



DESIGN ENVELOPE

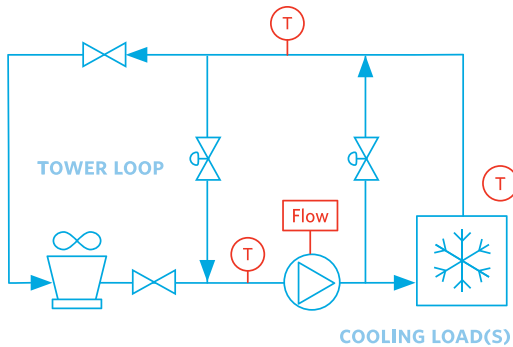
ITC 9521 Integrated Tower Control System

SOLUTION OUTLINE

FILE NO: 82.15
DATE: MARCH 2018

SUPERSEDES: NEW
DATE: NEW

SAVINGS AND RELIABILITY



Technology developments in cooling systems for large scale industrial applications present great opportunities for savings in energy and water. To improve the efficiencies of cooling tower systems, Armstrong offers **Integrated Tower Control**, an advanced cooling automation system that optimizes the operation of multiple variable speed pumps, fans and cooling towers or fluid coolers for maximum efficiency.

ENERGY
SAVINGS
UP TO

20%

WATER
SAVINGS
UP TO

3%

Operating efficiency of pumps and fans provides energy savings, approximately 5 to 20% compared to a constant flow tower configuration and 2 to 3% water savings

KEY BENEFITS

Improved system stability

Reduced energy costs

Simplified tower automation and easy integration for improved system reliability

Real-time flow metering accuracy and diagnostics to better understand your tower performance

KEY APPLICATIONS

ITC can boost the efficiency of heat rejection systems in a wide range of applications, including:

Data centres

Automotive manufacturers

Heat pump applications

Condenser cooling

Paint processes

Injection molding

Air compressors

Ammonia compressors

PERFORMANCE VALUE

Armstrong's demand-based Design Envelope technology and Parallel Sensorless pump staging combine to provide a robust control scheme with feed-forward energy optimization algorithms that reduce the heat rejection load on the cooling tower system.

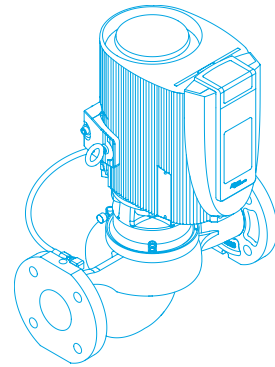
Cooling system performance management

Full automation of the entire cooling system with multiple control modes

Immediate adjustment to changes in cooling requirements

Access via intuitive touchscreen at the unit or remotely via internet connection

Compatibility for onboard diagnostics, data downloads, online troubleshooting and remote access for support



Improved System Reliability

Reliable, factory programmed and tested solution provides single source of responsibility for system control and intelligent pumps

For automation of the cooling tower process, flow readings from Design Envelope pumps are more reliable than measurements from a flow meter.

High performance in your heat rejection system depends on accurate flow data to optimize the evaporative process. The ITC draws flow data from the installed Design Envelope pumps, which provide far better accuracy and reliability than other flow data sources.

Reduced Installed Cost - Equipment & BMS Connections

Easy configuration saves on commissioning time

Single point connection to BMS

Design Envelope pumps eliminate the need for flow meters and pressure sensors, plus related installation and commissioning labour. If the ITC must be connected to a BMS system, only one connection point is required.

TORONTO

23 BERTRAND AVENUE
TORONTO, ONTARIO
CANADA
M1L 2P3
+1 416 755 2291

BUFFALO

93 EAST AVENUE
NORTH TONAWANDA, NEW YORK
U.S.A.
14120-6594
+1 716 693 8813

BIRMINGHAM

HEYWOOD WHARF, MUCKLOW HILL
HALESOWEN, WEST MIDLANDS
UNITED KINGDOM
B62 8DJ
+44 (0) 8444 145 145

MANCHESTER

WOLVERTON STREET
MANCHESTER
UNITED KINGDOM
M11 2ET
+44 (0) 8444 145 145

BANGALORE

#59, FIRST FLOOR, 3RD MAIN
MARGOSA ROAD, MALLESWARAM
BANGALORE, INDIA
560 003
+91 (0) 80 4906 3555

SHANGHAI

NO. 1619 HU HANG ROAD, XI DU TOWNSHIP
FENG XIAN DISTRICT, SHANGHAI
P.R.C.
201401
+86 21 3756 6696

SÃO PAULO

RUA JOSÉ SEMIÃO RODRIGUES AGOSTINHO,
1370 GALPÃO 6
EMBU DAS ARTES
SAO PAULO, BRAZIL
+55 11 4781 5500

For more information, contact your
Armstrong representative or visit us at
ArmstrongFluidTechnology.com/ContactUs



Scan for
more details
online



ARMSTRONG FLUID TECHNOLOGY
ESTABLISHED 1934

ARMSTRONGFLUIDTECHNOLOGY.COM

MAKING
ENERGY
MAKE
SENSE™