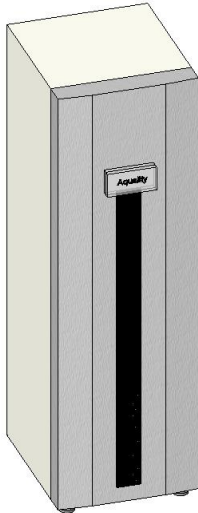


Aqua-Control 2100 S / 2500 Eco

Item Nos: G13360, G13361, G13362, G13363, G13364, G13366, G13367, G13368, G13369, G13370, G13381, G13382, G13383, G13384, G13385, G13386, G13387, G13388

Typical applications:



- Central electronic control unit for **rainwater harvesting** or **greywater recycling** systems with pressurised distribution and fully automatic water management
- For use with internal, external, above or below ground storage tanks for non-potable water use (e.g. toilets, washing machines or irrigation)

Features:

- Integrated non-self-priming double booster pump set with multi-staged, horizontal centrifugal pumps, max. flow rate up to 30m³/h
- Demand activated booster pump control (cascade principle)
- Automatic, demand activated and water efficient mains water back-up via integrated break tank and AA-type air gap (as per BS 8515 / BS 8525), enabling the system to run fully on mains water e.g. during maintenance
- Air ingress and cavitation prevention to maximise lifetime of pumps
- Integrated **touch screen** (AC 2500 Eco) or **4-line LCD display** (AC 2100 S) for indication of operation status, system pressure, level in non-potable water storage tank, run time meter per pump, settings and detailed failure indication etc.
- Automatic and manual changeover to mains water supply
- Integrated dry run protection, mains water back-up fault alarm, switchable **pipe burst and leakage alarm** function
- Fully adjustable **stagnation prevention** for mains water pipe
- Volt free contact (3A @ 30VDC) for alarm signal or general fault message to building management systems.
- Pressure and water level sensor included, control and all internal components pre-wired and pre-installed in a compact powder coated steel housing with isolation switch
- Failure log for AC 2500 Eco

Aqua-Control 2500 Eco only:

- Leading pump with **variable speed** control
- Integrated **UV-synchronizer** control for low energy use of UV treatment system

Customized Versions

For applications in greywater or combined rainwater/greywater systems the Aqua-Control is available with integrated or external controls and equipment for these applications. Further functionalities, customized features and recommended ancillaries are available on request (e.g. pipe connection sets, expansion vessel, mains water filter).

Optional control features (add-ons)

- Basement tank package c/w safety valve (G13378)
- Automatic tank drain down package c/w drain valve (G13341)
- Water meter readout on display incl. meter set (G13352 + G15032) – 2500 Eco only
- Control package for second storage tank – basic (G13342)
- Control package for second storage tank – advanced (2500 Eco only, G13343)
- Automatic rainwater filter cleaning for TF rainwater filter range via 2100 S or 2500 Eco (G13349)
- Additional input (G13353) / output (G13351) for control unit, max. two for 2100 S
- Dual supply tank control (G13342 basic, G13343 advanced) – 2500 Eco only
- UV-synchronizer control for low energy use of UV treatment system and switchover to mainswater operation in case of UV system failure – 2500 Eco only
- Variable speed control for 2nd booster pump (G13379) 2500 Eco only
- Monitoring rainwater filter grid (AWD rainwater filter range via 2500 Eco only (G13348)
- Control for motorised diverter valve, 2500 Eco only, (G13355)
- Control for motorised diverter valve with self-test, 2500 Eco only (G13356)

Functioning principle

The Aqua-Control is a fully equipped control unit with integrated break tank, double booster pump set and electronic control. The control unit monitors the water level in the non-potable water holding tank as well as in the mains back up break tank. The integrated double booster pump set pumps the non-potable water directly to the applications. Depending on the tank location one or two supply pumps can be installed in the storage tank to lift the non-potable water from the tank to the control unit. Up to two supply pumps can be fully controlled and monitored by the Aqua-Control. In case of rainwater shortage or manual setting, the Aqua-Control feeds mains water automatically and according to demand into the intermediate tank (in compliance with BS 8515 / BS 8525 / WRAS). As an automatic maintenance feature the solenoid valve of the mains water back-up system is regularly opened. If mains water has not been used for a certain time period the unit will flush the mains water pipe and thereby avoid stagnation. Preset standard parameters and control settings can be adjusted to meet project specific needs.

Recommended accessories

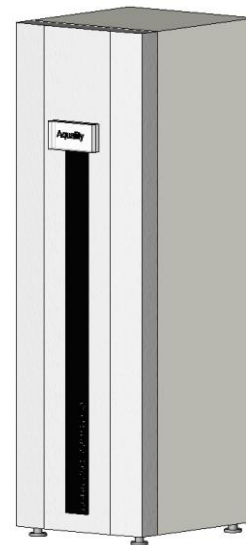
- Expansion vessel, capacities depending on flow rates:
 - 100l (G15021) or 200l (G15022) for Aqua-Control 2500 Eco,
 - 300l (G15023) or 500l (G15024) for Aqua-Control 2100 S
- Pipe connection set for suction, pressure and mainswater pipes (G13372)
- Floating extraction for underground or indoor tanks, 1.5m (G13339) or 2m (G13336),
- Single or double supply pump sets: see separate spec sheet (400V versions apply), plus connection set if double supply pumps (G13335).
- WRAS-approved Y mains water filter 1½" (G11115)

Technical data

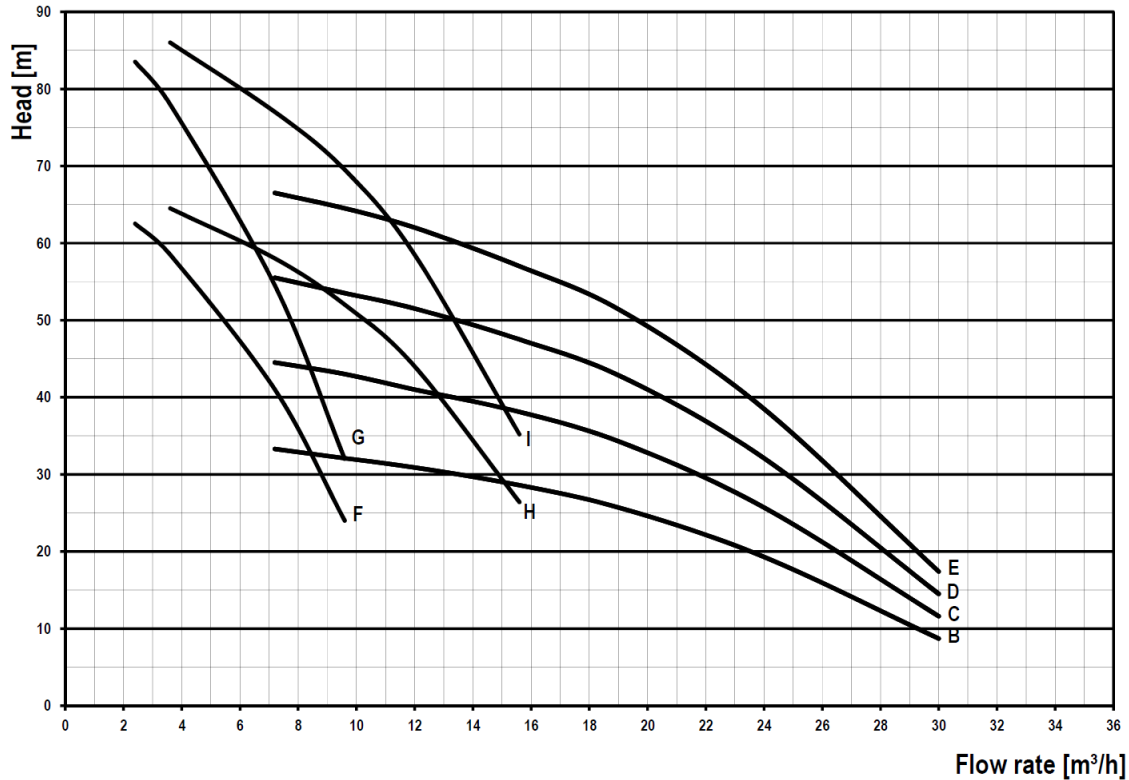
Power supply (all) 3-phase 400V 50Hz	B	C	D	E	F	G	H	I
Maximum flow rate [m ³ /h @ minimum head]	30	30	30	30	9.6	9.6	15.6	15.6
Maximum head [m @ minimum flow rate]	33.3	44.5	55.5	66.6	62.5	83.5	64.5	86
Motor output [kW]	2 x 1.3	2 x 1.5	2 x 2.2	2 x 2.2	2 x 0.9	2 x 1.3	2 x 1.3	2 x 2.2
Max input current [A]	7	6.8	9.2	9.2	5.2	7	7	9.2
IP rating control housing	54							
Item Nos – 2100 S	G13361	G13362	G13363	G13364	G13381	G13382	G13383	G13384
Item Nos – 2500 Eco	G13367	G13368	G13369	G13370	G13385	G13386	G13387	G13388

Dimensions

Width [mm]	570
Depth [mm]	650
Height [mm]	2,030
Weight empty [kg]	180
Weight max. [kg]	240
Integrated break tank [L]	60
Emergency overflow [mm]	110 OD
Pressure pipe connection	2"
Suction pipe connection	2"
Mains water connection	1½"



Pressure curves diagram



Note:

Pump curves are valid for duty/assist pump operation (which is recommended for most rainwater harvesting systems as it provides sufficient operational safety for standard applications as WC cisterns). For duty/standby pump operation the factor 0.5 must be applied for flow rate values.

The maximum operating pressure (design pump duty) should be at least 0.5-1 bar below the maximum head provided by the booster pump set.

Aquality Trading and Consulting Ltd. reserves the right to make technical changes.