

## Pumps

- ◆ Operate pumping near best efficiency point.
- ◆ Modify pumping to minimize throttling.
- ◆ Adapt to wide load variation with variable speed drives or sequenced control of smaller units.
- ◆ Stop running both pumps -- add an auto-start for an on-line spare or add a booster pump in the problem area.
- ◆ Use booster pumps for small loads requiring higher pressures.
- ◆ Increase fluid temperature differentials to reduce pumping rates.
- ◆ Repair seals and packing to minimize water waste.
- ◆ Balance the system to minimize flows and reduce pump power requirements.
- ◆ Use siphon effect to advantage: don't waste pumping head with a free-fall (gravity) return.