

Absorption Chiller

RGW-ON8HE



RGW

EBARA-ALWAYS BENEFITING THE EARTH

STEAM DOUBLE-EFFECT ABSORPTION CHILLER

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Cooling Tower

Industrial Blower

Electrical Chiller

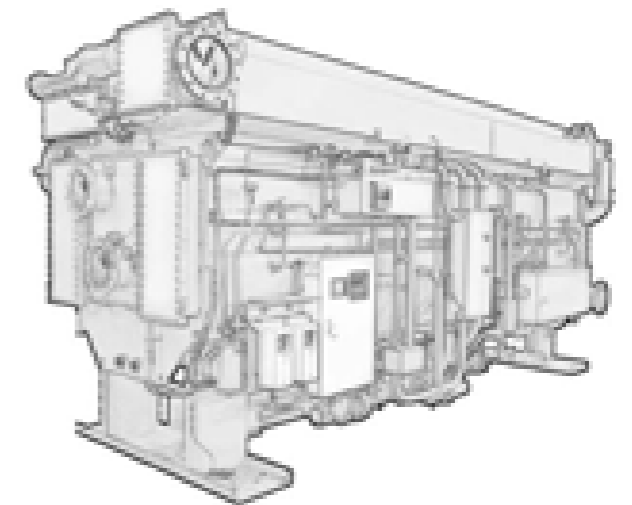
Absorption Chiller

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Cooling Tower



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YANTAI EBARA AIR CONDITIONING EQUIPMENT CO.,LTD.

Ebara- An International famous brand
for Superior Environment
Friendly Products

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EBARA

ALL AROUND THE WORLD

AN ENVIRONMENTALLY FRIENDLY COMPREHENSIVE ENGINEERING COMPANY

TRUST & EXPECTATION

BEYOND BOUNDARIES

Ebara All Around The World

EBARA Corporation

Ebara Corporation is one of the world's largest manufacturers of pumps, compressors, fans, heat pumps and other HVAC and refrigeration equipment. Since its establishment in 1912, Ebara Corporation has been fully dedicated to protecting the environment with a comprehensive and contemporary commitment. "Ebara-Always Benefiting the Earth" is the philosophy that guides Ebara corporate strategy.

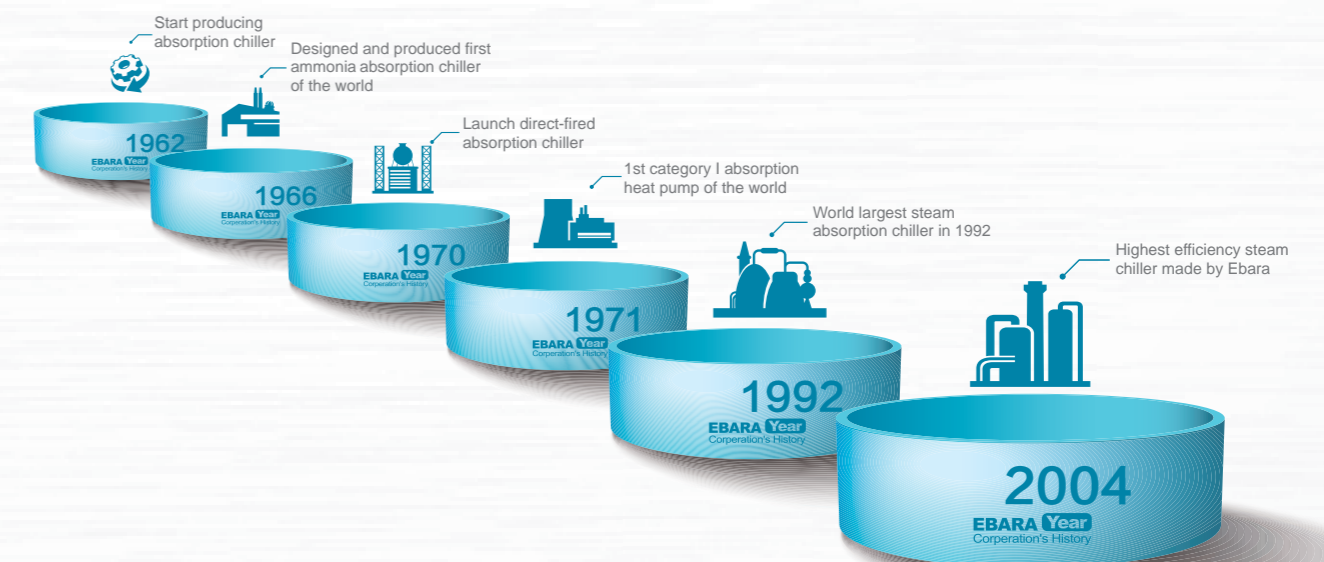


Yantai EBARA Company Profile

Yantai Ebara Air Conditioning Equipment Co., Ltd. established in 1996, is the only overseas production base of Ebara Japan for manufacturing air conditioning equipment including absorption heat pumps, absorption chiller (heat pump), centrifugal chiller (heat pump), screw chiller(heat pump), cross-flow (closed) type cooling tower, evaporative condenser, etc. Its products are exported to JAPAN and all over the world. Yantai Ebara always keeps up with the products and technology development of Ebara Japan.



Product Development History

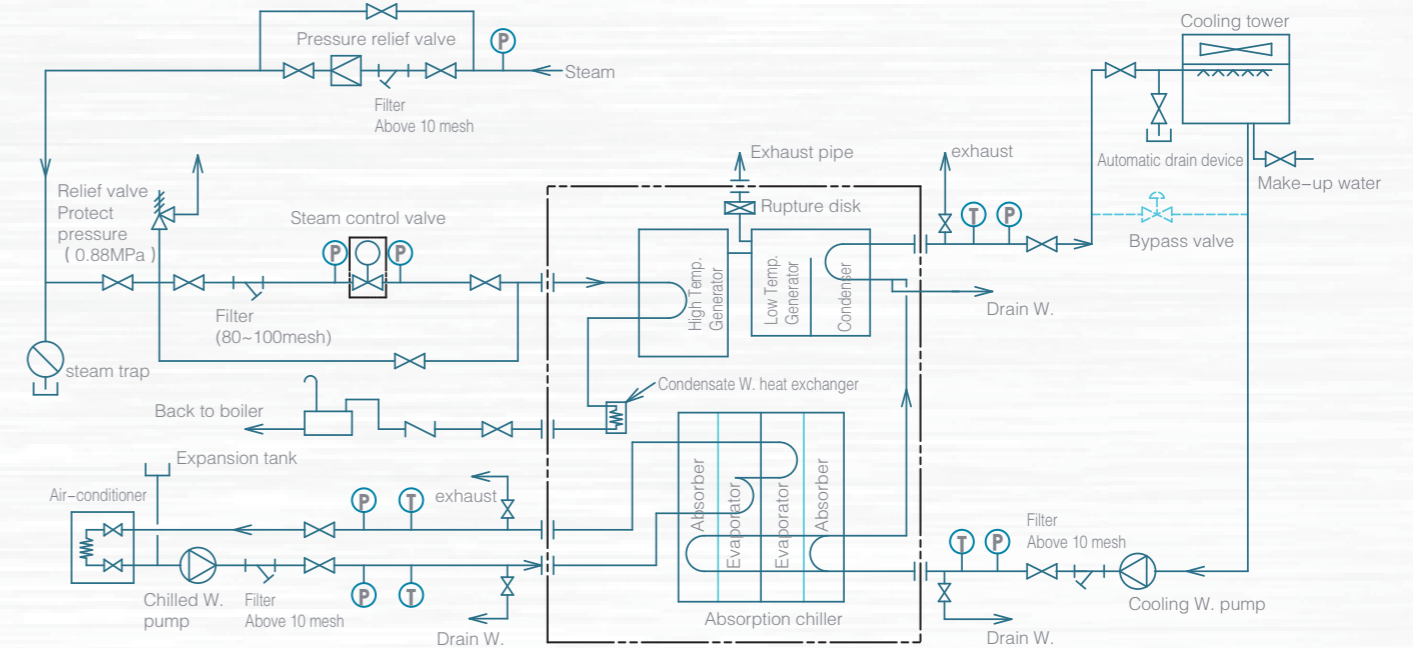
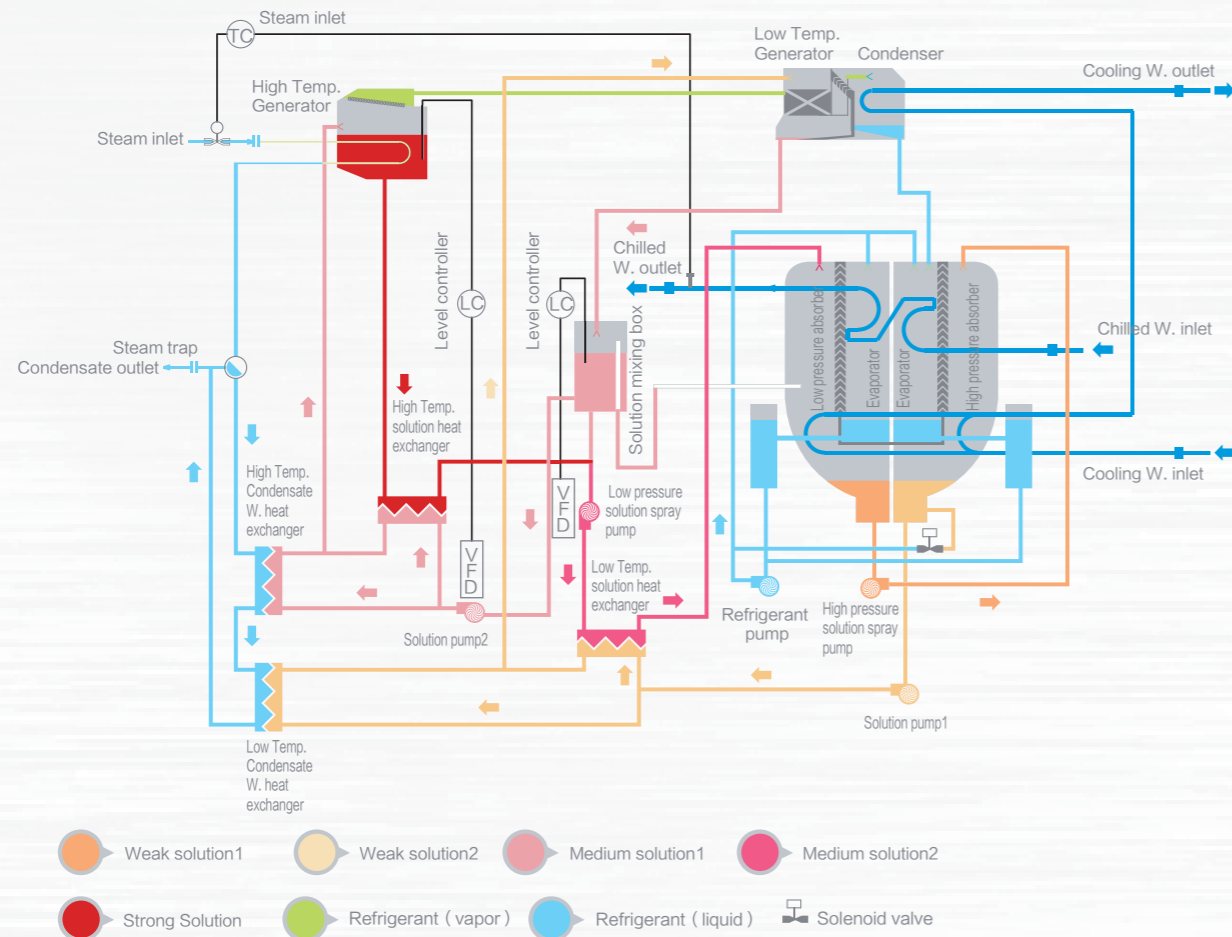


RGW WORKING PRINCIPLE

SYSTEM P&I DIAGRAM

Working Principle

P&I Diagram



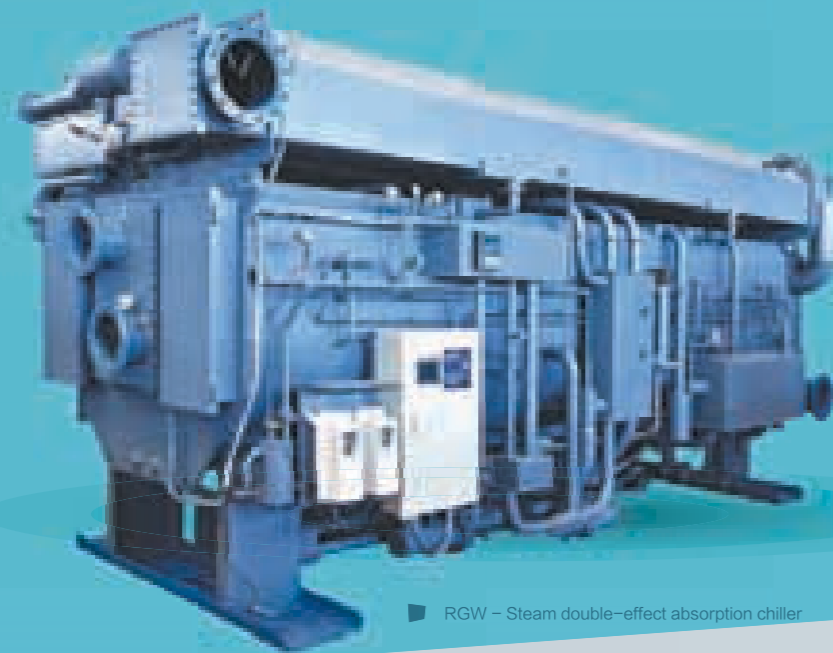
- Sign
- Ⓟ Pressure sensor 01. Within [] is the standard supply scope.
 - Ⓣ Temp. Sensor 02. The diagram shows the typical piping system without standard supply scope.
 - ⌘ Shut-off valve 03. Please be sure that the remain water volume inside the chilled water pipe is above 1/12 of the chilled water circulating volume in one hour.

Liquid refrigerant in evaporator vaporize and cool the chilled water. Then refrigerant vapor goes into absorber and absorbed by strong solution. The strong solution becomes weak solution, then goes into high temp. exchanger and low temp. exchanger separately. After that, the solution pump circulates this weak solution back to high temp. generator and low temp. generator. In the high temp.generator, weak solution is heated heat source and become strong solution, in low temp. generator, the weak solution will be heated by refrigerant vapor from high temperature generator become medium temp. solution. The medium solution goes into high temperature generator, heated by strong solution and mixed together as strong solution, after low temp. heat exchanger, the strong solution will goes into absorber to absorb refrigerant vapor from evaporator. Refrigerant generated in low temperature generator is cooled by cooling water in condenser to return to evaporator.

RGW

PRODUCT FEATURE

Product feature



RGW - Steam double-effect absorption chiller

High Efficiency Reduce steam consumption, energy saving, high efficiency, leading technology of industry.

High Intelligence Control System English colorful touch screen interface, visual display of running parameters, fault record, flow chart, performance curve, etc. Easy operation, standard design of fault auto diagnosing, communication interface, chiller interlocking control, etc.

Dilution Time Control According to the strong solution concentration when machine stops, the system will calculate optimum dilution operation time to reduce energy consumption. Min. dilution time is only 5 minutes.

Unique Counter flow path Less heat loss, high efficiency, safe and reliable, suitable for poor working conditions.

Energy Efficiency Enhancing Design Integrated with plate heat exchanger as refrigerant water condensate heat exchanger, high and low temperature heat exchanger, which can significantly improve the heat recovery efficiency by reducing the temperature difference of heat exchanging.

Super-high Partial Load Efficiency Both solution pump and spray pump are equipped with VFD as standard design. Pump speed is controlled by pressure difference signal, it is more sensitive and more accurate, in addition, this design will improve chiller partial load efficiency.

Auto-purge System Vacuum pump automatic purge the non-condensable gas according to chiller operating condition.

Multi Anti-crystallization Design Adopt duplicated and patented refrigerant level detecting devices to prevent crystallization in evaporator. A "J" type tube is installed as overflow tube in low temperature generator to melt the crystallization in case it happens. Auto-diluting process will start after power off

Ultra Low Pressure Spray Adopt Ebara patented super low pressure spray nozzle technology for solution and refrigerant spraying, better pulverization, larger wetting surface, increase absorption effect. As the nozzle inlet is higher than spray basin bottom, the rust can't pass and block it.

Dual Evaporator/Condenser The absorber and evaporator divided into high and low side to operate at different pressures. The solution concentration is lower to extend the range of concentration. What can substantially reduce the amount of solution circulation and reduce heat loss and achieve high efficiency and miniaturization.

Product Nomenclature

RGW

Series name

083

Cooling capacity
830 USRT

E

E: 0.8MPa Steam
S: 0.6MPa Steam
F: 0.4MPa Steam

RGW

TECHNICAL DATA SHEET

09/10
RGW STEAM DOUBLE-EFFECT ABSORPTION CHILLER

Performance Data

Steam pressure: 0.8MPa

Model		RGW	058E	066E	083E	100E	120E	135E	150E	166E	182E	200E
Cooling capacity	USRt	580	661	830	1000	1200	1350	1500	1660	1820	2000	
	kW	2040	2325	2919	3517	4220	4748	5276	5838	6401	7034	
	10 ⁴ kcal/h	175	200	251	302	363	408	454	502	550	605	
Chilled water	Chilled W. inlet temperature	℃	12	12	12	12	12	12	12	12	12	12
	Chilled W. outlet temperature	℃	7	7	7	7	7	7	7	7	7	7
	Flow rate	m ³ /h	350.8	399.8	502.0	604.8	725.8	816.5	907.2	1004.0	1100.7	1209.6
	Pressure drop	mH ₂ O	6.1	6.3	7.1	7.3	7.1	7.2	7.5	8.3	7.7	9.7
		kPa	60	61	70	72	69	71	73	82	76	96
	Pass	-	2									
Pipe size	mm	200	200	250	250	300	300	300	300	350	350	
Cooling water	Cooling W. inlet temperature	℃	32	32	32	32	32	32	32	32	32	32
	Cooling W. outlet temperature	℃	38	38	38	38	38	38	38	38	38	38
	Flow rate	m ³ /h	510	582	730	880	1056	1188	1320	1461	1602	1760
	Pressure drop	mH ₂ O	9.2	9.8	9.2	8.9	9.5	8.6	9.2	11.9	10.1	12.3
		kPa	90	96	90	87	93	85	90	117	99	121
	Pass	-	2+1									
Pipe size	mm	250	250	300	350	350	400	400	400	450	450	
Steam	Steam consumption	kg/h	2210	2518	3162	3810	4572	5144	5715	6325	6934	7620
	Steam pipe size	mm	100	100	100	100	125	125	125	150	150	150
	Drain pipe size	mm	40	40	50	50	50	65	65	80	80	80
		V × Hz × φ	380 × 50 × 3									
Electric power	Power consumption	kW	13.2	13.2	15	15.4	17.6	19.2	25	25	25	25
	Power capacity	kVA	24.7	24.7	30.5	31.1	36.4	41.9	41.9	51.9	51.9	51.9
Dimension	Length	mm	6320	6400	7430	7600	7625	7960	8000	8160	8550	8750
	Width	mm	2350	2475	2620	2860	2970	3165	3390	3390	3900	3900
	Height	mm	2880	3050	3300	3440	3680	4015	4235	4235	4380	4380
Weight	Max. shipping weight	ton	16.5	17.9	23.2	26.5	30.0	24.5	26.8	29.9	34.6	36.1
	Total shipping weight	ton	19.9	21.6	28.0	32.0	36.4	41.3	45.3	50.1	57.6	56.8
	Operating weight	ton	22.4	24.5	32.2	37.2	42.5	48.4	53.0	58.8	67.6	70.1

Performance Data

Steam pressure: 0.6MPa

Model		RGW	058S	066S	083S	100S	120S	135S	150S	166S	182S	200S
Cooling capacity	USRt	580	661	830	1000	1200	1350	1500	1660	1820	2000	
	kW	2040	2325	2919	3517	4220	4748	5276	5838	6401	7034	
	10 ⁴ kcal/h	175	200	251	302	363	408	454	502	550	605	
Chilled water	Chilled W. inlet temperature	℃	12	12	12	12	12	12	12	12	12	12
	Chilled W. outlet temperature	℃	7	7	7	7	7	7	7	7	7	7
	Flow rate	m ³ /h	350.8	399.8	502.0	604.8	725.8	816.5	907.2	1004.0	1100.7	1209.6
	Pressure drop	mH ₂ O	6.1	6.3	7.1	7.3	7.1	7.2	7.5	8.3	7.7	9.7
		kPa	60	61	70	72	69	71	73	82	76	96
	Pass	-	2									
Pipe size	mm	200	200	250	250	300	300	300	300	350	350	
Cooling water	Cooling W. inlet temperature	℃	32	32	32	32	32	32	32	32	32	32
	Cooling W. outlet temperature	℃	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
	Flow rate	m ³ /h	562	640	804	969	1162	1308	1453	1608	1763	1937
	Pressure drop	mH ₂ O	10.9	11.6	10.9	10.6	11.4	10.3	11.2	14.2	12.3	15.0
		kPa	107	114	107	104	112	101	108	139	121	148
	Pass	-	2+1									
Pipe size	mm	250	250	300	350	350	400	400	400	450	450	
Steam	Steam consumption	kg/h	2227	2538	3187	3840	4608	5184	5760	6374	6989	7680
	Steam pipe size	mm	100	100	100	100	125	125	125	150	150	150
	Drain pipe size	mm	40	40	50	50	50	65	65	80	80	80
		V × Hz × φ	380 × 50 × 3									
Electric power	Power consumption	kW	13.2	13.2	15	15.4	17.6	19.2	19.2	25	25	25
	Power capacity	kVA	24.7	24.7	30.5	31.1	36.4	41.9	41.9	51.9	51.9	51.9
Dimension	Length	mm	6320	6400	7430	7600	7625	7960	8000	8160	8550	8750
	Width	mm	2350	2475	2620	2860	2970	3165	3390	3390	3900	3900
	Height	mm	2880	3050	3300	3440	3680	4015	4235	4235	4380	4380
Weight	Max. shipping weight	ton	16.6	18.0	23.4	26.7	30.3	24.5	26.8	29.9	34.6	36.1
	Total shipping weight	ton	20.1	21.8	28.3	32.3	36.6	41.6	45.6	50.6	58.2	60.5
	Operating weight	ton	22.6	24.7	32.5	37.5	42.7	48.7	53.2	59.3	68.2	70.8

- Note**
- The steam supply is 0.8MPaG, the Max. temp. of steam is 185℃.
 - Maximum working pressure for chilled water, cooling water, side is 1.0MPa. Higher pressure optional.
 - Fouling factor for both chilled water and cooling water is 0.086m².k/kW.
 - Minimum chilled water outlet temp. is 5℃. Minimum cooling water inlet temp. is 15℃.
 - Cooling capacity application scope: 20% ~ 100%, Chilled water and cooling water flow rate application scope: 60%~100%;
 - Transportation: RGW058~RGW120 is integral transportation. RGW135 or above is split transportation.
 - LiBr solution is placed separately, and the weight is included in the total weight.

- Note**
- The steam supply is 0.6MPaG, the Max. temp. of steam is 175℃.
 - Maximum working pressure for chilled water, cooling water, side is 1.0MPa. Higher pressure optional.
 - Fouling factor for both chilled water and cooling water is 0.086m².k/kW.
 - Minimum chilled water outlet temp. is 5℃. Minimum cooling water inlet temp. is 15℃.
 - Cooling capacity application scope: 20% ~ 100%, Chilled water and cooling water flow rate application scope: 60%~100%;
 - Transportation: RGW058~RGW120 is integral transportation. RGW135 or above is split transportation.
 - LiBr solution is placed separately, and the weight is included in the total weight.

RGW

TECHNICAL DATA SHEET

Performance Data

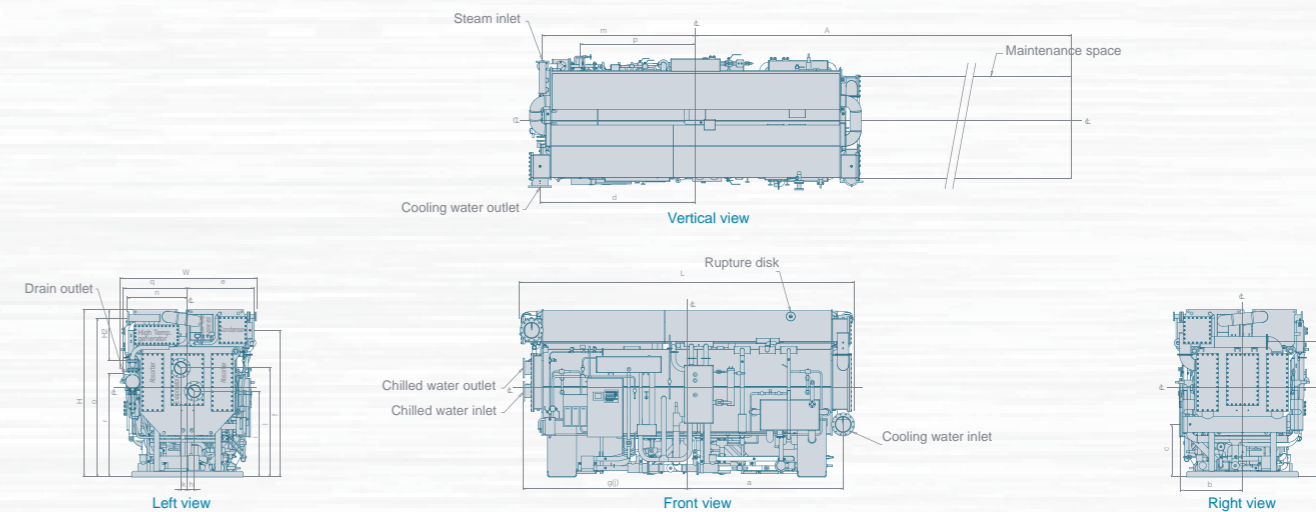
Steam pressure: 0.4MPa

Model	RGW	058F	066F	083F	100F	120F	135F	150F	166F	182F	200F	
Cooling capacity	USRt	464	529	664	800	960	1080	1200	1328	1456	1600	
	kW	1632	1860	2335	2814	3376	3798	4220	4671	5121	5627	
	10 ⁴ kcal/h	140	160	201	242	290	327	363	402	440	484	
Chilled water	Chilled W. inlet temperature	℃	12	12	12	12	12	12	12	12	12	
	Chilled W. outlet temperature	℃	7	7	7	7	7	7	7	7	7	
	Flow rate	m ³ /h	280.6	319.8	401.6	483.8	580.6	653.2	725.8	803.2	880.6	967.7
	Pressure drop	mH ₂ O	4.0	4.1	4.8	4.9	4.7	4.8	5.0	5.5	5.1	6.4
	Pass	-	2									
	Pipe size	mm	200	200	250	250	300	300	300	300	350	350
Cooling water	Cooling W. inlet temperature	℃	32	32	32	32	32	32	32	32	32	
	Cooling W. outlet temperature	℃	37	37	37	37	37	37	37	37	37	
	Flow rate	m ³ /h	494	563	707	852	1022	1150	1278	1414	1551	1704
	Pressure drop	mH ₂ O	8.7	9.2	8.7	8.4	9.0	8.2	8.7	11.2	9.5	11.6
	Pass	-	2+1									
	Pipe size	mm	250	250	300	350	350	400	400	400	450	450
Steam	Steam consumption	kg/h	1791	2041	2563	3088	3706	4169	4632	5126	5620	6176
	Steam pipe size	mm	100	100	100	100	125	125	125	150	150	150
	Drain pipe size	mm	40	40	50	50	50	65	65	80	80	80
Power	V × Hz × φ	380 × 50 × 3										
Electric power	Power consumption	kW	13.2	13.2	15	15.4	17.6	19.2	19.2	25	25	25
	Power capacity	kVA	24.7	24.7	30.5	31.1	36.4	41.9	41.9	51.9	51.9	51.9
Dimension	Length	mm	6320	6400	7430	7600	7625	7960	8000	8160	8550	8750
	Width	mm	2350	2475	2620	2860	2970	3165	3390	3390	3900	3900
	Height	mm	2880	3050	3300	3440	3680	4015	4235	4235	4380	4380
Weight	Max. shipping weight	ton	16.6	18.0	23.4	26.7	30.3	24.5	26.8	29.9	34.6	36.1
	Total shipping weight	ton	20.1	21.7	28.2	32.3	36.5	41.5	45.5	50.5	58.1	60.3
	Operating weight	ton	22.5	24.6	32.4	37.5	42.6	48.6	53.1	59.2	68.2	70.6

- 注 1. The steam supply is 0.4MPaG, the Max. temp. of steam is 165℃.
 Maximum working pressure for chilled water, cooling water, side is 1.0MPa. Higher pressure optional.
 2. Fouling factor for both chilled water and cooling water is 0.086m².k/kW.
 3. Minimum chilled water outlet temp. is 5℃, Minimum cooling water inlet temp. is 15℃.
 4. Cooling capacity application scope: 20% ~ 100%, Chilled water and cooling water flow rate application scope: 60%~100%;
 5. Transportation: RGW058~RGW120 is integral transportation. RGW135 or above is split transportation.
 6. LiBr solution is placed separately, and the weight is included in the total weight.

DIMENSION DRAWING

Outline drawing

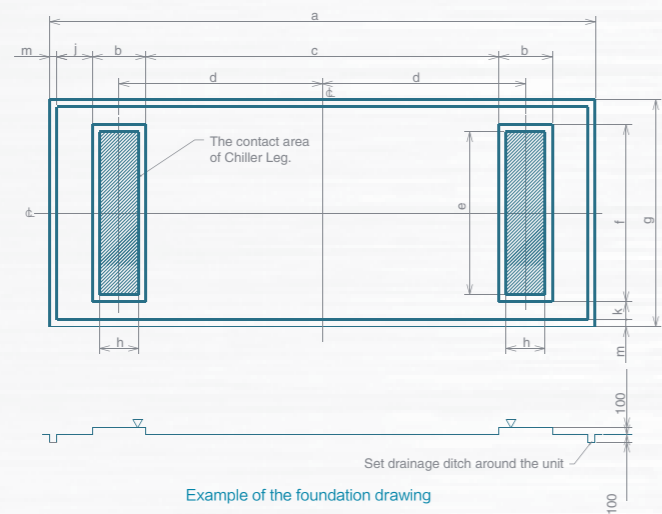


Unit: mm

Model(RGW)		058	066	083	100	120	135	150	166	182	200
Cooling water inlet	a	2714	2714	3271	3319	3319	3338	3338	3793	3793	4043
	b	1077	1115	1158	1250	1285	1340	1416	1416	1524	1524
	c	905	915	925	1000	1050	1100	1230	1230	1240	1240
Cooling water outlet	d	2673	2673	3265	3277	3277	3297	3297	3252	3268	3018
	e	1146	1245	1249	1345	1430	1550	1577	1577	1860	1860
	f	2516	2638	2910	3025	3220	3550	3758	3758	3882	3882
Chilled water inlet	g	2820	2820	3355	3365	3400	3395	3395	3850	4040	4290
	h	126	123	137	155	164	191	182	182	215	215
	i	1475	1499	1494	1617	1710	1927	2002	2002	2040	2040
Chilled water outlet	j	2820	2820	3355	3365	3400	3395	3395	3850	4040	4290
	k	126	123	137	155	164	191	182	182	215	215
	l	1877	1926	2174	2257	2340	2597	2739	2739	2844	2844
Steam inlet	m	2632	2655	3177	3200	3200	3205	3200	3665	3665	3905
	n	1032	1053	1145	1224	1215	1285	1441	1451	1698	1698
	o	2735	2827	3070	3235	3411	3749	3942	3942	4060	4060
Drain outlet	p	1976	1976	2521	2506	2492	2528	2560	3085	2964	3218
	q	1100	1138	1223	1335	1440	1430	1490	1504	1655	1650
	r	1786	1872	1877	1996	2083	2459	2714	2493	2912	2912
Cut dimension(up)	H1	2370	2500	2590	2750	2890	3150	3300	3700	3815	3815
Cut dimension(down)	H2	881	961	1040	1392	1215	1222	1365	1365	1396	1396
Total Length	L	6320	6400	7430	7600	7625	7960	8000	8160	8550	8750
Total Width	W	2350	2475	2620	2860	2970	3165	3390	3390	3900	3900
Total Height	H	2880	3050	3300	3440	3680	4015	4235	4235	4380	4380
Tube Maintenance Space	A	7900	7900	9645	9645	9645	9645	9645	11000	11000	11750

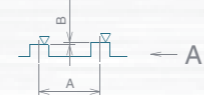
RGW FOUNDATION DRAWING

Foundation drawing

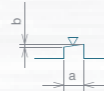


Note:
Accuracy:
For the concrete foundation, the levelness of the contact area should be within below figured limitations.

$$\langle b/a \quad B/A \leq 1/1000 \rangle$$



(The length direction of chiller)



A向
(The width direction of chiller)

Chiller foundation dimension

Unit: mm

Item(RGW)	058	066	083	100	120	135	150	166	182	200
a	6200	6200	7276	7276	7276	7276	7276	8178	8170	8670
b	700	700	700	700	700	700	700	700	700	700
c	3600	3600	4676	4676	4676	4676	4676	5578	5570	6070
d	2150	2150	2688	2688	2688	2688	2688	3139	3135	3385
e	1920	2110	2220	2340	2570	2660	2730	2730	3000	3000
f	2120	2310	2420	2540	2770	2860	2930	2930	3200	3200
g	2900	3010	3120	3240	3470	3560	3630	3630	3900	3900
h	500	500	500	500	500	500	500	500	500	500
j	500	500	500	500	500	500	500	500	500	500
k	250	250	250	250	250	250	250	250	250	250
m	100	100	100	100	100	100	100	100	100	100

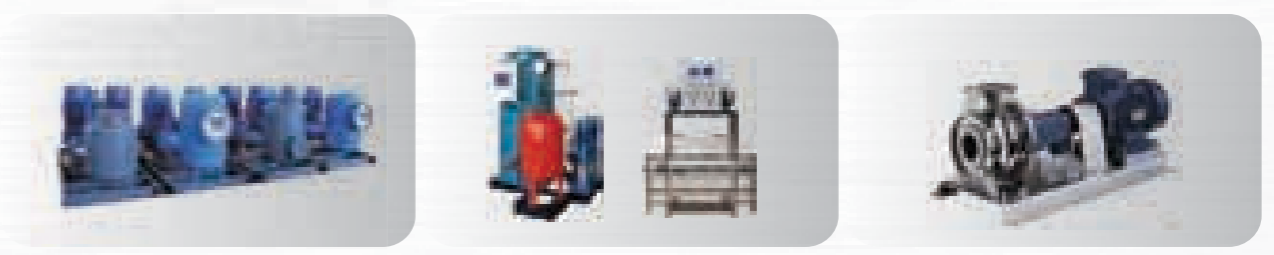
REFERENCE VALUE OF WATER QUALITY

Reference value of water quality

In order to keep the chiller work effectively in long term, the water quality should be guaranteed. The data below show the reference value for chilled water and cooling water. During daily operating, please manage the water quality within the reference value.

The water quality value is based on GB/T18431-2014, just for reference.

Item	Cooling W. System		Chilled W. system		Tendency	
	Circulating W.	Backup water(20℃以下)	Circulating W.	Back up water	Corrosion	Scaling
PH[25℃]	6.5~8.0	6.0~8.0	6.8~8.0	6.8~8.0	—	—
Conductivity [25℃](μ S/cm)	800以下	200以下	400以下	300以下	—	—
Cl ⁻ (mgCl ⁻ /L)	200以下	50以下	50以下	50以下	—	—
SO ₄ ²⁻ (mg/L)	200以下	50以下	50以下	50以下	—	—
[PH4.8] (mgCaCO ₃ /L)	100以下	50以下	50以下	50以下	—	—
(mgCaCO ₃ /L)	200以下	70以下	70以下	70以下	—	—
(mgCaCO ₃ /L)	150以下	50以下	50以下	50以下	—	—
(mgSiO ₂ /L)	50以下	30以下	30以下	30以下	—	—



RGW

INSTALLATION

INSTRUCTION

INSTALLATION INSTRUCTION

Foundation

01. The chiller operating weight should be evenly distributed on the contact surface of foundation. (Please refer to dimension drawing and foundation drawing)
02. Foundation must be fixed with anchor bolts. Anchor bolts and metal gaskets are optional.
03. For the foundation level precision, please refer to the foundation drawing.
04. Foundation should be waterproof, better for chiller maintenance.
05. Set the water drain gouge around the chiller.

Transportation

01. Select right size lifting crane according to the chiller weight.
02. During transportation, the chiller should be lifted up/down horizontally.
03. Please avoid collision with other objects around,
04. Especially the chiller front side, where there are a lot of pipes and meters. Be sure there is no damage or collision.
05. For split lifting, please lift the part which will be installed further to the entrance.

Installation

01. Select well-ventilated place as machine room, ventilation device should be installed in the machine room.
02. Do not select place where is too moist or dusty, that may cause electrical failure for the chiller, so please avoid that.
03. Keep the plant room temperature above 0°C, if less than 0°C, chiller need be special designed;
04. Keep the plant room temperature less than 40°C;
05. Pay attention to the machine room lighting, convenient for regular monitoring and maintenance checking;
06. chiller should be installed at place easy to drain water;
07. The chiller levelness, the shell length direction and width direction, all should be within 1/1000;
08. During installation, use the steel gasket to look for a horizontal vertical degree, if anchor bolts to be installed, the anchor bolts hole should be filled by concrete to fix the anchor bolts.
09. About anchor bolt installation, please refer to foundation drawing.
10. For chiller dimension drawing, the tolerance is +20mm, -10mm;
11. Please refer to the dimension drawing and foundation drawing, and make sure there is enough space around the chiller for maintenance (At least 1m around and 0.2m on the top) and tube drawing ;

INSTALLATION INSTRUCTION

Piping works

1. Please refer to the outline drawing for the cooling/chilled water inlet pipe direction and size. For the flange connection specifications, please refer to the dimension drawing and specification.
2. Cooling water piping between absorber and condenser will be installed in Ebara factory.
3. For chilled water pipe direction, please refer to outline drawing.
4. During designing the installation position of chilled/heating water pump, cooling water pump, expansion tank, please consider the precondition of static water pressure and pump water head, the pressure to both chiller/heating water and cooling water cannot be over the Max. Working pressure.
5. To keep the water flowrate stable, each chiller should be installed with specialized chilled water pump and cooling water pump.
6. A 10 mesh strainer is requested for both chilled water and cooling water inlet.
7. Please install pressure gages and thermometers at the chilled water inlet and cooling water inlet. And, in order to ensure the control stability, the chilled circle water storage volume should be at least 5 times than the volume of one minute circulation.
8. For chilled water and cooling water piping, please set vent valve above absorption chiller water chamber, set drain valve at lowest point.
9. There are air release connection plinths in the upper of evaporator and condenser water box (Rc3/4 internal thread). Install the on/off valve to use it, and pipe it to the water drain gouge.
10. There are water release connection plinths under the evaporator and condenser water box(Rc3/4 internal thread). Install the on/off valve to use it, and pipe it to the water drain gouge.
11. If the cooling water temp. is below 15°C, please control the cooling water temp. E.g., use the cooling tower fan on-off to control cooling water temp., please use the cooling tower fan interlock function through chiller control panel.
12. Please install the cooling water drainage regulation valve at the cooling tower inlet piping.
13. Prepare water source for tube cleaning
14. No load-bearing on the chiller water flange connections, install support frame under them.
15. Install soft connecting pipe for the water connection point.
16. When water box piping at front side, in order to open the water box cover, please install short bent tube at the connection point.
17. When testing the water pressure of chilled/heating water and cooling water, please make sure the testing pressure is less than the stamped testing pressure on the water box flange, furthermore, if use pneumatic pressure test at that time, it will be very dangerous if the broken fragment fly around.

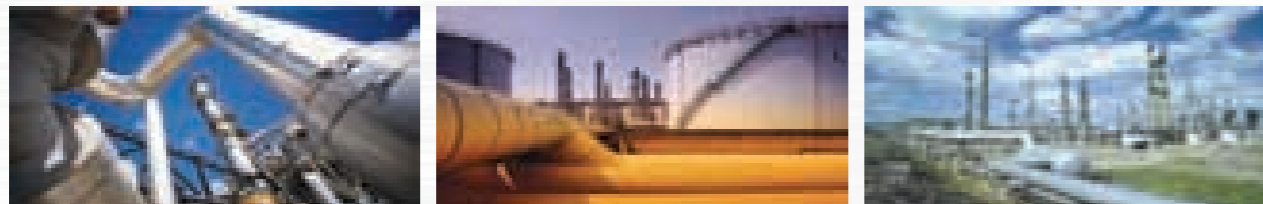
RGW

INSTALLATION INSTRUCTION

INSTALLATION INSTRUCTION

Pipe work

1. Because of higher steam pressure, please set the steam safety valve (1.1 times of working pressure) at the upstream of the steam control valve, the pipe to safety valve should pass to outdoor.
2. The steam pressure release valve should be installed in case the steam source pressure is higher than the chiller design pressure.
3. The steam temperature reducing device should be installed when steam source is more than 10°C overheated.
4. Install 80~100 mesh filters at the steam inlet.
5. Steam separator should be installed at downstream of the steam inlet pipe.
6. Install at least 1m straight pipe before or after the steam control valve, the distance from steam control valve to heat pump generator should be above 1.2 m, the horizontal pipe should be inclined to ground.
7. The steam control valve size is depends on steam inlet pressure and steam flowrate, if the steam control valve diameter is smaller than the steam pipe diameter, then variable diameter pipe should be installed.
8. Install steam pressure valve before and after the steam control valve (0~1.6MPa).
9. The by-pass valve for steam control valve is recommended, better for maintenance and repair.
10. For the steam supply system, please set main valve, which should be off during chiller power off period, if the chiller is remote controlled and steam main valve is still open during the heat pump power off period, then steam isolating valve should be installed.(optional part)
11. For the flange before steam go into heat pump generator, please be sure it can be fastened after heat insulation material installation and steam supply. (The heat insulation layer should be dismantlable)
12. As to the heat deformation of flange for steam please consider to use the heat deformation pipe at the flange connection to eliminate the thermal stress.
13. If more than one chiller installed, then each chiller should be installed with separate condensate water pipe, because for common pipe system of condensate water, there will be problem for the condensate water pressure since all the chillers start up and steam consumption flowrate will be different.
14. For the steam condensate water pipe, if the steam inlet pressure of the chiller is 0.08MPa, then the min. condensate water outlet pressure is around 0.05MPa.
15. There is no need for customer to install the steam trap since Ebara will supply the factory made steam trap together with the chiller.
16. Please make sure the steam condensate water is in good quality. The water quality standard is GB/T18431-2014, if anything special needed, please inform Ebara.



JOB REFERENCES

Job References

