Written by Amanda Martyka, Assistant Editor
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5 Tips To Reduce Your Water Footprint

More than 90% of the world's fresh water is consumed in the agricultural and industrial sectors. Given this staggering number, their carbon footprint is not the only thing manufacturers should consider to achieve a sustainable future—*it is important that manufacturers also identify solutions that will reduce their water footprint and increase efficiencies*
. As such, Siemens recommends the following five easy tips for factory and manufacturing facility owners and operators to reduce their water footprint and start reaping the savings.

1.

Do your homework. Annually review your water management strategy from intake to discharge. Where it makes sense, take steps to reduce your water footprint. Ask for expert advice. There are technologies available that offer sustainable solutions for manufacturers and communities alike to treat water to virtually any specification. By doing an audit, you can identify ways to reduce your water footprint immediately. Be sure to continue to monitor your usage closely. The following Website explains how a corporation can look at their water footprint: www.waterfootprint.org/?page=files/CorporateWaterFootprints

2. **Treat water as a valuable resource.** Treated water isn't free; it takes energy and technological resources to treat it. Statistics show that by 2030 almost 50% of the world's population will be living in areas of high water stress. So, the more tightly managed the water usage, the better.
3. **Reuse and recycle.** Capturing, treating and recycling water during the manufacturing process can reduce water use by millions of gallons per year, as well as save money. This can be achieved by looking at areas like your boiler feed water, utility water or, in the example of a major beverage manufacturer, water used in packaging preparation. The manufacturer was able to put new processes in place to recapture and treat the water used for bottle washing, ultimately saving 25,000 gallons of water a day!
4. **Reduce waste.** An effective water management strategy can help reduce waste and discharge, while also helping to meet regulatory requirements. Even taking a closer look at wastewater and identifying other uses within the facility can result in great savings. For example, a major healthcare products manufacturer recovered its waste stream and reused its feedwater, enabling it to recover more than 52 million gallons of water per year!

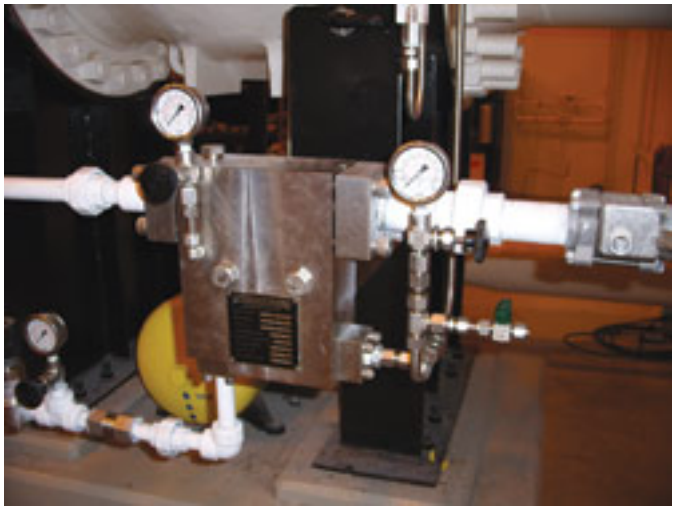
5. **Consider the water/energy link.** Energy costs account for nearly 30% of the operational costs at water treatment facilities. Technology advancements, such as better automation, reuse technologies and waste-to-energy technologies, can mean greater energy efficiencies. A major brewing company installed technology, which, by converting its waste to energy, was able to save the equivalent of $500,000 in energy costs per year at a single location. So, don't just look at the water use, follow the electricity usage as well.

For more information from Siemens on reducing your water footprint, visit www.siemens.com/water_footprint

Siemens Water Technologies
Warrendale, PA

For more info, enter 30 at www.MT-freeinfo.com

New Technology Offers A Breath Of Fresh Air



A new compressor technology from Dresser-Rand employs supersonic ejectors that, by reclaiming gases ordinarily vented into the atmosphere, offer environmental benefits and enable facilities to operate more efficiently. The tandem or two-stage ejector system captures gas leakage from a dry-gas seal at low pressure and recompresses it to a pressure equivalent to the fuel gas pressure. Reclaiming these gases by injecting them into gas turbine fuel systems reduces hydrocarbon emissions to the atmosphere. The ejectors are available as new equipment options and product upgrades for centrifugal compressors that compress hydrocarbon gases. They also work with any low-pressure, low-flow-rate vent streams, and high-pressure stream applications. Because the ejectors have no moving parts, seals, shafts or packing, they are practically maintenance free compared to mechanical compressors and vacuum pumps.

Dresser-Rand Group Inc.
Houston, TX

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Business Case For Manufacturing Convergence

Manufacturing convergence—*the merger of traditionally separate functions and systems across the enterprise*—is helping manufacturers address key market drivers of productivity, globalization, innovation and sustainability to overcome strong economic headwinds, according to two new White Papers from Rockwell Automation. The first paper, titled "Manufacturing Convergence: Enabling Plant-Wide Optimization in Any Economy," examines how manufacturing convergence and the advanced technology that enables it is helping manufacturers position themselves for prosperity in any economy. The second paper, titled "Manufacturing Convergence Practices and Trends: Perspectives from Providers and Customers," summarizes a panel discussion involving executives from Cisco Systems, Dassault Systèmes Delmia Corporation, Microsoft, Alcoa, General Mills, PepsiAmericas and Tetra Pak. According to both papers, to succeed, manufacturers must extend their focus beyond productivity to bring innovative products to market faster, meet customer demands in a global market, and produce in safe and sustainable ways. That shift is requiring new manufacturing processes, but it's also compelling forward-thinking companies to unify manufacturing with other functions throughout the enterprise and across the supply chain. The White Papers are available for download at www.rockwellautomation.com/solutions/convergence

Rockwell Automation, Inc.
Milwaukee, WI

For more info, enter 32 at www.MT-freeinfo.com
Balancing Program Keeps The Blades Turning

For more info, enter 33 at www.MT-freeinfo.com

Energy Management eLearning

Coastal Training Technologies and DuPont Safety Resources have collaborated to produce a new training program titled *Energy Smart*. Available on DVD, this is the first course in Coastal's upcoming *DuPont Energy Management eLearning Series*. Energy Smart helps promote general energy awareness and includes energy-saving tips that translate into real savings for an organization. It aims to change the misconception that energy is "just there" and encourages employees to treat energy costs with the same fiscal assertiveness as any other business expense. Content contributions by DuPont energy engineers and consultants are based on DuPont's successful energy management experience that has resulted in $3 billion in cumulative energy savings since 1990. The new offering applies a three-pronged approach to energy management and presents a compelling business case for its adoption. It explains the impact of energy management on the economy, environment, customer interface, energy independence and emerging technologies. It also shows how every employee can improve energy efficiency, citing low-cost, easy-to-implement best practices of energy-efficient organizations. *Energy Smart* is the first of 16 courses in this soon-to-be-released eLearning Series. Coming this fall, these online courses cover the energy-efficient use of industrial equipment and systems. Titles include: *Energy Management Best Practices*, *Energy System Instrumentation and Controls*, *Theory of Steam Generation, Fuels and the Combustion Process*, *Boilers and Auxiliaries* and *Emission Control and Ash Handling*, among others.

Coastal Training Technologies
Virginia Beach, VA

For more info, enter 34 at www.MT-freeinfo.com

Test Leads Provide Wind Industry Solution

Megger has introduced a new KC series of test leads, which were developed in conjunction with leading wind turbine manufacturers. These test leads provide a solution to the problem of finding reliable test leads long enough to be used for testing the continuity of lightning protection conductors in wind turbine blades. KC-series wind turbine test leads are available in a 100 m version and are equally suitable for use on site or in the manufacturing plant. For convenience and ease of handling, they are supplied as standard on a heavy-duty cable reel that is fitted with a friction brake to avoid tangles when paying out the cable. The leads are terminated with large Kelvin clips that have been specially designed to offer ease of use while providing the consistently reliable connections needed to ensure accurate and repeatable test results. Included with each set is a 5 m cable fitted with a duplex handspike for probing the lightning receptors on the tips of the turbine blades. Additionally, KC-series leads are suited for use with Megger DLRO10HD low-resistance digital ohmmeters, which combine robust construction with high test current capability. The leads also can be used with most modern types of low-resistance ohmmeters.

Megger
Dallas, TX

For more info, enter 35 at www.MT-freeinfo.com