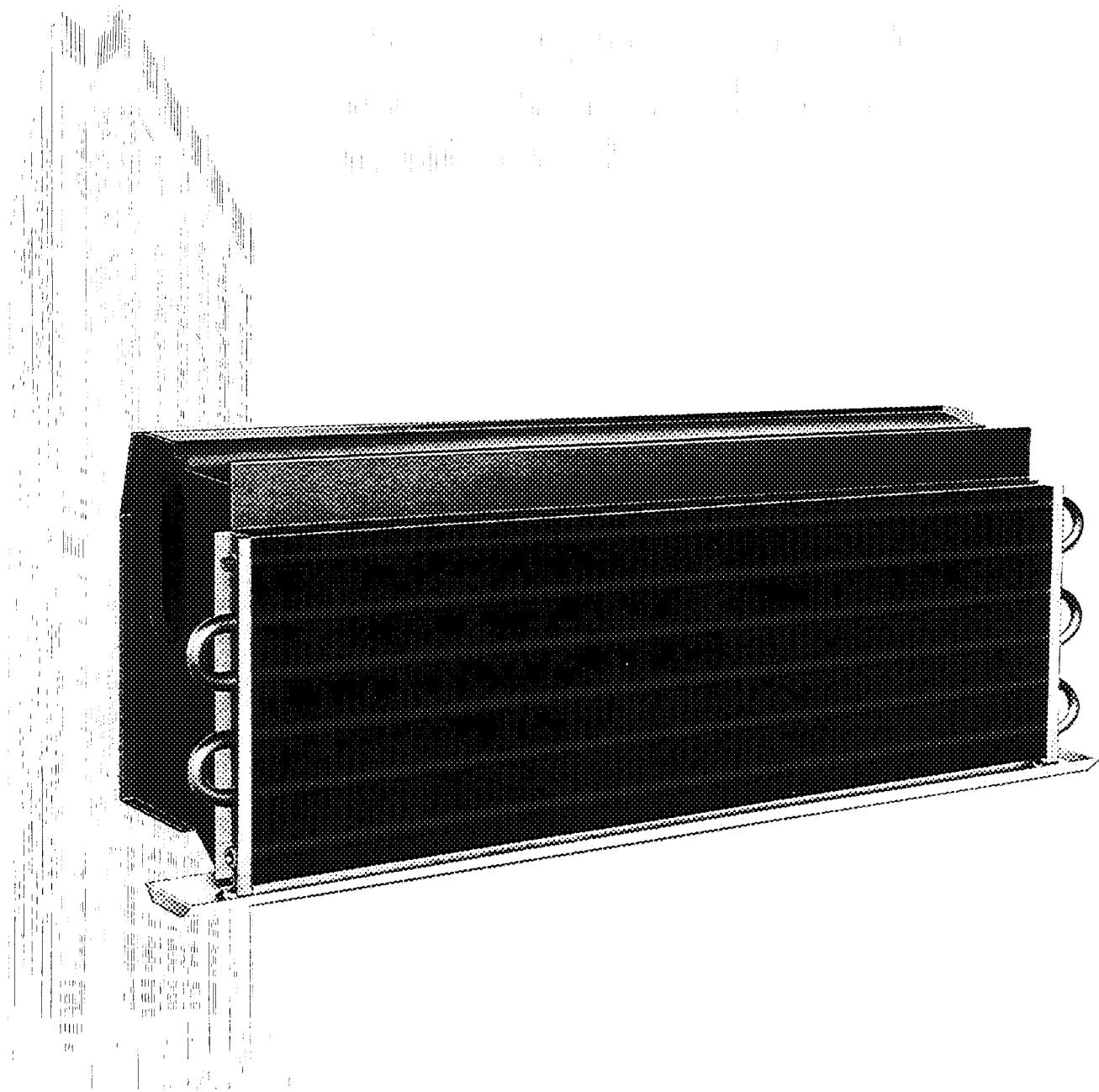


Carrier

Water Control Weathermaster® Induction Air Terminals

36S

19.4 – 131.9 cfm
1770 – 8900 Btuh



36S Series Induction Air Terminals-

Water control Weathermaster® induction systems use 36S series air terminals for space-saving and economical air conditioning in office buildings, hotels, schools, and apartments to provide year 'round comfort in each room. Nine models are available in loboy, horizontal and vertical configurations, 5 for 2-pipe systems and 4 for 4-pipe systems. Each model comes in 4 sizes, each with a choice of 5 different nozzle arrangements to provide desired air flow. Terminals may be furred-in or enclosed in optional, decorator-styled cabinets. When you specify 36S terminals, you choose from

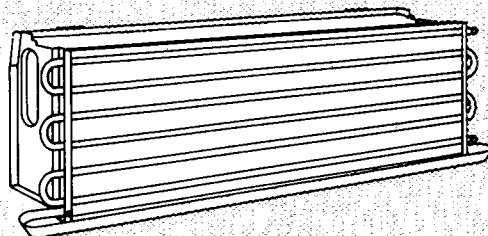
the best selection of models and capacities in the industry, and you are able to match the equipment to your job requirements more closely than has ever been possible before. Carrier's optimized computer selection assures that the terminals you buy meet the performance and sound criteria you need, without causing additional operating expense or energy waste as a result of improperly sized components.

Since 36S air terminals require no bulky or cumbersome ductwork that robs valuable space, building height requirements can be less, an important factor in

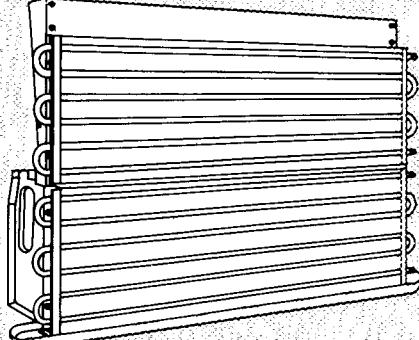
lowering total building cost. And that's not all — see the section entitled 14 Great Reasons to Choose a Carrier 36S Induction System on the next page!

Carrier, the most experienced maker of air terminals, builds the units of the 36S series to exacting standards governing product quality. Units are rated in accordance with the American Refrigeration Institute (ARI) Standard 445-66. And the nationwide Carrier Factory Service team stands behind every 36S terminal. You can't buy a better unit anywhere. If you're going induction, you can't afford not to consider the units of the 36S series.

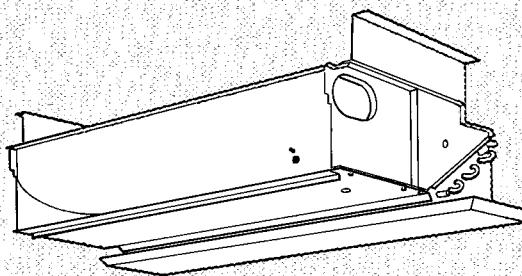
Carrier has the right induction terminal for every 2-pipe system...



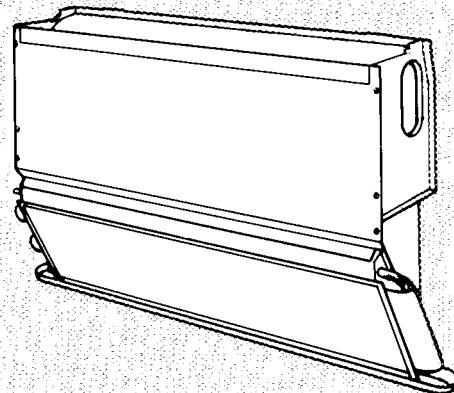
36SL loboy, single coil; measures only a foot high; for applications where the window arrangement calls for a small terminal with high capacity.



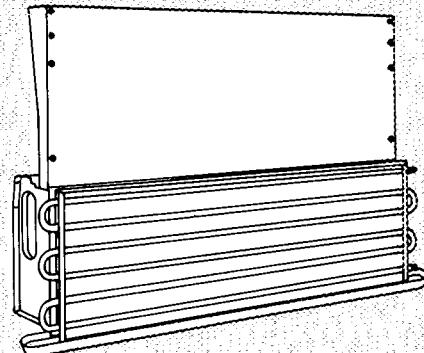
36ST a high-capacity vertical unit with a double-size coil for maximum cooling performance.



36SH the standard horizontal unit; ceiling mount to save valuable floor space.



36SV measuring less than 8-in. deep, this standard wall-hung unit is a real space saver.



36SC a vertical wall-hung unit with high-efficiency recovery stack; for use in areas where higher capacities are needed.

- **Heat and Cool from a single terminal** — and you can choose the most economical central station way to heat hot water, steam, electric.
- **Energy savings with gravity heat** — on vertical units, you can shut down the air distribution system and save fan horsepower. Hot water circulates to maintain the temperature in unoccupied rooms. Simple, economical convector heating.
- **Heat reclaim/energy conservation** — you can easily adapt an economizer cycle along with other reclaim/energy conservation methods such as double-bundle condensers, etc. to a 36S induction system.

The system may be 2-pipe or 4-pipe to best match the building's energy needs.

- **Low central station air handling system costs** — you save installation costs by minimizing building service connections for electricity, water, and drainage; you save operating, maintenance, and control costs since you can use high efficiency air cleaning equipment to realize decorating cost savings, while at the same time improving odor and pollen control. and you can use sprayed-coil dehumidifiers for more effective quality air supply and winter humidification

- **Automatic actual load adjustment** — system operating costs are not materially affected by the excess capacity of the system. The terminals automatically adjust to actual loads, thus allowing you wide design latitude without paying the penalty of high operating costs

- **Quiet, reliable operation** — each terminal has a specially designed balancing damper, acoustical plenum insulation, and high efficiency nozzles and coils to ensure reliably quiet operation. And no moving parts

- **Positive ventilation** — the primary air is always provided with a positive amount of outside ventilation air directly added to every module served by a 36S air terminal.

- **Constant air movement** — the primary air provides continuous air motion and circulation throughout the room.

- **Reliable temperature control** — each room is its own zone. Room occupants can have the temperature as they like it, and the unit responds to individual room load requirements

- **Greater rentable area** — typically, units are wall-hung or may be ceiling mounted so your design can make maximum use of rentable floor area

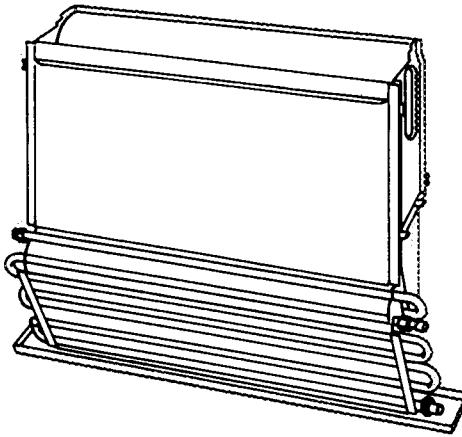
- **Reduced floor-to-floor height requirements** — the smaller, high-velocity air ducts used in these systems, along with small water pipes, can mean great savings in the overall height of the building itself

- **Positive year 'round humidity control** — the exterior zone humidity can be easily controlled by dehumidifying the constant air supply in the summer and humidifying during the winter.

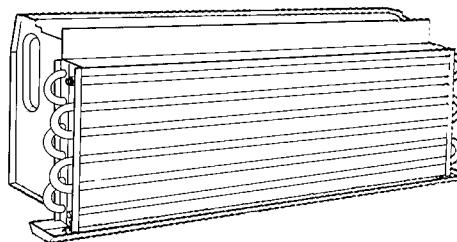
- **Complete design flexibility** — the wide range of capacities and models, coupled with the fact that Carrier offers units for both 2- and 4-pipe systems, leaves you an almost unlimited range of cost-trimming, energy saving design options.

- **Mechanical equipment is located remote from the room occupants** — the central system approach removes the sound-generating components from the building occupants. Simplifies equipment selection.

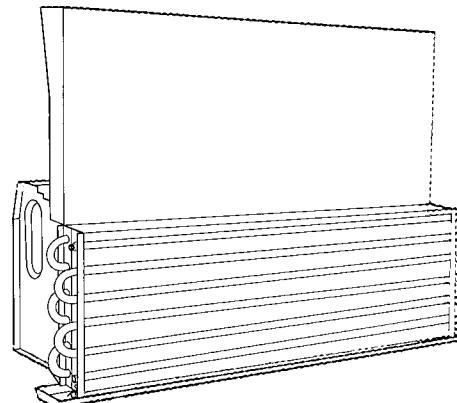
...and every 4-pipe system, too!



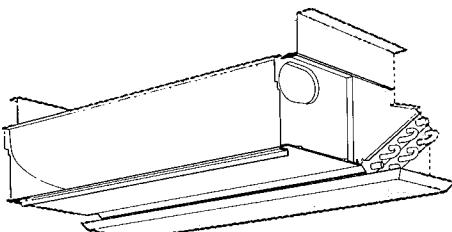
36SD standard vertical wall-hung unit with back-to-back coils.



36SM loboy, double coil unit; small terminal that fits under virtually every window.



36SP vertical wall-hung unit with high efficiency recovery stack and double coil; use in areas where high capacities are a must.



36SJ the standard horizontal unit with double coil; may be ceiling mounted to save floor space.

Going 2-pipe or 4-pipe?

	2-pipe changeover	4-pipe
Best overall performance		X
Lowest operating cost		X
Best heat recovery potential		X
Lowest first cost	X	
Lowest installation cost	X	
Lowest control cost	X	
Lowest primary air required		X

Two-pipe non-changeover systems are less costly than 2-pipe changeover systems. However, the application potential of non-changeover systems is somewhat limited to areas with fairly mild winter design conditions. For this reason, the non-changeover 2-pipe system has been omitted from the cost comparison table.

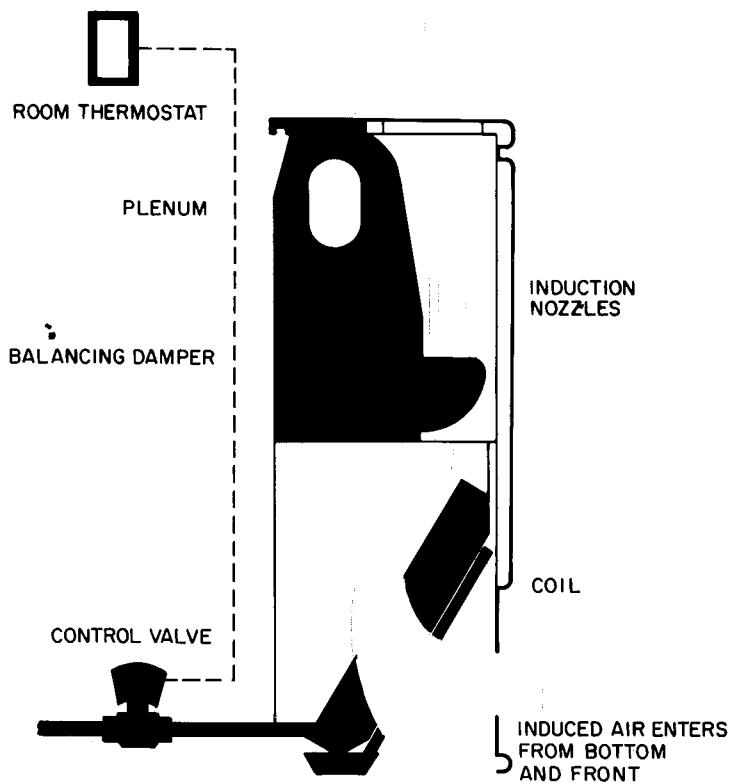
How Water Control Induction Terminals work

A mixture of outdoor and return air is conditioned in the central station air handling apparatus and distributed thru a high-velocity, high-pressure duct system to the terminal unit. Typically, this duct runs up the side of the building, feeding into space-saving narrow take-off ducts on each floor. The conditioned primary air flows into the *unit plenum* and passes thru its *balancing damper* to the *induction nozzles*. This balancing damper can handle up to 3-in. wg pressure drop without adversely affecting the unit's sound power level. The entire plenum is surrounded with acoustical insulation.

As the primary air leaves the nozzles, it induces secondary (room) air thru the unit's coils. Depending on the temperature of the water supplied to the coils, the secondary air will either be cooled or heated. In a 4-pipe system, separate circuits are provided for hot and cold water.

Unit capacity is controlled either manually or by a *room thermostat* which modulates a field-installed *control valve*. The valve, in turn, modulates the water flow thru the coils to maintain the desired room temperature.

Depending on the degree of modular flexibility desired, one thermostat can control one or more units. Also, units may be used to feed air to adjacent units.



Unit designations

Water Control Weathermaster® Air Terminals are designated by series, model, size, nozzles, hand, coil connections, and condensate pan.

		3 6 S V 2 - H R 2 2								Condensate Pan			
		Series and Model				Size				Coil Connection			
		Size				Hand R/L				Nozzle			
Series and Model													
Series and Model	36SL	2-pipe units	1	F (Gray)	Loboy unit	Vertical unit with recovery stack	Vertical unit with double coil	Vertical wall-hung unit	Horizontal unit	Nominal 24-in. unit	Provides highest coil capacity per cfm of primary air. Used where sensible cooling is high in relation to ventilation requirements		
	36SC												
	36ST												
	36SV												
	36SH		4-pipe units	2	G (Red)	Vertical wall-hung unit	Vertical unit with recovery stack	Loboy unit	Horizontal unit	Nominal 32-in. unit	Gives performance midway between F and H		
	36SD												
	36SP												
	36SM												
Series and Model	36SJ												
			Size	3	H (Black)	Provides nominal coil capacity per cfm of primary air. Used for average office buildings with normal lighting loads and glass areas	J (Black and Green Alternate)	K (Green)	Nominal 40-in. unit	Provides highest coil capacity per unit size and highest air quantities. Used for high ventilation and high total loads	Gives performance midway between H and K		
Nozzle*	F (Gray)	Hand†	R	0	K (Green)	Right-hand coil connection when facing unit	Standard sweat fittings	Flare fittings	Standard emergency condensate pan	Drainable condensate pan, connections same hand as coil	Left-hand coil connection when facing unit		
	G (Red)												
	H (Black)												
	J (Black and Green Alternate)												
	K (Green)		Coil Connections	L	1	Sweat fittings with manual air vent	Flare fittings with manual air vent	Drainable condensate pan, connections same hand as coil	Standard emergency condensate pan	Drainable condensate pan, connections same hand as coil	Standard sweat fittings		
Condensate Pan	R	Connections	2	3	2	Flare fittings with manual air vent	Drainable condensate pan, connections same hand as coil	Standard sweat fittings	Drainable condensate pan, connections same hand as coil	Standard emergency condensate pan	Drainable condensate pan, connections same hand as coil		
	L												
	0												
	1												
	2												
	3												
	0 or 1												
	2												

*Nozzles are designed to optimize the thermal efficiency at minimum sound power generation.

They are suitable for handling up to 175°F supply air. Primary air quantity is controlled by the number and diameter of the holes in the nozzle.

†On 4-pipe units, coil hand is determined by the cooling coil which is inside. The heating coil (outside) connections are at the opposite end.

Water control packages are field-supplied.

Unit selection criteria (general)

After room air conditioning loads have been calculated and the primary air quantity determined, the induction air terminals can be selected. To calculate coil loads for the units, the primary air cooling capacity is subtracted from the room load.

Primary air cooling capacity depends upon the exposure and type of system being designed. The air quantity should satisfy the ventilation and dehumidification requirements of the conditioned space as well as other system requirements. These system requirements are discussed in detail in the *Carrier System Design Manual*. Both this manual and the *Engineering Guide for Weathermaster® Induction Systems* should be consulted for a more complete explanation of system requirements.

When an induction air terminal is selected, 2 parameters must be satisfied: the unit must supply the air at an acceptable sound power level and it must have enough unit capacity to maintain the proper room temperature.

Two methods of selection are available: computerized and manual. Samples

Alternate computer evaluations

Selection Program

This method selects the best size and nozzle arrangement of an air terminal on the basis of cooling load and required sound level. It also provides alternate selections at slightly higher sound levels (3 dB or less) and at a slightly lower capacity (5% or less).

The computerized selection method can handle both changeover and non-changeover systems, 2-pipe and 4-pipe systems. It allows the user to set all specifications, i.e., cooling, induction heating and gravity heating requirements, nozzle pressure limits, water pressure drop limits, and sound limits. The sound limits can be specified as a noise criteria (NC) level with the appropriate room absorption effect ($L_w - L_p$) or directly as sound power levels. Various room entering water and supply air temperature combinations can be tested to establish their effect on unit selection and total system cost.

Programs for computerized selection have their own input data form. This form can be obtained through your local Carrier representative.

Performance Program

This method allows you to select the terminal and vary the parameters to find the best, most economical combinations.

SOUND SELECTION GUIDE*
For Various NC Levels and Room Effects

NC LEVEL	ROOM EFFECT† ($L_w - L_p$)	NOZZLE PRESSURE (in. wg)				
		Unit Nozzle Arrangement				
		F	G	H	J	K
30	8 dB	2.4	2.2	2.0	1.8	1.5
		3.0	2.7	2.5	2.4	2.0
		3.5	3.5	3.2	3.1	2.6
		3.5	3.5	3.5	3.5	3.5
35	10 dB	2.6	2.4	2.2	2.1	1.7
		3.3	3.1	2.9	2.7	2.3
		3.5	3.5	3.5	3.4	3.0
		3.5	3.5	3.5	3.5	3.5

*Based upon size 2 units with 1.5 in. wg damper drop.

†For 4000- and 8000-Hz center-band frequencies increased by 1 and 2 dB, respectively, over given value per Carrier Engineering Guide for Sound and Air Conditioned Space and the ASHRAE Guide and Data Books. This literature can also be referred to for NC level recommendations for specific applications. For unit sound power level data, refer to the unit application data literature.

NOTE. Boldface entries are the commonly accepted levels for an office space.

of the 2 selection methods are shown here. An Alternate Computer Evaluations (ACE) data service is available through your local Carrier representative. He should be consulted for detailed information regarding computerized selection of these units and other Carrier equipment.

Program Limits

The following are the value limits which have been used in developing the 36 Series selection programs. Values outside these specified limits will be rejected by the computer.

ITEM	VALUE LIMITS	
	Minimum	Maximum
Primary Air Quantity (cfm)	0	250
Damper Pressure Drop (in. wg)	0	4.0
Nozzle Pressure Drop (in. wg)	0.5	4.0
Coil Water Pressure Drop (ft wg)	1.6	40.0
Total Cooling Load (Btu/h)	0	14,000
Room Temperature (F)	0	100
Primary Air Temperature (F)	0	150
Water Temperature (F)	32	215
Transmission Heating Load (Btu/h)	0	1,000,000
Gravity Heating Load (Btu/h)	0	25,000

Computer unit selection (sample)

INPUT

10 A	Unit Identification
11 SV	Model Type
20 60	Primary Air Quantity
30 5645	Total Sensible Load
32 76	Room Temperature Cooling
33 52	Ent Water Temperature Cooling
34 56	Primary Air Temperature Cooling
40 5200	Transmission Heating Load
42 76	Room Temperature Induction Heating
44 50	Primary Air Temperature Induction Heating
51 3500	Coil Sensible Heating Load
52 60	Room Temperature Gravity Heating
60 35	Noise Criteria Level (NC)
71 8	Room Absorption Effect (Lw - Lp)
99 99	End of Problem Indicator
END	

OUTPUT

	A
	SPEC
UNIT ID	
ALTERNATIVES	
MODEL	
SIZE + NOZZLE	
P.A. CFM	36SV
NOZZ. PD, IN	2-H
WTR GPM	60.0
WTR PD, FT	2.12
INDUCTN CLNG	
CLNG CAP'Y	5645
CAP'Y RATIO	1.000
COIL CAP'Y	4349
ROOM DB TEMP	76.0
P.A. DB TEMP	56.0
ENT WTR TEMP	52.0
INDUCTN HTNG	
HTNG CAP'Y	5200
ROOM DB TEMP	76.0
ENT WTR TEMP	114.5
GRAVITY HTNG	
HTNG CAP'Y	3500
ROOM DB TEMP	60.0
ENT WTR TEMP	154.2
SOUND DB	250
RE 10 - 12	500
OCTAVE	1000
BAND	2000
MD-FR	4000
(HZ.)	8000
(LW-LP) + NC	45.7 42.3 38.2 35.7 35.8 37.9 8-35
ARI STD RATING POINT	
CLNG CAP'Y	4030
P.A. CFM	50.5

Manual unit selection (example)

Cooling — The cooling capacity of the induction unit is determined by the combined secondary coil and primary air cooling capacities at design conditions. In 4-pipe applications, the heating coil is assumed to be neutral for selection purposes.

1. Determine job requirements.

Given.

Type of unit 36SV
Total room sensible cooling load 5645 Btuh
Design room temperature (t_{rm}) 76 F
Entering primary air temperature (t_{pa}) 56 F
Minimum primary air quantity 60 cfm
Entering water temperature 52 F
Maximum desired room sound level
($L_w - L_p$) and NC 8 and 35

2. Determine required primary air capacity. Subtract this capacity from total cooling load to determine required coil capacity.

Since the room temperature minus the primary air temperature (76 F – 56 F) is 20 F Δt , use the 36SV Cooling Coil Capacities table directly to read the capacity for 60 cfm of primary air

Primary air capacity at 60 cfm = 1296 Btuh

Required coil capacity = 5645 – 1296 = 4349 Btuh

Since the room temperature minus the entering water temperature (76 F – 52 F) is 24 F and the Cooling Coil Capacities table is based upon 25 F temperature difference, the required coil capacity must be corrected for the 24 F temperature difference.

Use formula

$$\text{Corrected coil capacity} = \frac{25}{24} \times 4349 = 4523 \text{ Btuh}$$

3. Determine unit size, water flow nozzle arrangement, and nozzle pressure.

Enter the 36SV Cooling Coil Capacities table at 60 cfm. Select a size 2H unit with a rated coil capacity 4469 Btuh. Since rated unit capacity is below that required, more than the table base 1.50 gpm is required. Coil Capacity Multipliers For Flow Rates table must be used. Required capacity must be divided by unit rating at 1.50 gpm to obtain a factor for use with this table.

$$\text{Factor} = \frac{4523}{4469} = 1.01$$

The table indicates that a flow rate of 1.60 gpm will be necessary to obtain the required capacity. Nozzle pressure is 2.11 in. wg.

4. Select unit size to meet sound level requirements specified.

Refer to Sound Selection Guide table. Verify that nozzle pressure of selected unit is acceptable from a sound standpoint. Since maximum desired room sound level at ($L_w - L_p$) and NC is 8 and 35, an H nozzle arrangement has a maximum allowable nozzle pressure of 2.50 in. wg. Selected unit will be satisfactory.

5. Final selection, therefore, is a 36SV-2H unit.

Heating — The total heating load required is the combined room heating load (transmission) and the load required to temper the primary air to room temperature (primary air heating load). In 4-pipe applications, assume the cooling coil is neutral.

1. Determine job requirements for unit selected.

Given

Room heating load (transmission) 5200 Btuh
Design room temperature (t_{rm}) 76 F
Design primary air temperature (t_{pa}) 50 F
Primary air quantity 60 cfm
Entering water flow 1.60 gpm
Unit selected for cooling 36SV-2H

2. Determine primary air heating load. Use formula

$$\text{Primary air heating load (Btuh)} = \text{cfm} \times 1.08 \times (t_{rm} - t_{pa})$$

$$\text{Primary air heating load} = 60 \times 1.08 \times (76 - 50)$$

$$\text{Primary air heating load} = 1685 \text{ Btuh}$$

3. Determine total unit heating load. Use formula

$$\text{Unit heating load} = \text{primary air heating load} + \text{room heating load}$$

$$\text{Unit heating load} = 1685 + 5200$$

$$\text{Unit heating load} = 6885 \text{ Btuh}$$

4. Determine entering water temperature required to meet required total heating load. Use formulas

$$\text{Total heating load} = \left(\frac{t_{ew} - t_{rm}}{25} \right) \times \text{corr coil rating at } 25 \text{ F } \Delta t$$

$$t_{ew} = t_{rm} + \left(\frac{\text{total heating load}}{\text{corr coil rating at } 25 \text{ F } \Delta t} \right) \times 25$$

$$t_{ew} = 76 + \frac{6885}{4469} \times 25 = 114.5 \text{ F}$$

Gravity heating

1. Determine job requirements.

Given

Gravity heating load 3500 Btuh
Design room temperature (during shutdown) 60 F

2. Adjust load to coil water flow rate.

Since the Gravity Heating Capacities table is based upon 1.50 gpm and the coil has a gpm of 1.60, the load must be adjusted to an equivalent 1.50 gpm to use the table. Use the following formula

$$\text{Corrected heating load} = \frac{\text{actual heating load}}{\text{correction factor}}$$

$$\text{Corrected heating load} = \frac{3500}{1.03} = 3400$$

3. Determine entering water temperature required to meet required gravity heating load.

From the 36SV Gravity Heating Capacities table, read the temperature difference for the selected unit at the required capacity. By interpolation, the temperature difference for a 36SV-2H unit with a gravity heating capacity of 3400 Btuh is 93.6 F. Use formula

$$t_{ew} = \text{temperature difference} + \text{design room temperature}$$

$$t_{ew} = 93.6 + 60 = 153.6 \text{ F}$$

Performance data

36S SERIES COIL CAPACITY MULTIPLIERS FOR FLOW RATES

GPM	NOZZLE ARRANGEMENT																			
	F				G				H				J				K			
	Unit Size				1				2				3				4			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
0.6	0.91	0.90	0.85	0.82	0.88	0.85	0.82	0.79	0.85	0.84	0.80	0.77	0.83	0.82	0.78	0.76	0.84	0.82	0.78	0.76
0.8	0.94	0.92	0.90	0.88	0.91	0.89	0.86	0.84	0.90	0.88	0.85	0.83	0.87	0.85	0.83	0.81	0.89	0.86	0.83	0.80
1.0	0.96	0.95	0.94	0.93	0.95	0.93	0.92	0.91	0.94	0.93	0.91	0.90	0.93	0.92	0.90	0.89	0.93	0.92	0.90	0.88
1.2	0.98	0.97	0.97	0.97	0.97	0.96	0.96	0.97	0.96	0.96	0.96	0.95	0.96	0.96	0.95	0.94	0.96	0.96	0.95	0.94
1.4	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.98	0.99	0.99	0.98
1.5	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1.6	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.02
1.8	1.02	1.02	1.03	1.03	1.02	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.04	1.04	1.04	1.03	1.04	1.04	1.04
2.0	1.03	1.03	1.04	1.04	1.04	1.04	1.05	1.05	1.04	1.05	1.05	1.06	1.04	1.05	1.06	1.06	1.04	1.05	1.06	1.07
2.2	1.04	1.05	1.05	1.06	1.04	1.05	1.06	1.06	1.05	1.06	1.07	1.07	1.05	1.06	1.07	1.08	1.05	1.06	1.07	1.08

NOTE: For capacities at other than 1.50 gpm, multiply capacities from Cooling Coil Capacities table by above multipliers.

COIL WATER PRESSURE DROP (ft water)

GPM									
0.60	0.80	1.00	1.20	1.40	1.50	1.60	1.80	2.00	2.20
1.60	2.70	3.90	5.40	7.20	8.00	9.00	11.00	13.40	15.70

NOTE: Table shows single coil pressure drops, all units, except 36ST.
For 36ST at the same gpm, multiply above values by 2.

ACCESSORY LINT SCREENS (in.)*

LOCATION	UNIT SIZE				36 -	UNIT TYPE
	1	2	3	4		
Directly On Coil	25½ x 10	33 x 10	41 x 10	53 x 10	All Models	
Over Return Air Grille	x 11½	43 x 11½	51 x 11½	63 x 11½	SH, SJ only	

*14 x 18 mesh; 1/2 in. thick.

ARI CERTIFIED STANDARD RATINGS

SIZE AND NOZZLE	PRIMARY AIR FLOW (Cfm)	COOLING CAPACITY (Btuh)						
		36SV, SH	36SL	36SC	36ST	36SD, SJ	36SM	36SP
1F	19.4	1960	2060	2510	2720	1770	1940	2360
2F	25.3	2600	2730	3330	3600	2340	2570	3130
3F	31.1	3290	3460	4220	4570	2960	3250	3970
4F	40.8	4210	4430	5390	5840	3790	4160	5070
1G	27.2	2570	2650	3180	3500	2320	2440	2930
2G	35.4	3370	3450	4140	4550	3030	3170	3810
3G	43.5	4220	4330	5180	5710	3800	3980	4770
4G	57.1	5330	5460	6550	7210	4800	5020	6030
1H	38.9	3090	3090	3650	4080	2790	2780	3290
2H	50.5	4030	4030	4740	5310	3620	3630	4270
3H	62.2	5010	5010	5910	6620	4510	4510	5320
4H	81.6	6330	6330	7460	8350	5700	5700	6710
1J	50.8	3380	3290	3780	4340	3040	2900	3330
2J	64.9	4350	4240	4870	5590	3910	3730	4290
3J	81.3	5380	5230	6000	6890	4840	4600	5280
4J	105.5	6730	6560	7550	8660	6050	5770	6640
1K	62.8	3590	3410	3850	4500	3230	2900	3270
2K	81.6	4610	4370	4930	5770	4150	3710	4190
3K	100.5	5680	5380	6070	7100	5110	4570	5160
4K	131.9	7100	6740	7610	8900	6390	5730	6470

APPROXIMATE UNIT OPERATING WEIGHTS (lbs)

MODEL 36	UNIT SIZE			
	1	2	3	4
SL	18	23	28	35
SC	29	37	45	58
ST	32	40	49	63
SV	28	37	43	54
SH	33	42	49	61
SM	23	28	35	44
SP	34	42	52	67
SD	34	44	52	66
SJ	38	48	56	70

NOTE: Weights include water in the coil but do not include field-supplied control valve packages.

36SL, SC, SV, SH

APPROXIMATE COIL WATER QUANTITIES

UNIT SIZE	1	2	3	4
GALLONS	0.13	0.17	0.21	0.26
LBS	1.10	1.40	1.70	2.20

NOTE: For 36ST, SM, SP, SJ, and SD values, double the values shown in the table.



Units are rated in accordance with ARI Standard 445-66, under the following conditions: 1.5 gpm of 50°F water, 8-ft water pressure drop thru coil (16-ft for 36ST), 75°F db and 57°F wb air entering coil, 1.5 in wg nozzle static pressure

36SL loboy unit (2-pipe)

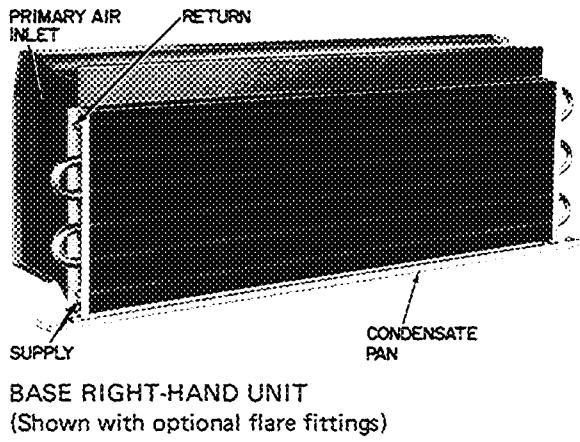
The 36SL in its standard enclosure measures only about 12 inches high and 10 inches deep. The base unit is shipped from the factory with the following

- **plenum**
- **one 6-tube coil**, with copper tubes and aluminum fins
- **drain pan**, assembled ready for wall mounting
- **removable plenum end plug**, located in one of the primary air inlets

- **two lint screen clips**, taped to the bottom of the drain pan, to attach an accessory lint screen to the coil
- **speed nuts**, located in the back flange on each end of the plenum for leveling the unit with field-supplied 10-24 bolts.

The coil has 1/2-in. ODF sweat connections as standard. See Base Unit Accessories for optional connections. The accessory lint screen and air transition fitting, shipped separately, complete the unit.

Dimensions and physical data



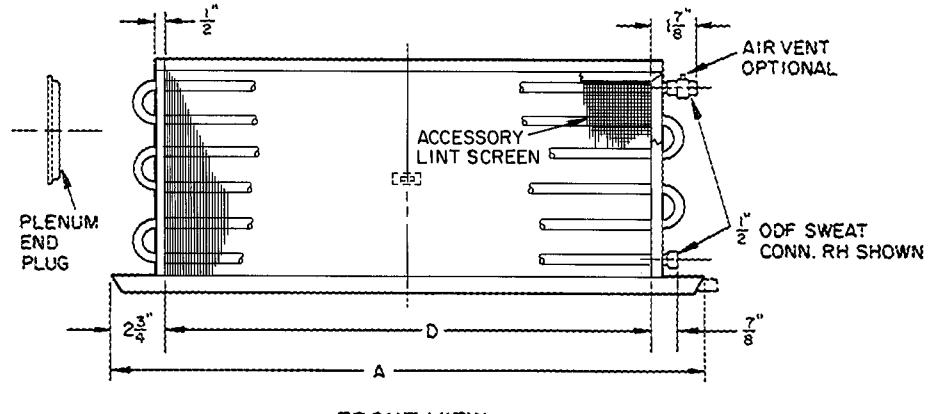
GRAVITY HEATING CAPACITIES (Btuh)

UNIT SIZE	TEMPERATURE DIFFERENCE (Ent Water - Room Temp) (F)				
	140	120	100	80	60
1	3780	3150	2550	1955	1385
2	5040	4200	3400	2605	1845
3	6300	5250	4255	3260	2310
4	8190	6825	5530	4235	3000

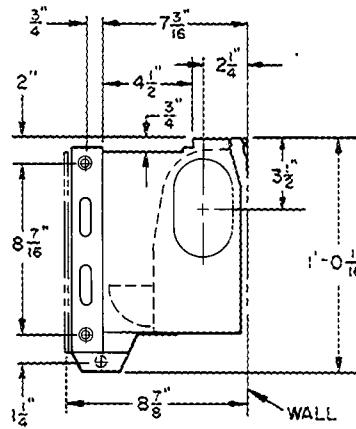
NOTE: For capacities other than 1.50 gpm, use the following multipliers - 0.75 for 0.60 gpm; 0.84 for 1.00 gpm; 1.15 for 2.00 gpm.

UNIT SIZE	Dimensions (in.)	1	2	3	4
		A	29 $\frac{1}{2}$	37 $\frac{1}{2}$	45 $\frac{1}{2}$
	D	24 $\frac{1}{4}$	32	40	52
	Minimum Free Areas (sq in.)				
	Discharge Grille	81	108	135	175
	Recirculation Grille	124	165	206	269

This is not a certified print. Certified dimensions available upon request.



FRONT VIEW



RIGHT SIDE VIEW

Performance data

36SL COOLING COIL CAPACITIES (Btuh)

Cfm (Btuh)	Cap. 20 F Δt (Btuh)	NOZZLE ARRANGEMENT															
		F				G				H				J			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
15	324	0.89				0.81											
	1614	1.614															
20	432	1.59	0.94			1.26	0.74										
	2123	2185															
25	540	2.48	1.47	0.97		1.82	1.07	0.71		0.89							
	2626	2702	2752			2504	2735										
30	648	3.57	2.11	1.39		2.83	1.07	0.71		2.639							
	3125	3215	3274			3098	3308										
35	756	2.88	1.90	1.10	2.48	1.46	0.97		1.21	0.71							
	3724	3792	3772	3151	3441	3675			2902	3204							
40	864	3.76	2.48	1.44	3.24	1.91	1.26	0.73	1.58	0.94			0.92				
	4229	4306	4284	3451	3770	4025	4267	3152	3479				2867				
45	972	3.14	1.82		2.42	1.60	0.93	2.01	1.19	0.78	1.17	0.72					
	4818	4793			4085	4362	4624	3389	3742	4030	3058	3466					
50	1080	3.88	2.25		2.99	1.97	1.14	2.48	1.46	0.96	0.56	1.45	0.89			0.95	
		5326	5299		4390	4687	4968	3617	3993	4300	4612	3241	3673			3011	
55	1188	2.72		3.62	2.39	1.39	3.00	1.77	1.17	0.68	1.75	1.07	0.68			1.15	
		5803		4685	5002	5302	3836	4235	4561	4892	3415	3871	4182			3161	
60	1296	3.24		2.85	1.65	3.57	2.11	1.39	0.81	2.09	1.28	0.81			1.36	0.81	
		6304		5308	5626	4048	4469	4812	5162	3582	4060	4387			3305	3742	
65	1405	3.80		3.34	1.94		2.48	1.63	0.95	2.45	1.50	0.95			1.60	0.95	
		6804		5606	5942		4695	5056	5423	3743	4243	4584			3444	3898	
70	1512		3.88	2.25		2.87	1.90	1.10	2.84	1.74	1.11			1.86	1.10	0.72	
			5897	6250		4915	5293	5677	3899	4419	4775			3577	4049	4449	
75	1620		2.58		3.30	2.18	1.26	3.26	2.00	1.27	0.75	2.13	1.26	0.83			
			6552		5128	5523	5924	4050	4590	4959	5446	3706	4195	4609			
80	1730		2.94		3.76	2.48	1.44	3.71	2.27	1.45	0.86	2.43	1.44	0.95			
			6847		5337	5747	6164	4196	4756	5138	5643	3830	4336	4764			
85	1838				3.32			2.80	1.62		2.57	1.63	0.97	2.74	1.62	1.07	
					7136			5966	6399		4917	5312	5834	3951	4473	4914	
90	1942				3.72			3.14	1.82		2.88	1.83	1.09	3.08	1.82	1.20	0.69
					7419			6181	6629		5074	5482	6020	4069	4606	5060	5572
95	2055							3.50	2.03		3.21	2.04	1.21	3.43	2.03	1.34	0.77
								6390	6854		5227	5647	6202	4183	4735	5203	5729
100	2160							3.87	2.25		3.56	2.26	1.34	3.80	2.25	1.48	0.86
								6596	7074		5376	5809	6379	4295	4862	5341	5881
105	2265							2.48			3.92	2.50	1.48		2.48	1.63	0.95
								7290			5523	5967	6552		4985	5476	6030
110	2375							2.72			2.74	1.63		2.72	1.79	1.04	
								7503			6121	6722		5105	5609	6176	
115	2482							2.97			2.99	1.78		2.97	1.96	1.14	
								7711			6272	6888		5223	5738	6318	
120	2590							3.24			3.26	1.94		3.24	2.13	1.24	
								7917			6421	7051		5338	5864	6457	
125	2700							3.51			3.54	2.10		3.51	2.32	1.34	
								8119			6567	7211		5451	5988	6594	
130	2810							3.80			3.83	2.27		3.80	2.51	1.45	
								8317			6710	7369		5561	6110	6728	
135	2918											2.45		2.70	1.57		
												7523		6229	6859		
140	3022											2.64		2.91	1.69		
												7675		6346	6988		
145	3130											2.83		3.12	1.81		
												7824		6462	7115		
150	3240											3.03		3.34	1.94		
												7972		6575	7240		
155	3350											3.23		3.56	2.07		
												8116		6686	7363		
160	3460											3.44		3.80	2.20		
												8259		6796	7483		
165	3565											3.66			2.34		
												8400			7602		
170	3675											3.89			2.49		
												8539			7719		

NOTES:

1 Coil capacity for other than 25 F Δt

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at } 25 \text{ F } \Delta t$$

2 See Coil Capacity Multipliers For Flow Rates table for capacities other than 150 gpm.

3 To facilitate balanced water systems, all units, regardless of size, have the same pressure drop

36SC vertical unit with recovery stack (2-pipe)

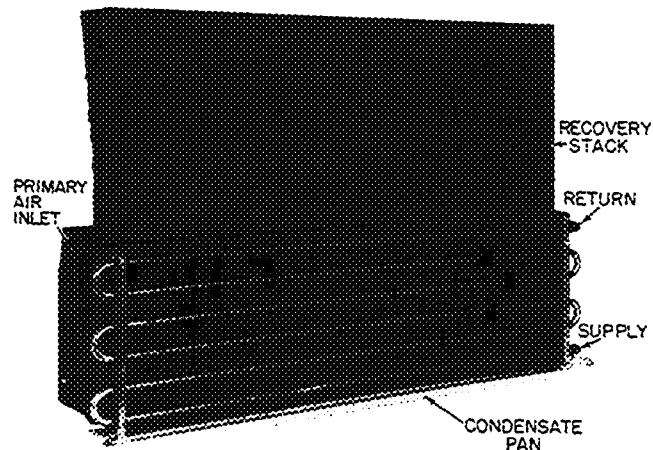
The 36SC in its standard enclosure measures 25 inches high and 10 inches deep. The base unit is the standard 36SL with an added recovery stack. The stack increases unit coil capacity with reduced sound power levels. The unit is shipped from the factory with the following:

- plenum
- one 6-tube coil, with copper tubes and aluminum fins
- recovery stack and drain pan, assembled ready for wall mounting

- removable plenum end plug, located in one of the primary air inlets
- two lint screen clips, taped to the bottom of the drain pan, to attach an accessory lint screen to the coil.
- speed nuts, located in the back flange on each end of the plenum with two 10-24 bolts for leveling the unit.

The coil has 1/2-in. ODF sweat connections as standard. See Base Unit Accessories for optional connections. The accessory lint screen and air transition fitting, shipped separately, complete the unit.

Dimensions and physical data



BASE RIGHT-HAND UNIT
(Shown with optional flare fittings)

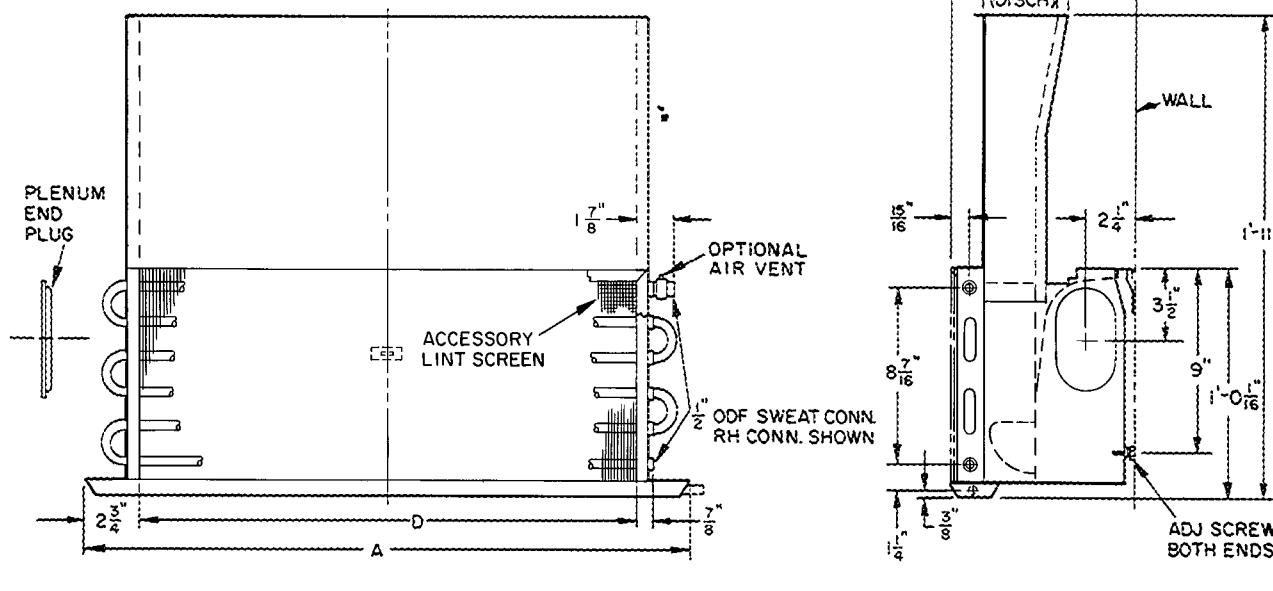
This is not a certified print. Certified dimensions available upon request.

GRAVITY HEATING CAPACITIES (Btuh)

UNIT SIZE	TEMPERATURE DIFFERENCE (Ent Water - Room Temp) (F)				
	140	120	100	80	60
1	5555	4630	3750	2875	2035
2	7410	6175	5000	3830	2715
3	9260	7715	6250	4790	3395
4	12,035	10,030	8125	6225	4410

NOTE: For capacities other than 1.50 gpm, use the following multipliers - 0.75 for 0.60 gpm; 0.84 for 1.00 gpm; 1.15 for 2.00 gpm.

UNIT SIZE	1	2	3	4
Dimensions (in.)	A 29 $\frac{1}{2}$ 24 $\frac{1}{2}$	B 37 $\frac{1}{2}$ 32	C 45 $\frac{1}{2}$ 40	D 57 $\frac{1}{2}$ 52
Minimum Free Areas (sq in.)				
Discharge Grille	81	108	135	175
Recirculation Grille	237	315	394	512



FRONT VIEW

RIGHT SIDE VIEW

Performance data

36SC COOLING COIL CAPACITIES (Btuh)

PRIMARY AIR				NOZZLE ARRANGEMENT																			
Cfm	Cap. (Btuh)	F				G				H				J				K					
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
15	324	0.89 1969				0.81 2581																	
20	432	1.59 2591	0.94 2665			1.26 3005	0.74 3283																
25	540	2.48 3204	1.47 3297	0.97 3357		1.82 3005	1.07 3283	0.71 3114		0.89 3114													
30	648	3.57 3812	2.11 3922	1.39 3994		3.404 3718	1.46 3970	0.97 3114		1.21 3425	0.71 3781												
35	756		2.88 4543	1.90 4626	1.10 4602	2.48 3781	1.46 4130	0.97 4410		1.26 3425	0.73 3781	1.58 0.94			0.92 3296								
40	864				3.76 5159	2.48 5254	1.44 5226	3.24 4142	1.91 4524	1.26 4831	0.73 5120	1.58 3719	0.94 4106										
45	972					3.14 5878	1.82 5847		2.42 4902	1.60 5235	0.93 5548	2.01 4000	1.19 4415	0.78 4755		1.17 3516	0.72 3986						
50	1080					3.88 6498	2.25 6465		2.99 5268	1.97 5625	1.44 5962	2.48 4268	1.46 4712	0.96 5075	0.56 5443	1.45 3726	0.89 4223		0.95 3404				
55	1188					2.72 7079		3.62 5622	2.39 6003	1.39 6363	3.00 4527	1.77 4997	1.17 5382	0.68 5772	1.75 3926	1.07 4450	0.68 4808		1.15 3574				
60	1296					3.24 7691		2.85 6370	1.65 6752	3.57 4777	2.11 5273	1.39 5679	0.81 6091	2.09 4119	1.28 4668	0.81 5044		1.36 3737	0.81 4230				
65	1405					3.80 8301		3.34 6728	1.94 7131		2.48 5540	1.63 5966	0.95 6399	2.45 4304	1.50 4878	0.95 5271		1.60 3893	0.95 4407				
70	1512					3.88 7077	2.25 7501		2.87 5799	1.90 6246	1.10 6699	2.84 4483	1.74 5081	1.11 5490			1.86 4044	1.10 4578					
75	1620						2.58 7862		3.30 6051	2.18 6517	1.26 6990	3.26 4656	2.00 5278	1.27 5702		0.75 6262	2.13 4190	1.26 4743					
80	1730						2.94 8216		3.76 6297	2.48 6782	1.44 7274	3.71 4824	2.27 5468	1.45 5908	0.86 6488	2.43 4331	1.44 4902						
85	1838						3.32 8563		2.80 7040	1.62 7551		2.57 5653	1.63 6108	0.97 6708	0.97 4467	1.62 5057							
90	1942						3.72 8903		3.14 7293	1.82 7822		2.88 5834	1.83 6303	1.09 6922	3.08 4600	1.82 5207							
95	2055								3.50 7541	2.03 8088		3.21 6010	2.04 6493	1.21 7131	3.43 4729	2.03 5354							
100	2160								3.87 7783	2.25 8348		3.56 6182	2.26 6679	1.34 7334	3.80 4855	2.25 5496							
105	2265								2.48 8603	3.92 6350	2.50 6860	1.48 7534		2.48 5635	1.63 6191	1.63 6818							
110	2375								2.72 8853		2.74 7038	1.63 7729			2.72 5771	1.63 6341	1.04 6982						
115	2482								2.97 9100		2.99 7212	1.78 7920			2.97 5904	1.96 6487	1.14 7143						
120	2590								3.24 9342		3.26 7383	1.94 8107			3.24 6035	2.13 6630	1.24 7300						
125	2700								3.51 9580		3.54 7550	2.10 8291			3.51 6162	2.32 6770	1.34 7455						
130	2810								3.80 9815		3.83 7715	2.27 8472			3.80 6287	2.51 6907	2.07 7606						
135	2918														2.45 8650	2.70 7042	1.57 7755						
140	3022														2.64 8824	2.64 7175	1.69 7901						
145	3130														2.83 8996	3.12 7305	1.81 8044						
150	3240														3.03 9165	3.34 7433	1.94 8185						
155	3350														3.23 9332	3.56 7559	2.07 8324						
160	3460														3.44 9496	3.80 7683	2.20 8460						
165	3565														3.66 9658	3.80 7683	2.34 8460						
170	3675														3.89 9818	2.49 8595	1.57 8595						

NOTES:

1 Coil capacity for other than 25 F Δt:

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at } 25 \text{ F } \Delta t$$

2. See Coil Capacity Multipliers For Flow Rates table for capacities other than 1 50 gpm

3 To facilitate balanced water systems, all units, regardless of size, have the same pressure drop.

36ST vertical high-capacity unit (2-pipe)

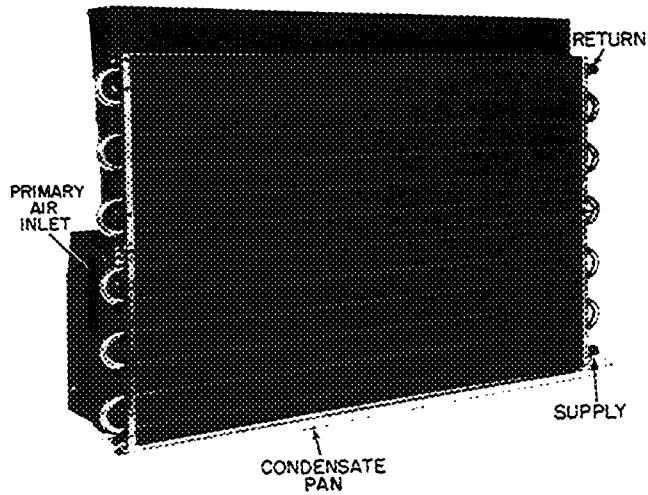
The 36ST in its standard enclosure measures 25 inches high and 10 inches deep. This unit provides the highest capacity per cfm of primary air of any model. It is shipped from the factory with the following:

- **plenum**
- **one 12-tube coil**, with copper tubes and aluminum fins
- **recovery stack and drain pan**, assembled and ready for wall mounting

- **removable plenum end plug**, located in one of the primary air inlets.
- **four lint screen clips**, taped to the bottom of the drain pan, to attach two accessory lint screens to the coil.
- **speed nuts**, located on the back flange on each end of the plenum, with 10–24 bolts for leveling the unit.

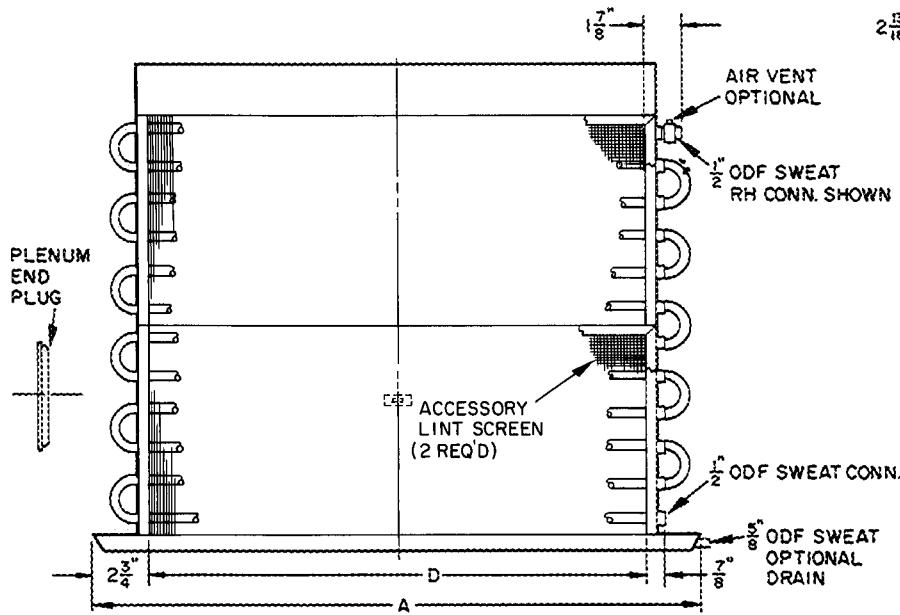
The coil has 1/2-in. ODF sweat connections as standard. See Base Unit Accessories for optional connections. Two accessory lint screens and air transition fitting, shipped separately, complete the unit.

→ Dimensions and physical data



BASE RIGHT-HAND UNIT
(Shown with optional flare fittings)

This is not a certified print. Certified dimensions available upon request.



FRONT VIEW

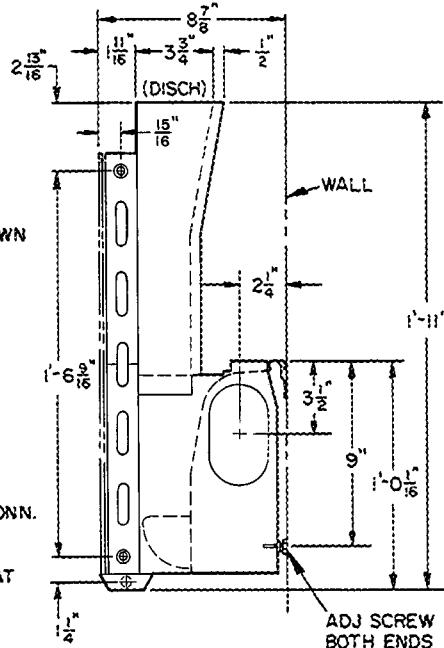
GRAVITY HEATING CAPACITIES (Btuh)

UNIT SIZE	TEMPERATURE DIFFERENCE (Ent Water – Room Temp) (F)				
	140	120	100	80	60
1	7080	5900	4780	3660	2595
2	9440	7865	6370	4880	3460
3	11,800	9835	7970	6105	4325
4	15,340	12,785	10,360	7935	5620

NOTE:

For capacities other than 1.50 gpm, use the following multipliers — 0.75 for 0.60 gpm; 0.84 for 1.00 gpm; 1.15 for 2.00 gpm.

UNIT SIZE	1	2	3	4
Dimensions (in.)	A 29 1/2 D 24 1/2	37 1/2 32	45 1/2 40	57 1/2 52
Minimum Free Areas (sq in.)				
Discharge Grille	81	108	135	175
Recirculation Grille	473	630	788	1023



RIGHT SIDE VIEW

Performance data

36ST COOLING COIL CAPACITIES (Btuh)

PRIMARY AIR		NOZZLE ARRANGEMENT																				
Cfm	Cap. 20 F Δt (Btuh)	F				G				H				J				K				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
15	324	0.89																				
		2131																				
20	432	1.59	0.94			0.81																
		2803	2884			2839																
25	540	2.48	1.47	0.97		1.26	0.74															
		3467	3567	3632		3306	3611															
30	648	3.57	2.11	1.39		1.82	1.07	0.71		0.89												
		4125	4244	4321		3744	4089	4367		3484												
35	756	2.88	1.90	1.10	2.48	1.46	0.97		1.21	0.71												
		4915	5005	4979	4159	4543	4851		3831	4230												
40	864	3.76	2.48	1.44	3.24	1.91	1.26	0.73	1.58	0.94												
		5582	5684	5655	4556	4976	5314	5632	4160	4593												
45	972	3.14	1.82		2.42	1.60	0.93	2.01	1.19	0.78												
		6359	6326		5393	5758	6103	4474	4939	5319												
50	1080	3.88	2.25		2.99	1.97	1.14	2.48	1.46	0.96	0.56	1.45	0.89									
		7031	6995		5795	6188	6558	4775	5271	5677	6088	4278	4849									
55	1188	2.72			3.62	2.39	1.39	3.00	1.77	1.17	0.68	1.75	1.07	0.68								
		7660			6184	6603	6999	5064	5590	6021	6457	4508	5109	5520								
60	1296	3.24			2.85	1.65	3.57	2.11	1.39	0.81	2.09	1.28	0.81									
		8332			7007	7427	5343	5899	6353	6813	4729	5360	5791									
65	1405	3.80			3.34	1.94		2.48	1.63	0.95	2.45	1.50	0.95									
		8981			7400	7844		6197	6674	7158	4941	5601	6051									
70	1512	3.88	2.25		2.87	1.90		1.10	2.84	1.74	1.11											
		7784	8251		6487	6987	7493	5147	5834	6303												
75	1620				2.58	3.30	2.18	1.26	3.26	2.00	1.27	0.75	2.13	1.26	0.83							
					8648		6769	7290	7819	5346	6059	6546	7189	4892	5538	6084						
80	1730				2.94	3.76	2.48	1.44	3.71	2.27	1.45	0.86	2.43	1.44	0.95							
		9038			7045	7587	8137	5539	6278	6783	7449	5056	5724	6289								
85	1838				3.32			2.80	1.62		2.57	1.63	0.97	2.74	1.62	1.07						
					9419			7876	8447		6491	7012	7701	5216	5905	6487						
90	1942				3.71			3.14	1.82		2.88	1.83	1.09	3.08	1.82	1.20	0.69					
					9794			8159	8750		6698	7236	7947	5371	6080	6680	7356					
95	2055							3.50	2.03		3.21	2.04	1.21	3.43	2.03	1.34	0.77					
								8435	9047		6900	7455	8187	5522	6251	6868	7562					
100	2160							3.87	2.25		3.56	2.26	1.34	3.80	2.25	1.48	0.86					
								8707	9338		7097	7668	8421	5669	6417	7050	7764					
105	2265							2.48			3.92	2.50	1.48					2.48	1.63	0.95		
								9624			7290	7876	8649					6580	7229	7960		
110	2375							2.72			2.74	1.63						2.72	1.79	1.04		
								9904			8080	8873						6739	7403	8152		
115	2482							2.97			2.99	1.78						2.97	1.96	1.14		
								10179			8280	9093						6894	7574	8340		
120	2590							3.24			3.26	1.94						3.24	2.13	1.24		
								10450			8476	9308						7046	7741	8524		
125	2700							3.51			3.54	2.10						3.51	2.32	1.34		
								10717			8668	9519						7195	7905	8704		
130	2810							3.80			3.83	2.27						3.80	2.51	1.45		
								10979			8857	9727						7341	8065	8881		
135	2918	<i>Boldface italics indicate nozzle pressure (in wg)</i>																				
		Ratings based on:																				
→	140	3022	25 Δt, 1.50 gpm, 16-ft water coil pressure drop (all sizes)																			
			Δt = t _{rm} - t _{ew}																			
	145	3130	where, t _{rm} = room temperature																			
			t _{ew} = ent water temperature																			
	150	3240	All ratings include allowance for lint screen																			
	155	3350																				
	160	3460																				
	165	3565																				
	170	3675																				

NOTES

1 Coil capacity for other than 25 F Δt:

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at } 25 \text{ F } \Delta t$$

2 See Coil Capacity Multipliers For Flow Rates table for capacities other than 1.50 gpm.

3 To facilitate balanced water systems, all units, regardless of size, have the same pressure drop

36SV standard vertical unit (2-pipe)

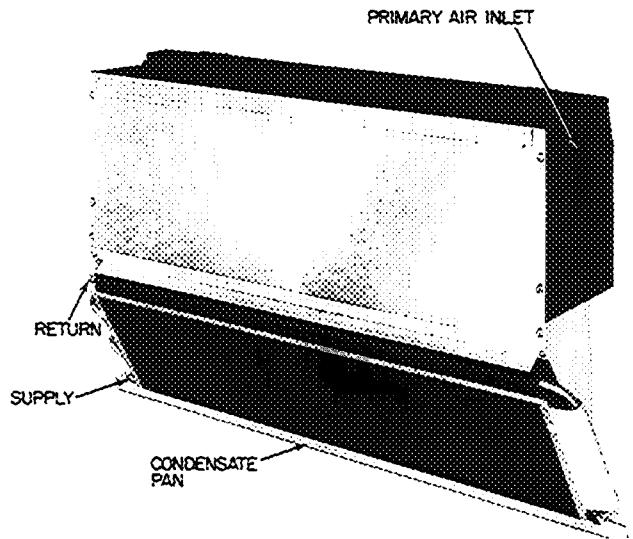
The 36SV in its standard enclosure measures 22 inches high and 8 inches deep. The unit is shipped from the factory with the following

- **plenum**
- **one 6-tube coil**, with copper tubes and aluminum fins
- **drain pan**, assembled ready for wall mounting
- **removable plenum end plug**, located in one of the primary air inlets

- **two lint screen clips**, taped to the bottom of the drain pan, to attach an accessory lint screen to the coil.
- **speed nuts**, located in the back flange on each end of the plenum for leveling the unit with 10-24 field-supplied bolts.

The coil has 1/2-in. ODF sweat connections as standard. See Base Unit Accessories for optional connections. The accessory lint screen and air transition fitting, shipped separately, complete the unit.

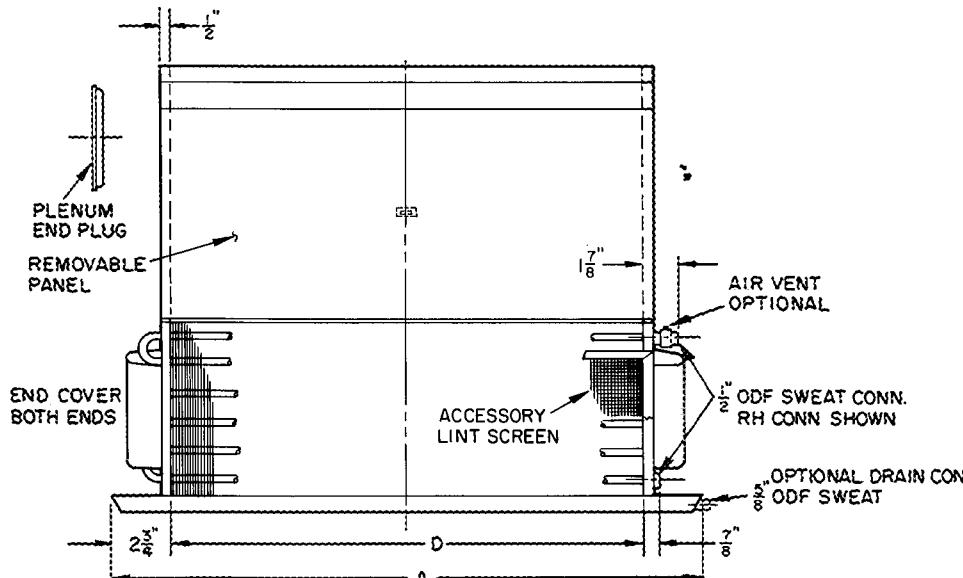
Dimensions and physical data



BASE LEFT-HAND UNIT

(Shown with optional flare fittings and accessory lint screen)

This is not a certified print. Certified dimensions available upon request.



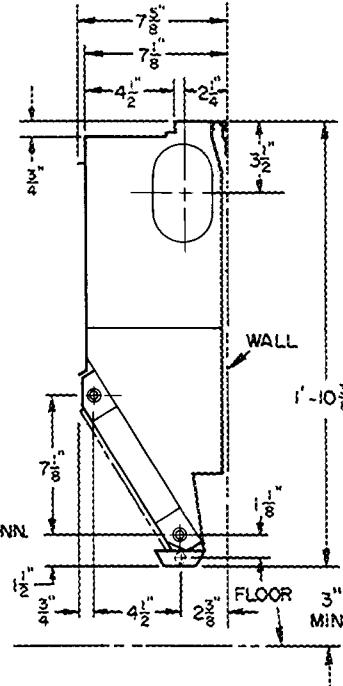
FRONT VIEW

GRAVITY HEATING CAPACITIES (Btuh)

UNIT SIZE	TEMPERATURE DIFFERENCE (Ent Water - Room Temp) (F)				
	140	120	100	80	60
1	4080	3400	2755	2110	1495
2	5440	4535	3675	2815	1995
3	6800	5665	4590	3515	2495
4	8840	7365	5965	4570	3240

NOTE: For capacities other than 1.50 gpm, use the following multipliers - 0.75 for 0.60 gpm, 0.84 for 1.00 gpm; 1.15 for 2.00 gpm.

UNIT SIZE	1	2	3	4
Dimensions (in.)	A 29 1/2 D 24 1/4	37 1/2 32	45 1/2 40	57 1/2 52
Minimum Free Areas (sq in.)				
Discharge Grille	81	108	135	175
Recirculation Grille	234	288	343	439



RIGHT SIDE VIEW

Performance data

36SV COOLING COIL CAPACITIES (Btuh)

PRIMARY AIR		NOZZLE ARRANGEMENT																
Cap. Cfm 20 F Δt (Btuh)	F	G				H				J				K				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
15	324	0.89																
		1537																
20	432	1.59	0.94			0.81												
		2022	2080			2098												
25	540	2.48	1.47	0.97		1.26	0.74											
		2501	2573	2620		2443	2669											
30	648	3.57	2.11	1.39		1.82	1.07	0.71		0.89								
		2976	2976	3118		2767	3022	3227		2639								
35	756	2.88	1.90	1.10	2.48	1.46	0.97		1.21	0.71								
		3546	3546	3611	3592	3074	3357	3585		2902	3204							
40	864	3.76	2.48	1.44	3.24	1.91	1.26	0.73	1.58	0.94		0.92						
		4028	4028	4101	4080	3367	3678	3927	4163	3152	3479	2940						
45	972	3.14	1.82			2.42	1.60	0.93	2.01	1.19	0.78		1.17	0.72				
		4588	4588	4564		3986	4256	4511	3389	3742	4030		3137	3555				
50	1080	3.88	2.25			2.99	1.97	1.14	2.48	1.46	0.96	0.56	1.45	0.89		0.95		
		5073	5073	5046		4283	4573	4847	3617	3993	4300	4612	3324	3767		3169		
55	1188	2.72				3.62	2.39	1.39	3.00	1.77	1.17	0.68	1.75	1.07	0.68	1.15		
		5526				4570	4880	5173	3836	4235	4561	4892	3503	3970	4289		3328	
60	1296	3.24				2.85	1.65	3.57	2.11	1.39	0.81	2.09	1.28	0.81		1.36	0.81	
		6004				5179	5489	4048	4469	4812	5162	3674	4164	4499		3479	3939	
65	1405					3.34	1.94		2.48	1.63	0.95	2.45	1.50	0.95		1.60	0.95	
						5470	5797		4695	5056	5423	3839	4352	4702		3625	4104	
70	1512					2.25			2.87	1.90	1.10	2.84	1.74	1.11		1.86	1.10	
						6098	4915	5293	5677	3999	4533	4897			3765	4263	4683	
75	1620					2.58	3.30	2.18	1.26	3.26	2.00	1.27	0.75	2.13	1.26	0.83		
						6392	5128	5523	5924	4154	4708	5086	5586	3901	4416	4852		
80	1730					2.94	3.76	2.48	1.44	3.71	2.27	1.45	0.86	2.43	1.44	0.95		
						6680	5337	5747	6164	4304	4878	5270	5788	4032	4564	5015		
85	1838					3.32			2.80	1.62		2.57	1.63	0.97	2.74	1.62	1.07	
						6962			5966	6399		5043	5449	5984	4159	4709	5173	
90	1942						3.14	1.82		2.88	1.83	1.09	3.08	1.82	1.20	0.69		
							6181	6629		5204	5622	6175	4283	4849	5327	5866		
95	2055						3.50	2.03		3.21	2.04	1.21	3.43	2.03	1.34	0.77		
							6390	6854		5361	5792	6361	4403	4985	5476	6030		
100	2160						2.25			3.56	2.26	1.34	3.80	2.25	1.48	0.86		
							7074			5514	5958	6543	4521	5118	5622	6191		
105	2265						2.48			3.92	2.50	1.48		2.48	1.63	0.95		
							7290			5664	6120	6721		5247	5765	6348		
110	2375						2.72			2.74	1.63			2.72	1.79	1.04		
							7503			6278	6895			5374	5904	6501		
115	2482						2.97			2.99	1.78			2.97	1.96	1.14		
							7711			6433	7065			5498	6040	6651		
120	2590						3.24			3.26	1.94			3.24	2.13	1.24		
							7917			6586	7232			5619	6173	6797		
125	2700						3.51			3.54	2.10			3.51	2.32	1.34		
							8119			6735	7396			5738	6303	6941		
130	2810										2.27			3.80	2.51	1.45		
											7558			5854	6431	7082		
135	2918	<i>Boldface Italics indicate nozzle pressure (in. w.g.).</i>																
140	3022	Ratings based on: 25 Δt, 1.50 gpm, 8-ft water coil pressure drop (all sizes)																
145	3130	Δt = t _{rm} - t _{ew} where, t _{rm} = room temperature																
150	3240	t _{ew} = ent water temperature																
155	3350	All ratings include allowance for lint screen.																
160	3460																	
165	3565																	
170	3675																	

NOTES:

1. Coil capacity for other than 25 F Δt:

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at } 25 \text{ F } \Delta t$$

2. See Coil Capacity Multipliers For Flow Rates table for capacities other than 1.50 gpm.

3. To facilitate balanced water systems, all units, regardless of size, have the same pressure drop.

36SH standard horizontal unit (2-pipe)

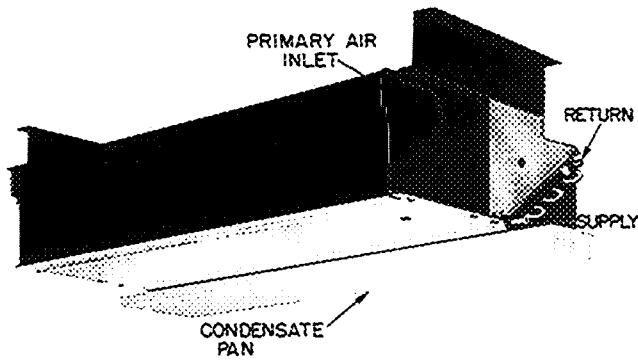
The 36SH in its standard enclosure measures 12 inches deep. The unit is shipped from the factory with the following.

- **plenum**
- **one 6-tube coil**, with copper tubes and aluminum fins
- **drain pan**, assembled
- **two Z brackets** for mounting unit to a rigid flat horizontal surface
- **removable plenum end plug**, located in one of the primary air inlets

- **two screws and a lint clip**, taped to the front panel of the unit, to attach an accessory lint screen to the coil (with enclosure models, the lint screen can be attached to the recirculation grille for easy accessibility).
- **two standard lint screen offerings**, on coil face or on recirculation grille.

The coil has 1/2-in. ODF sweat connections as standard. See Base Unit Accessories for optional drain connections. The accessory lint screen and air transition fitting, shipped separately, complete the unit.

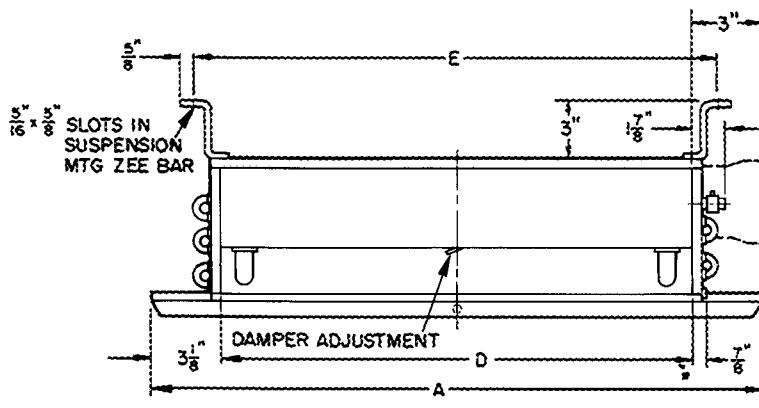
→ Dimensions and physical data



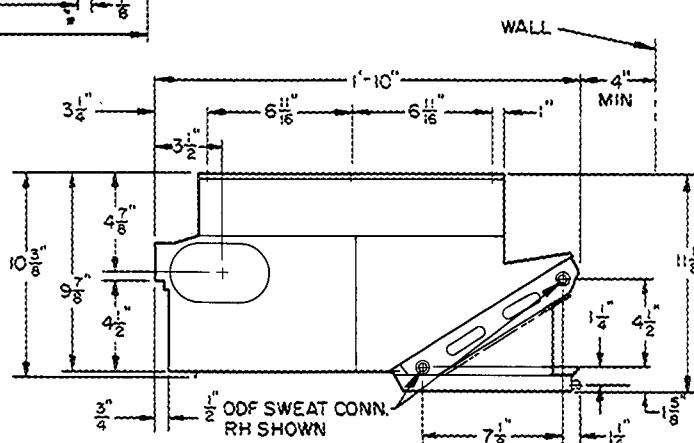
BASE RIGHT-HAND UNIT
(Shown with optional flare fittings and 2-in. brackets attached.)

UNIT SIZE	1	2	3	4
Dimensions (in.)	A 30 $\frac{1}{4}$	B 38 $\frac{1}{4}$	C 46 $\frac{1}{4}$	D 58 $\frac{1}{4}$
	D 24 $\frac{1}{4}$	E 32	F 40	G 52
	H 27	I 34 $\frac{1}{4}$	J 42 $\frac{1}{4}$	K 54 $\frac{1}{4}$
Minimum Free Areas (sq in.)				
Discharge Grille				
Recirculation Grille				
	L 81	M 108	N 135	O 175
	P 234	Q 288	R 343	S 439

This is not a certified print. Certified dimensions available upon request.



FRONT VIEW



RIGHT SIDE VIEW

Performance data

36SH COOLING COIL CAPACITIES (Btuh)

PRIMARY AIR		NOZZLE ARRANGEMENT																				
Cfm	Cap. (Btuh)	F				G				H				J				K				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
15	324	0.89																				
		1537																				
20	432	1.59	0.94			0.81																
		2022	2080			2098																
25	540	2.48	1.47	0.97		1.26	0.74															
		2501	2573	2620		2443	2669															
30	648	3.57	2.11	1.39		1.82	1.07	0.71		0.89												
		2976	3062	3118		2767	3022	3227		2639												
35	756	2.88	1.90	1.10	2.48	1.46	0.97		1.21	0.71												
		3546	3611	3592	3074	3357	3585		2902	3204												
40	864	3.76	2.48	1.44	3.24	1.91	1.26	0.73	1.58	0.94			0.92									
		4028	4101	4080	3367	3678	3927	4163	3152	3479			2940									
45	972	3.14	1.82			2.42	1.60	0.93	2.01	1.19	0.78			1.17	0.72							
		4588	4564			3986	4256	4511	3389	3742	4030			3137	3555							
50	1080	3.88	2.25			2.99	1.97	1.14	2.48	1.46	0.96	0.56	1.45	0.89			0.95					
		5073	5046			4283	4573	4847	3617	3993	4300	4612	3324	3767			3169					
55	1188	2.72				3.62	2.39	1.39	3.00	1.77	1.17	0.68	1.75	1.07	0.68		1.15					
		5526				4570	4880	5173	3836	4235	4561	4892	3503	3970	4289		3328					
60	1296	3.24				2.85	1.65	3.57	2.11	1.39	0.81	2.09	1.28	0.81			1.36	0.81				
		6004				5179	5489	4048	4469	4812	5162	3674	4164	4499			3479	3939				
65	1405					3.34	1.94		2.48	1.63	0.95	2.45	1.50	0.95			1.60	0.95				
		5470	5797			4695	5056	5453	3839	4352	4702						3625	4104				
70	1512					2.25			2.87	1.90	1.10	2.84	1.74	1.11			1.86	1.10	0.72			
		6098				4915	5293	5677	3999	4533	4897						3765	4263	4683			
75	1620					2.58			3.30	2.18	1.26	3.26	2.00	1.27	0.75	2.13	1.26	0.83				
		6392				5128	5523	5924	4154	4708	5086	5586	3901	4416	4852							
80	1730					2.94			3.76	2.48	1.44	3.71	2.27	1.45	0.86	2.43	1.44	0.95				
		6680				5337	5747	6164	4304	4878	5270	5788	4032	4564	5015							
85	1838					3.32			2.80	1.62		2.57	1.63	0.97	2.74	1.62	1.07					
		6962				5966	6399		5043	5449	5984	4159	4709	5173								
90	1942					3.14	1.82		2.88	1.83	1.09	3.08	1.82	1.20	0.69							
		6181	6629			5204	5622		6175	4283	4849	5327	5866									
95	2055					3.50	2.03		3.21	2.04	1.21	3.43	2.03	1.34	0.77							
		6390	6854			5361	5792		6361	4403	4985	5476	6030									
100	2160					2.25			3.56	2.26	1.34	3.80	2.25	1.48	0.86							
		7074				5514	5958		6543	4521	5118	5622	6191									
105	2265					2.48			3.92	2.50	1.48				2.48	1.63	0.95					
		7290				5664	6120		6721						5247	5765	6348					
110	2375					2.72			2.74	1.63					2.72	1.79	1.04					
		7503				6278	6895								5374	5904	6501					
115	2482					2.97			2.99	1.78					2.97	1.96	1.14					
		7711				6433	7065								5498	6040	6651					
120	2590					3.24			3.26	1.94					3.24	2.13	1.24					
		7917				6586	7232								5619	6173	6797					
125	2700					3.51			3.54	2.10					3.51	2.32	1.34					
		8119				6735	7396								5738	6303	6941					
130	2810									2.27					2.45	2.70	1.57					
										5854	6431	7082			7716	6557	7220					
135	2918	<i>Boldface Italics indicate nozzle pressure (in. wg).</i>																				
140	3022	Ratings based on: 25 Δt, 1.50 gpm, 8-ft water coil pressure drop (all sizes)																				
145	3130	Δt = t _{rm} - t _{ew} where, t _{rm} = room temperature t _{ew} = ent water temperature																		2.83	3.12	1.81
150	3240	All ratings include allowance for lint screen.																		3.03	3.34	1.94
155	3350																			3.23	3.56	2.07
160	3460																			3.44	3.80	2.20
165	3565																			2.25	2.34	2.00
170	3675																			2.49	2.49	8126

NOTES:

1. Coil capacity for other than 25 F Δt:

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at } 25 \text{ F } \Delta t$$

2. See Coil Capacity Multipliers For Flow Rates table for capacities other than 1.50 gpm.

3. To facilitate balanced water systems, all units, regardless of size, have the same pressure drop.

36SD standard vertical unit (4-pipe)

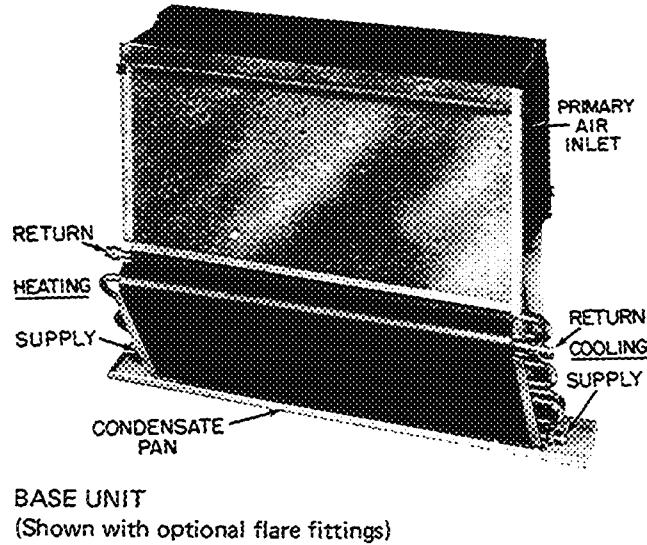
The 36SD base unit is shipped from the factory with the following

- plenum
- two 6-tube coils
- drain pan, assembled ready for wall mounting
- removable plenum end plug, located in one of the primary air inlets

- two lint screen clips, taped to the bottom of the drain pan, to attach an accessory lint screen to the coil
- speed nuts, located in the back flange on each end of the plenum for leveling the unit with field-supplied 10-24 bolts.

The coil has 1/2-in. ODF sweat connections as standard. See Base Unit Accessories, page 28, for optional connections. The accessory lint screen and air transition fitting, shipped separately, complete the unit.

Dimensions and physical data



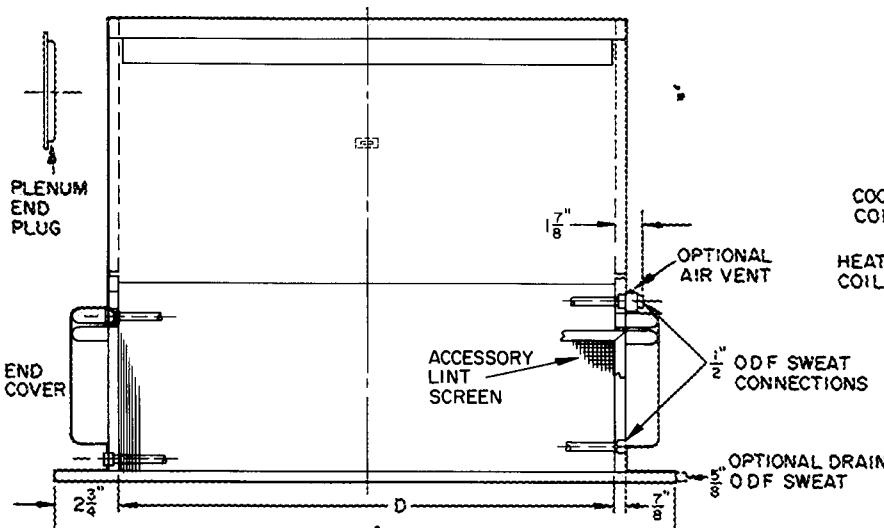
This is not a certified print. Certified dimensions available upon request.

GRAVITY HEATING CAPACITIES (Btuh)

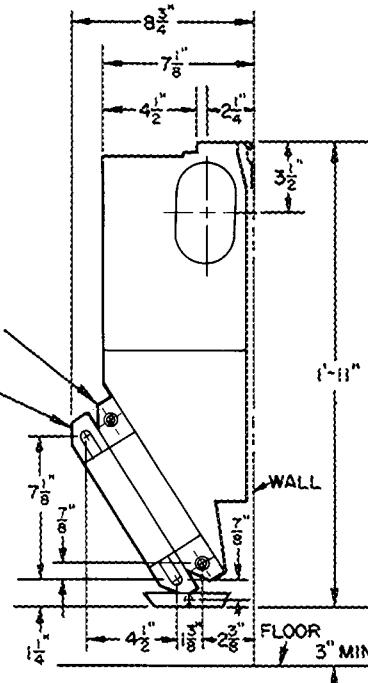
UNIT SIZE	TEMPERATURE DIFFERENCE (Ent Water - Room Temp) (F)				
	140	120	100	80	60
1	3670	3060	2480	1900	1345
2	4895	4080	3310	2535	1795
3	6120	5100	4130	3165	2245
4	7955	6630	5370	4115	2915

NOTE: For capacities other than 1.50 gpm, use the following multipliers — 0.75 for 0.60 gpm; 0.84 for 1.00 gpm, 1.15 for 2.00 gpm.

UNIT SIZE	1	2	3	4
Dimensions (in.)	A 29 $\frac{3}{8}$ 24 $\frac{1}{2}$	D 37 $\frac{3}{8}$ 32		
Minimum Free Areas (sq in.)				
Discharge Grille	81	108	134	175
Recirculation Grille	237	315	394	512



FRONT VIEW



RIGHT SIDE VIEW

Performance data

36SD COOLING COIL CAPACITIES (Btuh)

PRIMARY AIR		NOZZLE ARRANGEMENT																						
Cfm	Cap. 20 F Δt (Btu/h)	F				G				H				J				K						
		Unit Size																						
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
15	324	0.89																						
	1383																							
20	432	1.59	0.94			0.81																		
	1820	1872				1888																		
25	540	2.48	1.47	0.97		1.26	0.74																	
	2251	2316	2358			2199	2402																	
30	648	3.57	2.11	1.39		1.82	1.07	0.71		0.89														
	2678	2756	2806			2490	2720	2904		2375														
35	756	2.88	1.90	1.10		2.48	1.46	0.97		1.21	0.71													
	3192	3250	3233	2766	3022	3227				2612	2884													
40	864	3.76	2.48	1.44	3.24	1.91	1.26	0.73	1.58	0.94				0.92										
	3625	3691	3672	3030	3310	3534	3746	2837	3131					2646										
45	972			3.14	1.82		2.42	1.60	0.93	2.01	1.19	0.78		1.17	0.72									
	4129	4108			3587	3830	4060	3050	3367	3627				2823	3200									
50	1080			3.88	2.25		2.99	1.97	1.14	2.48	1.46	0.96	0.56	1.45	0.89			0.95						
	4565	4542			3854	4116	4362	3255	3594	3870	4151			2991	3391			2852						
55	1188			2.72		3.62	2.39	1.39	3.00	1.77	1.17	0.68		1.75	1.07	0.68		1.15						
	4974			4113	4392	4655	3453	3811	4105	4403				3152	3573	3860		2995						
60	1296			3.24			2.85	1.65	3.57	2.11	1.39	0.81		2.09	1.28	0.81		1.36	0.81					
	5403			4661	4940	3643	4022	4331	4645				3307	3748	4049		3131	3545						
65	1405			3.80			3.34	1.94		2.48	1.63	0.95	2.45	1.50	0.95		1.60	0.95						
	5832			4923	5217		4225	4550	4881				3455	3917	4231		3263	3693						
70	1512			3.88	2.25			2.87	1.90	1.10	2.84	1.74	1.11		1.86	1.10	0.72							
	5178			5178	5488		4423	4763	5109				3599	4079	4407		3389	3836	4215					
75	1620					2.58		3.30	2.18	1.26	3.26	2.00	1.27	0.75		2.13	1.26	0.83						
				5753		4615	4971	5331				3738	4237	4578	5027		3511	3974	4366					
80	1730					2.94		3.76	2.48	1.44	3.71	2.27	1.45	0.86		2.43	1.44	0.95						
				6012		4803	5173	5548				3873	4390	4743	5209		3629	4108	4513					
85	1838					3.32				2.80	1.62			2.57	1.63	0.97	2.74	1.62	1.07					
				6265					5370	5759				4539	4904	5385	3743	4238	4656					
90	1942					3.72				3.14	1.82			2.88	1.83	1.09	3.08	1.82	1.20	0.69				
				6515					5563	5966				4684	5060	5557	3855	4364	4794	5279				
95	2055								3.50	2.03				3.21	2.04	1.21	3.43	2.03	1.34	0.77				
									5751	6168				4825	5213	5725	3963	4486	4929	5427				
100	2160								3.87	2.25				3.56	2.26	1.34	3.80	2.25	1.48	0.86				
									5936	6367				4963	5362	5888	4069	4606	5060	5572				
105	2265									2.48				3.92	2.50	1.48		2.48	1.63	0.95				
										6561				5098	5508	6048		4722	5188	5713				
110	2375										2.72				2.74	1.63			2.72	1.79	1.04			
										6752					5650	6205			4836	5313	5851			
115	2482										2.97				2.99	1.78			2.97	1.96	1.14			
										6940					5790	6359			4948	5436	5986			
120	2590										3.24				3.26	1.94			3.24	2.13	1.24			
										7125					5927	6509			5057	5556	6118			
125	2700										3.51				3.54	2.10			3.51	2.32	1.34			
											7307					6061	6657			5164	5673	6247		
130	2810											3.80				3.83	2.27			3.80	2.51	1.45		
											7486					6194	6802			5269	5788	6374		
135	2918	<i>Boldface italics indicate nozzle pressure (in. wg)</i>																						
140	3022	Ratings based on: <i>25 Δt, 1.50 gpm, 8-ft water coil pressure drop (all sizes) for a single coil.</i>																		2.64	2.91	1.69		
145	3130	<i>Δt = t_{rm} - t_{ew}</i> where, t _{rm} = room temperature t _{ew} = ent water temperature.																		2.83	3.12	1.81		
150	3240	All ratings include allowance for lint screen.																		3.03	3.34	1.94		
155	3350	All ratings include reduction in capacity for double coil (4-pipe).																		3.23	3.56	2.07		
160	3460																			3.44	3.80	2.20		
165	3565																			3.66		2.34		
170	3675																			7754		7202		
																				3.89		7313	2.49	
																				7882				

NOTES:

1 Coil capacity for other than 25 F Δt:

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at } 25^\circ\text{F } \Delta t$$

2. See Coil Capacity Multipliers For Flow Rates table for capacities other than 1.50 gpm.

3. To facilitate balanced water systems, all units, regardless of size, have the same pressure drop.

36SJ standard horizontal unit (4-pipe)

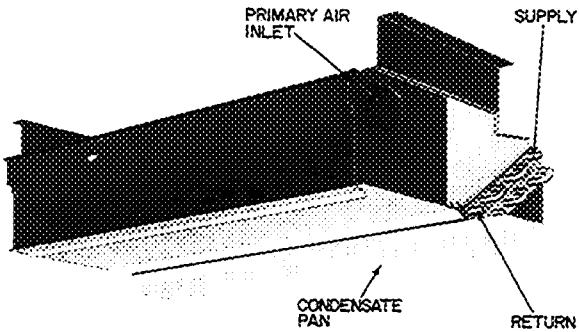
The 36SJ base unit is shipped from the factory with the following:

- **plenum**
- **two 6-tube coils**
- **drain-pan, assembled**
- **two Z brackets** for mounting unit to a rigid flat horizontal surface
- **removable plenum end plug**, located in one of the primary air inlets

- **two screws and a lint clip**, taped to the front panel of the unit, to attach an accessory lint screen to the coil
- **two standard lint screen offerings**, on coil face or on recirculation grille.

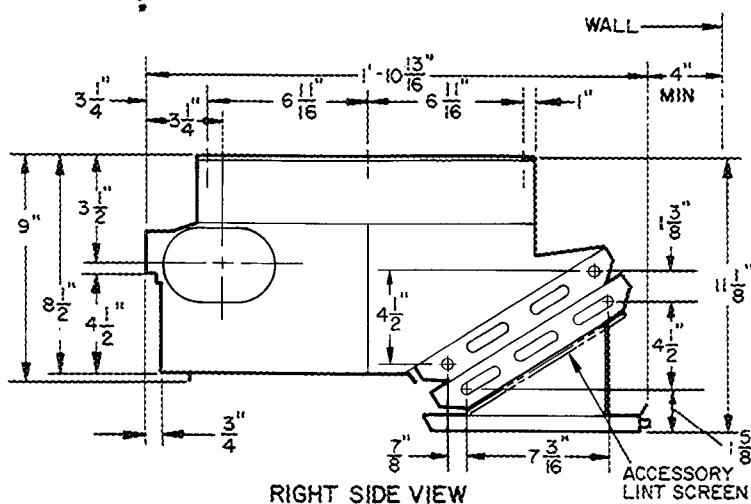
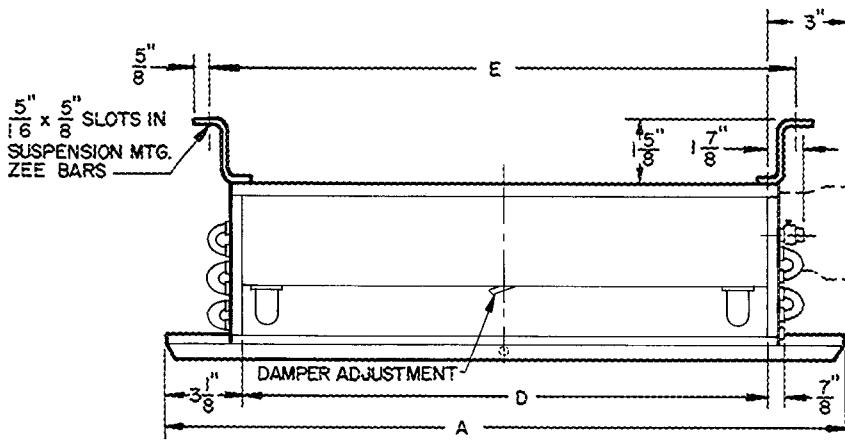
The coil has 1/2-in ODF sweat connections as standard. See Base Unit Accessories, page 28, for optional connections. The accessory lint screen and air transition fitting, shipped separately, complete the unit.

Dimensions and physical data



UNIT SIZE	1	2	3	4	
DIMENSIONS (in.)	A	30 $\frac{1}{2}$	38 $\frac{1}{4}$	46 $\frac{1}{4}$	58 $\frac{1}{2}$
	D	24 $\frac{1}{2}$	32	40	52
MINIMUM FREE AREAS (sq in.)					
Discharge Grille	81	108	135	175	
Recirculation Grille	234	288	343	439	

This is not a certified print. Certified dimensions available upon request.



Performance data

36SJ COOLING COIL CAPACITIES (Btuh)

PRIMARY AIR		NOZZLE ARRANGEMENT																			
Cap. Cfm	20 F Δt (Btuh)	F				G				H				J				K			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
15	324	0.89																			
	1383																				
20	432	1.59	0.94			0.81															
	1820	1872				1888															
25	540	2.48	1.47	0.97		1.26	0.74														
	2251	2316	2358			2199	2402														
30	648	3.57	2.11	1.39		1.82	1.07	0.71		0.89											
	2678	2756	2806			2490	2720	2904		2375											
35	756	2.88	1.90	1.10	2.48	1.46	0.97		1.21	0.71											
	3192	3250	3233	2766	3022	3227			2612	2884											
40	864	3.76	2.48	1.44	3.24	1.91	1.26	0.73	1.58	0.94			0.92								
	3625	3691	3672	3030	3310	3534	3746	2837	3131		2646										
45	972	3.14	1.82		2.42	1.60	0.93	2.01	1.19	0.78		1.17	0.72								
	4129	4108		3587	3830	4060	3050	3367	3627		2823	3200									
50	1080	3.88	2.25		2.99	1.97	1.14	2.48	1.46	0.96	0.56	1.45	0.89					0.95			
	4565	4542		3854	4116	4362	3255	3594	3870	4151	2991	3391						2852			
55	1188	2.72		3.62	2.39	1.39	3.00	1.77	1.17	0.68	1.75	1.07	0.68					1.15			
	4974		4113	4392	4655	3453	3811	4105	4403	3152	3573	3860						2995			
60	1296	3.24		2.85	1.65	3.57	2.11	1.39	0.81	2.09	1.28	0.81						1.36	0.81		
	5403		4661	4940	3643	4022	4331	4645	3307	3748	4049						3131	3545			
65	1405	3.80		3.34	1.94		2.48	1.63	0.95	2.45	1.50	0.95						1.60	0.95		
	5832		4923	5217		4225	4550	4881	3455	3917	4231						3263	3693			
70	1512		3.88	2.25		2.87	1.90	1.10	2.84	1.74	1.11		1.86	1.10	0.72		3389	3836	4215		
	5178	5488		4423	4763	5109	3599	4079	4407								3836	4215			
75	1620			2.58		3.30	2.18	1.26	3.26	2.00	1.27	0.75	2.13	1.26	0.83		3511	3974	4366		
		5753		4615	4971	5331	3738	4237	4578	5027							3974	4366			
80	1730			2.94		3.76	2.48	1.44	3.71	2.27	1.45	0.86	2.43	1.44	0.95		4108	4513			
		6012		4803	5173	5548	3873	4390	4743	5209	3629						4108	4513			
85	1838				3.32		2.80	1.62		2.57	1.63	0.97	2.74	1.62	1.07						
		6265		5370	5759		4539	4904	5385	3743	4238	4656									
90	1942			3.72		3.14	1.82		2.88	1.83	1.09	3.08	1.82	1.20	0.69						
		6515		5563	5966		4684	5060	5557	3855	4364	4794	5279								
95	2055				3.50	2.03		3.21	2.04	1.21	3.43	2.03	1.34	0.77							
			5751	6168		4825	5213	5725	3963	4486	4929	5427									
100	2160				3.87	2.25		3.56	2.26	1.34	3.80	2.25	1.48	0.86							
			5936	6367		4963	5362	5888	4069	4606	5060	5572									
105	2265				2.48		3.92	2.50	1.48		2.48	1.63	0.95								
			6561		5098	5508	6048				4722	5188	5713								
110	2375				2.72			2.74	1.63			2.72	1.79	1.04							
			6752			5650	6205				4836	5313	5851								
115	2482				2.97			2.99	1.78			2.97	1.96	1.14							
			6940			5790	6359				4948	5436	5986								
120	2590				3.24			3.26	1.94			3.24	2.13	1.24							
			7125			5927	6509				5057	5556	6118								
125	2700				3.51			3.54	2.10			3.51	2.32	1.34							
			7307			6061	6657				5164	5673	6247								
130	2810				3.80			3.83	2.27			3.80	2.51	1.45							
			7486			6194	6802				5269	5788	6374								
135	2918	<i>Boldface italics indicate nozzle pressure (in. wg) Ratings based on:</i>																			
		<i>25 Δt, 1.50 gpm, 8-ft water coil pressure drop (all sizes) for a single coil.</i>																			
140	3022	<i>Δt = trm - tew where, trm = room temperature tew = ent water temperature</i>																		2.91	1.69
145	3130	<i>All ratings include allowance for lint screen.</i>																		3.12	1.81
150	3240	<i>All ratings include reduction in capacity for double coil (4-pipe).</i>																		3.03	1.94
155	3350																			3.23	2.07
160	3460																			3.44	2.20
165	3565																			3.66	2.34
170	3675																			3.89	2.49
																				7882	7313

NOTES:

1. Coil capacity for other than 25 F Δt:

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at } 25 \text{ F } \Delta t$$

2. See Coil Capacity Multipliers For Flow Rates table for capacities other than 1.50 gpm.

3. To facilitate balanced water systems, all units, regardless of size, have the same pressure drop.

36SM loboy unit (4-pipe)

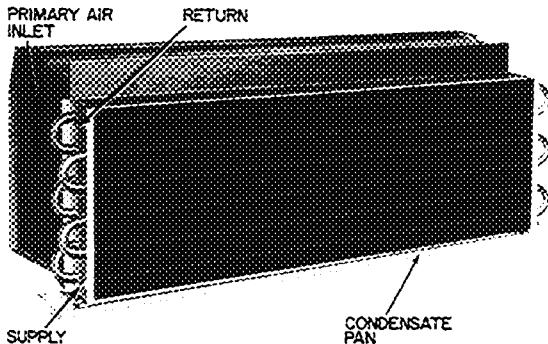
The 36SM base unit is shipped from the factory with the following:

- **plenum**
- **two 6-tube coils**
- **drain pan**, assembled ready for wall mounting
- **removable plenum end plug**, located in one of the primary air inlets

- **two lint screen clips**, taped to the bottom of the drain pan, to attach an accessory lint screen to the coil
- **speed nuts**, located in the back flange on each end of the plenum for leveling the unit with field-supplied 10-24 bolts.

The coil has 1/2-in. ODF sweat connections as standard. See Base Unit Accessories, page 28, for optional connections. The accessory lint screen and air transition fitting, shipped separately, complete the unit.

Dimensions and physical data



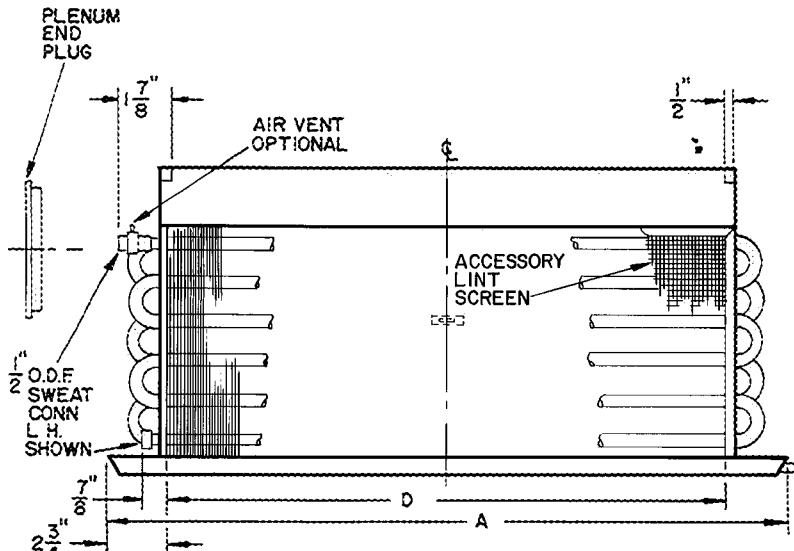
GRAVITY HEATING CAPACITIES (Btuh)

UNIT SIZE	TEMPERATURE DIFFERENCE (Ent Water - Room Temp) (F)				
	140	120	100	80	60
1	3402	2835	2297	1758	1247
2	4536	3780	3062	2344	1663
3	5670	4725	3827	2930	2079
4	7371	6142	4975	3808	2703

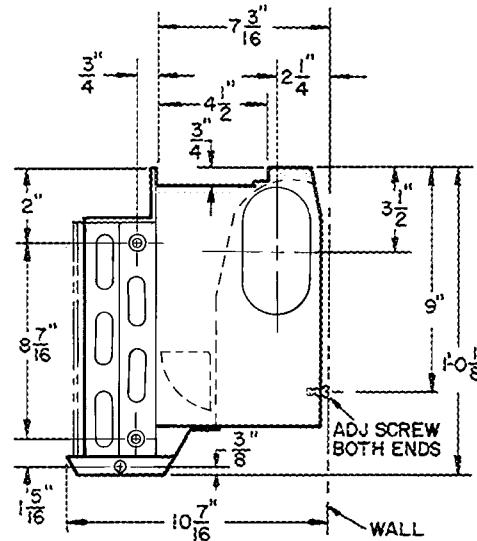
NOTE For capacities other than 1.50 gpm, use the following multipliers ~ 0.75 for 0.60 gpm, 0.84 for 1.00 gpm; 1.15 for 2.00 gpm.

UNIT SIZE DIMENSIONS (in.)	1	2	3	4
	A	29 $\frac{1}{8}$	37 $\frac{1}{2}$	45 $\frac{1}{2}$
MINIMUM FREE AREAS (sq in.)				
Discharge Grille	81	108	135	175
Recirculation Grille	124	165	206	269

This is not a certified print. Certified dimensions available upon request.



FRONT VIEW



RIGHT SIDE VIEW

Performance data

36SM COOLING COIL CAPACITIES (Btuh)

Cfm	Cap. 20 F Δt (Btuh)	NOZZLE ARRANGEMENT																					
		F				G				H				J				K					
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
15	324	0.89				0.81																	
20	432	1.59	0.94			1.26	0.74																
25	540	2.48	1.47	0.97		1.82	1.07	0.71		0.89													
30	648	3.57	2.11	1.39		2.60	2.850	3043		2375													
35	756	2.88	1.90	1.10	2.48	1.46	0.97		1.21	0.71	2612	2884											
40	864	3.76	2.48	1.44	3.24	1.91	1.26	0.73	1.58	0.94		0.92	2523										
45	972	3.14	1.82		2.42	1.60	0.93	2.01	1.19	0.78	1.17	0.72											
50	1080	4529	4506	3758	4013	4254	3050	3368	3627	2691	3050							0.95					
55	1188	3.88	2.25	2.99	1.97	1.14	2.48	1.46	0.96	0.56	1.45	0.89						2560					
60	1296	5007	4981	4039	4312	4571	3255	3594	3870	4151	2852	3231						2687					
65	1405	5454		4310	4602	4958	3453	3812	4105	4403	3005	3407	3680					2927	3314				
70	1512	2.72	3.62	2.39	1.39	3.00	1.77	1.17	0.68	1.75	1.07	0.68						1.36	0.81				
75	1620	3.24		2.85	1.65	3.57	2.11	1.39	0.81	2.09	1.28	0.81						2809	3181				
80	1730	3.80		3.34	1.94	2.48	1.63	0.95	2.45	1.50	0.95						1.60	0.95					
85	1838	3.32			2.80	1.62		2.57	1.63	0.97	2.74	1.62	1.07										
90	1942	6565		5370	5759		4327	4675	5134	3359	3803	4177											
95	2055	3.72		3.14	1.82		2.88	1.83	1.09	3.08	1.82	1.20	0.69										
100	2160	6826		5563	5966		4465	4824	5298	3459	3915	4301	4736										
105	2265	3.50	2.03	3.21	2.04	1.21	3.43	2.03	1.34	0.77													
110	2375	5751	6169	4600	4970	5458	3556	4025	4423	4870													
115	2482	2.87	2.25	3.56	2.26	1.34	3.80	2.25	1.48	0.86													
120	2590	6367	6753	4731	5112	5614	3651	4133	4540	5000													
125	2700	2.48	3.92	2.50	1.48	3.92	2.50	1.48	2.48	1.63	0.95												
130	2810	6561	6753	4860	5251	5766	4237	4655	5126														
135	2918	<i>Boldface italics</i> indicate nozzle pressure (in. wg).			2.72	2.74	1.63	2.74	1.63	2.45	2.70	1.57											
140	3022	Ratings based on:			25 Δt, 1.50 gpm, 8-ft water coil pressure drop (all sizes) for a single coil.			2.64	2.64	2.64	2.91	1.69											
145	3130	Δt = trm - tew			where, trm = room temperature			2.83	2.83	2.88	3.12	1.81											
150	3240	tew = ent water temperature			All ratings include allowance for lint screen.			3.03	3.03	3.03	3.34	1.94											
155	3350	All ratings include reduction in capacity for double coil (4-pipe).						7075	7075	5589	6154												
160	3460							3.23	3.23	3.23	3.56	2.07											
165	3565							7142	7142	5683	6259												
170	3675							3.44	3.44	3.44	3.80	2.20											

NOTES:

1 Coil capacity for other than 25 F Δt:

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at } 25 \text{ F } \Delta t$$

2 See Coil Capacity Multipliers For Flow Rates table for capacities other than 150 gpm

3 To facilitate balanced water systems, all units, regardless of size, have the same pressure drop

36SP vertical unit with recovery stack (4-pipe)

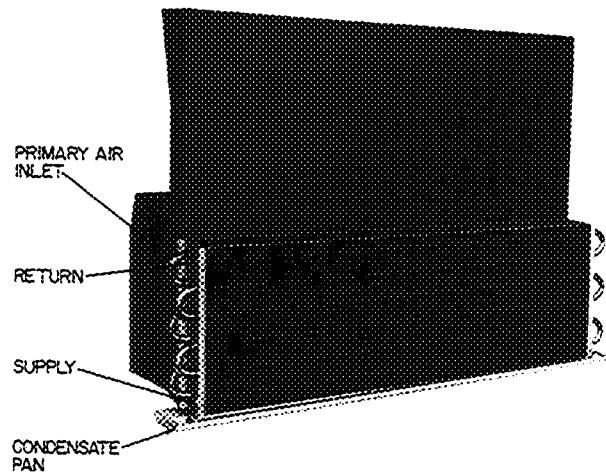
The 36SP base unit is shipped from the factory with the following

- plenum
- two 6-tube coils
- recovery stack and drain pan, assembled ready for wall mounting
- removable plenum end plug, located in one of the primary air inlets

- **two lint screen clips**, taped to the bottom of the drain pan, to attach an accessory lint screen to the coil
- **speed nuts**, located in the back flange on each end of the plenum, with two 10-24 bolts for leveling the unit.

The coil has 1/2-in. ODF sweat connections as standard. See Base Unit Accessories, page 28, for optional connections. The accessory lint screen and air transition fitting, shipped separately, complete the unit.

Dimensions and physical data



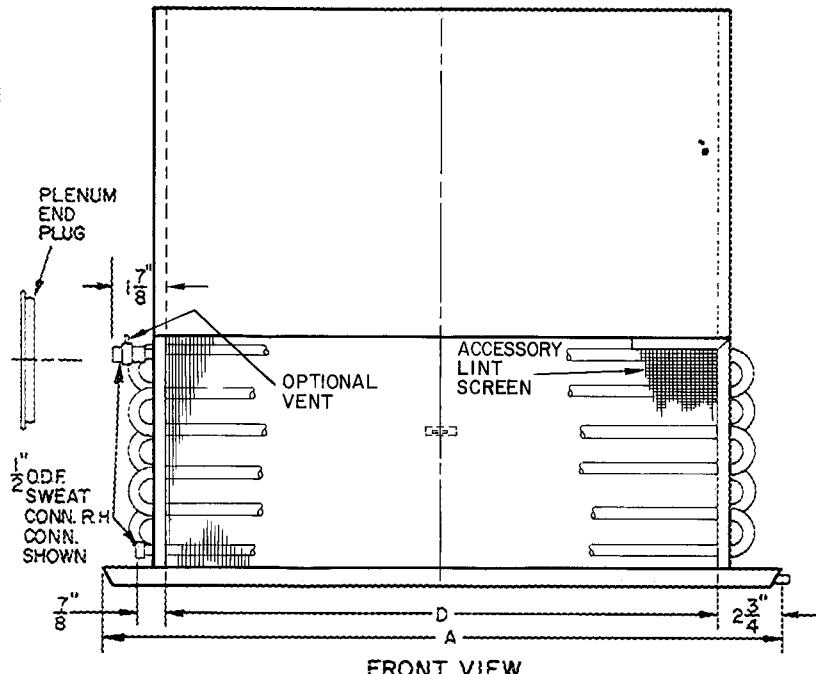
GRAVITY HEATING CAPACITIES (Btuh)

UNIT SIZE	TEMPERATURE DIFFERENCE (Ent Water - Room Temp) (F)				
	140	120	100	80	60
1	5000	4167	3375	2584	1834
2	6670	5558	4502	3446	2446
3	8333	6944	5625	4305	3055
4	10,833	9027	7312	5597	3972

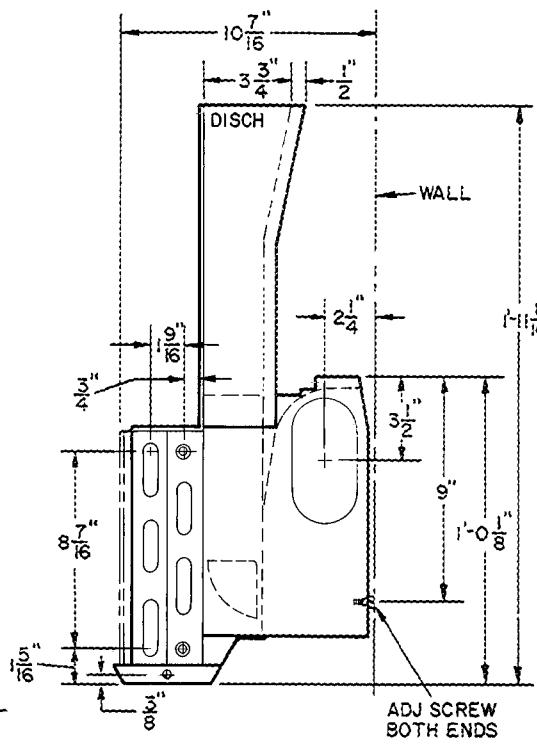
NOTE: For capacities other than 1.50 gpm, use the following multipliers — 0.75 for 0.60 gpm; 0.84 for 1.00 gpm; 1.15 for 2.00 gpm.

UNIT SIZE DIMENSIONS (in.)	1	2	3	4
	A	29 $\frac{1}{4}$	37 $\frac{1}{2}$	45 $\frac{1}{2}$
D				
	24 $\frac{1}{4}$	32	40	52
MINIMUM FREE AREAS (sq. in.)				
Discharge Grille	81	108	135	175
Recirculation Grille	237	315	394	512

This is not a certified print. Certified dimensions available upon request.



FRONT VIEW



RIGHT SIDE VIEW

Performance data

36SP COOLING COIL CAPACITIES (Btuh)

PRIMARY AIR Cap. Cfm (Btuh)	NOZZLE ARRANGEMENT																						
	F				G				H				J				K						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
15 324	0.89 1851				0.81 2375																		
20 432	1.59 2436	0.94 2505			1.26 2765	0.74 3021																	
25 540	2.48 3012	1.47 3100	0.97 3156		1.82 2765	1.07 3021	0.71 2803		0.89 1.21	0.71 3083													
30 648	3.57 3584	2.11 3687	1.39 3754		3.132 3421	2.48 3652	1.46 2803	0.97 1.21	0.89 0.71														
35 756	2.88 4270	1.90 4348	1.10 4326	2.48 3479	3.800 3800	1.46 4057	0.97 1.21	1.26 0.73	1.58 0.94				0.92 3347										
40 864	3.76 4850	2.48 4939	1.44 4912	3.24 3811	1.91 4162	1.26 4445	0.73 4710						2900 3695										
45 972		3.14 5525	1.82 5496		2.42 4510	1.60 4816	0.93 5104		2.01 3000	1.19 3974	0.78 4280		1.17 3094	0.72 3508									
50 1080		3.88 6108	2.25 6077		2.99 4847	1.97 5175	1.14 5485		2.48 3841	1.46 4241	0.96 4568	0.56 4899	1.45 3279	0.89 3716			0.95 2893						
55 1188			2.72 6654		3.62 5172	2.39 5523	1.39 5854		3.00 4074	1.77 4497	1.17 4894	0.68 5195	1.75 3455	1.07 3916	0.68 4231		1.15 3038						
60 1296			3.24 7230		2.85 5861	1.65 6212			3.57 4300	2.11 4746	1.39 5111	0.81 5482	2.09 3625	1.28 4108	0.81 4439		1.36 3177	0.81 3596					
65 1405			3.80 7812		3.34 6190	1.94 6562			2.48 4986	1.63 5370	0.95 5760	2.45 3788	1.50 4293	0.95 4591		1.60 3309	0.95 3746						
70 1512					3.88 6511	2.25 6901			2.87 5219	1.90 5621	1.10 6030	2.84 3945	1.74 4471	1.11 4831		1.86 3438	1.10 3899						
75 1620					2.58 7233	3.30 5446	2.18 5865	1.26 6291		2.09 4098	1.26 4645	2.00 5018	1.27 5511	0.75 3562	2.13 4032		1.26 3177						
80 1730					2.94 7559	3.76 5667	2.48 6104	1.44 6547		3.76 4245	2.48 4812	1.44 5200	2.27 5710	1.45 3682	0.86 4167		2.43 3438	1.44 3899					
85 1838		3.32 7878			2.80 6336	1.62 6796			2.57 4975	1.63 5375	0.97 5903	0.97 3797	2.74 4300			1.62 4300							
90 1942		3.72 8191			3.14 6564	1.82 7090			2.88 5134	1.82 5547	1.09 6092	3.08 3910	1.09 4426			1.82 4426							
95 2055					3.50 6787	2.03 7280			3.21 5289	2.03 5714	2.04 6275	1.21 4020	3.43 4551	2.03 4020									
100 2160					3.87 7005	2.25 7513			3.56 5440	2.25 5878	2.26 6454	1.34 4127	3.80 4672	2.25 4672									
105 2265					2.48 7743				3.92 5588	2.50 6037	1.48 6630	2.48 4790	1.63 5262	0.95 5795									
110 2375					2.72 7968				2.74 6194	1.63 6802			2.72 4906	1.79 5390	1.04 5935								
115 2482					2.97 8190				2.99 6397	1.78 6970			2.97 5018	1.96 5514	1.14 6072								
120 2590					3.24 8408				3.26 6497	1.94 7134			3.24 5130	2.13 5636	1.24 6205								
125 2700					3.51 8622				3.54 6644	2.10 7296			3.51 5238	2.32 5757	1.34 6337								
130 2810					3.80 8834				3.83 6790	2.27 7455			3.80 5344	2.51 5871	1.45 6465								
135 2918	<i>Boldface italics indicate nozzle pressure (in. wg).</i>																						
140 3022	Ratings based on: 25 Δt, 1.50 gpm, 8-ft water coil pressure drop (all sizes) for a single coil.																						
145 3130	Δt = t _{rm} - t _{ew} where, t _{rm} = room temperature t _{ew} = ent water temperature																						
150 3240	All ratings include allowance for lint screen.																						
155 3350	All ratings include reduction in capacity for double coil (4-pipe).																						
160 3460																							
165 3565																							
170 3675																							

NOTES:

1 Coil capacity for other than 25 F Δt:

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at } 25 \text{ F } \Delta t$$

2 See Coil Capacity Multipliers For Flow Rates table for capacities other than 1.50 gpm

3 To facilitate balanced water systems, all units, regardless of size, have the same pressure drop

Accessories

Enclosures — decorator-styled factory built cabinets are available for 36S Series Weathermaster® induction air terminals. For details, consult your Carrier representative. Grilles, runouts, choice of colors, and additional enclosure accessories for a column-to-column appearance are also available. Certified prints showing details of the enclosure accessories are available upon request. All unit enclosures must maintain published minimum free areas to ensure unit performance.

Special unit lengths — can be built to accommodate a mullion (dead space), special application, or special requirement and are considered on a special order basis.

Furred-in application accessories for vertical units*

Discharge grille frame — made of stamped steel with a baked prime finish. Holds either the discharge grille with access door or the plastic discharge grille sections.

Discharge grille with access door — also has a baked prime finish made of stamped steel.

Two types of plastic discharge grille sections — aerodynamically designed, modular construction, 4- and 7-blade configurations.

Recirculation grille panel and frame — made of stamped steel, with baked prime finish. Easily removable for service, maintenance.

*Standard color is parchment beige; other colors available on a special order basis

Base unit accessories

Lint screen — is required to maintain maximum coil efficiency. The galvanized screen and frame attaches to coil with 2 lint screen clips provided with the base unit, protects coil from dirt and lint. Easily removable for cleaning. Sized to each coil or unit requirement. Aluminum screens available on a special-order basis.

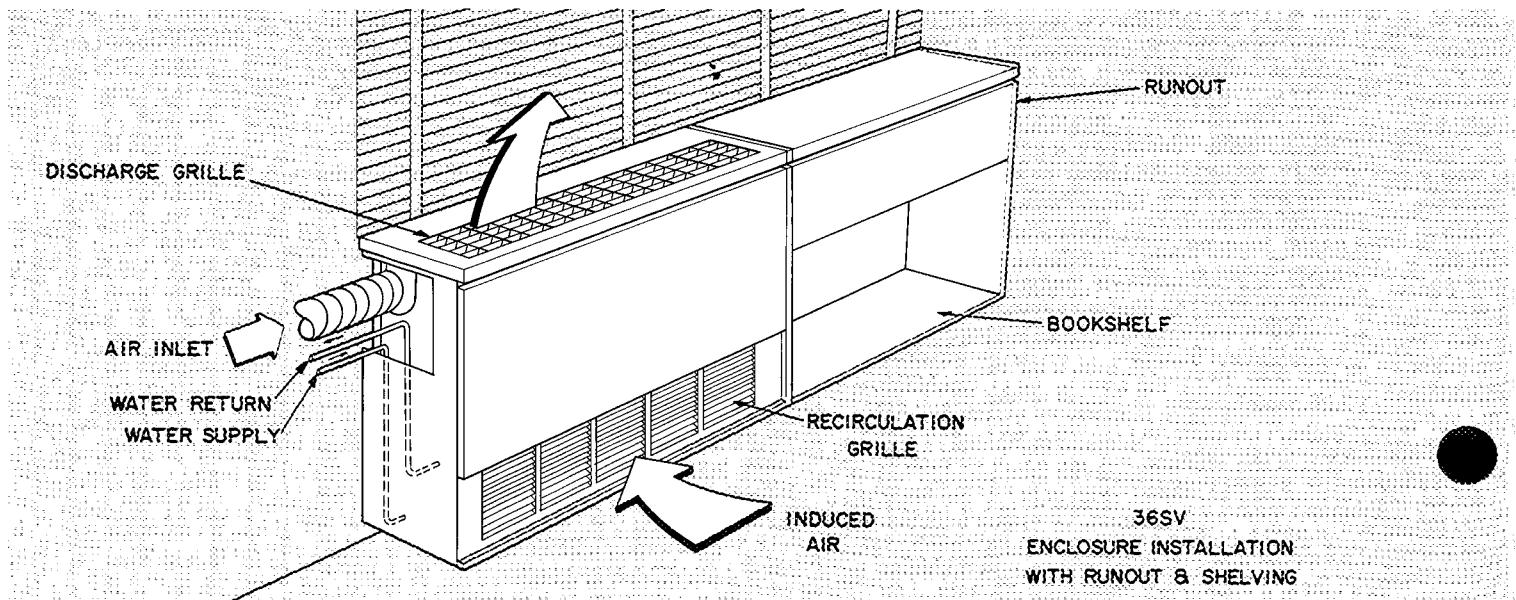
Wall mounting strip — required for hanging all vertical units, enclosures, enclosure accessories. For details, consult your Carrier representative.

Emergency condensate pan — available for times of high latent loads, such as start-up or abnormal condition. The optional drainable pan has 5/8-in. ODF sweat connection and is available for all models and sizes.

Air transition fitting — provides air transition from the oval entrance on the unit to a standard 4-in. round duct. Maximum air quantity is 220 cfm.

Coil connections — four types of coil connections available 1/2-in. ODF sweat connections are supplied standard. Optional connections 1/2-in. ODF sweat with manual air vent, 1/2-in. ODM flare; 1/2-in. ODM flare with manual air vent.

Typical installations



Guide specifications

For standard installations with enclosures

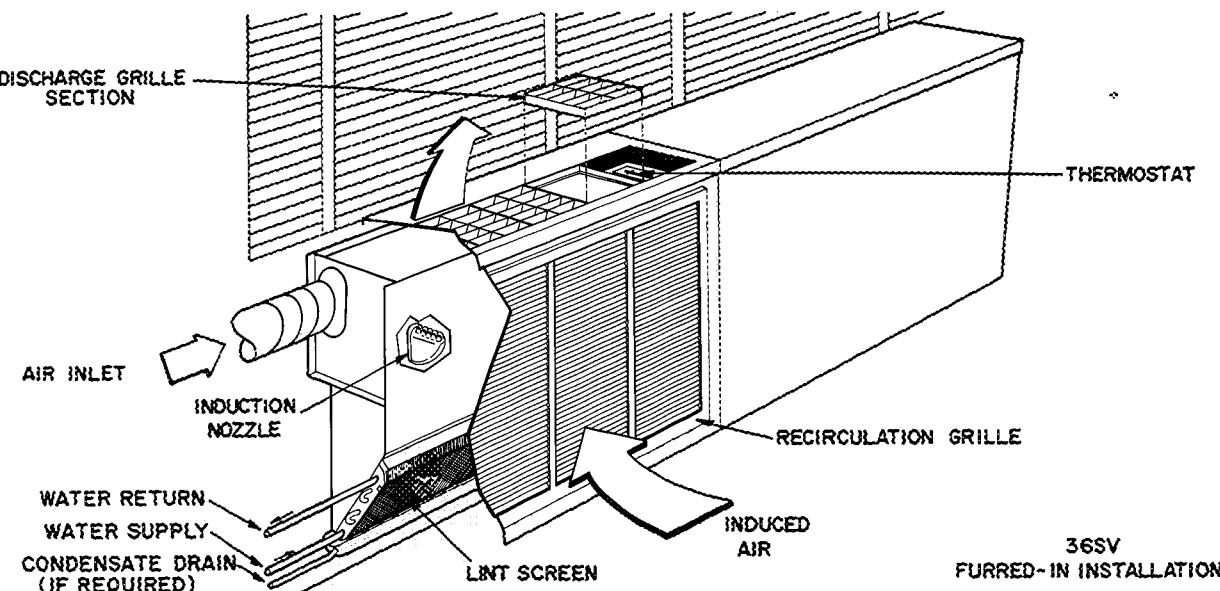
1. **Furnish and install** _____ Model 36S Water Control Weathermaster® units of the type, size and arrangement shown on the plans.
- 2a. **Base unit assembly** shall consist of an air inlet, air plenum, induction nozzles, water coil assembly (lint screen or filter), air transition fitting, air plug and nondrainable (drainable) condensate pan.
- 2b. **Air plenum** shall be constructed of galvanized steel. Internal areas shall be acoustically and thermally insulated with neoprene-coated fiber glass. Plenum shall be designed for series connection or feed-thru, and shall contain primary air balancing damper arranged for independent manual adjustment of primary air volume. Recovery stack and outlet collar where required shall be cold-rolled steel painted black.
- 2c. **Induction nozzles** of heat resistant, pliable plastic shall be designed for minimum noise generation. Nozzle arrangement shall be selected to provide capacities as specified.
- 2d. **Water coil assembly** shall consist of a single-row reversible coil with copper tubing mechanically expanded to aluminum plate fins. (Two separate coils shall be furnished for 4-pipe operation.) Coil connections shall be 1/2-in. ODF sweat (1/2-in. ODM flare) (1/2-in. ODF sweat with vent) (1/2-in. ODM flare with vent). Coil shall be suitable for working pressures up to 250 psig. Nondrainable (drainable) galvanized steel condensate pan shall complete the assembly.
- 2e. **Air transition fitting** for connection to 4-in. runout duct shall be die-formed, streamlined and interchangeable with removable air plug.
- 2f. **Lint screen** shall be of fine mesh, properly supported and readily removable for servicing.
- 3a. **Base unit enclosure** shall be constructed of not lighter than 18-gage, cold-rolled steel, bonderized, recoatable baked prime finish. Enclosure shall consist of removable front access panel with snap-in fasteners to permit easy removal for routine inspection and servicing of unit and controls; removable plastic discharge grille sections designed for 4-way adjustment of air flow,

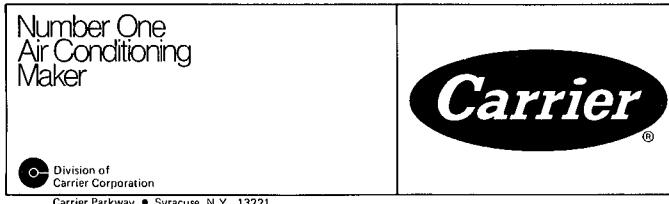
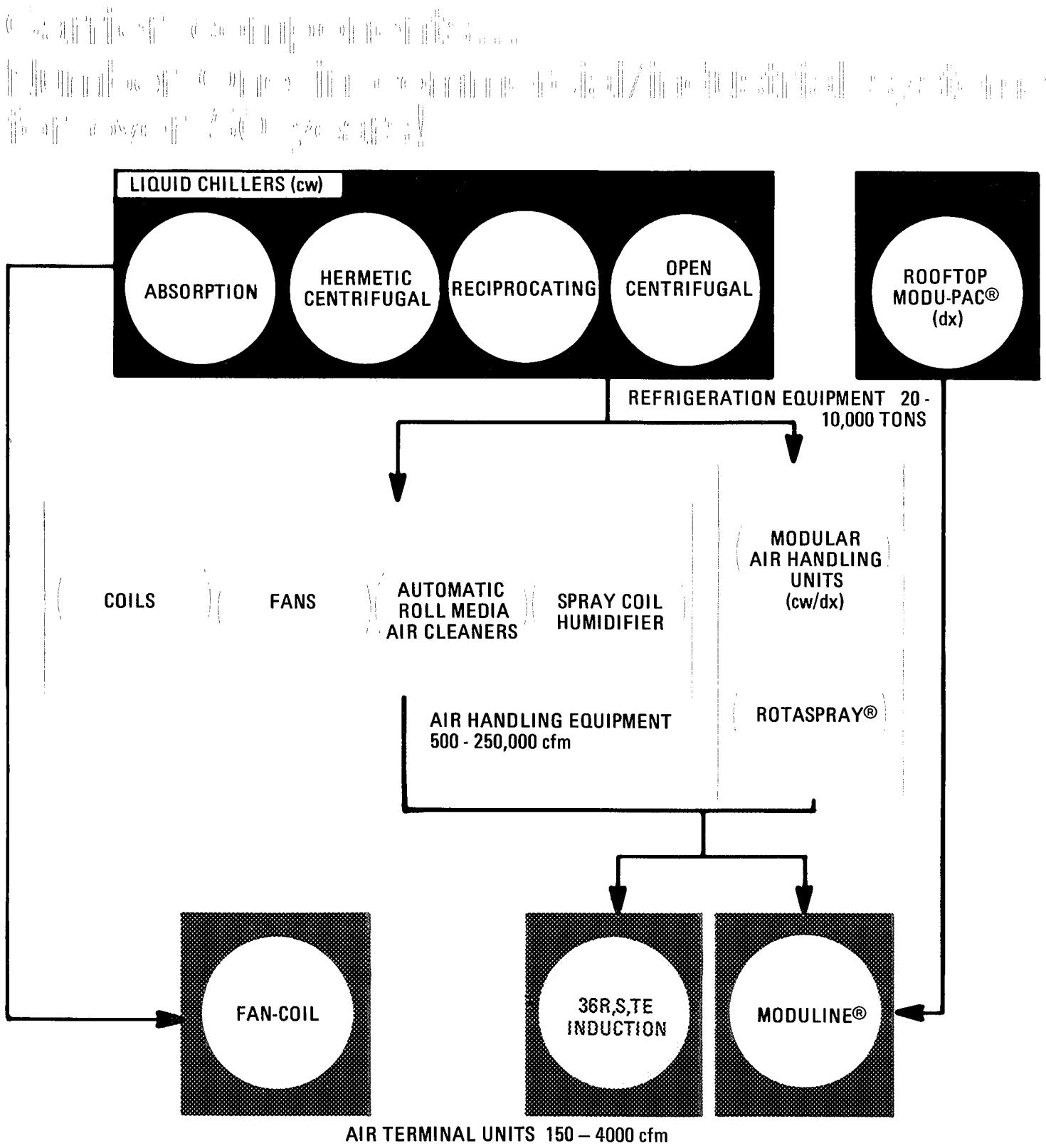
mounting brackets and suitable accessories for base unit assembly as shown on the plans.

- 3b. **Under-window type enclosures** shall be floor-fed or side-fed as indicated on drawings. Floor-fed enclosures for SV,SC,ST shall be complete with decorative side panels and pedestals with louvers as required. Side-fed enclosures for model SV shall be complete with knockout.
- 3c. **Runout enclosure and panel sections** shall be constructed of not lighter than 18-gage cold-rolled steel, bonderized, recoatable baked prime finish.
- 3d. **Overhead horizontal enclosure** for model SH shall be complete with support brackets for base unit, hinged bottom panel, and single-blade discharge grille.

For vertical furred-in installations

- Omit paragraphs 3a, b, c and d. Add paragraphs 4 and 5.
- 4a. **Discharge grille assembly** shall consist of grille frame with integral mounting collar and removable plastic grille sections, designed for individual 4-way adjustment of air flow. Grille frames shall be constructed of not lighter than 18-gage cold-rolled steel, bonderized, recoatable baked prime finish, with rolled edges and corners. Frame shall be provided with mounting holes for securing to window stool.
 - 4b. **Recirculating grille panel** shall be constructed of not lighter than 18-gage cold-rolled steel, bonderized, recoatable baked prime finish. Panel shall have louvered section with free area not less than indicated on plans and shall be designed for easy removal from frame for routine inspection and servicing. Panel shall fit securely in a frame and be provided with necessary stiffener channels to prevent warping. The frame shall be constructed of black iron angles, welded at corner sections, bonderized and finished in recoatable prime coat. Frame shall be provided with holes or suitable devices for attachment to metal lath or tile block.
 - 4c. **All custom enclosures** must meet published minimum free area requirements.
 5. Refer to temperature control system specifications for induction unit controls.





Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.

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