

# Water - Molds or Fungi

- Molds or Fungi are Multi-Cellular Organisms.
- They are the Largest in Size of Microflora and may attain a length of several Centimeters – visible to the human eye!
- Moulds can produce hundreds of thousands of Spores.
- Excessive Fungal Growth generally occurs in Synthetic Coolants with controlled Bacterial Population.
- Molds grow very slowly. Weeks or even Months may elapse before a Mold Infection becomes Serious Enough to cause a Problem.
- Once formed, Molds are Particularly Troublesome and Difficult to Get Rid of.
- Mold Spores are Highly Resistant to Chemicals and may withstand and survive the Conventional Biocide Treatment.
- Excessive Growth of Molds Plug Filters quickly!
- Molds produce Musty Odor.
- Molds and Fungi like yeasts do not actually grow in the Circulating Fluid. They grow on the Moist Machine Surfaces, Splash Areas, Dead Spaces and Similar Interfaces.

## Water - Bacteria

- Unicellular Microscopic Organism.
- Average length is about 1.5 microns (A newspaper page is more than 80 micron thick)
- Each individual Bacterial Cell is capable of Growth and Reproduction
- Under the most favorable conditions Bacteria can reproduce every 20 minutes by simply dividing into Two New Cells.
- Nearly 20 million new cells will be produced every 8 hours unless certain Environmental Factors are controlled to limit their Growth and Reproduction.
- Many Bacteria also produce Spore of Cysts. These are Dormant forms capable of Resisting Unfavorable Environmental Conditions.

# Yeasts

- Rounded unicellular organisms which are several times larger than bacteria size – 10 microns approx.
- Yeasts usually reproduce by a process known as budding but the rate is significantly less than most bacteria
- Yeast are most important as indicators of environmental conditions organisms which constitute a far greater problem
- Yeasts like bacteria, produce spores which insure the continued life of the species during unfavorable conditions.