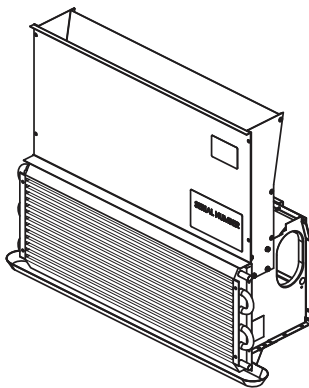




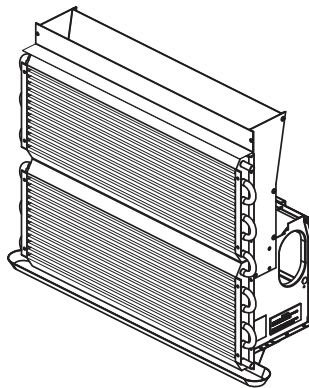
# Product Data

# WEATHERMASTER® 36S Water Control Induction Air Terminals

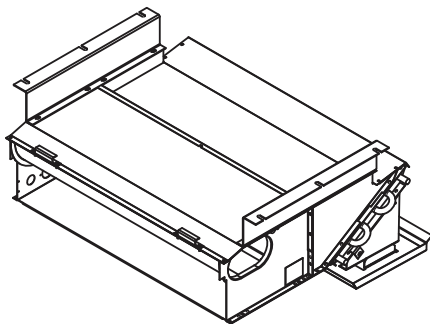
19.4 to 131.9 cfm (1770 to 8900 Btuh)



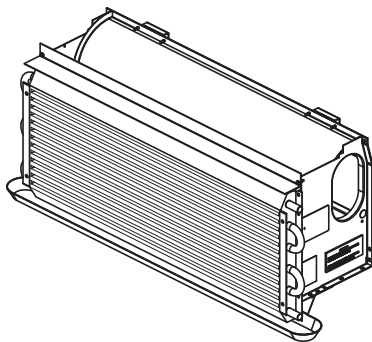
36SC



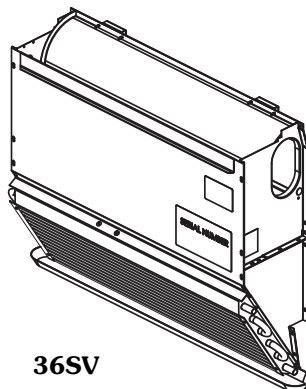
36ST



36SH



36SL



36SV

Induction air terminals offer:

- Heating and cooling operation
- 2-pipe or 4-pipe system options
- Automatic actual load adjustment
- Positive ventilation with constant air movement
- Zone control flexibility
- Reduced space requirements

## Features/Benefits

**Weathermaster induction systems with 36S Series air terminals provide economical operation with space saving installation**

### Design flexibility

Water control Weathermaster induction systems use 36S Series induction air terminals for economical air conditioning in office buildings, hotels, schools, and apartments to provide year-round comfort in each room. Nine different 36S Series induction air terminals are available in lobby, horizontal and vertical configurations. The induction air terminals are available for 2-pipe systems and 4-pipe systems to match the building application. Each terminal comes in 4 sizes with a choice of 5 different nozzle arrangements to provide desired airflow. Terminals may be furred-in or enclosed in optional, decorator-styled cabinets.

# Features/Benefits (cont)



## Lower cost

When 36S Series induction air terminals are specified, the users are able to match the equipment closely to the job requirements. Carrier's optimized computer selection assures that the terminals meet the performance and sound criteria needed, without causing additional operating expense or energy waste as a result of improperly sized components.

Low central station air-handling system costs help the building owner save on installation costs by minimizing building service connections for electricity, water, and drainage. The owner saves on operating, maintenance, and control costs since high-efficiency air cleaning equipment can be used to realize decorating cost savings, while at the same time improving odor and pollen control. Sprayed-coil dehumidifiers can also be used for more effective quality air supply and winter humidification.

Automatic actual load adjustment helps lower system operating costs since they are not materially affected by the excess capacity of the system. The terminals automatically adjust to actual loads, thus allowing the building owner a wide design latitude without paying the penalty of high operating costs.

## High quality construction

The 36S Series induction air terminals are built to exacting standards governing product quality. Units are rated in accordance with the Air Conditioning

and Refrigeration Institute (ARI) Standard 445.

## Energy savings

The 36S Series induction air terminals provide heating and cooling from a single terminal. The heating can be provided in the most economical central station way to heat, either hot water, steam, or electric.

The terminals also provide energy savings with gravity heat on vertical units. The building owner can shut down the air distribution system and save fan horsepower. Hot water circulates to maintain the temperature in unoccupied rooms. This provides simple, economical convector heating.

The induction system allows for heat reclaim and energy conservation. The building owner 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.

The 36S induction air terminals provide 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.

## Quiet, reliable operation

Each terminal has a specially designed balancing damper, acoustical plenum insulation, and high-efficiency nozzles and coils to ensure a reliable, quiet operation. There are no moving parts to break down or wear out.

Mechanical equipment is located remote from the room occupants. The central system approach removes the sound-generating components from the building occupants.

## Positive ventilation

The induction system is a positive ventilation system. The primary air is always provided with a positive amount of outside ventilation air directly added to every module served by a 36S Series induction air terminal.

There is constant air movement throughout the system. The primary air source provides continuous air motion and circulation throughout the room.

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

## Greater rentable area

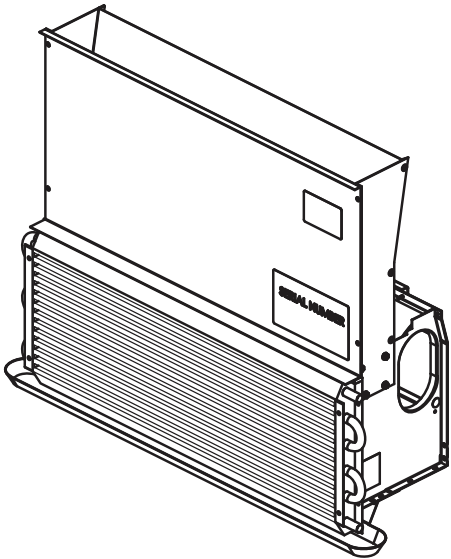
Typically, units are wall-hung or ceiling mounted so the building design can make maximum use of rentable floor area. The reduced floor-to-floor height requirements can mean great savings in the overall height of the building itself. The smaller, high-velocity air ducts used in these systems, along with small water pipes reduce the space needed.

Since 36S Series induction air terminals require no cumbersome ductwork that robs valuable space, building height requirements can be less, an important factor in lowering total building cost.

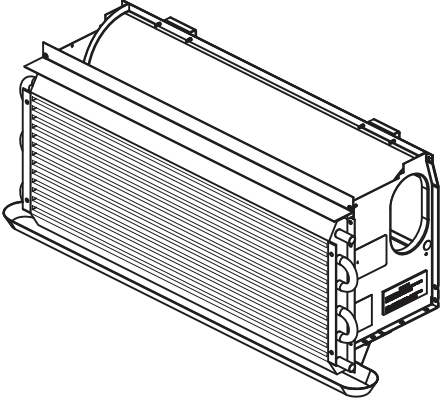
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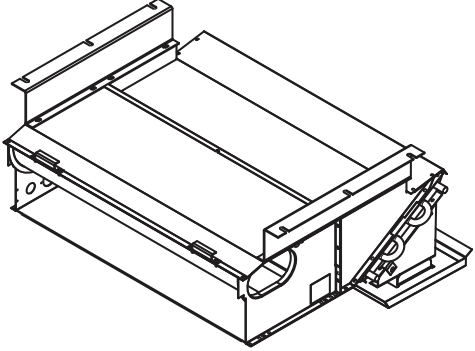
**2-PIPE INDUCTION AIR TERMINALS**



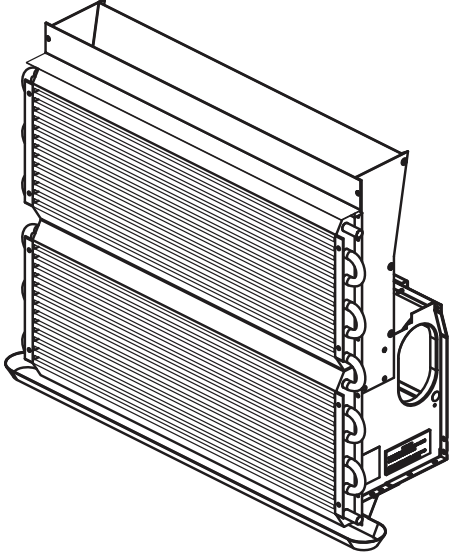
**36SC Air Terminal**  
Vertical wall-hung unit with high-efficiency recovery stack for use in areas where higher capacities are needed



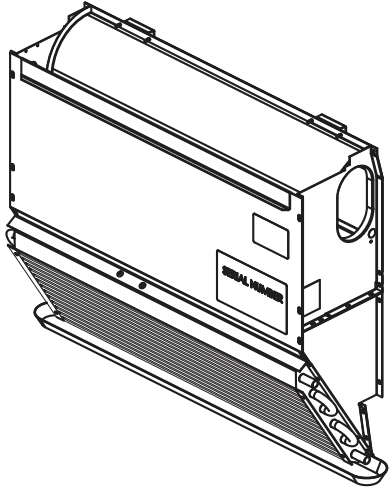
**36SL Air Terminal**  
Lobby, single coil vertical unit measures only a foot high for applications where the window arrangement calls for a small terminal with a high capacity



**36SH Air Terminal**  
Standard horizontal unit with ceiling mounting to save valuable floor space

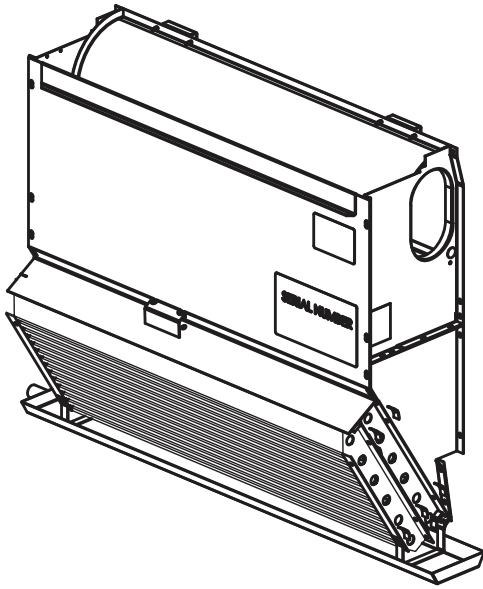


**36ST Air Terminal**  
High-capacity vertical unit with double size coil for maximum cooling performance

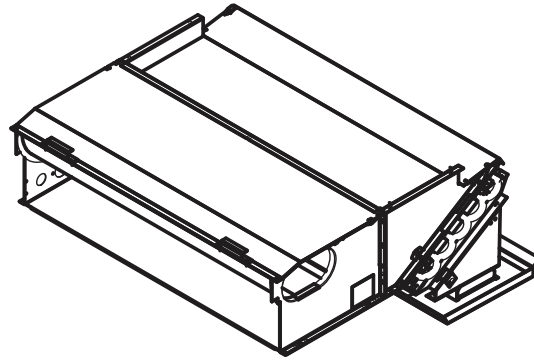


**36SV Air Terminal**  
Standard wall-hung terminal unit measuring less than 8-in. deep to save space

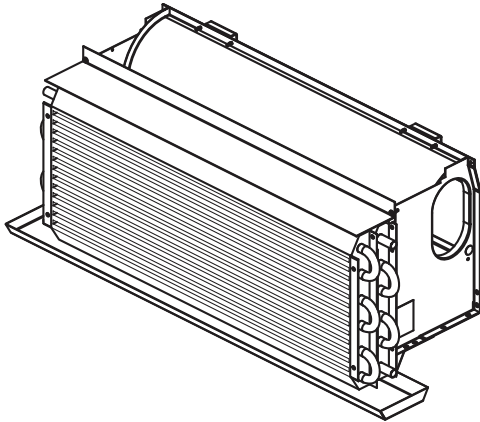
## 4-PIPE INDUCTION AIR TERMINALS



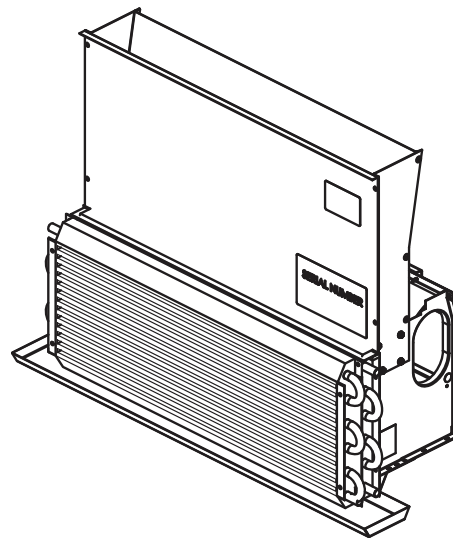
**36SD Air Terminal**  
Standard vertical wall-hung terminal with  
back-to-back coils



**36SJ Air Terminal**  
Standard horizontal terminal with double coil and  
ceiling mounting to save space



**36SM Air Terminal**  
Lobby, double coil vertical unit with a small height  
that fits under virtually any window



**36SP Air Terminal**  
Vertical wall-hung unit with high-efficiency recovery  
stack and double coil for high-efficiency applications

# Model number nomenclature



36SV 1 0 F R 0 1 0 --

## Two-Pipe Air Terminals

- 36SC** – Vertical High-Capacity Base Unit with Recovery Stack
- 36SH** – Horizontal Base Unit
- 36SL** – Low Base Unit
- 36ST** – Vertical Two-Coil Base Unit with Recovery Stack
- 36SV** – Vertical Base Unit

## Four-Pipe Air Terminals

- 36SD** – Vertical Base Unit
- 36SJ** – Horizontal Base Unit
- 36SM** – Low Base Unit
- 36SP** – Vertical High-Capacity Base Unit with Recovery Stack

## Unit Size – Plenum Length (in.)

- 1 – 24    3 – 40
- 2 – 32    4 – 52

## Controls

- 0 – No Controls

## Nozzle Arrangement\*

- F – Gray    J – Black and Blue Gray
- G – Red    K – Blue Gray
- H – Black

Not Used

## E-Z Sell Options

- 0 – None
- 1 – Includes Transition Fitting, Lint Screen, and Mounting Strip
- 2 – Includes 2 Transition Fittings, Lint Screen, and Mounting Strip

## Condensate Pan

- 1 – Non-Drainable
- 2 – Drainable

## Coil Connections

- 0 – ½-in. ODF Sweat
- 1 – ½-in. ODF Sweat with Vent
- 2 – ½-in. ODM Flare
- 3 – ½-in. ODM Flare with Vent

## Hand (Coil Side Connection Facing Unit)

- L – Left Hand
- R – Right Hand

\* 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. Nozzle styles are as follows:

F — Provides highest coil capacity per cfm of primary air. Used where sensible cooling is high in relation to ventilation requirements.

G — Provides performance between H and F.

H — Provides nominal coil capacity per cfm of primary air. Used for average office builds with normal lighting loads and glass areas.

J — Provides performance between H and K.

K — Provides highest coil capacities per unit size and highest air quantities. Used for high ventilation and high total loads.

# Ratings and capacities



## PRIMARY COOLING CAPACITY RATINGS (Btuh)

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

NOTE: Units are rated in accordance with ARI Standard 445, under the following conditions: 1.5 gpm of 50 F water, 8 ft of water pressure drop

thru coil (16 ft for 36ST), 75 F DB and 57 F WB air entering coil and 1.5 in. wg nozzle static pressure.

## SOUND SELECTION GUIDE\*

| ROOM EFFECT (Lw - Lp) | NC LEVEL | NOZZLE PRESSURE (in. wg) |     |     |     |     |
|-----------------------|----------|--------------------------|-----|-----|-----|-----|
|                       |          | UNIT NOZZLE ARRANGEMENT  |     |     |     |     |
|                       |          | F                        | G   | H   | J   | K   |
| 8 dB                  | 30       | 2.4                      | 2.2 | 2.0 | 1.8 | 1.5 |
|                       | 35       | 3.0                      | 2.7 | 2.5 | 2.4 | 2.0 |
|                       | 40       | 3.5                      | 3.5 | 3.2 | 3.1 | 2.6 |
|                       | 45       | 3.5                      | 3.5 | 3.5 | 3.5 | 3.5 |
| 10 dB                 | 30       | 2.6                      | 2.4 | 2.2 | 2.1 | 1.7 |
|                       | 35       | 3.3                      | 3.1 | 2.9 | 2.7 | 2.3 |
|                       | 40       | 3.5                      | 3.5 | 3.5 | 3.4 | 3.0 |
|                       | 45       | 3.5                      | 3.5 | 3.5 | 3.5 | 3.5 |

### LEGEND

- Lw — Sound power level (dB)
- Lp — Sound pressure level (dB)
- NC — Noise Criteria

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

NOTE: Shaded values are the commonly accepted sound levels for an office space.

# Physical data



## UNIT OPERATING WEIGHTS (lb)

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

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

## COIL WATER QUANTITIES

| UNIT             | SIZE | QUANTITY |      |
|------------------|------|----------|------|
|                  |      | Gallons  | lb   |
| 36SC,SH,SL,SV    | 1    | 0.13     | 1.10 |
|                  | 2    | 0.17     | 1.40 |
|                  | 3    | 0.21     | 1.70 |
|                  | 4    | 0.26     | 2.20 |
| 36SD,SJ,SM,SP,ST | 1    | 0.26     | 2.20 |
|                  | 2    | 0.34     | 2.80 |
|                  | 3    | 0.42     | 3.40 |
|                  | 4    | 0.52     | 4.40 |

## ACCESSORY LINT SCREEN DIMENSIONS (in.)

| LOCATION                              | UNIT SIZE   |             |             |             |
|---------------------------------------|-------------|-------------|-------------|-------------|
|                                       | 1           | 2           | 3           | 4           |
| Directly on Coil                      | 25 1/8 x 10 | 33 x 10     | 41 x 10     | 53 x 10     |
| Over Return-Air Grille (36SH,SJ Only) | 35 x 11 1/2 | 43 x 11 1/2 | 51 x 11 1/2 | 63 x 11 1/2 |

# Options and accessories



| ITEM   | FACTORY-INSTALLED OPTIONS | FIELD-INSTALLED ACCESSORIES |
|--|---------------------------|-----------------------------|
| Drainable Condensate Pan   | X                         |                             |
| E-Z Sell Option (contains transition fitting, lint screen, and mounting strip) | X                         |                             |
| Enclosures   |                           | X                           |
| Coil Connections   | X                         |                             |
| Wall Mounting Strip  |                           | X                           |
| Air Transition Fitting   |                           | X                           |
| Lint Screen  |                           | X                           |

## Factory-installed options

**Drainable condensate pan** — This special condensate pan, with 1<sup>1</sup>/<sub>16</sub>-in. OD drain connection is available for applications such as hotels or apartments that may have periodic high-latent loads.

**Coil connections** — Four types of connections are available on the base unit.

- 1/2-in. ODF sweat on both supply and return
- 1/2-in. ODF sweat with manual air vent on return and 1/2-in. ODF sweat on supply
- 1/2-in. ODM flare on both supply and return
- 1/2-in. ODM flare with manual air vent on return and 1/2-in. ODM flare on supply

The specified connection is factory mounted on the unit.

## Field-installed accessories

**Lint screen** — This special galvanized screen and frame attaches to the coil with four clips provided with the base unit. Screen protects coil from dirt and lint and can easily

be removed for cleaning, thus ensuring maximum coil efficiency.

**Wall mounting strip** — Wall mounting strip is made of 14-gage galvaneal steel and is required for hanging all vertical base units, enclosures and enclosure accessories. Base unit and its enclosures can be mounted on same strip. Strips are available in either 5 or 8-ft lengths.

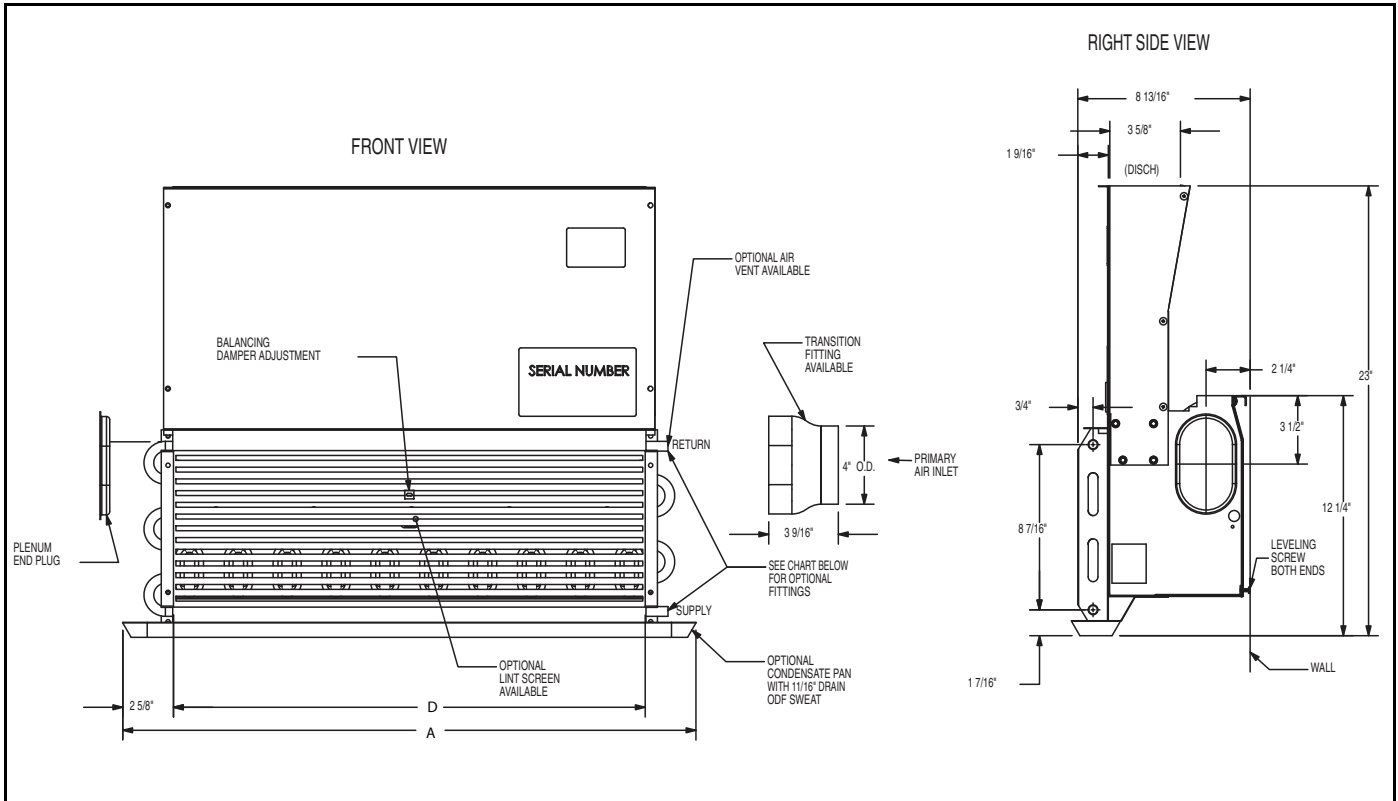
**Primary air transition fitting** — Primary air transition fitting can provide air transition from the oval entrance on unit to a standard 4-in. round duct.

**Enclosures** — All enclosures are shipped assembled and include side, top and removable front panel (for vertical enclosures) and removable bottom panel (for horizontal enclosures). The enclosures have recoatable baked enamel parchment beige finish and are fabricated from 16 gage steel.

Standard grilles are included with enclosure. Grilles are one-piece aluminum, linear-bar style with a clear anodized etched finish. Other colors are available.



# Dimensions — 36SC



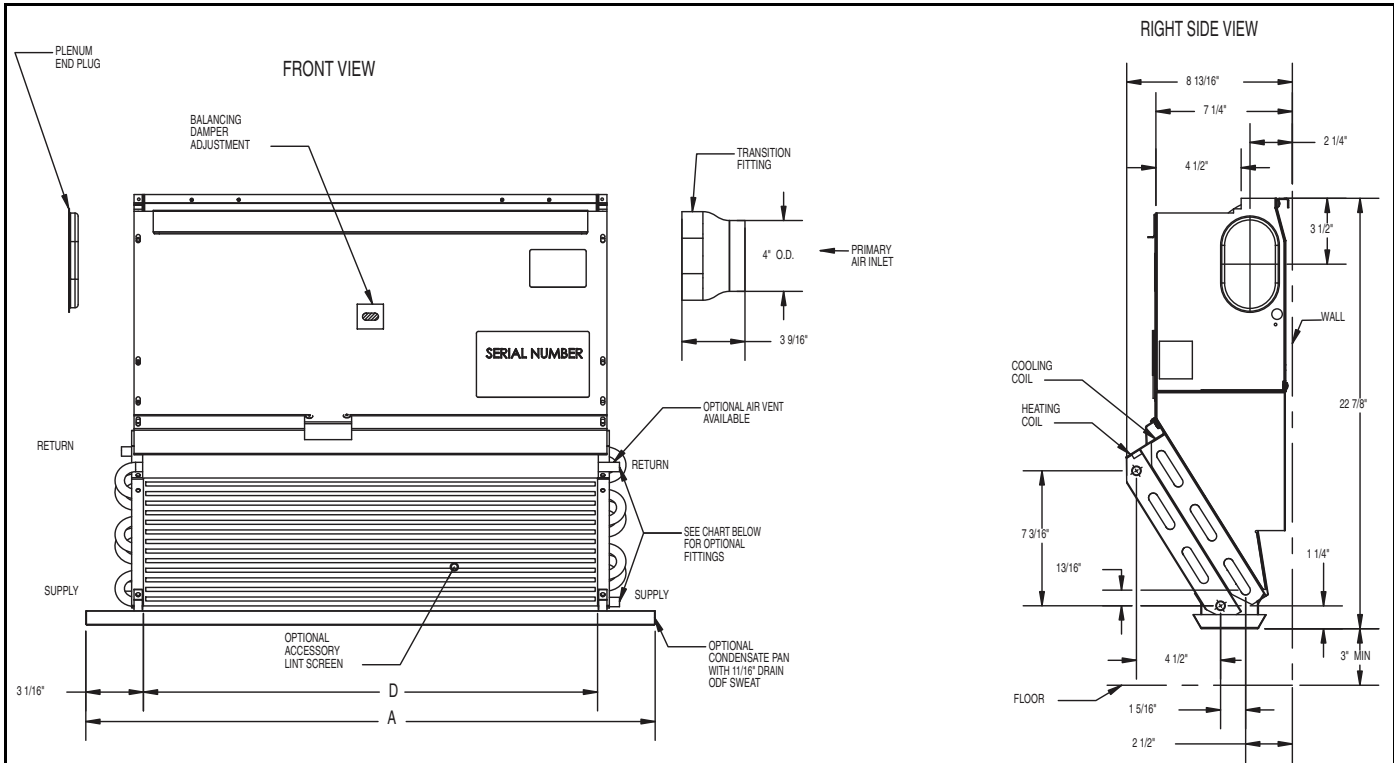
**NOTES:**

1. Condensate connection is mounted on the same side as the coil connection.
2. The unit is shipped with a hardware kit including the following: 2 leveling screws, 2 leveling screw clips, 4 lint screen clips, and 2 coil condensate plates with clips.
3. Shipping weight includes packaging.

| SPECIFICATION                                       | UNIT SIZE |        |        |        |
|---|-----------|--------|--------|--------|
|   | 1         | 2      | 3      | 4      |
| <b>Drain Pan Dimension A (in.)</b>                  | 29 1/2    | 37 1/2 | 45 1/2 | 57 1/2 |
| <b>Coil Dimension D (in.)</b>                       | 24 1/8    | 32     | 40     | 52     |
| <b>Minimum Height from Floor (in.)</b>              | 3         | 3      | 3      | 3      |
| <b>Clearance from Discharge Grille (sq in.)</b>     | 81        | 108    | 135    | 175    |
| <b>Clearance from Recirculation Grille (sq in.)</b> | 237       | 315    | 394    | 512    |
| <b>Shipping Weight (lb)</b>                         | 32        | 40     | 48     | 61     |

| OPTIONAL FITTINGS |                                  |
|-------------------|----------------------------------|
| CODE              | DESCRIPTION                      |
| 0                 | 1/2" ODF Sweat Fitting           |
| 1                 | 1/2" ODF Sweat Fitting with Vent |
| 2                 | 1/2" ODM Flare Fitting           |
| 3                 | 1/2" ODM Flare Fitting with Vent |

# Dimensions — 36SD



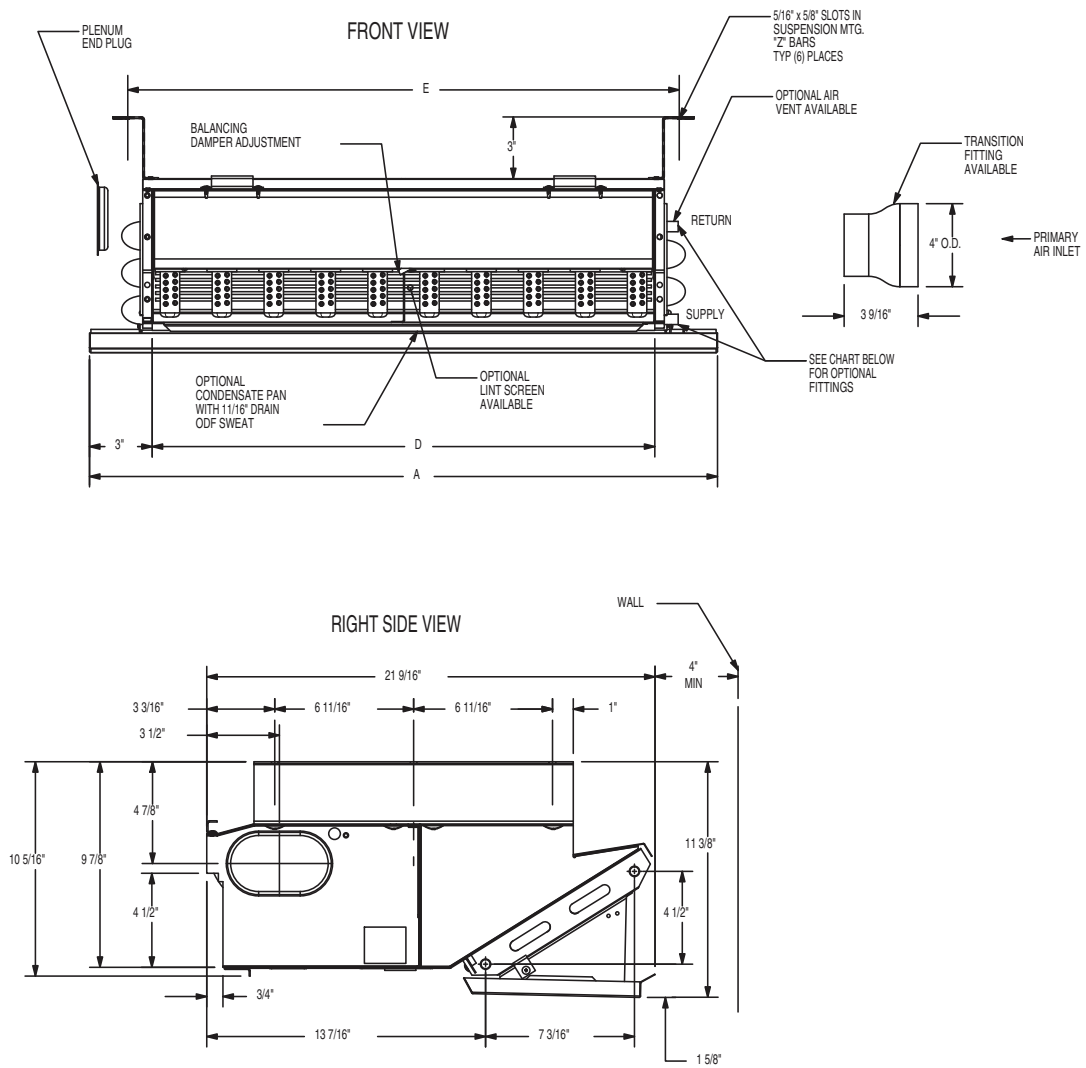
**NOTES:**

1. Condensate connection is mounted on the same side as the coil connection.
2. Inner coil is always used for cooling and determines whether the unit has right hand or left hand connections. The heating coil connections are opposite of cooling connections.
3. The unit is shipped with a hardware kit including the following: 2 leveling screws, 2 leveling screw clips, 4 lint screen clips, and 2 coil condensate plates with clips.
4. Shipping weight includes packaging.

| SPECIFICATION                                | UNIT SIZE |        |        |        |
|--|-----------|--------|--------|--------|
|  | 1         | 2      | 3      | 4      |
| Drain Pan Dimension A (in.)                  | 29 3/8    | 37 3/8 | 45 3/8 | 57 3/8 |
| Coil Dimension D (in.)                       | 24 1/8    | 32     | 40     | 52     |
| Minimum Height from Floor (in.)              | 3         | 3      | 3      | 3      |
| Clearance from Discharge Grille (sq in.)     | 81        | 108    | 135    | 175    |
| Clearance from Recirculation Grille (sq in.) | 237       | 315    | 394    | 512    |
| Shipping Weight (lb)                         | 37        | 47     | 55     | 69     |

| OPTIONAL FITTINGS |                                  |
|-------------------|----------------------------------|
| CODE              | DESCRIPTION                      |
| 0                 | 1/2" ODF Sweat Fitting           |
| 1                 | 1/2" ODF Sweat Fitting with Vent |
| 2                 | 1/2" ODM Flare Fitting           |
| 3                 | 1/2" ODM Flare Fitting with Vent |

# Dimensions — 36SH



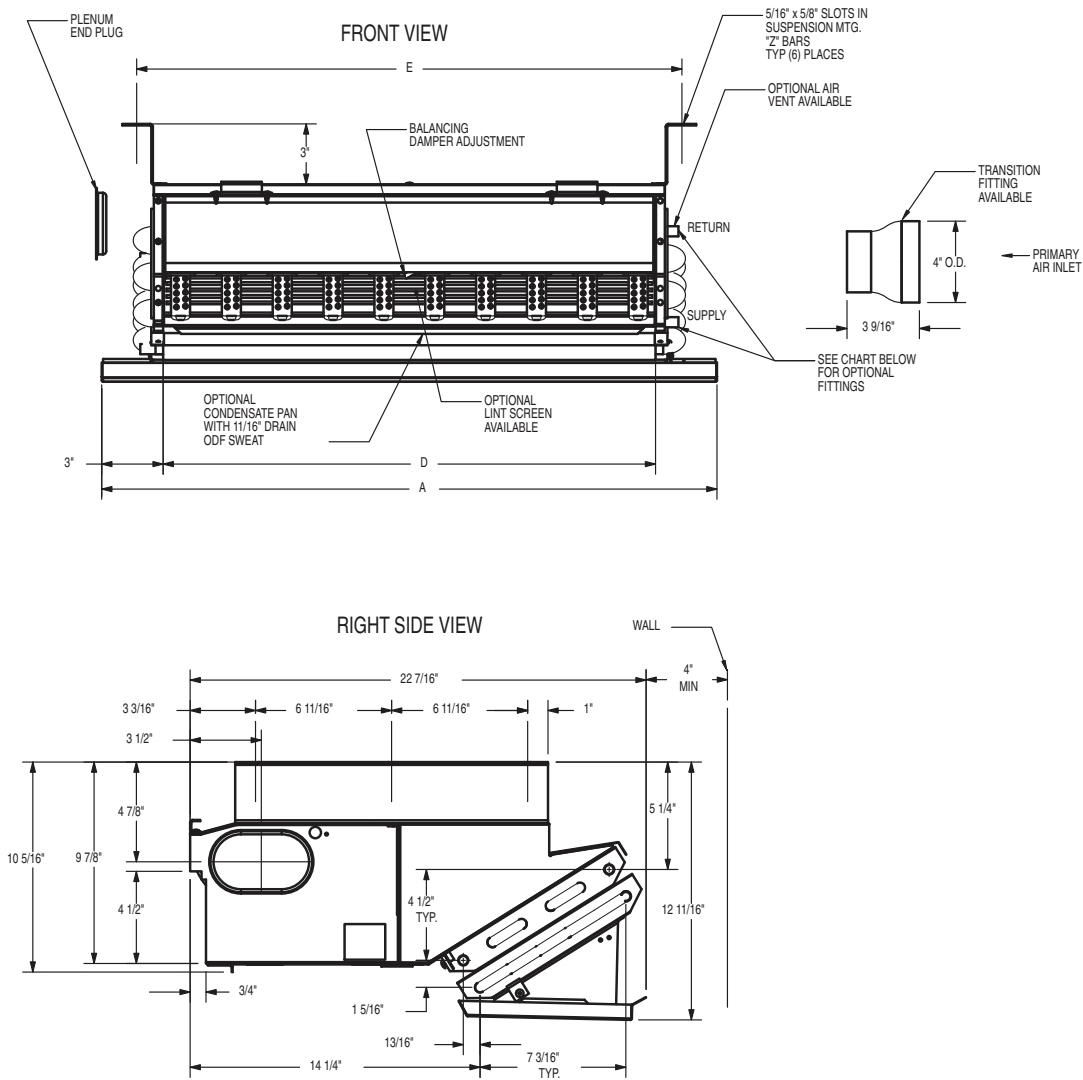
**NOTES:**

1. Condensate connection is mounted on the same side as the coil connection.
2. A 4-in. minimum distance from the wall is required to obtain rated capacity. An 8 1/2 in. minimum clearance is required for screen removal.
3. The unit is shipped with two Z brackets for mounting the unit and a hardware kit including the following: 8 mounting screws, 8 tinnerman nuts, and 1 lint screen clip.
4. Shipping weight includes packaging.

| SPECIFICATION                                       | UNIT SIZE |        |        |        |
|---|-----------|--------|--------|--------|
|   | 1         | 2      | 3      | 4      |
| <b>Drain Pan Dimension A (in.)</b>                  | 30 1/4    | 38 1/4 | 46 1/4 | 58 1/4 |
| <b>Coil Dimension D (in.)</b>                       | 24 1/8    | 32     | 40     | 52     |
| <b>Hanger Dimension E (in.)</b>                     | 27 1/8    | 35     | 43     | 55     |
| <b>Clearance from Discharge Grille (sq in.)</b>     | 81        | 108    | 135    | 175    |
| <b>Clearance from Recirculation Grille (sq in.)</b> | 234       | 288    | 343    | 439    |
| <b>Shipping Weight (lb)</b>                         | 36        | 45     | 52     | 64     |

| OPTIONAL FITTINGS |                                  |
|-------------------|----------------------------------|
| CODE              | DESCRIPTION                      |
| 0                 | 1/2" ODF Sweat Fitting           |
| 1                 | 1/2" ODF Sweat Fitting with Vent |
| 2                 | 1/2" ODM Flare Fitting           |
| 3                 | 1/2" ODM Flare Fitting with Vent |

# Dimensions — 36SJ



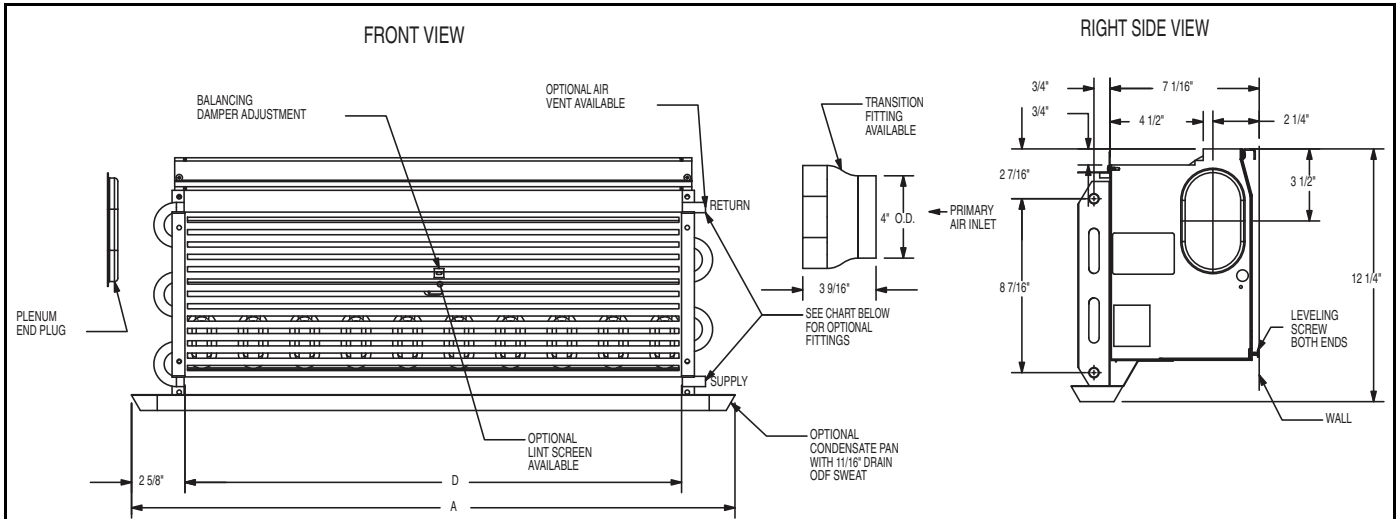
**NOTES:**

1. Condensate connection is mounted on the same side as the coil connection.
2. A 4-in. minimum distance from the wall is required to obtain rated capacity. An 8 1/2 in. minimum clearance is required for screen removal.
3. The unit is shipped with two Z brackets for mounting the unit and a hardware kit including the following: 8 mounting screws, 8 tinnerman nuts, and 1 lint screen clip.
4. Shipping weight includes packaging.

| SPECIFICATION                                | UNIT SIZE |        |        |        |
|--|-----------|--------|--------|--------|
|  | 1         | 2      | 3      | 4      |
| Drain Pan Dimension A (in.)                  | 30 1/4    | 38 1/4 | 46 1/4 | 58 1/4 |
| Coil Dimension D (in.)                       | 24 1/8    | 32     | 40     | 52     |
| Hanger Dimension E (in.)                     | 27 1/8    | 35     | 43     | 55     |
| Clearance from Discharge Grille (sq in.)     | 81        | 108    | 135    | 175    |
| Clearance from Recirculation Grille (sq in.) | 234       | 288    | 343    | 439    |
| Shipping Weight (lb)                         | 39        | 57     | 59     | 73     |

| OPTIONAL FITTINGS |                                  |
|-------------------|----------------------------------|
| CODE              | DESCRIPTION                      |
| 0                 | 1/2" ODF Sweat Fitting           |
| 1                 | 1/2" ODF Sweat Fitting with Vent |
| 2                 | 1/2" ODM Flare Fitting           |
| 3                 | 1/2" ODM Flare Fitting with Vent |

# Dimensions — 36SL



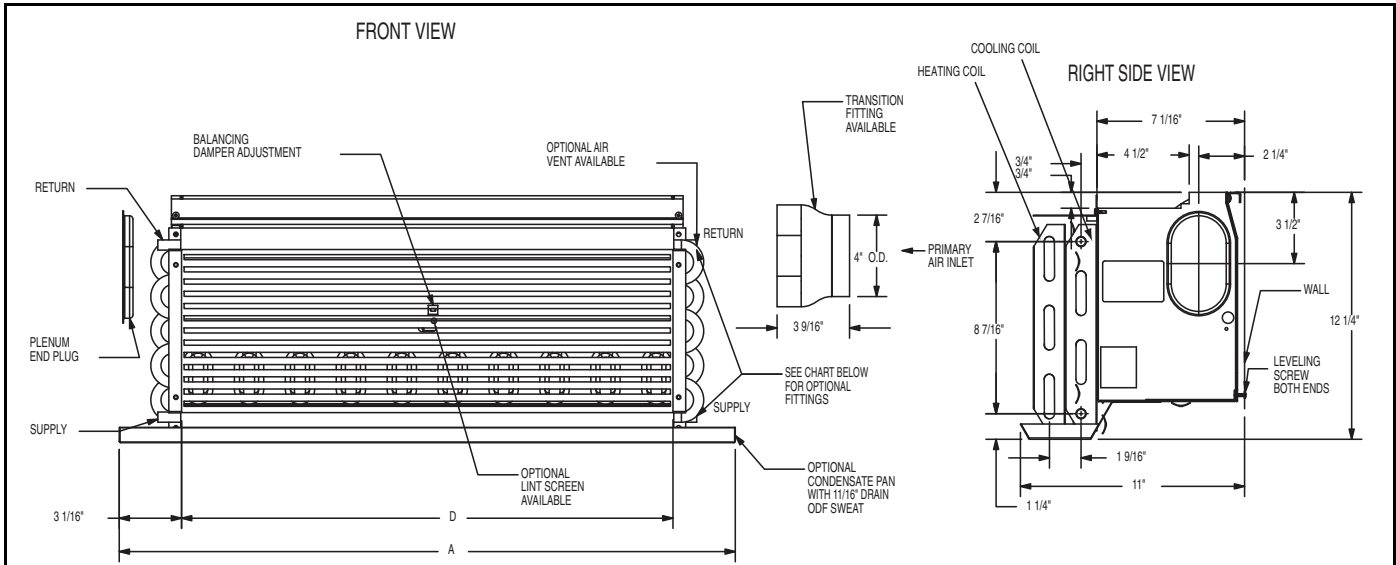
**NOTES:**

1. Condensate connection is mounted on the same side as the coil connection.
2. The unit is shipped with a hardware kit including the following: 2 leveling screws, 2 leveling screw clips, 4 lint screen clips, and 2 coil condensate plates with clips.
3. Shipping weight includes packaging.

| SPECIFICATION                                | UNIT SIZE |        |        |        |
|--|-----------|--------|--------|--------|
|  | 1         | 2      | 3      | 4      |
| Drain Pan Dimension A (in.)                  | 29 1/2    | 37 1/2 | 45 1/2 | 57 1/2 |
| Coil Dimension D (in.)                       | 24 1/8    | 32     | 40     | 52     |
| Clearance from Discharge Grille (sq in.)     | 81        | 108    | 135    | 175    |
| Clearance from Recirculation Grille (sq in.) | 124       | 165    | 206    | 269    |
| Shipping Weight (lb)                         | 21        | 26     | 31     | 38     |

| OPTIONAL FITTINGS |                                  |
|-------------------|----------------------------------|
| CODE              | DESCRIPTION                      |
| 0                 | 1/2" ODF Sweat Fitting           |
| 1                 | 1/2" ODF Sweat Fitting with Vent |
| 2                 | 1/2" ODM Flare Fitting           |
| 3                 | 1/2" ODM Flare Fitting with Vent |

# Dimensions — 36SM



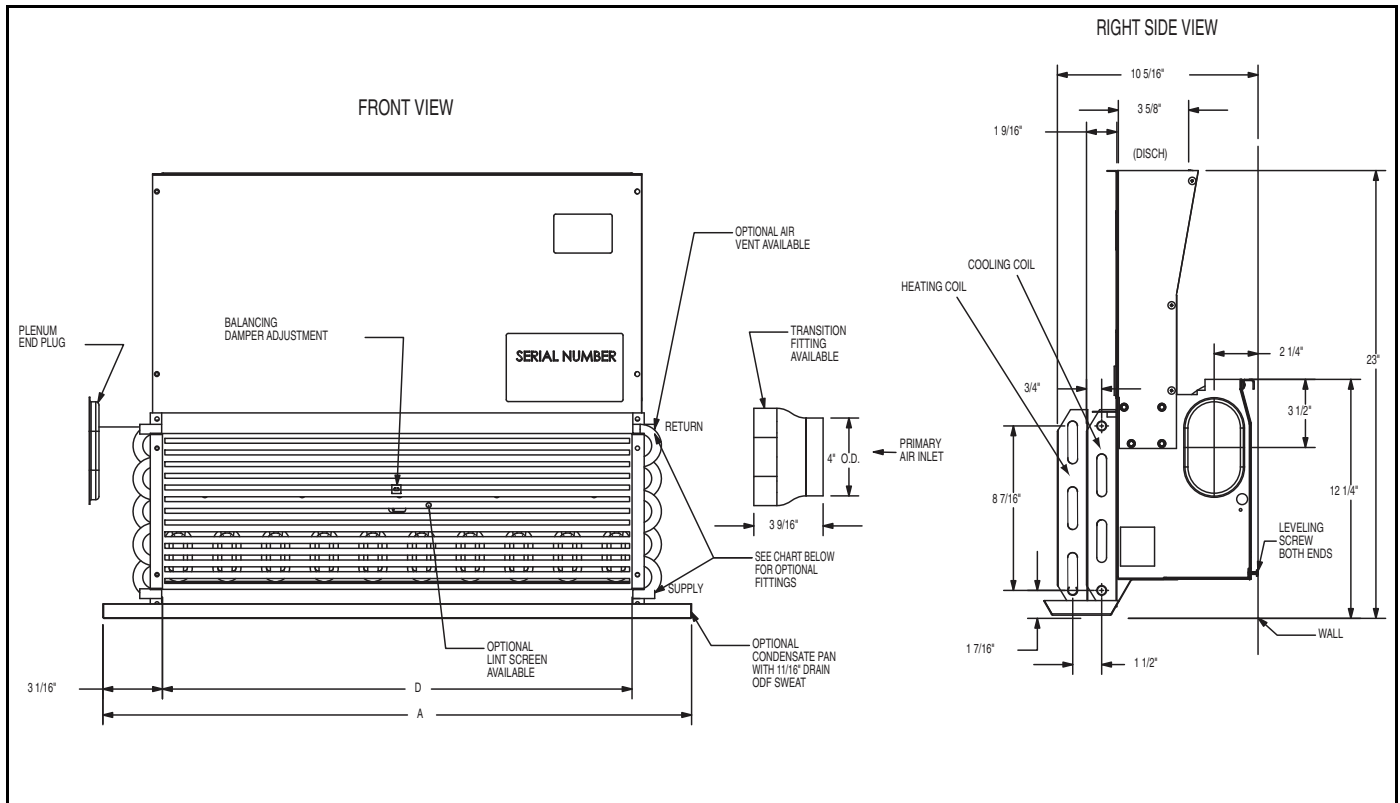
**NOTES:**

1. Condensate connection is mounted on the same side as the coil connection.
2. Inner coil is always used for cooling and determines whether the unit has right hand or left hand connections. The heating coil connections are opposite of cooling connections.
3. The unit is shipped with a hardware kit including the following: 2 leveling screws, 2 leveling screw clips, 4 lint screen clips, and 2 coil condensate plates with clips.
4. Shipping weight includes packaging.

| SPECIFICATION                                       | UNIT SIZE |        |        |        |
|---|-----------|--------|--------|--------|
|   | 1         | 2      | 3      | 4      |
| <b>Drain Pan Dimension A (in.)</b>                  | 29 1/2    | 37 1/2 | 45 1/2 | 57 1/2 |
| <b>Coil Dimension D (in.)</b>                       | 24 1/8    | 32     | 40     | 52     |
| <b>Clearance from Discharge Grille (sq in.)</b>     | 81        | 108    | 135    | 175    |
| <b>Clearance from Recirculation Grille (sq in.)</b> | 124       | 165    | 206    | 269    |
| <b>Shipping Weight (lb)</b>                         | 26        | 31     | 36     | 47     |

| OPTIONAL FITTINGS |                                  |
|-------------------|----------------------------------|
| CODE              | DESCRIPTION                      |
| 0                 | 1/2" ODF Sweat Fitting           |
| 1                 | 1/2" ODF Sweat Fitting with Vent |
| 2                 | 1/2" ODM Flare Fitting           |
| 3                 | 1/2" ODM Flare Fitting with Vent |

# Dimensions — 36SP



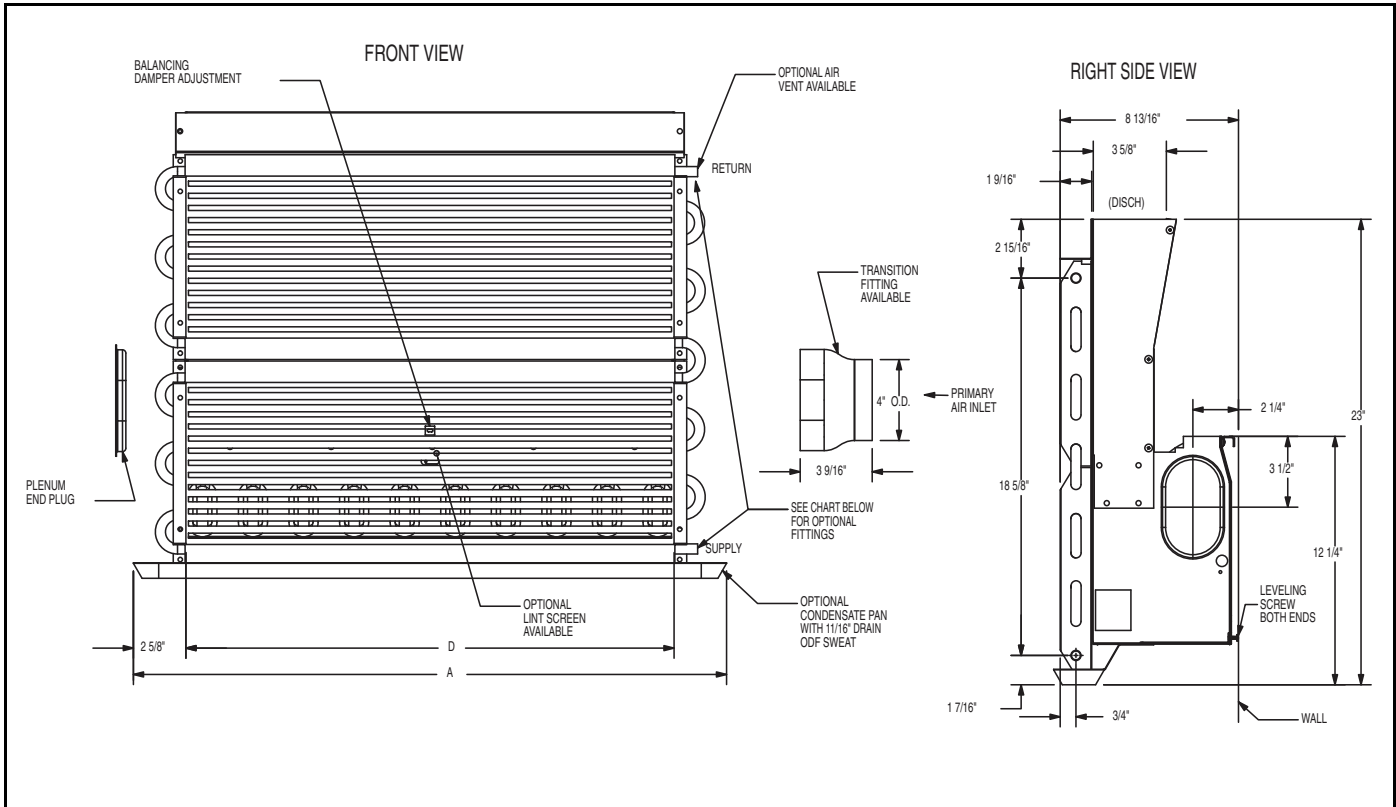
**NOTES:**

1. Condensate connection is mounted on the same side as the coil connection.
2. Inner coil is always used for cooling and determines whether the unit has right hand or left hand connections. The heating coil connections are opposite of cooling connections.
3. The unit is shipped with a hardware kit including the following: 2 leveling screws, 2 leveling screw clips, 4 lint screen clips, and 2 coil condensate plates with clips.
4. Shipping weight includes packaging.

| SPECIFICATION                                | UNIT SIZE |        |        |        |
|--|-----------|--------|--------|--------|
|  | 1         | 2      | 3      | 4      |
| Drain Pan Dimension A (in.)                  | 29 1/2    | 37 1/2 | 45 1/2 | 57 1/2 |
| Coil Dimension D (in.)                       | 24 1/8    | 32     | 40     | 52     |
| Clearance from Discharge Grille (sq in.)     | 81        | 108    | 135    | 175    |
| Clearance from Recirculation Grille (sq in.) | 237       | 315    | 394    | 512    |
| Shipping Weight (lb)                         | 37        | 45     | 55     | 70     |

| OPTIONAL FITTINGS |                                  |
|-------------------|----------------------------------|
| CODE              | DESCRIPTION                      |
| 0                 | 1/2" ODF Sweat Fitting           |
| 1                 | 1/2" ODF Sweat Fitting with Vent |
| 2                 | 1/2" ODM Flare Fitting           |
| 3                 | 1/2" ODM Flare Fitting with Vent |

# Dimensions — 36ST



**NOTES:**

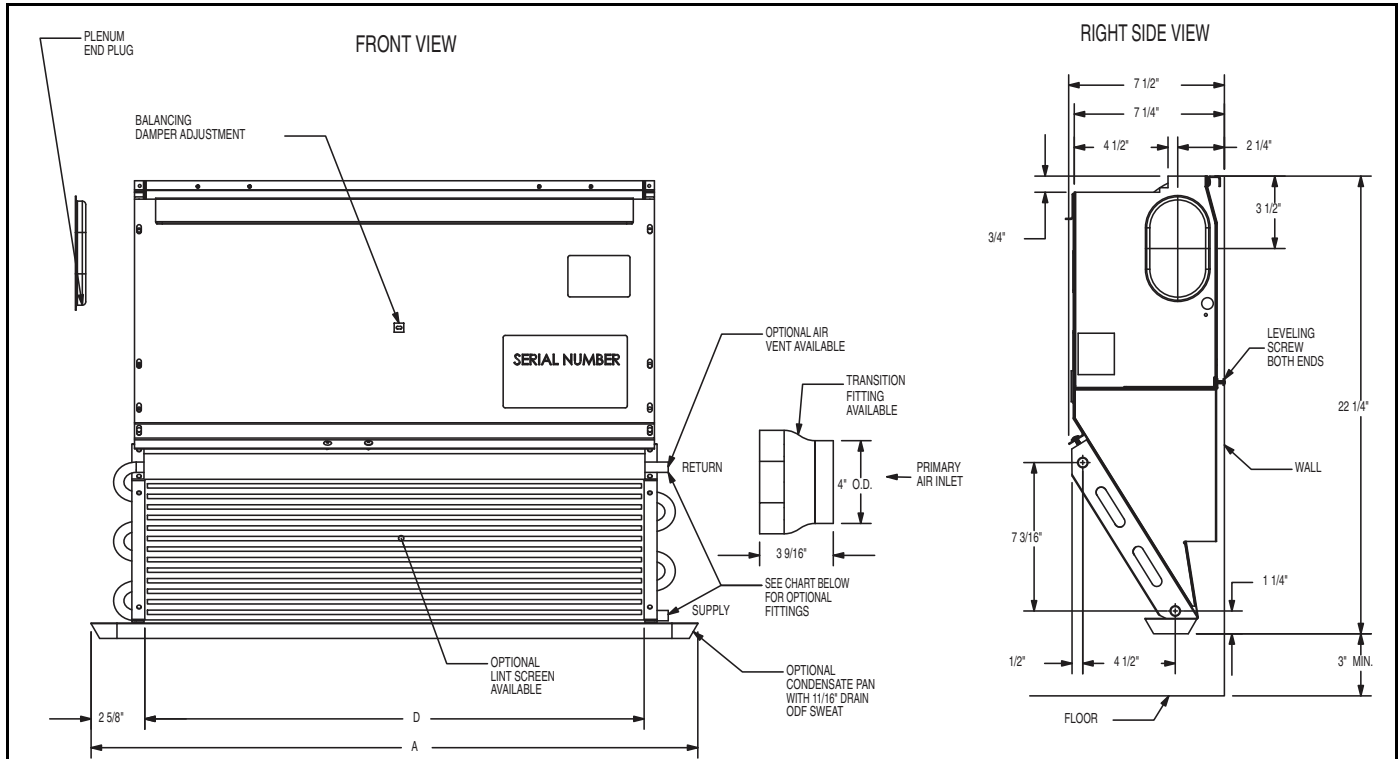
1. Condensate connection is mounted on the same side as the coil connection.
2. The unit is shipped with a hardware kit including the following: 2 leveling screws, 2 leveling screw clips, 4 lint screen clips, and 2 coil condensate plates with clips.
3. Shipping weight includes packaging.

| SPECIFICATION                                | UNIT SIZE |        |        |        |
|--|-----------|--------|--------|--------|
|  | 1         | 2      | 3      | 4      |
| Drain Pan Dimension A (in.)                  | 29 1/2    | 37 1/2 | 45 1/2 | 57 1/2 |
| Coil Dimension D (in.)                       | 24 1/8    | 32     | 40     | 52     |
| Clearance from Discharge Grille (sq in.)     | 81        | 108    | 135    | 175    |
| Clearance from Recirculation Grille (sq in.) | 473       | 630    | 788    | 1023   |
| Shipping Weight (lb)                         | 35        | 43     | 52     | 66     |

| OPTIONAL FITTINGS |                                  |
|-------------------|----------------------------------|
| CODE              | DESCRIPTION                      |
| 0                 | 1/2" ODF Sweat Fitting           |
| 1                 | 1/2" ODF Sweat Fitting with Vent |
| 2                 | 1/2" ODM Flare Fitting           |
| 3                 | 1/2" ODM Flare Fitting with Vent |



# Dimensions — 36SV



**NOTES:**

1. Condensate connection is mounted on the same side as the coil connection.
2. The unit is shipped with a hardware kit including the following: 2 leveling screws, 2 leveling screw clips, 4 lint screen clips, and 2 coil condensate plates with clips.
3. Shipping weight includes packaging.

| SPECIFICATION                                | UNIT SIZE |        |        |        |
|--|-----------|--------|--------|--------|
|  | 1         | 2      | 3      | 4      |
| Drain Pan Dimension A (in.)                  | 29 1/2    | 37 1/2 | 45 1/2 | 57 1/2 |
| Coil Dimension D (in.)                       | 24 1/8    | 32     | 40     | 52     |
| Minimum Height from Floor (in.)              | 3         | 3      | 3      | 3      |
| Clearance from Discharge Grille (sq in.)     | 81        | 108    | 135    | 175    |
| Clearance from Recirculation Grille (sq in.) | 234       | 288    | 343    | 439    |
| Shipping Weight (lb)                         | 31        | 40     | 46     | 57     |

| OPTIONAL FITTINGS |                                  |
|-------------------|----------------------------------|
| CODE              | DESCRIPTION                      |
| 0                 | 1/2" ODF Sweat Fitting           |
| 1                 | 1/2" ODF Sweat Fitting with Vent |
| 2                 | 1/2" ODM Flare Fitting           |
| 3                 | 1/2" ODM Flare Fitting with Vent |

# Selection procedure



## General unit selection criteria

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 (catalog number 592-023) 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.

## 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.

### I 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<br>( $L_w - L_p$ ) and NC..... | 8 and 35 dB |

### II 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, 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:

$$\begin{aligned} \text{Corrected coil capacity} &= (25 \text{ F}/24 \text{ F}) \times 4349 \text{ Btuh} \\ &= 4523 \text{ Btuh} \end{aligned}$$

### III Determine unit size, water flow nozzle arrangement, and node pressure.

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

$$\text{Factor} = 4523 \text{ Btuh}/4469 \text{ Btuh} = 1.01$$

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.

### IV Select unit size to meet sound level requirements specified.

Refer to Sound Selection Guide table on page 6. 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. The selected unit will be satisfactory.

### V Final selection

The unit selected is a 36SV2H 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 that the cooling coil is neutral.

### I 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.....                   | 36SV2H    |

### II Determine primary air heating load.

Use formula:

$$\begin{aligned} \text{Primary air heating load} &= \text{cfm} \times 1.08 \times (t_{rm} - t_{pa}) \\ &= 60 \times 1.08 \times (76 - 50) \\ &= 1685 \text{ Btuh} \end{aligned}$$

### III Determine total unit heating load.

Use formula:

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

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

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



**IV Determine entering water temperature required to meet required total heating load.**

Use formula:

$$\text{Total heating load} = (t_{ew} - t_{rm})/25 \times \text{coil corr. at 25 F}$$

$$t_{ew} = t_{rm} + (\text{total heating load}/\text{coil corr. at 25 F}) \times 25$$

$$t_{ew} = 76 + (6885/4469) \times 25$$

$$t_{ew} = 114.5 \text{ F}$$

**Gravity heating**

**I Determine job requirements for unit selected.**

Given:

Gravity heating load .....3500 Btuh

Design room temperature (during shutdown)....60 F

**II 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:

Corrected heating load = actual heating load/correction factor

$$\text{Corrected heating load} = 3500/1.03$$

$$\text{Corrected heating load} = 3400$$

**III 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 36SV2H unit with a gravity heating capacity of 3400 Btuh is 93.6 F.

Use formula:

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

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

# Performance data



## 36SC GRAVITY HEATING CAPACITIES (Btuh)

| UNIT SIZE | TEMPERATURE DIFFERENCE<br>(ENTERING WATER TEMP – ROOM TEMP) |       |       |      |      |
|-----------|---|-------|-------|------|------|
|           | 140 F   | 120 F | 100 F | 80 F | 60 F |
| 1         | 5555  | 4630  | 3750  | 2875 | 2035 |
| 2         | 7410  | 6175  | 5000  | 3830 | 2715 |
| 3         | 9260  | 7715  | 6250  | 4790 | 3395 |
| 4         | 12035   | 10030 | 8125  | 6225 | 4410 |

## 36SD GRAVITY HEATING CAPACITIES (Btuh)

| UNIT SIZE | TEMPERATURE DIFFERENCE<br>(ENTERING WATER TEMP – ROOM TEMP) |       |       |      |      |
|-----------|---|-------|-------|------|------|
|           | 140 F   | 120 F | 100 F | 80 F | 60 F |
| 1         | 3670  | 3060  | 2480  | 1900 | 1345 |
| 2         | 4895  | 4080  | 3310  | 2535 | 1795 |
| 3         | 6120  | 5100  | 4130  | 3165 | 2245 |
| 4         | 7955  | 6630  | 5370  | 4115 | 2915 |

## 36SH GRAVITY HEATING CAPACITIES (Btuh)

| UNIT SIZE | TEMPERATURE DIFFERENCE<br>(ENTERING WATER TEMP – ROOM TEMP) |       |       |      |      |
|-----------|---|-------|-------|------|------|
|           | 140 F   | 120 F | 100 F | 80 F | 60 F |
| 1         | 4080  | 3400  | 2755  | 2110 | 1495 |
| 2         | 5440  | 4535  | 3675  | 2815 | 1995 |
| 3         | 6800  | 5665  | 4590  | 3515 | 2495 |
| 4         | 8840  | 7365  | 5965  | 4570 | 3240 |

## 36SJ GRAVITY HEATING CAPACITIES (Btuh)

| UNIT SIZE | TEMPERATURE DIFFERENCE<br>(ENTERING WATER TEMP – ROOM TEMP) |       |       |      |      |
|-----------|---|-------|-------|------|------|
|           | 140 F   | 120 F | 100 F | 80 F | 60 F |
| 1         | 3670  | 3060  | 2480  | 1900 | 1345 |
| 2         | 4895  | 4080  | 3310  | 2535 | 1795 |
| 3         | 6120  | 5100  | 4130  | 3165 | 2245 |
| 4         | 7955  | 6630  | 5370  | 4115 | 2915 |

## 36SL GRAVITY HEATING CAPACITIES (Btuh)

| UNIT SIZE | TEMPERATURE DIFFERENCE<br>(ENTERING WATER TEMP – ROOM TEMP) |       |       |      |      |
|-----------|---|-------|-------|------|------|
|           | 140 F   | 120 F | 100 F | 80 F | 60 F |
| 1         | 3780  | 3150  | 2550  | 1955 | 1385 |
| 2         | 5040  | 4200  | 3400  | 2605 | 1845 |
| 3         | 6300  | 5250  | 4255  | 3260 | 2310 |
| 4         | 8190  | 6825  | 5530  | 4235 | 3000 |

## 36SM GRAVITY HEATING CAPACITIES (Btuh)

| UNIT SIZE | TEMPERATURE DIFFERENCE<br>(ENTERING WATER TEMP – ROOM TEMP) |       |       |      |      |
|-----------|---|-------|-------|------|------|
|           | 140 F   | 120 F | 100 F | 80 F | 60 F |
| 1         | 3402  | 2835  | 2297  | 1758 | 1247 |
| 2         | 4536  | 3780  | 3062  | 2344 | 1663 |
| 3         | 5670  | 4725  | 3827  | 2930 | 2079 |
| 4         | 7371  | 6142  | 4975  | 3808 | 2703 |

## 36SP GRAVITY HEATING CAPACITIES (Btuh)

| UNIT SIZE | TEMPERATURE DIFFERENCE<br>(ENTERING WATER TEMP – ROOM TEMP) |       |       |      |      |
|-----------|---|-------|-------|------|------|
|           | 140 F   | 120 F | 100 F | 80 F | 60 F |
| 1         | 5000  | 4167  | 3375  | 2584 | 1834 |
| 2         | 6670  | 5558  | 4502  | 3446 | 2446 |
| 3         | 8333  | 6944  | 5625  | 4305 | 3055 |
| 4         | 10833   | 9027  | 7312  | 5597 | 3972 |

## 36ST GRAVITY HEATING CAPACITIES (Btuh)

| UNIT SIZE | TEMPERATURE DIFFERENCE<br>(ENTERING WATER TEMP – ROOM TEMP) |       |       |      |      |
|-----------|---|-------|-------|------|------|
|           | 140 F   | 120 F | 100 F | 80 F | 60 F |
| 1         | 7080  | 5900  | 4780  | 3660 | 2595 |
| 2         | 9440  | 7865  | 6370  | 4880 | 3460 |
| 3         | 11800   | 9835  | 7970  | 6105 | 4325 |
| 4         | 15340   | 12785 | 10360 | 7935 | 5620 |

## 36SV GRAVITY HEATING CAPACITIES (Btuh)

| UNIT SIZE | TEMPERATURE DIFFERENCE<br>(ENTERING WATER TEMP – ROOM TEMP) |       |       |      |      |
|-----------|---|-------|-------|------|------|
|           | 140 F   | 120 F | 100 F | 80 F | 60 F |
| 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 and 1.15 for 2.00 gpm.



### 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    |
| 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 | 0.97 | 0.96 | 0.96 | 0.97 | 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 | 0.98 | 0.99 | 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 | 1.02 | 1.03 | 1.02 | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 | 1.04 | 1.04 | 1.03 | 1.03 | 1.04 | 1.04 | 1.03 | 1.03 | 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 the capacities from each unit cooling capacity table by the above multipliers.

### COIL WATER PRESSURE DROP (ft of 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 for all units except 36ST. For 36ST at the same gpm, multiply above values by 2.

# Performance data (cont)



## 36SC COOLING COIL CAPACITIES

| PRIMARY AIR |                              | NOZZLE ARRANGEMENT |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |
|-------------|------------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--|
| cfm         | Capacity<br>20 F T<br>(Btuh) | 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                          | 1969<br>(0.89)     |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |
| 20          | 432                          | 2951<br>(1.59)     | 2665<br>(0.94) |                |                | 2581<br>(0.81) |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |
| 25          | 540                          | 3204<br>(2.48)     | 3297<br>(1.47) | 3357<br>(0.97) |                | 3005<br>(1.26) | 3283<br>(0.74) |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |
| 30          | 648                          | 3812<br>(3.57)     | 3922<br>(2.11) | 3994<br>(1.39) |                | 3404<br>(1.82) | 3718<br>(1.07) | 3970<br>(0.71) |                | 3114<br>(0.89) |                |                |                |                |                |                |                |                |                |                |                |  |
| 35          | 756                          |                    | 4543<br>(2.88) | 4626<br>(1.90) | 4602<br>(1.10) | 3781<br>(2.48) | 4130<br>(1.46) | 4410<br>(0.97) |                | 3425<br>(1.21) | 3781<br>(0.71) |                |                |                |                |                |                |                |                |                |                |  |
| 40          | 864                          |                    | 5159<br>(3.76) | 5254<br>(2.48) | 5226<br>(1.44) | 4142<br>(3.24) | 4524<br>(1.91) | 4831<br>(1.26) | 5120<br>(0.73) | 3719<br>(1.58) | 4106<br>(0.94) |                |                |                | 3296<br>(0.92) |                |                |                |                |                |                |  |
| 45          | 972                          |                    |                | 5878<br>(3.14) | 5847<br>(1.82) |                | 4902<br>(2.42) | 5235<br>(1.60) | 5548<br>(0.93) | 4000<br>(2.01) | 4415<br>(1.19) | 4755<br>(0.78) |                | 3516<br>(1.17) | 3986<br>(0.72) |                |                |                |                |                |                |  |
| 50          | 1080                         |                    |                | 6948<br>(3.88) | 6465<br>(2.25) |                | 5268<br>(2.99) | 5625<br>(1.97) | 5962<br>(1.14) | 4268<br>(2.48) | 4712<br>(1.46) | 5075<br>(0.96) | 5443<br>(0.56) | 3726<br>(1.45) | 4223<br>(0.89) |                |                |                | 3404<br>(0.95) |                |                |  |
| 55          | 1188                         |                    |                |                | 7079<br>(2.72) |                | 5622<br>(3.62) | 6003<br>(2.39) | 6363<br>(1.39) | 4527<br>(3.00) | 4997<br>(1.77) | 5382<br>(1.17) | 5772<br>(0.68) | 3926<br>(1.75) | 4450<br>(1.07) | 4808<br>(0.68) |                |                | 3574<br>(1.15) |                |                |  |
| 60          | 1296                         |                    |                |                | 7691<br>(3.24) |                |                | 6370<br>(2.85) | 6752<br>(1.65) | 4777<br>(3.57) | 5273<br>(2.11) | 5679<br>(1.39) | 6091<br>(0.81) | 4119<br>(2.09) | 4668<br>(1.28) | 5044<br>(0.81) |                |                | 3737<br>(1.36) | 4230<br>(0.81) |                |  |
| 65          | 1405                         |                    |                |                | 8301<br>(3.80) |                |                | 6728<br>(3.34) | 7131<br>(1.94) |                | 5540<br>(2.48) | 5966<br>(1.63) | 6399<br>(0.95) | 4304<br>(2.45) | 4878<br>(1.50) | 5271<br>(0.95) |                |                | 3893<br>(1.60) | 4407<br>(0.95) |                |  |
| 70          | 1512                         |                    |                |                |                |                |                | 7077<br>(3.88) | 7501<br>(2.25) |                | 5799<br>(2.87) | 6246<br>(1.90) | 6699<br>(1.10) | 4483<br>(2.84) | 5081<br>(1.74) | 5490<br>(1.11) |                |                | 4044<br>(1.86) | 4578<br>(1.10) |                |  |
| 75          | 1620                         |                    |                |                |                |                |                |                | 7862<br>(2.58) |                | 6051<br>(3.30) | 6517<br>(2.18) | 6990<br>(1.26) | 4656<br>(3.26) | 5278<br>(2.00) | 5702<br>(1.27) | 6262<br>(0.75) | 4190<br>(2.13) | 4743<br>(1.26) |                |                |  |
| 80          | 1730                         |                    |                |                |                |                |                |                | 8216<br>(2.94) |                | 6297<br>(3.76) | 6782<br>(2.48) | 7274<br>(1.44) | 4824<br>(3.71) | 5468<br>(2.27) | 5908<br>(1.45) | 6488<br>(0.86) | 4331<br>(2.43) | 4902<br>(1.44) |                |                |  |
| 85          | 1838                         |                    |                |                |                |                |                |                | 8563<br>(3.32) |                |                | 7040<br>(2.80) | 7551<br>(1.62) |                | 5653<br>(2.57) | 6108<br>(1.63) | 6708<br>(0.97) | 4467<br>(2.74) | 5057<br>(1.62) |                |                |  |
| 90          | 1942                         |                    |                |                |                |                |                |                | 8903<br>(3.72) |                |                | 7293<br>(3.14) | 7822<br>(1.82) |                | 5834<br>(2.88) | 6303<br>(1.83) | 6922<br>(1.09) | 4600<br>(3.08) | 5207<br>(1.82) |                |                |  |
| 95          | 2065                         |                    |                |                |                |                |                |                |                |                |                | 7541<br>(3.50) | 8088<br>(2.03) |                | 6010<br>(3.21) | 6493<br>(2.04) | 7131<br>(1.21) | 4729<br>(3.43) | 5354<br>(2.03) |                |                |  |
| 100         | 2160                         |                    |                |                |                |                |                |                |                |                |                | 7783<br>(3.87) | 8348<br>(2.25) |                | 6182<br>(3.56) | 6679<br>(2.26) | 7334<br>(1.34) | 4855<br>(3.80) | 5496<br>(2.25) |                |                |  |
| 105         | 2265                         |                    |                |                |                |                |                |                |                |                |                |                | 8603<br>(2.48) |                | 6350<br>(3.92) | 6860<br>(2.50) | 7534<br>(1.48) |                | 5635<br>(2.48) | 6191<br>(1.63) | 6818<br>(0.95) |  |
| 110         | 2375                         |                    |                |                |                |                |                |                |                |                |                |                | 8853<br>(2.72) |                |                | 7038<br>(2.74) | 7729<br>(1.63) |                | 5771<br>(2.72) | 6341<br>(1.79) | 6982<br>(1.04) |  |
| 115         | 2482                         |                    |                |                |                |                |                |                |                |                |                |                | 9100<br>(2.97) |                |                | 7212<br>(2.99) | 7920<br>(1.78) |                | 5904<br>(2.97) | 6487<br>(1.96) | 7143<br>(1.14) |  |
| 120         | 2590                         |                    |                |                |                |                |                |                |                |                |                |                | 9342<br>(3.24) |                |                | 7383<br>(3.26) | 8107<br>(1.94) |                | 6035<br>(3.24) | 6630<br>(2.13) | 7300<br>(1.24) |  |
| 125         | 2700                         |                    |                |                |                |                |                |                |                |                |                |                | 9580<br>(3.51) |                |                | 7350<br>(3.54) | 8291<br>(2.10) |                | 6162<br>(3.51) | 6770<br>(2.32) | 7455<br>(1.34) |  |
| 130         | 2810                         |                    |                |                |                |                |                |                |                |                |                |                | 9815<br>(3.80) |                |                | 7715<br>(3.83) | 8472<br>(2.27) |                | 6287<br>(3.80) | 6907<br>(2.51) | 7606<br>(1.45) |  |
| 135         | 2918                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8650<br>(2.45) |                |                | 7042<br>(2.70) | 7755<br>(1.57) |  |
| 140         | 3022                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8824<br>(2.64) |                |                | 7175<br>(2.91) | 7901<br>(1.69) |  |
| 145         | 3130                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8296<br>(2.83) |                |                | 7305<br>(3.12) | 8044<br>(1.81) |  |
| 150         | 3240                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 9165<br>(3.03) |                |                | 7433<br>(3.34) | 8185<br>(1.94) |  |
| 155         | 3350                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 9332<br>(3.23) |                |                | 7559<br>(3.56) | 8324<br>(2.07) |  |
| 160         | 3460                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 9496<br>(3.44) |                |                | 7683<br>(3.80) | 8640<br>(2.20) |  |
| 165         | 3565                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 9658<br>(3.66) |                |                |                | 8595<br>(2.34) |  |
| 170         | 3675                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 9818<br>(3.89) |                |                |                | 8727<br>(2.49) |  |

**NOTES:**

1. Numbers in parentheses ( ) indicate nozzle pressure (in. wg).
2. Ratings are based on  $\Delta t = 25^\circ\text{F}$ , 1.50 gpm, 8 ft water coil pressure drop.
3.  $\Delta t = t_{rm} - t_{ew}$  where  $t_{rm}$  = room temperature and  $t_{ew}$  = entering-water temperature.
4. All ratings include allowance for lint screen.
5. For coil capacity at  $\Delta t$  not equal to  $25^\circ\text{F}$ , use the formula:  
 $(t_{rm} - t_{ew})/25 \times \text{rating at } 25^\circ\text{F } \Delta t$ .
6. For primary air capacity at other than 20 F  $\Delta t$  use the formula:  
 $\text{Btuh} = \text{cfm} \times 1.08 \times (t_{rm} - t_{pa})$  where  $t_{pa}$  = primary air temperature.
7. For capacities other than 1.50 gpm, see Coil Capacity Multipliers for Flow Rates table on page 21.
8. To facilitate balanced water systems, all units regardless of size have the same pressure drop.



### 36SD COOLING COIL CAPACITIES

| PRIMARY AIR |                              | NOZZLE ARRANGEMENT |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
|-------------|------------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| cfm         | Capacity<br>20 F T<br>(Btuh) | 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                          | 1383<br>(0.89)     |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 20          | 432                          | 1820<br>(1.59)     | 1872<br>(0.94) |                |                | 1888<br>(0.81) |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 25          | 540                          | 2251<br>(2.48)     | 2316<br>(1.47) | 2358<br>(0.97) |                | 2199<br>(1.26) | 2402<br>(0.74) |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 30          | 648                          | 2678<br>(3.57)     | 2756<br>(2.11) | 2806<br>(1.39) |                | 2490<br>(1.82) | 2720<br>(1.07) | 2904<br>(0.71) |                | 2375<br>(0.89) |                |                |                |                |                |                |                |                |                |                |                |                |
| 35          | 756                          |                    | 3192<br>(2.88) | 3250<br>(1.90) | 3233<br>(1.10) | 2766<br>(2.48) | 3022<br>(1.46) | 3227<br>(0.97) |                | 2612<br>(1.21) | 2884<br>(0.71) |                |                |                |                |                |                |                |                |                |                |                |
| 40          | 864                          |                    | 3625<br>(3.76) | 3691<br>(2.48) | 3672<br>(1.44) | 3030<br>(3.24) | 3310<br>(1.91) | 3534<br>(1.26) | 3746<br>(0.73) | 2837<br>(1.58) | 3131<br>(0.94) |                |                | 2646<br>(0.92) |                |                |                |                |                |                |                |                |
| 45          | 972                          |                    |                | 4129<br>(3.14) | 4108<br>(1.82) |                | 3587<br>(2.42) | 3830<br>(1.60) | 4060<br>(0.93) | 3050<br>(2.01) | 3367<br>(1.19) | 3627<br>(0.78) |                | 2823<br>(1.17) | 3200<br>(0.72) |                |                |                |                |                |                |                |
| 50          | 1080                         |                    |                | 4565<br>(3.88) | 4542<br>(2.25) |                | 3854<br>(2.99) | 4116<br>(1.97) | 4362<br>(1.14) | 3255<br>(2.48) | 3594<br>(1.46) | 3870<br>(0.96) | 4151<br>(0.56) | 2991<br>(1.45) | 3391<br>(0.89) |                |                | 2852<br>(0.95) |                |                |                |                |
| 55          | 1188                         |                    |                |                | 4974<br>(2.72) |                | 4113<br>(3.62) | 4392<br>(2.39) | 4655<br>(1.39) | 3453<br>(3.00) | 3811<br>(1.77) | 4105<br>(1.17) | 4403<br>(0.68) | 3152<br>(1.75) | 3573<br>(1.07) | 3860<br>(0.68) |                | 2995<br>(1.15) |                |                |                |                |
| 60          | 1296                         |                    |                |                | 5403<br>(3.24) |                |                | 4661<br>(2.85) | 4940<br>(1.65) | 3643<br>(3.57) | 4022<br>(2.11) | 4331<br>(1.39) | 4645<br>(0.81) | 3307<br>(2.09) | 3748<br>(1.28) | 4049<br>(0.81) |                | 3131<br>(1.36) | 3545<br>(0.81) |                |                |                |
| 65          | 1405                         |                    |                |                | 5832<br>(3.80) |                |                | 4923<br>(3.34) | 5217<br>(1.94) |                | 4225<br>(2.48) | 4550<br>(1.63) | 4881<br>(0.95) | 3455<br>(2.45) | 3917<br>(1.50) | 4231<br>(0.95) |                | 3263<br>(1.60) | 3693<br>(0.95) |                |                |                |
| 70          | 1512                         |                    |                |                |                |                |                | 5178<br>(3.88) | 5488<br>(2.25) |                | 4423<br>(2.87) | 4763<br>(1.90) | 5109<br>(1.10) | 3599<br>(2.84) | 4079<br>(1.74) | 4407<br>(1.11) |                | 3389<br>(1.86) | 3836<br>(1.10) | 4215<br>(0.72) |                |                |
| 75          | 1620                         |                    |                |                |                |                |                |                | 5753<br>(2.58) |                | 4615<br>(3.30) | 4971<br>(2.18) | 5331<br>(1.26) | 3738<br>(3.26) | 4237<br>(2.00) | 4578<br>(1.27) | 5027<br>(0.75) | 3511<br>(2.13) | 3974<br>(1.26) | 4366<br>(0.83) |                |                |
| 80          | 1730                         |                    |                |                |                |                |                |                | 6012<br>(2.94) |                | 4803<br>(3.76) | 5173<br>(2.48) | 5548<br>(1.44) | 3873<br>(3.71) | 4390<br>(2.27) | 4743<br>(1.45) | 5209<br>(0.86) | 3629<br>(2.43) | 4108<br>(1.44) | 4513<br>(0.95) |                |                |
| 85          | 1838                         |                    |                |                |                |                |                |                | 6265<br>(3.32) |                |                | 5370<br>(2.80) | 5759<br>(1.62) |                | 4539<br>(2.57) | 4904<br>(1.63) | 5385<br>(2.74) | 3743<br>(2.74) | 4238<br>(1.62) | 4656<br>(1.07) |                |                |
| 90          | 1942                         |                    |                |                |                |                |                |                | 6615<br>(3.72) |                |                | 5563<br>(3.14) | 5966<br>(1.82) |                | 4684<br>(2.88) | 5060<br>(1.83) | 5557<br>(1.09) | 3855<br>(3.08) | 4364<br>(1.82) | 4794<br>(1.20) | 5279<br>(0.69) |                |
| 95          | 2065                         |                    |                |                |                |                |                |                |                |                |                | 5751<br>(3.50) | 6768<br>(2.03) |                | 4825<br>(3.21) | 5213<br>(2.04) | 5725<br>(1.21) | 3963<br>(3.43) | 4486<br>(2.03) | 4929<br>(1.34) | 5427<br>(0.77) |                |
| 100         | 2160                         |                    |                |                |                |                |                |                |                |                |                | 5936<br>(3.87) | 6367<br>(2.25) |                | 4963<br>(3.56) | 5362<br>(2.26) | 5888<br>(1.34) | 4069<br>(3.80) | 4606<br>(2.25) | 5060<br>(1.48) | 5572<br>(0.86) |                |
| 105         | 2265                         |                    |                |                |                |                |                |                |                |                |                | 6561<br>(2.48) |                |                | 5098<br>(3.92) | 5508<br>(2.50) | 6048<br>(1.48) |                | 4722<br>(2.48) | 5188<br>(1.63) | 5713<br>(0.95) |                |
| 110         | 2375                         |                    |                |                |                |                |                |                |                |                |                | 6752<br>(2.72) |                |                |                | 5650<br>(2.74) | 6205<br>(1.63) |                | 4836<br>(2.72) | 5313<br>(1.79) | 5851<br>(1.04) |                |
| 115         | 2482                         |                    |                |                |                |                |                |                |                |                |                | 6940<br>(2.97) |                |                |                | 5790<br>(2.99) | 6359<br>(1.78) |                | 4948<br>(2.97) | 5436<br>(1.96) | 5986<br>(1.14) |                |
| 120         | 2590                         |                    |                |                |                |                |                |                |                |                |                |                | 7125<br>(3.24) |                |                | 5927<br>(3.24) | 6509<br>(1.94) |                | 5057<br>(3.24) | 5556<br>(2.13) | 6118<br>(1.24) |                |
| 125         | 2700                         |                    |                |                |                |                |                |                |                |                |                |                | 7307<br>(3.51) |                |                |                | 6061<br>(3.54) | 6657<br>(2.10) |                | 5164<br>(3.51) | 5673<br>(2.32) | 6247<br>(1.34) |
| 130         | 2810                         |                    |                |                |                |                |                |                |                |                |                |                | 7486<br>(3.80) |                |                |                | 6194<br>(3.83) | 6802<br>(2.27) |                | 5269<br>(3.80) | 5788<br>(2.51) | 6374<br>(1.45) |
| 135         | 2918                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 6944<br>(2.45) |                |                | 5901<br>(2.70) | 6498<br>(1.57) |                |
| 140         | 3022                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7084<br>(2.64) |                |                | 6012<br>(2.91) | 6620<br>(1.69) |                |
| 145         | 3130                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7222<br>(2.83) |                |                | 6121<br>(3.12) | 6741<br>(1.81) |                |
| 150         | 3240                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7358<br>(3.03) |                |                | 6229<br>(3.34) | 6859<br>(1.94) |                |
| 155         | 3350                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7492<br>(3.23) |                |                | 6334<br>(3.56) | 6975<br>(2.07) |                |
| 160         | 3460                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7624<br>(3.44) |                |                | 6438<br>(3.80) | 7089<br>(2.20) |                |
| 165         | 3565                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7754<br>(3.66) |                |                |                | 7202<br>(2.34) |                |
| 170         | 3675                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7882<br>(3.89) |                |                |                | 7313<br>(2.49) |                |

- NOTES:**
1. Numbers in parentheses ( ) indicate nozzle pressure (in. wg).
  2. Ratings are based on  $\Delta t = 25^\circ\text{F}$ , 1.50 gpm, 8 ft water coil pressure drop.
  3.  $\Delta t = t_{rm} - t_{ew}$  where  $t_{rm}$  = room temperature and  $t_{ew}$  = entering-water temperature.
  4. All ratings include allowance for lint screen.
  5. For coil capacity at  $\Delta t$  not equal to  $25^\circ\text{F}$ , use the formula:  
 $(t_{rm} - t_{ew})/25 \times \text{rating at } 25^\circ\text{F } \Delta t$ .
  6. For primary air capacity at other than 20 F  $\Delta t$  use the formula:  
 $\text{Btuh} = \text{cfm} \times 1.08 \times (t_{rm} - t_{pa})$  where  $t_{pa}$  = primary air temperature.
  7. For capacities other than 1.50 gpm, see Coil Capacity Multipliers for Flow Rates table on page 21.
  8. To facilitate balanced water systems, all units regardless of size have the same pressure drop.

# Performance data (cont)



## 36SH COOLING COIL CAPACITIES

| PRIMARY AIR |                              | NOZZLE ARRANGEMENT |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
|-------------|------------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| cfm         | Capacity<br>20 F T<br>(Btuh) | 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                          | 1537<br>(0.89)     |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 20          | 432                          | 2022<br>(1.59)     | 2080<br>(0.94) |                | 2098<br>(0.81) |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 25          | 540                          | 2501<br>(2.48)     | 2573<br>(1.47) | 2620<br>(0.97) |                | 2443<br>(1.26) | 2669<br>(0.74) |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 30          | 648                          | 2976<br>(3.57)     | 3062<br>(2.11) | 3118<br>(1.39) |                | 2767<br>(1.82) | 3022<br>(1.07) | 3227<br>(0.71) |                | 2639<br>(0.89) |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 35          | 756                          |                    | 3546<br>(2.88) | 3611<br>(1.90) | 3592<br>(1.10) | 3074<br>(2.48) | 3357<br>(1.46) | 3585<br>(0.97) |                | 2902<br>(1.21) | 3204<br>(0.71) |                |                |                |                |                |                |                |                |                |                |                |                |
| 40          | 864                          |                    | 4028<br>(3.76) | 4101<br>(2.48) | 4080<br>(1.44) | 3367<br>(3.24) | 3678<br>(1.91) | 3927<br>(1.26) | 4163<br>(0.73) | 3152<br>(1.58) | 3479<br>(0.94) |                |                | 2940<br>(0.92) |                |                |                |                |                |                |                |                |                |
| 45          | 972                          |                    |                | 4588<br>(3.14) | 4564<br>(1.82) |                |                | 3986<br>(1.60) | 4256<br>(0.93) | 4511<br>(2.01) | 3389<br>(1.19) | 3742<br>(0.78) | 4030           | 3137<br>(1.17) | 3555<br>(0.72) |                |                |                |                |                |                |                |                |
| 50          | 1080                         |                    |                | 5073<br>(3.88) | 5046<br>(2.25) |                |                | 4283<br>(2.99) | 4573<br>(1.97) | 4847<br>(1.14) | 3617<br>(2.48) | 3993<br>(1.46) | 4300<br>(0.96) | 4612<br>(0.56) | 3324<br>(1.45) | 3767<br>(0.89) |                |                |                | 3169<br>(0.95) |                |                |                |
| 55          | 1188                         |                    |                |                | 5526<br>(2.72) |                |                | 4570<br>(3.62) | 4880<br>(2.39) | 5173<br>(1.39) | 3836<br>(3.00) | 4235<br>(1.77) | 4561<br>(1.17) | 4892<br>(0.68) | 3503<br>(1.75) | 3970<br>(1.07) | 4289<br>(0.68) |                |                | 3328<br>(1.15) |                |                |                |
| 60          | 1296                         |                    |                |                | 6004<br>(3.24) |                |                |                | 5179<br>(2.85) | 5489<br>(1.65) | 4048<br>(3.57) | 4469<br>(2.11) | 4812<br>(1.39) | 5162<br>(0.81) | 3674<br>(2.09) | 4164<br>(1.28) | 4499<br>(0.81) |                |                | 3479<br>(1.36) | 3939<br>(0.81) |                |                |
| 65          | 1405                         |                    |                |                |                |                |                |                | 5470<br>(3.34) | 5797<br>(1.94) |                |                | 4695<br>(2.48) | 5056<br>(1.63) | 5423<br>(0.95) | 3839<br>(2.45) | 4352<br>(1.50) | 4702<br>(0.95) |                | 3625<br>(1.60) | 4101<br>(0.95) |                |                |
| 70          | 1512                         |                    |                |                |                |                |                |                | 6098<br>(2.25) |                |                |                | 4915<br>(2.87) | 5293<br>(1.90) | 5677<br>(1.10) | 3999<br>(2.84) | 4533<br>(1.74) | 4897<br>(1.11) |                | 3765<br>(1.86) | 4263<br>(1.10) | 4683<br>(0.72) |                |
| 75          | 1620                         |                    |                |                |                |                |                |                | 6392<br>(2.58) |                |                |                | 5128<br>(3.30) | 5523<br>(2.18) | 5924<br>(1.26) | 4154<br>(3.26) | 4708<br>(2.00) | 5086<br>(1.27) | 5586<br>(0.75) | 3901<br>(2.13) | 4416<br>(1.26) | 4852<br>(0.83) |                |
| 80          | 1730                         |                    |                |                |                |                |                |                | 6680<br>(2.64) |                |                |                | 5337<br>(3.76) | 5747<br>(1.44) | 6164<br>(3.71) | 4304<br>(2.27) | 4878<br>(1.45) | 5270<br>(0.86) | 5788<br>(2.43) | 4032<br>(1.44) | 4564<br>(0.95) | 5015           |                |
| 85          | 1838                         |                    |                |                |                |                |                |                | 6962<br>(3.32) |                |                |                |                | 5266<br>(2.80) | 6399<br>(1.62) |                | 5043<br>(2.57) | 5449<br>(1.63) | 5984<br>(0.97) | 4159<br>(2.74) | 4709<br>(1.62) | 5173<br>(1.07) |                |
| 90          | 1942                         |                    |                |                |                |                |                |                |                |                |                |                |                | 6181<br>(3.14) | 6629<br>(1.82) |                | 5204<br>(2.88) | 5622<br>(1.83) | 6175<br>(1.09) | 4283<br>(3.06) | 4849<br>(1.82) | 5327<br>(1.20) | 5866<br>(0.69) |
| 95          | 2065                         |                    |                |                |                |                |                |                |                |                |                |                |                | 6390<br>(3.50) | 6854<br>(2.03) |                | 5361<br>(3.21) | 5792<br>(2.04) | 6361<br>(1.21) | 4403<br>(3.43) | 4985<br>(2.03) | 5476<br>(1.34) | 6030<br>(0.77) |
| 100         | 2160                         |                    |                |                |                |                |                |                |                |                |                |                |                | 7074<br>(2.25) |                |                | 5514<br>(3.56) | 5958<br>(2.26) | 6543<br>(1.34) | 4521<br>(3.80) | 5118<br>(2.25) | 5622<br>(1.48) | 6191<br>(0.86) |
| 105         | 2265                         |                    |                |                |                |                |                |                |                |                |                |                |                | 7290<br>(2.48) |                |                | 5664<br>(3.92) | 6120<br>(2.50) | 6721<br>(1.48) |                | 5247<br>(2.48) | 5765<br>(1.63) | 6348<br>(0.95) |
| 110         | 2375                         |                    |                |                |                |                |                |                |                |                |                |                |                | 7503<br>(2.72) |                |                |                | 6278<br>(2.74) | 6895<br>(1.63) | 5374<br>(2.72) | 5904<br>(1.79) | 6501<br>(1.04) |                |
| 115         | 2482                         |                    |                |                |                |                |                |                |                |                |                |                |                | 7711<br>(2.97) |                |                |                | 6433<br>(2.99) | 7065<br>(1.78) | 5498<br>(2.97) | 6040<br>(1.96) | 6651<br>(1.14) |                |
| 120         | 2590                         |                    |                |                |                |                |                |                |                |                |                |                |                | 7917<br>(3.24) |                |                |                | 6586<br>(3.26) | 7372<br>(1.94) | 5619<br>(3.24) | 6173<br>(2.13) | 6797<br>(1.24) |                |
| 125         | 2700                         |                    |                |                |                |                |                |                |                |                |                |                |                | 8119<br>(3.51) |                |                |                | 6735<br>(3.54) | 7396<br>(2.10) | 5738<br>(3.51) | 6303<br>(2.32) | 6941<br>(1.34) |                |
| 130         | 2810                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7558<br>(2.27) | 5854<br>(3.80) | 6431<br>(2.51) | 7082<br>(1.45) |                |
| 135         | 2918                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7716<br>(2.45) |                | 6557<br>(2.70) | 7220<br>(1.57) |                |
| 140         | 3022                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7872<br>(2.64) |                | 6680<br>(2.91) | 7536<br>(1.69) |                |
| 145         | 3130                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8025<br>(2.83) |                | 6802<br>(3.12) | 7490<br>(1.81) |                |
| 150         | 3240                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8176<br>(3.03) |                | 6921<br>(3.34) | 7621<br>(1.94) |                |
| 155         | 3350                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8325<br>(3.23) |                | 7038<br>(3.56) | 7750<br>(2.07) |                |
| 160         | 3460                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8471<br>(3.44) |                | 7154<br>(3.80) | 7877<br>(2.20) |                |
| 165         | 3565                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8002<br>(2.34) |                |
| 170         | 3675                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8126<br>(2.49) |                |

**NOTES:**

- Numbers in parentheses ( ) indicate nozzle pressure (in. wg).
- Ratings are based on  $\Delta t = 25^\circ\text{F}$ , 1.50 gpm, 8 ft water coil pressure drop.
- $\Delta t = t_{rm} - t_{ew}$  where  $t_{rm}$  = room temperature and  $t_{ew}$  = entering-water temperature.
- All ratings include allowance for lint screen.
- For coil capacity at  $\Delta t$  not equal to  $25^\circ\text{F}$ , use the formula:  
 $(t_{rm} - t_{ew})/25 \times \text{rating at } 25^\circ\text{F } \Delta t$ .
- For primary air capacity at other than 20 F  $\Delta t$  use the formula:  
 $\text{Btuh} = \text{cfm} \times 1.08 \times (t_{rm} - t_{pa})$  where  $t_{pa}$  = primary air temperature.
- For capacities other than 1.50 gpm, see Coil Capacity Multipliers for Flow Rates table on page 21.
- To facilitate balanced water systems, all units regardless of size have the same pressure drop.





### 36SJ COOLING COIL CAPACITIES

| PRIMARY AIR |                              | NOZZLE ARRANGEMENT |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
|-------------|------------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| cfm         | Capacity<br>20 F T<br>(Btuh) | 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                          | 1383<br>(0.89)     |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 20          | 432                          | 1820<br>(1.59)     | 1872<br>(0.94) |                |                | 1888<br>(0.81) |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 25          | 540                          | 2251<br>(2.48)     | 2316<br>(1.47) | 2358<br>(0.97) |                | 2199<br>(1.26) | 2402<br>(0.74) |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 30          | 648                          | 2678<br>(3.57)     | 2756<br>(2.11) | 2806<br>(1.39) |                | 2490<br>(1.82) | 2720<br>(1.07) | 2904<br>(0.71) |                | 2375<br>(0.89) |                |                |                |                |                |                |                |                |                |                |                |
| 35          | 756                          |                    | 3192<br>(2.88) | 3250<br>(1.90) | 3233<br>(1.10) | 2766<br>(2.48) | 3022<br>(1.46) | 3227<br>(0.97) |                | 2612<br>(1.21) | 2884<br>(0.71) |                |                |                |                |                |                |                |                |                |                |
| 40          | 864                          |                    | 3625<br>(3.76) | 3691<br>(2.48) | 3672<br>(1.44) | 3030<br>(3.24) | 3310<br>(1.91) | 3534<br>(1.26) | 3476<br>(0.73) | 2837<br>(1.58) | 3131<br>(0.94) |                |                | 2646<br>(0.92) |                |                |                |                |                |                |                |
| 45          | 972                          |                    |                | 4129<br>(3.14) | 4108<br>(1.82) |                | 3587<br>(2.42) | 3830<br>(1.60) | 4060<br>(0.93) | 3050<br>(2.01) | 3367<br>(1.19) | 3627<br>(0.78) |                | 2823<br>(1.17) | 3200<br>(0.72) |                |                |                |                |                |                |
| 50          | 1080                         |                    |                | 4565<br>(3.88) | 4542<br>(2.25) |                | 3854<br>(2.99) | 4116<br>(1.97) | 4362<br>(1.14) | 3255<br>(2.48) | 3564<br>(1.46) | 3870<br>(0.96) | 4151<br>(0.56) | 2991<br>(1.45) | 3391<br>(0.89) |                |                |                | 2852<br>(0.95) |                |                |
| 55          | 1188                         |                    |                |                | 4974<br>(2.72) |                | 4113<br>(3.62) | 4392<br>(2.39) | 4655<br>(1.39) | 3453<br>(3.57) | 3811<br>(1.77) | 4105<br>(1.17) | 4403<br>(0.68) | 3152<br>(1.75) | 3573<br>(1.07) | 3860<br>(0.68) |                |                | 2995<br>(1.15) |                |                |
| 60          | 1296                         |                    |                |                | 5403<br>(3.24) |                |                | 4661<br>(2.85) | 4940<br>(1.65) | 3643<br>(3.57) | 4022<br>(2.11) | 4331<br>(1.39) | 4645<br>(0.81) | 3307<br>(2.09) | 3748<br>(1.28) | 4049<br>(0.81) |                |                | 3131<br>(1.36) | 3545<br>(0.81) |                |
| 65          | 1405                         |                    |                |                | 5832<br>(3.80) |                |                | 4293<br>(3.34) | 5217<br>(1.94) |                | 4225<br>(2.48) | 4550<br>(1.63) | 4881<br>(0.95) | 3455<br>(2.45) | 3917<br>(1.50) | 4231<br>(0.95) |                |                | 3263<br>(1.60) | 3693<br>(0.95) |                |
| 70          | 1512                         |                    |                |                |                |                |                | 5178<br>(3.88) | 5488<br>(2.25) |                | 4423<br>(2.87) | 4763<br>(1.90) | 5109<br>(1.10) | 3599<br>(2.84) | 4079<br>(1.74) | 4407<br>(1.11) |                |                | 3389<br>(1.86) | 3836<br>(1.10) | 4215<br>(0.72) |
| 75          | 1620                         |                    |                |                |                |                |                |                | 5753<br>(2.58) |                | 4615<br>(3.30) | 4971<br>(2.18) | 5331<br>(1.26) | 3738<br>(3.26) | 4237<br>(2.00) | 4578<br>(1.27) | 5027<br>(0.75) | 3511<br>(2.13) | 3984<br>(1.26) | 4366<br>(0.83) |                |
| 80          | 1730                         |                    |                |                |                |                |                |                | 6012<br>(2.94) |                | 4803<br>(3.76) | 5173<br>(2.48) | 5548<br>(1.44) | 3873<br>(3.71) | 4390<br>(2.27) | 4743<br>(1.45) | 5209<br>(0.86) | 3629<br>(2.43) | 4108<br>(1.44) | 4513<br>(0.95) |                |
| 85          | 1838                         |                    |                |                |                |                |                |                | 6265<br>(3.32) |                |                | 5370<br>(2.80) | 5759<br>(1.62) |                | 4539<br>(2.57) | 4904<br>(1.63) | 5385<br>(2.74) | 3743<br>(2.74) | 4238<br>(1.62) | 4656<br>(1.07) |                |
| 90          | 1942                         |                    |                |                |                |                |                |                | 6615<br>(3.72) |                |                | 5563<br>(3.14) | 5966<br>(1.82) |                | 4684<br>(2.88) | 5060<br>(1.83) | 5557<br>(1.09) | 3855<br>(3.06) | 4364<br>(1.82) | 4794<br>(1.20) | 5279<br>(0.69) |
| 95          | 2065                         |                    |                |                |                |                |                |                |                |                |                | 5751<br>(3.50) | 6168<br>(2.03) |                | 4825<br>(3.21) | 5213<br>(2.04) | 5725<br>(1.21) | 3963<br>(3.43) | 4486<br>(2.03) | 4929<br>(1.34) | 5427<br>(0.77) |
| 100         | 2160                         |                    |                |                |                |                |                |                |                |                |                | 5936<br>(3.87) | 6367<br>(2.25) |                | 4963<br>(3.56) | 5362<br>(2.26) | 5888<br>(1.34) | 4069<br>(3.80) | 4606<br>(2.25) | 5060<br>(1.48) | 5427<br>(0.86) |
| 105         | 2265                         |                    |                |                |                |                |                |                |                |                |                | 6561<br>(2.48) |                |                | 5098<br>(3.92) | 5508<br>(2.50) | 6048<br>(1.48) |                | 4722<br>(2.48) | 5188<br>(1.63) | 5713<br>(0.95) |
| 110         | 2375                         |                    |                |                |                |                |                |                |                |                |                | 6752<br>(2.72) |                |                | 5650<br>(2.74) | 6205<br>(1.63) |                | 4836<br>(2.72) | 5313<br>(1.79) | 5851<br>(1.04) |                |
| 115         | 2482                         |                    |                |                |                |                |                |                |                |                |                | 6940<br>(2.97) |                |                | 5790<br>(2.99) | 6359<br>(1.78) |                | 4948<br>(2.97) | 5436<br>(1.96) | 5986<br>(1.14) |                |
| 120         | 2590                         |                    |                |                |                |                |                |                |                |                |                | 7125<br>(3.24) |                |                | 5927<br>(3.24) | 6657<br>(1.94) |                | 5057<br>(3.24) | 5556<br>(2.13) | 6118<br>(1.24) |                |
| 125         | 2700                         |                    |                |                |                |                |                |                |                |                |                | 7307<br>(3.51) |                |                | 6061<br>(3.54) | 6802<br>(2.10) |                | 5164<br>(3.51) | 5673<br>(2.32) | 6247<br>(1.34) |                |
| 130         | 2810                         |                    |                |                |                |                |                |                |                |                |                | 7486<br>(3.80) |                |                | 6194<br>(3.83) | 6802<br>(2.27) |                | 5269<br>(3.80) | 5788<br>(2.51) | 6274<br>(1.45) |                |
| 135         | 2918                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                | 6944<br>(2.45) |                |                | 5901<br>(2.70) | 6498<br>(1.57) |                |
| 140         | 3022                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                | 7084<br>(2.64) |                |                | 6012<br>(2.91) | 6620<br>(1.69) |                |
| 145         | 3130                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                | 7222<br>(2.83) |                |                | 6121<br>(3.12) | 6741<br>(1.81) |                |
| 150         | 3240                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                | 7358<br>(3.03) |                |                | 6229<br>(3.34) | 6859<br>(1.94) |                |
| 155         | 3350                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                | 7492<br>(3.23) |                |                | 6634<br>(3.56) | 6975<br>(2.07) |                |
| 160         | 3460                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                | 7624<br>(3.44) |                |                | 6438<br>(3.80) | 7089<br>(2.20) |                |
| 165         | 3565                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                | 7754<br>(3.66) |                |                |                | 7202<br>(2.34) |                |
| 170         | 3675                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                | 7882<br>(3.89) |                |                |                | 7313<br>(2.49) |                |

- NOTES:**
1. Numbers in parentheses ( ) indicate nozzle pressure (in. wg).
  2. Ratings are based on  $\Delta t = 25^\circ\text{F}$ , 1.50 gpm, 8 ft water coil pressure drop.
  3.  $\Delta t = t_{rm} - t_{ew}$  where  $t_{rm}$  = room temperature and  $t_{ew}$  = entering-water temperature.
  4. All ratings include allowance for lint screen.
  5. For coil capacity at  $\Delta t$  not equal to  $25^\circ\text{F}$ , use the formula:  
 $(t_{rm} - t_{ew})/25 \times \text{rating at } 25^\circ\text{F } \Delta t$ .
  6. For primary air capacity at other than 20 F  $\Delta t$  use the formula:  
 $\text{Btuh} = \text{cfm} \times 1.08 \times (t_{rm} - t_{pa})$  where  $t_{pa}$  = primary air temperature.
  7. For capacities other than 1.50 gpm, see Coil Capacity Multipliers for Flow Rates table on page 21.
  8. To facilitate balanced water systems, all units regardless of size have the same pressure drop.

# Performance data (cont)



## 36SL COOLING COIL CAPACITIES

| PRIMARY AIR |                              | NOZZLE ARRANGEMENT |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
|-------------|------------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| cfm         | Capacity<br>20 F T<br>(Btuh) | 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                          | 1614<br>(0.89)     |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 20          | 432                          | 2123<br>(1.59)     | 2185<br>(0.94) |                |                | 2151<br>(0.81) |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 25          | 540                          | 2626<br>(2.48)     | 2702<br>(1.47) | 2752<br>(0.97) |                | 2504<br>(1.26) | 2735<br>(0.74) |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 30          | 648                          | 3125<br>(3.57)     | 3215<br>(2.11) | 3274<br>(1.39) |                | 2836<br>(1.82) | 3098<br>(1.07) | 3308<br>(0.71) |                | 2639<br>(0.89) |                |                |                |                |                |                |                |                |                |                |                |
| 35          | 756                          |                    | 3724<br>(2.88) | 3792<br>(1.90) | 3772<br>(1.10) | 3151<br>(2.48) | 3441<br>(1.46) | 3675<br>(0.97) |                | 2902<br>(1.21) | 3204<br>(0.71) |                |                |                |                |                |                |                |                |                |                |
| 40          | 864                          |                    | 4229<br>(3.76) | 4306<br>(2.48) | 4284<br>(1.44) | 3451<br>(3.24) | 3770<br>(1.91) | 4025<br>(1.26) | 4267<br>(0.73) | 3152<br>(1.58) | 3479<br>(0.94) |                |                | 2867<br>(0.92) |                |                |                |                |                |                |                |
| 45          | 972                          |                    |                | 4818<br>(3.14) | 4793<br>(1.82) |                | 4085<br>(2.42) | 4362<br>(1.60) | 4624<br>(0.93) | 3389<br>(2.01) | 3742<br>(1.19) | 4030<br>(0.78) |                | 3058<br>(1.17) | 3466<br>(0.72) |                |                |                |                |                |                |
| 50          | 1080                         |                    |                | 5326<br>(3.88) | 5299<br>(2.25) |                | 4390<br>(2.99) | 4687<br>(1.97) | 4968<br>(1.14) | 3617<br>(2.48) | 3993<br>(1.46) | 4300<br>(0.96) | 4612<br>(0.56) | 3241<br>(1.45) | 3673<br>(0.89) |                |                |                | 3011<br>(0.95) |                |                |
| 55          | 1188                         |                    |                |                | 5803<br>(2.72) |                | 4685<br>(3.62) | 5002<br>(2.39) | 5302<br>(1.39) | 3836<br>(3.00) | 4235<br>(1.77) | 4561<br>(1.17) | 4892<br>(0.68) | 3415<br>(1.75) | 3871<br>(1.07) | 4182<br>(0.68) |                |                | 3161<br>(1.15) |                |                |
| 60          | 1296                         |                    |                |                | 6304<br>(3.24) |                |                | 5308<br>(2.85) | 5626<br>(1.65) | 4048<br>(3.57) | 4469<br>(2.11) | 4812<br>(1.39) | 5162<br>(0.81) | 3582<br>(2.09) | 4060<br>(1.28) | 4387<br>(0.81) |                |                | 3305<br>(1.36) | 3742<br>(0.81) |                |
| 65          | 1405                         |                    |                |                | 6804<br>(3.80) |                |                | 5606<br>(3.34) | 5942<br>(1.94) |                | 4695<br>(2.48) | 5056<br>(1.63) | 5423<br>(0.95) | 3743<br>(2.45) | 4243<br>(1.50) | 4584<br>(0.95) |                |                | 3444<br>(1.60) | 3898<br>(0.95) |                |
| 70          | 1512                         |                    |                |                |                |                |                | 5897<br>(3.88) | 6250<br>(2.25) |                | 4915<br>(2.87) | 5293<br>(1.90) | 5677<br>(1.10) | 3899<br>(2.84) | 4419<br>(1.74) | 4775<br>(1.11) |                |                | 3577<br>(1.86) | 4049<br>(1.10) | 4449<br>(0.72) |
| 75          | 1620                         |                    |                |                |                |                |                |                | 6652<br>(2.58) |                | 5128<br>(3.30) | 5523<br>(2.18) | 5924<br>(1.26) | 4050<br>(3.26) | 4590<br>(2.00) | 4959<br>(1.27) | 5446<br>(0.75) | 3706<br>(2.13) | 4195<br>(1.26) | 4609<br>(0.83) |                |
| 80          | 1730                         |                    |                |                |                |                |                |                | 6847<br>(2.94) |                | 5337<br>(3.76) | 5747<br>(2.48) | 6164<br>(1.44) | 4196<br>(3.71) | 4756<br>(2.27) | 5138<br>(1.45) | 5643<br>(0.86) | 3830<br>(2.43) | 4336<br>(1.44) | 4764<br>(0.95) |                |
| 85          | 1838                         |                    |                |                |                |                |                |                | 7136<br>(3.32) |                |                | 5966<br>(2.80) | 6399<br>(1.62) |                | 4917<br>(2.57) | 5312<br>(1.63) | 5834<br>(0.97) | 3951<br>(2.74) | 4473<br>(1.62) | 4914<br>(1.07) |                |
| 90          | 1942                         |                    |                |                |                |                |                |                | 7419<br>(3.72) |                |                | 6181<br>(3.14) | 6629<br>(1.82) |                | 5074<br>(2.88) | 5482<br>(1.83) | 6020<br>(1.09) | 4069<br>(3.08) | 4606<br>(1.82) | 5060<br>(1.20) | 5572<br>(0.69) |
| 95          | 2065                         |                    |                |                |                |                |                |                |                |                |                | 6390<br>(3.50) | 6854<br>(2.03) |                | 5227<br>(3.21) | 5647<br>(2.04) | 6202<br>(1.21) | 4183<br>(3.43) | 4735<br>(2.03) | 5203<br>(1.34) | 5729<br>(0.77) |
| 100         | 2160                         |                    |                |                |                |                |                |                |                |                |                | 6596<br>(3.87) | 7074<br>(2.25) |                | 5376<br>(3.56) | 5809<br>(2.26) | 6379<br>(1.34) | 4295<br>(3.80) | 4862<br>(2.25) | 5341<br>(1.48) | 5881<br>(0.86) |
| 105         | 2265                         |                    |                |                |                |                |                |                |                |                |                |                | 7290<br>(2.48) |                | 5523<br>(3.92) | 5967<br>(2.50) | 6552<br>(1.48) |                | 4985<br>(2.48) | 5476<br>(1.63) | 6030<br>(0.95) |
| 110         | 2375                         |                    |                |                |                |                |                |                |                |                |                |                | 7503<br>(2.72) |                |                | 6121<br>(2.74) | 6722<br>(1.63) |                | 5105<br>(2.72) | 5609<br>(1.79) | 6176<br>(1.04) |
| 115         | 2482                         |                    |                |                |                |                |                |                |                |                |                |                | 771<br>(2.97)  |                |                | 6272<br>(2.99) | 6688<br>(1.78) |                | 5223<br>(2.97) | 5738<br>(1.96) | 6318<br>(1.14) |
| 120         | 2590                         |                    |                |                |                |                |                |                |                |                |                |                | 7917<br>(3.24) |                |                | 6421<br>(3.26) | 7051<br>(1.94) |                | 5338<br>(3.24) | 5864<br>(2.13) | 6457<br>(1.24) |
| 125         | 2700                         |                    |                |                |                |                |                |                |                |                |                |                | 8119<br>(3.51) |                |                | 6567<br>(3.54) | 7211<br>(2.10) |                | 5451<br>(3.51) | 5988<br>(2.32) | 6594<br>(1.34) |
| 130         | 2810                         |                    |                |                |                |                |                |                |                |                |                |                | 8317<br>(3.80) |                |                | 6710<br>(3.83) | 7369<br>(2.27) |                | 5561<br>(3.80) | 6110<br>(2.51) | 6728<br>(1.45) |
| 135         | 2918                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7523<br>(2.45) |                |                | 6229<br>(2.70) | 6859<br>(1.57) |
| 140         | 3022                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7675<br>(2.64) |                |                | 6346<br>(2.91) | 6988<br>(1.69) |
| 145         | 3130                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7824<br>(2.83) |                |                | 6462<br>(3.12) | 7115<br>(1.81) |
| 150         | 3240                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7972<br>(3.03) |                |                | 6575<br>(3.34) | 7240<br>(1.94) |
| 155         | 3350                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8116<br>(3.23) |                |                | 6686<br>(3.56) | 7363<br>(2.07) |
| 160         | 3460                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8259<br>(3.44) |                |                | 6796<br>(3.80) | 7483<br>(2.20) |
| 165         | 3565                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8400<br>(3.66) |                |                |                | 7602<br>(2.34) |
| 170         | 3675                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8539<br>(3.89) |                |                |                | 7719<br>(2.49) |

**NOTES:**

- Numbers in parentheses ( ) indicate nozzle pressure (in. wg).
- Ratings are based on  $\Delta t = 25^\circ\text{F}$ , 1.50 gpm, 8 ft water coil pressure drop.
- $\Delta t = t_{rm} - t_{ew}$  where  $t_{rm}$  = room temperature and  $t_{ew}$  = entering-water temperature.
- All ratings include allowance for lint screen.
- For coil capacity at  $\Delta t$  not equal to  $25^\circ\text{F}$ , use the formula:  
 $(t_{rm} - t_{ew})/25 \times \text{rating at } 25^\circ\text{F } \Delta t$ .
- For primary air capacity at other than 20 F  $\Delta t$  use the formula:  
 $\text{Btuh} = \text{cfm} \times 1.08 \times (t_{rm} - t_{pa})$  where  $t_{pa}$  = primary air temperature.
- For capacities other than 1.50 gpm, see Coil Capacity Multipliers for Flow Rates table on page 21.
- To facilitate balanced water systems, all units regardless of size have the same pressure drop.



### 36SM COOLING COIL CAPACITIES

| PRIMARY AIR |                              | NOZZLE ARRANGEMENT |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
|-------------|------------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| cfm         | Capacity<br>20 F T<br>(Btuh) | 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                          | 1517<br>(0.89)     |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 20          | 432                          | 1996<br>(1.59)     | 2054<br>(0.94) |                |                | 1979<br>(0.81) |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 25          | 540                          | 2469<br>(2.48)     | 2540<br>(1.47) | 2587<br>(0.97) |                | 2304<br>(1.26) | 2516<br>(0.74) |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 30          | 648                          | 2938<br>(3.57)     | 3022<br>(2.11) | 3079<br>(1.39) |                | 2609<br>(1.82) | 2850<br>(1.07) | 3043<br>(0.71) |                | 2375<br>(0.89) |                |                |                |                |                |                |                |                |                |                |                |
| 35          | 756                          |                    | 3500<br>(2.88) | 3565<br>(1.90) | 3546<br>(1.10) | 2899<br>(2.48) | 3166<br>(1.46) | 3381<br>(0.97) |                | 2612<br>(1.21) | 2884<br>(0.71) |                |                |                |                |                |                |                |                |                |                |
| 40          | 864                          |                    | 3976<br>(3.76) | 4048<br>(2.48) | 4027<br>(1.44) | 3175<br>(3.24) | 3468<br>(1.91) | 3703<br>(1.26) | 3926<br>(0.73) | 2837<br>(1.58) | 3131<br>(0.94) |                |                | 2523<br>(0.92) |                |                |                |                |                |                |                |
| 45          | 972                          |                    |                | 4529<br>(3.14) | 4506<br>(1.82) |                | 3758<br>(2.42) | 4013<br>(1.60) | 4254<br>(0.93) | 3050<br>(2.01) | 3368<br>(1.19) | 3627<br>(0.78) |                | 2691<br>(1.17) | 3050<br>(0.72) |                |                |                |                |                |                |
| 50          | 1080                         |                    |                | 5007<br>(3.88) | 4981<br>(2.25) |                | 4039<br>(2.99) | 4312<br>(1.97) | 4571<br>(1.14) | 3453<br>(2.48) | 3594<br>(1.46) | 3870<br>(0.96) | 4151<br>(0.56) | 2852<br>(1.45) | 3231<br>(0.89) |                |                |                | 2560<br>(0.95) |                |                |
| 55          | 1188                         |                    |                |                | 5454<br>(2.72) |                | 4310<br>(3.62) | 4602<br>(2.39) | 4958<br>(1.39) | 5064<br>(3.00) | 3812<br>(1.77) | 4105<br>(1.17) | 4403<br>(0.68) | 3005<br>(1.75) | 3407<br>(1.07) | 3680<br>(0.68) |                |                | 2687<br>(1.15) |                |                |
| 60          | 1296                         |                    |                |                | 5926<br>(3.24) |                |                | 4883<br>(2.85) | 5176<br>(1.65) | 3643<br>(3.57) | 4022<br>(2.11) | 4335<br>(1.39) | 4646<br>(0.81) | 3152<br>(2.09) | 3573<br>(1.28) | 3861<br>(0.81) |                |                | 2809<br>(1.36) | 3181<br>(0.81) |                |
| 65          | 1405                         |                    |                |                | 6396<br>(3.80) |                |                | 5158<br>(3.34) | 5467<br>(1.94) |                | 4226<br>(2.48) | 4559<br>(1.63) | 4881<br>(0.95) | 3294<br>(2.45) | 3734<br>(1.50) | 4034<br>(0.95) |                |                | 2927<br>(1.60) | 3314<br>(0.95) |                |
| 70          | 1512                         |                    |                |                |                |                |                | 5425<br>(3.88) | 5750<br>(2.25) |                | 4424<br>(2.87) | 4769<br>(1.90) | 5109<br>(1.10) | 3431<br>(2.84) | 3889<br>(1.74) | 4202<br>(1.11) |                |                | 3040<br>(1.86) | 3442<br>(1.10) | 3782<br>(0.72) |
| 75          | 1620                         |                    |                |                |                |                |                |                | 6028<br>(2.58) |                | 4615<br>(3.30) | 4971<br>(2.18) | 5332<br>(1.26) | 3564<br>(3.26) | 4039<br>(2.00) | 4364<br>(1.27) | 4793<br>(0.75) | 3151<br>(2.13) | 3566<br>(1.26) | 3918<br>(0.83) |                |
| 80          | 1730                         |                    |                |                |                |                |                |                | 6300<br>(2.94) |                | 4803<br>(3.76) | 5172<br>(2.48) | 5548<br>(1.44) | 3693<br>(3.71) | 4183<br>(2.27) | 4522<br>(1.45) | 4966<br>(0.86) | 3256<br>(2.43) | 3686<br>(1.44) | 4050<br>(0.95) |                |
| 85          | 1838                         |                    |                |                |                |                |                |                | 6565<br>(3.32) |                |                | 5370<br>(2.80) | 5759<br>(1.62) |                | 4327<br>(2.57) | 4675<br>(1.63) | 5134<br>(1.09) | 3359<br>(2.74) | 3803<br>(1.62) | 4177<br>(1.07) |                |
| 90          | 1942                         |                    |                |                |                |                |                |                | 6826<br>(3.72) |                |                | 5563<br>(3.14) | 5966<br>(1.82) |                | 4465<br>(2.88) | 4824<br>(1.83) | 5298<br>(1.09) | 3459<br>(3.08) | 3915<br>(1.82) | 4301<br>(1.20) | 4736<br>(0.69) |
| 95          | 2065                         |                    |                |                |                |                |                |                |                |                |                | 5751<br>(3.50) | 6169<br>(2.03) |                | 4600<br>(3.21) | 4970<br>(2.04) | 5458<br>(1.21) | 3556<br>(3.43) | 4025<br>(2.03) | 4423<br>(1.34) | 4870<br>(0.77) |
| 100         | 2160                         |                    |                |                |                |                |                |                |                |                |                | 5936<br>(3.87) | 6367<br>(2.25) |                | 4731<br>(3.56) | 5112<br>(2.26) | 5614<br>(1.34) | 3651<br>(3.80) | 4133<br>(2.25) | 4540<br>(1.48) | 5000<br>(0.86) |
| 105         | 2265                         |                    |                |                |                |                |                |                |                |                |                |                | 6651<br>(2.48) |                | 4860<br>(3.92) | 5251<br>(2.50) | 5766<br>(1.48) |                | 4237<br>(2.48) | 4655<br>(1.63) | 5126<br>(0.95) |
| 110         | 2375                         |                    |                |                |                |                |                |                |                |                |                |                | 6753<br>(2.72) |                |                | 5387<br>(2.74) | 5916<br>(1.63) |                | 4340<br>(2.72) | 4678<br>(1.79) | 5250<br>(1.04) |
| 115         | 2482                         |                    |                |                |                |                |                |                |                |                |                |                | 6940<br>(2.97) |                |                | 5520<br>(2.99) | 6061<br>(1.78) |                | 4440<br>(2.97) | 4877<br>(1.96) | 5370<br>(1.14) |
| 120         | 2590                         |                    |                |                |                |                |                |                |                |                |                |                | 7126<br>(3.24) |                |                | 5651<br>(3.26) | 6205<br>(1.94) |                | 4537<br>(3.24) | 4985<br>(2.13) | 5489<br>(1.24) |
| 125         | 2700                         |                    |                |                |                |                |                |                |                |                |                |                | 7307<br>(3.51) |                |                | 5780<br>(3.54) | 6346<br>(2.10) |                | 4633<br>(3.51) | 5090<br>(2.32) | 5605<br>(1.34) |
| 130         | 2810                         |                    |                |                |                |                |                |                |                |                |                |                | 7485<br>(3.80) |                |                | 5905<br>(3.83) | 6485<br>(2.27) |                | 4727<br>(3.80) | 5194<br>(2.51) | 5719<br>(1.45) |
| 135         | 2918                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 6620<br>(2.45) |                |                | 5295<br>(2.70) | 5830<br>(1.57) |
| 140         | 3022                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 6754<br>(2.64) |                |                | 5395<br>(2.91) | 5940<br>(1.69) |
| 145         | 3130                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 6885<br>(2.83) |                |                | 5493<br>(3.12) | 6048<br>(1.81) |
| 150         | 3240                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7075<br>(3.03) |                |                | 5589<br>(3.34) | 6154<br>(1.94) |
| 155         | 3350                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7142<br>(3.23) |                |                | 5683<br>(3.56) | 6529<br>(2.07) |
| 160         | 3460                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7268<br>(3.44) |                |                | 5777<br>(3.80) | 6361<br>(2.20) |
| 165         | 3565                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7392<br>(3.66) |                |                |                | 6462<br>(2.34) |
| 170         | 3675                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7515<br>(3.89) |                |                |                | 6560<br>(2.49) |

- NOTES:**
1. Numbers in parentheses ( ) indicate nozzle pressure (in. wg).
  2. Ratings are based on  $\Delta t = 25^\circ\text{F}$ , 1.50 gpm, 8 ft water coil pressure drop.
  3.  $\Delta t = t_{rm} - t_{ew}$  where  $t_{rm}$  = room temperature and  $t_{ew}$  = entering-water temperature.
  4. All ratings include allowance for lint screen.
  5. For coil capacity at  $\Delta t$  not equal to  $25^\circ\text{F}$ , use the formula:  
 $(t_{rm} - t_{ew})/25 \times \text{rating at } 25^\circ\text{F } \Delta t$ .
  6. For primary air capacity at other than 20 F  $\Delta t$  use the formula:  
 $\text{Btuh} = \text{cfm} \times 1.08 \times (t_{rm} - t_{pa})$  where  $t_{pa}$  = primary air temperature.
  7. For capacities other than 1.50 gpm, see Coil Capacity Multipliers for Flow Rates table on page 21.
  8. To facilitate balanced water systems, all units regardless of size have the same pressure drop.

# Performance data (cont)



## 36SP COOLING COIL CAPACITIES

| PRIMARY AIR |                              | NOZZLE ARRANGEMENT |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |
|-------------|------------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--|
| cfm         | Capacity<br>20 F T<br>(Btuh) | 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                          | 1851<br>(0.89)     |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |
| 20          | 432                          | 2436<br>(1.59)     | 2505<br>(0.94) |                |                | 2375<br>(0.81) |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |
| 25          | 540                          | 3012<br>(2.48)     | 3100<br>(1.47) | 3156<br>(0.97) |                | 2765<br>(1.26) | 3021<br>(0.74) |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |  |
| 30          | 648                          | 3584<br>(3.57)     | 3687<br>(2.11) | 3754<br>(1.39) |                | 3132<br>(1.82) | 3421<br>(1.07) | 3652<br>(0.71) |                | 2803<br>(0.89) |                |                |                |                |                |                |                |                |                |                |                |                |  |
| 35          | 756                          |                    | 4270<br>(2.88) | 4348<br>(1.90) | 4326<br>(1.10) | 3479<br>(2.48) | 3800<br>(1.46) | 4057<br>(0.97) |                | 3083<br>(1.21) | 3403<br>(0.71) |                |                |                |                |                |                |                |                |                |                |                |  |
| 40          | 864                          |                    | 4850<br>(3.76) | 4939<br>(2.48) | 4912<br>(1.44) | 3811<br>(3.24) | 4162<br>(1.91) | 4445<br>(1.26) | 4710<br>(0.73) | 3347<br>(1.58) | 3695<br>(0.94) |                |                | 2900<br>(0.92) |                |                |                |                |                |                |                |                |  |
| 45          | 972                          |                    |                | 5525<br>(3.14) | 5496<br>(1.82) |                | 4510<br>(2.42) | 4816<br>(1.60) | 5104<br>(0.93) | 3000<br>(2.01) | 3974<br>(1.19) | 4280<br>(0.78) |                | 3094<br>(1.17) | 3508<br>(0.72) |                |                |                |                |                |                |                |  |
| 50          | 1080                         |                    |                | 6108<br>(3.88) | 6077<br>(2.25) |                | 4847<br>(2.99) | 5175<br>(1.97) | 5485<br>(1.14) | 3841<br>(2.48) | 4241<br>(1.46) | 4568<br>(0.96) | 4899<br>(0.56) | 3279<br>(1.45) | 3716<br>(0.89) |                |                |                | 2893<br>(0.95) |                |                |                |  |
| 55          | 1188                         |                    |                |                | 6654<br>(2.72) |                | 5172<br>(3.62) | 5523<br>(2.39) | 5854<br>(1.39) | 4074<br>(3.00) | 4497<br>(1.77) | 4894<br>(1.17) | 5195<br>(0.68) | 3455<br>(1.75) | 3916<br>(1.07) | 4231<br>(0.68) |                |                | 3038<br>(1.15) |                |                |                |  |
| 60          | 1296                         |                    |                |                | 7230<br>(3.24) |                |                | 5861<br>(2.85) | 6212<br>(1.65) | 4300<br>(3.57) | 4746<br>(2.11) | 5111<br>(1.39) | 5482<br>(0.81) | 3625<br>(2.09) | 4108<br>(1.28) | 4439<br>(0.81) |                |                | 3177<br>(1.36) | 3596<br>(0.81) |                |                |  |
| 65          | 1405                         |                    |                |                | 7812<br>(3.80) |                |                | 6190<br>(3.34) | 6562<br>(1.94) |                | 4986<br>(2.48) | 5370<br>(1.63) | 5760<br>(0.95) | 3788<br>(2.45) | 4293<br>(1.50) | 4591<br>(0.95) |                |                | 3309<br>(1.60) | 3746<br>(0.95) |                |                |  |
| 70          | 1512                         |                    |                |                |                |                |                | 6511<br>(3.88) | 6901<br>(2.25) |                | 5219<br>(2.87) | 5621<br>(1.90) | 6030<br>(1.10) | 3945<br>(2.84) | 4472<br>(1.74) | 4831<br>(1.11) |                |                | 3438<br>(1.86) | 3899<br>(1.10) |                |                |  |
| 75          | 1620                         |                    |                |                |                |                |                |                | 7233<br>(2.58) |                | 5446<br>(3.30) | 5865<br>(2.18) | 6921<br>(1.26) | 4098<br>(3.26) | 4645<br>(2.00) | 5018<br>(1.27) | 5511<br>(0.75) | 3562<br>(2.13) | 4032<br>(1.26) |                |                |                |  |
| 80          | 1730                         |                    |                |                |                |                |                |                | 7559<br>(2.94) |                | 5667<br>(3.76) | 6104<br>(2.48) | 6547<br>(1.44) | 4245<br>(3.71) | 4812<br>(2.27) | 5200<br>(1.45) | 5710<br>(0.86) | 3682<br>(2.43) | 4167<br>(1.44) |                |                |                |  |
| 85          | 1838                         |                    |                |                |                |                |                |                | 7878<br>(3.32) |                |                | 6336<br>(2.80) | 6796<br>(1.62) |                | 4975<br>(2.57) | 5375<br>(1.63) | 5903<br>(2.74) | 3797<br>(2.74) | 4300<br>(1.62) |                |                |                |  |
| 90          | 1942                         |                    |                |                |                |                |                |                | 8191<br>(3.71) |                |                | 6564<br>(3.14) | 7090<br>(1.82) |                | 5134<br>(2.88) | 5547<br>(1.83) | 6092<br>(1.09) | 3910<br>(3.06) | 4426<br>(1.82) |                |                |                |  |
| 95          | 2065                         |                    |                |                |                |                |                |                |                |                |                | 6787<br>(3.50) | 7280<br>(2.03) |                | 5289<br>(3.21) | 5714<br>(2.04) | 6275<br>(1.21) | 4020<br>(3.43) | 4551<br>(2.03) |                |                |                |  |
| 100         | 2160                         |                    |                |                |                |                |                |                |                |                |                | 7005<br>(3.87) | 7513<br>(2.25) |                | 5440<br>(3.56) | 5878<br>(2.26) | 6454<br>(1.34) | 4127<br>(3.80) | 4672<br>(2.25) |                |                |                |  |
| 105         | 2265                         |                    |                |                |                |                |                |                |                |                |                |                | 7743<br>(2.48) |                | 5588<br>(3.92) | 6037<br>(2.50) | 6630<br>(1.48) |                | 4790<br>(2.48) | 5262<br>(1.63) | 5795<br>(0.95) |                |  |
| 110         | 2375                         |                    |                |                |                |                |                |                |                |                |                |                |                |                | 6194<br>(2.74) | 6802<br>(1.63) |                | 4906<br>(2.72) | 5390<br>(1.79) | 5935<br>(1.04) |                |                |  |
| 115         | 2482                         |                    |                |                |                |                |                |                |                |                |                |                | 8190<br>(2.97) |                | 6397<br>(2.99) | 6970<br>(1.78) |                | 5018<br>(2.97) | 5514<br>(1.96) | 6072<br>(1.14) |                |                |  |
| 120         | 2590                         |                    |                |                |                |                |                |                |                |                |                |                |                | 8408<br>(3.24) | 6497<br>(3.26) | 7134<br>(1.94) |                | 5130<br>(3.24) | 5636<br>(2.13) | 6205<br>(1.24) |                |                |  |
| 125         | 2700                         |                    |                |                |                |                |                |                |                |                |                |                |                |                | 8622<br>(3.51) | 6644<br>(3.54) | 7296<br>(2.10) |                | 5238<br>(3.51) | 5757<br>(2.32) | 6337<br>(1.34) |                |  |
| 130         | 2810                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                | 8834<br>(3.80) | 6790<br>(3.83) | 7455<br>(2.27) |                | 5344<br>(3.80) | 5871<br>(2.51) | 6465<br>(1.45) |  |
| 135         | 2918                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7612<br>(2.45) |                |                | 5986<br>(2.70) | 6592<br>(1.57) |                |  |
| 140         | 3022                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7765<br>(2.64) |                |                | 6099<br>(2.91) | 6716<br>(1.69) |                |  |
| 145         | 3130                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7917<br>(2.83) |                |                | 6210<br>(3.12) | 6837<br>(1.81) |                |  |
| 150         | 3240                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8065<br>(3.03) |                |                | 6318<br>(3.34) | 6957<br>(1.94) |                |  |
| 155         | 3350                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8212<br>(3.23) |                |                | 6425<br>(3.56) | 7076<br>(2.07) |                |  |
| 160         | 3460                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8357<br>(3.44) |                |                | 6531<br>(3.80) | 7191<br>(2.20) |                |  |
| 165         | 3565                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8500<br>(3.66) |                |                |                | 7306<br>(2.34) |                |  |
| 170         | 3675                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8640<br>(3.89) |                |                |                | 7418<br>(2.49) |                |  |

**NOTES:**

1. Numbers in parentheses ( ) indicate nozzle pressure (in. wg).
2. Ratings are based on  $\Delta t = 25^\circ\text{F}$ , 1.50 gpm, 8 ft water coil pressure drop.
3.  $\Delta t = t_{rm} - t_{ew}$  where  $t_{rm}$  = room temperature and  $t_{ew}$  = entering-water temperature.
4. All ratings include allowance for lint screen.
5. For coil capacity at  $\Delta t$  not equal to  $25^\circ\text{F}$ , use the formula:  
 $(t_{rm} - t_{ew})/25 \times \text{rating at } 25^\circ\text{F } \Delta t$ .
6. For primary air capacity at other than 20 F  $\Delta t$  use the formula:  
 $\text{Btuh} = \text{cfm} \times 1.08 \times (t_{rm} - t_{pa})$  where  $t_{pa}$  = primary air temperature.
7. For capacities other than 1.50 gpm, see Coil Capacity Multipliers for Flow Rates table on page 21.
8. To facilitate balanced water systems, all units regardless of size have the same pressure drop.



### 36ST COOLING COIL CAPACITIES

| PRIMARY AIR |                              | NOZZLE ARRANGEMENT |                |                |                |                |                |                |                |                |                |                |                 |                |                |                |                 |                |                |                |                 |
|-------------|------------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|----------------|----------------|----------------|-----------------|----------------|----------------|----------------|-----------------|
| cfm         | Capacity<br>20 F T<br>(Btuh) | 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                          | 2131<br>(0.89)     |                |                |                |                |                |                |                |                |                |                |                 |                |                |                |                 |                |                |                |                 |
| 20          | 432                          | 2803<br>(1.59)     | 2884<br>(0.94) |                |                | 2839<br>(0.81) |                |                |                |                |                |                |                 |                |                |                |                 |                |                |                |                 |
| 25          | 540                          | 3467<br>(2.48)     | 3567<br>(1.47) | 3632<br>(0.97) |                | 3306<br>(1.26) | 3611<br>(0.74) |                |                |                |                |                |                 |                |                |                |                 |                |                |                |                 |
| 30          | 648                          | 4125<br>(3.57)     | 4244<br>(2.11) | 4321<br>(1.39) |                | 3744<br>(1.82) | 4089<br>(1.07) | 4367<br>(0.71) |                | 3484<br>(0.89) |                |                |                 |                |                |                |                 |                |                |                |                 |
| 35          | 756                          |                    | 4915<br>(2.88) | 5005<br>(1.90) | 4979<br>(1.10) | 4159<br>(2.48) | 4543<br>(1.46) | 4851<br>(0.97) |                | 3831<br>(1.21) | 4230<br>(0.71) |                |                 |                |                |                |                 |                |                |                |                 |
| 40          | 864                          |                    | 5582<br>(3.76) | 5684<br>(2.48) | 5655<br>(1.44) | 4556<br>(3.24) | 4976<br>(1.91) | 5314<br>(1.26) | 5632<br>(0.73) | 4160<br>(1.58) | 4593<br>(0.94) |                |                 | 3784<br>(0.92) |                |                |                 |                |                |                |                 |
| 45          | 972                          |                    |                | 6359<br>(3.14) | 6326<br>(1.82) |                | 5993<br>(2.42) | 5758<br>(1.60) | 6103<br>(0.93) | 4474<br>(2.01) | 4939<br>(1.19) | 5319<br>(0.78) |                 | 4037<br>(1.17) | 4576<br>(0.72) |                |                 |                |                |                |                 |
| 50          | 1080                         |                    |                | 7031<br>(3.88) | 6995<br>(2.25) |                | 5795<br>(2.99) | 6188<br>(1.97) | 6558<br>(1.14) | 4475<br>(2.48) | 5271<br>(1.46) | 5677<br>(0.96) | 6088<br>(0.56)  | 4278<br>(1.45) | 4849<br>(0.89) |                |                 | 3974<br>(0.95) |                |                |                 |
| 55          | 1188                         |                    |                |                | 7660<br>(2.72) |                | 6184<br>(3.62) | 6603<br>(2.39) | 6999<br>(1.39) | 5064<br>(3.00) | 5590<br>(1.77) | 6021<br>(1.17) | 6457<br>(0.68)  | 4508<br>(1.75) | 5109<br>(1.07) | 5520<br>(0.68) |                 | 4173<br>(1.15) |                |                |                 |
| 60          | 1296                         |                    |                |                | 8332<br>(3.24) |                |                | 7007<br>(2.85) | 7427<br>(1.65) | 5343<br>(3.57) | 5899<br>(2.11) | 6353<br>(1.39) | 6813<br>(0.81)  | 4729<br>(2.09) | 5360<br>(1.28) | 5790<br>(0.81) |                 | 4363<br>(1.36) | 4939<br>(0.81) |                |                 |
| 65          | 1405                         |                    |                |                | 8981<br>(3.80) |                |                | 7400<br>(3.34) | 7844<br>(1.94) |                | 6197<br>(2.48) | 6674<br>(1.63) | 7158<br>(0.95)  | 4941<br>(2.45) | 5601<br>(1.50) | 6051<br>(0.95) |                 | 4546<br>(1.60) | 5146<br>(0.95) |                |                 |
| 70          | 1512                         |                    |                |                |                |                |                | 7784<br>(3.88) | 8251<br>(2.25) |                | 6487<br>(2.87) | 6987<br>(1.90) | 7493<br>(1.10)  | 5147<br>(2.84) | 5834<br>(1.74) | 6303<br>(1.11) |                 | 4722<br>(1.86) | 5345<br>(1.10) | 5873<br>(0.72) |                 |
| 75          | 1620                         |                    |                |                |                |                |                | 8648<br>(2.58) |                |                | 6769<br>(3.30) | 7290<br>(2.18) | 7819<br>(1.26)  | 5346<br>(3.26) | 6059<br>(2.00) | 6546<br>(1.27) | 7189<br>(0.75)  | 4892<br>(2.13) | 5538<br>(1.26) | 6084<br>(0.83) |                 |
| 80          | 1730                         |                    |                |                |                |                |                |                | 9038<br>(2.94) |                | 7045<br>(3.76) | 7587<br>(1.44) | 8137<br>(3.71)  | 5539<br>(2.27) | 6278<br>(1.45) | 6783<br>(0.86) | 7449<br>(2.43)  | 5056<br>(1.44) | 5724<br>(1.44) | 6289<br>(0.95) |                 |
| 85          | 1838                         |                    |                |                |                |                |                | 9419<br>(3.32) |                |                |                | 7876<br>(2.80) | 8447<br>(1.62)  |                | 6491<br>(2.57) | 7012<br>(1.63) | 7701<br>(0.97)  | 5216<br>(2.74) | 5905<br>(1.62) | 6487<br>(1.07) |                 |
| 90          | 1942                         |                    |                |                |                |                |                | 9794<br>(3.71) |                |                |                | 8159<br>(3.14) | 8750<br>(1.82)  |                | 6698<br>(2.88) | 7236<br>(1.83) | 7947<br>(1.09)  | 5371<br>(3.06) | 6080<br>(1.82) | 6680<br>(1.20) | 7356<br>(0.69)  |
| 95          | 2065                         |                    |                |                |                |                |                |                |                |                |                | 8435<br>(3.50) | 9047<br>(2.03)  |                | 6900<br>(3.21) | 7455<br>(2.04) | 8187<br>(1.21)  | 5522<br>(3.43) | 6251<br>(2.03) | 6868<br>(1.34) | 7562<br>(0.77)  |
| 100         | 2160                         |                    |                |                |                |                |                |                |                |                |                | 8707<br>(3.87) | 9338<br>(2.25)  |                | 7097<br>(3.56) | 7668<br>(2.26) | 8421<br>(1.34)  | 5669<br>(3.80) | 6417<br>(2.25) | 7050<br>(1.48) | 7764<br>(0.86)  |
| 105         | 2265                         |                    |                |                |                |                |                |                |                |                |                |                | 9624<br>(2.48)  |                | 7290<br>(3.92) | 7876<br>(2.50) | 8649<br>(1.48)  |                | 6580<br>(2.48) | 7729<br>(1.63) | 7960<br>(0.95)  |
| 110         | 2375                         |                    |                |                |                |                |                |                |                |                |                |                | 9904<br>(2.72)  |                |                | 8080<br>(2.74) | 8873<br>(1.63)  |                | 6739<br>(2.72) | 7403<br>(1.79) | 8152<br>(1.04)  |
| 115         | 2482                         |                    |                |                |                |                |                |                |                |                |                |                | 10179<br>(2.97) |                |                | 8280<br>(2.99) | 9093<br>(1.78)  |                | 6874<br>(2.97) | 7574<br>(1.96) | 8430<br>(1.14)  |
| 120         | 2590                         |                    |                |                |                |                |                |                |                |                |                |                | 10450<br>(3.24) |                |                | 8286<br>(3.26) | 9308<br>(1.94)  |                | 7046<br>(3.24) | 7741<br>(2.13) | 8524<br>(1.24)  |
| 125         | 2700                         |                    |                |                |                |                |                |                |                |                |                |                | 10717<br>(3.51) |                |                | 8668<br>(3.54) | 9519<br>(2.10)  |                | 7195<br>(3.51) | 7905<br>(2.32) | 8704<br>(1.34)  |
| 130         | 2810                         |                    |                |                |                |                |                |                |                |                |                |                | 10979<br>(3.80) |                |                | 8857<br>(3.83) | 9727<br>(2.27)  |                | 7341<br>(3.80) | 8065<br>(2.51) | 8881<br>(1.45)  |
| 135         | 2918                         |                    |                |                |                |                |                |                |                |                |                |                |                 |                |                |                | 9931<br>(2.45)  |                |                | 8223<br>(2.70) | 9054<br>(1.57)  |
| 140         | 3022                         |                    |                |                |                |                |                |                |                |                |                |                |                 |                |                |                | 10131<br>(2.64) |                |                | 8377<br>(2.91) | 9225<br>(1.69)  |
| 145         | 3130                         |                    |                |                |                |                |                |                |                |                |                |                |                 |                |                |                | 10328<br>(2.83) |                |                | 8529<br>(3.12) | 9392<br>(1.81)  |
| 150         | 3240                         |                    |                |                |                |                |                |                |                |                |                |                |                 |                |                |                | 10523<br>(3.03) |                |                | 8679<br>(3.34) | 9557<br>(1.94)  |
| 155         | 3350                         |                    |                |                |                |                |                |                |                |                |                |                |                 |                |                |                | 10714<br>(3.23) |                |                | 8826<br>(3.56) | 9719<br>(2.07)  |
| 160         | 3460                         |                    |                |                |                |                |                |                |                |                |                |                |                 |                |                |                | 10902<br>(3.44) |                |                | 8971<br>(3.80) | 9878<br>(2.20)  |
| 165         | 3565                         |                    |                |                |                |                |                |                |                |                |                |                |                 |                |                |                | 11088<br>(3.89) |                |                |                | 10035<br>(2.34) |
| 170         | 3675                         |                    |                |                |                |                |                |                |                |                |                |                |                 |                |                |                | 11272<br>(3.89) |                |                |                | 10190<br>(2.49) |

- NOTES:**
1. Numbers in parentheses ( ) indicate nozzle pressure (in. wg).
  2. Ratings are based on  $\Delta t = 25^\circ\text{F}$ , 1.50 gpm, 8 ft water coil pressure drop.
  3.  $\Delta t = t_{rm} - t_{ew}$  where  $t_{rm}$  = room temperature and  $t_{ew}$  = entering-water temperature.
  4. All ratings include allowance for lint screen.
  5. For coil capacity at  $\Delta t$  not equal to  $25^\circ\text{F}$ , use the formula:  
 $(t_{rm} - t_{ew})/25 \times \text{rating at } 25^\circ\text{F } \Delta t$ .
  6. For primary air capacity at other than 20 F  $\Delta t$  use the formula:  
 $\text{Btuh} = \text{cfm} \times 1.08 \times (t_{rm} - t_{pa})$  where  $t_{pa}$  = primary air temperature.
  7. For capacities other than 1.50 gpm, see Coil Capacity Multipliers for Flow Rates table on page 21.
  8. To facilitate balanced water systems, all units regardless of size have the same pressure drop.

# Performance data (cont)



## 36SV COOLING COIL CAPACITIES

| PRIMARY AIR |                              | NOZZLE ARRANGEMENT |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
|-------------|------------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| cfm         | Capacity<br>20 F T<br>(Btuh) | 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                          | 1537<br>(0.89)     |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 20          | 432                          | 2022<br>(1.59)     | 2080<br>(0.94) |                |                | 2098<br>(0.81) |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 25          | 540                          | 2501<br>(2.48)     | 2573<br>(1.47) | 2620<br>(0.97) |                | 2443<br>(1.26) | 2669<br>(0.74) |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| 30          | 648                          | 2976<br>(3.57)     | 3062<br>(2.11) | 3118<br>(1.39) |                | 2767<br>(1.82) | 3022<br>(1.07) | 3227<br>(0.71) |                | 2639<br>(0.89) |                |                |                |                |                |                |                |                |                |                |                |                |
| 35          | 756                          |                    | 3546<br>(2.88) | 3611<br>(1.90) | 3592<br>(1.10) | 3074<br>(2.48) | 3357<br>(1.46) | 3585<br>(0.97) |                | 2902<br>(1.21) | 3204<br>(0.71) |                |                |                |                |                |                |                |                |                |                |                |
| 40          | 864                          |                    | 4028<br>(3.76) | 4101<br>(2.48) | 4080<br>(1.44) | 3367<br>(3.24) | 3678<br>(1.91) | 3927<br>(1.26) | 4163<br>(0.73) | 3152<br>(1.58) | 3479<br>(0.94) |                |                | 2940<br>(0.92) |                |                |                |                |                |                |                |                |
| 45          | 972                          |                    |                | 4588<br>(3.14) | 4564<br>(1.82) |                | 3986<br>(2.42) | 4256<br>(1.60) | 4511<br>(0.93) | 3389<br>(2.01) | 3742<br>(1.19) | 4030<br>(0.78) |                | 3137<br>(1.17) | 3555<br>(0.72) |                |                |                |                |                |                |                |
| 50          | 1080                         |                    |                | 5073<br>(3.88) | 5046<br>(2.25) |                | 4283<br>(2.99) | 4573<br>(1.97) | 4847<br>(1.14) | 3617<br>(2.48) | 3993<br>(1.46) | 4300<br>(0.96) | 4612<br>(0.56) | 3324<br>(1.45) | 3767<br>(0.89) |                |                |                | 3169<br>(0.95) |                |                |                |
| 55          | 1188                         |                    |                |                | 5526<br>(2.72) |                | 4570<br>(3.62) | 4880<br>(2.39) | 5173<br>(1.39) | 3836<br>(3.00) | 4235<br>(1.77) | 4561<br>(1.17) | 4892<br>(0.68) | 3503<br>(1.75) | 3970<br>(1.07) | 4289<br>(0.68) |                |                | 3328<br>(1.15) |                |                |                |
| 60          | 1296                         |                    |                |                | 6004<br>(3.24) |                |                | 5179<br>(2.85) | 5489<br>(1.65) | 4048<br>(3.57) | 4469<br>(2.11) | 4812<br>(1.39) | 5162<br>(0.81) | 3674<br>(2.09) | 4164<br>(1.28) | 4499<br>(0.81) |                |                | 3479<br>(1.36) | 3939<br>(0.81) |                |                |
| 65          | 1405                         |                    |                |                |                |                |                | 5470<br>(3.34) | 5797<br>(1.94) |                | 4695<br>(2.48) | 5056<br>(1.63) | 5423<br>(0.95) | 3839<br>(2.45) | 4352<br>(1.50) | 4072<br>(0.95) |                |                | 3625<br>(1.60) | 4104<br>(0.95) |                |                |
| 70          | 1512                         |                    |                |                |                |                |                |                | 6098<br>(2.25) |                | 4915<br>(2.87) | 5293<br>(1.90) | 5677<br>(1.10) | 3999<br>(2.84) | 4533<br>(1.74) | 4897<br>(1.11) |                |                | 3765<br>(1.86) | 4263<br>(1.10) | 4683<br>(0.72) |                |
| 75          | 1620                         |                    |                |                |                |                |                |                | 6392<br>(2.58) |                | 5128<br>(3.30) | 5523<br>(2.18) | 5924<br>(1.26) | 4154<br>(3.26) | 4708<br>(2.00) | 5086<br>(1.27) | 5586<br>(0.75) | 3901<br>(2.13) | 4416<br>(1.26) | 4852<br>(0.83) |                |                |
| 80          | 1730                         |                    |                |                |                |                |                |                | 6680<br>(2.94) |                | 5337<br>(3.76) | 5747<br>(2.48) | 6164<br>(1.44) | 4304<br>(3.71) | 4878<br>(2.27) | 5270<br>(1.45) | 5788<br>(0.86) | 4032<br>(2.43) | 4564<br>(1.44) | 5015<br>(0.95) |                |                |
| 85          | 1838                         |                    |                |                |                |                |                |                | 6962<br>(3.32) |                |                | 5966<br>(2.80) | 6399<br>(1.62) |                | 5043<br>(2.57) | 5449<br>(1.63) | 5984<br>(0.97) | 4159<br>(2.74) | 4709<br>(1.62) | 5173<br>(1.07) |                |                |
| 90          | 1942                         |                    |                |                |                |                |                |                |                |                |                | 6181<br>(3.14) | 6629<br>(1.82) |                | 5204<br>(2.88) | 5622<br>(1.83) | 6175<br>(1.09) | 4283<br>(3.06) | 4849<br>(1.82) | 5327<br>(1.20) | 5866<br>(0.69) |                |
| 95          | 2065                         |                    |                |                |                |                |                |                |                |                |                | 6390<br>(3.50) | 6854<br>(2.03) |                | 5361<br>(3.21) | 5792<br>(2.04) | 6361<br>(1.21) | 4403<br>(3.43) | 4985<br>(2.03) | 5746<br>(1.34) | 6030<br>(0.77) |                |
| 100         | 2160                         |                    |                |                |                |                |                |                |                |                |                |                | 7074<br>(2.25) |                | 5514<br>(3.56) | 5958<br>(2.26) | 6543<br>(1.34) | 4521<br>(3.80) | 5118<br>(2.25) | 5622<br>(1.48) | 6191<br>(0.86) |                |
| 105         | 2265                         |                    |                |                |                |                |                |                |                |                |                |                | 7290<br>(2.48) |                | 5664<br>(3.92) | 6120<br>(2.50) | 6721<br>(1.48) |                | 5247<br>(2.48) | 5765<br>(1.63) | 6348<br>(0.95) |                |
| 110         | 2375                         |                    |                |                |                |                |                |                |                |                |                |                | 7503<br>(2.72) |                |                | 6278<br>(2.74) | 6895<br>(1.63) |                | 5374<br>(2.72) | 5904<br>(1.79) | 6501<br>(1.04) |                |
| 115         | 2482                         |                    |                |                |                |                |                |                |                |                |                |                | 7711<br>(2.97) |                |                | 6433<br>(2.99) | 7065<br>(1.78) |                | 5498<br>(2.97) | 6040<br>(1.96) | 6651<br>(1.14) |                |
| 120         | 2590                         |                    |                |                |                |                |                |                |                |                |                |                | 7917<br>(3.24) |                |                | 6586<br>(3.26) | 7332<br>(1.94) |                | 5619<br>(3.24) | 6173<br>(2.13) | 6797<br>(1.24) |                |
| 125         | 2700                         |                    |                |                |                |                |                |                |                |                |                |                | 8119<br>(3.51) |                |                | 6735<br>(3.54) | 7396<br>(2.10) |                | 5378<br>(3.51) | 6303<br>(2.32) | 6941<br>(1.34) |                |
| 130         | 2810                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7558<br>(2.27) |                | 5854<br>(3.80) | 6431<br>(2.51) | 7082<br>(1.45) |                |
| 135         | 2918                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7716<br>(2.45) |                |                | 6557<br>(2.70) | 7220<br>(1.57) |                |
| 140         | 3022                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 7872<br>(2.64) |                |                | 6680<br>(2.91) | 7356<br>(1.69) |                |
| 145         | 3130                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8025<br>(2.83) |                |                | 6802<br>(3.12) | 7490<br>(1.81) |                |
| 150         | 3240                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8176<br>(3.03) |                |                | 6921<br>(3.34) | 7621<br>(1.94) |                |
| 155         | 3350                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8325<br>(3.23) |                |                | 7038<br>(3.56) | 7750<br>(2.07) |                |
| 160         | 3460                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8471<br>(3.44) |                |                | 7154<br>(3.80) | 7877<br>(2.20) |                |
| 165         | 3565                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8002<br>(2.34) |                |
| 170         | 3675                         |                    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | 8126<br>(2.49) |

**NOTES:**

1. Numbers in parentheses ( ) indicate nozzle pressure (in. wg).
2. Ratings are based on  $\Delta t = 25^\circ\text{F}$ , 1.50 gpm, 8 ft water coil pressure drop.
3.  $\Delta t = t_{rm} - t_{ew}$  where  $t_{rm}$  = room temperature and  $t_{ew}$  = entering-water temperature.
4. All ratings include allowance for lint screen.
5. For coil capacity at  $\Delta t$  not equal to  $25^\circ\text{F}$ , use the formula:  
 $(t_{rm} - t_{ew})/25 \times \text{rating at } 25^\circ\text{F } \Delta t$ .
6. For primary air capacity at other than 20 F  $\Delta t$  use the formula:  
 $\text{Btuh} = \text{cfm} \times 1.08 \times (t_{rm} - t_{pa})$  where  $t_{pa}$  = primary air temperature.
7. For capacities other than 1.50 gpm, see Coil Capacity Multipliers for Flow Rates table on page 21.
8. To facilitate balanced water systems, all units regardless of size have the same pressure drop.

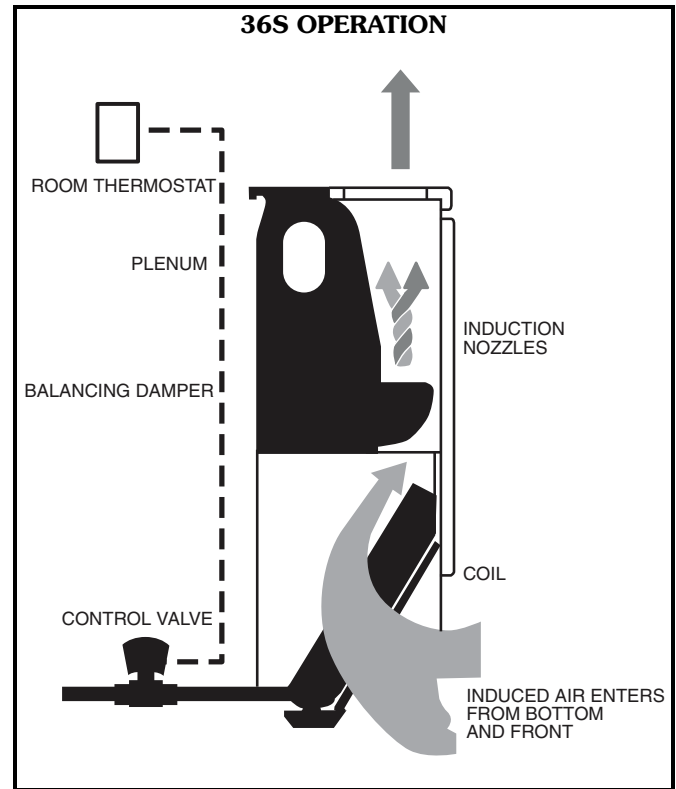
# Controls



A mixture of outdoor and return air is conditioned in the central station air handling unit and distributed through 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 through 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 through 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 through the coils to maintain the desired room temperature. Depending on the degree of modular flexibility desired, one thermostat can control one to three units.



## Application data

There are advantages to 2-pipe and 4-pipe systems. The table below shows the advantages to each system. Two-pipe, non-changeover systems are less costly than two-pipe changeover systems; however, the application potential of a non-changeover system is limited to areas with fairly mild winter design conditions. For this reason, the two-pipe changeover system has been omitted from the table.

| FEATURE                     | 2-PIPE | 4-PIPE |
|-----------------------------|--------|--------|
| Best overall performance    |        | X      |
| Lowest operating cost       |        | X      |
| Best heat recovery cost     |        | X      |
| Lowest first cost           | X      |        |
| Lowest installation cost    | X      |        |
| Lowest control cost         | X      |        |
| Lowest primary air required |        | X      |

# Application data (cont)



## 36S UNIT SOUND POWER LEVEL RATINGS

| NOZZLE PRESSURE<br>(in. wg) | DAMPER PRESSURE DROP<br>(in. wg) | NOZZLE TYPE | UNIT SIZE 1                                       |     |      |      |      |      |
|-----------------------------|----------------------------------|-------------|---|-----|------|------|------|------|
|                             |                                  |             | Sound Power Level (dB at 10 <sup>-12</sup> watts) |     |      |      |      |      |
|                             |                                  |             | Octave Band Mid-Frequency (Hz)                    |     |      |      |      |      |
|                             |                                  |             | 250   | 500 | 1000 | 2000 | 4000 | 8000 |
| 0.5                         | 1.5                              | F           | —   | —   | —    | —    | —    | —    |
|                             |                                  | G           | —   | —   | —    | —    | —    | —    |
|                             |                                  | H           | 32  | —   | —    | —    | —    | —    |
|                             |                                  | J           | 34  | 29  | 25   | 24   | 21   | —    |
|                             |                                  | K           | 36  | 31  | 27   | 28   | 24   | 23   |
|                             | 3.0                              | F           | —   | —   | —    | —    | —    | —    |
|                             |                                  | G           | —   | —   | —    | —    | —    | —    |
|                             |                                  | H           | 32  | —   | —    | 23   | 21   | —    |
|                             |                                  | J           | 34  | 29  | 26   | 27   | 25   | —    |
|                             |                                  | K           | 36  | 31  | 28   | 31   | 29   | 27   |
| 1.5                         | 0.0                              | F           | —   | 34  | 29   | 26   | 26   | 27   |
|                             |                                  | G           | 40  | 36  | 31   | 28   | 27   | 29   |
|                             |                                  | H           | 42  | 38  | 33   | 30   | 29   | 30   |
|                             |                                  | J           | 45  | 40  | 35   | 31   | 30   | 32   |
|                             |                                  | K           | 47  | 42  | 36   | 33   | 31   | 33   |
|                             | 1.5                              | F           | 38  | 34  | 30   | 27   | 26   | 27   |
|                             |                                  | G           | 39  | 36  | 31   | 29   | 28   | 29   |
|                             |                                  | H           | 41  | 38  | 34   | 32   | 31   | 32   |
|                             |                                  | J           | 44  | 40  | 37   | 35   | 33   | 34   |
|                             |                                  | K           | 46  | 42  | 39   | 38   | 36   | 37   |
|                             | 3.0                              | F           | 38  | 34  | 30   | 27   | 27   | 28   |
|                             |                                  | G           | 39  | 36  | 32   | 30   | 29   | 30   |
|                             |                                  | H           | 41  | 38  | 35   | 34   | 34   | 33   |
|                             |                                  | J           | 43  | 40  | 38   | 38   | 36   | 36   |
|                             |                                  | K           | 45  | 42  | 40   | 41   | 39   | 39   |
| 2.5                         | 0.0                              | F           | 42  | 40  | 36   | 34   | 35   | 37   |
|                             |                                  | G           | 44  | 41  | 38   | 36   | 36   | 38   |
|                             |                                  | H           | 47  | 43  | 39   | 37   | 38   | 40   |
|                             |                                  | J           | 49  | 45  | 41   | 39   | 39   | 41   |
|                             |                                  | K           | 52  | 47  | 42   | 40   | 40   | 43   |
|                             | 1.5                              | F           | 42  | 40  | 36   | 34   | 35   | 37   |
|                             |                                  | G           | 44  | 41  | 38   | 36   | 36   | 39   |
|                             |                                  | H           | 46  | 43  | 40   | 39   | 39   | 41   |
|                             |                                  | J           | 48  | 45  | 42   | 41   | 41   | 42   |
|                             |                                  | K           | 50  | 47  | 45   | 44   | 43   | 44   |
|                             | 3.0                              | F           | 42  | 40  | 36   | 34   | 35   | 37   |
|                             |                                  | G           | 44  | 41  | 38   | 37   | 37   | 39   |
|                             |                                  | H           | 46  | 43  | 40   | 40   | 40   | 41   |
|                             |                                  | J           | 48  | 45  | 43   | 43   | 43   | 43   |
|                             |                                  | K           | 50  | 47  | 45   | 45   | 45   | 46   |
| 3.5                         | 0.0                              | F           | 45  | 43  | 40   | 39   | 40   | 44   |
|                             |                                  | G           | 47  | 45  | 42   | 41   | 42   | 45   |
|                             |                                  | H           | 40  | 47  | 44   | 42   | 43   | 47   |
|                             |                                  | J           | 52  | 49  | 45   | 44   | 45   | 48   |
|                             |                                  | K           | 54  | 50  | 47   | 45   | 46   | 49   |
|                             | 1.5                              | F           | 45  | 43  | 40   | 39   | 40   | 44   |
|                             |                                  | G           | 47  | 45  | 42   | 41   | 42   | 45   |
|                             |                                  | H           | 49  | 47  | 44   | 43   | 44   | 47   |
|                             |                                  | J           | 51  | 49  | 46   | 45   | 46   | 48   |
|                             |                                  | K           | 53  | 50  | 48   | 48   | 48   | 50   |
|                             | 3.0                              | F           | 45  | 43  | 41   | 39   | 41   | 44   |
|                             |                                  | G           | 47  | 45  | 42   | 41   | 42   | 45   |
|                             |                                  | H           | 49  | 47  | 44   | 45   | 45   | 47   |
|                             |                                  | J           | 51  | 49  | 47   | 47   | 47   | 49   |
|                             |                                  | K           | 53  | 50  | 49   | 49   | 50   | 51   |





**36S UNIT SOUND POWER LEVEL RATINGS (cont)**

| NOZZLE PRESSURE (in. wg) | DAMPER PRESSURE DROP (in. wg) | NOZZLE TYPE | UNIT SIZE 2                                       |     |      |      |      |      |    |
|--------------------------|-------------------------------|-------------|---|-----|------|------|------|------|----|
|                          |                               |             | Sound Power Level (dB at 10 <sup>-12</sup> watts) |     |      |      |      |      |    |
|                          |                               |             | Octave Band Mid-Frequency (Hz)                    |     |      |      |      |      |    |
|                          |                               |             | 250   | 500 | 1000 | 2000 | 4000 | 8000 |    |
| 0.5                      | 1.5                           | F           | —   | —   | —    | —    | —    | —    |    |
|                          |                               | G           | —   | —   | —    | —    | —    | —    |    |
|                          |                               | H           | 33  | —   | —    | —    | —    | —    |    |
|                          |                               | J           | 35  | 29  | 25   | 23   | 21   | —    |    |
|                          |                               | K           | 36  | 31  | 27   | 27   | 24   | —    |    |
|                          | 3.0                           | F           | —   | —   | —    | —    | —    | —    |    |
|                          |                               | G           | —   | —   | —    | —    | —    | —    |    |
|                          |                               | H           | 33  | 27  | 23   | 22   | 21   | —    |    |
|                          |                               | J           | 34  | 29  | 26   | 26   | 25   | 23   |    |
|                          |                               | K           | 36  | 31  | 29   | 30   | 29   | 27   |    |
| 1.5                      | 0.0                           | F           | 39  | 35  | 31   | 27   | 27   | 28   |    |
|                          |                               | G           | 41  | 37  | 32   | 29   | 28   | 30   |    |
|                          |                               | H           | 43  | 39  | 34   | 31   | 30   | 31   |    |
|                          |                               | J           | 45  | 40  | 35   | 32   | 31   | 32   |    |
|                          |                               | K           | 47  | 42  | 37   | 33   | 32   | 34   |    |
|                          | 1.5                           | F           | 39  | 35  | 31   | 28   | 27   | 28   |    |
|                          |                               | G           | 40  | 37  | 32   | 30   | 29   | 30   |    |
|                          |                               | H           | 42  | 39  | 35   | 32   | 31   | 32   |    |
|                          |                               | J           | 44  | 40  | 37   | 35   | 33   | 34   |    |
|                          |                               | K           | 46  | 42  | 39   | 38   | 36   | 37   |    |
|                          | 3.0                           | F           | 39  | 35  | 31   | 28   | 27   | 28   |    |
|                          |                               | G           | 40  | 37  | 32   | 30   | 30   | 30   |    |
|                          |                               | H           | 42  | 39  | 35   | 34   | 34   | 33   |    |
|                          |                               | J           | 44  | 40  | 38   | 37   | 38   | 36   |    |
|                          |                               | K           | 46  | 42  | 40   | 40   | 40   | 39   |    |
|                          | 2.5                           | 0.0         | F   | 43  | 41   | 37   | 35   | 36   | 38 |
|                          |                               |             | G   | 45  | 42   | 39   | 37   | 37   | 40 |
|                          |                               |             | H   | 47  | 44   | 40   | 38   | 39   | 41 |
| J                        |                               |             | 49  | 45  | 41   | 39   | 39   | 42   |    |
| K                        |                               |             | 52  | 47  | 43   | 41   | 41   | 44   |    |
| 1.5                      |                               | F           | 43  | 41  | 37   | 35   | 36   | 38   |    |
|                          |                               | G           | 45  | 42  | 39   | 37   | 37   | 40   |    |
|                          |                               | H           | 47  | 44  | 41   | 39   | 39   | 41   |    |
|                          |                               | J           | 48  | 45  | 42   | 41   | 41   | 42   |    |
|                          |                               | K           | 50  | 47  | 45   | 44   | 43   | 45   |    |
| 3.0                      |                               | F           | 43  | 41  | 37   | 35   | 36   | 38   |    |
|                          |                               | G           | 45  | 42  | 39   | 37   | 38   | 40   |    |
|                          |                               | H           | 47  | 44  | 41   | 40   | 40   | 42   |    |
|                          |                               | J           | 48  | 45  | 43   | 43   | 43   | 43   |    |
|                          |                               | K           | 50  | 47  | 45   | 45   | 45   | 46   |    |
| 3.5                      | 0.0                           | F           | 46  | 44  | 42   | 40   | 41   | 45   |    |
|                          |                               | G           | 48  | 46  | 43   | 42   | 43   | 46   |    |
|                          |                               | H           | 50  | 48  | 45   | 43   | 45   | 48   |    |
|                          |                               | J           | 52  | 49  | 46   | 44   | 45   | 48   |    |
|                          |                               | K           | 54  | 51  | 47   | 46   | 47   | 50   |    |
|                          | 1.5                           | F           | 46  | 44  | 42   | 40   | 42   | 45   |    |
|                          |                               | G           | 48  | 46  | 43   | 42   | 43   | 46   |    |
|                          |                               | H           | 50  | 48  | 45   | 44   | 45   | 48   |    |
|                          |                               | J           | 51  | 49  | 46   | 45   | 46   | 49   |    |
|                          |                               | K           | 53  | 51  | 49   | 48   | 48   | 51   |    |
|                          | 3.0                           | F           | 46  | 44  | 42   | 40   | 42   | 45   |    |
|                          |                               | G           | 48  | 46  | 43   | 42   | 43   | 46   |    |
|                          |                               | H           | 50  | 48  | 45   | 44   | 45   | 48   |    |
|                          |                               | J           | 51  | 49  | 47   | 47   | 47   | 49   |    |
|                          |                               | K           | 53  | 51  | 49   | 49   | 50   | 51   |    |

# Application data (cont)



## 36S UNIT SOUND POWER LEVEL RATINGS (cont)

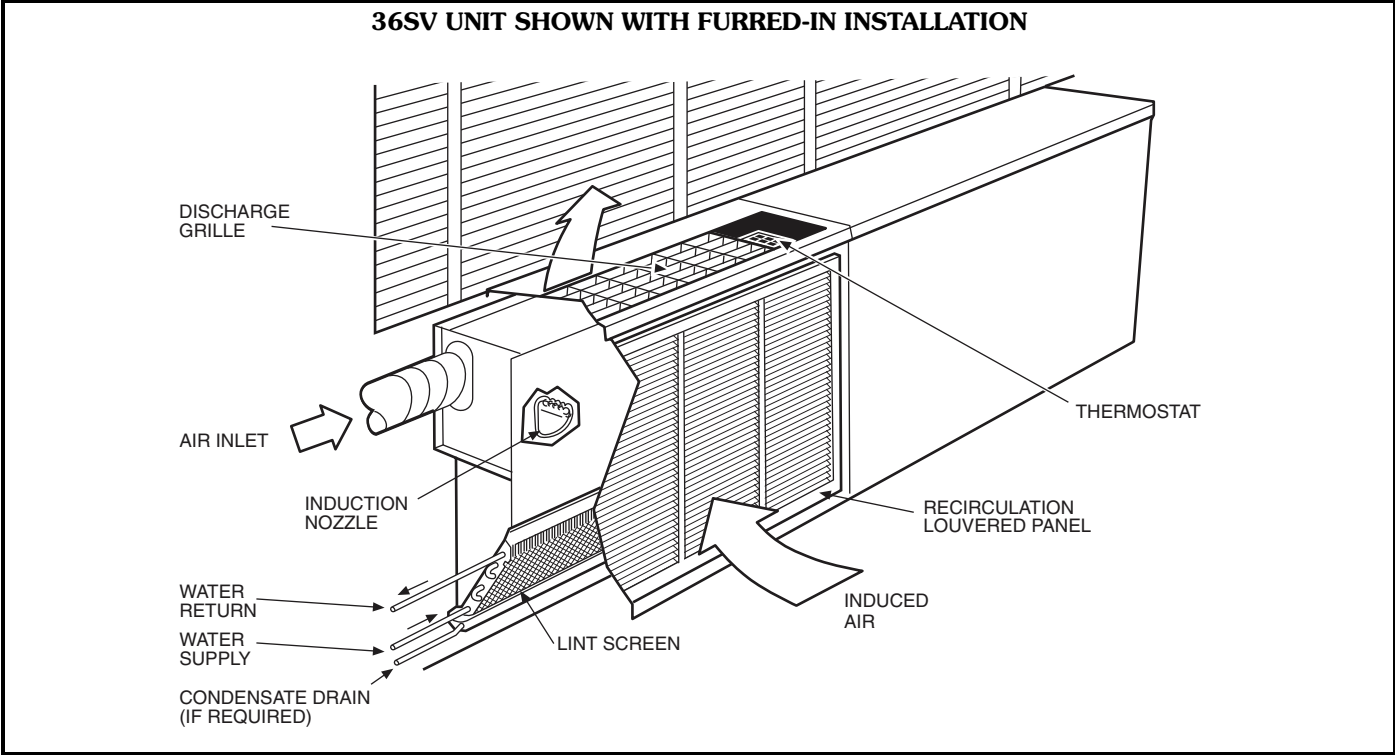
| NOZZLE PRESSURE<br>(in. wg) | DAMPER PRESSURE DROP<br>(in. wg) | NOZZLE TYPE | UNIT SIZE 3                                       |     |      |      |      |      |
|-----------------------------|----------------------------------|-------------|---|-----|------|------|------|------|
|                             |                                  |             | Sound Power Level (dB at 10 <sup>-12</sup> watts) |     |      |      |      |      |
|                             |                                  |             | Octave Band Mid-Frequency (Hz)                    |     |      |      |      |      |
|                             |                                  |             | 250   | 500 | 1000 | 2000 | 4000 | 8000 |
| 0.5                         | 1.5                              | F           | —   | —   | —    | —    | —    | —    |
|                             |                                  | G           | —   | —   | —    | —    | —    | —    |
|                             |                                  | H           | 33  | 28  | —    | —    | —    | —    |
|                             |                                  | J           | 35  | 30  | 25   | 23   | 21   | —    |
|                             |                                  | K           | 37  | 31  | 27   | 26   | 24   | 24   |
|                             | 3.0                              | F           | —   | —   | —    | —    | —    | —    |
|                             |                                  | G           | —   | —   | —    | —    | —    | —    |
|                             |                                  | H           | 33  | 28  | 23   | 21   | 21   | 19   |
|                             |                                  | J           | 35  | 30  | 26   | 26   | 25   | 24   |
|                             |                                  | K           | 36  | 31  | 29   | 29   | 29   | 27   |
| 1.5                         | 0.0                              | F           | 40  | 36  | 31   | 28   | 28   | 29   |
|                             |                                  | G           | 41  | 38  | 33   | 30   | 29   | 31   |
|                             |                                  | H           | 43  | 39  | 35   | 31   | 31   | 32   |
|                             |                                  | J           | 45  | 41  | 36   | 33   | 32   | 34   |
|                             |                                  | K           | 47  | 43  | 37   | 34   | 33   | 35   |
|                             | 1.5                              | F           | 40  | 36  | 31   | 28   | 28   | 29   |
|                             |                                  | G           | 41  | 38  | 33   | 30   | 30   | 31   |
|                             |                                  | H           | 43  | 39  | 35   | 33   | 32   | 33   |
|                             |                                  | J           | 45  | 41  | 37   | 35   | 34   | 35   |
|                             |                                  | K           | 46  | 43  | 39   | 38   | 36   | 37   |
|                             | 3.0                              | F           | 40  | 36  | 32   | 29   | 28   | 29   |
|                             |                                  | G           | 41  | 38  | 33   | 31   | 30   | 31   |
|                             |                                  | H           | 43  | 39  | 35   | 34   | 34   | 34   |
|                             |                                  | J           | 45  | 41  | 38   | 37   | 36   | 36   |
|                             |                                  | K           | 46  | 43  | 40   | 40   | 39   | 39   |
| 2.5                         | 0.0                              | F           | 44  | 42  | 38   | 36   | 37   | 39   |
|                             |                                  | G           | 46  | 43  | 40   | 38   | 38   | 41   |
|                             |                                  | H           | 48  | 45  | 41   | 39   | 40   | 42   |
|                             |                                  | J           | 50  | 46  | 43   | 41   | 41   | 43   |
|                             |                                  | K           | 52  | 48  | 44   | 42   | 42   | 45   |
|                             | 1.5                              | F           | 44  | 42  | 38   | 36   | 37   | 39   |
|                             |                                  | G           | 46  | 43  | 40   | 38   | 38   | 41   |
|                             |                                  | H           | 47  | 45  | 42   | 40   | 40   | 42   |
|                             |                                  | J           | 49  | 46  | 43   | 42   | 42   | 44   |
|                             |                                  | K           | 51  | 48  | 45   | 44   | 43   | 45   |
|                             | 3.0                              | F           | 44  | 42  | 38   | 36   | 37   | 39   |
|                             |                                  | G           | 46  | 43  | 40   | 38   | 38   | 41   |
|                             |                                  | H           | 47  | 45  | 42   | 40   | 41   | 43   |
|                             |                                  | J           | 49  | 46  | 44   | 43   | 43   | 44   |
|                             |                                  | K           | 50  | 48  | 45   | 45   | 45   | 46   |
| 3.5                         | 0.0                              | F           | 47  | 45  | 42   | 41   | 42   | 46   |
|                             |                                  | G           | 49  | 47  | 44   | 43   | 44   | 47   |
|                             |                                  | H           | 51  | 48  | 46   | 44   | 45   | 49   |
|                             |                                  | J           | 53  | 50  | 47   | 46   | 47   | 50   |
|                             |                                  | K           | 55  | 51  | 48   | 47   | 48   | 51   |
|                             | 1.5                              | F           | 47  | 45  | 42   | 41   | 42   | 46   |
|                             |                                  | G           | 49  | 47  | 44   | 43   | 44   | 47   |
|                             |                                  | H           | 50  | 48  | 46   | 45   | 46   | 49   |
|                             |                                  | J           | 52  | 50  | 47   | 46   | 47   | 51   |
|                             |                                  | K           | 54  | 51  | 49   | 48   | 49   | 51   |
|                             | 3.0                              | F           | 47  | 45  | 42   | 41   | 42   | 46   |
|                             |                                  | G           | 49  | 47  | 44   | 44   | 44   | 47   |
|                             |                                  | H           | 50  | 48  | 46   | 45   | 46   | 49   |
|                             |                                  | J           | 52  | 50  | 48   | 47   | 48   | 50   |
|                             |                                  | K           | 53  | 51  | 49   | 49   | 50   | 52   |



**36S UNIT SOUND POWER LEVEL RATINGS (cont)**

| NOZZLE PRESSURE (in. wg) | DAMPER PRESSURE DROP (in. wg) | NOZZLE TYPE | UNIT SIZE 4                                       |     |      |      |      |      |
|--------------------------|-------------------------------|-------------|---|-----|------|------|------|------|
|                          |                               |             | Sound Power Level (dB at 10 <sup>-12</sup> watts) |     |      |      |      |      |
|                          |                               |             | Octave Band Mid-Frequency (Hz)                    |     |      |      |      |      |
|                          |                               |             | 250   | 500 | 1000 | 2000 | 4000 | 8000 |
| 0.5                      | 1.5                           | F           | —   | —   | —    | —    | —    | —    |
|                          |                               | G           | 33  | 27  | —    | —    | —    | —    |
|                          |                               | H           | 35  | 29  | 23   | 20   | —    | —    |
|                          |                               | J           | 36  | 30  | 25   | 23   | 21   | —    |
|                          |                               | K           | 38  | 32  | 27   | 26   | 24   | 23   |
|                          | 3.0                           | F           | —   | —   | —    | —    | —    | —    |
|                          |                               | G           | 33  | 27  | —    | —    | —    | —    |
|                          |                               | H           | 34  | 29  | 22   | 21   | 21   | —    |
|                          |                               | J           | 36  | 30  | 26   | 25   | 25   | 23   |
|                          |                               | K           | 37  | 32  | 29   | 29   | 29   | 27   |
| 1.5                      | 0.0                           | F           | 41  | 37  | 33   | 29   | 29   | 30   |
|                          |                               | G           | 42  | 39  | 34   | 31   | 30   | 32   |
|                          |                               | H           | 44  | 40  | 36   | 33   | 32   | 33   |
|                          |                               | J           | 46  | 42  | 47   | 34   | 33   | 34   |
|                          |                               | K           | 48  | 43  | 38   | 35   | 34   | 36   |
|                          | 1.5                           | F           | 41  | 37  | 33   | 30   | 29   | 30   |
|                          |                               | G           | 42  | 39  | 34   | 31   | 31   | 32   |
|                          |                               | H           | 44  | 40  | 36   | 33   | 33   | 34   |
|                          |                               | J           | 45  | 42  | 38   | 35   | 34   | 35   |
|                          |                               | K           | 47  | 43  | 40   | 38   | 37   | 37   |
|                          | 3.0                           | F           | 41  | 37  | 33   | 30   | 29   | 30   |
|                          |                               | G           | 42  | 39  | 34   | 32   | 31   | 32   |
|                          |                               | H           | 44  | 40  | 36   | 34   | 34   | 34   |
|                          |                               | J           | 45  | 42  | 48   | 47   | 46   | 46   |
|                          |                               | K           | 47  | 43  | 40   | 40   | 39   | 39   |
| 2.5                      | 0.0                           | F           | 45  | 43  | 39   | 37   | 38   | 40   |
|                          |                               | G           | 47  | 44  | 41   | 39   | 39   | 42   |
|                          |                               | H           | 49  | 46  | 42   | 40   | 41   | 43   |
|                          |                               | J           | 50  | 47  | 43   | 41   | 42   | 44   |
|                          |                               | K           | 52  | 49  | 45   | 43   | 43   | 46   |
|                          | 1.5                           | F           | 45  | 43  | 39   | 37   | 38   | 40   |
|                          |                               | G           | 47  | 44  | 41   | 39   | 39   | 42   |
|                          |                               | H           | 49  | 46  | 43   | 41   | 41   | 43   |
|                          |                               | J           | 50  | 47  | 44   | 42   | 42   | 45   |
|                          |                               | K           | 51  | 49  | 46   | 44   | 44   | 46   |
|                          | 3.0                           | F           | 45  | 43  | 39   | 37   | 38   | 40   |
|                          |                               | G           | 47  | 44  | 41   | 39   | 40   | 42   |
|                          |                               | H           | 48  | 46  | 43   | 41   | 42   | 44   |
|                          |                               | J           | 50  | 47  | 44   | 43   | 43   | 45   |
|                          |                               | K           | 51  | 49  | 46   | 46   | 46   | 47   |
| 3.5                      | 0.0                           | F           | 48  | 46  | 44   | 42   | 44   | 47   |
|                          |                               | G           | 50  | 48  | 45   | 44   | 45   | 48   |
|                          |                               | H           | 52  | 50  | 47   | 45   | 47   | 50   |
|                          |                               | J           | 53  | 51  | 48   | 46   | 48   | 51   |
|                          |                               | K           | 54  | 52  | 49   | 48   | 49   | 52   |
|                          | 1.5                           | F           | 48  | 46  | 44   | 42   | 44   | 47   |
|                          |                               | G           | 50  | 48  | 45   | 44   | 45   | 48   |
|                          |                               | H           | 51  | 50  | 47   | 46   | 47   | 50   |
|                          |                               | J           | 53  | 51  | 48   | 47   | 48   | 51   |
|                          |                               | K           | 54  | 52  | 50   | 49   | 50   | 53   |
|                          | 3.0                           | F           | 48  | 46  | 44   | 42   | 44   | 47   |
|                          |                               | G           | 50  | 48  | 45   | 44   | 45   | 48   |
|                          |                               | H           | 51  | 50  | 47   | 46   | 47   | 50   |
|                          |                               | J           | 53  | 51  | 48   | 48   | 48   | 51   |
|                          |                               | K           | 54  | 52  | 50   | 50   | 51   | 53   |

# Typical piping and wiring



# Guide specifications



## Water Control Induction Air Terminals

### HVAC Guide Specifications

Size Range: **19.4 to 131.9 Nominal cfm**

Carrier Model Number: **36SC, 36SD, 36SH, 36SJ, 36SL, 36SM, 36SP, 36ST, 36SV**

#### Part 1 — General

##### 1.01 SYSTEM DESCRIPTION

- A. Water control induction system for ventilation, cooling, and heating.
- B. Equipment shall be completely assembled and piped.

##### 1.02 QUALITY ASSURANCE

All units shall be fully quality tested by factory run testing under normal operating conditions and water flow rates.

#### Part 2 — Product

##### 2.01 EQUIPMENT

###### A. General:

1. 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.
2. Under-window type enclosures shall be floor-fed or side-fed as indicated on drawings. Floor-fed enclosures for 36SV, SC, ST units shall be complete with decorative side panels and pedestals with louvers as required. Side-fed enclosures for 36SV unit shall be complete with knockout.
3. Runout enclosure and panel sections shall be constructed of not lighter than 18 gage cold-rolled steel, bonderized, recoatable baked prime finish.
4. Overhead horizontal enclosure for 36SH unit shall be complete with support brackets for base unit, hinged bottom panel, and single-blade discharge grille.
5. For vertical furred-in installations:
  - a. Discharge grille assembly shall consist of grille frame with integral mounting collar and removable plastic grille sections, designed for individual 4-way adjustment of airflow.
  - b. Grille frames shall be constructed of not lighter than 18-gage cold-rolled steel, bonderized, recoatable baked prime finish, with rolled edges and corners.
  - c. Frame shall be provided with mounting holes for securing to window stool.
  - d. Recirculating grille panel shall be constructed of not lighter than 18-gage cold-rolled steel, bonderized, recoatable baked prime finish.
  - e. 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.

- f. Panel shall fit securely in a frame and be provided with necessary stiffener channels to prevent warping.
- g. The frame shall be constructed of black iron angles, welded at corner sections, bonderized and finished in recoatable prime coat.
- h. Frame shall be provided with holes or suitable devices for attachment to metal lath or tile block.
- i. All custom enclosures must meet published minimum free area requirements.

###### B. Air Plenum:

1. Air plenum shall be constructed of galvanized steel.
2. Internal areas shall be acoustically and thermally insulated with neoprene-coated fiberglass.
3. 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.
4. Recovery stack and outlet collar where required shall be cold-rolled steel painted black.

###### C. Induction nozzles:

1. Shall be heat resistant, pliable plastic.
2. Shall be designed for minimum noise generation.
3. Nozzle arrangement shall be selected to provide capacities as specified.

###### D. Water coil assembly:

1. 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.)
2. Coil connections shall be 1/2-in. ODF sweat, 1/2-in. ODM flare, 1/2-in. ODF sweat with vent, or 1/2-in. ODM flare with vent.
3. Coil shall be suitable for working pressures up to 250 psig.
4. Nondrainable (drainable) galvanized steel condensate pan shall be provided.

###### E. Primary air transition fitting:

1. Fitting shall be for connection to 4-in. runout duct.
2. Fitting shall be die-formed, streamlined and interchangeable with removable air plug.

###### F. Special Features:

###### 1. Drainable Condensate Pan:

The factory installed condensate pan, with 11/16-in. OD drain connection shall be available for applications such as hotels or apartments that may have periodic high-latent loads.

###### 2. Coil Connections:

Four types of connections are available factory-installed on the base unit: 1/2-in. ODF sweat on both supply and return; 1/2-in. ODF sweat with

## Guide specifications (cont)



- manual air vent on return and 1/2-in. ODF sweat on supply; 1/2-in. ODM flare on both supply and return; and 1/2-in. ODM flare with manual air vent on return and 1/2-in. ODM flare on supply. The specified connection shall be factory mounted on the unit.
3. Accessory Lint Screen:  
Accessory lint screen shall be of fine mesh, properly supported readily removable for servicing.
  4. Wall Mounting Strip:  
Accessory wall mounting strip shall be made of 14-gage galvanized steel and is required for hanging all vertical base units, enclosures and enclosure accessories. Base unit and its enclosures shall be mounted on same strip. Strips shall be available in either 5 or 8-ft lengths.
  5. Primary Air Transition Fitting:  
Accessory primary air transition fitting shall provide air transition from the oval entrance on unit to a standard 4-in. round duct.
  6. Enclosure:  
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 airflow, mounting brackets and suitable accessories for base unit assembly as shown on the plans.



