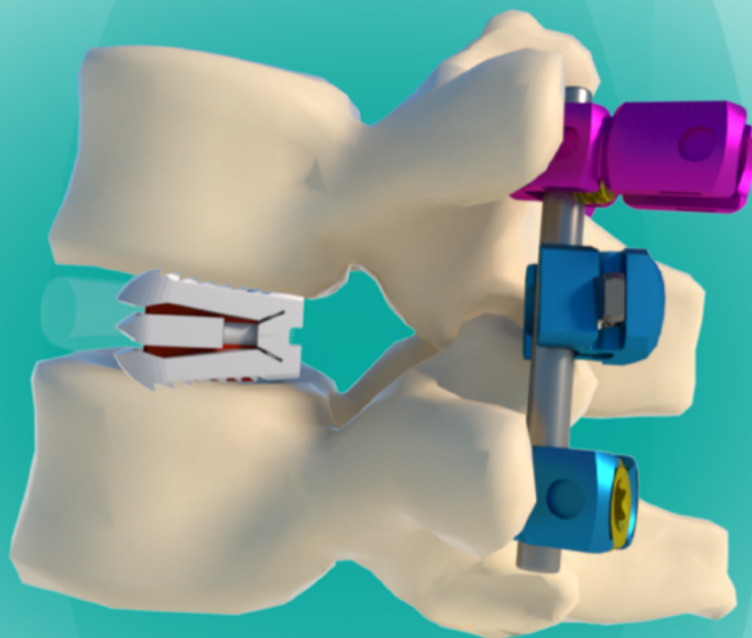


# Expandable Posterior Lumbar Interbody Fusion Cage

Operation Manual



# Content

## Why Choose FULE Our advantages

- We are a national high-tech enterprise integrating research and development, production and sales of medical devices, with a fully intelligent processing equipment production line.
- Academician expert station established is to help Fule to improve its R & D capability and further deepen the production-learn-research cooperation; Approved postdoctoral research station.
- With complete hardware facilities, excellent research and development team, and close cooperation with clinical experts, we have obtained more than 100 domestic and foreign patents.
- Based on the agent cooperation model, the company has established a nationwide sales and service network, and its products are supplied to nearly 1,000 top three hospitals nationwide and exported to more than 20 overseas countries.

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## Product Advantage

- Using titanium alloy material, the maximum can be stretched Angle 0°-12°, the height is 0 ~ 4mm.
- The mechanical and biological requirements of lumbar fusion surgery were met.
- An interbody fusion device filled with implants can help achieve an exact bone fusion
- Reconstruct sagittal plane arrangement
- Maintain vertebral space height
- Reduced bone destruction in the upper and lower vertebral.



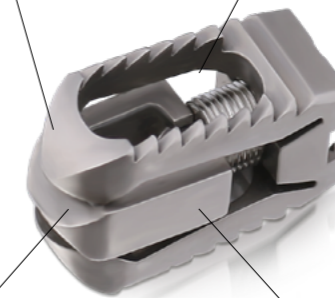
## Product Advantage

### Acuteness

- Surface teeth improve resistance to backsliding

### Large opening design

- Tail/head end/lateral openings provide additional bone graft contact surfaces
- Encourage more blood vessels to grow



### Bullet nose design

- Easy to implant
- No need to pull too much
- Like the head is safer
- No reaming

### Expandable Angle

-0° -12°

## Indication of Use

### 【Indications】

- Residual lower limb pain or recurrent lower limb pain after discectomy
- Lower back pain due to lumbar instability and loss of function
- Lumbar spondylolisthesis
- Discogenic disease at multiple levels
- A revision after a failed operation

### 【Contraindications】

- Active infection
- Allergic to the implant material
- Severe osteoporosis
- Grade III or IV slip;
- Extensive epidural paralysis marks

## Surgical procedure

### 【Step1】

### Approach and Exposure

- The patient is placed in a prone or thoraco-knee position to create a natural lordosis of the spine (FIG. 1a), a posterior median opening or a posterior lateral position, soft tissue is stripped, and nerve root decompression is performed. Exposure of the epidural space (FIG. 1b).



FIG 1a

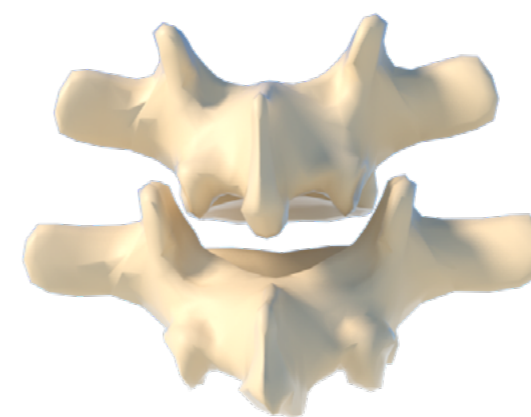


FIG 1b

## Surgical procedure

### 【Step 2】 Treatment end plate

- The posterior annulus fibrosus was resected and the nucleus pulposus was carefully removed. The cartilage on the surface of the disc and vertebral endplate was removed using a stripper, elbow curette, reamer, and scraper (the standard for removal is to expose the bone surface that is bleeding).



## Surgical procedure

### 【Step3】 Distract the vertebral space

- Place the intervertebral distractor in the vertebral space of the spine and rotate 90° with the distractor handle. (FIG 3a).

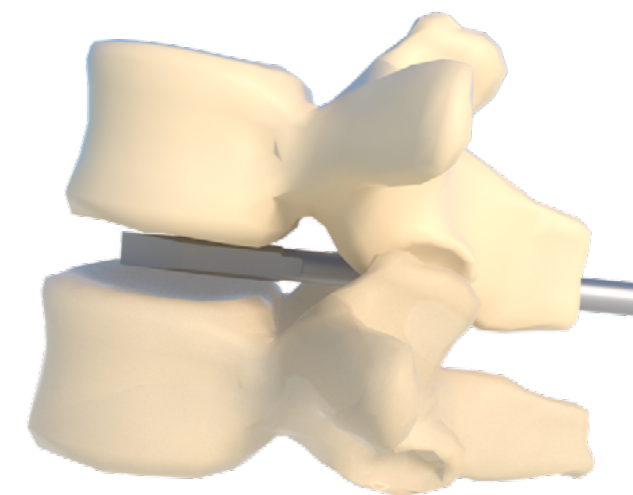


FIG 3a

- Select a suitable test mold to implant into the vertebral space, and examine its position and the degree of matching with the upper and lower endplates by fluoroscopy. If the first test trial is not tightly matched with the upper and lower endplates, bigger trial can be used to try again.(FIG 3b)

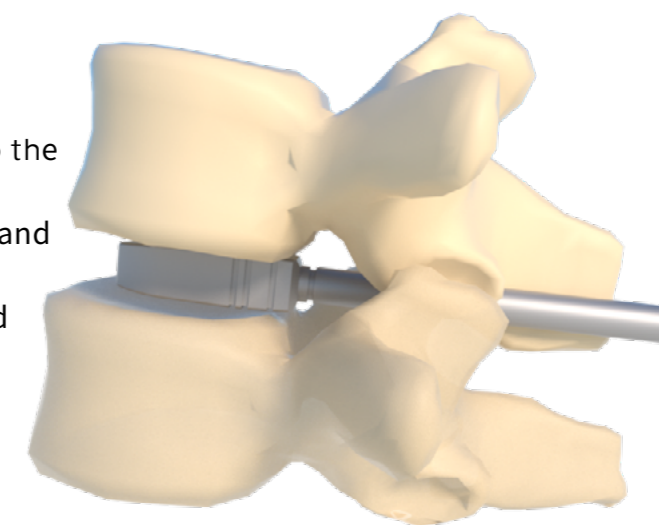


FIG 3b

## Surgical procedure

### 【Step4】 Choice of holder

- Holder is selected according to the size of the interbody fusion cage (FIG 4a).

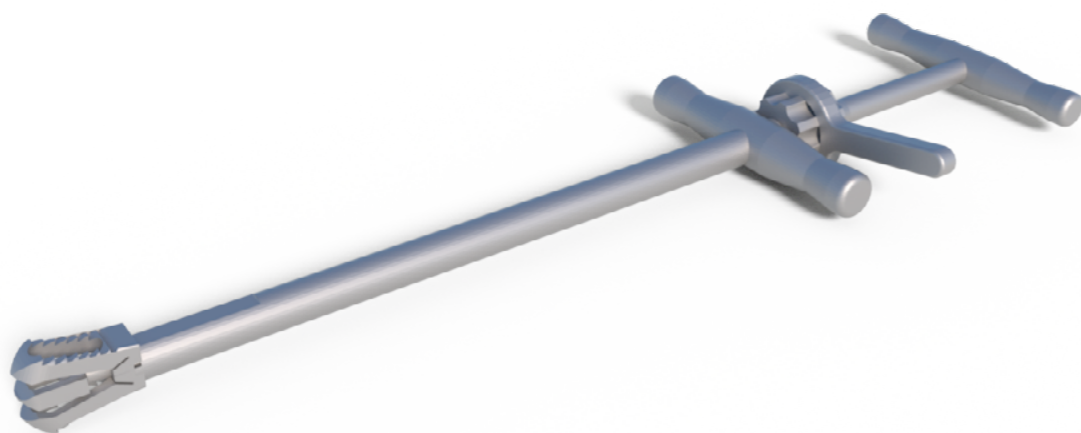


FIG 4a

## Surgical procedure

### 【Step 5】 Filled and compacted the graft

- The Cage is placed in a compactor box, and the prepared autogenous or artificial bone is implanted through the anterior or lateral hole of the Cage, and finally compacted with a compactor until the autogenous or artificial bone overflows through the hole (FIG 5a).

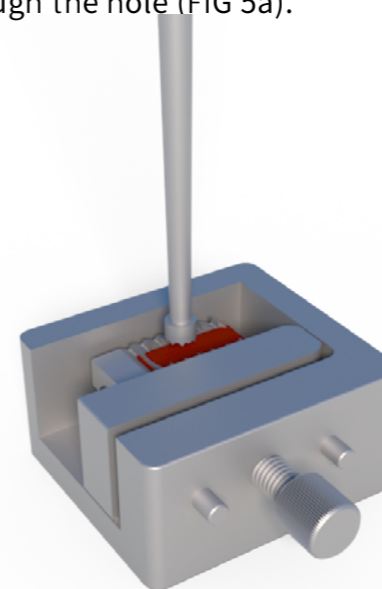


FIG 5a

## Surgical procedure

### 【step 6】 Implantation

- The fusion cage containing the bone graft is placed in the vertebral space in a flat shape, and gently tapped with a fork hammer if necessary until the fusion cage is put into the appropriate depth to complete the implantation. (FIG 6a).

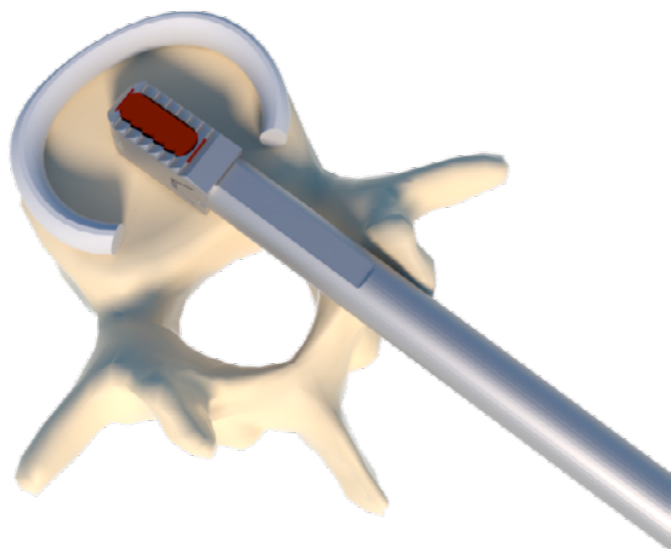


FIG 6a

## Surgical procedure

### 【Step 7】 Confirm position and expand

- Verify that the fusion cage is in the correct position with the X-ray anterior-lateral perspective. After confirmation, use the wrench to expand the fusion cage to the proper height. (Figure 7a)
- The fusion cage is generally used in conjunction with the screws-rod or screw-plate system.

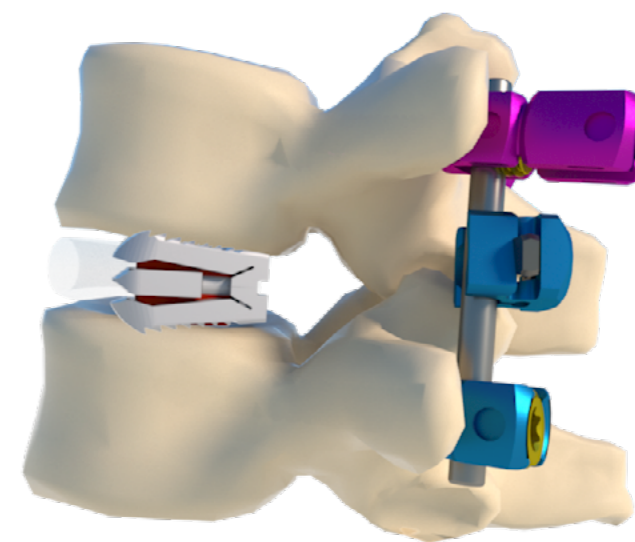
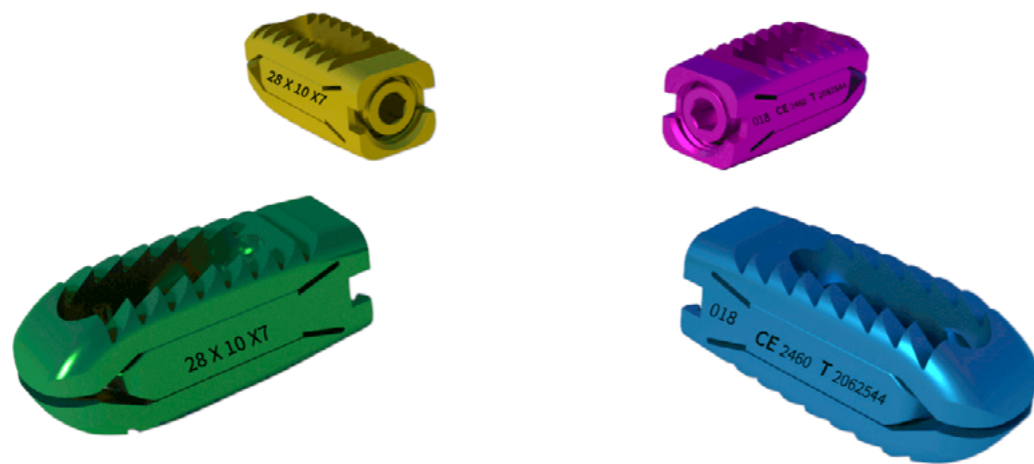


FIG 7a

## Product Information

### Expandable Posterior Lumbar Interbody Fusion Cage (Titanium)(Unsterilized)

Description	Expandable Angle	Scalable angle	Product Code	Color			
23×10×7	0° -12°	0-4mm	100904000	Golden			
23×11×9	0° -12°	0-4mm	100901000	Purple			
23×11×11	0° -12°	0-4mm	100902000	Blue			
23×11×13	0° -12°	0-4mm	100903000	Green			
28×10×7	0° -12°	0-4mm	100908000	Golden			
28×11×9	0° -12°	0-4mm	100905000	Purple			
28×11×11	0° -12°	0-4mm </tr <tr> <td>28×11×13</td> <td>0° -12°</td> <td>0-4mm</td> <td>100907000</td> <td>Green</td> </tr>	28×11×13	0° -12°	0-4mm	100907000	Green
28×11×13	0° -12°	0-4mm	100907000	Green			



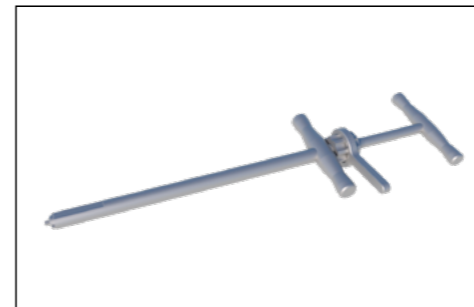
## Surgical instrument



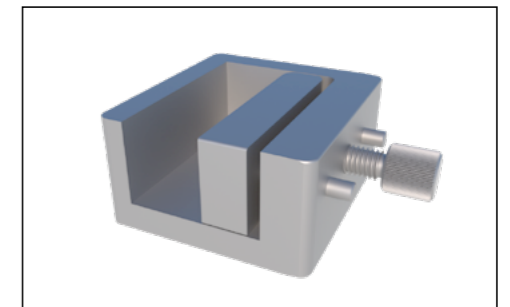
● Vertebral distractor



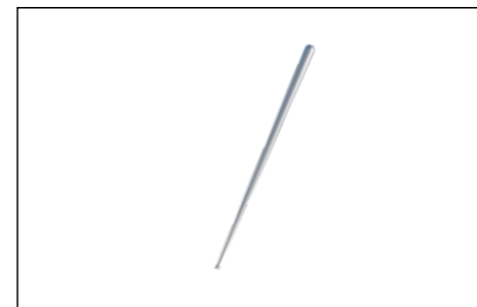
● Template



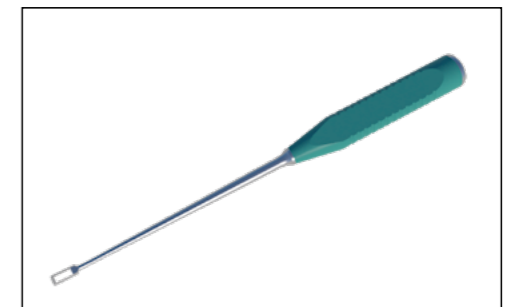
● Holder



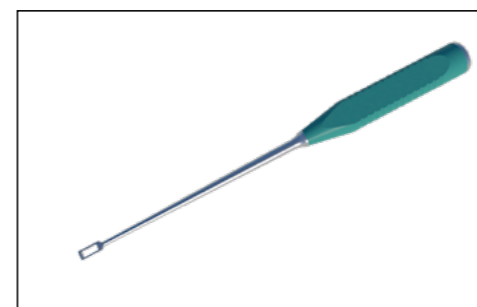
● Impactor box



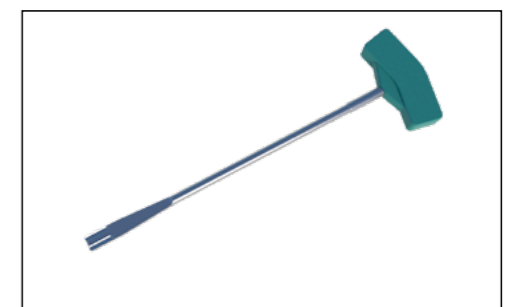
● Impactor



● Scraper (Bent)

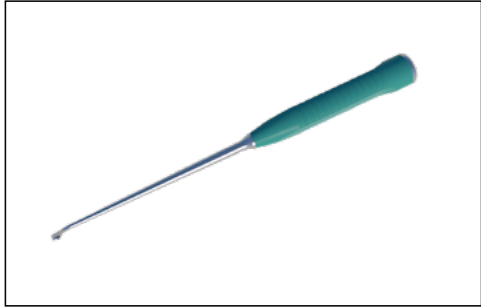


● Scraper (Straight)

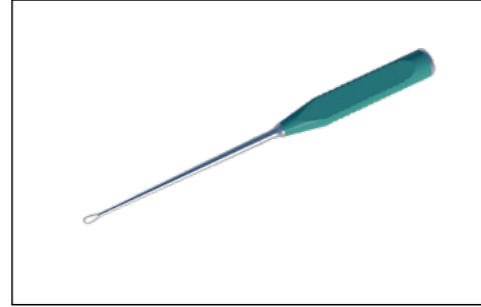


● Reamer

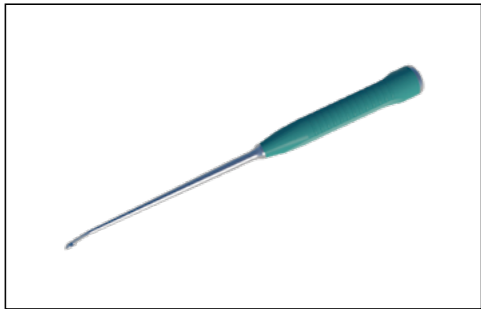
# Surgical instrument



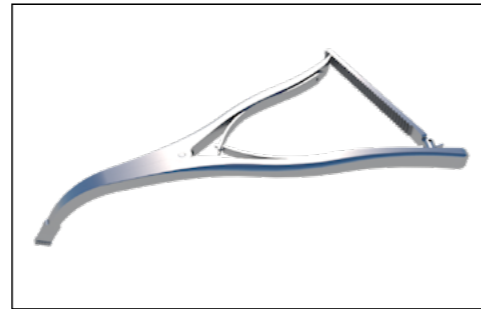
● Ring Curette  
(left and right)



● Ring Curette  
(straight)



● Bend Curette  
(left and right)



● Vertebral Distractor