

Digital

atelier

customized digital solutions



Digital *atelier* customized digital solutions

Sweden & Martina strongly believes in the evolution of digital dental and prosthetic technologies.

To continue our long-standing support of dentists and dental technicians, our company has developed a center that offers a full range of digital services as well as the production of custom made dental products.

50 years of experience in the dental sector, the best design and production technologies, exceptional levels of availability for customer needs, attention to detail and a search for quality distinguish the Digital Atelier and its services.

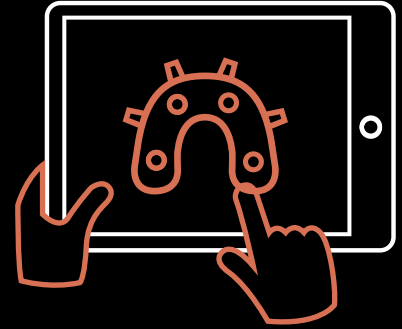
A Research & Development team works to constantly adapt the range products we offer; a team of technical assistants and digital specialists are available to work alongside customers to help them create unique, tailor-made products! A complete *atelier* that can handle any request with the utmost professionalism and skill.

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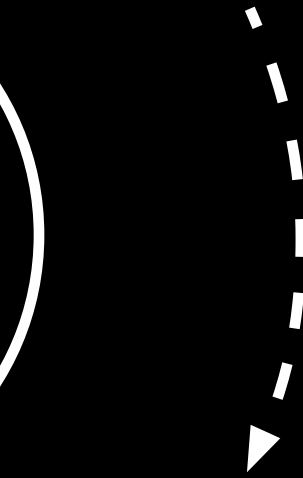
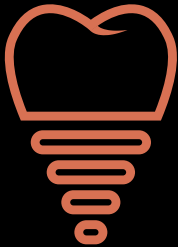
DATA ACQUISITION



GUIDED SURGERY



3D PRINTING AND
MILLING



CAD-CAM



Digital Atelier

A single team provides the following services:

- custom prosthesis designs and surgical plans;
- production of custom made prostheses;
- production of surgical guides;
- technical assistance.

Our team guarantees tailor-made services for every customer thanks to:

- highly specialized staff;
- dental technicians with proven experience that can help customers identify the solutions best suited to their needs;
- a highly qualified team of technical specialists.

Reliability and assistance

- Industrial reliability ensured by exclusive technologies that only companies like Sweden & Martina are able to manage and maintain;
- technical support for design libraries;
- resolution of technical problems with products.



Portal

Our **practical portal** allows customers to:

- upload **order** requests;
- **inform** the Digital Atelier when they send a physical model;
- request any **additional services**, such as **scanning, design, and/or just production**.

Through the portal it is possible to:

- **track** the shipment of models;
- **track case progress**;
- **verify and approve designs**;
- **request changes or implementations** to the design.

During the **configuration** phase, the portal:

- allows users to choose among the raw materials available **for the type of product requested**;
- **stops the choice** of any material options that are incompatible with the requested product due to material limitations (e.g. extension length, pontic length, etc.);
- allows users to choose among **various colors** for each different material, if available.



Digital Atelier contacts

Technical assistance

e-mail: atelier.support@sweden-martina.com
Whatsapp: +39 3939702511
tel: +39 049 9124394

Contact for:

library management, portal support, CAD software installation and assistance (Archiplan, Exocad), equipment installation and assistance, design information.

Production

reporting: dedicated section on the portal (for CAD CAM orders)
e-mail: atelier.production@sweden-martina.com
Chat Whatsapp: +39 3482337374

Contact for:

production reporting, non-standard timing, production feasibility.

Guided surgery planning

e-mail: digital@sweden-martina.com

Contact for:

guided surgery planning case management.

Iuxtaplan design

e-mail: iuxtaplan@sweden-martina.com

Contact for:

Iuxta design case management.

Design of custom prostheses

use the chat found on the portal

Contact for:

prosthesis design case management.

Quality Control

e-mail: dwf.complains@sweden-martina.com
tel: +39 049 9124394

Rivolgersi per:

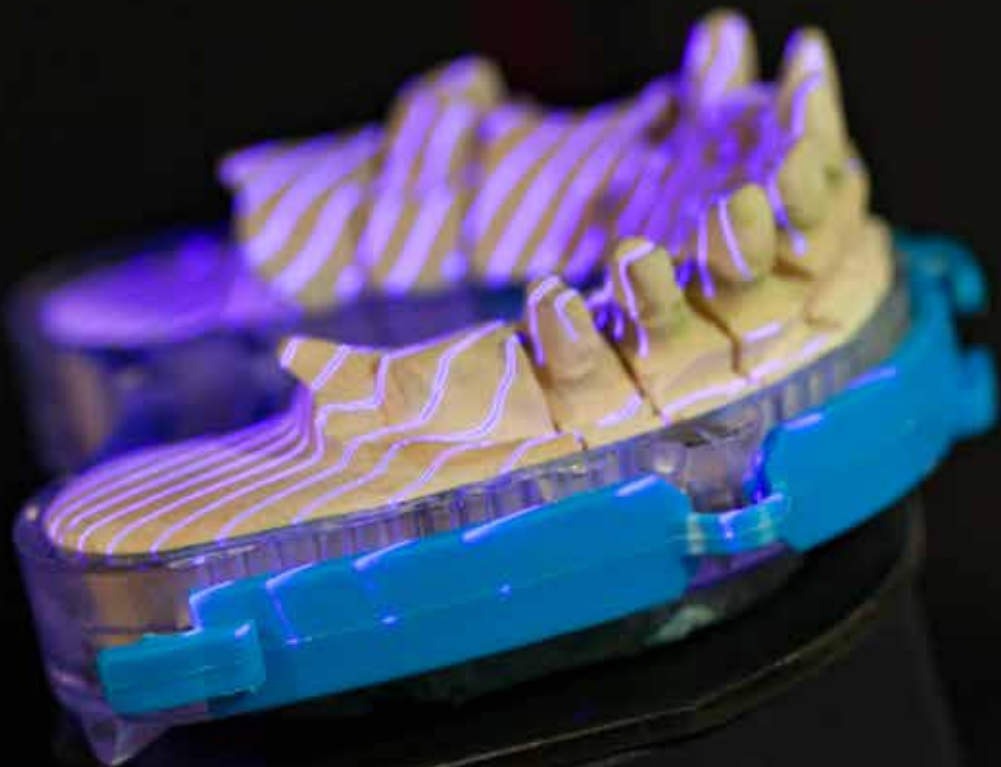
reports, complaints.

Customer service

e-mail: customerservicedwf@sweden-martina.com
tel: +39 049 9124394

Contact for:

order management, license activation, invoicing, order tracking.



Design Center

The Digital Atelier can:

- **scan physical models** received from customers;
 - **acquire intraorally scanned virtual models** or models produced in the lab by customers and sent in the form of files (files from all open scanner systems are accepted);
 - **virtually model** any prosthetic product based on customer indications;
 - **design surgical guides**, based on customer prescription;
 - **design subperiosteal implants**, based on customer prescription.
-
- Customers can request individual case designs or send wax ups, either **physical or virtual, complete or reduced**;
 - if reduction is carried out by the Design Center, the design of the prosthetic structure will already take the thickness of supports for caps or cemented bridges, or the thickness of the ceramic layer, into account;
 - **designs** are always **shared with customers**, and customer **approval is required before** production can begin;
 - thanks to their long-standing experience, the dental technicians at the Digital Atelier are able to suggest the best solutions for even the most complex restorations.



Intraoral scans

If requesting design services, and if **intraoral scans or lab scans of physical models** are provided, customers must send the following files along with the them:

- **tissue scans;**
- in the case of implants, **scans performed with the Sweden & Martina scanbody.** In this case, the Scan Center is available to provide clarifications;
- **bite registration scans.**

The files must be uploaded **into the appropriate section of the portal**, after opening the case file.

This portal guides users step by step through this portal.



Sending models

If sending physical models, they can be sent directly to the Scan Center after **opening the relevant procedure on the appropriate page of the portal**:

- when requesting a design via the portal, a 6-digit case number will be assigned once the prescription has been uploaded. This code will be automatically inserted into the document to be printed and placed in the box along with the model to be sent;
- **models are returned to customers at the end of the production process**, during order processing.

Model specifications

Models sent to the Scan Center should be:

- as precise as possible and in **no way deformed or malleable**;
- in the case of plaster models, extra-hard plaster is preferred.

Package **models and any accessories (e.g. diagnostic wax ups, bite registrations, control keys, etc.)** with extreme care and with sufficient protective materials to guarantee safe and **stable transport**.

Prosthetic models on natural teeth

- Any models sent must have removable **abutments and prepared ditching**;
- they **must not be sprayed** with die spacers and/or matte paints;
- we recommend **sending the antagonist** and/or any bite registrations along with the model, in an articulator if possible;
- the Scan Center is able to **replicate wax ups of any size**, from single crowns to full arches, made with either wax or resin.

Prosthetic models on implants

- Models must be developed with **new components (analog)**, in order to guarantee **maximum precision in platform coupling**;
- models must be constructed with **removable artificial mucosa**, made with pink silicone or other suitable materials;
- any **wax-ups of prostheses on implants** must be made with **resin, not wax**, to avoid distortions.



Milling & Printing Center

Using customer files or files designed internally, the Digital Atelier can:

- **print 3D models**, with or without the insertion of implant analogs;
- **mill individual prosthetic structures** made with various materials;
- produce individual prosthetic structures via **laser sintering**;
- produce **surgical guides, including modular ones**;
- the **precision of our products** is guaranteed by quality control checks carried out by specialized dental technicians.

The technologies we use

The Milling Center uses:

- **cutting-edge milling machines** to carry out extremely precise restorations that are reproducible, passive and reliable;
- the most **reliable** and **precise printers** on the market;
- **the latest generation of laser sintering machines**, which guarantee the non-contamination of powders, products free from holes and maximum density.



Raw materials

- A **wide range** of raw materials that is in constant evolution;
- all of the materials used **are certified** in accordance with current legislation and have proven biocompatibility.

Raw materials **are chosen based** on the following:

- the specific **prescription of the case**;
- the **indication of use**;
- the **extension of the structure**;
- the **physical-chemical data** necessary for finalization (e.g. expansion coefficients, elastic modulus, hardness, density, chemical composition);
- the **time of use**.

Technical data sheets of the materials we use:

- can be downloaded from the **portal home page**;
- can be requested by contacting **atelier.production@sweden-martina.com**.

Material range

The main materials used for the production of Digital Atelier custom prosthetic components are:

- Metoxit Z-CAD* zirconium oxide (**Zirconia**) for sub-structures;
- Kuraray Katana* **layered** zirconium oxide (**Zirconia**) for integral anatomical structures;
- **biomedical titanium** grade 5, **milled**;
- biomedical **cobalt-chrome**, ceramizable, **milled**;
- biomedical **cobalt chrome**, ceramizable, **laser sintered**;
- biomedical **cobalt chrome**, ceramizable, **laser sintered, unfinished** (sintering supports are not removed);
- **biomedical resin** for temporaries;
- **PEEK** for temporaries;
- BioSolution MERZ **reinforced PEEK** for permanents;
- BreCam* Bredent HIPC **reinforced integral composite** for permanents;
- Graphenano* **graphene** G-CAM for permanents;
- Bioloren Trilor* **fiberglass** for permanents;
- Ivoclar* IPS e.max CAD LT or HT **lithium disilicate**, for singles;
- VITA* Enamic HT **hybrid ceramic**;
- **transparent castable PMMA** for structures to be cast;
- **aluminium**, for Sheffield and passivity tests;

When configuring product requests on the portal, customers may find **additional materials**, in addition to those listed above, as the portal is always **updated in real time**.

* Z-CAD Metoxit, Katana Kuraray, BreCAM Bredent, G-CAM Graphenano, BioSolution Merz, Trilor Bioloren, IPS e.max CAD LT or HT Ivoclar, and Enamic Vita are trademarks owned respectively by Metoxit (Thayngen, CH), Kuraray Europe GmbH (Hattersheim, D), Bredent Group international (Senden, D), Graphenano Dental SL (Valencia, E), MERZ Dental GmbH (Lütjenburg, D), Bioloren srl (Saronno, I), Ivoclar Vivadent Srl (Naturis, I) and VITA Zahnfabrik, H. Rauter GmbH & Co. KG (Bad Säckingen, D)



Zirconium oxide (Zirconia)

- Certified, **ultra-pure** zirconia for permanent prostheses;
- raw materials are tested according to the following standards:
 - » **ISO 13356**, Ceramic materials based on yttria-stabilized tetragonal zirconia;
 - » **ISO 6872** Dental ceramic;
- after the milling phase, products are **sintered** following the **appropriate process**, which gives the material its characteristic hardness and resistance;
- after sintering, zirconia is **an inert and extremely biocompatible material**, capable of **recompacting its crystal lattice** when subjected to **external stress**;
- to **avoid triggering cracks** in the structure, **avoid subsequent modifications with milling machines**, turbines or micromotors to avoid reopening the lattice in a high-risk way;
- **small superficial adjustments** must be made with **diamond cutters** and a **high-speed turbine**, with **ample irrigation**.

Katana multilayer anatomical zirconia

- **Katana* layered zirconia** is available in three versions, HTML*, STML* and YML*, which are characterized by different levels of hardness and translucency;
- For Katana HTML* and STML* zirconia, translucency and hardness are inversely proportional, while Katana YML* is characterized by progressive flexural strength in the various layers.

Metoxit Z-CAD Zirconia for ceramizable structures/ substructures

Metoxit Z-CAD* substructure zirconia is available in two versions, opaque (HD) and 41% translucent (HTL).

*Metoxit Z-CAD and Kuraray Katana are trademarks owned respectively by Metoxit (Thayngen, CH) and Kuraray Europe GmbH (Hattersheim, D)



Biomedical titanium grade 5, milled

- Products are milled from **titanium grade 5 disks**, compliant with **ASTM F136-13 and ISO 5832-3**;
- this **titanium alloy**, enriched with aluminum and vanadium, guarantees **excellent biocompatibility**, as required by current **standards**;
- **exceptional mechanical resistance** and remarkable durability over time;
- particularly suitable for the creation of **permanent bars** and **reinforcement structures for full arch** rehabilitations;
- in the case of direct veneering, refer to the manufacturer instructions of the ceramic for temperatures and firing times;
- **ceramic compatible with titanium** is recommended.

Cobalt chrome, milled

Structures that require implant connections are produced **exclusively by milling**, since this production method ensures **micrometric precision** that is typical of industrial manufacturing.

Products made with milled cobalt chrome:

- are produced from special cobalt chrome alloy discs that **do not contain nickel, beryllium or gallium**;
- have very **high mechanical resistance** and significant resistance to corrosion;
- are suitable for permanent prostheses on:
 - » natural teeth;
 - » ceramizable structures for bridges, crowns and full arch restorations;
 - » bars or multi-unit structures for implants.



Laser sintered cobalt chrome

- Laser **sintered cobalt chrome** structures are produced with certified powder in accordance with **ISO 22674 and ISO 9693-1** standards;
- they do not contain nickel, beryllium, or cadmium;
- they can be ordered:
 - » **unfinished**, i.e. the supports created during the production phase are not removed;
 - » **finished**;
- they are suitable for the production of **permanent structures**, as well as:
 - » bridges and crowns to be veneered by the laboratory;
 - » bars or multi-unit structures for implants, with the use of appropriate cementing links (e.g. T-Connect, Interfase, T-Unica, etc.).



Graphene

The Graphenano G-CAM* material used in the dental field is a **polymer mixture with high biocompatibility**, an **attractive aesthetic appearance** and **considerable durability**, which is mixed with a sufficient quantity of graphene nanoparticles.

Graphene is state-of-the-art nanotechnological material:

- it is an allotropic form of carbon, just like graphite or diamond;
- it has **incredible mechanical**, optical and electrical properties and improves the characteristics of the materials to which it is added;
- it is the strongest material known, approximately **200 times harder than structural steel** with the same thickness;
- **it is as light as, and more flexible than, carbon fiber**;
- it is **extremely flexible and elastic**;
- it has mechanical properties similar to those of natural teeth;
- thanks to its **high elastic modulus**, it highly resists deformation;
- it is certified for the production of **permanent prosthetic structures**;
- it is waterproof;
- it is an effective antibacterial agent, preventing the growth of bacteria.

*G-CAM Graphenano is a trademark of Graphenano Dental SL (Valencia, E)



PEEK

Polyether ether ketone, for temporaries

PEEK is a **semi-crystalline thermoplastic polymer** that:

- combines **excellent** mechanical properties and optimal **chemical-physical characteristics**;
- is considered an **excellent substitute for many metal applications**;
- is **insoluble** and **very resistant to wear and abrasion**;
- is **dimensionally stable**, even under load;
- is indicated for patients with metal allergies;
- is suitable for the production of bars;
- is ideal for substructures for screw-retained restorations, thanks to its **ivory color**;
- can be used for **temporary restorations lasting more than 30 days**, but not for permanent prostheses.



Reinforced PEEK Polyether ether ketone reinforced with titanium dioxide, for permanents

BioSolution Merz* offers a version of PEEK reinforced with titanium dioxide that:

- offers an ideal combination of **biocompatibility, high flexural strength and excellent elastic modulus**, in accordance with EN 20795-1;
- is **free of metals and monomers**;
- has a mechanical behavior similar to bone;
- is **hard-wearing**;
- presents an excellent possibility of adhesion to restoration materials;
- offers patients **significant comfort and natural sensations**, compared to metals;
- is certified for **permanent restorations**.

* BioSolution Merz MERZ are trademarks of MERZ Dental GmbH (Lütjenburg, D)



Layered biomedical resin for temporaries

Biomedical resin:

- has an **attractive aesthetic** appearance and easily adheres to temporary restorative materials;
- is **comfortable** for patients, thanks to its ability to cushion masticatory loads;
- has physical characteristics (flexural strength, elastic modulus) comparable to those of artificial teeth normally used for partial/complete dentures;
- has **aging and abrasion parameters very similar to those of teeth** used for **complete dentures**;
- is suitable for the production of bridges and crowns;
- can be used for **temporary products lasting more than 30 days and up to 6 months**.



Fiberglass

Trilor Bioloren* **fiberglass** used by the Digital Atelier is a **cutting-edge material in non-metallic and non-ceramic dental material research**:

- it is a **technopolymer** composed of **thermosetting resin reinforced with multidirectional fiberglass**;
- it is highly **compatible with composite adhesion and coating systems**, when printed and when applied with additive techniques;
- it is **certified for the production of both temporary and permanent restorations**;
- its particular **A2 color** makes it **easy to conceal** in veneered structures;
- this material is suitable for the creation of:
 - » single crown and bridge structures with up to two pontic elements;
 - » screw-retained bridges on implants;
 - » structures for telescopic prostheses;
 - » Toronto prostheses and Full Arch structures;
 - » bars.

*Trilor Bioloren is a trademark of Bioloren srl (Saronno, I)



HIPC (High Impact Polymer Composite)

The Digital Atelier uses Bredent BRECAM.HIPC* for permanent HIPC (High Impact Polymer Composite) restorations:

- it is a **cross-linked amorphous composite** with remarkably high physical values;
- the **absence of glass particles and visible light-hardening resins** guarantees high color stability and excellent resistance to plaque;
- it is an **aesthetically attractive, translucent and opalescent material**, with exceptional color effects for minimally invasive restorations;
- it facilitates the resolution of complex cases even in situations with limited space;
- it is **excellently tolerated** by mucosal tissues and has **high biocompatibility** and clinical performance;
- it has been tested in **numerous in vivo studies** for over 9 years, for fixed and removable prostheses, in both monolithic restorations and veneered structures;
- it is **certified for permanent prostheses**.

* BreCAm Bredent is a trademark of Bredent Group international (Senden, D)



Lithium disilicate

The Digital Atelier uses Ivoclar IPS e.max CAD **lithium disilicate** blocks, available in a wide variety of colours:

- it is a **lithium disilicate based glass ceramic**, available in two versions:
 - » **HT**, for the production of inlays and onlays;
 - » **LT** for fully anatomical single restorations;
- the blocks are in a **state of partial crystallization**, which ensures product edges remain stable;
- products are **supplied untempered**, with their characteristic translucent **blue color, leaving the crystallisation process to be carried out by the laboratory**, which can then proceed with simultaneous glazing;
- after glazing and crystallization, the material reaches the desired physical and chemical characteristics, in accordance with **ISO 6872** and **ISO 9693** standards.

*IPS e.max CAD LT or HT Ivoclar are trademarks of Ivoclar Vivadent Srl (Naturno, I)



VITA Enamic HT hybrid ceramic

Vita Enamic is a **hybrid ceramic** with a **dual lattice structure**:

- the **dominant ceramic lattice** with a microfine structure (86% by weight) is **strengthened by a polymer lattice**, and the two lattices fully interpenetrate;
- this composition **decreases fragility** compared ceramic alone, while also maintaining **better abrasion behavior compared to composite**;
- products can be etched with hydrofluoric acid gel, and thanks to **modern adhesive techniques**, a stable, long-lasting union with the tooth substance is ensured;
- products can also be fixed with adhesive composites;
- products **are sent** to laboratories **before polymerization**, so that **customers can customize the color**;
- it is suitable for the production of:
 - » inlays;
 - » onlays;
 - » veneers;
 - » partial and total crowns, frontal and posterior permanents, and implants.

* Enamic Vita is a trademark of VITA Zahnfabrik, H. Rauter GmbH & Co. KG (Bad Säckingen, D)



Transparent castable PMMA

The PMMA used by the Digital Atelier:

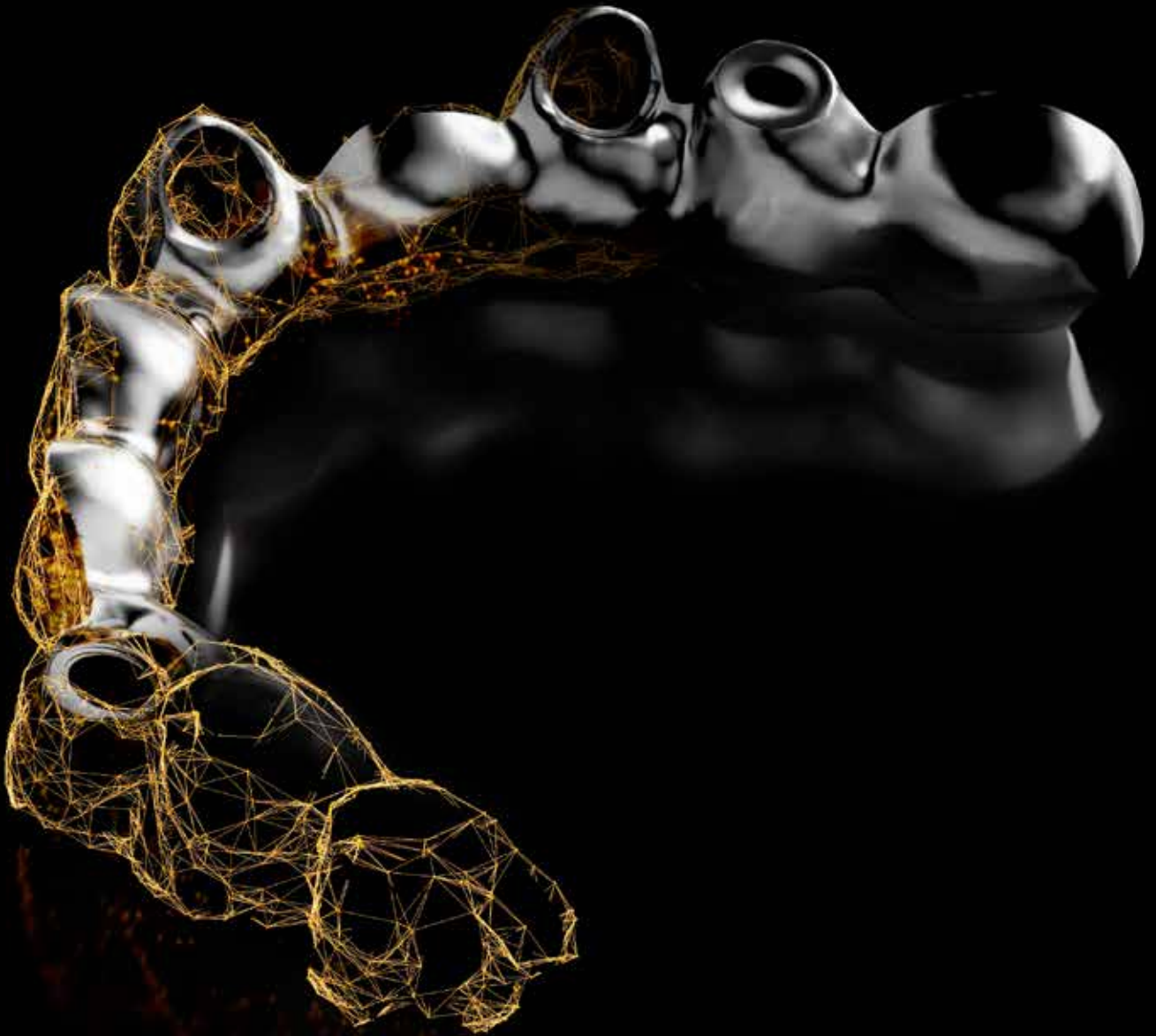
- is **transparent**;
- has a **high density**;
- is **highly sealable**;
- is created **exclusively** for the production of **castable products**;
- is not certified for intraoral use.



Aluminium, for Sheffield and passivity tests

Aluminium:

- is a **rigid material**, with physical characteristics similar to titanium, and for this reason it lends itself to the production of **control keys** to perform the **Sheffield test** and **verify the passivity** of structures;
- we **recommend** you request these products, which have a relatively low cost, **to verify that there are no distortions between the impression and the physical intraoral situation**, before proceeding with the execution of production structures in titanium, cobalt chrome, or zirconium, given their higher cost;
- aluminum can be used for **short-term intraoral testing phases**, limited to **fitting, verification and subsequent removal**, as it is not certified for long-term use, neither for temporaries or permanents.



Prosthetic products offered by the Digital Atelier

The Digital Atelier is able to provide:

- **caps, substructures and anatomical structures (Full Contour) for bridges and crowns**, to be cemented to natural teeth;
- **individual abutments** for implants;
- **substructures or anatomical structures (Full Contour) for single crowns, screw-retained solutions**, and implants;
- **multiple, screw-retained substructures or anatomical structures (Full Contour) for implants, from bridges to full arch rehabilitations**;
- **implant-supported bars**;
- **3D models with removable gums**, if needed.



Caps, substructures and anatomical structures (Full Contour) for bridges and crowns, to be cemented to natural teeth

Substructures and **anatomical structures** on bridges and crowns can be made with **one element** (single) to **up to 14 elements** (full arch).

They can be produced in **different materials**. During order configuration, the portal provides users with all available information to ensure the proper raw material is selected based on the product requested.

Dental technicians from the Digital Atelier **are available** for **design support**, upon request.

All products are **checked** during and at the end of the production process, before shipping, **with validated and certified micrometric instruments**.



Indications on adhesion and cementation



Single abutments and crowns for implants

Custom **abutments** and **crowns**:

- guarantee the same **micrometric precision** that is characteristic all of Sweden & Martina's standard prosthetic components;
- have an **optimal and precise fit**;
- have a very **neat surface finish** to guarantee that the components offer the **best possibility of cellular interaction** with soft tissues and prevent inflammation;
- products can be made **entirely of milled metal**, Titanium grade 5 or Cobalt Chrome, **or using a luting technique** with a variety of materials, and in this case they can be provided as **complete products, with or without the necessary links**;
- abutments and crowns are supplied along with necessary fixing screws and, if required, necessary links;
- **angled screw holes** can be added for an extra charge and, when requested, an **angled screw** is automatically added to the order;
- **links** can be of **various types**, based on whether the **through hole needs to be straight or angled**. Please refer to the catalogs of the various systems we use, which can be downloaded from the site sweden-martina.com
- **upon request**, individual titanium abutments can be **anodized**, obtaining a golden yellow color which gives a greater aesthetic appearance in the presence of thin tissues or under translucent coating materials.

The portal guides the customer when loading an order, offering the choice between materials and solutions available for the specific implant connection requested, based on product type.

All the main Sweden & Martina connections are available.
For restorations of implants of different brands, contact the Digital Atelier at: atelier.support@sweden-martina.com.



Indications on adhesion and cementation



Total White Esthetic abutments and crowns

For some **selected** Sweden & Martina **platforms**, which are listed below, abutments and crowns can be produced in aesthetically appealing materials, such as zirconia or stratified zirconia, as long as they have a minimum elastic modulus of 1000 MPa. These products are **completely white**, i.e. without the interposition of externally visible links.

These solutions have the advantage of being very aesthetically appealing, and soft tissue response is optimal.

- **Premium Power, Shelta Power and Kohno implants with minimum connection diameter of 3.80 mm**
 - » **the body of the crown or abutment is made entirely of zirconia**, and the single male connection of the product is reinforced with titanium;
 - » **the fixing screw is made of titanium grade 5**;
 - » **a PEEK o-ring** is supplied, to be placed between the head of the screw and the block inside the through hole;
 - » the PEEK o-ring evenly **distributes the tightening torque** and prevents the creation of potentially dangerous tension points.

- **Outlink² and Syra implants with standard external hexagon connection platform, with a diameter of 4.10 mm with 7 mm hexagon**
 - » it is possible to request products made completely with zirconia, which do not require any type of internal reinforcement;
 - » like other solutions, the fixing screw is made of titanium grade 5, and a PEEK o-ring is supplied, to be placed between the head and block of the screw inside the through hole.



Indications on adhesion and cementation



Multi-unit screw-retained prostheses for implants

The Digital Atelier is able to produce multi-unit screw-retained solutions for all Sweden & Martina implants:

- unlike single solutions, equipped with repositionable connection, the connections of multi-unit solutions have **no anti-rotational index**;
- prosthetic connections have a small centering cone to facilitate the positioning of restorations;
- the following solutions are available:
 - » **entirely milled**, which rest directly on implant platforms;
 - » entirely milled, which rest on intermediate abutments
 - » (P.A.D.r or Plain);
 - » solutions for **luting techniques supplied with or without links**, based on each individual request;
- tightening **screws are supplied** with products;
- if an **angled screw hole** is requested, a **surcharge**,
- that also includes the appropriate **tightening screw**, is applied;
- before requesting the production of entirely milled structures, it is advisable to request an **aluminum control key** to verify the correctness of the impression and the passivity of the prosthetic frame;
- for an additional charge, **it is possible to request surface treatments** such as sandblasting, anodic colouring, etc.

All the main Sweden & Martina connections are available.

For restorations of implants of different brands, contact the Digital Atelier at: atelier.support@sweden-martina.com.



Indications on adhesion and cementation



Bars on implants

The following bars can be requested from the Digital Atelier:

- **bars milled** in Titanium Grade 5 or Cobalt Chrome
 - » milled bars that rest directly on implant platforms;
 - » milled bars are supplied with the necessary fixing screws;
- **bars used with luting techniques** made with laser sintered cobalt chrome, or with PEEK, reinforced PEEK or graphene. In this case, links and necessary fixing screws are not supplied with the bars;
- it is always recommended to **first proceed** with the production of **aluminum bars to verify the passivity** of structures and the correct positioning of implant connections;
- the Design Center can provide accessory services upon request, such as the insertion of **threaded holes** for screwing different types of attachments;
- **upon request**, bars can be subjected to an **anodic process** to give them a pleasant golden color.

All the main connections of the Sweden & Martina implant systems are available. For platforms from other brands, please contact the Digital Atelier at: atelier.support@sweden-martina.com.



3D Models

Modern 3D printing technologies make it possible to produce **precise, accurate, solid and strong models**.

- They can be **produced using files** received from customers or they can be **designed** by the Digital Atelier based on intraoral scans provided by customers;
- models of natural teeth are produced with **removable abutments**;
- models of implants are supplied with prepared **housing for removable digital analogs**;
- analogs can be **added** to the order, **upon request**;
- the following types of models can be produced:
 - » **full arch**;
 - » **hemiarch**;
 - » with or without **antagonist**;
 - » with or without **articulator**;
 - » with or without **removable gums**. If requested, gums are produced separately with a special silicone and are removable.



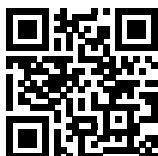
Sweden & Martina digital analogs

Digital analogs are designed and manufactured with extremely **high precision**, in order to guarantee **maximum fidelity** when repositioning models:

- a **lateral and an apical screw** can be used to give analogs **significant apical-coronal and rotational stability**;
- **two large lateral grooves** give both **rotational and mesio-distal stability**;
- analog design favors **maximum matching** between the impression and the model, safely reproducing the position of implant connections;
- the mechanical processing carried out on the lathe guarantees the **quality and high precision** of all Sweden & Martina implant components.

A central hole, for further horizontal fixing using a special pin (code PIN-ANA-DIG). Pins for vestibular fixation are not supplied and are universal for all digital analogs. To allow the fixing pin to pass through, the 3D model is printed with a hole whose position is determined by the CAD library.

Two large grooves for a unique and stable repositioning in the printed model.



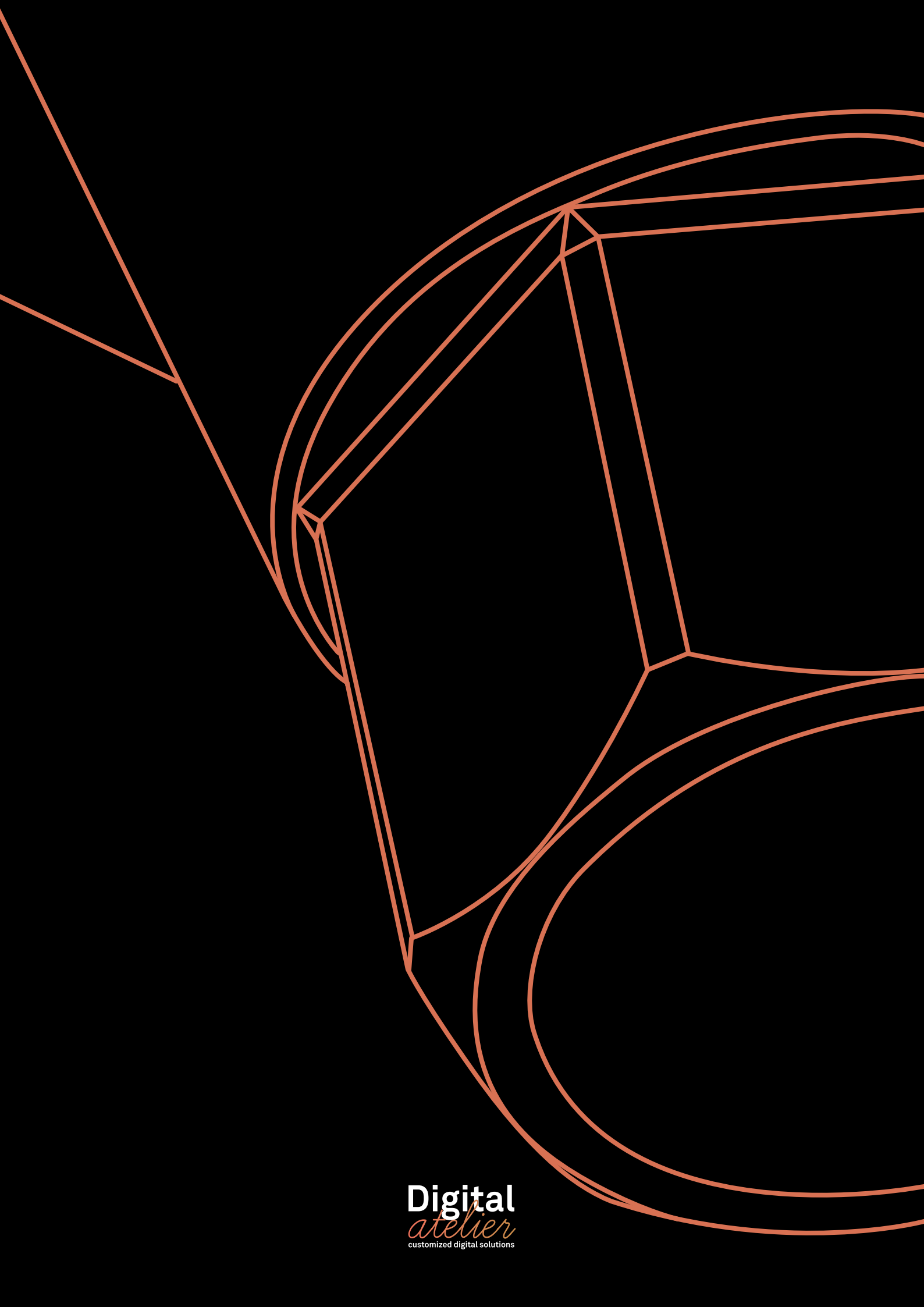
Find out more about Sweden & Martina Digital Analogs



Sweden & Martina scanbody

Sweden & Martina offers a wide range of scanbody products that allow users to take extremely **precise virtual impressions of implant platforms** and **localize connections three-dimensionally**.

- They can be used interchangeably in the **oral cavity** for taking impressions with an intraoral scanner **or on a physical model** for a three-dimensional reading with a lab scanner—scanbody is certified as a medical device for both uses;
- they are produced in **Titanium grade 5**, and **sandblasted accordingly** to facilitate reading with a scanner;
- they have an **ergonomic** shape, and their height makes it possible to use them in the presence of adjacent teeth;
- they can be used take a virtual impression of both **implant platforms** and **intermediate abutments**.



CAD libraries and softwares

Libraries for Sweden & Martina's prosthetic components are available to allow dental technicians to model restorations with the use of **open source CAD softwares**.

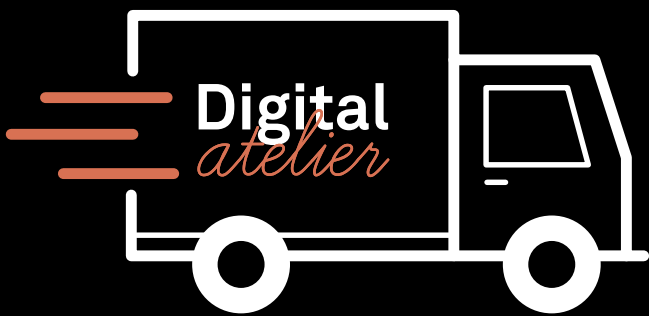
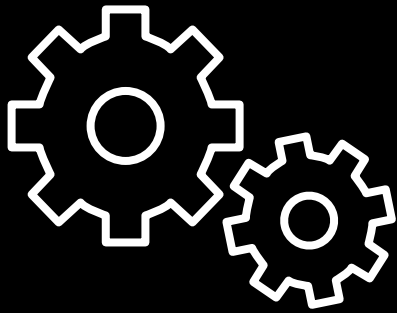
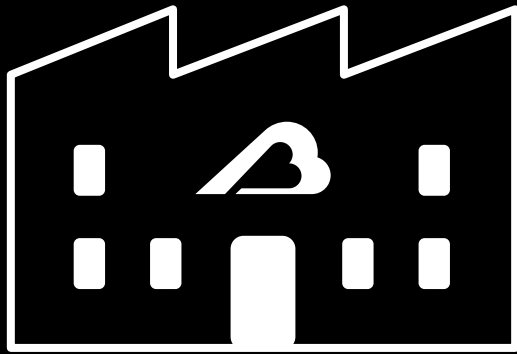
- Our libraries make it possible to design:
 - » single crowns and individual abutments resting on implant platforms;
 - » solutions with T-Connects or Interfases luting techniques, both with a straight screw channel or an angled screw channel, single, multiple and full arch, on implant platforms or on intermediate abutments;
 - » bars on implants;
- there are libraries available for designing **angled screw holes**.

Libraries **can be downloaded from the portal** or can be requested from Technical Assistance: atelier.support@sweden-martina.com.

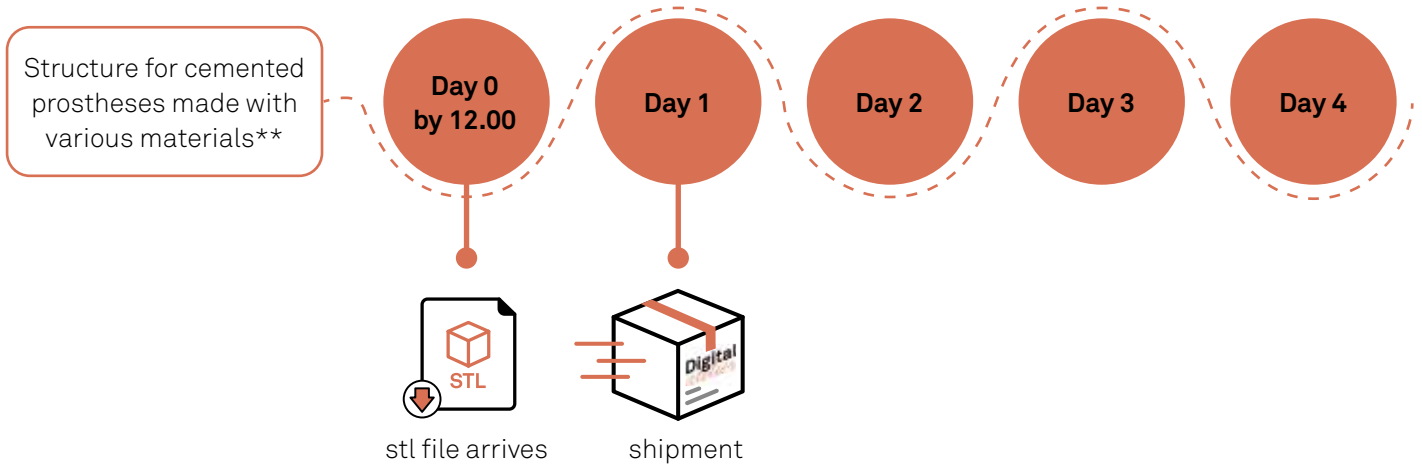
Libraries are **compatible** with:

- Exocad software and its derivatives;
- Archicad and Real Guide softwares;
- 3Shape software.

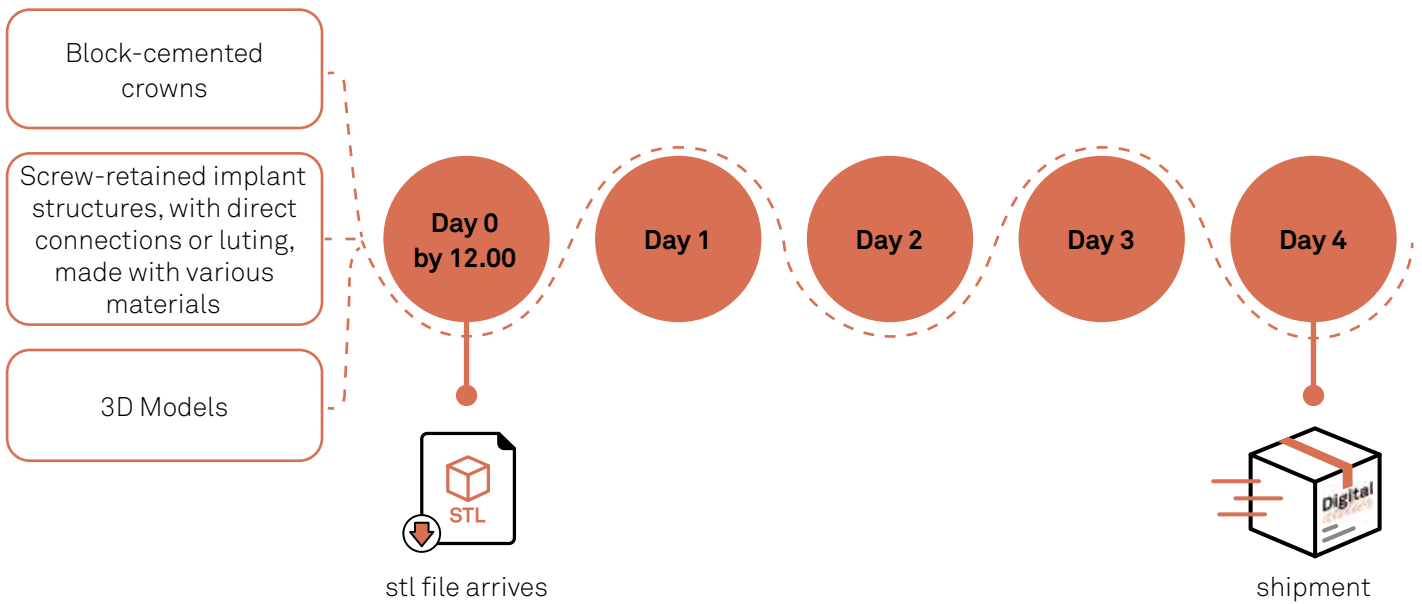
Practical guides are available that **help users identify the correct library** through a step by step process. These guides can be downloaded within the libraries themselves.



Processing and delivery times, using customer-designed files



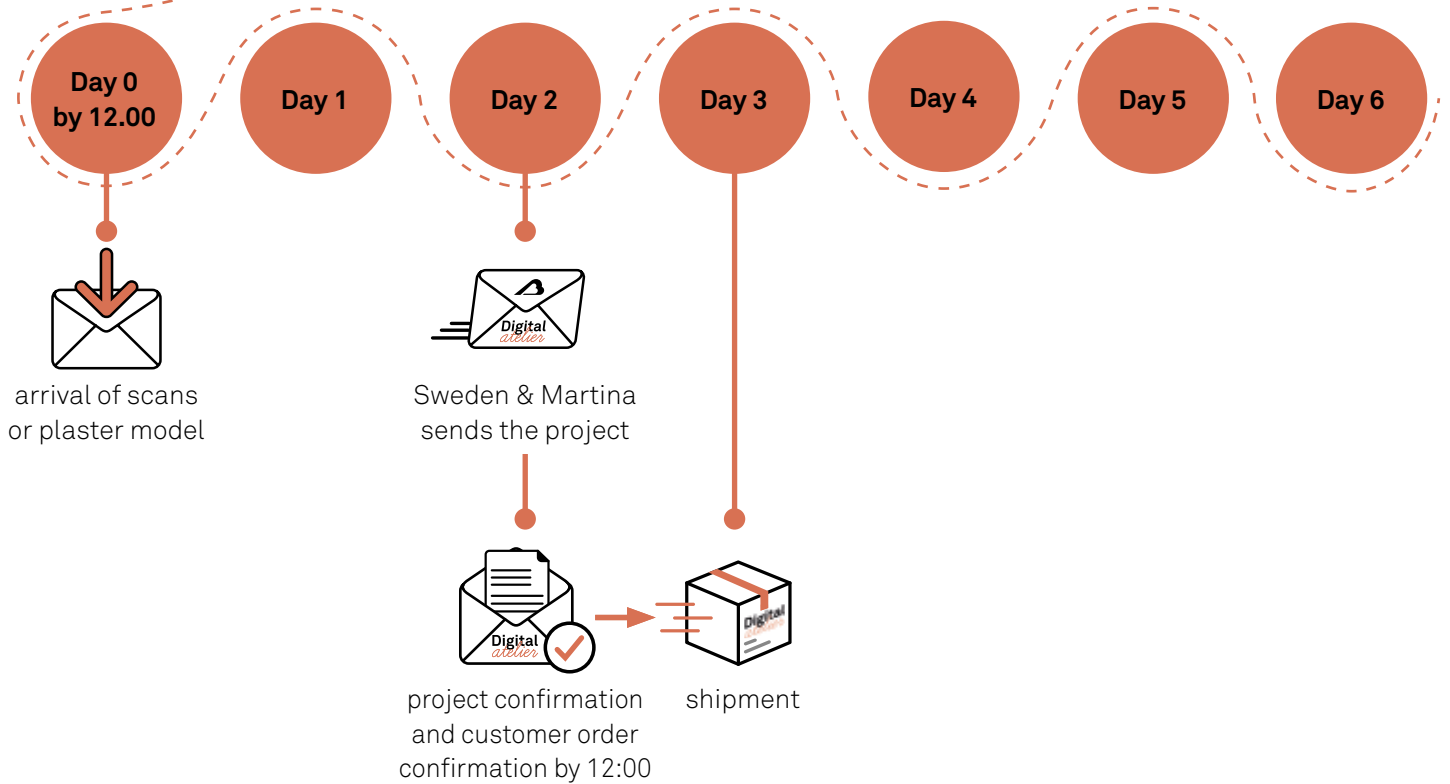
**in the case of bridges requiring more than 8 zirconium/layered zirconium elements, timing may vary to ensure a proper sintering cycle.



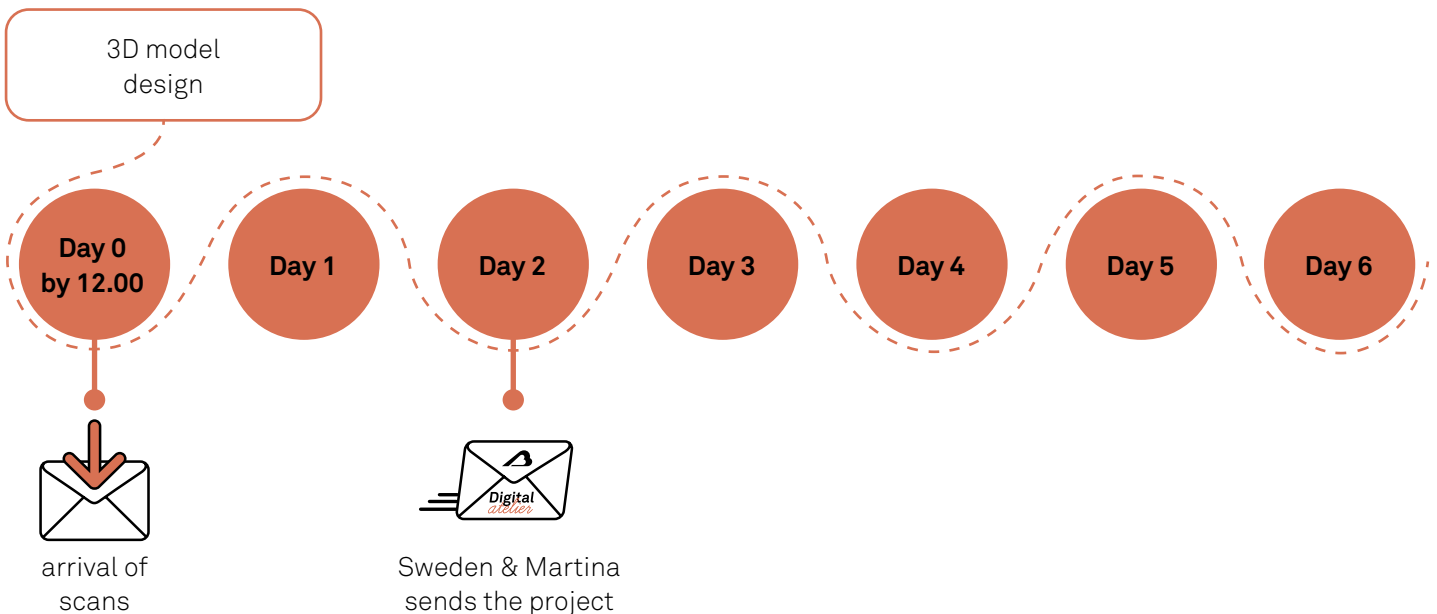
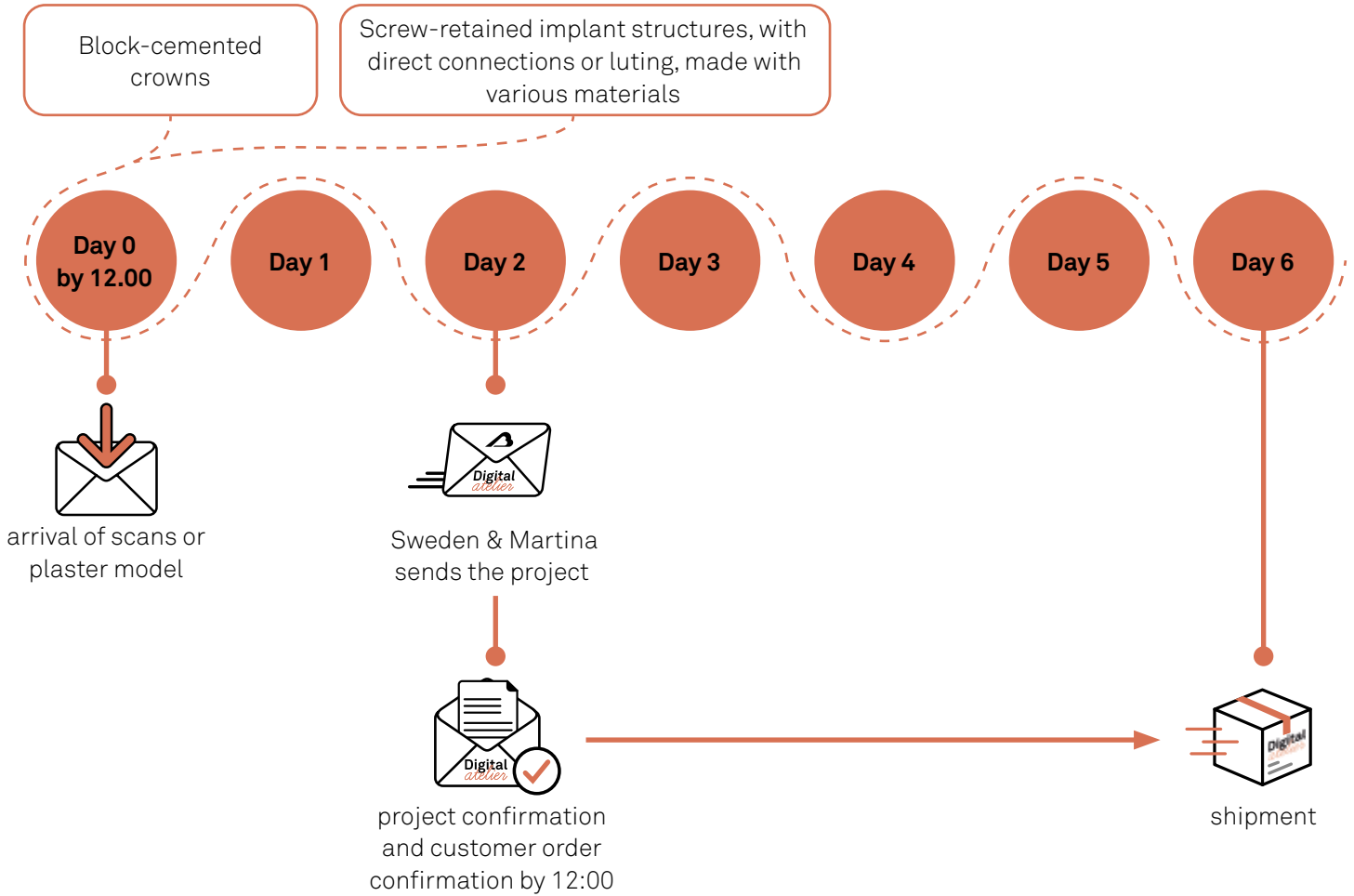
Processing and delivery times, if the customer requests the design from the Digital Atelier

Production will start after the design is confirmed and the order is subsequently confirmed by the customer in the portal.

Structure for cemented prostheses made with various materials**



**in the case of bridges requiring more than 8 zirconium/layered zirconium elements, timing may vary to ensure a proper sintering cycle.



Warranty terms

Sweden & Martina is liable under the law for any defects or faults in its products.

In the case of custom prosthetic components, the duration of the warranty, limited to the replacement of defective components with identical components or, if no longer available, with equivalent components, is as follows:

- 10 years for zirconia or metal products;
- 2 years for products made with reinforced PEEK, composite, graphene, fiberglass, lithium disilicate, hybrid ceramic;
- 1 year for products in biomedical resin, PEEK, PMMA or 3D printed resins.

In the event of an alleged flaw or defect, the products must be returned to Sweden & Martina SpA, Via Veneto 10, 35020 Due Carrare (PD) within 15 days of receipt of the same in the event of an obvious flaw or defect, or as soon as possible after a inconspicuous flaw or defect is identified, specifying in reasonable detail the defects found. The identification code of the product, shown on the original label, or, if possible, a full copy of the label, must be included in the return document. The return must also be reported in the “Reporting” section of the portal.

The defect must be explicitly recognized as such by Sweden & Martina following analysis and verification of the returned products.

If the alleged flaw or defect is discovered by the customer after the products have already been inserted into the oral cavity, they can be returned to Sweden & Martina only after having been sealed in a sterile bag and after careful sterilization. The return of such products by other methods is not permitted. In the case of failure to comply with these instructions:

- the warranty for defective products cannot be activated;
- any and all liability for accidents and damages that may occur as a result of failure to comply with the aforementioned hygiene requirements will be charged to the Buyer who shipped the products;
- products received by Sweden & Martina that are not sterilized or not contained in a sealed envelope will be returned to the Buyer.

Any warranty is voided when:

1. the defect or flaw is caused by misuse and/or incorrect use of the products and/or any use that is not compliant with the directives provided by Sweden & Martina or the IFU or indicated by the producers of the raw material whose technical data sheets and informational materials are available on the portal;
2. damage caused by falls, trauma or impacts is found;
3. the warranty is voided in the case of uses that do not comply with dental best practices;
4. when the defect or flaw is caused by normal wear and tear of products;
5. when the patient does not respect commonly accepted standards of proper oral hygiene;
6. in the case of dental implants and related prosthetic components, even individual ones, any fractures of the components under load are not covered when it is demonstrated that the patient has overloaded the prosthesis, has suffered a trauma, there are conditions of bone unsuitability (bone recessions or in any case insufficient bone material) or there were inconsistencies in the prosthesis;
7. the Buyer expressly exempts Sweden & Martina from any liability and consequent compensation for damages resulting from the improper use of products carried out by the Buyer or by third parties, independently or at the Buyer's request.

Certifications

The production is **ISO 9001 e ISO 13485** certified. Each product is accompanied by the required declaration of conformity of materials and processes.

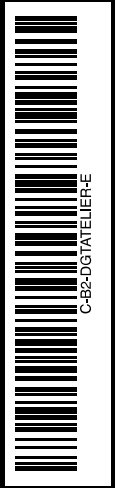
All raw materials are verified for their biocompatibility and suitability for use.

The components used during processing, such as Scanbody, implant analogs, tightening screws, T-Connect, other links for various types of bonding, and intermediate abutments are **CE certified** in accordance with **Directive 93/42** and the regulation **MDR 2017/745**.

Bibliography

- Calesini G., Zarone F., Sorrentino R., Micarelli C., Fabianelli A., Papacchini F., Gherlone E. **Effect of 2 impression techniques on the dimensional accuracy of working implant prosthesis models: an in vitro study**, *Journal of Craniofacial Surgery*, 2014; 25: 822-827
- Canullo L., Coelho P.G.A., Bonfante E, **Mechanical testing of thin walled zirconia abutments**, *Journal of Applied Oral Sciences*, Feb 2013, vol.21, no.1, p.20-24. ISSN 1678-7757
- Ceccherini A., De Angelis L., Silvestrelli S., **Chirurgia software assistita con la tecnica Model Guide: Progetto 3D - Posa dell'impianto guidata**, *TeamWork*, 2009; 11(6): 63-75
- Monaco C., Caldari M., Scotti R., **Clinical evaluation of 1,132 zirconia-Based Single Crowns. A retrospective Cohort Study from the AIOP Clinical Research Group** *International Journal of Prosthodontics*, 2013; 26: 435-442, doi 10.11607/ijp.3099
- Franceschini F.G., Pozzi E., Monguzzi R., **Utilizzo dello zirconio come base per una riabilitazione protesica totale mobile**, *Dental Cadmos*, 2010; 78(5): 107-110
- Canullo L., Cicchese P., Marinotti F., **Valutazione di una procedura clinica e tecnica per la riabilitazione di mascellari edentuli**, *Il Dentista Moderno*, 2012; 3: 86-102
- Canullo L., Cicchese P., Marinotti F., Sisti A., **Strategia protesica minimamente invasiva negli impianti post-estrattivi: posizionamento e avvitemento immediato del moncone definitivo per protesi su impianti secondo il concetto del platform switching**, *Il Dentista Moderno*, 2011; 12: 46-54
- Stopaccioli M., Giangiuliani G., **Riabilitazioni in zirconia nei mascellari atrofici**, *Il Nuovo Laboratorio Odontotecnico*, 2010; 5: 21-29
- Canullo L., Micarelli C., Bettazzoni L., Magnelli A., Baldissara P., **Shear bond strength of veneering porcelain to zirconia after argon plasma treatment**, *International Journal of Prosthodontics*, 2014; 27: 137-139, doi 10.11607/ijp.3722
- Morandini E., **Concetti per una ceratura tridimensionale. Teoria e Tecnica**, *Quintessenza Ed.*, 2013
- Cardarelli I.P., Valerio S., Arboit S., Moretti G.F., Camurri Piloni A., **Chirurgia implantare computer guidata. Valutazione dell'affidabilità della tecnica e del grado di precisione mediante comparazione tra pianificazione pre-chirurgica e risultato post-operatorio: studio pilota**, *Quintessenza Implantologia* 2016, 3
- Menchini Fabris GB, Rubino L, Sisti A, Nannelli M, Covani U. **Computer aided implant surgery as alternative to bone reconstructive surgery in severe atrophy of the maxilla: report of a case**, *Cone Beam Computed Tomography*, 2: 2016: 11-21
- Canullo L, Micarelli C, Bettazzoni L, Koçi B, Baldissara P, **Zirconia-Composite bonding after plasma of argon treatment**, *International Journal of Prosthodontics*, 2014; 27:267-269, doi: 10.11607/ijp.3686
- Canullo L, Micarelli C, Bettazzoni L, Magnelli A, Baldissara P. **Shear bond strength of veneering porcelain to zirconia after argon plasma treatment**, *International Journal of Prosthodontics*, 2014, Mar-Apr, 27(2): 137-9, doi: 10.11607/ijp.3722
- Iijima T., **Considerations of the longevity in implant supported prostheses manufactured by CAD/CAM**, *Clinical Oral Implant Research*, 2013; 24 (Supp 8), *Acts of the 12th International Congress on Implant Prosthodontics*, June 6th-8th 2013, Padova; Pag 6

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- Umehara K., **Digital solution with functional analysis to optimize implant restoration**, *Clinical Oral Implant Research*, 2013; 24 (Supp 8), Acts of the 12th International Congress on Implant Prosthodontics, June 6th-8th 2013, Padova; Pag 6
- Pradies Ramiro G.J., **Making reliable impressions in implant dentistry. State of the art**, *Clinical Oral Implant Research*, 2013; 24 (Supp 8), Acts of the 12th International Congress on Implant Prosthodontics, June 6th-8th 2013, Padova; Pag 9
- Baroncini C., Bartolloni R., Canalis R., **Team Work: new synergies in the era of new technologies**, *Clinical Oral Implant Research*, 2013; 24(Supp 8), Acts of the 12th International Congress on Implant Prosthodontics, June 6th-8th 2013, Padova; Pag 10
- Stoppaccioli M., **Giangiuliani G., Zirkonia dento-skeletal rehabilitation in the atrophic maxilla**, *Clinical Oral Implant Research*, 2013; 24(Supp 8), Acts of the 12th International Congress on Implant Prosthodontics, June 6th-8th 2013, Padova; Pag 10
- Di Felice A., **The Dental morphology in implantoprosthesis: analysis of the synergy between CAD CAM techniques and the manual art of ceramic**, *Clinical Oral Implant Research*, 2013; 24(Supp 8), Acts of the 12th International Congress on Implant Prosthodontics, June 6th-8th 2013, Padova; Pag 11
- Silveti M., Cotelezzzi M., **Is the current generation of technology facilitating better dentistry? From the optical impression to new prosthesis technician solutions: implant prosthesis digital workflow**, *Clinical Oral Implant Research*, 2013; 24(Supp 8), Acts of the 12th International Congress on Implant Prosthodontics, June 6th-8th 2013, Padova; Pag 11
- Garocchio S., Camaioni E., **Fresh sockets' morphological changes through the key role of the immediate loading and of the new technologies for the achievement of ideal esthetic results in the complex cases**, *Clinical Oral Implant Research*, 2013; 24(Supp 8), Acts of the 12th International Congress on Implant Prosthodontics, June 6th-8th 2013, Padova; Poster, Pag 27
- Chust Lopez C., **Prosthetic rehabilitative possibilities with the CAD CAM ECHO technique**, *Clinical Oral Implant Research*, 2013; 24(Supp 8), Acts of the 12th International Congress on Implant Prosthodontics, June 6th-8th 2013, Padova; Poster, Pag 27
- Mandillo-Alonso V, Cascos Sanchez R, Antonaya-Martin JL, Laguna-Martos M, **Evaluation of peri-implant soft and hard tissues behavior in screw-retained crowns by the biologically oriented preparation technique: Ambispective longitudinal analytical study** *J Clin Exp Dent*. 2022 Jan; 14(1):e64–e71, doi: 10.4317/jced.58924
- Rojas M.A., Marini L., Papi P, Gagliano N., Dellavia C., Pellegrini G., Henin D., Andrea Pilloni A. **Risposta dei tessuti molli peri-implantari a diversi materiali di abutment. Uno studio biomolecolare sull'uomo**, Poster 30° Congresso Nazionale Collegio dei Docenti Universitari di Discipline Odontostomatologiche, Catania, 20-22 aprile 2023
- Sbricoli L, Paniz G, Abate D, Saldan A, Palù G, Bressan E., **Influence of abutment material and detersion protocol on bacterial adhesion: An in vitro study**, *Oral Science Rehabilitation*. 2018 Mar;4(1):32–36.
- Cabanes Gumbau G, **Diseño clínico digital del perfil de emergencia**, *Gaceta Dental n.327*, Septiembre 2020, pag. 72-89
- Sorrentino R, Leone R, Leuci S, Ausiello P, Zarone F, **CAD/CAM cobalt-chromium alloy single crowns in posterior regions: 4-year prospective clinical study**, *J Osseointegr* 2017;9(3): 282-8 doi 10.23805/JO.2017.09.03.03
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