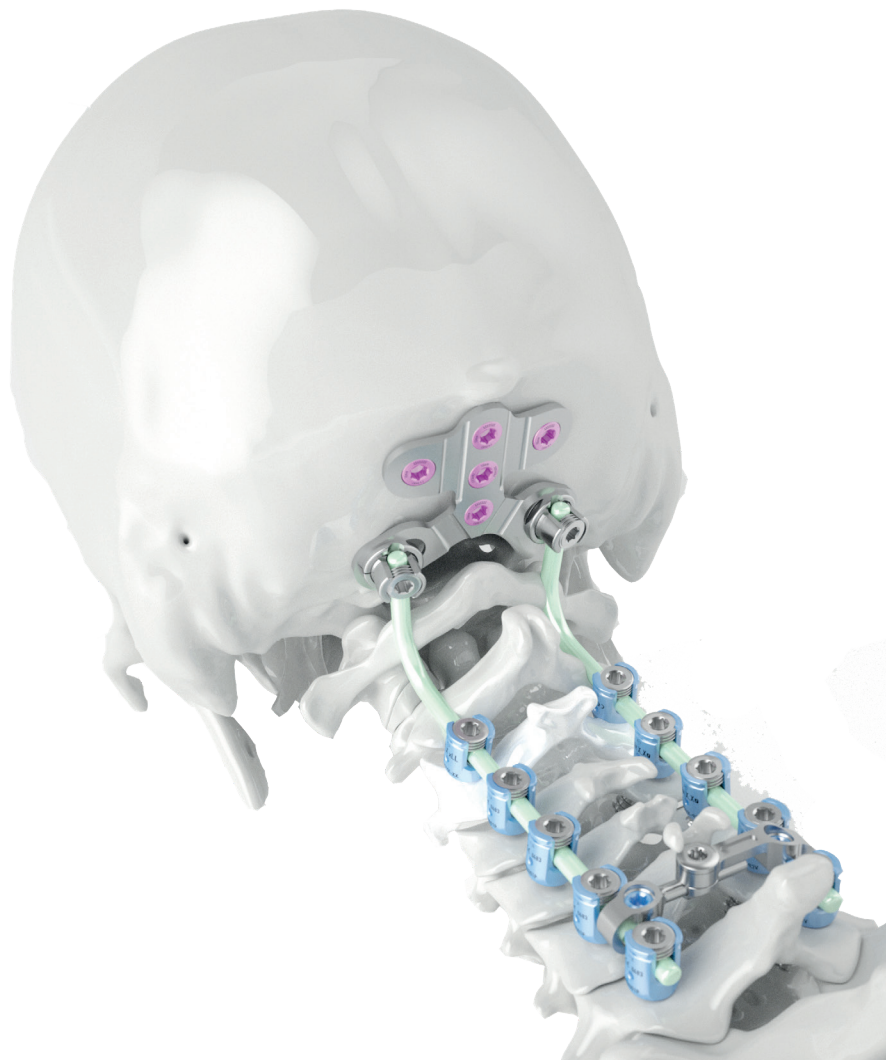


# VERTICALE<sup>®</sup> CERVICAL SCREW ROD SYSTEM INCLUDING OCCIPITO- CERVICAL FUSION

INSTRUMENTATION GUIDE



MADE IN GERMANY

# TABLE OF CONTENTS

Preface .....	4
Indication / Contraindications .....	5
Position and approach .....	7
Opening the pedicle .....	7
Probing the pedicle .....	7
Drilling .....	8
Determining the screw dimensions .....	9
Tapping .....	10
Selection of pedicle screws .....	11
Preparing the pedicle screw driver .....	12
Picking up the screws .....	13
Pedicle screw insertion .....	13
Countersinking the pedicle screw .....	14
Aligning the screw heads (tulip) .....	14
Selecting and sizing the rods .....	15
Inserting the rods .....	16
Temporarily tightening the set screw .....	16
Final tightening using the counter torque .....	17
Verification .....	17
Compression and distraction .....	18
Reduction with the reduction Instrument .....	19
Fixing the rod in place with the reduction instrument .....	19
Size determination .....	20
Preparing the cross connectors .....	20
Inserting and temporarily fixing the cross connector .....	21
Final tightening using the cross connector counter torque .....	21
Preparing the lateral connector .....	22
Inserting and temporarily fixing the lateral connector .....	22
Final tightening using the counter torque .....	23
Determine plate position and shape .....	24
Drilling with occiput drills .....	25
Probing the occiput screw holes .....	26
Determining the occiput screw dimension .....	26
Tapping with the occiput tap .....	27
Selection of occiput screws .....	28
Inserting the occiput screws .....	28

# TABLE OF CONTENTS

Selecting and sizing the rods for occiput .....	29
Inserting the rods .....	30
Temporarily tightening the set screw .....	30
Final tightening using the occiput counter torque .....	31
Verification .....	31
Inserting and tightening the VERTICALE Cervical Rod Connector Inline .....	32
Inserting and tightening the VERTICALE Cervical Rod Connector Triangle .....	33
Selecting and sizing the transition rods .....	34
Implant removal procedure .....	35

## PRODUCT INFORMATION

VERTICALE Implants .....	PI 03
VERTICALE Instruments .....	PI 14
VERTICALE Alphabetic index .....	PI 18

**NOTE:** This guide describes the use of the VERTICALE Cervical posterior spinal fixation instrument set. This guide does not replace briefing by a physician experienced in the instrumentation used in spinal surgery.  
We would be happy to assist you in finding a hospital that provides an opportunity to observe surgical procedures.

## PREFACE

# VERTICALE<sup>®</sup> – CERVICAL SCREW ROD SYSTEM INCLUDING OCCIPITO-CERVICAL FUSION

The Silony VERTICALE Cervical system is a double rod fixation posterior system consisting of polyaxial screws, rods, occiput plates, connectors and accessories. It is intended to provide immobilization and stabilization of spinal segments of the craniocervical junction (occiput-C2), subaxial cervical spine (C3-C7) and upper thoracic spine (T1-T3). The VERTICALE Cervical system may only be used in the field of human medicine and consists of polyaxial screws, far angle (FA) screws, rods, occiput plates, connectors and the related instrumentation. Implants of the VERTICALE Cervical system are supplied sterile and are intended for single use.

Different screw placements will be possible:

- C1: Lateral mass screw
- C2: Isthmus screw, pedicle screw, laminar screw, transarticular
- C1-2: Length of current screw can be used for this connection
- C3-7: Lateral mass screw, pedicle screw, laminar screw
- T1-T3: Pedicle screw, laminar screw





## Indication

The VERTICALE Cervical system is indicated for use in the occipito-cervico-(upper-) thoracic regions for the following indications:

- Degenerative disc diseases (DDD)
- Instabilities
- Trauma
- Deformities

**NOTE:** Anterior interbody support in the form of an intervertebral implant device, such as a ROCCIA cage, is recommended for treating instabilities of the anterior spine and is used at the discretion of the operating surgeon and in accordance with the respective indication.

## Contraindications

Under certain circumstances, implantation is prohibited or associated with substantial risks, even though it may be indicated. These include in particular:

- Anticipated or documented allergy or intolerance to the materials (e.g. titanium or cobalt chromium)
- Any case in which the chosen implants would be too large or too small to achieve a successful result
- Any patient for whom the use of the implant would conflict with anatomical structures
- Missing bony structures, which would render solid anchoring of the implant impossible (e.g., in the case of fractures, tumors, or osteoporosis)

**NOTE:** Please also note the Instructions for Use provided with each product. They may include additional advice that leads to exclusion of the implant procedure.

# VERTICALE® CERVICAL INSTRUMENTATION GUIDE

In the following section, we begin by describing a monosegmental posterior VERTICALE Cervical instrumentation with pedicle screws that forms the basis for all subsequent steps with additional instruments and implant devices. Multisegmental instrumentations or the implantation of other screws (e.g. lateral mass screws) are also performed according these instructions.

## Position and approach

The patient is positioned in the standard prone position for the posterior approach. The skin incision is performed medially above the spinous processes corresponding to the spinal segments to be treated. The soft tissue is then dissected until the anatomical structures of the spinal column can be clearly seen.

## Opening the pedicle

VI-0010  
VERTICALE CERVICAL  
Awl with stop



VI-0020  
VERTICALE CERVICAL  
Probe, straight



The desired screw insertion point into the pedicle is defined by means of anatomical landmarks and under X-ray control or other suitable inspection methods. The cortex is subsequently opened with the VERTICALE Cervical Awl with stop (Fig 1). For safety reasons, the awl has a depth stop after 6 mm.

To further open up the pedicle down to the cancellous bone of the vertebral body, the corresponding VERTICALE Cervical Probe is used.

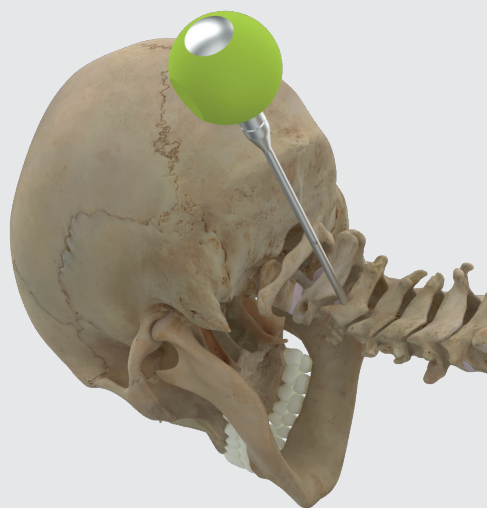


Fig. 1 Opening the pedicle with the awl or probe

## Probing the pedicle

VI-0025  
VERTICALE CERVICAL  
Pedicle Feeler



The one-sided VERTICALE Cervical Pedicle Feeler can be used to check the prepared screw channel for possible perforations (Fig 2).

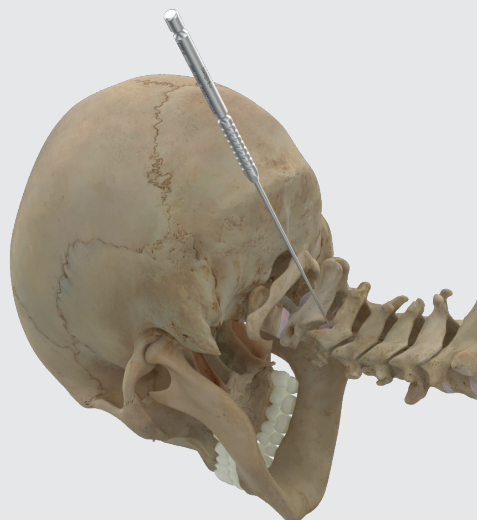


Fig. 2 Probing the pedicle with the pedicle feeler

# Drilling

VI-0230  
VERTICALE CERVICAL  
Drill Guide Standard



VI-0256  
VERTICALE CERVICAL  
Drill Guide XL



VI-0235  
VERTICALE CERVICAL  
Drill 2.4 mm standard\*



Two different drill guides are available. A standard version for screw dimensions between 10 mm to 30 mm and a XL version for screw lengths of 14 mm to 56 mm. Choose the corresponding drill guide for the desired screw dimension (Determine the appropriate screw dimension by preoperative planning).

Insert the depth sleeve into the corresponding drill guide and set the depth sleeve to the required screw length. The adjustment of the length is made by pressing the button on the proximal part of the drill guide. The corresponding screw length is indicated by the laser marking on the drill guide (Fig. 3).

Separate drills for both standard and XL drill guides are available\*. The drills have diameters of 2.4 mm and 2.9 mm for 3.5 mm and 4.0 mm screws, respectively. The drills are color coded according to the anodization color of the screws, i.e. yellow for the 3.5 mm screws and blue for the 4.0 mm screws. Choose an appropriate drill for corresponding screw diameter ensuring the color coding of the drill matches the anodization colour of the screw. The drills can be used with one of the VERTICALE Cervical quick-coupling handles or with a power tool. Drill the hole into the pedicle or lateral mass to the appropriate depth and use intraoperative X-ray control if necessary (Fig.4).

\* Further drill options are shown in the chapter "Instruments".

**NOTE:** Confirm the correct adjustment of the depth sleeve and the desired drill length prior to drilling! Please correct the position of the depth sleeve if necessary.

**NOTE:** Ensure the sharpness of the drill prior to drilling! In case of blunt drill, use a new one.

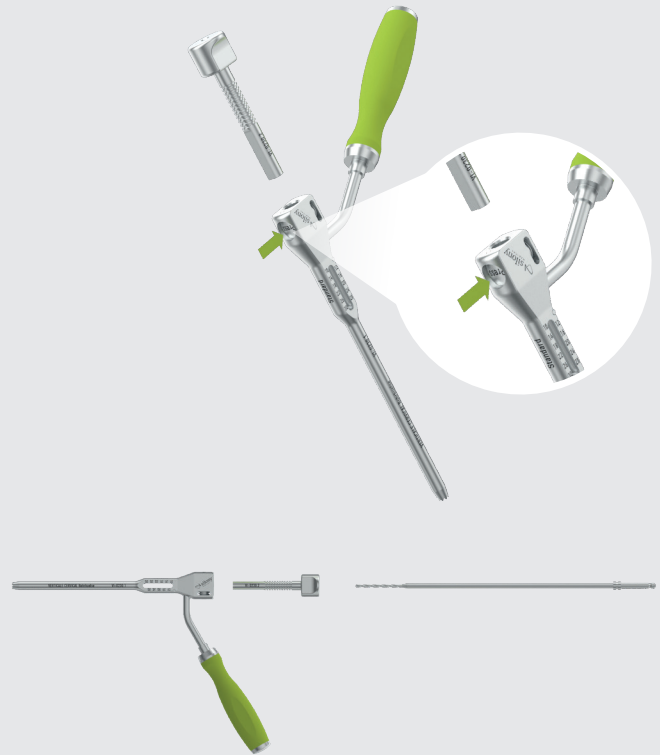


Fig. 3 Assemble the Drill Guide and insert corresponding drill

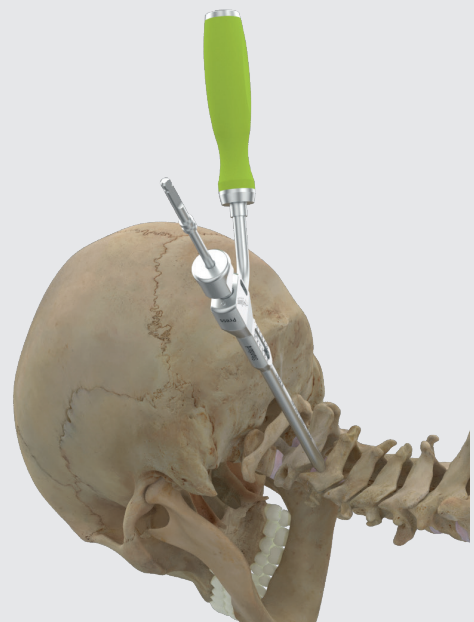


Fig. 4 Drilling a hole into the pedicle

# Determining the screw dimensions

VI-0030  
VERTICALE CERVICAL  
Depth Gauge



VI-0020  
VERTICALE CERVICAL  
Probe, straight



Using the markings on the VERTICAL Cervical Probe, the dimension of the pedicle screw can be estimated. The markings are between 10 and 30 mm in increments of 10 mm. Use the VERTICAL Cervical Depth Gauge with markings between 8 and 56 mm with increments of 2 mm to confirm the required screw length (Fig 5).

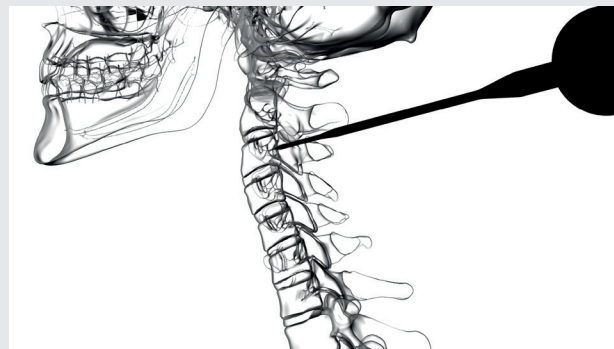


Fig. 5 Determining the length of the screws

**NOTE:** Do not bend the depth gauge or push by force into the bone as damage of the instrument may occur, which may lead to false length indications. Please check, whether the tip of the depth gauge is intact. Use the depth gauge only if the tip is intact and the laser marking is clearly visible.

# Tapping

VI-0230  
VERTICALE CERVICAL  
Drill Guide Standard



VI-0256  
VERTICALE CERVICAL  
Drill Guide XL



VI-0301  
VERTICALE CERVICAL  
T-Handle\*



VI-0135  
VERTICALE CERVICAL  
Tap 3.5 mm XL \*\*



All VERTICALE Cervical screws have a self-tapping thread. However, for very hard bone structures (e.g. sclerotic bone) it may be necessary to pre-tap the thread into the bone. Taps for the screws with a diameter of 3.5 and 4.0 mm are available for this. All taps are color coded according to the anodization color of the screws, i.e. yellow for the 3.5 mm screws and blue for the 4.0 mm screws. Separate taps for both standard and XL drill guides are available. Choose appropriate tap diameter and length ensuring the color coding of the tap matches the anodization color of the screw. The depth of the tapping is controlled by the depth sleeve of the drill guides (Fig. 6). The taps can be used with one of the VERTICALE Cervical quick-coupling handles. After selecting the appropriate modular and cannulated handle (T-handle, long handle, with or without ratchet mechanism), it is connected to the corresponding VERTICALE Cervical Tap by locking into place (Fig. 7). The screw channel is prepared clockwise. The thread on the VERTICALE Cervical taps has a length of 16 mm. After cutting, the tap is disengaged by turning it counter clockwise. Cannulated taps are available for guided insertion using a Guide-Wire (Ø 1.3 mm). See appendix VERTICALE Cervical instruments.

\* Further handle options are shown in the chapter "Instruments".

\*\* Further taps are shown in the chapter "Instruments".

**NOTE:** If using another guide wire than listed in the appendix, ensure that the length of the guide wire exceeds the length of implant, instrument and additional handle.

**NOTE:** Do not use power tool for tapping!

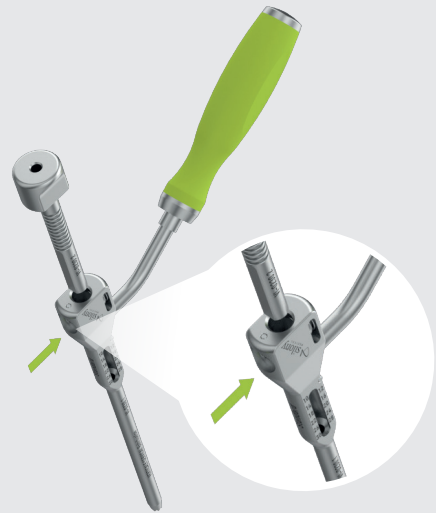


Fig. 6 Inserting the depth sleeve and set the depth sleeve to the required length






























Fig. 7 Tapping of screw holes



# Selection of pedicle screws

To enable faster and easier identification, all VERTICALE Cervical screws are color coded by diameter. The lengths vary by 2 mm increments for the 3.5 mm and 4.0 mm screws. The 4.5 mm screw serves as a revision option and vary by 5 mm increments. Two different types of screw heads are available. The poly-head with an angulation of 40° in all directions and a FA-head (far angle) with an increased angulation of 57° in either cranial or caudal direction. 4.0 mm and 4.5 mm screws are also available with cannulation. Moreover, a smooth shank option is available with 10 mm non-threaded screw shaft for the 4.0 mm screws.\*

\* Further screw options are shown in the chapter “Implants”.

	<b>Ø 3.5 mm</b> (10 - 30 mm á 2 mm)		<b>Ø 4.0 mm</b> (14 - 56 mm á 2 mm)		<b>Ø 4.0 mm</b> (20 - 36 mm á 2 mm)		<b>Ø 4.5 mm</b> (20 - 55 mm á 5 mm)		
10 mm									
12 mm									
14 mm									
16 mm									
18 mm									
20 mm									20 mm
22 mm									
24 mm									
26 mm									25 mm
28 mm									
30 mm									30 mm
32 mm									
34 mm									
36 mm									35 mm
38 mm									
40 mm									40 mm
42 mm									
44 mm									
46 mm									45 mm
48 mm									
50 mm									50 mm
52 mm									
54 mm									
56 mm									55 mm

**NOTE:** Using the A-P X-ray image, choose pedicle screws according to the pedicle diameter with the largest possible diameter. The length of the screw should be such that it reaches at least 2/3 of the diameter of the vertebral body, and in the best case the anterior edge of the vertebral body.

## Preparing the pedicle screw driver

VI-0130  
VERTICALE CERVICAL  
Pedicle SD (screw driver)



VI-0201  
VERTICALE CERVICAL  
Straight Handle\*



The VERTICALE Cervical Pedicle Screwdriver is used to screw in the VERTICALE Cervical screws. It has to be assembled prior to use.

Mount the inner shaft of the screw driver to the basic core by pushing the quick-release button at the proximal part of the basic core. To ensure better protection of the tissue, the Screwdriver is equipped with a removable protection sleeve. It is attached, as shown, until it clicks into position (Fig. 8a). The screw driver is mounted onto the desired handle using the quick coupling on the handle. Different modular handles are available for use with the screwdrivers (with or without ratchet mechanism). Laser marking on the quick-coupling supports the right orientation of the modular handle for mounting. Moreover, a self-retaining mechanism prevents the inner shaft from rotating during mounting of the handle while holding the screw driver at the knob of the basic core (Fig. 8b).

\* Further handle options are shown in the chapter "Instruments".

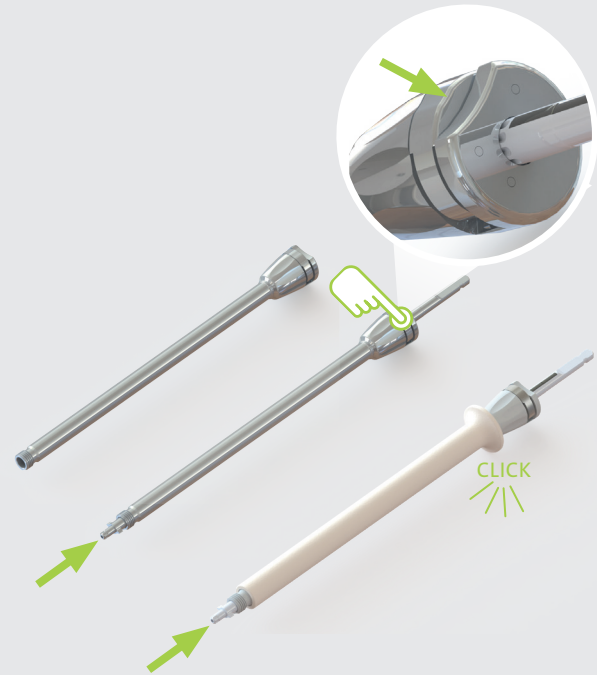


Fig. 8a Assembly of pedicle screw driver

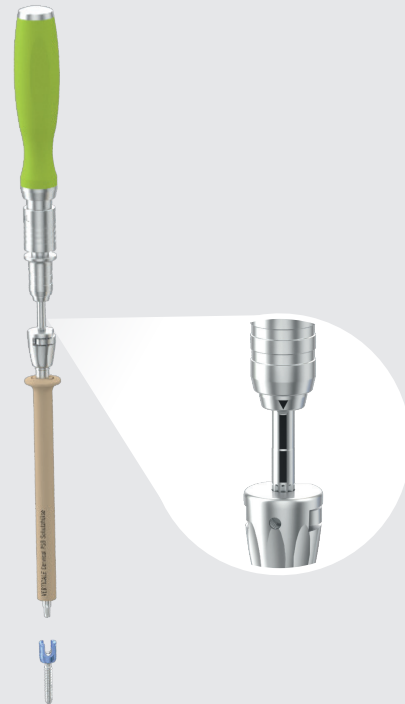


Fig. 8b Attaching handle according to the laser marking



## Picking up the screws

VI-0130  
VERTICALE CERVICAL  
Pedicle SD (screw driver)



VI-0201  
VERTICALE CERVICAL  
Straight Handle\*



All VERTICALE Cervical screws are single used and are delivered in sterile packaging.

Care must be taken to ensure an orthograde alignment between the tulip and screw shaft. The inner shaft of the VERTICALE Cervical Pedicle Screwdriver is first inserted deeply into the inner Torx of the screw shaft. After that, the threaded basic core is pushed towards the tulip and the internal thread of the tulip is connected to the external thread of the instrument by rotating to knob of the screw driver clockwise and applying mild downward force with the instrument shaft (Fig 9). Ensure that the T-shaped tip is sufficiently inserted into the tulip for secure locking of the screw to the pedicle screw driver.

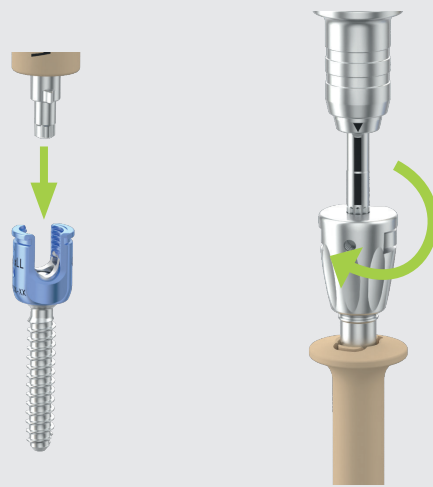


Fig. 9 Attaching pedicle screw driver to pedicle screw

## Pedicle screw insertion

VI-0130  
VERTICALE CERVICAL  
Pedicle SD (screw driver)



VI-0201  
VERTICALE CERVICAL  
Straight Handle\*



The VERTICALE Cervical pedicle screws are screwed into the prepared screw channel of the bone until the screw shaft is fully inserted into the pedicle (Fig 10). Screwing too far into the pedicle can restrict the mobility of the tulip and make it difficult to insert the rod later. To disengage the instrument from the pedicle screw, maintain firm grip of screwdriver handle while rotating the rotation knob of sleeve counter-clockwise and pull instrument away from tulip. This process is repeated until all pedicle screws have been inserted. Verifying the correct positioning of the pedicle screws by means of an image intensifier in frontal and sagittal projection is strongly recommended.

\* Further handle options are shown in the chapter “Instruments”

**NOTE:** It is important that the polyaxiality of the tulip is not blocked. If necessary, the screw must be turned back a little.

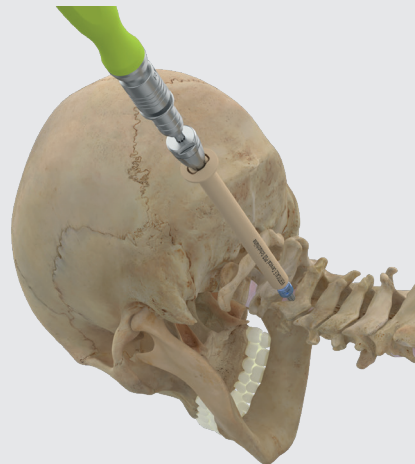


Fig. 10 Inserting the pedicle screw into the bone

## Countersinking the pedicle screw

VI-0446  
VERTICALE CERVICAL  
Pedicle Screw Driver Ballhead



The VERTICALE Cervical Pedicle Screw Driver Ballhead is available for countersinking the pedicle screws (Fig 11).

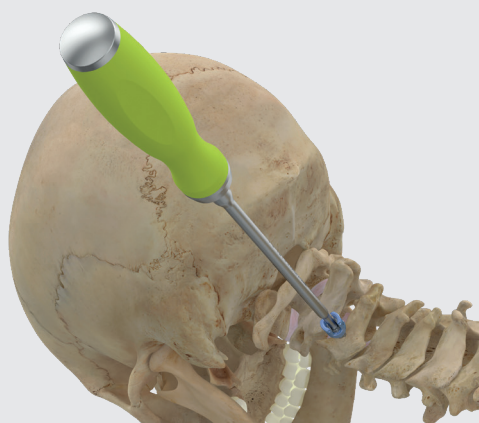


Fig. 11 Countersinking the pedicle screws

## Aligning the screw heads (tulip)

VI-0350  
VERTICALE CERVICAL  
Rod and Tulip Adjuster



The VERTICALE Cervical screw tulips are adjusted with the VERTICALE Cervical Rod and Tulip Adjuster. The adjuster is placed into the tulip and can then be used to align the tulip (by rotating and tilting) depending on how the rod will subsequently be inserted (Fig. 12).

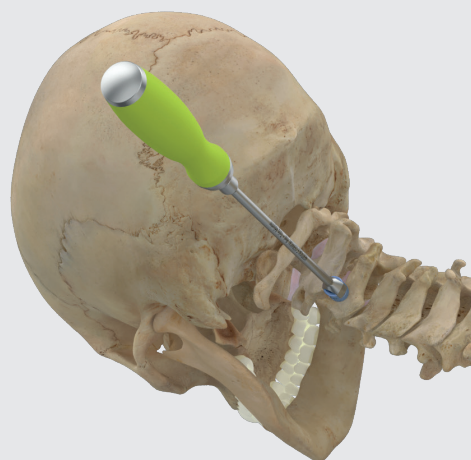


Fig. 12 Aligning the pedicle screw heads with the rod and tulip adjuster

## Selecting and sizing the rods

VI-0535  
VERTICALE CERVICAL  
Phantom Rod



VI-0610  
VERTICALE CERVICAL  
Rod Bender



VI-0260  
VERTICALE CERVICAL  
Rod Cutter\*



Various rod lengths with a diameter of 3.5 and 4.0 mm are available. Details can be found in the chapter "Implants". The VERTICALE Cervical Phantom Rod can be used to determine the required rod length and curvature. In order to estimate the required rod length, laser markings on the Phantom rod are implemented in increments of 10 mm. Rods that are too long can be shortened with the VERTICALE Cervical Rod Cutter. Rotate the knurled wheel until the two arrows are aligned. Insert the rod into the corresponding hole (i.e. 3.5 mm or 4.0 mm). Repeatedly, squeeze the handles and initiate the ratcheting mechanism until the rod is cut. Before the next rod can be cut, rotate the knurled wheel until the two arrows are aligned again (Fig. 13a). For individual anatomic adjustment of the rod, you can use the VERTICALE Cervical Rod Bender. Place the rod within the rod bender and squeeze the handles until the desired curvature is reached. Three different bending radii are possible (small, medium, large). In order to change the bending radius, pull the center knob and turn ( $\sim 120^\circ$ ) to select the required bending radius. Make sure the center knob is arrested correctly and fixed in its position before contouring the rod (Fig 13b).

\* Further rod cutter are shown in the chapter "Instruments".

**NOTE:** The "cutting line" indicates the area where the rod will be cut. This line is located approximately 8 mm from the upper face of the instrument where the rod will be inserted.

**NOTE:** Any reverse bending of the rod decreases the integrity of the material and must be avoided. For this reason, bending of the rod should be performed gradually until the desired curvature is attained.

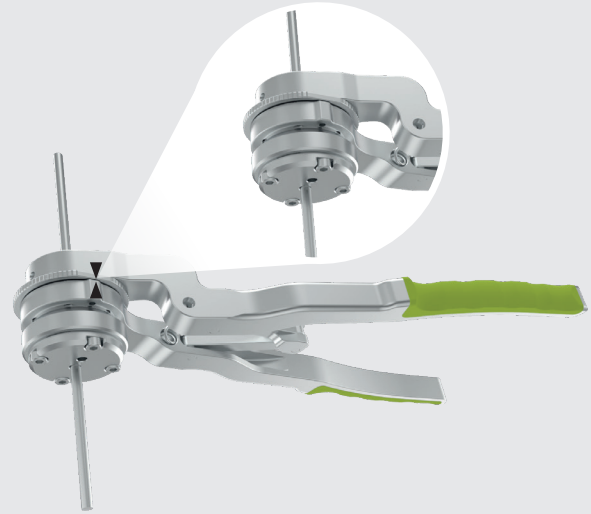


Fig. 13a Cutting the rod with the rod cutter



Fig. 13b Bending the rod with the rod bender

## Inserting the rods

VI-0330  
VERTICALE CERVICAL  
Rod Holder



VI-0350  
VERTICALE CERVICAL  
Rod and Tulip Adjuster



The rods are inserted using the VERTICALE Cervical Rod Holder (Fig. 14).

If the rod is not placed deep enough into the pedicle tulip, it can be additionally maneuvered into the correct position with the VERTICALE Rod and Tulip Adjuster.

**NOTE:** The end of the rod shall visibly protrude from the last screw head to ensure sufficient contact between tulip, set screw and rod.

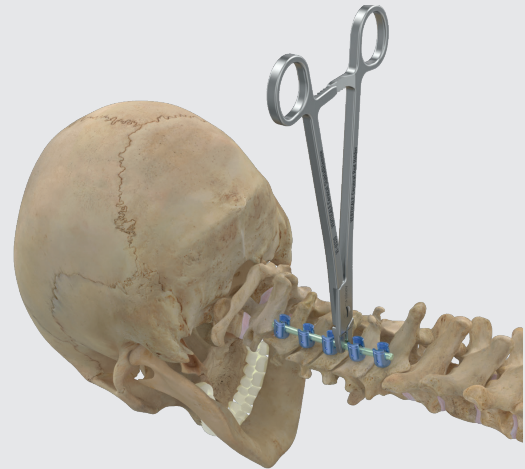


Fig. 14 Inserting the rods

## Temporarily tightening the set screw

VI-0421  
VERTICALE CERVICAL  
Setscrew Starter double



The VERTICALE Cervical set screw is inserted with the double-sided VERTICALE Cervical Set Screw Starter. To do this, the torx of the VERTICALE Cervical Set Screw Starter is equipped with a self-retaining geometry that hold the set screw in place during handling. Insert the set screw into the tulip of the pedicle screw. The rod is temporarily fixed by gently turning the set screw clockwise (Fig 15).

**NOTE:** Set screws should always be inserted with a smooth clockwise rotation. To prevent tilting, a brief prior counter clockwise rotation can facilitate insertion of the set screw into the first thread.

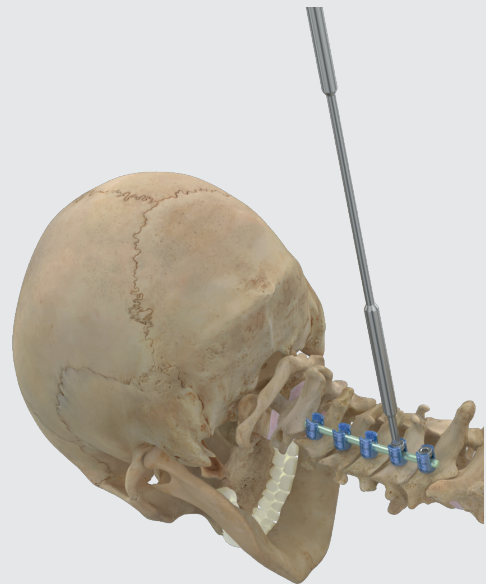


Fig. 15 Inserting and temporarily tightening the set screw

## Final tightening using the counter torque

VI-0440  
VERTICALE CERVICAL  
Torque Limiter 3 Nm



VI-0450  
VERTICALE CERVICAL  
Counter Torque



The VERTICALE Cervical Counter Torque is used to stabilize the rotation when tightening the VERTICALE Cervical set screw. In order to insert the set screw with guidance, the counter torque is placed directly onto the screw head. The VERTICALE Cervical Counter Torque can be comfortably mounted parallel or at right angles to the rod. The VERTICALE Cervical Torque Limiter (Torx 20) can then be guided by the counter torque and the set screw is tightened in its final position with a torque of 3 Nm (an audible click indicates that the torque has been reached). The same procedure must be repeated with all other set screws (Fig. 16). We recommend ensuring that the set screw is correctly seated by repeatedly tightening with the torque limiter. This is confirmed by two clicking sounds.

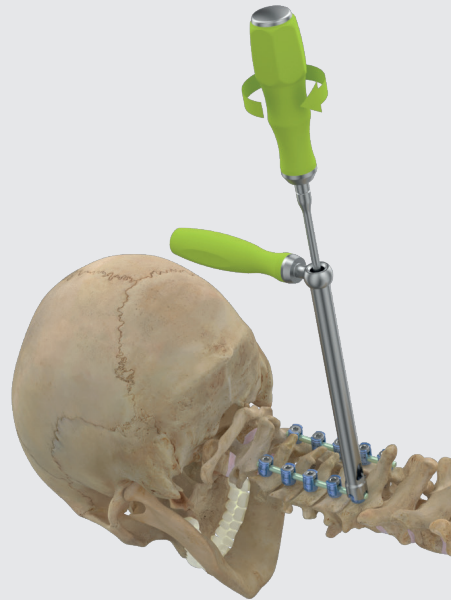


Fig. 16 Final tightening using the counter torque

## Verification

Please check the correct position of the rods and screws as well as the result of compression and distraction manoeuvres by final X-ray.

The result of the instrumentation is verified using images in two planes from an image intensifier.

# VERTICALE® CERVICAL INSTRUMENT-BASED REDUCTION AND CORRECTION OPTIONS

It is often necessary to perform intra-operative reductions and corrections of the implant devices with the help of VERTICALE Cervical Instruments in one or more segments.

## Compression and distraction

VI-0620  
VERTICALE CERVICAL  
Distraction Pliers



VI-0630  
VERTICALE CERVICAL  
Compression Pliers



To compress or distract the pedicle screws, the VERTICALE Cervical Distraction or Compression Pliers are attached to the rod. The desired maneuver is performed by pressing together the respective pliers (Fig. 17 + 18). Both compression and distraction pliers feature a parallel mechanism for improved handling. The set screws are then final tightened with the VERTICALE Cervical Torque Limiter 3 Nm and the VERTICALE Cervical Counter Torque to secure the result of the compression or distraction maneuver.

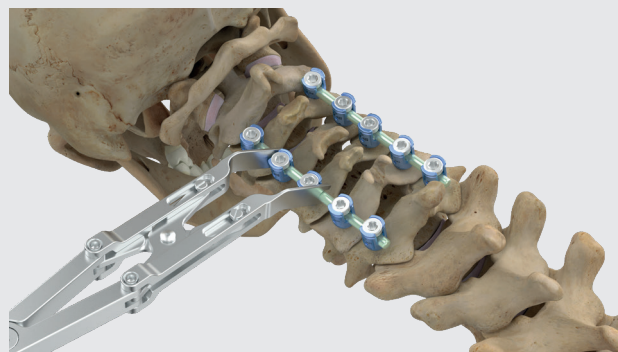


Fig. 17 Compression with the compression pliers

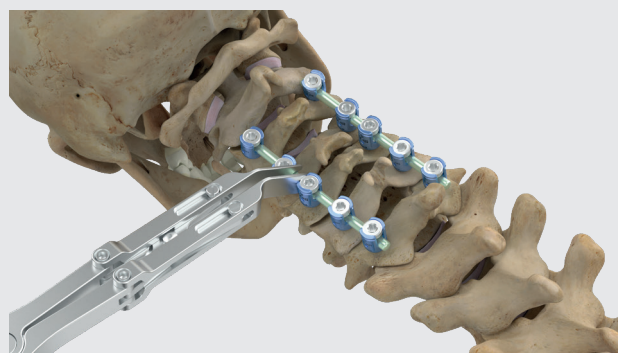


Fig. 18 Distraction with the distraction pliers

**NOTE:** The set screws, at least one in the segment being corrected, must not be closed tightly during the maneuver.

## Reduction with the reduction instrument

VI-0360  
VERTICALE CERVICAL  
Reduction Instrument



The VERTICALE Cervical Reduction Instrument is used to reduce the rod into the tulip of the pedicle screws. It is positively locked onto the designated hook groove (notch) at the verge of the tulip and the wings of the reduction instrument. The rod is then persuaded into the tulip by pressing together the pliers of the reduction instrument. At the same time, the position of the vertebral body is corrected to posterior (Fig. 19).

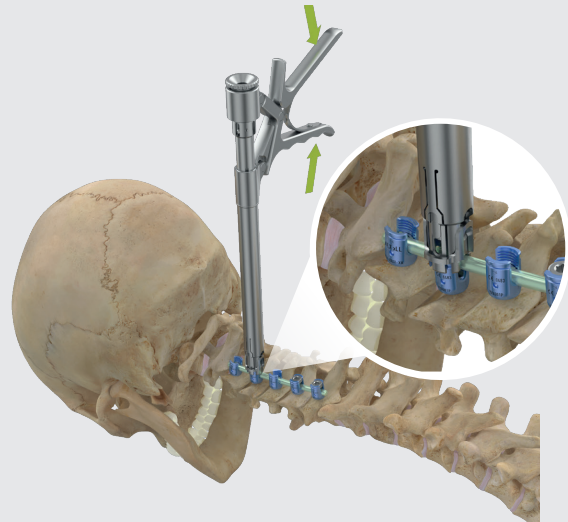


Fig. 19 Reduction with the reduction instrument

**NOTE:** Consider both wings of the reduction instrument being in contact with the outer notch of the screw head (illustration) before pushing the rod into the tulip.

## Fixing the rod in place with the reduction instrument

VI-0360  
VERTICALE CERVICAL  
Reduction Instrument



VI-0421  
VERTICALE CERVICAL  
Setscrew Starter double



Fixation of the rod is achieved using the VERTICALE Cervical Set Screw. It is inserted with the VERTICALE Set Screw Starter. To do this, the set screw is attached to the self-retaining Torx on the VERTICALE Set Screw Starter (Fig. 20). The rod is temporarily fixed by turning the set screw.

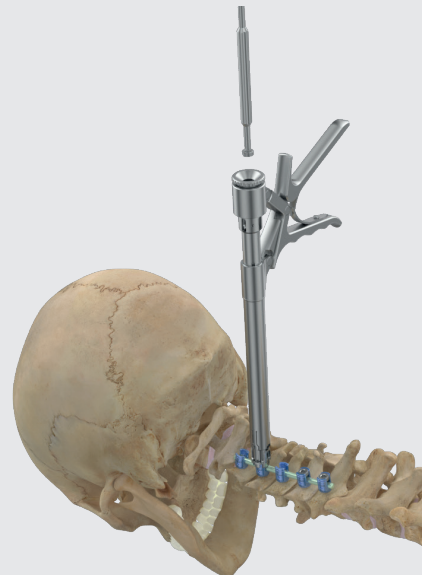


Fig. 20 Fixation with the reduction instrument and set screw starter

**NOTE:** Neither the set screw starter nor the reduction tool are designed for final screw tightening and may get damaged if applied torque is too high. For final tightening use the torque limiter and counter torque.



# INSTRUMENTATION WITH THE VERTICALE<sup>®</sup> CERVICAL CROSS CONNECTOR

VERTICALE Cervical Cross Connectors (CC) are recommended to improve rotational stability, especially for instrumentations spanning multiple segments.

## Size determination

VI-0830  
VERTICALE CERVICAL  
Cross Connector Sizer



Three different sizes of the VERTICAL Cervical Cross Connector implants are available with color-coding via the pre-mounted set screws.

In order to determine the required size, use the VERTICAL Cervical Cross Connector Sizer by attaching the instrument on both rods (Fig. 21). Both rods have to lie completely in the two recesses of the instrument. Otherwise, another size range needs to be checked with the instrument.

**NOTE:** In case of two possible size indications please select the larger cross connector in order to prevent high strain and accidentally disassembly.



Fig. 21 Size determination of cross connector

## Preparing the cross connectors

VI-0330  
VERTICALE CERVICAL  
Rod Holder



VI-0810  
VERTICALE CERVICAL  
CC Torque Limiter 2Nm



Ensure the pre-mounted set screws are loosened by using the VERTICAL Cervical CC Torque Limiter 2 Nm (Torx 15) prior to insertion onto the rods. Pay attention not to detach the set screws completely from the cross connector (Fig. 22).

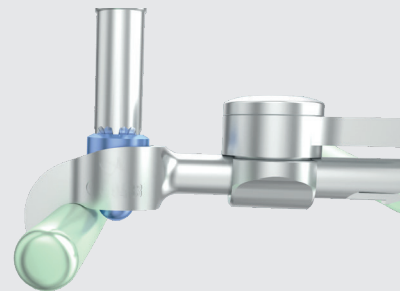


Fig. 22 Preparing and inserting the cross connector



## Inserting and temporarily fixing the cross connector

VI-0330  
VERTICALE CERVICAL  
Rod Holder



VI-0810  
VERTICALE CERVICAL  
CC Torque Limiter 2Nm



VI-0820  
VERTICALE CERVICAL  
CC Counter Torque



The cross connector can be engaged with the VERTICALE Cervical Rod Holder and inserted between the rods. Ensure that the cross connector is positioned correctly on the rod before tightening the set screws (Fig. 23). The cross connector can be adjusted in three dimensions, i.e. adjustment of the length, rotation around the transverse axis and rotation around the sagittal axis.

After placing the cross connector on the rods, first the lateral set screws and then the medial set screw are temporarily fixed with the VERTICALE Cervical CC Torque Limiter 2 Nm by tightening the screws hand-tight.

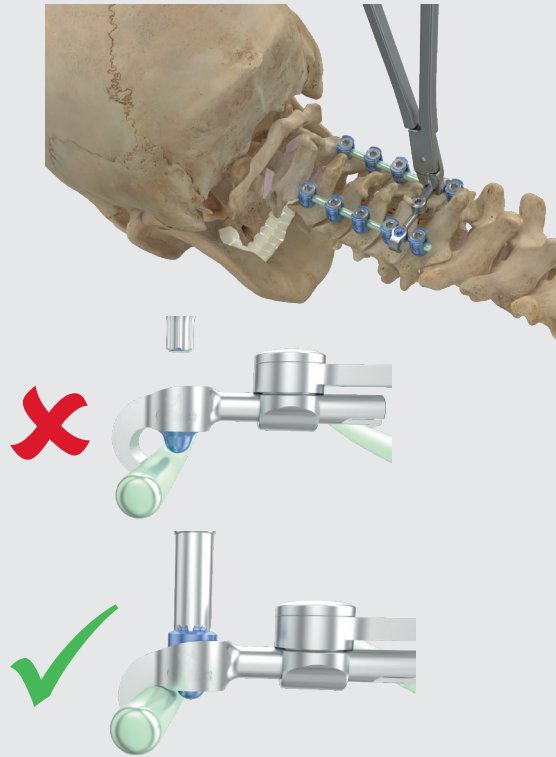


Fig. 23 Inserting and temporarily fixing the cross connector

## Final tightening using the cross connector counter torque

VI-0810  
VERTICALE CERVICAL  
CC Torque Limiter 2Nm



VI-0820  
VERTICALE CERVICAL  
CC Counter Torque



The VERTICALE Cervical CC Counter Torque is used to stabilize the rotation when tightening the cross connector set screw. The VERTICALE Cervical CC Torque Limiter (Torx 15) can then be guided by the counter torque and the cross connector set screws are tightened in their final position with a torque of 2 Nm (an audible click indicates that the torque has been reached). The same procedure must be repeated with all other cross connector set screws. Begin fixation with both lateral set screws prior to tightening the medial screw (Fig. 24).

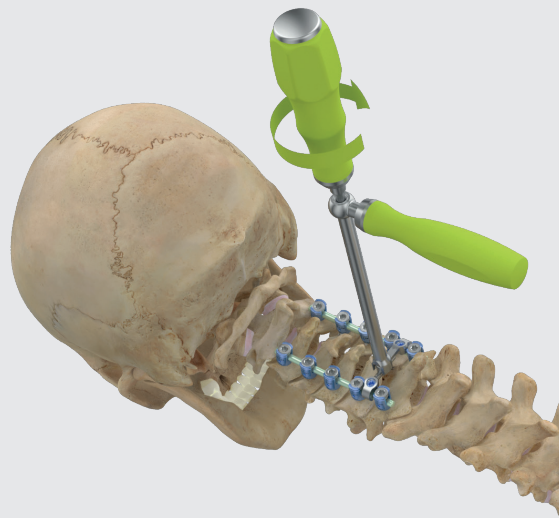


Fig. 24 Final tightening with the counter torque

# INSTRUMENTATION WITH THE VERTICALE<sup>®</sup> CERVICAL LATERAL CONNECTOR

## Preparing the lateral connector

VI-0330  
VERTICALE CERVICAL Rod  
Holder



VI-0421  
VERTICALE CERVICAL Setscrew  
Starter double



After removing the lateral connector from the sterile packaging, the pre-assembled set screws must first be completely unscrewed counter-clockwise with the double-sided VERTICALE Cervical Setscrew Starter.

## Inserting and temporarily fixing the lateral connector

VI-0330  
VERTICALE CERVICAL  
Rod Holder



VI-0421  
VERTICALE CERVICAL Setscrew  
Starter double



Place the lateral connector with the VERTICALE CERVICAL Rod Holder at the desired position between the VERTICALE CERVICAL rod and the VERTICALE CERVICAL pedicle screw. Use the VERTICALE CERVICAL Setscrew Starter double to first insert the set screw into the lateral connector and then into the tulip of the pedicle screw. The set screws are temporarily fixed with the VERTICALE CERVICAL Setscrew Starter double by tightening the screws hand-tight (Fig. 25).

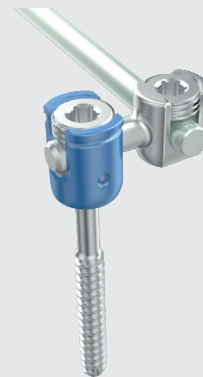


Fig. 25 Pedicle screw with lateral connector

## Final tightening using the counter torque

VI-0440  
VERTICALE CERVICAL Torque  
Limiter 3 Nm



VI-0450  
VERTICALE CERVICAL Counter  
Torque



The VERTICALE Cervical Counter Torque is used to stabilize the rotation when tightening the VERTICALE Cervical set screw. In order to insert the set screw with guidance, the counter torque is placed directly onto the screw head. The VERTICALE Cervical counter torque can be comfortably mounted parallel or at right angles to the rod. The VERTICALE Cervical Torque Limiter (Torx 20) can then be guided by the counter torque and the set screw is tightened in its final position with a torque of 3 Nm (an audible click indicates that the torque has been reached). The same procedure must be repeated with all other set screws.

We recommend ensuring that the set screw is correctly seated by repeatedly tightening with the torque limiter. This is confirmed by two clicking sounds.

# VERTICALE® CERVICAL OCCIPUT INSTRUMENTATION

## Determine plate position and shape

VI-0700  
VERTICALE CERVICAL Occiput  
Plate Holder



VI-0710  
VERTICALE CERVICAL OC Plate  
Bender right



VI-0711  
VERTICALE CERVICAL OC Plate  
Bender left



The VERTICALE Cervical Occiput Plate Holder is used to determine the appropriate plate positioning and screw placement. Three different designs of occiput plates are available. Choose the appropriate plate design for the patient's anatomy.

If required, use the plate bender to bend the plate to the desired shape. For bending the lateral wings of the plate insert them into the proximal part of the plate bender (Fig. 26). A self-retaining mechanism prevents the plate from falling down during bending. The area of the anchors can be bent by placing the distal flat end of the plate bender around the anchors. Gently bend the plate to the desired shape. The bending should be performed only in the bending zones to avoid damaging the area of the screw holes.

**NOTE:** The appropriate plate size and plate position should be determined by preoperative imaging techniques.

**NOTE:** Do not bend the plate more than 15°. Do not perform reverse bending of the plate in order not to decrease the fatigue life of the material.

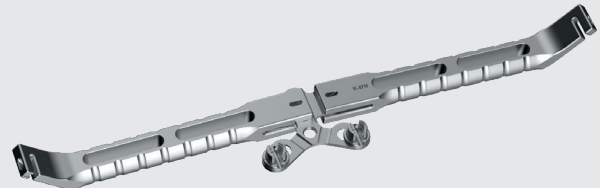
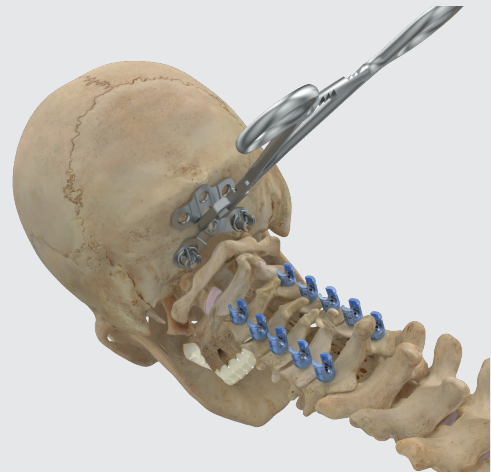


Fig. 26 Bending of the desired plate shape

# Drilling with occiput drills

VI-0700  
VERTICALE CERVICAL Occiput  
Plate Holder



VI-0720  
VERTICALE CERVICAL OC Drill  
Guide



VI-0731  
VERTICALE CERVICAL OC Drill,  
flexible\*



Insert the depth sleeve into the drill guide and set the depth sleeve to the required screw length. The adjustment of the length is made by pressing the button on the proximal part of the drill guide (Fig. 27). The corresponding screw length is indicated by the laser marking on the drill guide (Determine the appropriate screw dimension by preoperative planning). Drills are available as straight and flexible version (with universal joint for difficult anatomy)\*. All drills have a diameter of 3.4 mm. The drills can be used with one of the VERTICALE Cervical quick-coupling handles or with a power tool. If a power drill is used in combination with the flexible drill, avoid angulation of more than 45° of the universal joint during drilling as damage of the drill may occur. Place the tip of the drill guide in one of the holes for the occiput plate. Drill the initial occipital pilot hole in one of the midline holes to the appropriate depth and use intraoperative X-ray control if necessary (Fig. 28).

\* Further drill options are shown in the chapter "Instruments".

**NOTE:** Confirm the correct adjustment of the depth sleeve and the desired drill length prior to drilling! Please correct the position of the depth sleeve if necessary.

**NOTE:** Ensure the sharpness of the drill prior to drilling! In case of blunt drill, use a new one.

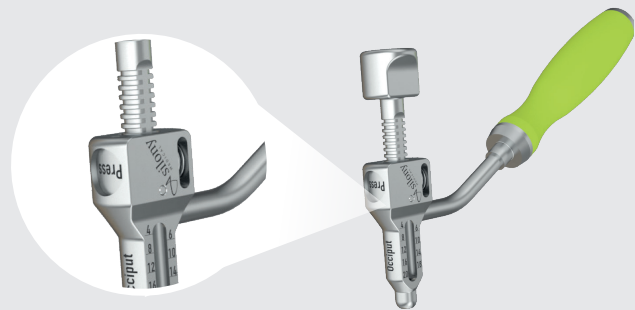


Fig. 27 Assemble the Drill Guide

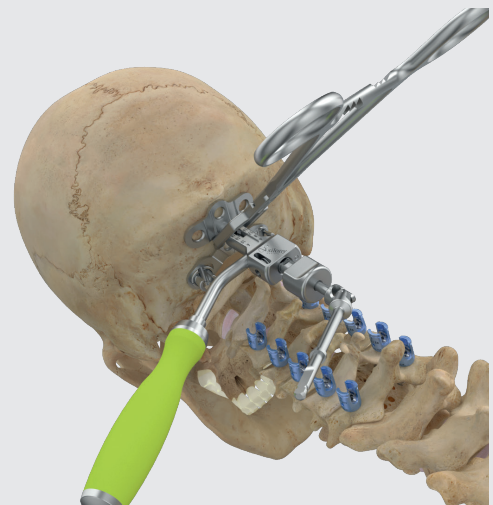
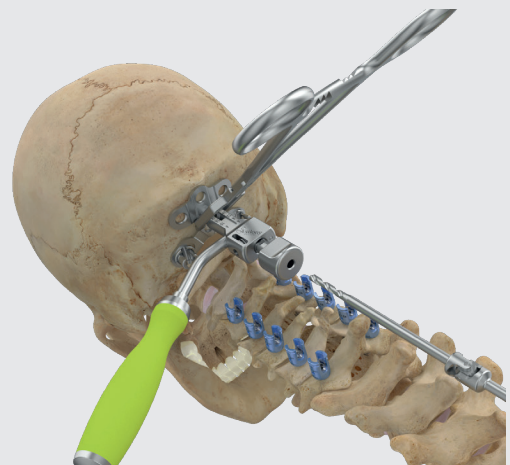


Fig. 28 Drilling the occiput screw holes

## Probing the occiput screw holes

VI-0025  
VERTICALE CERVICAL Pedicle  
Feeler



The one-sided VERTICALE Cervical Pedicle Feeler can be used to check the prepared screw channel for possible perforations (Fig. 29).

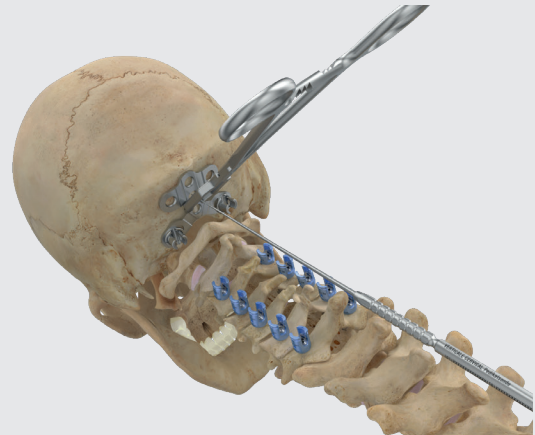


Fig. 29 Probing the occipital screw holes

## Determining the occiput screw dimension

VI-0030  
VERTICALE CERVICAL Depth  
Gauge



Use the VERTICALE Cervical Depth Gauge with markings between 8 and 56mm with increments of 2 mm to confirm the required screw dimension.

**NOTE:** Do not bend the depth gauge or push by force into the bone as damage of the instrument may occur, which may lead to false length indications. Please check, whether the tip of the depth gauge is intact. Use the depth gauge only if the tip is intact and the laser marking is clearly visible.

## Tapping with the occiput tap

VI-0700  
VERTICALE CERVICAL Occiput  
Plate Holder



VI-0720  
VERTICALE CERVICAL Occiput  
Drill Guide



VI-0741  
VERTICALE CERVICAL Occiput  
Taps, flexible\*



VI-0301  
VERTICALE CERVICAL T-Handle\*\*

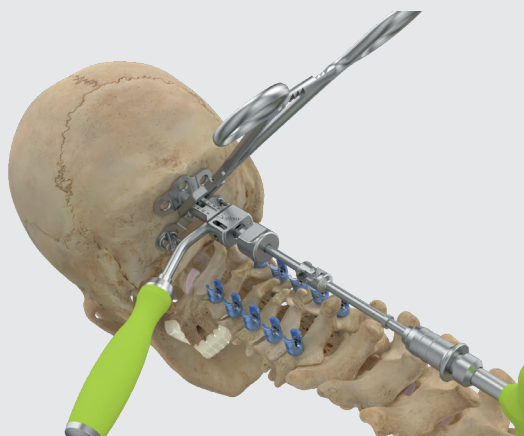


Fig. 30 Tapping the occiput screw holes

For very hard bone structures (e.g. sclerotic bone) it may be necessary to pre-tap the thread into the bone. Taps are available for screws with a diameter of 4.5 mm. The depth of the tapping is controlled by the depth sleeve of the drill guides (compare to chapter "Drilling with occiput drills").

The taps can be used with one of the VERTICALE Cervical quick-coupling handles. After selecting the appropriate handle, it is connected to the corresponding VERTICALE Cervical tap by locking into place (Fig. 30).

The screw channel is prepared clockwise. The thread on the VERTICALE Cervical Tap has a length of 16 mm. After cutting, the tap is disengaged by turning it counter clockwise.

\* Further taps are shown in the chapter "Instruments".

\*\* Further handle options are shown in the chapter "Instruments".

**NOTE:** Do not use power tool for tapping!

## Selection of occiput screws

To enable faster and easier identification, all VERTICLE Cervical screws are color coded by diameter, i.e. violet and silver for the 4.5 and 5.2 mm screws, respectively. The lengths vary between 4 and 20 mm by 2 mm increments. The 5.2 mm screw serves as a revision option.

## Inserting the occiput screws

VI-0700  
VERTICLE CERVICAL Occiput  
Plate Holder



VI-0751  
VERTICLE CERVICAL OC  
Screwdriver, flexible\*



VI-0761  
VERTICLE CERVICAL OC  
Counter Torque



The VERTICLE Cervical occiput bone screw is inserted with the VERTICLE Cervical Occiput Screwdriver. To do this, the torx of the screw driver is equipped with a self-retaining geometry that holds the occiput screw in place during handling. Insert the occiput bone screw into the prepared bone channel. The occiput bone screw is temporarily fixed by gently turning the screw driver clockwise. For difficult anatomy, a flexible screw driver with universal joint is also available. In order to support the guidance of the flexible screw driver, the occiput counter torque can be used as a guide (Fig. 31). Insert all other occiput bone screws in the same manner. Then, final tightening is performed with one of the occiput screw drivers.

\* Further occiput screwdriver options are shown in the chapter "Instruments".

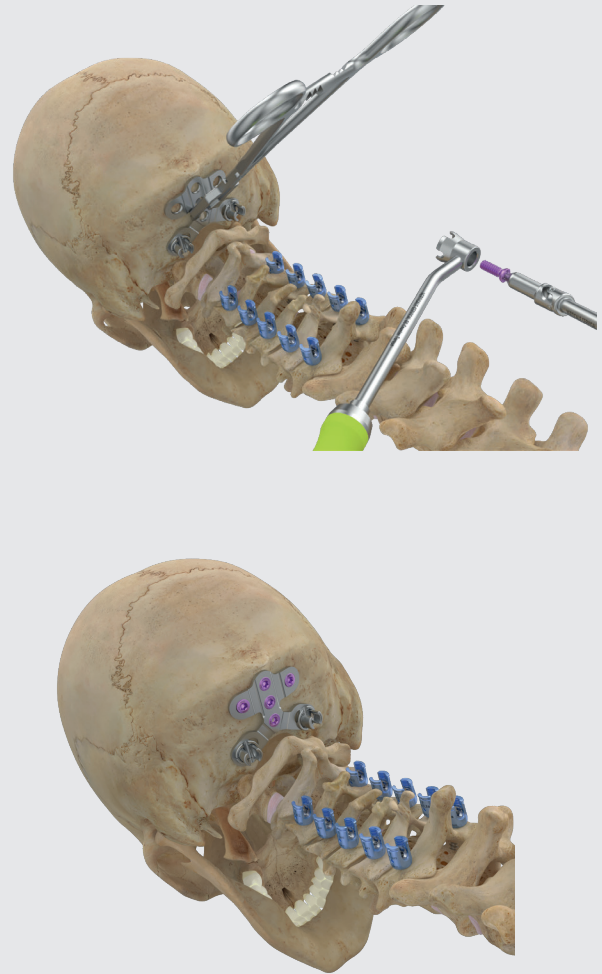


Fig. 31 Inserting the occiput screws



## Selecting and sizing the rods for occiput

VI-0535  
VERTICALE CERVICAL Phantom  
Rod



VI-0610  
VERTICALE CERVICAL Rod  
bender



VI-0611  
VERTICALE CERVICAL Rod  
Bending Tube



VI-0260  
VERTICALE CERVICAL Rod  
Cutter\*



Despite the standard rods, prebent rods are available especially for the occiput region with an angulation of 55° and two different diameters, i.e. 3.5 and 4.0 mm. Length of the prebent rod is 200 mm for the cervical part and 90 mm for the occipital part (Details can be found in the chapter “Implants”). For further individual anatomic adjustment of the rod, the VERTICALE Cervical Rod Bender or the VERTICALE Cervical Rod Bending Tubes can be used. Rods that are too long can be shortened with the VERTICALE Cervical Rod Cutter.

The VERTICALE Cervical Phantom Rod can be used to determine the required rod length and curvature. In order to estimate the required rod length, laser markings on the phantom rod are implemented in increments of 10 mm.

\* Further rod cutter are shown in the chapter “Instruments”.

**NOTE:** Any reverse bending of the rod decreases the integrity of the material and must be avoided. For this reason, bending of the rod should be performed gradually until the desired curvature is attained.

**NOTE:** When using the VERTICALE Cervical bending tubes, do not make sharp bends or reverse bending of the rods in order to avoid potential fatigue of the implant.

## Inserting the rods

VI-0330  
VERTICALE CERVICAL Rod  
Holder



The VERTICALE Cervical Rod Holder is used to place the bended rod into the anchors of the occiput plate as well as the tulips of the pedicle screws (Fig. 32).

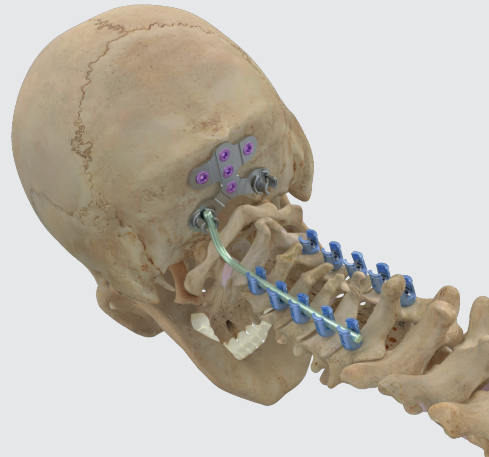


Fig. 32 Inserting the rods

## Temporarily tightening the set screw

VI-0750  
VERTICALE CERVICAL OC  
Screwdriver



The VERTICALE Cervical Set Screw is inserted with the VERTICALE Cervical screw driver. Insert the set screw into the anchor of the occiput plate. The rod is temporarily fixed by gently turning the set screw clockwise (Fig. 33).

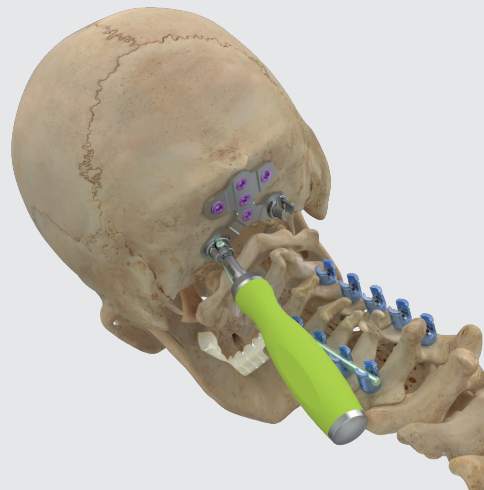


Fig. 33 Tightening the set screws

**NOTE:** Set screws should always be inserted with a smooth clockwise rotation. To prevent tilting, a brief prior counter clockwise rotation can facilitate insertion of the set screw into the first thread.

## Final tightening using the occiput counter torque

VI-0760  
VERTICALE CERVICAL OC Torque  
Limiter 3Nm



VI-0761  
VERTICALE CERVICAL OC  
Counter Torque



The VERTICALE Cervical Occiput Counter Torque is used to stabilize the rotation when tightening the VERTICALE Cervical set screw. In order to insert the set screw with guidance, the counter torque is placed directly onto the anchor of the occiput plate. The VERTICALE Cervical Occiput Counter Torque can be comfortably mounted parallel or at right angles to the rod. The VERTICALE Cervical Occiput Torque Limiter (Torx 20) can then be guided by the counter torque and the set screw is tightened in its final position with a torque of 3 Nm (an audible click indicates that the torque has been reached). The same procedure must be repeated with the other set screw within the anchor of the occiput plate (Fig. 34). We recommend ensuring that the set screw is correctly seated by repeatedly tightening with the torque limiter. This is confirmed by two clicking sounds.

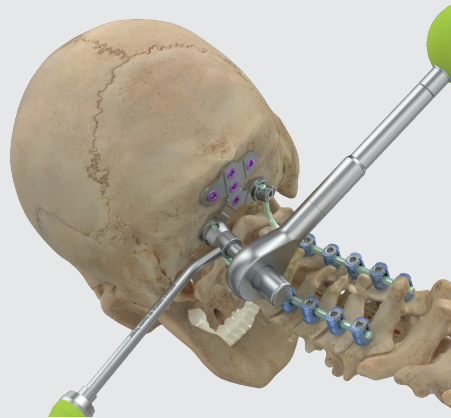


Fig. 34 Final tightening the set screws

## Verification

Please check the correct position of the plate, rods and screws by final X-ray.

The result of the instrumentation is verified using images in two planes from an image intensifier.

# CONNECTION OF VERTICALE® CERVICAL TO VERTICALE (THORACIC SPINE)

In order to combine the VERTICALE Cervical system with the VERTICALE system in the thoracic spine two options are available: Two different types of inline connectors as well as transition rods with different dual-diameters.

## Inserting and tightening the rod connector inline

VI-1830  
VERTICALE Rod and Cross  
Connector Holder\*



VI-1810  
VERTICALE T20 Screwdriver  
7 Nm\*



VERTICALE Cervical Rod Connectors inline are available for connecting the VERTICALE Cervical 3.5 or 4.0 mm rods lengthwise in order to enable a connection to be made between a new segment and a previously treated fusion segment using 5.5 mm rods.

The VERTICALE Rod and Cross Connector Holder is used to engage the VERTICALE Cervical Rod Connector Inline. Before the set screws are tightened, the 5.5 mm rod has to be inserted into the larger opening of the VERTICALE Cervical Rod Connector Inline as deeply as possible. This can be checked in the viewing panel between the two set screws. Then, either the 3.5 or the 4.0 mm VERTICALE Cervical rod is inserted into the smaller opening of the VERTICALE Cervical Rod Connector Inline. The final fixing into place is done by tightening the set screws with the VERTICALE T20 Screwdriver 7 Nm to a specified torque of 7 Nm (an audible click indicates that the torque has been reached). The same procedure must be repeated with all other set screws.

We recommend ensuring that the screw is correctly seated by repeatedly tightening with the torque limiter. This is confirmed by two clicking sounds.

\* Instrument contained in VERTICALE Open trays

## Inserting and tightening the rod connector triangle

VI-1820  
VERTICALE Domino Holder \*



VI-1810  
VERTICALE T20 Screwdriver  
7 Nm \*



The VERTICALE Domino Holder is used to engage the VERTICALE Cervical Rod Connector Triangle. Before the set screws are tightened, the 5.5 mm rod has to be inserted into the larger opening of the VERTICALE Cervical Rod Connector Triangle until both set screws have contact to the rod. Then, either the 3.5 or the 4.0 mm rod is inserted into the smaller opening of the VERTICALE Cervical Rod Connector Triangle. The final fixing into place is done by tightening the set screws with the VERTICALE T20 Screwdriver 7 Nm to a specified torque of 7 Nm (an audible click indicates that the torque has been reached). The same procedure must be repeated with all other set screws.

We recommend ensuring that the screw is correctly seated by repeatedly tightening with the torque limiter. This is confirmed by two clicking sounds.

\* Instrument contained in VERTICALE Open trays

**NOTE:** For using the VERTICALE Cervical Rod Connector (inline and Triangle), ensure that the end of the overlapping rod is long enough to be inserted into the connectors.

**NOTE:** For the connection of the VERTICALE Cervical Rod Connectors the VERTICALE Open trays are required and the final tightening has to be performed according to the VERTICALE Open instrumentation guide.

## Selecting and sizing the transition rods

VI-0535  
VERTICALE CERVICAL Phantom  
Rod



VI-0610  
VERTICALE CERVICAL Rod  
Bender



VI-0260  
VERTICALE CERVICAL Rod  
Cutter\*



VI-1261  
VERTICALE Rod Cutter, 5.5 mm\*\*



VI-1270  
VERTICALE French Bender\*\*



The VERTICALE Cervical system offers two dual diameter (transition) rods that can be connected to a thoracolumbar rod-screw-system with 5.5mm rods, i.e. 3.5 and 5.5 mm or 4.0 and 5.5 mm. Details can be found in chapter "Implants". Individual anatomic adjustment of the 3.5 and 4.0 mm diameter part of the transition rod can be performed according to the chapter: "Selecting and sizing the rods".

\* Further rod cutter are shown in the chapter "Instruments".

\*\* Instrument contained in VERTICALE Open trays

**NOTE:** For the rod bending and rod cutting steps for the 5.5 mm rods the VERTICALE Open Tray is required and the final tightening of the 5.5 mm rods has to be performed according to the VERTICALE Open instrumentation guide.

**NOTE:** Any reverse bending of the rod decreases the integrity of the material and must be avoided. For this reason, bending of the rod should be performed gradually until the desired curvature is attained.

# Implant removal procedure

To remove an implant, please execute the following steps as described. Pay special attention during the working steps on the loosened implants and screws.

## **Step 1: Removal of the Cross Connector**

Use the VERTICALE Cervical CC Torque Limiter 2Nm VI-0810 to loosen the set screw on both sides of the cross connector and the central position by turning the handle counterclockwise. The VERTICALE Cervical CC Counter Torque VI-0820 should be used to stabilize the rotation when loosening the set screws. Once the screws are loosened, use the VERTICALE Cervical Rod Holder VI-0330 to remove the cross connector from the rods.

## **Step 2: Removal of the Set Screws**

Insert the VERTICALE Cervical Torque Limiter 3Nm VI-0440 and turn the set screw counterclockwise until it loosens. The VERTICALE Cervical Counter Torque VI-0450 should be used to stabilize the rotation when loosening the set screw. All VERTICALE Cervical torque limiter are equipped with a self-retaining mechanism at the tip of the torque limiter. Therefore, the set screws are attached to the instrument and can be securely removed from the pedicle screws. Repeat this step until all set screws have been removed.

## **Step 3: Removal of the Lateral Offset Connector**

To remove a lateral offset connector ensure that the set screw of the connected pedicle or lateral-mass screw has already been removed. Otherwise remove the set screw as described in step 2.

For the lateral offset connector (tulip design) remove the set screw as described in Step 2. Once the set screw is removed, use the VERTICALE Cervical Rod Holder VI-0330 to remove the lateral offset connector from the rod and the pedicle screw.

## **Step 4: Removal of the Rods/ Inline Connector**

Once all of the set screws have been removed take the rod with the VERTICALE Cervical Rod Holder VI-0330 and lift it up to remove the rod from the screw heads.

To remove a rod-to-rod connector (Inline, Triangle), use the VERTICALE T20 Screwdriver VI-1810 or the VERTICAL Screwdriver Shaft VI-1446 to loosen the set screws by turning them counterclockwise.

Use the VERTICALE Bar and Cross Connector Forceps VI-1830 or the VERTICALE Domino Forceps VI-1820 to remove the rod-to-rod connector.

## **Step 5: Removal of the Pedicle Screws**

The VERTICALE Cervical Pedicle SD X15 VI-0130 or the VERTICALE Cervical PSD Inner Shaft VI-0130.3 is used to remove the VERTICALE Cervical pedicle screws. For attachment of the pedicle screw, the VERTICALE Cervical pedicle screw driver is fully inserted into the inner Torx of the screw shaft and rotated inwards via the sleeve of the pedicle screw driver. Rotate the screw driver counterclockwise until the screw is fully out of the bone.

You can also use the VERTICALE Cervical Pedicle SD Ballhead VI-0446 to remove the pedicle screws.

## **Step 6: Removal of the Occiput Plate**

Use the VERTICALE Cervical OC Screwdriver VI-0750 or the VERTICALE Cervical OC Screwdriver, flex VI-0751 to remove the set screws from the plate tulips. Remove the rod as described in step 4.

Use the VERTICALE Cervical OC Screwdriver VI-0750 or the VERTICALE Cervical OC Screwdriver, flex VI-0751 also for removing the occiput screws. Before removing the last occiput screw take the VERTICALE Cervical Occiput Plate Holder VI-0700 to hold the plate to prevent from traveling.

# VERTICALE® CERVICAL PRODUCT- INFORMATION

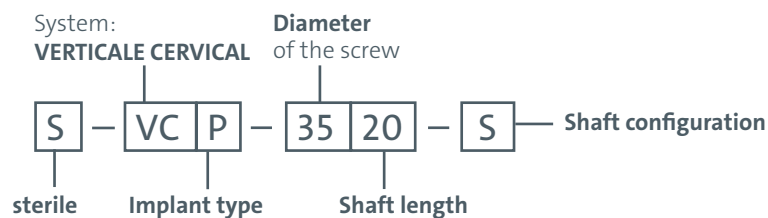
VERTICALE Implants by article number .....	PI 02 – 13
VERTICALE Instruments by article number .....	PI 14 – 17
VERTICALE Alphabetical Index .....	PI 18 – 19



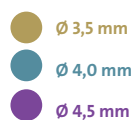
# VERTICALE® CERVICAL Implants

## Article number explanation for screws, as examples

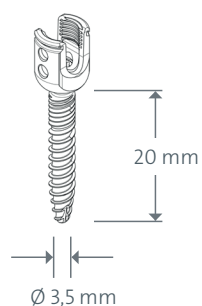
VERTICALE CERVICAL Poly Screw Ø 35 x 20 mm, solid



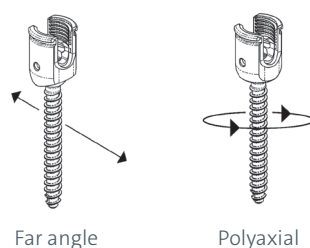
**Diameter**  
Differentiation by color coding



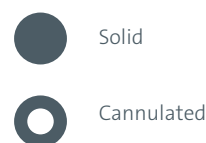
**Shaft dimensions**



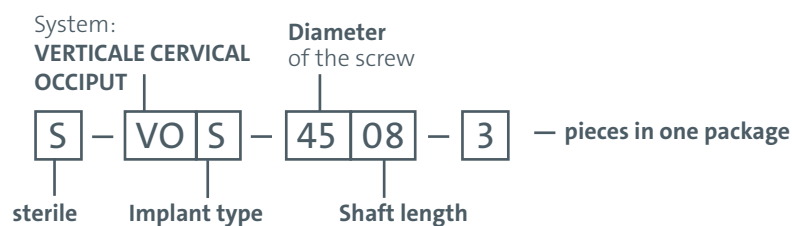
**Implant type – Axial Mobility**



**Shaft configuration – Shape**



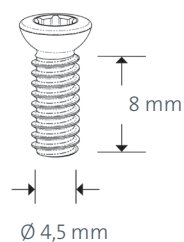
VERTICALE CERVICAL 3 Occi Screw 4,5 x 8 mm



**Diameter**  
Differentiation by color coding



**Shaft dimensions**



# VERTICALE® Cervical Occiput Implants

System:  
VERTICALE CERVICAL

Implant type:  
Occiput screw


Material:  
Ti6Al4V ELI

All articles are sterile  
packed.  
- 2:2 pieces in one package  
- 3:3 pieces in one package



Article number	Description	Illustration
S-VOS-4504-3	VERTICALE CERVICAL Occi 3 Screw 4.5 x 4 mm	
S-VOS-4506-3	VERTICALE CERVICAL Occi 3 Screw 4.5 x 6 mm	
S-VOS-4508-3	VERTICALE CERVICAL Occi 3 Screw 4.5 x 8 mm	
S-VOS-4510-3	VERTICALE CERVICAL Occi 3 Screw 4.5 x 10 mm	
S-VOS-4512-3	VERTICALE CERVICAL Occi 3 Screw 4.5 x 12 mm	
S-VOS-4514-3	VERTICALE CERVICAL Occi 3 Screw 4.5 x 14 mm	
S-VOS-4516-3	VERTICALE CERVICAL Occi 3 Screw 4.5 x 16 mm	
S-VOS-4518-3	VERTICALE CERVICAL Occi 3 Screw 4.5 x 18 mm	
S-VOS-4520-3	VERTICALE CERVICAL Occi 3 Screw 4.5 x 20 mm	
S-VOS-5204-3	VERTICALE CERVICAL Occi 3 Screw 5.2 x 4 mm	
S-VOS-5206-3	VERTICALE CERVICAL Occi 3 Screw 5.2 x 6 mm	
S-VOS-5208-3	VERTICALE CERVICAL Occi 3 Screw 5.2 x 8 mm	
S-VOS-5210-3	VERTICALE CERVICAL Occi 3 Screw 5.2 x 10 mm	
S-VOS-5212-3	VERTICALE CERVICAL Occi 3 Screw 5.2 x 12 mm	
S-VOS-5214-3	VERTICALE CERVICAL Occi 3 Screw 5.2 x 14 mm	
S-VOS-5216-3	VERTICALE CERVICAL Occi 3 Screw 5.2 x 16 mm	
S-VOS-5218-3	VERTICALE CERVICAL Occi 3 Screw 5.2 x 18 mm	
S-VOS-5220-3	VERTICALE CERVICAL Occi 3 Screw 5.2 x 20 mm	
S-VOS-4504-2	VERTICALE CERVICAL Occi 2 Screw 4.5 x 4 mm	
S-VOS-4506-2	VERTICALE CERVICAL Occi 2 Screw 4.5 x 6 mm	
S-VOS-4508-2	VERTICALE CERVICAL Occi 2 Screw 4.5 x 8 mm	
S-VOS-4510-2	VERTICALE CERVICAL Occi 2 Screw 4.5 x 10 mm	
S-VOS-4512-2	VERTICALE CERVICAL Occi 2 Screw 4.5 x 12 mm	
S-VOS-4514-2	VERTICALE CERVICAL Occi 2 Screw 4.5 x 14 mm	
S-VOS-4516-2	VERTICALE CERVICAL Occi 2 Screw 4.5 x 16 mm	
S-VOS-4518-2	VERTICALE CERVICAL Occi 2 Screw 4.5 x 18 mm	
S-VOS-4520-2	VERTICALE CERVICAL Occi 2 Screw 4.5 x 20 mm	

# VERTICALE® Cervical Occiput Implants

Article number	Description	Illustration
S-VOS-5204-2	VERTICALE CERVICAL Occi 2 Screw 5.2 x 4 mm	
S-VOS-5206-2	VERTICALE CERVICAL Occi 2 Screw 5.2 x 6 mm	
S-VOS-5208-2	VERTICALE CERVICAL Occi 2 Screw 5.2 x 8 mm	
S-VOS-5210-2	VERTICALE CERVICAL Occi 2 Screw 5.2 x 10 mm	
S-VOS-5212-2	VERTICALE CERVICAL Occi 2 Screw 5.2 x 12 mm	
S-VOS-5214-2	VERTICALE CERVICAL Occi 2 Screw 5.2 x 14 mm	
S-VOS-5216-2	VERTICALE CERVICAL Occi 2 Screw 5.2 x 16 mm	
S-VOS-5218-2	VERTICALE CERVICAL Occi 2 Screw 5.2 x 18 mm	
S-VOS-5220-2	VERTICALE CERVICAL Occi 2 Screw 5.2 x 20 mm	

System:  
VERTICALE CERVICAL

Implant type:  
Occiput screw




Material:  
Ti6Al4V ELI

All articles are sterile  
packed.

- 2:2 pieces in one package

- 3:3 pieces in one package



Article number	Description	Illustration
S-VOC-LAT-5	VERTICALE CERVICAL Occipital Pl. Lat. 5	
S-VOC-LAT-4	VERTICALE CERVICAL Occipital Pl. Lat. 4	
S-VOC-MID-3	VERTICALE CERVICAL Occipital Pl. Midl 3	

System:  
VERTICALE CERVICAL

Implant type:  
Occiput plate

Material:  
Ti6Al4V ELI

All articles are sterile  
packed.



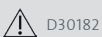
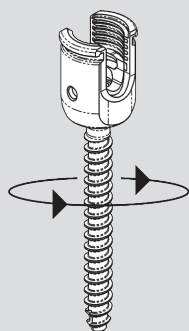
# VERTICALE® Cervical Implants

System:  
VERTICALE CERVICAL

Implant type:  
Polyaxial screw


Material:  
Ti6Al4V ELI

All articles are sterile  
packed and include set  
screw.



Article number	Description	Illustration
S-VCP-3510-S	VERTICALE CERVICAL Poly Scr 3.5 x 10 mm sol	
S-VCP-3512-S	VERTICALE CERVICAL Poly Scr 3.5 x 12 mm sol	
S-VCP-3514-S	VERTICALE CERVICAL Poly Scr 3.5 x 14 mm sol	
S-VCP-3516-S	VERTICALE CERVICAL Poly Scr 3.5 x 16 mm sol	
S-VCP-3518-S	VERTICALE CERVICAL Poly Scr 3.5 x 18 mm sol	
S-VCP-3520-S	VERTICALE CERVICAL Poly Scr 3.5 x 20 mm sol	
S-VCP-3522-S	VERTICALE CERVICAL Poly Scr 3.5 x 22 mm sol	
S-VCP-3524-S	VERTICALE CERVICAL Poly Scr 3.5 x 24 mm sol	
S-VCP-3526-S	VERTICALE CERVICAL Poly Scr 3.5 x 26 mm sol	
S-VCP-3528-S	VERTICALE CERVICAL Poly Scr 3.5 x 28 mm sol	
S-VCP-3530-S	VERTICALE CERVICAL Poly Scr 3.5 x 30 mm sol	
S-VCP-4014-S	VERTICALE CERVICAL Poly Scr 4.0 x 14 mm sol	
S-VCP-4016-S	VERTICALE CERVICAL Poly Scr 4.0 x 16 mm sol	
S-VCP-4018-S	VERTICALE CERVICAL Poly Scr 4.0 x 18 mm sol	
S-VCP-4020-S	VERTICALE CERVICAL Poly Scr 4.0 x 20 mm sol	
S-VCP-4022-S	VERTICALE CERVICAL Poly Scr 4.0 x 22 mm sol	
S-VCP-4024-S	VERTICALE CERVICAL Poly Scr 4.0 x 24 mm sol	
S-VCP-4026-S	VERTICALE CERVICAL Poly Scr 4.0 x 26 mm sol	
S-VCP-4028-S	VERTICALE CERVICAL Poly Scr 4.0 x 28 mm sol	
S-VCP-4030-S	VERTICALE CERVICAL Poly Scr 4.0 x 30 mm sol	
S-VCP-4032-S	VERTICALE CERVICAL Poly Scr 4.0 x 32 mm sol	
S-VCP-4034-S	VERTICALE CERVICAL Poly Scr 4.0 x 34 mm sol	
S-VCP-4036-S	VERTICALE CERVICAL Poly Scr 4.0 x 36 mm sol	
S-VCP-4038-S	VERTICALE CERVICAL Poly Scr 4.0 x 38 mm sol	
S-VCP-4040-S	VERTICALE CERVICAL Poly Scr 4.0 x 40 mm sol	
S-VCP-4042-S	VERTICALE CERVICAL Poly Scr 4.0 x 42 mm sol	
S-VCP-4044-S	VERTICALE CERVICAL Poly Scr 4.0 x 44 mm sol	
S-VCP-4046-S	VERTICALE CERVICAL Poly Scr 4.0 x 46 mm sol	
S-VCP-4048-S	VERTICALE CERVICAL Poly Scr 4.0 x 48 mm sol	
S-VCP-4050-S	VERTICALE CERVICAL Poly Scr 4.0 x 50 mm sol	
S-VCP-4052-S	VERTICALE CERVICAL Poly Scr 4.0 x 52 mm sol	
S-VCP-4054-S	VERTICALE CERVICAL Poly Scr 4.0 x 54 mm sol	
S-VCP-4056-S	VERTICALE CERVICAL Poly Scr 4.0 x 56 mm sol	

# VERTICALE® Cervical Implants

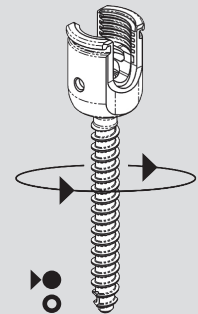
Article number	Description	Illustration
S-VCP-4520-S	VERTICALE CERVICAL Poly Scr 4.5 x 20 mm sol	
S-VCP-4525-S	VERTICALE CERVICAL Poly Scr 4.5 x 25 mm sol	
S-VCP-4530-S	VERTICALE CERVICAL Poly Scr 4.5 x 30 mm sol	
S-VCP-4535-S	VERTICALE CERVICAL Poly Scr 4.5 x 35 mm sol	
S-VCP-4540-S	VERTICALE CERVICAL Poly Scr 4.5 x 40 mm sol	
S-VCP-4545-S	VERTICALE CERVICAL Poly Scr 4.5 x 45 mm sol	
S-VCP-4550-S	VERTICALE CERVICAL Poly Scr 4.5 x 50 mm sol	
S-VCP-4555-S	VERTICALE CERVICAL Poly Scr 4.5 x 55 mm sol	

System:  
VERTICALE CERVICAL

Implant type:  
Polyaxial screw

Material:  
Ti6Al4V ELI

All articles are sterile  
packed and include set  
screw.



 D30182

# VERTICALE® Cervical Implants

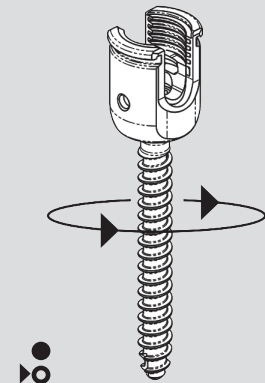
System:  
VERTICALE CERVICAL

Implant type:  
Polyaxial screw

Typing:  
cannulated

Material:  
Ti6Al4V ELI

All articles are sterile  
packed and include set  
screw.



! D30182

Article number	Description	Illustration
S-VCP-4014-K	VERTICALE CERVICAL Poly Scr 4.0 x 14 mm can	
S-VCP-4016-K	VERTICALE CERVICAL Poly Scr 4.0 x 16 mm can	
S-VCP-4018-K	VERTICALE CERVICAL Poly Scr 4.0 x 18 mm can	
S-VCP-4020-K	VERTICALE CERVICAL Poly Scr 4.0 x 20 mm can	
S-VCP-4022-K	VERTICALE CERVICAL Poly Scr 4.0 x 22 mm can	
S-VCP-4024-K	VERTICALE CERVICAL Poly Scr 4.0 x 24 mm can	
S-VCP-4026-K	VERTICALE CERVICAL Poly Scr 4.0 x 26 mm can	
S-VCP-4028-K	VERTICALE CERVICAL Poly Scr 4.0 x 28 mm can	
S-VCP-4030-K	VERTICALE CERVICAL Poly Scr 4.0 x 30 mm can	
S-VCP-4032-K	VERTICALE CERVICAL Poly Scr 4.0 x 32 mm can	
S-VCP-4034-K	VERTICALE CERVICAL Poly Scr 4.0 x 34 mm can	
S-VCP-4036-K	VERTICALE CERVICAL Poly Scr 4.0 x 36 mm can	
S-VCP-4038-K	VERTICALE CERVICAL Poly Scr 4.0 x 38 mm can	
S-VCP-4040-K	VERTICALE CERVICAL Poly Scr 4.0 x 40 mm can	
S-VCP-4042-K	VERTICALE CERVICAL Poly Scr 4.0 x 42 mm can	
S-VCP-4044-K	VERTICALE CERVICAL Poly Scr 4.0 x 44 mm can	
S-VCP-4046-K	VERTICALE CERVICAL Poly Scr 4.0 x 46 mm can	
S-VCP-4048-K	VERTICALE CERVICAL Poly Scr 4.0 x 48 mm can	
S-VCP-4050-K	VERTICALE CERVICAL Poly Scr 4.0 x 50 mm can	
S-VCP-4052-K	VERTICALE CERVICAL Poly Scr 4.0 x 52 mm can	
S-VCP-4054-K	VERTICALE CERVICAL Poly Scr 4.0 x 54 mm can	
S-VCP-4056-K	VERTICALE CERVICAL Poly Scr 4.0 x 56 mm can	
S-VCP-4520-K	VERTICALE CERVICAL Poly Scr 4.5 x 20 mm can	
S-VCP-4525-K	VERTICALE CERVICAL Poly Scr 4.5 x 25 mm can	
S-VCP-4530-K	VERTICALE CERVICAL Poly Scr 4.5 x 30 mm can	
S-VCP-4535-K	VERTICALE CERVICAL Poly Scr 4.5 x 35 mm can	
S-VCP-4540-K	VERTICALE CERVICAL Poly Scr 4.5 x 40 mm can	
S-VCP-4545-K	VERTICALE CERVICAL Poly Scr 4.5 x 45 mm can	
S-VCP-4550-K	VERTICALE CERVICAL Poly Scr 4.5 x 50 mm can	
S-VCP-4555-K	VERTICALE CERVICAL Poly Scr 4.5 x 55 mm can	

# VERTICALE® Cervical Implants

Article number	Description	Illustration
S-VCP-4020-SG	VERTICALE CERVICAL Poly smooth 4 x 20 mm s	
S-VCP-4022-SG	VERTICALE CERVICAL Poly smooth 4 x 22 mm s	
S-VCP-4024-SG	VERTICALE CERVICAL Poly smooth 4 x 24 mm s	
S-VCP-4026-SG	VERTICALE CERVICAL Poly smooth 4 x 26 mm s	
S-VCP-4028-SG	VERTICALE CERVICAL Poly smooth 4 x 28 mm s	
S-VCP-4030-SG	VERTICALE CERVICAL Poly smooth 4 x 30 mm s	
S-VCP-4032-SG	VERTICALE CERVICAL Poly smooth 4 x 32 mm s	
S-VCP-4034-SG	VERTICALE CERVICAL Poly smooth 4 x 34 mm s	
S-VCP-4036-SG	VERTICALE CERVICAL Poly smooth 4 x 36 mm s	
S-VCP-4020-KG	VERTICALE CERVICAL Poly smooth 4 x 20 mm c	
S-VCP-4022-KG	VERTICALE CERVICAL Poly smooth 4 x 22 mm c	
S-VCP-4024-KG	VERTICALE CERVICAL Poly smooth 4 x 24 mm c	
S-VCP-4026-KG	VERTICALE CERVICAL Poly smooth 4 x 26 mm c	
S-VCP-4028-KG	VERTICALE CERVICAL Poly smooth 4 x 28 mm c	
S-VCP-4030-KG	VERTICALE CERVICAL Poly smooth 4 x 30 mm c	
S-VCP-4032-KG	VERTICALE CERVICAL Poly smooth 4 x 32 mm c	
S-VCP-4034-KG	VERTICALE CERVICAL Poly smooth 4 x 34 mm c	
S-VCP-4036-KG	VERTICALE CERVICAL Poly smooth 4 x 36 mm c	

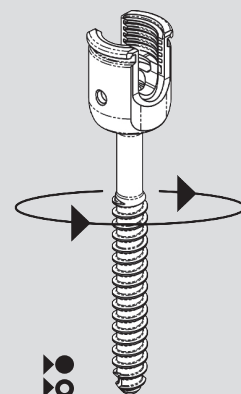
System:  
VERTICALE CERVICAL


Implant type:  
Polyaxial screw

Typing:  
smooth, cannulated

Material:  
Ti6Al4V ELI

All articles are sterile  
packed and include set  
screw.



 D30182

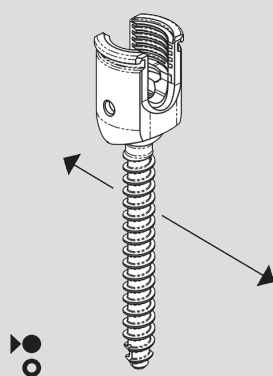
# VERTICALE® Cervical Implants


System:  
VERTICALE CERVICAL

Implant type:  
Far angle screw

Material:  
Ti6Al4V ELI

All articles are sterile  
packed and include set  
screw.




 D30182

Article number	Description	Illustration
S-VCF-3510-S	VERTICALE CERVICAL FA Scr 3.5 x 10 mm solid	
S-VCF-3512-S	VERTICALE CERVICAL FA Scr 3.5 x 12 mm solid	
S-VCF-3514-S	VERTICALE CERVICAL FA Scr 3.5 x 14 mm solid	
S-VCF-3516-S	VERTICALE CERVICAL FA Scr 3.5 x 16 mm solid	
S-VCF-3518-S	VERTICALE CERVICAL FA Scr 3.5 x 18 mm solid	
S-VCF-3520-S	VERTICALE CERVICAL FA Scr 3.5 x 20 mm solid	
S-VCF-3522-S	VERTICALE CERVICAL FA Scr 3.5 x 22 mm solid	
S-VCF-3524-S	VERTICALE CERVICAL FA Scr 3.5 x 24 mm solid	
S-VCF-3526-S	VERTICALE CERVICAL FA Scr 3.5 x 26 mm solid	
S-VCF-3528-S	VERTICALE CERVICAL FA Scr 3.5 x 28 mm solid	
S-VCF-3530-S	VERTICALE CERVICAL FA Scr 3.5 x 30 mm solid	
S-VCF-4014-S	VERTICALE CERVICAL FA Scr 4.0 x 14 mm solid	
S-VCF-4016-S	VERTICALE CERVICAL FA Scr 4.0 x 16 mm solid	
S-VCF-4018-S	VERTICALE CERVICAL FA Scr 4.0 x 18 mm solid	
S-VCF-4020-S	VERTICALE CERVICAL FA Scr 4.0 x 20 mm solid	
S-VCF-4022-S	VERTICALE CERVICAL FA Scr 4.0 x 22 mm solid	
S-VCF-4024-S	VERTICALE CERVICAL FA Scr 4.0 x 24 mm solid	
S-VCF-4026-S	VERTICALE CERVICAL FA Scr 4.0 x 26 mm solid	
S-VCF-4028-S	VERTICALE CERVICAL FA Scr 4.0 x 28 mm solid	
S-VCF-4030-S	VERTICALE CERVICAL FA Scr 4.0 x 30 mm solid	
S-VCF-4032-S	VERTICALE CERVICAL FA Scr 4.0 x 32 mm solid	
S-VCF-4034-S	VERTICALE CERVICAL FA Scr 4.0 x 34 mm solid	
S-VCF-4036-S	VERTICALE CERVICAL FA Scr 4.0 x 36 mm solid	
S-VCF-4038-S	VERTICALE CERVICAL FA Scr 4.0 x 38 mm solid	
S-VCF-4040-S	VERTICALE CERVICAL FA Scr 4.0 x 40 mm solid	
S-VCF-4042-S	VERTICALE CERVICAL FA Scr 4.0 x 42 mm solid	
S-VCF-4044-S	VERTICALE CERVICAL FA Scr 4.0 x 44 mm solid	
S-VCF-4046-S	VERTICALE CERVICAL FA Scr 4.0 x 46 mm solid	
S-VCF-4048-S	VERTICALE CERVICAL FA Scr 4.0 x 48 mm solid	
S-VCF-4050-S	VERTICALE CERVICAL FA Scr 4.0 x 50 mm solid	
S-VCF-4052-S	VERTICALE CERVICAL FA Scr 4.0 x 52 mm solid	
S-VCF-4054-S	VERTICALE CERVICAL FA Scr 4.0 x 54 mm solid	
S-VCF-4056-S	VERTICALE CERVICAL FA Scr 4.0 x 56 mm solid	



# VERTICALE® Cervical Implants

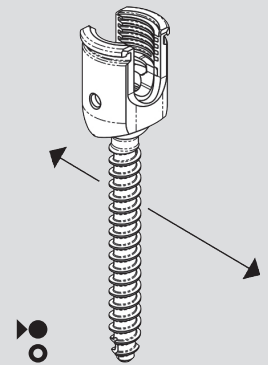
Article number	Description	Illustration
S-VCF-4520-S	VERTICALE CERVICAL FA Scr 4.5 x 20 mm solid	
S-VCF-4525-S	VERTICALE CERVICAL FA Scr 4.5 x 25 mm solid	
S-VCF-4530-S	VERTICALE CERVICAL FA Scr 4.5 x 30 mm solid	
S-VCF-4535-S	VERTICALE CERVICAL FA Scr 4.5 x 35 mm solid	
S-VCF-4540-S	VERTICALE CERVICAL FA Scr 4.5 x 40 mm solid	
S-VCF-4545-S	VERTICALE CERVICAL FA Scr 4.5 x 45 mm solid	
S-VCF-4550-S	VERTICALE CERVICAL FA Scr 4.5 x 50 mm solid	
S-VCF-4555-S	VERTICALE CERVICAL FA Scr 4.5 x 55 mm solid	

System:  
VERTICALE CERVICAL

Implant type:  
Far angle screw

Material:  
Ti6Al4V ELI

All articles are sterile  
packed and include set  
screw.



⚠ D30182

# VERTICALE® Cervical Implants

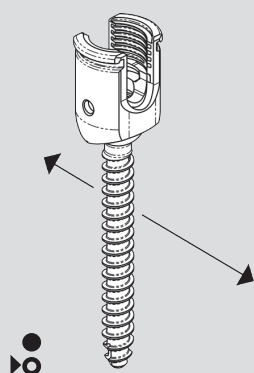
System:  
VERTICALE CERVICAL

Implant type:  
Far angle screw

Typing:  
cannulated

Material:  
Ti6Al4V ELI

All articles are sterile  
packed and include set  
screw.



 D30182

Article number	Description	Illustration
S-VCF-4014-K	VERTICALE CERVICAL FA Scr 4.0 x 14 mm can	
S-VCF-4016-K	VERTICALE CERVICAL FA Scr 4.0 x 16 mm can	
S-VCF-4018-K	VERTICALE CERVICAL FA Scr 4.0 x 18 mm can	
S-VCF-4020-K	VERTICALE CERVICAL FA Scr 4.0 x 20 mm can	
S-VCF-4022-K	VERTICALE CERVICAL FA Scr 4.0 x 22 mm can	
S-VCF-4024-K	VERTICALE CERVICAL FA Scr 4.0 x 24 mm can	
S-VCF-4026-K	VERTICALE CERVICAL FA Scr 4.0 x 26 mm can	
S-VCF-4028-K	VERTICALE CERVICAL FA Scr 4.0 x 28 mm can	
S-VCF-4030-K	VERTICALE CERVICAL FA Scr 4.0 x 30 mm can	
S-VCF-4032-K	VERTICALE CERVICAL FA Scr 4.0 x 32 mm can	
S-VCF-4034-K	VERTICALE CERVICAL FA Scr 4.0 x 34 mm can	
S-VCF-4036-K	VERTICALE CERVICAL FA Scr 4.0 x 36 mm can	
S-VCF-4038-K	VERTICALE CERVICAL FA Scr 4.0 x 38 mm can	
S-VCF-4040-K	VERTICALE CERVICAL FA Scr 4.0 x 40 mm can	
S-VCF-4042-K	VERTICALE CERVICAL FA Scr 4.0 x 42 mm can	
S-VCF-4044-K	VERTICALE CERVICAL FA Scr 4.0 x 44 mm can	
S-VCF-4046-K	VERTICALE CERVICAL FA Scr 4.0 x 46 mm can	
S-VCF-4048-K	VERTICALE CERVICAL FA Scr 4.0 x 48 mm can	
S-VCF-4050-K	VERTICALE CERVICAL FA Scr 4.0 x 50 mm can	
S-VCF-4052-K	VERTICALE CERVICAL FA Scr 4.0 x 52 mm can	
S-VCF-4054-K	VERTICALE CERVICAL FA Scr 4.0 x 54 mm can	
S-VCF-4056-K	VERTICALE CERVICAL FA Scr 4.0 x 56 mm can	
S-VCF-4520-K	VERTICALE CERVICAL FA Scr 4.5 x 20 mm can	
S-VCF-4525-K	VERTICALE CERVICAL FA Scr 4.5 x 25 mm can	
S-VCF-4530-K	VERTICALE CERVICAL FA Scr 4.5 x 30 mm can	
S-VCF-4535-K	VERTICALE CERVICAL FA Scr 4.5 x 35 mm can	
S-VCF-4540-K	VERTICALE CERVICAL FA Scr 4.5 x 40 mm can	
S-VCF-4545-K	VERTICALE CERVICAL FA Scr 4.5 x 45 mm can	
S-VCF-4550-K	VERTICALE CERVICAL FA Scr 4.5 x 50 mm can	
S-VCF-4555-K	VERTICALE CERVICAL FA Scr 4.5 x 55 mm can	

# VERTICALE® Cervical Implants

Article number	Description	Illustration
S-VCF-4020-SG	VERTICALE CERVICAL FA smooth 4 x 20 mm sol	
S-VCF-4022-SG	VERTICALE CERVICAL FA smooth 4 x 22 mm sol	
S-VCF-4024-SG	VERTICALE CERVICAL FA smooth 4 x 24 mm sol	
S-VCF-4026-SG	VERTICALE CERVICAL FA smooth 4 x 26 mm sol	
S-VCF-4028-SG	VERTICALE CERVICAL FA smooth 4 x 28 mm sol	
S-VCF-4030-SG	VERTICALE CERVICAL FA smooth 4 x 30 mm sol	
S-VCF-4032-SG	VERTICALE CERVICAL FA smooth 4 x 32 mm sol	
S-VCF-4034-SG	VERTICALE CERVICAL FA smooth 4 x 34 mm sol	
S-VCF-4036-SG	VERTICALE CERVICAL FA smooth 4 x 36 mm sol	
S-VCF-4020-KG	VERTICALE CERVICAL FA smooth 4 x 20 mm can	
S-VCF-4022-KG	VERTICALE CERVICAL FA smooth 4 x 22 mm can	
S-VCF-4024-KG	VERTICALE CERVICAL FA smooth 4 x 24 mm can	
S-VCF-4026-KG	VERTICALE CERVICAL FA smooth 4 x 26 mm can	
S-VCF-4028-KG	VERTICALE CERVICAL FA smooth 4 x 28 mm can	
S-VCF-4030-KG	VERTICALE CERVICAL FA smooth 4 x 30 mm can	
S-VCF-4032-KG	VERTICALE CERVICAL FA smooth 4 x 32 mm can	
S-VCF-4034-KG	VERTICALE CERVICAL FA smooth 4 x 34 mm can	
S-VCF-4036-KG	VERTICALE CERVICAL FA smooth 4 x 36 mm can	

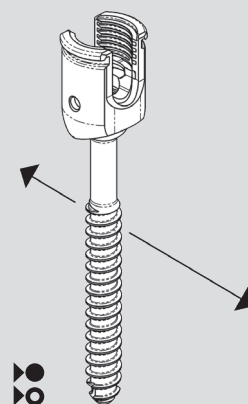
System:  
VERTICALE CERVICAL

Implant type:  
Far angle screw

Typing:  
smooth, cannulated

Material:  
Ti6Al4V ELI

All articles are sterile  
packed and include set  
screw.



 D30182

# VERTICALE® Cervical Implants








System:  
VERTICALE CERVICAL

Implant type:  
Set Screw / connector

Material:  
Ti6Al4V ELI

All articles are sterile  
packed.

\* Package includes 2  
items

Article number	Description	Illustration
S-VMS-1020	VERTICALE CERVICAL Set Screw X20*	
S-VCC-2833	VERTICALE CERVICAL Cross Connect 28-33 mm	
S-VCC-3241	VERTICALE CERVICAL Cross Connect 32-41 mm	
S-VCC-4057	VERTICALE CERVICAL Cross Connect 40-57 mm	
S-VCI-4035-I55	VERTICALE CERVICAL RC Inl 5.5 to 3.5/4 mm	
S-VCI-4035-T55	VERTICALE CERVICAL RC Tri 5.5 to 3.5/4 mm	
S-VCL-TUL	VERTICALE CERVICAL Lateral TUL Conn	

System:  
VERTICALE CERVICAL


Implant type:  
Rod

Type:  
Prebent, straight,  
transition

Material:  
Ti6Al4V ELI

All articles are sterile  
packed.

All packages include 2  
items.

 D30182

Article number	Description	Illustration
S-VOR-3520-P55	VERTICALE CERVICAL Rod Pre 3.5/200 mm 55°	
S-VOR-4020-P55	VERTICALE CERVICAL Rod Pre 4.0/200 mm 55°	
S-VCR-3506-S	VERTICALE CERVICAL Rod 3.5/60 mm	
S-VCR-3512-S	VERTICALE CERVICAL Rod 3.5/120 mm	
S-VCR-3524-S	VERTICALE CERVICAL Rod 3.5/240 mm	
S-VCR-4006-S	VERTICALE CERVICAL Rod 4.0/60 mm	
S-VCR-4012-S	VERTICALE CERVICAL Rod 4.0/120 mm	
S-VCR-4024-S	VERTICALE CERVICAL Rod 4.0/240 mm	
S-VCR-5535-T	VERTICALE CERVICAL Rod Trans. 5.5/3.5 mm	
S-VCR-5540-T	VERTICALE CERVICAL Rod Trans. 5.5/4.0 mm	

# VERTICALE® Cervical Instruments

Article number	Description	Illustration	Page
VI-0010	VERTICALE CERVICAL Awl with stop		7
VI-0020	VERTICALE CERVICAL Probe, straight		7,9
VI-0025	VERTICALE CERVICAL Pedicle Feeler		7,26
VI-0030	VERTICALE CERVICAL Depth Gauge		9,26
VI-0035	VERTICALE CERVICAL Tap 3.5 mm standard		10
VI-0040	VERTICALE CERVICAL Tap 4.0 mm standard		10
VI-0041	VERTICALE CERVICAL Tap 4.0 mm std, can		10
VI-0130	VERTICALE CERVICAL Pedicle SD		12,13
VI-0135	VERTICALE CERVICAL Tap 3.5 mm XL		10
VI-0140	VERTICALE CERVICAL Tap 4.0 mm XL		10
VI-0141	VERTICALE CERVICAL Tap 4.0 mm XL, can		10
VI-0235	VERTICALE CERVICAL Drill 2.4 mm standard		8
VI-0240	VERTICALE CERVICAL Drill 2.9 mm standard		8
VI-0335	VERTICALE CERVICAL Drill 2.4 mm XL		8
VI-0340	VERTICALE CERVICAL Drill 2.9 mm XL		8



# VERTICALE® Cervical Instruments

Article number	Description	Illustration	Page
VI-0201	VERTICALE CERVICAL Straight Handle, can		12, 13
VI-0211	VERTICALE CERVICAL Straight Handle Rat can		12, 13
VI-0230	VERTICALE CERVICAL DRILL GUIDE STD		8, 10
VI-0256	VERTICALE CERVICAL Drill Guide XL		8, 10
VI-0258	VERTICALE CERVICAL Guide Wire 1.3 x 470 mm		
VI-0260	VERTICALE CERVICAL Rod Cutter		15, 29, 34
VI-0261	VERTICALE CERVICAL Rod Cutter, In-Situ		15, 34
VI-0301	VERTICALE CERVICAL T-Handle, cannulated		10, 27
VI-0311	VERTICALE CERVICAL T-Handle, Ratchet		10, 27
VI-0330	VERTICALE CERVICAL Rod Holder		16, 20, 21, 22, 30
VI-0350	VERTICALE CERVICAL Rod + Tulip Adjuster		14, 16
VI-0360	VERTICALE CERVICAL Reduction Instrument		19
VI-0421	VERTICALE CERVICAL Setscrew Starter dbl		16, 19, 22
VI-0440	VERTICALE CERVICAL Torque Limiter 3Nm		17, 23
VI-0446	VERTICALE CERVICAL Pedicle SD Ballhead		14
VI-0450	VERTICALE CERVICAL Counter Torque		17, 23
VI-0535	VERTICALE CERVICAL Phantom Rod 3.5 x 200 mm		15, 29, 34

# VERTICALE® Cervical Instruments

Article number	Description	Illustration	Page
VI-0610	VERTICALE CERVICAL Rod Bender		15, 29, 34
VI-0611	VERTICALE CERVICAL Rod Bending Tube		29
VI-0620	VERTICALE CERVICAL Distraction Pliers		18
VI-0630	VERTICALE CERVICAL Compression Pliers		18
VI-0700	VERTICALE CERVICAL Occiput Plate Holder		24, 25, 27, 28
VI-0710	VERTICALE CERVICAL OC Plate Bender right		24
VI-0711	VERTICALE CERVICAL OC Plate Bender left		24
VI-0720	VERTICALE CERVICAL OC Drill Guide		25, 27
VI-0730	VERTICALE CERVICAL OC Drill, straight		25
VI-0731	VERTICALE CERVICAL OC Drill, flexible		25
VI-0740	VERTICALE CERVICAL OC Taps, straight		27
VI-0741	VERTICALE CERVICAL OC Taps, flexible		27
VI-0750	VERTICALE CERVICAL OC Screwdriver		30
VI-0751	VERTICALE CERVICAL OC Screwdriver, flex.		28
VI-0752	VERTICALE CERVICAL OC Screw Driver short		28
VI-0760	VERTICALE CERVICAL OC Torque Limiter 3 Nm		31
VI-0761	VERTICALE CERVICAL OC Counter Torque		28, 31

## VERTICALE® Cervical Instruments

Article number	Description	Illustration	Page
VI-0810	VERTICALE CERVICAL CC Torque Limiter 2Nm		20, 21
VI-0820	VERTICALE CERVICAL CC Counter Torque		21
VI-0830	VERTICALE CERVICAL Cross Connector Sizer		20



# VERTICAL<sup>®</sup> Alphabetic index

A–Z	Description	Article number	Page
<b>A</b>	VERTICAL CERVICAL Awl with stop	VI-0010	7, PI 14
<b>C</b>	VERTICAL CERVICAL CC Counter Torque	VI-0820	21, PI 17
	VERTICAL CERVICAL CC Torque Limiter 2Nm	VI-0810	20, 21, PI 17
	VERTICAL CERVICAL Counter Torque	VI-0450	17, 23 PI 15
	VERTICAL CERVICAL Compression Pliers	VI-0630	18, PI 16
	VERTICAL CERVICAL Cross Connector Sizer	VI-0830	20, PI 17
<b>D</b>	VERTICAL CERVICAL Depth Gauge	VI-0030	9, 26, PI 14
	VERTICAL CERVICAL Distraction Pliers	VI-0620	18, PI 16
	VERTICAL CERVICAL Drill 2.4 mm standard	VI-0235	8, PI 14
	VERTICAL CERVICAL Drill 2.9 mm standard	VI-0240	8, PI 14
	VERTICAL CERVICAL Drill 2.4 mm XL	VI-0335	8, PI 14
	VERTICAL CERVICAL Drill 2.9 mm XL	VI-0340	8, PI 14
	VERTICAL CERVICAL Drill Guide Std	VI-0230	8, 10, PI 15
	VERTICAL CERVICAL Drill Guide XL	VI-0256	8, 10, PI 15
<b>G</b>	VERTICAL CERVICAL Guide Wire 1.3 x 470 mm	VI-0258	PI 15
<b>O</b>	VERTICAL CERVICAL Occiput Plate Holder	VI-0700	24, 25, 27, 28, PI 16
	VERTICAL CERVICAL OC Counter Torque	VI-0761	28, 31, PI 16
	VERTICAL CERVICAL OC Drill Guide	VI-0720	25, 27 PI 16
	VERTICAL CERVICAL OC Drill, straight	VI-0730	25, PI 16
	VERTICAL CERVICAL OC Drill, flexible	VI-0731	25, PI 16
	VERTICAL CERVICAL OC Plate Bender right	VI-0710	24, PI 16
	VERTICAL CERVICAL OC Plate Bender left	VI-0711	24, PI 16
	VERTICAL CERVICAL OC Screwdriver	VI-0750	30, PI 16
	VERTICAL CERVICAL OC Screwdriver, flex.	VI-0751	28, PI 16
	VERTICAL CERVICAL OC Screw Driver short	VI-0752	28, PI 16
	VERTICAL CERVICAL OC Taps, straight	VI-0740	27, PI 16
	VERTICAL CERVICAL OC Taps, flexible	VI-0741	27, PI 16
	VERTICAL CERVICAL OC Torque Limiter 3Nm	VI-0760	31, PI 16
	VERTICAL CERVICAL Pedicle Feeler	VI-0025	7, 26, PI 14
<b>P</b>	VERTICAL CERVICAL Pedicle SD	VI-0130	12, 13, PI 14
	VERTICAL CERVICAL Pedicle SD Ballhead	VI-0446	14, PI 15
	VERTICAL CERVICAL Phantom Rod 3.5 x 200mm	VI-0535	15, 29, 34, PI 15
	VERTICAL CERVICAL Probe, straight	VI-0020	7, 9, PI 14
	VERTICAL CERVICAL Reduction Instrument	VI-0360	19, PI 15
	VERTICAL CERVICAL Rod Bender	VI-0610	15, 29, 34, PI 16
<b>R</b>	VERTICAL CERVICAL Rod Bending Tube	VI-0611	27, PI 16
	VERTICAL CERVICAL Rod Cutter	VI-0260	15, 29, 34, PI 15
	VERTICAL CERVICAL Rod Cutter, In-Situ	VI-0261	15, 34, PI 15
	VERTICAL CERVICAL Rod Holder	VI-0330	16, 20, 21, 28, PI 15
	VERTICAL CERVICAL Rod + Tulip Adjuster	VI-0350	14, 16, PI 15

# VERTICALE® Alphabetic index

A–Z	Description	Article number	Page
S	VERTICALE CERVICAL Setscrew Starter dbl	VI-0421	16, 19, PI 15
	VERTICALE CERVICAL Straight Handle, can	VI-0201	12, 13, PI 15
	VERTICALE CERVICAL Straight Handle Rat can	VI-0211	12, 13, PI 15
T	VERTICALE CERVICAL Tap 3.5 mm standard	VI-0035	10, PI 14
	VERTICALE CERVICAL Tap 4.0 mm standard	VI-0040	10, PI 14
	VERTICALE CERVICAL Tap 4.0 mm std, can	VI-0041	10, PI 14
	VERTICALE CERVICAL Tap 3.5 mm XL	VI-0135	10, PI 14
	VERTICALE CERVICAL Tap 4.0 mm XL	VI-0140	10, PI 14
	VERTICALE CERVICAL Tap 4.0 mm XL, can	VI-0141	10, PI 14
	VERTICALE CERVICAL T-Handle, cannulated	VI-0301	10, 27, PI 14
	VERTICALE CERVICAL T-Handle, Ratchet	VI-0311	10, 27, PI 14
	VERTICALE CERVICAL Torque Limiter 3 Nm	VI-0440	17, 23, PI 15





 **Silony Medical GmbH**  
Leinfelder Straße 60  
70771 Leinfelden-Echterdingen  
Germany  
Tel +49 711 78 25 25 0  
Fax +49 711 78 25 25 11  
[www.silony-medical.com](http://www.silony-medical.com)

 [elabeling.silony-medical.com/contact](mailto:elabeling.silony-medical.com/contact)

This information is only intended for the USA and its territories.

D60036.b.EN 14.09.2021

