



# Basic Information on the Straumann® Novaloc® Retentive System for Hybrid Dentures

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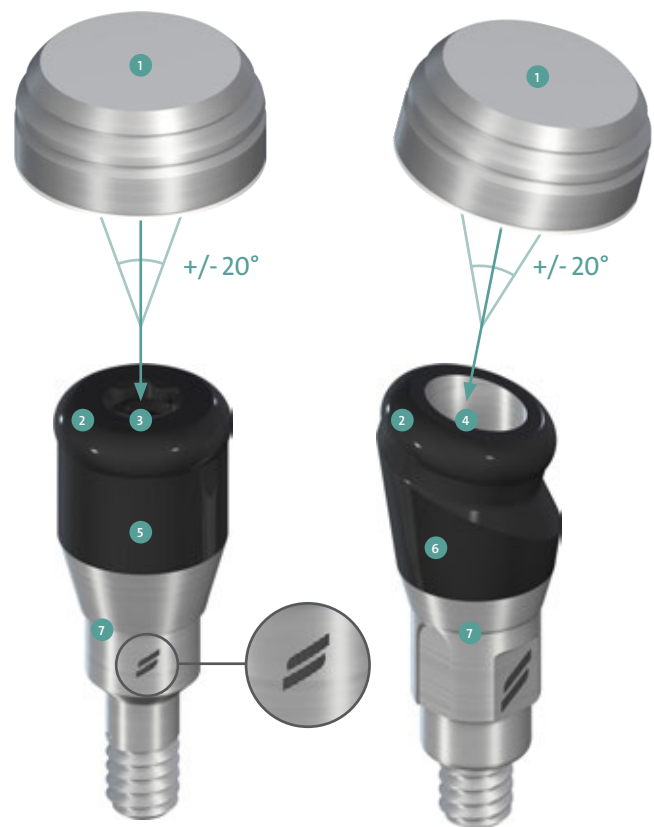
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# 1. The Novaloc<sup>®</sup> Retentive System for hybrid dentures

The Straumann<sup>®</sup> Novaloc<sup>®</sup> Retentive System for hybrid dentures offers an innovative carbon-based abutment coating (ADLC<sup>1</sup>) with an excellent wear resistance, overcoming up to 60° implant divergence. Both the straight and 15° angled abutments are available in various gingiva heights, covering a broad range of clinical implant situations. Together with its durable PEEK<sup>2</sup> matrices, the Novaloc<sup>®</sup> Retentive System provides a unique and long-lasting attachment performance.

## 1.1 Straumann<sup>®</sup> Novaloc<sup>®</sup> Retentive System at a glance

- 1 – PEEK<sup>2</sup> matrix inserts offering excellent chemical and physical properties
  - Matrix accommodates up to 40° prosthetic divergence between two abutments
  - 6 retention strengths offer optimal adjustment of the denture retention
  - Matrix Housing available in titanium, or color-neutral PEEK<sup>2</sup> for a more aesthetic outcome
- 2 – Carbon-based abutment coating (ADLC<sup>1</sup>) offering a smooth surface and ultimate hardness
  - for excellent wear resistance
- 3 – Compatible to the standard SCS Screw-driver
  - self-retaining system preventing aspiration
  - Small stud hole prevents food accumulation
- 4 – Compatible to the standard SCS Screwdriver
  - self-retaining system preventing aspiration
- 5 – Available in 6 gingiva heights: 1 to 6 mm
- 6 – Available in 5 gingiva heights: 2 to 6 mm
- 7 – Laser-marked gingiva height and implant platform
  - Rely on the original implant-abutment connection
    - Perfectly matching components
    - Excellent service and support



Novaloc<sup>®</sup> Abutment, straight

Novaloc<sup>®</sup> Abutment, 15° angled<sup>°</sup>

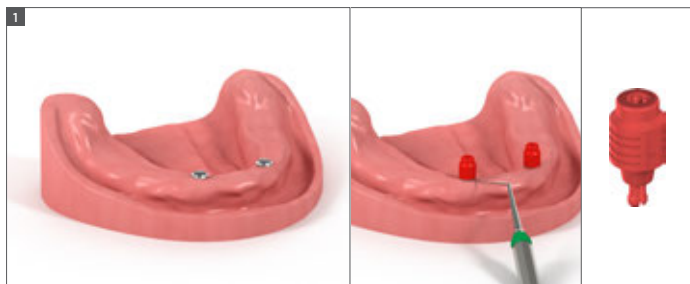
<sup>1</sup> Amorphous Diamond-Like Carbon

<sup>2</sup> Polyether ether ketone

## 2. Creating a new overdenture with the Novaloc® Retentive System

### 2.1 Procedure in the dental office

#### 2.1.1 Selecting Novaloc® Abutment height



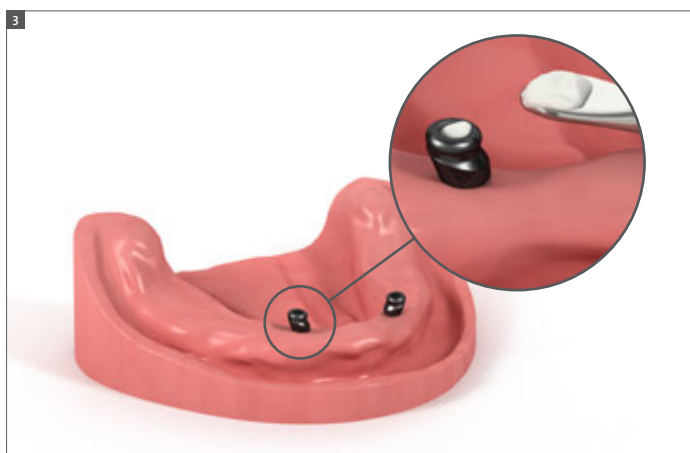
##### Step 1 – Selecting the abutment

- Ensure that the implant shoulder is not covered by hard or soft tissue
- Determine the appropriate gingiva height by counting the marks on the Novaloc® Plan Abutments.



##### Step 2 – Inserting the Abutment

- Screw the Novaloc® Abutment tightly by hand into the implant using the Straumann® Screwdriver.
- Torque the abutment to 35 Ncm using the Ratchet, the Torque Control Device and the SCS Screwdriver.



##### Step 3 – Sealing the screw channel of the Novaloc® Angled Abutment

- Use Teflon and composite in order to seal the screw channel of the Novaloc® Angled Abutment. Ensure that the composite is planar to the abutment.

##### Note:

A uniform horizontal height of all Novaloc® Abutments makes it easier for the patient to insert the prosthesis.

### 2.1.2 Impression taking – abutment-level



#### Step 1 – Placing the Novaloc® Forming/Fixing Matrix

- Place the Forming/Fixing Matrix on the Novaloc® Abutment.



#### Step 2 – Impression taking

- Use the mucodynamic technique for impression taking (vinyl polysiloxane or polyether rubber).
- Send the impression to the dental lab.

## 2.2 Procedure in the dental lab

### 2.2.1 Master cast – abutment-level impression



#### Step 1 – Inserting the Novaloc® Model Analog

- Insert the Novaloc® Model Analogs into the Novaloc® Forming/Fixing Matrix (see chapter 3 Using the Novaloc® Tools).



#### Step 2 – Fabricating the master cast

- Pour a master model using standard methods and type-4 dental stone (DIN 6873).

#### Note:

The master model can also be created with an implant-level impression.

## 2.2.2 Finalizing the new Novaloc® overdenture



### Step 1 – Placing the Novaloc® Mounting Collar and Matrix Housing

- Place white Mounting collars on all Novaloc® Model Analogs.
- Place the Matrix Housing incl. preassembled Mounting Insert onto the Novaloc® Abutments.

#### Note:

For a chair-side polymerization of the Novaloc® Matrix Housing use the Novaloc® Processing Spacer to create the space needed.

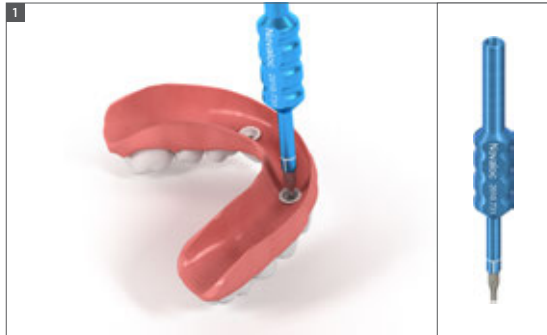


### Step 2 – Processing the overdenture

- Process the overdenture according to standard procedures.
- The dental lab will return the finalized Novaloc® overdenture to the dental office including the Mounting Inserts in place.

## 2.3 Procedure in the dental office

### 2.3.1 Seating the new Novaloc® overdenture



#### Step 1 – Removing the Novaloc® Mounting Insert

- Remove all Mounting Inserts from the Matrix Housing using the Demounting Tool for Mounting Inserts (blue) (see chapter 3 Using the Novaloc® Tools).



#### Step 2 – Selecting and inserting the Novaloc® Retention Inserts

- Select the appropriate Novaloc® Retention Insert (see chapter 4 Special featured Novaloc® components).
- Insert the Novaloc® Retention Inserts to the Matrix Housing using the Mounting and Demounting Tool for Retention Inserts (brown) (see chapter 3 Using the Novaloc® Tools).



#### Step 3 – Seating the finished overdenture

- Seat the finished overdenture and check the occlusion.

# 3. Using the Novaloc® Tools

## 3.1 Novaloc® Matrix Housing Extractor (Fig. 1)

### Removing the Novaloc® Matrix Housing from an overdenture

1. Heat the Novaloc® Matrix Housing Extractor head (Fig. 2).
2. Apply the hot Novaloc® Matrix Housing Extractor to the Matrix Housing and let the heat transfer for 2–3 seconds melting the resin around the Matrix Housing.
3. Tilt the Novaloc® Matrix Housing Extractor to the opposite side of the beak-shape end in order to remove the Novaloc® Matrix Housing. (Fig. 3).

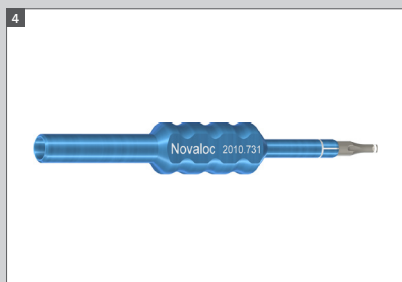
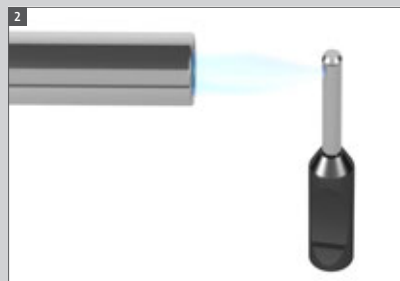
## 3.2 Novaloc® Demounting Tool for Mounting Inserts and Model Analog Reposition Aid (Fig. 4)

### Removing the Novaloc® Mounting Insert

4. Insert the toe of the Novaloc® Demounting Tool into the Novaloc® Mounting Insert (Fig. 5).
5. Tip the Novaloc® Demounting Tool to the opposite side of the foot-shaped end and remove the Novaloc® Mounting Insert from the Novaloc® Matrix Housing (Fig. 6).

### Placing the Novaloc® Model Analog

1. Pick up the Novaloc® Model Analog with the opposite side of the Novaloc® Demounting Tool (Fig. 7/8).
2. Position the Novaloc® Model Analog in the impression (Fig. 9).





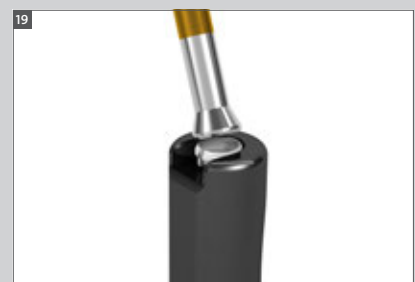
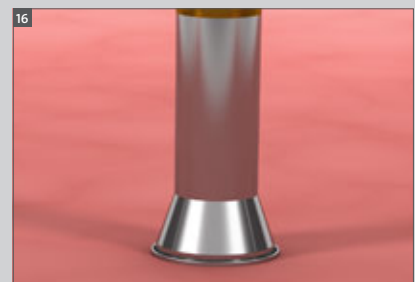
### 3.3 Novaloc® Mounting and Demounting Tool for Retention Inserts (Fig. 11)

#### Mounting the Novaloc® Retention Insert

1. Pick up the Novaloc® Retention Insert with the gripper end of the Novaloc® Mounting and Demounting Tool. The Novaloc® Retention Insert will lock on to the tool (Fig. 12).
2. Place the Novaloc® Retention Insert into the Novaloc® Matrix Housing (Fig. 13). The Novaloc® Retention Insert “clicks” into position (Fig. 14).

#### Demounting the Novaloc® Retention Insert

1. Apply the plunger end of the Novaloc® Mounting and Demounting Tool to the Novaloc® Retention Insert and engage with light pressure (Fig. 15/16).
2. Remove the Novaloc® Retention Insert from the Novaloc® Matrix Housing using a slight rotational movement (Fig. 17).
3. Use the special indentation in the handle of the Novaloc® Matrix Housing Extractor (Fig. 1) to remove the Novaloc® Retention Insert from the Novaloc® Mounting and Demounting Tool with a tilting movement (Fig. 18/19).



## 4. Special featured Novaloc® Components



### Novaloc® Retention Inserts

The Novaloc® matrix system allows for a prosthetic insertion of up to +/- 20° divergence, meaning 40° between two Novaloc® Abutments.

#### Note:

It is recommended to use the light retention force first (white). In case it feels too loose for the patient, exchange with inserts with a higher retention force.



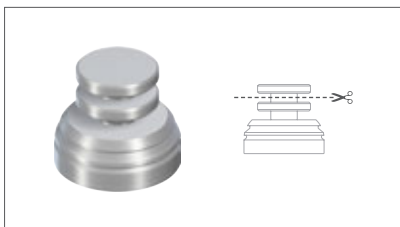
### Novaloc® Mounting Collar

The Mounting Collar blocks out the area surrounding the abutment, preventing that resin or a bonding agent flows into the Matrix Housing and imbedding the abutment.



### Novaloc® Matrix Housing, PEEK

The neutral-colored PEEK Matrix Housing is used for extremely labial or buccal implant positions preventing grey irritation coming from a titanium Matrix Housing.



### Novaloc® Matrix Housing with attachment option

This Matrix Housing offers an extended attachment option. It is used for low-lying abutment heights or in situations requiring more retention. The attachment may be shortened according the required height.



### Novaloc® Mounting Insert

The Novaloc® Mounting Insert protects the interior of the Novaloc® Matrix Housing and keeps it in place during processing. Furthermore, it also prevents any resin or bonding agents of entering into the Novaloc® Matrix Housing during fixation.



### Novaloc® Processing Spacer

The Novaloc® Processing Spacer is a placeholder for the Novaloc® Matrix Housing. It is used for the model-cast, cast metal-reinforced denture or if the Novaloc® Matrix Housing shall be polymerized into the overdenture chair-side.

## 5. Product reference list


Straumann® Novaloc® Abutment, straight, 0°*				
	Art. No.	Description	Gingiva height	Material
	048.812	RN Novaloc® Abutment, 0°	1 mm	Titanium Gr 5/ADLC
	048.813	RN Novaloc® Abutment, 0°	2 mm	Titanium Gr 5/ADLC
	048.814	RN Novaloc® Abutment, 0°	3 mm	Titanium Gr 5/ADLC
	048.815	RN Novaloc® Abutment, 0°	4 mm	Titanium Gr 5/ADLC
	048.816	RN Novaloc® Abutment, 0°	5 mm	Titanium Gr 5/ADLC
	048.817	RN Novaloc® Abutment, 0°	6 mm	Titanium Gr 5/ADLC
	048.818	WN Novaloc® Abutment, 0°	1 mm	Titanium Gr 5/ADLC
	048.819	WN Novaloc® Abutment, 0°	2 mm	Titanium Gr 5/ADLC
	048.820	WN Novaloc® Abutment, 0°	3 mm	Titanium Gr 5/ADLC
	048.821	WN Novaloc® Abutment, 0°	4 mm	Titanium Gr 5/ADLC
	048.822	WN Novaloc® Abutment, 0°	5 mm	Titanium Gr 5/ADLC
	048.823	WN Novaloc® Abutment, 0°	6 mm	Titanium Gr 5/ADLC
	048.806	NNC Novaloc® Abutment, 0°	1 mm	Titanium Gr 5/ADLC
	048.807	NNC Novaloc® Abutment, 0°	2 mm	Titanium Gr 5/ADLC
	048.808	NNC Novaloc® Abutment, 0°	3 mm	Titanium Gr 5/ADLC
	048.809	NNC Novaloc® Abutment, 0°	4 mm	Titanium Gr 5/ADLC
	048.810	NNC Novaloc® Abutment, 0°	5 mm	Titanium Gr 5/ADLC
	048.811	NNC Novaloc® Abutment, 0°	6 mm	Titanium Gr 5/ADLC
	022.0046	NC Novaloc® Abutment, 0°	1 mm	Titanium Gr 5/ADLC
	022.0047	NC Novaloc® Abutment, 0°	2 mm	Titanium Gr 5/ADLC
	022.0048	NC Novaloc® Abutment, 0°	3 mm	Titanium Gr 5/ADLC
	022.0049	NC Novaloc® Abutment, 0°	4 mm	Titanium Gr 5/ADLC
	022.0050	NC Novaloc® Abutment, 0°	5 mm	Titanium Gr 5/ADLC
	022.0051	NC Novaloc® Abutment, 0°	6 mm	Titanium Gr 5/ADLC
	022.0052	RC Novaloc® Abutment, 0°	1 mm	Titanium Gr 5/ADLC
	022.0053	RC Novaloc® Abutment, 0°	2 mm	Titanium Gr 5/ADLC
	022.0054	RC Novaloc® Abutment, 0°	3 mm	Titanium Gr 5/ADLC
	022.0055	RC Novaloc® Abutment, 0°	4 mm	Titanium Gr 5/ADLC
	022.0056	RC Novaloc® Abutment, 0°	5 mm	Titanium Gr 5/ADLC
	022.0057	RC Novaloc® Abutment, 0°	6 mm	Titanium Gr 5/ADLC

ADLC = Amorphous Diamond-Like Carbon




\* Manufacturer  
Institut Straumann AG  
4002 Basel  
Switzerland

Not all products are available in all countries.

**Straumann® Novaloc® Abutment, angled, 15°\***

	Art. No.	Description	Gingiva height	Material
	048.832**	RN Novaloc® Abutment, 15°	2 mm	Titanium Gr 5/ADLC
	048.833**	RN Novaloc® Abutment, 15°	3 mm	Titanium Gr 5/ADLC
	048.834**	RN Novaloc® Abutment, 15°	4 mm	Titanium Gr 5/ADLC
	048.835**	RN Novaloc® Abutment, 15°	5 mm	Titanium Gr 5/ADLC
	048.836**	RN Novaloc® Abutment, 15°	6 mm	Titanium Gr 5/ADLC
	048.837**	WN Novaloc® Abutment, 15°	2 mm	Titanium Gr 5/ADLC
	048.838**	WN Novaloc® Abutment, 15°	3 mm	Titanium Gr 5/ADLC
	048.839**	WN Novaloc® Abutment, 15°	4 mm	Titanium Gr 5/ADLC
	048.840**	WN Novaloc® Abutment, 15°	5 mm	Titanium Gr 5/ADLC
	048.841**	WN Novaloc® Abutment, 15°	6 mm	Titanium Gr 5/ADLC

**Straumann® Novaloc® Abutment, angled, 15° | Type A\***

	Art. No.	Description	Gingiva height	Material
	048.842**	NNC Novaloc® Abutment, 15°	2 mm	Titanium Gr 5/ADLC
	048.843**	NNC Novaloc® Abutment, 15°	3 mm	Titanium Gr 5/ADLC
	048.844**	NNC Novaloc® Abutment, 15°	4 mm	Titanium Gr 5/ADLC
	048.845**	NNC Novaloc® Abutment, 15°	5 mm	Titanium Gr 5/ADLC
	048.846**	NNC Novaloc® Abutment, 15°	6 mm	Titanium Gr 5/ADLC
	022.0062**	NC Novaloc® Abutment, 15°	2 mm	Titanium Gr 5/ADLC
	022.0063**	NC Novaloc® Abutment, 15°	3 mm	Titanium Gr 5/ADLC
	022.0064**	NC Novaloc® Abutment, 15°	4 mm	Titanium Gr 5/ADLC
	022.0065**	NC Novaloc® Abutment, 15°	5 mm	Titanium Gr 5/ADLC
	022.0066**	NC Novaloc® Abutment, 15°	6 mm	Titanium Gr 5/ADLC
	022.0067**	RC Novaloc® Abutment, 15°	2 mm	Titanium Gr 5/ADLC
	022.0068**	RC Novaloc® Abutment, 15°	3 mm	Titanium Gr 5/ADLC
	022.0069**	RC Novaloc® Abutment, 15°	4 mm	Titanium Gr 5/ADLC
	022.0070**	RC Novaloc® Abutment, 15°	5 mm	Titanium Gr 5/ADLC
	022.0071**	RC Novaloc® Abutment, 15°	6 mm	Titanium Gr 5/ADLC




ADLC = Amorphous Diamond-Like Carbon

\* Manufacturer  
 Institut Straumann AG  
 4002 Basel  
 Switzerland

Not all products are available in all countries.

\*\* Available in Q3/2016

**Straumann® Novaloc® Abutment, angled, 15° | Type B\***

	Art. No.	Description	Gingiva height	Material
	048.847**	NNC Novaloc® Abutment, 15°	2 mm	Titanium Gr 5/ADLC
	048.848**	NNC Novaloc® Abutment, 15°	3 mm	Titanium Gr 5/ADLC
	048.849**	NNC Novaloc® Abutment, 15°	4 mm	Titanium Gr 5/ADLC
	048.850**	NNC Novaloc® Abutment, 15°	5 mm	Titanium Gr 5/ADLC
	048.851**	NNC Novaloc® Abutment, 15°	6 mm	Titanium Gr 5/ADLC
	022.0072**	NC Novaloc® Abutment, 15°	2 mm	Titanium Gr 5/ADLC
	022.0073**	NC Novaloc® Abutment, 15°	3 mm	Titanium Gr 5/ADLC
	022.0074**	NC Novaloc® Abutment, 15°	4 mm	Titanium Gr 5/ADLC
	022.0075**	NC Novaloc® Abutment, 15°	5 mm	Titanium Gr 5/ADLC
	022.0076**	NC Novaloc® Abutment, 15°	6 mm	Titanium Gr 5/ADLC
	022.0077**	RC Novaloc® Abutment, 15°	2 mm	Titanium Gr 5/ADLC
	022.0078**	RC Novaloc® Abutment, 15°	3 mm	Titanium Gr 5/ADLC
	022.0079**	RC Novaloc® Abutment, 15°	4 mm	Titanium Gr 5/ADLC
	022.0080**	RC Novaloc® Abutment, 15°	5 mm	Titanium Gr 5/ADLC
	022.0081**	RC Novaloc® Abutment, 15°	6 mm	Titanium Gr 5/ADLC

ADLC = Amorphous Diamond-Like Carbon

\* Manufacturer  
 Institut Straumann AG  
 4002 Basel  
 Switzerland

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Retention Inserts\*




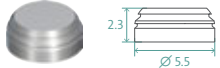





	Art. No.	Description	Material	Retention	Quantity
	2010.601-STM	<b>Processing Package titanium</b>			
		Titanium Matrix Housing (including Mounting Insert)			2 pcs
		Retention Insert, white, light			2 pcs
		Retention Insert, yellow, medium			2 pcs
		Retention Insert, green, strong			2 pcs
		Mounting Collar, silicone			2 pcs
	2010.611-STM	<b>Processing Package PEEK</b>			
		PEEK Matrix Housing (including Mounting Insert)			2 pcs
		Retention Insert, white, light			2 pcs
		Retention Insert, yellow, medium			2 pcs
		Retention Insert, green, strong			2 pcs
		Mounting Collar, silicone			
	2010.710-STM	Novaloc® Retention Insert, red	PEEK	Extra-light, approx. 300g	4 pcs
	2010.711-STM	Novaloc® Retention Insert, white	PEEK	Light, approx. 750g	4 pcs
	2010.712-STM	Novaloc® Retention Insert, yellow	PEEK	Medium, approx. 1200g	4 pcs
	2010.713-STM	Novaloc® Retention Insert, green	PEEK	Strong, approx. 1650g	4 pcs
	2010.714-STM	Novaloc® Retention Insert, blue	PEEK	Extra-strong, approx. 2100g	4 pcs
	2010.715-STM	Novaloc® Retention Insert, black	PEEK	Ultra-strong, approx. 2550g	4 pcs

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\* Manufacturer  
Valoc AG  
4313 Möhlin  
Switzerland

\* Distributor  
Institut Straumann AG  
4002 Basel  
Switzerland

**Auxiliaries\***

	Art. No.	Description	Material	Quantity
	2010.101-STM	<b>Equipment Box, incl. 3 tools</b> Demounting Tool for Mounting Insert and Model Analog Reposition Aid (blue) Mounting and Demounting Tool for Retention Inserts (brown) Matrix Housing Extractor (gray)		1 pcs
	2010.731-STM	Demounting Tool for Mounting Inserts an Model Analog Reposition Aid (blue)	Aluminum/steel	1 pcs
	2010.741-STM	Mounting and Demounting Tool for Retention Inserts (brown)	Aluminum/steel	1 pcs
	2010.751-STM	Matrix Housing Extractor (gray)	Aluminum/steel	1 pcs
	2010.701-STM	Matrix Housing, titanium (including Mounting Insert)	Titanium / PEEK	4 pcs
	2010.702-STM	Matrix Housing, PEEK (including Mounting Insert)	Titanium / PEEK	4 pcs
	2010.703-STM	Matrix Housing with attachment option (including Mounting Insert)	Titanium / PEEK	4 pcs
	2010.721-STM	Model Analog Ø 4, blue	Aluminum	4 pcs
	2010.722-STM	Forming/Fixing Matrix, red	PEEK	4 pcs
	2010.723-STM	Processing Spacer, white	POM	4 pcs
	2010.724-STM	Mounting Collar	Silicone	10 pcs
	2010.725-STM	Mounting Insert	PEEK	4 pcs

CE 0473

 \* Manufacturer  
 Valoc AG  
 4313 Möhlin  
 Switzerland

 \* Distributor  
 Institut Straumann AG  
 4002 Basel  
 Switzerland

### **International Headquarters**

Institut Straumann AG

Peter Merian-Weg 12

CH-4002 Basel, Switzerland

Phone +41 (0)61 965 11 11

Fax +41 (0)61 965 11 01

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

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