

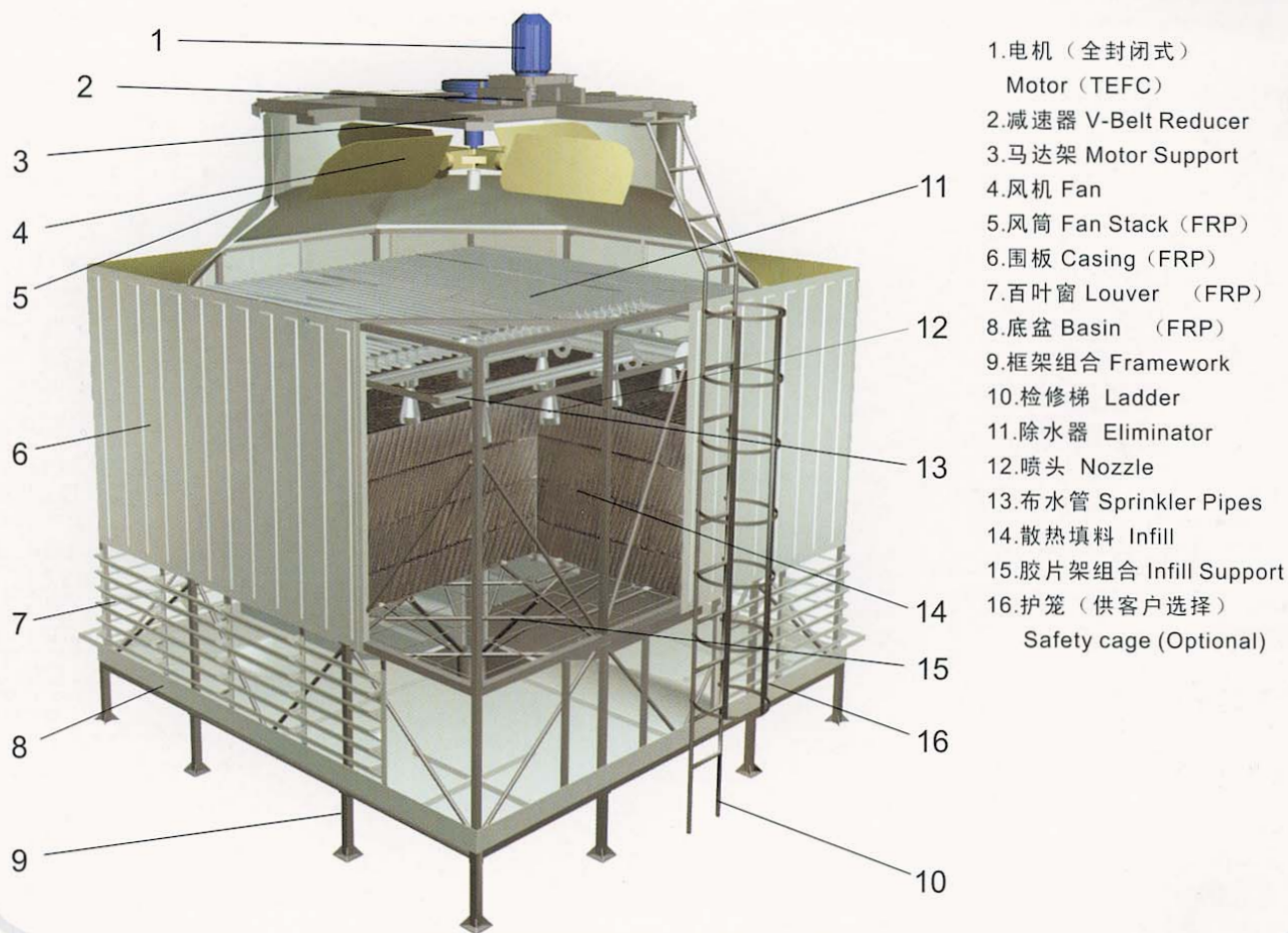


MSN

COUNTER FLOW TYPE COOLING TOWER



结构简图 Tower Structure



- 外表美观，结构合理** MSN系列为逆流方形设计，外表美观新颖，结构合理紧凑。MSN-150及以下为玻璃钢结构，以上为金属框架结构。
- 高效率** 选用高效率淋水填料，采用合适的气水比，风机匹配合理，热效率高。
- 供压力低，维修方便** 选用新型冷却塔专用喷头，配水压力低，布水均匀，不易堵塞和维修方便。
- 漂水小，保护环境** MSN系列采用高效除水器，使漂水大大降低，不影响周围环境。
- 噪声小，能耗低** 采用高效超静宽叶轴流风机，风量大，噪声小，能耗低。
- 耐腐蚀，寿命长** 冷却塔的外壳、风筒及水盘均采用优质玻璃钢材料，风机采用铝合金材料或高强度玻璃钢材料，布水管、喷头采用耐蚀工程塑料，金属框架构件经热浸镀锌处理，从而使冷却塔耐腐蚀、寿命长。
- 灵活组合，布置方便** MSN系列单塔水容量从 80-1000m³/h，可单台选用，亦可据设计要求及场地情况灵活组合，充分利用场地面积，给设备的布置带来方便。

- Industrial Appearance with reasonable structure** MSN Counter Flow Square Type Cooling Tower series are completely with FRP frame structure. For models over MSN-150 have a metal (galvanized steel or stainless steel) frame structure.
- High Efficiency** Using high efficiency infill with proper air-water ratio.
- Low inlet water pressure, Easy to maintain.** A new type non clogging nozzle is applied on MSN series. Even with low inlet water pressure, the water is evenly distributed.
- Low drift loss.** Drift eliminator are used in MSN series. It greatly reduces drift loss.
- Low Noise, Energy Saving** Using Low Noise Axial Fans which generates at low speeds big air flow quantity with lower noise. As a result the energy consumption is less.
- Anti-corrosive, Long Life** MSN parts are made of long lasting & anti-corrosive material such as FRP in basin, fan stack and casing. All metal ware are made of Hot Dipped Galvanized Steel, greatly increase the cooling tower life. Optional we can make these parts in SST 304 and 316.
- Modular design.** MSN series offer single cell unit from 8-1000 m³/h water flow rate to multi cells unit depending on practical need.

MSN-L小型逆流式低噪音冷却塔性能参数表

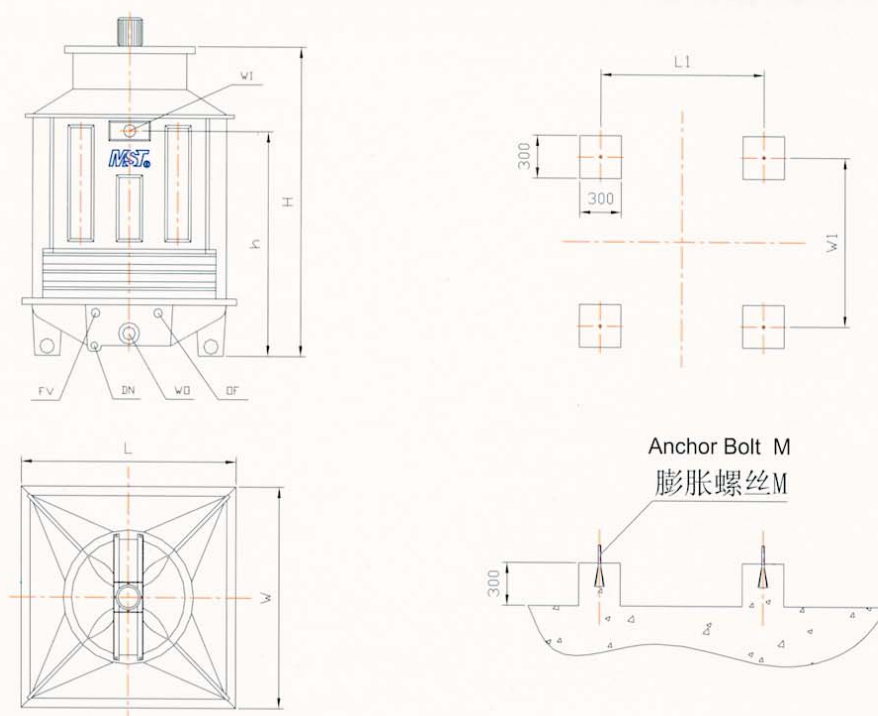
SPECIFICATION FOR MSN-L COUNTER FLOW LOW NOISE TYPE COOLING TOWER

设计工况参数: 大气压力-P=99400Pa 湿球温度-WBT=28℃ 进水温度-T₁=37℃ 出水温度-T₂=32℃ 水温降ΔT_s=5℃
 Design Condition: P=99400Pa Wet Bulb Temp=28℃ Inlet Water Temp-T₁=37℃ Outlet Water Temp-T₂=32℃ Temperature DifferenceΔT_s=5℃

型号 MODEL	MSN	5	6	8	10	12	16	20	25	30	40	50	60	70
冷却水量 (m³/h) Cooling Capacity	28℃	5	6	8	10	12	16	20	25	30	40	50	60	70
	27℃	5.8	6.9	9.2	11.5	13.8	18.4	23	28.8	34.5	46	57.5	69	80.5
风机 Fan	直径 Diameter	584	584	584	584	760	760	760	884	884	1184	1184	1470	1470
电机 Motor	功率 Rated Output	0.18	0.25	0.37	0.37	0.37	0.55	0.55	0.75	1.1	1.5	1.5	2.2	2.2
外形尺寸 Tower Dimension	长 Length L	810	810	960	960	1250	1250	1550	1550	1550	1900	1900	2250	2250
	宽 Width W	810	810	960	960	1250	1250	1550	1550	1550	1900	1900	2250	2250
	总高 Overall Height H	2040	2040	2040	2300	2040	2300	2400	2400	2400	2850	3050	2850	3050
	进水高 Inlet Height h	1425	1425	1425	1625	1425	1625	1700	1700	1700	1850	2100	1850	2100
基础尺寸 Foundation Dimension	L1	440	440	590	590	880	880	1160	1160	1160	1510	1510	1860	1860
	W1	440	440	590	590	880	880	1160	1160	1160	1510	1510	1860	1860
	螺丝 Bolt	M10	M10	M10	M10	M10	M10	M12	M12	M12	M12	M12	M14	M14
配管尺寸 Pipe Connection	进水 Inlet WI	40	40	40	50	50	50	50	80	80	80	100	100	100
	出水 Outlet WO	40	40	40	50	50	50	50	80	80	80	100	100	100
	补水 Float Value FV	15	15	15	15	15	15	15	15	15	20	20	20	20
	满水 Overflow OF	25	25	25	25	25	25	25	25	25	25	40	40	40
	排水 Drain DN	25	25	25	25	25	25	25	25	25	25	25	25	25
进塔水压 Inlet Water Pressure	Kpa	25	25	25	30	25	30	35	35	35	35	40	35	40
净重 Net Weight	Kg	50	55	68	75	120	140	190	210	220	320	350	650	700
运行重 Wet Weight	Kg	150	170	180	230	280	350	500	550	610	930	1150	1320	1500

MSN-L 小型逆流式低噪音冷却塔外形基础尺寸图

DIMENSION AND FOUNDATION DRAWING FOR MSN-L COUNTER FLOW LOW NOISE TYPE COOLING TOWER



MSN-SL小型逆流式超低噪音冷却塔性能参数表

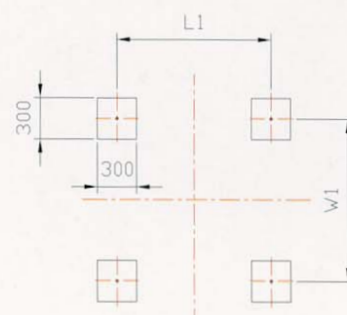
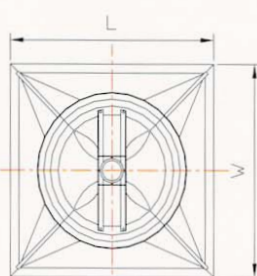
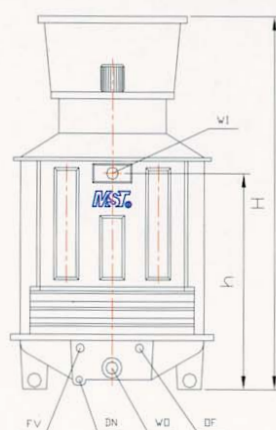
SPECIFICATION FOR MSN-SL COUNTER FLOW SUPER LOW NOISE TYPE COOLING TOWER

设计工况参数: 大气压力-P=99400Pa 湿球温度-WBT=28℃ 进水温度-T₁=37℃ 出水温度-T₂=32℃ 水温降ΔT_s=5℃
 Design Condition: P=99400Pa Wet Bulb Temp=28℃ Inlet Water Temp-T₁=37℃ Outlet Water Temp-T₂=32℃ Temperature DifferenceΔT_s=5℃

型号 MODEL	MSN	5	6	8	10	12	16	20	25	30	40	50	60	70
冷却水量 (m ³ /h) Cooling Capacity	28℃	5	6	8	10	12	16	20	25	30	40	50	60	70
	27℃	6	7	9.5	12	14	19	23.4	29	35	46.8	58.5	70	82
风机 Fan	直径 Diameter	584	584	584	584	760	760	760	884	884	1184	1184	1470	1470
电机 Motor	功率 Rated Output	0.18	0.25	0.37	0.37	0.37	0.55	0.55	0.75	1.1	1.5	1.5	2.2	2.2
外形尺寸 Tower Dimension	长 Length L	810	810	960	960	1250	1250	1550	1550	1550	1900	1900	2250	2250
	宽 Width W	810	810	960	960	1250	1250	1550	1550	1550	1900	1900	2250	2250
	总高 Overall Height H	2540	2540	2540	2800	2540	2800	2900	2900	2900	3600	3800	3600	3800
	进水高 Inlet Height h	1425	1425	1425	1625	1425	1625	1700	1700	1700	1850	2100	1850	2100
基础尺寸 Foundation Dimension	L1	440	440	590	590	880	880	1160	1160	1160	1510	1510	1860	1860
	W1	440	440	590	590	880	880	1160	1160	1160	1510	1510	1860	1860
	螺丝 Bolt	M10	M10	M10	M10	M10	M10	M12	M12	M12	M12	M12	M14	M14
配管尺寸 Pipe Connection	进水 Inlet WI	40	40	40	50	50	50	50	80	80	80	100	100	100
	出水 Outlet WO	40	40	40	50	50	50	50	80	80	80	100	100	100
	补水 Float Valve FV	15	15	15	15	15	15	15	15	15	20	20	20	20
	满水 Overflow OF	25	25	25	25	25	25	25	25	25	25	40	40	40
	排水 Drain DN	25	25	25	25	25	25	25	25	25	25	25	25	25
进塔水压 Inlet Water Pressure	Kpa	25	25	25	30	25	30	35	35	35	35	40	35	40
净重 Net Weight	Kg	58	63	76	83	128	148	200	220	230	335	365	665	715
运行重 Wet Weight	Kg	160	180	190	240	295	360	520	570	630	950	1200	1350	1530

MSN-SL 小型逆流式超低噪音冷却塔外形基础尺寸图

DIMENSION AND FOUNDATION DRAWING FOR MSN-SL COUNTER FLOW SUPER LOW NOISE TYPE COOLING TOWER



Anchor Bolt M
膨胀螺丝M



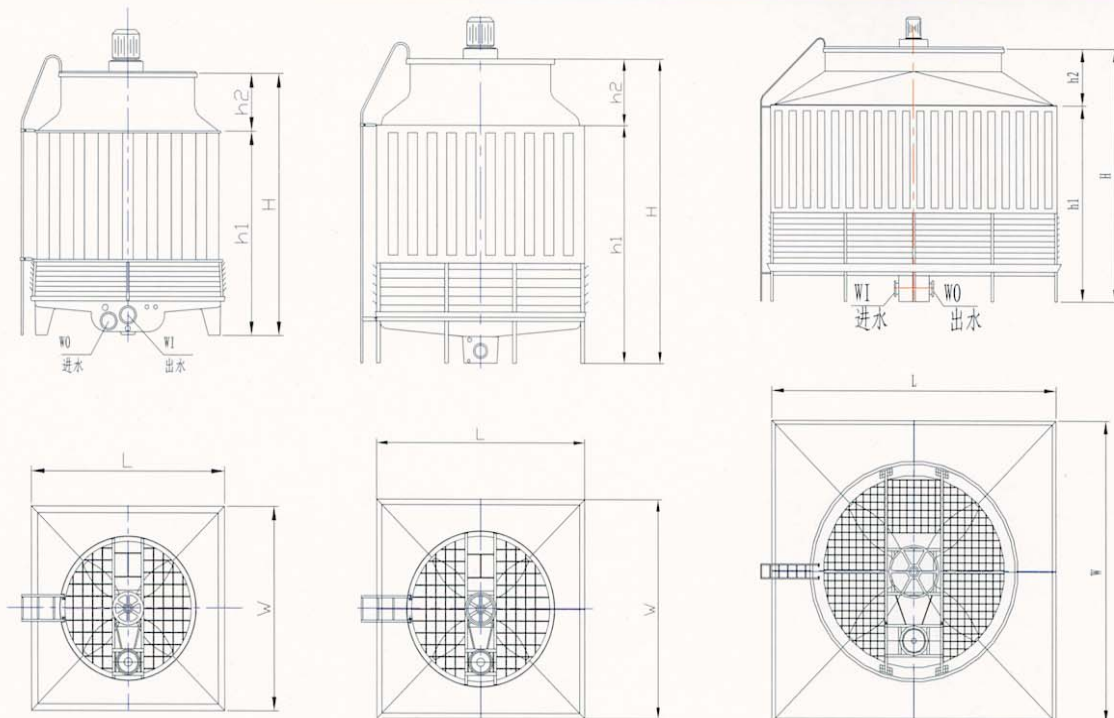
MSN-L逆流式低噪音冷却塔性能参数表 SPECIFICATION FOR MSN-L COUNTER FLOW LOW NOISE TYPE COOLING TOWER

设计工况参数: 大气压力-P=99400Pa 湿球温度-WBT=28℃ 进水温度-T₁=37℃ 出水温度-T₂=32℃ 水温降ΔT_s=5℃
Design Condition: P=99400Pa Wet Bulb Temp=28℃ Inlet Water Temp-T₁=37℃ Outlet Water Temp-T₂=32℃ Temperature DifferenceΔT_s=5℃

型号 MODEL	MSN	80	100	125	150	175	200	250	300	350	400	500	600	700	800	1000
冷却水量 (m ³ /h) Cooling Capacity	28℃	80	100	125	150	175	200	250	300	350	400	500	600	700	800	1000
	27℃	93	117	146	175	205	234	292	351	409	468	585	702	819	936	1170
风机 Fan	直径 Diameter	1600	1600	1780	2360	2360	2360	2940	2940	3300	3300	3630	4200	4200	4700	5000
电机 Motor	功率 Rated Output	3.0	3.0	4.0	5.5	5.5	5.5	7.5	7.5	11	11	15	15	22	22	30
外形尺寸 Tower Dimension	长 Length L	2680	2680	2940	2940	3250	3250	4000	4000	4500	4500	5500	6250	6250	7000	8000
	宽 Width W	2680	2680	2940	2940	3250	3250	4000	4000	4500	4500	5500	6250	6250	7000	8000
	总高 Overall Height H	3380	3600	3700	3850	4300	4520	4750	4970	4900	5120	5400	5700	5950	6500	6500
	塔身 h1	2440	2660	2770	3000	3300	3520	3650	3870	3750	3970	4150	4350	4600	5000	5000
	风筒 h2	940	940	970	850	1000	1000	1000	1000	1050	1150	1250	1350	1350	1500	1500
基础尺寸 Foundation Dimension	L1	2580	2580	2840	2840	3550	3550	4300	4300	4800	4800	5800	6550	6550	7300	8300
	W1	2580	2580	2840	2840	3550	3550	4300	4300	4800	4800	5800	6550	6550	7300	8300
配管尺寸 Pipe Connection	进水 Inlet WI	125	125	150	150	200	200	250	250	250	250	300	350	350	350	400
	出水 Outlet WO	125	125	150	150	200	200	250	250	250	250	300	350	350	350	400
	补水 Float Value FV	20	20	25	25	25	25	40	40	40	40	50	50	50	50	50
	满水 Overflow OF	50	50	50	50	50	50	80	80	80	80	100	100	100	100	100
	排水 Drain DN	40	40	40	40	40	40	50	50	50	50	80	80	80	80	80
进塔水压 Inlet Water Pressure	Kpa	58	60	60	62	66	68	46	50	48	50	54	54	60	60	62
净重 Net Weight	Kg	950	1050	1250	1700	2300	2500	2800	3100	3600	3900	5800	6700	7300	8400	9400
运行重 Wet Weight	Kg	1950	2150	2450	3500	4700	5100	5900	6500	7500	8100	11000	13200	14300	17000	20500

MSN-L 逆流式低噪音冷却塔外形尺寸图

DIMENSION DRAWING FOR MSN-L COUNTER FLOW LOW NOISE TYPE COOLING TOWER



MSN-SL逆流式超低噪音冷却塔性能参数表

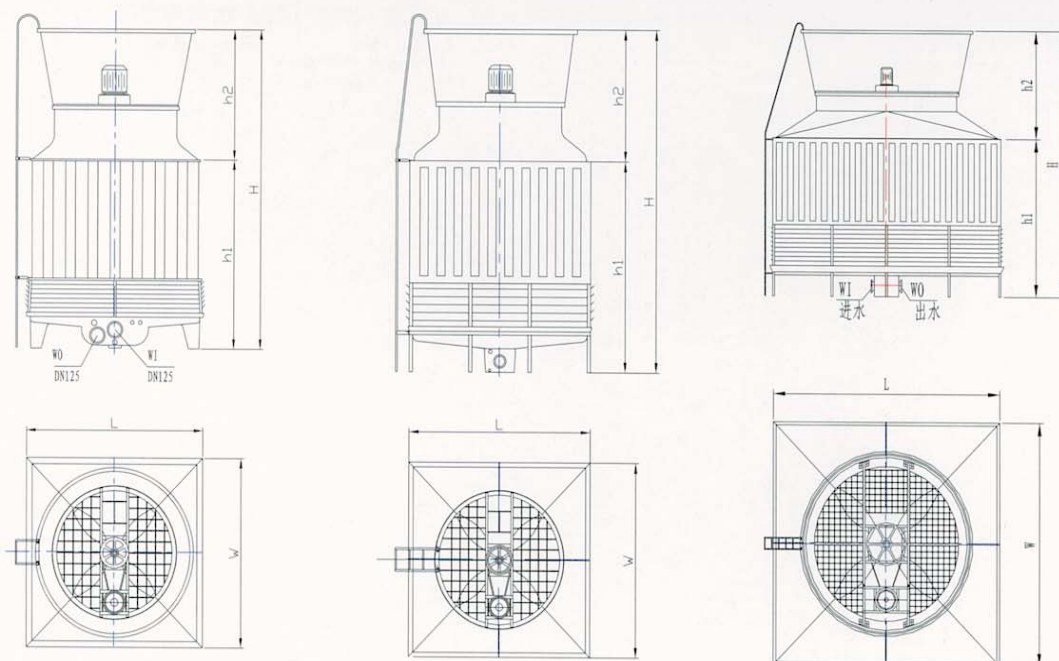
SPECIFICATION FOR MSN-SL COUNTER FLOW SUPER LOW NOISE TYPE COOLING TOWER

设计工况参数: 大气压力-P=99400Pa 湿球温度-WBT=28℃ 进水温度-T₁=37℃ 出水温度-T₂=32℃ 水温降ΔT_s=5℃
 Design Condition: P=99400Pa Wet Bulb Temp=28℃ Inlet Water Temp-T₁=37℃ Outlet Water Temp-T₂=32℃ Temperature DifferenceΔT_s=5℃

型号 MODEL	MSN	80	100	125	150	175	200	250	300	350	400	500	600	700	800	1000
冷却水量 (m ³ /h) Cooling Capacity	28℃	80	100	125	150	175	200	250	300	350	400	500	600	700	800	1000
	27℃	93	117	146	175	205	234	292	351	409	468	585	702	819	936	1170
风机 Fan	直径 Diameter	1600	1600	1780	2360	2360	2360	2940	2940	3300	3300	3630	4200	4200	4700	5000
电机 Motor	功率 Rated Output	3.0	3.0	4.0	5.5	5.5	5.5	7.5	7.5	11	11	15	15	22	22	30
外形尺寸 Tower Dimension	长 Length L	2680	2680	2940	2940	3250	3250	4000	4000	4500	4500	5500	6250	6250	7000	8000
	宽 Width W	2680	2680	2940	2940	3250	3250	4000	4000	4500	4500	5500	6250	6250	7000	8000
	总高 Overall Height H	4650	4850	4950	5280	5300	5520	5950	6170	6050	6270	6450	6850	7100	7500	7500
	塔身 h1	2440	2660	2770	3000	3300	3520	3650	3870	3750	3970	4150	4350	4600	5000	5000
	风筒 h2	2210	2190	2180	2280	2000	2000	2300	2300	2300	2300	2300	2500	2500	2500	2500
基础尺寸 Foundation Dimension	L1	2580	2580	2840	2840	3550	3550	4300	4300	4800	4800	5800	6550	6550	7300	8300
	W1	2580	2580	2840	2840	3550	3550	4300	4300	4800	4800	5800	6550	6550	7300	8300
配管尺寸 Pipe Connection	进水 Inlet WI	125	125	150	150	200	200	250	250	250	250	300	350	350	350	400
	出水 Outlet WO	125	125	150	150	200	200	250	250	250	250	300	350	350	350	400
	补水 Float Valve FV	20	20	25	25	25	25	40	40	40	40	50	50	50	50	50
	满水 Overflow OF	50	50	50	50	50	50	80	80	80	80	100	100	100	100	100
	排水 Drain DN	40	40	40	40	40	40	50	50	50	50	80	80	80	80	80
进塔水压 Inlet Water Pressure	Kpa	58	60	60	62	66	68	46	50	48	50	54	54	60	60	62
净重 Net Weight	Kg	1100	1200	1400	1900	2500	2700	3100	3400	4000	4300	6400	7400	8000	9200	10340
运行重 Wet Weight	Kg	2150	2350	2700	3750	4950	5350	6500	7100	8300	8900	12000	14500	15700	18700	22550

MSN-SL 逆流式超低噪音冷却塔外形尺寸图

DIMENSION DRAWING FOR MSN-SL COUNTER FLOW SUPER LOW NOISE TYPE COOLING TOWER



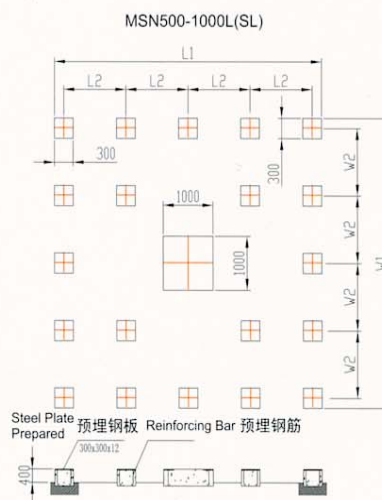
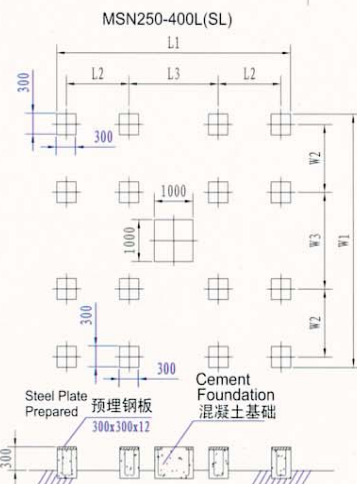
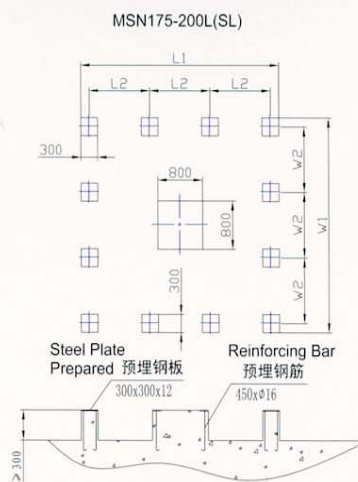
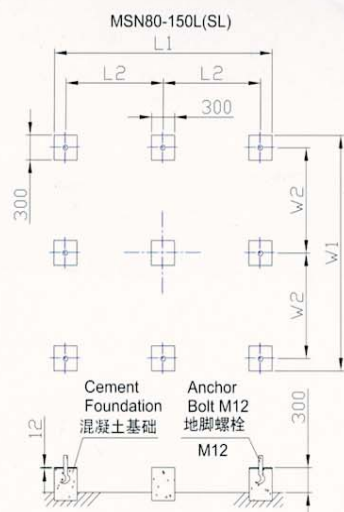
MSN系列低噪音/超低噪音冷却塔基础尺寸表

FOUNDATION DATA FOR MSN-L/SL COUNTER FLOW LOW NOISE/SUPER LOW NOISE TYPE COOLING TOWER

型号 MODEL	项目 ITEM	W1	W2	W3	L1	L2	L3	干重 Dry Weight L(SL) Kg	运行重 Wet Weight L(SL) Kg
MSN-80L/SL		2580	1140		2580	1140		950 (1150)	1950 (2150)
MSN-100L/SL		2580	1140		2580	1140		1050 (1250)	2150 (2350)
MSN-125L/SL		2840	1270		2840	1270		1250 (1500)	2450 (2700)
MSN-150L/SL		2840	1270		2840	1270		1700 (2000)	3500 (3800)
MSN-175L/SL		3550	1083.3		3550	1083.3		2300 (2650)	4700 (5050)
MSN-200L/SL		3550	1083.3		3550	1083.3		2500 (2850)	5100 (5450)
MSN-250L/SL		4300	1172	1656	4300	1172	1656	2800 (3200)	5900 (6300)
MSN-300L/SL		4300	1172	1656	4300	1172	1656	3100 (3500)	6500 (6900)
MSN-350L/SL		4800	1318	1864	4800	1318	1864	3600 (4100)	7500 (8000)
MSN-400L/SL		4800	1318	1864	4800	1318	1864	3900 (4400)	8100 (8600)
MSN-500L/SL		5800	1375		5800	1375		5800 (6800)	11000 (12000)
MSN-600L/SL		6550	1562.5		6550	1562.5		6700 (7800)	13200 (143000)
MSN-700L/SL		6550	1562.5		6550	1562.5		7300 (8400)	14300 (154000)
MSN-800L/SL		7300	1750		7300	1750		8400 (9600)	17000 (182000)
MSN-1000L/SL		8300	2000		8300	2000		9400 (10800)	20500 (217000)

MSN系列低噪音/超低噪音冷却塔基础尺寸图

FOUNDATION DRAWING FOR MSN-L/SL COUNTER FLOW LOW NOISE/SUPER LOW NOISE TYPE COOLING TOWER



MSN-L/SL逆流式低噪音/超低噪音组合塔性能参数表

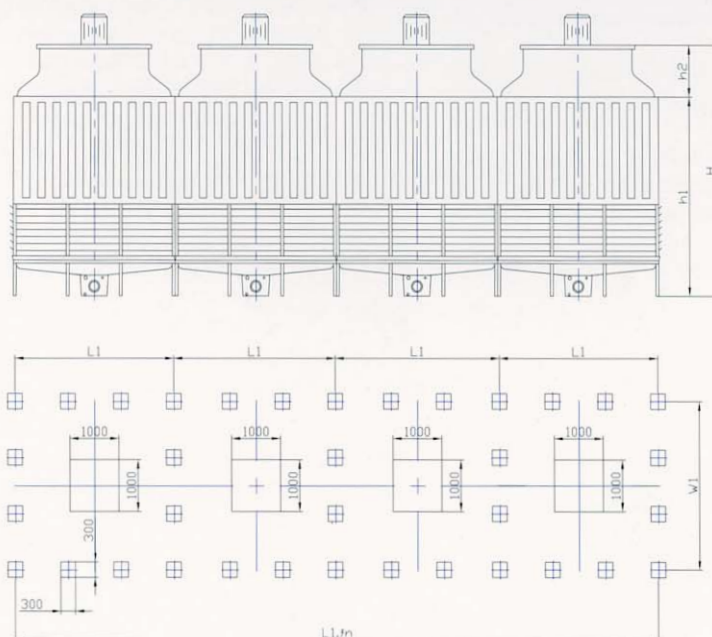
SPECIFICATION FOR MSN-L/SL MULTI CELLS COUNTER FLOW LOW NOISE / SUPER LOW NOISE TYPE COOLING TOWER

设计工况参数: 大气压力-P=99400Pa 湿球温度-WBT=28℃ 进水温度-T₁=37℃ 出水温度-T₂=32℃ 水温降ΔT_s=5℃
 Design Condition: P=99400Pa Wet Bulb Temp=28℃ Inlet Water Temp-T₁=37℃ Outlet Water Temp-T₂=32℃ Temperature DifferenceΔT_s=5℃

型号 MODEL	MSN	175	200	250	300	350	400	500	600	700	800	1000
冷却水量 (m ³ /h) Cooling Capacity	28℃	175	200	250	300	350	400	500	600	700	800	1000
	27℃	205	234	292	351	409	468	585	702	819	936	1170
风机 Fan	直径 Diameter	2360	2360	2940	2940	3300	3300	3630	4200	4200	4700	5000
电机 Motor	功率 Rated Output	5.5	5.5	7.5	7.5	11	11	15	15	22	22	30
外形尺寸 Tower Dimension	长 Length L	3250	3250	4000	4000	4500	4500	5500	6250	6250	7000	8000
	宽 Width W	3250	3250	4000	4000	4500	4500	5500	6250	6250	7000	8000
	L型总高 Overall Height H	4800	5020	5350	5570	5600	5820	6150	6550	6800	7400	7400
	SL型总高 Overall Height H	5800	6020	6550	6770	6750	6970	7200	7700	7950	8400	8400
	塔身h1	3300	3520	3650	3870	3750	3970	4150	4350	4600	5000	5000
基础尺寸 Foundation Dimension	L1	3550	3550	4300	4300	4800	4800	5800	6550	6550	7300	8300
	W1	3550	3550	4300	4300	4800	4800	5800	6550	6550	7300	8300
配管尺寸 Pipe Connection	进水 Inlet WI	200	200	250	250	250	250	300	350	350	350	400
	出水 Outlet WO	200	200	250	250	250	250	300	350	350	350	400
	补水 Float Valve FV	25	25	40	40	40	40	50	50	50	50	50
	满水 Overflow OF	50	50	80	80	80	80	100	100	100	100	100
	排水 Drain DN	40	40	50	50	50	50	80	80	80	80	80
进塔水压 Inlet Water Pressure	Kpa	63	65	57	59	59	62	64	67	70	75	75
净重 Net Weight	Kg	2400	2600	3000	3300	3800	4100	6100	7000	7600	8800	9800
运行重 Wet Weight	Kg	4800	5200	6200	6800	7600	8200	11300	13500	14600	17500	21000
净重 Net Weight	Kg	2800	3000	3400	3700	4250	4550	6600	7600	8200	9500	10500
运行重 Wet Weight	Kg	5200	5600	6500	7200	8200	8800	12500	14800	16000	19000	22500

MSN-L/SL逆流组合塔外形基础尺寸图

DIMENSION AND FOUNDATION DRAWING FOR MSN-L/SL COUNTER FLOW MULTI CELLS COOLING TOWER



MSN逆流式冷却塔管道配置尺寸

PIPING SIZE FOR MSN COUNTER FLOW COOLING TOWER.

型号 MODEL	管径 PIPE	进水 Inlet	出水 Outlet	自动补水 Float Value	快速补水 Quicksupply	溢水 Overflow	排水 Drain
		mm	mm	mm	mm	mm	mm
MSN-80L/SL		125	125	20	20	50	40
MSN-100L/SL		125	125	20	20	50	40
MSN-125L/SL		150	150	25	25	50	40
MSN-150L/SL		150	150	25	25	50	40
MSN-175L/SL		200	200	25	25	50	40
MSN-200L/SL		200	200	25	25	50	40
MSN-250L/SL		250	250	40	40	80	50
MSN-300L/SL		250	250	40	40	80	50
MSN-350L/SL		250	250	40	40	80	50
MSN-400L/SL		250	250	40	40	80	50
MSN-500L/SL		300	300	50	50	100	80
MSN-600L/SL		350	350	50	50	100	80
MSN-700L/SL		350	350	50	50	100	80
MSN-800L/SL		350	350	50	50	100	80
MSN-1000L/SL		400	400	50	50	100	80



MSN逆流式冷却塔配管示意图

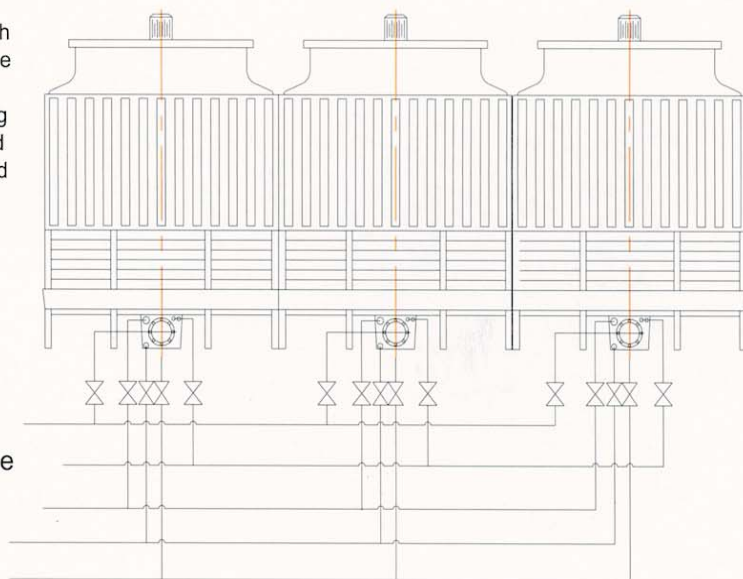
MSN COUNTER FLOW TYPE COOLING TOWER PIPING CONNECTION

说明 Remarks:

1. 本系列冷却塔出水口方向可在四个方向任选, 请用户在订货时说明。
2. 冷却塔两侧入水管尽量保持长度相等, 以确保阻力平衡。
3. 禁止在冷却塔上进行焊接管道操作。焊接时应远离塔体, 施工完毕后, 再与出、入水法兰连接。

1. User should define orientation of water outlet of your purchased MSN.
2. Please keep equivalent length of water pipe on both side of the tower to maintain balancing of resistance on both side of piping.
3. Avoid to apply direct welding on piping. Piping connection should be welded away the tower and connect to the water inlet outlet flange after finished welding work.

进水管/inlet pipe
补水管/Flow valve pipe
溢水管/Overflow pipe
排水管/Drain pipe
出水管/outlet pipe



MSN逆流式冷却塔噪音表

NOISE LEVEL CHART FOR MSN CROSS FLOW COOLING TOWER

型号 Model	噪音 Noise Level	低噪音型/L dB (A) Low Noise dB (A)					超低噪音型/SLdB (A) Super Low Noise dB (A)				
		1	2	3	4	5	1	2	3	4	5
MSN-5L/SL		59	54.5	51	47.5	62	56	51.5	48	44.5	59
MSN-6L/SL		59	54.5	51	47.5	62	56	51.5	48	44.5	59
MSN-8L/SL		59	54.5	51	47.5	62.5	56	51.5	48	44.5	59.5
MSN-10L/SL		60	55	52	48.5	63	57	52	49	45.5	60
MSN-12L/SL		60	55	52	48.5	63	57	52	49	45.5	60
MSN-16L/SL		60	55	52	48.5	63	57	52	49	45.5	60
MSN-20L/SL		60	56	53	49	64	57	53	50	46	61
MSN-25L/SL		60	56	53	49	64	57	53	50	46	61
MSN-30L/SL		60	56	53	49	64	57	53	50	46	61
MSN-40L/SL		61	58	54.5	51	64	58	54.5	51.5	48	61
MSN-50L/SL		61	58	54.5	51	64	58	54.5	51.5	48	61
MSN-60L/SL		61	58.5	55.5	52	65	58	55.5	52.5	49	62
MSN-70L/SL		61	58.5	55.5	52	65	58	55.5	52.5	49	62
MSN-80L/SL		61	59	56	53	65	58	56	53	50	62
MSN-100L/SL		61	59	56	53	66	58	56	53	50	63
MSN-125L/SL		62	60	57.5	54.5	66	59	57.5	54.5	51.5	63
MSN-150L/SL		62.5	61	58	55	67	59.5	58	55	52	64
MSN-175L/SL		62.5	61	58.5	55	67	59.5	58.5	55.5	52.5	64
MSN-200L/SL		63	62	59	56	68	60	59	56	53	65
MSN-250L/SL		63.5	63	60.5	57	68	60.5	60	57.5	54	65
MSN-300L/SL		64	63.5	61	58	69	61	61	58	55	66
MSN-350L/SL		64	64	61.5	58.5	69	61	61	58.5	55.5	66
MSN-400L/SL		64	64	61.5	58.5	70	61	61	58.5	55.5	67
MSN-500L/SL		65	66	63	60	72	62	63	60	57	69
MSN-600L/SL		65	66	63.5	61	72	62	63	61	58	69
MSN-700L/SL		66	67	65	62	73	63	64	62	59	70
MSN-800L/SL		66	67.5	65	62	73	63	64.5	62	59.5	70
MSN-1000L/SL		66	68	65.5	63	75	63	65	62.5	60	72

- 1.测量点 (1) : 距塔入风百叶窗的水平距离为 $Dm=1.13\sqrt{L \times W}$ (米), 距塔基础上端面为1.5米处.
- 2.测量点 (2) : 距塔入风百叶窗的水平距离为 $D=5$ (米), 距塔基础上端面为1.5米处.
- 3.测量点 (3) : 距塔入风百叶窗的水平距离为 $D=10$ (米), 距塔基础上端面为1.5米处.
- 4.测量点 (4) : 距塔入风百叶窗的水平距离为 $D=20$ (米), 距塔基础上端面为1.5米处.
- 5.测量点 (5) : 取 Df 为风机直径. 如风机直径大于5米, 则以5米为准.
- 6.在测量噪音时应不受周边背景声音的干扰, 否则应对所得读数进行修正.
- 1.POINT (1) : horizontal level away from air inlet louver $Dm=1.13\sqrt{L \times W}$ (m) , vertical level away from the top of cement foundation 1.5m.
- 2.POINT (2) : horizontal level away from air inlet louver $D=5$ (m) , vertical level away from the top of cement foundation 1.5m.
- 3.POINT (3) : horizontal level away from air inlet louver $D=10$ (m) , vertical level away from the top of cement foundation 1.5m.
- 4.POINT (4) : horizontal level away from air inlet louver $D=20$ (m) , vertical level away from the top of cement foundation 1.5m.
- 5.POINT (5) : Df =fan diameter, if $Df>5$ m, take $Df=5$ m.
- 6.When testing noise level, please avoid affect from background noise level, otherwise amendment should be conducted.



MST®

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Web Site: <http://www.mesan.com.hk>

To Whom It May Concern:

Hong Kong, October 29th 2003,

CERTIFICATE OF DISTRIBUTORSHIP & LICENSED MANUFACTURING

We confirm that:

**OMRAN TAHVIEH INDUSTRIAL Co.
#1.2, 1st floor, Nr. 108 Iranshahr Avenue
Teheran
IRAN**

has been appointed as licensed manufacturer for MST[®] brand name Cooling Towers for industrial applications in the Islamic Republic of Iran.

This Certificate confirms the Licenced Manufacturers & Distributors Contract as signed on 12 September 2003.

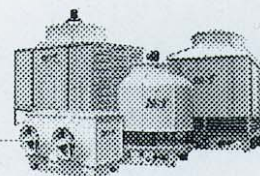
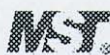
This agreement will come into force on 01st of October 2003 and be valid until 31th December 2004.

Yours sincerely

MESAN Cooling Tower Ltd.



Henk Janssen
Asst. General Manager
Overseas Division





COOLING TOWER
OMRAN TAHVIEH



OMRAN TAHVIEH

Heating , Ventilation And Air Conditioning

Central Office : # 1.2 , 1st floor , No . 108 , Iranshahr Ave., Tehran - Iran , Tel : (98 - 21) 8847372 - 3 , 8318850 - 2 Tel & Fax : (98 - 21) 8318852.

All data and specification subject to change without notice .