SPHERA GROUP

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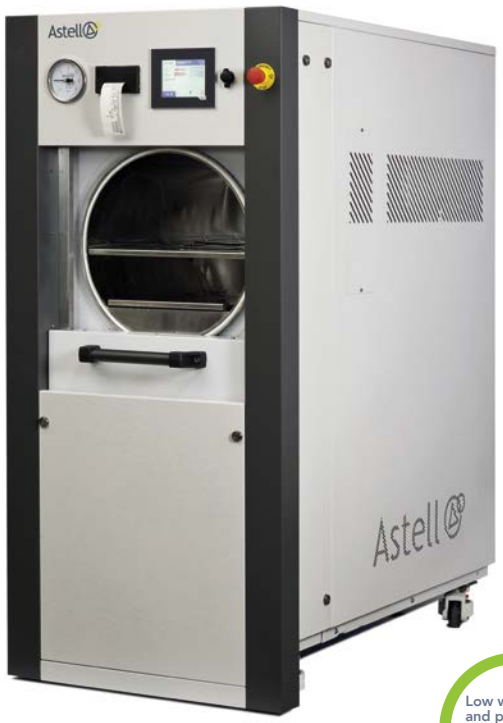
Sliding Front Autoclave Range

120, 153, 247, 290, 344 litre models

*Fitted with **heaters in chamber** as standard*



Astell's sliding front circular chamber autoclave range combines the easy access of a sliding door cabinet design with the value inherent in circular section machines. Available in five sizes, each unit is factory fitted with a large number of features as standard, making it suitable for sterilizing liquids (media), discard, glassware and other instruments. These features include:

- A 5.7" colour touchscreen with integrated USB data port
- Choice of manual or automatic door opening*
- Safety: over-temperature protection, an external pressure gauge, a cooling lock, a safety valve test program and an emergency stop button
- A validation port, drain valve and an electropolished stainless steel chamber

**requires air supply*

Specifications

Model no.	Steam source	Volume (litres)	Power supply	Chamber diam. x depth (mm)	Usable chamber depth (mm)	Overall dimensions W x H x D (mm)
MNS120C	Heaters in Chamber	120	Single or 3 Phase, 7/10kW	454 x 740	633	700 x 1630 x 1165
MNS153C		153		454 x 945	862	700 x 1630 x 1370
MNS247C		247	3 Phase, 13kW	600 x 876	734	915 x 1780 x 1455
MNS290C		290	3 Phase, 16kW	600 x 1024	886	915 x 1780 x 1455
MNS344C		344		600 x 1217	1086	915 x 1780 x 1650
MNS120C	Integral Steam Generator (option)	120	3 Phase, 18kW	454 x 740	633	700 x 1630 x 1510
MNS153C		153		454 x 945	862	700 x 1630 x 1510
MNS247C		247	3 Phase, 28kW	600 x 876	734	915 x 1780 x 1595
MNS290C		290		600 x 1024	886	915 x 1780 x 1595
MNS344C		344		600 x 1217	1086	915 x 1780 x 1790

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

Bottle capacity

Below is a table identifying the number of Duran bottles it is possible to fit in to the chamber of each model 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
MNS120C	24	18	8
MNS153C	33	23	11
MNS247C	41 (+9)	28 (+4)	15
MNS290C	50 (+11)	32 (+4)	18
MNS344C	63 (+14)	42 (+6)	23

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

Integral Steam Generator Option
The standard heaters in chamber are replaced with a 16kW/24kW 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: 16KWSG or 24KWSG

Advanced and Simple Vacuum Options
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. Available in 2 derivatives, 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. Alternatively, 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, but without any drying capability. (Please note vacuum units require AAQ503 air compressor option). Astell Ref: AVC001 or AVC002

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: AJP100 or AJP152

Additional options

Load Sensed Process Timing	Ref: AAR014	Internal convection cooling	Ref: AAP102
Pulsar Freesteaming	Ref: AAN009	Drain Cooling (heaters in chamber model only)	Ref: AAN420
Integral data printer	Ref: AAR130	Category III (BSL-3) compliance	Ref: AVQ006
FDA 21 CFR part 11 controller software	Ref: CFR021	Morrison discard container (W:280 x H:290 x D:330mm)	Ref: AAN300
Remote maintenance/diagnosis	Ref: RDM101	Container tray (W:279 x H:127 x D:279mm)	Ref: AAN080
Ethernet interface	Ref: AAR122	Additional shelf kit (for MNS120C/MNS153C)	Ref: AAN316
IQ/OQ documentation	Ref: IQ/OQ	Additional shelf kit (for MNS247C/MNS290C/MNS344C)	Ref: AAN318
Assisted air cooling/non jacketed	Ref: AAP006	Water softener (compact)	Ref: AAW002
Advanced water cooling	Ref: AAP100	Integral air compressor (req. for Vacuum units)	Ref: AAQ503/525
Autodrain (heaters in chamber models only)	Ref: AAP018	Blow down vessel (Steam Generator only)	Ref: AAB001
Autofill (heaters in chamber models only)	Ref: AAP019	Automatic door (requires compressed air)	Ref: APD001
Air ballast (requires compressed air)	Ref: AVC004	Direct steam model	Ref: Various

Options capacity

Part name	Part ref.	Dimensions W x H x D (mm)	MNS120C	MNS153C	MNS247C	MNS290C	MNS344C
Morrison discard container	AAN300	280 x 290 x 330	1	3	2	3	3
Container tray	AAN080	279 x 127 x 279	2	3	2	3	3
Container tray (capacity with middle shelf – optional extra)			4	6	6	9	9
Container tray (capacity with middle & upper shelf – extras)			–	–	6	12	12

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. Options that affect the power requirement are **Integral Steam Generator** and **Advanced and Simple Vacuum**. 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 for the 'Autofill', vacuum and water cooling options. Max temperature 25°C, Max flow rate 20 litres/min. Requirements vary for RO/de-ionised/hard water. Drainage: Free vented, non-manifolded drain (35mm diameter) capable of withstanding temperatures up to 100°C.

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