# QUANTIM B



Operator's Manual



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#### Contact

Quote your model details, serial number and date of purchase when contacting your supplier

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# SciCan

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# SciCan Medtech AG

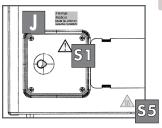
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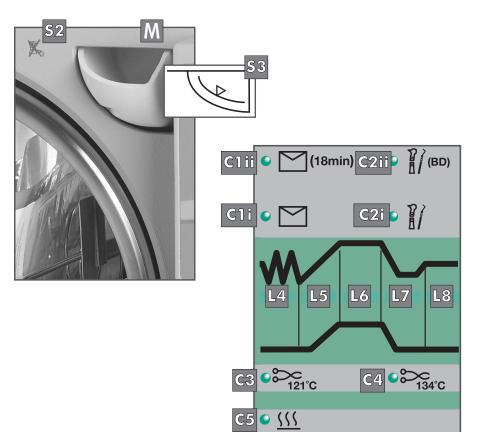
EU Representative:

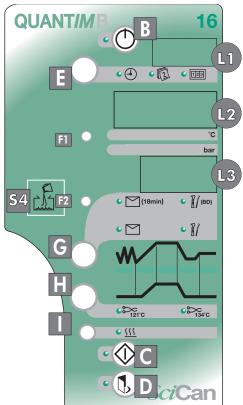
# SciCan

MesserschmittStr. 11 D - 86368 Gersthofen Germany









# Introduction

Thank you for choosing the SciCan QUANTIM B autoclave.

All 'Type B' vacuum cycles on this autoclave use the triple pulse fractionated vacuum system and are fitted with an active air leak detection system.

Non-vacuum cycles use the thermodynamic air displacement system

Drying cycles employ a 'closed door' system

An 'Auto-cycle Start' option is included which allows the time of day at which a selected cycle starts, to be programmed .

Before unpacking, refer to the 'Manual Handling' on page 9

Whilst unpacking check the unit for transit damage. If damage is found, please report this to the shipping agent immediately, in writing, and then notify your dealer.

Product contents will contain the following:-

- Autoclave with internal furniture
- Handbook and Warranty card
- Performance test certificate and Certificate of Conformance for pressure vessel
- Bowie Dick type test pack
- Container for waste water

### Types of load and loading

This autoclave has been qualified to sterilize loads as defined by . prEN13060:1997\*.

Cycle C1i; C1ii - Type 'B' cycles for wrapped, pouched, solid, hollow instruments (length to diameter ratio 750:1- length may be doubled for tubes open at both ends) and porous items.

Cycle C2i\* - Type 'S' cycles unwrapped, unpouched, solid or hollow instruments (length to diameter ratio no greater than 110:1 - length may be doubled for tubes open at both ends).

Cycle C2ii - Type 'B' cycle for Bowie Dick/Helix Steam Penetration Test, or loads as defined for cycle 'C2i'

Cycle C3; C4 - Type 'N' cycles for unwrapped, solid instruments.

WARNING!

Refer to the instrument manufacturer about their suitability for autoclaving and the max temperature the instruments can withstand

- A 'responsible person' must qualify other loads as suitable. Refer to 'Additional Information'
- Maximum load per instrument tray is 2 kg. Refer to 'Technical Specifications' for the maximum instrument load for the autoclave
- All instruments must be cleaned before sterilizing.
- Wrapped or pouched loads should not touch adjacent loads when placed in the rack. Pouches must be used for only one item.
- When placing on a tray, ensure items are placed on the ribs of the tray (to aid drainage), they do not touch each other, and the load does not touch the other trays or chamber in any way.
- Always use the lifting device when removing trays from the autoclave as they may be hot. Long trays should be supported at their rear as they become free of the tray carrier. Do not use an unprotected hand to hold hot trays.

# **Operating Symbols, Controls and Displays**

The following descriptions refer to the symbols, controls, and displays shown on Page 3 of this manual.

#### Symbols:

- S1 IMPORTANT: Read Operating Instructions before use.
- S2 Do Not Use Tap Water.
- S3 Maximum water fill line.
- S4 Fill Water tank.
- S5 Hot Parts (Behind) Do Not Touch. (Also behind main Door - L)

#### **General Controls/Operation:**

Note: The function is selected when the LED adjacent to the button is illuminated.

- A n/a
- Standby/ready button B
- Cycle start button С
- D Door open button

Note: This will not work for 20 seconds after door closure

- Е - Select time/date/cycle count display
- Adjust time/date settings (F1/F2) F
- G Select vacuum cycles
- H Select non-vacuum cycles
- Select 'Additional Drying'
- Fuses (located behind access panel)
- Κ - Printer door
- Main door
- Water fill Μ
- Fresh water tank drain (located behind Door 'L')

### **Cycle Controls:**

G - Press to select vacuum cycles Cli -134°C/4min Type 'B' Vacuum cycle for porous loads, wrapped, pouched, solid or hollow instruments, with drying

> Clii -134°C /18min Type 'B' Vacuum cycle for porous loads, wrapped, pouched, solid or hollow instruments, with drying

C2i\* -134°C/4min Type 'S' Rapid vacuum cycle (14 minute total cycle time) for unpouched solid or hollow instruments, without drying.

C2ii -134°C/4min Type 'B' Vacuum cycle for Bowie Dick/Helix Steam Penetration Test, without drying

H - Press to select **non-vacuum** cycles C3 -121°C/16min Type 'N' Non-vacuum cycle for unwrapped solid instruments.

> C4 -134°C/4min Type 'N' Non-Vacuum cycle for unwrapped solid instruments.

 Press to select 'Additional Drying' C5 - Additional drying

> After every cycle the unit automatically returns to the default cycle - 'C1i'

#### **Display options:**

- L1 Display for 'Time', 'Date', 'Cycle Count The normal display mode is time. The date or cycle count can be selected by pressing the button (E) adjacent to the display. The selection is only valid until a cycle is started or until the unit is returned to standby mode, at which point the display will revert to the current time.
- L2 Display for 'Temperature'
- Display for 'Pressure' L3 -

The following show the cycle status:

- L4 Cycle started
- L5 Heating and air bleed
- L6 Sterilizing
- L7 Depressurization/drying
- L8 Cycle complete
- \* Cycle C2i not included in compliance with prEN13060

# Introduction

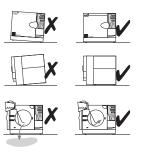


Please take time to read these instructions before using the autoclave. It is essential that the operator is correctly trained and a 'Responsible Person' has been assigned for the management of the autoclave. By following these simple step-by-step instructions you can ensure your instruments are correctly sterilized every time.

#### 1. Installation

Ensure the unit is placed on a strong, flat and level surface.

To check if the unit is level, pour half a cup of water into the chamber. The water should flow towards the rear of the chamber, not out of the front.



# WARNING!

The autoclave is heavy, at least two people will be needed to lift it.

#### 2. Connection

Plug the unit into a mains outlet socket of the correct type and rating. Refer to duplicate rating plate located inside the printer door (K). After a few seconds the LED next to button (B) illuminates.

### WARNING!

The mains outlet MUST BE EARTHED (GROUNDED) The mains plug should always be easily accessible as it is to be relied upon as "the means of disconnection"

#### 3. Single Use Water system

This unit has a 'single use' water system designed to prevent the recycling of any contaminants which may be present on the instruments being sterilized.



Ensure the 'Waste Water Container' is checked regularly to prevent overflowing. The container should be emptied when the waste water reaches the 'max' line.

To empty container, undo screw cap and carefully remove the steam condensing coil,

which passes through the cap. Place on a heat resistant surface whilst emptying the container.

Use the carry handle to support the container when emptying.

Replace steam condensing coil and cap, ensuring it is screwed on securely.

**Note:** Before using for the first time and after emptying, always add approximately 60mm of water to the 'waste container', ensuring the steam condensing coil is fully immersed in water at all times.

The 'waste water container' can be located in any appropriate place although care should be taken that it cannot be knocked over.

#### WARNING!

Waste water and steam condensing coil may be hot - care should be taken at all times

#### 4. Setting Date and time

Date and time are set in the following sequence: Note: The 24hr clock is used.

Year (tens); Year (hundreds); Month; Day; Minutes; Hours:

- Set autoclave in "ready mode" by pressing ready button (B). LED next to button (B) will go out.
- Press and hold button (E) for 5 seconds
- Set year (tens) by pressing button (E) up and (F1) down. Press button (F2) to accept
- Set Year (hundreds); Month; Day; Minutes; Hours; by pressing button (E) up and (F1) down and button (F2) to accept
- The unit returns to the ready mode when 'hours' are accepted

#### 5. Ready

Press button (B) to set the autoclave in 'ready mode'. The LED next to button (B) will go out. Note: When in 'ready mode', the boiler and chamber are kept warm.

#### 6. Water fill - DO NOT USE TAP WATER

# Always use de-ionised, distilled or sterile water as recommended. Never use tap water



Before using the autoclave for the first time fill with water.

Press button (D) to open the door. Pour water into the fill spout (M) until it reaches 'Maximum' line (S3). Water capacity is 3.7 litres.

When the low water indicator illuminates (S4), top-up with water.

#### 7. Loading

Refer to 'Type of loads and loading' on page 4 and 'Specifications' on page 10 for the maximum permissible load. Failure to follow instructions may cause the unit to malfunction and result in an unsuccessful cycle.



Before loading, ensure instruments are cleaned and rinsed.

Always use the instrument trays or racks which are supplied.

Load instruments so that they do not touch other instruments or the chamber and are resting on the ribs of the tray.

Only one item should be placed in a pouch

Linen Loads should be formed into a cube of size 150mm x 120mm x 100mm (maximum), weighing no more than 1 kg. Place on an instrument tray in the centre of the chamber.

Linen loads should not be sterilized in combination with other loads.

#### 8. Door closing

Once the trays are in place close the door by pushing until a 'click' is heard. The LED next to the Door Open button (D) illuminates.

# **Operation (continued)**

#### 9. Cycle options

After each cycle the unit returns to the default cycle **'Cli'**-134°C/4min Type 'B' Vacuum cycle for linen loads, wrapped, pouched, solid or hollow instruments, with drying.

Cycle options are:

#### G - Press to select vacuum cycles

**Cli** -134°C/4min Type 'B' Vacuum cycle for porous loads, wrapped, pouched, solid or hollow instruments, with drying

**Clii** -134°C /18min Type 'B' Vacuum cycle for porous loads, wrapped, pouched, solid or hollow instruments, with drying

 $\mbox{C2i}^*$  -134°C/4min Type 'S' Rapid vacuum cycle for unpouched solid or hollow instruments, without drying.

**C2ii** -134°C/4min Type 'B' Vacuum cycle for Bowie Dick/Helix Steam Penetration Test, <u>without</u> drying

#### H - Press to select non-vacuum cycles

**C3** -121°C/16min Type 'N' Non-vacuum cycle for unwrapped solid instruments, with drying.

C4 -134°C/4min Type 'N' Non-Vacuum cycle for unwrapped solid instruments, without drying.

#### I - Press to select 'Additional drying'

#### C5 - Additional drying

This option is available on all cycles (except Cycle **'C2ii**') and maybe selected before starting the cycle, or once the cycle is completed.

#### To select <u>before starting a cycle</u>:

- i) Press button (I) once L4 illuminates to indicate 10 additional minutes.
- ii) Press (I) a second time L4 & L5 illuminate to indicate 20 additional minutes.
- iii) Press (I) a third time L4, L5 & L6 illuminate to indicate 30 additional minutes.
- iv) Press (I) a fourth time cancels 'Additional Drying'.
- v) Select, then start the required cycle See '10'.

#### To select after a cycle has been completed:

- i) With the door closed, press and hold button (I) for 10 seconds -L4 illuminates to indicate 10 additional minutes.
- ii) Press (I) twice, holding on second press for 10 seconds (L4 & L5 illuminate to indicate 20 additional minutes).
- iii) Press (I) three times, holding on third press for 10 seconds (L4, L5 & L6 illuminate to indicate 30 additional minutes).
- iv) L7 flashes to indicate 'Additional Drying' has started.

#### 10. Start cycle

Press button (C) to start a fully automatic cycle. A visual display shows the stages of the cycle:

- Stage 1 Cycle started (L4)
- Stage 2 Heating and air bleed (L5)
- Stage 3 Sterilizing (L6)
- Stage 4 Depressurisation/drying (L7)
- Stage 5 Cycle complete (L8)

#### 11. Opening door

At the end of a cycle the buzzer sounds 3 times. Press button (D) to open the door, allowing access to the load.

# **Additional Operations**

#### i) Steam Penetration Test

The 'steam penetration test' should be performed on a daily basis to confirm that the unit is operating correctly.

#### A Bowie Dick or Helix Test MUST be used with this test. The Pack should be placed on an instrument tray in the middle of the chamber toward the front.

Run Cycle 'C2ii' - vacuum cycle for Steam Penetration test

Following this test, the TST should change to a uniform purple colour. If the test pack TST is NOT of a uniform colour check the door gasket and vessel. If the pack fails to change correctly repeat the test. If the unit fails the test seek technical assistance.

#### ii) Vacuum system leak test

The 'vacuum system leak test' checks the integrity of the vacuum system.

#### The test MUST be undertaken when the unit is cold and dry (before any other cycle has been run)

Set autoclave in 'standby' by pressing ready button (B). LED next to button (B) will illuminate.

Press and hold button (G) for 6 seconds. The display (L1) will begin to count-down from 4 seconds. Hold button (G) until the count-down reaches zero. The test will then start.

During the test, the segments of the cycle status graphic (L4-8) will flash.

The test will take approximately 15 minutes. On completion the printout will advise if the unit has passed/failed the test. If a fail occurs clean the gasket and re-perform the test. If the unit repeatedly fails contact your equipment dealer.

#### The test MUST be undertaken when the unit is cold and dry (before any other cycle has been run)

#### iii) Auto-cycle Start

The unit can be programmed to enable any cycle to be started at any time of day when the unit is unattended. This option is recommended particularly when the operator performs an 'Air leak detection test'.

- Set autoclave in 'standby' by pressing ready button (B). LED next to button (B) will illuminate.
- Press and hold button (E) for 6 seconds and release. The 'time display' (L1) will flash. the default time of 06.30 will be shown.
- Press (F2) to accept. If another time is required for the auto-cycle start, change minutes then hours; by pressing button (E) up and (F1) down and button (F2) to accept.
- The unit returns to the ready mode and the 'time display' (L1) continues to flash. You can scroll through the settings as a check.
- Select the required sterilizing cycle using buttons (G), (H), and (I).
- Press the start button (C). The 'start' LED (C), the 'door' LED (D) and the 'time display' (L1) will flash.
- The selected cycle will start when the programmed start time is reached.
- To abort a timed cycle press the standby button (B).

Note: If the unit is used in a very cold environment, water vapour may be seen coming from the cooling fan. This is normal and will only last for a few minutes.

\* Cycle C2i not included in compliance with prEN13060

### **Essential Information**

To ensure the autoclave continues to operate correctly, it is important to follow the following points and to carry out the necessary care and maintenance procedures as specified.

#### Do ensure that....

- you read and follow these operating instructions.
- the load is suitable for sterilization and the cycle selected.
- the load can be sterilized at the selected temperature.
- the load has been cleaned.
- the load has been rinsed thoroughly in clean water prior to sterilization to avoid any chemical residues left after cleaning. This product is not a washing / cleaning machine.
- when placing instruments on trays, ensure that they are placed on the ribs of the tray (to help drainage), that they do not touch each other and that the height of the load does not interfere with the tray or chamber above.
- .... only distilled, de-ionised or sterile water is used (as recommended).
- ... the autoclave is in a draught free area.
- the autoclave cooling fan outlet is at least 100mm from any nearby surface. If the nearby surface is cold, then condensation may occur.
- the autoclave is not installed in an enclosed cupboard space' ...
- all other exterior product panels are 50mm clear of adjoining ... surfaces to allow air circulation.
- the autoclave is positioned so that the rear is not accessible to personnel and that it is not directly in front of an electrical outlet so as to allow the over-pressure release valve to operate safely.
- door is left ajar when not in use. ...
- you quote model/serial numbers (which are located inside the printer door) and date of purchase in all correspondence.
- ... only qualified personnel service the autoclave.
- It is recommended that a Chemical Indicator strip be used every cycle to verify that the load has been exposed to sterilization conditions. If the Chemical Indicator strip fails to change colour repeat cycle. If it still fails to change colour then arrange for a service.

#### Do Not...

- lose this handbook.
- add any chemicals whatsoever to the water.
- attempt to sterilize volatile substances, toxic materials or other unsuitable loads. Refer to your 'Responsible Person' for advice.
- place the autoclave in direct sunlight.
- place the autoclave on heat sensitive surfaces.
- use inappropriate cleaning materials.
- drop or abuse the autoclave.
- use in areas of risk associated with flammable materials or gases.
- remove the casing or attempt to service or repair the autoclave.

#### **Routine Care and Maintenance**

# WARNING!

Disconnect the autoclave from the mains power supply before cleaning.

#### **Daily maintenance**

#### Gasket THE GASKET MUST BE CLEANED ON A DAILY



Wipe exposed surface of the gasket and the surface of the vessel with warm soapy water using a damp cloth.

Wipe both the gasket and the vessel again with water using a damp cloth to remove residual soap.

#### **Gasket Replacement**

Should the gasket develop a persistent leak it should be removed, cleaned thoroughly in warm soapy water and shaken dry. Wipe with a damp cloth. The door plate must also be cleaned.

If the leak persists you should obtain and fit a new seal.

To remove the gasket, undo the dome nuts in the centre of the door, remove the plate and gasket assembly and remove the gasket from the plate.

During re-assembly, place new sealing washers under the heads of the dome nuts.

DO NOT over-tighten as this may damage the thread.

Ensure that the entry port plugs align with the holes in the cast lid.

#### Every 250 cycles

Clean the autoclave using the using Autoclave Cleaning Kit - Part No. 289138

#### WARNING!

Failure to perform these procedures may result in the unit showing UD01 on the display (UD01 indicates that the unit may have become contaminated and could fail to operate correctly).

#### **Exterior surfaces (as required)**

Exterior surfaces should be cleaned with warm soapy water using a damp cloth.

For persistent marks, use a gentle cream cleaner.

#### Fresh water tank / Waste Water Container

On a monthly basis, fully drain the water tank and leave overnight (use Autoclave Cleaning Kit - Part No. 289138). Drain, refill with fresh water, and repeat this twice more to remove any residue.

#### Always use de-ionised, distilled or sterile water, as recommended. Never use tap water

#### **Routine maintenance**

On a weekly basis check the waste water tube and condensing coil for defects. Ensure this is done when the unit is cold

The calibration should be checked every 3 months - refer to your dealer

Annually replace the water filters

### Troubleshooting

Should a fault occur a visual and audible indication will be given. The nature of the fault can be determined by reference to the fault guide below. The recovery sequence allows access to any instruments within the autoclave and is the first step when rectifying a fault mode.

User Message	Cause	Remedy	
UODI	Contamination	<ol> <li>Conduct routine maintenance procedures</li> <li>If fault persists Engineer call-out required</li> </ol>	
Low water LED (S4)	Insufficient water in the tank to run a cycle	1. Press button (B) twice. 2. Top-up with water	
'Door' illuminates on display (L2)	Cycle start button pressed whilst door is open	1. Close door and try again	
'Door' illuminates on display (L2)	Door Microswitch	<ol> <li>Recovery sequence 'ii' - repeat cycle.</li> <li>Engineer call-out required</li> </ol>	
01	Power failure during cycle	1. Recovery sequence 'i' 2. Check power supply - repeat cycle	
b02/d02	Temperature out of range	1. Recovery sequence 'i'	
t02	Starting time out of range	2i.Clean gasket and chamber face - repeat cycle (b/d02) 2ii.Check and reset clock - repeat cycle (t02)	
p02	Pressure out of range	1. Recovery sequence 'i' 2i.Clean gasket and chamber face - repeat cycle	
03	Air bleed has not been successful	<ol> <li>Recovery sequence 'i'</li> <li>Clean gasket and chamber face - repeat cycle</li> </ol>	
04	Vacuum failure	<ol> <li>Recovery sequence 'i'</li> <li>Clean gasket and chamber face - repeat cycle</li> </ol>	
05	N/A	N/A	
06	N/A	N/A	
07	Sensor fault - Thermistor	<ol> <li>Recovery sequence 'ii' - repeat cycle.</li> <li>Engineer call-out required</li> </ol>	
08	Sensor fault - pressure	<ol> <li>Recovery sequence 'ii' - repeat cycle.</li> <li>Engineer call-out required</li> </ol>	
09	N/A	N/A	
10	Water in boiler	1. Recovery sequence 'iii' 2. Repeat cycle	
11	Air filter blocked	<ol> <li>Recovery sequence 'i'</li> <li>Replace air filter - Engineer call-out required</li> </ol>	
13	Water fill time out	<ol> <li>Recovery sequence 'i'</li> <li>Drain water from autoclave and refill with distilled/de-ionised/sterile water - repeat cycle</li> </ol>	
14	Sensor fault - Chamber Probe	<ol> <li>Recovery sequence 'ii' - repeat cycle.</li> <li>Engineer call-out required</li> </ol>	
15	System Leak (Vacuum Models only)	<ol> <li>Recovery sequence 'ii'</li> <li>Clean gasket - repeat a vacuum cycle C1i/ii</li> <li>Engineer call-out required</li> </ol>	

<b>Recovery Sequence</b> (allows instruments to be removed from the unit)					
Recovery Sequence 'i'	Recovery Sequence 'ii'	Recovery Sequence 'iii'			
Press (B) - 'Stabilize'	Press (B) -'Stabilize'	Press (B) -'Stabilize'			
(no 'flashing', no 'beeping')	(no 'flashing', no 'beeping')	(no 'flashing', no 'beeping')			
	NB: Cannot proceed (door not enabled)				
Press (B) - 'Recover'	Service Required	Press (B) to enter 'Ready' state			

**The Recovery sequence** will allow the selected sterilizing cycle to be completed before the boiler flushes and any remaining air is bled from the chamber. Once this sequence has been completed the unit holds for 60 secs or, until the internal temperature falls to 88°C, before the door can be opened and a continuous beeping alert sounds.

#### Important

Before restarting a cycle, check the mains plug is fully inserted into the mains outlet socket and the outlet is of the earthed/grounded type. Should all power be lost the door cannot be opened until power is restored.

Should an internal power failure occur, the door cannot be opened until a service has been carried out.

Should it be clear that an indicating device is suspect, a service will be required to correct the condition.

Should a safety feature operate, unplug the unit and call for a service - do not attempt to correct the fault.

#### Primary safety features:

Two primary features have been fltted - a pressure release valve and a boiler over temperature safety cutout.

# **Additional Information**

#### **Operator:**

The person who is assigned to use the autoclave

#### **Responsible Person:**

The person who is responsible for the management of the equipment, load assignment, care and maintenance. This person is also responsible for ensuring that all applicable health and safety regulations are applied including those relating to the pressure vessel.

This person must verify that only suitably qualified persons undertake repair and maintenance work other than that described under "care and maintenance" within this handbook.

#### **Qualified Person:**

A person who is qualified by training or experience to a recognised level in respect of the work to be undertaken.

#### Service:

Calibration and maintenance as required.

#### **Manual Handling:**

Due to the weight of the unit two people are required when unpacking or moving the product.

UNPACKING:

When lifting the unit out of the box ensure there is one person on either side of the unit. Lift out of the box and place on work surface.

POSITIONING:

Start lifting by holding the unit below the printer door. As clearance is gained, lift at the other corners. Place in position, and release in the reverse order to lifting. NOTE: Always drain the water tank before moving. Before moving always allow 30 minutes after use for the unit to cool down

#### **Cleaning materials:**

- mild washing up liquid.
- non-abrasive cream cleaner.
- disinfectant diluted in water Autoclave Cleaning Kit 289138

#### Product decontamination.

Should the unit require repair, it must be decontaminated in accordance with a recognised procedure prior to return or on-site repair.

#### **Approvals:**

Approvals are all model specific. However, the following standards apply in whole or part:

- EN 60601-1-2 EMC (Electro Magnetic Compatibility)
- prEN13060:1997 proposed standard for 'Small Steam Sterilizers'
- BS EN 61010-1 Electrical Safety General requirements
- BS EN 61010-2-041 Particular requirements for steam autoclaves
- ASME Pressure Vessel Code Section 8

#### Spares:

Only those spare parts supplied or specified by SciCan should be used in the maintenance of the autoclave. Use of unauthorised parts will invalidate any warranty and may adversely affect the performance and safety of the unit.

#### Accessories:

289083 - Printer (optional printer can be fitted by the user)

279001 - Printer Roll Replacement

279006 - 282 mm Instrument tray 279005 - 430mm Instrument tray

279007 - Instrument Tray / Rack Lifter For removal of trays and racks

279011 - Sealing gasket 250 mm diameter chamber

274210 - Waste Water Container

289138 - Autoclave Cleaning kit

#### Warranty:

SciCan will, in the first 12 months from the date of purchase, repair or replace free of charge any parts which prove to be defective in workmanship and/or materials. The heating element (only) is covered by a lifetime guarantee.

SciCan will not be so liable in the event that the purchaser has failed to adhere to the instructions contained herein or if the autoclave has been abused, interfered with, altered, repaired or serviced by any unauthorised party. This may also result in the protection provided by the equipment being impaired.

This warranty excludes the gasket, all internal furniture and consumables.

Consumer's statutory rights are not affected.

SciCan reserves the right to change the specification of the models and items illustrated and described herein at any timeto reflect changes and improvements to Quantim B.

# **Specifications**

Chamber Capacities	16 litre	22 Litre	Fuses:	Fuses are located under the access panel on the rear of the product.	
Overall product width	480mm	480mm		WARNING!	
Overall product height	410mm	410mm		Disconnect the autoclave from the mains power supply before changing fuses.	
Overall product length	440mm	440mm		Only qualified personnel should replace fuses.	
Unpacked weight	42kg (max)	43kg (max)		M12A 32 x 6.3mm ceramic sand filled (230v)	
Chamber diameter	250mm	250mm	Rating: Heater:	All products are rated for intermittent use, continuously Cast into boiler	
Chamber lengths	330mm	430mm	Temperatu		
 Tray/rack capacity/length*	6@282mm	6@430mm		Bi-metallic type with manual only reset. This operates at170°C.	
*Tray rack configuration model specific		Pressure release valve:			
Max instrument length	300mm	450mm		Operates at 2.76 bar. Manufactured to ASME code and UV stamped. Accumulation is <10%	
Max instrument load - non-vacuum	6kg (unpouched)	6kg (unpouched)	Maximum	single fault temperature: 141°C determined by pressure release valve.	
Max instrument load - vacuum	6kg (unpouched) 2kg (pouched)	6kg (unpouched) 2kg (pouched)	Over-volto	age category: Group II	
*Pack size 150x120x100mm	1 kg* (porous)	1 kg* (porous)	Pollution c	<b>legree:</b> Group 2	
Sterilizing temp/time - non-vacuum	134°C/4mins	134°C/4mins	Insulation	: Class 1	
	121°C/16mins	121°C/16mins	Environme	mental conditions:	
Sterilizing temp/time - vacuum	134°C/4mins 134°C/18mins	134°C/4mins 134°C/18mins		Indoor use at an altitude of up to 2,000m Ambient temperature range +10°C to +40°C Maximum relative humidity 80% for temperatures up to 31°C, decreasing linearly to 50% at 40°C. Mains supply voltage range 207 to 254 volts (230v)	
Operating pressure (minimum)	2.05bar	2.05bar			
Voltage/wattage	230v/2200w	230v/2200w	Safety Shutdown:		
Frequency	50 - 60Hz	50 - 60Hz		Refer to 'temperature cut out'. This should only be reset by a qualified person	
NB: The overall cycle time will incl decreases.	rease as the mains	supply voltage	Storage:	When leaving the unit standing idle for any length of time, drain the water tank especially if there is a possibility of the room temperature dropping below freezing point	
<b>Chamber component materic</b> Vessel: Boiler:	Stainless steel - 304 - S15 Aluminium - LM25 Aluminium - LM25-TF		Packaging	Packing materials used have been selected for ease of recycling. Please ensure you use the correct waste disposal system for disposal of packing materials	
Lid: Door Plate: Stainless steel - 304 - S			Exclusions	* Cycle C2i not included in compliance with prEN13060	

Quantim B
Notes