



# A DIVISION OF NIRA GROUP





















# **ABOUT US**

# **NIRA SURGICALS PVT LTD:**

NIRA SURGICALS was established in the year of 2008. Our aims at providing world class Orthopaedic/Spine/Neuro implants & All types of imported and Indian instruments at the affordable cost. Designed in line with statutory and regulatory requirements, our range is widely acknowledged for highly sterilized, safe to use, corrosion proof, application specific design and reliability. We have constantly been updating our knowledge strength and company profile as well NIRA SURGICALS PVT.LTD. (2019-2020). Also, as technical strength for producing supreme range of the premium quality products in Ortho/Spine Implants and Instruments' segment. We established with a vision to become an indigenous manufacture & nationwide Supplier of a wide verity of Orthopaedic/ Spine/Neuro implants &All types of imported and Indian instruments, including trauma and rehabilitative appliance that measure up to high standards of quality. The company has grown many leaps forwards to fulfil the requirement of the medical professional and the dedication of the company's professionals accelerated Ortho Surgical Company to Become one of the prime manufacturers of orthopaedic/Spine implants and All types of imported and Indian instruments. Because of the stringent quality measures adopted by the company, our products got self-introduced in the export marketing in a big way. The growing demand for our products in the international market.

# **Quality:**

Quality has been the hallmark of success for the company. It manufactures implants made of 316 & 316l grade stainless steel as per BIS specification. All products marketed by the company undergo rigorous quality surveillance. The company has been keenly observing new trend of the international markets and is regularly updating itself regarding new technologies. Now, the company is able to compete in local, as well as international markets and has confidently consolidated its position in the business

# **Managment:**

Our team comprises highly **motivated** members like managers, designers, product developers, marketing team, Sales team, logistics team, consultants and more! Our senior management believes in the philosophy of driven by patients, focused by medical practitioners. We have always tried to develop products with international standards within the criteria of affordability.

Be it the top most management or the youngest member of the nira family, one thing is common in all of us: 'passion to achieve more and more milestones that makes the lives of patients healthier and happier day by day, minute by minute, moment by moment!'

# **Quality Control Checks:**

Quality control checks ate conducted in-house as a routine, but periodic testing through independent test house is also carried out

#### **Methods Stops Involved in Quality Control:**

Raw material used -The raw material of all products are tested for chemical composition and sample piece tested for physical properties.

#### In House Process and Finished Good Testing:

Calibrated plugs, Ring Gauges and Thread Gauges are used for inspection of standard implants & instruments. Standard vernier calliper's, Micro Meters, bone gauges, surface tester are used for inspection of custom-made implants/instruments.

#### Research & Development:

The company used the state-of-the-art machinery for its Research And Development Department of the company is working continuously to provide superior quality instrument & implants at economical prices to meet the ever increasing requirements of the medical profession.

#### **Clients:**

The company caters to an established clientele in the domestic and international market through its extensive marketing network. At present we are exporting our products to Singapore, Australia, south America, Bangladesh and Nepal. All our clients are satisfied with us, as a result of which we are getting repeated orders. It has trained service personnel, who provide demonstration and technical for fixing different implants and appliances. Distributors of the company are strategically located to reach all corners of the world. Apart from sale effected through dealers, the company is directly catering to institutional customers in India and across the globe.



## TAI-901 PORTABLE AUTOCLAVE

- All body made of Stainless Steel or Aluminum.
- Fitted with pressure gauge.
- The unit has spring loaded safety valve of pressure adjustment and a dead weight safety valve.
- It is hydraulically tested up to 30 PSI & is supplied with Electric fitting, Cord & Plug, supplied complete with Tripod Stand.
- To work on 220/330Volt AC Supply



# TAI-901A FULLY SS TABLE TOP DENTAL AUTOCLAVE

- All body made of stainless steel.
- The inner/outer chamber & boiler are made of heavy gauge \$ \$ with leak proof argon ARC welding.
- The space between the outer chamber is filled with wool to minimize thermal losses.
- Hydraulically tested to withstand 2.5 times the working pressure.
- Steam boiler is fitted with water level indicator, pressure gauge, low water cut off device.
- This afford complete safety to the working personnel against explosive opening.
- An automatic vacuum breaker is fitted to all units as a standard accessory in order to break vacuum in case of steam condensation.
- The flanged immersion type heating element made from very high grade material provides fast formation of pressure in the system & are protected through a electric low water cut off device.
- The chamber is fitted with spring loaded safety valve & a dead weight release valve.
- Sterilization temperature: 120°C, 135°C.
- Suitable to work on 230 volts, single phase and 50Hz AC supply.

Model No.	10 x 18	12 x 15	12 x 18
Inner Dimension	250 x 450	300 x 375	300 x 450
Capacity	22 Litres	25 Litres	30 Litres
Heater Load	3 KW	3 KW	3 KW

# **TECHNICAL SPECIFICATION**

Gasket: made of joint less silicon rubber.

Exhaust pressure: manual through the exhaust valve

Sterilizing pressure: 1.2 to 1.5 kgf/cm2 (15 to 20 psi) at  $121^{\circ}$ C

Operating pressure: from 15 psi to 20 psi Pressure gauge: 0.2.1 kgf/cm2 (30 psi)

Tubular stand and supporting ring: made of mild steel or stainless steel

INCLUDING

- 1. Vacuum Breaker
- 2. Tray
- 3. Water level indicator
- 4. Fully automatic PID Purging System





# TAI-901B COOKER TYPE AUTOCLAVE

- 1) Aluminium + S.S
- 2) Powder Coated With Timer

This is a portable pressure type vertical top loading cooker type steam sterilizer (Autoclave) made from Aluminium grade SALEM STAINLESS STEEL (Seamless construction). Two versions are available, i.e. electrically operated and also non electric model to be used on gas, kerosene or

It is used for sterilization of surgical instruments, dressing material, linen, rubber, special plastic materials by means of saturated steam under pressure of 15-20 psi. Apart from health centres, it is also used in scientific research institutions, colleges, departments laboratories & universities.

# **Cautions**

- 1. At the time of opening/closing the lid of the autoclave, always keep the steam release valve open, never try to open the lid forcefully.
- 2. Before switching on the autoclave, check the lid is properly closed (the handles of lid & body are exactly on top of each other)
- 3. The weight type safety valves are preset at required pressures. Do not add extra weights to them otherwise they might malfunction.
- 4. Clean the vent holes of the weight valves regularly with a thin wire to avoid any jamming.
- 5. Also keep the autoclave gasket free from dirt otherwise it may result in leakage from lid gasket.
- 6. Never operate the autoclave without water or with insufficient water. It can damage the autoclave & the heater.
- 7. When the lid is removed off the autoclave, keep it gently in upright position and on leveled surface. Jerks may damage the pressure gauges.
- 8. In case of any problem, stop using the autoclave and contact authorized dealer.
- 9. Do not shift the instruments under working conditions.
  - i) Switch off electric supply
  - ii) Remove plug from socket
  - iii) Release steam if any
- 10. To avoid any electric shocks
  - i) Do not touch the autoclave bare feet or wet hands.
  - ii) Do not keep the autoclave on any wooden/rubber/insulated surface. Keep on marble floor/shelf.
  - iii) Check the internal wiring at your place has proper earthing.
- 11. For better looks, clean the autoclave with soft & moist cloth.
- 12. Tighten the handle screws every 15 days regularly.

# **ALUMINIUM & POWDER COATED WITH TIMER**

Model No.	Model No. 11 x 9		12 x 20		
Liter	13 Liter	23 Liter	40 Liter		
Body	Aluminium + S.S	Aluminium + S.S	Aluminium + S.S		





# TAI-902 VERTICAL DOUBLE WALLED RADIAL LOCKING AUTOCLAVE

- Inner chamber, outer chamber & support ring are fully made of stainless steel.
- Heaters cover stand & carrier/bucket are made of stainless steel.
- Lid made of thick machined stainless steel plate.
- Radial locking lid ensures user safety & safe locking.
- Lid is fitted with pressure gauge, spring loaded safety valve, double safety valve, manual exhaust valve, vacuum breaker as a safety device & water level indicator.
- Drain valve facilitates easy cleaning of the chamber.
- Moulded joint less silicon rubber gasket.
- All internal joints are argon arc welded, ground & polished to give crevice free internals.
- Miniature circuit breaker for mains on/off plus safety of control panel.
- Industrial grade energy efficient heaters reduce power bills drastically.



Fully SS Radial Locking

Model No.	10 x 18	12 x 20	14 x 22	16 x 24	18 x 24	22 x 30
Inner Dimension	250 x 450	300 x 500	350 x 550	400 x 600	450 x 600	550 x 750
Capacity	22 Litres	40 Litres	50 Litres	78 Litres	98 Litres	150-180 Litres
Heater Load	1.5 KW	2 KW	3 KW	4 KW	4 KW	5 KW

# **TECHNICAL SPECIFICATION**

Sterilizing Pressure=1.2kgf/cm2 (15 psi) at 121°C
Operating Pressure= from 15 psi to 22 psi (adjustable)
Power Supply=220x230V AC, 50/60 Hz
Pressure Vessel= SS 304 Grade Stainless Steel
External Wall=SS 304 Grade Stainless Steel
Top Lid=SS 304 Grade Stainless Steel
Basket= SS 304 High Grade Stainless Steel

# INCLUDING

**JANOITAC** 

- Water Level Indicator
- 2. Stainless Steel Basket
- 3. Vacuum Breaker



SS Lining Radial Locking

- A. Automatic pressure control switch.
- B. Automatic low water cut off system.
- C. Microprocessor based digital temperature indicator cum controller with set value and process vale/digital timer.
- D. Microprocessor based digital temperature indicator cum controller with set value and process value/ timer and purging on/off fully automatic.

# TAI-903 VERTICAL TRIPLE WALLED HIGH PRESSURE RADIAL LOCKING AUTOCLAVE

- Inner chamber, outer chamber and support ring are fully made of stainless steel.
- Heaters cover stand and carrier/bucket are made of stainless steel.
- Lid made of thick machined stainless steel plate.
- Radial locking lid ensures user safety and safe locking.
- Lid is fitted with pressure gauge, spring loaded safety valve, double safety valve, manual exhaust valve, vacuum breaker as a safety device and water level indicator.
- Drain valve facilitates easy cleaning of the chamber.
- Moulded joint less silicon rubber gasket.
- All internal joints are argon arc welded, ground and polished to give crevice free internals.
- Miniature circuit breaker for mains on/off plus safety of control panel.
- Industrial grade energy efficient heaters reduce power bill drastically.



Fully SS Radial Locking (Delux Model)

Model No.	10 x 18	12 x 20	14 x 22	16 x 24	18 x 24	22 x 30
Inner Dimension	250 x 450	300 x 500	350 x 550	400 x 600	450 x 600	550 x 750
Capacity	22 Litres	40 Litres	50 Litres	78 Litres	98 Litres	150-180 Litres
Heater Load	1.5 KW	2 KW	3 KW	4 KW	4 KW	5 KW

# **TECHNICAL SPECIFICATION**

Sterilizing pressure=1.2kgf/cm2 (15 psi) at 121°C
Operating pressure= from 15 psi to 22 psi (adjustable)
Power supply=220x230V AC, 50/60 Hz
Pressure Vessel= SS 304 Grade Stainless Steel
External Wall=SS 304 Grade Stainless Steel
Top Lid=SS 304 Grade Stainless Steel
Basket= SS 304 High Grade Stainless Steel

# INCLUDING

OPTIONAL

- 1. Water Level Indicator
- 2. Stainless Steel Basket
- 3. Vacuum Breaker



SS Lining Radial Locking Model

# A. Automatic pressure control switch.

- B. Automatic low water cut off system.
- C. Microprocessor based digital temperature indicator cum controller with set value and process vale/digital timer.
- D. Microprocessor based digital temperature indicator cum controller with set value and process value/ timer and purging on/off fully automatic.

# **TECHNICAL SPECIFICATION**

Temperature : 121° to 134° P.S.I : 15 to 32 PSI kgf/cm2 : 1.2 to 2.5



### TAI-904 VERTICAL TRIPLE WALLED HIGH PRESSURE WING NUT AUTOCLAVE

- Inner chamber, outer chamber and support ring are fully made of stainless steel.
- Heaters cover stand and carrier/bucket are made of stainless steel.
- Lid made of thick machined stainless steel plate.
- Brass knobs ensures user safety and safe locking.
- Lid is fitted with pressure gauge, spring loaded safety valve, double safety valve, manual exhaust valve, vacuum breaker as a safety device and water level indicator.
- Drain valve facilitates easy cleaning of the chamber.
- Moulded joint less silicon rubber gasket.
- All internal joints are argon arc welded, ground and polished to give crevice free internals.
- Miniature circuit breaker for mains on/off plus safety of control panel.
- Industrial grade energy efficient heaters reduce power bill drastically.

Model No.	10 x 18	12 x 20	14 x 22	16 x 24	18 x 24	22 x 30
Inner Dimension	250 x 450	300 x 500	350 x 550	400 x 600	450 x 600	550 x 750
Capacity	22 Litres	40 Litres	50 Litres	78 Litres	98 Litres	150-180 Litres
Heater Load	1.5 KW	2 KW	3 KW	4 KW	4 KW	5 KW

Sterilizing pressure=1.2kgf/cm2 (15 psi) at 121°C
Operating pressure= from 15 psi to 22 psi (adjustable)
Power supply=220x230 AC, 50/60 Hz
Pressure Vessel= SS 304 Grade Stainless Steel
External Wall=SS 304 Grade Stainless Steel
Top Lid=SS 304 Grade Stainless Steel
Basket= SS 304 High Grade Stainless Steel

# CLUDING

- Water Level Indicator
- 2. Stainless Steel Basket
- 3. Vacuum Breaker



Fully SS Wing Nut Model

# A. Automatic pressure control switch. B. Automatic low water cut off system. C. Microprocessor based digital temper D. Microprocessor based digital temper

- C. Microprocessor based digital temperature indicator cum controller with set value and process vale/digital timer.
- D. Microprocessor based digital temperature indicator cum controller with set value and process value/ timer and purging on/off fully automatic.

# **TECHNICAL SPECIFICATION**

Temperature : 121° to 134° P.S.I : 15 to 32 PSI kgf/cm2 : 1.2 to 2.5



# TAI-905 VERTICAL DOUBLE WALLED WING NUT AUTOCLAVE

- Inner chamber, outer chamber and support ring are fully made of stainless steel.
- Heaters cover stand and carrier/bucket are made of stainless steel.
- Lid made of thick machined stainless steel plate.
- Brass knobs ensures user safety and safe locking.
- Lid is fitted with pressure gauge, spring loaded safety valve, double safety valve, manual exhaust valve, vacuum breaker as a safety device and water level indicator.
- Drain valve facilitates easy cleaning of the chamber.
- Moulded joint less silicon rubber gasket.
- All internal joints are argon arc welded, ground and polished to give crevice free internals.
- Miniature circuit breaker for mains on/off plus safety of control panel.
- Industrial grade energy efficient heaters reduce power bill drastically.

Model No.	10 x 18	12 x 20	14 x 22	16 x 24	18 x 24	22 x 30
Inner Dimension	250 x 450	300 x 500	350 x 550	400 x 600	450 x 600	550 x 750
Capacity	22 Litres	40 Litres	50 Litres	78 Litres	98 Litres	150-180 Litres
Heater Load	1.5 KW	2 KW	3 KW	4 KW	4 KW	5 KW

# **TECHNICAL SPECIFICATION**

Sterilizing pressure=1.2kgf/cm2 (15 psi) at 121°C
Operating pressure= from 15 psi to 22 psi (adjustable)
Power supply=220x230 AC, 50/60 Hz
Pressure Vessel= SS 304 Grade Stainless Steel
External Wall=SS 304 Grade Stainless Steel
Top Lid=SS 304 Grade Stainless Steel
Basket= SS 304 High Grade Stainless Steel

# LUDING

OPTIONAL

- 1. Water Level Indicator
- 2. Stainless Steel Basket
- 3. Vacuum Breaker



Fully SS Wing Nut Model

- A. Automatic pressure control switch.
- B. Automatic low water cut off system.
- C. Microprocessor based digital temperature indicator cum controller with set value and process vale/digital timer.
- D. Microprocessor based digital temperature indicator cum controller with set value and process value/ timer and purging on/off fully automatic.

# TAI-906 HORIZONTAL CYLINDRICAL TRIPLE WALLED HIGH PRESSURE AUTOCLAVE

- The inner/outer chamber, steam jacket and boiler are made of heavy gauge SS with leak proof argon arc welding.
- The space between the outer chamber and steam jacket is filled with glass wool to minimize thermal losses.
- Hydraulically tested to withstand 2.5 times the working pressure.
- Steam boiler is fitted with water level indicator, pressure gauge, low water cut off device and automatic pressure control devices. Fitted with safety valve as a safety device.
- Drain valve is fitted at the side bottom for easy draining/clearing.
- This affords a complete safety to the working personnel against explosive opening.
- Two separate valves are provided for evacuating steam from inner chamber and jacket as and when desired.
- Sterilization cycle is controlled by single point multiport valve.
- The chamber discharge line is fitted with a moisture trap to absorb the condensate automatically thus preventing moistening of the loaded material to be sterilized.
- An automatic vacuum breaker is fitted to all units as a standard accessory in order to break vacuum in case of steam condensation.
- The flanged immersion type heating element made from a very high grade material provide fast formation of pressure in the system and are protected through a electric low water level cut off device.
- All sterilizers are provided with triple safety features through a "Piezostate" (automatic pressure control system) and a spring loaded safety valve fitted to the boiler/steam generator.
- The chamber is fitted with spring loaded safety valve and a dead weight release valve.
- To work on 220/230 or 440 volts, 3 phase, 50 Hz AC supply.

Model No.	16 x 24	16 x 36	16 x 48	20 x 36	20 x 48
Inner Dimension	400 x 600	400 x 900	400 x 1200	500 x 900	500 x 1200
Capacity	78 Litres	115 Litres	162 Litres	165 Litres	221 Litres
Heater Load	6 KW	6 KW	9 KW	9 KW	9 KW

### **TECHNICAL SPECIFICATION**

Gasket: made of joint less silicon rubber.

Exhaust pressure: manual through the exhaust valve

Sterilizing pressure: 1.2 to 1.5 kgf/cm2 (15 to 20 psi) at 121°C

Operating pressure: from 15 psi to 20 psi Pressure gauge: 0.2.1 kgf/cm2 (30 psi)

Tubular stand and supporting ring: made of mild steel or stainless steel

Pressure Vessel= SS 304 Grade Stainless Steel
External Wall=SS 304 Grade Stainless Steel
Top Lid=SS 304 Grade Stainless Steel

Basket= SS 304 High Grade Stainless Steel

# Automatic pressure cut off switch Digital temperature indicator cum

- 2. Digital temperature indicator cum controller
- 3. Vacuum breaker
- 4. Water level indicator
- 5. Automatic self locking system
- 6. Automatic low water cut off switch
- 7. Moisture trap



B. Fully automatic system with HMI PLC based autoclave with data logger digital pressure indicator cum controller, digital temperature controlled system can be installed on order.

C. Multiport Valve





# TAI-906 (A) HORIZONTAL CYLINDRICAL TRIPLE WALLED HIGH PRESSURE AUTOCLAVE WITH OUTER SQUARE BODY

- The inner/outer chamber, steam jacket and boiler are made of heavy gauge SS with leak proof argon arc welding.
- The space between the outer chamber and steam jacket is filled with glass wool to minimize thermal losses.
- Hydraulically tested to withstand 2.5 times the working pressure.
- Steam boiler is fitted with water level indicator, pressure gauge, low water cut off device and automatic pressure control devices. Fitted with safety valve as a safety device.
- Drain valve is fitted at the side bottom for easy draining/clearing.
- This affords a complete safety to the working personnel against explosive opening.
- Two separate valves are provided for evacuating steam from inner chamber and jacket as and when desired.
- Sterilization cycle is controlled by single point multiport valve.
- The chamber discharge line is fitted with a moisture trap to absorb the condensate automatically thus preventing moistening of the loaded material to be sterilized.
- An automatic vacuum breaker is fitted to all units as a standard accessory in order to break vacuum in case of steam condensation.
- The flanged immersion type heating element made from a very high grade material provide fast formation of pressure in the system and are protected through a electric low water level cut off device.
- All sterilizers are provided with triple safety features through a "Piezostate" (automatic pressure control system) and a spring loaded safety valve fitted to the boiler/steam generator.
- The chamber is fitted with spring loaded safety valve and a dead weight release valve.
- To work on 220/230 or 440 volts, 3 phase, 50 Hz AC supply.

Model No.	16 x 24	16 x 36	16 x 48	20 x 36	20 x 48
Inner Dimension	400 x 600	400 x 900	400 x 1200	500 x 900	500 x 1200
Capacity	78 Litres	115 Litres	162 Litres	165 Litres	121 Litres
Heater Load	6 KW	6 KW	9 KW	9 KW	9 KW

# **TECHNICAL SPECIFICATION**

Gasket: made of joint less silicon rubber.

Exhaust pressure: manual through the exhaust valve Sterilizing pressure: 1.2 to 1.5 kgf/cm2 (15 to 20 psi) at

121°C

Operating pressure: from 15 psi to 20 psi Pressure gauge: 0.2.1 kgf/cm2 (30 psi)

Tubular stand and supporting ring: made of mild steel

or stainless steel

Pressure Vessel= SS 304 Grade Stainless Steel External Wall=SS 304 Grade Stainless Steel Top Lid=SS 304 Grade Stainless Steel

Basket= SS 304 High Grade Stainless Steel

- Automatic pressure cut off switch
- Digital temperature indicator cum controller
- Vacuum breaker
- Water level indicator
- Automatic self locking system
- Automatic low water cut off switch
- Moisture trap
- Fully automatic system with HMI PLC based autoclave with data logger digital pressure indicator cum controller, digital temperature controlled system can be installed on order.
- Vacuum Pump



# TAI-907 HORIZONTAL RECTANGULAR HIGH PRESSURE AUTOCLAVE

- The inner/outer chamber, steam jacket and boiler are made of heavy gauge SS with leak proof argon arc welding.
- The space between the outer chamber and steam jacket is filled with glass wool to minimize thermal losses.
- Hydraulically tested to withstand 2.5 times the working pressure.
- Steam boiler is fitted with water level indicator, pressure gauge, low water cut off device and automatic pressure control devices. Fitted with safety valve as a safety device.
- Drain valve is fitted at the side bottom for easy draining/clearing.
- This affords a complete safety to the working personnel against explosive opening.
- Two separate valves are provided for evacuating steam from inner chamber and jacket as and when desired.
- Sterilization cycle is controlled by single point multiport valve.
- The chamber discharge line is fitted with a moisture trap to absorb the condensate automatically thus preventing moistening of the loaded material to be sterilized.
- An automatic vacuum breaker is fitted to all units as a standard accessory in order to break vacuum in case of steam condensation.
- The flanged immersion type heating element made from a very high grade material provide fast formation of pressure in the system and are protected through a electric low water level cut off device.
- All sterilizers are provided with triple safety features through a "Piezostate" (automatic pressure control system) and a spring loaded safety valve fitted to the boiler/steam generator.
- The chamber is fitted with spring loaded safety valve and a dead weight release valve.
- To work on 220/230 or 440 volts, 3 phase, 50 Hz AC supply.

Model No.	18 x 18 x 36	18 x 24 x 36	24 x 24 x 30	24 x 24 x 48	36 x 36 x 60	36 x 36 x 72
Inner Dimension	450 x 450 x 900	450 x 600 x 900	600 x 600 x 900	600 x 600 x 1200	900 x 900 x 1500	900 x 900 x 1800
Capacity	180 Litres	240 Litres	320 Litres	430 Litres	1300 Litres	1500 Litres
Heater Load	12 KW	12 KW	18 KW	18 KW	27 KW	27 KW

# **TECHNICAL SPECIFICATION**

Gasket: made of joint less silicon rubber.

Exhaust pressure: manual through the exhaust valve

Sterilizing pressure: 1.2 to 1.5 kgf/cm2 (15 to 20 psi) at 121°C

Operating pressure: from 15 psi to 20 psi Pressure gauge: 0.2.1 kgf/cm2 (30 psi)

Tubular stand and supporting ring: made of mild steel or stainless steel

Pressure Vessel= SS 304 Grade Stainless Steel External Wall=SS 304 Grade Stainless Steel Top Lid=SS 304 Grade Stainless Steel Basket= SS 304 High Grade Stainless Steel

# CLUDING

- 1. Automatic pressure cut off switch
- 2. Digital temperature indicator cum controller
- 3. Vacuum breaker
- 4. Water level indicator
- 5. Automatic self locking system
- 6. Automatic low water cut off switch
- 7. Moisture trap



- A. Fully automatic PID purging system
- B. Fully automatic system with HMI PLC based autoclave with data logger digital pressure indicator cum controller, digital temperature controlled system can be installed on order.
- C. Multiport Valve







# TAI-908 VERTICAL SQUARE BODY DOUBLE WALLED AUTOCLAVE

- Inner chamber, outer chamber and support ring are fully made of stainless steel.
- Heaters cover stand and carrier/bucket are made of stainless steel.
- Lid made of thick machined stainless steel plate.
- Radial locking lid ensures user safety and safe locking.
- Lid is fitted with pressure gauge, spring loaded safety valve, double safety valve, manual exhaust valve, vacuum breaker as a safety device and water level indicator.
- Drain valve facilitates easy cleaning of the chamber.
- Moulded joint less silicon rubber gasket.
- All internal joints are argon arc welded, ground and polished to give crevice free internals.
- Miniature circuit breaker for mains on/off plus safety of control panel.
- Industrial grade energy efficient heaters reduce power bill drastically.

Model No.	10 x 18	12 x 20	14 x 22	16 x 24	18 x 24	22 x 30
Inner Dimension	250 x 450	300 x 500	350 x 550	400 x 600	450 x 600	550 x 750
Capacity	22 Litres	40 Litres	50 Litres	78 Litres	98 Litres	150-180 Litres
Heater Load	1.5 KW	2 KW	3 KW	4 KW	4 KW	5 KW

#### **TECHNICAL SPECIFICATION**

Sterilizing pressure=1.2kgf/cm2 (15 psi) at 121°C

Operating pressure= from 15 psi to 22 psi (adjustable)

Power supply=220x230 AC, 50/60 Hz Pressure Vessel= SS 304 Grade

Stainless Steel

External Wall=SS 304 Grade Stainless Steel

Top Lid=SS 304 Grade Stainless Steel

Basket= SS 304 High Grade Stainless Steel

# CLUDING

- 1. Water Level Indicator.
- 2. Stainless Steel Basket.
- 3. Vacuum Breaker.
- 4. Automatic pressure control switch.
- 5. Automatic low water cut off switch.
- 6. Fully automatic PID purging system.









# POWER TOOL SYSTEMS

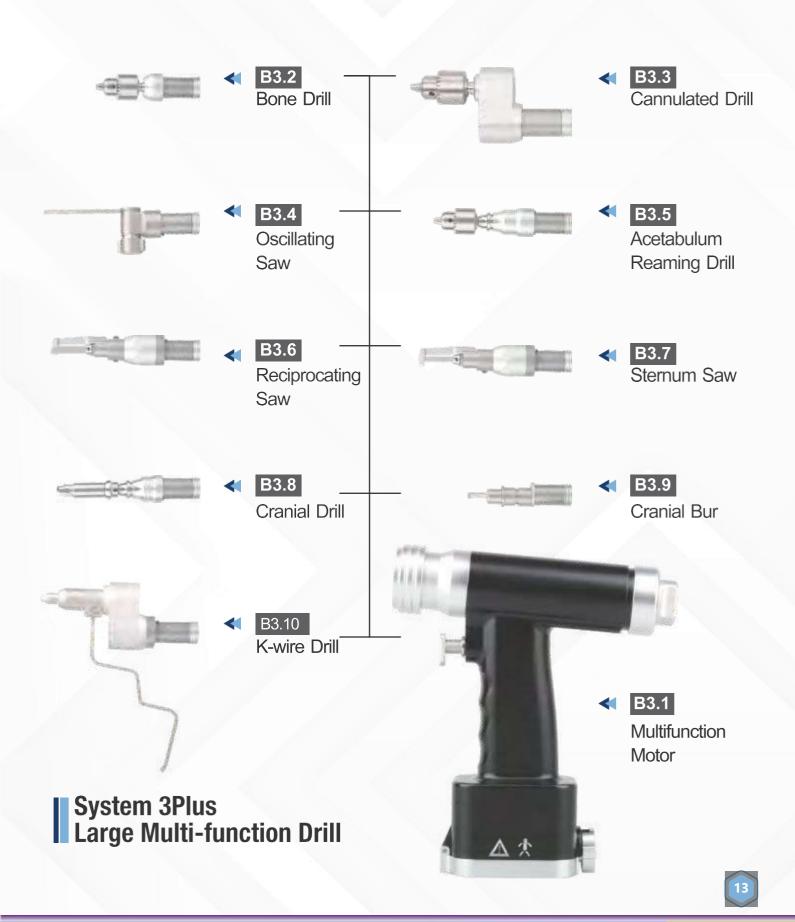


Quick Coupling Attchments
 360°Rotating
 135°C Autoclavable



- Light weight, Convenient and Durable
- CVT motor, Siamesed closed-back cover, Easy to use
- Imported motor, Powerful, High Coaxiality, Low noise
- High torque is more suitable for joint operation.









# Power Tools





Bone Drill For Trauma Operation

Output Power: 150 W Diameter Of Drill Bit: Φ0.8~8 mm Speed: 0-1200 rpm



# B3-02



Cannulated Drill For Trauma Operation

Output Power: 150 W Diameter Of Drill Bit: Φ0.8~8 mm Speed: 0-800 rpm



# B3-02D >>



Quick Coupling Cannulated Drill For Trauma Operation

Output Power: 150 W Diameter Of Drill Bit: Φ0.8~8 mm Speed: 0-800 rpm



# B3-03



Oscillating Saw For Joint Operation

Output Power: 150 W Oscillating Frequency: 18000 Times/Min, Swing 5



# B3-04D



Acetabulum Reaming Drill For Joint Operation

Output Power: 150 W Diameter Of Drill Bit: Φ0.8~8 mm Speed: 0-300 rpm







B3-05



Reciprocating Saw For Surgical Operation

Output Power: 150 W Oscillating Frequency: 15000 Times/Min



B3-06



Sternum Saw For Thoracic Operation

Output Power: 150 W Oscillating Frequency: 15000 Times/Min



B3-07D >>



Self-stop Cranial Drill For Cranial Operation

Output Power: 150 W Speed: 0-800 rpm



B3-08



Cranial Bur For Cranial Operation

Output Power: 150 W Oscillating Frequency: 15000 Times/Min



B3-09



K-wire Drill For Joint Operation

Output Power: 150 W

Diameter Of Drill Bit: Φ2.0~3.2 mm

Speed: 0-1000 rpm



Main Accessories



A3-01 Battery





Aseptic Transfer Kit



**4** A3-04



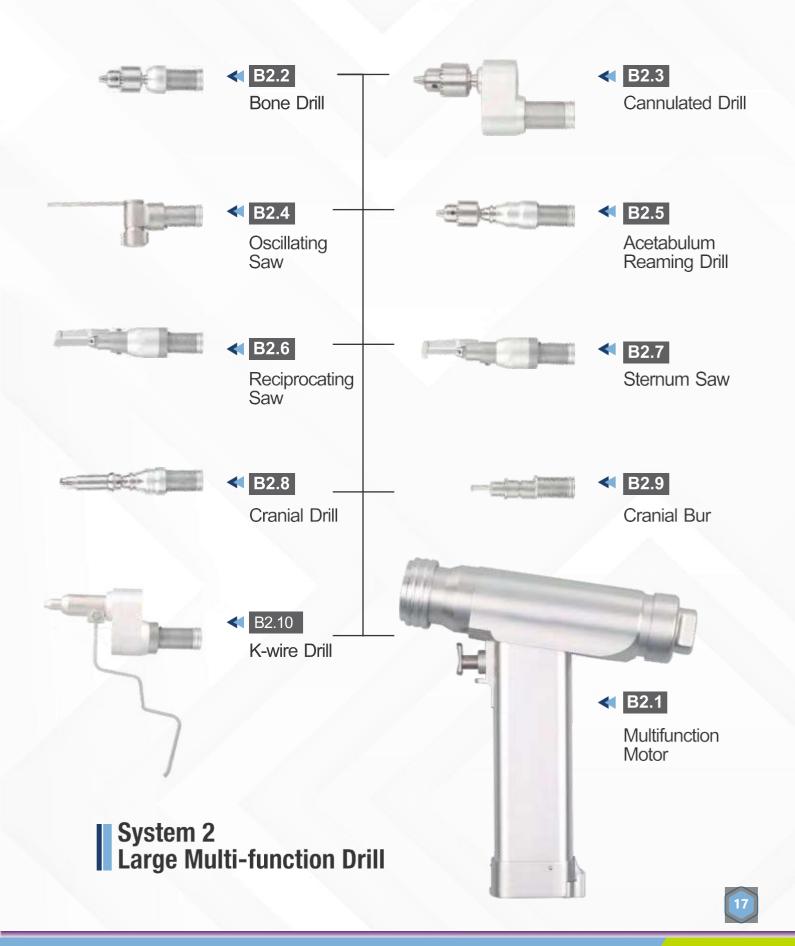


- Motor Compatable With Attachments 360° Rotating 135 °C Autoclavable
- Quick Coupling Attchments
- High Strength Stainless Steel Componentry



- Light weight, Convenient and Durable
- CVT motor, Siamesed closed-back cover, Easy to use
- Imported motor, Powerful, High Coaxiality, Low noise









# Power Tools



Bone Drill

For Trauma Operation

Output Power: 80 W Diameter Of Drill Bit: Φ0.8~8 mm Speed: 0-1200 rpm





Cannulated Drill For Trauma Operation

Output Power: 80 W Diameter Of Drill Bit: Φ0.8~8 mm Speed: 0-800 rpm



# B2-02D >>



Quick Coupling Cannulated Drill For Trauma Operation

Output Power: 80 W Diameter Of Drill Bit: Φ0.8~8 mm Speed: 0-800 rpm



# B2-03



Oscillating Saw For Joint Operation

Output Power: 80 W Oscillating Frequency: 18000 Times/Min,Swing 5

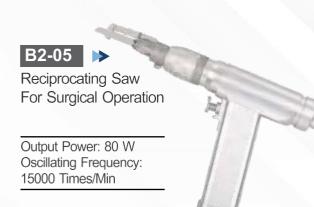
# B2-04D >>



Acetabulum Reaming Drill For Joint Operation

Output Power: 80 W Diameter Of Drill Bit: Φ 0.8~8 mm Speed: 0-300 rpm





Sternum Saw
For Thoracic Operation

Output Power: 80 W Oscillating Frequency: 15000 Times/Min



B2-07D

Self-stop Cranial Drill For Cranial Operation

Output Power: 80 W Speed: 0-800 rpm



B2-08

Cranial Bur For Cranial Operation

Output Power: 150 W Oscillating Frequency: 15000 Times/Min



K-wire Drill For Joint Operation

Output Power: 80 W Diameter Of Drill Bit: Φ2.0~3.2 mm Speed: 0-1000 rpm





















# MINI MULTI-FUNCTION DRILL



- 360° Rotating
- 135 °C Autoclavable



- Mini Motor, Suitable for Hand and Foot Surgery
- Enhanced Configuration-specific German Mirco-motor
- 135 °C Autoclavable



Diameter Of Drill Bit: Φ0.4-4 mm Speed: 0-1200 rpm



MINI-3 Cannulated Drill For Trauma Operation

Output Power: 80 W Diameter Of Drill Bit: Φ0.4-4 mm Speed: 0-1200rpm







# **BONE DRILL & PLASTER SAW**

- High Quality and Econoy Price
- High Quality and Excellent Performance
- Strong Power, Easy Working
- Various Accessories







B1-02

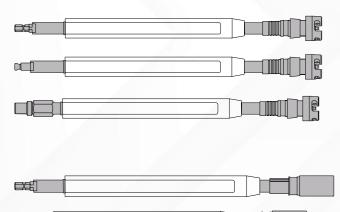
Plaster Saw

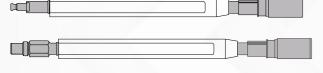
Output Power: 125 W Oscillating Frequency: 18000 Times/Min



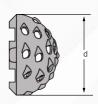
# **ACETABLUM REAMER**

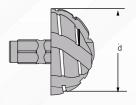
## **Acetabulum Connector**





# Acetablum Reamer





 d
 036
 038
 040
 042
 044
 046

 048
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 052
 054
 056
 058

 060
 062
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 068
 070

 d
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 Ф22
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 Ф52
 Ф54
 Ф56
 Ф58

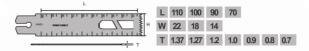
 Ф60
 Ф62
 Ф66
 Ф66
 Ф68
 Р68



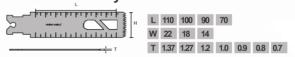


# **SAW BLADES**

#### Suitable for WSK



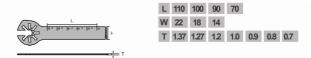
## Suitable for Stryker



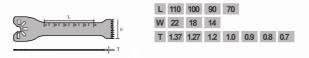
# Suitable for Stryker



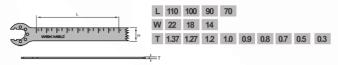
#### Suitable for Linvatec



## Suitable for Linvatec



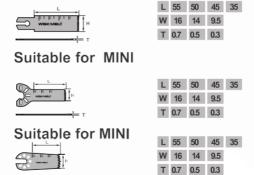
## Suitable for Synthes



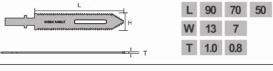
# Suitable for Aesculap

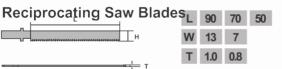


### Suitable for MINI

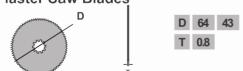


## Reciprocating Saw Blades









**Plaster Saw Blades** 



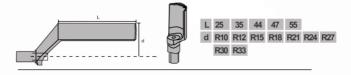
**Plaster Saw Blades** 

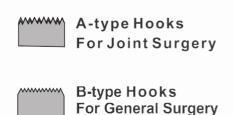


Plaster Saw Blades



Circular Blades







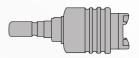
# **DRILL BIT**

# **Cranial Drill Bit**





# **Quick Coupling Chuck**



# Medullary Reamer L L L 250 470 d 0 07 07.5 08 08.5 09 09.5 010 010.5 011 011.5 012 012.5

# Stainless Steel Bit

Cannulated Stainless Steel Bit

# **AO Cannulated Stainless Steel Bit**



#### **AO Bit Conversion Connector**

					AO BI	t Conversion Co	nnector
Specification Φ1.2x80 Φ1.5x80 Φ1.2x100 Φ1.8x100 Φ2.0x100	Φ1.6x115         Φ2.0x115         Φ2.2x115         Φ2.5x115         Φ2.7x115         Φ2.8x115         Φ3.0x115         Φ3.2x115         Φ3.5x115         Φ3.8x115         Φ4.2x115         Φ4.5x115	Specification Φ2.0x125 Φ2.2x125 Φ2.5x125 Φ3.0x125 Φ3.5x125	Φ2.0x150 Φ2.5x150 Φ2.6x150 Φ2.9x150 Φ3.2x150 Φ3.5x150 Φ4.5x150	\$\text{Specification}\$ \$\text{\pi}2.8\times180\$ \$\text{\pi}2.9\times180\$ \$\text{\pi}2.7\times200\$ \$\text{\pi}2.8\times200\$ \$\text{\pi}2.5\times250\$ \$\text{\pi}3.2\times250\$ \$\text{\pi}3.8\times250\$ \$\text{\pi}4.0\times250\$ \$\text{\pi}2.8\times280\$ \$\text{\pi}4.8\times280\$ \$\text{\pi}4.8\times280\$ \$\text{\pi}4.8\times280\$ \$\text{\pi}4.8\times280\$ \$\text{\pi}4.8\times280\$	Specification (Flexible Drill)  Ф2.5  Ф3.5	Specification (AO Connector) Ф1.8x100 Ф2.0x100 Ф2.5x110 Ф2.5x150 Ф2.2x150 Ф2.8x180 Ф3.5x110 Ф4.0x280 Ф4.5x150	Specification (Cannulated) Ф2.0x150 Ф2.5x150 Ф2.8x150 Ф3.2x150 Ф3.5x150 Ф4.3x250 Ф4.5x250 Ф4.8x250 Ф5.0x250 Ф6.0x250
				Φ4.8x300 Φ4.2x300 Φ4.3x300 Φ4.5x300 Φ5.5x300 Φ4.0x350			
	Φ1.2x80 Φ1.5x80 Φ1.2x100 Φ1.8x100	Φ1.2x80 Φ1.6x115 Φ1.5x80 Φ2.0x115 Φ1.2x100 Φ2.2x115 Φ1.8x100 Φ2.5x115 Φ2.0x100 Φ2.7x115 Φ2.8x115 Φ3.0x115 Φ3.2x115 Φ3.5x115 Φ3.8x115 Φ4.2x115	Φ1.2x80 Φ1.6x115 Φ2.0x125 Φ1.5x80 Φ2.0x115 Φ2.2x125 Φ1.2x100 Φ2.2x115 Φ2.5x125 Φ1.8x100 Φ2.7x115 Φ3.0x125 Φ2.0x100 Φ2.7x115 Φ3.5x125 Φ3.0x115 Φ3.2x115 Φ3.5x115 Φ3.8x115 Φ4.2x115	Φ1.2x80         Φ1.6x115         Φ2.0x125         Φ2.0x150           Φ1.5x80         Φ2.0x115         Φ2.2x125         Φ2.5x150           Φ1.2x100         Φ2.2x115         Φ2.5x125         Φ2.6x150           Φ1.8x100         Φ2.5x115         Φ3.0x125         Φ2.9x150           Φ2.7x115         Φ3.5x125         Φ3.2x150           Φ3.0x115         Φ3.5x150         Φ4.5x150           Φ3.5x115         Φ3.5x115         Φ4.5x150           Φ4.2x115         Φ4.2x115	Φ1.2x80         Φ1.6x115         Φ2.0x125         Φ2.0x150         Φ2.8x180           Φ1.5x80         Φ2.0x115         Φ2.2x125         Φ2.5x150         Φ2.9x180           Φ1.2x100         Φ2.2x115         Φ2.5x125         Φ2.6x150         Φ2.7x200           Φ1.8x100         Φ2.5x115         Φ3.0x125         Φ2.9x150         Φ2.8x200           Φ2.8x115         Φ3.5x125         Φ3.2x150         Φ3.2x250           Φ3.2x115         Φ3.5x150         Φ4.5x150         Φ4.0x250           Φ3.8x115         Φ4.2x280         Φ4.8x280           Φ4.2x280         Φ4.8x280         Φ4.8x280           Φ4.8x300         Φ4.8x300         Φ4.2x300           Φ4.5x300         Φ5.5x300	Specification         Specification         Specification         Specification         Specification (Flexible Drill)           Φ1.2x80         Φ1.6x115         Φ2.0x125         Φ2.0x150         Φ2.8x180         Φ2.5           Φ1.5x80         Φ2.0x115         Φ2.2x125         Φ2.5x150         Φ2.9x180         Φ3.5           Φ1.2x100         Φ2.2x115         Φ2.5x125         Φ2.6x150         Φ2.7x200         Φ2.8x200           Φ1.8x100         Φ2.5x115         Φ3.0x125         Φ2.9x150         Φ2.5x250         Φ3.2x250           Φ2.8x115         Φ3.5x125         Φ3.5x150         Φ3.8x250         Φ4.0x250           Φ3.5x115         Φ3.5x115         Φ4.8x280         Φ4.8x280           Φ4.2x280         Φ4.8x280         Φ4.8x300           Φ4.8x300         Φ4.8x300         Φ4.8x300           Φ4.5x300         Φ4.5x300         Φ4.5x300	Φ1.2x80         Φ1.6x115         Φ2.0x125         Φ2.0x150         Φ2.8x180         Φ2.5         Φ1.8x100           Φ1.5x80         Φ2.0x115         Φ2.2x125         Φ2.5x150         Φ2.9x180         Φ3.5         Φ2.0x100           Φ1.2x100         Φ2.2x115         Φ2.5x125         Φ2.6x150         Φ2.7x200         Φ2.5x110           Φ1.8x100         Φ2.5x115         Φ3.0x125         Φ2.9x150         Φ2.8x200         Φ2.5x250           Φ2.0x100         Φ2.7x115         Φ3.5x125         Φ3.2x150         Φ2.5x250         Φ2.8x180           Φ3.5x115         Φ3.5x150         Φ3.8x250         Φ3.8x250         Φ3.5x110           Φ3.5x115         Φ4.0x250         Φ4.0x280         Φ4.5x150           Φ4.8x280         Φ4.8x280         Φ4.5x150           Φ4.8x280         Φ4.8x280         Φ4.8x280           Φ4.5x115         Φ4.8x280         Φ4.8x300           Φ4.5x300         Φ4.5x300         Φ4.5x300           Φ4.5x300         Φ4.5x300         Φ4.5x300

