



Instructions

OrthoLox Coupling-System



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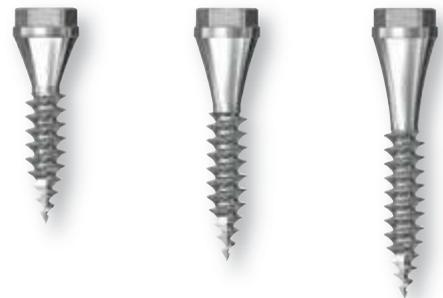
Product description

The OrthoLox Mini Screws are designed for use in connection with the OrthoLox-Snap-In Coupling Mechanism.

The OrthoLox Anchorage System is a system that allows numerous types of skeletal anchorages with mini screws that are common in the field of orthodontics. Palatal applications in particular can be ideally executed with the OrthoLox System. Orthodontic mini screws are considered to be minimally invasive and are very well tolerated by the patients. The advantages to be largely independent of patient cooperation permit treatments that are easy to plan and ensure patient satisfaction. The long gingival cuff (3, 4 and 5 mm) permits insertions at a height that is sensible from an orthodontic point of view without leading to irritation of the mucous membrane or the tongue due to thread grooves that are not covered by bone.

The **OrthoLox Mini Screws** are designed for use with the OrthoLox-Snap-In Coupling Mechanism, the SmartJet and other orthodontic components for intrusion, extrusion, retention, mesialization, distalization, palatal expansion and so on.

Whenever skeletal anchorages make sense the OrthoLox System can make a valuable contribution.

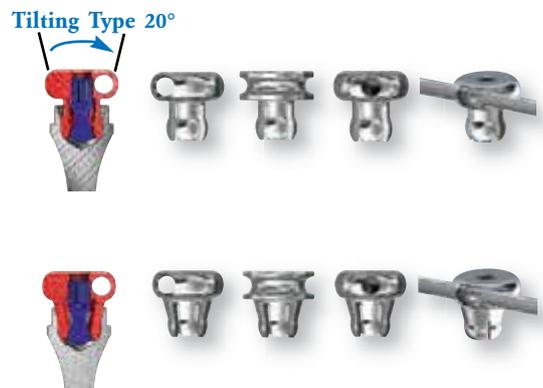


The OrthoLox Coupling Principle

In the first instance the selected abutment will be clipped into the OrthoLox Screw according to the push-button principle. The abutment screw (blue) has a left-handed thread. During right hand rotation it will move upwards and lock the OrthoLox Screw and the abutment in a safe manner. A strong and readily detachable connection is generated.

During left hand rotation of the abutment screw the abutment will be scooped out of the ball-shaped pan without load. Both locking and releasing the OrthoLox components occur without load.

There is no force effect on the screw and the surrounding bone.



Therapeutic indications and suitable insertion locations for the OrthoLox Mini Screws

Indications

- ▶ Crowding of maxillary anterior teeth
- ▶ Distalization of maxillary molars (unilateral and bilateral)
- ▶ Mesialization of maxillary molars (unilateral and bilateral)
- ▶ Hybrid-palatal expansion
- ▶ Retention
- ▶ EX-/Intrusion

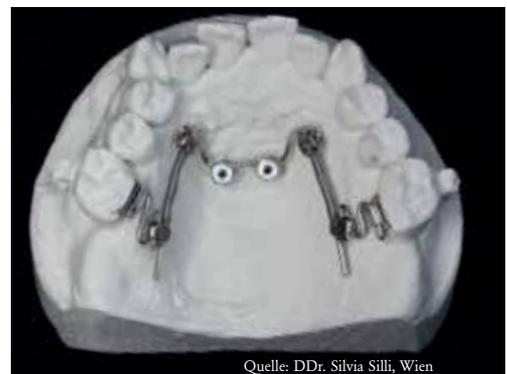


Insertion locations

The size and shape of the OrthoLox Mini Screw already provide an indication of the ideal area of deployment; the anterior palate. Other areas such as the retromolar or edentulous areas are also suitable following the inspection and according to the treatment plan.

At this point, the spatial conditions must be clarified in advance by means of X-ray images. An insertion in areas with loose mucous membrane is not recommended.

The area and positions of the anterior palate described by Dr. B. Ludwig and Dr. H. Winsauer (M4 position) are ideally suited.



Contraindications

- ▶ Periodontally compromised molars
- ▶ Short distal space
- ▶ Intolerance of the metals and alloys used

Please take note of the separate OrthoLox instruction manual on our website: www.ortholox.de

Medical instruments, accessories and orthodontic tools

The OrthoLox system distinguishes itself by the characteristic that it can be used without extensive equipment. Basically two medical instruments are needed.

Instruments

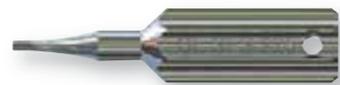
Implant Screw-Driver Shaft for Contra-Angle, for inserting and removing of OrthoLox screws

OL ISD 025



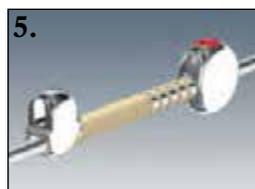
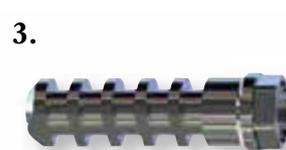
Multigrip Laboratory Screw Driver for OrthoLox abutment and activation of SmartJet.

OL SFS 225



Orthodontic tools

- | | |
|---|------------|
| 1. Protection cap | OL SKP 000 |
| 2. Impression cap | OL ADK 001 |
| 3. Laboratory analog | OL ANA 001 |
| 4. Bands on 1/6 and 2/6 with Goshgarian locks | |
| 5. SmartJet for Distalization/Mesialization | OL SJT 200 |
| 6. Z-Hook | SD ZET 080 |



Step by Step

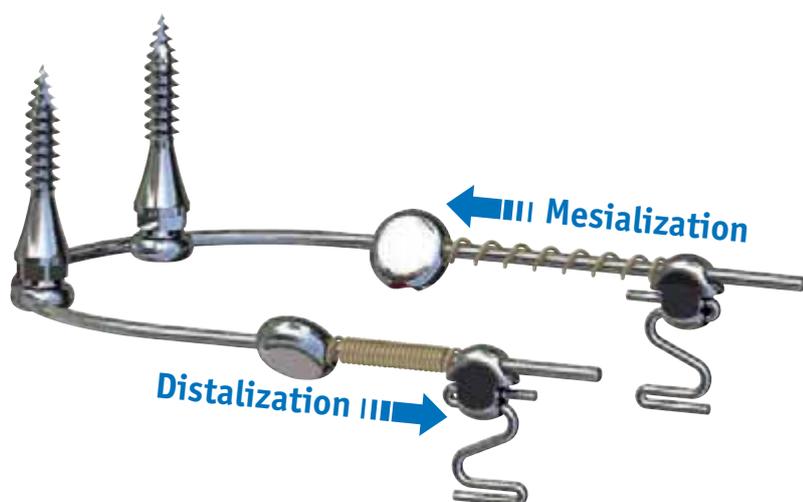
Insertion (see insertion locations)

The tapering thread, which is an essential characteristic of the OrthoLox Screws, permits an insertion in a strict vertical direction straight to the requested position. Raising or swinging the screws are NOT needed associated with the OrthoLox System and should be avoided.

For the insertion of the OrthoLox Screw (with Implant Screw-Driver Shaft OL ISD 025) a reduced contra-angle with sufficient torque and low rotation speed simultaneously has to be used. NSK 256:1 or the battery system "Orthonia" (30 Ncm / 45 rpm) are suitable.

In order to ensure a simple assembly of the system the OrthoLox Screws should be inserted as coronal as possible and largely parallel.

The preferred position is as close as possible to the line of thrust/ traction force.



The OrthoLox Coupling-System permits the creation of the complete hardware outside the patient's mouth and do not require compliance. An easy inserting and removing of the hardware reduces the chair time and increases the safety. All parts are well-rounded, easy to clean and offer the highest level of patient comfort.

SmartJet

The **SmartJet** consists of **SmartStop** and **SmartGuide**. The NiTi-Spring connects both components into a unique device for Mesialization and Distalization. A universal Push- or Pull Device for 1,0 mm wires. SmartStop & SmartGuide have spring-congruent threads and can therefore be screwed on the spring and afterwards be fixed in a safe manner. Reduced friction can be expected. All parts are sliding on the arch side by side. In this way they all develop their optimal power; only minimal friction will be generated by increasing or reducing the spring. SmartStop as well as SmartGuide cannot rotate in an installed condition. Due to that fact there will never be any unintended unscrewing of the spring.

The result is a coherent unit of three parts working as a thrust/traction item by sliding on the arch.

The SmartStop has a Multigrip locking screw for the purpose of anchorage on the arch (same Screw Driver as the one for fixing the abutment). The reversible fixing possibility guarantees a fast and save assembly as well as an easy additional capitalization of the spring power. You can easily arrange length adjustments of the SmartJet by rotating the SmartStop or SmartGuide. An extreme small SmartJet can be generated by shortening the spring.

For taking the Z-Hook on the SmartGuide there is a special twin bore analogue to the Goshgarian-Lock. Due to the plugged connections on the band and also on the SmartGuide you can easily check the rotation, torque and height and be able to readjust the components.

Hybrid palatal expansion

The Snap-in Coupling-System makes OrthoLox the perfect anchoring element for the skeletal/dental palatal expansion. Special abutments to support the arms of the palatal expansion screws facilitate the production of each individual link. Both physician and technician will appreciate the full benefits of the reversible Snap-in Coupling-System, especially during the process of making the palatal expansion hardware.

We are convinced that over time and in close dialogue with our customers we will discover many other application possibilities for the range of OrthoLox products.



Stop & Guide from the OrthoLox system

