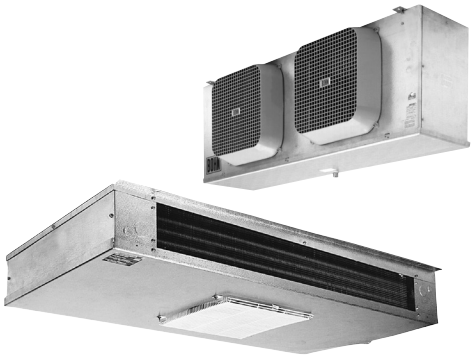
HEATCRAFT
Worldwide Refrigeration

Installation & Operations Manual Supplement

Bulletin No. H-IM-GUC September 2009 Part Number 25007501

Glycol Unit Coolers

NOTE: See H-IM-UC for instructions on Receiving Inspection, Warranty, Unit Cooler Placement, Electrical Wiring and Routine Maintenance.



Model Prefix	Product Family
ADTG / LCA6G	Low Profile (Air Defrost)
HGTG / LCH6G	Low Profile (Warm Fluid Defrost)
WKAG / LWAG	Low Velocity (Air Defrost)
WKGG / LWGG	Low Velocity (Warm Fluid Defrost)
BMAG / MMT6G	Medium Profile (Air Defrost)
LETG / LCE6G	Low Profile (Electric Defrost)
WKEG / LWEG	Low Velocity (Electric Defrost)

Air Defrost

The air defrost method is for applications where the room temperature remains above freezing. See H-IM-UC for details.

Warm Fluid Defrost

For applications where the room temperature is held below freezing, an additional heat source must be employed to periodically clear the unit cooler of frost. A common method is warm fluid defrost. During a scheduled defrost period, the regular flow of cold fluid is stopped and warm fluid is circulated through the unit cooler to defrost the coil surface.

Unit coolers configured for warm fluid defrost include a control to turn off the fans and turn on electric drain pan heaters when warm fluid is sensed at the inlet header. After the termination of the defrost period (generally by a system controller), the flow of cold fluid is restored and the control will re-energize the fans. See wiring diagram on unit for factory control settings.

Electric Defrost

For applications where the room temperature is held below freezing. During a scheduled defrost period, electric heaters are energized to defrost the coil surface.

Installation, Startup and Operation

1. A heat transfer fluid should be selected with a sufficient glycol percentage to ensure freeze protection. Propylene glycol is usually employed for applications related to food.
2. In general, the chiller manufacturer's procedure for charging and startup should be followed. Unit capacity, fluid flow rate and pressure drop with the fluid to be used should be taken into account during the system selection and design process.
3. Field piping should comply with applicable codes. Correct pipe sizing is important and will help reduce pumping power and operating costs. The system should be thoroughly leak tested after piping is complete.
4. To control the flow rate of fluid through the unit cooler, a balance valve is generally installed on the outlet (top) coil connection during installation. The valve manufacturer's adjustment procedure should be followed during startup.
5. To provide an isolation means, a shut-off valve is usually installed on the inlet (bottom) coil connection during installation.
6. Vent and drain valves are provided on each unit cooler.

GLYCOL UNIT COOLER WEIGHTS AND FLUID CAPACITIES

PRODUCT FAMILY	AIR DEFROST MODEL SIZE	WARM FLUID DEFROST MODEL SIZE	# COIL CIRCUITS	COIL HEADER CONN OD in.	UNIT INTERNAL VOLUME ft^3 / m^3	AIR DEFR. NET WT. (EMPTY) lbs / kg	ELEC & W.F. DEFR. NET WT. (EMPTY) lbs / kg	UNIT INTERNAL FLUID CAPACITY lbs / kg *	UNIT INTERNAL FLUID CAPACITY gal / l
LOW PROFILE	0400	---	4	7/8	0.06 / 0.002	50 / 23	53 / 24	4 / 2	0.4 / 1.7
	0475	0475	5	7/8	0.08 / 0.002	52 / 24	55 / 25	5 / 2	0.6 / 2.3
	0525	0525	6	7/8	0.08 / 0.002	55 / 25	58 / 26	5 / 2	0.6 / 2.3
	0725	0725	10	7/8	0.12 / 0.003	70 / 32	73 / 33	8 / 4	0.9 / 3.4
	0900	0900	10	1-1/8	0.16 / 0.005	83 / 38	86 / 39	10 / 5	1.2 / 4.5
	1000	---	10	1-1/8	0.20 / 0.006	104 / 47	107 / 48	13 / 6	1.5 / 5.7
	1300	1300	10	1-3/8	0.35 / 0.010	109 / 49	113 / 51	23 / 10	2.6 / 9.9
	1475	1475	10	1-3/8	0.42 / 0.012	134 / 61	139 / 63	27 / 12	3.1 / 11.9
LOW VELOCITY	0330	---	4	7/8	0.08 / 0.002	72 / 33	75 / 34	5 / 2	0.6 / 2.3
	0425	---	6	7/8	0.23 / 0.007	105 / 48	108 / 49	15 / 7	1.7 / 6.5
	0700	0700	10	7/8	0.17 / 0.005	108 / 49	111 / 50	11 / 5	1.3 / 4.8
	0875	0875	12	1-1/8	0.33 / 0.009	151 / 68	155 / 70	22 / 10	2.5 / 9.3
	0975	0975	20	1-1/8	0.33 / 0.009	151 / 68	155 / 70	22 / 10	2.5 / 9.3
	1025	1025	12	1-1/8	0.33 / 0.009	163 / 74	167 / 76	22 / 10	2.5 / 9.3
	1225	1225	20	1-1/8	0.33 / 0.009	163 / 74	167 / 76	22 / 10	2.5 / 9.3
	1450	1450	20	1-1/8	0.44 / 0.012	196 / 89	204 / 93	29 / 13	3.3 / 12.5
	1650	1650	20	1-3/8	0.55 / 0.016	247 / 112	254 / 115	36 / 16	4.1 / 15.6
MEDIUM PROFILE	0900	---	6	7/8	0.23 / 0.007	132 / 60	---	15 / 7	1.7 / 6.5
	1100	---	5	1-1/8	0.34 / 0.010	150 / 68	---	22 / 10	2.5 / 9.6
	1275	---	6	7/8	0.45 / 0.013	165 / 75	---	29 / 13	3.4 / 12.7
	1600	---	9	1-1/8	0.45 / 0.013	165 / 75	---	29 / 13	3.4 / 12.7
	1700	---	9	1-1/8	0.5 / 0.014	225 / 102	---	33 / 15	3.7 / 14.2
	1900	---	13	1-1/8	0.5 / 0.014	225 / 102	---	33 / 15	3.7 / 14.2
	2175	---	12	1-3/8	0.66 / 0.019	247 / 112	---	43 / 20	4.9 / 18.7
	2400	---	13	1-5/8	0.66 / 0.019	267 / 121	---	43 / 20	4.9 / 18.7
	2425	---	12	1-3/8	0.88 / 0.025	300 / 136	---	57 / 26	6.6 / 24.9
	2850	---	18	1-3/8	0.88 / 0.025	300 / 136	---	57 / 26	6.6 / 24.9
	3100	---	18	1-3/8	1.00 / 0.028	338 / 154	---	65 / 30	7.5 / 28.3

*Based on 35% (by volume) Propylene Glycol

InterLINK Commercial Refrigeration Parts

REPLACEMENT PARTS FOR GLYCOL UNIT COOLER

800.686.7278 • www.interlinkparts.com

PRODUCT FAMILY	FAN	MOTOR 115V Shaded Pole	MOTOR 208-230V Shaded Pole	MOTOR 115V PSC	MOTOR 208-230V PSC	MOTOR 460V PSC	MOTOR 115V EC TE	MOTOR 208-230V EC TE	FAN GUARD BOHN/LARKIN
LOW PROFILE	5140C	25300101	25300201	25309501+	25309801	25308701	25317801	25317701	37000701 (Molded) 37000601 (Wire)
LOW VELOCITY	5110E	5036S	5036T	5036N	5036P	---	25318001	25317901	5055F
MEDIUM PROFILE	5130C	---	---	5020S	5020T	25302201	25317601	25317501	4339X / 2310022 (Molded) 5036E / 23101802 (Wire)

+ Motor construction is TE (totally enclosed)

PRODUCT FAMILY	ELEC. & W.F. DEFROST MODEL SIZE	DRAIN PAN HEATER 115V	DRAIN PAN HEATER 208-230V	DRAIN PAN HEATER 460V	COIL DEFROST HEATER	HEATER AND FAN CONTROL
LOW PROFILE	0475	24752102	24752202	24752302	24752002	4267W
	0525	24752102	24752202	24752302	24752002	4267W
	0725	24752103	24752203	24752303	24752003	4267W
	0900	24752104	24752204	24752304	24752004	4267W
	1300	24752105	24752205	24752305	24752005	4267W
	1475	24752106	24752206	24752306	24752006	4267W
LOW VELOCITY	0700	4543B		---	4543B	4267W
	0875	4544B		---	4544B	4267W
	0975	4544B		---	4544B	4267W
	1025	4544B		---	4544B	4267W
	1225	4544B		---	4544B	4267W
	1450	4545B		---	4545B	4267W
	1650	4546B		---	4546B	4267W

P/N	CONN SIZE in.	DESCRIPTION in.
29315801	1/8 MPT x 1/4 FL	Vent / Drain Valve
29320305	5/9 ODF	Balance Valve 1/2
29320304	7/8 ODF	Balance Valve 3/4
29320301	1-1/8 ODF	Balance Valve 1
29320302	1-3/8 ODF	Balance Valve 1-1/4
29320303	1-5/8 ODF	Balance Valve 1-1/2
29320405	5/8 ODF	Shut-Off Valve 1/2
29320404	7/8 ODF	Shut-Off Valve 3/4
29320401	1-1/8 ODF	Shut-Off Valve 1
29320402	1-3/8 ODF	Shut-Off Valve 1-1/4
29320403	1-5/8 ODF	Shut-Off Valve 1-1/2

NOTE: Shipped loose balance and shut-off valves are sized to match the design fluid flow rate, not the coil connection size. Balance valves include insulation block.

Visit our website at www.heatcraftrpd.com for technical literature online.

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HEATCRAFT™ Worldwide Refrigeration