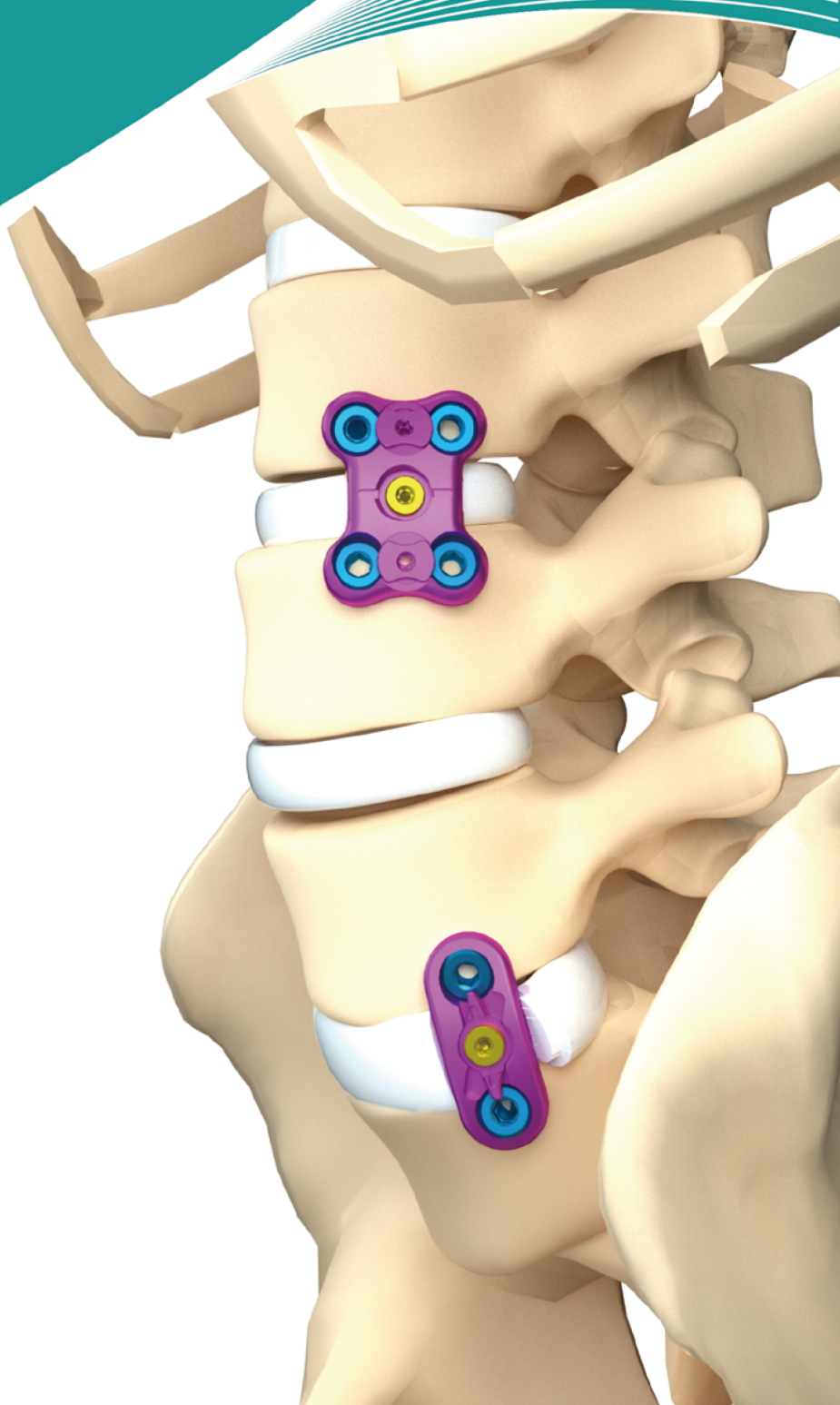


Operation Manual

Oblique Lateral Interbody Fusion (OLIF)

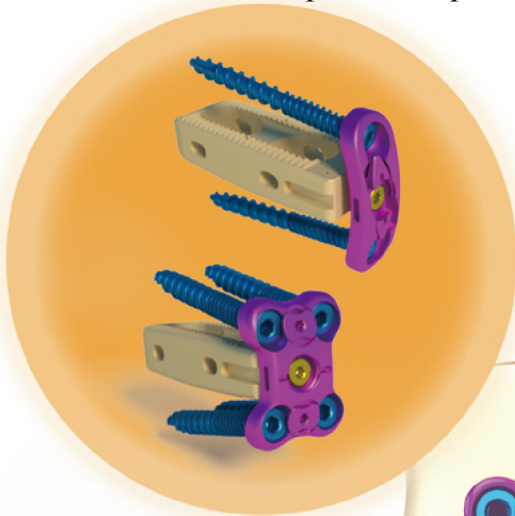


Oblique lateral interbody fusion (OLIF) provides spine surgeons with a minimally invasive method for the treatment of lumbar degenerative diseases

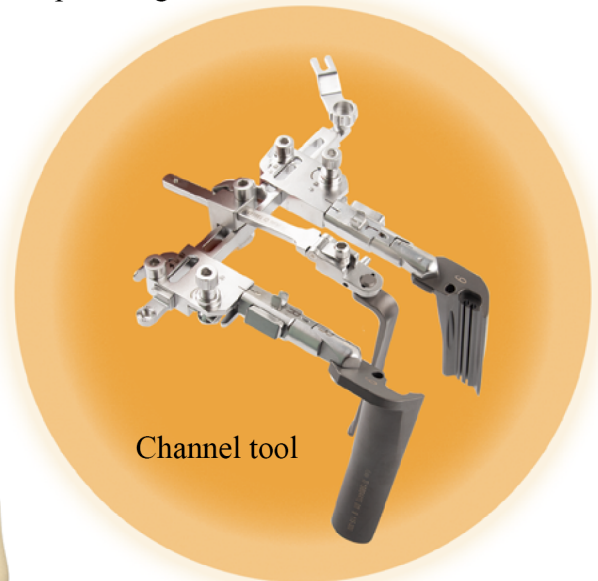
This surgery allows a large implant to be placed in the intervertebral space to support the spine, and can avoid the shortcomings of the traditional anterior, posterior and direct lateral approaches.

It integrates a complete set of instruments and implants, including improved access devices, anatomically designed implants and percutaneous internal fixation systems.

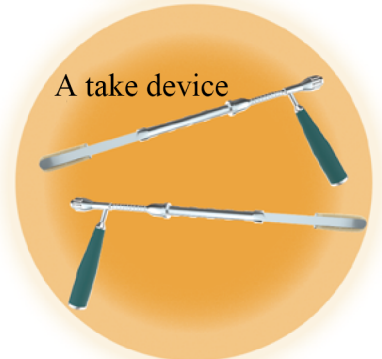
It can protect the psoas muscle while treating the L2-L5 spinal segmental lesions



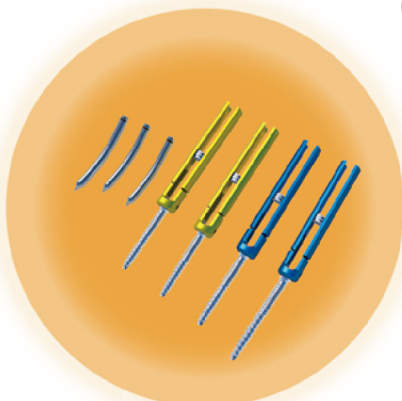
Fusion cage



Channel tool



A take device



Pedicle screw & rod



The instrument tool



Introduction	Indications & Contraindications	5	Advantages
	6 OLIF interbody fusion cage		
Surgical Procedures	----- Patient posture	7	
	----- Position	9	
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	42 Cage		
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Indications

- * Degenerative disc disease
- * Mild lumbar spondylolisthesis
- * Degenerative lumbar scoliosis
- * Posterior revision
- * Lumbar instability
- * lumbar spinal stenosis
- * Adjacent vertebra disease after lumbar surgery
- * Anterior approach lesion management

Contraindications

- * Moderate to severe lumbar spondylolisthesis
- * Developmental spinal stenosis
- * Moderate to severe spinal deformity
- * History of abdominal surgery
- * Severe lumbar spinal stenosis
- * Severe osteoporosis
- * Small space of psoas major muscle
- * Severe obesity

Types of OLIF Cage

* Standard type (parallel)



* Anatomic type (6°/9°)



6°



9°

Specifications of OLIF Cage

Width: 18mm

Height: 0° / 6° : 8mm, 10mm, 12mm, 14mm

9° : 9mm, 11mm, 13mm, 15mm

Length: 40mm, 45mm, 50mm, 55mm

Advantages

Oblique lateral interbody fusion cage

*Anti retreat teeth

It can effectively prevent implant displacement and detachment, thus providing initial stability.

* Radiopaque marker

Visualize the cage position.

*Large grafting windows

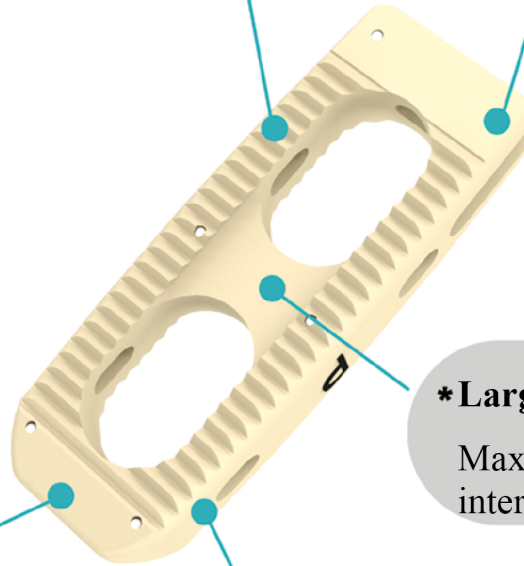
Maximize the degree of intervertebral fusion.

* Bullet head design

Facilitate the implantation

*PEEK material

Peek is the material closest to the elastic modulus of human bone, which can bear the stress between cancellous bones and promote bone fusion. Its light transmittance is conducive to the observation of fusion after operation.



Surgical procedure

Patient posture

- -Patient posture- -

- Bend the hip and knee joints, relax the psoas major muscle and lumbar plexus, and fix the patient on the operating table with wide adhesive tape. (Fig.1&Fig.2)

A. Just below the iliac crest

B. Above the chest

C. Plexus iliac crest to knee, then to operating table

D. From the operating table to the knee, across the ankle, and then to the operating table

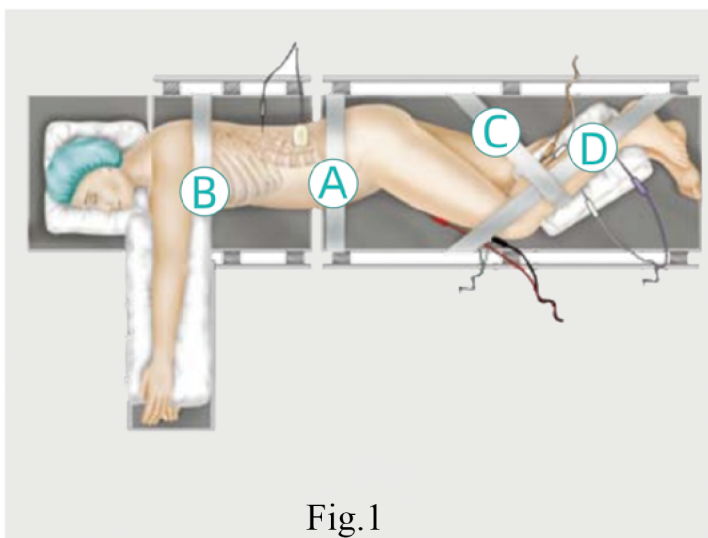


Fig.1

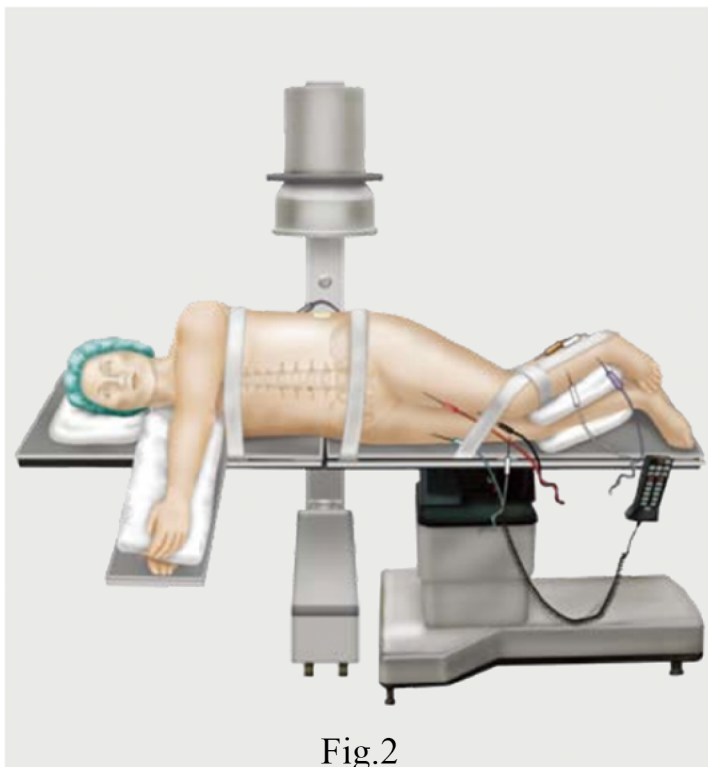


Fig.2

-- Standard frontal and lateral fluoroscopy --

Frontal (Fig.1)

- The surgical segment disc is located in the center of the screen;
 - Lamina paralalled;
 - Spinous process in the center of the screen; ①
 - Bilateral pedicle symmetry, ②
- The image resembles the eyes of an owl.

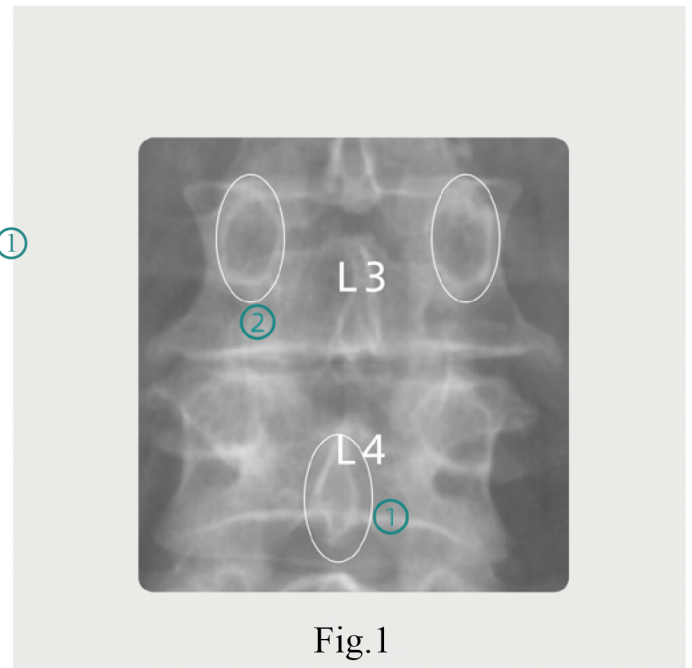


Fig.1

Lateral (Fig.2)

- The surgical segment disc is located in the center of the screen;
- Upper lamina paralalled, flush black line in the figure; ③
- Bilateral pedicle overlaps, like one. ④

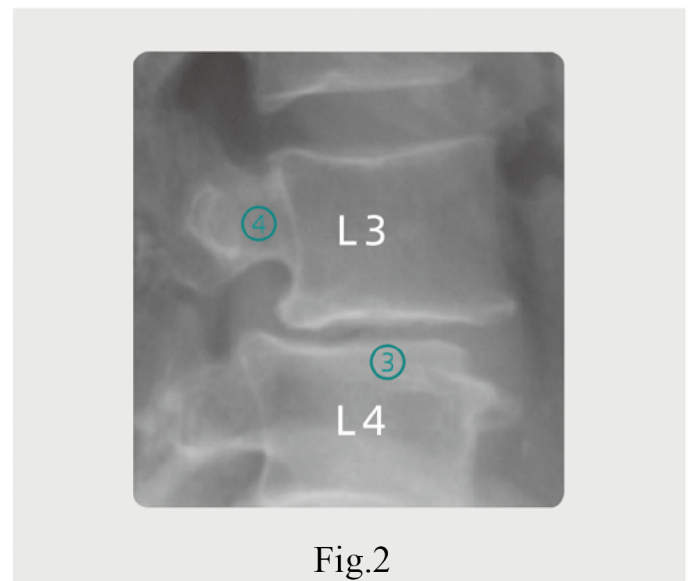


Fig.2

Attention

It is very important to ensure that the C-arm can be kept at 0 ° and 90 ° at any time, so as to ensure that the patient is in the right lateral recumbent position and the lateral approach can safely reach the intervertebral space.

Surgical procedure

Fix position

--Intervertebral approach--

- Determine the central position of the intervertebral disc in the standard lateral position of the C arm;(Fig.1)
 - A. The skin incision is located 3-10cm in front of the projection of the intervertebral disc midpoint on the body surface;
 - B. The incision length is generally 3-4cm;
 - C. Can be horizontal, vertical or oblique.
- (Fig.2&Fig.3)

Attention

Selection based on patient and surgical segment.

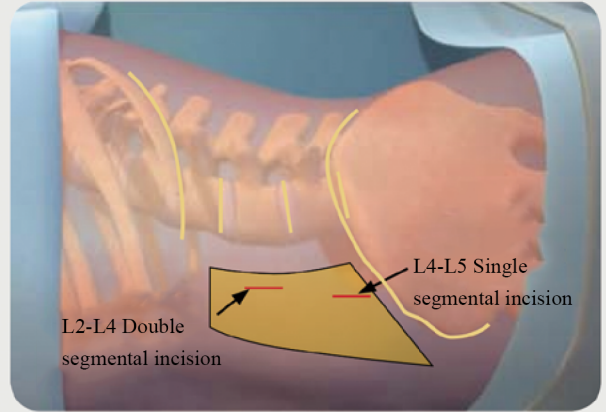


Fig.1

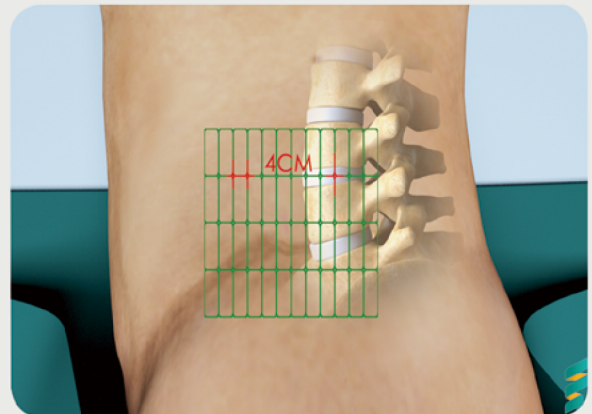


Fig.2

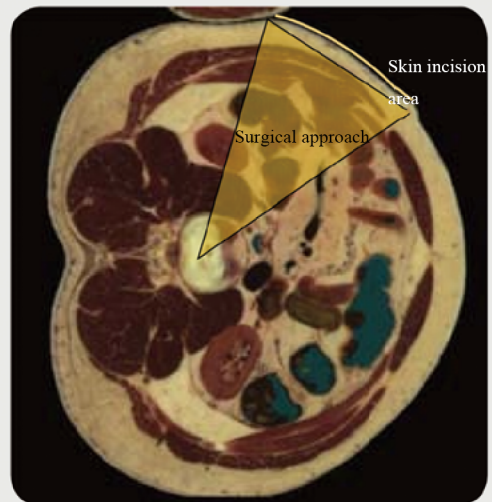


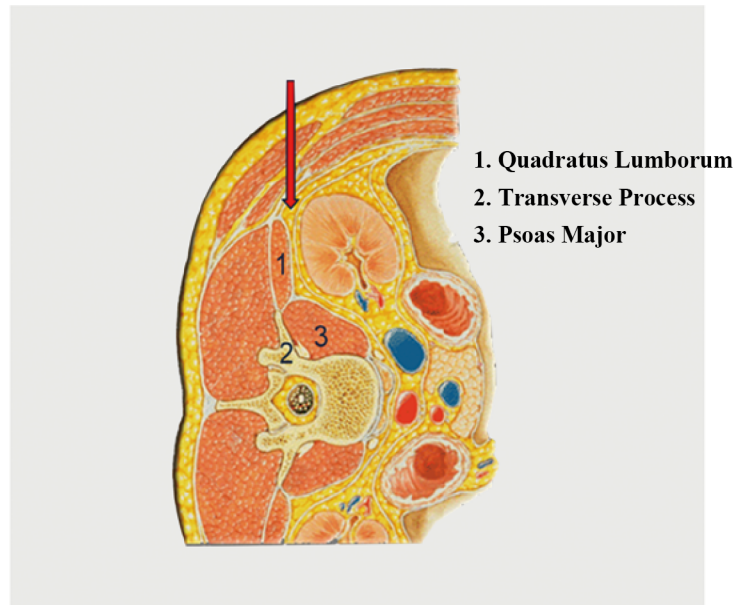
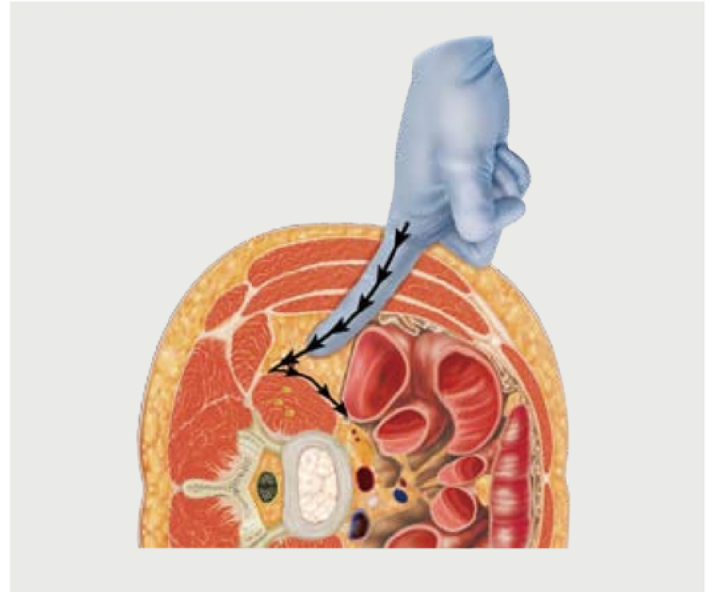
Fig.3

Surgical procedure

Incision

--Intervertebral approach--

- Incision of skin and subcutaneous tissue;
- Blunt separation of muscles (external oblique, internal oblique and transverse abdominal muscles) into the retroperitoneal space;
- Extend the index finger to the front edge of psoas major muscle along the transverse process;
- Insert the finger into the retroperitoneal space;
- Push the peritoneum and fat forward from the back;
- Place the channel instrument at the lateral edge of the psoas muscle.



Surgical procedure

Place the bone guide wire

--Place the bone guide wire--

Standard instrument

115-260 Bone guide wire ; $\Phi 2$

- First, establish a safe retroperitoneal passage to the front of the psoas muscle under direct vision, and then insert the bone guide wire into the forepart or intervertebral space of the anterior psoas muscle under guidance. At the same time, pay attention to protecting the peritoneum and pulling away the retroperitoneal fat with fingers; (Fig.1)
- After determining the position of the bone guide wire. Carefully insert it into the intervertebral space; (Fig.2)

Attention

**The determined position in the intervertebral disc is slightly forward of the midpoint.(Fig.2)
This can minimize the risk of the contralateral intervertebral foramen when the instruments and the fusion cage are placed.**

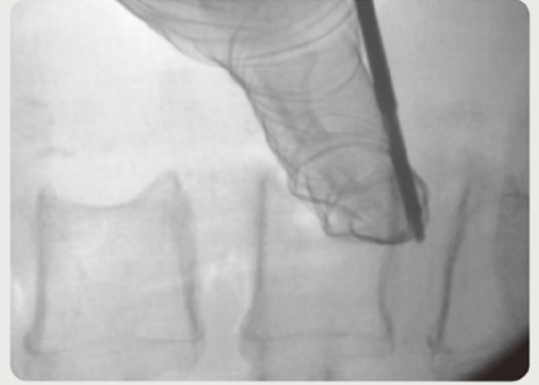


Fig.1

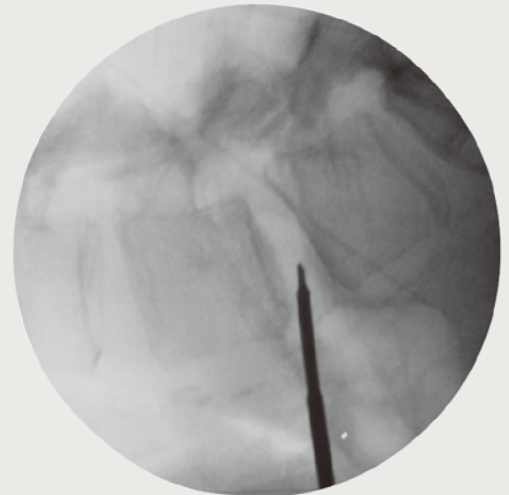


Fig.2

Surgical procedure

Place the bone guide wire

--Place the bone guide wire--

- After the bone guide wire is safely inserted, the tip of the bone guide wire should be inserted into the intervertebral space and be fixed. The angle of inclination and lordosis of the bone guide wire can be estimated in the preoperative planning during the insertion, or can also be measured by image navigation, mechanical digital protractor during the operation.(Fig.1)

Attention

Fluoroscopy or image navigation (if an anterolateral expander is used) should be used to ensure that the alignment between the bone guide wire and the intervertebral space is correct.(Fig.2)

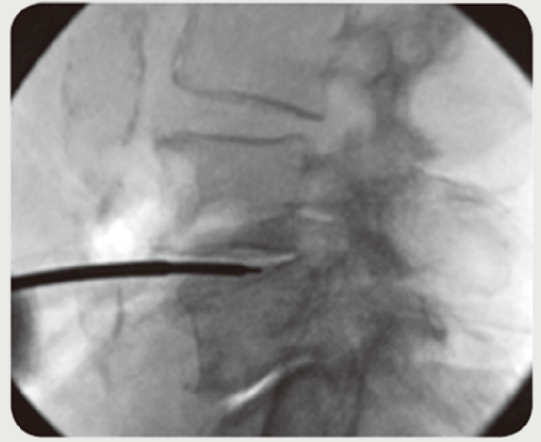


Fig.1

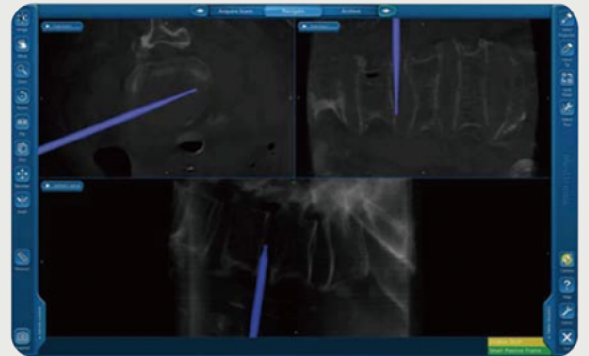


Fig.2

Surgical procedure

Lateral retractor

--Lateral retractor--

Standard instrument

1	115-293	Semi-flat blade(left); $\phi 12$
2	115-303	Semi-flat blade(right); $\phi 12$
3	115-330	Dilater
4	115-280	Distractor for semi-flat blade
5	115-340	Distractor for blade I
6	115-353	Blade I; $\phi 12$
7	115-360	Wrench for distractor for semi-flat blade; S=4.5
8	1400001	Handle for blade II
9	115-323	Pin for blade II; $\phi 12$
10	115-313	Blade II; $\phi 12$
11	115-250	Wrench for blade II; T20
12	115-106	Traction bracket I
13	115-111	Traction bracket II

Optimal instrument

14	115-133	Cold Light
15	115-145	Cable I
16	115-380	Cable II



Surgical procedure

Placement and distraction of lateral retractor

--Establish surgical channel--

- Through the frontal and lateral X-ray films, determine the appropriate length of the semi-flat blade(115-293/303). Sleeve the dilater (115-330) on the bone guide wire for fixation, insert the selected semi-flat blades along the corresponding holes of the dilater, and assemble it onto the distractor for semi-flat blade (115-280) with groove.(Fig.1)

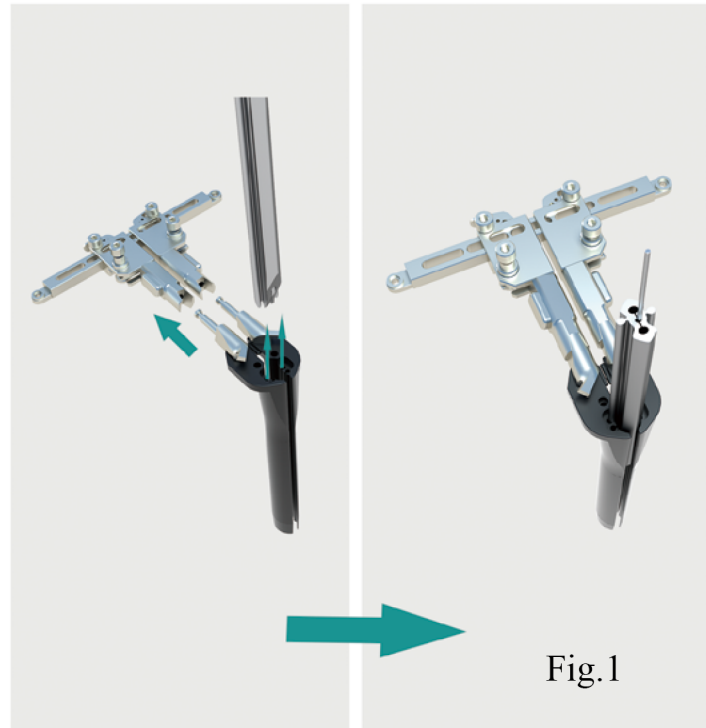


Fig.1

- Install the assembled distractor on to the traction bracket(115-106/111) to temporarily fix the position of the assembled distractor. The key point is to align the left and right semi-flat blades (115-293/303)to ensure that the level of opened window is parallel to the intervertebral space.(Fig.2)

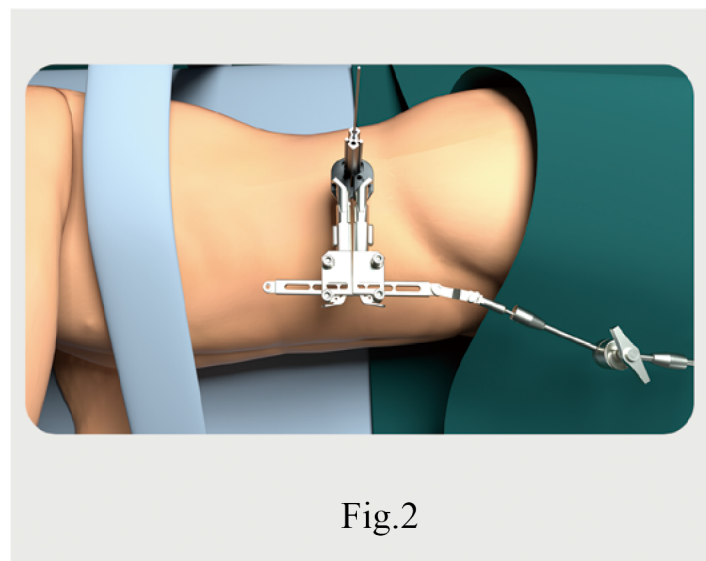


Fig.2

Tips:

The operation manual used flat channel, there is also round channel provided by our company.

Surgical procedure

Placement and expansion of distractor 3

--Connect light sources--

- Retract the bone guide wire and dilater (115-330), install the cable II(115-380) on the distractor for semi-flat blade(115-280), connect the cable I(115-145) to the cold light (115-133), and illuminate the inside of the channel.(Fig.1)
- Specific method: insert the metal tip of the cold light(115-133) into the hole at the top of the semi-flat blade, and then slide the metal tip into the built-in retaining sleeve.
- Screw the pin for bladeII(115-323)into the needle path of the left semi-flat blade with an wrench for bladeII(115-250). The pin for bladeII is to prevent the semi-flat blade from sliding during operation.(Fig.2)

Attention

It is recommended to use fluoroscopy during the placement of the bladeII to ensure that the position of it is so front that vascular damage.

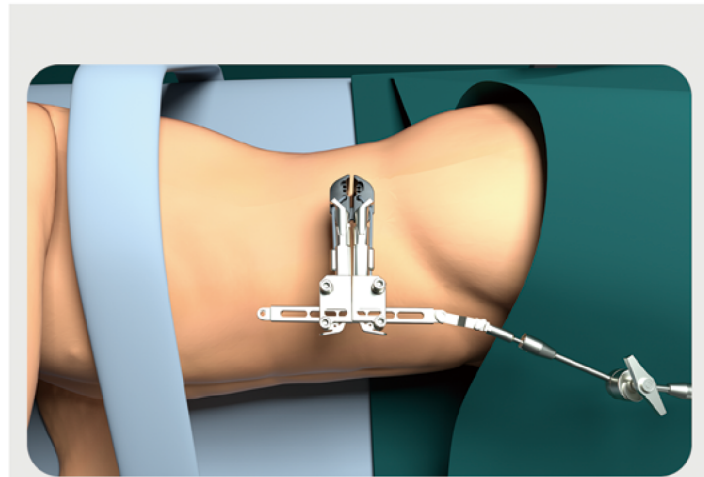


Fig.1

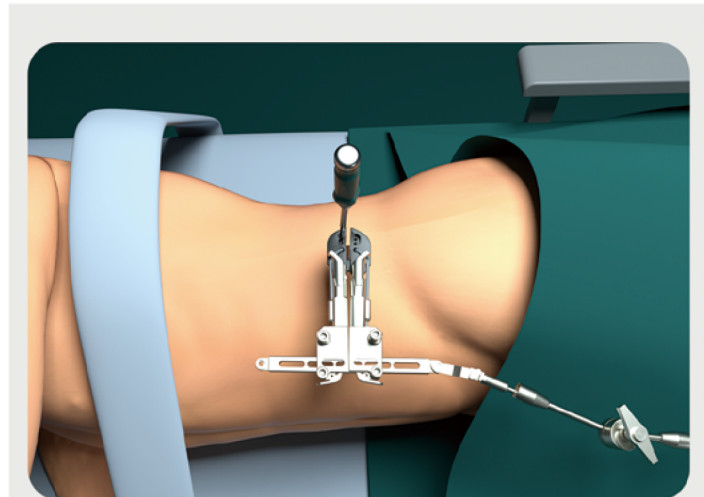


Fig.2

Surgical procedure

Placement and expansion of distractor 4

--Expand the distractor--

- Insert wrench for distractor for semi-flat blade (115-360 s=4.5) to screw in the first row holes of the distractor for semi-flat blade on the right and support it at an certain angle. (Fig.1) Then shift the wrench into the second row of holes to parallel expand. (Fig.2)
- Top view as shown in the figure(Fig.3)
 1. First row of holes (opening outward at an angle)
 2. Second row of holes (left and right horizontal expansion)
- Screw the pin for bladeII(115-323)into the needle path of the right semi-flat blade(115-303) with wrench for bladeII(115-250).

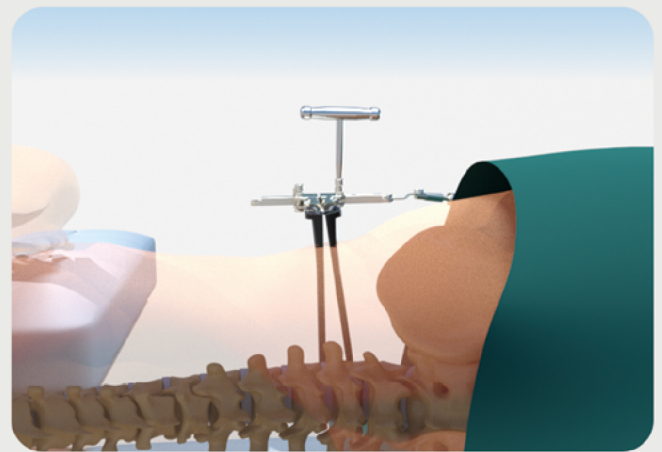


Fig.1

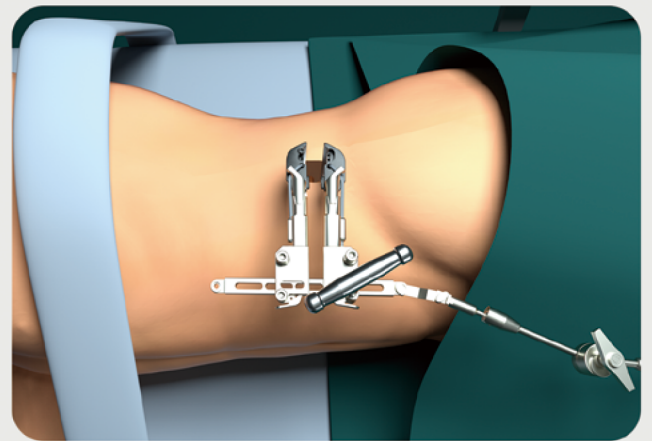
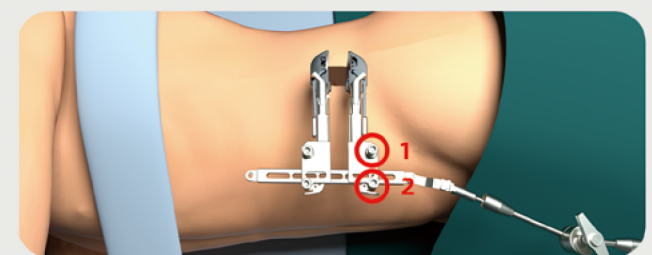


Fig.2

Attention

After fixation, take a lateral perspective view to ensure that the distractor assembly is correctly positioned on the spine.



Surgical procedure

Placement and expansion of distractor 5

--Expand the distractor--

- Assemble the distractor for blade I(115-340) with blade I. Place blade I on the sliding rod in the middle of the distractor for blade I, and screw it into the corresponding hole with an wrench for distractor for semi-flat blade(115-360 s=4.5) (the position circled in the figure) and rotate the handle to support it backward. (Fig.1)
- At the other end, assemble the handle for blade II(1400001) with blade II(115-313). After completion, expand the components on both sides at the same time.(Fig.2)

Installation method: align the tail end of blade II(115-313) with the hole of handle for blade II(1400001), and rotate the knob at the head end of the handle to lock.

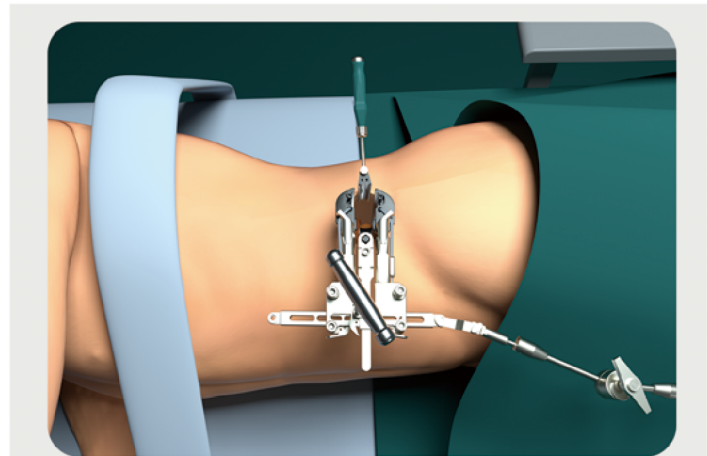


Fig.1

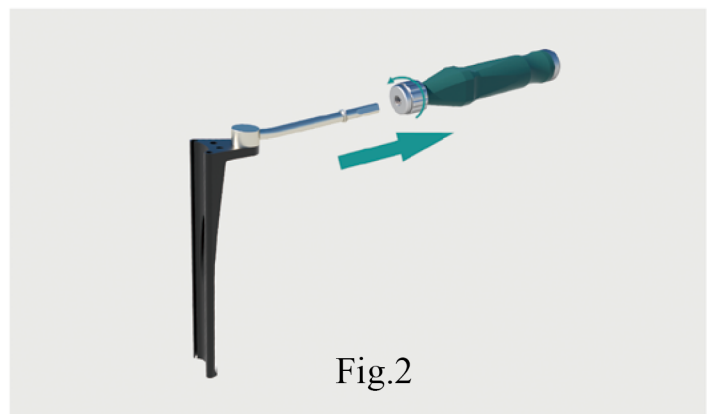
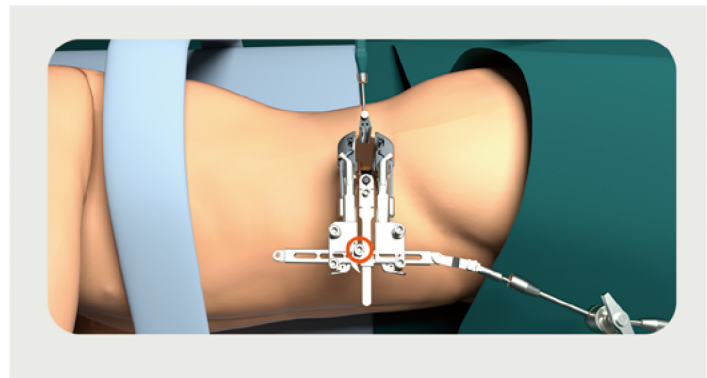


Fig.2

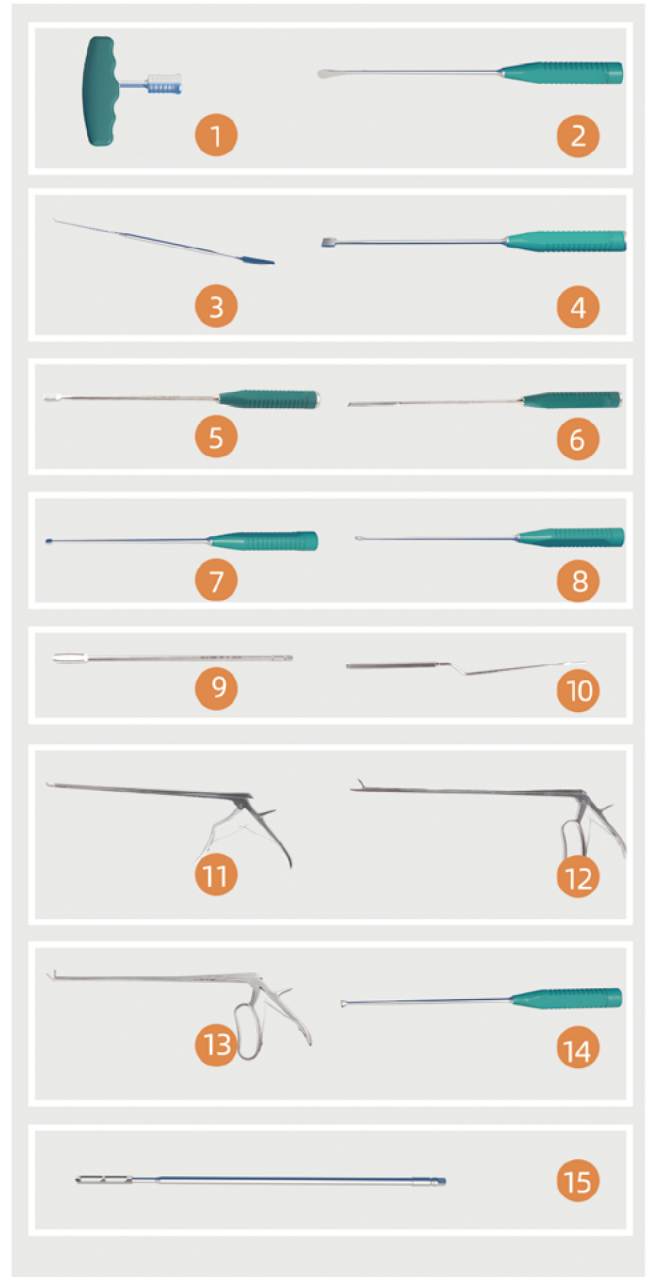
Surgical procedure

Treatment of intervertebral disc

--Treatment of intervertebral disc--

Standard instrument

①	315-071	T handle
②	315-094	Large stripper
③	315-101	Small stripper
④	315-131	Arc-shaped scraper
⑤	315-132	Wedge-shaped scraper
⑥	315-140	Pull scraper
⑦	315-171	Currete(5°)
⑧	315-180	Ring currete
⑨	315-125	Square reamer
⑩	315-240	Scalpel holder
⑪	315-211	Osseous forceps
⑫	315-191	Nucleus pulposus forceps(straight)
⑬	315-202	Nucleus pulposus forceps(oblique)
⑭	315-260	Triangle currete
⑮	315-111	Ring reamer



Surgical procedure

Treatment of intervertebral disc

--Treatment of intervertebral disc--

- The nerve fibers were stripped with small stripper(315-101), and the fibrous ring and lamina terminals were stripped with large stripper(315-094) until the intervertebral disc was clearly displayed.
- Then, remove the outer fibrous ring at least 18mm with the device assembled by surgical blade and handle.(Fig.1)

Under the psoas muscle, bite out more fiber rings with oblique osseous forceps(315-211), so as to facilitate to create an ideal position for cage.
(Fig.2)

- Nucleus pulposus forceps(315-191/202) and other intervertebral disc instruments were used to complete nucleus pulposus clearance and lamina terminals treatment.(Fig.3)

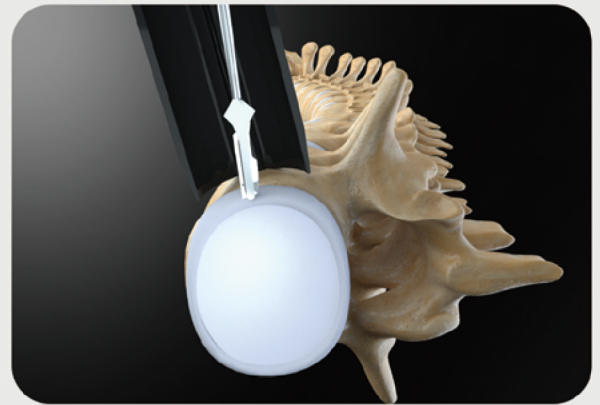


Fig.1

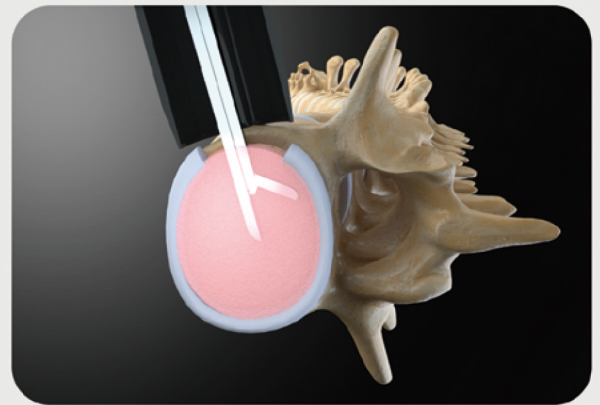


Fig.2

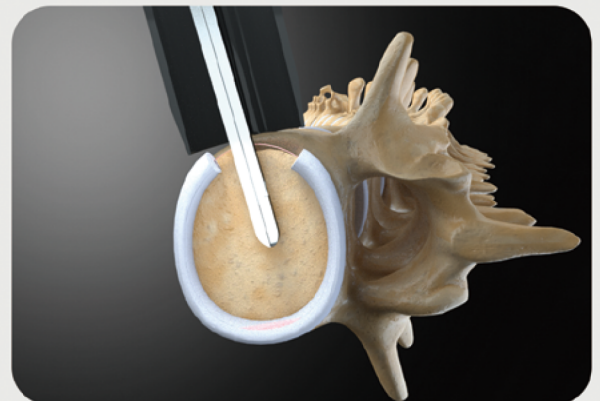


Fig.3

Surgical procedure

Treatment of intervertebral disc

--Treatment of lamina terminals--

- The reamer buckled on the groove of T handle. Place a suitable reamer in the intervertebral space and rotate it clockwise or counterclockwise to clean up the residual nucleus.(Fig.1)
- Ring Currets, scrapers, triangle currets, and other tools can be used to treat the lamina terminals. (Fig.2)
- To remove the contralateral fibrous ring with pull scraper. (Fig.3)

Attention

It is very important to release the contralateral annulus fibrosus, which can prevent the extrusion of prosthesis and reconstruct the normal height of intervertebral space.

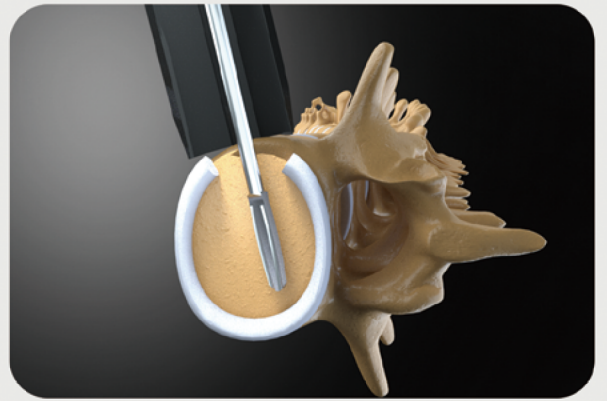


Fig.1

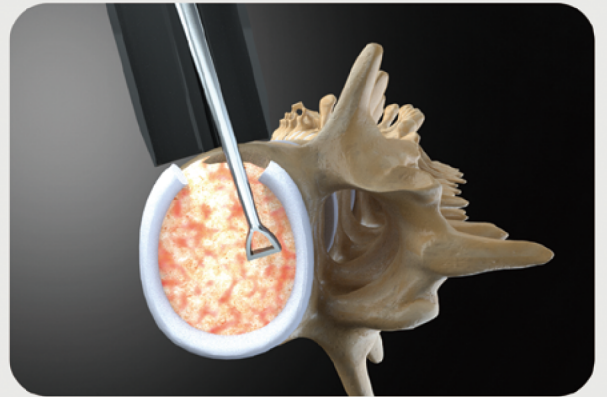


Fig.2



Fig.3

Surgical procedure

Template

--Template--

Standard instrument

①	315-300	55×18×8
	315-301	55×18×10
	315-302	55×18×12
	315-303	55×18×14

Template 6°

②	315-330	55×18×8
	315-331	55×18×10
	315-332	55×18×12
	315-333	55×18×14

Template 9°

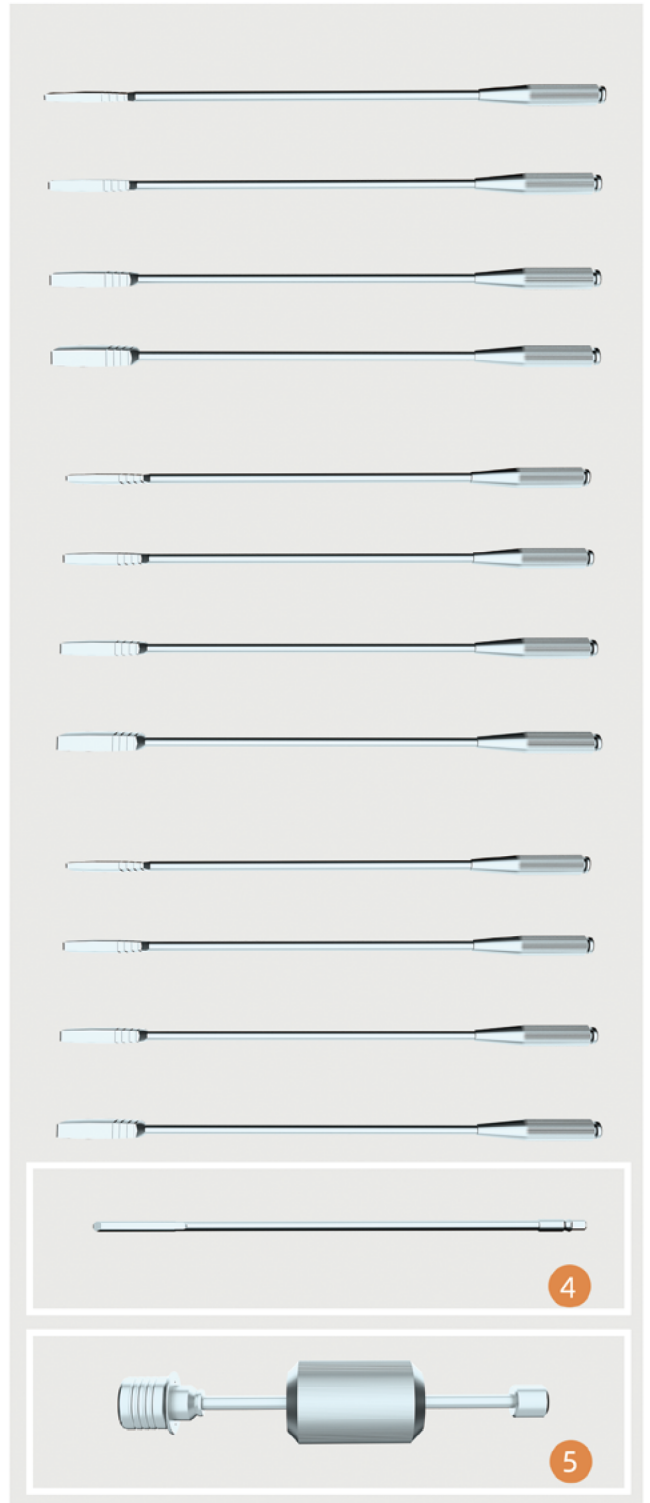
③	315-340	55×18×9
	315-341	55×18×11
	315-342	55×18×13
	315-343	55×18×15

④	315-270	Retractor
---	---------	-----------

⑤	315-082	Pusher
---	---------	--------

Attention

The groove marking design is added to templates. The first groove position is at 40mm, the next is in 5mm increments.



--Template--

- Assemble the retractor with the T handle. Then put the head of the retractor into the intervertebral disc and rotate to open the disc to an appropriate size.
- Select an appropriate template. The templates are obliquely and individually inserted into the intervertebral space through channel until the intervertebral space is opened to a sufficient height and the intervertebral foramen is expanded to a satisfactory size.
- The pusher can be used to slowly knock the end of the handle to push the template into the intervertebral space. The position of the template must be monitored by perspective or image navigation. (Fig.1)

Attention

Pay attention to the direction of the template. The front is high and the back is low. The side with the letter P points to the back of the human body.(Fig. 2)

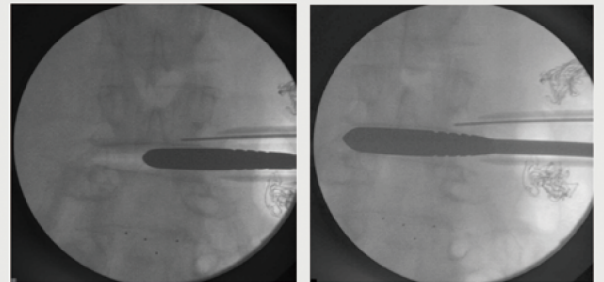


Fig.1

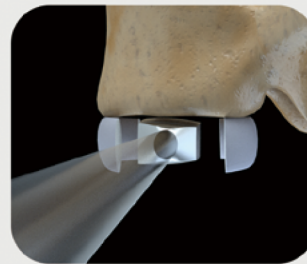


Fig.2

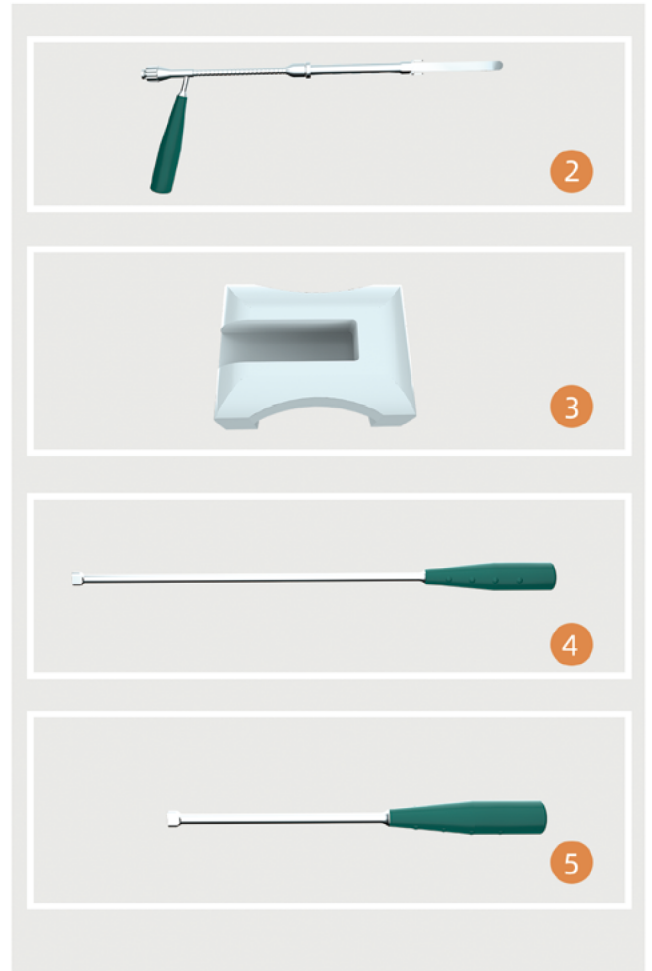
Surgical procedure

Implant the cage

--Implant the cage--

Standard instrument

- | | | |
|---|---------|-----------------|
| ① | 315-032 | Cage holder |
| ② | 315-052 | Impactor box |
| ③ | 315-060 | Impactor(long) |
| ④ | 315-061 | Impactor(short) |



Surgical procedure

Implant the cage

--Fill autogenous bone--

- After determining the appropriate size of the fusion cage, screw the cage holder(315-032) into the middle hole of the fusion cage, and then load it into the impactor box(315-052). Fill autologous bone in the central groove of the fusion cage.(Fig.1)
- Then select the impactor (short 315-061) to compact the autologous bone.(Fig.2)
- The filled fusion cage was removed from the impactor box. Loose the outer sleeve nut of the holder to extend the sleeve's length until completely cover the implant.(Fig.3)

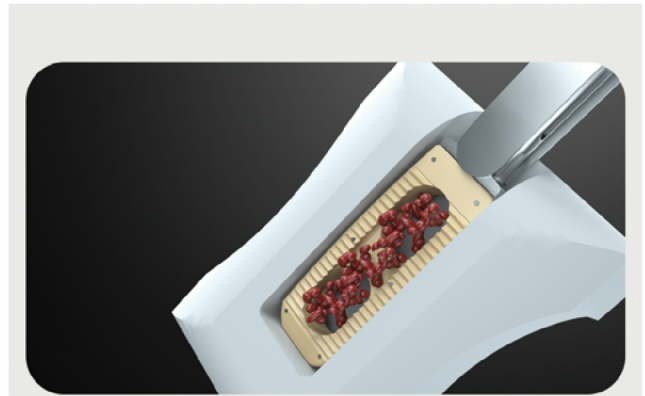


Fig.1

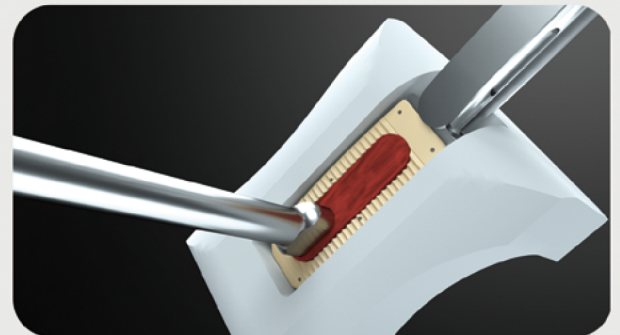


Fig.2



Fig.3

Surgical procedure

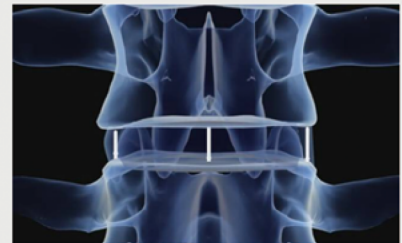
Implant the cage

--Implant the cage--

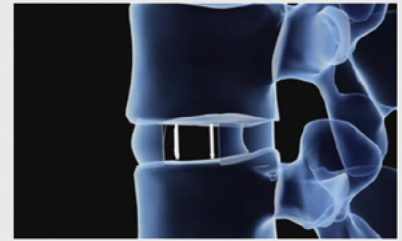
- The cage was carefully implanted with the cage holder. The holder enter obliquely the channel, and then rotate it, so that the operator can place the implant vertically in the intervertebral space.
- The X-ray line marks the determined position of the cage that can be viewed on the frontal film. The lateral film can display the exact position of the cage.(Fig.1)
- After ensuring that the implant is placed in the center of the intervertebral space, remove the holder.
- After that, the position of the cage can be adjusted with the impactor(long).

Attention

Pay attention to the direction of the template. The front is high and the back is low. The side with the letter P points to the back of the human body.(Fig. 2)



Frontal film



Lateral film

Fig.1

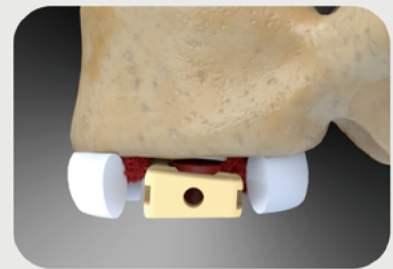


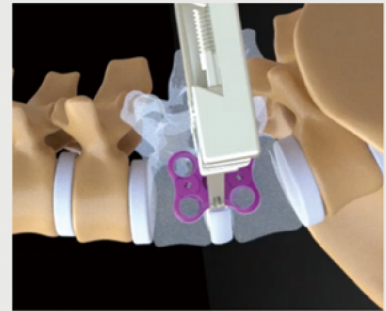
Fig.2

Surgical procedure

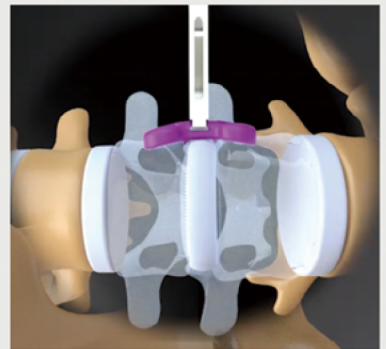
Implant fixing plate 1

--Implant fixing plate--

- Clamp the fixing plate with plate holder and put it in the corresponding position. And ensure that the frontal and lateral positions are accurate.



Frontal film



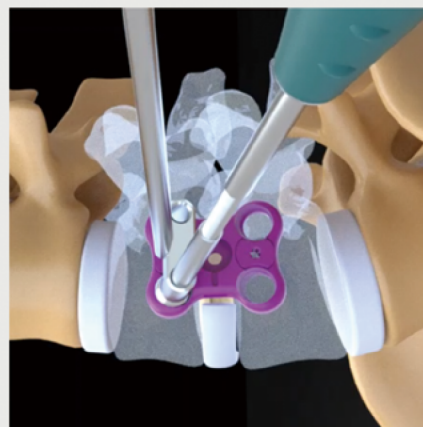
Lateral film

Surgical procedure

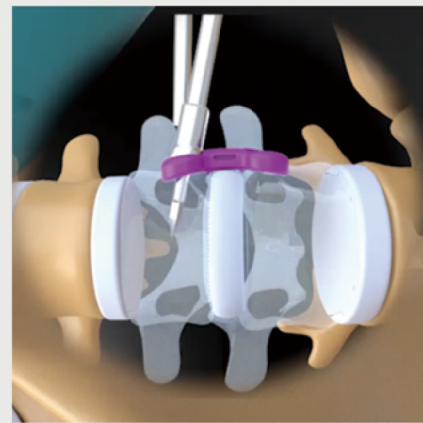
Implant fixing plate 1

--Open a trajectory--

- Insert the awl along the pipe of two hole guide.



Frontal film



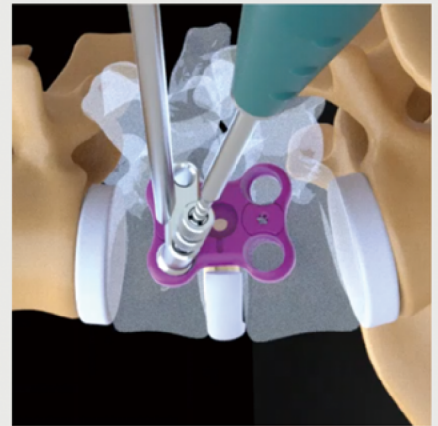
Lateral film

Surgical procedure

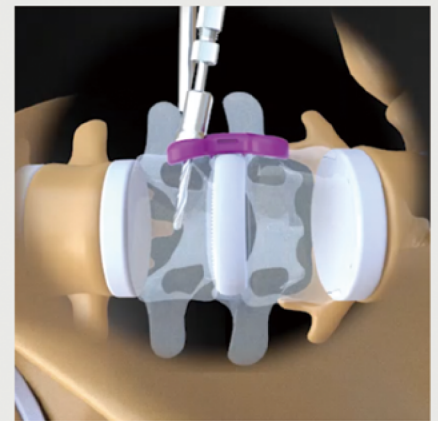
Implant fixing plate 1

--Open a trajectory--

- Insert the open drill along the pipe of two hole guide.



Frontal film



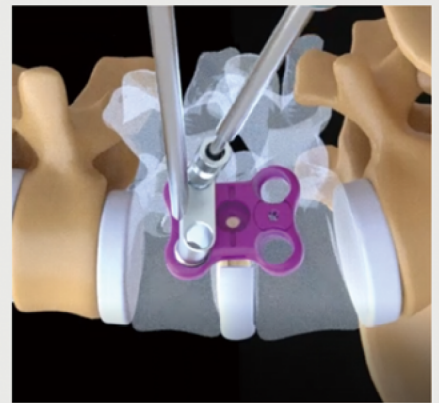
Lateral film

Surgical procedure

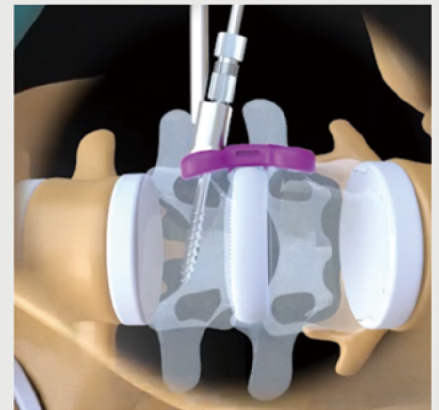
Implant fixing plate 1

--Tap threads--

- Insert the tap along the pipe of two holes guide.



Frontal film



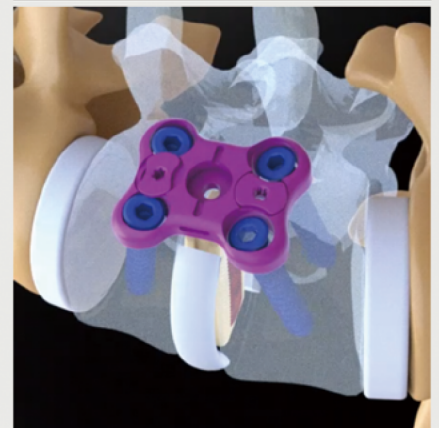
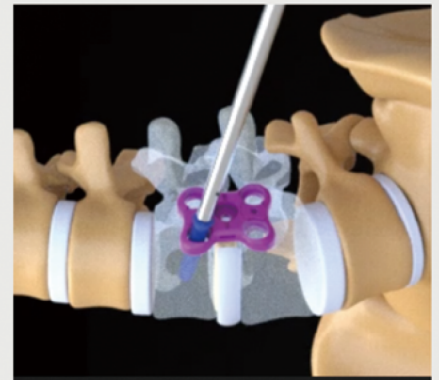
Lateral film

Surgical procedure

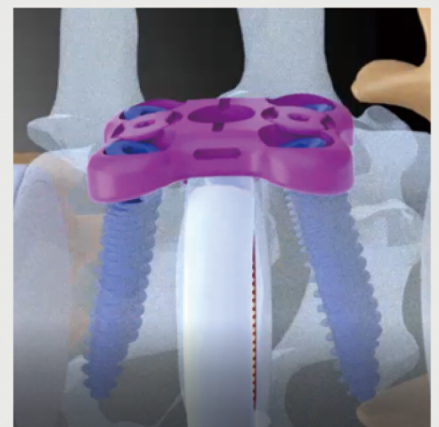
Implant fixing plate 1

--Implant screws--

- Advance screws with the wrench.



Frontal film



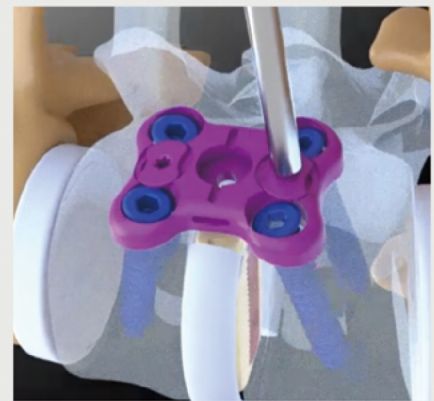
Lateral film

Surgical procedure

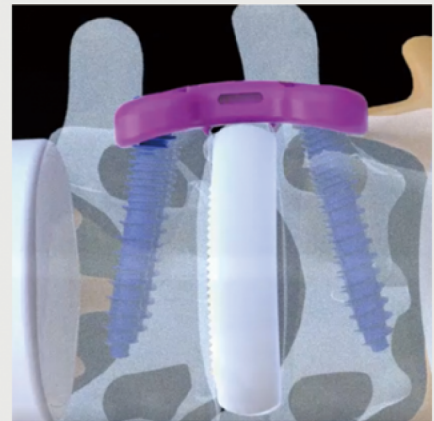
Implant fixing plate 1

--Lock the anti retreat components--

- Insert the cross screwdriver into the groove of the lock plate, and gently rotate it by 90° to make the lock plate clamp the screw head.



Frontal film



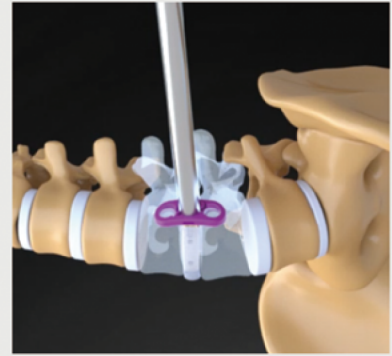
Lateral film

Surgical procedure

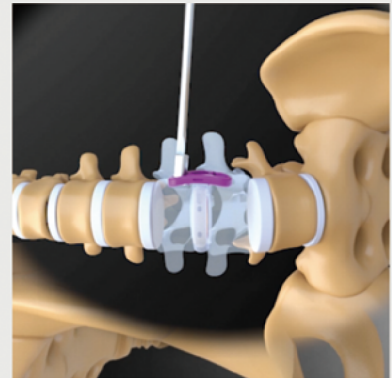
Implant fixing plate 2

--Implant plate--

- Clamp the fixing plate with the plate holder and put it in the corresponding position. And ensure that the frontal/lateral position is correct.



Frontal film



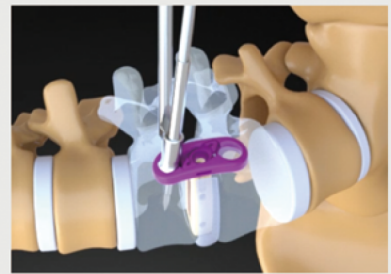
Lateral film

Surgical procedure

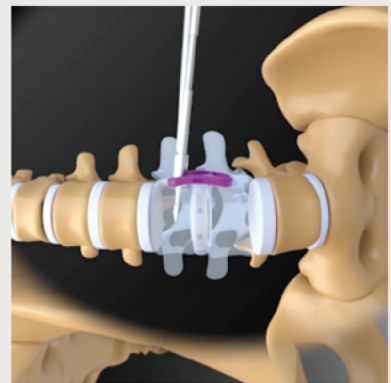
Implant fixing plate 2

--Open a trajectory--

- Insert the awl along the pipe of guide.



Frontal film



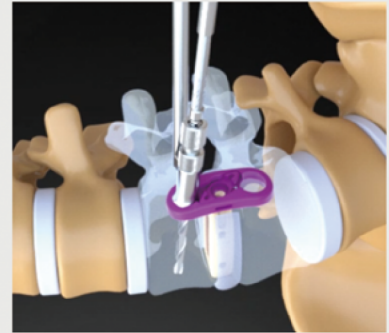
Lateral film

Surgical procedure

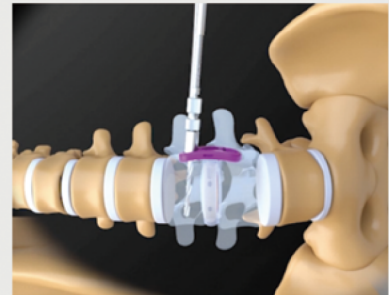
Implant fixing plate 2

--Open a trajectory--

- Insert the open drill along the pipe of guide.



Frontal film



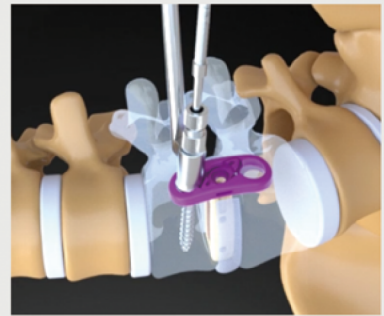
Lateral film

Surgical procedure

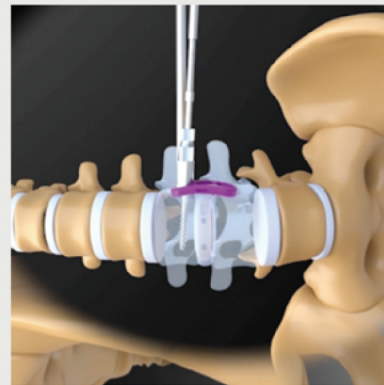
Implant fixing plate 2

--Tap threads--

- Insert the tap along the pipe of guide.



Frontal film



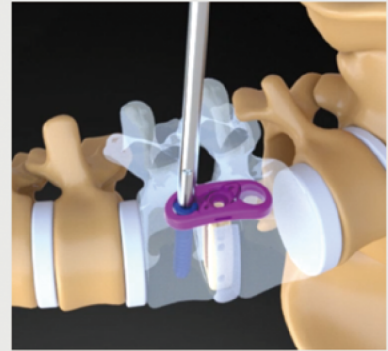
Lateral film

Surgical procedure

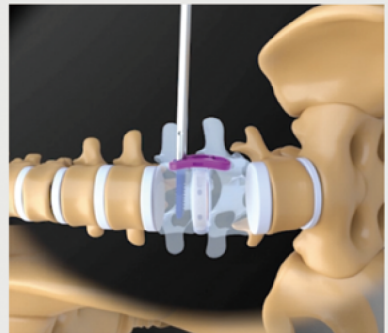
Implant fixing plate 2

--Implant screws--

- Advance screws with the wrench.



Frontal film



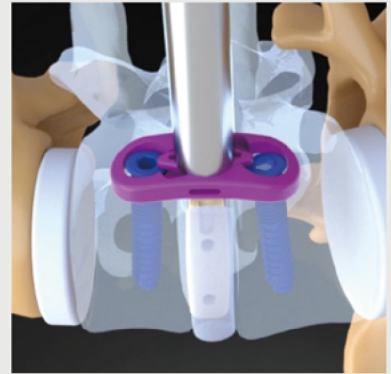
Lateral film

Surgical procedure

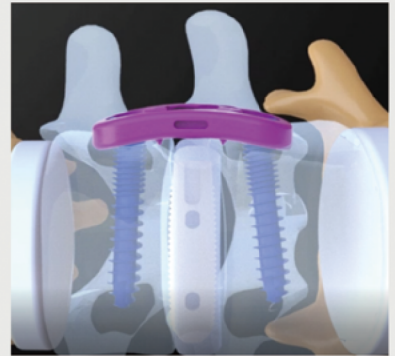
Implant fixing plate 2

--Lock the anti retreat components--

- Insert the cross screwdriver into the groove of the lock plate, and gently rotate it by 90° to make the lock plate clamp the screw head.



Frontal film



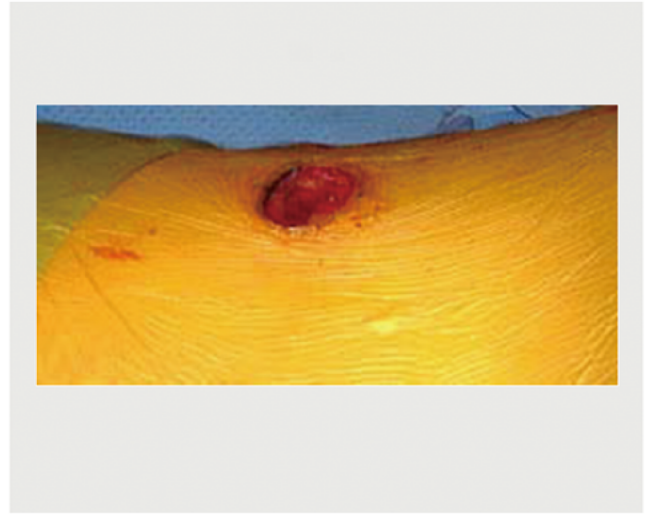
Lateral film

Surgical procedure

Suture

--Suture--

- After the autologous bone was injected into the intervertebral space, remove the fixation screw.
- Then, remove the distractor for semi-flat blade from the traction bracket and carefully withdraw the blades from the surgical part. After that, the muscle and fat layers can be seen to close and recover naturally.
- Rinse the surgical site properly, and then the fascia on the surface of external oblique muscle was sutured intermittently with synthetic absorbable suture.
- Finally, suture the subcutaneous and skin, then seal the skin with skin glue.

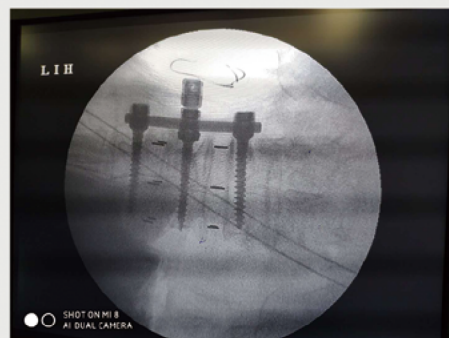


Surgical procedure

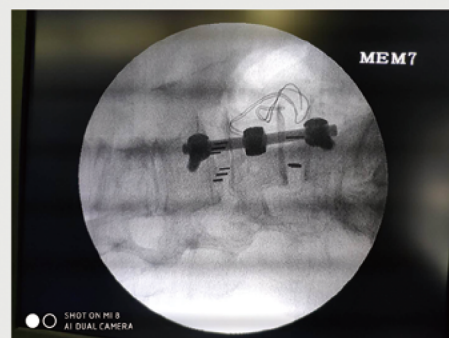
Fixation

--Fixation--

- Fixation was performed with the percutaneous screw-rod system of appropriate size.
- After fixation, check whether the screw-rod's position is correct through the perspective view of the frontal and lateral positions.

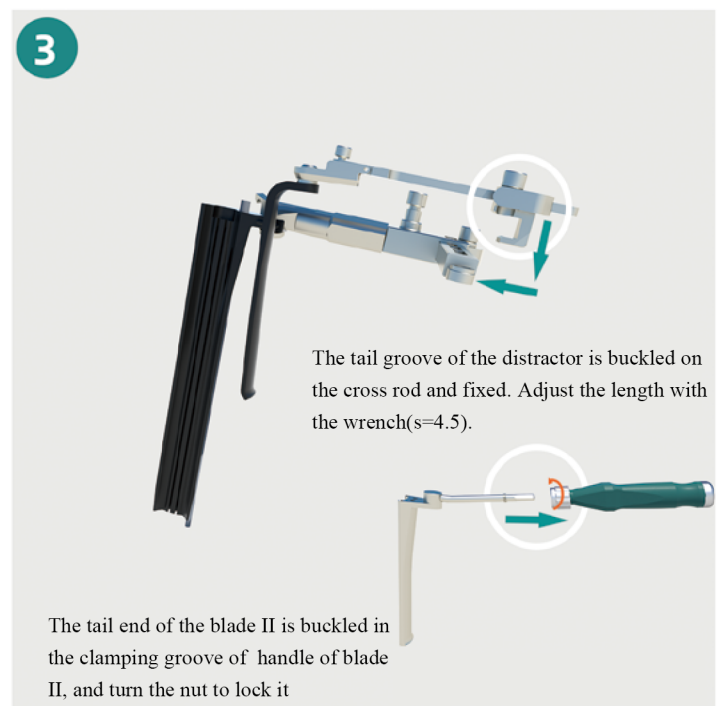
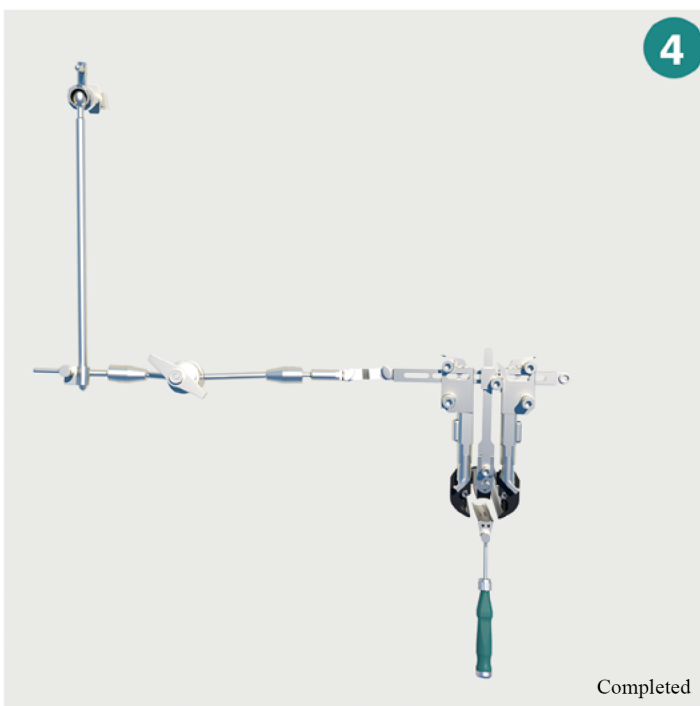
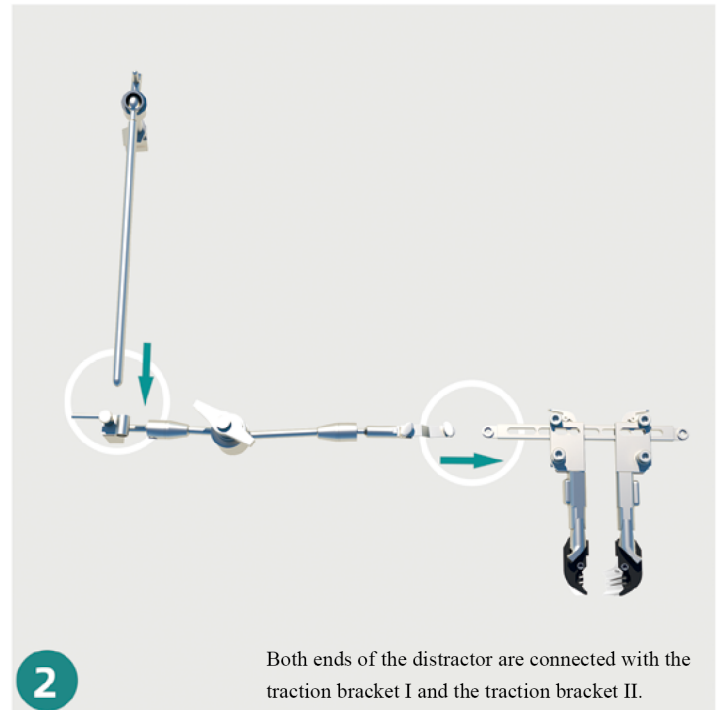
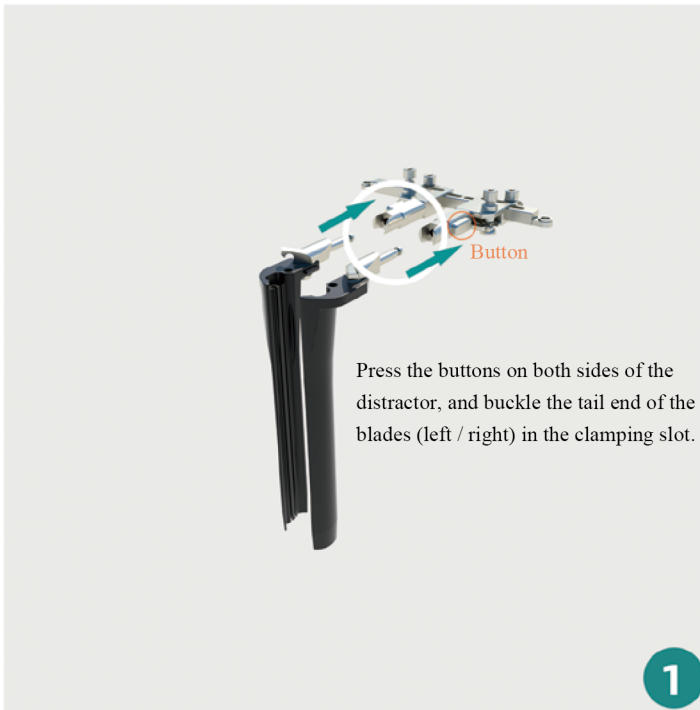


Frontal film

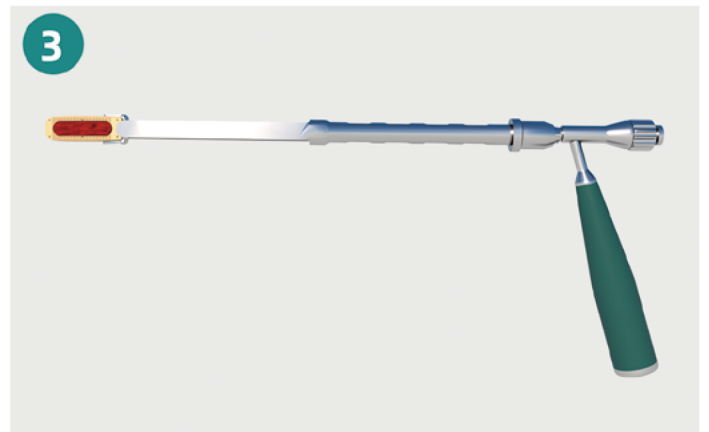
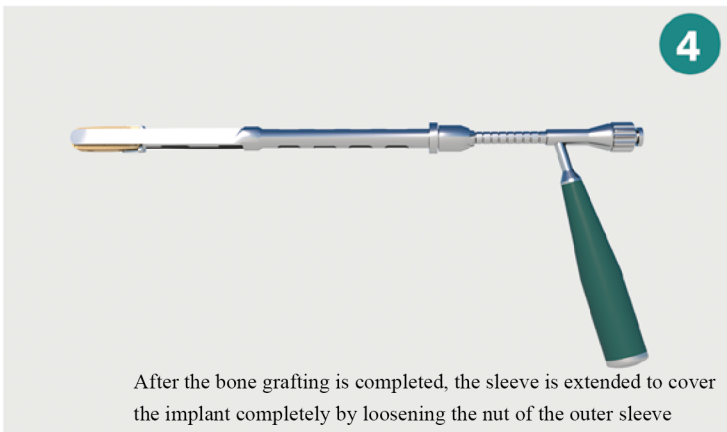
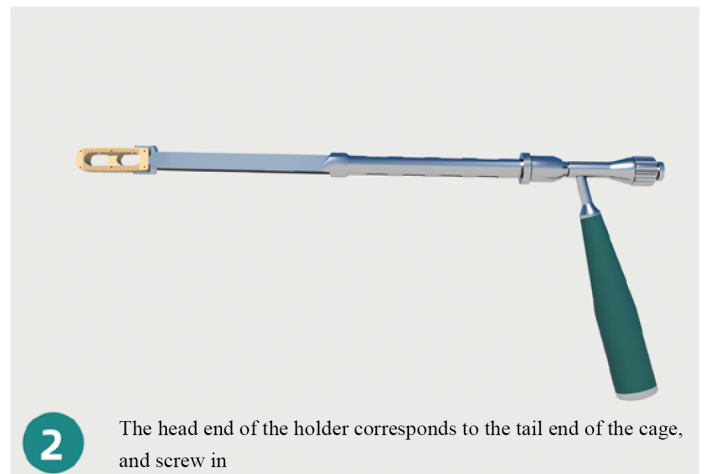
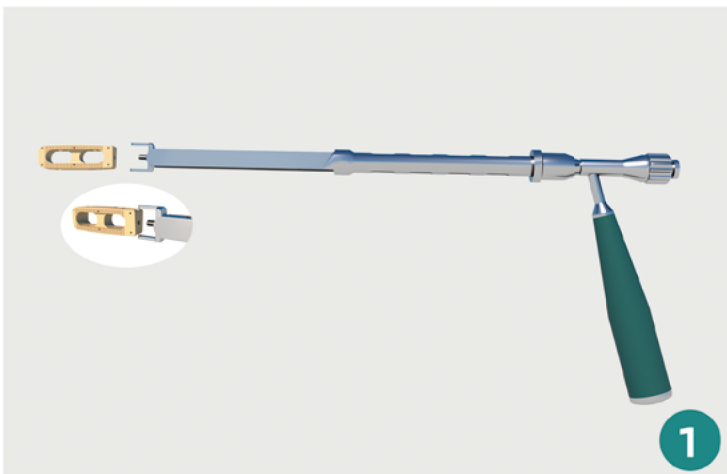
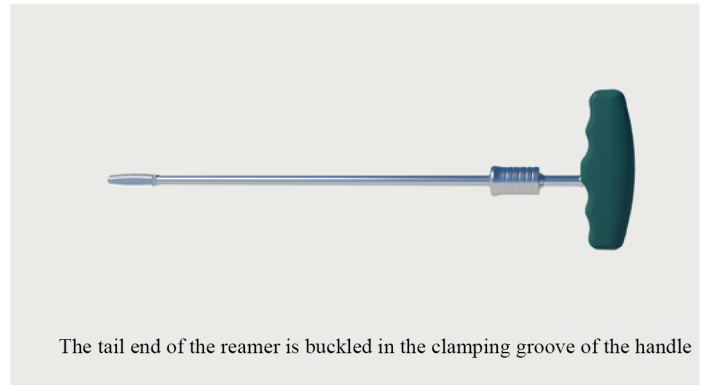
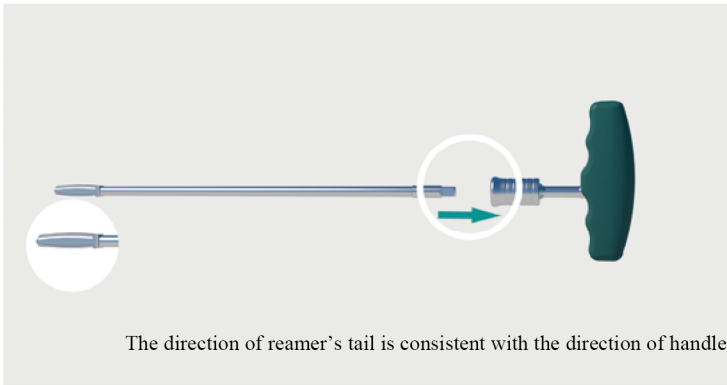


Lateral film

--Installation of distraction channel--



--Reamer and holder--



--OLIF Interbody Fusion Cage--

侧方微创融合器 (标准型 0° 灭菌)

OLIF Interbody Fusion Cage (0° Sterilized)

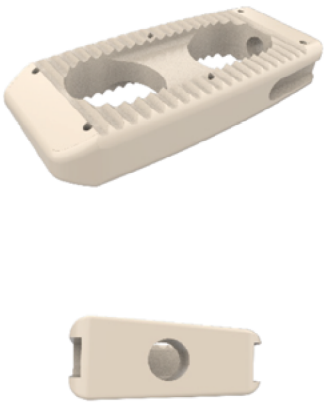


规格 Description	角度 Angle	厚度 Thickness	长度 Length	宽度 Width	产品编码 Product Code
40×18×8	0°	8	40	18	1122040008
40×18×10	0°	10	40	18	1122040010
40×18×12	0°	12	40	18	1122040012
40×18×14	0°	14	40	18	1122040014
45×18×8	0°	8	45	18	1122045008
45×18×10	0°	10	45	18	1122045010
45×18×12	0°	12	45	18	1122045012
45×18×14	0°	14	45	18	1122045014
50×18×8	0°	8	50	18	1122050008
50×18×10	0°	10	50	18	1122050010
50×18×12	0°	12	50	18	1122050012
50×18×14	0°	14	50	18	1122050014
55×18×8	0°	8	55	18	1122055008
55×18×10	0°	10	55	18	1122055010
55×18×12	0°	12	55	18	1122055012
55×18×14	0°	14	55	18	1122055014

--OLIF Interbody Fusion Cage--

侧方微创融合器 (解剖型 6° 灭菌)

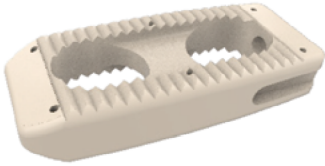
OLIF Interbody Fusion Cage (6° Sterilized)



规格 Description	角度 Angle	厚度 Thickness	长度 Length	宽度 Width	产品编码 Product Code
40×18×8	6°	8	40	18	1123040008
40×18×10	6°	10	40	18	1123040010
40×18×12	6°	12	40	18	1123040012
40×18×14	6°	14	40	18	1123040014
45×18×8	6°	8	45	18	1123045008
45×18×10	6°	10	45	18	1123045010
45×18×12	6°	12	45	18	1123045012
45×18×14	6°	14	45	18	1123045014
50×18×8	6°	8	50	18	1123050008
50×18×10	6°	10	50	18	1123050010
50×18×12	6°	12	50	18	1123050012
50×18×14	6°	14	50	18	1123050014
55×18×8	6°	8	55	18	1123055008
55×18×10	6°	10	55	18	1123055010
55×18×12	6°	12	55	18	1123055012
55×18×14	6°	14	55	18	1123055014

--OLIF Interbody Fusion Cage--

侧方微创融合器 (解剖型 9° 灭菌)
OLIF Interbody Fusion Cage (9° Sterilized)



规格 Description	角度 Angle	厚度 Thickness	长度 Length	宽度 Width	产品编码 Product Code
40×18×9	9°	9	40	18	1124040009
40×18×11	9°	11	40	18	1124040011
40×18×13	9°	13	40	18	1124040013
40×18×15	9°	15	40	18	1124040015
45×18×9	9°	9	45	18	1124045009
45×18×11	9°	11	45	18	1124045011
45×18×13	9°	13	45	18	1124045013
45×18×15	9°	15	45	18	1124045015
50×18×9	9°	9	50	18	1124050009
50×18×11	9°	11	50	18	1124050011
50×18×13	9°	13	50	18	1124050013
50×18×15	9°	15	50	18	1124050015
55×18×9	9°	9	55	18	1124055009
55×18×11	9°	11	55	18	1124055011
55×18×13	9°	13	55	18	1124055013
55×18×15	9°	15	55	18	1124055015

115-290---
115-298

Semi-flat blade(left); $\phi 12$



115-300---
115-308

Semi-flat blade(right); $\phi 12$



115-330

Dilater



115-390---
115-398

Semi-Circular Blade (left)



115-400---
115-408

Semi-Circular Blade (right)



115-420

Pin for Dilater



115-230

Inner and Outer Dilater $\phi 5$



115-231

Inner and Outer Dilater $\phi 9$



115-232

Inner and Outer Dilater $\phi 12$



115-233

Inner and Outer Dilater $\phi 15$



115-410

Inner and Outer Dilater $\phi 21$



115-280

Distractor for Semi-Circular Blade



115-350---
115-358

Blade I



115-340

Distractor for Blade I



1400001

Handle for Blade II



115-310---
115-318

Blade II



115-106

Traction Bracket I



115-111

Traction Bracket II



115-360

Wrench for Distractor for Semi-Circular Blade



115-260

Pin for Dilater



Product information

General instruments

115-320---
115-328

Pin for Balde II



115-250

Wrench for Blade II



115-133

Cold Light



115-145

Cable I



115-380

Cable II



315-270

Distractor



315-300---

315-303

Cage Trail (0°)



315-330---

315-333

Cage Trail (6°)



315-340---

315-343

Cage Trail (9°)



315-032

Cage Holder



315-052

Impactor Box



315-060

Impactor(long)



315-061

Impactor(short)



315-240

Scalpel Holder



315-094

Stripper(large)



315-101

Stripper(small)



315-131

Scraper



315-132

Scraper



315-171

Curette 5°



315-180

Curette(ring)



315-260

Curette(triangle)



Product information

General instruments

315-140

Scraper(pull)



315-071

Handle



315-110---
315-112

Round Reamer



315-120---
315-126

Square Reamer



315-211

Osseous Forceps



315-203---

315-321

Nucleus Pulposus Forceps



315-194---

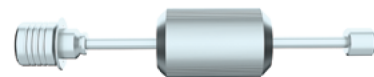
315-311

Nucleus Pulposus Forceps






315-082






Pusher






----The following are special instruments (the blade is circle type)----

Name	Specs	Code	Quantity	Picture	
Semi-Circular Blade (left)	9	115-390	1		
	10	115-391	1		
	11	115-392	1		
	12	115-393	1		
	13	115-394	1		
	14	115-395	1		
	15	115-396	1		
	16	115-397	1		
	17	115-398	1		
Inner Diameter: φ21	9	115-400	1		
	10	115-401	1		
	11	115-402	1		
	12	115-403	1		
	13	115-404	1		
	14	115-405	1		
	15	115-406	1		
	16	115-407	1		
Inner Diameter: φ21	17	115-408	1		
	Pin for Dilater	Φ5	115-420		1







----The following are special instruments (the blade is circle)----

Name	Specs	Code	Quantity	Picture
Inner and Outer Dilater	Φ5	115-230	1	
	Φ9	115-231	1	
	Φ12	115-232	1	
	Φ15	115-233	1	
	Φ21	115-410	1	







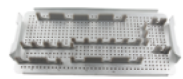



----The following are special instruments (the blade is flat type)----

Name	Specs	Code	Quantity	Picture
Semi-Flat Blade(left)Inner Diameter: φ21	9	115-290	1	
	10	115-291	1	
	11	115-292	1	
	12	115-293	1	
	13	115-294	1	
	14	115-295	1	
	15	115-296	1	
	16	115-297	1	
	17	115-298	1	
Semi-Flat Blade(right) Inner Diameter: φ21	9	115-300	1	
	10	115-301	1	
	11	115-302	1	
	12	115-303	1	
	13	115-304	1	
	14	115-305	1	
	15	115-306	1	
	16	115-307	1	
	17	115-308	1	
Dilater		115-330	1	




----General Instrument----

Name	Specs	Code	Quantity	Picture
Distractor		115-280	1	
Distractor		115-340	1	
Blade I	9	115-350	1	
	10	115-351	1	
	11	115-352	1	
	12	115-353	1	
	13	115-354	1	
	14	115-355	1	
	15	115-356	1	
	16	115-357	1	
	17	115-358	1	
Wrench	S=4.5	115-360	1	
Handle		1400001	1	
Pin for Balde II	9	115-320	2	
	10	115-321	2	
	11	115-322	2	
	12	115-323	2	
	13	115-324	2	
	14	115-325	2	
	15	115-326	2	
	16	115-327	2	
	17	115-328	2	










----General Instrument----

Name	Specs	Code	Quantity	Picture
Wrench for Blade II	T20	115-250	1	
Pin	Φ2	115-260	1	
Blade II	9	115-310	1	
	10	115-311	1	
	11	115-312	1	
	12	115-313	1	
	13	115-314	1	
	14	115-315	1	
	15	115-316	1	
	16	115-317	1	
	17	115-318	1	
Traction Bracket I		115-106	1	
Traction Bracket II		115-111	1	
Top tray		1400003	1	
Medium tray		1400004	1	
Bottom tray		1400005	1	
Container body		P000011	1	
Container cover		P000012	1	









----Optional Instrument----

Name	Specs	Code	Quantity	Picture
Cold Light		115-133		
Cable I		115-145		
Cable II		115-380		







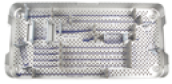


----Special Instrument----

Name	Specs	Code	Quantity	Picture
Distractor	7	315-270	1	
Cage Trail (6°)	55×18×8	315-330	1	
	55×18×10	315-331	1	
	55×18×12	315-332	1	
	55×18×14	315-333	1	
Cage Trail (9°)	55×18×9	315-340	1	
	55×18×11	315-341	1	
	55×18×13	315-342	1	
	55×18×15	315-343	1	
Cage Holder		315-032	2	
Impactor Box		315-052	1	
Impactor	long	315-060	1	
Impactor	short	315-061	1	
Handle		315-071	2	
Pusher		315-082	1	

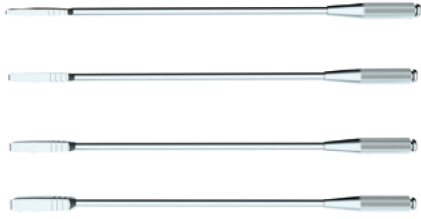


----Special Instrument----

Name	Specs	Code	Quantity	Picture
Stripper	large	315-094	1	
Stripper	small	315-101	1	
Scraper		315-131	1	
Scraper		315-132	1	
Scraper		315-140	1	
Curette(5°)		315-171	1	
Curette		315-180	1	
Square Reamer	7	315-120	1	
	8	315-121	1	
	9	315-122	1	
	10	315-123	1	
	11	315-124	1	
	12	315-125	1	
	13	315-126	1	

---Special Instrument---

Name	Specs	Code	Quantity	Picture
Scalpel Holder		315-240	1	
Osseous Forceps	3mm	315-211	1	
Nucleus Pulposus Forceps	2mm	315-194		
	3mm	315-191	1	
	5mm	315-311	1	
Nucleus Pulposus Forceps	2mm	315-203		
	3mm	315-202	1	
	5mm	315-321		
Container body	中档	P000011	1	
Container cover		P000012	1	
Container body	高档	P000013	1	
Container cover		P000014	1	
Top tray		1230010	1	
Medium tray		1230011	1	
Bottom tray		1230012	1	

--Optional instruments-----

Name	Specs	Code	Quantity	Picture
Cage Trail (0°)	55×18×8	315-300	1	
	55×18×10	315-301	1	
	55×18×12	315-302		
	55×18×14	315-303		
Curette(triangle)		315-260		
Curette(ring)	9	315-110		
	11	315-111		
	13	315-112		

Tips: The list will be continuously updated, and the final version shall be subject to the the company.



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