

GREENS®



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Surgical Technique

Features and Benefits

Concept:

Minimally Invasive Surgery Technology

With the help of this system, doctors can turn the traditional open operation to Minimally Invasive surgery directly.

Characteristics of the Product

You can perform the PLIF/TLIF operation with the help of using in-line, head-mounted eye lens and microscope.

Inserting the implant which used in traditional open operation in a minimal invasive surgery.

Two Free rotation of two kinds of fixed arms, realizing the fixation of all direction channel point.

Dual High light source fibers provide sufficient illumination brightness and scope, which can be connected with all kinds of microendoscopy, arthroscopy, thoracoscope and peritoneoscope.

Have different specification choices of strutting blade and lateral separation blade, which are appropriate for different type of patients.

Range of application

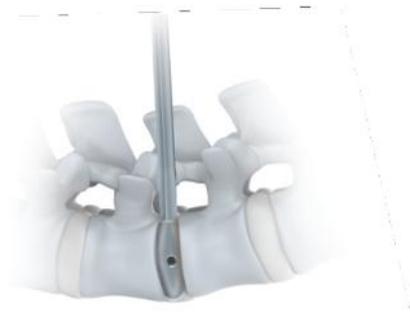
Decompression under the channel and fixation of the cage

1. In the channel with rongeur, scalpel or bone chise to cut part of pars interarticularis or vertebral plate, using the nucleus pulposus clamp and rotary reamer to operation interbody.
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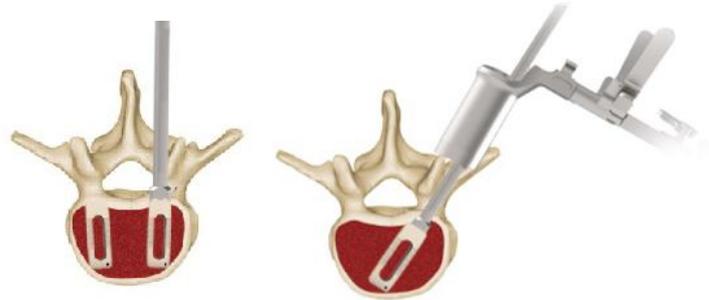


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2. Strutting the intervertebral space to recover the suitable intervertebral height



3. Bone grafting in the front and side of the intervertebra and then insert the cage, which can finish the **PLIF** and **TLIF** Operation under the channel.



Inserting the pedicle screw under the channel

1. Positioning the entry point of the Pedicle, respectively use open bit, expanding bit, and probe. If the bone is hard, the same specification screw tap can be adopted.



2. Install the Pedicle screw



3. Install the rod



4. Complete the lifting, compressing and strutting



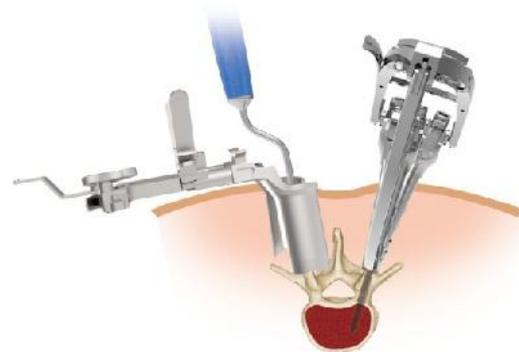
5. Tighten the screw-plug



Complete the PLIF/TLIF surgery under the channel and percutaneous pedicle screw fixation

First insert the percutaneous pedicle screw in the opposite side, followed by treatment and inter body fusion device placed at the other side of the channel, remove the tunnel. After that insert the percutaneous pedicle screw so as to achieve the purpose of the surgery.

Also, the percutaneous pedicle screw can be inserted in advance, and then operate the intervertebral treatment, cage fixation and insert the pedicle screw in another channel, When implant the normal pedicle screw, using the same diameter rod of two sides is



Main tool

Flexible bracket arm 217100034

Flexible bracket: 217100033

Dilatation tube

Dilatation tube	5.3	217100002
Dilatation tube	9.4	217100003
Dilatation tube	12.8	217100004
Dilatation tube	14.6	217100005
Dilatation tube	16.8	217100006
Dilatation tube	18.8	217100007
Dilatation tube	21.8	217100008

Distraction blade

Distraction blade	right, 40cm	217100012
Distraction blade	right, 50cm	217100013
Distraction blade	right, 60cm	217100014
Distraction blade	right, 70cm	217100015
Distraction blade	right, 80cm	217100016
Distraction blade	left, 40cm	217100017
Distraction blade	left, 50cm	217100018
Distraction blade	left, 60cm	217100019
Distraction blade	left, 70cm	217100020
Distraction blade	left, 80cm	217100021

Side distractor 217100009

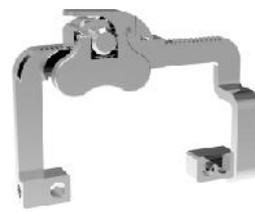


Side baffle

Side baffle	50mm narrow	217100023
Side baffle	60mm narrow	217100024
Side baffle	70mm narrow	217100025
Side baffle	80mm narrow	217100026
Side baffle	90mm narrow	217100027
Side baffle	50mm blade	217100028
Side baffle	60mm blade	217100029
Side baffle	70mm blade	217100030
Side baffle	80mm blade	217100031
Side baffle	90mm blade	217100032



Side distractor 21710001 0



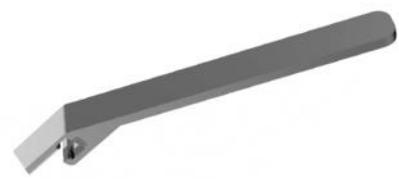
Free arm connector 217100039



Minimally Invasive channel attachment 217100037



Blade wrench 217100022



Flex Arm 217100011

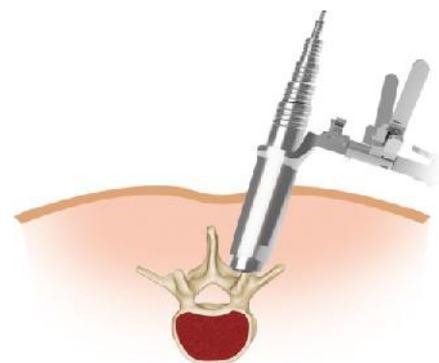
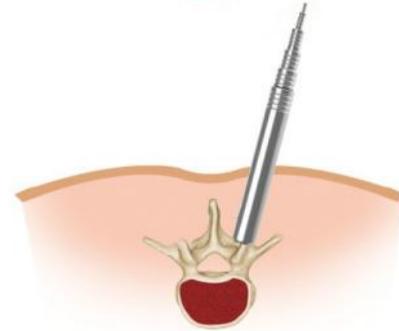
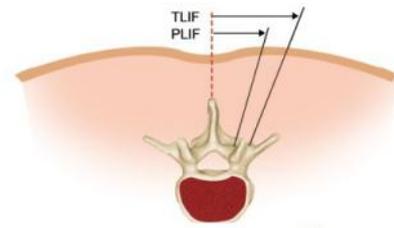


Step of Installation

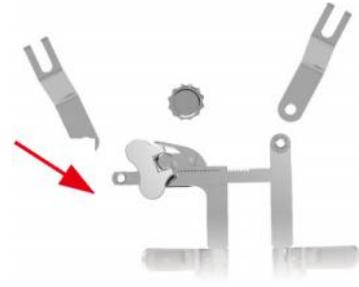
1 . Patient in the prone position , C-type X-ray fluoroscopy to determine the lesion segments, about 2-3cm from the spine midline, do a skin incision 3-5cm long according to the situation.cut back fascia and insert into the positioning guide wire.

2 . Insert the expansion sleeve along the guide wire step by step, blunt dissection of soft tissue.

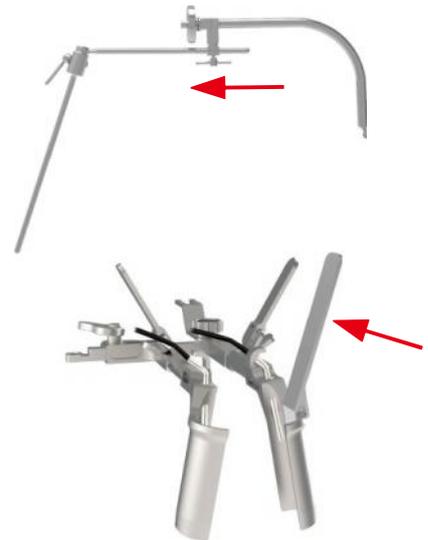
3 . Choose the appropriate Distraction blade according the last stage scale of the Dilatation tube, connect to the Distractor,will distraction sheet close to knob cylindrical barrel, along the rotation of the sleeve insert support expansion opening film, remove the Dilatation tube and the guide wire.install fiber-headed, open source.



4. Put the Flex Arm to the operating table, the bracket and the retaining clips securely connected. Then the flexible arm and cradle connected to the stretcher with the flexible arm is connected via a connector in the stretcher position adjustment after the completion of the flexible locking arm.



5. By the rotary knob stretch the distraction to the required length and then use a wrench to make softened sheet formed bell-like, through the Minimally Invasive channel exposed upper and lower lamina and facet disease segment. The installment of channel is finished.



List of Configuration

Guild wire	Ø1.6	1	217100001
Divergent tube	Ø5.3	1	217100002
Divergent tube	Ø9.4	1	217100003
Divergent tube	Ø12.8	1	217100004
Divergent tube	Ø14.6	1	217100005
Divergent tube	Ø16.8	1	217100006
Divergent tube	Ø18.8	1	217100007
Divergent tube	Ø20.8	1	217100008
Distracter		1	217100009
Side distracter		1	217100010
Fixation clip		1	217100011
Strut blade	right, H=40mm	1	217100012
Strut blade	right, H=50mm	1	217100013
Strut blade	right, H=60mm	1	217100014
Strut blade	right, H=70mm	1	217100015
Strut blade	right, H=80mm	1	217100016
Strut blade	left, H=40mm	1	217100017
Strut blade	left, H=50mm	1	217100018
Strut blade	left, H=60mm	1	217100019

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Strut blade	left, H=70mm	1	217100020
Strut blade	left, H=80mm	1	217100021
Blade wrench		2	217100022
Side baffle	50mm narrow	2	217100023
Side baffle	60mm narrow	2	217100024
Side baffle	70mm narrow	2	217100025
Side baffle	80mm narrow	2	217100026
Side baffle	90mm narrow	2	217100027
Side baffle	50mm blade	2	217100028
Side baffle	60mm blade	2	217100029
Side baffle	70mm blade	2	217100030
Side baffle	80mm blade	2	217100031
Side baffle	90mm blade	2	217100032
Flexible support		1	217100033
Flexible support connecting arm		1	217100034
Rigid support		1	217100036
Minimally invasive channel accessory		1	217100037
Free arm connector		1	217100039
Instrument tray		1	217100040