

INNOVATIVE WATER TREATMENT SOLUTIONS

BACKGROUND

Fouling and scale formation waste energy and can ultimately cause unscheduled shutdown. Effective water treatment can minimize energy consumption caused by the possibility of high head pressure, improper heat transfer and improper water distribution to cooling tower caused by deposition across condenser tubes and cooling tower.

EFFECT OF IMPROPER HEAT TRANSFER ON VARIOUS APPLICATIONS

Centrifugal Compressor - 1°F increase in condenser inlet temperature results in 1.7% extra energy consumption

Heat Exchanger- 0.8mm scale on condenser tubes results in 35% extra energy consumption

Cooling Tower- 1°C increase in cooling tower outlet results in 2.7% extra energy consumption

SYSTEM INTRODUCTION

Water treatment program by A K Associates is combination of Magtreat, copper ion generator, THE WHIRLER™ and chemical treatment which effectively reduces scaling, algae problems, bio film formation, micro-organism growth, corrosion and suspended solid related problems occurs in cooling towers, heat exchanger and condensers etc.

It always gives good results as compare with conventional chemical treatment program

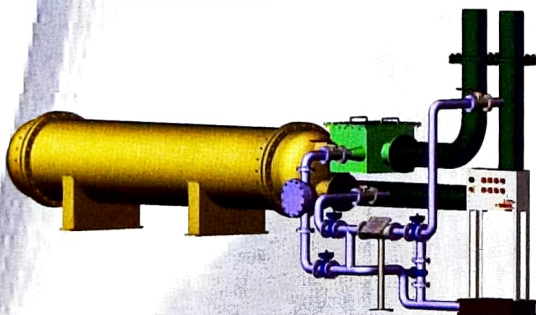
COMBINATIONS WORK BETTER!

Make AMC & avail benefits with minimal rent.

AMC SCOPE OF SUPPLY

- ▶ Magtreat: ON RENT for scaling prevention. Eliminate hard scale for system.
- ▶ Copper Ion generator: ON RENT for algae and bacteria.
- ▶ THE WHIRLER™: On purchase basis for clean condenser all time.
- ▶ Complete chemical treatment program with best matched option.
- ▶ Regular visit. Water analysis reports.

THE WHIRLER™



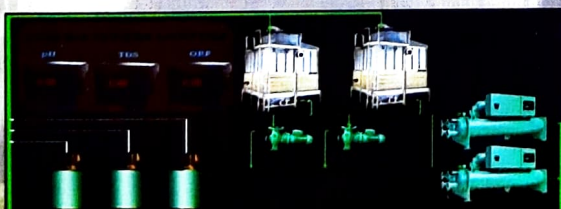
FUNCTIONS :

- To Reduces condenser descaling completely.
- To Improve plant Efficiency.
- To maintain condenser approach.
- To reduce power consumption upto 25%.
- To increase condenser tube life.

SALIENT FEATURES

Patent pending system | No high pressure pump | Own ball arrester design | Zero pressure drop in ball arrester | Zero water loss system
ROI within 1 year

WMS (Water management System)



SALIENT FEATURES

- Online monitoring of water parameters like pH, TDS, ORP etc.
- Online trends & exception reports of water parameters.
- Can adjust set point to maintain water parameters within limits.
- Online user guide
- Compatible for Computer and android smart phones.

MAGTREAT (MAGNETIC WATER TREATMENT SYSTEM)



FUNCTIONS :

- To reduce existing hard scale on condenser tubes & Cooling Tower fills.
- To convert HARD scale in to SOFT scale. (Calcite becomes Aragonite)
- To prevent further hard scale formation.
- Combination of MAGTREAT & CHEMICAL TREATMENT gives better control on scale.

SALIENT FEATURES

Reduction In Surface Tension Of water. | Enhancement in solubility of water. | Molecular Alignment from Random Configuration to Matrix. | Buffering effect on pH towards Neutral. | Simple In Design. | No Power required as uses permanent Magnetic Technology. | Easy to install and commission | Maintenance Free & Environment Friendly. | Dose Not add any pollution Problem.

COPPER ION GENERATOR

COPPER ION
GENERATOR



FUNCTIONS:

- To reduce existing Algae formation & Bacterial growth.
- To reduce slime formation across the condenser.
- Settles suspended solid particles in Cooling Tower sump.
- Combination of Copper Ionization & Non Oxidizing Biocides gives better control

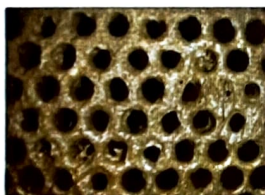
CHEMICAL TREATMENT

CHEMICAL
TREATMENT



FUNCTIONS:

- To reduces scaling in cooling tower and across condenser tubes.
- To reduces corrosion across piping of existing system.
- To reduces energy consumption of A/c Plant.
- To increase COC of water in the system.
- To maintain water parameters like pH & alkalinity.



BEFORE



AFTER



BEFORE

AFTER

APPLICATIONS

HVAC | Commercial Complex | Condenser | Cooling Tower | Shell & Tube Heat Exchanger
Chemical & Fertilizer Industries | Pharmaceutical | Petrochemical | Refinery



A. K. ASSOCIATES

Plot no. 268, Pramila industrial estate, Upvan,
Pokharan Road No. 01, Thane (w) 400 606.

Ph. 7045457834 | 9892960421

Email: ask@akenergy.in | associates.akenergy@gmail.com