

**ARMSTRONG**



## Multipump Fixed Speed Booster Sets

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# Armstrong Offers Fixed Speed Boosters with PLC Control & Monitoring



**Armstrong offers a high value solution to address increased variations in flow, taller buildings and condensed living.**

The need for booster sets has been on the increase for a number of years. The reasons for this include:

- ▶ Water companies in many regions have gradually reduced the mains pressure in order to reduce supply system leaks
- ▶ The trend toward reduced urban sprawl has increased the demand for taller residential buildings
- ▶ Upper floors of high rise, multi-use buildings are more commonly being used for residential space

**The 6800 HMP Series range of packaged water booster sets are designed to provide a fully-packaged, compact and high-quality solution to your water problems.**

## ▶ Customer Benefits

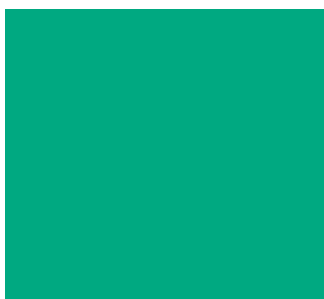
With a wide range of hydraulic accumulators available for pump energy recovery, benefits are:

- ▶ Reduced pressure fluctuation
- ▶ Reduced life cycle costs
- ▶ Lower maintenance costs
- ▶ Compact package
- ▶ Reduced noise levels
- ▶ Installation savings – Pre-assembled and tested for quick, trouble-free installation
- ▶ Single source of supply
- ▶ Customized pipe connection options available
- ▶ Can be configured for operation of all pumps or allocation of one pump to standby
- ▶ Automatic omission of failed pump
- ▶ Automatic rotation of duty pumps for even wear on all pumps
- ▶ Reduced wear due to "minimum run" controls
- ▶ Reduced footprint
- ▶ Install through standard doorways
- ▶ Adjustable operating mode (optional standby)

## ▶ Application

Applications for 6800 HMP Series include:

- ▶ Residential and commercial buildings
- ▶ Schools
- ▶ Hotels
- ▶ Hospitals
- ▶ Industrial buildings



## ▶ 6800 HMP Series Range Features

The 6800 HMP Series booster sets incorporate 2, 3, 4, or 5 pumps mounted on a stainless steel base-frame complete with stainless steel headers. Flow rates up to 80 l/s, pressures up to 16 bar as standard. The unit features BMS connectivity with pump run and trip outputs.

- ▶ Each set factory tested
  - ▶ Hydraulic testing - Performs to customers duty requirements
  - ▶ Functional testing - Controller adjustment and system cycling to customers requirements
  - ▶ Electrical testing - Wired to BS standard, ensures no faults between controller and pumps
- ▶ CE Marked
- ▶ EMC compliant
- ▶ Complies with LV directive
- ▶ All control components CE marked
- ▶ PLC controlled with LCD display

## ▶ Hydraulic Accumulators for Energy Recovery

- ▶ 60 litre WRAS approved accumulators are fitted as standard to the HMP booster set.
- ▶ A comprehensive range of larger accumulators - all WRAS approved - is available and can be supplied to increase rest time between pumping cycles. This configuration increases operating efficiency and reduces operating costs. Larger vessels are supplied loose.
- ▶ Since the introduction of the Climate Change Levy, Building Services' running costs are under increasing pressure downwards. Booster sets with minimum run timers allow for safe, reliable operation but waste energy when the pumps run against shut valve towards the end of the operating cycle. This energy can be recovered if all the boosted water is stored in the accumulator. An extra benefit when using a larger accumulator is that the pressure fluctuation to closed valve head is minimised.

## ▶ EFF Motor Labelling Scheme

- ▶ 6800 HMP Series booster sets are fitted with EFF2 motors to provide an economical high-efficiency booster solution.
- ▶ EFF1 motors offer the highest efficiency and power factor and are available as an option on all pump sizes.

## ▶ LCD Status Indication

The 6800 HMP Series booster set features a logic control unit to provide system status information and to stage pumps in and out as required.

LCD indications include:

- ▶ Individual pump status
- ▶ Power on
- ▶ Storage tank low water level
- ▶ Storage tank high water level
- ▶ Pump hours run
- ▶ Low pressure alarm

## ▶ Remote Stop/ Inhibit

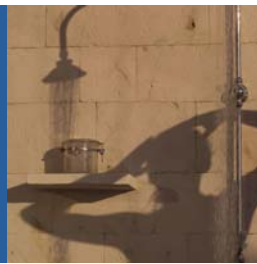
This feature is provided as a means for the BMS to remotely disable the set via a switch.

## ▶ Low Water Level Device

Each booster set has dual break tank protection as standard within the control software. This ensures that the set does not run dry. Low level cut-out switches are also available.

## ▶ Ancillary Equipment

Flexible connections and anti-vibration mounts are also available.



## ▶ Typical Product Specification

The 6800 HMP Series booster sets are packaged and tested prior to dispatch and include the following components and features:

- ▶ Ball-type isolating valves
- ▶ Poppet-type non-return valves
- ▶ 60 litre Expansion vessel
- ▶ Stainless steel base frame
- ▶ Stainless steel manifold
- ▶ 0-16 bar pressure transducer
- ▶ 2" dial pressure guage
- ▶ Stainless steel impellers, shaft, stage pieces, top and bottom covers
- ▶ All wetted components WRAS approved
- ▶ Automatic rotation of duty pumps
  - ▶ Following any fault
  - ▶ On a time adjusted basis
  - ▶ At the start of a new sequence
- ▶ Automatic omission of failed pump from sequence
- ▶ Automatic omission of pumps in the off position
- ▶ Automatic reset of pump from a 'minor' alarm situation
- ▶ Pump fault output
- ▶ IP54 Control Panel Enclosure
- ▶ Door interlocked isolator
- ▶ LCD display with 4 x 20 text display of:
  - ▶ Setup menus
  - ▶ System pressure
  - ▶ Pump operating status
  - ▶ System alarms
- ▶ Low water level cut-out
- ▶ Remote inhibit function
- ▶ Password protected menu screens
- ▶ Standby pump selection
- ▶ Common alarm volt-free contact
- ▶ Booster running volt-free contact
- ▶ No flow shutdown
- ▶ Alarm Management Displays:
  - ▶ Low level shutdown alarm
  - ▶ Discharge pressure sensor failure alarm
  - ▶ Low discharge pressure shutdown alarm
  - ▶ High discharge pressure shutdown alarm

Other product specifications available on request or from [www.armstrongintegrated.com](http://www.armstrongintegrated.com)

Our policy is one of continuous improvement. We reserve the right to alter our dimensions and specifications without notice.

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