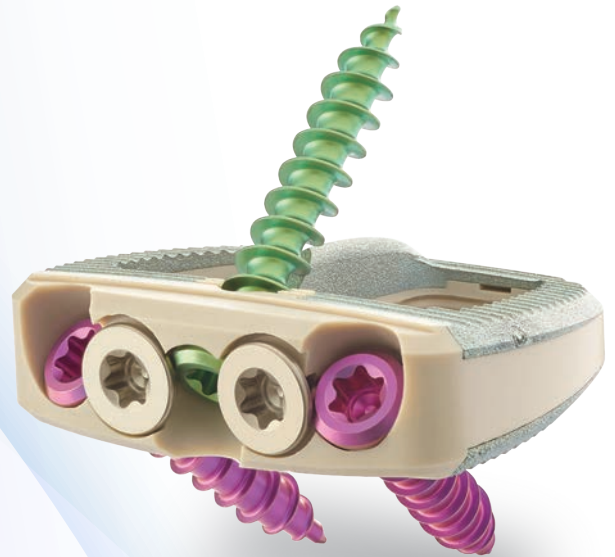
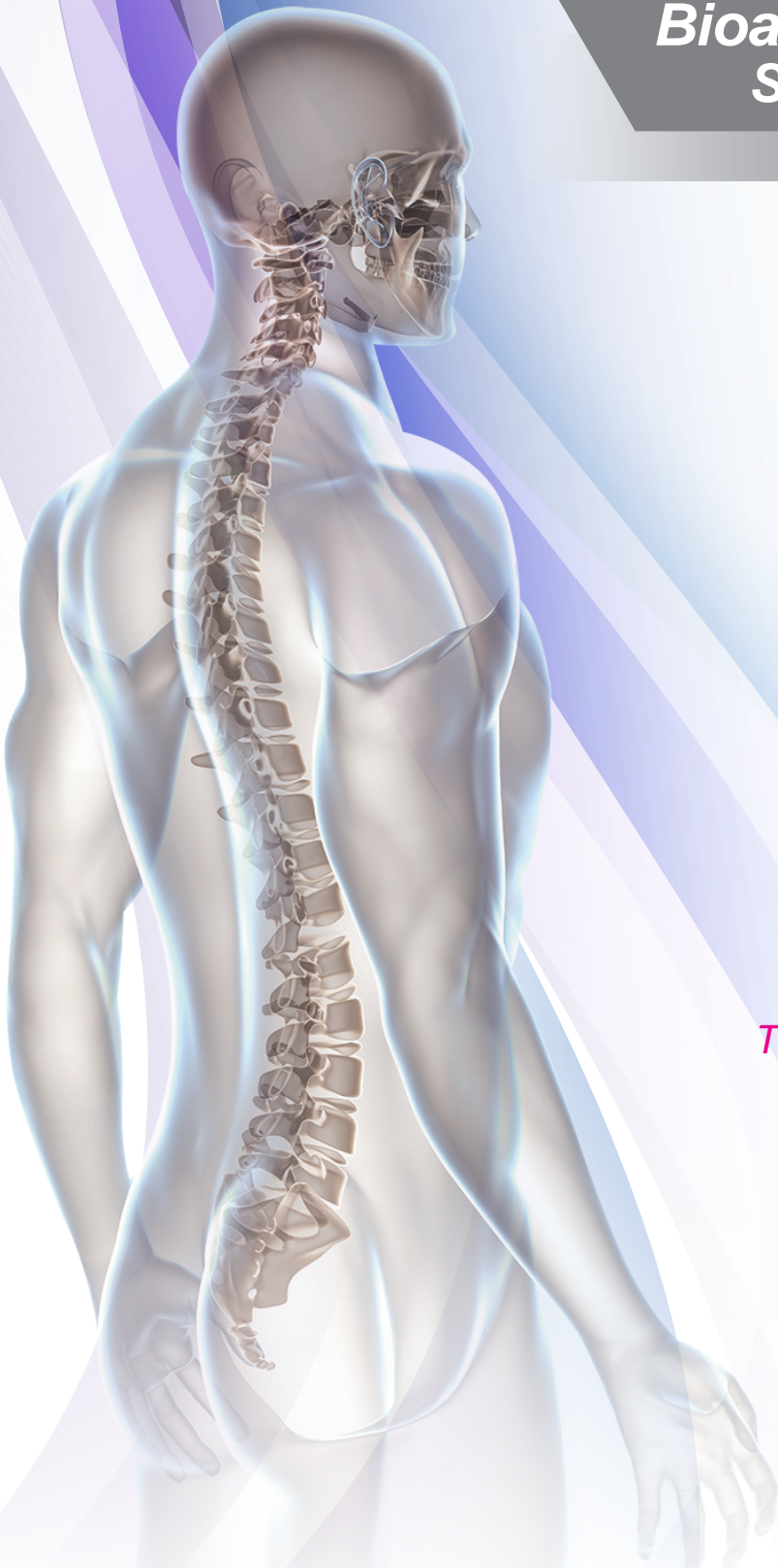


Redmond®

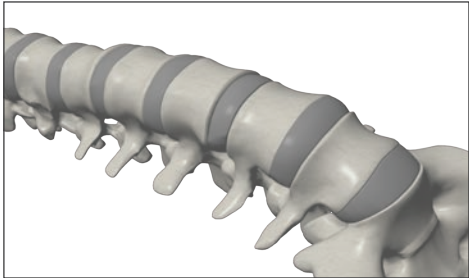
Lumbar Cage

*Bioactive
Stand alone design*



*Utilizes the advantages of
Titanium and PEEK in one implant*

Contents

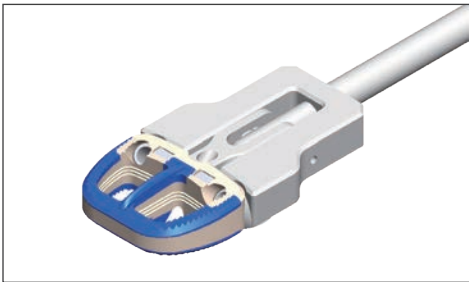


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Introduction

Redmond® is a kind of none profile ALIF cage which composed of Titanium alloy and Polyether ether ketone (PEEK) for the anterior surgical stabilization of the lumbar spine.

The excellent results of Redmond® treatment of Titanium alloy (Ti-6Al-4V) surface render optimal porosity environment of microporosity.

According on researches, porosity as a contributing factor of bioactive treatment and enhance bone ingrowth.

The elastic modulus of Polyether ether ketone (PEEK) matches cortical bone closely, which characteristic significantly reduce the phenomenon of stress shielding, and thus promotes better bone fusion and prevent implant subsidence.

The material is biocompatible, corrosion-resistant, non-toxic under biological conditions and does not interfere with imaging procedures such as X-ray imaging, computerized tomography.

Please refer to the instructions for use and the instrument processing instructions.

Indications & Contraindications

Indications

- Degenerative Disc Disease (DDD) from L1 to S1
- Grade 1 spondylolisthesis or retrolisthesis at the involved level (s)
- Revision surgery for failed decompression syndrome or post-operation instability
- Foraminal Stenosis
- Pseudarthrosis

Contraindications

- Patients with fever or leukocytosis
- Patients with infections associated with the spine (e.g. spondylodiscitis)
- Patients with a history of material allergy or who tend to react to foreign bodies
- Patients with inadequate bone quality or quantity (e.g. severe osteoporosis, osteopenia, osteomyelitis)
- Spinal fracture
- Spinal tumor

Design Features

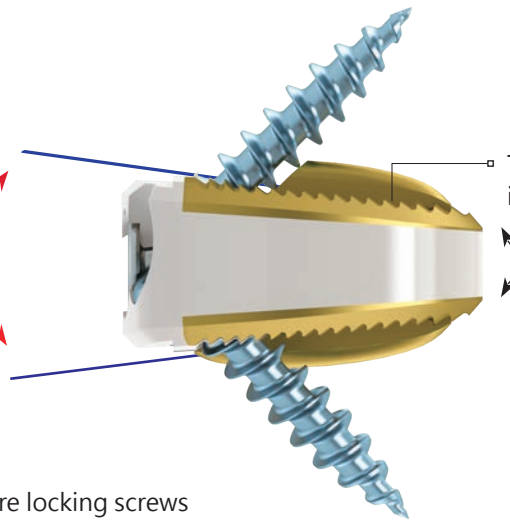
Locking Screw Oversized Screw Locking Cap



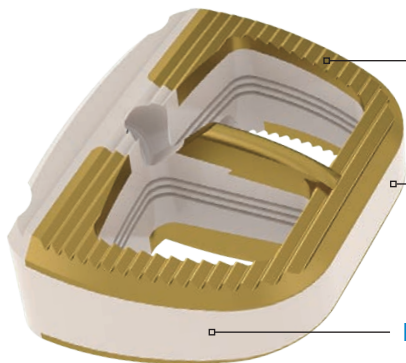
12° and 18° Lodotic angle



Locking Cap for secure locking screws
Prevent back-out mechanism



Cage size: 12~18mm
None-profile fixation

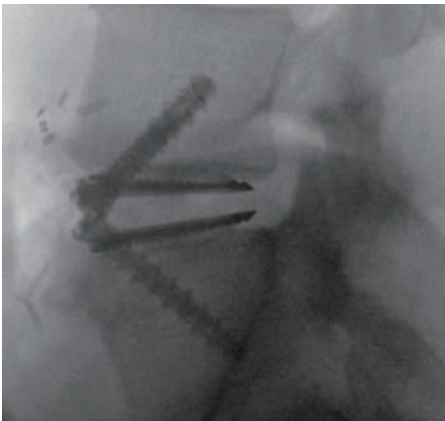
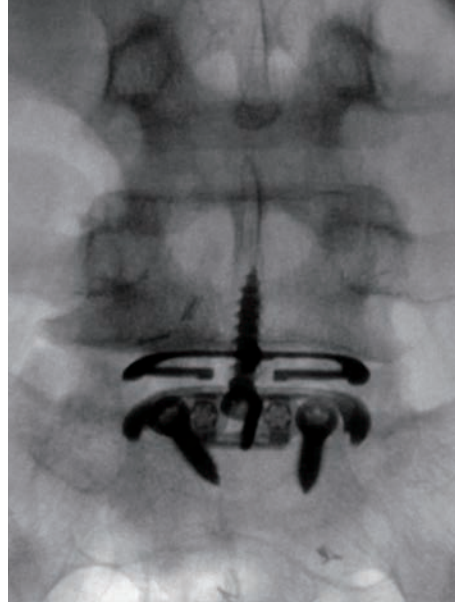
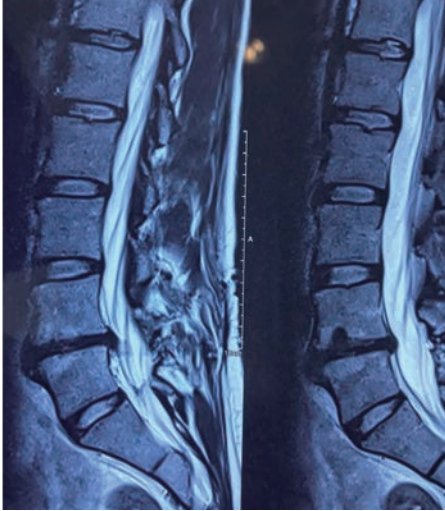


Utilized the advantages of titanium and PEEK material in one

Radiolucency allows for reliable healing site monitoring.

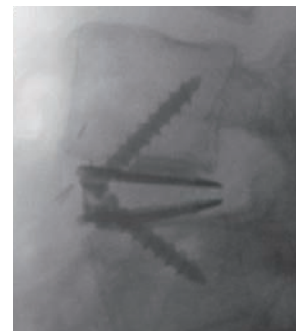
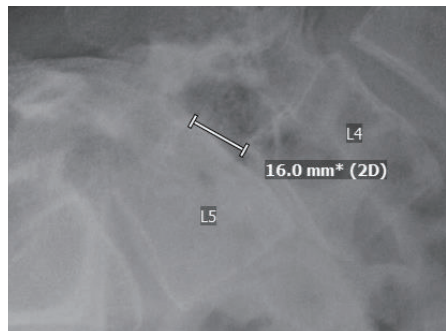
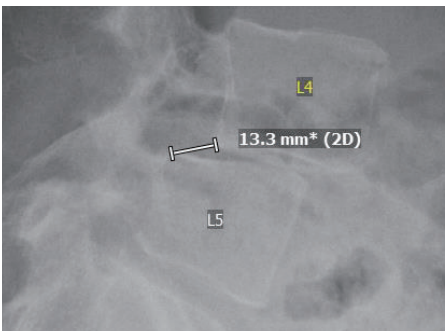
Clinical Outcome:

Case 1



*DDD L4/5 & Prior Op' s L4/5
*Failure of prolonged conservative treatment.

Case 2



*Spondy L4/5

Surgical Technique

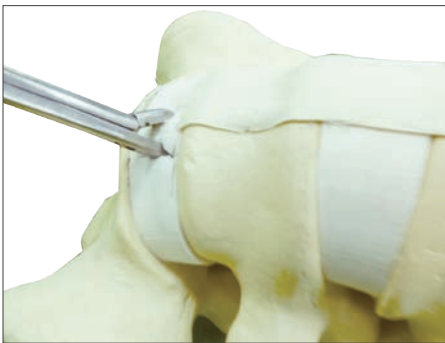
Positioning



The patient is placed in the supine position on a radiolucent, operation table and general anesthesia is administered.

The Redmond Lumbar Cage must be inserted directly from the anterior and fixed with three screws so that the patient must expose enough disc space on both sides of the midline of the vertebrae to allow the implant to be inserted without interference from adjacent soft tissue structures.

Discectomy



Prepare intervertebral disc space, and retain the anterolateral, lateral and posterior annulus outside the anterior side to provide the necessary segment stability.

Caution:

Special attention has to be given to the ascending lumbar vein. Damage to it can result in profuse bleeding. Please use it with caution.

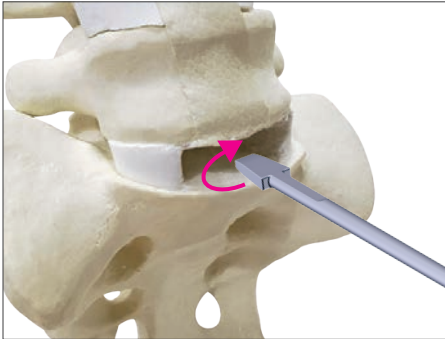


Remove unnecessary disc tissue and osteophyte, and prepare the vertebral body endplate to make it slightly bleeding to provide nutrients for bone graft.

Caution:

Excessive wear of the vertebral endplate may cause the implant to subside into the vertebral body.

Distraction

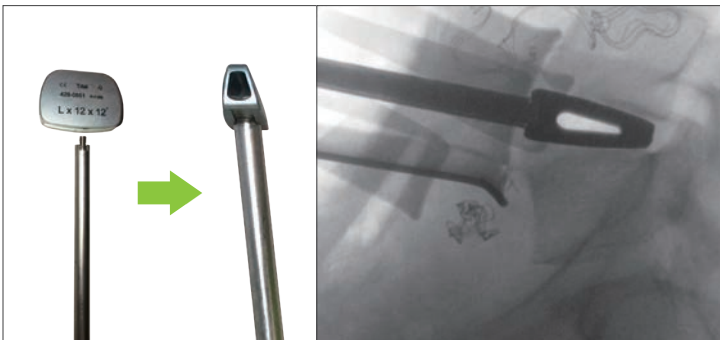


Insert the ALIF Dilator (429-7201~429-7206) into intervertebral disc area and rotate 90° to distract the discectomy site to restore the lordosis and neural foramen.

Cat.No.	Description	
429-7201	7mm ALIF Dilator	
429-7202	9mm ALIF Dilator	
429-7203	11mm ALIF Dilator	

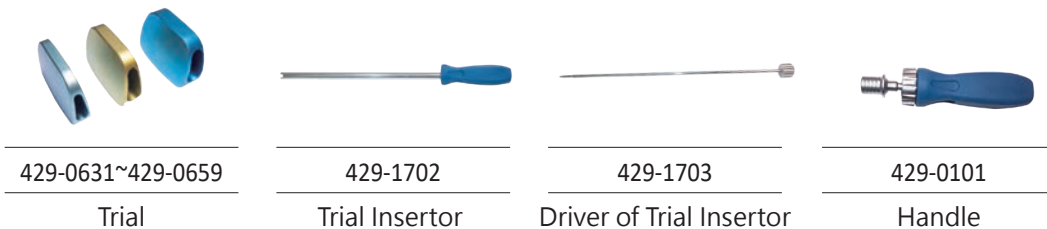
Cat.No.	Description	
429-7204	13mm ALIF Dilator	
429-7205	15mm ALIF Dilator	
429-7206	17mm ALIF Dilator	

Trialing



Pick the Trials (429-0631~429-0659) on the Trial Inserter (429-1702) and tighten it with the Driver of Trial Inserter (429-1703). Insert it into the disc space for checking size of implant. Select the implant depending on the final trial size.

Under fluoroscopy confirm the midline placement and endplate coverage.



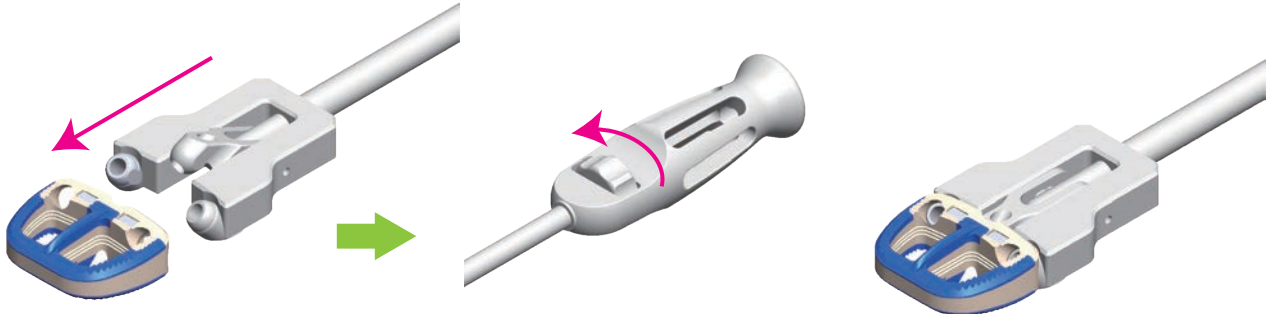
429-0631~429-0659
Trial

429-1702
Trial Inserter

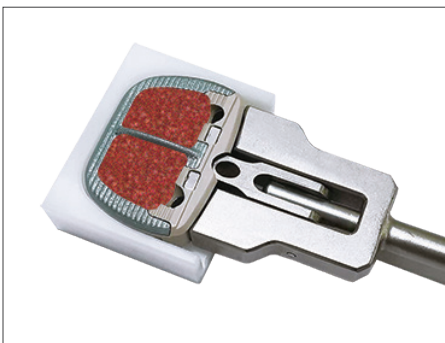
429-1703
Driver of Trial Inserter

429-0101
Handle

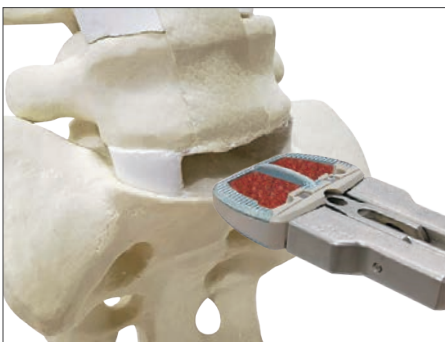
Implant the Cage



Attach the cage to the Redmond Lumbar Cage Insertor (429-1701) by screwing the handle then cage is inserted to disc space.



Fix the implant in the Bone Graft Template (429-2901), and then fill in the bone graft into cage with the Bone Graft Impactor (218-3301).



Redmond Lumbar Cage is symmetrical implant, and the strength is the same whether two screws are inserted up or down. It is only necessary to align the midline of the vertebral body when implanting the cage.



429-1701

Redmond Lumbar Cage Insertor



429-2901

Bone Graft Template



218-3301

Bone Graft Impactor

Insert the screw



Use the Angle Awl (429-0201) to pierce cortical bone through the guide of Redmond Lumbar Cage Insertor for ensuring the angle.



When removing the insertor, the Angle Guide (429-1101) can be used to assist surgery.

Caution:
If the surgeon wants to ensure the angle, use the Redmond Lumbar Cage Insertor.

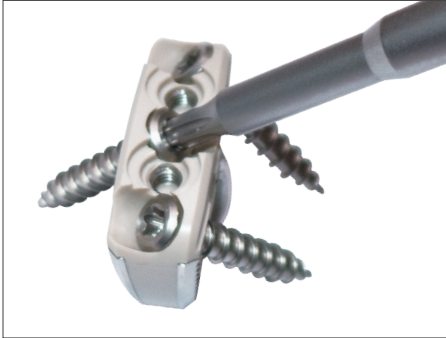


429-0201

Angle Awl

429-1101

Angle Guide

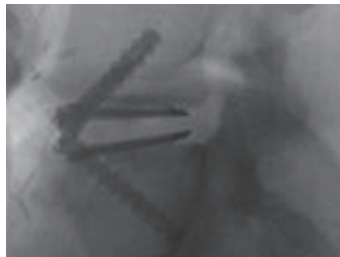


The Screw Holder (429-1302) is used to carry the required screws to site and then use T25 Flexible Screwdriver (429-3304) or T25 Screwdriver (429-3302) to tighten the screws firmly.

Caution:

Tightening the screws firmly with the Screw Holder may cause it deformation and damage.

According to operation situation, usually insert 2 screws down (into S1) and 1 screw up (into L5) at L5/S1, and insert 2 screws up (superior) and 1 screw down (inferior) at higher levels.



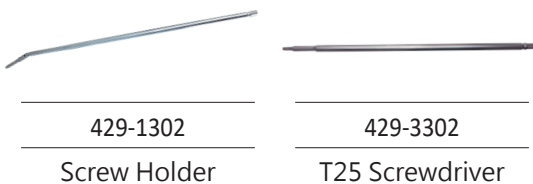
L4/5



L5/S1

Caution:

If multiple Redmond Lumbar Cages are used, the screws should be arranged up or down in the same way to avoid insufficient space.



429-1302

Screw Holder

429-3302

T25 Screwdriver

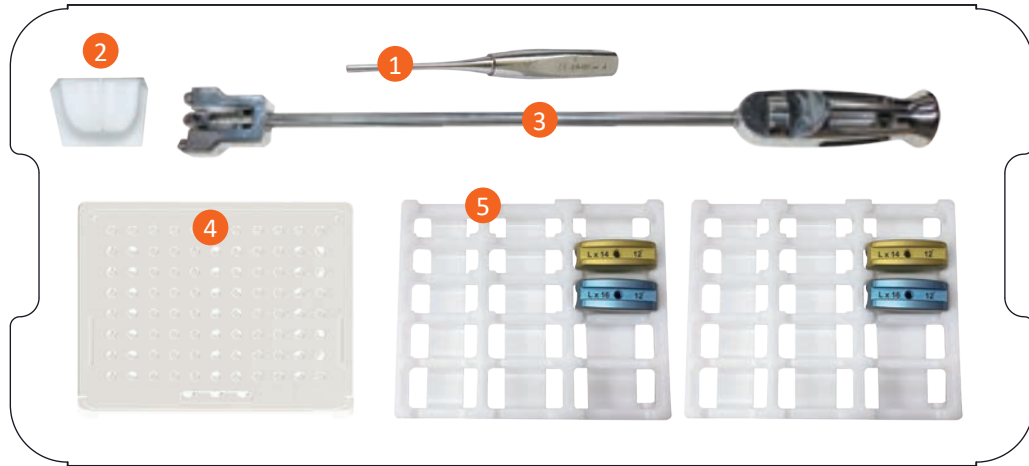
Tightening Locking Cap



After three screws are being placed, the locking cap will be the prevent back-out mechanism for securing the screws.

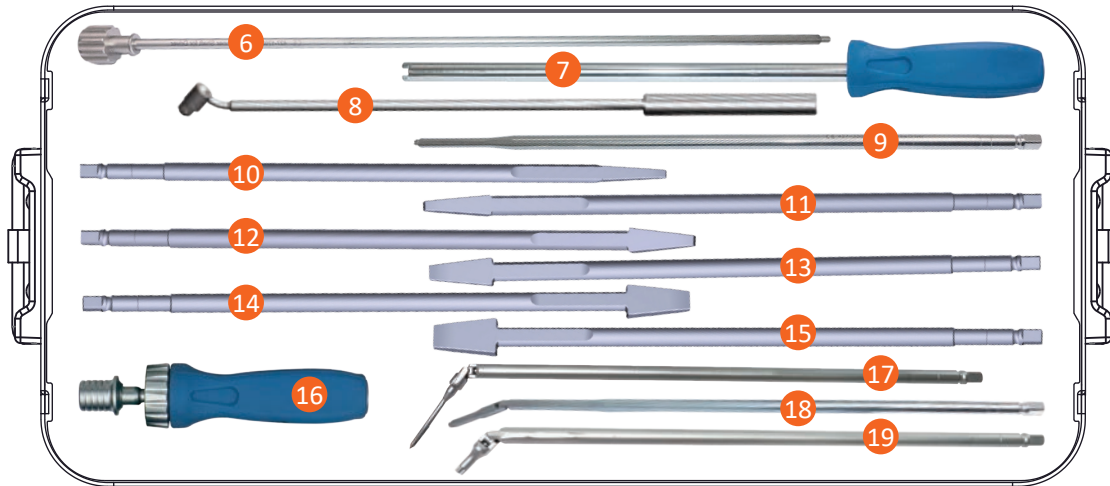


Instrument Set



Instrument Tray 1

Cat.No.	Description	Q'nty
① 218-3301	Bone Graft Impactor	1
② 429-2901	Bone Graft Template	1
③ 429-1701	Redmond Lumbar cage Insertor	1
④ 20141-043	Screw Container	1
⑤ 20142-043	Trial Container	2











Instrument Tray 2

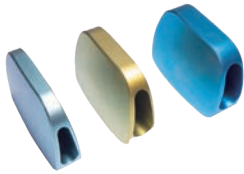
Cat.No.	Description	Q'nty
6 429-1703	Trial Insertor, Shaft	1
7 429-1702	Trial Insertor	1
8 429-1101	Angled Guide	1
9 429-3302	T25 Screwdriver	1
10 429-7201	7mm ALIF Dilator	1
11 429-7202	9mm ALIF Dilator	1
12 429-7203	11mm ALIF Dilator	1
13 429-7204	13mm ALIF Dilator	1
14 429-7205	15mm ALIF Dilator	1
15 429-7206	17mm ALIF Dilator	1
16 429-0101	Handle	1
17 429-0201	Angled Awl	1
18 429-1302	Screw Holder	1
19 429-3304	T25 Flexible Screwdriver	1

Instruments

Cat.No.	Description	
218-3301	Bone Graft Impactor	
429-0101	Handle	
429-0201	Angled Awl	
429-1101	Angled Guide	
429-1302	Screw Holder	
429-1701	Redmond Lumbar cage Insertor	
429-1702	Trial Insertor	
429-1703	Trial Insertor, Shaft	
429-2901	Bone Graft Template	
429-3302	T25 Screwdriver	
429-3304	T25 Flexible Screwdriver	

Cat.No.	Description	
429-7201	7mm ALIF Dilator	
429-7202	9mm ALIF Dilator	
429-7203	11mm ALIF Dilator	
429-7204	13mm ALIF Dilator	
429-7205	15mm ALIF Dilator	
429-7206	17mm ALIF Dilator	
20141-043	Screw Container	
20142-043	Trial Container	
99900-043	Redmond Lumbar Instruments Case, Plasty Lid *	
99901-043	Redmond Lumbar Instruments Case, Metal Lid	

* Option



Trials				
Angle	H / mm	W36xL28mm	W39xL30mm	W43xL32mm
12°	12	429-0631	429-0641	429-0651
	14	429-0632	429-0642	429-0652
	16	429-0633	429-0643	429-0653
	18	429-0634	429-0644	429-0654
18°	12	429-0636	429-0646	429-0656
	14	429-0637	429-0647	429-0657
	16	429-0638	429-0648	429-0658
	18	429-0639	429-0649	429-0659

Sterilization :

The implants and instruments are delivered non-sterile. Before use needed cleaned and sterilized recommended to be steam sterilized refer to "A-SPINE Reprocessing Manual" following process parameters:

Steam Wrapped Gravity Cycle at 121 °C/250 °F for 30 minutes.

If need more information, the "Intended for Use" and "A-SPINE Reprocessing Manual" can be downloaded from A-SPINE official website: <http://www.aspine.com.tw/>

Implants

Redmond® Lumbar Cage (A)

Specifications

A	H / mm	W36xL28mm	W39xL30mm	W43xL32mm	Color
12°	12	5060-12128H	5060-22128H	5060-32128H	●
	14	5060-14128H	5060-24128H	5060-34128H	●
	16	5060-16128H	5060-26128H	5060-36128H	●
	18	5060-18128H	5060-28128H	5060-38128H	●
18°	12	5060-12188H	5060-22188H	5060-32188H	●
	14	5060-14188H	5060-24188H	5060-34188H	●
	16	5060-16188H	5060-26188H	5060-36188H	●
	18	5060-18188H	5060-28188H	5060-38188H	●

Locking Screw

Cat.No	Dia(mm)	L(mm)	Color
1139-55258	5.5	25	●
1139-55308	5.5	30	●
1139-55358	5.5	35	●



Locking Cap

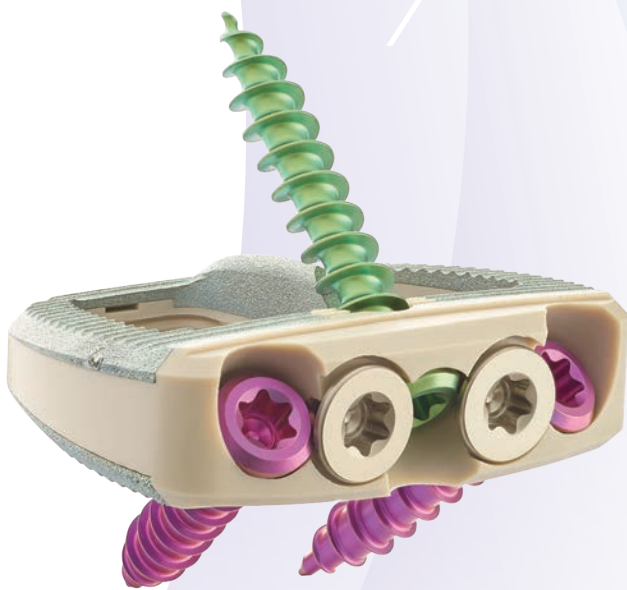
Cat.No	Dia(mm)	L(mm)
1140-03048	8.6	6.5



Oversized Screw

Cat.No	Dia(mm)	L(mm)	Color
1139-57258	5.75	25	●
1139-57308	5.75	30	●
1139-57358	5.75	35	●





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