Demand Flow – Your key strategy for more energy efficiency

Chiller plant optimization that reduces energy consumption by 20 to 50 percent.

Powerful solution
Demand Flow is specifically designed for centrifugal and screw-type chilled water systems and already has been improving many central plant performances, yielding energy savings of 20 to 50% and a total plant performance with an EER up to 10.7.

As a holistic approach for optimizing an entire chilled water system, Demand Flow controller's specialized algorithms can deliver chilled water system efficiencies to any existing building automation system.

Entire system saves energy
The algorithms also ensure that energy is not shifted from one plant subsystem to another, as in some other energy conservation routines. Demand Flow measures and verifies the total chilled water plant energy usage to provide an accurate record of total energy usage before and after implementation.

Safety and comfort priority
Overall safety and comfort of occupants are not sacrificed in achieving Demand Flow energy savings.

No compromise for safety and comfort
Answers for infrastructure.

Our world is undergoing changes that force us to think in new ways: demographic change, urbanization, global warming and resource shortages. Maximum efficiency has top priority – and not only where energy is concerned. In addition, we need to increase comfort for the well-being of users. Also, our need for safety and security is constantly growing. For our customers, success is defined by how well they manage these challenges. Siemens has the answers.

“We are the preferred partner for energy-efficient, safe and secure buildings and infrastructure.”

www.siemens.com/demandflow

© Siemens Switzerland Ltd, 2012

Siemens Switzerland Ltd
Infrastructure & Cities Sector
Building Technologies Division
International Headquarters
Gubelstrasse 22
4201 Zug
Switzerland
Tel +41 41 724 24 24
No variable frequency drives required on chiller compressor motors.
Demand Flow manages your chiller plant with specialized control algorithms. These algorithms require the conversion of constant speed condenser pumps, chilled water pumps, and cooling tower fans to variable speed through the installation of variable frequency drives (VFDs). The VFDs allow the Demand Flow algorithms to maintain optimal differential system pressure, reduce excessive pumping energy as well as equipment runtime and increase system deliverable tonnage on systems suffering from a diminished refrigeration effect. Demand Flow does not require costly VFDs on chiller compressor motors.

Demand Flow is chiller agnostic; it is not brand-specific to any one chiller manufacturer and can be implemented without voiding equipment warranties.

Reduce your chiller plant’s energy consumption

Only Demand Flow™ from Siemens uses the variable pressure curve technology that optimizes central chilled water systems to reduce a plant’s total energy consumption by 20 to 50%.

Elegantly simple but powerful solution

No variable frequency drives required on chiller compressor motors.
Demand Flow manages your chiller plant with specialized control algorithms. These algorithms require the conversion of constant speed condenser pumps, chilled water pumps, and cooling tower fans to variable speed through the installation of variable frequency drives (VFDs). The VFDs allow the Demand Flow algorithms to maintain optimal differential system pressure, reduce excessive pumping energy as well as equipment runtime and increase system deliverable tonnage on systems suffering from a diminished refrigeration effect. Demand Flow does not require costly VFDs on chiller compressor motors.

Demand Flow does not require costly VFDs on chiller compressor motors.

Continuous performance monitoring

All plant functions automatically optimized.
The Demand Flow controller automatically optimizes all plant functions. Typically, system access to Demand Flow is available through a unique Graphical User Interface (GUI). Siemens web-based EMC software enables chiller plant system performance monitoring from anywhere in the world via the Internet. EMC is responsible for data accumulation, reporting energy profiles and detailing equipment operating parameters.

Demand Flow typically achieves savings in five major areas of a chilled water system:
– Cooling towers
– Condenser pumps
– Chillers
– Chilled water pumps
– Air handling units

Only Demand Flow™ from Siemens uses the variable pressure curve technology that optimizes central chilled water systems to reduce a plant’s total energy consumption by 20 to 50%.