CZMEDITECH

# APOLLO 5.5mm

## Spinal Fixation & Scoliosis Correction

## Surgical Technique



# Characteristic

• The mechanical strength of the optimized screw exceeds that of mainstream high-end products, and the product design is safe and reliable



Monoaxial Pedical Screw



Polyaxial Pedical Screw



Monoaxial Reduction Screw

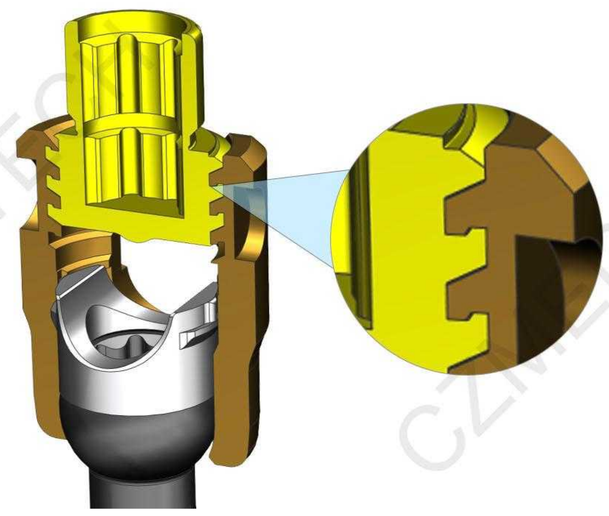


Polyaxial Reduction Screw



Ø4.0 Ø4.5 Ø5.0 Ø5.5 Ø6.0 Ø6.5 Ø7.0 Ø7.5 Ø8.0 Ø8.5

• The neck diameter of the nail increases, reducing the probability of nail breakage;
• The nail base adopts trapezoidal reverse thread technology, with ultra-high strength, effectively avoiding wire slippage and bursting
• The nail body has low incisions to minimize soft tissue irritation, and the overall size of the U-shaped sleeve is smaller than similar 5.5 system products. The overall profile of the screw head is reduced by 28%



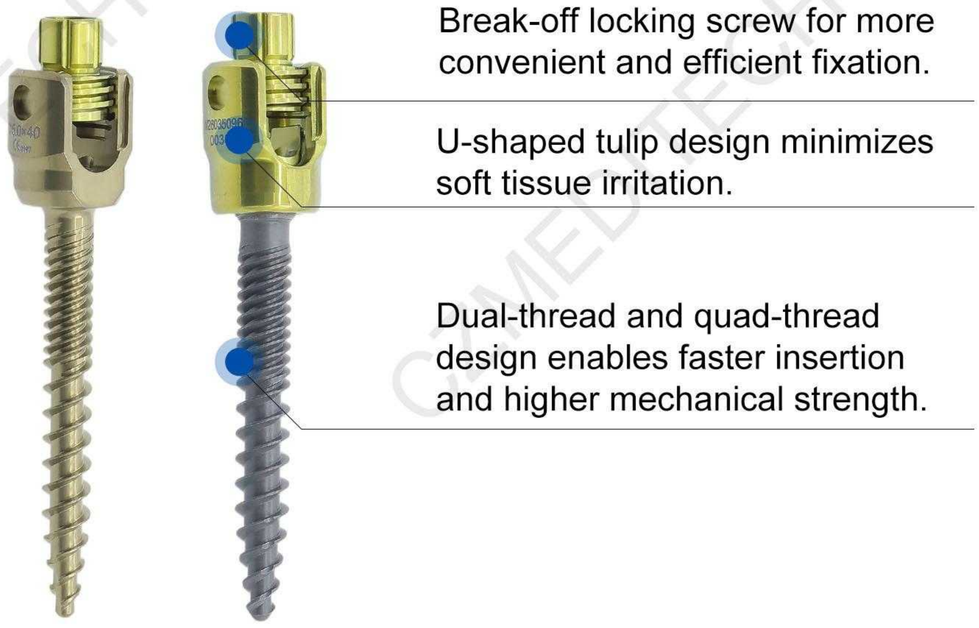


Other 5.5 Screw Head

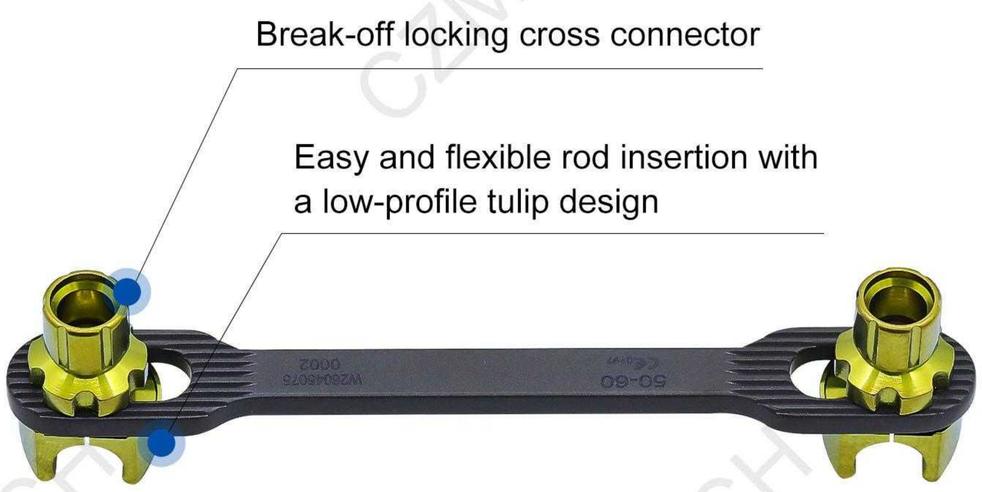


Apollo 5.5 Screw Head

• The bottom surface of the self cutting top wire adopts a convex point design to enhance the locking effect of the titanium alloy rod; The self-locking torque exceeds the industry standard and the safety threshold is high.
• The main body of the vertebral nail is designed with a combination of loose and cortical threads, providing optimal grip
• The conical design of the nail head provides better guidance during the screwing process, with double and four thread threads and a large lead, allowing for faster screwing into the vertebral body



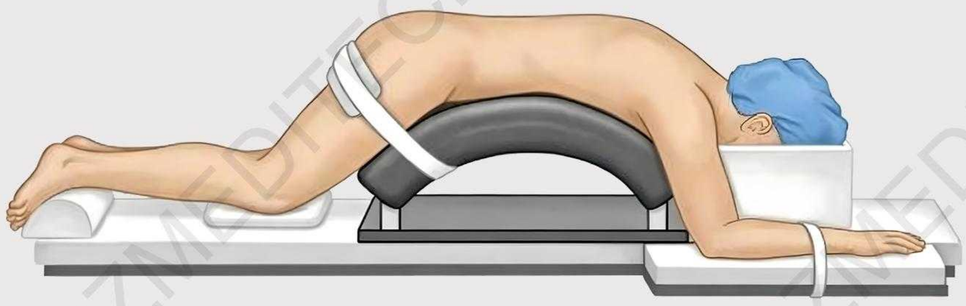

• Optimized design of horizontal connections with low incisions and minimal stimulation to tissues
• Self breaking locking design, sharing one locking tool with the top thread, fast and efficient
• Horizontal connection can be flexibly fixed, and the card rod is convenient and easy to move freely



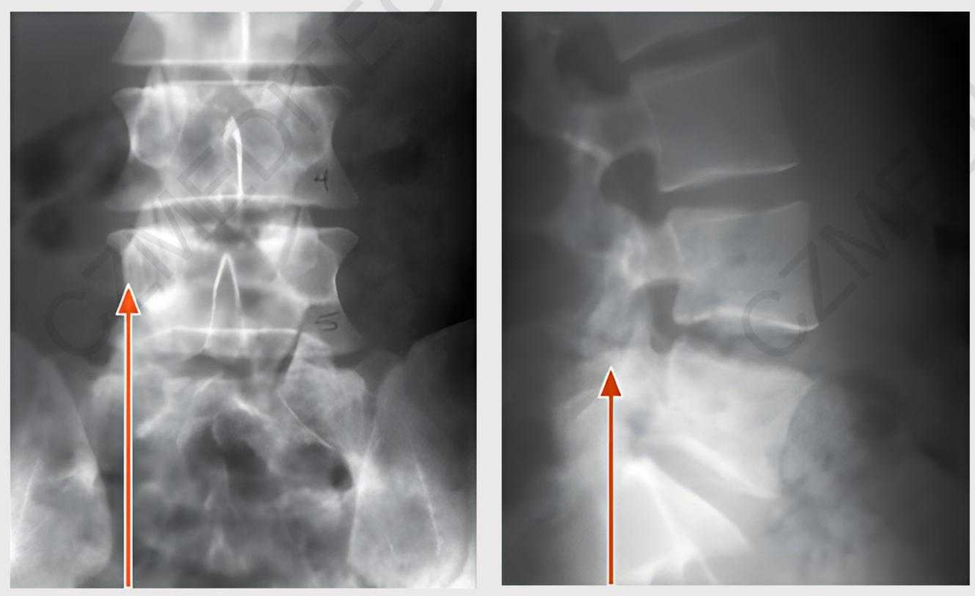
# Surgical procedure

## 1.Preoperative imaging and posture

Image: X-ray of the spine in front and side position; The pedicle diameter, screw insertion angle, screw length and rod length were measured before operation.
Device preparation; Pre selection of implants: Universal / unidirectional pedicle screw , φ 5.5mm titanium alloy connecting rod, transverse connector assembly.
General anesthesia; Prone position; The head and neck were neutral, and the spine remained physiologically lordosis (lumbar spine);
C-arm machine is aligned, and it is confirmed that standard anteroposterior and lateral fluoroscopy can be obtained during operation;
Body surface markers: target segment spinous line.



A midline longitudinal incision is made along the line connecting the spinous process to expose the target vertebral body; Hemostasis, stripping the muscles on both sides of the spinous process, fully exposing the spinous process, vertebral plate, upper and lower articular processes, and transverse process of the target segment;
Intraoperative fluoroscopy confirms the direction of the pedicle of the vertebral body to be fixed; Identify landmark anatomical sites based on perspective images and determine the entry point for screw placement; Clean the soft tissue and osteophyte at the nail insertion point;
Use drilling instruments to pre drill guide holes (see Figures 1a and 1b) to complete the pre positioning of nails.



1a



1b

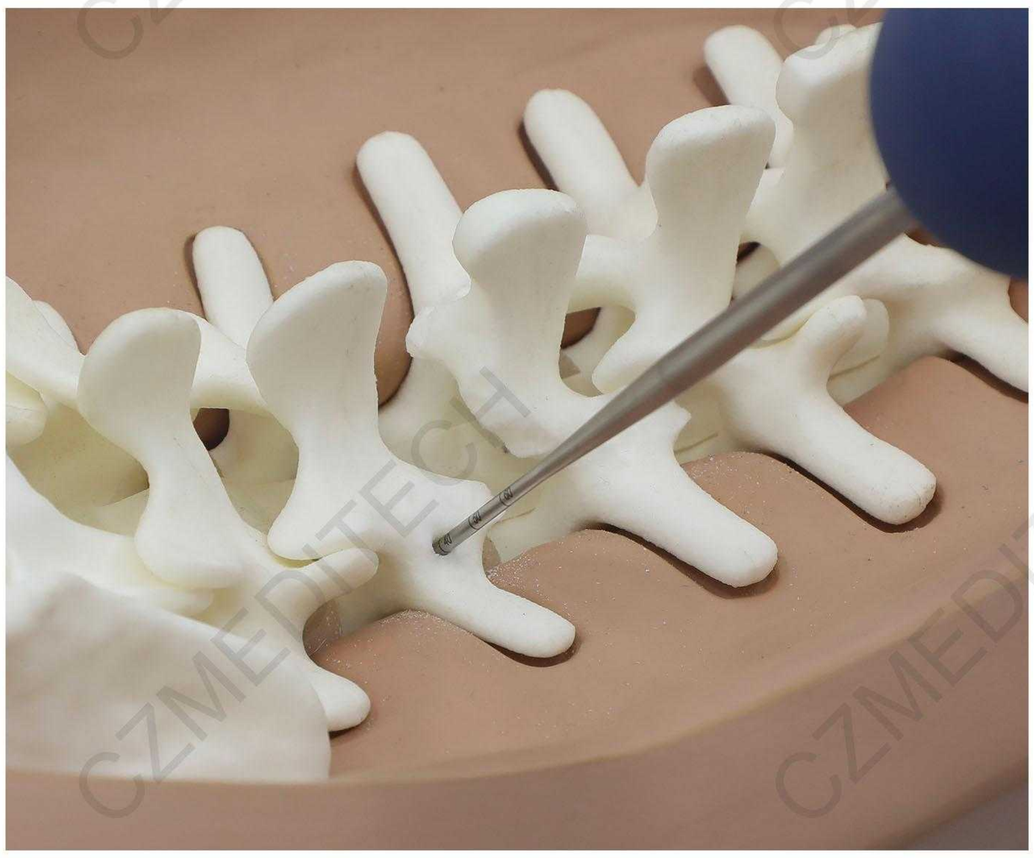
## 2. Pedicle preparation (establishment of screw placement channel)

Entering the cortical opening:
the opening cone breaks the cortex at the vertex of the herringbone crest;

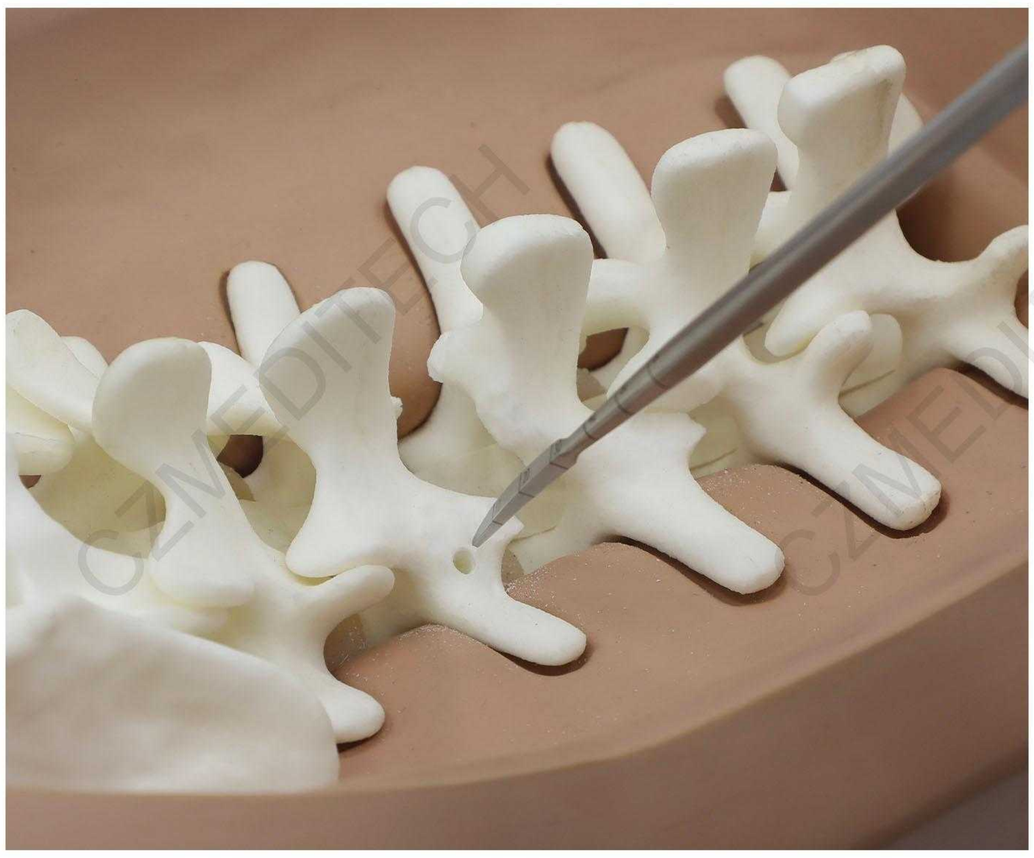
Note: The insertion point is located approximately 3 millimeters from the end of the junction between the lateral edge of the upper thoracic articular process and the transverse process. The trajectory/direction of the sagittal plane screw is perpendicular to the physiological curvature of the plane in which the vertebral body is located.



Pedicle open circuit:
After confirming the entry point, use an open cone along the pedicle axis, tilt the lumbar spine inward by 10-15 ° (cohesive angle), and slowly enter parallel to the vertebral endplate forward, with depth reference to preoperative CT.
The open cone expands the nail path according to the preset inclination angle and sagittal plane angle.



When using an angled open cone, the tip of the cone should point outward to avoid penetrating the inner cortex and entering the spinal canal.
Insert about 20mm to 25mm, adjust the opening cone so that the tip faces inward and push the open cone into the desired depth.



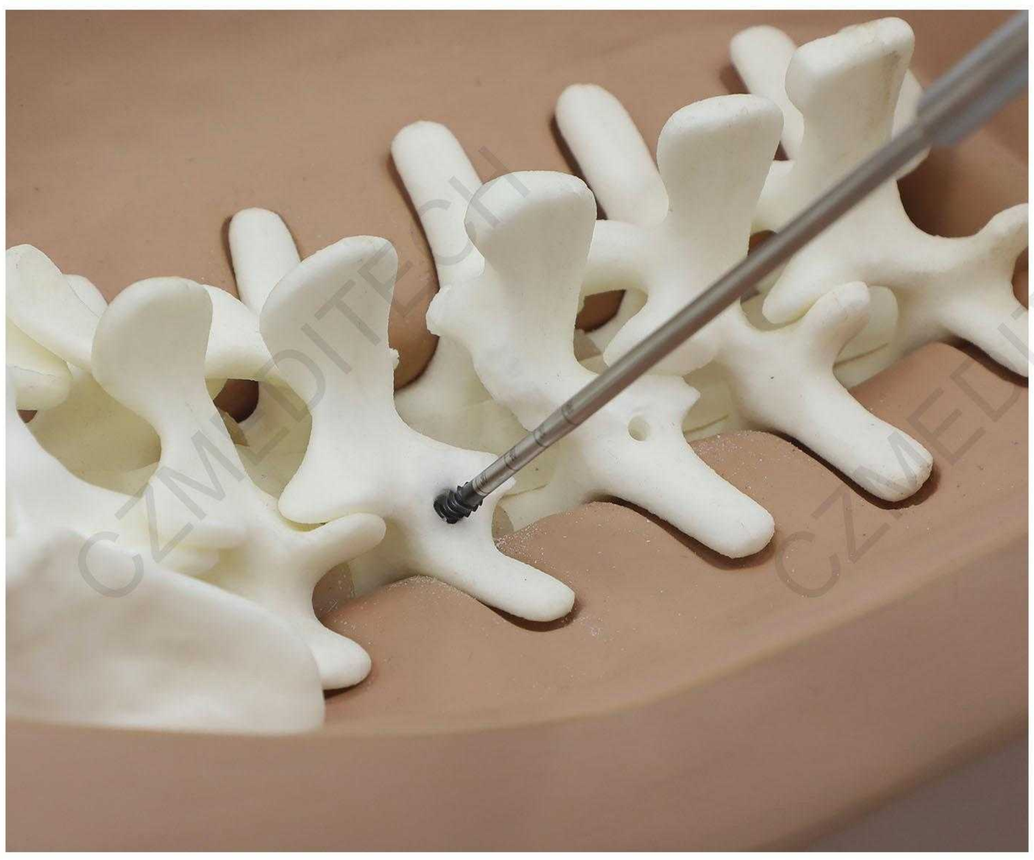
Four wall exploration:
Probe the four walls and bottom of the nail canal to confirm that there is no cortical perforation; If there is a puncture, abandon the nail path and readjust the entry point;



You can insert a developing needle into the nail track and confirm the nail track position under X-ray.

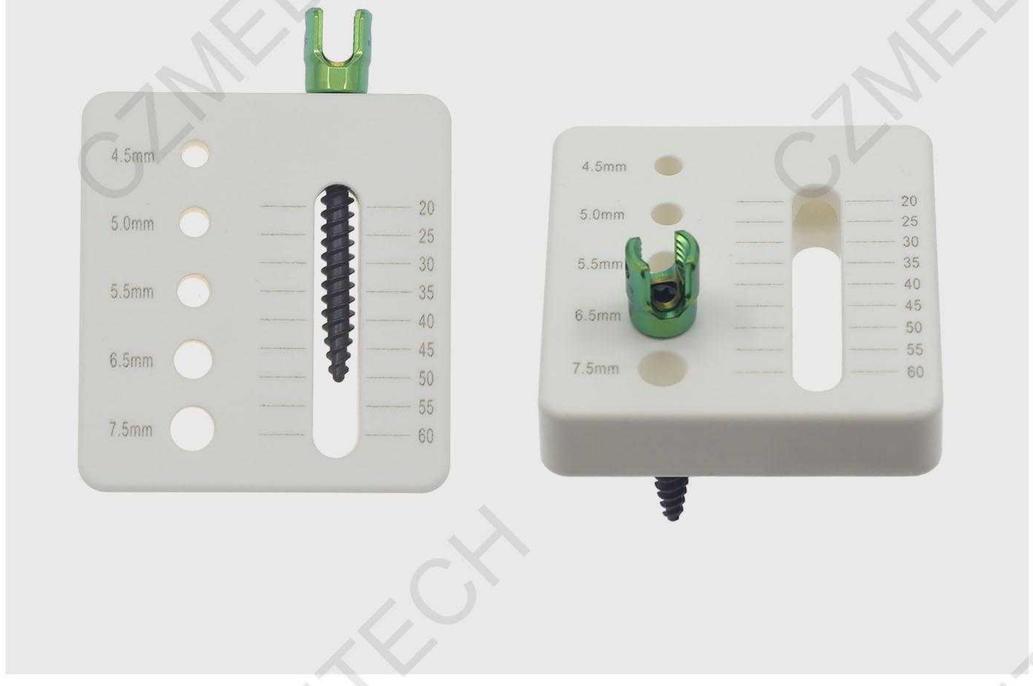


Tapping:
Patients with osteoporosis can omit it; If there is bone sclerosis, use a wire tap to tap step by step, and the tapping depth matches the pre selected screw length; After tapping, probe again to check the integrity of the inner wall;



## 3. Pedicle screw implantation

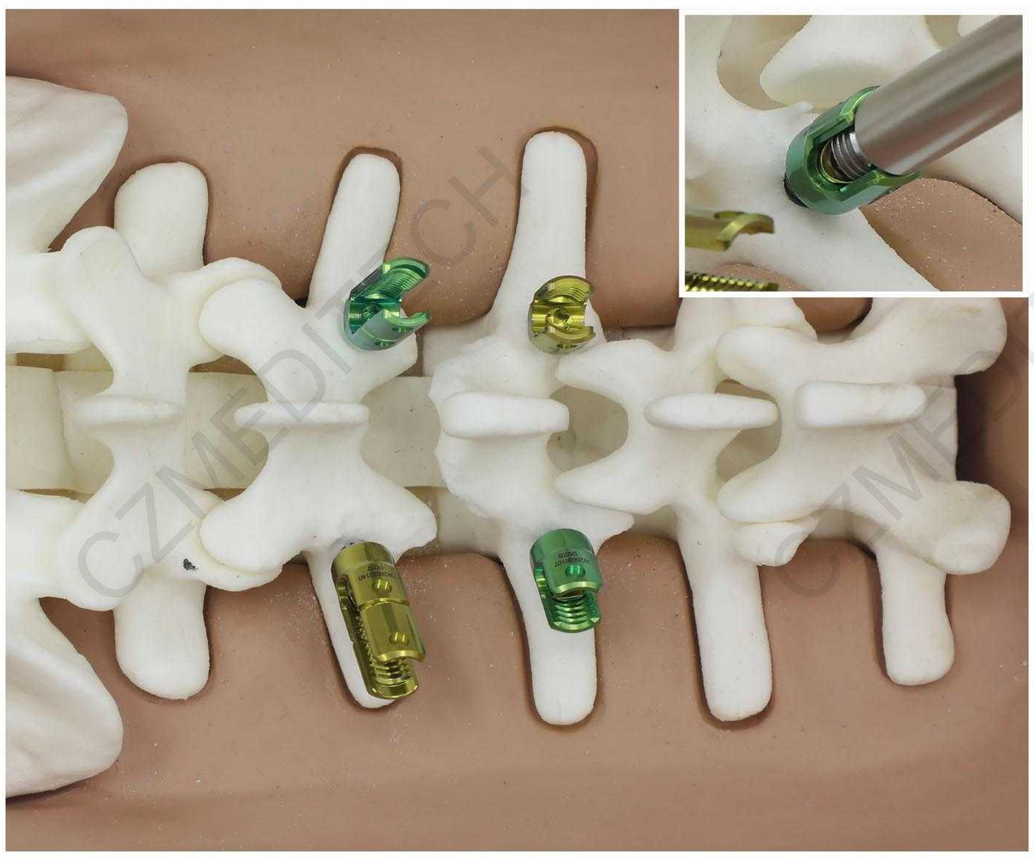
According to the pre-operative sounding data, the corresponding length of vertebral screw was selected. The length and diameter of the vertebral screw can be rechecked with the vertebral screw measuring device to ensure that the selected screw diameter and length dimension are accurate.



The corresponding length of screw was selected according to the preoperative bathymetric data. Pre install the screws on the front end of the corresponding nailer. The tail of the stapler is connected to the ratchet handle.

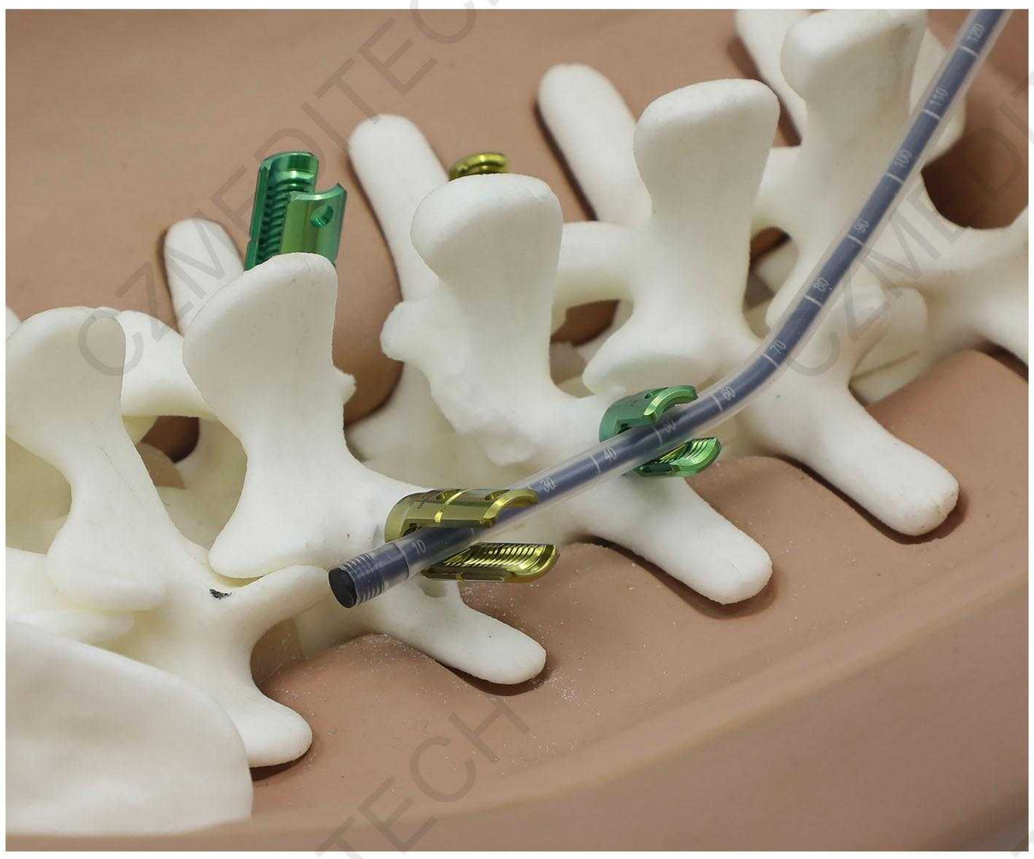


Placement of pedicle screws:
Use a screwdriver to screw the screw along the screw path, aligning the U-shaped head of the screw as much as possible to facilitate subsequent rod installation;
After all pedicle screws are inserted, C-arm anteroposterior and lateral fluoroscopy is used to evaluate the position and depth of the screws, confirming no intraspinal invasion or pedicle rupture; The height of the screw head is basically flush.



## 4. Measurement and pre bending of connecting rods

Rod length measurement:
After confirming the screw position through perspective, use a mold rod to measure the required length of the titanium rod and select a suitable length of 5.5mm titanium rod;

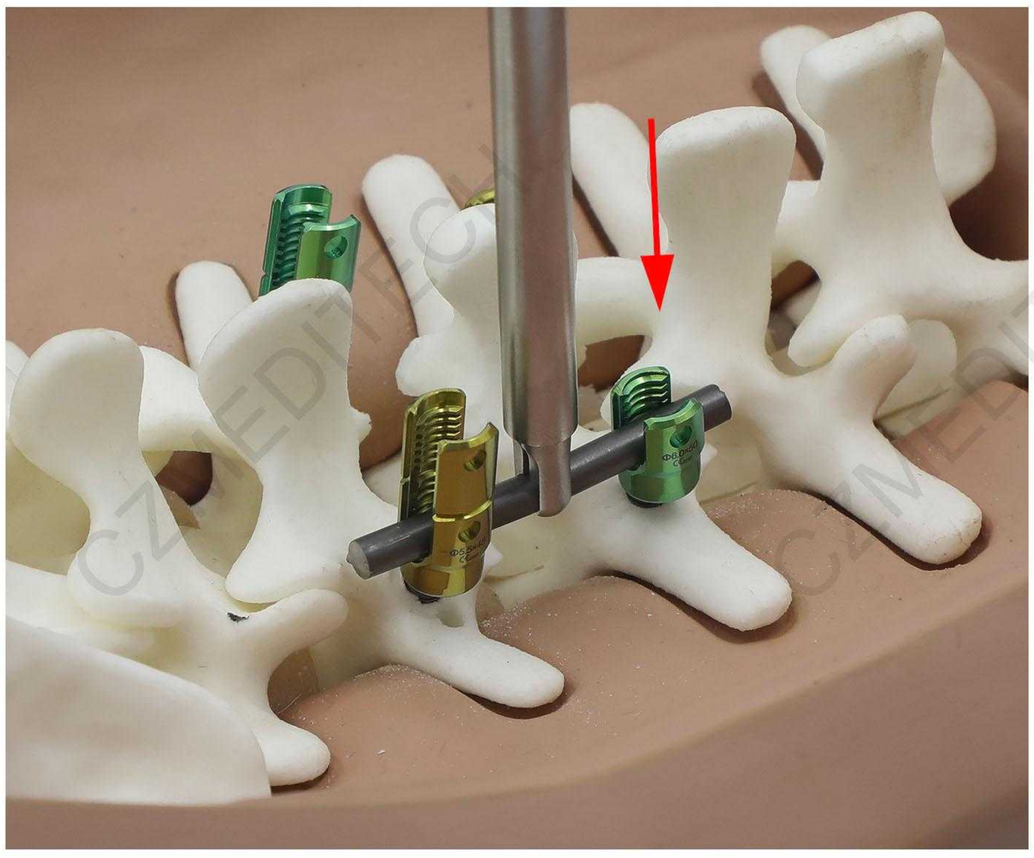


Pre bent rod:
Cut the titanium rod to the calibrated length of the template, use the rod bender to hold the rod, bend according to the radian of the template, and match the physiological lordosis / kyphosis of the spine.
Note: the bending operation shall avoid repeated bending of the rod body to prevent metal fatigue fracture;Remove the edge burr after cutting.



## 5. Connecting rod insertion and pre locking

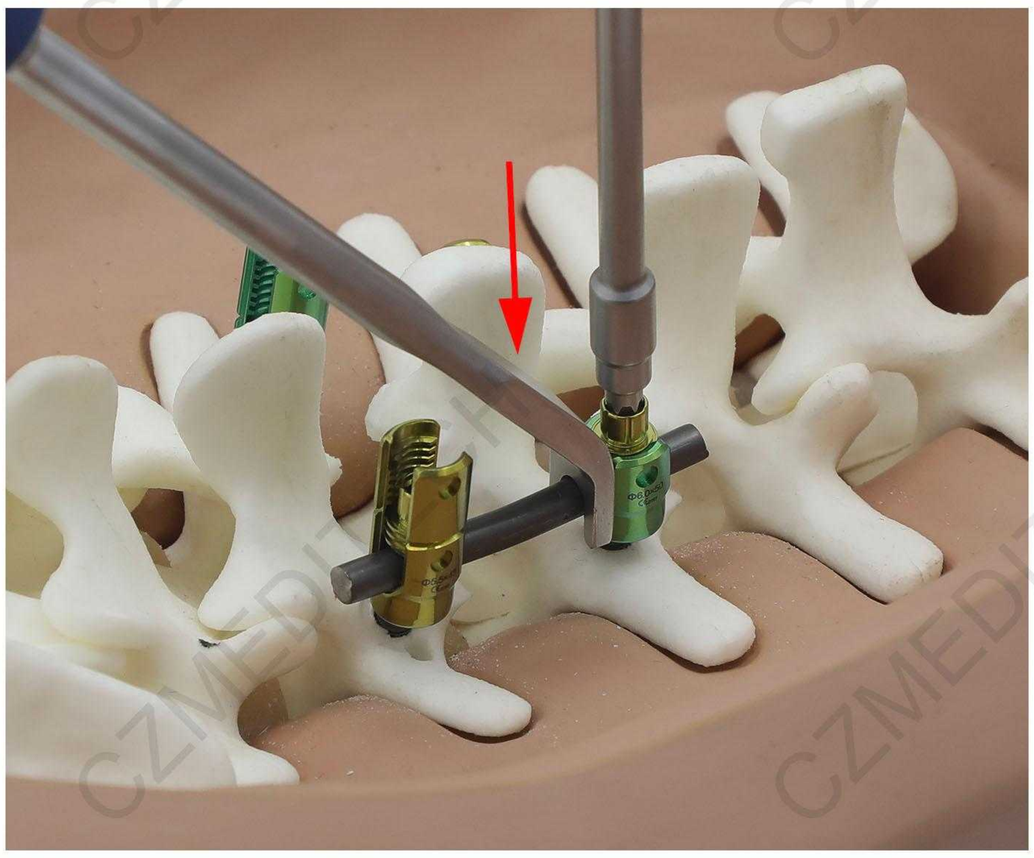
Insert connecting rod:
Hold the pre bent rod with a rod clamp and place it into the U-shaped groove of the upper and lower vertebral nails on the same side; The rod falls completely to the bottom of the U-shaped groove;



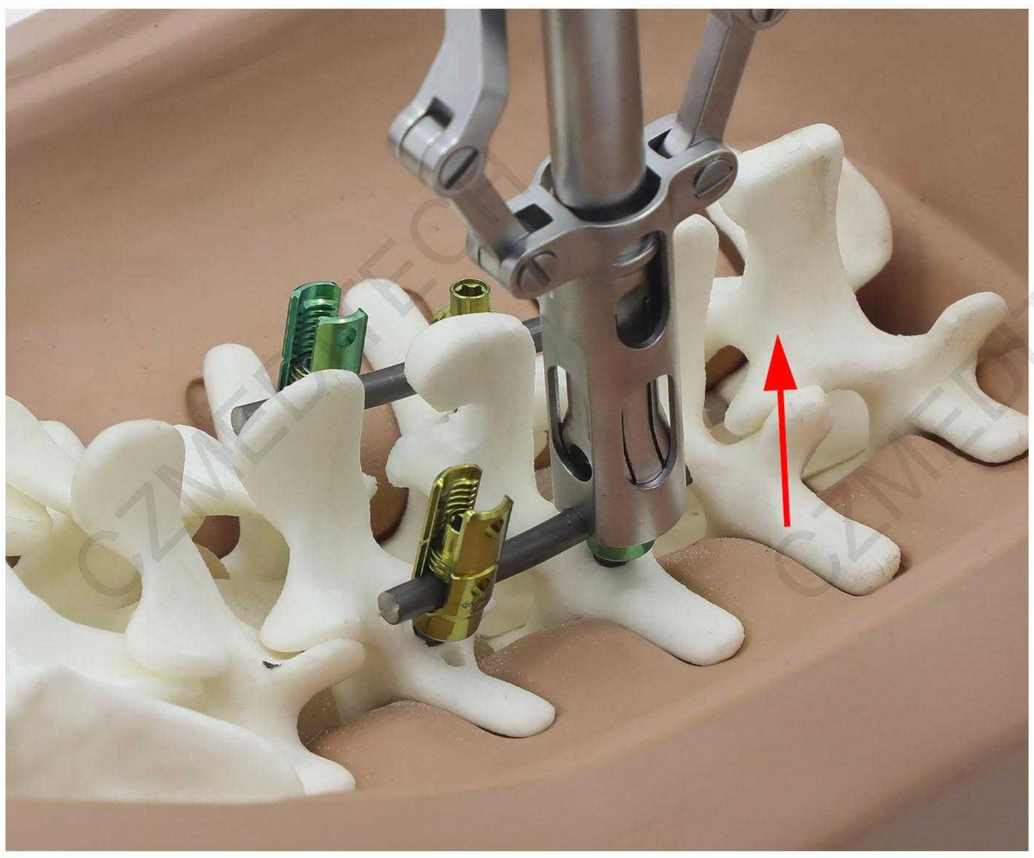
Temporary locking plug:
Use a top wire gripper to manually screw the self cutting top wire into the U-shaped sleeve. (Only temporarily fixed, not ultimately locked), retaining mobility for resetting; Repeat the operation on the opposite side to complete the assembly of the bilateral rods.



When it is difficult to insert the rod, use a rod press to press the rod into the nail head;

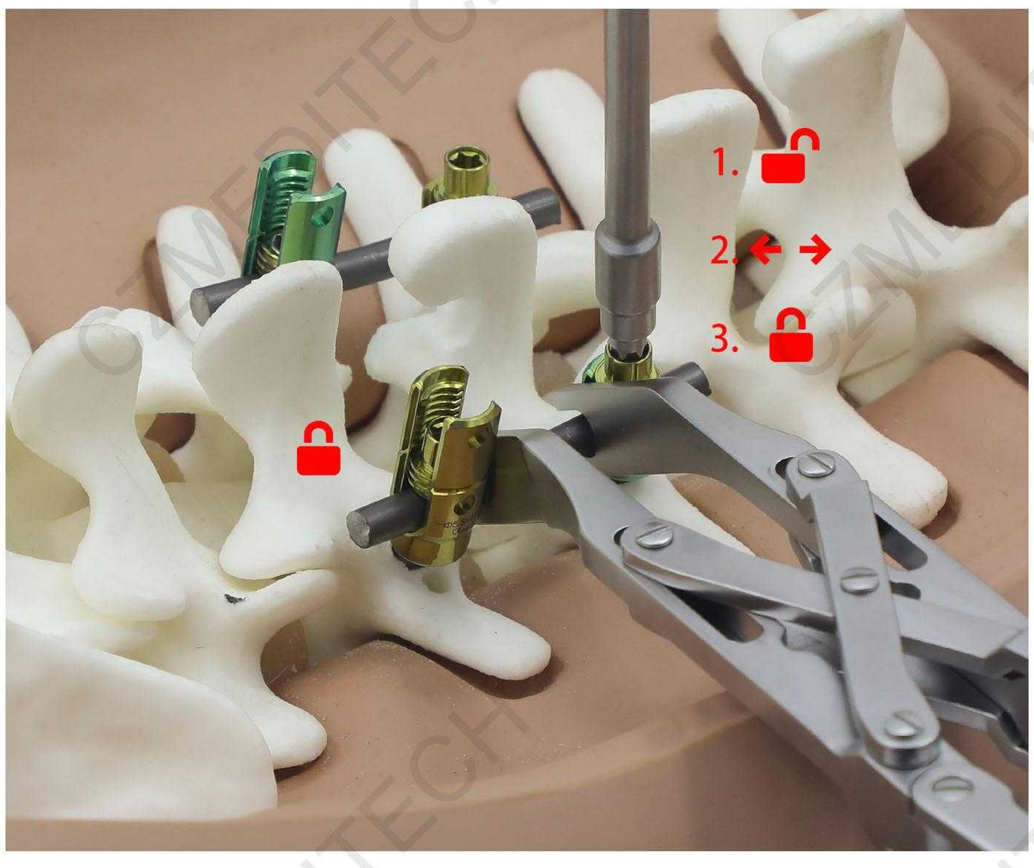


When there is only a significant height difference between the titanium rod and the U-shaped nail seat, Persuader with Sleevecan be used for resetting.
Lower the Persuader with Sleeve along the side groove of the screw, hold the handle of the pliers, compress the sleeve, clamp the screw with the spring, press down the titanium rod with the sleeve, and firmly fix it on the saddle.

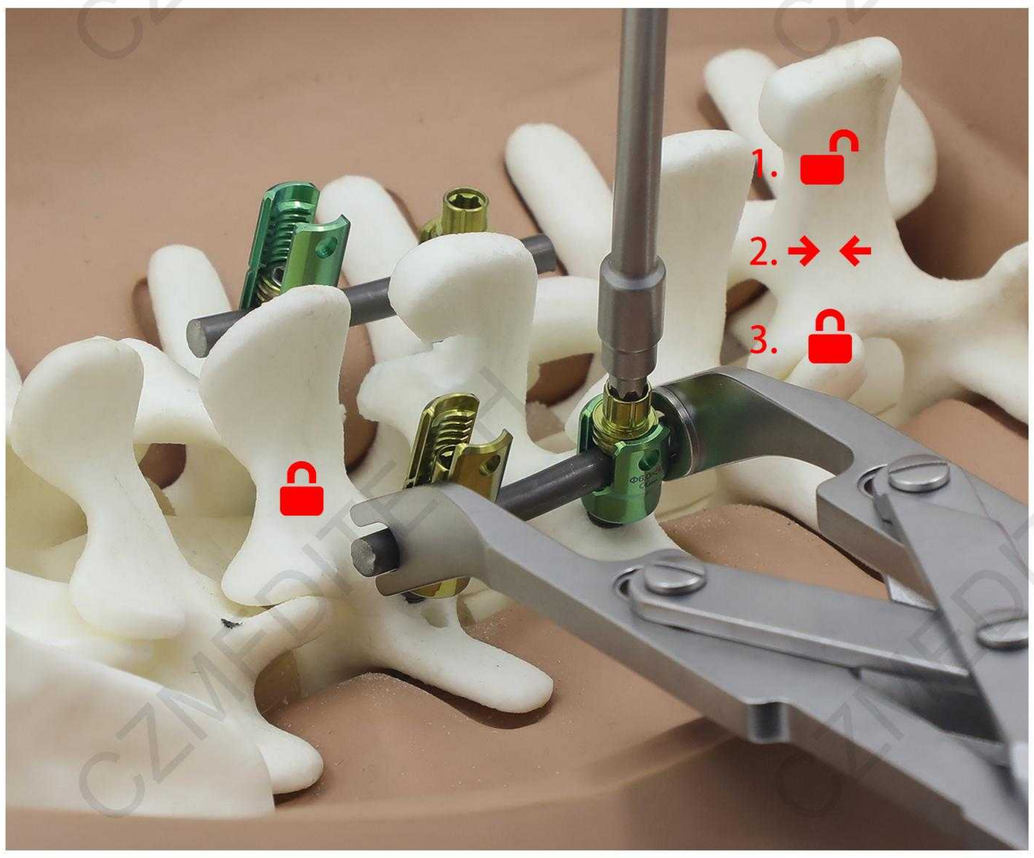


## 6. Reduction operation (fracture lifting/slippage reduction/lumbar fusion)

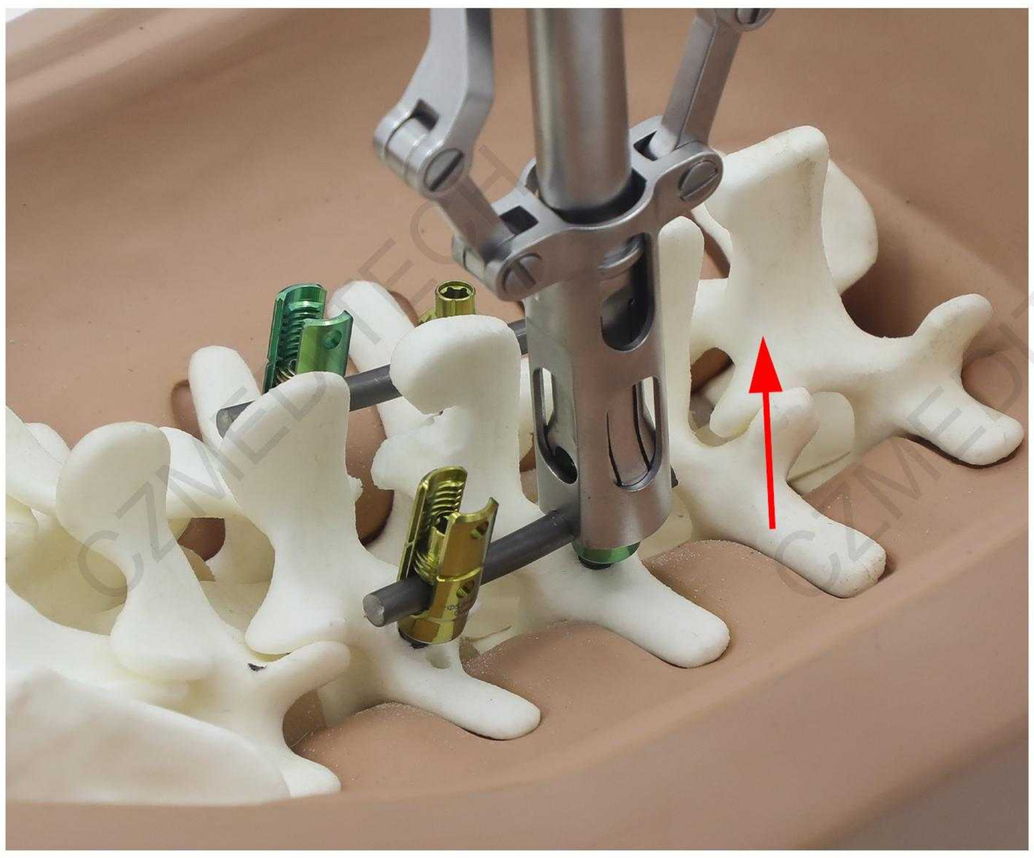
Vertebral compression fracture:
Lock one screw and unlock the other screw,
The tip of the pliers is supported parallel between the rod and two screws; Slowly separate the vertebral body and restore the target intervertebral height;
If the span is large, pliers can be used to clamp the rod body to assist in opening.
Maintain the tension of the opening and tighten the screw to secure the opening position.



Lumbar fusion:
Lock one screw and unlock the other screw,
Place the pliers between the outer side of the screw head and the surface of the rod, slowly apply pressure, and continuously apply axial pressure; Until the height of the vertebral gap and the curvature of the sagittal plane reach an appropriate level;
If the span is large, pliers can be used to clamp the rod body to assist in pressure application.
Maintain the pressurized state and tighten the screws to secure the position.




Lumbar spondylolisthesis:
Use Persuader with Sleeve to lift the vertebral nail and reposition it backwards and upwards;
Repeatedly perform C-arm lateral fluoroscopy to evaluate vertebral height and degree of slippage, achieving the desired reduction;
After satisfactory reset, alternate pre tighten the screws and plugs on both sides to maintain the reset position.

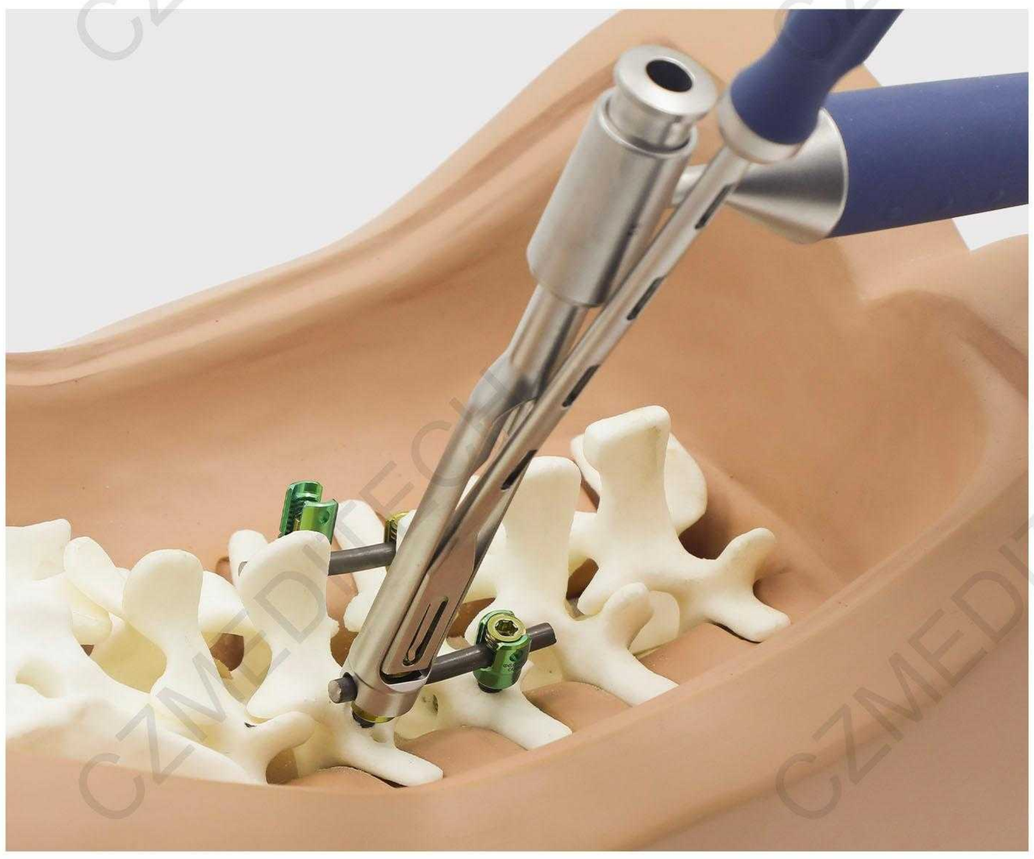


## 7. Final locking of overall structure

Sequential locking principle:
diagonally alternate locking to prevent stress concentration on one side;
This system adopts self cutting top screw locking, which can be continuously locked with an anti wrench to the vertebral nail. After the locking is completed, confirm through perspective that the reset is not lost;

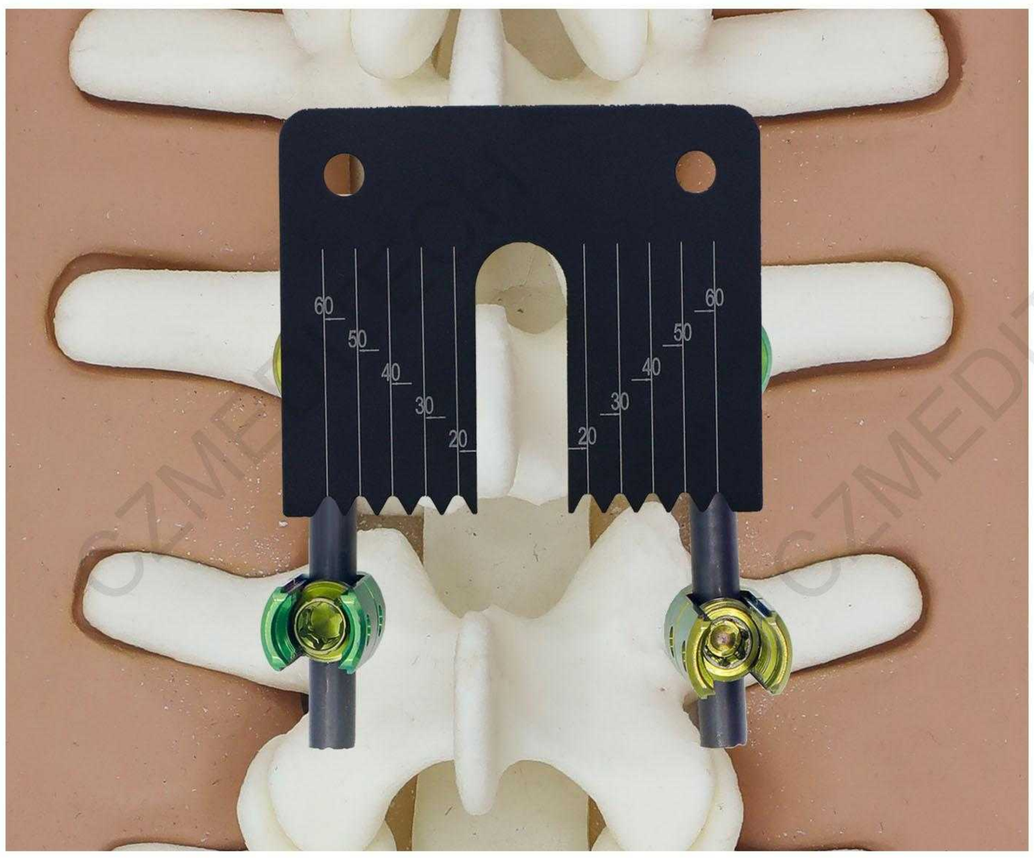


Screw tail treatment: Use a nail tail breaker to break the long tail and remove the broken tail.

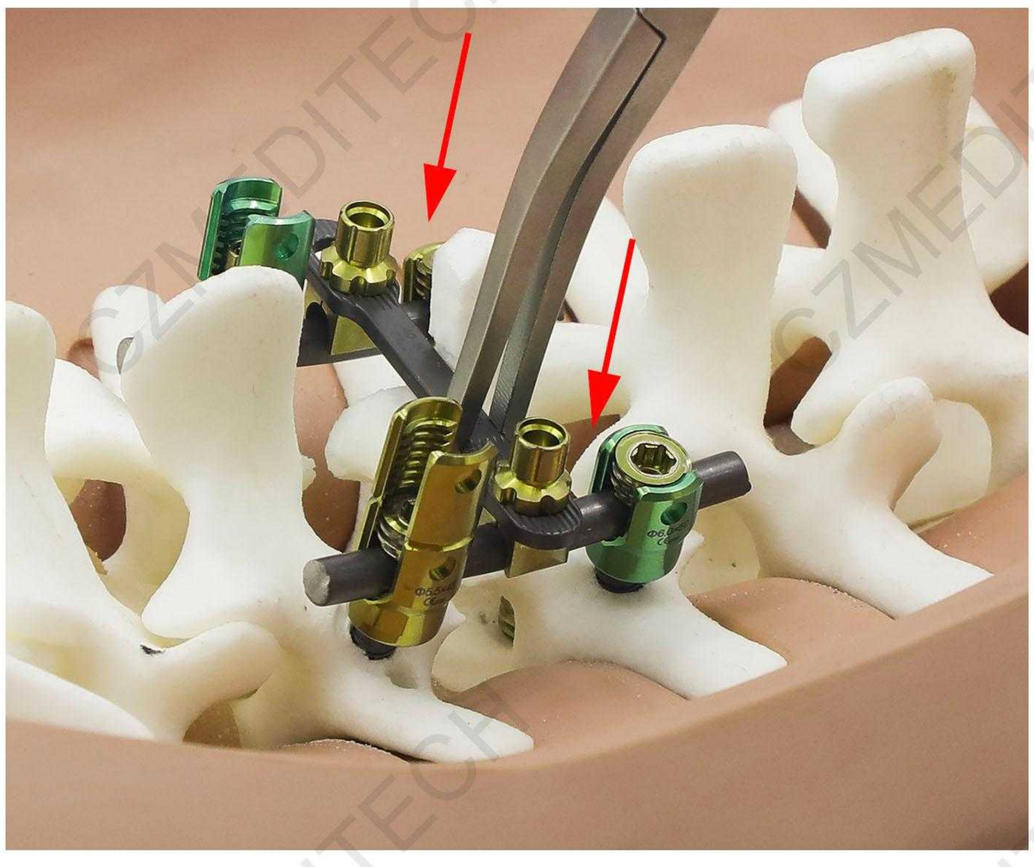


## 8. Installation of transverse connector (to enhance the overall torsional stability)

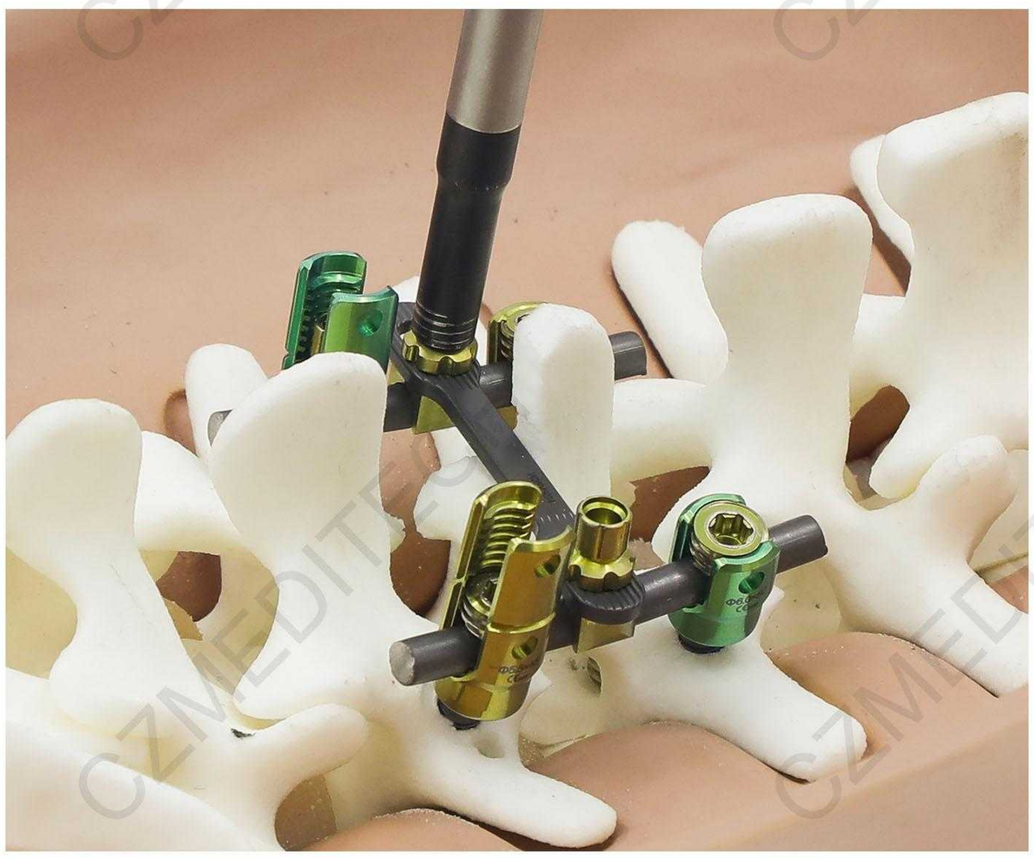
For the long segment multi vertebral body fixation structure, transverse connectors must be installed at both ends to form a rectangular fixed frame and improve the anti rotation and anti shear stiffness of the implant system.
Use a measuring plate to measure the required transverse connection length and select a transverse connector of appropriate width.



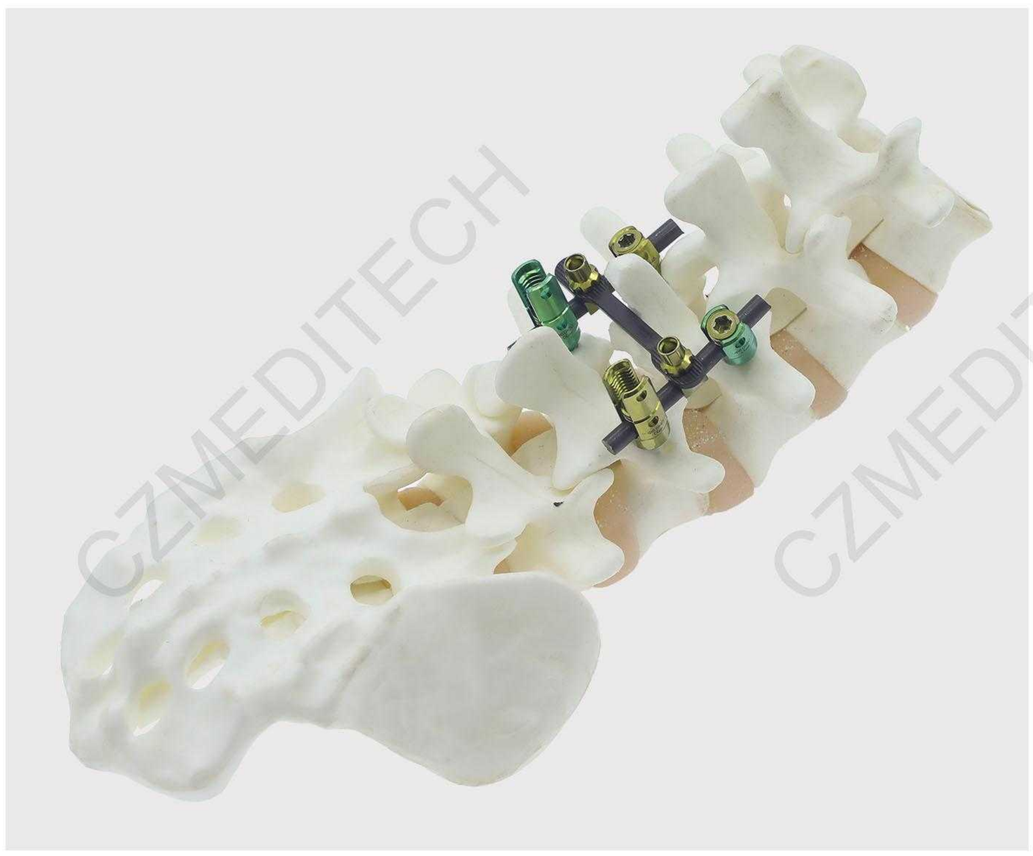

Loosen the clamping screws on both sides of the horizontal connector and slide it onto the surface of the left and right longitudinal bars; Insert the clamping blocks on both sides into the rod body.



The horizontal connection is designed for self disconnection and can be used in conjunction with a locking screwdriver to achieve self disconnection locking;



Perform another C-arm perspective to confirm the overall position of the horizontal connection, rod, and screw is correct.



# Apollo Scoliosis Correction

## 1.Preoperative imaging and posture

Insert the required pedicle screws into the target vertebral body.
Principle of nail placement:
Nail placement on the concave side of the main bend, and nail placement at intervals in the secondary bend/stable zone; UIV and LIV must be nailed on both sides
A typical right thoracic scoliosis requires complete fixation with screws on the corrective side of the convex surface. On the left fixed side, 4 to 5 fixation nails were implanted in the top area. Universal nails can be implanted into the remaining sections



After the screw implantation is completed, use a aligner to adjust all the U-shaped slots of the vertebral screws, aligning them as much as possible, in preparation for subsequent rod placement and rotation.



## 2. Measurement and pre bending of connecting rods

Pole length measurement:
After confirming the position of the screw through perspective, measure the required curvature and length of the bent titanium rod using a mold rod, and select a 5.5mm titanium rod of appropriate length;

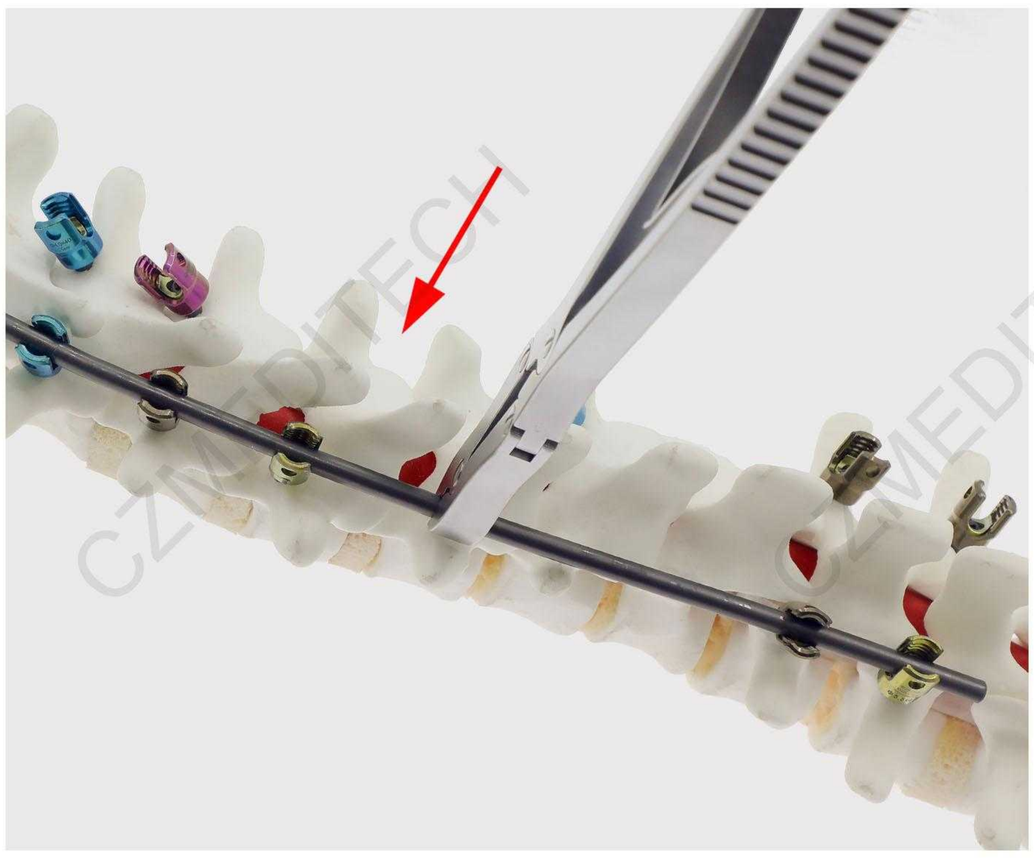


Pre bent rod:
Cut the titanium rod to the calibrated length of the template, use the rod bender to hold the rod, bend according to the radian of the template, and match the physiological lordosis / kyphosis of the spine.
Note: the bending operation shall avoid repeated bending of the rod body to prevent metal fatigue fracture;Remove the edge burr after cutting.



## 3. Connecting rod insertion and pre locking

Use a strong rod clamp to hold the pre bent titanium rod and place it into the U-shaped groove of the head and tail vertebral nail;
Press the rod sequentially into the slots of each pedicle screw in the middle;
Temporary placement of pre locking top thread (only for initial fastening, not fully locked, retaining universal mobility, used for subsequent 3D orthopedic reduction)



Temporary locking plug:
Use a top wire gripper to manually screw the self cutting top wire into the U-shaped sleeve. (Only temporarily fixed, not ultimately locked), retaining mobility for resetting;



Assemble the protruding one-way (fixed angle) screw with an extension sleeve and install the sleeve on the vertebral nail. Insert the tail of the screw into the head of the sleeve and hear a "click" sound to confirm successful insertion, and the spring clips on both sides of the controller have been correctly reset



Insert the compression rod sleeve onto the working sleeve, rotate the nut at the end of the sleeve, and smoothly press the compression rod sleeve down along the thread at the end of the main sleeve until the sleeve wall contacts the titanium rod
After connecting the T-shaped handle to the socket wrench, place it on the top nut of the compression rod sleeve. Rotate the wrench clockwise and apply torque to the top of the socket to press down on the titanium rod



Screw in the top thread pre fastening, maintain the top thread pre fastening throughout the correction process without final locking
Repeat the above steps to install the remaining titanium rods and sleeves.

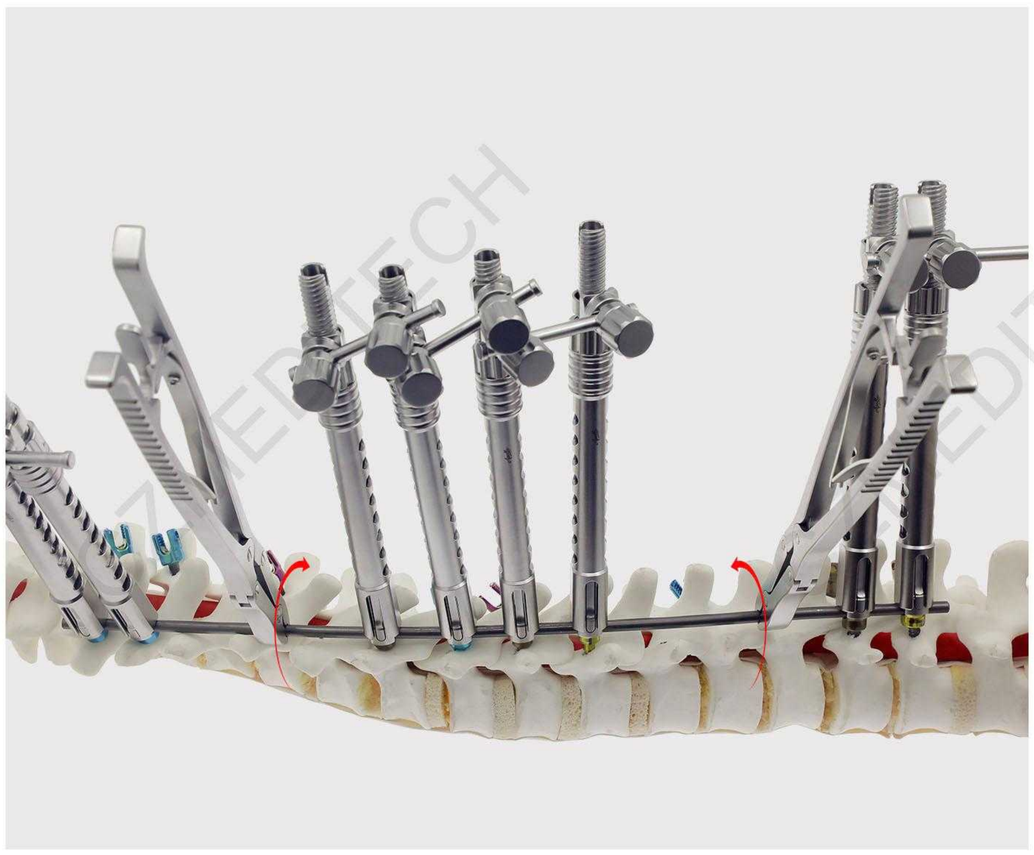


Use connectors to bridge the sleeves and perform overall reverse rotation (correcting vertebral axis rotation) on multiple vertebral bodies, and install connectors at the end of the sleeves. After adjusting the position and angle, rotate the connector screw clockwise to secure and lock the sleeve and connector.



## 4. Rotation reset

Check that all top wires are in a preliminary fastening state and not locked tightly. Use two strong pliers to clamp the titanium rod and slowly rotate it back to its original position.



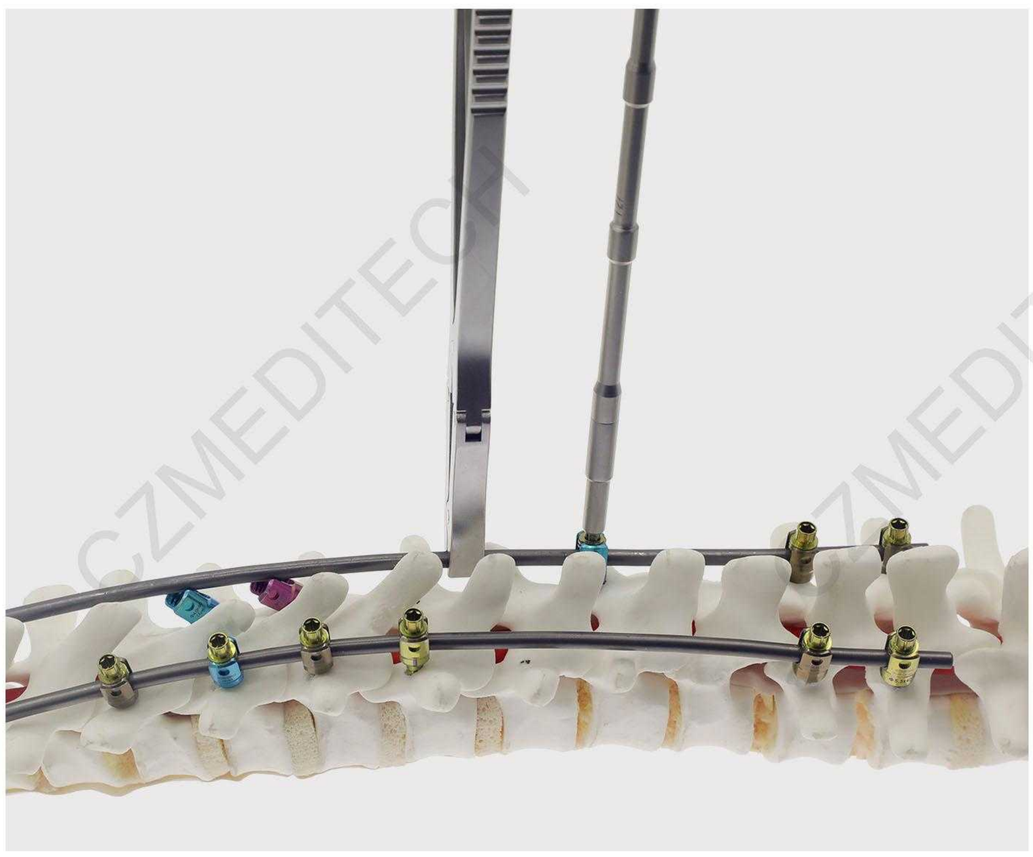
Until the target spine returns to its normal physiological curve



After meeting the requirements, the top thread can be pre locked.



Place a second titanium rod pre bent according to the mold on the other side and screw it into the top wire for pre locking



## 5. Reduction operation (fracture lifting/slippage reduction/lumbar fusion)

According to the previous steps of stretching, compressing, and pulling, reduce the vertebral body
Pre lock the reset top thread



## 6. Internal correction

After resetting, if local curvature adjustment is required, the internal bending rod can be used for fine adjustment. Place the bending rod near the target vertebral body, make multiple small movements and track the bending position, and continuously adjust until a satisfactory curvature is achieved.
Attention: The internal bending device is only used for small angle adjustment in the sagittal plane. Large bending is prohibited to avoid micro cracks in the titanium rod and increase the risk of later rod breakage; During the bending process, the top thread should be pre fastened to retain the sliding allowance between the rod nails. After confirming satisfactory results, tighten all top threads.



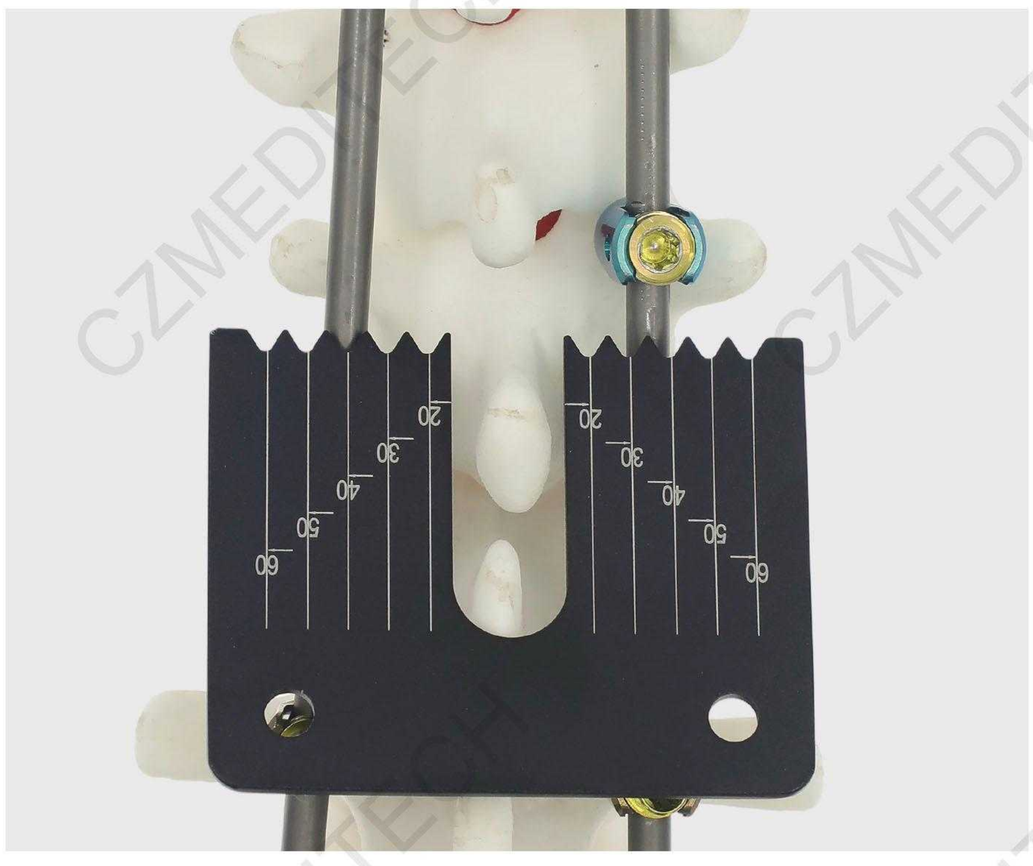
## 7. Final locking

Using a top screw locking screwdriver in conjunction with a counter sleeve for top screw locking.
When the torque limit is reached, the self breaking part of the top wire will automatically detach and remain inside the locking screwdriver. Continuous locking can be achieved.
Tighten the top screws in sections and sequence. The recommended sequence is to first tighten the top vertebra area, and then gradually lock it towards the head and tail ends to evenly distribute the orthopedic stress.



## 8. Horizontal installation

The installation of horizontal connectors can improve the system's torsional resistance.
Measure the distance between the two rods that need to be placed in a horizontal connection and select the appropriate length of the horizontal connection.



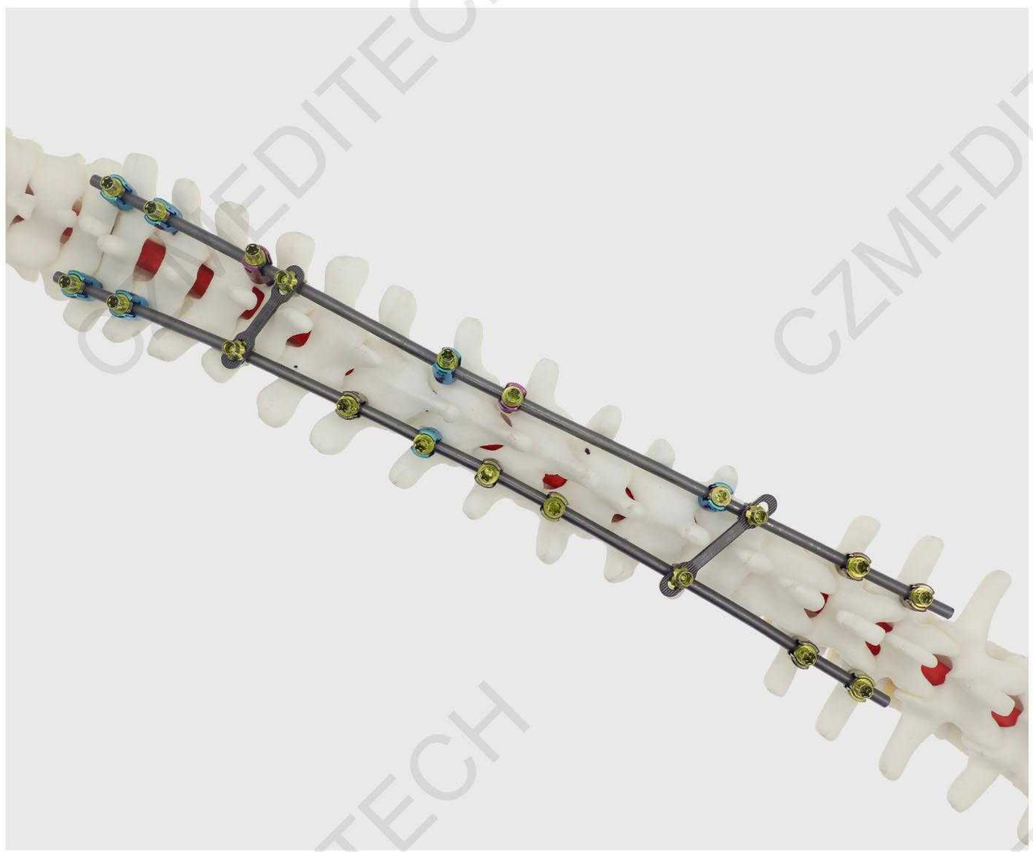
Loosen the nuts on both sides of the self disconnecting cross connection, and use the cross connection gripper to fasten the cross connection above the titanium rod.



Cooperate with the locking screwdriver to complete the locking of the crossbeam, and the broken part will remain inside the locking screwdriver.
Recommend at least 2 transverse connections: 1 group in the main apex vertebral zone and 1 group in the distal stable zone; Long segment side bending should be increased as appropriate.



Implantation completed



# Product Information

## Apollo Monoaxial Pedical Screw

| REF | Specification |
|---|---|
| 2300-0101 | 4.0*25mm |
| 2300-0102 | 4.0*30mm |
| 2300-0103 | 4.0*35mm |
| 2300-0104 | 4.0*40mm |
| 2300-0107 | 4.5*30mm |
| 2300-0108 | 4.5*35mm |
| 2300-0109 | 4.5*40mm |
| 2300-0110 | 4.5*45mm |
| 2300-0111 | 5.0*30mm |
| 2300-0112 | 5.0*35mm |
| 2300-0113 | 5.0*40mm |
| 2300-0114 | 5.0*45mm |
| 2300-0115 | 5.0*50mm |
| 2300-0118 | 5.5*35mm |
| 2300-0119 | 5.5*40mm |
| 2300-0120 | 5.5*45mm |
| 2300-0121 | 5.5*50mm |
| 2300-0123 | 6.0*35mm |
| 2300-0124 | 6.0*40mm |
| 2300-0125 | 6.0*45mm |
| 2300-0126 | 6.0*50mm |
| 2300-0129 | 6.5*35mm |
| 2300-0130 | 6.5*40mm |
| 2300-0131 | 6.5*45mm |
| 2300-0132 | 6.5*50mm |
| 2300-0135 | 7.0*35mm |
| 2300-0136 | 7.0*40mm |
| 2300-0137 | 7.0*45mm |
| 2300-0138 | 7.0*50mm |



## Apollo Monoaxial Reduction Screw

| REF | Specification |
|---|---|
| 2300-0201 | 4.0*25mm |
| 2300-0202 | 4.0*30mm |
| 2300-0203 | 4.0*35mm |
| 2300-0204 | 4.0*40mm |
| 2300-0207 | 4.5*30mm |
| 2300-0208 | 4.5*35mm |
| 2300-0209 | 4.5*40mm |
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| 2300-0215 | 5.0*50mm |
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| 2300-0220 | 5.5*45mm |
| 2300-0221 | 5.5*50mm |
| 2300-0223 | 6.0*35mm |
| 2300-0224 | 6.0*40mm |
| 2300-0225 | 6.0*45mm |
| 2300-0226 | 6.0*50mm |
| 2300-0229 | 6.5*35mm |
| 2300-0230 | 6.5*40mm |
| 2300-0231 | 6.5*45mm |
| 2300-0232 | 6.5*50mm |
| 2300-0235 | 7.0*35mm |
| 2300-0236 | 7.0*40mm |
| 2300-0237 | 7.0*45mm |
| 2300-0238 | 7.0*50mm |



## Apollo Polyxial Pedical Screw

| REF | Specification |
|---|---|
| 2300-0301 | 4.0*25mm |
| 2300-0302 | 4.0*30mm |
| 2300-0303 | 4.0*35mm |
| 2300-0304 | 4.0*40mm |
| 2300-0307 | 4.5*30mm |
| 2300-0308 | 4.5*35mm |
| 2300-0309 | 4.5*40mm |
| 2300-0310 | 4.5*45mm |
| 2300-0311 | 5.0*30mm |
| 2300-0312 | 5.0*35mm |
| 2300-0313 | 5.0*40mm |
| 2300-0314 | 5.0*45mm |
| 2300-0315 | 5.0*50mm |
| 2300-0318 | 5.5*35mm |
| 2300-0319 | 5.5*40mm |
| 2300-0320 | 5.5*45mm |
| 2300-0321 | 5.5*50mm |
| 2300-0322 | 5.5*55mm |
| 2300-0323 | 6.0*35mm |
| 2300-0324 | 6.0*40mm |
| 2300-0325 | 6.0*45mm |
| 2300-0326 | 6.0*50mm |
| 2300-0327 | 6.0*55mm |
| 2300-0329 | 6.5*35mm |
| 2300-0330 | 6.5*40mm |
| 2300-0331 | 6.5*45mm |
| 2300-0332 | 6.5*50mm |
| 2300-0333 | 6.5*55mm |
| 2300-0335 | 7.0*35mm |
| 2300-0336 | 7.0*40mm |
| 2300-0337 | 7.0*45mm |
| 2300-0338 | 7.0*50mm |
| 2300-0339 | 7.0*55mm |



## Apollo Polyaxial Reduction Screw

| REF | Specification |
|---|---|
| 2300-0401 | 4.0*25mm |
| 2300-0402 | 4.0*30mm |
| 2300-0403 | 4.0*35mm |
| 2300-0404 | 4.0*40mm |
| 2300-0407 | 4.5*30mm |
| 2300-0408 | 4.5*35mm |
| 2300-0409 | 4.5*40mm |
| 2300-0410 | 4.5*45mm |
| 2300-0411 | 5.0*30mm |
| 2300-0412 | 5.0*35mm |
| 2300-0413 | 5.0*40mm |
| 2300-0414 | 5.0*45mm |
| 2300-0415 | 5.0*50mm |
| 2300-0418 | 5.5*35mm |
| 2300-0419 | 5.5*40mm |
| 2300-0420 | 5.5*45mm |
| 2300-0421 | 5.5*50mm |
| 2300-0423 | 6.0*35mm |
| 2300-0424 | 6.0*40mm |
| 2300-0425 | 6.0*45mm |
| 2300-0426 | 6.0*50mm |
| 2300-0427 | 6.0*55mm |
| 2300-0429 | 6.5*35mm |
| 2300-0430 | 6.5*40mm |
| 2300-0431 | 6.5*45mm |
| 2300-0432 | 6.5*50mm |
| 2300-0433 | 6.5*55mm |
| 2300-0435 | 7.0*35mm |
| 2300-0436 | 7.0*40mm |
| 2300-0437 | 7.0*45mm |
| 2300-0438 | 7.0*50mm |
| 2300-0439 | 7.0*55mm |



## Apollo Iliac Reduction Screw

| REF | Specification |
|---|---|
| 2300-0501 | 7.5*65mm |
| 2300-0502 | 7.5*70mm |
| 2300-0503 | 7.5*75mm |
| 2300-0504 | 7.5*80mm |
| 2300-0509 | 8.0*70mm |
| 2300-0510 | 8.0*75mm |
| 2300-0511 | 8.0*80mm |
| 2300-0512 | 8.0*85mm |



## Apollo Self-break Crosslink

| REF | Specification |
|---|---|
| 2300-0601 | 30-40mm |
| 2300-0602 | 40-50mm |
| 2300-0603 | 50-60mm |
| 2300-0604 | 60-70mm |
| 2300-0605 | 70-80mm |



## Apollo Shifter

| REF | Specification |
|---|---|
| 2300-0701 | 20mm |
| 2300-0702 | 30mm |
| 2300-0703 | 40mm |
| 2300-0704 | 50mm |



## Apollo Laminar Hook

| REF | Specification |
|---|---|
| 2300-0801 | 5.5*6.5mm |
| 2300-0802 | 5.5*7.0mm |
| 2300-0803 | 5.5*8.0mm |



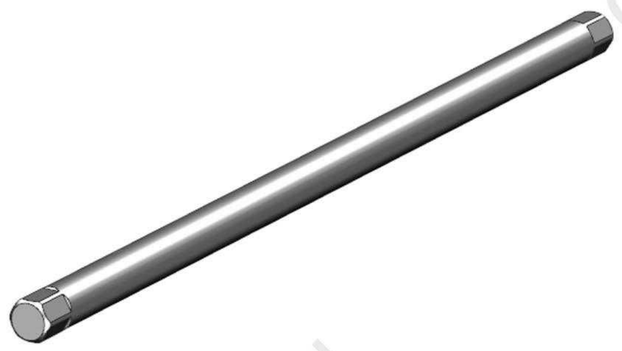

## Apollo Pedicle Hook

| REF | Specification |
|---|---|
| 2300-0901 | 5.5*6.5mm |
| 2300-0902 | 5.5*7.0mm |
| 2300-0903 | 5.5*8.0mm |



## Apollo 5.5 Titanium Rod (Two Sides Hex)

| REF | Specification |
|---|---|
| 2300-4301 | 5.5*100mm |
| 2300-4302 | 5.5*120mm |
| 2300-4303 | 5.5*150mm |
| 2300-4304 | 5.5*200mm |
| 2300-4305 | 5.5*400mm |
| 2300-4306 | 5.5*600mm |



## Apollo CoCrMo 5.5 Rod (One Side Hex)

| REF | Specification |
|---|---|
| 2300-1401 | 5.5*100mm |
| 2300-1402 | 5.5*150mm |
| 2300-1403 | 5.5*200mm |
| 2300-1404 | 5.5*250mm |



## Apollo CoCrMo 5.5 Rod (Two Sides Hex)

| REF | Specification |
|---|---|
| 2300-1501 | 5.5*300mm |
| 2300-1502 | 5.5*400mm |
| 2300-1503 | 5.5*500mm |
| 2300-1504 | 5.5*600mm |



## Apollo Straight Connector

| REF | Specification |
|---|---|
| 2300-4201 | 30mm |
| 2300-4202 | 50mm |



## Apollo Parallel Connector I

| REF | Specification |
|---|---|
| 2300-4205 | / |



## Apollo Parallel Connector II

| REF | Specification |
|---|---|
| 2300-4206 | / |



## Apollo Square Connector

| REF | Specification |
|---|---|
| 2300-4203 | / |



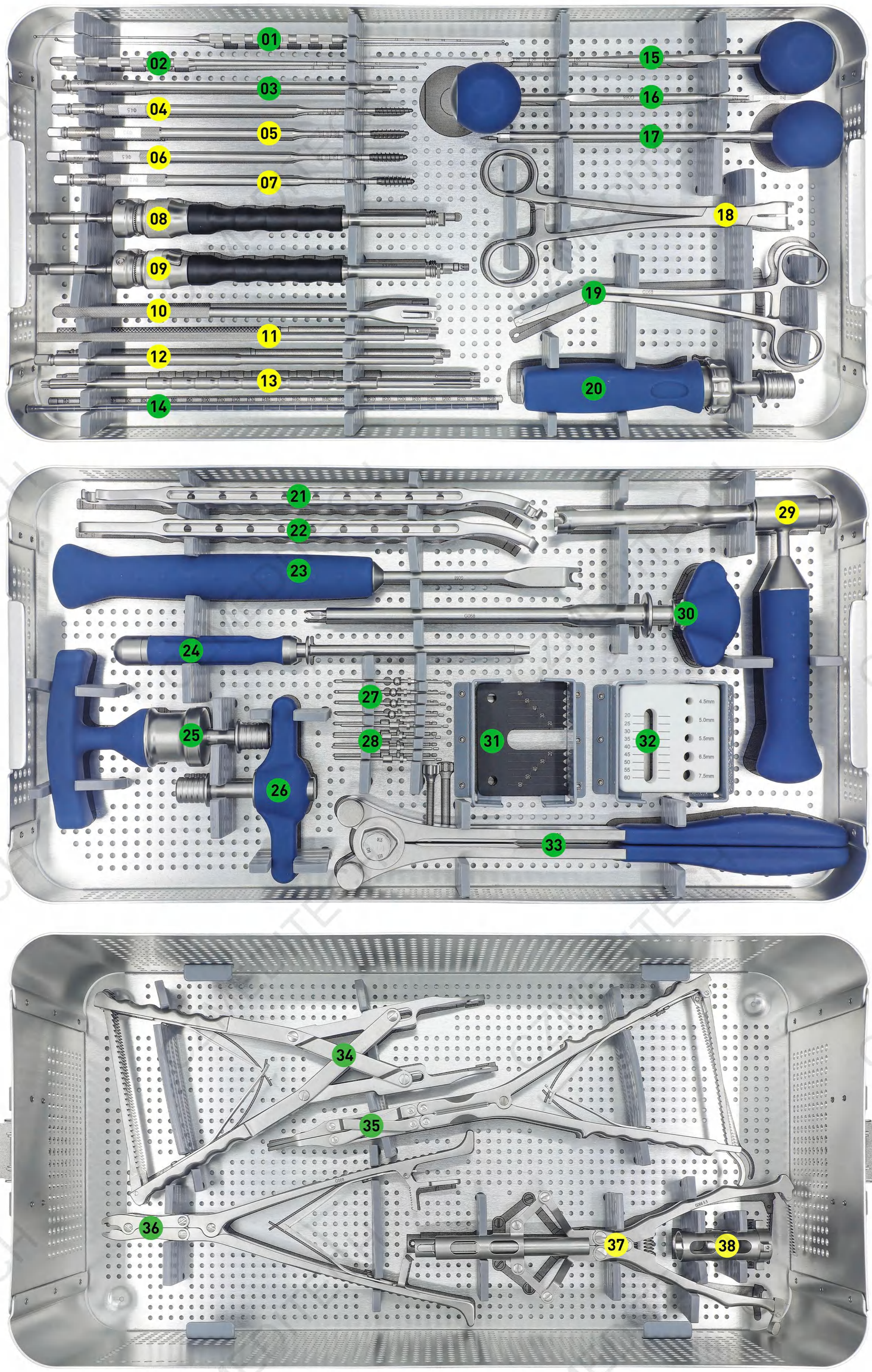
## Apollo Extended Connector

| REF | Specification |
|---|---|
| 2300-4204 | / |



# Instrument Set

## 2200-27 5.5mm Spinal Pedicle Screw Instrument Set



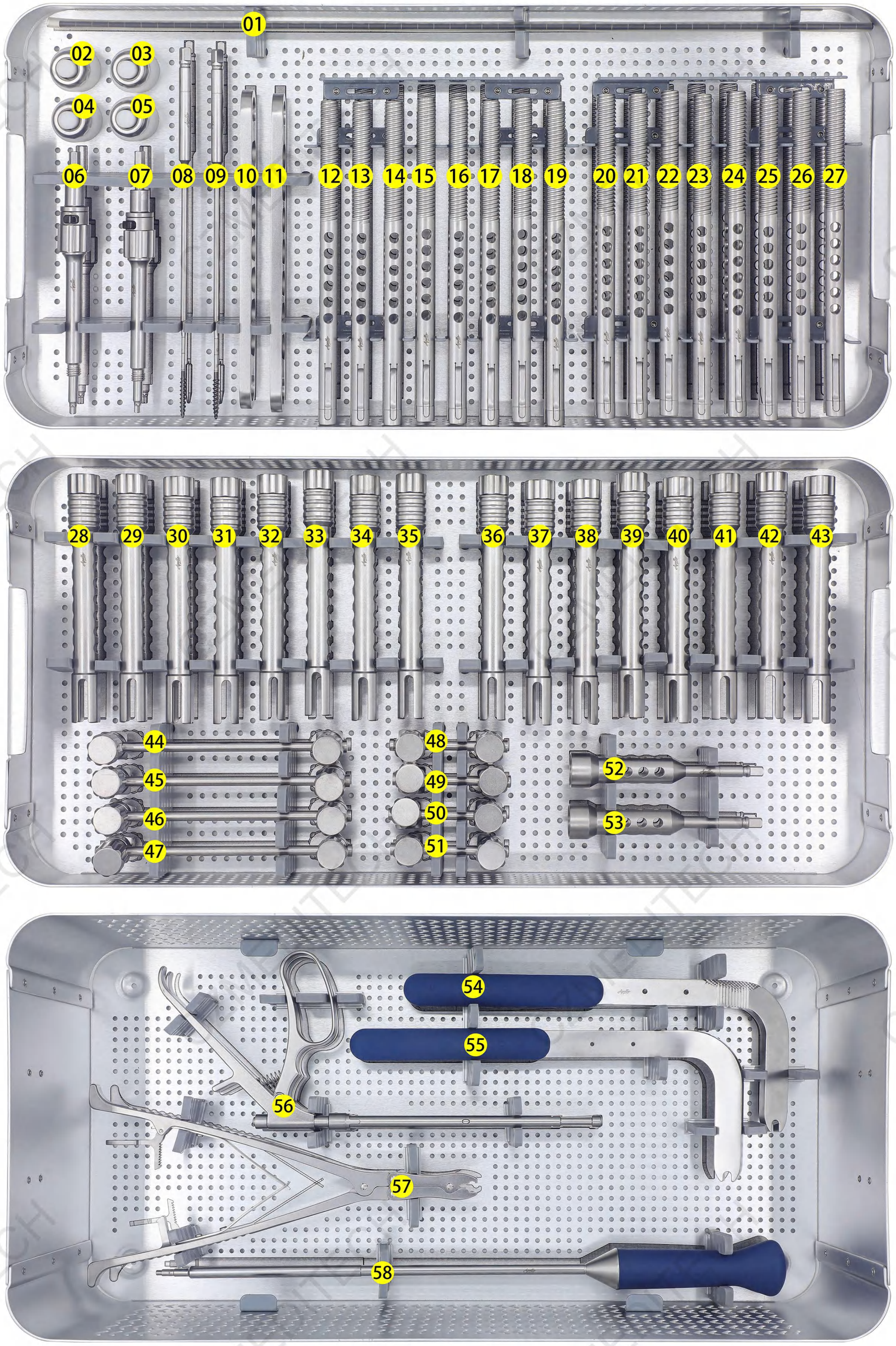
# Instrument Set

2200-27 5.5mm Spinal Pedicle Screw Instrument Set

| NO | REF | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 2200-2701 | Double-Head Probe (Straight & Bent) | 1 |
| 2 | 2200-2702 | Single-head Probe(Straight) | 1 |
| 3 | 2200-2708 | Crosslink Screwdriver SW3.5 | 1 |
| 4 | 2200-2703 | 5.5mm Tap φ4.5 | 1 |
| 5 | 2200-2704 | 5.5mm Tap φ5.5 | 1 |
| 6 | 2200-2705 | 5.5mm Tap φ6.5 | 1 |
| 7 | 2200-2706 | 5.5mm Tap φ7.5 | 1 |
| 8 | 2200-2729 | 5.5mm Screwdriver for Monoaxial Screw | 1 |
| 9 | 2200-2728 | 5.5mm Screwdriver for Polyaxial Screw | 1 |
| 10 | 2200-2709 | 5.5mm Screw Cutter for Long Arm Screw | 1 |
| 11 | 2200-2716 | Crosslink Screwdriver SW3.5 Holder | 1 |
| 12 | 2200-2710 | 5.5mm Nut Screwdriver T27 | 1 |
| 13 | 2200-2711 | 5.5mm Screw Nut Holder T27 | 1 |
| 14 | 2200-2707 | Mould Rod 300mm | 1 |
| 15 | 2200-2714 | Pedicle Probe Straight | 1 |
| 16 | 2200-2715 | Pedicle Probe Bent | 1 |
| 17 | 2200-2734 | AWL | 1 |
| 18 | 2200-2722 | 5.5mm Rod Pushing Forcep | 1 |
| 19 | 2200-2721 | Crosslink Holder | 1 |
| 20 | 2200-2735 | Straight Rechat Screwdriver | 1 |
| 21 | 2200-2712 | In-situ Bending Iron L | 1 |
| 22 | 2200-2713 | In-situ Bending Iron R | 1 |
| 23 | 2200-2732 | Rod Pusherial | 1 |
| 24 | 2200-2731 | Insert Device for Fixation Pin | 1 |
| 25 | 2200-2737 | 12N.m Torque Wrench | 1 |
| 26 | 2200-2736 | T-handle Quick Coupling | 1 |
| 27 | 2200-2717 | Fixation Pin Ball-type | 4 |
| 28 | 2200-2718 | Fixation Pin Pillar-type | 4 |
| 29 | 2200-2738 | 5.5mm Counter Torque for Screw Cutter | 1 |
| 30 | 2200-2730 | Rod Holde | 1 |
| 31 | 2200-2719 | Crosslink Measurement | 1 |
| 32 | 2200-2720 | Screw Measurement | 1 |
| 33 | 2200-2733 | Rod Bender | 1 |
| 34 | 2200-2724 | Parallel Compressor | 1 |
| 35 | 2200-2725 | Parallel Spreader | 1 |
| 36 | 2200-2723 | Rod Twist | 1 |
| 37+38 | 2200-2743 | 5.5mm Spinal Persuader with Sleeve | 1 |
| 39 | 2200-2740-N | Aluminium Box | 1 |

# Instrument Set

## 2200-41 Apollo 5.5 Spinal Scoliosis Correction Instrument Set



# Instrument Set

## 2200-41 Apollo 5.5 Spinal Scoliosis Correction Instrument Set

| NO | REF | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 2200-4103 | Mould Rod φ4.0*500 | 1 |
| 2 | 2200-4104 | Reduction Nut | 1 |
| 3 | 2200-4104 | Reduction Nut | 1 |
| 4 | 2200-4104 | Reduction Nut | 1 |
| 5 | 2200-4104 | Reduction Nut | 1 |
| 6 | 2200-4105 | Powered Screw Driver | 1 |
| 7 | 2200-4105 | Powered Screw Driver | 1 |
| 8 | 2200-4106 | Tapφ4.0 | 1 |
| 9 | 2200-4107 | Tapφ4.5 | 1 |
| 10 | 2200-4108 | Reduction Plate | 1 |
| 11 | 2200-4108 | Reduction Plate | 1 |
| 12 | 2200-4109 | Screw Holding Sleeve | 1 |
| 13 | 2200-4109 | Screw Holding Sleeve | 1 |
| 14 | 2200-4109 | Screw Holding Sleeve | 1 |
| 15 | 2200-4109 | Screw Holding Sleeve | 1 |
| 16 | 2200-4109 | Screw Holding Sleeve | 1 |
| 17 | 2200-4109 | Screw Holding Sleeve | 1 |
| 18 | 2200-4109 | Screw Holding Sleeve | 1 |
| 19 | 2200-4109 | Screw Holding Sleeve | 1 |
| 20 | 2200-4109 | Screw Holding Sleeve | 1 |
| 21 | 2200-4109 | Screw Holding Sleeve | 1 |
| 22 | 2200-4109 | Screw Holding Sleeve | 1 |
| 23 | 2200-4109 | Screw Holding Sleeve | 1 |
| 24 | 2200-4109 | Screw Holding Sleeve | 1 |
| 25 | 2200-4109 | Screw Holding Sleeve | 1 |
| 26 | 2200-4109 | Screw Holding Sleeve | 1 |
| 27 | 2200-4109 | Screw Holding Sleeve | 1 |
| 28 | 2200-4110 | Sequential Rod Reducer | 1 |
| 29 | 2200-4110 | Sequential Rod Reducer | 1 |
| 30 | 2200-4110 | Sequential Rod Reducer | 1 |
| 31 | 2200-4110 | Sequential Rod Reducer | 1 |
| 32 | 2200-4110 | Sequential Rod Reducer | 1 |
| 33 | 2200-4110 | Sequential Rod Reducer | 1 |
| 34 | 2200-4110 | Sequential Rod Reducer | 1 |
| 35 | 2200-4110 | Sequential Rod Reducer | 1 |
| 36 | 2200-4110 | Sequential Rod Reducer | 1 |
| 37 | 2200-4110 | Sequential Rod Reducer | 1 |
| 38 | 2200-4110 | Sequential Rod Reducer | 1 |
| 39 | 2200-4110 | Sequential Rod Reducer | 1 |
| 40 | 2200-4110 | Sequential Rod Reducer | 1 |

# Instrument Set

## 2200-41 Apollo 5.5 Spinal Scoliosis Correction Instrument Set

| NO | REF | DESCRIPTION | QTY. |
|---|---|---|---|
| 41 | 2200-4110 | Sequential Rod Reducer | 1 |
| 42 | 2200-4110 | Sequential Rod Reducer | 1 |
| 43 | 2200-4110 | Sequential Rod Reducer | 1 |
| 44 | 2200-4111 | Connector (long) | 1 |
| 45 | 2200-4111 | Connector (long) | 1 |
| 46 | 2200-4111 | Connector (long) | 1 |
| 47 | 2200-4111 | Connector (long) | 1 |
| 48 | 2200-4112 | Connector (short) | 1 |
| 49 | 2200-4112 | Connector (short) | 1 |
| 50 | 2200-4112 | Connector (short) | 1 |
| 51 | 2200-4112 | Connector (short) | 1 |
| 52 | 2200-4113 | Compression Nut Driver | 1 |
| 53 | 2200-4113 | Compression Nut Driver | 1 |
| 54 | 2200-4116 | Coronal Bender (left) | 1 |
| 55 | 2200-4117 | Coronal Bender (right) | 1 |
| 56 | 2200-4115 | Release Tool | 2 |
| 57 | 2200-2723 | Rod Twist | 1 |
| 58 | 2200-4114 | Provisional Driver T27*460 | 1 |
| 59 | 2200-4102 | Aluminium Box | 1 |