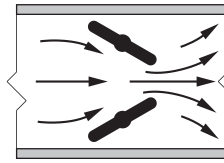
SERIES FLOW VARIABLE VOLUME FAN OPERATION

35SXC STEALTH XC SERIES

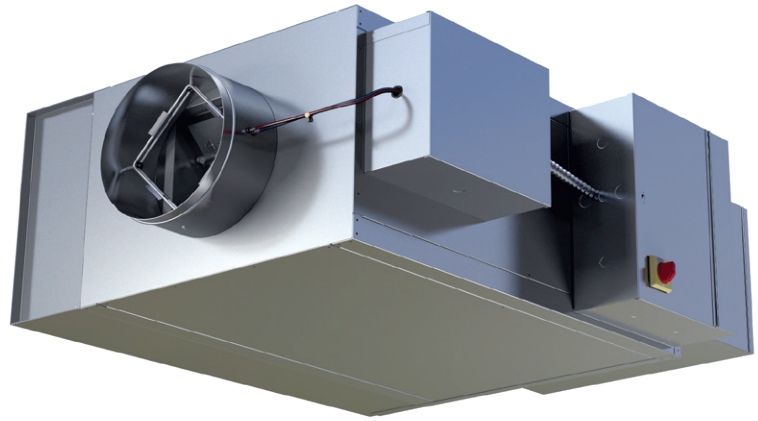
- **EXPOSED CEILING APPLICATIONS**
- **SUPER QUIET OPERATION**



Inclined opposed blade damper configuration minimizes noisy turbulence and provides smooth, accurate, near linear flow control.

Models:

35SXC	**No Heat**
35SEXC	**Electric Heat**
35SWXC	**Hot Water Heat**



Model 35SEXC

The **35SXC Stealth XC Series** is designed to produce the lowest radiated sound power levels for a series unit in the industry. The **Stealth XC** installed in an exposed ceiling application has the same room sound level as an original **Stealth** unit installed above a ceiling. When paired with a variable volume control sequence, the **Stealth XC** delivers the lowest sound and highest efficiency HVAC system on the market today.

STANDARD FEATURES:

- ECM/EPIC Fan Technology®.
- Unique 18 ga. (1.31) galvanized steel channel space frame construction provides extreme rigidity and 20 ga. (1.0) casing components.
- 16 ga. (1.61) galvanized steel inclined opposed blade primary air damper. 45° rotation, CW to close. 1/2" (13) dia. plated steel drive shaft. An indicator mark on the end of the shaft shows damper position. Leakage is less than 2% of nominal flow at 3" w.g. (750 Pa).
- Steri-liner insulation. 13/16" (21) thick, 4 lb./sq. ft. (64 kg/m3) density rigid fiberglass with alum. FSK facing. Meets requirements of NFPA 90A and UL 181.
- Stealth XC turned induced air silencer provides significant reductions in radiated sound levels. Perforated galvanized steel baffles contain fiberglass acoustic media.
- Perforated baffle on primary air discharge optimizes mixing with induced air for rapid and effective temperature equalization. The baffle also converts low frequency primary air valve generated sound into more readily attenuated higher frequencies.
- Pressure independent primary Diamond airflow control.
- Multi-point averaging Diamond Flow sensor.
- Regardless of factory orientation, the unit can be field installed with either right hand or left hand configuration by turning the unit over.
- Universal access panels on three sides of terminal for ease of maintenance and service.
- Motor blower assembly mounted on special 16 ga. (1.61) angles and isolated from casing with rubber isolators.
- Hinged door on fan controls enclosure.
- 13/16" (21), foil faced 4 lb. density Steri-Liner insulation. Meets requirements of NFPA 90A and UL 181.
- Available with electric or hot water supplementary heat.
- All controls are mounted on exterior of terminal providing ready access for field adjustment.
- Each terminal factory tested prior to shipment.
- Single point electrical connection.
- Discharge opening designed for flanged duct connection.
- Full primary air valve low voltage NEMA 1 type enclosure for factory mounted DDC controls.

Controls:

- Digital controls. Factory mounting and wiring of DDC controls supplied by BMS Controls Contractor.

Options:

- Primary air valve enclosure for field mounted controls.
- Induced air filter, 1" (25) thick, disposable type.
- Toggle disconnect switch (except units with electric heat, when disconnect is an electric heat option and includes fan).
- Various IAQ linings are available.
- Fan unit fusing.
- Hanger brackets.
- FN2 90° Line Voltage enclosure.
- FN3 Remote Line Voltage control enclosure with pre-wired umbilical cord.

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AHRI CERTIFIED™ www.ahridirectory.org
VAV Terminals
AHRI Standard 880

Control Sequences • Fan Powered Terminal Units

Model Series 35SXC Stealth XC

HVAC Systems are designed to handle the maximum cooling and heating loads throughout the year, though they operate at part load conditions most of the time. 80% of building operating loads are below 50% of design in cooling and 30% of design in heating. Considering part load conditions is critical for optimizing comfort and energy use when choosing a terminal unit control sequence.

Traditional Constant Volume FPTU Control Sequence

When they were initially introduced to the market place, series VAV FPTUs were operated with continuous running and constant volume fans. The VAV damper supplied cooled air for the zone, which mixed with the induced plenum air upstream of the fan. The result was a constant airflow to the zone with a variable temperature in the cooling mode due to the variable primary air. In the heating mode, heaters were usually single stage, but larger heaters had two stage operation. At that time, the constant airflow was considered to provide the highest level of comfort for the occupants.

Advanced Variable Volume FPTU Control Sequence

With the advent of better controls motor designs it became possible to modulate the fans as well as the VAV section. ASHRAE Research Project 1515 verified that human comfort was not compromised with lower airflow rates sometimes as low as 0.2 cfm/ft2 rather than the typical design of 1.0 cfm/ft2. This process allowed the fan to run at maximum cooling providing the design discharge air, and then reduce plenum airflow somewhat parallel to the reduction of primary air. The target was to achieve about a 60°F. discharge air temperature at the changeover from cooling to deadband. This process dramatically reduced the amount of reheat supplied by the ceiling return as well as significantly reducing the fan motor energy used. This sequence is included in ASHRAE Guideline 36. This allowed the airflow to be constantly adjusted to meet the instantaneous loads in the space with different maximum and minimum airflows for each mode, cooling, deadband and heating. The energy savings shows up in reduced water flows and cooling loads due to the reduction in reheat going to the zone in cooling mode.

Variable vs. Constant - Energy Savings

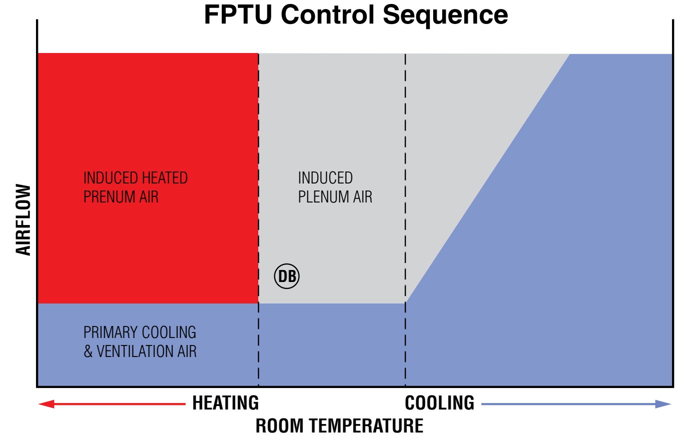
The obvious energy savings from using a variable control sequence come from the modulation of the terminal unit fan. As the fan speed slows, the energy use reduces exponentially. What is not so obvious is the energy savings from the air handling unit, chillers, and pumps.

Consider a room at part-load conditions in the cooling mode served by a fan-powered terminal unit operating with either a constant volume or variable volume control sequence. The sequences require different quantities of primary air to maintain the space temperature. The constant volume terminal unit induces large amounts of plenum air into the airflow, increasing its temperature. Requiring additional primary air to maintain comfort. The same unit with a variable sequence requires less primary air because there is little induction and the air delivered to the space will be very close to 55°.

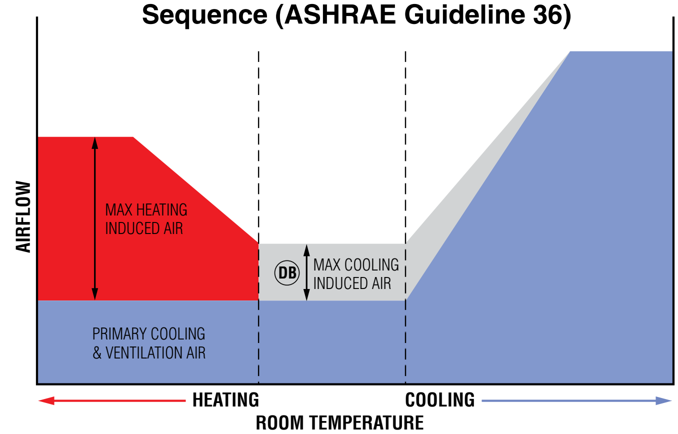
Reducing the primary air saves fan energy from the air handling unit, chilled water flow from the pumps, and work by the chillers. Selecting a variable volume sequence impacts the energy use of the entire HVAC system. Depending on the location of the building, the savings could be up to 7.5% of the total building energy use.

The 35SXC Stealth XC Unit provides these benefits while significantly reducing radiated sound, resulting in the most energy and acoustically efficient system on the market today.

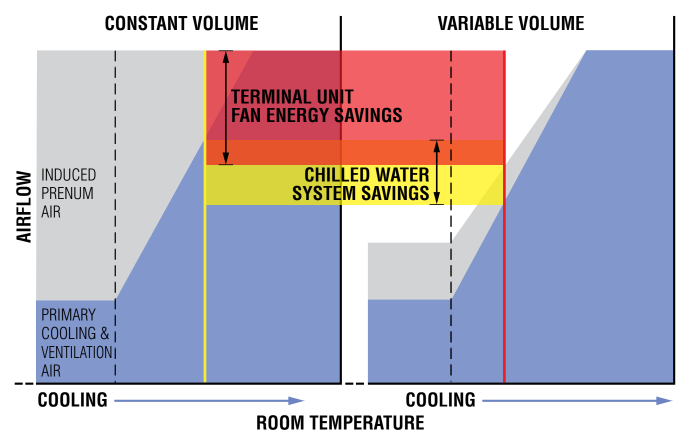
Traditional Constant Volume FPTU Control Sequence



Advanced Variable Volume FPTU Control Sequence (ASHRAE Guideline 36)



Energy Savings for Choosing Variable Volume Control Sequence



A Series Fan Powered Box for Exposed Ceiling Applications • Model Series 35SXC

Acoustical Privacy in exposed ceiling applications

Architectural designs with open offices and acoustical tile suspended ceilings often have relatively low sound level requirements to achieve "acoustical privacy" for the occupants. The architectural advantages of an exposed ceiling can be debated, but the fact is that they are a reality, often in prime spaces. Acoustical quality is part of the overall value of the space, and acoustical consultants are often employed to assist in achieving this goal. The removal of the acoustical tiles, however, has exposed design issues seldom considered in the past. Besides changing the overall acoustical nature of the space in terms of sound transmission from sources in the space itself, sound reverberation times, and the effects on air distribution and thermal comfort, the lack of an acoustical barrier between the occupant and overhead mechanical equipment has made it necessary to reconsider the selection criteria of noise making HVAC equipment.

Sound distribution in exposed ceiling applications

When the suspended ceiling is not present to help in absorbing sound generated both in the occupied space and from above the occupied space, the resultant acoustical environment in the occupied space becomes more sensitive to sound generated by the mechanical equipment and other sound generating equipment in the space above the occupied zone. According to the ASHRAE / AHRI RP755 research project, a suspended ceiling tends to create an "Area Source" for all sounds generated in the ceiling plenum space. This tends to both lower the overall level of sound measured throughout the space, and to spread the apparent source of the sound over a broad area.

Stealth units for suspended ceilings applications: 35SST

The basis of acoustical design for mechanical equipment is octave band sound power measured in a Reverberation Chamber as defined by ISO, ASHRAE and AHRI standards. These chambers can develop sound power ratings for equipment isolated from associated ductwork and are the basis for certification of VAV products under AHRI Standard 880. The 35SST Stealth Series Fan terminal has been successful in providing superior acoustical environments with suspended ceilings on many projects based on witnessed tests in the ceiling mock-up facility and follow up tests in actual spaces.

Importance of a new design for exposed ceiling applications

Comparison testing between suspended ceiling and without suspended ceiling in the same mock-up, it was found that the traditional frequency distribution of the space attenuation was quite different from the traditional suspended acoustical tile ceilings. While the critical frequencies for suspended ceiling applications tend to be in the 125 to 250 Hz bands, it was found that the critical frequencies, those that determine NC, or even RC ratings, are at higher frequencies. So, in order to optimize the sound frequency generation of equipment designed for exposed ceilings, different construction and attenuation characteristics needed to be developed.

The quietest fan powered box design for exposed ceiling applications - Model Series 35SXC

Obviously, if a Fan Terminal can deliver more air and still meet the acoustical requirements, this would be a benefit to the building owner. To accomplish this, however, it was necessary to discover where the sound comes from. It had been known that about half the acoustical energy created by an operating Series (or Parallel) fan terminal comes out the induction port, the rest is radiated from the unit casing itself. It was found that placing silencers on the induction port only reduced the total sound generation slightly, often by only 3dB in critical frequencies. Additionally, for silencers to become more effective, they tend to require a higher rpm on the supply fan to overcome the increased pressure drop created by the silencer. This increases the fan generated noise, and the power required, often making additional silencing counterproductive.

After several years of research and development, Nailor has designed a series fan terminal specially designed to operate in an exposed ceiling environment, the 35SXC (Stealth XC/ Stealth with exposed ceiling). Utilizing a highly effective inlet silencer along with carefully integrated interior construction elements, a design has been created that has an acoustical profile that complements the observed space attenuation found with exposed ceilings.

Difference between 35SST and 35SXC

The result is an acoustical signature that closely follows the NC curves in several frequencies. The following graph illustrates the difference between the 35SST (Stealth) and the 35SXC (Stealth XC) in exposed ceiling mock-up tests.

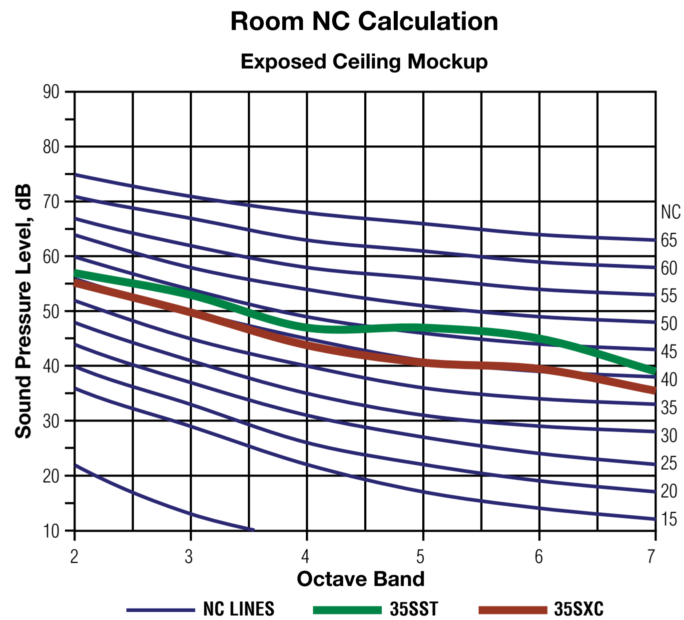


Figure 1. Room NC and RC Comparison (35SST vs. 35SXC)

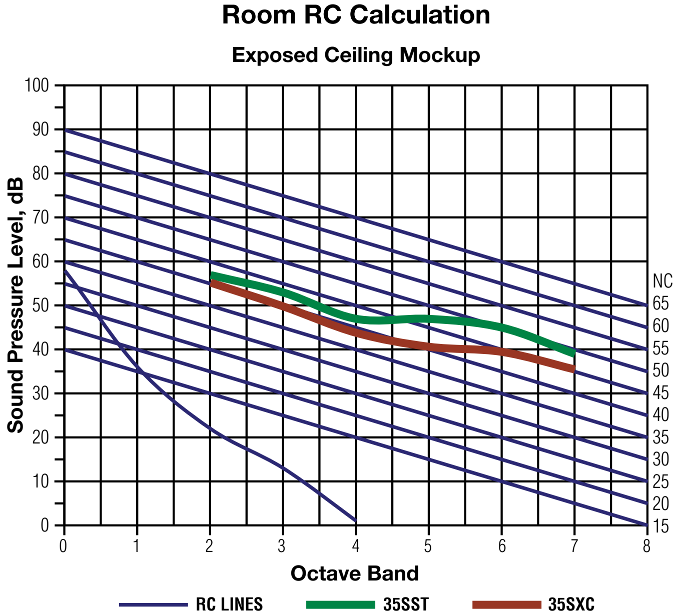


Figure 2. 35SST and 355SXC Comparison Mockup room

In a standard environment the stealth could have a slightly lower NC, but in an exposed ceiling environment, it would likely result in a measured NC almost 5 or more higher. This is typical of most quiet Series (or Parallel) fan box designs. In addition, the data, in this example, results in a RC-41N (neutral) spectra in this mock-up test.

When employed in an exposed ceiling environment, it has been found that the airflow must be significantly reduced to lower the sound generated by even the quietest fan terminals to achieve desired sound levels. This results in more and oversized units being required to deliver the required airflow to the space. Experience has shown that the actual cost of installing a Series Fan Terminal, not counting the cost of the unit itself, can cost around $10,000/unit when commissioning, DDC controls, piping, wiring and associated ductwork is considered.

By creating this acoustical signature, it is possible to use close to the same number of terminals as with a suspended ceiling to deliver the same air quantities to the space. With traditional quiet boxes, the airflow would have to be reduced by 25% or more to achieve the same NC sound levels in the space, adding significantly to the installed cost compared to the 35SXC design. In addition, the room sound level with the XC design will be an RC-Neutral, helping to overcome the "hissy" sound that results with most fan box designs when there is no ceiling to absorb high frequency sounds coming from above the occupied space, allowing for a design of NC=40-45 where an NC=35-40 is more often required to achieve the same "acoustical quality" with a suspended acoustical tile ceiling.

Problem with using AHRI 885 recommended sound deductions for exposed ceiling applications

AHRI Standard 885 has a recommended procedure for estimating sound when there is an exposed ceiling. This was part of the standard when published in the late 90's and suggested that one could treat a radiated sound source as a point source, increase the room volume to account for the now exposed plenum, and input distance and volume in the same manner as a discharge sound source or diffuser. This technique has been found to grossly underestimate the resultant space sound pressure, as shown in the following graph, likely because it fails to account for the now significant effects of supply and discharge ductwork and other sound sources in the upper part of the space. In this test, measured NC was found to be 5 NC higher than predicted, and set in the 3rd to 6th octave bands, instead of the 2nd.

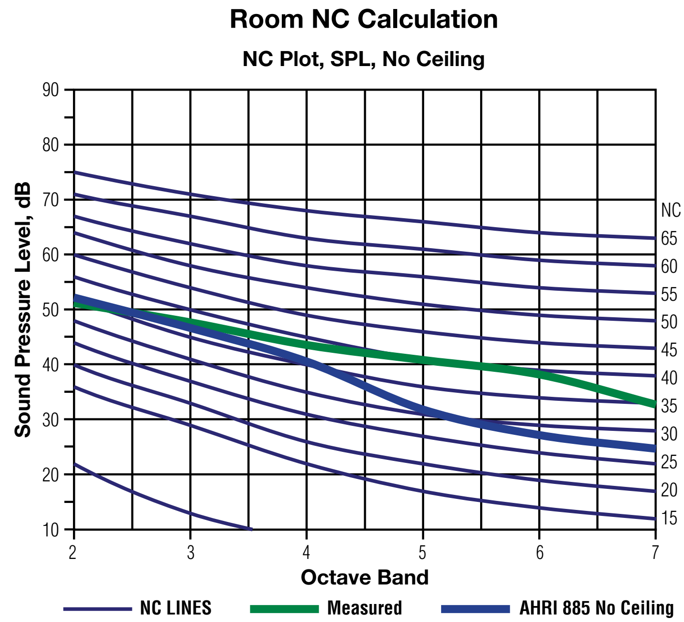
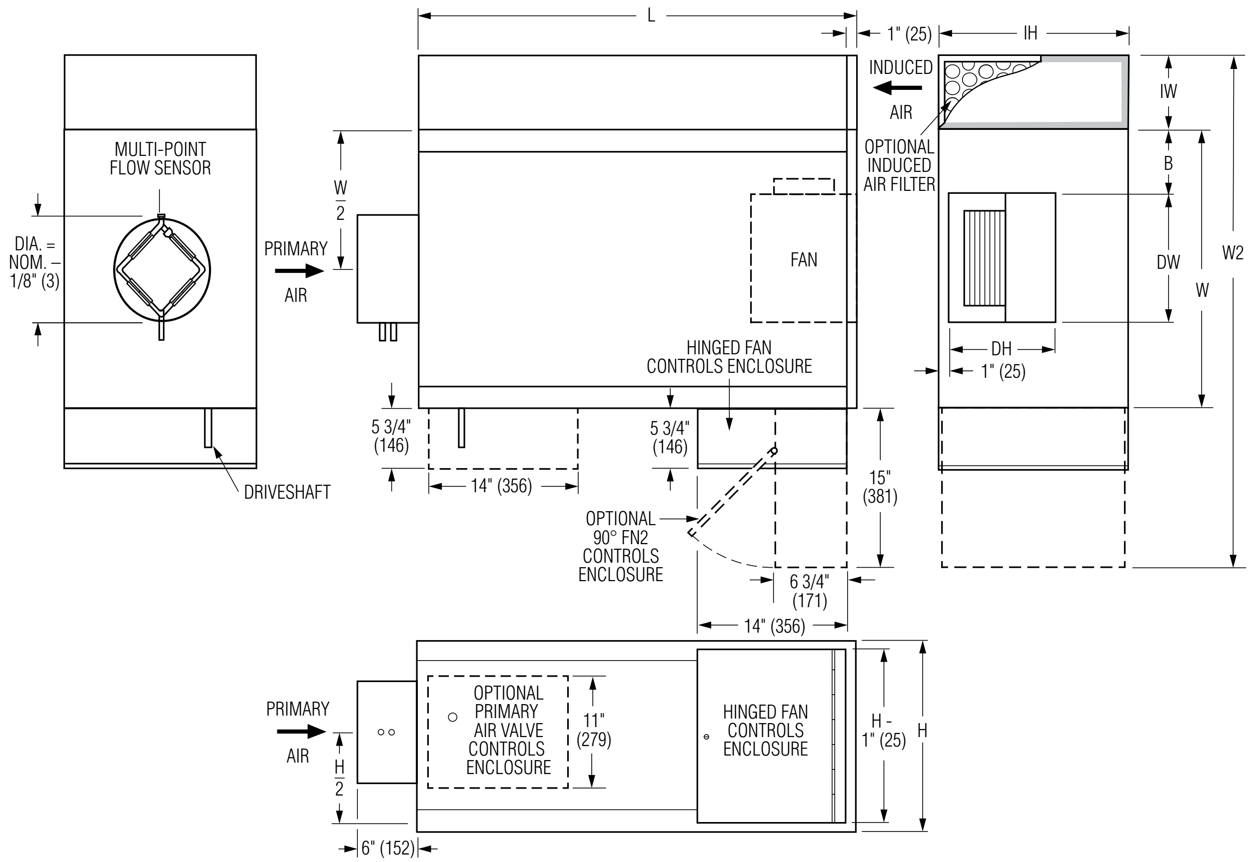


Figure 3. Measured vs estimated sound using AHRI 885 method for exposed plenums

Dimensions

Model Series 35SXC Stealth XC • Series Flow • Unit Sizes 1, 3, 5



Dimensional Data

Unit Size	Inlet Size	W	W2	H	L	B	Induced Air Inlet IW x IH	Outlet Discharge DW x DH	Filter Size
1	4, 5, 6, 8 (102, 127, 152, 203)	20 (508)	41 (1041)	14 (356)	36 (914)	6 (152)	6 x 14 (152 x 356)	8 1/4 x 4 1/4 (210 x 108)	6 x 14 (152 x 356)
3	6, 8, 10 (125, 203, 254)	26 (660)	47 (1194)	18 (457)	41 (1041)	7 (178)	6 x 18 (152 x 457)	9 1/8 x 10 1/2 (232 x 267)	6 x 18 (152 x 457)
5	10, 12, 14 (254, 305, 356)	26 (660)	53 (1346)	20 (508)	55 (1397)	7 (178)	12 x 20 (305 x 508)	13 1/8 x 15 5/8 (333 x 397)	12 x 20 (305 x 508)

Dimensions

Model Series 35SXC Stealth XC • Series Flow • Series Flow • Unit Sizes 1, 3, 5

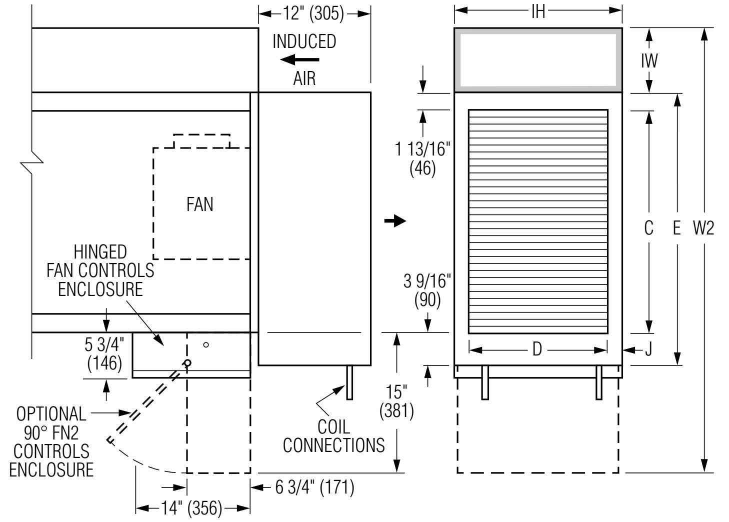
Hot Water Coil Section

Model 35SWXC

Available in one, two or three row. Coil section installed on unit discharge. Right hand coil connection looking in direction of airflow standard (shown). Left hand is optional (terminals are inverted). Connections must be selected same hand as controls enclosure location.

Standard Features:

- Coil (and header on multi-circuit units) is installed in insulated casing for increased thermal efficiency.
- 1/2” (13) copper tubes.
- Aluminum fins.
- Sweat Connections:
  Size 1: 1 Row 1/2" (13), 2 and 3 Row 7/8" (22); O.D. male solder.
  Sizes 3 & 5: 1, 2, and 3 Row 7/8" (22); O.D. male solder.
- Top and bottom access panels for inspection and coil cleaning.
- Flanged outlet duct connection.



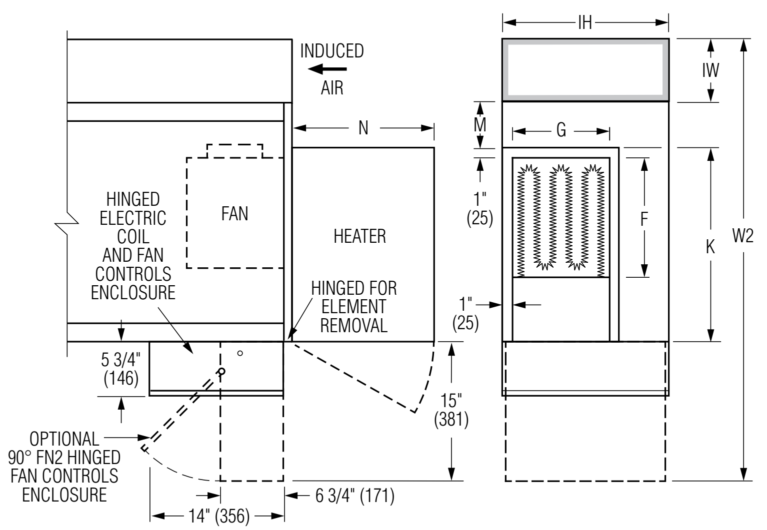
Unit Size	Outlet Duct Size C x D	W2	E	H	J
1	16 x 12 1/8 (406 x 308)	41 (1041)	21 3/8 (543)	14 (356)	15/16 (24)
3	16 x 14 7/8 (406 x 378)	47 (1194)	21 3/8 (543)	18 (457)	1 9/16 (40)
5	24 x 14 7/8 (610 x 378)	53 (1346)	29 3/8 (746)	20 (508)	15/16 (24)

Electric Coil Section

Model 35SEXC

Standard Features:

- Unique hinged heater design permits easy ccess, removal and replacement of heater element without disturbing ductwork.
- Coil installed on unit discharge.
- Insulated coil element wrapper.
- Automatic reset high limit cut-outs (one per element).
- Single point electrical connection (except 600V).
- Positive pressure airflow switch.
- Flanged outlet duct connection.
- Class A 80/20 Ni/Cr wire.
- Terminal unit with coil is ETL Listed as an assembly.
- Controls mounted as standard on RH side as shown.
  Terminals ordered with LH controls (optional) are inverted and discharge duct hanging elevation will therefore change.



Unit Size	Outlet Duct Size F x G	W2	K	H	M	N
1	10 1/4 x 10 1/2 (260 x 267)	41 (1041)	16 (406)	14 (356)	4 (102)	9 (229)
3	12 1/4 x 10 3/4 (311 x 273)	47 (1194)	22 (559)	18 (457)	10 1/2 (267)	15 1/4 (387)
5	16 1/4 x 15 3/4 (413 x 400)	53 (1346)	22 (559)	20 (508)	6 (152)	15 1/4 (387)

Standard Supply Voltage (60 Hz):

- Single phase: 120, 208, 240 & 277V.
- Three phase: 208, 240 (3 wire) 480 (4 wire wye) and 600V (dual point connection).

Options:

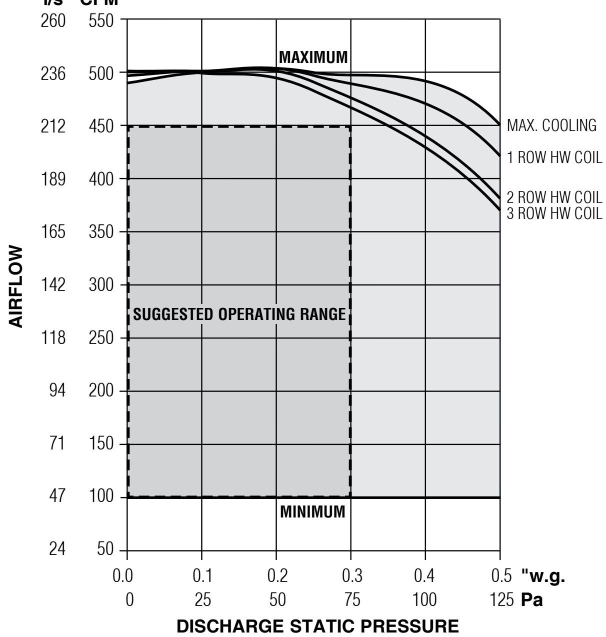
- Toggle disconnect switch (Electric heat units require door interlock disconnect).
- Door interlock disconnect switch.
- Mercury contactors.
- Power circuit fusing.
- Dust tight construction.
- Manual reset secondary thermal cut out.
- SCR Control.

Performance Data

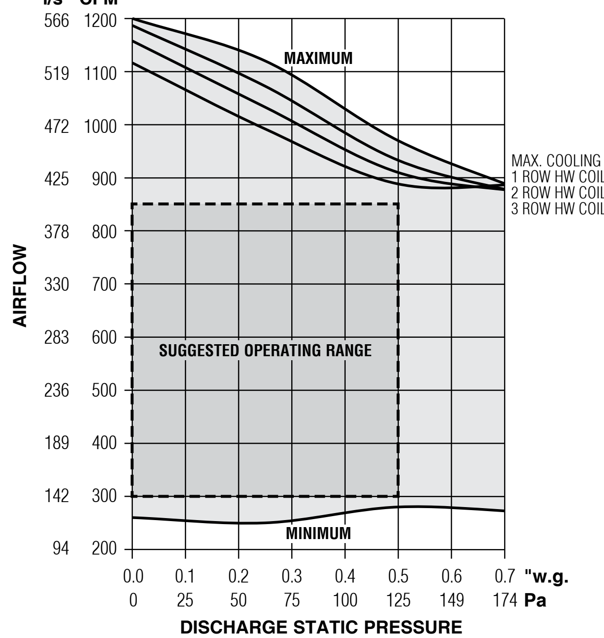
EPIC ECM Motor Fan Curves – Airflow vs. Downstream Static Pressure

Model Series 35SXC Stealth XC • Series Flow

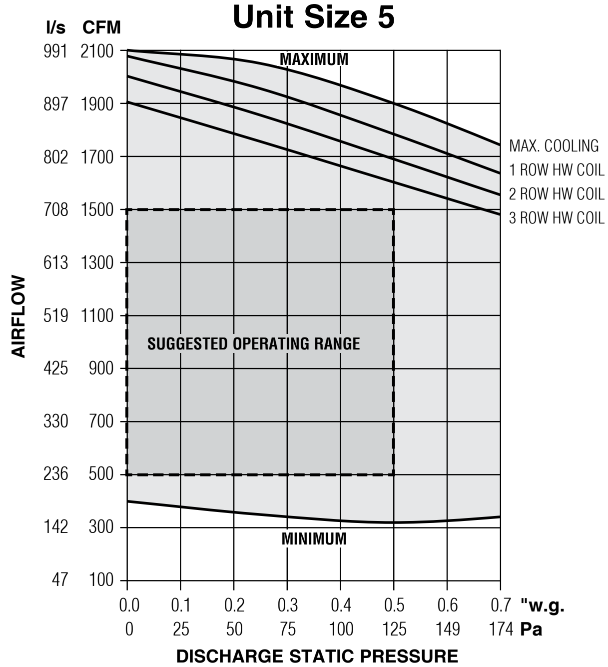
Unit Size 1



Unit Size 3



Unit Size 5



Electrical Data

Unit	EPIC ECM Motor FLA				
Size	Motor HP	120V	208V	240V	277V
1	*	2.1	1.4	1.3	1.2
3	*	4.8	3.4	3.0	3.0
5	*	9.9	6.4	6.1	5.9

* The EPIC ECM is a variable horsepower motor. Refer to Selectworks schedule for actual power consumption.
FLA = Full load amperage.
All motors are single phase/60 Hz.

NOTES:

- The EPIC ECM is a pressure independent constant volume device at set point and airflow does not vary with changing static pressure conditions. The motor compensates for any changes in static pressure such as filter loading.
- Airflow can be set to operate at any point within shaded area under the selected water coil curve using the EPIC volume controller card provided. Manual or Auto/Dynamic fan volume control can be selected on the EPIC card. The manual setting is for constant volume fan operation (adjustment is achieved using a pot. on the card). Dynamic variable volume fan airflow adjustment is achieved by a DDC controller based on room demand using an analog 0-10 VDC input.
- Selections within the suggested operating range (dashed lines) will help ensure acceptable sound levels and optimized energy efficiency.
- Fan curves shown are applicable to 120/208/240 and 277 volt, single phase EPIC ECM (motors).

Performance Data • NC Level Application Guide

Model Series 35SXC Stealth XC • Series Flow

Steri-Liner

Unit Size	Inlet Size	Primary Airflow		Fan		Min. inlet ΔPs		NC Levels @ Inlet Pressure (ΔPs) shown									
								DISCHARGE					RADIATED				
		cfm	l/s	cfm	l/s	"w.g.	Pa	Fan Only	Min. ΔPs	0.5 w.g. (125 Pa)	1.0" w.g. (250 Pa)	1.5" w.g. (375 Pa)	Fan Only	Min. ΔPs	0.5" w.g. (125 Pa)	1.0" w.g. (250 Pa)	1.5" w.g. (375 Pa)
1	4	350	165	400	189	0.01	2.5	23	27	28	28	28	-	-	23	25	25
		300	142	300	142	0.01	2.5	25	28	28	28	28	-	-	22	23	24
		150	71	200	95	0.01	2.5	-	-	-	-	-	-	-	-	20	20
		100	47	100	47	0.01	2.5	-	-	-	-	-	-	-	-	-	-
		75	35	75	35	0.01	2.5	-	-	-	-	-	-	-	-	-	-
	5	400	189	400	189	0.01	2.5	25	29	29	29	29	-	-	22	23	24
		250	118	300	142	0.01	2.5	25	27	27	27	27	-	-	-	21	22
		200	95	200	95	0.01	2.5	20	-	-	-	-	-	-	-	-	-
		100	47	100	47	0.01	2.5	-	-	-	-	-	-	-	-	-	-
		75	35	75	35	0.01	2.5	-	-	-	-	-	-	-	-	-	-
	6	400	189	400	189	0.01	2.5	25	28	28	28	28	-	-	21	22	23
		300	142	300	142	0.01	2.5	25	25	26	26	26	-	-	-	20	20
		200	95	200	95	0.01	2.5	20	-	-	-	-	-	-	-	-	-
		100	47	100	47	0.01	2.5	-	-	-	-	-	-	-	-	-	
		75	35	75	35	0.01	2.5	-	-	-	-	-	-	-	-	-	-
	8	400	189	400	189	0.01	2.5	25	25	26	26	26	-	-	-	20	21
		300	142	300	142	0.01	2.5	25	23	23	23	23	-	-	-	-	-
		200	95	200	95	0.01	2.5	20	-	-	-	-	-	-	-	-	-
		100	47	100	47	0.01	2.5	-	-	-	-	-	-	-	-	-	-
		75	35	75	35	0.01	2.5	-	-	-	-	-	-	-	-	-	-
3	6	550	260	550	260	0.01	2.5	-	28	29	29	29	22	-	26	27	28
		400	189	400	189	0.01	2.5	-	25	26	26	26	-	-	22	24	24
		300	142	300	142	0.01	2.5	-	23	23	23	23	-	-	-	20	21
		250	118	250	118	0.01	2.5	-	25	25	25	25	-	-	-	-	-
		200	95	200	95	0.01	2.5	-	23	23	23	23	-	-	-	-	-
	8	700	331	1100	520	0.01	2.5	22	26	27	27	27	25	-	24	25	26
		650	307	950	449	0.01	2.5	22	28	28	29	29	24	-	23	24	25
		500	236	700	331	0.01	2.5	-	26	26	26	26	21	-	20	21	22
		350	165	450	213	0.01	2.5	-	22	23	23	23	-	-	-	-	-
		200	95	200	95	0.01	2.5	-	21	21	21	22	-	-	-	-	-
	10	1100	520	1100	520	0.01	2.5	31	28	29	29	29	32	-	27	28	29
		950	449	950	449	0.01	2.5	28	27	27	28	28	30	-	25	27	27
		700	331	700	331	0.01	2.5	22	24	25	25	25	25	-	22	23	24
		450	213	450	213	0.01	2.5	-	23	23	23	23	-	-	-	-	-
		200	95	200	95	0.01	2.5	-	-	-	20	20	-	-	-	-	-
5	10	1100	520	1100	520	0.01	2.5	33	30	32	33	33	30	24	31	32	33
		900	425	900	425	0.01	2.5	33	29	32	33	33	25	18	26	27	28
		700	331	700	331	0.01	2.5	31	24	28	28	28	21	-	21	22	23
		650	307	650	307	0.01	2.5	31	23	26	27	27	-	-	-	-	-
		500	236	500	236	0.01	2.5	29	-	22	22	22	-	-	-	-	20
	12	1600	756	1600	756	0.01	2.5	35	33	36	37	37	36	29	36	37	38
		1300	615	1300	615	0.01	2.5	34	30	33	33	33	33	25	33	34	35
		1000	473	1000	473	0.01	2.5	34	28	31	32	32	29	21	28	29	30
		700	331	700	331	0.01	2.5	31	22	25	26	26	23	-	22	23	24
		500	236	500	236	0.01	2.5	29	-	-	20	20	-	-	-	-	-
	14	2100	993	2100	993	0.01	2.5	37	35	38	38	39	40	32	39	40	41
		1600	756	1600	756	0.01	2.5	37	34	37	38	38	36	28	35	36	37
		1350	638	1350	638	0.01	2.5	36	31	34	35	35	33	25	32	33	34
		900	425	900	425	0.01	2.5	33	24	27	27	28	27	-	25	26	27
		500	236	500	236	0.01	2.5	29	-	-	-	-	-	-	-	-	-

Performance Notes:

1. NC Levels are calculated based on procedures as outlined on page C160 (Specific application data requires acoustical evaluation - contact factory).
2. Dash (-) in space indicates a NC less than 20.

C

FAN POWERED TERMINAL UNITS

Performance Data • Discharge Sound Power Levels

Model Series 35SXC Stealth XC • Series Flow

Steri-Liner

AHRI CERTIFIED™ www.ahridirectory.org VAV Terminals AHRI Standard 880

Unit Size	Inlet Size	Primary Airflow		Fan		Min. inlet ΔPs		Fan Only						Fan and 100% Primary Air–Sound Power Octave Bands @ Inlet pressure (ΔPs) shown																							
														Minimum ΔPs						0.5" w.g. (125Pa) ΔPs						1.0" w.g. (249Pa)ΔPs						1.5" w.g. (375Pa) ΔPs					
		cfm	l/s	cfm	l/s	"w.g.	Pa	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7
1	4	225	106	225	106	0.01	2.5	65	56	53	53	48	44	66	57	52	52	47	41	66	57	52	51	46	42	66	58	52	51	46	42	66	58	52	51	46	42
		200	95	200	95	0.01	2.5	64	55	52	51	46	41	64	54	49	49	44	38	64	55	49	49	44	38	64	55	49	49	44	38	64	55	49	49	44	38
		150	71	150	71	0.01	2.5	61	51	48	47	41	36	59	49	44	43	37	30	59	49	44	43	37	30	59	50	44	43	37	30	59	50	44	42	37	30
		100	47	100	47	0.01	2.5	57	47	44	40	34	28	52	41	36	34	28	19	52	42	36	34	27	19	52	42	36	34	27	19	52	42	36	34	27	19
		75	35	75	35	0.01	2.5	55	43	40	36	29	22	47	35	30	28	21	11	48	36	30	28	21	11	48	36	30	28	21	11	48	36	30	28	21	11
	5	400	189	400	189	0.01	2.5	71	63	60	62	58	55	74	67	62	63	59	56	75	68	62	63	59	56	75	68	62	62	59	56	75	68	62	62	59	56
		300	118	300	142	0.01	2.5	68	60	57	57	53	49	70	61	56	57	53	48	70	62	56	56	52	48	70	62	56	56	52	49	70	62	56	56	52	49
		200	95	200	95	0.01	2.5	64	55	52	51	46	41	63	53	48	48	43	37	63	54	48	48	43	37	63	54	48	48	43	37	63	54	48	48	43	37
		100	47	100	47	0.01	2.5	57	47	44	40	34	28	51	40	35	33	27	18	51	41	35	33	26	18	51	41	35	33	26	18	51	41	35	33	26	18
		75	35	75	35	0.01	2.5	55	43	40	36	29	22	46	34	29	27	20	10	47	35	29	27	20	10	47	35	29	27	20	10	47	35	29	27	20	10
	6	400	189	400	189	0.01	2.5	71	63	60	62	58	55	73	66	61	62	58	55	74	67	61	62	58	55	74	67	61	61	58	55	74	67	61	61	58	55
		300	142	300	142	0.01	2.5	68	60	57	57	53	49	69	60	55	56	52	47	69	61	55	55	51	47	69	61	55	55	51	48	69	61	55	55	51	48
		200	95	200	95	0.01	2.5	64	55	52	51	46	41	62	52	47	47	42	36	62	53	47	47	42	36	62	53	47	47	42	36	62	53	47	47	42	36
		100	47	100	47	0.01	2.5	57	47	44	40	34	28	50	39	34	32	26	17	50	40	34	32	25	17	50	40	34	32	25	17	50	40	34	32	25	17
		75	35	75	35	0.01	2.5	55	43	40	36	29	22	45	33	28	26	19	9	46	34	28	26	19	9	46	34	28	26	19	9	46	34	28	26	19	9
	8	400	189	400	189	0.01	2.5	71	63	60	62	58	55	71	64	59	60	56	53	72	65	59	60	56	53	72	65	59	59	56	53	72	65	59	59	56	53
		300	142	300	142	0.01	2.5	68	60	57	57	53	49	67	58	53	54	50	45	67	59	53	53	49	45	67	59	53	53	49	46	67	59	53	53	49	46
		200	95	200	95	0.01	2.5	64	55	52	51	46	41	60	50	45	45	40	34	60	51	45	45	40	34	60	51	45	45	40	34	60	51	45	45	40	34
		100	47	100	47	0.01	2.5	57	47	44	40	34	28	48	37	32	30	24	15	48	38	32	30	23	15	48	38	32	30	23	15	48	38	32	30	23	15
		75	35	75	35	0.01	2.5	55	43	40	36	29	22	43	31	26	24	17	7	44	32	26	24	17	7	44	32	26	24	17	7	44	32	26	24	17	7
3	6	550	260	550	260	0.01	2.5	76	67	64	63	58	55	72	64	64	59	55	52	74	66	64	60	57	54	74	66	65	60	57	55	75	67	65	61	57	55
		400	189	400	189	0.01	2.5	73	64	60	58	54	50	70	61	60	55	51	47	72	63	61	57	53	50	72	64	61	57	53	50	72	64	61	57	53	50
		300	142	300	142	0.01	2.5	70	60	57	54	50	45	68	59	57	52	48	43	70	61	58	53	49	45	70	61	58	54	50	46	70	61	58	54	50	46
		250	118	250	118	0.01	2.5	68	58	55	51	47	42	66	57	55	50	46	40	69	59	56	51	47	43	69	59	56	52	48	43	69	60	56	52	48	44
		200	95	200	95	0.01	2.5	66	56	52	48	44	38	65	55	52	47	43	36	67	57	53	49	45	39	68	58	54	49	45	40	68	58	54	49	45	40
	8	700	331	700	331	0.01	2.5	79	70	67	66	62	59	73	65	65	60	57	54	74	67	65	61	58	56	75	67	66	62	58	57	75	67	66	62	58	57
		650	307	650	307	0.01	2.5	78	69	66	65	61	58	72	64	64	59	56	53	74	66	65	60	57	55	74	66	65	61	57	56	74	67	65	61	58	56
		500	236	500	236	0.01	2.5	75	66	63	61	57	54	70	62	61	56	53	49	72	64	62	57	54	52	72	64	62	58	54	52	72	64	62	58	54	52
		350	165	350	165	0.01	2.5	72	62	59	56	52	48	67	59	57	52	48	44	69	61	58	54	50	46	70	61	58	54	50	47	70	61	58	54	50	47
		200	95	200	95	0.01	2.5	66	56	52	48	44	38	63	53	51	45	41	35	66	56	52	47	43	38	66	56	52	48	43	38	66	56	52	48	44	39
	10	1100	520	1100	520	0.01	2.5	83	75	72	73	68	67	74	68	68	64	61	60	76	69	69	65	62	62	76	70	69	65	62	62	76	70	69	65	62	62
		950	449	950	449	0.01	2.5	82	73	70	71	66	65	73	66	67	62	59	57	75	68	67	63	60	60	75	68	67	63	60	60	75	68	68	64	61	60
		700	331	700	331	0.01	2.5	79	70	67	66	62	59	71	63	63	58	55	53	73	65	64	60	57	55	73	66	64	60	57	55	73	66	64	60	57	56
		450	213	450	213	0.01	2.5	74	65	62	60	55	52	68	59	58	53	50	46	70	61	59	55	51	48	70	62	59	55	52	49	70	62	59	55	52	49
		200	95	200	95	0.01	2.5	66	56	52	48	44	38	62	52	49	44	40	33	64	54	50	46	42	36	65	55	51	46	42	37	65	55	51	46	42	37
5	10	1100	520	1100	520	0.01	2.5	76	73	71	71	67	66	74	70	69	68	64	61	76	72	71	70	67	65	77	73	71	70	67	66	77	73	72	70	68	67
		900	425	900	425	0.01	2.5	75	71	70	69	66	64	71	67	67	65	61	58	74	70	69	67	64	62	74	70	69	67	64	63	74	70	69	67	65	63
		700	331	700	331	0.01	2.5	73	70	68	67	64	62	68	64	64	61	57	54	70	66	66	63	60	58	71	67	66	63	60	59	71	67	66	64	61	59
		600	284	600	284	0.01	2.5	72	69	67	66	62	et	66	62	62	59	55	51	68	64	64	61	57	55	68	65	64	61	58	56	69	65	64	61	58	57
		500	236	500	236	0.01	2.5	71	68	66	65	61	59	63	60	60	56	52	48	65	62	62	58	55	52	66	62	62	58	55	53	66	62	62	59	55	54
	12	1600	756	1600	756	0.01	2.5	78	75	73	74	70	69	77	73	72	71	68	65	80	76	74	74	71	70	80	76	74	74	71	70	80	76	74	74	71	71
		1300	615	1300	615	0.01	2.5	77	74	72	72	68	67	74	70	69	68	65	62	77	73	71	70	67	66	77	73	71	71	68	67	78	73	72	71	68	67
		1000	473	1000	473	0.01	2.5	75	72	70	70	66	65	71	67	66	64	61	58	73	69	68	66	63	62	74	70	68	67	64	63	74	70	69	67	64	63
		700	331	700	331	0.01	2.5	73	70	68	67	64	62	66	62	62	59	55	52	68	64	64	61	58	56	69	65	64	61	58	57	69	65	64	62	59	57
		500	236	500	236	0.01	2.5	71	68	66	65	61	59	61	58	58	54	50	46	63	60	60	56	53	50	64	60	60	56	53	51	64	60	60	57	53	52
	14	2050	969	2050	969	0.01	2.5	79	77	74	76	72	71	79	75	73	73	70	67	81	77	75	75	73	72	82	77	75	76	73	72	82	78	75	76	73	73
		1600	756	1600	756	0.01	2.5	78	75	73	74	70	69	75	71	70	69	66	63	78	74	72	72	69	68	78	74	72	72	69	68	78	74	72	72	69	69
		1350	638	1350	638	0.01	2.5	77	74	72	72	69	67	73	69	68	67	63	61	75	71	70	69	66	65	76	72	70	69	67	66	76	72	70	70	67	66
		900	425	900	425	0.01	2.5	75	71	70	69	66	64	67	63	63	61	57	54	70	66	65	63	60	58	70	66	65	63	60	59	70	66	65	63	61	59
		500	236	500	236	0.01	2.5	71	68	66	65	61	59	59	56	56	52	48	44	61	58	58	54	51	48	62	58	58	54	51	49	62	58	58	55	51	50

For performance table notes, see page C104; highlighted **numbers** indicate embedded AHRI certification points.

Performance Data • Radiated Sound Power Levels

Model Series 35SXC Stealth XC • Series Flow

Steri-Liner

AHRI CERTIFIED™ www.ahridirectory.org VAV Terminals AHRI Standard 880

Unit Size	Inlet Size	Primary Airflow		Fan		Min. inlet ∆Ps		Fan Only						Fan and 100% Primary Air–Sound Power Octave Bands @ Inlet pressure (∆Ps) shown																											
														Minimum ∆Ps						0.5" w.g. (125Pa) ∆Ps						1.0" w.g. (249Pa) ∆Ps						1.5" w.g. (375Pa) ∆Ps					
		cfm	l/s	cfm	l/s	"w.g.	Pa	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7
1	4	225	106	225	106	0.01	2.5	54	49	43	38	34	30	50	45	38	32	26	22	55	51	44	39	34	33	55	52	45	40	35	35	56	52	46	41	36	36
		200	95	200	95	0.01	2.5	52	47	40	35	30	27	49	43	36	30	25	21	53	49	42	37	32	31	54	50	43	39	33	33	54	50	44	39	34	35
		150	71	150	71	0.01	2.5	50	44	37	31	25	23	47	40	33	27	22	18	51	46	39	35	29	29	51	47	40	36	31	31	52	47	41	37	31	32
		100	47	100	47	0.01	2.5	47	39	32	23	16	16	43	35	28	23	18	14	47	40	34	30	25	25	47	41	35	31	26	27	48	42	35	32	27	28
		75	35	75	35	0.01	2.5	45	37	30	20	13	13	41	32	26	21	16	13	45	38	32	28	23	23	46	39	33	30	25	25	46	40	33	30	25	27
	5	400	189	400	189	0.01	2.5	54	49	43	38	34	30	53	48	41	35	29	25	58	54	47	42	37	36	58	55	48	43	38	38	59	55	49	44	39	39
		250	118	300	142	0.01	2.5	52	47	40	35	30	27	52	46	39	33	28	24	56	52	45	40	35	34	57	53	46	42	36	36	57	53	47	42	37	38
		200	94	200	95	0.01	2.5	50	44	37	31	25	23	50	43	36	30	25	21	54	49	42	38	32	32	54	50	43	39	34	34	55	50	44	40	34	35
		100	47	100	47	0.01	2.5	47	39	32	23	16	16	46	38	31	26	21	17	50	43	37	33	28	28	50	44	38	34	29	30	51	45	38	35	30	31
		75	35	75	35	0.01	2.5	45	37	30	20	13	13	44	35	29	24	19	16	48	41	35	31	26	26	49	42	36	33	28	28	49	43	36	33	28	30
	6	400	189	400	189	0.01	2.5	**54**	**49**	**43**	**38**	**34**	**30**	52	47	40	34	28	24	57	53	46	41	36	35	57	54	47	42	37	37	**58**	**54**	**48**	**43**	**38**	**38**
		300	142	300	142	0.01	2.5	52	47	40	35	30	27	51	45	38	32	27	23	55	51	44	39	34	33	56	52	45	41	35	35	56	52	46	41	36	37
		200	94	200	95	0.01	2.5	50	44	37	31	25	23	49	42	35	29	24	20	53	48	41	37	31	31	53	49	42	38	33	33	54	49	43	39	33	34
		100	47	100	47	0.01	2.5	47	39	32	23	16	16	45	37	30	25	20	20	49	42	36	32	27	27	49	43	37	33	28	29	50	44	37	34	29	30
		75	35	75	35	0.01	2.5	45	37	30	20	13	13	43	34	28	23	18	15	47	40	34	30	25	25	48	41	35	32	27	27	48	42	35	32	27	29
	8	400	189	400	189	0.01	2.5	54	49	43	38	34	30	50	45	38	32	26	22	55	51	44	39	34	33	55	52	45	40	35	35	56	52	46	41	36	36
		300	142	300	142	0.01	2.5	52	47	40	35	30	27	49	43	36	30	25	21	53	49	42	37	32	31	54	50	43	39	33	33	54	50	44	39	34	35
		200	94	200	95	0.01	2.5	50	44	37	31	25	23	47	40	33	27	22	18	51	46	39	35	29	29	51	47	40	36	31	31	52	47	41	37	31	32
		100	47	100	47	0.01	2.5	47	39	32	23	16	16	43	35	28	23	18	14	47	40	34	30	25	25	47	41	35	31	26	27	48	42	35	32	27	28
		75	35	75	35	0.01	2.5	45	37	30	20	13	13	41	32	26	21	16	13	45	38	32	28	23	23	46	39	33	30	25	25	46	40	33	30	25	27
3	6	550	260	550	260	0.01	2.5	60	53	46	41	37	33	57	50	44	34	28	22	63	57	50	43	40	38	64	58	51	44	42	41	65	59	52	45	43	43
		400	189	400	189	0.01	2.5	56	49	42	36	31	26	54	47	41	31	25	19	60	54	47	40	37	36	61	55	48	41	39	38	62	56	49	42	41	40
		300	142	300	142	0.01	2.5	53	46	39	31	25	20	51	44	38	29	23	17	57	51	44	37	35	33	59	52	45	39	37	36	59	53	46	40	38	38
		250	118	250	118	0.01	2.5	52	43	37	28	21	16	50	42	37	27	21	16	56	49	43	36	33	32	57	50	44	37	36	35	58	51	44	38	37	36
		200	94	200	95	0.01	2.5	49	41	34	25	17	11	48	40	35	25	20	14	54	47	40	33	32	30	55	48	41	35	34	33	56	49	42	36	35	35
	8	700	330	700	331	0.01	2.5	62	56	49	45	42	38	53	48	41	35	29	25	58	54	47	42	37	36	58	55	48	43	38	38	59	55	49	44	39	39
		650	307	650	307	0.01	2.5	61	55	48	43	41	37	52	46	39	32	27	23	56	51	45	40	35	34	56	52	46	41	36	36	57	53	47	42	37	37
		500	236	500	236	0.01	2.5	59	52	45	39	35	31	50	43	36	30	25	21	54	49	42	38	32	32	54	50	43	39	34	34	55	50	44	40	34	35
		350	165	350	165	0.01	2.5	55	48	41	33	28	23	46	38	31	26	21	17	50	43	37	33	28	28	50	44	38	34	29	30	51	45	38	35	30	31
		200	94	200	95	0.01	2.5	49	41	34	25	17	11	44	35	29	24	19	16	48	41	35	31	26	26	49	42	36	33	28	28	49	43	36	33	28	30
	10	1100	519	1100	520	0.01	2.5	**67**	**62**	**54**	**52**	**51**	**48**	57	51	45	34	27	21	63	58	51	43	39	38	64	59	52	44	41	41	**65**	**60**	**52**	**45**	**43**	**42**
		950	448	950	449	0.01	2.5	65	60	52	49	48	45	56	49	43	33	26	20	62	56	49	42	38	37	63	57	50	43	40	39	64	58	51	44	41	41
		700	330	700	331	0.01	2.5	62	56	49	45	42	38	53	46	40	30	24	18	59	53	46	39	36	34	60	54	47	40	38	37	61	55	48	41	39	39
		450	212	450	213	0.01	2.5	58	51	44	37	33	29	49	42	36	26	20	20	55	49	42	35	32	31	56	50	43	36	34	33	57	51	44	37	35	35
		200	94	200	95	0.01	2.5	49	41	34	25	17	11	42	34	29	19	14	8	48	41	34	27	26	24	49	42	35	29	28	27	50	43	36	30	29	29
5	10	1100	520	1100	520	0.01	2.5	66	59	49	45	44	41	61	54	44	35	33	31	67	60	51	42	41	40	68	61	52	44	42	41	69	61	53	44	43	42
		900	425	900	425	0.01	2.5	64	56	47	41	39	36	59	51	42	33	31	29	64	57	49	40	38	38	65	58	50	41	40	39	66	59	51	42	41	40
		700	331	700	331	0.01	2.5	61	53	43	37	34	30	55	48	39	30	28	26	61	54	46	37	36	35	62	55	47	39	37	36	63	55	48	39	38	37
		600	284	600	284	0.01	2.5	59	51	41	34	30	26	53	45	37	28	26	24	59	51	44	36	34	33	60	52	45	37	36	34	60	53	46	38	36	35
		500	236	500	236	0.01	2.5	57	49	39	30	26	22	51	43	35	26	24	22	56	49	42	34	32	31	57	50	43	35	34	32	58	51	43	36	34	33
	12	1600	756	1600	756	0.01	2.5	71	64	54	52	52	50	65	58	48	38	36	35	71	64	55	46	43	43	72	65	56	47	45	45	72	66	57	48	46	46
		1300	615	1300	615	0.01	2.5	68	61	51	48	48	45	63	55	45	36	33	32	68	61	52	43	41	41	69	62	53	45	43	43	70	63	54	45	44	43
		1000	473	1000	473	0.01	2.5	65	58	48	43	42	39	59	51	42	33	31	29	65	57	49	40	39	38	66	58	50	42	40	39	66	59	51	42	41	40
		700	331	700	331	0.01	2.5	61	53	43	37	34	30	54	47	38	29	27	25	60	53	45	36	35	34	61	54	46	38	36	35	62	54	47	38	37	36
		500	236	500	236	0.01	2.5	57	49	39	30	26	22	50	42	34	25	23	21	55	48	41	33	31	30	56	49	42	34	33	31	57	50	42	35	33	32
	14	2050	969	2050	969	0.01	2.5	**74**	**67**	**57**	**56**	**58**	**57**	68	60	50	40	37	37	73	66	57	47	45	45	74	67	58	49	46	47	**75**	**68**	**59**	**49**	**47**	**48**
		1600	756	1600	756	0.01	2.5	71	64	54	52	52	50	64	57	47	37	35	34	70	63	54	45	42	42	71	64	55	46	44	44	71	65	56	47	45	45
		1350	638	1350	638	0.01	2.5	69	61	52	49	48	46	62	55	45	36	33	32	68	61	52	43	41	40	69	62	53	44	42	42	69	62	54	45	43	43
		900	425	900	425	0.01	2.5	64	56	47	41	39	36	57	49	40	31	29	29	62	55	47	38	36	36	63	56	48	39	38	37	64	57	49	40	39	38
		500	236	500	236	0.01	2.5	57	49	39	30	26	22	49	41	33	24	22	20	54	47	40	32	30	29	55	48	41	33	32	30	56	49	41	34	32	31

For performance table notes, see page C104; highlighted **numbers** indicate embedded AHRI certification points.

C

FAN POWERED TERMINAL UNITS

Performance Data • AHRI Certification and Performance Notes

Model Series 35SXC Stealth XC • Series Flow • AHRI Certification Rating Points

Steri-Liner

Unit Size	Inlet Size	Fan Airflow		Fan^Σ Watts	Fan Only* @ .25" w.g. (62 Pa) ΔPs												Primary Airflow		Min. Inlet ΔPs		Fan + 100% Primary @ 1.5" w.g. (375 Pa) ΔPs w/ .25" w.g. (62 Pa) Discharge ΔPs					
					Discharge						Radiated										Radiated					
		cfm	l/s		2	3	4	5	6	7	2	3	4	5	6	7	cfm	l/s	"w.g.	Pa	2	3	4	5	6	7
1	**6**	400	189	107	71	63	60	62	58	55	54	49	43	38	34	30	400	189	0.01	2.5	58	54	48	43	38	38
3	**10**	1100	520	390	83	75	72	73	68	67	67	62	54	52	51	48	1100	520	0.01	2.5	65	60	52	45	43	42
5	**14**	2050	969	400	79	77	74	76	72	71	74	67	57	56	58	57	2050	969	0.01	2.5	75	68	59	49	47	48

Σ Motor = ECM.

* Primary air valve is closed and therefore primary cfm is zero.

Ratings are certified in accordance with AHRI Standards.

Performance Notes for Sound Power Levels:

1. Discharge (external) static pressure is 0.25" w.g. (63 Pa) in all cases, which is the difference (ΔPs) in static pressure from terminal discharge to the room.

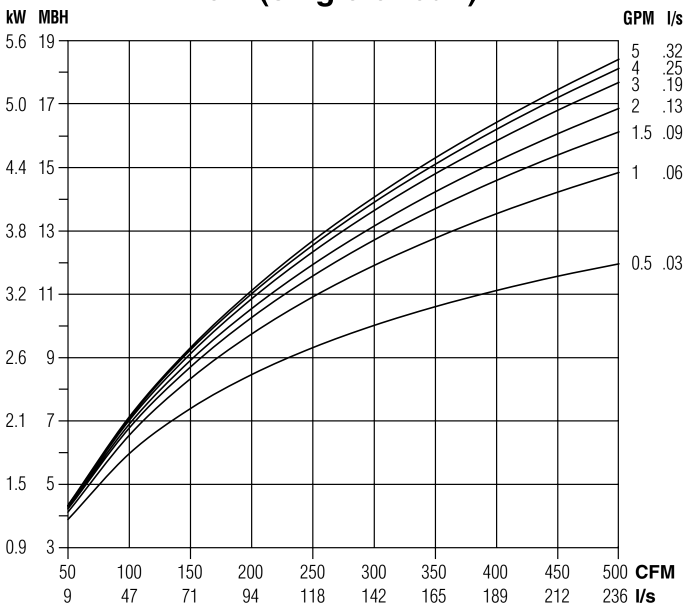
   Discharge Sound Power Levels (SWL) include duct end reflection energy as part of the standard rating. Including the duct end correction provides sound power levels that would normally be transmitted into an acoustically, non-reflective duct. The effect of including the energy correction to the discharge SWL, is higher sound power levels when compared to previous AHRI certified data. For more information on duct end reflection calculations see AHRI Standard 880.
2. Radiated sound power is the breakout noise transmitted through the unit casing walls and induction port.
3. Sound power levels are in decibels, dB re 10^{-12} watts.
4. All sound data listed by octave bands is raw data without any corrections for room absorption or duct attenuation. Dash (-) in space indicates sound power level is less than 20 dB or equal to background.
5. Min. inlet ΔPs is the minimum operating pressure of the primary air valve section.
6. Asterisk (*) in space indicates that the minimum inlet static pressure requirement is greater than 0.5" w.g. (125 Pa) at rated airflow.
7. Data derived from independent tests conducted in accordance with ANSI / ASHRAE Standard 130 and AHRI Standard 880.

Performance Data • Hot Water Coil

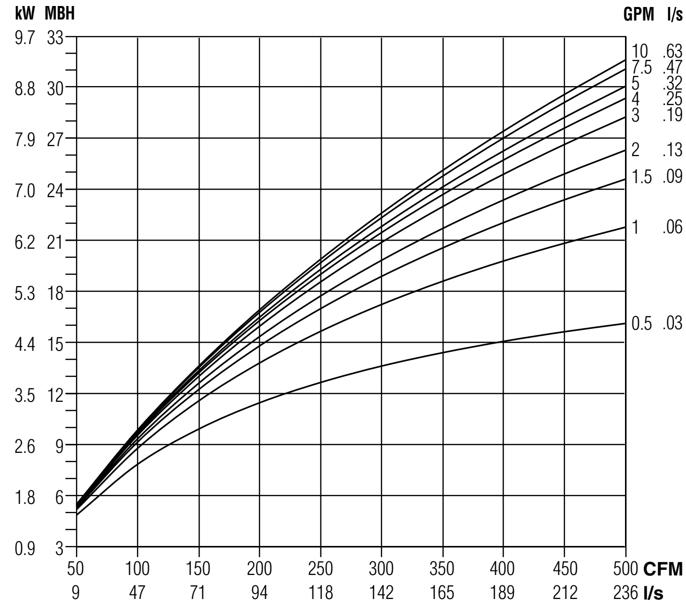
Model: 35SWXC • Series Flow

Unit Size 1

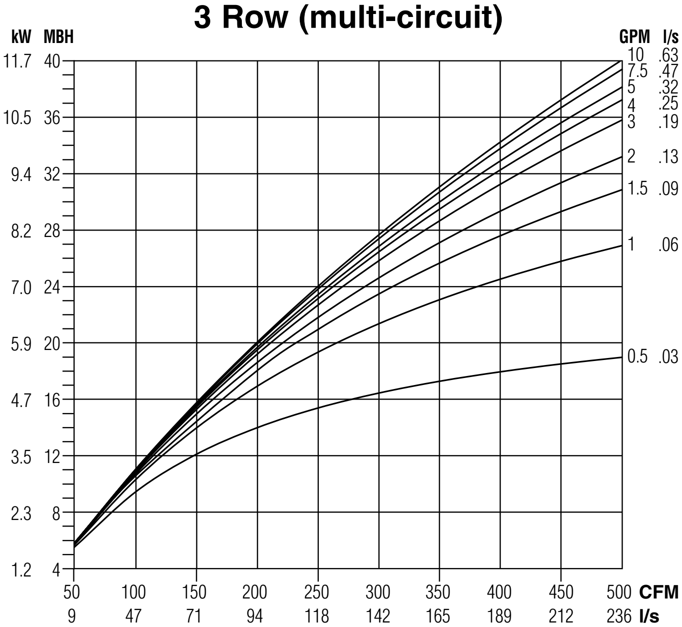
1 Row (single circuit)



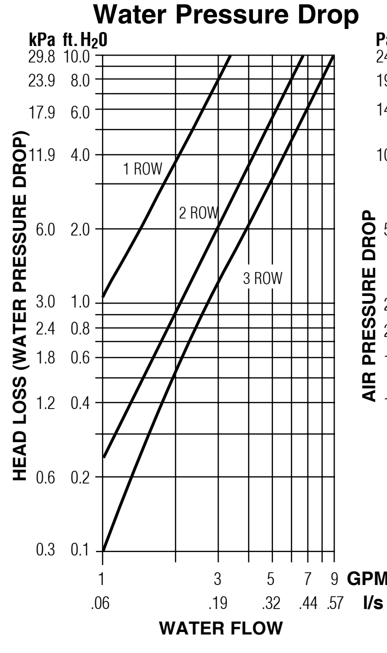
2 Row (multi-circuit)



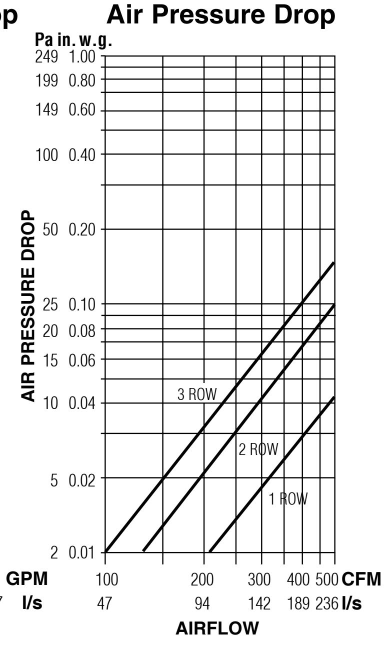
3 Row (multi-circuit)



Water Pressure Drop



Air Pressure Drop



NOTES:

1. Capacities are in MBH (kW), ***thousands of Btu per hour (kiloWatts)***.
2. MBH (kW) values are based on a Δt (temperature difference) of 110°F (61°C) between entering air and entering water. For other Δt's; multiply the MBH (kW) values by the factors below.
3. Air Temperature Rise.
   $ATR\ (°F) = 927 \times \frac{MBH}{cfm}$, $ATR\ (°C) = 829 \times \frac{kW}{l/s}$
4. Water Temp. Drop.
   $WTD\ (°F) = 2.04 \times \frac{MBH}{GPM}$, $WTD\ (°C) = .224 \times \frac{kW}{l/s}$
5. Connections: 1 Row 1/2" (13), 2 and 3 Row 7/8" (22); O.D. male solder.

Altitude Correction Factors:

Altitude ft. (m)	Sensible Heat Factor
0 (0)	1.00
2000 (610)	0.94
3000 (914)	0.90
4000 (1219)	0.87
5000 (1524)	0.84
6000 (1829)	0.81
7000 (2134)	0.78

Correction factors at other entering conditions:

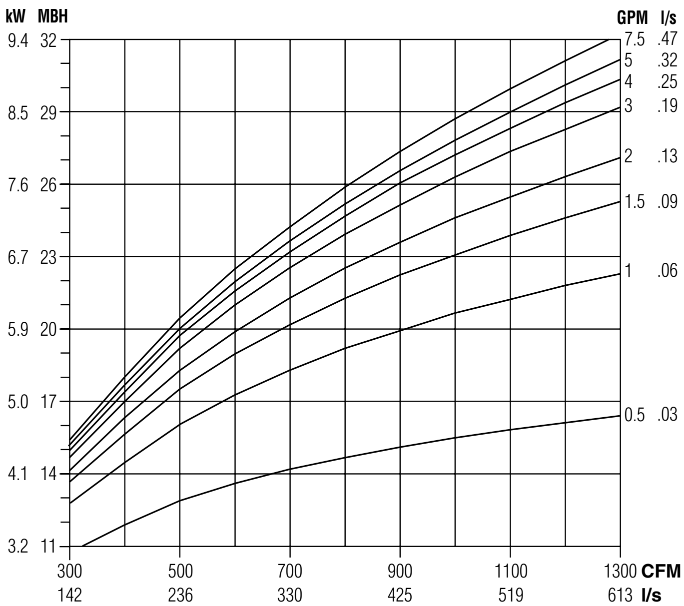
Δt °F (°C)	50 (28)	60 (33)	70 (39)	80 (44)	90 (50)	100 (56)	110 (61)	120 (67)	130 (72)	140 (78)	150 (83)
Factor	.455 (.459)	.545 (.541)	.636 (.639)	.727 (.721)	.818 (.820)	.909 (.918)	1.00 (1.00)	1.09 (1.10)	1.18 (1.18)	1.27 (1.28)	1.36 (1.36)

Performance Data • Hot Water Coil

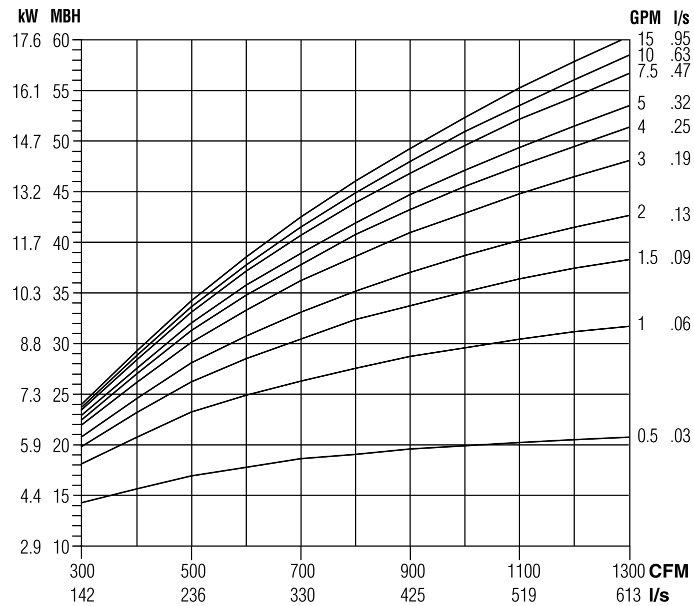
Model: 35SWXC • Series Flow

Unit Size 3

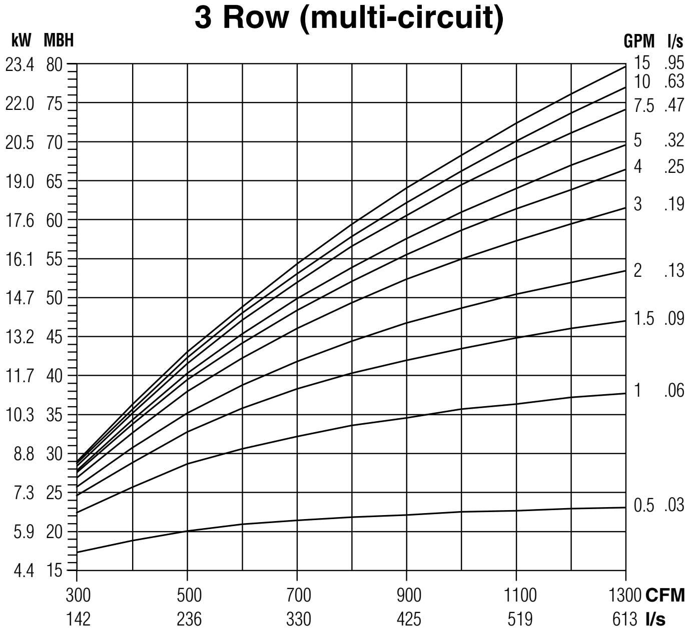
1 Row (single circuit)



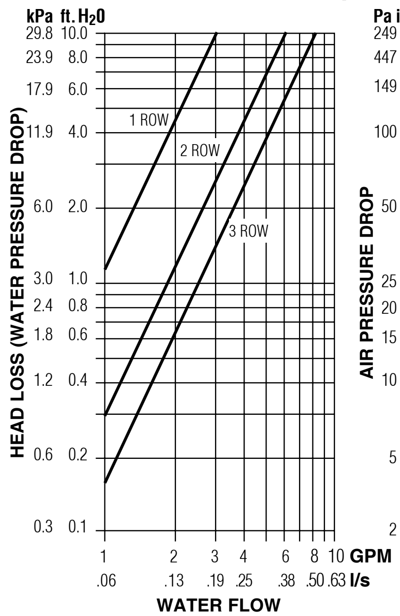
2 Row (multi-circuit)



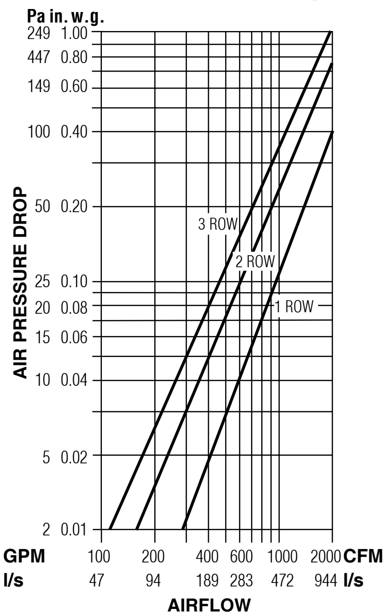
3 Row (multi-circuit)



Water Pressure Drop



Air Pressure Drop



NOTES:

1. Capacities are in MBH (kW), ***thousands of Btu per hour (kiloWatts)***.
2. MBH (kW) values are based on a Δt (temperature difference) of 110°F (61°C) between entering air and entering water. For other Δt's; multiply the MBH (kW) values by the factors below.
3. Air Temperature Rise. ATR (°F) = 927 x $\frac{MBH}{cfm}$, ATR (°C) = 829 x $\frac{kW}{l/s}$
4. Water Temp. Drop. WTD (°F) = 2.04 x $\frac{MBH}{GPM}$, WTD (°C) = .224 x $\frac{kW}{l/s}$
5. Connections: 1 Row 1/2" (13), 2 and 3 Row 7/8" (22); O.D. male solder.

Altitude Correction Factors:

Altitude ft. (m)	Sensible Heat Factor
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Correction factors at other entering conditions:

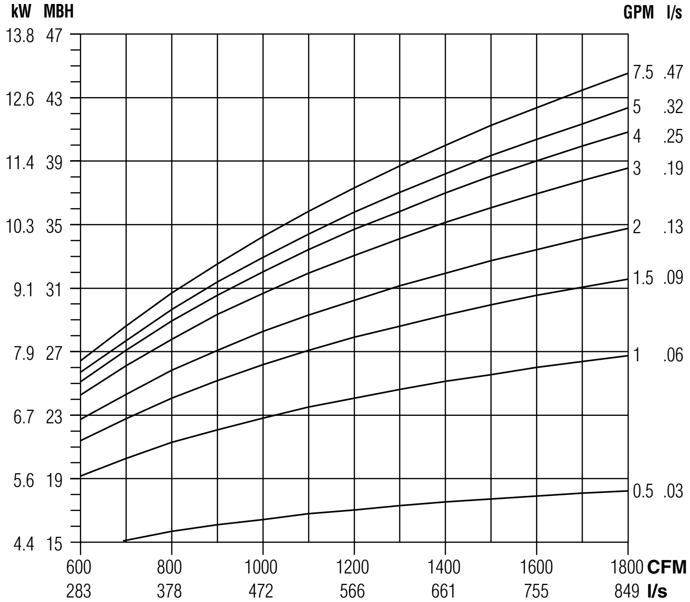
Δt °F (°C)	50 (28)	60 (33)	70 (39)	80 (44)	90 (50)	100 (56)	110 (61)	120 (67)	130 (72)	140 (78)	150 (83)
Factor	.455 (.459)	.545 (.541)	.636 (.639)	.727 (.721)	.818 (.820)	.909 (.918)	1.00 (1.00)	1.09 (1.10)	1.18 (1.18)	1.27 (1.28)	1.36 (1.36)

Performance Data • Hot Water Coil

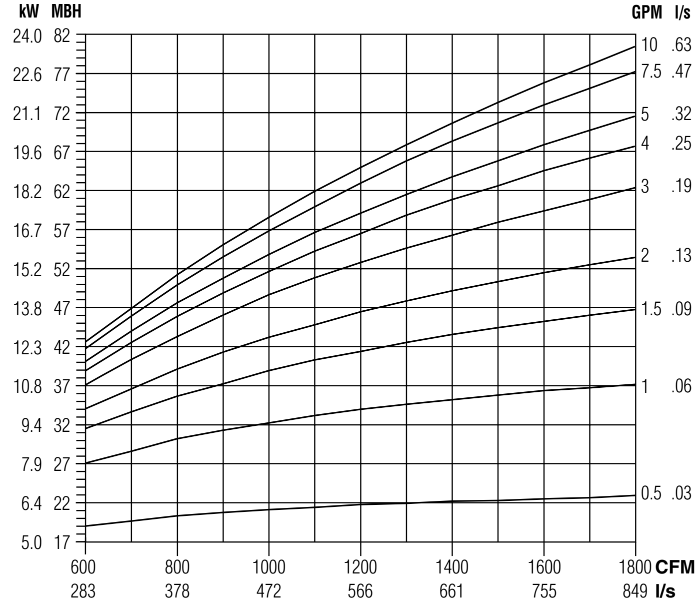
Model: 35SWXC • Series Flow

Unit Size 5

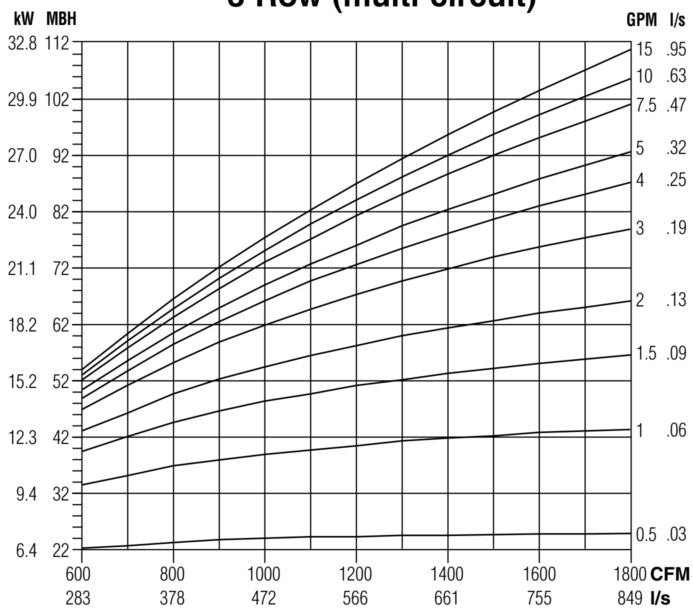
1 Row (multi-circuit)



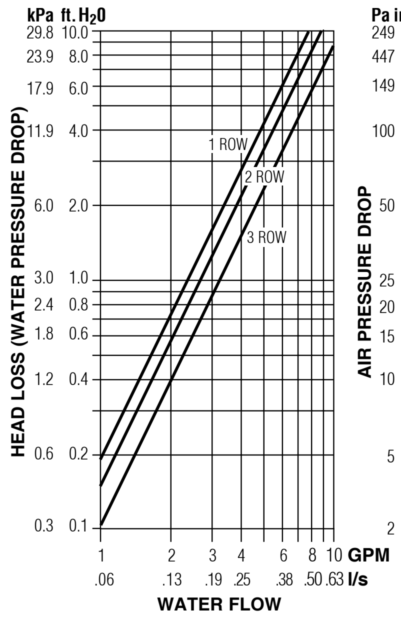
2 Row (multi-circuit)



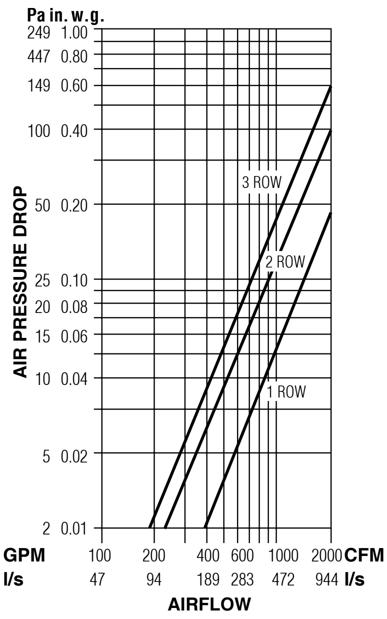
3 Row (multi-circuit)



Water Pressure Drop



Air Pressure Drop



NOTES:

1. Capacities are in MBH (kW), ***thousands of Btu per hour (kiloWatts)***.
2. MBH (kW) values are based on a Δt (temperature difference) of 110°F (61°C) between entering air and entering water. For other Δt's; multiply the MBH (kW) values by the factors below.
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Factor	.455 (.459)	.545 (.541)	.636 (.639)	.727 (.721)	.818 (.820)	.909 (.918)	1.00 (1.00)	1.09 (1.10)	1.18 (1.18)	1.27 (1.28)	1.36 (1.36)