

BF - BLAST FREEZERS HALOCARBON UNIT COOLERS

LARGE CAPACITY
3 TO 20 TONS



• **Air Defrost** • **Hot Gas Defrost** • **Water Defrost**
• **Electric Defrost**

- Temperature Range -60° + 32°
- 16 ga. mill galvanized steel outer casing for carefree maintenance.
- Staggered tube in direction of air flow.
- Total accessibility to expansion valve, Electrical connections, components and heaters without special tools.
- All units are equipped with permanently lubricated, totally enclosed ball bearing motors.
- Electric and hot gas defrost models have two drain connections. Water has three drain connections.
- Freon Coil: Tubes of 5/8" O.D. seamless copper mechanically expanded into fin collars.
- Aluminum fins have extruded holes and collars. Tube sheets of 16 ga. steel with extruded holes for tubes. Headers of seamless copper tube with ODS connections. All joints brazed with an alloy of copper-silver-phosphorus, using no flux. Coil tested to 250 PSI minimum dry air pressure while fully submerged in water. Circuited for direct expansion with multi-outlet distributor.

“The Heat Transfer Experts”

CAPACITY

- Standard Unit is furnished with 16 ga. mill galvanized steel casing.
- Cooling coil is 5/8 O.D. copper tubing, staggered in direction of air flow. Coils can be arranged for flooded, liquid recirculation or direct expansion feed. Fins of .010 aluminum. Copper fins available.
- Drain pan is constructed from heavy 16 ga. mill galvanized steel, corners are welded to insure rigidity.
- Fans are high performance axial steel propeller type, each directly connected to the fan motor for maximum air throw. Fan motors are TEFC; ball bearing type for heavy duty service with low-temp grease. Fan motors are 230/460 30 without internal overload protection.
- Compartmentalized fan section permits individual fan operation for capacity control and to prevent short cycling.
- All motor wiring routed to external junction box on water defrost.
- All electrical components are prewired to junction box.
- All expansion valves must be externally equalized. Expansion valve compartment heated during defrost. Connection for external equalizer line provided.
- Penn termination control standard on Hot gas, Electric, and Water defrost units. Adjustable without removing end panel.
- Water defrost including return bends and headers with removable water plugs for cleaning, and 3 over-sized 1 1/4" MPT drain pan connections to insure proper drainage.
- Hot gas loop on drain pan with hot gas defrost.
- Units are provided with center support hangers.
- Suitable for R-12, R-22, R-502.
- Air throw STD is 55'.

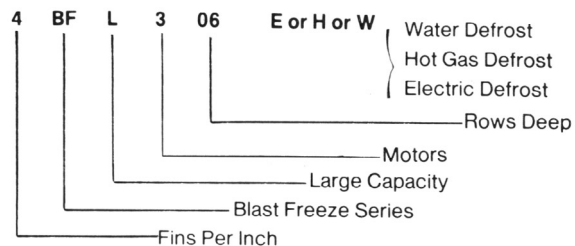
Optional Features

- Oversize motors available for three phase.
- Dual circulating available for capacity control.
- Insulated drain pan with hot gas defrost.
- Factory mounted check valve between cooling coil and hot gas pan.

NOTE: Do not use direct expansion feed below 0 F (Evaporator temperatures) without proper compressor system protection.

Model	Btuh/Deg TD		CFM
	0°F	+20°F	
4BF - 204	4674	4818	14800
4BF - 206	7325	7669	14600
4BF - 208	8527	8927	14500
4BF - 304	7011	7340	22202
4BF - 306	10988	11503	21900
4BF - 308	12790	13390	21750
4BFL - 304	9293	9729	27500
4BFL - 306	13142	13759	27000
4BFL - 308	16539	17315	26600
4BFL - 310	19539	20456	26200
6BF - 204	6351	6779	14700
6BF - 206	8846	9442	14500
6BF - 208	10974	11714	14400
6BF - 304	9526	10168	22050
6BF - 306	13269	14163	21750
6BF - 308	16462	17571	21600
6BFL - 304	11368	12135	27300
6BFL - 306	15870	16940	26700
6BFL - 308	19731	21061	26100
6BFL - 310	23042	24595	25800

Model Nomenclature



NOTE: See list price sheet for oversize motor pricing. Recommend pressure limit valves be used on all defrost units.

SPECIFICATIONS

Fans No/Size	Motor HP ea.	Motor Amps		Electric Defrost		Defrost Watts	Surface Area Sq. Ft.	Internal Volume Cu. Ft.
		208/230-3Ø	460-3Ø	Amps 230-3Ø	Amps 460-3Ø			
2-24	1.0	6.8	3.4	26.0	13.0	10300	720	1.12
2-24	1.0	6.8	3.4	34.6	17.3	13800	1080	1.66
2-24	1.0	6.8	3.4	43.2	21.6	17200	1440	2.23
3-24	1.0	10.2	5.1	51.9	25.9	20700	1080	1.62
3-24	1.0	10.2	5.1	69.2	34.6	27600	1620	2.46
3-24	1.0	10.2	5.1	86.4	43.2	34400	2160	3.25
3-28	1.5	13.2	6.6	51.9	25.9	20700	1247	1.90
3-28	1.5	13.2	6.6	69.2	34.6	27600	1871	2.87
3-28	1.5	13.2	6.6	86.4	43.2	34400	2494	3.80
3-28	1.5	13.2	6.6	86.4	43.2	34400	3771	4.75
2-24	1.0	6.8	3.4	26.0	13.0	10300	1062	1.12
2-24	1.0	6.8	3.4	34.6	17.3	13800	1593	1.66
2-24	1.0	6.8	3.4	43.2	21.6	17200	2124	2.23
3-24	1.0	10.2	5.1	51.9	25.9	20700	1593	1.62
3-24	1.0	10.2	5.1	69.2	34.6	27600	2389	2.46
3-24	1.0	10.2	5.1	86.4	43.2	34400	3185	3.25
3-28	1.5	13.2	6.6	51.9	25.9	20700	1838	1.90
3-28	1.5	13.2	6.6	69.2	34.6	27600	2757	2.87
3-28	1.5	13.2	6.6	86.4	43.2	34400	3676	3.80
3-28	1.5	13.2	6.6	86.4	43.2	34400	4595	4.75

CAPACITY CORRECTION FACTORS FOR LOW TEMPERATURE OPERATION

Suction °F	5° TD	10° TD	15° TD	20° TD
0	1.01	1.00	1.00	1.00
-10	1.00	.99	.98	.98
-20	.98	.97	.96	.96
-30	.96	.94	.94	.94
-40	.93	.89	.87	.85
-50	.90	.84	.80	.75
-60	.85	.78	.72	.66

ORDERING INFORMATION

1. Model Number
2. Type of Refrigerant
3. Suction Temperature
4. Type of Defrost
5. Motor Electrical Characteristics
6. Defrost Electrical Characteristics
7. Liquid Temperature at TXV
8. Design Tons

NOTE:

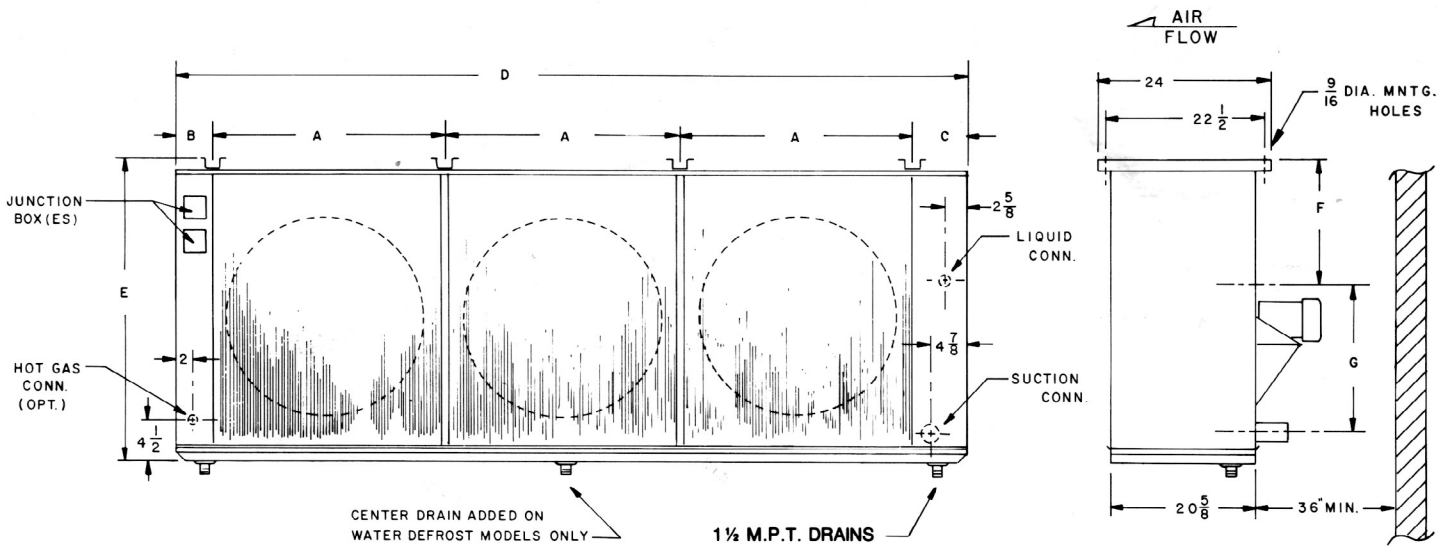
EXPANSION VALVES: All units require externally equalized expansion valves.

ELECTRIC DEFROST: Electric defrost includes adjustable defrost termination and fan delay and motor contact if required.

AIR FLOW RESTRICTION: Install not less than 24" from back wall.

HOT GAS DEFROST UNITS: Includes adjustable defrost termination and fan delay.

COLMAC



Dimensions

Specifications

A	B	C	D*	E	F	G	Model	Liquid Conns.	Suction Conns.	Hot Gas	Dry Wgt. Lbs.
35	4 1/2	7 1/2	82	41 1/2	16	19 1/2	4BF - 204	1 1/8	1 5/8	7/8	671
35	4 1/2	7 1/2	82	41 1/2	16	19 1/2	4BF - 206	1 3/8	2 1/8	7/8	759
35	4 1/2	7 1/2	82	41 1/2	16	19 1/2	4BF - 208	1 3/8	2 1/8	1 1/8	847
35	4 1/2	7 1/2	117	41 1/2	16	19 1/2	4BF - 304	1 3/8	2 1/8	1 1/8	944
35	4 1/2	7 1/2	117	41 1/2	16	19 1/2	4BF - 306	1 3/8	2 1/8	1 1/8	1071
35	4 1/2	7 1/2	117	41 1/2	16	19 1/2	4BF - 308	1 5/8	2 5/8	1 3/8	1198
35	4 1/2	7 1/2	117	47 1/2	19	22 1/2	4BFL-304	1 3/8	2 1/8	1 1/8	1060
35	4 1/2	7 1/2	117	47 1/2	19	22 1/2	4BFL - 306	1 5/8	2 1/8	1 3/8	1206
35	4 1/2	7 1/2	117	47 1/2	19	22 1/2	4BFL - 308	1 5/8	2 1/8	1 3/8	1353
35	4 1/2	7 1/2	117	47 1/2	19	22 1/2	4BFL - 310	1 5/8	2 1/8	1 3/8	1500
35	4 1/2	7 1/2	82	41 1/2	16	19 1/2	6BF - 204	1 3/8	1 5/8	7/8	701
35	4 1/2	7 1/2	82	41 1/2	16	19 1/2	6BF - 206	1 3/8	2 1/8	1 1/8	809
35	4 1/2	7 1/2	82	41 1/2	16	19 1/2	6BF - 208	1 5/8	2 1/8	1 1/8	927
35	4 1/2	7 1/2	117	41 1/2	16	19 1/2	6BF - 304	1 3/8	2 1/8	1 1/8	994
35	4 1/2	7 1/2	117	41 1/2	16	19 1/2	6BF - 306	1 3/8	2 1/8	1 3/8	1141
35	4 1/2	7 1/2	117	41 1/2	16	19 1/2	6BF - 308	1 5/8	2 5/8	1 3/8	1288
35	4 1/2	7 1/2	117	47 1/2	19	22 1/2	6BFL - 304	1 3/8	2 1/8	1 1/8	1120
35	4 1/2	7 1/2	117	47 1/2	19	22 1/2	6BFL - 306	1 5/8	2 5/8	1 3/8	1286
35	4 1/2	7 1/2	117	47 1/2	19	22 1/2	6BFL - 308	1 5/8	2 5/8	1 3/8	1453
35	4 1/2	7 1/2	117	47 1/2	19	22 1/2	6BFL - 310	1 5/8	2 5/8	1 3/8	1620

* NOTES: 1. For electric defrost, add 17" to "D" dimension.

2. Depth of unit will vary with electric defrost. Consult Factory.

Colmac reserves the right to change specifications without notice.



Colmac Coil Mfg., Inc
P.O. Box 571
Colville, WA 99114-0571
USA

Phone: 509-684-2595
Fax: 509-684-8331
e-mail: mail@colmaccoil.com
Website: www.colmaccoil.com

3/00 MP



Other Quality Products From Colmac Coil



Heating and Cooling Coils



Heat Pipes for Heat Recovery



Dry Coolers for Glycol or Gas Cooling



Custom Evaporators & Baudelot Coolers



Air Cooled Condensers

CE(PED) Certification, ASME Sec. VIII, Canadian Registration Number, UL508, Canadian Standards Association



CRN



CSA

Visit www.colmaccoil.com for more information and resources:

Product Information

Product Literature

Sales Rep Locator

Sales Rep e-Library

Product Videos

North American Headquarters

Colmac Coil Manufacturing, Inc.
370 N. Lincoln St. | P.O. Box 571
Colville, WA 99114 | USA
+1.509.684.2595 | +1.800.845.6778

Midwest US Manufacturing

Colmac Coil Midwest
350 Baltimore Dr. | Paxton, IL 60957 | USA

"The Heat Transfer Experts"