USB260 Technical Details:

Format:	Front loading
Capacity:	120 liters
Temperature range:	100-138°C
Pressure range:	0.2-2.4 bar

Power requirements (heaters in chamber):	
Single phase version:	Not applicable
Three phase version:	208V, 10kW.

Power requirements (with optional steam generator):	
Three phase only:	208V, 18kW, 60Hz (using 18KWSG)

Water requirements:	A cold water supply of 4-6 Bar minimum, 4 liters/min is required for the 'Autofill', vacuum and water cooling options. Max temperature 25°C, Max flow rate 20 liters/min. Requirements vary for RO/de-ionised/hard water.
Drainage requirements:	Floor level, 35mm, non-manifolded, capable of withstanding free-flowing steam. Free vented to atmosphere if sealed.
Air requirements:	Compressed air is required for units fitted with air ballast or vacuum (100l/min).
Vent/safety valve:	DN 15 or DN 22 X 2(3) to floor (outside by others)

Chamber diameter:	454mm	**Chamber depth:**	740mm
		Chamber usable depth:	633mm
		Required bench depth:	Not applicable

Approximate dimensions (wxdxh):	**Machine:**	**Packed:**
Standard model:	685x1100x1320mm	87x128x169cm
Vacuum/steam generator model:	685x1500x1320mm	87x140x151cm

Approximate weights:	**Machine:**	**Packed:**
	230kg	264kg

Duran bottle capacities:	
500ml:	24
1000ml:	18
2000ml:	8
Option capacities:	1x Discard container AAN300; 2x Container trays AAN080 (4 with optional middle shelf)

Cooling locks:	In accordance with H.S.E. PM73 preventing opening of the autoclave above 80°C. (for fluid & discard cycles)
Alarms:	For Cycle Fault - Cycle Interruption - Sterilize Failure - Water Low - Door Unlocked

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.
Door seal:	Self-energising/service independent.
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. 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.

Controller:	VGA (640x480) color TFT + analogue resistive touchscreen		
Controller hardware:	*Processor:*	Intel E620T 333Mhz	
	Memory:	256MB DDRAM, 32KB FRAM	
	Physical Memory:	2GB eMMC Flash Memory	
Real time clock:	Gold Foil capacitor (1000 hours)		
Program storage:	Software stored internally, Configuration data and cycles stored on a permanently attached USB stick		
	Standard units		**Variation for units with vacuum, or heated/cooling jacket (where available)**
Interfaces:	1x Powerlink 24VDC 1x X2X communication interface 1x Ethernet 10/100Mbit/s 2x USB 2.0 ports 1x Powerlink port (currently spare) 1x RS232 serial port		
I/O hardware:	X209300 - Communication card		
	X208971 – Digital Input card, 8 Inputs		X208371 – Digital input card 8 inputs 2x X209371 – Digital Input card, 12 Inputs
	X208322 – Digital Output card, 8 Outputs		5x X208332 – Digital Output card, 8 Outputs
	X202622 – Analogue Pressure Input module 2 inputs 4-20mA		X204622 – Analogue Pressure Input module 4 inputs 4-20mA
	X202222 – Analogue Temperature Input module 2		X204222 – Analogue Temperature Input module 4 inputs

Applicable standards:	ASME Section VIII, Division 1, “U” stamp, NB registered; ANSI/AAMI ST55:2010; ISO 17025:2005 (UKAS); IEC 61010; ISO9001:2015

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 Quality Management System procedures ISO9001:2015

IQ/OQ Documentation Details (Optional Extra):	IQ Documentation - Details of calibration equipment; ASME (American Society of Mechanical Engineers) Compliance; Declaration of Conformity; FAT (Factory Acceptance Test); Drawing Schedule; ISO 9001:2015 Certification; Pressure vessel specification; Door safety checks. OQ Documentation - Chamber temperature distribution (per cycle); Automatic control test (per cycle) Please note: This is our standard IQ/OQ Documentation package. If other documents are required, please contact us with details of your specific requirements.

Autoclave safety:	All Astell autoclaves are manufactured to the highest standards and in compliance with Section 4 of the ANSI/AAMI ST55:2010 standard. 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). It is recommended that at least 50cm is allowed on both sides and the rear of the autoclave to allow easy access for servicing and maintenance. Astell cannot be held responsible for any failed cycles that could occur as a result of non-validation of loads.