





### **ENTER IN**

# DIGITAL DENTISTRY.

The brand new range of XFAB for the dental lab.



#### ENTER THE DIGITAL AGE

Thanks to XFAB®'s compatibility with CAD/CAM systems currently on the market, it is possible to digitalise laboratory procedures by obtaining models in a short time span and guaranteeing customers a finished and detail product.

After intraoral imaging of the patient's mouth or the model, a file is prepared via a modelling software and saved in STL format. Supports can be easily created thanks to the Nauta® software supplied with the printer and printing is started via the Fictor® software.

#### **TECHNOLOGY AND RELIABILITY**

The 3D printers of XFAB® series are ideal for orthodontists and dental technicians who need to produce orthodontic models in a short time span.

XFAB 2000 and 2500 use the same technology as the professional DWS printers and are therefore accurate, precise and ensure the highest and most defined degree of detail.

- Cylindrical working area: ø 180 mm.
- Compact design for desktop use.
- Printer with "Plug and Play" USB connection.
- · Simple and intuitive interface.
- Patented work platform with instruments for easy removal of models.
- TTT (Tank Translation Technology) patented system, which optimises the tank consumption, increasing its duration.
- Automatic heating system and material temperature control.
- BluEdge® proprietary laser.
- · No calibration required.

#### **PROFESSIONAL MATERIALS** FOR THE DENTAL SECTOR

Thanks to material produced in-house at DWS and decades of experience in the world of professional printers, the materials developed for the dental sector are precise, accurate and ideal for orthodontic applications such as digital models, surgical guides, models for thermoformed aligners and dies (for XFAB2500PD).









# cal specifications are subject to change without notice.

#### XFAB 2000, 2500SD AND 2500PD: A BRAND NEW RANGE FOR THE DENTAL LAB.

XFAB is availbale in different models and options in order to better respond to customised needs.

XFAB 2500SD and XFAB 2500PD are provided with Nauta® and Fictor® software, which allows the possibility to manually customize the parameters of DWS materials. The 2500PD model has also an higher resolution.

#### **Applications**

Orthodontic applications, arches for thermoformed aligners, dental models, biocompatible\* surgical guides, medical imaging. XFAB 2500PD allows the production of dies.

#### **Available Materials**

5 dental materials, plus 7 materials for jewellery and design.

#### Hears

Small and medium sized dental labs, practitioner clinics included.



XFAB 2000

XFAB 2500 PD

3D printing technology:	Laser stereolithography
Working area:	Ø 180 x 180 mm
Layer thickness:	10 - 100 $\mu$ (mechanical resolution, the actual value depends on the material used**)
Scanning method:	Galvanometer
Input file format:	stl, .slc, .nauta, .fictor, .mkr, .3dm, .3ds, .ply, .obj, .lwo, .x
Dimensions:	400 x 606 x 642 mm
Operating temperature and humidity:	20-25 °C / 60%
Power supply:	24V DC with AC 240/100V / 50-60 Hz External power source included
Operating system:	Windows7 or higher
Memory:	2 GB
Graphic card:	OpenGL compatible
Interfaces:	I/O1 free USB port
Connectivity:	1 active internet connection
Suggested configuration:	Dual core or higher processor, 4 GB of memory
Software:	Nauta®, Fictor®

<sup>\*</sup> Class I polymer for surgical guides according to rule 5, annex IX of EC directive 93/42. US market: waiting for FDA approval.

<sup>\*\*</sup> You can consult the updated information on www.dwssystems.com to find out the actual minimum slicing value.

# Invicta<sup>™</sup> 915 / 917

Material for high precision and accuracy models.



Ideal material for anatomical replicas for the creation of jaws for study cases and diagnostics. The white colour is suitable for checking the bone structure and planning reconstruction interventions.

#### Invicta 917

High definition material, suitable for the creation of **digital models** for study or diagnostics, support models for surgical guides in DS3000, models for **crowns and bridges** and for a vast number of **orthodontic applications.** It is resistant and long lasting. The grey colour makes it possible to display gingival and teeth margins in detail.

The printed model requires a short wash with alcohol solution and a twenty minute cycle in UV device. It does not require other finishing processes.



State:	Liquid
Available colours:	White - Invicta 915; grey - Invicta 917
Material quantity per cartridge:	165 g
Specific weight:	1.12
Viscosity:	800 cps at 25 °C
Description:	ABS-like polymer
Tensile strength:	35 MPa
Elongation to rupture:	8%
Tensile modulus:	1400 MPa
Flexural strength:	60 MPa
Flexural modulus:	1600 MPa
Surface hardness:	80 ShoreD
HDT at 0,46 MPa (°C):	58



# **DS3000™**

# Safe and certified biocompatible material.

#### **DS3000**

**Class I\* biocompatible material** ideal for the creation of **surgical guides** for implants, maxillofacial surgery, oral pathologies and reconstructions. Its transparency ensures maximum visibility and guarantees maintenance of the correct angle during dental implant positioning.

The surgical guide printed by one of the XFAB® models requires a twenty minute UV Curing cycle and does not require other finishing processes. Cold sterilisation is permitted.



State:	Liquid
Available colours:	Transparent
Material quantity per cartridge:	165 g
Specific weight:	1.08
Viscosity:	650 cps at 25 °C
Description:	Class I* biocompatible
Tensile strength:	37 MPa
Elongation to rupture:	7%
Tensile modulus:	1381 MPa
Flexural strength:	79 MPa
Flexural modulus:	1500 MPa
Surface hardness:	87 ShoreD
HDT at 0,46 MPa (°C):	55

<sup>\*</sup>Class I polymer for surgical guides according to rule 5, annex IX of EC directive 93/42. US market: waiting for FDA approval.

# Vitra<sup>™</sup> 430

Transparent material ideal for medical imaging, for case study and diagnostics.



**Transparent** material which makes it possible to display the nerves position and anatomic structure of the patient aimed at planning surgical actions. Resistant and long lasting.

The model does not require post production processes, except a short wash with alcohol and a fifteen minute cycle in UV device.





State:	Liquid
Available colours:	Transparent
Material quantity per cartridge:	165 g
Specific weight:	1.1
Viscosity:	850 cps at 25 °C
Description:	Transparent polymer
Tensile strength:	32 MPa
Elongation to rupture:	8%
Tensile modulus:	1380 MPa
Flexural strength:	60 MPa
Flexural modulus:	1500 MPa
Surface hardness:	78 ShoreD
HDT at 0,46 MPa (°C):	53



## Therma<sup>™</sup> 294

Material for orthodontic models and arches for thermoforming aligners.

#### Therma 294

Nanoceramic material light blue in colour suitable for the creation of **orthodontic applications** and **arches for aligner thermoforming.** It is ideal for the creation of models and arches on which to obtain retainers.

The models are detailed and precise thanks to the performance of XFAB® 3D printers series and high definition and thermal resistance of the material.

The work area is round to allow higher productivity: it is possible to obtain up to **26 arches** with each print.



State:	Liquid
Available colours:	Light blue
Material quantity per cartridge:	165 g
Specific weight:	1.26
Viscosity:	1800 cps at 25 °C
Description:	Nanoceramic material
Tensile strength:	31 MPa
Elongation to rupture:	4%
Tensile modulus:	1700 MPa
Flexural strength:	67 MPa
Flexural modulus:	1900 MPa
Surface hardness:	87 ShoreD
HDT at 0,46 MPa (°C):	56



DWS was established in Vicenza in 2007 from lengthy consolidated experience in creating systems for 3D printing, development of software and material for use.

The company develops hi-tech solutions for prototyping and for fast production, ultimately aimed at reducing new product development times and consequently decreasing the time to market.

DWS's goal is to innovate processes to help companies, offices and laboratories enter the digital world and be competitive on the market.

#### www.dwssystems.com

#### Information

This brochure contains informative addressed to healthcare professionals as it deals with information that may lead to serious damages for patient's health and safety if not properly understood and duly executed. Regulations under the Italian law (Legislative Decree dated February, 23rd 2006, Legislative Decree no. 219/2006 and in general by Legislative Decree no. 46/97 as amended by Legislative Decree no. 37 dated January, 25th 2010).

#### **DWS** srl Via della Meccanica, 21 36016 Thiene (VI) T+39 0445 810810 info@dwssystems.com

