

MAKING THE WORLD A HEALTHIER PLACE



Ceramic implants
SDS1.1 und SDS2.0

SDS SWISS DENTAL
SOLUTIONS

designed by
Dr. Ulrich Volz

MAKING THE WORLD A HEALTHIER PLACE

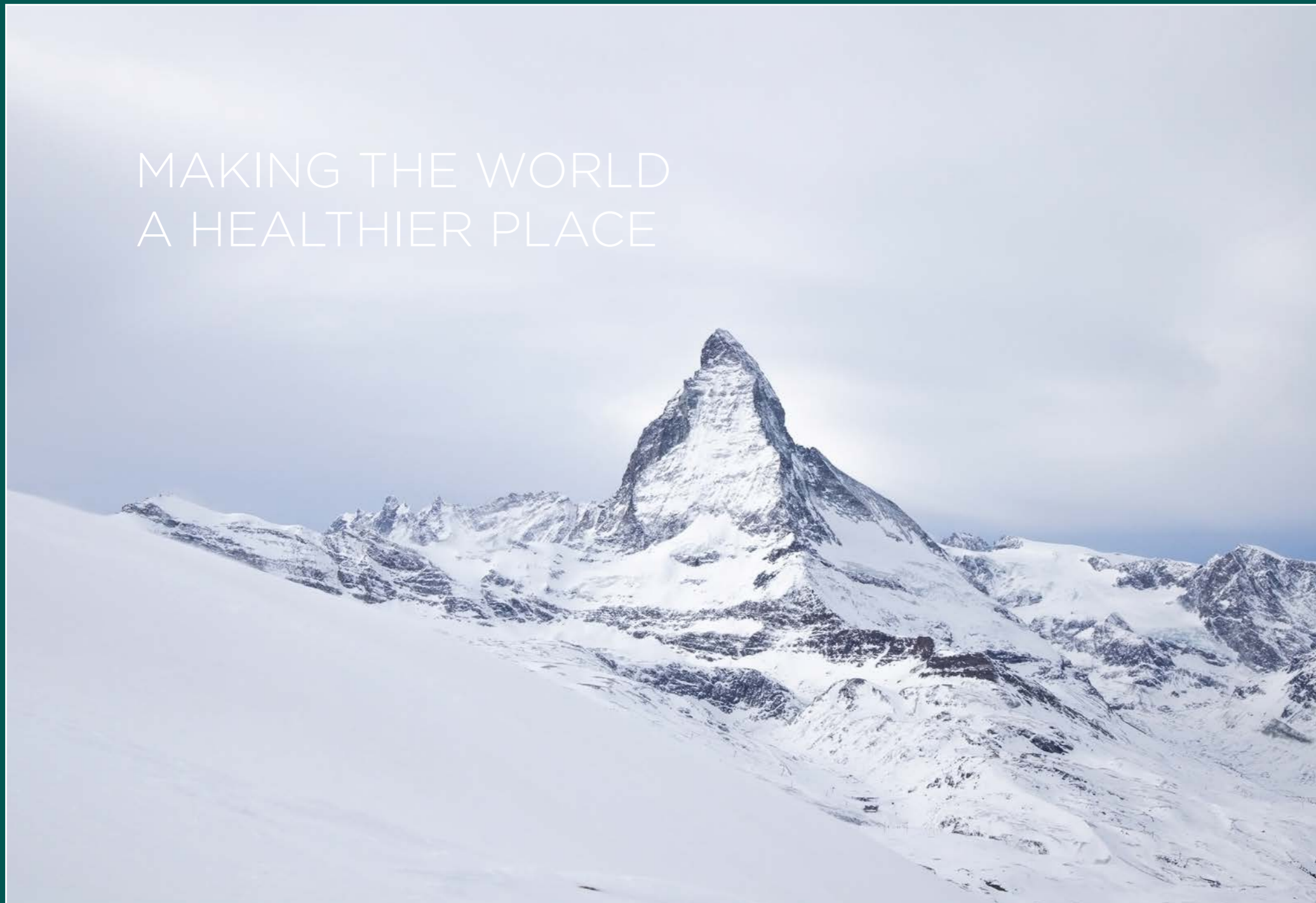


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The innovation leader for immunologically neutral implant restorations

SDS - Swiss Dental Solutions Ceramic Implants

SDS ceramic implants: conceived and developed in the dental practice - thereby offering patients excellent aesthetics, stability, precision, osseointegration and health. Combined with state-of-the-art surfaces, the Dynamic Thread® implant design makes the ideal solution possible for all bone classes. Strictly metal-free, SDS implants stand for the highest level of biocompatibility. The zirconia SDS uses, is the material of choice for biological and immunological implantology.

CERAMICS ARE EASIER - BUT DIFFERENT

Today we are able to place most SDS implants immediately (immediate implantation and immediate treatment using long-term provisional prosthetics). You too can benefit from the expert knowledge of the SDS company owner and head of SWISS BIOHEALTH CLINIC, Dr. Ulrich Volz. From over 20 years of experience and 20,000 personally placed ceramic implants, special treatment protocols have been developed which we routinely provide in our own training centre, SWISS BIOHEALTH EDUCATION, including the surgical "ALL IN ONE" concept.

The SWISS BIOHEALTH CONCEPT

The SWISS BIOHEALTH CONCEPT describes the unique symbiosis between biological medicine and biological dentistry, which is exclusively oriented towards the success of treatment.

Over the last 30 years Dr. Ulrich Volz has brought together some of the best dentists and medical practitioners as for example Dr. Dietrich Klinghardt and has developed the SWISS BIOHEALTH CONCEPT under his leadership. Our SWISS BIOHEALTH CONCEPT is demonstrably able to strengthen the immune system and to alleviate or even eliminate the course of chronic diseases. Today, the need for a strengthened immune system is more present than ever before.

The "ALL IN ONE" concept

In only one session or sequence, most dental problems can be eliminated once and for all. After all, it is only when all potential interfering factors such as metals, osteonecroses, endodontically treated teeth and other interfering factors are completely eradicated that the immune system is able to do a perfect job, reliably healing the implants and eliminating any system stress. This is all the more important because ceramic implants are completely neutral and therefore only integrate when implanted into healthy bone tissue with a functional immune system.

The integration of titanium implants is associated with the release of inflammation mediators, just as occurs during chronic inflammation so that even compromised bone can be treated. Nevertheless, according to the Consensus Conference 2006, after just five years more than 80% of titanium implants are affected by gingivitis and more than 50% are complicated by inflammation of the bone.*

* (periimplant mucositis in 80% - periimplantitis in > 56% of all cases. Consensus of the sixth European Workshop on Periodontology of 2006).

The HEALTH of the patient is in the foreground at SDS.



SDS1.1
„one-piece“

SDS2.0
„two-piece“

designed by
Dr. Ulrich Volz

“WE’VE LEARNED TO THINK IN CERAMICS”

Dynamic Thread® and SDS implant engineering

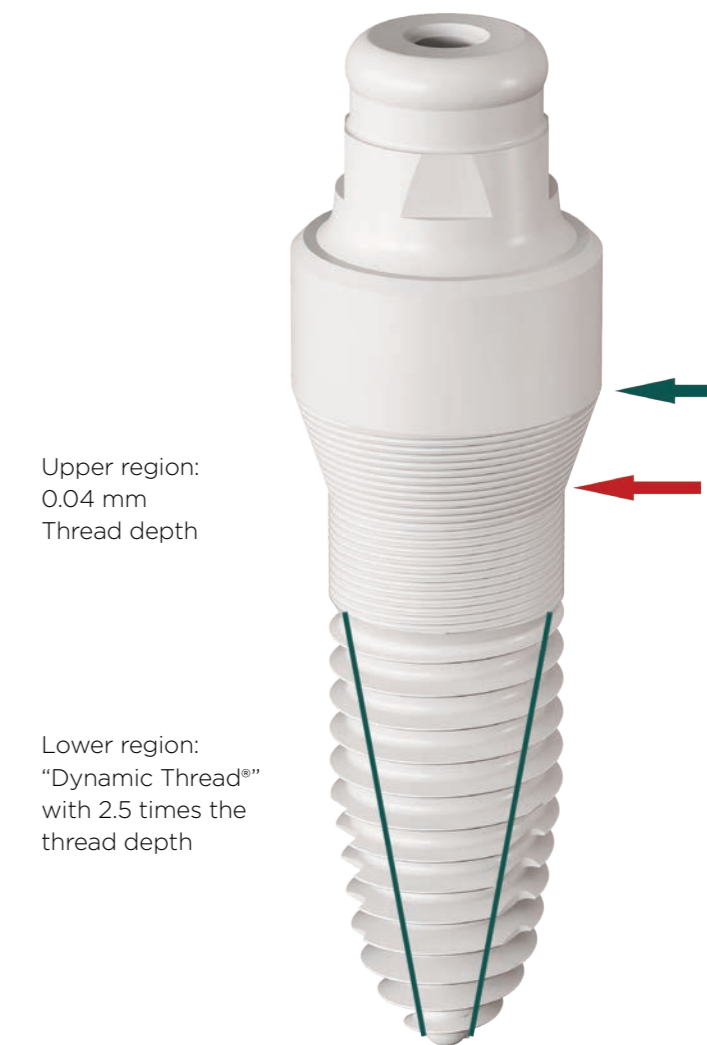
The SDS team can look back on over 20 years of experience in ceramic implants, which is key to its work in the development and production of SDS implants. Through performing tens of thousands of implant procedures over the years, our development team has increased our understanding of the properties, possibilities and limits of zirconia.

Implant thread, upper region

The upper region of the implant thread is equipped with a micro-thread and therefore meets the requirements of cortical bone, which does not tolerate compression. At the same time, the use of a micro-thread results in an increased core diameter in the area of peak implant load, improving implant stability. The bone level for tissue-level insertion is approximately at the height of the **green arrow**. The **red arrow** shows the implant area that is exposed to the highest loads according to ISO 14801 during simulated bone recession.

Implant thread, lower region

The lower region of the implant thread is equipped with “Dynamic Thread®”. This self-tapping thread has 2.5 times the thread depth in the bone-condensing area, thereby providing a very large surface area for osseointegration, even in difficult bone. By combining a drilling protocol that varies according to bone class and appropriately adapted form drills, SDS implants with Dynamic Thread® offer good primary stability and reliable osseointegration in all bone classes. In class III and IV soft bone, this is achieved using optimum bone compression. In contrast, hollow spaces in class I and II hard bone are created in a circular arrangement around the implant core, which then fill with blood, stem cells and bone chips, allowing for quick callus formation.



Upper region:
0.04 mm
Thread depth

Lower region:
“Dynamic Thread®”
with 2.5 times the
thread depth

Zirconia - the first choice implant material

Zirconia is not ductile

Unlike titanium, zirconia ceramics are less flexible and therefore cannot twist in the bone as a result of mastication, as is otherwise the case with titanium implants. This allows the bone to taper thinly on the zirconia implants. In many cases, which can normally only be resolved by bone augmentation, we have developed new treatment protocols with A-PRF™, and can therefore dispense with bone replacement material to a large extent. A pointed alveolar ridge should also never be leveled before implantation, because the gingiva or papilla will also be lowered to the same extent!

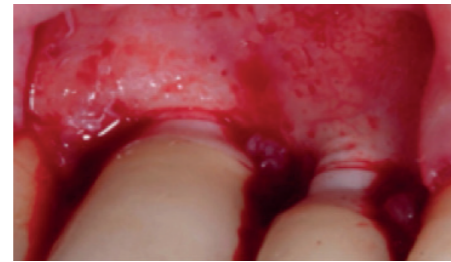
Zirconia epithelial connection

Soft tissue adheres to the zirconia material, as already proven 30 years ago in human histology studies by the Hamburg-based Dr. Rudelt. This has also been demonstrated by current studies conducted by Prof. Kniha and the Oliva family. And concepts such as "One Abutment - One Time" also refer to this property. For the first time, we now have available to us an implant material that both grows into the bone/ osseointegrates and allows soft tissue to adhere to it. As a result, a defined implant-abutment transition is no longer required.

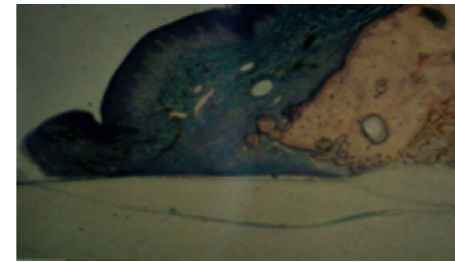
Conclusions

Ceramic implants should not be narrower at the implant-abutment transition (as is the case with titanium implants), but instead should be broader, as with SDS implants. This is because the projecting tulip stabilises the gingiva by adhering at this point. Ceramic implants must always be used at tissue level, otherwise this valuable bond will be disturbed and destroyed. In this way, the soft tissue and the natural red aesthetics are preserved to the best extent possible.

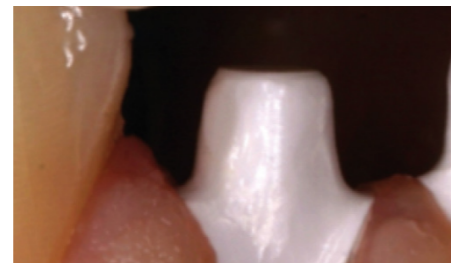
Apart from that, the color and soft tissue properties mean that it is no longer necessary to position implants deeply (at bone level). During the prosthetic restoration, the zirconia-epithelial connection must never be destroyed by the electrosurgery device or by retraction cord placement.



Re-entry after 3 years: the bone tapers thinly - no circular soft tissue seam



Zirconia epithelial connection after 20 years in situ in man: a secure bond

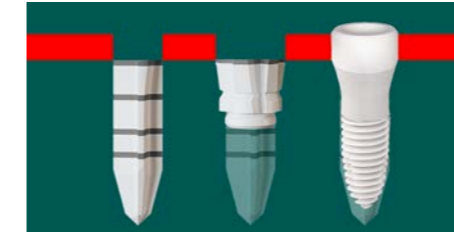


Papillae adhering to the wide + tall tulip



Sidharta JJ: Clinical follow-up of zirconia ceramic implants: Function as a calcium cathode. Dental medicine Ph.D. dissertation, Faculty of Medicine, University of Ulm. University of Ulm 2006

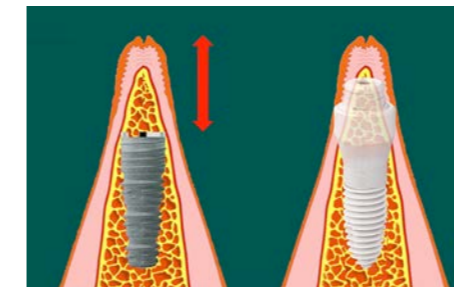
Properties of SDS ceramic implants



Stepped-type screw implants: after class I preparation, more than half of the implant "falls" into the cavity.



Lacunae for stem cells: The red areas are hollow spaces and are created as a result of the overextended preparation.



Papillary height loss with titanium implants: Papillary height preservation with ceramic implants.

Ceramics are not able to dissipate iatrogenic heat

In addition to mechanical sensitivity, zirconia as an implant material has the additional disadvantage of not being able to dissipate the heat that forms on the boundary surface, therefore increasing the risk of overheating and destroying the bone, particularly in bone class I. For this reason, we do not use any cylindrical implants or a shape-fitting preparation using thread cutters for SDS implant shapes and drilling protocols. In our newest generation products, we make use of the advantages of stepped-type screw implants: in class I cavity preparations, they immediately "fall" to a depth much greater than 50% of their length and are placed in their final position with only a few rotations, with only the 0.15 mm thread tips contacting the bone.

Create optimally vascularised bone

In bone classes III and IV, the Dynamic Thread® compresses the bone in the same way as a bone condenser, thus enabling an excellent primary stability. In conjunction with the drilling protocol arranged by bone class, the Dynamic Thread® forms lacunae for stem cells in hard bone. The overextended preparation for hard bone classes works together with the extreme thread depths of the SDS Dynamic Thread® to create a hollow space for bone chips, blood from the surgery site and stem cells. This enables callus formation to take place up to 30 times faster. The arising lamellar bone is supplied with blood far better than the appositional bone that is created when the implant comes into direct contact with the bone. A positive side effect of this is that there is no contact between the implant and the bone in this hollow space, meaning that there is no friction giving rise to heat!

Preserving papilla height

When using titanium implants in narrow alveolar ridges, it is necessary to augment or reduce the alveolar ridge (red arrow). The result can be a massive loss of papillary height. Since, on the one hand, the bone is permitted to taper thinly with a ceramic implant and, on the other hand, the implant-abutment transition is fluid, the entire papillary height can often be retained without necessitating augmentation.



SDS1.1 “one-piece”

One-piece implants are used when the restoration with a long-term temporary (LTP) is safe, there is little leverage on the implant, and excellent primary stability is achieved. The detailed indications can be found in the indication descriptions.

SDS1.1 - The Hybrid Ceramic Implant System made of TZP-A (Tetragonal Zirconia Polycrystal) combines the advantages of one and two-piece zirconia implants

Material

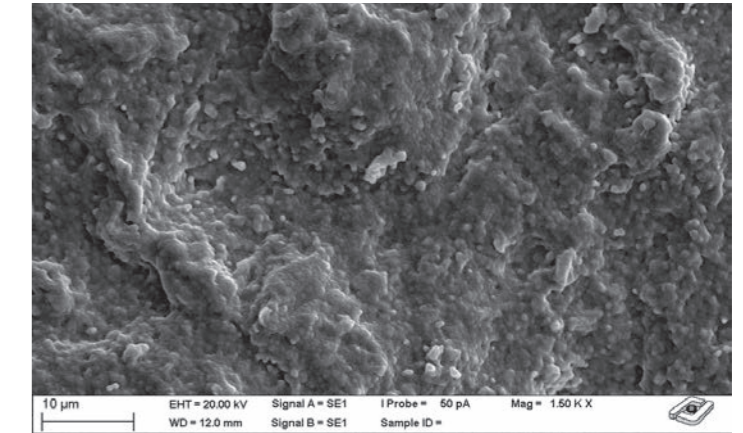
SDS1.1 implants made of the continuously improved material TZP-A (Tetragonal Zirconia Polycrystal) use a continuously optimised production process to achieve all new mechanical strength properties in this material segment. SDS1.1 implants are provided with an enhanced surface.

Design features

SDS1.1 implants are furnished with a Dynamic Thread®, which has proven ideal for use with all bone classes. The Dynamic Thread® performs convincingly in all situations, including with immediate implants, in the ALL IN ONE concept, which is an integral part of the SWISS BIOHEALTH CONCEPT®. The upper segment of the abutment, also known as the “abutment post”, is designed so that one-piece SDS1.1 implants have excellent healing properties with a long-term provisional restoration. We recommend a long-term provisional restoration which is formed “chair-side” over a previously deep-drawn cast made with Luxatemp and then bonded with Durelon™. Details can be found in the Prosthetics Manual and our media library at www.swissdentalsolutions.com.

The abutment can also be ground deep into the tulip area with a red ring diamond at max. rotation, water cooling and gentle pressure to adapt to the contour of the gingiva. Details on the grinding can be found in the Prosthetics Manual and our media library at www.swissdentalsolutions.com.

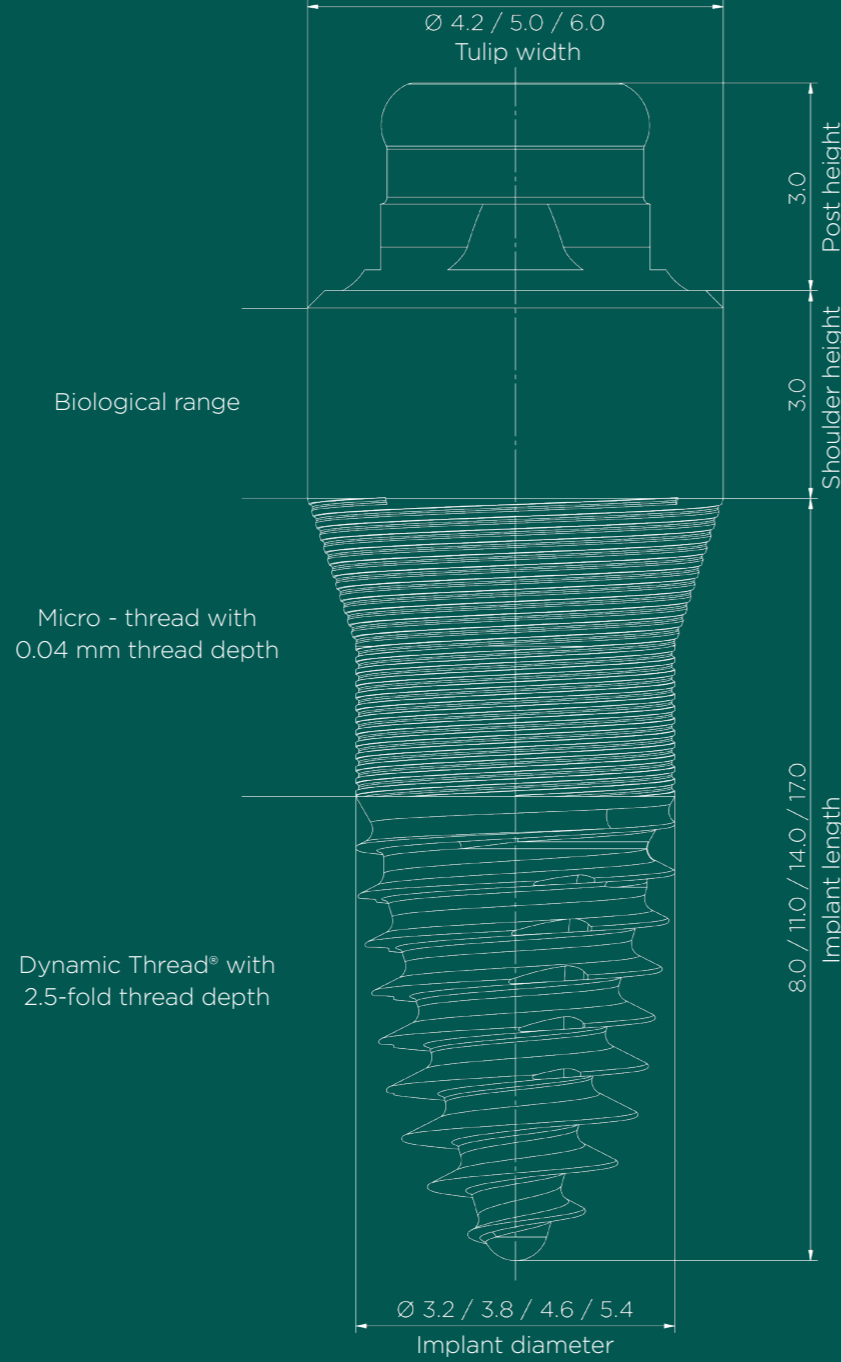
In addition, the SDS1.1 abutment also has an interior screw thread for attaching insertion tools. This enables fast transfer into the oral cavity.



Optimised surface

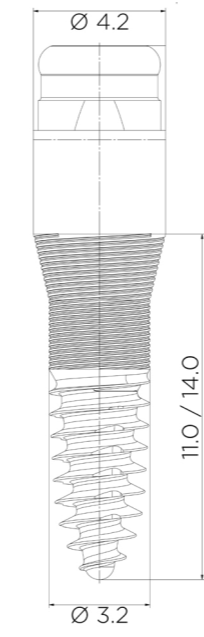


Always set tissue level for implants (pictured directly after surgery).



SDS1.1 product overview, applications and indications

SDS1.1_3.2



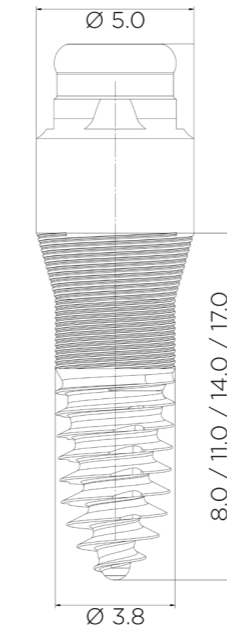
Ø Thread 3.2 mm

SDS1.1_3311	Length in mm	11
SDS1.1_3314	Length in mm	14

Ø Tulip 4.2 mm

Indication
 Exclusively for upper lateral incisors,
 lower incisors

SDS1.1_3.8



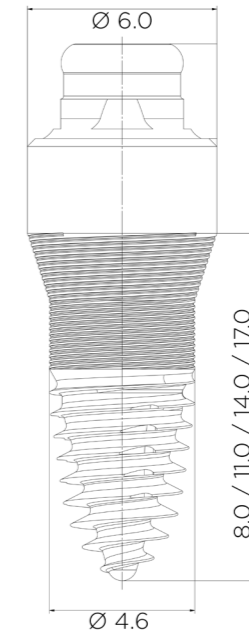
Ø Thread 3.8 mm

SDS1.1_3808	Length in mm	8
SDS1.1_3811	Length in mm	11
SDS1.1_3814	Length in mm	14
SDS1.1_3817	Length in mm	17

Ø Tulip 5.0 mm

Indication
 Medium-wide teeth

SDS1.1_4.6



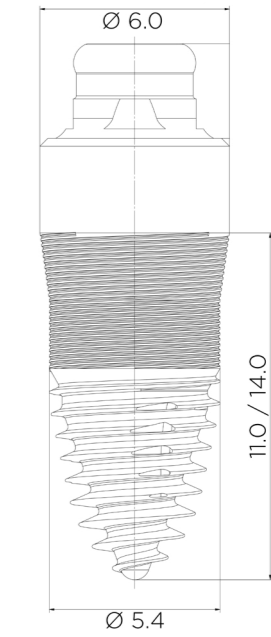
Ø Thread 4.6 mm

SDS1.1_4608	Length in mm	8
SDS1.1_4611	Length in mm	11
SDS1.1_4614	Length in mm	14
SDS1.1_4617	Length in mm	17

Ø Tulip 6.0 mm

Indication
 Wide teeth

SDS1.1_5.4



Ø Thread 5.4 mm

SDS1.1_5411	Length in mm	11
SDS1.1_5414	Length in mm	14

Ø Tulip 6.0 mm

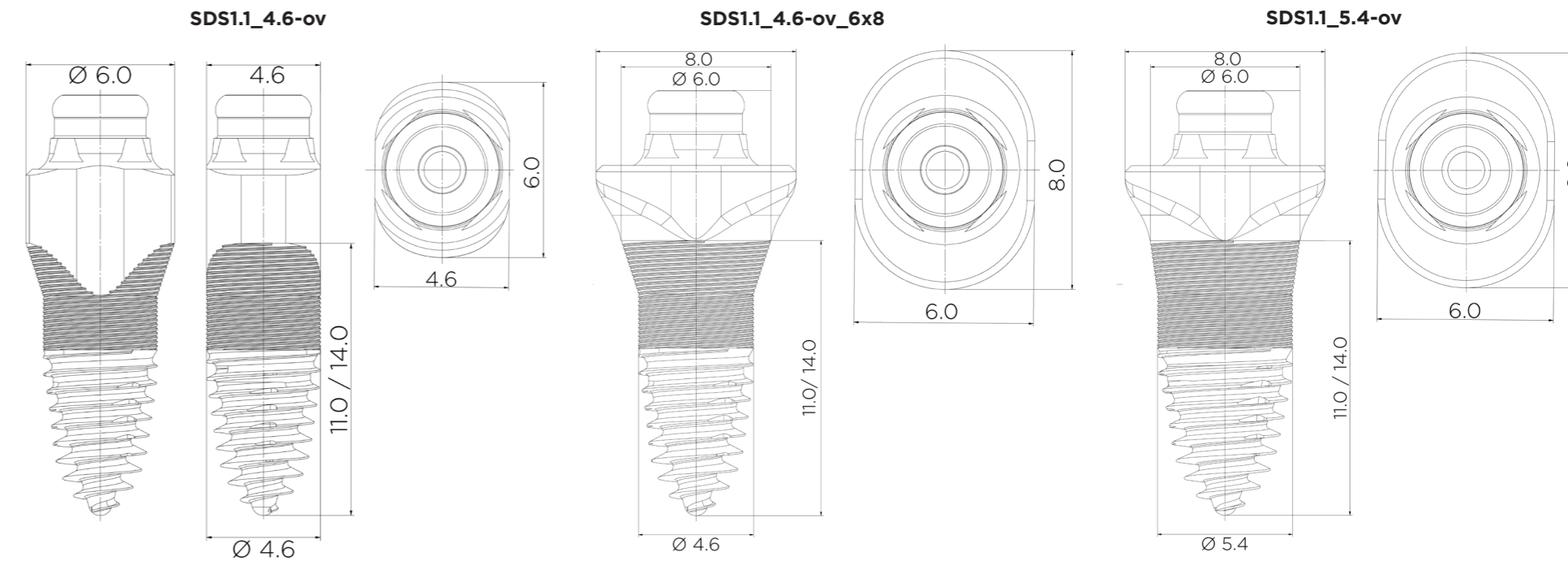
Indication
 Wide teeth



SDS1.1-ov “oval”

This implant series helps you to meet the requirements of the patient’s individual anatomical conditions as well as improving the emergence profile of crowns and bridges.

SDS1.1-ov product overview, applications and indications



Ø Thread 4.6 mm

SDS1.1_4611-ov	Length in mm	11
SDS1.1_4614-ov	Length in mm	14

Ø Tulip 4.6 mm x 6.0 mm

Short indication
 Premolars upper/ lower

Detailed indication
 Premolar region, if gap is narrow

Ø Thread 4.6 mm

SDS1.1_4611-ov_6x8	Length in mm	11
SDS1.1_4614-ov_6x8	Length in mm	14

Ø Tulip 6.0 mm x 8.0 mm

Short indication
 Central molars upper/ lower

Detailed indication
 Central position molars lower/ upper, mostly late implantation, but also immediate implantation with a healthy interradicular septum

Ø Thread 5.4 mm

SDS1.1_5411-ov	Length in mm	11
SDS1.1_5414-ov	Length in mm	14

Ø Tulip 6.0 mm x 8.0 mm

Short indication
 Central molars upper/ lower

Detailed indication
 Central position molars lower/ upper, mostly late implantation, but also immediate implantation with a healthy interradicular septum

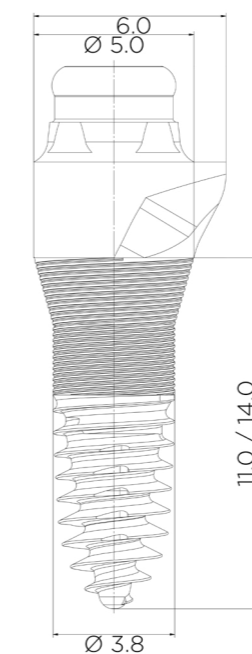


SDS1.1-ba “balcony”

The “balcony” improves the emergence profile. This implant series helps you to specifically restore upper/ lower premolars by immediate implant placement particularly in the case of asymmetrical implant positions.

SDS1.1-ba product overview, applications and indications

SDS1.1_3.8-ba



Ø Thread 3.8 mm

SDS1.1_3811-ba	Length in mm	11
SDS1.1_3814-ba	Length in mm	14

Ø Tulip 5.0 mm x 6.0 mm

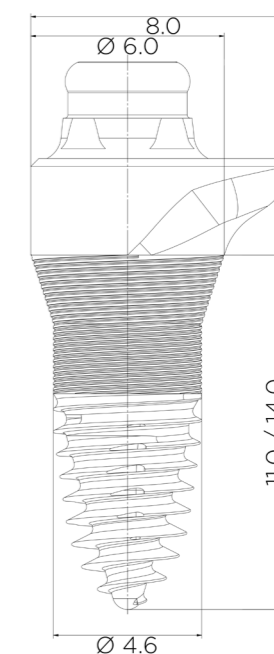
Short indication

Premolars upper/ lower

Detailed indication

Immediate implantation of premolar region, with asymmetrical implant position, balcony improves emergence profile

SDS1.1_4.6-ba



Ø Thread 4.6 mm

SDS1.1_4611-ba	Length in mm	11
SDS1.1_4614-ba	Length in mm	14

Ø Tulip 6.0 mm x 8.0 mm

Short indication

Molars upper/ lower

Detailed indication

Immediate implantation of molar region, with asymmetrical implant position, balcony improves emergence profile



SDS2.0 “two-piece”

The two-piece implant series is used when leverage forces must be avoided (low primary stability, limited bone contact, free-end position) during both immediate and late implantation. The detailed indications can be found in the indication descriptions.

SDS2.0 – The two-piece implant system made of TZP-A (Tetragonal Zirconia Polycrystal)

Material

SDS2.0 implants made of the continuously improved material TZP-A (Tetragonal Zirconia Polycrystal) use an optimized production process to achieve all new mechanical strength properties in this material segment. SDS2.0 implants are provided with an enhanced surface.

Design features

SDS2.0 - The two-piece implant system is based on over 20 years of experience in the development of ceramic implants. The load-bearing upper part of the implant and the implant/ implant-post connection have been designed very robustly. The connection is not in the implant, but in the lower part of the abutment, the so-called tulip. After cementing and fastening, the result is a very stable one-piece implant that accommodates the crown at tissue level. The step-shaped implant construction and the proven self-tapping Dynamic Thread® have proven convincing for all bone classes and indications.

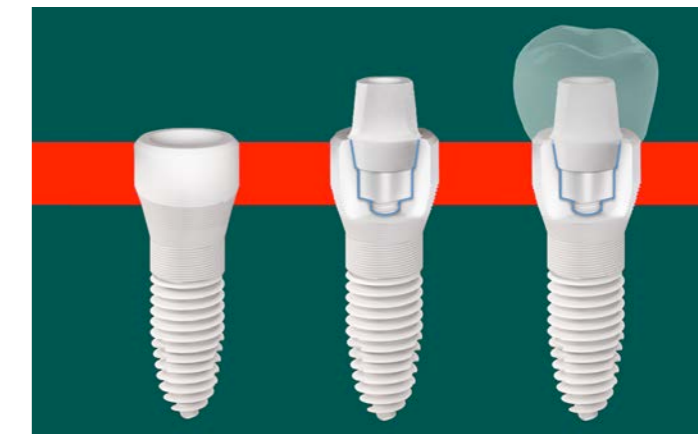
The two-piece design enables protected healing with its high success rates, especially in the posterior region and in “free-end” situations.

Three different standard implant posts

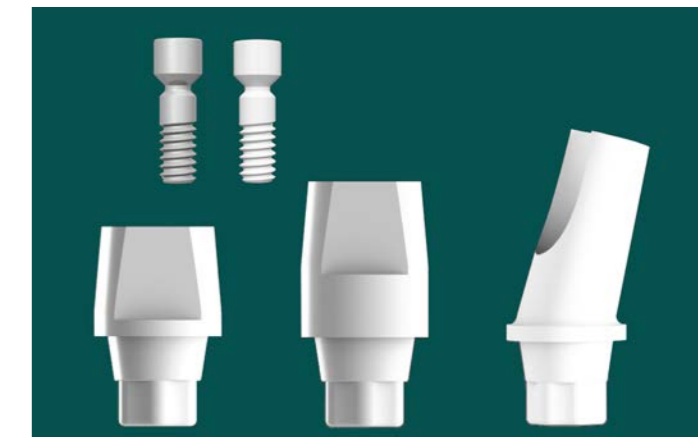
Angled 15°, straight and straight +1.5 mm are available. Two different screw types (titanium and PEEK metal-free) can be selected.

Flexibility

Comparable drilling protocols enable the surgeon to switch intraoperatively between the one-piece SDS1.1 and the two-piece SDS2.0 implant depending on the situation.



SDS2.0 cemented standard implant post (blue line), crown cemented at tissue level.



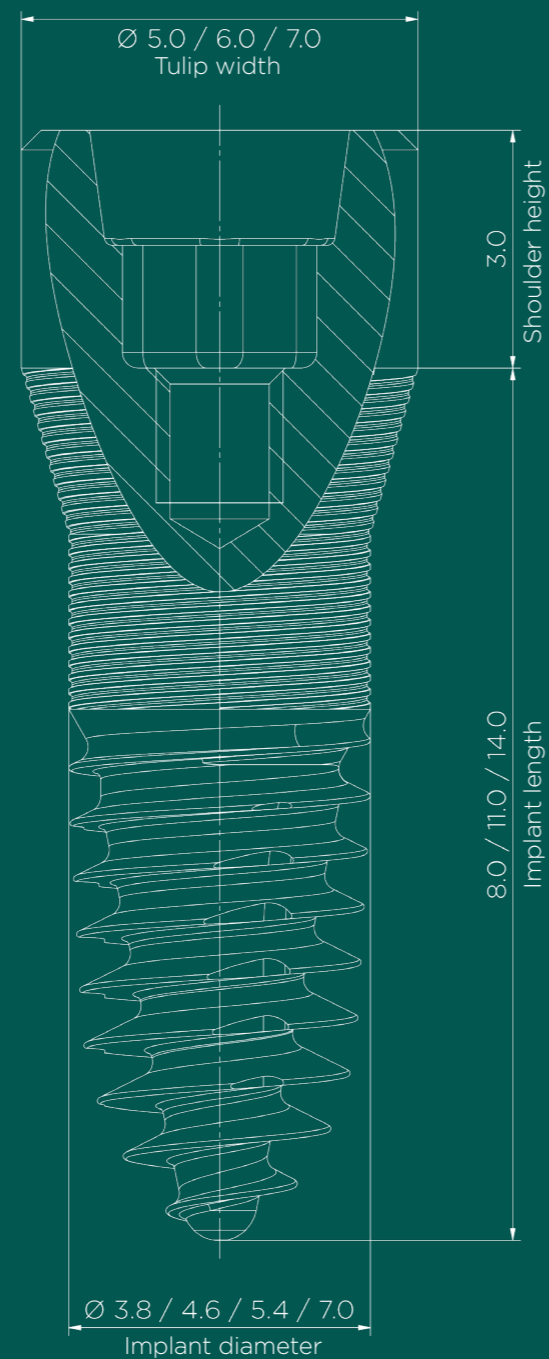
Standard implant posts in zirconia and standard screw in titanium and PEEK.



Biological range

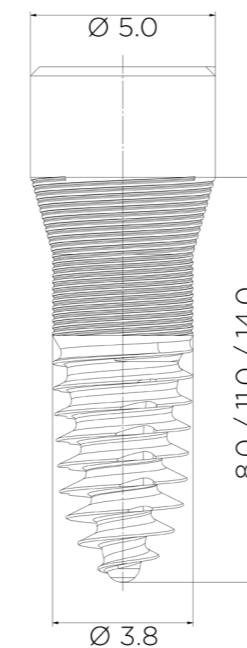
Micro - thread with 0.04 mm thread depth

Dynamic Thread® with 2.5-fold thread depth



SDS2.0 product overview, applications and indications

SDS2.0_3.8



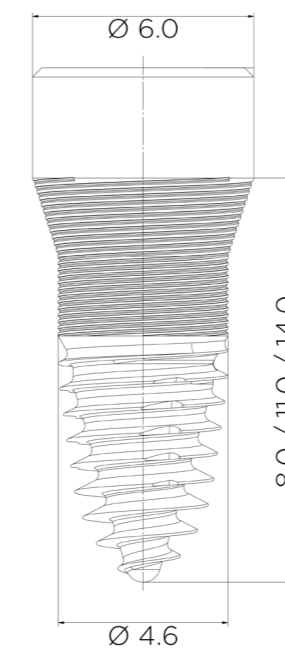
\varnothing Thread 3.8 mm

SDS2.0_3808	Length in mm	8
SDS2.0_3811	Length in mm	11
SDS2.0_3814	Length in mm	14

\varnothing Tulip 5.0 mm

Indication
Narrow - medium-wide teeth

SDS2.0_4.6



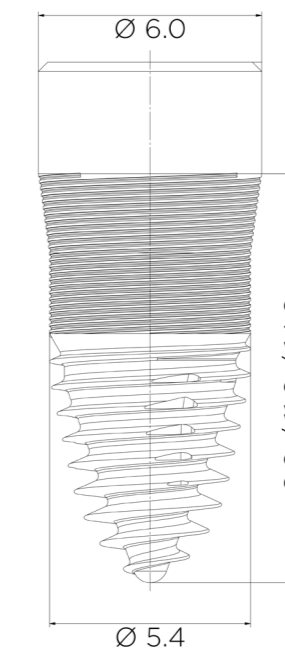
\varnothing Thread 4.6 mm

SDS2.0_4608	Length in mm	8
SDS2.0_4611	Length in mm	11
SDS2.0_4614	Length in mm	14

\varnothing Tulip 6.0 mm

Indication
Wide teeth

SDS2.0_5.4



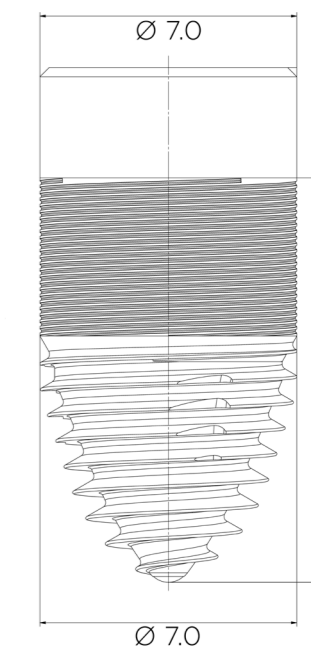
\varnothing Thread 5.4 mm

SDS2.0_5408	Length in mm	8
SDS2.0_5411	Length in mm	11
SDS2.0_5414	Length in mm	14

\varnothing Tulip 6.0 mm

Indication
Immediate implants for very wide teeth

SDS2.0_7.0



\varnothing Thread 7.0 mm

SDS2.0_7011	Length in mm	11
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\varnothing Tulip 7.0 mm

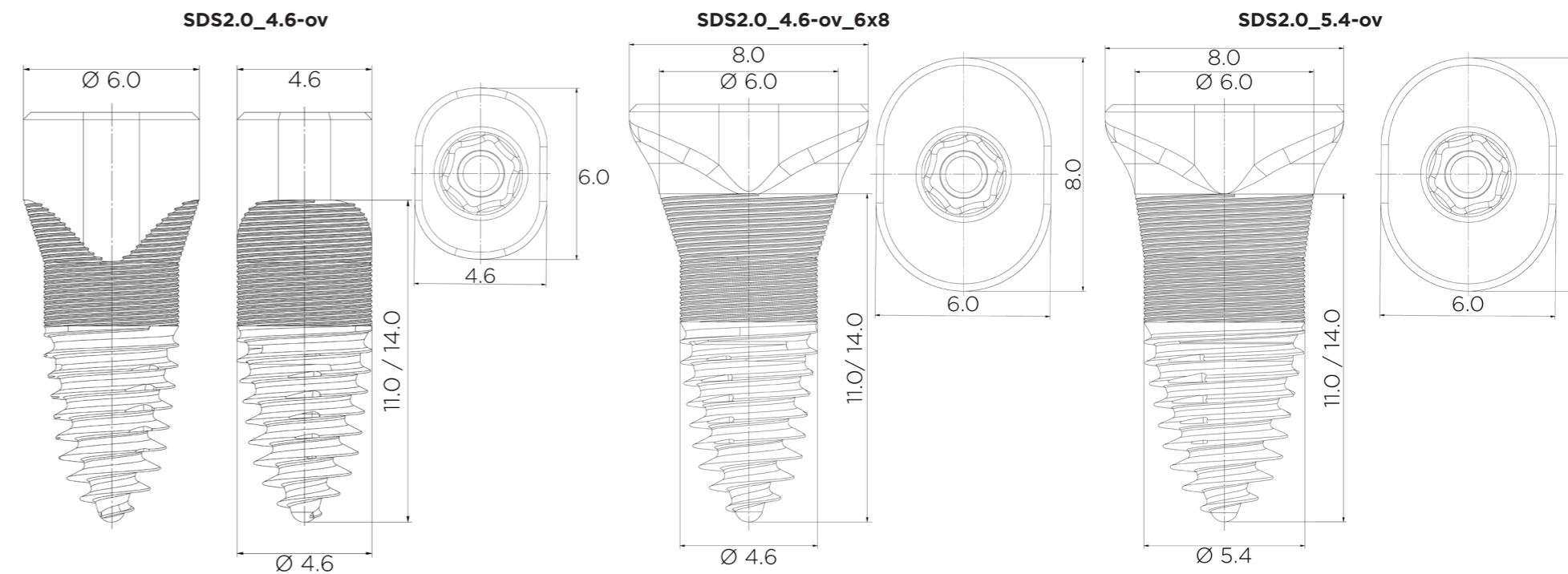
Indication
Immediate implants for taproots



SDS2.0-ov “oval”

This implant series helps you to specifically restore lower/ upper premolars and lower/ upper central molars. The detailed indications can be found in the indication descriptions.

SDS2.0-ov product overview, applications and indications



Ø Thread 4.6 mm

SDS2.0_4611-ov	Length in mm	11
SDS2.0_4614-ov	Length in mm	14

Ø Tulip 4.6 mm x 6.0 mm

Indication short

Premolars upper/ lower

Detailed Indication

Premolar region, if gap is narrow

Ø Thread 4.6 mm

SDS2.0_4611-ov	Length in mm	11
SDS2.0_4611-ov	Length in mm	14

Ø Tulip 6.0 mm x 8.0 mm

Indication short

Central molars upper/ lower

Detailed Indication

Central position molars lower/ upper, mostly late implantation, but also immediate implantation with a healthy interradicular septum

Ø Thread 5.4 mm

SDS2.0_5411-ov	Length in mm	11
SDS2.0_5414-ov	Length in mm	14

Ø Tulip 6.0 mm x 8.0 mm

Indication short

Central molars upper/ lower

Detailed Indication

Central position molars lower/ upper, mostly late implantation, but also immediate implantation with a healthy interradicular septum

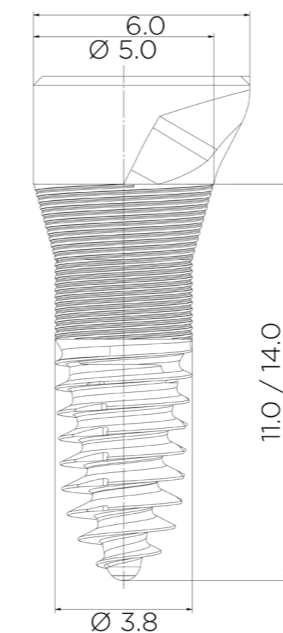


SDS2.0-ba "balcony"

The "balcony" improves the emergence profile. This implant series helps you to specifically restore pre-molars, especially upper 4s and upper/ lower molars. The detailed indications can be found in the indication descriptions.

SDS2.0-ba product overview, applications and indications

SDS2.0_3.8-ba



Ø Thread 3.8 mm

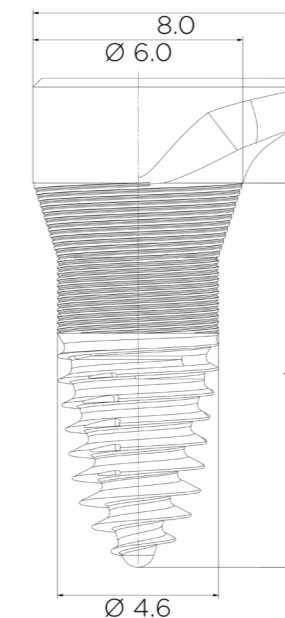
SDS2.0_3811-ba	Length in mm	11
SDS2.0_3814-ba	Length in mm	14

Ø Tulip 5.0 mm x 6.0 mm

Short indication Premolars upper/ lower

Detailed indication
Immediate implantation of premolar region, with asymmetrical implant position, balcony improves emergence profile

SDS2.0_4.6-ba



Ø Thread 4.6 mm

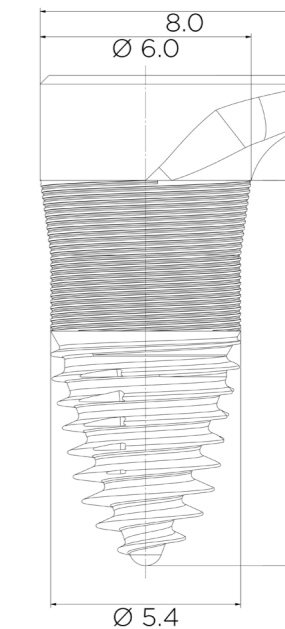
SDS2.0_4611-ba	Length in mm	11
SDS2.0_4614-ba	Length in mm	14

Ø Tulip 6.0 mm x 8.0 mm

Short indication Molars upper/ lower

Detailed indication
Immediate implantation of molar region, with asymmetrical implant position, balcony improves emergence profile

SDS2.0_5.4-ba



Ø Thread 5.4 mm

SDS2.0_5411-ba	Length in mm	11
SDS2.0_5414-ba	Length in mm	14

Ø Tulip 6.0 mm x 8.0 mm

Short indication Molars upper/ lower

Detailed indication
Immediate implantation of molar region, with asymmetrical implant position, balcony improves emergence profile

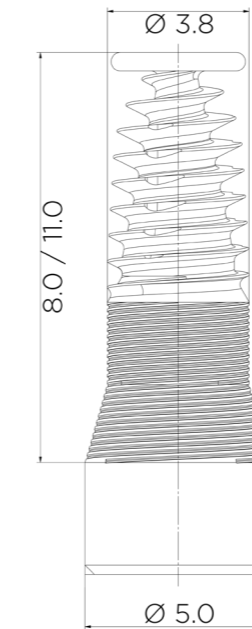


SDS2.0-si "sinus"

Biological sinus lift without bone replacement material. The SDS-SINUSIMPLANT, specifically for external sinus lifts without bone replacement material. Please note the following indications, prerequisites and the surgical protocol for this implant series (see pages 50 and 51)

SDS2.0-si product overview, applications and indications

SDS2.0_3.8-si



Ø Thread 3.8 mm

SDS2.0_3808-si	Length in mm	8
SDS2.0_3811-si	Length in mm	11

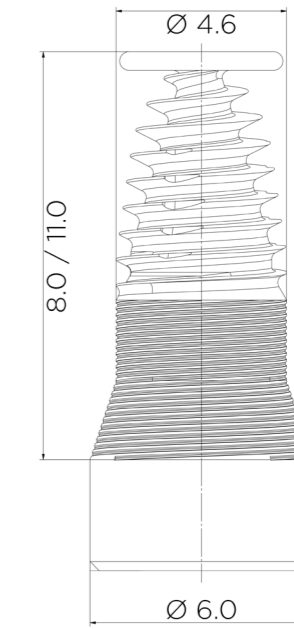
Ø Tulip 5.0 mm

Ø Disk 3.6 mm

Indication

External sinus lift (without bone replacement material) **exclusively** in the premolar region, minimum 3 mm - maximum 5 mm residual bone

SDS2.0_4.6-si



Ø Thread 4.6 mm

SDS2.0_4608-si	Length in mm	8
SDS2.0_4611-si	Length in mm	11

Ø Tulip 6.0 mm

Ø Disk 4.4 mm

Indication

External sinus lift (without bone replacement material), minimum 3 mm - maximum 5 mm residual bone

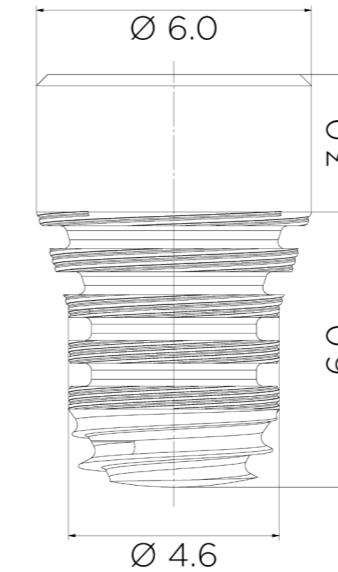


SDS2.0-sh „short“

The implant series „short“ is especially for cases with reduced vertical bone height in the lower jaw, to centrally restore premolars and molars.

SDS2.0-sh product overview, applications and indications

SDS2.0_4.6-sh



Ø Thread 4.6 mm

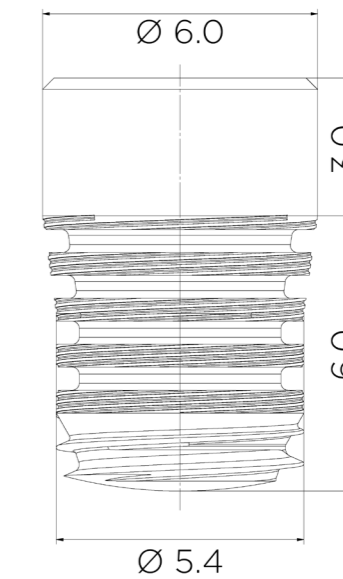
SDS2.0_4606-sh	Length in mm	6
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Ø Tulip 4.6 mm

Indication

At least 6 mm residual bone
Observe distance to the antagonists/
crown height, late-/ immediate
placement, premolar region, no
immediate restoration

SDS2.0_5.4-sh



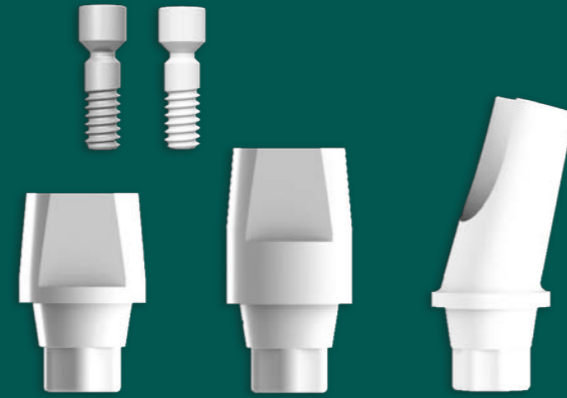
Ø Thread 5.4 mm

SDS2.0_5406-sh	Length in mm	6
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Ø Tulip 5.4 mm

Indication

At least 6 mm residual bone
Observe distance to the antagonists/
crown height, late-/ immediate
placement, premolar-/ molar region,
no immediate restoration



SDS2.0-AB-S “Standard implant posts”

More precisely, the different standard implant posts are only “abutment posts” because the lower part of the abutment is already integrated into the implant shoulder.

SDS standard implant posts are always cemented with Ketac™Cem Automix.

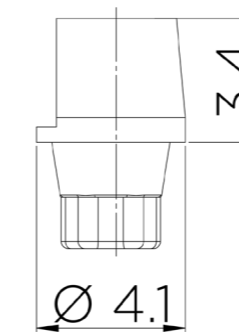
A standard titanium- or PEEK screw is used exclusively for fixing during cementation.

When planning your prosthetics, please note that the crown must rest on the shoulder of the implant.

The detailed treatment protocol can be found in the SDS Prosthetics Manual and online in our media library at www.swissdentalsolutions.com.

SDS2.0 parts and components

SDS2.0_AB-S



Post height 3.4 mm

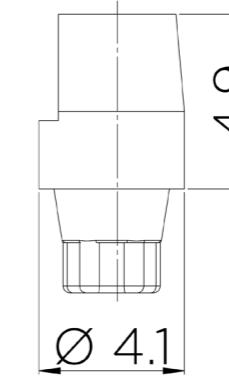
suitable for all SDS2.0 implants

Standard implant post

Indication

Cemented single crown and bridge restorations in standard situations

SDS2.0_AB-S+1.5



Post height 4.9 mm

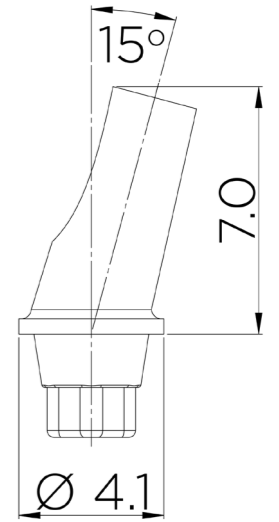
suitable for all SDS2.0 implants

Standard implant post + 1.5 mm

Indication

Cemented single crown and bridge restorations with increased distance to the antagonist

SDS2.0_AB-S15°



Post height 7.0 mm

suitable for all SDS2.0 implants

Standard implant post + 15° angle

Indication

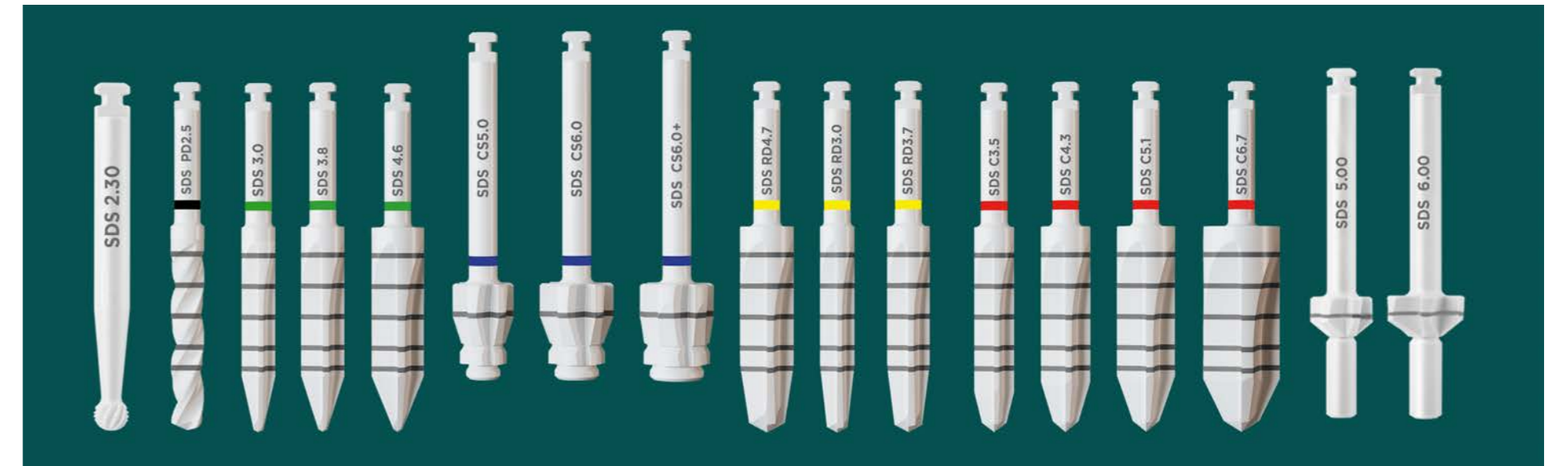
Cemented single crown and bridge restorations in case of implant axial divergence

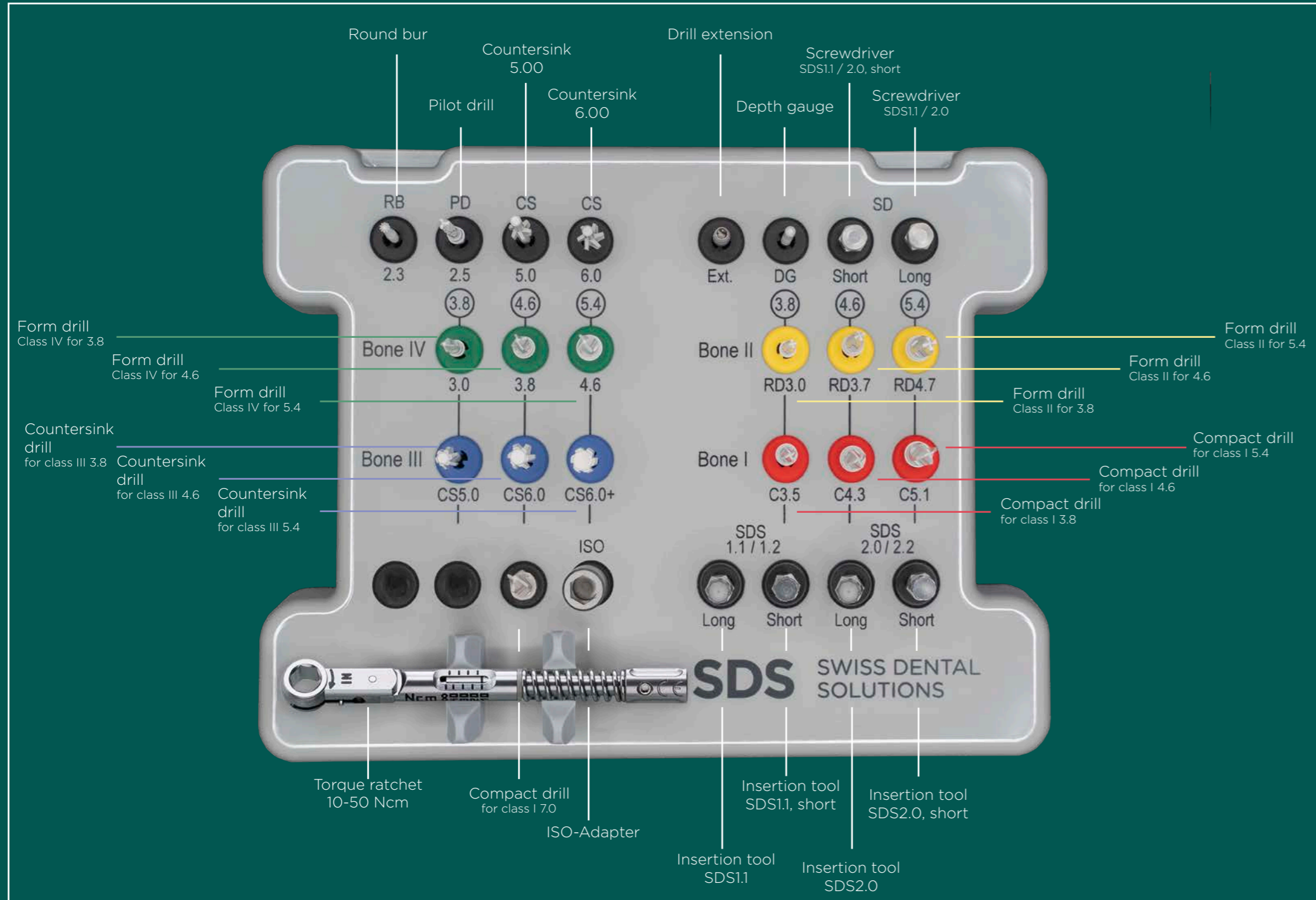


SDS Surgical tray

Strictly metal-free

A metal-free implant kit with all-ceramic zirconia drills made of ATZ ceramic. The rotating instruments made of ATZ ceramic feature a long service life. The surgical tray, with its clear design, is arranged according to bone classes (IV-III-II-I), making it easier to comply with differing drilling protocols.





SDS Surgical tray

	Produkt	Artikel-Nr.	Beschreibung Schaft
1	Round bur	SDSrb230	SDS 2.30
2	Pilot drill	SDSpd250	SDS PD 2.5
3	Countersink 5.00	SDScs500	SDS CS 5.00
4	Countersink 6.00	SDScs600	SDS CS 6.00
5	Class IV form drill for 3.80	SDSsd300dt	SDS 3.0
6	Class IV form drill for 4.60	SDSsd380dt	SDS 3.8
7	Class IV form drill for 5.40	SDSsd460dt	SDS 4.6
8	Countersink drill for class III 3.8	SDS2.0_CS-500	SDS CS5.0
9	Countersink drill for class III 4.6	SDS2.0_CS-600	SDS CS6.0
10	Countersink drill for class III 5.4	SDS2.0_CS-600+	SDS CS6.0+
11	Class II form drill for 3.7 / 3.8	SDSsd300rd	SDS RD3.0
12	Class II form drill for 4.4 / 4.6	SDSsd370rd	SDS RD3.7
13	Class II form drill for 5.4	SDSsd470rd	SDS RD4.7
14	Compact drill for class I 3.8	SDSsd350C	SDS C3.5
15	Compact drill for class I 4.6	SDSsd430C	SDS C4.3
16	Compact drill for class I 5.4	SDSsd510C	SDS C5.1
17	Compact drill for class I 7.0	SDSsd670C	SDS C6.7
18	Depth gauge	SDSdg240	SDS dg 240
19	Drill extension	SDSse001	SDSse001
20	Insertion tool SDS1.1	SDS1.1_ITscrew-ST	SDSse001
21	Insertion tool SDS1.1, short	SDS1.1_ITshort-screw-ST	
22	Insertion tool SDS2.0	SDS2.1_ITscrew-ST	
23	Insertion tool SDS2.0, short	SDS2.1_ITshort-screw-ST	
24	Adapter insertion tool, ISO attachment	SDS_ITISO-ST	
25	Torque ratchet 10-50 Ncm	SDSStw	
26	SDS1.1 / 2.0 screwdriver	SDS-SD-ST	
27	SDS1.1 / 2.0 screwdriver, short	SDS-SD_short-ST	
28	Surgical - case, empty	SDS00401	

Bio-Logic drilling protocol

Suitable for all bone classes

Most conventional implant systems will generate higher insertion torques in increasingly harder bone. Biologically, this is absolutely contraindicated and counterproductive. The more pressure on poorly perfused bone will lead to resorption ("MAMMOTO'S LAW). The SDS Drilling Protocol takes into consideration both biology and MAMMOTO'S LAW as it generates decreasing insertion torques in increasingly harder bone. This is accomplished by using drills and drilling protocols adapted to different bone classes, thus protecting the bone and supporting its vascularization. This is crucial for long-term preservation of any tissue!

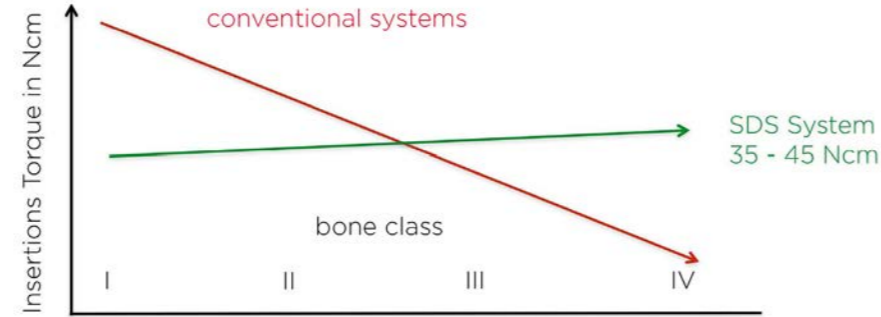
Drilling protocols

It is recommended to keep these drilling sequences on hand during surgery; this will ensure that the protocol is adhered to flawlessly. Conversely, depending on the bone density, the implant bed can be optimally adapted to any non-standard situation. The images show each of the drilling sequences - from the round bur to the form drill - projected onto the implant, illustrating the remaining thread depth for stabilisation. The headline above the image indicates the implant type and its application with respect to different bone densities.

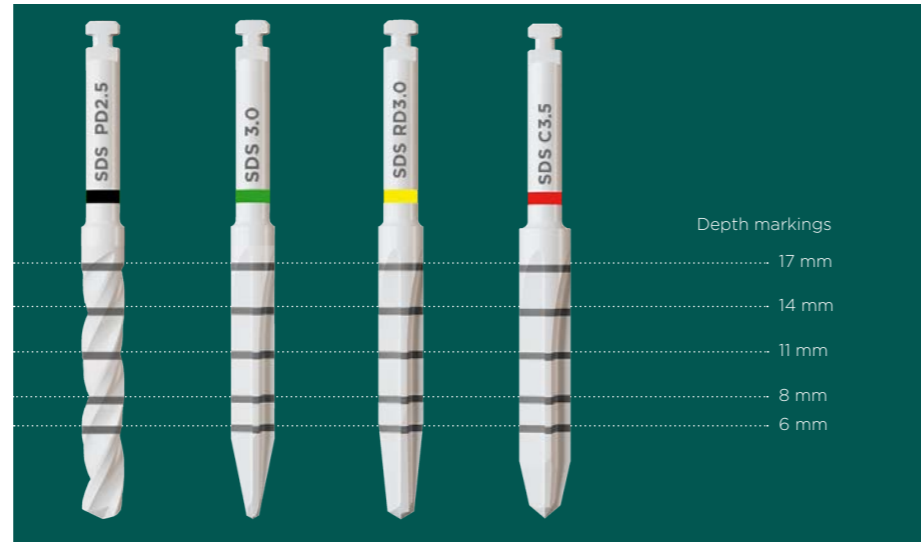
Proper use

Drilling should be performed intermittently and under constant external cooling with pre-cooled (5°C/ 41° F) sterile physiological saline solution. The external cooling prevents the bone tissue from heating up too much. In addition, bone chips can be removed or rinsed away. Ensure that the drill does not jam during use (increased risk of fracture).

The preparation is carried out under low pressure to the desired depth at a speed of 300 - 600 rpm. The speed should be maintained to avoid instrument fractures.



Uniform insertion torques are enabled for all four bone classes with the SDS drilling protocol.



SDS1.1_3.2 bone class III and II

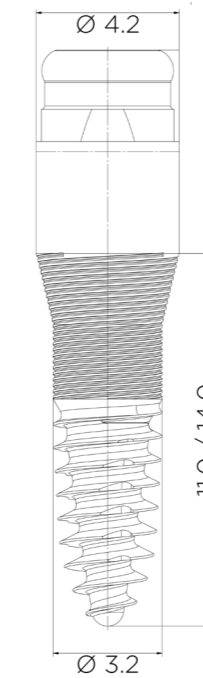
Ø Thread 3.2 mm		
SDS1.1_3211	Length in mm	11
SDS1.1_3214	Length in mm	14

Ø Tulip 4.2 mm

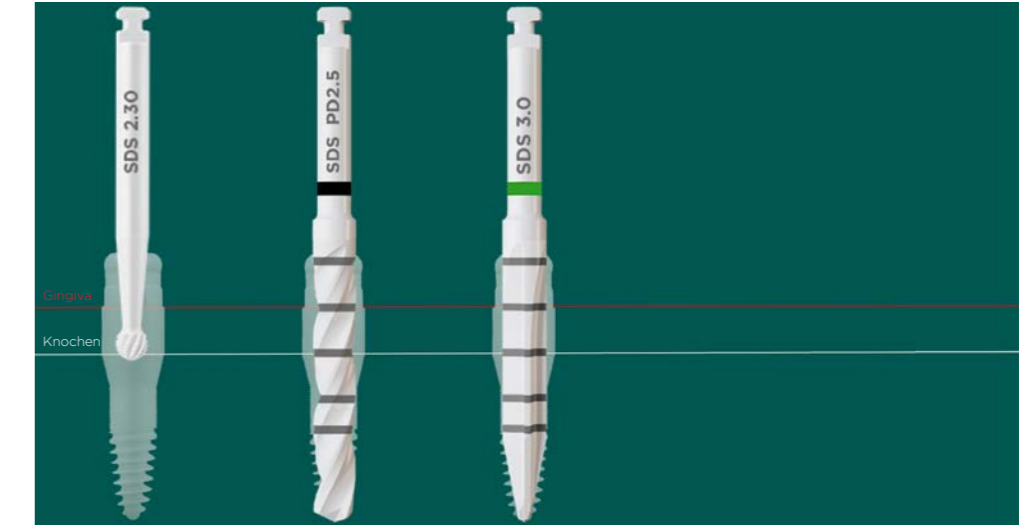
Indication
Exclusively narrow teeth
12/22, 31/41, 32/42

Recommended speed	
SDSrb230	6.000 rpm
SDSpd250	1.000 rpm
SDSsd300dt	300-600 rpm
SDSsd300rd	300-600 rpm

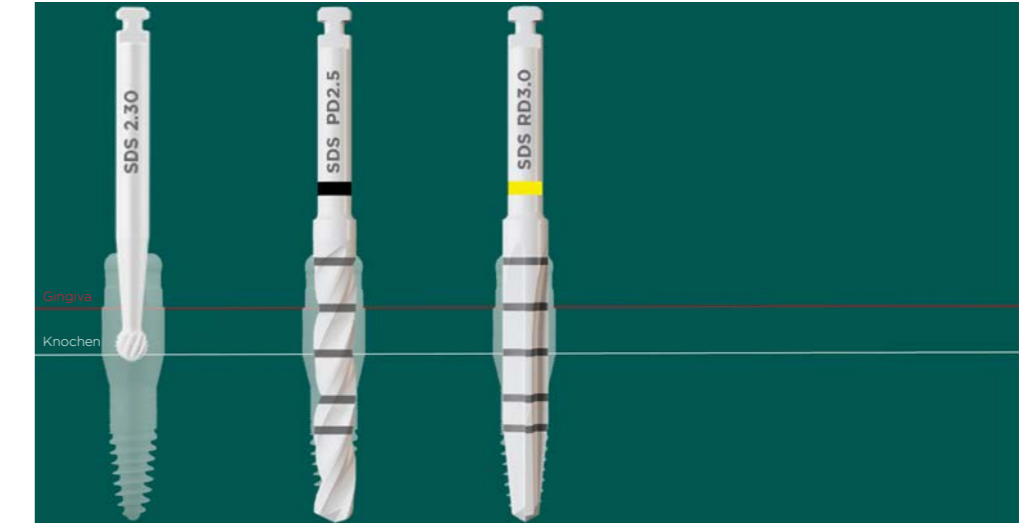
SDS1.1_3.2



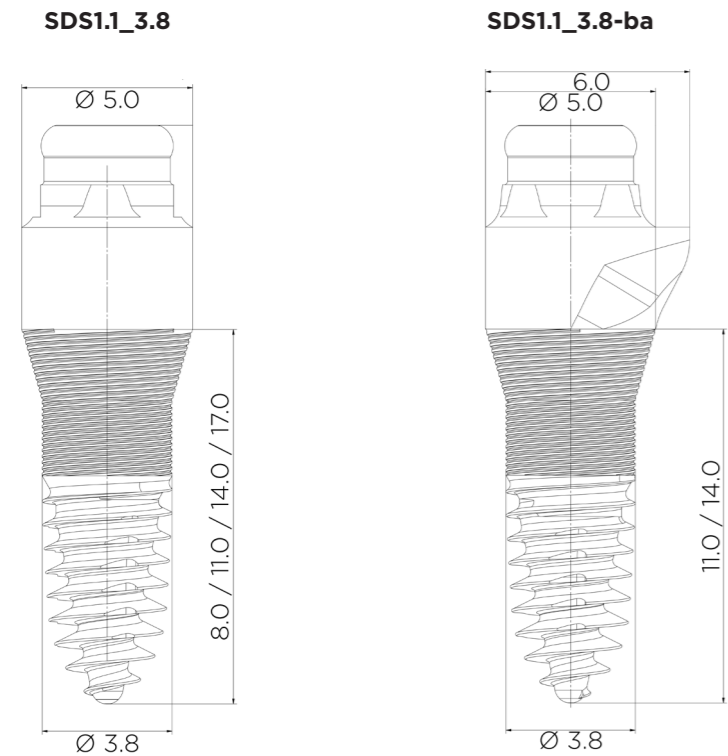
SDS1.1 (Dynamic Thread®) Ø 3.2 mm: bone class III



SDS1.1 (Dynamic Thread®) Ø 3.2 mm: bone class II



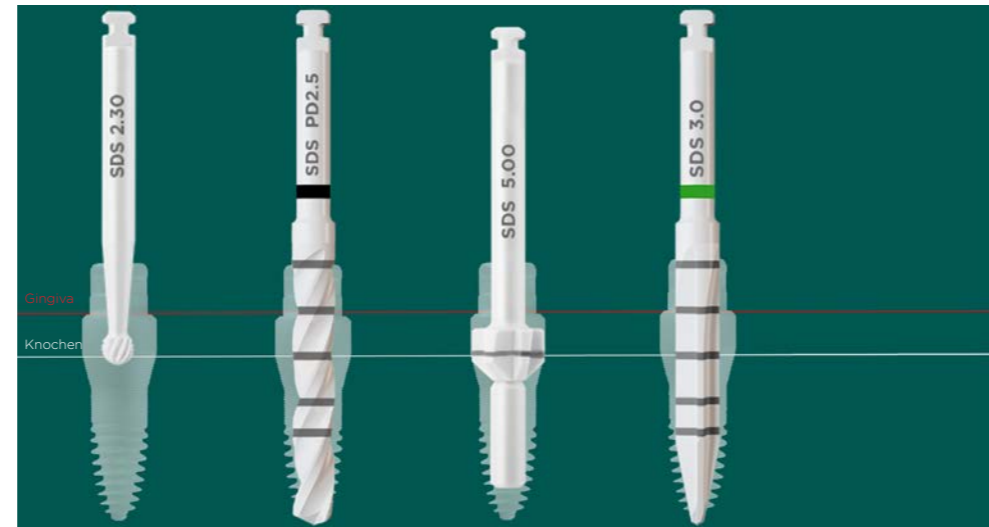
SDS1.1_3.8 bone class IV and III



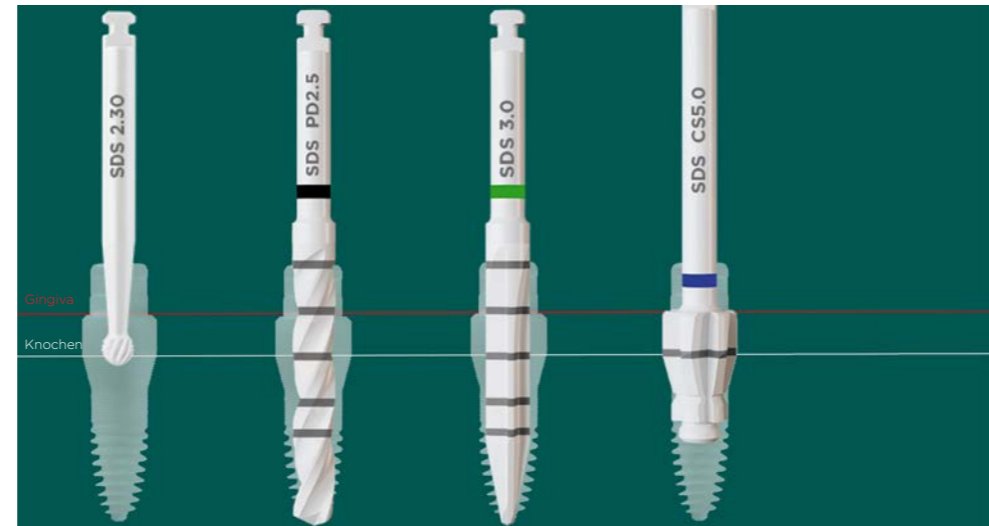
Recommended speed

SDSrb230	6.000 rpm
SDSpd250	1.000 rpm
SDSsd300dt	300-600 rpm
SDScs500	300-600 rpm
SDS2.0_CS-500	300-600 rpm

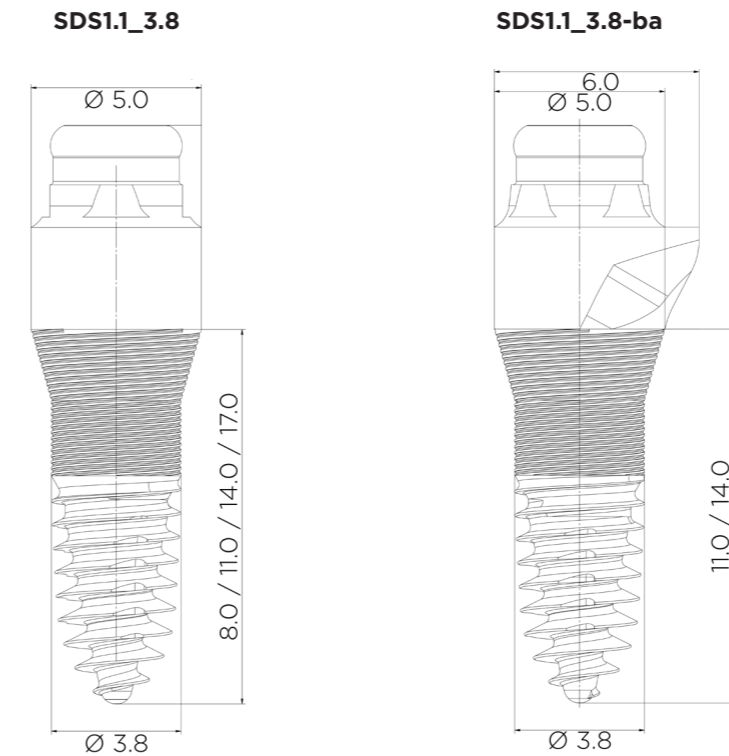
SDS1.1 (Dynamic Thread®) Ø 3.8 mm: bone class VI



SDS1.1 (Dynamic Thread®) Ø 3.8 mm: bone class III



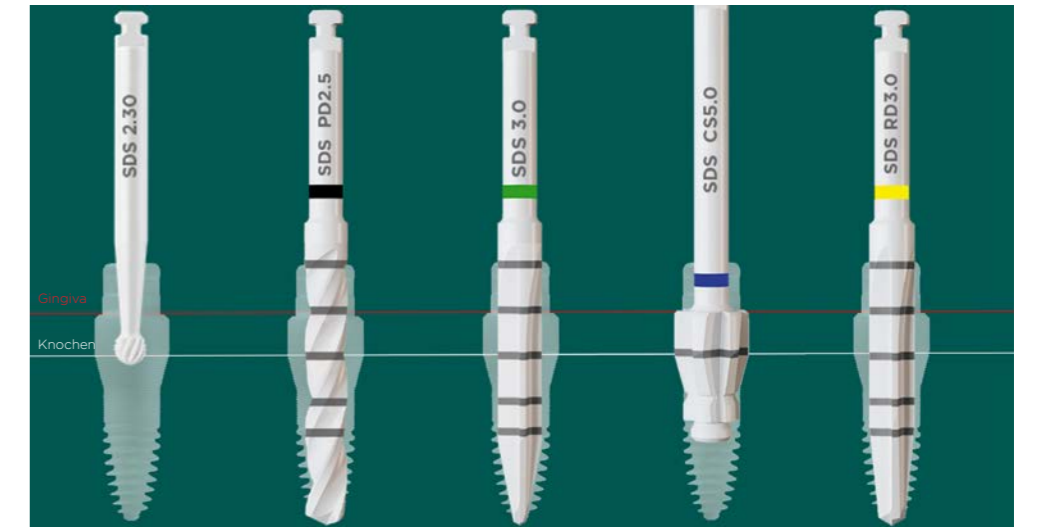
SDS1.1_3.8 bone class II and I



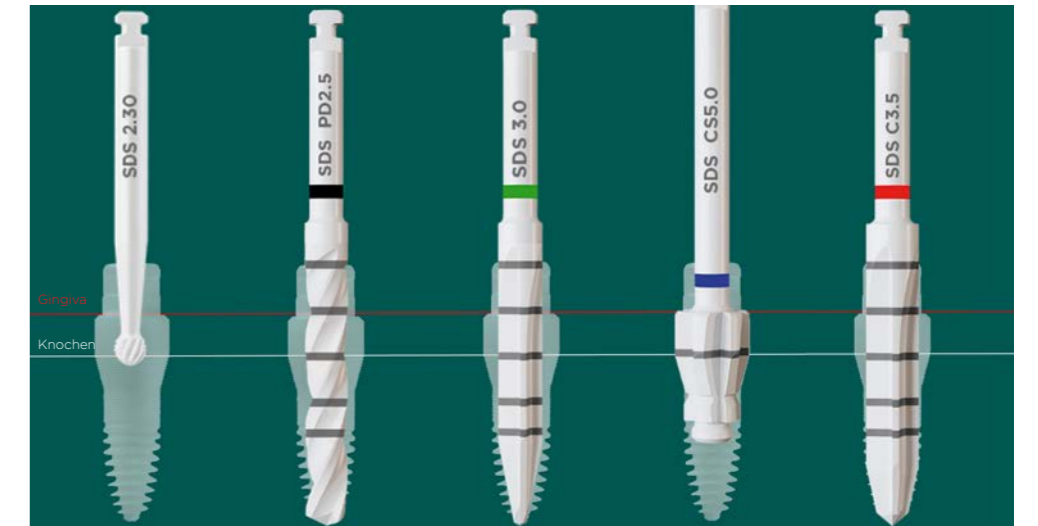
Recommended speed

SDSrb230	6.000 rpm
SDSpd250	1.000 rpm
SDSsd300dt	300-600 rpm
SDScs500	300-600 rpm
SDSsd300rd	300-600 rpm
SDSsd350C	300-600 rpm

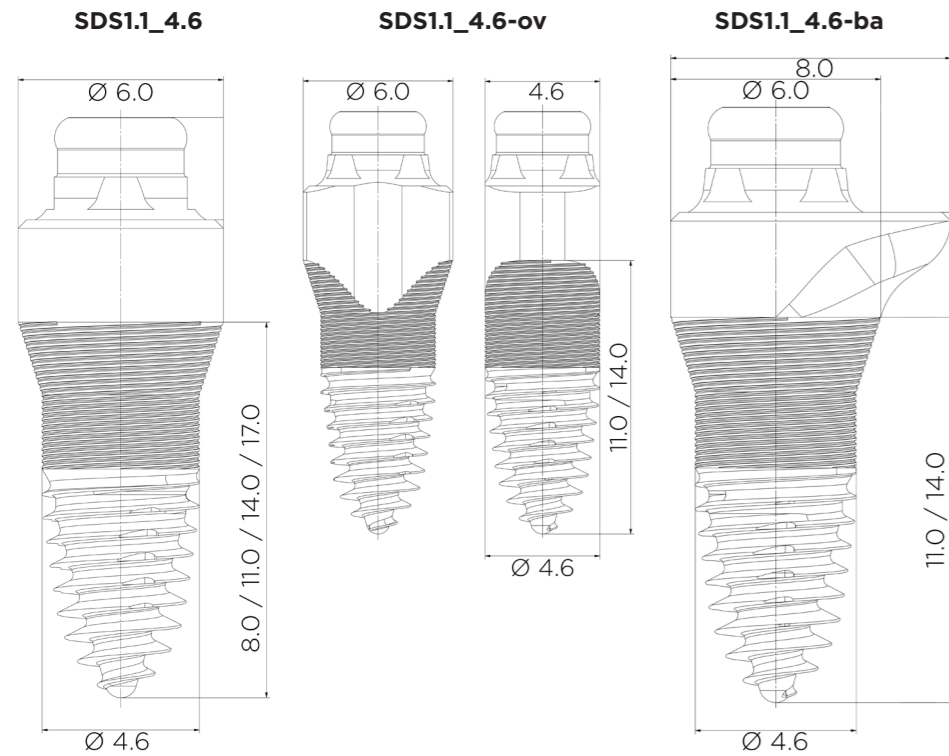
SDS1.1 (Dynamic Thread®) Ø 3.8 mm: bone class II



SDS1.1 (Dynamic Thread®) Ø 3.8 mm: bone class I



SDS1.1_4.6 bone class IV and III



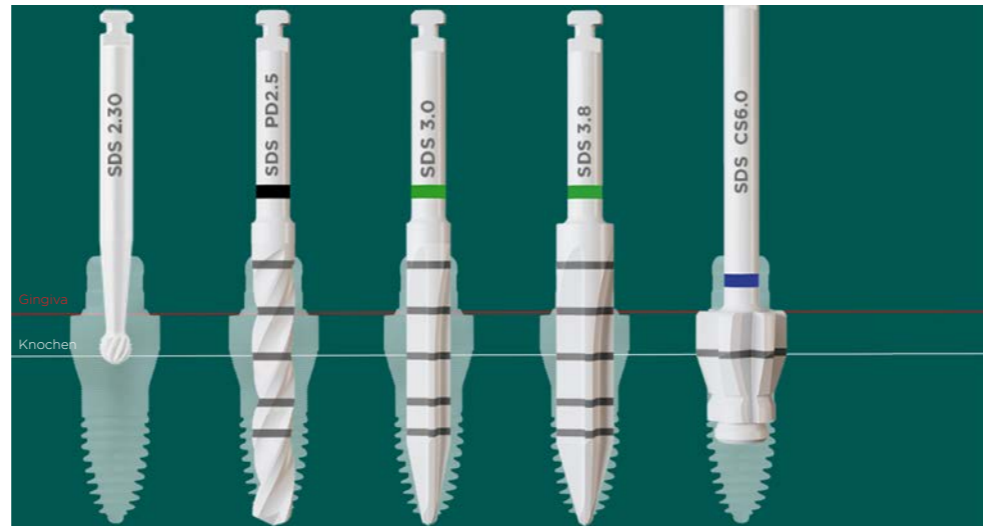
Recommended speed

SDSrb230	6.000 rpm
SDSpd250	1.000 rpm
SDScs600	300-600 rpm
SDSsd300dt	300-600 rpm
SDSsd380dt	300-600 rpm
SDS2.0_CS600	300-600 rpm

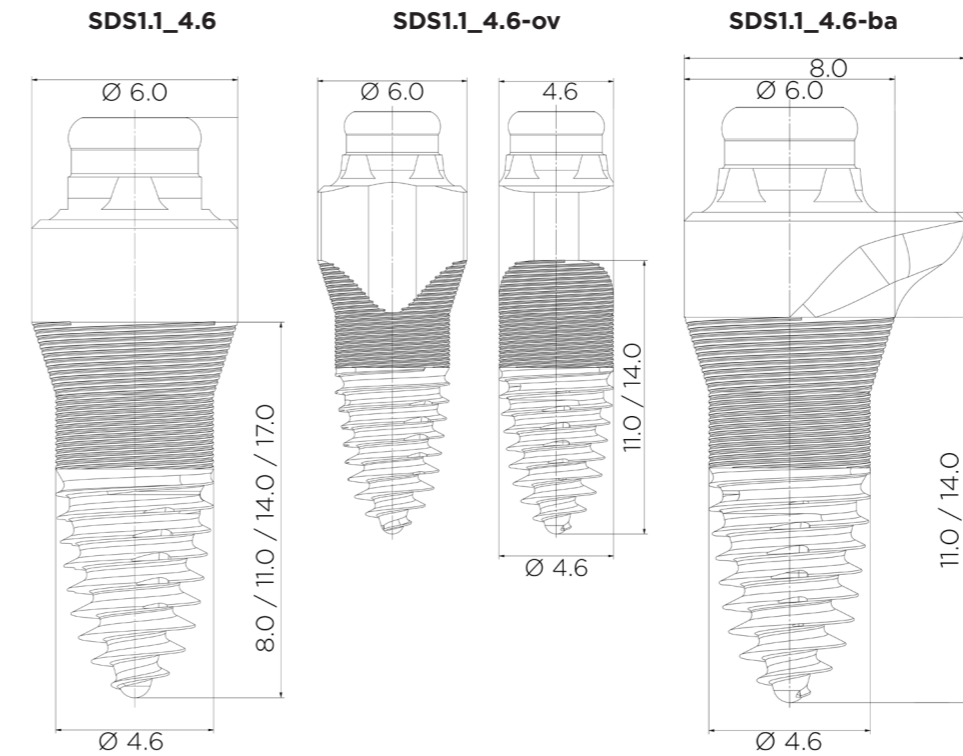
SDS1.1 (Dynamic Thread®) Ø 4.6 mm: bone class VI



SDS1.1 (Dynamic Thread®) Ø 4.6 mm: bone class III



SDS1.1_4.6 bone class II and I



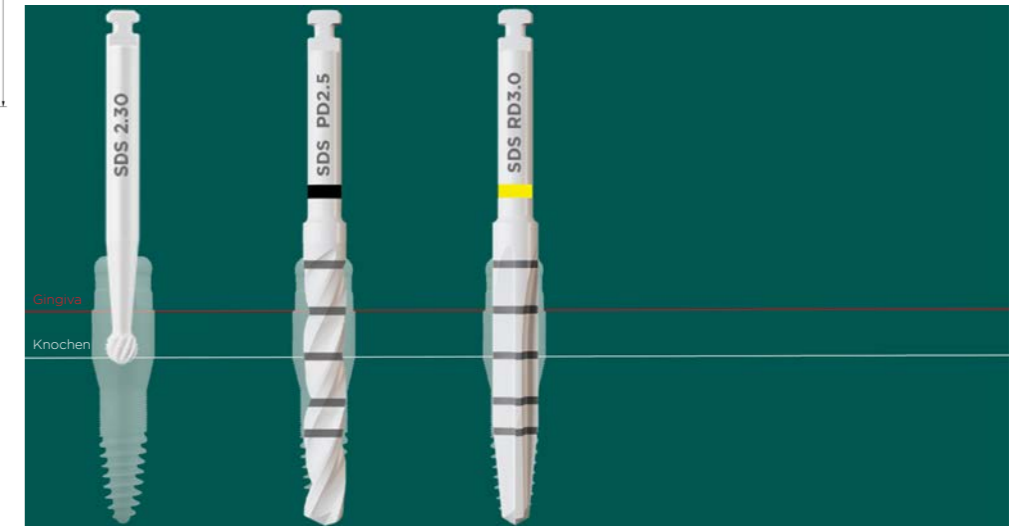
Recommended speed

SDSrb230	6.000 rpm
SDSpd250	1.000 rpm
SDSsd300dt	300-600 rpm
SDSsd380dt	300-600 rpm
SDS2.0_CS600	300-600 rpm
SDSsd370rd	300-600 rpm
SDSsd430C	300-600 rpm

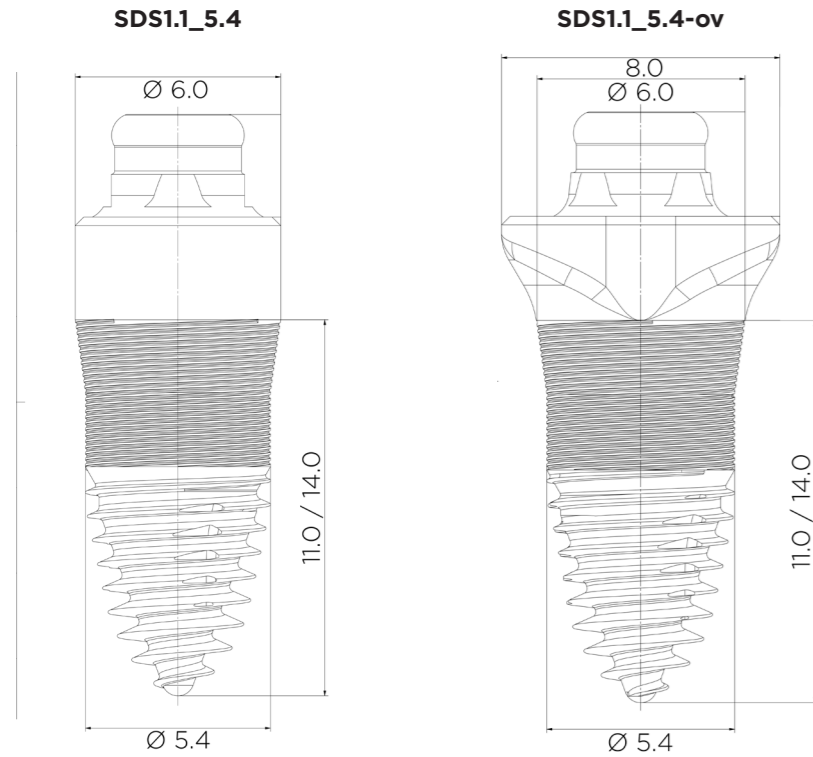
SDS1.1 (Dynamic Thread®) Ø 4.6 mm: bone class II



SDS1.1 (Dynamic Thread®) Ø 4.6 mm: bone class I



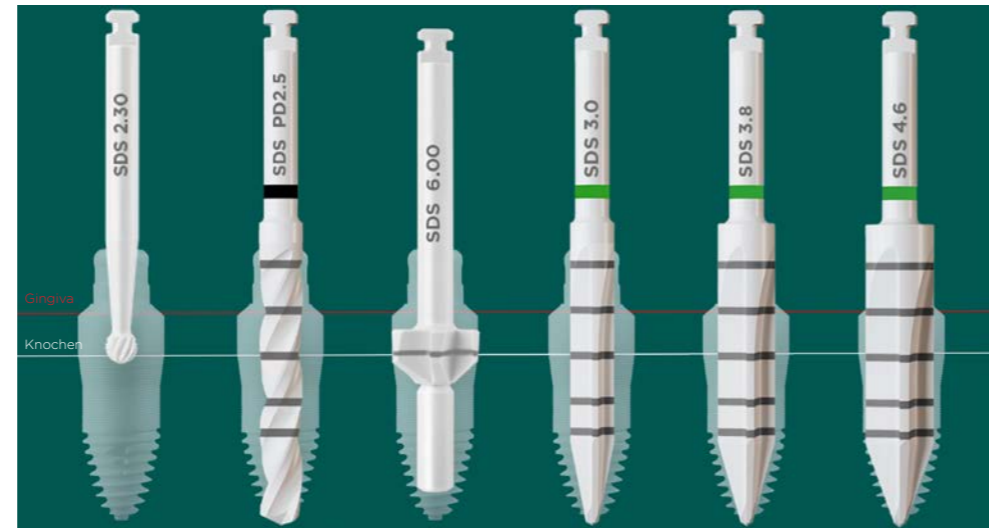
SDS1.1_5.4 bone class IV and III



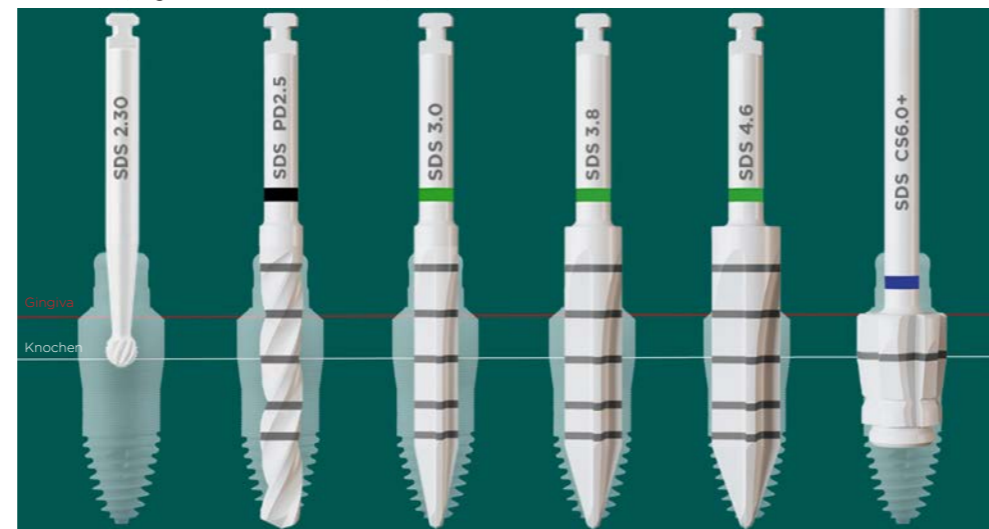
Recommended speed

SDSrb230	6.000 rpm
SDSpd250	1.000 rpm
SDScs600	300-600 rpm
SDSsd300dt	300-600 rpm
SDSsd380dt	300-600 rpm
SDSsd460dt	300-600 rpm
SDS2.0_CS600+	300-600 rpm

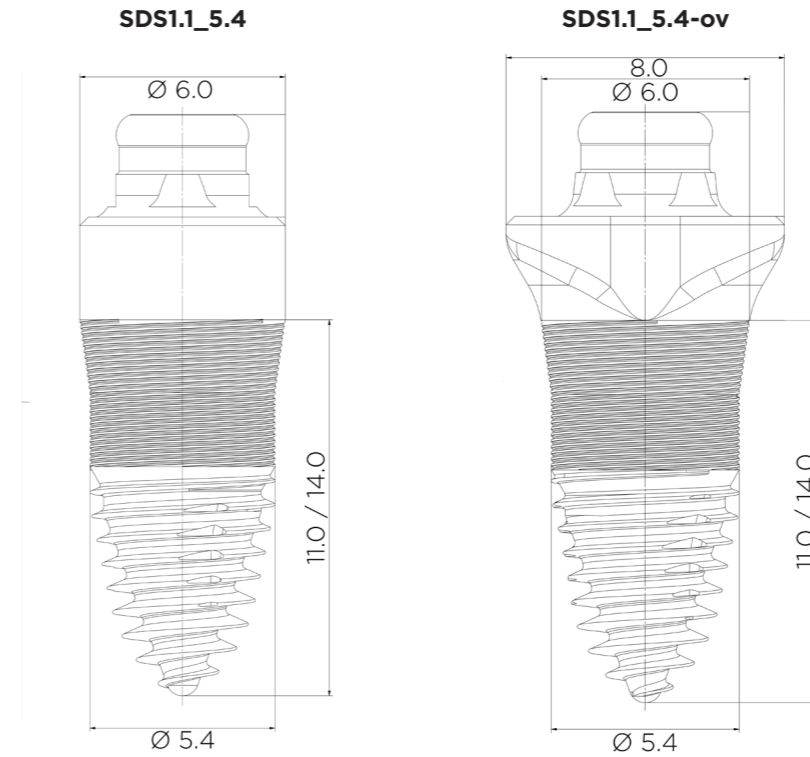
SDS1.1 (Dynamic Thread®) Ø 5.4 mm: bone class VI



SDS1.1 (Dynamic Thread®) Ø 5.4 mm: bone class III



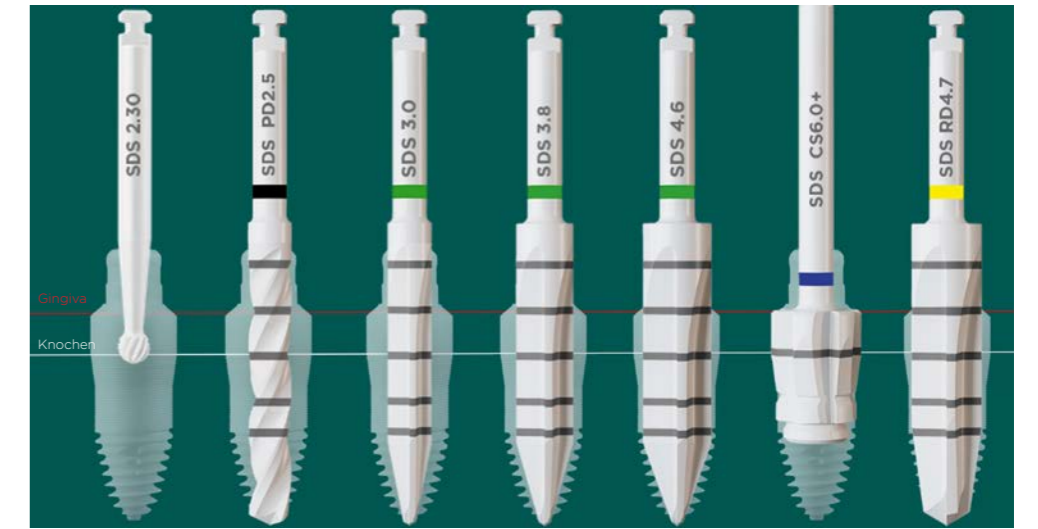
SDS1.1_5.4 bone class II and I



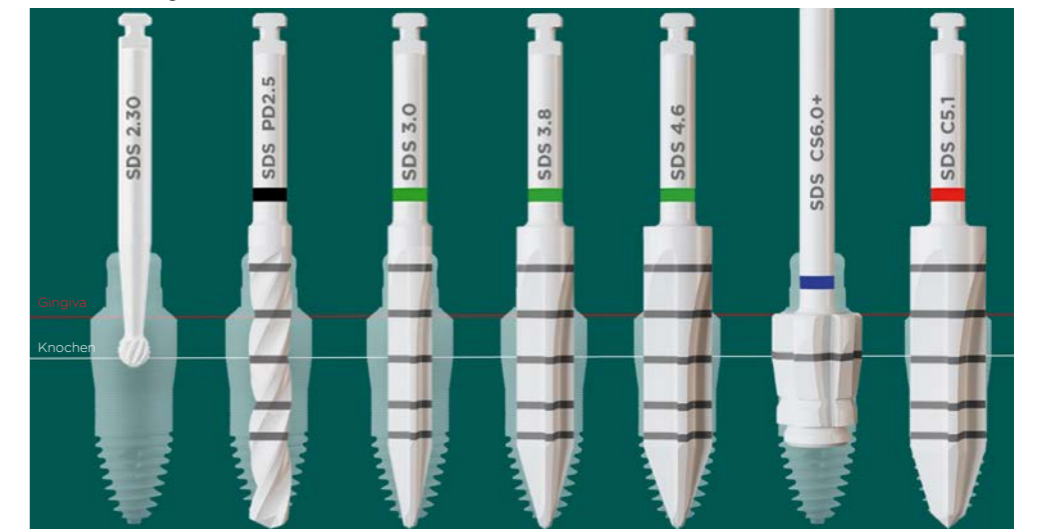
Recommended speed

SDSrb230	6.000 rpm
SDSpd250	1.000 rpm
SDSsd300dt	300-600 rpm
SDSsd380dt	300-600 rpm
SDSsd460dt	300-600 rpm
SDS2.0_CS600+	300-600 rpm
SDSsd470rd	300-600 rpm
SDSsd510C	300-600 rpm

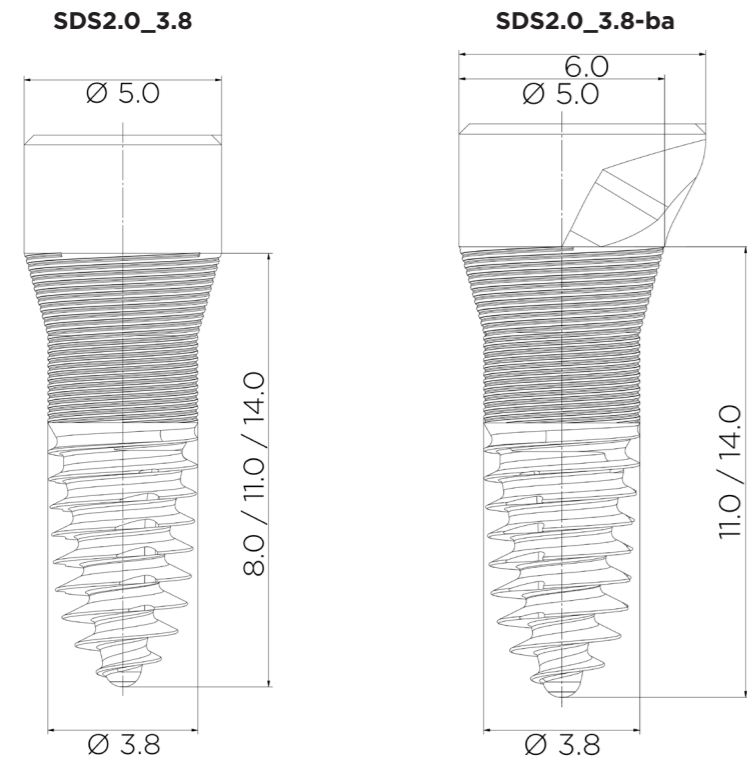
SDS1.1 (Dynamic Thread®) Ø 5.4 mm: bone class II



SDS1.1 (Dynamic Thread®) Ø 5.4 mm: bone class I



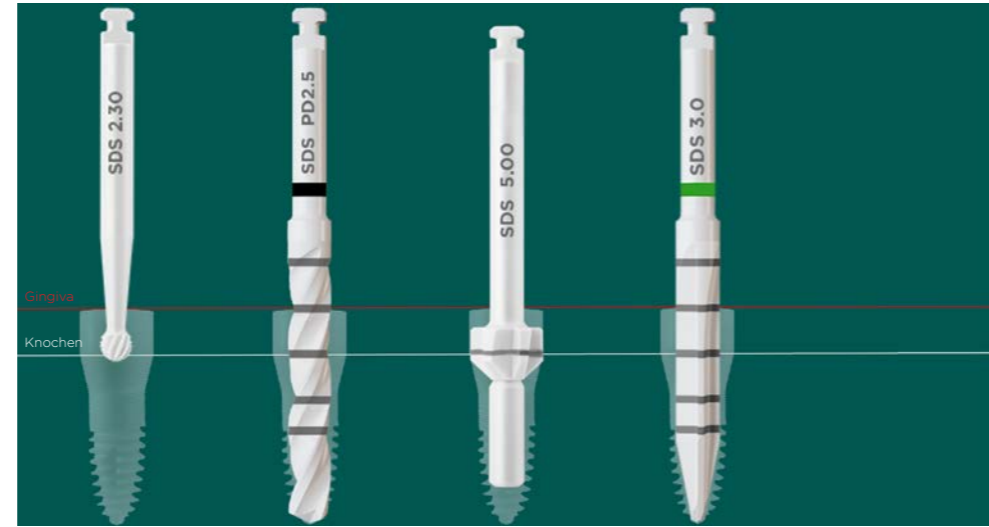
SDS2.0_3.8 bone class IV and III



Recommended speed

SDSrb230	6.000 rpm
SDSpd250	1.000 rpm
SDScs500	300-600 rpm
SDSsd300dt	300-600 rpm
SDS2.0_CS-500	300-600 rpm

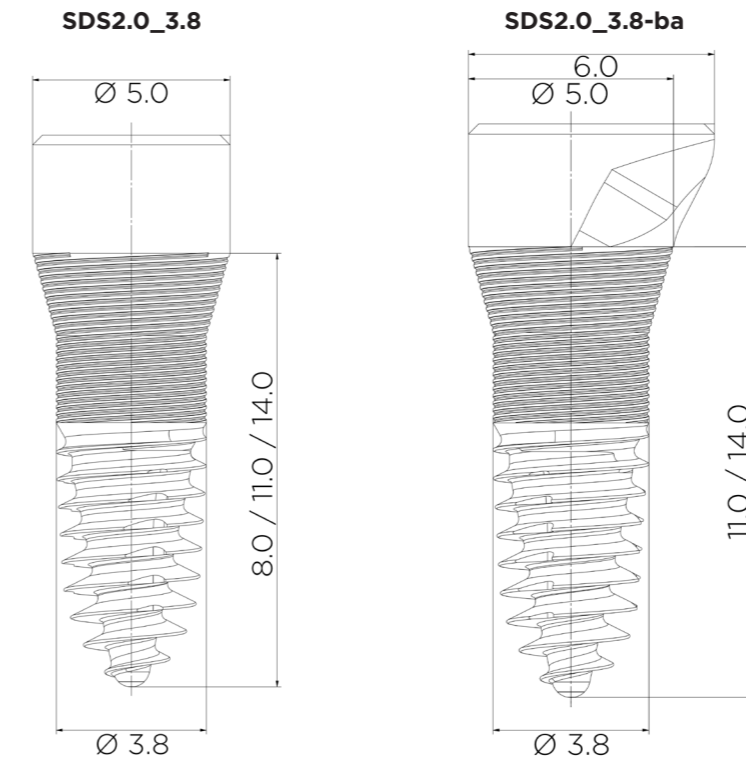
SDS2.0 (Dynamic Thread®) Ø 3.8 mm: bone class VI



SDS2.0 (Dynamic Thread®) Ø 3.8 mm: bone class III



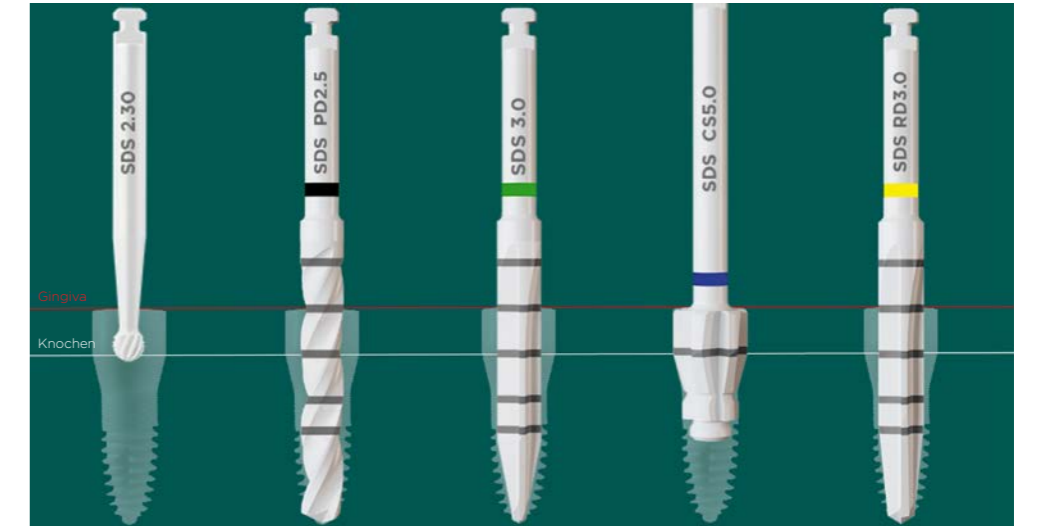
SDS2.0_3.8 bone class II and I



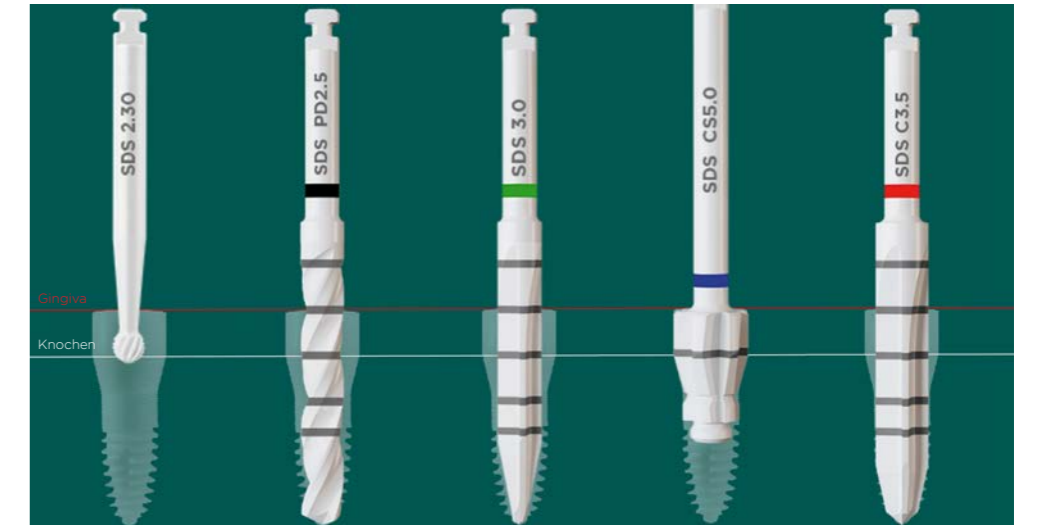
Recommended speed

SDSrb230	6.000 rpm
SDSpd250	1.000 rpm
SDSsd300dt	300-600 rpm
SDS2.0_CS-500	300-600 rpm
SDSsd350C	300-600 rpm

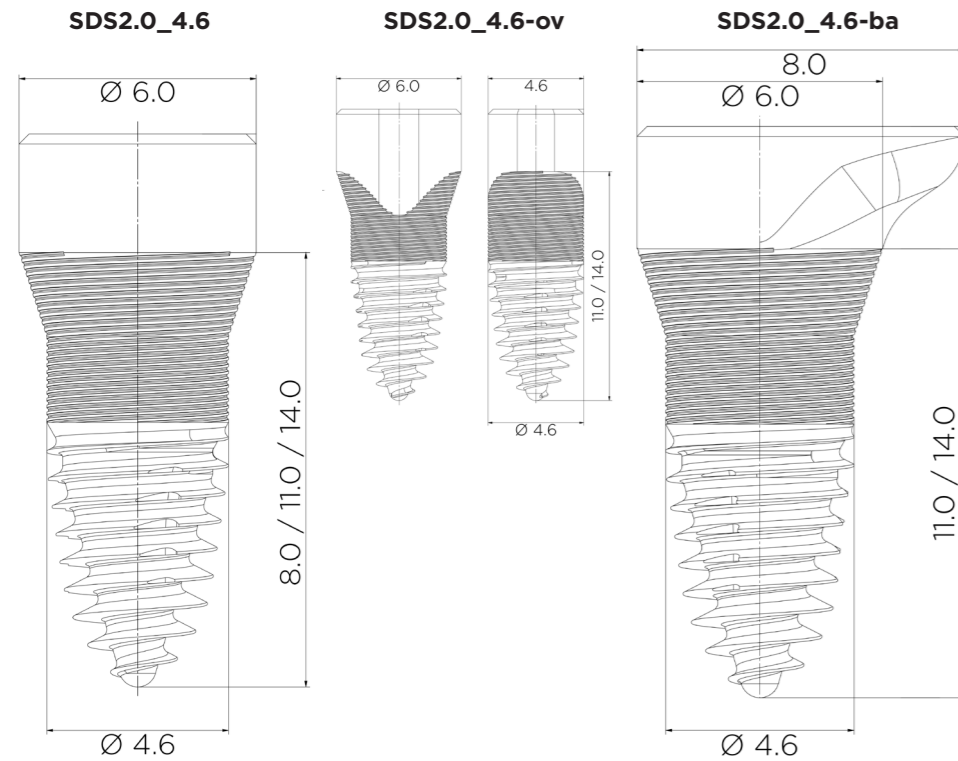
SDS2.0 (Dynamic Thread®) Ø 3.8 mm: bone class II



SDS2.0 (Dynamic Thread®) Ø 3.8 mm: bone class I

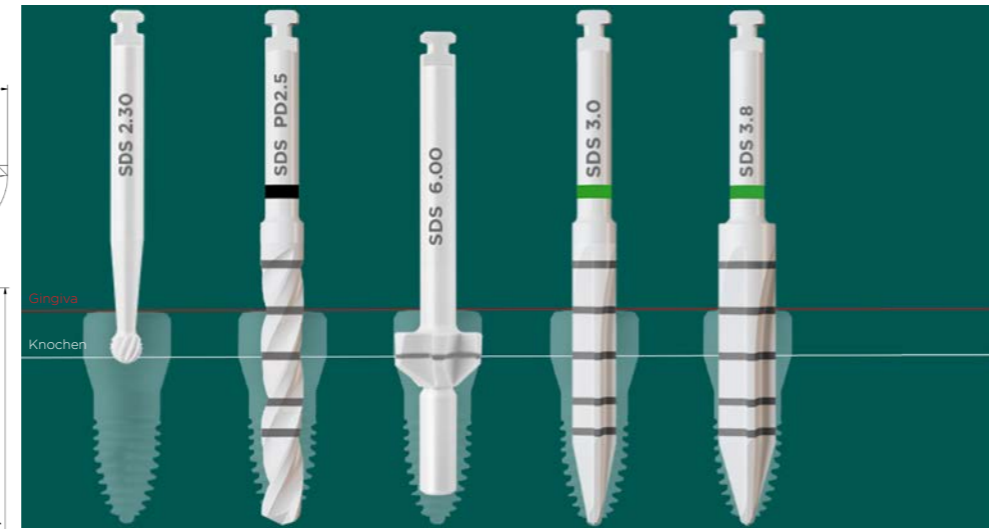


SDS2.0_4.6 bone class IV and III

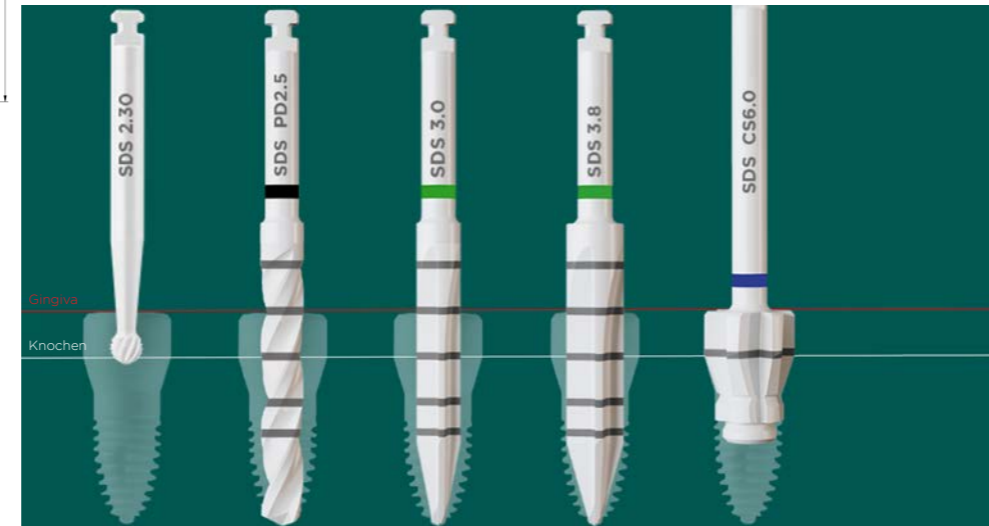


Recommended speed	
SDSrb230	6.000 rpm
SDSpd250	1.000 rpm
SDScs600	300-600 rpm
SDSsd300dt	300-600 rpm
SDSsd380dt	300-600 rpm
SDS2.0_CS600	300-600 rpm

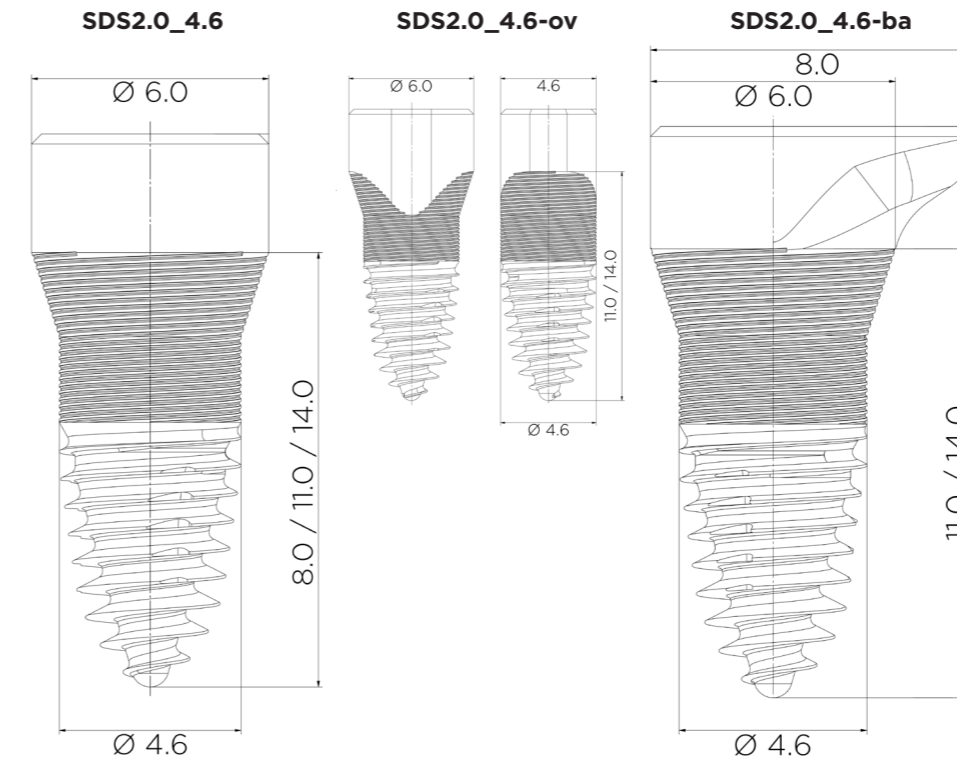
SDS2.0 (Dynamic Thread®) Ø 4.6 mm: bone class VI



SDS2.0 (Dynamic Thread®) Ø 4.6 mm: bone class III

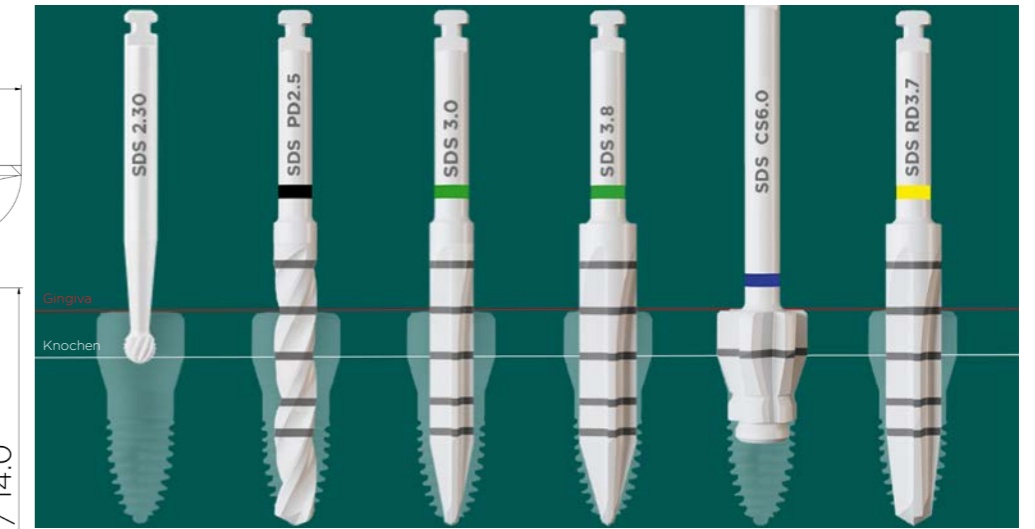


SDS2.0_4.6 bone class II and I

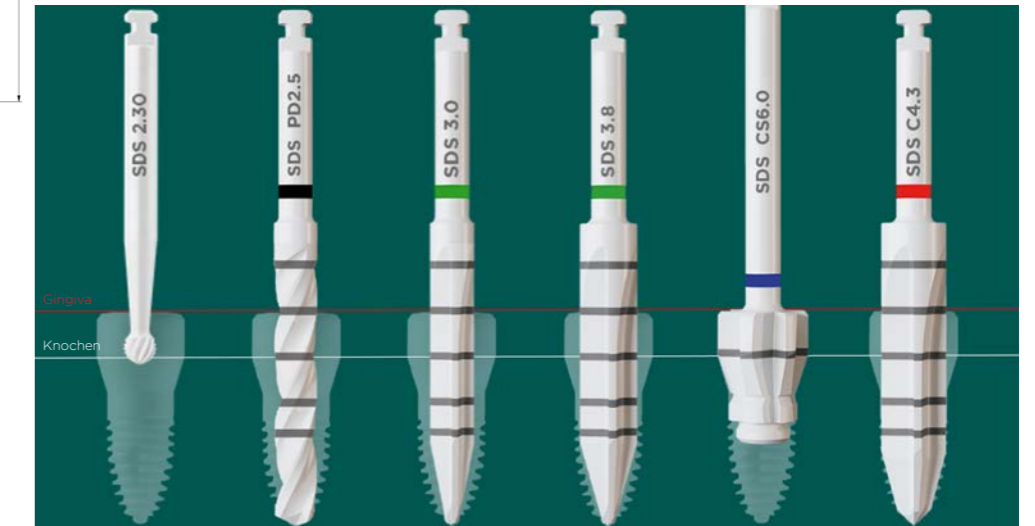


Recommended speed	
SDSrb230	6.000 rpm
SDSpd250	1.000 rpm
SDSsd300dt	300-600 rpm
SDSsd380dt	300-600 rpm
SDS2.0_CS600	300-600 rpm
SDSsd370rd	300-600 rpm
SDSsd430C	300-600 rpm

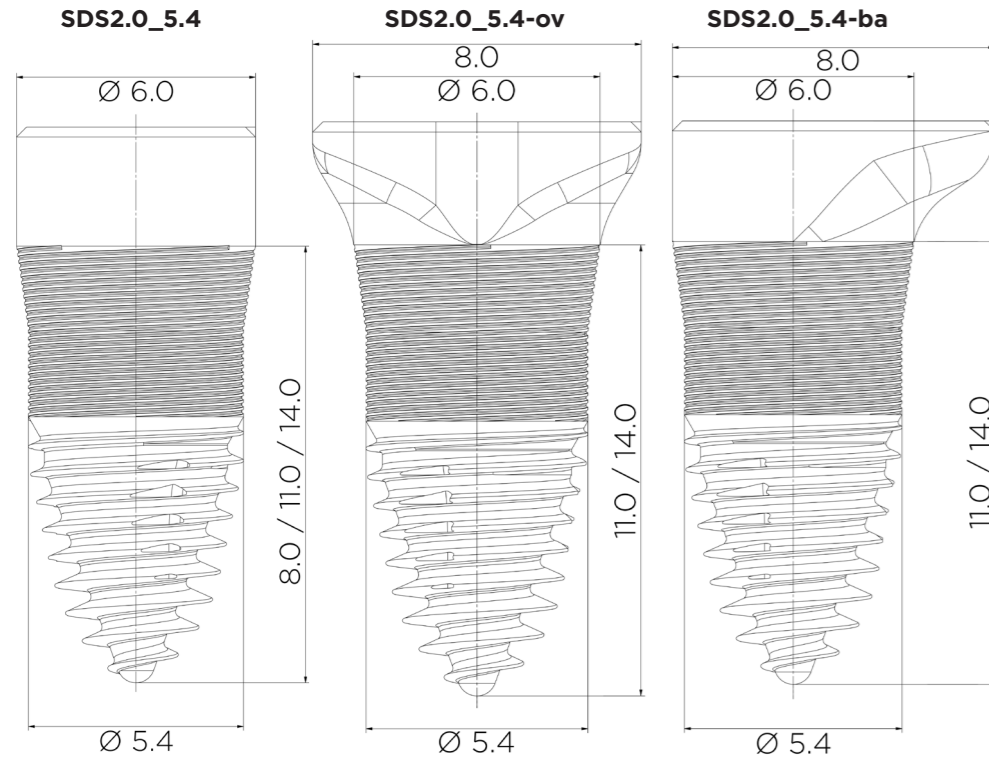
SDS2.0 (Dynamic Thread®) Ø 4.6 mm: bone class II



SDS2.0 (Dynamic Thread®) Ø 4.6 mm: bone class I



SDS2.0_5.4 bone class IV and III



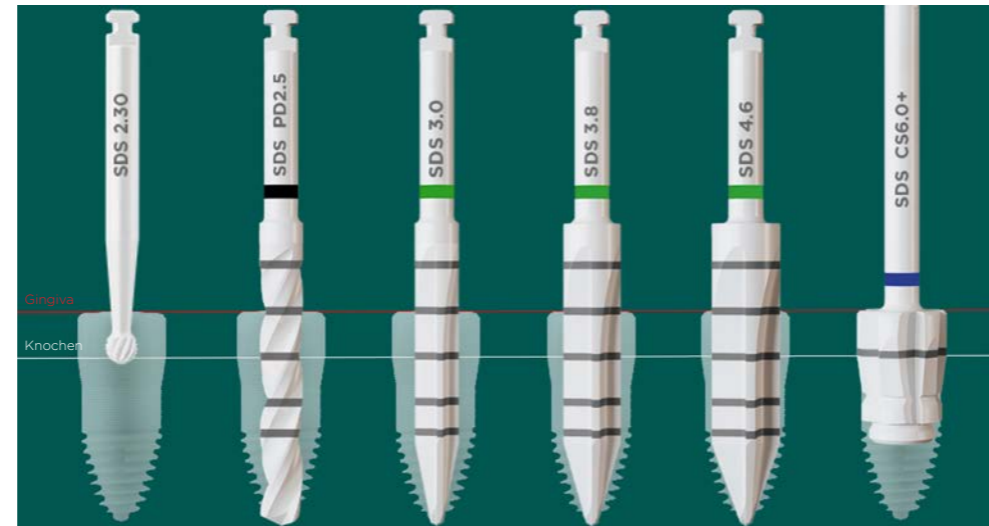
Recommended speed

SDSrb230	6.000 rpm
SDSpd250	1.000 rpm
SDScs600	300-600 rpm
SDSsd300dt	300-600 rpm
SDSsd380dt	300-600 rpm
SDSsd460dt	300-600 rpm
SDS2.0_CS600+	300-600 rpm

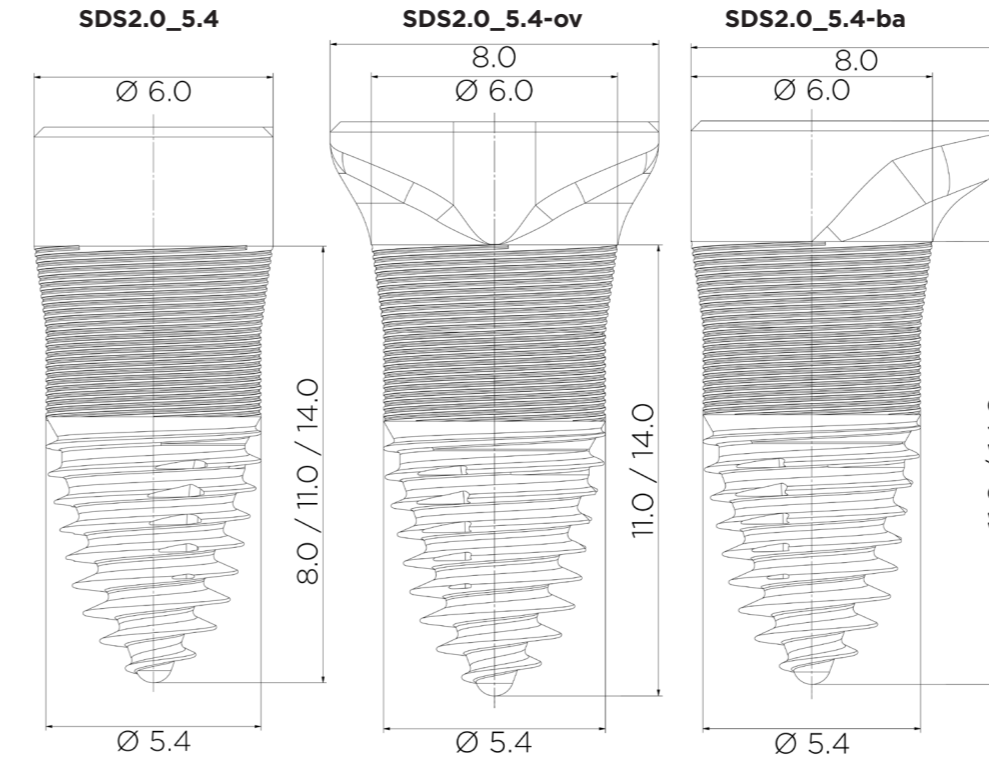
SDS2.0 (Dynamic Thread®) Ø 5.4 mm: bone class VI



SDS2.0 (Dynamic Thread®) Ø 5.4 mm: bone class III



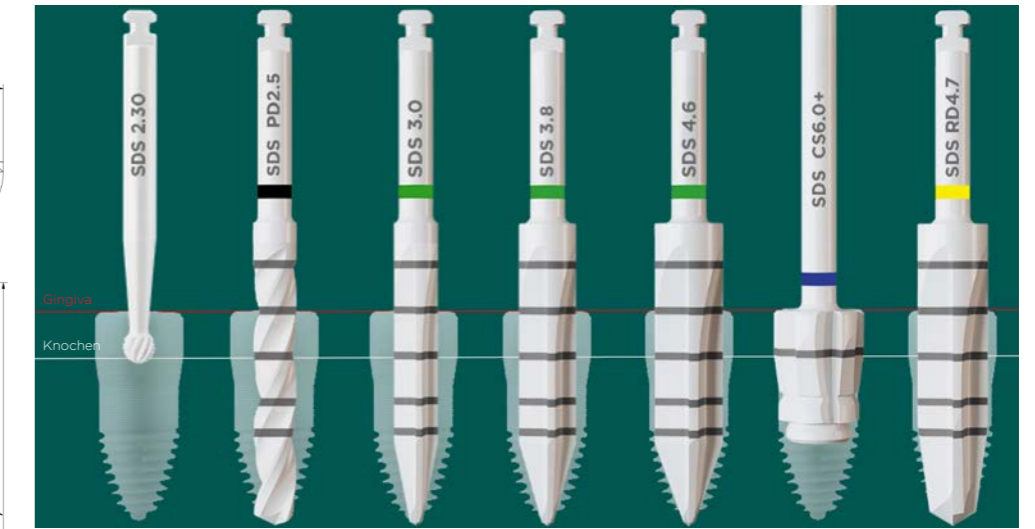
SDS2.0_5.4 bone class II and I



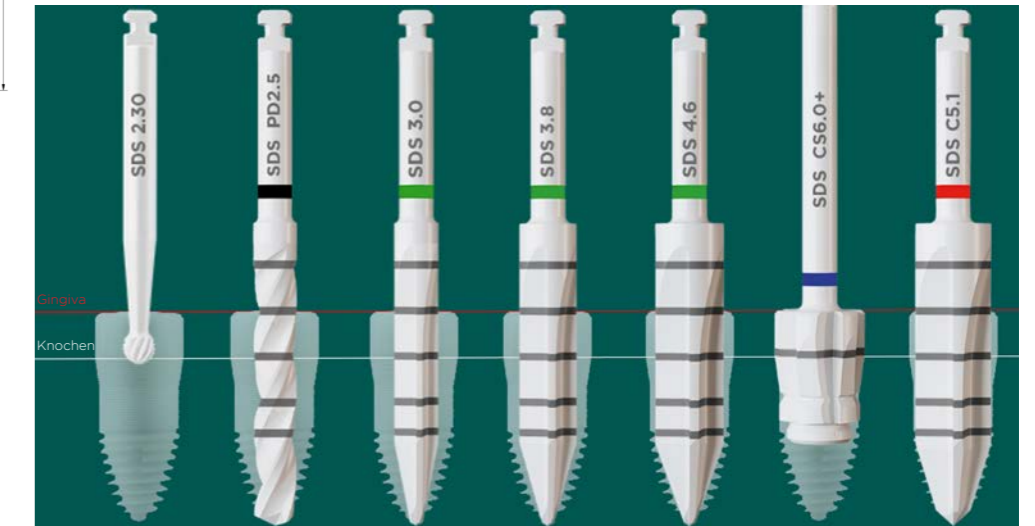
Recommended speed

SDSrb230	6.000 rpm
SDSpd250	1.000 rpm
SDSsd300dt	300-600 rpm
SDSsd380dt	300-600 rpm
SDSsd460dt	300-600 rpm
SDS2.0_CS600+	300-600 rpm
SDSsd470rd	300-600 rpm
SDSsd510C	300-600 rpm

SDS2.0 (Dynamic Thread®) Ø 5.4 mm: bone class II



SDS2.0 (Dynamic Thread®) Ø 5.4 mm: bone class I



SDS2.0-si surgical protocol for external sinus lift with SDS implants

Prerequisites

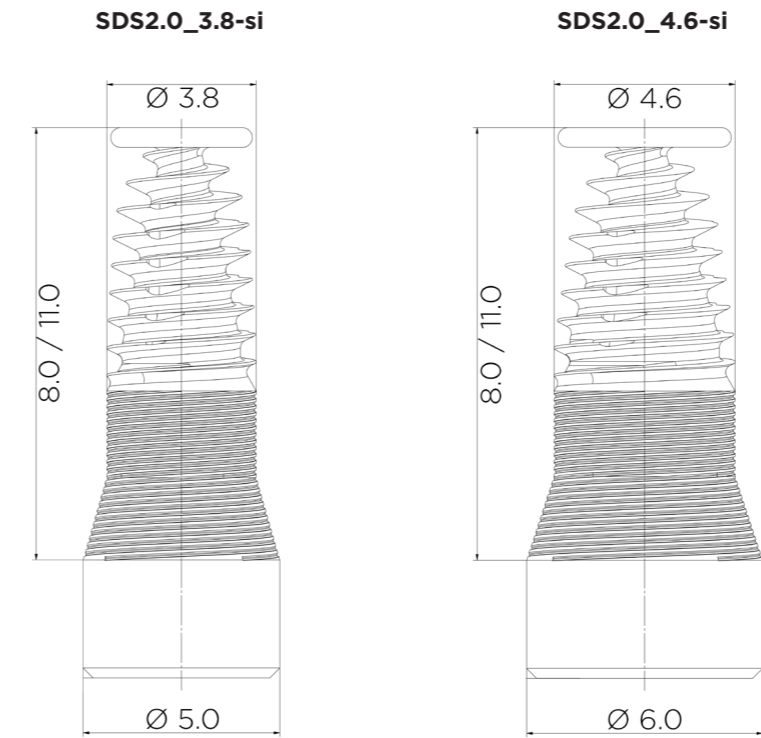
- Safe mastery of common sinus lift techniques (internal/ external sinus lift) and possible complications
- Experience with PRF membranes/ "Brushing technique"/ Piezo-Surgery/ apical mattress sutures
- Experience with SDS implants
- 3-dimensional X-ray imaging (DVT/ CT)
- Maxillary sinus is not infected
- Intact Schneiderian membrane
- At least 3 mm of residual bone required in the region of the maxillary sinus floor to provide sufficient primary stability
- Maximum 5 mm of residual bone required in the region of the maxillary sinus floor

Surgical protocol

- Prepare the immune system
- Adjust LDL and vitamin D3 levels
- High-dose vitamin C injections, single shots (800 mg Augmentin + 8 mg Dexamethasone) i.v. over 3 days (-1, OP, +1)
- Incision into the alveolar ridge with marginal gingival incision into adjacent teeth to avoid a vertical incision
- Application of the "Brushing technique" to avoid slitting the periosteum
- Thinning out the vestibular bone in the area of the window with the Safescraper® and simultaneous recovery of cortical chips
- Removal of the bone window using piezo surgery without perforating the Schneiderian membrane
- Elevation of the Schneiderian membrane (far to the medial, dorsal and palatal side-> to generate max. cavity volume)
- There should not be any tension on the membrane with expulsive forces on the sinus implant
- Implant osteotomy according to drilling protocol
- Reinforcement of membrane with one layer of A-PRF™, insertion of the sinus implant

- Placement of the bony vestibular window cover over the disc to increase the "shadow effect"
- Filling of the cavity with more A-PRF™ membranes and cortical chips from the Safescraper®
- Sealing of the window (exclusively with cortical bone chips), covering with one to two A-PRF™ - membranes
- Saliva-impervious and tension-free wound closure with a two-layer suturing technique (apical mattress sutures and single button or continuous sutures)
- Monophilic, atraumatic + resorbable suture material (preferably PGC25 Atramat®)

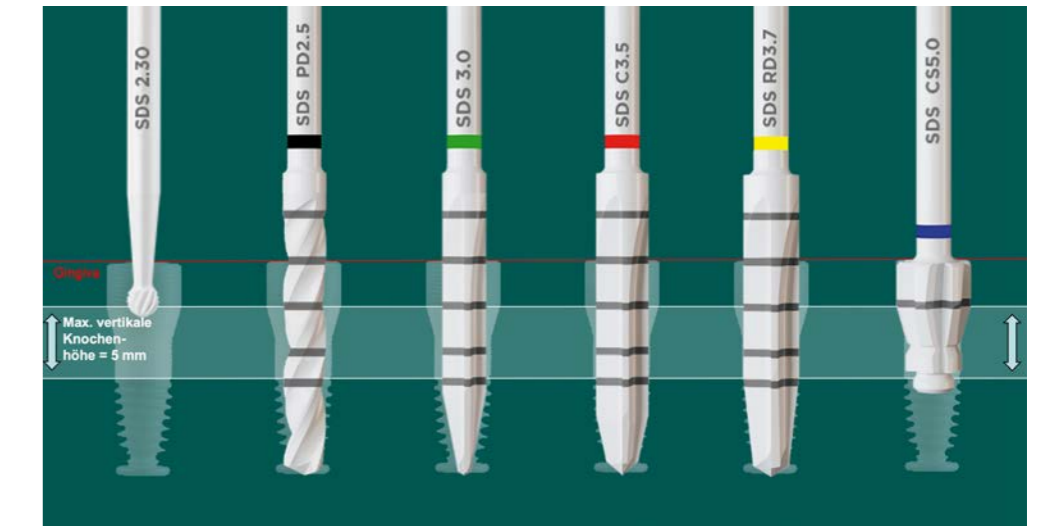
SDS2.0_si Drilling protocol for all bone classes



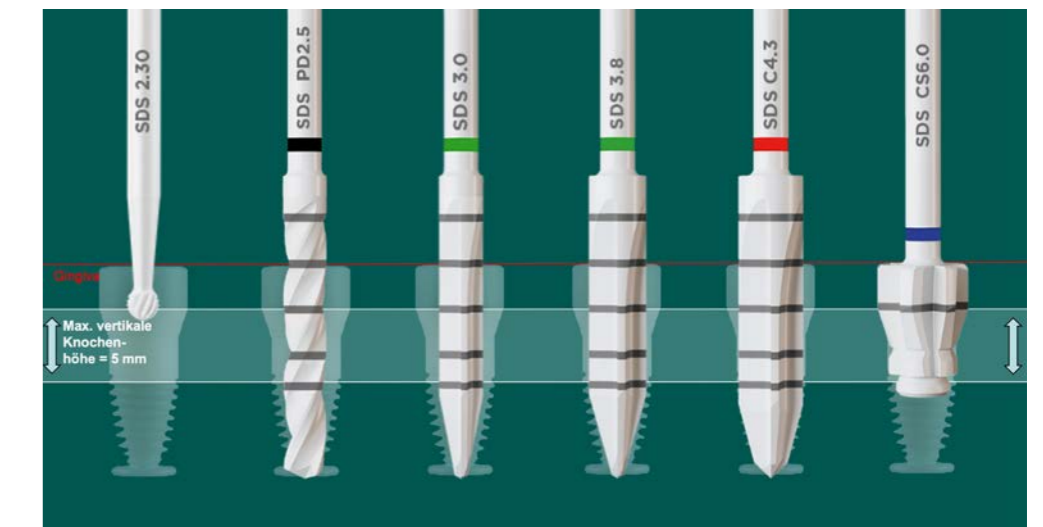
Recommended speed

SDSrb230	6.000 rpm
SDSpd250	1.000 rpm
SDSsd300dt	300-600 rpm
SDSsd350C	300-600 rpm
SDSsd380dt	300-600 rpm
SDSsd370rd	300-600 rpm
SDSsd430C	300-600 rpm
SDS2.0_CS-500	300-600 rpm
SDS2.0_CS600	300-600 rpm

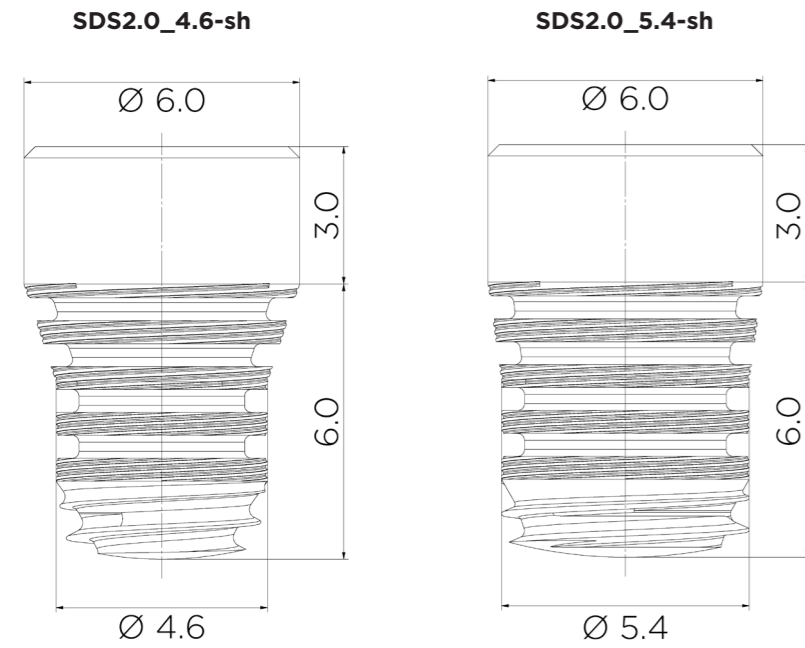
SDS2.0 3811-si Ø 3.8 mm: all bone classes



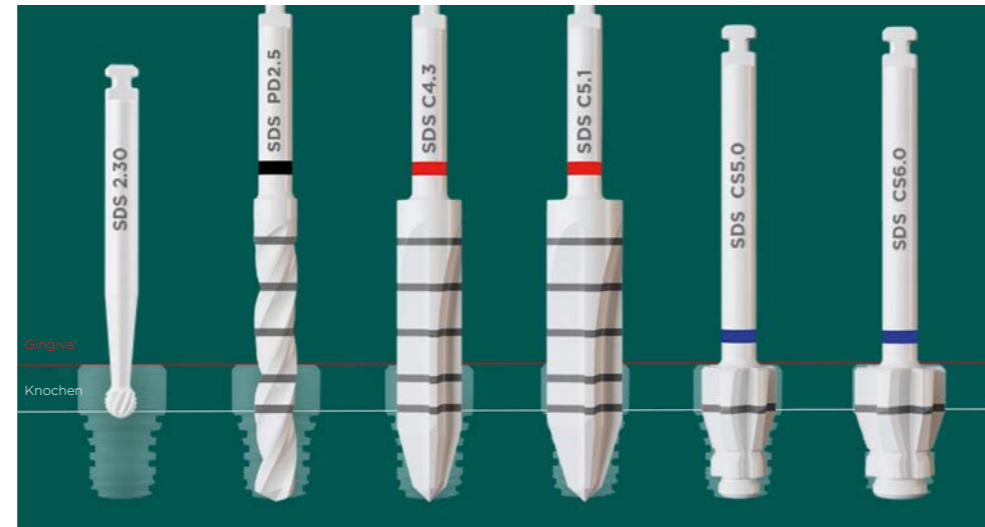
SDS2.0 4611-si Ø 4.6 mm: all bone classes



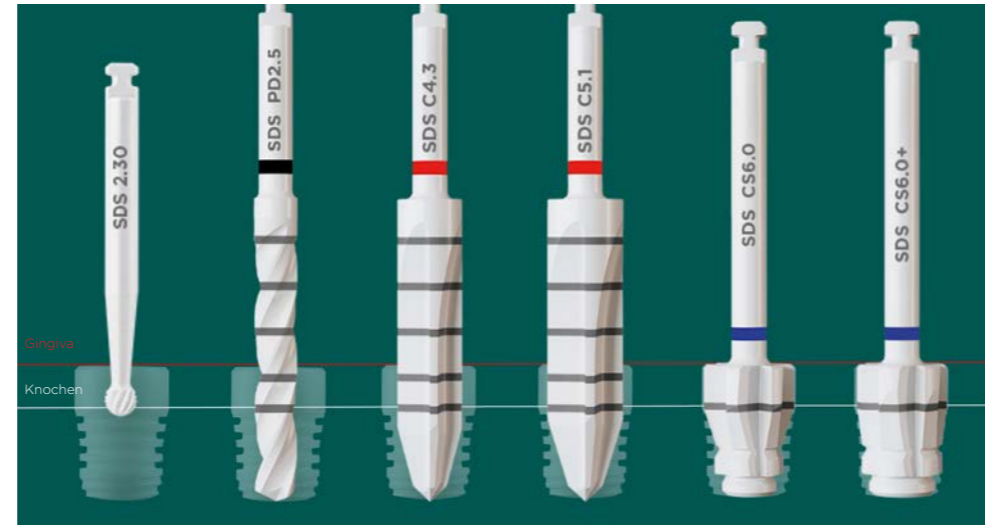
SDS2.0_sh Drilling protocol for all bone classes



SDS2.0 4606-sh Ø 4.6 mm: all bone classes



SDS2.0 5406-sh Ø 5.4mm: all bone classes



Recommended speed

SDSrb230	6.000 rpm
SDSpd250	1.000 rpm
SDSsd430C	300-600 rpm
SDSsd510C	300-600 rpm
SDS2.0_CS-500	300-600 rpm
SDS2.0_CS600	300-600 rpm
SDS2.0_CS600+	300-600 rpm

THE SWISS BIOHEALTH CONCEPT



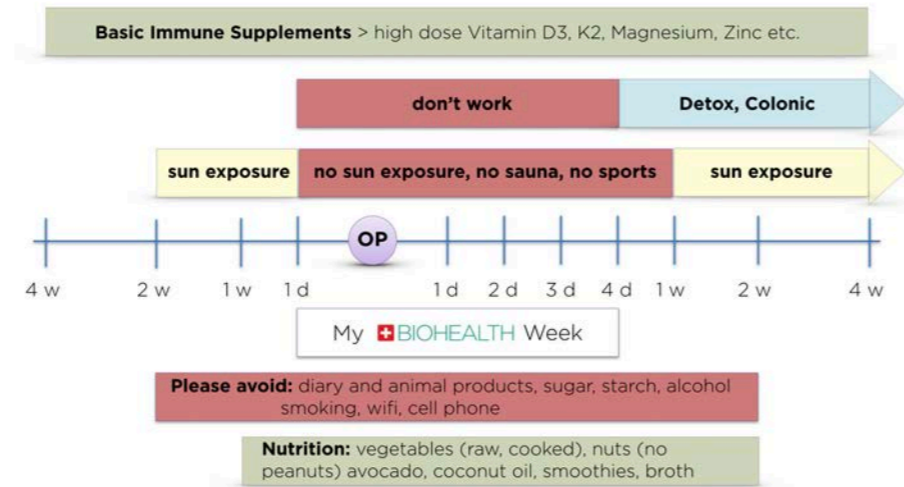
The biological treatment concept with ceramic implants

THE SWISS BIOHEALTH CONCEPT and its success factors

With his 28+ years experience in biological dentistry Dr. Volz developed his ALL IN ONE CONCEPT: In only one session or sequence, all dental problems are eliminated at the same time. After all, it is only when all potential interfering factors such as metals, osteonecroses, endodontically treated teeth and other interfering factors are completely eradicated that the immune system is able to do a perfect job, reliably healing the implants and eliminating any system stress. This is all the more important because ceramic implants are completely neutral and therefore only integrate when implanted into healthy bone tissue with a functional immune system. Titanium implants integrate as a result of the release of inflammation mediators such as TNF α und IL1 β , just as occurs during chronic inflammation, meaning that integration can also occur with compromised bone. Nevertheless, according to the Consensus Conference 2006, after only 5 years, more than 80% of titanium implants are affected by gingivitis and more than 50% are complicated by inflammation of the bone.* Peri-implantitis can hardly be observed in the case of zirconia ceramic implants and justifies their requirement for a more extensive preparation, i.e. the patients should start to "boost" their immune system with vitamins and minerals no later than 4 weeks prior to the surgery and maintain these levels following surgery (specifically their vitamin D3 and LDL levels). These measures significantly support the healing of the ceramic implants.

The diagram below shows an example of how THE SWISS BIOHEALTH CONCEPT treatment is performed and what the patient needs to do in the weeks before and after the treatment. The diagram is based on the BTP BIOLOGICAL TREATMENT PROTOCOL developed by internationally recognized specialists in their fields of biological medicine and dentistry.

* (peri-implant mucositis in 80% - peri-implantitis in > 56% of all cases. Consensus of the 6th European Workshop on Periodontology of 2006).



SWISS BIOHEALTH VITAL Products

VITAL Products

In recent years, THE SWISS BIOHEALTH CONCEPT has not only demonstrated in the SDS run SWISS BIOHEALTH CLINIC, but also in many other clinics using this concept, that an optimally functioning immune system plays a decisive role in maintaining and restoring a normal state of health. An intact immune system can often lead to much faster and better treatment results, e.g. in the case of major surgical procedures or the treatment of serious illnesses.

Together with Dr. Dietrich Klinghardt and Dr. Dominik Nischwitz, Dr. Ulrich Volz developed SWISS BIOHEALTH VITAL food supplements - invariably with the objective of achieving maximal treatment success and improving overall patient health. We place particular emphasis on offering only the best quality dietary supplements, specifically when selecting the primary ingredients.

Our philosophy is premium quality for everyone - and no compromises!

Quality is so important because, unlike medicines, food supplements are not subject to strict regulations and laws. We have set ourselves a standard to which we adhere to for all SWISS BIOHEALTH VITAL PRODUCTS.

All our products are of premium quality and free of any harmful ingredients. The following ingredients are excluded from our products:

- Artificial colors and flavors
- Harmful preservatives
- Gluten
- Lactose
- Harmful microorganisms, toxins and contaminants

Virtually all SWISS BIOHEALTH VITAL PRODUCTS are free of animal additives, as these may negatively impact their quality. Even the capsule casings are tested for harmful substances. A high bioavailability is a feature of all our dietary supplements. This means that your body can easily absorb them. Nutrients reach the places in the body where they are most needed!



Shop online at www.swiss-biohealth-vital.com



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