Orthodontic Screw

for Effective Orthodontic Treatment

Excellent Self Drilling & Self Tapping

High Initial Stability
Osstem Orthodontic Screw for Effective Orthodontic Treatment

Osstem Implant’s orthodontic screws provide not only superior initial fixation with their excellent implant torque but also the most stability and effectiveness for orthodontic treatments with their high fracture Toughness.

### High Initial Stability
Provides superior primary stability to the cortical bone with its tapered upper part

### Excellent Self Drilling & Self Tapping
Applied with high, stable implant torque

### High Fracture Toughness
Produced with high-strength titanium material

### Various Screw Line Up
Enables use of three additional types for diverse orthodontics

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**Simple Head**

- Through Hole
- Small Head
- Bracket Head
- Etching Surface

**New**

- Now, coil spring can be used!
- Ligation wire is usable!
- NO worries over screws failure!

Now, coi spring can be used! With a small, soft curved head, patients do not feel the implant.

Ligation wire is usable! Superior wire compatibility through cross-shaped slot and easy path adjustment.

NO worries over screws failure! With Low-SA surface treatment, 20% lower failures rate compared to existing products.

Made of high-strength titanium (Ti-6Al-4V), fractures are minimized.

With a low head height of 1.95mm, patients do not feel the implant.

Initial stability is greatly secured with a 0.7mm pitch upper taper.

With an etching surface option, early failures are reduced.

- The result of machines vs. etching in animal tests

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**3 New type Launching**

- **Small Head Type**
- **Bracket Head Type**
- **Etching Surface Type**

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Orthodontic Screw System 02 / 03
Specification
Orthodontic Screw & Tool Line up

Simple Head

Through Hole

Small Head

Bracket Head

Etching Surface

Driver Handle

Universal Handle

Driver Tip

Machine Driver

Hand Driver

Low SA surface treatment: reduces screw drop-out rate (10-20%)

Suitable for use in Ni-Ti coil spring

Various components can be attached through the cross wire slot

Low, Soft Head: Minimizes foreign body sensation

Hex Design: Delivers stable torque

Machined surface, G/H 4.0 is an item made to order

Through Hole

- Low, Soft Head: Minimizes foreign body sensation
- Hex Design: Delivers stable torque
- Machined surface, G/H 4.0 is an item made to order

Small Head

- Low, Soft Head: Minimizes foreign body sensation
- Small, low head design and size
- Optimized for use in Ni-Ti coil springs
- Head diameter: ø1.48

Bracket Head

- Superior compatibility with various wires
- Easy path adjustment through the cross wire slot
- Enables ligation of the ligature wire and O-ring
- Enables attachment of various components (power chain, arch wire, etc.)

Etching Surface

- Same design as the through hole (hole size: ø0.8)
- Acid etching surface treatment: Superior initial stability
- Maintains insertion features at a level equal to machine types

Driver Handle

- Used when connecting to a hand driver and tightening a screw by hand

Includes two driver tips specialized for normal hex drivers and small heads

Hand driver specialized for small heads is optional (not included in KIT)

Driver Tip

- Used after being attached to driver tip, and enables easier procedures due to slippage-prevention treatment on the center of the handle

Machine Driver

- Used during orthodontic screw procedures when connected to a universal handle
- Includes two driver tips specialized for normal hex drivers and small heads
- Compatible with other companies’ universal drivers (Company J, Company D, Company O)

Hand Driver

- Used during orthodontic screw procedures when connected to a driver handle and ratchet wrench
- Includes two driver tips specialized for normal hex drivers and small heads
- Hand driver specialized for small heads is optional (not included in KIT)
Osstem orthodontic screws are made of a titanium alloy (Ti-6Al-4V), so they have stronger material properties than ordinary implants but fracture is possible due to their very small diameter. In a regular operation process, fractures happen mostly due to two situations as follows.

1. Excessive insertion torque occurring in hard osseous tissue
   - If the patient’s osseous tissue is very hard or very hard osseous tissue is encountered during implant insertion, it is recommended to continue only after a pilot drill.
   - Drilling and insertion torque settings for orthodontic screw when engine is used

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Drilling RPM</th>
<th>Insertion torque settings</th>
<th>Insertion RPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4</td>
<td>800RPM</td>
<td>15Ncm</td>
<td>20–30RPM</td>
</tr>
<tr>
<td>1.6</td>
<td>800RPM</td>
<td>15Ncm</td>
<td>20–30RPM</td>
</tr>
</tbody>
</table>

2. Lateral pressure when an excessive slope is formed during implant insertion (wobbling)
   - During implant insertion, pay careful attention and insert slowly so that the planned path is followed.
   - When an engine is used during implant insertion, the procedure must be performed at a speed of 25 rpm or lower.

* Drilling and insertion torque settings for orthodontic screw when engine is used