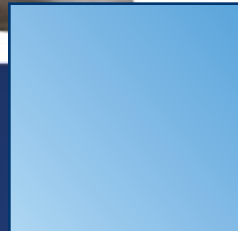


*Life moves us* 



SURGICAL TECHNIQUE



# TRUSS<sup>TM</sup>

## Thoracolumbar Plate System



## *Life moves us* ➤

At Globus, we move with a sense of urgency to deliver innovations that improve the quality of life for patients with spinal disorders. We are inspired by the needs of these patients and also the needs of the surgeons and health care providers who treat them.

This passion combined with Globus's world class engineering transforms clinical insights into tangible spine care solutions. We are driven to provide the highest quality products to improve

the techniques and outcomes of spine surgery so patients can resume their lives as quickly as possible. We extend our reach beyond our world class implants, instrumentation, and service by partnering with researchers and educators to advance the science and knowledge of spine care.

The energy and enthusiasm each of us bring everyday to Globus is palpable. We are constantly in the pursuit of better patient care and understand that speed is critical because life cannot wait.



**GLOBUS**  
MEDICAL

[www.globusmedical.com](http://www.globusmedical.com)

# TRUSS™

## Thoracolumbar Plate System



The TRUSS™ Thoracolumbar Plate System has a slim, low profile design to accommodate the entire thoracolumbar spine. Intra-operative compression and optimal screw placement are achieved by way of an integrated Slider™ mechanism, while fixed or variable screws are used to lag the plate to the bone.

# TRUSS™

## THORACOLUMBAR PLATE SYSTEM

### ■ Slim Plate Design

TRUSS™ offers a slim plate design that fits the lateral aspect of the upper thoracic vertebra, and is able to withstand lumbar loads.

### ■ Integrated Intra-operative Compressibility

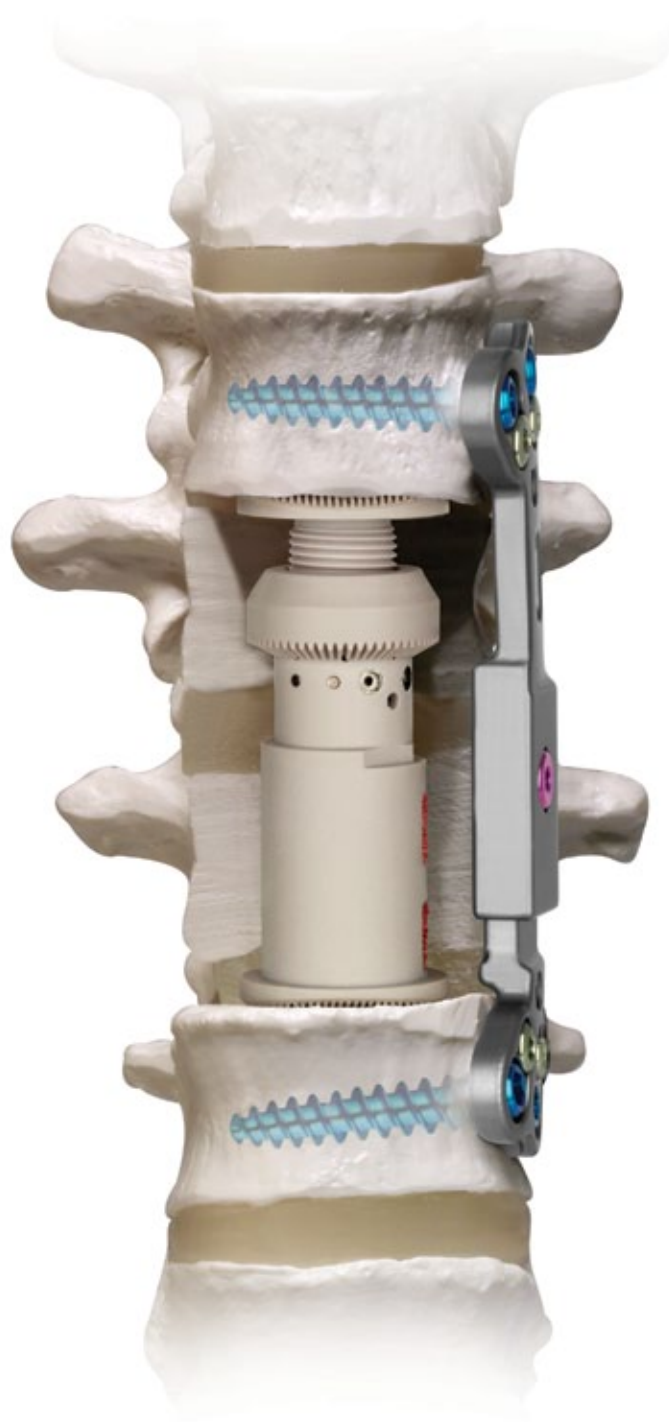
The TRUSS™ plate has an integrated Slider™ mechanism that provides up to 7.5mm of compression.

### ■ Minimal Steps for Installation

Five implants (one plate and four screws) to install, then simply block and lock with a single instrument.

### ■ Comprehensive Offering

TRUSS™ offers two low profile plate options with fixed or variable screws that are inserted with easy to use instrumentation.



# CONTENTS

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The surgical technique shown is for illustrative purposes only. The technique(s) actually employed in each case always depends on the medical judgment of the surgeon exercised before and during surgery as to the best mode of treatment for each patient. Additionally, as instruments may occasionally be updated, the instruments depicted in this Surgical Technique may not be exactly the same as the instruments currently available. Please consult with your sales representative or contact Globus directly for more information.

# IMPLANT OVERVIEW

## Plates

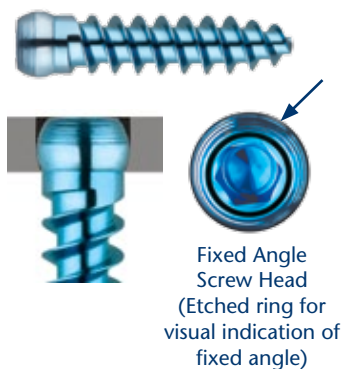
- Low-profile – 4.0mm thick
- 21mm width
- Lengths range from 22mm to 99.5mm
- Compressible plate lengths range from 45mm to 99.5mm



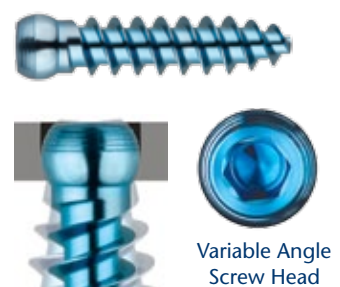
## Bone Screws

- Lengths from 22mm-57mm
- 5.5mm and 6.5mm\* diameter
- Self-tapping screws
- Variable angle screws allow for  $\pm 10^\circ$  of angulation

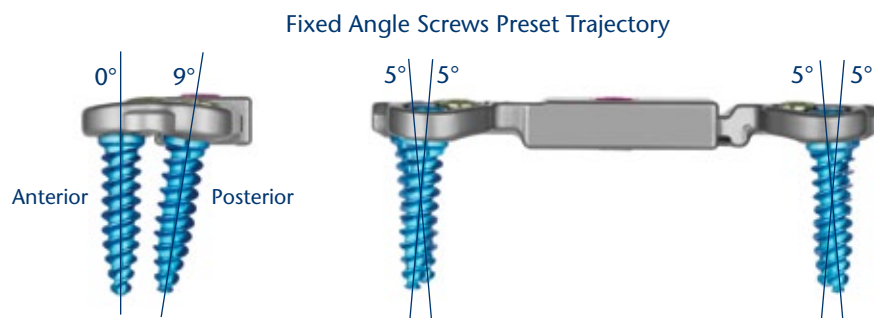
Fixed Angle Screw



Variable Angle Screw



- Fixed angle screws pre-set trajectory
  - $0^\circ$  anterior
  - $9^\circ$  posterior
  - $5^\circ$  cephalad/caudal



## Locking Mechanism

- Simple and reliable locking set screw
- Pre-assembled to the plate
- Provides direct visual confirmation of locked bone screws



\* Recommended for use in the lumbar spine

# INSTRUMENT OVERVIEW

## Screw Preparation Instruments



Cortex Awl, 1/4" QC 630.316



Awl Sleeve Retracted



Awl, 1/4" QC 630.317



Drill Bit, 22mm, 1/4" QC 630.400\*



Ø6.4mm, Tap 22mm, 1/4" QC 630.405



Ø4.4mm, Tap 1/4" QC 663.410



Ø5.4mm, Tap 1/4" QC 663.412



Quick Release 1/4", Ratchet,  
T-Handle 630.401



Quick Release 1/4", Ratchet, Straight Handle 630.407

## Screw Preparation Instruments (cont'd)



Ball Tip Probe 602.105



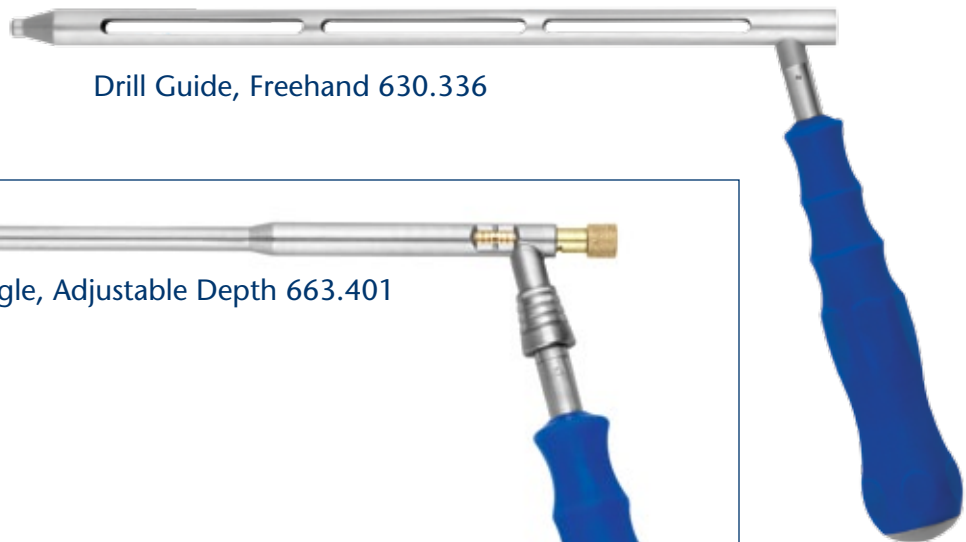
Plate Holder, DTS Guide Handle 663.340



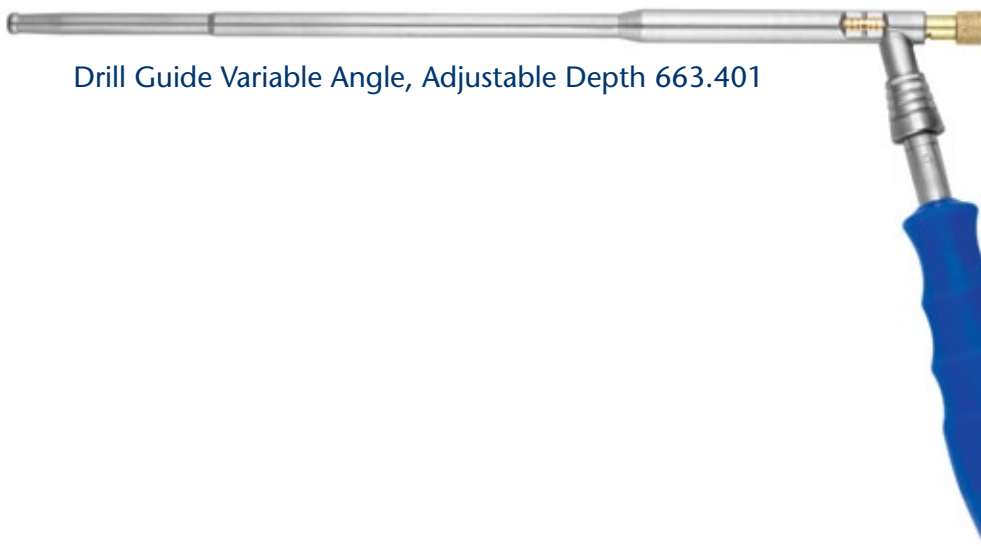
Plate Holder DTS Guide, A Barrel 663.342



Plate Holder DTS Guide, B Barrel 663.344



Drill Guide, Freehand 630.336



Drill Guide Variable Angle, Adjustable Depth 663.401



Drill Bit, Adjustable Depth 663.402\*

## Plate Instruments



Caliper 663.403



Simple Plate Holder 663.338



Temporary Screw for Screw Holes, 16mm 663.500



Screwdriver, 2.5mm Hex, Self Retaining 650.301



Screwdriver, 3.5mm Hex, Self-Retaining 630.410



Screwdriver Shaft, 3.5mm Hex, 1/4" QC, Self-Retaining 630.414

## Universal Joint Instruments



Awl, 1/4" QC, U-Joint 630.493



Drill Bit, 22mm, 1/4" QC, U-Joint 630.495\*



Screwdriver, 3.5mm Hex, 1/4" QC, U-Joint 630.495



Ø6.4mm Tap, 22mm, 1/4" QC, U-Joint 630.496



Drill Bit, 25mm, 1/4" QC, U-Joint 663.497\*



Drill Bit, 30mm, 1/4" QC, U-Joint 663.498\*



Drill Bit, 35mm, 1/4" QC, U-Joint 663.499\*

\* Drill bits are not intended for connection to power drill sources.



Ø4.4mm, Tap 1/4" QC, U-Joint 663.414



Ø5.4mm, Tap 1/4" QC, U-Joint 663.416



Hammer 603.977

## Compression Instrument

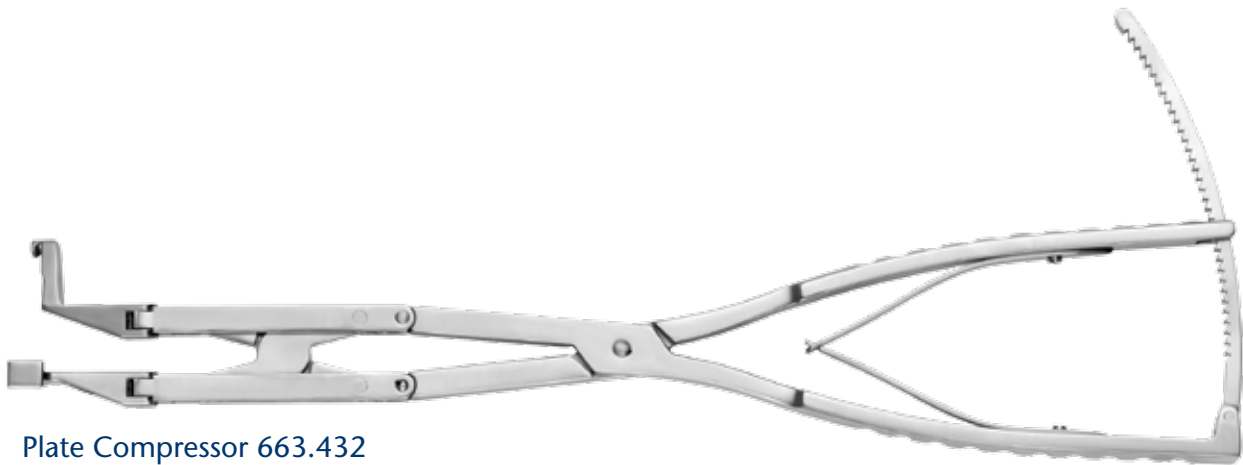


Plate Compressor 663.432

## Locking Instrument



Set Screw Positioner, Torque Limiting, 1.5Nm 630.503

# TRUSS™ SURGICAL TECHNIQUE

## Step 1 Approach and Preparation

The patient is placed under general anesthesia and positioned in a true lateral position. It is important to maintain patient position throughout the procedure. In general, a left-sided approach is used for the thoracolumbar junction, while a right-sided approach is more common at higher thoracic levels.

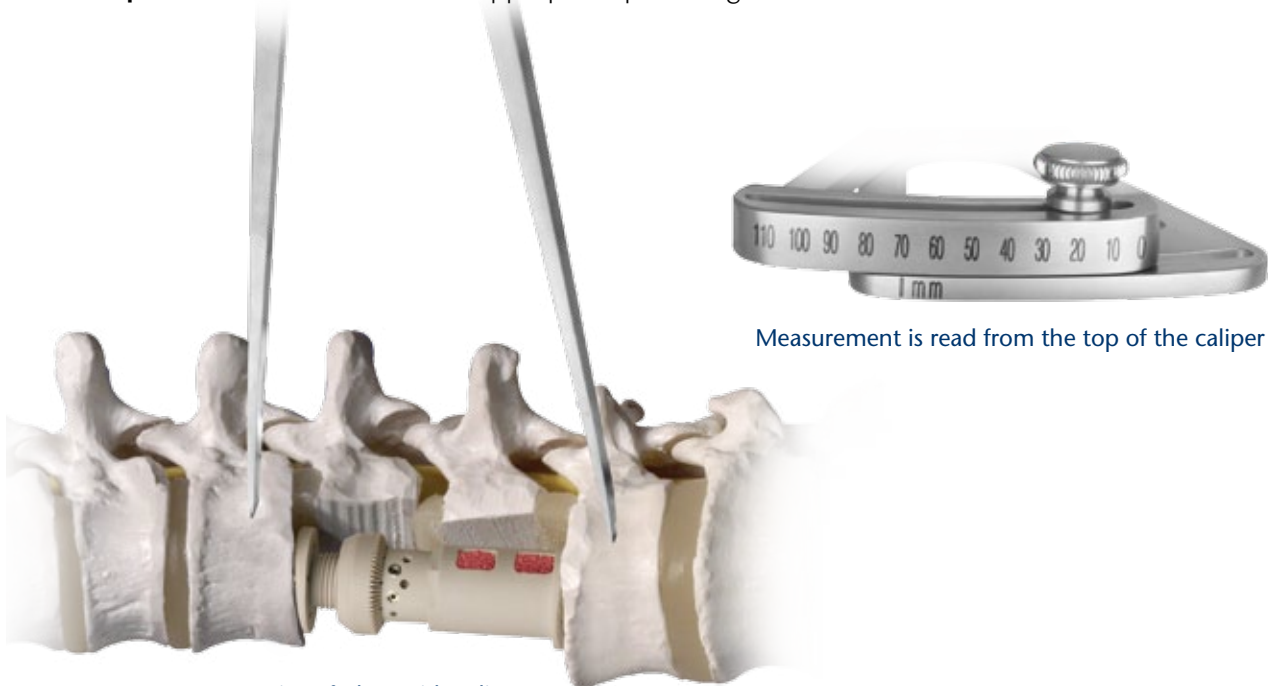
The operative area is carefully cleaned and an incision is made at the appropriate fusion level(s). TRUSS™ plate fixation may be used in the thoracolumbar spine between T1-L5. Please refer to the product insert for complete description, indications and warnings.

Perform a corpectomy (if needed) and remove the adjacent intervertebral discs. Distraction can be performed at this point using a vertebral body spreader.

Insert the desired vertebral body replacement device. The XPand® Radiolucent Corpectomy Spacer is shown below. Distraction can be achieved by using the XPand® R device. Refer to the XPand® Surgical Technique Guide for the recommended surgical technique.

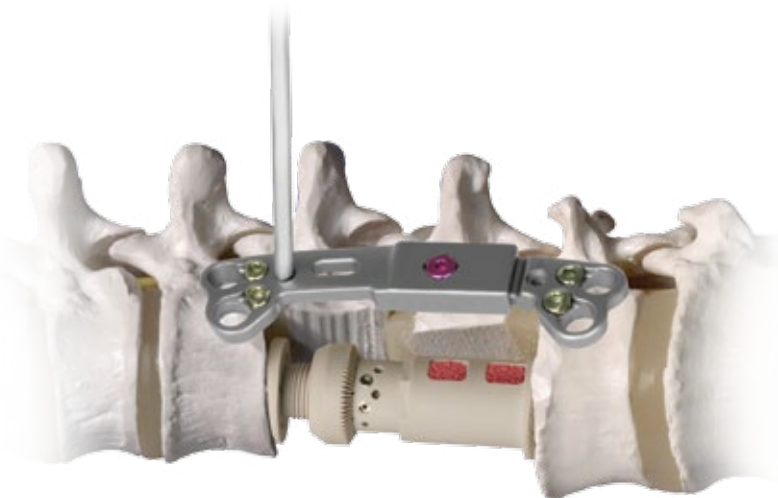
## Step 2 Plate Placement

A **Caliper** is used to determine the appropriate plate length.



Measure size of plate with caliper

Using the **Simple Plate Holder**, remove the desired TRUSS™ plate from the plate module. Place over the vertebrae and confirm appropriate plate length. Alternately the **Plate Holder DTS Guide Assembly** can be used to insert the plate, as described on page 12.



Using the Simple Plate Holder

Once plate placement has been established, use the **Screwdriver, 2.5mm Hex, Self-Retaining** to insert the **Temporary Screw for Screw Holes, 16mm**.

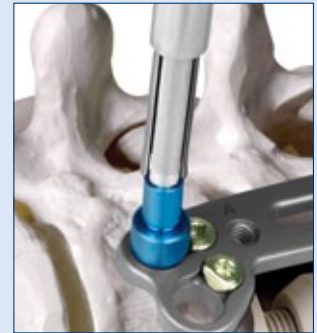
The temporary screw can be inserted through the DTS Guide Barrels, if desired.



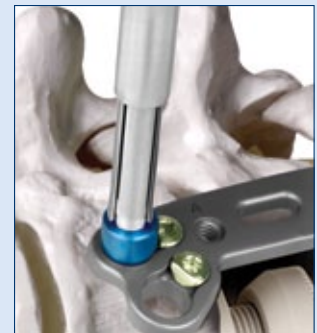
Using the Temporary Screw

## Removing the Temporary Screw

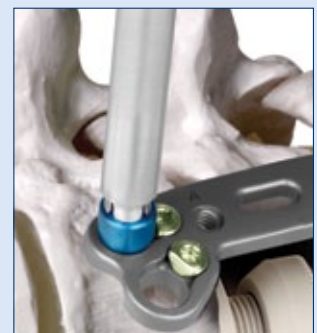
The temporary screw may be removed with the Screwdriver, 2.5mm Hex, Self-Retaining. If a firmer connection is needed, load the **Temporary Pin Driver, External Grip** as described below.



Ensure the outer sleeve of the Temporary Pin Driver, External Grip is retracted before placing the inner shaft over the temporary screw head.



Engage the inner shaft of the Temporary Pin Driver, External Grip over the temporary screw head.



Slide the outer sleeve down over the temporary screw head and pull upwards on the handle to remove the screw.

## Step 3 Screw Hole Preparation

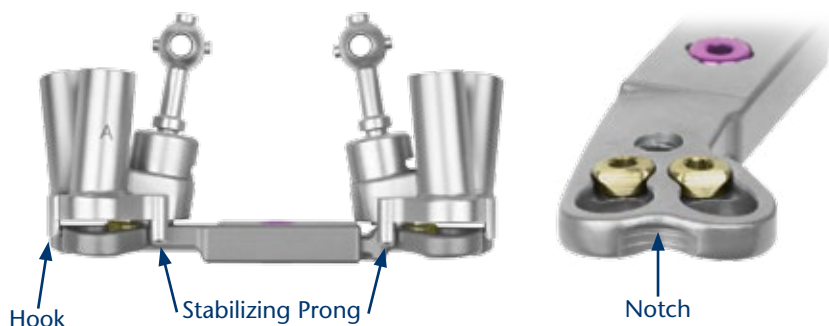
### Option A: Pre-Set Angulation

Attach the Plate Holder DTS Guide Handle to the guide barrels as described at right. Two Plate Holder DTS (Drill-Tap-Screw) Barrels are available to securely hold the plate and provide a preset screw trajectory. Fixed screws should always be inserted through these barrels.

The barrels are labeled A and B to coincide with plate sides A and B.



To install the appropriate barrels on the corresponding side of the plate place the hook into the notch on the end of the plate, and place the threaded end of the barrels into the small hole on the plate. The stabilizing prong should be on the anterior side of the plate, as shown below.



Turn the blue handle clockwise to thread the barrels into the plate. Once the guide is securely connected to the plate, the knurled knob on the back of the Plate Holder DTS Guide Handle can be rotated clockwise to secure desired angle of the handle.



### Connecting the DTS Guide Handle to DTS Guide Barrels



Retract on trigger of the DTS Guide handle.



Engage prongs of DTS Guide handle around the sphere of the barrel. Release the trigger to connect the handle with the sphere on the DTS Guide.



DTS Guide Handle is now connected to the barrel.



Drill Bit, 22mm, 1/4" QC 630.400

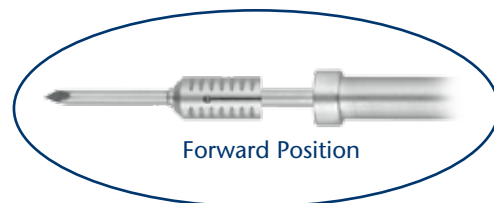
Attach the **Awl, 1/4" QC** to a **1/4" Quick Release Ratcheting Handle** and insert through the drill guide to perforate the cortex of the vertebral body. Drill the screw hole using the **Drill Bit, 22mm, 1/4" QC** and handle assembly.

*Note: When connecting instruments to the Quick Release 1/4" Ratchet Handles, the instrument shaft should be inserted into the handles so that the black etch line is no longer visible.*

When inserting the Drill Bit, 22mm, 1/4" QC or Awl, 1/4" QC through the DTS Guide Barrels, move the positioning sleeve to the forward position as shown at right. This will ensure the instrument is centered through the guide.

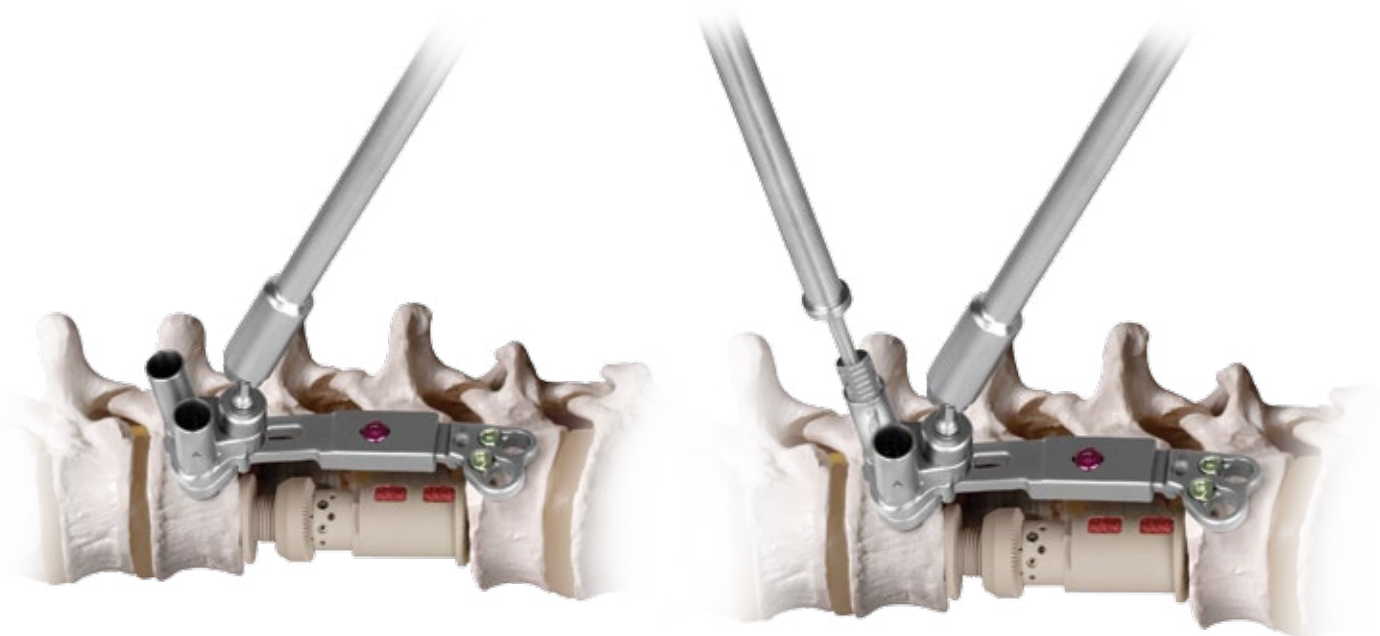


Back Position



Forward Position

Awl or drill the hole until the shoulder stop contacts the top of the guide barrel.



The screws are self-tapping, however the vertebral body may be tapped if desired. Attach the tap of appropriate diameter to one of the quick release ratcheting handles, and tap through the drill guide. To avoid stripping the screw hole, stop rotating the tap when its shoulder contacts the barrel of the guide.

Screws may be inserted through the Plate Holder DTS Guide. See page 16 for screw insertion.

*Note: Only the DTS Guide A Barrel may be used with the 22mm and 25mm plates.*

## Universal Joint Instrumentation

A series of universal joint tools are provided for added flexibility. The **Awl, 1/4" QC**, **U-Joint** and **Drill Bit, 1/4" QC**, **U-Joint** can be used through all the drill guides provided, except the Adjustable Depth Drill Guide. The **Tap, 1/4" QC**, **U-Joint** can be used through the Plate Holder DTS Guide Barrels. Insert Universal Joint Instruments through the Plate Holder DTS Guide Barrel in the same manner as described above. A universal joint screwdriver is also provided and can be used for screw insertion through the Plate Holder DTS Guide Barrels.

## Option B. Variable Angulation

### Using the DTS Guide, Freehand

Prepare the pilot screw hole on the anterior-most portion of the plate, or opposite to the temporary screw. Use the **Cortex Awl, 1/4" QC** and 1/4" Quick Release Ratcheting Handle assembly to perforate the cortex of the vertebral body. Press down on the awl to allow the sleeve to retract while the tip penetrates the vertebral body cortex.

Alternately the Awl, 1/4" QC or Drill Bit, 22mm 1/4" QC can be connected to a 1/4" Quick Release Ratcheting Handle and inserted through the **Drill Guide, Freehand**.

The Drill Guide, Freehand permits full angulation of the drill through the plate. This drill guide should only be used to create a trajectory for the Variable Angle Screws.

When inserting the Awl, 1/4" QC or Drill Bit, 22mm 1/4" QC through the Drill Guide, Freehand, move the positioning sleeve to the back position to be fully inserted. See image below.

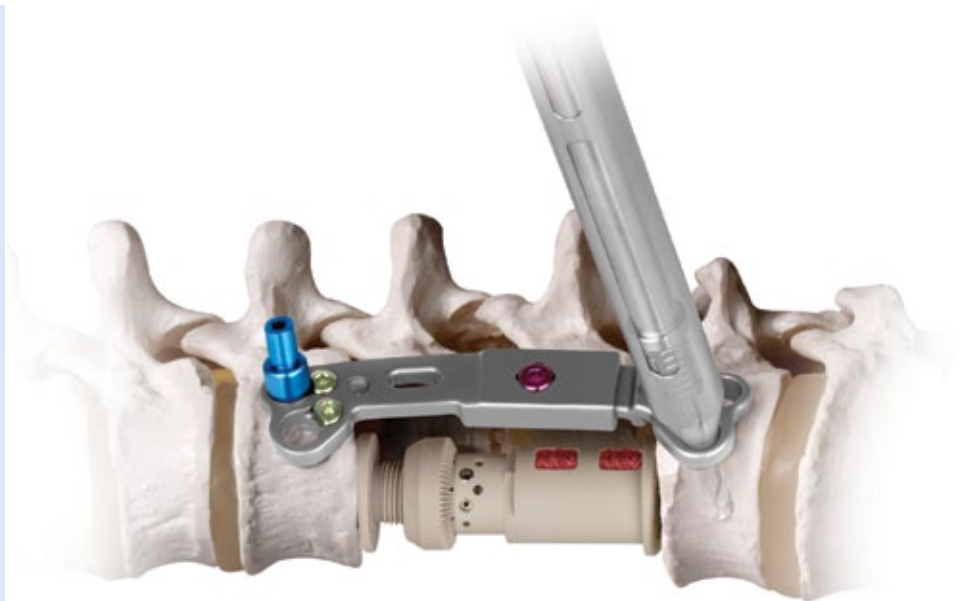


Back Position

Place the drill guide into the plate hole. Attach the Drill Bit, 22mm, 1/4" QC to a 1/4" Quick Release Ratcheting Handle, and insert through the drill guide. Drill until it reaches the stop.

## Variable Angle Drill Guides

Provide screw angulation of  $\pm 10^\circ$  in all directions for drilling screw pilot holes.



Using the Drill Guide, Freehand to prepare screw pilot hole

*Note: Care should be taken to prevent interference in medial angulation.*

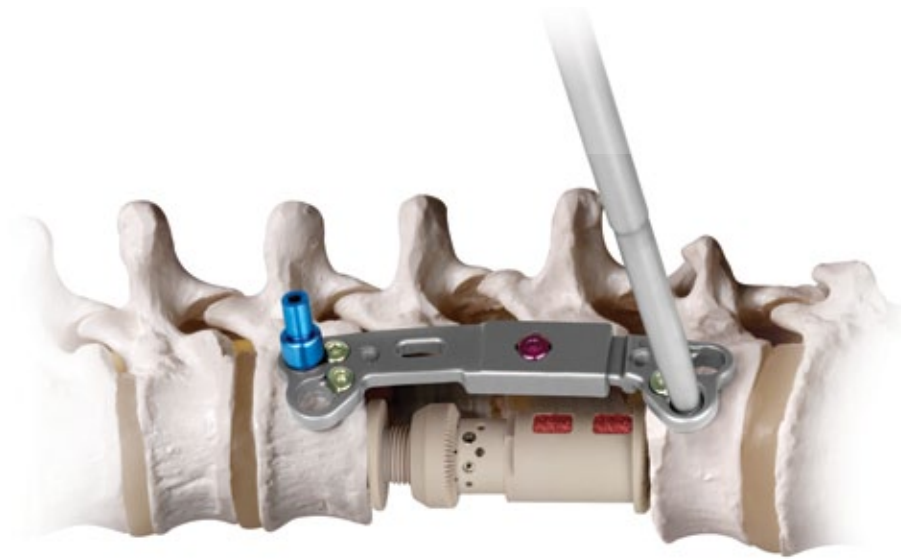
## Option B. Variable Angulation (cont'd)

### Using the Drill Guide Variable Angle, Adjustable Depth

Use the Cortex Awl, 1/4" QC and 1/4" Quick Release Ratcheting Handle assembly to perforate the cortex of the vertebral body. Press down on the awl to allow the sleeve to retract while the tip penetrates the vertebral body cortex.

The **Drill Guide Variable Angle, Adjustable Depth** permits full angulation of the drill through the plate. This drill guide should only be used to create a trajectory for the Variable Angle Screws. Adjust the depth as described below.

Place the drill guide into the plate hole. Attach the **Drill Bit, Adjustable Depth** to either of the 1/4" Quick Release Ratcheting Handles, and insert through the drill guide. Drill until it reaches the stop.

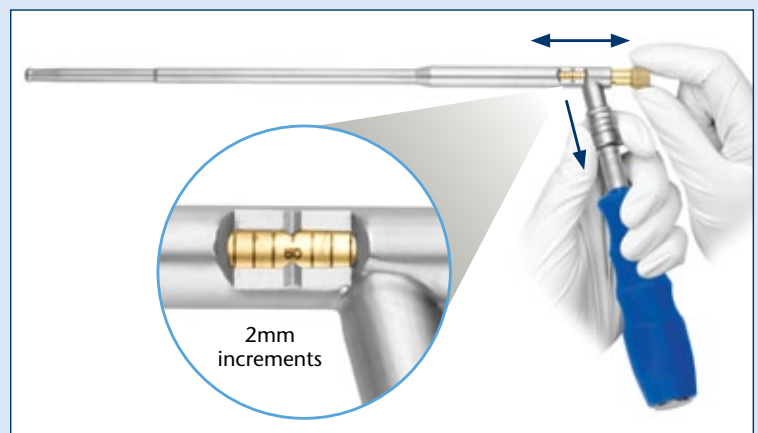


Using the Drill Guide, Variable Angle, Adjustable Depth  
to prepare screw pilot hole

### Using the Drill Guide with Adjustable Stop

Pull down on the tapered sleeve to release the ratchet. Adjust the drill stop until the appropriate depth is indicated.

Release the sleeve to lock the drill guide at the appropriate depth. Ensure that the ratchet is fully engaged by pressing on the drill stop.



Drill Guide Variable Angle, Adjustable Depth



Drill Bit Adjustable Depth

## Step 4 Screw Insertion

Bone screws are available in variable angle and fixed angle variations. Lengths vary from 22mm to 57mm in 2mm increments (3mm increments after 30mm).

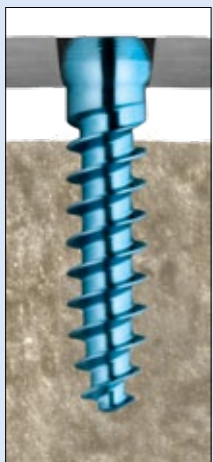
*Note: Screw lengths are measured by bone engagement.*

To determine screw length after drilling and/or tapping, use the **Ball Tip Probe**. Demarcations every 10mm on the probe indicate depth to help determine screw length.



Ball Tip Probe

### Screw Lags Plate to the Bone



As screw is inserted  
plate lags to bone

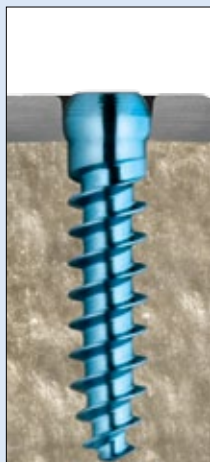


Plate in final position  
on bone surface

Before bone screw insertion, verify that the flat of the Locking Set Screw is oriented to permit the bone screw to pass through the plate hole. See the initial position of Locking Set Screw on the opposite page.

Select the appropriate screw length. Use the **Screwdriver, 3.5mm Hex, Self-Retaining** to load the screw from the screw module. Alternately, the **Screwdriver Shaft, 3.5mm Hex, 1/4" QC, Self-Retaining** may be used in conjunction with either of the 1/4" Quick Release Ratcheting Handles to insert the screws. Before insertion, confirm screw length using the gauges provided on the screw module. As the screws are inserted, the plate will lag to the bone as shown at left.



Inserting screw with 3.5mm Hex Driver

## Step 5 Locking Set Screw

Once all of the screws are fully seated within the plate, the locking set screw can be rotated into position.

Insert the **Set Screw Positioner, Torque Limiting, 1.5Nm** into the locking set screw, making sure the hex is fully seated in the screw head, and turn the Set Screw Positioner clockwise to the click. As shown at right, the flat on the locking set screw should be facing away from the screw head when locked.

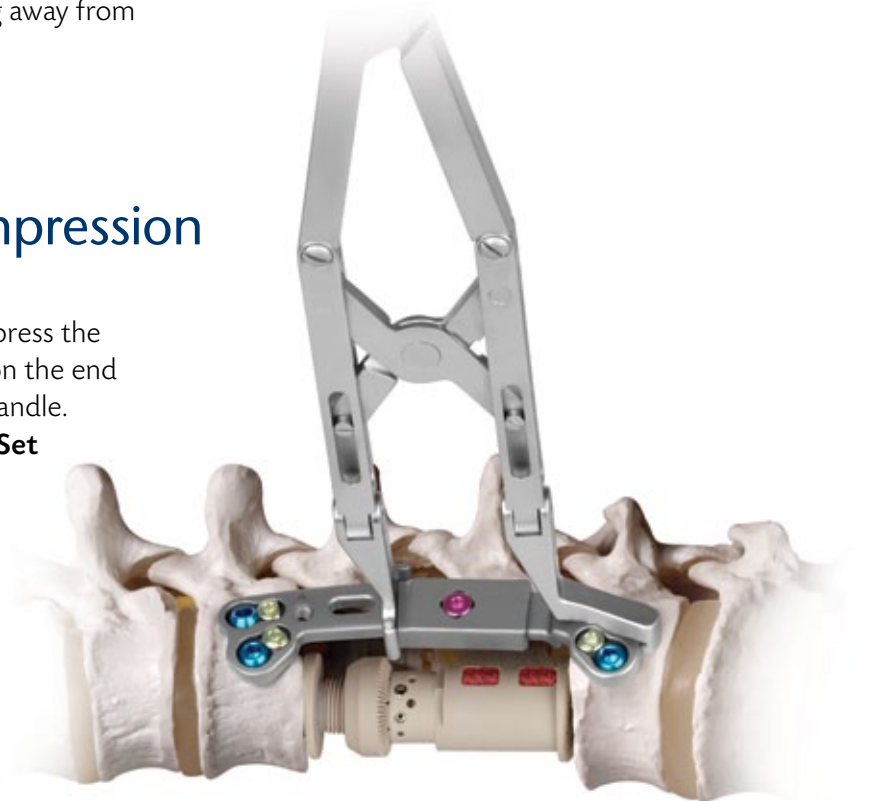


## Step 6 Construct Compression

The **Plate Compressor** can be used to compress the construct. Place the tips of the compressor on the end of plate as shown below and compress the handle. Final tighten the fuchsia **TRUSS™ Clamping Set Screw** as described on page 18.

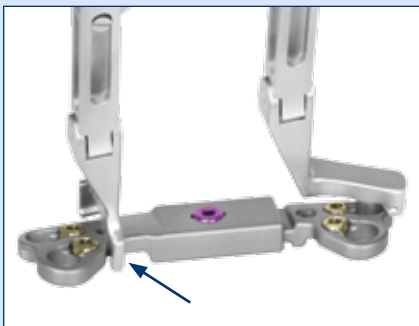


Notch on side of plate

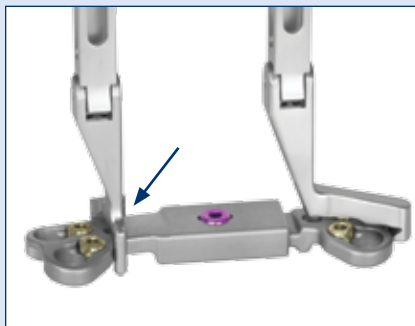


Compressing the plate

### Loading the Plate Compressor



Engage the pin of the compressor with the curve of the compressible plate.



Rock the compressor around the plate so that the flat portion of the compressor engages under the plate.



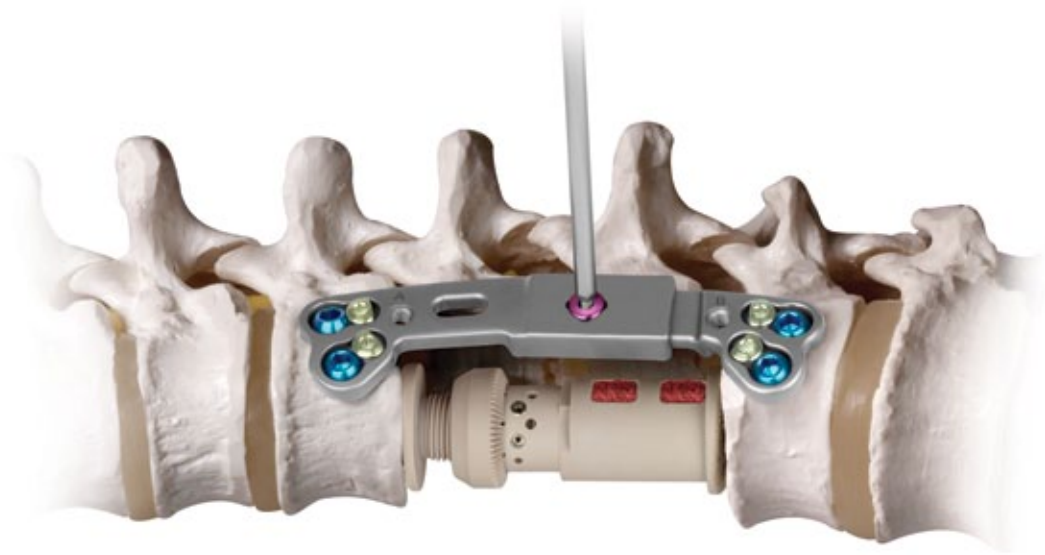
Squeeze the compressor handle to engage the hook of the compressor into the notch on the plate.

## Step

7

## Locking the Clamping Set Screw

Insert the Set Screw Positioner, Torque Limiting, 1.5Nm into the set screw, making sure the hex is fully seated in the screw head, and turn the Set Screw Positioner clockwise to the click.



## Final Construct

### Lateral View



## Final Construct

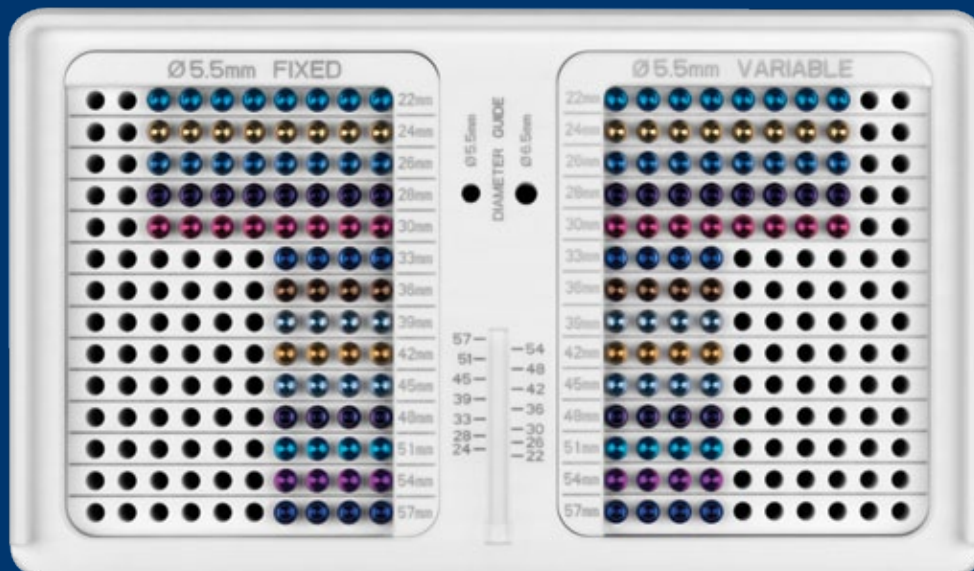
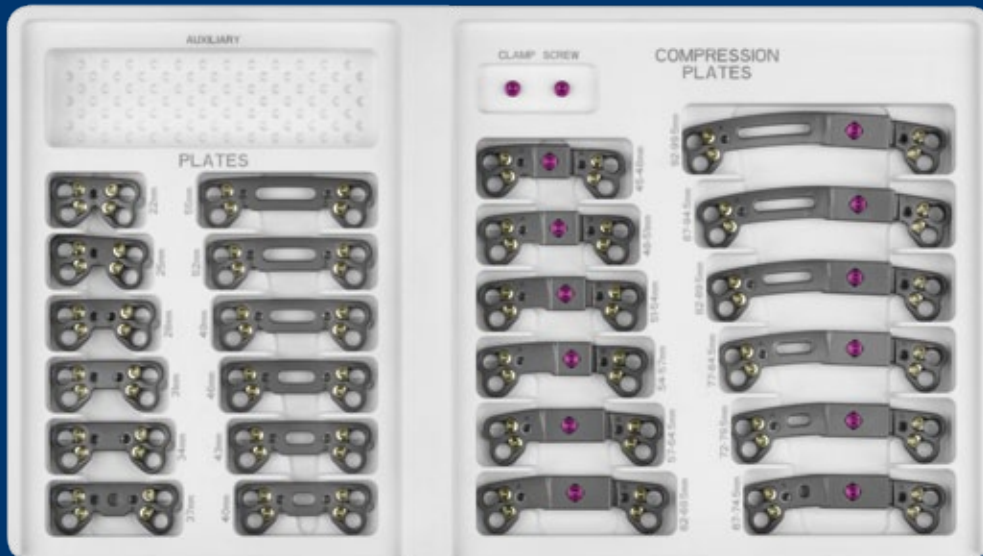
### Anterior View



## Optional: Implant Removal

To remove the plates, unlock the locking set screw with the Set Screw Positioner, Torque Limiting 1.5Nm. Take out the bone screws with the 3.5mm Hex Driver.

# TRUSS™ IMPLANT SET



# TRUSS™ Implant Set List 963.904

## TRUSS™ Plate Module 963.002

|  | TRUSS™ Plates (Qty 1 each) |        |  | TRUSS™ Compressible Plates (Qty 1 each) |           |
|-----------------------------------------------------------------------------------|----------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------|-----------|
|                                                                                   | Part Number                | Length |                                                                                   | Part Number                             | Length    |
|                                                                                   | 163.122                    | 22mm   |                                                                                   | 163.345                                 | 45-48mm   |
|                                                                                   | 163.125                    | 25mm   |                                                                                   | 163.348                                 | 48-51mm   |
|                                                                                   | 163.128                    | 28mm   |                                                                                   | 163.351                                 | 51-54mm   |
|                                                                                   | 163.131                    | 31mm   |                                                                                   | 163.354                                 | 54-57mm   |
|                                                                                   | 163.134                    | 34mm   |                                                                                   | 163.357                                 | 57-64.5mm |
|                                                                                   | 163.137                    | 37mm   |                                                                                   | 163.362                                 | 62-69.5mm |
|                                                                                   | 163.140                    | 40mm   |                                                                                   | 163.367                                 | 67-74.5mm |
|                                                                                   | 163.143                    | 43mm   |                                                                                   | 163.372                                 | 72-79.5mm |
|                                                                                   | 163.146                    | 46mm   |                                                                                   | 163.377                                 | 77-84.5mm |
|                                                                                   | 163.149                    | 49mm   |                                                                                   | 163.382                                 | 82-89.5mm |
|                                                                                   | 163.152                    | 52mm   |                                                                                   | 163.387                                 | 87-94.5mm |
|                                                                                   | 163.155                    | 55mm   |                                                                                   | 163.392                                 | 92-99.5mm |

## TRUSS™ 5.5mm Bone Screws

(All 5.5mm screws start with the prefix 163 are contained within set 963.904)

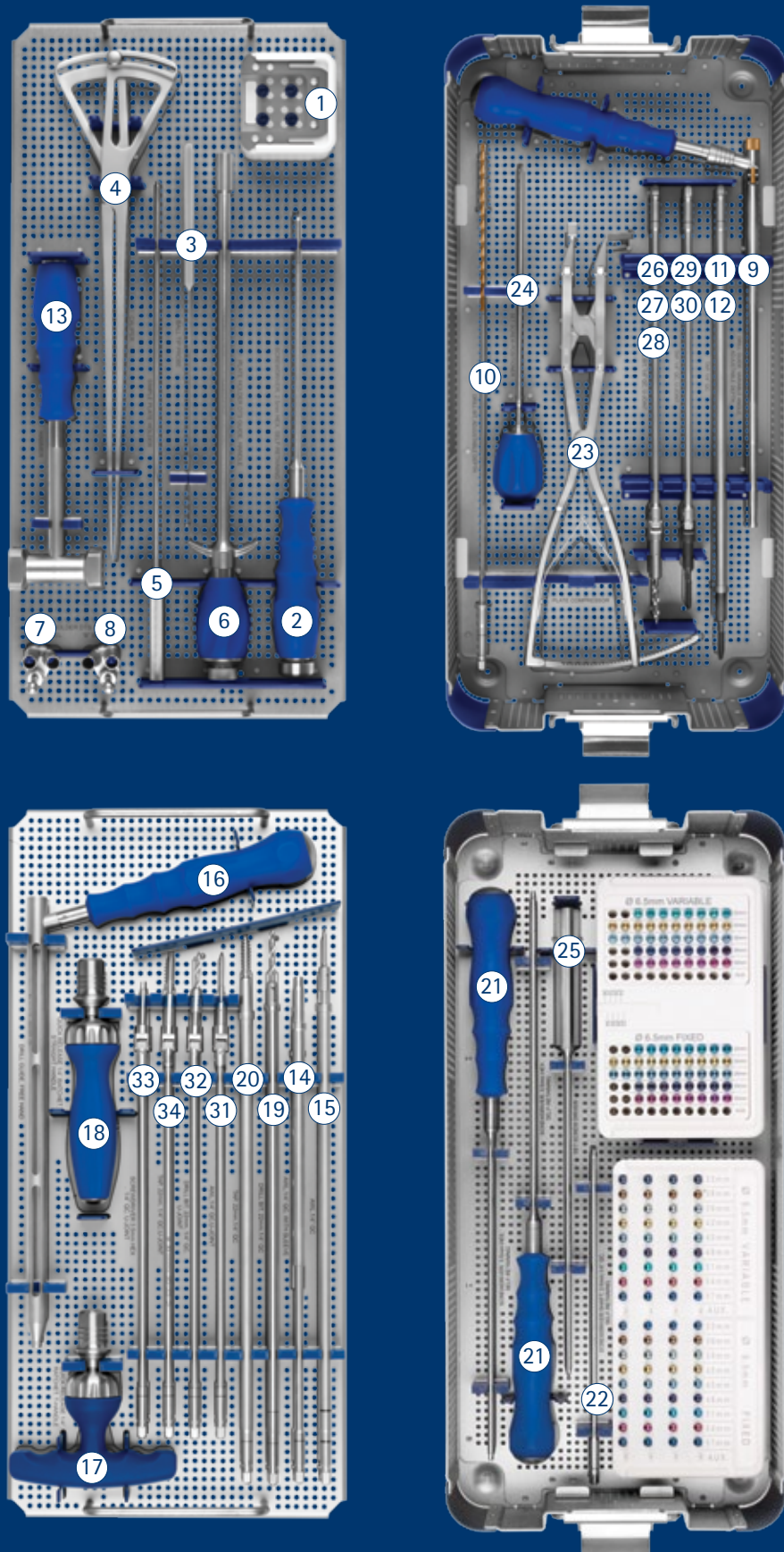
## TRUSS™ 6.5mm Bone Screws

(All 6.5mm screws start with the prefix 130 and are contained within set 963.906)

|                      | 22mm    | Qty |  | 24mm    | Qty |  | 26mm    | Qty |  | 28mm    | Qty |  | 30mm    | Qty |  |
|----------------------|---------|-----|-------------------------------------------------------------------------------------|---------|-----|-------------------------------------------------------------------------------------|---------|-----|---------------------------------------------------------------------------------------|---------|-----|---------------------------------------------------------------------------------------|---------|-----|---------------------------------------------------------------------------------------|
| Variable Angle 5.5mm | 163.622 | 8   |                                                                                     | 163.624 | 8   |                                                                                     | 163.626 | 8   |                                                                                       | 163.628 | 8   |                                                                                       | 163.630 | 8   |                                                                                       |
| Fixed Angle 5.5mm    | 163.822 | 8   |                                                                                     | 163.824 | 8   |                                                                                     | 163.826 | 8   |                                                                                       | 163.828 | 8   |                                                                                       | 163.830 | 8   |                                                                                       |
| Variable Angle 6.5mm | 130.622 | 8   |                                                                                     | 130.624 | 10  |                                                                                     | 130.626 | 10  |                                                                                       | 130.628 | 8   |                                                                                       | 130.630 | 8   |                                                                                       |
| Fixed Angle 6.5mm    | 130.822 | 8   |                                                                                     | 130.824 | 10  |                                                                                     | 130.826 | 10  |                                                                                       | 130.828 | 8   |                                                                                       | 130.830 | 8   |                                                                                       |
|                      | 33mm    | Qty |  | 36mm    | Qty |  | 39mm    | Qty |  | 42mm    | Qty |  | 45mm    | Qty |  |
| Variable Angle 5.5mm | 163.633 | 4   |                                                                                     | 163.636 | 4   |                                                                                     | 163.639 | 4   |                                                                                       | 163.642 | 4   |                                                                                       | 163.645 | 4   |                                                                                       |
| Fixed Angle 5.5mm    | 163.833 | 4   |                                                                                     | 163.836 | 4   |                                                                                     | 163.839 | 4   |                                                                                       | 163.842 | 4   |                                                                                       | 163.845 | 4   |                                                                                       |
| Variable Angle 6.5mm | 130.633 | 4   |                                                                                     | 130.636 | 4   |                                                                                     | 130.639 | 4   |                                                                                       | 130.642 | 4   |                                                                                       | 130.645 | 4   |                                                                                       |
| Fixed Angle 6.5mm    | 130.833 | 4   |                                                                                     | 130.836 | 4   |                                                                                     | 130.839 | 4   |                                                                                       | 130.842 | 4   |                                                                                       | 130.845 | 4   |                                                                                       |
|                      | 48mm    | Qty |  | 51mm    | Qty |  | 54mm    | Qty |  | 57mm    | Qty |  |         |     |                                                                                       |
| Variable Angle 5.5mm | 163.648 | 4   |                                                                                     | 163.651 | 4   |                                                                                     | 163.654 | 4   |                                                                                       | 163.657 | 4   |                                                                                       |         |     |                                                                                       |
| Fixed Angle 5.5mm    | 163.848 | 4   |                                                                                     | 163.851 | 4   |                                                                                     | 163.854 | 4   |                                                                                       | 163.857 | 4   |                                                                                       |         |     |                                                                                       |
| Variable Angle 6.5mm | 130.648 | 4   |                                                                                     | 130.651 | 4   |                                                                                     | 130.654 | 4   |                                                                                       | 130.657 | 4   |                                                                                       |         |     |                                                                                       |
| Fixed Angle 6.5mm    | 130.848 | 4   |                                                                                     | 130.851 | 4   |                                                                                     | 130.854 | 4   |                                                                                       | 130.857 | 4   |                                                                                       |         |     |                                                                                       |

# TRUSS™ INSTRUMENT SET

## TRUSS™/GATEWAY®/CITADEL® BONE SCREW INSTRUMENT SET



## TRUSS™ Instrument Set 963.901

## TRUSS™/GATEWAY®/CITADEL® Bone Screw Instrument Set 963.906

### Temporary Fixation Instruments Qty

|   |         |                                        |   |
|---|---------|----------------------------------------|---|
| ① | 663.500 | Temporary Screw for Screw holes, 16mm  | 4 |
| ② | 650.301 | Screwdriver, 2.5mm Hex, Self Retaining | 1 |

### Preparation Instruments Qty

|   |         |                                              |   |
|---|---------|----------------------------------------------|---|
| ③ | 602.105 | Ball Tip Probe                               | 1 |
| ④ | 663.403 | Caliper                                      | 1 |
| ⑤ | 663.338 | Simple Plate Holder                          | 1 |
| ⑥ | 663.340 | Plate Holder, DTS Guide, Handle              | 1 |
| ⑦ | 663.342 | Plate Holder DTS Guide, A Barrel             | 1 |
| ⑧ | 663.344 | Plate Holder DTS Guide, B Barrel             | 1 |
| ⑨ | 663.401 | Drill Guide Variable Angle, Adjustable Depth | 1 |
| ⑩ | 663.402 | Drill Bit, Adjustable Depth                  | 2 |
| ⑪ | 663.410 | Ø4.4mm Tap, 1/4" QC                          | 1 |
| ⑫ | 663.412 | Ø5.4mm Tap, 1/4" QC                          | 1 |
| ⑬ | 603.977 | Hammer                                       | 1 |
| ⑭ | 630.316 | Cortex Awl, 1/4" QC                          | 1 |
| ⑮ | 630.317 | Awl, 1/4" QC                                 | 1 |
| ⑯ | 630.336 | Drill Guide, Freehand                        | 1 |
| ⑰ | 630.401 | Quick Release 1/4", Ratchet, T-Handle        | 1 |
| ⑱ | 630.407 | Quick Release 1/4", Ratchet, Straight Handle | 1 |
| ⑲ | 630.400 | Drill Bit, 22mm, 1/4" QC                     | 2 |
| ⑳ | 630.405 | Ø6.4mm Tap, 22mm, 1/4" QC                    | 2 |

### Screw Insertion Instruments Qty

|   |         |                                                       |   |
|---|---------|-------------------------------------------------------|---|
| ⑳ | 630.410 | Screwdriver, 3.5mm Hex, Self-Retaining                | 2 |
| ㉑ | 630.414 | Screwdriver Shaft, 3.5mm Hex, 1/4" QC, Self-Retaining | 1 |

### Compression Instruments Qty

|   |         |                  |   |
|---|---------|------------------|---|
| ㉒ | 663.432 | Plate Compressor | 1 |
|---|---------|------------------|---|

### Screw Locking Instruments Qty

|   |         |                                              |   |
|---|---------|----------------------------------------------|---|
| ㉓ | 630.503 | Set Screw Positioner, Torque Limiting, 1.5Nm | 1 |
| ㉔ | 630.501 | Set Screw Positioner                         | 1 |

### Universal Joint Instruments Qty

|   |         |                                          |   |
|---|---------|------------------------------------------|---|
| ㉕ | 663.497 | Drill Bit, 25mm, 1/4" QC, U-Joint        | 1 |
| ㉖ | 663.498 | Drill Bit, 30mm, 1/4" QC, U-Joint        | 1 |
| ㉗ | 663.499 | Drill Bit, 35mm, 1/4" QC, U-Joint        | 1 |
| ㉘ | 663.414 | Ø4.4mm Tap, 1/4" QC, U-Joint             | 1 |
| ㉙ | 663.416 | Ø5.4mm Tap, 1/4" QC, U-Joint             | 1 |
| ㉚ | 630.493 | Awl, 1/4" QC, U-Joint                    | 1 |
| ㉛ | 630.494 | Drill Bit, 22mm, 1/4" QC, U-Joint        | 1 |
| ㉜ | 630.495 | Screwdriver, 3.5mm Hex, 1/4" QC, U-Joint | 1 |
| ㉝ | 630.496 | Ø6.4mm Tap, 22mm, 1/4" QC, U-Joint       | 1 |

|         |                                |   |
|---------|--------------------------------|---|
| 963.001 | TRUSS™ Instrument Graphic Case | 1 |
|---------|--------------------------------|---|

|         |                                                         |   |
|---------|---------------------------------------------------------|---|
| 963.006 | TRUSS™/GATEWAY®/CITADEL® Bone Screw and Instrument Case | 1 |
|---------|---------------------------------------------------------|---|

### Additionally Available Instruments

|         |                                                  |  |
|---------|--------------------------------------------------|--|
| 630.006 | Temporary Pin Driver, External Grip              |  |
| 630.403 | Quick Release 1/4", Palm Handle (Non Ratcheting) |  |

\*Items highlighted in gray are additionally available.

## IMPORTANT INFORMATION ON THE TRUSS™ THORACOLUMBAR PLATE SYSTEM

### DESCRIPTION

The TRUSS™ Thoracolumbar Plate System consists of rigid and compression plates of various lengths that are used with variable or fixed angle bone screws. These plates attach to the anterolateral or lateral portion of the vertebral bodies of the thoracolumbar spine (T1-L5). Implants are composed of titanium alloy, as specified in ASTM F136, F1295 and F1472.

### INDICATIONS

The TRUSS™ Thoracolumbar Plate System is intended for use in the treatment of thoracolumbar (T1-L5) spine instability as a result of fracture (including dislocation and subluxation), tumor, degenerative disc disease (defined as back pain of discogenic origin with degeneration of the disc confirmed by patient history and radiographic studies), scoliosis, kyphosis, lordosis, spinal stenosis, or failed previous spine surgery.

### WARNINGS

This device is not approved for screw attachment or fixation to the posterior elements (pedicles) of the cervical spine. The safety and effectiveness of pedicle screw spinal systems have been established only for spinal conditions with significant mechanical instability or deformity requiring fusion with instrumentation. These conditions are significant mechanical instability or deformity of the thoracic spine secondary to degenerative spondylolisthesis with objective evidence of neurological impairment, fracture, dislocation, spinal tumor, and failed previous fusion (pseudoarthrosis). The safety and effectiveness of these devices for any other conditions are unknown.

Possible adverse effects which may occur and may require additional surgery include: failed fusion or pseudarthrosis leading to implant breakage; allergic reaction to implant materials; device fracture or failure; device migration or loosening; loss of fixation; vertebral fracture; decrease in bone density; pain, discomfort, or abnormal sensations due to the presence of the device; injury to nerves, vessels, and organs; venous thrombosis, lung embolism and cardiac arrest; and death.

The components of this system are manufactured from titanium alloy or stainless steel. Dissimilar metals in contact with each other can accelerate the corrosion process due to galvanic corrosion effects. Mixing of implant components with different materials is not recommended, for metallurgical, mechanical and functional reasons. Components of this system should not be used with components of any other system or manufacturer, unless specifically stated.

These warnings do not include all adverse effects which could occur with surgery in general, but are important considerations particular to orthopedic implants. General surgical risks should be explained to the patient prior to surgery.

### PRECAUTIONS

The implantation of screw and plate systems should be performed only by experienced spinal surgeons with specific training in the use of this system because this is a technically demanding procedure presenting a risk of serious injury to the patient. Preoperative planning and patient anatomy should be considered when selecting screw diameter and length.

### CONTRAINDICATIONS

Certain degenerative diseases or underlying physiological conditions such as diabetes or rheumatoid arthritis may alter the healing process, thereby increasing the risk of implant breakage.

Mental or physical impairment which compromises a patient's ability to comply with necessary limitations or precautions may place that patient at a particular risk during postoperative rehabilitation.

Factors such as the patient's weight, activity level, and adherence to weight bearing or load bearing instructions have an effect on the stresses to which the implant is subjected.

### CLEANING

Cleaning instruments by hand, when properly carried out, causes less damage than mechanical cleaning. When cleaning instruments by hand, the following should be observed:

1. Clear any corners or recesses of all debris (Note: extra care should be taken to clean out any cannulated areas by using an appropriate cleaning stylet and rinsing immediately.)
2. Remove all traces of blood and other such residues immediately. Do not allow these to dry.
3. The instruments should be submerged (if applicable) and cleaned with a commercially available manual cleaner (i.e. Instraclean from Calgon or Medline High Suds Detergent) prepared according to the manufacturer's recommendation.
4. A soft nylon bristled brush is then used to manually clean the devices while immersed in the cleaning solution. Never use steel brushes or abrasive pads, as these rupture the passive layer of the instrument surface which can lead to corrosion.
5. The instruments should be thoroughly rinsed after cleaning. Distilled water should be used.
6. Dry instruments immediately after cleaning.

### CONTACT INFORMATION

Globus Medical may be contacted at 1-866-GLOBUS1 (456-2871). A surgical technique manual may be obtained by contacting Globus Medical.

### STERILIZATION

TRUSS™ implants and instruments have been validated to assure a Sterility Assurance Level (SAL) of  $10^{-6}$ . The use of an FDA cleared wrap is recommended, per the Association for the Advancement of Medical Instrumentation (AAMI) ST79, *Comprehensive Guide to Steam Sterilization and Sterility Assurance in Health Care Facilities*.

#### Implants:

These devices are supplied NONSTERILE. Sterilization is recommended as follows:

| Method | Cycle                                             | Temperature                 | Exposure Time |
|--------|---------------------------------------------------|-----------------------------|---------------|
| Steam  | Gravity Displacement (Wrapped)                    | 132° - 135°C (270° - 275°F) | 28 Minutes    |
| Steam  | Pre-vacuum (Wrapped)<br>Preconditioning Pulses: 3 | 132° - 135°C (270° - 275°F) | 4 Minutes     |

#### Instruments:

These devices are supplied NONSTERILE. Sterilization is recommended as follows:

| Method | Cycle                                             | Temperature                 | Exposure Time |
|--------|---------------------------------------------------|-----------------------------|---------------|
| Steam  | Gravity Displacement (Wrapped)                    | 132° - 135°C (270° - 275°F) | 25 Minutes    |
| Steam  | Pre-vacuum (Wrapped)<br>Preconditioning Pulses: 3 | 132° - 135°C (270° - 275°F) | 15 Minutes    |

*These parameters are validated to sterilize only this device. If other products are added to sterilizer, the recommended parameters are not valid and new cycle parameters must be established by the user. The autoclave must be properly installed, maintained, and calibrated. Ongoing testing must be performed to confirm inactivation of all forms of viable microorganisms.*

**CAUTION:** Federal (USA) Law Restricts this Device to Sale by or on the order of a Physician.

## This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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