

## MXL-I Series

Cross Flow Induced Draft Hurricane Resistant

For over 40 years, the MESAN Group has engaged in the engineering and manufacturing of high quality, high efficiency evaporative cooling equipment. Through hard work, ethics, and a constant pursuit of excellence, MESAN has become a leader in the cooling tower industry in Asia. Today, MESAN continues to play a vital role in the development of new technologies and products, and is proud to
 have been selected as a key supplier for many renowned projects in the global market.

MESAN is an ISO-9001 and 14001 certified company; our towers were the first ones in Hong Kong and China to obtain the CTI STD201 performance certification, all of our
 products are ASHRAE-90.1-2010 compliant, a requisite towards LEED certification for Green Buildings by the USGBC (United States Green Building Council). All this confirms MESAN's constant pursuit of excellence and world-class quality.

MESAN's focus on engineering, research and development, quality management and excellent customer service, is the powerful combination that drives the MESAN brand up on a constant and steady growth. The many patents granted, are proof of MESAN's strive for delivering new environmentally friendly technologies and energy efficient products for the global markets.


MESAN USA strategically located at the center of the Americas continent, in Miami, Florida, USA, consolidates MESAN Group's global presence and reiterates its commitment to provide world-class products for an everexpanding market.

MESAN USA offers local presence, local inventory of equipment and spare parts and bilingual technical support as well as customer service, in English and Spanish. All products offered by MESAN USA have been engineered to meet and exceed all codes and standards applicable in this hemisphere.

## Overview

The MXL-I series is MESAN USA's response to the market need for a truly hurricane resistant tower, designed from the ground up to fully comply with IBC and FBC codes as well as with Miami-Dade building code (the most stringent in the country). This is not a modified old design, it is a completely new product, created with extreme high-wind
 resistance as the ultimate goal. The MXL series is designed to withstand and exceed the maximum wind speed required by FBC for Miami Dade county of 150 mph . Using advanced finite element analysis our Florida P.E. licensed Structural Engineer designed the casing of the MXL-I towers for a wind load of 150 psf (equivalent to approximately 240 MPH wind speed). This is the highest and unequaled wind load rating in the cooling tower industry, and it reiterates MESAN USA's leading role in developing innovative evaporative cooling solutions. Thermal performance has been certified by the CTI as per STD-201.

The MXL-I series comes in 7 different sizes within 12' which gives this series a distinctive low profile. Cooling capacity ranges from 426 to 1497 gpm per cell.

Model Designation


## Advantages

Maximizing energy savings is at the core of every MESAN product. Low energy consumption is the most important variable to consider when pursuing LEED certification. All models are fully ASHRAE-90.1-2010 compliant, largely exceeding this standard's gpm/hp requirements.

Hurricanes are something the whole Southeast USA and the Caribbean deal with, for 6 months every year, we have all seen the damage done by hurricanes and high winds. Building Owners, Architects, Builders, Code Officials and Insurers are all aware of the need to design and build wind-resistant structures. When dealing with critical cooling applications like data processing centers, banks, hospitals, or just comfort cooling, the most exposed components of a building's cooling system are always the cooling towers, so having a tower that can withstand hurricane-force winds, offers reliability and ensures uninterrupted air conditioning service to buildings. Our towers' unequaled wind-load rating of 150 psf almost doubles the wind load rating of our competitors, and best of all, at a very competitive price, so why take chances with weaker towers?


## MXL-L Geriag

## Tower Structure

| 01 | Fan Guard |
| :--- | :--- |
| 02 | Fan |
| 03 | Fan stack |
| 04 | Framework |
| 05 | Basin |
| 06 | Casing |
| 07 | Motor |
| 08 | Motor Support |
| 09 | Infill |
| 10 | Hot Water Basin |



## Components

## Casing and Structure

The MXL-I series is available in several construction materials:

- HDGS (Hot Dipped Galvanized Steel), this is a cost effective alternative to casing construction, with good structural strength and adequate corrosion resistance. G235 quality is the highest galvanized grade in the market.
- SS-304 or SS-316 stainless steel construction are also
 available for the highest corrosion resistance.


## Convenience

Box 01A and 01B can be containerized. For contractors, to be able to take delivery of fully assembled units means reduced installation labor and costs with unsurpassed turn around times. It also ensures the best quality and sealing between wet surfaces.


## Other Optional Accessories

## ASTM PVC Infill

High Temperature PP Infill
Non-combustible SS304 Infill
OSHA Safety Fan Guard
Basin Sweeper Systems with Filter/Separator Package
Equalizing Pipe Connection

Removable Strainer
Service Platform with davit

Vibration Cut-off Switch

Internal Piping
Velocity Recovery Fan Cylinder

## Product Technical Data

| Model |  | gpm | HP | Tower Dimensions |  |  | Remark |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MXL-I |  |  |  | L | w | H |  |
| 01A | 3 | 426 | 5 | 7'-51/4" | 17'-31/2" | 9'. $73 / 4{ }^{\prime \prime}$ | CNT |
|  | 4 | 467 | 5 |  |  |  |  |
|  | 5.5 | 517 | $71 / 2$ |  |  |  |  |
|  | 7.5 | 571 | 10 |  |  |  |  |
|  | 11 | 649 | 15 |  |  |  |  |
| 01B | 3 | 522 | 5 | 7'-51/4" | $17^{\prime}-31 / 2^{\prime \prime}$ | 11-10 1/2" |  |
|  | 4 | 576 | 5 |  |  |  |  |
|  | 5.5 | 639 | $71 / 2$ |  |  |  |  |
|  | 7.5 | 708 | 10 |  |  |  |  |
|  | 11 | 803 | 15 |  |  |  |  |
| 02A | 4 | 571 | 5 | $8^{\prime \prime} 6^{\prime \prime}$ | 19'-31/2" | 9'. $73 / 4{ }^{\prime \prime}$ | TRL |
|  | 5.5 | 635 | $71 / 2$ |  |  |  |  |
|  | 7.5 | 703 | 10 |  |  |  |  |
|  | 11 | 798 | 15 |  |  |  |  |
|  | 15 | 884 | 20 |  |  |  |  |
|  | 18.5 | 948 | 25 |  |  |  |  |
|  | 22 | 1002 | 30 |  |  |  |  |
| 02B | 4 | 667 | 5 | $8^{\prime \prime} 6^{\prime \prime}$ | 19'-31/2" | 11'-31/2" |  |
|  | 5.5 | 739 | $71 / 2$ |  |  |  |  |
|  | 7.5 | 816 | 10 |  |  |  |  |
|  | 11 | 925 | 15 |  |  |  |  |
|  | 15 | 1025 | 20 |  |  |  |  |
|  | 18.5 | 1098 | 25 |  |  |  |  |
|  | 22 | 1161 | 30 |  |  |  |  |



Notes:
1)Nominal water flow is for gpm of water cooled from $95^{\circ} \mathrm{F}$ to $85^{\circ} \mathrm{F}$ with $78{ }^{\circ} \mathrm{F}$ entering wet-bulb temperature.
2)Satisfactory performance is based on precise selection, proper system design and installation in a clean and well-ventilatd location. 3)CNT: Containerized, TRL: Trailer.

## MXL-D Geries

Cross $\mathrm{F}_{\mathrm{T}}$ w, Induced Draft, Hurricane Resistant

## Foundation and Piping




A-A

| Model | Foundation Dimensions |  | Pipe Connections |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MXL-I | L1 | L2 | W1 | Inlet | Outlet | Overflow | Drain | M-U |
| 01A | $8^{\prime}-21 / 2^{\prime \prime}$ | $7^{\prime}-3^{\prime \prime}$ | $18^{\prime}-1 / 2^{\prime \prime}$ | $6^{\prime \prime} \times 2$ | $6^{\prime \prime}$ | $2^{\prime \prime}$ | $11 / 2^{\prime \prime}$ | $1^{\prime \prime}$ |
| 01B | $8^{\prime}-21 / 2^{\prime \prime}$ | $7^{\prime}-3^{\prime \prime}$ | $18^{\prime}-1 / 2^{\prime \prime}$ | $6^{\prime \prime} \times 2$ | $8^{\prime \prime}$ | $3^{\prime \prime}$ | $11 / 2^{\prime \prime}$ | $1^{\prime \prime}$ |
| $\mathbf{0 2}$ | $9^{\prime}-31 / 4^{\prime \prime}$ | $8^{\prime}-31 / 2^{\prime \prime}$ | $20^{\prime}-4^{\prime \prime}$ | $6^{\prime \prime} \times 2$ | $8^{\prime \prime}$ | $3^{\prime \prime}$ | $11 / 2^{\prime \prime}$ | $1^{\prime \prime}$ |
| $\mathbf{0 3}$ | $10^{\prime}-7^{\prime \prime}$ | $9^{\prime}-7^{\prime \prime}$ | $21^{\prime \prime}$ | $8^{\prime \prime} \times 2$ | $10^{\prime \prime}$ | $3^{\prime \prime}$ | $2^{\prime \prime}$ | $11 / 2^{\prime \prime}$ |
| $\mathbf{0 4 A}$ | $12^{\prime}-7^{\prime \prime}$ | $11^{\prime}-7^{\prime \prime}$ | $23^{\prime}-71 / 2^{\prime \prime}$ | $6^{\prime \prime} \times 4$ | $10^{\prime \prime}$ | $3^{\prime \prime}$ | $2^{\prime \prime}$ | $1^{\prime \prime} 1 / 2^{\prime \prime}$ |

## Notes:

Secure the base of the cooling tower with the anchor bolts. Buyer is responsible for the tower support and for the positioning and diameter of the anchoring bolts to comply with local building codes.

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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, provides 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 the system performance will meet the design objectives, for the benefit of the building owners, operators and public.



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