NOW PART OF
ASTRA TECH IMPLANT SYSTEM
DENTSPLY SIRONA

Astra Tech Implant System®

# Acuris™ – conometric concept

## Manual and product catalog
## Astra Tech Implant System® EV

Dentsply Sirona Implants

# Function, beauty and biology in perfect harmony

The unique combination of interdependent features of the Astra Tech Implant System BioManagement Complex ensures a reliable, predictable and esthetic result both in the short and long term.

## Astra Tech Implant System BioManagement Complex®

### OsseoSpeed®
### – more bone more rapidly

A chemically modified titanium surface with a unique nanoscale topography that stimulates early bone healing and speeds up the bone healing process.

### MicroThread®
### – biomechanical bone stimulation

Minute threads on implant neck that offer optimal load distribution and stress values.

### Conical Seal Design™
### – a strong and stable fit

A conical connection that seals off the interior of the implant from the surrounding tissue, minimizing micromovements and microleakage.

### Connective Contour™
### – increased soft tissue contact zone and volume

The unique contour that is created when you connect the abutment to the implant.

# Astra Tech Implant System®

## CONTENTS



This manual is designed for use by clinicians who have undergone appropriate education and training in surgical and prosthetic implant treatment. Staying current on the latest trends and treatment techniques in implant dentistry through continued education is the responsibility of the clinician.

This manual only addresses the additional information needed to work with the Conometric concept. For all other instructions and/or a full description of implant placement and restorative procedures for the Astra Tech Implant System EV as well as all the instruments and components needed, please refer to the appropriate manual and catalog.

All products may not be regulatory cleared/released/licensed in all markets. Please contact your local Dentsply Sirona sales office for current product assortment and availability.

To improve readability, Dentsply Sirona does not use ® or ™ in body copy. However, Dentsply Sirona does not waive any right to the trademark and nothing herein shall be interpreted to the contrary.

Product illustrations are not to scale.

# Acuris™ – conometric concept

Acuris is a paradigm shift in prosthetic retention of single crowns that are fixed yet retrievable by the clinician. The friction-based retention offers a fixation mode providing the esthetics of a cement-retained crown, maintaining retrievability and excluding the risk of submucosal residual cement.

## The ease of using Acuris™

- A time-saving and easy-to-use solution for single crowns
- Fixed retention, yet retrievable by the clinician
- Cement-free mode of retention
- No screw access holes/fillings
- Provides a simplified restorative concept to reduce chair time

# Pre-operative considerations

Acuris is an implant-prosthetic procedure for the cementless restoration of single-tooth implants.

- Bone quality and quantity, primary implant stability, design of restoration and loading conditions should always be carefully examined and assessed by the clinician when deciding the appropriate time to load the implant in the individual case.
- For single-tooth replacement in soft bone or when using a 6 mm implant, where primary implant stability may be difficult to obtain, immediate loading may not be appropriate and thus not recommended.
- If possible, posterior implants should be placed using maximum diameter and length within the limitations of available bone.
- Astra Tech Implant System EV conometric abutments need to be tightened to 25 Ncm to secure a stable screw joint and pre-load. Thus implants need to be stable enough to withstand this tightening torque if you consider immediate temporization. If in doubt, healing abutments or even a two stage surgical approach can be an alternative.
- In order to facilitate the seating of the final crown, it is important to avoid interference from the mucosa surrounding the abutment. Ensure sufficient space for the final restoration by designing the temporary crown in a way that allows the mucosa to heal in a suitable shape.

**No screw access holes**

- Easier handling
- Enhanced esthetics
- Angulation of implant less critical, allowing for better use of available bone.

**No cement**

- Easier handling
- Faster delivery of crown – no excess cement to handle
- Safeguarding/protecting implant-supporting tissues

**Easier, quicker and reduced maintenance**

- Retrievable crown for corrections/ repairs/periimplantitis treatment
- All corrections/repairs easily done extra-orally
- No need to replace screw access hole fillings

Abutments in two diameters, in different gingival heights, available as straight and with 15° angulation. One-piece straight Ø 3.3 conometric abutments are non-indexed. All other conometric abutments are indexed.

# Implant assortment for conometric concept

### OsseoSpeed EV implant diameters and lengths

OsseoSpeed EV implants are available in a versatile range of shapes, diameters and lengths for all indications, including situations with limited space and/or bone quantity.

Specific colors have been assigned to the different implant-abutment connection sizes, which are consistently used throughout the system and identified by symbols and markings.

The following implants can be used together with the conometric concept within the Astra Tech Implant System EV:

- OsseoSpeed EV straight implants
  Diameters: 3.6 S and 4.2 S
  Lengths: 6 mm–17 mm
- OsseoSpeed EV conical implants
  Diameters: 4.2 C
  Lengths: 8 mm–17 mm

| Ø 3.6 | Ø 4.2 |
|---|---|
| 3.6 | 4.2 |
| Purple | Yellow |

# Conometric abutments for Astra Tech Implant System® EV are available in the following dimensions

### Conometric Abutment EV

Version: straight or 15° angled

Diameter: 3.6 4.2

Diameter at the abutments equator: 3.3 mm or 4.5 mm

Height: 1 mm, 2 mm or 3 mm

Indexing options:

Indexed abutments will seat in six available positions

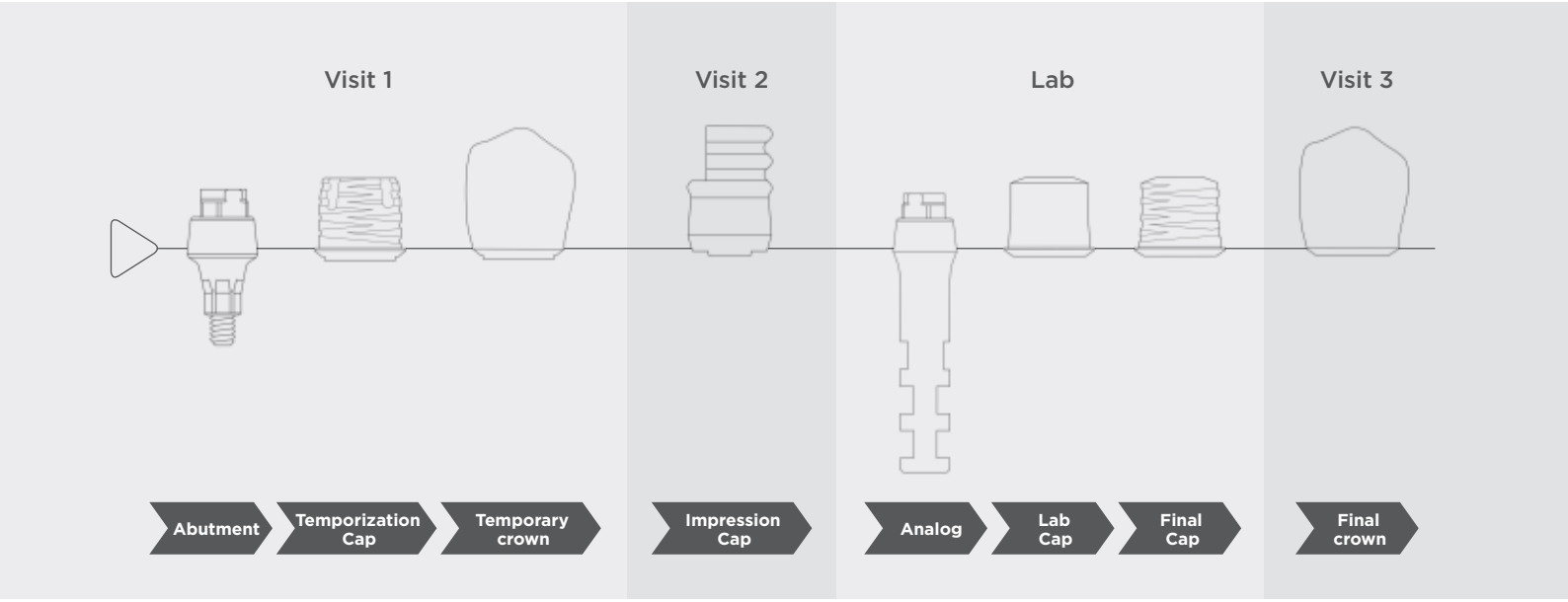
Index-free abutments will be seated in any rotational position

**Note:** Conometric abutments for Astra Tech Implant System EV with Ø 3.3 mm are one-piece abutments. For installation use a special abutment driver together with restorative driver handle and torque wrench. For the Ø 4.5 mm abutments use the hex driver together with restorative driver handle and torque wrench. All abutments should be tightened to 25 Ncm.

# Step-by-step conometric concept

The following describes a chairside technique where a Conometric Temporization Cap is used as the base for a temporary crown.

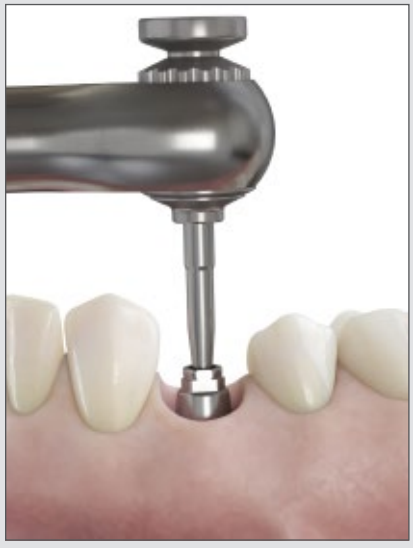
When a provisional crown is not needed, an alternative is to use a Conometric Healing Cap which can be snapped onto the abutment.



# Step-by-step procedure – Implant placement and abutment connection

Below is a procedure for implant placement and abutment connection in the mandible using an OsseoSpeed EV 4.2 S implant and a two-piece straight conometric abutment Ø 4.5.

## Clinical procedure – implant placement and abutment connection



### Implant placement Abutment selection

- Prepare the implant site and install the implant.
- Measure the soft tissue height.
- It is preferable to place the abutment margin 1 mm below the soft tissue margin.
- Select the appropriate abutment with regard to height and angulation.

**Note:** See Astra Tech Implant System EV surgical manual for the detailed surgical drilling protocol.

### Abutment connection – Two-piece straight abutment Ø 4.5

- Install the Conometric Abutment EV with the abutment screw using the Hex Driver EV.

### Finalizing abutment connection

- Use the Restorative Driver Handle together with the Hex Driver EV and Torque Wrench EV to tighten the abutment/abutment screw to the recommended torque (25 Ncm).

# Step-by-step procedure – Immediate temporization

The following procedure is a chairside technique where a Temporization Cap is used as the base for a temporary crown. When a temporary crown is not needed, an alternative is to use a Healing Cap which can be snapped onto the abutment.

**Note:** A lab technique option is also available.

**Conometric Temporization Cap**

The cap is used to build a temporary crown. Can be used up to six months.

**Conometric Healing Cap**

The cap is a protection for the abutment when a temporary crown is not used. Can be used up to six months.

## Clinical procedure – immediate temporization








### Conometric Temporization Cap

- Pick up the appropriate Temporization Cap using the Temporization Cap Insertion Tool (1a).
- Align the temporization cap with the indexing part on the abutment, snap into place (1b).

**Conometric Temporization Cap Insertion Tool**

Used for carrying the cap to the abutment and snapping the cap into place.

### Temporary crown

- Build up the crown on the temporization cap according to your preferred procedure (2a).
- Remove the temporary crown (2b).
- Make corrections and polish extraorally (2c).

**Note:** In order to facilitate the seating of the final crown, it is important to avoid interference from the mucosa surrounding the abutment. Ensure sufficient space for the final restoration by designing the temporary crown in a way that allows the mucosa to heal in a suitable shape.

### Delivery of temporary crown

- Align the temporary crown with the indexing part on the abutment, snap into place (3a).
- Check contact with adjacent teeth and make corrections to the occlusal relation as needed (3b).

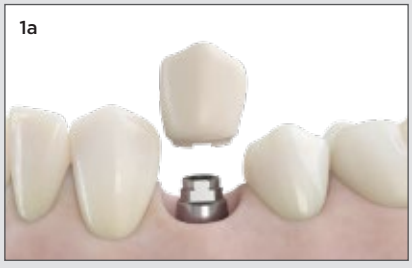
# Step-by-step procedure – Prosthetic and laboratory procedures



**Conometric Impression Cap**

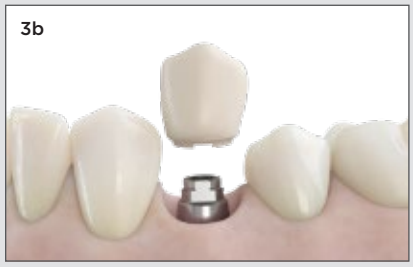
The cap is used to capture the abutment position.

## Clinical procedure – closed tray on abutment level








### Impression Cap

- Remove the temporary crown (1a).
- Align the appropriate Impression Cap with the indexing part of the abutment and seat it firmly, allowing it to snap into place (1b).

### Impression

- Use a closed tray impression technique.
- Apply an elastomeric impression material around the cap separately (2a).
- Place the tray, filled with the impression material, and take the impression (2b).
- Once the impression material has set, remove the impression from the mouth.

### Impression

- Check the impression for correct and stable retention of the cap (3a).
- Reinstall the temporary crown (3b).
- Send the impression to the laboratory.

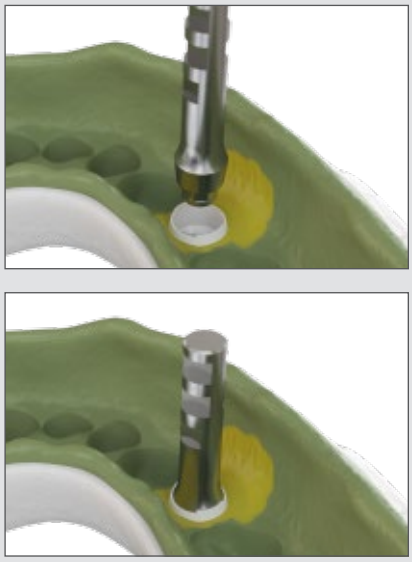
### Conometric Analog

Corresponds to the abutment and is used in the master model.

### Conometric Lab Cap

The lab cap is used by the dental technician when fabricating the crown.

## Laboratory procedure – closed tray on abutment level



### Conometric Impression Cap/ Conometric Analog

- Place the appropriate Conometric Analog in the correct position in the impression cap until it snaps into place.

**Note:** Conometric Analog is for single use.

### Master model

- Fabricate a master model with a removable soft tissue mask.

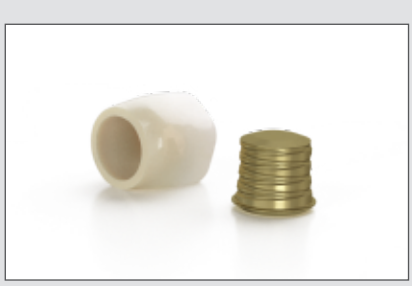
### Conometric Lab Cap

- Seat the Lab Cap on the abutment analog.

### Conometric Final Cap

The crown is cemented onto the cap.

## Laboratory procedure



1a

1b

### Build up

- Fabricate a ceramic crown using the preferred technique with the lab cap as a base.

### Preparation for cementation

- Clean the cap and prepare the crown according to the cement manufacturer´s instruction.

### Finalize the restoration

- Place the final cap on the abutment analog, aligned with the indexing part of the analog (1a).
- Engage the retention by light tapping.
- Cement the crown onto the final cap.
- Choice of cement is based on the crown material and the titanium nitride surface on the final cap.
- Remove excess cement and polish.
- The crown is sent to the dental clinic (1b).

### Conometric Fixation Tool Tip Convex

The convex single-use tip is applied on the tip of the Conometric Fixation Tool. The tip is also available in concave and U-shaped design.

## Clinical procedure





### Removal of temporary crown

- Remove the temporary crown (1a).
- Depending on crown form, select a suitable single-use tip and attach to the Conometric Fixation Tool (1b).

### Delivery of final crown

- Seat the final crown aligned with the indexing on the abutment (2a).
- Place the fixation tool on the crown and align it with the path of insertion (2b).
- Press the fixation tool towards the crown until the spring releases with an audible click and activates the retention.

### Check final crown

- Check contact with adjacent teeth and make corrections to the occlusal relation as needed.
- Check color and characterization.
- If applicable, remove the crown for corrections and polishing followed by reinsertion with the help of the fixation tool.

### Conometric Fixation Tool

Activates the friction retention between Final Cap/final crown and abutment by a combination of pressure and impulse.

# Product catalog
# Acuris™ – conometric concept

Components specifically designed for use with the conometric concept for Astra Tech Implant System EV implants are presented in this manual/ product catalog. If you need drills and other instruments, please refer to the Product catalog for Astra Tech Implant System EV.

For more information visit www.dentsplyimplants.com.

# Conometric abutments

### 3.6 Conometric Abutment EV 0° Ø 3.3

| | | | |
|---|---|---|---|
| Ø mm | 3.3 | 3.3 | 3.3 |
| A – height mm | 1 | 2 | 3 |
| Order No. | 26115 | 26116 | 26117 |

### 3.6 Conometric Abutment EV 0° Ø 4.5

| | | | |
|---|---|---|---|
| Ø mm | 4.5 | 4.5 | 4.5 |
| A – height mm | 1 | 2 | 3 |
| Order No. | 26121 | 26122 | 26123 |

### 3.6 Conometric Abutment EV 15° Ø 4.5

| | | | |
|---|---|---|---|
| Ø mm | 4.5 | 4.5 | 4.5 |
| A – height mm | 1 | 2 | 3 |
| B – height mm | 2.1 | 3.1 | 4.1 |
| Order No. | 26127 | 26128 | 26129 |

### 4.2 Conometric Abutment EV 0° Ø 4.5

| | | | |
|---|---|---|---|
| Ø mm | 4.5 | 4.5 | 4.5 |
| A – height mm | 1 | 2 | 3 |
| Order No. | 26124 | 26125 | 26126 |

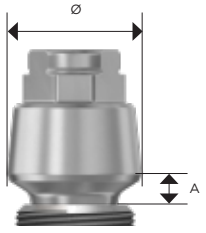
### 4.2 Conometric Abutment EV 15° Ø 4.5

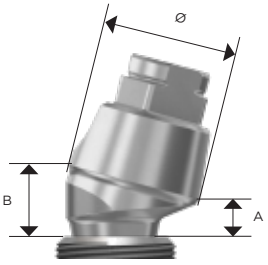
| | | | |
|---|---|---|---|
| Ø mm | 4.5 | 4.5 | 4.5 |
| A – height mm | 1 | 2 | 3 |
| B – height mm | 2.1 | 3.1 | 4.1 |
| Order No. | 26130 | 26131 | 26132 |

**Conometric Abutment EV, straight and angled**

Titanium Alloy-ELI, sterile

- Supporting single tooth, fixed restorations only
- Two diameters, same prosthetic interface and components for all abutments of the same diameter
- Straight Ø 3.3 mm abutments are one-piece



# Restorative instruments and components

**Conometric Abutment Driver**
Stainless steel, non-sterile
- For one-piece abutments

**Conometric Abutment Driver**

| | | |
|---|---|---|
| Ø mm | 3.3 | 3.3 |
| Height mm | 25 | 20 |
| Order No. | 3107 2909 | 3107 2910 |

**Torque Wrench EV**
Stainless steel, non-sterile
- Use together with a restorative driver handle and the conometric driver for tightening of one-piece abutments.
- Use together with a restorative driver handle and the hex driver for tightening of two-piece abutments.

**Torque Wrench EV**

| | |
|---|---|
| Order No. | 25774 |

**Torque Wrench EV Restorative Handles**
Stainless steel, non-sterile

**Torque Wrench EV Restorative Driver Handle** **Low**

| | | |
|---|---|---|
| Order No. | 25776 | 25777 |

**Conometric Temporization Cap Insertion Tool**
Stainless steel, non-sterile
- Used for carrying the cap to the abutment and snapping the cap in place.
- The insertion tool Ø 3.3 is marked with one groove for identification and the insertion tool Ø 4.5 is marked with two grooves.

**Conometric Temporization Cap Insertion Tool**

| | | |
|---|---|---|
| Ø mm | 3.3 | 4.5 |
| Height mm | 24.5 | 24.5 |
| Order No. | 3103 3636 | 3103 3637 |

**Conometric Fixation Tool**
Stainless steel, non-sterile
- Activates the friction retention between Final Cap/final crown and abutment by a combination of pressure and impulse.

**Conometric Fixation Tool**

| | |
|---|---|
| Order No. | 3107 2911 |

# Restorative instruments and components

### Conometric Fixation Tool Tips





| | Tip Convex (5 pcs) | Tip U-shape (5 pcs) | Tip Concave (5 pcs) |
|---|---|---|---|
| Height mm | 11 | 9.5 | 10.5 |
| Recommended use | Pre molar/molar | Incisors | Canine/pre molar |
| Order No. | 3107 2906 | 3107 2907 | 3107 2908 |

### Conometric Fixation Tool Tip

PEEK plastic, non-sterile, single-use

- The tip is applied on the tip of Conometric Fixation Tool.

### Conometric Healing Cap



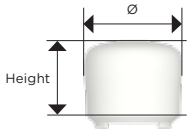


| | | | |
|---|---|---|---|
| Conometric abutment size Ø mm | 3.3 | 3.3 | 4.5 |
| Ø mm | 4.8 | 6.0 | 6.0 |
| Height mm | 5.3 | 5.3 | 5.3 |
| Order No. | 3107 2101 | 3107 2102 | 3107 2103 |

### Conometric Healing Cap

PEEK plastic,
one-piece, non-sterile, single-use

- The cap is a protection for the abutment when a temporary crown is not used.
- Can be used up to six months.



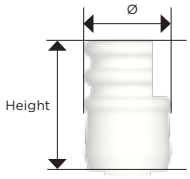

### Conometric Impression Cap


| | | |
|---|---|---|
| Conometric abutment size Ø mm | 3.3 | 4.5 |
| Ø mm | 5.4 | 5.4 |
| Height mm | 8.3 | 8.3 |
| Order No. | 3107 2001 | 3107 2002 |

### Conometric Impression Cap

PEEK plastic, non-sterile, single-use

- The cap is used to capture the abutment position.




### Conometric Temporization Cap



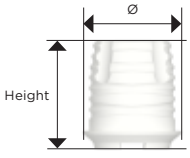

| | | |
|---|---|---|
| Conometric abutment size Ø mm | 3.3 | 4.5 |
| Ø mm | 4.6 | 5.8 |
| Height mm | 5 | 5.3 |
| Order No. | 3107 2112 | 3107 2114 |

### Conometric Temporization Cap

Cap Ø 3.3/4.6: Titanium Alloy-ELI/PEEK plastic, non-sterile, single-use

Cap Ø 4.5/5.8: PEEK plastic, non-sterile, single-use

- The cap is used as a base for a temporary crown.
- Can be used up to six months.



# Laboratory components

**Conometric Analog**
Stainless steel, non-sterile, single-use

- Corresponds to the abutment and is used in the master model.

**Conometric Analog**


| Conometric abutment size Ø mm | 3.3 | 4.5 |
|---|---|---|
| Height mm | 20 | 20 |
| Order No. | 3104 7210 | 3107 2020 |

**Conometric Lab Cap**
Titanium Alloy-ELI, non-sterile, single-use

- The lab cap is used by the dental technician when fabricating the crown.

**Conometric Lab Cap**


| Conometric abutment size Ø mm | 3.3 | 4.5 |
|---|---|---|
| Ø mm | 4.6 | 5.8 |
| Height mm | 5 | 5 |
| Order No. | 3107 2121 | 3107 2123 |

**Conometric Final Cap**
Titanium grade 4, TiN-coated, non-sterile, single-use

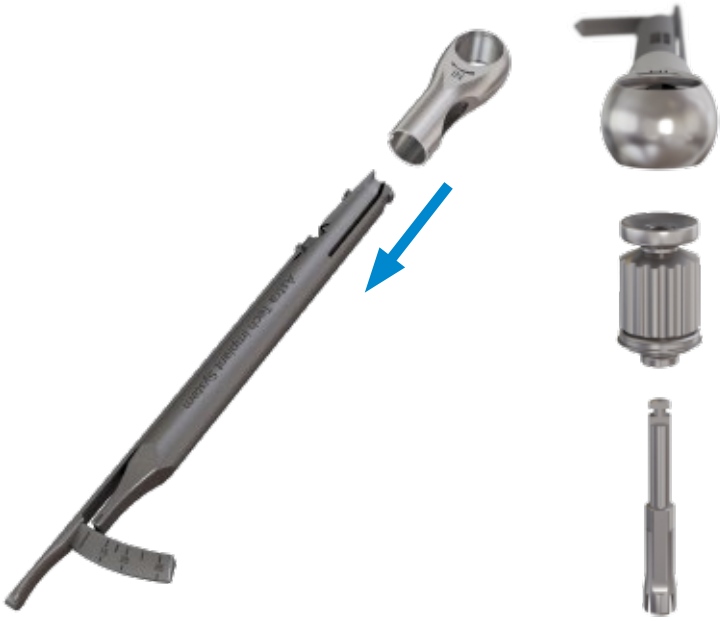
- The crown is cemented onto the cap.

**Conometric Final Cap**


| Conometric abutment size Ø mm | 3.3 | 4.5 |
|---|---|---|
| Ø mm | 4.6 | 5.8 |
| Height mm | 5 | 5 |
| Order No. | 3107 2301 | 3107 2303 |

# Torque Wrench EV – handling for straight Ø 3.3 mm one-piece abutments

For straight Ø 3.3 mm one-piece abutments use the Restorative Driver Handle EV and Torque Wrench EV together with the Conometric Abutment Driver for tightening.



## Assemble

- Assemble the head of the wrench and the body by pushing the components together and turn until there is an audible click.

## Attach

- Attach the Conometric Abutment Driver into the Restorative Driver Handle and then into the wrench until there is an audible click.

## Handling

- Use a finger on the top of the driver handle to keep it steady and in place. Then gently pull the arm of the torque wrench in the direction of the arrow until the desired torque is achieved.

**Note:** The arm of the torque wrench must not go beyond the end of the scale, as this could result in inaccurate torque readings.

The arrow on the head of the wrench shows the direction in which the wrench is functioning.

# Torque guide for conometric abutments

There are two different construction principles of conometric abutments:

**Ø 3.3 mm straight abutments** are one-piece. They are installed with a special driver engaging to the abutment head. For straight one-piece Ø 3.3 mm abutments, use the Restorative Driver Handle EV together with the Conometric Abutment Driver and Torque Wrench EV to tighten to the recommended torque (25 Ncm).

**Ø 4.5 mm straight and angled abutments** are two-piece abutments and come with an abutment screw.

Use the Restorative Driver Handle EV together with the Hex Driver EV and Torque Wrench EV for tightening the Ø 4.5 mm straight and angled abutments.

**Note:** All conometric abutments for Astra Tech Implants EV should be tighten to the recommended torque (25 Ncm).

# Explanation of the symbols on labels and instructions for use

| | |
|---|---|
| Date of manufacture | Date of manufacture. |
| | Legal manufacturer. |
| Use by | Expired date. |
| STERILE R | Sterilized using irradiation. |
| Rx Only | **Caution:** Federal (USA) law restricts this product to sale by or on a order of a dentist. |
| NON STERILE | The product is not sterile. |
| Single use | Do not re-use, Single use only. |
| Do not re-sterilize | Do not re-sterilize. |
| | GOST is the valid quality certification system in Russian Federation. |
| CE | Products carrying the CE mark fulfill the requirements of the Medical Device Directive. |
| 0123 | Identification of Notified Body. |
| Do not use if package is damaged | Do not use if package is damaged. |
| Consult instructions for use ifu.dentsplysirona.com | Consult instructions for use.* |
| LOT | LOT/BATCH number. |
| REF | Article number. |
| | Contains article number (GTIN number), lot number and quantity. |

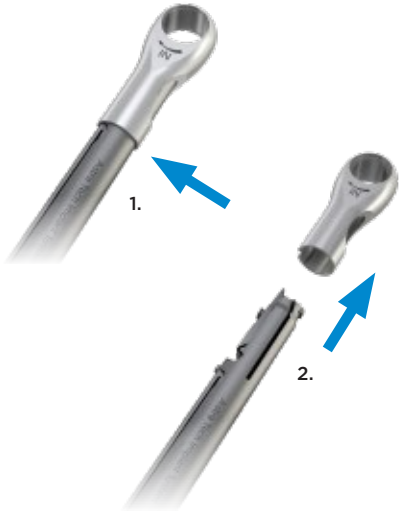
* To read PDF files you will need Adobe Reader. Download free of charge at get.adobe.com/reader.

# Conometric Fixation tool

The Conometric Fixation Tool must be disassembled for cleaning and may be assembled again for sterilization only when the individual parts are completely dry.

**Important:** The parts must be assembled according to the image below. The smaller spring is bent, which is intended.

# Torque Wrench EV




### Disassemble

- Remove the driver handle from the wrench.
- Remove the head by pressing a finger into the recess (1) and gently pulling the head (2).

### Cleaning and drying

- The three separated parts are now ready for cleaning using water and a brush. Let the parts dry.

### Sterilization

- Follow the manufacturer's instructions for use.

# Index

## Order by reference number



## Alphabetical order

## About Dentsply Sirona Implants

Dentsply Sirona Implants offers comprehensive solutions for all phases of implant therapy, including Ankylos®, Astra Tech Implant System® and Xive® implant lines, digital technologies, such as Atlantis® patient-specific solutions and Simplant® guided surgery, Symbios® regenerative solutions, and professional and business development programs, such as STEPPS™. Dentsply Sirona Implants creates value for dental professionals and allows for predictable and lasting implant treatment outcomes, resulting in enhanced quality of life for patients.

## About Dentsply Sirona

Dentsply Sirona is the world's largest manufacturer of professional dental products and technologies, with a 130-year history of innovation and service to the dental industry and patients worldwide. Dentsply Sirona develops, manufactures, and markets a comprehensive solutions offering including dental and oral health products as well as other consumable medical devices under a strong portfolio of world class brands. As The Dental Solutions Company™, Dentsply Sirona's products provide innovative, high-quality and effective solutions to advance patient care and deliver better, safer and faster dentistry. Dentsply Sirona's global headquarters is located in York, Pennsylvania, and the international headquarters is based in Salzburg, Austria. The company's shares are listed in the United States on NASDAQ under the symbol XRAY.

Visit www.dentsplysirona.com for more information about Dentsply Sirona and its products.

THE DENTAL
SOLUTIONS
COMPANY™

Dentsply
Sirona