HTGKC SERIES

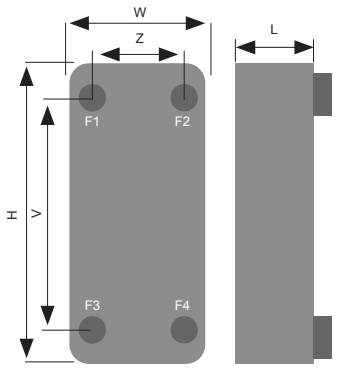
CO2 SUPER HIGH PRESSURE BRAZED PLATE HEAT EXCHANGERS

The HTGKC series is a patented solution specially designed for Gas coolers, Condensers, Evaporators and Economizers in R744 (CO2) Heat pumps and Refrigeration Systems. With design pressures available from 1,015 psi up to 2,030 psi, the HTGKC series is ideal for Supercritical, Transcritical and Subcritical CO2 heating and cooling systems.

The HTGKC series combines high working pressures, outstanding heat transfer performance and low pressure drops in a compact size, suitable for Commercial OEM's limited space requirements.

Brazing Material	Model HTGKC		Max. Working Pressure (psi)	Min. Test Pressure (psi)	Max. Working Temperature (°F)
Cooper	020,040 095,200	(F1,F3/ F2,F4)	1015.3/435.1*	1450.4/623.7*	392ºF
	021,041 096,201		1450.4/435.1*	2074.0/623.7*	
	022,042 097,202		2030.5/435.1*	2900.8/623.7*	

*For higher working pressure request on F2,F4, please contact **HTG**.



MODEL TYPE	DIMENSIONS IN INCHES					Weight*(kg) (Without Connections)	Heat Transfer Area/ plate (ft^2)	Total Heat Transfer Area (ft^2)	Volume/ Channel (gal)	Total Volume (gal)
	H	W	V	Z	L					
HTGKC020	7.52	3.03	6.06	1.57	0.374+0.043*N	2.469+0.093*N	0.119	(N-2)*0.119	0.002	(N-1)*0.002
HTGKC040	12.36	2.99	10.83	1.57	0.512+0.079*N	3.836+0.320*N	0.208	(N-2)*0.208	0.008	(N-1)*0.008
HTGKC095	20.63	4.25	18.35	1.97	0.520+0.085*N	12.170+0.705*N	0.511	(N-2)*0.511	0.019	(N-1)*0.019
HTGKC200	24.25	7.44	20.43	3.62	0.551+0.085*N	27.315+1.329*N	1.023	(N-2)*1.023	0.041	(N-1)*0.041

MODEL TYPE	DIMENSIONS IN INCHES					Weight*(kg) (Without Connections)	Heat Transfer Area/ plate (ft^2)	Total Heat Transfer Area (ft^2)	Volume/ Channel (gal)	Total Volume (gal)
	H	W	V	Z	L					
HTGKC021	7.52	3.03	6.06	1.57	0.374+0.043*N	2.513+0.093*N	0.119	(N-2)*0.119	0.002	(N-1)*0.002
HTGKC041	12.36	2.99	10.83	1.57	0.512+0.079*N	4.034+0.320*N	0.208	(N-2)*0.208	0.008	(N-1)*0.008
HTGKC096	20.63	4.25	18.35	1.97	0.520+0.085*N	12.522+0.705*N	0.511	(N-2)*0.511	0.019	(N-1)*0.019
HTGKC201	24.25	7.44	20.43	3.62	0.551+0.085*N	27.690+1.391*N	1.023	(N-2)*1.023	0.041	(N-1)*0.041

MODEL TYPE	DIMENSIONS IN INCHES					Weight*(kg) (Without Connections)	Heat Transfer Area/ plate (ft^2)	Total Heat Transfer Area (ft^2)	Volume/ Channel (gal)	Total Volume (gal)
	H	W	V	Z	L					
HTGKC022	7.52	3.03	6.06	1.57	0.374+0.043*N	2.482+0.093*N	0.119	(N-2)*0.119	0.002	(N-1)*0.002
HTGKC042	12.36	2.99	10.83	1.57	0.512+0.079*N	3.858+0.335*N	0.208	(N-2)*0.208	0.008	(N-1)*0.008
HTGKC097	20.63	4.25	18.35	1.97	0.520+0.085*N	13.007+0.763*N	0.511	(N-2)*0.511	0.019	(N-1)*0.019
HTGKC202	24.25	7.44	20.43	3.62	0.551+0.085*N	27.359+1.664*N	1.023	(N-2)*1.023	0.041	(N-1)*0.041

* N = number of plates

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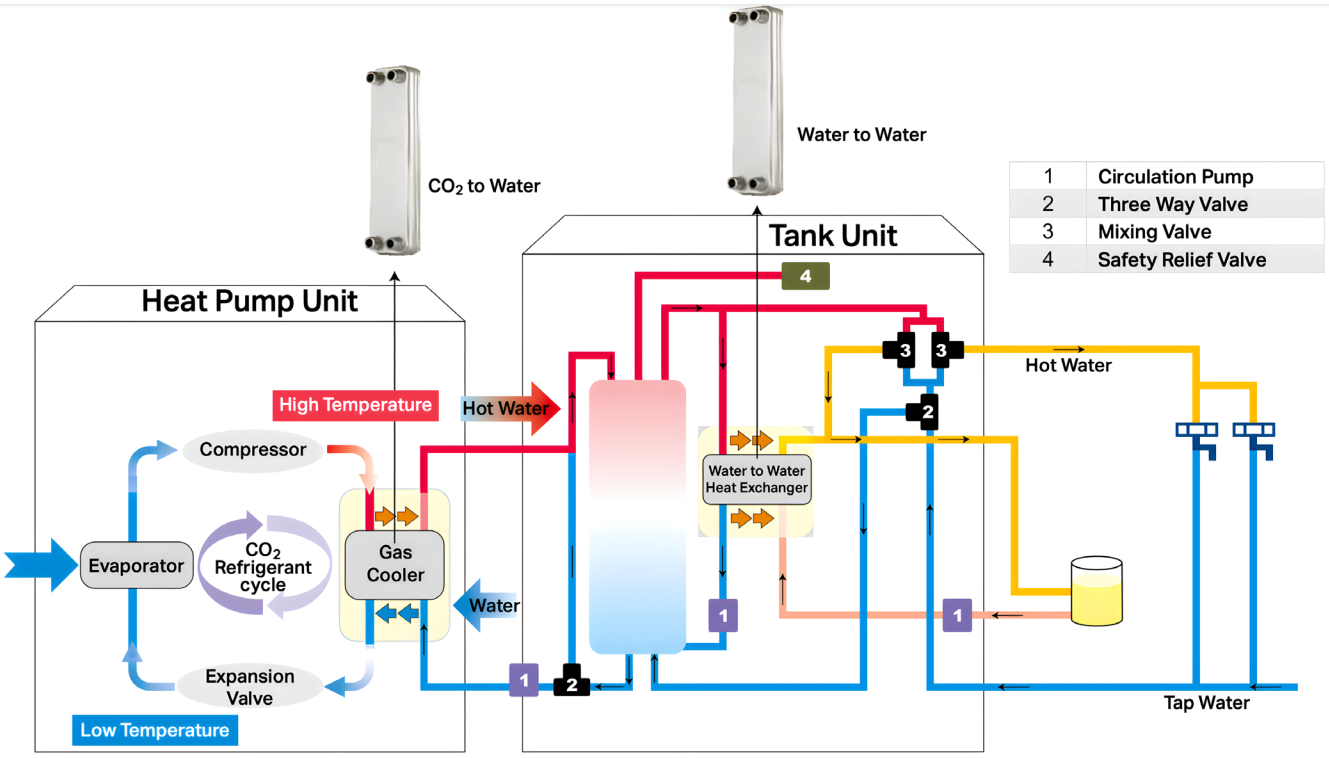
Model Selection Chart

R744 vs. Water Gas Cooler (Max. Working Pressure : 2030.5 psi)

RT	kW	BTU/H	HTGKC 020/021/022	HTGKC 040/041/042	HTGKC 095/096/097	HTGKC 200/201/202
1	3.52	12000	HTGKC 022x36 (4 Pass)	HTGKC 042x24 (4 Pass)		
1.5	5.27	18000	HTGKC 022x44 (4 Pass)	HTGKC 042x32 (4 Pass)		
2	7.03	24000	HTGKC 022x52 (4 Pass)	HTGKC 042x40 (4 Pass)	HTGKC 097x24 (4 Pass)	
3	10.55	36000			HTGKC 097x24 (4 Pass)	
4	14.06	48000			HTGKC 097x32 (4 Pass)	
5	17.58	60000			HTGKC 097x40 (4 Pass)	HTGKC 0202x24 (3 Pass)
7.5	26.37	90000			HTGKC 097x48 (4 Pass)	HTGKC 0202x30 (3 Pass)
10	35.16	120000			HTGKC 097x64 (4 Pass)	HTGKC 0202x36 (3 Pass)
12.5	43.95	150000			HTGKC 097x72 (4 Pass)	HTGKC 0202x48 (3 Pass)
15	52.74	180000			HTGKC 097x88 (4 Pass)	HTGKC 0202x54 (3 Pass)
20	70.32	240000				HTGKC 0202x66 (3 Pass)
25	87.90	300000				HTGKC 0202x84 (3 Pass)
30	105.48	360000				HTGKC 0202x102 (3 Pass)
35	123.06	420000				HTGKC 0202x114 (3 Pass)
40	140.64	480000				HTGKC 0202x132 (3 Pass)

The above information is for reference only; the data will be different under various working conditions and specifications.

CO_2 Heat Pump System



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