The Future of Dentistry is Digital.
Discover it Now.

Last Generation 3D Printers and Materials
for Dental Clinics and Laboratories.

DWS

Resolution Ahead

DWS designs and manufactures 3D printing systems, along with software and specific materials, all optimized for prosthetic and prosthodontic use.
DWS continuously innovates and integrates its advanced solutions, so to help clinics and laboratories completing the digitalization of their processes, efficiently exploiting their resources, lowering internal costs and increasing competitiveness.
The company is certified according to ISO 9001:2015 and ISO 13485:2016 standards, in full respect of the highest requirements in the field of medical devices.

MATERIALS AND CARTRIDGES

A complete range, richer every year.

DWS technology, for dental laboratories and prosthetic clinics, is a smart and winning choice, not only in terms of 3D printers and digital technology.
DWS offers, as a matter of fact, the **widest range of materials in the field**, also proposed in the innovative disposable cartridges, able to grant flexibility in the everyday use and a better user experience for professionals.

- 26 State-of-the-art materials available for dental applications
- Constant research
- Disposable cartridges

TEMPORIS

The certified biocompatible material range.

Temporis[1] is a family of biocompatible materials produced by DWS, developed for the 3D printing of certified, long term restorations.
Several studies have demonstrated that these materials present compression resistance values comparable to well known[2] hybrid composite resins for long term restorations.

- Long term restorations
- Fully biocompatible and non-toxic materials
- The restoration can be produced also with the innovative Photoshade technology, patented by DWS
- Temporis can be coated/glazed with biocompatible composites and customized with any kind of pigmentation
- DFAB Temporis cartridges are disposable and contain the optimal material quantity in order to avoid waste
- DFAB Temporis cartridges are provided together with a building platform and with tools for the cleaning of restorations

[1] The polymer is to be considered a long-term invasive medical device in Class IIa as provided for by the Rule 5, Annex IX, Dir. 93/42/EEC.

[2] Alharbi, Nawal, Reham Osman and Daniel Wismeijer. "Effects of build direction on the mechanical properties of 3D-printed complete coverage interim dental restorations." The Journal of Prosthetic Dentistry 115.6 (2016): 760-767.

With Irix Max and DWS 3D printing technology, the translucent permanent restoration in nanocomposites can be obtained in short time and with the maximum quality.

PREVIEW

NANOCOMPOSITES FOR TRANSLUCENT PERMANENT RESTORATIONS

Only one visit is needed and the whole workflow remains in-house.

Thanks to **Irix Max***, a new material made with **nanocomposites**, a permanent restoration, precise and rapid in its printing, finally becomes a reachable goal for all dental clinics, either of small or medium dimensions. Outcome of long researches and tests, the restorations obtained with this **revolutionary material** stand out for their **translucency** and their high flexural strength. They share all the technical and productive advantages granted by the use of DWS innovative 3D printing technologies, like the **Photoshade** and **Nauta** software packages.

- High translucency
- In-house restorations in a single visit
- Direct print production of crowns, bridges, inlays, onlays and veneers
- High flexural strength values
- Colours available: A1, A2, A3, A3.5, B1, N and, with Photoshade technology, even the shading can be exactly reproduced

Material	LFAB	DFAB	XFAB 2500PD	XFAB 3500PD	029D	XPRO S	XPRO Q
Irix Max	▲	▲	—	—	—	—	—

* The product is not yet certified and cannot be sold until the formal certification process is completed.

PREVIEW

RESTORATIONS IN ZIRCONIUM OXIDE

Printing times and production practices
totally transformed by DWS' new material.

Irix Z* is one of the most recent and innovative finding by DWS research. It is a new and advanced zirconia that, combined with the **DFAB** printer and **Photoshade** technology, allows the creation of accurate **permanent restorations** in-house at the dental clinic and in extremely reduced times.

- In-house restorations
- Direct print of green restorations, sintering cycles are required
- Colours available: A1, A2, A3, A3.5, B1, N and, with Photoshade technology, even the shading can be exactly reproduced

Material	LFAB	DFAB	XFAB 2500PD	XFAB 3500PD	029D	XPRO S	XPRO Q
Irix Z	▲	▲	—	—	—	—	—

A small revolution for the permanent restoration in zirconia. Precise and accurate, the restoration in Irix Z can be printed with DFAB in a simple and intuitive way.

* The product is not yet certified and cannot be sold until the formal certification process is completed.

CLASS IIa CERTIFIED RESTORATIONS

Precise and natural, available for the first time in direct printing.

Completely natural-looking bridges and crowns, finally available **directly from 3D printing**. This important progress is being obtained thanks to DWS digital technologies applied to innovative biocompatible materials of our **Temporis*** range. This material emulates the true colour of the teeth and our exclusive **Photoshade** system even allows controlled shading, when using printers equipped with it.

• Direct print production of crowns, bridges, inlays, onlays and veneers
• Colours available: A1, A2, A3, A3.5, B1, N and, with Photoshade technology, even the shading can be exactly reproduced
• Fewer steps, if compared with traditional methods
• Fast performance and low operating costs

Natural-looking restorations, with colour rendering thanks to our range of materials and even with matched shading when the 3D printer is provided with Photoshade technology.

Material	LFAB	DFAB	XFAB 2500PD	XFAB 3500PD	029D	XPRO S	XPRO Q
Temporis N	▲	—	▲	▲	—	—	—
Temporis A1	▲	—	▲	▲	—	—	—
Temporis A2	▲	—	▲	▲	—	—	—
Temporis A3	▲	—	▲	▲	—	—	—
Temporis A3.5	▲	—	▲	▲	—	—	—
Temporis B1	▲	—	▲	▲	—	—	—
Temporis Photoshade	—	▲	—	—	—	—	—

* The polymer is to be considered a long-term invasive medical device in Class IIa as provided for by the Rule 5, Annex IX, Dir. 93/42/EEC.

Flexible templates and masks,
made of Flexa IDB, are fast
to print, precise and reliable.

MASKS AND TEMPLATES, TOP 3D QUALITY

Fast printing for excellent performances in stability, flexibility and precision.

Flexa IDB* is a biocompatible Class I material for orthodontic applications. With a professional orthodontic software module, the orthodontist can plan at once the necessary **brackets** for the treatment of the patient and, then, design the indirect bonding mask on the virtual model. Flexa IDB is a **flexible** enough material to allow the stability of brackets, once placed in site, and of their release, once transferred in the patient's mouth and UV-cured at the teeth. The IDB mask will cut the application time of the brackets and will **save time** at the chair, though granting anyhow the precision of their placement.

- Transparent flexible and stable material
- Accuracy and high printing speed
- Class I Biocompatible Material*

Material	LFAB	DFAB	XFAB 2500PD	XFAB 3500PD	O29D	XPRO S	XPRO Q
Flexa IDB	—	—	▲	▲	▲	—	▲

* The product is not yet certified and cannot be sold until the formal certification process is completed.

STABLE IMPRESSION TRAYS

DS3500 printing material ensures the highest level of performance.

DS3500* is a biocompatible Class I material, ideal for the print of **individual trays**. The printed objects, given the surface smoothness and accuracy, are suitable for all types of impression materials and grant an excellent fit. Their slight transparency is very useful in taking the impression in partial and/or total edentulism cases as it helps verifying the adhesion of the impression material to the mucosa. The printed trays are rigid, **very stable** and **deformation-free**. They are available in colours Light Blue and Purple.

- Outstanding dimensional stability and strength
- Precise and deformation-free trays
- Class I Biocompatible Material*

DS3500: in addition to stability, non-deformability and compatibility with all impression materials, it ensures a slight transparency, useful in cases of partial or total edentulism.

Material	LFAB	DFAB	XFAB 2500PD	XFAB 3500PD	029D	XPRO S	XPRO Q
DS3500	—	—	▲	▲	▲	▲	▲

* The product is not yet certified and cannot be sold until the formal certification process is completed.

A pleasant aesthetical effect and the robustness of bites and splints, obtained with DS5000, are the quality of excellence together with a high resolution and the most precise fit.

THE PERFECT MATERIAL FOR BITES AND SPLINTS

Thanks to DS5000's crystal transparency, bites and splints will be aesthetically invisible.

DS5000* is a Class IIa material for the digital manufacturing of accurate **splints** and **bites**. It is strong and **highly resistant** to fractures. It is a **clear material**, transparent like crystal after polishing, so that the printed object allows for an aesthetically pleasant effect while granting a precise fit.

• High strength and fracture toughness
• Clear transparency after polishing
• Class IIa Material*

Material	LFAB	DFAB	XFAB 2500PD	XFAB 3500PD	029D	XPRO S	XPRO Q
DS5000	—	—	▲	▲	▲	▲	▲

* The product is not yet certified and cannot be sold until the formal certification process is completed.

3D DENTAL MODELS

Accurate copies and the smooth surfaces, high operational reliability.

Fine details and super high definition, extremely smooth surfaces. These are the qualities that make dental models produced on DWS 3D printers such reliable and suitable tools. This innovative working process is chosen today by the top professionals and is made possible by the advanced features of **Precisa** and **Invicta**, the exclusive materials designed and produced by DWS.

- Detailed reproduction at the highest resolution
- Smooth surfaces
- Low printing cost
- Rapid production

Material	LFAB	DFAB	XFAB 2500PD	XFAB 3500PD	029D	XPRO S	XPRO Q
Precisa RD096B	—	—	—	▲	▲	—	▲
Precisa RD096GY	▲	▲	▲	▲	▲	—	▲
Precisa RD096GR	—	—	—	▲	▲	—	▲
Precisa RD096P	—	—	—	▲	▲	—	▲
Precisa RD096W	—	—	—	▲	▲	—	▲
Precisa RD096Y	—	—	—	▲	▲	—	▲
Precisa RD096IV	—	—	—	▲	▲	—	▲
Precisa RD097	—	—	▲	▲	▲	—	▲
Precisa RD-ECO2	—	—	—	▲	▲	—	▲
Invicta 917	—	—	▲	—	—	▲	—
Invicta 915	—	—	▲	—	—	▲	—
Invicta 907	—	—	▲	—	—	—	—

RD096GY

RD096B   RD096GR   RD096Y   RD096W   RD096P

The use of Precisa and Invicta materials enables the production of accurate models with an absolutely smooth surface quality.

MODELS WITH REMOVABLE DIES

"Click effect" fit.

DWS digital workflow **integrates with the major third-party software** and **scanners** and allows the creation of accurate, articulated physical models with removable dies, able to exceed accuracy limits of less advanced than DWS ones' technological solutions. The **fit** between die and model base achieves a real **"click effect"**.

- Detailed models and precise fit
- Wide variety of compatible materials
- Integrates with most major CAD software and scanners
- Low costs and production times

Material	LFAB	DFAB	XFAB 2500PD	XFAB 3500PD	029D	XPRO S	XPRO Q
Precisa RD096B	—	—	—	▲	▲	—	▲
Precisa RD096GY	▲	▲	▲	▲	▲	—	▲
Precisa RD096GR	—	—	—	▲	▲	—	▲
Precisa RD096P	—	—	—	▲	▲	—	▲
Precisa RD096W	—	—	—	▲	▲	—	▲
Precisa RD096Y	—	—	—	▲	▲	—	▲
Precisa RD096IV	—	—	—	▲	▲	—	▲
Precisa RD097	—	—	▲	▲	▲	—	▲
Precisa RD-ECO2	—	—	—	▲	▲	—	▲
Invicta 917	—	—	▲	—	—	▲	—
Invicta 915	—	—	▲	—	—	▲	—
Invicta 907	—	—	▲	—	—	—	—

The precise fit: genuine "click effect"!

MODELS
FOR IMPLANT ANALOGUES

Reproductions for safely
and simply checking implants.

Excellent bases for any implant, even the most complex: DWS 3D technology enables the creation of accurate and solid models on which to **precisely observe and check** the correct positioning of analogues. DWS offers a range of special materials that meet all the operator's aesthetic and functional needs, on a case-by-case basis.

- Ideal level of accuracy for rigorous checking
- Easy and effective checking of analogue positioning
- Low costs and production times
- Wide variety of compatible materials

Materials	LFAB	DFAB	XFAB 2500PD	XFAB 3500PD	029D	XPRO S	XPRO Q
Precisa RD096B	—	—	—	▲	▲	—	▲
Precisa RD096GY	—	—	▲	▲	▲	—	▲
Precisa RD096GR	—	—	—	▲	▲	—	▲
Precisa RD096P	—	—	—	▲	▲	—	▲
Precisa RD096W	—	—	—	▲	▲	—	▲
Precisa RD096Y	—	—	—	▲	▲	—	▲
Precisa RD096IV	—	—	—	▲	▲	—	▲
Precisa RD097	—	—	▲	▲	▲	—	▲
Precisa RD-ECO2	—	—	—	▲	▲	—	▲
Invicta 917	—	—	▲	—	—	—	—
Invicta 915	—	—	▲	—	—	—	—
Invicta 907	—	—	▲	—	—	—	—

3D models suitable for correct and convenient checking of analogue positioning.

3D model from a DWS printer.
The aligner is subsequently
created through thermoforming.

MODELS FOR THERMOFORMED ALIGNERS

Perfect 3D bases for creating light,
effective, invisible aligners.

Rapid and economic production of **3D orthodontic arches**, in an efficient open system of DWS solutions integrated with the most popular software and devices. Our **Therma nanoceramic material**, non-deformable with high thermoforming resistance, provides an accurate base on which the professional can create transparent polycarbonate aligners that perfectly match the patient's dental structure.

- Rapid production
- Low cost
- Accuracy and versatility: high reproduction quality at every treatment stage
- Open system that integrates with the most popular technologies and CAD software

The high resolution
enables numerous
applications in this field.

Material	LFAB	DFAB	XFAB 2500PD	XFAB 3500PD	029D	XPRO S	XPRO Q
Therma 294	—	—	▲	—	—	—	—
Therma RD095	—	—	—	▲	▲	▲	▲

SURGICAL GUIDES

Class I* material, precision and fit
for operations in full safety.

The advanced 3D technology of DWS devices enables the printing of accurate,
ready-to-use surgical guides by using **Class I* DS3000 biocompatible**
material. The guides produced are stable and non-deformable, ensuring
a faultless fit to the patient's mouth to create the perfect conditions for
a safe and effective operation.

- High-precision fit
- Design, analysis, and development can be performed on the model
- Class I* Biocompatible Material

*Class I polymer for surgical guides as per Rule 5, Annex IX of Medical Devices Directive 93/42/EEC.

Material	LFAB	DFAB	XFAB 2500PD	XFAB 3500PD	029D	XPRO S	XPRO Q
DS3000	▲	▲	▲	▲	▲	▲	▲

The perfect anatomical correspondence guaranteed by the DS3000 material
also permits utmost precision when inserting the sleeves.

The right combination of materials and technology to achieve the best results in dental models for lost wax direct casting and pressed ceramic.

MODELS FOR LOST WAX DIRECT CASTING AND PRESSED CERAMIC

Detailed, economic to produce, for slim and durable prosthetics.

Thanks to the exclusive **resins of our Fusia range**, that require no further manual processing, DWS 3D printing devices can produce accurate dental models for lost wax direct casting or pressed ceramic that fully meet all the requirements of these processes, enabling the production of **slim, durable, detailed shapes**.

- High-precision production
- Ability to obtain slim and detailed shapes from the models
- Fast and economic to produce

Material	LFAB	DFAB	XFAB 2500PD	XFAB 3500PD	029D	XPRO S	XPRO Q
Fusia RF080	▲	▲	—	▲	▲	—	▲
Fusia DC710	—	—	▲	—	—	—	—

PARTIAL FRAMEWORKS FOR LOST WAX DIRECT CASTING

The ideal way to achieve thinness, accuracy and excellent mechanical properties.

The partial frameworks obtained through digital technology in advanced **Fusia materials** are characterized by high standards of stability, non-deformability and anatomical accuracy. They ensure exceptional **physical and mechanical performances** in the final product, to meet the most stringent requirements connected with any type of application.

- High-precision production
- Excellent non-deforming qualities
- Excellent mechanical properties for lost wax direct casting and pressed ceramic
- DWS software included with the printer enables excellent support building

Material	LFAB	DFAB	XFAB 2500PD	XFAB 3500PD	029D	XPRO S	XPRO Q
Fusia RF080	—	—	—	▲	▲	—	▲
Fusia DC710	—	—	▲	—	—	—	—

Stable, accurate, non-deformable.
Ideal for lost wax direct casting.

3D reproduction of a skull
in Vitra 430 resin. Dimensions,
precision and transparency
can be observed.

MEDICAL IMAGING

Maximum accuracy and transparency, large scale, minimum cost.

Large volumes in extremely short times. DWS entry-level printers are capable of high precision in reproducing the **smallest details**, thanks also to materials such as **Vitra 430** and **DS2000**, whose transparency make it possible to precisely and in detail visualise the patient's anatomic structure.

• Larger-scale anatomical reproductions
• Transparency, resolution and accuracy
• Reduced production times
• High surface quality

Material	LFAB	DFAB	XFAB 2500PD	XFAB 3500PD	029D	XPRO S	XPRO Q
Vitra 430	—	—	▲	—	—	—	—
DS2000	—	—	—	▲	▲	▲	▲

GINGIVAL MASKS AND SOFT TISSUES

Complete reproductions of the look,
functional properties and anatomy of the gingiva.

DWS 3D printing can realistically replicate the properties of the **gingiva** and **soft tissues**: colour, consistency and structure. The excellent results are due to the high resolution and precision of the printers, but also to the special advanced **GL4000** material used.

- Material's effect and functional properties like the real thing
- Effective anatomical reproduction
- Rapid production
- Excellent surface quality

Material	LFAB	DFAB	XFAB 2500PD	XFAB 3500PD	029D	XPRO S	XPRO Q
GL4000	—	—	▲	▲	▲	—	▲

GL4000 material's properties
ensure the quality of the masks.

PROSTHESIS ON DIGITAL MODEL

The Digital Work-Flow and Model 3D printing in the Production Process of Permanent Restorations on Natural Teeth and Implants.

The patient is a 65-year old woman willing to replace an old crown in metal ceramic on tooth 1.7 and to position a tooth on implant on 1.6, element she lost due to a caries. The implant has been realised by **DDS Carlo Cosma** and **Digilab**'s dental technicians, Alessio Marsili and Flavio Lico, have designed the model (CAD phase) and produced the master model physically in the Stereolythographic 3D printer by DWS, DW020D, in resin DWS **Precisa RD097**, specific for highly accurate models. The model was made with a removable die on 1.7 and with a hole suitable for a digital analog.

The use of a high quality and highly precise 3D printer and of specific resins allowed the operators to overcome those that are deemed to be the major difficulties of this technology, that is getting, at the same time, a stable and reproducible die and digital analog inside the respective sites, together with the possibility to repeatedly remove both the die and the analog without deforming them.
Thanks to DWS proprietary softwares, **Nauta Plus** and **Fictor**, operators have the possibility to widely customize production parameters of the models' components: the removable dies and the holes for the dies and for the digital analogs.

Superior and inferior quarter printed with DWS PRECISA RD097, specific for highly accurate models and in 3D printer DWS DW020D.

MARGIN LINE AND INTERNAL FIT, THE INFLUENCE OF THE FABRICATION METHOD

An important study by the University of Amsterdam.

Research carried out by the **University of Amsterdam**'s specialised digital dentistry department, ACTA, evaluated different fabrication methods and their relative influence on the margin line and internal fit of interim restorations.

The study, published in October 2017 in the Journal of Prosthodontic Research, highlights how "3D-Printed restorations showed statistically **significant lower mean gap** compared to milled restorations", and more generally, how fabrication methods influence fit in various ways, compared with the effect of margin line design. It is important to emphasise that for 3D printing during the research, a DWS printer, the **DW 028D**, was used with **Temporis** material.

For full context and method of analysis, please follow this link:
www.dwssystems.com/dws-stories/marginal-internal-fit

Knife edge   Chamfer   Rounded shoulder   Rounded shoulder with bevel
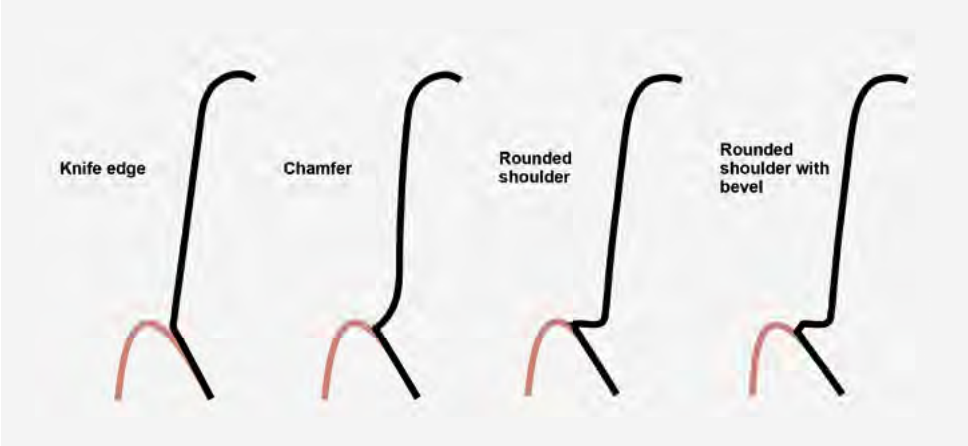
Some illustrations of the methodology used in the study, which was performed using a DWS 3D printer and Temporis material.

DFAB Desktop

Natural-looking restorations in a single visit.

Developed for prosthetic clinics and dental laboratories, 3D printer DFAB Desktop connects to a computer and is easy to operate thanks to the proprietary **Nauta Photoshade** software. It allows the production of **natural - looking** dental prosthesis, in fewer steps than with traditional methods. All DFAB family devices are connected to a cloud system that allows the full traceability of interventions, of materials and of cartridges.

- Certified restorations in a single visit
- It prints a bridge with up to 5 elements in less than 20 minutes
- Photoshade Technology: reproduction of the chromatic variation in tooth colour from the incisal to the cervical side.

reddot award 2018
best of the best

PHOTOSHADE | DISPOSABLE
SHADES BETWEEN A1 AND A3.5 | **CARTRIDGE**

DFAB
DESKTOP

PHOTO SHADE
A TECHNOLOGY OF
DWS

reddot award 2018
best of the best

DFAB
CHAIRSIDE

D FAB Chairside

The most innovative technology combines the most intuitive user experience.

In its Chairside version, DFAB is provided with practical and intuitive touchscreen commands. DFAB Chairside is an **all-in-one device** that integrates a high speed additive manufacturing system to a **user friendly touchscreen** personal computer, practical and intuitive in its control.

- Disposable Cartridges: safe, hygienic, less waste, best user experience
- No powders are produced, no noise and no instruments or tool replacement is needed
- Compatible with intraoral scanners and CAD/CAM systems for the dental sector
- Cloud connection to ensure material traceability

PHOTOSHADE | BUILT-IN PC

SHADES BETWEEN A1 AND A3.5 | **TOUCHSCREEN**

PHOTOSHADE

A natural effect thanks to the adaptive colour gradient.

DFAB is a system that allows the reproduction of patient's specific teeth colours, in terms of pigmentation and shade, providing the prosthesis a realistic effect.

Thanks to the **Photoshade** technology, the operator selects the necessary shade's extremes by choosing the colours' codes from A1 to A3.5, in addition to the **exact position and width of the gradient** to be obtained. At the same time it is fully free to operate in the whole surface of the file, as per the light blue lines in the pictures. This process is not reproducible with CAD/CAM milling systems and with conventional 3D printers.
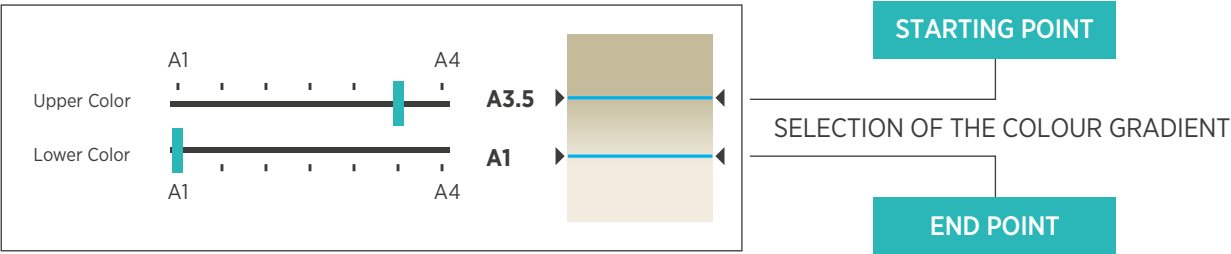
NAUTA PHOTOSHADE SOFTWARE

Simple and intuitive, step by step, it brings the user to the print.

The Nauta Photoshade software reproduces in **real time the restoration's preview** and, obtained the operator's confirmation, visualizes the file to be printed, so to get the most realistic result as possible.

- Extremely easy to use: it can be handled also by beginners or minimally educated operators
- Step by step working process guides the operator to the print
- A completely visual choice system, from the selection of the gradient to the shading colour
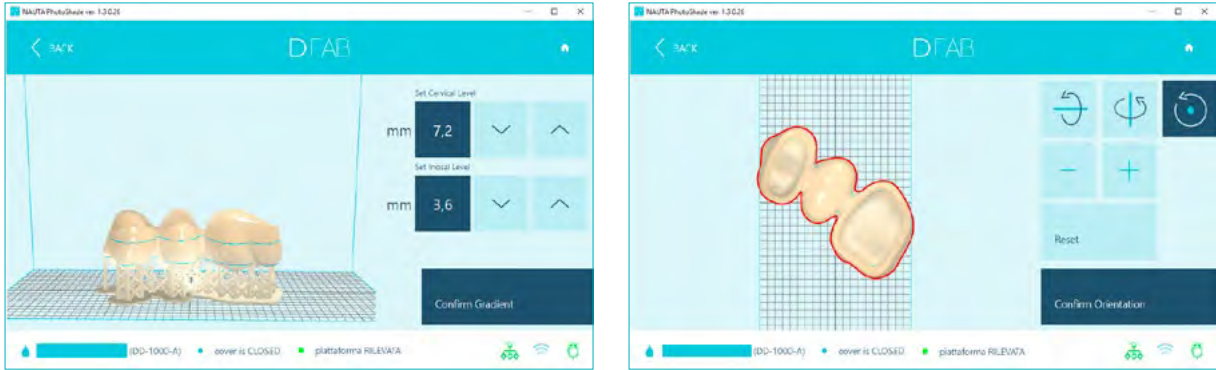
L FAB

A 3D printing revolution in the dental laboratory.

LFAB is the innovative 3D printer for producing Class IIa restorations in less than 20 minutes. It was developed specifically for laboratories and is equipped with a **safe material management system** with ready-to-use cartridges.

- Provisional and permanent restorations[1] in less than 20 minutes
- A complete range of restorative materials including nanocomposites and zirconia
- Disposable ready-to-use cartridges

MONOCHROMATIC | DISPOSABLE

SHADES A1, A2, A3, A3.5, B1, N | **CARTRIDGE**

LFAB

LFAB

[1] The polymer is to be considered a long-term invasive medical device in Class IIa as provided for by the Rule 5, Annex IX, Dir. 93/42/EEC.

X FAB

Selection
ADI DESIGN INDEX
2017

Premium print quality for small and medium-sized laboratories.

This is the XFAB model designed for dental sector's professional applications. Supplied with our **Nauta** and **Fictor software**, which allow manual setting of DWS material parameters, XFAB 2500PD guarantees complete freedom in optimizing settings when printing models. Boasting a professional-grade resolution, XFAB 2500PD is the ideal solution for small and **medium-sized dental laboratories** that need **premium quality**.

- High-speed, High-precision Stereolithographic Printer
- Plug and Play System
- Specially Developed and Manufactured by DWS Materials for the Dental Sector
- TTT (Tank Translation Technology) System to Optimize the Resin Tank's Lifespan

SOFTWARE
NAUTA AND FICTOR INCLUDED

ø 180x180
WORKING AREA X, Y, Z (mm)

XFAB
2500PD

Applications
Class IIa certified restorations[1], dental models, models with removable dies, models for implant analogues, models for thermoformed aligners, surgical guides, lost wax direct casting models, partial frameworks for lost wax direct casting, medical imaging and gingival masks / soft tissue models.

[1] The polymer is to be considered a long-term invasive medical device in Class IIa as provided for by the Rule 5, Annex IX, Dir. 93/42/EEC.

XFAB
3500PD

Applications
Class IIa certified restorations[1], dental models, models with removable dies, models for implant analogues, models for thermoformed aligners, surgical guides, lost wax direct casting models, partial frameworks for lost wax direct casting, medical imaging and gingival masks / soft tissue models.

[1] The polymer is to be considered a long-term invasive medical device in Class IIa as provided for by the Rule 5, Annex IX, Dir. 93/42/EEC.

✕ FAB

High throughput and precision, without compromise.

Expressly developed for professional dental applications, XFAB 3500PD combines precision with **high throughput performances**, making it perfect for any professional. Equipped with advanced **Nauta** and **Fictor software** for adjusting print parameters, it is ideal for many applications: orthodontic arches for thermoformed aligners, dental models, biocompatible surgical guides, diagnostic and medical imaging models, lost wax direct casting models, partial frameworks, bridges, crowns, provisional restorations, models for analogues and removable dies and orthodontic applications.

- High-speed, High-precision Stereolithographic Printer
- Complete Range of Materials for the Dental Sector, Including Temporis
- Plug and Play System
- TTT (Tank Translation Technology) System to Optimize the Resin Tank's Lifespan

BUILT-IN PC
WIDE RANGE OF MATERIALS

160x160x180*
WORKING AREA X, Y, Z (mm)
*Chamfered corners

029D

High-performance 3D SLA technology.

Rapid production system designed for medium to high production volumes, intended for medium and large-sized laboratories. It ensures **high speed** and high precision. The integrated Nauta software can automatically generate support structures. 029D is also equipped with the TTT (Tank Translation Technology) System, an electromechanical device that helps to reduce localized wear of the tank caused by the laser, thus extending the tank's lifespan and reducing running costs.

- Market-leading Print Resolution
- Ideal for Producing Large Quantities of Models
- TTT (Tank Translation Technology) System to Optimize the Resin Tank's Lifespan
- Low Running and Maintenance Costs

RAPID PRODUCTION | 150x150x100

BEST RESOLUTION | WORKING AREA X, Y, Z (mm)

029D

Applications
Dental models, models with removable dies, models for implant analogues, models for thermoformed aligners, surgical guides, lost wax direct casting models, partial frameworks for lost wax direct casting, medical imaging and gingival masks / soft tissue models.

X PRO S

Orthodontic applications for large laboratories.

An innovative 3D production printer from DWS, XPRO S is the ideal choice for **large laboratories** that need to produce large quantities of models in short time frames. High throughput, high precision and a wide selection of specific materials make this a versatile printer suitable for **every type of orthodontic application**. The printer was specifically designed around DWS material formulas to ensure optimal results.

• Equipped with a PC with Integrated Touchscreen Monitor
• Low Running and Maintenance Costs
• Excellent Price-Quality Ratio
• TTT (Tank Translation Technology) System to Optimize the Resin Tank's Lifespan

XPRO
S

Applications
Dental models, models for thermoformed aligners, surgical guides and medical imaging.

MAXI AREA
RAPID PRODUCTION

300x300x300
WORKING AREA X, Y, Z (mm)

XPRO Q

Huge printing area and ultra-high resolution thanks to its four lasers.

This 3D printing system is designed for **large-scale production**. XPRO Q is intended for large-scale laboratories and ensures high throughput thanks to its 300 x 300 mm printing area. It works with a wide range of materials developed by DWS to produce dental applications **with accuracy and speed**.

- Four Solid State BluEdge Laser Sources Working Simultaneously to Ensure the Very Fast Production Times Even at Ultra-high Resolution
- TTT (Tank Translation Technology) System to Optimise the Resin Tank's Lifespan
- Equipped with a PC with Integrated Touchscreen Monitor

4 LASERS
BEST RESOLUTION

300x300x300
WORKING AREA X, Y, Z (mm)

XPRO
Q

Applications
Dental models, models with removable dies, models for implant analogues, models for thermoformed aligners, surgical guides, lost wax direct casting models, partial frameworks for lost wax direct casting, medical imaging and gingival masks / soft tissue models.

Technical data*	DFAB Desktop	DFAB Chairside	LFAB
Technology:	Laser - TSLA	Laser - TSLA	Laser - TSLA
Working Area:	50 x 20 x 40 mm	50 x 20 x 40 mm	50 x 20 x 40 mm
Laser source:	Solid State BlueEdge®	Solid State BlueEdge®	Solid State BlueEdge®
Layer thickness:	10-100 micron (depending on the type of material used)	10-100 micron (depending on the type of material used)	10-100 micron (depending on the type of material used)
Scanning method:	Galvanometer	Galvanometer	Galvanometer
Software:	Nauta Photoshade	Nauta Photoshade	Nauta
Input files format:	.stl, .nauta, .fictor	.stl, .nauta, .fictor	.stl, .nauta, .fictor
Machine Size:	300 x 300 x 307 mm	480 x 480 x 1142 mm	300 x 300 x 307 mm
Weight:	15 Kg	40 Kg	15 Kg
Operating Temp. and Humidity:	15-25 °C / 60%	15-25 °C / 60%	15-25 °C / 60%
Power Supply:	24V DC con AC 240/100V / 50-60 Hz external supplier included	24V DC con AC 240/220V / 50-60 Hz external supplier included	24V DC con AC 240/100V / 50-60 Hz external supplier included
Electrical Consumption:	160W	200W	160W
PC Minimum Requirements:	Windows 7 or above	Windows 7 or above[1]	Windows 7 or above
- Memory:	RAM 4GB	RAM 4GB[1]	RAM 4GB
- Graphics Card:	OpenGL 2.0 compatible or above	OpenGL 2.0 compatible or above[1]	OpenGL 2.0 compatible or above
I/O Interfaces:	1 USB port	1 USB port	1 USB port
Connectivity:	1 active internet connection	1 active internet connection	1 active internet connection

[1] Built-in PC, the minimum requirements are expressed in order to operate Nauta with an external PC (not included).

Technical data*	XFAB 2500PD	XFAB 3500PD
Technology:	Laser - Stereolithography	Laser - Stereolithography
Working Area:	Ø 180 × 180 mm	160 x 160 x 180 Chamfered corners
Laser source:	Solid State BlueEdge®	Solid State BlueEdge®
Layer thickness:	10-100 micron (depending on the type of material used)	10-100 micron (depending on the type of material used)
Scanning method:	Galvanometer	Galvanometer
Software:	Fictor XFAB Edition and Nauta XFAB Edition included	Fictor XFAB Edition and Nauta XFAB Edition included
Input files format:	.stl, .slc, .nauta, .fictor, .mkr, .3dm, .3ds, .ply, .obj, .lwo, .x	.stl, .slc, .nauta, .fictor, .mkr, .3dm, .3ds, .ply, .obj, .lwo, .x
Machine Size:	400 x 606 x 642 mm	400 x 606 x 880 mm
Weight:	31 Kg	40 Kg
Operating Temp. and Humidity:	20°-25°C / 60%	20°-25°C / 60%
Power Supply:	24V DC con AC 240/100V / 50-60 Hz external supplier included	24V DC con AC 240/100V / 50-60 Hz external supplier included
Electrical Consumption:	160W	160W
PC Minimum Requirements:	Windows 7 or above	Windows 7 or above[1]
- Memory:	RAM 4GB	RAM 4GB[1]
- Graphics Card:	OpenGL 2.0 compatible or above	OpenGL 2.0 compatible or above
I/O Interfaces:	1 USB port	1 USB port - 1 TCP/IP ethernet port
Connectivity:	1 active internet connection	1 active internet connection

[1] Built-in PC, the minimum requirements are expressed in order to operate Nauta with an external PC (not included).

Technical data*	029D
Technology:	Laser - Stereolithography
Working Area:	150 x 150 x 100 mm
Laser source:	Solid State BlueEdge®
Layer thickness:	10-100 micron (depending on the type of material used)
Scanning method:	Galvanometer
Software:	Nauta+ e Fictor
Input files format:	.stl, .slc, .nauta, .fictor, .mkr, .3dm, .3ds, .ply, .obj, .lwo, .x
Machine Size:	610 x 660 x 1400 mm
Weight:	150 Kg
Operating Temp. and Humidity:	22-25°C / 60%
Power Supply:	AC 230/115 W / 50-60 Hz
Electrical Consumption:	500 W
PC Minimum Requirements:	External PC included
I/O Interfaces:	1 USB port - 1 TCP/IP ethernet port
Connectivity:	1 active internet connection

Technical data*	XPRO S	XPRO Q
Technology:	Laser - Stereolithography	QUAD Laser - Stereolithography
Working Area:	300 x 300 x 300 mm	300 x 300 x 300 mm
Laser source:	Solid State BlueEdge®	Solid State BlueEdge®
Layer thickness:	10-100 micron (depending on the type of material used)	10-100 micron (depending on the type of material used)
Scanning method:	Galvanometer	Quad-Galvanometer
Software:	Fictor	Fictor
Input files format:	.stl, .slc, .nauta, .fictor, .mkr, .3dm, .3ds, .ply, .obj, .lwo, .x	.stl, .slc, .nauta, .fictor, .mkr, .3dm, .3ds, .ply, .obj, .lwo, .x
Machine Size:	704 x 1446 x 2048 mm	704 x 1446 x 2048 mm
Weight:	500 Kg	500 Kg
Operating Temp. and Humidity:	20°-25°C / 60%	20°-25°C / 60%
Power Supply:	AC 230/115 W / 50-60 Hz	AC 230/115 W / 50-60 Hz
Electrical Consumption:	500W	500W
Requisiti minimi PC:	Windows 7 or above[1]	Windows 7 or above[1]
- Memory:	RAM 4GB[1]	RAM 4GB[1]
- Graphics Card:	OpenGL 2.0 compatible or above[1]	OpenGL 2.0 compatible or above[1]
I/O Interfaces:	1 USB port - 1 TCP/IP ethernet port	1 USB port - 1 TCP/IP ethernet port
Connectivity:	1 active internet connection	1 active internet connection

[1] Built-in PC, the minimum requirements are expressed in order to operate Nauta with an external PC (not included).

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MADE IN ITALY

The company is certified according to ISO 9001:2015 and ISO
13485:2016 standards, in full respect of the highest require-
ments in the field of medical devices.

dwssystems.com