

SHINWA COOLING TOWER

CROSS FLOW SQUARE TYPE

SERIES

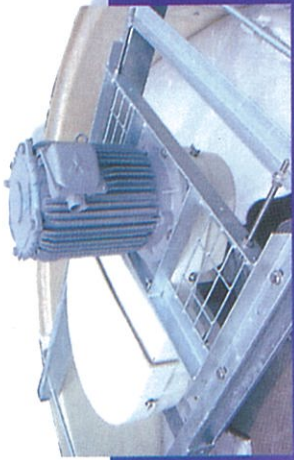


SNC-U MODEL

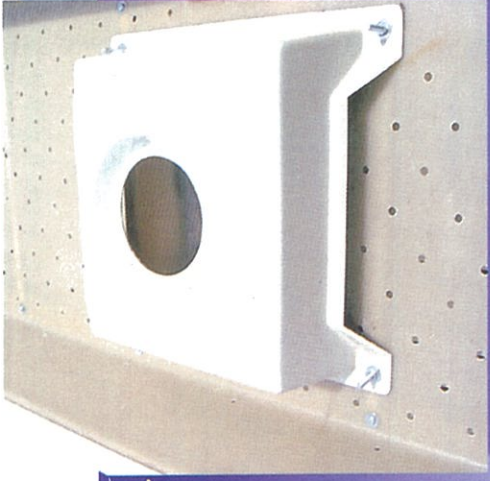
- Energy saving
- Space saving
- Compact design
- High efficiency and performance



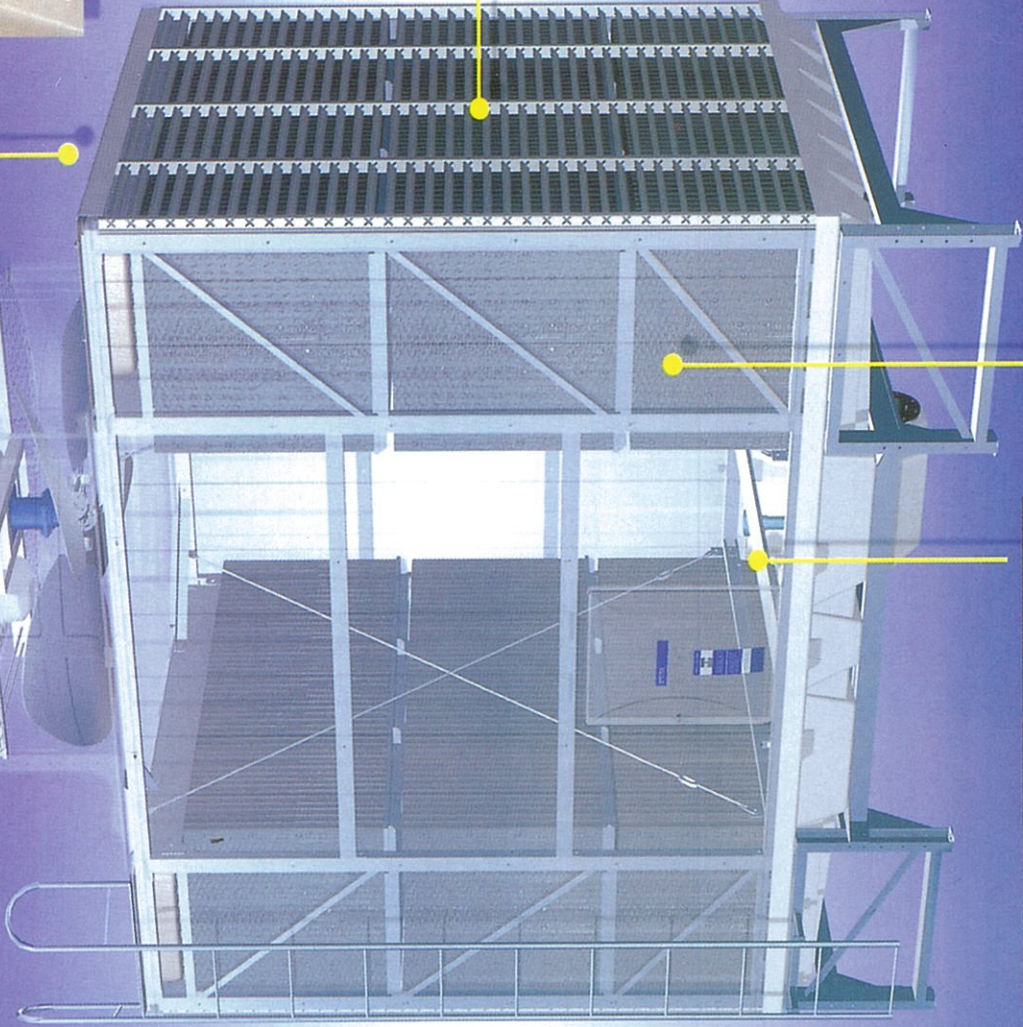
SNC-U MODEL (CROSS FLOW SQUARE TYPE)



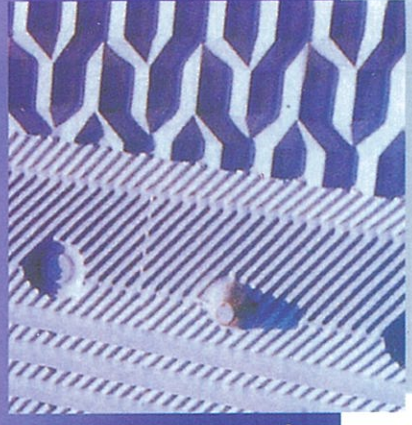
Motor set



Upper water basin



Louver blade



Fill

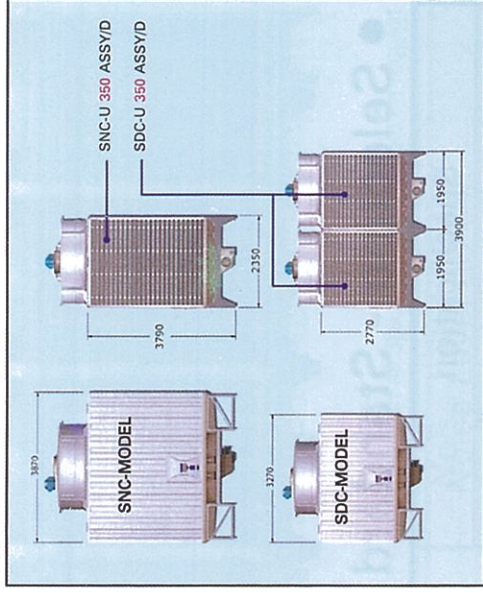


Lower water basin

Feature

1 Energy Saving, Space Saving Compactness and Lightweight

“SNC-U” model is designed to install in a small space. Compare with other model, SNC model is the best one for space limited installation. New development such as high efficiency fill type eliminator combined and cone shaped fan casing are incorporated. Combination of super low noise fan type AVS reduction in installation space and volume as well as dry & wet weight by 20% in average compared with our old models.



2 Built - in Piping Arrangements

“U” series cooling towers are supplied with built-in piping arrangements as standard. The result is cost and space saving in the installation work.



3 Easier Maintenance

A new speed reducer SRS with wedge belt is compact and easy for maintenance. Also FRP lower basin is sloped for easy cleaning. (Photo shown is at the time of belt cover removed.)



4 Reduced Installation Time

Delivery can be made in semi assembled unit form at site on request. The installation time at site can be greatly reduced by this method.



SNC-U Series (Space saving)

For chiller other applications

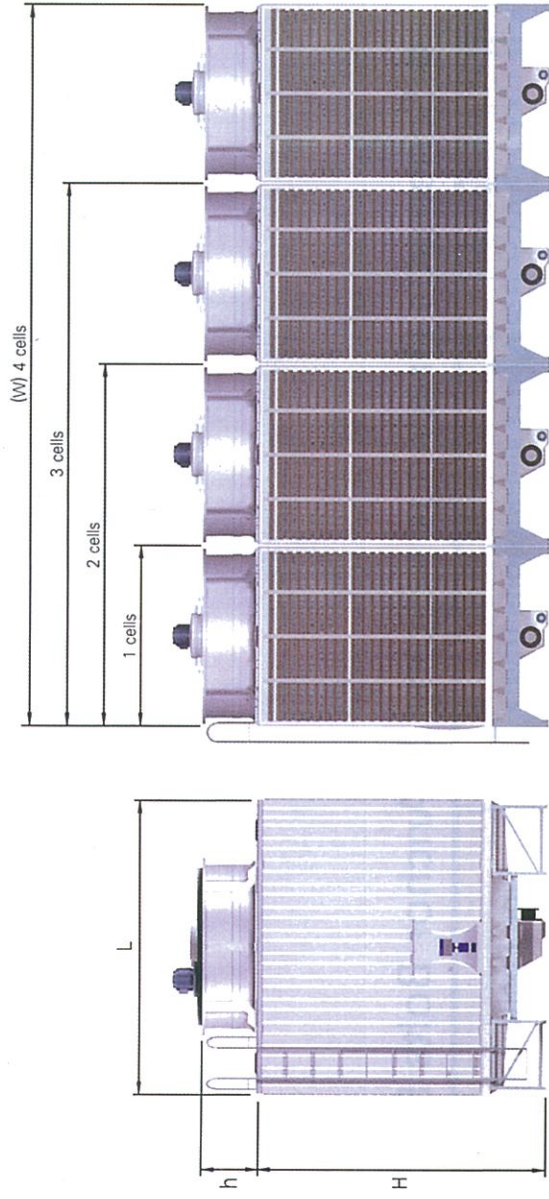
● Selection - Standard Specifications - Noise Level

Specification			Dimensions (mm)						Piping Size (A)					
Inlet Temp.(°C)	37.8	35	Water flow (L/min)	L	W	H	h	In	Out	Ov	Dr	Ba	Ma	Qty
Outlet Temp.(°C)	32.2	29.5												
WB. Temp.(°C)	28.3	27												
Model No.														
SNC-U280ASSY	2535	1778	3570	2150	3790	645	-	150	50	50	32	32	1	
320ASSY	3244	2275	3870	2350	3790	715	-	150	50	50	32	32	1	
350ASSY	3622	2540	3870	2350	3790	715	-	150	50	50	32	32	1	
560ASSY	5070	3556	3570	4300	3790	645	-	150	50	50	32	32	2	
640ASSY	6488	4550	3870	4700	3790	715	-	150	50	50	32	32	2	
700ASSY	7244	5080	3870	4700	3790	715	-	150	50	50	32	32	2	
840ASSY	7605	5334	3570	6450	3790	645	-	150	50	50	32	32	3	
960ASSY	9732	6825	3870	7050	3790	715	-	150	50	50	32	32	3	
1050ASSY	10866	7620	3870	7050	3790	715	-	150	50	50	32	32	3	
1120ASSY	10140	7112	3570	8600	3790	645	-	150	50	50	32	32	4	
1280ASSY	12976	9100	3870	9400	3790	715	-	150	50	50	32	32	4	
1400ASSY	14488	10160	3870	9400	3790	715	-	150	50	50	32	32	4	
SNC-U280ASSD	2535	1778	3570	2150	3790	645	150	150	50	50	32	32	1	
320ASSD	3244	2275	3870	2350	3790	715	150	150	50	50	32	32	1	
350ASSD	3622	2540	3870	2350	3790	715	150	150	50	50	32	32	1	
560ASSD	5070	3556	3570	4300	3790	645	150	150	50	50	32	32	2	
640ASSD	6488	4550	3870	4700	3790	715	150	150	50	50	32	32	2	
700ASSD	7244	5080	3870	4700	3790	715	150	150	50	50	32	32	2	
840ASSD	7605	5334	3570	6450	3790	645	150	150	50	50	32	32	3	
960ASSD	9732	6825	3870	7050	3790	715	150	150	50	50	32	32	3	
1050ASSD	10866	7620	3870	7050	3790	715	150	150	50	50	32	32	3	
1120ASSD	10140	7112	3570	8600	3790	645	150	150	50	50	32	32	4	
1280ASSD	12976	9100	3870	9400	3790	715	150	150	50	50	32	32	4	
1400ASSD	14488	10160	3870	9400	3790	715	150	150	50	50	32	32	4	

EXTERNAL PIPING TYPE

INTERNAL PIPING TYPE

L=Length, W=Width, H=Height, h=Fan Casing Height



※ Other voltages such as 380, 415V are available on request

Weight (kg)		Motor for fan					Noise Level dB (A)									
		3PH x 400V x 50Hz ※					Louver Side H=1.5m		Casing Panel Side H=1.5m							
Shipping	Operation	Dia mm φ	kW	P	Drv	Amp (A)	Q'ty	Dm	2 m	10 m	16 m	2 m	10 m	16 m		
		1280	3380	1800	7.5	4	BD	16.3	1	70	65	57.5	53	61	54	50.5
		1400	3750	2100	7.5	4	BD	16.3	1	71.5	66.5	59	65.5	62.5	55.5	52
		1440	3790	2100	11.0	4	BD	21.3	1	72.5	67.5	60	66.5	63.5	66.5	63
		2450	6650	1800	7.5	4	BD	16.3	2	72	67	59.5	56	63	56	52.5
		2690	7390	2100	7.5	4	BD	16.3	2	74	69	61.5	58	65	58	54.5
		2770	7470	2100	11.0	4	BD	21.3	2	75	70	62.5	59	66	59	55.5
		3620	9920	1800	7.5	4	BD	16.3	3	73	68	60.5	57	64	57	53.5
		3990	11030	2100	7.5	4	BD	16.3	3	74.5	70	62.5	59	66	59	55.5
		4100	11150	2100	11.0	4	BD	21.3	3	75.5	71	63.5	60	67	60	56.5
		4790	13190	1800	7.5	4	BD	16.3	4	73.5	69.5	62	58.5	65.5	58.5	55
		5270	14670	2100	7.5	4	BD	16.3	4	75	71	63.5	60	67	60	56.5
		5430	14830	2100	11.0	4	BD	21.3	4	76	72	64.5	61	68	61	57.5
		1330	3430	1800	7.5	4	BD	16.3	1	70	65	57.5	53	61	54	50.5
		1450	3800	2100	7.5	4	BD	16.3	1	71.5	66.5	59	65.5	62.5	55.5	52
		1480	3830	2100	11.0	4	BD	21.3	1	72.5	67.5	60	66.5	63.5	66.5	63
		2540	6740	1800	7.5	4	BD	16.3	2	72	67	59.5	56	63	56	52.5
		2780	7480	2100	7.5	4	BD	16.3	2	74	69	61.5	58	65	58	54.5
		2850	7550	2100	11.0	4	BD	21.3	2	75	70	62.5	59	66	59	55.5
		3750	10050	1800	7.5	4	BD	16.3	3	73	68	60.5	57	64	57	53.5
		4110	11160	2100	7.5	4	BD	16.3	3	74.5	70	62.5	59	66	59	55.5
		4220	11270	2100	11.0	4	BD	21.3	3	75.5	71	63.5	60	67	60	56.5
		4960	13360	1800	7.5	4	BD	16.3	4	73.5	69.5	62	58.5	65.5	58.5	55
		5440	14840	2100	7.5	4	BD	16.3	4	75	71	63.5	60	67	60	56.5
		5590	14990	2100	11.0	4	BD	21.3	4	76	72	64.5	61	68	61	57.5

In=Water inlet, Out=Water outlet, Ov=Over flow, Dr=Drain, Ba=Automatic make-up, Ma=Manual make-up, Drv=Driving method, BD=Belt drive, Amp=Rated current, Dm=Fan diameter point

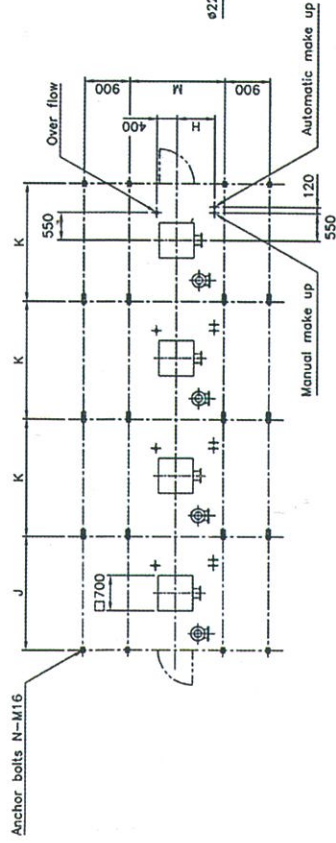
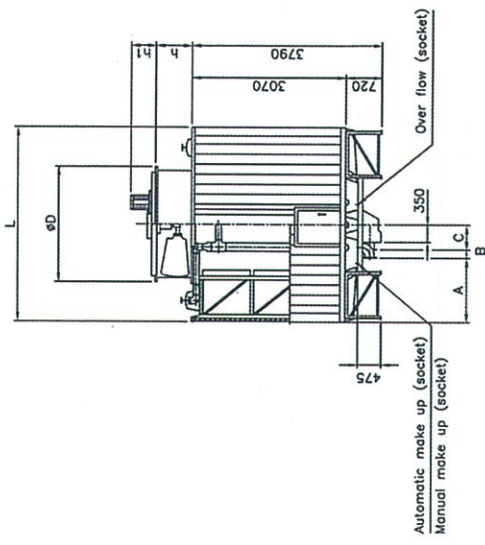
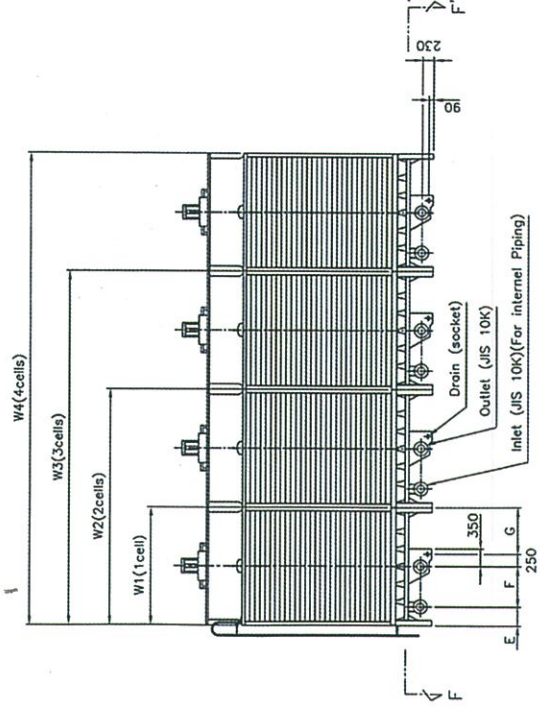
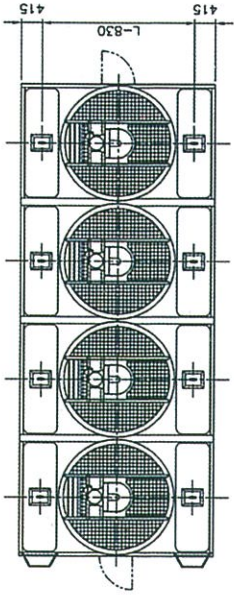
SNC-U Series (Space saving)

● Schematic Drawings - Piping & Anchor Bolts Positions

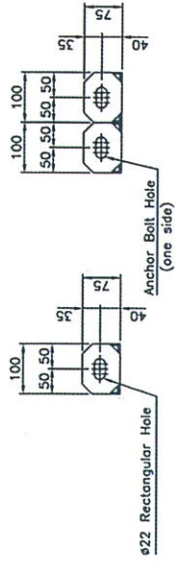
Specification Model	Cell (s)	Dimensions (mm)							Pipe Positions (mm)							Bolts Position (mm)				
		L	Width			h	h1	A	B	C	E	F	G	H	J	K	M	Bolt Q'ty		
			W1	W2	W3														W4	ØD
SNC-U 280 ASSY ASSD	1	3570	2150	-	-	2000	645	420	1125	160	500	375	700	825	600	2050	-	1600	8	
320 ASSY ASSD		3870	2350	-	-	2300	715	440	1275	160	500	375	800	925	750	2250	-	1900	8	
350 ASSY ASSD		3870	2350	-	-	2300	715	531	1275	160	500	375	800	925	750	2250	-	1900	8	
560 ASSY ASSD	2	3570	2150	4300	-	2000	645	420	1125	160	500	375	700	825	600	2050	2150	1600	12	
640 ASSY ASSD		3870	2350	4700	-	2300	715	440	1275	160	500	375	800	925	750	2250	2350	1900	12	
700 ASSY ASSD		3870	2350	4700	-	2300	715	531	1275	160	500	375	800	925	750	2250	2350	1900	12	
840 ASSY ASSD	3	3570	2150	4300	6450	2000	645	420	1125	160	500	375	700	825	600	2050	2150	1600	16	
960 ASSY ASSD		3870	2350	4700	7050	2300	715	440	1275	160	500	375	800	925	750	2250	2350	1900	16	
1050 ASSY ASSD		3870	2350	4700	7050	2300	715	531	1275	160	500	375	800	925	750	2250	2350	1900	16	
1120 ASSY ASSD	4	3570	2150	4300	6450	8600	2000	645	420	1125	160	500	375	700	825	600	2050	2150	1600	20
1280 ASSY ASSD		3870	2350	4700	7050	9400	2300	715	440	1275	160	500	375	800	925	750	2250	2350	1900	20
1400 ASSY ASSD		3870	2350	4700	7050	9400	2300	715	531	1275	160	500	375	800	925	750	2250	2350	1900	20

SNC-U280~1400ASSY/ASSD

- 1 Cell - 2 Cell
- 3 Cell - 4 Cell



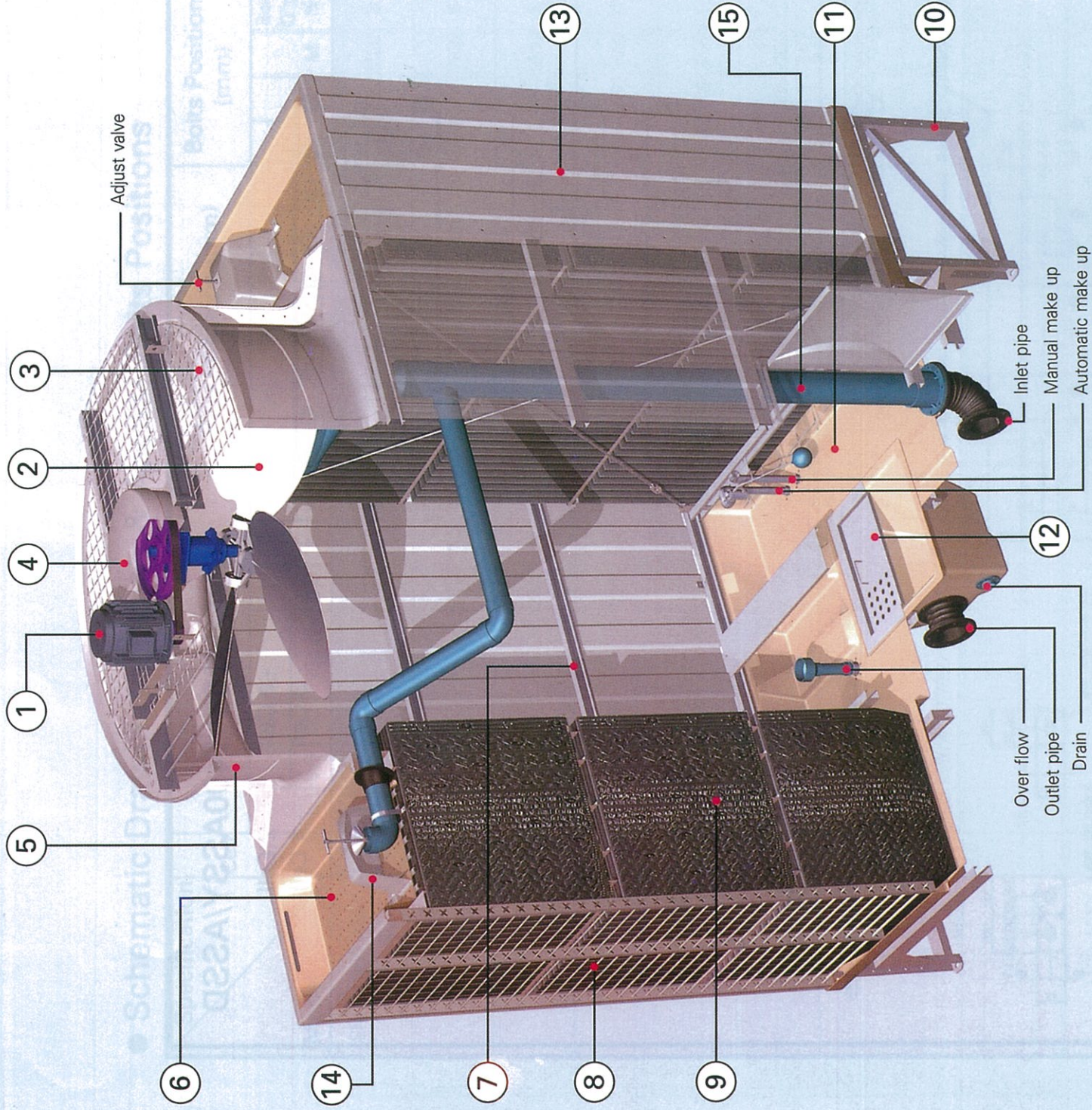
Anchor Bolts Positions (View P-P)



The above drawing shown is internal piping type (ASSD)

Structure [All steel components are hot dip galvanized]

Water basin is made of rigid FRP



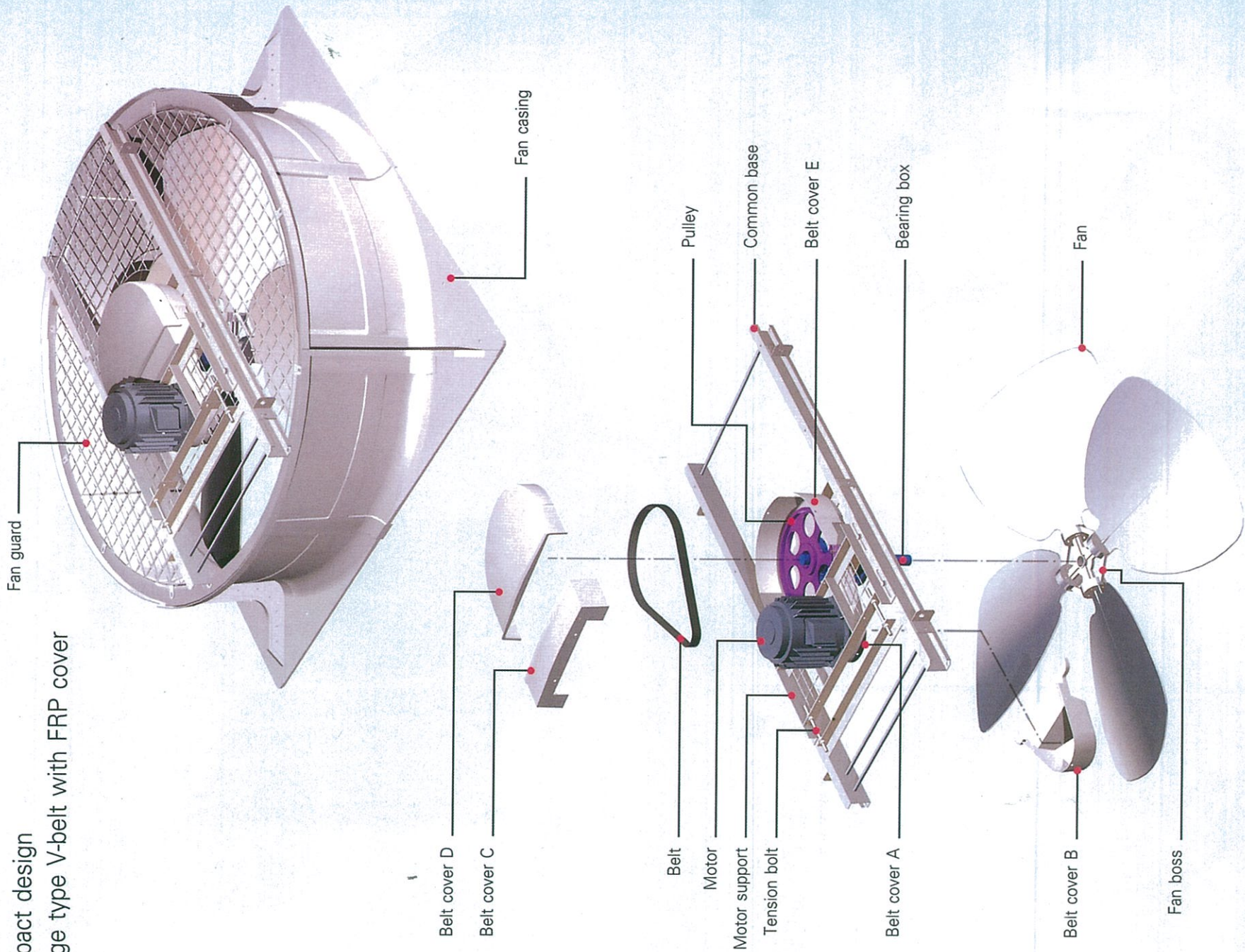
No.	Parts Name	Material	Qty	Remarks
1	Motor		1 pc	Total enclosed outdoor
2	Fan	Alum Alloy Cast	1 set	Low Noise
3	Fan Guard	H.D.G. Steel	1 set	Hot Dip Galvanized
4	Belt Cover	F.R.P.	1 set	
5	Fan Casing	F.R.P.	1 set	
6	Upper Water Basin	F.R.P.	2 pc	
7	Frame Works	H.D.G. Steel	1 set	Hot Dip Galvanized
8	Louwer	P.V.C.	2 side	

No.	Parts Name	Material	Qty	Remarks
9	Fill	P.V.C.	1 set	
10	Lower Frame	H.D.G. Steel	1 set	Hot Dip Galvanized
11	Lower Water Basin	F.R.P.	1 set	Inclined
12	Strainer	H.D.G. Steel	1 pc	Hot Dip Galvanized
13	Casing Panel	P.V.C. or F.R.P.	2 side	
14	Sprinkler Cover	F.R.P.	2 pc	
15	Internal Piping	P.V.C.	1 set	
Quake Resistant : Horizontally 1.0G , Vertically 0.5G Standard colour : Pearl White (mancel 5Y9/1)				

The above drawing shown is internal piping type (ASSD)

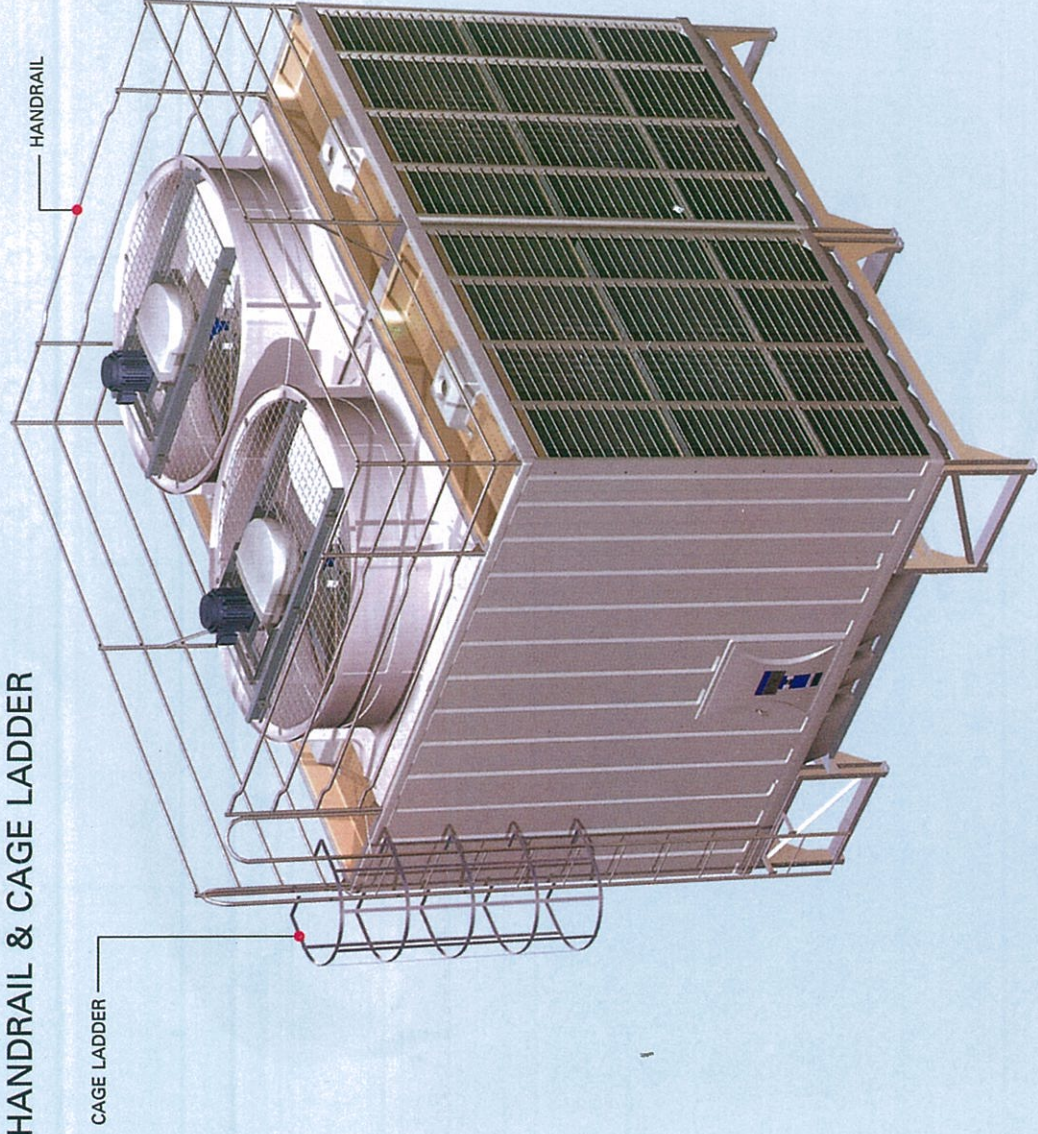
Fan casing parts structure

- Compact design
- Wedge type V-belt with FRP cover



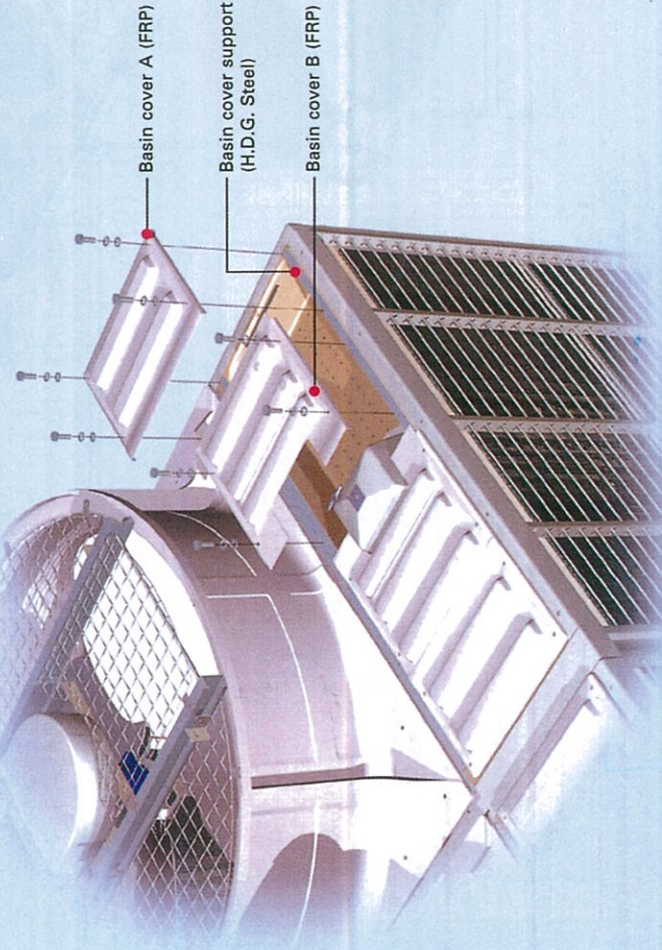
U - Series optional parts

HANDRAIL & CAGE LADDER



UPPER WATER BASIN COVER (F.R.P. or H.D.G. Steel)

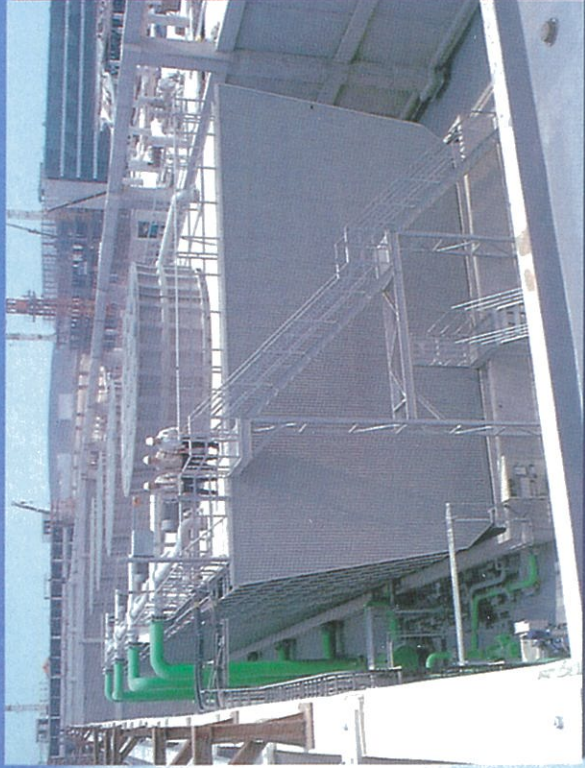
- Protect from invasion of dust into the upper basin
- interrupt sunlight which is causing algae growth



OTHER OPTION PARTS

1. F.R.P. Duct (Straight , Elbow)
2. Partition
3. Additional eliminator (P.V.C.)

EBARA SHINWA gives answers to any of your request with our variety of selection



Cross flow type (SLC)



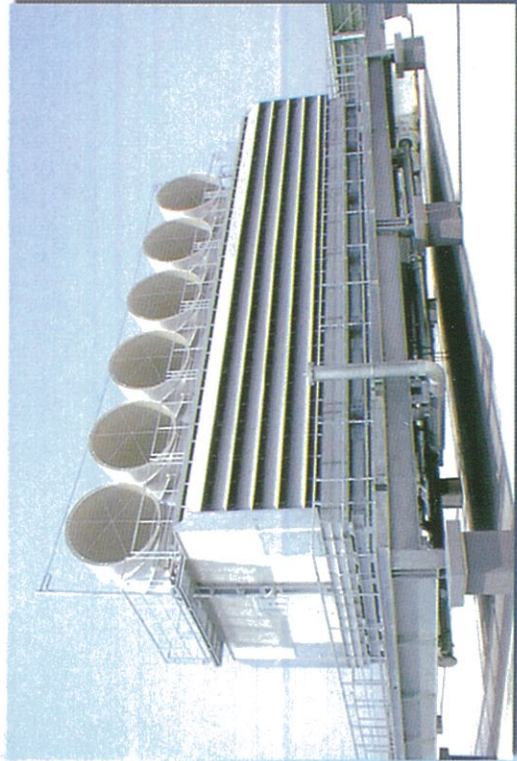
Closed circuit type (MXC)



Counter flow type (SCC)



Counter flow type (SBC)



Cross flow type (SNC-R)





Precautions for safety

Cooling towers described in this catalog 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. Otherwise, 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, request installation from the distributor or professional agency.
 - Otherwise, improper installation work might cause toppling, water leakage, electric shocks or fire which will endanger operations. Space is required for maintenance work around the machine. Lack of space may obstruct safety work and cause injuries.
- **Location 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 is required other than inspections for daily operation.
 - Improper maintenance and inspection may cause a fire, electric shocks and burns.
 - As maintenance and inspection requires special skills, consult manufacturer or distributor.

*Notice for water quality control

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 (Agent)



EBARA REFRIGERATION EQUIPMENT & SYSTEMS CO.,LTD.
SHINWA COOLING TOWER BUSINESS DIVISION

Specification listed in this brochure are subject to change without notice due to technical improvement on our products