Product Specification

ASB302NT

Astell ASB302NT – 330 litre Front Loading Compact Autoclave – Direct Steam Version

SecureTouch - Touch Screen Controller

Ideal for Liquids & Most laboratory applications, including Discard, Glassware, Laboratory Instruments etc

Standard Features

All the following are Value - Added Features Included AS STANDARD

- **Secure Touch – Touch Screen Controller**
- 5 Programs
- Virtual Printer
- New Swiftlock rapid access safety closure
- Over temperature water cut out
- Thermocouple entry port
- Low Water Alarm on Internal Water Tank
- Automatic timed air purge system
- Pressure gauge
- Vent valve
- Stainless Steel Pressure Vessel.
- Safety Testing
- On Screen Graph display
- Heaters in chamber

Options

Integral **Data printer**
10 Program Controller
Datalogger
Load Sensed Process Timing
Advanced Water Cooling
RS232
Ethernet
Assisted Air **Cooling**
AutoFill

Accessories

Shelf Packs
Discard Containers

See options & Accessory pages for full details

Overall Capacity	Chamber Diameter	Working Depth	Overall Dimensions	Operating Range
330 Litres	600mm	1085mm	900x1557x1590 mm (wxdxh)	100 -138ºC (0.2-2.4 bar)

Power Requirements	1 phase – 2 Amp (STEAM)
Steam & Drainage Requirements	Water – 15mm bsp; 2-6 Bar 4L/min Steam – Dry Saturated Steam @ 4bar Drainage: 35mm, ideally without manifold, to withstand free flowing steam

Approx. Nett Weight:	Shipping Weight	Shipping Dimensions
560kg	595kg	107x182x184cm (wxdxh)

Control System – SecureTouch – Touch Screen Controller

- **Touchscreen** version of the Tried and Tested "Secure2" controller
- **Audible warnings** End of Cycle, Water Level, Faults etc
- **Easy Fingertip Operation** even when wearing Lab Gloves
- Selectable security operating levels with access **PIN codes**
- Built-in provision for mandatory **Safety valve tests** etc
- Internal and External plus 2 - **colour printer options**
- **Easy selection** of program by Name and Settings
- Onscreen chart **graph display** of running cycle
- **Easy Muting** for audible Cycle warnings
- **Audible confirmation** of key presses
- **Continuous Onscreen Display** of Program Info, Times, Temperatures, Pressure, Cycle stage, Cycle Counter etc
- New "**Virtual Printer**" Stores cycle details (1-2 months typical usage stored) in Printout format for easy download to PC laptop or external printer
- **Internal Fault Detection** with automatic fault diagnosis and 3 fault memories for easy servicing
- Simple to use Controls set out on the large **5.7" illuminated display** with menus for all operations
- Optional Communications including **Ethernet**, and **USB** connections

NB – This unit does not have a vacuum feature and is therefore unsuitable for wrapped instruments etc

Safety Features:

Design to PD97/23/EC **Overheat protection** **Insulated safety door**

Cooling locks (in accordance with H.S.E. PM73) preventing opening of autoclave above 80ºC. (for fluid & discard cycles)

Audible & Visual Alarms for Cycle Fault - Cycle Interruption - Sterilize Failure - Water Low - Door Unlocked

Door Seal Self Energising / Service independent

Door The door release is interlocked by both temperature and pressure to ensure all residual pressure has completely and effectively vented to atmosphere before the doors can be opened. The door will retain its positions in the event of failure of any service. The door is thermally insulated to prevent the surface temperature presenting a hazard to operators. The surface temperature will not exceed IEC 61010 requirements. A cycle cannot start until the door is closed and locked. Steam cannot be applied to the chamber unless the door is closed and locked.

Interlocks Safety interlocks are provided, and are achieved by hardware, separate from and additional to the control system. All interlocks are configured to fail-safe and to provide a signal to the control system to indicate that normal operation has been prevented, and to terminate the current cycle. The interlock system is designed so that its function can be tested during routine maintenance. Safety related interlocks are either hard wired or piped. The following safety interlocks are provided: ♦If the door is not closed, the steam supply to the chamber will be isolated ♦If the pressure in the chamber exceeds 0.15 bar the door will remain locked.

Performance Tests

All electrical equipment is Safety Tested in accordance with the Low Voltage Directive.
Astell shall perform the following standard Factory Acceptance Tests. The tests are included in the machine costs as per the quotation prior to despatch:

All Astell autoclaves are fully tested and calibrated before despatch in line with our ISO9001-2000 procedures.

Connect and check all supplies	Produce printout for each cycle tested (When printer option fitted)
Check software version	Check door interlocks
Power up controller and check door open/close operation	Carry out sterilize monitor timer test on each cycle
Install relevant cycle data as required by client	Run cycle and check for any leaks
Calibrate all temperatures and pressures	Check all safety valves
Check rotation of all pumps and motors (if applicable)	Run each cycle and check conforms with applicable standards
Check and document safety devices	Document in Astell procedures

Applicable Standards

PED EN/97/23/EC /
ISO9001-2000 / UKAS / IEC 61010

Autoclave Safety

N.B. Please note that all Astell autoclaves are manufactured to the highest standards and in full compliance with the Pressure Equipment Directive – i.e. PD5500/PED/97/23EC. Whilst all units have the necessary safety features to minimise user risk, and help ensure long term reliability, it is recommended that:

a) Routine safety checks are carried out in accordance with Astell manuals and in compliance with current pressure regulations and/or insurance requirements.
b) Autoclaves are serviced regularly by Astell or Astell trained/recommended engineers*. (UK only: Please contact us for further information and costs on our range of Preventative Maintenance contracts).*