

First Co.

RR SERIES

Vertical High Rise Fan Coils
Chilled Water Cooling
w/Hot Water or Electric Heat

Vertical 300-1200 CFM

ECM Motor

2-Pipe & 4-Pipe Coil Options

2-Pipe With Electric Heat

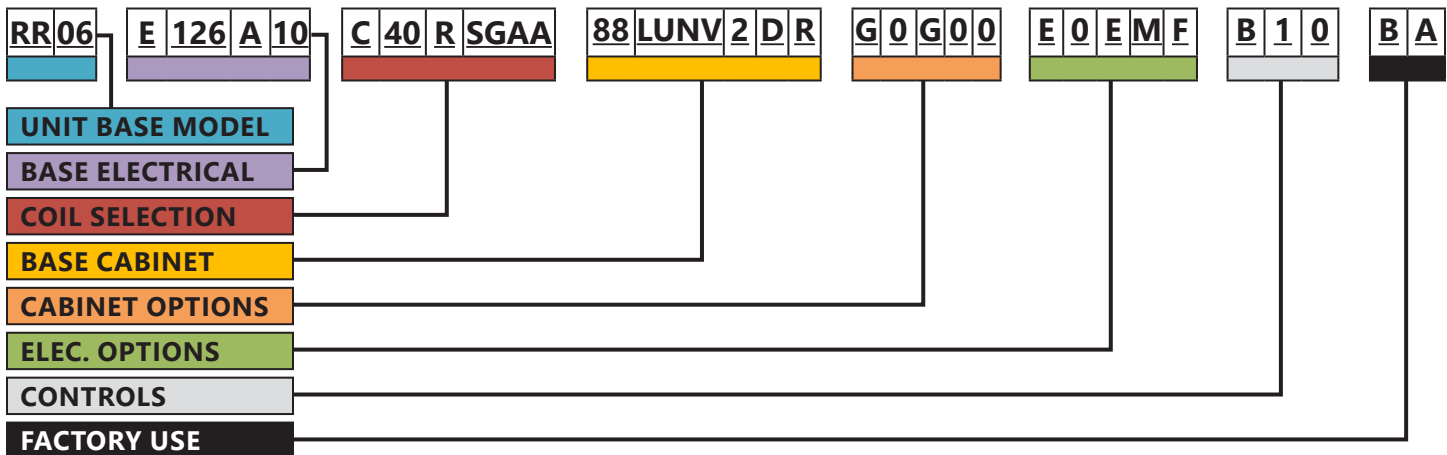


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In keeping with its policy of continuous progress and product improvement, First Co. reserves the right to make changes without notice.

NOMENCLATURE



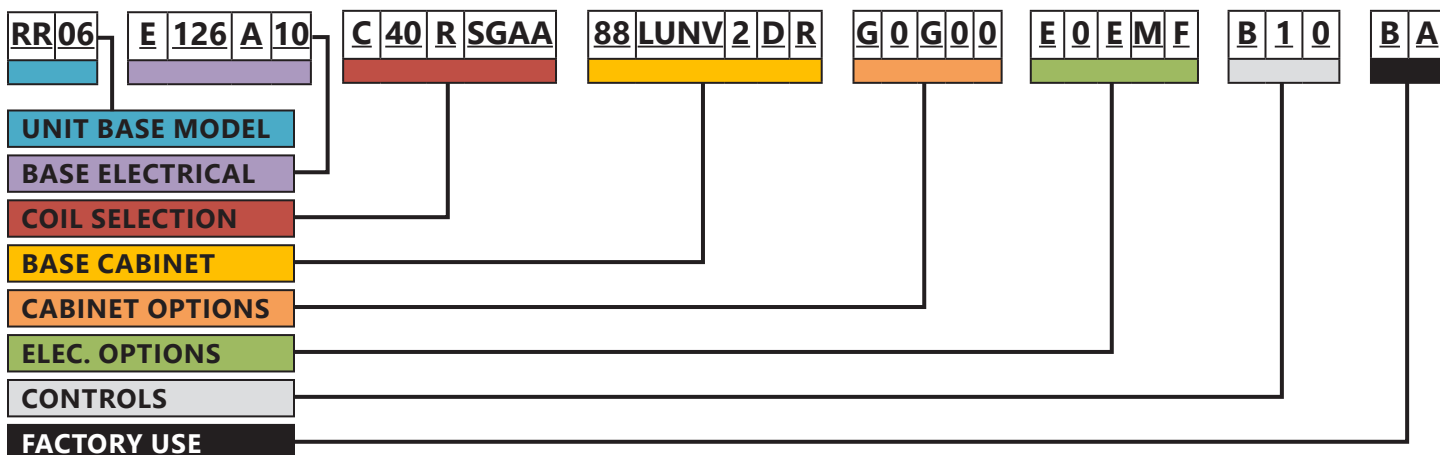
UNIT BASE MODEL	
MODEL	RR – Vertical High Rise Fan Coil
SIZE	03 – 300 NOMINAL CFM 04 – 400 NOMINAL CFM 06 – 600 NOMINAL CFM 08 – 800 NOMINAL CFM 10 – 1000 NOMINAL CFM 12 – 1200 NOMINAL CFM

BASE ELECTRICAL	
MOTOR TYPE	E ECM (3 SPEED)
VOLTAGE	126 – 120V / 1PH / 60Hz 246 – 208–230V / 1PH / 60Hz 276 – 277V / 1PH / 60Hz
CONTROL VOLTAGE	A 24V CONTROL
ELECTRIC HEAT	00 – NONE 01 – 1kW 02 – 2kW 03 – 3kW 04 – 4kW 05 – 5kW 06 – 6kW 08 – 8kW 10 – 10kW

COIL SELECTION	
SYSTEM	A – 2 PIPE COOLING B – 2 PIPE HEATING C – 2 PIPE HEAT/COOL D – 2 PIPE HEAT/COOL/AUX HEAT E – 2 PIPE COOL/ELECTRIC HEAT F – 4 PIPE HEAT/COOL
COIL ROWS	30 – 3 ROW 40 – 4 ROW 31 – 3 ROW/1 ROW 32 – 3 ROW/2 ROW 41 – 4 ROW/1 ROW
COIL HANDLING	L – LEFT HAND COIL R – RIGHT HAND COIL
CONNECTION	S – SINGLE HAND SIDE
COIL WRAPPER	G – GALVANIZED STEEL
FIN MATERIAL	A – ALUMINIUM
PRESSURE TEST	A – 350 PSI (2413 kPa)

BASE CABINET	
HEIGHT	88 – 88" STD (Standard) 65 – 65" 76 – 76" 80 – 80" XX – SPECIAL SELECTION
CONFIGURATION	RUN – RIGHT HANDED UNIVERSAL LUNV – LEFT HANDED UNIVERSAL BFLX – REAR RISER, FRONT & LEFT DISCHARGE BFRX – REAR RISER, FRONT & RIGHT DISCHARGE BFXX – REAR RISER, FRONT DISCHARGE BLXX – REAR RISER, LEFT DISCHARGE BRLX – REAR RISER, RIGHT & LEFT DISCHARGE BRXX – REAR RISER, RIGHT DISCHARGE BTFX – REAR RISER, TOP & FRONT DISCHARGE BTLX – REAR RISER, TOP & LEFT DISCHARGE BTRX – REAR RISER, TOP & RIGHT DISCHARGE BTXX – REAR RISER, TOP DISCHARGE LBXX – LEFT RISER, REAR DISCHARGE LFBX – LEFT RISER, FRONT & REAR DISCHARGE LFRX – LEFT RISER, FRONT & RIGHT DISCHARGE LFXX – LEFT RISER, FRONT DISCHARGE LRBX – LEFT RISER, RIGHT & REAR DISCHARGE LRXX – LEFT RISER, RIGHT DISCHARGE LTBX – LEFT RISER, TOP & REAR DISCHARGE LTFX – LEFT RISER, TOP & FRONT DISCHARGE LTRX – LEFT RISER, TOP & RIGHT DISCHARGE LTXX – LEFT RISER, TOP DISCHARGE RBXX – RIGHT RISER, REAR DISCHARGE RFBX – RIGHT RISER, FRONT & REAR DISCHARGE RFLX – RIGHT RISER, FRONT & LEFT DISCHARGE RFXX – RIGHT RISER, FRONT DISCHARGE RLBX – RIGHT RISER, LEFT & REAR RISER RLXX – RIGHT RISER, LEFT DISCHARGE RTBX – RIGHT RISER, TOP & REAR DISCHARGE RTFX – RIGHT RISER, TOP & FRONT DISCHARGE RTLX – RIGHT RISER, TOP & LEFT DISCHARGE RTXX – RIGHT RISER, TOP DISCHARGE
INSULATION THICKNESS	2 – 1/2" INSULATION 3 – 3/4" INSULATION
INSULATION TYPE	D – FIBERGLASS DUAL DENSITY F – FOIL FACED
INSTALLATION	F – FURRED IN E – EXPOSED CABINET R – ERV FURRED IN

NOMENCLATURE (CONT'D)



CABINET OPTIONS	
DRAIN PAN	G – GALVANIZED S – STAINLESS STEEL
FILTER FRAME	1 – 1"– 2" Frame
FILTER OPTION	0 – NONE 1 – 1" MERV 3/MERV 4 G – 1" MERV 10
OPTION 1	0 – Standard Access S – Sound Barrier
OPTION 2	0 – none I – line of sight baffle

ELECTRICAL OPTIONS	
SERVICE SWITCH	0 – NONE A – 15A TOGGLE SWITCH D – 30A TOGGLE SWITCH E – 40A TOGGLE SWITCH F – 50A TOGGLE SWITCH P – 60A PULL SWITCH
FUSES	0 – None
HEATER RELAY	0 – None E – Electro-Mechanical
TSTAT CONNECTION	0 – None M – Multi-Pin Connector T – Terminal Block
FLOAT SWITCH	0 – None F – Float Switch

CONTROLS	
THERMOSTATS	0 – NONE F – FAN SWITCH ONLY (T422) A – Non Programmable Manual (T420) B – Non Programmable Auto (T421) C – Non Programmable w/LCD (T426) D – Programmable w/LCD (T427) E – Programmable w/Large LCD (T428)
TSTAT LOCATION	0 – None 1 – Unit Mount 2 – Remote Mount 3 – ADA Unit Mount
TSTAT OPTION	0 – None

FACTORY USE	
REVISION	B – Revision B
BRAND	A – AE Air F – First Co.

NOMENCLATURE (CONT'D)

CHILLED WATER AND HOT WATER VALVES

HEATING AND COOLING CIRCUITS USE THE SAME NOMENCLATURE STRING

A	2	S	S	4	30	0	0	B	0	U	R

VALVE SIZE	A – 1/2" Piping
VALVE TYPE	2 – 2-Way 3 – 3-Way

ACTUATOR TYPE	0 – None S – On/Off 24V M – Modulating (0-10VDC)	
PRESSURE DIFFERENTIAL	0 – None S – 30 PSI (210kPa) Close Off	M – 75 PSI (520 kPa) Close Off H – 125 PSI (860 kPa) Close Off

FLOW CONTROL	0 – None 4 – 1/2" Autoflow M – 1/2" Circuit Setter N – 3/4" Circuit Setter
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AUTOFLOW	00 – NONE 05 – 0.50 GPM 06 – 0.63 GPM 07 – 0.75 GPM 10 – 1.13 GPM 12 – 1.25 GPM 15 – 1.50 GPM 16 – 1.63 GPM 17 – 1.75 GPM 20 – 2.00 GPM 22 – 2.25 GPM 25 – 2.50 GPM 30 – 3.00 GPM 32 – 3.25 GPM 35 – 3.50 GPM 40 – 4.00 GPM 45 – 4.50 GPM 50 – 5.00 GPM 55 – 5.50 GPM 60 – 6.00 GPM 65 – 6.50 GPM 70 – 7.00 GPM 75 – 7.50 GPM 80 – 8.00 GPM
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END CONNECTION	M – Hose* R – Hose* + Ball Valve
COIL CONNECTION	B – Brazed U – Union

AQUASTAT	0 – None 1 – Changeover 2 – Changeover Aux. Heat
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STRAINER	0 – None S – Strainer B – Strainer With Blowdown
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PRESSURE PORTS	0 – None C – PT Ports Coil Manifold E – PT Ports Water Connection
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ISOLATION VALVE	0 – None
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NOMENCLATURE – RISER TUBE

R	F	1	L	21	2	S	S	4	119	60
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KIT TYPE	R – RISER TUBES E – EXTENSION TUBES
FAMILY TYPE	F – FAN COIL RISERS W – WATER SOURCE RISERS
MODEL	D – DRAIN TUBE 1 – SUPPLY/RETURN TUBE
MATERIAL	L – TYPE L COPPER M – TYPE M COPPER

SIZE	BOTTOM SIZE / TOP SIZE	
	11 – 0.75" / 0.75"	54 – 2.00" / 1.50"
	12 – 0.75" / 1.00"	55 – 2.00" / 2.00"
	21 – 1.00" / 0.75"	56 – 2.00" / 2.50"
	22 – 1.00" / 1.00"	65 – 2.50" / 2.00"
	23 – 1.00" / 1.25"	66 – 2.50" / 2.50"
	32 – 1.25" / 1.00"	67 – 2.50" / 3.00"
	33 – 1.25" / 1.25"	76 – 3.00" / 2.50"
	34 – 1.25" / 1.50"	77 – 3.00" / 3.00"
	43 – 1.50" / 1.25"	79 – 3.00" / 4.00"
	44 – 1.50" / 1.50"	97 – 4.00" / 3.00"
	45 – 1.50" / 2.00"	99 – 4.00" / 4.00"

TAKE OFF CONNEC-TION	0 – 0 Stub: (Speed Riser)
	1 – 1 Stub: BV (STD)
	2 – 2 Stub: BV & Swaged (STD)
	4 – 2 Stub: BV & BV
	5 – 2 Stub: BV & Cut
	6 – 2 Stub: Cut & Cut
	7 – 1 Stub: Cut
	8 – 1 Stub: Swaged
	9 – 2 Stub: Cut & Swaged
	A – 1 Stub 1" Offset BV
	B – 2 Stub 1" Offset BV & Swaged
	C – 2 Stub 1" Offset BV & Cut
	D – 1 Stub 2" Offset BV
	E – 2 Stub 2" Offset BV & Swaged
	F – 2 Stub 2" Offset BV & Cut
	G – 1 Stub 3" Offset BV
	H – 2 Stub 3" Offset BV & Swaged
	I – 2 Stub 3" Offset BV & Cut
	J – 1 Stub 4" Offset BV
	K – 2 Stub 4" Offset BV & Swaged
	L – 2 Stub 4" Offset BV & Cut
	M – 2 Stub 1" Offset BV & BV
	N – 2 Stub 2" Offset BV & BV
	P – 2 Stub 3" Offset BV & BV
	Q – 2 Stub 4" Offset BV & BV

SHIPPING	91 – ATTACHED TO UNIT 60 – SHIPPED LOOSE
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TUBE LENGTH	119 – 119" (STANDARD) 120 – 120" (STRAIGHT CUT ONLY) ### – CUSTOM LENGTHS (EXTENSION TUBES 12" – 36")
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INSULA-TION	0 – NONE 4 – ½" THICK 6 – ¾" THICK 7 – 1" THICK
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BOTTOM CONNEC-TION	E – EXPANDED S – STRAIGHT CUT C – CAPPED H – HALF RISER
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TOP CONNEC-TION	E – EXPANDED S – STRAIGHT CUT C – CAPPED H – HALF RISER
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NOMENCLATURE – ACCESSORIES

OUTSIDE AIR OPTIONS

UN	1	0

OA LOCATION	00 – NONE UN – UNIVERSAL SIDE KNOCKOUT
OA SIZE	0 – NONE 1 – 4" ROUND CONNECTION
OA OPTION	0 – NONE

PANEL TYPE	0 – NONE A – SURFACE MOUNT B – FLUSH MOUNT D – SURFACE ADA-H E – SURFACE ADA-V F – FLUSH MOUNT ADA-H G – FLUSH MOUNT ADA-V
PANEL SIZE	0 – NONE S – SMALL (SIZE 03-04) M – MEDIUM (SIZE 06-08) L – LARGE (SIZE 10-12) F – FULL SIZE CABINET (88")
INSULATION	0 – NONE

ACCESS AIR PANELS

A	S	0	0	W

DISCHARGE LOUVERS

1	A	1406	W

IAQ OPTION	0 – NONE
PANEL COLOR	0 – NONE W – WHITE G – GREY

LOUVER TYPE	0 – NONE 1 – ONE DOUBLE DEFLECTION (DD) Louver 2 – TWO DD Louver 3 – ONE DD / ONE OPPOSED BLADE DAMPER
LOUVER MATERIAL	0 – NONE A – ALUMINIUM S – STEEL
LOUVER SIZE	0000 – NONE 1406 – 14" X 6" 1408 – 14" X 8" 1412 – 14" X 12" 1806 – 18" X 6" 1810 – 18" X 10" 1816 – 18" X 16" 2016 – 20" X 16" 2206 – 22" X 6" 2208 – 22" X 8" 2210 – 22" X 10"
LOUVER COLOR	0 – NONE W – WHITE G – GREY

RR SERIES

VERTICAL HIGH RISE FAN COILS

FEATURES

CABINET

External and internal parts are fabricated from galvanized steel. Construction allows for large access panels to permit full access to internal components. The structural integrity of the cabinets remain unaffected by the removal of any or all access panels.

INSULATION

Insulation shall be 3/4 inch thick antimicrobial coated Tuf-skin RX providing effective acoustical and thermal control, fire safety, and resistance to air erosion. This insulation meets the requirements of ASTM C 1071, ASTM G 21, ASTM G22, NFPA 90A and UL-181.

COILS

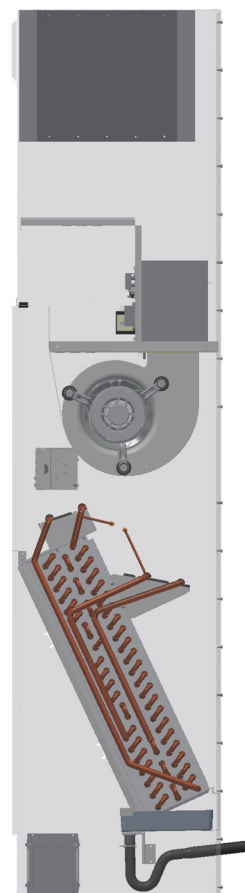
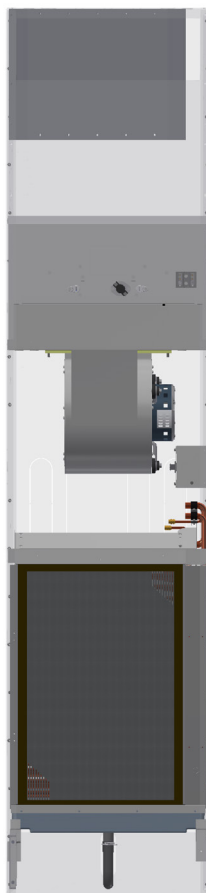
Coils are 1/2 inch staggered tube type construction with seamless copper tubes and headers and deep corrugated aluminum fins with straight edges. Fins are manufactured with full depth collars, drawn in the fin stock to provide accurate control of fin spacing and completely cover the copper tubes to lengthen coil life. The tubes are to be expanded into the fins for a permanent primary to secondary surface bond, assuring maximum heat transfer efficiency. The coils are to be tested at 350 pounds air pressure for operation at 300 PSI gauge working pressure. Coils include a manual air vent.

COOLING/HEATING

Options include 2-pipe, 4-pipe or 2-pipe with electric heat.

DRAIN PANS

Removable and formed from heavy gauge galvanized steel or optional stainless steel and is coated inside with insulation. The drain pan is factory piped to a removable "p-trap" for easy cleaning.



RR SERIES

VERTICAL HIGH RISE FAN COILS

FEATURES (CONT'D)

FAN WHEELS

Double width, double inlet (DWDI), forward curved, centrifugal type. They are statically and dynamically balanced for smooth, quiet operation. The housing is constructed of heavy gauge galvanized steel with die-formed inlet cones.

MOTOR

Three-speed with 115-V, 208/240-V and 277-V option, single phase, 60-Hz, electronically commutated motor type, factory mounted on the blower housing.

FILTERS

1" disposable type. The filters are included in the units as an integral part of the cabinet with easy access.

RISERS

Can be factory installed or shipped loose. Typically 116" or 120" long with straight ends for pro-press fittings to join one riser to another or swaged ends. Standard risers are copper insulated with 3/4" insulation, with additional thicknesses of 1/2" or 1" thick synthetic rubber options. Risers are made from either Type L or Type M copper.

VALVE PACKAGES

Factory assembled for installation inside cabinet. Power-heads include quick connect wiring harness.

24V CONTROLS

Include a quick connect plug for field-mounting of thermostat on the front of unit.

FRESH AIR

Opening available on either side of unit as a knockout.

ELECTRIC HEATERS

Equipped with open wound nichrome wire including automatic reset safety cutout switch and 24v control circuit.

RETURN AIR/ACCESS PANEL

Is fabricated from heavy gauge galvanized steel with stamped louvers, powder coated and equipped with tamper proof fasteners.

CERTIFICATIONS

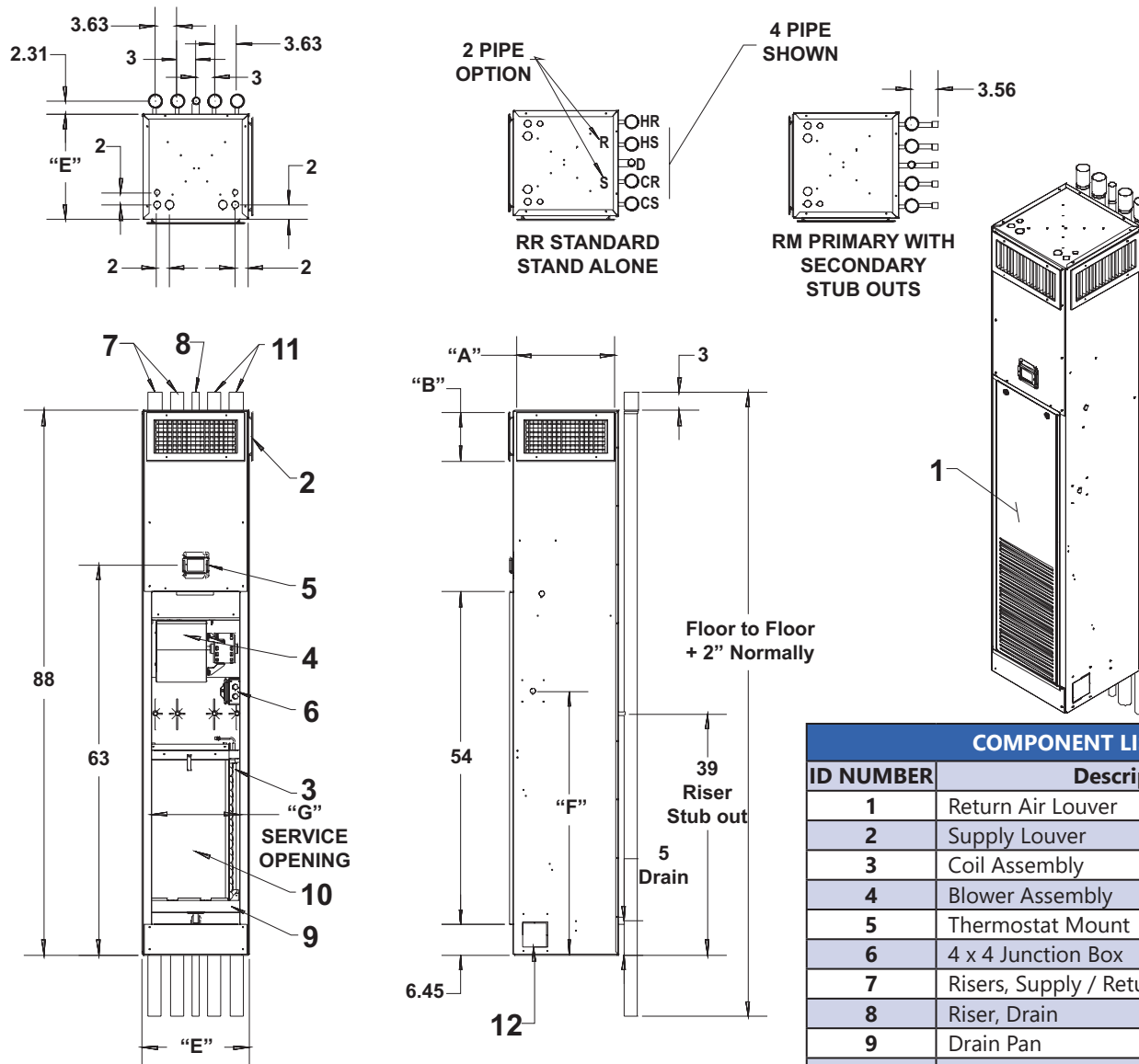
Include ETL for safety and rated in accordance with ARI standard 440 for capacity.



RR SERIES

VERTICAL HIGH RISE FAN COILS

BFRX – DIMENSIONS

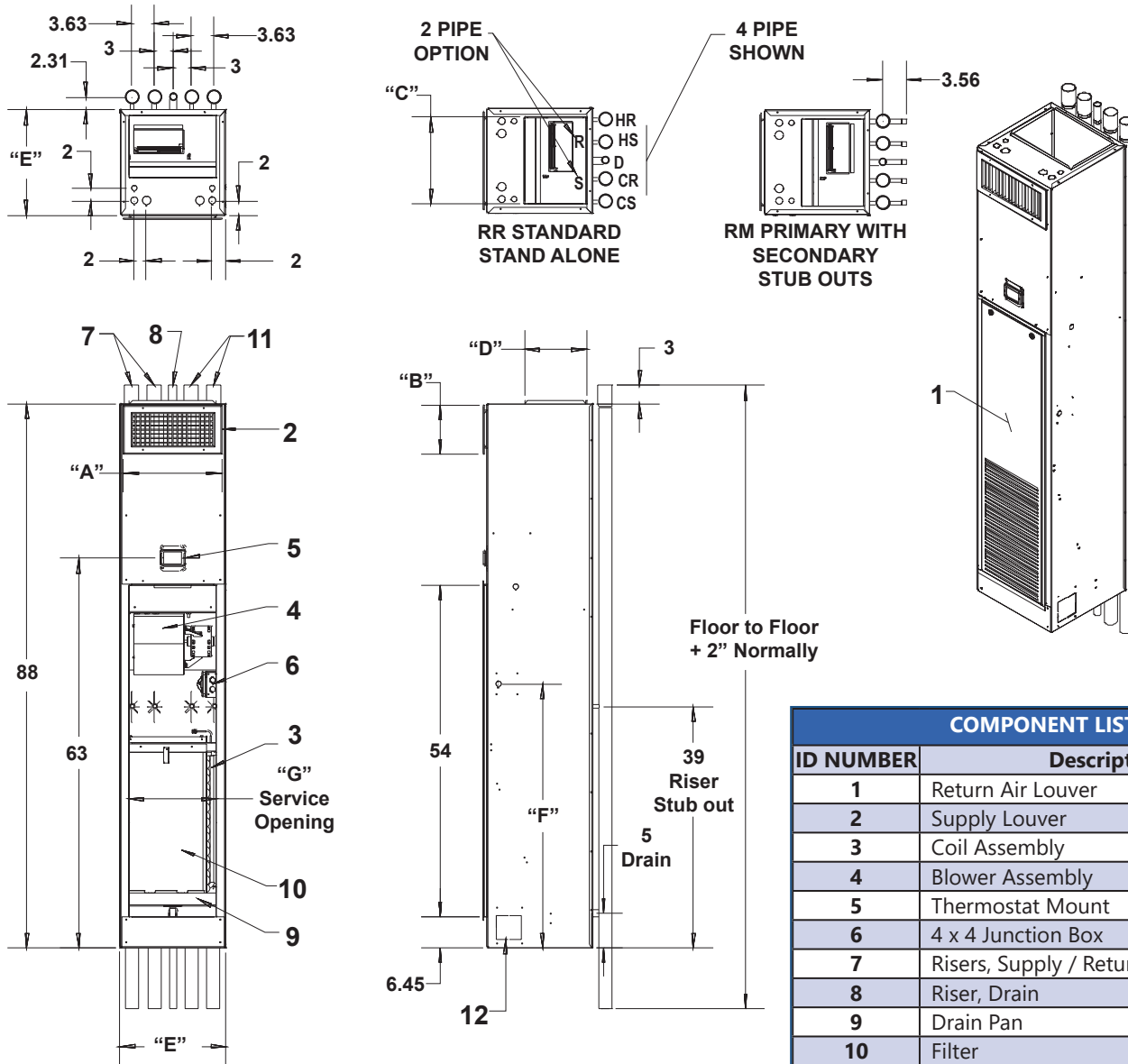


RR FAN COILS – BFRX DIMENSIONS													
MODEL	SINGLE SUPPLY OPENING			DOUBLE SUPPLY OPENING (2)			TOP SUPPLY OPENING			FILTER DATA			
	A	B	SIZE	A	B	SIZE	C	D	SIZE	E	F	G	FILTER SIZE
3RR				14	6	14 X 6				17	42.62	14.13	12.5 X 24.25 X 1
4RR				14	6	14 X 6				17	42.62	14.13	12.5 X 24.25 X 1
6RR				18	6	18 X 6				20	42.62	18.13	16.25 X 26.75 X 1
8RR				18	6	18 X 6				20	42.62	18.13	16.25 X 26.75 X 1
10RR				22	8	22 X 8				24	42.62	22.13	20.50 X 29.25 X 1
12RR				22	8	22 X 8				24	42.62	22.13	20.50 X 29.25 X 1

RR SERIES

VERTICAL HIGH RISE FAN COILS

BFTX – DIMENSIONS



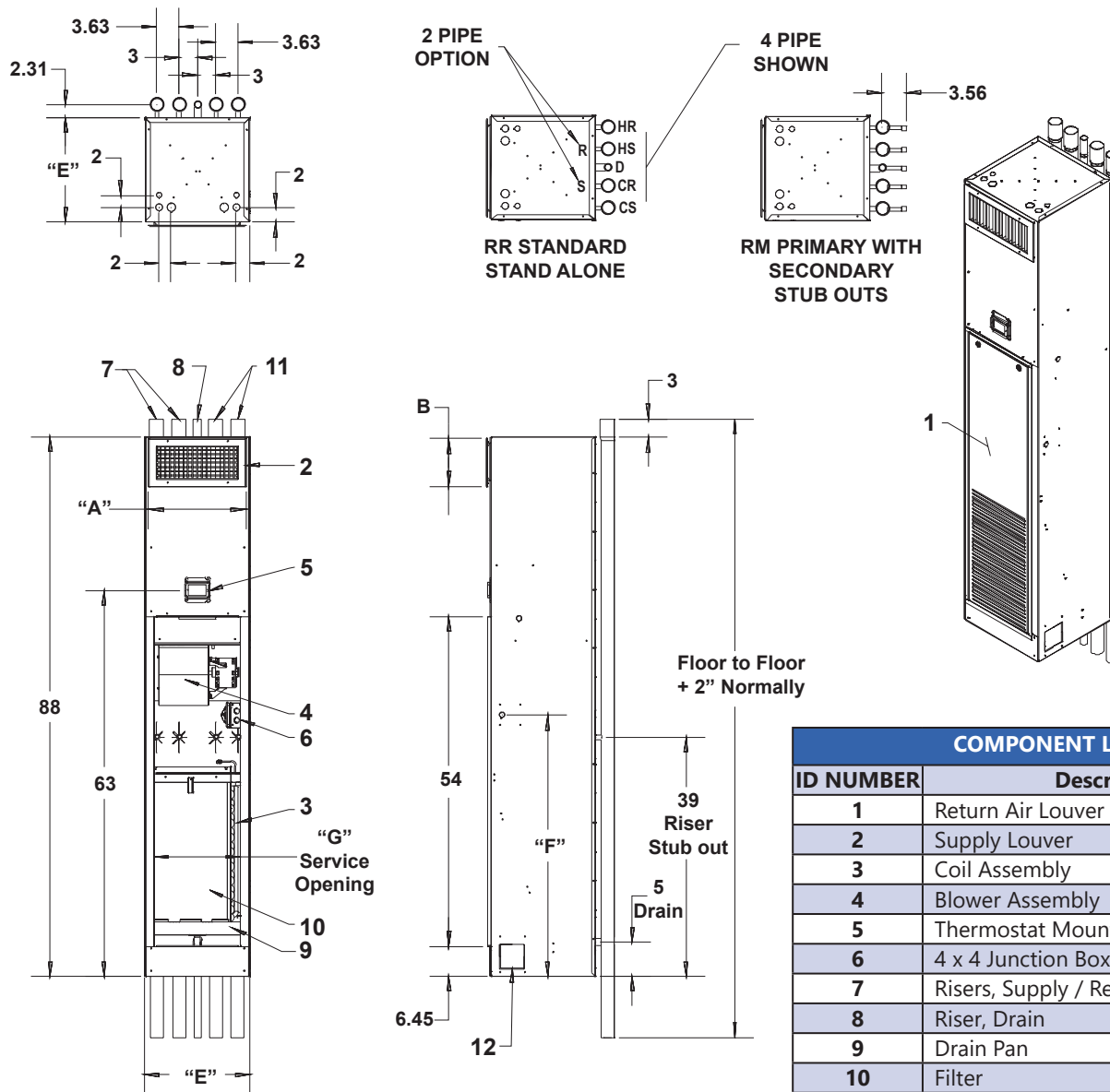
COMPONENT LIST	
ID NUMBER	Description
1	Return Air Louver
2	Supply Louver
3	Coil Assembly
4	Blower Assembly
5	Thermostat Mount
6	4 x 4 Junction Box
7	Risers, Supply / Return Hot
8	Riser, Drain
9	Drain Pan
10	Filter
11	Riser, Supply / Return Cold
12	Knockout for Optional Fresh Air Inlet

RR FAN COILS – BFTX DIMENSIONS													
MODEL	SINGLE SUPPLY OPENING			DOUBLE SUPPLY OPENING (2)			TOP SUPPLY OPENING			FILTER DATA			
	A	B	SIZE	A	B	SIZE	C	D	SIZE	E	F	G	FILTER SIZE
3RR				14	6	14 X 6	14	10	14 X 10	17	42.62	14.13	12.5 X 24.25 X 1
4RR				14	6	14 X 6	14	10	14 X 10	17	42.62	14.13	12.5 X 24.25 X 1
6RR				18	6	18 X 6	16	12	16 X 12	20	42.62	18.13	16.25 X 26.75 X 1
8RR				18	6	18 X 6	16	12	16 X 12	20	42.62	18.13	16.25 X 26.75 X 1
10RR				22	8	22 X 8	18	16	18 X 16	24	42.62	22.13	20.50 X 29.25 X 1
12RR				22	8	22 X 8	18	16	18 X 16	24	42.62	22.13	20.50 X 29.25 X 1

RR SERIES

VERTICAL HIGH RISE FAN COILS

BFXF – DIMENSIONS

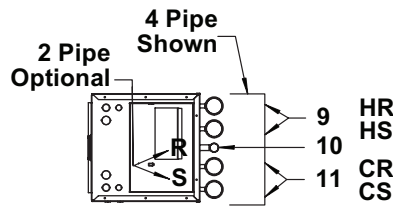
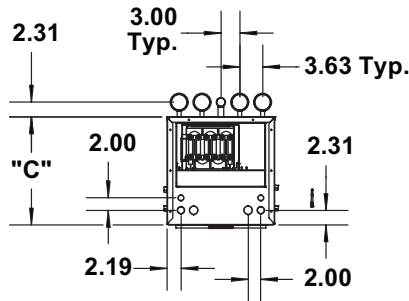


RR FAN COILS – BFXF DIMENSIONS													
MODEL	SINGLE SUPPLY OPENING			DOUBLE SUPPLY OPENING (2)			TOP SUPPLY OPENING			FILTER DATA			
	A	B	SIZE	A	B	SIZE	C	D	SIZE	E	F	G	FILTER SIZE
3RR	14	8	14x8							17	42.62	14.13	12.5 X 24.25 X 1
4RR	14	12	14x12							17	42.62	14.13	12.5 X 24.25 X 1
6RR	18	10	18x10							20	42.62	18.13	16.25 X 26.75 X 1
8RR	18	12	18x12							20	42.62	18.13	16.25 X 26.75 X 1

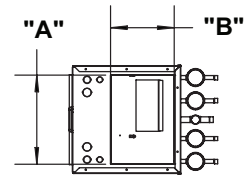
RR SERIES

VERTICAL HIGH RISE FAN COILS

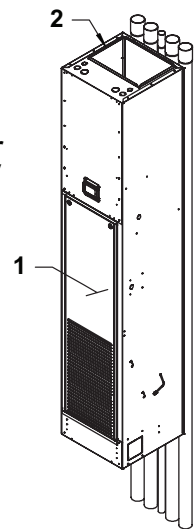
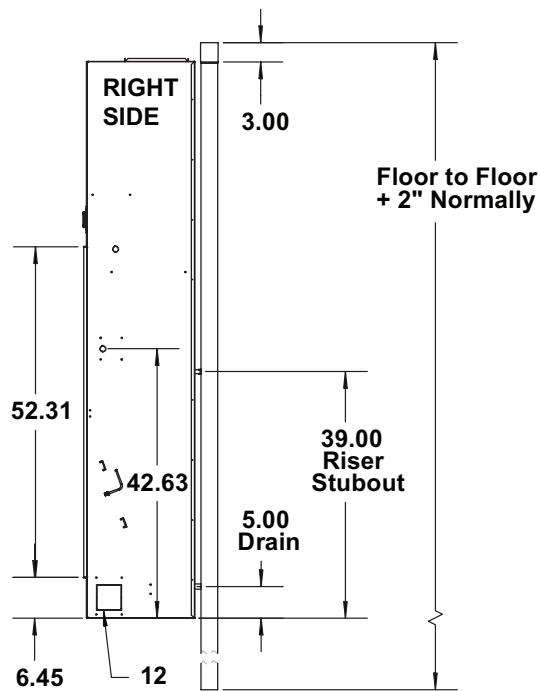
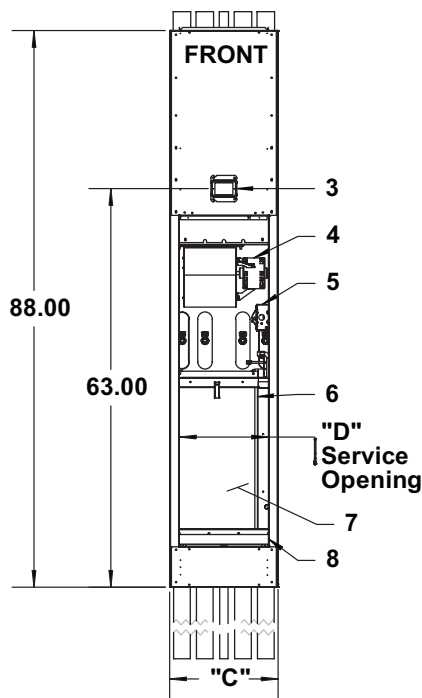
BTXX – DIMENSIONS



RR STANDARD
STAND ALONE



RR MASTER WITH
SLAVE STUBOUTS



COMPONENT LIST – 1 THRU 6	
ID NUMBER	Description
1	Return Air Louver
2	Supply Duct
3	Thermostat Mount
4	Blower Assembly
5	4 x 4 J-Box W/ Service Switch
6	Coil Assembly

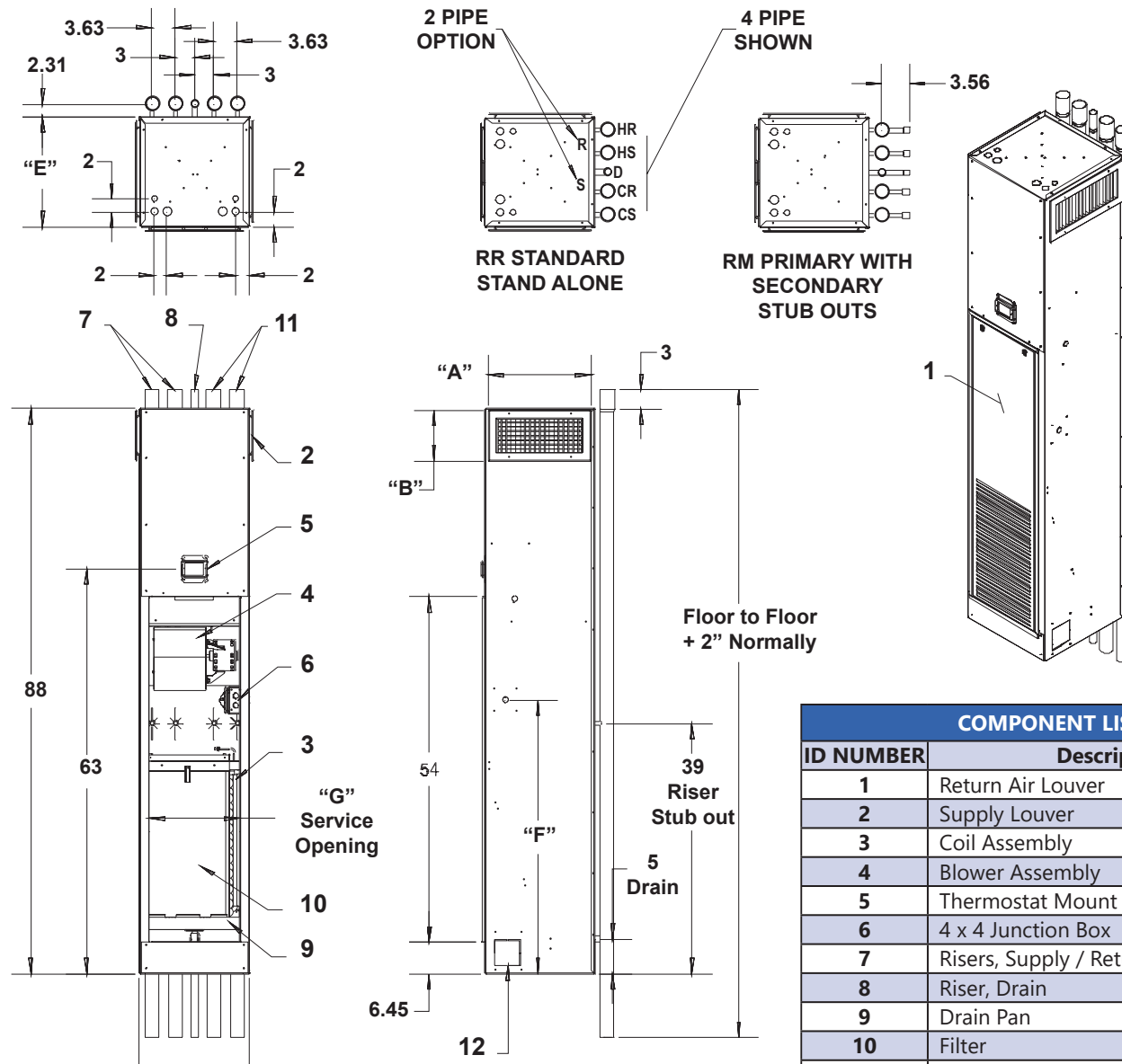
COMPONENT LIST – 7 THRU 12	
ID NUMBER	Description
7	Filter
8	Drain Pan
9	Risers, Supply/Return Hot
10	Riser Drain
11	Risers, Supply/Return Cold
12	Knockout for Optional Fresh Air Inlet

BTXX DIMENSIONS						
MODEL	TOP SUPPLY			FILTER DATA		
	A	B	SIZE	C	D	FILTER SIZE
3RR	14	10	14x10	17	14.13	12.50 X 24.25 X 1
4RR	14	10	14x10	17	14.13	12.50 X 24.25 X 1
6RR	16	12	16X12	20	18.13	16.25 X 26.75 X 1
8RR	16	12	16X12	20	18.13	16.25 X 26.75 X 1
10RR	18	16	18X16	24	22.13	20.50 X 29.25 X 1
12RR	18	16	18X16	24	22.13	20.50 X 29.25 X 1

RR SERIES

VERTICAL HIGH RISE FAN COILS

BLRX – DIMENSIONS



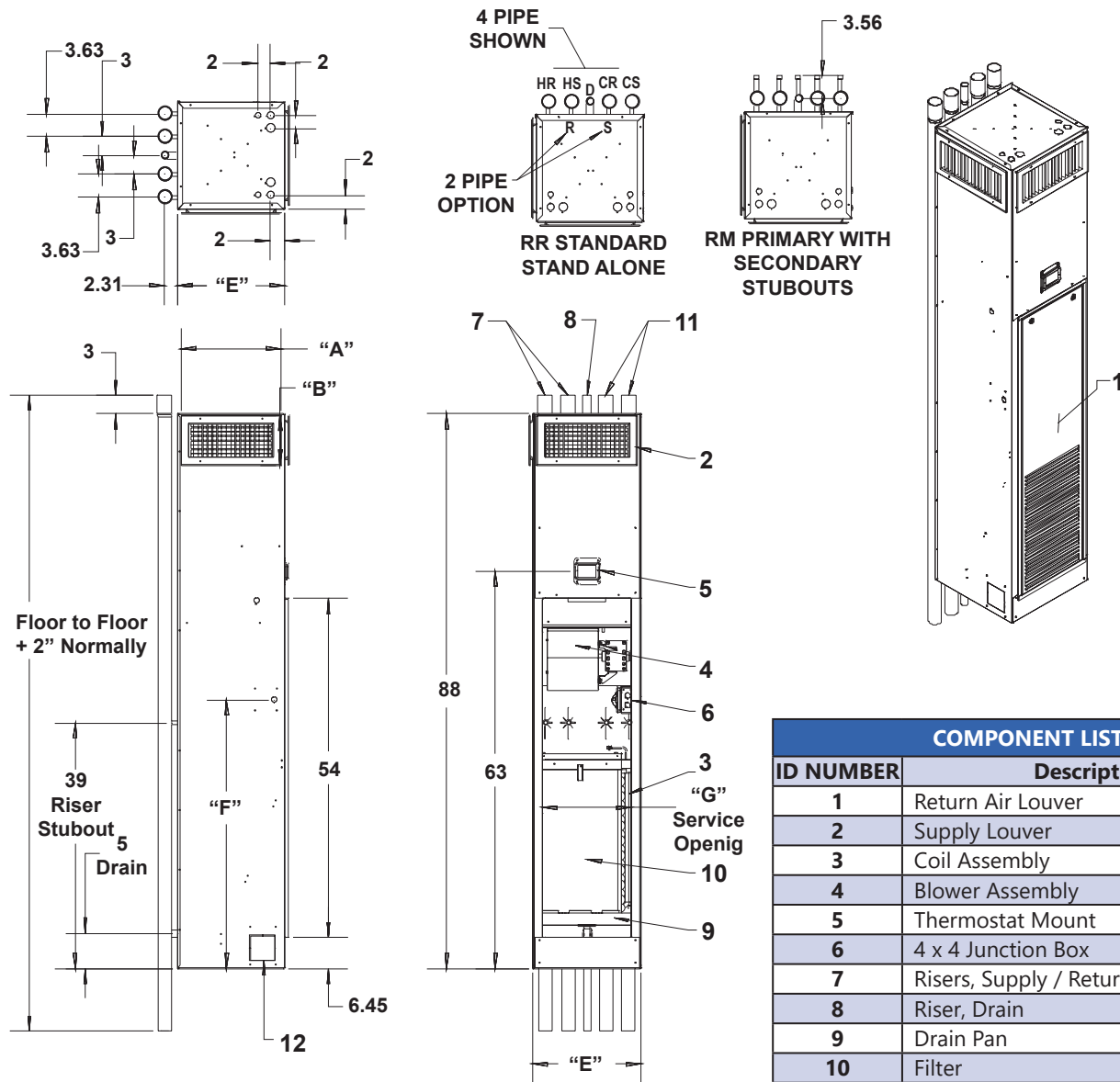
COMPONENT LIST	
ID NUMBER	Description
1	Return Air Louver
2	Supply Louver
3	Coil Assembly
4	Blower Assembly
5	Thermostat Mount
6	4 x 4 Junction Box
7	Risers, Supply / Return Hot
8	Riser, Drain
9	Drain Pan
10	Filter
11	Riser, Supply / Return Cold
12	Knockout for Optional Fresh Air Inlet

RR FAN COILS – BLRX DIMENSIONS													
MODEL	SINGLE SUPPLY OPENING			DOUBLE SUPPLY OPENING (2)			TOP SUPPLY OPENING			FILTER DATA			
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4RR				14	6	14 X 6				17	42.62	14.13	12.5 X 24.25 X 1
6RR				18	6	18 X 6				20	42.62	18.13	16.25 X 26.75 X 1
8RR				18	6	18 X 6				20	42.62	18.13	16.25 X 26.75 X 1
10RR				22	8	22 X 8				24	42.62	22.13	20.50 X 29.25 X 1
12RR				22	8	22 X 8				24	42.62	22.13	20.50 X 29.25 X 1

RR SERIES

VERTICAL HIGH RISE FAN COILS

BFLX – DIMENSIONS

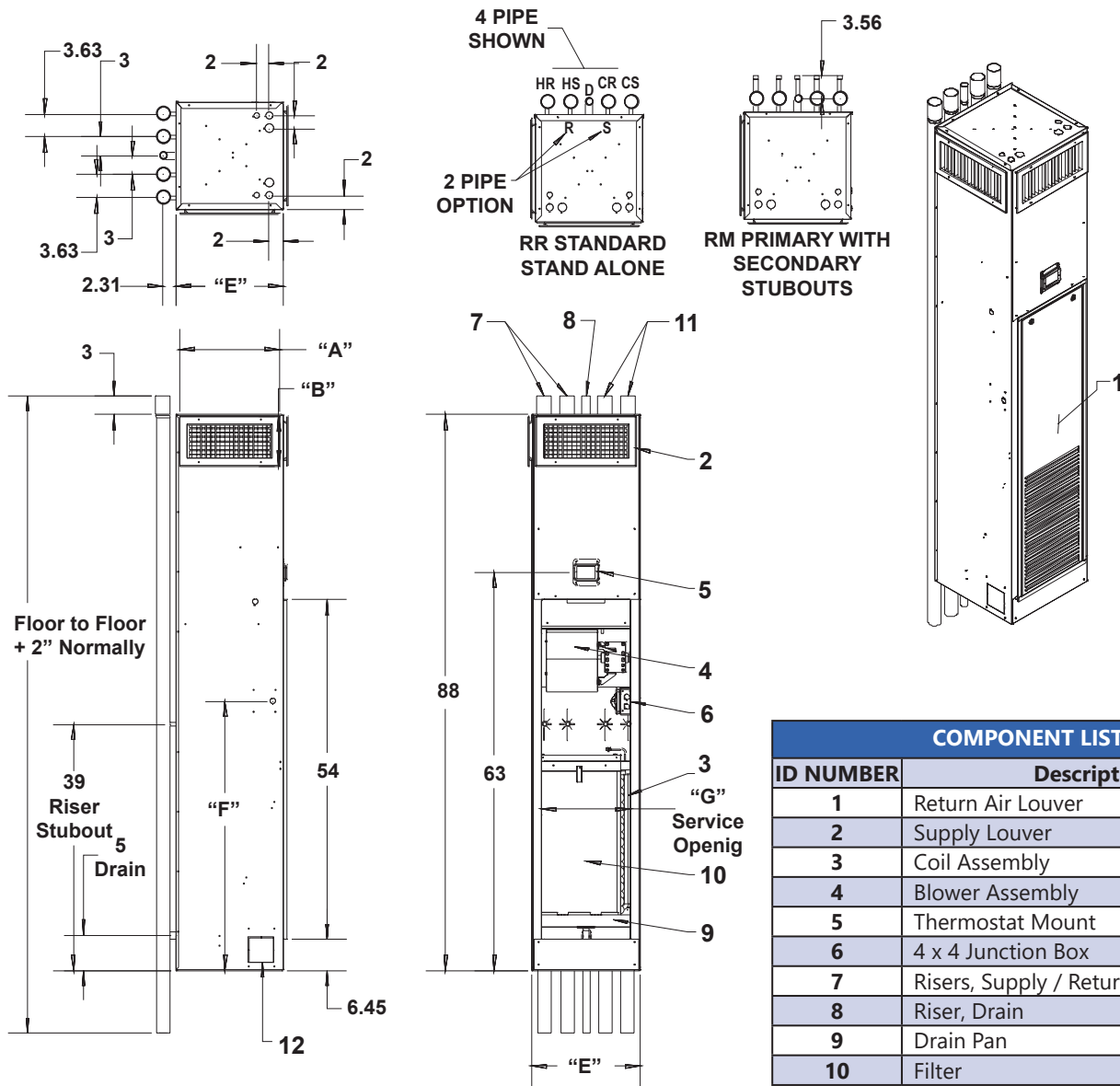


RR FAN COILS – BFLX DIMENSIONS													
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4RR				14	6	14 X 6				17	42.62	14.13	12.5 X 24.25 X 1
6RR				18	6	18 X 6				20	42.62	18.13	16.25 X 26.75 X 1
8RR				18	6	18 X 6				20	42.62	18.13	16.25 X 26.75 X 1
10RR				22	8	22 X 8				24	42.62	22.13	20.50 X 29.25 X 1
12RR				22	8	22 X 8				24	42.62	22.13	20.50 X 29.25 X 1

RR SERIES

VERTICAL HIGH RISE FAN COILS

BRTX – DIMENSIONS

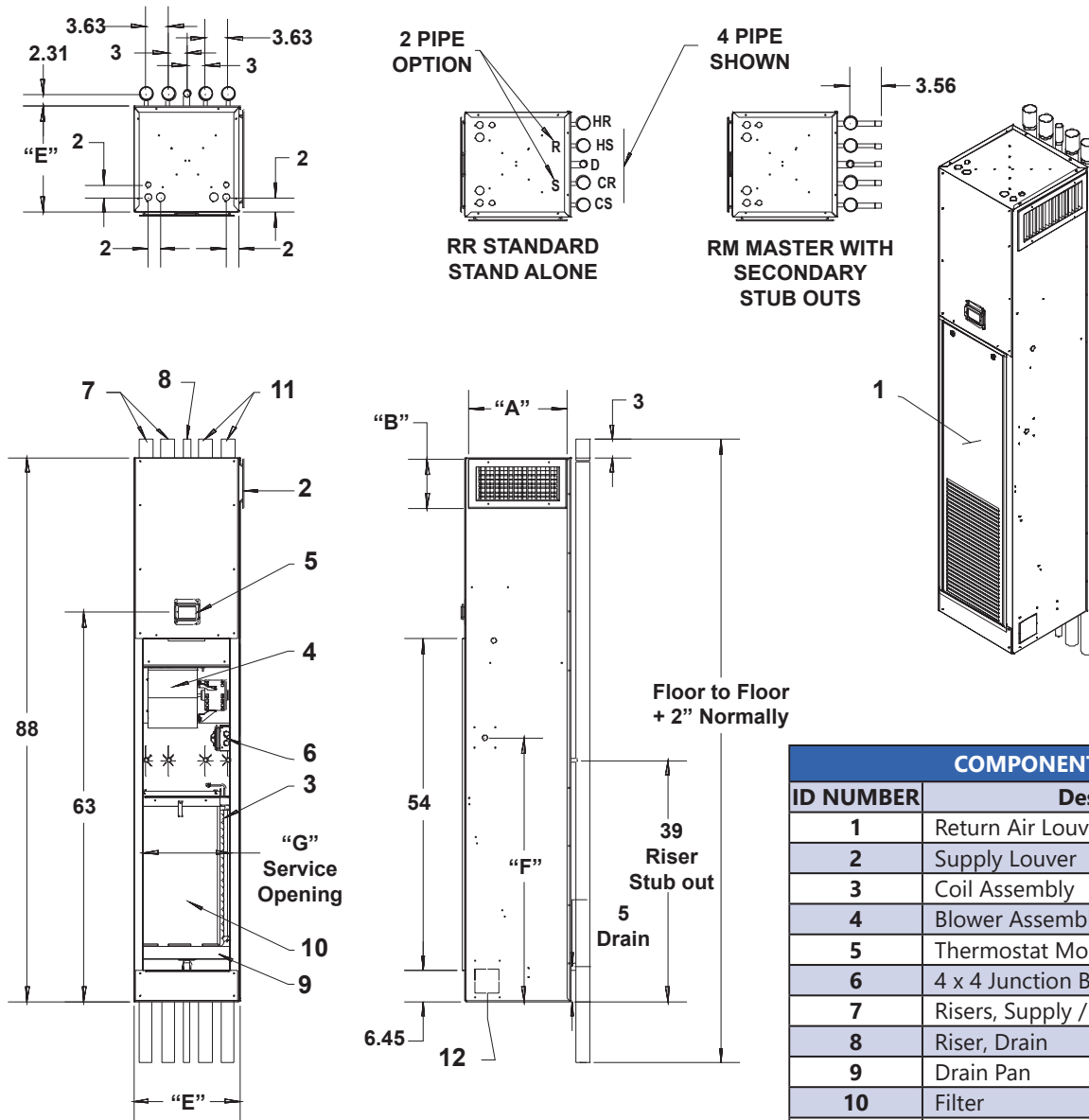


RR FAN COILS – BRTX DIMENSIONS													
MODEL	SINGLE SUPPLY OPENING			DOUBLE SUPPLY OPENING (2)			TOP SUPPLY OPENING			FILTER DATA			
	A	B	SIZE	A	B	SIZE	C	D	SIZE	E	F	G	FILTER SIZE
3RR				14	6	14 X 6	14	10	14 X 10	17	42.62	14.13	12.5 X 24.25 X 1
4RR				14	6	14 X 6	14	10	14 X 10	17	42.62	14.13	12.5 X 24.25 X 1
6RR				18	6	18 X 6	16	12	16 X 12	20	42.62	18.13	16.25 X 26.75 X 1
8RR				18	6	18 X 6	16	12	16 X 12	20	42.62	18.13	16.25 X 26.75 X 1
10RR				22	8	22 X 8	18	16	18 X 16	24	42.62	22.13	20.50 X 29.25 X 1
12RR				22	8	22 X 8	18	16	18 X 16	24	42.62	22.13	20.50 X 29.25 X 1

RR SERIES

VERTICAL HIGH RISE FAN COILS

BRXX – DIMENSIONS



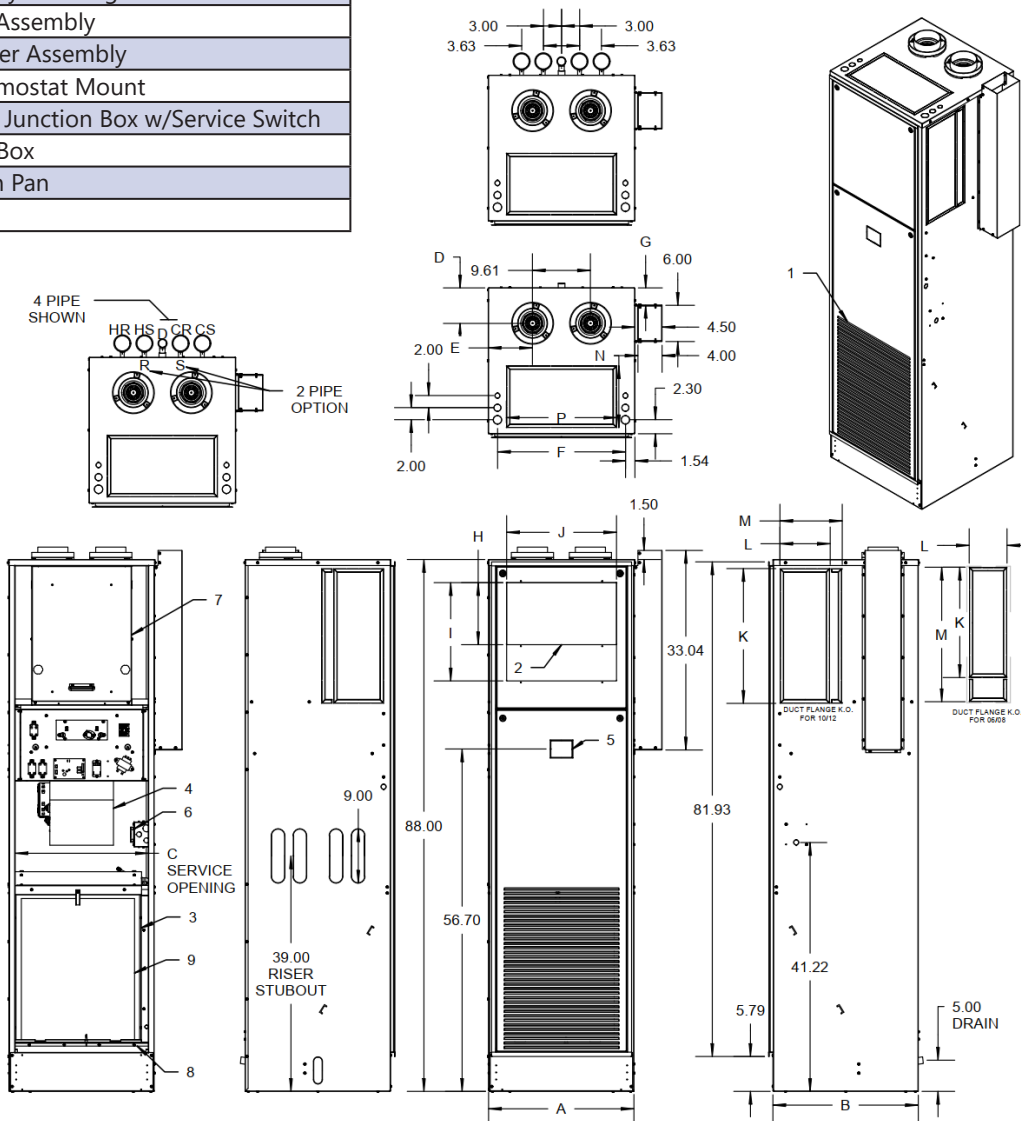
RR FAN COILS – BRXX DIMENSIONS													
MODEL	SINGLE SUPPLY OPENING			DOUBLE SUPPLY OPENING (2)			TOP SUPPLY OPENING			FILTER DATA			
	A	B	SIZE	A	B	SIZE	C	D	SIZE	E	F	G	FILTER SIZE
3RR	14	8	14x8							17	42.62	14.13	12.5 X 24.25 X 1
4RR	14	12	14x12							17	42.62	14.13	12.5 X 24.25 X 1
6RR	18	10	18x10							20	42.62	18.13	16.25 X 26.75 X 1
8RR	18	12	18x12							20	42.62	18.13	16.25 X 26.75 X 1

RR SERIES

VERTICAL HIGH RISE FAN COILS

UNIV-ERV – DIMENSIONS

COMPONENT LIST	
ID NUMBER	Description
1	Return Air Louver
2	Supply Discharge
3	Coil Assembly
4	Blower Assembly
5	Thermostat Mount
6	4 x 4 Junction Box w/Service Switch
7	ERV Box
8	Drain Pan
9	Filter



RR FAN COILS – UNIV-ERV DIMENSIONS

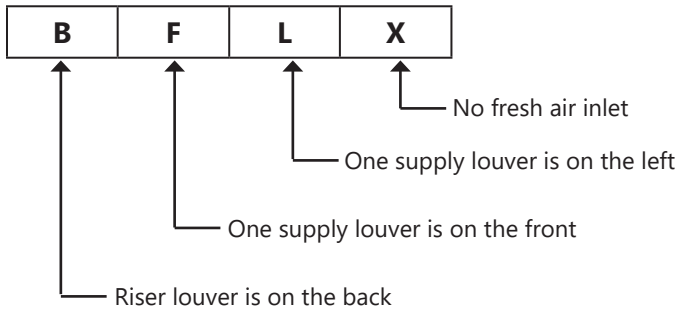
-								SUPPLY DISCHARGE		SIDE DISCHARGE		TOP DISCHARGE		-		
UNIT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	FILTER SIZE
03/04	20	20	18	6	5	17	3	6	8	14	14	6	-	6	14	12.5 X 24.5 X 1
06/08	20	20	18	6	5	17	3	8	12	14	18	6	22	6	14	16.25 X 26.75 X 1
10/12	24	24	22	6	7	21	3	10	16	18	22	8	10	10	18	10.5 X 29.25 X 1

RR SERIES

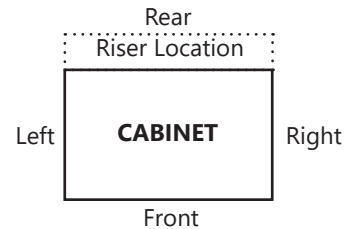
VERTICAL HIGH RISE FAN COILS

UNIT ARRANGEMENT

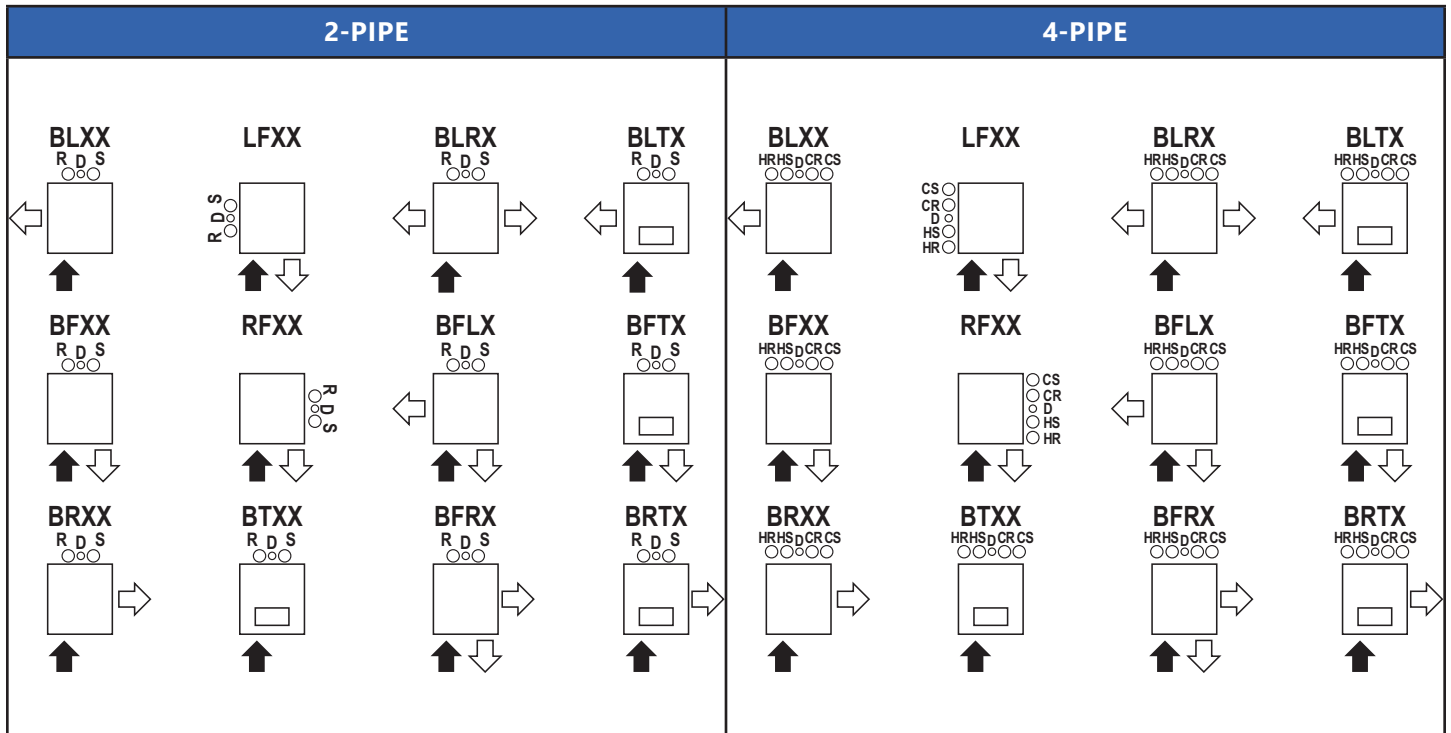
TYPICAL ARRANGEMENT



B = BACK
F = FRONT
L = LEFT
R = RIGHT
X = NONE



RETURN AIR LOUVER IS ALWAYS CONSIDERED THE FRONT OF UNIT



R = Return
 D = Drain
 S = Supply



HR = Hot Water Return
 HS = Hot Water Supply
 D = Drain
 CR = Cold Water Return
 CS = Cold Water Supply

Legend:



RR SERIES

VERTICAL HIGH RISE FAN COILS

BLOWER PERFORMANCE

RR FAN COILS – CFM							
UNIT MODEL	FAN SPEED	EXTERNAL STATIC PRESSURE					
		0	0.1	0.2	0.3	0.4	0.5
3	HIGH	340	260	220	180	140	70
	MED	320	230	190	145	100	---
	LOW	300	195	150	110	70	---
4	HIGH	400	345	305	270	230	170
	MED	350	280	240	200	160	90
	LOW	320	230	190	145	100	---
6	HIGH	620	580	550	520	500	470
	MED	520	470	440	410	380	340
	LOW	430	370	320	290	250	150
8	HIGH	880	840	790	740	690	640
	MED	690	660	630	600	560	530
	LOW	550	520	480	460	430	400
10	MED HIGH	1100	1060	1020	985	965	930
	MED LOW	1035	1000	960	930	910	885
	LOW	880	850	800	780	770	735
12	HIGH	1260	1190	1165	1130	1100	1050
	MED LOW	1000	910	860	840	830	800
	LOW	790	760	710	670	650	610

NOTES:

Based on maximum of 5 rows.

Deduct 10% for operation at 208V.

Data is subject to change. Please verify most current information on www.Firstco.com.

RR SERIES

VERTICAL HIGH RISE FAN COILS

ELECTRIC HEAT DATA

RR SERIES – ELECTRIC HEAT DATA																					
Unit Model	Nom CFM	KW				BTUH				FLA				MCA				MOP			
		120V	208V	240V	277V	120V	208V	240V	277V	120V	208V	240V	277V	120V	208V	240V	277V	120V	208V	240V	277V
3RR	300	0	0	0	0	0	0	0	0	4.42	2.76	2.76	2.76	6	4	4	4	15	15	15	15
		1	0.75	1	1	3400	2550	3400	3400	12.75	6.37	6.92	6.37	16	8	9	8	20	15	15	15
		2	1.5	2	2	6800	5100	6800	6800	21.08	9.97	11.08	9.98	27	13	14	13	30	15	15	15
		–	2.25	3	3	–	7650	10200	10200	–	13.58	15.24	13.59	–	17	20	17	–	20	20	20
4RR	400	0	0	0	0	0	0	0	0	4.42	2.76	2.76	2.76	6	4	4	4	15	15	15	15
		1	0.75	1	1	3400	2550	3400	3400	12.75	6.37	6.92	6.37	16	8	9	8	20	15	15	15
		2	1.5	2	2	6800	5100	6800	6800	21.08	9.97	11.08	9.98	27	13	14	13	30	15	15	15
		–	2.25	3	3	–	7650	10200	10200	–	13.58	15.24	13.59	–	17	20	17	–	20	20	20
		–	3	4	4	–	10200	13600	13600	–	17.18	19.4	17.2	–	22	25	22	–	25	25	25
6RR	600	0	0	0	0	0	0	0	0	5.72	3.26	3.26	3.06	8	5	5	4	15	15	15	15
		1	1.5	2	2	3400	5100	6800	6800	14.05	10.47	11.58	10.28	18	14	15	13	25	15	20	15
		2	2.25	3	3	6800	7650	10200	10200	22.38	14.08	15.74	13.89	28	18	20	18	30	20	20	20
		–	3	4	4	–	10200	13600	13600	–	17.68	19.9	17.5	–	23	25	22	–	25	25	25
		–	3.75	5	5	–	12750	17000	17000	–	21.29	24.06	21.11	–	27	31	27	–	30	35	30
		–	4.5	6	6	–	15300	20400	20400	–	24.89	28.22	24.72	–	32	36	31	–	35	40	35
8RR	800	0	0	0	0	0	0	0	0	5.72	3.26	3.26	3.06	8	5	5	4	15	15	15	15
		1	1.5	2	2	3400	5100	6800	6800	14.05	10.47	11.58	10.28	18	14	15	13	25	15	20	15
		2	2.25	3	3	6800	7650	10200	10200	22.38	14.08	15.74	13.89	28	18	20	18	30	20	20	20
		–	3	4	4	–	10200	13600	13600	–	17.68	19.9	17.5	–	23	25	22	–	25	25	25
		–	3.75	5	5	–	12750	17000	17000	–	21.29	24.06	21.11	–	27	31	27	–	30	35	30
		–	4.5	6	6	–	15300	20400	20400	–	24.89	28.22	24.72	–	32	36	31	–	35	40	35
		–	6	8	8	–	20400	27200	27200	–	32.11	36.54	31.94	–	41	46	40	–	50	50	40
10RR	1000	0	0	0	0	0	0	0	0	7.72	4.56	4.56	4.06	10	6	6	6	20	15	15	15
		1	2.25	3	3	3400	7650	10200	10200	16.05	15.38	17.04	14.89	21	20	22	19	30	20	25	20
		2	3	4	4	6800	10200	13600	13600	24.38	17.18	21.2	18.5	31	22	27	24	35	25	30	25
		–	3.75	5	5	–	12750	17000	17000	–	20.79	25.36	22.11	–	26	32	28	–	30	35	30
		–	4.5	6	6	–	15300	20400	20400	–	24.39	29.52	25.72	–	31	37	33	–	35	40	35
		–	6	8	8	–	20400	27200	27200	–	31.61	37.84	32.94	–	40	48	42	–	40	50	50
		–	7.5	10	10	–	25500	34000	34000	–	38.82	46.16	40.16	–	49	58	51	–	50	60	60
12RR	1200	0	0	0	0	0	0	0	0	7.72	4.56	4.56	4.06	10	6	6	6	20	15	15	15
		1	2.25	3	3	3400	7650	10200	10200	16.05	15.38	17.04	14.89	21	20	22	19	30	20	25	20
		2	3	4	4	6800	10200	13600	13600	24.38	18.98	21.2	18.5	31	24	27	24	35	25	30	25
		–	3.75	5	5	–	12750	17000	17000	–	22.59	25.36	22.11	–	29	32	28	–	30	35	30
		–	4.5	6	6	–	15300	20400	20400	–	26.19	29.52	25.72	–	33	37	33	–	35	40	35
		–	6	8	8	–	20400	27200	27200	–	33.41	37.84	32.94	–	42	48	42	–	50	50	50
		–	7.5	10	10	–	25500	34000	34000	–	40.62	46.16	40.16	–	51	58	51	–	60	60	60

RR SERIES

VERTICAL HIGH RISE FAN COILS

ELECTRIC HEAT DATA (CONT'D)

ELECTRICAL DATA FOR RISER (NO ELECTRIC HEAT)											
Voltage	Fan Speed	3RR				Voltage	Fan Speed	4RR			
		HP	AMPS	MCA	MOCP			HP	AMPS	MCA	MOCP
		Blower	Blower					Blower	Blower		
120/1/60	HIGH	1/4	3.5	4.4	15	120/1/60	HIGH	1/4	3.5	4.4	15
208/1/60	HIGH	1/4	2.3	2.9	15	208/1/60	HIGH	1/4	2.3	2.9	15
240/1/60	HIGH	1/4	2.3	2.9	15	240/1/60	HIGH	1/4	2.3	2.9	15
277/1/60	HIGH	1/4	2.3	2.9	15	277/1/60	HIGH	1/4	2.3	2.9	15

Voltage	Fan Speed	6RR				Voltage	Fan Speed	8RR			
		HP	AMPS	MCA	MOCP			HP	AMPS	MCA	MOCP
		Blower	Blower					Blower	Blower		
120/1/60	HIGH	1/3	4.8	6	15	120/1/60	HIGH	1/3	4.8	6	15
208/1/60	HIGH	1/3	2.8	3.5	15	208/1/60	HIGH	1/3	2.8	3.5	15
240/1/60	HIGH	1/3	2.8	3.5	15	240/1/60	HIGH	1/3	2.8	3.5	15
277/1/60	HIGH	1/3	2.6	3.3	15	277/1/60	HIGH	1/3	2.6	3.3	15

Voltage	Fan Speed	10RR				Voltage	Fan Speed	12RR			
		HP	AMPS	MCA	MOCP			HP	AMPS	MCA	MOCP
		Blower	Blower					Blower	Blower		
120/1/60	HIGH	1/2	6.8	8.5	20	120/1/60	HIGH	1/2	6.8	8.5	20
208/1/60	HIGH	1/2	4.1	5.1	15	208/1/60	HIGH	1/2	4.1	5.1	15
240/1/60	HIGH	1/2	4.1	5.1	15	240/1/60	HIGH	1/2	4.1	5.1	15
277/1/60	HIGH	1/2	3.6	4.5	15	277/1/60	HIGH	1/2	3.6	4.5	15

ELECTRICAL DATA FOR ERV RISER (NO ELECTRIC HEAT)															
Voltage	Fan Speed	3RR						Voltage	Fan Speed	4RR					
		HP		Amps		MCA	MOCP			HP		Amps		MCA	MOCP
		ERV	Blower	ERV	Blower					ERV	Blower	ERV	Blower		
120/1/60	HIGH	1/30	1/4	0.92	3.5	5.3	15	120/1/60	HIGH	1/30	1/4	0.92	3.5	5.3	15
208/1/60	HIGH	1/30	1/4	0.46	2.3	3.3	15	208/1/60	HIGH	1/30	1/4	0.46	2.3	2.3	15
240/1/60	HIGH	1/30	1/4	0.46	2.3	3.3	15	240/1/60	HIGH	1/30	1/4	0.46	2.3	2.3	15
277/1/60	HIGH	1/30	1/4	0.46	2.3	3.3	15	277/1/60	HIGH	1/30	1/4	0.46	2.3	3.3	15

Voltage	Fan Speed	6RR						Voltage	Fan Speed	8RR					
		HP		Amps		MCA	MOCP			HP		Amps		MCA	MOCP
		ERV	Blower	ERV	Blower					ERV	Blower	ERV	Blower		
120/1/60	HIGH	1/30	1/3	0.92	4.8	6.9	15	120/1/60	HIGH	1/30	1/3	0.92	4.8	6.9	15
208/1/60	HIGH	1/30	1/3	0.46	2.8	4	15	208/1/60	HIGH	1/30	1/3	0.46	2.8	4	15
240/1/60	HIGH	1/30	1/3	0.46	2.8	4	15	240/1/60	HIGH	1/30	1/3	0.46	2.8	4	15
277/1/60	HIGH	1/30	1/3	0.46	2.6	3.7	15	277/1/60	HIGH	1/30	1/3	0.46	2.6	3.7	15

Voltage	Fan Speed	10RR						Voltage	Fan Speed	12RR					
		HP		Amps		MCA	MOCP			HP		Amps		MCA	MOCP
		ERV	Blower	ERV	Blower					ERV	Blower	ERV	Blower		
120/1/60	HIGH	1/30	1/2	0.92	6.8	9.4	20	120/1/60	HIGH	1/30	1/2	0.92	6.8	9.4	20
208/1/60	HIGH	1/30	1/2	0.46	4.1	5.6	15	208/1/60	HIGH	1/30	1/2	0.46	4.1	5.6	15
240/1/60	HIGH	1/30	1/2	0.46	4.1	5.6	15	240/1/60	HIGH	1/30	1/2	0.46	4.1	5.6	15
277/1/60	HIGH	1/30	1/2	0.46	3.6	5	15	277/1/60	HIGH	1/30	1/2	0.46	3.6	5	15

RR SERIES

VERTICAL HIGH RISE FAN COILS

COOLING CAPACITIES

COOLING CAPACITY (1000 BTUH) (3 ROW AND 3/1)																					
MODEL	NOM- INAL CFM	GPM	P.D. (FT. WTR.)	75°F DB / 63°F WB									80°F DB / 67°F WB								
				40°F EWT			45°F EWT			50°F EWT			40°F EWT			45°F EWT			50°F EWT		
				TH	SH	TR	TH	SH	TR	TH	SH	TR	TH	SH	TR	TH	SH	TR	TH	SH	TR
03	300	1.5	2.6	10	7.7	13.2	8.2	6.9	10.9	6.5	6.1	8.6	11.9	8.5	15.8	10	7.8	13.3	8.2	7	10.9
		2.5	6.9	12	8.6	9.5	9.7	7.6	7.7	7.5	6.7	6	14.5	9.6	11.5	12.2	8.6	9.7	9.8	7.7	7.8
		3.5	13.1	13.2	9.2	7.5	10.6	8	6	8.1	6.9	4.6	16	10.3	9.1	13.4	9.1	7.6	10.7	8	6.1
04	400	1.5	2.6	11.3	9.3	14.9	9.4	8.5	12.4	7.6	7.4	10.1	13.4	10.3	17.7	11.3	9.4	15.1	9.4	8.6	12.5
		2.5	6.9	13.9	10.5	11	11.4	9.4	9	8.9	8.3	7.1	16.7	11.7	13.3	14	10.6	11.1	11.4	9.5	9.1
		3.5	13.1	15.5	11.3	8.8	12.6	10	7.2	9.7	8.7	5.5	18.8	12.6	10.6	15.7	11.3	8.9	12.6	10	7.2
06	600	2.5	3.3	15.1	13.1	12.1	13.2	12.3	10.5	11.5	11.5	9.3	19.8	14.9	15.8	17.2	14.0	13.8	14.6	13.0	11.7
		3.5	6.1	17.6	14.4	10.0	15.3	13.1	8.7	13.0	12.3	7.4	23.0	16.2	13.1	20.0	15.0	11.4	17.0	13.9	9.7
		4.5	9.7	19.3	14.7	8.6	16.8	13.7	7.4	14.2	12.7	6.3	25.2	17.0	11.2	21.9	15.7	9.8	18.7	14.5	8.3
08	800	4.0	7.8	20.8	17.6	10.4	18.1	16.5	9.0	15.5	15.5	7.7	27.2	20.0	13.6	23.7	18.8	11.8	20.1	17.5	10.1
		5.0	11.8	22.7	18.3	9.1	19.7	17.1	7.9	16.8	16.0	6.7	29.7	21.0	11.9	25.8	19.5	10.3	21.9	18.1	8.8
		6.0	16.5	24.0	18.8	8.0	20.9	17.6	7.0	17.7	16.4	5.9	31.4	21.7	10.5	27.3	20.1	9.1	23.2	18.6	7.7
10	1000	4.0	9.7	24.2	21.2	12.1	21.0	20.0	10.5	18.9	18.9	9.4	31.6	24.2	15.8	27.5	22.7	13.8	23.4	21.2	11.7
		5.0	14.7	26.7	22.2	10.7	23.2	20.9	9.3	19.7	19.5	7.9	34.9	25.2	14.0	30.4	23.8	12.2	25.8	22.1	10.3
		6.0	20.6	28.5	23.0	9.5	24.8	21.5	8.3	21.1	20.1	7.0	37.4	26.4	12.5	32.5	24.5	10.8	27.6	22.7	9.2
12	1200	4.0	9.7	26.2	24.3	13.1	23.1	23.1	11.5	21.8	21.8	10.9	34.3	27.6	17.2	29.8	25.9	14.9	25.4	24.4	12.7
		5.0	14.7	29.3	25.5	11.7	25.5	24.1	10.2	22.6	22.6	9.1	38.4	29.1	15.4	33.4	27.3	13.4	28.4	25.4	11.4
		6.0	20.6	31.6	26.4	10.6	27.5	24.8	9.2	23.4	23.2	7.8	41.4	30.3	13.8	36.0	28.2	12.0	30.6	26.2	10.0

COOLING CAPACITY (1000 BTUH) (4 ROW)																					
MODEL	NOMI- NAL CFM	GPM	P.D. (FT. WTR.)	75°F DB / 63°F WB									80°F DB / 67°F WB								
				40°F EWT			45°F EWT			50°F EWT			40°F EWT			45°F EWT			50°F EWT		
				TH	SH	TR	TH	SH	TR	TH	SH	TR	TH	SH	TR	TH	SH	TR	TH	SH	TR
03	300	1.5	2.1	9.3	7.3	12.5	8.2	6.9	10.9	6.9	6.4	9.2	12.2	8.4	16.4	10.7	7.9	14.2	9.1	7.3	12.1
		2.5	5.6	11.3	8.1	9.1	9.9	7.6	7.9	8.4	7.0	6.7	14.9	9.5	11.9	13.0	8.7	10.4	11.0	8.0	8.8
		3.5	10.8	12.5	8.6	7.2	10.9	8.0	6.2	9.3	7.2	5.3	16.4	10.1	9.4	14.3	9.3	8.2	12.1	8.4	6.9
04	400	1.5	2.1	10.4	8.9	13.8	9.1	8.4	12.0	7.9	7.9	10.5	13.6	10.2	18.1	11.8	9.5	15.7	10.1	8.9	13.4
		2.5	5.6	13.1	10.0	10.5	11.4	9.3	9.1	9.7	8.7	7.7	17.1	11.6	13.7	14.9	10.7	11.9	12.7	9.9	10.1
		3.5	10.8	14.7	10.7	8.4	12.7	10.0	7.3	10.8	9.1	6.2	19.2	12.4	11.0	16.7	11.4	9.5	14.2	10.4	8.1
06	600	2.5	3.6	16.8	13.9	13.4	14.6	13.0	11.7	12.4	12.2	9.9	22.0	15.9	17.6	19.1	14.8	15.3	16.3	13.8	13.0
		3.5	6.8	19.5	15.0	11.2	17.0	14.0	9.7	14.4	13.0	8.3	25.6	17.3	14.6	22.2	16.0	12.7	18.9	14.7	10.8
		4.5	10.8	21.4	15.8	9.5	18.6	14.6	8.3	15.8	13.5	7.0	28.1	18.3	12.5	24.4	16.9	10.8	20.7	15.4	9.2
08	800	3.0	5.1	20.6	17.8	13.7	17.9	16.8	12.0	15.7	15.7	10.5	27.0	20.3	18.0	23.5	19.0	15.7	20.0	17.7	13.3
		4.5	10.8	24.7	19.4	11.0	21.5	18.2	9.6	18.3	16.9	8.1	32.4	22.4	14.4	28.2	20.8	12.5	23.9	19.2	10.6
		6.0	18.4	27.2	20.4	9.1	23.7	19.0	7.9	20.1	17.6	6.7	35.7	23.7	11.9	31.0	21.9	10.3	26.4	20.0	8.8
10	1000	4.0	7.9	26.7	22.6	13.3	23.2	21.2	11.6	19.9	19.9	10.0	34.9	25.8	17.5	30.4	24.1	15.2	25.8	22.5	12.9
		5.5	14.0	30.7	24.2	11.2	26.7	22.6	9.7	22.7	21.1	8.3	40.2	27.9	14.6	35.0	25.9	12.7	29.7	23.9	10.8
		7.0	21.6	33.5	25.3	9.6	29.1	23.6	8.3	24.7	21.9	7.1	48.8	29.3	12.5	38.1	27.1	10.9	32.4	25.0	9.3
12	1200	4.5	9.7	29.7	26.2	13.2	25.9	24.7	11.5	23.2	23.2	10.3	38.9	29.9	17.3	33.9	28.0	15.1	28.8	26.1	12.8
		5.5	14.0	32.8	27.4	11.9	28.5	25.7	10.4	24.2	24.0	8.8	42.8	31.4	15.6	37.3	29.3	13.6	31.7	27.2	11.5
		6.5	18.9	35.1	28.3	10.8	30.5	26.5	9.4	25.9	24.7	8.0	45.9	32.5	14.1	40.0	30.3	12.3	34.0	28.0	10.5

RR SERIES

VERTICAL HIGH RISE FAN COILS

COOLING CAPACITIES (CONT'D)

COOLING CAPACITY (1000 BTUH) (3 ROW AND 3/2)																					
MODEL	NOMI- NAL CFM	GPM	P.D. (FT. WTR.)	75°F DB / 63°F WB									80°F DB / 67°F WB								
				40°F EWT			45°F EWT			50°F EWT			40°F EWT			45°F EWT			50°F EWT		
				TH	SH	TR	TH	SH	TR	TH	SH	TR	TH	SH	TR	TH	SH	TR	TH	SH	TR
03	300	1.5	2.6	9.6	7.5	12.8	7.9	6.7	10.5	6.3	5.9	8.3	11.5	8.3	15.3	9.7	7.6	12.9	7.9	6.8	10.5
		2.5	7	11.6	8.4	9.2	9.4	7.4	7.4	7.2	6.5	5.7	14	9.4	11.1	11.7	8.4	9.3	9.4	7.4	7.5
		3.5	13.3	12.7	8.9	7.2	10.2	7.8	5.8	7.8	6.7	4.4	15.5	10	8.8	12.9	8.9	7.3	10.3	7.8	5.9
04	400	1.5	2.7	10.9	9.1	14.4	9	8.2	12	7.3	7.2	9.7	12.9	10	17.1	11	9.2	14.5	9.1	8.3	12.1
		2.5	7	13.4	10.2	10.6	10.9	9.1	8.7	8.5	8	6.8	16.1	11.3	12.8	13.5	10.3	10.7	10.9	9.2	8.7
		3.5	13.3	14.9	10.9	8.5	12.1	9.6	6.9	9.3	8.4	5.3	18.1	12.2	10.2	15.1	10.9	8.6	12.1	9.7	6.9
06	600	2.5	3.3	14.5	12.3	11.6	12.6	11.6	10.1	10.9	10.9	8.7	18.9	14.1	15.1	16.5	13.2	13.2	14.0	12.3	11.2
		3.5	6.1	16.8	13.3	9.6	14.6	12.4	8.4	12.4	11.6	7.1	22.0	15.2	12.6	19.2	14.2	10.9	16.3	13.1	9.3
		4.5	9.7	18.4	13.9	8.2	16.0	13.0	7.1	13.6	12.0	6.1	24.2	16.1	10.7	21.0	14.9	9.3	17.9	13.7	7.9
08	800	4.0	7.8	19.7	16.4	9.8	17.1	15.4	8.6	14.5	14.5	7.3	25.7	18.7	12.9	23.7	17.0	11.9	19.0	16.2	9.5
		5.0	11.8	21.4	17.1	8.6	18.6	16.0	7.5	15.8	14.9	6.3	28.1	19.6	11.2	25.9	17.8	10.4	20.7	16.8	8.3
		6.0	16.5	22.7	17.6	7.6	19.7	16.4	6.6	16.8	15.2	5.6	29.7	20.2	9.9	27.4	18.3	9.1	21.9	17.3	7.3
10	1000	4.0	9.7	22.9	19.9	11.4	19.9	18.7	9.9	17.6	17.6	8.8	30.0	22.6	15.0	26.1	21.2	13.0	22.1	19.8	11.1
		5.0	14.7	25.3	20.8	10.1	22.0	19.5	8.8	18.7	18.2	7.5	33.1	23.8	13.2	28.8	22.2	11.5	24.5	20.6	9.8
		6.0	20.6	27.0	21.5	9.0	23.5	20.1	7.8	20.0	18.7	6.7	35.4	24.7	11.8	30.8	22.9	10.3	26.1	21.2	8.7
12	1200	4.0	9.7	24.7	22.5	12.3	21.5	21.3	1.7	20.1	20.1	10.1	32.3	25.5	16.2	28.1	24.0	14.1	23.9	22.5	11.9
		5.0	14.7	27.7	23.7	11.1	24.1	22.3	9.6	20.9	20.9	8.4	36.2	26.9	14.5	31.5	25.2	12.6	26.8	23.5	10.7
		6.0	20.6	29.8	24.5	9.9	25.9	23.0	8.6	22.1	21.5	7.4	39.1	28.0	13.0	34.0	26.1	11.3	28.9	24.2	9.6



RR SERIES

VERTICAL HIGH RISE FAN COILS

HEATING CAPACITIES – (3 ROW) (3/1 ROW)

HEATING CAPACITY (1000 BTUH) (3 ROW)							
MODEL	NOMINAL CFM	GPM	P.D. (FT. WTR.)	ENTERING WATER TEMPERATURE			
				180°F	160°F	140°F	120°F
03	300	1.0	1.1	25.5	20.8	16.2	11.5
		1.5	3.9	30.8	25.2	19.5	13.9
		2.0	8.4	32.6	26.7	20.7	14.7
04	400	1.0	1.1	29.4	24	18.6	13.2
		2.0	3.9	37.6	30.7	23.8	16.9
		3.0	8.4	40.7	33.3	25.8	18.4
06	600	3.0	4.6	56.3	46.1	35.8	25.6
		4.0	7.8	58.8	48.1	37.4	26.7
		5.0	11.8	60.5	49.5	38.5	27.5
08	800	4.0	7.8	72.0	58.9	45.8	32.7
		5.0	11.8	74.4	60.9	47.4	33.8
		6.0	16.5	76.2	62.3	48.5	34.6
10	1000	4.0	9.7	88.9	72.7	56.8	40.4
		5.0	14.7	92.3	75.5	58.7	42.0
		6.0	20.6	94.7	77.5	60.3	43.1
12	1200	4.0	9.7	100.2	82.0	63.7	45.6
		5.0	14.7	104.5	85.5	66.5	47.5
		6.0	20.6	107.6	88.0	68.4	48.9

HEATING CAPACITY (1000 BTUH) (3/1 ROW)							
MODEL	NOMINAL CFM	GPM	P.D. (FT. WTR.)	ENTERING WATER TEMPERATURE			
				180°F	160°F	140°F	120°F
03	300	1.0	1.4	17.7	14.5	11.2	8.0
		2.0	5.2	19.8	16.2	12.6	9.0
		3.0	11.1	20.5	16.8	13.1	9.3
04	400	1.0	1.4	19.1	15.7	12.2	8.7
		2.0	5.2	21.9	17.9	13.9	9.9
		3.0	11.1	22.9	18.7	14.6	10.4
06	600	1.0	2.1	26.4	21.6	16.8	12.0
		2.0	7.3	31.4	25.7	20.0	14.3
		3.0	15.2	33.2	27.2	21.2	15.1
08	800	1.0	2.1	28.2	23.1	18.0	12.8
		2.0	7.3	34.5	28.2	21.9	15.7
		3.0	15.2	37.0	30.3	23.6	16.8
10	1000	1.0	1.1	34.0	27.8	21.7	15.5
		2.0	5.4	42.3	34.6	26.9	19.2
		3.0	13.8	46.0	37.7	29.3	20.9
12	1200	1.5	2.8	40.8	33.4	26.0	18.5
		2.5	9.1	47.3	38.7	30.1	21.5
		3.4	19.6	50.4	41.2	32.1	22.9

RR SERIES

VERTICAL HIGH RISE FAN COILS

HEATING CAPACITIES – (4 ROW) (4/1 ROW)

HEATING CAPACITY (1000 BTUH) (4 ROW)							
MODEL	NOMINAL CFM	GPM	P.D. (FT. WTR.)	ENTERING WATER TEMPERATURE			
				180°F	160°F	140°F	120°F
03	300	2.0	3.6	32.0	26.2	20.4	14.5
		3.0	8.0	33.7	27.6	21.4	15.3
		4.0	17.3	34.7	28.6	22.1	15.8
04	400	2.0	3.6	40.4	33.0	25.7	18.3
		3.0	8.0	42.8	35.0	27.2	19.5
		4.0	14.0	44.2	36.2	28.2	20.1
06	600	3.0	5.1	60.5	49.5	38.5	27.5
		4.0	8.7	63.2	51.7	40.2	28.7
		5.0	13.1	65.0	53.2	41.4	29.6
08	800	4.0	8.7	79.2	64.8	50.4	36.0
		5.0	13.1	81.8	67.0	52.1	37.2
		6.0	18.4	83.7	68.5	53.3	38.1
10	1000	4.0	7.9	95.5	78.1	60.8	43.4
		5.0	11.8	99.2	81.2	63.1	45.1
		6.0	16.4	102.0	83.5	64.9	46.4
12	1200	4.0	7.9	108.8	89.1	69.3	49.5
		5.0	11.8	113.6	92.9	72.3	51.6
		6.0	16.4	117.1	95.8	74.5	53.2

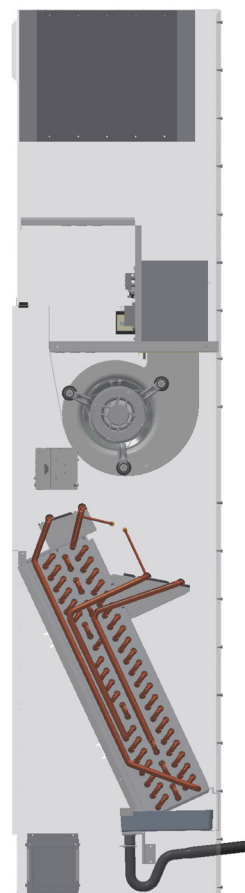
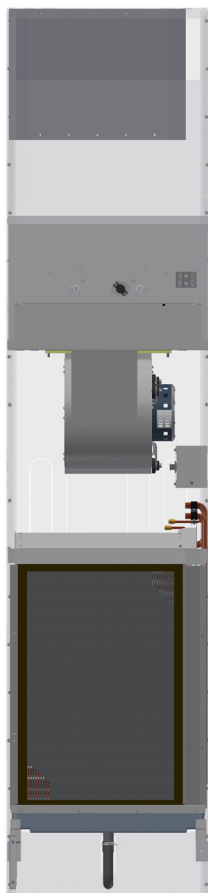
HEATING CAPACITY (1000 BTUH) (4/1 ROW)							
MODEL	NOMINAL CFM	GPM	P.D. (FT. WTR.)	ENTERING WATER TEMPERATURE			
				180°F	160°F	140°F	120°F
03	300	1.0	1.4	16.0	13.1	10.2	7.3
		2.0	5.2	17.9	14.6	11.4	8.1
		3.0	11.1	18.5	15.2	11.8	8.4
04	400	1.0	1.4	17.3	14.2	11.0	7.9
		2.0	5.2	19.8	16.2	12.6	9.0
		3.0	11.1	20.7	16.9	13.2	9.4
06	600	1.0	2.1	23.9	19.6	15.2	10.9
		2.0	7.3	28.4	23.2	18.1	12.9
		3.0	15.2	30.1	24.6	19.2	13.7
08	800	1.0	2.1	25.6	20.9	16.3	11.6
		2.0	7.3	31.3	25.6	19.9	14.2
		3.0	15.2	33.6	27.5	21.4	15.3
10	1000	1.0	1.1	30.9	25.2	19.6	14.0
		2.0	5.4	38.4	31.4	24.4	17.4
		3.0	13.8	41.7	34.2	26.6	19.0
12	1200	1.5	2.8	37.0	30.3	23.6	16.8
		2.5	9.1	42.9	35.1	27.3	19.5
		3.5	19.6	45.7	37.4	29.1	20.8

RR SERIES

VERTICAL HIGH RISE FAN COILS

HEATING CAPACITIES – (3/2 ROW)

HEATING CAPACITY (1000 BTUH) (3/2 ROW)							
MODEL	NOMINAL CFM	GPM	P.D. (FT. WTR.)	ENTERING WATER TEMPERATURE			
				180°F	160°F	140°F	120°F
03	300	1.0	0.8	21.9	17.8	13.8	9.8
		1.5	3.1	26.1	21.3	16.5	11.7
		2.0	6.7	27.8	22.7	17.6	12.5
04	400	1.0	0.8	25.2	20.5	15.8	11.2
		2.0	3.1	31.3	25.5	19.7	14
		3.0	6.7	33.9	27.6	21.4	15.2
06	600	1.0	0.7	27	21.9	16.9	11.9
		2.0	2.6	35.5	28.8	22.2	15.7
		3.0	5.6	39.5	32.1	24.8	17.5
08	800	1.0	0.7	29.3	23.7	18.3	12.9
		2.0	2.6	39.8	32.3	24.9	17.5
		3.0	5.6	45.1	36.6	28.2	19.9
10	1000	3.0	5.8	66.6	54.5	42.4	30.3
		4.0	10.3	70.4	57.6	44.8	32.0
		5.0	15.9	72.6	59.4	46.2	33.0
12	1200	3.0	5.8	73.7	60.3	46.9	33.5
		4.0	10.3	78.3	64.1	49.8	35.6
		5.0	15.9	81.2	66.4	51.7	36.9



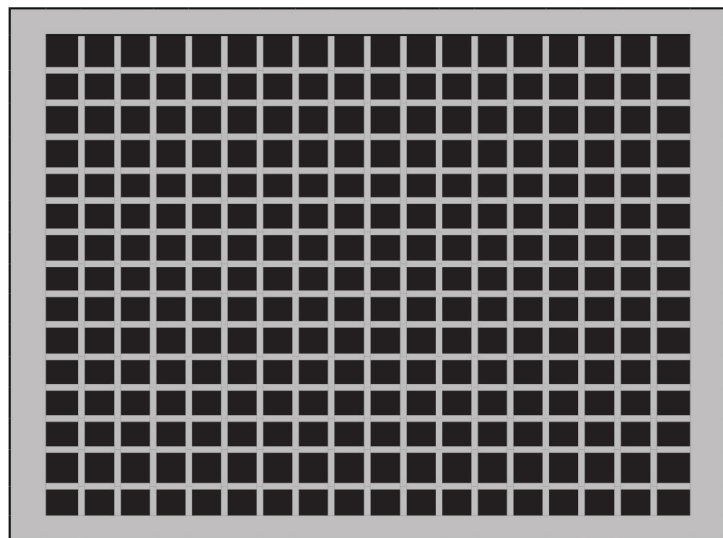
RR SERIES

VERTICAL HIGH RISE FAN COILS

SUPPLY AIR LOUVERS

RR SERIES – LOUVERS									
STANDARD 88” CABINET		LOUVER SIZES AVAILABLE WITH SINGLE DISCHARGE UNITS			LOUVER SIZES AVAILABLE WITH DOUBLE DISCHARGE UNITS			TOP SINGLE SUPPLY OPENING	
RR Series									
UNIT SIZE	NOMINAL CFM	QTY	NOMINAL Louver SIZE	CORE AREA (SG. FT.)	QTY	NOMINAL Louver SIZE	CORE AREA (SQ. FT.)	QTY	NOMINAL Louver SIZE
3	300	1	14 X 8	0.65	2	14 X 6	1	1	14 X 10
4	400	1	14 X 12	1	2	14 X 6	1	1	14 X 10
6	600	1	18 X 10	1.13	2	18 X 6	1.3	1	16 X 12
8	800	1	18 X 12	1.37	2	18 X 6	1.3	1	16 X 12
10	1000	1	18 X 16	1.85	2	22 X 8	2.2	1	18 X 16
12	1200	1	18 X 16	1.85	2	22 X 8	2.2	1	18 X 16

- Standard louver is a double deflection type with streamlined shaped roll-formed blades on 3/4" centers. 1 1/4" wide face border with a 1" overlap margin standard, furnished with countersunk screw holes. Rigid, roll-formed frames with reinforced mitered corners.
- Vertical and horizontal blades are friction pivoted and easily adjusted to provide desired spread or deflection.
- Blades maintain adjustable deflection setting during all conditions to velocity and pressure

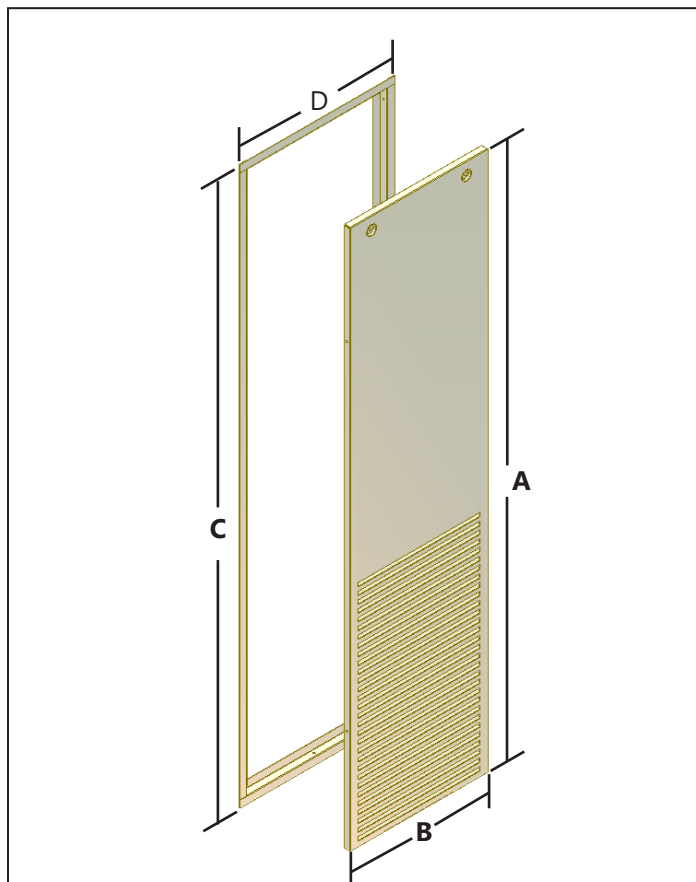


Standard louver finish is an appliance white baked enamel.

RR SERIES

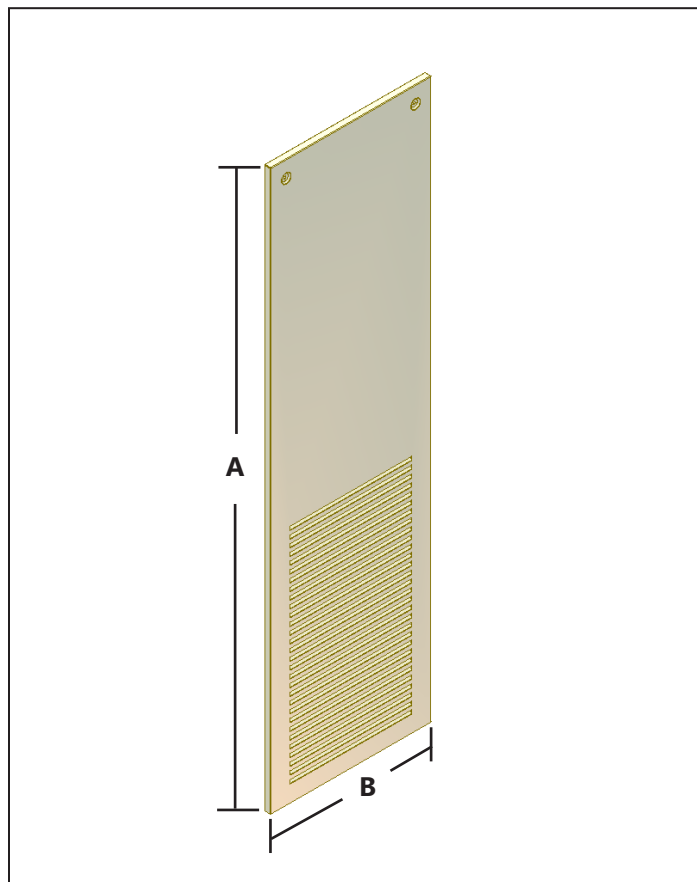
VERTICAL HIGH RISE FAN COILS

ACCESS PANEL / RETURN LOUVER



FLUSH MOUNT DIMENSIONS

UNIT MODEL	PART NUMBER	A	B	C	D
03/04	9PWRF01	53.4	13.6	55.0	15.2
06/08	9PWRF02	53.4	17.6	55.0	19.2
10/12	9PWRF03	53.4	21.6	55.0	23.2



SURFACE MOUNT DIMENSIONS

UNIT MODEL	PART NUMBER	A	B
03/04	9PWRS01	55.5	15.8
06/08	9PWRS02	55.5	19.8
10/12	9PWRS03	55.5	23.8

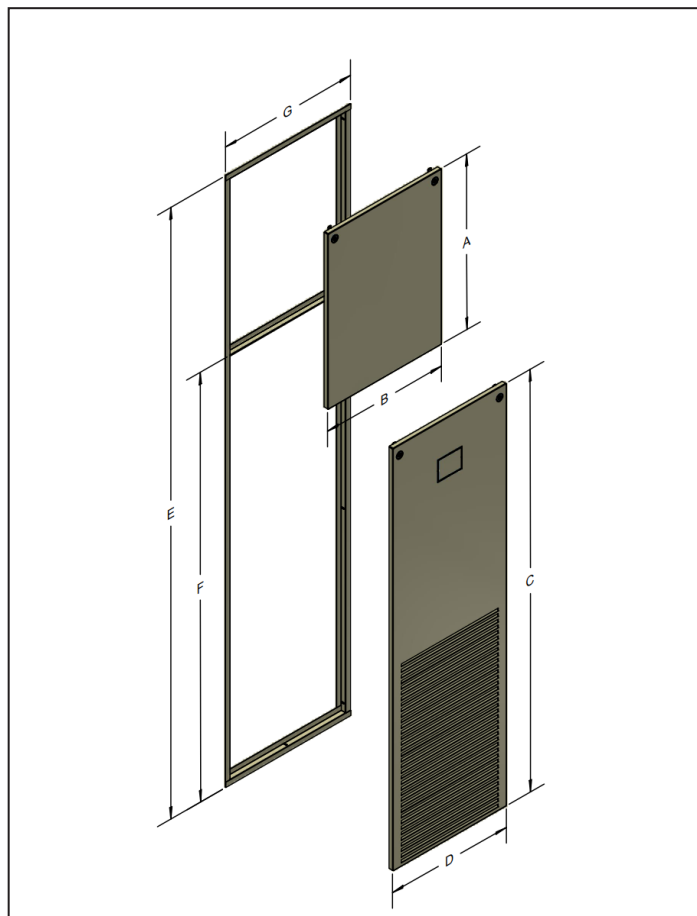
ACCESS PANEL SPECIFICATION

- Optional panels include flush mount or frame type
- Constructed from 18 gauge galvanized steel and coated with white epoxy powder finish
- Panel is insulated with 1/2" heavy density fiberglass insulation
- Panel mounted with tamper-proof fasteners
- Integral stamped steel return air louvers
- Panel provides access to all internal components
- Framed panels require field installation of frame

RR SERIES

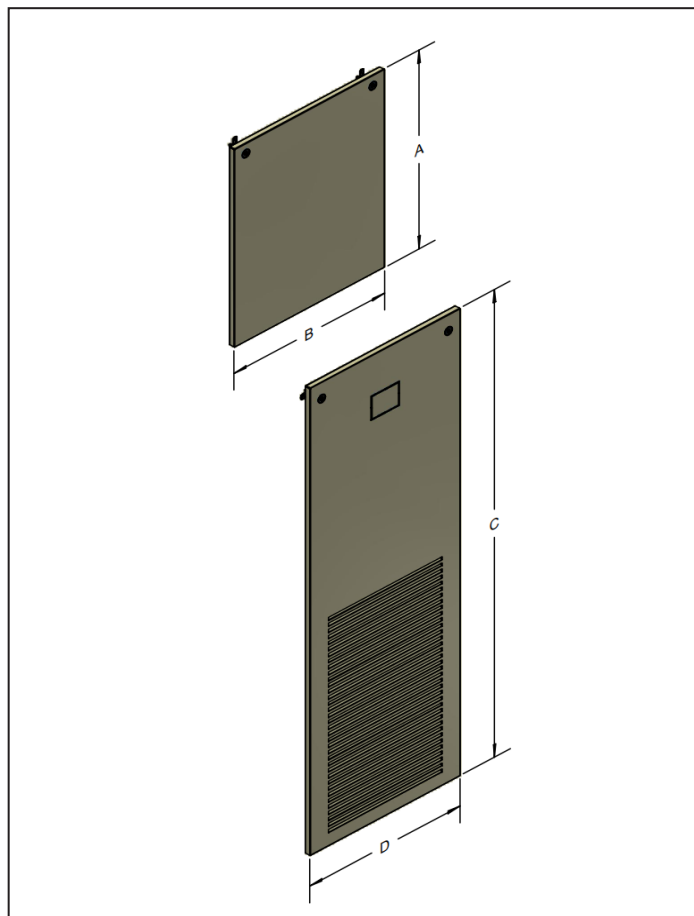
VERTICAL HIGH RISE FAN COILS

ACCESS PANEL / RETURN LOUVER FOR ERV



FLUSH MOUNT DIMENSIONS

UNIT MODEL	PART NUMBER	A	B	C	D	E	F	G
03/04	9PFWREF01	23.5	17.5	56.5	17.5	81.9	57.5	19.3
06/08	9PFWREF02	23.5	17.5	56.5	17.5	81.9	57.5	19.3
10/12	9PFWREF03	23.5	21.5	56.5	21.5	81.9	57.5	23.3



SURFACE MOUNT DIMENSIONS

UNIT MODEL	PART NUMBER	A	B	C	D
03/04	9PFWRES01	24.6	19.9	57.8	19.9
06/08	9PFWRES01	24.6	19.9	57.8	19.9
10/12	9PFWRES13	24.6	23.9	57.8	23.9

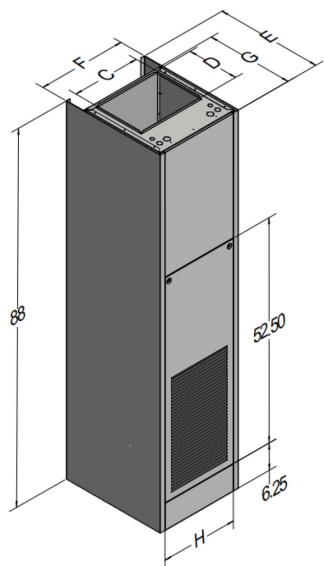
ACCESS PANEL SPECIFICATION

- Optional panels include flush mount or frame type
- Constructed from 18 gauge galvanized steel and coated with white epoxy powder finish
- Panel is insulated with 1/2" heavy density fiberglass insulation
- Panel mounted with tamper-proof fasteners
- Integral stamped steel return air louvers
- Panel provides access to all internal components
- Framed panels require field installation of frame

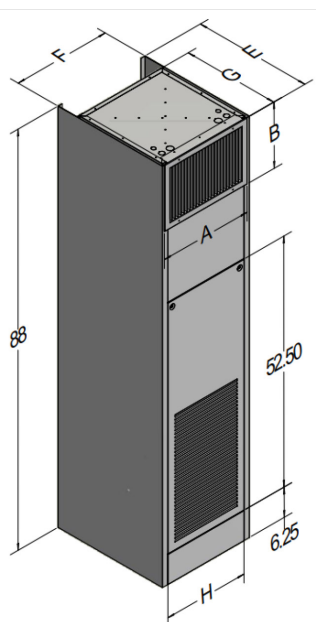
RR SERIES

VERTICAL HIGH RISE FAN COILS

EXPOSED CABINET SPECIFICATION



TOP SUPPLY OPENING								
MODEL	C	D	SIZE	E	F	G	H	FILTER SIZE
3RR	14	10	14x10	22.20	18.00	17.00	14.13	12.5 X 24.25 X 1
4RR								
6RR	16	12	16x12	25.20	21.00	20.00	18.13	16.25 X 26.75 X 1
8RR								
10RR	18	16	18x16	29.20	25.00	24.00	22.13	20.50 X 29.25 X 1
12RR								



—	SINGLE SUPPLY OPENING			DOUBLE SUPPLY OPENING (2)							
MODEL	A	B	SIZE	A	B	SIZE	E	F	G	H	FILTER SIZE
3RR	14	12	12X14	14	6	14X6	22.20	18.00	17.00	14.13	12.5 X 24.25 X 1
4RR											
6RR	18	12	18X12	18	6	18X6	25.20	21.00	20.00	18.13	16.25 X 26.75 X 1
8RR											
10RR	20	16	20x16	22	8	22X8	29.20	25.00	24.00	22.13	20.50 X 29.25 X 1
12RR											

EXPOSED CABINET SPECIFICATION

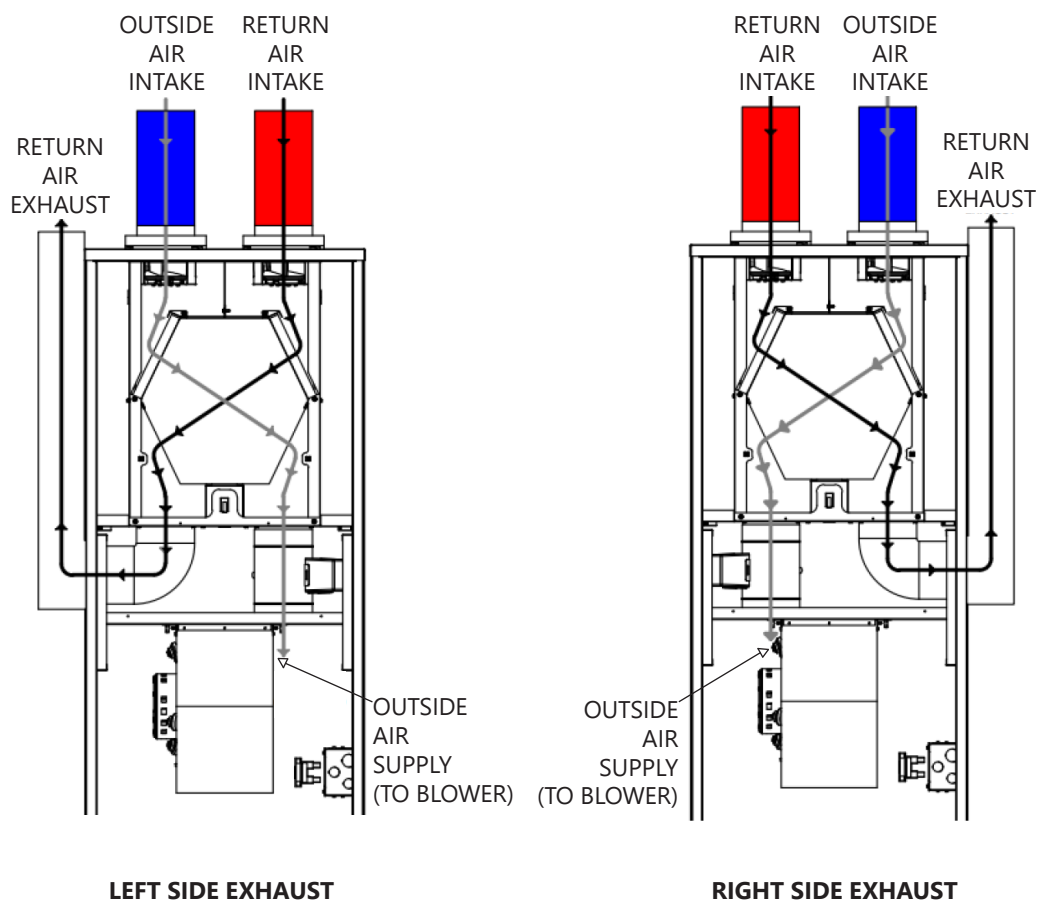
- Clean, fastener free exterior
- Exterior panels constructed from 18 gauge galvanized steel and coated with white epoxy powder finish
- Insulated steel Return Air/ Access Panel included with 1/4 turn tamper proof fasteners
- Flush stamped Return Air Louvers
- Rear pipe chase to facilitate hydronic and electric connections
- Optional aluminum single front discharge double deflection Supply Air Louver painted white (not applicable to top discharge units)
- Framed panels require field installation of frame

RR SERIES

VERTICAL HIGH RISE FAN COILS

ERV CABINET SPECIFICATION

- Fully integrated, higher efficiency counter-flow ERV module with washable core
- Multi-function microprocessor control board for ERV control and integrated defrost
- Push button adjustable ERV fan speed set points using 0-10V control signal
- Universal cabinet design for flexible installation requirements
- Factory installed 120V relay for wall timer/switch activation
- Segmented Access panel for easy maintenance access
- Framed panels require field installation of frame



The exhaust air is ducted via a factory installed chimney to the top of the cabinet so connections can be made at the same location for the Outside Air supply (5" Duct Collar), Return Air Intake (5"Duct Collar), and Return Air Exhaust (6"X4" Duct), While the Outside Air Supply is ducted through a motorized damper, internally controlled, into the supply of the unit blower. The blower operates so that the blower will not pull air through the ERV, should the ERV be in an inactive state.

RR SERIES

VERTICAL HIGH RISE FAN COILS

DEFROST OUTSIDE AIR TEMPERATURE

RR SERIES – AIR TEMPERATURE DATA																
KW	EAT (°F)	FRESH AIR CFM														
		30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
1	-10	95.3	80.3	69.0	60.2	53.2	47.5	42.7	38.6	35.1	32.1	29.5	27.2	25.1	23.3	21.6
	-20	85.3	70.3	59.0	50.2	43.2	37.5	32.7	28.6	25.1	22.1	19.5	17.2	15.1	13.3	11.6
	-30	75.3	60.3	49.0	40.2	33.2	27.5	22.7	18.6	15.1	12.1	9.5	7.2	5.1	3.3	1.6
	-40	65.3	50.3	39.0	30.2	23.2	17.5	12.7	8.6	5.1	2.1	-0.5	-2.8	-4.9	-6.7	-8.4
	-50	55.3	40.3	29.0	20.2	13.2	7.5	2.7	-1.4	-4.9	-7.9	-10.5	-12.8	-14.9	-16.7	-18.4
1.5	-10	148.0	125.4	108.5	95.3	84.8	76.2	69.0	62.9	57.7	53.2	49.3	45.8	42.7	39.9	37.4
	-20	138.0	115.4	98.5	85.3	74.8	66.2	59.0	52.9	47.7	43.2	39.3	35.8	32.7	29.9	27.4
	-30	128.0	105.4	88.5	75.3	64.8	56.2	49.0	42.9	37.7	33.2	29.3	25.8	22.7	19.9	17.4
	-40	118.0	95.4	78.5	65.3	54.8	46.2	39.0	32.9	27.7	23.2	19.3	15.8	12.7	9.9	7.4
	-50	108.0	85.4	68.5	55.3	44.8	36.2	29.0	22.9	17.7	13.2	9.3	5.8	2.7	-0.1	-2.6
2	-10	200.7	170.6	148.0	130.4	116.4	104.9	95.3	87.2	80.3	74.3	69.0	64.4	60.2	56.5	53.2
	-20	190.7	160.6	138.0	120.4	106.4	94.9	85.3	77.2	70.3	64.3	59.0	54.4	50.2	46.5	43.2
	-30	180.7	150.6	128.0	110.4	96.4	84.9	75.3	67.2	60.3	54.3	49.0	44.4	40.2	36.5	33.2
	-40	170.7	140.6	118.0	100.4	86.4	74.9	65.3	57.2	50.3	44.3	39.0	34.4	30.2	26.5	23.2
	-50	160.7	130.6	108.0	90.4	76.4	64.9	55.3	47.2	40.3	34.3	29.0	24.4	20.2	16.5	13.2
3	-10	306.0	260.9	227.0	200.7	179.6	162.4	148.0	135.8	125.4	116.4	108.5	101.5	95.3	89.8	84.8
	-20	296.0	250.9	217.0	190.7	169.6	152.4	138.0	125.8	115.4	106.4	98.5	91.5	85.3	79.8	74.8
	-30	286.0	240.9	207.0	180.7	159.6	142.4	128.0	115.8	105.4	96.4	88.5	81.5	75.3	69.8	64.8
	-40	276.0	230.9	197.0	170.7	149.6	132.4	118.0	105.8	95.4	86.4	78.5	71.5	65.3	59.8	54.8
	-50	266.0	220.9	187.0	160.7	139.6	122.4	108.0	95.8	85.4	76.4	68.5	61.5	55.3	49.8	44.8

For installations in cold climates, the ERV unit is designed to operate with a field installed, electric pre-heat device to provide a constant outside air supply, without the need for recirculation air to interrupt the fresh air supply. Care should be taken to ensure that the correctly sized electric heating device is paired with the winter design temperature and fresh air CFM range during normal operation so that frosting does not occur on the energy recovery core. The Defrost Outside Air Temperature table can be used as a guide to determine the correct sized heater (in KW) based on the expected entering air temperature (°F) during the winter condition, and the design CFM.

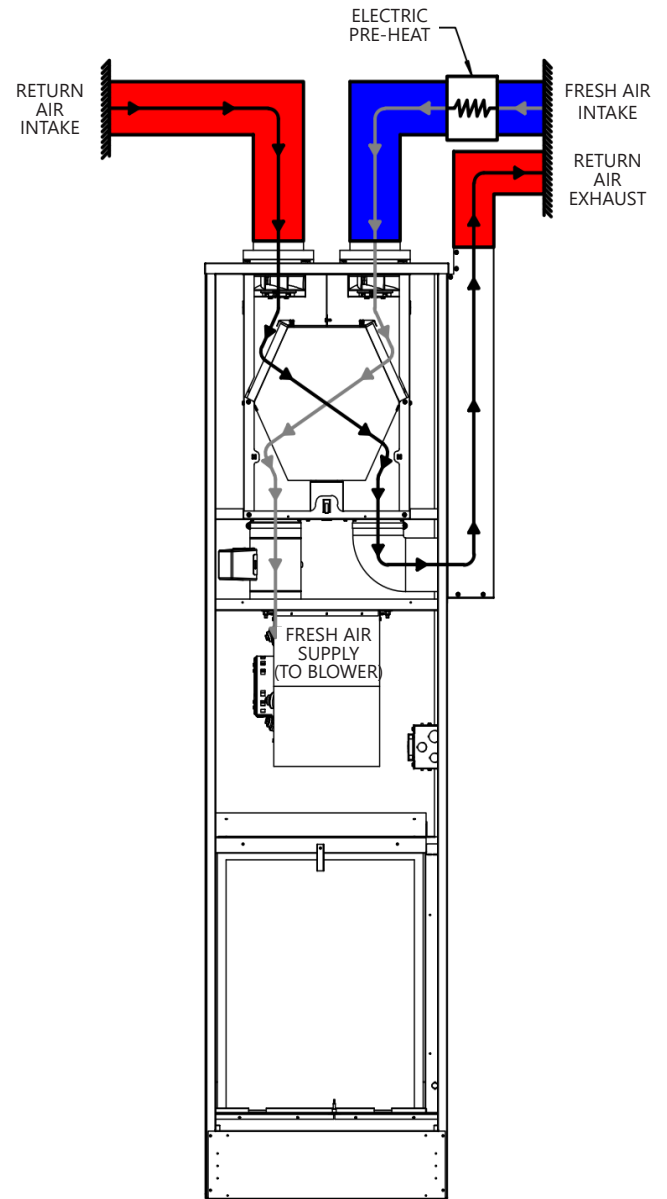
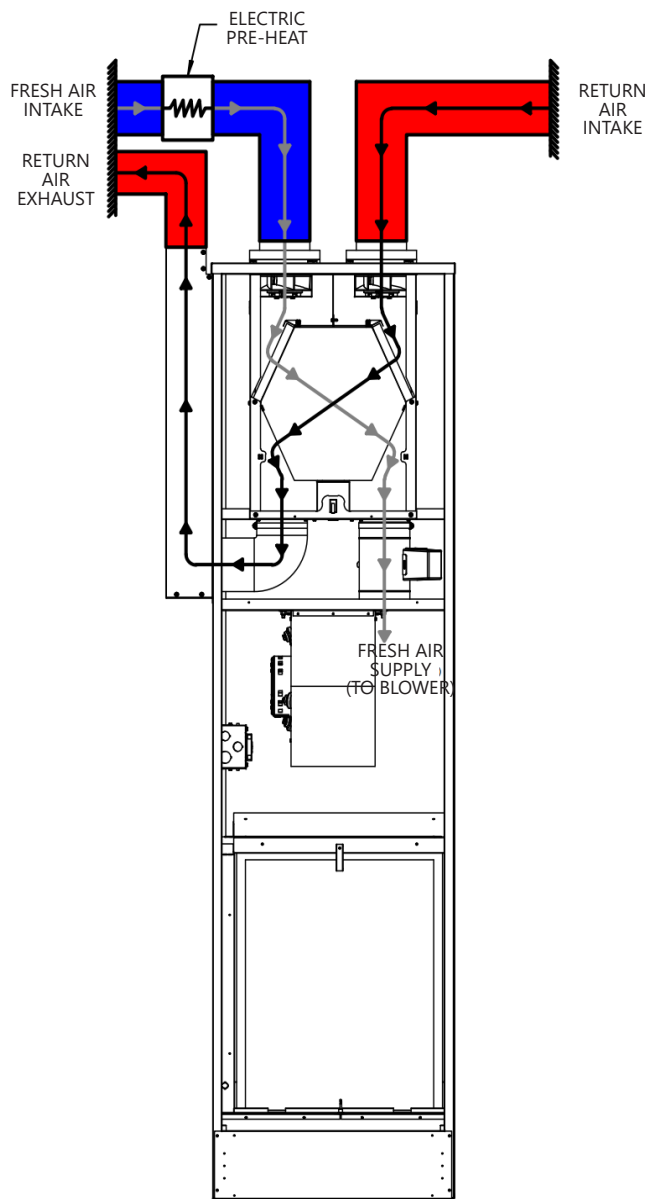
In the event of the Outside Air temperature falling below 30°F (-1°C) the ERV control will temporarily reduce both the Outside Air and Return air fan speeds to increase the temperature of the Outside Air into the unit, without creating a negative pressure environment inside the occupied space.

For installations without pre-heating devices, a recirculation damper can be installed that allows the recirculation of air from the occupied space into the Fresh Air supply of the ERV. Special care should be taken to ensure that class II air is not recirculated with Class I air in installations where the ERV return is ducted from areas such as a kitchen fan hood or bathroom fan.

RR SERIES

VERTICAL HIGH RISE FAN COILS

ERV RISER CABINET

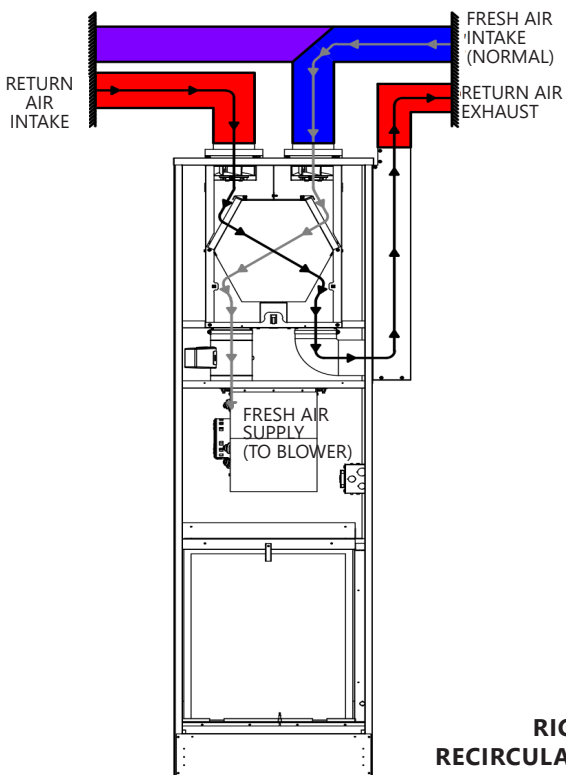


LEFT AND RIGHT HAND ELECTRIC PRE-HEAT DUCT WORK

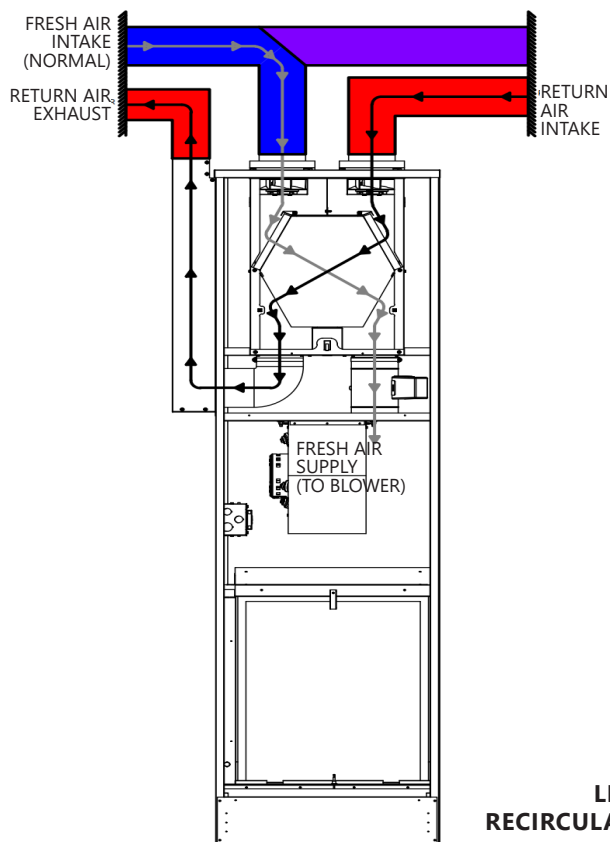
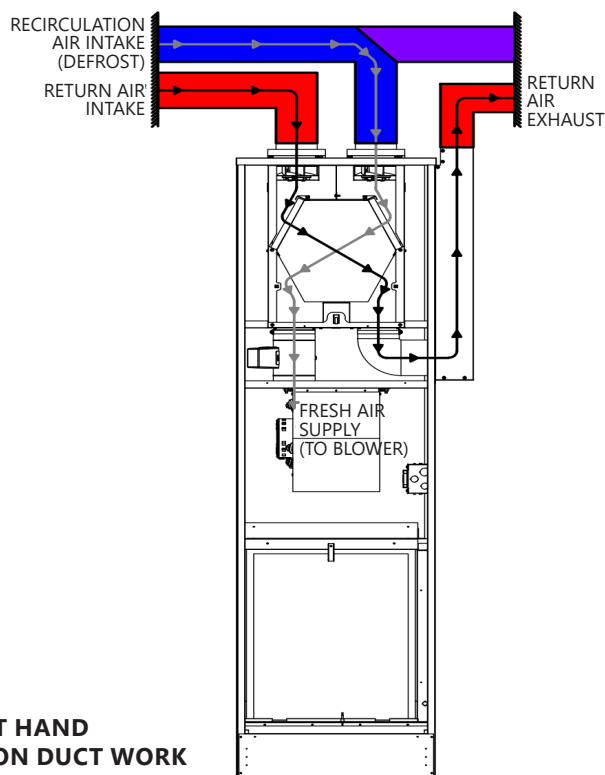
RR SERIES

VERTICAL HIGH RISE FAN COILS

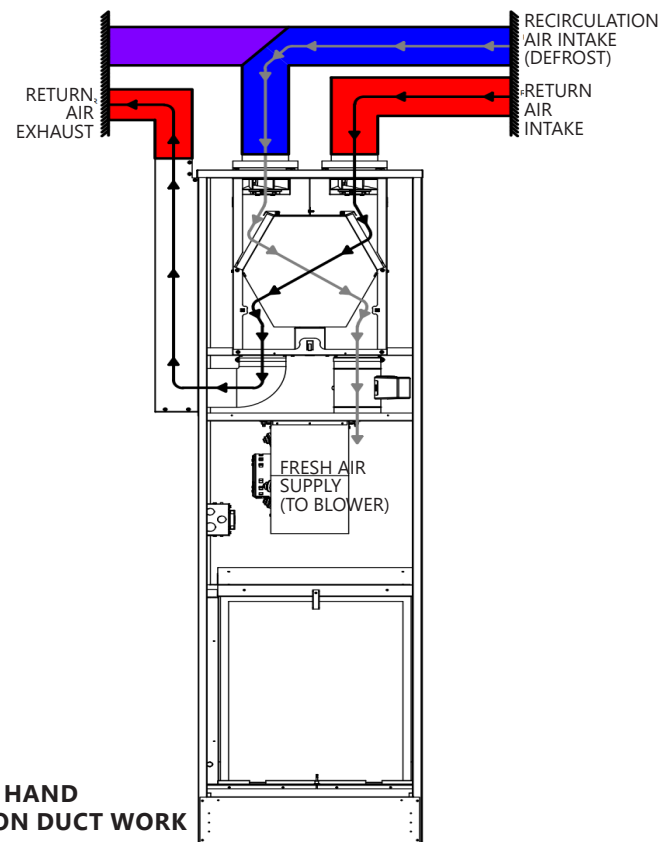
ERV RISER CABINET



**RIGHT HAND
RECIRCULATION DUCT WORK**



**LEFT HAND
RECIRCULATION DUCT WORK**

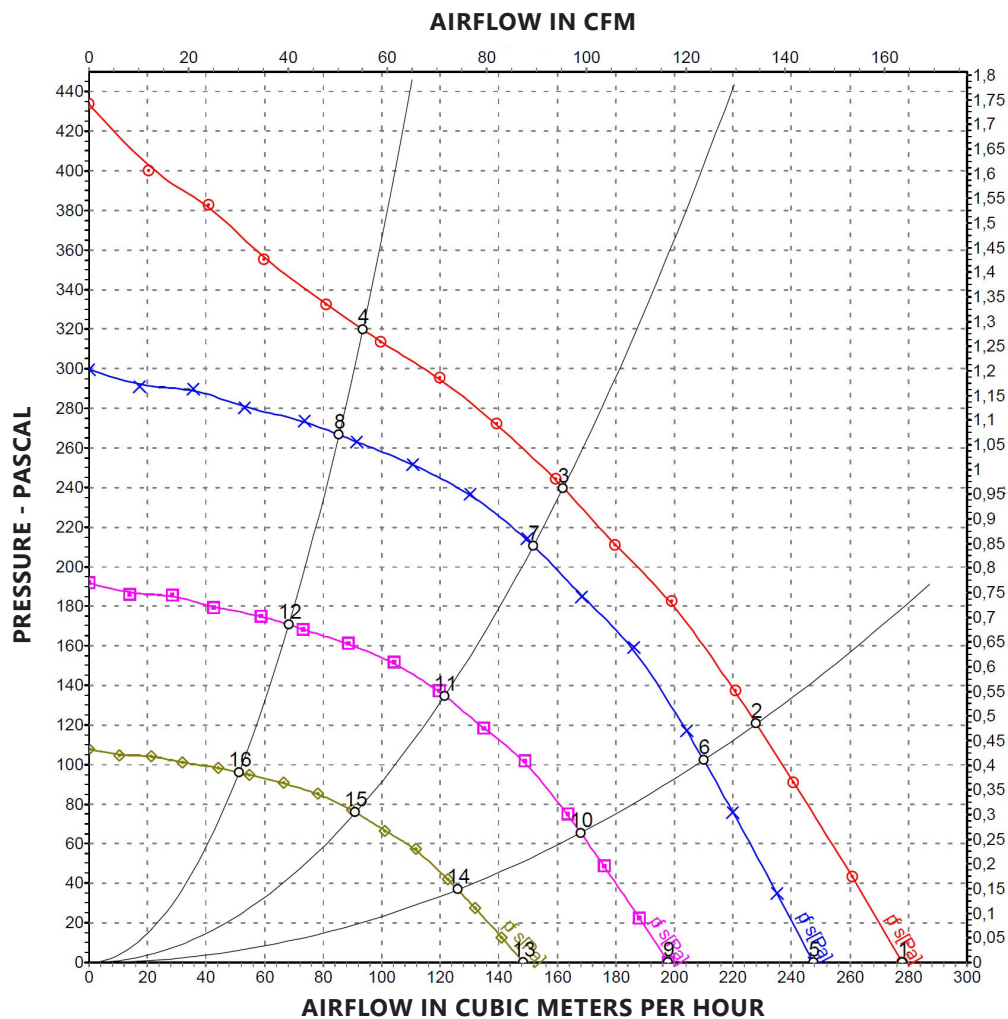


RR SERIES

VERTICAL HIGH RISE FAN COILS

ERV FAN PERFORMANCE

ERV FAN CURVE – AIR FLOW AT 60HZ

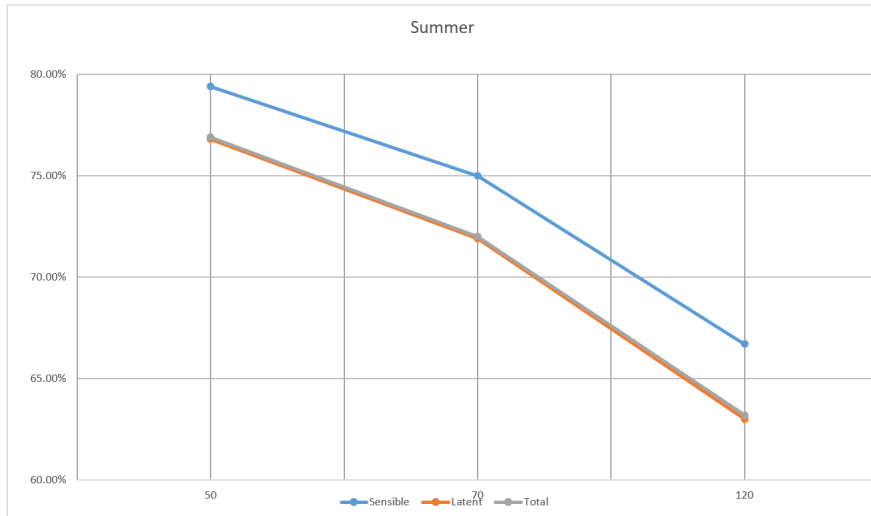


	Voltage	Frequency Hz	Speed (Rev/min)	Power (Watts)	Current (Amps)	Airflow (m ³ /h)	Pressure (Pa)	Airflow (CFM)	Pressure (IN H2O)
1	230	60	3930	24	0.23	280	0	165	0.00
2	230	60	3800	26	0.26	230	120	136	0.48
3	230	60	3770	27	0.27	160	240	95	0.96
4	230	60	3835	26	0.25	95	320	56	1.28
5	230	60	3500	17	0.16	250	0	148	0.00
6	230	60	3500	20	0.2	210	102	124	0.41
7	230	60	3500	22	0.22	150	211	89	0.85
8	230	60	3500	19	0.19	85	267	51	1.07
9	230	60	2800	8.5	0.08	200	0	118	0.00
10	230	60	2800	10	0.1	170	66	101	0.26
11	230	60	2800	11	0.11	120	135	71	0.54
12	230	60	2800	9.9	0.1	70	171	42	0.69
13	230	60	2100	3.6	0.04	150	0	89	0.00
14	230	60	2100	4.4	0.04	125	37	74	0.15
15	230	60	2100	4.8	0.05	90	76	53	0.31
16	230	60	2100	4.2	0.04	50	96	30	0.39

RR SERIES

VERTICAL HIGH RISE FAN COILS

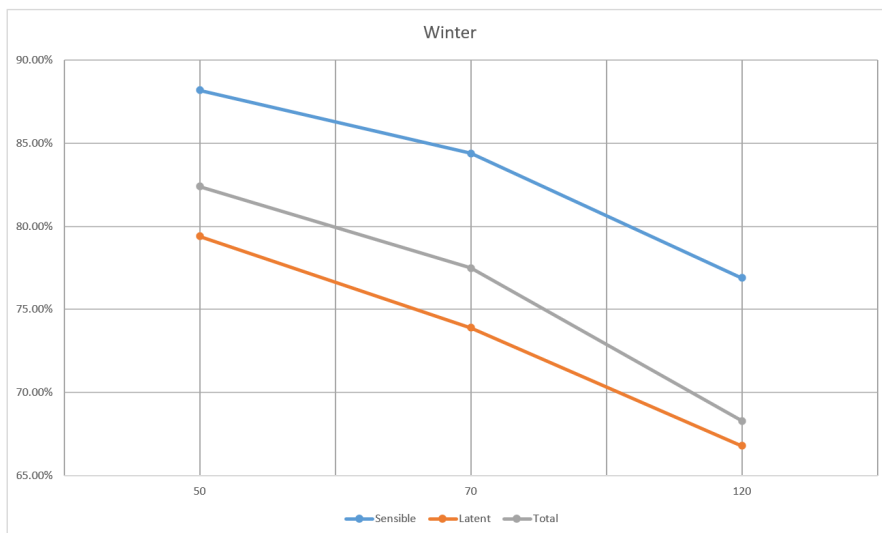
ERV PERFORMANCE SUMMER



OUTDOOR		RETURN	
DB °F (°C)	RH%	DB °F (°C)	RH%
81°F (27°C)	63%	78°F (25.5°C)	65%

CFM	Sensible %	Latent %	Total %
50	79.40%	76.80%	76.90%
70	75%	71.90%	72%
120	66.70%	63%	63.20%

WINTER



OUTDOOR		RETURN	
DB °F (°C)	RH%	DB °F (°C)	RH%
27°F (-3°C)	26%	68°F (20°C)	20%

CFM	Sensible %	Latent %	Total %
50	88.20%	79.40%	82.40%
70	84.40%	73.90%	77.50%
120	76.90%	66.80%	68.30%

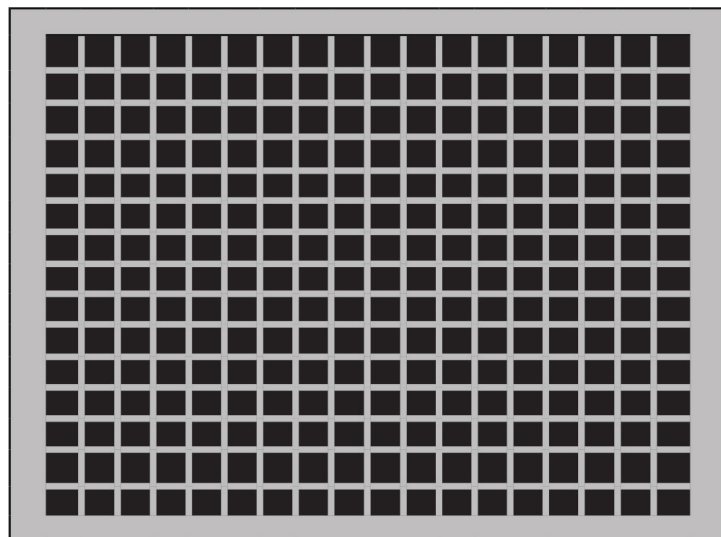
RR SERIES

VERTICAL HIGH RISE FAN COILS

SUPPLY AIR LOUVER – ERV

RR SERIES – AIR LOUVER-ERV DATA										
RR Series		Top Duct (Requires Side/ Front Double Duct)	Front Duct (Single)		Front Duct (Double)		Side Duct (Single)		Side Duct (Double)	
Unit Size	CFM	Nominal Louver Size	Nominal Louver Size	Core Area (SQ. FT.)	Nominal Louver Size	Core Area (SQ. FT.)	Nominal Louver Size	Core Area (SQ. FT.)	Nominal Louver Size	Core Area (SQ. FT.)
3	300	14 X 6	14 X 8	0.65	14 X 6	0.5	14 X 6	0.5	14 X 6	0.5
4	400	14 X 6	14 X 8	0.65	14 X 6	0.5	14 X 6	0.5	14 X 6	0.5
6	600	14 X 6	14 X 12	1	14 X 8	0.65	22 X 6	0.8	18 X 6	0.65
8	800	14 X 6	14 X 12	1	14 X 8	0.65	22 X 6	0.8	18 X 6	0.65
10	1000	18 X 10	18 X 16	1.85	18 X 10	1.13	22 X 10	1.37	22 X 8	1.2
12	1200	18 X 10	18 X 16	1.85	18 X 10	1.13	22 X 10	1.37	22 X 8	1.2

- Standard louver is a double deflection type with streamlined shaped roll-formed blades on 3/4" centers. 1 1/4" wide face border with a 1" overlap margin standard, furnished with countersunk screw holes. Rigid, roll-formed frames with reinforced mitered corners.
- Vertical and horizontal blades are friction pivoted and easily adjusted to provide desired spread or deflection.
- Blades maintain adjustable deflection setting during all conditions to velocity and pressure.
- ERV Riser louver configurations come with either one single discharge, or any combination of two double discharge duct sizes. Top ducted units without a double duct configuration may cause excess noise depending on the CFM requirements.



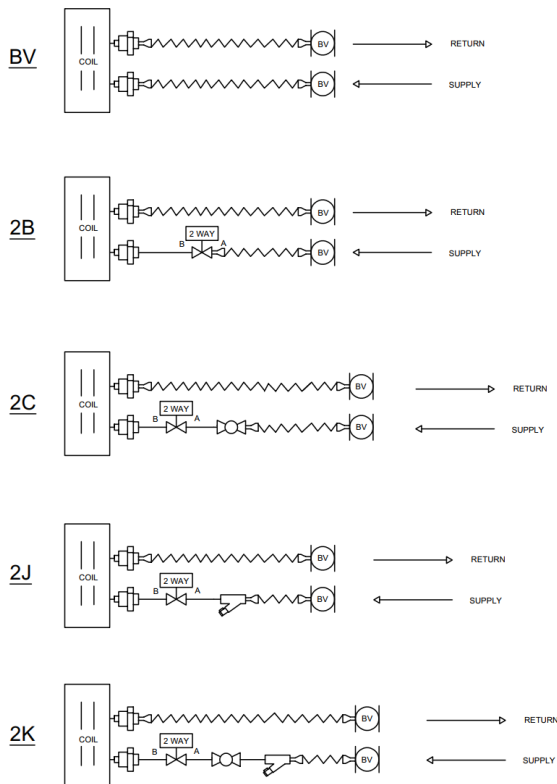
Standard louver finish is an appliance white baked enamel.

RR SERIES

VERTICAL HIGH RISE FAN COILS

VALVE PACKAGES

RISER VALVE 1



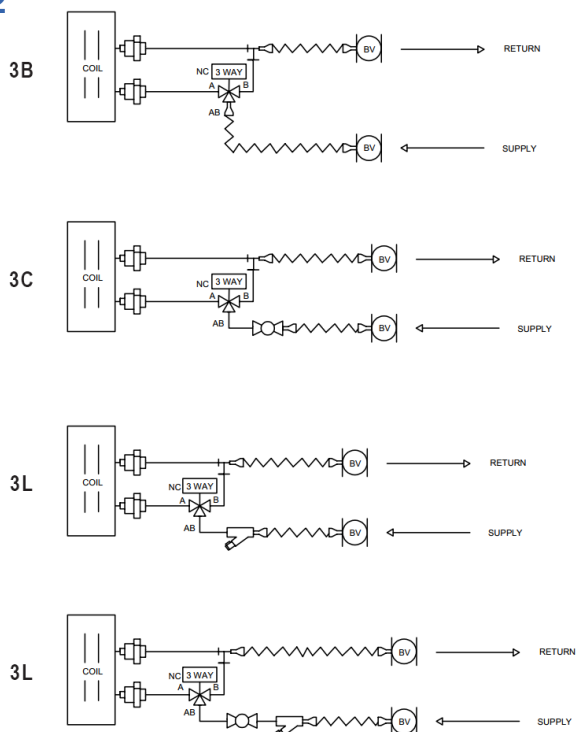
LEGEND

- UNION W/1/8", 1/4" PORTS (CAPPED FOR FUTURE USE)
- HOSE W/ DBL SWIVEL
- BALL VALVE CP9
- STRAINER WITH BLOW DOWN
- FLOW SETTER
- TWO WAY MTR VALVE
- FEMALE ADAPTER CP1413

OPTIONAL

- (A) P & T
- (B) AUTO AIRVENT
- (C) BLOW DOWN

RISER VALVE 2



LEGEND

- UNION W/1/8", 1/4" PORTS (CAPPED FOR FUTURE USE)
- HOSE W/ DBL SWIVEL
- BALL VALVE CP9
- STRAINER WITH BLOW DOWN
- FLOW SETTER
- TWO WAY MTR VALVE
- FEMALE ADAPTER CP1413
- COPPER TEE CP2507
- AQUASTAT

OPTIONAL

- (A) P & T
- (B) AUTO AIRVENT
- (C) BLOW DOWN

RR SERIES

VERTICAL HIGH RISE FAN COILS

SPECIFICATION GUIDE

SIZE RANGE:

300 to 1200 Nominal Cfm

PART 1 — GENERAL

1.01 SYSTEM DESCRIPTION

Stack fan coil units, 2-pipe, 4-pipe or electric heat for furred-in cabinets that are floor mounted in multi-story buildings.

1.02 QUALITY ASSURANCE

Units shall be tested in accordance with AHRI standard 440. All units shall be ETL approved. Each coil shall be factory tested for leakage at 300 psig air pressure with coil submerged in water. Insulation and adhesives shall meet NFPA-90A requirements for flame spread and smoke generation. All equipment wiring shall comply with NEC requirements.

1.03 DELIVERY, STORAGE AND HANDLING

Unit shall be handled and stored in accordance with the manufacturer's instructions.

PART 2 — PRODUCTS

2.01 EQUIPMENT

- **General: Standard Features**

Factory assembled, stack fan coil units. Units are complete with water coil, fan, motor, drain pan, and all required wiring, piping, controls, and special features.

- **Furred-In Stack Unit:**

The unit shall be constructed of 20-gage galvanized steel frame and 20-gage galvanized steel back panel. The fan coil is open or enclosed for furred-in installation. These units are designed to have the wallboard applied directly to the unit surface and all openings have standard 3/4-in. thick antimicrobial coated Tuf-skin RX fiberglass insulation. Units have double deflection aluminum discharge louver(s) and painted, stamped (standard) return-air louver panel. Removable return-air louver provides access to all internal piping and wiring. Controls are provided with a quick disconnect plug for field-mounting on front of unit.

- **Drain Pan:**

Removable drain pan shall be formed of heavy gauge galvanized steel and shall be coated inside with insulation. The drain is factory piped to the drain riser that has a removable "P-trap" allowing easy cleaning. Optional stainless steel drain pan shall be available for factory installation.

- **Filter:**

A filter track complete with 1-in. fiberglass throwaway filter shall be installed in the unit. Optional MERV 10 filters available for factory installation.

- **Fan:**

- Centrifugal fan directly driven by an electric motor.
- Double-width, forward-curved fan wheel constructed of galvanized steel, statically and dynamically balanced.

- **Coil:**

- Standard base unit shall be equipped with a 3-row for installation in a 2-pipe system. Additional coil depth and circuiting shall be provided for installation in a 4-pipe system as described in the Special Features section.
- All coils shall have 1/2-in. copper tubes and aluminum fins spacing; coil fins are mechanically bonded to tube joints. The copper tubes comply with the ASTM B-75. The fin thickness is 0.06-in. and tube thickness is 0.016-inches. All coils are tested with air under water and are suitable for design working pressures of 300 psig.
- Coil shall be equipped with a manual air vent and shall be piped to supply and return risers with valves as specified on the equipment drawings.
- Piping between coil and risers shall compensate for maximum riser expansion and contraction of 1-1/2 inches.

- **Risers:**

- Factory installed or shipped loose in 116" or 120" lengths with straight ends for pro-press fittings.
- Type L or Type M copper insulated with either 1/2", 3/4" or 1" thick synthetic rubber.
- Drain riser diameter: 1 in.; supply and return risers as shown on equipment drawings.

RR SERIES

VERTICAL HIGH RISE FAN COILS

SPECIFICATION GUIDE (CONT'D)

- **Valve Packages:**

- **Flexible Hoses (STANDARD (FH)):** Enable the Supply and Return water connections between the Unit and the water Loop Risers. The two stainless steel FH are made of a stainless-steel outer braid with an inner core of tube made of a nontoxic synthetic polymer material. Fire rated materials per ASTM E84-00 (NFPA 255, ANSI/UL 723 & UBC 8-1). The FH terminations are swivel MPT (Male Pipe Thread) fitting at one end and at the opposite end with a MPT connector sealed with a fiber or EPDM washer, shipped inside the connection. Swivel connection provides union between chassis and risers. The FH have a max working pressure of 400 PSI, temperature-operating range of 15°F to 180°F however, operation below 32°F requires antifreeze.
- **Automatic Water Balancing Valve (OPTIONAL) (AWBV):** Regulates the amount of water into each unit to enable a proper Water System balance. The AWBV is provided from the factory at specific selectable flow rates and automatically controls the water flow to within 10% of the rated value over a 40 to 1 differential pressure, and operating range (2 to 80 PSID). The AWBV has an operating pressure rate of XX psi with a temperature range of 32 to 225°F, and a pressure differential range of 2 to 80 PSID. The AWBV is manufacture with precision sculptured brass and a polyphenylsulfone orifice with an elastomeric diaphragm. The valve body shall be construct from hot forged brass UNS C37700 per ASTM B-283 latest revision.
- **Strainer (OPTIONAL) (ST):** The ST valve body is constructed from dezincification resistant brass with a 600 PSI and a max working temperature of 325°F. The ST filter screen is made of a 20-mesh screen constructed of 304 stainless steel and removable via a cap with an FKM sealing O-Ring. The ST cap has a 1/4" or 1/2" FNPT Port to which a blowdown ball valve is attach including a hose bib threaded connection and cap.
- **Isolation Valves (OPTIONAL) (IBV):** Isolation ball valves mounted between the unit and the supply and return lines of the loop to isolate the water flow to the unit in a maintenance or service situation. The IBV are rated to 600 psi nonshock cold working pressure. Full port, two-piece body with blowout-proof stem and PTFE Seats. ASME B16.33: 125 psig (maximum) and operating temperature of -4°F to 194°F
- **Motorized Control Valves (OPTIONAL) (MCV):** The MCV actuator is easily removed, ON/OFF type, 2-way, normally close with a spring close actuation and actuates with a 24VAC control signal. The MCV valve body comes in two options. Option 1 can operate at a maximum operating pressure of 300 psi, a maximum pressure differential of 30 PSI, operating with fluid temperatures between 32°F to 240°F and a max glycol percentage allowable of 50%. Option 2 can operate at a maximum operating pressure of 360 psi, a maximum pressure differential of 75 PSI, operating with fluid temperatures between 36°F to 212°F and a max glycol percentage allowable of 60%.

- **Controls and Safeties:**

- Standard controls for a 2-pipe system shall consist of a heating/cooling thermostat (SPDT) with 3-speed fan control for 2-pipe systems. Fan motor equipped with integral motor protection

- **Operating Characteristics:**

- A unit with a conventional coil, installed in a 2-pipe system, shall be capable of providing heating or cooling as determined by the operating mode of the central water supply system.
- A unit with a row-split coil, installed in a 4-pipe system, shall be capable of providing sequenced heating and cooling.

- **Electrical Requirements:**

Supply voltage options for 115V, 208/240V or 277V single phase, 60-Hz electrical power supply.

- **Electrical Heaters:**

- Unit shall be equipped with nichromewire electric strip heaters for total or auxiliary electric heat as specified on the equipment schedule.
- Heaters shall be protected by an automatic reset safety cutout switch.
- Heater capacity shall be as specified on the equipment schedule.
- Heaters shall be single phase, 60 Hz for 120, 208, 240 or 277 volts as specified on the equipment schedule.
- For total electric heat, unit controls may include a sequenced heating and cooling thermostat.
- For auxiliary electric heat or twilight heat, unit controls shall include 2 additional automatic changeover devices.

RR SERIES

VERTICAL HIGH RISE FAN COILS

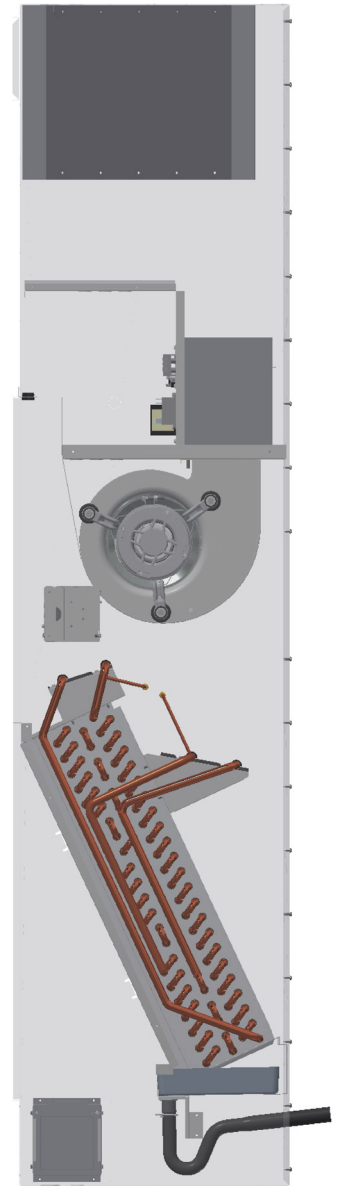
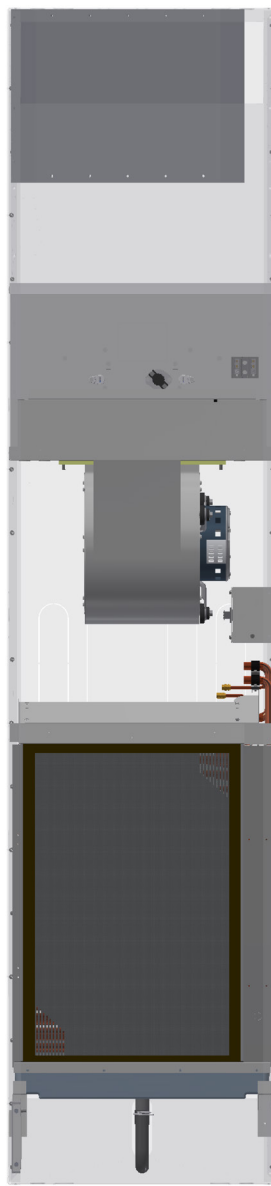
SPECIFICATION GUIDE (CONT'D)

- **Motor:**

- Fan motors are 3-speed, with 115V, 208/240V and 277V options, single phase, 60-Hz electronically commutated motor type, factory mounted on the blower housing.
- Bearings shall be of the sealed sleeve type.

- **Access Panels:**

- Tamper-proof fasteners shall be installed on the access panels
- Return Air Panels
 - Short surface mount.
 - Short flush mount (framed)



RR – Vertical High Rise Fan Coil



AMERICAN-MADE. FAMILY OWNED.



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