



EBARA

SHINWA
COOLING TOWER



Model CDW

EBARA

OPENCIRCUIT TYPE COOLING TOWER



INTRODUCTION OF EBARA CORPORATION

EBARA CORPORATION is the biggest manufacturer specialized in pump, HVAC (heating, ventilation and air conditioning) and refrigeration equipment in the world. The business has run for more than one hundred years since 1912, and has contributed to the environment to the utmost as well. EBARA is the most famous and top quality in refrigeration business field. Sales figure is more than 7 thousand million US Dollars per year, which puts EBARA in the world machinery's top 500 ranking. In Japan, there are 4 large factories, 37 branch companies and a comprehensive research institute. There are 56 subsidiary companies overseas.

History of EBARA Chillers & SHINWA Cooling Towers

In 1930, **EBARA** is a pioneer of the chiller industry in Japan that has turned out centrifugal chiller of the first domestic.

On the other hand, starting from product of cooling tower of cross flow square type, we have come a half-century as a leading company regarding cooling towers.

We began the study of centrifugal chiller in the 1920s, it was rolled out its first domestically produced in 1930 then.

In order to proceed with the globalization of **EBARA chillers** and **SHINWA cooling towers**, as a base for sale and maintenance of Southeast Asia, **EBARA THERMAL SYSTEMS (THAILAND) CO., LTD.** was established in April 2013 as a subsidiary of **EBARA REFRIGERATION EQUIPMENT & SYSTEMS CO., LTD.**

EBARA THERMAL SYSTEMS (THAILAND) CO., LTD. provides sale and maintenance service for Thailand and Southeast Asia business market.



**FUJISAWA FACTORY
(JAPAN)**



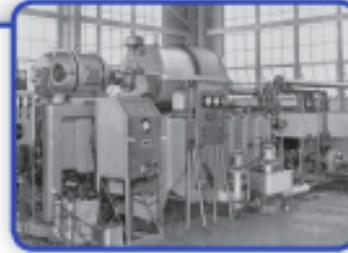
**SODEGAURA FACTORY
(JAPAN)**



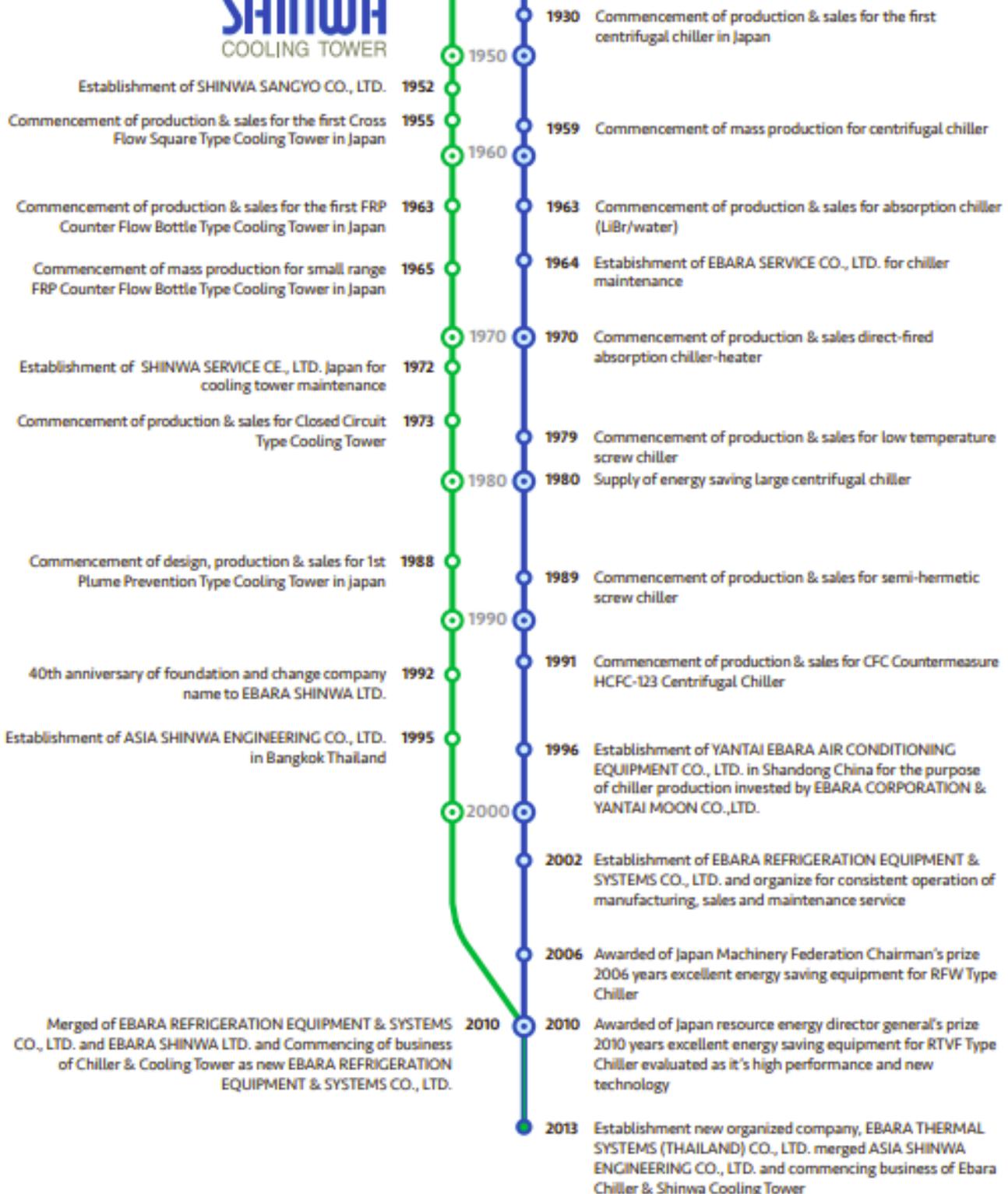
**YANTAI FACTORY
(CHINA)**



SHINWA COOLING TOWER



Centrifugal chiller first domestic



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FEATURES OF CDW MODELS

SUPERIOR MATERIAL, EXCELLENT PERFORMANCE IN ANTI-CORROSION

- Cooling tower main body is anti-seismic structure; the steel material meets the JISG3101-SS400 standard. And as the steel is hot-dip galvanized, they are completely rust and corrosion resistant.
- Fan casing and lower water basin are made of FRP material which is anti-corrosion, chemical resistant and impact resistant. Moreover, fan casing's surface is durable, stable and also physically good look.

HIGH EFFICIENT LOW NOISE AXIAL FAN SYSTEM

- Owing to EBARA SHINWA's advanced technology, the applying of motor specially designed for cooling tower and belt drive system can make the fan system to be super low noise.
- Fan casing is designed as a cone shape. Consequently, it can reduce energy consumption, and has a remarkable result in energy saving.
- Fan's material is high quality aluminium alloy which is anti-corrosion and durable. Meanwhile, fan blade and wheel hub are cut into the right angle so it's able to adjust angle by scale.

HIGH EFFICIENT COMPACT BELT DRIVE SYSTEM

- SRS model belt drive system is EBARA SHINWA's original. It is compact and very effective.
- Durable V-Belt and pulley are easy to adjust. Besides, strong belt cover, which is made of FRP, is easy to dismantle and reassemble. Belt cover keeps the system safe and well operated as it safeguards the system against foreign objects carried from the outside.

HIGH QUALITY FILL

- The fill is designed in ripple pattern, used as hanging sheets.
- Maximizes heat exchange efficiency between water and air, as well as slow down water flow rate.
- The unique designed fill can be modified. It is not only sturdy and durable but also easy and fast to clean.

UNIQUE WATER DISTRIBUTION SYSTEM

- Gravity water distribution system is EBARA SHINWA's original. It is well-distributed, and maximizes efficiency of the fill.

EASY TO MAINTAIN

- Belt cover is used with wing bolts, so it's very convenient to dismantle and reassemble by hands.
- Lower water basin is sloped for the purpose of better performance in water flowing and cleaning.
- As there are inspection door, cat walk and ladder, it's convenient to inspect and maintain a cooling tower.

SHORT INSTALLATION TIME

- By separating cooling tower main body and fan casing in transportation (CDW-100 ~ CDW-200), it's easier to transport, assemble at a work site, and consume less installation time as well.

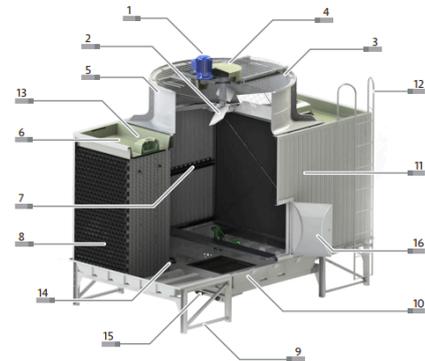
STRUCTURES OF CDW MODELS

MODEL

CDW-100AS-*1 ~ CDW-250AS-*1

NO.	PARTS NAME	MATERIALS	Q'TY	REMARKS
1	Motor		1 Pc	Total Enclosed Outdoor
2	Fan	Alum. Alloy Cast	1 Set	
3	Fan Guard	H.D.G.Steel	1 Set	Hot Dip Galvanized
4	Belt Cover	F.R.P.	1 Set	
5	Fan Casing	F.R.P.	1 Set	
6	Upper Water Basin	F.R.P.	2 Pcs	
7	Framework	H.D.G.Steel	1 Set	Hot Dip Galvanized
8	Fill	P.V.C.	1 Set	
9	Lower Frame	H.D.G.Steel	1 Set	Hot Dip Galvanized
10	Lower Water Basin	F.R.P.	1 Set	Inclined
11	Casing Panel	F.R.P.	2 Sides	
12	Ladder	H.D.G.Steel	1 Pc	Hot Dip Galvanized
13	Sprinkler Cover	F.R.P.	2 Pcs	
14	Overflow Pipe	P.V.C.	1 Set	
15	Outlet Pipe	E.P.T. (CDW-100 ~ CDW-200)	1 Set	
		H.D.G.Steel (CDW-250)	1 Set	Hot Dip Galvanized
16	Inspection Door	F.R.P.	1 Pc	

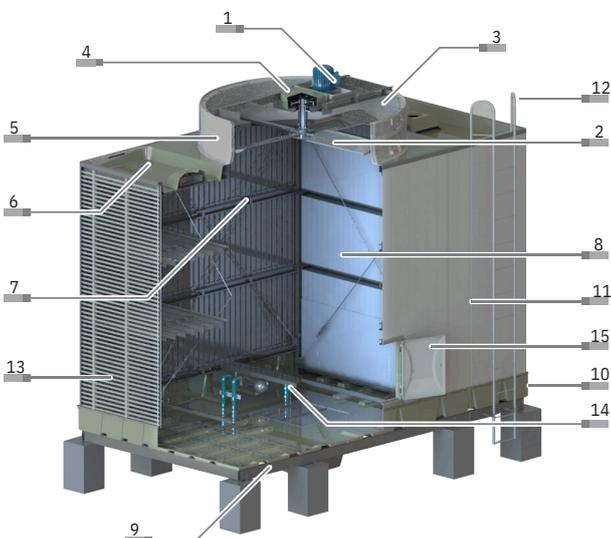
STANDARD COLOR : GRAY OR WHITE



* Above structure drawing is an external piping type.

MODEL

CDW-300AS-*1 ~ CDW-350AS-*1



NO.	PARTS NAME	MATERIALS	Q'TY	REMARKS
1	Motor		1 Pc	Total Enclosed Outdoor
2	Fan	Alum. Alloy Cast	1 Set	
3	Fan Guard	H.D.G.Steel	1 Set	Hot Dip Galvanized
4	Belt Cover	F.R.P.	1 Set	
5	Fan Casing	F.R.P.	1 Set	
6	Upper Water Basin	F.R.P.	2 Pcs	
7	Framework	H.D.G.Steel	1 Set	Hot Dip Galvanized
8	Fill	P.V.C.	1 Set	
9	Lower Frame	H.D.G.Steel	1 Set	Hot Dip Galvanized
10	Lower Water Basin	F.R.P.	1 Set	
11	Casing Panel	F.R.P.	2 Sides	
12	Ladder	H.D.G.Steel	1 Pc	Hot Dip Galvanized
13	Louver	P.V.C.	2 Sides	
14	Overflow Pipe	H.D.G.Steel	1 Set	Hot Dip Galvanized
15	Inspection Door	F.R.P.	1 Pc	

STANDARD COLOR : GRAY OR WHITE

* Above structure drawing is an external piping type.

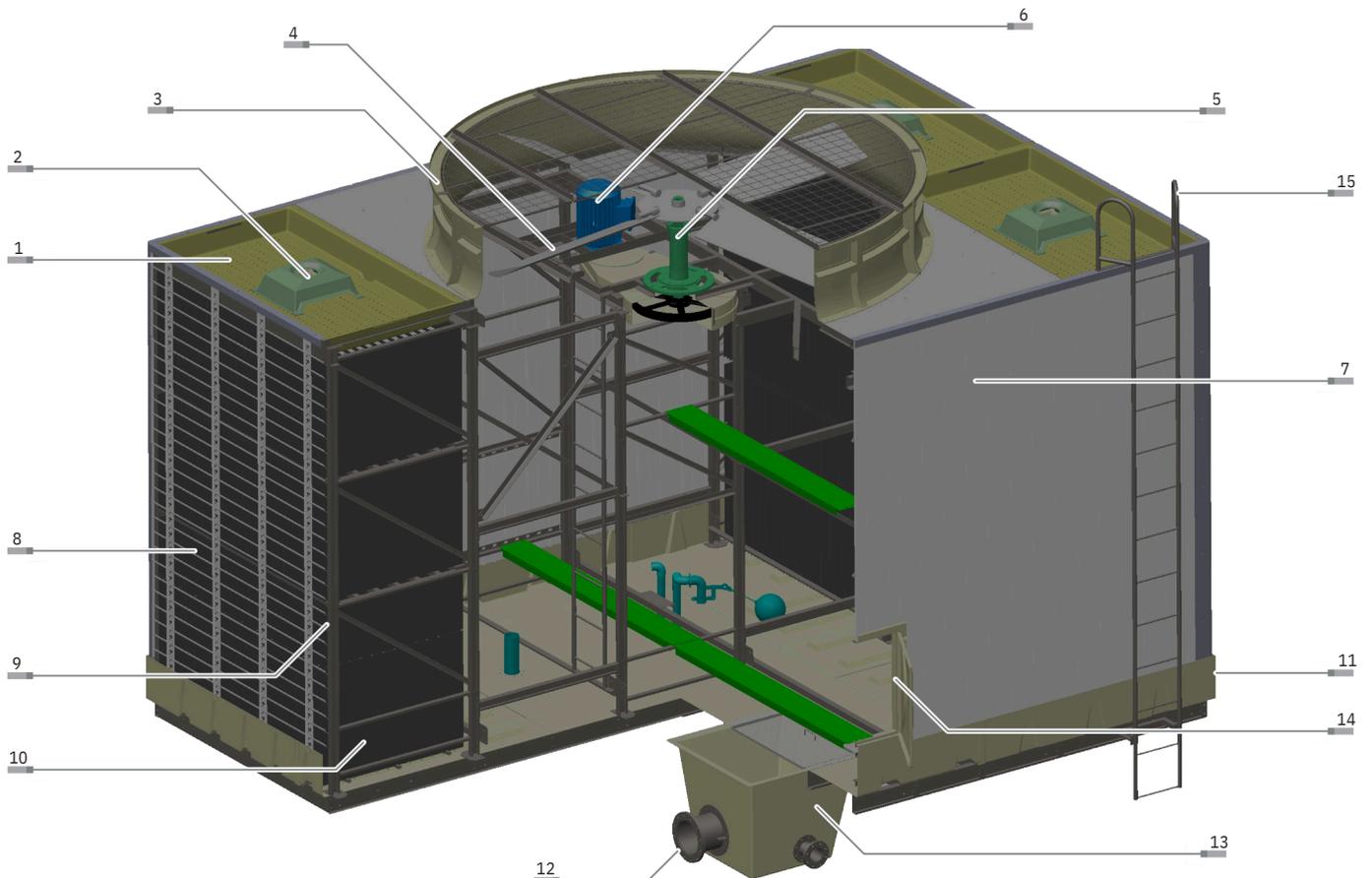
MODEL

CDW-400AS-*1 ~ CDW-800AS-*1

NO.	PARTS NAME	MATERIALS	Q'TY	REMARKS
1	Upper Water Basin	F.R.P.	4 Pcs	
2	Sprinkler Cover	F.R.P.	4 Pcs	
3	Fan Casing	F.R.P.	1 Set	
4	Fan	Alum. Alloy Cast	1 Set	
5	Speed Reducer		1 Pc	
6	Motor		1 Pc	Total Enclosed Outdoor
7	Casing Panel	F.R.P.	2 Sides	
8	Louver	P.V.C.	2 Sides	
9	Framework	H.D.G.Steel	1 Set	Hot Dip Galvanized
10	Fill	P.V.C.	1 Set	
11	Lower Water Basin	F.R.P.	1 Set	
12	Outlet Pipe	H.D.G.Steel	1 Set	Hot Dip Galvanized
13	Suction Tank	F.R.P.	1 Pc	
14	Inspection Door	F.R.P.	1 Pc	
15	Ladder	H.D.G.Steel	1 Pc	Hot Dip Galvanized

STANDARD COLOR : GRAY OR WHITE

* Below structure drawing is an external piping type.



SPECIFICATION OF CDW MODELS SHOWN IN PARAMETER TABLES

CDW-ASY-X

Standard Condition

Water Temp : Inlet = 37°C, Outlet = 32°C, W.B. = 28°C

MODEL	VOLUME OF OUTLET COLD WATER (m ³ /h)		DIMENSION (mm)			MOTOR POWER	FAN DIAMETER	HEAD LOSS	SHIPPING WEIGHT	OPERATION WEIGHT
	W.B.28°C	W.B.27°C	L	W	H	kW	mm	m	kg	kg
CDW-100ASY-X*1	100	115	3770	1750	2770	3.7	1500	4	880	2490
CDW-125ASY-X*1	125	140	3770	1950	2770	3.7	1500	4	910	2520
CDW-135ASY-X*1	135	155	4070	2150	2770	3.7	1800	4	990	2900
CDW-150ASY-X*1	150	170	4070	2150	2770	5.5	1800	4	1010	2920
CDW-175ASY-X*1	175	200	4370	2350	2770	5.5	2100	4	1140	3250
CDW-200ASY-X*1	200	225	4370	2450	2770	7.5	2100	4	1180	3330
CDW-250ASY-X*1	250	286	4370	2450	3925	11.0	2200	6	1420	3800
CDW-135ASY-X*2	270	310	4070	4300	2770	3.7 * 2	1800	4	1940	5760
CDW-150ASY-X*2	300	340	4070	4300	2770	5.5 * 2	1800	4	1980	5800
CDW-175ASY-X*2	350	400	4370	4700	2770	5.5 * 2	2100	4	2240	6460
CDW-200ASY-X*2	400	450	4370	4900	2770	7.5 * 2	2100	4	2320	6620
CDW-250ASY-X*2	500	572	4370	4900	3925	11.0 * 2	2200	6	2800	7560
CDW-150ASY-X*3	450	510	4070	6450	2770	5.5 * 3	1800	4	2950	8680
CDW-175ASY-X*3	525	600	4370	7050	2770	5.5 * 3	2100	4	3340	9670
CDW-200ASY-X*3	600	675	4370	7350	2770	7.5 * 3	2100	4	3460	9910
CDW-250ASY-X*3	750	858	4370	7350	3925	11.0 * 3	2200	6	4180	11320
CDW-175ASY-X*4	700	800	4370	9400	2770	5.5 * 4	2100	4	4440	12880
CDW-200ASY-X*4	800	900	4370	9800	2770	7.5 * 4	2200	4	4600	13200
CDW-250ASY-X*4	1000	1144	4370	9800	3925	11.0 * 4	2200	6	5560	15080

NOTES:

1. Not all of the cooling tower models are shown in this catalog due to the limited space. The drawing of more than five cells assembled together can be provided separately by contacting our windows.
2. Parameter table is subject to change without notice due to more advanced technology. The dimension in this catalog is only a reference, please use the drawing specifically provided for your project in practical site work.
3. Our company can provide other special forms of cooling tower to meet your requirements. And please contact us.
4. Internal piping type is also available on request (Model CDW-100ASW-X*1 ~ CDW-250ASW-X*4).

CDW-ASY-C



Standard Condition

Water Temp : Inlet = 37°C, Outlet = 32°C, W.B. = 28°C

MODEL	VOLUME OF OUTLET COLD WATER (m ³ /h)		DIMENSION (mm)			MOTOR POWER	FAN DIAMETER	HEAD LOSS	SHIPPING WEIGHT	OPERATION WEIGHT
	W.B.28°C	W.B.27°C	L	W	H	kW	mm	m	kg	kg
CDW-100ASY-C*1	100	115	3770	1750	2770	5.5	1500	4	900	2510
CDW-125ASY-C*1	125	140	3770	1950	2770	5.5	1500	4	930	2540
CDW-135ASY-C*1	135	155	4070	2150	2770	5.5	1800	4	1010	2920
CDW-150ASY-C*1	150	170	4070	2150	2770	7.5	1800	4	1030	2950
CDW-175ASY-C*1	175	200	4370	2350	2770	7.5	2100	4	1160	3270
CDW-200ASY-C*1	200	225	4370	2450	2770	11.0	2100	4	1200	3350
CDW-250ASY-C*1	250	286	4370	2450	3925	15.0	2200	6	1440	3820
CDW-135ASY-C*2	270	310	4070	4300	2770	5.5 * 2	1800	4	1980	5800
CDW-150ASY-C*2	300	340	4070	4300	2770	7.5 * 2	1800	4	2020	5860
CDW-175ASY-C*2	350	400	4370	4700	2770	7.5 * 2	2100	4	2280	6500
CDW-200ASY-C*2	400	450	4370	4900	2770	11.0 * 2	2100	4	2360	6660
CDW-250ASY-C*2	500	572	4370	4900	3925	15.0 * 2	2200	6	2840	7600
CDW-150ASY-C*3	450	510	4070	6450	2770	7.5 * 3	1800	4	3010	8770
CDW-175ASY-C*3	525	600	4370	7050	2770	7.5 * 3	2100	4	3400	9730
CDW-200ASY-C*3	600	675	4370	7350	2770	11.0 * 3	2100	4	3520	9970
CDW-250ASY-C*3	750	858	4370	7350	3925	15.0 * 3	2200	6	4240	11380
CDW-175ASY-C*4	700	800	4370	9400	2770	7.5 * 4	2100	4	4520	12960
CDW-200ASY-C*4	800	900	4370	9800	2770	11.0 * 4	2100	4	4680	13280
CDW-250ASY-C*4	1000	1144	4370	9800	3925	15.0 * 4	2200	6	5640	15160

NOTES:

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3. Our company can provide other special forms of cooling tower to meet your requirements. And please contact us.
4. Internal piping type is also available on request (Model CDW-100ASW-C*1 ~ CDW-250ASW-C*4).

SPECIFICATION OF CDW MODELS SHOWN IN PARAMETER TABLES

CDW-ASY-S

Standard Condition

Water Temp : Inlet = 37°C, Outlet = 32°C, W.B. = 28°C

MODEL	VOLUME OF OUTLET COLD WATER (m ³ /h)		DIMENSION (mm)			MOTOR POWER	FAN DIAMETER	HEAD LOSS	SHIPPING WEIGHT	OPERATION WEIGHT
	W.B.28°C	W.B.27°C	L	W	H	kW	mm	m	kg	kg
CDW-300ASY-S*1	300	344	5570	3100	3900	7.5	2600	6	2430	6820
CDW-350ASY-S*1	350	401	5570	3100	3900	11.0	2600	6	2450	6840
CDW-400ASY-S*1	400	458	5870	3800	3900	11.0	3000	6	2840	7040
CDW-500ASY-S*1	500	573	6470	4600	3900	15.0	3500	6	3280	11400
CDW-600ASY-S*1	600	688	6470	4600	4425	18.5	3500	8	3640	12200
CDW-700ASY-S*1	700	802	6870	5400	4425	22.0	4000	8	4320	14200
CDW-800ASY-S*1	800	917	6870	5800	4425	30.0	4000	8	5420	16540
CDW-300ASY-S*2	600	688	5570	6100	3900	7.5 * 2	2600	6	4760	13540
CDW-350ASY-S*2	700	802	5570	6100	3900	11.0 * 2	2600	6	4800	13580
CDW-400ASY-S*2	800	916	5870	7500	3900	11.0 * 2	3000	6	5580	13980
CDW-500ASY-S*2	1000	1146	6470	9100	3900	15.0 * 2	3500	6	6460	22700
CDW-600ASY-S*2	1200	1376	6470	9100	4425	18.5 * 2	3500	8	7230	24300
CDW-700ASY-S*2	1400	1604	6870	10700	4425	22.0 * 2	4000	8	8540	28350
CDW-800ASY-S*2	1600	1834	6870	11500	4425	30.0 * 2	4000	8	10740	32980
CDW-300ASY-S*3	900	1032	5570	9100	3900	7.5 * 3	2600	6	7090	20260
CDW-350ASY-S*3	1050	1203	5570	9100	3900	11.0 * 3	2600	6	7150	20320
CDW-400ASY-S*3	1200	1374	5870	11200	3900	11.0 * 3	3000	6	8320	20920
CDW-500ASY-S*3	1500	1719	6470	13600	3900	15.0 * 3	3500	6	9640	34000
CDW-600ASY-S*3	1800	2064	6470	13600	4425	18.5 * 3	3500	8	10720	36400
CDW-700ASY-S*4	2100	3208	6870	16000	4425	22.0 * 3	4000	8	12760	42400
CDW-800ASY-S*4	2400	3668	6870	17200	4425	30.0 * 3	4000	8	16060	49420

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4. Internal piping type is available only CDW - 300 ~ 400.

CDW-ASY-C



Standard Condition

Water Temp : Inlet = 37°C, Outlet = 32°C, W.B. = 28°C

MODEL	VOLUME OF OUTLET COLD WATER (m ³ /h)		DIMENSION (mm)			MOTOR POWER	FAN DIAMETER	HEAD LOSS	SHIPPING WEIGHT	OPERATION WEIGHT
	W.B.28°C	W.B.27°C	L	W	H	kW	mm	m	kg	kg
CDW-300ASY-C*1	300	344	5570	3100	3900	11.0	2600	6	2450	6840
CDW-350ASY-C*1	350	401	5570	3100	3900	15.0	2600	6	2490	6880
CDW-400ASY-C*1	400	458	5870	3800	3900	15.0	3000	6	2880	7080
CDW-500ASY-C*1	500	573	6470	4600	3900	18.5	3500	6	3320	11440
CDW-600ASY-C*1	600	688	6470	4600	4425	22.0	3500	8	3680	12240
CDW-700ASY-C*1	700	802	6870	5400	4425	30.0	4000	8	4360	14240
CDW-800ASY-C*1	800	917	6870	5800	4425	37.0	4000	8	5460	16580
CDW-300ASY-C*2	600	688	5570	6100	3900	11.0 * 2	2600	6	4800	13580
CDW-350ASY-C*2	700	802	5570	6100	3900	15.0 * 2	2600	6	4880	13660
CDW-400ASY-C*2	800	916	5870	7500	3900	15.0 * 2	3000	6	5660	14060
CDW-500ASY-C*2	1000	1146	6470	9100	3900	18.5 * 2	3500	6	6540	22780
CDW-600ASY-C*2	1200	1376	6470	9100	4425	22.0 * 2	3500	8	7310	24380
CDW-700ASY-C*2	1400	1604	6870	10700	4425	30.0 * 2	4000	8	8620	28430
CDW-800ASY-C*2	1600	1834	6870	11500	4425	37.0 * 2	4000	8	10820	33060
CDW-300ASY-C*3	900	1032	5570	9100	3900	11.0 * 3	2600	6	7170	20340
CDW-350ASY-C*3	1050	1203	5570	9100	3900	15.0 * 3	2600	6	7270	20440
CDW-400ASY-C*3	1200	1374	5870	11200	3900	15.0 * 3	3000	6	8440	21040
CDW-500ASY-C*3	1500	1719	6470	13600	3900	18.5 * 3	3500	6	9760	34120
CDW-600ASY-C*3	1800	2064	6470	13600	4425	22.0 * 3	3500	8	10840	36520
CDW-700ASY-C*4	2100	3208	6870	16000	4425	30.0 * 3	4000	8	12880	42520
CDW-800ASY-C*4	2400	3668	6870	17200	4425	37.0 * 3	4000	8	16180	49540

NOTES:

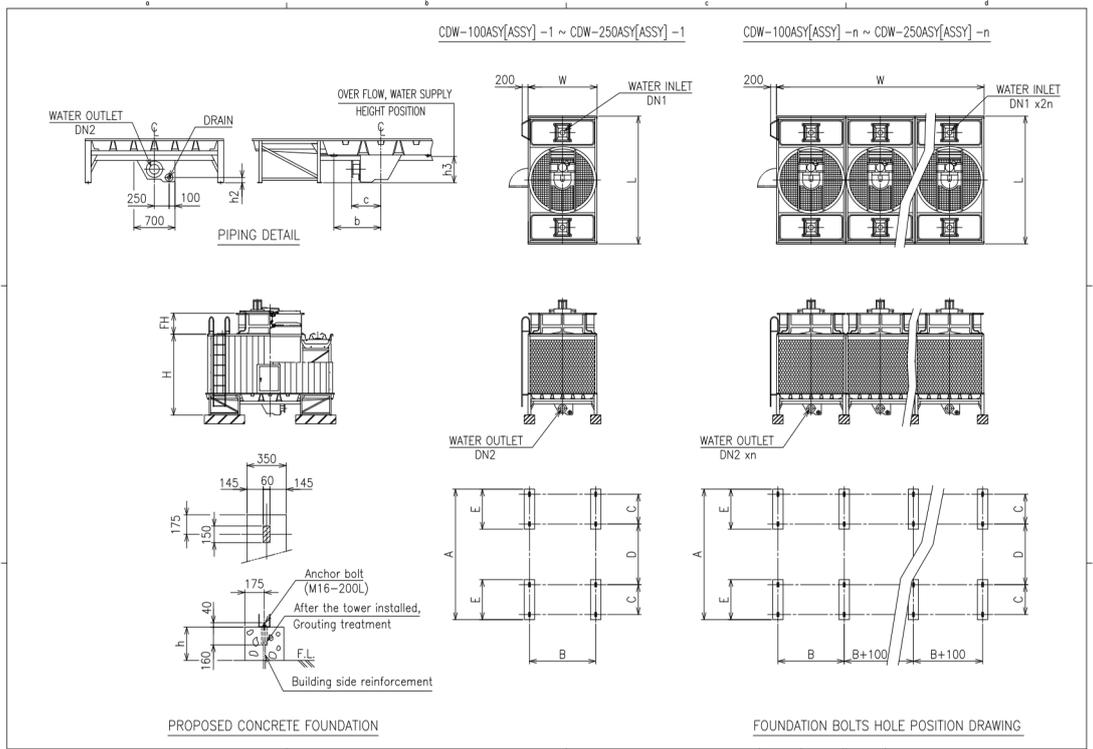
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4. Internal piping type is available only CDW - 300 ~ 400.



DIMENSION & FOUNDATION DRAWINGS OF CDW MODELS

MODEL

CDW-100ASY[ASSY]-X*1 ~ CDW-250ASY[ASSY]-X*1



CDW	L	W	H	h1	h2	h3	FH	a	b	c	A	B	C	D	E	DN1 (A)	DN2 (A)	Motor (kW)
100*1	3770	1750	2770	230	90	450	615	120	500	460	3870	1650	1020	1480	1370	100 x 2	125 x 1	3.7
125*1	3770	1950	2770	230	90	450	615	120	500	460	3870	1850	1020	1480	1370	100 x 2	125 x 1	3.7
135*1	4070	2150	2770	230	90	450	645	120	650	500	4170	2050	1020	1780	1370	100 x 2	150 x 1	3.7
150*1	4070	2150	2770	230	90	450	645	120	650	500	4170	2050	1020	1780	1370	100 x 2	150 x 1	5.5
175*1	4370	2350	2770	230	90	450	715	120	800	500	4470	2250	1020	2080	1370	100 x 2	150 x 1	5.5
200*1	4370	2450	2770	230	90	450	715	120	800	500	4470	2350	1020	2080	1370	100 x 2	150 x 1	7.5
250*1	4370	2450	3925	310	170	530	720	120	800	570	4470	2350	1020	2080	1370	125 x 2	200 x 1	11

CDW	L	W	H	h1	h2	h3	FH	a	b	c	A	B	C	D	E	DN1 (A)	DN2 (A)	Motor (kW)
100*2	3770	3500	2770	230	90	450	615	120	500	460	3870	1650	1020	1480	1370	100 x 4	125 x 2	3.7
125*2	3770	3900	2770	230	90	450	615	120	500	460	3870	1850	1020	1480	1370	100 x 4	125 x 2	3.7
135*2	4070	4300	2770	230	90	450	645	120	650	500	4170	2050	1020	1780	1370	100 x 4	150 x 2	3.7
150*2	4070	4300	2770	230	90	450	645	120	650	500	4170	2050	1020	1780	1370	100 x 4	150 x 2	5.5
175*2	4370	4700	2770	230	90	450	715	120	800	500	4470	2250	1020	2080	1370	100 x 4	150 x 2	5.5
200*2	4370	4900	2770	230	90	450	715	120	800	500	4470	2350	1020	2080	1370	100 x 4	150 x 2	7.5
250*2	4370	4900	3925	310	170	530	720	120	800	570	4470	2350	1020	2080	1370	125 x 4	200 x 2	11

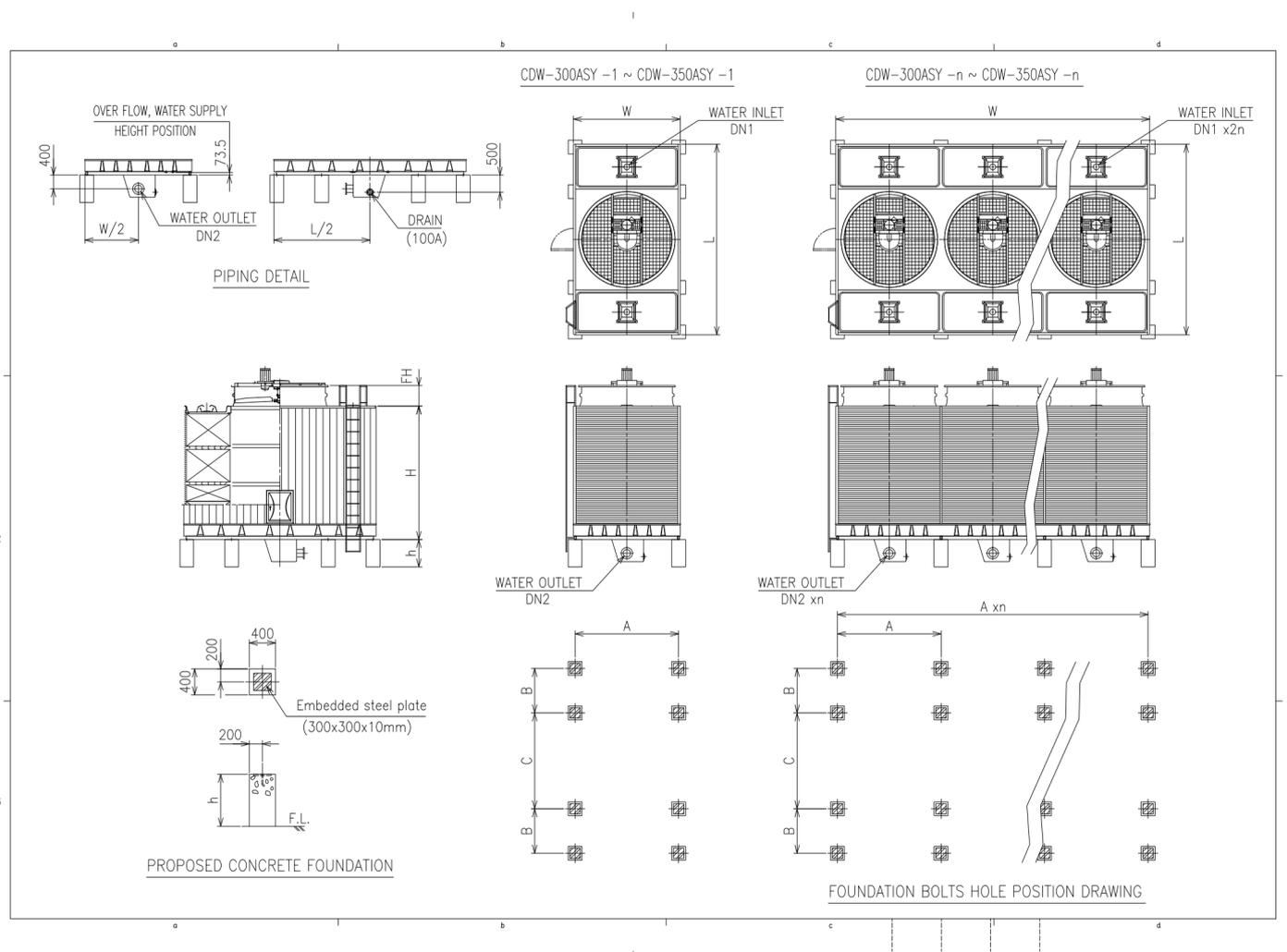
* Internal piping type is also available on request (CDW-100ASW ~ CDW-250ASW).

* ASSY means super low noise.

* Foundation (h) is customer's scope.

MODEL

CDW-300ASY-S*1 ~ CDW-350ASY-S*1



CDW	L	W	H	FH	A	B	C	DN1	DN2	Motor (kW)
300*1	5570	3100	3900	600	3000	1300	2800	150 x 2	200 x 1	7.5
350*1	5570	3100	3900	600	3000	1300	2800	150 x 2	200 x 1	11

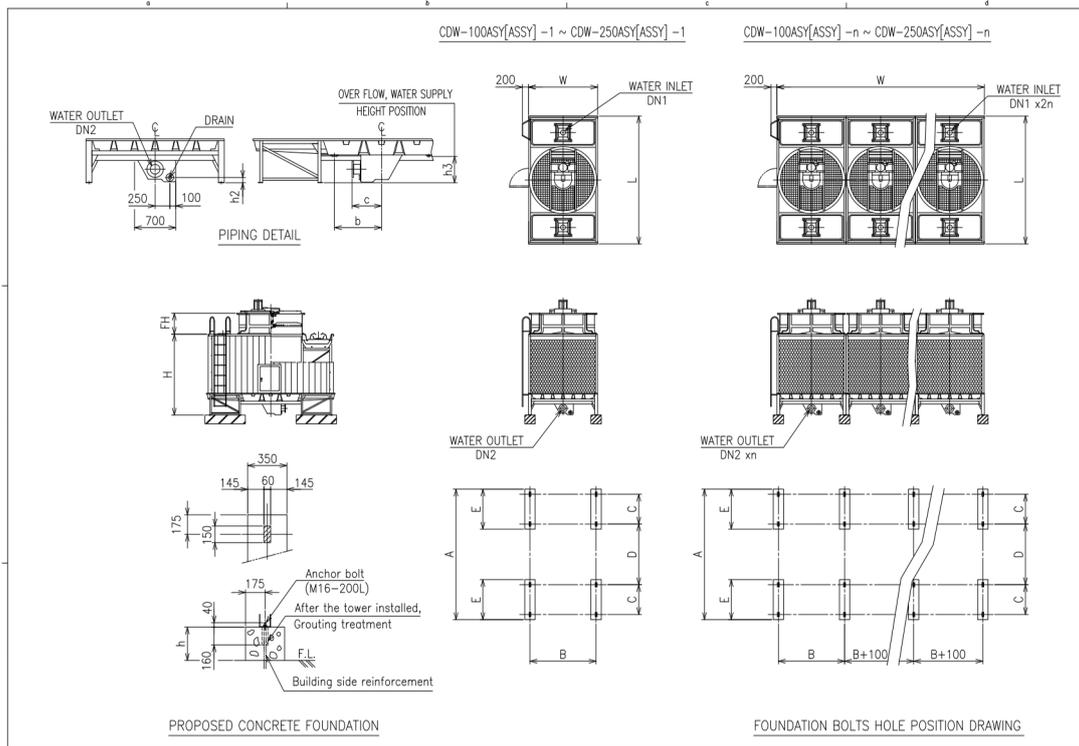
CDW	L	W	H	FH	A	B	C	DN1	DN2	Motor (kW)
300*n	5570	3100 X n-100(n-1)	3900	600	3000	1400	2600	150 x 2n	200 x n	7.5
350*n	5570	3100 X n-100(n-1)	3900	600	3000	1400	2600	150 x 2n	200 x n	11

* Internal piping type is also available on request (CDW-300ASW ~ CDW-350ASW).

DIMENSION & FOUNDATION DRAWINGS OF CDW MODELS

MODEL

CDW-100ASY[ASSY]-C*1 ~ CDW-250ASY[ASSY]-C*1 (CTI CERTIFICATE MODEL)



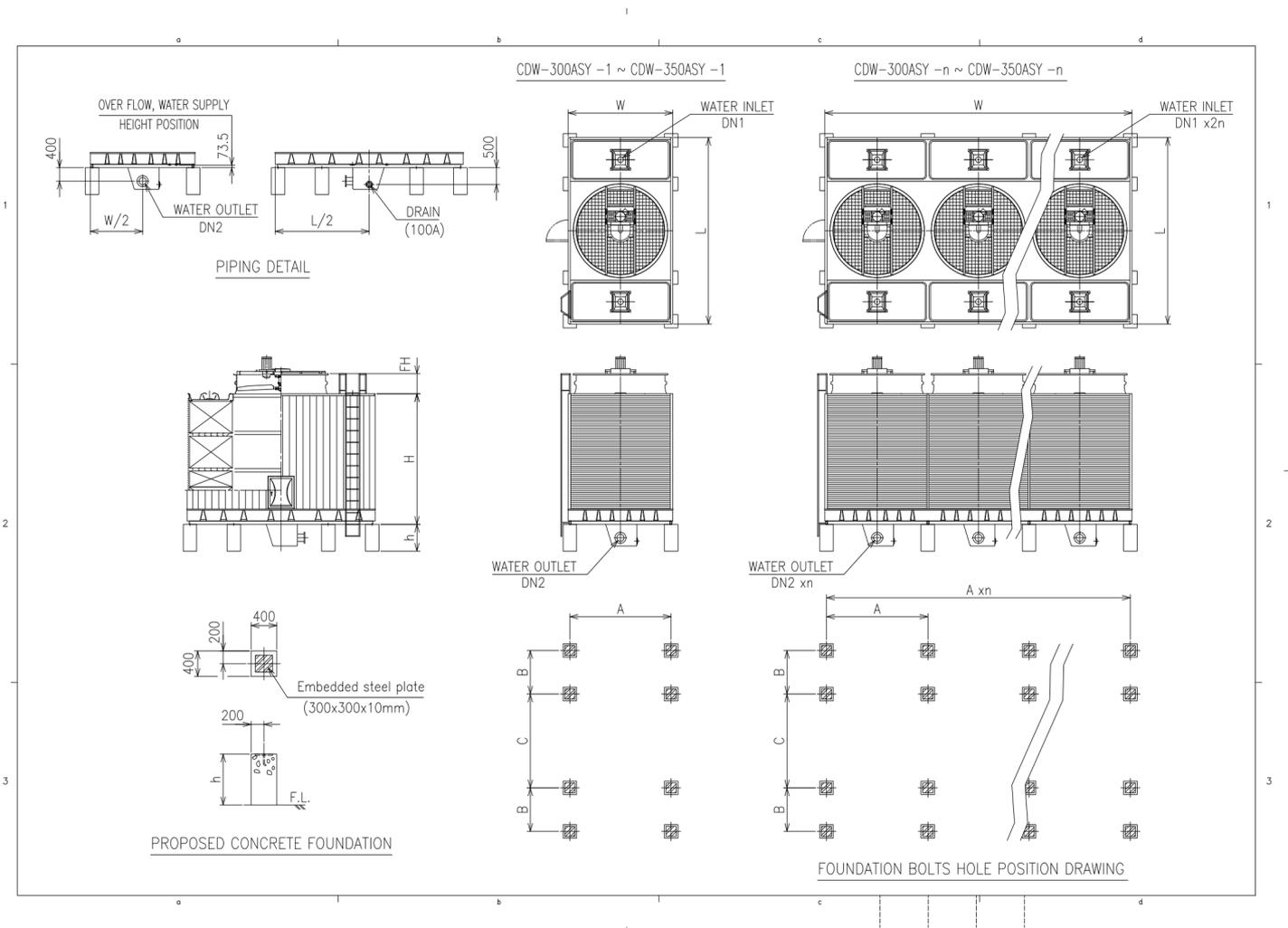
CDW	L	W	H	h1	h2	h3	FH	a	b	c	A	B	C	D	E	DN1 (A)	DN2 (A)	Motor (kW)
100*1	3770	1750	2770	230	90	450	615	120	500	460	3870	1650	1020	1480	1370	100 x 2	125 x 1	5.5
125*1	3770	1950	2770	230	90	450	615	120	500	460	3870	1850	1020	1480	1370	100 x 2	125 x 1	5.5
135*1	4070	2150	2770	230	90	450	645	120	650	500	4170	2050	1020	1780	1370	100 x 2	150 x 1	5.5
150*1	4070	2150	2770	230	90	450	645	120	650	500	4170	2050	1020	1780	1370	100 x 2	150 x 1	7.5
175*1	4370	2350	2770	230	90	450	715	120	800	500	4470	2250	1020	2080	1370	100 x 2	150 x 1	7.5
200*1	4370	2450	2770	230	90	450	715	120	800	500	4470	2350	1020	2080	1370	100 x 2	150 x 1	11
250*1	4370	2450	3925	310	170	530	720	120	800	570	4470	2350	1020	2080	1370	125 x 2	200 x 1	15

CDW	L	W	H	h1	h2	h3	FH	a	b	c	A	B	C	D	E	DN1 (A)	DN2 (A)	Motor (kW)
100*2	3770	3500	2770	230	90	450	615	120	500	460	3870	1650	1020	1480	1370	100 x 4	125 x 2	5.5
125*2	3770	3900	2770	230	90	450	615	120	500	460	3870	1850	1020	1480	1370	100 x 4	125 x 2	5.5
135*2	4070	4300	2770	230	90	450	645	120	650	500	4170	2050	1020	1780	1370	100 x 4	150 x 2	5.5
150*2	4070	4300	2770	230	90	450	645	120	650	500	4170	2050	1020	1780	1370	100 x 4	150 x 2	7.5
175*2	4370	4700	2770	230	90	450	715	120	800	500	4470	2250	1020	2080	1370	100 x 4	150 x 2	7.5
200*2	4370	4900	2770	230	90	450	715	120	800	500	4470	2350	1020	2080	1370	100 x 4	150 x 2	11
250*2	4370	4900	3925	310	170	530	720	120	800	570	4470	2350	1020	2080	1370	125 x 4	200 x 2	15

* ASSY means super low noise.
 * Foundation (h) is customer's scope.

MODEL

CDW-300ASY-C*1 ~ CDW-350ASY-C*1 (CTI CERTIFICATE MODE)



CDW	L	W	H	FH	A	B	C	DN1	DN2	Motor (kW)
300*1	5570	3100	3900	600	3000	1300	2800	150 x 2	200 x	11
350*1	5570	3100	3900	600	3000	1300	2800	150 x 2	1 200	11

x 1

CDW	L	W	H	FH	A	B	C	DN1	DN2	Motor (kW)
300*n	5570	3100 X n-100(n-1)	3900	600	3000	1400	2600	150 x 2n	200 x n	11
350*n	5570	3100 X n-100(n-1)	3900	600	3000	1400	2600	150 x 2n	200 x n	11

* Internal piping type is also available on request (CDW-300ASW ~ CDW-350ASW).

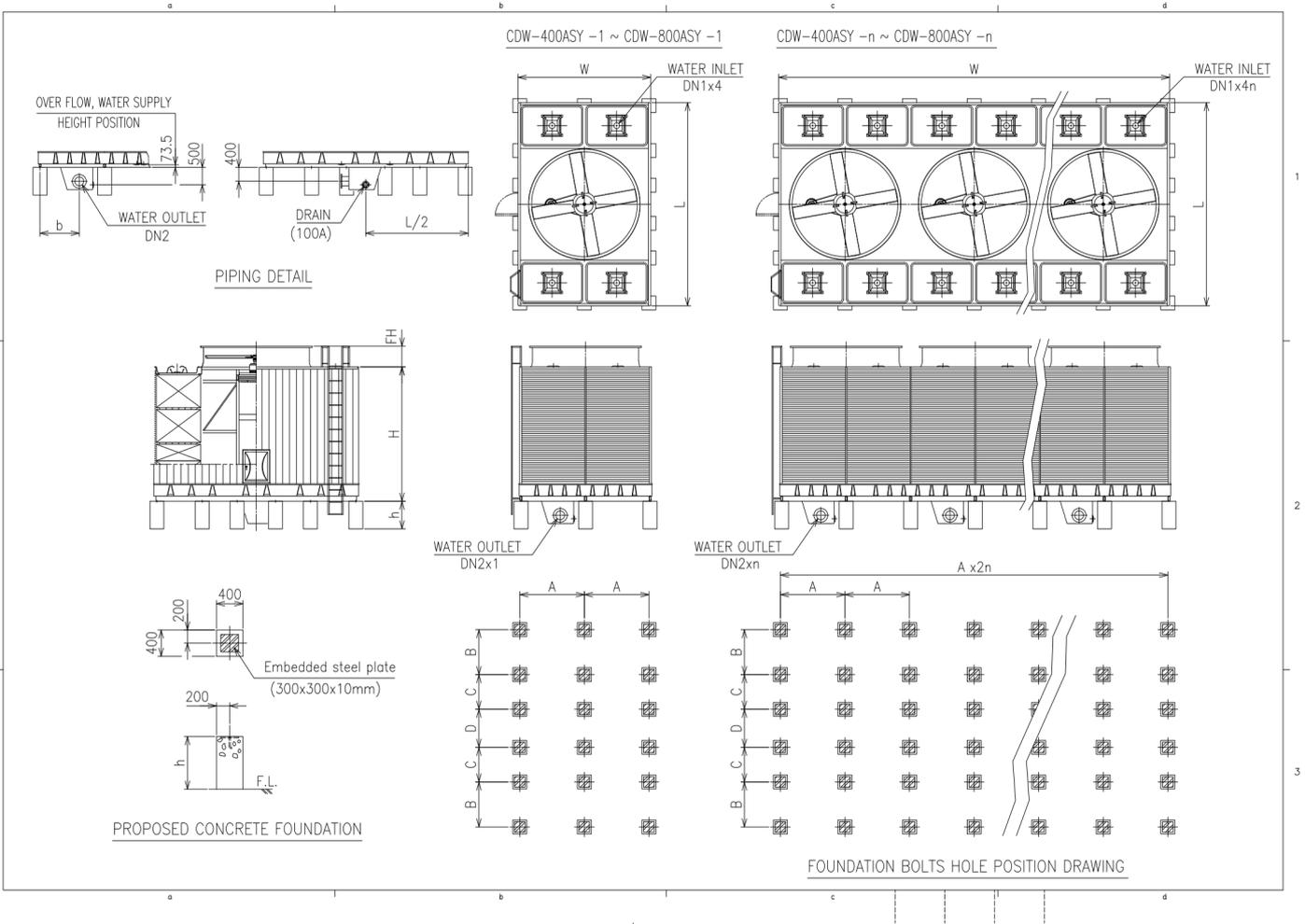
* Foundation (h) is customer's scope.

DIMENSION & FOUNDATION DRAWINGS OF CDW MODELS

MODEL

DRAWING OF ONE CELL: CDW-400ASY-C*1 ~ CDW-800ASY-C*1

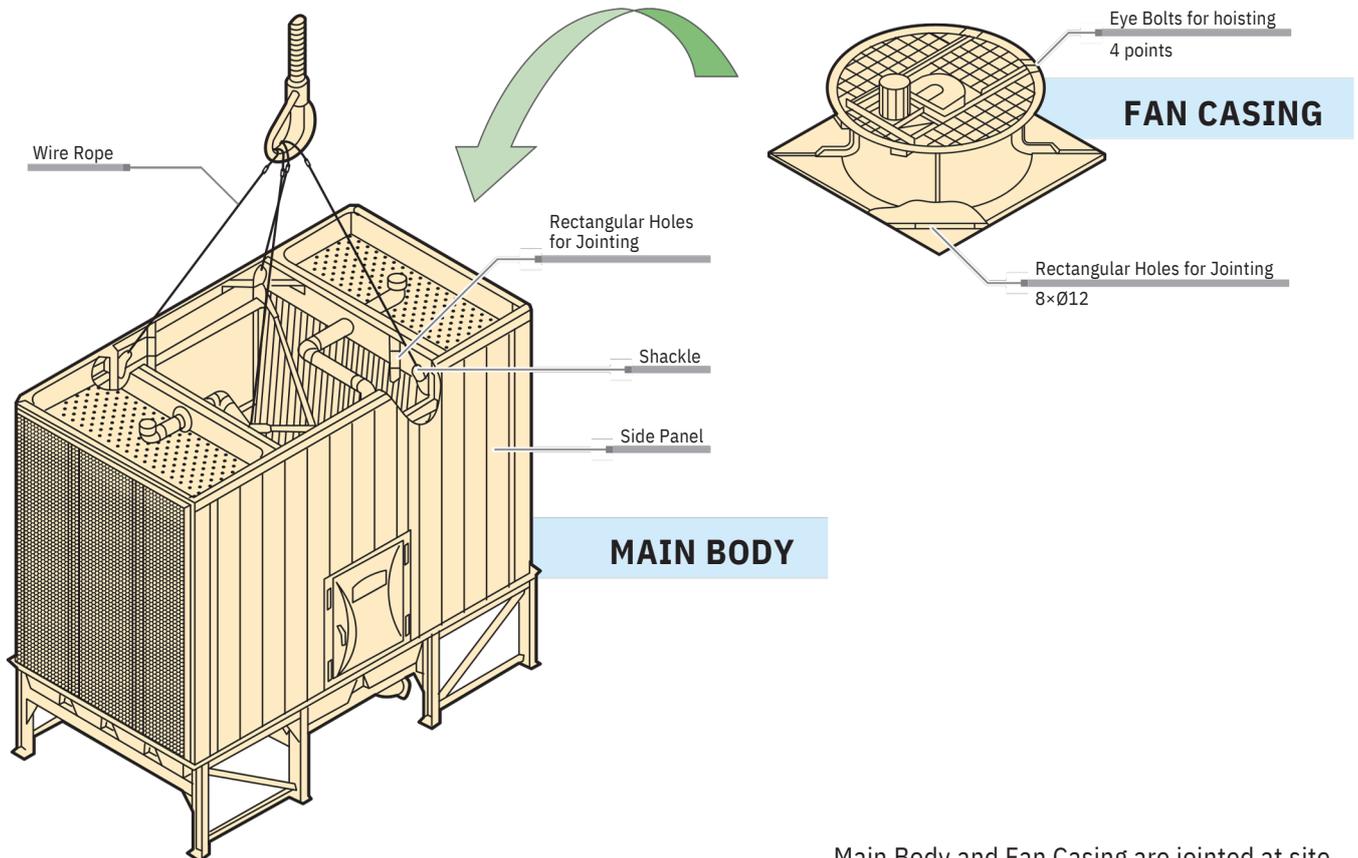
ASSEMBLY DRAWING: CDW-400ASY-C*n ~ CDW-800ASY-C*n



CDW	L	W (1 cell)	W (n cell)	H	FH	A	B	C	D	DN1	DN2
400*n	5870	3800	3800 X n-100(n-1)	3900	600	1850	1300	1000	1100	125 x 4n	250 x n
450*n	5870	3800	3800 X n-100(n-1)	3900	600	1850	1300	1000	1100	125 x 4n	250 x n
500*n	6470	4600	4600 X n-100(n-1)	3900	600	2250	1300	1300	1100	125 x 4n	250 x n
550*n	6470	4600	4600 X n-100(n-1)	3900	600	2250	1300	1300	1100	125 x 4n	250 x n
600*n	6470	4600	4600 X n-100(n-1)	4425	600	2250	1300	1300	1100	150 x 4n	300 x n
650*n	6470	4600	4600 X n-100(n-1)	4425	600	2250	1300	1300	1100	150 x 4n	300 x n
700*n	6870	5400	5400 X n-100(n-1)	4425	600	2650	1300	1500	1100	150 x 4n	300 x n
750*n	6870	5400	5400 X n-100(n-1)	4425	600	2650	1300	1500	1100	150 x 4n	300 x n
800*n	6870	5800	5800 X n-100(n-1)	4425	600	2850	1300	1500	1100	150 x 4n	300 x n

* Foundation (h) is customer's scope.

DELIVERY AND LIFT UP ARRANGEMENT (CDW-100 ~ CDW-200)



Main Body and Fan Casing are jointed at site.

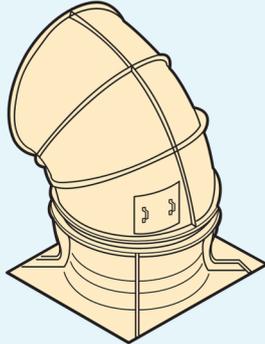
CDW-X CDW-C	MAIN BODY			FAN CASING		
	MASS (kg)		Q'TY	MASS (kg)		Q'TY
	CDW-X	CDW-C		CDW-X	CDW-C	
100	680	680	1	200	220	1
125	710	710	1	200	220	1
135	720	720	1	270	290	1
150	740	740	1	270	290	1
175	810	810	1	330	350	1
200	850	850	1	330	350	1
135	1400	1400	2	270	290	2
150	1440	1440	2	270	290	2
175	1580	1580	2	330	350	2
200	1660	1660	2	330	350	2
150	2140	2140	3	270	290	3
175	2350	2350	3	330	350	3
200	2470	2470	3	330	350	3
175	3120	3120	4	330	350	4
200	3280	3280	4	330	350	4



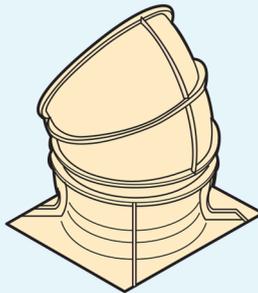
OPTIONS FOR COOLING TOWER

FRP DUCT

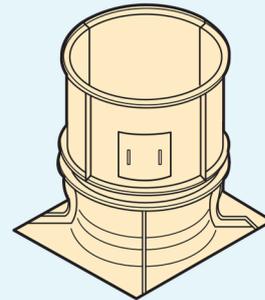
Avoid air short circuiting
Reduce noise level



90° Elbow Duct



60° Elbow Duct

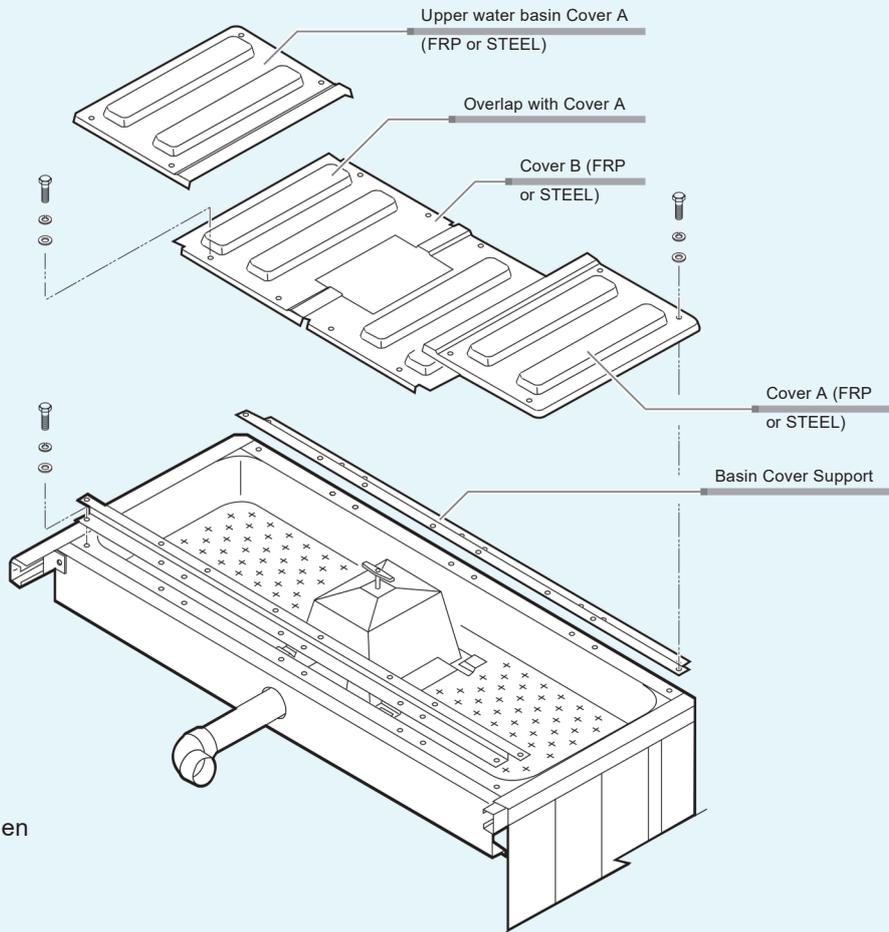


Straight Duct (1mH, 2mH)

* CDW-250 above matches 45° Elbow Duct.

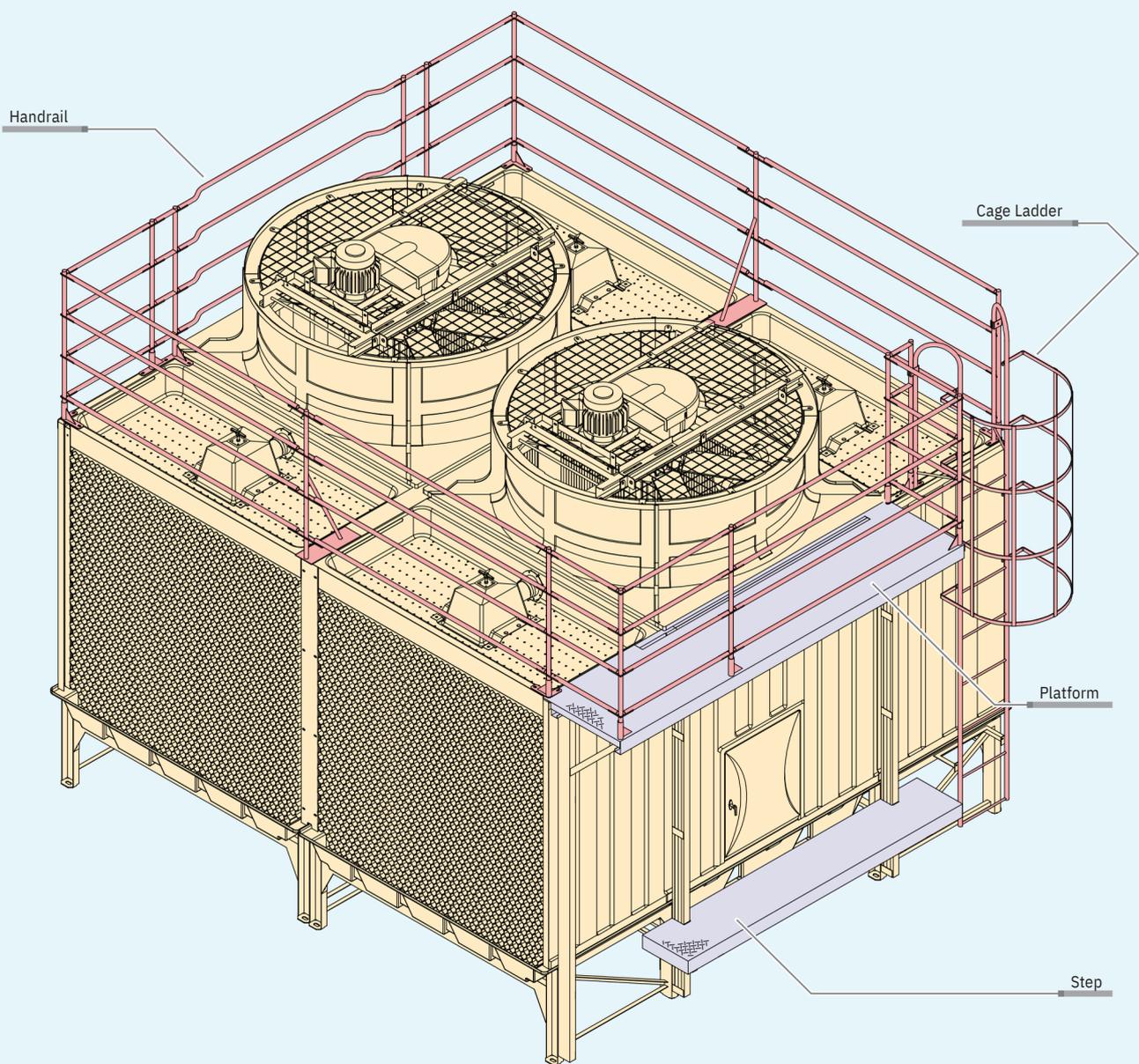
UPPER WATER BASIN COVER (FRP OR STEEL)

Protect from invasion of dust into the upper basin Interrupt sunlight which causes algae growth Possible to walk on the cover



- Other Option Items
- Partition High Temp Fill (Less than 80°C)
 - Vibration Absorption Equipment
 - Water Treatment Equipment

HANDRAIL, CAGE LADDER, PLATFORM AND STEP



COOLING TOWER PRODUCT LINE-UP

PRODUCT LINE-UP		FLOW RATE (m ³ /h)															
		20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1500	3000
SQUARE TYPE	OPEN TYPE	[Range from 20 to 3000 m ³ /h]															
	CLOSED CIRCUIT TYPE	[Range from 20 to 900 m ³ /h]															
BOTTLE TYPE		[Range from 20 to 400 m ³ /h]															

COOLING TOWER'S OTHER TYPICAL MODELS

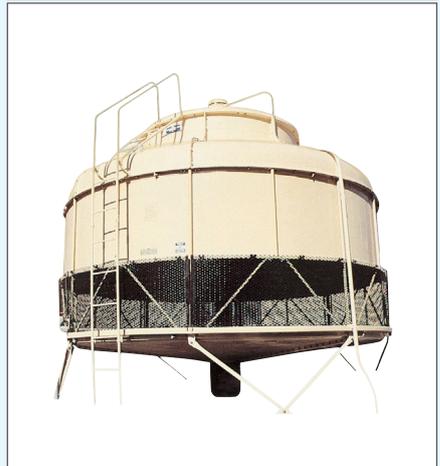
Open cross flow square type cooling tower
SDC-U & SNC-U model



Closed circuit type cross flow cooling tower
MXC-UW model



Open bottle type cooling tower
SBC model



Cross flow cooling tower for large capacity
SDF model



Counter flow Cooling tower for large capacity
SCC model



Cross flow Cooling tower for large capacity
SLC model



CAUTIONS FOR INSTALLATION WORKS

1. SCOPE OF WORKS (STANDARD)

The following works at site shall be out of our scope.

- ① Lift up and carry works
- ② Foundation works (incl. installation of anchor bolts, mortar filled works and installation of steel frame stand)
- ③ Piping works
- ④ Electric (wiring) works

2. SELECTION OF INSTALLATION PLACE

Select an installation place based on the Building Standards Act or Regulations.

- ① A place with good ventilation where discharged air from cooling tower will not recirculate.
- ② Avoid places with much dust, dirt or smoke and places near heat sources.

- ③ If the walls will be placed around the cooling tower, at least the cooling tower louver height space needed between them. The wall should be lower than the cooling tower.
- ④ Select a place where the noise is not magnified by echoes. Avoid the vicinity of windows of neighboring houses as much as possible.
- ⑤ Avoid a place where has no fresh air intake for air conditioning.

3. OTHER CAUTIONS

- ① Foundation level should be horizontally.
- ② Foundation bolts should be furnished before cooling towers are delivered to the site.

OPERATIONAL CAUTIONS

1. OPERATION

- ① The specified water flow must be maintained to obtain and hold the rated capacity.
- ② As V-Belt may stretch at the early stage of operation, make the first check the day after the operation commissioning to adjust, if any. Thereafter, the periodic checks and adjustment are necessary.
- ③ During the operation always watch for the vibration, noise, the electric current and the cooling water temperature. Vibration and noise primarily originates from the moving parts such as belt speed reducer, motor and fan. Do not overlook even slightest abnormalities.

2. MAINTENANCE

- ① Regularly drain water and clean the lower water basin and strainer.
- ② Water quality control are recommended to prevent poor water quality, scale and algae growth.
- ③ Consumption parts such as V-Belts and bearings are required to replace periodically (estimated timing for exchanging a V-Belt is roughly 7000 – 8000 hours).



PRECAUTIONS FOR SAFETY

Cooling towers described in this catalogue are of our standard specifications.

! BEFORE USE

- Before Use, read the “Instruction Manual” carefully and use the towers correctly.

! BEFORE INSTALLATION

- Request installation from the distributor or professional agency.
- Improper installation work may cause toppling, water leakage, electric shocks or fire which will endanger operations.
- Make sure to use extra-cost options such as an electric heater designated by us.
- Space is required for maintenance work around the machine. Lack of space may obstruct safety work and cause injuries.

! LOCATIONS FOR USE

- Do not install in places where combustible gases leak or flammables exist. Fire may occur in places where flammable gases are generated, flow in or are retained, and carbon fibers are floated.

! MAINTENANCE AND INSPECTION

- Periodic maintenance and inspection are required other than inspections for daily operation. Improper maintenance and inspection may cause a fire, electric shocks and burns. As maintenance and inspection require special skills, consult manufacturer or distributor.

* NOTICEFORWATERQUALITYCONTROL

If the circulating water is left as it is, slime deposits in the water bath and piping will develop. The slime is formed from many kinds of algae and fungi, particularly; metabolic products from algae sometimes help fungi grow.

Disease-causing bacteria among bacteria may also exist, therefore, please be advised to clean or control the water quality at least once a month to prevent algae from forming.

• YOUR CONTACT



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Specifications listed in this brochure are subject to change without notice due to technical improvement on our products. The products described here in fall under “the goods listed in row 16 of the appended table 1 of the Export Trade Control Order of Japan”, so in case of export of such products, you need to confirm “use” and “purchaser and/or end-user” and as case may be obtain the approval of the Ministry of Economy, Trade and Industry. (Please confirm these conditions on your own.) Please contact local agents for more information. *Model xxx in this catalogue is our model code.