

PACE
by implant**swiss**



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NEW GENERATION

PACE
by implantswiss



Pace Implant

Characteristics and Highlight

Fixture and Packaging

Surgical Kit

Engineered for Strength

Dynamic Loading Test

Superstructures



“PACE” goes beyond speed.

Intentional progress and
consistent control at every Pace.

NEW GENERATION PACE IMPLANT

PACE by Implantswiss is a new-generation implant system engineered for immediate protocols, delivering high primary stability even in challenging bone conditions.

PACE by Implantswiss represents the next evolution in dental implantology - a system developed with Swiss precision and guided by the heritage of clinical excellence. Designed to deliver optimal stability, biological harmony, and surgical efficiency, PACE combines innovation, reliability, and superior performance in every detail. Each feature, from its refined geometry to its advanced surface technology, reflects years of scientific research and practical expertise.

PACE embodies the Implantswiss philosophy: innovation driven by science, perfected by experience.

What “New Generation” Means

- Precision surgical protocol selection according to bone density
- Immediate-load compatible Aggressor design
- Narrow implant neck and emergence profile to prevent peri-implantitis
- Single connection interface.

*Engineered to **Engage**.*

*Built to **Perform**.*

*Designed for **Control and Power**.*

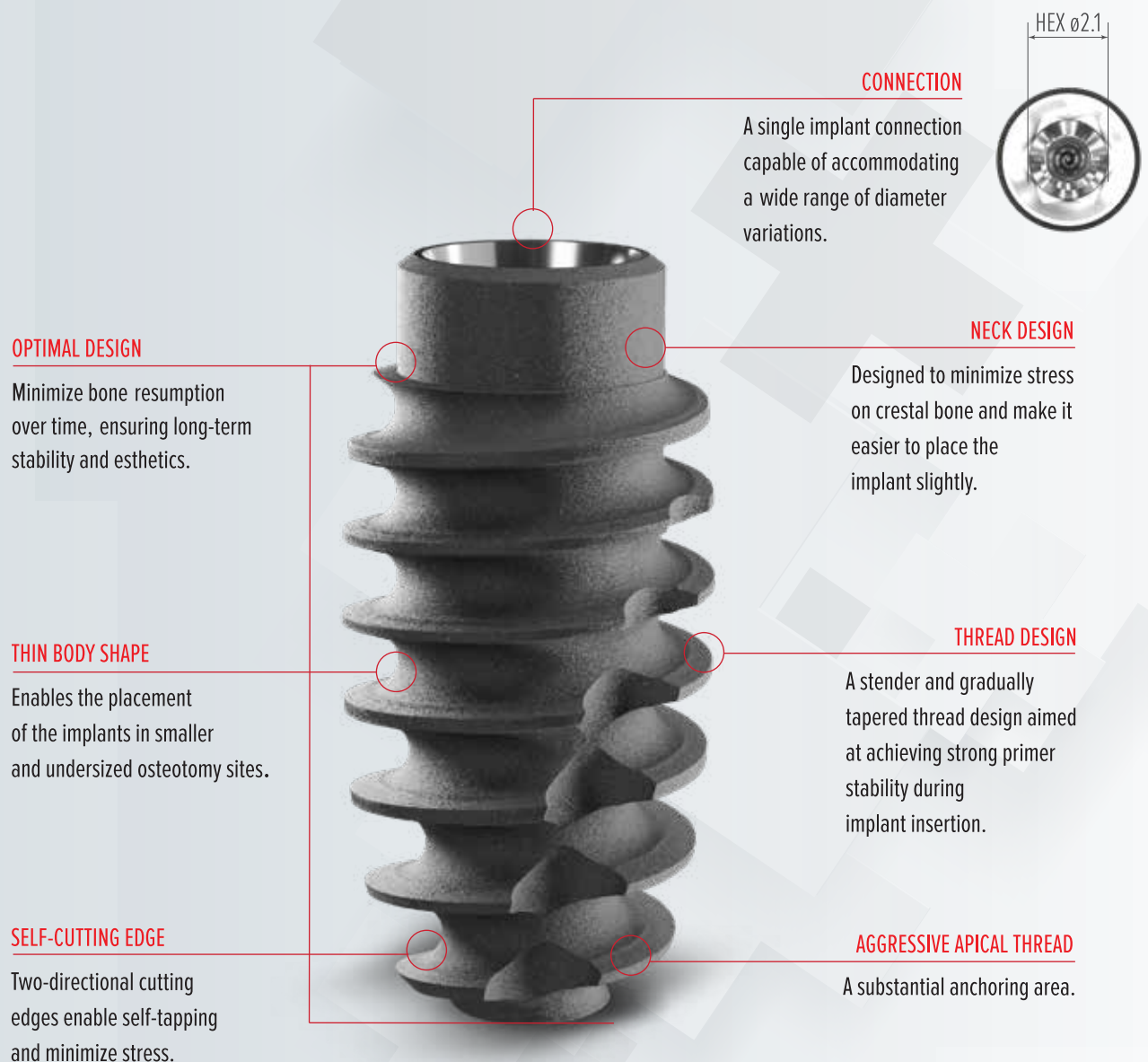
CHARACTERISTICS AND HIGHLIGHT

DESIGN CONCEPT

PACE by Implantswiss has been engineered to deliver exceptional primary stability and outstanding bone preservation, even under the most demanding clinical conditions. Its cylindrical body with progressive thread steps deepening toward the apex ensures secure anchorage and ideal load distribution during immediate protocols. The self-cutting edges facilitate smooth insertion and optimal torque control, while the sloping shoulder design with an ultra-slim neck minimizes crestal bone stress and eliminates bacterial microleakage between the implant and abutment interface.

Developed specifically for immediate placement and immediate loading, PACE reflects a new generation of design philosophy - where mechanical strength, biological harmony, and surgical efficiency coexist in perfect balance.





CONNECTION

A single implant connection capable of accommodating a wide range of diameter variations.



OPTIMAL DESIGN

Minimize bone resumption over time, ensuring long-term stability and esthetics.

NECK DESIGN

Designed to minimize stress on crestal bone and make it easier to place the implant slightly.

THIN BODY SHAPE

Enables the placement of the implants in smaller and undersized osteotomy sites.

THREAD DESIGN

A stender and gradually tapered thread design aimed at achieving strong primer stability during implant insertion.

SELF-CUTTING EDGE

Two-directional cutting edges enable self-tapping and minimize stress.

AGGRESSIVE APICAL THREAD

A substantial anchoring area.

OPTIMIZED GEOMETRY Cylindrical body with self-cutting edges and progressive thread depth for excellent primary stability in all bone types.

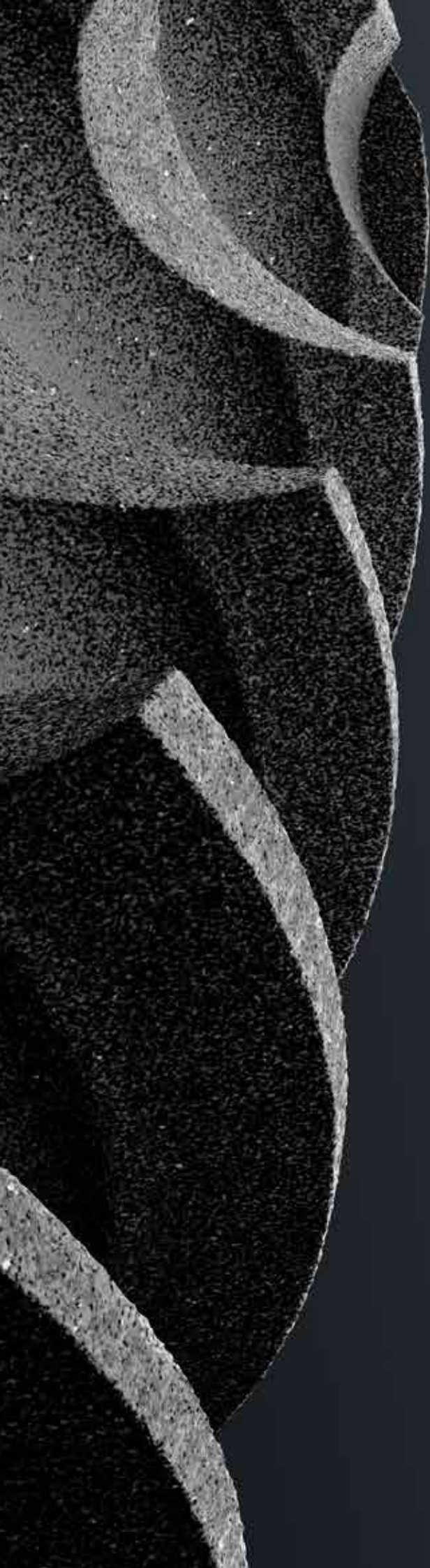
BONE PRESERVATION Sloping shoulder design and narrow implant neck ensure minimal crestal bone loss and soft-tissue protection.

CONNECTION SYSTEM 11° morse-tapered internal hexagonal connection providing precise fit, high mechanical stability and bacterial seal integrity.

SINGLE PLATFORM CONCEPT One prosthetic platform across all implant diameters simplifies component selection and enhances restorative flexibility.

SWISS PRECISION MANUFACTURING Produced under strict Swiss quality standards, guaranteeing consistency, accuracy, and reliability.

IMMEDIATE PROTOCOL READY Specifically designed for immediate placement and loading, offering predictable outcomes and superior clinical performance.



About PACE

*PACE is a **high-performance** implant solution that expands the possibilities of **immediate** treatments by ensuring reliable primary **stability** across all bone densities.*

FIXTURE AND PACKAGING

The preservation of nature, human health, and product integrity has always been a core principle for Implantswiss. With PACE, this commitment evolves even further through the use of 100% biocompatible PEEK packaging.

Each implant is securely housed in a PEEK tube, ensuring that the implant comes into contact only with this high-performance, biologically inert material. Both the tube and its cap are made entirely of PEEK, providing maximum protection, stability, and cleanliness.

The outer box is produced from fully biodegradable material, aligning with our vision of sustainability and environmental responsibility.

Exceptional biocompatibility, physical resistance, and sterilization safety are among the many advantages that make PEEK packaging the ideal solution for the next generation of implant systems.



Length (mm)	ø3.5	ø4.0	ø4.5	ø5.0	ø5.5	ø6.0	ø7.0
6 mm	S-PBFR3506	S-PBFR4006	S-PBFR4506	S-PBFR5006	S-PBFR5506	S-PBFR6006	S-PBFR7006
8 mm	S-PBFR3508	S-PBFR4008	S-PBFR4508	S-PBFR5008	S-PBFR5508	S-PBFR6008	S-PBFR7008
10 mm	S-PBFR3510	S-PBFR4010	S-PBFR4510	S-PBFR5010	S-PBFR5510	S-PBFR6010	S-PBFR7010
12 mm	S-PBFR3512	S-PBFR4012	S-PBFR4512	S-PBFR5012	S-PBFR5512	S-PBFR6012	S-PBFR7012
14 mm	S-PBFR3514	S-PBFR4014	S-PBFR4514	S-PBFR5014	S-PBFR5514	S-PBFR6014	S-PBFR7014



PACE Surgical Kit

*embodies the essence of Swiss
engineering - delivering accuracy,
efficiency, and immediacy in one
seamless system.*

SURGICAL KIT

The PACE Surgical Kit has been meticulously designed to work in perfect harmony with the PACE implant geometry, preparing the bone for ideal primary stability and immediate loading. Every instrument in the kit reflects the Implantswiss philosophy of precision and simplicity - providing clinicians with complete control and confidence throughout every surgical step.

The kit includes surgical drills, bone reamers, parallel pins, depth gauges, drivers, and tapping tools, along with a holding key that allows stable manual control during tapping procedures. A detailed drilling chart guides the user on the exact drill sequence based on bone type and implant diameter, ensuring optimal results in all clinical situations.

Each drill features a unique cutting geometry and DLC (Diamond-Like Carbon) coating, providing exceptional

sharpness, reduced heat generation, and extended tool lifespan - all crucial for predictable immediate loading. The color-coded channels and layout offer intuitive guidance, while the well-organized tray design allows minimal setup time and maximum efficiency in the surgical field.

The grommetless tray structure ensures maximum hygiene, easy sterilization, and long-term durability without the need for silicone inserts. Manufactured from high-grade stainless steel, all instruments are autoclavable and reusable, maintaining the highest standards of safety and precision.

PACE Surgical Kit embodies the essence of Swiss engineering - delivering accuracy, efficiency, and immediacy in one seamless system.



SUPERSTRUCTURES



DIGITAL COMPONENTS: **PACE** Ti-Base Abutments are designed to provide a reliable and precise foundation for screw-retained restorations. Optimized for digital workflows, they ensure accurate prosthetic positioning and strong bonding compatibility with CAD/CAM restorations. The precise implant–abutment interface supports mechanical stability, while the streamlined geometry facilitates predictable esthetic outcomes and efficient laboratory procedures.

PARAMETER	OPTIONS
Abutment Diameter Options	Ø4 mm - Ø5 mm
Gingival Height Options	1 mm - 2 mm - 3 mm
Crown Size Options	4 mm - 5 mm - 7 mm
Angle Options	Straight - Angled (max. 20°)
Connection Type	Hex - Non-hex

ANATOMIC ABUTMENTS: **PACE** Anatomical Abutments feature a natural, anatomical design that supports optimal soft tissue shaping and aesthetic emergence. Their tailor-made design promotes stable tissue adaptation, allowing them to function similarly to a healing abutment while forming an ideal gingival contour. Once placed, the abutment can remain in position throughout the workflow—enabling direct intraoral scanning without removal. Acting just like a scan body, the scan data is matched within the library to the corresponding Ti-Base abutment, allowing a fully digital restorative process. This single-piece, multifunctional solution simplifies the workflow while delivering predictable aesthetic and functional outcomes.



PARAMETER	OPTIONS
Tooth Type Designs	Incisor - Premolar - Molar
Total Design Variations	12 Anatomical Designs
Gingival Height Options (GH)	5 mm - 6 mm - 7 mm - 9 mm
Material	Titanium Base with Zirconia Coating



HEALING ABUTMENTS: Designed to support optimal soft tissue healing and predictable emergence profiles, **PACE** Healing Abutments provide clinicians with a wide range of gingival heights and diameters to accommodate varying clinical needs. Distinct anodized color-coding allows quick and accurate identification of each size, enhancing efficiency and precision during surgical and restorative workflows.

PARAMETER	OPTIONS
Diameters	4.0 mm - 5.0 mm - 6.0 mm - 8.0 mm
Gingival Heights	3 mm - 4 mm - 5 mm - 6 mm
Material	Ti6Al4V ELI
Identification	Anodized Color-Coded



COUPLE ABUTMENT: PACE Abutments features an expertly designed emergence profile that ensures a natural, seamless fit with the soft tissue. From the implant-abutment connection to the cervical area, this profile supports biological compatibility, enhances aesthetics, and promotes superior hygiene. The well-crafted emergence profile stabilizes the surrounding soft tissue, mimics the natural tooth appearance, reduces plaque accumulation, and boosts peri-implant health. With **PACE**, you can trust that the implant restoration will emerge from the gingiva in a way that's both functional and aesthetically pleasing, delivering long-lasting results and optimal performance.

PARAMETER	STRAIGHT COUPLE ABUTMENT	ANGLED COUPLE ABUTMENT
Diameter Options	Ø4 - Ø5 - Ø6 - Ø8	Ø4 - Ø5
Gingival Height Options	2 mm - 3 mm - 4 mm - 5 mm	2 mm - 4 mm
Chimney Length	7 mm	—
Angle Options	—	15° - 25°

REMOVABLE DENTURE ABUTMENTS: Featuring a premium TiN coating, our Locator and O-Ring Abutments ensure superior retention and ideal mobility, offering optimal performance and durability in overdenture solutions.

PARAMETER	LOCATOR ABUTMENT	O-RING ABUTMENT
Gingival Height Options (GH)	1.5 - 2.5 - 3.5 - 4.5 - 5.5 - 6.5 mm	2 - 3 - 4 - 6 mm
Material	Ti6Al4V ELI	Ti6Al4V ELI



MULTI-UNIT ABUTMENT SYSTEM: PACE Multi-Unit Abutments simplify full-arch and multi-implant restorations by compensating for implant angulation and providing a common prosthetic platform. Available in Ø4.0 mm and Ø4.8 mm platforms, they ensure mechanical stability, passive fit, improved hygiene access, and predictable screw-retained outcomes.

PARAMETER	STRAIGHT	ANGLED (17° / 35°)
Platform Diameter Options	Ø4.0 mm - Ø4.8 mm	Ø4.8 mm
Angle Options	Straight	17° - 35°
Gingival Height Options (GH)	2.25 - 3.25 - 4.25 mm	2 - 3 - 4 mm

ENGINEERED FOR STRENGTH

FINITE ELEMENT ANALYSIS

Pace Implant System is validated through comprehensive Finite Element Analysis (FEA) under extreme clinical loading conditions. PACE design has been digitally tested beyond physiological forces to ensure long-term mechanical reliability and predictable clinical performance.

Finite Element Analysis performed by Marsis Innovation using non-linear contact modeling and anatomically representative bone geometry.

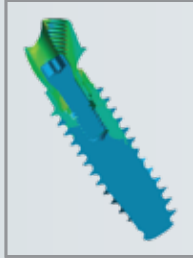
VALIDATED UNDER EXTREME CONDITIONS

- 100+ individual simulations performed
- Forces up to 400 N
- Loading angles up to 30°
- Different bone qualities simulated
- Non-linear contact behavior
- Fatigue safety evaluation

Implant body stress distribution under extreme loading conditions - under 400 N load at 30° angulation.

Validated Under Extreme Conditions

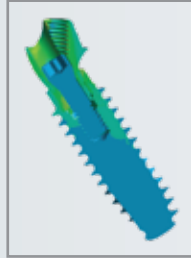
- 100+ simulations
- Up to 400 N load
- Up to 30° angulation



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Realistic Bone Model

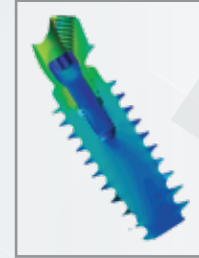
- 1.5 mm cortical layer
- Anatomical jaw geometry
- Non-linear contact



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Mechanical Safety

- Safety factor ≥ 3
- Fatigue limit validated
- Long-term reliability



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Designed beyond clinical loads. Engineered for long-term reliability.

DYNAMIC LOADING TEST

Pace Implant System has been mechanically validated through dynamic fatigue testing according to **ISO 14801:2016**. The test was performed by an independent laboratory under extreme loading conditions, simulating worst-case clinical scenarios.

Tested Beyond Clinical Loads

- International standard: **ISO 14801:2016**
- Test angle: **45°**
- Nominal bone level: **3 mm**
- Dynamic cyclic loading
- Preload torque: **25 Ncm**
- Frequency: **15 Hz**

Static Fracture Strength

- Average maximum fracture load: **911 N**
- This value is significantly higher than normal physiological chewing forces.

Fatigue Life Performance

- **Infinite life achieved at 200 N**
- **5,000,000+ cycles without failure**
- Clinical chewing forces = 150–200 N

PACE Implant System demonstrates long-term mechanical stability under continuous functional loading.

BENCHMARK PERFORMANCE

Independent laboratory benchmarking shows that our implant system achieves one of the highest fatigue resistance values within its diameter class.

ENGINEERED FOR LONG-TERM SUCCESS

Designed to withstand extreme functional forces. Tested according to the most demanding international standard. Built for predictable long-term clinical performance.

