

### Turn up cooling performance and turn down energy consumption...

HT Materials Science has developed the first truly innovative heat transfer fluid for commercial and industrial cooling and heating applications. Maxwell™ is proven to increase thermal energy transfer by **15%** or more for closed-loop hydronic cooling and heating systems.

This facilitates more efficient operation of chillers, heat pumps, supply fans, circulating pumps and coils. Major benefits of Maxwell™ include:

- Significant reduction in annual energy consumption and carbon emissions
- Increased cooling and heating capacity
- Easy retrofit installation with no CapEx requirements
- Typical payback period of **1 to 3 years** (dependent upon utilization rates and energy costs)
- Safe, non-toxic and non-corrosive additive at only a 2% concentration in the system fluid

### Typical Applications for Maxwell™



**Chillers / Heat Pumps:** Maxwell™ increases heat transfer in the evaporator between fluid and refrigerant, which lowers the approach temperature thus reducing compressor lift and energy consumption. The measure of chiller energy efficiency, Coefficient of Performance (COP), is increased by up to **15%** in many applications.

**System Pumps and Fans:** Maxwell™ increases thermal energy transfer in cooling & heating coils at air handlers and terminal units. System pumps and supply fans can operate on lower power while maintaining comfort.

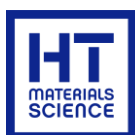
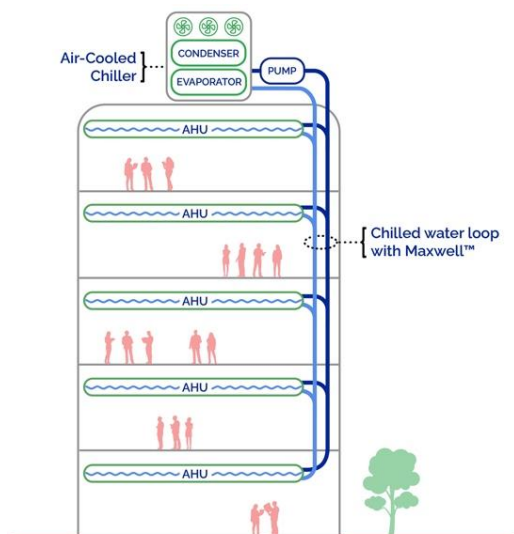
**Energy Recovery Systems (ERS):** Maxwell™, when added to energy recovery system fluids, improves coil approach temperatures. This facilitates system utilization across a wider range of outside air temperatures, thus increasing the effectiveness of the ERS and reducing overall energy consumption by the HVAC system.

### Typical Industries

- Commercial real estate including office, retail, hospitality, healthcare, transportation hubs & warehousing.
- Industrial process cooling including data centers and manufacturing facilities.

### Maxwell™ in a Chilled Water System

- Maxwell™ is added to the evaporator loop (blue lines) and circulated from the chiller to air handling units (AHU).
- Maxwell™ reduces the fluid / refrigerant approach temperature in the chiller evaporation cycle, requiring less compressor "lift" or work.
- Maxwell™ also increases thermal energy transfer in the AHU coils, satisfying room setpoints more quickly, requiring less chilled water and reducing pump energy consumption.



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