

AquaTech Pressmain

AUTOMATIC PRESSURE BOOSTED SYSTEM REFILL VALVE



REPRESS-FS

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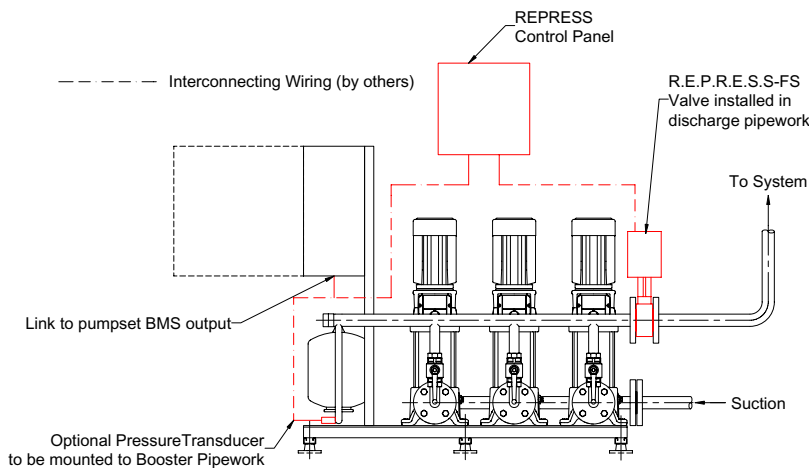
Automatic Safety System for Boosted Water Systems

The REPRESS-FS is designed to protect pressure boosted water supply systems from damage caused by uncontrolled refill following the system being drained down.

Whether a system is drained down intentionally for maintenance, or unintentionally due to a power failure, if a pressure booster set without a refill system is allowed to restart automatically it can have catastrophic consequences.

When a pressure booster unit is restarted with the system partially or completely empty the lack of pressure causes large flow rates to occur. If this water is forced to stop suddenly the resulting momentum can cause very high pressures to be reached, subsequently bursting pipework. This not only generates a hazard for anybody who happens to be in close proximity to the pipework at the time, but, if unnoticed, can cause serious flood damage. The AquaTech Pressmain REPRESS-FS system operates after a power failure or a booster system fault, reducing the flow of water into the riser, allowing the system to refill slowly. Two versions are available: the first detects a pumpset fault using one of its BMS fault relays, thereby if the booster develops a fault the safety system will operate isolating it from the system before any damage can be done. When the pressure booster unit reports that it is healthy again the unit will slowly refill the system automatically. The second version adds a pressure transducer in order to monitor the output pressure of the pressure booster. Should this drop below a preset limit (normally equal to the static height of the building) the unit will operate as above. This version is useful for pressure boosters with no BMS outputs, or if the digital input is used for extra protection (for example in conjunction with an AquaTech Pressmain low level sensor in the break-tank). If there is an interruption to the electricity supply the REPRESS-FS will prevent the pressure booster from restarting until it has been hydraulically isolated from the system.

For best protection it is essential that the REPRESS-FS unit is used in conjunction with one of our AquaVent refill valves at the top of each riser. The AquaVent works in conjunction with the REPRESS-FS system and will control the passage of air into and out of the system as required in order to help prevent hydraulic shock occurring.



The unit consists of the valve and a control panel which can be wall mounted or located directly on the pumpset. The valve is available in all sizes 1" to 6". The valve is of the wafer pattern butterfly type, suitable for fitting between BS4504 PN16 flanges. Epoxy coated cast iron body with AISI 316 stainless steel disc, AISI 304 stainless steel stem, EDPM seat (WRAS Approved). Supply voltage is 230VAC 1Ph.

The information in this specification is correct at time of issue, as AquaTech Pressmain design and development programmes are continuous, we reserve the right to make any changes to this specification without prior notice.

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