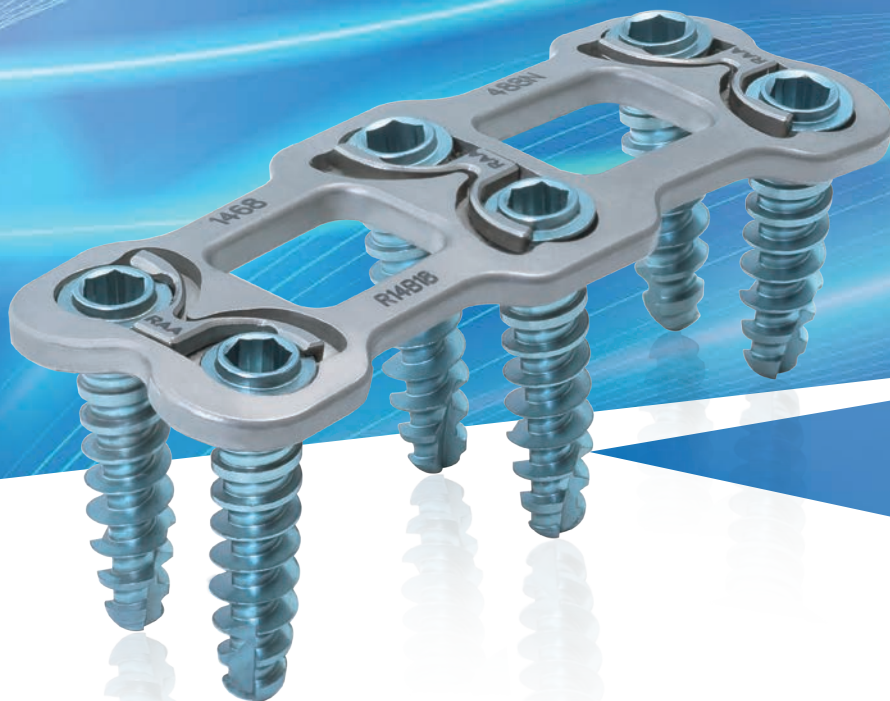


# Winloc<sup>®</sup>

## Anterior Cervical Plate System Surgical Technique Guide



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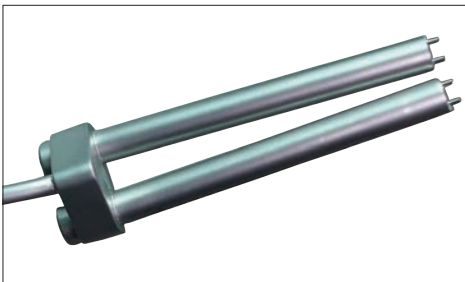


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Winloc® is a cervical plate system for the anterior surgical stabilization of the cervical spine, with the exception of C0-C2. The implant enables the immobilization of the fusion mass until consolidation of the implant or bone transplantation.

It consists of single- or multisegmental plates as well as variable modulus screws and small fragment bone screws of varying sizes.

The special feature of the system is its outstanding flexibility. The instrumentation can be adjusted depending in the situation on through the elective use of self-tapping bone screws and self drilling, monocortical bone screws. Bone screws with a larger diameter are also available.

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 and MRI (Magnetic Resonance Imaging).

The present description of the surgical technique contains the work steps for the use of the Winloc® System. The implants and the system instruments needed for implementation are presented.

The use of this manual is not sufficient as sole basis for the successful application of the Winloc® system. It is recommended to master the surgical technique with and experienced surgeon.

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



# Indications & Contraindications

## Indications

The WinLoc Anterior Cervical Plate System is intended for anterior screw fixation to the cervical spine. The system is indicated for use in the temporary stabilization of the anterior spine during the development of cervical spinal fusion in patients with:

- ◆ Degenerative disc disease (as defined by neck pain of discogenic origin with degeneration of the disc confirmed by patient history and radiographic studies),
- ◆ Spondylolisthesis,
- ◆ Trauma (i.e., fractures or dislocations),
- ◆ Tumors,
- ◆ Deformity (defined as kyphosis, lordosis, or scoliosis)
- ◆ Pseudoarthrosis, and/or
- ◆ Failed previous fusions.

## Contraindications

- ◆ Patients with acute infection, whether superficial or deep
- ◆ Patients with a history of material allergy or who tend to react to foreign bodies
- ◆ The physician must consider carefully before treating patients who are in a generally unfavorable medical or psychological state and who could be made worse by the procedure
- ◆ Pregnancy



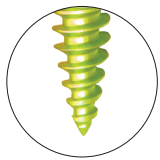
# Design Features



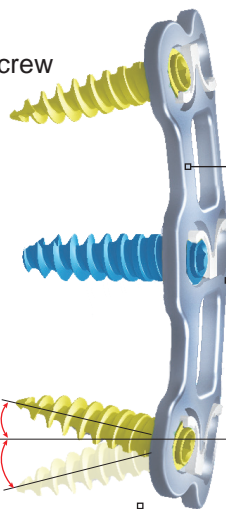
Self Drilling Screw



Self Tapping Screw



Conical shape and Self Drilling Screw  
Can be implanted directly



Large graft window for  
central visualization

Latching arm for secure  
screws inserted  
Prevent back-out  
mechanism

4°

8°

Microstep serrated for  
interface contact



6.25°

Plate thick : 1.8 mm  
Low-profile fixation

Sagittally-fixed screws

Self Tapping Screw

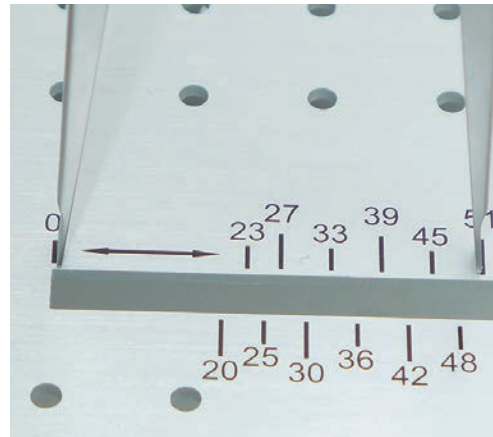
Safety convergent angle design



## ➤ Measure The Length Of Cervical Plate



Use the Measuring Caliper (217-2901) for in-situ measurements. Choose the most appropriate length for the Winloc® cervical plate.



Use the measuring scale in the instrument tray after measurement to obtain the needed length of the cervical plate. (The measuring scale is located next to the bone screw tray)

## ➤ Bending :



The Winloc® cervical plate is lordotically pre-bent. But when further bending is needed clinically, the instrument Plate Bender (217-1201) can be used to increase bending.

### Caution:

Since there is a bone screw latching mechanism on the plate, the zone where the plate bender may be used for further bending is limited and repeated bending back and forth will damage the whole structure. Please use it with caution.



217-2901

Measuring Caliper



217-1201

Plate Bender



202-1301

Plate Holder



217-3403

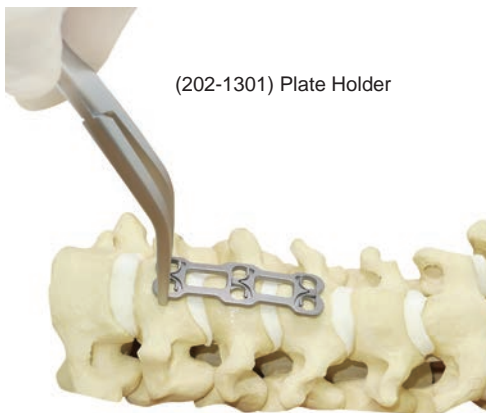
Fixation Screw Driver



217-3401

Fixation Screw

## Instrumentation: Hold the plate



Confirm the cervical spine level for the surgical procedure and then place the plate. The Plate Holder (202-1301) can be performed as an assisting tool.



A temporary fixation of the plate to the vertebral body can be achieved by using the Fixation Screw Driver (217-3403) to Facilitate Fixation Screw (217-3401) on plate.

## Initial Screw Preparation



Approaching, Awl, or drilling is preparatory steps before screw implantation. There are length scales etched on those 3 instruments (Awl, Drill Bit, Tap).

Spacing (217-7101) can be used to restrict their access depth when using these instruments.

### Caution :

The 4.0mm Tapping is in order to implant smoothly with Variable Oversized Screw. Self Tapping Screw or Self Drilling Screw just need Awl and Drill Bit.



217-0101  
Handle



217-0201  
2.0mm Awl



217-1901  
2.0 mm Drill Bit



217-0501  
4.0 mm Tap



217-7101  
Spacing

# Surgical Technique

## Using The Guide



The Drill Guide (217-1102 and 217-1103) allows for approximately 12 degrees to be a guided. The needed angle hence is adjustable around  $8^{\circ}+4^{\circ}$  off the vertical plane. The angle of lateral shift shall not exceed in order to avoid the risk of inserting the screw.

## Screw Placement :



Take a Screw Holder (202-1302) to carry the required screws. Operating the screw holder by single hand. When the handle is pressed, the claws open up. Release it and then the screw will be securely grabbed.

After the screw is grabbed, insert a Hex 2.5mm Screw Driver (202-3301) into the screw holder to place the screw.



217-1102

Variable Drill Guide



217-1103

Double Barrel Drill Guide



202-1302

Screw Holder

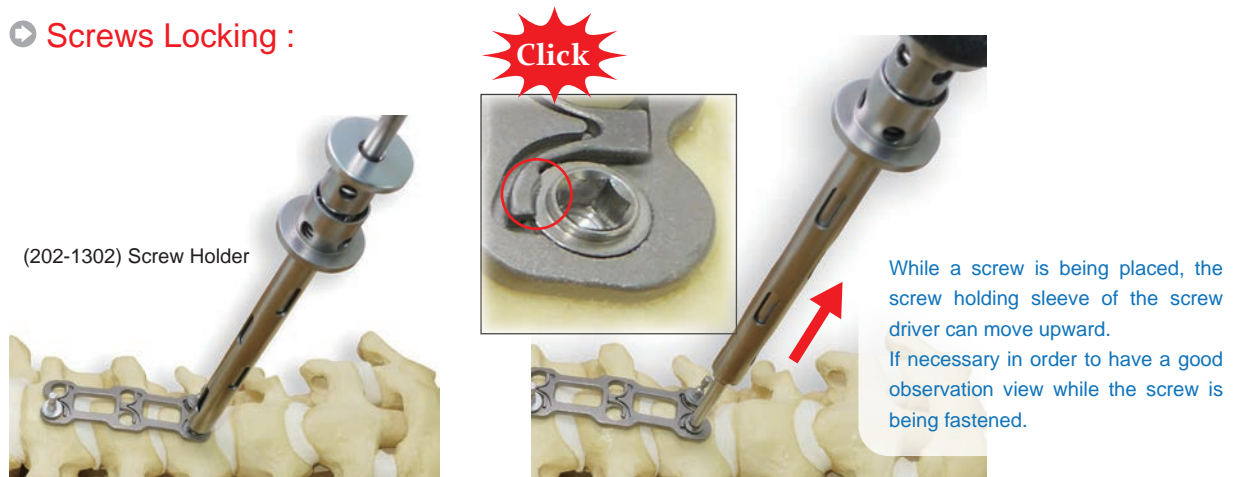


202-3301

Hex 2.5mm  
Screw Driver

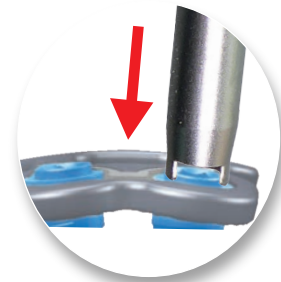
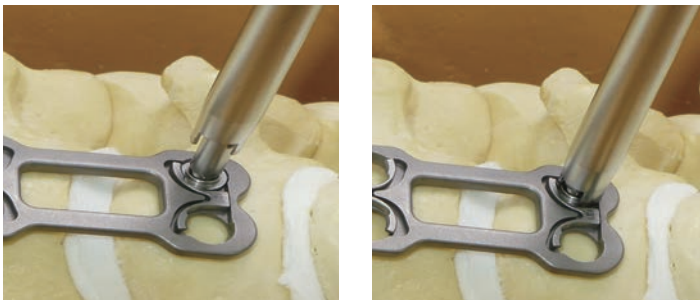


## ► Screws Locking :



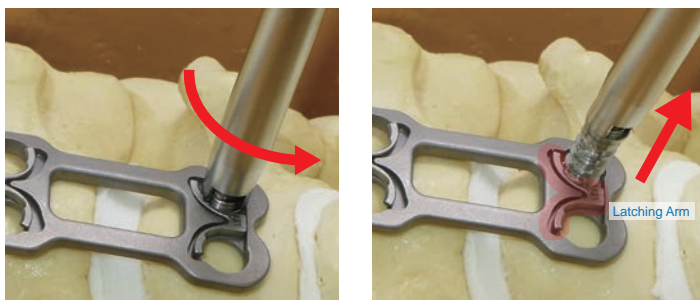
Please note that when a screw is fastened all the way in, the latching mechanism of the plate will make a clicking sound to indicate that it is fastened and the head of the screw should be embedded into the latching arm and restricted by the latter. This is the standard procedure to place a screw.

## ► Remove Screws Tool :



When it is necessary to remove the screw, use the following methods :

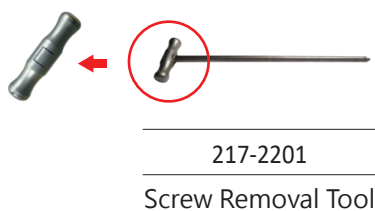
## ► Remove Screw :



Use Screw Removal Tool (217-2201) when it is necessary to remove the screws. It has an marker on the handle shows the direction of half-round opening. Insert removal tool into the screw when half-round opening face with locking arm, and rotate counterclockwise for remove the screws from the plate.

### Caution :

Removing the screws may damage or lift the latching arms on the plate. Before inserting the screws into the latching arm, make sure that all screws are inserted in the correct position. Reduce the chances of removing the screws.





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**Measuring Caliper**  
217-2901



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**Plate Bender**  
217-1201



---

**Plate Holder**  
202-1301



---

**Fixation Screw Driver**  
217-3403



---

**Fixation Screw**  
217-3401



---

**Handle**  
217-0101



---

**2.0mm Awl**  
217-0201



---

**2.0 mm Drill Bit**  
217-1901



---

**4.0 mm Tap**  
217-0501



---

**Spacing**  
217-7101



---

**Variable Drill Guide**  
217-1102



---

**Double Barrel Drill Guide**  
217-1103



---

**Screw Holder**  
202-1302



---

**Hex 2.5mm Screw Driver**  
202-3301



**Screw Removal Tool**  
217-2201



**Screw Container**  
20141-040



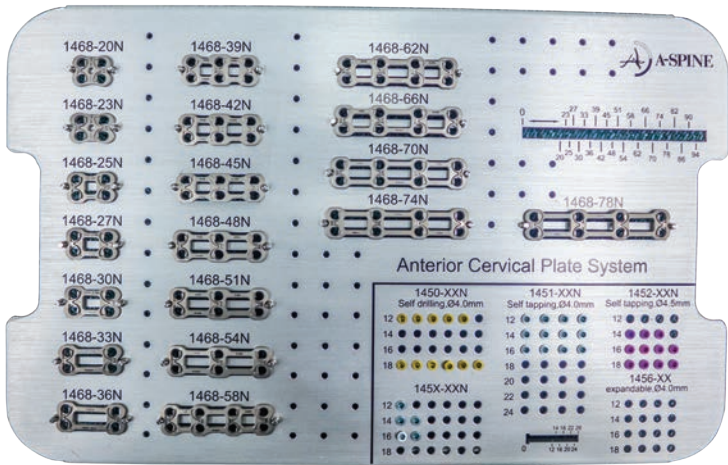
**Winloc II implant / instrument Case (Metal Lid)**  
99900-040



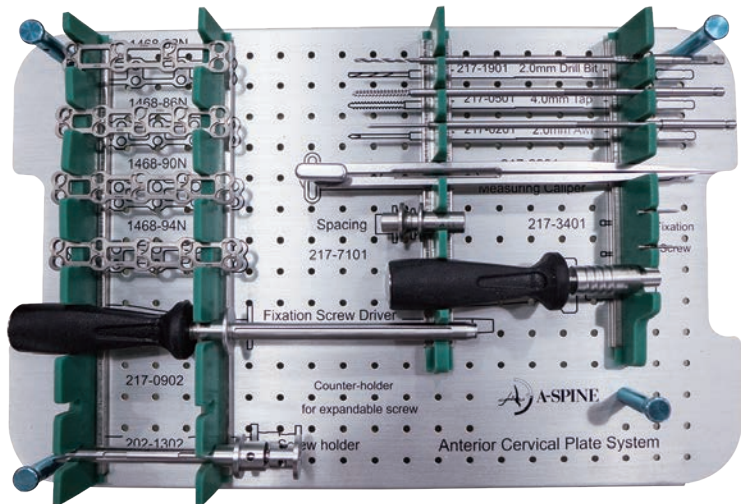
**Winloc II implant / instrument Case (Plasty Lid)**  
99901-040  
**\* For Option**

**Sterilization :**

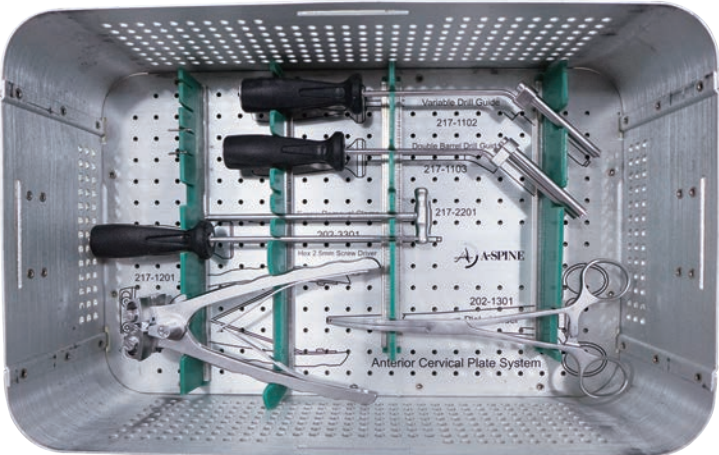
The implants and instruments are delivered non sterile. Before use needed cleaned and sterilized recommended to be steam sterilized refer to "A-SPINE Reprocessing Manual" following process parameters: Steam Wrapped Gravity Cycle at 121 °C/250 °F for 30 minutes.  
If need more information, the "Intended for Use" and "A-SPINE Reprocessing Manual" can be downloaded from A-SPINE official website: <http://www.aspine.com.tw/>



Winloc® instrument tray with 3 layers

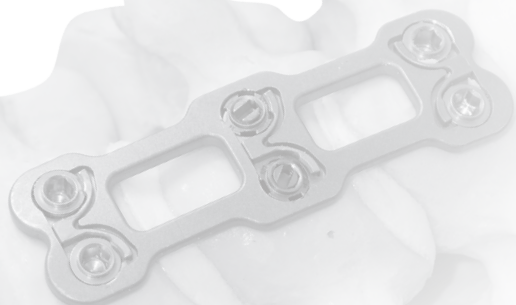


Winloc® instrument tray with 3 layers



Winloc® instrument tray with 3 layers

## Anterior Cervical Screws & Plates



1 Level    2 Level    3 Level    4 Level

### Winloc® Plate

#### Variable Self Tapping Screw

| Cat.No    | Dia(mm) | L(mm) |
|-----------|---------|-------|
| 1451-128N | 4       | 12    |
| 1451-148N | 4       | 14    |
| 1451-168N | 4       | 16    |
| 1451-188N | 4       | 18    |



#### Variable Oversized Screw

|           |     |    |
|-----------|-----|----|
| 1452-128N | 4.5 | 12 |
| 1452-148N | 4.5 | 14 |
| 1452-168N | 4.5 | 16 |
| 1452-188N | 4.5 | 18 |



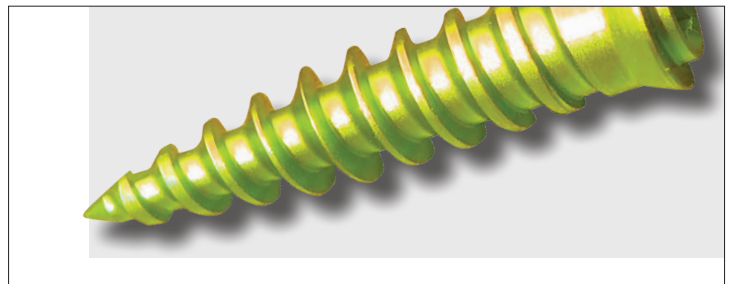
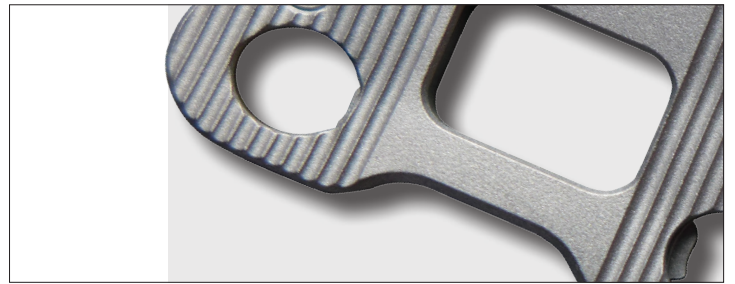
#### Variable Self Drilling Screw

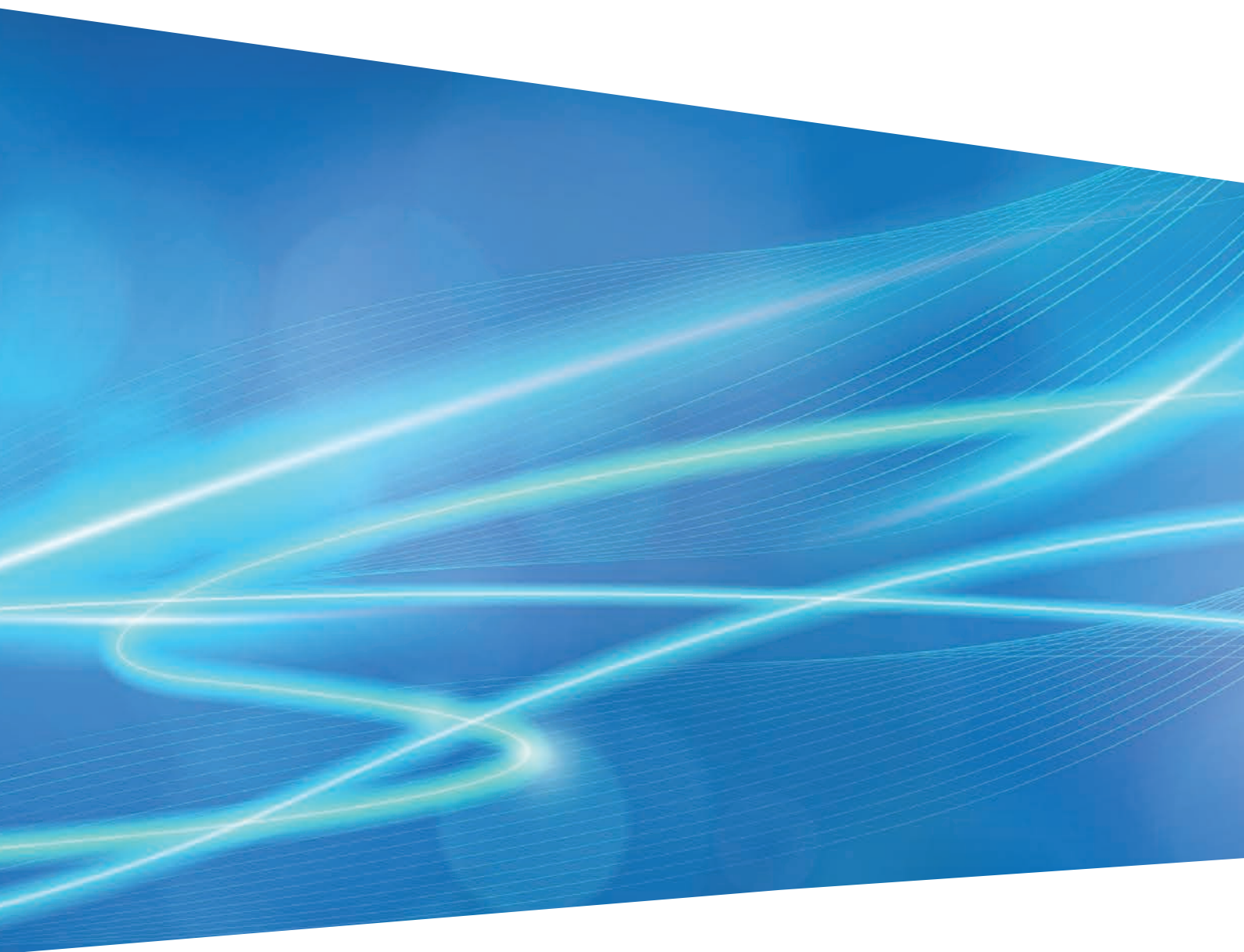
|           |   |    |
|-----------|---|----|
| 1450-128N | 4 | 12 |
| 1450-148N | 4 | 14 |
| 1450-168N | 4 | 16 |
| 1450-188N | 4 | 18 |



| Cat.No    | W(mm) | L(mm) | Level |
|-----------|-------|-------|-------|
| 1468-258N | 16    | 25    | 1     |
| 1468-278N | 16    | 27    |       |
| 1468-308N | 16    | 30    |       |
| 1468-338N | 16    | 33    |       |
| 1468-368N | 16    | 36    |       |
| 1468-398N | 16    | 39    | 2     |
| 1468-428N | 16    | 42    |       |
| 1468-458N | 16    | 45    |       |
| 1468-488N | 16    | 48    |       |
| 1468-518N | 16    | 51    |       |
| 1468-548N | 16    | 54    | 3     |
| 1468-588N | 16    | 58    |       |
| 1468-628N | 16    | 62    |       |
| 1468-668N | 16    | 66    |       |
| 1468-708N | 16    | 70    |       |
| 1468-748N | 16    | 74    | 4     |
| 1468-788N | 16    | 78    |       |
| 1468-828N | 16    | 82    |       |
| 1468-868N | 16    | 86    | 4     |
| 1468-908N | 16    | 90    |       |

*spine* A-SPINE





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