Excellent Proven Performance and Assurance of Superb Quality

COOLING TOWER Series 07
OPEN TYPE

COOLING TOWER

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OPEN TYPE

ISO-9001 CERTIFIED
MANUFACTURING FACTORY

MEMBER OF JCI

MEMBER OF CTI

Structure of SKB(Open) type Cooling Tower

Series 07

Over the decades, open type cooling tower has been more and more simplified in design to be light in weight, compact in size. However, the important concept we have cherished since the very beginning still remains to be applied in the design.

OPEN-TYPE COOLING TOWER
Water pipes are positioned low at tower bottom : No overhead inlet pipe required.

Fan Blade

Fan blade, in a special shape suitable to efficiently induce ambient air in and exhaust hot, humid air after heat-exchange.

Extremely Low in Vibration

Every fan unit is adjusted to be statically balanced before shipment. In this way, vibration can be subdued to minimum level.

Cleaning/Maintenence Made Simple

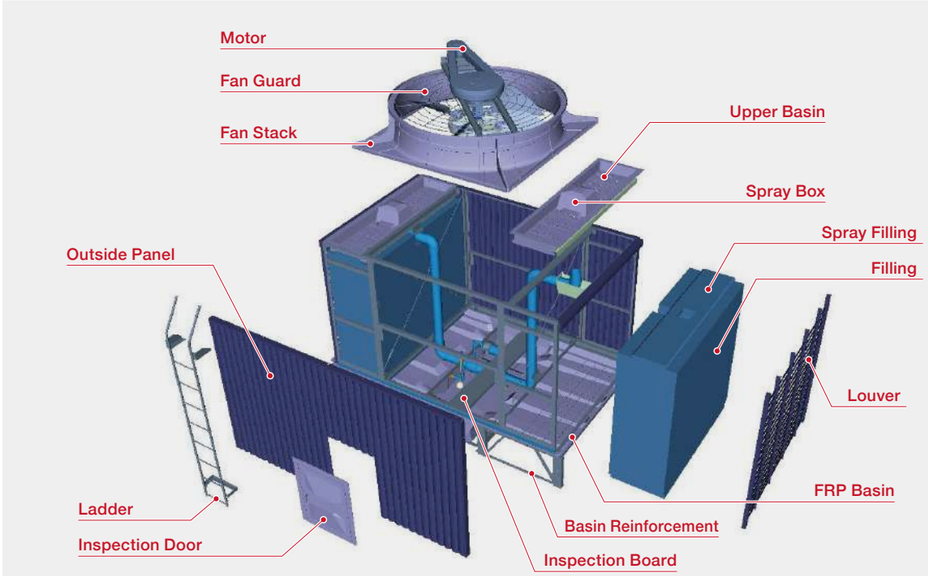
Lower basin is designed to be sloped towards center. It facilitates cleaning and maintenance work.

Knowhow Cherished and Applied

Tower is designed based on the concept that "amount of air and water must be balanced in specific ratio" on filling surface. It is easy to increase tower capacity by applying extremely high fan output to cool down water but the tower could suffer from heavy drift loss. Thanks to our newly developed filling, the balance could be still maintained even with water and air flow applied more in volume.

Inside of Cooling Tower and Parts

Almost all parts, such as filling, fan blade, fan hub, upper basin, lower basin, basin frame, and framework, have been specialy designed for Kuken new series cooling tower.



Filling

Filling has been modified to secure higher L/A value (water load per area) and heat-exchange efficiency. Consequently, tower width has been greatly diminished and potentiality of every single cell-unit has been higher in terms of capacity. (Conventional filling could be adopted for some towers depending on design condition.)

Fan unit

Specification of newly-developed fan blade (KS wing) ensures great noise reduction effect.

Lower basin

Basin is designed to have slope towards center to facilitate cleaning.

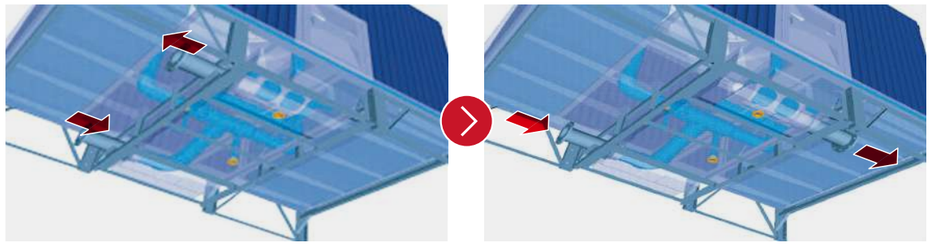
Internal of body

Wide inspection board and the location of internal pipe ensures easier maintenance.

Framework

By adopting steel, tower body strength has been increased. Also, galvanizing has been richer in property.

Outlet can be designed to be altered in direction

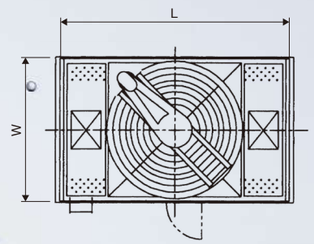


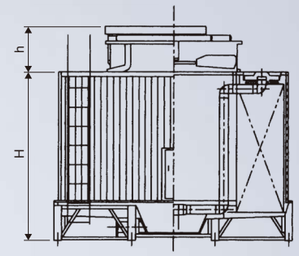
Low Noise Type

SKB-Ro /R (Ro: External piping, R: Internal piping)

High in efficiency, Compact in size.

Air and water perfectly in balance :
drift-loss can be subdued at minimum level.





MODEL	FLOW RATE (m³/h)		DIMENSION (mm)				WEIGHT		PUMPING HEAD
IN (°C)	37.0	37.5	length L	width W	height H	Fan height h	Net. kg	Ope. kg	kPa
OUT (°C)	32.0								
W.B (°C)	27.0								
SKB- 60	46.8	43.7	2830	1470	1930	520	660	1530	28.6
70	54.6	50.9	2830	1470	2230	520	680	1550	31.6
80	62.4	58.2	2830	1470	2230	520	720	1590	31.6
100	78.0	72.8	3030	1670	2230	570	760	1800	31.6
125	97.5	90.8	3230	1870	2230	570	870	2110	31.6
140	109.0	102	3230	1870	2230	570	890	2130	31.6
150	117.0	106	3230	1870	2630	570	940	2450	35.6
160	124.8	120	3230	1870	2930	570	1020	2530	38.5
175	136.0	124	3230	1870	2630	570	960	2470	35.6
190	148.2	138	3230	1870	2930	570	1040	2550	38.5
200	156.0	142	3430	2070	2630	700	1080	2810	35.6
215	167.7	156	3430	2070	2930	700	1170	2900	38.5
225	176.0	160	3630	2270	2630	700	1140	3130	35.6
235	183.3	170	3630	2270	2930	700	1240	3230	38.5
250	195.0	178	3630	2270	2630	700	1150	3140	35.6
265	204.0	198	3630	2270	2930	700	1250	3240	38.5
300	234.0	212	3230	3700	2630	570	1870	4890	35.6
320	249.6	240	3230	3700	2930	570	2020	5040	38.5
350	273.0	249	3230	3700	2630	570	1920	4940	35.6
380	296.4	276	3230	3700	2930	570	2070	5090	38.5
400	312.0	284	3430	4100	2630	700	2150	5610	35.6
430	335.4	316	3430	4100	2930	700	2320	5780	38.5
450	351.0	321	3630	4500	2630	700	2280	6260	35.6
470	366.6	340	3630	4500	2930	700	2470	6450	38.5
500	390.0	357	3630	4500	2630	700	2300	6280	35.6
530	408.0	396	3630	4500	2930	700	2490	6470	38.5
570	444.6	414	3230	5530	2930	570	3100	7630	38.5
600	468.0	427	3430	6130	2630	700	3220	8410	35.6
645	503.1	468	3430	6130	2930	700	3470	8660	38.5
700	546.0	497	3630	6730	2630	700	3450	9420	35.6
705	549.9	510	3630	6730	2930	700	3700	9670	38.5
795	612.0	594	3630	6730	2930	700	3730	9700	38.5
800	624.0	569	3430	8160	2630	700	4290	11210	35.6
860	670.8	624	3430	8160	2930	700	4620	11540	38.5
900	702.0	642	3630	8960	2630	700	4560	12520	35.6
940	733.2	680	3630	8960	2930	700	4930	12890	38.5
1000	780.0	714	3630	8960	2630	700	4600	12560	35.6
1060	816.0	794	3630	8960	2930	700	4970	12930	38.5

KUKEN AXIAL FLOW FAN				PIPING SIZE (mm)			SOUND LEVEL dB(A)				
							Louver side		Panel side		
Fan Diameter mm	Kw	Poles P	No.	Water In/Out	Overflow Drain	Make-up (Auto, Manual)	2 m	10 m	2 m	10 m	Fan 45° D m (min:1.5m)
1200	1.5	4	1	100	50	15	61.0	54.0	58.0	52.0	68.0
1200	2.2	4	1	100	50	15	63.0	55.5	59.0	53.0	68.5
1200	2.2	4	1	100	50	15	63.0	55.5	59.0	53.0	68.5
1400	2.2	4	1	100	50	15	63.5	56.0	59.5	54.0	70.0
1600	3.7	4	1	125	50	15	65.0	57.0	61.0	54.5	70.5
1600	5.5	4	1	125	50	15	66.0	58.0	62.0	56.5	71.5
1600	3.7	4	1	125	50	20	65.0	57.0	61.0	54.5	70.5
1600	3.7	4	1	125	50	20	65.0	57.0	61.0	54.5	70.5
1600	5.5	4	1	125	50	20	66.0	58.0	62.0	55.5	71.5
1600	5.5	4	1	150	50	20	66.0	58.0	62.0	55.5	71.5
1800	5.5	4	1	150	50	20	66.0	58.0	62.0	55.5	72.0
1800	5.5	4	1	150	50	20	66.0	58.0	62.0	55.5	72.0
2000	5.5	4	1	150	50	20	66.0	58.0	62.0	56.0	72.0
2000	5.5	4	1	150	50	32	66.0	58.0	62.0	56.0	72.0
2000	7.5	4	1	150	50	32	67.0	59.0	62.5	56.5	73.0
2000	7.5	4	1	150	50	32	67.0	59.0	62.5	56.5	73.0
1600	3.7	4	2	125x2	50x2	32	67.5	60.0	62.5	56.5	72.5
1600	3.7	4	2	125x2	50x2	32	67.5	60.0	62.5	56.5	72.5
1600	5.5	4	2	125x2	50x2	32	68.5	61.0	63.5	57.5	73.5
1600	5.5	4	2	150x2	50x2	32	68.5	61.0	63.5	57.5	73.5
1800	5.5	4	2	150x2	50x2	32	68.5	61.0	63.5	57.5	74.0
1800	5.5	4	2	150x2	50x2	40	68.5	61.0	63.5	57.5	74.0
2000	5.5	4	2	150x2	50x2	40	68.5	61.0	63.5	58.0	74.0
2000	5.5	4	2	150x2	50x2	40	68.5	61.0	63.5	58.0	74.0
2000	7.5	4	2	150x2	50x2	32x2	69.5	62.0	64.0	58.5	75.0
2000	7.5	4	2	150x2	50x2	32x2	69.5	62.0	64.0	58.5	75.0
1600	5.5	4	3	150x3	50x3	32x2	70.0	62.0	64.0	59.0	75.0
1800	5.5	4	3	150x3	50x3	32x2	70.0	62.5	64.5	58.5	75.0
1800	5.5	4	3	150x3	50x3	32x2	70.0	62.5	64.5	58.5	75.0
2000	7.5	4	3	150x3	50x3	32x2	71.0	63.5	65.0	59.5	76.0
2000	5.5	4	3	150x3	50x3	32x2	70.0	62.5	64.5	59.0	75.0
2000	7.5	4	3	150x3	50x3	32x2	71.0	63.5	65.0	59.5	76.0
1800	5.5	4	4	150x4	50x4	32x2	70.5	63.0	65.0	59.0	75.5
1800	5.5	4	4	150x4	50x4	40x2	70.5	63.0	65.0	59.0	75.5
2000	5.5	4	4	150x4	50x4	40x2	70.5	63.0	65.0	59.5	75.5
2000	5.5	4	4	150x4	50x4	40x2	70.5	63.0	65.0	59.5	75.5
2000	7.5	4	4	150x4	50x4	32x3	71.5	64.0	65.5	60.0	76.5
2000	7.5	4	4	150x4	50x4	32x3	71.5	64.0	65.5	60.0	76.5

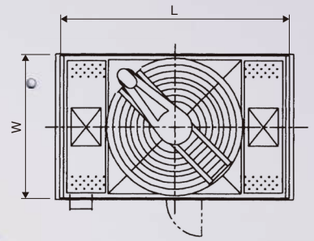
REMARKS * 1: Rated current values indicated above are just for reference. (Based on 1 unit of motor under 200V/50Hz or 200V/60Hz)
* 2: Piping size varies depending on circulating water flow rate and temperature.

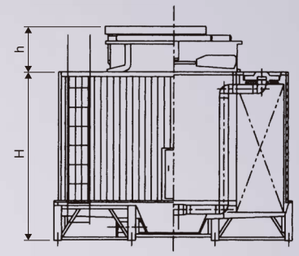
Extra Low Noise Type

SKB-So /S (So: External piping, S: Internal piping)

Most suitable for the enviroment in need of super-quiet equipment.

By adopting newly-developed super silent fan blade, sound level has been decreased by 5dB(A).





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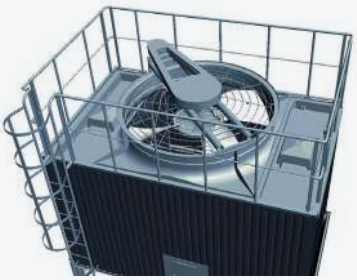
KUKEN AXIAL FLOW FAN				PIPING SIZE (mm)			SOUND LEVEL dB(A)				
							Louver side		Panel side		
Fan Diameter mm	Kw	Poles P	No.	Water In/Out	Overflow Drain	Make-up (Auto, Manual)	2 m	10 m	2 m	10 m	Fan 45° D m (min:1.5m)
1200	1.5	6	1	100	50	15	56.0	49.0	52.5	45.5	62.5
1200	1.5	6	1	100	50	15	57.0	50.0	53.5	47.5	63.5
1200	2.2	6	1	100	50	15	57.5	51.0	54.0	48.5	64.0
1400	2.2	4	1	100	50	15	58.5	52.0	55.0	49.5	65.0
1600	3.7	4	1	125	50	15	60.5	52.5	56.0	50.5	66.5
1600	5.5	4	1	125	50	15	61.0	53.0	56.5	51.0	67.0
1600	3.7	4	1	125	50	20	60.5	52.5	56.0	50.5	66.5
1600	3.7	4	1	125	50	20	60.5	52.5	56.0	50.5	66.5
1600	5.5	4	1	125	50	20	61.0	53.0	56.5	51.0	67.0
1600	5.5	4	1	150	50	20	61.0	53.0	56.5	51.0	67.0
1800	5.5	4	1	150	50	20	61.5	53.0	57.0	51.5	68.0
1800	5.5	4	1	150	50	20	61.5	53.0	57.0	51.5	68.0
2000	5.5	4	1	150	50	20	62.0	54.0	57.5	52.0	68.5
2000	5.5	4	1	150	50	32	62.0	54.0	57.5	52.0	68.5
2000	7.5	4	1	150	50	32	62.5	54.5	58.0	52.0	69.0
2000	7.5	4	1	150	50	32	62.5	54.5	58.0	52.0	69.0
1600	3.7	4	2	125x2	50x2	32	63.0	55.5	57.5	52.5	68.5
1600	3.7	4	2	125x2	50x2	32	63.0	55.5	57.5	52.5	68.5
1600	5.5	4	2	125x2	50x2	32	63.5	56.0	58.0	53.0	69.0
1600	5.5	4	2	150x2	50x2	32	63.5	56.0	58.0	53.0	69.0
1800	5.5	4	2	150x2	50x2	32	64.0	56.0	58.5	53.5	70.0
1800	5.5	4	2	150x2	50x2	40	64.0	56.0	58.5	53.5	70.0
2000	5.5	4	2	150x2	50x2	40	64.5	57.0	59.0	54.0	70.5
2000	5.5	4	2	150x2	50x2	40	64.5	57.0	59.0	54.0	70.5
2000	7.5	4	2	150x2	50x2	32x2	65.0	57.5	59.5	54.0	71.0
2000	7.5	4	2	150x2	50x2	32x2	65.0	57.5	59.5	54.0	71.0
1600	5.5	4	3	150x3	50x3	32x2	65.0	57.0	59.0	54.0	70.0
1800	5.5	4	3	150x3	50x3	32x2	65.5	57.5	59.5	54.5	71.0
1800	5.5	4	3	150x3	50x3	32x2	65.5	57.5	59.5	54.5	71.0
2000	7.5	4	3	150x3	50x3	32x2	66.5	59.0	60.5	55.0	72.0
2000	5.5	4	3	150x3	50x3	32x2	66.0	58.0	60.0	55.0	71.5
2000	7.5	4	3	150x3	50x3	32x2	66.5	59.0	60.5	55.0	72.0
1800	5.5	4	4	150x4	50x4	32x2	66.0	58.0	60.0	55.0	71.5
1800	5.5	4	4	150x4	50x4	40x2	66.0	58.0	60.0	55.0	71.5
2000	5.5	4	4	150x4	50x4	40x2	66.5	59.0	60.5	55.5	72.0
2000	5.5	4	4	150x4	50x4	40x2	66.5	59.0	60.5	55.5	72.0
2000	7.5	4	4	150x4	50x4	32x3	67.0	59.5	61.0	55.5	72.5
2000	7.5	4	4	150x4	50x4	32x3	67.0	59.5	61.0	55.5	72.5

REMARKS * 1: Rated current values indicated above are just for reference. (Based on 1 unit of motor under 200V/50Hz or 200V/60Hz)
* 2: Piping size varies depending on circulating water flow rate and temperature.

Optional Parts

Variety of optional parts are available for Kuken Cooling Tower.
Consult with KUKEN sales-agents for more detail.



For Safety

Handrail, Ladder with cage,
Upper basin cover, staircase, etc..

For Discharge Air, Silence

Duct, Elbow duct, Silencer,
Bird-proof net, Snow-proof parts, etc..

Vibration Isolator

It is designed to prevent vibration from being transmitted to rooms located below CT floor.

Water activator

Special ceramic applied unit generating infra-red beam. The beam is applied on cluster of water detaching chemical bonding to be high in permeating effect sufficient to soften silica.

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