



**C22"FC" SERIES FULL CASED
EVAPORATOR UNITS — UP-FLO
AIR-CONDITIONING AND HEAT PUMP
1 To 5 Tons (4 To 18 kW) Nominal Cooling Capacity**

C22FC

Bulletin #490***
November 1993

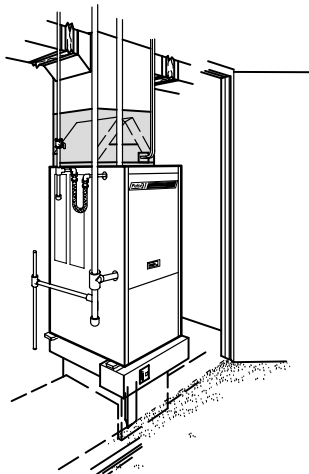
Coil Construction — Lennox designed and fabricated coils are constructed of precisely spaced ripple-edged enhanced aluminum fins machine fitted to rifled copper tubes. Lanced fins allow for maximum exposure of fin surface to air stream. Copper rifled tubing construction provides long coil life and ease of service. Rifled tubing provides superior refrigerant flow resulting in maximum heat transfer. Twin coils assembled in an "A" configuration provides extra large surface and contact area for maximum efficiency. Fins have collars that grip tubing for maximum contact area resulting in excellent heat transfer. Flared shoulder tubing joints and silver soldering provide tight leakproof joints. Coils are thoroughly tested under pressure to insure leakproof construction. Drainpan is constructed of a non-corrosive polymer and has dual 3/4 inch (19 mm) fpt drain connections. Two-piece end panel allows easy access for coil servicing and cleaning. Refrigerant lines are equipped with sweat connections on suction (vapor) and liquid lines.

Fully Tested — Evaporator units have been thoroughly tested with matching condensing and heat pump units in the Lennox Research Laboratory environmental test room. Air resistance data is from tests conducted in the Lennox air test chamber. Full cased coils are shipped factory assembled and ready for installation.

Refrigerant Control Choice — Coils are available with either factory installed expansion and check valve (all models) or RFCIV refrigerant metering device (C22-21FC, C22-26FC, C22-31FC or C22-41FC models only).

Refrigerant Flow Control IV — C22-21FC, C22-26FC, C22-31FC and C22-41FC models are applicable to Lennox RFCIV™ systems. RFCIV is a very accurate means of metering refrigerant in system. Refrigerant control is accomplished by the exact sizing of a refrigerant metering orifice. The principle of the Lennox RFCIV system involves matching the evaporator coil with the proper bore size in the orifice within the metering device. For heat pump applications in the heating mode, the bullet shaped orifice allows for reverse flow. As the refrigerant flows in the reverse direction, the orifice moves back to a free flow position, eliminating the need for a check valve and related piping in the system. Because the RFCIV system equalizes pressure almost instantaneous after compressor stops, the unit starts unloaded, eliminating the need for any additional controls. See sketch below.

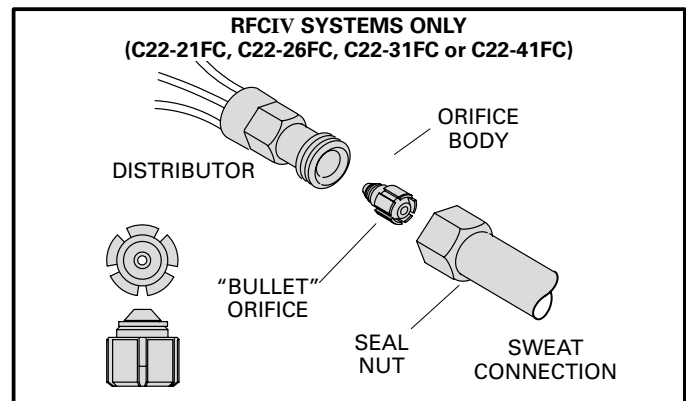
Typical Application



Closest Installation
With Pulse21® Furnace
and Electronic Air Cleaner

Applications — Lennox designed and built up-flo evaporator coils can easily be installed with most Lennox up-flo furnaces. Full cased coils match most plenum openings of Lennox furnaces. See Coil/Furnace Match-up Selector table in this bulletin. See condensing units bulletins (section Cooling Units — Condensing Units) for evaporator unit applications and cooling capacities. See heat pump outdoor unit bulletins (section Heat Pumps — Matched remote Systems) for indoor coil applications and cooling and heating capacities.

Cabinet Construction — Cabinets are fully insulated with thick fiberglass insulation and are constructed of heavy gauge steel with a deluxe baked-on enamel paint finish. Bend-up flanges are provided in outlet opening of cabinet for ease of plenum connection in conventional up-flo furnace applications and ease of alignment with B24 series blower units. See dimension drawing.



Up-Flo Coil Twinning Kit (Optional) — Twinning kit LB-65597A (30J76) is available to operate two C22-41FC, C22-46FC or C22-65FC coils simultaneously with one HS17 condensing unit and two furnaces. Kit contains necessary plumbing fittings to interconnect coils. Must be ordered extra.

SPECIFICATIONS

Model Number		C22-21FC-TXV	C22-26FC-TXV	C22-26WFC-TXV	C22-31FC-TXV	C22-31WFC-TXV
		C22-21FC-RFC	C22-26FC-RFC		C22-31FC-RFC	
Evaporator Coil	Net face area — sq. ft. (m ²)	3.11 (0.29)	4.0 (0.37)	4.0 (0.37)	4.0 (0.37)	4.0 (0.37)
	Tube diameter — in. (mm)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)
	Number of rows	2	2	2	3	3
	Fins per inch (m)	15 (590)	15 (590)	15 (590)	12 (472)	12 (472)
Suction (vapor) line connection — in. (mm) sweat		5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	3/4 (19)	3/4 (19)
Liquid line connection — in. (mm) sweat		3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)
Condensate drain (fpt) — in. (mm)		(2) 3/4	(2) 3/4	(2) 3/4	(2) 3/4	(2) 3/4
Refrigerant		R-22	R-22	R-22	R-22	R-22
Coil shipping weight — lbs. (kg) 1 package		39 (18)	45 (20)	49 (22)	52 (24)	56 (25)
*Expansion Device Furnished		Expansion and Check Valve or RFCIV		Expansion and Check Valve	Expansion and Check Valve or RFCIV	Expansion and Check Valve

*Furnished and factory installed.

SPECIFICATIONS

Model Number		C22-41FC-TXV	C22-46FC-TXV	C22-51FC-TXV	C22-65FC-TXV
		C22-41FC-RFC			
Evaporator Coil	Net face area — sq. ft. (m ²)	4.44 (0.41)	6.71 (0.62)	7.58 (0.70)	7.58 (0.70)
	Tube diameter — in. (mm)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)
	Number of rows	3	2	2	3
	Fins per inch (m)	12 (472)	15 (590)	15 (590)	12 (472)
Suction (vapor) line connection — in. (mm) sweat		3/4 (19)	7/8 (22.2)	7/8 (22.2)	1-1/8 (28.6)
Liquid line connection — in. (mm) sweat		3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)
Condensate drain (fpt) — in. (mm)		(2) 3/4	(2) 3/4	(2) 3/4	(2) 3/4
Refrigerant		R-22	R-22	R-22	R-22
Coil shipping weight — lbs. (kg) 1 package		65 (29)	69 (31)	86 (39)	97 (44)
*Expansion Device Furnished		Expansion and Check Valve or RFCIV	Expansion and Check Valve		
Coil Twinning Kit (Optional)		LB-65597A (30J76)		----	LB-65597A (30J76)

*Furnished and factory installed.

FULL CASED COIL TO FURNACE SELECTOR

Furnace Model Number		Coil Model Number								
		C22-21FC	C22-26FC	C22-26WFC	C22-31FC	C22-31WFC	C22-41FC	C22-46FC	C22-51FC	C22-65FC
G12	Q3-82			X		X	X	X		
	Q3-110		X		X			X	X	
	Q5-137						X			
	Q5-165							X	X	X
G21	Q3-40		X		X			X		
	Q3-60		X		X			X		
	Q3-80		X		X			X		
	Q5-80									
	Q5-100									
G24M	2-45			X		X				
	2-60			X		X				
	3-60			X		X	X			
	2-75			X		X				
	3-75			X		X	X			
	4-75			X		X	X	X	X	
	3/4-100		X		X			X	X	
	4/5-100							X	X	X
	3/4-120		X		X			X	X	
	4/5-120							X	X	X
4/5-140							X	X	X	

- Coil matches furnace and air volume.
- Coil matches furnace physically. Check furnace air volume and total system pressure drop for satisfactory match with coil.
- X** Coil matches air volume. Coil does not match furnace physically and requires field fabricated transition.
- X** Coil does not match furnace physically and requires field fabricated transition. Check furnace air volume and total system pressure drop for satisfactory match with coil.
- Does not Match

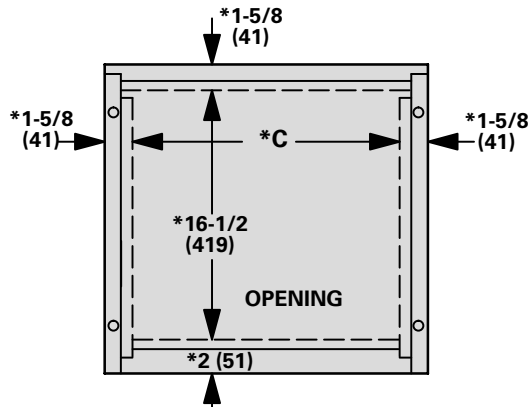
AIR RESISTANCE

Model Number	Air Volume		Total Resistance	
	cfm	L/s	in. w.g.	Pa
C22-21FC	300	140	.03	7
	400	190	.05	12
	500	235	.07	17
	600	285	.10	25
	700	330	.13	32
C22-26FC	400	190	.04	10
	600	285	.08	20
	800	380	.13	32
	1000	470	.20	50
	1200	570	.27	67
C22-26WFC	400	190	.04	10
	600	285	.08	20
	800	380	.13	32
	1000	470	.20	50
	1200	570	.27	67
C22-31FC	600	285	.09	22
	800	380	.16	40
	1000	470	.24	60
	1200	570	.34	85
	1400	660	.44	109
C22-31WFC	600	285	.09	22
	800	380	.16	40
	1000	470	.24	60
	1200	570	.34	85
	1400	660	.44	109

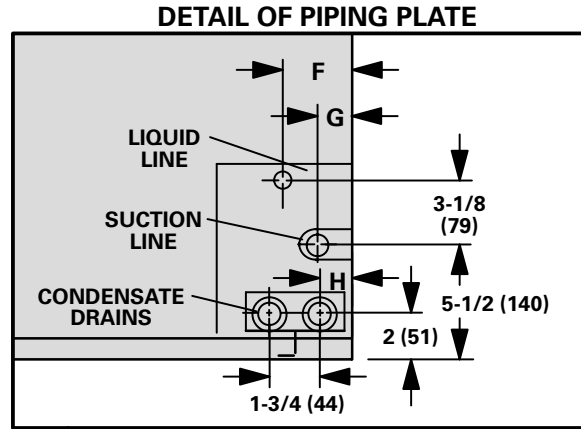
Model Number	Air Volume		Total Resistance	
	cfm	L/s	in. w.g.	Pa
C22-41FC	800	380	.15	37
	1000	470	.20	50
	1200	570	.26	65
	1400	660	.33	82
	1600	760	.39	97
C22-46FC	1000	470	.07	17
	1200	570	.10	25
	1400	660	.13	32
	1600	760	.17	42
	1800	850	.21	52
	2000	940	.25	62
	2200	1040	.30	75
C22-51FC	1200	570	.09	22
	1400	660	.12	30
	1600	760	.15	37
	1800	850	.19	47
	2000	940	.23	57
C22-65FC	2200	1040	.27	67
	1600	760	.15	37
	1800	850	.18	45
	2000	940	.22	55
	2200	1040	.26	65
	2400	1130	.31	77

DIMENSIONS – inches (mm)

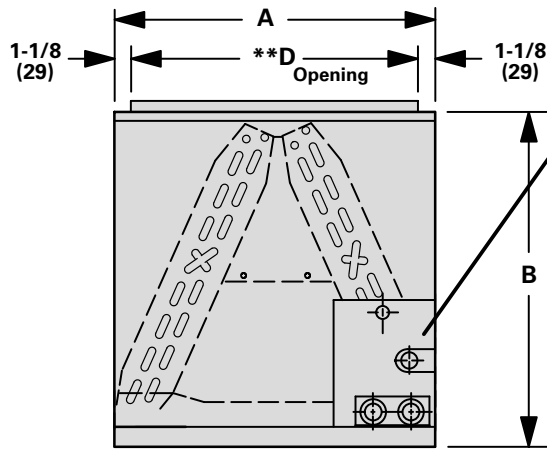
NOTE – Coil cabinet is equipped with a 5/8 inch (16mm) flange that may be bent up 90° for plenum connection on conventional up-flo furnace applications.
 *Dimensions before flange is bent up.
 **Dimensions after flange is bent up.



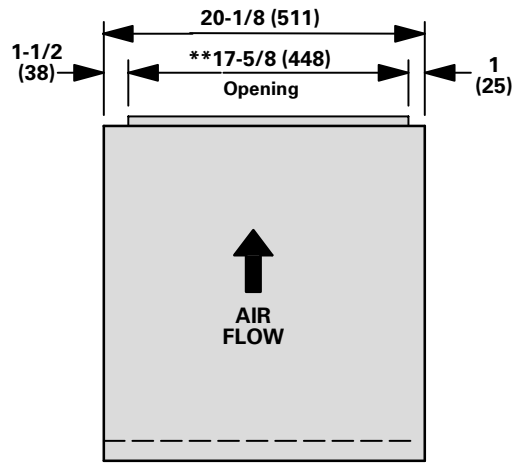
TOP VIEW



DETAIL OF PIPING PLATE



FRONT VIEW



SIDE VIEW

Model Number	A		B		C		D		E		F		G		H	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
C22-21FC	16-1/4	413	17	432	13	330	14	356	14-3/4	375	4-1/8	105	2-1/8	54	1-7/8	48
C22-26FC C22-31FC	16-1/4	413	21	533	13	330	14	356	14-3/4	375	4-1/8	105	2-1/8	54	1-7/8	48
C22-26WFC C22-31WFC	21-1/4	540	21	533	18	457	19	483	19-3/4	502	4-1/8	105	2-1/8	54	1-7/8	48
C22-41FC	21-1/4	540	25-3/4	654	18	457	19	483	19-3/4	502	4-1/8	105	2-1/8	54	1-7/8	48
C22-46FC	26-1/4	667	25-3/4	654	23	584	24	610	24-3/4	629	4-1/8	105	2-1/8	54	1-7/8	48
C22-51FC C22-65FC	26-1/4	667	28-3/4	730	23	584	24	610	24-3/4	629	4-1/8	105	2-1/8	54	1-7/8	48