Digital Solutions for Laboratories
Founded in 2007, the Dental Wings breadth of products are distributed by leading dental companies in over 50 countries around the world.

Our vision is to create the largest global network of digitally-enabled dental professionals and equip them with diagnostic, design, and manufacturing tools that increase the efficacy, quality, and profitability of the services they provide to patients.

Our mission is to help our customers improve the lives of millions of dental patients worldwide. The right technology can achieve this and make dentistry predictable and seamless.

Helping dental labs transform creativity for over a decade

Lab Scanners pages 3-5
coDiagnostiX™ Implant Planning Software, pages 6-12
DWOS Lab Management Software, pages 13-19
DWOS Design Software, pages 20-25
3D Printers D30 & D40, pages 26-31
Based on an integrated scan and design workflow with DWOS, Dental Wings manufactures distinct scanning systems to meet your varied and individual needs. Plus, you can add more modules as your lab and requirements evolve.

**7SERIES**

**Model & Impression Scanner**

Featuring high scanning accuracy, significant ergonomic and functional advances for important improvements in productivity and efficiency. Delivered with several DWOS design applications suited for medium to large sized dental labs.

![7SERIES Model & Impression Scanner](image)

**Accessories included:**
- An integrated on-board computer with 64-bit processor
- Impression holder
- Calibration kit
- Automatic multi-die holder (up to 30 elements scanned and designed in 12 minutes, unattended)
- Sam® SE articulator

Choose between two DWOS packs: **Synergy** and **Productivity**

- Synergy:
  - Crown & Bridge
  - Implant Prosthetics
  - Partial Frameworks
  - Model Builder
  - Full Dentures
  - Bite Splints
  - Orthodontic Archiving
  - Guided Surgery

- Productivity:
  - Crown & Bridge
  - Implant Prosthetics
  - Partial Frameworks
  - Model Builder
  - Full Dentures
  - Bite Splints
  - Orthodontic Archiving
  - Guided Surgery
3SERIES
Model Scanner

Ideal for small and medium-sized dental labs, the 3Series offers extensive and flexible scanning capabilities that include gypsum models, wax-ups, check bites, implant scan bodies, and dental impressions for post and core cases.

Accessories included:
- An integrated on-board computer with 64-bit processor
- Model holder
- Calibration kit
- Automatic multi-die holder (up to 12 elements scanned and designed in 8 minutes, unattended)

<table>
<thead>
<tr>
<th>Technical specifications</th>
<th>3Series</th>
<th>7Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scanning volume</td>
<td>90 x 90 x 90 mm (3.54 x 3.54 x 3.54&quot;)</td>
<td>140 x 140 x 140 mm (5.51 x 5.51 x 5.51&quot;)</td>
</tr>
<tr>
<td>Optical technology</td>
<td>Class 1 laser product, 1 high speed measuring camera, 1 color video camera</td>
<td>Class 1 laser product, 2 high speed measuring cameras, 1 color video camera</td>
</tr>
<tr>
<td>Number of axes</td>
<td>3 (2 rotative 1 linear)</td>
<td>5 (3 rotative 2 linear)</td>
</tr>
<tr>
<td>Embedded computer &amp; OS</td>
<td>Core i5, 16 GB memory, 2 GB of dedicated RAM graphic card, Windows 7, 64 bits</td>
<td>Core i7, 16 GB memory, 2 GB of dedicated RAM graphic card, Windows 7, 64 bits</td>
</tr>
<tr>
<td>Accuracy</td>
<td>15 microns</td>
<td>15 microns</td>
</tr>
<tr>
<td>Output format</td>
<td>STL &amp; supported partner formats</td>
<td>STL &amp; supported partner formats</td>
</tr>
<tr>
<td>Scannable materials</td>
<td>Plaster, wax-up and impression (for post cores)</td>
<td>Plaster, wax-up and impression</td>
</tr>
</tbody>
</table>

1 Based on Dental Wings testing standards.
Predictable
Reliable
Consistent

codiagnostiX is the intuitive and easy-to-use digital solution for implant planning and design of customized and highly-precise surgical drill guides. Receive safe and predictable results, all while increasing efficiency and productivity.

20 Years of clinical success
250,000+ Guided cases
Meeting the most diverse needs

Design customized and highly-precise drill guides to enable cost-efficient production through automated, high-capacity 3D printing.

Benefit from a sophisticated communication technology that offers seamless integration of surgical and prosthetic workflows.
The completely digital workflow that requires no scan template

- Includes a regularly updated library of implant, sleeve, and abutment systems from multiple manufacturers.
- Permits the creation of custom elements to meet individual needs.
- Matches DICOM data and optical scans.
- Allows customizable designs to realize tooth, gingiva, or bone-supported drill guides, plus combined variants and drill guides with palatal support and/or lateral fixation.
- Supports a dual-scan workflow.
- Includes workflows for edentulous cases.

Open system

cDiagnostiX features an open architecture with interfaces that ensure compatibility with all CBCT, intraoral, model, and impression scanners, plus open CAD/CAM solutions.

Data export in open STL format allows for local drill guide production with cost-efficient and high-volume production technologies.

Drill guides designed with cDiagnostiX are used for implant insertion by way of guided surgery.
coDiagnostiX
Digital workflow

CBCT scan
Import DICOM data file

Dentist with coDiagnostiX
Determine optimal implant position based on desired prosthetic outcome

Import STL file of model or impression scan

Laboratory with coDiagnostiX and DWOS
Design and/or output drill guides from coDiagnostiX
Design temporary restorations or gingiva former in DWOS

Produce drill guides

Produce temporary restorations, gingiva former & prosthetic elements

DWOS Synergy
Making treatment planning a collaborative process

The integrated planning environment allows for real-time communication with DWOS to speed up work considerably.

For collaboration with other third-party systems, a separate open interface is provided to easily exchange surgical and prosthetic data between open CAD systems and coDiagnostiX.

Visit dentalwings.com/videos
Maximize treatment outcomes through fully digital collaborative planning.
**DWOS Connect**

The powerful and flexible network in digital dentistry

Connecting clinics, labs, production centers and other collaborators in a powerful network that leverages their investments to securely share:

- Case details
- 3D scans
- Design files
- Invoices
- Digital invoices
- Other information when and where it is needed across the entire value chain.

**caseXchange**

Interactive communications platform that allows collaboration among users

Includes an integrated order placement plus order management functions. Facilitates case-sharing through enabled communications:

- Between you and your dental partners for the production of drill guides or for treatment planning.
- Between you and radiologists to get a second opinion or to receive an expert assessment.
Why choose DWOS Lab?

Dental Wings understands the challenges of a fast-growing laboratory and has developed both standard and completely customizable workflows covering the spectrum of manual and digital manufacturing activities in the dental lab. Employing an intuitive user interface, accessible through a web browser from any computer or tablet, DWOS Lab simplifies case management, case-related data organization, and monitoring of the lab’s activities so you get a complete overview in real time.

Make treatment planning a truly collaborative process

Innovative scheduling tools, operations dashboards, file management to and from outside partners and dentists, and integration with the full range of Dental Wings solutions are just a part of the power of DWOS Lab. Get a second opinion from a colleague and ensure that everyone’s expectations are met by facilitating case-sharing with other specialists, referring dentists, labs, and service providers.
Streamline your workflow with this breakthrough in cloud-based management software

Productivity boosting tools
- Real-time case exchange is integrated with Dental Wings products, and open to connect to any other CAD/CAM process.
- Production time is reduced due to easy and quick access to data and timetables.
- Case information is exchanged automatically to help eliminate double entries and errors.
- Customer portals simplify communications with dentists.

Data management systems
- Unique Lab-Kanban methodology minimizes shelf-time between tasks.
- Automatic scheduler and automatic flags warn of impending delays.
- Prioritized tasks by employee include details, notes, and documents when needed.
- Simplified output of travelers (case document), shipping documents, and invoices.

Performance dashboard
- Continuous overview of the most relevant data to help improve efficiency and effectiveness.
- Ability to monitor individual workstation level activities as well as overall operations through key performance indicators.

Visit dentalwings.com/videos
One-stop case management

When considering a full-cycle workflow, DWOS Lab is the one place to manage your digital and traditional cases seamlessly and simultaneously.

- The production dashboard displays current production load, flagged cases to warn of possible delay, plus critical cases are monitored, and any outsourced cases are tracked.
- Workflows allow for any case-specific adjustments.
- Invoices are configurable and all shipments trackable.
View your lab’s activity from anywhere, anytime.
Reduce production time and boost productivity

Based on the manufacturing industry’s proven Kanban methodology, **Lab-Kanban** improves productivity with dynamic worksheets and schedules that synchronize with any changes in case information and priorities.

**Dynamic schedules**

Enjoy easy access to a dynamically-updated list of tasks with important details, notes, and documents. As priorities and workloads change throughout the day, the master and individual schedules update automatically to optimize overall throughput of the lab.

- Lessen the time it takes to track cases.
- Allow employees to focus on what they do best – adding important value to lab output.
Connectivity to Dental Wings open system CAD/CAM software

Cases entered in DWOS Lab are automatically routed to DWOS. Case status is updated in DWOS Lab in real-time following the DWOS workflow.
**DWOS®**

**CAD/CAM Software**

**The knowledge-based ecosystem**

One of the most flexible and powerful open CAD/CAM software platforms available in the industry for the design of dental restorations, DWOS is a seamlessly integrated ecosystem of technologies that work together to boost productivity and efficiency for dental professionals.

Comprehensive clinical information is treated within a knowledge-based design engine to deliver solutions that are produced with trusted materials and manufacturing technologies.

**Open access**

DWOS is accessible to all systems that support common and unrestricted data file formats. Input devices generating clinical information such as CBCT and intraoral scanners are easily integrated into DWOS.
Create flawless models for multiple dental indications.
DWOS Crown & Bridge

Included in Productivity and Synergy packs.
The foundation of prosthetic design within DWOS with extensive capabilities that provide both very simple and efficient workflows.

- Full contour crowns & bridges
- Copings and bridge frameworks
- Anatomical telescopes
- Hollow pontics
- Attachments
- Single custom abutment
- Virtual wax-up
- Design of telescopic crown (parallel axis groups)
- Inlays, onlays and veneers
- Post & core
- Milling with attachments
- Telescopic bridge
- Overpressed crowns & bridges
- Shell temporary bridge
- Abutment wedge
- Mirror anatomy
- ¾ Crown with retention beads
- Virtual articulator
- Diagnostic
- Several anatomy libraries available on website
- Milling area zone
- Multi-die plate
- 16-unit bridge

DWOS Implant Prosthetics

Included in Productivity and Synergy packs.
Manages the design of custom abutments, healing caps, implant bars, and full virtual wax-ups for screw-retained bars & bridges, while giving access to a wide range of implant systems.

- Superstructure
- Implant bridge with gingiva
- Bar with wax-up
- Implant bar
- Healing screw
- Implant screw bridge
- Scan the Tibase for implantology

Post & core

Implant bridge with gingiva
**DWOS Partial Frameworks**

Included in Productivity and Synergy packs.
Offers intuitive tools that design highly accurate frameworks for partial dentures in just a few minutes, for significant savings in time and materials.

- Combined order (Telescopic crown)
- Upper and lower arch frameworks
- Definition of the insertion axis
- Automatic undercut detection
- New feature now only for clasps

**DWOS Model Builder**

Included in Productivity and Synergy packs.
Replaces the manual model-making process with the equivalent digital creation to create precise models and consistent results efficiently and economically.

**DWOS Orthodontic Archiving**

Included in Synergy pack.
Allows the design of virtual orthodontic study models for digital archiving and digital manufacturing.

- Parameters of the model
- Study model
- Orthodontic archiving
DWOS Full Dentures

Included in Synergy pack.
Provides an easy and efficient way to digitally address edentulous cases with functional tooth set-up and esthetic gingiva proposal.

- Teeth library
- Positioning of the teeth

DWOS Bite Splints

Included in Synergy pack.
Designs protectors and mouth guards of various kinds.

- Flattening of the bite splint
- Occlusion with the virtual articulator

coDiagnostiX™

Included in Synergy pack.
Covers implant planning and design of surgical drill guides, helping dental professionals provide safe and predictable results while increasing efficiency and productivity.

- Implant planning
- CAD
- Drill guide design

Choose between two DWOS packs: Synergy and Productivity
Powerful and professional
3D printing solutions

Introduced in partnership with RapidShape® Dental and SHERA® Werkstoff-Technologie, the high-precision and aesthetic products produced by the D30 and D40 printers are made from certified biocompatible materials to cover a wide range of applications while saving costs due to reduced material waste.

Available in two models to cover a lab’s specific indication and productivity needs, from producing a few drill guides to round-the-clock production of models in a high-volume lab.

Seamless integration between products

Integrated with other Dental Wings products for complete end-to-end solutions, the 3D printers are also open to third-party design software and materials.
Meet and exceed patient needs with fast, esthetic restorations.
All-around versatility

<table>
<thead>
<tr>
<th>Applications</th>
<th>Printing time (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casts and partials</td>
<td>50 min.</td>
</tr>
<tr>
<td>Stump or implant models</td>
<td>45 min.</td>
</tr>
<tr>
<td>Gingiva masks</td>
<td>15 min.</td>
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<tr>
<td>Surgical guides</td>
<td>16 min.</td>
</tr>
<tr>
<td>Temporary crowns &amp; bridges</td>
<td>18 min.</td>
</tr>
<tr>
<td>Impression trays</td>
<td>60 min.</td>
</tr>
<tr>
<td>Ortho models</td>
<td>60 min.</td>
</tr>
<tr>
<td>Bite splints</td>
<td>60 min.</td>
</tr>
</tbody>
</table>

All printing times are based on jobs done on a printer equipped with force feedback system.
D30 & D40
3D Printers

Performance parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>D30</th>
<th>D40</th>
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</thead>
<tbody>
<tr>
<td>Building area</td>
<td>130 x 75 mm (5.1 x 3&quot;)</td>
<td>(2x) 130 x 75 mm (5.1 x 3&quot;)</td>
</tr>
<tr>
<td>Native pixel</td>
<td>+/- 34 um</td>
<td>+/- 34 um</td>
</tr>
<tr>
<td>Max. part height</td>
<td>110 mm (4.3&quot;)</td>
<td>110 mm (4.3&quot;)</td>
</tr>
<tr>
<td>Light source</td>
<td>385 nm UV LED</td>
<td>385 nm UV LED</td>
</tr>
<tr>
<td>Resolution</td>
<td>HD 1920 x 1080 px</td>
<td>Dual HD 1920 x 1080 px</td>
</tr>
<tr>
<td>Dimensions (W x H x D)</td>
<td>480 x 690 x 410 mm (13.2 x 21.3 x 13.7&quot;)</td>
<td>480 x 690 x 410 mm (13.2 x 21.3 x 13.7&quot;)</td>
</tr>
<tr>
<td>Control</td>
<td>7” LCD-display, 3-button control</td>
<td>7” LCD-display, 3-button control</td>
</tr>
</tbody>
</table>
Certified material partner

SHERAprint® materials are available for biocompatible printing of all kinds of dental applications.

SHERAprint® available from Dental Wings.