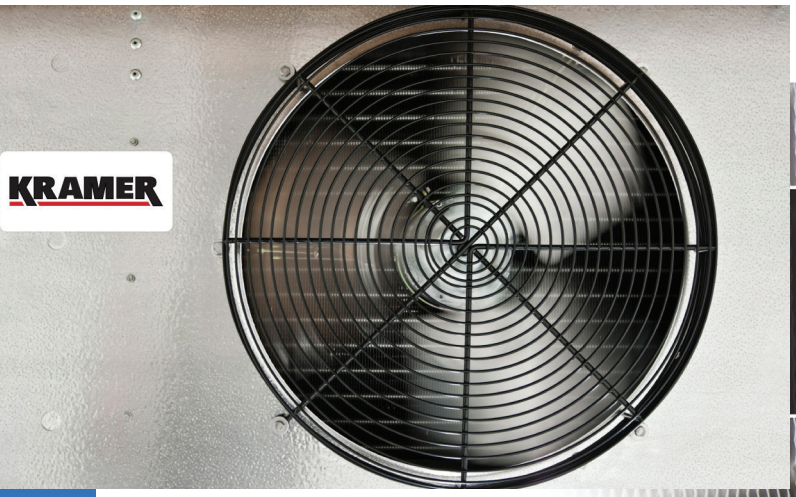


MSG Series

MSG Medium Silhouette

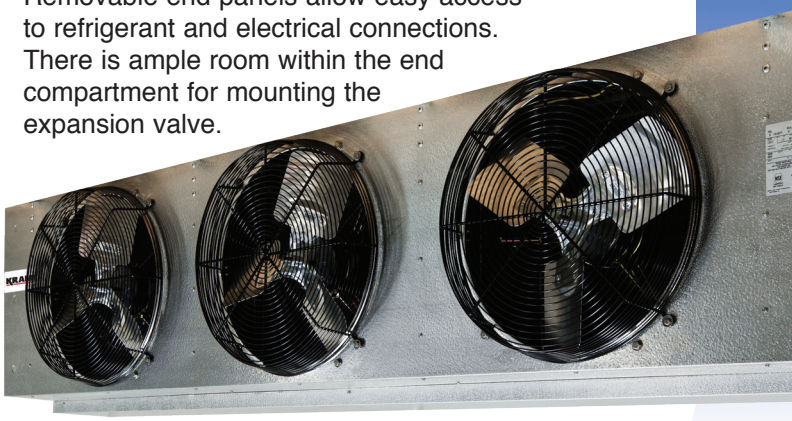
Hot Gas Defrost

MSG model unit coolers are specifically designed for commercial freezer applications. All MSG models are available for either “Thermobank” or Reverse Cycle Hot Gas Defrost application.

The time proven “Thermobank” defrost takes less time to defrost than other systems and helps keep room temperatures at design conditions.These units are suitable for low or medium temperature rooms in the range of +30°F to -20°F.

The draw-thru air flow design coupled with fin spacing of 4 per inch assures uniform air distribution.

Removable end panels allow easy access to refrigerant and electrical connections. There is ample room within the end compartment for mounting the expansion valve.



EFFICIENT OPERATION

- 4 FPI
- Available with PSC or EC motors
- Motor bearings are lubricated for the life of the motor
- Motors have built-in overload protection
- Coils constructed of Copper tubes and Aluminum fins

QUALITY

- Fans and motors specially selected for quietness
- Hot gas heated drain pans for positive condensate drainage
- UL & C-UL listed, NSF-approved
- Fan guards exceed OSHA requirements

SERVICEABILITY

- Removable end panels for easy access
- Separate fixed defrost and fan delay control factory wired and mounted for optimum performance of each control.

Nomenclature:

MSG - 140 * E P

- MSG — MEDIUM SILHOUETTE MODEL - FPI 4 HOT GAS DEFROST
- 140 — BTUH IN HUNDREDS
- * — HG CODE: T = Thermobank, R = Reverse Cycle
- E — VOLTAGE CODE: D = 208-230/1/60, E = 208-230/3/60, F = 460/1/60
- P — MOTOR CODE: E = Electronically Commutated Motor, P = Perm. Split Cap.

Fig. 1

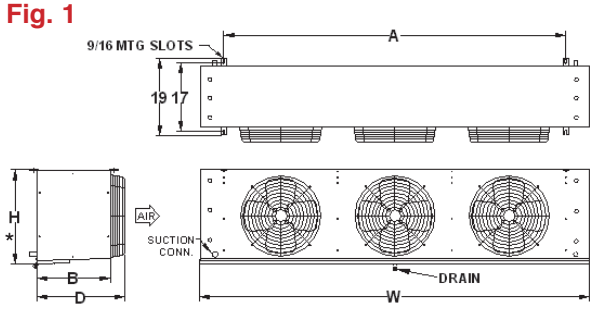
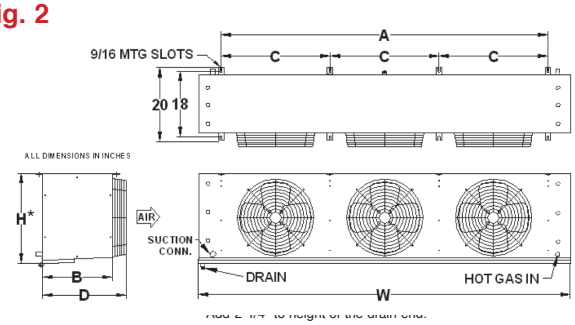


Fig. 2



Capacity Data

MODEL NO. (2)	CFM (3)	CAPACITY DATA — BTU/HR @ 10°T.D. (1) EVAPORATING TEMPERATURE						REFRIG. CHARGE R-404a
		-30°F	-20°F	-10°F	0°F	+10°F	+20°F	
MSG-105*	3940	10,000	10,500	11,000	11,300	11,700	12,300	2.6
MSG-140*	3620	13,400	14,000	14,600	15,300	15,900	16,600	3.4
MSG-175*	5750	16,700	17,500	18,200	19,100	19,800	21,500	3.7
MSG-230*	5930	21,900	23,000	24,100	25,200	26,200	27,900	6.3
MSG-325*	5430	31,000	32,500	33,800	35,400	36,800	39,000	8.4
MSG-390*	8890	37,100	39,000	40,600	42,400	44,100	45,400	9.2
MSG-510*	8150	48,600	51,000	53,100	55,400	57,700	58,200	13.8

(1) T.D. is the difference between the box temperature and the refrigerant temperature.
(2) Asterisk designates Hot Gas Defrost piping arrangement.
(3) Unrestricted flow (50 - 60 ft). High throw fan guards available as an option.

Physical Data

MODEL NO.	FIG.	DIMENSIONS (INCHES)						FITTINGS - OD			OPTIONAL HEAT EXCH.	APPROX. WT.
		H	W	D	A	B	C	LIQ.	SUCT.	DRAIN		
MSG-105*	1	19	55	18 3/4	42	15	—	1/2	1 1/8	3/4	HX-150	120
MSG-140*	1	19	55	18 3/4	42	15	—	1/2	1 1/8	3/4	HX-150	135
MSG-175*	1	19	76	18 3/4	63	15	—	1/2	1 1/8	3/4	HX-150	285
MSG-230*	2	25	76	20	63	16	31½	1/2	1 3/8	3/4	HX-250	315
MSG-325*	2	25	76	20	63	16	31½	7/8	1 3/8	3/4	HX-350	350
MSG-390*	2	25	106	20	93	16	31	7/8	1 5/8	3/4	HX-350	435
MSG-510*	2	25	106	20	93	16	31	7/8	1 5/8	3/4	HX-500	530

Specifications, weights and dimensions subject to change without notice.

Electrical Data

MODEL NO.	MOTOR (4)		TOTAL MOTOR AMPS						TOTAL MOTOR WATTS	
			115/1		208-230/1/60		460/1/60			
	NO.	HP	PSC	ECM	PSC	ECM	PSC	ECM	PSC	ECM
MSG-105*	2	1/8	4.0	2.4	1.8	1.2	1.0	N/A	282	140
MSG-140*	2	1/8	4.0	2.4	1.8	1.2	1.0	N/A	282	140
MSG-175*	3	1/8	6.0	3.6	2.7	1.8	1.5	N/A	423	210
MSG-230*	2	1/3	14.2	6.0	6.4	4.2	2.6	N/A	714	450
MSG-325*	2	1/3	14.2	6.0	6.4	4.2	2.6	N/A	714	450
MSG-390*	3	1/3	21.3	9.0	9.6	6.3	3.9	N/A	1071	675
MSG-510*	3	1/3	21.3	9.0	9.6	6.3	3.9	N/A	1071	675

(4) All motors are high efficiency Permanent Split Capacitor (PSC) or Electronically Commutated (EC) motors and have built in thermal overload protection.

Achieved by Changing to More Efficient Unit Cooler Motors
(Based on Energy Cost of $0.10 per kWh)

Energy Savings per Motor

Motor HP and RPM	Standard PSC Motor Input Power Watts/Mtr	Optional EC Motor Input Power Watts/Mtr	Reduced Power Consumption Watts/Mtr PSC to ECM	Run Time Hrs/Day	Motor Energy Savings kWh/Yr	Motor Energy Savings $/Yr	Reduced Box Load MBTU/Yr	Cond. Unit Energy Savings kWh/Yr	Cond. Unit Energy Savings $/Yr	Yearly Savings $/Motor	Pay-back Yrs
1/8-1075	141	70	71	22	570	$57	1,945	374	$37	$94	1.5
1/3-1075	357	225	132	22	1059	$105	3,617	695	$70	$175	0.9

Specifications, weights and dimensions subject to change without notice.