

**ARMSTRONG**



MARKING

**TowerMax**

**Upgrade bundle**

FILE NO: 82.05  
DATE: MARCH 2018

SUPERSEDES: NEW  
DATE: NEW



# TOWERMAX UPGRADE BUNDLE

**T**OWERMAX is an optimization service that boosts energy and water savings, available as an upgrade for any previous installation of an Armstrong Design Envelope IPC 9521 plant controller. Leveraging the highly accurate flow readings from existing Design Envelope solutions, TowerMax employs advanced operating algorithms to minimize the energy and water consumption of your variable speed chiller plant. Using new energy saving optimization sequences, TowerMax implements a unique approach to plant automation.

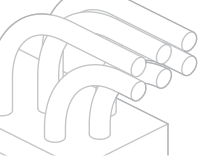
## New energy saving optimization sequences

- › cooling tower and condenser flow regulation
- › cooling tower air flow and fan operation
- › efficient staging of cooling towers, pumps, fans and chillers

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OPEX | **PERFORMANCE  
COMMITMENT**

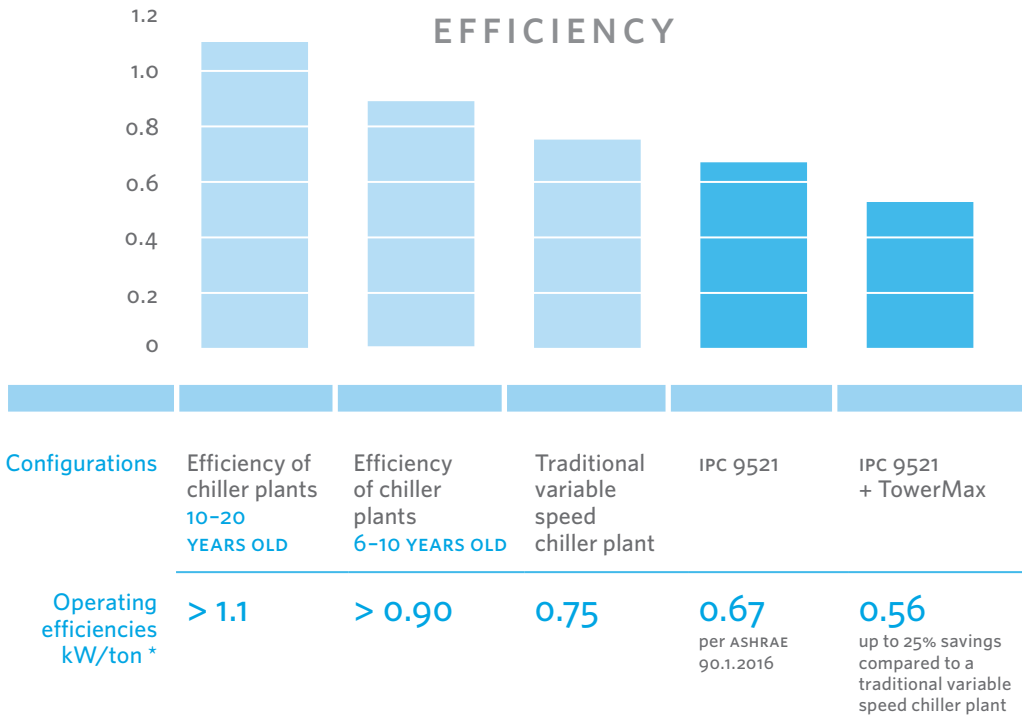
The TowerMax upgrade bundle includes three components:

- New optimization sequences to upgrade efficiency
- Our ECO\*PULSE Health Management service
- A performance commitment with our OPEX guarantee



## UNDERSTANDING PLANT PERFORMANCE: ENERGY ANALYTICS

An energy analysis provides the comparison baseline from which energy, maintenance, and water savings are calculated. The baseline for modeling and optimization starts with a detailed review of energy consumption data, gathered from the data logs of the installed Design Envelope IPC 9521.



\* Based on reviews from prior installations. Actual values will vary based on building size and location.

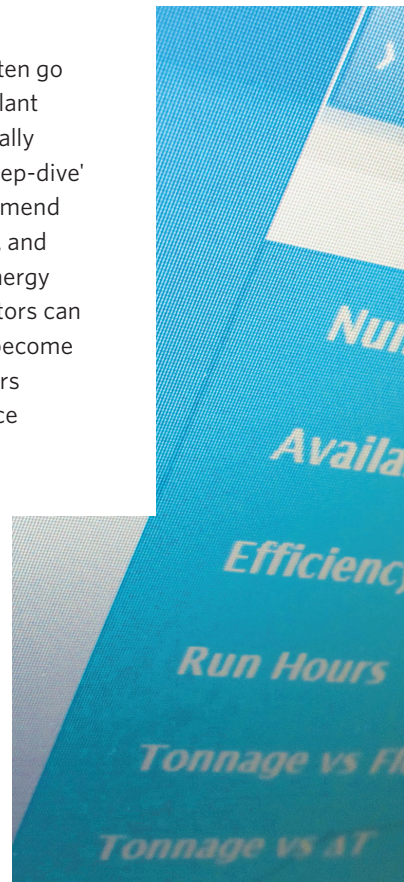
## ECO\*PULSE BUILDING PERFORMANCE MANAGEMENT SERVICE

The OPEX Guarantee assures that you, as a building operator, are cash-flow positive in the first year, and in subsequent years. If a shortfall in energy savings occurs causing net project costs to become unfavorable, Armstrong will reimburse you to make the project cash neutral. This three-year agreement can be extended to subsequent years.

Over time, equipment and building conditions change. Whether they are gradual or abrupt, those changes often go unnoticed. ECO\*PULSE provides a prediction on how a plant should perform, and an analysis to show how it is actually performing. The service uses automated, real-time 'deep-dive' diagnostics of your HVAC system to identify and recommend remedies for changes that affect system performance, and includes a quarterly expert review by an Armstrong Energy Engineer. With this supporting data and advice, operators can identify and address maintenance issues before they become expensive problems. With ECO\*PULSE, building operators benefit from a better understanding of key performance indicators and how they change over time.

### THE RESULT:

**Better overall performance of the entire chiller plant, and up to 25% energy savings relative to ASHRAE 90.1 2016 requirements.**



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