The Innovative Dentaurum Lingual System

Generations ahead

World’s First: Nickel free* Lingual Brackets

* in accordance with ISO 6871-1 (1994)
The innovative, user-friendly product

magicSlide®

**Easy arch wire insertion – no longer necessary to work with a mirrored image**

Due to the magic® bracket’s unique geometrical form, arch wires can be inserted occlusally. The arch wire slips into the slot as if by magic®. The other advantage of the occlusal insertion is that the clinician can work without requiring a mirror. The archwire is always perfectly in view. This eases work and saves time considerably.

**Combination of occlusal and horizontal slot direction**

**Ideal position of the arch wire in the slot – easy ligation**

The innovative combination of occlusal and horizontal slot directions enables the arch wire to be automatically pressed into the slot. This makes ligating easier than ever as the arch wire is ligated into place without instruments. The intelligent slot direction also enables the force required in the treatment to be transferred in a more direct, consistent and therefore more effective manner.
IntelliBend® – the anatomical shaped base

Easy ligation – excellent patient comfort

The base of the magic® anterior bracket is angled in accordance with the tooth anatomy. This provides maximum adaptation to the tooth and therefore allowing the brackets to be positioned with minimal gingival distance, close to the center of resistance resulting in an optimal point of force application. The hooks are more angulated towards the gingiva which makes ligating easier. This construction detail guarantees a thinner and a more even layer of adhesive; the prerequisite for a perfect bond.

Square arch wire cross-section

Reduced, therapeutically sensible forces

The square cross-section of the slot and the square geometry of the arch in the magic® Lingual System enable the transfer of a reduced and therefore more favorable force. This reduces the danger of root resorption to a minimum.
OrthoSlot\textsuperscript{®} – the additional horizontal slot

More freedom of treatment with easy handling – more comfortable for the patient

The magic\textsuperscript{®} brackets for the upper premolars and molars have been designed with an additional, integrated, horizontal round slot (diameter 18), which makes it possible to affix sectional arch wires, uprighting springs or other attachments safely and easily. These parts require less fixing elements. The fact that the patient does not feel any protruding wires enhances comfort considerably.

Fewer types of brackets

Excellent identification – economical treatment

The innovative magic\textsuperscript{®} Lingual System is available with only seven different types of brackets. This allows an economical stock keeping. The various parts are very easy to identify. For additional identification, the lower anterior brackets are laser marked.

U.S. Patent No. 5,238,402 No. 5,326,259
EP No. 0327628
**CuspiShape® – the special geometrically shaped upper cuspid brackets**

**Extremely easy arch wire ligation, even in overcrowded cases**

The distal section of the lingual slot wall has been shortened considerably, which creates more space for ligating the mushroom shaped arch wires, therefore, quicker treatment procedures. The creative geometry simplifies ligating significantly.

**One-piece construction with integrated laser base**

**Excellent biocompatibility**

Only one material is required for the one-piece construction combined with the patented laser retention. Galvanic corrosion, as experienced with mesh bases and solder, is prevented. The patient can rely on the excellent biocompatibility of the magic® brackets.

U.S. Patent No. 5,944,517
EP No. 0327628
Compact shape

Minimum size – maximum effect and maximum patient comfort

With the aid of FEM (Finite Element Method) the size of the magic® brackets could be significantly reduced without compromising maximum functionality. This is especially important in the lingual therapy as the adult patient not only has high expectations regarding his appearance but also regarding comfort. A successful combination of the orthodontist’s requirements for a modern lingual bracket combined with the patient’s expectations has been achieved with the magic® bracket.

Integrated hooks

Minimum irritation of the tongue

The magic® bracket hooks are integrated within the bracket and not an additional element, as is usually the case. This design unites an ideal combination of high mechanical strength and patient friendly construction. Possible irritation of the tongue caused by hooks protruding into the lingual area are effectively reduced. This also enhances easier cleaning and therefore improves oral hygiene.
Significantly improved patient comfort

Super smooth surfaces and super rounded edges

Excellent comfort

The concept in designing the magic® bracket was not only the perfect function but also to achieve an optimal patient friendly solution in order to significantly improve the lingual treatment. The results of these efforts have produced super smooth surfaces and extremely rounded edges in order to cause as little irritation as possible to the patient’s tongue.

Nickel free*, CoCr special alloy

Excellent biocompatibility

Dentaurum has made great progress in creating biocompatible products in orthodontics with the production of the nickel free* CoCr alloy which was especially developed for the dental market. This CoCr alloy has been successfully used worldwide for many years in prosthetics. Galvanic corrosion, as experienced with mesh bases and solder, is prevented due to the integration of the patented laser retention, which considerably improves the biocompatibility.

*nickel free in accordance with ISO 6871-1 (1994)
Highlights of the magic® bracket at a glance (upper 3)

**Integrated hook**
- **Integrated hook** – for greater patient comfort

**Super smooth surfaces**
- **Super smooth surfaces** – for greater patient comfort

**IntelliBend®**
- **IntelliBend®** – anatomical bend for an excellent fit

**Patented laser base**
- for excellent adhesion and easy debonding
Great curvature

Great curvature – for greater patient comfort

Larger rounding radius

Larger rounding radius – for greater patient comfort

CuspiShape®

CuspiShape® – effectively angled corner of the upper cuspid for extremely easy arch wire insertion.

Super rounded edges

Super rounded edges – for greater patient comfort
Highlights of the magic® bracket at a glance (upper 4-6)

Super round edges

- Super round edges – for greater patient comfort

Square, occlusal slot

- Square, occlusal slot – for easy arch wire insertion

Funnel shaped opening

- Funnel shaped opening – of the OrthoSlot® for easy insertion of elements

Super rounded edges

- Super rounded edges – for greater patient comfort
Angled slot entry – for even easier arch wire insertion

OrthoSlot® – enables fixation of additional elements.

Super smooth surfaces – for greater patient comfort.
magic® – the innovative Lingual System

**A complete system including all the essential components**
The magic® Lingual System is the only system available on the market that offers all the essential components, all from the same manufacturer. This guarantees an effective and time saving treatment, since all individual parts are perfectly matched. Apart from the brackets, the Dentaurum Lingual System consists of the following components:

**Lingual tubes**
**Completing the system**
Various lingual tubes complete this comprehensive system in connection with magic® brackets and enables the orthodontist to work on individual treatment possibilities.

**magic® arch wires**
**A large spectrum**
It is essential to provide the orthodontist with a large range of arch wires. magic® arch wires are available in various shapes, thicknesses and materials.

**Pliers and instruments**
**Efficiently working with system specific instruments**
The specially shaped lingual pliers in Premium-Line quality, the extra Mosquito-forceps and the LinguBall instrument make handling easier, therefore, allowing the orthodontist to work more effectively.
LinguForm – arch turret

The faster way to achieve perfectly formed arch wires

A small, but essential accessory, that makes bending the arch wires easy and precise. Time saving, yet excellent results.

LinguSet

For optimal positioning of the lingual brackets

The LinguSet positioning unit enables perfect, safe and efficient positioning of the brackets, with excellent results. Easy to use and well designed.

Extensive line of accessories for the Set-up

Perfectly matching accessories for excellent results

The success of the lingual treatment lies in a precise set-up. Apart from the LinguSet positioning unit, there is also an extensive line of accessories such as saw, model burs, duplicating silicone and special waxes for the set-up.

Extensive line of accessories

Completing the system

The magic® Lingual System program is completed with a range of accessories such as wax, plaster burs and “Elasto-force“ chains.
The Dentaurum Lingual System was developed to offer the highest degree of patient comfort and at the same time to provide an easy-to-use system for the orthodontist. The result was a square slot cross-section, which decisively facilitates the arch wire insertion by combining an occlusal with a horizontal slot direction. Subsequently a complete arch wire program with square cross-sections was developed. This includes the various materials necessary for each therapeutic treatment as well as the special arch wire shapes required for a successful lingual treatment.

**magic® – recommendation for arch wire sequence**

The following recommendations for the sequence in which the arch wires are to be used is based upon the work of Dr. Olivier Sorel, University of Rennes (France). In his recommendations he considered various material qualities and their subsequent influence on the treatment.

### Initial phase 1

**Leveling**
Start with the super elastic, round Tensic® arch wire, dimension 12 with constant but gentle forces, increasing wire dimensions to 16 and 18.

### Initial phase 2

**Gentle forces, minimum torque control**
Super elastic, square Tensic® arch wire, dimensions 20 x 20 as before with gentle forces, followed with the first light torque control.

### Intermediate phase

**Higher forces, medium torque control**
Square rematitan® SPECIAL arch wires, dimensions 20 x 20, for torque control with greater forces.

### Final phase 1

**Maximum forces, high torque control**
Square remanium® arch wires, dimensions 19 x 19, for arch leveling with higher forces and good torque control. In addition, apply a special arch wire in the anterior region, dimensions 20 x 20, to fill the slot and exert exact forces, and at the same time in the posterior segment with dimensions 19 x 19 with more gentle forces.

### Final phase 2

**Maximum torque control**
Square remanium® arch wires, dimensions 20 x 20, to act as a final arch with highly precise torque control.
**Mushroom shape**

*Quicker completion of the individual arch*

The preformed arch wire already contains the correct leveling angle required for the step between the cuspid and premolars.

**Wide spectrum**

*All treatment requirements are covered*

Magic® arch wires are available in many different shapes, thicknesses and materials. This means both the individual patient requirements as well as the orthodontist's treatment preferences are taken into consideration and optimally guaranteed.

**Tensic®**

*Thermoactive nickel-titanium arch wires*

Tensic® arch wires are super elastic and easy to bend at room temperature. The Shape-Memory-Effect is the reason for the consistent transfer of gentle forces, which helps to avoid root resorption in the initial leveling phase.

**rematitan® SPECIAL**

*Titanium-molybdenum arch wires*

The rematitan® SPECIAL arches, made from a titanium-molybdenum-alloy, are nickel free* and therefore suitable for nickel sensitive patients.

**remanium®**

*Stainless steel wires and arch wires*

remanium® arch wires are the best solution when greater forces are required, or when at the end of treatment precise torque control is necessary. Remanium® arch wires are easy to bend and characterized by their smooth, friction-free surface.

**remanium® Dual**

*Special arch wire with 2 cross-sectional areas in the same wire for especially efficient treatment after extraction*

The unique remanium® Dual special arch wire has a square cross section of 20 x 20 in the anterior region and in the posterior region a diameter of 19 x 19. This means that when treatment after extraction is almost at an end, final diastema closure may be undertaken, and at the same time the corrected anteriors may be held in position.

*nickel free in accordance with ISO 6871-1 (1994)*
The lingual treatment is far more complex and time consuming in comparison to the conventional treatment with brackets, due to the obvious anatomical facts. Therefore, it is even more important to optimize all possible factors including laboratory time and patient time.

Many details within the Dentaurum Lingual System have been optimized including the range of accessories, which when calculated make a lasting improvement regarding the ratio of time input to effect, and therefore aid in increasing economy.

**LinguForm**

*A quicker and more precise completion of the individual arch*

Using the LinguForm arch turret, a smaller radius, which is usually the case in the lingual treatment, can be shaped quicker into an even arch. This is the ideal prerequisite for perfect arch wire formation.

**4 step magic® lingual arch wire pliers**

*Quicker and more exact curvatures*

With these Dentaurum Premium-Line pliers it is possible to make the 1st order wire bends which are necessary in the lingual treatment, exactly, quickly and symmetrically. It is possible to bend the wires in 0.5 mm increments from 1.5 to 3.0 mm. Larger increments can also be bent free-hand using these pliers.

**magic® Mosquito-Forceps**

*Easy and more comfortable handling*

The magic® Mosquito-Forceps are especially designed to meet the special demands of the lingual treatment. This makes ligating the arch wires easier and safer using Dentalastics® or “Elasto-Force” chains. In addition, procedures in the mouth, especially in the posterior region, are made considerably more comfortable.

**LinguBall Instrument**

*For easy and complete removal of adhesive residues*

The shape and ends of the LinguBall Instrument have been designed to suit the special working conditions during the indirect bonding technique. The C-shape is perfectly suited for the anterior region; the G-shape has been designed for the posterior region. Both sides of the instrument guarantee that adhesive residue can be easily and completely removed, even from the most difficult to reach areas in the mouth. The ball shaped end greatly accelerates the removal of excess adhesive. At the same time the shape creates a smooth, rounded transition from the edge of the bracket to the surface of the tooth, which in turn enhances oral hygiene.
LinguSet

An exact set-up and perfect positioning is extremely important for the success of the lingual treatment. This method requires indirect bonding. The orthodontist or his laboratory should therefore have a LinguSet positioning unit which completes this demanding task quickly, easily and yet precisely, so that the results may be reproducible at any time. The LinguSet positioning unit fulfills all these requirements and simplifies the work significantly.

Maintains the occlusal plane exactly

**Optimal treatment results**

An extra positioning plate guarantees the occlusal plane to be parallel to the table/arch level. This means that the brackets can be fixed at the level of the arch.

Optimally suited system-components

**Effective working procedures**

The LinguSet range of accessories includes everything necessary for easy, and more importantly reproducible positioning, from the anterior positioning aid to the posterior setting aid for brackets and lingual tubes. All accessories are perfectly suited for easy handling and effective working procedures.

Simple operation

**Quick command of the positioning technique**

There are specially designed aids available to assist in every single sequence which makes the working procedure easy and manageable. This makes the individual working steps simple to learn.

Final state of treatment is predictable

**Optimal treatment results**

When aligning the anterior teeth, the LinguSet positioning system allows the final arch to fill the slot with the aid of the bracket holder in the positioning plate. This makes the treatment results obvious and finely adjustable for both orthodontist and patient from the very beginning. This is not possible with any other manual system.
Other accessories

Apart from the major products for the lingual treatment, Dentaurum also offers a large assortment of different accessory products, many of which are ideally suited for this specialized field of work. The user couldn’t have it any easier: all in the proven and reliable Dentaurum quality.

**LinguSil**

*The special silicone for precise matrix construction*

LinguSil is a modern silicone, which is characterized by its precise reproduction details and ideal shore hardness.

**magic® SUPER “Elasto-Force” chains with and without connectors**

*Easier intra-oral work*

The lingual treatment is especially challenging for the orthodontist due to the limited space available in the patient’s mouth. The magic® SUPER “Elasto-Force” chains allow for a more patient friendly procedure.

**Saw**

*Manageable size*

The small manageable saw with replaceable saw blades for orthodontics has been popular in the Dentaurum program for many years. There are of course, replacement saw blades available.
Wax sheets for the Set-up

Super carving characteristics
The pink sheet wax is very easy to re-shape and carve and therefore well suited for the set-up. Low melting point of 64 °C / 147 °F.

Super hard metal plaster bur for the Set-up

For quick and precise work
The plaster burs are made from super hard metal, cross cut and precision milled. They are available in conical and in reverse conical shape, with a rounded head, extra coarse for quick work.

Rapidur® plaster

Extra hard and super white
The classic in our program is characterized by its fast setting, extra hardness and pure white color.
Courses and events

**Intensive and individualized information**
Dentaurum offers various courses and events surrounding the magic® lingual treatment. Whether a first time user or a customer with knowledge from another similar technique, there is a suitable course available for everyone. The current information can be found in detail on the internet under www.dentaurum.de, or in the current course program.

Patient brochures, practice posters

**Attractive support for patient information**
When treating adults, it is particularly important to discuss and explain the relevant treatment procedures. We will support you in this essential, private service of motivating patients with the aid of attractive posters, supportive patient brochures and other expressive materials.

Hotline

**Competent, individualized and efficient advice**
Highly acclaimed, due to competence and efficiency: the Dentaurum telephone hot line. In comparison to many of our competitors, you will receive help and support from Dentaurum whenever necessary. Questions are answered reliably, quickly and individually.