

PRODUCT CATALOGUE

# Biomimetic **PEARL**





**PEARL** is the Avinent system of mini implants, an innovative product with unique features that aims to provide a quality alternative to what is available today as regards the range of solutions for removable, minimally invasive prostheses.

## CONTENTS

Biomimetic Pearl	4
Characteristics and specifications	6
Surgical phase	8
Prosthetic phase	8
Accessories	9
Drill-bit length and marking	10
Instruments and surgical kit	10
Drilling speed	10
AVINENT drilling protocol	11
Sterilization and packaging	12
Product index	14

# Biomimetic **PEARL**

## **A unique and resistant mini implant**

The Biomimetic PEARL system of mini implants is Avinent's innovative solution to provide a quality product as regards the range of systems for removable, minimally invasive prostheses.

It is a unique mini implant whose exclusive two-piece design makes it very easy to position the attachment and thereby control soft tissue. In addition, its polished collar is an ideal feature for unbeatable aesthetic results.

PEARL has been designed to help surgeons cover various gingival heights for a much more complete solution. It also benefits from a single protocol and unprecedented versatility, in addition to a very intuitive surgical procedure.

The PEARL mini implant also preserves the unique characteristics of CORAL and OCEAN implants as regards the BIOMIMETIC ADVANCED SURFACE (BAS), which is based on the biochemical processes taking place in nature that encourage osseointegration.



- ▶ Innovative two-piece design to help insert the attachment.
- ▶ Three different diameters, 2,0 / 2,4 / 2,8 mm, for a wide range of possibilities in all cases and maintaining the same platform in all diameters (3,0 mm).
- ▶ Polished collar for improved aesthetic results.
- ▶ Double progressive and asymmetric thread, which enables the implant to adapt perfectly to the various areas of the bone, thereby guaranteeing its penetration capacity in the apical zone and compacting capability in the area of the implant body.
- ▶ BIOMIMETIC ADVANCED SURFACE, which increases bone-implant contact (BIC) and accelerates osseointegration.
- ▶ Easy and intuitive drilling protocol.



## Unique two-piece design

PEARL is characterized by an innovative two-piece design (implant and abutment) that provides great versatility to practitioners and represents an ideal solution for removable, minimally invasive prostheses, as well as allowing immediate loading in cases of complete restoration and osseointegration over time.

The mini implant also features a polished collar for improved aesthetic results.

ø 2,0 mm



ø 2,4 mm



ø 2,8 mm



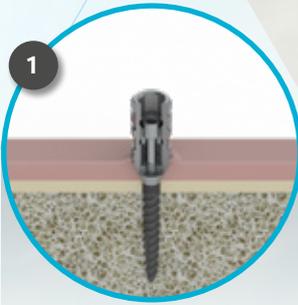
## Three diameters for all solutions

The PEARL system has three different diameters providing a wide range of possibilities in all cases and maintaining the 3,0 mm platform in all diameters.

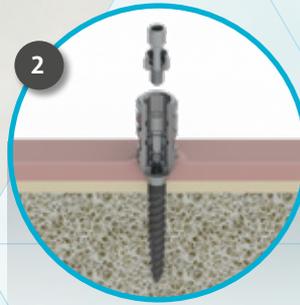
PEARL's 2,0 mm diameter is suitable for mandibles, its 2,4 mm for mandibles and maxillae and its 2,8 mm is recommended for maxillae, a perfect choice for all types of cases.

## Intuitive, effective placement

The system incorporates a transporter whose function is to prevent soft tissue collapse from insertion of the implant to the placement of the abutment.



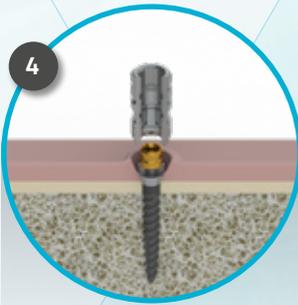
1  
Placement of the implant alongside the transporter



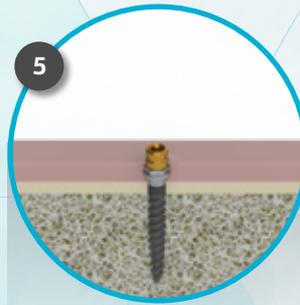
2  
Removal of the screw once the transporter is positioned



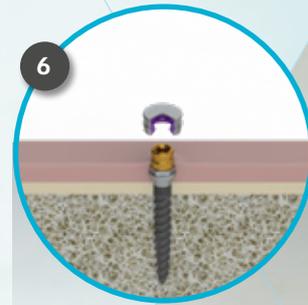
3  
Placement of guided Rhein abutment thanks to the transporter, avoiding soft tissue collapse



4  
Removal of transporter



5  
Tissue fit around the abutment



6  
Placement of final restoration



## Attachment to control soft tissues

The PEARL system has three different attachments to resolve height differences in gums of varying thickness. This fact implies a safety margin for practitioners when it comes to positioning the mini implant because it provides them with different options according to the final placement result.

# Biomimetic PEARL

## SURGICAL PHASE

		Platform Ø 3 mm					
		Ø 2,0 mm		Ø 2,4 mm		Ø 2,8 mm	
			Ref.		Ref.		Ref.
Implant		2,0 x 10 mm	3819	2,4 x 10 mm	3917	2,8 x 10 mm	3920
		2,0 x 11,5 mm	3916	2,4 x 11,5 mm	3918	2,8 x 11,5 mm	3921
		2,0 x 13 mm	3826	2,4 x 13 mm	3919	2,8 x 13 mm	3922
		2,0 x 15 mm	3930	2,4 x 15 mm	3931	2,8 x 15 mm	3932
Cover screw		4199					
		Platform Ø 3 mm					
		Ø 3,5 mm			Ø 4,0 mm		
			Ref.		Ref.		Ref.
Healing abutment		H 2,5	6016	H 2,5	6019		
		H 3,5	6017	H 3,5	6020		
		H 5,5	6018	H 5,5	6021		

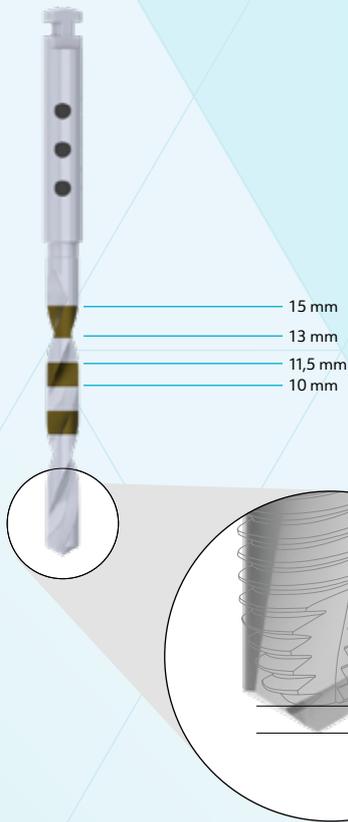
## PROSTHETIC PHASE

		Platform Ø 3 mm	
		Ø 2,5 mm	Ref.
Overdenture abutment		2,5 x 0,8 mm 2,5 x 1,8 mm 2,5 x 2,8 mm	4166 4167 4168
Processing cap (2 u.) <sup>1</sup>		3317	
Processing cap Smart Box <sup>2</sup>		4210	
Smart Box Housing <sup>2</sup>		4211	
Tool for insertion and extraction caps		4209	
Impression coping		3318	
Analog		3319	
Retention replacement male purple** (2,7 kgf)		3322	
Retention replacement male white** (1,8 kgf)		3323	
Retention replacement male pink** (1,2 kgf)		3324	
Retention replacement male yellow** (0,6 kgf)		3325	
Retention replacement male black** (Only for laboratories)		4695	
Retention replacement Smart Box** (Only for laboratories)		4212	

## ACCESORIES

		Ref.
MiniBox		0526
Torque wrench		0295
Screwdrivers	 Screwdriver ISO 1797 L (048)	0277
	 Implant driver ISO 1797 EC/IC L (2.5)	2693
	 Screwdriver gold screw ISO 1797 Screwdriver Rhein 83 abutment	0263
Screwdriver handle	 Handle ISO 1797 S	0791
Implant handle	 Handle ISO 1797 S Handle ISO 1797 L	1878 2891
Monoblock screwdrivers	 Screwdriver S (048)	0274
	 Implant driver S (2.5)	0278
Drills	 Tissue punch	4165
	 Drill	1,3 x 10 - 15 mm 3956 1,6 x 7 - 15 mm 2046 2,0 x 7 - 15 mm 0089 2,4 x 10 - 15 mm 3957
Drill extension ISO 1797		0655

\*\* In blisters of four units  
<sup>1</sup> Maximum angulation 25°  
<sup>2</sup> Maximum angulation 50°



## Drill-bit length and marking

Avinent drills carry laser markings to improve visibility during osteotomy and follow a point code according to the drilling sequence. The marking corresponds to the length of the implant in crestal placement, but the distances are not absolute from the tip of the instrument to the mark. The length of the drill tip is not included in the depth mark, so this distance must be taken into account when planning treatment and in carrying out the osteotomy.

DRILL	A
ø 1,3 mm	0,35 mm
ø 1,6 mm	0,35 mm
ø 2,0 mm	0,50 mm
ø 2,4 mm	0,50 mm

## Advisable torque

TYPE	VALUE	
<b>Mechanical</b>	35 Ncm	Screw for single abutment*
	15 Ncm	Temporary Abutment Ti / PEEK
	25 Ncm	RHEIN83° Abutment (OT Equator)
<b>Manual</b>	≈8-15 Ncm	Scan Abutment
		Impression coping open/closed tray engaging
		Healing Abutment Ti / PEEK
		Healing cap

\* Regarding: Titanium base, Cemented abutment and Cemented angled abutment, Castable CoCr Base.

## Instruments and surgical kit

Avinent provides specialists with high precision instruments whose design is adapted to the implant. Avinent's smaller and more versatile compact kit allows you to select a specific sequence and take everything required for the surgical procedure with you in a small container. The kit is sterilizable and can hold all the items needed for inserting prostheses.



## Drilling speed

	rpm
Drill ø 1,3 mm	800 - 1.200
Drill ø 1,6 mm	200 - 400 *
Drill ø 2,0 mm	200 - 400 *
Drill ø 2,4 mm	200 - 400

\* Important note: A drilling speed of 800 - 1.200 rpm is recommended when using 1,6 mm and 2,0 mm drill bits for initial drilling.

Maximum recommended torque for implant insertion: 45 Ncm

Recommended torque to achieve a good primary stability: 30-35 Ncm

Maximum recommended speed for implant insertion: 20 rpm

## Tissue punch

The Avinent tool that can make a circular cut of soft tissue. The markings it carries help to identify which Rhein abutment needs to be placed according to gum thickness.



**Mark 1\*, 2\* and 3 mm:**  
suitable for 0,8 mm attachment

**Mark 4 mm:**  
suitable for 1,8 mm attachment

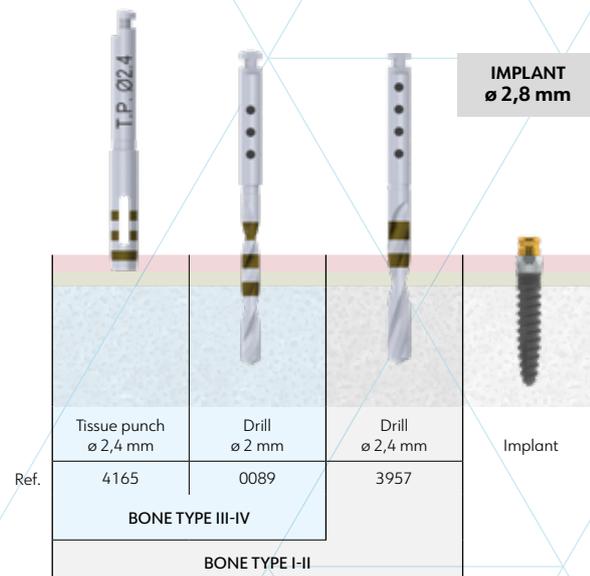
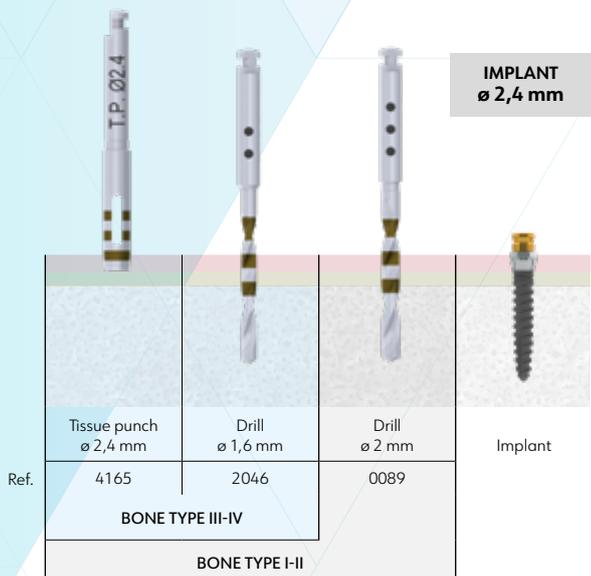
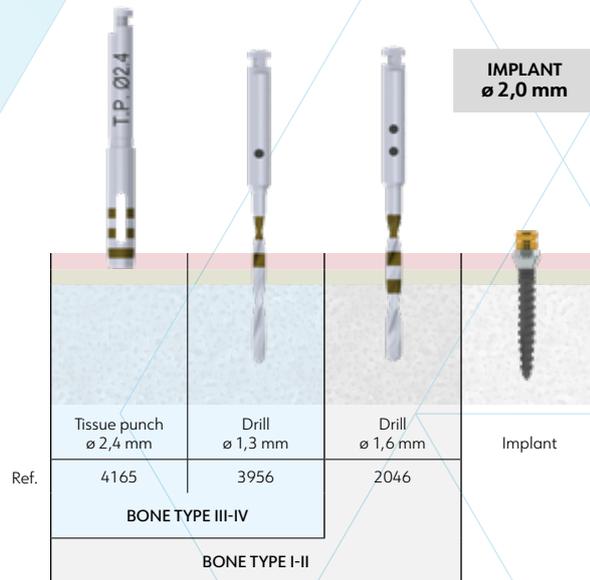
**Mark 5 mm:**  
suitable for 2,8 mm attachment

\* Marks 1 and 2 mm will leave the implant exposed.

## Avinent drilling protocol

The PEARL system surgical drilling protocol makes for easy, intuitive and streamlined placement in order to prioritize soft tissue and emergency profile preservation for excellent, practical results.

Avinent PEARL is suitable for all bone types. The diameter of the system's helical drill bits is related to the implant core to be inserted, so it is advisable to follow the system's own drilling and instrument sequence. The finish of the drills makes it easier to locate the length indicator marks during surgery.



## Sterilization and packaging



3.0



Avinent implants are subjected to a sterilization process in accordance with the requirements of the CE mark for medical products. Avinent supplies its implants in packaging that is easily identified by a simple color code. The vial stopper is white and has a sticker indicating the diameter and length of the implant.

The Avinent implant system is sold in a sterile blister pack, which ensures that the implant is fully protected until the given expiry date, provided that it is stored in suitable conditions.

Avinent supplies labeling with all its products that ensures every item can be properly traced by means of stickers that can be used in the patient's case history or in any other documentation require.



Blister pack (front and back)



Vial



Opening the vial



Implant

## Opening the packaging

- Open the box and take out the blister pack.
- Open the blister pack and leave the vial containing the implant in the sterile working area, avoiding contact with any item that is not sterile. The sterile blister pack must not be opened prior to use.
- Open the vial by gripping the white stopper with one hand while holding the transparent part in the other.
- Fit the transporting tool (manual or mechanical for contra-angle) to the implant holder.
- Press to make a tight fit and raise the implant set slightly.

## Information on implant box

Rx only

**CE** 0197 **Biomimetic** PEARL

Manufacturer:  
AVINENT Implant System S.L.U.  
Pol. Ind. Santa Anna I, 08251 Santpedor (Barcelona) Spain.

**STERILE R** ifu.avinent.com

### Implant box label

**Implant**  
Ø 2.8 x 10 (3.0) Ti  
**REF** 1558

ES Implante  
PT Implante  
FR Implant

(01) 08435452001046  
(10) XXXXX  
(17) AAMMDD

**LOT** XXXX

USE BY AAAA-MM-DD

### Labels for product traceability

**AVINENT**  
Implant Ø 2.8 x 10 (3.0)  
**REF** 1558 **LOT** XXXX  
**GTIN** 08435452001046  
**STERILE R** AAAA-MM-DD

**AVINENT**  
Implant Ø 2.8 x 10 (3.0)  
**REF** 1558 **LOT** XXXX  
**GTIN** 08435452001046  
**STERILE R** AAAA-MM-DD

**AVINENT**  
Implant Ø 2.8 x 10 (3.0)  
**REF** 1558 **LOT** XXXX  
**GTIN** 08435452001046  
**STERILE R** AAAA-MM-DD

**AVINENT**  
Purchasing / Compra  
**REF** 1558  
**LOT** XXXX

Ø 2.8 x 10 (3.0)	Diameter x length (implant holder)
Ti	Titanium
<b>REF</b> 1558	Reference number
<b>LOT</b> xxxxxx	Batch code
AAAA-MM-DD	Expiry date
<b>STERILE R</b>	Sterile. Sterilization method: radiation
ifu.avinent.com	Consult instructions for use
	Manufacturer
<b>CE</b>	CE Mark NB num 0197. TÜV Rheinland
Rx only	(For the USA only) CAUTION: Federal law restricts this device to sale by or on the order of a physician
(01) 08435452001046 (10) XXXXX (17) AAMMDD	UDI (Unique Device Identifier Carrier)
	Do not re-use
	Do not re-sterilize

## Product index

REF.	DESCRIPTION	PAGE	REF.	DESCRIPTION	PAGE
0089	Drill ø 2,0 x 7 - 15 mm	9	3932	Biomimetic Pearl implant 2,8 x 15 (3,0)	8
0263	Screwdriver gold screw ISO 1797 Screwdriver Rhein 83 abutment	9	3956	Drill ø 1,3 x 10 - 15 mm	9
0274	Screwdriver S (048)	9	3957	Drill ø 2,4 x 10 - 15 mm	9
0277	Screwdriver ISO 1797 L (048)	9	4165	Tissue punch	9
0278	Implant driver S (2.5)	9	4166	Rhein 83 abutment 2,5 x 0,8	8
0295	Torque wrench	9	4167	Rhein 83 abutment 2,5 x 1,8	8
0526	MiniBox	9	4168	Rhein 83 abutment 2,5 x 2,8	8
0655	Drill extension	9	4199	Cover screw	8
0791	Handle ISO 1797 S	9	4209	Rhein 83 tool for insertion and extraction caps	8
1878	Implant handle S	9	4210	Processing cap Smart Box	8
2046	Drill ø 1,6 x 7 - 15 mm	9	4211	Smart Box Housing	8
2693	Implant driver ISO 1797 EC/IC L (2.5)	9	4212	Retention replacement Smart Box (4 u.) (Only for laboratories)	8
2891	Implant handle L	9	4695	Retention replacement male black (4 u.) (Only for laboratories)	8
3317	Rhein 83 Processing cap (2 u.)1	8	6016	Healing abutment H 2,5 ø 3,5 (3,0)	9
3318	Rhein 83 impression coping	8	6017	Healing abutment H 3,5 ø 3,5 (3,0)	9
3319	Rhein 83 analog (2 units)	8	6018	Healing abutment H 5,5 ø 3,5 (3,0)	9
3322	Retention replacement male purple (2,7 kgf) (4 u.)	9	6019	Healing abutment H 2,5 ø 4,0 (3,0)	9
3323	Retention replacement male transparent (1,8 kgf) (4 u.)	9	6020	Healing abutment H 3,5 ø 4,0 (3,0)	9
3324	Retention replacement male pink (1,2 kgf) (4 u.)	9	6021	Healing abutment H 5,5 ø 4,0 (3,0)	9
3325	Retention replacement male yellow (0,6 kgf) (4 u.)	9			
3819	Biomimetic Pearl implant 2,0 x 10 (3,0)	8			
3826	Biomimetic Pearl implant 2,0 x 13 (3,0)	8			
3916	Biomimetic Pearl implant! 2,0 x 11,5 (3,0)	8			
3917	Biomimetic Pearl implant 2,4 x 10 (3,0)	8			
3918	Biomimetic Pearl implant 2,4 x 11,5 (3,0)	8			
3919	Biomimetic Pearl implant 2,4 x 13 (3,0)	8			
3920	Biomimetic Pearl implant 2,8 x 10 (3,0)	8			
3921	Biomimetic Pearl implant 2,8 x 11,5 (3,0)	8			
3922	Biomimetic Pearl implant 2,8 x 13 (3,0)	8			
3930	Biomimetic Pearl implant 2,0 x 15 (3,0)	8			
3931	Biomimetic Pearl implant 2,4 x 15 (3,0)	8			





Carretera de Navarcles, 107  
Pol. Industrial Santa Anna I  
08251 Santpedor (Barcelona) - España  
T. (+34) 93 827 34 65 - F. (+34) 93 827 38 73  
[www.avinent.com](http://www.avinent.com) - [avinent@avinent.com](mailto:avinent@avinent.com)

**AVINENT AUSTRALIA**  
[australia@avinent.com](mailto:australia@avinent.com)

**AVINENT BENELUX**  
[benelux@avinent.com](mailto:benelux@avinent.com)

**AVINENT CANADA**  
[canada@avinent.com](mailto:canada@avinent.com)

**AVINENT COLOMBIA**  
[colombia@avinent.com](mailto:colombia@avinent.com)

**AVINENT CROATIA**  
[croatia@avinent.com](mailto:croatia@avinent.com)

**AVINENT FRANCE**  
[france@avinent.com](mailto:france@avinent.com)

**AVINENT KUWAIT**  
[kuwait@avinent.com](mailto:kuwait@avinent.com)

**AVINENT LITHUANIA**  
[lithuania@avinent.com](mailto:lithuania@avinent.com)

**AVINENT POLAND**  
[poland@avinent.com](mailto:poland@avinent.com)

**AVINENT PORTUGAL**  
[portugal@avinent.com](mailto:portugal@avinent.com)

**AVINENT ROMANIA**  
[romania@avinent.com](mailto:romania@avinent.com)

**AVINENT TAIWAN**  
[taiwan@avinent.com](mailto:taiwan@avinent.com)

**AVINENT UKRAINE**  
[ukraine@avinent.com](mailto:ukraine@avinent.com)

**AVINENT UNITED ARAB EMIRATES**  
[uae@avinent.com](mailto:uae@avinent.com)

**AVINENT UNITED KINGDOM**  
[uk@avinent.com](mailto:uk@avinent.com)

**AVINENT USA**  
[usa@avinent.com](mailto:usa@avinent.com)

**AVINENT VIETNAM**  
[vietnam@avinent.com](mailto:vietnam@avinent.com)



Management  
System  
ISO 13485:2016  
[www.tuv.com](http://www.tuv.com)

