



# Cut Your Water Use!

## Increased Cycles of Concentration in Your Cooling Tower Will Reduce Water Use and Save You Money

MB0713

Air conditioning cooling towers are often the biggest single water use in a building, consuming up to 35% of total input water. A big part of this water use is the cooling tower blowdown, water wasted to limit the cycles of concentration to a level where scale in the cooling tower is prevented. Blowdown amount is directly proportional to the cycles of concentration obtained, which is controlled by the cooling water treatment chemistry in use.

Typical cooling water treatments operate from 2 to 3 cycles of concentration; we have developed patented HighCycle™ water treatment chemistry; which permits scale free operation at 4 to 6 cycles of concentration.

The following table shows the blowdown from a 1000 ton thermal load cooling tower at various cycles of concentration and the water savings obtained by increasing cycles of concentration from a baseline of 2.

Cycles of Concentration	Blowdown - gal/yr	Water Savings – gal/yr
2	9,690,750	0
2.5	6,460,500	3,230,250
3.0	4,845,375	4,845,375
3.5	3,876,300	5,814,450
4.0	3,230,250	6,460,500
4.5	2,768,786	6,921,964
5.0	2,422,688	7,268,063
6.0	1,938,150	7,752,600

While HighCycle products have a higher unit cost than the low performance products replaced, this cost increase is easily covered by the **lower costs for water and sewerage when blowdown is decreased.**

In general, existing feed and control equipment can be used; any upgrades needed are also easily covered by the lower water and sewerage bills.

**ProChemTech International, Inc.**

**“Innovation in Water Management”**

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