



The Best Water for Cooling Fluids Tap or Demineralized?

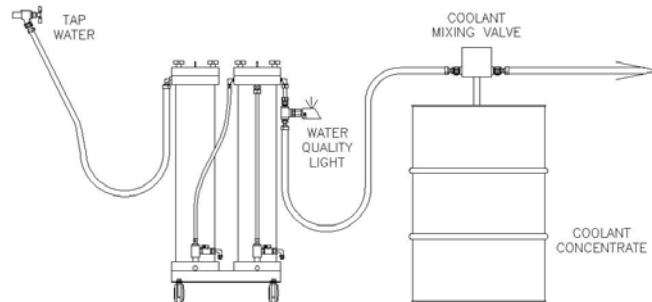
As it evaporates, water becomes the cooling agent in water cutting and grinding fluids. Tap water has minerals that increase in concentration as the “pure” water evaporates in the cooling process and make-up water is added.

As the dissolved solids (minerals) concentrate, they react with the lubricants in the cooling fluid causing them to be removed from the solution. The fluids lubricating properties are lost, which makes residue that interferes with machining, cause corrosion and promote microbial growth. The result is shorter cooling fluid life.

Coolants do have some tolerance for dissolved minerals in the tap water, but they will concentrate and ultimately overwhelm the coolant’s chemical systems causing the fluid to fail. Demineralized water is required for long term coolant recycling.

Benefits of Pure Water Make-Up

- Less corrosion and rust
- Increased tool and wheel life
- Less problems with dermatitis
- Less bacteria and fungus
- Easier mixing
- Improved wetting & penetration
- Improved lubricity
- No gummy residues



Demineralized Water Saves Money

Gallon for gallon demineralized water costs more than tap water, however, this extra cost will be repaid many times over through...

- Better tool and wheel life
- Reduced coolant concentrate use
- Reduced machine maintenance costs
- Extended coolant sump life

The bottom line...

The best and most effective way to operate is to initially mix the coolant concentrate with tap water, then add pure demineralized water for evaporation make up.

Information courtesy, Diane Dolan, VP/ CEO Ameriwater Inc.