



**NEW
UPDATE**

— Official partner —

DENTAL **HEX** |

Proudly made in
Egypt since 2014



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Biomate Implant System

Designed for Stability. Engineered for Longevity.

Root-form dental implants represent the gold standard in modern implantology, designed to mimic the natural anatomy of the tooth root for optimal load distribution and biological integration.

With a tapered body and advanced thread design, root implants provide excellent primary stability, even in challenging bone conditions (D1–D4), ensuring predictable placement and long-term success.

Modern root implant systems incorporate advanced surface technologies, precise connection geometries, and prosthetic flexibility — enabling clinicians to achieve reliable outcomes in both simple and complex cases.

By combining mechanical strength with biological compatibility, root implant systems have become the preferred solution for achieving consistent, long-lasting clinical results.

► About Biomate System

Egyptian Innovation. Clinical Excellence.

Biomate is one of the pioneering Egyptian dental implant systems, established in 2014, developed to provide a high-quality, reliable implant solution aligned with international standards.

From its early development, Biomate introduced innovative designs such as Genius and Pioneer, building a strong foundation based on clinical performance, precision engineering, and continuous improvement.

Today, Biomate stands as a complete implant system, combining biological stability with mechanical accuracy to deliver predictable and long-term clinical outcomes.

With a Tapered Body Design and advanced SLA Surface Technology, Biomate ensures strong primary stability, fast osseointegration, and preservation of crestal bone.

Its Internal Hex Connection (2.42 mm) with Platform Switching Technology minimizes micro-gaps, enhances soft tissue stability, and supports long-term bone maintenance.

Designed with self-tapping geometry, dual-thread technology, and a unified prosthetic platform, Biomate simplifies surgical procedures while offering high flexibility for restorative solutions.

▶ Surface Treatment

(S.L.A Surface Treatment)

▶ Surface Morphology & Osseointegration: S.L.A. Micro-Architecture

Manufactured from biocompatible Grade 5 Titanium Alloy (Ti6Al4V-ELI), Biomate implants utilize a optimized Sand-blasted, Large-grit, Acid-etched (S.L.A.) surface functionalization protocol designed to accelerate cellular response and bone apposition.

▶ Biomechanical & Clinical Advantages

Accelerated Osteogenesis: Induces rapid osteoblast colonization and early bone implant contact (BIC).

Superior Initial Biomechanical Fixation: Maximizes primary stability and shear resistance at the bone-implant interface.

Optimized Healing Kinetics: Significantly condenses the osteogenic integration timeline, allowing for early loading protocols.

High Clinical Predictability: Standardizes therapeutic outcomes even in compromised bone sites.

▶ Dual-Phase Surface Functionalization

Coarse Macro-Texturing: High-pressure corundum sandblasting generates a defined macro-rough topographic framework for mechanical interlocking.

Micro-Subtractive Thermal Acid Etching: Controlled dual thermal acid bath carves micro-cavities across the macro-structure, synthesizing a highly reactive, hydrophilic titanium oxide TiO₂ passivation layer that optimizes protein adsorption and cellular adhesion.

► Preclinical Validation





Macro-Surface Topography:

Uniform macro-roughness achieved through precision coarse-grit sandblasting.



Micro-Surface Architecture:

Formation of micro-cavities and a protective hydrophilic oxide layer following thermal acid etching.



SEM Structural Validation:

Scanning electron microscopy confirming micro-scale homogeneity and surface purity.

► **"Grade 5-ELI" Titanium alloy (Ti6AL4VELI: 90 % Titanium, 6 % Aluminum, 4 % Vanadium)**

Product Evolution History

2014



Pioneer

2016



Genuis

2020



Biomate

New!

2026



Cortimate

Implant Packaging

Packaging components for safe handling and clinical workflow.





Connection Internal Hex

connection, without micro gaps



Unique Thread

Wider threads in the upper body that increase surface area and reduce bone stress, then transition to sharper threads for self-tapping function

CORE TECHNICAL FEATURES



Primary Stability
& Bone Condensing



Advanced Macro & Micro
Geometry For greater
primary Stability



Biological Integrity & Connection
Advanced primary Designs



Prosthetic Versatility
For greater primary Stability



OSSEOCRESTAL HEALTH & VERSATILITY

Micro Grooves

Integrated Platform Switching and Micro-Grooves prevent bone resorption and preserve crestal health. Unified abutment fit for standard and slim diameters.

SLA

Sandblasted with large particles, acid etched.

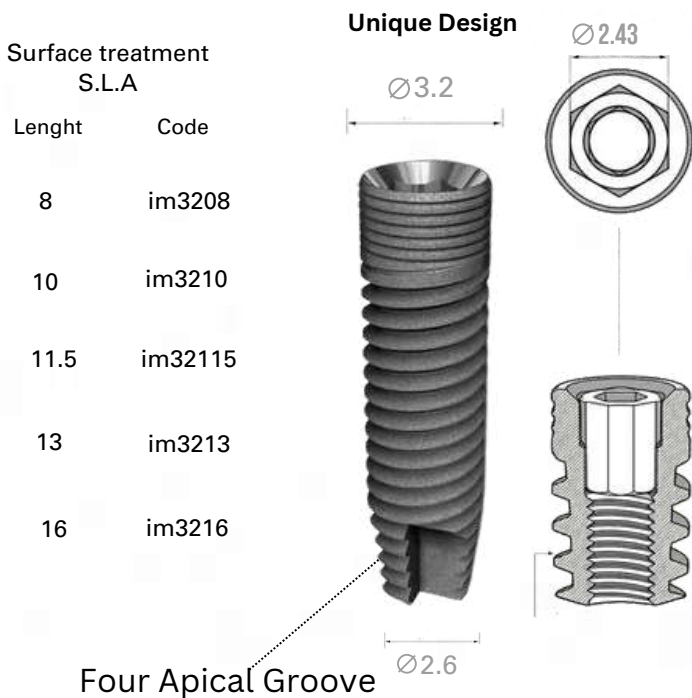
Tapered Body

Increases initial stability in immediate implant cases

RAPID OSSEointegration & SELF-DRILLING

- Proven SLA surface treatment for faster biological attachment.
- Tapered body and apical blades enable self-drilling insertion, specially in complex scenarios.

► Biomate Ø3.2



► Drill Sequence

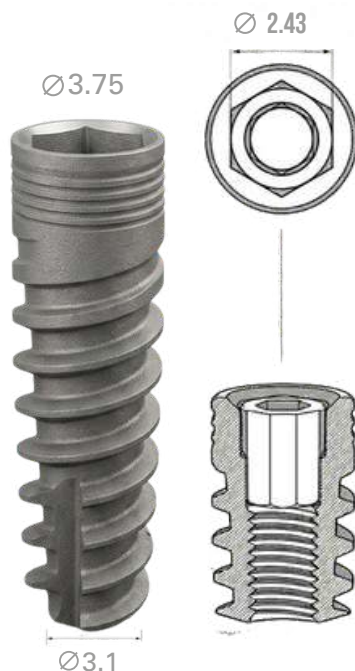
BONE TYPE D-IV	BONE TYPE D-II & III	BONE TYPE D-I
1. Tri-Step*	1. Tri-Step* 2. (2.8)	1. Tri-Step* 2. (2.8)



► Biomate Ø 3.75

Surface treatment
S.L.A

Lenght	Code
6	im3706
8	im3708
10	im3710
11.5	im37115
13	im3713
16	im3716



► Drill Sequence

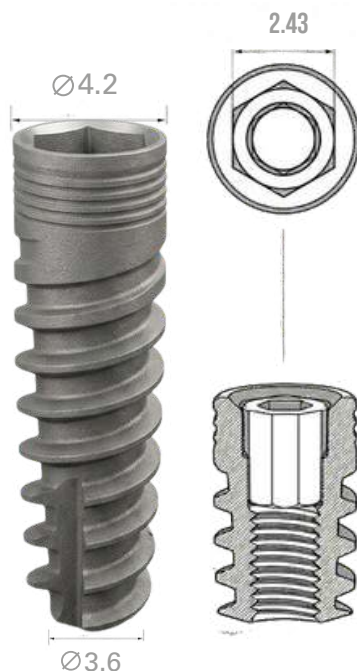
BONE TYPE D-IV	BONE TYPE D-II & III	BONE TYPE D-I
1. Tri-Step*	1. Tri-Step* 2. (3.2)	1. Tri-Step* 2. 3.2



► Biomate Ø4.2

Surface treatment
S.L.A

Lenght	Code
6	im4206
8	im4208
10	im4210
11.5	im42115
13	im4213
16	im4216



► Drill Sequence

BONE TYPE D-IV	BONE TYPE D-II & III	BONE TYPE D-I
1. Tri-Step* 2. (3.6)	1. Tri-Step* 2. (3.6)	1. Tri-Step* 2. 3.6



► Biomate Ø4.9

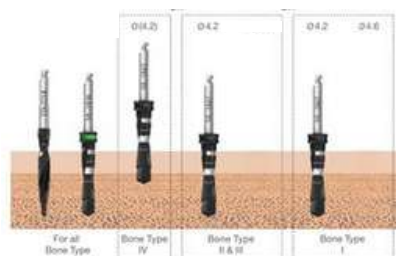
Surface treatment
S.L.A

Lenght	Code
6	im4906
8	im4908
10	im4910
11.5	im49115
13	im4913
16	im4916



► Drill Sequence

BONE TYPE D-IV	BONE TYPE D-II & III	BONE TYPE D-I
1. Tri-Step*	1. Tri-Step*	1. Tri-Step*
2. 3.6	2. 3.6	2. 3.6
3. (4.2)	3. 4.2	3. 4.2
	4. (4.6)	



CORTIMATE

Implant System

Excellent in all bone types (especially D1-D2)

NEW





Connection Internal Hex

connection, without micro gaps



Unique Thread

Wider threads in the upper body that increase surface area and reduce bone stress, then transition to sharper threads for self-tapping function

CORE TECHNICAL FEATURES



Excellent in all bone types (especially D1-D2).



Ensure high primary stability.



Ideal in sites next to sinus or nerve.



Suitable for all surgical procedures.



Grade 4 Titanium.



OPTIMIZED FOR D1-D2 BONE

Special thread design and body geometry provide superior engagement and stability in dense bone (D1-D2).

DEEP & AGGRESSIVE THREADS

Deep threads with optimized pitch ensure maximum bone contact and enhanced insertion stability in dense cortical bone.

SLA

Sandblasted with large particles, acid etched.

APICAL DESIGN

Apical cutting edge with self-tapping ability ensures smooth insertion and optimal engagement in cortical bone.

▶ CortiMate Ø 3.75

Surface treatment
S.L.A

Length

Code

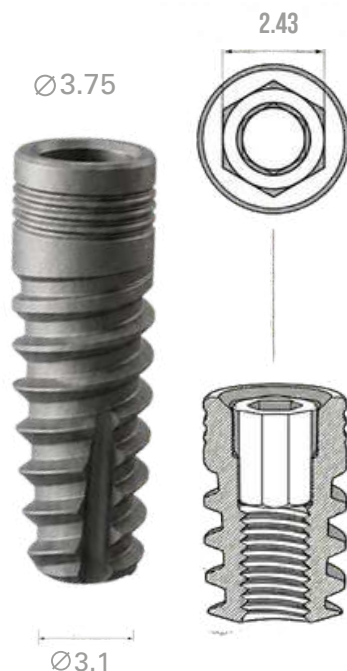
8 imc3708

10 imc3710

11.5 imc37115

13 imc3713

16 imc3716



▶ Drill Sequence

BONE TYPE D-IV	BONE TYPE D-II & III	BONE TYPE D-I
1. Tri-Step*	1. Tri-Step* 2. (3.2)	1. Tri-Step* 2. 3.2



▶ CortiMate 4.2

Surface treatment
S.L.A

Length

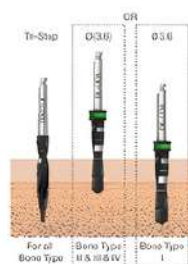
Code

8	imc4208
10	imc4210
11.5	imc42115
13	imc4213
16	imc4216



▶ Drill Sequence

BONE TYPE D-IV	BONE TYPE D-II & III	BONE TYPE D-I
1. Tri-Step* 2. (3.6)	1. Tri-Step* 2. (3.6)	1. Tri-Step* 2. 3.6



▶ CortiMate 4.9

Surface treatment
S.L.A

Length

Code

8 imc4908

10 imc4910

11.5 imc49115

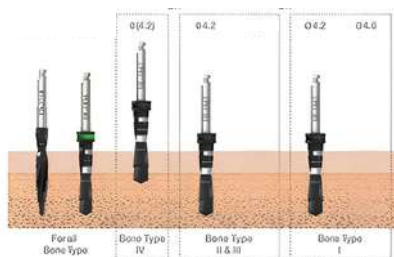
13 imc4913

16 imc4916



▶ Drill Sequence

BONE TYPE D-IV	BONE TYPE D-II & III	BONE TYPE D-I
1. Tri-Step*	1. Tri-Step*	1. Tri-Step*
2. 3.6	2. 3.6	2. 3.6
3. (4.2)	3. 4.2	3. 4.2
	4. (4.6)	



SLIMmate Implant

► Slimmate Implant

- The SLIMmate Implant with a 2.78 mm diameter is a perfect choice for narrow ridges or the aesthetic zone, especially in the anterior area.
- Due to its reduced diameter, it cannot be placed on the same platform as the Standard Line.

Platform & Prosthetic Options

- Our platform offers a full prosthetic line, including:
 - Multi Unit Abutments
 - Overdenture Abutments
 - Transfers
 - Analog

This allows clinicians to restore all treatment options efficiently using the SLIMmate Implant.

Clinical Advantage

- With the SLIMmate Implant, you can effectively manage even the most challenging cases in the anterior aesthetic zone, providing reliable and predictable results.

Slimat biomate Ø2.78

Lenght	Code
10	SL2810
11.5	SL2811.5
13	SL2813
16	im49116





► Cement Restoration



- Straight Abutment

Ø4.5 /L 7mm

imsb7



- Straight Abutment

Ø4.5/ L 9 mm

imsb9



- Straight Abutment

Ø4.5 /L11 mm

imsb11



- Straight Abutment

Ø4.5/ L13 mm

imsb13



- Angled Abutment

15°-10 mm

imab1510



- Angled Abutment (no finish line) 25°-10 mm

imab2510



- Castable Abutment Hex

imcahex3



- Castable Abutment Non-Hex

imcanhex3

► Healing Abutment



- Healing Abutment Ø 4.5 L5

imhab45L5



- Healing Abutment Ø4.5 L7

imhab45L7



- Healing Abutment Ø5 L4

imhab55L4



- Healing Abutment Ø5 L6

imhab55L6



- Healing Abutment slim Ø3.8 L5

imlhab55L5

► Impression Coping

	• cover screw standarder	imcs
	• cover screw slim	slimcs
	• Open Transfer 13 mm	imoptr
	• Closed Transfer	imcltr9
	• Analog	imana

1.2

► MUA Solutions



Use 1.2 Screw Driver
For ANG./STR. M.U

	• Straight M.U G.H 1mm	immu1
	• Straight M.U G.H 2mm	immu2
	• Straight M.U G.H 3mm	immu3
	• Straight M.U G.H 4mm	immu4
	• Angeled Abutment 17°/G.H 1 mm	imamu1701
	• Angeled Abutment 17°/G.H 2 mm	imamu1702
	• Angeled Abutment 17°/G.H 3 mm	imamu1703
	• Angeled Abutment 30°+/G.H 1mm	imamu3001
	• Angeled Abutment 30°+/G.H 2mm	imamu3002
	• Angeled Abutment 30°+/G.H 3mm	imamu3003
	• MUA Healing	muh

► MUA Accessories



- MUA Screw retained

muscrew



- MUA Titanium Temporary Cylinder

mutemp



- MUA TI-Base

mutb2



- MUA Transfer

immutr



- MUA Analog

immuan

► Removable attachment



- Ball Abutment G.H 1.5

imbsg1



- Ball Abutment G.H 3

imbsg3



- Ball Cap titanium

imbssp

► Slimmate Accessories



- Slimmate Ball & Socket Abutment sLbs



- Slimmate MUA Abutment sLmus



- Slimmate Slim Abutment sLab312



- Slimmate Transfer sLtr312



- Slimmate Analog Ø3/L12 sLan312

► Tools



- Torque Screw Driver 1.25



- Torque Screw Driver 1.2



- Torque Implant Driver 2.5



- Torque Implant Driver 2.4



- Marker drill



- Lancet 1.5



- Drill extender

▶ Digital workflow



- Scan Body 7mm
- Scan Body 9mm



- MUA Scan Body



- Ti-Base Hexed G.H 0.5mm
- Ti-Base Hexed G.H 1.5 mm
- Ti-Base Hexed G.H 2.5 mm



- Ti-Base Non-Hexed G.H 0.5mm
- Ti-Base Non-Hexed G.H 1.5mm
- Ti-Base Non-Hexed G.H 3mm



- Digital Analog



- MUA Digital Analog

SM07

SM09

MUSP

TB4500

TB4515

TB452.5

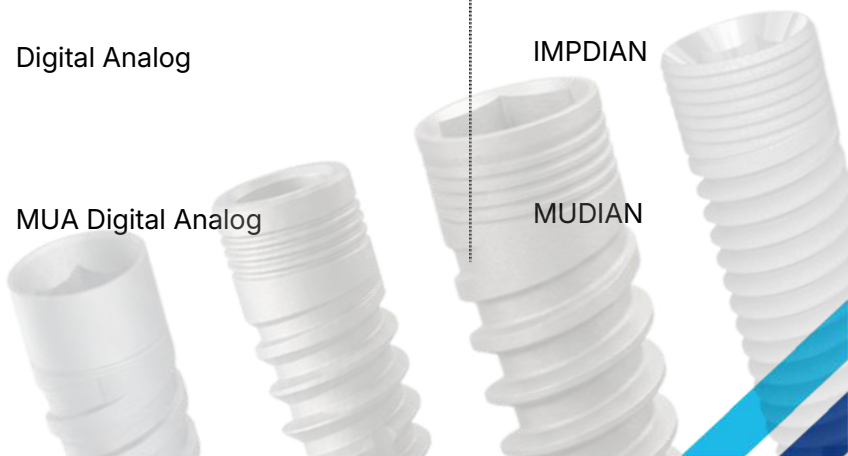
TB4500N

TB4515N

TB452.5N

IMPDIAN

MUDIAN



► Surgical KIT

Surgical KIT content:

- Lancet Drill
- Drills (2.0/2.5/2.8/3.2/3.65/4.2/5.2)
- Implant Driver 2.4 Long
- Implant Driver 2.4 Short
- Screw Driver 1.25 Long
- Screw Driver 1.20 Short
- Machined Implant Driver 2.42
- Machined Screw Driver 1.25
- Parallel Pins
- Torque Ranch 70N



► Fully GUIDED Surgical KIT

ATOMICA



Drill Diameter	Available Lengths (mm)
2.2	L7-L9- L11-L13-L15-L18



Drill Diameter	Available Lengths (mm)
2.8	L7-L9- L11-L13-L15-L18



Drill Diameter	Available Lengths (mm)
3.5	L7-L9- L11-L13-L15-L18



Drill Diameter	Available Lengths (mm)
3.9	L7-L9- L11-L13-L15-L18

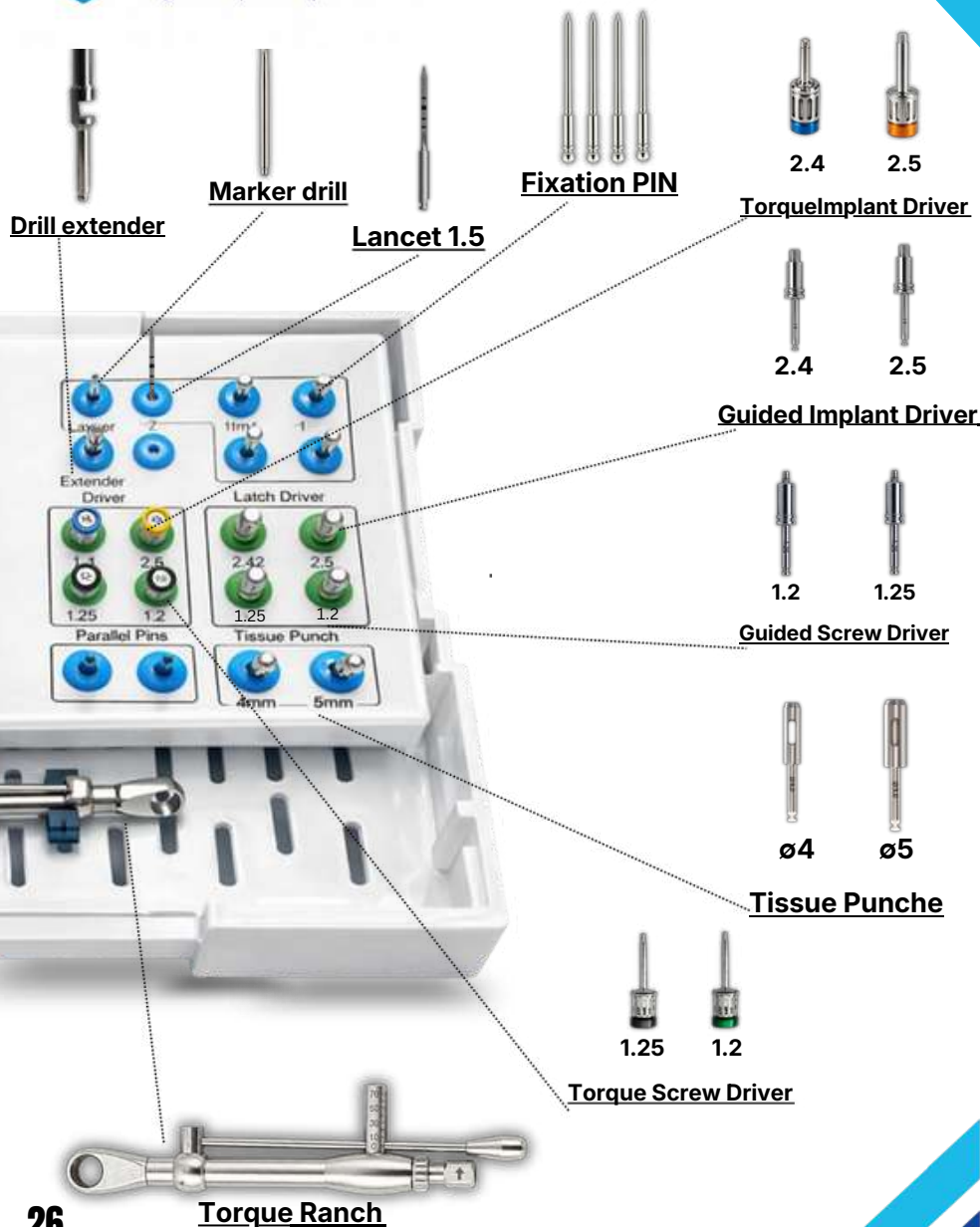


Drill Diameter	Available Lengths (mm)
4.2	L7-L9- L11-L13-L15-L18



Drill Diameter	Available Lengths (mm)
4.7	L7-L9- L11-L13-L15-L18





► **Guided Sleeves**

ATOMICA

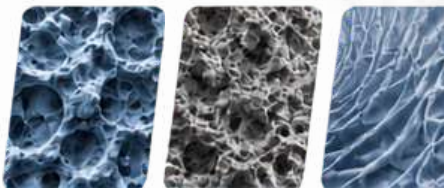
- Sleeve Height: 4.0 mm
- One Sleeve system
- Inner Diameter 5.1 mm
- Outer Diameter: 5.9 mm



Research & Scientific Solutions

Advanced customized implant solutions developed for research, testing, and specialized clinical requirements.

- ▶ Customized implant solutions for **critical diameter and narrow-width** applications.
- ▶ Multiple surface treatment options available for **in vitro**, **in vivo**, and research studies, as well as **private-label** projects.
- ▶ Custom specifications can be developed to meet specific **research protocols** and scientific requirements.



Custom Dimensions



Research Surface Options



Protocol-Based
Development



Private Label Projects



DENTAL **NON HEX** SOLUTIONS!



**Solid
abutment**



MUA



Healing cap



**Ball and
socket**



FOR ANY IMPLANT SYSTEM !



**COMPATIBLE
WITH ANY SYSTEM**

Prosthetic solutions
designed to fit any
implant system.



**PREMIUM
QUALITY**

High precision
manufacturing
ensures reliable
performance.



**WIDE RANGE OF
PROSTHETIC PARTS**

Comprehensive solutions
to meet all clinical
requirements.



**FLEXIBLE
SOLUTIONS**

Customized options
available for all
clinical cases.



**PRECISION
ENGINEERING**

Designed for accuracy,
stability and long-term
success.



OFFICIAL PARTNER

DENTAL**HEX** | 

Proudly made in
Egypt since 2014



Biomate line | cortimate line | climate line



www.Dentalhex.com

