USA hydrolytic resistance water and air pipeline
3 memory programmes synchronized control system
Denmark LINAK motor
PARKER solenoid valve
Main on/off switch for controlling water, power and aid
Leather cushion with memory foam
Deluxe leather dental stool

STANDARD CONFIGURATION
Timed cup filler ................................................................. 1 set
90° rotatable ceramic spittoon ........................................... 1 set
Electric motor control system with three memory programmes (interlock) ................................................. 1 set
24V stainless steel low voltage motor chair (synchronized) ........................................................................... 1 set
Built-in bottle for pure water or disinfectant supply .................................................................................. 1 set
Deluxe LED inductive operating lamp .................................................................................................. 1 set
DC low voltage X-ray film viewer ........................................................................................................... 1 set
Constant temperature water heater .................................................................................................. 1 set
3-way syringe for cool/warm water ........................................................................................................ 2 pcs
Saliva ejector (low and high suction) .................................................................................................. 5 pcs each
Deluxe assistant controller with a table .................................................................................................. 1 set
Multifunctional integrated foot controller ......................................................................................... 1 set
Deluxe dentist chair .................................................................................................................................. 1 set

SPECIFICATIONS
Supplied voltage ................................................................................................................................. 220V/50Hz
Supplied air pressure ....................................................................................................................... 0.5Mpa-0.8Mpa
Supplied water pressure ................................................................................................................... 0.2Mpa-0.4Mpa

OPTIONAL
FARO deluxe halogen operating lamp .................................................................................................. 1 set
Japanese or German high-speed air turbine handpiece ........................................................................... 1 set
Japanese or German low-speed air motor handpiece ........................................................................... 1 set
WOODPECKER ultrasonic scaler ....................................................................................................... 1 set
WOODPECKER curing light ............................................................................................................... 1 set
Endoscope system with intraoral camera ............................................................................................... 1 set
Dental silent oil free air compressor .................................................................................................... 1 set

5 YEARS WARRANTY
GMM301 FEATURES
Computer controlled integral dental unit

- Computer controlled integral dental unit
- Detachable tips of high/low suction and springs
- Detachable autoclavable high/low suction tips as well as high and low suction tips and syringes.
- The soft closure mat of the pillow is easy to remove and clean.
- Ergonomically designed six-way deluxe dentist's chair providing robust support for hip and waist, adopting imported silent wheel.
- Italian air filter regulator.
- USA water air tubing.
- Parker solenoid valve.
- Italian Faro LED lamp and arm of lamp, detachable handle is easy for sterilization (135°C) (Optional)
- Detachable backrest is easy to clean.
- Italian Faro LED lamp and arm of lamp, detachable handle is easy for sterilization (135°C) (Optional)
STANDARD CONFIGURATION

- Timed cup filler .................................................. 1 set
- 90° rotatable ceramic spout
- Leather cushion with memory foam .................................. 1 set
- Electric motor control system with three memory programmes (interlock) .............. 1 set
- Denmark LINAK motor ............................................. 1 set
- 24V noiseless DC low voltage foldable motor chair (synchronized) .......................... 1 set
- Built-out water-pure water supply system ................................ 1 set
- Deluxe LED/halogen manual operating lamp .................................. 1 set
- DC low voltage x-ray film viewer ........................................ 1 set
- Constant temperature water heater ......................................... 1 set
- 3-way syringe for cool/warm water ........................................ 2 pcs
- Saliva ejector (low and high suction) ....................................... 1 each
- Assistant controller ..................................................... 1 set
- Multifunctional integrated foot controller ................................... 1 set
- Deluxe leather with memory foam dentist stool ............................. 1 set

OPTIONAL

- Deluxe sensitive LED operating lamp
- Japanese or German highspeed air turbine handpiece
- Japanese or German lowspeed air motor handpiece
- Woodpecker ultrasonic scaler
- Woodpecker curing light
- Endoscope system with intraoral camera
- Dental silent oil free air compressor
- Italian Faro EDI LED lamp and arm

SPECIFICATIONS

- Supplied voltage ...................................................... 220V/50Hz
- Supplied air pressure ................................................. 0.5Mpa-0.8Mpa
- Supplied water pressure ................................................. 0.2Mpa-0.4Mpa

WARRANTY

- 5 YEARS
- USA water and air tubing
- Nylon water and air tubing
- Deluxx sensitive LED operating lamp
- Wooden air filter regulator
- Parker solenoid valve
**STANDARD CONFIGURATION**

- Timed cup filler .................................................. 1 set
- 90° rotatable ceramic spittoon ................................ 1 set
- Leather cushion with memory foam ......................... 1 set
- Electric motor control system with three memory programmes (interlock) ................................. 1 set
- Denmark LINAK motor ........................................... 1 set
- 24V noiseless DC low voltage foldable motor chair (synchronized) ........................................... 1 set
- Built-in water pure water supply system .................... 1 set
- Deluxe LED/halogen manual operating lamp .......... 1 set
- DC low voltage x-ray film viewer ............................... 1 set
- Constant temperature water heater ......................... 1 set
- 3-way syringe for cool/warm water ......................... 1 set
- Saliva ejector (low and high suctioning) .................. 1 each
- Assistant controller .............................................. 1 set
- Multifunctional integrated foot controller .................... 1 set
- Deluxe leather with memory foam dentist stool ........ 1 set

**SPECIAL CONFIGURATION**

- Deluxe sensitive LED operating lamp ......................... 1 set
- Japanese or German high-speed air turbine handpiece .................. 1 set
- Japanese or German low-speed air motor handpiece .................................................. 1 set
- Woodpecker ultrasonic Scaler ................................ 1 set
- Woodpecker curing light ...................................... 1 set
- Endoscope system with intraoral camera .................. 1 set
- Dental silent oil free air compressor ......................... 1 set

**SPECIFICATIONS**

- Supplied voltage ................................................. 220V/50Hz
- Supplied air pressure ........................................... 0.5Mpa-0.8Mpa
- Supplied water pressure ....................................... 0.2Mpa-0.4Mpa

**OPTIONAL**

- Deluxe sensitive LED operating lamp ......................... 1 set
- Japanese or German high-speed air turbine handpiece .................. 1 set
- Japanese or German low-speed air motor handpiece .................................................. 1 set
- Woodpecker ultrasonic Scaler ................................ 1 set
- Woodpecker curing light ...................................... 1 set
- Endoscope system with intraoral camera .................. 1 set
- Dental silent oil free air compressor ......................... 1 set

**WARRANTY**

- 5 YEARS
GMM303 PLUS
Computer controlled integral dental unit

- Main on/off switch for controlling water, power and air.
- 3 memory programmes interlock control system.
- Danish LINAK motor.
- Nylon water and air tubing.
- Three different suction modes optional, fully suit all kinds of requirements for customers.
- Built-out filter cup.
- Three different suction modes optional, fully suit all kinds of requirements for customers.
- Three different suction modes optional, fully suit all kinds of requirements for customers.

GMM303 STAND
Computer controlled integral dental unit

- Super low synchronization position, the lowest position could reach 390mm.
- Parker solenoid valve.
- 5 YEARS WARRANTY

5 YEARS WARRANTY
GMM308 PLUS
Computer controlled integral dental unit

Nylon water and air tubing.

Italian air filter regulator

Parker solenoid valve.

Double bottles for pure water and disinfectant supply.

90° rotable ceramic/glass spittoon.

STANDARD CONFIGURATION
- Timed cup filler
- 90° rotatable ceramic spittoon
- Electric motor control system
- 24V stainless DC low voltage motor chair
- Built-in double bottles for pure water and disinfectant supply
- Deluxe sensitive LED operating lamp
- DC low voltage x-ray film viewer
- Constant temperature water heater
- 3-way syringe for cool/warm water
- Saliva ejector (low and high suction)
- Deluxe assistant controller with a table
- Multifunctional integrated foot controller
- Deluxe leather with memory foam dentist stool

SPECIFICATIONS
- Supplied voltage: 220V/50Hz
- Supplied air pressure: 0.5Mpa-0.8Mpa
- Supplied water pressure: 0.2Mpa-0.4Mpa

OPTIONAL
- PU cushion
- Deluxe halogen cold lamp
- Japanese or German high-speed air turbine handpiece
- Japanese or German high-speed air motor handpiece
- Woodpecker ultrasonic Scaler
- Woodpecker curing light
- Endoscope system with intraoral camera
- Dental silent oil free air compressor

GMM308 FOLDING
Computer controlled integral dental unit

Nylon water and air tubing.

Parker solenoid valve.

5 YEARS WARRANTY

5 YEARS WARRANTY
### GMM208 STAND
Computer controlled integral dental unit

- Nylon water and air tubing.
- 3 memory programmes, interlock control system.
- Parker solenoid valve.
- Main on/off switch for controlling water, power and air.
- Leather cushion with memory foam.
- Top mounted instrument tray.
- Deluxe leather dental stool.

### STANDAR D CONFIGURATION

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timed cup filler</td>
<td>1 set</td>
</tr>
<tr>
<td>90° rotatable ceramic spittoon</td>
<td>1 set</td>
</tr>
<tr>
<td>Electric motor control system with three memory programmes (interlock)</td>
<td>1 set</td>
</tr>
<tr>
<td>24V noiseless DC low voltage motor chair (synchronized)</td>
<td>1 set</td>
</tr>
<tr>
<td>Built-in double bottles for pure water and disinfectant supply</td>
<td>1 set</td>
</tr>
<tr>
<td>Deluxe LED inductive operating lamp</td>
<td>1 set</td>
</tr>
<tr>
<td>DC low voltage x-ray film viewer</td>
<td>1 set</td>
</tr>
<tr>
<td>Constant temperature water heater</td>
<td>1 set</td>
</tr>
<tr>
<td>3-way syringe for cool/warm water</td>
<td>2 pcs</td>
</tr>
<tr>
<td>Saliva ejector (low and high suction)</td>
<td>1 pc each</td>
</tr>
<tr>
<td>Deluxe assistant controller with a table</td>
<td>1 set</td>
</tr>
<tr>
<td>Multifunctional integrated foot controller</td>
<td>1 set</td>
</tr>
<tr>
<td>Deluxe dentist stool</td>
<td>1 set</td>
</tr>
</tbody>
</table>

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplied voltage</td>
<td>220V/50Hz</td>
</tr>
<tr>
<td>Supplied air pressure</td>
<td>0.5Mpa-0.8Mpa</td>
</tr>
<tr>
<td>Supplied water pressure</td>
<td>0.2Mpa-0.4Mpa</td>
</tr>
</tbody>
</table>

**OPTIONAL**

- Deluxe halogen operating lamp
- Japanese or German high-speed air turbine handpiece
- Japanese or German low-speed air motor handpiece
- Woodpecker ultrasonic Scaler
- Woodpecker curing light
- Endoscope system with intraoral camera
- Dental silent oil free air compressor

5 YEARS WARRANTY
GMM7830
Computer controlled integral dental unit

STANDARD CONFIGURATION

Timed cup filler .................................................. 1 set
90° rotatable ceramic spittoon ................................. 1 set
Electric motor control system ............................... 1 set
24V noiseless DC low voltage motor chair ............. 1 set
Built-out bottle for water supply ............................ 1 set
Operating cold light lamp .................................. 1 set
DC low voltage x-ray film viewer ......................... 1 set
Constant temperature water heater ....................... 1 set
3-way syringe for cool/warm water ....................... 2 pcs
Saliva ejector (low and high suction) .................... 2 pcs
Assistant controller ............................................ 1 set
Integrated foot controller .................................. 1 set
Dentist stool ..................................................... 1 set

SPECSIFICATIONS

Supplied voltage ............................................. 220V/50Hz
Supplied air pressure ....................................... 0.5Mpa-0.8Mpa
Supplied water pressure ................................. 0.2Mpa-0.4Mpa

OPTIONAL

Leather cushion
Deluxe LED Inductive / sensitive operating lamp
Japanese or German high-speed air turbine handpiece
Japanese or German high-speed air motor handpiece
Woodpecker ultrasonic scaler
Woodpecker curing light
Endoscope system with intraoral camera
Dental silent oil free air compressor

5 YEARS WARRANTY
GMM 8830
Computer controlled integral dental unit

- 180° tiltable arm
- Multi-functional assistant control box
- Soft silicone mat of the dental panel is easy to remove and clean

GMM 6830
Computer controlled integral dental unit

- Multi-functional assistant control box
- 90° rotatable box

5 YEARS WARRANTY
GMM 5830 PLUS
Computer controlled integral dental unit

OIL FREE AIR COMPRESSOR SERIES

GMM-1.5EW
For 1 dental unit
GMM-2EW
For 2 dental units
GMM-3E
For 3 dental units
GMM-4E
For 4 dental units

5 YEARS WARRANTY

SCALER SERIES

GMM-P9-LED
Auto-Wash Supply Scaler
Auto-water supply device. Built-in power supply. LED handpiece. Detachable handpiece can be autoclaved under the high temperature and pressure (135°C, 0.22MPa). Aluminium alloy handpiece. Scaling, Endo; identifying scaler tip automatically. PC control, automatic frequency tracking.

GMM-P7-LED
Ultrasonic Scaler
Scaling/Periodontal. Aluminium alloy handpiece. No cracking! More comfortable! LED handpiece. Detachable handpiece can be autoclaved under high temperature and pressure (135°C, 0.22MPa).
Rate: 30VDC
Frequency: 28kHz±3kHz
OPTIONAL

FARO LED INDUCTIVE OPERATION LAMP

T1
T2
T3

EMSCALER
CURING LIGHT

HANDPIECE

OTHER PARTS

EMS SCALER
CURING LIGHT

G-T1 (Woodpecker)
LED Wired Curing Light (Built-out)
Japanese NSK Handpiece
Gramm Dental Handpiece

Central Suction System
Amalgam Separator COMPACT-Dynamic
Whitening Accelerator
Endodontic Treatment

COLORS TO CHOOSE FROM

ORANGE (A1)
YELLOW (A3)
PINK (A2)
LIGHT GREEN (B1)
DARK GREEN (B2)
APPLE GREEN (B3)
LIGHT BLUE (C1)
DARK BLUE (C2)
INDIGO (C3)

SHOP DRAWING

COLORS TO CHOOSE FROM
**TECHNICAL SPECIFICATIONS**

### HiRes3D

<table>
<thead>
<tr>
<th>Model</th>
<th>HiRes3D</th>
<th>HiRes3D - Max</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Field of View</strong> (mm x mm)</td>
<td>160 x 150</td>
<td>230 x 180</td>
</tr>
<tr>
<td>160 x 80</td>
<td>160 x 100</td>
<td></td>
</tr>
<tr>
<td>80 x 80</td>
<td>160 x 50</td>
<td></td>
</tr>
<tr>
<td>50 x 50</td>
<td>80 x 80</td>
<td></td>
</tr>
<tr>
<td><strong>Voxel Size (mm)</strong></td>
<td>0.25</td>
<td>0.3</td>
</tr>
<tr>
<td>0.125</td>
<td>0.25</td>
<td>0.2</td>
</tr>
<tr>
<td>0.1</td>
<td>0.15</td>
<td>0.125</td>
</tr>
<tr>
<td>0.075</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Best Spatial Resolution</strong></td>
<td>2.0 lp/mm</td>
<td>2.4 lp/mm</td>
</tr>
<tr>
<td><strong>Reconstruction Time (Min)</strong></td>
<td>≤30s</td>
<td>≤40s</td>
</tr>
<tr>
<td><strong>Tube Current</strong></td>
<td>min 2mA</td>
<td>max 100kV (6mA)</td>
</tr>
<tr>
<td><strong>Tube Voltage</strong></td>
<td>min 2mA</td>
<td>max 100kV (6mA)</td>
</tr>
<tr>
<td><strong>Scan Time</strong></td>
<td>13s, 15s, 18s</td>
<td>13s, 15s, 18s</td>
</tr>
<tr>
<td><strong>Focal Spot Size</strong></td>
<td>0.5 (IEC336)</td>
<td></td>
</tr>
<tr>
<td><strong>Sensor Type</strong></td>
<td>CsI+CMOS Flat Panel Detector</td>
<td>α-Gi Flat Panel Detector</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>340kg</td>
<td></td>
</tr>
<tr>
<td><strong>Power Requirements</strong></td>
<td>AC220V / 230V, 50Hz</td>
<td></td>
</tr>
<tr>
<td><strong>Outer Dimensions</strong></td>
<td>1715mm (L) x 1226mm (W) x 2107mm (H)</td>
<td></td>
</tr>
<tr>
<td><strong>Room Requirements</strong></td>
<td>1.8m (L) x 10.5m (W) x 2.5m (H)</td>
<td></td>
</tr>
</tbody>
</table>

* The data are subject to change without notice.

### Smart3D

<table>
<thead>
<tr>
<th>Model</th>
<th>Smart3D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tube Current</strong></td>
<td>min 2mA</td>
</tr>
<tr>
<td><strong>Tube Voltage</strong></td>
<td>min 60mA</td>
</tr>
<tr>
<td><strong>Focal Spot Size</strong></td>
<td>0.5 (IEC336)</td>
</tr>
<tr>
<td><strong>CT Field of View (DxH)</strong></td>
<td>15cm x 8cm or 12cm x 8cm</td>
</tr>
<tr>
<td><strong>CT Voxel Size</strong></td>
<td>0.25mm</td>
</tr>
<tr>
<td><strong>CT Spatial Resolution</strong></td>
<td>2.0 lp/mm</td>
</tr>
<tr>
<td><strong>CT Scanning Time</strong></td>
<td>13s</td>
</tr>
<tr>
<td><strong>CT Reconstruction Time</strong></td>
<td>15s ~40s</td>
</tr>
<tr>
<td><strong>Pan Sensor Type</strong></td>
<td>CMOS Flat Panel Detector</td>
</tr>
<tr>
<td><strong>Ceph Sensor Type</strong></td>
<td>CCD TDI Detector</td>
</tr>
<tr>
<td><strong>Ceph Scanning Time</strong></td>
<td>6s ~18s</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>With Ceph function: 335kg</td>
</tr>
<tr>
<td><strong>Power Requirements</strong></td>
<td>AC220V / 230V, 50Hz</td>
</tr>
<tr>
<td><strong>Other Dimensions</strong></td>
<td>With Ceph function: 1715mm (L) x 1320mm (W) x 1693 ~ 2393mm (H)</td>
</tr>
<tr>
<td><strong>Room Requirements</strong></td>
<td>With Ceph function: 2.5m (L) x 2.1m (W) x 2.5m (H)</td>
</tr>
</tbody>
</table>

* The data are subject to change without notice.
**INTRODUCTION**

The dental lasers from GRAMM are the most reasonable but advanced laser available for soft tissue dental applications, the special wavelength has high absorption in water and haemoglobin combines precise cutting properties with immediate coagulation. With 10KHz frequency, it can cut the soft tissue very fast and smoothly with less blood and less pain than ordinary dental surgery device. Aside from an application in soft tissue surgery, it is also used for other treatments such as decontamination, biostimulation and tooth whitening.

**ADVANTAGES**

- Less and Sometimes No Blood Loss for Surgery
- Effective Treatment of Oral Therapy
- Sensitivity is Detected On Time
- Dental Cosmetic Usage, Tooth Whitening

---

**Clinical Applications**

**Advantages**

<table>
<thead>
<tr>
<th>Type</th>
<th>SMILE II - DEN7A/10B</th>
<th>SMILE L-7A/10B</th>
<th>DEN4A/B</th>
<th>DEN7A/B</th>
<th>DEN10B/C</th>
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</thead>
<tbody>
<tr>
<td>Wavelength</td>
<td>810nm/980nm</td>
<td>810nm/980nm</td>
<td>980nm/940nm</td>
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<td></td>
</tr>
<tr>
<td>Maximum Power</td>
<td>7W/10W</td>
<td>4W</td>
<td>7W</td>
<td>10W</td>
<td></td>
</tr>
<tr>
<td>Operation Mode</td>
<td>CW, Repeat Pulse</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Pulse Duration</td>
<td>25μs-10s</td>
<td>1ms-1s</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Repetition Rate</td>
<td>0.05Hz - 20kHz</td>
<td></td>
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</tr>
<tr>
<td>Pilot Beam</td>
<td>Red Diode Laser Of 650nm, Power &lt; 5mW</td>
<td></td>
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</tr>
<tr>
<td>Control Mode</td>
<td>Touch Screen, 7” True Color</td>
<td>Touch Screen, 4.3” True Color</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Dimension</td>
<td>265(H)*200(W)*210(L)mm</td>
<td>200(H)*120(W)*155(L)mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifetime</td>
<td>Over 10000 hrs</td>
<td></td>
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</tr>
<tr>
<td>Warranty</td>
<td>12 months free warranty, 5 years technical support</td>
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</tr>
<tr>
<td>Packing</td>
<td>Carry case with carton</td>
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</tbody>
</table>