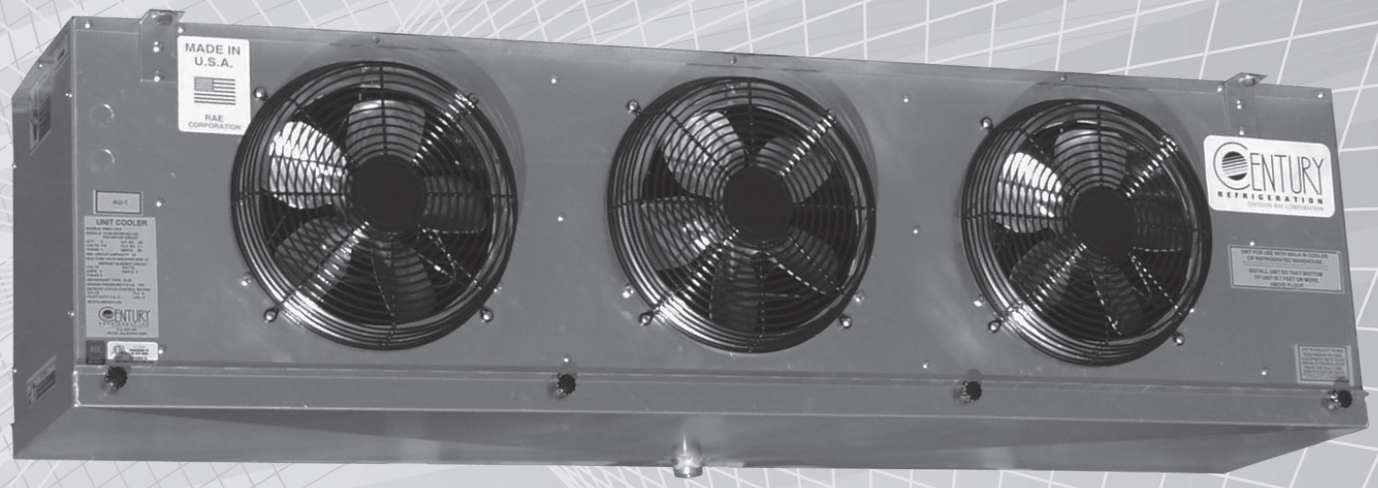
FH SERIES

Flush Mount - Low Headroom Unit Coolers - Technical Catalog



CENTURY
REFRIGERATION
DIVISION RAE CORPORATION

4492 Hunt St. - Pryor, OK 74361 - 918.825.7222 - Fax 800.264.5329 - www.century-refrigeration.com

Features/Applications

- Walk-in Coolers / Freezers
- Beverage Boxes / Produce Storage
- Air Defrost
  - 28 Selections
  - 6,678 to 37,985 BTUH
  - 4, 5, 6 AND 8 FPI Coils
- Electric Defrost
  - 21 Selections
  - 6,174 to 33,919 BTUH
  - 4, 5, and 6 FPI Coils
- Permanently lubricated EC motors, low noise level fans for high, medium and low temperature refrigeration applications
- 4, 5, 6 and 8 FPI spacing for accurate matching of loads
- Easy access to controls, motors, and wiring.
- Ceiling flush mount design
- Hinged drain pans

Available Options

- Electric Defrost
- Hot Gas Defrost
- Insulated Drain Pans
- Heated Drain Pans
- Mounted Expansion Valves
- Special Coil Coatings and Fin Materials (contact factory)
- Stainless Steel Cabinet and Drain Pan

Available Options

MODEL KEY **F H 6 3 4 - 126 E**

- Flush Mount Series
- Low Headroom Series
- Fins/Inch
- Number of Fans
- Refrigerant Type
  - 4 - R-404a
  - 7 - R-507
  - 8A - R448a
  - 9A - R449a
- BTUH (hundreds)
- Type of Defrost
  - A - Air Defrost
  - E - Electric Defrost
  - HG - Hot Gas Defrost

WHEN ORDERING PLEASE SPECIFY:

- Complete Model Number
- Refrigerant
- Room Temperature
- Saturated Suction Temperature
- Liquid Temperature
- Electrical Characteristic
  - Motors (Voltage/Phase)
  - Heaters (Voltage/Phase)
  - Control Voltage
- Accessories

Construction

Cabinet
Heavy gauge, rustproof smooth finish aluminum housing. All hardware is corrosion resistant. Full die-formed venturis minimizes noise with maximum air throw. Fan guards are heavy gauge wire basket type coated for corrosion resistance. Units mount flush to the ceiling for ease of wash down, no difficult areas above the unit to clean.

Coil
Coils are copper tube, full-collared die-formed aluminum plate fin and tube sheets. Tubes are mechanically expanded for maximum heat transfer. Coils are leak tested at 175 PSIG under water. Solder connection type distributors are supplied with removable nozzles. Each nozzle is sized for the specified refrigerant and temperature range. All coils require external equalized expansion valve. Expansion valve is located within the cabinet. On electric defrost models, the expansion valve compartment is heated during the defrost cycle.

Fans
Heavy duty aluminum blades, statically and dynamically balanced for smooth operation. Selected for quiet operation with maximum air throw.

Motors
Permanently lubricated EC motors, suitable for low temperature applications. All motors are thermally protected, 1550 RPM.

Refrigerants
All coils are designed for use with refrigerants R-507, R-404A, R-448A and R-449A. Specify which refrigerant when ordering.

Electrical
Factory prewired to a junction box located on front of unit. Consult specification for electrical requirements. See appropriate diagram for internal wiring schematic.

Defrost
Standard unit is suitable for air defrost applications (above 34° F room). Electric defrost models (below 35° F room) are available. Removable, low watt density resistance heaters are prewired with termination and fan delay controls.

Drain Pan
Drain pans are hinged for ease of access and cleaning.

Specification Data

Model		Capacity (BTUH) at 10° TD[2] Saturated Suction Temperature (° F)						Fans		Fan Motor Amperage[3]		Electric Defrost		
		-10°F	0°	10°	20°	25°	30°	CFM	Qty/Size	115 V	230 V	Watts	Amps @ 230V	Phase
4 FPI Coils	FH 420-63	6174	6300	6426	6615	6678	6741	1250	2 / 10"	2.2	1.1	2000	8.7	1
	FH 420-79	7742	7900	8058	8295	8374	8453	1230	2 / 10"	2.2	1.1	2000	8.7	1
	FH 430-95	9310	9500	9690	9975	10070	10165	1875	3 / 10"	3.3	1.65	3000	13	1
	FH 430-122	11956	12200	12444	12810	12932	13054	1845	3 / 10"	3.3	1.65	3000	13	1
	FH 440-160	15680	1600	16320	16800	16960	17120	2460	4 / 10"	4.4	2.2	4000	17.4	1
	FH 450-202	19796	20200	20604	21210	21412	21614	3075	5 / 10"	5.5	2.75	5000	12.6	3
	FH 460-240	23520	24000	24480	25200	25440	25680	3690	6 / 10"	6.6	3.3	6000	15	3
5 FPI Coils	FH 520-74	7252	7400	7548	7770	7844	7918	1220	2 / 10"	2.2	1.1	2000	8.7	1
	FH 520-96	9408	9600	9792	10080	10176	10272	1210	2 / 10"	2.2	1.1	2000	8.7	1
	FH 530-114	11172	11400	11628	11970	12084	12199	1830	3 / 10"	3.3	1.65	3000	13	1
	FH 530-146	14308	14600	14892	15330	15476	15622	1815	3 / 10"	3.3	1.65	3000	13	1
	FH 540-192	18816	19200	19584	20160	20352	20544	2420	4 / 10"	4.4	2.2	4000	17.4	1
	FH 550-240	23520	24000	24480	25200	25440	25680	3025	5 / 10"	5.5	2.75	5000	12.6	3
	FH 560-288	28224	28800	29376	30240	30528	30816	3630	6 / 10"	6.6	3.3	6000	15	3
6 FPI Coils	FH 620-83	8134	8300	8466	8715	8798	8881	1210	2 / 10"	2.2	1.1	2000	8.7	1
	FH 620-106	10388	10600	10812	11130	11236	11342	1200	2 / 10"	2.2	1.1	2000	8.7	1
	FH 630-126	12348	12600	12852	13230	13356	13482	1815	3 / 10"	3.3	1.65	3000	13	1
	FH 630-161	15778	16100	16422	16905	17066	17227	1800	3 / 10"	3.3	1.65	3000	13	1
	FH 640-213	20874	21300	21726	22365	22578	22791	2400	4 / 10"	4.4	2.2	4000	17.4	1
	FH 650 267	26166	26700	27234	28035	28302	28569	3000	5 / 10"	5.5	2.75	5000	12.6	3
	FH 660-317	31066	31700	32334	33285	33602	33919	3600	6 / 10"	6.6	3.3	6000	15	3
8 FPI Coils	FH 820-92	9016	9200	9384	9660	9752	9844	1200	2 / 10"	2.2	1.1	8 FPI coils are not recommended for applications below +35°F room temperature.		
	FH 820-118	11564	11800	12036	13390	12508	12626	1170	2 / 10"	2.2	1.1			
	FH 830-140	13720	14000	14280	14700	14840	14980	1800	3 / 10"	3.3	1.65			
	FH 830-180	17640	18000	18360	18900	19080	19260	1755	3 / 10"	3.3	1.65			
	FH 840-238	23324	23800	24276	24990	25228	25466	2340	4 / 10"	4.4	2.2			
	FH 850-300	29400	30000	30600	31500	31800	32100	2925	5 / 10"	5.5	2.75			
	FH 860-355	34790	35500	36210	37210	37630	37985	3510	6 / 10"	6.6	3.3			

1 - All models require external equalized thermostatic expansion valve.

2 - To determine capacities at other TDs, divide capacities shown by 10 and then multiply by the desired TD.

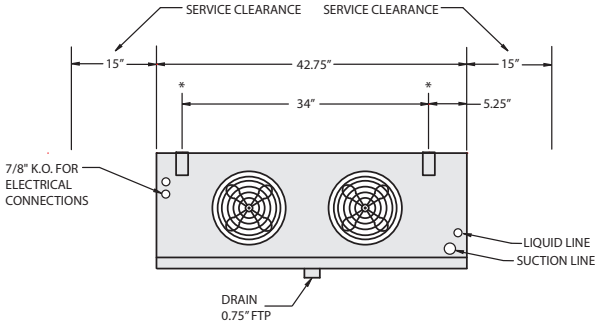
3 - All models utilize 16 watt fan motor(s).

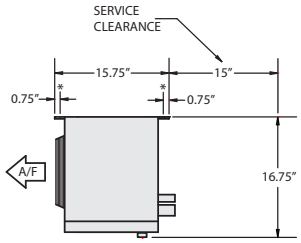
When Ordering Please Specify:

- Complete Model Number
- Room Temperature
- Unit Voltage
- Design TD
- Refrigerant Type (R-404A, R507A, R448A, R449A)
- Saturated Suction Temperature
- Defrost Type

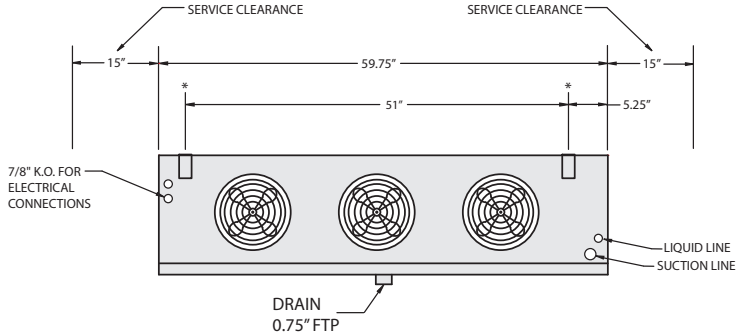
Physical Data

Two Fan Models

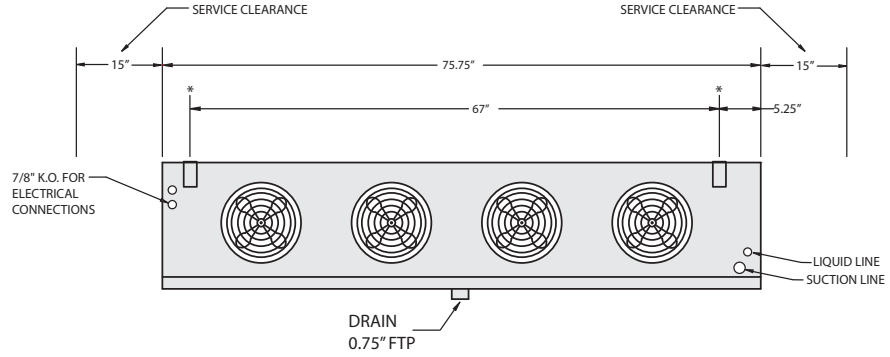




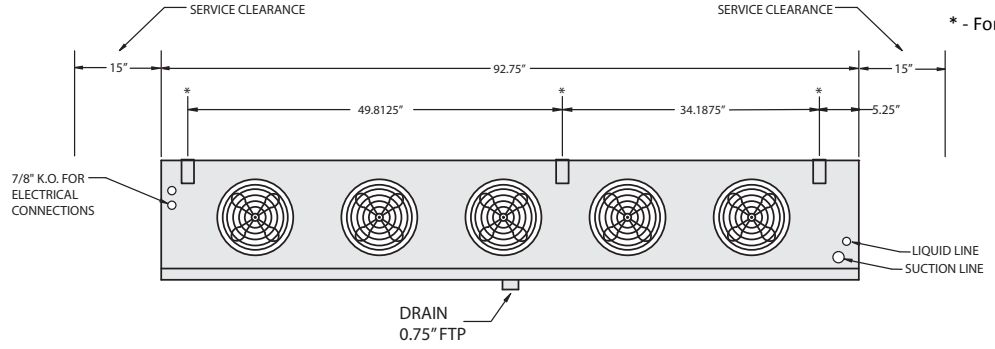
Three Fan Models



Four Fan Models



Five Fan Models



Model	Connections *		Approx. Shipping Weight
	Liquid	Suction	
FH 420-63	1/2" FN	7/8" ODS	58 lbs
FH 420-79	1/2" FN	7/8" ODS	64 lbs
FH 430-95	1/2" FN	7/8" ODS	80 lbs
FH 430-122	1/2" FN	1 1/8" ODS	90 lbs
FH 440-160	1/2" FN	1 1/8" ODS	120 lbs
FH 450-202	1/2" FN	1 1/8" ODS	200 lbs
FH 460-240	1/2" FN	1 1/8" ODS	230 lbs
FH 520-74	1/2" FN	7/8" ODS	61 lbs
FH 520-96	1/2" FN	7/8" ODS	68 lbs
FH 530-114	1/2" FN	7/8" ODS	83 lbs
FH 530-146	1/2" FN	1 1/8" ODS	95 lbs
FH 540-192	1/2" FN	1 1/8" ODS	124 lbs
FH 550-240	1/2" FN	1 3/8" ODS	208 lbs
FH 560-288	1/2" FN	1 3/8" ODS	238 lbs
FH 620-83	1/2" FN	7/8" ODS	63 lbs
FH 620-106	1/2" FN	7/8" ODS	71 lbs
FH 630-126	1/2" FN	7/8" ODS	87 lbs
FH 630-161	1/2" FN	1 1/8" ODS	99 lbs
FH 640-213	1/2" FN	1 1/8" ODS	128 lbs
FH 650 267	1/2" FN	1 3/8" ODS	213 lbs
FH 660-317	1/2" FN	1 3/8" ODS	242 lbs
FH 820-92	1/2" FN	7/8" ODS	66 lbs
FH 820-118	1/2" FN	7/8" ODS	73 lbs
FH 830-140	1/2" FN	7/8" ODS	92 lbs
FH 830-180	1/2" FN	1 1/8" ODS	105 lbs
FH 840-238	1/2" FN	1 1/8" ODS	134 lbs
FH 850-300	1/2" FN	1 3/8" ODS	219 lbs
FH 860-355	1/2" FN	1 3/8" ODS	246 lbs

* - For hot gas connection size and location, consult factory.

Notes

Notes

Product Benefits:

Adaptability

Century systems go where others can't. Your Century system is engineered to meet your specific project application and job requirements in-house with no need for modification in the field. With Century's extensive inventory of components, your order can be shipped when you need it.

Durability

Your Century system will be built with heavy gauge construction and the highest quality components to optimize efficiency for the life expectancy of your system. Century systems are engineered for Time Tested Toughness.

Serviceability

Your Century system will have easily accessible components and appropriate fin spacing to allow for easy maintenance. Century systems are engineered to be serviceable with a minimal amount of OEM components. A large inventory of replacement parts ensures professional, reliable service throughout the lifetime of your Century system.

Reduced Total Cost of Ownership

The adaptability, durability, and serviceability of your Century system results in reduced installation costs, maintenance costs, and utility costs throughout the lifetime of your system. Century systems are designed for customers requiring long-term, dependable systems.

The current refrigeration market...

Commercial Refrigeration

- Shipped from stock
- No modifications available; one size fits all equipment
- Lightweight construction
- Convenience store and restaurant applications
- Options/kits shipped loose for field assembly installation
- Cheaper, lower quality materials

Industrial Refrigeration

- Central refrigeration plant
- Dedicated mechanical rooms
- Stationary Engineer requirements
- PLC (Microprocessor) controls
- Steel construction
- Requires extensive piping in the field

now presenting...

Comdustrial™ Refrigeration

Comdustrial™ Refrigeration Systems are the ideal balance of the commercial and industrial refrigeration markets.

- Industrial quality equipment in Commercial capacity ranges
- Built-to-order refrigeration systems with exceptional lead times
- Professionally represented by systems oriented Sales Representatives
- Systems based approach to your application
- Project specific submittal packages and drawings
- Quality materials for long-term equipment life

ABOUT RAE CORPORATION

RAE Corporation was founded in 1971 and is located in the MidAmerica Industrial Park in Pryor, Oklahoma. RAE employs more than 350 people, is represented throughout the country and markets equipment throughout the world. RAE manufactures air and water cooled condensing units, air and water cooled chillers, air cooled condensers, fluid coolers, heat transfer coils, industrial coils, unit coolers, corrosive environment equipment and an assortment of other engineered cooling systems, all of which are either UL- or ETL-approved. RAE has five divisions: Technical Systems, Refrigeration Systems, Century Refrigeration, RAE Coils and ZeroCool Systems.

RAE CORPORATION

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Bulletin# C-TC-FH-1218