

# VAF<sup>™</sup> FILTRATION SYSTEMS X<sup>™</sup> SYSTEMS COOLING TOWER FILTRATION

#### **GENERAL INFORMATON**

The X<sup>TM</sup> Systems for cooling tower filtration are designed to overcome wasted inefficiencies and the high power consumption of previous typical filtration technologies used on cooling towers. The X Systems' proprietary enhanced energy conservation package includes a PLC/VFD pump control as well as basin zone control, which allows for smaller pumps to be used on large or even multiple cooling towers. As a part of the energy conservation system, a constant pressure is maintained in the supply lines for most efficient basin agitation eductor nozzle performance.

The most unique feature of the X Systems is its ability to clean large or multiple cooling tower basins with only a small number of eductor nozzles by grouping them into cleaning zones.

The combined features of the X Systems Cooling Filtration System provides a low cost solution for the removal of particulate from cooling tower basin water. Based on the micron selected (50 micron standard), the removal of all solids to the specified micron rating can be achieved in a matter of *hours* not days. This is especially important to note as, unlike separators, a screen filter's 100% particulate removal efficiency is not affected by the specific gravity of the particulate or by varying flow rates through the screen filter.

When used in conjunction with turbulator eductor nozzles, the X System efficiently maintains a clean tower basin by removing all particulate, even as light as algae or small as silt, without interrupting the facility's processes.

The X Systems have a multitude of features and available options that can be added for a variety of communication and sophisticated functions.

## **Available Options**

- Pump Fault Alarms
- Motor Protection
- Dry Pump Protection
- Impeller Anti-Jam
- Flowmeter Data Logging
- Ethernet/IP
- PROFINET
- Pump Drive Protection
- Automatic System Restart
- Low and High Pressure Detection
- Power Loss Delay Timer
- Digital and Analog Inputs/Outputs
- Modbus® TCP/IP
- And More...

## Zone Control

- Modular Upgrades
- Wireless Communications
- Multiple Schedules
- Controls up to 16 Zones (Expandable)
- Various Programmable Features

X<sup>TM</sup> Systems significantly reduce maintenance costs, energy costs, chemical usage, and most important, reduce the consumption of what is quickly becoming the world's most valuable resource: water. Backed by Evoqua's decades of filtration experience, the X Systems provide performance and reliability at a cost effective and competitive price. TOWER 1-TOWER 3-TOWER 2 CTF500-15 SKID 250 GPM ELECTRICALLY OPERATED BALL VALVE ON MANIFOLD TYP(6) 4" PVC PIPE INLET LINE

## **SPECIFICATIONS**

## **LCFX-SERIES (PUMP SIZE TO 10HP)**

OUTLET LINE

#### **CTFX-SERIES (PUMP SIZE 15HP & LARGER)**

SYSTEM FLOW RATE		MODEL		PUMP	SYSTEM FLOW RATE		MODEL		PUMP
m³/hr	gpm	with pump	V-Series model	HP/kW	m³/hr	gpm	with pump	V-Series model	HP/kW
13	55	LCFX200-3VS-P	V-200P	3/2.2	80	350	CTFX500-15VS-P	V-500-4	15 / 11.2
23	100	LCFX200-5VS-P	V-200P	5/3.7	91	400	CTFX500-25VS-P	V-500-4	25 / 18.6
34	150	LCFX200-7.5VS-P	V-200P	7.5 / 5.6	91	400	CTFX1000-25VS-P	V-1000-6	25 / 18.6
34	150	LCFX250-7.5VS-P	V-250-3	7.5 / 5.6	159	700	CTFX1000-40VS-P	V-1000-6	40 / 29.8
45	200	LCFX250-10VS-P	V-250-3	10 / 7.5	159	700	CTFX1500-40VS-P	V-1500-8	40 / 29.8
45	200	LCFX500-10VS-P	V-500-4	10 / 7.5	Other configurations available upon request				

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System flow rate shall be determined by the size and number of cooling tower basins. Consult Evoqua for the selection of the correct flow rate.

Zero Liquid Discharge option is available; contact Evoqua for additional information.



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