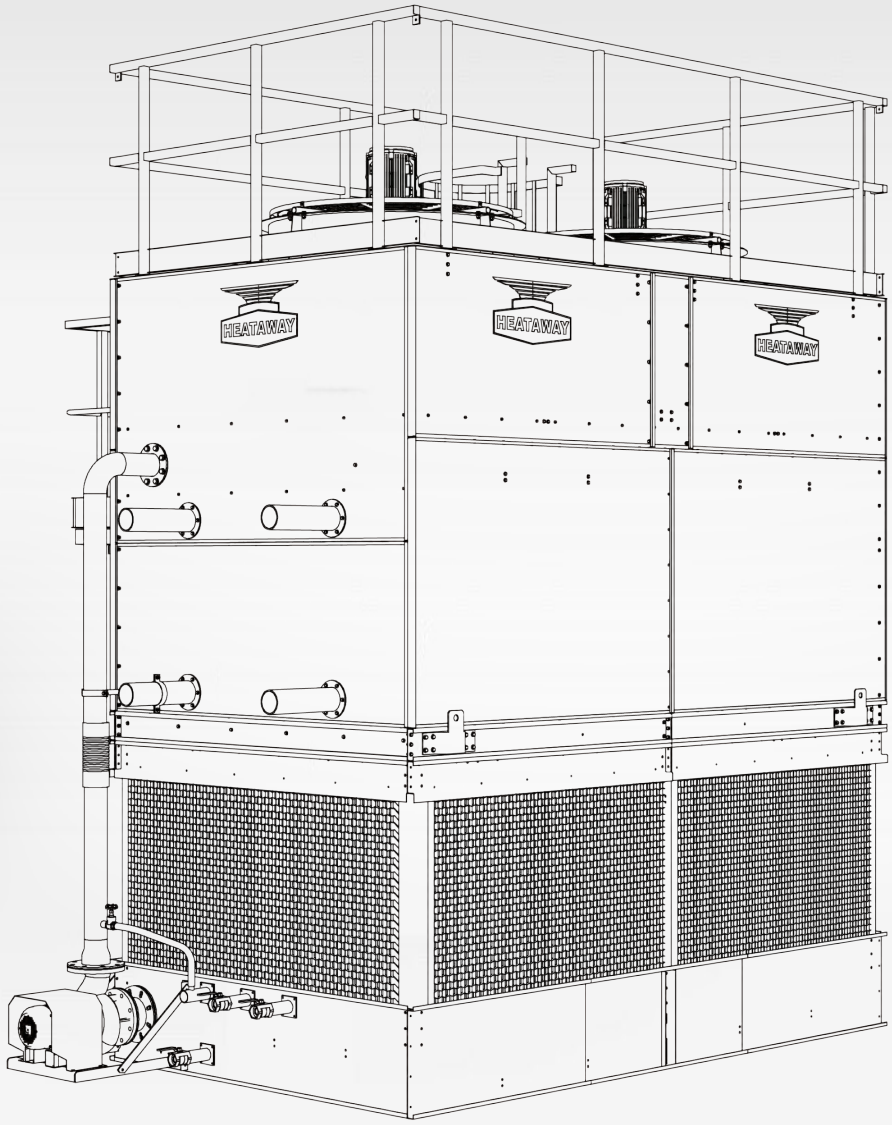
HEATAWAY

BRAND-NEW 7th GENERATION

STAINLESS STEEL EVAPORATIVE CONDENSERS

ENGINEERING DATA



10-YEAR WARRANTY
LEAK-FREE COIL

www.heataway.net

MODELSELECTION METHOD



SELECTION PROCEDURE

- Determine total heat rejection required in kilowatts (kW)

Total heat rejection *= compressor evaporator capacity (kW) + compressor power (kW)*

- Determine design conditions for condensing temperature and entering wet-bulb temperature.

- Determine **the heat rejection factor** in **table 1** for condensing temperature and entering wet-bulb temperature.

- Determine **the corrected heat rejection** by multiply the **total heat rejection** by the **heat rejection factor** which determined from the previous step.

- Select the unit whose **base heat rejection capacity** is equal or greater than **the corrected heat rejection** which calculated from the previous step.

SELECTION EXAMPLE

Refrigerant :	Ammonia (R-717)
Total heat rejection :	1,150 kW
Condensing temperature :	38°C
Entering wet bulb temperature :	28°C

REMARK : The model selection for other refrigerants, please contact HEATAWAY Representative.

- From Table 1, the heat rejection factor for R-717 at 38°C condensing temperature and 28°C entering wet-bulb temperature is 1.31.

- Multiply 1,150 kW x 1.31 = 1,506.5 kW.

- From Tables 2, select the unit whose base heat rejection capacity is equal or greater than 1,506.5 kW. Model EC7-1550.

TABLE 1 : HEAT REJECTON FACTORS FOR AMMONIA (R-717)

Condensing pressure (barg)	Condensing temperature (°C)	Entering wet bulb temperature (°C)										
		20	21	22	23	24	25	26	27	28	29	30
10.31	29	1.78	1.97	2.21	2.57	2.99	-	-	-	-	-	-
10.65	30	1.63	1.79	1.99	2.24	2.56	3.00	-	-	-	-	-
11.00	31	1.43	1.55	1.69	1.90	2.15	2.50	2.84	-	-	-	-
11.36	32	1.32	1.43	1.55	1.70	1.88	2.11	2.44	-	-	-	-
11.73	33	1.19	1.27	1.37	1.50	1.63	1.81	2.03	2.37	2.70	-	-
12.10	34	1.12	1.19	1.27	1.36	1.48	1.61	1.80	2.06	2.35	-	-
12.49	35	1.03	1.08	1.15	1.23	1.30	1.39	1.53	1.69	1.90	2.15	2.47
12.88	36	0.96	1.01	1.07	1.13	1.20	1.28	1.39	1.53	1.70	1.91	2.17
13.28	37	0.88	0.92	0.97	1.03	1.08	1.16	1.23	1.36	1.48	1.65	1.88
13.69	38	0.83	0.86	0.90	0.94	0.99	1.05	1.12	1.21	1.31	1.44	1.59
14.11	39	0.78	0.81	0.84	0.88	0.92	0.98	1.03	1.12	1.20	1.31	1.44
14,53	40	0.74	0.76	0.79	0.83	0.87	0.91	0.96	1.02	1.09	1.18	1.29
14.97	41	0.69	0.72	0.74	0.77	0.80	0.84	0.88	0.93	0.99	1.08	1.18
15.41	42	0.66	0.68	0.71	0.74	0.76	0.80	0.84	0.88	0.93	0.99	1.06

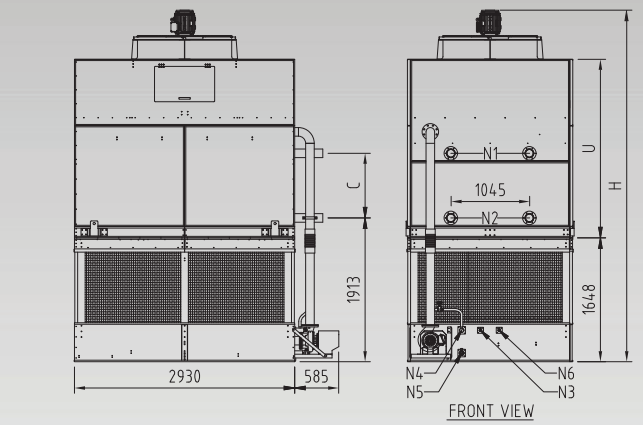
TABLE 2 : BASE HEAT REJECTION CAPACITY

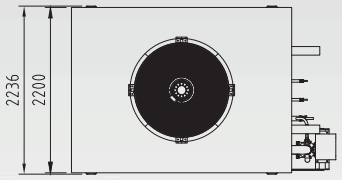
Model	Base heat rejection (kW)
EC7-0550	550
EC7-0700	700
EC7-0800	800
EC7-1000	1,000
EC7-1250	1,250
EC7-1350	1,350
EC7-1500	1,500

Model	Base heat rejection (kW)
EC7-1550	1,550
EC7-1700	1,700
EC7-1800	1,800
EC7-2000	2,000
EC7-2350	2,350
EC7-2550	2,550
EC7-2800	2,800

Model	Base heat rejection (kW)
EC7-3100	3,100
EC7-3300	3,300
EC7-3550	3,550
EC7-3700	3,700
EC7-3900	3,900

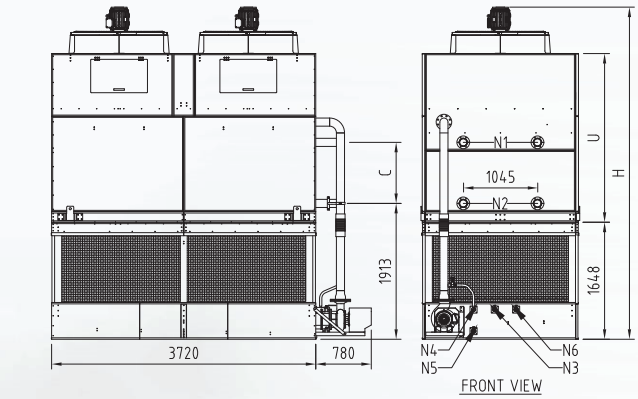
DIMENSION AND TECHNICAL DATA

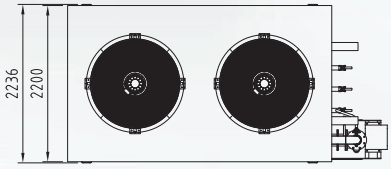




PIPING CONNECTION					
MARK	DESCRIPTION	Q'TY	SIZE	THREAD	VALVE
N1	REFRIGERANT INLET	2	4"	-	-
N2	REFRIGERANT OUTLET	2	4"	-	-
N3	MAKE UP WATER	1	1"	BSPT(F)	BALL VALVE
N4	OVER FLOW	1	2"	BSPT(M)	-
N5	DRAIN	1	2"	BSPT(F)	BALL VALVE
N6	QUICK REFILL	1	1"	BSPT(F)	BALL VALVE

Model	Base heat rejection (kW)	Dimension (mm)			Approximate weight (kg)				R-717 operating charge (kg)	Water weight (kg)	Fan motor		Water pump	
		C	U	H	Shipping	Lower	Heaviest	Operating			Q'ty	Power (kW)	Q'ty	Power (kW)
EC7-0550	550	620	2,136	4,355	2,335	570	1,765	3,909	104	1,470	1	5.5	1	1.5
EC7-0700	700	860	2,376	4,595	2,660	570	2,090	4,263	133	1,470	1	5.5	1	1.5

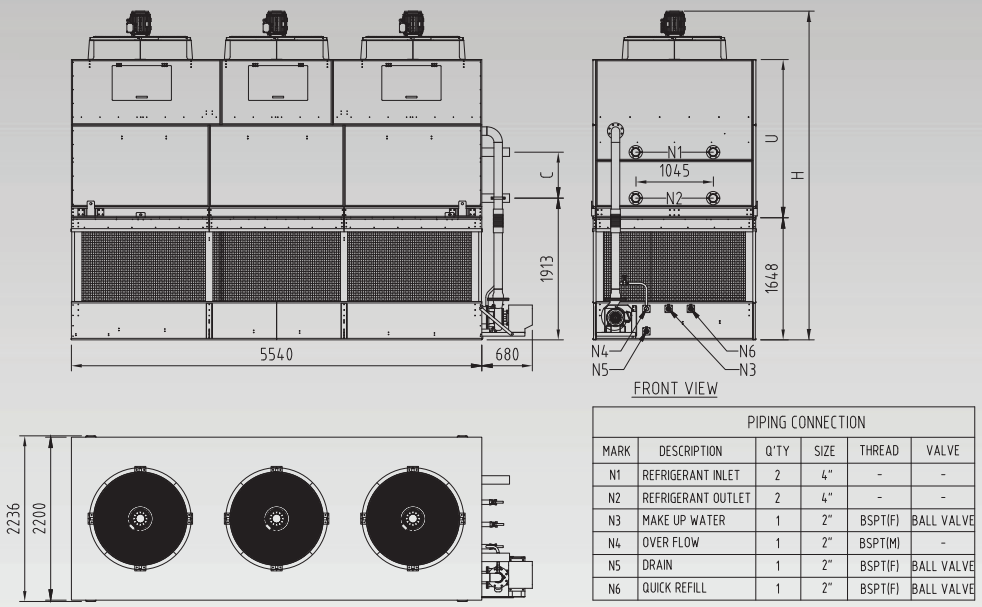




PIPING CONNECTION					
MARK	DESCRIPTION	Q'TY	SIZE	THREAD	VALVE
N1	REFRIGERANT INLET	2	4"	-	-
N2	REFRIGERANT OUTLET	2	4"	-	-
N3	MAKE UP WATER	1	2"	BSPT(F)	BALL VALVE
N4	OVER FLOW	1	2"	BSPT(M)	-
N5	DRAIN	1	2"	BSPT(F)	BALL VALVE
N6	QUICK REFILL	1	2"	BSPT(F)	BALL VALVE

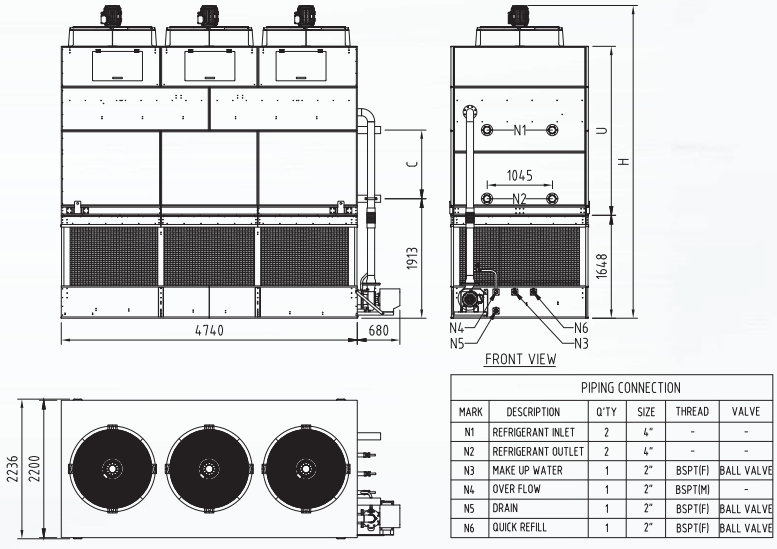
Model	Base heat rejection (kW)	Dimension (mm)			Approximate weight (kg)				R-717 operating charge (kg)	Water weight (kg)	Fan motor		Water pump	
		C	U	H	Shipping	Lower	Heaviest	Operating			Q'ty	Power (kW)	Q'ty	Power (kW)
EC7-0800	800	620	2,136	4,355	3,010	670	2,340	5,019	129	1,880	2	5.5	1	2.2
EC7-1000	1,000	860	2,376	4,595	3,445	670	2,775	5,492	167	1,880	2	5.5	1	2.2

EC7 – EVAPORATIVE**CONDENSER**



PIPING CONNECTION					
MARK	DESCRIPTION	Q'TY	SIZE	THREAD	VALVE
N1	REFRIGERANT INLET	2	4"	-	-
N2	REFRIGERANT OUTLET	2	4"	-	-
N3	MAKE UP WATER	1	2"	BSPT(F)	BALL VALVE
N4	OVER FLOW	1	2"	BSPT(M)	-
N5	DRAIN	1	2"	BSPT(F)	BALL VALVE
N6	QUICK REFILL	1	2"	BSPT(F)	BALL VALVE

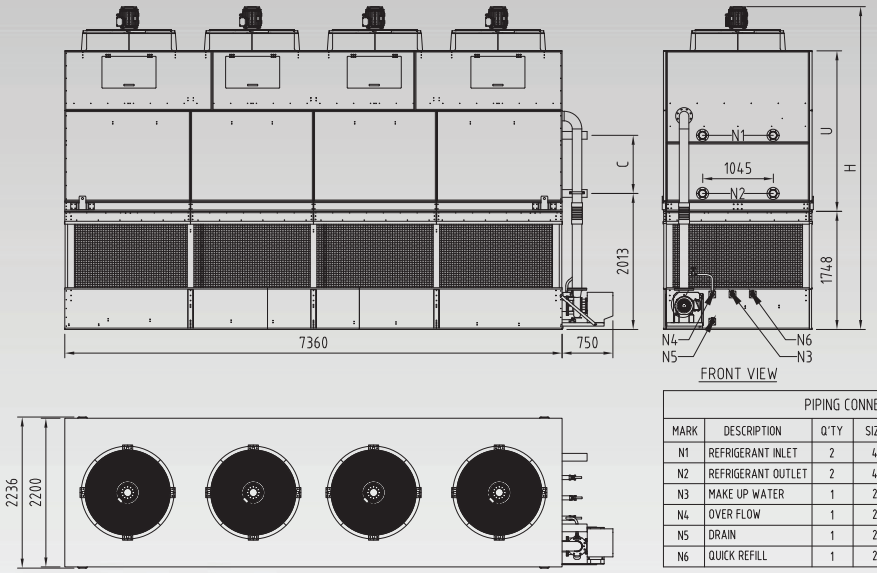
Model	Base heat rejection (kW)	Dimension (mm)			Approximate weight (kg)				R-717 operating charge (kg)	Water weight (kg)	Fan motor		Water pump	
		C	U	H	Shipping	Lower	Heaviest	Operating			Q'ty	Power (kW)	Q'ty	Power (kW)
EC7-1250	1,250	620	2,136	4,355	4,220	880	3,340	7,217	187	2,810	3	5.5	1	3.7
EC7-1500	1,500	860	2,376	4,550	4,850	880	3,970	7,904	244	2,810	3	5.5	1	3.7
EC7-1800	1,800	1,100	2,706	4,880	5,600	880	4,720	8,711	301	2,810	3	5.5	1	3.7



PIPING CONNECTION					
MARK	DESCRIPTION	Q'TY	SIZE	THREAD	VALVE
N1	REFRIGERANT INLET	2	4"	-	-
N2	REFRIGERANT OUTLET	2	4"	-	-
N3	MAKE UP WATER	1	2"	BSPT(F)	BALL VALVE
N4	OVER FLOW	1	2"	BSPT(M)	-
N5	DRAIN	1	2"	BSPT(F)	BALL VALVE
N6	QUICK REFILL	1	2"	BSPT(F)	BALL VALVE

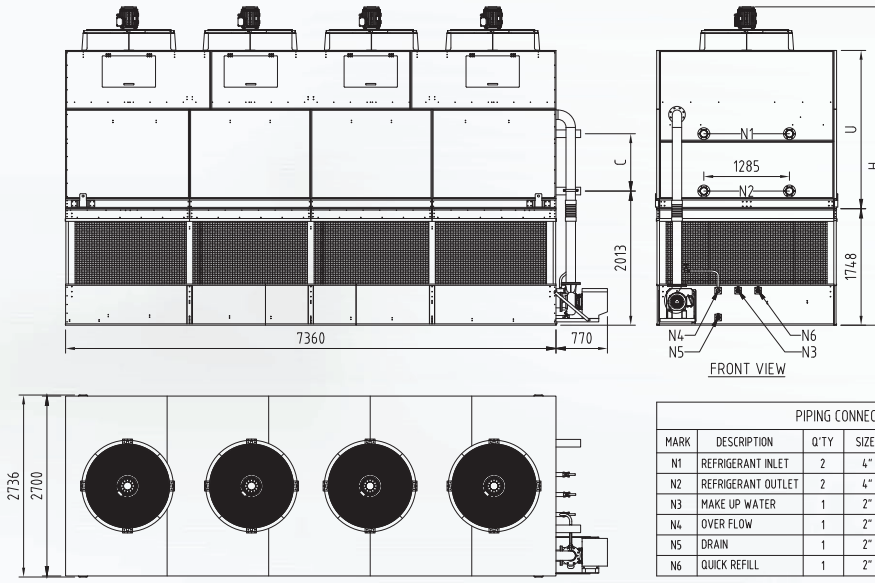
Model	Base heat rejection (kW)	Dimension (mm)			Approximate weight (kg)				R-717 operating charge (kg)	Water weight (kg)	Fan motor		Water pump	
		C	U	H	Shipping	Lower	Heaviest	Operating			Q'ty	Power (kW)	Q'ty	Power (kW)
EC7-1350	1,350	860	2,376	4,595	4,435	820	3,615	7,045	210	2,400	3	5.5	1	3.7
EC7-1550	1,550	1,100	2,706	4,925	4,985	820	4,165	7,644	259	2,400	3	5.5	1	3.7
EC7-1700	1,700	1,340	2,949	5,170	5,530	820	4,710	8,237	307	2,400	3	5.5	1	3.7

DIMENSION AND TECHNICAL DATA



PIPING CONNECTION					
MARK	DESCRIPTION	Q'TY	SIZE	THREAD	VALVE
N1	REFRIGERANT INLET	2	4"	-	-
N2	REFRIGERANT OUTLET	2	4"	-	-
N3	MAKE UP WATER	1	2"	BSPT(F)	BALL VALVE
N4	OVER FLOW	1	2"	BSPT(M)	-
N5	DRAIN	1	2"	BSPT(F)	BALL VALVE
N6	QUICK REFILL	1	2"	BSPT(F)	BALL VALVE

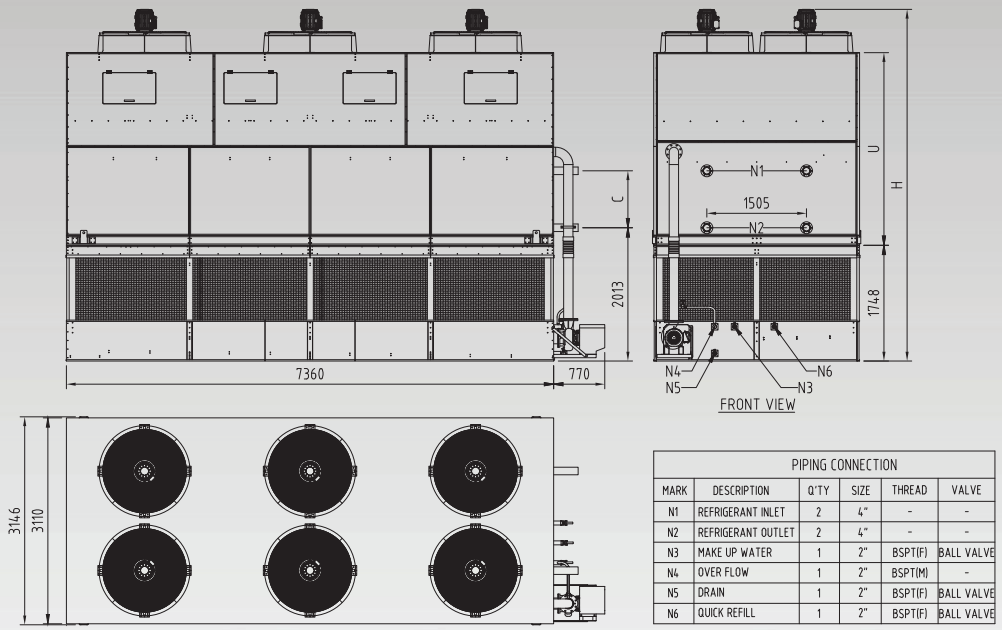
Model	Base heat rejection (kW)	Dimension (mm)			Approximate weight (kg)				R-717 operating charge (kg)	Water weight (kg)	Fan motor		Water pump	
		C	U	H	Shipping	Lower	Heaviest	Operating			Q'ty	Power (kW)	Q'ty	Power (kW)
EC7-2000	2,000	860	2,376	4,695	6,345	1,150	5,195	10,926	321	4,260	4	5.5	1	5.5
EC7-2350	2,350	1,100	2,706	5,025	7,185	1,150	6,035	11,842	397	4,260	4	5.5	1	5.5



PIPING CONNECTION					
MARK	DESCRIPTION	Q'TY	SIZE	THREAD	VALVE
N1	REFRIGERANT INLET	2	4"	-	-
N2	REFRIGERANT OUTLET	2	4"	-	-
N3	MAKE UP WATER	1	2"	BSPT(F)	BALL VALVE
N4	OVER FLOW	1	2"	BSPT(M)	-
N5	DRAIN	1	2"	BSPT(F)	BALL VALVE
N6	QUICK REFILL	1	2"	BSPT(F)	BALL VALVE

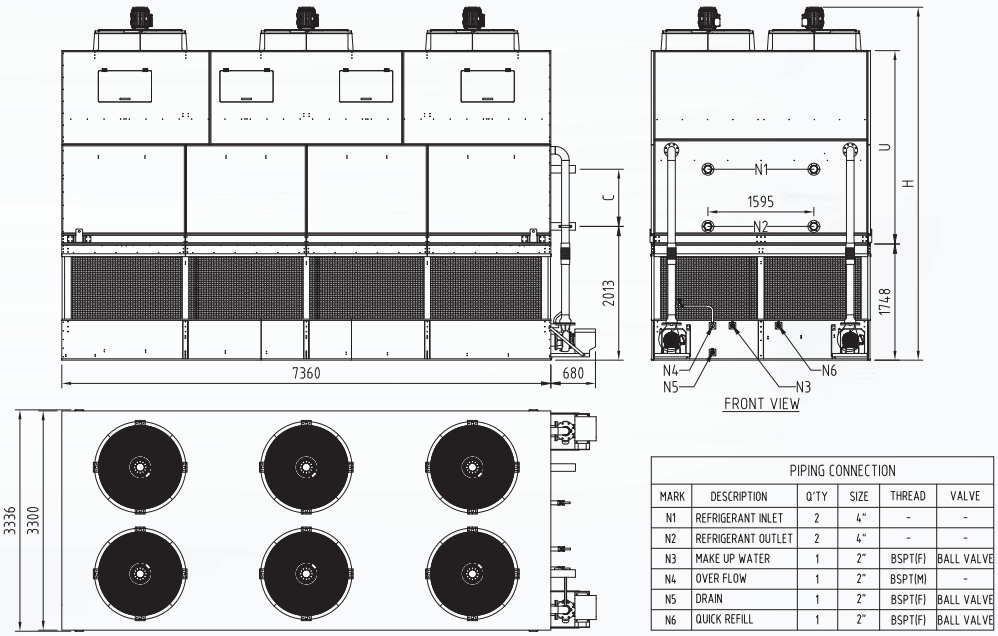
Model	Base heat rejection (kW)	Dimension (mm)			Approximate weight (kg)				R-717 operating charge (kg)	Water weight (kg)	Fan motor		Water pump	
		C	U	H	Shipping	Lower	Heaviest	Operating			Q'ty	Power (kW)	Q'ty	Power (kW)
EC7-2550	2,550	860	2,376	4,695	7,385	1,300	6,085	13.103	398	5,320	4	5.5	1	7.5
EC7-2800	2,800	1,100	2,646	4,965	8,385	1,300	7,085	14,197	492	5,320	4	5.5	1	7.5

EC7 – EVAPORATIVE**CONDENSER**



PIPING CONNECTION					
MARK	DESCRIPTION	Q'TY	SIZE	THREAD	VALVE
N1	REFRIGERANT INLET	2	4"	-	-
N2	REFRIGERANT OUTLET	2	4"	-	-
N3	MAKE UP WATER	1	2"	BSPT(F)	BALL VALVE
N4	OVER FLOW	1	2"	BSPT(M)	-
N5	DRAIN	1	2"	BSPT(F)	BALL VALVE
N6	QUICK REFILL	1	2"	BSPT(F)	BALL VALVE

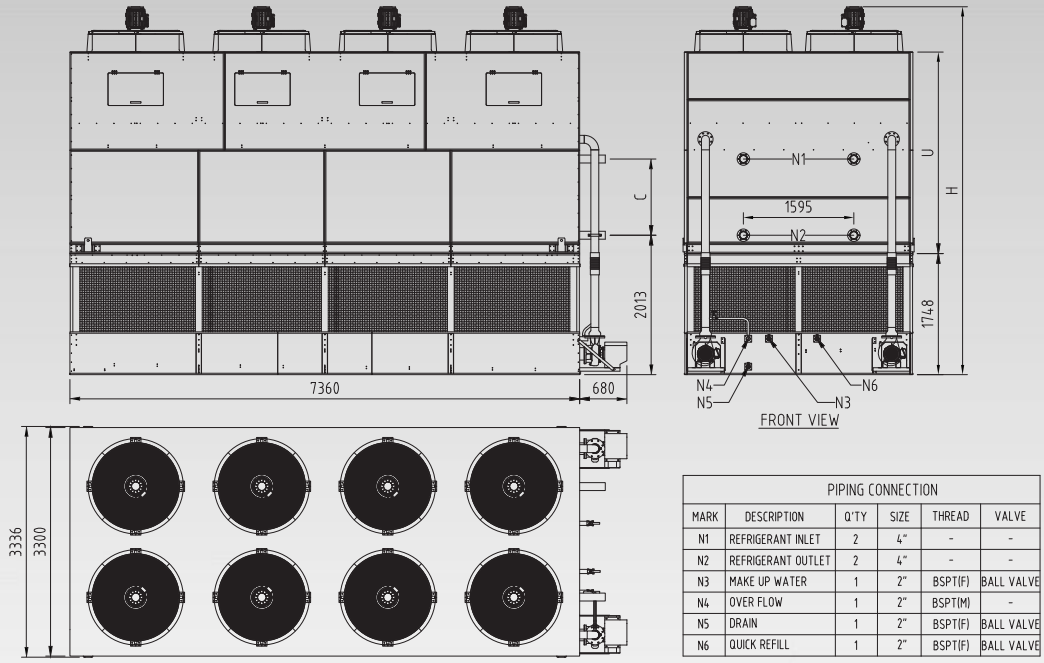
Model	Base heat rejection (kW)	Dimension (mm)			Approximate weight (kg)				R-717 operating charge (kg)	Water weight (kg)	Fan motor		Water pump	
		C	U	H	Shipping	Lower	Heaviest	Operating			Q'ty	Power (kW)	Q'ty	Power (kW)
EC7-3100	3,100	860	2,910	5,230	8,855	1,390	7,465	15,240	465	5,920	6	5.5	1	7.5
EC7-3550	3,550	1,100	2,910	5,230	9,960	1,390	8,570	16,456	576	5,920	6	5.5	1	7.5



PIPING CONNECTION					
MARK	DESCRIPTION	Q'TY	SIZE	THREAD	VALVE
N1	REFRIGERANT INLET	2	4"	-	-
N2	REFRIGERANT OUTLET	2	4"	-	-
N3	MAKE UP WATER	1	2"	BSPT(F)	BALL VALVE
N4	OVER FLOW	1	2"	BSPT(M)	-
N5	DRAIN	1	2"	BSPT(F)	BALL VALVE
N6	QUICK REFILL	1	2"	BSPT(F)	BALL VALVE

Model	Base heat rejection (kW)	Dimension (mm)			Approximate weight (kg)				R-717 operating charge (kg)	Water weight (kg)	Fan motor		Water pump	
		C	U	H	Shipping	Lower	Heaviest	Operating			Q'ty	Power (kW)	Q'ty	Power (kW)
EC7-3300	3,300	860	2,910	5,230	9,335	1,530	7,805	16,719	494	6,890	6	5.5	2	3.7
EC7-3700	3,700	1,100	2,910	5,230	10,505	1,530	8,975	18,006	611	6,890	6	5.5	2	3.7

DIMENSION AND TECHNICAL DATA



PIPING CONNECTION					
MARK	DESCRIPTION	Q'TY	SIZE	THREAD	VALVE
N1	REFRIGERANT INLET	2	4"	-	-
N2	REFRIGERANT OUTLET	2	4"	-	-
N3	MAKE UP WATER	1	2"	BSPT(F)	BALL VALVE
N4	OVER FLOW	1	2"	BSPT(M)	-
N5	DRAIN	1	2"	BSPT(F)	BALL VALVE
N6	QUICK REFILL	1	2"	BSPT(F)	BALL VALVE

Model	Base heat rejection (kW)	Dimension (mm)			Approximate weight (kg)				R-717 operating charge (kg)	Water weight (kg)	Fan motor		Water pump	
		C	U	H	Shipping	Lower	Heaviest	Operating			Q'ty	Power (kW)	Q'ty	Power (kW)
EC7-3900	3,900	1,100	2,910	5,230	10,930	1,530	9,460	18,431	611	6,890	8	5.5	2	3.7

REMARK :

1) The base heat rejection is based on ammonia (R-717) at 38°C condensing temperature and 24°C entering wet-bulb temperature.

2) The heaviest weight is coil section with fan assembly.

3) R-717 operating charge is at 38°C condensing temperature and 33% of coil volume.

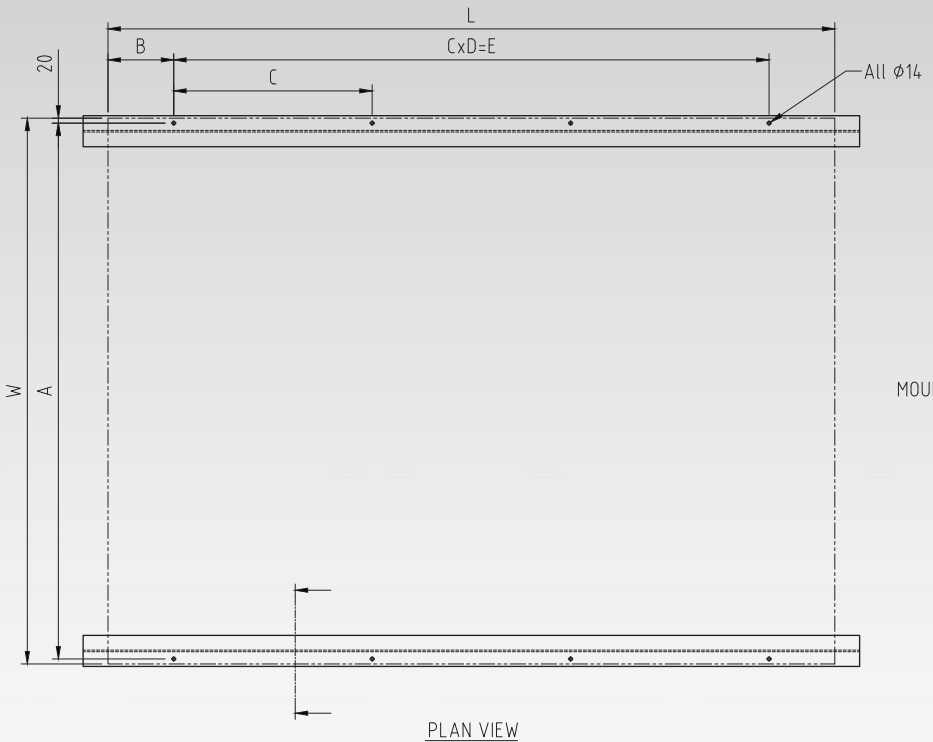
4) The operating weight includes the water weight at the overflow level and the coil is charged with ammonia (R-717).

5) Dimensions and power are for standard fan motor and standard water pump. The data of high efficiency option is subject to change.

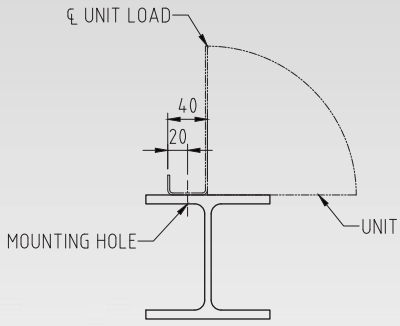
Dimensions are subject to change. Do not use for construction. This catalog includes data current at the time of publication, which should be reconfirmed at the time of purchase.

STRUCTURAL SUPPORT

The recommended arrangement for supporting EC7 consists of parallel structural support members positioned as shown on the drawing and table below. For alternative support arrangement, please contact HEATAWAY Representative.



PLAN VIEW

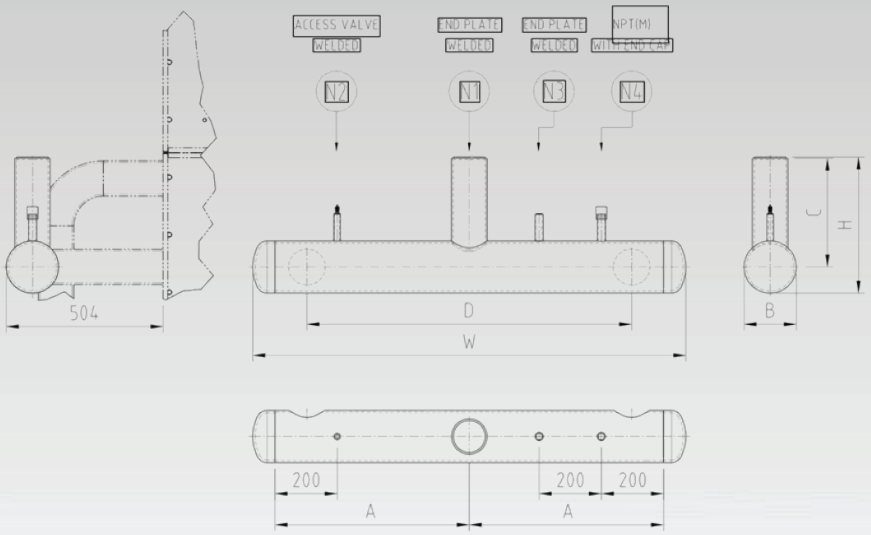


SECTION VIEW

Model	L	W	A	B	C	D	E	Anchor bolt Quantity
EC7-0550	2,930	2,200	2,160	265	800	3	2,400	8
EC7-0700	2,930	2,200	2,160	265	800	3	2,400	8
EC7-0800	3,720	2,200	2,160	360	1,000	3	3,000	8
EC7-1000	3,720	2,200	2,160	360	1,000	3	3,000	8
EC7-1250	5,540	2,200	2,160	270	1,000	5	5,000	12
EC7-1350	4,740	2,200	2,160	370	800	5	4,000	12
EC7-1500	5,540	2,200	2,160	270	1,000	5	5,000	12
EC7-1550	4,740	2,200	2,160	370	800	5	4,000	12
EC7-1700	4,740	2,200	2,160	370	800	5	4,000	12
EC7-1800	5,540	2,200	2,160	270	1,000	5	5,000	12
EC7-2000	7,360	2,200	2,160	180	1,000	7	7,000	16
EC7-2350	7,360	2,200	2,160	180	1,000	7	7,000	16
EC7-2550	7,360	2,700	2,660	180	1,000	7	7,000	16
EC7-2800	7,360	2,700	2,660	180	1,000	7	7,000	16
EC7-3100	7,360	3,110	3,070	180	1,000	7	7,000	16
EC7-3550	7,360	3,110	3,070	180	1,000	7	7,000	16
EC7-3300	7,360	3,300	3,260	180	1,000	7	7,000	16
EC7 3700	7,360	3,300	3,260	180	1,000	7	7,000	16
EC7-3900	7,360	3,300	3,260	180	1,000	7	7,000	16

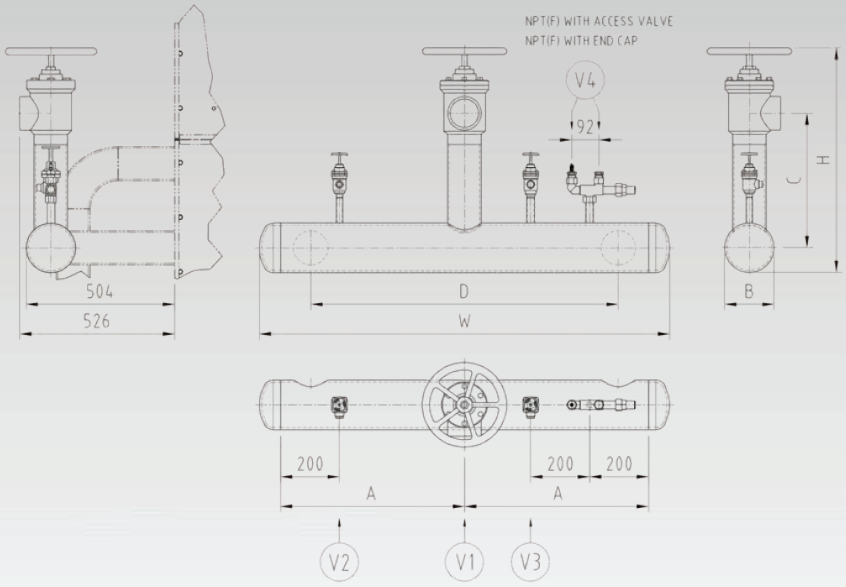
DIMENSION AND TECHNICAL DATA

HOT GAS HEADER



Model	Dimension (mm)						Piping connection (inch)			
	W	D	B	C	H	A	N1 Inlet	N2 Purge	N3 Equalizer	N4 Safety
EC7-0550	1,394	1,045	168	350	438	625	4	1/2	3/4	3/4
EC7-0700	1,394	1,045	168	350	438	625	4	1/2	3/4	3/4
EC7-0800	1,394	1,045	168	350	438	625	4	1/2	3/4	3/4
EC7-1000	1,394	1,045	168	350	438	625	4	1/2	3/4	3/4
EC7-1250	1,394	1,045	168	350	438	625	4	1/2	3/4	3/4
EC7-1350	1,394	1,045	168	350	438	625	4	1/2	3/4	3/4
EC7-1500	1,394	1,045	168	350	438	625	4	1/2	3/4	3/4
EC7-1550	1,394	1,045	168	350	438	625	4	1/2	3/4	3/4
EC7-1700	1,394	1,045	168	350	438	625	4	1/2	3/4	3/4
EC7-1800	1,394	1,045	168	350	438	625	4	1/2	3/4	3/4
EC7-2000	1,394	1,045	168	350	438	625	4	1/2	3/4	3/4
EC7-2350	1,394	1,045	168	350	438	625	4	1/2	3/4	3/4
EC7-2550	1,644	1,285	168	350	438	750	4	1/2	3/4	3/4
EC7-2800	1,644	1,285	168	350	438	750	4	1/2	3/4	3/4
EC7-3100	1,844	1,505	168	350	438	850	4	1/2	3/4	3/4
EC7-3300	1,944	1,595	168	350	438	900	4	1/2	3/4	3/4
EC7-3550	1,844	1,505	168	350	438	850	4	1/2	3/4	3/4
EC7-3700	1,944	1,595	168	350	438	900	4	1/2	3/4	3/4
EC7-3900	1,944	1,595	168	330	418	900	5	1/2	3/4	3/4

HOT GAS HEADER & PACKAGE VALVE

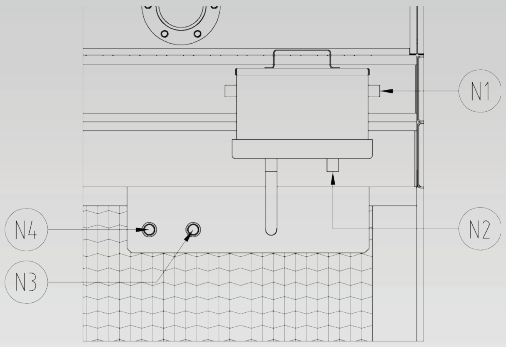


Model	Dimension (mm)						Piping connection (inch)			
	W	D	B	C	H	A	V1 Inlet	V2 Purge	V3 Equalizer	V4 Safety
EC7-0550	1,394	1,045	168	558	858	625	3	1/2	3/4	3/4
EC7-0700	1,394	1,045	168	558	858	625	3	1/2	3/4	3/4
EC7-0800	1,394	1,045	168	558	858	625	3	1/2	3/4	3/4
EC7-1000	1,394	1,045	168	558	858	625	3	1/2	3/4	3/4
EC7-1250	1,394	1,045	168	558	858	625	3	1/2	3/4	3/4
EC7-1350	1,394	1,045	168	456	762	625	4	1/2	3/4	3/4
EC7-1550	1,394	1,045	168	456	762	625	4	1/2	3/4	3/4
EC7-1550	1,394	1,045	168	456	762	625	4	1/2	3/4	3/4
EC7-1700	1,394	1,045	168	456	762	625	4	1/2	3/4	3/4
EC7-1800	1,394	1,045	168	456	762	625	4	1/2	3/4	3/4
EC7-2000	1,394	1,045	168	456	762	625	4	1/2	3/4	3/4
EC7-2350	1,394	1,045	168	456	762	625	4	1/2	3/4	3/4
EC7-2550	1,644	1,285	168	456	762	750	4	1/2	3/4	3/4
EC7-2800	1,644	1,285	168	456	762	750	4	1/2	3/4	3/4
EC7-3100	1,844	1,505	168	456	762	850	4	1/2	3/4	3/4
EC7-3300	1,944	1,595	168	456	762	900	4	1/2	3/4	3/4
EC7-3550	1,844	1,505	168	456	762	850	4	1/2	3/4	3/4
EC7-3700	1,944	1,595	168	456	762	900	4	1/2	3/4	3/4
EC7-3900	1,944	1,595	168	458	856	900	-	-	-	-

*Additional features for hot gas header & package valve are assembled with 3 units of stop valve for inlet, purge and equalizer connection and 1 unit of 3-way valve for safety connection excluded safety valve.

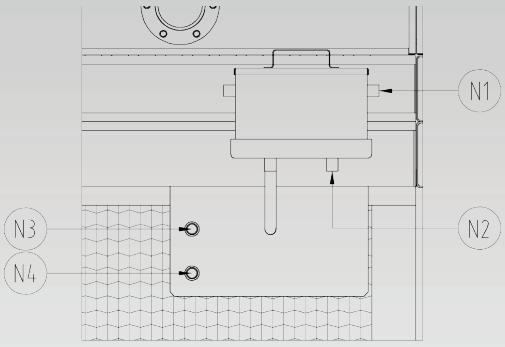
DIMENSION AND TECHNICAL DATA

WATER COOLING COIL



SINGLE LAYER

PIPING CONNECTION				
MARK	DESCRIPTION	Q'TY	SIZE	THREAD
N1	MAKE UP WATER	1	1/2"	BSPT(F)
N2	DRAIN	1	1/2"	BSPT(F)
N3	WATER INLET	1	1"	BSPT(M)
N4	WATER OUTLET	1	1"	BSPT(M)



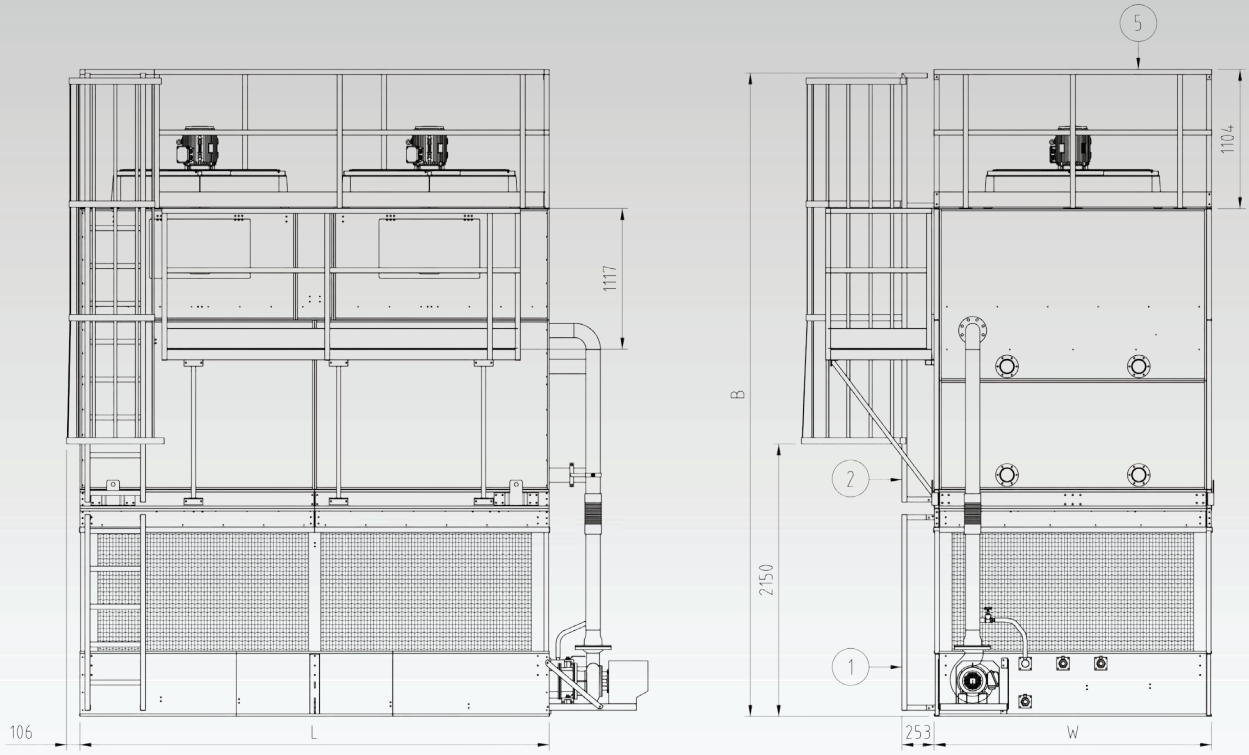
DOUBLE LAYER

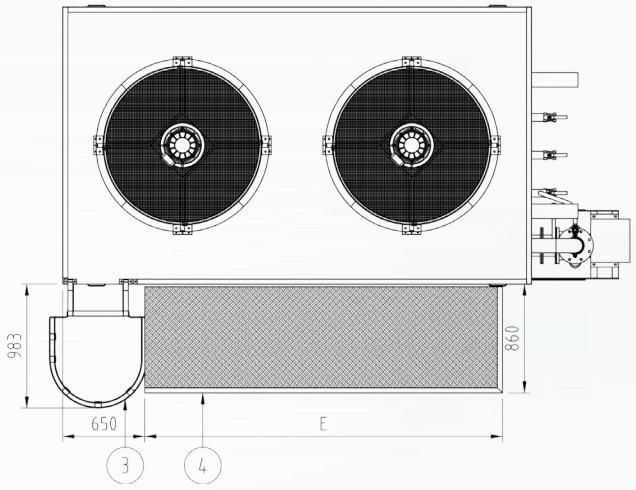
PIPING CONNECTION				
MARK	DESCRIPTION	Q'TY	SIZE	THREAD
N1	MAKE UP WATER	1	1/2"	BSPT(F)
N2	DRAIN	1	1/2"	BSPT(F)
N3	WATER INLET	1	1"	BSPT(M)
N4	WATER OUTLET	1	1"	BSPT(M)

Model	Water flow rate (m³/h)	
	Single layer - 28°C Wet bulb temp. 42°C - Inlet water temp. / 35°C outlet water temp.	Double layer - 28°C Wet bulb temp. 42°C - Inlet water temp. / 32°C outlet water temp.
EC7-0550	1.0	1.30
EC7-0700	1.0	1.30
EC7-0800	1.75	2.00
EC7-1000	1.75	2.00
EC7-1250	2.90	2.90
EC7-1350	2.40	2.70
EC7-1500	2.90	2.90
EC7-1550	2.40	2.70
EC7-1700	2.40	2.70
EC7-1800	2.90	2.90
EC7-2000	3.50	2.40
EC7-2350	3.50	2.40
EC7-2550	2.90*	-
EC7-2800	2.90*	-
EC7-3100	-	-
EC7-3300	-	-
EC7-3550	-	-
EC7-3700	-	-
EC7-3900	-	-

* This flow rate is based on design condition 42°C IN, 32°C OUT and 28°C WBT.

ACCESS PLATFORM, HANDRAIL, CAGE AND LADDER





REMARK : According to OSHA 1910, The bottom of cage shall be not less than 2,138 mm or more than 2,438 mm above the base floor.

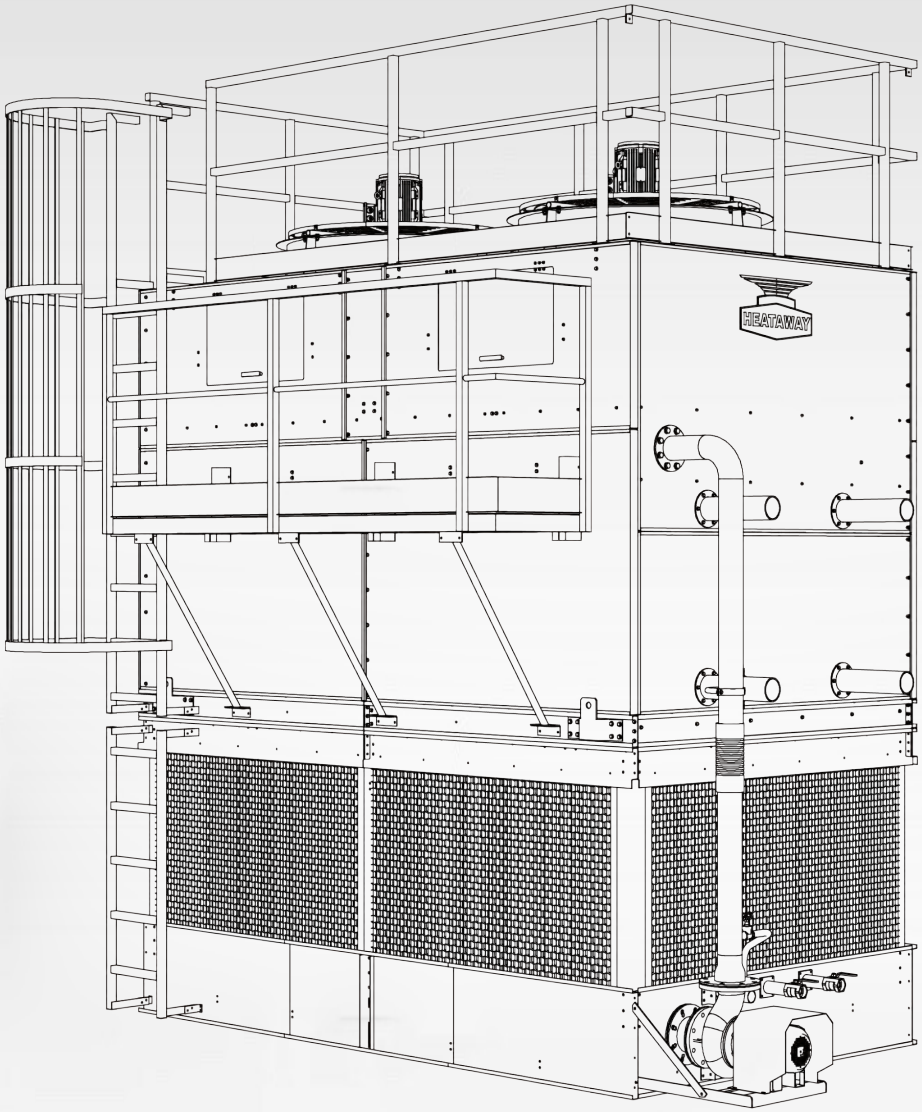
Model	Dimension (mm)	
	B	E
EC7-0550	4,890	2,040
EC7-0700	5,140	2,040
EC7-0800	4,890	2,840
EC7-1000	5,140	2,840
EC7-1250	4,890	4,640
EC7-1350	5,140	3,840
EC7-1500	5,140	4,640
EC7-1550	5,440	3,840
EC7-1700	5,690	3,840
EC7-1800	5,440	4,640
EC7-2000	5,240	6,440
EC7-2350	5,740	6,440
EC7-2550	5,240	6,440
EC7-2800	5,540	6,440
EC7-3100	5,740	6,440
EC7-3300	5,740	6,440
EC7-3550	5,740	6,440
EC7-3700	5,740	6,440
EC7-3900	5,740	6,440

Note

Note

HEATAWAY

WORLD CLASS QUALITY



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