

Developed By P-I Brånemark





Smart Guide







THE SOLUTION FOR ALL OF YOUR CLINICAL CASES Enhanced Biological Metrics to unlock immediate replacement potential

The P-I Implant Systems were developed by Professor Per-Ingvar Brånemark, the Osseointegration pioneer, jointly with scientists and the P-I Research & Development team in renowned universities to meet the modern implant dentistry demands.

In 2012, Ospol AB Sweden was acquired, and key technologies were integrated in the P-I solutions.

With the human biology, long-term expertise, clinical and scientific evidences as a foundation, our main objective is to support you in patient-focused treatments by providing Implant Systems represented by: Simplification • High Performance • Safety and Longevity

MT-F is the Next Generation System, a result of the P-I Brånemark fundamentals and key technologies evolutionized by outstanding **Biological Metrics** and **Simplicity**.





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Consult Instructions for Use. Some products might not be available in your region. Images are for illustrative purposes only. Measurements in millimeters. \emptyset = diameter, h = height. This Smart Guide contains data from internal files including sponsored and independent studies. For more information, please see www.pibranemark.com and exclusive.pibranemark.com



Adaptive bone contact

Multiple • Interpolated core transitions



Less bone displacement

High performance Conical Drills



Less Trauma • Site Engagement

Cutting • Pronounced depth threads





The multiplicity of interpolated core transitions associated with the P-I Conical Drills low speed site preparation, and the gradual evolution of the pronounced depth cutting threads, are responsible for a gentle implant to osteotomy engagement in all sections in an independent manner.

These unique geometrical combinations provide greater initial contact area with significantly less bone displacement and compression enhancing the **Biological Metrics**.



Less compression • Progressive torque • Greater area

MT-F displaces significantly less bone volume and achieves similar or higher Insertion Torque Value in all simulated bone densities, exhibiting up to 24% greater area in comparison to the leading competitive active, tapered implants and the P-I Hybrid geometries of similar dimensions when adopting the manufacturers' respective recommended surgical sequences. Data on file.



Biological Metrics

High initial and secondary Implant Stability Quotient [ISQ] measurements by Resonance Frequency Analysis [RFA] in association with sufficient Insertion Torque Value [ITV] and low rotational micro-mobility, indicated by the proportional Removal Torque [RTQ%] to the obtained [ITV], are relevant Biological Metrics and critical success factors for the prosthetic rehabilitation of patients with implants in post extraction, healed sites, low density bone and in combination with tissues regeneration techniques.

The P-I expertise

Our expertise related to [ISQ] using [RFA] micromovement measurements to clinically monitor Osseointegration and to determine when to load implants, originates from the acquisition of Ospol AB in 2012.

Ospol AB and Osstell AB were sister companies established in Sweden and developers of an Implant System and [RFA] measurement technologies, respectively. The Ospol AB developments of the last 20 years are comprised in the P-I Implant Systems and the newest technologies are present in The Next Generation • MT-F System.



Increased coronal space Slightly inward flange

Cortical stabilization Micro Patterns

Adaptive bone contact	
Interpolated core transitions	

Threads	gradual	evolution
Pronounce	d depth	

Early engagement Gentle cutting • Dual thread

Axial insertion control Biological Width positioning





Platform switching

Concave emergence Soft tissue volume

Peri-implant tissue preservation





In clinical use for 15+ years • Superior biomechanics • Double Sealing

The P-I Morse Taper is an original technology. Highlighting 8.5° x 2 conical indexed, 3mm long, the P-I MT Interface offers a high torsional yield and fatigue strength as compared to other leading systems and was even adopted by a global leader. The MT-F Ø 3.3 Implant can withstand static load of approximately 600N. Data on file.

The high-preload Double Sealing mechanism has easy prosthetic reversibility, seals the Abutment on the MT Interface and the MT Screw on the Abutment, stabilizing the system, minimizing micromovement and microleakage in comparison to certain leading systems under simulated occlusal stress. The Double Sealing is an important hypothesis for the clinical consideration of MT-F Implant placement observing Biological Width principles.



Easy reversibility Low stress to peri-implant tissues



Sealing starts at provisionalization

P-I Coating+ is a biocompatible layer that reduces friction and, combined with the MT Screw optimized geometry, provides a substantially higher and homogeneous pre-load, clamping, in comparison to titanium screws and the leading coating at the same tightening torque of 25 Ncm. Data on file. MT Retriever is used to cancel the morse sealing and safely remove Abutments.





(!) One Screw and Prosthetic Driver Ø 1.2 for all Abutments, except straight Conical Abutment and Locator®. All P-I Components are supplied with the respective screw.

Ψ

Strong Osseointegration REDUCTION OF BIOFILM INFECTIONS







Improved bone response

In comparison to rougher oxidized and blasted surfaces

Less bacterial adhesion Equivalent to turned surfaces • Minimally rough

Chemically enhanced

Anodized • Bioactive ions



Widely documented Evolution of moderately rough surfaces

Direct and early response

Oxide, micropores and crystal structures greatly influence bone response

Biochemical bond, bone in-growth and mechanical interlocking

Surface chemistry, anodic oxidation and ion incorporation, enhance Osseointegration and compensate for minimal roughness

OSPOL Surface was developed in the Gothenburg University, Sweden, and is documented in several publications. In continual evolution since 2000 and in clinical use for over 15 years, the OSPOL Surface is a modern technology for a rapid and strong bone response. Less prone to bacterial adhesion, it is a pioneer technology for chemical modification of thin anodized, oxidized, ion incorporation of smoother implants surfaces.

SURFACE

Titanium



Courtesy of : YT Sul, A. Wennerberg T. Albrektsson





Higher [ISQ] for chemicallymodified Surface

OSPOL Surface modification method achieves faster secondary Implant Stability Quotient [ISQ] measured by Resonance Frequency Analysis [RFA] indicating potential for shorter healing periods.

Less bacterial adhesion and biofilm formation



BIOACTIVE

• OSPOL Surface is easier to clean than rougher surfaces and its bioactivity reduces biofilm formation. The bacterial adhesion is similar to turned, machined surfaces.

(!) Some conditions, whether combined or not, represent contraindications, limitations and risks, relative and absolute, for the treatment of patients with implants. There are several risk factors in Osseointegration widely described in literature. [ISQ] is a critical factor to clinically monitor Osseointegration. Data from pre-clinical studies.







Stainless Steel BIOSAFETY Trays options



Compact



Polymer

Conical Drills



Less friction. Less trauma Constant apical conical angle • 3 cutting areas

Corrosion protection Wear resistance • Diamond Like Carbon

High performance Swiss custom technology

Exceptional cutting performance

P-I Conical Drills' performance in dense bone, at the highest recommended rotation, without gradual diameter increments and applying constant feeding, present a very low friction coefficient range of 2 to 10 Ncm. Data on file.



Easy, simplified installation

Maximum of 3 low speed steps

(!) Except for MT-F Ø 4.8 Implant, 3 or 4 low speed steps are used. See Surgical Sequence. Six Conical Drills for all P-I Implant Systems. Spade and Round burr are optional. No pilot drill, counter sink or screw-tap required.



Insertion Driver

Handpiece • Manual • Torque Wrench







^(!) The horizontal Implant Insertion Driver's mark is at approximately 3 mm and serves as a Biological Width vertical reference for Implant platform positioning when completely covered by the lowest point of the soft tissue, the gingival margin. For further submersion, verify available prosthetic Component dimensions to address critical and subcritical prosthetic contours. Implant Insertion Driver dots and hexagon are indexed to the Implant's hexagonal index.



Implants



Platform Ø	3.3	3.5	3.9	4.6
h				
18		172319	172385	
15	172297	172302	172384	
13	172296	172301	172383	172306
11.5	172295	172300	172382	172305
10	172294	172299	172381	172304
8.5	172293	172298	172380	172303
7		172318	172379	172321
6		172317	172378	172320
		A STATE OF THE STA		
Implant Ø	3.3	3.75	4.1	4.8





(!) Same Interface in all Platform Ø including narrow and short implants.



Prosthetic Components





Biological Width

Concave or Parallel emergence Healing • Soft Tissue contouring Potential for more soft tissue volume Minimized cortical bone removal for sub-crestal Implants



Parallel Emergence Healing



One Cover Screw

For all Implants and Platforms • MT Interface



					N	R	W	
				h				
				4.5	171199	171202	171205	
	Divergent	T.		3	171198	171201	171204	
				1.5	171197	171200	171203	
	Devellet		SELECTION	4.5	171190	171193	171196	
	Parallel			3	171189	171192	171195	
		W		1.5	171188	171191	171194	
	Healing Abutment							_
\sim								







Biological Width

Concave emergence • Potential for more soft tissue volume Minimizes cortical bone removal to install Abutment

Single prosthesis

Straight Conical Abutment has double indexation Select engaging components

Universal Ø 4.8 platform

Scan Body for multiple units • D DIGITAL Inclined implants technique • "All-on-4"





• Regular Abutment is used.

(!) Conical Abutment prosthetic Platform has Ø 4.8 mm.

(!) Maximum occlusal angulation between two Conical Abutments is 40°.



Biological Width

Concave emergence • Potential for more soft tissue volume Minimizes cortical bone removal to install Abutment

Anterior and posterior

Indexed • 6 and 4mm cone heights
Single and multiple Castable Cemented Cylinders

Abutment Cemented Cylinder
 Single or multiple, cement-retained prosthesis

One-time one-abutment option

Prosthetic procedures over Abutment or Implant Platform

Zero margin Abutment

For limited interproximal spaces "0"







Cylinder		Non-Engaging Castable 6mm (L) Castable 4mm Engaging Castable, 6mm (L) Castable, 4mm	161413 161463 161414 161464	161418 101747 161419 101746	161423 101977 161424 101976
Analog		6mm (L) 4mm	161410 161462	161415 101745	161420 101975
Impression Coping		Closed Tray, 6mm (L) Closed Tray, 4mm	161412 161461	161417 101744	161422 101974
Healing Cap		6mm (L) 4mm	161411 161460	161416 101743	161421 101973
4mm		h 4.5 3 1.5 0.8	171157 171156 171155 171154	171162 171161 171160 171159	171167 171166 171165 171164
6mm • Long (L)		4.5 3 1.5 0.8 "O"	171142 171141 171140 171139 171138	171147 171146 171145 171144 171143	171152 171151 171150 171149 171148
Abutment Cemented	l Cylinder ——	с 			



Single or multiple, cement-retained prosthesis



Contour

Increased Biological Width

Concave emergence • Potential for more soft tissue volume Minimizes cortical bone removal to install Abutment

Robust design Preparable • Straight and 17°

Delicate slim profile Esthetic
Preparable • Straight and 15°

Impression at Implant Platform

Short and Long Impression Copings, Open and Closed Trays











Contour 17°	h 4.5 3 1.5	171116 171115 171114	171119 171118 171117	171122 171121 171120
Contour Straight	4.5 3 1.5	171107 171106 171105	171110 171109 171108	171113 171112 171111
Contour Abutment				
Esthetic 15°	h 4.5 3 1.5	171178 171177 171176	171181 171180 171179	• •
Esthetic Straight	4.5 3 1.5 0.8	171171 171170 171169 171168	171175 171174 171173 171172	• • •
Esthetic Abutment				
Implant Analog		•	171212	•
Impression Coping Implant	Open Tray Closed Tray Open Tray, Long Closed Tray Long	• • •	171206 171209 172418 172417	•
 Implant Impression				

Regular Abutment, Impression Coping or Analog is used.



Single or multiple, cement or screw-retained prosthesis



Increased Biological Width

Concave emergence • Potential for more soft tissue volume Minimizes cortical bone removal to install Cylinder

Provisional • Titanium

Flat areas and deep trapezoidal retentions

Definitive • Overcasting

Main body [CoCrMo] and waxing sleeve [POM] with retentions

Impression at Implant Platform

Short and Long Impression Copings Open and Closed Trays



		N	R	W
Cylinder	Engaging CoCrMo Titanium	171183 171182	171185 171184	171187 171186
Cylinder over Implant				
Implant Analog		٠	171212	٠
Implant Impression Coping	Open Tray Closed Tray Open Tray, Long Closed Tray Long	• • •	171206 171209 172418 172417	• • •
Implant Impression –				

Locator [®] Overdenture prosthesis		N	R	Ŵ
	h			
	4	•	2203	•
Abutment	3	٠	2202	•
	2	٠	2201	٠
	1	٠	2200	٠

Manufactured by Zest Dental M. Components and instruments not included in the P-I Catalog.
 Regular Abutment, Impression Coping or Analog is used.



(!) Scan Body, Analog + Digital for cast and 3D printed models, Milling Blank, Links, Geometry Contour and Bridge over Implant are available for upload at www.pibranemark.com and/or from CAD/CAM software, except Dentsply Sirona. Please check library version and availability.



Manufactured by SIC invent AB M. Link C post is similar to Dentsply Sirona, Cerec.

• Regular Scan Body, Analog + Digital, Milling Blanks or Links are used.

Kit One for all P-I Implant Systems





width	254 mm
height	40
depth	130

Advanced Stainless Steel 181036

Kit Trays options





w 202 h 67 d 158 Advanced Polymer 181022





W	120
h	40
d	80

Advanced Compact 181023







Prosthetic Compact 181029

(!) Please see Kit Composition at www.pibranemark.com/en/download for additional Kit contents. (!) Reference number for ordering purposes only. Instruments and Tray delivered separately.

Surgical Instruments

Drill				
<u> </u>	Initial	Ø	1/1138	
	Initial	2.2	141130	
		2.8	141146	
Ø 3.4 0	Conical	3.4	141148	
	Comedi	3.8	141314	
		4.8	1411315	
		3.3	141213	
	Danaa	3.75	141316	
Ø 3.75 U	Dense	4.0	141215	
		4.8 5.0	141317	
Implant Insertion Driver				
		Medium	Long	
	All Systems	131139	131140	•
_				
	HEX 3.5	131141	131142	
10015				
	Guide Pin	22128	131114	
		2.8 3.8	131115	
		221200	1/1525	
		2.2 2.0 C	141535	
		2.0 + 3.0 C	141000	
	Drill Extension		131028	
	Snade	15	141319	
		1.0	1/10/01	
	Konua Rall	ι.ŏ	141001	
	Depth Probe		141440	
//				

• Except External HEX Platform Ø 3.5

▲ Optional Instruments not included in the Advanced Kit contents.

Prosthetic Instruments



Torque Wrench



Manufactured by Elos MedTech Pinol A/S 🖬 . Torque Wrench Kit includes Surgical & Prosthetic Adapters.

• All Components except straight Conical Abutment and Locator®.

▲ Optional Instruments not included in the Advanced Kit contents.

(b) Guided Surgery

Surgical & Prosthetic precision

3D positioning precision

Fully guided Drills • Angular and axial guidance Increased accuracy for Implant installation and prosthetic position

Conventional Surgery

Same Drills and Instruments for both conventional and Guided Surgery

Simplification

Less Instruments [9mm] offset Stops • Stops can be pre-assembled

		Drill	Sleeve	Implant	
				h	Ø
	1	40 • Long	Narrow	8.5 • 15	3.3 • 3.75
	h	36.5 • Short	Regular	6 • 11.5	3.75 • 4.1
	\downarrow	40 • Long	Regular	11.5 • 15	3.75 • 4.1





Sleeves can be supplied as manufactured by Steco System Technik GmbH & Co. KG M. . www.steco.de
 Drill and Stop depth oriented by corresponding [9mm] offset. Height repositioning for Sleeve and Stop selection required for [+1.5] offset.

(!) Dimensions of Drills, Sleeves, Stops and Implants can be downloaded at exclusive.pibranemark.com. Please check availability.

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Initial 2.2

• Connects to Conical Drills GS Regular Ø 3.4.



Accessories



Lab & Replacement

Conical Abutmant									
Conical Abutment									
	Screw Cylinder								
	Corour Improgetion Corping	Open Tray	101737						
	Screw impression Coping	Closed Tray	171260						
Implant									
Inplant									
	Coated Screw MT		171239						
		Open Tray	171207						
	Screw Impression Coping	Closed Tray	102499						

Resonance Frequency Analysis







	rpm	600 - 1,200 Lowest possible rpm
Ncm	ITV	≤ 70 Ncm Insertion Torque Value
	Full Length	Prepare at planned full length of Implant position
	In-Out	Coordinated in-and-out movement of Conical Drills
	Irrigation	Constant irrigation to the insertion margin of Conical Drills



(!) Drills are less than 1 mm longer than Drill marks

SURGICAL SEQUENCE -



- (!) In order to not exceed 70Ncm, the subsequent Conical Drill should be considered with a maximum drilling depth of 6 mm. The full view of the Drills marks are fully visible when rotating.
- Guided Surgery Drills consider a [9mm] offset and, when used with Drill stops, allow for limiting the total length of osteotomy with the objective of providing predetermined Drill length and orientation through the surgical guide. Height repositioning for Sleeve and Stop selection required for [+1.5] offset.





One Driver

Manual • Torque Wrench

(!) Recommended Torques. Abutment and Components torques should not exceed the torque obtained at Implant installation. (!) One Prosthetic Driver, except Locator[®] and straight Conical Abutment.













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