

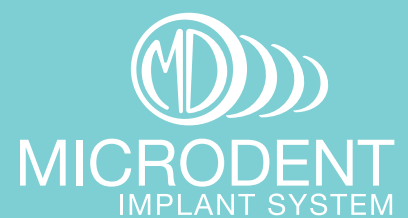
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# MICRODENT ORTHODONTICS

PRODUCT CATALOGUE

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[www.microdentsystem.com](http://www.microdentsystem.com)





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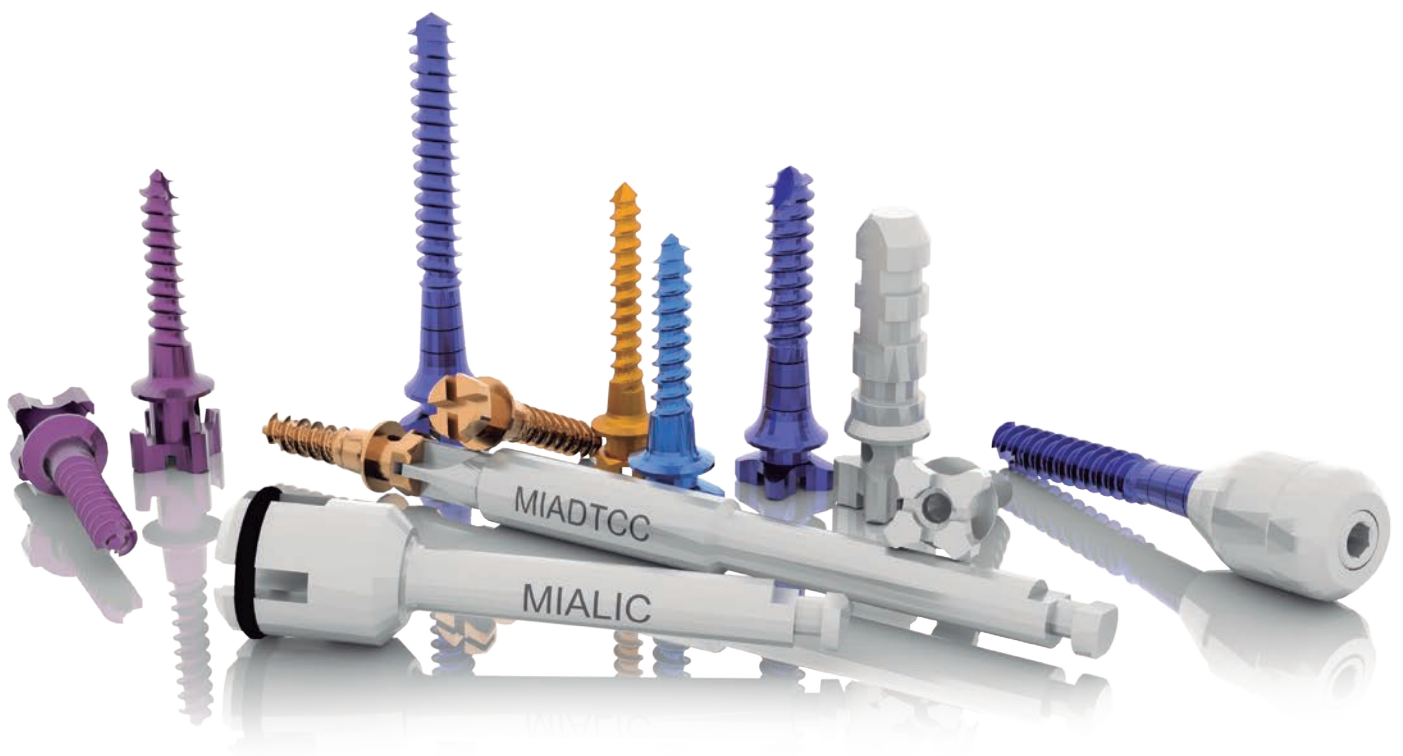
**25**

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**Clinical cases**

# MICRODENT ORTHODONTICS

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# VERSATILE MICRO-IMPLANT

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The cylindrical threaded shaft ensures optimal anchoring in the bone and withstands a greater load than the conical construction.



The head of the micro-implant has a quadrangular geometry with 0.018x0.025" arch grooves that allow the insertion of arches and their fixing with metal ligatures.



**Each orthodontic treatment is unique, so the micro-implants have to be adjusted to each type of treatment. Microdent has five different models that provide the perfect solution for any orthodontic condition. The new thread of the micro-implants gives them self-drilling and self-tapping capabilities to ensure easy and safe insertion into the bone.**

# VERSATILE MICRO-IMPLANTS

## VERSATILE MICRO-IMPLANT



Detail of the Versatile Micro-implant head



Detail of the self-drilling tip of the Versatile Micro-implant

The Versatile system consists of three models, Versatile, Versatile Short and Versatile Orthopaedic, all of them for temporary orthodontic use. They can be used in the maxilla or mandible as an alternative to conventional anchorage methods and are manufactured in grade 5 titanium, according to ISO 5832-3:2012, a biocompatible alloy that provides better mechanical parameters, elastic behaviour and surface qualities. Its main function is to serve as an independent anchorage point and thus avoid transmitting unwanted reaction forces to other teeth during orthodontic treatment.

Micro-implants can be functionally loaded without a healing phase. Immediate loading promotes contact with the adjacent bone and promotes anchorage quality. With its new self-drilling and self-tapping thread, it makes it easier to install and the shape of the head inhibits gingival overgrowth.

The cylindrical threaded shaft ensures optimal anchoring in the bone and withstands a greater load than the conical construction.

Applied for the most demanding cases, the head of the micro-implant has a quadrangular geometry with 0.018x0.025" arch grooves that allow the insertion of arches and their fixing with metal ligatures. In the lower part of the head there is a 0.90 mm diameter hole for traction with different elements.

It also has an internal thread that allows the placement of various attachments that allow us to perform a greater number of specific direct and indirect couplings.

All micro-implants are delivered in sterile form to facilitate the clinical workflow.

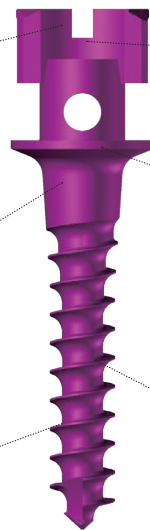
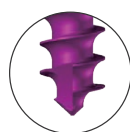
Bracket type head with internal thread that allows the placement of various attachments.



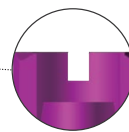
Mucous membrane protection collar. Without thread for the perfect seal. For optimal adaptation of the gingiva and prevents irritation.



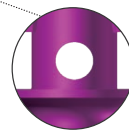
Inverted thread design for improved tensile strength, self-drilling and self-tapping for easy insertion. Guarantees excellent primary stability without the need for drilling with a guide drill.



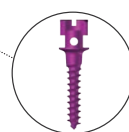
Quadrangular geometry with 0.018x0.025" arch grooves that allow the insertion of arches and their fixing with metal ligatures.



0.9 mm hole for traction with elastic thread, retroligatures, etc.



Grade 5 titanium with high biocompatibility and greater rigidity for load transmission.



## VERSATILE MICRO-IMPLANT

| Ø Diameter | L=7     | L=9     | L=11    |
|------------|---------|---------|---------|
| 1.60       | MIA1607 | MIA1609 | MIA1611 |

Head height of 2 mm which is favourable for ligatures and arches.

## SHORT VERSATILE MICRO-IMPLANT

The Short Versatile Micro-implant, with a smaller head, is designed for a decrease in height and a lower profile in the construction of the devices that are designed for the upper jaw, improving patient comfort.

| Ø Diameter | L=9      | L=11     |
|------------|----------|----------|
| 1.60       | MIAC1609 | MIAC1611 |

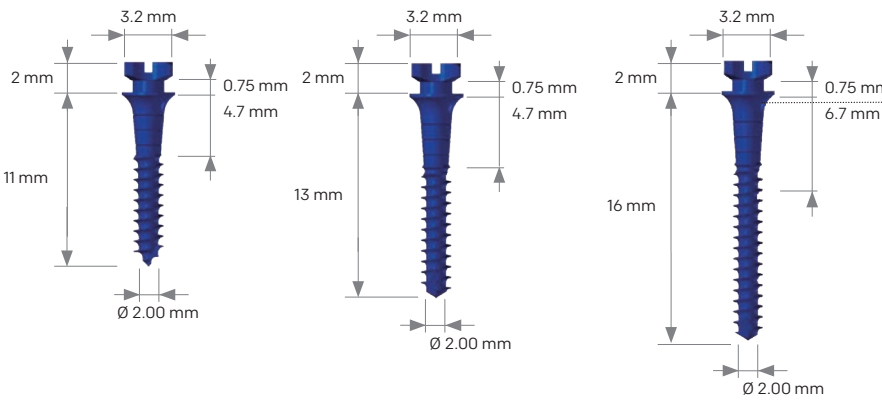
Reduced head; lower height and profile in the device design.

# VERSATILE MICRO-IMPLANTS

## ORTHOPAEDIC VERSATILE MICRO-IMPLANT

A version of the Short Versatile Micro-implant with a difference in the external thread diameter which in this case is Ø 2.00, specifically for palatal use. Designed to withstand higher forces, such as those in skeletally supported expanders (MARPE). It comes in three lengths, 11 mm, 13 mm and 16 mm, and has a capacity for self-drilling and self-tapping.

| Ø Diameter | L=11     | L=13     | L=16     |
|------------|----------|----------|----------|
| 2.00       | MIAC2011 | MIAC2013 | MIAC2016 |





This area has markings every 1 mm to control insertion more precisely.



# ATTACHMENTS

## SEALING SCREW

Its function is to protect and cover the internal thread of the micro-implant and to protect the patient from possible injuries and discomfort.

MIATC



## RETENTION SCREW

Allows the lateral bracket and palatal bar support to be attached to the head of the micro-implant.

MIATR



## PALATAL BAR SUPPORT

It is used to solder maxillary palatal devices on micro-implants. Available in analogue and digital format.

MIASBP



## LATERAL BRACKET

Anchorage and placement of arches through micro-implants.

MIABKL



## REPLICAS AND TRANSFER DEVICE

Taking impressions for maxillary-palatal orthodontic devices. Available in analogue and digital format.

MIARI

MIACRI

MIACTCC

MIATUCB



## EXPANDER ASSEMBLY

Assembly to be attached to a expander, consisting of the guide ring for micro-implant (ATMIAC) and the closing cap for the guide ring (ATTCMIA), which allows the guided insertion of the micro-implants. Available in analogue and digital format.

CATMIAC



# STANDARD MICRO-IMPLANT

Its new, more self-drilling and self-tapping thread facilitates placement, and the shape of the head inhibits gingival overgrowth.



The cylindrical threaded shaft ensures optimal anchoring in the bone and withstands a greater load than the conical construction.



# STANDARD MICRO-IMPLANTS

## STANDARD MICRO-IMPLANT



Detail of the Standard Micro-implant head



Detail of the self-drilling tip of the Standard Micro-implant

The Standard system has the same qualities as the Versatile system.

Its new, more self-drilling and self-tapping thread facilitates placement, and the shape of the head inhibits gingival overgrowth. The cylindrical threaded shaft ensures optimal anchoring in the bone and withstands a greater load than the conical construction.

The head of the micro-implant is hexagonal in shape. In the lower part of the head there is a  $\varnothing$  0.90 mm hole for traction with different elements such as coils, elastic ligatures, etc. The endo-osseous part, of variable length, has a threaded profile and has notches in the most apical part that gives it great capacity for self-drilling and self-tapping.

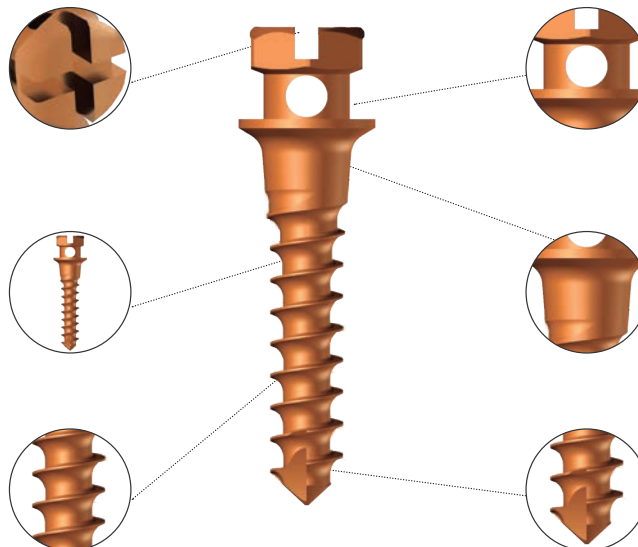
All micro-implants are delivered in sterile form to facilitate the clinical workflow.

The Standard Fine model, with a diameter of 1.30 mm, is suitable for use in the interradicular areas of the teeth.

Double system with hexagonal and knurled head for the use of a screwdriver directly on the micro-implant.

Grade 5 titanium with high biocompatibility and greater rigidity for load transmission.

Inverted thread design improves tensile strength.



Orifice  $\varnothing$  0.90 mm. Suitable for all commonly used wires, coils, elastic ligatures.

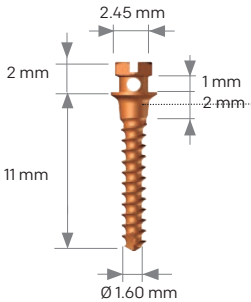
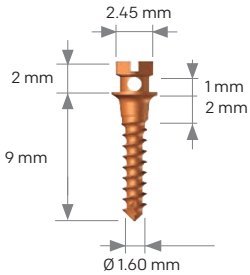
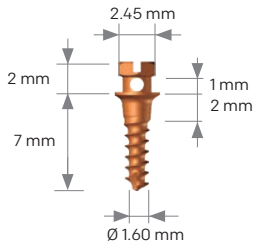
Threadless mucosal protector collar for optimal gingival adaptation.

New self-drilling and self-tapping threads for easy insertion. Guarantees excellent primary stability without the need for pilot holes.

# STANDARD MICRO-IMPLANTS

## STANDARD MICRO-IMPLANT

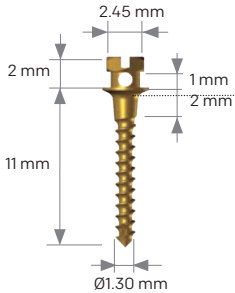
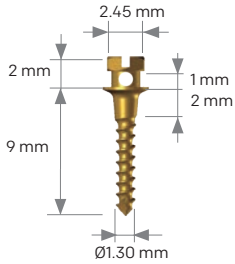
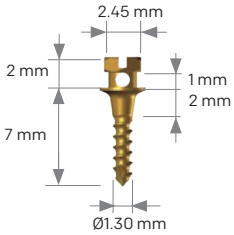
| Ø Diameter | L=7      | L=9      | L=11     |
|------------|----------|----------|----------|
| 1.60       | MIAS1607 | MIAS1609 | MIAS1611 |





## STANDARD FINE MICRO-IMPLANT

| Ø Diameter | L=7      | L=9      | L=11     |
|------------|----------|----------|----------|
| 1.30       | MIAS1307 | MIAS1309 | MIAS1311 |





# ORTHODONTIC KIT



The Orthodontic kit is prepared to operate with the Standard and Versatile systems, and supports three types of configurations: Basic, Medium and Complete, covering all possible needs.

The Orthodontics Kit includes the following items:

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KITORTO

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- Short rotary screwdriver.
- Long rotary screwdriver.
- Drill.
- Manual phillips screwdriver
- Contra-angle phillips screwdriver
- Manual spanner for Versatile Micro-implants.
- Contra-angle spanner for Versatile Micro-implants.
- Manual spanner for Standard Micro-implants.
- Contra-angle spanner for Standard Micro-implants.
- Manual screwdriver handle.

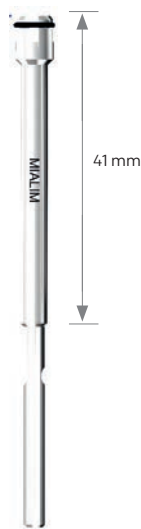


The number of micro-implants in the kit depends on the final configuration. The kit has the capacity for 36 micro-implants, which can be organised according to your needs.

# INSTRUMENTS FOR THE VERSATILE MICRO-IMPLANT FIXATION

## MANUAL SPANNER

MIALIM



## MANUAL PHILLIPS SCREWDRIVER

MIADTCM



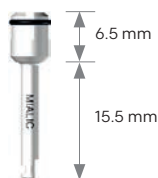
## DRILL

F1312



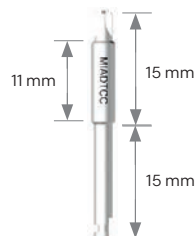
## CONTRA-ANGLE SCREWDRIVER

MIALIC



## CONTRA-ANGLE PHIL- LIPS SCREWDRIVER

MIADTCC

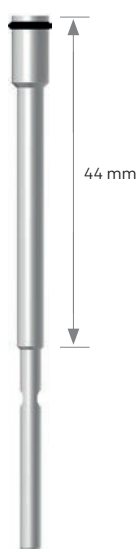


The references MIADTCM, F1312 and MIADTCC are also valid for the Standard Micro-implant.

# INSTRUMENTS FOR THE STANDARD MICRO-IMPLANT FIXATION

## MANUAL SPANNER

MIASLIM



## MANUAL PHILLIPS SCREWDRIVER

MIADTCM



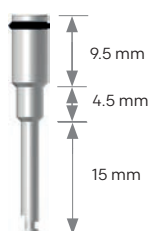
## DRILL

F1312



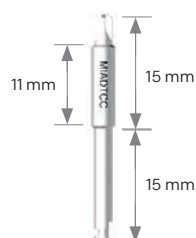
## CONTRA-ANGLE SCREWDRIVER

MIASLIC



## CONTRA-ANGLE PHIL- LIPS SCREWDRIVER

MIADTCC



The references MIADTCM, F1312 and MIADTCC are also valid for the Versatile Micro-implant.

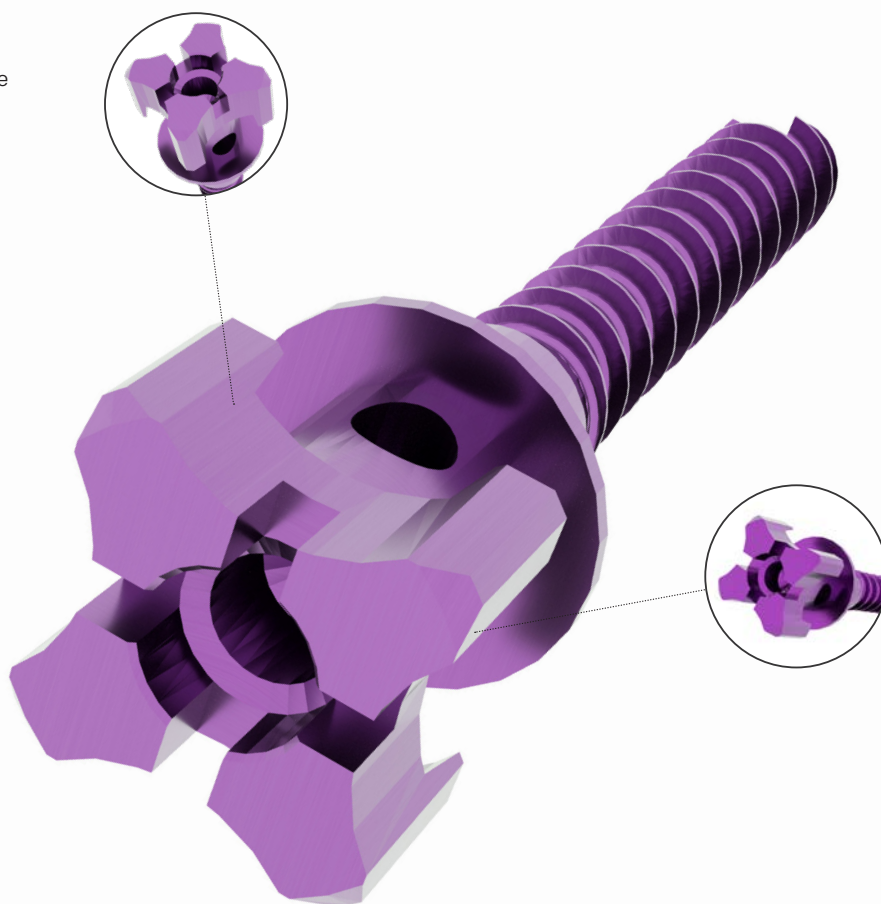
# CLINICAL PROTOCOLS

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## ARCH LIGATION PROTOCOL

The Versatile system has a bracket-shaped head that makes it very easy to attach metal ligatures to which the arch will be completely fixed, allowing the desired movements to be carried out directly.

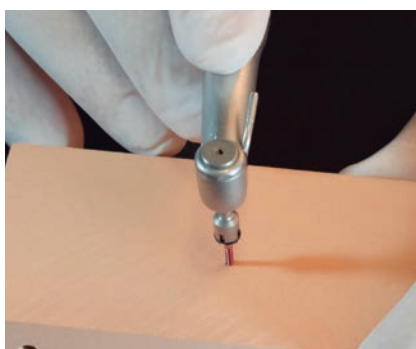
0.018 X 0.025" groove  
for arch placement.



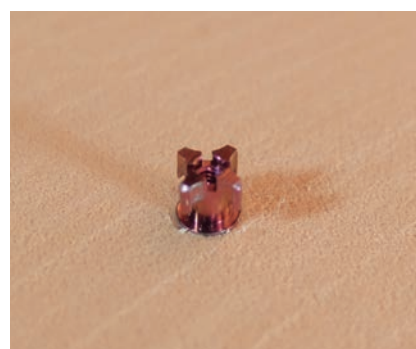
Arch support with  
metal ligatures.



1. Insertion of the Versatile Micro-implant with the contra-angle spanner.



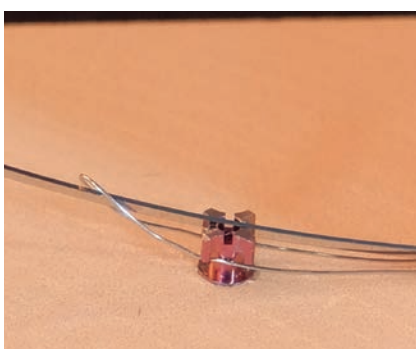
2. Micro-implant placement (maximum 20N insertion torque).



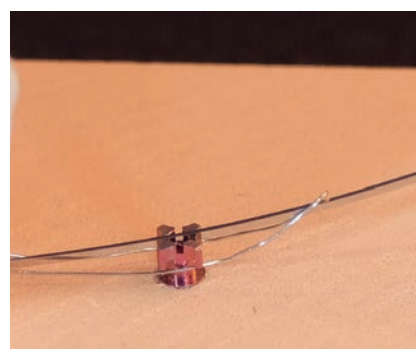
3. Versatile Micro-implant inserted.



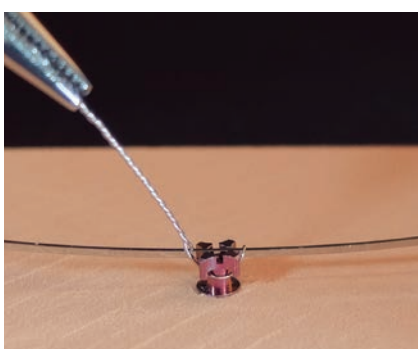
4. Placement of the 0.018x0.025" stainless steel arch wire in the Versatile Micro-implant groove.



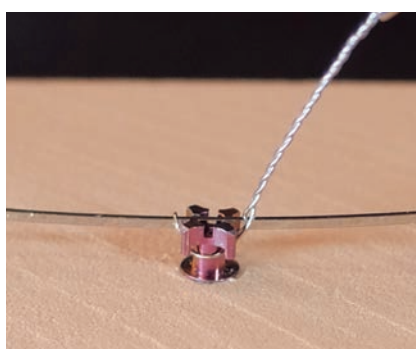
5. Initial insertion of the metal ligature.



6. Insertion by ligating the four flaps of the Versatile Micro-implant.



7. Threaded metal ligature.



8. Arch ligated to the Versatile Micro-implant.

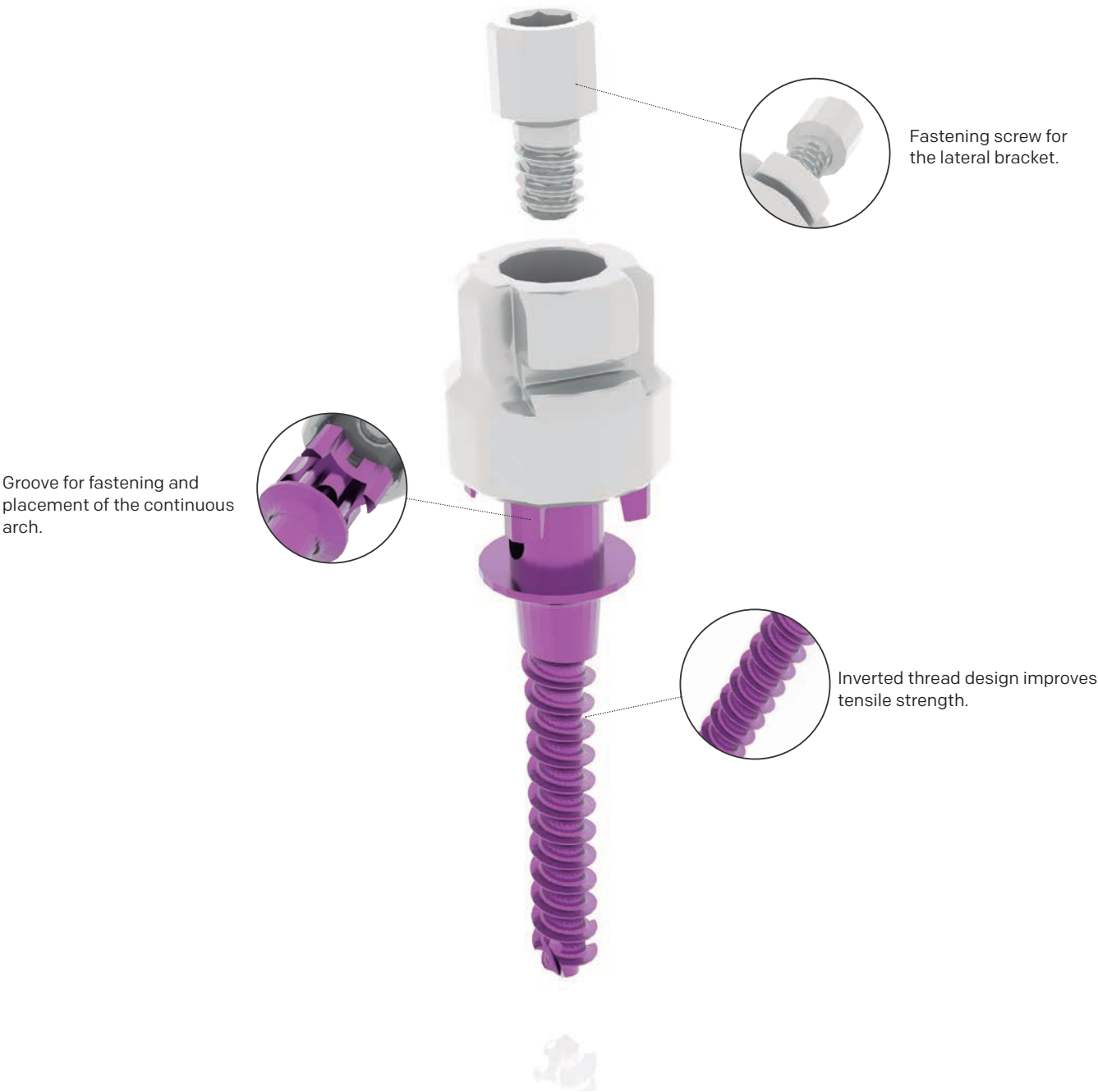


9. Metal ligature with the arch ligated to the Versatile Micro-implant.

# CLINICAL PROTOCOLS

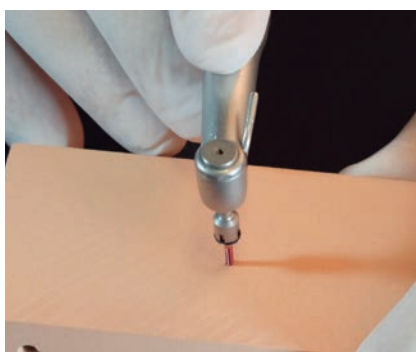
## PROTOCOL FOR LATERAL BRACKETS

The Versatile system features the lateral bracket attachment which allows us to make the connection from a micro-implant to a continuous arch.

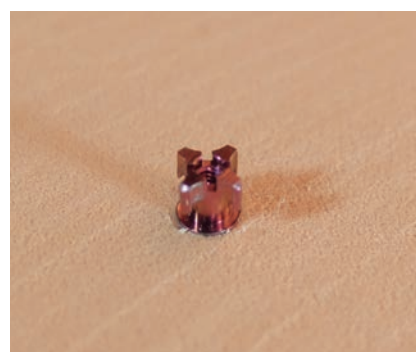




1. Insertion of the Versatile Micro-implant with the contra-angle spanner.



2. Micro-implant placement (maximum 20N insertion torque).



3. Versatile Micro-implant inserted.



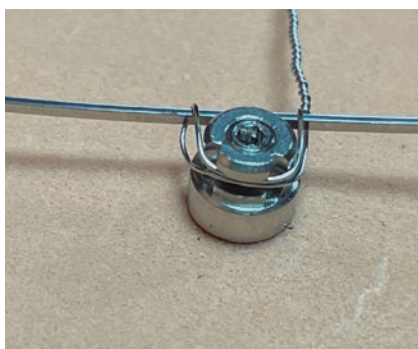
4. Placement of the lateral bracket on the Versatile Micro-implant.



5. Fixing of the lateral bracket with the retention screw by means of the 1.20 mm hexagonal surgical screwdriver.



6. Placement of the rectangular arch wire in the lateral bracket groove.



7. Ligating the rectangular arch with a metal ligature to the lateral bracket.

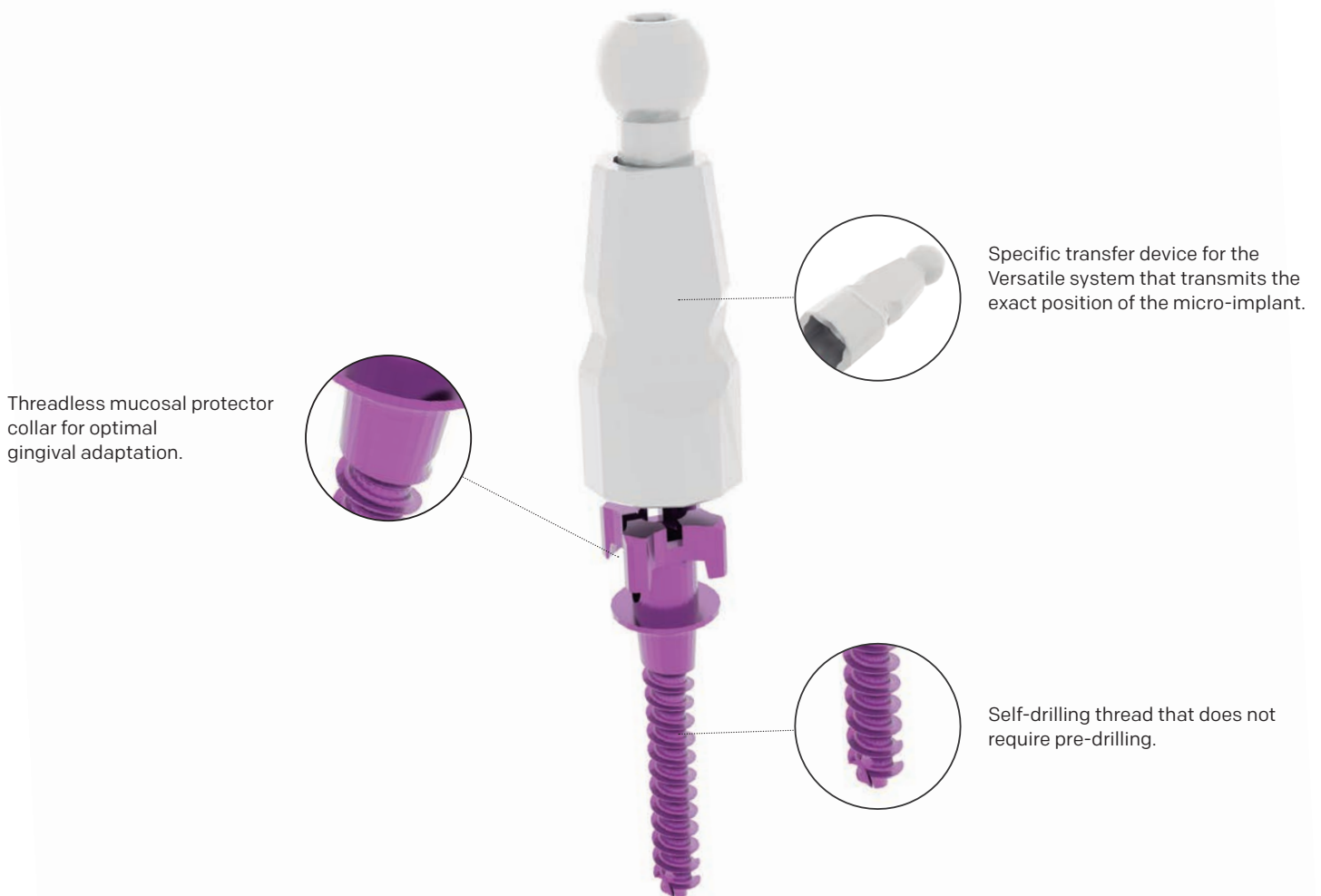


8. Cut metal ligature and arch positioned.

# CLINICAL PROTOCOLS

## PROTOCOL FOR TAKING IMPRESSIONS

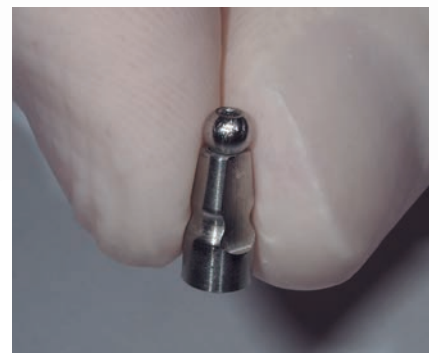
The Versatile system features closed and open tray impression taking attachments to replicate the exact position of the micro-screw and facilitate planning on the model prior to placement in the mouth.



1. Placement of the micro-implant in the centre of the palate.



2. Versatile Micro-implant inserted.



3. Transfer device (impression abutment).





4. Transfer device screwed to the Versatile Micro-implant.



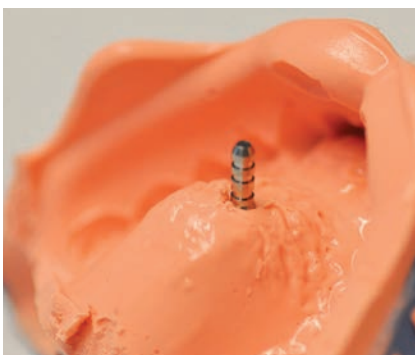
5. Micro-implant impression with the transfer device. Placement of the alginate in the impression tray.



6. Impression taken.



7. Micro-implant transfer device with replica.



8. Placement of the transfer device with the replica of the micro-implant in the impression. Impression with the hole to insert the transfer device.



9. Plaster model with transfer device for taking impressions.



10. Frontal view of the plaster model with the replica of the Versatile Micro-implant.



11. Insertion of the retaining screw for securing the palatal bar support.



12. Construction of the desired device (e.g. distalisation of molars).

# CLINICAL PROTOCOLS

## PROTOCOL FOR SEALING SCREW INSERTION

The Versatile system features a sealing screw attachment which aims to minimise chafing and increase comfort for patients.

Different head heights to adapt to the ligatures and arches required for each part.

Fastening screw for the lateral bracket.

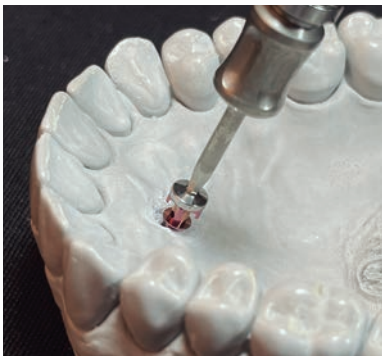
Grade 5 titanium implant with high biocompatibility.



1. Versatile Micro-implant inserted.



2. Insertion of the sealing screw with 1.20 mm hexagonal surgical screwdriver.



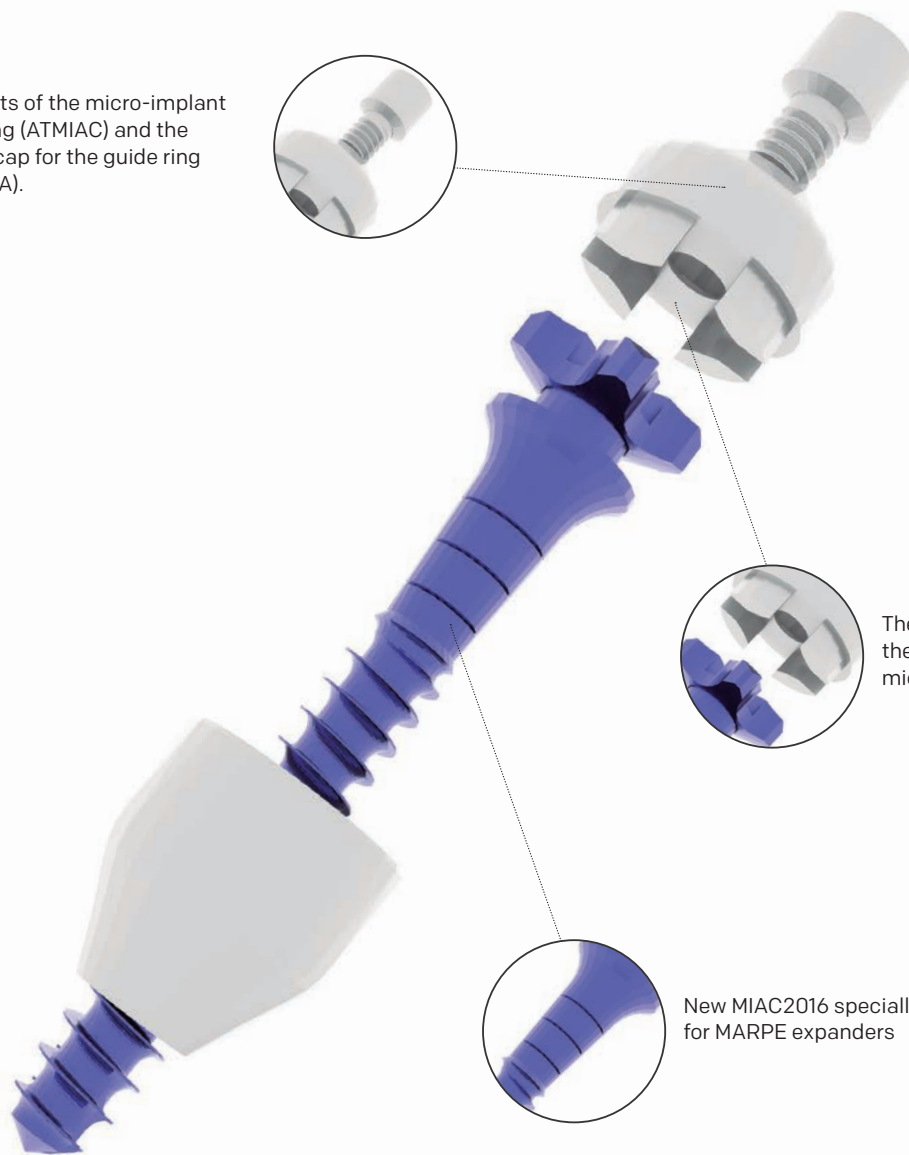
3. Sealing screw screwed into the head of the Versatile Micro-implant.

# CLINICAL PROTOCOLS

## EXPANDER ASSEMBLY PROTOCOL

This attachment allows the guided insertion of micro-implants and is especially recommended in skeletal supported expansion techniques (MARPE).

It consists of the micro-implant guide ring (ATMIAC) and the closing cap for the guide ring (ATTCMIA).



The expander assembly allows the guided insertion of the micro-implants.

New MIAC2016 specially designed for MARPE expanders

# CLINICAL PROTOCOLS

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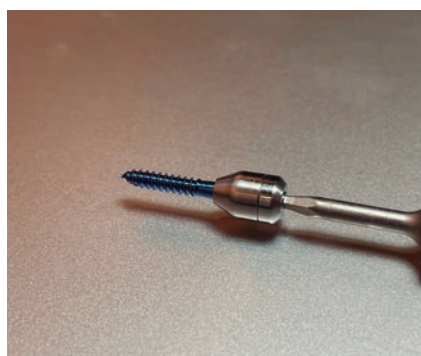
1. MIAC2013 Micro-implant and Expander Kit, consisting of the surgical guide ring (ATMIAC), closing cap (ATTCMIA) and screw.



2. MIAC2013 micro-implant inserted in the surgical guide ring.



3. Closing cap and screw before being threaded on the micro-implant.



4. Expander kit mounted on micro-implant.



5. Maxilla prior to expansion with micro-implant.



6. Maxillary expander with surgical guide ring (MIAC2013).



7. Expander with the two 2x13 mm orthopaedic micro-implants and the sealing plugs already in place.



8. Maxillary expansion performed on a hybrid expander (dental and skeletal support).

# CLINICAL CASES

## VERSATILE MICRO-IMPLANT CLINICAL CASE



1. Straightening of the molar root.



2. Traction of the canine.



3. Steel sectional device supported on the micro-implant to position the canine in the arch.

## STANDARD MICRO-IMPLANT CLINICAL CASE



1. Mass traction of the anterior dental group in cases of maximum posterior anchorage.



2. Extrusion of the upper arch.



3. Mass traction of the anterior dental group in cases of maximum anterior anchorage.



4. Intrusion of the lower dental group.

## **CUSTOMER SERVICE**

Telephone 93 844 76 50

Hours: Monday to Thursday from 9am to 6pm.

Friday from 9am to 3pm

## **PLACING ORDERS**

Telephone 93 844 76 50

E-mail: [implant@microdentsystem.com](mailto:implant@microdentsystem.com)

[www.microdentsystem.com](http://www.microdentsystem.com)

Sales representative for your area.

## **DELIVERY TIMES**

Delivery Mainland Spain before 7pm the next day for orders placed before 2pm (Iberian Peninsula).

Delivery between 24-48h for orders placed before 2pm (Canary Islands).

Consult same day delivery options (available only in Barcelona province).

## **DISPATCH OF PRODUCTS**

Always for orders placed before 2pm.

Tell us your chosen time when placing your order:

- 8.30am Service.
- Preferential: delivery from 8.30am to 10am
- Express: delivery from 10am to 1pm.
- 7pm service: delivery before 7pm. (Default times).

\*Available for the whole of mainland Spain. Consult for the Canary Islands.

## **RETURNS**

Returns will not be accepted after a period of 30 days from the delivery of the goods.

All material returns must be accompanied by the product return form duly completed and enclosing a copy of the delivery note.

## **INVOICING AND METHOD OF PAYMENT**

Bank transfer within 30 days of the invoice date.

Consult other payment methods and facilities with our customer service department or the sales representative for your area.

\* Microdent reserves the right to make any changes without prior notice.

## **Important:**

- The use of attachments not supplied by Microdent can compromise the stability and fixation of the prosthesis as well as cause loosening or fracture. It also renders the warranty for our implants null and void.

- Consult availability of references according to country as there may be products not marketed in your area.



