"Arrow Stealth Booster" – Compact Domestic Booster Set
Model BTSBBPV – Features Integral Automatic Bypass Valve - Datasheet

Description
Ultra-compact Domestic Booster Pump Set with integral Automatic Bypass Valve. The unit is designed to boost pressure for tall buildings where space is limited and the mains supply is inadequate. All wetted parts are suitable for potable water.

The Arrow Stealth Booster is supplied as a complete package on a stainless steel base - the exceptionally small footprint allows the unit to be installed in a kitchen cupboard, negating the need for a plant room. The integral Bypass Valve ensures a continued mains supply (at mains pressure) in the event of power failure or maintenance.

The variable speed pump, anti-vibration rubber feet and flexible stainless braided connection hoses result in the unit being extremely quiet during operation. Fast filling is achieved by a servo controlled solenoid valve with solid-state level probe control.

Connection Pipes
DN20 flexible stainless braided hoses are supplied for the inlet and outlet. These have a female swivel nut (union) and a fibre washer. The Overflow is 40mm plastic with compression nut.

Specification

Pressure Supply min.	1.0 bar maintained (dynamic)
Pressure Supply max.	10 bar
Cistern Capacity	24 Lt
Vessel Capacity	1 Lt
Temperature	30° max. ambient

Materials

Base / fasteners	Stainless steel 304
Pump (wetted parts)	Stainless steel 304
Pipes / fittings	Copper / Brass / Stainless
Cistern	Polypropylene

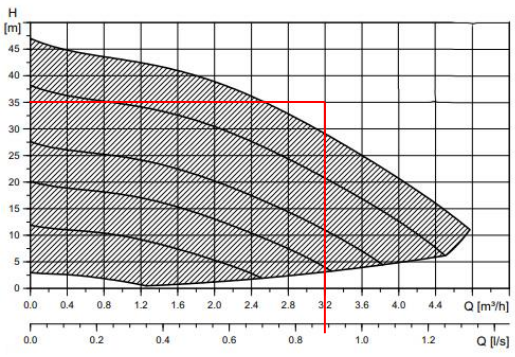
Applications
- Penthouse (3 storey and taller)
- Boosting low water pressure
- "Combi" boilers & showers

Outlet Pressure Control
The outlet pressure is controlled by a transducer, which is factory set to the "default set point" (3.0 bar) and controlled within a 10% band. The outlet pressure is therefore constant up to the maximum duty of the pump.

Outlet Size	Default Set point	Pressure Switch on (min.)[1]	Pressure Switch off (Max)[1]	Pressure Max[2]	Vessel Air Pressure[3]
DN20	3.0 bar	2.7 bar	3.3 bar	4.7 bar	2.1 bar

Notes - 1. Differential +/- 10% of set point. 2. If set to full speed.
3. Vessel air pressure with zero water pressure, 0.7 X set point.

The graph below illustrates the benefit of a variable speed pump. The outlet pressure is constant despite varying flow demand.



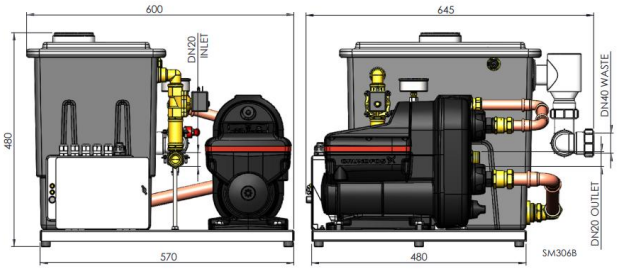
Home Water Booster Pump – code BTSBBPV3-3

Electrical Specification

Volts/Phase/Frequency	230/1/50
Power Consumption	0.55 kW
Full Load Current	2.3 – 2.8 A
DB	> 47dB(A) typical use
Class	Class 1 (requires earth wire)
Low level cut out	Stops pump via electrodes in tank (Warning lamp on control box) – auto reset once tank refilled
Protection	IP65 (Enclosure) / X4D (Pump)

Water Regulations
Water supply companies are only obliged to supply a minimum pressure of 1 bar @ 9 Lt/min. This means mains water will only reach 10 m. Since many boilers and showers require 1 bar (or even 1.5 bar) this means boosting is often essential to the third storey and higher.

Pump WRAS Approval Number: 240207701



Dimensions

Kg Dry	Kg Gross	Base Width	Base Depth
35	60	645	570

Codes and Descriptions

Inlet Size	Code	Description
DN20	BTSBBPV3-3	Arrow Booster Variable 230 V

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Arrow Valves Ltd reserve the right to change specifications, design and materials at any time without notice.
All unit-less dimensions in mm.
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