SQUARE MAX AUTOCLAVE RANGE

125 – 3,000 litre models | Integral steam generator or direct steam

Astell's SQUARE MAX autoclaves combine a square or rectangular chamber with an automatic sideways-sliding door. This arrangement allows taller chambers and lower loading heights, making the range suitable for bulky equipment, trolley loads and high-throughput processing. Each steam sterilizer is built to order, with options for vacuum air removal, drying and faster liquid cooling.



Features include:

- Single-door chamber capacities from 125 to 3,000 litres, with dimensions designed around your load
- Automatic sideways-sliding door
- Loading heights of around 500 mm above floor level have been built; lower heights may be possible depending on design
- Choice of steam source: integral steam generator or direct steam
- 316 stainless steel electropolished chamber
- Fully programmable 5.7" colour touchscreen controller: 5 pre-programmed cycles (up to 50 available), five password levels and USB data download
- Optimised for low water and power consumption
- Double-door and pass-through models: see the Double Door SQUARE range

RANGE CLASSIFICATION



Maximum Capacity, Maximum Adaptability

Cuboid rather than cylindrical chambers give the biggest possible sterilization volume for their external size. The range can be fitted with a huge array of options for increased processing speeds, enhanced containment and pass-through abilities.

SPECIFICATIONS

Every SQUARE MAX autoclave is built to order, with the chamber designed around your load. Choose with or without vacuum, a chamber size and a steam source.

MODEL SERIES	DOOR	VACUUM	CHAMBER CAPACITY
SNS125 – SNS3000	Automatic, sideways sliding	No	125 – 3,000 litres
SVS125 – SVS3000	Automatic, sideways sliding	Yes	125 – 3,000 litres

Reading the model code: S = sideways-sliding door; V = vacuum / N = no vacuum; S = single door; number = chamber capacity in litres; G = integral steam generator / D = direct steam. Example: SVS875G.

Example chambers from previous builds (not a standard size range)

CHAMBER W X H X D (MM)	APPROX. VOLUME
500 x 820 x 800	328 litres
700 x 1000 x 1000	700 litres
700 x 1250 x 1000	875 litres
820 x 900 x 1300	959 litres
700 x 1000 x 2000	1,400 litres
700 x 1250 x 1725	1,509 litres

Astell's current PED certification covers steam autoclaves up to 3,000 litres; vessels are built to PED and ASME U. Larger chambers are subject to engineering review.

HIGH POWER OPTIONS

Selecting these options may alter the power supply requirements.

Steam source: integral steam generator or direct steam. Choose an integral steam generator (G models: 24, 48 or 72 kW, Astell Ref: 24KWSG, 48KWSG or 72KWSG), which improves cycle times and includes automatic water filling (a mains water supply is required), or an external direct steam supply (D models), such as a stand-alone steam generator.

Advanced vacuum option. Vacuum air removal is essential for porous loads (e.g. wrapped instruments and fabrics) and other cycles where air could be trapped within the load. AVC001 is Astell's advanced pulsar vacuum which, used with a heated jacket and a suitable steam supply, enables the dry output of all loads. Astell Ref: AVC001

External jacket option. Adds an additional layer to the outside of the chamber. It can be heated to enhance drying at the end of the cycle, or flooded with water during cooling for faster cooling times. Astell Ref: AAQ302 (AAQ302C for cooling)

ADDITIONAL OPTIONS

Integral data printer	AAR130	Drain cooling	AAN420
Load Sensed Process Timing	AAR014	Category III (BSL-3) compliance	AVQ006
FDA 21 CFR part 11 controller software	CFR021	Morrison discard container (300 x 300 x 300 mm)	AAQ300
Remote maintenance/diagnosis	RDM101	Additional shelf	AAQ801
Ethernet interface	AAR122	Water softener	AAW002
IQ/OQ documentation	IQ/OQ	Blowdown vessel	AAB001
Internal convection (fan) cooling	AAP102	Loading systems	AAQ600/2
Advanced water cooling	–	Nelldorn glassware dryer	–
Cooling jacket	AAQ302C	Stainless steel fascia panelwork	–
Heated jacket	AAQ302	Stainless steel pipework (primary)	AAS001
Air ballast (requires compressed air)	AVC004	Stainless steel pipework (full)	SPL422
Integral air compressor (req. for vacuum units)	AAQ503		

STANDARD SAFETY FEATURES

- Over temperature protection, a cooling lock, a safety valve test program and emergency stop button
- The door mechanism is safety linked, so a cycle cannot start until the door is properly closed, and the door cannot be opened until the pressure and temperature within the chamber are at a safe level
- The door seal is steam and vacuum resistant, and seals effectively without trapping 'foreign' material
- Doors are thermally insulated to prevent the surface temperature presenting a hazard to operators
- Water conservation re-circulation system minimising water usage

INSTALLATION REQUIREMENTS

Power requirements

415 V, 3 phase, with neutral and earth. Requirements vary with the model, steam source and options selected. Please contact us for exact power requirements.

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 (54 mm diameter) capable of withstanding temperatures up to 100 °C.

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