



For the beautiful and comfortable environment.
Starting from MXC-UW series [New energy save].

NEW | Closed Circuit type Cross-flow
Cooling Towers
MXC-UW Series

| Closed Circuit type Counter-flow Cooling Tower MCC Series

NEW

Closed Circuit type Cross-flow
Cooling Towers

MXC-UW Series

Preventing troubles caused by dirty circulating water

SHINWA's NEW Closed Circuit Type Cooling Towers

As cooling water circulated in the heat exchanger of closed type cooling tower is completely isolated from outside air, therefore, it can prevent the troubles of dirty circulating water caused by air pollution. That is, no pollution in the suburb nature area even city area and we can react to maintain comfortable environment by this one step ahead technology.



Developed Maximum 150 ton per 1 cell by the optimum design of heat exchanger

First develop
in
the industry

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

Closed Circuit type Cross-flow Cooling Towers

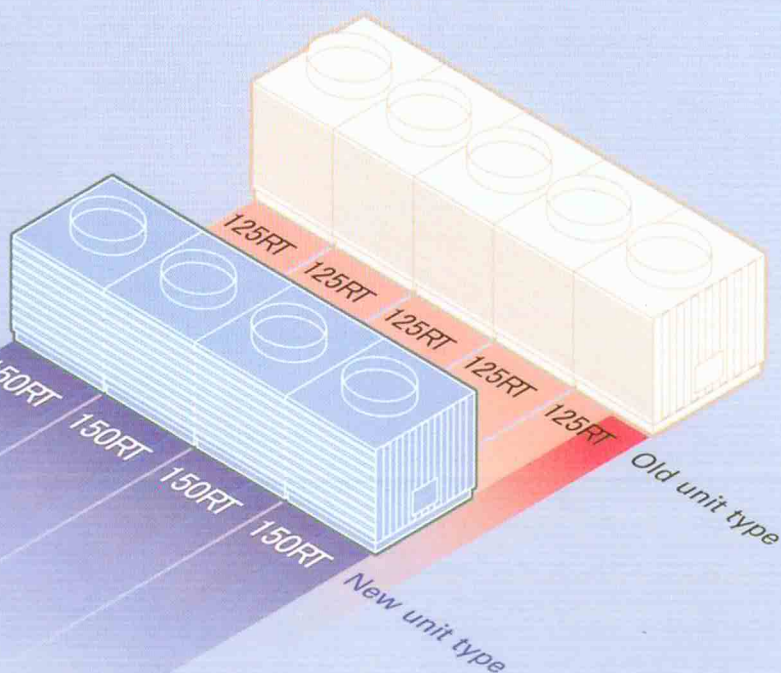
■ Feature of Closed Circuit type Cross-flow Cooling tower P3 · P4

MXC-U

■ ASW (Low Noise Type) P5 · P6

■ ASSW (Super Low Noise Type) P7 · P8

■ Delivery and Lift up arrangement P9 · P10

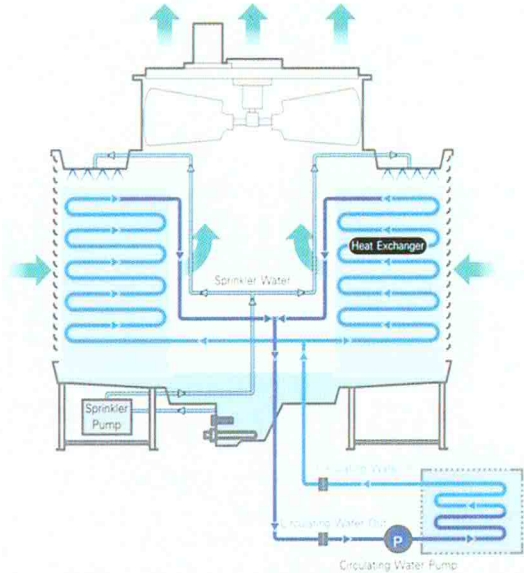


NEW • Closed Circuit Cross-flow Cooling Tower + [Closed Circuit type Counter-flow Cooling Tower]

MXC-UW Series

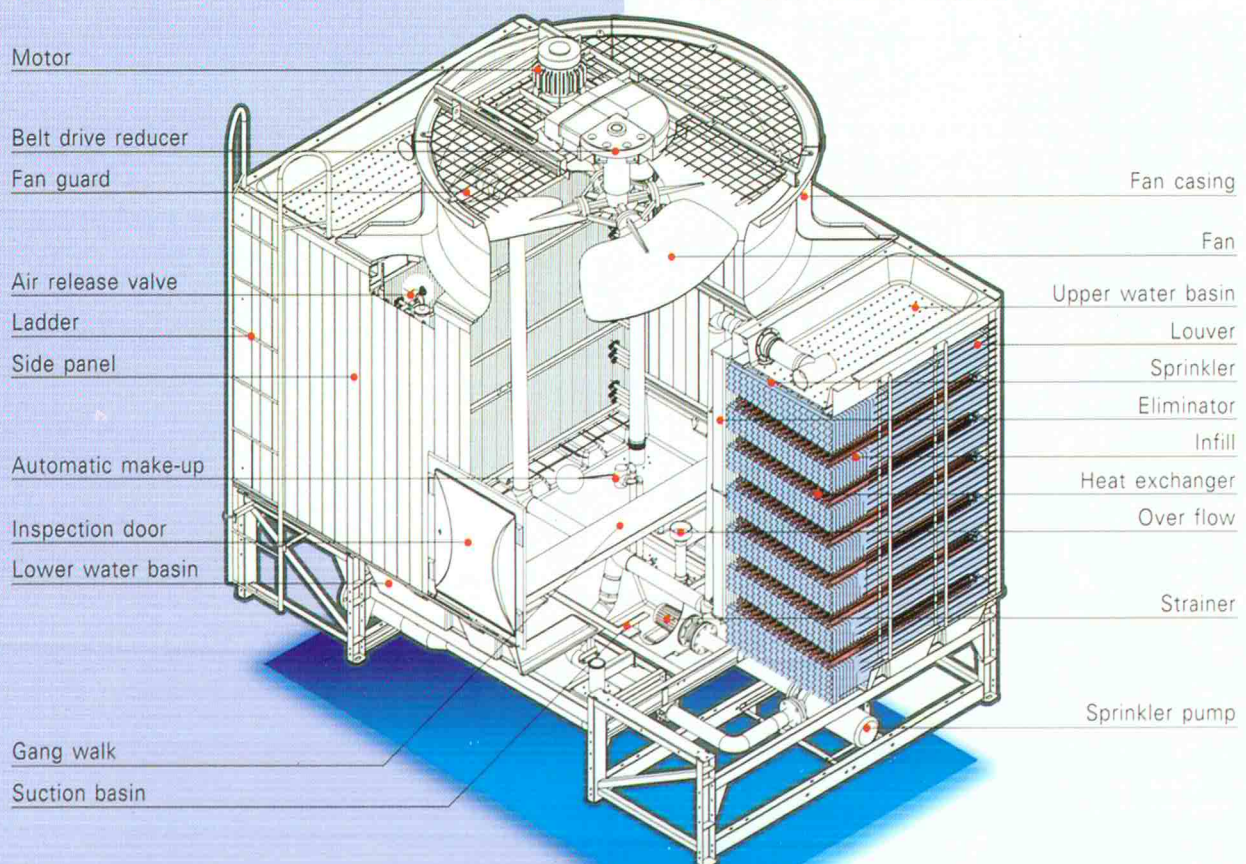


Closed Circuit type cooling tower
Circulating water flow system



As cooling water circulated in the heat exchanger of closed type cooling tower is completely isolated from outside air, therefore, it can prevent the troubles of dirty circulating water caused by air pollution.

MXC-UW Series, Structure





MXC-UW Series Feature

Advantage 1

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

By the optimum arrangement of new design copper coil and high-performance 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.

Advantage 2

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

Improved fan performance and noise level by optimum design based on air flow of three dimensional opposite solution method (TURBO design-1*) then realized max. 150ton per 1 cell.

*Advanced Design Technology Ltd.

Advantage 3

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.

Special inclined Heat Exchanger

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

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 well 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 MXC-UW series in low noise and super low noise models are available in variety of types at your choice to match and or to suit the surroundings and or environment. Also various noise data in details are made available for a proper and smooth pre-evaluation of noise levels and accordingly, in taking effective countermeasures related to the installation of towers in problem areas.

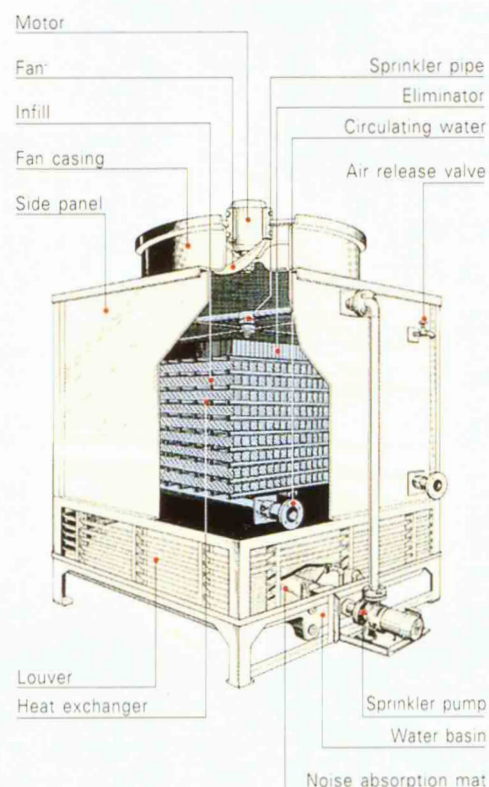
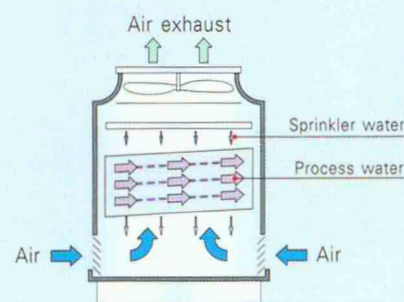
Heat exchanger is made of high corrosion resistance copper coil to be maintenance free

Closed Circuit Type Counter flow Cooling Tower

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.

■ Cooling system



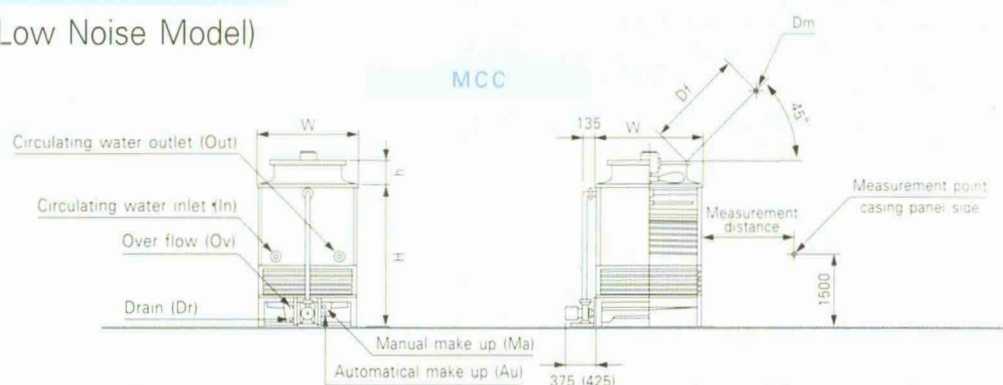
Closed Circuit type Cross-flow Cooling Tower

MXC-U

ASW

Low Noise Type

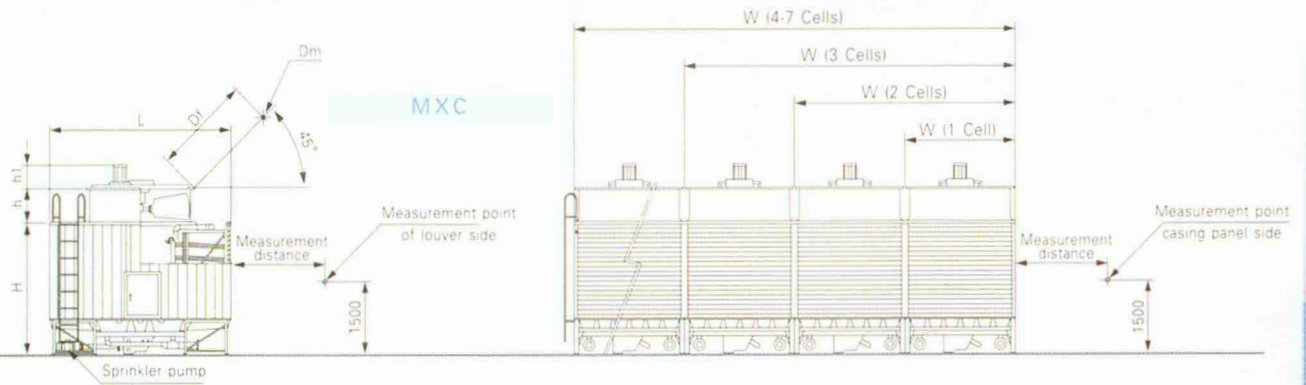
(MCC-5~20AS Counter Flow Low Noise Model)



Model Selection • Standard Specifications • Noise Level

MCC		Dimensions (mm)					Piping Size (A)		Head Loss (m)	Fan		Motor	
		L	W	H	h	h1	In	Out		Dφ (mm)	kW	P 50/60 Hz	Q'ty
MCC	5	1080	1270	1590	280	—	40	40	2.0	700	0.25	8	1
	8	1080	1270	1800	280	—	40	40	2.0	700	0.36	8	1
	10	1360	1270	1750	280	—	50	50	3.5	900	0.5	10/12	1
	15	1360	1270	2120	280	—	50	50	3.0	900	0.75	10/12	1
	20	1520	1770	2040	370	—	65	65	8.5	1200	1.0	10/12	1
MXC	U30	2240	1850	2140	460	90	65	65	2.5	1200	1.5	12/14	1
	U40	2690	1550	2140	460	90	80	80	0.9	1200	1.5	12/14	1
	U50	2990	1850	2140	270	367	80	80	1.7	1500	2.2	4	1
	U60	2990	1850	2140	270	389	80	80	2.5	1500	3.7	4	1
	U80	3270	1750	2770	615	389	100	100	2.2	1500	3.7	4	1
	U90	3270	1950	2770	615	389	100	100	3.1	1500	3.7	4	1
	U100	3270	1950	2770	615	439	100	100	3.9	1500	5.5	4	1
	U110	3570	2150	2770	645	439	125	125	6.9	1800	5.5	4	1
	U125	3570	2150	2770	645	439	125	125	6.7	1800	5.5	4	1
	U135	3870	2350	2770	715	449	125	125	8.5	2100	5.5	4	1
	U150	3870	2350	2770	715	497	125	125	10.5	2100	7.5	4	1
	U175	3270	3900	2770	615	389	100×2	100×2	3.0	1500	3.7	4	2
	U200	3270	3900	2770	615	439	100×2	100×2	3.9	1500	5.5	4	2
	U225	3570	4300	2770	645	439	125×2	125×2	7.2	1800	5.5	4	2
	U250	3570	4300	2770	645	439	125×2	125×2	6.7	1800	5.5	4	2
	U275	3870	4700	2770	715	449	125×2	125×2	8.8	2100	5.5	4	2
	U300	3870	4700	2770	715	497	125×2	125×2	10.5	2100	7.5	4	2
	U330	3570	6450	2770	645	439	125×3	125×3	6.9	1800	5.5	4	3
	U350	3570	6450	2770	645	439	125×3	125×3	5.8	1800	5.5	4	3
	U400	3870	7050	2770	715	449	125×3	125×3	8.3	2100	5.5	4	3
	U450	3870	7050	2770	715	497	125×3	125×3	10.5	2100	7.5	4	3
	U500	3570	8600	2770	645	439	125×4	125×4	6.7	1800	5.5	4	4
	U550	3870	9400	2770	715	439	125×4	125×4	8.8	2100	5.5	4	4
	U600	3870	9400	2770	715	497	125×4	125×4	10.5	2100	7.5	4	4
	U625	3570	10750	2770	645	439	125×5	125×5	6.7	1800	5.5	4	5
	U675	3870	11750	2770	715	449	125×5	125×5	8.5	2100	5.5	4	5
	U750	3870	11750	2770	715	497	125×5	125×5	10.5	2100	7.5	4	5
	U810	3870	14100	2770	715	449	125×6	125×6	8.5	2100	5.5	4	6
	U900	3870	14100	2770	715	497	125×6	125×6	10.5	2100	7.5	4	6
	U1050	3870	16450	2770	715	497	125×7	125×7	10.5	2100	7.5	4	7

L: Length, W: Width, H: Tower height, h: Fan casing height, In: Water inlet, Out: Water outlet
Ov: Over flow, Dr: Drain, Au: Automatic make-up, Ma: Manual make-up, Df: Fan diameter, Dm: Fan 45° diameter point



●Based on standard condition for centrifugal chillers ;

Water flow rate : 13 L/min/RT (1 RT=3900 Kcal/h=4.535 Kw/H) , Water temp. : Inlet=37 °C, Out=32 °C, W.B.=27 °C

MXC-U ASW Type
MCC AS Type

Piping Size (A)		Sprinkler Pump					Weight (kg)		Water flow rate (L/min)		Noise Level dB(A)					
											Fan 45°		Louver Side		Casing Panel Side	
											Dm		2m	10m	16m	
Ov:Dr	Au:Ma	Size(A)	kW	P	Q'ty	Shipping	Operation	27 °C	28 °C							
25	15	32	0.25	2	1	250	440	65	55	62.5	57	48	44	57	48	44
25	15	32	0.25	2	1	290	490	104	89	57.5	54.5	46	42	54.5	46	42
25	15	32	0.25	2	1	335	585	130	112	59.5	55	47	43	55	47	43
25	15	32	0.25	2	1	425	700	195	168	62	59	48	45	59.5	48.5	45.5
25	15	50	0.4	2	1	535	960	260	225	64	60	50	46	60	50	46
40	15	50	0.4	2	1	780	1800	390	341	68	65	54.5	51	59.5	50.5	47
40	15	50	0.4	2	1	1000	2080	520	454	68.5	65	55	51.5	60.5	51	47.5
40	15	65	1.5	2	1	1150	2490	650	568	71	66.5	56.5	53.5	65.5	55.5	52
40	15	65	1.5	2	1	1160	2570	780	682	73	68	58.5	55	67.5	57.5	53.5
50	20	65	1.5	2	1	1500	3470	1040	911	72.5	67.5	58.5	55	66.5	57	53.5
50	20	65	1.5	2	1	1510	3590	1170	1025	72.5	68	59	55.5	66.5	57	53.5
50	20	65	1.5	2	1	1630	3790	1300	1138	73	69	59.5	56	67.5	57.5	54
50	20	65	1.5	2	1	1700	4140	1469	1286	73.5	70	61	57.5	69	59.5	56
50	20	80	2.2	2	1	1790	4310	1625	1426	73.5	70	61	57.5	69	59.5	56
50	20	80	2.2	2	1	1970	4740	1787	1568	74	71	62.5	59	69.5	60.5	57
50	20	80	3.7	2	1	2010	4780	1955	1715	74.5	71.5	63	59.5	70.5	61.5	58
50×2	20×2	65	1.5	2	2	2980	7140	2340	2050	74.5	70	61	57.5	68.5	60	56.5
50×2	20×2	65	1.5	2	2	3220	7540	2600	2277	75	71	61.5	58.5	69.5	60.5	57.5
50×2	20×2	65	1.5	2	2	3370	8250	2938	2573	75.5	72	63	59.5	71	62.5	59
50×2	20×2	80	2.2	2	2	3550	8590	3250	2852	75.5	72	63	59.5	71	62.5	59
50×2	20×2	80	2.2	2	2	3900	9440	3575	3137	76	73	64	61	71.5	63.5	60
50×2	20×2	80	3.7	2	2	3980	9520	3910	3430	76.5	73.5	64.5	61.5	72.5	64.5	61
50×3	20×3	65	1.5	2	3	5040	12360	4407	3860	76.5	73	64	60.5	72	64.5	61
50×3	20×3	80	2.2	2	3	5310	12870	4875	4278	76.5	73	64	60.5	72	64.5	61
50×3	20×3	80	2.2	2	3	5830	14140	5362	4705	77	74	65	62	72.5	65	62
50×3	20×3	80	3.7	2	3	5950	14260	5865	5146	77.5	74.5	65.5	62.5	73.5	66	63
50×4	20×4	80	2.2	2	4	7070	17150	6500	5704	77	73.5	64.5	61	72.5	65.5	63
50×4	20×4	80	2.2	2	4	7760	18840	7150	6274	77.5	74.5	65.5	62.5	73	66.5	63.5
50×4	20×4	80	3.7	2	4	7920	19000	7820	6861	78	75	66	63	74	67.5	64.5
50×5	20×5	80	2.2	2	5	8830	21430	8125	7130	77.5	74	65	61.5	73	66	63
50×5	20×5	80	2.2	2	5	9690	23540	8937	7842	78	75	66	63	73.5	67	64
50×5	20×5	80	3.7	2	5	9890	23740	9775	8576	78.5	75.5	66.5	63.5	74.5	68	65
50×6	20×6	80	2.2	2	6	11620	28240	10725	9411	78.5	75.5	66.5	63.5	74	68.5	66
50×6	20×6	80	3.7	2	6	11860	28480	11730	10292	79	76	67	64	75	69.5	67
50×7	20×7	80	3.7	2	7	13830	33220	13685	12007	79.5	76.5	67.5	64.5	75.5	70.5	68

[Fan 45° Dm point] Should be angled 45° from fan casing end to the horizontal line and be separated by the length equal to diameter of the fan (Df). However, the minimum of Df should be 1.5 m

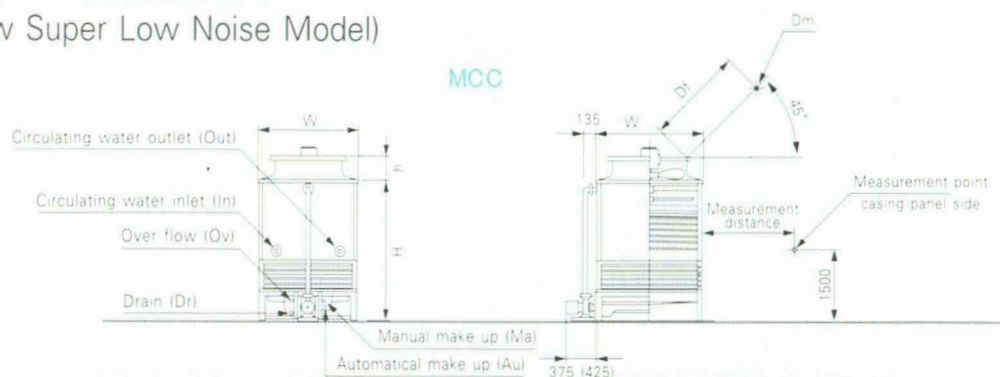
Closed Circuit type Cross-flow Cooling Tower

MXC-U

ASSW

Super Low Noise Type

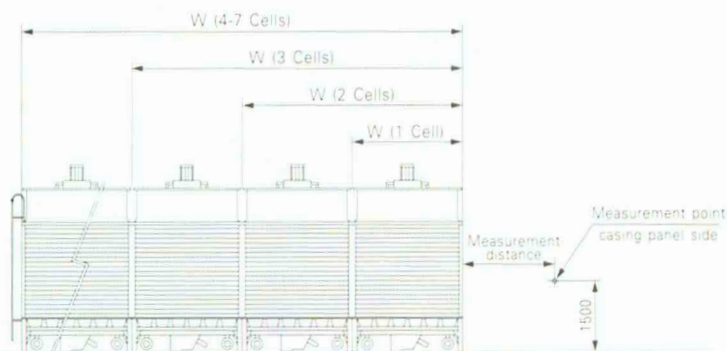
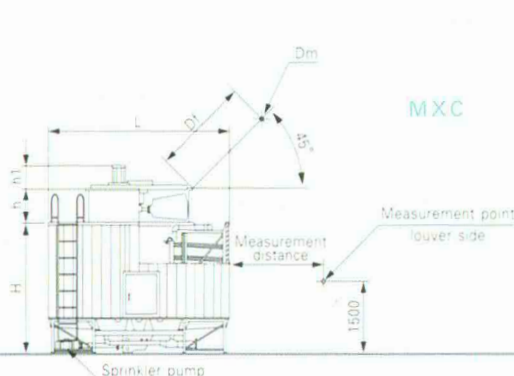
(MCC-5~20ASS Counter Flow Super Low Noise Model)



Model Selection • Standard Specifications • Noise Level

MXC-U ASSW Type MCC ASS Type	MCC MXC-U	Dimensions (mm)					Piping Size (A)		Head Loss (m)	Fan		Motor	
		L	W	H	h	h1	In	Out		Dφ (mm)	kW	P 50/60 Hz	Q'ty
	MCC	5	1080	1270	1590	280	—	40	40	2.0	700	0.25	8 1
		8	1080	1270	1800	280	—	40	40	2.0	700	0.36	8 1
		10	1360	1270	1750	280	—	50	50	3.5	900	0.5	10/12 1
		15	1360	1270	2120	280	—	50	50	3.0	900	0.75	10/12 1
		20	1520	1770	2040	370	—	65	65	8.5	1200	1.0	10/12 1
MXC	U30	2240	1850	2140	460	90	65	65	2.5	1200	1.5	12/14	1
	U40	2690	1550	2140	460	90	80	80	0.9	1200	1.5	12/14	1
	U50	2990	1850	2140	270	367	80	80	1.7	1500	2.2	4	1
	U60	2990	1850	2140	270	389	80	80	2.5	1500	3.7	4	1
	U80	3270	1750	2770	615	389	100	100	2.2	1500	3.7	4	1
	U90	3270	1950	2770	615	389	100	100	3.1	1500	3.7	4	1
	U100	3270	1950	2770	615	439	100	100	3.9	1500	5.5	4	1
	U110	3570	2150	2770	645	439	125	125	6.9	1800	5.5	4	1
	U125	3570	2150	2770	645	439	125	125	6.7	1800	5.5	4	1
	U135	3870	2350	2770	715	449	125	125	8.5	2000	5.5	4	1
	U150	3870	2350	2770	715	497	125	125	10.5	2000	7.5	4	1
	U175	3270	3900	2770	615	389	100×2	100×2	3.0	1500	3.7	4	2
	U200	3270	3900	2770	615	439	100×2	100×2	3.9	1500	5.5	4	2
	U225	3570	4300	2770	645	439	125×2	125×2	7.2	1800	5.5	4	2
	U250	3570	4300	2770	645	439	125×2	125×2	6.7	1800	5.5	4	2
	U275	3870	4700	2770	715	449	125×2	125×2	8.8	2000	5.5	4	2
	U300	3870	4700	2770	715	497	125×2	125×2	10.5	2000	7.5	4	2
	U330	3570	6450	2770	645	439	125×3	125×3	6.9	1800	5.5	4	3
	U350	3570	6450	2770	645	439	125×3	125×3	5.8	1800	5.5	4	3
	U400	3870	7050	2770	715	449	125×3	125×3	8.3	2000	5.5	4	3
	U450	3870	7050	2770	715	497	125×3	125×3	10.5	2000	7.5	4	3
	U500	3570	8600	2770	645	439	125×4	125×4	6.7	1800	5.5	4	4
	U550	3870	9400	2770	715	449	125×4	125×4	8.8	2000	5.5	4	4
	U600	3870	9400	2770	715	497	125×4	125×4	10.5	2000	7.5	4	4
	U625	3570	10750	2770	645	439	125×5	125×5	6.7	1800	5.5	4	5
	U675	3870	11750	2770	715	449	125×5	125×5	8.5	2000	5.5	4	5
	U750	3870	11750	2770	715	497	125×5	125×5	10.5	2000	7.5	4	5
	U810	3870	14100	2770	715	449	125×6	125×6	8.5	2000	5.5	4	6
	U900	3870	14100	2770	715	497	125×6	125×6	10.5	2000	7.5	4	6
	U1050	3870	16450	2770	715	497	125×7	125×7	10.5	2000	7.5	4	7

L: Length, W: Width, H: Tower height, h: Fan casing height, In: Water inlet, Out: Water outlet
Ov: Over flow, Dr: Drain, Au: Automatic make-up, Ma: Manual make-up, Df: Fan diameter, Dm: Fan 45° diameter point



●Based on standard condition for centrifugal chillers ;

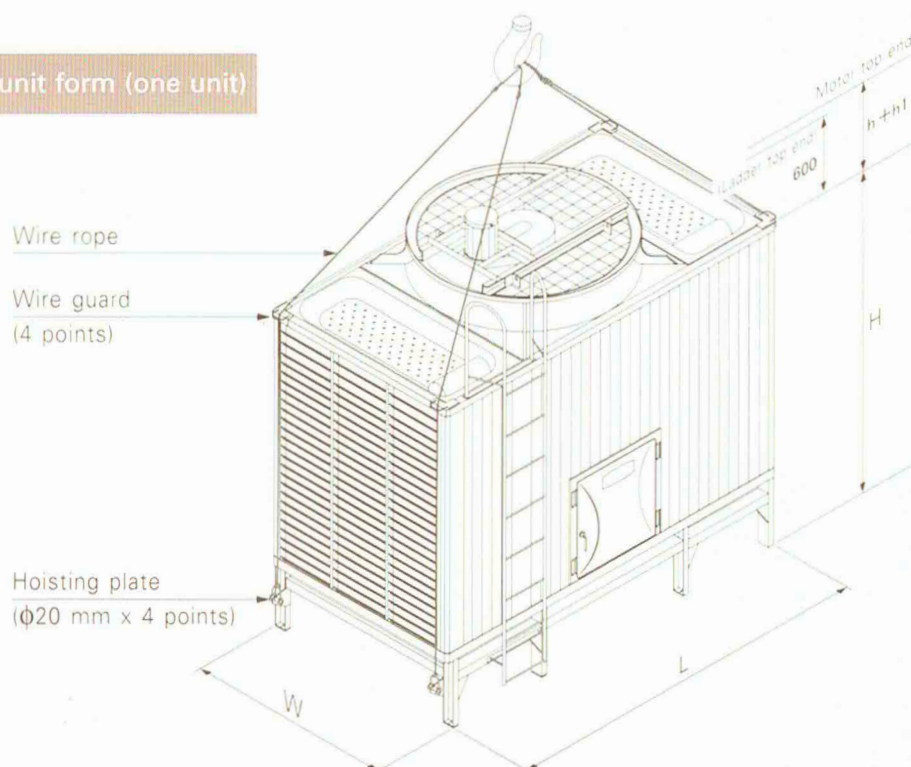
Water flow rate : 13 L/min/RT (1 RT=3900 Kcal/h=4.535 Kw/H) , Water temp. : Inlet=37 °C, Out=32 °C, W.B.=27 °C

Piping Size (A)		Sprinkler Pump					Weight (kg)		Water flow rate (L/min)		Noise Level dB(A)					
											Fan 45°		Louver Side		Casing Panel Side	
Ov:Dr	Au:Ma	Size(A)	kW	P	Q'ty	Shipping	Operation	27 °C	28 °C	Dm	2m	10m	16m	2m	10m	16m
25	15	32	0.25	2	1	255	445	65	55	60	55.5	46	41.5	55.5	46	41.5
25	15	32	0.25	2	1	295	495	104	89	55	52.5	44	39	52.5	44	39
25	15	32	0.25	2	1	345	595	130	112	56.5	53	45	40.5	53	45	40.5
25	15	32	0.25	2	1	435	710	195	168	59.5	57	46.5	42.5	57.5	47	43
25	15	50	0.4	2	1	550	975	260	225	61	58	48	43	58	48	43
40	15	50	0.4	2	1	790	1810	390	341	65	62	51.5	48	56.5	47.5	44
40	15	50	0.4	2	1	1010	2090	520	454	66.5	63	53	49.5	58.5	49	45.5
40	15	65	1.5	2	1	1160	2500	650	568	68	64	54.5	50.5	62.5	52.5	49
40	15	65	1.5	2	1	1170	2580	780	682	69.5	65	55.5	52	64.5	54.5	50.5
50	20	65	1.5	2	1	1510	3480	1040	911	69.5	64.5	55.5	52	63.5	54	50.5
50	20	65	1.5	2	1	1520	3600	1170	1025	69.5	65	56	52.5	63.5	54	50.5
50	20	65	1.5	2	1	1640	3800	1300	1138	70	66	56.5	53.5	64.5	54.5	51
50	20	65	1.5	2	1	1710	4150	1469	1286	71.5	66.5	58	54.5	66	56.5	53.5
50	20	80	2.2	2	1	1800	4320	1625	1426	71.5	66.5	58	54.5	66	56.5	53.5
50	20	80	2.2	2	1	1980	4750	1787	1568	72	67.5	59	55.5	67	58	55
50	20	80	3.7	2	1	2020	4790	1955	1715	72	67.5	59	55.5	67	58	55
50×2	20×2	65	1.5	2	2	3000	7160	2340	2050	71.5	67	58	54.5	65.5	57	53.5
50×2	20×2	65	1.5	2	2	3240	7560	2600	2277	72	68	58.5	55	66.5	57.5	54.5
50×2	20×2	65	1.5	2	2	3390	8270	2938	2573	73.5	68.5	60	56.5	68	60	56.5
50×2	20×2	80	2.2	2	2	3570	8610	3250	2852	73.5	68.5	60	56.5	68	60	56.5
50×2	20×2	80	2.2	2	2	3920	9460	3575	3137	74	69.5	61	58	69	61	58
50×2	20×2	80	3.7	2	2	4000	9540	3910	3430	74	69.5	61	58	69	61	58
50×3	20×3	65	1.5	2	3	5070	12390	4407	3860	74.5	69.5	61	57.5	69	61.5	58.5
50×3	20×3	80	2.2	2	3	5340	12900	4875	4278	74.5	69.5	61	57.5	69	61.5	58.5
50×3	20×3	80	2.2	2	3	5860	14170	5362	4705	75	70.5	62	59	70	62.5	60
50×3	20×3	80	3.7	2	3	5980	14290	5865	5146	75	70.5	62	59	70	62.5	60
50×4	20×4	80	2.2	2	4	7110	17190	6500	5704	75	70	61.5	58	69.5	62.5	60
50×4	20×4	80	2.2	2	4	7800	18880	7150	6274	75.5	71	62.5	59	70.5	64	61
50×4	20×4	80	3.7	2	4	7960	19040	7820	6861	75.5	71	62.5	59	70.5	64	61
50×5	20×5	80	2.2	2	5	8880	21480	8125	7130	75.5	70.5	61.5	58.5	70	63	60.5
50×5	20×5	80	2.2	2	5	9740	23590	8937	7842	76	71.5	63	60	71	64.5	61.5
50×5	20×5	80	3.7	2	5	9940	23790	9775	8576	76	71.5	63	60	71	64.5	61.5
50×6	20×6	80	2.2	2	6	11680	28300	10725	9411	76.5	72	63.5	60.5	71.5	66	63.5
50×6	20×6	80	3.7	2	6	11920	28540	11730	10292	76.5	72	63.5	60.5	71.5	66	63.5
50×7	20×7	80	3.7	2	7	13900	33290	13685	12007	77	72.5	64	61	72	67	64.5

[Fan 45° Dm point] Should be angled 45° from fan casing end to the horizontal line and be separated by the length equal to diameter of the fan (Df). However, the minimum of Df should be 1.5 m

Delivery and lift up arrangement

Assembled unit form (one unit)



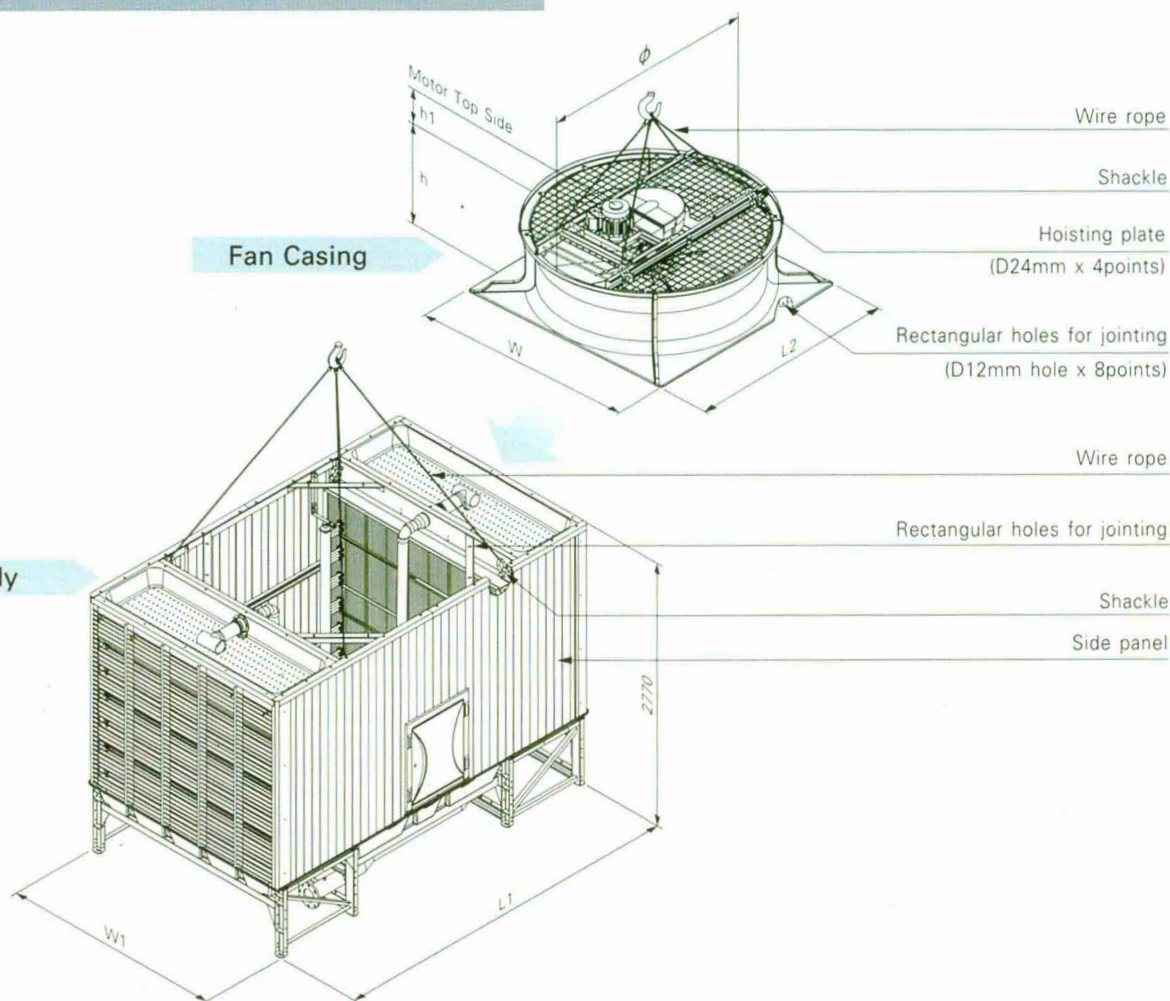
Assembled unit form method (one unit)

Model	Weight of Main Body (kg) x Cell	L (mm)	W (mm)	H (mm)	h+h1 (mm)
MXC-U30	800 × 1	2240	1850	2140	550
-U40	1020 × 1	2690	1550	2140	550
-U50	1170 × 1	2990	1850	2140	637
-U60	1180 × 1	2990	1850	2140	659

Semi assembled unit (main body + fan casing)

Model	Weight of Main Body (kg) x Cell	Weight of Fan Unit (kg) x Cell	Ladder (with Ladder Support)
MXC-U80	1300 × 1	210 × 1	1 Set
-U90	1310 × 1	210 × 1	
-U100	1390 × 1	250 × 1	
-U110	1430 × 1	280 × 1	
-U125	1520 × 1	280 × 1	
-U135	1640 × 1	340 × 1	
-U150	1660 × 1	360 × 1	
-U175	1310 × 2	210 × 2	
-U200	1390 × 2	250 × 2	
-U225	1430 × 2	280 × 2	
-U250	1520 × 2	280 × 2	
-U275	1640 × 2	340 × 2	
-U300	1660 × 2	360 × 2	
-U330	1430 × 3	280 × 3	
-U350	1520 × 3	280 × 3	
-U400	1640 × 3	340 × 3	
-U450	1660 × 3	360 × 3	
-U500	1520 × 4	280 × 4	
-U550	1640 × 4	340 × 4	
-U600	1660 × 4	360 × 4	
-U625	1520 × 5	280 × 5	
-U675	1640 × 5	340 × 5	
-U750	1660 × 5	360 × 5	
-U810	1640 × 6	340 × 6	
-U900	1660 × 6	360 × 6	
-U1050	1660 × 7	360 × 7	

Main body and Fan casing are jointed at site



Weight of Connect Part (kg) x Sets	L1 (mm)	L2 (mm)	W1 (mm)	W2 (mm)	ϕ (mm)	h (mm)	h (mm)
—	3270	1640	1750	1700	1700	630	389
	3270	1640	1950	1900	1700	630	389
	3270	1640	1950	1900	1700	630	439
	3570	1940	2150	2100	2000	660	439
	3570	1940	2150	2100	2000	660	439
	3870	2240	2350	2300	2300	730	449
	3870	2240	2350	2300	2300	730	497
10 × 2	3270	1640	1950	1900	1700	630	389
	3270	1640	1950	1900	1700	630	439
20 × 2	3570	1940	2150	2100	2000	660	439
	3570	1940	2150	2100	2000	660	439
	3870	2240	2350	2300	2300	730	449
20 × 3	3870	2240	2350	2300	2300	730	497
	3570	1940	2150	2100	2000	660	439
	3570	1940	2150	2100	2000	660	439
	3870	2240	2350	2300	2300	730	449
20 × 4	3870	2240	2350	2300	2300	730	497
	3570	1940	2150	2100	2000	660	439
	3870	2240	2350	2300	2300	730	449
	3870	2240	2350	2300	2300	730	497
20 × 5	3570	1940	2150	2100	2000	660	439
	3870	2240	2350	2300	2300	730	449
	3870	2240	2350	2300	2300	730	497
20 × 6	3870	2240	2350	2300	2300	730	449
	3870	2240	2350	2300	2300	730	497
20 × 7	3870	2240	2350	2300	2300	730	497



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 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