



### **Scorpn** II Cervical Cage (3D Titanium Zero-Profile)



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#### **Preface**

Scorpn II is a Zero-profile cervical fusion cage system, which is fully applicable for the following indications: spondylotic myelopathy, foraminal stenosis, cervical discopathy, prolapsed intervertebral disc, symptomatic cervical spondylosis, lesions and revision surgeries, and cervical pseudarthrosis etc.

In the pursuit of the cutting-edge medical technology, Reach Medical is committed to developing the innovative and optimum cervical fixation products for patients. After years of endeavor, Scorpn II system is successfully born, below are some of the advantages that it owns:

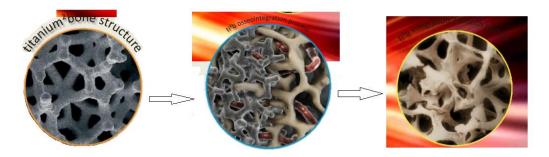
- Zero-profile fusion and fixation with no needs of other prosthesis, being fully capable of preventing the degeneration of intervertebral disc in adjacent levels and decreasing the unsuitable symptom, like postoperative dysphagia.
- Serrated surfaces design to prevent any slippage of the cage.
- Concave arc design at the cage anterior edge to minimize the impact to the spine
- Built-in screw holes in the cage and self-locking function in the screw ensure a simple, safe and stable fixation.
- ✓ When the self-tapping locking screw is mounted into the cage, the angle in the sagittal plane is 40° with 15° cohesion angle.







- SLM Titanium for better compatibility
- Multiple microporous Ti-alloy layers by 3D printing, support better bone fusion.
- The microstructure of the cage supports a quick osseointegration and perfect fusion effect even without bone grafting.



Osseointegration after 7 month 七个月后骨整合效果



### **Surgical Technique**

#### **Step One: Patient Positioning / Anterior Approach**

Place the patient in the supine position, extend the head slightly backward, bolster the rear neck to maintain the cervical spine in natural curvature.

Choose a right or left approach to expose the cervical spine and then use the Cervical Tissue Distractor to obtain an optimal surgical field.

Firstly use mark pin to locate the surgical segment, then place the Cervical Tissue Distractor into the incision to obtain the optimal surgical field between the adjacent upper and lower vertebrae. Then mount the two distraction screws into the upper and lower vertebrae separately, so as to install the CASPAR distractor, rotate the wheel on the distractor properly to distract the vertebrae, so as to expose the intervertebral space properly.

After intervertebral space is exposed properly, use rongeur forceps to bite off the herniation or osteophyte in the anterior part of the vertebral body, and clear them using Kerrison, nucleus pulposus forceps or curette etc, then remove some of the intervertebral disc and soft tissue near the lesion till fully expose the posterior longitudinal ligament, whether to remove some of the posterior longitudinal ligament can be upon to the degree of the vertebral dural sac being compressed. The next step is to remove the herniation or osteophyte on the posterior upper and lower vertebrae using curette or Kerrison, and the osteophyte removed can be kept aside for later bone graft, then scrape some of the endplate cartilage, must ensure the intervertebral space being fully decompressed.



#### **Step Two: Cage Selection**

When the intervertebral space treatment is done, put different trails one by one into the intervertebral space to measure the width and height of it then find the proper cage.



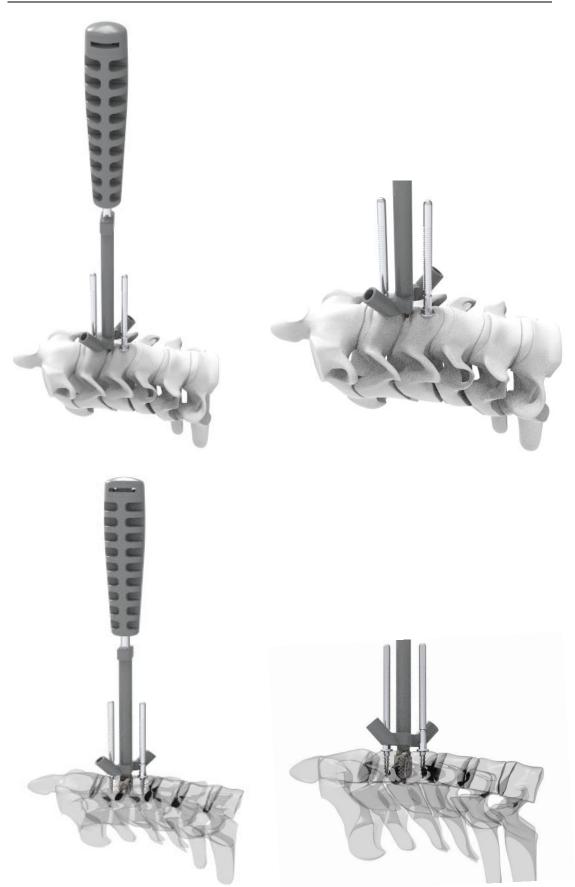
#### **Step Three: Implantation**

Grind the prepared osteophyte and fill in the cage, then attach it to the cage holder tightly and firmly.



Insert the well-packed cage into the intervertebral space, tap it in if needed till the cage parallels the vertebral anterior edge (do not tap through the posterior edge) under C-arm Fluoroscopy.







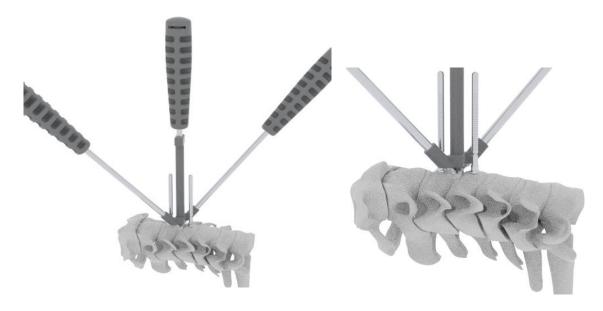
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Insert and screw the drill into the two tubes of the cage holder to open the screw channel. Then use the screw driver to pick two proper self-tapping screws (with diameter of 3.5 & 4.0 and length varies) and mount them into the upper and lower vertebrae separately.



After the two screws are mounted properly, check the depth and the angle of the screws and the cage position under C-arm fluoroscopy, and if they are all well done, use the final tighten driver to lock the set screw to avoid any looseness.





Release the cage holder, and remove the Pins

Finally, remove Cervical Tissue Distractor and CASPAR distractor. Double check and confirm the angle and depth of the screw being mounted and the cage position under C-arm fluoroscopy. Clean the incision and place suction drainage, suture the incision one layer after another and then close the incision completely.



