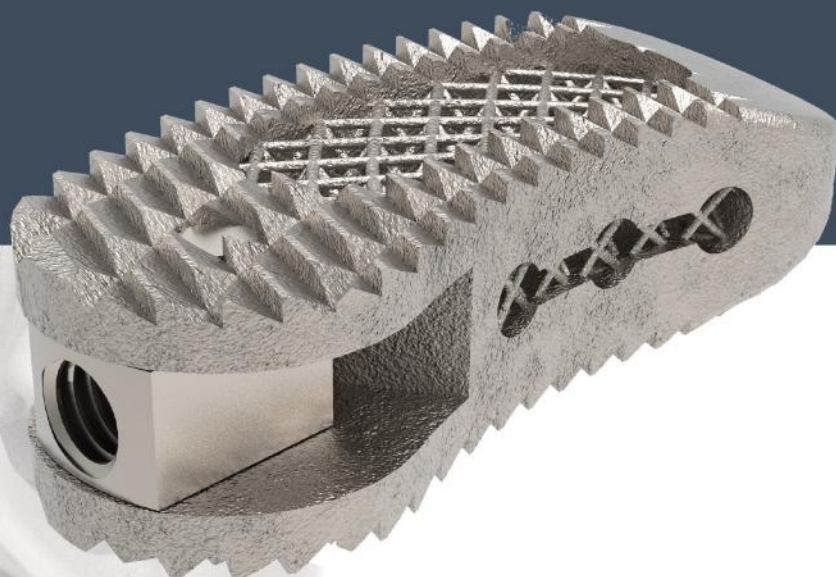


SURGICAL TECHNIQUE



**Tra-Ti**

TLIF Cage



**Tra-Ti**  
TLIF Cage

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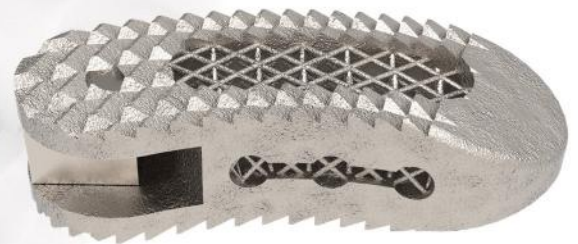
# Tra-Ti

TLIF Cage

## INTRODUCTION

### Tra-Ti TLIF Cage Features

- Smooth wedge nose to facilitate insertion.
- Solid-tipped, precisely angled serrations on the superior and inferior surfaces designed for bidirectional fixation and to maximize surface area for endplate contact with the implant.
- Highly porous titanium alloy on top and bottom of implant and all sides of internal graft window.



# **Tra-Ti**

## TLIF Cage

# INTRODUCTION



### Indications

Indications are lumbar and lumbosacral pathologies in which segmental spondylodesis is indicated, for example:

- Degenerative disc diseases and spinal instabilities
- Revision procedures for post-discectomy syndrome
- Pseudarthrosis or failed spondylodesis
- Degenerative spondylolisthesis
- Isthmic spondylolisthesis

### Contraindications

- Vertebral body fractures
- Spinal tumors
- Major spinal instabilities
- Primary spinal deformities

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## TLIF Cage

# SURGICAL TECHNIQUE

1

## Patient positioning



Position the patient in a restored physiological lordosis. (Figure 1a)



Figure 1a

2

## Exposure



The TLIF approach can be performed using standard open or minimally invasive techniques. The laminae and articular processes are exposed laterally to the base of the transverse processes.



Figure 2a

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# SURGICAL TECHNIQUE

3

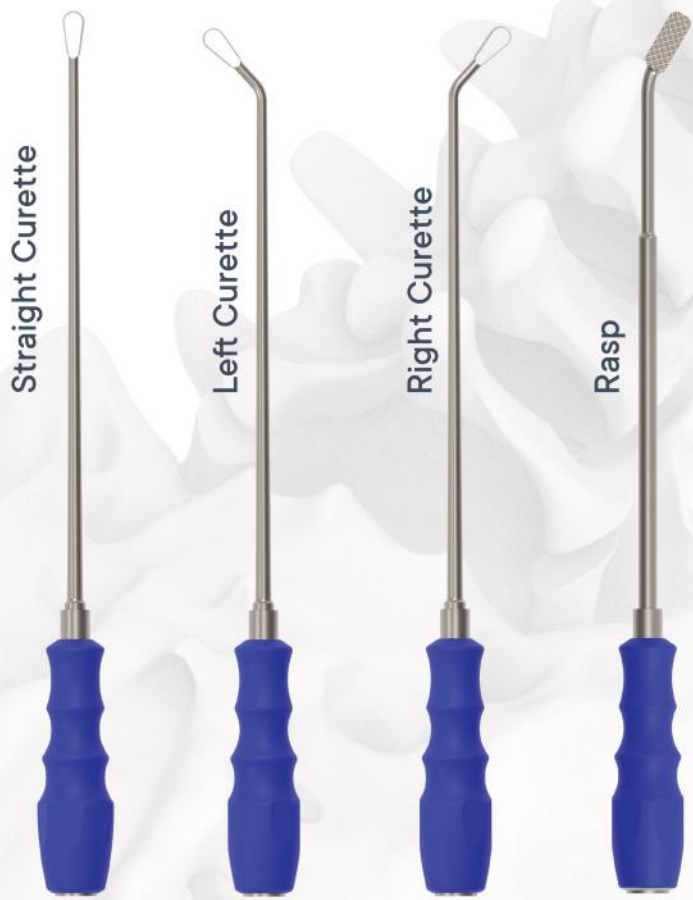
## TLIF Site Preparation



Angled curettes can be used to complete the resection in areas of reduced access or to clear an area for insertion. (Figure 3a)



Figure 3a



Straight Curette (NMBC003), Left Curette (NMBC004), Right Curette (NMBC00), Rasp (NMBC012)

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## SURGICAL TECHNIQUE

4

### Trial Insertion



Impact an appropriately sized **Trial Implant (NMBC009)** with the etch representing the axial canal positioned cranial/caudal. **Hammer (NMBC013)**



Trial Implant



Figure 4a

5

### Implant Holder



These parts allow easy grip of the implant. **Implant Holder (NMBC001)**



Figure 5a

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## SURGICAL TECHNIQUE

6

Implant Insertion

STEP 1



Be sure to fix it firmly. (Figure 6a)



Figure 6a



One or one and a half turn on  
clockwise to fix the implant.

**Implant Holder (NMBC001)**



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## SURGICAL TECHNIQUE

6

Implant Insertion

**STEP 2**



Figure 6b

**STEP 3**

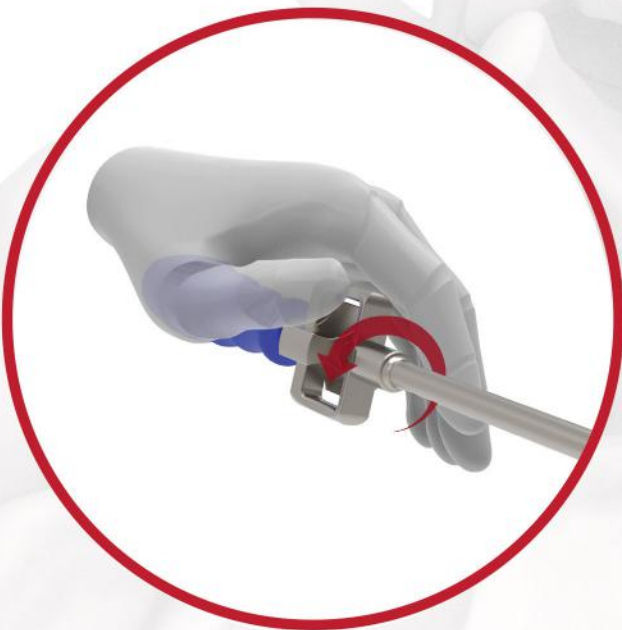


Figure 6c



Position the implant in the correct direction. (Figure 6b)



Turn one or a half turn counter-clockwise to loosen the implant

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## SURGICAL TECHNIQUE

7

### Implant Position



Figure 7a



Continue to impact gently and progressively into the disc space until the implant reaches desired positioning. At this position, the implant is designed to rotate on the rail as the leading edge contacts the ventral annulus. (Figure 7a)



#### NOTE:

When deemed medically necessary, for intraoperative rescue, use a **Implant Holder (NMBC001)** to remove.

8

### Removal



If the implant needs to be removed from the patient for any reason, removal of the implant should be done with the appropriate handpiece. Removal of the implant must be done by the responsible doctor. The responsibility for removal belongs to the doctor.

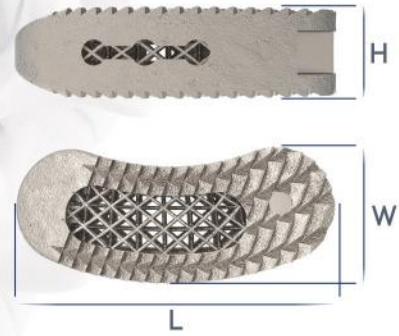
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## TLIF Cage

### SIZES OF IMPLANTS

 Tra-Ti TLIF Cage

| Catalogue No. | Width | Length | Height |
|---------------|-------|--------|--------|
| NM-TTT2407    | 10 mm | 24 mm  | 7 mm   |
| NM-TTT2408    | 10 mm | 24 mm  | 8 mm   |
| NM-TTT2409    | 10 mm | 24 mm  | 9 mm   |
| NM-TTT2410    | 10 mm | 24 mm  | 10 mm  |
| NM-TTT2411    | 10 mm | 24 mm  | 11 mm  |
| NM-TTT2412    | 10 mm | 24 mm  | 12 mm  |
| NM-TTT2413    | 10 mm | 24 mm  | 13 mm  |
| NM-TTT2807    | 10 mm | 28 mm  | 7 mm   |
| NM-TTT2808    | 10 mm | 28 mm  | 8 mm   |
| NM-TTT2809    | 10 mm | 28 mm  | 9 mm   |
| NM-TTT2810    | 10 mm | 28 mm  | 10 mm  |
| NM-TTT2811    | 10 mm | 28 mm  | 11 mm  |
| NM-TTT2812    | 10 mm | 28 mm  | 12 mm  |
| NM-TTT2813    | 10 mm | 28 mm  | 13 mm  |
| NM-TTT3207    | 10 mm | 32 mm  | 7 mm   |
| NM-TTT3208    | 10 mm | 32 mm  | 8 mm   |
| NM-TTT3209    | 10 mm | 32 mm  | 9 mm   |
| NM-TTT3210    | 10 mm | 32 mm  | 10 mm  |
| NM-TTT3211    | 10 mm | 32 mm  | 11 mm  |
| NM-TTT3212    | 10 mm | 32 mm  | 12 mm  |
| NM-TTT3213    | 10 mm | 32 mm  | 13 mm  |



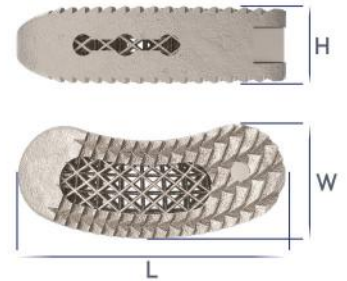
# Tra-Ti

TLIF Cage

## SIZES OF IMPLANTS

 Tra-Ti TLIF Cage

| Catalogue No. | Width | Length          | Height | Angle |
|---------------|-------|-----------------|--------|-------|
| NM-TTTA24074  | 10 mm | 24 mm           | 7 mm   | 4°    |
| NM-TTTA24084  | 10 mm | 24 mm           | 8 mm   | 4°    |
| NM-TTTA24094  | 10 mm | 24 mm           | 9 mm   | 4°    |
| NM-TTTA24104  | 10 mm | 24 mm           | 10 mm  | 4°    |
| NM-TTTA24114  | 10 mm | 24 mm           | 11 mm  | 4°    |
| NM-TTTA24124  | 10 mm | 24 mm           | 12 mm  | 4°    |
| NM-TTTA24134  | 10 mm | 24 mm           | 13 mm  | 4°    |
| NM-TTTA24088  | 10 mm | 24 mm           | 8 mm   | 8°    |
| NM-TTTA24098  | 10 mm | 24 mm           | 9 mm   | 8°    |
| NM-TTTA24108  | 10 mm | 24 mm           | 10 mm  | 8°    |
| NM-TTTA24118  | 10 mm | 24 mm           | 11 mm  | 8°    |
| NM-TTTA24128  | 10 mm | 24 mm           | 12 mm  | 8°    |
| NM-TTTA24138  | 10 mm | 24 mm <td 13 mm | 8°     |       |
| NM-TTTA28074  | 10 mm | 28 mm           | 7 mm   | 4°    |
| NM-TTTA28084  | 10 mm | 28 mm           | 8 mm   | 4°    |
| NM-TTTA28094  | 10 mm | 28 mm           | 9 mm   | 4°    |
| NM-TTTA28104  | 10 mm | 28 mm           | 10 mm  | 4°    |
| NM-TTTA28114  | 10 mm | 28 mm           | 11 mm  | 4°    |
| NM-TTTA28124  | 10 mm | 28 mm           | 12 mm  | 4°    |
| NM-TTTA28134  | 10 mm | 28 mm           | 13 mm  | 4°    |



# Tra-Ti

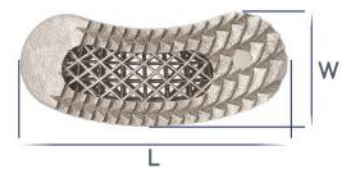
TLIF Cage

## SIZES OF IMPLANTS

 Tra-Ti TLIF Cage

| Catalogue No. | Width | Length          | Height | Angle |
|---------------|-------|-----------------|--------|-------|
| NM-TTTA28088  | 10 mm | 28 mm           | 8 mm   | 8°    |
| NM-TTTA28098  | 10 mm | 28 mm           | 9 mm   | 8°    |
| NM-TTTA28108  | 10 mm | 28 mm           | 10 mm  | 8°    |
| NM-TTTA28118  | 10 mm | 28 mm           | 11 mm  | 8°    |
| NM-TTTA28128  | 10 mm | 28 mm           | 12 mm  | 8°    |
| NM-TTTA28138  | 10 mm | 28 mm           | 13 mm  | 8°    |
| NM-TTTA32074  | 10 mm | 32 mm           | 7 mm   | 4°    |
| NM-TTTA32084  | 10 mm | 32 mm           | 8 mm   | 4°    |
| NM-TTTA32094  | 10 mm | 32 mm           | 9 mm   | 4°    |
| NM-TTTA32104  | 10 mm | 32 mm           | 10 mm  | 4°    |
| NM-TTTA32114  | 10 mm | 32 mm           | 11 mm  | 4°    |
| NM-TTTA32124  | 10 mm | 32 mm           | 12 mm  | 4°    |
| NM-TTTA32134  | 10 mm | 32 mm           | 13 mm  | 4°    |
| NM-TTTA32088  | 10 mm | 32 mm           | 8 mm   | 8°    |
| NM-TTTA32098  | 10 mm | 32 mm           | 9 mm   | 8°    |
| NM-TTTA32108  | 10 mm | 32 mm           | 10 mm  | 8°    |
| NM-TTTA32118  | 10 mm | 32 mm <td 11 mm | 8°     |       |
| NM-TTTA32128  | 10 mm | 32 mm           | 12 mm  | 8°    |
| NM-TTTA32138  | 10 mm | 32 mm           | 13 mm  | 8°    |

A°/2

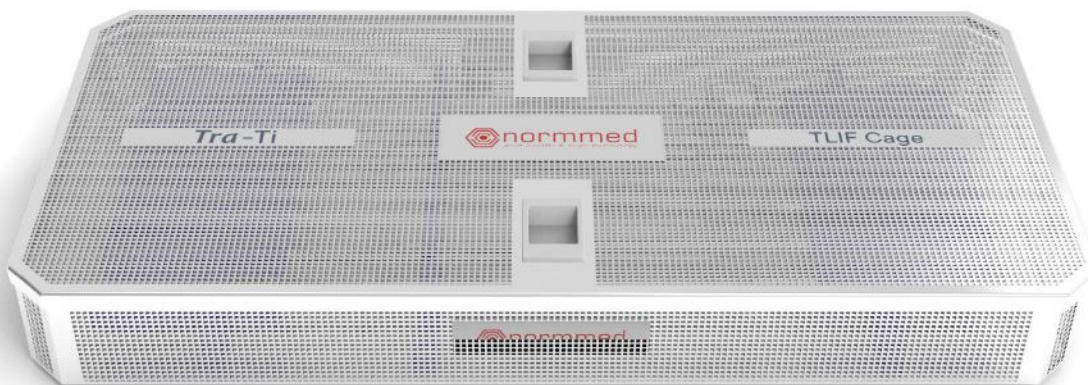


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# INSTRUMENT CONTAINER



This container is made of wiremesh stainless steel. It has a high stability, low weight and good sterilization feature.



Container

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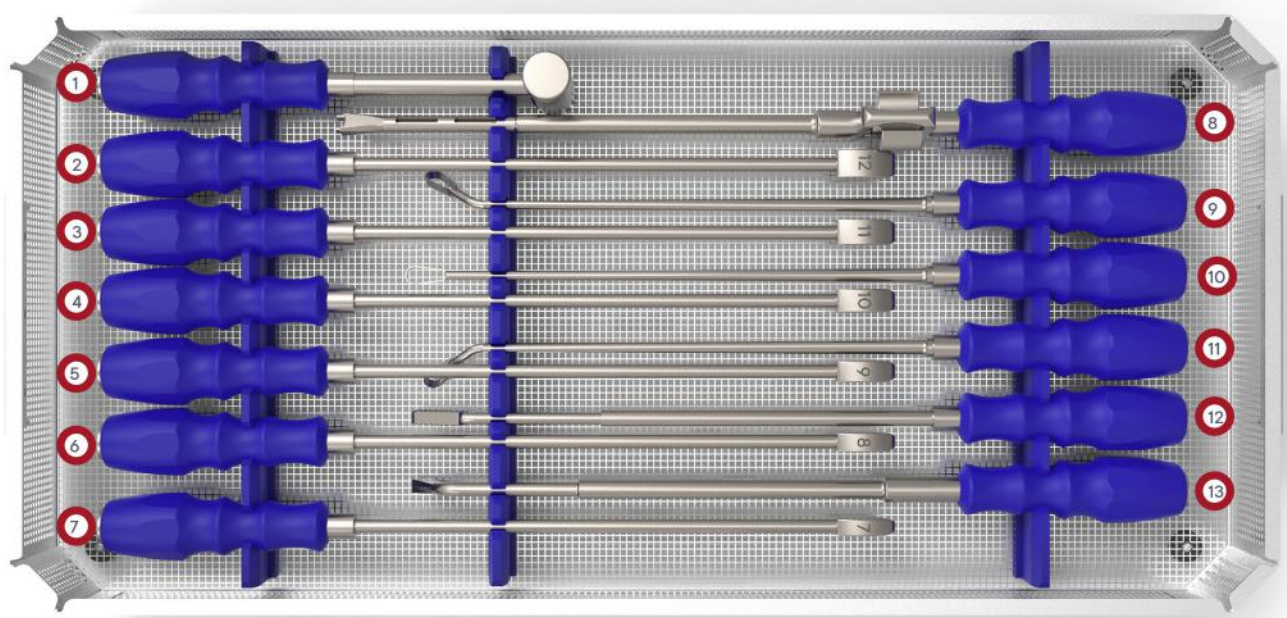
**INSTRUMENT CONTAINER**



Container

**Tra-Ti**  
TLIF Cage

**INSTRUMENT TYPES**











| Set No. | Catalogue No. | Description | Piece |
|---------|---------------|-------------|-------|
| 01      | NMBC013       | Hammer      | 1     |
| 02      | NMBC011       | 12 mm Trial | 1     |
| 03      | NMBC010       | 11 mm Trial | 1     |



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**INSTRUMENT TYPES**

|  | Set No. | Catalogue No. | Description      | Piece |
|--|---------|---------------|------------------|-------|
|    | 04      | NMBC009       | 10 mm Trial      | 1     |
|   | 05      | NMBC008       | 9 mm Trial       | 1     |
|  | 06      | NMBC007       | 8 mm Trial       | 1     |
|  | 07      | NMBC006       | 7 mm Trial       | 1     |
|  | 08      | NMBC001       | Implant Holder   | 1     |
|  | 09      | NMBC004       | Left Curette     | 1     |
|  | 10      | NMBC003       | Straight Curette | 1     |
|  | 11      | NMBC005       | Right Curette    | 1     |

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# INSTRUMENT TYPES

|   | Set No. | Catalogue No. | Description | Piece |
|---|---------|---------------|-------------|-------|
|   | 12      | NMBC012       | Rasp        | 1     |
|  | 13      | NMBC002       | Pusher      | 1     |

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**CONTACT**



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