

DESIGN ENVELOPE

6800G boosters

COMPLIANT WITH
WRAS, ACS & DVGW

SOLUTION OUTLINE

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SUPERSEDES: 100.14
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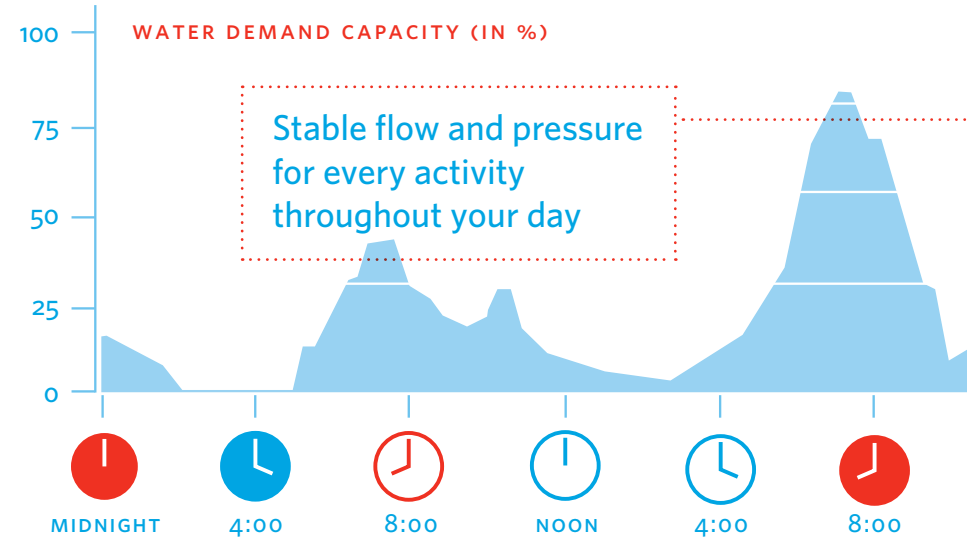
THE CHALLENGE

The need for energy savings has led to broad acceptance of variable speed technology for use with booster systems. However, the inclusion of digital controllers adds complexity to the sizing, installation, commissioning and operation of boosters. Lacking an integrated

approach to solution design and selection, booster solutions that are contractor-friendly and owner-friendly are hard to find. Designers are left to guess at required capacity, contractors struggle with installation and building owners are often left with a booster that fails to deliver on promised benefits.

DESIGN ENVELOPE VALUE

Armstrong Design Envelope boosters address the water delivery challenges presented by high-rise buildings by combining high-efficiency Vertical Multistage pumps with modern variable speed controls.



Embedded control logic ensures optimum efficiency at all times, adjusting pump speed and staging pumps on and off as needed during periods of high and low demand.

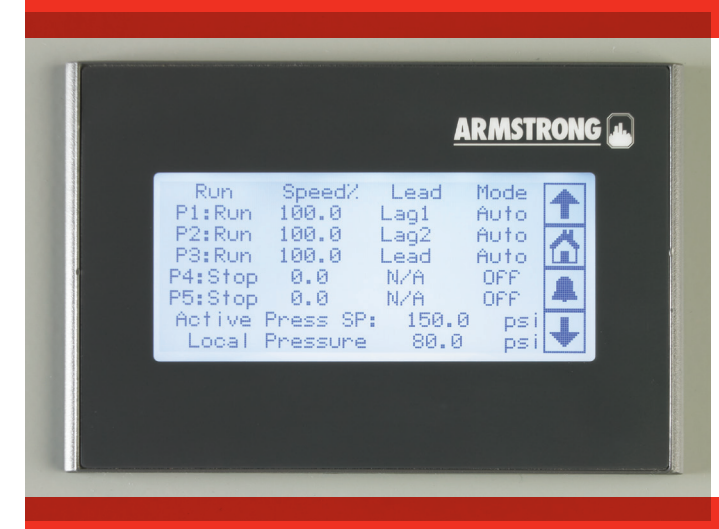
Integrated controls and advanced mechanical and digital capabilities

Armstrong Design Envelope boosters integrate pumping components and advanced digital controllers for:

Optimal energy savings Design Envelope control curves are programmed into the controller.

Easy installation and replacement No additional wiring or mounting is required on-site and individual pumps can be removed and replaced as a complete unit.

Single source of supply Armstrong supports all aspects of the booster system package.



DESIGN ENVELOPE

Armstrong Design Envelope solutions are sized using a pre-set collection of the most efficient sizes for a range of performance levels, so they can easily adapt to changes in design, site or operating conditions. Over the life of your building, the Design Envelope approach to selection protects you against potentially costly and time-consuming system rework due to:

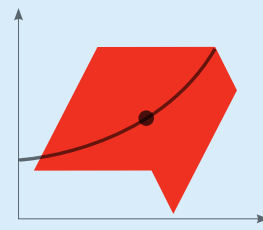
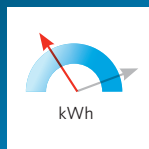
Changes to fixtures

Changes to building design

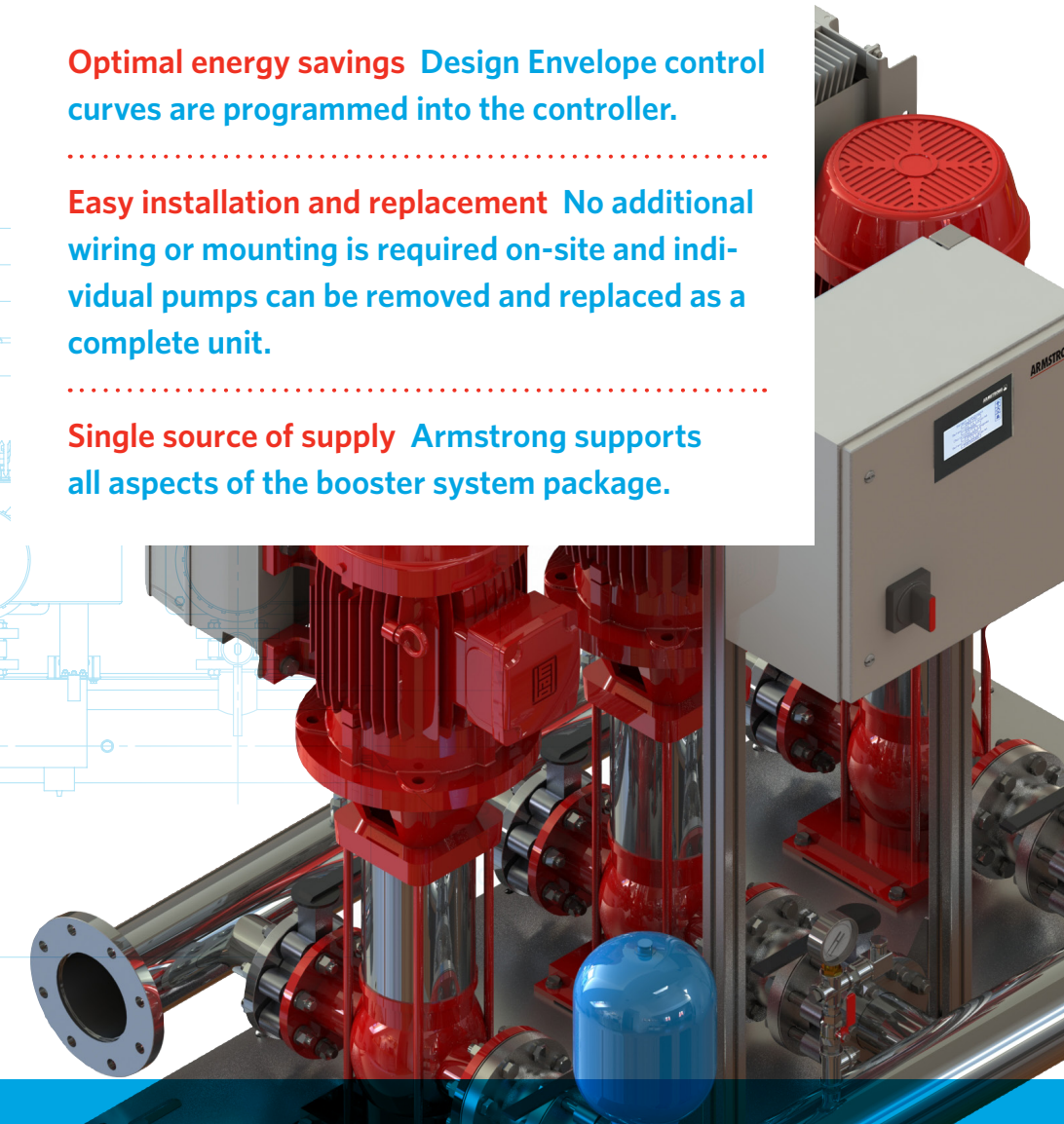
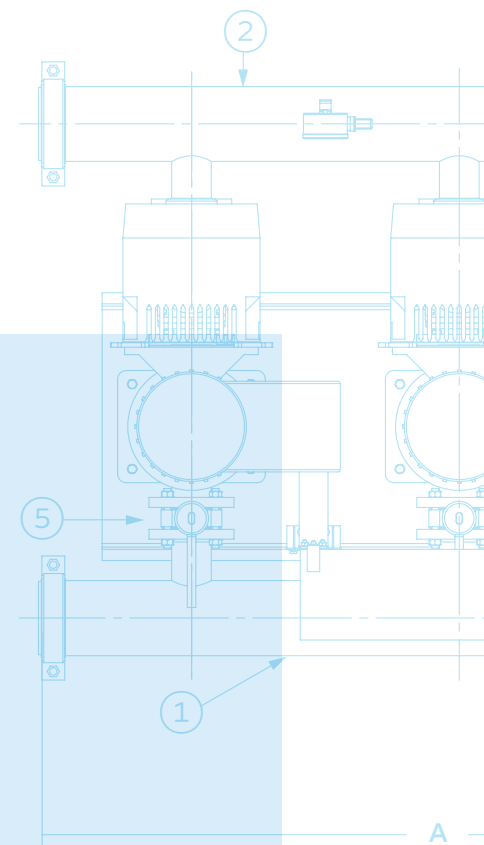
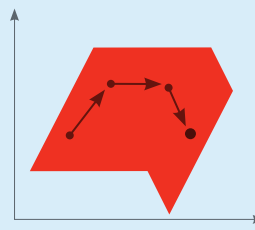
Installation of backflow preventer

Pipe corrosion and scaling

UP TO 70% ENERGY SAVINGS



AT 50% DESIGN FLOW



KEY BENEFITS

EASY BMS CONNECTIVITY

Supports leading communications protocols, including Modbus/BACnet MSTP/BACnet IP.

LOWER ENERGY COSTS

Design Envelope boosters stage individual pumps on and off for optimum efficiency and reduced energy costs. Boosters also adjust setpoint according to flow to save energy.

MINIMAL FOOTPRINT

Armstrong Design Envelope boosters lead the industry with a compact package design that minimizes floor space requirements and simplifies on-site delivery.

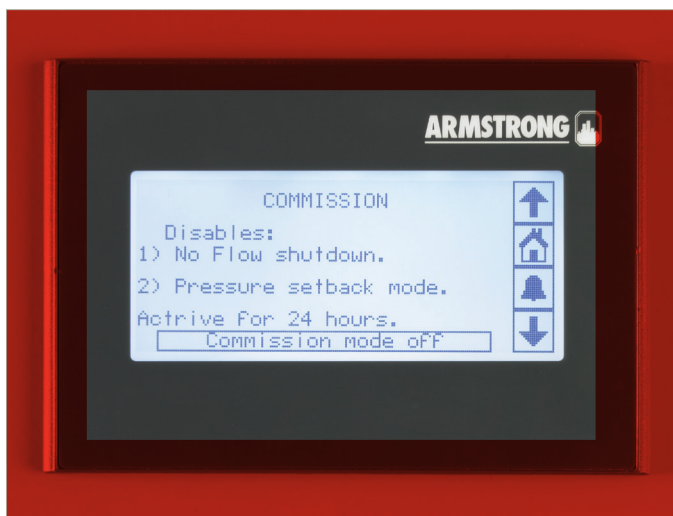
Design Envelope 6800G 68" x 40" | Competing models 77" x 48"

SPACE SAVINGS OF 25%

BASEFRAME ALLOWS EASY LIFTING AND INSTALLATION

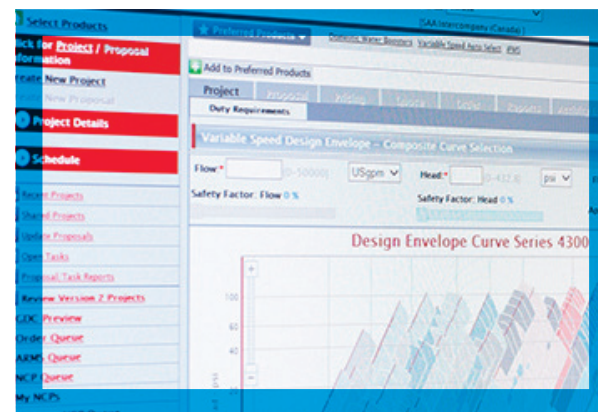
EASY COMMISSIONING

Single step interface to enable/disable pressure setback and apply a 24-hour timer for an easy inspection process.



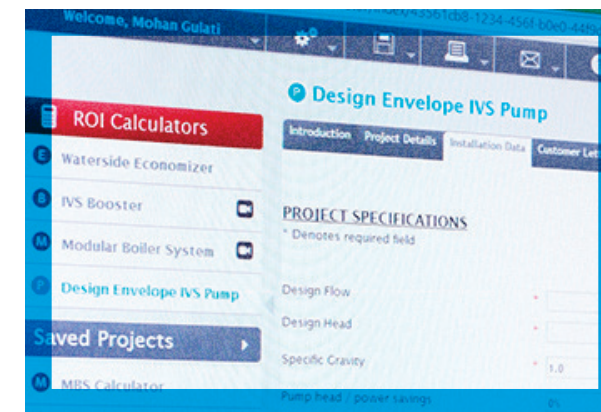
CONTRACTOR FRIENDLY

Armstrong offers easy-to-use selection tools for performance analysis and product selection.



Selection software: allows users to select products, and engage in collaborative system design over the internet.

Visit <https://aceonline.armlink.com/newdefault.asp>



ROI calculator: displays your savings and ROI based on real data from your installation.

Visit <https://roi.armlink.com/>

Interchangeable inlet sides: on models with flanged connections, installing contractors can adjust the suction and discharge inlet orientation by moving end caps to accommodate site conditions.

KEY FEATURES

INTUITIVE INTERFACE

3.4-inch alphanumeric touchscreen with 16MB flash memory supports multi-languages.

INDUSTRY-LEADING SOFTWARE CAPABILITIES



ENERGY & WATER CONSUMPTION DATA

Armstrong Design Envelope boosters provide data storage and detailed reports on booster operation.

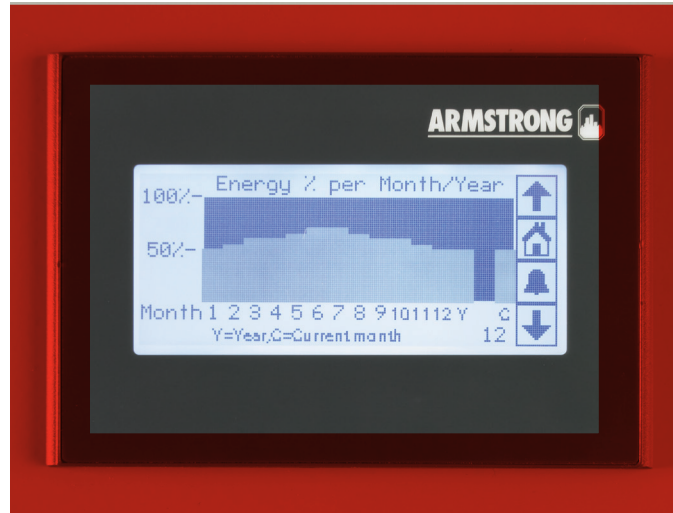
Energy profiling capabilities include:

Monthly/yearly kWh consumption reporting

Instantaneous kW readings

Data storage reset capability

Detailed data charts illustrating energy consumption patterns



Flow Estimation includes:

Maximum flow

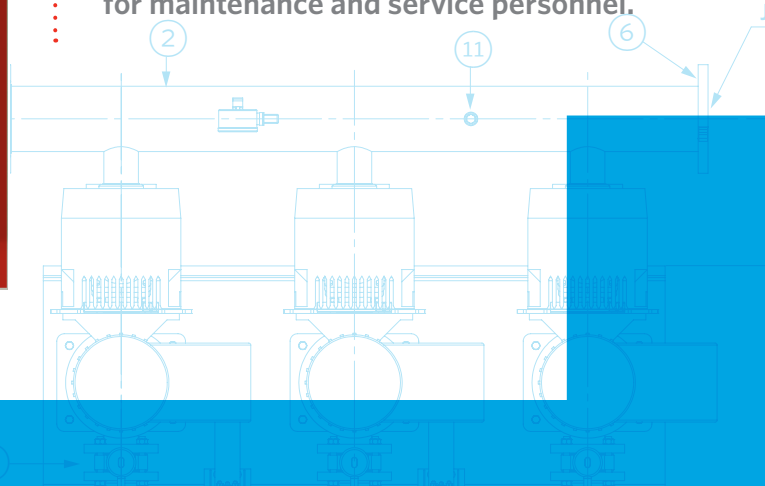
Current flow

Data charts



SERVICE CONTACT SCREENS

Stores and presents contact information for maintenance and service personnel.



COMPLIANT WITH INDUSTRY ASSOCIATION CODES



No-flow shutdown

Senses when there is no demand in the system and puts the booster in sleep mode.

Pressure setback

Built-in logic that adjusts pressure setpoint proportional to flow to account for lower friction losses and lower flows. This is an alternative to installing a remote sensor.

No-flow pressure optimization

The system generates an additional boost of pressure prior to shutdown, allowing the use of a smaller draw-down tank.

WRAS approval requires that a water fitting should not cause waste, misuse, undue consumption or contamination of the water supply and must be 'of an appropriate quality and standard'.

SOFTFILL

Allows building managers to recharge the system with water after maintenance with no risk of damage to system components.

ALTERNATE SET POINTS

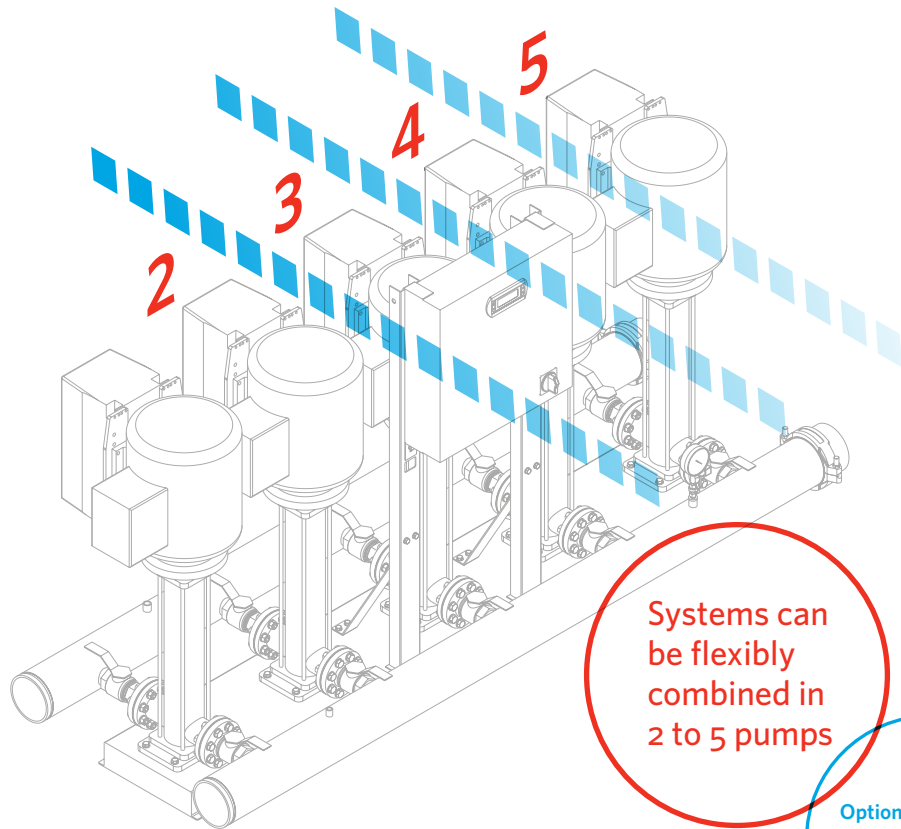
Allows users to select different operating setpoints for different seasons through the interface (HMI) screen.

EXTENDED WARRANTY

TWO YEARS

All Armstrong Design Envelope pumps and booster systems are supported by an industry-leading 2-year warranty

BOOSTER APPLICATION RANGE



PERFORMANCE 6800G
2 - 5 UNITS

FLOW RATE 320 MAX m³/h
PRESSURE 16 MAX Bar
TOTAL 120 MAX kW

For more information, contact your Armstrong representative or visit us at:
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