



The Ultimate Cooling Machine

# MX SERIES CROSSFLOW COOLING TOWER



Certificate No.KLR 6037239

MX SERIES



C67B-16R00



**CERTIFIED PERFORMANCE**

**• DURABLE • ENERGY & SPACE SAVING**

## MX Series Quick Selection Table

The diagrams below shows the common combinations of various cold water, hot water and wet bulb temperature. However, if there is a difference in temperature combination, please contact the company for a selection of the cooling tower by our computer software.

Deg F	In	95	95	95.0	98.6	95	97	98	98.6	97	100	98.6	100	100
	Out	85.1	85.1	85.1	89.6	86	87	88	89.6	87	90	89.6	90	90
	WB	80.6	81.5	81.9	80.6	81	81	82	81.5	82	82	82.4	83	84

Deg C	In	35	35	35.0	37	35	36.11	36.67	37	36.11	37.78	37	37.78	37.78
	Out	29.5	29.5	29.5	32	30	30.56	31.11	32	30.56	32.22	32	32.22	32.22
	WB	27	27.5	27.7	27	27.22	27.22	27.78	27.5	27.78	27.78	28	28.33	28.89

MODEL	MOTOR kW	FLOWRATE (m3/hr)												
		66.21	56.73	52.84	128.98	78.34	85.50	87.69	120.48	75.32	111.92	111.56	102.99	92.26
2342A	2.2	66.21	56.73	52.84	128.98	78.34	85.50	87.69	120.48	75.32	111.92	111.56	102.99	92.26
2342B	3.7	79.16	67.79	63.12	155.34	93.71	102.25	104.93	144.92	90.08	134.15	134.09	123.32	110.48
2342C	5.5	90.10	77.29	72.01	178.04	107.53	116.42	119.62	165.88	102.70	153.15	153.14	140.65	126.13
2342D	7.5	100.38	86.06	80.16	198.26	119.46	129.66	133.18	184.69	114.35	170.64	170.52	156.64	140.44
2342E	11	114.26	97.93	91.21	225.54	135.82	147.60	151.55	209.98	130.11	194.20	193.75	178.11	159.65
2342F	15	126.81	108.66	101.20	250.45	150.31	163.96	168.28	233.00	144.51	215.83	214.75	197.97	177.38
2348A	2.2	73.81	63.99	59.95	140.05	86.79	94.03	96.47	131.06	83.51	121.82	121.67	112.65	101.51
2348B	3.7	87.76	75.74	70.80	168.77	104.10	112.39	115.45	157.75	99.52	146.22	146.25	134.98	121.52
2348C	5.5	101.34	87.60	81.96	194.34	119.65	129.56	132.94	181.61	114.83	168.54	168.32	155.42	139.86
2348D	7.5	112.95	97.47	91.11	216.61	133.18	144.69	147.97	202.42	128.10	187.75	187.64	173.01	155.66
2348E	11	128.87	111.04	103.70	248.02	152.06	165.38	169.31	231.68	146.30	215.02	214.67	198.17	178.10
2348F	15	142.99	123.21	115.09	275.37	168.70	183.47	187.80	257.11	162.26	238.64	238.07	219.80	197.60
2650B	3.7	105.31	91.32	85.59	196.91	123.27	133.96	136.72	184.60	118.93	171.98	171.81	159.25	143.64
2650C	5.5	120.83	104.65	98.02	226.93	141.65	153.98	157.12	212.67	136.61	197.92	197.83	183.15	165.08
2650D	7.5	134.27	116.32	108.94	253.04	157.68	171.15	174.99	237.07	151.90	220.65	220.50	204.10	183.93
2650E	11	153.03	132.55	124.13	290.66	179.89	195.08	199.75	271.55	173.13	252.18	251.95	233.07	209.96
2650F	15	170.18	147.29	137.89	322.64	200.12	217.12	222.25	301.96	192.56	280.79	280.44	259.41	233.60
2650G	18.5	182.99	158.16	147.98	347.46	215.18	233.78	238.95	325.15	207.12	302.06	301.93	278.96	251.12
2656B	3.7	115.35	100.66	94.64	211.15	134.34	145.57	148.54	198.50	129.79	185.43	185.38	172.24	155.81
2656C	5.5	132.40	115.45	108.50	243.76	154.47	167.31	170.94	228.97	149.13	213.73	213.61	198.44	179.40
2656D	7.5	147.48	128.47	120.69	272.25	172.08	186.70	190.58	255.63	166.24	238.57	238.36	221.37	200.05
2656E	11	168.34	146.48	137.52	311.77	196.58	213.23	217.80	292.57	189.75	272.95	272.62	253.13	228.73
2656F	15	186.96	162.83	152.96	347.56	218.66	237.04	242.27	326.06	211.09	303.95	303.70	281.79	254.57
2656G	18.5	201.11	174.88	164.13	373.93	235.10	254.92	260.63	350.71	226.76	326.95	326.55	303.02	273.70
2950C	5.5	125.30	108.40	101.46	236.93	147.17	159.95	163.45	221.82	141.83	206.40	206.11	190.77	171.81
2950D	7.5	139.41	120.55	112.81	264.40	163.87	178.06	181.96	247.42	157.83	230.01	229.75	212.44	191.30
2950E	11	158.74	136.99	128.08	294.57	186.79	203.24	207.79	279.65	179.89	260.78	262.17	242.73	218.49
2950F	15	176.56	152.36	142.44	336.93	207.99	226.06	231.17	315.07	200.09	292.76	292.30	270.13	243.09
2950G	18.5	189.84	163.79	153.08	362.29	223.41	242.92	248.40	338.71	215.00	314.71	314.15	290.32	261.22
2950H	22	201.28	173.56	162.16	384.61	236.95	257.65	263.56	359.55	227.94	334.05	333.44	308.16	277.21
2956C	5.5	136.77	119.07	111.81	253.52	159.83	173.29	177.14	237.91	154.30	222.06	221.71	205.94	186.05
2956D	7.5	152.59	132.69	124.53	283.25	178.12	193.44	197.45	263.61	172.07	245.15	246.72	229.67	207.38
2956E	11	173.98	151.15	141.79	324.44	203.51	220.79	225.54	304.17	196.30	283.43	283.09	262.50	236.93
2956F	15	193.13	167.63	157.20	361.68	226.38	245.60	251.12	338.96	218.17	315.85	315.32	292.36	263.78
2956G	18.5	207.68	180.24	168.98	389.15	243.37	263.97	269.87	364.65	234.51	339.67	339.15	314.29	283.55
2956H	22	219.995	190.898	178.97	412.88	258.109	279.801	286.223	386.857	248.564	360.317	359.757	333.396	300.801
3253D	7.5	158.90	137.88	129.27	297.93	186.19	201.98	206.23	279.19	179.41	259.67	259.74	240.17	216.63
3253E	11	181.39	157.13	147.17	341.14	212.65	231.09	236.20	319.55	205.07	297.64	297.08	275.49	248.32
3253F	15	201.34	174.32	163.24	380.42	236.61	256.70	262.49	356.27	227.70	331.09	331.19	306.16	275.89
3253G	18.5	216.29	187.28	175.36	408.77	254.16	275.75	282.41	382.76	244.67	356.36	355.73	329.49	296.82
3253H	22	229.58	198.60	185.88	434.09	269.59	292.95	299.72	406.30	259.73	378.42	377.41	349.82	315.12
3253I	30	254.84	220.34	206.18	483.06	299.65	325.38	333.02	452.01	288.38	420.68	419.70	388.72	350.10
3259D	7.5	174.48	152.28	143.19	320.75	203.55	220.18	224.78	301.38	196.31	280.80	281.28	260.74	235.87
3259E	11	199.20	173.63	163.16	367.10	232.41	251.77	257.22	344.73	224.30	321.82	321.51	298.63	269.99
3259F	15	221.76	192.98	181.20	410.07	259.03	280.87	287.09	384.95	249.94	359.47	358.83	333.62	301.39
3259G	18.5	238.04	207.21	194.59	441.45	278.50	301.36	308.10	414.38	268.24	386.05	386.24	357.95	323.42
3259H	22	252.59	219.76	206.31	468.80	295.43	319.96	327.19	439.87	284.70	410.10	409.79	380.28	343.51
3259I	30	280.553	244.055	229.08	522.343	328.654	355.507	363.881	489.913	316.335	456.452	456.144	423.041	382.074
3265D	7.5	187.52	164.26	154.74	338.51	217.87	235.52	240.53	318.66	210.53	298.68	298.09	278.30	252.28
3265E	11	214.34	187.62	176.68	388.55	248.99	269.32	275.06	365.71	240.59	342.07	342.02	318.29	288.36
3265F	15	238.57	208.67	196.41	433.88	277.40	300.08	306.64	408.12	267.96	381.78	381.37	355.15	321.63
3265G	18.5	256.43	224.11	210.87	467.33	298.34	322.87	330.03	439.50	288.15	411.19	410.63	382.39	346.20
3265H	22	271.98	237.71	223.66	496.64	316.82	342.47	350.15	467.00	305.66	436.45	436.21	405.72	367.33
3265I	30	302.32	264.07	248.41	553.34	352.25	380.95	389.55	519.98	339.85	486.05	485.30	451.47	408.65

## MX Series Quick Selection Table

The diagrams below shows the common combinations of various cold water, hot water and wet bulb temperature. However, if there is a difference in temperature combination, please contact the company for a selection of the cooling tower by our computer software.

Deg F	In	95	95	95.0	98.6	95	97	98	98.6	97	100	98.6	100	100
	Out	85.1	85.1	85.1	89.6	86	87	88	89.6	87	90	89.6	90	90
	WB	80.6	81.5	81.9	80.6	81	81	82	81.5	82	82	82.4	83	84

Deg C	In	35	35	35.0	37	35	36.11	36.67	37	36.11	37.78	37	37.78	37.78
	Out	29.5	29.5	29.5	32	30	30.56	31.11	32	30.56	32.22	32	32.22	32.22
	WB	27	27.5	27.7	27	27.22	27.22	27.78	27.5	27.78	27.78	28	28.33	28.89

MODEL	MOTOR kW	FLOWRATE (m3/hr)													
		221.73	193.47	181.89	405.59	258.20	279.82	285.95	381.22	249.46	356.97	355.93	331.73	300.08	
3658E	11	221.73	193.47	181.89	405.59	258.20	279.82	285.95	381.22	249.46	356.97	355.93	331.73	300.08	
3658F	15	245.51	214.82	202.27	449.59	286.33	308.97	315.84	422.38	275.97	394.11	394.12	365.82	331.45	
3658G	18.5	264.03	230.76	217.12	484.30	307.85	332.63	340.18	454.87	296.92	424.75	424.30	394.38	357.12	
3658H	22	280.18	244.78	230.25	515.30	327.02	353.26	361.35	483.81	315.31	451.50	451.06	419.11	379.45	
3658I	30	311.98	272.00	255.63	574.79	364.10	394.17	402.78	539.57	351.20	503.57	502.99	467.60	423.12	
3658J	37	335.14	292.12	274.46	618.00	391.26	423.58	433.59	580.69	377.45	542.22	542.25	503.60	455.42	
3664E	11	236.90	207.30	195.14	427.81	275.14	297.90	304.29	403.15	266.17	377.93	377.45	352.29	319.11	
3664F	15	263.93	230.86	217.33	478.16	306.29	332.42	339.23	449.94	296.86	424.75	420.92	392.95	356.18	
3664G	18.5	283.95	248.33	233.75	514.87	330.00	357.40	364.72	484.62	319.11	453.46	453.09	422.28	382.65	
3664H	22	303.64	264.26	248.10	554.94	354.23	384.11	392.12	522.96	341.83	488.70	489.69	455.27	411.43	
3664I	30	335.00	292.54	275.15	610.00	390.07	422.16	431.00	573.89	376.50	536.84	536.32	499.27	451.97	
3664J	37	359.36	313.62	294.85	655.57	418.42	453.25	463.07	616.64	404.15	577.00	576.19	536.93	485.96	
3670E	11	251.57	220.92	208.35	447.59	290.91	314.58	320.57	422.33	281.64	396.17	396.10	369.95	335.88	
3670F	15	280.94	246.19	232.05	499.59	322.91	351.54	357.08	471.17	313.96	441.71	441.63	411.62	373.24	
3670G	18.5	301.29	264.48	249.45	539.01	348.98	377.66	385.18	508.25	337.98	476.87	476.28	444.94	403.60	
3670H	22	319.98	280.60	264.45	573.08	370.35	400.96	409.24	540.14	358.69	506.83	505.90	472.94	429.10	
3670I	30	355.68	311.83	293.85	639.22	412.04	446.31	455.64	602.10	399.22	564.81	563.62	526.60	477.72	
3670J	37	382.37	334.95	315.55	688.42	443.28	479.98	490.15	648.51	428.97	607.86	606.99	566.59	513.75	
3959E	11	241.57	210.92	198.35	438.31	280.85	304.58	310.57	412.72	271.64	386.14	386.18	359.95	325.88	
3959F	15	268.60	234.39	220.40	489.95	313.14	339.08	345.92	461.07	302.25	430.91	431.15	400.95	362.89	
3959G	18.5	288.96	251.93	236.75	527.73	336.39	364.87	372.39	496.39	325.10	464.04	463.86	431.94	390.74	
3959H	22	306.64	267.48	251.45	560.79	357.29	387.14	395.23	527.48	345.04	493.65	492.96	458.27	414.68	
3959I	30	341.34	297.23	279.15	624.57	397.19	431.36	440.41	587.30	383.97	549.49	548.66	510.93	461.79	
3959J	37	365.70	318.54	299.20	671.14	426.75	462.48	472.58	630.85	411.82	590.14	589.04	548.59	496.03	
3959K	45	390.40	339.91	319.25	718.35	456.46	494.26	505.20	675.21	439.97	631.02	630.39	586.59	530.31	
3965E	11	260.92	229.06	216.05	465.81	302.35	326.84	333.19	439.55	292.52	411.93	412.41	384.62	349.20	
3965F	15	290.28	254.43	239.75	520.44	337.00	364.13	371.45	490.74	325.57	459.88	459.91	429.28	389.39	
3965G	18.5	312.97	274.27	258.45	560.94	362.37	392.60	400.48	528.61	350.92	495.86	495.16	462.61	419.52	
3965H	22	331.99	290.71	273.80	596.01	384.73	416.65	425.22	561.79	372.30	527.10	526.29	491.60	445.64	
3965I	30	368.36	322.33	303.55	665.14	428.31	463.42	473.19	626.61	413.79	587.14	586.55	547.26	495.97	
3965J	37	396.39	347.09	326.90	715.42	460.60	497.76	506.63	673.76	444.76	629.00	630.49	586.58	532.81	
3965K	45	423.75	370.66	348.95	766.06	491.89	533.00	544.49	721.15	475.84	676.25	674.48	629.92	570.72	
3971F	15	309.63	272.35	257.10	545.94	357.03	386.36	393.96	515.57	346.25	485.29	484.14	453.94	412.45	
3971G	18.5	333.32	293.21	276.80	589.08	384.23	415.91	424.03	556.14	372.77	523.04	521.90	488.94	444.07	
3971H	22	354.34	311.37	293.85	626.86	408.32	443.14	451.14	591.81	396.79	556.58	555.56	520.27	472.21	
3971I	30	394.71	346.85	327.20	699.35	454.80	492.76	502.37	660.07	441.41	620.45	619.35	579.59	525.99	
3971J	37	422.74	371.55	350.60	752.63	488.03	528.30	539.25	710.02	473.23	666.34	665.80	622.25	564.92	
3971K	45	451.77	397.09	374.65	806.63	523.27	565.05	577.25	760.76	506.39	713.55	713.29	666.58	605.32	
4359F	15	294.292	257.477	242.45	534.441	341.921	370.661	378.066	502.639	330.984	470.041	469.873	437.94	396.708	
4359G	18.5	315.981	276.115	259.80	574.865	367.695	398.181	406.276	541.116	355.305	505.686	506.08	470.935	426.285	
4359H	22	336	293.311	275.80	611.003	390.535	423.127	431.736	574.789	377.297	537.43	537.288	500.265	452.707	
4359I	30	373.373	325.727	306.20	681.138	434.64	470.949	480.778	640.855	419.763	599.136	599.043	557.59	504.227	
4359J	37	400.402	348.998	327.90	732.418	466.919	505.507	516.574	689.003	450.349	644.023	643.981	599.25	541.945	
4359K	45	427.431	372.696	350.30	783.698	499.158	540.043	552.026	737	481.166	688.587	688.453	640.245	579.21	
4359L	55	457.794	399.288	375.35	840.048	534.328	578.363	591.286	789.737	515.428	737.71	737.497	685.905	620.393	
4365F	15	318.306	279.386	263.45	577.932	368.309	398.411	406.493	539.68	356.57	502.289	502.633	469.27	425.948	
4365G	18.5	342.995	301.25	284.15	611.72	396.746	428.96	437.509	577.185	384.098	541	541.363	505.265	458.434	
4365H	22	363.684	319.138	300.85	650.859	421.492	455.59	465.018	614.157	407.808	575.474	576.088	537.26	487.356	
4365I	30	405.727	355.447	334.90	725.421	469.07	508.605	518.79	684.056	454.456	642.363	641.003	599.255	542.942	
4365J	37	435.091	381.063	358.95	668.916	504.704	546.005	556.788	690.469	487.9	690.152	684.852	643.58	583.418	
4365K	45	464.785	407.464	384.00	836.695	539.463	582.861	595.34	788.496	521.224	738.142	738.449	688.24	624.041	
4365L	55	497.823	435.487	410.05	896.402	577.692	625.68	638.616	844.478	558.465	792.113	790.545	738.235	668.981	

## MX Series Quick Selection Table

The diagrams below shows the common combinations of various cold water, hot water and wet bulb temperature. However, if there is a difference in temperature combination, please contact the company for a selection of the cooling tower by our computer software.

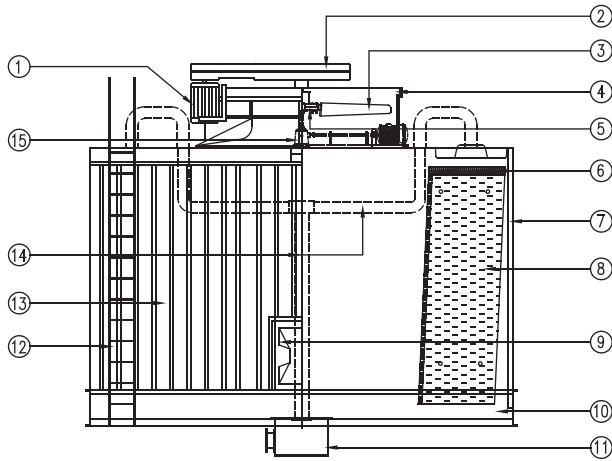
Deg F	In	95	95	95.0	98.6	95	97	98	98.6	97	100	98.6	100	100
	Out	85.1	85.1	85.1	89.6	86	87	88	89.6	87	90	89.6	90	90
	WB	80.6	81.5	81.9	80.6	81	81	82	81.5	82	82	82.4	83	84

Deg C	In	35	35	35.0	37	35	36.11	36.67	37	36.11	37.78	37	37.78	37.78
	Out	29.5	29.5	29.5	32	30	30.56	31.11	32	30.56	32.22	32	32.22	32.22
	WB	27	27.5	27.7	27	27.22	27.22	27.78	27.5	27.78	27.78	28	28.33	28.89

MODEL	MOTOR kW	FLOWRATE (m3/hr)												
		339.65	299.31	282.80	595.72	391.28	422.65	475.66	563.09	379.24	580.37	529.33	529.44	455.04
4371F	15	339.65	299.31	282.80	595.72	391.28	422.65	475.66	563.09	379.24	580.37	529.33	529.44	455.04
4371G	18.5	365.01	321.59	303.85	642.58	421.05	454.69	463.79	607.25	407.91	570.65	570.65	533.93	485.31
4371H	22	387.70	341.45	322.55	683.71	447.55	483.24	493.10	646.23	433.44	607.06	607.37	567.93	516.14
4371I	30	432.08	379.90	358.60	763.63	498.49	539.15	549.71	721.02	482.92	677.51	676.80	633.25	575.38
4371J	37	464.11	408.20	385.30	822.34	535.91	578.78	590.81	776.16	518.69	728.64	728.36	680.91	618.55
4371K	45	496.47	436.30	411.70	880.33	573.42	620.33	633.14	830.80	555.57	781.19	779.41	730.24	663.28
4371L	55	531.84	467.18	440.75	944.40	614.27	664.85	678.75	891.22	595.24	837.72	836.04	782.90	711.04
4377F	15	357.66	316.18	299.15	621.22	410.73	443.31	452.08	587.71	398.81	553.40	553.08	519.27	473.05
4377G	18.5	384.35	339.51	321.20	669.72	442.50	476.92	486.41	633.68	428.59	595.89	596.36	558.60	508.63
4377H	22	408.37	361.23	341.90	712.21	469.95	506.17	516.56	673.85	455.54	633.35	634.12	593.92	541.12
4377I	30	455.09	402.00	380.30	796.13	524.83	564.84	576.35	752.94	507.70	707.48	708.07	662.58	603.13
4377J	37	489.12	431.79	408.35	857.20	563.64	607.62	620.35	810.37	545.90	761.88	761.70	713.24	649.29
4377K	45	523.15	461.57	436.40	918.55	603.33	650.41	664.27	868.16	584.10	816.48	815.76	763.90	695.19
4377L	55	560.52	494.50	467.45	986.32	646.59	697.08	712.12	931.83	626.13	875.54	875.41	819.23	745.52
4759G	18.5	341.67	298.73	281.15	615.93	396.06	429.62	438.20	580.20	383.44	544.09	543.18	507.27	459.17
4759H	22	362.02	316.77	298.20	655.43	420.56	455.63	465.34	617.12	407.07	577.89	577.44	538.93	488.23
4759I	30	402.73	352.01	331.25	730.28	467.99	506.99	517.82	687.58	452.44	643.61	643.27	599.59	542.79
4759J	37	432.43	377.49	354.95	786.27	503.26	545.09	556.92	740.62	486.14	692.94	693.28	645.25	583.96
4759K	45	462.46	403.25	379.00	841.98	538.50	583.80	596.46	792.25	520.16	742.47	740.84	691.24	625.17
4759L	55	495.50	432.01	406.05	902.97	577.08	625.50	638.56	849.69	557.18	795.00	794.40	739.90	669.33
4765G	18.5	371.69	326.38	307.85	658.36	429.02	464.63	473.30	621.67	415.85	583.61	583.66	545.60	495.38
4765H	22	394.49	346.26	326.55	700.28	456.16	493.39	502.76	661.19	441.47	620.39	620.73	579.70	526.23
4765I	30	438.98	385.02	362.95	781.35	507.63	549.71	560.54	737.23	491.62	692.23	691.53	646.80	586.90
4765J	37	471.68	413.70	390.00	841.36	546.13	590.76	602.64	793.77	528.35	744.73	744.43	695.46	631.07
4765K	45	503.71	441.49	416.05	900.71	583.83	631.54	644.47	849.50	564.55	797.06	796.47	744.12	674.97
4765L	55	539.74	473.04	445.75	965.59	625.25	676.30	690.19	910.48	604.55	853.83	853.33	796.78	722.61
4771G	18.5	396.81	349.76	330.55	692.98	456.96	493.65	502.82	655.59	442.94	616.78	616.91	578.04	525.87
4771H	22	421.84	371.72	351.25	737.59	485.26	524.93	534.86	697.60	470.94	656.39	656.20	615.03	559.44
4771I	30	469.33	413.47	390.65	823.58	540.81	584.25	595.64	778.44	524.09	731.85	731.72	685.13	623.11
4771J	37	504.59	444.33	419.70	887.19	581.90	628.55	641.05	838.32	563.66	788.15	787.68	737.68	670.73
4771K	45	539.62	475.11	448.75	950.35	622.26	672.33	685.72	897.85	602.86	843.78	843.45	789.34	717.61
4771L	55	577.55	508.16	479.80	1019.46	667.08	720.09	734.76	962.92	645.38	904.56	904.32	845.89	768.71
4777G	18.5	418.94	370.63	350.90	722.14	480.21	518.45	528.03	683.96	466.43	644.82	644.50	605.48	551.92
4777H	22	444.41	392.94	371.95	769.11	510.52	550.71	561.07	728.17	495.19	685.91	685.81	643.59	586.48
4777I	30	495.45	437.86	414.35	859.89	569.39	614.27	626.16	813.86	552.19	766.16	766.19	718.58	654.60
4777J	37	532.71	470.71	445.40	926.41	612.75	660.57	673.57	876.59	593.76	824.80	825.00	773.12	704.22
4777K	45	570.19	503.64	476.45	993.16	655.63	707.39	721.57	939.46	635.71	884.06	883.83	828.56	754.56
4777L	55	610.34	538.76	509.50	1065.25	703.18	757.66	773.03	1007.93	680.59	947.97	948.37	888.00	808.36

### MODEL DEFINITION FOR MX2950F-IBI

MX	2950	1	F	B	I
CROSS FLOW TYPE	BOX SIZE	MOTOR SIZE	NO. OF CELLS	B-BELT & PULLEY G-GEAR REDUCER	I-INTERNAL PIPING M-MODIFICATION(NON CTI) S-SUPER LOW NOISE



ITEM	DESCRIPTION	MATERIAL / SPECIFICATIONS
1	MOTOR	IE 12,3 / 3 PHASE / 4 POLES / 45V/50hz
2	DRIVE SYSTEM	RIGHT ANGLE / HELICAL TYPE / V-BELT AND PULLEY
3	FAN BLADE	FRP/CAST ALUMINIUM ALLOY
4	FAN STACK	FRP
5	FAN HUB	CAST ALUMINIUM ALLOY
6	DRIFT ELIMINATOR	PVC
7	MAIN FRAME STRUCTURE	HOT DEEP GALVANISED STEEL
8	HIGH PERFORMANCE FILM FILL PACK	PVC
9	INSPECTION DOOR	FRP
10	COLD WATER BASIN	HOT DEEP GALVANISED STEEL
11	COLD WATER BASIN DUMP	FRP
12	LADDER	HOT DEEP GALVANISED STEEL
13	CASING	FRP
14	INTERNAL PIPING	OPTIONAL
15	GEAR REDUCER SYSTEM	OPTIONAL

## Tower Construction

Tower casing body is made out of F.R.P. (Fiberglass Reinforced Plastics) which is corrosion free, very durable and yet light. Furthermore the body is coated with a special epoxy consist of anti-ultraviolet agent making the tower body more resistant to UV sunlight. The tower main structure frame is using steel which has undergo hot dipped galvanization (HDG) process to prevent rust.

## Cold Water Basin

The cold water basin is constructed from F.R.P. (Fiberglass Reinforced Plastics) which is corrosion free and is supported by HDG steel frame underneath. The cold water basin is also slopping basin to ensure the dirt and sediments trapped inside the basin is being diverted towards the depressed sump in the centre of basin.

The depressed sump will prevent air lock from occurring during the tower operation. The sump is also supplied with suction strainer, makeup water ball valve, overflow and drain connection.

## Mechanical drive system

Fans are of axial type designed to deliver air performance at low noise level. Fan blades material shall be FRP as standard and aluminium alloy as optional. . All fan blades are factory balanced before shipped out. The fan is operating inside a fan stack enclosure to streamline the air entry while maintaining maximum fan efficiency.

The V belt drive system which connects the cast iron pulleys at the motor and fan is contained inside FRP belt cover. This is to ensure that the belts are protected from moist discharge air. Optional aluminium alloy pulleys are available.

The motor is of TEFC weather proof squirrel cage for 3 phase 415 V / 50 Hz power supply.

The motor shall be located outside the discharge air stream below the belt cover to prolong the motor life and ease of maintenance and access.

The fan bearing has a lubrication delivery system from external point outside the fan stack to the fan bearing to allow grease top up to be carried even when the fan is in operation.

## Fills

The film type cellular fill is made of air vacuum forming Ultra Violet (UV) Light resistant PVC sheets which have corrugated surface. The surface has been specially designed to spread the water droplet from hot water basin evenly. The fills are arranged in a special hanging configuration where no adhesive bonding is used. The infills are hanged from the top with rail support structure and hold firmly at the bottom with another same rail structure.

The built in PVC drift eliminator on the infill itself can reduce the water loss due to carry over within 0.005 % with very little air pressure drop.

## Water distribution system

The hot water basin is open gravity type flow made from FRP material that is resistant to Ultra Violet (UV) Light and corrosion. The water is distributed via specially positioned holes in the basin onto a scattering bars below. These scattering bars will sprinkle the water effective and evenly on the fill section underneath.



BOULEVARD KUCHING



KWSP SABAH



EMPIRE CITY



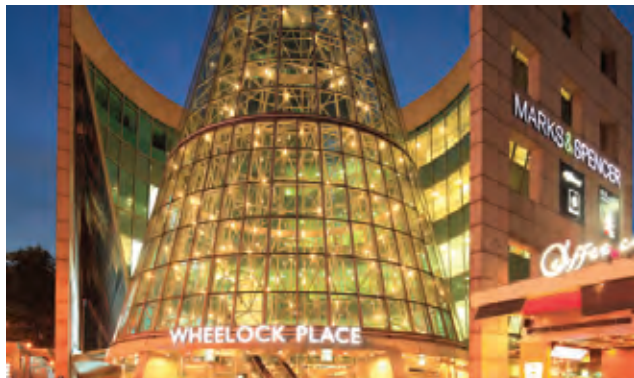
HILTON PUCHONG



MAHSA UNIVERSITY



WISMA CONSPLANT TOWER 2, SUBANG JAYA



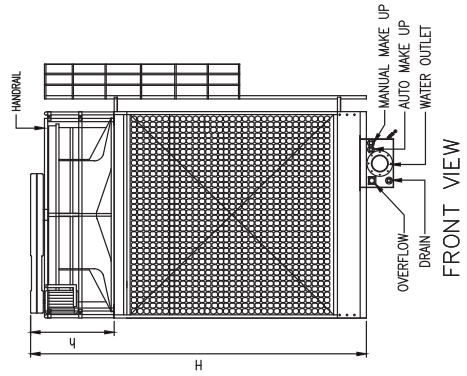
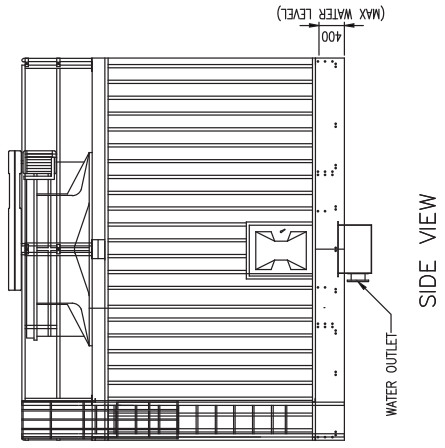
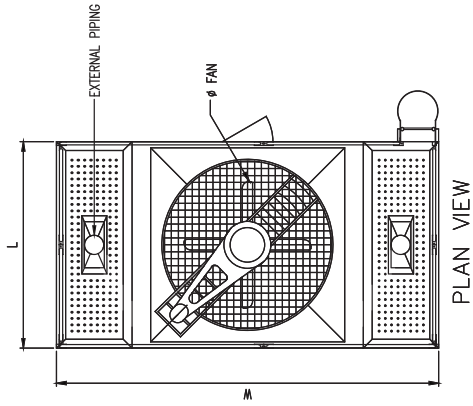
WHEELOCK PLACE SINGAPORE



CENTARUS PAKISTAN

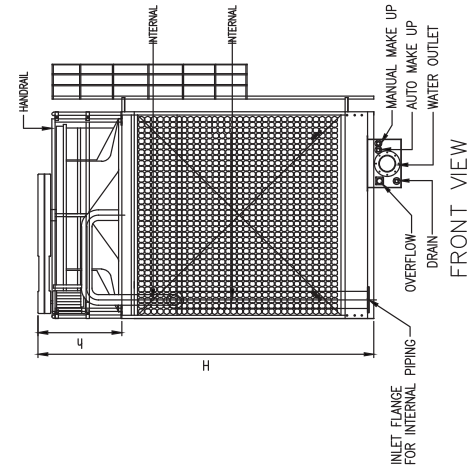
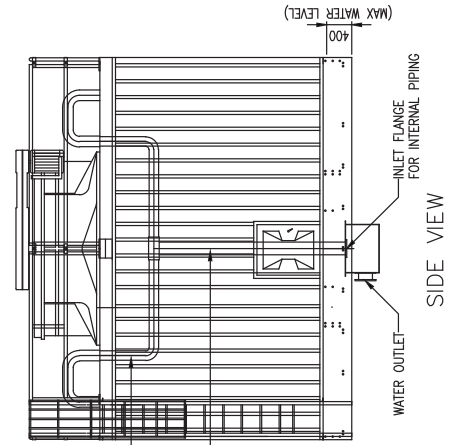
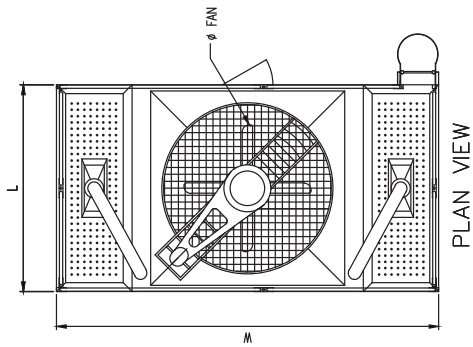
MX SERIES  
EXTERNAL PIPING

**STANDARD  
OPTION**



MX SERIES  
INTERNAL PIPING

**ALTERNATIVE  
OPTION**





MODEL	TOWER DIMENSION (mm)				MOTOR	AXIAL FAN DETAILS			PIPING INFORMATION (mm)							WEIGHT (KG)	
	L	W	h	H		F (mm)	NO OF BLADE	MATERIAL	INTERNAL PIPING	EXTERNAL PIPING	OUTLET	DRAIN	OVER FLOW	MAKE UP AUTO	MAKE UP MANUAL	DRY WEIGHT	OPERATING WEIGHT
MX																	
2342A	2320	5020	3380	4260	2.2				150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	2918	8653
2342B	2320	5020	3380	4260	3.7				150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	2924	8659
2342C	2320	5020	3380	4260	5.5				150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	2949	8668
2342D	2320	5020	3380	4260	7.5	2000	6	FRP	150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	2958	8719
2342E	2320	5020	3380	4260	11				150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3009	8742
2342F	2320	5020	3380	4260	15				150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3032	8774
2348A	2320	5020	3980	4860	2.2				150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3009	8744
2348B	2320	5020	3980	4860	3.7				150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3015	8750
2348C	2320	5020	3980	4860	5.5				150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3040	8759
2348D	2320	5020	3980	4860	7.5	2000	6	FRP	150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3049	8810
2348E	2320	5020	3980	4860	11				150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3100	8833
2348F	2320	5020	3980	4860	15				150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3123	8865
2650B	2620	5520	3980	5040	3.7				150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3065	8775
2650C	2620	5520	3980	5040	5.5				150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3090	8800
2650D	2620	5520	3980	5040	7.5				150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3099	8809
2650E	2620	5520	3980	5040	11	2400	6	FRP	150 X 1	150 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3150	8860
2650F	2620	5520	3980	5040	15				150 X 1	150 x 2	250 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3173	8883
2650G	2620	5520	3980	5040	18.5				150 X 1	150 x 2	250 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3205	8915
2656B	2620	5520	4580	5640	3.7				150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3169	8879
2656C	2620	5520	4580	5640	5.5				150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3194	8904
2656D	2620	5520	4580	5640	7.5				150 X 1	125 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3203	8913
2656E	2620	5520	4580	5640	11	2400	6	FRP	200 X 1	150 x 2	250 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3254	8964
2656F	2620	5520	4580	5640	15				200 X 1	150 x 2	250 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3277	8987
2656G	2620	5520	4580	5640	18.5				200 X 1	150 x 2	250 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3309	9019
2950C	2900	5520	3980	5040	5.5				200 X 1	150 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3767	9827
2950D	2900	5520	3980	5040	7.5				200 X 1	150 x 2	200 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3776	9836
2950E	2900	5520	3980	5040	11				200 X 1	150 x 2	250 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3827	9887
2950F	2900	5520	3980	5040	15	2400	6	FRP	200 X 1	150 x 2	250 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3850	9910
2950G	2900	5520	3980	5040	18.5				200 X 1	150 x 2	250 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3882	9942
2950H	2900	5520	3980	5040	22				200 X 1	150 x 2	250 x 1	50 x 1	80 x 1	50 x 1	50 x 1	3905	9965





MODEL	TOWER DIMENSION (mm)				MOTOR	AXIAL FAN DETAILS			PIPING INFORMATION (mm)							WEIGHT (KG)	
	L	W	h	H		F (mm)	NO OF BLADE	MATERIAL	INTERNAL PIPING	EXTERNAL PIPING	OUTLET	DRAIN	OVER FLOW	MAKE UP AUTO	MAKE UP MANUAL	DRY WEIGHT	OPERATING WEIGHT
2956C	2900	5520	4580	5640	5.5				200 X1	150 X2	200 X1	50 X1	80 X1	50 X1	50 X1	3883	9943
2956D	2900	5520	4580	5640	7.5				200 X1	150 X2	200 X1	50 X1	80 X1	50 X1	50 X1	3892	9952
2956E	2900	5520	4580	5640	11				200 X1	150 X2	250 X1	50 X1	80 X1	50 X1	50 X1	3943	10003
2956F	2900	5520	4580	5640	15	2400	6	FRP	200 X1	150 X2	250 X1	50 X1	80 X1	50 X1	50 X1	3956	10026
2956G	2900	5520	4580	5640	18.5				200 X1	150 X2	250 X1	50 X1	80 X1	50 X1	50 X1	3998	10058
2956H	2900	5520	4580	5640	22				200 X1	150 X2	250 X1	50 X1	80 X1	50 X1	50 X1	4021	10081
3253D	3260	6030	3980	5300	7.5				200 X1	150 X2	200 X1	50 X1	80 X1	50 X1	50 X1	3844	11694
3253E	3260	6030	3980	5300	11				200 X1	150 X2	250 X1	50 X1	80 X1	50 X1	50 X1	3895	11745
3253F	3260	6030	3980	5300	15				200 X1	150 X2	250 X1	50 X1	80 X1	50 X1	50 X1	3918	11768
3253G	3260	6030	3980	5300	18.5	2750	4	ALUMINIUM	200 X1	150 X2	250 X1	50 X1	80 X1	50 X1	50 X1	3950	11800
3253H	3260	6030	3980	5300	22				200 X1	150 X2	250 X1	50 X1	80 X1	50 X1	50 X1	3973	11823
3253I	3230	6030	3980	5300	30				200 X1	150 X2	300 X1	50 X1	80 X1	50 X1	50 X1	4060	11910
3259D	3260	6030	4580	5900	7.5				200 X1	150 X2	250 X1	50 X1	80 X1	50 X1	50 X1	3976	11826
3259E	3260	6030	4580	5900	11				200 X1	150 X2	250 X1	50 X1	80 X1	50 X1	50 X1	4027	11877
3259F	3260	6030	4580	5900	15				200 X1	150 X2	250 X1	50 X1	80 X1	50 X1	50 X1	4050	11900
3259G	3260	6030	4580	5900	18.5	2750	4	ALUMINIUM	250 X1	200 X2	300 X1	50 X1	80 X1	50 X1	50 X1	4082	11932
3259H	3260	6030	4580	5900	22				250 X1	200 X2	300 X1	50 X1	80 X1	50 X1	50 X1	4105	11955
3259I	3260	6030	4580	5900	30				250 X1	200 X2	300 X1	50 X1	80 X1	50 X1	50 X1	4192	12042
3265D	3260	6030	5180	6500	7.5				200 X1	150 X2	250 X1	50 X1	80 X1	50 X1	50 X1	4108	11958
3265E	3260	6030	5180	6500	11				200 X1	150 X2	250 X1	50 X1	80 X1	50 X1	50 X1	4159	12009
3265F	3260	6030	5180	6500	15				200 X1	150 X2	250 X1	50 X1	80 X1	50 X1	50 X1	4182	12032
3265G	3260	6030	5180	6500	18.5	2750	4	ALUMINIUM	250 X1	200 X2	300 X1	50 X1	80 X1	50 X1	50 X1	4214	12064
3265H	3260	6030	5180	6500	22				250 X1	200 X2	300 X1	50 X1	80 X1	50 X1	50 X1	4237	12087
3265I	3260	6030	5180	6500	30				250 X1	200 X2	300 X1	50 X1	80 X1	50 X1	50 X1	4324	12174
3658E	3645	6470	4580	5875	11				250 X1	200 X2	250 X1	50 X1	80 X1	50 X1	50 X1	4535	13125
3658F	3645	6470	4580	5875	15				250 X1	200 X2	250 X1	50 X1	80 X1	50 X1	50 X1	4558	13148
3658G	3645	6470	4580	5875	18.5				250 X1	200 X2	300 X1	50 X1	80 X1	50 X1	50 X1	4590	13180
3658H	3645	6470	4580	5875	22	3050	4	ALUMINIUM	250 X1	200 X2	300 X1	50 X1	80 X1	50 X1	50 X1	4613	13203
3658I	3645	6470	4580	5875	30				250 X1	200 X2	300 X1	50 X1	80 X1	50 X1	50 X1	4700	13290
3658J	3645	6470	4580	5875	37				250 X1	200 X2	300 X1	50 X1	80 X1	50 X1	50 X1	4753	13343



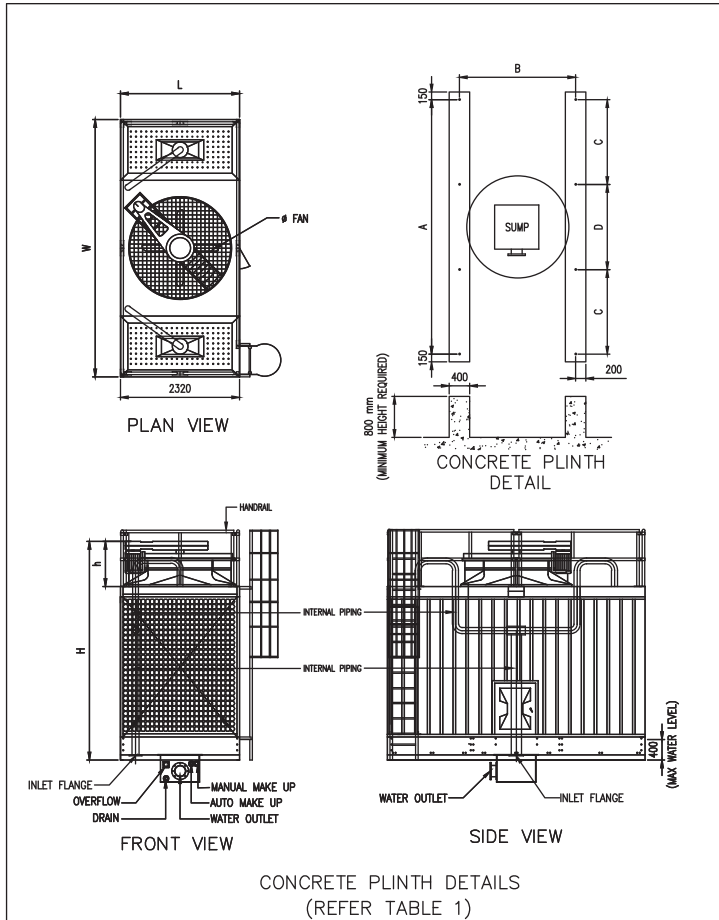
MODEL	TOWER DIMENSION (mm)				MOTOR	AXIAL FAN DETAILS			PIPING INFORMATION (mm)							WEIGHT (KG)			
	L	W	h	H		F (mm)	NO OF BLADE	MATERIAL	INTERNAL PIPING	EXTERNAL PIPING	OUTLET	DRAIN	OVER FLOW	MAKE UP AUTO	MAKE UP MANUAL	DRY WEIGHT	OPERATING WEIGHT		
3664E	3645	6470	5180	6475	11	3050	4	ALUMINIUM	250 X1	200 x 2	250 x1	50 x1	80 x1	50 x1	50 x1	4684	13274		
3664F	3645	6470	5180	6475	15				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	4707	13297
3664G	3645	6470	5180	6475	18.5				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	4739	13329
3664H	3645	6470	5180	6475	22				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	4762	13352
3664I	3645	6470	5180	6475	30	3050	4	ALUMINIUM	250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	4849	13439		
3664J	3645	6470	5180	6475	37				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	4902	13492
3670E	3645	6470	5780	7075	11				250 X1	200 x 2	250 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	4833	13423
3670F	3645	6470	5780	7075	15				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	4856	13446
3670G	3645	6470	5780	7075	18.5	3050	4	ALUMINIUM	250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	4888	13478		
3670H	3645	6470	5780	7075	22				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	4911	13501
3670I	3645	6470	5780	7075	30				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	4998	13588
3670J	3645	6470	5780	7075	37				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	5051	13641
3959E	3920	6790	4580	5915	11	3350	4	ALUMINIUM	250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	5358	14288		
3959F	3920	6790	4580	5915	15				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	5381	14311
3959G	3920	6790	4580	5915	18.5				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	5413	14343
3959H	3920	6790	4580	5915	22				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	5436	14366
3959I	3920	6790	4580	5915	30	3350	4	ALUMINIUM	250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	5523	14453		
3959J	3920	6790	4580	5915	37				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	5576	14506
3959K	3920	6790	4580	5915	45				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	5600	14530
3965E	3920	6790	5180	6515	11				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	5519	14449
3965F	3920	6790	5180	6515	15	3350	4	ALUMINIUM	250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	5542	14472		
3965G	3920	6790	5180	6515	18.5				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	5574	14504
3965H	3920	6790	5180	6515	22				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	5597	14527
3965I	3920	6790	5180	6515	30				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	5684	14614
3965J	3920	6790	5180	6515	37	3350	4	ALUMINIUM	250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	5737	14667		
3965K	3920	6790	5180	6515	45				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	5761	14691
3971F	3920	6790	5780	7115	15				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	5703	14633
3971G	3920	6790	5780	7115	18.5				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	5735	14665
3971H	3920	6790	5780	7115	22	3350	4	ALUMINIUM	250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	5758	14688		
3971I	3920	6790	5780	7115	30				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	5845	14775
3971J	3920	6790	5780	7115	37				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	5898	14828
3971K	3920	6790	5780	7115	45				250 X1	200 x 2	300 x1	50 x1	80 x1	50 x1	50 x1	50 x1	50 x1	5922	14852



MODEL	TOWER DIMENSION (mm)				MOTOR	AXIAL FAN DETAILS			PIPING INFORMATION (mm)								WEIGHT (KG)	
	L	W	h	H		F (mm)	NO OF BLADE	MATERIAL	INTERNAL PIPING	EXTERNAL PIPING	OUTLET	DRAIN	OVER FLOW	MAKE UP		DRY WEIGHT	OPERATING WEIGHT	
MX																		
4359F	4370	7220	4580	5930	15				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7301	16751	
4359G	4370	7220	4580	5930	18.5				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7333	16783	
4359H	4370	7220	4580	5930	22				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7356	16806	
4359I	4370	7220	4580	5930	30	4	ALUMINIUM	3650	250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7443	16893	
4359J	4370	7220	4580	5930	37				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7496	16946	
4359K	4370	7220	4580	5930	45				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7520	16970	
4359L	4370	7220	4580	5930	55				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7648	17098	
4365F	4370	7220	5180	6530	15				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7481	16931	
4365G	4370	7220	5180	6530	18.5				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7513	16963	
4365H	4370	7220	5180	6530	22				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7536	16986	
4365I	4370	7220	5180	6530	30	4	ALUMINIUM	3650	250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7623	17073	
4365J	4370	7220	5180	6530	37				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7676	17126	
4365K	4370	7220	5180	6530	45				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7700	17150	
4365L	4370	7220	5180	6530	55				250 X 1	200 X 2	350 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7828	17278	
4371F	4370	7220	5780	7130	15				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7661	17111	
4371G	4370	7220	5780	7130	18.5				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7693	17143	
4371H	4370	7220	5780	7130	22				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7716	17166	
4371I	4370	7220	5780	7130	30	4	ALUMINIUM	3650	250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7803	17253	
4371J	4370	7220	5780	7130	37				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7856	17306	
4371K	4370	7220	5780	7130	45				250 X 1	200 X 2	350 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7880	17330	
4371L	4370	7220	5780	7130	55				250 X 1	200 X 2	350 X 1	50 X 1	80 X 1	50 X 1	50 X 1	8008	17458	
4377F	4370	7220	6380	7730	15				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7842	17292	
4377G	4370	7220	6380	7730	18.5				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7874	17324	
4377H	4370	7220	6380	7730	22				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7897	17347	
4377I	4370	7220	6380	7730	30	4	ALUMINIUM	3650	250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	7984	17434	
4377J	4370	7220	6380	7730	37				250 X 1	200 X 2	300 X 1	50 X 1	80 X 1	50 X 1	50 X 1	8037	17487	
4377K	4370	7220	6380	7730	45				250 X 1	200 X 2	350 X 1	50 X 1	80 X 1	50 X 1	50 X 1	8061	17511	
4377L	4370	7220	6380	7730	55				250 X 1	200 X 2	350 X 1	50 X 1	80 X 1	50 X 1	50 X 1	8189	17639	



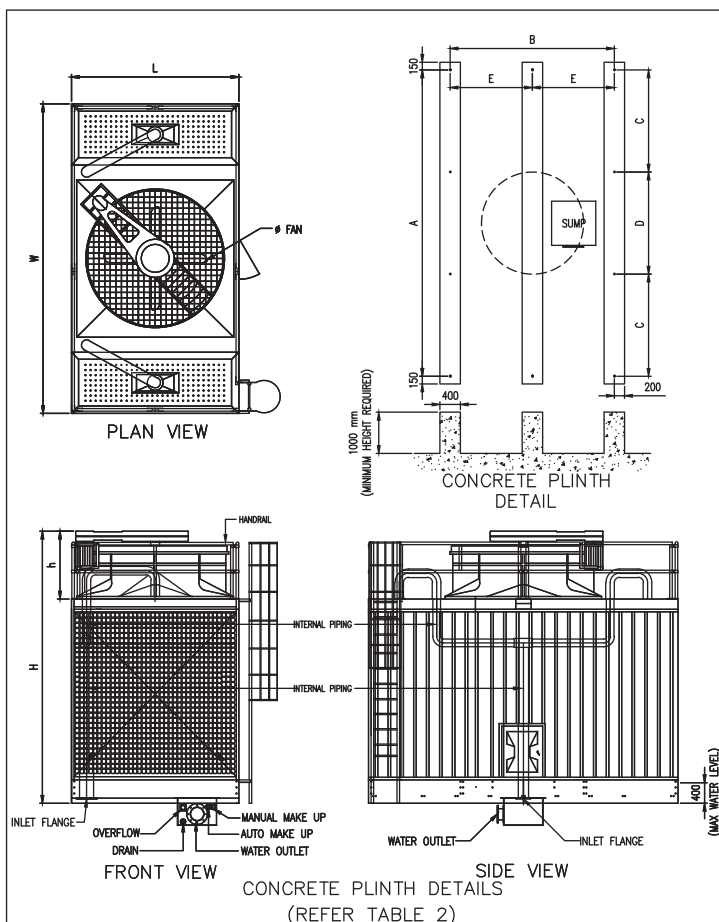
MODEL	TOWER DIMENSION (mm)				MOTOR	AXIAL FAN DETAILS			PIPING INFORMATION (mm)							WEIGHT (KG)		
	L	W	h	H		kW	F (mm)	NO OF BLADE	MATERIAL	INTERNAL PIPING	EXTERNAL PIPING	OUTLET	DRAIN	OVER FLOW	MAKE UP AUTO	MAKE UP MANUAL	DRY WEIGHT	OPERATING WEIGHT
MX																		
4759G	4720	7460	4580	5930	18.5					250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	7526	21326
4759H	4720	7460	4580	5930	22					250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	7549	21349
4759I	4720	7460	4580	5930	30		4	ALUMINIUM		250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	7636	21436
4759J	4720	7460	4580	5930	37					250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	7689	21489
4759K	4720	7460	4580	5930	45					250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	7713	21513
4759L	4720	7460	4580	5930	55					250 X 1	200 x 2	350 x 1	50 x 1	80 x 1	50 x 1	50 x 1	7841	21641
4765G	4720	7460	5180	6530	18.5					250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	7722	21522
4765H	4720	7460	5180	6530	22					250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	7745	21545
4765I	4720	7460	5180	6530	30					250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	7832	21632
4765J	4720	7460	5180	6530	37		4	ALUMINIUM		250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	7885	21685
4765K	4720	7460	5180	6530	45					250 X 1	200 x 2	350 x 1	50 x 1	80 x 1	50 x 1	50 x 1	7909	21709
4765L	4720	7460	5180	6530	55					250 X 1	200 x 2	350 x 1	50 x 1	80 x 1	50 x 1	50 x 1	8037	21837
4771G	4720	7460	5780	7130	18.5					250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	7917	21717
4771H	4720	7460	5780	7130	22					250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	7940	21740
4771I	4720	7460	5780	7130	30					250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	8027	21827
4771J	4720	7460	5780	7130	37					250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	8080	21880
4771K	4720	7460	5780	7130	45					250 X 1	200 x 2	350 x 1	50 x 1	80 x 1	50 x 1	50 x 1	8104	21904
4771L	4720	7460	5780	7130	55					250 X 1	200 x 2	350 x 1	50 x 1	80 x 1	50 x 1	50 x 1	8232	22032
4777G	4720	7460	6380	7730	18.5					250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	8113	21913
4777H	4720	7460	6380	7730	22					250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	8136	21936
4777I	4720	7460	6380	7730	30					250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	8223	22023
4777J	4720	7460	6380	7730	37					250 X 1	200 x 2	300 x 1	50 x 1	80 x 1	50 x 1	50 x 1	8276	22076
4777K	4720	7460	6380	7730	45					250 X 1	200 x 2	350 x 1	50 x 1	80 x 1	50 x 1	50 x 1	8300	22100
4777L	4720	7460	6380	7730	55					250 X 1	200 x 2	350 x 1	50 x 1	80 x 1	50 x 1	50 x 1	8428	22228



NOTE : ALL DIMENSION IN MM

MODEL	TOWER DIMENSION				CONCRETE PLINTH DETAILS					
	L	W	H	h	A	B	C	D	E	PH
MX2342A-1B	2320	5020	4260	880	4960	2260	1650	1660	-	800
MX2342B-1B										
MX2342C-1B										
MX2342D-1B										
MX2342E-1B										
MX2342F-1B	2320	5020	4860	880	4960	2260	1650	1660	-	800
MX2348A-1B										
MX2348B-1B										
MX2348C-1B										
MX2348D-1B										
MX2348E-1B										
MX2348F-1B	2620	5520	5040	1060	5460	2560	1820	1820	-	800
MX2650B-1B										
MX2650C-1B										
MX2650D-1B										
MX2650E-1B										
MX2650F-1B										
MX2650G-1B	2620	5520	5640	1060	5460	2560	1820	1820	-	800
MX2656B-1B										
MX2656C-1B										
MX2656D-1B										
MX2656E-1B										
MX2656F-1B										
MX2656G-1B	2900	5520	5040	1060	5460	2840	1820	1820	-	800
MX2950C-1B										
MX2950D-1B										
MX2950E-1B										
MX2950F-1B										
MX2950G-1B										
MX2950H-1B	2900	5520	5640	1060	5460	2840	1820	1820	-	800
MX2956C-1B										
MX2956D-1B										
MX2956E-1B										
MX2956F-1B										
MX2956G-1B										
MX2956H-1B										

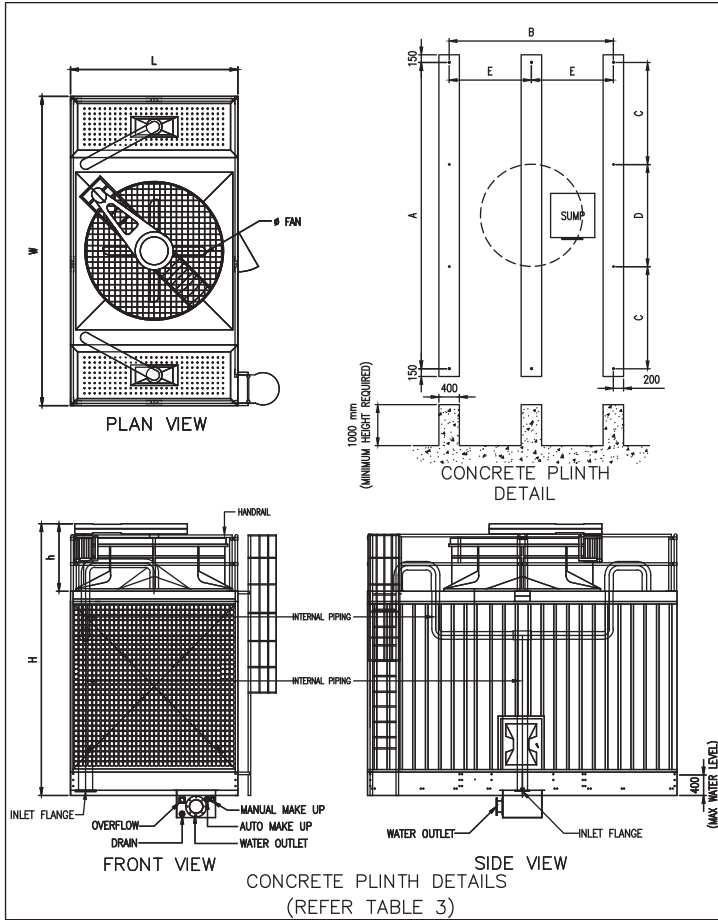
TABLE 1



NOTE : ALL DIMENSION IN MM

MODEL	TOWER DIMENSION				CONCRETE PLINTH DETAILS					
	L	W	H	h	A	B	C	D	E	PH
MX3253D-1B	3260	6030	5300	1320	5970	3200	1990	1990	1600	800
MX3253E-1B										
MX3253F-1B										
MX3253G-1B										
MX3253H-1B										
MX3253I-1B	3260	6030	5900	1320	5970	3200	1990	1990	1600	800
MX3259D-1B										
MX3259E-1B										
MX3259F-1B										
MX3259G-1B										
MX3259H-1B										
MX3259I-1B	3260	6030	6500	1320	5970	3200	1990	1990	1600	800
MX3265D-1B										
MX3265E-1B										
MX3265F-1B										
MX3265G-1B										
MX3265H-1B										
MX3265I-1B	3645	6470	5875	1295	6410	3585	2145	2120	1792.5	800
MX3658E-1B										
MX3658F-1B										
MX3658G-1B										
MX3658H-1B										
MX3658I-1B										
MX3658J-1B	3645	6470	6475	1295	6410	3585	2145	2120	1792.5	800
MX3664E-1B										
MX3664F-1B										
MX3664G-1B										
MX3664H-1B										
MX3664I-1B										
MX3664J-1B	3645	6470	7075	1295	6410	3585	2145	2120	1792.5	800
MX3670E-1B										
MX3670F-1B										
MX3670G-1B										
MX3670H-1B										
MX3670I-1B										
MX3670J-1B										

TABLE 2



Note :

1. PLINTH IS CONSTRUCTS BY OTHERS
2. MINIMUM PLINTH HEIGHT REQUIRE IS AS SHOWN IN FIGURE

NOTE : ALL DIMENSION IN MM

MODEL	TOWER DIMENSION				CONCRETE PLINTH DETAILS					
	L	W	H	h	A	B	C	D	E	PH
MX3959F-1B	3920	6790	5915	1335	6730	3860	2240	2250	1930	800
MX3959G-1B										
MX3959H-1B										
MX3959I-1B										
MX3959J-1B										
MX3959K-1B										
MX3965F-1B	3920	6790	6515	1335	6730	3860	2240	2250	1930	800
MX3965G-1B										
MX3965H-1B										
MX3965I-1B										
MX3965J-1B										
MX3965K-1B										
MX3971F-1B	3920	6790	7115	1335	6730	3860	2240	2250	1930	800
MX3971G-1B										
MX3971H-1B										
MX3971I-1B										
MX3971J-1B										
MX3971K-1B										
MX4359F-1B	4370	7220	5930	1350	7160	4310	2385	2390	2155	800
MX4359G-1B										
MX4359H-1B										
MX4359I-1B										
MX4359J-1B										
MX4359K-1B										
MX4365F-1B	4370	7220	6530	1350	7160	4310	2385	2390	2155	800
MX4365G-1B										
MX4365H-1B										
MX4365I-1B										
MX4365J-1B										
MX4365K-1B										
MX4365L-1B										
MX4371F-1B	4370	7220	7130	1350	7160	4310	2385	2390	2155	800
MX4371G-1B										
MX4371H-1B										
MX4371I-1B										
MX4371J-1B										
MX4371K-1B										
MX4371L-1B										
MX4377F-1B	4370	7220	7730	1350	7160	4310	2385	2390	2155	800
MX4377G-1B										
MX4377H-1B										
MX4377I-1B										
MX4377J-1B										
MX4377K-1B										
MX4377L-1B										
MX4759G-1B	4720	7460	5930	1350	7400	4660	2465	2470	2330	800
MX4759H-1B										
MX4759I-1B										
MX4759J-1B										
MX4759K-1B										
MX4759L-1B										
MX4765G-1B	4720	7460	6530	1350	7400	4660	2465	2470	2330	800
MX4765H-1B										
MX4765I-1B										
MX4765J-1B										
MX4765K-1B										
MX4765L-1B										
MX4771G-1B	4720	7460	7130	1350	7400	4660	2465	2470	2330	800
MX4771H-1B										
MX4771I-1B										
MX4771J-1B										
MX4771K-1B										
MX4771L-1B										
MX4777G-1B	4720	7460	7730	1350	7400	4660	2465	2470	2330	800
MX4777H-1B										
MX4777I-1B										
MX4777J-1B										
MX4777K-1B										
MX4777L-1B										

TABLE 3



**GEAR REDUCER**

In addition to using V belt, right angle reduction gears are used for stringer application that requires no down time due to wear and tear. This type of option gives the building owner the convenience of planning the down time for planned maintenance. Design features and ratings are in accordance with the minimum requirements of AGMA (American Gear Manufacturers Association) and CTI (Cooling Technology Institute) standards.



**HANDRAIL**

The safety option is to ensure that working at elevated height of cooling tower is now complete with guard rail around the tower parameters. This option can be further enhanced with caged ladder which is an added feature as well.



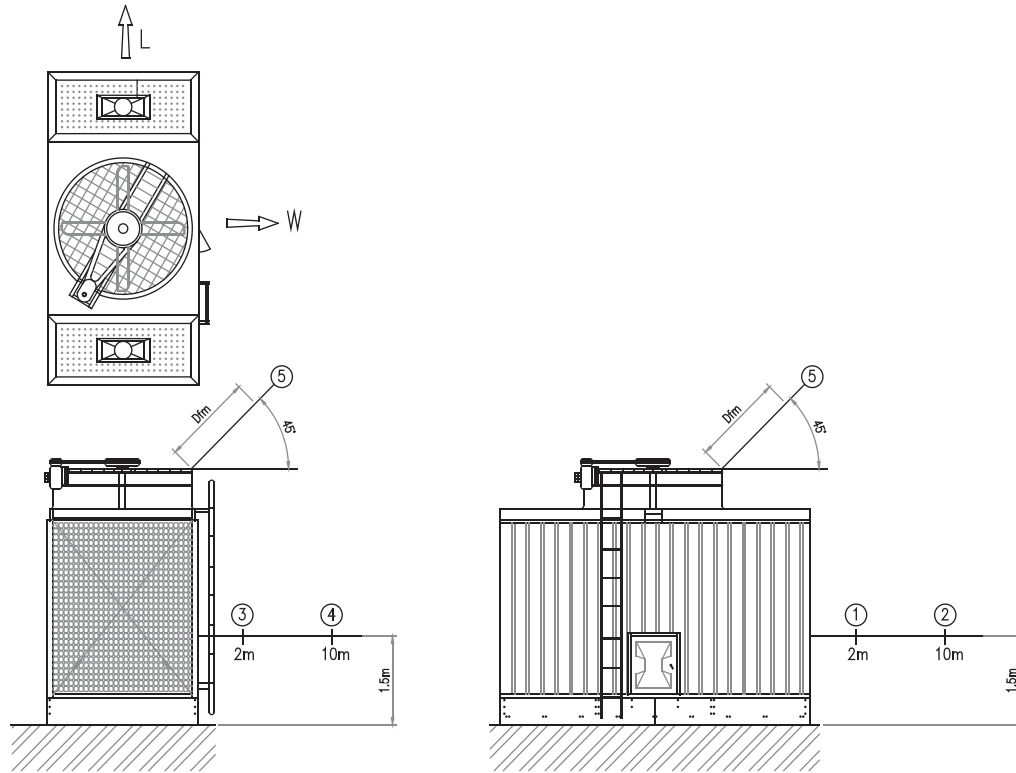
**HIGH EFFICIENCY MOTOR**

Our high efficiency motor are rated to Eff2 or IE1 (standard) , Eff1 and IE2 (high efficiency). We also offer latest IE3 (premium) standards as indicated by IEC 60034-30. The choice of efficiency is up the client's preferences. For usage with variable speed inverters, we recommend special modification to the motor is required in order to allow the motor to operate at low frequency.



**DISCHARGE HOOD**

This option gives alternative diversion of hot air discharge from the fan stack to other direction deemed more suitable. It is made from Fibreglass Reinforced Polyester (FRP) which is the same material as the fan stack. The most popular discharge angle is 45°.



TOWER MODEL	Louver (L)		Panel (W)		FAN (Dfm) (45°)	TOWER MODEL	Louver (L)		Panel (W)		FAN (Dfm) (45°)
	①	②	③	④	⑤		①	②	③	④	⑤
MX2342A-1B	68.50	54.52	64.50	50.52	70.50	MX2956C-1B	71.50	57.52	67.50	53.52	72.00
MX2342B-1B	69.00	55.02	65.00	51.02	71.50	MX2956D-1B	72.00	58.02	68.00	54.02	73.00
MX2342C-1B	69.50	55.52	65.50	51.52	72.00	MX2956E-1B	72.50	58.52	68.50	54.52	74.00
MX2342D-1B	70.00	56.02	66.00	52.02	73.00	MX2956F-1B	73.00	59.02	69.00	55.02	75.00
MX2342E-1B	71.00	57.02	67.00	53.02	74.00	MX2956G-1B	74.00	60.02	70.00	56.02	76.50
MX2342F-1B	72.50	58.52	68.50	54.52	75.00	MX2956H-1B	74.50	60.52	70.50	56.52	77.00
MX2348A-1B	68.50	54.52	64.50	50.52	70.50	MX3253D-1B	72.50	58.52	68.50	54.52	77.50
MX2348B-1B	69.00	55.02	65.00	51.02	71.50	MX3253E-1B	73.00	59.02	69.00	55.02	78.00
MX2348C-1B	69.50	55.52	65.50	51.52	72.00	MX3253F-1B	74.50	60.52	70.50	56.52	78.50
MX2348D-1B	70.00	56.02	66.00	52.02	73.00	MX3253G-1B	75.00	61.02	71.00	57.02	79.00
MX2348E-1B	71.00	57.02	67.00	53.02	74.00	MX3253H-1B	75.50	61.52	71.50	57.52	80.00
MX2348F-1B	72.50	58.52	68.50	54.52	75.00	MX3253I-1B	76.00	62.02	72.00	58.02	81.00
MX2650B-1B	69.50	55.52	65.50	51.52	71.50	MX3259D-1B	72.50	58.52	68.50	54.52	77.50
MX2650C-1B	70.00	56.02	66.00	52.02	72.00	MX3259E-1B	73.00	59.02	69.00	55.02	78.00
MX2650D-1B	70.50	56.52	66.50	52.52	73.00	MX3259F-1B	74.50	60.52	70.50	56.52	78.50
MX2650E-1B	71.50	57.52	67.50	53.52	74.00	MX3259G-1B	75.00	61.02	71.00	57.02	79.00
MX2650F-1B	73.00	59.02	69.00	55.02	75.00	MX3259H-1B	75.50	61.52	71.50	57.52	80.00
MX2650G-1B	74.50	60.52	70.50	56.52	76.50	MX3259I-1B	76.00	62.02	72.00	58.02	81.00
MX2656B-1B	69.50	55.52	65.50	51.52	71.50	MX3265D-1B	73.00	59.02	69.00	55.02	77.50
MX2656C-1B	70.00	56.02	66.00	52.02	72.00	MX3265E-1B	73.50	59.52	69.50	55.52	78.00
MX2656D-1B	70.50	56.52	66.50	52.52	73.00	MX3265F-1B	74.50	60.52	70.50	56.52	78.50
MX2656E-1B	71.50	57.52	67.50	53.52	74.00	MX3265G-1B	75.00	61.02	71.00	57.02	79.00
MX2656F-1B	73.00	59.02	69.00	55.02	75.00	MX3265H-1B	75.50	61.52	71.50	57.52	80.00
MX2656G-1B	74.50	60.52	70.50	56.52	76.50	MX3265I-1B	76.50	62.52	72.50	58.52	81.00
MX2950C-1B	71.50	57.52	67.50	53.52	72.00	MX3658E-1B	75.00	61.02	71.00	57.02	78.50
MX2950D-1B	72.00	58.02	68.00	54.02	73.00	MX3658F-1B	75.50	61.52	71.50	57.52	79.00
MX2950E-1B	72.50	58.52	68.50	54.52	74.00	MX3658G-1B	76.00	62.02	72.00	58.02	79.50
MX2950F-1B	73.00	59.02	69.00	55.02	75.00	MX3658H-1B	77.00	63.02	73.00	59.02	80.00
MX2950G-1B	74.00	60.02	70.00	56.02	76.50	MX3658I-1B	77.50	63.52	73.50	59.52	80.50
MX2950H-1B	74.50	60.52	70.50	56.52	77.00	MX3658J-1B	78.00	64.02	74.00	60.02	81.50



# MX SERIES NOISE DATA



TOWER MODEL	Louver (L)		Panel (W)		FAN (Dfm) (45°)	TOWER MODEL	Louver (L)		Panel (W)		FAN (Dfm) (45°)
	①	②	③	④	⑤		①	②	③	④	⑤
MX3664E-1B	75.00	61.02	71.00	57.02	78.50	MX4365I-1B	80.00	66.02	76.00	62.02	82.00
MX3664F-1B	75.50	61.52	71.50	57.52	79.00	MX4365J-1B	81.00	67.02	77.00	63.02	82.50
MX3664G-1B	76.00	62.02	72.00	58.02	79.50	MX4365K-1B	81.50	67.52	77.50	63.52	83.50
MX3664H-1B	77.00	63.02	73.00	59.02	80.00	MX4365L-1B	81.50	67.52	77.50	63.52	84.00
MX3664I-1B	77.50	63.52	73.50	59.52	80.50	MX4371F-1B	78.00	64.02	74.00	60.02	80.00
MX3664J-1B	78.00	64.02	74.00	60.02	81.50	MX4371G-1B	78.50	64.52	74.50	60.52	81.00
MX3670E-1B	75.50	61.52	71.50	57.52	78.50	MX4371H-1B	79.50	65.52	75.50	61.52	81.50
MX3670F-1B	76.00	62.02	72.00	58.02	79.00	MX4371I-1B	80.00	66.02	76.00	62.02	82.00
MX3670G-1B	77.00	63.02	73.00	59.02	79.50	MX4371J-1B	81.00	67.02	77.00	63.02	82.50
MX3670H-1B	77.50	63.52	73.50	59.52	80.00	MX4371K-1B	81.50	67.52	77.50	63.52	83.50
MX3670I-1B	78.00	64.02	74.00	60.02	80.50	MX4371L-1B	81.50	67.52	77.50	63.52	84.00
MX3670J-1B	79.00	65.02	75.00	61.02	81.50	MX4377F-1B	78.50	64.02	74.00	60.02	80.00
MX3959E-1B	77.00	63.02	73.00	59.02	79.50	MX4377G-1B	79.00	64.52	74.50	60.52	81.00
MX3959F-1B	77.50	63.52	73.50	59.52	80.00	MX4377H-1B	80.00	65.52	75.50	61.52	81.50
MX3959G-1B	78.00	64.02	74.00	60.02	80.00	MX4377I-1B	80.50	66.02	76.00	62.02	82.00
MX3959H-1B	78.50	64.52	74.50	60.52	80.50	MX4377J-1B	81.00	67.02	77.00	63.02	82.50
MX3959I-1B	79.00	65.02	75.00	61.02	81.50	MX4377K-1B	81.50	67.52	77.50	63.52	83.50
MX3959J-1B	79.50	65.52	75.50	61.52	82.00	MX4377L-1B	82.00	67.52	77.50	63.52	84.00
MX3959K-1B	80.00	66.02	76.00	62.02	82.00	MX4759G-1B	80.00	64.52	74.50	60.52	82.00
MX3965E-1B	77.00	63.02	73.00	59.02	79.50	MX4759H-1B	80.50	65.52	75.50	61.52	82.50
MX3965F-1B	77.50	63.52	73.50	59.52	80.00	MX4759I-1B	81.00	66.02	76.00	62.02	83.00
MX3965G-1B	78.00	64.02	74.00	60.02	80.00	MX4759J-1B	81.50	67.02	77.00	63.02	83.50
MX3965H-1B	78.50	64.52	74.50	60.52	80.50	MX4759K-1B	82.00	67.52	77.50	63.52	84.00
MX3965I-1B	79.00	65.02	75.00	61.02	81.50	MX4759L-1B	82.50	67.52	77.50	63.52	84.50
MX3965J-1B	79.50	65.52	75.50	61.52	82.00	MX4765G-1B	80.00	64.52	74.50	60.52	82.00
MX3965K-1B	80.00	66.02	76.00	62.02	82.00	MX4765H-1B	80.50	65.52	75.50	61.52	82.50
MX3971F-1B	77.50	63.52	73.50	59.52	80.00	MX4765I-1B	81.00	66.02	76.00	62.02	83.00
MX3971G-1B	78.00	64.02	74.00	60.02	80.00	MX4765J-1B	81.50	67.02	77.00	63.02	83.50
MX3971H-1B	78.50	64.52	74.50	60.52	80.50	MX4765K-1B	82.00	67.52	77.50	63.52	84.00
MX3971I-1B	79.00	65.02	75.00	61.02	81.50	MX4765L-1B	82.50	67.52	77.50	63.52	84.50
MX3971J-1B	79.50	65.52	75.50	61.52	82.00	MX4771G-1B	80.50	64.52	74.50	60.52	82.00
MX3971K-1B	80.00	66.02	76.00	62.02	82.00	MX4771H-1B	81.00	65.52	75.50	61.52	82.50
MX4359F-1B	78.00	64.02	74.00	60.02	80.00	MX4771I-1B	81.50	66.02	76.00	62.02	83.00
MX4359G-1B	78.50	64.52	74.50	60.52	81.00	MX4771J-1B	82.00	67.02	77.00	63.02	83.50
MX4359H-1B	79.50	65.52	75.50	61.52	81.50	MX4771K-1B	82.50	67.52	77.50	63.52	84.00
MX4359I-1B	80.00	66.02	76.00	62.02	82.00	MX4771L-1B	83.00	67.52	77.50	63.52	84.50
MX4359J-1B	81.00	67.02	77.00	63.02	82.50	MX4777G-1B	80.50	64.52	74.50	60.52	82.00
MX4359K-1B	81.50	67.52	77.50	63.52	83.50	MX4777H-1B	81.00	65.52	75.50	61.52	82.50
MX4359L-1B	81.50	67.52	77.50	63.52	84.00	MX4777I-1B	81.50	66.02	76.00	62.02	83.00
MX4365F-1B	78.00	64.02	74.00	60.02	80.00	MX4777J-1B	82.00	67.02	77.00	63.02	83.50
MX4365G-1B	78.50	64.52	74.50	60.52	81.00	MX4777K-1B	82.50	67.52	77.50	63.52	84.00
MX4365H-1B	79.50	65.52	75.50	61.52	81.50	MX4777L-1B	83.00	67.52	77.50	63.52	84.50

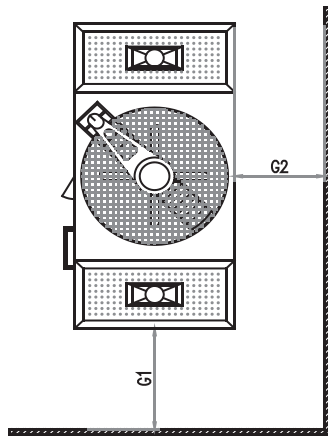


FIGURE : 1

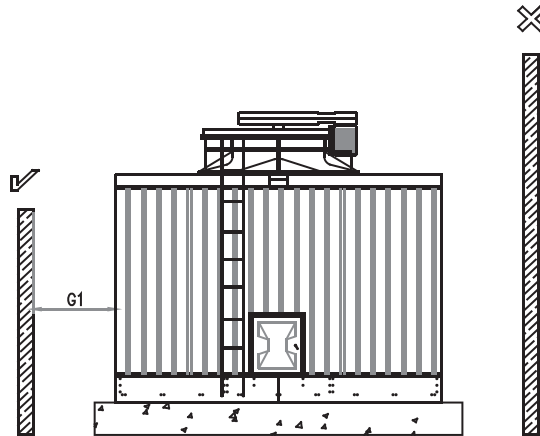


FIGURE : 2

Refer Table 1, for the distance recommended if cooling tower is located near to a wall.

Tower Model MX Series	Recommended Distance (mm)	
	G1 (Air Intake)	G2 (For Maintenance Access)
2342A-2956H	2000-2500	1000
3253D-3670J	2500-3000	1000
3959E-3971K	3500-4000	1000
4359F-4777L	4500-5000	1000

Table 1: Distance Cooling Tower to Wall

Based on Figure 2, the wall near to the cooling tower is always recommended to be lower than cooling tower. This is to prevent discharge air from cooling tower to recirculate, as this will effect the cooling tower's performance.

It is always preferred, if the wall is a louvered wall, that there should be a 70% net free area and the louver height should not be higher than cooling tower.

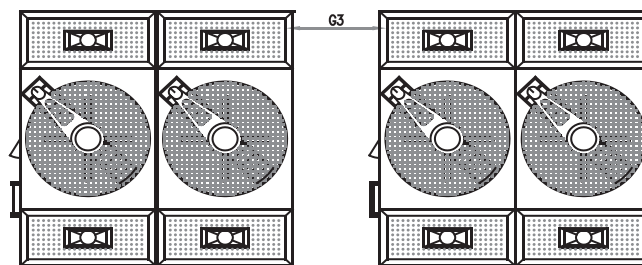


FIGURE 3

Tower Model MX Series	Recommended Distance (mm)
	G3
All Models	1000

Table 2: Distance Cooling in Series Arrangement

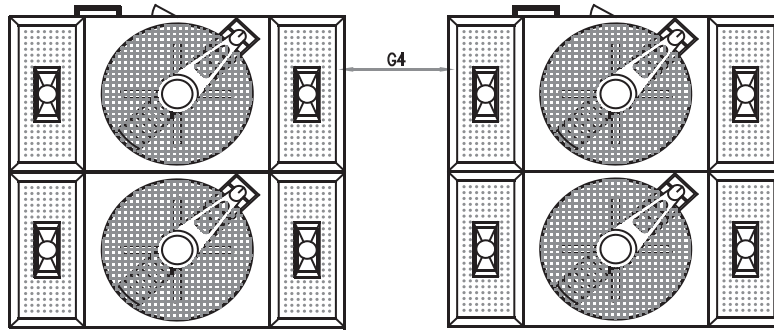


FIGURE 4

Tower Model MX Series	Recommended Distance (mm)
	G4
2342A-2956H	3000-3500
3253D-3971K	4000-4500
4359F-4777L	5000-5500

Table 3: Distance Cooling in Parallel Arrangement

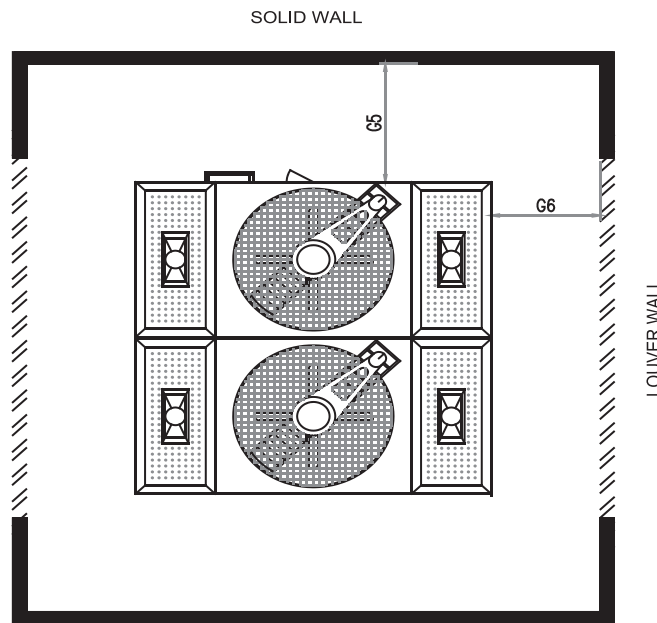


FIGURE 5

Tower Model MX Series	Recommended Distance (mm)	
	G5	G6 (Panels Side)
2342A-2956H	1500-2000	1000
3253D-3971K	2000	1000
4359F-4777L	2500	1000

Table 4: Distance Cooling between Solid Wall & Louver Wall

## 1. Evaporating Loss (E) kg/h

The evaporating quantity may be calculated by the equation below:

$$E = \frac{Q}{600} = \frac{(T1-T2) \times WF \times C}{600}$$

Where WE	: Evaporating Quantity	kg/h
Q	: Heat of Cooling	Kcal/h
600	: Latent Heat of Water	Kcal/kg °C
T1	: Intake Water Temperature	°C
T2	: Discharge water Temperature	°C
WF	: Circulating Water Flow	kg/h
C	: Specific Heat of Water	1 Kcal/kg °C

## 2. Drift Loss ( D ) kg/h

The drift loss (D) depend on the type of cooling tower and drift eliminators used. Due to the air flow at a certain speed created by the fan, some water droplets are carried away with the air, this is called carry-over loss.

There are many factors affecting the figure and this generally at a low level, approximately 0.005% of the normal circulating water quantity.

## 3. Blowdown Quantity (B) kg/h

The blow-down (B) can be carried out in any of the following methods

- (1) The drain valve is kept slightly open during the run.
- (2) Maintain the operating water level higher to create slight overflow
- (3) The whole basin water is replenished with fresh water during shut down for cleaning

The required level of blowdown varies depending on the water quantity or the extent of concentrations, but is generally believed to be about 0.2% to 0.4 % for air conditioning applications.

## 4. Replenishing Water Flow rate (R) kg/h

$$R = E + D + B$$

Eg: Evaporation loss : E = 0.98%  
 Drift loss : D = 0.005%  
 Blow-down : B = 0.4%

Therefore, the make-up water required is approximately  
 = 0.98% + 0.005% + 0.4%  
 = 1.385%

Hence, considering safety margin, a make up of 2% of the circulating water flow rate is sufficient.



## COOLING TECHNOLOGY INSTITUTE

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Phone: 281.583.4087 • Fax: 281.537.1721 • email: [vmanser@cti.org](mailto:vmanser@cti.org) • <http://www.cti.org>

June 20, 2016  
(Revision 0)

Genius Cooling Towers Sdn Bhd  
N. 35-2,35-3, Jalan Puteri 4/1,  
Bandar Puteri, 47100 Puchong,  
Selangor, Malaysia

Subject: CTI Cooling Tower Certification for the  
Genius Cooling Towers  
Line of MX Series Cooling Towers

Greetings:

The Genius Cooling Towers Sdn Bhd (Genius), line of MX Series induced-draft, cross-flow, cooling towers, as described in your original application and subsequent revisions and clarifications through May 30, 2016, has satisfactorily fulfilled the requirements for certification of thermal performance by the Cooling Technology Institute (CTI), as set forth in the CTI Certification Standard STD-201(15). A listing of the one-hundred-forty-four (144) primary single-cell models of the MX Series line of cooling towers presently encompassed by this certification is included with this letter for reference.

The Genius line of MX Series cooling towers has been assigned and should use CTI Certification Validation Number C67B-16R00. You are hereby authorized and encouraged to display the CTI Certification Logo in all pertinent literature and are required to affix the CTI Certification Label on all towers comprising the line, as provided in the Certification Standard.

This CTI Certification requires the successful completion of a CTI Annual Reverification Test on a different model each year to remain in effect in the subsequent year.

Very truly yours,

A handwritten signature in black ink that reads 'Michael Womack'.

Michael G. Womack, PE  
CTI Thermal Certification Administrator



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**Genius Cooling Towers Sdn Bhd (Genius)  
 MX Series Line of CTI Certified Cooling Towers  
 CTI Certification Validation Number C67B-16R00  
 June 20, 2016 (Revision 0)**

MX2342A	MX2956C	MX3664E	MX4359F	MX4765G
MX2342B	MX2956D	MX3664F	MX4359G	MX4765H
MX2342C	MX2956E	MX3664G	MX4359H	MX4765I
MX2342D	MX2956F	MX3664H	MX4359I	MX4765J
MX2342E	MX2956G	MX3664I	MX4359J	MX4765K
MX2342F	MX2956H	MX3664J	MX4359K	MX4765L
			MX4359L	
MX2348A	MX3253D	MX3670E	MX4365F	MX4771G
MX2348B	MX3253E	MX3670F	MX4365G	MX4771H
MX2348C	MX3253F	MX3670G	MX4365H	MX4771I
MX2348D	MX3253G	MX3670H	MX4365I	MX4771J
MX2348E	MX3253H	MX3670I	MX4365J	MX4771K
MX2348F	MX3253I	MX3670J	MX4365K	MX4771L
			MX4365L	
MX2650B	MX3259D	MX3959E	MX4371F	MX4777G
MX2650C	MX3259E	MX3959F	MX4371G	MX4777H
MX2650D	MX3259F	MX3959G	MX4371H	MX4777I
MX2650E	MX3259G	MX3959H	MX4371I	MX4777J
MX2650F	MX3259H	MX3959I	MX4371J	MX4777K
MX2650G	MX3259I	MX3959J	MX4371K	MX4777L
		MX3959K	MX4371L	
MX2656B	MX3265D	MX3965E	MX4377F	
MX2656C	MX3265E	MX3965F	MX4377G	
MX2656D	MX3265F	MX3965G	MX4377H	
MX2656E	MX3265G	MX3965H	MX4377I	
MX2656F	MX3265H	MX3965I	MX4377J	
MX2656F	MX3265I	MX3965J	MX4377K	
		MX3965K	MX4377L	
MX2950C	MX3658E	MX3971F	MX4759G	
MX2950D	MX3658F	MX3971G	MX4759H	
MX2950E	MX3658G	MX3971H	MX4759I	
MX2950F	MX3658H	MX3971I	MX4759J	
MX2950G	MX3658I	MX3971J	MX4759K	
MX2950H	MX3658J	MX3971K	MX4759L	

See Footnotes, below



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### Genius Cooling Towers Sdn Bhd (Genius) MX Series Line of CTI Certified Cooling Towers CTI Certification Validation Number C67B-16R00 June 20, 2016 (Revision 0)

#### Footnotes:

1. Certification includes optional structural materials:
  - Hot Dipped Galvanized Steel Structure (Standard)
  - Stainless Steel Structure
  - Pultruded FRP Structure
  - Timber structure
2. Certification includes alternate Drive Configurations:
  - Belt and Pulley Drive (Standard)
  - Gear-Reducer Drive
3. Certification includes alternate water inlet configuration :-
  - External Inlet Piping
  - Internal Inlet Piping
4. Certification also includes additional items :-
  - Handrail & Cage Ladder
  - Discharge Hood (Straight or Elbow type)
5. Certification does not include Modified (model with suffix M) Cooling Tower that will affect the thermal performance.
6. Certification includes standard low noise fan configuration (no suffix) and optional super low noise fan configuration (suffix S).
7. Multiple cell configuration of a single cell models above are also available but not listed individually. Multi-cell configurations are end-wall to end-wall arrangement of the single cell design which do not impact the air flow rate or capacity of the individual cells, and are included in the certification.
8. Certified Model Number Example: **MX 2950F-2BS**

Where,

- MX = Product Line for Cross-Flow Cooling Tower
- 2950 = Nominal Box Size
- F = Nominal Motor Size
- 2 = 2-Cell Configuration (Twice the capacity of the base value)
- B = Belt & Pulley / G = Gear Reducer Drive
- S = Suffix Entry
  - I - Internal Piping
  - M - Modification (non certified)
  - S – Super Low Noise



## The Ultimate Cooling Machine

### HQ / Sales Office

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