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MFD SERIES

Counter Flow
Forced Draft





Trust **MESAN** With Your Evaporative Cooling Needs

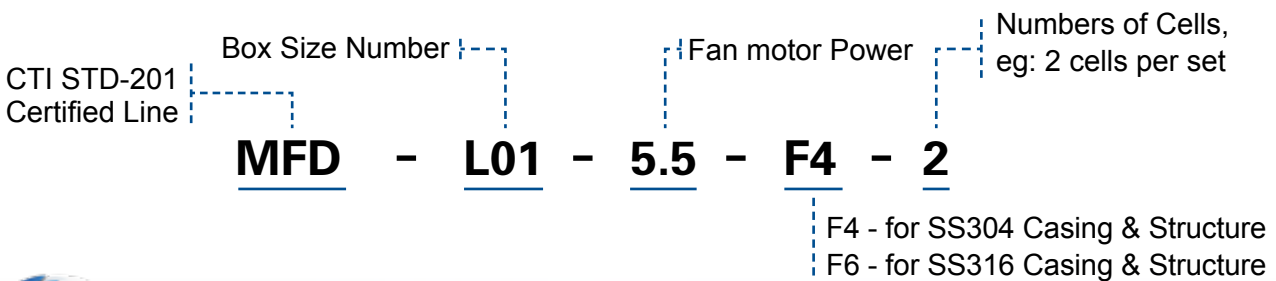
Overview

The new MFD series of forced-draft, counter-flow cooling towers, complements MESAN line of high performance, energy saving induced-draft towers. Its low profile, low noise, and high-static centrifugal fans, makes the MFD the ideal solution for applications requiring the towers to be installed indoors.

The MFD series, has 13 models in capacities ranging from 59 to 214 tons.



Model Designation



Advantages

- Performance guaranteed. All models are CTI-certified as per STD-201 and meets the Building Energy Code of Hong Kong.
- Low profile, allows for installation inside mechanical rooms.
- Modular construction and narrow casing, for shipping inside standard containers, as factory pre-assembled sections.
- Service door located at the opposite end of the fan, leaves the two casing sides free for multiple cell configurations.
- Duct flange at the top of the unit for field-installed discharge ducts.
- Forward-curved centrifugal fans for quietest operation and higher static pressure handling.
- Built-in outlet strainer.
- Discharge and intake sound attenuation options.
- Several optional accessories to fit diverse applications.

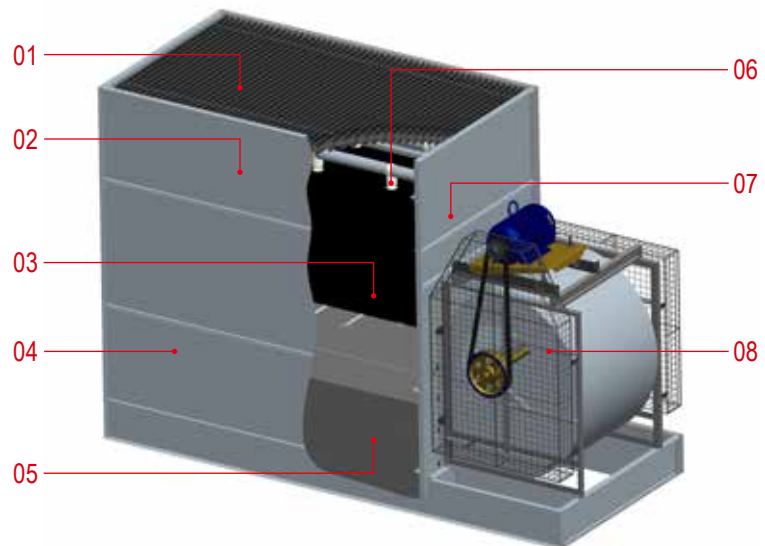
Optional Accessories

Motor	High Efficiency Motor Two Speed Motor VFD Motor	Others	ANSI-125 Flanges Basin Heater Discharge Sound Attenuator Electronic Water Level Control Equalizing Connections OSHA Fan Guard Oversized Access Doors Removable Strainer SS304/SS316 as Optional Materials Variable and Constant Speed Control Panels Vibration Cut-off Switch 5-Year Mechanical Warranty
Infill	ASTM PVC Infill CPVC Infill High Temperature PP Infill		



Tower Structure

- 01 Drift Eliminator
- 02 Casing
- 03 Infill
- 04 Access Door
- 05 Cold Water Basin
- 06 Spray Nozzle
- 07 Motor
- 08 Fan



Mechanical Components

Motor

TEFC motor, IP55 enclosure, class F insulation, high efficiency, low noise and weatherproof, specially designed for cooling towers. Also available, two speed, and inverter-duty motors.

Casing and Structure

Casing

- Casing is made of larger panels with few bolted joints to minimize the possibility of water leaks.
- Available in Hot-dipped galvanized steel as standard.
- Large access door to facilitate inspection and maintenance.

Structural Frame

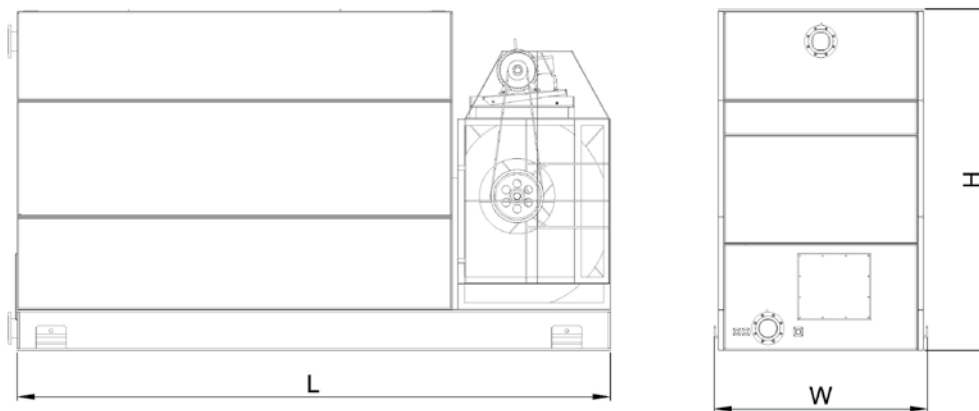
Heavy-gage structural steel base frame for easier hoisting and to provide structural integrity. No additional framing is required if vibration isolators are specified.

Components

Infill

High efficiency, PVC heat transfer surfaces with proprietary design that combines excellent contact between air and water while offering very little resistance to airflow for the lowest fan energy consumption. As an option, high-temperature infill, either polypropylene or CPVC is also offered.

Dimensions



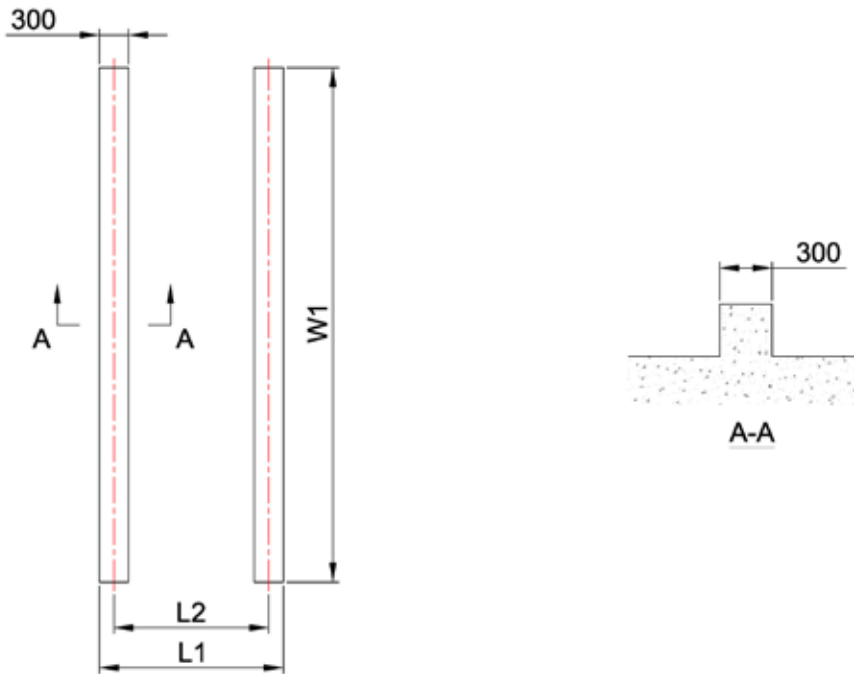
Product Technical Data

Model	Specification		Tower Dimensions			Weight	
	Nominal Tons	Motor KW	L mm	W mm	H mm	Dry Kg	Wet Kg
L01	3	59	3080	1525	2716	903	1678
	4	63				919	1702
	5.5	70				924	1718
L02	5.5	87	3955	1720	2805	1247	2320
	7.5	95				1292	2380
	11	106				1313	2420
L03	7.5	122	5115	1840	2945	1702	3504
	11	135				1725	3550
	15	148				1777	3624
L04	11	175	5250	1970	2879	1879	4108
	15	189				1930	4186
	18.5	207				1970	4254
	22	214				2002	4303

Notes

- 1 Nominal cooling capacity represents 35°C EWT, 29.4°C LWT with 25.6°C WBT and 0.681m³/h per ton.
- 2 Satisfactory performance is based on precise selection, proper system design and installation in a clean and well-ventilated location.

Foundation and Piping



Model		Foundation Dimensions			Pipe Connections				
		L1	L2	W1	Inlet	Outlet	Overflow	Drain	Make-Up
MFD		mm	mm	mm	mm	mm	mm	mm	mm
L01	3	1585	1285	3280	100	100	40	25	20
	4								
	5.5								
L02	5.5	1780	1480	4155	100	100	40	25	25
	7.5								
	11								
L03	7.5	1900	1600	5315	150	150	40	40	25
	11								
	15								
L04	11	2030	1730	5450	150	150	50	40	25
	15								
	18.5								
	22								

Notes

Secure the base of the cooling tower with anchor bolts. Customer is responsible for designing the foundation and any other supports according to local codes and regulations.

MESAN guarantees the thermal performance of its CTI certified products. All CTI models are fully compliant with ASHRAE 90.1. Cooling Technology Institute (CTI) is dedicated to promoting truthful rating of cooling tower capacity, by providing a third party independent verification and periodic monitoring of the products thermal efficiency. Having CTI certified products eliminates the need for costly onsite field test and ensures that the system performance will meet the design objectives, for the benefit of the building owners, operators and public.



MXR-KM/MXL/MXH series



MCC series



MFD series



MXC series

