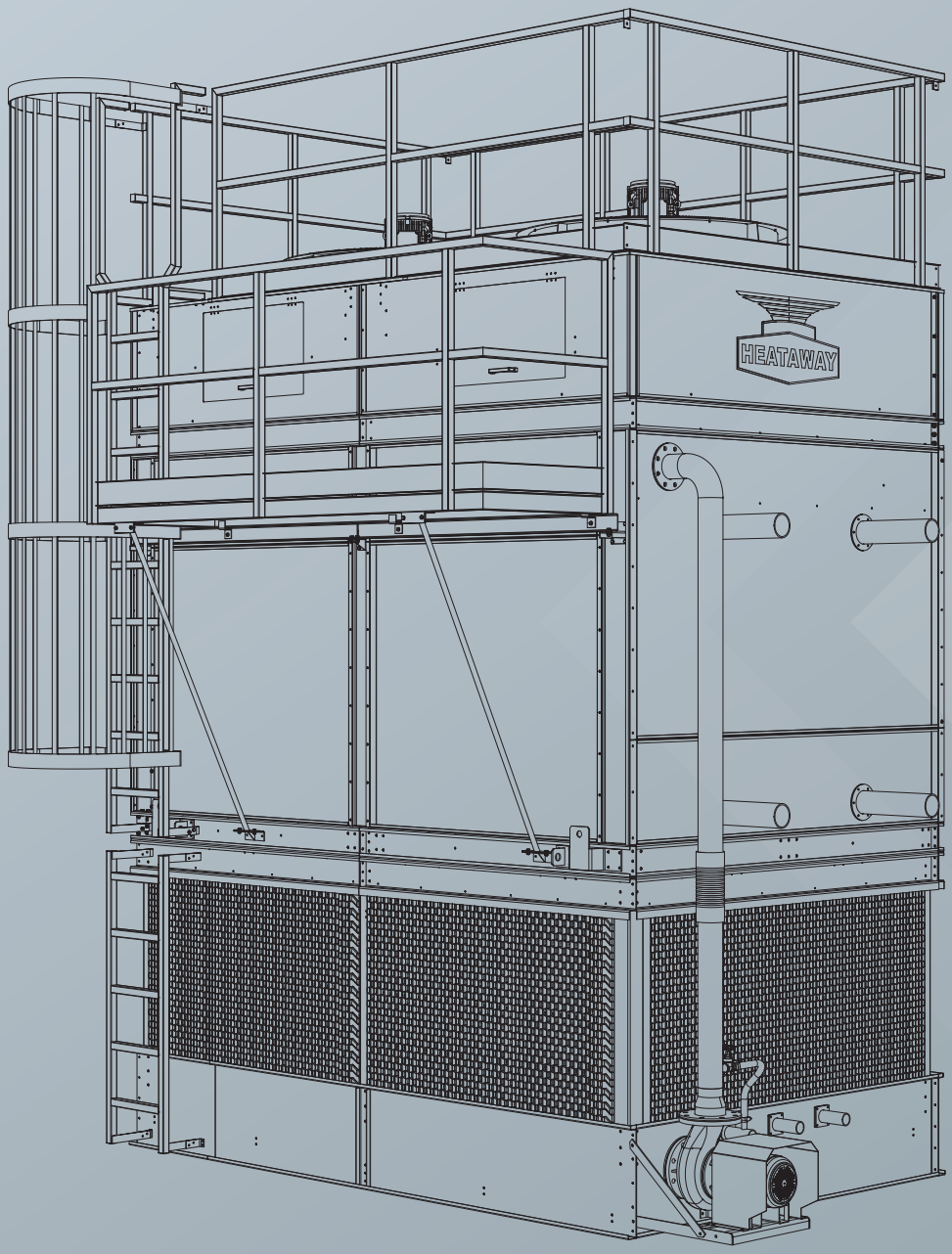
HEATAWAY

BRAND-NEW 8th GENERATION

STAINLESS STEEL EVAPORATIVE CONDENSERS

ENGINEERING DATA



HA-EC8-AS-ED-001 (EN) : HEATAWAY EC8 Australia Standard Engineering DATA 001 (EN)

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 :	35°C
Entering wet bulb temperature :	24°C

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

- From Table 1, the heat rejection factor for R-717 at 35°C condensing temperature and 24°C entering wet-bulb temperature is 1.30 .

- Multiply 1,150 kW x 1.30 = 1,495 kW.

- From Tables 2, select the unit whose base heat rejection capacity is equal or greater than 1,495 kW. Model EC8-1560.

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

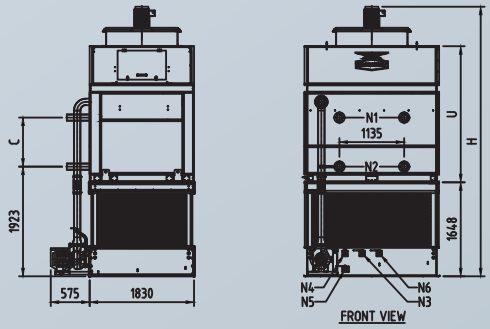
TABLE 2 : BASE HEAT REJECTION CAPACITY

Model	Base heat rejection (kW)
EC8-0460	460
EC8-0530	530
EC8-0590	590
EC8-0740	740
EC8-0840	840

Model	Base heat rejection (kW)
EC8-0920	920
EC8-1080	1080
EC8-1230	1230
EC8-1340	1340
EC8-1560	1560

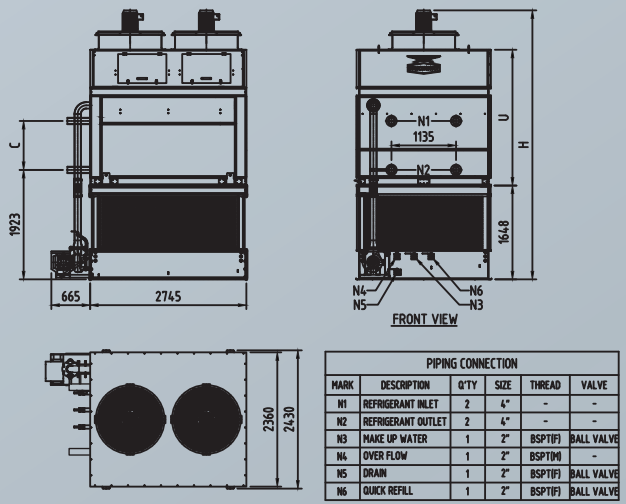
Model	Base heat rejection (kW)
EC8-1700	1700
EC8-1900	1900
EC8-2060	2060

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	Heaviest	Operating			Q'ty	Power (kW)	Q'ty	Power (kW)
EC8-0460	460	860	2,385	4,726	2,247	1,512	3,260	94	920	1	5.5	1	1.5
EC8-0530	530	1,100	2,625	4,966	2,459	1,725	3,491	111	920	1	5.5	1	1.5
EC8-0590	590	1,340	2,865	5,206	2,673	1,939	2,724	131	920	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

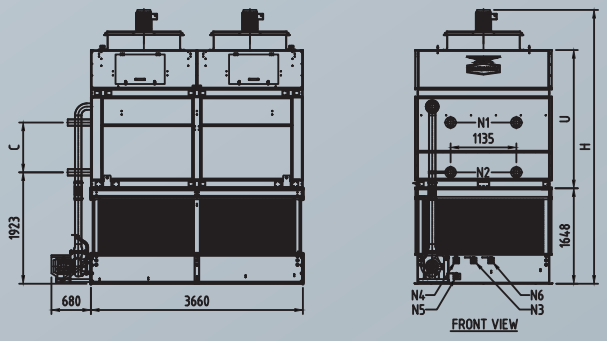
Model	Base heat rejection (kW)	Dimension (mm)			Approximate weight (kg)			R-717 operating charge (kg)	Water weight (kg)	Fan motor		Water pump	
		C	U	H	Shipping	Heaviest	Operating			Q'ty	Power (kW)	Q'ty	Power (kW)
EC8-0740	740	860	2,385	4,726	2,999	2,008	4,595	135	1,460	2	4.0	1	2.2
EC8-0840	840	1,100	2,625	4,966	3,311	2,320	4,937	165	1,460	2	4.0	1	2.2
EC8-0920	920	1,340	2,865	5,206	3,624	2,632	5,279	196	1,460	2	4.0	1	2.2

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 weweight is coil section with fab assemble.
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 of change.

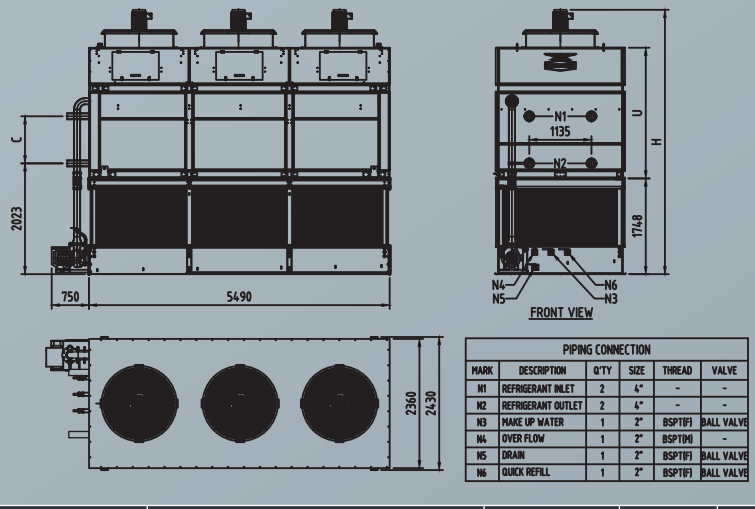
Dimensions are subject to change. Do not use for construction. This catalog includes data current at the time of publication, which should be reconfirmed at the time of purchase

EC8 – 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	Heaviest	Operating			Q'ty	Power (kW)	Q'ty	Power (kW)
EC8-1080	1,080	860	2,385	4,726	3,901	2,620	6,038	177	1,960	2	5.5	1	4.0
EC8-1230	1,230	1,100	2,625	4,966	4,328	3,047	6,506	218	1,960	2	5.5	1	4.0
EC8-1340	1,340	1,340	2,865	5,206	4,762	3,481	6,981	259	1,960	2	5.5	1	4.0
EC8-1560	1,560	1,340	2,865	5,310	4,888	3,481	7,107	259	1,960	2	11	1	4.0



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	Heaviest	Operating			Q'ty	Power (kW)	Q'ty	Power (kW)
EC8-1700	1700	860	2,385	4,826	5,629	3,745	8,861	262	2,970	3	5.5	1	5.5
EC8-1900	1900	1,100	2,625	5,066	6,268	4,384	9,562	342	2,970	3	5.5	1	5.5
EC8-2060	2060	1,340	2,865	5,306	6,920	5,036	10,276	386	2,970	3	5.5	1	5.5

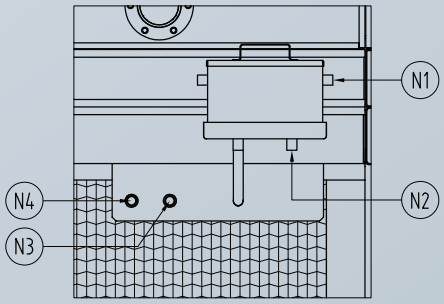
REMARK :

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 weweight is coil section with fab assemble.
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 of change.

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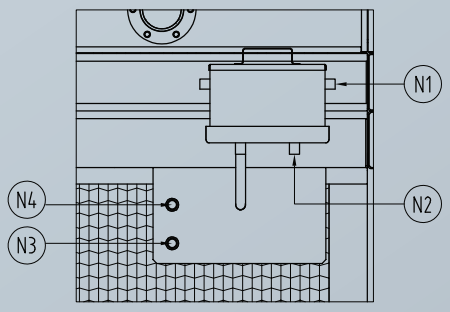
DIMENSION AND TECHNICAL DATA

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)



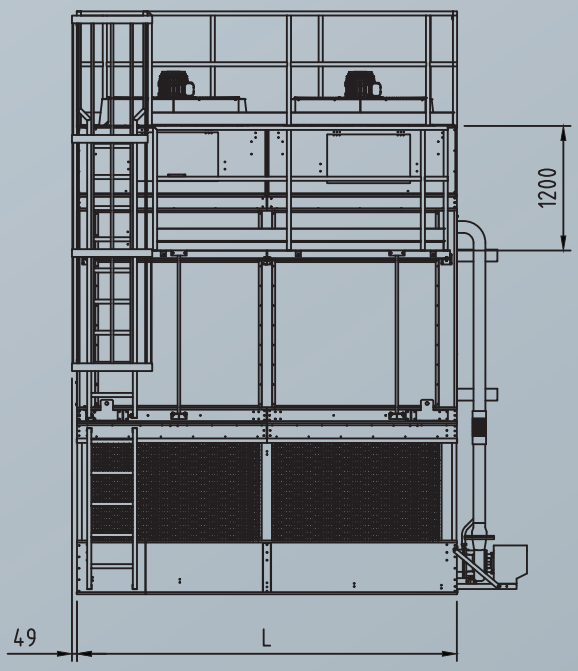
DOUBLE LAYER
(SERIES)

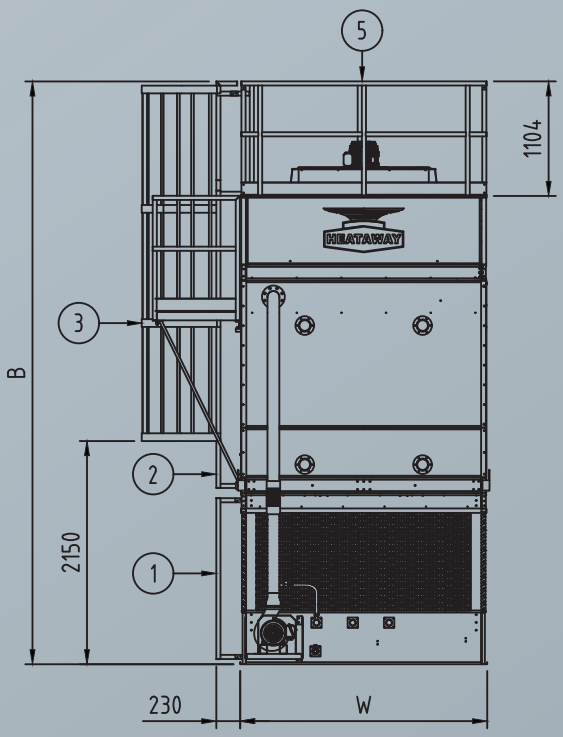
PIPING CONNECTION				
MARK	DESCRIPTION	Q'TY	SIZE	THREAD
N1	MAKE UP WATER	1	1/2"	BSPT(F)
N2	DRAIN	1	1/2"	BSPT(F)
N3	WATER INLET	1	1"	BSPT(M)
N4	WATER OUTLET	1	1"	BSPT(M)

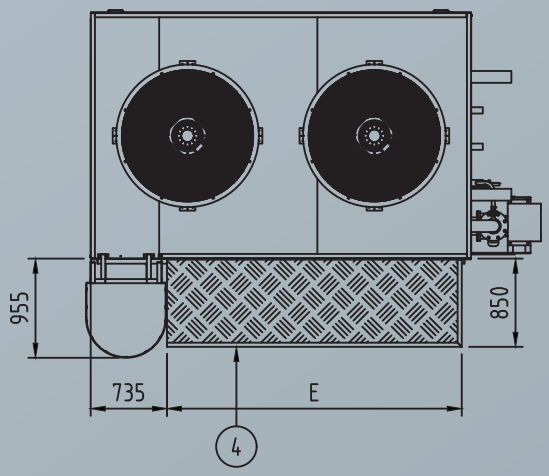
Model	Water flow rate (m^3/h)	
	Single layer - 25°C Wet bulb temp. 37°C - Inlet water temp. / 32°C outlet water temp.	Double layer - 25°C Wet bulb temp. 37°C - Inlet water temp. / 32°C outlet water temp.
EC8-0460	0.75	1.60
EC8-0530	0.75	1.60
EC8-0590	0.75	1.60
EC8-0740	1.40	3.00
EC8-0840	1.40	3.00
EC8-0920	1.40	3.00
EC8-1080	2.20	3.20
EC8-1230	2.20	3.20
EC8-1340	2.20	3.20
EC8-1560	2.20	3.20
EC8-1700	3.20	-
EC8-1900	3.20	-
EC8-2060	3.20	-

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

ACCESS PLATFORM, HANDRAIL, CAGE AND LADDER





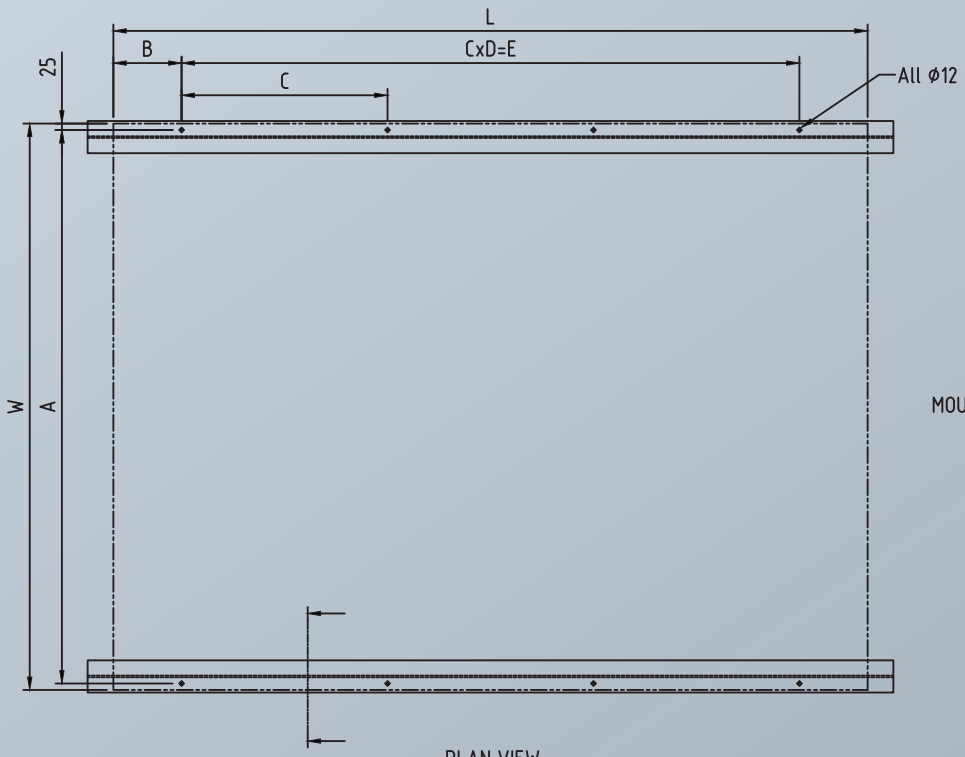


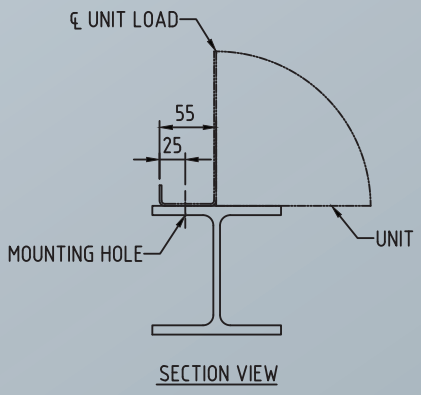
Model	Dimension (mm)	
	B	E
EC8-0460	5,137	1,010
EC8-0530	5,377	1,010
EC8-0590	5,617	1,010
EC8-0740	5,137	1,925
EC8-0840	5,377	1,925
EC8-0920	5,617	1,925
EC8-1080	5,137	2,840
EC8-1230	5,377	2,840
EC8-1340	5,617	2,840
EC8-1560	5,617	2,840
EC8-1700	5,237	4,670
EC8-1900	5,477	4,670
EC8-2060	5,717	4,670

REMARK : According to AS1657 - 2013, The bottom of the cage shall terminate not less than 2000 mm or more than 2200 mm above the base of the ladder.

STRUCTURAL SUPPORT

The recommended arrangement for supporting EC8 consists of parallel structural support members positioned as shown on the drawing and table below. For alternative support arrangement, please contact HEATAWAY Representative.





Model	L	W	A	B	C	D	E	Anchor bolt Quantity
EC8-0460	1,830	2,380	2,330	115	800	2	1,600	6
EC8-0530	1,830	2,380	2,330	115	800	2	1,600	6
EC8-0590	1,830	2,380	2,330	115	800	2	1,600	6
EC8-0740	2,745	2,380	2,330	173	800	3	2,400	8
EC8-0840	2,745	2,380	2,330	173	800	3	2,400	8
EC8-0920	2,745	2,380	2,330	173	800	3	2,400	8
EC8-1080	3,660	2,380	2,330	80	700	5	3,500	12
EC8-1230	3,660	2,380	2,330	80	700	5	3,500	12
EC8-1340	3,660	2,380	2,330	80	700	5	3,500	12
EC8-1560	3,660	2,380	2,330	80	700	5	3,500	12
EC8-1700	5,490	2,380	2,330	245	1,000	5	5,000	12
EC8-1900	5,490	2,380	2,330	245	1,000	5	5,000	12
EC8-2060	5,490	2,380	2,330	245	1,000	5	5,000	12

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