

# **The Conical Connection**

Screwed or Plugged,Safety and New Possibilities

### SICvantage® max

Innovative implant-abutment connection that combines the new-type efficient workflow from the temporary to the final restoration. Efficiency is increased while maximum safety remains constant.



SIC invent implant systems with an efficient and innovative range stand for high product quality in many parts of the world.

In order to extend the international success of the SIC invent implant systems with their high-precision hexagon, which have been on the market for over 10 years, to include fans of conical implant abutment connections, we have studied the range of these connections on the market very closely and taken trends in implantology into account with the SICvantage® with Swiss Cross Technology® for which a patent has been applied.

SICvantage® will impress more than just real taper fans.

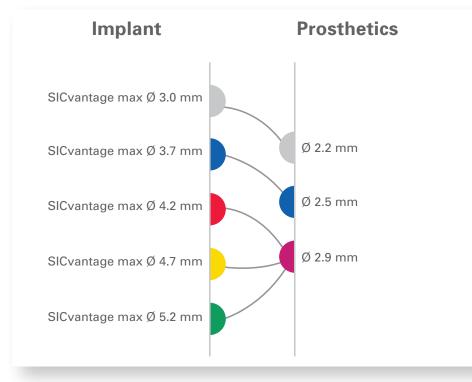
The concept is distinguished by a high level of user and product safety even with reduced implant diameters.

European Patent applied for under P 13 178 279.9

#### **Overview of Product Characteristics:**

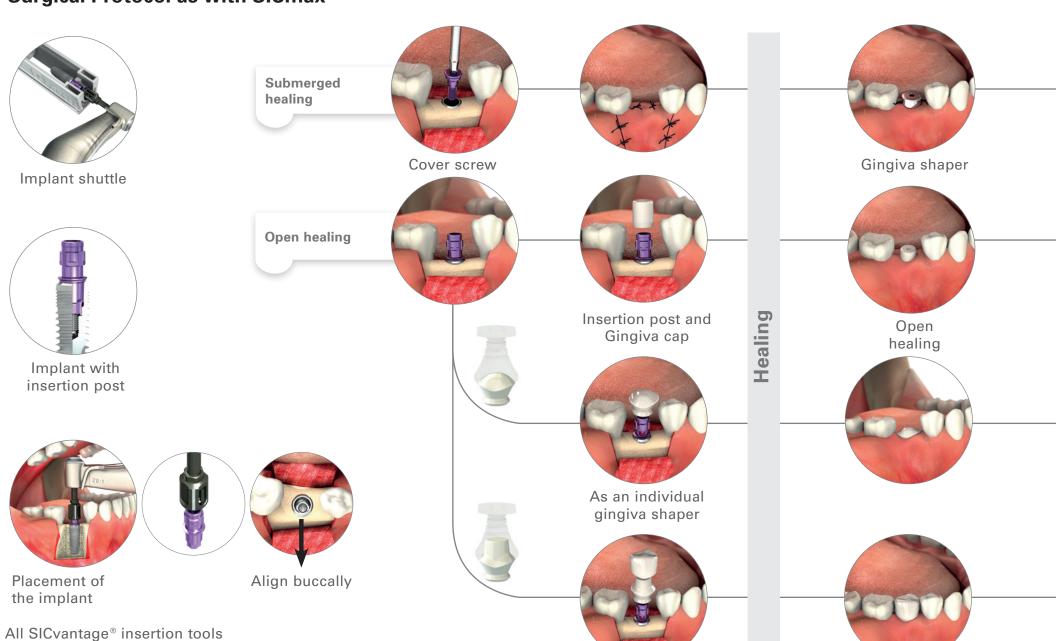
#### SICvantage® max - Advantages at a Glance

- Self-locking inner «Morse taper» connection with a cone angle of 2.8°
- SICvantage® «Swiss Cross»: 4 groove index for safe implant placement, abutment positioning and taking a precise open or closed impression
- No transfer key
- Safe abutment removal from the implant cone with an unscrewing instrument even after years of loading
- Diameter from 3.0 mm
- Outstanding mechanical stability
- Prosthetic restoration possible with and without a fixation screw
- New concepts from temporary to final restoration





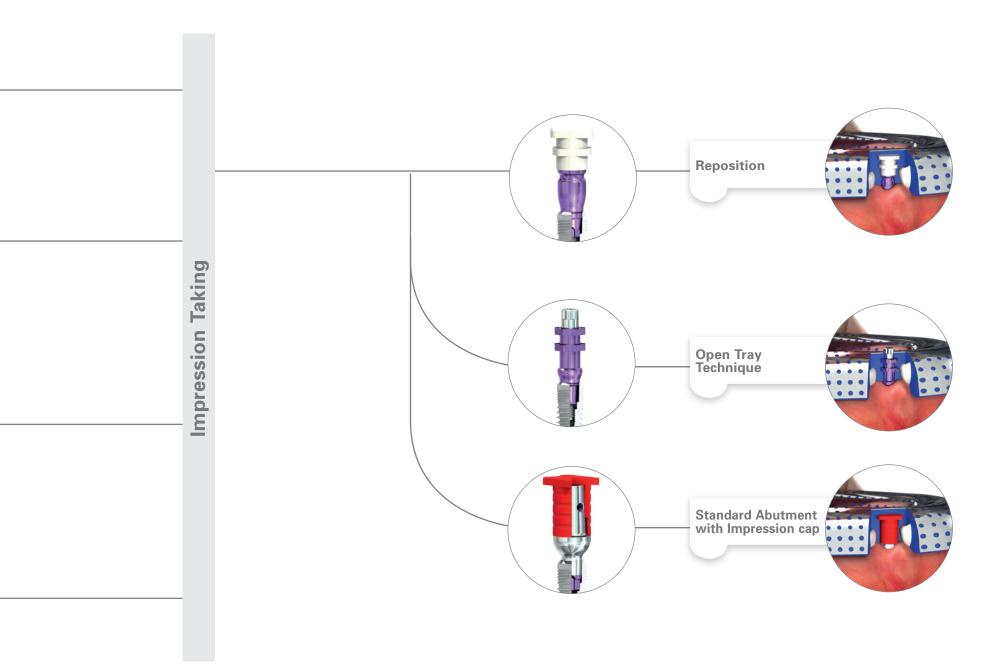
### Surgical Protocol as with SICmax®



As an individual

temporary

are coated in black



## SICvantage® max

Development of the SICvantage® max implant system had three priorities: maximum mechanical stability, ideal handling and a full indication range.

Motivated by the conviction to offer one of the most sophisticated parallel-walled (HEX) internal connections on the market, it was clear to SIC invent AG that the new conical "SICvantage®" internal connection in turn must be one of the best and provide innovative prosthetic restoration options.

# «Make One out of Two»

In conical connections, the cone angle and cone length have a decisive influence on the properties. mechanical The Morse taper, with a total cone angle of 2.8°, leads to outstanding self-locking between implant and abutment, which is indissoluble or "cold-welded". The large cone length of 3 mm distributes the pressure and bending forces uniformly and deeply in the implant and surrounding bone. The welding process produces a virtually one-piece implant, with maximum rigidity and practically no micromovement.

Easy removal of the abutment is ensured by a special instrument – the extractor.

## «Are You Still Screwing in or Do You Plug in?»

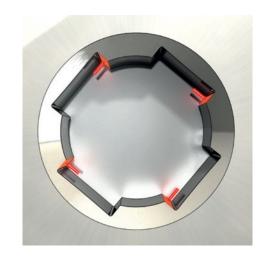
The mechanical properties of the Morse taper enable it to be used with or without a screw.

If the screw is used, it should be ensured that the abutments are tightened with 20 Ncm at all steps of the procedure. This ensures that the abutment sinks steadily into the implant/laboratory implant.

# «Transfer Key is a Thing of the Past»

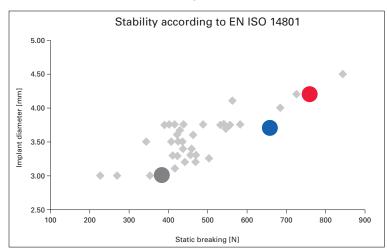
With the SIC "Swiss Cross Technology®" transfer keys are no longer needed for taking the impression or inserting the abutment. The "Swiss Cross" with indexing of 4 long parallel-walled grooves ensures a precise anti-rotation mechanism and extremely high torques can also be transmitted with this. Overwinding or cold-welding of an insertion post is practically impossible due to the forces applied to the 90° flank angle onto the groove surface - this has been confirmed by many hundreds of tests.

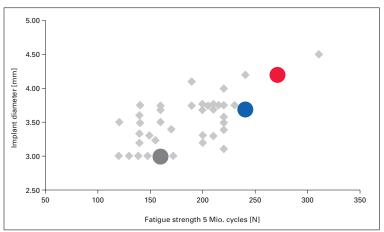




# «Top Values for Static Breaking Load and Fatigue Strength»

The diagrams below show the results of the strength tests performed in accordance with EN ISO 14801, compared with the results obtained with two-piece titanium implant systems, which were performed in the same test laboratory and on the same test





device. The results are therefore comparable and demonstrate convincingly that SICvantage® max achieves top values for both the maximum static load and the fatigue strength after 5 million load cycles compared with the competition of similar diameter.

For this reason SICvantage® max implants over a diameter of 3.7 mm are licensed for all indications and also for the posterior region without restriction.



## «Easy Handling»

Due to the deep cone, fitting an abutment is a pleasure, especially in the posterior region. The abutment is introduced into the cone and seated in intermediate position with the "Swiss Cross". The index is found by turning it to the right or left, the abutment engages in the interface prisms and makes contact with the cone. The fixation screw can then be tightened with 20 Ncm or the restoration can be brought into final position by biting onto or tapping it gently.







Turn the abutment slightly

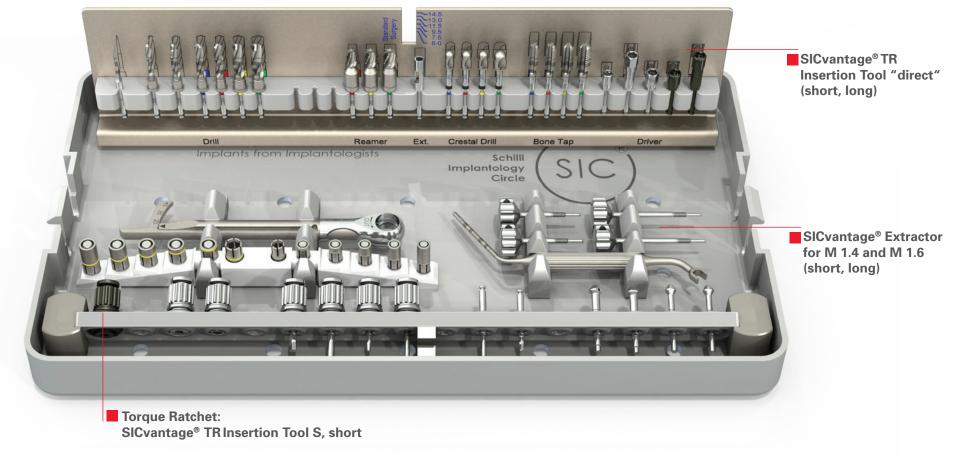


Abutment is felt to engage



(20 Ncm) Final position

#### One Surgery Tray for all SIC invent Implant Systems



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