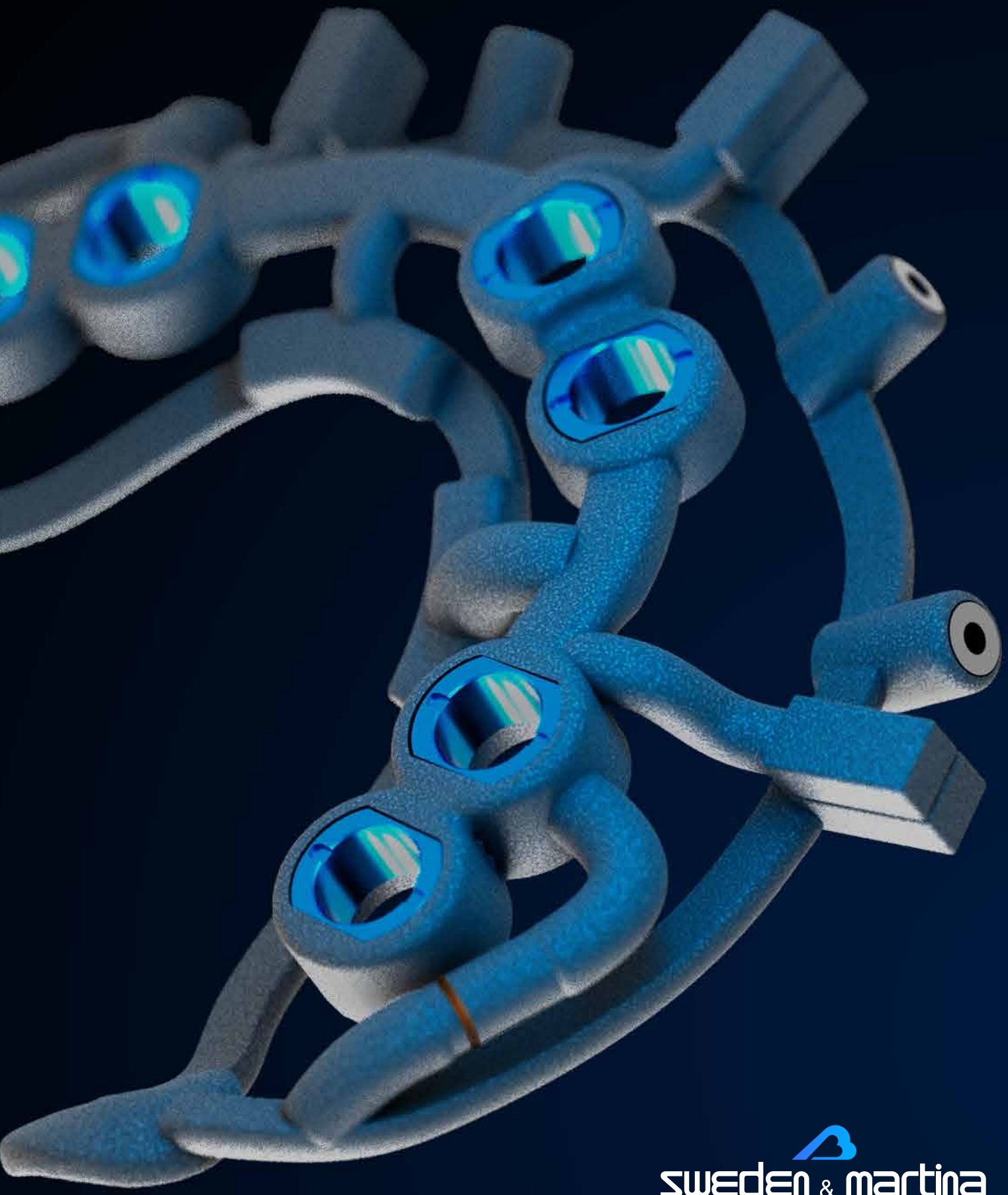
TWIN STIL
system TECHNIQUE



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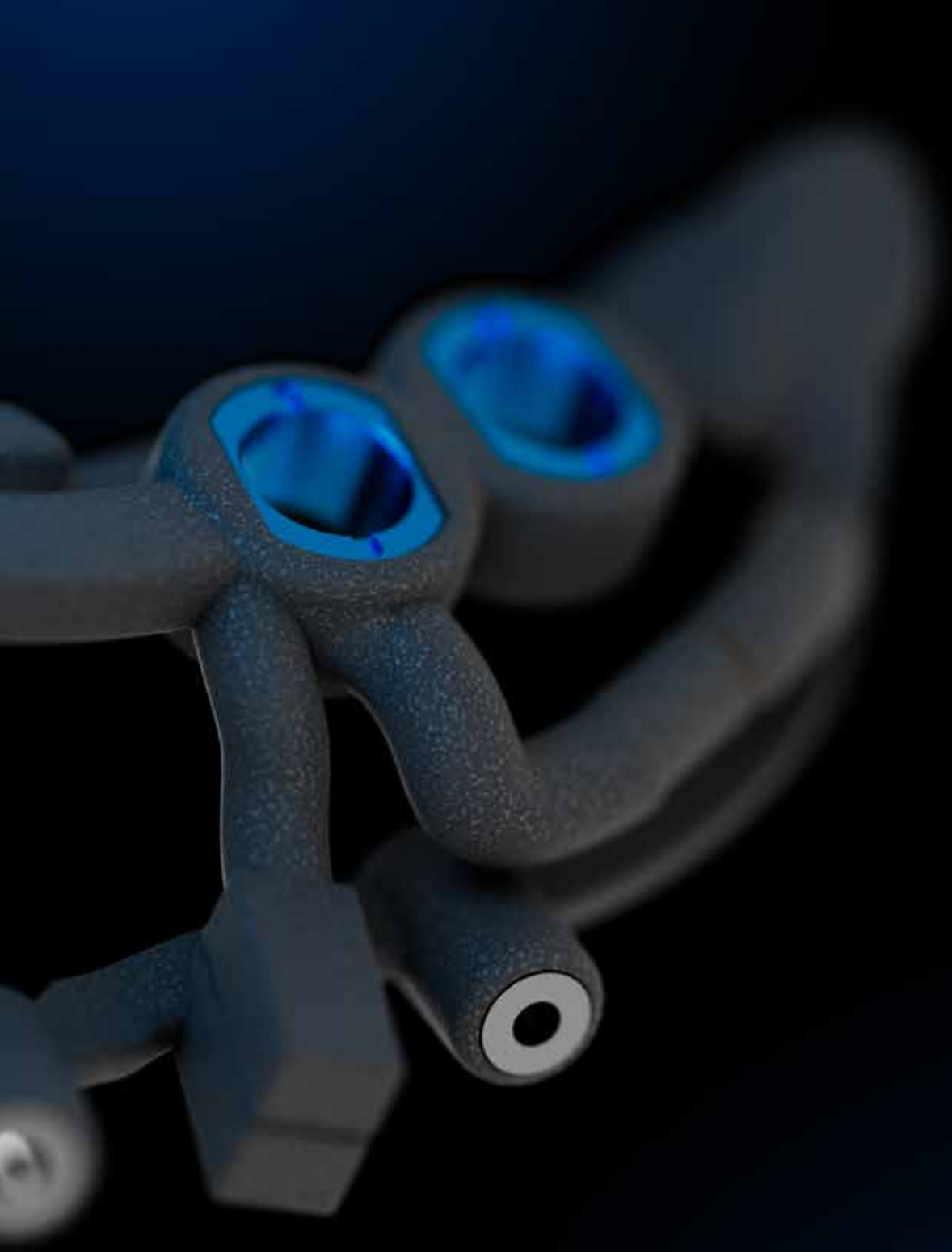


“Dedicated to the dentist and the patient.
When we conceived the STIL technique in 2015, we set ourselves a goal: to reduce stress for both parties.
After surgery, whether flapless or with flap elevation, the placement of the immediate loading provisional prosthesis is a challenging moment, especially when the same clinician has just performed the surgery.
All steps of the STIL technique are aimed at facilitating guided provisional placement, reducing working times, and allowing the patient to have a more comfortable post-operative period.
The STIL technique is cutting-edge, sophisticated in its design, but conceived to simplify daily practice.”

Dr. Stefano Granata

STIL Technique

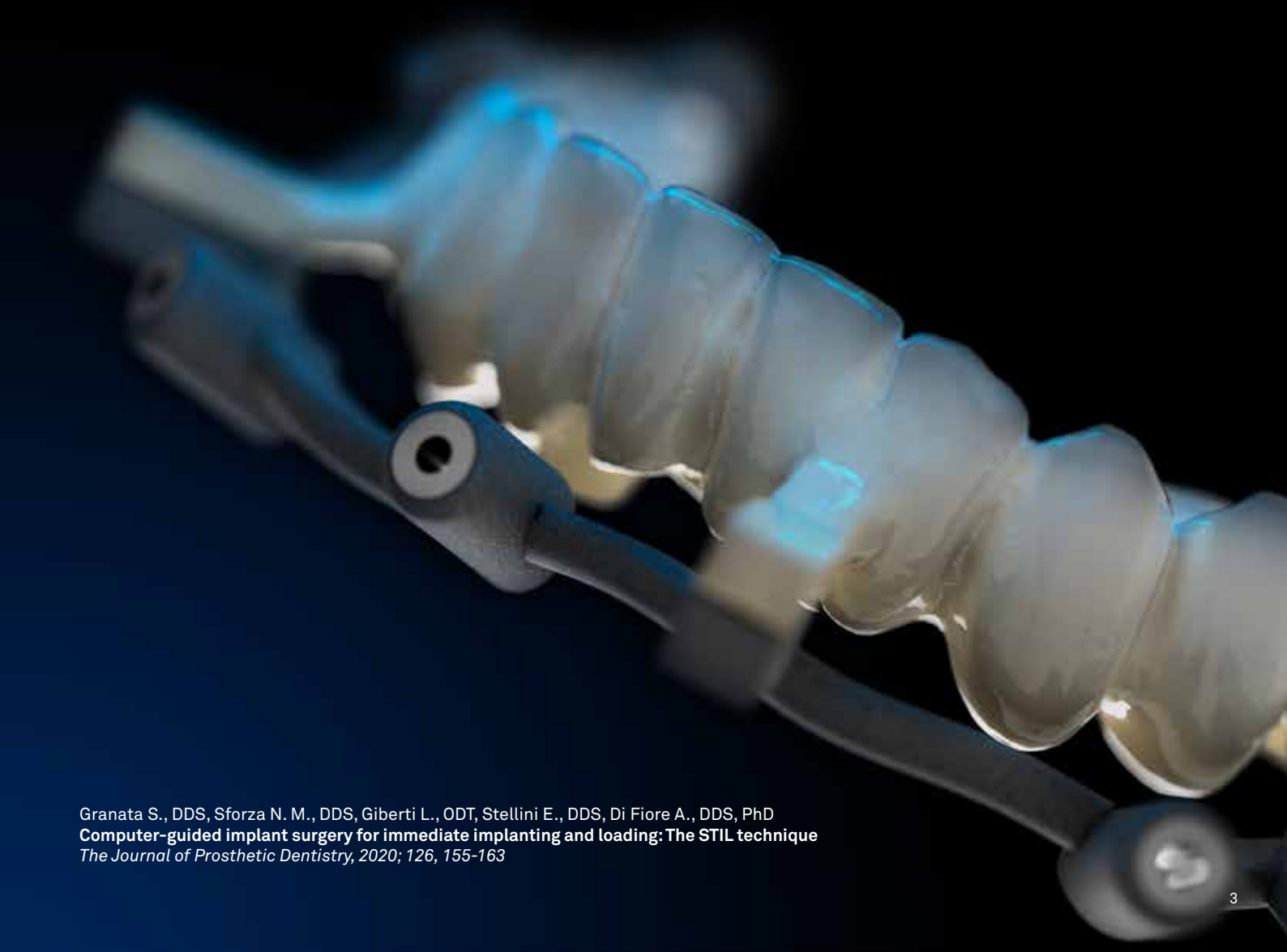
Here & Now

Immediate **loading** has never been so **immediate**

STIL (Sequential Template Immediate Loading) is an **immediate loading technique with prosthetically guided surgery, safe, predictable, fast and efficient** that allows the **clinician's full surgical freedom**, opting when possible for flapless and minimally invasive protocols.

Developed by **Dr. Stefano Granata** together with **DT. Lorenzo Giberti**, the STIL technique introduces a new way of thinking the immediate loading with a long-lasting reinforced provisional: **a guided, integrated, and continuous workflow**, which accompanies every phase of the treatment.

From the collection of diagnostic data, to **planning**, up to the **esthetic-functional try-in and chair-side finalization of the prosthesis**, every step is designed to work in a coordinated way. The result is a **simpler and more organized workflow**, which increases the clinician's operational control and makes the **final result even more predictable**.



Granata S., DDS, Sforza N. M., DDS, Giberti L., ODT, Stellini E., DDS, Di Fiore A., DDS, PhD
Computer-guided implant surgery for immediate implanting and loading: The STIL technique
The Journal of Prosthetic Dentistry, 2020; 126, 155-163

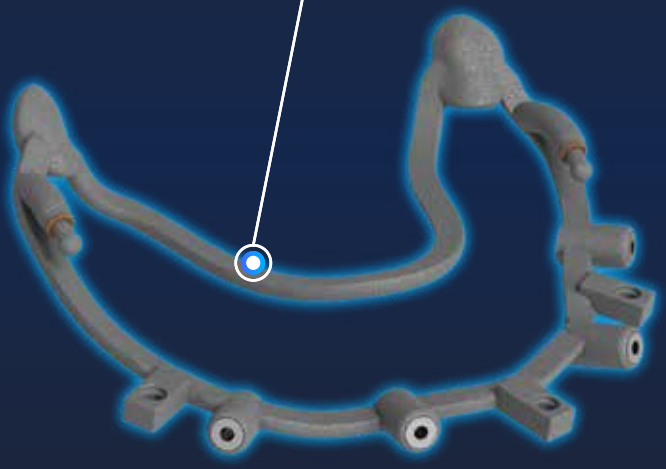
TWIN system

Sequential template system for prosthetically guided surgery

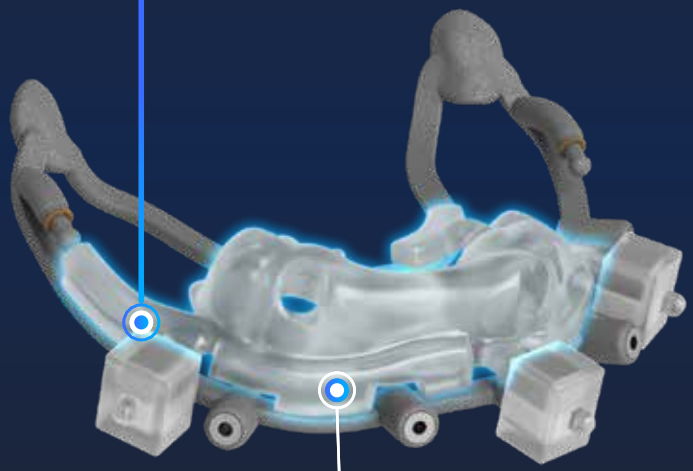
TWIN system is the patented system of sequential templates designed for the STIL technique. It consists of four elements to be used in succession following the workflow described in the following pages. The different templates attach to each other without the need for screws, facilitating intraoperative handling.

TWIN lock

Titanium template
Used as a guide and as a base for attaching the subsequent templates.



TWIN cap
Retention caps
They provide further stabilization of the Twin Lock and Twin Stop templates once attached.

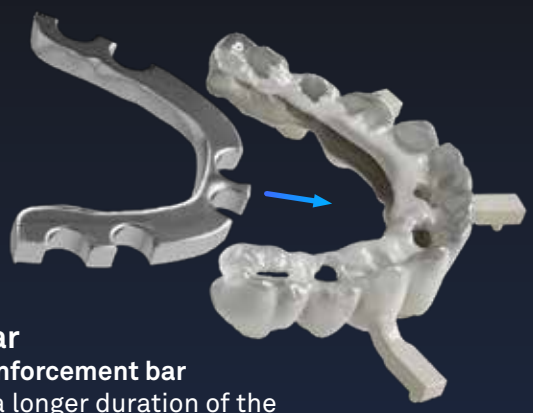


TWIN stop

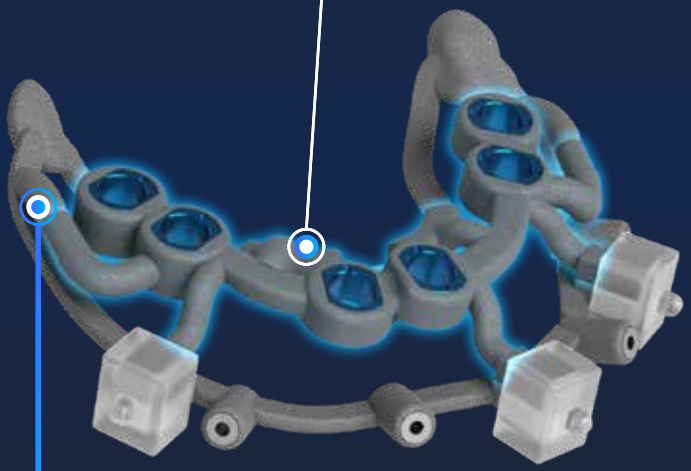
Resin template
Allows the Twin Lock template to be placed in the exact position provided by the prosthetic-surgical plan.

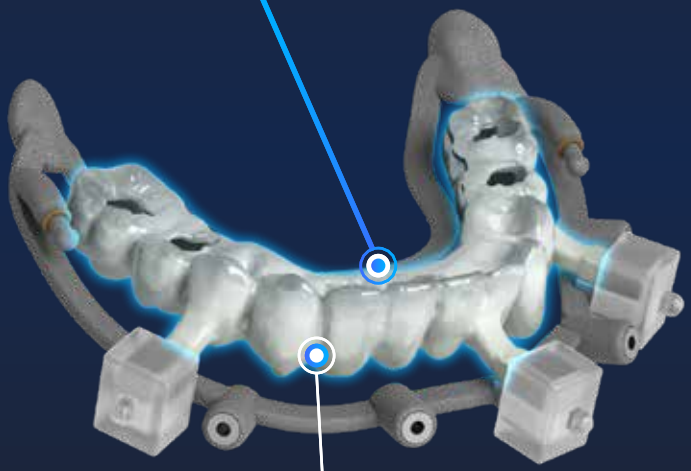
TWIN drill

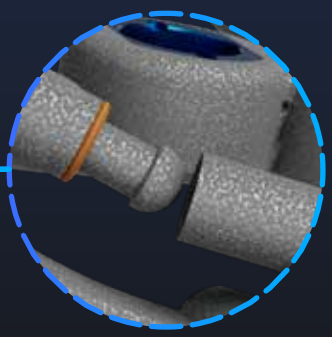
Titanium guide template with sleeves
It is used for sites preparation and implant placement.



TWIN bar
Metal reinforcement bar
Ensures a longer duration of the provisional prosthesis. Insertion of the bar from the lingual side makes the provisional prosthesis suitable even in very limited spaces and facilitates passivation and any morphological adjustments.







The template is equipped with an innovative patented attachment and release system, without screws.

TWIN temp

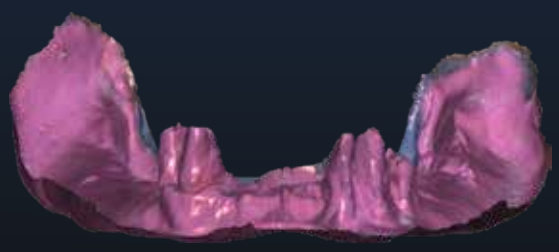
Patented reinforced resin provisional prosthesis
Thanks to the metal reinforcement, high strenght and durability are guaranteed. Maximum precision is ensured by pre-surgical prosthetic planning.

The operative workflow

Diagnostic phase

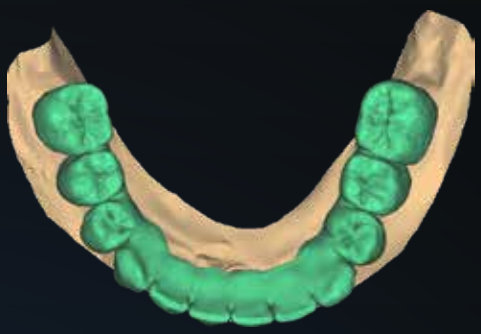
Prosthetic design

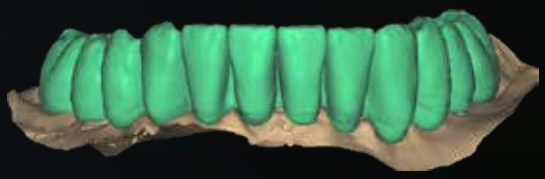
Surgical planning

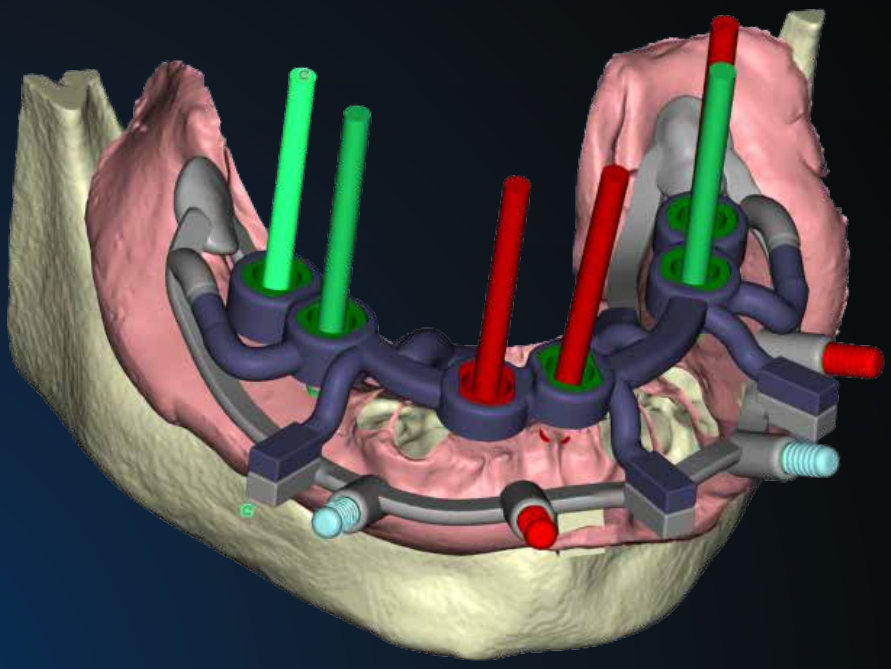


The quality of the result comes from a rigorous and guided data collection: the diagnostic material is acquired through an **intraoral scan, a cone beam and possibly a facial scan**. These data are integrated together, offering a more complete and accurate view of the case.

Planning begins with the creation of the patient's **avatar**: a three-dimensional esthetic-functional planning carried out with dedicated software, designed to **reduce approximations and ensure greater consistency between the plan and the final result**.
The prosthetic wax-up, once designed, is imported into the guided surgery software **Archiplan**, where the **positioning of the implants is determined starting from the prosthetic emergences**. Subsequently, the sequence of **Twin System** templates is designed and produced.







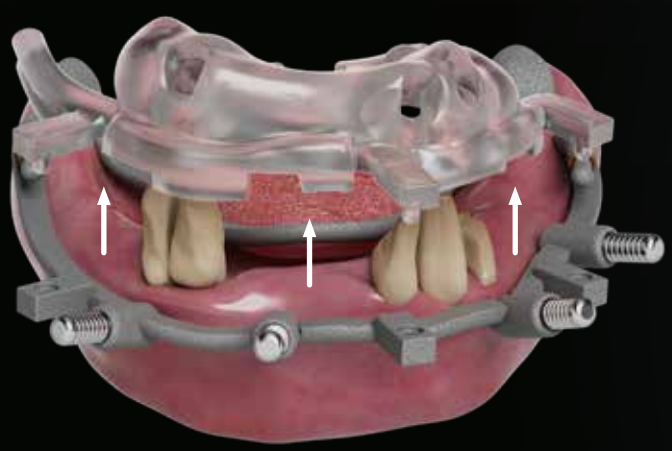
Template positioning

Removal of residual dentition

The Twin Lock template, used in all phases of the technique, is inserted precisely thanks to the Twin Stop template, which ensures correct positioning using the remaining teeth or the antagonist as a reference.

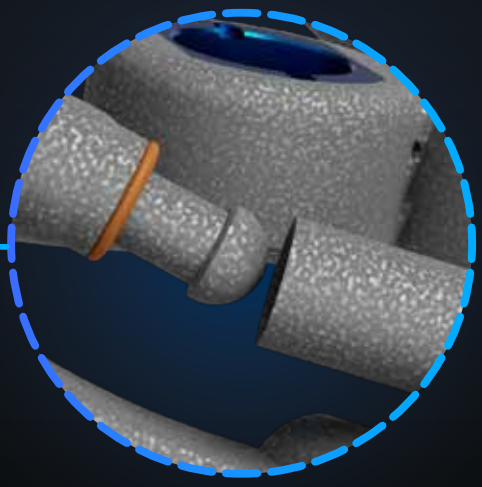
From this moment, the Twin Lock **is no longer removed: it is stabilized with dedicated pins** and becomes the platform to which the subsequent templates are attached.

The Twin Stop resin template is then removed, ensuring wide visibility and adequate access space to perform the extraction of the remaining teeth.



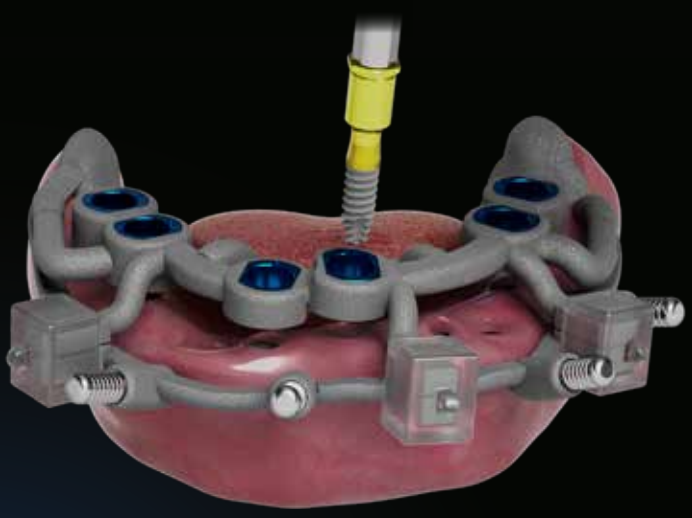
Sites preparation

The **Twin Drill** template is inserted and attached to the **Twin Lock** to guide sites preparation and implant positioning.

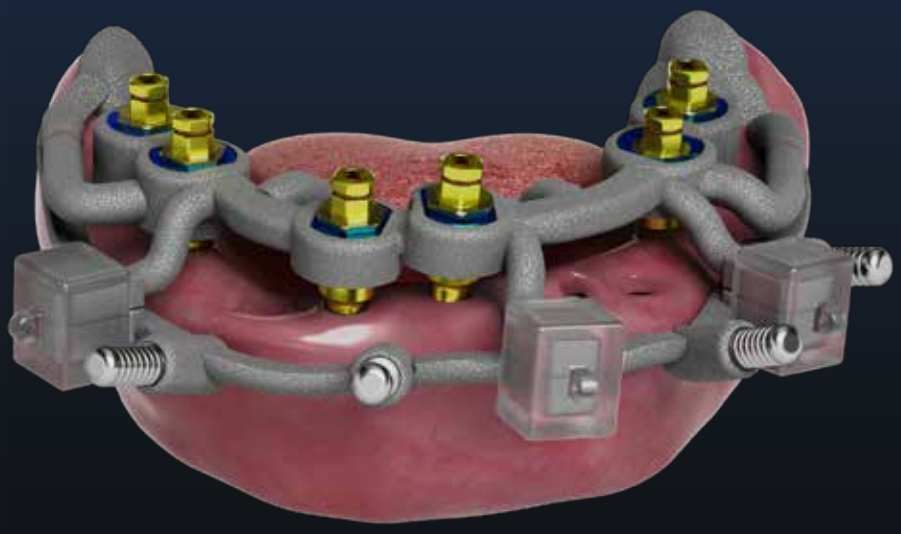


The assembly and disassembly phases of the various templates are quick and simple thanks to an **innovative patented attachment and release system, without screws** or other components at risk of falling into the oral cavity.

The two templates, made of titanium, offer an extremely stable and precise solution thanks to their rigidity and solidity. During the preparation and implant insertion phases, the surgeon maintains full operative control and can work with greater peace of mind even in the most complex situations.

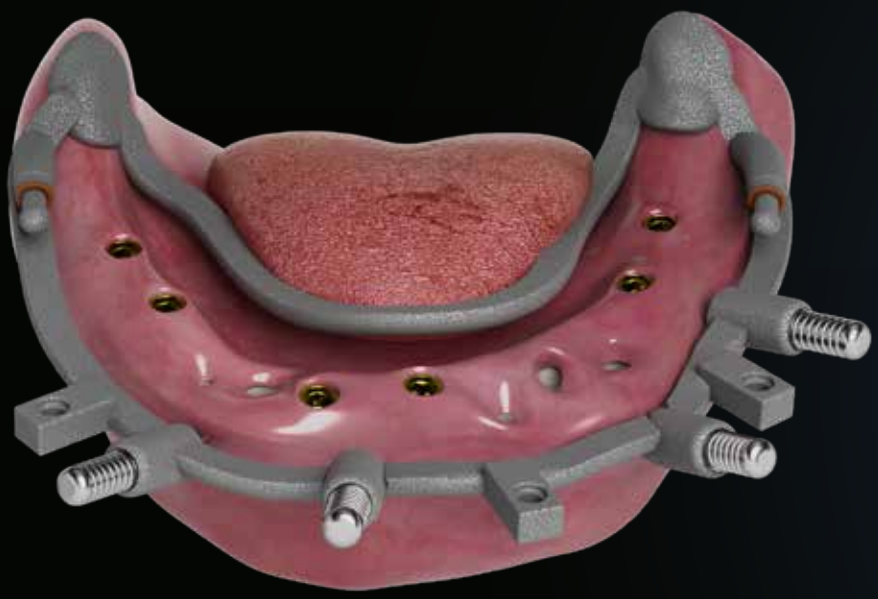


Implants insertion



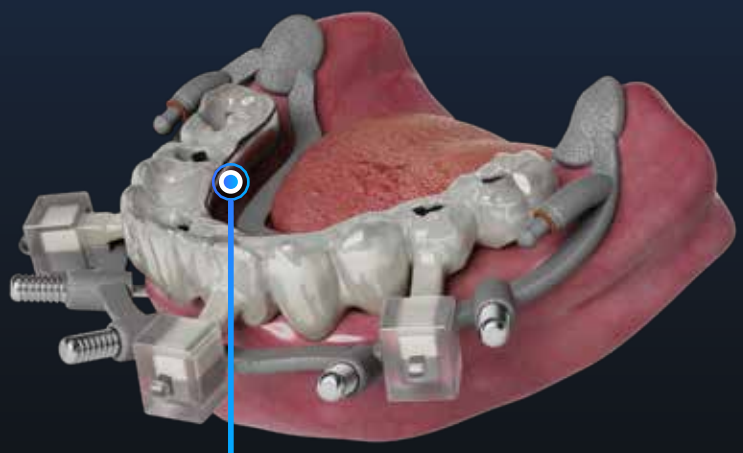
The design of the template provides excellent visibility. Surgery can be performed flapless or with flap opening, depending on the clinical case.

After completing the implants insertion and removing the mounters, the Twin Drill template can be removed.

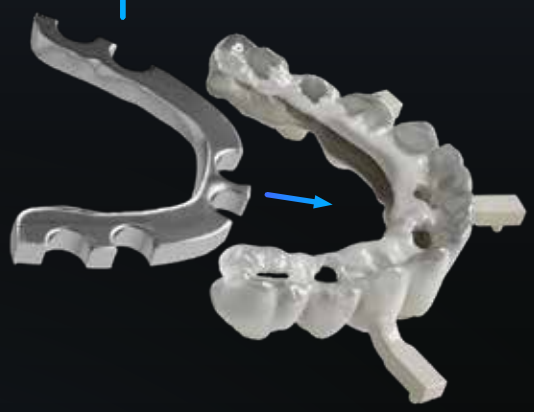


Check of provisional prosthesis

Insertion of cannulas

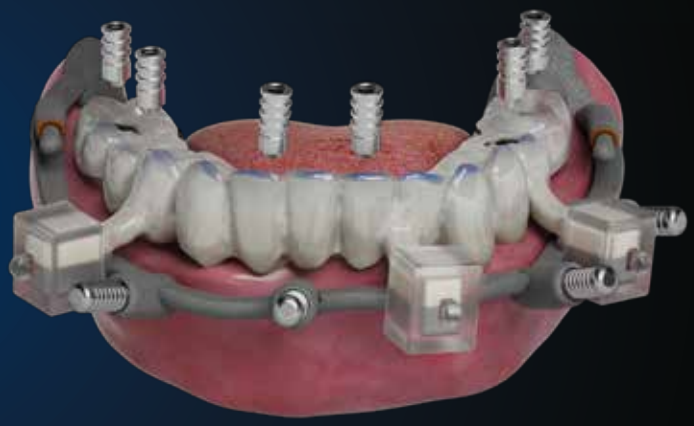


The **Twin Temp provisional prosthesis**, thanks to special attachments, is assembled to the Twin Lock in the predetermined position established during careful pre-surgical prosthetic planning. At this stage, the sleeves on which the provisional will be relined have not yet been inserted; therefore, it is not yet connected to the implants.



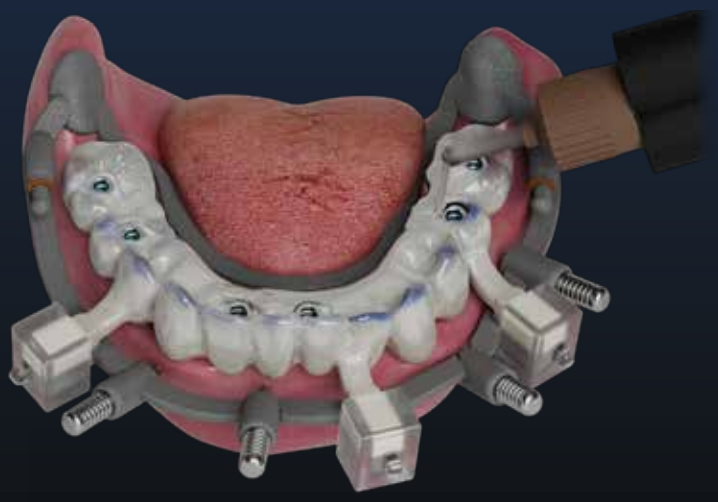
The provisional prosthesis is made of **resin** with high esthetic value, and is equipped with a metal reinforcement bar positioned on the lingual side, which ensures greater strength and long-term durability.

The Twin Temp provisional prosthesis, solidly anchored to the Twin Lock guide, is tested both from an **esthetic** and **functional** point of view in occlusion.
Thanks to the precision and predictability of the workflow, the need for occlusal adjustments is generally very limited.

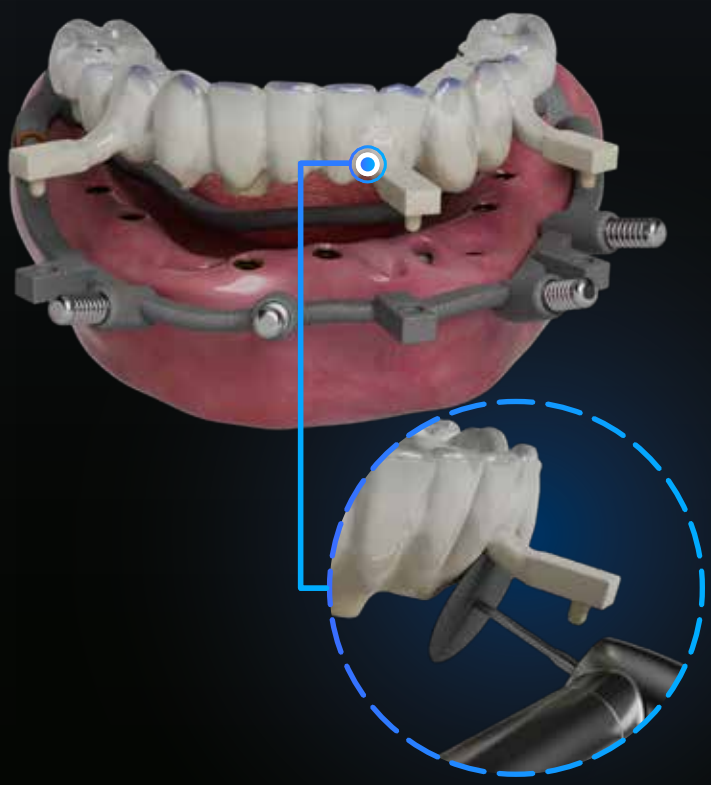


Once function and esthetics have been checked, the sleeves, which can be inserted from above, are positioned, screwed in, and then relined. Insertion is facilitated even in the case of non-parallel implants.

Cannulas bonding | Template removal | Provisional prosthesis finishing | Immediate loading



The prosthetic structure is connected to the cannulas by inserting a minimal amount of flow composite, applied with thin tips through the dedicated holes.



At this point, the reinforced Twin Temp provisional prosthesis, complete with cannulas, can be removed after unscrewing the prosthetic screws.

The anchorage points to the Twin Lock are removed, the structure is relined and finalized.

The provisional prosthesis is inserted into the oral cavity and the patient can be discharged. The overall duration of the procedure is minimal, and patient discomfort is extremely limited since loading occurs in less than an hour after the procedure. The patient will only need to return for routine check-ups at the times established by the clinician.

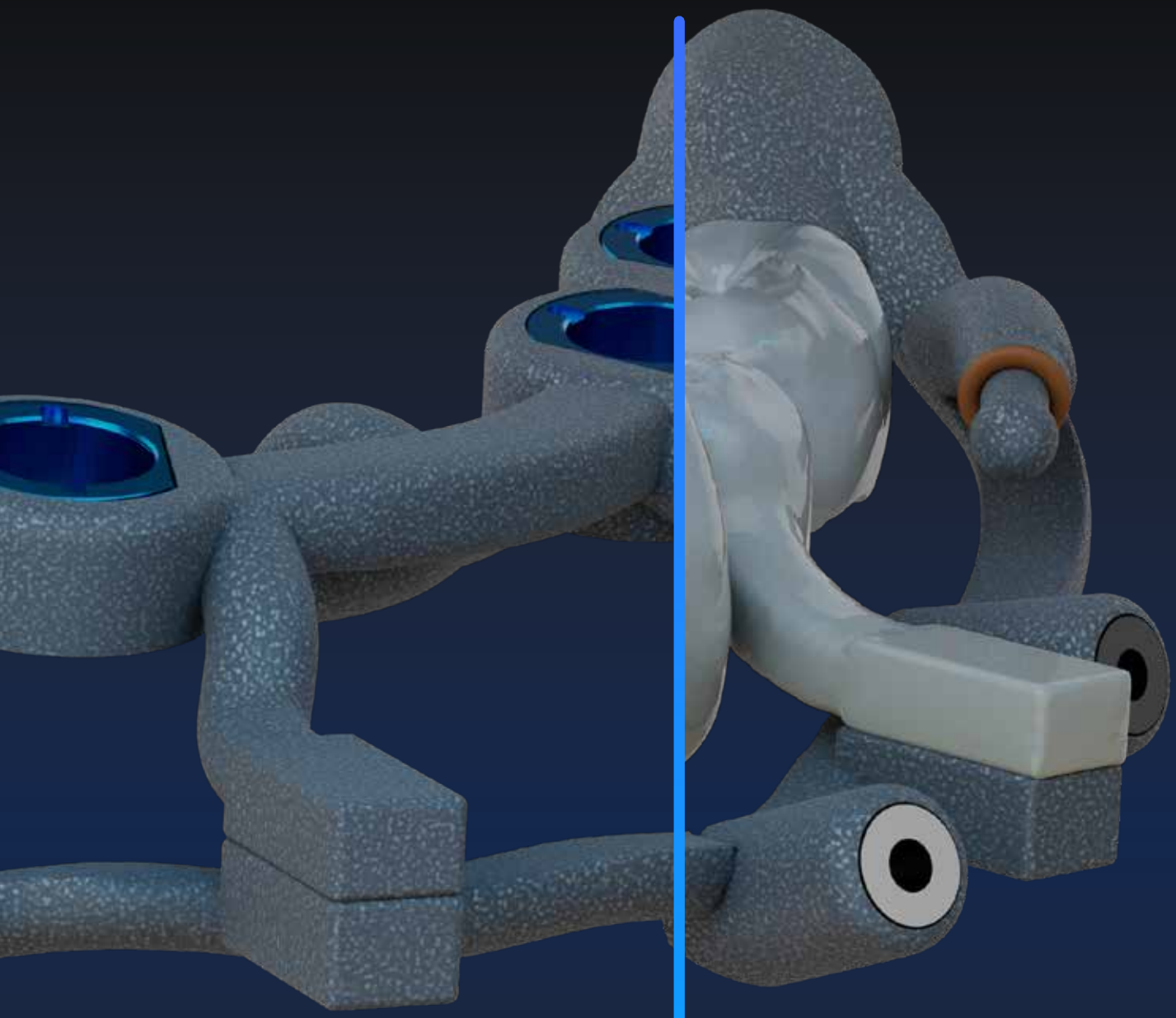
The advantages

TWIN lock

- Being made of titanium, the template is extremely **rigid and stable**, **not subject to movements or oscillations** during the surgical procedure.
- The **patented attachment and release system** does not require the use of screws **and is therefore** simple and fast.
- **Great surgical visibility**: the dimensions of the template are greatly reduced, leaving a **large access to the tissues**.
- **Possibility** of **flapless surgery or with flap opening**.

TWIN stop

- The **stable engagement** facilitates precise positioning of the Twin Lock in the **exact position** defined during the planning phase.
- **It is easy to remove** after the base template has been securely fixed with the pins.



TWIN drill

- It is anchored in a **rigid and stable** way to the Twin Lock for **maximum surgical precision**, thanks to the **patented locking system** that is **simple** and **screwless**.

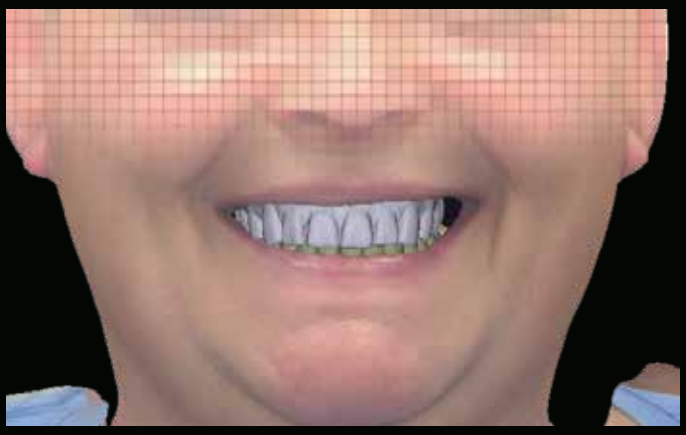
TWIN temp

- Long-lasting **reinforced provisional prosthesis with** high aesthetic value**, finalized chair-side** without the need for an impression**.**
- **Occlusion is checked** before securing the provisional restoration to the implants via the cannulas, thereby promoting **maximum passive fit**.
- Maximum **occlusal precision** is ensured by **positioning that is consistent** with the pre-surgical **prosthetic planning**.
- The morphology of the bar **facilitates** any necessary **adjustments**.

Clinical case

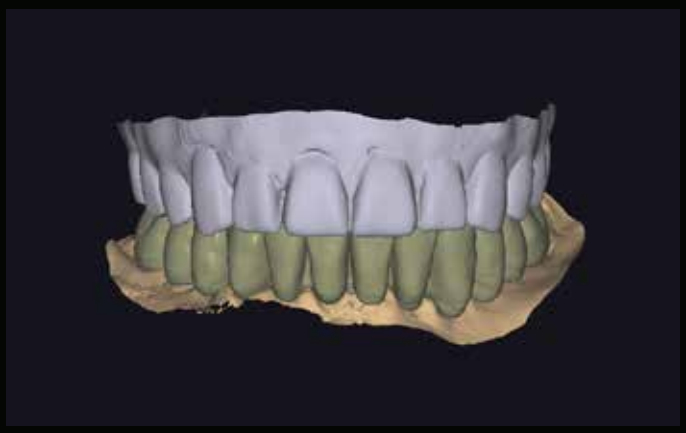
Female patient, 50 years old, negative medical history; dental history free of TMJ or neuromuscular pathologies. Former smoker. In the upper arch, she has an overdenture prosthesis on implants performed 6 years ago; in the lower arch, a temporary prosthesis on natural teeth. The prognosis of the mandibular teeth is unfavorable, with grade 2–3 mobility and insufficient residual periodontal support for their preservation. The patient reports chewing difficulties and requests a fixed rehabilitation with minimal biological impact.

Diagnostic and planning phase

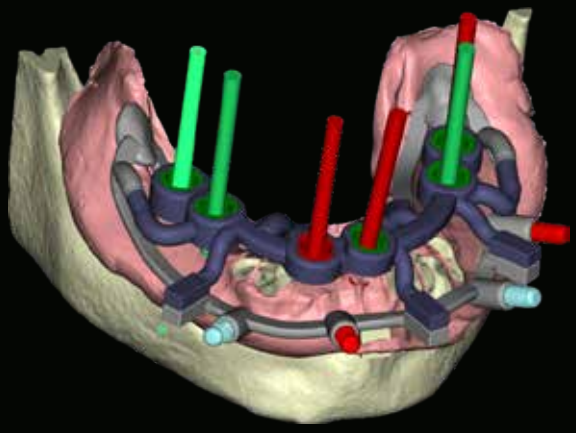


Facial scan and intraoral scan.

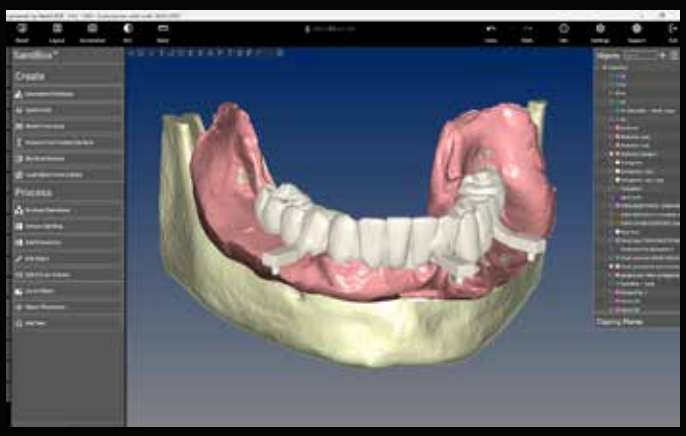
The radiological template is prepared for the CT scan.



Prosthetic design carried out in Exocad.



Guide planning.



Prosthetic design after import into Archiplan.

TWIN System components

Twin Stop resin template attached to the Twin Lock titanium template via the dedicated patented connection mechanism.

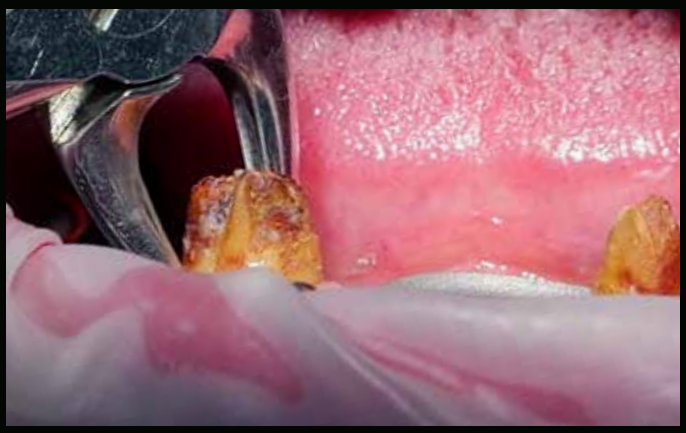
Twin Drill titanium template used for the preparation of sites and implants.

Provisional prosthesis without cannulas.

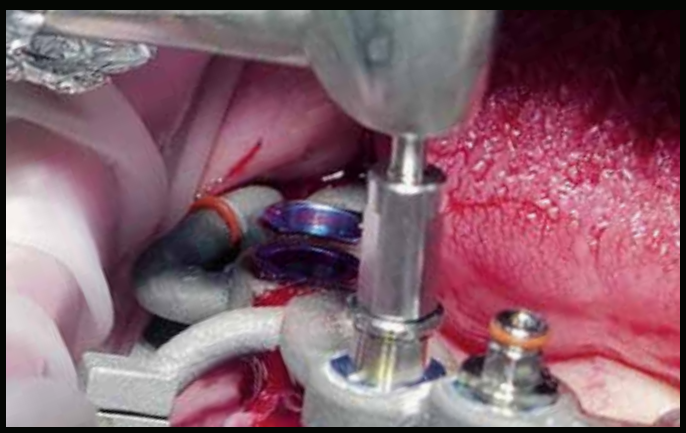
Provisional prosthesis with cannulas inserted.

Surgical phase

Insertion of the Twin Lock and Twin Stop templates and intraoral stabilization of the system using the dedicated pins, which allow for solid anchorage.



Removal of the Twin Stop resin template and immediate extraction of the remaining elements.



The Twin Drill template is attached to the Twin Lock: this allows for the preparation of the sites and the insertion of the implants. Many procedures can be performed flapless. If a flap is chosen, the available space remains wide thanks to the minimal bulk of Twin Lock.

Immediate loading

Once the surgical phase is completed, the Twin Drill template is removed, and the Twin Temp provisional prosthesis is inserted, which is made of resin and equipped with a metal reinforcement bar positioned on the lingual side. We then proceed with the esthetic and functional check in occlusion of the Twin Temp provisional prosthesis.

The cannulas are inserted and stabilized with spots of flow composite.

The Twin Temp provisional prosthesis is removed from the oral cavity, relined, and finished.

The provisional prosthesis is delivered during the same surgical session without further impression needed.

Digital *atelier*

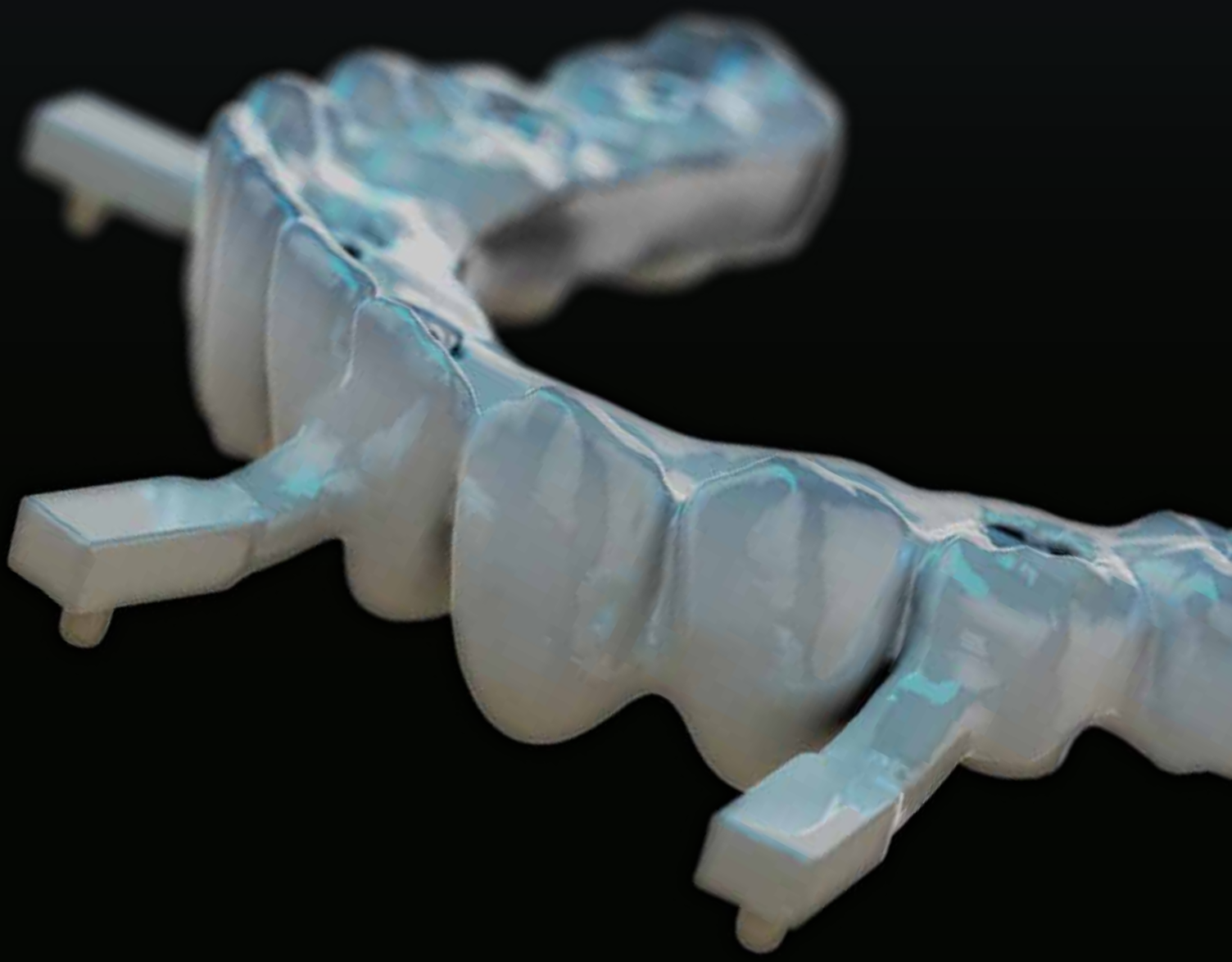
customized digital solutions

The **components** of the TWIN system are **designed and manufactured by the Digital Atelier** of Sweden & Martina, a complete **center of digital excellence services** dedicated to the design and production of custom-made products. Sweden & Martina **supports the clinician** with **3D digital technologies** that guarantee a **structured, precise, and complete prosthetic design**.

Archiplan, the **software** by Sweden & Martina for **surgical planning**, guarantees a **coherent, precise, and integrated digital workflow**.

A **Research & Development team** supports the continuous **evolution** of the product; a **technical support team** and digital specialists are **available to clients**, to create together with them **unique, tailor-made design products**.

A **complete atelier** that meets all requests with the utmost **professionalism and expertise**.



Prosthetic design workflow requested to the Digital Atelier, implant planning **performed by the clinician**, production carried out by the Digital Atelier.

STEP 1 by 12:00 pm

Send STL impressions, DICOM files from the CT scan, if available STL or PLY files of the facial scan, and any frontal photo of the face with a smile via upload on the website https://digitalatelier.sweden-martina.com/

STEP 2

The prosthetic design is developed by the Digital Atelier and sent to the client for approval.

5 days

after approval

STEP 3

Matching check and possible planning check if requested, with sharing of review and/or email feedback.

STEP 4

Case discussion can be arranged remotely, if required, or handled via email communication.

STEP 5 by 12:00 pm

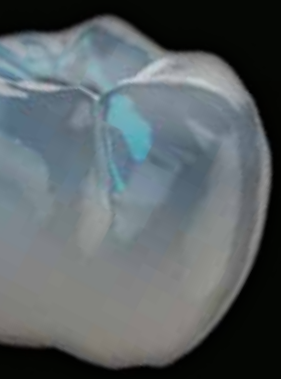
Confirmation to proceed with the case production via email to digital@sweden-martina.com

2 days

after confirmation

Case production and shipping

12 days



D-B2-TWINSYSTEM-E

rev. 03-26

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