

SQUARE ECO Autoclave Range

125, 216, 250, 360 litre models

Fitted with heaters in chamber

The SQUARE ECO range has been designed to bridge the gap between circular chamber autoclaves and the more complex square chamber autoclaves that Astell offer. The SQUARE ECO range still contains all the features you would expect from an Astell autoclave, including colour touchscreen, multiple programs for sterilizing and our delayed start/media holdwarm features, but this cost effective range has been designed with simplicity and economy in mind.

The ECO range is manufactured using high quality materials and includes all the safety features you would expect to find on any of our smaller units, with a manual door.

SQUARE ECO models are supplied with 'heaters in chamber'.

Features include:

- Media holdwarm and delayed start facility
- 5.7" colour touchscreen controller
- External pressure gauge
- Range of options and accessories (see overleaf for details)
- Assisted air cooling
- Autofill/Autodrain
- Over pressure/temperature protection
- Validation port



Specifications

| Model no. | Steam source | Volume (litres) | Power supply | Chamber dimensions W x H x D (mm) | Overall dimensions W x H x D (mm) |
|-----------|--------------------|-----------------|--------------------------------------|-----------------------------------|-----------------------------------|
| MNS125E | Heaters in Chamber | 125 | 415V, 3 Phase, Neutral & Earth, 16kW | 500 x 500 x 500 | 780 x 1750 x 1000 |
| MNS216E | | 216 | | 600 x 600 x 600 | 880 x 1850 x 1100 |
| MNS250E | | 250 | | 500 x 500 x 1000 | 880 x 1850 x 1750 |

Only suitable for fluid loads

| Model no. | Steam source | Volume (litres) | Power supply | Chamber dimensions W x H x D (mm) | Overall dimensions W x H x D (mm) |
|-----------|--------------------|-----------------|--------------------------------------|-----------------------------------|-----------------------------------|
| MNS360E | Heaters in Chamber | 360 | 415V, 3 Phase, Neutral & Earth, 16kW | 600 x 600 x 1000 | 880 x 1850 x 1700 |

(Power consumption/dimensions may vary with the addition of certain options)

Bottle capacity

Below is a table identifying the total number of Duran bottles it is possible to fit in to each SQUARE ECO autoclave using the standard base shelf. The number in brackets indicates quantity of extra bottles with the addition of a centre shelf (optional extra).

| Model no. | 500ml | 1000ml | 2000ml |
|-----------|---------|---------|--------|
| MNS125E | 25 (30) | 20 | 9 |
| MNS216E | 42 (42) | 30 | 16 |
| MNS250E | 60 (60) | 40 | 21 |
| MNS360E | 66 (66) | 50 (50) | 21 |

Advanced options *(Selection of this option alters the power supply requirements listed in the Specifications table)*



Simple Vacuum Option

The AVC002 vacuum utilises the standard heaters in the base of the chamber with simple pre-vacuum air removal and post vacuum cooling to effectively sterilize porous type loads and 'difficult' discard loads, but without any drying capability.

Astell Ref: AVC002

Additional options

| | | | |
|--|-------------|---|-------------|
| Load Sensed Process Timing | Ref: AAR014 | Category III (BSL-3) compliance | Ref: AVQ006 |
| Pulsar Freesteaming | Ref: AAN009 | Drain Cooling | Ref: AAN420 |
| Integral data printer | Ref: AAR130 | Discard container (W:300 x H:300 x D:300mm) | Ref: AAQ300 |
| FDA 21 CFR part 11 controller software | Ref: CFR021 | Loading system 1 x external trolley + 1 x internal truck | Ref: AAQ600 |
| Remote maintenance/diagnosis | Ref: RDM101 | Water softener | Ref: AAW002 |
| Ethernet interface | Ref: AAR122 | Stainless steel fascia panelwork | Ref: SSFPW |
| IQ/OQ documentation | Ref: IQ/OQ | | |

Standard safety features

All SQUARE ECO 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

Installation requirements

Power requirements:

The power requirements for the standard machines are listed in the Specifications table, however these can vary depending on the options selected. For details on the exact power requirements on these options please contact us. *N.B. A Neutral line and protective Earth are required for all electrically heated units.*

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



Manual door



Pressure gauge





WolfLabs

Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.