

SQUARE Autoclave Range

125 – 735 litre models

Fitted with steam generator as standard

Astell's SQUARE range offers the choice of seven different chamber sizes ranging from 125 to 735 litres and various heating, loading and door options. The SQUARE range is suitable for sterilizing glassware, fluids, waste and porous type loads (subject to configuration).

Features include:

- 5.7" colour touchscreen controller
- 7 standard chamber sizes available
- Choice of three heating methods: Direct steam, heaters in chamber or with steam generator (subject to chamber size and load type)
- Single or double doors (pass through)
- Automatic or manual door operation
- Full range of options and accessories (see overleaf for details)
- Custom built units available to meet your exact requirements



Specifications

Models listed below are a representative selection. Please contact us for the full range of available sizes and options.

Model no.	Volume (litres)	Doors	Door mech.	Steam generator	Chamber dimensions W x H x D (mm)	Overall dimensions W x H x D (mm)
AVS125	125	1	Auto or Manual	24kW	500 x 500 x 500	780 x 2000 x 1300
AVS216	216	1	Auto or Manual	24kW	600 x 600 x 600	880 x 2000 x 1400
AVS250	250	1 or 2	Auto or Manual	24kW	500 x 500 x 1000	880 x 2000 x 1750
AVS360	360	1 or 2	Auto or Manual	24kW	600 x 600 x 1000	880 x 2000 x 1750
AVS490	490	1 or 2	Auto	48kW	700 x 700 x 1000	1250/1500 x 2000 x 1700
AVS612	612	1 or 2	Auto	48kW	700 x 700 x 1250	1250/1500 x 2000 x 2000
AVS735	735	1 or 2	Auto	48kW/72kW	700 x 700 x 1500	1250/1500 x 2000 x 2300

(Overall dimensions are based on single door models. May vary with the configuration and addition of certain options)

Standard safety features

All SQUARE range autoclaves are fitted with the following built-in safety features as standard:

- Over temperature protection, a cooling lock, a safety valve test program and emergency stop button
- The door mechanism is safety linked meaning a cycle cannot start until the door is properly closed; or opened until the pressure and temperature within the chamber is at a safe level
- The door seal is steam and vacuum resistant, and will seal effectively without trapping or entrapment of 'foreign' material
- Doors are thermally insulated to prevent the surface temperature presenting a potential hazard to operators



AVS735 fitted with optional stainless steel panels

Advanced options (Selection of these options alters the power supply requirements listed in the Specifications table)



Integral Steam Generator Option

The heaters in chamber are replaced with a 24kW/48kW integral steam generator. This option helps to improve cycle times by increasing the efficiency of steam production and also includes automatic water filling as standard, removing the requirement of manually filling the machine with water between sterilization cycles (a mains water supply is therefore required for this option).
Astell Ref: 24KWSG or 48KWSG



Advanced Vacuum Option

A vacuum option is essential for porous type loads (e.g. wrapped instruments and fabrics) or other cycles where air pockets could easily become trapped within the load. The AVC001 option is Astell's advanced pulsar vacuum, which when used in conjunction with the integral steam generator and a heated jacket enables the dry output of all loads. Astell Ref: AVC001



External Jacket Option

Requiring a steam generator or direct steam option (and normally in conjunction with the AVC001 vacuum option), the external jacket option effectively adds an additional layer to the outside of the autoclave chamber. This can then be independently heated by the steam generator to enhance the drying process at the end of the cycle, or it can be flooded with water during cooling to aid faster cooling times.
Astell Ref: AAQ302 (AAQ302C for cooling)

Additional options

Integral data printer	Ref: AAR130	Drain Cooling (heaters in chamber models only)	Ref: AAN420
Load Sensed Process Timing	Ref: AAR014	Category III (BSL-3) compliance	Ref: AVQ006
FDA 21 CFR part 11 controller software	Ref: CFR021	Morrison discard container (W:300 x H:300 x D:300mm)	Ref: AAQ300
Remote maintenance/diagnosis	Ref: RDM101	Additional shelf	Ref: AAQ801
Ethernet interface	Ref: AAR122	Water softeners	Ref: AAW002
IQ/OQ documentation	Ref: IQ/OQ	Blow down vessel	Ref: AAB001
Internal convection cooling	Ref: AAP102	Loading systems	Ref: AAQ600/2
Air ballast (requires compressed air)	Ref: AVC004	Stainless steel pipework (primary)	Ref: AAS001
Integral air compressor (Req. for Vacuum units)	Ref: AAQ503	Stainless steel pipework (full)	Ref: SPL422
SPF seal (for double door machines only)	Ref: AVQ007		

Installation requirements

Power requirements:

The power requirements for the standard machines listed in the Specifications table are 415V, 3 Phase, with Neutral and Earth. Requirements can vary depending on the configuration and options selected. For additional details of exact power requirements please contact us.

Water and drainage requirements:

A cold water supply of 2-6 Bar minimum, 4 litres/min is required. Max temperature 25°C, Max flow rate 20 litres/min. Requirements vary for RO/de-ionised/hard water. Drainage: Free venting, non-manifolded drain (54mm diameter) capable of withstanding temperatures up to 100°C.



Touchscreen controller



Stainless steel pipework (optional)



Pressure gauge



Astell Scientific Ltd, Powerscroft Road, Sidcup, Kent DA14 5DT, UK