

# Astell

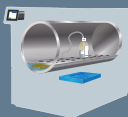


autoclaves



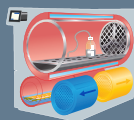
are **precisely** as

simple



or as

advanced



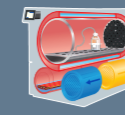
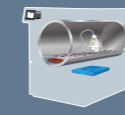
as you need

**astell.com**

autoclaving excellence since 1884

# Astell Autoclaves

For more information visit  
**Astell.com**



load types that can be sterilised in a unit without options

load types that can be sterilised in a unit with added options

## LOADS

When picking an autoclave the most important thing to know is the load type

The key difference between a simple autoclave and a steam steriliser fitted with advanced upgrades are the objects and materials that can be effectively sterilised within them. This chart indicates the broad categories of load types that can be sterilised in autoclaves.

These categories are indicative of the load types, but are by no means definitive. For example, while glassware typically requires only the simplest of autoclaves, glassware with complex structures, lumen, and capillaries may need a more advanced autoclave or a non-standard sterilisation cycle to remove air trapped within it.

One solution is to buy an autoclave with an over-abundance of hardware, as this will cover most eventualities. Alternatively, you could ask Astell to provide you with the right autoclave for the task.

Just photograph typical examples of what you plan to sterilise, send them to us, and we will let you know the best combination of options and sterilisation cycle to most effectively sterilise your load for the lowest cost. With over 138 years of experience in steam sterilisation, we have sterilisation solutions for anything that can be autoclaved.

Instruments and glassware

Liquid in open container

Wrapped instruments, porous material, and fabric

Complex waste

Simple waste

Containment level 3 biohazard

## ASTELL ADVANCED TOUCH CONTROL COMPUTER

Ultimate functionality in every autoclave

All Astell autoclaves feature an advanced touchscreen control computer with a 122mm x 94mm pressure sensitive resistive touchscreen, allowing input by any ridged object - including styluses, and bare or gloved fingertips. The controller software has been developed by Astell for the precision control of all Astell autoclaves and sterilisers.

Features include

an intuitive pressure-sensitive touch-screen interface

an easy-to-use sterilisation cycle builder, with spaces for 50 cycles

storage for cycle data from 5,000 cycles

real-time data display

remote access capability

multiple levels of security and user data logging

Colour Touch Screen • Icon Driven Menu System • USB Connection For USB Back Up • Multiple User Access Levels • User Log • Programme New Cycles • Duplicate, Modify & Rename Cycles • Cycle Stage Jump Facility • Multiple Languages • Hold Warm Facility (if applicable) • Default To Factory Settings • Output Override • Machine service timer • Digital Pressure Display • Up To Four Digital Temperatures Displayed • Cycle Counter • Stage Timer • Cycle Times • Cycle Header • Stage Display • View Input/Output Display • Logs Batch Number • Logs Load Number • Diagnose Faults • Safety Valve Test Cycle • Delayed Start Facility

## PASS THROUGH

Astell autoclaves can be produced two chamber doors - one on each side

A door at either end of the autoclave chamber allows unsterilised items to enter via one door, and leave by the other sterile. Most Astell autoclaves can be upgraded with a second door.

## ASTELL AUTOEQUIP

Configuration provides cost effectiveness and energy efficiency

With over 138 years of steam sterilisation expertise, Astell know the right combination of hardware and programming to create a cost-effective and energy-efficient autoclaves designed for each specific load.

Just send us a photo of the typical loads that you will need to sterilise, and a photo of the location that you plan to place the autoclave, and we will provide you with a quote for the right autoclave with the right combination of options for you needs.

- Take a photo of the items that will be sterilised
- Take a photo of the planned location for the autoclave
- Email the photos to Sales@Astell.com with the subject "Autoequip", noting any specific series you are interested in

## Astell Bio

Automatic Thermal Wastewater Sterilisation

Liquid waste containing pathogenic or genetically modified material may require sterilisation before disposal. Sterilisation by chemical means can cause inadvertent damage to aquatic life, can pose health risks to humans. AstellBio systems automatically sterilise liquid effluent using heat, requiring only electricity and water.

<b>Micro EDS</b>		The versatile AstellBio Micro Effluent Decontamination System (EDS) can be plumbed onto the wastewater drain from applications of your choice. Biological material in wastewater is thermally sterilised automatically as it passes through the unit.
<b>Sink</b>		Provide your laboratory with safe, chemical-free wastewater decontamination. Liquids and wastewater washed into the AstellBio Sink washbasin flow into an Effluent Decontamination System (EDS), where they are automatically thermally sterilised before being dispatched to the drain.
<b>Sink &amp; Autoclave Combo</b>		The perfect sterilisation station for autoclavable materials and liquid waste. The Combo combines the AstellBio Sink with the popular AMA440 Compact Top-loading autoclave to create a versatile sterilisation station.
<b>350L to 1500L Batch Thermal Effluent Decontamination System</b>		Each AstellBio Batch Thermal EDS is designed and built to order. They are capable of automatically sterilising many thousands of gallons of complex biohazardous effluent every day.

For more information visit [AstellBio.com](http://AstellBio.com)

range	series	typical appearance	load types that can be sterilised in a unit without options	load types that can be sterilised in a unit with added options	chamber size	features overview
Plug & Play	AMB Benchtop Autoclave <i>classic</i>				Smallest Chamber: 346 (mm) x 346 (mm) x 355 (mm) x 33 (L) Largest Chamber: 346 (mm) x 346 (mm) x 668 (mm) x 63 (L)	Classic Benchtop Autoclave ( Steam generated by Heaters In Chamber ). Features include • Easy water filling • 5 pre-set cycles • Easy closure system • USB interface as standard • Electro polished stainless steel pressure vessel • Over temperature cut-out • Thermocouple entry port • Cool lock protection for fluid cycles • Automatic timed air purge system • Pressure gauge • Safety valve test program • 5.7" colour touchscreen controller. Three sizes available
Plug & Play	AMB Benchtop Autoclave <i>ecofill</i>				Smallest Chamber: 346 (mm) x 346 (mm) x 355 (mm) x 33 (L) Largest Chamber: 346 (mm) x 346 (mm) x 668 (mm) x 63 (L)	EcoFill Benchtop Autoclave ( Steam generated by Heaters In Chamber ) Features include • Automatic water filling • 5 pre-set cycles • Easy closure system • USB interface • Electro polished stainless steel pressure vessel • Over temperature cut-out • Thermocouple entry port • Cool lock protection for fluid cycles • Automatic timed air purge system • Pressure gauge • Safety valve test program • 5.7" colour touchscreen controller. Three sizes available
Plug & Play	AMB Benchtop Autoclave <i>ecofill DRY</i>				Smallest Chamber: 346 (mm) x 346 (mm) x 355 (mm) x 33 (L) Largest Chamber: 346 (mm) x 346 (mm) x 668 (mm) x 63 (L)	Benchtop Drying Autoclave ( Steam generated by Heaters In Chamber ) Features include • Automatic water filling • Closed door drying function • Easy closure system • USB interface • Electro polished stainless steel pressure vessel • Over temperature cut-out • Thermocouple entry port • Pulsed free-steaming • Pressure gauge • Safety valve test program • 5.7" colour touchscreen controller • Supplied with 4 position shelf rack, 2 wire shelves and a pouch rack. Note: for drying some complex loads, a vacuum equipped system is advised. Three sizes available
Plug & Play	AMA Compact Toploading Autoclave <i>classic</i>				Chamber: 346 (mm) x 668 (mm) x 346 (mm) x 63 (L)	Classic Compact Toploading Autoclave ( Steam generated by Heaters In Chamber ) Features include • Easy water filling • 5 pre-set cycles • Easy closure system • USB interface • Electro polished stainless steel pressure vessel • Over temperature cut-out • Thermocouple entry port • Cool lock protection for fluid cycles • Automatic timed air purge system • Pressure gauge • Safety valve test program • 5.7" colour touchscreen controller. One size available
Plug & Play	AMA Compact Toploading Autoclave <i>ecofill</i>				Chamber: 346 (mm) x 668 (mm) x 346 (mm) x 63 (L)	EcoFill Compact Toploading Autoclave ( Steam generated by Heaters In Chamber as standard ) Features include • Automatic water filling • 5 pre-set cycles • Easy closure system • USB interface • Electro polished stainless steel pressure vessel • Over temperature cut-out • Thermocouple entry port • Cool lock protection for fluid cycles • Automatic timed air purge system • Pressure gauge • Safety valve test program • 5.7" colour touchscreen controller. One size available
Plug & Play	AMB Duaclave Autoclave <i>classic</i>				Smallest Chamber (2 x): 346 (mm) x 346 (mm) x 355 (mm) x 33 (L) Largest Chamber (2 x): 346 (mm) x 346 (mm) x 668 (mm) x 63 (L)	Duaclave twin front loading autoclaves ( Steam generated by Heaters In Chamber as standard ) Features include • Rapid access safety closures • Electro polished stainless steel pressure vessels • 5 pre-set cycles • Thermocouple entry port • USB interfaces as standard • Overtemperature cut-outs • Low water indicators • Reservoir drains • Automatic timed air purge systems • Pressure gauges • Vent valves • 5.7" colour touchscreen controller. Three sizes available
Customisable & Versatile	AMA Toploading Autoclave				Smallest Chamber: 456 (mm) x 584 (mm) x 456 (mm) x 95 (L) Largest Chamber: 456 (mm) x 817 (mm) x 456 (mm) x 135 (L)	Toploading Autoclave ( Steam generated by Heaters In Chamber as standard ) Floor standing. Features include • Rapid access safety closure • USB interfaces as standard • 5 pre-set cycles • Thermocouple entry port • USB interface • Overtemperature cut-out • Low water indicator • Reservoir drain • Automatic timed air purge system • Pressure gauge • Vent valve • 5.7" colour touchscreen controller. Four sizes available
Customisable & Versatile	ASB Frontloading Swing-Door Autoclave				Smallest Chamber: 454 (mm) x 454 (mm) x 740 (mm) x 120 (L) Largest Chamber: 600 (mm) x 600 (mm) x 1217 (mm) x 344 (L)	Swing Door Frontloading Autoclave ( Steam generated by Heaters In Chamber as standard ) Features include • Swiftlock rapid access safety closure • Electro polished stainless steel pressure vessel • 5 pre-set cycles • Thermocouple entry port • USB interface as standard • Overtemperature cut-out • Low water indicator • Reservoir drain • Automatic timed air purge system • Pressure gauge • Vent valve • Castors • 5.7" colour touchscreen controller. Five sizes available
Customisable & Versatile	MNS-C Frontloading Sliding-Door Autoclave				Smallest Chamber: 454 (mm) x 454 (mm) x 740 (mm) x 120 (L) Largest Chamber: 600 (mm) x 600 (mm) x 1217 (mm) x 344 (L)	Sliding Door Front Loading Autoclave ( Steam generated by Heaters In Chamber as standard ) Floor standing. Features include • Manual vertically sliding door • Electro polished stainless steel pressure vessel • 5 pre-set cycles • Thermocouple entry port • USB interface • Overtemperature cut-out • Low water indicator • Reservoir drain • Automatic timed air purge system • Pressure gauge • Vent valve • Castors • 5.7" colour touchscreen controller. Five sizes available
Customisable & Versatile	ASB Duaclave Swing-Door Autoclave				Smallest Chamber (2 x): 454 (mm) x 454 (mm) x 740 (mm) x 120 (L) Largest Chamber (2 x): 454 (mm) x 454 (mm) x 945 (mm) x 153 (L)	Duaclave twin front loading litre autoclaves ( Steam generated by Heaters In Chamber as standard ) Floor standing. Features include • Swiftlock rapid access safety closures • Electro polished stainless steel pressure vessels • 5 pre-set cycles • Thermocouple entry ports • USB interfaces • Overtemperature cut-outs • Low water indicators • Reservoir drains • Automatic timed air purge systems • Pressure gauges • Vent valves • 5.7" colour touchscreen controller. Two sizes available
Big Space Little Cost	MNS-E Square-Eco Autoclave				Smallest Chamber: 500 (mm) x 500 (mm) x 500 (mm) x 125 (L) Largest Chamber: 600 (mm) x 600 (mm) x 1000 (mm) x 360 (L)	Astell SQUARE-ECO autoclave. Single manual upwards sliding door. ( Steam generated by heaters in chamber ) Features include • Media holdarm • Delayed start facility • External pressure gauge • Assisted air cooling • AutoFill/Autodrain • Over pressure/temperature protection • Validation port • 5.7" colour touchscreen controller. Four sizes available
Maximum Capacity Maximum Adaptability	Manual Door Square Chamber Cross-Section Autoclave				Smallest Chamber: 500 (mm) x 500 (mm) x 500 (mm) x 125 (L) Largest Chamber: 600 (mm) x 600 (mm) x 1250 (mm) x 450 (L)	Single manual upwards sliding door. Hundreds of possible permutations depending on user requirement. Features include • External pressure gauge • Over pressure/temperature protection • Validation port • 5.7" colour touchscreen controller. More than Ten sizes available
Maximum Capacity Maximum Adaptability	Automatic Door Square Chamber Cross-Section Autoclave				Smallest Chamber: 500 (mm) x 500 (mm) x 500 (mm) x 125 (L) Largest Chamber: 700 (mm) x 1000 (mm) x 2000 (mm) x 1400 (L)	Single automatic upwards or sideways sliding door. Hundreds of possible permutations depending on user requirement. Features include • External pressure gauge • Over pressure/temperature protection • Validation port • 5.7" colour touchscreen controller. More than Thirty-Two sizes available

Hydrogen 1 <b>H</b> 1.008																	Helium 2 <b>He</b> 4.0026																												
Lithium 3 <b>Li</b> 6.94	Beryllium 4 <b>Be</b> 9.0122																	Boron 5 <b>B</b> 10.81	Carbon 6 <b>C</b> 12.011	Nitrogen 7 <b>N</b> 14.007	Oxygen 8 <b>O</b> 15.999	Fluorine 9 <b>F</b> 18.998	Neon 10 <b>Ne</b> 20.180																						
Sodium 11 <b>Na</b> 22.990	Magnesium 12 <b>Mg</b> 24.305																	Aluminium 13 <b>Al</b> 26.982	Silicon 14 <b>Si</b> 28.085	Phosphorus 15 <b>P</b> 30.974	Sulphur 16 <b>S</b> 32.06	Chlorine 17 <b>Cl</b> 35.45	Argon 18 <b>Ar</b> 39.95																						
Potassium 19 <b>K</b> 39.098	Calcium 20 <b>Ca</b> 40.078	Scandium 21 <b>Sc</b> 44.956	Titanium 22 <b>Ti</b> 47.867	Vanadium 23 <b>V</b> 50.942	Chromium 24 <b>Cr</b> 51.996	Manganese 25 <b>Mn</b> 54.938	Iron 26 <b>Fe</b> 55.845	Cobalt 27 <b>Co</b> 58.933	Nickel 28 <b>Ni</b> 58.693	Copper 29 <b>Cu</b> 63.546	Zinc 30 <b>Zn</b> 65.38	Gallium 31 <b>Ga</b> 69.723	Germanium 32 <b>Ge</b> 72.630	Arsenic 33 <b>As</b> 74.922	Selenium 34 <b>Se</b> 78.971	Bromine 35 <b>Br</b> 79.904	Krypton 36 <b>Kr</b> 83.798																												
Rubidium 37 <b>Rb</b> 85.468	Strontium 38 <b>Sr</b> 87.62	Yttrium 39 <b>Y</b> 88.906	Zirconium 40 <b>Zr</b> 91.224	Niobium 41 <b>Nb</b> 92.906	Molybdenum 42 <b>Mo</b> 95.95	Technetium 43 <b>Tc</b> 97	Ruthenium 44 <b>Ru</b> 101.07	Rhodium 45 <b>Rh</b> 102.91	Palladium 46 <b>Pd</b> 106.42	Silver 47 <b>Ag</b> 107.87	Cadmium 48 <b>Cd</b> 112.41	Indium 49 <b>In</b> 114.82	Tin 50 <b>Sn</b> 118.71	Antimony 51 <b>Sb</b> 121.76	Tellurium 52 <b>Te</b> 127.60	Iodine 53 <b>I</b> 126.90	Xenon 54 <b>Xe</b> 131.29																												
Caesium 55 <b>Cs</b> 132.91	Barium 56 <b>Ba</b> 137.33	Lutetium 71 <b>Lu</b> 174.97	Hafnium 72 <b>Hf</b> 178.49	Tantalum 73 <b>Ta</b> 180.95	Tungsten 74 <b>W</b> 183.84	Rhenium 75 <b>Re</b> 186.21	Osmium 76 <b>Os</b> 190.23	Iridium 77 <b>Ir</b> 192.22	Platinum 78 <b>Pt</b> 195.08	Gold 79 <b>Au</b> 196.97	Mercury 80 <b>Hg</b> 200.59	Thallium 81 <b>Tl</b> 204.38	Lead 82 <b>Pb</b> 207.2	Bismuth 83 <b>Bi</b> 208.98	Polonium 84 <b>Po</b> 209	Astatine 85 <b>At</b> 210	Radon 86 <b>Rn</b> 222																												
Francium 87 <b>Fr</b> 223	Radium 88 <b>Ra</b> 226	Lawrencium 103 <b>Lr</b> 266	Rutherfordium 104 <b>Rf</b> 267	Dubnium 105 <b>Db</b> 268	Seaborgium 106 <b>Sg</b> 269	Bohrium 107 <b>Bh</b> 270	Hassium 108 <b>Hs</b> 269	Meitnerium 109 <b>Mt</b> 278	Darmstadtium 110 <b>Ds</b> 281	Roentgenium 111 <b>Rg</b> 282	Copernicium 112 <b>Cn</b> 285	Nihonium 113 <b>Nh</b> 286	Flerovium 114 <b>Fl</b> 289	Moscovium 115 <b>Mc</b> 290	Livermorium 116 <b>Lv</b> 293	Tennesine 117 <b>Ts</b> 294	Oganesson 118 <b>Og</b> 294																												
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provider of expert autoclave service & maintenance

custom design & build available

utilised in over 100 countries globally

designed and manufactured in the united kingdom of great britain & northern ireland

In the 1950s, two gentlemen named Tom Ashton and Reg Cuttle established The Astell Laboratory Service Company to offer a range of products and consumables to the growing laboratory sector, the name 'Astell' being an amalgamation of parts of both their surnames. A decade later their organisation merged with Charles Hearson & Company to form one company, branded Astell Hearson. Renamed Astell Scientific in 1988, the business remains the leader in steam sterilisation technology. A long history and vast experience enables Astell to produce industry leading autoclaves and steam sterilisers for a global market.

Charles Hearson established Charles Hearson & Company in 1884 as specialist manufacturers of autoclaves and incubators for medical practitioners. The business evolved through the early half of the twentieth century, offering temperature-controlled equipment and other laboratory apparatus.

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enduring autoclaving excellence



autoclaves

are precisely as

simple

or as

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as you need



astell autoclaves come in a wide range of shapes and sizes



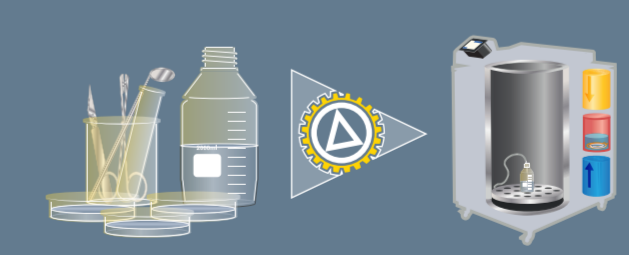
they can be equipped with simple options



or advanced upgrades



or with any combination of parts to provide the exact autoclave for your requirements



tell astell what needs autoclaving and they will provide you with the right combination of options and upgrades for energy, time and cost efficient sterilisation

# enduring autoclaving excellence

**Although the current name Astell Scientific was adopted in the late 1980s, the company can trace a rich history in sterilisation and autoclave manufacturing over 130 years.**

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