SUPERIOR REX

SO TOUGH,
WE GUARANTEE IT.

Superior Rex Product Catalog

Fan Coils

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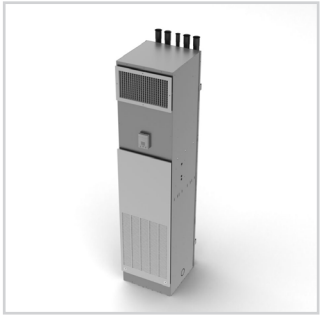
VERTICAL STACK



AVS

VERTICAL STACK SERIES

- Designed for free-blow or ducted, concealed installations.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- 300 to 1200 cfm nominal airflows.
- 0 to 0.3 inches external static pressure.
- 0 to 0.5 high static option.

AVSM

VERTICAL STACK SERIES

- Designed for free-blow or ducted, concealed installations.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- 300 to 1200 cfm nominal airflows.
- 0 to 0.3 inches external static pressure.
- 0 to 0.5 high static option.

AVSS

VERTICAL STACK SERIES

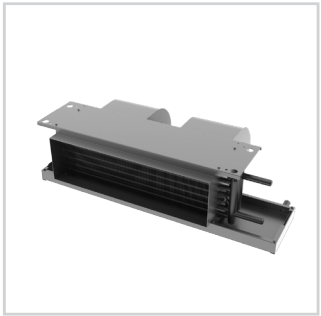
- Designed for free-blow or ducted, concealed installations.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- 300 to 1200 cfm nominal airflows.
- 0 to 0.3 inches external static pressure.
- 0 to 0.5 high static option.

AVSM/AVSS

VERTICAL STACK SERIES

- Designed for free-blow or ducted, concealed installations.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- 300 to 1200 cfm nominal airflows.
- 0 to 0.3 inches external static pressure.
- 0 to 0.5 high static option.

BASIC HORIZONTAL



BHO

BASIC HORIZONTAL SERIES

- Designed for concealed installations above ceilings with ducted air discharge.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- 200 to 1200 cfm nominal airflows.
- 0 to 0.3 inches external static pressure.

BHC

BASIC HORIZONTAL SERIES

- Designed for concealed installations above ceilings with ducted air discharge.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- 200 to 1200 cfm nominal airflows.
- 0 to 0.3 inches external static pressure.

BHR

BASIC HORIZONTAL SERIES

- Designed for concealed installations above ceilings with ducted air discharge.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- 200 to 1200 cfm nominal airflows.
- 0 to 0.3 inches external static pressure.

THC

BASIC HORIZONTAL SERIES

- Designed for concealed installations above ceilings with ducted air discharge.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- 200 to 1200 cfm nominal airflows.
- 0 to 0.3 inches external static pressure.

SUPERIOR REX Fan Coils

BASIC VERTICAL

BVS

BASIC VERTICAL SERIES

- Vertical blow-thru ducted fan coils designed for concealed installations.
- 200 to 1200 cfm nominal airflows.
- 0 to 0.3 inches external static pressure.

BVR

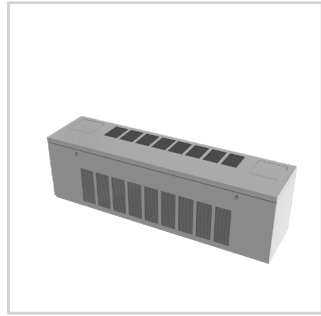
BASIC VERTICAL SERIES

- Vertical blow-thru ducted fan coils designed for concealed installations.
- 200 to 1200 cfm nominal airflows.
- 0 to 0.3 inches external static pressure.

BVC

BASIC VERTICAL SERIES

- Vertical blow-thru ducted fan coils designed for concealed installations.
- 200 to 1200 cfm nominal airflows.
- 0 to 0.3 inches external static pressure.



BVL

BASIC VERTICAL SERIES

- Vertical blow-thru ducted fan coils designed for concealed installations.
- 200 to 600 cfm nominal airflows.
- 0 to 0.3 inches external static pressure.

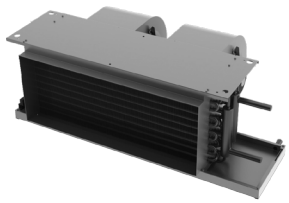
BVD

BASIC VERTICAL SERIES

- Vertical blow-thru ducted fan coils designed for concealed installations.
- 200 to 600 cfm nominal airflows.
- 0 to 0.3 inches external static pressure.

SUPERIOR REX Fan Coils

APARTMENT HORIZONTAL SERIES



AHO

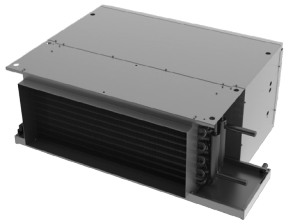
APARTMENT HORIZONTAL SERIES

- Designed for concealed installations above ceilings with ducted air discharge.
- High-efficiency 3-row coil suitable for a 2-pipe system.
- 600 to 2000 cfm nominal airflows.
- 0 to 0.5 inches external static pressure.

AHC

APARTMENT HORIZONTAL SERIES

- Designed for concealed installations above ceilings with ducted air discharge.
- High-efficiency 3-row coil suitable for a 2-pipe system.
- 600 to 2000 cfm nominal airflows.
- 0 to 0.5 inches external static pressure.



AHR

APARTMENT HORIZONTAL SERIES

- Designed for concealed installations above ceilings with ducted air discharge.
- High-efficiency 3-row coil suitable for a 2-pipe system.
- 600 to 2000 cfm nominal airflows.
- 0 to 0.5 inches external static pressure.

APARTMENT VERTICAL

AVC

APARTMENT VERTICAL SERIES

- Designed for ducted closet installations suitable for industrial and commercial applications.
- High-efficiency 3-row coil suitable for a 2-pipe system.
- 600 to 2000 cfm nominal airflows.
- 0 to 0.5 inches external static pressure.

About Us

Superior Rex has manufactured and sold worldwide its extensive range of fan coils and related products since the brand name was introduced to the marketplace in May of 1980. Superior Rex represents the culmination of years of research, design and use of air conditioning equipment by people whose business it is to know... design engineers, mechanical contractors, owners and developers. Superior Rex units have proven to be one of the most reliable, efficient and long lasting fan coils manufactured anywhere.

From it's modern production facilities in Fort Worth, Texas, Superior Rex manufactures a wide range of high quality fan coil units for various applications including custom built units. To ensure the highest quality of product, each unit is built in accordance with the relevant national standards, vigorously tested and labeled before being released for shipment. Superior Rex fan coil products come with a full one year factory warranty.

Superior Rex has a state-of-the-art manufacturing facility in Fort Worth, and our Sales Representatives are located throughout the United States. If you have any questions or if we can be of any assistance don't hesitate to contact us or your local Superior Rex representative.

Overview

When independent climate control of individual spaces is necessary Superior Rex Fan Coil units are often the ideal solution. With quite operation and independent temperature control Superior Rex Fan Coil products place individual comfort in the hands of the occupant.

For Hotels, hi-rise condominiums, and multi-unit residences the Vertical Stack Series minimizes first costs and simplifies installation. In applications when floor space is limited the ceiling mounted Basic Horizontal and High Output Series deliver the same high levels of personal comfort while allowing floor space to be maximized. Basic Vertical models provide a flexible solution in many applications. The slim profile and low unit height are great for under-sill application and retrofits.

Every project is unique and tends to have at least a few specific needs outside of providing comfort to the space. Superior Rex Fan Coil units are available in a multitude of configurations with a wide variety options and accessories to create a custom unit tailored to the needs of your project.

SUPERIOR REX

Vertical Stack Series

www.superiorrex.com

section 1

Vertical Stack Series

AVS

Factory assembled, vertical high-rise building AVS fan coils are designed for free-blow or ducted, concealed installations, suitable for hotel, motel and apartment building applications.

STANDARD FEATURES INCLUDE

- Performance AHRI Certified to Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/ UL 1995 Standard.
- All casing sheet metal components fabricated of 18GA G90 galvanized steel.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- 1-inch thick disposable filter.
- Cabinet liner in ½-inch dual-density fiberglass.
- Multi-speed motor of the permanent split capacitor (PSC) type.
- Direct driven blowers of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally protected on the outside (Consult Superior Rex for availability).
- Translucent flexible condensate water P-trap.
- Plenum discharge air flanges for duct and dry wall applications.

OPTIONAL FEATURES INCLUDE

- 3-, 4- and 5-row coils for 2-pipe systems.
- Single block 2, 3 and 4 rows CW with 1-row re-heat or pre-heat coils for 4-pipe system applications (5 rows max).
- Single block 2 and 3 rows CW with 2 rows re-heat or pre-heat for 4-pipe system applications (5 rows max).
- Filter option include:
  - ◇ 1-inch high-efficiency pleated filters.
  - ◇ 1-inch washable filters.
- Cabinet liner in 1-inch dual-density fiberglass.
- Cabinet liner in ½-inch foil face.
- Cabinet liner in 1-inch foil face.
- Motor voltage suitable for 208V, 230V or 277V/1Ph/60Hz power supplies.
- Motor in-line quick disconnect.
- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supply disconnect switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- Standby electric heater auto changeover switch.
- Fresh air opening.
- Fresh air manual and auto dampers.
- Fresh air freeze protection.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel (Consult Superior Rex for availability).
  - ◇ Double wall construction consisting of outer and inner skins.
  - ◇ Condensate pan overflow safety switch.
- Discharge air grilles:
  - ◇ Aluminum double deflection.
  - ◇ Deluxe aluminum double deflection grilles (Contact Superior Rex for availability).
  - ◇ Linear bar aluminum grilles.
- Discharge air grille options:
  - ◇ Dual discharge.
  - ◇ Air damper controls for units with dual discharge grilles.
  - ◇ Special discharge air grille colors (Contact Superior Rex for color range availability and price).
  - ◇ Discharge air grille location.
- Return air/access panels painted white:
  - ◇ Stamped galvanealed steel.
  - ◇ Remote stamped galvanealed steel.
  - ◇ ADA stamped galvanealed steel.
  - ◇ ADA remote stamped panel.
  - ◇ Invisislot blank front panel.
  - ◇ Deluxe aluminum panel with a removable core.

AVS

- Linear bar aluminum panel with a removable core.
- Special return air/access panel color (Contact Superior Rex for color range availability and price).
- Return air/access panel fasteners:
  - ◇ Philips head fasteners.
  - ◇ Tamper proof fasteners.
  - ◇ Quarter turn fasteners.
- Fan section noise reduction kit.
- 1-hour fire rating.

OPTIONAL RISER ASSEMBLY FEATURES INCLUDE

- Unit mounted riser.
- Risers supplied loose.
- Riser pipe type M, L and K. (Consult Superior Rex for availability of type K risers).
- Riser thermal Insulation in ½- or ¾-inch wall thickness.
- Riser connections to unit options:
  - ◇ Welded to the unit piping.
  - ◇ Union connections using rigid copper pipe.
  - ◇ Union connections with flexible braided stainless steel hoses.
- Riser extensions.
- Riser extension end connection reducers.

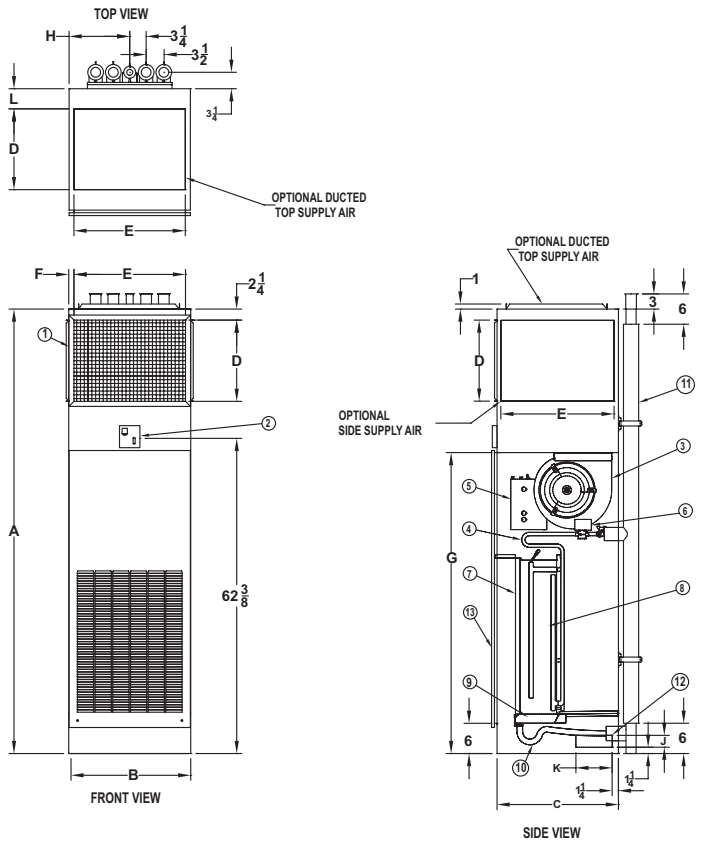
AHRI CERTIFIED™ www.ahridirectory.org Room Fan-Coils AHRI Standard 440

ETL®

A Participating Corporation in the AHRI 440 Certification Program

SUPERIOR REX Fan Coils

AVS RECESSED HI-RISE



Note: For units with stamped return and basic double-deflection supply grilles.

1. Supply Air Grille (optional)
2. Unit-Mounted Thermostat (optional)
3. Motor/Blower Assemby
4. Riser Expansion Loops
5. Electrical Control Box
6. Valve Package (optional)
7. Filter
8. Coil
9. Condensate Tray
10. See through P-Trap Drain
11. Riser Assembly
12. Fresh Air Damper Opening (optional)
13. Stamped Return Air/Access Panel (optional)

Model	Dimensions - Single Supply Option (inches)												Approx. Weight (pounds)
	A	B	C	D	E	F	G	H	J	K	L	Filter	
AVS03	88	17	17	8	15	1	56 5/8	8 1/2	3 1/4	7 3/8	3 1/2	13x23x1	230
AVS04	88	17	17	10	15	1	56 5/8	8 1/2	3 1/4	7 3/8	3 1/2	13x23x1	240
AVS06	88	20	20	10	18	1	56 5/8	10	3 1/4	8 7/8	4	16x27x1	270
AVS08	88	20	20	12	18	1	56 5/8	10	3 1/4	8 7/8	4	16x27x1	280
AVS10	88	24	24	12	22	1	59 5/8	12	2 3/8	10 7/8	5	20x31x1	310
AVS12	88	24	24	16	22	1	59 5/8	12	2 3/8	10 7/8	4	20x31x1	320

Model	Dimensions - Dual Supply Option (inches)												Approx. Weight (pounds)
	A	B	C	D	E	F	G	H	J	K	L	Filter	
AVS03	88	17	17	6	15	1	56 5/8	8 1/2	3 1/4	7 3/8	3 1/2	13x23x1	230
AVS04	88	17	17	6	15	1	56 5/8	8 1/2	3 1/4	7 3/8	3 1/2	13x23x1	240
AVS06	88	20	20	6	18	1	56 5/8	10	3 1/4	8 7/8	4	16x27x1	270
AVS08	88	20	20	6	18	1	56 5/8	10	3 1/4	8 7/8	4	16x27x1	280
AVS10	88	24	24	8	22	1	59 5/8	12	2 3/8	10 7/8	5	20x31x1	310
AVS12	88	24	24	8	22	1	59 5/8	12	2 3/8	10 7/8	4	20x31x1	320

All dimensions are in inches.

SUPERIOR REX Fan Coils

AVS RECESSED HI-RISE

2-PIPE SYSTEM							
Model	2 Rows Cooling (1)				2 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVS03	9.5	6.8	1.9	4.35	24.7	1.7	2.71
AVS04	10.8	7.9	2.2	5.57	29.0	2.0	3.66
AVS06	14.9	11.1	3.0	2.39	41.7	2.8	1.86
AVS08	18.3	14.1	3.7	3.56	53.1	3.6	2.95
AVS10	24.4	18.6	4.9	3.31	70.1	4.8	2.86
AVS12	26.2	20.2	5.2	3.78	76.2	5.2	3.35

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVS03	9.1	6.6	1.8	4.01	15.8	1.1	4.24
AVS04	10.5	7.5	2.1	5.21	18.1	1.2	5.46
AVS06	14.2	10.5	2.8	2.20	26.3	1.8	2.08
AVS08	17.6	13.5	3.5	3.30	32.8	2.2	3.15
AVS10	23.5	17.7	4.7	3.06	43.7	3.0	7.13
AVS12	25.1	19.2	5.0	3.49	47.1	3.2	8.19

2-PIPE SYSTEM							
Model	3 Rows Cooling				3 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVS03	12.4	8.3	2.5	10.72	31.1	2.1	6.26
AVS04	12.8	9.1	2.6	1.97	35.8	2.4	1.52
AVS06	20.0	13.8	4.0	5.83	53.0	3.6	4.00
AVS08	23.4	17.2	4.7	3.28	67.5	4.6	2.83
AVS10	33.5	23.5	6.7	7.82	90.0	6.1	5.87
AVS12	34.3	25.0	6.9	4.95	97.2	6.6	4.32

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVS03	11.9	7.9	2.4	9.79	15.0	1.0	3.92
AVS04	12.2	8.7	2.4	1.81	17.2	1.2	5.04
AVS06	19.0	13.1	3.8	5.29	25.1	1.7	2.02
AVS08	22.5	16.4	4.5	3.04	31.4	2.1	3.04
AVS10	31.9	22.3	6.4	7.11	41.8	2.9	6.87
AVS12	32.8	23.7	6.6	4.53	45.0	3.1	7.85

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVS03	12.9	8.6	2.6	2.54	32.7	2.2	1.61
AVS04	15.0	10.1	3.0	3.39	39.1	2.7	2.26
AVS06	21.8	14.7	4.4	3.46	56.8	3.9	2.45
AVS08	28.1	19.4	5.6	5.61	75.2	5.1	4.17
AVS10	37.6	25.5	7.5	6.85	98.1	6.7	5.11
AVS12	40.9	28.0	8.2	8.04	108.0	7.4	6.13

4-PIPE SYSTEM							
Model	4 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVS03	12.2	8.0	2.4	2.27	14.3	1.0	3.57
AVS04	14.2	9.5	2.8	3.05	16.4	1.1	4.62
AVS06	20.6	13.8	4.1	3.11	23.9	1.6	1.90
AVS08	26.6	18.3	5.3	5.07	29.9	2.0	2.94
AVS10	35.5	24.0	7.1	6.12	39.8	2.7	6.48
AVS12	38.7	26.4	7.7	7.25	42.9	2.9	7.49

2-PIPE SYSTEM							
Model	5 Rows Cooling				5 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVS03	13.7	8.8	2.7	3.44	33.0	2.3	1.96
AVS04	16.2	10.5	3.2	4.69	39.8	2.7	2.79
AVS06	23.4	15.2	4.7	4.63	57.6	3.9	2.93
AVS08	29.5	19.9	5.9	4.16	77.0	5.3	3.11
AVS10	40.5	26.5	8.1	9.00	100.4	6.9	6.07
AVS12	44.5	29.3	8.9	10.77	111.2	7.6	7.37

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

PERFORMANCE DATA

Model	Motor	
	HP	Total AMPS
AVS03	1/10	1.50
AVS04	1/10	1.50
AVS06	1/10	1.90
AVS08	1/4	3.50
AVS10	1/4	3.90
AVS12	1/3	4.00

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
AVS03	362	303	254
AVS04	445	355	293
AVS06	643	488	399
AVS08	916	731	576
AVS10	1153	945	651
AVS12	1300	1202	977

1. Nominal air volume ratings are based on a 2-row coil at sea level altitude with zero static pressure.
2. Air volumes are based at high fan speed.

AVSM

Factory assembled, vertical high-rise building AVSM master fan coils stand alone with riser water connections ready for a remote drone unit AVSS, are designed for free-blow or ducted, concealed installations, suitable for hotel, motel and apartment building applications.

STANDARD FEATURES INCLUDE

- Performance AHRI Certified to Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/ UL 1995 Standard.
- All casing sheet metal components fabricated of 18GA G90 galvanized steel.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- 1-inch thick disposable filter.
- Cabinet liner in ½-inch dual-density fiberglass.
- Multi-speed motor of the permanent split capacitor (PSC) type.
- Direct driven blowers of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally protected on the outside. (Consult Superior Rex for availability).
- Translucent flexible condensate water P-trap.
- Plenum discharge air flanges for duct and dry wall applications.

OPTIONAL FEATURES INCLUDE

- 3-, 4- and 5-row coils for 2-pipe systems.
- Single block 2, 3 and 4 rows CW with 1-row re-heat or pre-heat coils for 4-pipe system applications (5 rows max).
- Single block 2 and 3 rows CW with 2 rows re-heat or pre-heat for 4-pipe system applications (5 rows max).
- Filter option include:
  - ◇ 1-inch high-efficiency pleated filters.
  - ◇ 1-inch washable filters.
- Cabinet liner in 1-inch dual-density fiberglass.
- Cabinet liner in ½-inch foil face.
- Cabinet liner in 1-inch foil face.
- Motor Voltage suitable for 208V, 230V or 277V/1Ph/60Hz power supplies.
- Motor in-line quick disconnect.
- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supply disconnects switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- Standby electric heater auto changeover switch.
- Fresh air opening.
- Fresh air manual and auto dampers.
- Fresh air freeze protection.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Double wall construction consisting of outer and inner skins.
  - ◇ Condensate pan mastic coating applicable overflow safety switch.
- Discharge air grilles:
  - ◇ Aluminum double deflection.
  - ◇ Deluxe aluminum double deflection grilles (Contact Superior Rex for availability).
  - ◇ Linear bar aluminum grilles.
- Discharge air grille options:
  - ◇ Dual discharge.
  - ◇ Air damper controls for units with dual discharge grilles.
  - ◇ Special discharge air grille colors (Contact Superior Rex for color range availability and price).
  - ◇ Discharge air grille location.
- Return air/access panels painted white:
  - ◇ Stamped galvanealed steel.
  - ◇ Remote stamped galvanealed steel.
  - ◇ ADA stamped galvanealed steel.
  - ◇ ADA remote stamped panel.
  - ◇ Invisislot blank front panel.

AVSM

- ◇ Deluxe aluminum panel with a removable core.
- Linear bar aluminum panel with a removable core.
- Special return air/access panel color (Contact Superior Rex for color range availability and price).
- Return air/access panel fasteners:
  - ◇ Philips head fasteners.
  - ◇ Tamper proof fasteners.
  - ◇ Quarter turn fasteners.
- Fan section noise reduction kit.
- 1-hour fire rating.

OPTIONAL RISER ASSEMBLY FEATURES INCLUDE

- Unit mounted riser.
- Risers supplied loose.
- Riser pipe type M, L and K. (Consult Superior Rex for availability of type K risers).
- Riser thermal Insulation in ½- or ¾-inch wall thickness.
- Riser connections to master unit options:
  - ◇ Welded to the unit piping.
  - ◇ Union connections using rigid copper pipe.
  - ◇ Union connections with flexible braided stainless steel hoses.
  - ◇ Riser connections to salve unit (supplied separate) options:
  - ◇ Union connections using rigid copper pipe.
  - ◇ Union connections with flexible braided stainless steel hoses.
  - ◇ Riser extensions.
  - ◇ Riser extension end connection reducers.

AHRI CERTIFIED™ www.ahridirectory.org Room Fan-Coils AHRI Standard 440

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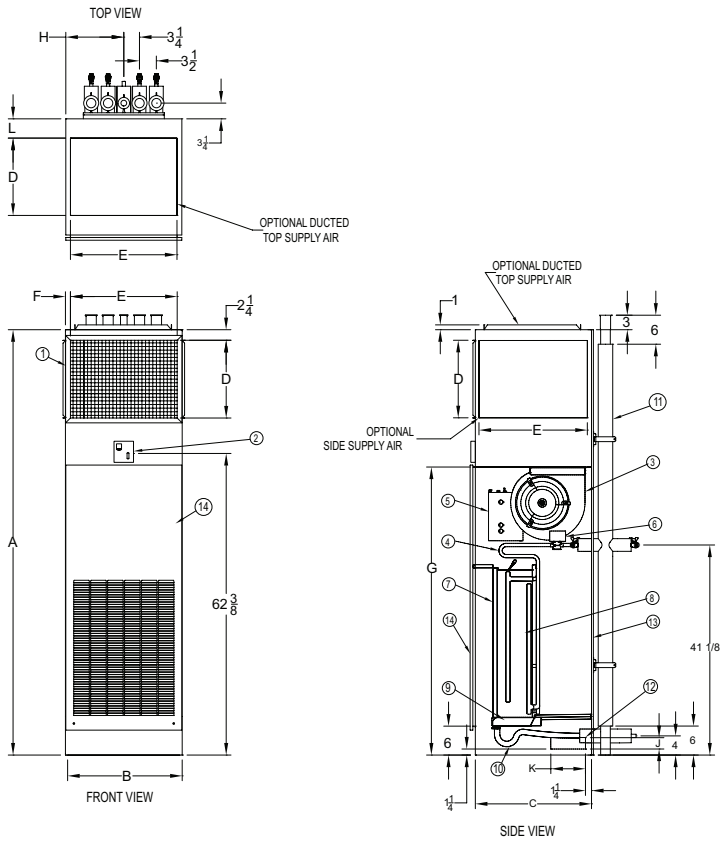
A Participating Corporation in the AHRI 440 Certification Program

SUPERIOR REX Fan Coils

AVSM RECESSED HI-RISE REMOTE MASTER



Note: For units with stamped return and basic double-deflection supply grilles.

1. Supply Air Grille (optional)
2. Unit-Mounted Thermostat (optional)
3. Motor/Blower(s) Assemby
4. Riser Expansion Loops (optional)
5. Electrical Control Box
6. Valve Package (optional)
7. Filter
8. Coil
9. Condensate Tray
10. See through P-Trap Drain
11. Riser Assembly (optional)
12. Fresh Air Damper Opening (optional)
13. 1-hour Firewall (optional)
14. Return Air/Access Panel (optional)

Model	Dimensions - Single Supply Option (inches)												Approx. Weight (pounds)
	A	B	C	D	E	F	G	H	J	K	L	Filter	
AVSM03	88	17	17	8	15	1	56 5/8	8 1/2	3 1/4	7 3/8	3 1/2	13x23x1	230
AVSM04	88	17	17	10	15	1	56 5/8	8 1/2	3 1/4	7 3/8	3 1/2	13x23x1	240
AVSM06	88	20	20	10	18	1	56 5/8	10	3 1/4	8 7/8	4	16x27x1	270
AVSM08	88	20	20	12	18	1	56 5/8	10	3 1/4	8 7/8	4	16x27x1	280
AVSM10	88	24	24	12	22	1	59 5/8	12	2 3/8	10 7/8	5	20x31x1	310
AVSM12	88	24	24	16	22	1	59 5/8	12	2 3/8	10 7/8	4	20x31x1	320

Model	Dimensions - Dual Supply Option (inches)												Approx. Weight (pounds)
	A	B	C	D	E	F	G	H	J	K	L	Filter	
AVSM03	88	17	17	6	15	1	56 5/8	8 1/2	3 1/4	7 3/8	3 1/2	13x23x1	230
AVSM04	88	17	17	6	15	1	56 5/8	8 1/2	3 1/4	7 3/8	3 1/2	13x23x1	240
AVSM06	88	20	20	6	18	1	56 5/8	10	3 1/4	8 7/8	4	16x27x1	270
AVSM08	88	20	20	6	18	1	56 5/8	10	3 1/4	8 7/8	4	16x27x1	280
AVSM10	88	24	24	8	22	1	59 5/8	12	2 3/8	10 7/8	5	20x31x1	310
AVSM12	88	24	24	8	22	1	59 5/8	12	2 3/8	10 7/8	4	20x31x1	320

All dimensions are in inches.

AVSM RECESSED HI-RISE REMOTE MASTER

2-PIPE SYSTEM							
Model	2 Rows Cooling (1)				2 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSM03	9.5	6.8	1.9	4.35	24.7	1.7	2.71
AVSM04	10.8	7.9	2.2	5.57	29.0	2.0	3.66
AVSM06	14.9	11.1	3.0	2.39	41.7	2.8	1.86
AVSM08	18.3	14.1	3.7	3.56	53.1	3.6	2.95
AVSM10	24.4	18.6	4.9	3.31	70.1	4.8	2.86
AVSM12	26.2	20.2	5.2	3.78	76.2	5.2	3.35

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSM03	9.1	6.6	1.8	4.01	15.8	1.1	4.24
AVSM04	10.5	7.5	2.1	5.21	18.1	1.2	5.46
AVSM06	14.2	10.5	2.8	2.20	26.3	1.8	2.08
AVSM08	17.6	13.5	3.5	3.30	32.8	2.2	3.15
AVSM10	23.5	17.7	4.7	3.06	43.7	3.0	7.13
AVSM12	25.1	19.2	5.0	3.49	47.1	3.2	8.19

2-PIPE SYSTEM							
Model	3 Rows Cooling				3 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSM03	12.4	8.3	2.5	10.72	31.1	2.1	6.26
AVSM04	12.8	9.1	2.6	1.97	35.8	2.4	1.52
AVSM06	20.0	13.8	4.0	5.83	53.0	3.6	4.00
AVSM08	23.4	17.2	4.7	3.28	67.5	4.6	2.83
AVSM10	33.5	23.5	6.7	7.82	90.0	6.1	5.87
AVSM12	34.3	25.0	6.9	4.95	97.2	6.6	4.32

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSM03	11.9	7.9	2.4	9.79	15.0	1.0	3.92
AVSM04	12.2	8.7	2.4	1.81	17.2	1.2	5.04
AVSM06	19.0	13.1	3.8	5.29	25.1	1.7	2.02
AVSM08	22.5	16.4	4.5	3.04	31.4	2.1	3.04
AVSM10	31.9	22.3	6.4	7.11	41.8	2.9	6.87
AVSM12	32.8	23.7	6.6	4.53	45.0	3.1	7.85

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSM03	12.9	8.6	2.6	2.54	32.7	2.2	1.61
AVSM04	15.0	10.1	3.0	3.39	39.1	2.7	2.26
AVSM06	21.8	14.7	4.4	3.46	56.8	3.9	2.45
AVSM08	28.1	19.4	5.6	5.61	75.2	5.1	4.17
AVSM10	37.6	25.5	7.5	6.85	98.1	6.7	5.11
AVSM12	40.9	28.0	8.2	8.04	108.0	7.4	6.13

4-PIPE SYSTEM							
Model	4 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSM03	12.2	8.0	2.4	2.27	14.3	1.0	3.57
AVSM04	14.2	9.5	2.8	3.05	16.4	1.1	4.62
AVSM06	20.6	13.8	4.1	3.11	23.9	1.6	1.90
AVSM08	26.6	18.3	5.3	5.07	29.9	2.0	2.94
AVSM10	35.5	24.0	7.1	6.12	39.8	2.7	6.48
AVSM12	38.7	26.4	7.7	7.25	42.9	2.9	7.49

2-PIPE SYSTEM							
Model	5 Rows Cooling				5 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSM03	13.7	8.8	2.7	3.44	33.0	2.3	1.96
AVSM04	16.2	10.5	3.2	4.69	39.8	2.7	2.79
AVSM06	23.4	15.2	4.7	4.63	57.6	3.9	2.93
AVSM08	29.5	19.9	5.9	4.16	77.0	5.3	3.11
AVSM10	40.5	26.5	8.1	9.00	100.4	6.9	6.07
AVSM12	44.5	29.3	8.9	10.77	111.2	7.6	7.37

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

PERFORMANCE DATA

Model	Motor	
	HP	Total AMPS
AVSM03	1/10	1.50
AVSM04	1/10	1.50
AVSM06	1/10	1.90
AVSM08	1/4	3.50
AVSM10	1/4	3.90
AVSM12	1/3	4.00

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
AVSM03	362	303	254
AVSM04	445	355	293
AVSM06	643	488	399
AVSM08	916	731	576
AVSM10	1153	945	651
AVSM12	1300	1202	977

1. Nominal air volume ratings are based on a 2-row coil at sea level altitude with zero static pressure.
2. Air volumes are based at high fan speed.

AVSS

Factory assembled, vertical high-rise building AVSS drone fan coils stand alone ready, to connect to a remote master unit AVSM, are designed for free-blow or ducted, concealed installations suitable for hotel, motel and apartment building applications.

STANDARD FEATURES INCLUDE

- Performance AHRI Certified to Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/ UL 1995 Standard.
- All casing sheet metal components fabricated of 18GA G90 galvanized steel.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- 1-inch thick disposable filter.
- Cabinet liner in ½-inch dual-density fiberglass.
- Multi-speed motor of the permanent split capacitor (PSC) type.
- Direct driven blowers of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally protected on the outside (Consult Superior Rex for availability).
- Translucent flexible condensate water P-trap.
- Plenum discharge air flanges for duct and dry wall applications.

OPTIONAL FEATURES INCLUDE

- 3-, 4- and 5-row coils for 2-pipe systems.
- Single block 2, 3 and 4 rows CW with 1-row re-heat or pre-heat coils for 4-pipe system applications (5 rows max).
- Single block 2 and 3 rows CW with 2 rows re-heat or pre-heat for 4-pipe system applications (5 rows max).
- Filter option include:
  - ◇ 1-inch high-efficiency pleated filters.
  - ◇ 1-inch washable filters.
- Cabinet liner in 1-inch dual-density fiberglass.
- Cabinet liner in ½-inch foil face.
- Cabinet liner in 1-inch foil face.
- Motor voltage suitable for 208V, 230V or 277V/1ph/60hz power supplies.
- Motor in-line quick disconnect.
- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supply disconnects switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- Standby electric heater auto changeover switch.
- Fresh air opening.
- Fresh air manual and auto dampers.
- Fresh air freeze protection.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel (Consult Superior Rex for availability).
  - ◇ Double wall construction consisting of outer and inner skins.
  - ◇ Condensate pan overflow safety switch.
- Discharge air grilles:
  - ◇ Aluminum double deflection.
  - ◇ Deluxe aluminum double deflection grilles (Consult Superior Rex for availability).
  - ◇ Linear bar aluminum grilles.
- Discharge air grille options:
  - ◇ Dual discharge.
  - ◇ Air damper controls for units with dual discharge grilles.
  - ◇ Special discharge air grille colors (Contact Superior Rex for color range availability and price).
  - ◇ Discharge air grille location.
- Return air/access panels painted white:
  - ◇ Stamped galvanealed steel.
  - ◇ Remote stamped galvanealed steel.
  - ◇ ADA stamped galvanealed steel.
  - ◇ ADA remote stamped panel.
  - ◇ Invisislot blank front panel.

AVSS

  - ◇ Deluxe aluminum panel with a removable core.
- Linear bar aluminum panel with a removable core.
- Special return air/access panel color (Contact Superior Rex for color range availability and price).
- Return air/access panel fasteners:
  - ◇ Philips head fasteners.
  - ◇ Tamper proof fasteners.
  - ◇ Quarter turn fasteners.
- Fan section noise reduction kit.
- 1-hour fire rating.
- Connections to master unit risers options (supplied separate):
- Union connections using rigid copper pipe.
- Union connections with flexible braided stainless steel hoses.

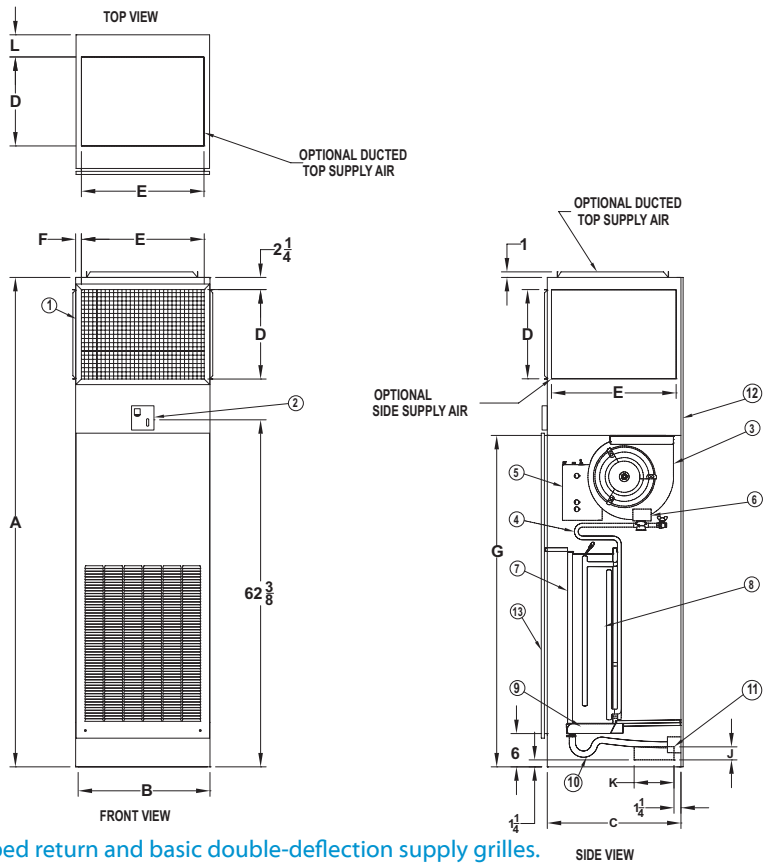
AHRI CERTIFIED™ www.ahridirectory.org Room Fan-Coils AHRI Standard 440

ETL®

A Participating Corporation in the AHRI 440 Certification Program

SUPERIOR REX Fan Coils

AVSS RECESSED HI-RISE REMOTE DRONE



Note: For units with stamped return and basic double-deflection supply grilles.

1. Supply Air Grille (optional)
2. Unit-Mounted Thermostat (optional)
3. Blower / Motor Assembly
4. Riser Expansion Loops (optional)
5. Electrical Control Box
6. Valve Package (optional)
7. Filter
8. Coil Assembly
9. Condensate pan
10. See through P-Trap Drain
11. Fresh Air Damper Opening (optional)
12. 1-hour Firewall (optional)
13. Return Air/Access Panel (optional)

Model	Dimensions - Single Supply Option (inches)												Approx. Weight (pounds)
	A	B	C	D	E	F	G	H	J	K	L	Filter	
AVSS03	88	17	17	8	15	1	56 5/8	8 1/2	3 1/4	7 3/8	3 1/2	13x23x1	230
AVSS04	88	17	17	10	15	1	56 5/8	8 1/2	3 1/4	7 3/8	3 1/2	13x23x1	240
AVSS06	88	20	20	10	18	1	56 5/8	10	3 1/4	8 7/8	4	16x27x1	270
AVSS08	88	20	20	12	18	1	56 5/8	10	3 1/4	8 7/8	4	16x27x1	280
AVSS10	88	24	24	12	22	1	59 5/8	12	2 3/8	10 7/8	5	20x31x1	310
AVSS12	88	24	24	16	22	1	59 5/8	12	2 3/8	10 7/8	4	20x31x1	320

Model	Dimensions - Dual Supply Option (inches)												Approx. Weight (pounds)
	A	B	C	D	E	F	G	H	J	K	L	Filter	
AVSS03	88	17	17	6	15	1	56 5/8	8 1/2	3 1/4	7 3/8	3 1/2	13x23x1	230
AVSS04	88	17	17	6	15	1	56 5/8	8 1/2	3 1/4	7 3/8	3 1/2	13x23x1	240
AVSS06	88	20	20	6	18	1	56 5/8	10	3 1/4	8 7/8	4	16x27x1	270
AVSS08	88	20	20	6	18	1	56 5/8	10	3 1/4	8 7/8	4	16x27x1	280
AVSS10	88	24	24	8	22	1	59 5/8	12	2 3/8	10 7/8	5	20x31x1	310
AVSS12	88	24	24	8	22	1	59 5/8	12	2 3/8	10 7/8	4	20x31x1	320

All dimensions are in inches.

AVSS RECESSED HI-RISE REMOTE DRONE

2-PIPE SYSTEM							
Model	2 Rows Cooling (1)				2 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSS03	9.5	6.8	1.9	4.35	24.7	1.7	2.71
AVSS04	10.8	7.9	2.2	5.57	29.0	2.0	3.66
AVSS06	14.9	11.1	3.0	2.39	41.7	2.8	1.86
AVSS08	18.3	14.1	3.7	3.56	53.1	3.6	2.95
AVSS10	24.4	18.6	4.9	3.31	70.1	4.8	2.86
AVSS12	26.2	20.2	5.2	3.78	76.2	5.2	3.35

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSS03	9.1	6.6	1.8	4.01	15.8	1.1	4.24
AVSS04	10.5	7.5	2.1	5.21	18.1	1.2	5.46
AVSS06	14.2	10.5	2.8	2.20	26.3	1.8	2.08
AVSS08	17.6	13.5	3.5	3.30	32.8	2.2	3.15
AVSS10	23.5	17.7	4.7	3.06	43.7	3.0	7.13
AVSS12	25.1	19.2	5.0	3.49	47.1	3.2	8.19

2-PIPE SYSTEM							
Model	3 Rows Cooling				3 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSS03	12.4	8.3	2.5	10.72	31.1	2.1	6.26
AVSS04	12.8	9.1	2.6	1.97	35.8	2.4	1.52
AVSS06	20.0	13.8	4.0	5.83	53.0	3.6	4.00
AVSS08	23.4	17.2	4.7	3.28	67.5	4.6	2.83
AVSS10	33.5	23.5	6.7	7.82	90.0	6.1	5.87
AVSS12	34.3	25.0	6.9	4.95	97.2	6.6	4.32

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSS03	11.9	7.9	2.4	9.79	15.0	1.0	3.92
AVSS04	12.2	8.7	2.4	1.81	17.2	1.2	5.04
AVSS06	19.0	13.1	3.8	5.29	25.1	1.7	2.02
AVSS08	22.5	16.4	4.5	3.04	31.4	2.1	3.04
AVSS10	31.9	22.3	6.4	7.11	41.8	2.9	6.87
AVSS12	32.8	23.7	6.6	4.53	45.0	3.1	7.85

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSS03	12.9	8.6	2.6	2.54	32.7	2.2	1.61
AVSS04	15.0	10.1	3.0	3.39	39.1	2.7	2.26
AVSS06	21.8	14.7	4.4	3.46	56.8	3.9	2.45
AVSS08	28.1	19.4	5.6	5.61	75.2	5.1	4.17
AVSS10	37.6	25.5	7.5	6.85	98.1	6.7	5.11
AVSS12	40.9	28.0	8.2	8.04	108.0	7.4	6.13

4-PIPE SYSTEM							
Model	4 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSS03	12.2	8.0	2.4	2.27	14.3	1.0	3.57
AVSS04	14.2	9.5	2.8	3.05	16.4	1.1	4.62
AVSS06	20.6	13.8	4.1	3.11	23.9	1.6	1.90
AVSS08	26.6	18.3	5.3	5.07	29.9	2.0	2.94
AVSS10	35.5	24.0	7.1	6.12	39.8	2.7	6.48
AVSS12	38.7	26.4	7.7	7.25	42.9	2.9	7.49

2-PIPE SYSTEM							
Model	5 Rows Cooling				5 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSS03	13.7	8.8	2.7	3.44	33.0	2.3	1.96
AVSS04	16.2	10.5	3.2	4.69	39.8	2.7	2.79
AVSS06	23.4	15.2	4.7	4.63	57.6	3.9	2.93
AVSS08	29.5	19.9	5.9	4.16	77.0	5.3	3.11
AVSS10	40.5	26.5	8.1	9.00	100.4	6.9	6.07
AVSS12	44.5	29.3	8.9	10.77	111.2	7.6	7.37

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

Model	Motor	
	HP	Total AMPS
AVSS03	1/10	1.50
AVSS04	1/10	1.50
AVSS06	1/10	1.90
AVSS08	1/4	3.50
AVSS10	1/4	3.90
AVSS12	1/3	4.00

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
AVSS03	362	303	254
AVSS04	445	355	293
AVSS06	643	488	399
AVSS08	916	731	576
AVSS10	1153	945	651
AVSS12	1300	1202	977

1. Nominal air volume ratings are based on a 2-row coil at sea level altitude with zero static pressure.
2. Air volumes are based at high fan speed.

SUPERIOR REX Fan Coils

AVSM/AVSS

Factory assembled, vertical high-rise building AVSM/AVSS master/drone twin pack fan coils are designed for free-blow or ducted, concealed installations, sharing a single set of risers suitable for hotel, motel and apartment building applications.

STANDARD FEATURES INCLUDE

- Performance AHRI Certified to Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/ UL 1995 Standard.
- All casing sheet metal components fabricated of 18GA G90 galvanized steel.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- 1-Inch thick disposable filter.
- Cabinet liner in ½-inch dual-density fiberglass.
- Multi-speed motor of the permanent split capacitor (PSC) type.
- Direct driven blowers of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally protected on the outside. (Consult Superior Rex for availability).
- Translucent flexible condensate water P-trap.
- Plenum discharge air flanges for duct and dry wall applications.

OPTIONAL FEATURES INCLUDE

- 3-, 4- And 5-row coils for 2-pipe systems.
- Single block 2, 3 and 4 rows CW with 1-row re-heat or pre-heat coils for 4-pipe system applications (5 rows max).
- Single block 2 and 3 rows CW with 2 rows re-heat or pre-heat for 4-pipe system applications (5 rows max).
- Filter option include:
  - ◇ 1-Inch high-efficiency pleated filters.
  - ◇ 1-Inch washable filters.
- Cabinet liner in 1-inch dual-density fiberglass.
- Cabinet liner in ½-inch foil face.
- Cabinet liner in 1-inch foil face.
- Motor voltage suitable for 208V, 230V or 277V/1ph/60hz power supplies.
- Motor in-line quick disconnect.
- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supply disconnect switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- Standby electric heater auto changeover switch.
- Fresh air opening.
- Fresh air manual and auto dampers.
- Fresh air freeze protection.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel (Consult Superior Rex for availability).
  - ◇ Double wall construction consisting of outer and inner skins.
  - ◇ Condensate pan overflow safety switch.
- Discharge air grilles:
  - ◇ Aluminum double deflection.
  - ◇ Deluxe aluminum double deflection grilles (Contact Superior Rex for availability).
  - ◇ Linear bar aluminum grilles.
- Discharge air grille options:
  - ◇ Dual discharge.
  - ◇ Air damper controls for units with dual discharge grilles.
  - ◇ Special discharge air grille colors (Contact Superior Rex for color range availability and price).
  - ◇ Discharge air grille location.
- Return air/access panels painted white:
  - ◇ Stamped galvanealed steel.

AVSM/AVSS

  - ◇ Remote stamped galvanealed steel.
  - ◇ ADA stamped galvanealed steel.
  - ◇ ADA remote stamped panel.
  - ◇ Invisislot blank front panel.
  - ◇ Deluxe aluminum panel with a removable core.
- Linear bar aluminum panel with a removable core.
- Special return air/access panel color (Contact Superior Rex for color range availability and price).
- Return air/access panel fasteners:
  - ◇ Philips head fasteners.
  - ◇ Tamper proof fasteners.
  - ◇ Quarter turn fasteners.
- Fan section noise reduction kit.
- 1-hour fire rating.
- Unit mounted risers.
- Welded connections to risers
- Riser pipe type M, L and K. (Consult Superior Rex for availability of type K risers).
- Riser thermal insulation in ½ or ¾-inch wall thickness.
- Riser extensions.
- Riser extension end connection reducers.

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Room Fan-Coils
AHRI Standard 440

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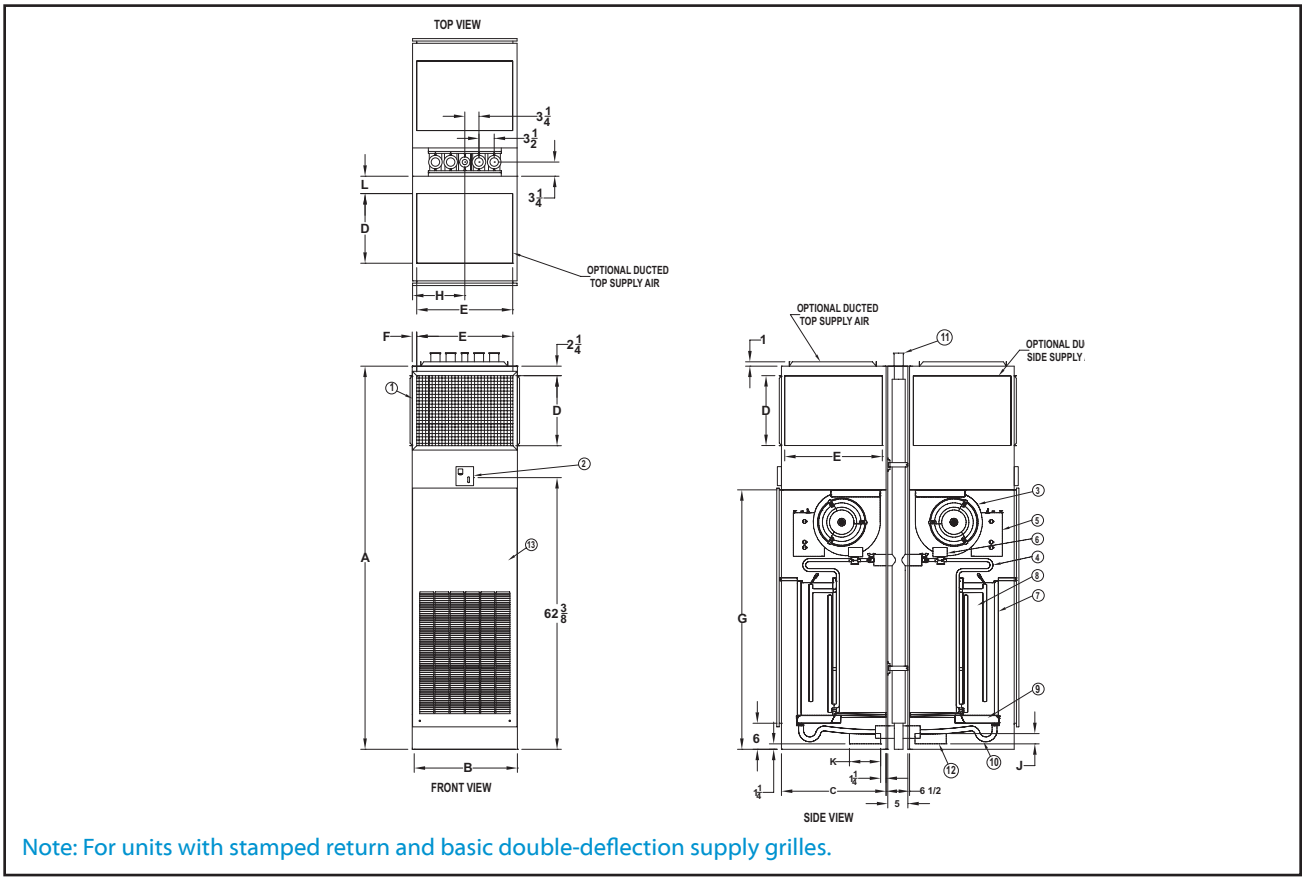
SUPERIOR REX Fan Coils

AVSM/AVSS RECESSED MASTER/DRONE



Note: For units with stamped return and basic double-deflection supply grilles.

1. Supply Air Grille (optional)
2. Unit Mounted Thermostat (optional)
3. Motor/Blower(s) Assembly
4. Expansion Loop
5. Electrical Control Box
6. Valve Package (optional)
7. Filter
8. Coil
9. Condensation Tray
10. See through P-Trap Drain
11. Riser (optional)
12. Fresh Air Damper Opening (optional)
13. Return Air/Access Panel (optional)

Model	Dimensions - Single Supply Option (inches)												Approx. Weight (pounds)
	A	B	C	D	E	F	G	H	J	K	L	Filter	
AVSS/AVSM03	88	17	17	8	15	1	56 5/8	8 1/2	3 1/4	7 3/8	3 1/2	13x23x1	230
AVSS/AVSM04	88	17	17	10	15	1	56 5/8	8 1/2	3 1/4	7 3/8	3 1/2	13x23x1	240
AVSS/AVSM06	88	20	20	10	18	1	56 5/8	10	3 1/4	8 7/8	4	16x27x1	270
AVSS/AVSM08	88	20	20	12	18	1	56 5/8	10	3 1/4	8 7/8	4	16x27x1	280
AVSS/AVSM10	88	24	24	12	22	1	59 5/8	12	2 3/8	10 7/8	5	20x31x1	310
AVSS/AVSM12	88	24	24	16	22	1	59 5/8	12	2 3/8	10 7/8	4	20x31x1	320

Model	Dimensions - Dual Supply Option (inches)												Approx. Weight (pounds)
	A	B	C	D	E	F	G	H	J	K	L	Filter	
AVSS/AVSM03	88	17	17	6	15	1	56 5/8	8 1/2	3 1/4	7 3/8	3 1/2	13x23x1	230
AVSS/AVSM04	88	17	17	6	15	1	56 5/8	8 1/2	3 1/4	7 3/8	3 1/2	13x23x1	240
AVSS/AVSM06	88	20	20	6	18	1	56 5/8	10	3 1/4	8 7/8	4	16x27x1	270
AVSS/AVSM08	88	20	20	6	18	1	56 5/8	10	3 1/4	8 7/8	4	16x27x1	280
AVSS/AVSM10	88	24	24	8	22	1	59 5/8	12	2 3/8	10 7/8	5	20x31x1	310
AVSS/AVSM12	88	24	24	8	22	1	59 5/8	12	2 3/8	10 7/8	4	20x31x1	320

All dimensions are in inches.

AVSM/AVSS RECESSED MASTER/DRONE

2-PIPE SYSTEM							
Model	2 Rows Cooling (1)				2 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSM/S03	9.5	6.8	1.9	4.35	24.7	1.7	2.71
AVSM/S04	10.8	7.9	2.2	5.57	29.0	2.0	3.66
AVSM/S06	14.9	11.1	3.0	2.39	41.7	2.8	1.86
AVSM/S08	18.3	14.1	3.7	3.56	53.1	3.6	2.95
AVSM/S10	24.4	18.6	4.9	3.31	70.1	4.8	2.86
AVSM/S12	26.2	20.2	5.2	3.78	76.2	5.2	3.35

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSM/S03	9.1	6.6	1.8	4.01	15.8	1.1	4.24
AVSM/S04	10.5	7.5	2.1	5.21	18.1	1.2	5.46
AVSM/S06	14.2	10.5	2.8	2.20	26.3	1.8	2.08
AVSM/S08	17.6	13.5	3.5	3.30	32.8	2.2	3.15
AVSM/S10	23.5	17.7	4.7	3.06	43.7	3.0	7.13
AVSM/S12	25.1	19.2	5.0	3.49	47.1	3.2	8.19

2-PIPE SYSTEM							
Model	3 Rows Cooling				3 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSM/S03	12.4	8.3	2.5	10.72	31.1	2.1	6.26
AVSM/S04	12.8	9.1	2.6	1.97	35.8	2.4	1.52
AVSM/S06	20.0	13.8	4.0	5.83	53.0	3.6	4.00
AVSM/S08	23.4	17.2	4.7	3.28	67.5	4.6	2.83
AVSM/S10	33.5	23.5	6.7	7.82	90.0	6.1	5.87
AVSM/S12	34.3	25.0	6.9	4.95	97.2	6.6	4.32

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSM/S03	11.9	7.9	2.4	9.79	15.0	1.0	3.92
AVSM/S04	12.2	8.7	2.4	1.81	17.2	1.2	5.04
AVSM/S06	19.0	13.1	3.8	5.29	25.1	1.7	2.02
AVSM/S08	22.5	16.4	4.5	3.04	31.4	2.1	3.04
AVSM/S10	31.9	22.3	6.4	7.11	41.8	2.9	6.87
AVSM/S12	32.8	23.7	6.6	4.53	45.0	3.1	7.85

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSM/S03	12.9	8.6	2.6	2.54	32.7	2.2	1.61
AVSM/S04	15.0	10.1	3.0	3.39	39.1	2.7	2.26
AVSM/S06	21.8	14.7	4.4	3.46	56.8	3.9	2.45
AVSM/S08	28.1	19.4	5.6	5.61	75.2	5.1	4.17
AVSM/S10	37.6	25.5	7.5	6.85	98.1	6.7	5.11
AVSM/S12	40.9	28.0	8.2	8.04	108.0	7.4	6.13

4-PIPE SYSTEM							
Model	4 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSM/S03	12.2	8.0	2.4	2.27	14.3	1.0	3.57
AVSM/S04	14.2	9.5	2.8	3.05	16.4	1.1	4.62
AVSM/S06	20.6	13.8	4.1	3.11	23.9	1.6	1.90
AVSM/S08	26.6	18.3	5.3	5.07	29.9	2.0	2.94
AVSM/S10	35.5	24.0	7.1	6.12	39.8	2.7	6.48
AVSM/S12	38.7	26.4	7.7	7.25	42.9	2.9	7.49

2-PIPE SYSTEM							
Model	5 Rows Cooling				5 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AVSM/S03	13.7	8.8	2.7	3.44	33.0	2.3	1.96
AVSM/S04	16.2	10.5	3.2	4.69	39.8	2.7	2.79
AVSM/S06	23.4	15.2	4.7	4.63	57.6	3.9	2.93
AVSM/S08	29.5	19.9	5.9	4.16	77.0	5.3	3.11
AVSM/S10	40.5	26.5	8.1	9.00	100.4	6.9	6.07
AVSM/S12	44.5	29.3	8.9	10.77	111.2	7.6	7.37

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

Model	Motor	
	HP	Total AMPS
AVSM/S03	1/10	1.50
AVSM/S04	1/10	1.50
AVSM/S06	1/10	1.90
AVSM/S08	1/4	3.50
AVSM/S10	1/4	3.90
AVSM/S12	1/3	4.00

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
AVSM/S03	362	303	254
AVSM/S04	445	355	293
AVSM/S06	643	488	399
AVSM/S08	916	731	576
AVSM/S10	1153	945	651
AVSM/S12	1300	1202	977

1. Nominal air volume ratings are based on a 2-row coil at sea level altitude with zero static pressure.
2. Air volumes are based at high fan speed.

FAN COILS

Vertical Stack Units Standard Configurations

1. Furnish and install Superior Rex Models AVS, AVSM, AVSS and AVSM/AVSS vertical stack high rise fan coils of sizes and capacities shown on the plans to meet prevailing cooling and heating requirements.
2. Fan coils shall be performance certified to AHRI Standard 440. Units shall be wired in compliance with ANSI/UL 1995 Standard and listed with ETL.
3. Fan coils shall be sound tested in accordance with AHRI Standard 260 for ducted units and AHRI Standard 350 for non-ducted units. Manufacturer shall provide these dB ratings on request for each model specified.
4. Casing components shall be fabricated of 18-gauge G90 galvanized steel.
5. High-efficiency, 2-row coil shall be suitable for a 2-pipe system. Coils shall be manufactured with aluminum fins mechanically bonded to seamless copper tubes. The copper tubes shall be ⅜-inch OD with a wall thickness of 0.014-inch which comply with ASTM B-75. The fins shall be waved with ripple edges for superior efficiency with a thickness of 0.0045-inch and spaced at 10 fpi. Coils rated to 300 psi operational pressure. All coils shall be shipped with a safety air pressure of 30 - 50 psi to guarantee a leak free arrival at the final destination.
6. Coils shall be installed with manual Schrader type air vents with a sealing cap and be located at the highest point of the coil. The cap shall have a dual purpose, to seal any potential water leakage in the eventuality of Schrader valve failure and as a service tool for the extraction/insertion of the internal Schrader valve.
7. Unit pipe entry/riser location shall be in accordance with the project schedule.
8. Standard filters shall be 1-inch thick of the disposable type with a one-piece, moisture resistant chipboard frame to eliminate corner separations. The spun glass filtering media shall be bonded with a resinous agent providing rigidity and resistance to media compression and meets UL class 2.
9. Filters shall be installed near the coil with two spring clips for easy removal.
10. Cabinet steel panels shall be lined with ½-inch dual-density fiberglass with a density of 1.5lbs/ft^3 and 4.0lbs/ft^3 for the face meeting NFPA 90A and 90B (appliances), NFPA 255, UL 181, UL723 and ASTM E84.
11. Motors shall be multi-speed of the permanent split capacitor type (PSC) and be directly coupled to the centrifugal fan blower. Motor shall be suitable for a power supply of 115V/1Ph/60Hz and shall be internally protected with an automatic thermal overload. Motor shaft shall be supported by sleeve bearings of the permanently lubricated type for the full life expectancy of the motor. All motors shall be directly mounted to the fan blower casing side and be isolated from the unit casing by three resilient anti-vibration mounts.
12. Size 03: Direct-driven fan shall be of the whisper quite type, single width single inlet (SWSI) forward curved statically and dynamically balanced at the factory. Size 04 & up: Direct-driven fan shall be of the whisper quite type, Double Width Double Inlet (DWDI) forward curved statically and dynamically balanced at the factory. The fan wheel and casing shall be constructed of galvanized steel.
13. Electric components shall be wired to a single control panel for single point power supply.
14. Condensate pan shall be single-wall 18-gauge G90 galvanized steel welded at the corners, thermally protected on the outside with fire and smoke rated ¼-inch high-density insulation to prevent condensation. The factory installed ⅞-inch OD sweat copper condensate connection shall be located at the lowest point of the condensate pan to ensure all water drains from the condensate pan (Consult Superior Rex for availability).
15. A translucent flexible P-trap shall be installed and secured to the condensate tray connection via a spring clip for easy inspection and maintenance.
16. Discharge air plenum shall have discharge openings with a ½-inch discharge air collar(s) for location of the dry wall and/or field connection. Top discharge supply air flange shall be 1-inch.
17. Return air/access panel shall be of the stamped type made of 18-gauge galvanealed steel, painted white with polyester powder coated paint and oven baked.

FAN COILS

Vertical Stack Units Optional Configurations

COOLING AND HEATING COILS

1. High-efficiency 3-, 4- and 5-row coils suitable for 2-pipe systems or,
2. High-efficiency single block with 2, 3 and 4 rows chilled water (CW) with 1-row re-heat/pre-heat coil suitable for 4-pipe system applications, or
3. High-efficiency single block with 2, 3 rows chilled water (CW) with 2-row re-heat/pre-heat coil suitable for 4-pipe system applications.

FILTER

1. Filter shall be 1-inch pleated filter with an average atmospheric dust spot efficiency range of 20 - 30% per ASHRAE Standard 52.1 test method, or
2. Filter shall be 1-inch washable filter consisting of synthetic fibers coated with a special resin, then baked together at a high temperature resulting in a tough and springy, thoroughly bonded, nearly rigid air filtration media. Washable filters shall have a longer service life, better structural integrity as well as being completely odor free.
3. A spare set of filters shall be available for replacement after the commissioning of the unit and prior to the handover of the project.

CABINET INSULATION

Cabinet liners shall be 1-inch dual-density fiberglass with a density of 1.5lbs/ft^3 and 4.0lbs/ft^3 for the face meeting NFPA 90A and 90B (appliances) and NFPA 255 with less than 25 flame and less than 50 smoke spread, UL 181, UL723 and ASTM E84.

MOTOR

1. Motor shall be suitable for 115V/1Ph/60Hz or 208V/1Ph/60Hz or 230V/1Ph/60Hz or 277V/1Ph/60Hz power supplies (delete as applicable).
2. A motor in-line quick disconnect shall be installed to facilitate the removal/replacement of motor.

THERMOSTAT AND ACCESSORIES

Refer to the Accessories section for details.

DISCONNECT SWITCHES AND FUSES

Units shall be wired for single point power supply with a disconnect switch and fuse(s) to match the unit full maximum circuit ampacity (MCA) in line with UL 1995.

TWO-PIPE HEAT/COOL AUTO CHANGEOVER SWITCH

A mechanical or electronic changeover switch shall be supplied on 2-pipe systems for automatic changeover of the operation of the thermostat for summer and winter modes.

ELECTRIC HEATER AND ACCESSORIES

1. Electric heaters shall be of the wound type mounted in a metal frame and supported by ceramic rings and terminals. Electric heaters shall installed on the blower discharge side for better heat dissipation and shall include an automatic reset, high limit cut-out and contactor.
2. 2-pipe standby electric heating - heaters shall be installed and pre-wired as standby heating in the eventuality of a failure of the primary hot water (HW) system. A changeover sensor shall be installed in each unit and the changeover between the failed hot water system and the standby electric heater shall be automatic.

CHILLED AND HOT WATER VALVE CONTROLS

Refer to the Accessories section for details.

Fresh Air and Accessories

1. A fresh air opening shall be provided with an external 1-inch flange for field connection, or
2. A fresh air opening shall be provided with an external 1-inch flange for field connection complete with an internal manual adjustable damper control, or
3. A fresh air opening shall be provided with an external 1-inch flange for field connection complete with an automatic ON/OFF damper control which shall close if the unit is in the OFF mode. A freeze protection thermostat shall be installed at the fresh air intake and close the fresh air damper to prevent damage to the coil if temperature drops below 40°F.

CONDENSATE PAN AND ACCESSORIES

1. Condensate pan shall be single wall manufactured in 20-gauge 304 stainless steel and shall be thermally protected on the outside with fire and smoke rated ¼-inch high-density insulation to prevent condensation. The factory installed ⅞-inch OD sweat copper condensate connection shall be located at the lowest point of the condensate pan to ensure that all water is drained from the condensate pan (Consult Superior Rex for availability), or
2. Condensate pan shall be double wall construction consisting of an outer and inner skin. The outer skin shall be manufactured of 18-gauge G90 galvanized sheet metal wrapped around the inner skin with 1-inch thermal insulation between both skins to prevent condensation. The inner skin of the double wall condensate pan shall be of 18-gague G90 galvanized sheet metal, or
3. Condensate pan shall be double wall construction consisting of an outer and inner skin. The outer skin shall be manufactured of 18-gauge G90 galvanized sheet metal wrapped around the inner skin with 1-inch thermal insulation between both skins to prevent the formation of condensation. The inner skin of the double wall condensate pan shall be of 20-gauge 304 stainless steel galvanized sheet metal.
4. An automatic safety overflow switch shall be installed in the condensate pan and shall prevent the operation of the unit electric system if an overflow status is detected.

NOISE REDUCTION KIT

A noise reduction kit, fan section blank off acoustic panel shall be installed in the fan section to reduce the noise propagation thru the return air/access panel.

UL 1479 FIRE RATING

Units shall be installed with ⅝-inch gypsum board X rated to meet a 1-hour fire rating in accordance with UL1479 standards.

DISCHARGE AIR GRILLES AND ACCESSORIES

1. Discharge air grilles shall be double-deflection made of aluminum and painted white, or
2. Discharge air grilles shall be double-deflection of the Deluxe type, made of aluminum and painted white, or
3. Discharge air grilles shall be non adjustable of the linear type, made of aluminum and painted white.
4. Units shall have dual discharge grilles with manual adjustable dampers to control the air discharge thru each air outlet.
5. Special discharge air grilles colors shall be_____. (Contact Superior Rex for color range availability and price).
6. Discharge air grille location shall be in accordance with the project specification and drawings.

RETURN AIR/ACCESS PANEL AND ACCESSORIES

1. Remote Return air/access panel shall be installed away from the unit, stamped, galvanealed steel painted white with polyester powder coated paint, oven baked suitable for application where the unit is remote from the wall. Discharge air must be ducted to avoid air recirculation between the supply and the return air, or
2. ADA return air/access panel shall be stamped, galvanealed steel, painted white with polyester powder coated paint, oven baked and designed for applications to meet the Americans with Disability Act. The thermostat shall be installed in the return air/access panel located at a max height of 48 inches from the floor. An in-line quick connector shall be provided between the thermostat and the unit electric control box to facilitate the removal of the return air/access panel, or
3. Remote ADA return air/access panel shall be installed away from the unit, stamped, galvanealed steel, painted white with polyester powder coated paint, oven baked and designed for applications to meet the Americans with Disability Act. The thermostat shall be installed in the return air/access panel located at a max height of 48" from the floor. An in-line quick connector shall be provided between the thermostat and the unit electric control box to facilitate the removal of the return air/access panel, or
4. Invisislot return air/access panel shall be a blank front panel, galvanealed steel, painted white with polyester powder coated paint, oven baked. The panel shall be offset from the wall as per the manufacturers' recommendations to allow the return air entry into the units, or
5. Deluxe return air/access panel shall be manufactured of aluminum, painted white with a removable core for easy access to the unit, or
6. Linear bar return air/access panel shall be manufactured of aluminum painted white with a removable core for easy access to the unit.
7. Special Return air/access panel color shall be_____. (Contact Superior Rex for color range availability and price).
8. Return air/access panel security fasteners shall be tamperproof, which require a special tool to access the units, or
9. Return air/access panel security fasteners shall be of the quarter turn type, to facilitate the removal of the access panel.

RISER ASSEMBLY

1. Risers shall be installed at the factory and supplied in two pieces (riser and riser extension) to reduce field installation time or, supplied loose in a single piece for field installation.
2. Riser pipe diameters shall vary between ¾-inch and 2½ inches OD and be in accordance with the riser schedule.
3. Riser pipes shall be copper type M, L or K (Contact Superior Rex for availability of K copper risers).
4. Riser insulation shall be of the closed cell, flexible elastomeric thermal insulation type available in ½- or ¾-inch wall thickness.
5. Riser connections shall be welded directly to the unit piping or, connected to the units via O-ring unions (risers supplied loose or separate Master/Drone units) or connected to the unit via O-ring unions and flexible braided connectors (risers supplied loose or separate Master/Drone units).

RISER EXTENSIONS

1. Riser extension material and insulation type shall be the same as the main risers attached to the unit. Riser extensions shall be supplied loose and clearly marked to bridge the space between the fixed risers of two units. All riser extension insulation shall be supplied loose uncut for field installation.
2. Riser extension length shall be in accordance with the riser schedule.

RISER EXTENSION CONNECTIONS

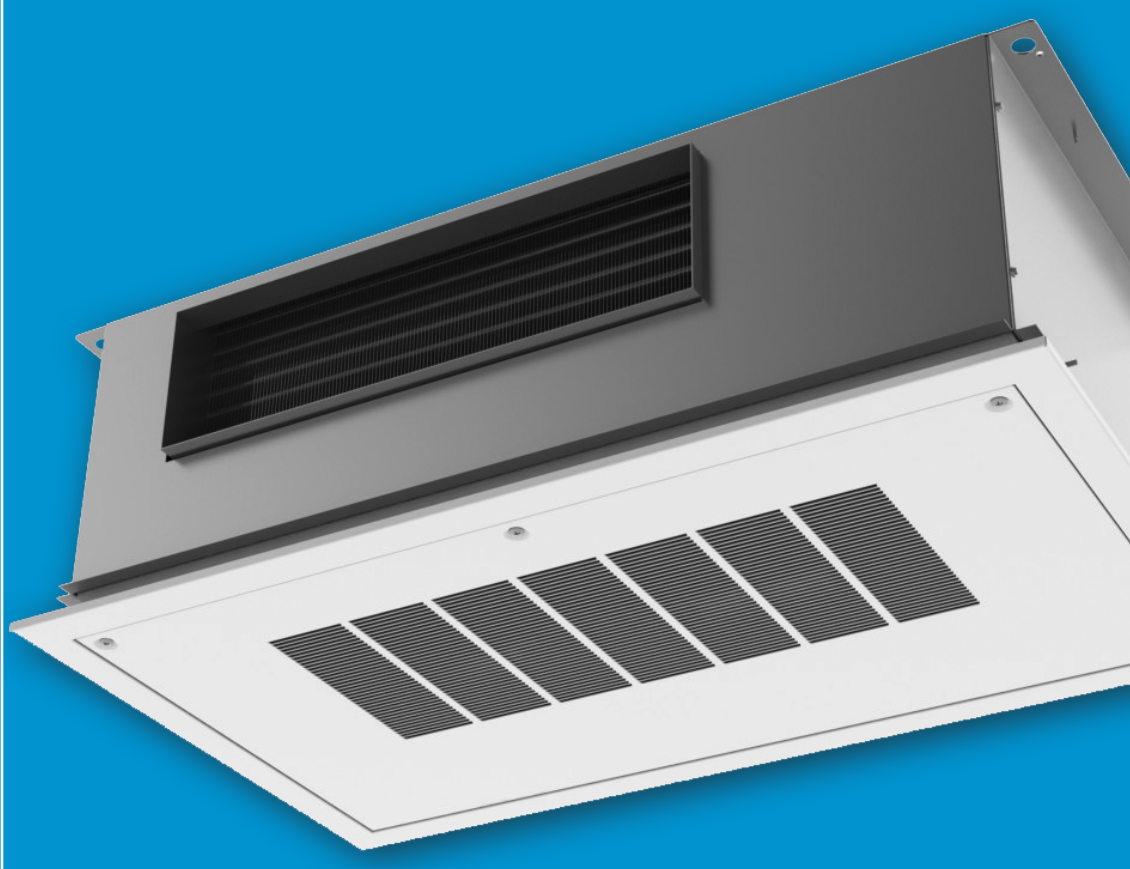
Riser extension end connections shall be swaged or installed with an expanding or reducing coupling in accordance with the riser schedule.

SUPERIOR REX

Basic Horizontal Series

www.superiorrex.com

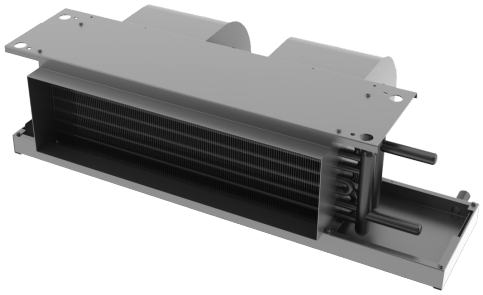
section 2



Basic Horizontal Series

BHO

Factory assembled, horizontal blow-thru ducted fan coils designed for concealed installations above ceilings with ducted air discharge and suitable for projects such as hotels, motels, condominiums and general commercial application.



STANDARD FEATURES INCLUDE

- Performance AHRI Certified to Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/UL 1995 Standard.
- All casing sheet metal components are fabricated of 18GA G90 galvanized steel.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- Multi-speed motor of the permanent split capacitor (PSC) type.
- Double Width Double Inlet (DWDI) direct driven blowers of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally protected on the outside (Consult Superior Rex for availability).
- 1-inch discharge air flange.
- Anti-Vibration Mounts for field installation.

OPTIONAL FEATURES INCLUDE

- 3-, 4- And 5-row coils for 2-pipe systems.
- Single block 2, 3 and 4 rows CW with 1 row re-heat or pre-heat coils for 4-pipe system applications (5 rows max).
- Single block 2 and 3 rows CW with 2 rows re-heat or pre-heat for 4-Pipe system applications (5 rows max).
- LH or RH entry pipe connections.
- Motor voltage suitable for 208V, 230V or 277V/1Ph/60Hz power supplies.
- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supply disconnect switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- HW standby electric heater auto changeover switch.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Double wall construction consisting of outer and inner skins.
  - ◇ Condensate pan overflow safety switch.
  - ◇ Condensate pan safety overflow connection.

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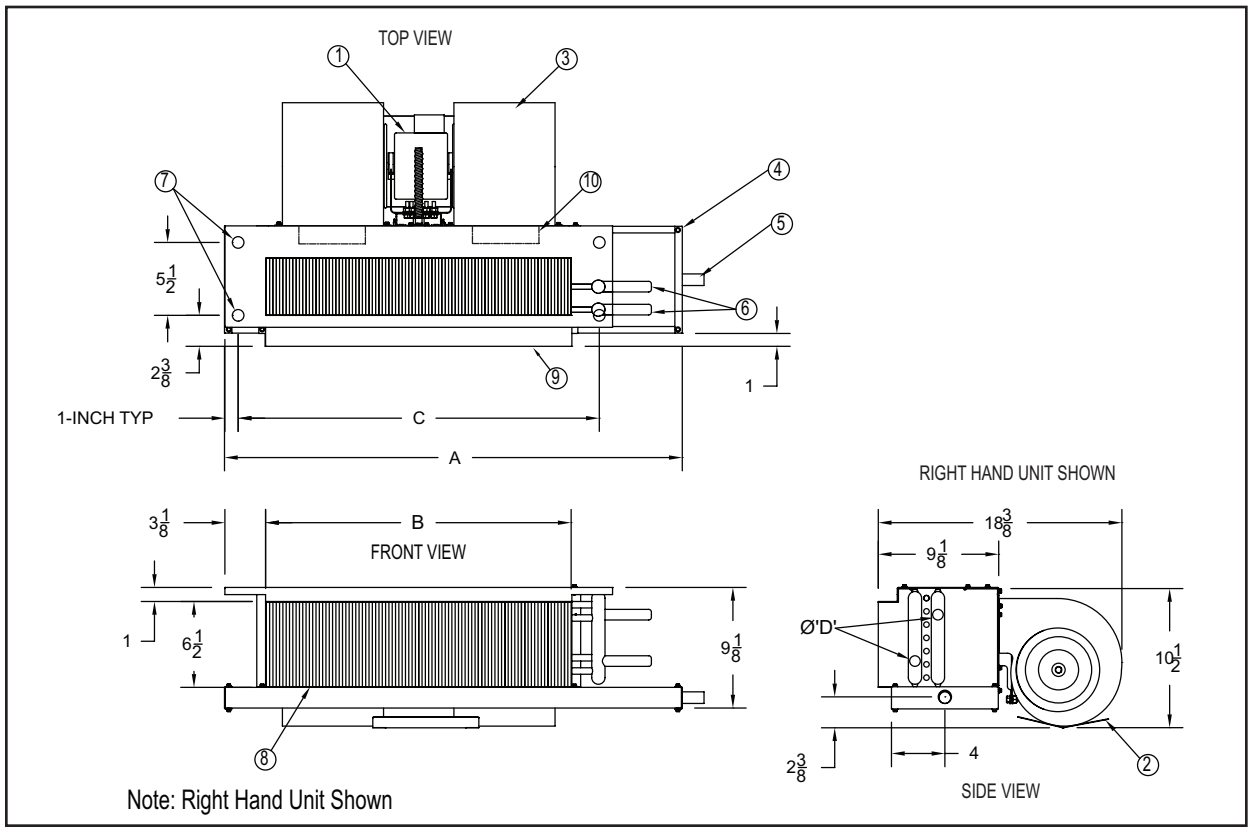
SUPERIOR REX Fan Coils

BHO CONCEALED CEILING



1. Motor
2. Motor under protection plate
3. Motor/Blower(s) Assemby
4. Condensate Tray (Double Wall optional)
5. Condensate Copper Connection $^{3}/_{4}$" MNPT
6. Coil Connections (2-Pipe Shown)
7. Installation Hanging Points
8. Coil
9. Supply Air Flange
10. Electric Heaters (optional)

Model	Dimensions (inches)				Approx. Weight
	A	B	C	D	(pounds)
BHO02	25½	14.¼	18¼	⅝	43
BHO03	28½	17¼	21¼	⅝	52
BHO04	34½	23¼	27¼	⅝	65
BHO06	43½	32¼	36¼	⅝	76
BHO08	51½	40¼	44¼	⅝	85
BHO10	61½	50¼	54¼	⅞	115
BHO12	71½	60¼	64¼	⅞	118

All dimensions are in inches.

SUPERIOR REX Fan Coils

BHO CONCEALED CEILING

2-PIPE SYSTEM							
Model	2 Rows Cooling (1)				2 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow GPM	PD ft WG	Sensible MBH	Flow GPM	PD ft WG
BHO02	4.3	3.6	0.9	0.39	14.2	1.0	0.37
BHO03	6.3	5.1	1.2	0.85	19.8	1.4	0.77
BHO04	9.2	7.5	1.8	2.02	28.5	1.9	1.74
BHO06	12.4	10.5	2.5	1.03	40.6	2.8	1.12
BHO08	15.8	12.8	3.2	1.86	48.0	3.3	1.78
BHO10	22.0	17.4	4.4	3.94	65.7	4.5	3.52
BHO12	25.1	20.4	5.0	2.72	78.0	5.3	2.78

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow GPM	PD ft WG	Sensible MBH	Flow GPM	PD ft WG
BHO02	4.1	3.4	0.8	0.35	8.0	0.5	0.46
BHO03	6.0	4.8	1.2	1.89	11.0	0.8	0.93
BHO04	8.9	7.2	1.8	1.89	15.7	1.1	2.07
BHO06	11.9	10.0	2.4	0.96	23.4	1.6	5.89
BHO08	15.3	12.2	3.0	1.72	27.3	1.9	1.36
BHO10	21.2	16.6	4.2	3.65	36.4	2.5	2.80
BHO12	24.2	19.5	4.8	2.52	44.1	3.0	4.58

2-PIPE SYSTEM							
Model	3 Rows Cooling				3 Rows Heating		
	Total MBH	Sensible MBH	Flow GPM	PD ft WG	Sensible MBH	Flow GPM	PD ft WG
BHO02	6.2	4.6	1.2	1.16	18.4	1.3	0.92
BHO03	8.7	6.6	1.8	2.50	25.8	1.8	1.92
BHO04	13.2	9.8	2.6	6.01	37.5	2.6	4.41
BHO06	18.0	13.6	3.6	2.78	53.5	3.6	2.46
BHO08	22.5	16.5	4.5	4.81	64.0	4.4	3.90
BHO10	28.6	21.6	5.7	3.97	84.5	5.8	3.67
BHO12	35.7	26.4	7.1	6.60	102.3	7.0	5.75

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow GPM	PD ft WG	Sensible MBH	Flow GPM	PD ft WG
BHO02	6.0	4.4	1.2	1.07	7.7	0.5	0.44
BHO03	8.5	6.3	1.7	2.33	10.6	0.7	0.89
BHO04	12.5	9.2	2.5	5.47	15.1	1.0	1.98
BHO06	17.2	12.9	3.4	2.55	22.5	1.5	5.57
BHO08	21.5	15.6	4.3	4.42	26.2	1.8	1.42
BHO10	27.3	20.5	5.5	3.63	35.0	2.4	2.81
BHO12	34.0	25.0	6.8	6.02	42.4	2.9	4.65

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow GPM	PD ft WG	Sensible MBH	Flow GPM	PD ft WG
BHO02	7.5	5.2	1.5	2.19	20.5	1.4	1.50
BHO03	10.7	7.4	2.1	4.75	28.8	2.0	3.18
BHO04	13.9	10.3	2.8	1.71	41.2	2.8	1.49
BHO06	21.9	15.5	4.4	5.01	60.3	4.1	3.80
BHO08	25.1	17.9	5.0	3.29	70.7	4.8	2.77
BHO10	34.8	24.6	7.0	6.81	95.4	6.5	5.44
BHO12	41.2	29.3	8.2	6.45	110.4	7.8	5.54

4-PIPE SYSTEM							
Model	4 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow GPM	PD ft WG	Sensible MBH	Flow GPM	PD ft WG
BHO02	7.1	4.9	1.4	1.98	7.4	0.5	0.42
BHO03	10.1	7.0	2.0	4.31	10.1	0.7	0.85
BHO04	13.1	9.7	2.6	1.53	14.4	1.0	1.85
BHO06	20.8	14.6	4.2	4.54	21.6	1.5	5.23
BHO08	23.8	16.8	4.8	2.96	25.1	1.7	1.40
BHO10	33.1	23.2	6.6	6.18	33.5	2.3	2.85
BHO12	38.9	27.5	7.8	5.79	40.6	2.8	4.57

2-PIPE SYSTEM							
Model	5 Rows Cooling				5 Rows Heating		
	Total MBH	Sensible MBH	Flow GPM	PD ft WG	Sensible MBH	Flow GPM	PD ft WG
BHO02	8.2	5.4	1.6	3.26	21.1	1.4	1.98
BHO03	10.4	7.3	2.1	1.05	29.3	2.0	0.83
BHO04	15.7	11.0	3.1	2.52	43.4	3.0	1.93
BHO06	24.3	16.4	4.9	7.27	63.0	4.3	4.88
BHO08	28.0	19.0	5.6	4.60	73.7	5.0	3.41
BHO10	36.9	25.4	7.4	5.39	98.9	6.7	4.35
BHO12	45.6	30.9	9.1	8.71	119.3	8.1	6.71

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
BHO02	246	214	198
BHO03	358	316	278
BHO04	551	439	364
BHO06	776	631	471
BHO08	899	696	562
BHO10	1231	883	674
BHO12	1477	979	797

Air Volume (cfm) Vs External Static Pressure in wg (2)						
Model	0.05	0.10	0.15	0.20	0.25	0.30
BHO02	230	203	171	-	-	-
BHO03	321	299	235	177	-	-
BHO04	509	458	419	379	288	-
BHO06	727	664	599	525	417	-
BHO08	864	758	715	734	688	537
BHO10	1178	1095	988	869	751	652
BHO12	1405	1360	1293	1192	1090	1058

1. Nominal air volume ratings are based on a 2-row coil at sea level altitude with 0 external static pressure.
2. Air volumes at alternative external static pressures are based at high fan speed.

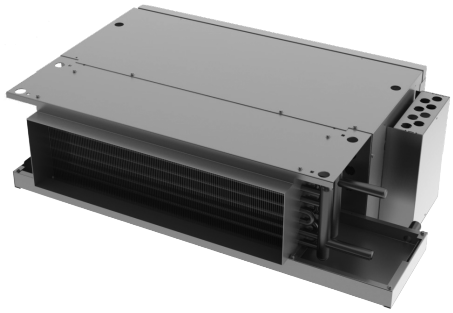
Model	Motor	
	HP	Total AMPS
BHO02	1/20	0.8
BHO03	1/20	0.8
BHO04	1/20	0.8
BHO06	1/10	1.5
BHO08	1/10	1.5
BHO10	1/10	1.5
BHO12	1/10	1.5

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

SUPERIOR REX Fan Coils

BHR

Factory assembled, horizontal blow-thru ducted BHR fan coils are designed for concealed installations above ceilings with ducted return and discharge air and are suitable for projects such as hotels, motels, condominiums and general commercial applications.



STANDARD FEATURES INCLUDE

- Performance AHRI Certified to Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/UL 1995 Standard.
- All casing sheet metal components fabricated of 18GA G90 galvanized steel.
- Return air plenum thermally and acoustically insulated covering the motor(s)/blower(s) assembly to reduce noise dissipation from the unit.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- 1-Inch thick disposable filter.
- Multi-speed motor of the permanent split capacitor (PSC) type.
- Double Width Double Inlet (DWDI) direct driven blowers of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally protected on the outside. (Consult Superior Rex for availability).
- 1-Inch discharge air flange.
- 1-Inch return air flange
- Anti-vibration mounts for field installation.

OPTIONAL FEATURES INCLUDE

- 3-, 4- And 5-row coils for 2-pipe systems.
- Single block 2, 3 and 4 rows CW with 1 row re-heat or pre-heat coils for 4-pipe system applications (5 rows max).
- Single block 2 and 3 rows CW with 2 rows re-heat or pre-heat for 4-pipe system applications (5 rows max).
- Automatic coil air vents.
- LH or RH entry pipe connections.
- Filter option include:
  - ◇ 1-inch high-efficiency pleated filters.
  - ◇ 1-inch washable filters.
- Bottom or rear return air and filter location.
- Filter supports with slides or clips.
- Filter removal from LH/RH, bottom and rear.
- Cabinet liner in ½-inch foil face.
- Motor voltage suitable for 208V, 230V or 277V/1Ph/60Hz power supplies.
- Motor in-line quick disconnect (Not available on bottom return filter).
- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supply disconnect switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- HW standby electric heater auto changeover switch.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Double wall construction consisting of outer and inner skins.
  - ◇ Condensate pan overflow safety switch.
  - ◇ Condensate pan safety overflow connection.

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AHRI Standard 440

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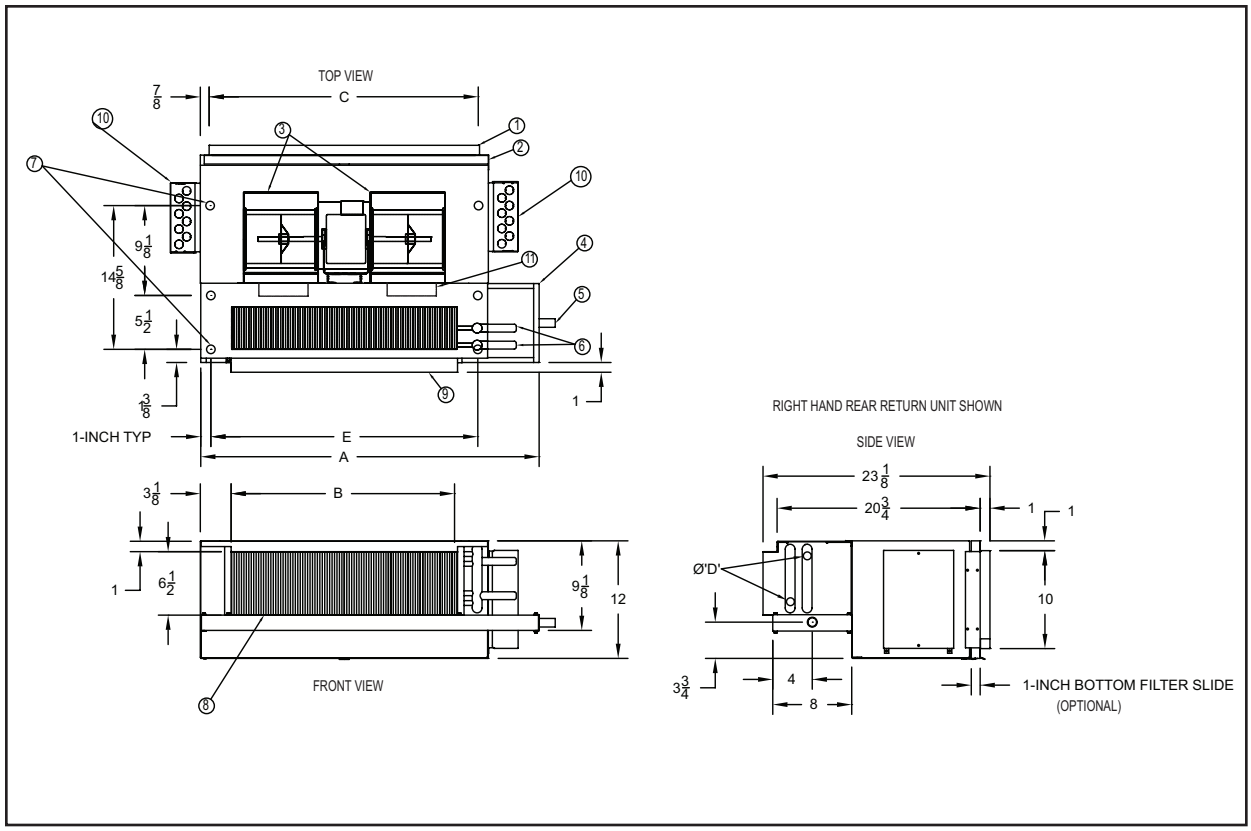
BHR CONCEALED CEILING WITH PLENUM



1. Return Air Flange
2. Filter Rear Return
3. Motor/Blower(s) Assemby
4. Condensate Tray (Double Wall optional)
5. Condensate Copper Connection 3/4" MNPT
6. Coil Connections (2-Pipe Shown)
7. Hanging Points
8. Coil
9. Supply Air Flange
10. Electric Control Panel - Note: Control box may mounted on either side.
11. Electric Heaters (optional)

Model	Dimensions (inches)						Approx. Weight (pounds)
	A	B	C	D	E	Filter	
BHR02	25½	14¼	18¼	⅝	18¼	20x12x1	63
BHR03	28½	17¼	21¼	⅝	21¼	23x12x1	70
BHR04	34½	23¼	27¼	⅝	27¼	29x12x1	80
BHR06	43½	32¼	36¼	⅝	36¼	38x12x1	99
BHR08	51½	40¼	44¼	⅝	44¼	46x12x1	106
BHR10	61½	50¼	54¼	⅞	54¼	56x12x1	136
BHR12	71½	60¼	64¼	⅞	64¼	66x12x1	150

All dimensions are in inches.

BHR CONCEALED CEILING WITH PLENUM

2-PIPE SYSTEM							
Model	2 Rows Cooling (1)				2 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BHR02	4.1	3.3	0.8	0.34	13.2	0.9	0.32
BHR03	5.9	4.8	1.2	0.77	18.6	1.3	0.69
BHR04	8.7	7.0	1.7	1.84	26.9	1.8	1.56
BHR06	11.6	9.7	2.3	0.92	37.6	2.6	0.97
BHR08	15.0	11.9	3.0	1.66	45.9	3.1	1.58
BHR10	21.2	16.7	4.2	3.66	62.9	4.3	3.24
BHR12	24.1	19.4	4.8	2.50	74.3	5.1	2.54

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BHR02	3.9	3.2	0.8	0.31	7.5	0.5	0.40
BHR03	5.7	4.6	1.1	0.72	10.4	0.7	0.84
BHR04	8.4	6.7	1.7	1.72	14.9	1.0	1.89
BHR06	11.2	9.3	2.2	0.85	22.0	1.5	5.24
BHR08	14.3	11.3	2.9	1.52	25.8	1.8	1.22
BHR10	20.4	15.9	4.1	3.39	35.0	2.4	2.60
BHR12	23.0	18.4	4.6	2.28	42.3	2.9	4.22

2-PIPE SYSTEM							
Model	3 Rows Cooling				3 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BHR02	5.8	4.2	1.2	1.00	17.0	1.2	0.78
BHR03	8.4	6.1	1.7	2.25	24.2	1.6	1.70
BHR04	12.5	9.1	2.5	5.39	35.2	2.4	3.92
BHR06	16.8	12.6	3.4	2.44	49.5	3.4	2.12
BHR08	21.1	15.3	4.2	4.26	59.7	4.1	3.41
BHR10	27.5	20.6	5.5	3.67	80.7	5.5	3.36
BHR12	34.0	25.0	6.8	6.02	97.1	6.6	5.20

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BHR02	5.5	4.0	1.1	0.93	7.2	0.5	0.38
BHR03	8.0	5.8	1.6	2.07	10.0	0.7	0.80
BHR04	11.9	8.7	2.4	4.92	14.4	1.0	1.80
BHR06	16.0	11.9	3.2	2.22	21.1	1.4	4.94
BHR08	20.2	14.5	4.0	3.91	24.8	1.7	1.27
BHR10	26.2	19.5	5.2	3.34	33.7	2.3	2.60
BHR12	32.6	23.8	6.5	5.53	40.6	2.8	4.28

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BHR02	6.9	4.8	1.4	1.88	18.7	1.3	1.26
BHR03	10.0	6.9	2.0	4.21	26.9	1.8	2.78
BHR04	13.1	9.6	2.6	1.52	38.5	2.6	1.31
BHR06	20.4	14.3	4.1	4.36	55.5	3.8	3.25
BHR08	23.5	16.6	4.7	2.88	65.5	4.5	2.40
BHR10	33.3	23.4	6.6	6.24	90.7	6.2	4.94
BHR12	39.0	27.6	7.8	5.82	100.8	7.4	4.96

4-PIPE SYSTEM							
Model	4 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BHR02	6.6	4.5	1.3	1.70	6.9	0.5	0.36
BHR03	9.5	6.5	1.9	3.81	9.6	0.7	0.76
BHR04	12.3	9.0	2.5	1.35	13.7	0.9	1.68
BHR06	19.2	13.4	3.8	3.91	20.2	1.4	4.63
BHR08	22.2	15.6	4.4	2.58	23.7	1.6	1.25
BHR10	31.6	22.0	6.3	5.64	32.2	2.2	2.63
BHR12	37.0	26.0	7.4	5.23	38.9	2.7	4.19

2-PIPE SYSTEM							
Model	5 Rows Cooling				5 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BHR02	7.6	5.0	1.5	2.77	19.2	1.3	1.65
BHR03	9.8	6.8	2.0	0.93	27.1	1.9	0.72
BHR04	14.7	10.2	2.9	2.23	40.4	2.8	1.68
BHR06	22.4	15.0	4.5	6.20	57.7	3.9	4.13
BHR08	26.0	17.5	5.2	4.00	68.0	4.6	2.93
BHR10	35.2	24.0	7.0	4.91	93.7	6.4	3.93
BHR12	43.2	29.2	8.6	7.86	112.4	7.7	5.99

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
BHR02	219	187	171
BHR03	326	289	230
BHR04	503	391	310
BHR06	696	567	439
BHR08	813	647	535
BHR10	1150	867	696
BHR12	1370	931	781

Air Volume (cfm) Vs External Static Pressure in wg (2)						
Model	0.05	0.10	0.15	0.20	0.25	0.30
BHR02	198	182	166	-	-	-
BHR03	289	262	219	150	-	-
BHR04	478	441	399	341	245	-
BHR06	651	613	569	504	401	-
BHR08	777	722	681	658	628	536
BHR10	1075	1012	939	848	737	616
BHR12	1297	1236	1171	1095	1015	947

1. Nominal air volume ratings are based on a 2-row coil at sea level altitude with 0 external static pressure.
2. Air volumes at alternative external static pressures are based at high fan speed.

Model	Motor	
	HP	Total AMPS
BHR02	1/20	0.8
BHR03	1/20	0.8
BHR04	1/20	0.8
BHR06	1/10	1.5
BHR08	1/10	1.5
BHR10	1/10	1.5
BHR12	1/10	1.5

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

SUPERIOR REX Fan Coils

BHC

Factory assembled, horizontal blow-thru BHC fan coils are designed for exposed ceiling installations free blowing into the space suitable for projects such as hotels, motels, condominiums and general commercial applications.

STANDARD FEATURES INCLUDE

- Performance AHRI Certified to Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/UL 1995 Standard.
- All internal metal components are fabricated of 18GA G90 galvanized steel and the exposed metal casing panels are fabricated of 18GA galvanealed for superior adhesion of the powder paint.
- Cabinet components are painted with a powder polyester baked coating in white or beige and are acoustically insulated to reduce noise dissipation from the unit.
- Cabinet liner in ½-inch dual-density fiberglass.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- 1-Inch thick disposable filter.
- Multi-speed motor of the permanent split capacitor (PSC) type.
- Double Width Double Inlet (DWDI) direct driven blowers of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally protected on the outside. (Consult Superior Rex for availability).
- Stamped discharge grille.
- Stamped return air/access panel grille.
- Anti-vibration mounts for field installation.

OPTIONAL FEATURES INCLUDE

- 3-, 4- And 5-row coils for 2-pipe systems.
- Single block 2, 3 and 4 rows CW with 1 row re-heat or pre-heat coils for 4-pipe system applications (5 rows max).
- Single block 2 and 3 rows CW with 2 rows re-heat or pre-heat for 4-pipe system applications (5 rows max).
- LH or RH entry pipe connections.
- Filter option include:
  - ◇ 1-inch high-efficiency pleated filters.
  - ◇ 1-inch washable filters.
- Cabinet liner in ½-inch foil face.
- Motor voltage suitable for 208V, 230V or 277V/1Ph/60Hz power supplies.
- Motor in-line quick disconnect.
- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supply disconnect switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- HW standby electric heater auto changeover switch.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Double wall construction consisting of outer and inner skins.
  - ◇ Condensate pan overflow safety switch.
  - ◇ Condensate pan overflow connection.
- Aluminum double deflection discharge air grilles.
- Cabinet painted in a powder polyester baked coating in either white or beige colors (Contact Superior Rex for special colors availability and prices).
- Return air/access panel fasteners:
  - ◇ Philips head screws.
  - ◇ Tamper proof fasteners.
  - ◇ Quarter turn fasteners.

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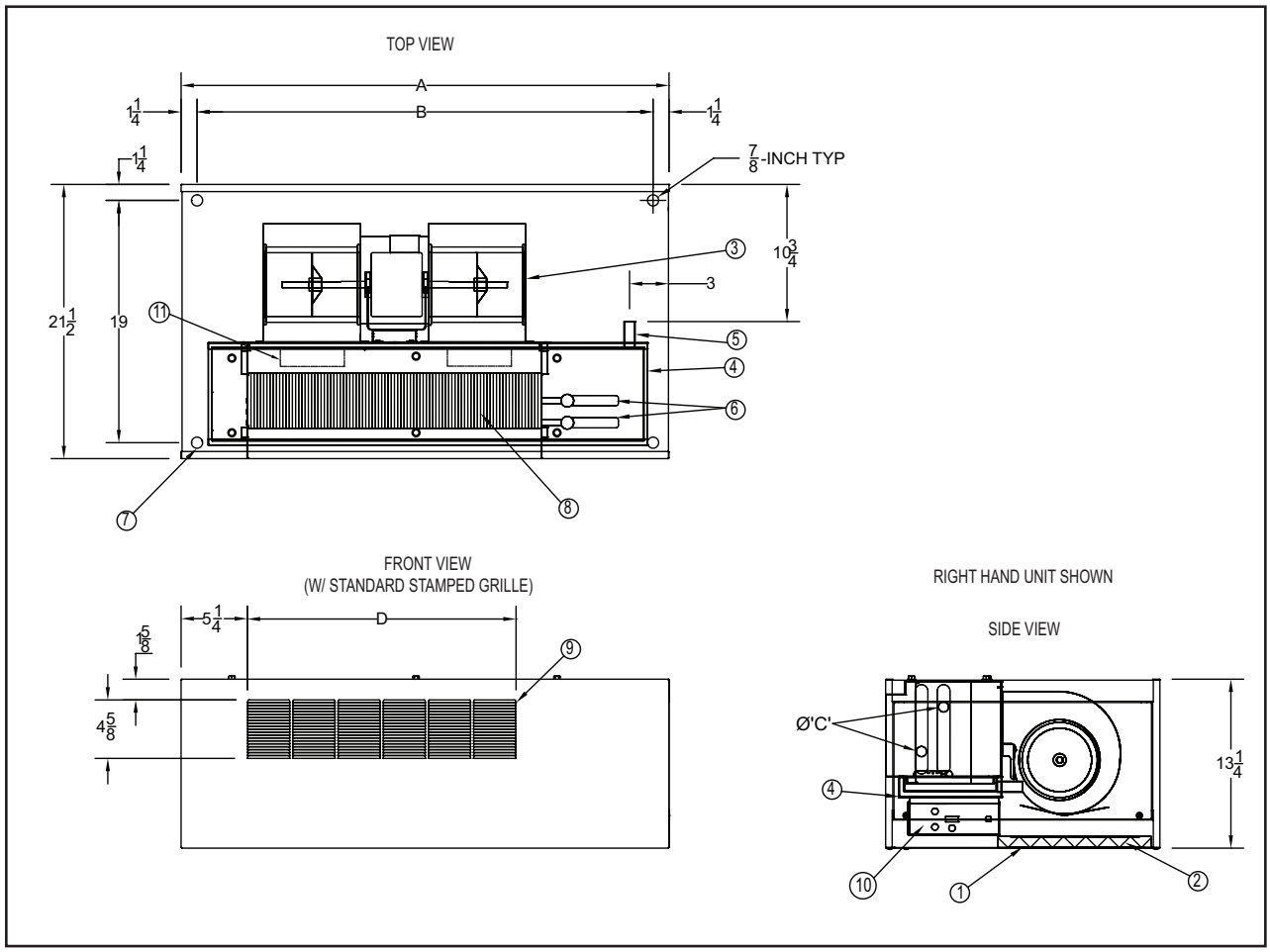
BHC EXPOSED CABINET



1. Access Panel w/ Return Air Stamped Grille
2. Filter
3. Motor/Blower(s) Assemby
4. Condensate Tray (Double Wall optional)
5. Condensate Connection 3/4" MNPT
6. Coil Connections (2-Pipe Shown)
7. Hanging Points
8. Coil
9. Discharge Air Stamped Grille
10. Electric Control Panel
11. Electric Heaters (optional)

Model	Dimensions (inches)					Approx. Weight (pounds)
	A	B	C	D	Filter	
BHC02	29¼	26¾	⅝	14	16x12x1	98
BHC03	32¼	29¾	⅝	15 11/16	24x12x1	112
BHC04	38¼	35¾	⅝	21 1/16	29x12x1	126
BHC06	47¼	44¾	⅝	31 13/16	38x12x1	144
BHC08	55¼	52.¾	⅝	39⅛	46x12x1	165
BHC10	65¼	62¾	⅞	49½	(2) 28x14x1	196
BHC12	75¼	72¾	⅞	60	(2) 31x14x1	221

All dimensions are in inches.

BHC EXPOSED CABINET

2-PIPE SYSTEM							
Model	2 Rows Cooling (1)				2 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BHC02	3.9	3.2	0.8	0.31	12.5	0.9	0.29
BHC03	5.8	4.7	1.2	0.74	18.2	1.2	0.66
BHC04	8.3	6.6	1.7	1.68	25.4	1.7	1.40
BHC06	11.2	9.3	2.3	0.86	36.5	2.5	0.91
BHC08	14.9	11.8	3.0	1.64	45.5	3.1	1.55
BHC10	20.5	16.0	4.1	3.41	60.4	4.1	2.99
BHC12	23.2	18.6	4.6	2.32	71.3	4.9	2.34

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BHC02	3.7	3.0	0.7	0.29	8.0	0.5	0.46
BHC03	5.6	4.5	1.1	0.69	11.4	0.8	0.98
BHC04	8.0	6.3	1.6	1.56	15.5	1.1	2.02
BHC06	10.8	8.9	2.2	0.80	22.7	1.6	5.55
BHC08	14.2	11.3	2.8	1.50	28.0	1.9	1.40
BHC10	19.6	15.2	3.9	3.14	36.6	2.5	2.77
BHC12	22.1	17.7	4.4	2.12	43.6	3.0	4.43

2-PIPE SYSTEM							
Model	3 Rows Cooling				3 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BHC02	5.5	4.0	1.1	0.92	16.0	1.1	0.71
BHC03	8.2	6.0	1.6	2.16	23.6	1.6	1.62
BHC04	11.8	8.6	2.3	4.85	33.1	2.3	3.49
BHC06	16.2	12.1	3.2	2.29	47.6	3.3	1.97
BHC08	20.9	15.2	4.2	4.19	59.1	4.0	3.35
BHC10	26.4	19.7	5.3	3.40	77.3	5.3	3.09
BHC12	32.7	23.9	6.5	5.57	92.8	6.3	4.77

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BHC02	5.3	3.8	1.1	0.84	7.6	0.5	0.43
BHC03	7.8	5.7	1.6	1.98	10.9	0.7	0.92
BHC04	11.2	8.1	2.2	4.43	14.8	1.0	1.90
BHC06	15.5	11.4	3.1	2.08	21.7	1.5	5.19
BHC08	20.0	14.4	4.0	3.85	26.8	1.8	1.43
BHC10	25.3	18.6	5.0	3.12	35.0	2.4	2.74
BHC12	31.2	22.7	6.2	5.11	41.8	2.9	4.42

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BHC02	6.6	4.5	1.3	1.70	17.6	1.2	1.13
BHC03	9.8	6.7	2.0	4.04	26.2	1.8	2.64
BHC04	12.3	9.0	2.5	1.35	36.0	2.5	1.15
BHC06	19.6	13.7	3.9	4.06	53.2	3.6	3.00
BHC08	23.3	16.4	4.7	2.83	64.9	4.4	2.35
BHC10	31.9	22.3	6.4	5.73	86.5	5.9	4.51
BHC12	37.3	26.3	7.5	5.34	100.3	7.0	4.52

4-PIPE SYSTEM							
Model	4 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BHC02	6.2	4.2	1.2	1.54	7.3	0.5	0.40
BHC03	9.3	6.3	1.9	3.65	10.3	0.7	0.86
BHC04	11.7	8.5	2.3	1.22	14.1	1.0	1.75
BHC06	18.6	12.9	3.7	3.65	20.7	1.4	4.83
BHC08	22.0	15.4	4.4	2.53	25.5	1.7	1.38
BHC10	30.2	20.9	6.0	5.18	33.4	2.3	2.72
BHC12	35.3	24.7	7.1	4.79	39.8	2.7	4.27

2-PIPE SYSTEM							
Model	5 Rows Cooling				5 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BHC02	7.1	4.7	1.4	2.49	18.0	1.2	1.47
BHC03	9.5	6.6	1.9	0.88	26.4	1.8	0.68
BHC04	13.8	9.5	2.8	1.98	37.6	2.6	1.47
BHC06	21.5	14.4	4.3	5.79	55.1	3.8	3.79
BHC08	25.7	17.3	5.2	3.92	67.2	4.6	2.87
BHC10	33.7	22.9	6.7	4.52	89.1	6.1	3.57
BHC12	41.2	27.7	8.2	7.16	110.6	7.3	5.41

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
BHC02	203	171	155
BHC03	316	278	219
BHC04	460	342	262
BHC06	658	535	396
BHC08	803	621	487
BHC10	1081	803	621
BHC12	1284	893	717

1. Nominal air volume ratings are based on a 2-row coil at sea level altitude with 0 external static pressure.

Model	Motor	
	HP	Total AMPS
BHC02	1/20	0.8
BHC03	1/20	0.8
BHC04	1/20	0.8
BHC06	1/10	1.5
BHC08	1/10	1.5
BHC10	1/10	1.5
BHC12	1/10	1.5

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

SUPERIOR REX Fan Coils

THC

Factory assembled, horizontal blow-thru ducted THC fan coils are designed for over ceiling installations with ducted discharge air suitable for projects such as hotels, motels, condominiums and general commercial applications.

STANDARD FEATURES INCLUDE

- Performance certified to AHRI Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/UL 1995 Standard.
- All casing sheet metal components fabricated of 18GA G90 galvanized steel.
- Fascia panels are fabricated of 18GA galvannealed for superior adhesion of the powder paint.
- Telescopic ceiling fascia panel with adjustment up to 3 inches.
- Cabinet liner in ½-inch dual-density fiberglass.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- 1-Inch thick disposable filter.
- Multi-speed motor of the permanent split capacitor (PSC) type.
- Double Width Double Inlet (DWDI) direct driven blowers of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally protected on the outside (Consult Superior Rex for availability).
- ¾-inch discharge air flange.
- Stamped return air/access panel grille.
- Anti-vibration mounts for field installation.

OPTIONAL FEATURES INCLUDE

- 3-, 4- And 5-row coils for 2-pipe systems.
- Single block 2, 3 and 4 rows CW with 1 row re-heat or pre-heat coils for 4-pipe system applications (5 rows max).
- Single block 2 and 3 rows CW with 2 rows re-heat or pre-heat for 4-pipe system applications (5 rows max).
- LH or RH entry pipe connections.
- Filter option include:
  - ◇ 1-inch high-efficiency pleated filters.
  - ◇ 1-inch washable filters.
- Cabinet liner in ½-inch foil face.
- Motor voltage suitable for 208V, 230V or 277V/1Ph/60Hz power supplies.
- Motor in-line quick disconnect (Available with rear return air).
- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supply disconnect switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- HW standby electric heater auto changeover switch.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Double wall construction consisting of outer and inner skins.
  - ◇ Condensate pan overflow safety switch.
  - ◇ Condensate pan safety overflow connection.
- Bottom or rear return air.
- Fascia panel painted in a powder polyester baked coating in either white or beige colors (Contact Superior Rex for special colors availability and prices).
- Return air/access panel fasteners:
  - ◇ Philips head screws.
  - ◇ Tamper proof fasteners.
  - ◇ Quarter turn fasteners.

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AHRI Standard 440

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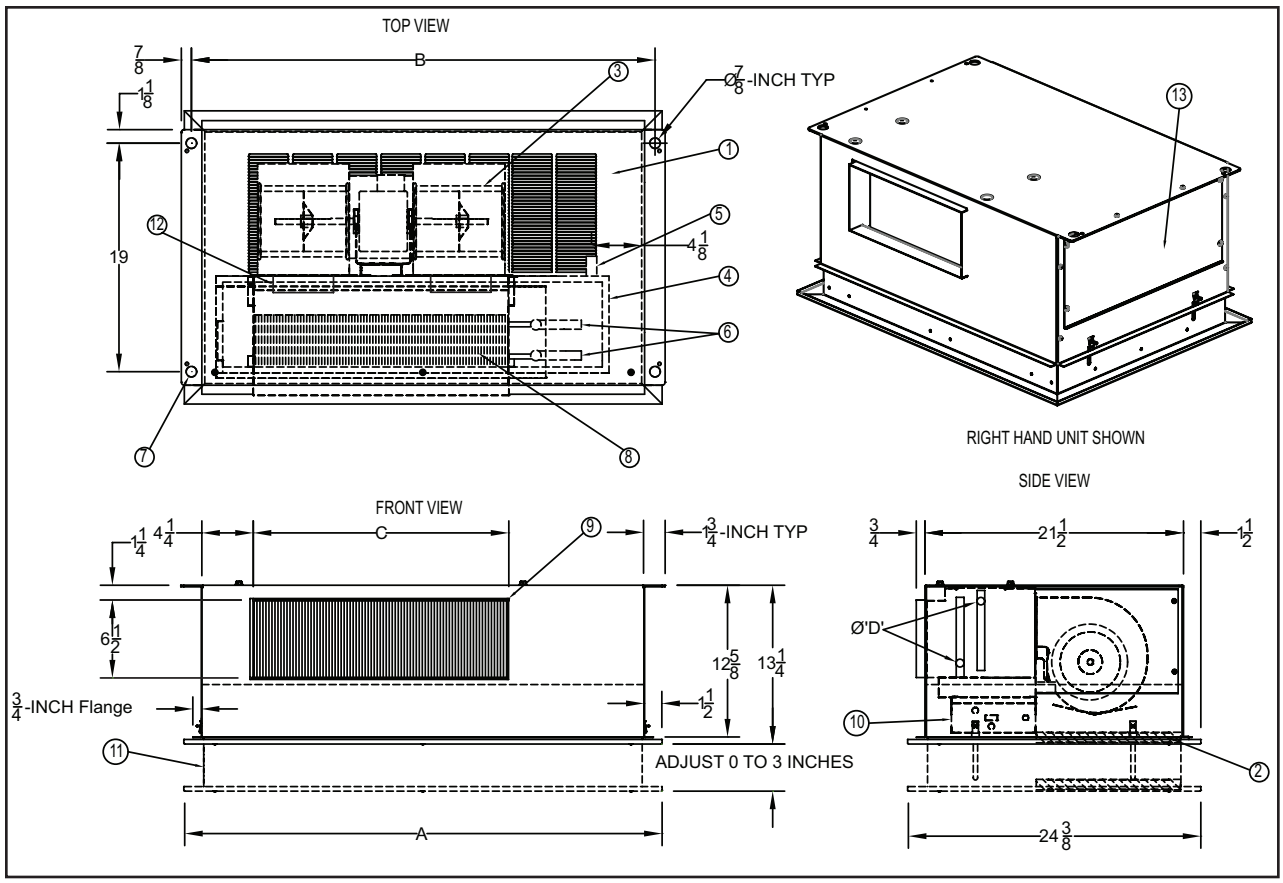
THC RECESSED CABINET



1. Access Panel w/ Return Air Stamped Grille
2. Filter
3. Motor/Blower(s) Assemby
4. Condensate Tray (Double Wall optional)
5. Condensate Connection 3/4" MNPT
6. Coil Connections (2-Pipe Shown)
7. Hanging Points
8. Coil
9. Supply Air Flange
10. Electric Control Panel
11. Telescopic Return Air / Access Panel
12. Electric Heaters (optional)
13. Side access panel

Model	Dimensions (inches)					Approx. Weight (pounds)
	A	B	C	D	Filter	
THC02	32¾	31½	14¼	⅝	24x12x1	100
THC03	35¾	34½	17¼	⅝	28x12x1	115
THC04	41¾	40½	23¼	⅝	28x12x1	130
THC06	50¾	49½	32¼	⅝	42x12x1	145
THC08	58¾	57½	40¼	⅝	50x12x1	170
THC10	68¾	67½	50¼	⅞	(2) 30x12x1	200
THC12	78¾	77½	60¼	⅞	(2) 34x12x1	225

All dimensions are in inches.

THC RECESSED CABINET

2-PIPE SYSTEM							
Model	2 Rows Cooling (1)				2 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
THC02	4.2	3.5	0.8	0.37	13.8	0.9	0.35
THC03	5.8	4.7	1.2	0.74	18.2	1.2	0.66
THC04	8.0	6.4	1.6	1.57	24.4	1.7	1.30
THC06	11.2	9.3	2.2	0.86	36.3	2.5	0.90
THC08	14.6	11.6	2.9	1.59	44.7	3.1	1.50
THC10	19.3	14.9	3.9	3.05	56.6	3.9	2.64
THC12	22.0	17.5	4.4	2.10	67.3	4.6	2.09

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
THC02	4.1	3.3	0.8	0.34	7.8	0.5	0.43
THC03	5.6	4.5	1.1	0.69	10.2	0.7	0.81
THC04	7.7	6.1	1.5	1.46	13.7	0.9	1.61
THC06	10.8	8.8	2.1	0.79	21.2	1.4	5.55
THC08	14.0	11.1	2.8	1.46	25.1	1.7	1.16
THC10	18.5	14.2	3.7	2.81	31.9	2.2	2.18
THC12	21.1	16.7	4.2	1.93	38.7	2.6	3.58

2-PIPE SYSTEM							
Model	3 Rows Cooling				3 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
THC02	6.0	4.5	1.2	1.09	17.9	1.2	0.86
THC03	8.2	6.0	1.6	2.16	23.6	1.6	1.62
THC04	11.3	8.2	2.3	4.50	31.7	2.2	3.22
THC06	16.2	12.0	3.2	2.26	47.4	3.2	1.95
THC08	20.6	14.9	4.1	4.06	58.0	4.0	3.23
THC10	24.8	18.3	5.0	3.01	72.0	4.9	2.70
THC12	30.9	22.4	6.2	5.01	87.3	6.0	4.24

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
THC02	5.8	4.3	1.2	1.02	7.5	0.5	0.41
THC03	7.8	5.7	1.6	1.98	9.8	0.7	0.77
THC04	10.8	7.8	2.2	4.15	13.2	0.9	1.53
THC06	15.4	11.4	3.1	2.08	20.4	1.4	4.60
THC08	19.7	14.1	3.9	3.72	24.1	1.6	1.21
THC10	23.7	17.4	4.7	2.76	30.7	2.1	2.17
THC12	29.6	21.3	5.9	4.59	37.2	2.5	3.61

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
THC02	7.3	5.0	1.5	2.06	19.8	1.4	1.40
THC03	9.8	6.7	2.0	4.03	26.2	1.8	2.64
THC04	11.8	8.6	2.4	1.25	34.4	2.4	1.06
THC06	19.5	13.6	3.9	4.02	53.0	3.6	2.96
THC08	22.9	16.1	4.6	2.73	63.5	4.3	2.26
THC10	29.7	20.6	5.9	5.00	80.2	5.5	3.90
THC12	35.2	24.6	7.0	4.76	96.0	6.6	3.98

4-PIPE SYSTEM							
Model	4 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
THC02	6.9	4.7	1.4	187.00	7.2	0.5	0.39
THC03	9.3	6.3	1.9	3.65	9.4	0.6	0.73
THC04	11.2	8.1	2.2	1.13	12.6	0.9	1.42
THC06	18.5	12.8	3.7	3.62	19.4	1.3	4.31
THC08	21.6	15.1	4.3	2.45	23.1	1.6	1.18
THC10	28.2	19.4	5.6	4.54	29.3	2.0	2.18
THC12	33.3	23.0	6.6	4.26	35.5	2.4	3.51

2-PIPE SYSTEM							
Model	5 Rows Cooling				5 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
THC02	8.0	5.3	1.6	3.07	20.3	1.4	1.85
THC03	9.6	6.6	1.9	0.89	26.4	1.8	0.68
THC04	13.3	9.1	2.7	1.83	35.8	2.4	1.34
THC06	21.4	14.3	4.3	5.69	54.8	3.7	3.74
THC08	25.2	16.9	5.0	3.76	65.7	4.5	2.75
THC10	33.7	22.9	6.7	4.52	89.1	6.1	3.57
THC12	38.7	25.8	7.7	6.34	99.3	6.8	4.73

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
THC02	235	209	182
THC03	316	262	203
THC04	433	310	225
THC06	653	471	321
THC08	781	615	449
THC10	979	861	567
THC12	1177	931	642

Air Volume (cfm) Vs External Static Pressure in wg (2)						
Model	0.05	0.10	0.15	0.20	0.25	0.30
THC02	198	150	102	-	-	-
THC03	278	241	193	166	-	-
THC04	401	363	337	310	235	-
THC06	602	546	508	473	380	-
THC08	690	624	578	542	497	419
THC10	911	840	769	693	602	475
THC12	1106	1044	986	927	859	775

1. Nominal air volume ratings are based on a 2-row coil at sea level altitude with 0 external static pressure.
2. Air volumes at alternative external static pressures are based at high fan speed.

Model	Motor	
	HP	Total AMPS
THC02	1/20	0.8
THC03	1/20	0.8
THC04	1/20	0.8
THC06	1/10	1.5
THC08	1/10	1.5
THC10	1/10	1.5
THC12	1/10	1.5

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

FAN COILS

Basic Horizontal Units Standard Configurations

1. Furnish and install Superior Rex models BHO, BHR, BHC and THC Basic Horizontal fan coils of sizes and capacities shown on the plans to meet prevailing cooling and heating requirements.
2. Fan coils shall be performance certified to AHRI Standard 440. Units shall be wired in compliance with ANSI/UL 1995 Standard and listed with ETL.
3. Fan coils shall be sound tested in accordance with AHRI Standard 260 for ducted units and AHRI Standard 350 for non-ducted units. Manufacturer shall provide these dB ratings on request for each model specified.
4. Unit casing shall be 18-gauge, zinc coated, phosphate treated, galvanized steel. Painted sheet metal components (BHC and THC units only) components shall be 18-gauge galvanealed sheet metal.
5. Painted panels (BHC and THC units only) shall be painted with a polyester powder coating, electrostatically applied, oven baked to 400°F for 10 minutes in beige or white tones.
6. High-efficiency, 2-row coil shall be suitable for a 2-pipe system. Coils shall be manufactured with aluminum fins mechanically bonded to seamless copper tubes. The copper tubes shall be ⅜-inch OD with a wall thickness of 0.014-inch which comply with ASTM B-75. The fins shall be waved with ripple edges for superior efficiency with a thickness of 0.0045-inch and spaced at 10 fpi. Coils rated to 300 psi operational pressure. All coils shall be shipped with a safety air pressure of 30 - 50 psi to guarantee a leak free arrival at the final destination.
7. Unit pipe entry location shall be in accordance with the project schedule.
8. Coils shall be installed with manual Schrader type air vents with a sealing cap and be located at the highest point of the coil. The cap shall have a dual purpose, to seal any potential water leakage in the eventuality of Schrader valve failure and as a service tool for the extraction/insertion of the internal Schrader valve.
9. Standard filters (BHR, THC and BHC only) shall be 1-inch nominal thickness of the disposable type with a one-piece moisture resistant chipboard frame to eliminate corner separations. The spun glass filtering media shall be bonded with a resinous agent providing rigidity and resistance to media compression and meets UL class 2.
10. Cabinets (BHR, THC and BHC only) shall be lined with ½-inch dual-density fiberglass with a density of 1.5lbs/ft^3 and 4.0lbs/ft^3 for the face meeting NFPA 90A and 90B (appliances), NFPA 255, UL 181, UL723 and ASTM E84.
11. Motors shall be multi-speed of the permanent split capacitor type (PSC) and be directly coupled to the centrifugal fan blower. Motor shall be suitable for a power supply of 115V/1Ph/60Hz and shall be internally protected with an automatic thermal overload. Motor shaft shall be supported by sleeve bearings of the permanently lubricated type for the full life expectancy of the motor. All motors shall be directly mounted to the fan deck and be isolated from the unit casing by two resilient anti-vibration mounts.
12. Direct-driven fan(s) shall be of the whisper quite type, double width, double inlet (DWDI) forward curved statically and dynamically balanced at the factory. The fan wheel and casing shall be constructed of galvanized steel.
13. Electric components shall be wired to a single control panel for single point power supply. Wiring exposed to the outside of the units shall be installed in conduits to meet UL 1995 safety requirements.
14. Condensate pans shall be single-wall 18-gauge G90 galvanized steel welded at the corners, thermally protected on the outside with fire and smoke rated ¼-inch high-density insulation to prevent condensation. The factory installed ¾" MNPT condensate connection shall be located at the lowest point of the condensate pan to ensure all water drains from the condensate pan (Consult TIitus for availability).
15. Discharge air flange (BHO and BHR units only) shall be 1-inch or ¾-inch (THC unit only) to facilitate the connection of field ducts.
16. Return air flanges (BHR and THC units only) shall be 1-inch to facilitate the connection of field ducts.
17. Return air grilles/access panels (THC and BHC only) shall be of the stamped louvered type and be removable for better access on the field.
18. Four (4) anti-vibration rubber mountings shall be provided for field installation in order to isolate any cabinet vibrations from the building structure.

FAN COILS

Basic Horizontal Units Optional Configurations

COOLING AND HEATING COIL

1. Shall be high-efficiency 3-, 4- and 5-row coils suitable for 2-pipe systems, or
2. High-efficiency single block with 2, 3 and 4 rows chilled water (CW) with 1-row re-heat/pre-heat coil suitable for 4-pipe system applications, or
3. High-efficiency single block with 2, 3-rows chilled water (CW) with 2-row re-heat/pre-heat coil suitable for 4-pipe system applications.

FILTER

1. Filter shall be 1-inch pleated filter with an average atmospheric dust spot efficiency range of 20 - 30% per ASHRAE Standard 52.1 test method, or
2. Filter shall be 1-inch washable filter consisting of synthetic fibers coated with a special resin, then baked together at a high temperature resulting in a tough and springy, thoroughly bonded, nearly rigid air filtration media. Washable filters shall have a longer service life; better structural integrity as well as being completely odor free.
3. A spare set of filters shall be available for replacement after the commissioning of the unit and prior to the handover of the project.

CABINET INSULATION

Cabinet liners shall be 1-inch dual-density fiberglass with a density of 1.5lbs/ft^3 and 4.0lbs/ft^3 for the face meeting NFPA 90A and 90B (appliances) and NFPA 255 with less than 25 flame and less than 50 smoke spread, UL 181, UL723 and ASTM E84.

MOTOR AND MOTOR ACCESSORIES

1. Motors shall be suitable for 115V/1Ph/60Hz or 208V/1Ph/60Hz or 230V/1Ph/60Hz or 277V/1Ph/60Hz power supplies (delete as applicable).
2. A motor in-line quick disconnect shall be installed to facilitate the removal/replacement of motor (BHR and THC).

THERMOSTAT AND ACCESSORIES

Refer to the Accessories section for details.

DISCONNECT SWITCH AND FUSES

Units shall be wired for single point power supply with a disconnect switch and fuse(s) to match the unit full minimum circuit ampacity (MCA) in line with UL 1995.

TWO-PIPE HEAT/COOL AUTO CHANGEOVER SWITCH

A mechanical changeover switch shall be supplied on 2-pipe systems for automatically change over of the operation of the thermostat for summer and winter modes.

ELECTRIC HEATER AND ACCESSORIES

1. Electric heaters shall be of the wound type mounted in a metal frame and supported by ceramic rings and terminals. Electric heaters shall installed on the blower and coil discharge side for better heat dissipation and shall include an automatic reset high limit cut-out and contactor.
2. 2-pipe standby electric heating - heaters shall be installed and pre-wired as standby heating in the eventuality of a failure of the primary hot water (HW) system. A changeover sensor shall be installed in each unit and the changeover between the failed hot water system and the standby electric heater shall be automatic.

CHILLED AND HOT WATER VALVE CONTROLS

Refer to the Accessories section for details.

Condensate Pan and Accessories

1. Condensate pan shall be single wall manufactured in 20-gauge 304 stainless steel and shall be thermally protected on the outside with fire and smoke rated ¼-inch high-density insulation to prevent condensation. The factory installed ¾" MNPT condensate connection shall be located at the lowest point of the condensate pan to ensure that all water is drained from the condensate pan (Consult Superior Rex for availability), or
2. Condensate pan shall be double wall construction consisting of an outer and inner skin. The outer skin shall be manufactured of 18-gauge G90 galvanized sheet metal wrapped around the inner skin with 1-inch thermal insulation between both skins to prevent condensation. The inner skin of the double wall condensate pan shall be of 18-gague G90 galvanized sheet metal, or
3. Condensate pan shall be double wall construction consisting of an outer and inner skin. The outer skin shall be manufactured of 18-gauge G90 galvanized sheet metal wrapped around the inner skin with 1.00" thermal insulation between both skins to prevent the formation of condensation. The inner skin of the double wall condensate pan shall be of 20-gauge 304 stainless steel galvanized sheet metal.
4. An automatic safety overflow switch shall be installed in the condensate pan and shall prevent the operation of the unit electric system if an overflow status is detected.

DISCHARGE AIR GRILLES AND ACCESSORIES - BHC ONLY

1. Discharge air grilles shall be double-deflection made of aluminum and painted white for white painted cabinet units or aluminum for beige painted cabinets.
2. Special discharge air grilles colors shall be_____. (Contact Superior Rex for color range availability and price).

RETURN AIR/ACCESS PANEL AND ACCESSORIES - THC AND BHC ONLY

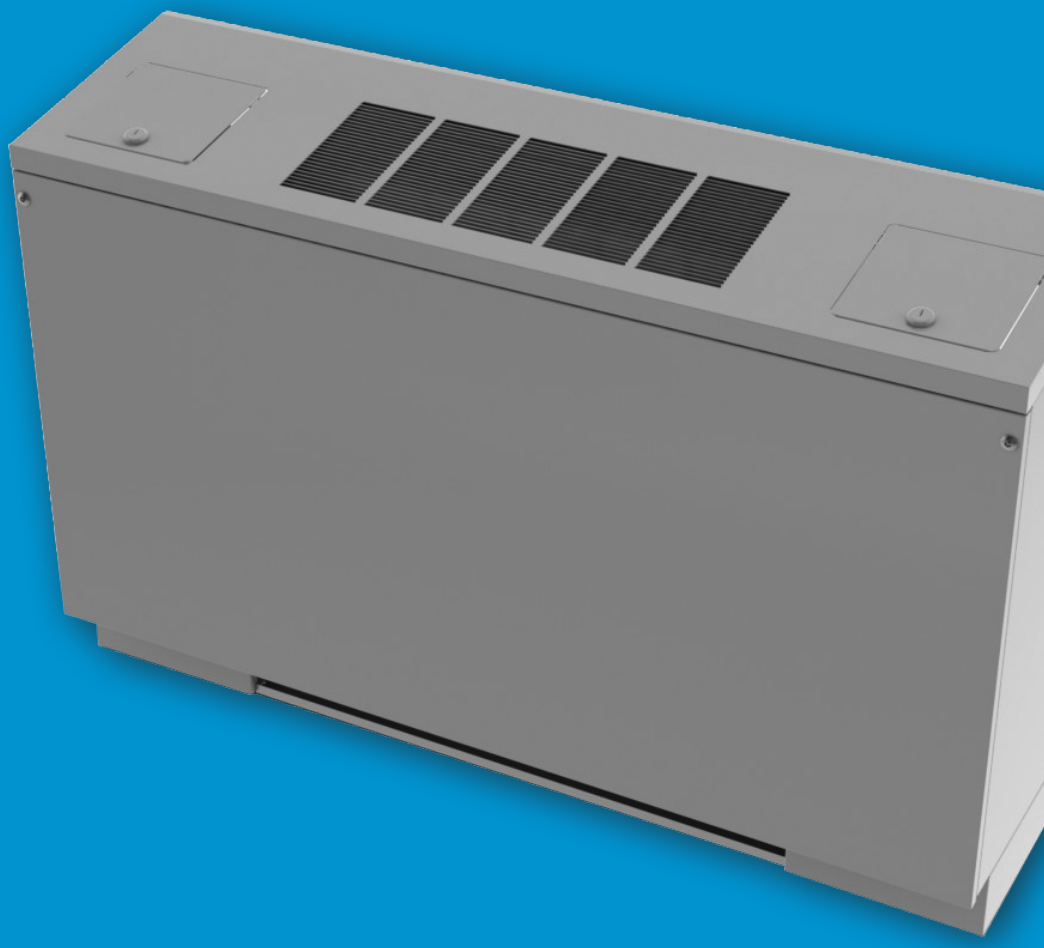
1. Return air/access panel security fasteners shall be tamperproof, which require a specialist tool to access the units, or
2. Return air/access panel security fasteners shall be of the quarter turn type, to facilitate the removal of the access panel.

SUPERIOR REX

Basic Vertical Series

www.superiorrex.com

section 3



Basic Vertical Series

BVR

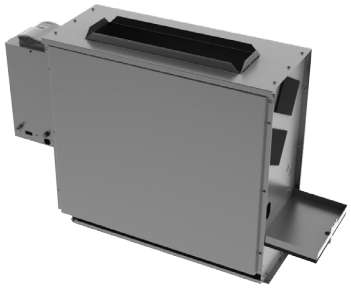
Factory assembled, vertical blow-thru, ducted BVR fan coils are designed for concealed installations inside a closet or furred-in under a window and ducted, for projects such as public buildings, hotels, schools, hospitals and general commercial applications.

STANDARD FEATURES INCLUDE

- Performance AHRI Certified to Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/UL 1995 Standard.
- All sheet metal components fabricated of 18GA G90 galvanized steel.
- Cabinet liner in ½-inch dual-density fiberglass.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- Easily removal 1-inch thick disposable filter.
- Multi-speed motor of the permanent split capacitor (PSC) type.
- Double Width Double Inlet (DWDI) direct driven blowers of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally insulated on the outside. (Consult Superior Rex for availability).
- Single wall auxiliary condensate pan thermally insulates on the outside.
- Top discharge air flange.

OPTIONAL FEATURES INCLUDE

- 3-, 4- And 5-row coils for 2-pipe systems.
- Single block 2, 3 and 4 rows CW with 1 row re-heat or pre-heat coils for 4-pipe system applications (5 rows max).
- Single block 2 and 3 rows CW with 2 rows re-heat or pre-heat for 4-pipe system applications (5 rows max).
- LH or RH pipe entry connections.
- Filter option include:
  - ◇ 1-inch high-efficiency pleated filters.
  - ◇ 1-inch washable filters.
- Cabinet liner in ½-inch foil face.
- Motor voltage suitable for 208V, 230V or 277V/1Ph/60Hz power supplies.



- Motor in-line quick disconnect.
- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supplies disconnect switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- HW standby electric heater auto changeover switch.
- Fresh air opening.
- Fresh air with manual or auto dampers.
- Fresh air freeze protection.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Double wall construction consisting of outer and inner skins.
  - ◇ Single wall auxiliary condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Auxiliary condensate pan overflow safety switch.
  - ◇ Remote discharge air grilles:
  - ◇ Stamped with access doors
  - ◇ Aluminum double deflection
  - ◇ Deluxe aluminum double deflection grilles (Contact Superior Rex for availability).
  - ◇ Linear bar aluminum grilles (Contact Superior Rex for availability).
  - ◇ Special discharge air grille colors (Contact Superior Rex for color range availability and price).
  - ◇ Remote stamped return air/access panel with filter access door.

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AHRI Standard 440

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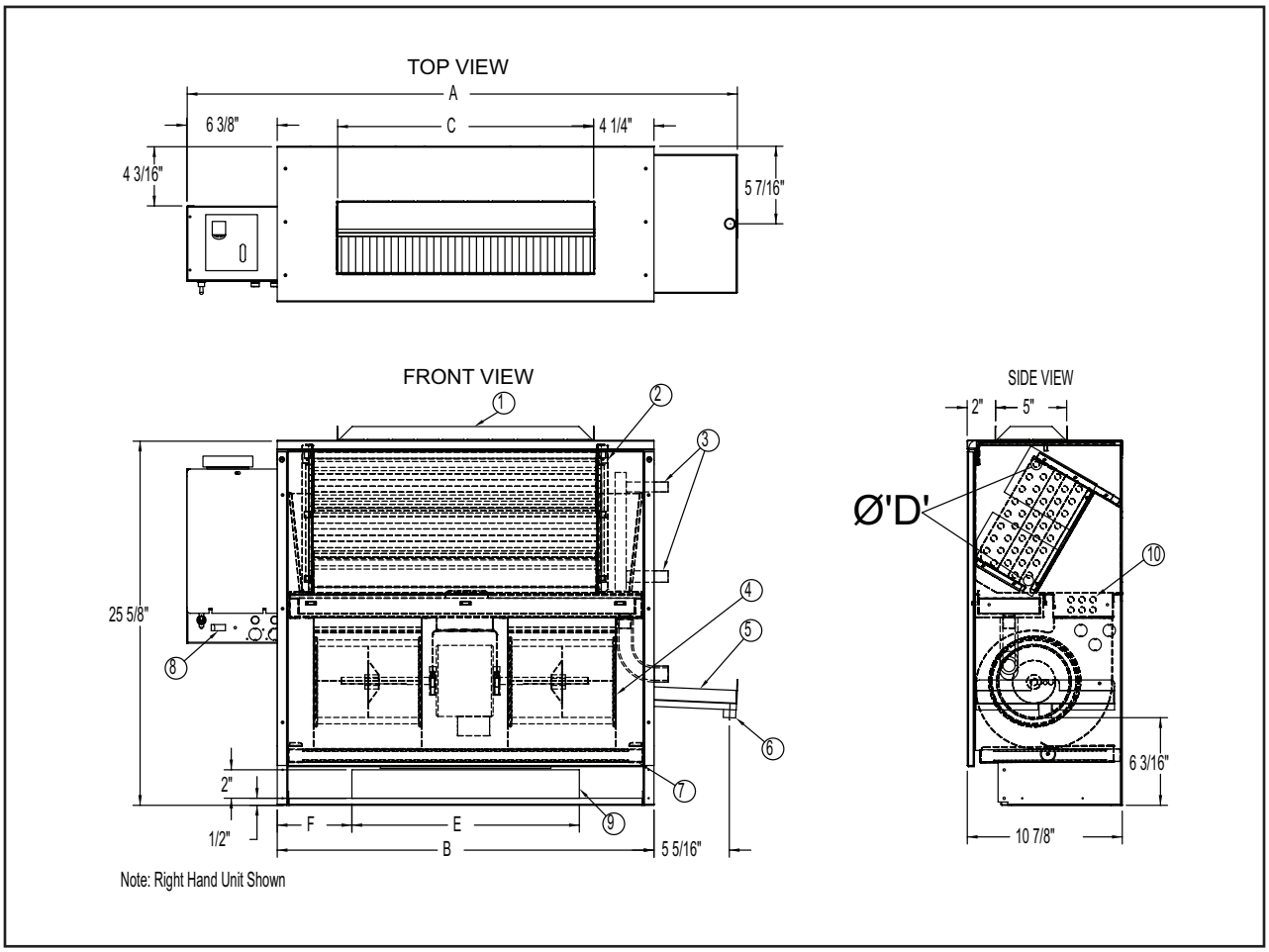
SUPERIOR REX Fan Coils

BVR CONCEALED FLOOR



1. Supply Air Flange = "C"
2. Coil
3. Coil Connections (2-Pipe Shown)
4. Motor/Blower(s) Assemby
5. Auxiliary Condensate Tray
6. Condensate Connection
7. Filter
8. Control box
9. Fresh Air Damper Opening (optional) = 2" x "E"
10. Electric Heaters (optional)

Model	Dimensions (inches)							Approx. Weight (pounds)
	A	B	C	D	E	F	Filter	
BVR02	31¾	19½	11	⅝	12	3¾	17x10x1	63
BVR03	34¾	22½	14	⅝	12	5¼	20x10x1	70
BVR04	38¾	26½	18	⅝	12	7¼	24x10x1	80
BVR06	49¾	37½	29	⅝	24	6¾	35x10x1	99
BVR08	57¾	45½	37	⅝	24	10¾	43x10x1	106
BVR10	67¾	55½	47	⅞	36	9¾	2(26)x10x1	136
BVR12	77¾	65½	57	⅞	36	14¾	2(31)x10x1	150

All dimensions are in inches.

BVR CONCEALED FLOOR

2-PIPE SYSTEM							
Model	2 Rows Cooling (1)				2 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVR02	4.1	3.5	0.8	0.33	13.8	0.9	0.34
BVR03	5.6	4.6	1.1	0.66	18.0	1.2	0.62
BVR04	7.9	6.3	1.6	1.47	24.4	1.7	1.26
BVR06	11.1	9.3	2.2	0.83	36.5	2.5	0.90
BVR08	14.4	11.5	2.9	1.52	44.3	3.0	1.45
BVR10	19.1	14.8	3.8	2.95	56.5	3.9	2.60
BVR12	21.9	17.5	4.4	2.06	67.8	4.6	2.10

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVR02	3.9	3.3	0.8	0.31	7.7	0.5	0.41
BVR03	5.4	4.4	1.1	0.63	10.0	0.7	0.76
BVR04	7.6	6.1	1.5	1.36	13.6	0.9	1.53
BVR06	10.7	8.9	2.1	0.76	21.2	1.4	4.76
BVR08	13.7	10.9	2.7	1.39	25.8	1.8	8.21
BVR10	18.4	14.2	3.7	2.76	32.8	2.2	15.46
BVR12	21.0	16.7	4.2	1.91	40.0	2.7	26.00

2-PIPE SYSTEM							
Model	3 Rows Cooling				3 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVR02	5.9	4.5	1.2	1.01	18.1	1.2	0.84
BVR03	8.0	5.9	1.6	1.99	23.4	1.6	1.55
BVR04	11.2	8.2	2.2	4.26	31.8	2.2	3.14
BVR06	16.1	12.1	3.2	2.21	47.8	3.3	1.95
BVR08	20.3	14.8	4.0	3.89	57.6	3.9	3.14
BVR10	24.6	18.2	4.9	2.93	71.9	4.9	2.67
BVR12	31.0	22.6	6.2	4.97	88.0	6.0	4.27

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVR02	5.7	4.3	1.1	0.94	7.4	0.5	0.39
BVR03	7.6	5.6	1.5	1.81	9.7	0.7	0.72
BVR04	10.7	7.8	2.1	3.90	13.0	0.9	1.46
BVR06	15.4	11.5	3.1	2.03	20.4	1.4	4.50
BVR08	19.4	14.0	3.9	3.57	24.8	1.7	7.73
BVR10	23.5	17.3	4.7	2.69	31.4	2.1	14.44
BVR12	29.6	21.4	5.9	4.56	38.3	2.6	24.40

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVR02	7.2	5.1	1.4	1.97	20.1	1.4	1.39
BVR03	9.6	6.7	1.9	3.78	26.0	1.8	2.55
BVR04	11.7	8.6	2.3	1.19	34.7	2.4	1.05
BVR06	19.5	13.7	3.9	3.95	53.5	3.7	2.97
BVR08	24.2	16.6	4.8	6.77	64.0	4.4	4.75
BVR10	29.7	20.6	5.9	4.94	80.2	5.5	3.87
BVR12	37.0	25.4	7.4	8.31	97.9	6.7	6.19

4-PIPE SYSTEM							
Model	4 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVR02	6.9	4.8	1.4	1.78	7.1	0.5	0.37
BVR03	9.1	6.3	1.8	3.39	9.2	0.6	0.68
BVR04	11.1	8.1	2.2	1.07	12.4	0.9	1.36
BVR06	18.5	12.9	3.7	3.57	19.4	1.3	4.22
BVR08	22.9	15.6	4.6	6.11	23.6	1.6	7.21
BVR10	28.0	19.4	5.6	4.43	30.0	2.0	13.43
BVR12	34.9	23.9	7.0	7.42	36.6	2.5	22.65

2-PIPE SYSTEM							
Model	5 Rows Cooling				5 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVR02	8.0	5.4	1.6	2.97	20.8	1.4	1.86
BVR03	10.6	7.1	2.1	5.64	27.0	1.8	3.40
BVR04	13.2	9.1	2.6	1.77	36.2	2.5	1.34
BVR06	21.5	14.4	4.3	5.66	55.6	3.8	3.78
BVR08	26.4	17.4	5.3	9.56	66.1	4.5	6.00
BVR10	32.5	21.7	6.5	6.78	82.9	5.7	4.72
BVR12	40.4	26.7	8.1	11.30	101.2	6.9	7.58

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
BVR02	246	214	187
BVR03	321	268	209
BVR04	444	326	241
BVR06	669	482	332
BVR08	781	626	471
BVR10	984	872	583
BVR12	1198	952	669

Air Volume (cfm) Vs External Static Pressure in wg (2)						
Model	0.05	0.10	0.15	0.20	0.25	0.30
BVR02	198	150	102	-	-	-
BVR03	278	241	193	166	-	-
BVR04	402	363	338	310	235	-
BVR06	602	545	509	473	380	-
BVR08	690	624	578	542	497	419
BVR10	912	839	769	693	601	476
BVR12	1107	1043	987	928	858	775

1. Nominal air volume ratings are based on a 2-row coil at sea level altitude with 0 external static pressure.
2. Air volumes at alternative external static pressures are based at high fan speed.

Model	Motor	
	HP	Total AMPS
BVR02	1/30	0.5
BVR03	1/30	0.5
BVR04	1/20	0.8
BVR06	1/20	0.8
BVR08	1/20	0.8
BVR10	1/20	0.8
BVR12	1/20	0.8

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

SUPERIOR REX Fan Coils

BVC

Factory assembled, vertical blow-thru, slim and attractively styled BVC fan coils are designed for exposed floor standing applications such as public buildings, hotels, schools, hospitals and general commercial applications.

STANDARD FEATURES INCLUDE

- Performance AHRI Certified to Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/UL 1995 Standard.
- All internal sheet metal components are fabricated of 18GA G90 galvanized steel and exposed metal casing panels fabricated of 18GA galvanealed for superior adhesion of the powder paint.
- Cabinet components are painted with a powder polyester baked coating in white or beige and are acoustically insulated to reduce noise dissipation from the unit.
- Cabinet liner in ½-inch dual-density fiberglass.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- Easily removal 1-inch thick disposable filter.
- Multi-speed motor of the permanent split capacitor (PSC) type.
- Double Width Double Inlet (DWDI) direct driven blowers of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally insulated on the outside (Consult Superior Rex for availability).
- Single wall auxiliary condensate pan thermally insulated on the outside.
- Flat stamped discharge top grille.
- Electric controls and valve package access doors.

OPTIONAL FEATURES INCLUDE

- 3-, 4- And 5-row coils for 2-pipe systems.
- Single block 2, 3 and 4 rows CW with 1 row re-heat or pre-heat coils for 4-pipe system applications (5 rows max).
- Single block 2 and 3 rows CW with 2 rows re-heat or pre-heat for 4-pipe system applications (5 rows max).
- LH or RH pipe connections entry.
- Filter option include:
  - ◇ 1-inch high-efficiency pleated filters.
  - ◇ 1-inch washable filters.
- Cabinet liner in ½-inch foil face.
- Motor voltage suitable for 208V, 230V or 277V/1Ph/60Hz power supplies.
- Motor in-line quick disconnect.
- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supply disconnect switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- HW standby electric heater auto changeover switch.
- Fresh air opening.
- Fresh air with manual or auto dampers.
- Fresh air freeze protection.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Double wall construction consisting of outer and inner skins.
  - ◇ Single wall auxiliary condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Auxiliary condensate pan overflow safety switch.
- Discharge air grilles:
  - ◇ Aluminum single deflection, left/right or front/back
  - ◇ Deluxe aluminum single deflection grilles (Consult Superior Rex for availability).
  - ◇ Linear bar aluminum grilles (Consult Superior Rex for availability).
  - ◇ Special discharge air grille colors (Contact Superior Rex for color selection and price).
- Special cabinet paints. (Contact Superior Rex for special colors availability and prices).
- Heavy duty access panel in 16GA painted steel
- Return air/access panel fasteners:
  - ◇ Philips head screws.
  - ◇ Tamper proof fasteners.
  - ◇ Quarter turn fasteners.
  - ◇ Access doors keyed locks.

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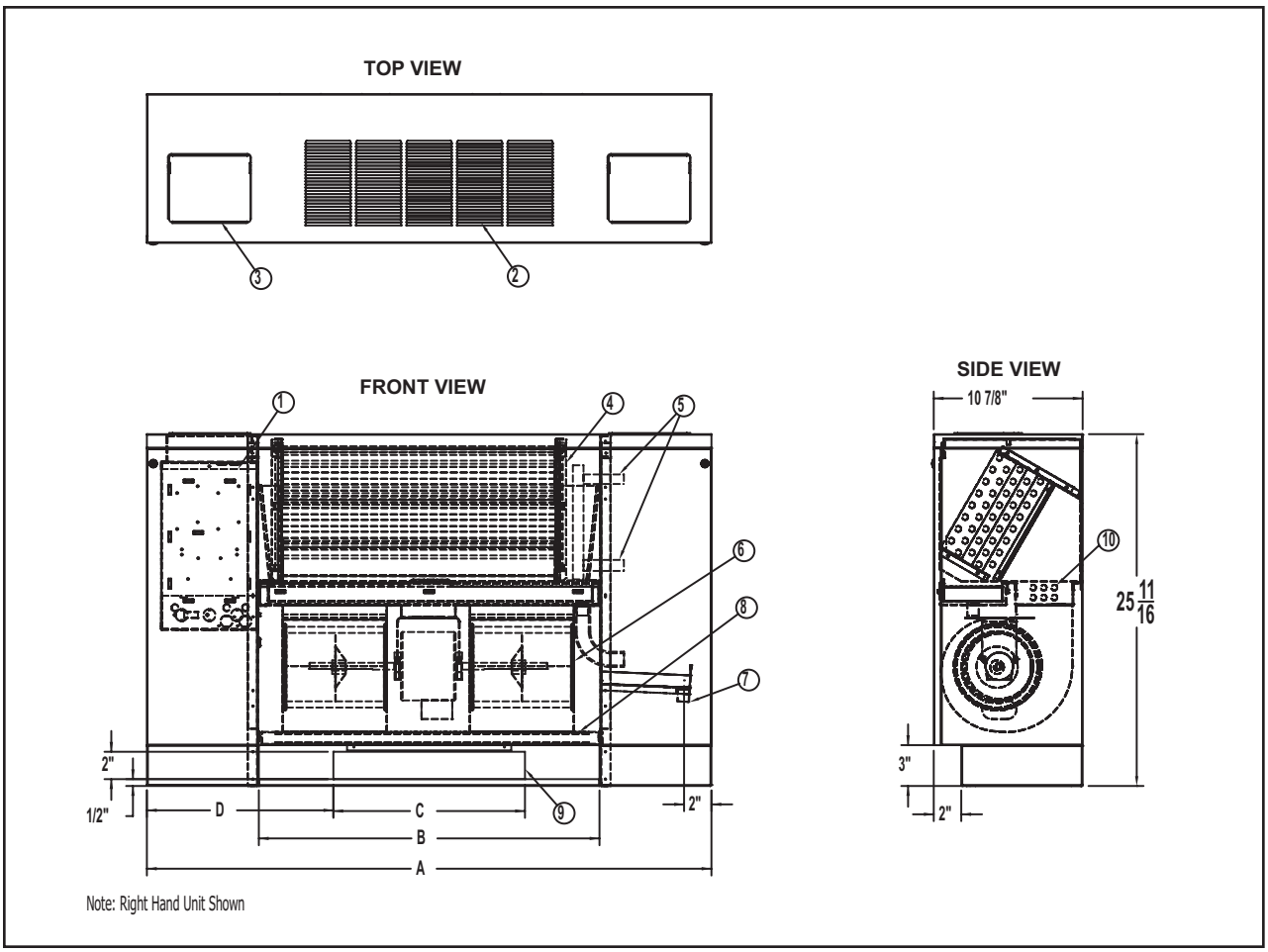
SUPERIOR REX Fan Coils

BVC FLAT TOP CABINET



1. Control Box
2. Stamped Supply Air Grille
3. Control Access Door
4. Coil
5. Coil Connections (2-Pipe Shown)
6. Motor/Blower(s) Assemby
7. Condensate Connection.
8. Filter
9. Fresh Air Damper Opening (optional) = 2" x "C"
10. Electric Heaters (optional)

Model	Dimensions (inches)					Approx. Weight (pounds)
	A	B	C	D	Filter	
BVC02	34¼	18	12	11⅛	17x10x1	95
BVC03	37¼	21	12	12⅝	20x10x1	104
BVC04	41¼	25	12	14⅝	24x10x1	106
BVC06	52¼	36	24	14⅛	35x10x1	128
BVC08	60¼	44	24	18⅛	43x10x1	146
BVC10	70¼	54	36	17⅛	(2)26x10x1	178
BVC12	80¼	64	36	22⅛	(2)31x10x1	186

All dimensions are in inches.

BVC FLAT TOP CABINET

2-PIPE SYSTEM							
Model	2 Rows Cooling (1)				2 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVC02	4.0	3.4	0.8	0.31	13.4	0.9	0.32
BVC03	5.5	4.5	1.1	0.65	17.8	1.2	0.61
BVC04	7.8	6.2	1.6	1.43	23.9	1.6	1.22
BVC06	11.0	9.1	2.2	0.80	35.9	2.4	0.87
BVC08	14.4	11.5	2.9	1.52	44.3	3.0	1.45
BVC10	19.0	14.8	3.8	2.94	56.2	3.8	2.58
BVC12	21.8	17.3	4.3	2.04	66.9	4.6	2.05

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVC02	3.8	3.2	0.8	0.29	8.5	0.6	0.49
BVC03	5.3	4.3	1.1	0.61	11.0	0.8	0.90
BVC04	7.5	6.0	1.5	1.33	14.7	1.0	1.76
BVC06	10.5	8.7	2.1	0.74	22.3	1.5	5.24
BVC08	13.7	10.9	2.7	1.39	27.3	1.9	9.08
BVC10	18.3	14.0	3.6	2.71	34.2	2.3	16.70
BVC12	20.8	16.5	4.2	1.87	41.1	2.8	27.50

2-PIPE SYSTEM							
Model	3 Rows Cooling				3 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVC02	5.8	4.3	1.2	0.96	17.5	1.2	0.79
BVC03	7.9	5.8	1.6	1.95	23.1	1.6	1.51
BVC04	11.0	8.0	2.2	4.14	31.2	2.1	3.03
BVC06	15.8	11.9	3.2	2.15	46.9	3.2	1.88
BVC08	20.3	14.8	4.1	3.89	57.5	3.9	3.14
BVC10	24.5	18.2	4.9	2.92	71.6	4.9	2.64
BVC12	30.6	22.2	6.1	4.88	86.8	5.9	4.16

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVC02	5.5	4.1	1.1	0.89	8.2	0.6	0.46
BVC03	7.5	5.6	1.5	1.78	10.6	0.7	0.85
BVC04	10.4	7.6	2.1	3.79	14.0	1.0	1.66
BVC06	15.2	11.3	3.0	1.97	21.4	1.5	4.90
BVC08	19.4	14.0	3.9	3.57	26.1	1.8	8.49
BVC10	23.4	17.2	4.7	2.67	32.7	2.2	15.54
BVC12	29.3	21.1	5.9	4.47	39.4	2.7	25.63

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVC02	7.0	4.9	1.4	1.86	19.4	1.3	1.30
BVC03	9.5	6.6	1.9	3.70	25.8	1.8	2.48
BVC04	11.5	8.4	2.3	1.16	34.0	2.3	1.01
BVC06	19.2	13.4	3.8	3.84	52.4	3.6	2.87
BVC08	24.2	16.6	4.8	6.79	64.0	4.4	4.75
BVC10	29.5	20.5	5.9	4.91	79.8	5.4	3.83
BVC12	36.6	25.1	7.3	8.13	96.5	6.6	6.03

4-PIPE SYSTEM							
Model	4 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVC02	6.7	4.6	1.3	1.68	7.8	0.5	0.43
BVC03	9.0	6.2	1.8	3.34	10.1	0.7	0.80
BVC04	10.9	7.9	2.2	1.04	13.4	0.9	1.53
BVC06	18.2	12.7	3.6	3.46	20.4	1.4	4.57
BVC08	22.9	15.6	4.6	6.12	24.9	1.7	7.88
BVC10	27.9	19.3	5.6	4.41	31.2	2.1	14.38
BVC12	34.6	23.6	6.9	7.30	37.5	2.6	23.69

2-PIPE SYSTEM							
Model	5 Rows Cooling				5 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVC02	7.7	5.1	1.5	2.79	20.0	1.4	1.73
BVC03	10.4	7.0	2.1	5.51	26.7	1.8	3.31
BVC04	13.0	9.0	2.6	1.71	35.4	2.4	1.29
BVC06	21.1	14.2	4.2	5.47	54.4	3.7	3.63
BVC08	26.4	17.4	5.3	9.56	66.1	4.5	6.00
BVC10	32.4	21.5	6.5	6.73	82.5	5.6	4.67
BVC12	39.8	26.3	7.9	11.00	99.7	6.8	7.36

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
BVC02	235	209	182
BVC03	316	262	203
BVC04	433	310	225
BVC06	653	471	321
BVC08	781	615	449
BVC10	979	861	567
BVC12	1177	931	642

1. Nominal air volume ratings are based on a 2-row coil at sea level altitude with 0 external static pressure.

Model	Motor	
	HP	Total AMPS
BVC02	1/30	0.5
BVC03	1/30	0.5
BVC04	1/20	0.8
BVC06	1/20	0.8
BVC08	1/20	0.8
BVC10	1/20	0.8
BVC12	1/20	0.8

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

SUPERIOR REX Fan Coils

BVS

Factory assembled, vertical blow-thru, slim and attractively styled BVS fan coils are designed for exposed floor standing applications such as public buildings, hotels, schools, hospitals and general commercial applications.

STANDARD FEATURES INCLUDE

- Performance AHRI Certified to Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/UL 1995 Standard.
- All internal sheet metal components are fabricated of 18GA G90 galvanized steel and exposed metal casing panels fabricated of 18GA galvanealed for superior adhesion of the powder paint.
- Cabinet components are painted with a powder polyester baked coating in white or beige and are acoustically insulated to reduce noise dissipation from the unit.
- Cabinet liner in ½-inch dual-density fiberglass.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- Easily removal 1-inch thick disposable filter.
- Multi-speed motor of the permanent split capacitor (PSC) type.
- Double Width Double Inlet (DWDI) direct driven blowers of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally insulated on the outside (Consult Superior Rex for availability).
- Single wall auxiliary condensate pan thermally insulated on the outside.
- Angle stamped discharge top/grille.
- Electric controls and valve package access doors.

OPTIONAL FEATURES INCLUDE

- 3-, 4- And 5-row coils for 2-pipe systems.
- Single block 2, 3 and 4 rows CW with 1 row re-heat or pre-heat coils for 4-pipe system applications (5 rows max).
- Single block 2 and 3 rows CW with 2 rows re-heat or pre-heat for 4-pipe system applications (5 rows max).
- Automatic coil air vents.
- LH or RH pipe connections entry
- Filter option include:
  - ◇ 1-inch high-efficiency pleated filters.
  - ◇ 1-inch washable filters.
- Cabinet liner in ½-inch foil face.
- Motor voltage suitable for 208V, 230V or 277V/1Ph/60Hz power supplies.
- Motor in-line quick disconnect.
- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supply disconnect switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- HW standby electric heater auto changeover switch.
- Fresh air opening.
- Fresh air with manual or auto dampers.
- Fresh air freeze protection.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Double wall construction consisting of outer and inner skins.
  - ◇ Condensate pan mastic coating applicable to the inside of the condensate pans for a prolonged life.
  - ◇ Single wall auxiliary condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Auxiliary condensate pan mastic coating applicable to the inside of the condensate pans for a prolonged life.
  - ◇ Auxiliary condensate pan overflow safety switch.
- Discharge air grilles:
  - ◇ Aluminum single deflection, left/right or front/back
  - ◇ Deluxe aluminum single deflection grilles (Contact Superior Rex for availability).
  - ◇ Linear bar aluminum grilles (Contact Superior Rex for availability).
  - ◇ Special discharge air grille colors (Contact Superior Rex for color selection and price).
- Special cabinet paints (Contact Superior Rex for special colors availability and prices).
- Heavy duty access panel in 16GA painted steel.
- Return air/access panel fasteners:
  - ◇ Philips head screws.
  - ◇ Tamper proof fasteners.
  - ◇ Quarter turn fasteners.
  - ◇ Access doors keyed locks.

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AHRI Standard 440

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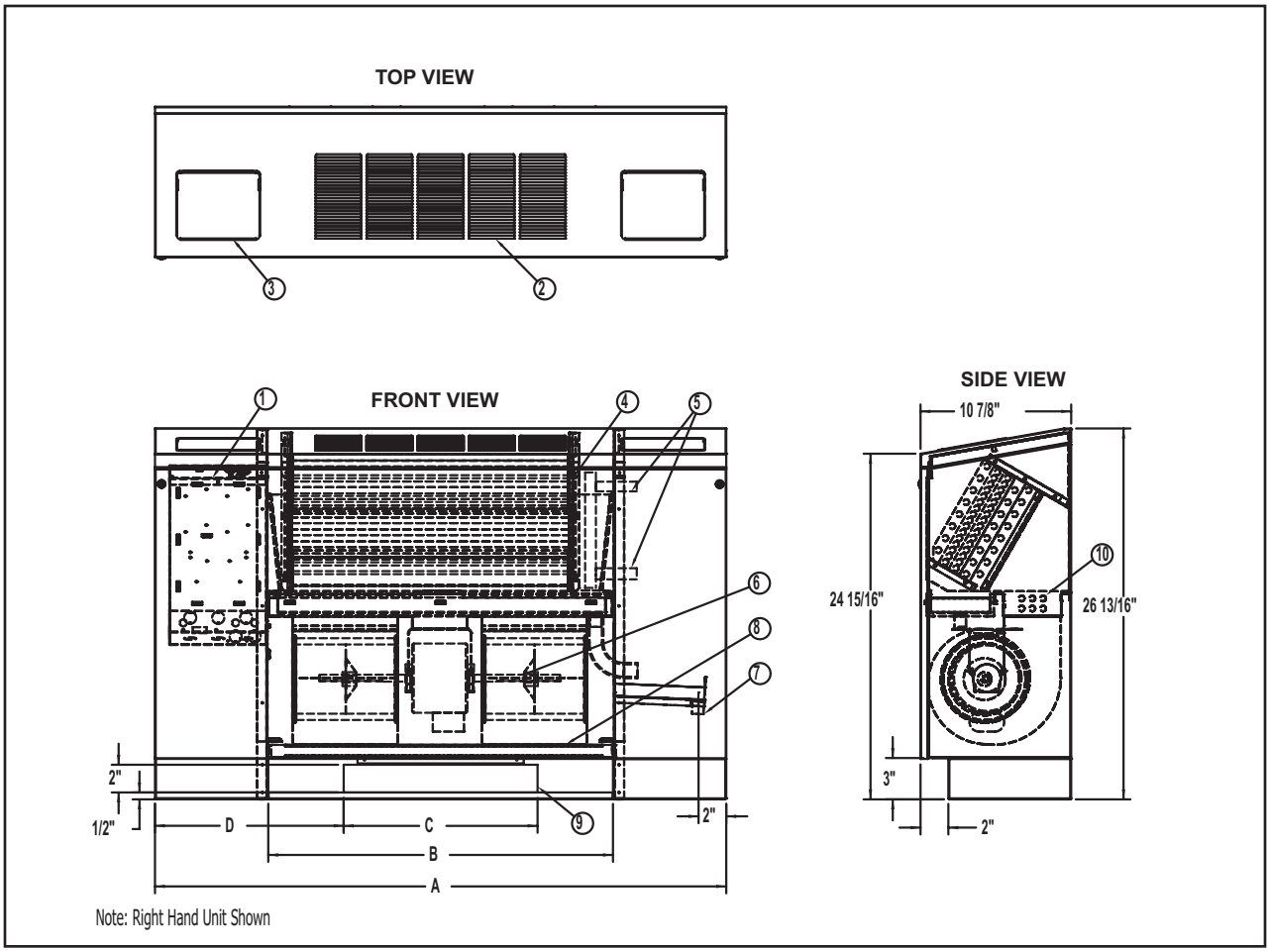
SUPERIOR REX Fan Coils

BVS ANGLED TOP CABINET



1. Control Box
2. Stamped Supply Air Grille
3. Control Access Door
4. Coil
5. Coil Connections (2-Pipe Shown)
6. Motor/Blower(s) Assemby
7. Condensate Connection ⅞" O.D.
8. Filter
9. Fresh Air Damper Opening (optional) = 2" x "C"
10. Electric Heaters (optional)

Model	Dimensions (inches)					Approx. Weight (pounds)
	A	B	C	D	Filter	
BVS02	34¼	18	12	11⅛	17x10x1	95
BVS03	37¼	21	12	12⅝	20x10x1	104
BVS04	41¼	25	12	14⅝	24x10x1	106
BVS06	52¼	36	24	14⅛	35x10x1	128
BVS08	60¼	44	24	18⅛	43x10x1	146
BVS10	70¼	54	36	17⅛	(2)26x10x1	178
BVS12	80¼	64	36	22⅛	(2)31x10x1	186

All dimensions are in inches.

BVS ANGLED TOP CABINET

2-PIPE SYSTEM							
Model	2 Rows Cooling (1)				2 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVS02	4.0	3.4	0.8	0.31	13.4	0.9	0.32
BVS03	5.5	4.5	1.1	0.65	17.8	1.2	0.61
BVS04	7.8	6.2	1.6	1.43	23.9	1.6	1.22
BVS06	11.0	9.1	2.2	0.80	35.9	2.4	0.87
BVS08	14.4	11.5	2.9	1.52	44.3	3.0	1.45
BVS10	19.1	14.8	3.8	2.94	56.2	3.8	2.58
BVS12	21.8	17.3	4.3	2.04	66.9	4.6	2.05

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVS02	3.8	3.2	0.8	0.29	8.6	0.6	0.49
BVS03	5.3	4.3	1.1	0.61	11.1	0.8	0.90
BVS04	7.5	5.9	1.5	1.33	14.7	1.0	1.76
BVS06	10.5	8.7	2.1	0.74	22.4	1.5	5.24
BVS08	13.7	11.0	2.7	1.39	27.3	1.9	9.08
BVS10	18.3	14.1	3.6	2.71	34.2	2.3	16.70
BVS12	20.8	16.5	4.2	1.87	41.1	2.8	27.52

2-PIPE SYSTEM							
Model	3 Rows Cooling				3 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVS02	5.8	4.3	1.2	0.96	17.5	1.2	0.79
BVS03	7.9	5.9	1.6	1.95	23.1	1.6	1.51
BVS04	11.0	8.0	2.2	4.14	31.2	2.1	3.03
BVS06	15.8	11.9	3.2	2.15	46.9	3.2	1.88
BVS08	20.3	14.8	4.1	3.89	57.5	3.9	3.14
BVS10	24.5	18.2	4.9	2.92	71.6	4.9	2.64
BVS12	30.7	22.3	6.1	4.88	86.8	5.9	4.16

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVS02	5.5	4.1	1.1	0.89	8.2	0.6	0.46
BVS03	7.5	5.6	1.5	1.78	10.6	0.7	0.85
BVS04	10.5	7.6	2.1	3.79	14.0	1.0	1.66
BVS06	15.1	11.2	3.0	1.97	21.3	1.5	4.91
BVS08	19.4	14.0	3.9	3.57	26.1	1.8	8.49
BVS10	23.4	17.2	4.7	2.67	32.7	2.2	15.54
BVS12	29.3	21.1	5.9	4.47	39.4	2.7	25.60

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVS02	7.0	4.9	1.4	1.86	19.5	1.3	1.30
BVS03	9.5	6.6	1.9	3.70	25.8	1.8	2.48
BVS04	11.5	8.4	2.3	1.16	34.0	2.3	1.01
BVS06	19.2	13.4	3.8	3.84	52.5	3.6	2.87
BVS08	24.2	16.6	4.8	6.79	64.0	4.4	4.75
BVS10	29.6	20.5	5.9	4.91	79.8	5.4	3.83
BVS12	36.6	25.1	7.3	8.13	96.5	6.6	6.03

4-PIPE SYSTEM							
Model	4 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVS02	6.7	4.6	1.3	1.68	7.8	0.5	0.43
BVS03	9.0	6.2	1.8	3.34	10.1	0.7	0.80
BVS04	10.9	7.9	2.2	1.04	13.4	0.9	1.53
BVS06	18.2	12.6	3.6	3.46	20.4	1.4	4.57
BVS08	22.9	15.6	4.6	6.12	24.9	1.7	7.88
BVS10	27.9	19.3	5.6	4.41	31.2	2.1	14.38
BVS12	34.6	23.6	6.9	7.30	37.6	2.6	23.69

2-PIPE SYSTEM							
Model	5 Rows Cooling				5 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVS02	7.7	5.2	1.5	2.79	20.0	1.4	1.73
BVS03	10.4	7.0	2.1	5.51	26.7	1.8	3.31
BVS04	13.0	9.0	2.6	1.71	35.0	2.4	1.29
BVS06	21.1	14.1	4.2	5.47	54.4	3.7	3.63
BVS08	26.4	17.4	5.3	9.56	66.1	4.5	6.00
BVS10	32.4	21.5	6.5	6.73	82.5	5.6	4.67
BVS12	39.8	26.3	7.9	11.02	99.7	6.8	7.36

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
BVS02	235	209	182
BVS03	316	262	203
BVS04	433	310	225
BVS06	653	471	321
BVS08	781	615	449
BVS10	979	861	567
BVS12	1177	931	642

1. Nominal air volume ratings are based on a 2-row coil at sea level altitude with 0 external static pressure.

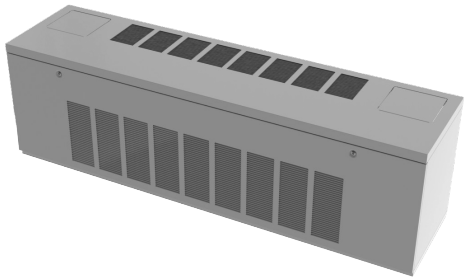
Model	Motor	
	HP	Total AMPS
BVS02	1/30	0.5
BVS03	1/30	0.5
BVS04	1/20	0.8
BVS06	1/20	0.8
BVS08	1/20	0.8
BVS10	1/20	0.8
BVS12	1/20	0.8

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

SUPERIOR REX Fan Coils

BVL

The low silhouette styling of this cabinet unit makes it ideal for applications in public buildings, hotels, schools, hospitals and general commercial applications where the unit height is restricted.



STANDARD FEATURES INCLUDE

- Performance AHRI Certified to Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/UL 1995 Standard.
- All internal sheet metal components are fabricated of 18GA G90 galvanized steel and exposed metal casing panels fabricated of 18GA galvanealed for superior adhesion of the powder paint.
- Cabinet components are painted with a powder polyester baked coating in white or beige and are acoustically insulated to reduce noise dissipation from the unit.
- Cabinet liner in ½-inch dual-density fiberglass.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- 1-Inch thick disposable filter.
- Multi-speed motor of the permanent split capacitor (PSC) type.
- Double Width Double Inlet (DWDI) direct driven blowers of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally insulated on the outside (Consult Superior Rex for availability).
- Single wall auxiliary condensate pan thermally insulated on the outside.
- Flat stamped discharge top/grille.
- Electric controls and valve package access door.

OPTIONAL FEATURES INCLUDE

- 3-, and 4-row coils for 2-pipe systems.
- Single block 2 and 3 row CW with 1 row re-heat or pre-heat coils for 4-pipe system applications (4 rows max).
- Single block 2 row CW with 2 rows re-heat or pre-heat for 4-pipe system applications (4 rows max).
- LH or RH pipe connections entry.
- Filter option include:
  - ◇ 1-inch high-efficiency pleated filters.
  - ◇ 1-inch washable filters.
- Cabinet liner in ½-inch foil face.
- Motor voltage suitable for 208V, 230V or 277V/1Ph/60Hz power supplies.
- Motor in-line quick disconnect.
- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supplies disconnect switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- HW standby electric heater auto changeover switch.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Double wall construction consisting of outer and inner skins.
  - ◇ Single wall auxiliary condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Auxiliary condensate pan overflow safety switch.
- Special Cabinet paints (Contact Superior Rex for special colors availability and prices).
- Heavy duty access panel in 16GA painted steel.
- Return air/access panel fasteners:
  - ◇ Philips head screws.
  - ◇ Tamper proof fasteners.
  - ◇ Quarter turn fasteners.
  - ◇ Access doors keyed locks.

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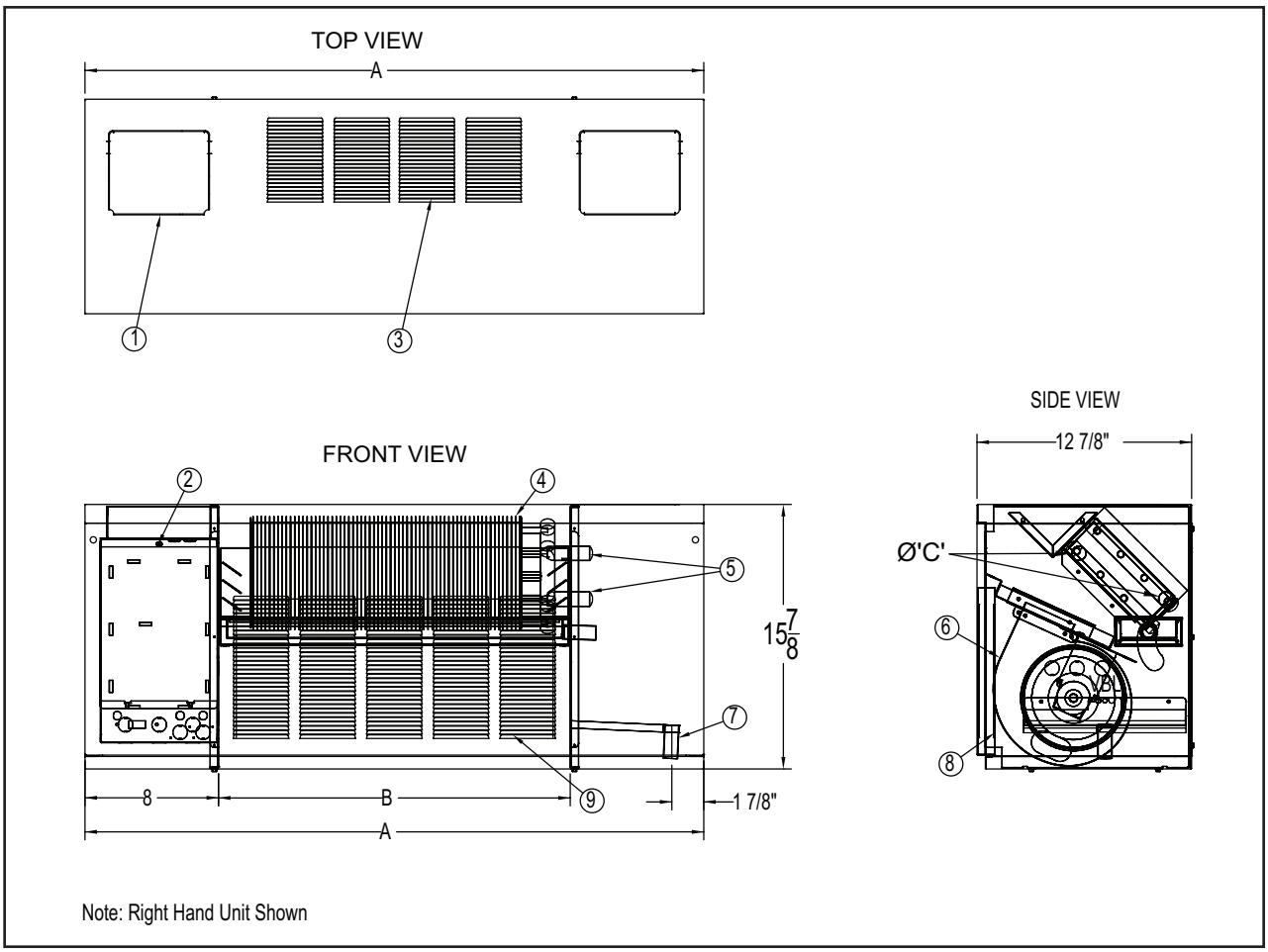
SUPERIOR REX Fan Coils

BVL LOW PROFILE CABINET



Note: Right Hand Unit Shown

1. Control Access Door
2. Control Box
3. Stamped Supply Air Grille
4. Coil
5. Coil Connections (2-Pipe Shown)
6. Motor/Blower(s) Assemby
7. Condensate Connection ⅞" O.D.
8. Filter
9. Stamped Return Air Grille

Model	Dimensions (inches)				Approx. Weight (pounds)
	A	B	C	Filter	
BVL02	37⅛	21⅛	⅝	21x10x1	90
BVL03	41⅛	25⅛	⅝	25x10x1	95
BVL04	52⅛	36⅛	⅝	36x10x1	100
BVL06	60⅛	44⅛	⅝	44x10x1	120

All dimensions are in inches.

BVL LOW PROFILE CABINET

2-PIPE SYSTEM							
Model	2 Rows Cooling (1)				2 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVL02	4.8	4.1	0.9	0.43	16.5	1.1	0.46
BVL03	7.0	5.9	1.4	1.03	23.4	1.6	1.02
BVL04	11.5	9.0	2.3	3.54	34.6	2.4	2.87
BVL06	14.1	12.0	2.8	1.34	47.4	3.2	1.51

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVL02	4.6	3.9	0.9	0.40	11.1	0.8	0.79
BVL03	6.8	5.6	1.4	0.96	15.4	1.0	1.67
BVL04	11.1	8.5	2.2	3.27	22.3	1.5	4.57
BVL06	13.6	11.4	2.7	1.25	31.0	2.1	10.00

2-PIPE SYSTEM							
Model	3 Rows Cooling				3 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVL02	6.7	5.0	1.3	1.24	20.8	1.4	1.08
BVL03	9.8	7.3	2.0	2.91	29.7	2.0	2.42
BVL04	15.3	10.9	3.1	9.05	43.3	3.0	6.61
BVL06	19.7	14.8	3.9	3.35	60.4	4.1	3.12

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVL02	6.4	4.7	1.3	1.13	10.6	0.7	0.74
BVL03	9.3	6.9	1.9	2.64	14.7	1.0	1.56
BVL04	14.5	10.3	2.9	8.23	21.3	1.5	4.25
BVL06	18.8	14.0	3.8	3.05	29.7	2.0	9.38

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVL02	7.8	5.4	1.6	2.23	22.4	1.5	1.66
BVL03	11.4	8.0	2.3	5.20	32.2	2.2	3.76
BVL04	15.7	11.0	3.1	2.35	45.4	3.1	1.96
BVL06	23.1	16.2	4.6	5.61	65.6	4.5	4.48

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
BVL02	241	171	123
BVL03	353	235	182
BVL04	492	364	268
BVL06	728	567	396

1. Nominal air volume ratings are based on a 2-row coil at sea level altitude with 0 external static pressure.

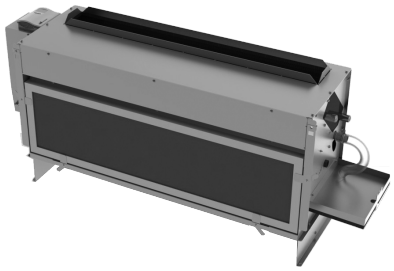
Model	Motor	
	HP	Total AMPS
BVL02	1/30	0.50
BVL03	1/30	0.50
BVL04	1/20	0.8
BVL06	1/20	0.8

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

SUPERIOR REX Fan Coils

BVD

The low silhouette, vertical discharge, floor mounted unit is designed for concealed applications inside a closet or furred-in under window installations for applications in public buildings, hotels, schools, hospitals and general commercial applications where the unit height is restricted.



STANDARD FEATURES INCLUDE

- Performance AHRI Certified to Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/UL 1995 Standard.
- All sheet metal components are fabricated of 18GA G90 galvanized steel.
- Cabinet liner in ½-inch dual-density fiberglass.
- High-efficiency 2-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- Easily removal 1-inch thick disposable filter.
- Multi-speed motor of the permanent split capacitor (PSC) type.
- Double Width Double Inlet (DWDI) direct driven blowers of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally insulated on the outside (Consult Superior Rex for availability).
- Single wall auxiliary condensate pan thermally insulated on the outside.
- ½-Inch top discharge air flange.

OPTIONAL FEATURES INCLUDE

- 3- And 4-row coils for 2-pipe systems.
- Single block 2 and 3 rows CW with 1 row re-heat or pre-heat coils for 4-pipe system applications (4 rows max).
- Single block 2 rows CW with 2 rows re-heat or pre-heat for 4-pipe system applications (4 rows max).
- LH or RH pipe connections entry
- Filter option include:
  - ◇ 1-inch high-efficiency pleated filters.
  - ◇ 1-inch washable filters.
- Cabinet liner in ½-inch foil face.
- Motor voltage suitable for 208V, 230V or 277V/1Ph/60Hz power supplies.
- Motor in-line quick disconnect.
- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supplies disconnect switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- HW standby electric heater auto changeover switch.
- Fresh air opening.
- Fresh air with manual or auto dampers.
- Fresh air freeze protection.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Double wall construction consisting of outer and inner skins.
  - ◇ Single wall auxiliary condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Auxiliary condensate pan overflow safety switch.
- Remote discharge air grilles:
  - ◇ Stamped with access doors
  - ◇ Aluminum double deflection
  - ◇ Deluxe aluminum double deflection grilles (Contact Superior Rex for availability).
  - ◇ Linear bar aluminum grille (Contact Superior Rex for availability).
  - ◇ Special discharge air grille colors (Contact Superior Rex for color range availability and price).
  - ◇ Remote stamped return air/access panel with filter access door.

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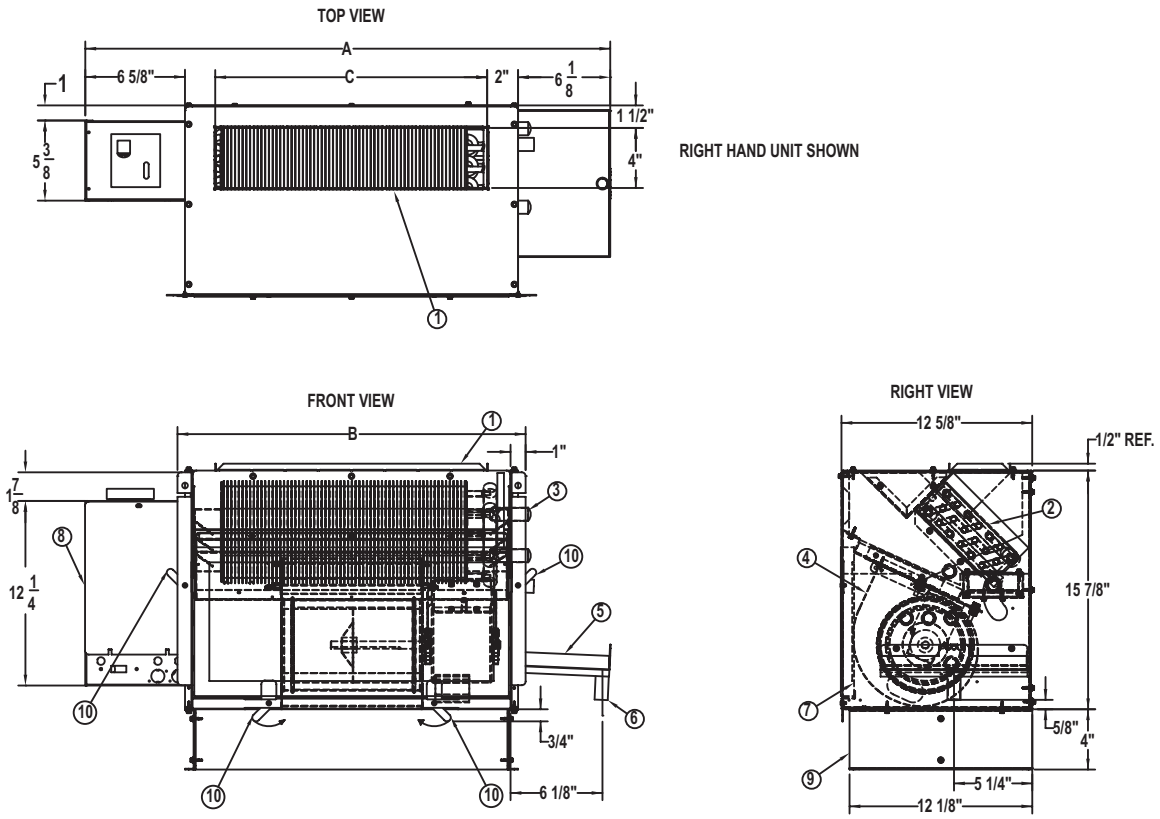
SUPERIOR REX Fan Coils

BVD LOW PROFILE CONCEALED FLOOR



1. Supply Duct Collar
2. Coil
3. Coil Connections (2-Pipe Shown)
4. Motor/Blower(s) Assemby
5. Auxillary Condensate Tray
6. Condensate Connection ⅞" O.D.
7. Filter
8. Control Box
9. Sub-base (optional)
10. Filter Clips

Model	Dimensions (inches)					Approx. Weight (pounds)
	A	B	C	Filter	Opt. Cover	
BVD02	34⅞	23 1/9	18	21x10x1	37⅛ x 15 5/7 x ½	90
BVD03	38⅞	27 1/9	22	25x10x1	41⅛ x 15 5/7 x ½	95
BVD04	49⅞	38 1/9	33	36x10x1	52⅛ x 15 5/7 x ½	100
BVD06	57⅞	46 1/9	44	44x10x1	60⅛ x 15 5/7 x ½	120

All dimensions are in inches.

BVD LOW PROFILE CONCEALED FLOOR

2-PIPE SYSTEM							
Model	2 Rows Cooling (1)				2 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVD02	4.8	4.1	0.9	0.43	16.5	1.1	0.46
BVD03	7.0	5.9	1.4	1.03	23.4	1.6	1.02
BVD04	11.5	9.0	2.3	3.54	34.6	2.4	2.87
BVD06	14.1	12.0	2.8	1.34	47.4	3.2	1.51

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVD02	4.6	3.9	0.9	0.40	11.1	0.8	0.79
BVD03	6.8	5.6	1.4	0.96	15.4	1.0	1.67
BVD04	11.1	8.5	2.2	3.27	22.3	1.5	4.57
BVD06	13.6	11.4	2.7	1.25	31.0	2.1	10.00

2-PIPE SYSTEM							
Model	3 Rows Cooling				3 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVD02	6.7	5.0	1.3	1.24	20.8	1.4	1.08
BVD03	9.8	7.3	2.0	2.91	29.7	2.0	2.42
BVD04	15.3	10.9	3.1	9.05	43.3	3.0	6.61
BVD06	19.7	14.8	3.9	3.35	60.4	4.1	3.12

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVD02	6.4	4.7	1.3	1.13	10.6	0.7	0.74
BVD03	9.3	6.9	1.9	2.64	14.7	1.0	1.56
BVD04	14.5	10.3	2.9	8.23	21.3	1.5	4.25
BVD06	18.8	14.0	3.8	3.05	29.7	2.0	9.38

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
BVD02	7.8	5.4	1.6	2.23	22.4	1.5	1.66
BVD03	11.4	8.0	2.3	5.20	32.2	2.2	3.76
BVD04	15.7	11.0	3.1	2.35	45.4	3.1	1.96
BVD06	23.1	16.2	4.6	5.61	65.6	4.5	4.48

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
BVD02	241	171	123
BVD03	353	235	182
BVD04	492	364	268
BVD06	728	567	396

1. Nominal air volume ratings are based on a 2-row coil at sea level altitude with 0 external static pressure.

Model	Motor	
	HP	Total AMPS
BVD02	1/30	0.50
BVD03	1/30	0.50
BVD04	1/20	0.8
BVD06	1/20	0.8

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

FAN COILS

Basic Vertical Units Standard Configurations

1. Furnish and install Superior Rex models BVR, BVS, BVC and low profile BVL, BVD Basic Vertical fan coils of sizes and capacities shown on the plans to meet prevailing cooling and heating requirements.
2. Fan coils shall be performance certified to AHRI Standard 440. Units shall be wired in compliance with ANSI/UL 1995 Standard and listed with ETL.
3. Fan coils shall be sound tested in accordance with AHRI Standard 260 for ducted units and AHRI Standard 350 for non-ducted units. Manufacturer shall provide these dB ratings on request for each model specified.
4. Unit casing shall be 18-gauge, zinc coated, phosphate treated, galvanized steel. Painted sheet metal components (BVS, BVC and BVD units only) components shall be 18-gauge galvanealed sheet metal.
5. Painted panels (BVS, BVC and BVD units only) shall be painted with a polyester powder coating, electrostatically applied, oven baked to 400°F for 10 minutes in beige or white tones.
6. High-efficiency, 2-row coil shall be suitable for a 2-pipe system. Coils shall be manufactured with aluminum fins mechanically bonded to seamless copper tubes. The copper tubes shall be ⅜-inch OD with a wall thickness of 0.014-inch which comply with ASTM B-75. The fins shall be waved with ripple edges for superior efficiency with a thickness of 0.0045-inch and spaced at 10 fpi. Coils rated to 300 psi operational pressure. All coils shall be shipped with a safety air pressure of 30 - 50 psi to guarantee a leak free arrival at the final destination.
7. Unit pipe entry location shall be in accordance with the project schedule.
8. Coils shall be installed with manual Schrader type air vents with a sealing cap and be located at the highest point of the coil. The cap shall have a dual purpose, to seal any potential water leakage in the eventuality of Schrader valve failure and as a service tool for the extraction/insertion of the internal Schrader valve.
9. Standard filters shall be 1-inch nominal thickness of the disposable type with a one-piece moisture resistant chipboard frame to eliminate corner separations. The spun glass filtering media shall be bonded with a resinous agent providing rigidity and resistance to media compression and meets UL class 2.
10. Cabinets shall be lined with ½-inch dual-density fiberglass with a density of 1.5lbs/ft^3 and 4.0lbs/ft^3 for the face meeting NFPA 90A and 90B (appliances), NFPA 255, UL 181, UL723 and ASTM E84.
11. Motors shall be multi-speed of the permanent split capacitor type (PSC) and be directly coupled to the centrifugal fan blower. Motor shall be suitable for a power supply of 115V/1Ph/60Hz and shall be internally protected with an automatic thermal overload. Motor shaft shall be supported by sleeve bearings of the permanently lubricated type for the full life expectancy of the motor. All motors shall be directly mounted to the fan deck and be isolated from the unit casing by two resilient anti-vibration mounts.
12. Direct-driven fan shall be of the whisper quite type, Double Width Double Inlet (DWDI) forward curved statically and dynamically balanced at the factory. The fan wheel and casing shall be constructed of galvanized steel.
13. Electric components shall be wired to a single control panel for single point power supply. Wiring exposed to the outside of the units shall be installed in conduits to meet UL 1995 safety requirements.
14. Condensate pans shall be single wall 18-gauge G90 galvanized steel-welded at the corners, thermally protected on the outside with fire and smoke rated ¼-inch high-density insulation to prevent condensation. The factory installed ⅞-inch OD sweat copper condensate connection shall be located at the lowest point of the condensate pan to ensure all water drains from the condensate pan (Consult Superior Rex for availability).
15. Auxiliary condensate pan shall be removable, single wall, 18-gauge G90 galvanized steel, thermally protected on the outside with fire and smoke rated ¼-inch high-density insulation to prevent condensation. The factory installed ⅞-inch OD sweat copper condensate field connection shall be located at the lowest point of the auxiliary condensate pan to ensure that all water is drained from the condensate pan.
16. Discharge air flange (BVR and BVD units only) shall be ½-inch to facilitate the field connection of ducts.
17. Discharge air grille (BVS, BVC and BVL) shall be of the stamped louvered type and be an integral part of the cabinet assembly.
18. Access doors shall be provided for access to the electric controls and valve package.

FAN COILS

Basic Vertical Units Optional Configurations

COOLING AND HEATING COIL

1. High-efficiency 3-, 4- and 5-row coils suitable for 2-pipe systems (BVR, BVS and BVC 5-row maximum).
2. High-efficiency single block with 2, 3 and 4-rows chilled water (CW) with 1-row re-heat/pre-heat coil suitable for 4-pipe system applications, or
3. High-efficiency single block with 2, 3 rows chilled water (CW) with 2-row re-heat/pre-heat coil suitable for 4-pipe system applications.

FILTER

1. Filter shall be 1-inch pleated filter with an average atmospheric dust spot efficiency range of 20 - 30% per ASHRAE Standard 52.1 test method, or
2. Filter shall be 1-inch washable filter consisting of synthetic fibers coated with a special resin, then baked together at a high temperature resulting in a tough and springy, thoroughly bonded, nearly rigid air filtration media. Washable filters shall have a longer service life, better structural integrity as well as being completely odor free.
3. A spare set of filters shall be available for replacement after the commissioning of the unit and prior to the handover of the project.

MOTOR AND MOTOR ACCESSORIES

1. Motors shall be suitable for 115V/1Ph/60Hz or 208V/1Ph/60Hz or 230V/1Ph/60Hz or 277V/1Ph/60Hz power supplies (delete as applicable).
2. A motor in-line quick disconnect shall be installed to facilitate the removal/replacement of motor.

THERMOSTAT AND ACCESSORIES

Refer to the Accessories section for details.

DISCONNECT SWITCH AND FUSES

Units shall be wired for single point power supply with a disconnect switch and fuse(s) to match the unit full maximum circuit ampacity (MCA) in line with UL 1995.
2-Pipe Heat/Cool Auto

CHANGEOVER SWITCH

A mechanical changeover switch shall be supplied on 2-pipe systems to automatically change over the thermostat operation for summer and winter modes.

ELECTRIC HEATER AND ACCESSORIES

1. Electric heaters shall be of the wound type mounted in a metal frame and supported by ceramic rings and terminals. Electric heaters shall be installed on the blower discharge side for better heat dissipation and shall include an automatic reset, high limit cut-out and contactor.
2. 2-pipe standby electric heating heaters shall be installed and pre-wired as standby heating for the eventuality of a failure of the primary hot water (HW) system. A changeover sensor shall be installed in each unit and the changeover between the failed hot water system and the standby electric heater shall be automatic.

CHILLED AND HOT WATER VALVE CONTROLS

Refer to the Accessories section for details.

CONDENSATE PAN AND ACCESSORIES

1. Condensate pan shall be single wall manufactured in 20-gauge 304 stainless steel and shall be thermally protected on the outside with fire and smoke rated ¼-inch high-density insulation to prevent condensation. The factory installed ⅞-inch OD sweat copper condensate connection shall be located at the lowest point of the condensate pan to ensure that all water is drained from the condensate pan (Consult Superior Rex for availability), or
2. Condensate pan shall be double wall construction consisting of an outer and inner skin. The outer skin shall be manufactured of 18-gauge G90 galvanized sheet metal wrapped around the inner skin with 1-inch thermal insulation between both skins to prevent condensation. The inner skin of the double wall condensate pan shall be of 18-gague G90 galvanized sheet metal, or
3. Condensate pan shall be double wall construction consisting of an outer and inner skin. The outer skin shall be manufactured of 18-gauge G90 galvanized sheet metal wrapped around the inner skin with 1-inch thermal insulation between both skins to prevent the formation of condensation. The inner skin of the double wall condensate pan shall be of 20-gauge 304 stainless steel galvanized sheet metal.
4. A mastic coating shall be applied to the inside of the condensate pan for a prolonged life.

AUXILIARY CONDENSATE PAN AND ACCESSORIES

1. Auxiliary condensate pan shall be removable, single wall 20-gauge 304 stainless steel, thermally protected on the outside with fire and smoke rated ¼-inch high-density insulation to prevent condensation. The factory installed ⅞-inch OD sweat copper condensate field connection shall be located at the lowest point of the auxiliary condensate pan to ensure that all water is drained from the condensate pan.
2. An automatic safety overflow switch shall be located in the auxiliary condensate pan and be interconnected to the unit electric system preventing the unit operation if an overflow status is detected.

FAN COILS

Basic Vertical Units Optional Configurations (continued)

DISCHARGE AIR GRILLES AND ACCESSORIES

- Unit mounted (BVS and BVC units only) discharge air grille shall be double-deflection, made of aluminum and painted white for white painted cabinet units or aluminum for beige painted cabinets, or
- Unit mounted (BVS and BVC units only) deluxe discharge air grille shall be double-deflection, made of aluminum and painted white for white painted cabinet units or aluminum for beige painted cabinets, or
- Unit mounted (BVS and BVC units only) fixed linear discharge air grille shall be made of aluminum and painted white for white painted cabinet units or aluminum for beige painted cabinets, or
- Remote mounted (BVR and BVD) stamped grille with access doors painted white or beige, or
- Remote mounted (BVR and BVD) grille assembly with access doors painted white or beige and a deluxe aluminum grille core, or Remote mounted (BVR and BVD) grille assembly with access doors painted white or beige and a linear aluminum grille core, or
- Special discharge air grilles colors shall be_____. (Contact Superior Rex for color range availability and price).

CABINET AND ACCESSORIES

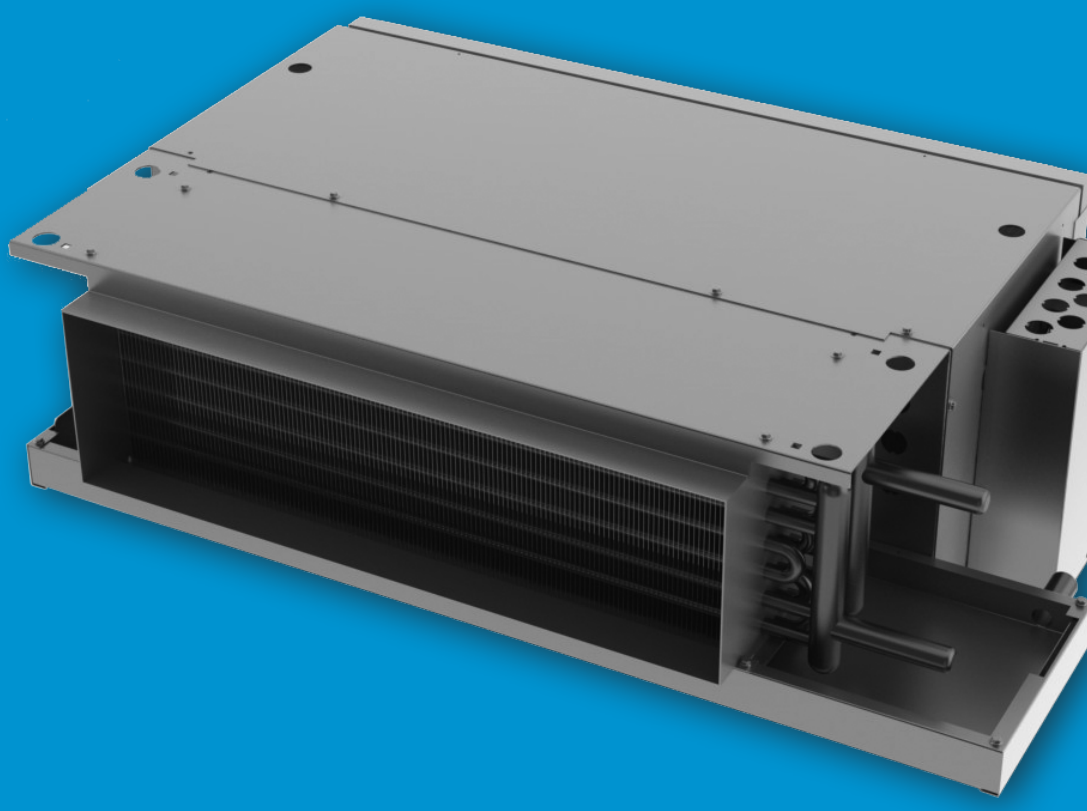
1. Special cabinet color shall be_____. (Contact Superior Rex for color range availability and price).
2. Access panel (BVS, BVC and BVR units) shall be manufactured in heavy duty 16GA steel.
3. Remote access/return grille panel (BVR and BVD) shall be stamped with a hinged door for easy access to the filters and painted white or beige.
4. Access panel security fasteners (BVS, BVC and BVR units) shall be tamperproof, requiring a specialist tool to access the units, or
5. Access panel security fasteners (BVS, BVC and BVR units) shall be of the quarter turn type, to facilitate the removal of the access panel.
6. Four adjustable leveling feet shall be installed to ensure that the unit is correctly level and prevent condensate water leaks.
7. Access doors shall be fitted with keyed locks.

SUPERIOR REX

Apartment Horizontal Series

www.superiorrex.com

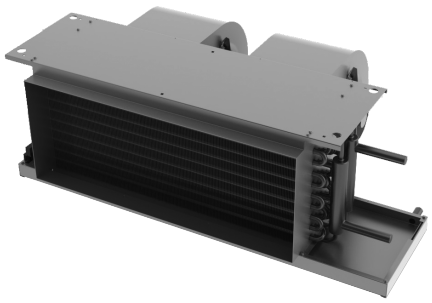
section 4



SUPERIOR REX Fan Coils

AHO

Factory assembled, horizontal blow-thru, high-output, ducted fan coils are designed for concealed installations above ceilings with ducted air discharge and suitable for projects such as hotels, motels, condominiums and general commercial applications.



STANDARD FEATURES INCLUDE:

- Performance AHRI Certified to Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/UL 1995 Standard.
- All casing sheet metal components fabricated of 18GA G90 galvanized steel.
- High-efficiency 3-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- Multi-speed motor(s) of the permanent split capacitor (PSC) type.
- Double Width Double Inlet (DWDI) direct driven blower(s) of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally protected on the outside (Contact Superior Rex for availability).
- 1-inch discharge air flange.

OPTIONAL FEATURES INCLUDE

- 4-, 5- And 6-row coils for 2-pipe systems.
- Single block 2, 3, 4 and 5 rows CW with 1 row re-heat or pre-heat coils for 4-pipe system applications (6 rows max).
- Single block 2, 3, and 4 rows CW with 2 rows re-heat or pre-heat for 4-pipe system applications (6 rows max).
- LH or RH pipe connections entry.
- Motor voltage suitable for 208V, 230V or 277V1Ph/60Hz power supplies.
- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supplies disconnect switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- HW Standby electric heater auto changeover switch.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Double wall construction consisting of outer and inner shins.
  - ◇ Condensate pan overflow safety switch.
  - ◇ Condensate pan satety overflow connection.

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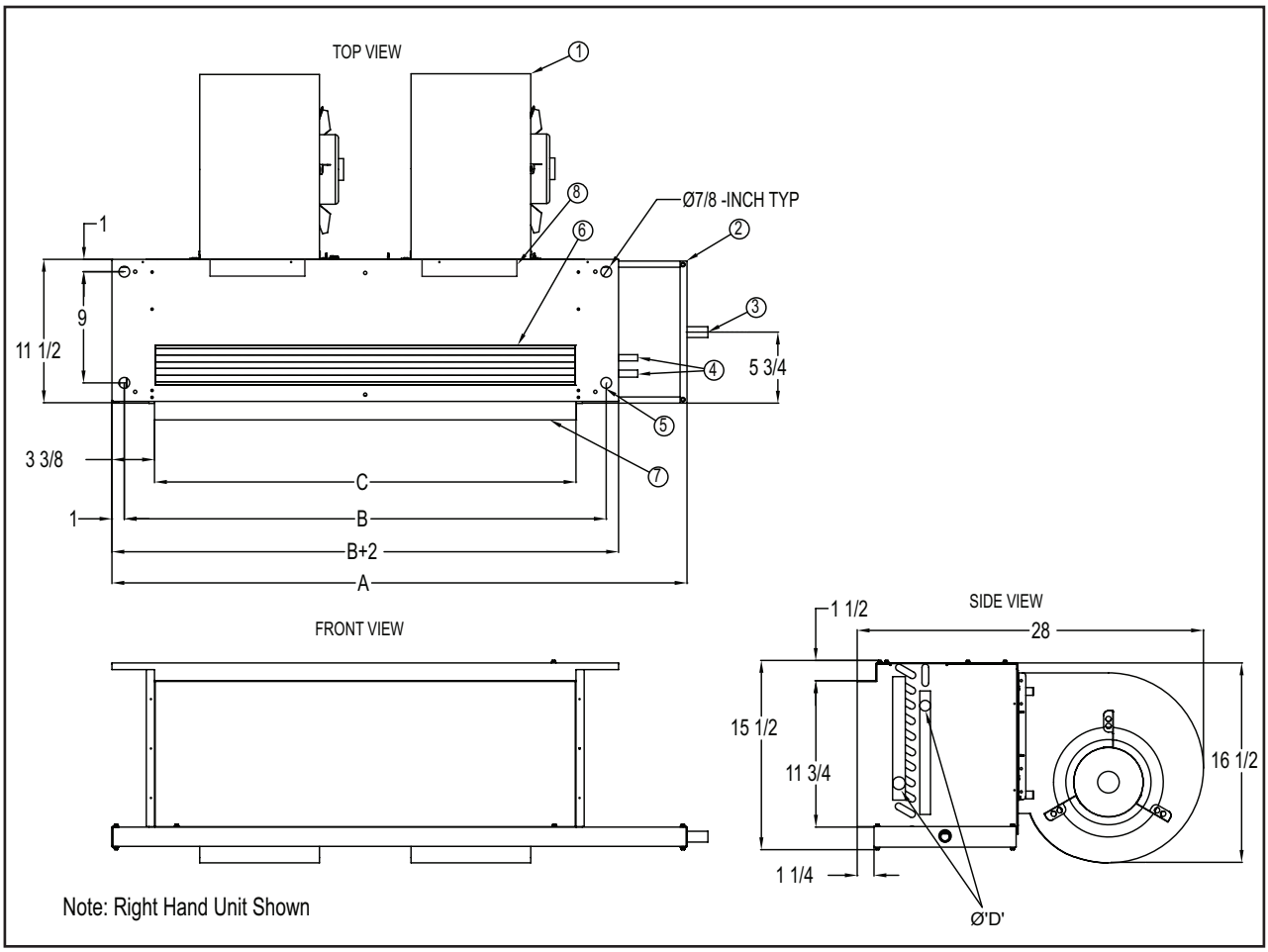
Room Fan-Coils
AHRI Standard 440

ETL®

A Participating Corporation in the AHRI 440 Certification Program

SUPERIOR REX Fan Coils

AHO CONCEALED CEILING



1. Motor/Blower(s) Assemblies
2. Condensate Tray (Double Wall)
3. Condensate Connection 3/4" MNPT
4. Coil Connections (2-Pipe Shown)
5. Installation Hanging Points
6. Coil
7. Supply Air Flange
8. Electirc Heaters (optional)

Model	Dimensions (inches)				Approx. Weight (pounds)
	A	B	C	D	
AHO06	25½	18	13	⅝	60
AHO08	30½	23	18	⅝	69
AHO10	33½	26	21	⅞	75
AHO12	38½	31	26	⅞	99
AHO14	42½	35	30	⅞	108
AHO16	46½	39	34	⅞	115
AHO18	51½	44	39	⅞	125
AHO20	55½	48	43	⅞	175

All dimensions are in inches.

SUPERIOR REX Fan Coils

AHO CONCEALED CEILING

2-PIPE SYSTEM							
Model	3 Rows Cooling (1)				3 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHO06	17.0	14.9	3.4	3.41	56.6	3.9	3.30
AHO08	24.1	20.0	4.8	7.45	75.7	5.2	6.50
AHO10	28.4	22.8	5.7	10.85	86.4	5.9	8.97
AHO12	29.7	25.1	5.9	2.46	97.9	6.7	2.50
AHO14	39.1	33.3	7.8	4.35	127.0	8.7	4.31
AHO16	45.2	37.7	9.0	6.07	143.4	9.8	5.76
AHO18	51.6	41.7	10.3	8.34	158.3	10.8	7.45
AHO20	53.8	45.6	10.7	4.08	175.3	12.0	4.25

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHO06	10.8	10.7	2.2	1.02	21.5	1.5	1.34
AHO08	15.8	14.5	3.2	2.36	29.8	2.0	2.81
AHO10	18.8	16.6	3.7	3.47	34.4	2.3	3.96
AHO12	23.3	19.8	4.7	5.80	41.1	2.8	6.19
AHO14	25.4	24.2	5.1	1.44	52.3	3.6	10.33
AHO16	29.5	27.4	5.9	2.03	56.1	3.8	1.97
AHO18	33.9	30.3	6.8	2.82	63.0	4.3	2.67
AHO20	39.1	34.7	7.8	3.86	71.3	4.9	3.57

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHO06	21.8	17.4	4.3	7.06	67.1	4.6	5.97
AHO08	26.1	21.6	5.2	2.06	85.4	5.8	2.06
AHO10	30.7	24.6	6.1	2.97	97.5	6.7	2.81
AHO12	38.0	29.2	7.6	4.86	114.1	7.8	4.17
AHO14	49.9	38.9	10.0	8.58	149.6	10.2	7.33
AHO16	52.6	42.2	10.5	4.23	164.9	11.3	4.11
AHO18	59.5	46.4	11.9	5.68	181.1	12.4	5.22
AHO20	68.5	53.2	13.7	7.71	205.7	14.0	6.93

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHO06	16.4	14.3	3.3	3.22	20.9	1.4	1.30
AHO08	23.4	19.1	4.7	7.06	29.0	2.0	2.73
AHO10	27.5	21.8	5.5	10.25	33.4	2.3	3.83
AHO12	28.7	24.0	5.7	2.32	39.9	2.7	5.92
AHO14	37.9	31.9	7.6	4.11	50.8	3.5	9.96
AHO16	43.8	36.1	8.7	5.74	54.5	3.7	2.06
AHO18	49.9	39.9	10.0	7.86	61.2	4.2	2.77
AHO20	52.1	43.7	10.4	3.84	69.3	4.7	3.60

2-PIPE SYSTEM							
Model	5 Rows Cooling				5 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHO06	21.6	17.5	4.3	1.54	70.2	4.8	1.51
AHO08	30.7	23.5	6.1	3.34	92.9	6.3	2.89
AHO10	35.8	26.7	7.1	4.74	105.5	7.2	3.91
AHO12	43.3	31.3	8.7	7.46	122.5	8.4	5.72
AHO14	53.4	40.6	10.7	4.78	159.2	10.9	4.24
AHO16	61.2	45.8	12.2	6.52	179.0	12.2	5.59
AHO18	68.6	50.2	13.7	8.63	195.5	13.3	7.04
AHO20	74.9	56.0	15.0	6.22	219.6	15.0	5.59

4-PIPE SYSTEM							
Model	4 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHO06	20.9	16.6	4.2	6.59	20.3	1.4	1.27
AHO08	25.1	20.5	5.0	1.92	28.1	1.9	2.60
AHO10	29.4	23.4	5.9	2.75	32.4	2.2	3.65
AHO12	36.2	27.6	7.2	4.47	38.6	2.6	5.68
AHO14	47.9	37.0	9.6	8.00	49.2	3.4	9.58
AHO16	50.4	40.1	10.1	3.92	52.9	3.6	2.07
AHO18	56.9	44.0	11.4	5.22	59.3	4.0	2.77
AHO20	66.0	50.6	13.2	7.21	67.1	4.6	3.71

2-PIPE SYSTEM							
Model	6 Rows Cooling				6 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHO06	24.3	18.5	4.9	2.23	74.0	5.1	1.95
AHO08	34.0	24.6	6.8	4.70	97.2	6.6	3.66
AHO10	39.3	27.9	7.9	6.57	109.7	7.5	4.91
AHO12	44.1	31.4	8.8	3.60	124.7	8.5	2.90
AHO14	59.3	42.6	11.8	6.61	166.7	11.4	5.26
AHO16	67.6	48.0	13.5	8.94	186.9	12.8	6.90
AHO18	71.6	51.0	14.3	6.11	200.8	13.7	5.07
AHO20	82.3	58.5	16.4	8.25	228.9	15.6	6.75

4-PIPE SYSTEM							
Model	5 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHO06	20.8	16.7	4.1	1.44	19.8	1.4	1.21
AHO08	29.5	22.4	5.9	3.11	27.3	1.9	2.52
AHO10	34.6	25.5	6.9	4.45	31.4	2.1	3.53
AHO12	41.7	29.9	8.3	6.96	37.4	2.6	5.47
AHO14	51.4	38.7	10.3	4.46	47.8	3.3	9.17
AHO16	58.9	43.6	11.8	6.08	51.4	3.5	2.14
AHO18	66.4	48.0	13.3	8.12	57.6	3.9	2.85
AHO20	72.4	53.5	14.4	5.83	65.2	4.4	3.70

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

PERFORMANCE DATA

Model	Motor	
	HP	Total AMPS
AHO06	1/4	3.60
AHO08	1/4	4.30
AHO10	1/4	4.30
AHO12	1/3	5.10
AHO14	2 x 1/4	2 x 4.20
AHO16	2 x 1/4	2 x 4.20
AHO18	2 x 1/4	2 x 4.50
AHO20	2 x 1/3	2 x 4.50

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
AHO06	992	671	548
AHO08	1243	733	593
AHO10	1366	989	754
AHO12	1528	1102	839
AHO14	2138	1264	1048
AHO16	2365	1434	1173
AHO18	2503	2013	1419
AHO20	2877	2306	1792

1. Nominal air volume ratings are based on a 3-row coil at sea level altitude with 0 external static pressure.
2. Air volumes are based at high fan speed.

SUPERIOR REX Fan Coils

AHR

Factory assembled, horizontal blow-thru, ducted high-output AHR fan coils designed for concealed installations above ceilings with ducted return and discharge air and suitable for projects such as hotels, motels, condominiums and general commercial applications.

STANDARD FEATURES INCLUDE

- Performance AHRI Certified to Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/UL 1995 Standard.
- Casing sheet metal components fabricated of 18GA G90 galvanized steel.
- Return air plenum thermally and acoustically insulated covering the motor(s)/blower(s) assembly to reduce noise dissipation from the unit.
- High-efficiency 3-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- 1-Inch thick disposable filter.
- Filter removal from LH or RH sides.
- Multi-speed motor(s) of the permanent split capacitor (PSC) type.
- Double Width Double Inlet (DWDI) direct driven blower(s) of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally protected on the outside (Consult Superior Rex for availability).
- 1-inch discharge air flange.
- 1-Inch return air return air flange.
- Anti-vibration mounts for field installation.

OPTIONAL FEATURES INCLUDE

- 4-, 5- And 6-row coils for 2-pipe systems.
- Single block 2, 3, 4 and 5 rows CW with 1 row re-heat or pre-heat coils for 4-pipe system applications (5 rows max).
- Single block 2, 3 and 4 rows CW with 2 rows re-heat or pre-heat for 4-pipe system applications (5 rows max).
- LH or RH entry pipe connections.
- Filter option include:
  - ◇ 1-inch high-efficiency pleated filters.
  - ◇ 1-inch washable filters.
- Bottom or rear return air and filter location.
- Filter supports with slides or clips.
- Vertical removal of filter on return air installations.
- Cabinet liner in ½-inch foil face.
- Motor(s) voltage suitable for 208V, 230V or 277V/1Ph/60Hz power supplies.
- Motor in-line quick disconnect(s) (Rear return air option only).
- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supplies disconnect switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- HW standby electric heater auto changeover switch.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Double wall construction consisting of outer and inner skins.
  - ◇ Condensate pan overflow safety switch.

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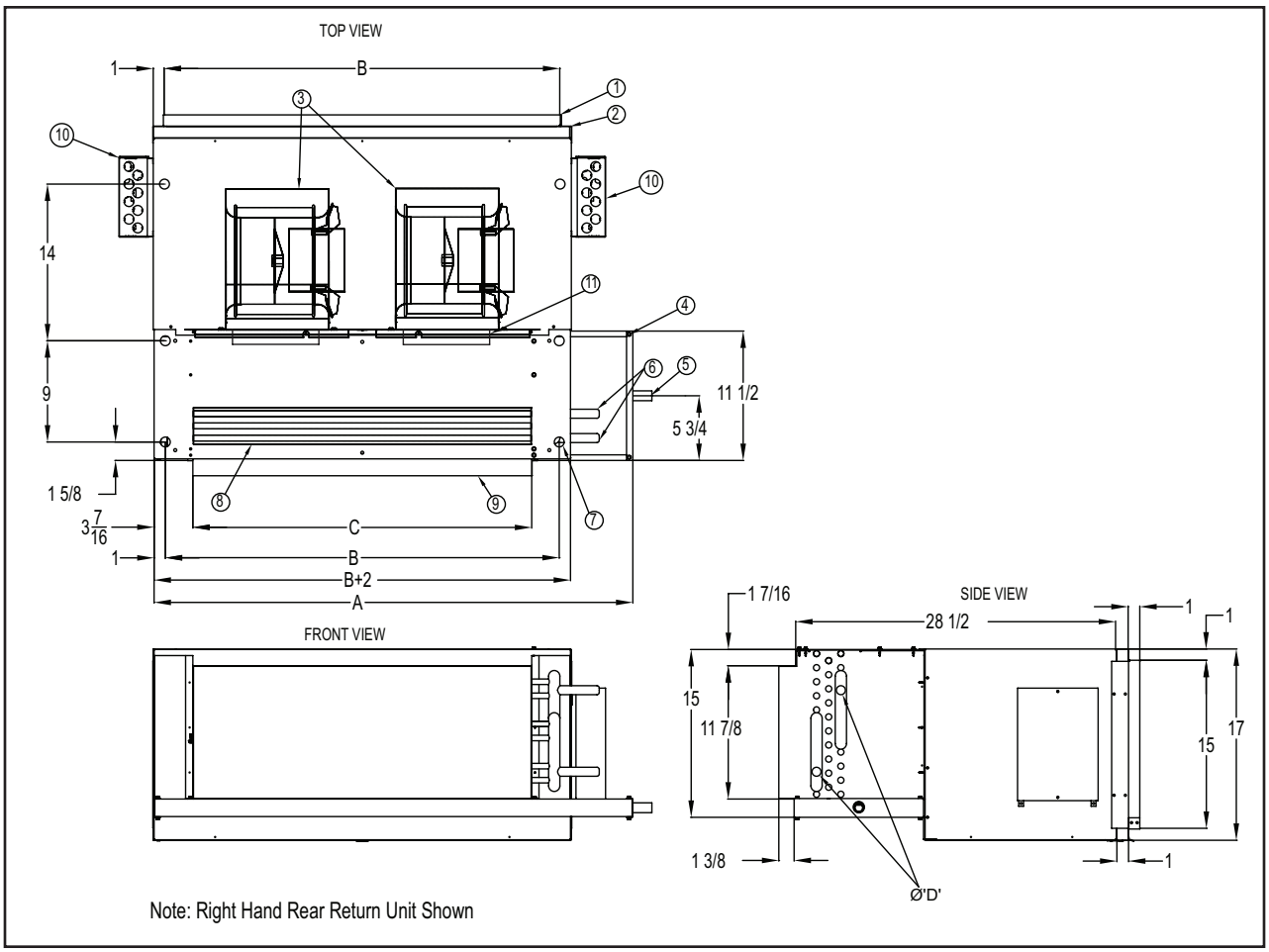
SUPERIOR REX Fan Coils

AHR CONCEALED CEILING WITH PLENUM



Note: Right Hand Rear Return Unit Shown

1. Return Air Flange
2. Filter Bottom Return (Optional)
3. Motor/Blower(s) Assemby
4. Condensate Tray (Double Wall optional)
5. Condensate Connection 3/4" MNPT
6. Coil Connections (2-Pipe Shown)
7. Hanging Points
8. Coil
9. Supply Air Flange
10. Electric Control Panel - Note: Control box may be mounted on either side.
11. Electric Heaters (optional)

Model	Dimensions (inches)					Approx. Weight (pounds)
	A	B	C	D	Filter	
AHR06	25½	18	13	⅝	20x17x1	81
AHR08	30½	23	18	⅝	25x17x1	94
AHR10	33½	26	21	⅞	28x17x1	106
AHR12	38½	31	26	⅞	33x17x1	117
AHR14	42½	35	30	⅞	37x17x1	154
AHR16	46½	39	34	⅞	41x17x1	175
AHR18	51½	44	39	⅞	46x17x1	195
AHR20	55½	48	43	⅞	50x17x1	212

All dimensions are in inches.

SUPERIOR REX Fan Coils

AHR CONCEALED CEILING WITH PLENUM

2-PIPE SYSTEM							
Model	3 Rows Cooling (1)				3 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHR06	15.5	13.4	3.1	2.92	51.9	3.5	2.83
AHR08	23.0	18.7	4.6	6.84	71.3	4.9	5.86
AHR10	27.5	21.9	5.5	10.27	83.1	5.7	8.38
AHR12	29.3	24.6	5.8	2.39	96.1	6.6	2.42
AHR14	36.7	30.6	7.3	3.89	117.9	8.0	3.77
AHR16	43.3	35.5	8.6	5.61	135.9	9.3	5.22
AHR18	49.8	39.8	9.9	7.83	151.9	10.4	6.92
AHR20	51.8	43.4	10.3	3.80	167.6	11.4	3.92

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHR06	10.0	9.7	2.0	0.89	20.1	1.4	1.19
AHR08	15.1	13.6	3.0	2.17	28.4	1.9	2.59
AHR10	18.2	16.0	3.6	3.29	33.4	2.3	3.76
AHR12	23.0	19.4	4.6	5.67	40.6	2.8	6.05
AHR14	23.8	22.3	4.8	1.28	49.3	3.4	9.32
AHR16	28.3	25.9	5.6	1.87	53.9	3.7	1.83
AHR18	32.8	29.1	6.6	2.65	61.0	4.2	2.52
AHR20	37.7	33.1	7.5	3.61	68.8	4.7	3.35

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHR06	19.9	15.6	4.0	6.05	60.8	4.2	5.03
AHR08	24.6	20.1	4.9	1.86	80.0	5.1	1.83
AHR10	29.5	23.5	5.9	2.78	93.4	6.4	2.61
AHR12	37.4	28.6	7.5	4.73	111.9	7.6	4.03
AHR14	46.4	35.5	9.3	7.53	137.6	9.4	6.32
AHR16	49.9	39.5	10.0	3.84	155.4	10.6	3.68
AHR18	57.0	44.1	11.4	5.25	173.1	11.8	4.81
AHR20	65.9	50.5	13.2	7.19	195.7	13.4	6.34

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHR06	15.1	12.8	3.0	2.77	19.6	1.3	1.16
AHR08	22.2	17.9	4.4	6.47	27.6	1.9	2.50
AHR10	26.4	20.9	5.3	9.55	32.4	2.2	3.63
AHR12	28.3	23.5	5.7	2.26	39.4	2.7	5.79
AHR14	35.5	29.3	7.1	3.67	47.8	3.3	8.97
AHR16	41.9	34.0	8.4	5.29	52.3	3.6	1.91
AHR18	48.1	38.1	9.6	7.35	59.2	4.0	2.61
AHR20	50.1	41.5	10.0	3.58	66.8	4.6	3.38

2-PIPE SYSTEM							
Model	5 Rows Cooling				5 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHR06	19.6	15.6	3.9	1.30	63.3	4.3	1.26
AHR08	28.9	21.8	5.8	2.99	86.6	5.9	2.55
AHR10	34.4	25.5	6.9	4.41	100.7	6.9	3.60
AHR12	42.6	30.7	8.5	7.23	120.0	8.2	5.51
AHR14	49.4	36.8	9.9	4.15	145.6	9.9	3.60
AHR16	57.9	42.8	11.6	5.90	167.8	11.5	4.97
AHR18	65.8	47.6	13.1	7.98	186.0	12.7	6.43
AHR20	71.5	52.9	14.3	5.70	208.1	14.2	5.06

4-PIPE SYSTEM							
Model	4 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHR06	19.3	14.9	3.8	5.70	19.0	1.3	1.12
AHR08	23.6	19.0	4.7	1.72	26.7	1.8	2.38
AHR10	28.2	22.3	5.6	2.56	31.4	2.1	3.46
AHR12	35.7	27.1	7.1	4.35	38.1	2.6	5.55
AHR14	44.7	33.8	8.9	7.05	46.3	3.2	8.60
AHR16	47.7	37.4	9.5	3.53	50.7	3.5	1.91
AHR18	54.8	41.9	11.0	4.88	57.4	3.9	2.60
AHR20	62.9	47.9	12.6	6.61	64.7	4.4	3.46

2-PIPE SYSTEM							
Model	6 Rows Cooling				6 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHR06	22.0	16.3	4.4	1.87	66.2	4.5	1.59
AHR08	31.8	22.7	6.4	4.17	90.1	6.1	3.20
AHR10	37.7	26.5	7.5	6.10	104.5	7.1	4.50
AHR12	43.3	30.7	8.6	3.48	122.0	8.3	2.78
AHR14	54.3	38.4	10.8	5.63	151.3	10.3	4.41
AHR16	63.4	44.6	12.7	7.94	174.3	11.9	6.08
AHR18	68.5	48.3	13.7	5.62	190.4	13.0	4.60
AHR20	78.3	55.1	15.6	7.53	216.1	14.7	6.07

4-PIPE SYSTEM							
Model	5 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHR06	18.7	14.8	3.7	1.19	18.5	1.3	1.07
AHR08	27.9	20.8	5.6	2.80	26.0	1.8	2.31
AHR10	33.0	24.2	6.6	4.10	30.5	2.1	3.34
AHR12	43.9	29.3	8.2	6.74	36.9	2.5	5.33
AHR14	47.4	35.0	9.5	3.84	44.9	3.1	8.21
AHR16	55.8	40.8	11.1	5.51	49.3	3.4	1.97
AHR18	62.9	45.3	12.6	7.36	55.7	3.8	2.65
AHR20	68.5	50.3	13.7	5.27	62.8	4.3	3.44

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

Model	Motor	
	HP	Total AMPS
AHR06	1/4	3.60
AHR08	1/4	4.30
AHR10	1/4	4.30
AHR12	1/3	5.10
AHR14	2 x 1/4	2 x 4.20
AHR16	2 x 1/4	2 x 4.20
AHR18	2 x 1/4	2 x 4.50
AHR20	2 x 1/3	2 x 4.50

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
AHR06	843	638	536
AHR08	1119	736	599
AHR10	1280	1094	774
AHR12	1486	1131	850
AHR14	1873	1265	1041
AHR16	2154	1434	1172
AHR18	2330	2008	1477
AHR20	2660	2258	1844

1. Nominal air volume ratings are based on a 3-row coil at sea level altitude with 0 external static pressure.
2. Air volumes are based at high fan speed.

SUPERIOR REX Fan Coils

AHC

Factory assembled, horizontal blow-thru, high-output AHC fan coils are designed for exposed ceiling installations free blowing into the space suitable for industrial and commercial applications.

STANDARD FEATURES INCLUDE

- Performance AHRI Certified to Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/UL 1995 Standard.
- Cabinet components fabricated of 18GA G90 galvanized
- Unpainted cabinet.
- Cabinet liner in ½-inch dual-density fiberglass.
- High-efficiency 3-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- 1-Inch thick disposable filter.
- Multi-speed motor(s) of the permanent split capacitor (PSC) type.
- Double Width Double Inlet (DWDI) direct driven blower(s) of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally protected on the outside (Consult Superior Rex for availability).
- 1-Inch discharge grille air flanges.
- 1-Inch return air flanges.
- Anti-vibration mounts for field installation.

OPTIONAL FEATURES INCLUDE

- 4-, 5- And 6-row coils for 2-pipe systems.
- Single block coil with 2, 3, 4 and 5 rows CW with 1 row re-heat or pre-heat coils for 4-pipe system applications (6 rows max).
- Single block coil with 2, 3 and 4 rows CW with 2 rows re-heat or pre-heat for 4-pipe system applications (6 rows max).
- LH or RH pipe connections entry.
- Filter option include:
  - ◇ 1-inch high-efficiency pleated filters.
  - ◇ 1-inch washable filters.
- Bottom or rear return air and filter location.
- Cabinet liner in ½-inch foil face.

- Motor voltage suitable for 208V, 230V or 277V/1Ph/60Hz power supplies.
- Motor in-line quick disconnect.
- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supplies disconnect switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- HW standby electric heater auto changeover switch.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Double wall construction consisting of outer and inner skins.
  - ◇ Condensate pan overflow safety switch.
- Bottom or rear return air
- Access panel fasteners:
  - ◇ Philips head screws.
  - ◇ Tamper proof fasteners.
  - ◇ Quarter turn fasteners.

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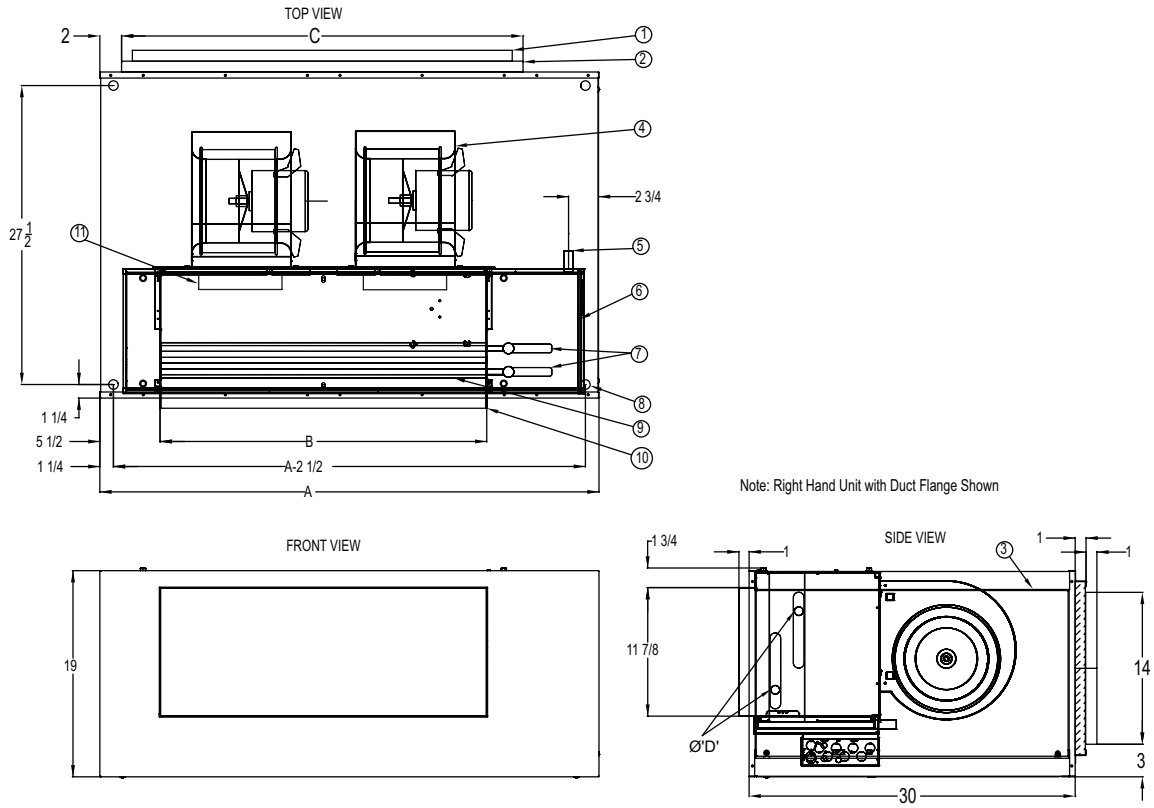
SUPERIOR REX Fan Coils

AHC EXPOSED CABINET



1. Return Air Flange
2. Filter
3. Access panel
4. Motor/Blower(s) Assemby
5. Condensate Connection 3/4" MNPT
6. Condensate Tray (Double Wall optional)
7. Coil Connections (2-Pipe Shown)
8. Hanging Points
9. Coil
10. Supply Air Flange
11. Electric Heaters (optional)

Model	Dimensions (inches)					Approx. Weight (pounds)
	A	B	C	D	Filter	
AHC06	29	13	20	5/8	22x16x1	120
AHC08	34	18	25	5/8	27x16x1	132
AHC10	37	21	28	7/8	30x16x1	135
AHC12	42	26	33	7/8	35x16x1	156
AHC14	46	30	37	7/8	39x16x1	200
AHC16	50	34	41	7/8	43x16x1	230
AHC18	55	39	46	7/8	48x16x1	248
AHC20	59	43	50	7/8	52x16x1	262

All dimensions are in inches.

SUPERIOR REX Fan Coils

AHC EXPOSED CABINET

2-PIPE SYSTEM							
Model	3 Rows Cooling (1)				3 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHC06	15.5	13.4	3.1	2.92	51.9	3.5	2.83
AHC08	23.0	18.7	4.6	6.84	71.3	4.9	5.86
AHC10	27.5	21.9	5.5	10.27	83.1	5.7	8.38
AHC12	29.3	24.6	5.8	2.39	96.1	6.6	2.42
AHC14	36.7	30.6	7.3	3.89	117.9	8.0	3.77
AHC16	43.3	35.5	8.6	5.61	135.9	9.3	5.22
AHC18	49.8	39.8	9.9	7.83	151.9	10.4	6.92
AHC20	51.8	43.4	10.3	3.80	167.6	11.4	3.92

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHC06	10.0	9.7	2.0	0.89	20.1	1.4	1.19
AHC08	15.1	13.6	3.0	2.17	28.4	1.9	2.59
AHC10	18.2	16.0	3.6	3.29	33.4	2.3	3.76
AHC12	23.0	19.4	4.6	5.67	40.6	2.8	6.05
AHC14	23.8	22.3	4.8	1.28	49.3	3.4	9.32
AHC16	28.3	25.9	5.6	1.87	53.9	3.7	1.83
AHC18	32.8	29.1	6.6	2.65	61.0	4.2	2.52
AHC20	37.7	33.1	7.5	3.61	68.8	4.7	3.35

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHC06	19.9	15.6	4.0	6.05	60.8	4.2	5.03
AHC08	24.6	20.1	4.9	1.86	80.0	5.1	1.83
AHC10	29.5	23.5	5.9	2.78	93.4	6.4	2.61
AHC12	37.4	28.6	7.5	4.73	111.9	7.6	4.03
AHC14	46.4	35.5	9.3	7.53	137.6	9.4	6.32
AHC16	49.9	39.5	10.0	3.84	155.4	10.6	3.68
AHC18	57.0	44.1	11.4	5.25	173.1	11.8	4.81
AHC20	65.9	50.5	13.2	7.19	195.7	13.4	6.34

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHC06	15.1	12.8	3.0	2.77	19.6	1.3	1.16
AHC08	22.2	17.9	4.4	6.47	27.6	1.9	2.50
AHC10	26.4	20.9	5.3	9.55	32.4	2.2	3.63
AHC12	28.3	23.5	5.7	2.26	39.4	2.7	5.79
AHC14	35.5	29.3	7.1	3.67	47.8	3.3	8.97
AHC16	41.9	34.0	8.4	5.29	52.3	3.6	1.91
AHC18	48.1	38.1	9.6	7.35	59.2	4.0	2.61
AHC20	50.1	41.5	10.0	3.58	66.8	4.6	3.38

2-PIPE SYSTEM							
Model	5 Rows Cooling				5 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHC06	19.6	15.6	3.9	1.30	63.3	4.3	1.26
AHC08	28.9	21.8	5.8	2.99	86.6	5.9	2.55
AHC10	34.4	25.5	6.9	4.41	100.7	6.9	3.60
AHC12	42.6	30.7	8.5	7.23	120.0	8.2	5.51
AHC14	49.4	36.8	9.9	4.15	145.6	9.9	3.60
AHC16	57.9	42.8	11.6	5.90	167.8	11.5	4.97
AHC18	65.8	47.6	13.1	7.98	186.0	12.7	6.43
AHC20	71.5	52.9	14.3	5.70	208.1	14.2	5.06

4-PIPE SYSTEM							
Model	4 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHC06	19.3	14.9	3.8	5.70	19.0	1.3	1.12
AHC08	23.6	19.0	4.7	1.72	26.7	1.8	2.38
AHC10	28.2	22.3	5.6	2.56	31.4	2.1	3.46
AHC12	35.7	27.1	7.1	4.35	38.1	2.6	5.55
AHC14	44.7	33.8	8.9	7.05	46.3	3.2	8.60
AHC16	47.7	37.4	9.5	3.53	50.7	3.5	1.91
AHC18	54.8	41.9	11.0	4.88	57.4	3.9	2.60
AHC20	62.9	47.9	12.6	6.61	64.7	4.4	3.46

2-PIPE SYSTEM							
Model	6 Rows Cooling				6 Rows Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHC06	22.0	16.3	4.4	1.87	66.2	4.5	1.59
AHC08	31.8	22.7	6.4	4.17	90.1	6.1	3.20
AHC10	37.7	26.5	7.5	6.10	104.5	7.1	4.50
AHC12	43.3	30.7	8.6	3.48	122.0	8.3	2.78
AHC14	54.3	38.4	10.8	5.63	151.3	10.3	4.41
AHC16	63.4	44.6	12.7	7.94	174.3	11.9	6.08
AHC18	68.5	48.3	13.7	5.62	190.4	13.0	4.60
AHC20	78.3	55.1	15.6	7.53	216.1	14.7	6.07

4-PIPE SYSTEM							
Model	5 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow gpm	PD ft wg	Sensible MBH	Flow gpm	PD ft wg
AHC06	18.7	14.8	3.7	1.19	18.5	1.3	1.07
AHC08	27.9	20.8	5.6	2.80	26.0	1.8	2.31
AHC10	33.0	24.2	6.6	4.10	30.5	2.1	3.34
AHC12	43.9	29.3	8.2	6.74	36.9	2.5	5.33
AHC14	47.4	35.0	9.5	3.84	44.9	3.1	8.21
AHC16	55.8	40.8	11.1	5.51	49.3	3.4	1.97
AHC18	62.9	45.3	12.6	7.36	55.7	3.8	2.65
AHC20	68.5	50.3	13.7	5.27	62.8	4.3	3.44

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
AHC06	843	638	536
AHC08	1119	736	599
AHC10	1280	1094	774
AHC12	1486	1131	850
AHC14	1873	1265	1041
AHC16	2154	1434	1172
AHC18	2330	2008	1477
AHC20	2660	2258	1844

1. Nominal air volume ratings are based on a 3-row coil at sea level altitude with 0 external static pressure.
2. Air volumes are based at high fan speed.

Model	Motor	
	HP	Total AMPS
AHC06	1/4	3.60
AHC08	1/4	4.30
AHC10	1/4	4.30
AHC12	1/3	5.10
AHC14	2 x 1/4	2 x 4.20
AHC16	2 x 1/4	2 x 4.20
AHC18	2 x 1/4	2 x 4.50
AHC20	2 x 1/3	2 x 4.50

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

FAN COILS

Apartment Horizontal Series Standard Configurations

1. Furnish and install Superior Rex models AHO, AHR and AHC Apartment Horizontal Series fan coils of sizes and capacities shown on the plans to meet prevailing cooling and heating requirements.
2. Fan coils shall be performance certified to AHRI Standard 440.
3. Units shall be wired in compliance with ANSI/UL 1995 Standard and listed with ETL.
4. Fan coils shall be sound tested in accordance with AHRI Standard 260 for ducted units and AHRI Standard 350 for non-ducted units. Manufacturer shall provide these dB ratings on request for each model specified.
5. Unit casing shall be 18-gauge, zinc coated, phosphate treated, G90 galvanized steel.
6. High-efficiency, 3-row coil shall be suitable for a 2-pipe system. Coils shall be manufactured with aluminum fins mechanically bonded to seamless copper tubes. The copper tubes shall be ½-inch OD with a wall thickness of 0.017-inch which comply with ASTM B-75. The fins shall be waved with ripple edges for superior efficiency with a thickness of 0.045-inch and spaced at 10 fpi. Coils rated to 300 psi operational pressure. All coils shall be shipped with a safety air pressure of 30 - 50 psi to guarantee a leak free arrival at the final destination.
7. Unit pipe entry location shall be in accordance with the project schedule.
8. Coils shall be installed with manual Schrader type air vents with a sealing cap and be located at the highest point of the coil. The cap shall have a dual purpose, to seal any potential water leakage in the eventuality of Schrader valve failure and as a service tool for the extraction/insertion of the internal Schrader valve.
9. Standard filters (AHR and BHC only) shall be 1-inch nominal thickness of the disposable type with a one-piece moisture resistant chipboard frame to eliminate corner separations. The spun glass filtering media shall be bonded with a resinous agent providing rigidity and resistance to media compression and meets UL class 2.
10. Cabinets/plenum (BHR and BHC only) shall be lined with ½-inch dual-density fiberglass with a density of 1.5lbs/ft^3 and 4.0lbs/ft^3 for the face meeting NFPA 90A and 90B (appliances), NFPA 255, UL 181, UL723 and ASTM E84.
11. Motors shall be multi-speed of the permanent split capacitor type (PSC) and be directly coupled to the centrifugal fan blower. Motor shall be suitable for a power supply of 115V/1Ph/60Hz and shall be internally protected with an automatic thermal overload. Motor shaft shall be supported by sleeve bearings of the permanently lubricated type for the full life expectancy of the motor. All motors shall be directly mounted to the fan blower and be isolated from the unit casing by three resilient anti-vibration mounts.
12. Direct-driven fan shall be of the whisper quite type, Double Width Double Inlet (DWDI) forward curved statically and dynamically balanced at the factory. The fan wheel and casing shall be constructed of galvanized steel.
13. Electric components shall be wired to a single control panel for single point power supply. Wiring exposed to the outside of the units shall be installed in conduits to meet UL 1995 safety requirements.
14. Condensate pans shall be single-wall 18-gauge G90 galvanized steel welded at the corners, thermally protected on the outside with fire and smoke rated ¼-inch high-density insulation to prevent condensation. The factory installed ¾" MNPT condensate connection shall be located at the lowest point of the condensate pan to ensure all water drains from the condensate pan (Consult Superior Rex for availability).
15. Discharge air flange shall be 1-inch to facilitate the connection of field ducts.
16. Return air flanges (AHR and AHC only units) shall be 1-inch to facilitate the connection of field ducts.
17. Four (4) anti-vibration rubber mountings shall be provided for field installation in order to isolate any cabinet vibrations from the building structure.

FAN COILS

Apartment Horizontal Series Optional Configurations

COOLING AND HEATING COIL

1. Shall be high-efficiency 4-, 5- and 6-row coils suitable for 2-pipe systems, or
2. High-efficiency single block with 2, 3,4 and 5 rows chilled water (CW) with 1-row re-heat/pre-heat coil suitable for 4-pipe system applications, or
3. High-efficiency single block with 2, 3 and 4 rows chilled water (CW) with 2-row re-heat/pre-heat coil suitable for 4-pipe system applications.

FILTER

1. Filter shall be 1-inch pleated filter with an average atmospheric dust spot efficiency range of 20 - 30% per ASHRAE Standard 52.1 test method, or
2. Filter shall be 1-inch washable filter consisting of synthetic fibers coated with a special resin, then baked together at a high temperature resulting in a tough and springy, thoroughly bonded, nearly rigid air filtration media. Washable filters shall have a longer service life, better structural integrity as well as being completely odor free.
3. A spare set of filters shall be available for replacement after the commissioning of the unit and prior to the handover of the project.

CABINET INSULATION

Cabinet liners shall be 1-inch dual-density fiberglass with a density of 1.5lbs/ft^3 and 4.0lbs/ft^3 for the face meeting NFPA 90A and 90B (appliances) and NFPA 255 with less than 25 flame and less than 50 smoke spread, UL 181, UL723 and ASTM E84.

MOTOR AND MOTOR ACCESSORIES

1. Motors shall be suitable for 115V/1Ph/60Hz or 208V/1Ph/60Hz or 230V/1Ph/60Hz or 277V/1Ph/60Hz power supplies (delete as applicable).
2. A motor in-line quick disconnect shall be installed to facilitate the removal/replacement of motor (AHR and AHC units only).

THERMOSTAT AND ACCESSORIES

Refer to the Accessories section for details.

DISCONNECT SWITCH AND FUSES

Units shall be wired for single point power supply with a disconnect switch and fuse(s) to match the unit full maximum circuit ampacity (MCA) in line with UL 1995.

TWO-PIPE HEAT/COOL AUTO CHANGEOVER SWITCH

A mechanical changeover switch shall be supplied on 2-pipe systems to automatically change over the operation of the thermostat for summer and winter modes.

ELECTRIC HEATER AND ACCESSORIES

1. Electric heaters shall be of the wound type mounted in a metal frame and supported by ceramic rings and terminals. Electric heaters shall be installed on the blower discharge side for better heat dissipation and shall include an automatic reset high limit cut-out and contactor.
2. 2-pipe standby electric heating - heaters shall be installed and pre-wired as standby heating for the eventuality of a failure of the primary hot water (HW) system. A changeover sensor shall be installed in each unit and the changeover between the failed hot water system and the standby electric heater shall be automatic.

CHILLED AND HOT WATER VALVE CONTROLS

Refer to the Accessories section for details.

CONDENSATE PAN AND ACCESSORIES

1. Condensate pan shall be single wall manufactured in 20-gauge 304 stainless steel and shall be thermally protected on the outside with fire and smoke rated ¼-inch high-density insulation to prevent condensation. The factory installed $^3/_4$" MNPT condensate connection shall be located at the lowest point of the condensate pan to ensure that all water is drained from the condensate pan (Consult Superior Rex for availability), or
2. Condensate pan shall be double wall construction consisting of an outer and inner skin. The outer skin shall be manufactured of 18-gauge G90 galvanized sheet metal wrapped around the inner skin with 1-inch thermal insulation between both skins to prevent condensation. The inner skin of the double wall condensate pan shall be of 18-gague G90 galvanized sheet metal, or
3. Condensate pan shall be double wall construction consisting of an outer and inner skin. The outer skin shall be manufactured of 18-gauge G90 galvanized sheet metal wrapped around the inner skin with 1-inch thermal insulation between both skins to prevent the formation of condensation. The inner skin of the double wall condensate pan shall be of 20-gauge 304 stainless steel galvanized sheet metal.
4. An automatic safety overflow switch shall be installed in the condensate pan and shall prevent the operation of the unit electric system if an overflow status is detected.
5. A condensate water safety overflow connection shall be provided.

ACCESS PANEL AND ACCESSORIES - AHC ONLY

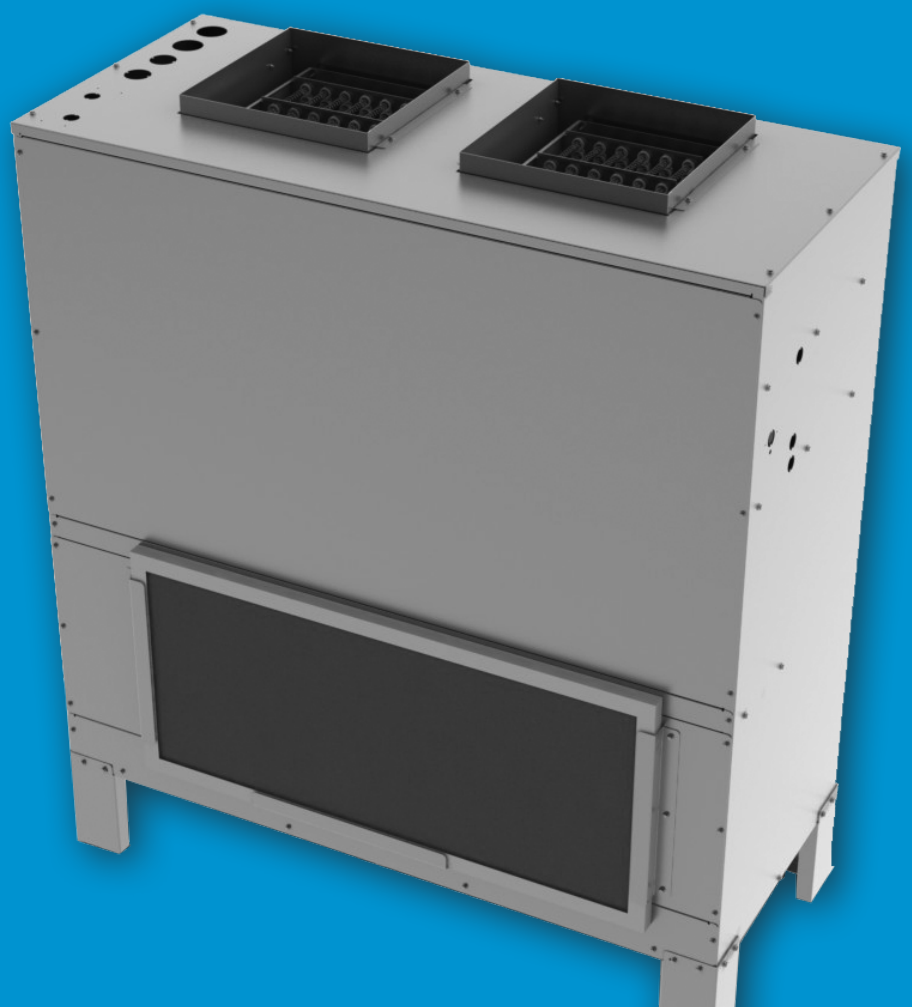
1. Access panel security fasteners shall be tamperproof, which requires a special tool to access the units, or
2. Return air/access panel security fasteners shall be of the quarter turn type, to facilitate the removal of the access panel.

SUPERIOR REX

Apartment Vertical Series

www.superiorrex.com

section 5



Apartment Vertical Series

AVC

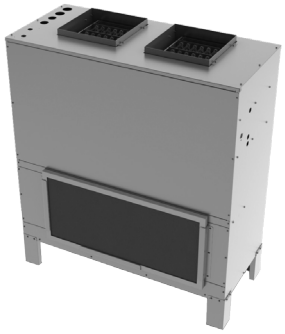
Factory assembled vertical draw-thru, high-output AVC fan coils are designed for ducted closet installations suitable for industrial and commercial applications.

STANDARD FEATURES INCLUDE

- Performance AHRI Certified to Standard 440.
- ETL-Listed. Constructed in compliance with ANSI/UL 1995 Standard.
- All casing sheet metal components fabricated of 18GA G90 galvanized steel.
- High-efficiency 3-row coil suitable for a 2-pipe system.
- Coil manual air vent.
- 1-Inch thick disposable filter.
- Cabinet liner in ½-inch dual-density fiberglass.
- Multi-speed motor of the permanent split capacitor (PSC) type.
- Double Width Double Inlet (DWDI) direct driven blowers of the whisper quite type.
- Controls installed in a single control box suitable for single power supply.
- Single wall condensate pan in galvanized steel, thermally protected on the outside.
- 1-inch discharge air flange for duct applications.

OPTIONAL FEATURES INCLUDE

- 4-, 5- And 6-row coils for 2-pipe systems, or
- Single block coil with 2, 3, 4 and 5 rows CW with 1 row re-heat or pre-heat coils for 4-pipe system applications (6 rows max).
- Single block coil with 2, 3 and 4 rows CW with 2 rows re-heat or pre-heat for 4-pipe system applications (6 rows max).
- LH or RH pipe connections entry.
- Automatic coil air vents.
- Filter option include:
  - ◇ 1-inch high-efficiency pleated filters.
  - ◇ 1-inch washable filters.
- Cabinet liner in 1-inch dual-density fiberglass.
- Motor voltage suitable for 208V, 230V or 277V/1Ph/60Hz power supplies.
- Motor in-line quick disconnect.



- Thermostat and Accessories (Refer to the Accessories section for details).
- Single power supplies disconnect switch and fuses.
- Automatic 2-pipe changeover switch for heating and cooling applications.
- Electric heaters.
- HW standby electric heater auto changeover switch.
- Valve Packages (Refer to the Accessories section for details).
- Condensate pan options:
  - ◇ Single wall condensate pan manufactured in 20GA 304 Stainless Steel.
  - ◇ Condensate pan mastic coating applicable to the inside of the condensate pan for a prolonged life.
  - ◇ Condensate pan safety overflow switch.

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Room Fan-Coils
AHRI Standard 440

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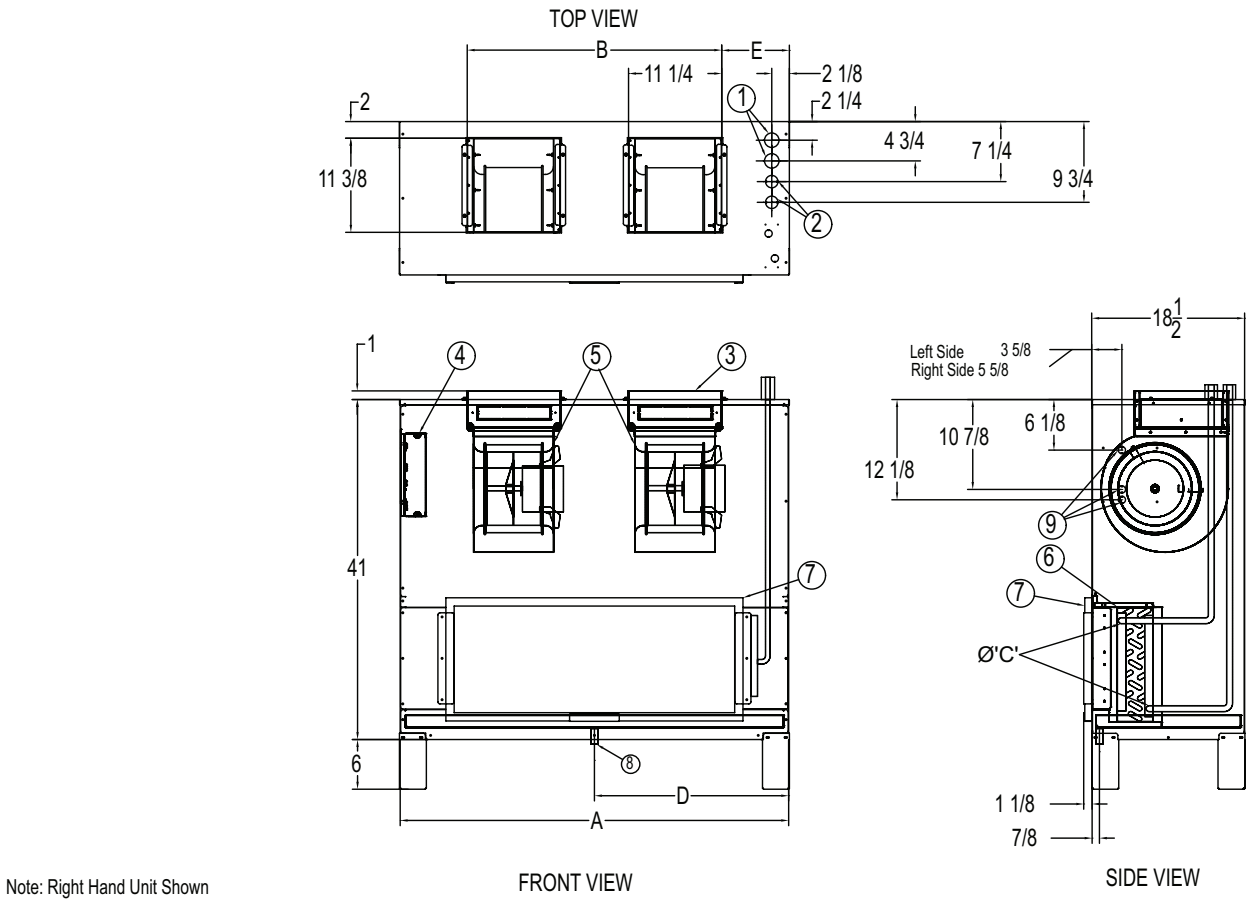
A Participating Corporation in the AHRI 440 Certification Program

SUPERIOR REX Fan Coils

AVC CONCEALED CLOSET



Note: Right Hand Unit Shown

1. Cold Water Coil Connections - 2/4 pipe supply and return O.D. = "C"
2. Hot Water Coil Connections - 4 pipe supply and return O.D. = ⅝"
3. Supply Duct Collar
4. Electrical Control Box
5. Motor/Blower(s) Assemby
6. Coil
7. Filter
8. Condensate Connection ⅞" O.D.
9. Electrical Knockout Entires

Model	Dimensions (inches)						Approx. Weight
	A	B	C	D	E	Filter	(pounds)
AVC06	23	N/A	⅝	11½	5⅞	15x17x1	150
AVC08	28	N/A	⅝	14	8⅜	15x20x1	170
AVC10	32	N/A	⅞	16	10⅜	15x23x1	195
AVC12	37	N/A	⅞	18½	12⅞	15x28x1	200
AVC14	42	27¾	⅞	21	7⅛	15x32x1	240
AVC16	47	31¾	⅞	23½	8⅛	15x36x1	260
AVC18	52	35¾	⅞	26	8⅛	15x41x1	268
AVC20	56	39¾	⅞	28	8⅛	15x45x1	280

All dimensions are in inches.

SUPERIOR REX Fan Coils

AVC CONCEALED CLOSET

2-PIPE SYSTEM							
Model	3 Rows Cooling (1)				3 Rows Heating (1)		
	Total MBH	Sensible MBH	Flow GPM	PD ft WG	Sensible MBH	Flow GPM	PD ft WG
AVC06	16.2	13.7	3.2	3.84	52.9	3.6	3.58
AVC08	25.1	19.8	5.0	9.94	75.5	5.2	8.05
AVC10	31.0	23.5	6.2	16.30	89.6	6.1	12.36
AVC12	34.1	26.7	6.8	3.92	103.7	7.1	3.43
AVC14	43.1	33.2	8.6	6.62	128.0	8.7	5.54
AVC16	53.3	40.6	10.6	10.60	155.2	10.6	8.57
AVC18	60.4	45.3	12.1	14.44	172.6	11.8	11.26
AVC20	64.2	49.5	12.8	6.95	190.5	13.0	6.12

4-PIPE SYSTEM							
Model	2 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow GPM	PD ft WG	Sensible MBH	Flow GPM	PD ft WG
AVC06	10.4	9.9	2.1	1.17	20.7	1.4	1.53
AVC08	16.8	14.5	3.3	3.24	30.6	2.1	3.67
AVC10	21.2	17.5	4.2	5.54	37.2	2.5	5.88
AVC12	26.6	21.2	5.3	9.53	42.8	2.9	1.35
AVC14	29.0	24.6	5.8	2.31	53.1	3.6	2.19
AVC16	36.2	30.2	7.2	3.76	64.2	4.4	3.42
AVC18	41.6	33.8	8.3	5.23	72.4	4.9	4.66
AVC20	47.1	38.2	9.4	6.95	81.4	5.6	6.15

2-PIPE SYSTEM							
Model	4 Rows Cooling				4 Rows Heating		
	Total MBH	Sensible MBH	Flow GPM	PD ft WG	Sensible MBH	Flow GPM	PD ft WG
AVC06	20.5	15.8	4.1	7.77	61.8	4.2	6.31
AVC08	27.1	21.3	5.4	2.66	84.2	5.7	2.40
AVC10	33.6	25.2	6.7	4.34	99.6	6.8	3.61
AVC12	38.5	29.1	7.7	2.53	116.0	7.9	2.28
AVC14	49.0	36.4	9.8	4.28	143.3	9.8	3.66
AVC16	60.7	44.7	12.1	6.85	174.1	11.9	5.64
AVC18	68.8	49.7	13.7	9.23	192.9	13.2	7.30
AVC20	74.6	54.9	14.9	6.49	214.7	14.7	5.63

4-PIPE SYSTEM							
Model	3 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow GPM	PD ft WG	Sensible MBH	Flow GPM	PD ft WG
AVC06	15.6	13.0	3.1	3.59	20.1	1.4	1.48
AVC08	24.2	18.9	4.8	9.33	29.7	2.0	3.54
AVC10	29.9	22.5	6.0	15.29	36.0	2.5	5.65
AVC12	32.7	25.4	6.5	3.64	41.5	2.8	1.35
AVC14	41.5	31.7	8.3	6.19	51.5	3.5	2.23
AVC16	51.4	38.8	10.3	9.92	62.2	4.2	3.47
AVC18	58.2	43.2	11.6	13.51	70.2	4.8	4.70
AVC20	61.8	47.3	12.3	6.49	78.9	5.4	6.10

2-PIPE SYSTEM							
Model	5 Rows Cooling				5 Rows Heating		
	Total MBH	Sensible MBH	Flow GPM	PD ft WG	Sensible MBH	Flow GPM	PD ft WG
AVC06	20.3	15.8	4.1	1.64	64.2	4.4	1.52
AVC08	31.2	22.9	6.2	4.14	90.4	6.2	3.30
AVC10	38.3	27.0	7.6	6.67	105.8	7.2	4.88
AVC12	43.7	31.0	8.7	3.75	122.8	8.4	2.97
AVC14	55.6	38.9	11.1	6.35	151.6	10.3	4.78
AVC16	65.6	46.5	13.1	5.28	182.4	12.4	4.32
AVC18	74.0	51.6	14.8	7.03	201.3	13.7	5.51
AVC20	84.4	58.6	16.8	9.36	227.1	15.5	7.20

4-PIPE SYSTEM							
Model	4 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow GPM	PD ft WG	Sensible MBH	Flow GPM	PD ft WG
AVC06	19.7	15.1	3.9	7.24	19.5	1.3	1.43
AVC08	26.0	20.2	5.2	2.46	28.7	2.0	3.36
AVC10	32.2	24.0	6.4	4.02	34.8	2.4	5.35
AVC12	36.9	27.6	7.4	2.33	40.1	2.7	1.33
AVC14	46.9	34.5	9.4	3.96	49.7	3.4	2.20
AVC16	58.2	42.4	11.6	6.34	60.2	4.1	3.42
AVC18	65.9	47.2	13.2	8.53	67.8	4.6	4.61
AVC20	71.5	52.1	14.3	5.99	76.2	5.2	5.99

2-PIPE SYSTEM							
Model	6 Rows Cooling				6 Rows Heating		
	Total MBH	Sensible MBH	Flow GPM	PD ft WG	Sensible MBH	Flow GPM	PD ft WG
AVC06	22.6	16.6	4.5	2.33	66.9	4.6	1.92
AVC08	34.3	23.8	6.8	5.76	93.4	6.4	4.10
AVC10	38.7	26.9	7.7	3.11	106.8	7.3	2.38
AVC12	47.5	32.1	9.5	5.01	125.4	8.6	3.55
AVC14	57.2	39.0	11.4	4.30	153.1	10.5	3.28
AVC16	70.9	48.1	14.2	6.85	186.7	12.7	5.07
AVC18	79.4	53.2	15.9	9.01	205.2	14.0	6.43
AVC20	90.3	60.3	18.0	11.94	231.6	15.8	8.41

4-PIPE SYSTEM							
Model	5 Rows Cooling				1 Row Heating		
	Total MBH	Sensible MBH	Flow GPM	PD ft WG	Sensible MBH	Flow GPM	PD ft WG
AVC06	19.4	15.0	3.9	1.50	19.0	1.3	1.36
AVC08	30.0	21.8	6.0	3.86	27.9	1.9	3.23
AVC10	36.6	25.7	7.3	6.15	33.7	2.3	5.12
AVC12	42.0	29.5	8.4	3.49	38.9	2.7	1.34
AVC14	53.0	36.9	10.6	5.84	48.2	3.3	2.20
AVC16	62.6	44.1	12.5	4.85	58.3	4.0	3.36
AVC18	70.6	49.0	14.1	6.44	65.6	4.5	4.51
AVC20	80.7	55.7	16.1	8.63	73.8	5.0	5.94

1. Standard basic unit.
2. All ratings are based at sea level altitude, nominal air volumes at 0 external static pressure and with water as the cooling fluid.
3. Cooling capacities are based on 80°F DB/67°F WB entering air, 45°F entering water, 10°F water temperature rise and high fan speed.
4. Heating capacities are based on 70°F DB entering air temperature, 180°F entering hot water, 30°F water temperature drop and high fan speed.

Model	Motor	
	HP	Total AMPS
AVC06	1/4	3.60
AVC08	1/4	4.30
AVC10	1/4	4.30
AVC12	1/3	5.10
AVC14	2 x 1/4	2 x 4.20
AVC16	2 x 1/4	2 x 4.20
AVC18	2 x 1/4	2 x 4.50
AVC20	2 x 1/3	2 x 4.50

1. Electric ratings are based on units suitable for a power supply of 115V/1Ph/60Hz.

Nominal Air Volumes			
Model	cfm (1)		
	High	Med	Low
AVC06	840	683	584
AVC08	1122	801	660
AVC10	1054	1083	801
AVC12	1433	1189	934
AVC14	1763	1384	1166
AVC16	2160	1588	1325
AVC18	2333	2125	1629
AVC20	2642	2389	2018

1. Nominal air volume ratings are based on a 3-row coil at sea level altitude with 0 external static pressure.
2. Air volumes are based at high fan speed.

FAN COILS

Apartment Vertical Standard Configurations

1. Furnish and install Superior Rex model AVC vertical high-output fan coils of sizes and capacities shown on the plans to meet prevailing cooling and heating requirements.
2. Fan coils shall be performance certified to AHRI Standard 440.
3. Units shall be wired in compliance with ANSI/UL 1995 Standard and listed with ETL.
4. Fan coils shall be sound tested in accordance with AHRI Standard 260 for ducted units and AHRI Standard 350 for non-ducted units. Manufacturer shall provide these dB ratings on request for each model specified.
5. Unit casing shall be 18-gauge, zinc coated, phosphate treated, G90 galvanized steel.
6. High-efficiency, 3-row coil shall be suitable for a 2-pipe system. Coils shall be manufactured with aluminum fins mechanically bonded to seamless copper tubes. The copper tubes shall be ½-inch OD with a wall thickness of 0.014-inch which comply with ASTM B-75. The fins shall be waved with ripple edges for superior efficiency with a thickness of 0.0045-inch and spaced at 10 fpi. Coils rated to 300 psi operational pressure. All coils shall be shipped with a safety air pressure of 30 - 50 psi to guarantee a leak free arrival at the final destination. Unit pipe entry location shall be in accordance with the project schedule.
7. Coil shall be installed with manual Schrader type air vents with a sealing cap and be located at the highest point of the coil. The cap shall have a dual purpose, to seal any potential water leakage in the eventuality of Schrader valve failure and as a service tool for the extraction/insertion of the internal Schrader valve.
8. Filter shall be 1-inch nominal thickness of the disposable type with a one-piece moisture resistant chipboard frame to eliminate corner separations. The spun glass filtering media shall be bonded with a resinous agent providing rigidity and resistance to media compression and meets UL class 2.
9. Cabinet shall be lined with ½-inch dual-density fiberglass with a density of 1.5lbs/ft^3 and 4.0lbs/ft^3 for the face meeting NFPA 90A and 90B (appliances), NFPA 255, UL 181, UL723 and ASTM E84.
10. Motor(s) shall be multi-speed of the permanent split capacitor type (PSC) and be directly coupled to the centrifugal fan blower. Motor shall be suitable for a power supply of 115V/1Ph/60Hz and shall be internally protected with an automatic thermal overload. Motor shaft shall be supported by sleeve bearings of the permanently lubricated type for the full life expectancy of the motor. All motors shall be directly mounted to the fan blower and be isolated from the unit casing by three resilient anti-vibration mounts.
11. Direct-driven fan(s) shall be of the whisper quite type, Double Width Double Inlet (DWDI) forward curved statically and dynamically balanced at the factory. The fan wheel and casing shall be constructed of galvanized steel.
12. Electric components shall be wired to a single control panel for single point power supply. Wiring exposed to the outside of the units shall be installed in conduits to meet UL 1995 safety requirements.
13. Condensate pans shall be single-wall 18-gauge G90 galvanized steel welded at the corners, thermally insulated on the outside with ½-inch dual-density fiberglass with a density of 1.5lbs/ft^3 and 4.0lbs/ft^3 for the face meeting NFPA 90A and 90B (appliances), NFPA 255, UL 181, UL723 and ASTM E84 (Consult Superior Rex for availability).
14. The factory installed ⅞-inch OD sweat copper condensate connection shall be located at the lowest point of the condensate pan to ensure all water drains from the condensate pan.
15. Discharge air flange(s) shall be 1-inch to facilitate the connection of field ducts.

FAN COILS

Apartment Vertical Optional Configurations

COOLING AND HEATING COIL

1. High-efficiency 4-, 5- and 6-row coils suitable for 2-pipe systems, or
2. High-efficiency single block with 2, 3, 4 and 5-rows chilled water (CW) with 1-row re-heat/pre-heat coil suitable for 4-pipe system applications, or
3. High-efficiency single block with 2, 3 and 4 rows chilled water (CW) with 2-row re-heat/pre-heat coil suitable for 4-pipe system applications.

FILTER

1. Filter shall be 1-inch pleated filter with an average atmospheric dust spot efficiency range of 20 - 30% per ASHRAE Standard 52.1 test method or,
2. Filter shall be 1-inch washable filter consisting of synthetic fibers coated with a special resin, then baked together at a high temperature resulting in a tough and springy, thoroughly bonded, nearly rigid air filtration media. Washable filters shall have a longer service life, better structural integrity as well as being completely odor free.
3. A spare set of filters shall be available for replacement after the commissioning of the unit and prior to the handover of the project.

CABINET INSULATION

Cabinet liners shall be 1-inch dual-density fiberglass with a density of 1.5lbs/ft^3 and 4.0lbs/ft^3 for the face meeting NFPA 90A and 90B (appliances) and NFPA 255 with less than 25 flame and less than 50 smoke spread, UL 181, UL723 and ASTM E84.

MOTOR AND MOTOR ACCESSORIES

1. Motors shall be suitable for 115V/1Ph/60Hz or 208V/1Ph/60Hz or 230V/1Ph/60Hz or 277V/1Ph/60Hz power supplies (delete as applicable).
2. A motor in-line quick disconnect shall be installed to facilitate the removal/replacement of motor.

THERMOSTAT AND ACCESSORIES

Refer to the Accessories section for details.

DISCONNECT SWITCH AND FUSES

Units shall be wired for single point power supply with a disconnect switch and fuse(s) to match the unit full maximum circuit ampacity (MCA) in line with UL 1995.

TWO-PIPE HEAT/COOL AUTO CHANGEOVER SWITCH

A mechanical changeover switch shall be supplied on 2-pipe systems to automatically change over the operation of the thermostat for summer and winter modes.

ELECTRIC HEATER AND ACCESSORIES

1. Electric heaters shall be of the wound type mounted in a metal frame and supported by ceramic rings and terminals. Electric heaters shall installed on the blower and coil discharge side for better heat dissipation and shall include an automatic reset high limit cut-out and contactor.
2. 2-pipe standby electric heating - heaters shall be installed and pre-wired as standby heating for the eventuality of a failure of the primary hot water (HW) system. A changeover sensor shall be installed in each unit and the changeover between the failed hot water system and the standby electric heater shall be automatic.

CHILLED AND HOT WATER VALVE CONTROLS

Refer to the Accessories section for details.

CONDENSATE PAN AND ACCESSORIES

1. Condensate pan shall be single wall manufactured in 20-gauge 304 stainless steel and shall be thermally protected on the outside with ½-inch dual-density fiberglass with a density of 1.5lbs/ft^3 and 4.0lbs/ft^3 for the face meeting NFPA 90A and 90B (appliances), NFPA 255, UL 181, UL723 and ASTM E84.
2. An automatic safety overflow switch shall be installed in the condensate pan and shall prevent the operation of the unit electric system if an overflow status is detected.

Thermostats

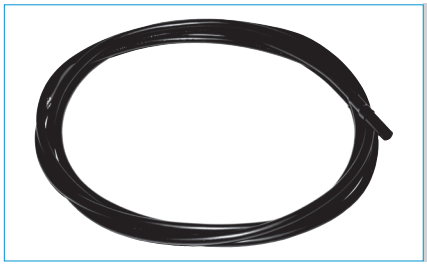
Basic model (RAB) – shall be electromechanical, remote wall thermostat, gas diaphragm based and shall include the following features: Temperature set-point control with dual set-point temperature scale (F/C) and adjustable min/max temperature mechanical limit stops; system off and 3-speed fan switch; heat/cool manual temperature switch; on/off control valve(s) output; fan auto or continuous selection; 24V thru 277V control voltage, 50 or 60Hz; and UL and cUL listed.

Electronic with LED indication model (RCC) – shall be electronic remote wall or unit mounted thermostat with LED indicators and shall include the following features: Temperature set-point control with dual set-point temperature scale (F/C) and adjustable min/max temperature mechanical limit stops; operational modes: off, normal, energy saving and frost protection; system off and 3-speed fan switch; fan continuous or temperature dependent operation; automatic heat/cool temperature changeover control; heat/cool and fan on LED indication; on/off control valve(s) output; 24V control voltage, 50 or 60Hz; optional remote wall or duct sensor connection; and UL and cUL listed.

Electronic with LCD indication model (RDF) – shall be electronic remote wall or unit mounted thermostat with LCD indication and shall include the following features: Operational modes: off, normal, energy saving and standby; system off and 3-speed fan switch; fan continuous or temperature dependent operation; manual or automatic heat/cool temperature changeover control; min/max setpoint temperature limitation; setpoints or room temperature display; on/off control valve(s) output; 24V control voltage, 50 or 60Hz; optional remote duct or wall sensor connection; selectable installation and control parameters; and UL and cUL listed.

Modulated model (RLA) – Shall be an electronic remote wall mounted thermostat with modulated outputs, UL and cUL listed.

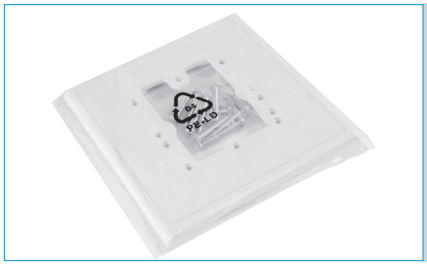
Thermostat Accessories



Thermostat shall be supplied with a remote duct mounted sensor (RCC, RDF and RLA models only).

Thermostat shall be supplied with a remote wall mounted sensor (RCC, RDF and RLA models only).

Thermostat Accessories (continued)

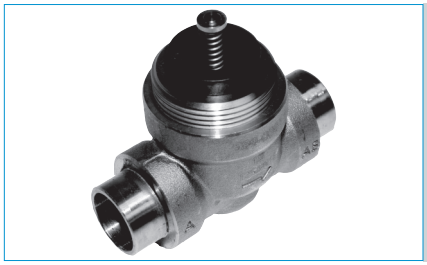


Thermostat shall be supplied with a wall mount plate (4.75" SQR) for covering unpainted wall areas or non-wallpaper areas.

Thermostats shall be supplied with lockable covers to prevent unauthorized changes to the temperature set-points.

Thermostat shall be suitable for 24V control voltage (all RCC, RDF and RLA thermostats must be 24V).

Motorized Control Valves



Motorized control valves shall be 2- or 3-Way valve(s) with sweat or threaded connections and shall have the following features: Body and body trim made of brass; stem made of stainless steel ASTM A582 type 303 with Ethylene propylene sealing O-rings, suitable for water/glycol concentrations up to 50%; and operation between 34 to 230°F. Maximum inlet pressure of 125 psig; metal-to-metal seat with a stroke of $^{1}/_{10}$-inch and rated to ANSI Class 125, close-off ratings in accordance with ANSI/FCI 70-2, class rate ANSI Class III and mounting location shall be NEMA1 (interior only).

Motorized Valve Actuators

Valve actuators shall be ON/OFF or modulated, normally closed to the coil with spring return action for CW and HW applications or normally open to the coil for HW applications only and shall have the following features: ON/OFF actuators shall be suitable for 24, 120, 208 or 277V control voltage; UL listed for plenums to UL 873; cUL certified to Canadian Standards C22.2 No 24-93; direct coupled installation without tools; manual override; visual position indication; 40 sec max running time; $^{1}/_{10}$-inch nominal stroke; 24lb nominal force; operation temperature between 41 and 122°F and 0% to 90% relative humidity (non corrosive); NEMA 1 mounting location.

Modulated actuators shall be suitable for 24V control voltage and a signal voltage of 0-10V; UL listed for plenums to UL 873; cUL certified to Canadian Standards C22.2 No 24-93; direct coupled installation without tools; manual override; visual position indication; 40 sec max running time; $^{1}/_{10}$-inch nominal stroke; 24lb nominal force; Operation temperature between 41 and 122°F.

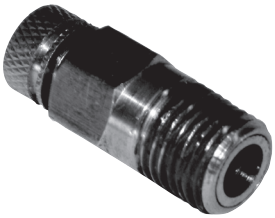
All valve actuators shall be compatible with 2 or 3-Way valves.

Valve Package Accessories

Ball valves shall be manufactured of brass OT58-UNI-5705-65 with a chrome plated brass ball with Teflon[b] seals. The shaft shall be sealed via dual VITON O-rings and capable of operating at 325°F and 600 psi pressure WOG. All ball valves shall be supplied with a memory stop actuator and be located in the inlet pipes to the fan coil unit.

Valve Package Accessories (continued)

Unions shall be of forged brass ASTM B283 with VITON O-rings installed in the return and supply CW and/or HW pipes to facilitate the connection or removal of the unit.



Pressure and temperature test plugs shall have ¼-inch MNPT thread, suitable for operation up to 325°F and 1000 psi pressure. Test plugs shall be located in the return and supply CW and/or HW pipes to measure unit total pressure drop and/or unit water in/out temperatures.

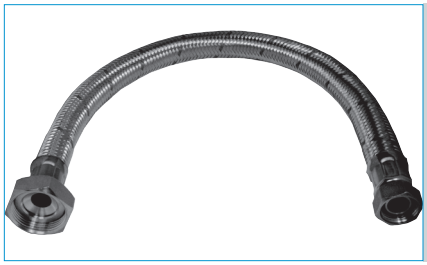
Strainers shall be of forged brass ASTM B283, suitable for operation up to 325°F and 600 psi pressure WOG. Mesh shall be #20 made of stainless steel and the mesh access cap shall be sealed with a VITON O-ring and the cap shall have a ¼-inch NPT access port. Strainers shall be installed to the supply CW and/or HW pipes to avoid blockages on the unit water system components.

Coil blow down drain valves shall be of the chromed plated ball type with Teflon[b] seals; dual VITON O-rings seal suitable for operation up to 325°F and 600 psi pressure WOG. Valve connections shall be ¼-inch MNPT and ¾ inch hose bib and cap. Blow down valves shall be installed at the lowest point of the coils to enable the evacuation of all water for system repairs and/or coil replacements.

Automatic water flow control valve shall be manufactured of forged brass ASTM B283, suitable for operation up to 325°F and 600 psi pressure WOG. The automatic flow cartridge shall be removable and be accessible via forged brass cap sealed with VITON and EPDM O-rings. Auto flow control valves shall be installed with two pressure test plugs and be located in the return CW and/or HW pipes. The Auto Flow Control Valve(s) shall control the water flow in accordance with the project Fancoil coil schedule.

Manual adjustable flow control valve shall br manufactured of forged brass ASTM B283 and be of the calibrated manual balancing valve type, modified venture ball valve with a union end and capable of operation at 325°F, 600 psi pressure WOG with the following featues: Ball valve with chrome plated brass ball and Teflon seals; Shaft sealed via dual VITON O-rings; Handle shall have a calibrated scale indicator and a stainless steel memory stop. Manual flow control valve shall be installed with two pressure test plugs and be located in the return CW and/or HW pipes. The Auto Flow Control Valve shall control the water flow in accordance with the project Fancoil coil schedule.

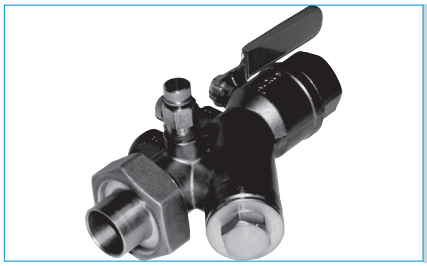
Flexible Connectors



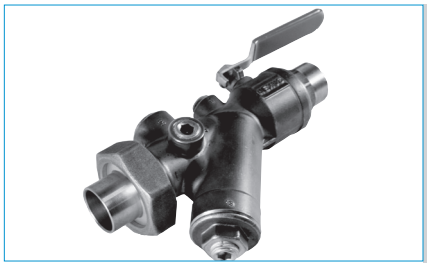
Pipe flexible connectors shall be fire rated in compliance with ASTM E 84-00 (NFPA 225, ANSI/UL 723 and UBC 8-1) with the following features:
Operating pressure 400 psi @ 265°F, fittings made of brass with NPSM swivel w/ seal and MNPT; fabric reinforced EPDM core; stainless steel braid reinforcement; brass OT58 fittings; stainless steel ferrule; fiber EPDM gasket.

"Combo" Accessories

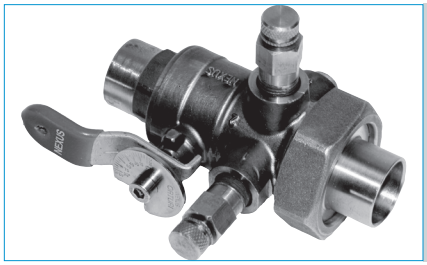
Valve package components shall be provided in single body "COMBO" package as follows:



Ball valve + Strainer + Union and be installed in the supply side of the CW and/or HW coil, or



Ball valve + Auto flow control valve + Union and installed in the return side of the CW and/or HW coil, or



Ball valve + Manual adjustable flow control valve + Union and be installed in the return side of the CW and/or HW coil.

Valve Package Connection Size

Valve package connections shall be suitable for ⅝-inch in diameter copper piping for units up to and including sizes 08 (800 cfm nominal airflows) with CW connections and units up to size 20 (2000 cfm nominal airflow) for HW connections. All units sizes 10 (1000 cfm nominal airflow) and above the CW connections shall be suitable for copper piping in ⅞-inch diameter.