New Materials & Technology Lead the Way to a Brighter Future

Since our establishment as the specialty steel and forged products supplier for Toyota Motor Corporation in 1940, we have operated with the premise that "Great society are made with great material."

To that end, we have researched a wide variety of specialty steel products, and put our research into practical applications. We are proud of the contributions we have made to the advancement of the automobile industry.

These innovative core technologies have lead to the expansion of magnetic applications in the dental field.
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These innovative core technologies have lead to the expansion of magnetic applications in the dental field.
Introduction of MAGFIT Technologies

MAGFIT - New Generation Magnetic Attachment

MAGFIT magnetic attachments employ several innovative core technologies developed by Aichi Steel Corporation for the Toyota Group. We are a leader in magnetic materials technology which not only allows for the continued advancement of magnetic attachments but for the research and development of new applications of magnetics in the dental field.

1. Strongest Retention in its class with an ultra-compact size

   With the optimal magnetic circuit design using 3D computer simulation, the attractive force of MAGFIT have been improved twice over the last decade.

Total sales exceeded over 2.6 million pcs!

Magfit is a long seller product since its launch of 1992. Over 10,000 dentists have used Magfits now and it is available in 17 countries worldwide!
Magnet- retained implant supported overdentures

With the increasing number of the clinical application of implants, magnet- retained implant supported overdentures are highly anticipated for edentulous patients. MAGFIT IP magnetic attachments are compatible with major implant systems making it possible to apply this practical treatment.

Product Quality Assurance

All MAGFIT products are CE approved and manufactured in Japan with ISO13485 certification. Controlled lot numbers are laser- etched on all MAGFIT magnetic assemblies for traceability. The MAGFIT Service Network has been set up to provide fast and reliable service to all of our MAGFIT customers.
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Dental Magnetic Attachments for Natural Tooth Roots

MAGFIT™
Series

A wide range of products are available to expand your clinical applications and make good use of existing abutment tooth root instead of extracting the tooth.

**Advantages**

- Protection of the abutment tooth from excess stress
- Easy instrumentation and easy maintenance
- Superior aesthetics

**Principle**

MAGFIT is an innovative dental magnetic attachment system consisting of a powerful yet ultra-compact embedded magnet which retains a prosthesis onto a magnetic attractive keeper set on the abutment tooth.

**Feature**

<table>
<thead>
<tr>
<th>Cast Coping type</th>
<th>Resin Coping type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAGFIT DX</strong></td>
<td><strong>MAGFIT EX</strong></td>
</tr>
<tr>
<td>Denture</td>
<td>Magnetic Assembly</td>
</tr>
<tr>
<td>Keeper</td>
<td></td>
</tr>
<tr>
<td>Root Cap</td>
<td></td>
</tr>
</tbody>
</table>

**Cast Coping type**

- **MAGFIT DX**
  - Shortest height: Suitable for Molars
  - Round contact face
  - Ellipsoidal outer lip

**Resin Coping type**

- **MAGFIT RK**
  - Smallest size: Suitable for Incisors and Canines
  - Elliptical contact face

**Attractive Force (gf)**

- **MAGFIT DX**
  - 1000/800/600/400: 600/400

**Width (mm)**

- **MAGFIT EX**
  - Ø5.0/4.4/4.0/3.4: 2.8/2.4

**Height (mm)**

- **MAGFIT RX**
  - 1.7/1.3/1.2/1.0: 1.8/1.5

**Catalogue Page**

- **MAGFIT DX**: P7
- **MAGFIT EX**: P8
- **MAGFIT RK**: P10
The MAGFIT DX Series is suitable for a wide range of cases, especially for molars where vertical space is limited. It has a thin disk-type design with improved wear resistance. The ellipsoidal outer lip of the magnetic assembly prevents rotation to ensure firm fixation to the denture base. It is 30% shorter than the EX series. Durability has been enhanced by increasing the hardness of the magnet casing. Applicable to a wide range of clinical cases.

### Specifications

#### Basic Performance

<table>
<thead>
<tr>
<th></th>
<th>MAGFIT DX 1000</th>
<th>MAGFIT DX 800</th>
<th>MAGFIT DX 600</th>
<th>MAGFIT DX 400</th>
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<tbody>
<tr>
<td>Attractive Force (gf)</td>
<td>1000</td>
<td>800</td>
<td>600</td>
<td>400</td>
</tr>
<tr>
<td>Height (mm)</td>
<td>1.7</td>
<td>1.3</td>
<td>1.2</td>
<td>1.0</td>
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<tr>
<td>Keeper Diameter (mm)</td>
<td>Ø4.6</td>
<td>Ø4.0</td>
<td>Ø3.6</td>
<td>Ø3.0</td>
</tr>
</tbody>
</table>

#### Structure and Materials

- Ellipsoidal Outer Lip
- Disc (AUM20)
- Hermetic seal by micro-laser welding
- Yoke (AUM20)
- Magnet (NdFeB)
- Keeper Holder (SUS316)
- Keeper (AUM20)

*Note: AUM20 is our proprietary Soft Magnetic Stainless Steel.*

#### Vertical space required for MAGFIT DX

- Incisors: DX1000: 3.7mm, DX800: 2.3mm, DX600: 2.5mm
- Canines: DX1000: 4.2mm, DX800: 3.4mm, DX600: 3.6mm
- Molars: DX1000: 4.2mm, DX800: 3.4mm, DX600: 3.6mm

### Reliability

#### Corrosion Prevention

MAGFIT DX utilizes a stainless steel casing hermetically sealed by micro-laser welding to ensure excellent corrosion resistance.

#### Magnetic Field Leakage

Magnetic field leakage at the gingival margin is substantially below the accepted U.S. Safety Standard of 0.02T.

#### Oxidization resistant Keeper

The surface of the keeper is coated with a Cr-rich layer to protect it from oxidization during the casting process.

#### Detachment Prevention

The unique ellipsoidal outer lip is designed with an anti-rotation feature to ensure firm fixation in the denture base.
MAGFIT™ EX
600W/400W

MAGFIT EX has a "sandwich type" structure with attractive forces ranging from 400 to 600gf, which is comparable to the spring method. MAGFIT EX600W is recommended for cases with regular space requirements. MAGFIT EX400W is suitable for cases with minimal space conditions as well as cases requiring lower retention.

Specifications

### Basic Performance

<table>
<thead>
<tr>
<th>Attractive force (gf)</th>
<th>MAGFIT EX600W</th>
<th>MAGFIT EX400W</th>
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<tr>
<td>Height (mm)</td>
<td>1.8</td>
<td>1.5</td>
</tr>
<tr>
<td>Smallest diameter (mm)</td>
<td>3.8±0.2</td>
<td>3.4±2.4</td>
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</table>

### Dimensions of MAGFIT EX

![Diagram of MAGFIT EX dimensions]

<table>
<thead>
<tr>
<th>Diameter (mm)</th>
<th>Keeper (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø5.5</td>
<td>Ø4.6</td>
</tr>
<tr>
<td>Ø5.0</td>
<td>Ø4.6</td>
</tr>
<tr>
<td>Ø4.6</td>
<td>Ø4.6</td>
</tr>
</tbody>
</table>

### Structure and materials of MAGFIT EX

- Magnet case (SUS316)
- Yoke (AUM20/316)
- Magnet (NdFeB)
- Hermetic seal by micro laser welding
- Wing
- Keeper (AUM20/316)
- Keeper holder (SUS316)

![Diagram of MAGFIT EX structure]

* AUM20 is our proprietary Soft Magnetic Stainless Steel.

### Reliability

#### Firm fixation to the denture base

The unique "wing" design on both sides of the magnetic assembly ensures firm fixation, preventing detachment problems from denture base.

![Diagram of improved fixation]

Improved fixation with unique "wing" design

#### No corrosion

MAGFIT EX utilizes a high grade stainless steel outer casing to encapsulate the magnetic assembly. The seams of the cap are hermetically sealed by precision micro laser welding.

![Diagram of perfect seal]

Perfect seal by micro laser welding

Vertical space required for MAGFIT

- Incisors: MAGFIT EX600W: 3.8mm, MAGFIT EX400W: 3.3mm
- Canines: MAGFIT EX600W: 3.8mm, MAGFIT EX400W: 3.3mm
- Molars: MAGFIT EX600W: 4.3mm, MAGFIT EX400W: 3.8mm
Magfit SX is a magnetic attachment which gives the magnetic assembly a slide mechanism for adjusting the difference in the settlement amount of soft tissue and hard tissue. It became easier to deal with correction of vertical settlement amount of denture and composite movement. In addition, even at the lab side it is possible to attach the magnetic assembly to the denture. The magnetic assembly have L type and S type. Since the keeper can be cemented directly to the tooth root, the casting operation can be omitted and treatment can be done immediately.

**Specifications**

<table>
<thead>
<tr>
<th>Basic Performance</th>
<th>MAGFIT SX-S</th>
<th>MAGFIT SX-L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attractive force</td>
<td>400 gf</td>
<td>600 gf</td>
</tr>
<tr>
<td>Leakage Magnetic field</td>
<td>0.002T</td>
<td>0.003T</td>
</tr>
</tbody>
</table>

**Structure and Materials**

- **Magnetic Assembly**
  - Outer Diameter: Ø4.7 | Ø5.2
  - Height: 1.4 | 1.6
- **Keeper**
  - Adsorption area: Ø3.3 | Ø3.7
  - Height: 7.5 | 7.7

**Accessories**

- The following accessories are included in the package:
  1. Plastic dummy: Ensure space for attachment of the magnetic assembly.
  2. Washer type spacer: Secure the settlement gap for the denture.
  3. Metal spacer: Secure space for vertical settlement of magnet

**Reliability**

It can move up to 0.4mm vertically or tilt 8° with the movement of the denture. The cap has an interlocking force (force required to separate) of about 15 kgf.

**Notice**

Plastic caps may deteriorate due to long-term use in the oral cavity. Accessory metallic spacers are required when relining.
MAGFIT RK makes it possible for the direct adhesion of the keeper to the tooth root with a resin coping. This system eliminates the casting process allowing for one-day treatment, which is particularly effective for home visit with elderly patients. The patients keep using their denture. You can choose the shape of the attractive face, Flat, or Dome with L size or S size.

### Specifications

#### Basic Performance

<table>
<thead>
<tr>
<th></th>
<th>MAGFIT RK-DXFL</th>
<th>MAGFIT RK-DXFS</th>
<th>MAGFIT RK-DXD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shape</td>
<td>Attractive face</td>
<td>SIZE</td>
<td>Attractive face</td>
</tr>
<tr>
<td></td>
<td>Flat</td>
<td>L</td>
<td>Dome</td>
</tr>
<tr>
<td>Magnetic Assembly</td>
<td>Ø4.9 (× 4.4)</td>
<td>1.3</td>
<td>Ø4.9 (× 4.4)</td>
</tr>
<tr>
<td>Dimension (mm)</td>
<td>Ø4.0</td>
<td>1.0</td>
<td>Ø4.0</td>
</tr>
<tr>
<td>Keeper</td>
<td>Ø1.2</td>
<td>5</td>
<td>Ø1.2</td>
</tr>
</tbody>
</table>

#### Reliability

### Strength of no-cast adhesion

With the elimination of casting, polishing to remove the oxidation layer is no longer necessary, resulting in an appropriate attractive force.

#### Keeper detachment prevention

Special designed steps have been applied to the MAGFIT RK post to ensure pulling strength of more than 12kgf.

### Structure and Materials

- Magnetic Assembly
- Yoke (AUM20®)
- Disc (AUM20®)
- Magnet (NdFeB)
- TIN Coating

- Keeper
- TIN Coating
- Resin Coating
- Keeper (AUM20®)
- Post (AUM20®)

© AUM20 is our proprietary Soft Magnetic Stainless Steel.
Clinical Applications for Natural Tooth Roots

Guideline for choosing best MAGFIT

<table>
<thead>
<tr>
<th>Product</th>
<th>For Cast Coping</th>
<th>For Resin Coping</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MAGFIT DX</td>
<td>MAGFIT EX</td>
</tr>
<tr>
<td>Features</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1000 800 600 400</td>
<td>600 400</td>
</tr>
<tr>
<td></td>
<td>Shortest height</td>
<td>Small sectional diameter</td>
</tr>
<tr>
<td></td>
<td>Suitable for Molars</td>
<td>Suitable for anterior teeth</td>
</tr>
<tr>
<td></td>
<td>Round contact face</td>
<td>Ellipsoidal shape</td>
</tr>
<tr>
<td></td>
<td>Ellipsoidal outer lip</td>
<td></td>
</tr>
<tr>
<td>Compatibility Teeth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front teeth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retention enhancement</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please select and use the products depending on the patient’s oral environment

Recommended cases

Complete Overdenture
- Retention enhancement

Partial Denture
- Replacement of deteriorated clasps
- Insertion-path free design
**BASIC Clinical Procedures for MAGFIT DX**

*MAGFIT EX procedure is as same as this procedure.*

---

**Advantages**

The clinical procedure for MAGFIT magnetic attachments is very simple and easy. Abutment tooth preparation and dental lab processing consists of basic procedures such as root canal treatment, root surface preparation, root cap fabrication, and magnetic assembly pick-up in the overdenture without the need for special tools. MAGFIT is a highly advanced dental treatment which allows an extension of clinical application possibilities using relatively simple procedures.

---

01 **Examination**

In this case, a lower canines-supported overdenture will be fabricated. MAGFIT will be used as the retainers on the abutment teeth.

02 **Abutment tooth preparation**

Root canal treatment and root surface preparation are carried out. Insert a notch into root canal to avoid root cap rotation. Root cap preparation should be carried out in the usual manner.

03 **Selection of magnetic attachment**

Place the MAGFIT Space Gauge on top of the abutment tooth to check that the diameter is sufficient and then choose the suitable magnet size and strength.

04 **Waxing up with keeper**

The heated keeper should be placed on the wax pattern parallel to the occlusal plane.

05 **Cementing the root cap**

After pickling and polishing the root cap, cement the root cap onto the abutment tooth.

06 **Preparation for magnet pick-up**

After positioning the magnetic assembly on the keeper, install the denture with a hole to confirm that there is sufficient space between the magnetic assembly and the denture base.

07 **Sandblasting**

Sandblast the magnetic assembly with alumina and then apply metal primer on the surface to increase the adhesion strength for the self-curing resin.

08 **Magnetic assembly pick-up**

Place the magnetic assembly on the keeper in the oral cavity. Apply self-curing resin between magnetic assembly and the denture base through the hole. After curing, remove the denture. Magnetic assembly pick-up should be carried out 1-2 weeks after the denture adjustment is finished.

09 **Completion of magnet-denture**

Installed finished magnet-denture is shown.

---

Clinical case provided by Dr. M. Miyao, Professor, Asahi University, Japan
BASIC Clinical Procedures for MAGFIT™ SX

Advantages
0.4mm slide mechanism adjust the settlement gap between abutment and tissue. This system makes installation of the magnet on the denture at the laboratory possible. 3 kinds of accessories are included in the package, Plastic dummy, Washer type space, and Metal spacer.

01 Abutment tooth formation and Root coping fabrication
Prepare the root coping referring MAGFIT RKR clinical procedure.

02 Impression collection
Collect the impression for the abutment tooth with keeper attached by using the personal tray.

03 Plastic dummy and Washer type spacer installation
Make a working model. Fix the plastic dummy on the surface of the root coping, by using the instant adhesive material, and press the washer type spacer to the keeper. Then, undercut area between the dummy and the coping should be blocked out with a model repair material.

04 Denture Fabrication
Polymerize according to a conventional method, remove it, and then polish the burr.

05 Removal of plastic dummy
Remove the plastic dummy with a groove such as a fissure bur. At this time, do not scratch the space for the magnetic assembly (particularly the side).

06 Removal of washer type spacer
Using an instrument such as Evans, remove the washer type spacer and tidy the inside.

07 Preparation of the magnetic assembly
Prepare the magnetic assembly. Attach the metal spacer to the attractive face and seal it with wax.

08 Mounting of the magnetic assembly
After temporarily attaching the magnetic assembly with cyanoacrylate, fill the space of the denture and the magnet assembly with self-curing resin by brush filling.

09 Removal of metal spacer
Remove the wax with a steamer and clean, then remove the spacer.

This clinical case procedure is provided by Dr. Nakao (Onomichi city, Hiroshima Prefecture)
BASIC Clinical Procedures for MAGFIT™ RK

01 Preparatory treatment
After endodontic treatment, check the root canal in terms of the length, filling condition, curvature shape and the teeth arrangement through the radiograph.

02 Root surface preparation
Remove all the softened dentin to leave well-conditioned dentin on the surface of the tooth root.

03 Completion of root surface preparation
For easy installation of the MAGFIT RK please set the root surface parallel to the occlusal plane.

04 Root canal treatment
Standard root canal treatment is carried out using a Peeso's reamer. The dentin surface should be the same level as the gingival margin. The length of blockade area should be more than 3mm from the root apex.

05 Keeper trial
Trial fit the keeper post into the root canal.

06 Preparation for keeper insertion
Apply resin to the outside surface of the root post. Fill the root canal with composite resin before inserting the MAGFIT RK.

07 Inserting the MAGFIT RK
Apply composite resin to the outside surface of the keeper excluding the attractive face for a firm fit to the root canal. Insert the MAGFIT RK into the root canal.

08 Forming the resin copings
Polish and form the resin coping taking care not to damage the keeper.

09 Completion of resin coping
Remove excess resin to prevent gingivitis.

Clinical case provided by Dr. K. Nakao, Dental clinic, Hiroshima, Japan
Dental Magnetic Attachments for Implants Use

MAGFIT™ IP
Compatible with Major Implant Systems

By using a magnet for the implant, harmful lateral forces can be released, reducing the burden on the abutment. Dome type with a spherically shaped attraction face or resin capped SX type respond to the oscillation of the free end denture at the time of occlusion.

**Advantages**

- Suitable for edentulous cases
- The number of implants required can be minimized
- A simpler superstructure design can be achieved
- Magnet Type variation expands the application possibilities
- Can be used in conjunction with MAGFIT magnetic attachments for natural tooth roots

---

**Product Lineup**

<table>
<thead>
<tr>
<th>Type</th>
<th>Flat type</th>
<th>Dome type</th>
<th>SX type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Features</td>
<td>Firm retention force</td>
<td>Rotation Function</td>
<td>Slide with Rotation Function</td>
</tr>
<tr>
<td></td>
<td>Standard specification</td>
<td>Suitable for Free and Saddle denture</td>
<td>Suitable for Free and Saddle denture</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attractive forces (gf)</th>
<th>750</th>
<th>600</th>
<th>550</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Leakage Magnetic Field</th>
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<th>0.003T</th>
<th>0.003T</th>
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<table>
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<tr>
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<th>Ø4.9×4.5</th>
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<tbody>
<tr>
<td>DXFL</td>
<td>1.3</td>
<td>1.4</td>
<td>1.5</td>
</tr>
<tr>
<td>DXD</td>
<td>0.4</td>
<td>1.6</td>
<td>0.4</td>
</tr>
</tbody>
</table>
**MAGFIT IP-B Series**

MAGFIT IP-B series is compatible with Branemark Implant system.
- There are three length to be able to adapt to each patient’s gingival condition.
- It has TiN-coating at the attractive face not to be worn.
- It is tightened by using the JIS standard 1.3mm hexagonal driver.

### Specifications

**Product Lineup**

<table>
<thead>
<tr>
<th>Magnetic Assembly [Flat]</th>
<th>Keeper Construction</th>
<th>Attractive force</th>
</tr>
</thead>
<tbody>
<tr>
<td>DXFL</td>
<td>30 type</td>
<td>750 gf</td>
</tr>
<tr>
<td>BFD30</td>
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<td>40 type</td>
<td>BFD40</td>
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<td>55 type</td>
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<td>SXFL</td>
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<table>
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<tr>
<td>40 type</td>
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<td>Attractive force</td>
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</tr>
<tr>
<td></td>
<td>540gf</td>
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</tr>
</tbody>
</table>

### Materials
- Keeper Screw : AUM20
- Keeper attractive face is coated by TiN for wear resistance.
- Abutment ring : Ti

### Compatible implant models
- Branemark: Regular Platform φ3.75, φ4.0
- 3i: External type φ3.75, φ4.0

For more detail information, please make an enquiry.

### Tightening torque
**Recommendation**
- 25 to 30N•cm

### Tools
- To tighten the keeper, it requires a specialized tool or JIS Standard 1.3mm hexagonal driver.
MAGFIT™ IP-I Series

MAGFIT IP-I series is compatible with ITI implant system.

- There are three length to be able to adapt to each patient’s gingival condition.
  A taper is added to the fitting part of the fixture to prevent loosening of the screw
- It has TiN-coating at the attractive face not to be worn.
- It is tightened by using the JIS standard 1.3mm hexagonal driver.

Specifications

Product Lineup

<table>
<thead>
<tr>
<th>Keeper Construction</th>
<th>Magnetic Assembly [Flat]</th>
<th>Magnetic Assembly [Dome]</th>
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</thead>
<tbody>
<tr>
<td>DXFL</td>
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<table>
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<th>Keeper Construction</th>
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<td></td>
<td>IFX45</td>
</tr>
<tr>
<td>Attractive force</td>
<td>550 gf</td>
</tr>
</tbody>
</table>

Materials

- Keeper Screw: AUM20
- Keeper attractive face is coated by TiN for wear resistance.
- Abutment ring: Ti

Compatible implant models

  Standard plus implant, No.043.050S-054S, 043.151S-154S, 043.250S-234S(SLA)
- Swiss Plus: φ4.8mm D platform, No.SPB8-14, SPWB8-14, OPB8-14, OPWB8-14
  For more detail information, please make an enquiry

Tightening torque Recommendation

25 to 30N•cm

Tools

To tighten the keeper, it requires a specialized tool or JIS Standard 1.3mm hexagonal driver.
MAGFIT™ IP-F Series

MAGFIT IP-F series is compatible with Frialit2 Implant system.
- This is compatible with 3.8mm, 4.5mm type.
- There are three length to be able to adapt to each patient’s gingival condition.
- It has TiN-coating at the attractive face not to be worn.
- It is tightened by using the JIS standard 1.3mm hexagonal driver.

Specifications

Product Lineup

<table>
<thead>
<tr>
<th>Magnetic Assembly</th>
<th>Keeper Construction (mm)</th>
<th>Attractive force</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat</td>
<td>Ø4.7</td>
<td>0.5 1.7</td>
</tr>
<tr>
<td></td>
<td>Ø4.7</td>
<td>0.5 1.0</td>
</tr>
<tr>
<td></td>
<td>Ø4.7</td>
<td>0.5 5.0</td>
</tr>
<tr>
<td>Dome</td>
<td>Ø4.7</td>
<td>0.7 1.7</td>
</tr>
<tr>
<td></td>
<td>Ø4.7</td>
<td>0.7 3.0</td>
</tr>
<tr>
<td></td>
<td>Ø4.7</td>
<td>0.7 5.0</td>
</tr>
</tbody>
</table>

Materials
- Keeper Screw : AUM20
- Keeper attractive face is coated by TiN for wear resistance.
- Abutment ring : Ti

Compatible implant models
Frialit2(Zive) φ 4.5, φ 3.8

Tightening torque Recommendation
20 to 25N·cm

Tools
To tighten the keeper, it requires a specialized tool or JIS Standard 1.3mm hexagonal driver.
MAGFIT™ IP-V Series

MAGFIT IP-V series is compatible with Replace select Implant system.
- This is compatible with only regular platform.
- There are three length to be able to adapt to each patient’s gingival condition.
- It has TiN-coating at the attractive face not to be worn.
- It is tightened by using the JIS standard 1.3mm hexagonal driver.

### Specifications

#### Product Lineup

<table>
<thead>
<tr>
<th>Magnetic Assembly [Flat]</th>
<th>Keeper Construction</th>
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<th>Ø4.7</th>
<th>Ø4.7</th>
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</thead>
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<tr>
<td>DXFL</td>
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<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>40 type</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>55 type</td>
<td>5.5</td>
<td>5.5</td>
<td>5.5</td>
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<table>
<thead>
<tr>
<th>Attractive force</th>
<th>750 gf</th>
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<tbody>
<tr>
<td>DXFL</td>
<td>VFD30</td>
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<tr>
<td></td>
<td>VFD40</td>
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<tr>
<td></td>
<td>VFD55</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Magnetic Assembly [Dome]</th>
<th>Keeper Construction</th>
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<th>Ø4.7</th>
<th>Ø4.7</th>
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<td></td>
<td>40 type</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>55 type</td>
<td>5.5</td>
<td>5.5</td>
<td>5.5</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Attractive force</th>
<th>600 gf</th>
</tr>
</thead>
<tbody>
<tr>
<td>DXD</td>
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<tr>
<td></td>
<td>VDD40</td>
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<tr>
<td></td>
<td>VDD55</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attractive force</th>
<th>550 gf</th>
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</thead>
<tbody>
<tr>
<td>SXFL</td>
<td>VFX30</td>
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<tr>
<td></td>
<td>VFX40</td>
</tr>
<tr>
<td></td>
<td>VFX55</td>
</tr>
</tbody>
</table>

#### Materials
- Keeper Screw: AUM20
- Keeper Screw attractive face is coated by TiN for wear resistance.
- Abutment ring: Ti

#### Compatible implant models
- NB Replace Select Straight / Tapered
- Regular Platform (Ø4.3mm)

For more detail information, please make an enquiry.

#### Tightening torque Recommendation

25 to 30N-cm

#### Tools
To tighten the keeper, it requires a specialized tool or JIS Standard 1.3mm hexagonal driver.
**MAGFIT™ IP-A Series**

MAGFIT IP-A series is compatible with Astratech Implant system.
- It is compatible with regular platform
- It has 3 lengths for matching to the gingivvar thickness
- It has TiN-coating at the attraction face not to be worn.
- To tighten the keeper, it requires a specialized tool or JIS Standard 1.3mm hexagonal driver.

### Specifications

**Product Lineup**

<table>
<thead>
<tr>
<th>Keeper Construction</th>
<th>L type</th>
<th>Ø4.7</th>
<th>Ø4.8</th>
<th>Ø4.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnetic Assembly [Flat]</td>
<td>AFD10L</td>
<td>1.0</td>
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<td>4.0</td>
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<td>AFD25L</td>
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<td>3.7</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>AFD40L</td>
<td>2.0</td>
<td>3.7</td>
<td>4.2</td>
</tr>
<tr>
<td>Magnetic Assembly [Dome]</td>
<td>AFD2SS</td>
<td>1.6</td>
<td>3.7</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>AFD40S</td>
<td>2.0</td>
<td>3.7</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>ADD10L</td>
<td>1.2</td>
<td>2.7</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>ADD25L</td>
<td>1.2</td>
<td>2.7</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>ADD40L</td>
<td>1.2</td>
<td>2.7</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>ADD2SS</td>
<td>1.2</td>
<td>2.7</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>ADD40S</td>
<td>1.2</td>
<td>2.7</td>
<td>4.2</td>
</tr>
</tbody>
</table>

**Attractive force**
- DXFL: 750 gf
- SXFL: 550 gf
- ADD type: 600 gf

**Compatible implant models**
- OsseoSpeed 4.5 / 5.0
- Osseo Speed 4.0S

**Magnetic Assembly**
- DXFL: Flat
- SXFL: Dome

**Materials**
- Keeper Screw : AUM20
- Keeper Screw attractive face is coated by TiN for wear resistance.
  For more detailed information, please make an enquiry.

**Compatible implant models**
- Astratech: Osseo speed (Please see the chart)
  For more detailed information, please make an enquiry

**Tightening torque Recommendation**
- S type: 20 to 25N·cm
- L type: 25 to 30N·cm

**Tools**
To tighten the keeper, it requires a specialized tool or JIS Standard 1.3mm hexagonal driver.
Clinical Applications for MAGFIT™ IP

Clinical cases

4 implant case  2 implant case

Hex driver for keeper assembling

MAGFIT IP Keeper is available to tight with the following driver.

<table>
<thead>
<tr>
<th>Manufacture</th>
<th>Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astratech</td>
<td>Hex driver 0.05inch</td>
</tr>
<tr>
<td>Calcitek</td>
<td>Hex driver 0.05inch</td>
</tr>
<tr>
<td>SwissPlus / Screw-Vent</td>
<td>Hex driver 1.25mm</td>
</tr>
</tbody>
</table>

Hex driver for MAGFIT IP

JIS 1.3mm hex driver is required. keeper should be tightened with the recommended torque.

<table>
<thead>
<tr>
<th>For pre-tightening</th>
<th>For torque controller</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3HDI</td>
<td>1.3MDI</td>
</tr>
</tbody>
</table>

※1) Equivalent to the 0.05 inch hex driver

Torque wrench for Straumann implant (No.046.119)

※1) Equivalent to the 0.05 inch hex driver

Torque wrench for Branemark system (Nobel Biocare)

Contra-angle and Torque driver for 3i Implant system (No. CATDB)

(Can be attached to the other common hand pieces)
Follow standard procedures for implantation.

Through full mouth radiograph, confirm the condition of the jawbone.

Screw the keeper / abutment ring into the fixture. Note: Please use the MAGFIT IP specific driver at the recommended torque setting.

Place the magnetic assembly on the keeper, take the impression, and fabricate the working denture model. Denture design should be carried out in the usual manner.

Denture fabrication is done according to standard procedure. Note: Please keep enough space in the denture base for the magnetic assembly.

Fabricate a hole into the denture base. Through the hole, apply adhesive resin carefully between the magnetic assembly and the denture taking care not to move the magnetic assembly out of alignment.

After lifting the denture base with magnetic assembly out of the oral cavity, cement the magnetic assembly completely. Note: Please block out excess resin with use of impression material.

Completion of the final magnet-denture.

Installed finished magnet-denture is shown.
MAGFIT™

Magnetic Attachments for Natural Tooth Roots

**MAGFIT®DX**
1000/800/600/400

- Space gauge
- Housing pattern
- Rubber mold
- Keeper setter
- Keeper carrier

**MAGFIT®EX**
600W/400W

- Space gauge
- Housing pattern
- Rubber mold
- Keeper setter
- Keeper carrier

**MAGFIT®RK**

- Keeper carrier
- Housing pattern
- Rubber mold
- Tweezers
Accessories

Magnetic Attachment for Implants

**Magnetic assembly**

- **Flat type**
- **Dome type**
- **SX type**

- **Housing pattern**
- **Rubber mold**
- **Plastic Dummy**
- **Metal Spacer**
- **Washer type Spacer**

- *These accessories are packed with SX type.

**Keeper**

- **Custom-made Driver**
  - **For pre-tightening**
  - **For torque controllers**
    - Exclusive for Straumann torque wrench
  - **For torque controllers**

- **1.3HDI**
- **1.3MDI**
- **1.3MDB**

*Attention Please use Aichi 1.3mm JIS driver tip which is compatible with implant-maker specific torque drivers and torque controllers. Aichi 1.3mm JIS hexagonal driver for hand-tightening use is also available.*
The IRPMD was established in 1996 to help foster the research and education for magnetic applications for the dental field. The IRPMD continues to expand its scope with the cooperation of a group of dedicated researchers from 16 countries all over the world. We have held 8 IRPMD symposiums so far and expect to hold more in the near future.