

## 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



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