

The Siemens logo is displayed in a bold, teal, sans-serif font. It is positioned in the upper left corner of the page, set against a white rectangular background that partially overlaps the industrial machinery in the background image.

SIEMENS

Ingenuity for life

The title is centered within a teal rectangular box. The text is white and uses a clean, sans-serif font. The background of the entire page is a photograph of a complex industrial chilled water system with orange pipes and blue machinery.

Demand Flow[®] Chilled Water System Optimization

Chilled water system optimization provides operational improvements to your facility, as well as the resulting energy savings.

usa.siemens.com/demandflow

Provides significant operational improvements

Going beyond energy savings, Siemens Demand Flow Chilled Water (CHW) System Optimization offers a holistic application of fundamental thermodynamic principles. These principles combine to resolve chilled water system operational issues and enable design intent.

Demand Flow CHW uses an intelligent, powerful, and proven method developed from our decades of experience in optimizing chilled water systems. It works by optimizing your plant to address three key areas:

- Uptime
- Comfort
- Energy efficiency

Siemens Demand Flow provides a holistic approach to optimizing both your chilled water and air distribution systems – all without sacrificing savings or building comfort.

With Demand Flow you benefit from:

- Reduced energy consumption
- Extended useful equipment life
- Improved building comfort
- Continuous performance monitoring

Demand Flow CHW has been proven successful in more than 650 installations across the globe. From hotels, manufacturing, and commercial office spaces to hospitals, universities, and data centers, Siemens has been able to deliver reduced energy consumption, improved occupant comfort, simplified chilled water system operations, and extended equipment life by applying the Demand Flow strategy.

Demand Flow[®] Chilled Water System Optimization uses innovative technology to optimize operational performance.

System Reliability	System Performance	Equipment Life	Sustainability
<ul style="list-style-type: none"> • Solves surging chiller issues without a chiller VSD <ul style="list-style-type: none"> - Stabilize refrigerant pressures at all loads - Prevent harmonic current distortion • Solves hydronic pumping challenges <ul style="list-style-type: none"> - Optimize and balance flows - Eliminate over-pumping • Switch between plate & frame and mechanical cooling seamlessly, or potentially operate simultaneously • Minimize tower warm-up cycle 	<ul style="list-style-type: none"> • Improve comfort by using colder water to satisfy space conditions, if applicable <ul style="list-style-type: none"> - Improve dehumidification - Allow for AHU fan energy reductions in VAV systems - Improve AHU coil performance by increasing log mean temperature differential • Can increase deliverable tonnage <ul style="list-style-type: none"> - Improve redundancy - Require less equipment to operate • Simplify system operation with lead/lag chiller sequencing and no chiller VSDs 	<ul style="list-style-type: none"> • Reduce “shaft-miles” • Increase bearing life • Reduce equipment runtime • Reduce chiller start/stops • Extend preventive maintenance cycles • Improve equipment uptime 	<ul style="list-style-type: none"> • Gain 20-50% greater energy efficiency • Improve indoor environment <ul style="list-style-type: none"> - Decrease hot/cold calls - Optimize humidity • Submeter all chilled water subsystems, including chillers, pumps, towers, and AHUs • Improve sustainability achievements and contribute to LEED points



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