April 2013

Boost-a-main

Maximising water pressure

- Mains water pumping without the break tanks
- The Water Supply (Water Fittings) Regulations 1999 - Compliant
- Powerful — Up to 4 Bar outlet pressure & Flow rates up to 300 litres/minute
- Outlet pipe Sizes from 28 to 54 mm
- Designed to optimise accumulator capacity (over 65% when fully pressurised)
- Compact & Quiet
- Reliable — Fail safe
- All components WRAS approved (application pending)
- Sizes & configurations for all applications
- Innovative with international Patents pending PCT/EP2009/054569

Call 01932 245200 for advice on your application.

British Design

The heart of every "Boost-a-Main" system is our silent running continuous duty pump and controls package. Available in 28mm or 42mm sizes as standard

The Boost-a-Main system can be used with any make, size or combination of accumulator vessels and can be purchased with or without vessels.

Boost-a-Main, 98A Terrace Road, Walton on Thames, KT12 2EA. Tel: 01932 245200 E-mail: info@friendlywater.co.uk
Boost-a-main is a Friendly Water Company.

How the system operates

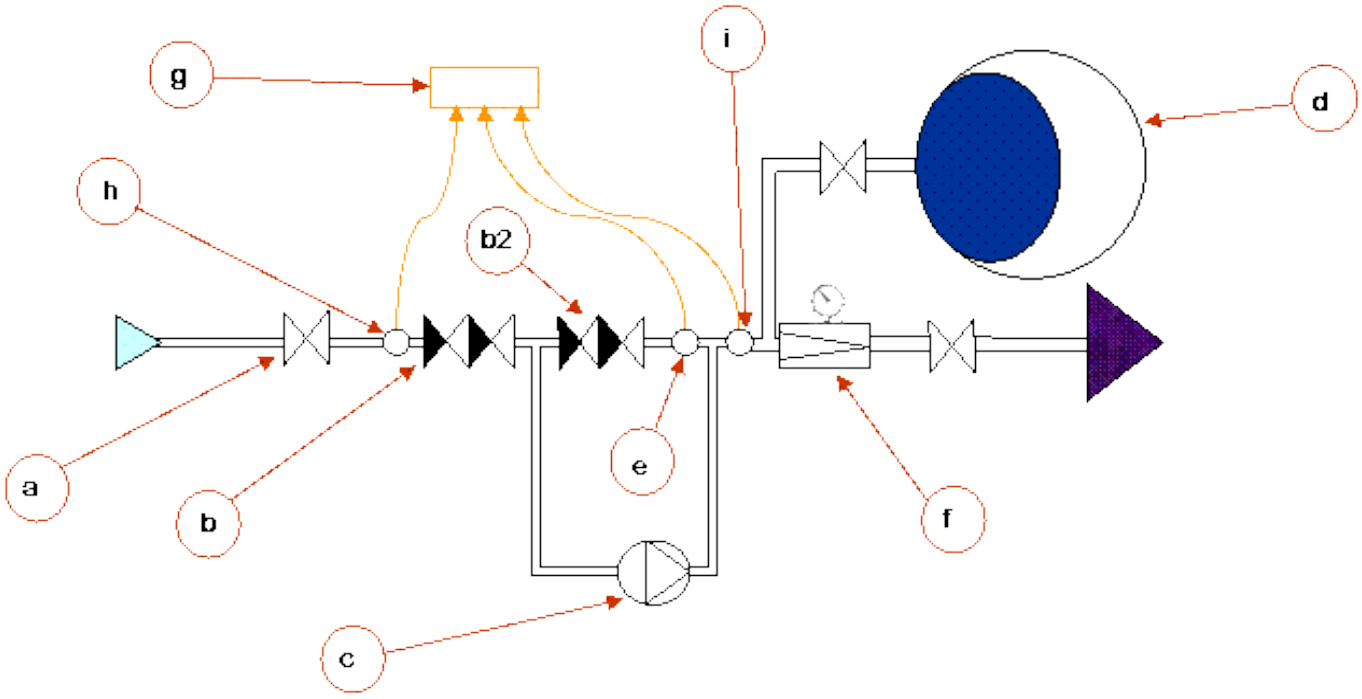
Mains water passes through the inlet valve (a) and flows through the double check valve (b). Some of this water continues through (b2) and builds up in the accumulator (d).

Water is simultaneously drawn by the pump (c) adding to the water volume in the accumulator and increasing the pressure. The pump continues to run until the pressure sensor (e) is satisfied. The system normally stops pumping at around 6 Bar.

Water is then provided to service the demands of the dwelling from the accumulated store via the pressure limiting valve (f) normally set to 3.5 Bar. The flow of accumulated water is basically unrestricted and will therefore meet the demands of multiple draw off points simultaneously.

By storing water at a higher pressure than that required by the dwelling and controlling the outlet pressure "tail off" is prevented and performance to the taps is maintained.

When the pressure sensor (e) detects less than 4 Bar in the system the pump is re-started and the accumulator replenished.



Safety and Fail Safe features

Dual circuitry – The system controller (g) incorporates a number of safety features.
As well as the primary pressure sensor (e) there are two other sensors.
These provide RUN DRY PROTECTION and OVER PRESSURE PROTECTION.

The Run Dry sensor (h) is constantly checking that a minimum feed water pressure of 0.25 Bar is available at the Boost-a-Main unit. If the water supply is off or intermittent the system will automatically shut down and wait until water supply is restored before re-starting. In this event the yellow "low pressure warning" light will illuminate on the control panel. The system automatically checks every 2 minutes.

Overpressure protection. The pump at the heart of every Boost-a-Main unit is capable of producing some very high pressures. The over pressure sensor (i) should never be required however if the normal pump control circuit were to fail and the pump was running the over pressure sensor will shut down the system at 9 bar. The red light will illuminate on the control panel and the system will require a manual intervention to re-start. This fail safe device operates on a completely separate relay & circuit from the main sensor.

Automatic by-pass. Even when the system has shut down due to one of the above failure modes water supply will continue. The system will use the accumulated store of water to supply the needs of the property until the system is re-set.

Power failure by-pass. Unlike traditional break tank fed pump systems water continues to flow even when there is no electrical supply. During short power failures the performance will be unaffected.
If the power is lost for an extended period the available mains water supply will automatically provide as much flow as it can.

Please note this process is subject of patent application PCT/EP2009/054569

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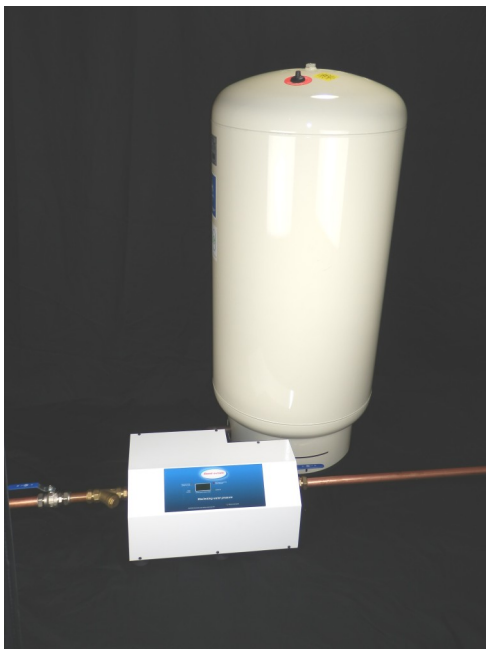
Installation & Specification

It couldn't be simpler!

Just connect the mains feed to the inlet, the rest of the plumbingto the outlet, connect the accumulator(s) and power it up.



The outlet performance is determined by the design requirements of the plumbing system. The only limit to available flow is the maximum capacity for a given pipe size.

Approx maximum flows

15mm = 36l/min
22mm = 80l/min
28mm = 130l/min
35mm = 200l/min
42mm = 300l/min

You can use any combination of accumulator (s) to suit your individual system require-

SPECIFICATIONS						
Model	Inlet	Outlet	Electrical	Width	Height	Depth Including pipe work clearance
BAM 2 - 28mm	28mm spigot	1" BSP Male	240v 50Hz 250 watts Supplied with 3m flex	450 mm	250mm	355mm
BAM 2 - 42mm	28mm spigot	1 ½" BSP Male	240v 50Hz 250 watts Supplied with 3m flex	700 mm	250mm	400 mm

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Price List

It is possible to vary the size and number of accumulators used with any of our systems according to space & access limitations. All accumulators are WRAS approved.

PUMP & CONTROL UNITS			Retail List Price ex-VAT
Model			£
Boost-a-Main 28 mm Pump & Controller			2065.97
Boost-a-Main 42 mm Pump & Controller			2361.11
Interchangeable Membrane Vessels (1 1/2" Connections)			
Accumulator Volume (nominal)	Vertical Accumulator size Height x Dia.	Horizontal Accumulator size Length x Dia.	Retail List Price ex-VAT
100 litre	935mm x 450mm Ø	765mm x 450mm Ø	361.11
200 Litre	1253mm x 550mm Ø	1089mm x 550mm Ø	536.04
300 Litre	1370mm x 630mm Ø	1237mm x 630mm Ø	644.38
500 Litre	1600mm x 750mm Ø	N/A	1083.58
750 Litre	2140mm x 750mm Ø	N/A	1687.08
1000 Litre	2700mm x 850mm Ø	N/A	3461.73
Fixed Membrane Vessels (1 1/4" Connections)			
150 Litre	895mm x 500mm Ø	N/A	423.07
250 Litre	1005mm x 630mm Ø	N/A	590.88
400 Litre	1450mm x 630mm Ø	N/A	888.33
600 Litre	1620mm x 750mm Ø	N/A	1466.43
Accessories & Kits			
Install Kit 28mm			57.45
Install Kit 42mm			83.15
Extra Vessel Install Kit 1 1/4"			94.58
Extra Vessel Install Kit 1 1/2"			105.08
All Prices are Ex-Works & excluding VAT			

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