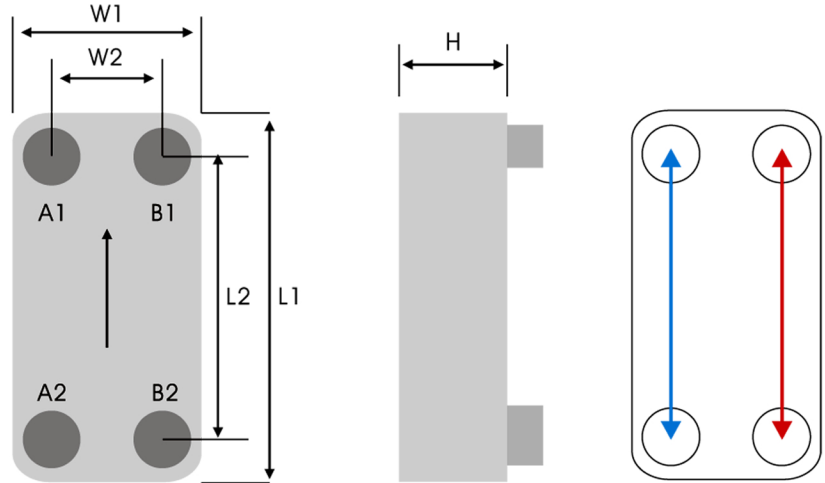


# CR Series - Super High Pressure Brazed Plate Heat Exchanger



The CR series is specially designed for the evaporator, condenser, economizer and oil cooler in R744 (CO<sub>2</sub>) heat pump and refrigeration system. Different designs with max. working pressure 70 bar, 100 bar and 140 bar are available for various duties and performance specifications. Compact size, outstanding heat transfer performance and low pressure drop are the three key features.

The quality and the durability of C series is proven by thorough inspection, achieving the burst test pressure up to 650 bar and cycle test over 100,000 cycles.



Brazing Material	Copper		
Model	CR-040 CR-095 CR-200	CR-041 CR-096 CR-201	CR-042 CR-097 CR-202
	(A1,A2/B1,B2)		
Max. Working Pressure (bar)	70/30*	100/30*	140/30*
Min. Test Pressure (bar)	100/43*	143/43*	200/43*
Max. Working Temperature (°C)	200 °C		

※ For higher working pressure request on B1/B2, please contact KAORI representative.

Model	L1 (mm)	L2 (mm)	W1 (mm)	W2 (mm)	H Thickness (mm)	Weight (kg)	Heat Transfer Area/ plate (m <sup>2</sup> )	Total Heat Transfer Area (m <sup>2</sup> )	Volume/ Channel (liter)	Total Volume (liter)
CR-040	314	275	76	40	13.0+2.00*N	1.93+0.145*N	0.0193	(N-2)*0.0193	0.030	(N-1)*0.03
CR-095	524	466	108	50	13.2+2.16*N	5.70+0.32*N	0.0475	(N-2)*0.0475	0.071	(N-1)*0.071
CR-200	616	519	189	92	14.0+2.15*N	13.0+0.603*N	0.0950	(N-2)*0.0950	0.156	(N-1)*0.156

Model	L1 (mm)	L2 (mm)	W1 (mm)	W2 (mm)	H Thickness (mm)	Weight (kg)	Heat Transfer Area/ plate (m <sup>2</sup> )	Total Heat Transfer Area (m <sup>2</sup> )	Volume/ Channel (liter)	Total Volume (liter)
CR-041	314	275	76	40	13.0+2.00*N	2.01+0.145*N	0.0193	(N-2)*0.0193	0.030	(N-1)*0.030
CR-096	524	466	108	50	13.2+2.16*N	6.10+0.320*N	0.0475	(N-2)*0.0475	0.071	(N-1)*0.071
CR-201	616	519	189	92	14.0+2.15*N	12.6+0.631*N	0.0950	(N-2)*0.0950	0.156	(N-1)*0.156

Model	L1 (mm)	L2 (mm)	W1 (mm)	W2 (mm)	H Thickness (mm)	Weight (kg)	Heat Transfer Area/ plate (m <sup>2</sup> )	Total Heat Transfer Area (m <sup>2</sup> )	Volume/ Channel (liter)	Total Volume (liter)
CR-042	314	275	76	40	13.0+2.0*N	1.95+0.152*N	0.0193	(N-2)*0.0193	0.030	(N-1)*0.030
CR-097	524	466	108	50	13.2+2.16*N	5.80+0.346*N	0.0475	(N-2)*0.0475	0.071	(N-1)*0.071
CR-202	616	519	189	92	14.0+2.15*N	12.4+0.755*N	0.0950	(N-2)*0.0950	0.156	(N-1)*0.156

N: number of plates



# CR Series - Model Selection Chart

R744 vs. Water Gas Cooler (Max. Working Pressure : 140bar)

RT	kW	BTU/H	CR-040/CR-041/CR-042	CR-095/CR-096/CR-097	CR-200/CR-201/CR-202
1.0	3.52	12000	CR-042x24(4 Pass)		
1.5	5.27	18000	CR-042x32(4 Pass)		
2.0	7.03	24000	CR-042x40(4 Pass)	CR-097x24(4 Pass)	
3.0	10.55	36000		CR-097x24(4 Pass)	
4.0	14.06	48000		CR-097x32(4 Pass)	
5.0	17.58	60000		CR-097x40(4 Pass)	CR-202x24(3 Pass)
7.5	26.37	90000		CR-097x48(4 Pass)	CR-202x30(3 Pass)
10.0	35.16	120000		CR-097x64(4 Pass)	CR-202x36(3 Pass)
12.5	43.95	150000		CR-097x72(4 Pass)	CR-202x48(3 Pass)
15.0	52.74	180000		CR-097x88(4 Pass)	CR-202x54(3 Pass)
20.0	70.32	240000			CR-202x66(3 Pass)
25.0	87.90	300000			CR-202x84(3 Pass)
30.0	105.48	360000			CR-202x102(3 Pass)
35.0	123.06	420000			CR-200x114(3 Pass)
40.0	140.64	480000			CR-200x132(3 Pass)

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

