

LTS/a.c.c.

Cooling Tower System Cleanings.

Base Chemicals Temp °C Press. Kg/cm² Duration Hrs

- | | | Temp °C | Press. Kg/cm ² | Duration Hrs |
|-----|--|--|---------------------------|--|
| [1] | <u>DISPESANT</u> (Loosening) + Detergent }
<u>Flushings</u> (Biomass) (Oil & Grease)
for | Ambient to 60°C | Working Pressure | |
| [2] | <u>Biodispersant</u> (Dislodge) + Surfactant
<u>Polymer</u> (Silt etc.)
Cleaning + Algacide (Quat) - 60ppm
+ biocide. | Ambient to 60°C | " | 6 Hrs. |
| [3] | <u>Oxydising Biocide</u> (Biological Growth) + Nonoxy. (Quaternary Biocide) (Isothiaz)
(Bromine based) BCDMH - 2% | Ambient to 60°C | " | 2-6 Hrs. |
| [4] | <u>Descaling</u> (HCl Acid) + 5-10%
<u>ACID CLEANING</u> (Sulphamic Acid) + Cu Inhibitors
Inhibited for Fe Oxide, CO ₂ deposits
Silica deposits + Al Inhibitors
ABF | Ambient to 60°C | Specific Circulation Rate | 3-6 Hours
PH - 4-5
Inhibitor - 36
4 times more
(24-48 Hrs) |
| [5] | <u>Neutralization</u> Soda Ash
PH > 8 | Ambient | " | 2-4 Hrs. |
| [6] | <u>Passivation</u> (with blowdowns)
(Wood - CuSO ₄)
& pre-filming
Azoles for Cu protection | High Anodic & Cathodic Inhibitors
50-70°C
48°C to Ambient
Phosphates -
Zinc + Azoles | "
Ambient
" | 8-24 Hrs
PH - 5.5 to 7.0
4-6 Hrs
PH - 6.5-7.0
Phosphate -
300-600 ppm
Zinc - 30-60 ppm |