

AQUABOOST

In-Tank Booster System

Despite the compact size of the Aquaboost In-Tank water boosting systems, they offer impressive water storage facilities coupled with premium quality pumps, designed to provide a continuous delivery of high water pressure and high flow rates to multiple outlets.

This range of integrated water boosting solutions are available with variable speed pump options and are designed to optimise space and provide an extremely quiet, simple to install package for both large domestic and commercial applications.



1 YEAR
GUARANTEE

From
40dB(A)
Quiet Operation

Features

- 1 year guarantee
- Compact, space saving design
- Heads up to 8 bar and flow rates up to 16 m³/h
- 250 – 1500 litre cold water storage capacity options
- Extremely quiet operation
- Intelligent control system
- Variable speed single and twin pump options
- Easy installation
- 25 mm cold water tank thermal insulation
- 24 litre pressure vessel included

Application

- Larger domestic properties requiring an extremely quiet cold water supply boosting solution
- Light commercial applications requiring a compact unit capable of delivering high heads and flow rates

Options

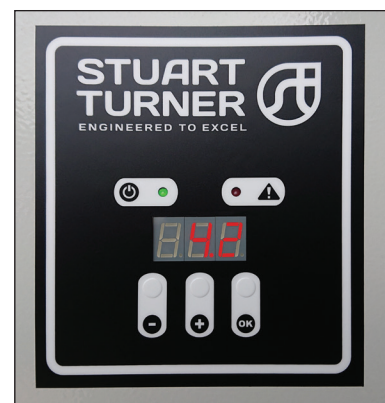
- Extended range of cold water storage tank capacities
- Two piece cold water storage tanks
- Triple pump systems
- Advanced control systems
- Water conditioners

Standard Product Features

Simple to configure intelligent pump controls

Each system is pre-configured to site specifications before leaving our manufacturing facility and requires only minor adjustments to be made during on-site commissioning.

- Variable speed pump control providing constant pressure during variations in water demand
- Start up safe mode reduces chances of pressure surges
- Automatic duty pump rotation
- 3 digit LED system pressure and fault code display, multi-function keys
- Automatic fault condition sensing and error code display
- Volt-free common fault status output



High performance, high efficiency pumps

Systems feature one or two high performance submersible pump units as standard.

- Close coupled multi-stage design
- Constructed from AISI304 stainless steel
- Water-cooled for quiet operation and optimum performance
- IP68 protection rating, suitable for continuous operation
- Three phase, 2-pole induction motor for increased durability and longer life



Duty-Assist and Duty-Standby operation modes

(twin pump systems only)

Duty-Assist mode

- In Duty/Assist mode, if the system set pressure cannot be maintained with one pump running (Duty), the second pump (Assist) will start automatically to meet increased system demands.

Duty-Standby mode

- Only one pump operates at any given time (Duty), the second pump (Standby) is only enabled if a fault condition is detected with the Duty pump.

In both modes, each time an outlet is opened, the Duty pump is alternated, ensuring both pumps are used regularly and extending overall pump lifespan.



Flexible water storage options

Systems are available with a range of standard water tank sizes, all featuring a removable 'split cover' allowing easy access to the tank for routine servicing and maintenance.

- 250 – 1500 litre nominal size single piece tanks
- Reinforced and pre-insulated GRP construction
- Encapsulated marine ply base
- Split cover design
- Equilibrium float valve, drain point and overflow



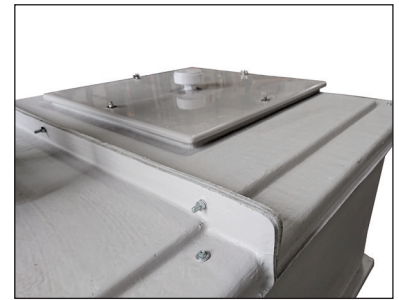
Bespoke Options

Cold Water Storage Tanks

In addition to the standard water tank sizes offered, other sizes are available including tanks with capacities in excess of 2000 litres.

A range of two piece water tanks are also available, providing a convenient alternative and allowing larger tanks to be carried through standard domestic doorways prior to being assembled.

CAT 5 units featuring a type AB air gap and weir overflow are also available for use in situations where the risk of back flow contamination from Category 5 fluid exists.



Pump Options

Additional options are available on request utilising up to three pumps per system and a wide range of pump options featuring different duty performance levels.

Advanced Control Systems

The next generation PCU600 Pump Control Unit utilises advanced data networking and adaptive self-tuning algorithms to provide smooth and effective pump control.

- Automatic duty pump rotation
- Start up safe mode eliminates pressure surges and hydraulic shock following a power outage
- Colour graphic display with back light, multi-function control keys and LED status indicators
- Password protected parameter control
- Engineering help and fault diagnosis display, fault history detailing previous events (time and date stamped)
- Multiple volt-free output contacts signalling system status and fault conditions
- Individual pump status display
- RS485 MODBUS interface
- Emergency pump control override



Ancillaries

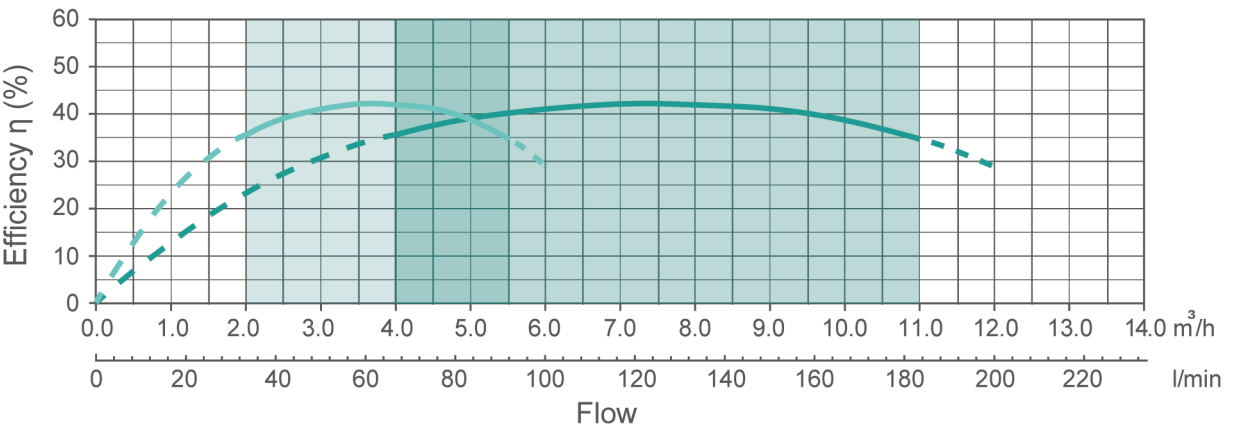
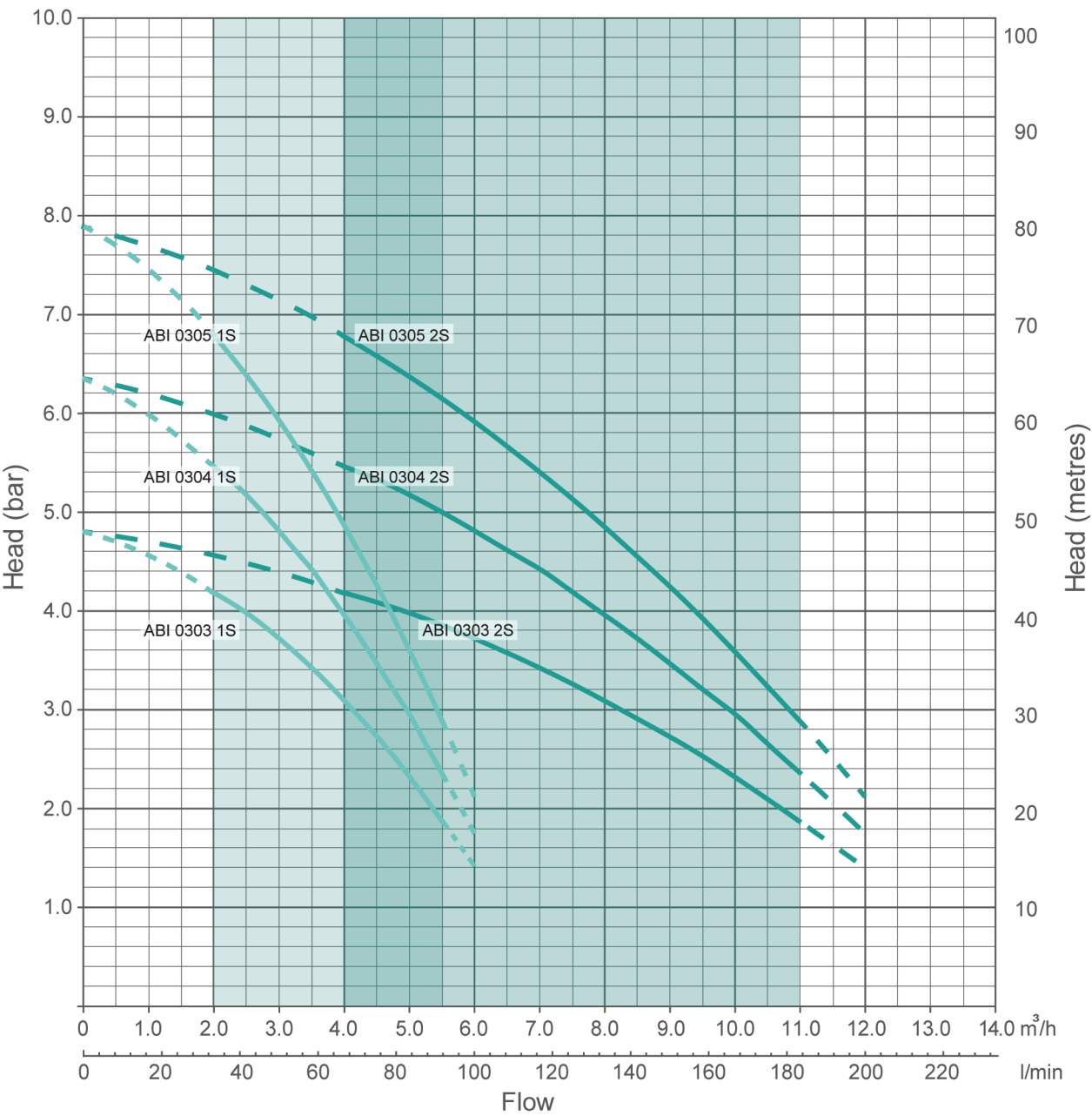
Water Conditioners

Developed specifically for domestic and commercial plumbing applications, Stuart Water Conditioners feature an unique catalytic alloy core which effectively prevents hard limescale deposits from forming.

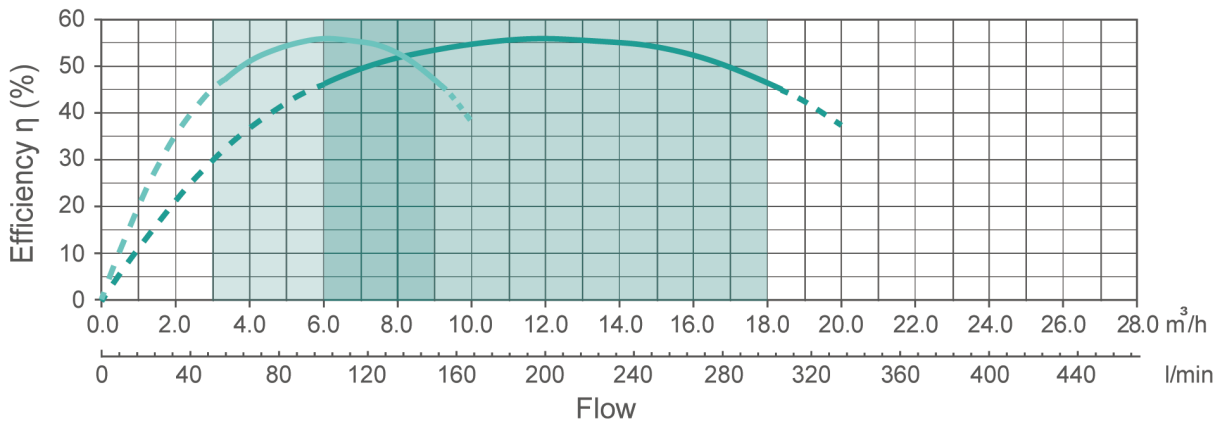
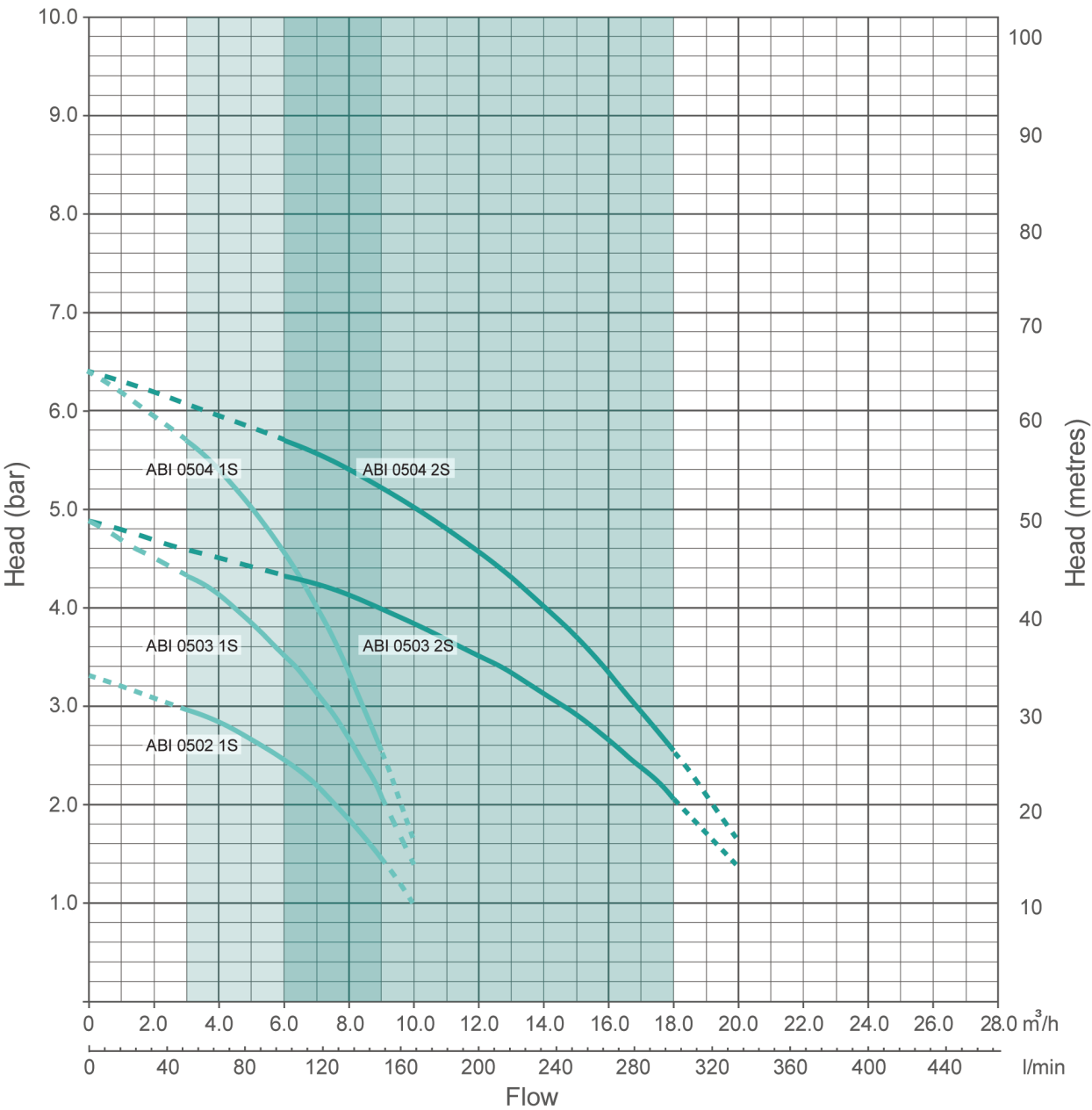
The catalytic process treats the water supply as it is used and causes the calcium carbonate to precipitate into microscopic crystals. These crystals then float in suspension in the water without adhering to any surfaces, ensuring that boilers, cylinders and kettles do not scale up and remain efficient whilst continuing to operate efficiently for many years.



Pump Characteristic (ABI 0303/04/05)



Pump Characteristic (ABI 0502/03/04)

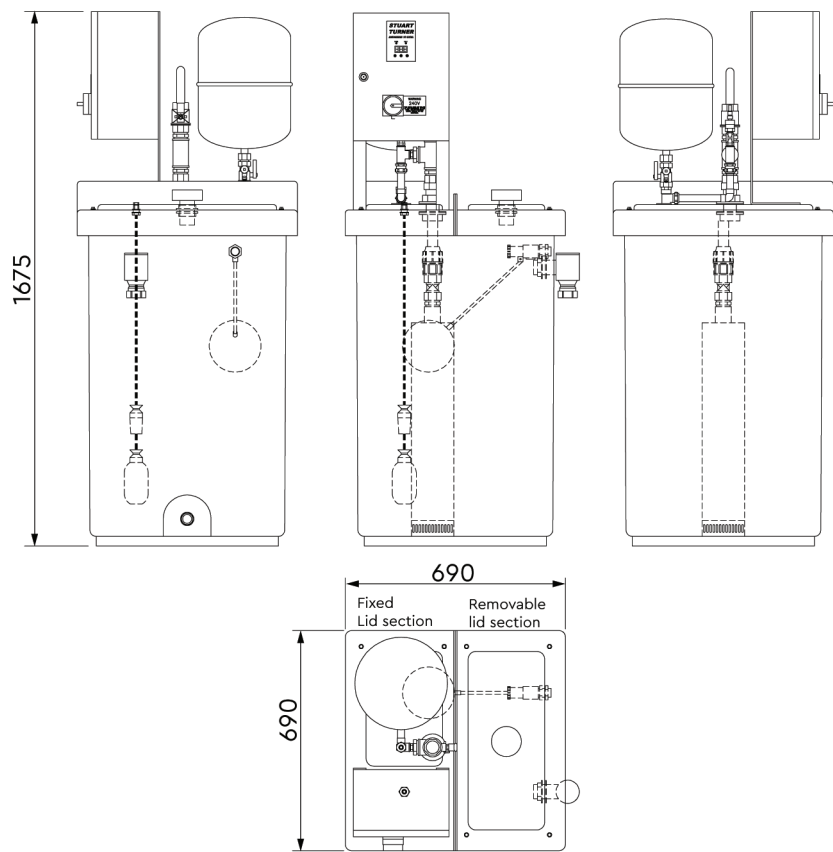


Technical Specification

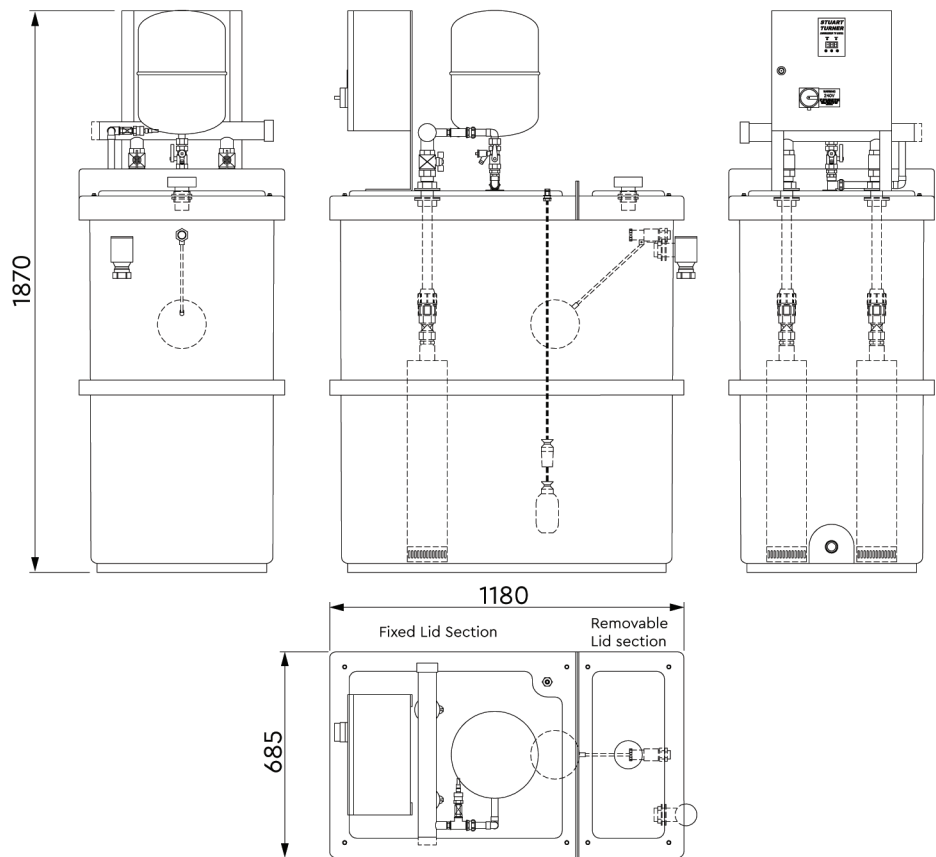
			ABI 0250	ABI 0600	ABI 1000	ABI 1050	ABI 1500
General	Guarantee		1 year				
	Approvals		CE				
	Noise		40 dB(A)				
Features	Water tank air gap		Type AF				
	Fluid risk compatibility		CAT 3 / CAT 4				
	Pump control system		Variable speed / pressure transducer				
	Pump control mode (single pump)		Duty				
	Pump control mode (twin pump)		Duty-Assist / Duty-Standby				
	Dry run protection		✓	✓	✓	✓	✓
	Pressure Vessel		24 litre / 10 bar				
	Pump check valve(s)		✓	✓	✓	✓	✓
	Flexible connection hose – outlet		✓	✓	✓	✓	✓
Performance	Maximum head (single pump)*		8 bar	8 bar	8 bar	8 bar	-
	Maximum head (twin pump)*		-	8 bar	8 bar	8 bar	8 bar
	Maximum flow rate (single pump)*		10 m³/h	10 m³/h	10 m³/h	10 m³/h	-
	Maximum flow rate (twin pump)*		-	20 m³/h	20 m³/h	20 m³/h	20 m³/h
	Maximum static inlet pressure		10 bar				
	Maximum static outlet pressure		11.1 bar				
	Ambient air temperature		0 – 40 °C				
Water tank	Nominal water tank size		250 litres	600 litres	1000 litres	1050 litres	1500 litres
	Usable water capacity		175 litres	400 litres	800 litres	850 litres	1250 litres
	Float valve type		Equilibrium				
	Water tank fill rate		60 l/min	60 l/min	150 l/min	150 l/min	150 l/min
Connections	Inlet connection		¾ "	¾ "	1 "	1 "	1 "
	Outlet connection (single pump)		1 ¼ " BSP	1 ¼ " BSP	1 ¼ " BSP	1 ¼ " BSP	-
	Outlet connection (twin pump)		-	2 " BSP	2 " BSP	2 " BSP	2 " BSP
	Flexible outlet connection hose (Single pump)		1 ¼ " BSP x 300 mm				
	Flexible outlet connection hose (Twin pump)		2 " BSP x 350 mm				
	Overflow		1 ¼ "	1 ¼ "	1 ½ "	1 ½ "	1 ½ "
	Drain valve		1 "	1 "	1 "	1 "	1 "
Materials	Water tank		Reinforced, pre-insulated GRP				
	Water tank base		Encapsulated marine ply				
Manifold	Manifold construction		Stainless steel				
	Pump isolation valves		Full bore, lever				
Pump	Pump type		Submersible multistage centrifugal				
	Motor type		Induction, thermal protection				
	Duty rating		Continuous (S1)				
Electrical	Power supply / phase / frequency		16 A 230 V.a.c./1/50 Hz				
	Enclosure protection		IPX4				
Dimensions	Depth		690 mm	1180 mm	1185 mm	1650 mm	1190 mm
	Width		690 mm	685 mm	1185 mm	650 mm	1705 mm
	Height		1675 mm	1870 mm	1657 mm	2057 mm	1657 mm
Weight (dry/ filled)	Single pump	Dry	70 Kg	90 Kg	100 Kg	120 Kg	-
		Filled	270 Kg	560 Kg	930 Kg	990 Kg	-
	Twin pump	Dry	-	110 Kg	130 Kg	140 Kg	150 Kg
		Filled	-	600 Kg	960 Kg	1020 Kg	1310 Kg

*Model dependant – see pump characteristic curves

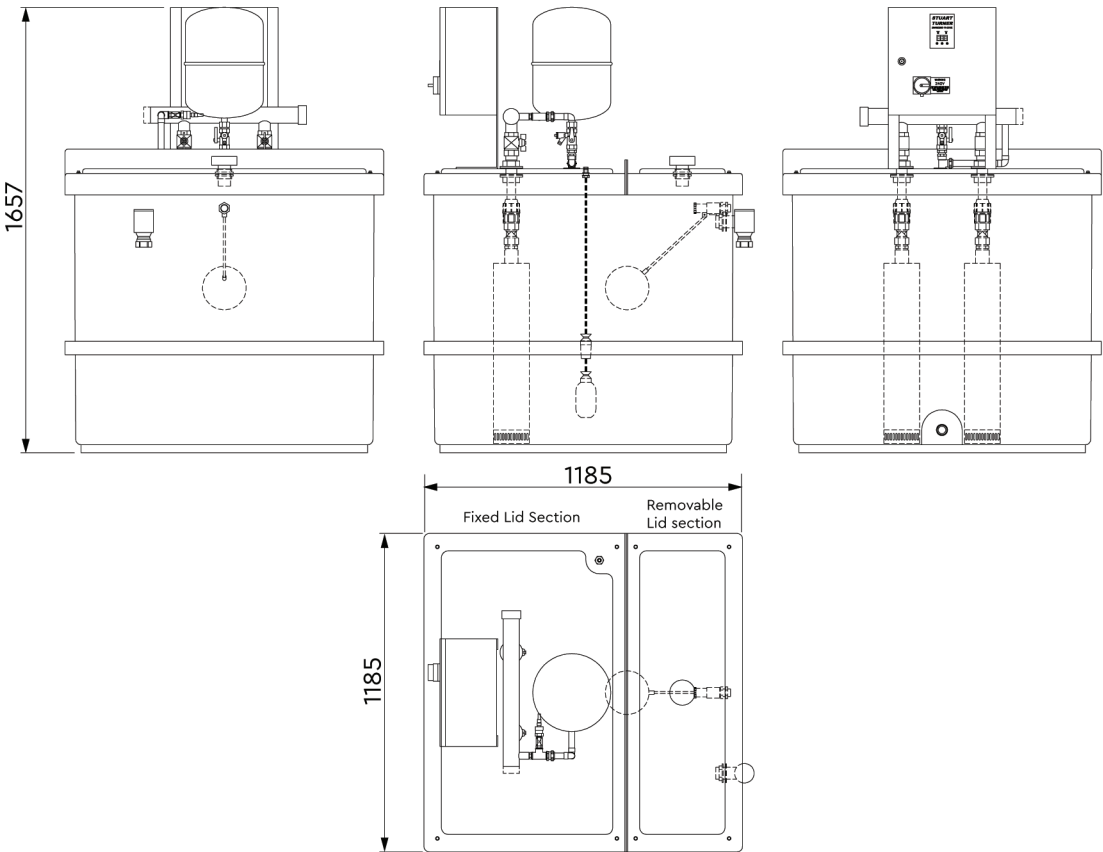
System Dimensions – 250 Litre Tank



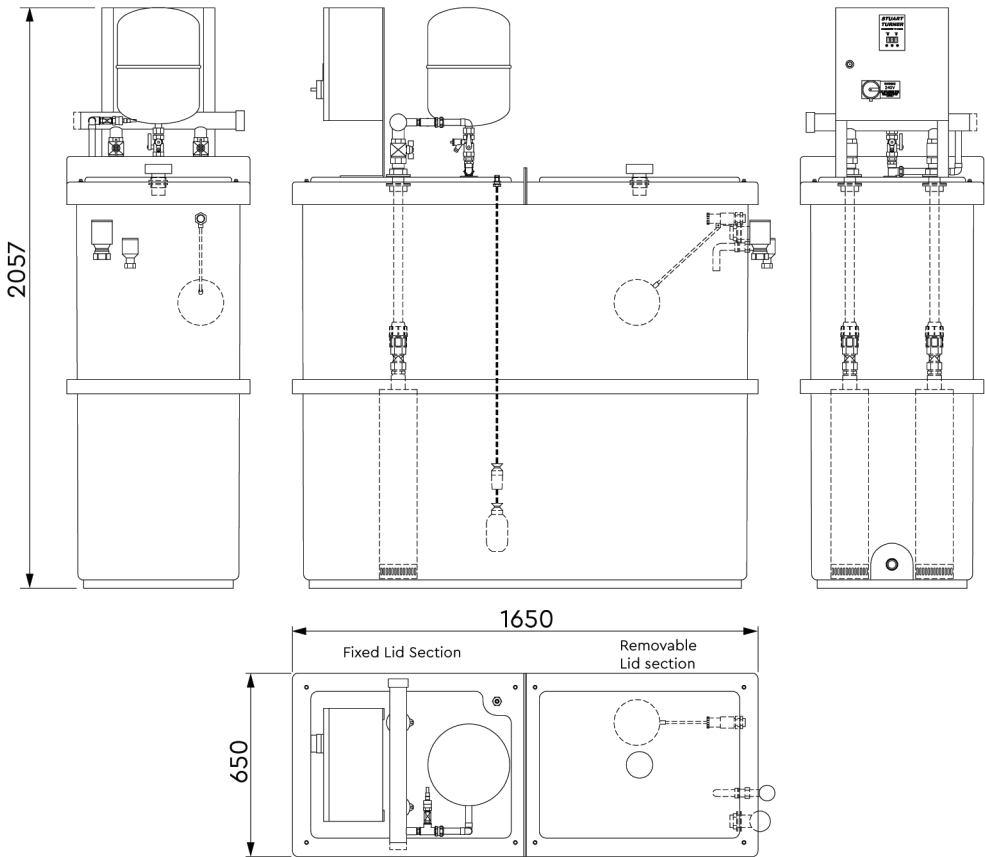
System Dimensions – 600 Litre Tank



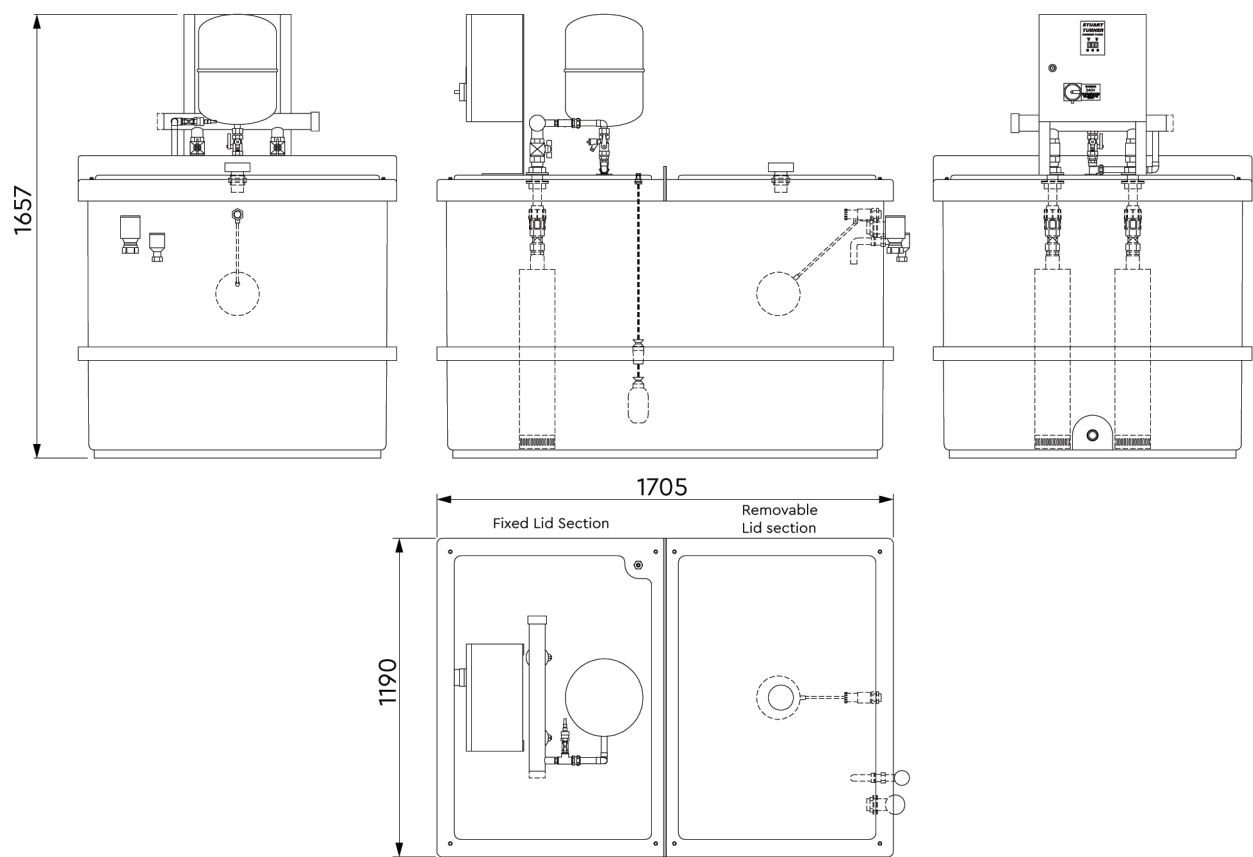
System Dimensions – 1000 Litre Tank



System Dimensions – 1050 Litre Tank



System Dimensions – 1500 Litre Tank



Product Range Summary

Model	Nominal flow (m³/h)	Max head (bar)	Pumps	Power supply	Nominal Tank size (litres)	Product code
ABI 0303 1S-SPC/M 0250	3	4.8	1	230 / 1 / 50	250	47076
ABI 0304 1S-SPC/M 0250	3	6.4	1	230 / 1 / 50	250	47074
ABI 0305 1S-SPC/M 0250	3	7.9	1	230 / 1 / 50	250	47078
ABI 0303 1S-SPC/M 0600	3	4.8	1	230 / 1 / 50	600	47079
ABI 0304 1S-SPC/M 0600	3	6.4	1	230 / 1 / 50	600	47080
ABI 0305 1S-SPC/M 0600	3	7.9	1	230 / 1 / 50	600	47081
ABI 0303 1S-SPC/M 1000	3	4.8	1	230 / 1 / 50	1000	47082
ABI 0304 1S-SPC/M 1000	3	6.4	1	230 / 1 / 50	1000	47083
ABI 0305 1S-SPC/M 1000	3	7.9	1	230 / 1 / 50	1000	47084
ABI 0502 1S-SPC/M 1000	5	3.3	1	230 / 1 / 50	1000	47085
ABI 0503 1S-SPC/M 1000	5	4.9	1	230 / 1 / 50	1000	47086
ABI 0504 1S-SPC/M 1000	5	6.4	1	230 / 1 / 50	1000	47087
ABI 0303 1S-SPC/M 1050	3	4.8	1	230 / 1 / 50	1050	47088
ABI 0304 1S-SPC/M 1050	3	6.4	1	230 / 1 / 50	1050	47089
ABI 0305 1S-SPC/M 1050	3	7.9	1	230 / 1 / 50	1050	47090
ABI 0502 1S-SPC/M 1050	5	3.3	1	230 / 1 / 50	1050	47091
ABI 0503 1S-SPC/M 1050	5	4.8	1	230 / 1 / 50	1050	47092
ABI 0504 1S-SPC/M 1050	5	6.4	1	230 / 1 / 50	1050	47093
ABI 0303 2S-SPC/M 0600	6	4.8	2	230 / 1 / 50	600	47094
ABI 0304 2S-SPC/M 0600	6	6.4	2	230 / 1 / 50	600	47095
ABI 0305 2S-SPC/M 0600	6	7.9	2	230 / 1 / 50	600	47096
ABI 0303 2S-SPC/M 1000	6	4.9	2	230 / 1 / 50	1000	47097
ABI 0304 2S-SPC/M 1000	6	6.4	2	230 / 1 / 50	1000	47098
ABI 0305 2S-SPC/M 1000	6	7.9	2	230 / 1 / 50	1000	47099
ABI 0503 2S-SPC/M 1000	10	4.9	2	230 / 1 / 50	1000	47100
ABI 0504 2S-SPC/M 1000	10	6.4	2	230 / 1 / 50	1000	47101
ABI 0303 2S-SPC/M 1050	6	4.9	2	230 / 1 / 50	1050	47102
ABI 0304 2S-SPC/M 1050	6	6.4	2	230 / 1 / 50	1050	47103
ABI 0305 2S-SPC/M 1050	6	7.9	2	230 / 1 / 50	1050	47104
ABI 0503 2S-SPC/M 1050	10	4.9	2	230 / 1 / 50	1050	47105
ABI 0504 2S-SPC/M 1050	10	6.4	2	230 / 1 / 50	1050	47106
ABI 0303 2S-SPC/M 1500	6	4.9	2	230 / 1 / 50	1500	47107
ABI 0304 2S-SPC/M 1500	6	6.4	2	230 / 1 / 50	1500	47108
ABI 0305 2S-SPC/M 1500	6	7.9	2	230 / 1 / 50	1500	47109
ABI 0503 2S-SPC/M 1500	10	4.9	2	230 / 1 / 50	1500	47110
ABI 0504 2S-SPC/M 1500	10	6.4	2	230 / 1 / 50	1500	47111

Notes

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Stuart Turner Limited reserves the right to amend specifications without notice.

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