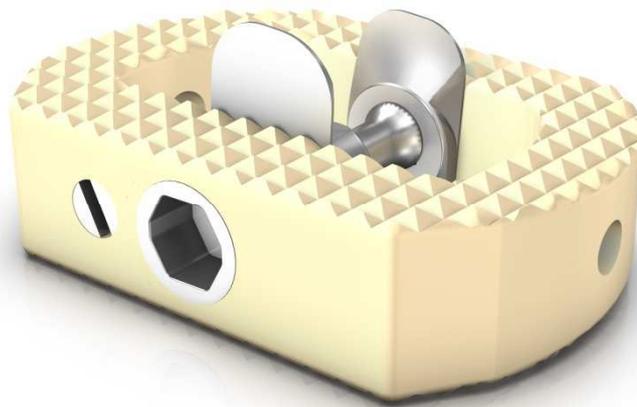


SURGICAL TECHNIQUE

A2L

ALIF Double Locking Cage

Classe IIb



A2L Product specification

1

The A2L-ALIF Double Locking Cage provides a locking mechanism, which has to be turned to allow the blades to lock into the endplates at the end of the procedure,

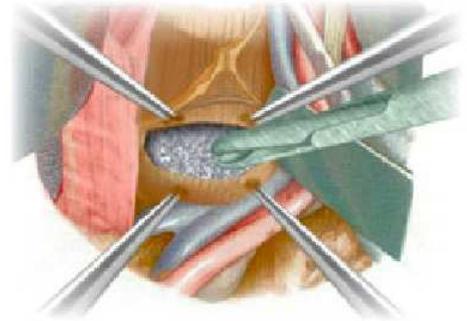
The A2L Cage in Peek Optima LT and blade locking system TA6V-Eli are designed to be placed by anterior approach. A2L cage comes in size 8,9,10,11,12,13 and 15mm with a 4 ° lordosis, 9° and 13°.

The Cage A2L is delivered as sterile or not sterile

Discectomy

2

Prepare the intervertebral space, resect the remaining nucleus pulposus using the rongeur for a proper implant fit.



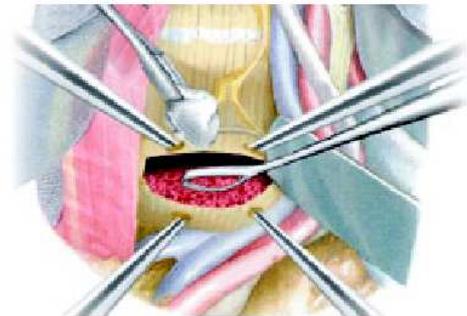
Curettage

3

Prepare the endplates of the vertebrae using the curettes, but stop at bleeding start to avoid weakening of the endplates.

This is important to facilitate vascular supply to the bonegraft without weakening the endplates.

Note: it is important to prepare correctly the cage's siege by removing all irregular bony protuberances.



Distraction + trial cage

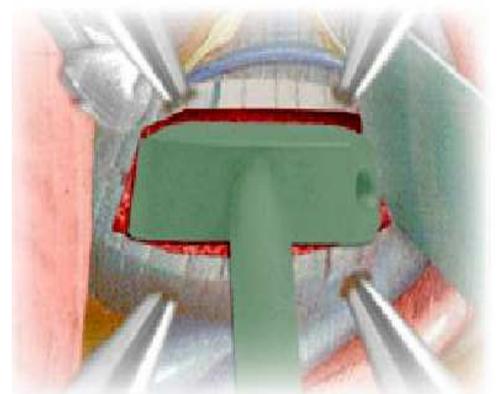
4

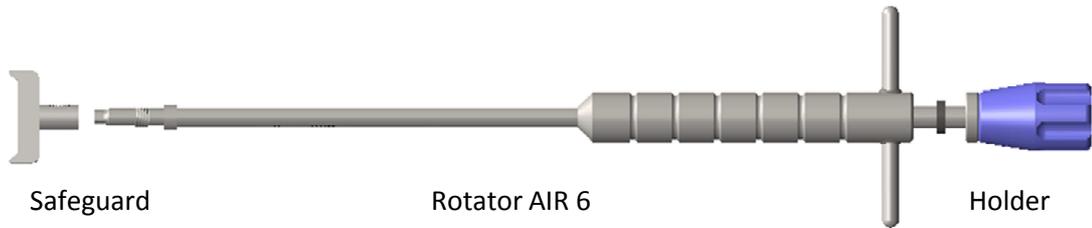
Expand the intervertebral space: Insertion of the smallest trial-cage appropriate to the anatomy. Expand the intervertebral space and use other sizes of trial-cages until the desired height is achieved.

Important: chosen trial cage must be tightly screwed to the holder of trial cage.

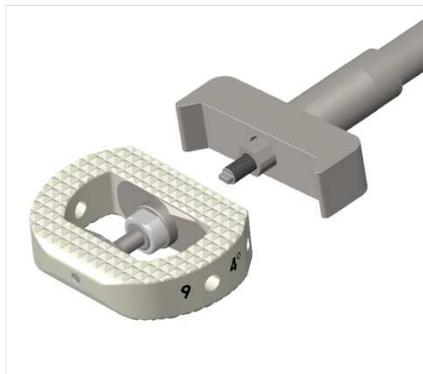
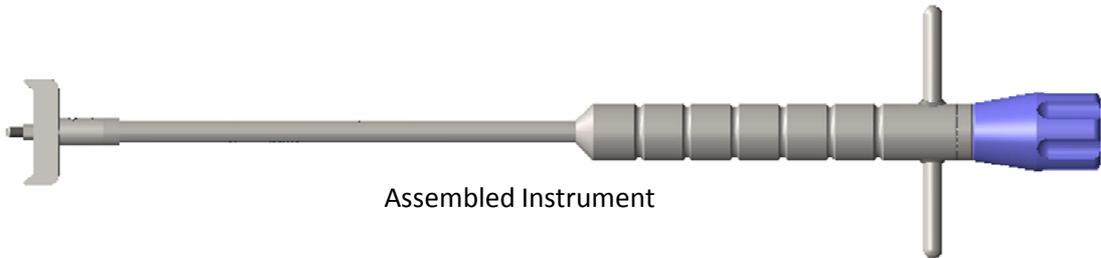
Realize preparation of interbody space as far possible; to the posterior wall of the vertebral body.

Trial cage may also be inserted laterally by attaching holder (of trial cage) to lateral hole of trial cage, as shown here.





Initially, the safeguard is screwed into the rotator. Then the holder is introduced into the rotator. The holder is screwed into the rotator at the end of its introduction. It must be completely retracted in the rotator as shown below



Finally, the implant should be firmly screwed to the implant holder/rotator.

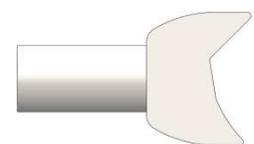
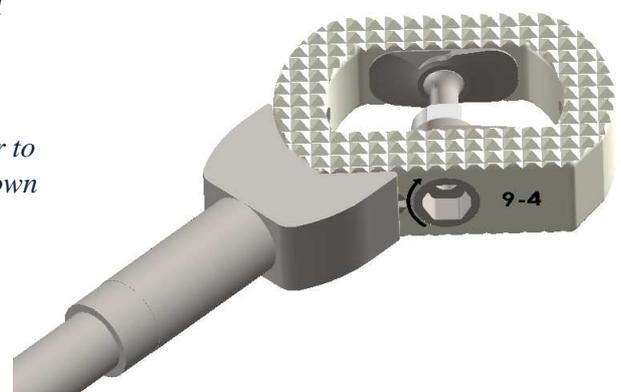
Lateral application

6

The cage can also be placed laterally by using the ventrolateral hole of the cage and by using lateral safeguard of the rotator, as shown below.

Attention : In case of lateral application, make sur to assemble lateral safeguard on the rotator , as shown here.

IMPORTANT: In case of lateral application, the cage is first inserted between vertebrae, then the surgeon has a choice,
 1) Either, to do not turn the blades,
 Or 2), turn the blades by introducing the rotator (**without safeguard**) along with the central axis (of the cage), then turn the safety screw.



Lateral safeguard

ATTENTION

CAUTION: Be careful when you screw the cage on the instrument:

Keep the cage from the outside as demonstrated below,

Otherwise, if the blades open accidentally (if strong tightening) they can hurt your fingers.



Example of the handling of the cage during assembly

Preparation of the implant

7

The “rotator & holder & cage” are then inserted into the filling base in order to fill up the cage by bone and/or allograft material. The bone graft can be pushed into void space of the cage by an impactor.

Attention : use A2L position of the filling base with normal or Lateral safeguard .



If filling base SA2L is used



If using filling base SOC
insert rotator into
the slot marked A2L.

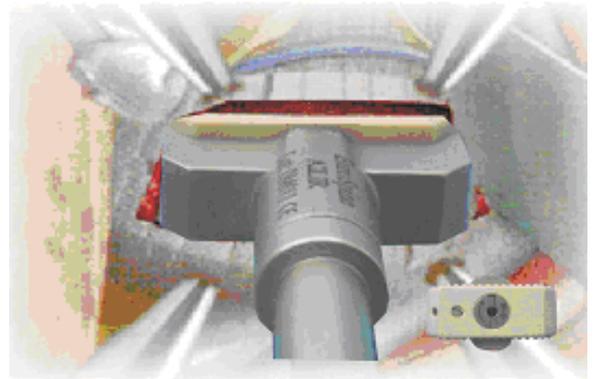
Insertion of the implant

8

After inserting the implant between vertebrae, additionally place sufficient bone graft between endplates.

*Attention : The handle must remain in his **horizontal position** during the whole impacting. This ensures that the blades remain closed.*

Attention: leave the instrument attached to the implant for the following assessment.



Assessment

9

Make an X- ray control per-operatory to check the good positioning of the cage behind the anterior wall of the anterior cortex (~5mm).

Metalic parts (screw, axis, blades and the titanium markers) are serves as x-ray markers to help correct positionning of the cage.

Note: The surgeon has to take care of the good positioning of the cage in the intervertebral space with regard to the physiological conditions of the patient.



Locking

10

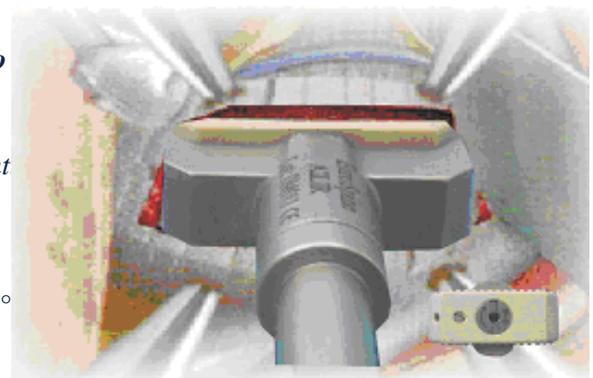
The implant can be locked once its correct positioning is assessed.

Turn the rotator clockwise (about 90°) until the handle of the instrument is perpendicular to the endplates of the vertebra.

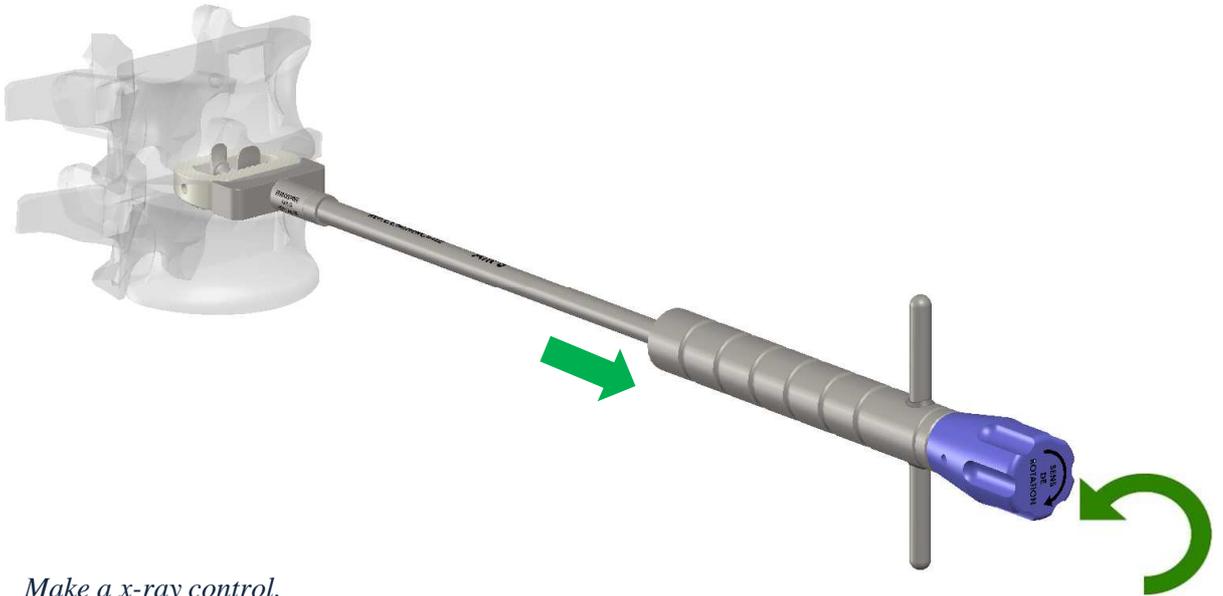
Test the solidity of the anchorage of the blade by slight pulling on the holder & rotator.

Attention: *In case of hard bone, make a gradual rotations & come back until to get progressively at 90° of rotation.*

Note : *In case of osteoporosis or instability of the cage or the blades, use the cage without opening the blades.*



Unscrew the holder, and remove it with the rotator.



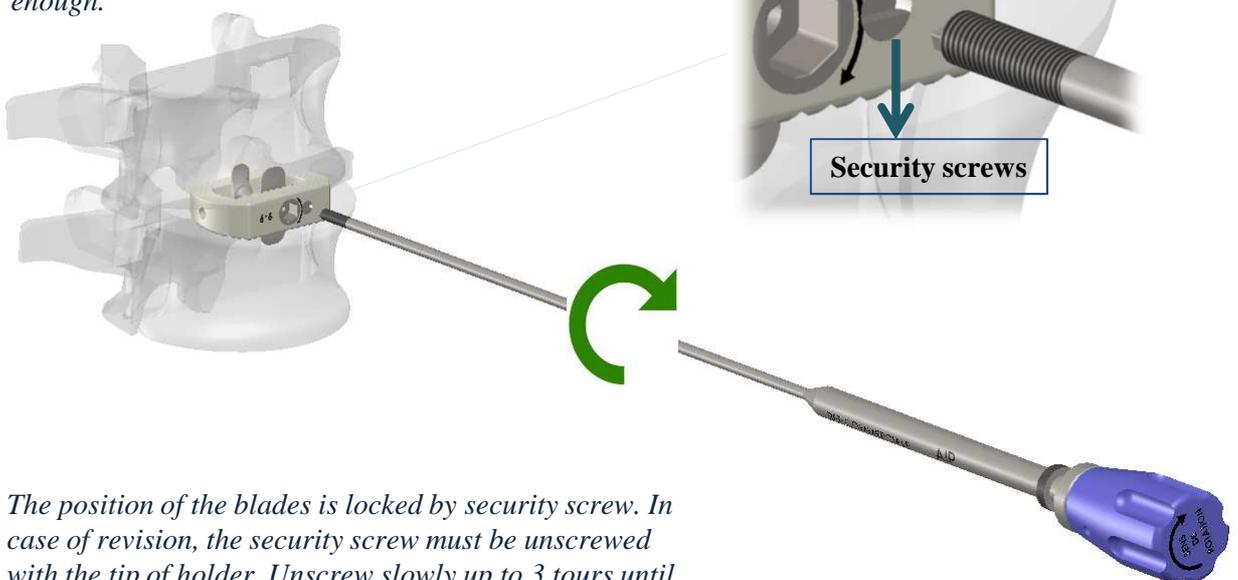
Make a x-ray control.

Safety screw

12

To prevent any accidental return of the blade, once the blades are engaged into the end-plates, engage safety screw by the tip of holder as shown here.

Note: Do not force during the screwing; 1 to 2 turns are enough.



The position of the blades is locked by security screw. In case of revision, the security screw must be unscrewed with the tip of holder. Unscrew slowly up to 3 turns until there is a slight resistance.

Undertake X-ray inspection

NOTE:

Use an additional (osteosynthesis) fixation such as an anterior plate or posterior screw system. Generously place additional bone graft on the anterior side of the implant.

How to remove the cage if needed :

- 1) *Use the tip of holder to unscrew the security screw of the cage (unscrew anticlockwise up to 3 tours until there is a slight resistance)*
- 2) *Put up the “rotator & holder” on the cage,*
- 3) *Turn 90° anticlockwise the handle of rotator (until the handle is parallel to the cage). In this position the blades are closed,*
- 4) *Release the cage from all bone grafts and fused tissues around,*
- 5) *Undertake an x-ray to check,*
- 6) *Remove straightly and cautiously the cage.*

A2L CAGES	REF	DESCRIPTION
 	A2L 8-4	Alif cage A2L size 8-4°
	A2L9-4	Alif cage A2L size 9-4°
	A2L 9-9	Alif cage A2L size 9-9°
	A2L 10-4	Alif cage A2L size 10-4°
	A2L 10-9	Alif cage A2L size 10-9°
	A2L 10-13	Alif cage A2L size 10-13°
	A2L11-4	Alif cage A2L size 11-4°
	A2L 11-9	Alif cage A2L size 11-9°
	A2L11-13	Alif cage A2L size 11-13°
	A2L 12-4	Alif cage A2L size 12-4°
	A2L 12-9	Alif cage A2L size 12-9°
	A2L12-13	Alif cage A2L size 12-13°
	A2L 13-4	Alif cage A2L size 13-4°
	A2L 13-9	Alif cage A2L size 13-9°
	A2L13-13	Alif cage A2L size 13-13°
A2L 15-4	Alif cage A2L size 15-4°	
A2L 15-9	Alif cage A2L size 15-9°	

TRIAL CAGES	REF	DESCRIPTION
 	AIF 8-4	A2L ALIF Distractor/ Trial cage 8-4°
	AIF 9-4	A2L ALIF Distractor/ Trial cage 9-4°
	AIF 9-9	A2L ALIF Distractor/ Trial cage 9-9°
	AIF 10-4	A2L ALIF Distractor/ Trial cage 10-4°
	AIF 10-9	A2L ALIF Distractor/ Trial cage 10-9°
	AIF 10-13	A2L ALIF Distractor/ Trial cage 10-13°
	AIF 11-4	A2L ALIF Distractor/ Trial cage 11-4°
	AIF 11-9	A2L ALIF Distractor/ Trial cage 11-9°
	AIF 11-13	A2L ALIF Distractor/ Trial cage 11-13°
	AIF 12-4	A2L ALIF Distractor/ Trial cage 12-4°
	AIF 12-9	A2L ALIF Distractor/ Trial cage 12-9°
	AIF 12-13	A2L ALIF Distractor/ Trial cage 12-13°
	AIF 13-4	A2L ALIF Distractor/ Trial cage 13-4°
	AIF 13-9	A2L ALIF Distractor/ Trial cage 13-9°
	AIF 13-13	A2L ALIF Distractor/ Trial cage 13-13°
	AIF 15-4	A2L ALIF Distractor/ Trial cage 15-4°
AIF 15-9	A2L ALIF Distractor/ Trial cage 15-9°	

INSTRUMENT	REF	DESCRIPTION
	K323 K324	HRC ALIF Rongeur, 250 courved HRC ALIF Rongeur, 250 straight
	HRCICUR1 HRCICUR2 HRCICURS1 HRCICURS2 ES760501.05	HRC ALIF Curette 1 HRC ALIF Curette 2 HRC ALIF Curette S1 HRC ALIF Curette S2 HRC ALIF Curette de Wolkmann, 5mm
	A2L Impactor : Assembly -Safeguard AIR-G -Rotator AIR6 -Holder AIP	
	AIR6	A2L Rotator
	AIR-G	A2L Safeguard
	AIR-GL	A2L Lateral safeguard
	AIP	A2L Holder
	HRCAIPF	HRC Trial cage holder
	HRCAIIMP	ALIF Bone Impactor
	SA2L	Filling Base
	SOC	Filling Base