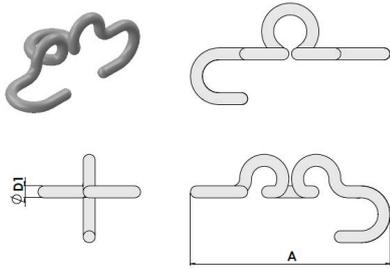
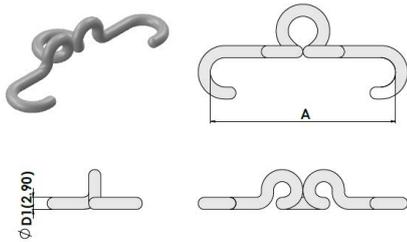


## Normal Type

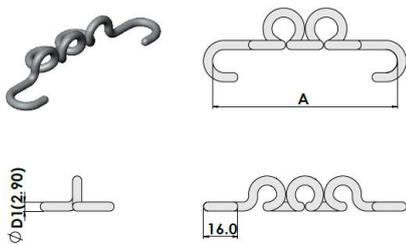
Tolerance: ±5%



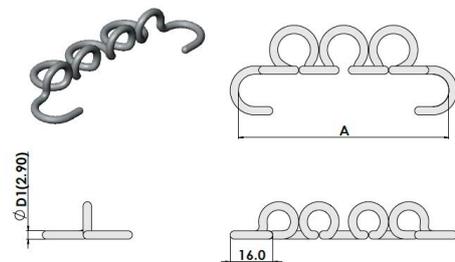
## One Round Type



## Two Round Type



## Three Round Type



| Normal Type      |                     |       |       |
|------------------|---------------------|-------|-------|
| No.              | Model name          | D1, Ø | A, mm |
| 1                | SPINElant CESL 1621 | 1.6   | 21.8  |
| 2                | SPINElant CESL 1826 | 1.8   | 26.4  |
| 3                | SPINElant CESL 1831 | 1.8   | 31.4  |
| 4                | SPINElant CESL 2036 | 2.0   | 36.0  |
| 5                | SPINElant CESL 2240 | 2.2   | 40.6  |
| One Round Type   |                     |       |       |
| 6                | SPINElant LESL 2924 | 2.9   | 24.2  |
| 7                | SPINElant LESL 2929 | 2.9   | 29.2  |
| 8                | SPINElant LESL 2934 | 2.9   | 34.2  |
| 9                | SPINElant LESL 2939 | 2.9   | 39.3  |
| 10               | SPINElant LESL 2944 | 2.9   | 44.2  |
| 11               | SPINElant LESL 2949 | 2.9   | 49.2  |
| 12               | SPINElant LESL 2954 | 2.9   | 54.2  |
| 13               | SPINElant LESL 2959 | 2.9   | 59.2  |
| Two Round Type   |                     |       |       |
| 14               | SPINElant LESL 2964 | 2.9   | 64.2  |
| 15               | SPINElant LESL 2969 | 2.9   | 69.2  |
| 16               | SPINElant LESL 2974 | 2.9   | 74.2  |
| Three Round Type |                     |       |       |
| 17               | SPINElant LESL 2979 | 2.9   | 79.2  |
| 18               | SPINElant LESL 2984 | 2.9   | 84.2  |
| 19               | SPINElant LESL 3289 | 3.2   | 89.2  |
| 20               | SPINElant LESL 3294 | 3.2   | 94.2  |
| 21               | SPINElant LESL 3299 | 3.2   | 99.2  |

## Material

SPINElant is made of superelastic TiNi SMA showing shape memory effect (also known as Nitinol which has been already standardized on the ASTM F2063 as the biocompatible material for medical devices and surgical implants). It is characterized by high mechanical performance, high cycle fatigue (over 10<sup>7</sup>), and improved corrosion resistance.

## Features

SPINElant follows the concept of dynamic spinal loops, which is currently gaining increasing recognition

## Indications

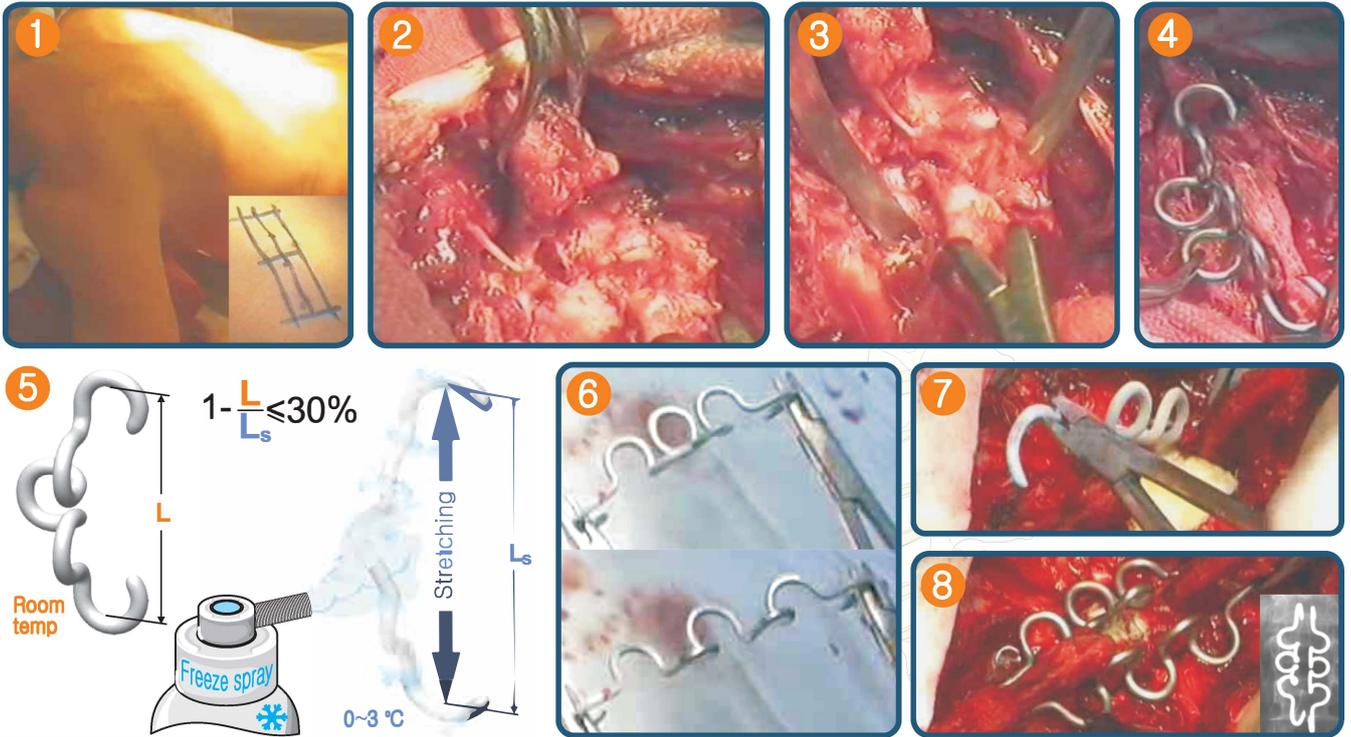
- Ω P.L.I.F. and posterior fixation
- Ω After decompressive laminectomy
- Ω Correction of degenerative kyphoscoliosis
- Ω Mild degenerative spondylolisthesis
- Ω Compression fracture with kyphosis
- Ω Prevention to adjacent segmental instability
- Ω Injury of ligamentous structure
- Ω Resurgery of F.B.S.S.

## Benefits

- Ω Flexible, but strong posterior tension band
- Ω Combination with pedicle screw, as appropriate
- Ω Easy to apply and remove
- Ω Correction of kyphosis
- Ω Stable adjacent segment
- Ω Less invasive approach
- Ω Shortening operation time
- Ω Early patient's recovery



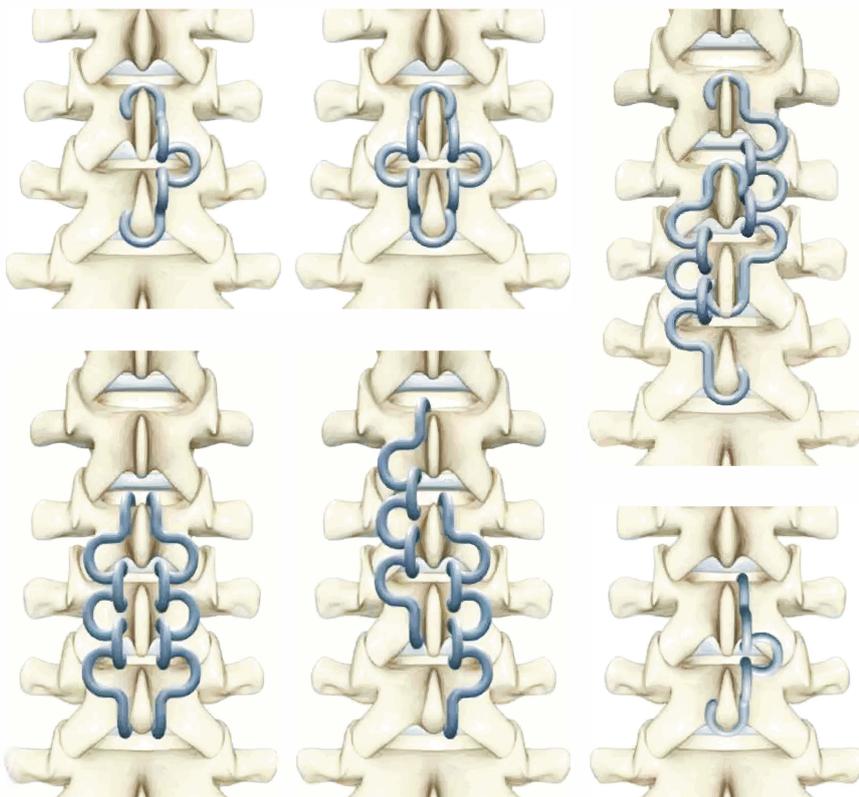
## ■ Surgical technique



- (1) Pronation and demarcation
- (2,3) Revision/checking steps  
(decompression, laminectomy, etc.)
- (4) Trying in situ
- (5) Cooling (spray or ice water)
- (6) Stretching
- (7) Insertion
- (8) Contraction and X-ray check

**Note** that the stretching strain should not exceed 30 % of the reference length

## ■ Variant embodiments



**Note** that the length (L) of SPINElant is to be 1/4 to 1/5 less than that after contracting, complying with the gap ( $L_{sp}$ ) between the spinous processes (laminae) to be secured

