

Simplant®

The LongStop concept

Depth and angulation control for all implant systems

What makes the LongStop concept stand out?

The LongStop concept

When the implant placement procedure is planned in 3D with the Simplant software, a complete image of the patient's anatomy for selection and placement of implants and abutments is provided. A custom-made Simplant Guide is fabricated from the patient's digital planning data using stereolithography. This enables the precise transfer of the 3D planning into the patient's mouth:

- Entry point
- Inclination
- Depth

The LongStop concept uses Simplant instruments with the custom-made Simplant Guide and allows clinicians to perform guided surgery when no brand-specific guided surgery instruments are available.

The LongStop concept offers the following advantages:

- Predictable outcomes for all implants
- Precise first drilling steps

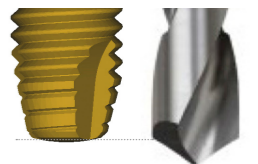
1. Preparation of the bone crest for stable initial drilling: The initial pilot drill has a special flange for connection to the trephine. When assembled together, the trephine punches the tissue for flapless surgery and the pilot drill prepares the bone crest before the first full length drilling.



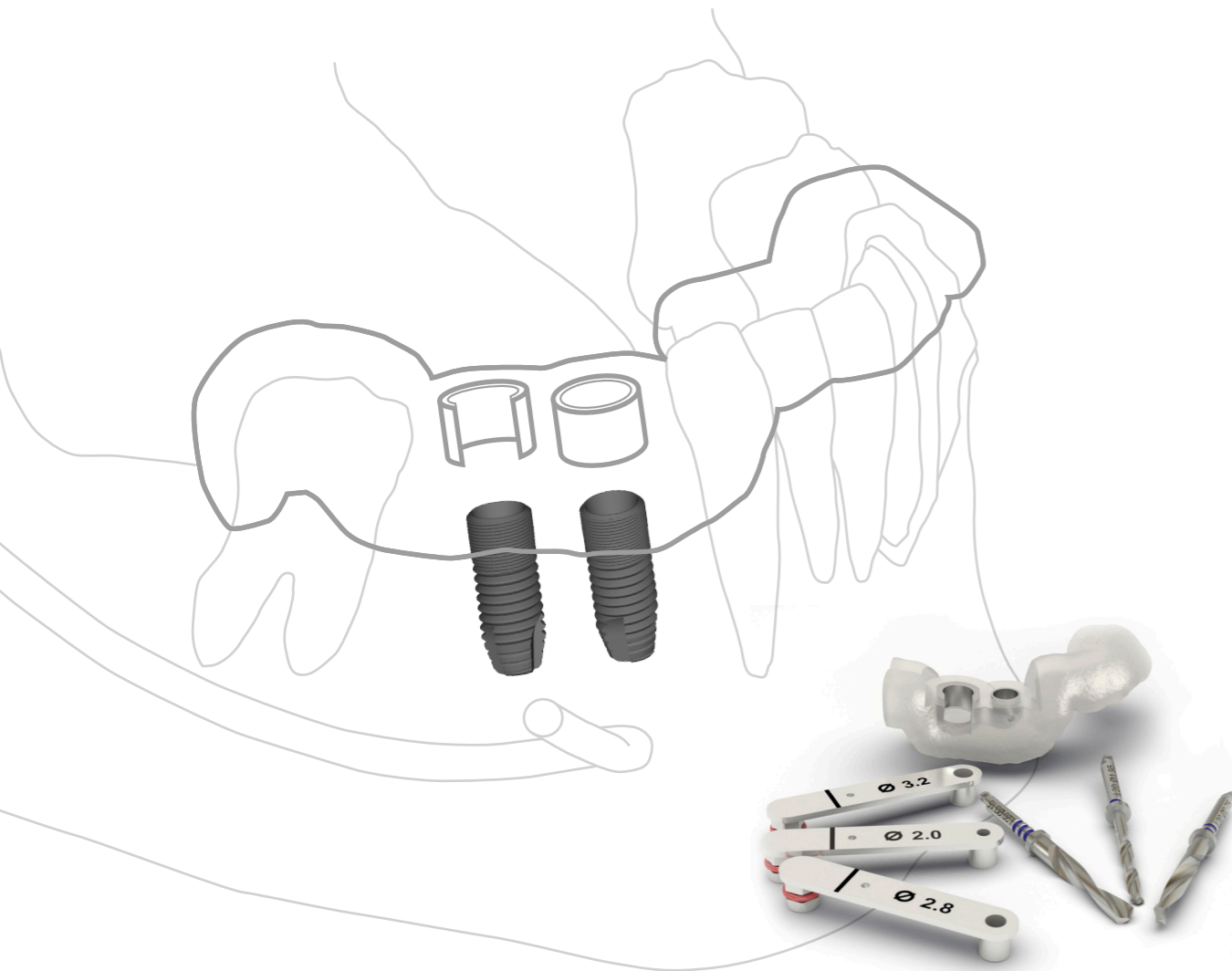
2. Color-coded drill length identification: Each LongStop Drill length is color-coded, making it easy to identify the planned drill depth for each implant site. The multi-use LongStop drills are available in three diameters for site preparation up to 3.15 mm wide. Drill length and diameter are also laser-marked.



3. Guided drilling to the planned depth for each implant site: Each LongStop Drill has a physical stop specifically designed for depth control. Note: Consider during planning in the Simplant software that the LongStop Drill tip is 0.7 mm longer than the implant.



4. Completion of the implant site with standard drills and Universal Drill keys: For optimal guidance, a comprehensive range of Universal Drill Key diameters is available. Drill keys should be ordered 0.05 to 0.1 mm larger than your drill diameter. The regular and wide platform drill keys are indicated with a single and double laser-marking on the Drill Key, respectively.



Predictable outcomes for all implant systems

The LongStop concept allows clinicians to offer their patients computer-guided implant treatment in almost all cases, also when the guided surgery instruments for a specific implant system are not available.

For these implant systems, a Simplant Universal Guide or a Simplant Pilot Guide with the LongStop drills provides angulation and depth control for a predictable outcome.

Precise first drilling steps

The Simplant Universal Guide with LongStop drills can be used for any implant system to offer precise and predictable first drilling steps.

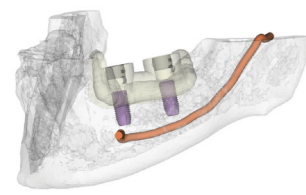
When the visibility of freehanded surgery is preferred, the Simplant Pilot Guide with the Ø1.95 mm LongStop Drill can be utilized to achieve angulation and depth control for the first drilling step.



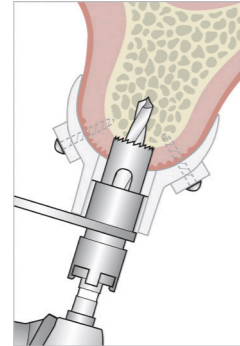
Step-by-step

The LongStop concept with a Simplant Universal Guide

Wide platform plan
(example for a Ø5.0 implant)



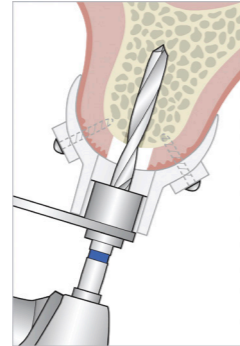
Tissue Punch



When sufficient mesio-distal space is available, the wide platform option is recommended when ordering the Simplant Universal Guide.

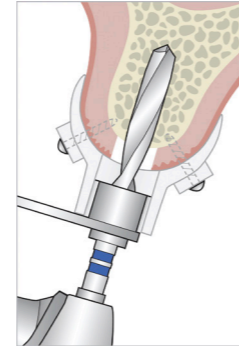
Clip the trephine onto the pilot drill to punch the tissue for flapless surgery and to prepare the bone crest for stable initial drilling. Use the trephine with the Ø4.2 Wide Platform Drill Key.

LongStop Drill with 1.95 mm diameter



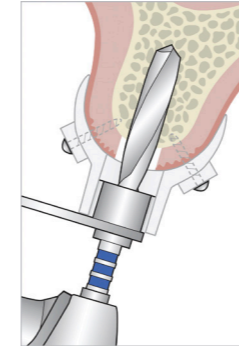
Guide the Ø1.95 LongStop Drill through the Simplant Guide with a Ø2.0 Wide Platform Drill Key.

LongStop Drill with 2.75 mm diameter



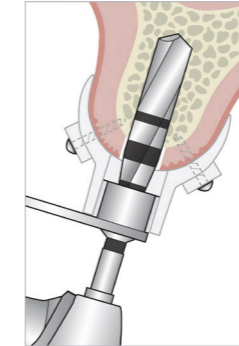
Guide the Ø2.75 LongStop Drill through the Simplant Guide with a Ø2.8 Wide Platform Drill Key.

LongStop Drill with 3.15 mm diameter

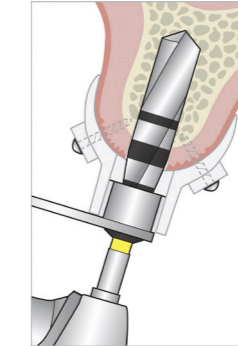


Guide the Ø3.15 LongStop Drill through the Simplant Guide with a Ø3.2 Wide Platform Drill Key.

Guided implant site completion



Finish the implant site preparation using your standard drills, either through the Guide (up to 4.55 mm) or after removing the Guide.

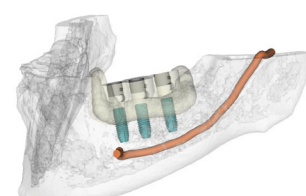


Implant placement

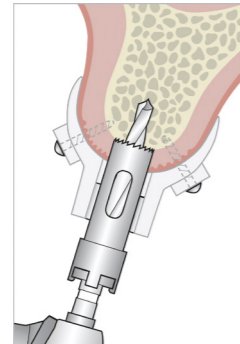


After removing the Simplant Guide, insert the implant with a standard implant driver.

Regular platform plan
(example for a Ø4.0 implant)



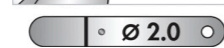
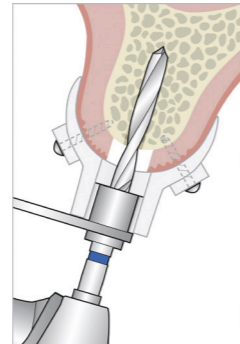
Tissue Punch



In narrow spaces, the regular platform option is recommended when ordering the Simplant Universal Guide.

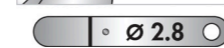
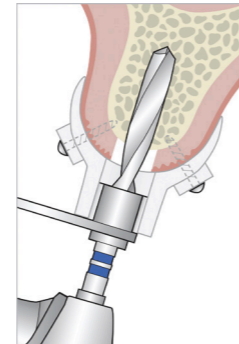
Clip the trephine onto the pilot drill to punch the tissue for flapless surgery and to prepare the bone crest for stable initial drilling. Use the trephine without a Drill Key.

LongStop Drill with 1.95 mm diameter



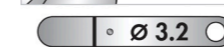
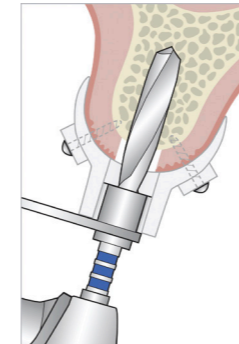
Guide the Ø1.95 LongStop Drill through the Simplant Guide with a Ø2.0 Regular Platform Drill Key.

LongStop Drill with 2.75 mm diameter



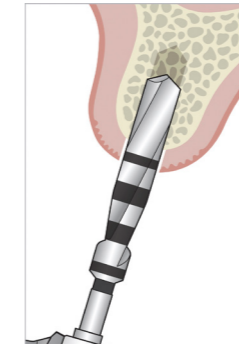
Guide the Ø2.75 LongStop Drill through the Simplant Guide with a Ø2.8 Regular Platform Drill Key.

LongStop Drill with 3.15 mm diameter



Guide the Ø3.15 LongStop Drill through the Simplant Guide with a Ø3.2 Regular Platform Drill Key.

Implant site completion



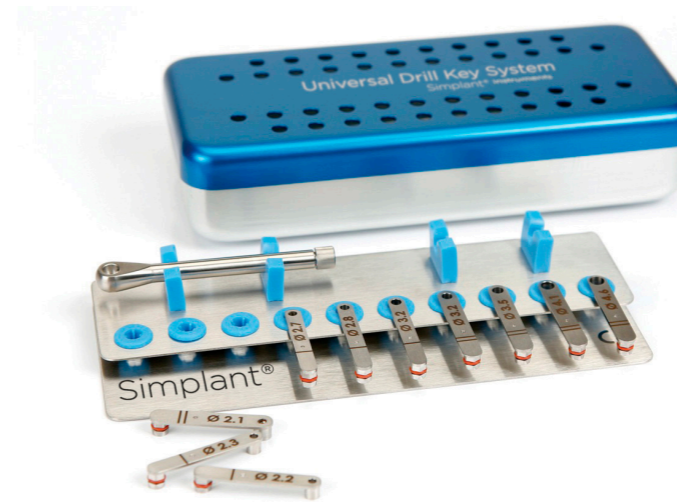
If the implant site needs to be prepared up to a diameter larger than 3.15 mm, for example in dense bone, then use the standard drills through the Guide (up to 3.45 mm) or after removing the Guide.

Implant placement



After removing the Simplant Guide, insert the implant with a standard implant driver.

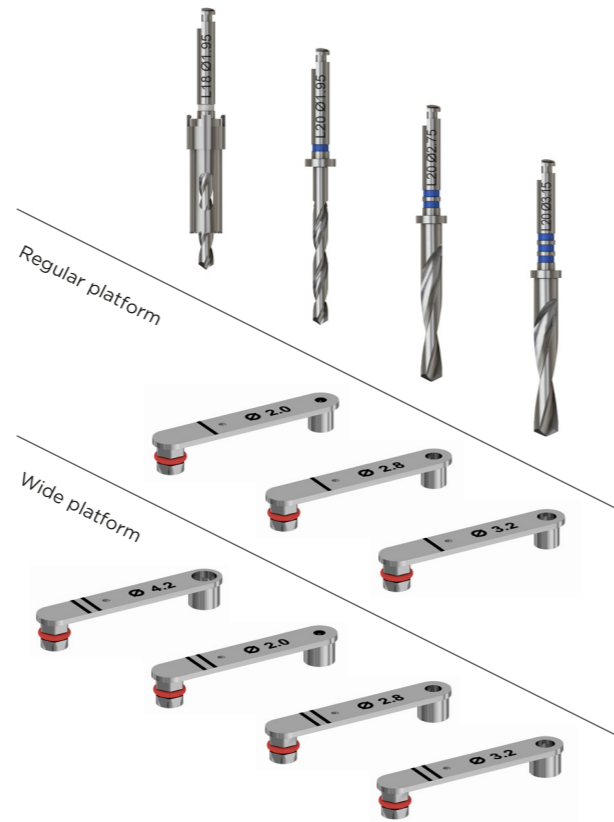
Product overview Simplant instruments:



Complete LongStop Drill System

The Complete LongStop Drill System is delivered in two Simplant instruments boxes. The LongStop Drill Set box contains a full set of 18 LongStop drills, 1 pilot drill and 1 trephine. The Universal Drill Key box contains 7 Universal Drill keys and 1 Universal Drill Key Handle.

Additional Universal Drill keys can be added to the box for the final drilling steps based on your standard surgical drills.



LongStop Drills for use with a Simplant Universal Guide

Each LongStop Drill length is color-coded, making it easy to identify the planned drill depth for each implant site. The multi-use LongStop drills are available in three diameters for site preparation up to 3.15 mm wide. Drill length and diameter are also laser-marked.

	LENGTHS	DIAMETER	DIAMETER	DIAMETER
●	15 mm	1.95 mm	2.75 mm	3.15 mm
○	18 mm	1.95 mm	2.75 mm	3.15 mm
●	20 mm	1.95 mm	2.75 mm	3.15 mm
●	23 mm	1.95 mm	2.75 mm	3.15 mm
●	25 mm	1.95 mm	2.75 mm	3.15 mm
●	28 mm	1.95 mm	2.75 mm	3.15 mm

Please note:
Simplant instruments can be used for approximately 20 osteotomies. Blunt or damaged instruments must be replaced immediately.

Selecting a range of Universal Drill keys: regular platform and wide platform

A comprehensive range of Universal Drill keys is available to guide your surgical instruments through the Simplant Universal Guide. For optimal guidance, choose the inside Drill Key diameter 0.05 mm or 0.1 mm larger than the your drill diameter.

When acquiring a set of Simplant Universal Drill keys, it is advised to choose both regular platform and wide platform Universal Drill keys that match the typical drill sequence for your implants.

For each osteotomy, the platform option chosen in the Simplant Guide determines the platform of the keys that will be used. In narrow spaces, the regular platform option is recommended. When sufficient mesio-distal space is available, the wide platform option is recommended.

To add depth control to your guided drilling sequence, the full set of seven Universal Drill keys for LongStop drills is required.

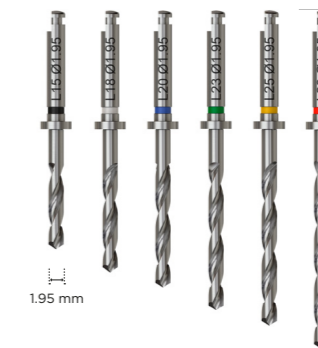
Outside diameter:	
WIDE	REGULAR
5.1 mm	4.1 mm

Inside diameter:	
WIDE	REGULAR
2.0 mm	•
2.1 mm	•
2.2 mm	•
2.3 mm	•
2.4 mm	•
2.5 mm	•
2.6 mm	•
2.7 mm	•
2.8 mm	•
2.9 mm	•
3.0 mm	•
3.1 mm	•
3.2 mm	•
3.3 mm	•
3.4 mm	•
3.5 mm	•
3.6 mm	•
3.7 mm	•
3.8 mm	•
3.9 mm	•
4.0 mm	•
4.1 mm	•
4.2 mm	•
4.3 mm	•
4.4 mm	•
4.5 mm	•
4.6 mm	•

Pilot LongStop Drill Set

The Pilot LongStop Drill Set is delivered in a Simplant instruments box and contains 6 LongStop drills, 1 pilot drill and 1 trephine.

With the Simplant Pilot Guide - LongStop Drill System, the Ø1.95 mm LongStop drills are used to benefit from depth control. Alternatively, a regular Simplant Pilot Guide and a standard pilot drill up to Ø2.45 mm can be used without the benefit of depth control.



	LENGTHS	DIAMETER
●	15 mm	1.95 mm
○	18 mm	1.95 mm
●	20 mm	1.95 mm
●	23 mm	1.95 mm
●	25 mm	1.95 mm
●	28 mm	1.95 mm

About Dentsply Sirona Implants

Dentsply Sirona Implants offers comprehensive solutions for all phases of implant therapy, including Ankylos®, Astra Tech Implant System® and Xive® implant lines, digital technologies, such as Atlantis® patient-specific solutions and Simplant® guided surgery, Symbios® regenerative solutions, and professional and business development programs, such as STEPPS™. Dentsply Sirona Implants creates value for dental professionals and allows for predictable and lasting implant treatment outcomes, resulting in enhanced quality of life for patients.

About Dentsply Sirona

Dentsply Sirona is the world's largest manufacturer of professional dental products and technologies, with a 130-year history of innovation and service to the dental industry and patients worldwide. Dentsply Sirona develops, manufactures, and markets a comprehensive solutions offering including dental and oral health products as well as other consumable medical devices under a strong portfolio of world class brands. As The Dental Solutions Company™, Dentsply Sirona's products provide innovative, high-quality and effective solutions to advance patient care and deliver better, safer and faster dentistry. Dentsply Sirona's global headquarters is located in York, Pennsylvania, and the international headquarters is based in Salzburg, Austria. The company's shares are listed in the United States on NASDAQ under the symbol XRAY.

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