1	1134	12.2	1172	13.3
21182	1502	656	820	1311	782	4.47	845	5.57	900	6.68	948	7.70	987	8.59	1030	9.65	1071	10.7	1110	11.8	1145	12.9	1179	14.0	1213	15.1
23674	1678	733	916	1465	847	5.70	904	6.87	958	8.10	1007	9.33	1048	10.5	1087	11.5	1123	12.6	1160	13.8	1196	15.0	1231	16.3	1265	17.5
26166	1855	810	1013	1620	913	7.14	963	8.35	1016	9.75	1064	11.1	1108	12.4	1147	13.7	1183	14.9	1215	16.0	1248	17.3	1282	18.7	1316	20.0

2 - 222 F wheel — outlet area -11.46 sq ft

12214	1066	578	473	756	334	1.86	399	2.59	445	3.11	494	3.93	—	—	—	—	—	—	—	—	—	—	—	—	—	—
14250	1244	441	551	882	349	2.46	406	3.18	455	3.98	505	4.87	533	5.68	584	6.86	—	—	—	—	—	—	—	—	—	—
16286	1422	504	630	1008	371	3.22	417	3.96	461	4.77	509	5.74	554	6.72	592	7.61	626	8.72	659	9.3	—	—	—	—	—	—
18322	1600	567	709	1134	389	4.03	436	4.96	470	5.74	516	6.72	558	7.78	600	8.90	634	9.75	667	10.7	708	11.9	—	—	—	—
20358	1777	630	788	1260	401	4.87	459	6.17	486	6.93	525	7.93	566	9.03	605	10.2	642	11.21	675	12.5	713	13.9	744	15.0	778	16.3
22394	1955	693	867	1386	425	6.10	475	7.36	507	8.35	540	9.39	576	10.5	613	11.7	650	13.0	683	14.3	718	15.7	750	17.0	782	18.4
24430	2133	756	945	1512	456	7.73	487	8.63	528	10.0	560	11.1	590	12.2	623	13.5	658	14.8	691	16.1	723	17.5	756	19.0	786	20.5

MEDIUM PRESSURE — 2 - 200 B wheel — outlet area - 9.36 sq ft

C.F.M.	Outlet Velocity	Coil Velocity			3" SP		3¼" SP		3½" SP		3¾" SP		4" SP		4¼" SP		4½" SP		4¾" SP		5" SP		5¼" SP		5½" SP	
		Std.	Int. B'pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
9936	1060	307	384	615	1387	7.38	1439	8.07	1491	8.76	1540	9.43	1589	10.1	1635	10.8	1681	11.4	1726	12.1	1771	12.8	—	—	—	—
12420	1330	385	482	770	1435	8.82	1482	9.61	1529	10.4	1574	11.3	1619	12.1	1662	13.0	1705	13.8	1747	14.7	1789	15.5	1830	16.4	1871	17.2
14904	1595	462	577	923	1515	10.8	1554	11.6	1593	12.4	1632	13.3	1671	14.1	1711	15.0	1750	15.9	1789	16.9	1828	17.8	1866	18.8	1904	19.8
17388	1860	538	673	1077	1610	13.3	1648	14.2	1686	15.1	1721	16.0	1756	16.9	1790	17.8	1823	18.6	1857	19.6	1890	20.6	1924	21.6	1957	22.5
19872	2120	615	769	1230	1706	16.1	1744	17.1	1781	18.1	1816	19.1	1851	20.1	1885	21.1	1919	22.0	1950	23.1	1981	24.2	2010	25.2	2038	26.1
22356	2490	692	865	1383	1820	19.8	1853	20.7	1886	21.6	1916	22.7	1946	23.7	1979	24.8	2011	25.9	2043	27.1	2075	28.2	2106	29.4	2136	30.5
24840	2660	770	962	1540	1927	23.7	1962	24.9	1997	26.1	2028	27.3	2058	28.4	2086	29.5	2113	30.5	2142	31.7	2171	32.9	2200	34.2	2229	35.4

2 - 165 F wheel — outlet area - 6.38 sq ft

12562	1940	383	478	765	1134	11.5	1177	12.4	1218	13.3	1259	14.1	1298	15.0	1337	15.9	—	—	—	—	—	—	—	—	—	—
14048	2205	435	544	870	1158	13.6	1196	14.5	1233	15.5	1270	16.4	1308	17.4	1345	18.4	1360	19.5	1394	20.6	—	—	—	—	—	—
15734	2470	487	609	975	1195	16.4	1227	17.2	1263	18.2	1295	19.1	1328	20.1	1363	21.1	1390	21.1	1417	22.1	1457	23.3	1483	24.5	—	—
17420	2735	540	675	1080	1242	20.0	1273	20.8	1303	21.6	1331	22.5	1361	23.3	1392	24.4	1423	25.4	1451	26.3	1483	27.6	1513	28.8	1543	29.9
19106	3000	582	740	1185	1290	23.3	1322	24.6	1350	25.7	1378	26.7	1406	27.8	1433	28.7	1459	29.5	1485	30.5	1515	31.8	1543	32.9	1570	33.9
20792	3260	644	805	1288	1335	27.8	1368	28.8	1397	29.9	1427	31.2	1455	32.4	1481	33.7	1506	34.8	1531	35.9	1556	36.7	1580	37.8	1603	38.8
22478	3515	696	870	1392	1377	32.2	1412	33.5	1443	35.0	1473	36.3	1501	37.5	1529	38.8	1556	40.1	1580	41.3	1603	42.6	1627	43.8	1650	44.9

HIGH PRESSURE — wheel — outlet area — sq ft

C.F.M.	Outlet Velocity	Coil Velocity			5½" SP		5¾" SP		6" SP		6½" SP		7" SP		7½" SP		8" SP		8½" SP		9" SP		9½" SP		10" SP	
		Std.	Int. B'pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
									not available																	

wheel — outlet area — sq ft

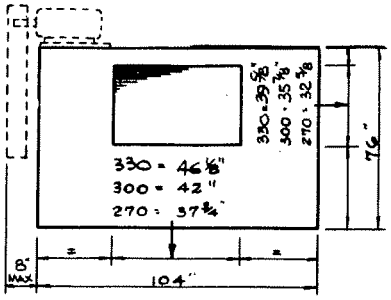
									not available																	

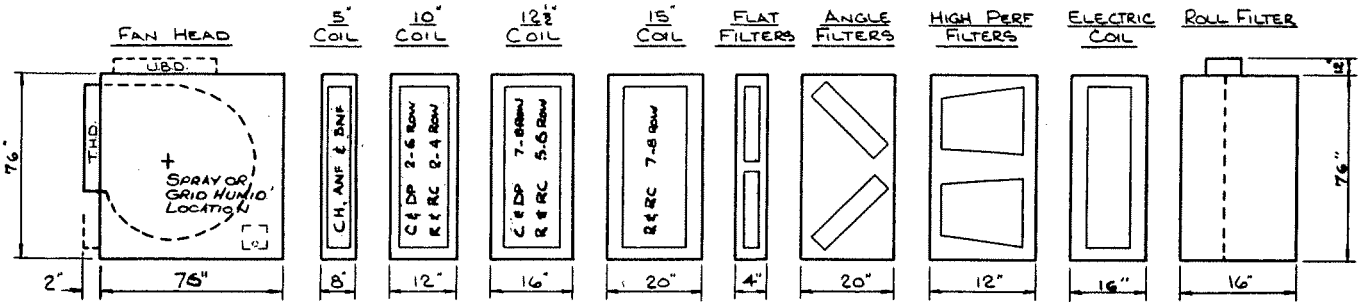
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

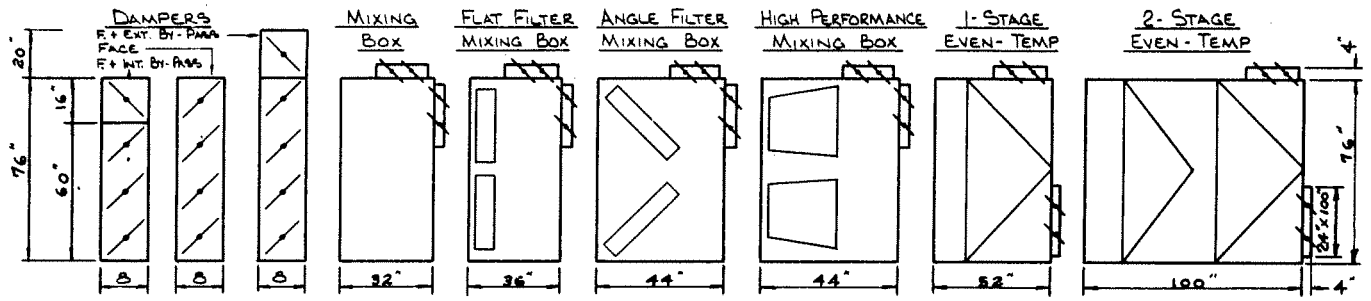
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. ft (70°F) & 29.92" Hg BAROMETER.

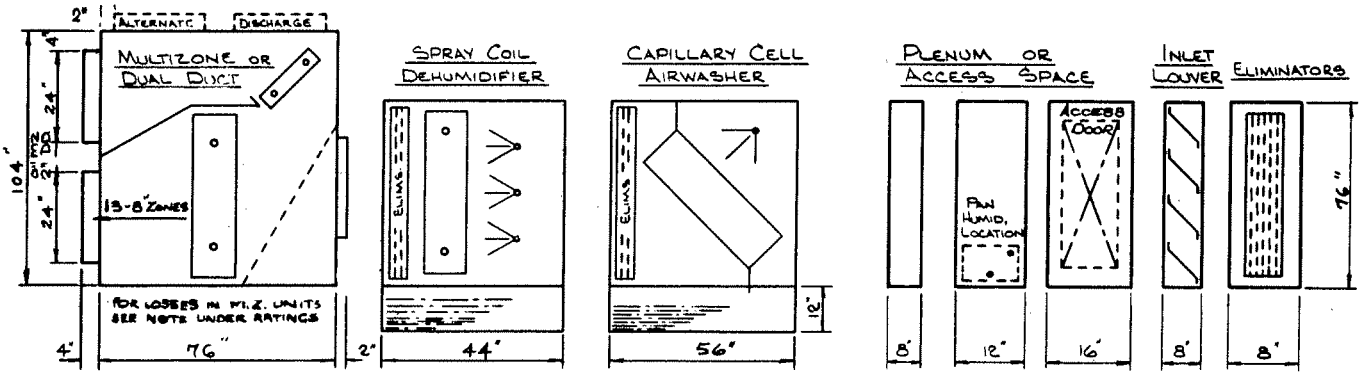
SHELDONS
MODULAR A/C UNIT
SIZE 11.1

standard coil = 39.7 sq ft 45 tf x 92" ntl
internal by-pass htg coil = 29.13 sq ft 33 tf x 92" ntl
multizone heating coil = 21.17 sq ft 24 tf x 92" ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	16-16"x25"x2"	42.7 Sq. Ft.
ANGLE FILTER	28-16"x25"x2"	81.4 Sq. Ft.
HIGH VELOCITY	16-16"x25"x2"	42.7 Sq. Ft.
HIGH PERFORMANCE	20-16"x20"x8"	39.5 Sq. Ft.
ROLL FILTER	6'-0"x8'-6"	45.4 Sq. Ft.

HUMIDIFIERS

CAPACITY — LBS./HR.

WATER SPRAY 50 PSI	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
50	173	346	70	140	45	15

FACTORS FOR STEAM OTHER THAN 5"

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS — STEAM

½"	¾"	¾"	1¼"	1½"	-	-

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH.	270	300	365	-	365
HORIZ.	444T	444T	326T	-	254T
VERT.	444T	444T	326T	-	254T

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	—	—	—	—	—	—	—
THROW-AWAY FLAT	.15	.18	.21	.24	.27	—	—
THROW-AWAY ANGLE	.06	.08	.095	.11	.125	.14	.155
HIGH VELOCITY FLAT	.07	.09	.11	.135	.16	.19	.21
HIGH PERFORMANCE	.04	.07	.10	.14	.19	.24	—
ROLL	.07	.09	.12	.15	.18	.21	.265
SPRAY COIL DEHUMID.	.16	.24	.33	.41	.50	.58	.67
CAPILLARY AIRWASHER	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 1-STAGE	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 2-STAGE	.17	.22	.29	.38	.50	.63	.76
ELIMINATORS	.10	.12	.14	.16	.19	.22	.25

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI.	PUMP HP
	44	15	¾		22000	80	15	1½

COIL CONNECTIONS (ONE COIL)

COIL	"C" SUPPLY & RETURN	"R & RC" SUPPLY & RETURN	"DP" (DIRECT EXPANSION) 2	3	4 & 5	6	R	"ANF" S	R	"BNF" 1-ROW	2-ROW	FLEXITUBE 1-ROW	2-ROW	"CH" 1	2
STANDARD	2"	2½"	1⅛"	1⅜"	1⅛"	1⅜"	2⅛"	2½"	1½"	2"	1½"	2"	1¼"	2½"	1½"	1½"	2"
INT. BY-PASS	2"	2"	1⅛"	1⅜"	1⅛"	1⅜"	2⅛"	2"	1½"	2"	1½"	2"	1½"	2"	1½"	1½"	2"
M.Z. HEAT	2"	2½"	—	—	—	—	—	2½"	1½"	2"	1½"	2½"	1½"	2"	1¼"	2½"	1½"	1½"	2"

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL · 30 — 54 TF = 2-COIL · 57 — 75 TF = 3-COIL

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	2100	MIXING BOX	582
5" COIL	260	FLAT FILTER MIXING BOX	842
10" COIL	370	ANGLE FILTER MIXING BOX	982
12½" COIL	460	HIGH PERFORMANCE FILTER & MIXING BOX	922
15" COIL	550	1-STAGE EVEN-TEMP	1032
FLAT FILTER	160	2-STAGE EVEN-TEMP	1662
ANGLE FILTER	380	MULTIZONE	1996
HIGH PERF. FILTER	240	SPRAY COIL DEHUMIDIFIER	4601
ELECTRIC COIL	460	CAPILLARY CELL AIRWASHER	5500
ROLL FILTER	160	PLENUM / FT.	120
FACE & INTERNAL BY-PASS DAMPER	390	ACCESS SPACE	160
FACE DAMPER	355	INLET LOUVER	360
FACE & EXTERNAL BY-PASS DAMPER	500	ELIMINATORS	1500

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP.
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK + PUMP

PERFORMANCE RATINGS

size 11.1

LOW PRESSURE — 330 A wheel — outlet area - 12.7 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	½" SP RPM	½" SP HP	¾" SP RPM	¾" SP HP	1" SP RPM	1" SP HP	1¼" SP RPM	1¼" SP HP	1½" SP RPM	1½" SP HP	1¾" SP RPM	1¾" SP HP	2" SP RPM	2" SP HP	2¼" SP RPM	2¼" SP HP	2½" SP RPM	2½" SP HP	2¾" SP RPM	2¾" SP HP	3" SP RPM	3" SP HP
16905	1330	424	575	797	554	2.56	630	3.65	666	4.43	701	5.21	737	6.08	768	6.9	800	7.72	825	8.54	858	9.37	883	5.23	908	10.9
19159	1510	480	657	904	655	3.86	687	4.63	719	5.46	751	6.33	781	7.21	813	8.18	845	9.15	873	10.6	901	11.0	927	12.0	953	12.9
21413	1687	537	734	1010	714	4.91	748	5.86	775	6.69	804	7.62	832	8.58	860	9.59	887	10.6	915	11.7	944	12.8	969	13.8	995	14.8
23667	1865	594	811	1117	775	6.18	808	7.26	834	8.25	860	9.19	885	10.2	911	11.3	937	12.3	962	13.4	987	14.6	1012	15.8	1038	17.0
25921	2042	650	889	1223	837	7.64	867	8.82	894	10.0	918	11.0	942	12.0	965	13.1	988	14.3	1012	15.5	1035	16.7	1058	17.9	1081	19.2
28175	2220	707	966	1329	902	5.38	927	10.6	955	12.0	978	13.1	1002	14.2	1023	15.4	1043	16.5	1065	17.8	1087	19.1	1108	20.3	1130	21.6
30429	2370	763	1043	1436	967	11.1	987	12.4	1016	14.0	1040	15.2	1062	16.4	1081	17.6	1098	18.7	1118	19.9	1135	22.2	1158	22.8	1179	25.0

330 RB wheel — outlet area - 12.7 sq ft

16485	1298	413	565	778	394	2.86	448	3.58	496	4.38	541	5.23	583	6.11	622	7.05	655	7.99	695	8.98	729	9.99	761	11.0	792	12.0
18133	1428	455	621	855	412	3.51	463	4.26	510	5.10	553	5.98	594	6.92	632	7.87	668	8.90	703	9.93	736	11.0	768	12.1	799	13.2
19782	1558	496	678	933	431	4.25	479	5.03	524	589	566	6.84	605	7.81	643	8.84	677	9.86	712	11.0	744	12.1	775	13.2	806	14.4
21430	1687	537	735	1011	452	5.14	497	5.97	539	6.85	579	7.80	618	8.84	654	9.89	689	11.0	722	12.1	754	13.3	785	14.5	814	15.7
23079	1817	579	791	1089	474	6.10	515	7.01	555	7.90	595	8.92	631	9.96	667	11.1	700	12.2	733	13.4	764	14.6	794	15.8	823	17.1
24728	1949	620	848	1167	496	7.06	533	8.0	571	8.95	611	10.0	644	11.0	680	12.3	721	13.4	744	14.7	774	15.9	803	17.1	832	18.5
26377	2070	662	904	1244	518	8.0	551	9.0	587	10.0	627	11.2	657	12.3	693	13.5	742	14.6	755	16.0	784	17.2	812	18.4	841	19.9

MEDIUM PRESSURE — 300 A wheel — outlet area-10.45 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	3" SP RPM	3" SP HP	3¼" SP RPM	3¼" SP HP	3½" SP RPM	3½" SP HP	3¾" SP RPM	3¾" SP HP	4" SP RPM	4" SP HP	4¼" SP RPM	4¼" SP HP	4½" SP RPM	4½" SP HP	4¾" SP RPM	4¾" SP HP	5" SP RPM	5" SP HP	5¼" SP RPM	5¼" SP HP	5½" SP RPM	5½" SP HP
13505	1332	350	477	659	999	8.96	1025	9.2	1052	10.3	1077	10.6	1099	11.2	1121	11.8	1166	12.3	1173	12.8	1188	13.5	—	—	—	—
16686	1598	420	572	790	1071	11.3	1097	12.1	1124	13.0	1147	13.7	1170	14.5	1192	15.2	1214	16.0	1236	16.7	1258	17.5	—	—	—	—
19467	1864	490	667	923	1142	14.0	1167	14.9	1193	15.9	1217	16.8	1241	17.8	1263	18.7	1285	19.7	1306	20.6	1328	21.5	1349	22.1	1372	22.9
22248	2135	560	763	1054	1214	16.7	1235	17.8	1263	18.9	1287	20.5	1312	21.2	1334	22.3	1357	23.4	1378	24.4	1399	25.5	1420	26.6	1442	27.7
25029	2400	630	858	1186	1300	20.3	1322	21.5	1344	22.7	1366	23.9	1388	25.1	1405	26.3	1430	27.5	1450	28.7	1471	29.9	1491	31.1	1512	32.4
27810	2660	700	954	1318	1386	24.0	1405	25.3	1425	26.6	1445	27.8	1465	29.1	1484	30.3	1503	31.6	1523	32.9	1543	34.3	1563	35.7	1583	37.1
30591	2930	770	1049	1450	1472	27.7	1488	29.1	1506	30.5	1524	31.9	1542	33.1	1559	34.3	1576	34.7	1596	37.1	1615	38.7	1635	40.3	1654	41.7

300 RB wheel — outlet area-10.45 sq ft

15880	1520	400	544	760	883	11.54	916	12.50	947	13.48	977	14.46	1006	15.44	1035	16.39	1064	17.32	1092	18.25	1119	19.17	1145	20.10	1171	21.03
17865	1710	460	612	843	897	13.10	928	14.11	958	15.14	988	16.22	1018	17.31	1046	18.40	1073	19.50	1100	20.60	1126	21.71	1152	22.80	1177	23.85
19850	1900	500	681	937	911	14.80	943	15.92	973	17.05	1002	18.17	1030	19.30	1057	20.44	1084	21.63	1111	22.83	1137	24.04	1162	25.25	1187	26.47
21835	2089	550	749	1031	929	16.85	959	17.98	988	19.10	1016	20.29	1044	21.53	1071	22.76	1098	24.00	1124	25.25	1149	26.49	1173	27.76	1198	29.08
23820	2279	600	817	1125	948	19.07	977	20.30	1006	21.53	1034	22.77	1060	23.99	1086	25.22	1112	26.55	1138	27.89	1163	29.24	1188	30.59	1211	31.95
25805	2469	650	885	1218	970	21.67	998	22.92	1025	24.15	1052	25.46	1079	26.80	1104	28.14	1130	29.47	1154	30.80	1178	32.13	1202	33.57	1226	35.03
27790	2659	700	953	1312	991	24.46	1019	25.83	1046	27.18	1072	28.52	1098	29.85	1123	31.22	1148	32.67	1172	34.11	1196	35.56	1219	36.99	1242	38.42

HIGH PRESSURE — 270 A wheel — outlet area - 8.55 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	5½" SP RPM	5½" SP HP	5¾" SP RPM	5¾" SP HP	6" SP RPM	6" SP HP	6½" SP RPM	6½" SP HP	7" SP RPM	7" SP HP	7½" SP RPM	7½" SP HP	8" SP RPM	8" SP HP	8½" SP RPM	8½" SP HP	9" SP RPM	9" SP HP	9½" SP RPM	9½" SP HP	10" SP RPM	10" SP HP
15100	1768	380	518	716	1495	17.8	1517	18.5	1539	19.2	1580	20.0	1622	21.5	1658	22.6	1685	24.6	1730	25.8	1767	26.8	—	—	—	—
17365	2030	437	595	823	1574	21.4	1596	22.3	1618	23.1	1659	24.4	1702	26.0	1738	27.6	1765	29.1	1810	30.5	1847	31.9	1879	33.5	1911	35.2
19630	2300	495	673	930	1653	25.0	1675	26.0	1696	26.9	1738	28.9	1780	30.8	1817	32.7	1854	34.5	1889	36.2	1924	37.9	1958	39.8	1991	41.7
21895	2565	550	750	1038	1733	29.1	1754	30.2	1775	31.2	1817	33.4	1858	35.6	1896	37.8	1933	39.9	1968	41.9	2003	43.9	2037	46.1	2071	48.2
24160	2825	608	829	1145	1813	33.1	1834	34.3	1854	35.4	1895	37.9	1936	40.4	1974	42.8	2011	45.2	2046	47.5	2081	49.8	2116	52.2	2151	54.6
26425	3090	666	906	1253	1906	38.3	1925	39.5	1944	40.7	1982	43.3	2019	45.9	2055	48.5	2091	51.0	2126	53.6	2161	56.2	2195	58.9	2229	61.6
28690	3360	723	985	1360	1999	43.5	2017	44.8	2034	46.0	2068	48.7	2102	51.4	2136	54.1	2170	56.7	2205	59.6	2240	62.5	2274	65.5	2307	68.5

270 RB wheel — outlet area - 8.55 sq ft

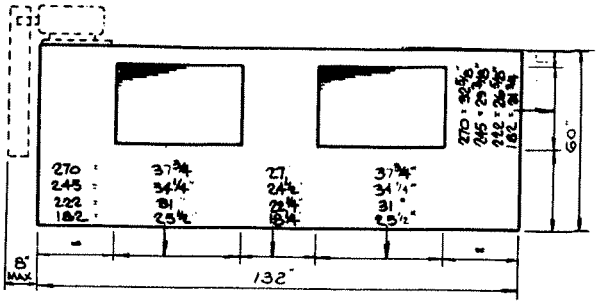
15880	1857	400	544	760	1317	21.19	1344	22.17	1371	23.16	1423	25.07	1474	26.98	1523	28.78	1570	30.63	1616	32.48	1661	34.33	1705	36.19	1747	38.11
17865	2089	450	612	843	1333	23.79	1359	24.87	1386	25.96	1437	28.14	1486	30.34	1533	32.55	1579	34.75	1625	36.84	1670	38.92	1714	41.00	1756	43.10
19850	2322	500	681	937	1352	26.73	1377	27.86	1403	26.99	1452	31.25	1501	33.64	1548	36.05	1594	38.48	1639	40.92	1682	43.38	1724	45.85	1765	48.24
21835	2554	550	749	1031	1372	29.87	1398	31.10	1423	32.34	1472	34.61	1519	37.29	1565	39.77	1609	42.30	1654	44.94	1697	47.59	1739	50.25	1780	52.93
23820	2786	600	817	1125	1397	35.64	1421	34.87	1445	36.10	1492	38.54	1539	41 22	1585	43.92	1629	46.62	1672	49.35	1713	52.04	1754	54.80	1795	57.68
25805	3018	650	885	1218	1422	37.64	1446	38.99	1470	40.33	1517	43.00	1562	45.67	1606	48.32	1649	51.16	1692	54.07	1733	56.99	1774	59.92	1813	62.86
27790	3250	700	953	1312	1451	42.31	1474	43.65	1497	44.98	1542	47.72	1587	50.61	1631	53.49	1672	56.36	1713	59.22	1753	62.15	1794	65.29	1833	68.43

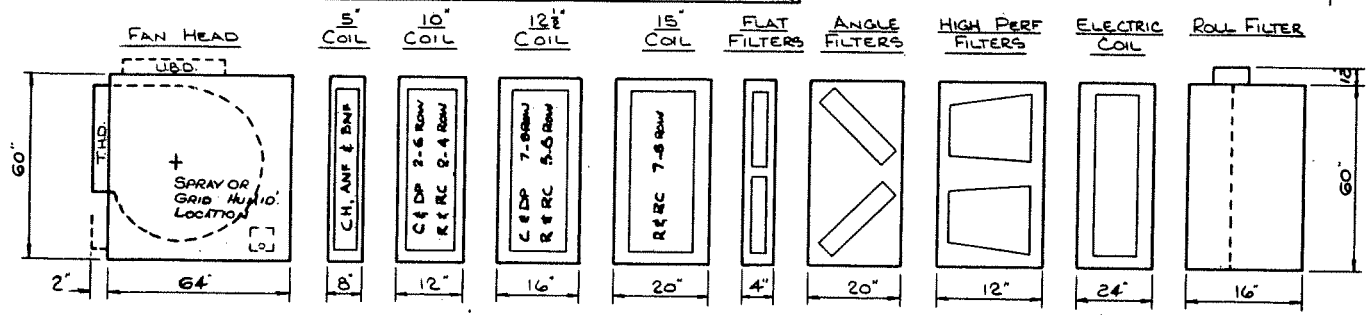
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

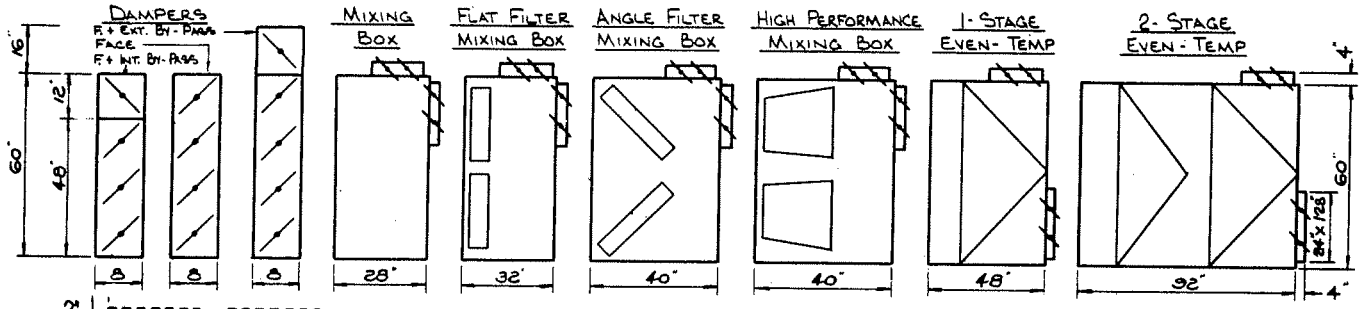
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

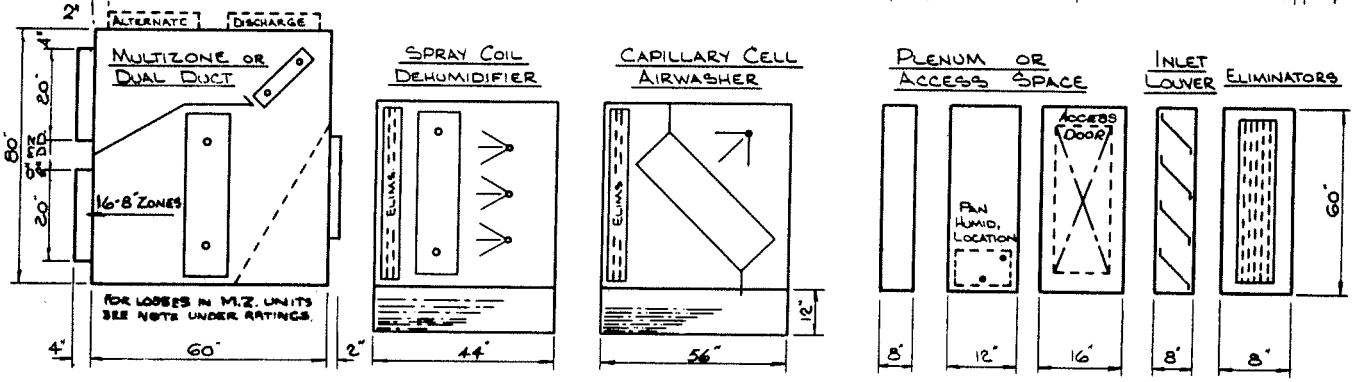
SHELDONS
MODULAR A/C UNIT
SIZE 11.2

standard coil	38.13 sq ft	33 tf x 120" ntl
internal by-pass htg coil	31.21 sq ft	27 tf x 120" ntl
multizone heating coil	20.8 sq ft	18 tf x 120" ntl









FILTERS

		NET AREA
THROW-AWAY FLAT FILTER	4-25x16x2" 10-25x20x2"	43.50 FT²
ANGLE FILTER	16-20x20x2 8-22x20x2	69.3 FT²
HIGH VELOCITY	4-25x16x8 10-25x20x8	43.50 FT²
HIGH PERFORMANCE	12-25x20x8	34.7 FT²
ROLL FILTER	5'0"x11'0"	48.4 FT²

HUMIDIFIERS

CAPACITY – LBS./HR.

WATER SPRAY 50 PSI.	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD	HIGH	1 COIL	2 COIL	1 ELEMT	KW
60	220	440	88	176	60	20

FACTORS FOR STEAM OTHER THAN 5#

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS – STEAM

½"	¾"	¾"	1¼"	2"	–	–

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	182	222	245	270	270
HORIZ	444T	365T	326T	286T	—
VERT	444T	405T	364T	286T	—

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	–	–	–	–	–	–	–
THROW-AWAY FLAT	.14	.17	.20	.23	.26	–	–
THROW-AWAY ANGLE	.08	.095	.11	.125	.14	.16	.18
HIGH VELOCITY FLAT	.06	.07	.085	.10	.12	.14	.165
HIGH PERFORMANCE	.05	.08	.12	.17	.23	.28	–
ROLL	.045	.07	.09	.12	.15	.175	.195
SPRAY COIL DEHUMID	.16	.24	.33	.41	.50	.58	.67
CAPILLARY AIRWASHER	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 1-STAGE	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 2-STAGE	.17	.22	.29	.38	.50	.63	.76
ELIMINATORS	.10	.12	.14	.16	.19	.22	.25

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI	PUMP HP
	42	15	¾		9800	72	15	1.0

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	2348	MIXING BOX	665
5" COIL	305	FLAT FILTER MIXING BOX	851
10" COIL	428	ANGLE FILTER MIXING BOX	1007
12½" COIL	551	HIGH PERFORMANCE FILTER + MIXING BOX	937
15" COIL	653	1-STAGE EVEN-TEMP	1057
FLAT FILTER	183	2-STAGE EVEN-TEMP	1701
ANGLE FILTER	637	MULTIZONE	1921
HIGH PERF. FILTER	268	SPRAY COIL DEHUMIDIFIER	5315
ELECTRIC COIL	636	CAPILLARY CELL AIRWASHER	6354
ROLL FILTER	171	PLENUM/FT.	130
FACE & INTERNAL BY-PASS DAMPER	396	ACCESS SPACE	172
FACE DAMPER	360	INLET LOUVER	359
FACE + EXTERNAL BY-PASS DAMPER	504	ELIMINATORS	1595

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP.
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	"C" SUPPLY & RETURN	R & RC SUPPLY & RETURN	"DP" (DIRECT EXPANSION) 2	3	4&5	6	R	"ANF" S	R	"BNF" 1-ROW	2-ROW	FLEXITUBE 1-ROW	2-ROW	"CH" 1	2
STANDARD	2"	2"	1⅜"OD 1⅛"ID	1⅜"OD 1⅛"ID	1⅜"OD 1⅛"ID	1⅜"OD 1⅛"ID	2⅛	2	1½	2 or 1½	1½	2	1½	2 or 1½	1¼	2	1½	1½	2
INT. BY-PASS	2"	2½"	1⅜"	1⅜"	1⅜"	1⅜"	2⅛	2½	1½	2	1½	2½	1½	2	1¼	2½	1½	1½	2"
M.Z. HEAT	2	2	–	–	–	–	–	2	1½	2	1½	2	1½	2	1¼	2	1½	1½	2

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 – 27 TF = 1-COIL ; 30 – 54 TF = 2-COIL ; 57 – 75 TF = 3-COIL

PERFORMANCE RATINGS

size 11.2

LOW PRESSURE

2 - 270 B wheel — **outlet area - 17.10 sq ft**

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	½" SP RPM	½" SP HP	¾" SP RPM	¾" SP HP	1" SP RPM	1" SP HP	1¼" SP RPM	1¼" SP HP	1½" SP RPM	1½" SP HP	1¾" SP RPM	1¾" SP HP	2" SP RPM	2" SP HP	2¼" SP RPM	2¼" SP HP	2½" SP RPM	2½" SP HP	2¾" SP RPM	2¾" SP HP	3" SP RPM	3" SP HP
13580	794	356	435	653	497	1.76	561	2.46	619	3.20	677	4.07	732	4.98	784	5.89	805	6.50	840	7.40	875	7.90	–	–	–	–
16610	972	436	532	799	550	2.44	608	3.22	663	4.09	710	4.94	758	5.87	814	6.89	839	7.90	866	9.20	912	9.50	945	10.9	1001	12.5
19630	1148	515	629	944	603	3.29	661	4.24	709	5.13	758	6.15	800	7.16	840	8.18	879	9.30	925	10.1	950	11.3	987	12.8	1030	14.2
22650	1325	595	726	1089	655	4.24	714	5.43	763	6.51	804	7.50	847	8.65	887	9.86	924	11.0	958	12.1	993	13.4	1028	14.8	1063	16.1
25670	1502	674	823	1235	709	5.41	766	6.76	816	8.08	859	9.31	895	10.4	933	11.7	971	13.0	1006	14.3	1038	15.7	1069	17.0	1099	18.3
28690	1678	753	920	1380	767	6.89	818	8.31	868	9.81	913	11.3	950	12.6	985	13.9	1018	15.2	1052	16.7	1085	18.2	1116	19.7	1146	21.2
31710	1855	832	1016	1525	827	8.65	872	10.1	921	11.8	964	13.4	1004	15.1	1040	16.6	1073	18.1	1102	19.4	1132	20.9	1162	22.6	1192	24.2

2 - 245 F wheel — **outlet area - 14.10 sq ft**

14950	1060	392	479	719	304	2.29	362	3.16	414	4.09	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
17442	1237	458	559	839	317	3.03	368	3.92	418	4.92	464	5.98	505	7.20	–	–	–	–	–	–	–	–	–	–	–	–
19934	1413	523	639	959	339	3.98	379	4.90	425	5.94	468	7.06	510	8.29	549	9.52	575	10.7	–	–	–	–	–	–	–	–
22426	1590	589	719	1079	354	4.96	398	6.13	435	7.21	475	8.37	515	9.67	552	11.0	583	13.1	616	14.9	–	–	–	–	–	–
24918	1767	654	799	1199	366	6.02	418	7.63	451	8.73	485	9.94	522	11.3	558	12.7	591	14.0	623	15.4	655	17.0	685	18.7	714	19.7
27510	1950	722	882	1323	389	7.59	432	9.07	472	10.6	501	11.8	532	13.2	566	14.6	599	16.1	630	17.7	661	19.3	690	21.0	719	22.5
29902	2120	785	958	1438	417	9.62	444	10.6	490	12.6	522	14.1	548	15.4	577	16.9	607	18.4	637	20.0	667	21.6	695	23.3	724	25.2

MEDIUM PRESSURE

2 - 222 B wheel — **outlet area - 11.46 sq ft**

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	3" SP RPM	3" SP HP	3¼" SP RPM	3¼" SP HP	3½" SP RPM	3½" SP HP	3¾" SP RPM	3¾" SP HP	4" SP RPM	4" SP HP	4¼" SP RPM	4¼" SP HP	4½" SP RPM	4½" SP HP	4¾" SP RPM	4¾" SP HP	5" SP RPM	5" SP HP	5¼" SP RPM	5¼" SP HP	5½" SP RPM	5½" SP HP
13234	1155	347	424	637	1258	9.62	1303	8.09	1347	11.4	1391	12.4	1434	13.3	1475	14.2	1516	15.1	1555	16.0	1594	16.8	–	–	–	–
16288	1422	428	522	783	1307	11.5	1348	12.5	1388	13.5	1428	14.6	1467	15.6	1505	16.7	1543	17.8	1580	18.9	1617	20.0	1652	21.2	1687	22.5
19342	1689	508	620	930	1387	14.2	1420	15.2	1458	16.1	1487	17.2	1522	18.3	1556	19.5	1589	20.6	1623	21.8	1657	22.9	1691	24.2	1724	25.4
22396	1955	588	718	1077	1471	17.3	1506	18.5	1540	19.7	1572	20.8	1603	21.8	1633	23.0	1662	24.1	1691	25.3	1720	26.5	1749	27.8	1778	29.0
25450	2222	668	816	1224	1564	21.2	1595	22.3	1625	23.3	1656	24.6	1686	25.9	1718	27.3	1748	28.6	1776	30.0	1804	31.4	1831	32.7	1857	33.9
28504	2488	748	914	1371	1663	25.7	1693	27.1	1723	28.4	1749	29.6	1775	30.7	1804	32.1	1833	33.5	1860	35.0	1886	36.5	1914	38.0	1942	39.4
31558	2755	828	1011	1518	1757	30.7	1789	32.3	1821	33.9	1849	35.4	1876	36.9	1902	38.3	1928	39.6	1951	40.9	1973	42.2	2000	43.9	2027	45.6

2 - 182 F wheel — **outlet area - 7.70 sq ft**

15046	1956	395	482	724	965	12.4	1004	13.4	1037	13.9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
17098	2223	449	548	822	974	14.5	1011	15.6	1047	16.6	1080	17.7	1114	18.7	1148	19.9	–	–	–	–	–	–	–	–	–	–
19150	2490	503	614	921	988	17.1	1023	18.2	1057	19.3	1089	20.4	1122	21.4	1155	22.7	1180	23.2	1213	25.0	1242	25.8	1274	27.3	–	–
21202	2756	557	680	1020	1008	20.1	1040	21.2	1072	22.3	1104	23.5	1135	24.6	1165	25.9	1194	27.1	1224	28.4	1254	29.7	1283	31.0	1311	32.2
23254	3023	610	745	1119	1037	23.7	1065	24.8	1093	26.1	1122	27.1	1151	28.4	1180	29.7	1209	31.0	1237	32.2	1266	33.7	1293	35.0	1319	36.3
25306	3290	664	811	1217	1077	28.0	1100	29.3	1123	30.3	1149	31.6	1173	32.9	1201	34.1	1227	35.4	1254	36.7	1281	38.2	1308	39.5	1334	40.7
27358	3557	718	877	1316	1119	33.1	1142	34.3	1164	35.4	1184	36.7	1206	38.0	1229	39.2	1253	40.5	1276	42.0	1302	43.2	1327	44.6	1351	46.0

HIGH PRESSURE

wheel — **outlet area** — **sq ft**

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B' Pass	M.Z. Heat	5½" SP RPM	5½" SP HP	5¾" SP RPM	5¾" SP HP	6" SP RPM	6" SP HP	6½" SP RPM	6½" SP HP	7" SP RPM	7" SP HP	7½" SP RPM	7½" SP HP	8" SP RPM	8" SP HP	8½" SP RPM	8½" SP HP	9" SP RPM	9" SP HP	9½" SP RPM	9½" SP HP	10" SP RPM	10" SP HP
									not available																	

wheel — **outlet area** — **sq ft**

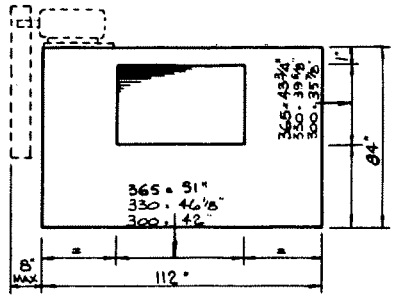
									not available																	

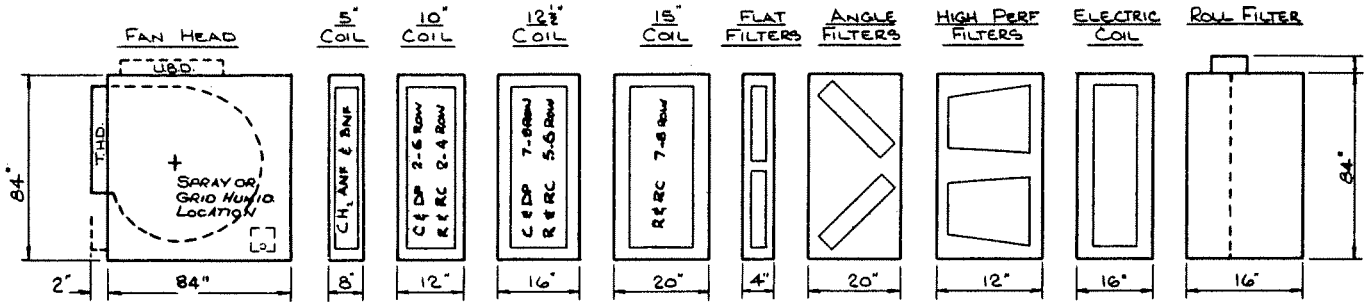
NOTE. WHEN USING BLOW THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

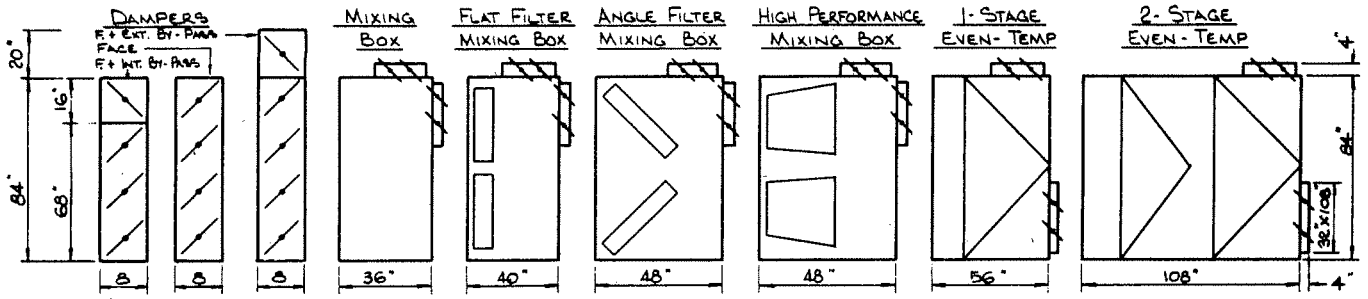
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

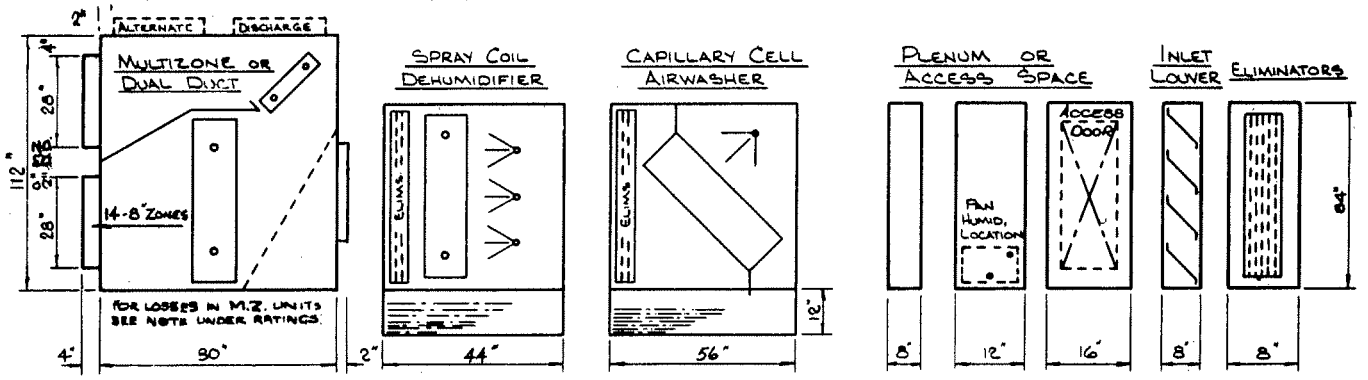
SHELDONS
MODULAR A/C UNIT
SIZE 12.1

standard coil	48.93sq ft	51 tf x 100″ ntl
internal by-pass htg coil	37.47sq ft	39 tf x 100″ ntl
multizone heating coil	25.89sq ft	27 tf x 100″ ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	12-20x20x2 6-20x25x2	56.8Sqft
ANGLE FILTER	16-20x20x2 6-20x25x2	88.0Sqft
HIGH VELOCITY	12-20x20x2 6-20x25x2	58.8Sqft
HIGH PERFORMANCE	12-20x20x2 6-20x25x2	50.8Sqft
ROLL FILTER	7'-0" x 9'-0"	52.5Sqft

HUMIDIFIERS

CAPACITY — LBS./HR.

WATER SPRAY 50 PSI	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
50	186	373	75	150	48	16

FACTORS FOR STEAM OTHER THAN 5"

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS — STEAM

½"	¾"	¾"	1¼"	2"	—	—

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	300	330	402	-	402
HORIZ	444T	444T	365T	-	256T
VERT	444T	444T	365T	-	256T

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	-	-	-	-	-	-	-
THROW-AWAY FLAT	.14	.16	.185	.21	.24	.27	-
THROW-AWAY ANGLE	.08	.095	.11	.125	.140	.155	.17
HIGH VELOCITY FLAT	.06	.07	.085	.10	.12	.145	.17
HIGH PERFORMANCE	.04	.06	.08	.11	.16	.22	.28
ROLL	.075	.105	.135	.170	.21	.265	.33
SPRAY COIL DEHUMID.	.16	.24	.33	.41	.5	.58	.67
CAPILLARY AIRWASHER	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 1-STAGE	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 2-STAGE	.17	.22	.29	.38	.50	.63	.76
ELIMINATORS	.10	.12	.14	.16	.19	.22	.25

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI	PUMP HP
	54	15	1.0		27500	100	15	1½

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	2520	MIXING BOX	836
5" COIL	278	FLAT FILTER MIXING BOX	1010
10" COIL	392	ANGLE FILTER MIXING BOX	1163
12½" COIL	506	HIGH PERFORMANCE FILTER & MIXING BOX	1098
15" COIL	600	1-STAGE EVEN-TEMP	1218
FLAT FILTER	174	2-STAGE EVEN-TEMP	1955
ANGLE FILTER	415	MULTIZONE	2262
HIGH PERF. FILTER	262	SPRAY COIL DEHUMIDIFIER	5127
ELECTRIC COIL	506	CAPILLARY CELL AIRWASHER	6190
ROLL FILTER	176	PLENUM / FT	132
FACE & INTERNAL BY-PASS DAMPER	457	ACCESS SPACE	176
FACE DAMPER	415	INLET LOUVER	423
FACE & EXTERNAL BY-PASS DAMPER	581	ELIMINATORS	1750

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP.
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	"C" SUPPLY & RETURN	R+RC SUPPLY & RETURN	"DP" (DIRECT EXPANSION) 2	3	4.5	6	R	"ANF" S	R	"BNF" 1-ROW	2-ROW	FLEXITUBE 1-ROW	2-ROW	"CH" 1	2
STANDARD	2"	2½"	1⅜"	1⅜"	1⅜"	1⅜"	2⅛"	2½"	1½"	2"	1½"	2½"	1½"	2"	1¼"	2½"	1½"	1½"	2"
INT. BY-PASS	2"	2½"	1⅜"	1⅜"	1⅜"	1⅜"	2⅛"	2½"	1½"	2"	1½"	2½"	1½"	2"	1¼"	2½"	1½"	1½"	2"
M.Z. HEAT	2"	2½"	-	-	-	-	-	2½"	1½"	2"	1½"	2½"	1½"	2"	1¼"	2½"	1½"	1½"	2"

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 12.1

LOW PRESSURE — 365 A wheel — outlet area 15.5 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'Pass	M.Z. Heat	½" SP RPM	½" SP HP	¾" SP RPM	¾" SP HP	1" SP RPM	1" SP HP	1¼" SP RPM	1¼" SP HP	1½" SP RPM	1½" SP HP	1¾" SP RPM	1¾" SP HP	2" SP RPM	2" SP HP	2½" SP RPM	2½" SP HP	2¾" SP RPM	2¾" SP HP	3" SP RPM	3" SP HP
19306	1247	353	513	745	456	2.83	525	3.60	560	4.38	590	5.18	620	6.00	650	6.86	678	7.72	706	8.64	733	9.56	760	10.6	786	11.6
22064	1427	450	586	851	548	3.69	578	4.57	607	5.46	634	6.34	660	7.23	686	8.17	713	9.12	738	10.1	764	11.0	789	12.1	813	13.1
24822	1605	506	660	958	602	4.76	629	5.70	656	6.70	681	7.71	706	8.71	729	9.71	752	10.7	775	11.8	799	12.8	822	14.0	845	15.1
27580	1780	562	733	1064	657	6.04	682	7.06	707	8.15	730	9.25	754	10.4	775	11.5	797	12.6	818	13.8	835	14.8	859	16.0	880	17.2
30338	1982	618	806	1171	712	7.53	736	8.70	759	9.84	781	11.0	803	12.3	823	13.6	844	14.7	862	16.0	882	17.2	911	18.4	920	19.6
33096	2130	675	880	1277	767	9.26	790	10.6	811	11.7	832	13.0	852	14.4	872	15.7	892	17.0	910	18.3	929	19.7	946	21.0	963	22.3
35854	2310	731	953	1383	822	11.2	845	12.7	865	14.0	885	15.4	903	16.8	922	18.3	941	19.7	959	21.7	977	22.6	993	24.0	1010	25.5

365 RB wheel — outlet area 15.5 sq ft

19850	1281	404	528	766	346	3.21	393	4.18	436	5.16	477	6.14	515	7.15	551	8.24	585	9.32	618	10.48	649	11.65	678	12.83	706	14.02
21835	1405	445	580	842	362	3.83	406	4.90	447	5.97	486	7.03	523	8.12	558	9.21	591	10.40	623	11.60	653	12.81	683	14.09	711	15.38
23820	1537	485	633	919	375	4.55	420	5.69	459	6.86	497	8.03	532	9.19	566	10.38	598	11.55	629	12.83	659	14.13	688	15.43	715	16.77
25805	1665	526	686	996	397	5.37	436	6.59	473	7.84	508	9.10	543	10.38	575	11.63	607	12.92	637	14.19	666	15.51	694	16.92	721	18.34
27790	1793	566	739	1072	415	6.25	452	7.58	487	8.92	521	10.29	554	11.64	586	13.01	615	14.36	645	15.75	674	17.13	701	18.49	728	19.99
29775	1920	607	792	1145	433	7.19	468	8.56	501	9.99	534	11.3	565	12.9	597	14.4	623	15.9	653	17.2	682	18.7	708	19.0	735	21.6
31760	2050	647	844	1225	451	8.0	484	9.55	515	11.0	547	12.4	576	14.2	608	15.9	631	17.5	661	18.7	690	20.3	715	21.5	742	23.2

MEDIUM PRESSURE — 330 A wheel — outlet area - 12.7 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'Pass	M.Z. Heat	3" SP RPM	3" SP HP	3¼" SP RPM	3¼" SP HP	3½" SP RPM	3½" SP HP	3¾" SP RPM	3¾" SP HP	4" SP RPM	4" SP HP	4¼" SP RPM	4¼" SP HP	4½" SP RPM	4½" SP HP	4¾" SP RPM	4¾" SP HP	5" SP RPM	5" SP HP	5¼" SP RPM	5¼" SP HP	5½" SP RPM	5½" SP HP
16905	1332	345	451	652	909	10.9	933	11.7	957	12.5	973	13.5	999	14.6	1020	15.5	1040	16.4	1060	17.3	1079	18.4	1097	19.2	—	—
20286	1598	414	541	783	974	13.9	998	14.9	1022	15.8	1043	16.8	1064	17.7	1085	18.6	1105	19.5	1125	20.5	1144	21.4	1162	22.3	1181	24.1
23667	1865	483	632	914	1040	17.2	1063	18.3	1086	19.4	1108	20.6	1129	21.8	1150	22.9	1170	24.0	1189	25.2	1208	26.3	1227	26.8	1246	27.4
27048	2131	550	722	1044	1105	20.4	1128	21.7	1150	23.0	1172	24.4	1193	25.8	1214	27.1	1234	28.4	1253	29.8	1272	31.1	1292	32.4	1311	33.7
30429	2398	620	813	1175	1183	24.9	1203	26.3	1223	27.7	1243	29.2	1263	30.6	1282	32.1	1301	33.5	1319	35.0	1338	36.5	1357	38.0	1376	39.5
33810	2665	690	903	1305	1260	29.3	1278	30.8	1296	32.3	1314	33.9	1332	35.4	1350	37.0	1367	38.6	1386	40.2	1403	41.8	1422	43.5	1440	45.2
37196	2930	759	993	1436	1337	33.7	1353	35.3	1369	36.9	1385	38.6	1391	40.2	1418	41.9	1433	43.7	1481	45.9	1468	47.5	1487	49.2	1504	50.9

330 RB wheel — outlet area - 12.7 sq ft

19572	1541	400	522	755	805	14.22	834	15.40	863	16.60	890	17.80	916	19.02	942	20.24	968	21.38	993	22.52	1018	23.66	1042	24.80	1065	25.94
22018	1734	450	587	850	817	16.18	846	17.44	873	18.69	900	19.99	927	21.33	952	22.67	977	24.02	1002	25.37	1025	26.74	1048	28.11	1071	29.43
24465	1926	500	652	944	831	18.35	859	19.69	887	21.07	913	22.46	939	23.85	963	25.24	988	26.66	1012	28.14	1035	29.62	1058	31.11	1081	32.61
26911	2119	550	717	1038	848	20.92	875	22.32	901	23.70	927	25.10	952	26.62	977	28.14	1001	29.66	1024	31.19	1047	32.72	1069	34.26	1091	35.84
29358	2312	600	783	1133	866	23.76	892	25.21	918	26.74	943	28.26	968	29.77	991	31.28	1014	32.83	1038	34.49	1060	36.15	1083	37.81	1104	39.47
31804	2504	650	848	1227	886	27.02	912	28.56	936	30.08	960	31.62	985	33.28	1008	34.93	1031	36.58	1053	38.22	1075	39.85	1096	41.52	1118	43.91
34251	2697	700	913	1322	907	30.60	932	32.21	959	33.88	980	35.54	1003	37.19	1025	38.82	1048	40.57	1070	42.36	1092	44.13	1113	45.90	1133	47.67

HIGH PRESSURE — 300 A wheel — outlet area-10.45 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'Pass	M.Z. Heat	5½" SP RPM	5½" SP HP	5¾" SP RPM	5¾" SP HP	6" SP RPM	6" SP HP	6½" SP RPM	6½" SP HP	7" SP RPM	7" SP HP	7½" SP RPM	7½" SP HP	8" SP RPM	8" SP HP	8½" SP RPM	8½" SP HP	9" SP RPM	9" SP HP	9½" SP RPM	9½" SP HP	10" SP RPM	10" SP HP
18540	1772	378	495	716	1345	21.8	1365	22.7	1385	23.5	1422	25.6	1461	27.4	1485	29.3	1527	31.5	1558	33.6	1590	35.8	—	—	—	—
21321	2040	435	568	822	1417	26.3	1437	27.3	1456	28.3	1493	30.0	1532	32.0	1566	33.9	1598	35.8	1629	37.6	1661	39.3	1690	41.0	1720	43.0
24102	2304	492	643	930	1488	30.7	1508	31.9	1527	33.1	1564	35.5	1602	37.8	1636	40.1	1669	42.3	1700	44.5	1732	46.6	1762	48.9	1792	51.1
26883	2570	548	718	1038	1560	35.6	1580	37.0	1598	38.3	1635	41.0	1672	43.7	1706	46.3	1740	48.8	1771	51.4	1803	53.9	1834	56.6	1864	59.1
29664	2835	605	792	1145	1632	40.6	1651	42.1	1669	43.5	1706	46.6	1742	49.6	1776	52.5	1810	55.4	1842	58.3	1873	61.2	1905	64.2	1936	67.1
32445	3100	661	866	1252	1716	46.9	1733	48.5	1750	50.0	1784	53.2	1817	56.4	1850	59.5	1882	62.5	1914	65.8	1945	69.0	1976	72.3	2006	75.6
35226	3367	719	940	1360	1800	53.3	1815	54.9	1830	56.5	1861	59.8	1892	63.1	1923	66.4	1953	69.6	1985	73.2	2016	76.7	2047	80.4	2077	84.0

300 RB wheel — outlet area-10.45 sq ft

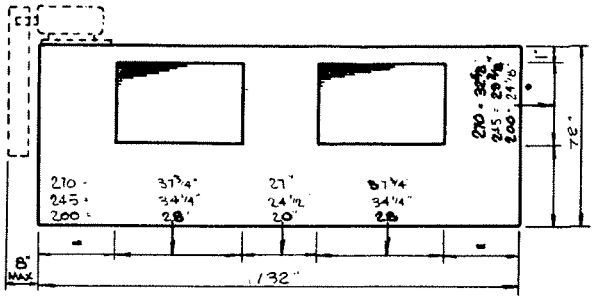
19572	1873	400	522	755	1185	26.11	1210	27.33	1233	28.54	1280	30.89	1326	33.18	1370	35.46	1413	37.75	1455	40.03	1495	42.31	1584	44.59	1572	47.01
22018	2107	450	587	850	1199	29.32	1223	30.66	1247	31.99	1293	34.68	1337	37.39	1380	40.13	1421	42.82	1463	45.39	1503	47.96	1542	50.53	1580	53.10
24465	2341	500	652	944	1216	32.93	1239	34.32	1262	35.72	1307	38.51	1351	41.47	1393	44.44	1435	47.43	1474	50.44	1513	53.47	1551	56.51	1589	59.45
26911	2575	550	717	1038	1234	36.80	1257	38.32	1280	39.84	1324	42.89	1367	45.95	1408	49.01	1448	52.14	1488	55.39	1527	58.66	1565	61.94	1601	65.24
29358	2809	600	783	1133	1256	41.43	1279	42.95	1300	44.56	1342	47.48	1385	50.79	1426	54.11	1466	57.44	1504	60.78	1542	64.13	1578	67.54	1615	71.09
31804	3043	650	848	1227	1279	46.36	1301	48.02	1323	49.67	1365	52.97	1405	56.28	1444	59.52	1484	63.03	1522	66.63	1559	70.23	1596	73.84	1631	77.45
34251	3278	700	913	1322	1305	52.10	1326	53.75	1347	55.38	1388	58.77	1428	62.34	1467	65.89	1505	69.42	1541	72.95	1577	76.58	1614	80.44	1649	84.32

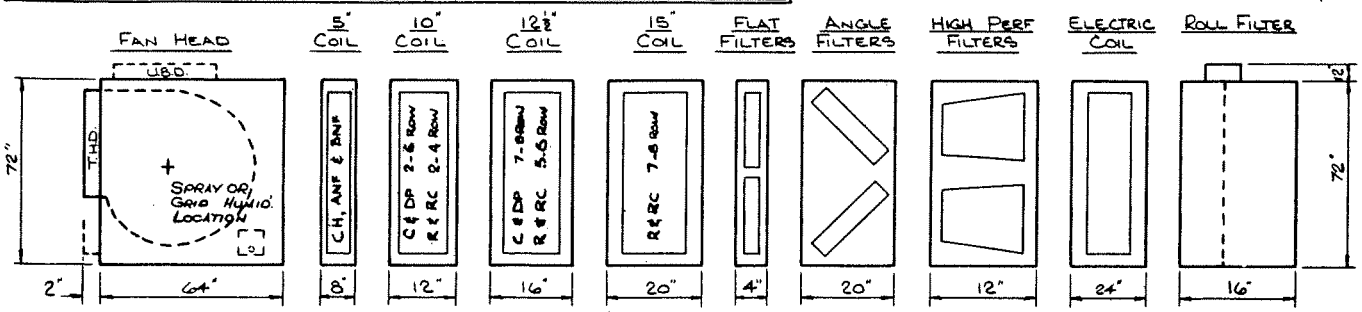
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

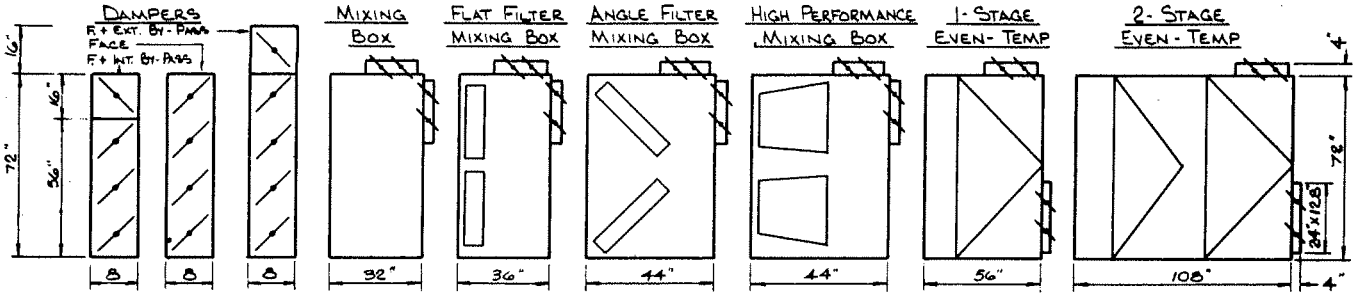
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

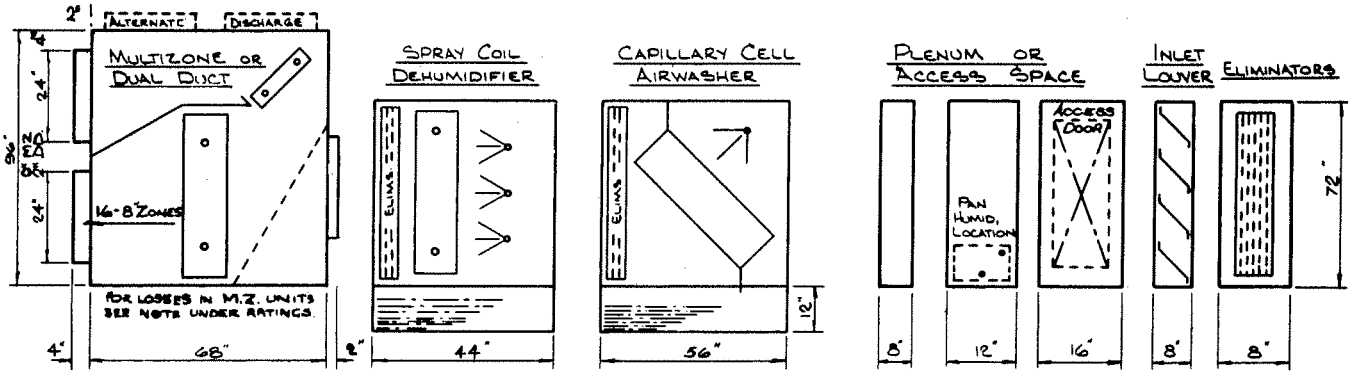
SHELDONS
MODULAR A/C UNIT
SIZE 12.2

standard coil - 48.54sq ft 42 tf x 120″ntl
internal by-pass htg coil - 43.66sq ft 30 tf x 120″ntl
multizone heating coil - 24.27sq ft 21 tf x 120″ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	16-16"x20"x2" 8-16"x25"x2"	48.8 SQ FT
ANGLE FILTER	20-20"x20"x2" 10-20"x25"x2"	86.7 SQ FT
HIGH VELOCITY		
HIGH PERFORMANCE	12-23"x20"x8" 6-20"x20"x8"	48.5 SQ FT
ROLL FILTER	6'-0"x11'-0"	55.0 SQ FT

HUMIDIFIERS

CAPACITY — LBS./HR.

WATER SPRAY 50 PSI	5″ STEAM GRID	PAN				
		5″ STEAM		ELECTRIC		
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
60	220	440	88	176	60	20

FACTORS FOR STEAM OTHER THAN 5″

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS — STEAM

½″	¾″	¾″	1¼″	2″	-	-

NOTE : 12″ PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	200	245	270	—	270
HORIZ	444 T	444 T	365 T	—	—
VERT	444 T	444 T	444 T	—	—

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	-	-	-	-	-	-	-
THROW-AWAY FLAT	.17	.20	.23	.27	—	—	—
THROW-AWAY ANGLE	.08	.11	.125	.14	.155	.17	.19
HIGH VELOCITY FLAT	.07	.08	.10	.12	.14	.16	.19
HIGH PERFORMANCE	.04	.07	.10	.14	.19	.24	—
ROLL	.040	.075	.105	.125	.155	.19	.22
SPRAY COIL DEHUMID.	.16	.24	.33	.41	.5	.58	.67
CAPILLARY AIRWASHER	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 1-STAGE	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 2-STAGE	.17	.22	.29	.35	.50	.63	.76
ELIMINATORS	.10	.12	.14	.16	.19	.22	.25

NOTE : FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI.	PUMP HP
	53	15	1.0		26400	96	15	1.5

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	2435	MIXING BOX	812
5″ COIL	312	FLAT FILTER MIXING BOX	1716
10″ COIL	437	ANGLE FILTER MIXING BOX	1127
12½″ COIL	463	HIGH PERFORMANCE FILTER & MIXING BOX	1097
15″ COIL	668	1-STAGE EVEN-TEMP	1273
FLAT FILTER	196	2-STAGE EVEN-TEMP	2053
ANGLE FILTER	453	MULTIZONE	2216
HIGH PERF. FILTER	287	SPRAY COIL DEHUMIDIFIER	5654
ELECTRIC COIL	554	CAPILLARY CELL AIRWASHER	6817
ROLL FILTER	183	PLENUM / FT	138
FACE & INTERNAL BY-PASS DAMPER	464	ACCESS SPACE	184
FACE DAMPER	422	INLET LOUVER	419
FACE & EXTERNAL BY-PASS DAMPER	590	ELIMINATORS	1922

NOTES : ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3″-5½″ SP
③ ADD 25% FOR 5½″-10″ SP
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	"C" SUPPLY & RETURN	R & RC SUPPLY & RETURN	DP "C" (DIRECT EXPANSION) 2	3	4.5	6	R	"ANF" S	R	"BNF" 1-ROW	2-ROW	FLEXITUBE 1-ROW	2-ROW	"CH" 1	2
STANDARD	2″	2½″	1⅜″	1⅜″	1⅜″	1⅜″	2½″	2½″	1½″	2″	1½″	2½″	1½″	2″	1¼″	2½″	1½″	2″
INT. BY-PASS	2″	2″	1⅜″	1⅜″	1⅜″	1⅜″	2½″	2″	1½″	1½″	1½″	2″	1½″	1½″	1¼″	2″	1½″	1½″	2″
M.Z. HEAT	2″	2½″	-	-	-	-	-	2½″	1½″	2″	1½″	2½″	1½″	2″	1¼″	2½″	1½″	1½″	2″

NOTE : ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 12.2

LOW PRESSURE

2 - 270 B wheel — **outlet area = 17.10 sq ft**

C.F.M.	Outlet Velocity	Coil Velocity			½" SP		¾" SP		1" SP		1¼" SP		1½" SP		1¾" SP		2" SP		2¼" SP		2½" SP		2¾" SP		3" SP	
		Std.	Int. & Perim.	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
16610	971	342	480	687	550	2.43	608	3.22	663	4.09	710	4.94	758	5.87	805	6.89	845	8.2	873	8.3	920	9.5	—	—	—	—
19630	1148	404	567	813	603	3.29	661	4.24	709	5.13	758	6.15	801	7.17	840	8.18	880	9.1	913	10.2	955	11.5	989	12.2	1049	14.2
22650	1325	466	654	938	655	4.24	714	5.43	763	6.51	804	7.50	847	8.65	887	9.86	924	11.0	958	12.1	993	13.4	1028	14.7	1063	16.1
25670	1500	528	742	1063	709	5.41	766	6.76	816	8.08	859	9.31	895	10.4	933	11.7	971	13.0	1005	14.4	1038	15.7	1069	17.1	1100	18.3
28690	1678	590	836	1188	767	6.89	818	8.31	868	9.82	913	11.3	951	12.7	985	13.9	1018	15.2	1052	16.7	1085	18.2	1115	19.7	1146	21.2
31710	1855	653	916	1313	827	8.65	872	10.1	921	11.8	964	13.4	1004	15.1	1040	16.6	1073	18.1	1101	19.4	1132	20.9	1162	22.5	1192	24.2
34730	2032	715	1004	1438	890	10.8	931	12.3	974	14.1	1017	15.5	1056	17.7	1092	19.4	1127	21.2	1158	22.7	1186	24.2	1213	25.0	1240	25.8

2 - 245 F wheel — **outlet area 14.10 sq ft**

19936	1415	410	576	825	340	4.0	381	4.92	427	5.96	470	7.08	512	8.32	550	9.54	—	—	—	—	—	—	—	—	—	—
22428	1592	462	648	928	356	4.38	395	6.14	437	7.24	477	8.4	517	9.70	552	11.04	—	—	—	—	—	—	—	—	—	—
24920	1770	513	720	1031	367	6.04	420	7.66	442	8.76	487	9.98	523	11.3	560	12.74	590	14.8	625	16.0	—	—	—	—	—	—
27412	1946	564	792	1135	390	7.82	434	9.10	474	10.64	502	11.88	535	13.24	568	14.6	603	16.14	632	17.78	660	19.3	690	20.9	720	22.4
29904	2123	616	864	1238	419	9.66	445	10.64	492	12.64	524	14.12	550	15.5	580	16.94	610	18.44	640	20.02	667	21.6	697	23.2	725	25.2
32396	2300	667	936	1340	446	12.0	466	12.7	500	14.6	540	16.6	568	18.1	592	19.6	620	21.2	648	22.8	675	24.3	704	26.0	730	27.5
34888	2477	719	1008	1445	475	14.7	490	15.4	515	16.7	557	19.0	590	21.2	614	22.4	635	24.2	660	25.8	687	27.5	710	29.2	738	31.1

MEDIUM PRESSURE

2 - 245 B wheel — **outlet area = 14.10 sq ft**

C.F.M.	Outlet Velocity	Coil Velocity			3" SP		3¼" SP		3½" SP		3¾" SP		4" SP		4¼" SP		4½" SP		4¾" SP		5" SP		5¼" SP		5½" SP	
		Std.	Int. & Perim.	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
14552	1061	308	432	615	1106	10.5	1150	11.6	1194	12.9	1236	13.9	1279	15.2	1316	16.6	1354	17.8	1392	18.9	1429	20.2	—	—	—	—
18650	1327	385	540	773	1172	13.3	1210	14.5	1248	15.7	1285	16.9	1322	18.1	1357	19.4	1392	20.7	1427	21.9	1461	23.1	1494	24.5	1527	25.9
22428	1592	462	648	928	1238	16.2	1270	17.4	1302	18.6	1334	19.9	1365	21.2	1398	22.5	1430	23.7	1462	25.2	1493	26.7	1524	28.2	1554	29.7
26166	1858	539	756	1083	1316	20.0	1347	21.4	1378	22.7	1407	24.0	1435	25.2	1462	26.6	1489	28.0	1517	29.3	1544	31.0	1571	32.3	1598	33.9
29904	2123	616	864	1238	1395	24.2	1426	25.7	1456	27.1	1485	28.7	1513	30.3	1541	31.8	1568	33.3	1594	34.9	1619	36.5	1643	38.0	1666	39.4
33642	2388	683	972	1392	1487	29.7	1514	31.3	1541	32.8	1566	34.2	1591	35.6	1618	37.4	1644	39.2	1670	40.9	1695	42.6	1720	44.4	1745	46.2
37380	2654	770	1080	1547	1575	35.6	1604	38.0	1633	39.4	1658	41.1	1683	42.8	1706	44.4	1728	46.0	1751	47.7	1774	49.4	1798	51.4	1822	53.4

2 - 200 F wheel — **outlet area - 9.36 sq ft**

18214	1949	375	526	754	881	15.0	916	16.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20698	2215	426	598	857	889	17.6	923	19.0	955	20.2	986	21.4	1017	22.7	1047	24.0	—	—	—	—	—	—	—	—	—	—
23182	2480	477	670	960	903	20.8	934	22.0	965	23.3	995	24.6	1024	26.1	1053	27.6	1075	28.7	1106	29.9	1132	31.9	—	—	—	—
25666	2746	529	742	1062	922	24.4	951	25.7	979	27.1	1008	28.7	1036	29.9	1064	31.6	1090	32.9	1118	34.3	1144	36.0	1170	37.6	1196	39.2
28150	3012	580	813	1165	950	28.8	974	30.3	1000	31.8	1025	33.1	1052	34.6	1078	36.0	1105	37.5	1130	39.0	1156	40.9	1181	42.4	1205	43.9
30634	3278	630	885	1268	986	34.1	1007	35.6	1028	37.1	1051	38.4	1074	40.1	1098	41.6	1122	43.0	1146	44.5	1170	46.2	1195	47.9	1219	49.6
33118	3544	682	957	1370	1024	40.5	1047	42.0	1066	43.2	1085	44.7	1104	46.2	1125	47.7	1146	49.4	1167	51.1	1189	52.8	1212	54.4	1234	56.0

HIGH PRESSURE

wheel — **outlet area** — **sq ft**

C.F.M.	Outlet Velocity	Coil Velocity			5½" SP		5¾" SP		6" SP		6½" SP		7" SP		7½" SP		8" SP		8½" SP		9" SP		9½" SP		10" SP	
		Std.	Int. & Perim.	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
									not available																	

wheel — **outlet area** — **sq ft**

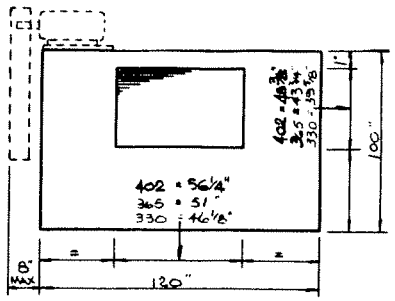
									not available																	

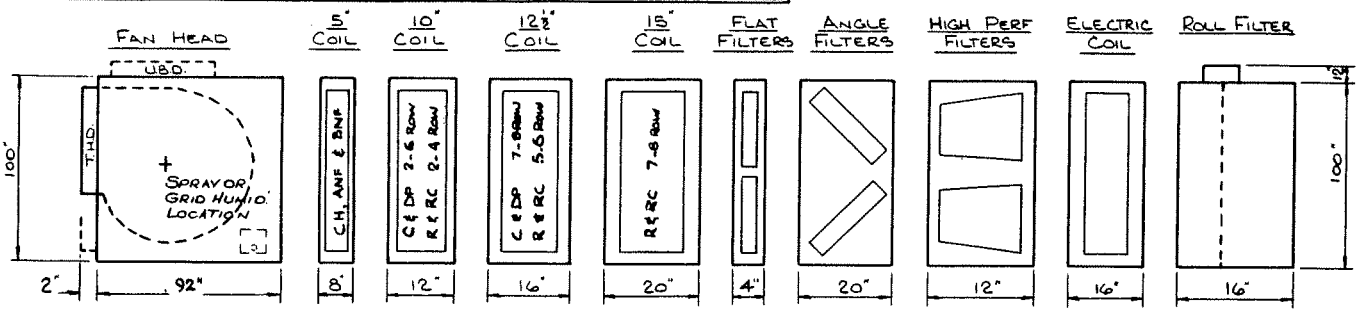
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

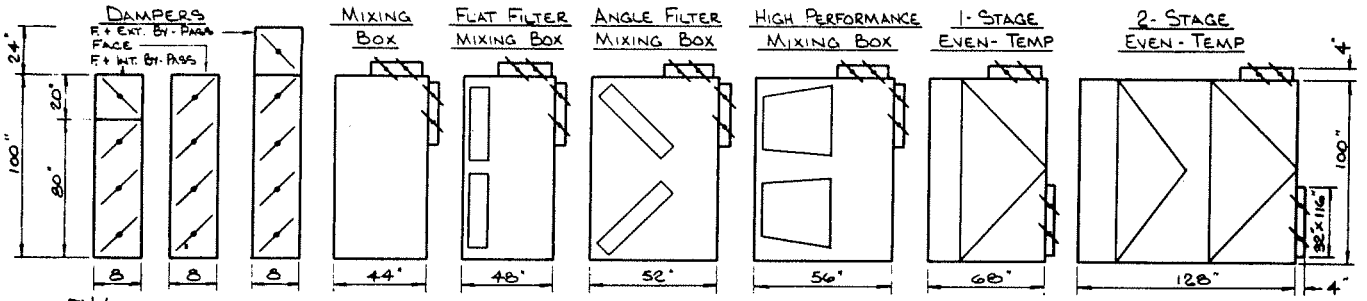
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs / cu. FT (70°F) & 29.92" Hg BAROMETER.

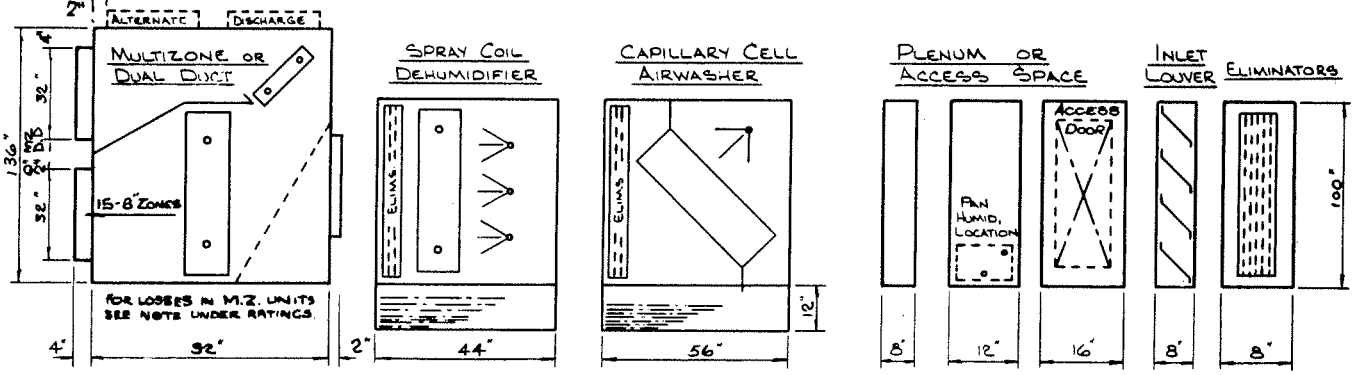
SHELDONS
MODULAR A/C UNIT
SIZE 13.1

standard coil - 59.2 sq ft 57 tf x 108" ntl
internal by-pass htg coil = 49.8 sq ft 48 tf x 108" ntl
multizone heating coil = 28.0 sq ft 27 tf x 108" ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	6-16"x20"x2" 24-16"x25"x2"	76.8 FT²
ANGLE FILTER	7-20"x20"x2" 28-20"x25"x2"	112.0 FT²
HIGH VELOCITY	6-16"x20"x2" 24-16"x25"x2"	76.8 FT²
HIGH PERFORMANCE	20-24"x24"x8"	66.2 FT²
ROLL FILTER	8'-0"x10'-0"	68.2 FT²

HUMIDIFIERS

CAPACITY - LBS/HR.

WATER SPRAY 50 PSI	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
60	200	400	80	160	54	18

FACTORS FOR STEAM OTHER THAN 5"

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS — STEAM

½"	¾"	¾"	1¼"	2"	-	-

NOTE: 12 PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM 'T' FRAME MOTOR IN STD FAN HEAD

FAN	POSITION W				POSITION X
DISCH	330	365	445	—	445
HORIZ	444T	444T	444T	—	284T
VERT	444T	444T	444T	—	284T

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	-	-	-	-	-	-	-
THROW-AWAY FLAT	.11"	.14"	.17"	.195"	.22"	.245"	.27"
THROW-AWAY ANGLE		.08"	.095"	.11"	.125"	.14"	.16"
HIGH VELOCITY FLAT		.07"	.08"	.095"	.11"	.125"	.14"
HIGH PERFORMANCE	.03"	.04"	.06"	.08"	.11"	.145"	.21"
ROLL	.06"	.075"	.105"	.125"	.155"	.15"	.22"
SPRAY COIL DEHUMID.	.16"	.24"	.33"	.41"	.5"	.58"	.67"
CAPILLARY AIRWASHER	.10"	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 1-STAGE	.10"	.13"	.17"	.22"	.28"	.36"	.44"
EVEN-TEMP 2-STAGE	.17"	.22"	.25"	.38"	.50"	.63"	.76"
ELIMINATORS	.10"	.12"	.14"	.16"	.19"	.22"	.25"

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI	PUMP HP
	65	15	1.0		55000	120	15	2.0

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	3130	MIXING BOX	1134
5" COIL	398	FLAT FILTER MIXING BOX	1394
10" COIL	567	ANGLE FILTER MIXING BOX	1547
12½" COIL	721	HIGH PERFORMANCE FILTER & MIXING BOX	1491
15" COIL	860	1-STAGE EVEN-TEMP	1691
FLAT FILTER	259	2-STAGE EVEN-TEMP	2686
ANGLE FILTER	560	MULTIZONE	3081
HIGH PERF FILTER	357	SPRAY COIL DEHUMIDIFIER	6202
ELECTRIC COIL	721	CAPILLARY CELL AIRWASHER	7431
ROLL FILTER	200	PLENUM / FT	150
FACE & INTERNAL BY-PASS DAMPER	567	ACCESS SPACE	200
FACE DAMPER	515	INLET LOUVER	522
FACE & EXTERNAL BY-PASS DAMPER	720	ELIMINATORS	2365

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	C SUPPLY & RETURN	R+RC SUPPLY & RETURN	DP (DIRECT EXPANSION) 2	3	4 5	6	R	ANF S	ANF R	BNF 1-ROW	BNF 2-ROW	FLEXITUBE 1-ROW	FLEXITUBE 2-ROW	CH 1	CH 2
STANDARD	2	2 +2½	1⅜+1⅜	1⅝+1⅝	1⅞+1⅞	1⅝+1⅝	2⅛	2"+2½	1½"	2"	1½"	2 +2½	1½"	2"	1½"
INT. BY-PASS	2	2½	1⅜	1⅜	1⅜	1⅜	2⅛	2½"	1½"	2"	1½"	2½	1½"	2½"	1½"
M.Z. HEAT	2	2½	-	-	-	-	-	2½"	1½"	2"	1½"	2½"	1½"	2½"	1½"

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 13.1

LOW PRESSURE — 402 A wheel — outlet area - 18.9 sq ft

C.F.M.	Outlet Velocity	Coil Velocity STD.	Coil Velocity INT. B'PASS	Coil Velocity M.Z. HEAT	½" SP RPM	½" SP HP	¾" SP RPM	¾" SP HP	1" SP RPM	1" SP HP	1¼" SP RPM	1¼" SP HP	1½" SP RPM	1½" SP HP	1¾" SP RPM	1¾" SP HP	2" SP RPM	2" SP HP	2¼" SP RPM	2¼" SP HP	2½" SP RPM	2½" SP HP	2¾" SP RPM	2¾" SP HP	3" SP RPM	3" SP HP
23492	1245	394	469	838	450	3.43	480	4.39	508	5.34	535	6.31	562	7.30	588	8.35	615	9.40	640	10.5	665	11.7	689	12.5	713	14.1
26848	1423	457	536	958	496	4.48	525	5.55	551	6.65	575	7.72	598	8.80	622	9.90	646	11.1	669	12.3	692	13.5	714	14.7	736	16.0
30204	1600	507	604	1078	546	5.80	571	6.95	595	8.05	619	9.39	640	10.6	661	11.8	682	13.1	704	14.3	725	15.6	745	17.0	766	18.4
33560	1779	563	671	1198	595	7.35	620	8.60	642	9.94	662	11.2	684	12.6	704	13.9	723	15.3	737	16.7	760	18.1	780	19.5	800	20.9
36916	1956	620	738	1317	646	9.15	666	10.6	686	12.0	708	13.5	728	15.0	746	16.5	765	17.9	783	19.4	800	20.9	818	22.4	835	23.9
40272	2130	676	805	1437	695	11.2	717	12.8	736	14.4	754	15.9	773	17.4	790	19.0	808	20.7	825	22.3	842	24	858	25.6	874	27.2
43628	2310	716	872	1557	745	13.6	767	15.4	785	17.1	802	18.7	820	20.4	836	22.1	853	23.9	869	25.6	886	27.4	901	29.2	916	31.0

402 RB wheel — outlet area 18.9 sq ft

24465	1294	411	489	873	316	4.00	358	5.20	397	6.40	434	7.61	468	8.85	501	10.17	531	11.51	561	12.92	589	14.36	616	15.81	641	17.27
26911	1424	452	538	960	331	4.78	370	6.09	407	7.41	442	8.72	476	10.07	507	11.39	537	12.85	566	14.32	593	15.80	620	17.37	645	18.95
29358	1553	493	587	1048	346	5.68	383	7.05	419	8.53	452	9.97	484	11.40	515	12.86	544	14.31	572	15.84	599	17.45	625	19.06	649	20.67
31804	1683	534	636	1135	363	6.72	398	8.21	431	9.76	463	11.32	494	12.88	523	14.43	551	16.01	579	17.59	605	19.16	630	20.90	655	22.65
34251	1812	575	685	1222	380	7.88	413	9.46	445	11.12	475	12.80	504	14.47	533	16.16	560	17.82	587	19.52	612	21.23	637	22.91	661	24.65
36698	1890	616	733	1310	357	8.9	428	10.6	459	12.5	487	14.3	514	16.0	544	17.7	569	19.6	595	21.5	619	23.5	644	24.9	667	26.6
39145	2070	657	782	1397	414	10.0	443	11.8	473	13.9	499	15.8	524	17.6	554	19.3	578	21.4	603	23.5	626	25.7	657	26.9	673	28.6

MEDIUM PRESSURE — 365 A wheel — outlet area 15.5 sq ft

C.F.M.	Outlet Velocity	Coil Velocity STD.	Coil Velocity INT. B'PASS	Coil Velocity M.Z. HEAT	3" SP RPM	3" SP HP	3¼" SP RPM	3¼" SP HP	3½" SP RPM	3½" SP HP	3¾" SP RPM	3¾" SP HP	4" SP RPM	4" SP HP	4¼" SP RPM	4¼" SP HP	4½" SP RPM	4½" SP HP	4¾" SP RPM	4¾" SP HP	5" SP RPM	5" SP HP	5¼" SP RPM	5¼" SP HP	5½" SP RPM	5½" SP HP
20685	1334	350	416	738	799	12.3	824	13.4	849	14.5	856	14.9	879	15.6	902	16.4	925	18.1	947	19.1	970	20.1	1000	21.2	1010	22.3
24822	1600	420	499	886	845	15.1	867	16.2	888	17.3	910	18.5	931	19.6	952	20.9	973	22.2	994	23.5	1015	24.8	1030	26.3	1045	28.0
28569	1868	490	582	1034	905	18.8	925	20.0	944	21.2	964	22.4	983	23.8	1002	25.2	1021	26.5	1041	27.9	1060	29.3	1073	31.1	1086	33.0
33096	2135	560	665	1180	964	22.4	982	23.8	999	25.1	1017	26.2	1034	28.0	1052	29.4	1069	30.7	1087	32.2	1104	33.7	1121	35.2	1137	36.7
37233	2400	630	748	1330	1036	27.5	1053	29.0	1068	30.5	1085	31.9	1101	33.6	1117	35.2	1132	36.6	1148	38.2	1163	39.8	1179	41.4	1194	43.0
41370	2670	700	831	1475	1108	32.5	1123	34.2	1137	35.8	1152	37.5	1167	39.2	1181	40.9	1194	42.5	1208	44.2	1222	45.8	1237	47.6	1251	49.3
45507	2935	770	915	1625	1184	39.1	1198	40.9	1212	42.7	1226	44.6	1240	46.4	1254	48.3	1266	50.1	1280	52.0	1293	53.8	1307	55.7	1319	57.5

365 RB wheel — outlet area 15.5 sq ft

23680	1528	400	475	845	715	16.7	742	18.1	768	19.5	793	20.9	817	22.3	841	23.7	864	25.2	887	26.8	909	28.3	931	29.9	952	31.5
26640	1719	450	534	951	724	19.0	750	20.5	775	21.9	800	23.4	824	25.0	848	26.6	870	28.1	893	29.7	914	31.3	935	32.9	956	34.6
29600	1910	500	594	1057	734	21.7	760	23.2	785	24.8	809	26.4	832	28.0	855	29.6	877	31.3	899	33.0	921	34.7	942	36.5	963	38.2
32560	2101	550	653	1162	747	24.8	772	26.4	796	28.0	819	29.6	842	31.3	864	33.1	887	34.9	908	36.6	929	38.4	949	40.2	969	42.0
35520	2292	600	712	1268	762	28.2	785	29.9	808	31.6	831	33.4	854	35.2	875	36.9	896	38.7	917	40.6	938	42.5	959	44.4	979	46.4
38480	2483	650	772	1374	778	31.9	801	33.8	824	35.6	845	37.5	867	39.4	888	41.3	909	43.2	929	45.1	949	47.0	969	48.9	988	50.9
41440	2674	700	831	1479	797	35.9	818	37.9	840	40.0	861	42.0	882	44.0	902	46.0	922	48.0	942	50.1	962	52.2	981	54.3	1000	56.3

HIGH PRESSURE — 330 A wheel — outlet area 12.7 sq ft

C.F.M.	Outlet Velocity	Coil Velocity STD.	Coil Velocity INT. B'PASS	Coil Velocity M.Z. HEAT	5½" SP RPM	5½" SP HP	5¾" SP RPM	5¾" SP HP	6" SP RPM	6" SP HP	6½" SP RPM	6½" SP HP	7" SP RPM	7" SP HP	7½" SP RPM	7½" SP HP	8" SP RPM	8" SP HP	8½" SP RPM	8½" SP HP	9" SP RPM	9" SP HP	9½" SP RPM	9½" SP HP	10" SP RPM	10" SP HP
22540	1775	380	453	805	1223	26.5	1242	27.6	1260	28.6	1299	29.7	1331	30.7	1360	31.8	1390	32.8	1418	33.9	1446	34.9	1472	36.0	1497	37.1
25921	2043	438	520	925	1288	31.1	1306	32.3	1324	33.5	1362	34.6	1394	35.7	1424	36.9	1454	41.1	1482	42.3	1510	43.4	1537	44.5	1563	46.7
29302	2309	495	590	1045	1353	35.7	1370	37.0	1388	38.3	1425	41.1	1457	43.9	1488	46.5	1518	49.0	1546	51.5	1574	54.0	1602	56.6	1629	59.2
32683	2575	552	656	1165	1418	42.6	1435	44.1	1453	45.6	1488	46.9	1521	52.1	1552	55.2	1582	58.2	1610	61.2	1638	64.2	1667	67.3	1695	70.4
36064	2842	610	725	1285	1483	49.4	1500	51.2	1517	52.9	1551	56.6	1584	60.3	1615	63.9	1645	67.4	1674	70.9	1702	74.3	1732	77.5	1761	81.5
39445	3108	667	792	1408	1559	57.1	1575	59.0	1591	60.8	1622	64.7	1652	68.5	1682	72.3	1711	76.1	1739	80.0	1767	83.8	1796	87.8	1825	91.8
42826	3375	724	860	1529	1635	64.8	1650	66.8	1664	68.7	1692	72.7	1720	76.6	1748	80.7	1776	84.7	1804	89.0	1832	93.3	1860	97.7	1888	102

330 RB wheel — outlet area 12.7 sq ft

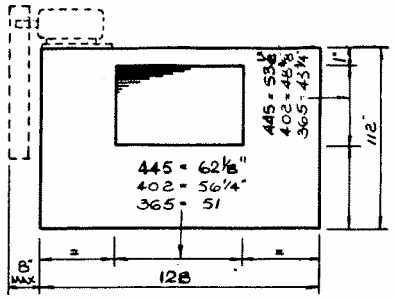
23680	1865	400	475	845	1078	31.6	1100	33.1	1121	34.5	1164	37.4	1206	40.1	1246	42.9	1285	45.7	1322	48.4	1359	51.2	1395	54.0	1430	56.9
26640	2098	450	534	951	1090	35.5	1112	37.1	1134	38.7	1175	42.0	1215	45.2	1254	48.5	1292	51.8	1330	54.9	1366	58.0	1402	61.1	1437	64.2
29600	2331	500	594	1057	1106	39.8	1127	41.5	1147	43.2	1188	46.6	1228	50.2	1267	53.8	1304	57.4	1340	61.0	1376	64.7	1410	68.4	1444	71.9
32560	2564	550	653	1162	1122	44.5	1143	46.4	1164	48.2	1204	51.9	1243	55.6	1280	59.3	1317	63.1	1353	67.0	1388	71.0	1422	74.9	1456	78.9
35520	2797	600	712	1268	1142	50.1	1162	52.0	1182	53.8	1220	57.4	1259	61.5	1296	65.5	1332	69.5	1367	73.5	1401	77.6	1435	81.7	1468	86.0
38480	3030	650	772	1374	1163	56.1	1183	58.1	1203	60.1	1241	64.1	1278	68.1	1313	72.0	1349	76.3	1384	80.6	1418	85.0	1451	89.3	1483	93.7
41440	3263	700	831	1479	1187	63.0	1206	65.0	1224	67.0	1261	71.1	1298	75.4	1334	79.7	1368	84.0	1401	88.3	1434	92.6	1467	97.3	1499	102.0

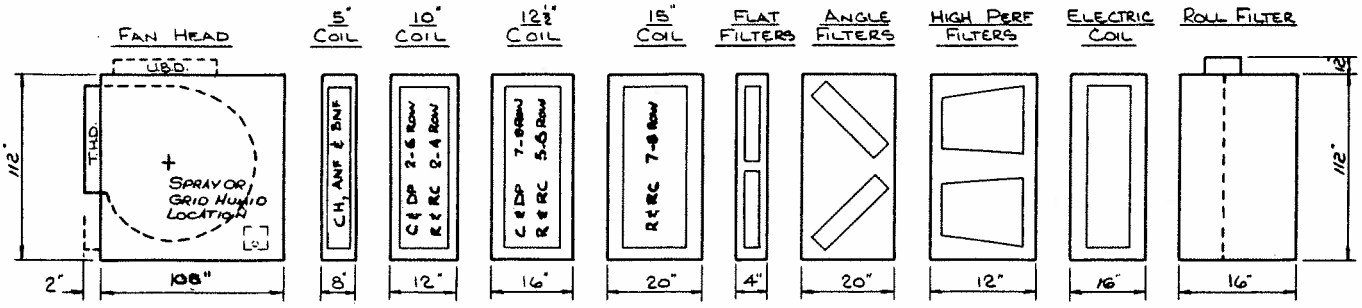
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

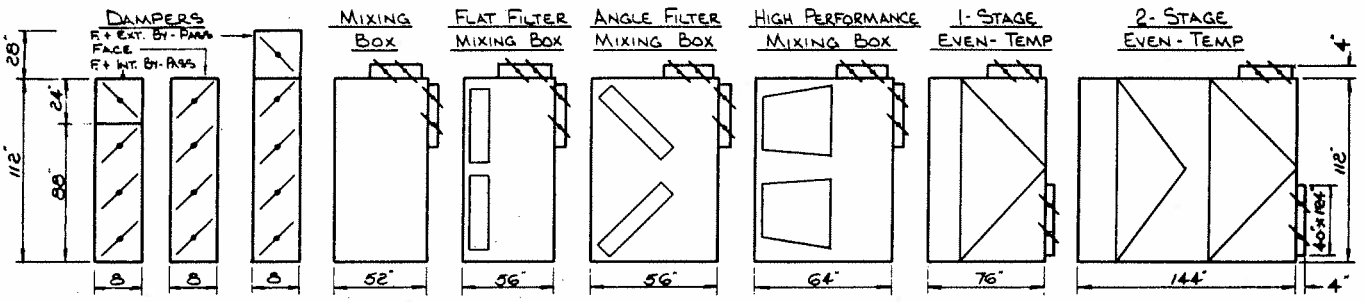
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

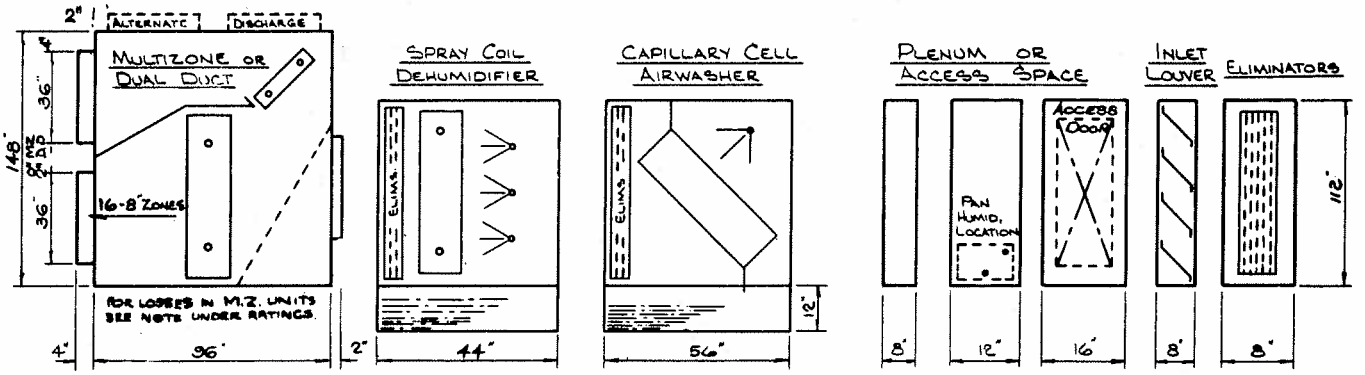
SHELDONS
MODULAR A/C UNIT
SIZE 14.1

standard coil	- 73.66 sq ft	66 tf x	116" ntl
internal by-pass htg coil	- 61.26 sq ft	54 tf x	116" ntl
multizone heating coil	- 36.83 sq ft	33 tf x	116" ntl









FILTERS

		NET AREA
THROW-AWAY FLAT FILTER	12-25x16x2" 16-25x20x2"	853 SQ FT
ANGLE FILTER	40-20x25x2"	133.3 SQ FT
HIGH VELOCITY	12-25x16x2 16-25x20x2	853 SQ FT
HIGH PERFORMANCE	15-20x25x2 12-20x20x2	60.5 SQ FT
ROLL FILTER	9'-0" x 10'-6"	82.50 SQ FT

HUMIDIFIERS

CAPACITY - LBS./HR.

WATER SPRAY 50 PSI	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD.	HIGH	1 COIL	2 COIL	1 ELEMT	KW
60	213	426	86	172	57	19

FACTORS FOR STEAM OTHER THAN 5"

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS - STEAM

½	¾	¾	1½	2	-	-

NOTE: 12" PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM 'T' FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	365	402	490	-	490
HORIZ	444T	444T	444T	-	286T
VERT	444T	444T	444T	-	286T

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	-	-	-	-	-	-	-
THROW-AWAY FLAT	.14	.17	.20	.225	.25	.275	-
THROW-AWAY ANGLE	.08	.095	.11	.125	.14	.16	.18
HIGH VELOCITY FLAT	.06	.07	.085	.11	.135	.16	.19
HIGH PERFORMANCE	.085	.105	.14	.19	.27	-	-
ROLL	.07	.09	.12	.15	.18	.21	.265
SPRAY COIL DEHUMID.	.16	.24	.33	.41	.50	.58	.67
CAPILLARY AIRWASHER	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 1-STAGE	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 2-STAGE	.17	.22	.29	.38	.50	.63	.76
ELIMINATORS	.10	.12	.14	.16	.19	.22	.25

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI.	PUMP HP
	81	15	1.5		46200	168	15	3.0

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	3625	MIXING BOX	1317
5" COIL	432	FLAT FILTER MIXING BOX	1593
10" COIL	603	ANGLE FILTER MIXING BOX	1706
12½" COIL	759	HIGH PERFORMANCE FILTER & MIXING BOX	1695
15" COIL	900	1-STAGE EVEN-TEMP	1506
FLAT FILTER	276	2-STAGE EVEN-TEMP	3052
ANGLE FILTER	593	MULTIZONE	3482
HIGH PERF FILTER	378	SPRAY COIL DEHUMIDIFIER	6855
ELECTRIC COIL	759	CAPILLARY CELL AIRWASHER	8345
ROLL FILTER	204	PLENUM/FT.	153
FACE & INTERNAL BY-PASS DAMPER	660	ACCESS SPACE	204
FACE DAMPER	599	INLET LOUVER	597
FACE & EXTERNAL BY-PASS DAMPER	840	ELIMINATORS	2735

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP.
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	'C' SUPPLY & RETURN	R1RC SUPPLY & RETURN	'DP' (DIRECT EXPANSION) 2	3	445	6	R	'ANF' S	R	'BNF' 1-ROW	2-ROW	FLEXITUBE 1-ROW	2-ROW	'CH' 1	2
STANDARD	2"	2½	1⅜	1⅜	1⅜	1⅜	2⅛	2½	1½	2	1½ 2½ 1½	2	1¼ 2½ 1½	1½	2
INT. BY-PASS	2"	2½	1⅜	1⅜	1⅜	1⅜	2⅛	2½	1½	2	1½ 2½ 1½	2	1¼ 2½ 1½	1½	2
M.Z. HEAT	2"	2"	-	-	-	-	-	2"	1½	2 1½	1½ 2 1½	2 1½	1¼ 2 1½	1½	2

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (M.Z.)
② 12 - 27 TF = 1-COIL ; 30 - 54 TF = 2-COIL ; 57 - 75 TF = 3-COIL

PERFORMANCE RATINGS

size 14.1

LOW PRESSURE — 445 A wheel — outlet area - 22.9 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'Pass	M.Z. Heat	½" SP RPM	½" SP HP	¾" SP RPM	¾" SP HP	1" SP RPM	1" SP HP	1¼" SP RPM	1¼" SP HP	1½" SP RPM	1½" SP HP	1¾" SP RPM	1¾" SP HP	2" SP RPM	2" SP HP	2¼" SP RPM	2¼" SP HP	2½" SP RPM	2½" SP HP	2¾" SP RPM	2¾" SP HP	3" SP RPM	3" SP HP
28686	1253	387	467	777	407	4.20	435	5.36	459	6.51	483	7.70	508	8.91	532	10.2	556	11.4	579	12.8	602	14.2	624	15.7	645	17.2
32784	1433	442	534	888	450	5.48	474	6.78	498	8.11	520	9.41	542	10.7	563	12.2	584	13.6	605	15.0	626	16.4	646	18.0	666	19.5
36882	1612	497	601	999	494	7.07	516	8.47	539	9.95	559	11.4	578	12.5	598	14.4	617	15.5	636	17.5	655	19.0	674	20.7	693	22.4
40980	1790	553	667	1110	539	8.98	559	10.5	579	12.1	599	13.8	618	15.4	636	17.1	653	18.7	679	20.4	687	22.0	705	23.8	722	25.5
45078	1970	608	734	1221	583	11.2	604	12.9	622	14.6	641	16.4	658	18.2	675	20.0	692	21.8	708	23.6	723	25.4	739	27.3	755	29.2
49176	2150	663	801	1332	629	13.7	648	15.6	666	17.5	682	19.3	699	21.4	715	23.5	731	25.3	746	27.3	761	29.3	775	31.2	790	33.2
53274	2340	719	868	1443	674	16.7	693	18.8	710	20.9	726	22.8	741	25.0	756	27.1	772	29.2	786	31.4	801	33.6	815	35.7	829	37.8

445 RB wheel — outlet area - 22.9 sq ft

29600	1293	399	482	802	284	4.80	322	6.25	358	7.70	392	9.17	423	10.7	452	12.3	480	13.9	507	15.6	532	17.4	556	19.1	579	20.9
32560	1422	439	530	882	297	5.73	333	7.32	367	8.92	399	10.5	429	12.1	458	13.7	485	15.5	511	17.3	536	19.1	560	21.0	583	22.9
35520	1551	479	578	962	311	6.80	345	8.51	377	10.2	408	12.0	436	13.7	465	15.5	491	17.2	516	19.1	541	21.1	564	23.0	587	25.0
38480	1680	519	627	1042	326	8.03	358	9.85	388	11.7	417	13.6	445	15.5	472	17.4	498	19.3	523	21.2	546	23.1	570	25.2	592	27.4
41440	1810	559	675	1123	341	9.42	371	11.3	400	13.3	428	15.4	455	17.4	481	19.4	505	21.5	530	23.5	553	25.6	575	27.6	597	29.8
44360	1930	598	723	1202	356	10.8	384	12.7	412	14.9	439	17.2	465	19.3	490	21.4	512	23.7	537	25.8	560	28.1	580	29.9	602	32.2
47280	2070	638	770	1281	371	12.2	397	14.1	424	16.5	450	19.0	474	21.2	495	23.4	519	25.9	544	28.1	567	30.6	585	32.5	607	34.6

MEDIUM PRESSURE — 402 A wheel — outlet area - 18.9 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'Pass	M.Z. Heat	3" SP RPM	3" SP HP	3¼" SP RPM	3¼" SP HP	3½" SP RPM	3½" SP HP	3¾" SP RPM	3¾" SP HP	4" SP RPM	4" SP HP	4¼" SP RPM	4¼" SP HP	4½" SP RPM	4½" SP HP	4¾" SP RPM	4¾" SP HP	5" SP RPM	5" SP HP	5¼" SP RPM	5¼" SP HP	5½" SP RPM	5½" SP HP
25170	1331	342	410	682	724	14.9	747	16.3	769	17.6	778	17.6	799	19.2	819	20.4	840	22.1	860	23.7	879	25.1	898	26.9	917	28.6
30204	1597	410	492	818	766	18.3	786	19.7	806	21.0	826	22.5	845	24.0	864	25.5	883	27.0	902	28.6	920	30.2	941	32.1	963	33.8
35238	1863	479	574	954	820	22.8	838	24.3	856	25.8	874	27.4	891	29.0	909	30.6	926	32.2	944	33.9	961	35.6	979	37.5	995	39.3
40272	2130	547	656	1091	874	27.2	890	28.9	906	30.5	922	32.3	937	34.0	953	35.7	969	37.4	985	39.2	1001	41.0	1016	42.8	1031	44.5
45306	2274	616	738	1227	940	33.4	955	35.3	969	37.1	984	39.0	998	40.9	1012	42.7	1026	44.5	1041	46.5	1055	48.4	1069	50.4	1083	52.2
50340	2662	684	820	1364	1005	39.5	1019	41.6	1032	43.7	1045	45.7	1058	47.7	1071	49.7	1083	51.6	1096	53.7	1109	55.8	1122	57.9	1134	59.9
55374	2929	753	902	1500	1073	47.5	1087	49.8	1099	52.0	1112	54.3	1124	56.5	1137	58.7	1149	60.8	1161	63.1	1173	65.4	1185	67.7	1197	70.0

402 RB wheel — outlet area - 18.9 sq ft

29464	1559	400	480	800	650	20.8	674	22.5	698	24.2	720	25.9	742	27.7	764	29.4	784	31.2	805	33.1	825	35.1	845	37.0	864	39.0
33147	1754	450	540	900	658	23.8	682	25.6	706	27.4	727	29.2	749	31.1	770	33.1	791	35.0	811	37.0	830	38.9	849	40.9	868	42.9
36830	1949	500	601	1000	669	21.2	691	29.0	714	30.9	736	33.0	757	35.0	777	37.0	797	39.0	817	41.1	837	43.2	856	45.4	874	47.5
40513	2144	550	661	1100	680	31.1	703	33.1	725	35.1	745	37.1	766	39.1	786	41.3	806	43.5	826	45.8	845	48.0	863	50.2	881	52.4
44196	2338	600	721	1200	695	35.5	716	37.6	736	39.8	757	42.0	777	44.2	797	46.4	816	48.6	834	50.7	853	53.1	872	55.5	890	57.9
47879	2533	650	781	1300	710	40.2	731	42.5	751	44.9	771	47.2	790	49.5	809	51.9	828	54.3	846	56.7	864	59.1	882	61.4	899	63.8
51562	2728	700	841	1400	729	45.3	748	47.9	767	50.4	786	52.9	805	55.5	823	58.0	841	60.5	858	63.0	876	65.6	894	68.2	911	70.7

HIGH PRESSURE — 365 A wheel — outlet area - 15.5 sq ft

C.F.M.	Outlet Velocity	Coil Velocity Std.	Int. B'Pass	M.Z. Heat	5½" SP RPM	5½" SP HP	5¾" SP RPM	5¾" SP HP	6" SP RPM	6" SP HP	6½" SP RPM	6½" SP HP	7" SP RPM	7" SP HP	7½" SP RPM	7½" SP HP	8" SP RPM	8" SP HP	8½" SP RPM	8½" SP HP	9" SP RPM	9" SP HP	9½" SP RPM	9½" SP HP	10" SP RPM	10" SP HP
27580	1781	375	449	747	1077	30.1	1096	31.6	1115	33.0	1125	34.5	1157	36.1	1191	38.7	1225	41.2	1256	44.7	1282	47.9	1323	51.1	1553	54.7
31717	2047	430	516	858	1125	35.3	1142	36.8	1159	38.3	1180	40.6	1211	43.3	1243	45.7	1275	49.8	1305	53.0	1338	56.6	1368	59.3	1398	63.8
35854	2315	487	584	971	1172	40.5	1188	42.1	1204	43.7	1235	46.9	1265	50.1	1295	53.5	1325	56.8	1354	60.4	1384	64.0	1413	67.7	1441	71.4
39991	2582	543	651	1083	1233	47.3	1247	49.0	1262	50.8	1290	54.2	1319	57.8	1347	61.3	1375	64.8	1403	68.6	1430	72.4	1458	76.1	1484	80.0
44128	2850	600	719	1195	1294	54.2	1307	56.0	1320	57.9	1346	61.6	1373	65.4	1399	69.1	1425	72.9	1451	76.8	1477	80.8	1502	84.6	1527	88.5
48265	2739	656	786	1307	1365	63.0	1377	65.0	1390	67.0	1414	70.9	1438	74.9	1462	78.8	1486	82.9	1510	87.1	1534	91.4	1558	95.4	1581	99.3
52402	3385	712	854	1420	1435	71.9	1447	74.0	1459	76.1	1481	80.3	1503	84.5	1525	88.6	1547	92.8	1569	97.4	1591	102	1614	106	1636	110

365 RB wheel — outlet area - 15.5 sq ft

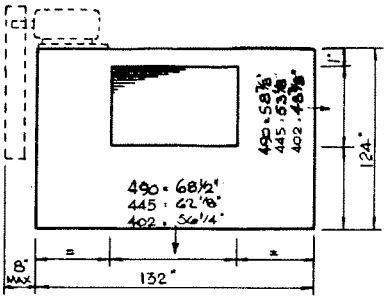
29464	1901	400	480	800	962	38.0	982	39.8	1002	41.5	1040	45.1	1078	48.8	1114	52.7	1148	56.6	1183	60.5	1216	64.5	1248	68.5	1280	72.6
33147	2139	450	540	900	971	42.9	991	44.7	1011	46.7	1049	50.6	1085	54.5	1121	58.4	1155	62.4	1188	66.4	1222	70.7	1254	75.1	1285	79.5
36830	2376	500	601	1000	983	48.4	1002	50.4	1021	52.4	1058	56.4	1094	60.5	1129	64.8	1163	69.1	1197	73.5	1229	77.9	1260	82.2	1291	86.6
40513	2614	550	661	1100	996	54.6	1015	56.5	1033	58.6	1070	63.0	1105	67.5	1140	71.9	1173	76.3	1205	80.8	1237	85.6	1269	90.3	1299	95.1
44196	2851	600	721	1200	1012	61.7	1030	63.9	1049	66.1	1084	70.4	1117	74.8	1151	79.5	1185	84.4	1217	89.2	1248	94.1	1278	98.9	1308	103.7
47879	3089	650	781	1300	1030	69.4	1048	71.7	1065	74.0	1099	78.8	1133	83.6	1166	88.3	1197	93.0	1228	97.9	1260	103.2	1290	108.4	1319	113.7
51562	3327	700	841	1400	1051	77.8	1068	80.4	1085	82.9	1117	87.9	1149	92.9	1182	98.1	1213	103.2	1244	108.3	1273	113.4	1302	118.4	1331	123.9

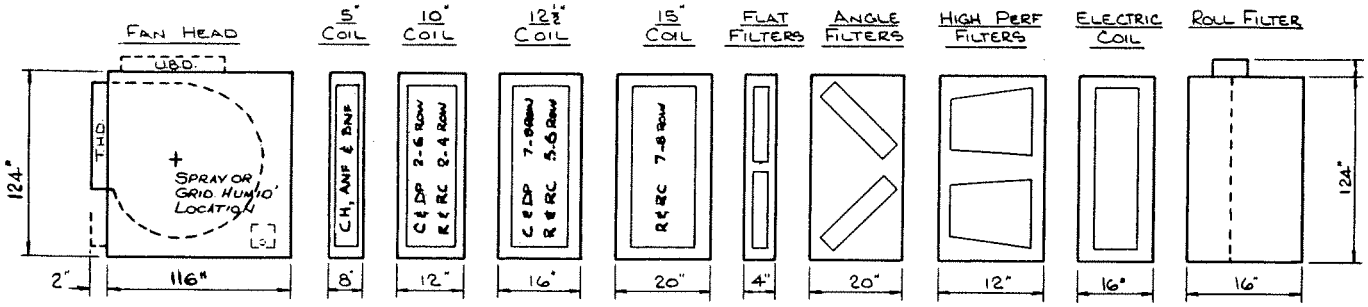
NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

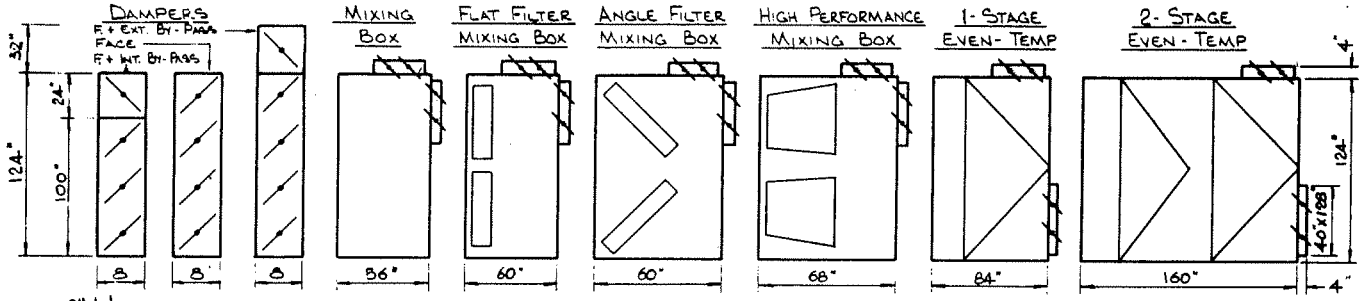
PERFORMANCE BASED ON STANDARD AIR AT .075 lbs/cu. FT (70°F) & 29.92" Hg BAROMETER.

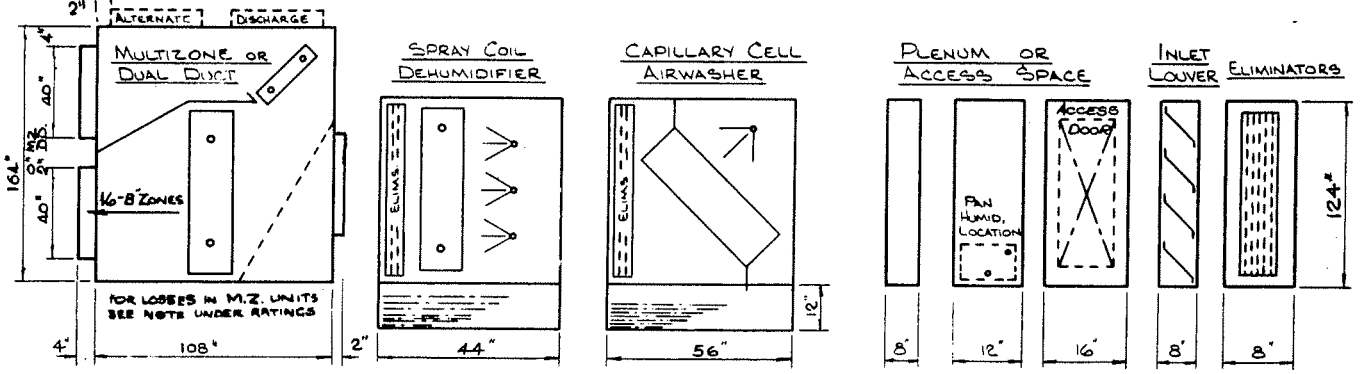
SHELDONS
MODULAR A/C UNIT
SIZE 15.1

standard coil	- 86.69sq ft	75 tf x 120" ntl
internal by-pass htg coil	- 65.87sq ft	57 tf x 120" ntl
multizone heating coil	- 45.07sq ft	39 tf x 120" ntl









FILTERS

THROW-AWAY		NET AREA
FLAT FILTER	24 - 20 x 20 x 2 12 - 20 x 25 x 2	104 Sqft.
ANGLE FILTER	36 - 20 x 20 x 2 16 - 20 x 25 x 2	156 Sqft
HIGH VELOCITY	24 - 20 x 20 x 2 12 - 20 x 25 x 2	104 Sqft
HIGH PERFORMANCE	24 - 20 x 20 x 8 12 - 20 x 25 x 8	90 Sqft.
ROLL FILTER	10'-0" x 11'-0"	97 Sqft

HUMIDIFIERS

CAPACITY — LBS./HR.

WATER SPRAY 50 PSI	5" STEAM GRID		PAN			
			5" STEAM		ELECTRIC	
	STD	HIGH	1 COIL	2 COIL	1 ELEMT	KW
60	220	440	88	176	60	20

FACTORS FOR STEAM OTHER THAN 5"

PSI	2	5	10	15	20	30
FACTOR	.42	0	1.9	2.2	2.7	3.5

CONNECTIONS — STEAM

½"	¾"	¾"	1¼"	2"	-	-

NOTE: 12 PLENUM REQ'D WITH PAN HUMID.

MOTORS

MAXIMUM "T" FRAME MOTOR IN STD. FAN HEAD

FAN	POSITION W				POSITION X
DISCH	402	445	542	-	542
HORIZ	444T	444T	444T	-	256 T
VERT	444T	444T	444T	-	256 T

AIR FRICTION

SECTION	STANDARD COIL VELOCITY						
	350	400	450	500	550	600	650
FILTERS (CLEAN)	-	-	-	-	-	-	-
THROW-AWAY FLAT	.13	.155	.18	.21	.24	.27	—
THROW-AWAY ANGLE	.08	.095	.11	.125	.145	.165	.185
HIGH VELOCITY FLAT	.06	.07	.085	.11	.135	.16	.19
HIGH PERFORMANCE	.04	.06	.08	.11	.16	.22	.28
ROLL	.07	.10	.13	.16	.19	.22	.28
SPRAY COIL DEHUMID.	.16	.24	.33	.41	.5	.58	.67
CAPILLARY AIRWASHER	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 1-STAGE	.10	.13	.17	.22	.28	.36	.44
EVEN-TEMP 2-STAGE	.17	.22	.29	.38	.50	.63	.76
ELIMINATORS	.10	.12	.14	.16	.19	.22	.25

NOTE: FOR COIL AIR FRICTION SEE COIL DATA

WASHERS

SPRAY COIL DEHUMIDIFIER	USGPM	PSI.	PUMP HP	CAPILLARY AIRWASHER	MAX CFM	USGPM	PSI	PUMP HP
	95	15	1.5		52800	192	15	3.0

WEIGHTS (approx.)

SECTION	LBS.	SECTION	LBS.
FAN HEAD	4485	MIXING BOX	1552
5" COIL	445	FLAT FILTER MIXING BOX	1835
10" COIL	622	ANGLE FILTER MIXING BOX	1948
12½" COIL	800	HIGH PERFORMANCE FILTER & MIXING BOX	1950
15" COIL	946	1-STAGE EVEN-TEMP	2236
FLAT FILTER	282	2-STAGE EVEN-TEMP	3607
ANGLE FILTER	625	MULTIZONE	3969
HIGH PERF FILTER	397	SPRAY COIL DEHUMIDIFIER	7427
ELECTRIC COIL	800	CAPILLARY CELL AIRWASHER	9095
ROLL FILTER	230	PLENUM / FT.	171
FACE & INTERNAL BY-PASS DAMPER	771	ACCESS SPACE	228
FACE DAMPER	701	INLET LOUVER	642
FACE & EXTERNAL BY-PASS DAMPER	982	ELIMINATORS	3120

NOTES: ① ADD WEIGHTS OF COILS, FILTERS MOTOR ETC.
② ADD 10% FOR 3"-5½" SP
③ ADD 25% FOR 5½"-10" SP.
④ WASHER WEIGHT INCLUDES WATER IN TANK & PUMP

COIL CONNECTIONS (ONE COIL)

COIL	C SUPPLY & RETURN	R & RC SUPPLY & RETURN	DP (DIRECT EXPANSION) 2	3	4	5	6	R	ANF S	ANF R	BNF 1-ROW	BNF 2-ROW	FLEXITUBE 1-ROW	FLEXITUBE 2-ROW	CH 1	CH 2
STANDARD	2"	2½"	1⅜"	1⅜"	1⅜"	1⅜"	2⅝"	2½"	2½"	1½"	2"	2½" 1½"	2"	2½" 1½"	1½"	2"
INT. BY-PASS	2"	2½" 2"	1⅜" 1⅜"	1⅜" 1⅜"	1⅜" 1⅜"	1⅜" 1⅜"	2⅝" 1⅜"	2½" 1⅜"	2½" 2"	1½"	2"	2½" 1½"	2"	2½" 1½"	1½"	2"
M.Z. HEAT	2"	2½" 2"	—	—	—	—	—	—	2½" 2"	1½"	2"	2½" 1½"	2"	2½" 1½"	1½"	2"

NOTE: ① EXTRA COIL CONNECTIONS REQUIRED WITH DP COIL INSTALLED IN MULTIZONE (MZ)
② 12 — 27 TF = 1-COIL ; 30 — 54 TF = 2-COIL ; 57 — 75 TF = 3-COIL

PERFORMANCE RATINGS

size 15.1

LOW PRESSURE — 490 A wheel — outlet area - 28.0 sq ft

C.F.M.	Outlet Velocity	Coil Velocity			½" SP		¾" SP		1" SP		1¼" SP		1½" SP		1¾" SP		2" SP		2¼" SP		2½" SP		2¾" SP		3" SP	
		Std.	Int. B'Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
34790	1242	401	525	768	369	5.03	395	6.50	417	7.89	440	9.33	462	10.8	484	12.4	505	13.9	522	15.3	543	16.7	562	18.5	581	20.1
39760	1419	458	600	878	408	6.63	431	8.22	453	9.84	472	11.4	492	13.0	511	14.7	530	16.4	550	18.0	569	19.9	587	21.8	605	23.6
44730	1596	515	675	988	449	8.57	465	10.3	488	12.1	508	13.9	525	15.7	543	17.5	560	19.3	578	21.2	595	23.1	612	25.6	629	27.1
49700	1774	573	750	1098	490	10.9	508	12.7	526	14.7	545	16.6	561	18.6	578	20.7	594	22.7	609	24.8	624	26.8	640	28.9	656	30.9
54670	1951	630	825	1208	530	13.6	549	15.7	565	17.7	581	19.9	598	22.0	613	24.3	628	26.5	643	28.7	657	30.8	671	33.1	685	35.4
59640	2130	687	900	1318	571	16.6	589	19.0	604	21.3	620	23.5	635	25.9	650	28.3	665	30.7	678	33.1	691	35.6	704	37.9	718	40.3
68610	2300	744	975	1427	613	20.3	630	22.8	645	25.4	658	27.7	673	30.3	687	32.9	701	35.5	714	38.1	728	40.7	740	43.3	752	46.0

490 RB wheel — outlet area - 28.0 sq ft

36830	1315	424	556	813	261	6.11	295	7.91	327	9.71	357	11.5	385	13.3	412	15.4	437	17.4	461	19.4	484	21.6	506	23.8	527	26.0
40513	1447	467	611	895	274	7.30	306	9.27	336	11.3	364	13.2	392	15.2	417	17.2	442	19.4	466	21.6	488	23.8	510	26.1	531	28.5
44196	1578	509	667	976	287	8.70	317	10.8	346	13.0	373	15.1	399	17.3	424	19.5	448	21.7	471	23.9	493	26.3	514	28.8	534	31.2
47875	1710	552	722	1058	301	10.3	329	12.5	356	14.9	382	17.2	407	19.6	431	21.9	454	24.3	477	26.6	498	29.0	519	31.6	539	34.2
51562	1841	594	778	1139	315	12.1	342	14.5	368	17.0	393	19.5	416	22.0	440	24.5	462	27.0	483	29.6	504	32.2	525	34.7	544	37.8
55245	1970	636	834	1220	329	13.9	355	16.5	380	20.1	404	21.8	425	24.6	449	27.1	470	29.7	489	32.6	510	35.4	531	37.8	549	40.4
58928	2110	679	889	1302	343	15.7	368	18.5	392	23.2	415	24.1	434	27.2	458	29.7	478	32.4	495	35.6	516	38.6	537	40.9	554	43.5

MEDIUM PRESSURE — 445 A wheel — outlet area - 22.9 sq ft

C.F.M.	Outlet Velocity	Coil Velocity			3" SP		3¼" SP		3½" SP		3¾" SP		4" SP		4¼" SP		4½" SP		4¾" SP		5" SP		5¼" SP		5½" SP	
		Std.	Int. B'Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
30735	1340	354	467	680	655	18.2	675	19.9	696	21.5	702	22.3	717	24.1	741	26.0	760	27.6	778	28.5	805	30.3	833	32.1	850	33.9
36882	1610	426	550	815	693	22.4	711	24.1	728	25.7	746	27.5	764	29.3	782	31.2	799	33.0	816	35.0	832	36.9	848	38.8	864	40.2
43029	1880	497	656	955	742	27.9	758	29.7	774	31.5	790	33.5	807	35.5	823	37.5	838	39.4	854	41.5	869	43.5	883	45.1	899	47.0
49176	2145	567	747	1090	791	33.3	805	35.3	819	37.3	834	39.5	849	41.6	863	43.7	877	45.7	891	47.9	905	50.0	919	52.2	933	54.4
55323	2510	638	840	1230	850	40.8	863	43.1	876	45.3	890	47.7	903	50.0	916	52.2	929	54.4	942	56.8	954	59.1	967	61.4	979	63.8
61470	2680	710	935	1360	909	48.3	921	50.8	933	53.3	945	55.8	957	58.3	969	60.7	980	63.1	992	65.6	1003	68.1	1014	70.6	1025	73.1
67617	2950	780	1028	1500	971	58.0	983	60.8	994	63.5	1006	66.3	1017	69.0	1028	71.7	1039	74.4	1050	77.1	1061	79.9	1071	82.6	1082	85.3

445 RB wheel — outlet area - 22.9 sq ft

34676	1514	400	526	769	586	24.41	608	26.45	629	28.50	650	30.56	670	32.63	689	34.78	708	37.04	727	39.31	745	41.60	763	43.92	780	46.25
39010	1704	450	592	865	593	27.79	614	29.93	635	32.07	655	34.33	675	36.62	694	38.91	713	41.22	731	43.54	749	45.87	766	48.23	784	50.75
43345	1893	500	658	962	601	31.52	622	33.82	642	36.19	662	38.56	682	40.94	700	43.31	719	45.77	737	48.31	755	50.86	772	53.41	789	55.98
47679	2082	550	723	1058	611	36.03	631	38.40	651	40.74	670	43.10	689	45.71	708	48.33	726	50.94	744	53.55	761	56.16	777	58.77	794	61.54
52014	2271	600	789	1154	623	40.90	642	43.44	661	46.05	680	48.63	698	51.21	716	53.76	734	56.38	751	59.23	768	62.08	785	64.93	801	67.78
56348	2461	650	855	1250	636	46.27	655	49.03	673	51.77	690	54.50	709	57.33	726	60.14	744	62.94	760	65.72	777	68.48	793	71.30	809	74.39
60683	2650	700	921	1346	650	52.07	668	55.04	686	58.04	704	61.01	721	63.97	737	66.90	754	69.91	771	72.95	787	75.97	803	78.98	818	81.98

HIGH PRESSURE — 402 A wheel — outlet area - 18.9 sq ft

C.F.M.	Outlet Velocity	Coil Velocity			5½" SP		5¾" SP		6" SP		6½" SP		7" SP		7½" SP		8" SP		8½" SP		9" SP		9½" SP		10" SP	
		Std.	Int. B'Pass	M.Z. Heat	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
33560	1775	287	510	745	977	36.7	994	38.5	1011	40.2	1020	42.1	1050	45.5	1081	48.9	1110	52.3	1145	56.3	1171	60.0	1183	65.2	1229	68.7
38594	2040	445	587	855	1020	43.0	1036	44.9	1052	46.7	1070	49.1	1059	52.7	1128	56.5	1157	60.2	1187	64.4	1213	68.7	1238	73.0	1268	773
43628	2301	503	662	970	1063	49.3	1078	51.2	1092	53.1	1120	57.1	1148	61.0	1175	65.1	1202	69.1	1229	73.5	1255	77.8	1281	82.4	1307	86.9
48662	2570	561	739	1079	1118	57.6	1132	59.7	1145	61.8	1171	66.1	1197	70.3	1222	74.7	1247	79.0	1272	83.6	1297	88.1	1322	92.8	1346	97.5
53696	2840	620	816	1190	1173	65.9	1185	68.2	1197	70.4	1221	75.0	1245	79.6	1269	84.2	1292	86.8	1316	93.6	1339	98.3	1362	103	1385	108
58730	3107	677	892	1303	1238	76.7	1249	79.1	1260	81.5	1283	86.4	1305	91.3	1327	96.2	1348	101	1370	106	1391	111	1413	117	1435	122
63767	3370	736	967	1415	1302	87.5	1313	90.1	1323	92.6	1344	97.8	1364	103	1384	108	1404	113	1424	119	1443	124	1464	130	1484	135

402 RB wheel — outlet area 18.9 sq ft

34676	1835	400	526	769	871	44.80	889	46.87	907	48.95	942	53.32	976	57.85	1009	62.43	1041	67.07	1072	71.75	1102	76.49	1131	81.28	1160	86.77
39010	8064	450	592	865	878	50.35	896	52.63	914	54.92	949	59.53	982	64.16	1014	68.81	1045	73.62	1076	78.69	1106	83.81	1135	88.97	1164	94.18
43345	2293	500	658	962	888	56.64	905	59.01	923	61.39	956	66.14	989	71.19	1022	76.29	1053	81.40	1083	86.54	1112	91.71	1140	96.90	1169	102.4
47679	2523	550	723	1058	898	63.40	916	65.94	933	68.55	966	73.77	999	78.99	1030	84.21	1060	89.52	1090	95.09	1119	100.7	1148	106.3	1175	111.96
52014	2752	600	789	1154	912	71.60	929	74.18	945	76.75	977	81.85	1009	87.39	1040	93.09	1070	98.78	1099	104.5	1128	110.18	1155	115.9	1183	122.09
56348	2981	650	855	1250	927	80.30	943	83.09	959	85.92	991	91.54	1022	97.11	1051	102.65	1080	108.46	1109	114.6	1138	120.8	1165	126.9	1192	133.2
60683	3211	700	921	1346	945	89.94	960	92.90	975	95.85	1005	101.71	1036	107.8	1065	113.87	1094	119.88	1121	125.1	1148	131.8	1176	138.4	1202	145.09

NOTE. WHEN USING BLOW-THRU MZ UNITS, ADD .85 OF FAN OUTLET VP TO SYSTEM RESISTANCE FOR BOX LOSS.

PERFORMANCE BASED ON STANDARD AIR AT .075 lbs / cu. ft (70°F) & 29.92" Hg BAROMETER.

CHILLED WATER COIL SELECTION — TYPE C & CD

SELECTION METHOD — SERIES 80

1. Calculate total heat load:
   T.H.L. = CFM x 4.45 (TH @ WBent − TH @ WBlvg)
   (See Table 14 Page 58 for total heat)

2(a) Determine USgpm of water req'd.: $\text{USgpm} = \dfrac{\text{Total heat load}}{\text{water temp. rise} \times 500}$

OR

2(b) If USgpm is given calculate water velocity $= \dfrac{\text{USgpm} \times 1.235}{\text{Tubes in face} \times C}$

[water velocities of 2 - 5 fps would be good practice]

Where C full circuit = 1
half circuit = ½
third circuit = ⅓
double circuit = 2

3. Calculate leaving water temp. $= \dfrac{\text{Total heat}}{\text{USgpm} \times 500} +$ Inlet water temp.

4. Determine leaving air DB by drawing a line on the Psychrometric chart on Page 59 from the inlet conditions of DB and WB, to a temperature on the saturation line (Tc) which equals the entering water temperature plus leaving WB divided by 2 Where this line crosses the WB lvg read the DB lvg.

5. Calculate sensible heat ratio (SHR) $= \dfrac{(\text{DBent} - \text{DBlvg}) \times .241}{(\text{THent} - \text{THlvg})}$

6. With coil face velocity, SHR and water velocity determine factor K from Chart 1.

7. With greatest and least temperature difference determine MED from Chart 5.
   GTD = DBent − leaving water
   LTD = DBlvg − inlet water

8. Calculate rows deep required: $\text{Rows} = \dfrac{\text{Total heat}}{K \times \text{MED} \times \text{face area}}$

   NOTE: If fractional number of rows calculated re-calculate with change USgpm or water velocity.

9. Determine air friction from Chart 2.
   NOTE: Factor for wet coils must be added as indicated.

10. Determine water head loss from Table 4 applying factors for circuits and number of rows.

EXAMPLE

To cool 10,000 cfm of standard air from 95° DB, 75° WB to 60° WB, when using 50°F water and 6 USgpm per 1,000 cfm.

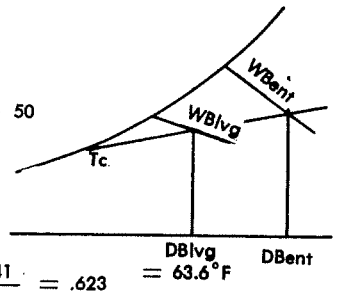
Assume Standard Modular unit size 7.2 with a Series 80 standard coil, 18.8 sq. ft. face area, 24 tube face, 80" NTL, face velocity 532 fpm.

1. T.H.L. = 10,000 x 4.45 (38.61 - 26.46) = 541,000 BTU/hr.

2(a) 60 Usgpm given.

2(b) Water vel. $= \dfrac{60 \times 1.235}{24 \times 1} = 3.09$ fps

3. Lvg. water $= \dfrac{541{,}000}{60 \times 500} + 50$
   $= 68°F.$



4. DBlvg. = 63.6°F. DBlvg. = 63.6°F

5. S.H.R. $= \dfrac{(95 - 63.6) \times .241}{38.61 - 26.46} = .623$

6. 532 fpm, .623, 3.09 fps: ∴ K = 255

7. GTD = 95° − 68° = 27°
   LTD = 63.6 − 50° = 13.6 ∴ M.E.D. = 19.5°F

8. Rows $= \dfrac{541{,}000}{255 \times 19.5 \times 18.8} = 5.8$ (SAY 6 ROWS)

9. Air friction = .43 x 1.35 = .58" wg.

10. Water head loss = 6.7 x 1.0 x 1.0 = 6.7 ft. of water
    (correct water head loss for circuit and row factor)

CHART 1

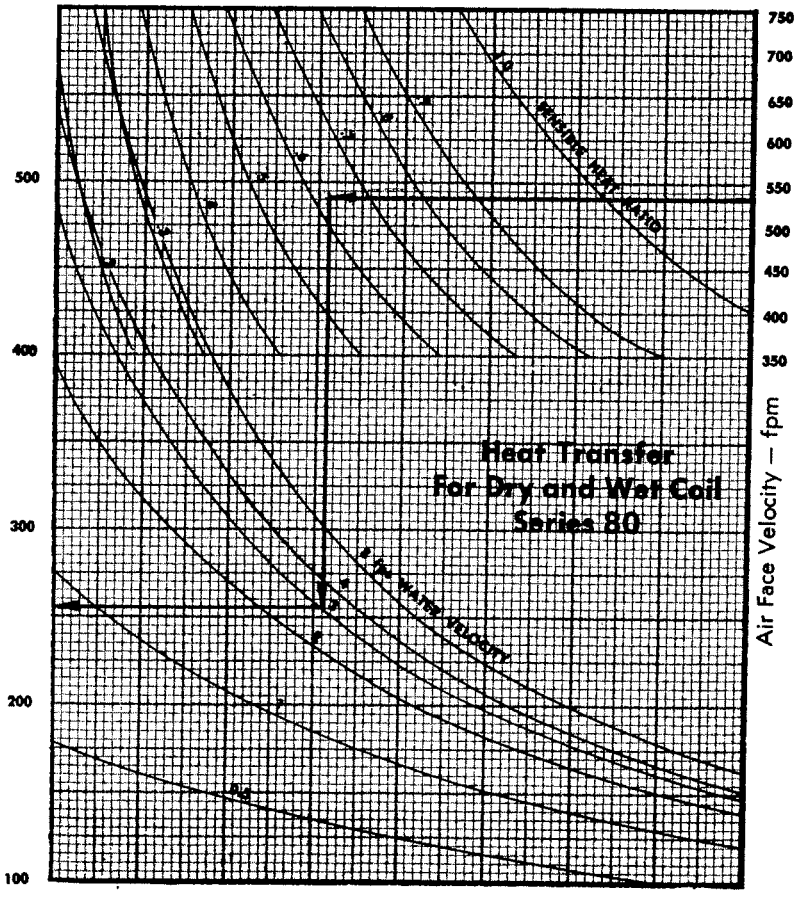
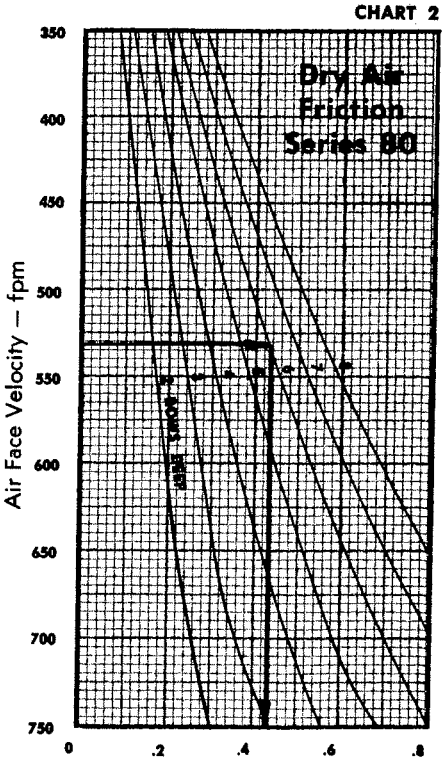


CHART 2



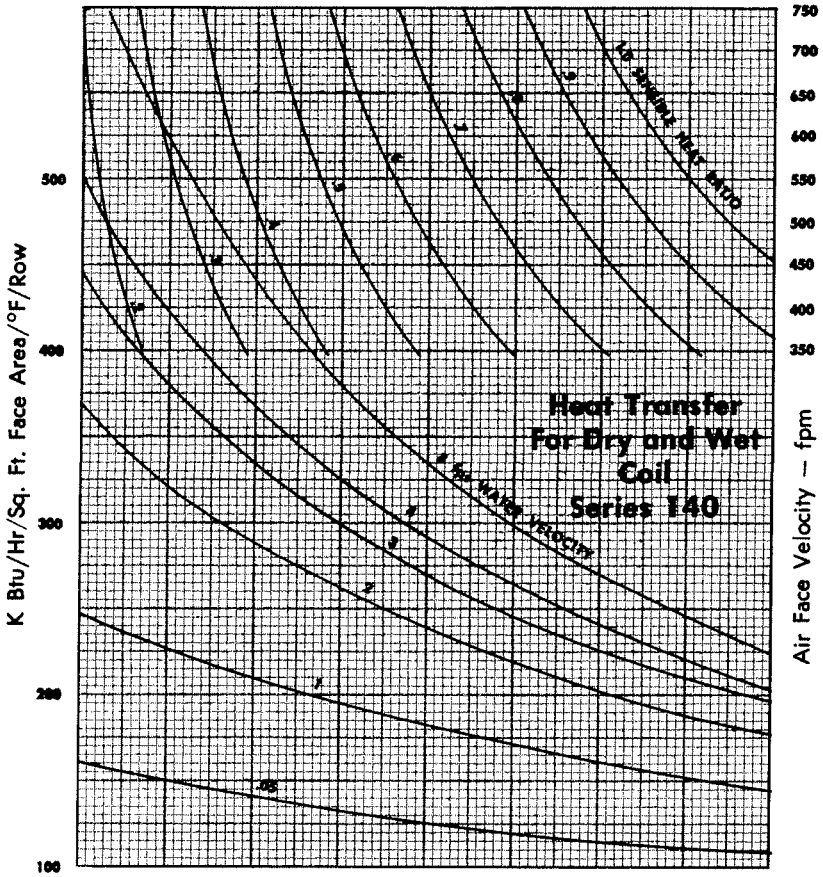
Average friction — in wg.

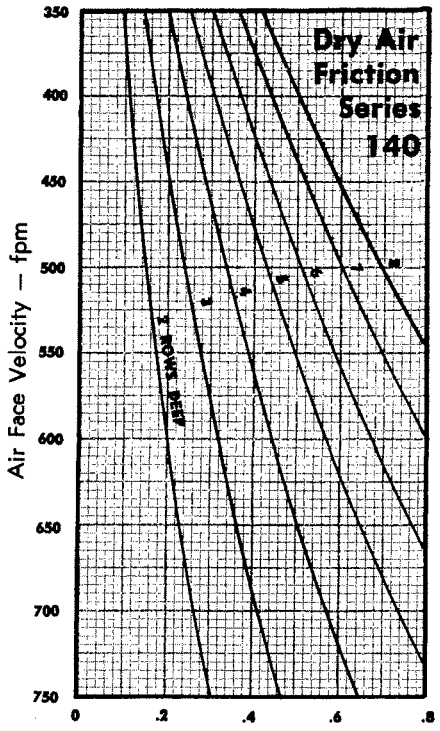
For wet friction multiply by 1.35 when using initial water above 50° and 1.5 when initial water is below 50°.

SERIES 140

The selection method for the Series 140 coil is basically the same as that for the Series 80 coil, except for Step 4. Determine final DB temperature using coil surface temperature derived from the following formula:—Coil temperature = inlet water + .7 (WB lvg − inlet water). Calculate K factor and air friction using Chart 3 and Chart 4.

Average comfort cooling requirements can usually be met with a Series 80 coil. However for conditions involving high water velocities and high sensible heat ratio, the Series 140 coil may be advantageous in reducing the number of rows required.





Average Friction — Inches Water

For Wet Friction Multiply by 1.47

WATER HEAD LOSS* (Feet Water)

*Based on 6 row full circuit coil

TABLE 4

Length	WATER VELOCITY — fps											
	.5	1.	1.5	2.	2.5	3.	3.5	4.	5.	6.	7.	8.
24"	.27	.72	1.32	1.93	2.79	3.63	4.53	5.57	7.70	10.10	12.60	15.47
36"	.31	.86	1.52	2.27	3.28	4.30	5.40	6.62	9.10	12.07	15.05	18.60
48"	.36	.97	1.78	2.62	3.80	4.95	6.25	7.70	10.60	14.00	17.50	21.72
60"	.40	1.09	2.00	2.97	4.30	5.68	7.10	8.73	12.13	16.03	21.50	24.80
72"	.45	1.22	2.27	3.30	4.86	6.30	8.00	9.80	13.67	18.00	22.70	28.00
84"	.51	1.35	2.48	3.67	5.34	7.00	8.80	10.89	15.10	20.00	25.20	31.12
96"	.54	1.47	2.72	4.00	5.88	7.70	9.80	11.94	16.70	22.00	27.80	34.20
108"	.58	1.60	2.98	4.33	6.40	8.40	10.65	13.00	18.20	24.00	30.40	37.30
120"	.65	1.76	3.25	4.71	6.95	9.10	11.60	14.07	19.80	26.00	33.00	40.42

Water Head Loss Factor

TABLE 5

Factor for Circuit	
Circuit	Factor
Full	1.0
Half	1.85
Third	2.70
Double	.52

Maximum Water Velocity is 8 fps except for Double Circuit Coils for which maximum GPM per coil is as follows:

TABLE 6

12 Tube Face	100 GPM
15 Tube Face	115 GPM
18 Tube Face	130 GPM
21 Tube Face	145 GPM
24 Tube Face	160 GPM
27 Tube Face	175 GPM

Water Head Loss Factor

TABLE 7

Factor for Rows	
Rows	Factor
2	.39
4	.69
6	1.00
8	1.33

CHILLED WATER COILS — TYPE R & RC

SELECTION METHOD — SERIES 80

1. Calculate Total Heat Load:
   T.H.L. = CFM x 4.45 (TH @ WBent — TH @ WBlvg (see Table 14 for total heat)
2. Determine USgpm of water required: $\frac{\text{Total heat load}}{\text{Water temp rise x 500}}$
3. Determine water velocity: $\frac{\text{USgpm x 1.235}}{\text{Tubes in face x C (from Table 12)}}$

   NOTE: a. Assume number of rows and passes for initial calculation.
   b. Water velocities of 2 - 5 fps would be good practice.

4-10. Determine actual rows deep required from steps 3 to 9 for the Type C coils, Page 56. Where the rows calculated differ from the assumed number of rows, either select calculated coil with pass arrangement which gives the same "C" factor, or change temperature rise or USgpm and re-calculate water velocity. (NOTE: 1 and 3 pass coils have opposite end connections).

11. Determine water head loss from tables below.

EXAMPLE:

To cool 10,000 cfm of standard air from 95°DB, 75° WB to 60° WB, when using 50°F water, and water temperature rise of 18°F.

Assume Standard Modular unit size 7,2 with Series 80 standard coil of 18.8 sq. ft. face area, 24 tubes in free, 80" NTL, face velocity 532 fpm.

1. T.H.L. = 10,000 x 4.45 (38.61 — 26.46) = 54,000 BTU/hr.
2. USgpm = $\frac{541{,}000}{18 \times 500}$ = 60 USgpm
3. Water vel. = $\frac{60 \times 1.236}{24 \times 1}$ = 3.09 fps

   a. Assume 4 row, 4 pass coil.

4-10. Since a 6 row coil is required from steps 3 - 9 on 'C' coils, Page 56, change the coil selection to a 6 row, 6 pass coil which has the same 'C' factor as the 4 row, 4 pass originally assumed.

11. Total head loss =
(Pass loss x number of passes) + (Header loss x coil factor)
(1.04 x 6) + (2.2 x 1.0) = 8.44 ft. of water.
NOTE: Interpolate from Tables 8-13.

PASS LOSS (Ft. Water)

TABLE 8

Nominal Tube Length	WATER VELOCITY IN TUBES — fps											
	.5	1.	1.5	2.	2.5	3.	3.5	4.	5.	6.	7.	8.
2'-0"	.02	.08	.15	.25	.38	.52	.70	.89	1.35	1.89	2.51	3.20
3'-0"	.03	.10	.19	.31	.46	.64	.84	1.07	1.60	2.22	2.94	3.72
4'-0"	.04	.12	.23	.37	.55	.74	.99	1.24	1.85	2.56	3.36	4.24
5'-0"	.04	.14	.26	.43	.63	.85	1.13	1.42	2.10	2.89	3.78	4.75
6'-0"	.05	.16	.30	.48	.71	.96	1.27	1.60	2.35	3.22	4.20	5.28
7'-0"	.05	.18	.34	.54	.79	1.07	1.42	1.77	2.60	3.55	4.62	5.80
8'-0"	.07	.20	.37	.60	.88	1.18	1.58	1.95	2.85	3.89	5.04	6.31
9'-0"	.07	.22	.41	.66	.96	1.29	1.70	2.13	3.10	4.21	5.47	6.84
10'-0"	.08	.24	.45	.72	1.04	1.40	1.85	2.30	3.35	4.55	5.90	7.36

'C' Factor for Type R Coils

TABLE 11

Rows	2		4			6				8			
Passes	2	2	¼	½	1	⅛	⅓	½	1	1	2	4	8
C	½	1	1	2	4	1	2	3	6	⅛	¼	½	1

'C' Factor for Type RC Coils

TABLE 12

Rows	2	4		6	8	
Passes	2	2	4	6	4	8
C	1	½	1	1	½	1

Maximum USgpm

TABLE 13

Type	Tube Face	USgpm
R & RC	12, 15, 8, 18	100
	21, 24, 8, 27	160

HEADER LOSS (Ft. Water)

TABLE 9

Tube Face	USgpm PER COIL								
	5.	10.	25.	50.	75.	100.	125.	150.	175.
12	.02	.08	.45	1.74	3.94	6.76	—	—	—
15	.02	.085	.48	1.85	4.14	1.13	—	—	—
18	.02	.09	.50	1.95	4.34	7.50	—	—	—
21	.02	.08	.36	1.37	3.00	5.22	8.10	11.53	15.56
24	.02	.07	.39	1.49	3.26	5.67	8.60	12.45	16.60
27	.02	.08	.42	1.61	3.52	6.12	9.10	13.37	17.64

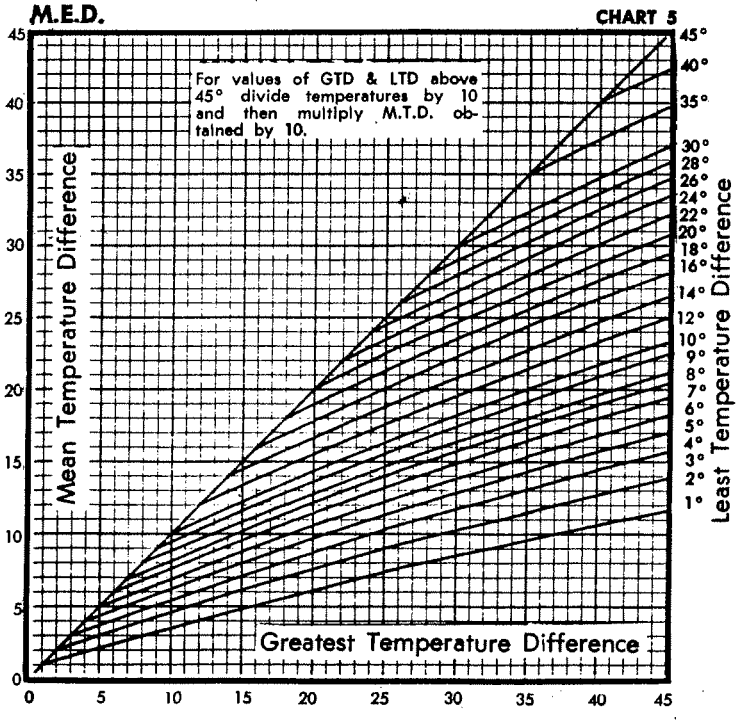
COIL FACTOR (To correct above header loss Table)

TABLE 10

ROW	2		4			6				8			
PASS	1	2	1	2	4	1	2	3	4	1	2	4	8
FACTOR	.76	1.00	.68	.76	1.00	.68	.68	.76	1.00	.68	.68	.76	1.00

M.E.D.

CHART 5



TOTAL HEAT OF AIR

TABLE 14

Wet Bulb Temp. Deg. F.	TENTHS									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
35	13.01	13.05	13.09	13.13	13.17	13.21	13.25	13.29	13.34	13.38
36	13.44	13.48	13.52	13.57	13.61	13.65	13.69	13.74	13.78	13.84
37	13.87	13.91	13.96	14.00	14.05	14.09	14.14	14.18	14.23	14.27
38	14.32	14.36	14.41	14.45	14.50	14.54	14.59	14.63	14.68	14.72
39	14.77	14.81	14.86	14.90	14.95	14.99	15.04	15.08	15.13	15.18
40	15.23	15.28	15.32	15.37	15.42	15.46	15.51	15.56	15.60	15.65
41	15.70	15.74	15.79	15.84	15.89	15.93	15.98	16.03	16.08	16.12
42	16.17	16.22	16.27	16.32	16.37	16.41	16.46	16.51	16.56	16.61
43	16.66	16.71	16.76	16.80	16.85	16.90	16.95	17.00	17.05	17.10
44	17.15	17.20	17.25	17.30	17.35	17.40	17.45	17.50	17.55	17.60
45	17.65	17.70	17.75	17.80	17.85	17.91	17.96	18.01	18.06	18.11
46	18.16	18.21	18.26	18.32	18.37	18.42	18.47	18.52	18.58	18.63
47	18.68	18.73	18.79	18.84	18.89	18.95	19.00	19.05	19.10	19.16
48	19.21	19.27	19.32	19.37	19.42	19.48	19.54	19.58	19.64	19.70
49	19.75	19.81	19.86	19.92	19.97	20.03	20.08	20.14	20.19	20.25
50	20.30	20.36	20.41	20.47	20.53	20.58	20.64	20.69	20.75	20.81
51	20.86	20.92	20.98	21.03	21.09	21.15	21.21	21.26	21.32	21.38
52	21.44	21.49	21.55	21.61	21.67	21.73	21.79	21.84	21.90	21.96
53	22.02	22.08	22.14	22.20	22.26	22.32	22.38	22.44	22.50	22.56
54	22.62	22.68	22.74	22.80	22.86	22.92	22.98	23.04	23.10	23.16
55	23.22	23.28	23.34	23.41	23.47	23.53	23.59	23.65	23.72	23.78
56	23.84	23.90	23.97	24.03	24.10	24.16	24.22	24.29	24.35	24.42
57	24.48	24.54	24.61	24.67	24.74	24.80	24.86	24.93	24.99	25.06
58	25.12	25.18	25.25	25.32	25.38	25.45	25.51	25.58	25.64	25.71
59	25.78	25.84	25.92	25.98	26.05	26.12	26.19	26.26	26.32	26.39
60	26.46	26.53	26.60	26.67	26.74	26.81	26.87	26.94	27.01	27.08
61	27.15	27.22	27.29	27.36	27.43	27.50	27.57	27.64	27.71	27.78
62	27.85	27.92	27.99	28.07	28.14	28.21	28.28	28.35	28.43	28.50
63	28.57	28.64	28.72	28.80	28.87	28.94	29.01	29.09	29.16	29.24
64	29.31	29.39	29.46	29.54	29.61	29.68	29.76	29.84	29.91	29.99
65	30.06	30.14	30.21	30.29	30.37	30.44	30.52	30.60	30.68	30.75
66	30.83	30.91	30.99	31.07	31.15	31.23	31.30	31.38	31.46	31.54
67	31.62	31.70	31.78	31.86	31.94	32.02	32.10	32.18	32.26	32.34
68	32.42	32.50	32.58	32.67	32.75	32.84	32.92	33.00	33.08	33.17
69	33.25	33.33	33.42	33.50	33.59	33.67	33.75	33.84	33.92	34.00
70	34.09	34.18	34.26	34.35	34.43	34.52	34.61	34.69	34.78	34.86
71	34.95	35.03	35.13	35.21	35.30	35.39	35.48	35.57	35.65	35.74
72	35.83	35.92	36.01	36.10	36.19	36.28	36.38	36.47	36.56	36.65
73	36.74	36.83	36.92	37.02	37.11	37.20	37.30	37.38	37.47	37.57
74	37.66	37.76	37.85	37.94	38.04	38.14	38.23	38.32	38.42	38.51
75	38.61	38.71	38.80	38.90	38.99	39.09	39.19	39.28	39.38	39.47
76	39.57	39.67	39.77	39.87	39.97	40.07	40.17	40.27	40.37	40.47
77	40.57	40.67	40.77	40.87	40.97	41.08	41.18	41.28	41.38	41.48
78	41.58	41.68	41.79	41.89	42.00	42.10	42.20	42.31	42.41	42.52
79	42.62	42.72	42.83	42.94	43.04	43.16	43.26	43.37	43.48	43.58
80	43.69	43.80	43.91	44.02	44.13	44.24	44.34	44.45	44.56	44.67
81	44.78	44.90	45.02	45.14	45.26	45.38	45.50	45.62	45.75	45.87
82	45.90	46.01	46.12	46.23	46.34	46.45	46.56	46.67	46.78	46.89
83	47.04	47.16	47.28	47.39	48.51	48.63	48.75	48.87	48.99	49.11
84	48.22	48.34	48.46	48.58	48.70	48.82	48.94	49.06	49.18	49.31

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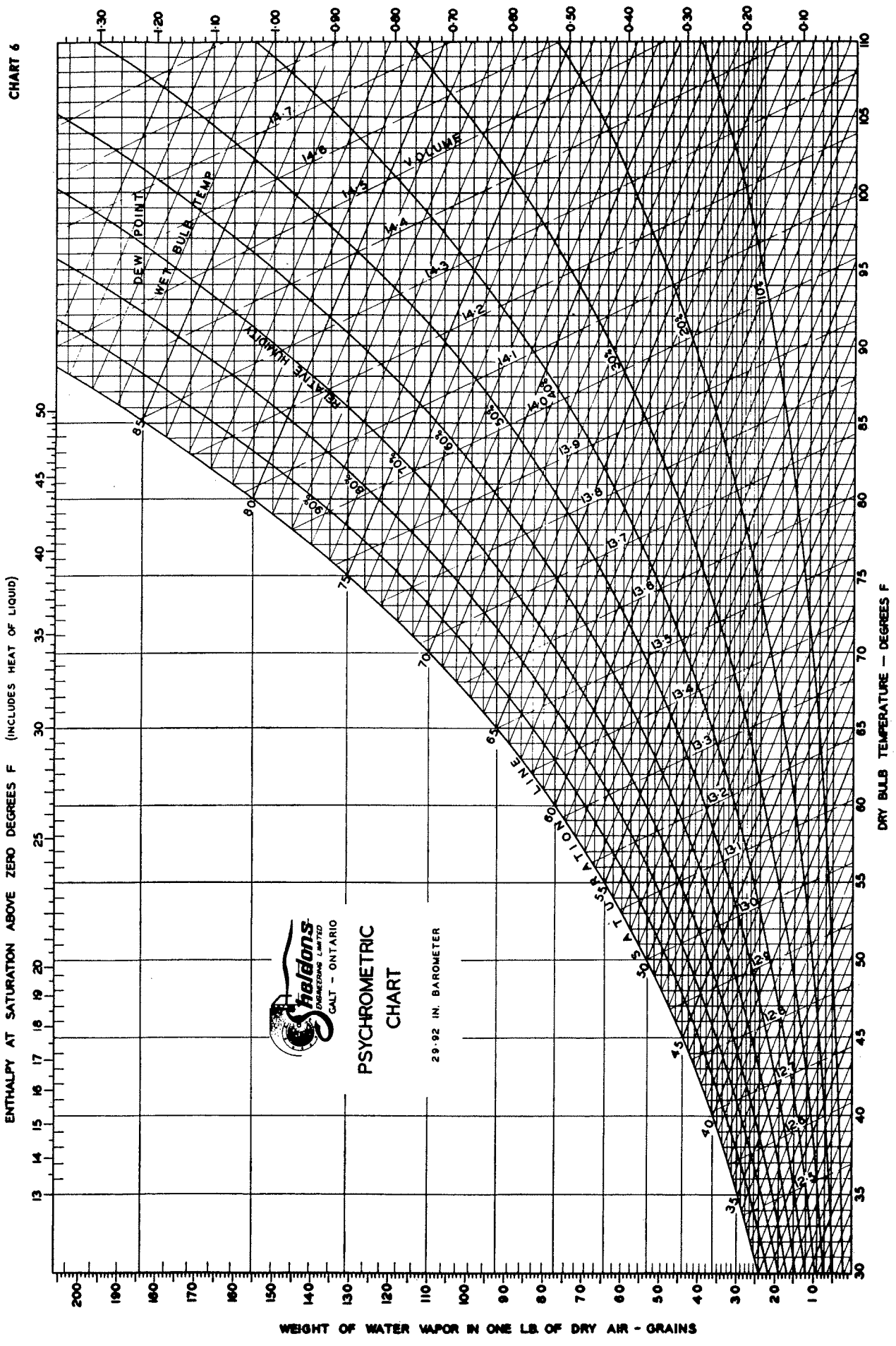

VAPOR PRESSURE — INCHES OF MERCURY
CHART 6
ENTHALPY AT SATURATION ABOVE ZERO DEGREES F (INCLUDES HEAT OF LIQUID)
DRY BULB TEMPERATURE — DEGREES F
WEIGHT OF WATER VAPOR IN ONE LB. OF DRY AIR - GRAINS
DEW POINT
WET BULB TEMP
RELATIVE HUMIDITY
VOLUME
SATURATION LINE
Sheldons
ENGINEERING LIMITED
GALT - ONTARIO
PSYCHROMETRIC CHART
29.92 IN. BAROMETER

DIRECT EXPANSION COILS — TYPE DP

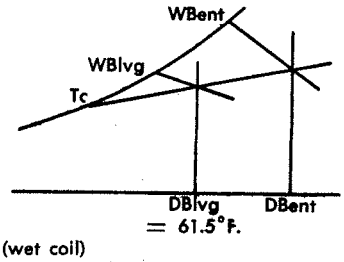
SELECTION METHOD — SERIES 80 and 140

1. Calculate total heat to be removed:—
   T.H.L = Cooling load (tons) x 12,000 BTU/Hr.
   or
   T.H.L = cfm x 4.45 (TH at WB ent. — TH at WB lvg.)
2. Assume rows deep and select values of L and M from Table 15.
3. Calculate total heat of air (Hc) at coil temperature (Tc) —
   $$Hc = Ha - \frac{\text{Total heat to be removed}}{L \times CFM} \text{ BTU/hr.}$$
4. From total heat Table 14, Page 58, determine Tc corresponding to Hc.
5. Calculate refrigerant temperature Tr (°F) —
   $$Tr = Tc - \frac{\text{Total heat to be removed}}{M \times \text{Face Area}}$$
   NOTE: If Tr is equal to or slightly greater than available suction temperature the coil is properly selected. If Tr is too great, assume fewer number of rows and repeat steps 3, 4 and 5. If Tr is slightly less, try series 140 coil and repeat steps 2, 3, 4 and 5.
6. Determine DB temperature leaving unit by drawing a straight line on the Psychometric chart, Page 59, from entering conditions to the Tc on the saturation curve line. Where this line intersects leaving WB condition, read DB leaving unit.
7. Determine air friction from the appropriate charts on Pages 56 and 57. Note factors for wet coils as indicated.

EXAMPLE

To cool 10,000 CFM of standard air from 95° DB, 75° WB to 60° WB with refrigerant suction temperature 45°. Assume Standard Modular unit size 7.2 with standard series 80 coil, 18.8 sq. ft. face area, 24 tubes in face, 80" NTL, coil velocity 532 fps.

1. T.H.L. = 10,000 x 4.45 x (38.61 — 26.46) = 541,000 BTU/hr.
2. 6 row series 80, L = 4.05 M = 2520
3. $Hc = 38.61 - \frac{541{,}000}{4.05 \times 10{,}000} = 25.26$ BTU/lb.
4. Tc = 58.2°F
5. $Tr = 58.2 - \frac{541{,}000}{2520 \times 18.8} = 46.8°$ [This value satisfactory for suction temp. of 45°F.]
6. Dblvg = 61.5°F



7. Air friction = .43 x 1.35 (wet coil)
   = .58" wg.

L & M FACTORS

TABLE 15

SERIES		ROWS						
		2	3	4	5	6	7	8
80	L	2.45	3.07	3.47	3.78	4.05	4.19	4.28
	M	840	1260	1680	2100	2520	2940	3360
140	L	2.88	3.52	3.89	4.12	4.25	4.33	4.37
	M	840	1260	1680	2100	2520	2940	3360

Maximum Loads (tons) for Distribution Headers (Aerofin coils only)

TABLE 16

Coil Height	12 T.F.	15 T.F.	18 T.F.	21 T.F.	24 T.F.	27 T.F.*
Tons	24	30	36	42	48	54

*Two Distributing Headers used on 21, 24 and 27 tube face units; table above gives total for 2 headers.

NOTE: DP coils used on Blow-Thru units usually require additional suction and liquid connections (See Table 17).

Number of Distributing Headers

TABLE 17

Coil Height	12 T.F.	15 T.F.	18 T.F.	21 T.F.	24 T.F.	27 T.F.
Standard	1	1	1	2	2	2
Blow-Thru MZ	2	3	3	3	4	4

MINIMUM LOAD PER COIL — TONS

TABLE 18

Nominal Tube Length	4 ROW						6 ROW						8 ROW					
	12	15	18	21	24	27	12	15	18	21	24	27	12	15	18	21	24	27
Up to 28"	2	2.5	3	3.5	4	4.5	2	2.5	3	3.5	4	4.5	3	3.7	4.5	5.2	6	7.2
32" - 36"	3	3.7	4.5	5.2	6	7.2	6	7.5	9	10.5	12	13.5	6	7.5	9	10.5	12	13.5
40" - 120"	6	7.5	9	10.5	12	13.5	6	7.5	9	10.5	12	13.5	6	7.5	9	10.5	12	13.5

These minimum coil loads are necessary in order to achieve the ratings.

Minimum Refrigerant Suction Temperatures For Frost Prevention

TABLE 19

Leaving Air W.B. Temp. °F	Face Air Velocity — fpm		
	300.	400.	500.
45	32.°	32.°	32.°
50	32.°	32.°	32.°
55	32.°	31.°	30.°
60	27.°	26.°	25.°

Pressure Drop Thru Distributors

TABLE 20

R12 and R500 Refrigerants	25. P.S.I.
R22 Refrigerant	35. P.S.I.

For Entire Coil Pressure Drop Add Minimum of 12. P.S.I.

Volume of Refrigerant Required Direct Expansion Coils During Maximum Operation

TABLE 21

Cu. ft. of Refrig. for each foot of tube length per row of depth	Height of unit inches		
	20 5/16"	29"	37 1/16"
	.0053	.0080	.0107

Multiply table value by 86 to obtain lbs.

QUICK SELECTION CHART — TYPE DP COILS — Series 80 Only

35° SUCTION TEMP. — 6° SUPERHEAT REFRIGERANT

TABLE 22

	ENT. W.B.	4 ROW LVG. W.B.	4 ROW ENTERING DB TEMP. 76	80	84	88	92	6 ROW LVG. W.B.	6 ROW ENTERING DB TEMP. 76	80	84	88	92	8 ROW LVG. W.B.	8 ROW ENTERING DB TEMP. 76	80	84	88	92
400′	65°	50.0	51.5	52.2	53.0	.... ..	.... ..	45.7	46.4	46.7	47.0	.... ..	.... ..	43.2	43.4	43.6	43.8	.... ..	.... ..
	67°	51.3	52.3	53.2	54.0	54.8	.... ..	46.7	47.1	47.4	47.7	48.0	.... ..	44.0	44.1	44.3	44.5	44.7	.... ..
	69°	52.6	53.3	54.0	55.0	55.7	.... ..	47.7	47.8	48.1	48.4	48.7	.... ..	44.8	44.8	45.0	45.1	45.2	.... ..
	71°	54.0	54.2	55.0	55.8	56.6	57.6	48.7	48.7	49.0	49.4	49.8	50.0	45.6	45.6	45.6	45.8	46.0	46.2
	73°	55.2	55.2	55.7	56.5	57.4	58.2	49.7	49.7	49.8	50.0	50.4	50.7	46.4	46.4	46.4	46.4	46.6	46.7
	75°	56.6	.... ..	56.6	57.4	58.3	59.1	50.6	.... ..	50.6	50.7	51.0	51.3	47.2	.... ..	47.2	47.2	47.4	47.5
	77°	58.0	.... ..	58.0	58.3	59.2	60.0	51.8	.... ..	51.8	51.8	52.0	52.4	48.0	.... ..	48.0	48.0	48.1	48.3
	79°	59.6	.... ..	.... ..	59.6	60.1	61.0	53.0	.... ..	.... ..	53.0	53.0	53.4	48.8	.... ..	.... ..	48.8	48.8	48.9
500′	65°	51.4	53.4	54.3	55.1	.... ..	.... ..	47.4	48.1	48.4	48.8	.... ..	.... ..	44.5	44.8	45.0	45.1	.... ..	.... ..
	67°	52.8	54.3	55.1	55.9	56.7	.... ..	48.4	48.8	49.2	49.5	49.9	.... ..	45.3	45.5	45.6	45.7	45.9	.... ..
	69°	54.2	55.0	55.8	56.6	57.5	.... ..	49.4	49.6	49.9	50.3	50.7	.... ..	46.2	46.3	46.4	46.6	46.7	.... ..
	71°	55.5	55.7	56.7	57.6	58.5	59.3	50.4	50.4	50.8	51.1	51.4	51.8	47.1	47.1	47.1	47.2	47.4	47.6
	73°	57.0	57.0	57.7	58.7	59.5	60.4	51.5	51.5	51.6	52.0	52.4	52.6	48.0	48.0	48.0	48.1	48.3	48.4
	75°	58.5	.... ..	58.7	59.5	60.4	61.4	52.6	.... ..	52.6	52.9	53.3	53.6	48.9	.... ..	48.9	48.9	49.0	49.2
	77°	60.0	.... ..	60.0	60.5	61.5	62.4	53.8	.... ..	53.8	53.8	54.2	54.5	49.8	.... ..	49.8	49.8	49.8	49.9
	79°	61.4	.... ..	.... ..	61.4	62.3	63.2	55.2	.... ..	.... ..	55.2	55.3	55.6	50.6	.... ..	.... ..	50.6	50.6	50.7
600′	65°	52.6	54.6	55.5	56.4	.... ..	.... ..	48.4	49.2	49.6	50.0	.... ..	.... ..	45.7	46.0	46.2	46.4	.... ..	.... ..
	67°	54.0	55.5	56.4	57.3	58.3	.... ..	49.6	50.1	50.5	50.8	51.2	.... ..	46.7	46.9	47.0	47.2	47.3	.... ..
	69°	55.5	56.4	57.4	58.3	59.2	.... ..	50.8	51.2	51.5	51.9	52.2	.... ..	47.7	47.8	48.0	48.2	48.3	.... ..
	71°	56.9	57.4	58.3	59.2	60.0	61.0	51.9	52.1	52.4	52.8	53.1	53.5	48.7	47.7	48.8	49.0	49.2	49.4
	73°	58.4	58.4	59.2	60.1	61.0	61.9	53.1	53.1	53.4	53.7	54.0	54.4	49.6	49.6	49.6	49.7	49.8	50.0
	75°	59.9	.... ..	60.3	61.2	62.1	63.0	54.3	.... ..	54.3	54.5	54.9	55.1	50.6	.... ..	50.6	50.6	50.8	50.9
	77°	61.3	.... ..	61.3	62.2	63.0	63.8	55.4	.... ..	55.4	55.5	55.8	56.2	51.6	.... ..	51.6	51.6	51.8	52.0
	79°	62.8	.... ..	.... ..	63.2	64.0	64.9	56.6	.... ..	.... ..	56.6	56.7	57.1	52.6	.... ..	.... ..	52.6	52.6	52.8

40° SUCTION TEMP. — 6° SUPERHEAT REFRIGERANT

TABLE 23

400′	65°	52.5	54.3	55.1	55.9	.... ..	.... ..	49.4	50.2	50.6	51.0	.... ..	.... ..	46.9	47.1	47.2	47.9	.... ..	.... ..
	67°	53.8	55.2	56.0	56.8	57.7	.... ..	50.2	50.7	51.1	51.5	51.9	.... ..	47.7	47.9	48.0	48.2	48.3	.... ..
	69°	55.0	55.8	56.6	57.4	58.2	.... ..	51.2	51.5	51.7	52.1	52.5	.... ..	48.5	48.7	48.9	49.1	49.2	.... ..
	71°	57.6	58.0	58.7	59.3	60.0	60.6	52.2	52.2	52.6	53.0	53.4	53.8	49.2	49.2	49.2	49.4	49.6	49.7
	73°	58.0	58.3	59.2	60.0	60.8	61.7	53.2	53.2	53.5	53.9	54.3	54.7	50.0	50.0	50.0	50.1	50.2	50.4
	75°	59.0	.... ..	59.3	60.1	61.0	61.8	54.3	.... ..	54.3	54.6	55.0	55.4	50.8	.... ..	50.8	50.8	51.0	51.0
	77°	60.3	.... ..	60.3	60.9	61.8	62.7	55.2	.... ..	55.2	55.2	55.6	56.0	51.6	.... ..	51.6	51.6	51.7	51.9
	79°	61.8	.... ..	.... ..	61.9	62.7	63.7	56.4	.... ..	.... ..	56.4	56.7	57.1	52.9	.... ..	.... ..	52.4	52.4	52.5
500′	65°	54.0	56.2	57.1	58.1	.... ..	.... ..	50.5	51.4	51.7	52.1	.... ..	.... ..	48.1	48.3	48.5	48.6	.... ..	.... ..
	67°	55.0	56.4	57.3	58.1	59.0	.... ..	51.5	52.2	52.6	53.0	53.4	.... ..	49.0	49.2	49.4	49.5	49.7	.... ..
	69°	56.1	57.0	58.0	58.8	59.6	.... ..	52.5	52.9	53.3	53.6	53.9	.... ..	49.8	49.9	50.0	50.1	50.2	.... ..
	71°	57.6	58.0	58.7	59.3	60.0	60.6	53.5	53.8	54.1	54.1	55.0	55.4	50.6	50.7	50.8	50.9	51.0	51.1
	73°	58.0	58.3	59.2	60.0	60.8	61.7	54.5	54.5	54.7	55.1	55.5	55.8	51.5	51.5	51.5	51.6	51.7	51.8
	75°	60.5	.... ..	61.0	61.9	62.8	63.6	55.6	.... ..	55.6	56.0	56.4	56.7	52.3	.... ..	52.3	52.3	52.5	52.6
	77°	62.0	.... ..	62.0	62.8	63.7	64.6	57.0	.... ..	57.0	57.2	57.6	58.0	53.2	.... ..	53.2	53.2	53.3	53.5
	79°	63.6	.... ..	.... ..	63.9	64.9	65.7	58.1	.... ..	.... ..	58.1	58.5	58.9	54.1	.... ..	.... ..	54.1	54.1	54.3
600′	65°	54.7	56.8	57.7	58.6	.... ..	.... ..	51.3	52.3	52.9	53.3	.... ..	.... ..	49.1	49.4	49.6	49.8	.... ..	.... ..
	67°	56.1	57.8	58.7	59.7	60.6	.... ..	52.5	53.1	53.6	54.0	54.2	.... ..	50.0	50.2	50.4	50.5	50.7	.... ..
	69°	57.5	58.6	59.6	60.5	61.0	61.9	53.6	54.0	54.4	54.8	55.2	.... ..	50.9	51.1	51.2	51.4	51.6	.... ..
	71°	58.9	59.6	60.5	61.4	62.3	63.2	54.8	55.0	55.4	55.8	56.1	56.5	51.9	51.9	52.0	52.2	52.4	52.6
	73°	60.3	60.4	61.3	62.2	63.2	64.2	55.9	55.9	56.3	56.6	57.0	57.4	52.8	52.8	52.8	53.0	53.1	53.4
	75°	61.7	.... ..	62.1	63.0	63.9	64.8	57.1	.... ..	57.3	57.7	58.1	58.5	53.7	.... ..	53.7	53.8	53.9	54.0
	77°	63.1	.... ..	63.1	64.0	64.9	65.8	58.3	.... ..	58.3	58.6	59.0	59.4	54.6	.... ..	54.6	54.6	54.6	54.8
	79°	64.5	.... ..	.... ..	65.0	65.8	66.7	59.4	.... ..	.... ..	59.5	59.7	60.0	55.5	.... ..	.... ..	55.5	55.5	55.6

45° SUCTION TEMP. — 6° SUPERHEAT REFRIGERANT

TABLE 24

400′	65°	55.2	57.2	58.1	58.9	.... ..	.... ..	52.2	53.0	53.3	53.6	.... ..	.... ..	50.7	51.0	51.1	51.2	.... ..	.... ..
	67°	56.3	57.9	58.7	59.5	60.3	.... ..	53.3	53.7	54.0	54.3	54.6	.... ..	51.5	51.7	51.9	52.0	52.2	.... ..
	69°	57.5	58.6	59.4	60.2	61.0	.... ..	54.1	54.6	54.8	55.1	55.4	.... ..	52.2	52.4	52.5	52.7	52.9	.... ..
	71°	58.8	59.4	60.3	61.1	62.0	62.8	55.0	55.2	55.4	55.7	56.0	56.3	53.0	53.1	53.2	53.4	53.5	53.7
	73°	60.0	60.2	61.0	61.9	62.7	63.6	56.0	56.0	56.3	56.7	57.0	57.4	53.7	53.7	53.8	53.9	54.0	54.2
	75°	61.3	.... ..	61.8	62.6	63.4	64.3	57.1	.... ..	57.3	57.7	58.1	58.4	54.4	.... ..	54.5	54.6	54.8	54.9
	77°	62.7	.... ..	62.7	63.6	64.5	65.3	58.1	.... ..	58.1	58.3	58.7	59.1	55.2	.... ..	55.2	55.4	55.5	55.6
	79°	64.2	.... ..	.... ..	64.7	65.6	66.4	59.2	.... ..	.... ..	59.2	59.7	60.1	56.0	.... ..	.... ..	56.0	56.0	56.2
500′	65°	56.0	58.3	59.1	60.0	.... ..	.... ..	53.3	54.3	54.6	55.0	.... ..	.... ..	51.6	51.7	51.9	52.0	.... ..	.... ..
	67°	57.2	58.9	59.7	60.5	61.4	.... ..	54.4	55.1	55.5	55.9	56.3	.... ..	52.4	52.6	52.8	52.9	53.1	.... ..
	69°	58.5	59.6	60.4	61.2	62.0	.... ..	55.2	55.6	55.8	56.2	56.6	.... ..	53.2	53.4	53.6	53.8	54.0	.... ..
	71°	59.8	60.6	61.4	62.2	63.0	63.8	56.2	56.4	56.7	57.1	57.5	57.8	54.0	54.1	54.2	54.4	54.5	54.7
	73°	61.0	61.2	61.9	62.7	63.5	64.3	57.2	57.2	57.6	58.0	58.3	58.5	54.9	54.9	54.9	55.1	55.3	55.6
	75°	62.6	.... ..	63.2	64.1	65.0	65.8	58.4	.... ..	58.6	58.9	59.2	59.5	55.7	.... ..	55.7	55.8	56.0	56.3
	77°	64.0	.... ..	64.5	65.4	66.3	67.1	59.6	.... ..	59.8	60.1	60.4	60.8	56.5	.... ..	56.5	56.5	56.7	56.9
	79°	65.5	.... ..	.... ..	66.0	67.0	67.9	60.6	.... ..	.... ..	60.6	61.0	61.4	57.2	.... ..	.... ..	57.2	57.3	57.5
600′	65°	56.8	59.0	59.8	.... ..	.... ..	.... ..	54.1	55.0	55.5	55.9	.... ..	.... ..	52.4	52.8	52.9	53.1	.... ..	.... ..
	67°	58.2	59.9	60.7	61.6	.... ..	.... ..	55.3	56.0	56.4	56.8	57.2	.... ..	53.3	53.6	53.8	54.0	54.2	.... ..
	69°	59.5	60.8	61.7	62.7	63.6	.... ..	56.4	56.8	57.3	57.7	58.0	.... ..	54.2	54.4	54.6	54.8	55.0	.... ..
	71°	60.9	61.8	62.6	63.4	64.3	65.1	57.5	57.7	58.1	58.4	58.8	59.1	55.2	55.3	55.6	55.8	56.0	56.2
	73°	62.3	62.6	63.5	64.4	65.4	66.3	58.6	58.6	59.0	59.4	59.7	60.0	56.1	56.1	56.2	56.4	56.6	56.7
	75°	63.7	.... ..	64.3	65.1	66.0	67.0	59.7	.... ..	59.9	60.2	60.6	61.0	57.0	.... ..	57.1	57.2	57.4	57.6
	77°	65.1	.... ..	65.2	66.1	67.0	68.0	60.8	.... ..	60.8	61.2	61.6	61.9	58.0	.... ..	58.0	58.0	58.2	58.3
	79°	66.4	.... ..	....	66.8	67.8	68.6	61.9	.... ..	.... ..	62.1	62.4	62.7	58.9	.... ..	.... ..	58.9	59.0	59.1

STEAM HEATING COILS - TYPE ANF, BNF

SELECTION METHOD

1. Determine 'Constant' with entering air temperature and steam pressure available from Table 29.
2. Calculate equivalent temperature rise,
$$(ETR) = \frac{DBlvg - DBent}{Constant}$$
3. With equivalent temperature and coil velocity enter selection Chart 7 and determine BNF coil. Read off rate of condensate at 5 psi/sq. ft. of coil face area. (ANF coils would normally only be selected with rates of condensate associated with low entering temperatures.
4. Determine air friction from Table 25 or 26 for type of coil selected, and correct for average air temperature from Table 28.
5. Correct condensate for steam pressure from Table 27 and multiply by coil area to give total condensate.

EXAMPLE

Required: A 10 sq. ft. face area coil to heat 8,000 cfm standard air from −10°F to 80°F with 10 psi steam.

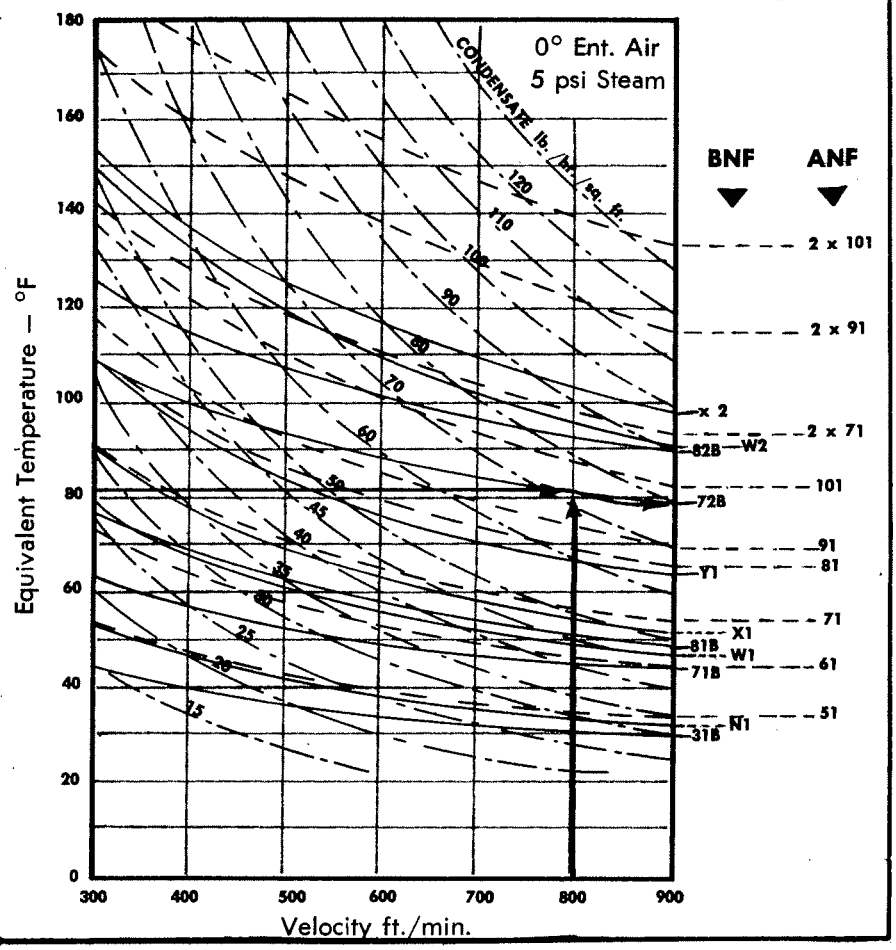
1. Constant = 1.098
2. E.T.R. $= \frac{80° - (-10°)}{1.098} = 82°F$
3. With 82°F E.T.R. and 800 fpm coil vel. select series 72B, BNF coil.
4. Average air temp. $= \frac{80° + (-10°)}{2} = 35°$

   From Table 28 air friction factor = .93

   ∴ Air friction = .23 (Table 26) x .933
   = .214" wg
5. Total condensate = 73 lb./hr. x 10 sq. ft.
   = 730 lb. @ 5 psi

   Correct for 10 psi: 730 x 1.007 = 733 lb./hr.

CHART 7



ANF—AIR FRICTION* TABLE 25

SERIES	FACE VELOCITY — fpm				
	400	600	800	1000	1200
51	.033	.065	.105	.154	.209
61	.051	.100	.163	.237	.322
71	.063	.126	.205	.298	.405
81	.094	.187	.309	.450	.609
91	.101	.201	.326	.475	.651
101	.130	.255	.410	.591	.782
2 x 71	.126	.252	.410	.596	.810
2 x 91	.202	.402	.652	.950	1.302
2 x 101	.260	.510	.820	1.182	1.564

*Standard Air 70°F, 29.92" Bar.

BNF—AIR FRICTION* TABLE 26

SERIES	FACE VELOCITY — fpm				
	400	500	600	700	800
31B	.018	.028	.040	.055	.070
N1	.021	.032	.046	.062	.081
71B	.033	.049	.067	.089	.113
W.1	.037	.055	.077	.102	.130
81B	.043	.064	.089	.118	.149
X.1	.045	.067	.093	.122	.156
Y.1	.060	.087	.117	.151	.189
72B	.072	.105	.142	.184	.23
82B	.076	.11	.151	.194	.243
W2	.081	.118	.161	.208	.262
X2	.098	.142	.192	.250	.312

CONDENSATE CORRECTION

TABLE 27

Steam—psig.	0	2	5	10	15	20
Factor	.989	.994	1.0	1.007	1.014	1.023
Steam—psig.	30	40	50	60	80	100
Factor	1.035	1.045	1.054	1.063	1.077	1.091

AIR FRICTION CORRECTION

TABLE 28

Aver Temp.	0	10	20	30	40	50
Factor	.868	.887	.906	.924	.943	.962
Aver Temp.	70	90	110	130	150	200
Factor	1.00	1.038	1.076	1.113	1.151	1.246

CONSTANT — EQUIVALENT TEMP. RISE

TABLE 29

Enter. Air Temp., °F.	Steam Pressure in Pounds per Square Inch (Gauge)											
	0	2	5	10	15	20	30	40	50	60	80	100
−30	1.066	1.097	1.132	1.187	1.234	1.272	1.340	1.398	1.445	1.495	1.560	1.620
−20	1.021	1.050	1.088	1.142	1.187	1.227	1.295	1.350	1.399	1.441	1.514	1.575
−10	.977	1.006	1.044	1.098	1.143	1.183	1.250	1.306	1.355	1.397	1.470	1.531
0	.933	.962	1.000	1.054	1.100	1.139	1.206	1.262	1.310	1.353	1.426	1.487
10	.889	.918	.956	1.010	1.055	1.095	1.163	1.219	1.266	1.309	1.382	1.443
20	.845	.874	.912	.966	1.012	1.051	1.119	1.174	1.223	1.265	1.338	1.399
30	.801	.830	.868	.922	.968	1.007	1.075	1.130	1.179	1.221	1.294	1.355
40	.757	.786	.824	.877	.923	.963	1.030	1.086	1.134	1.177	1.250	1.311
45	.735	.764	.802	.856	.901	.941	1.009	1.064	1.113	1.155	1.228	1.289
50	.713	.742	.780	.834	.879	.919	.986	1.042	1.091	1.133	1.201	1.267
55	.691	.720	.758	.812	.857	.897	.965	1.020	1.069	1.111	1.184	1.245
60	.669	.698	.736	.790	.835	.875	.943	.998	1.046	1.089	1.161	1.224
65	.647	.676	.714	.768	.813	.853	.921	.976	1.025	1.067	1.141	1.201
70	.625	.654	.692	.746	.791	.831	.899	.954	1.003	1.045	1.119	1.179
75	.603	.632	.670	.724	.769	.809	.877	.932	.981	1.023	1.097	1.157

HOT WATER COILS - TYPE CH

SELECTION METHOD

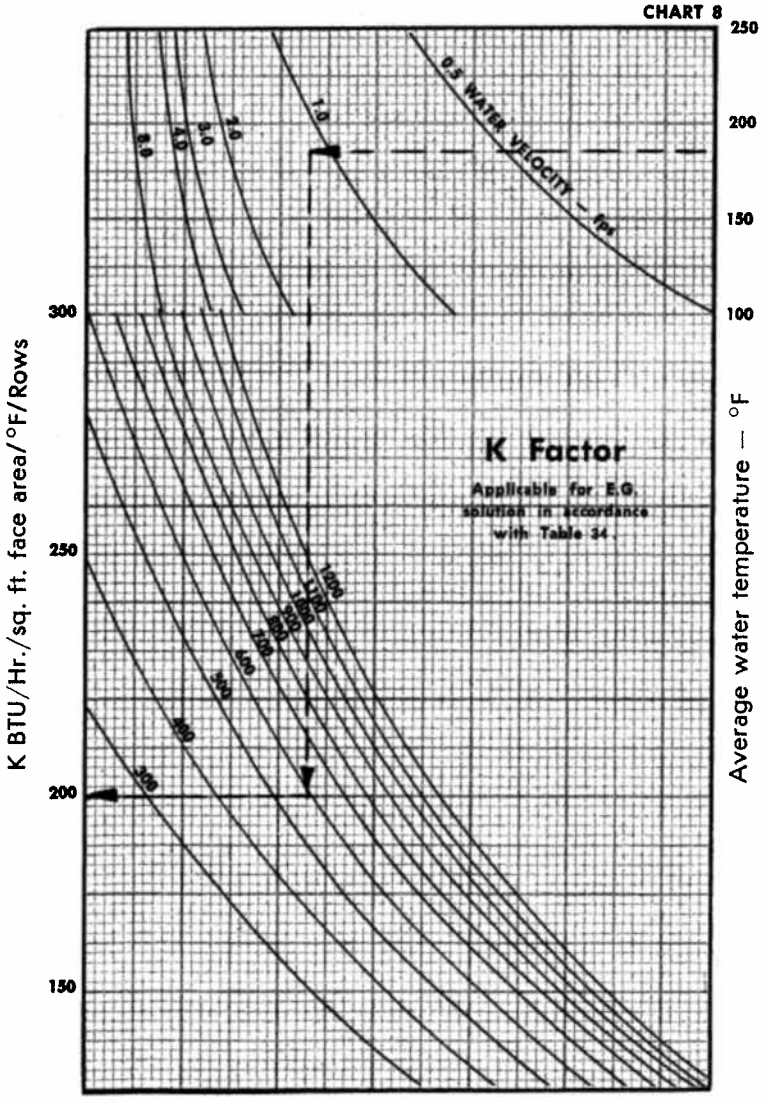
1. Calculate total heat load: T.H.L. = cfm x 1.087 x (DBlvg—DBent)
2. Calculate USgpm hot water required: $USgpm = \frac{\text{Total heat}}{\text{Water temp. drop} \times 500}$
3. Calculate water velocity — $\frac{USgpm \times 1.235}{\text{Number of Circuits (Table 30)}}$
4. With greatest and least temperature difference determine MED from Chart 5, Page 58. GTD = Tlvg — DBent; LTD = Tent — DBlvg
5. With average water temperature, water velocity and face velocity determine heat transfer factor K.
6. Calculate rows deep: $Rows = \frac{\text{Total heat load}}{MED \times K \times \text{face area}}$
7. Determine air friction from Table 31.
8. Calculate percentage USgpm: $\% = \frac{USgpm \times 100}{\text{No. of circuits} \times 1.25}$
9. With % USgpm determine M from Table 33.
10. Calculate water pressure drop — $= M \times \text{Base head loss (Table 32)} \times \frac{\text{Max. No. of passes (Table 30)}}{2}$

EXAMPLE

To heat 5460 cfm of air from 60°F to 110°F DB, when using 200°F hot water supply, with a temperature drop of 30°. Assume standard modular unit size 4.1 with standard coil of 9.1 sq. ft. face area, 21 tube face x 44" N.T.L., face velocity 600 fpm.

1. T.H.L. = 5460 x 1.087 x (110° — 60°) = 296,000 BTU/Hr.
2. $\frac{296{,}000}{30^\circ \times 500} = 19.7$ USgpm
3. $\frac{19.7 \times 1.235}{21} = 1.16$ fps — [The K factor for full circuit coils with low water velocity may be improved by use of ½ circuit coils.]
4. GTD = 170° — 60° = 110°; LTD = 200° — 110° = 90° ∴ MED = 100°
5. $\frac{200 + 170}{2} = 185°$, 1.16 fps, 600 fpm ∴ K = 200
6. $\frac{296{,}000}{100 \times 200 \times 9.1} = 1.63$ (assume 2 rows)
7. .205" wg
8. $\frac{19.7 \times 100}{21 \times 1.25} = 75\%$
9. .60
10. $.60 \times .78 \times \frac{2}{2} = .47$ ft. of water

CHART 8



Standard Pass Arrangements — Table 30

CIRCUIT DESIGNATION	WATER CIRCUITS TUBES IN FACE 12	15	18	21	24	27	PASSES ROWS DEEP 1	2
FULL CIRCUIT	12	15	18	21	24	27	—	2
HALF CIRCUIT	6	8	9	11	12	14	2	4

Air Friction (Inches of Water)* — Table 31

ROWS DEEP	300'	400'	500'	600'	700'	800'	900'	1000'	1100'	1200'
1	.038	.060	.087	.117	.151	.189	.227	.27	.32	.36
2	.07	.11	.153	.205	.258	.318	.38	.45	.53	.60

*70°F & 29.92" BAR

Coil Head Loss

*Base Head Loss (Feet of Water) — Table 32

TUBE LENGTH	24"	36"	48"	60"	72"
TUBE LENGTH	.71	.75	.79	.84	.88
HEAD LOSS	84"	96"	108"	120"	—
HEAD LOSS	.92	.96	1.01	1.04	—

*Base head loss is for 1.25 GPM/Circuit.

M—Change in Head Loss With Change in GPM — Table 33

% GPM	25	50	75	100	125
MULTIPLIER	.081	.28	.60	1.0	1.5
% GPM	150	175	200	250	300
MULTIPLIER	2.1	2.8	3.5	5.3	7.3

Shaded area requires special headers.

Ethylene Glycol* — Table 34

DESIGN OUTSIDE AIR °F	F_1 F_1 x USgpm = Soln USgpm	F_2 F_2 x head = Soln head n	EG/WATER SOL. Freezing Point °F	% EG By Volume
+20	1.06	1.00	+10	24.8
+10	1.09	1.15	0	32.2
0	1.11	1.25	−10	38.4
−10	1.25	1.55	−20	43.5
−20	1.40	2.00	−30	47.7
−30	1.54	2.50	−40	51.3
−40	1.68	3.00	−50	54.3
−45	1.75	3.30	−55	55.3

NOTE: On coils using EG Solution, design as water then apply F_1 & F_2 (valid 150°-300°F). Consult supplier's for corrosion inhibitors.

*PRESTONE, ZEREX OR EQUIVALENT

COIL WEIGHTS (APPROX.)

Type 'C' Copper Fin, Series 80 (Working)

Table 35

Rows Deep	Tube Face	NOMINAL TUBE LENGTH								
		24"	36"	48"	60"	72"	84"	96"	108"	120"
2	12	90	113	143	171	193	220	257	293	320
	18	118	151	200	248	285	330	374	446	470
	24	172	204	257	320	365	417	473	527	585
4	12	132	175	225	274	325	383	420	475	510
	18	176	230	307	361	420	496	513	602	658
	24	234	323	409	499	614	673	765	845	945
6	12	172	218	271	323	418	486	534	632	700
	18	217	288	377	469	563	645	705	800	880
	24	290	397	507	616	727	835	945	1060	1175
8	12	210	266	330	390	510	595	650	770	855
	18	262	350	460	570	685	790	860	975	1070
	24	352	484	620	750	885	1020	1150	1290	1430

For Alum. Fin Coil multiply above weights shown by 0.77.
For Series 140 Alum. Fin Coil: Add 10% to Series 80 Alum. Fin. weigths.
For Series 140 Copper Fin Coil: Add 20% to Series 80 Copper Fin weights.

Type 'R', Copper Fin, Series 80 (Working)

Table 36

Rows Deep	Tube Face	NOMINAL TUBE LENGTH								
		24"	36"	48"	60"	72"	84"	96"	108"	120"
2	12	192	210	246	272	330	358	392	426	452
	18	210	280	320	356	400	446	504	540	580
	24	336	374	422	468	545	585	627	685	730
4	12	230	270	320	362	436	480	530	578	625
	18	274	366	432	490	580	642	710	775	840
	24	396	488	570	650	746	807	918	1000	1070
6	12	355	408	480	454	655	720	796	868	935
	18	410	550	650	735	870	965	1070	1160	1260
	24	595	732	855	972	1120	1210	1370	1500	1610
8	12	480	543	640	728	870	960	1060	1160	1250
	18	547	730	865	985	1160	1283	1425	1550	1672
	24	792	975	1140	1300	1492	1608	1808	2000	2140

For Alum. Fin Coil multiply above weights shown by 0.80.

Type 'RC', Copper Fin, Series 80 (Working)

Table 37

Rows Deep	Tube Face	NOMINAL TUBE LENGTH								
		24"	36"	48"	60"	72"	84"	96"	108"	120"
2	12	156	174	210	236	294	322	356	378	418
	18	168	227	266	302	347	404	450	486	525
	24	270	310	356	402	478	520	560	618	665
4	12	197	235	282	328	400	444	496	542	590
	18	220	312	378	436	527	590	660	720	785
	24	330	422	505	580	680	742	852	934	1000
6	12	300	358	430	497	607	673	750	820	890
	18	345	482	582	670	805	900	1000	1094	1190
	24	504	642	695	802	936	1120	1282	1410	1520
8	12	424	488	585	674	820	905	1000	1100	1200
	18	470	655	785	905	1080	1208	1350	1470	1595
	24	690	875	1037	1200	1392	1510	1735	1895	2050

For Alum. Fin Coil multiply above weights shown by 0.80.

Type 'DP', Copper Fin (Working)

Table 38

Rows Deep	Tube Face	NOMINAL TUBE LENGTH								
		24"	36"	48"	60"	72"	84"	96"	108"	120"
2	12	74	85	118	140	166	194	231	262	294
	18	110	140	178	212	250	294	346	400	450
	24	145	184	230	273	325	378	451	520	588
4	12	110	154	189	233	283	336	378	420	462
	18	167	232	290	354	427	510	577	640	703
	24	215	300	378	462	556	660	756	830	913
6	12	115	205	262	325	378	451	500	546	593
	18	220	312	395	488	585	682	756	830	903
	24	283	405	514	630	756	890	982	1080	1176

For Alum. Fin. Coil weights multiply weights shown by 0.77.

Type 'ANF', Aluminum Fin (Net Weight)

Table 39

Casing Height	Series Surface	NOMINAL TUBE LENGTH								
		24"	36"	48"	60"	72"	84"	96"	108"	120"
20 9/16" (12)	51	51	62	78	89	101	112	133	146	158
	61	51	62	78	89	101	112	133	146	158
	71	53	65	82	93	106	118	140	154	166
	81	54	66	84	95	108	122	144	158	170
	91	56	69	88	99	113	128	151	164	178
	101	57	70	90	101	115	131	154	167	182
29" (18)	51	67	80	97	111	124	137	155	168	182
	61	69	83	101	115	129	143	162	176	190
	71	71	86	105	119	134	149	169	184	198
	81	72	87	107	121	136	153	173	188	202
	91	74	90	111	125	141	159	180	194	210
	101	75	91	113	127	143	162	183	197	214
37 1/16" (24)	51	90	106	128	144	159	174	194	209	224
	61	92	109	132	148	164	180	201	217	232
	71	96	114	139	156	174	191	214	232	248
	81	97	115	141	158	176	195	218	236	252
	91	99	118	145	162	181	201	225	243	260
	101	101	120	147	164	183	204	228	246	264

For Copper Fin Coil multiply above weights shown by 1.35.

Type 'BNF', Alum. Fin (Net Weight)

Table 40

Casing Height	Surface Number	NOMINAL TUBE LENGTH								
		24"	36"	48"	60"	72"	84"	96"	108"	120"
20 9/16" (12)	31B, N1	50	59	73	85	95	105	116	141	152
	71B, W1	51	61	76	89	99	110	122	147	159
	81B, X1	52	62	77	90	101	112	125	150	163
	Y1	54	64	81	96	106	117	132	157	172
	72B, 82B, W2	62	75	93	109	123	137	153	180	196
	X2	64	77	96	113	127	142	159	186	203
29" (18)	31B, N1	63	73	89	104	115	126	140	166	179
	71B, W1	66	77	93	109	121	134	149	176	190
	81B, X1	67	78	95	111	124	136	152	179	193
	Y1	70	83	101	118	132	145	164	191	207
	72B, 82B, W2	82	98	119	141	159	175	198	227	246
	X2	84	101	123	148	166	184	209	234	253
37 1/16" (24)	31B, N1	75	86	102	120	132	144	161	188	202
	71B, W1	78	91	109	129	142	156	176	205	220
	81B, X1	79	92	111	131	145	159	180	208	223
	Y1	83	98	118	141	156	172	195	225	244
	72B, 82B, W2	103	124	149	180	201	222	252	274	296
	X2	106	129	155	185	209	231	261	286	310

For Copper Fin Coil multiply above weights shown by 1.35.

Type 'CH', Alum. Fin (Working)

Table 41

Tube Face	Rows Deep	NOMINAL TUBE LENGTH								
		24"	36"	48"	60"	72"	84"	96"	108"	120"
12	1	60	70	90	104	119	133	160	181	201
	2	77	96	121	147	165	190	220	256	280
18	1	79	104	133	168	190	221	238	285	327
	2	101	130	170	210	255	283	310	381	405
24	1	120	130	162	205	230	262	300	338	380
	2	148	173	220	275	320	355	407	452	507

For Copper Fin Coil multiply above weights shown by 1.40.

TYPICAL SPECIFICATIONS

The contractor shall furnish and install Sheldons Standard Modular Air Conditioning units in the style, size and capacity shown in the schedule. Each unit shall be installed in strict accordance with these specifications and approved drawings. All units shall be formed in galvanized steel not less than 14 gauge and shall be continuously welded to form completely water tight units. After construction the units shall be cleaned, all weld areas shall be protected with 96% zinc rich protective coating and unit finished with one coat of primer.

FAN SECTION

The fan section will consist of one/two double width, double inlet centrifugal fan wheels type (B/A/RB/F) installed in fan housings designed specifically for the type of wheel specified and of heavy gauge galvanized steel. Solid steel shafts will be sized to operate at not more than 70% of the first critical speed, and will be run in self aligning grease lubricated ball bearings. All internal bearings to have lubrication lines extended to the outside of the unit complete with grease fittings. The rotating element shall be statically and dynamically balanced as a unit after assembly and before shipment from the factory. Fan motors shall be mounted on (adjustable/slide bases) (outside/inside) the unit. Adjustable pitch V-belt drives shall be provided on all units with motors up to 7½ h.p.; motors over 7½ h.p. to be supplied with fixed pitch drives. A removable belt guard shall be supplied with each externally mounted motor, with provisions for tachometer readings and shall be constructed of welded heavy gauge steel.

COIL SECTION

Cooling coil sections shall be provided with adequate drainage connection, all coils must be individually supported and individually removable through the coil connection side of the unit.

(a) Chilled water cooling coils shall be Aerofin, type (C/CD/R/RC) in Series (80/140) with ⅝" O.D. copper tubes and smooth helical copper fins, tightly wound on to the tube and solder coated to give a permanent mechanical bond. (Where coils are non-condensing, an aluminum fin coil will be acceptable.)

(b) The direct expansion cooling coils will be Aerofin Type DP Series 80/140, and shall be supplied with ⅝" O.D. copper tubes with helical copper solder coated fins tightly wound on to the tubes to give a permanent mechanical bond. (On non-condensing coils, an aluminum fin coil will be acceptable).

(c) Steam coils will be Aerofin Type (ANF/BNF). ANF shall be supplied with 1" O.D. copper tubes, and BNF with ⅝" O.D. copper tubes with helical (aluminum or copper solder coated) fins tightly wound on to the tube to give a permanent mechanical bond.

(d) Hot water heating coils shall be Aerofin Type CH Series 140. They shall be supplied with ⅝" O.D. copper tubes with helical (aluminum or copper solder coated) fins tightly wound on to the tubes to give a permanent mechanical bond.

(e) Electric coils shall be, open element/tubular/tubular finned, type suitable for (208/220/440/550) volts, arranged for individual element control/balanced 3 phase control. Automatic temperature control to be provided by temperature control contractor.

FILTER SECTION

Filter section shall be (Flat/angle/high performance/roll) type and be supplied with (2" renewable/2" high velocity/high performance) filter media. Filter sections will be supplied with access doors for inspection and replacement of filter media.

DAMPER SECTIONS

Internal and external face and bypass dampers, shall be furnished where indicated and shall be of the parallel blade type. All damper blades shall be factory interconnected and provided with external shafts for automatic control by others.

MIXING BOX SECTIONS

Mixing box sections shall be supplied with interconnected parallel type damper blades for control of outside air and re-circulated air flow. They will be supplied with an external shaft for automatic control by others. Combination mixing boxes will be supplied with (flat/angle/high performance) type filters and shall be supplied with (2" renewable/2" high velocity/high performance) filter media. An access door shall be supplied for inspection and replacement of filter media.

EVEN-TEMP MIXING BOXES

One/two stage Sheldons Even-Temp mixing box to be provided with specially designed internal baffles and carefully placed air passages to achieve intimate and thorough mixing of air. One stage units shall provide a maximum temperature gradient of 15°F, and the two stage Even-Temp box when specified shall provide a temperature gradient of approximately 5°F. Even-Temp mixing boxes are to be supplied complete with interconnected parallel type dampers, by the Even-Temp box manufacturer, having external shaft for automatic control by others.

SPRAY COIL SECTION

Supply spray coil section, consisting of coil section, eliminator section with 2 hook. 2 surface, 1⅛" centre galvanized eliminator blades on air leaving side of coil section, and spray section to provide a minimum of 1.1 US gpm of spray water per sq. ft. of coil face area on entry side of coil section (optional). Entry baffles shall be fitted in air entry end of this section when requested. (N.B. provision for access to entry baffles must be provided before section.) Spray coil section to be complete with 3/16" steel tank internally coated with mastic emulsion for corrosion resistance, complete with trapped overflow on low pressure units. N.B. Where spray coil units are installed on high pressure systems a separate external overflow trap shall be provided by contractors. All units shall be supplied with suction strainer, float valve, quick fill overflow and drain connections, and close coupled pump. A reach-in door shall be provided for servicing strainer and trapped overflow.

CAPILLARY® CELL AIR WASHER

Supply Sheldons Capillary® cell section consisting of banks of 8" deep Capillary® cells. Each cell shall contain approximately 57,000 strands of glass filament, 9" long having a surface contact area of approximately 125 sq. ft./cell, flooded by a spray section providing a minimum of 4 US gpm per cell, with 2 hook, 2 surface 1⅛" centre galvanized eliminators on air leaving side of Capillary® cell section. Capillary® cell section to be complete with 3/16" steel tank internally coated with mastic emulsion for corrosion resistance, complete with trapped overflow on low pressure units.

All units shall be supplied with suction strainer, float valve, quick fill overflow and drain connections, and close coupled pump. A reach-in door shall be provided for servicing strainer and trapped overflow.

HUMIDIFIERS

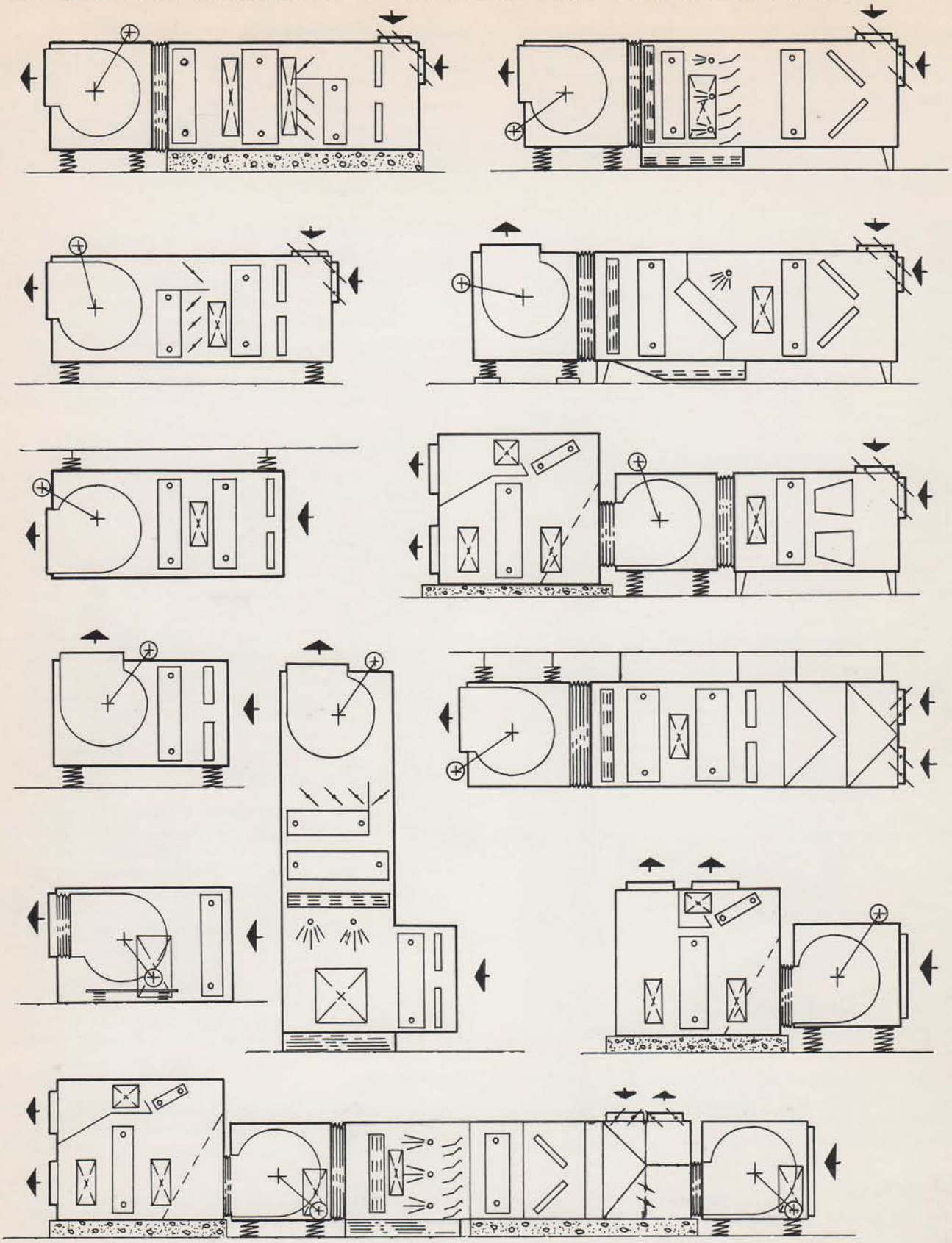
(a) Supply mist type humidifier complete with spray nozzles discharging into specially designed air passages to provide intimate mixture of air and water. Unit to be complete with drain pan, water supply and drain connection.

(b) Supply steam grid type humidifier consisting of galvanized pipe steam grid with evenly spaced orifice openings along full length and the entire tube covered with asbestos wicking, designed to provide the humidifications rates specified.

(c) Supply pan type humidifier complete with ¾" dia. copper tube copper fin submerged steam coil. Units to be complete with water tank, float valve, quick fill overflow and drain connections. Entire pan assembly to be removable as one assembly.

(d) Supply pan humidifier complete with 208/220/440/550 volt electric heater. Water tank provided with float valve, quick fill overflow and drain connections. Entire pan assembly to be removable as one assembly.

TYPICAL ARRANGEMENTS OF SHELDONS STANDARD MODULAR UNITS



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