Philden

DENTAL SOLUTIONS
PRODUCT CATALOGUE

SCAN33
Intraoral Scanner

Modern and Lightweight Design

Automatic Heating and Anti-Fog

Ensures optimal performance in various conditions.

Calibration-Free

No need for frequent calibration, saving time and effort.

Detachable Cable

The USB cable is detachable, making it easy to replace damaged cable.

2-Size Autoclavable Scanner Tip

Designed for durability with 100 life cycles.

Advanced Technology

Advanced AI and Rendering Technology

Our advanced AI function automatically removes soft tissue artifacts and effectively disregards interference from the tongue and cheeks, ensuring cleaner and more accurate scans.
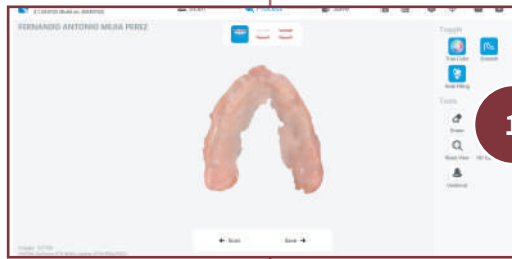
Superior Scanning Accuracy

With cutting-edge deep learning algorithms, our system handles intricate details around the tongue and cheeks with exceptional precision.
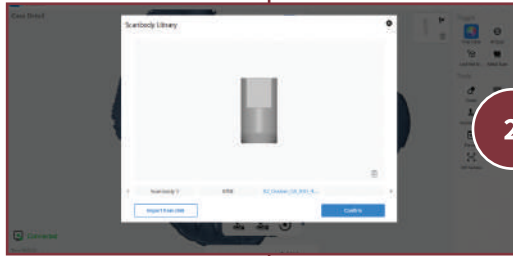
3D True-color Imaging

Experience the latest in image rendering technology with our enhanced 3D True-color feature. This upgrade delivers more realistic color reproduction, improving communication between dentists and patients.
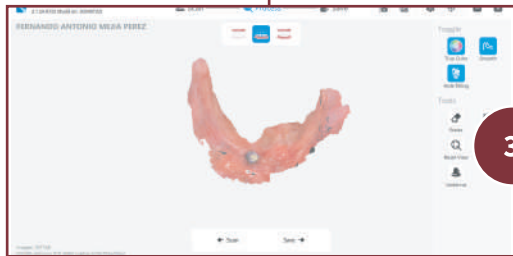
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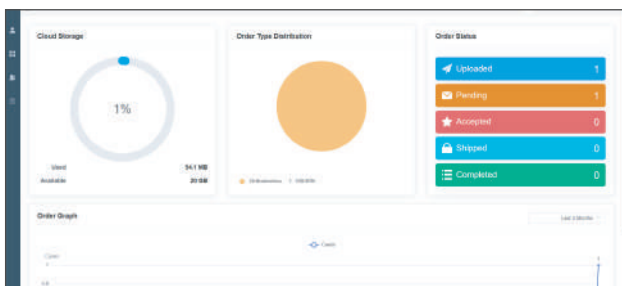
Scan body Workflow

The easily accessible scan body workflow ensures the accuracy of the scan body data and eliminates the need for repeated scanning, improving your work efficiency.

1 Scan the upper and lower jaw

2 Import implant data from database (for customized registration)

3 Scan the body and match

Industry Integration

By working with industry leaders, we provide seamless integration in the CAD/CAM workflow process with easy-to-use function and intuitive navigation.

Share your date on the cloud platform through partner labs and keep informed throughout the process.

Integration Partners

3shape

exocad

UNIZ

dental wings
A Straumann Group Brand

BlueSkyBio

DeepCare

ASIGA

Aidite 3D

CLEAR

Specifications

Handpiece	
Dimensions (L*W*H)	240mm * 49.5mm * 30.5 mm
Weight	210g
Tip	
Standard Tip Size	79mm * 19.7mm * 15.8mm
Mini Tip Size	80mm * 16mm * 11mm
Scan Area (Standard)	15mm * 15mm
Scan Area (Mini)	12mm * 12mm
Depth of Field	15 mm
Autoclavable	Up to 100 times 121°C at 16 minutes 134°C at 4 minutes

System	
Scanning Accuracy	Crown < 10µm Full Arch < 10µm
Scanning Speed	Single Arch 30 seconds Full arch with occlusion 90 seconds
Calibration Free	Yes
Model Export	STL, OBJ, PLY
Connectivity	USB 3.0
Multilingual Support	Simplified Chinese, English, Spanish, Russian, Portuguese, Italian, Greek, Polish, Romanian, Japanese, Korean, Turkish, Czech, German, Hungarian

Recommended Hardware Configuration

Category	Laptop	Desktop
CPU	Intel Core i7-11700H	Intel Core i7-11700
RAM	16 GB or higher	
Graphic Card	NVIDIA GeForce 3060 or newer with 6GB Graphic Memory (Do not support AMD or Intel graphic cards)	
Internal Storage	256 GB or more SSD	
Display	1920 * 1080, 60Hz	
Operation System	Windows 10/11 Pro/Corporate Edition (64-bit)	
I/O Port	USB 3.0	
Power Consumption	25 V/A	

PD-3
Lab Scanner
Accurate, Fast, Flexible

Scan and upgrade without separation

360-degree scanning with no blind spots,high precision that can clearly identify margin lines, and intelligently add scan the narrow gaps which is hard to scan.


True color texture

With the help of color restoration technology, PD-3 can obtain high saturation and high color brightness of the ture model color acquisition by using the mono camera, and capturing every inch of color details, making the model more realistic and empowering for removable cases.

Implant scanning is easier

Little powder spray - the scanning accuracy is more accurate, support dynamic articulator scanning - support virtual artculator occlusion transfer, and the scanning accuracy can reach 6μm(ISO12836).
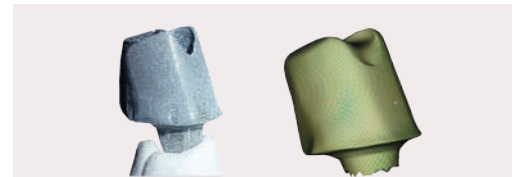

Whole functions & Flexible workflow

Support various scan mode & model types.
Support dynamic & static articulator scan.
Switch the workflow freely.
Support articulator transfer and virtual simulation on EXOCAD.

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Intelligently add scan

The intelligent scanning mode of L series can adjust the scanning angle according to the hole area. With the help of multi-mesh hybrid 3D reconstruction algorithm, the missing areas of data were scanned better and more completely, and the efficiency of supplementary scanning and the integrity of model data were improved.
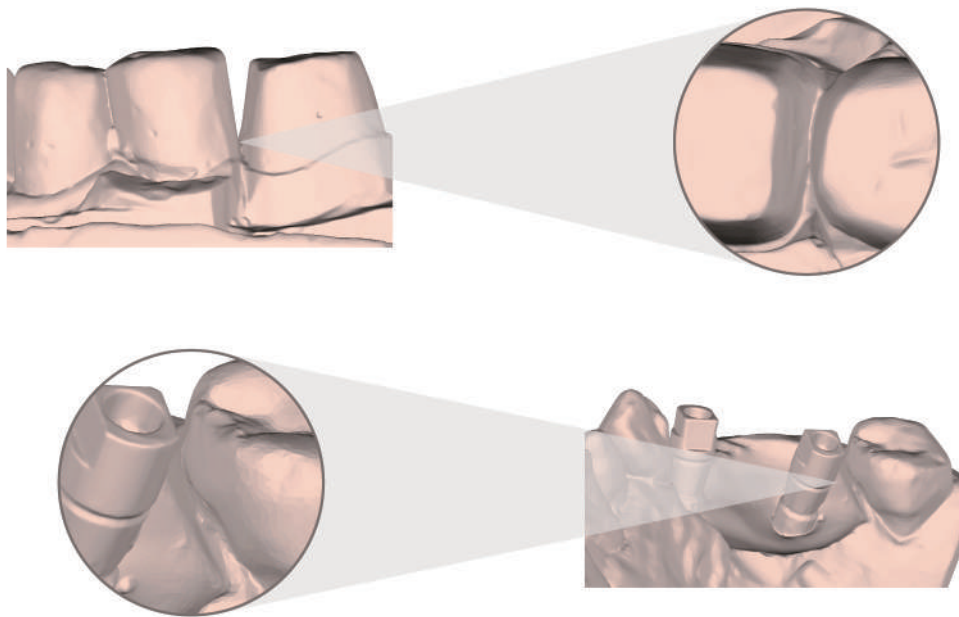
Technical Parameters

Model	PD-3	Light source	Blue light
Camera resolution	2*2.4 MP	Texture scanning	True color scanning
Accuracy	≤6μm(ISO12836)	Dimension	293mm*270mm*257mm
Full arch scan speed	9 s	Weight	6 kg
Full arch impression scan speed	19 s	Power supply	DC 24V
Scan area	96mm*82mm*60mm	Interface	USB 3.0
Output format	STL、PLY、OBJ	Articulator scan	Dynamic/static support articulator transfer

S500
Dry Milling Machine
Precision, Efficiency
Reliability

The S500 Milling Machine is engineered for dental professionals who demand top performance and precision.

With its cutting-edge technologies, including versatile 5-Axis milling, an intuitive touch display, and time-saving auto-calibration, this machine is designed to deliver exceptional results with unwavering reliability.
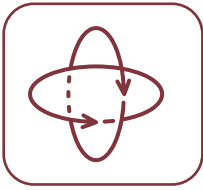
5-Axis Milling

Achieve unparalleled precision with our advanced 5-Axis milling technology. The S500 ensures meticulous detail and perfect results, every time.
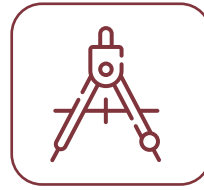
Auto-Calibration

Say goodbye to complex and time-consuming calibration. Our streamlined auto-calibration process saves you time and simplifies your workflow, allowing you to focus on what truly matters.

8-Inch Touch Display

Navigate through intuitive workflows effortlessly on the high-resolution 8-inch touch display. No need for a computer—just plug in a flash drive and get started immediately.

High-Performance

The integrated 12-tool gauge delivers lightning-fast manufacturing, ensuring a seamless and efficient production experience.

Robust Cast Aluminum Body

Constructed with cast aluminum, the S500 minimizes vibrations and enhances stability, providing reliable performance even for the most demanding tasks.
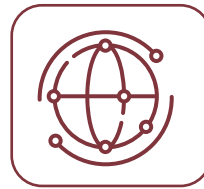
Versatile Connectivity

Connect effortlessly via the RJ45 connector for remote control or integrate with a vacuum cleaner for automatic cleaning. The S500 adapts to your needs, enhancing your operational efficiency.

Specifications

Basic Information	
Method	Dry milling
Material	Zirconium, wax, PMMA, composite material and soft metal size:98.5mm Secondary clamp(optional)
Structure	Solid cast aluminum body
Case	Steel plate, medical white high-gloss paint, working hatch, accessory drawer
Axis	5 axis
Linear axis X/Y/Z	Precision ball screw, precision guide rail, repeat accuracy ±5μm precision motor travel, X/Y/Z: 176/134/100mm
Axis of rotation A/B	Precision motor, precision harmonic reducer, repeat accuracy±0.01° A axis:±32° B axis:±360°
Control system	Integrated FPGA high-speed parallel processing command, equipped with a real-time operating system that supports standard G command (RS274X) and extended commands. Integratied frequency converters for synchronous and asynchronous motors, make it more flexible and more compatible. Support multiple analog and digital IO.
LED	Multiple LED color indicator Ready&Milling (White) Finshed milling(Green) / Error(Red)

Spindle	
Regular	High-frequency asynchronous spindle, tool change with air (do not rotate during tool changing), air seal to prevent foreign matter from entering.
Rotate speed	Maxium 60,000 rpm
Power	900W (5S, Pmax), 400W(S6), 250W(S1)
Bearing	High speed ceramic ball bearings, Eccentricity<3um
Chuck	Suitable for Shank diameter 4mm, 50mm length milling burs

Milling	
Tool library	12 tools, Integrated tool gauge

Dry milling	The spindle ejects high-pressure gas for cleaning and cooling during milling

Conditions	
Compressed air	4-8bar(0.4-0.8Mpa)，Air purity in accordance with: ISO 8573-1:2010, need to be equipped with a cold dryer
Power supply	100-120VAC, 200-240VAC, two types switchable, 50-60Hz
Data interface	RJ45 Ethernet interface, 10/100M self-adaptive, required for networking.
Temperature	10-45° C
Humidity	80% relative humidity, non-condensing

Certification	
CE & FCC	

Size & Weight	
Product Size	L*W*H 495mm*593mm*627mm
Product Weight	71 kg
Package Size	L*W*H 730mm*620mm*900mm
Package Weight	94Kg

Accessories	
CAM	Support Millbox, Hyperdent and WorkNc

ADC-500 Milling Machine with Automatic Disc Changer

Large Capacity Automatic Disk Changer

The 10-tray storage compartment significantly boost the machine's continuous operation capability, making it ideal for high-intensity production. It supports multi-variety materials and small-batch production, facilitating intelligent and efficient manufacturing processes.

Automatic calibration

The machine automatically calibrates the milling origin and material storage coordinates simultaneously. This eliminates the need for manual adjustments after long-distance transportation, ensuring accurate and consistent performance.

Negative Ion Generator

The integrated negative ion generator effectively minimizes waste produced during milling, particularly with materials like PMMA, improving overall efficiency and cleanliness.

90° Milling Capability

The 90° milling function enhances the quality of anterior tooth milling and reduces polishing time required by lab technicians, delivering superior outcomes and operational efficiency.

Pumas Remote Software

Our proprietary Pumas software streamlines the operation process and enables remote monitoring and control via LAN network, enhancing convenience and accessibility for operators.

Storage Drawer

The storage drawer facilitates organized accessory management, protects various tools, and optimizes space utilization, enhancing overall operational efficiency.

External Light Bar

The light bar features multiple status indicators for real-time monitoring and displays processing progress, providing clear and easy observation of the equipment's status.

Tool Status Management

Real-time tool status and life monitoring enable accurate replacement scheduling. This feature prevents issues such as chipped tools and rework, thereby reducing economic losses and maintaining high-quality outputs.

Specifications

Basic Information	
Model	ADC-500
Method	Automatic loading and unloading dry milling
Compatible Materials	Zirconium, PEEK, PMMA, Wax, Composite materials, and soft metals. Size:98.5mm
Restorations Supported	Crowns, Copings, Veneers, Inlays/Onlays, Bridges, Full dentures, and All-on-X.
Body Structure	Solid cast aluminum.
Case	Steel plate, medical white high-gloss paint, working hatch, accessories drawer
Axis	5 axis
Linear axis	Precision ball screw, precision guide rail, repeat accuracy ±5μm，precision motor travel，X/Y/Z: 176/134/100mm
Axis of rotation	Equipped with a precision motor and precision harmonic reducer, with a repeatability of ±0.01°. Travel Range: A-axis:±32° B-axis:±360°
Control system	Equipped with an 8-inch display, the 5-axis linkage controller features continuous path trajectory and dynamic acceleration/deceleration planning capabilities. It integrates an FPGA for high-speed parallel instruction processing and operates on a real-time operating system that supports standard G-code (RS274) and extended command. The controller includes integrated inverters for synchronous and asynchronous motors, offering greater flexibility and enhanced compatibility. It supports multiple analog and digital I/O channels and provides external USB port and RJ45 Ethernet interfaces.
LED indicator	Equipped with a high-brightness RGB LED light, providing illumination while also being capable of displaying various status indicators. Ready&Milling (White)/Finshed milling(Green)/Error(Red)
Spindle	
Regular	High-frequency asynchronous spindle, tool change with air (do not rotate during tool changing), air seal to prevent foreign matter from entering.

Rotate speed	3000-60000rpm
Power	900W（5S, Pmax); 400W(S6), 250W(S1)
Bearing	High speed ceramic ball bearings, Eccentricity ＜ 3μm
Chuck	Suitable for Shank diameter 4mm, 50mm length milling burs
Automatic device	
Tool library	12 tools capacity, Integrated tool gauge
Material storage tray	Hold up to 10 trays, maximum tray thickness is 35mm, tray outer diameter is 98.5mm
Milling mode	
Dry milling	The spindle ejects high-pressure gas for cleaning and cooling during milling
Automatic disk changer	The machine automatically loads and unloads materials, enabling 24-hours uninterrupted milling.
Conditions	
Compressed air	4-8bar(0.4-0.8Mpa)，Air purity in accordance with: ISO 8573-1:2010, need to be equipped with a cold dryer
Power supply	100-120VAC, 200-240VAC, two types switchable, 50-60Hz
Data interface	RJ45 Ethernet interface, 10/100M self-adaptive, required for networking.
Temperature	10-45°C
Humidity	80% relative humidity, non-condensing
Certification	
CE/FCC	
Size & Weight	
Product Size	L*W*H 725mm*835mm*610mm
Product Weight	120 kg
Package Size	L*W*H 835mm*925mm*855mm
Package Weight	160 kg
Accessories	
CAM	Support Millbox, Hyperdent and WorkNc

S400
Wet Milling Machine
Precision, Efficiency Reliability

4-Axis Milling

Achieve unparalleled precision with our advanced 4-Axis milling technology. The S400 ensures meticulous detail and perfect results, every time.

Large Water Tank

The 3.5L water tank reduces the frequency to change cutting fluid and facilitate easier maintenance.

Touch Display

Navigate through intuitive workflows effortlessly on the high-resolution 8-inch touch display. No need for a computer—just plug in a flash drive and get started immediately.

High-Performance

The integrated 6-tool gauge delivers lightning-fast manufacturing, ensuring a seamless and efficient production experience.

Robust Cast Aluminum Body

Constructed with cast aluminum, the S400 minimizes vibrations and enhances stability, providing reliable performance even for the most demanding tasks.

Versatile Connectivity

Connect effortlessly via the RJ45 connector for remote control. The S400 adapts to your needs, enhancing your operational efficiency.

Specifications

Basic Information	
Method	Wet milling
Material	All common splimp materials (up to 45mm Length) and premilled abutments
Restorations	Crown, Coping, Veneer, Inlay/Onlay, Bridge, Abutment
Structure	Solid cast aluminum body
Case	Steel plate, medical white high-gloss paint, working hatch, accessory drawer
Axis	4 axis
Linear axis X/Y/Z	Precision ball screw, precision guide rail, repeat accuracy ±5μm precision motor travel, X/Y/Z: 80/70/70mm
Axis of rotation A	Precision motor, precision harmonic reducer, repeat accuracy±0.01° A axis:±360°
Control system	Integrated FPGA high-speed parallel processing command, equipped with a real-time operating system that supports standard G command (RS274X) and extended commands. Integratied frequency converters for synchronous and asynchronous motors, make it more flexible and more compatible. Support multiple analog and digital IO.
LED	Multiple LED color indicator Ready&Milling (White) Finshed milling(Green) / Error(Red)
Spindle	
Regular	High-frequency asynchronous spindle, tool change with air (do not rotate during tool changing), air seal to prevent foreign matter from entering.
Rotate speed	Maxium 60,000 rpm
Power	1300W (5S, Pmax), 750W(S6), 500W(S1)
Bearing	High speed ceramic ball bearings, Eccentricity<3um
Chuck	Suitable for Shank diameter 4mm, 50mm length milling burs

Milling	
Tool library	Detachable tool library, 6 tools, Integrated tool gauge
Wet milling	Equipped with multiple liquid nozzles, build-in water reserve container(3.5L) and filtration system, with sensors to monitor the flow of liquid, milling without grinding additives, it is recommended to add cutting fluid Dr. ST32 for premilled abutment processing.
Conditions	
Compressed air	4-8bar(0.4-0.8Mpa)，Air purity in accordance with: ISO 8573-1:2010, need to be equipped with a cold dryer
Power supply	100-120VAC, 200-240VAC, two types switchable, 50-60Hz
Data interface	RJ45 Ethernet interface, 10/100M self-adaptive, required for networking.
Temperature	10-45° C
Humidity	80% relative humidity, non-condensing
Certification	
CE & FCC	
Size & Weight	
Product Size	L*W*H 516mm*386mm*560mm
Product Weight	75 kg
Package Size	L*W*H 590mm*540mm*830mm
Package Weight	80 kg
Accessories	
CAM	Support Millbox, Hyperdent and WorkNc

PF300
Dental Sintering Furnace

- **Touchscreen operation**
- **Lifting model**
- **Temperature compensation**
- **Circular homogenization**
- **Simultaneous sintering of double-stacked materials**

- **Built-in automatic cooling program**
- **Long-lasting heat preservation, safe and energy-saving without pollution**
- **PID intelligent temperature control ±2°C.**

Specifications	
Furnace size	Φ110mm * 90mm
Weight	85Kg
Dimension	400mm * 560mm * 820mm
Input voltage	AC220/50Hz/60Hz
Sintering programs	＞200 items
Number of crucibles	2-storey
Size of crucible	Φ110mm*30mm
Heating element type	Silicon Molybdenum Rods
Sensor Type	High Precision Type B Thermocouple /0.4mm
Max temperature	1700 °C
Heating rate	Below 1200°C, ≤23°C/min Above 1200°C, ≤20°C/min
Application	Zirconia Crystallization
Type of heating	Fast sintering/slow sintering/fast slow integration
Control method	Internet control

PF300S
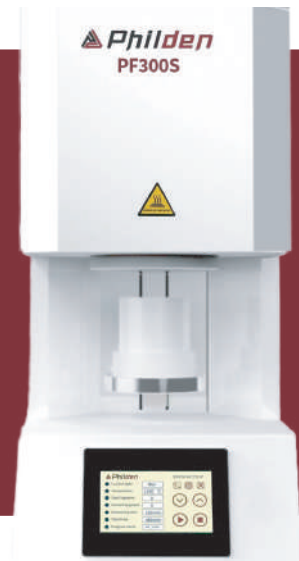# Dental Sintering
Furnace

- Touchscreen operation
- Lifting model
- Temperature compensation
- Circular homogenization
- Simultaneous sintering of double-stacked materials

- Built-in automatic cooling program
- Long-lasting heat preservation, safe and energy-saving without pollution
- PID intelligent temperature control ±2°C.

Specifications	
Furnace size	Φ110mm * 90mm
Weight	85Kg
Dimension	400mm * 560mm * 820mm
Input voltage	AC220/50Hz/60Hz
Sintering programs	＞200 items
Number of crucibles	2-storey
Size of crucible	Φ110mm*30mm
Heating element number	5
Heating element type	High Purity Silicon Molybdenum Rods
Sensor Type	High Precision Type B Thermocouple/0.4mm
Max temperature	1700 °C
Working temperature	≤ 1700 °C
Heating rate	≤80°C/min
Application	Zirconia Crystallization
Type of heating	Fast sintering
Control method	Internet control

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PE300
Dental Porcelain Furnace

- Touchscreen operation
- AI Temperature Control
- On-touch sleep/wake
- Accurate temperature control

Specifications	
Furnace size	Φ80mm
Weight	35Kg
Dimension	260mm * 330mm * 535mm
Input voltage	AC220/50Hz/60Hz
Sintering programs	＞200 items
Max temperature	1200 °C
Working temperature	≤ 1200 °C
Application	Zirconia, glass-ceramic crystallization
Heating element type	Element
Sensor Type	High precision S-Type thermalcouple/0.5mm
Heating rate	≤100 °C/min
Rating	1.5 KW
Control method	Internet control

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R-407-1
Vacuum Cleaner

Highly efficient

Up to 24m/s strong suction force
Capable of filtering 8-micron particles.

Silent Operation

Noise level below 65 dB

Remote Control

One touch to start vacuuming.
Periodic dust removal.
Synchronize with milling machine.

Long service life

Brush-less motor, service life > 20,000 hours

Specifications	
Model	R-407-1
Voltage	220V
Electric current	4A
Power	1200W
Frequency	50Hz/60Hz
Weight	47kg
Size	42*46*66cm

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Philden

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