EBARA

SHINWA COOLING TOWER

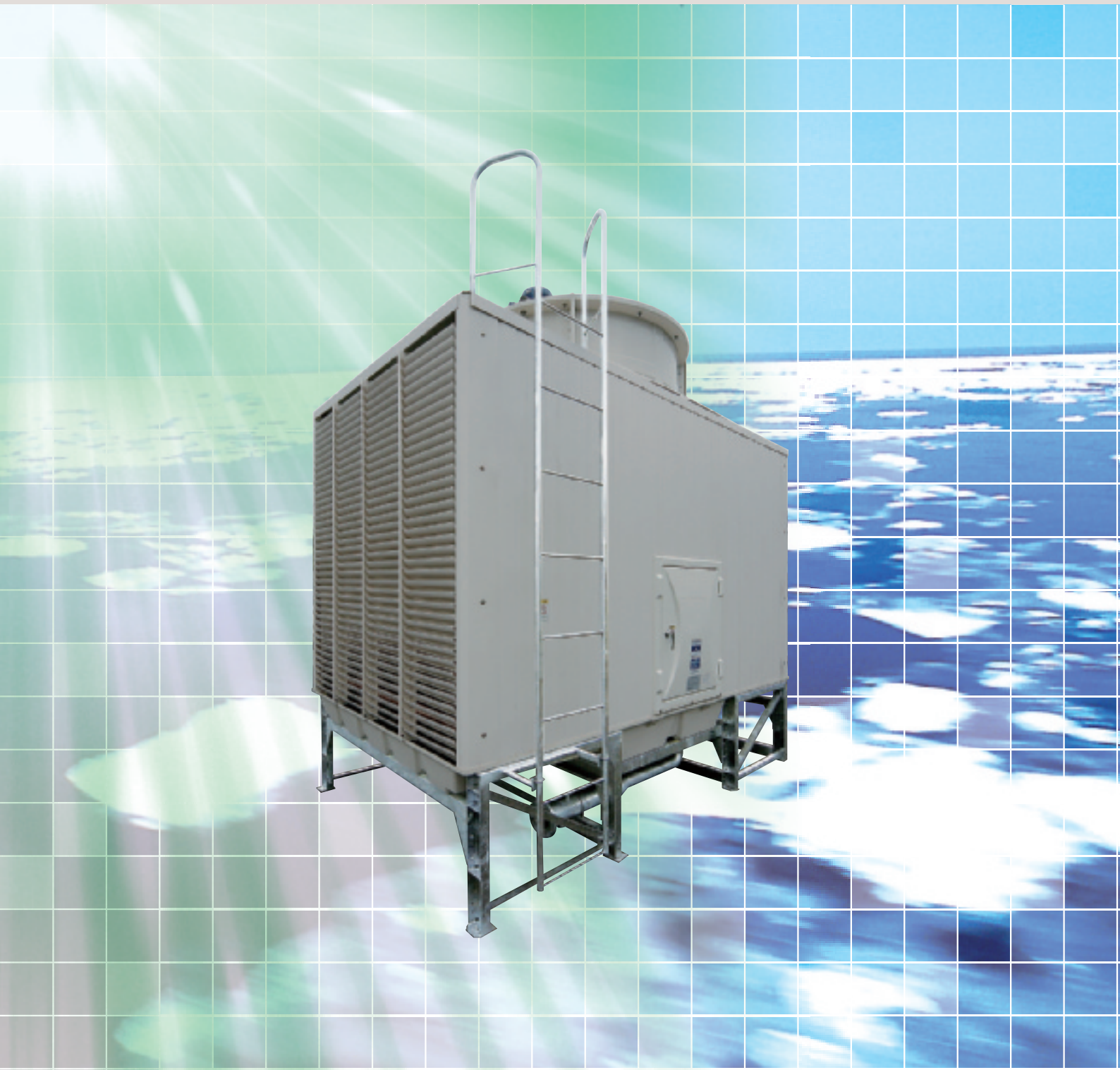
Model MXC-U
(Cross frow Cooling Tower)

Model MCC
(Counter flow Cooling Tower)

EBARA
CLOSED CIRCUIT CROSS FLOW SQUARE TYPE
SHINWA COOLING TOWER

3
PVC
Gray
(mancel N-7)

※Model xxx in this catalogue is our model code



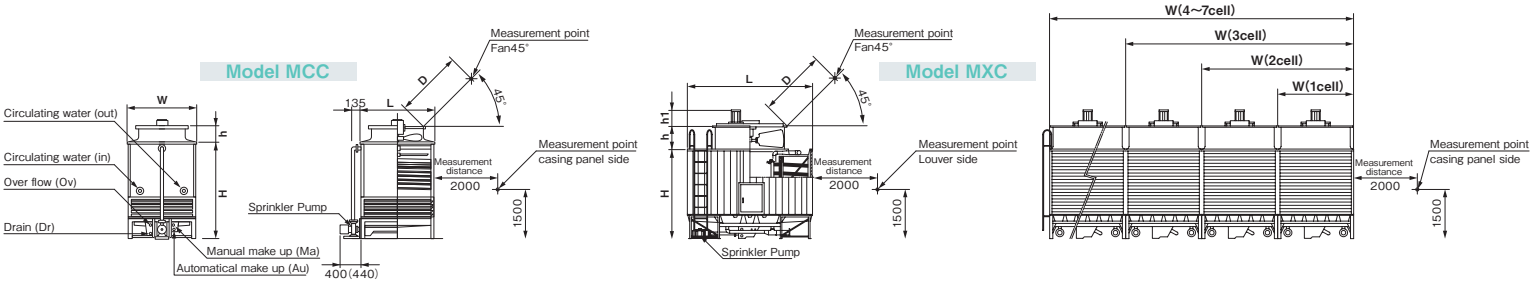
Model Selection • Standard Specifications • Noise Level

Standard Condition

Water flow rate: 13 L / (min • 4.535kW), Water temp.: Inlet=37℃, Out=32℃, W.B.=27℃

Specification			Head Loss	Dimensions [mm]					Mass [kg]	
Inlet Temp [℃]	37			Length	Width	Tower height	Fan casing height	Motor height	Shipping	Operation
Out Temp [℃]	32									
W.B.Temp[℃]	27	28								
Model	Water flow rate [L/min]		[m]	L	W	H	h	h1		
MCC- 5ASS	65	55	2.0	1080	1270	1590	280	—	255	445
8ASS	104	89	2.0	1080	1270	1800	280	—	295	495
10ASS	130	112	3.5	1360	1270	1750	280	—	345	595
15ASS	195	169	3.0	1360	1270	2120	280	—	435	710
20ASS	260	225	8.5	1520	1770	2040	370	—	550	975
MXC-U30ASSW	390	341	2.5	2240	1850	2140	460	90	790	1810
40ASSW	520	454	0.9	2690	1550	2140	460	90	1010	2090
50ASSW	650	568	2.8	2990	1850	2140	270	367	1160	2500
60ASSW	780	682	2.5	2990	1850	2140	270	389	1170	2580
80ASSW	1040	911	3.0	3270	1750	2770	615	389	1510	3480
90ASSW	1170	1025	3.1	3270	1950	2770	615	389	1520	3600
100ASSW	1300	1138	3.9	3270	1950	2770	615	439	1640	3800
110ASSW	1469	1286	7.3	3570	2150	2770	645	439	1710	4150
125ASSW	1625	1426	6.7	3570	2150	2770	645	439	1800	4320
135ASSW	1787	1568	8.8	3870	2350	2770	715	449	1980	4750
150ASSW	1955	1715	10.5	3870	2350	2770	715	497	2020	4790
175ASSW	2340	2050	3.1	3270	3900	2770	615	389	3000	7160
200ASSW	2600	2277	3.9	3270	3900	2770	615	439	3240	7560
225ASSW	2938	2573	7.3	3570	4300	2770	645	439	3390	8270
250ASSW	3250	2852	6.7	3570	4300	2770	645	439	3570	8610
275ASSW	3575	3137	8.8	3870	4700	2770	715	449	3920	9460
300ASSW	3910	3430	10.5	3870	4700	2770	715	497	4000	9540
330ASSW	4407	3860	7.3	3570	6450	2770	645	439	5070	12390
350ASSW	4875	4278	6.7	3570	6450	2770	645	439	5340	12900
400ASSW	5362	4705	8.8	3870	7050	2770	715	449	5860	14170
450ASSW	5865	5146	10.5	3870	7050	2770	715	497	5980	14290
500ASSW	6500	5704	6.7	3570	8600	2770	645	439	7110	17190
550ASSW	7150	6274	8.8	3870	9400	2770	715	449	7800	18880
600ASSW	7820	6861	10.5	3870	9400	2770	715	497	7960	19040
625ASSW	8125	7130	6.7	3570	10750	2770	645	439	8880	21480
675ASSW	8937	7842	8.8	3870	11750	2770	715	449	9740	23590
750ASSW	9775	8576	10.5	3870	11750	2770	715	497	9940	23790
810ASSW	10725	9411	8.8	3870	14100	2770	715	449	11680	28300
900ASSW	11730	10292	10.5	3870	14100	2770	715	497	11920	28540
1050ASSW	13685	12007	10.5	3870	16450	2770	715	497	13900	33290

●Noise level at fan 45° point shows at 45° and fan diameter away from surface of fan casing.
●In case of a fan diameter < 1.5m, the noise level at 45° point is 1.5m away.
HL: Head Loss, L: Length, W: Width, H: Tower Height, h: Fan Casing Height, h1: Motor Height



	Fan・Motor				Piping Size [A]							Sprinkler Pump				Noise Level [dB(A)]		
	Fan dimensions	Rated output	Pole	Q'ty	Circulating water inlet	Circulating water outlet	Over flow	Drain	Automatical make up	Manual make up	Q'ty	Size	Rated output	Pole	Q'ty	Fan 45°	Louver Side H=1.5m	Casing Panel Side H=1.5m
	[mm]	[kW]	[P]									[A]	[kW]	[P]		(D)m	2m	2m
	700	0.25	8	1	40	40	25	25	15	15	1	32	0.25	2	1	60.0	55.5	55.5
	700	0.36	8	1	40	40	25	25	15	15	1	32	0.25	2	1	55.0	52.5	52.5
	900	0.5	10/12	1	50	50	25	25	15	15	1	32	0.25	2	1	56.5	53.0	53.0
	900	0.75	10/12	1	50	50	25	25	15	15	1	32	0.25	2	1	59.5	57.0	57.5
	1200	1.0	10/12	1	65	65	25	25	15	15	1	50	0.4	2	1	61.0	58.0	58.0
	1200	1.5	12/14	1	65	65	40	40	15	15	1	50	0.4	2	1	65.0	62.0	56.5
	1200	1.5	12/14	1	80	80	40	40	15	15	1	50	0.4	2	1	66.5	63.0	58.5
	1500	2.2	4	1	80	80	40	40	15	15	1	65	1.5	2	1	68.0	64.0	62.5
	1500	3.7	4	1	80	80	40	40	15	15	1	65	1.5	2	1	69.5	65.0	64.5
	1500	3.7	4	1	100	100	50	50	20	20	1	65	1.5	2	1	69.5	64.5	63.5
	1500	3.7	4	1	100	100	50	50	20	20	1	65	1.5	2	1	69.5	65.0	63.5
	1500	5.5	4	1	100	100	50	50	20	20	1	65	1.5	2	1	70.0	66.0	64.5
	1800	5.5	4	1	125	125	50	50	20	20	1	65	1.5	2	1	71.5	66.5	66.0
	1800	5.5	4	1	125	125	50	50	20	20	1	80	2.2	2	1	71.5	66.5	66.0
	2000	5.5	4	1	125	125	50	50	20	20	1	80	2.2	2	1	72.0	67.5	67.0
	2000	7.5	4	1	125	125	50	50	20	20	1	80	3.7	2	1	72.0	67.5	67.0
	1500	3.7	4	2	100×2	100×2	50×2	50×2	20×2	20×2	2	65	1.5	2	2	71.5	67.0	65.5
	1500	5.5	4	2	100×2	100×2	50×2	50×2	20×2	20×2	2	65	1.5	2	2	72.0	68.0	66.5
	1800	5.5	4	2	125×2	125×2	50×2	50×2	20×2	20×2	2	65	1.5	2	2	73.5	68.5	68.0
	1800	5.5	4	2	125×2	125×2	50×2	50×2	20×2	20×2	2	80	2.2	2	2	73.5	68.5	68.0
	2000	5.5	4	2	125×2	125×2	50×2	50×2	20×2	20×2	2	80	2.2	2	2	74.0	69.5	69.0
	2000	7.5	4	2	125×2	125×2	50×2	50×2	20×2	20×2	2	80	3.7	2	2	74.0	69.5	69.0
	1800	5.5	4	3	125×3	125×3	50×3	50×3	20×3	20×3	3	65	1.5	2	3	74.5	69.5	69.0
	1800	5.5	4	3	125×3	125×3	50×3	50×3	20×3	20×3	3	80	2.2	2	3	74.5	69.5	69.0
	2000	5.5	4	3	125×3	125×3	50×3	50×3	20×3	20×3	3	80	2.2	2	3	75.0	70.5	70.0
	2000	7.5	4	3	125×3	125×3	50×3	50×3	20×3	20×3	3	80	3.7	2	3	75.0	70.5	70.0
	1800	5.5	4	4	125×4	125×4	50×4	50×4	20×4	20×4	4	80	2.2	2	4	75.0	70.0	69.5
	2000	5.5	4	4	125×4	125×4	50×4	50×4	20×4	20×4	4	80	2.2	2	4	75.5	71.0	70.5
	2000	7.5	4	4	125×4	125×4	50×4	50×4	20×4	20×4	4	80	3.7	2	4	75.5	71.0	70.5
	1800	5.5	4	5	125×5	125×5	50×5	50×5	20×5	20×5	5	80	2.2	2	5	75.5	70.5	70.0
	2000	5.5	4	5	125×5	125×5	50×5	50×5	20×5	20×5	5	80	2.2	2	5	76.0	71.5	71.0
	2000	7.5	4	5	125×5	125×5	50×5	50×5	20×5	20×5	5	80	3.7	2	5	76.0	71.5	71.0
	2000	5.5	4	6	125×6	125×6	50×6	50×6	20×6	20×6	6	80	2.2	2	6	76.5	72.0	71.5
	2000	7.5	4	6	125×6	125×6	50×6	50×6	20×6	20×6	6	80	3.7	2	6	76.5	72.0	71.5
	2000	7.5	4	7	125×7	125×7	50×7	50×7	20×7	20×7	7	80	3.7	2	7	77.0	72.5	72.0

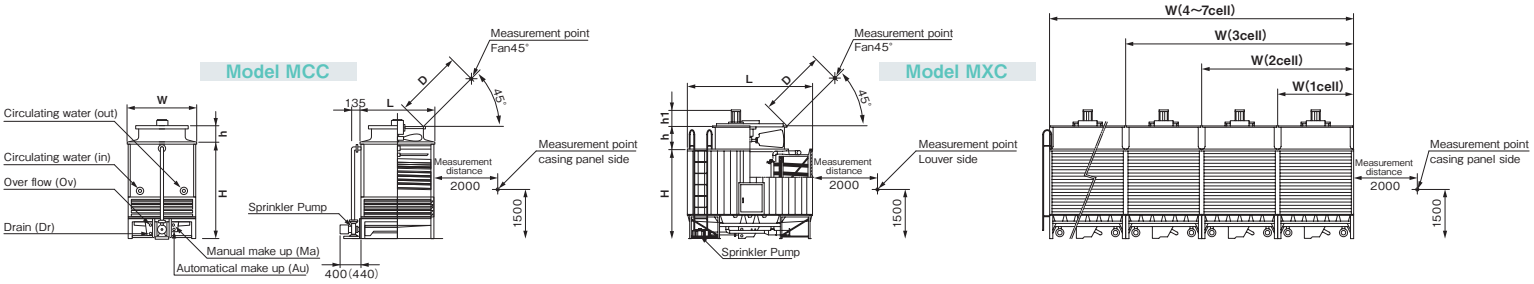
Model Selection • Standard Specifications • Noise Level

Standard Condition

Water flow rate: 13 L / (min • 4.535kW), Water temp.: Inlet=37℃, Out=32℃, W.B.=27℃

Specification			Head Loss	Dimensions [mm]					Mass [kg]	
Inlet Temp [℃]	37			Length	Width	Tower height	Fan casing height	Motor height	Shipping	Operation
Out Temp [℃]	32									
W.B.Temp[℃]	27	28								
Model	Water flow rate [L/min]		[m]	L	W	H	h	h1		
MCC- 5AS	65	55	2.0	1080	1270	1590	280	—	250	440
8AS	104	89	2.0	1080	1270	1800	280	—	290	490
10AS	130	112	3.5	1360	1270	1750	280	—	335	585
15AS	195	169	3.0	1360	1270	2120	280	—	425	700
20AS	260	225	8.5	1520	1770	2040	370	—	535	960
MXC-U30ASW	390	341	2.5	2240	1850	2140	460	90	780	1800
40ASW	520	454	0.9	2690	1550	2140	460	90	1000	2080
50ASW	650	568	2.8	2990	1850	2140	270	367	1150	2490
60ASW	780	682	2.5	2990	1850	2140	270	389	1160	2570
80ASW	1040	911	3.0	3270	1750	2770	615	389	1500	3470
90ASW	1170	1025	3.1	3270	1950	2770	615	389	1510	3590
100ASW	1300	1138	3.9	3270	1950	2770	615	439	1630	3790
110ASW	1469	1286	7.3	3570	2150	2770	645	439	1700	4140
125ASW	1625	1426	6.7	3570	2150	2770	645	439	1790	4310
135ASW	1787	1568	8.8	3870	2350	2770	715	449	1970	4740
150ASW	1955	1715	10.5	3870	2350	2770	715	497	2010	4780
175ASW	2340	2050	3.1	3270	3900	2770	615	389	2980	7140
200ASW	2600	2277	3.9	3270	3900	2770	615	439	3220	7540
225ASW	2938	2573	7.3	3570	4300	2770	645	439	3370	8250
250ASW	3250	2852	6.7	3570	4300	2770	645	439	3550	8590
275ASW	3575	3137	8.8	3870	4700	2770	715	449	3900	9440
300ASW	3910	3430	10.5	3870	4700	2770	715	497	3980	9520
330ASW	4407	3860	7.3	3570	6450	2770	645	439	5040	12360
350ASW	4875	4278	6.7	3570	6450	2770	645	439	5310	12870
400ASW	5362	4705	8.8	3870	7050	2770	715	449	5830	14140
450ASW	5865	5146	10.5	3870	7050	2770	715	497	5950	14260
500ASW	6500	5704	6.7	3570	8600	2770	645	439	7070	17150
550ASW	7150	6274	8.8	3870	9400	2770	715	449	7760	18840
600ASW	7820	6861	10.5	3870	9400	2770	715	497	7920	19000
625ASW	8125	7130	6.7	3570	10750	2770	645	439	8830	21430
675ASW	8937	7842	8.8	3870	11750	2770	715	449	9690	23540
750ASW	9775	8576	10.5	3870	11750	2770	715	497	9890	23740
810ASW	10725	9411	8.8	3870	14100	2770	715	449	11620	28240
900ASW	11730	10292	10.5	3870	14100	2770	715	497	11860	28480
1050ASW	13685	12007	10.5	3870	16450	2770	715	497	13830	33220

●Noise level at fan 45˚ point shows at 45˚ and fan diameter away from surface of fan casing.
●In case of a fan diameter < 1.5m, the noise level at 45˚ point is 1.5m away.
HL: Head Loss, L: Length, W: Width, H: Tower Height, h: Fan Casing Height, h1: Motor Height

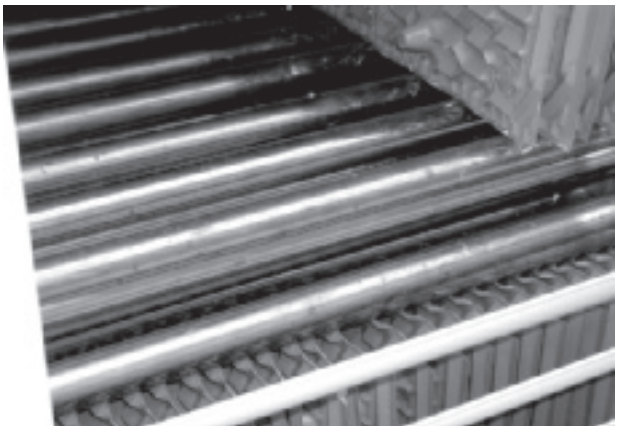


	Fan・Motor				Piping Size [A]							Sprinkler Pump				Noise Level [dB(A)]		
	Fan dimensions	Rated output	Pole	Q'ty	Circulating water inlet	Circulating water outlet	Over flow	Drain	Automatical make up	Manual make up	Q'ty	Size	Rated output	Pole	Q'ty	Fan 45°	Louver Side H=1.5m	Casing Panel Side H=1.5m
	[mm]	[kW]	[P]									[A]	[kW]	[P]		(D)m	2m	2m
	700	0.25	8	1	40	40	25	25	15	15	1	32	0.25	2	1	62.5	57.0	57.0
	700	0.36	8	1	40	40	25	25	15	15	1	32	0.25	2	1	57.5	54.5	54.5
	900	0.5	10/12	1	50	50	25	25	15	15	1	32	0.25	2	1	59.5	55.0	55.0
	900	0.75	10/12	1	50	50	25	25	15	15	1	32	0.25	2	1	62.0	59.0	59.5
	1200	1.0	10/12	1	65	65	25	25	15	15	1	50	0.4	2	1	64.0	60.0	60.0
	1200	1.5	12/14	1	65	65	40	40	15	15	1	50	0.4	2	1	68.0	65.0	59.5
	1200	1.5	12/14	1	80	80	40	40	15	15	1	50	0.4	2	1	68.5	65.0	60.5
	1500	2.2	4	1	80	80	40	40	15	15	1	65	1.5	2	1	71.0	66.5	65.5
	1500	3.7	4	1	80	80	40	40	15	15	1	65	1.5	2	1	73.0	68.0	67.5
	1500	3.7	4	1	100	100	50	50	20	20	1	65	1.5	2	1	72.5	67.5	66.5
	1500	3.7	4	1	100	100	50	50	20	20	1	65	1.5	2	1	72.5	68.0	66.5
	1500	5.5	4	1	100	100	50	50	20	20	1	65	1.5	2	1	73.0	69.0	67.5
	1800	5.5	4	1	125	125	50	50	20	20	1	65	1.5	2	1	73.5	70.0	69.0
	1800	5.5	4	1	125	125	50	50	20	20	1	80	2.2	2	1	73.5	70.0	69.0
	2100	5.5	4	1	125	125	50	50	20	20	1	80	2.2	2	1	74.0	71.0	69.5
	2100	7.5	4	1	125	125	50	50	20	20	1	80	3.7	2	1	74.5	71.5	70.5
	1500	3.7	4	2	100×2	100×2	50×2	50×2	20×2	20×2	2	65	1.5	2	2	74.5	70.0	68.5
	1500	5.5	4	2	100×2	100×2	50×2	50×2	20×2	20×2	2	65	1.5	2	2	75.0	71.0	69.5
	1800	5.5	4	2	125×2	125×2	50×2	50×2	20×2	20×2	2	65	1.5	2	2	75.5	72.0	71.0
	1800	5.5	4	2	125×2	125×2	50×2	50×2	20×2	20×2	2	80	2.2	2	2	75.5	72.0	71.0
	2100	5.5	4	2	125×2	125×2	50×2	50×2	20×2	20×2	2	80	2.2	2	2	76.0	73.0	71.5
	2100	7.5	4	2	125×2	125×2	50×2	50×2	20×2	20×2	2	80	3.7	2	2	76.5	73.5	72.5
	1800	5.5	4	3	125×3	125×3	50×3	50×3	20×3	20×3	3	65	1.5	2	3	76.5	73.0	72.0
	1800	5.5	4	3	125×3	125×3	50×3	50×3	20×3	20×3	3	80	2.2	2	3	76.5	73.0	72.0
	2100	5.5	4	3	125×3	125×3	50×3	50×3	20×3	20×3	3	80	2.2	2	3	77.0	74.0	72.5
	2100	7.5	4	3	125×3	125×3	50×3	50×3	20×3	20×3	3	80	3.7	2	3	77.5	74.5	73.5
	1800	5.5	4	4	125×4	125×4	50×4	50×4	20×4	20×4	4	80	2.2	2	4	77.0	73.5	72.5
	2100	5.5	4	4	125×4	125×4	50×4	50×4	20×4	20×4	4	80	2.2	2	4	77.5	74.5	73.0
	2100	7.5	4	4	125×4	125×4	50×4	50×4	20×4	20×4	4	80	3.7	2	4	78.0	75.0	74.0
	1800	5.5	4	5	125×5	125×5	50×5	50×5	20×5	20×5	5	80	2.2	2	5	77.5	74.0	73.0
	2100	5.5	4	5	125×5	125×5	50×5	50×5	20×5	20×5	5	80	2.2	2	5	78.0	75.0	73.5
	2100	7.5	4	5	125×5	125×5	50×5	50×5	20×5	20×5	5	80	3.7	2	5	78.5	75.5	74.5
	2100	5.5	4	6	125×6	125×6	50×6	50×6	20×6	20×6	6	80	2.2	2	6	78.5	75.5	74.0
	2100	7.5	4	6	125×6	125×6	50×6	50×6	20×6	20×6	6	80	3.7	2	6	79.0	76.0	75.0
	2100	7.5	4	7	125×7	125×7	50×7	50×7	20×7	20×7	7	80	3.7	2	7	79.5	76.5	75.5

Closed Circuit Cross flow Cooling Tower

Feature

●Improved maintenance performance by the optimum arrangement of new design copper coil and high-perfomance infill.



By the optimum arrangement of new design copper coil and high-perfomance infill, improved performance of maintenance and cleaning for the heat exchanger coil and infill.
And also, by adopting special flange type for connecting of heat exchange coil and header to connect certainly, improved performance on installation and detachment of heat exchanger coil.

●Improved cooling performance by adopting new high-efficiency fan (for super low noise)

Improved fan perfomance and noise level by optimum design based on air flow of three dimensional opposite solution method then realized max. 150 ton per 1 cell.

●Special inclined Heat Exchanger

In order to improved drainage, adopting special 3D inclined spiral pipe type heat exchanger for all models.

●Unnecessary sprinkler piping work at site by design of internal piping type for all of models.

By changing design of sprinkler system to internal piping style, appearance to be simply and site assembly work can be safety.
Applying re-cycle PVC for sprinkler piping.

●Tremendous Durability

The coil used for heat exchanger is made of seamless tube and of deoxidized copper, superb against corrosion. Main components of tower parts are hot dip galvanized in steel parts, while for other parts, FRP as sell as PVC materials are used to assure long life and durability. Also sprinkler pump are all of outdoor totally enclosed type, while the impeller is made of bronze copper to be superb against corrosion.

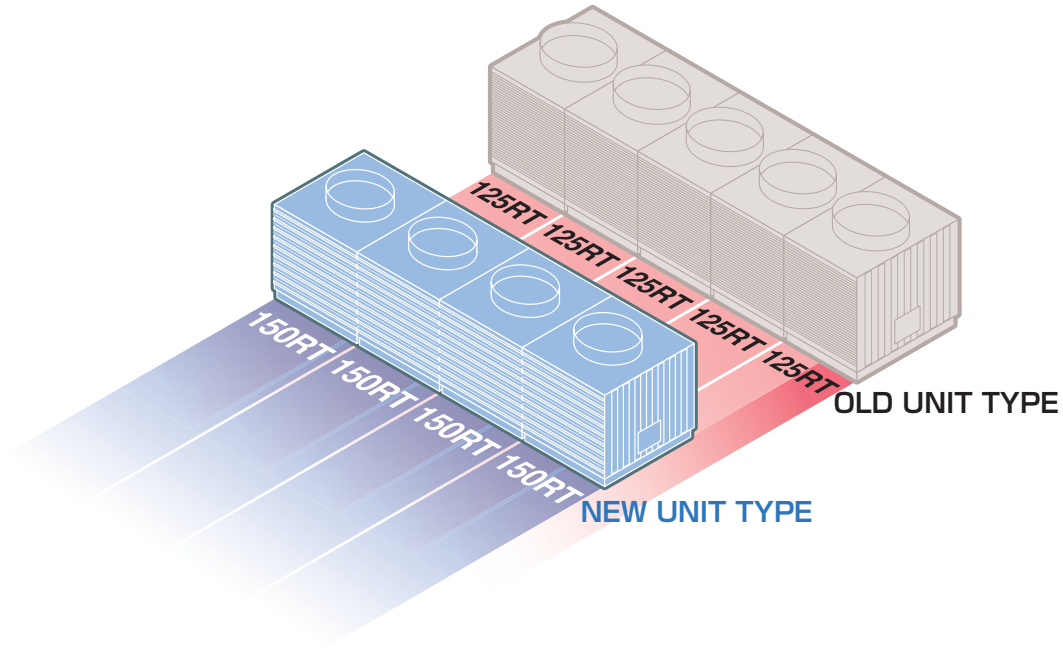
●Saving on Running and Operating Cost

By applying fan casing in bell mouth equipped with a high efficient low noise fan, especially designed for cooling tower, and combined with a new developed highly performance heat exchanger, it enables the fan motor to be of low power, thus saving energy and as a result, in effectively the running cost.

●Materializing Low Noise Operation

The Model MXC-U series in low noise and super low noise models are available in variety of types at your choise to match and or to suite the surroundings and or environment. Also various noise data in details are made available for a proper and smooth pre-evalutation of noise levels and accordingly, in taking effective countermeasures related to the installtaion of towers in problem areas.

●FIRST DEVELOP IN THE INDUSTRY

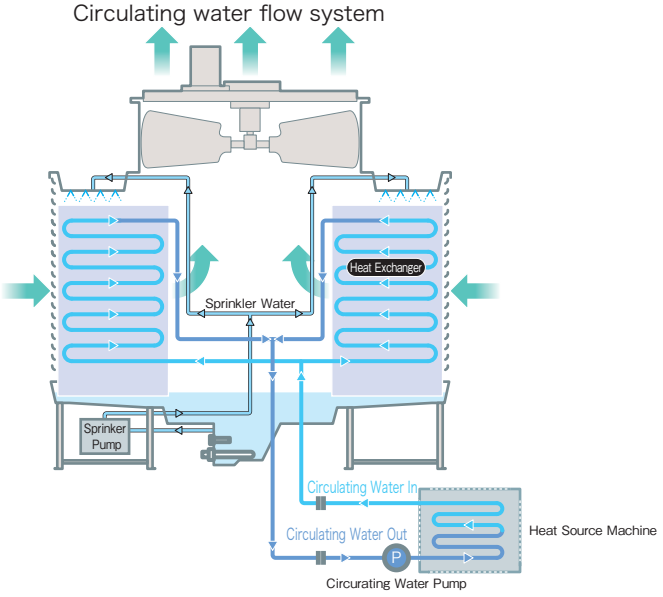


Realized maximam 150 ton per 1 cell by adopting high-efficiency fan and the optimum arrangement of new design copper coil and high-performance infill.
Furthermore, realized space saving by reducing 1 cell for each 150/300/450/600/750 ton models, and 2 cell smaller for 900/1050 ton models.
And reducing site work time such as delivery and installation work by modular unit which can be lifting work easier.

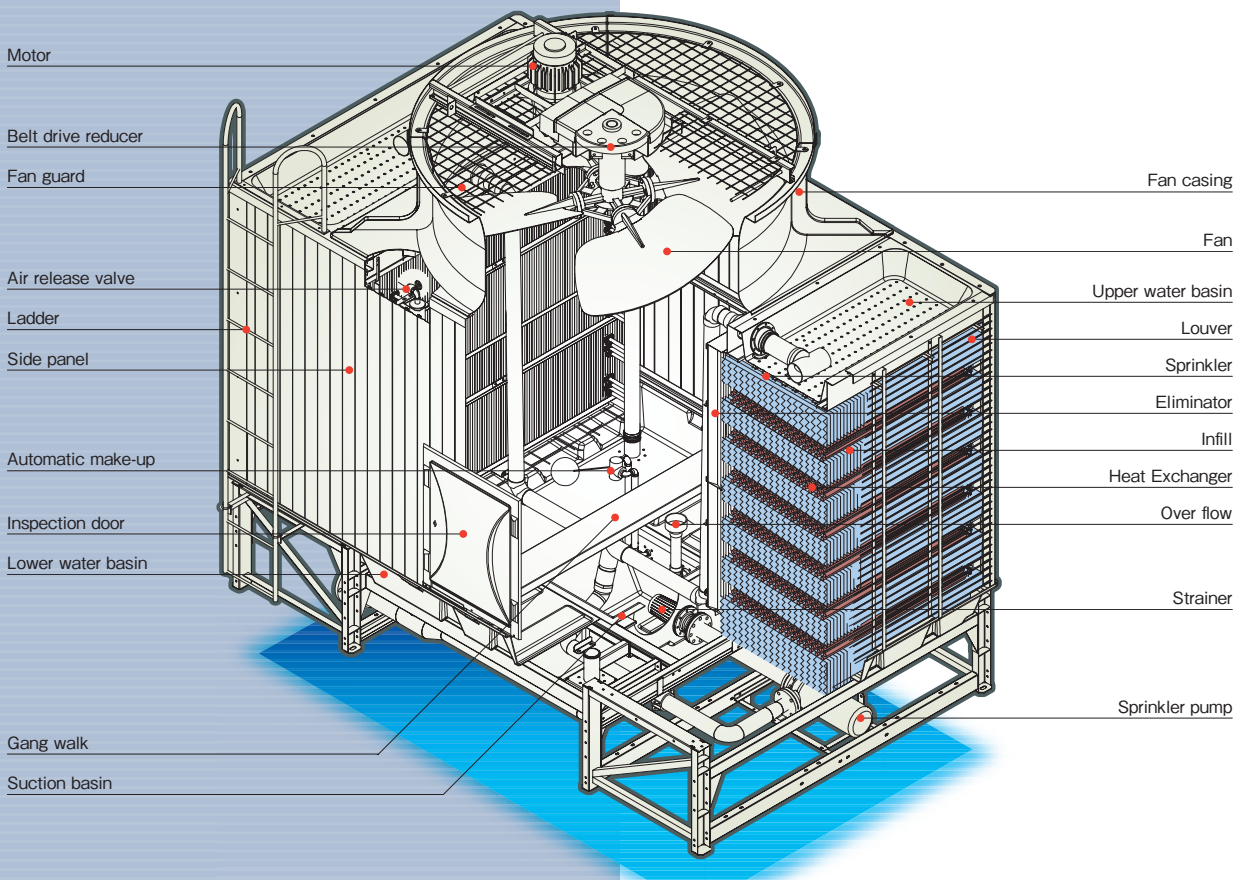
note) 1 cell of 60 ton model and below can be compelte assembled and 80~150 ton can be semi assembled (2 separate unit) depending on delivery and condition.

Structure

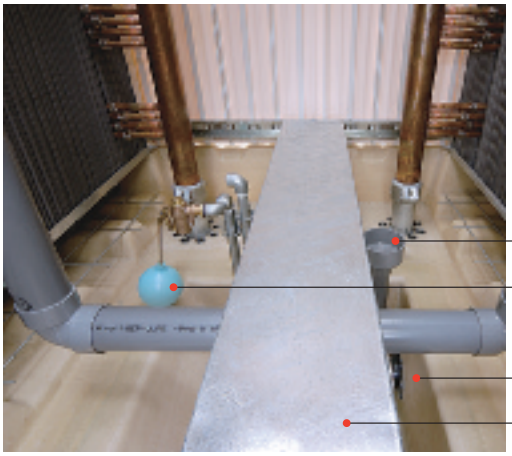
Closed Circuit type cooling tower
Circulating water flow system



Model MXC-UW Series, Structure



Eliminator

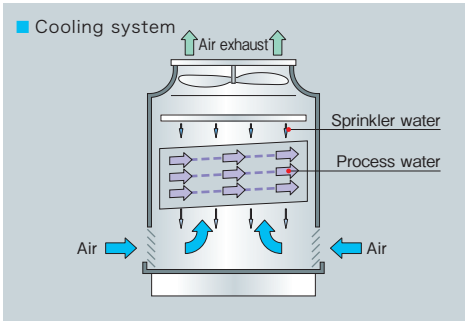


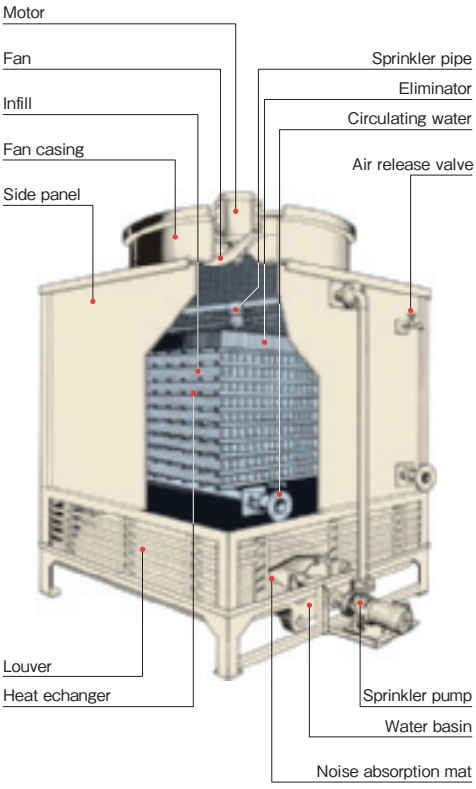
Heat exchanger is made of high corrosion resistance copper coil to be maintenance free

Closed Circuit Type Counter flow Cooling Tower

Model MCC Series

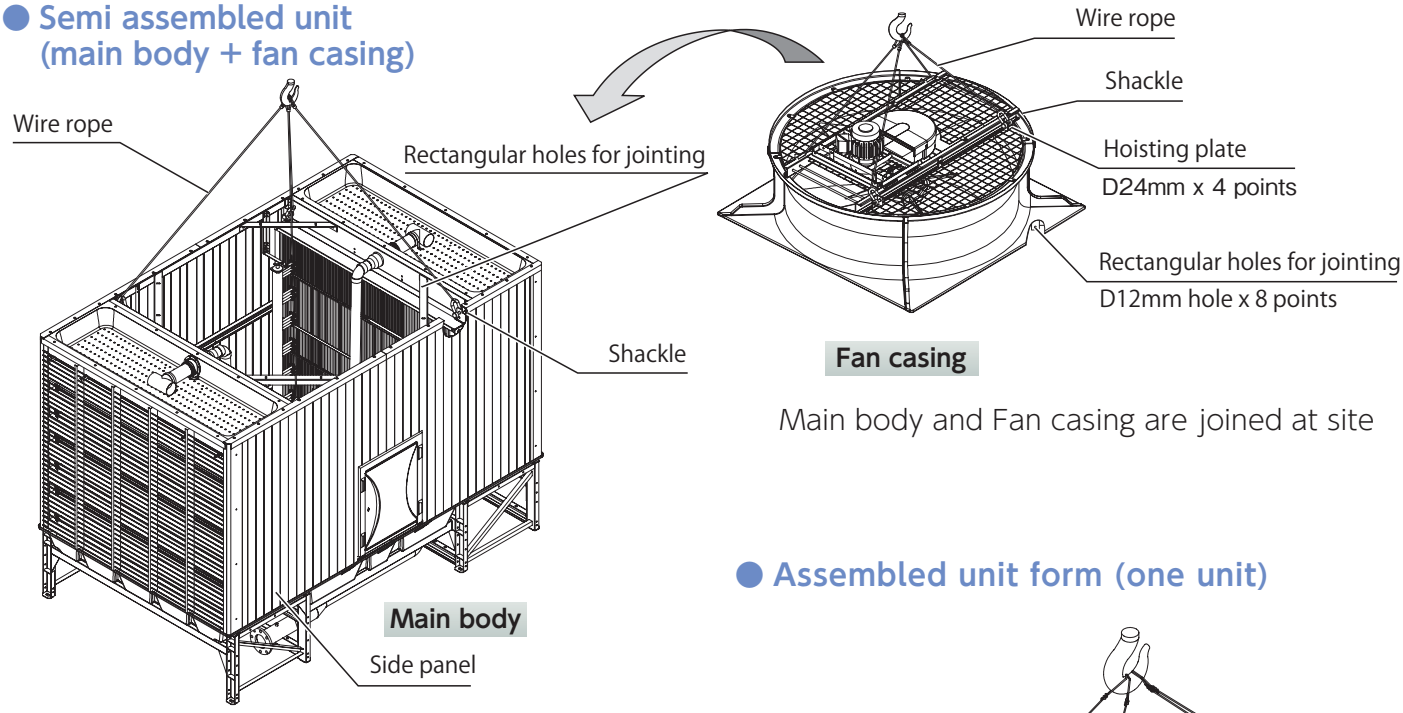
The new developed technology, closed circuit counter flow type which has not been yet used is applied to our cooling tower. By using this system, not only heat exchanger efficiency but it can also realize such as both more energy saving and easier maintenance at the same time.





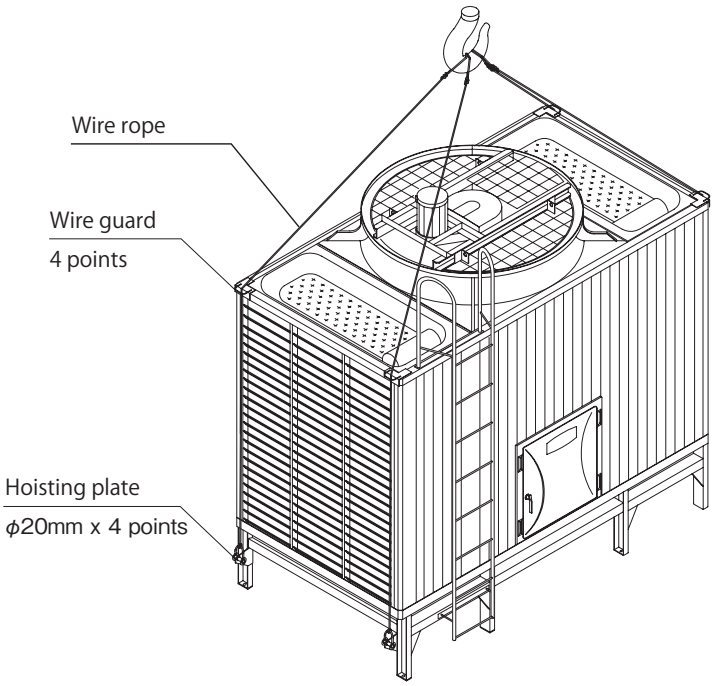
Delivery and lift up arrangement

● Semi assembled unit (main body + fan casing)



Main body and Fan casing are joined at site

● Assembled unit form (one unit)



General Cooling Tower

Model MXC-U	Main body		Fan casing	
	Mass(kg)	Q'ty	Mass(kg)	Q'ty
80	1300	1	210	1
90	1310	1	210	1
100	1390	1	250	1
110	1430	1	280	1
125	1520	1	280	1
135	1640	1	340	1
150	1660	1	360	1
175	1310	2	210	2
200	1390	2	250	2
225	1430	2	280	2
250	1520	2	280	2
275	1640	2	340	2
300	1660	2	360	2
330	1430	2	280	3
350	1520	2	280	3
400	1640	2	340	3
450	1660	2	360	3
500	1520	2	280	4
550	1640	2	340	4
600	1660	2	360	4
625	1520	2	280	5
675	1640	2	340	5
750	1660	2	360	5
810	1640	6	340	6
900	1660	6	360	6
1,050	1660	7	360	7

General Cooling Tower

Model MXC-U	Main body	
	Mass(kg)	Q'ty
30	800	1
40	1020	1
50	1170	1
60	1180	1

note) • Hoisting works shall be out of our scope.
• Please prepare wire ropes and shackles for lift up.
• Please look at the shop drawing for detailed dimensions.

Cautions for Installation Works

1. Scope of Works (Standard)

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

❶ Lift up and carry works
❷ Foundation works (incl. installation of anchor bolts, mortar filled works and installation of steel frame stand.)
❸ Piping works
❹ Electric (wiring) works

2. Selection of installation place

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

❶ A place with good ventilation where discharged air from cooling tower will not recirculate.
❷ Avoid places with much dust, dirt or smoke and places near heat sources.
❸ 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.
❹ Select a place where the noise is not magnified by echoes. Avoid the vicinity of windows of neighboring houses as much as possible.
❺ Avoid a place where has no fresh air intake for air conditioning.

3. Other Cautions

❶ Foundation level should be horizontally.
❷ Foundation bolts should be furnished before cooling towers deliver to the site.

Operational Cautions

1. Operation

❶ The specified water flow must be maintained to obtain and hold the rated capacity.
❷ 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.
❸ 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

❶ Regularly drain water and clean the lower water basin and strainer.
❷ Water quality control are recommended to prevent poor water quality, scale and algae growth.
❸ 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 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

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.

- The Products described herein fall under "the goods listed in row 16 of the appended table 1 of the Export Trade Control Order of Japan", so in cases 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 Minister of Economy, Trade and Industry. (Please confirm these conditions on your own.)
  Please contact local agents for more information.

Oct.2015

28-090-E01