Astra Tech Implant System®

Manual and product catalog

Repair procedures

Removal and retrieval of screw fragment, abutment and implant

Dentsply Sirona Implants

Astra Tech Implant System®

CONTENTS

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

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

Product illustrations are not to scale.

Introduction

For different reasons abutments, implants or screws occasionally need to be removed and/or replaced. The Astra Tech Implant System has a wide selection of different abutments to meet specific clinical situations. Provided the abutment screw is undamaged, cement-retained abutments can be easily removed, in most cases, using a hex screwdriver.

This manual covers products in the OsseoSpeed TX and OsseoSpeed EV assortment.

General information

This manual contains detailed instructions and illustrations on how to remove, retrieve and recondition components.

Consider the following:

- Be patient, allow ample time and schedule the visit carefully.
- Magnifying glasses should be considered.
- Carefully consider the possible reasons for the situation which has occurred.

The manual is divided in two different workflows: Remove/retrieve on implant-level and Remove/retrieve on abutment-level. Each workflow process describes step-by-step procedures. The following procedures are structured in the order from minor to major impact on components and surrounding tissue.

Remove/retrieve on implant-level

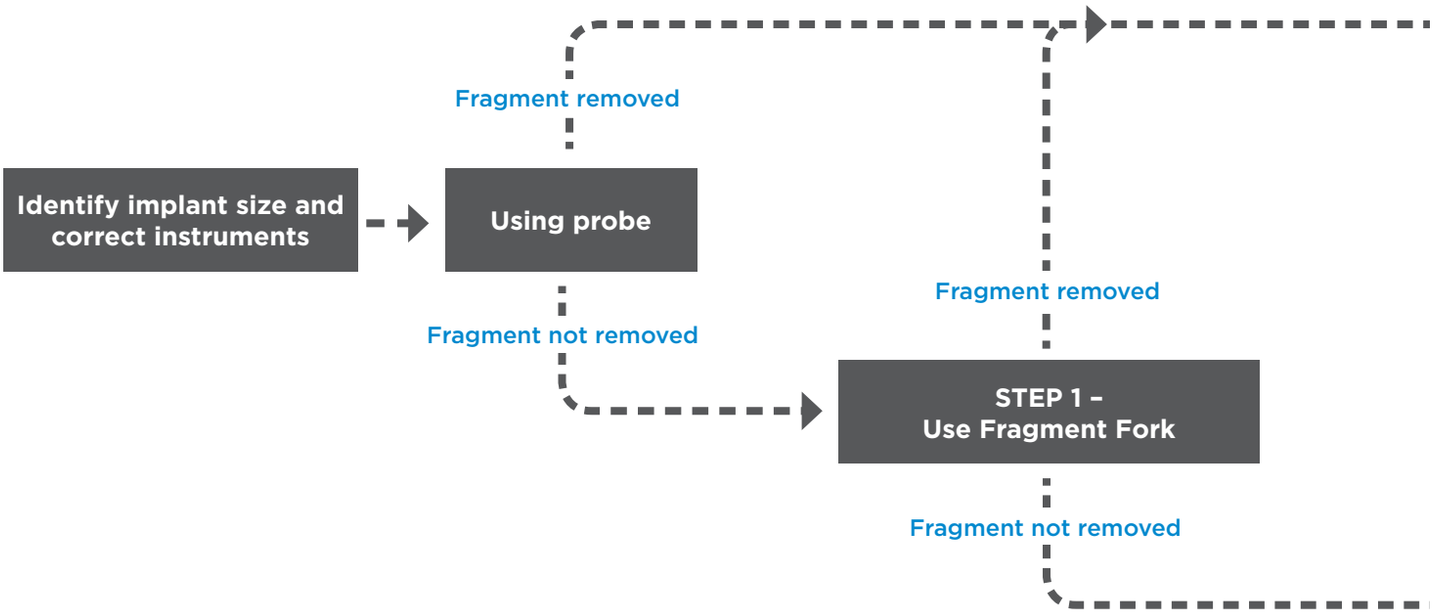
p.6

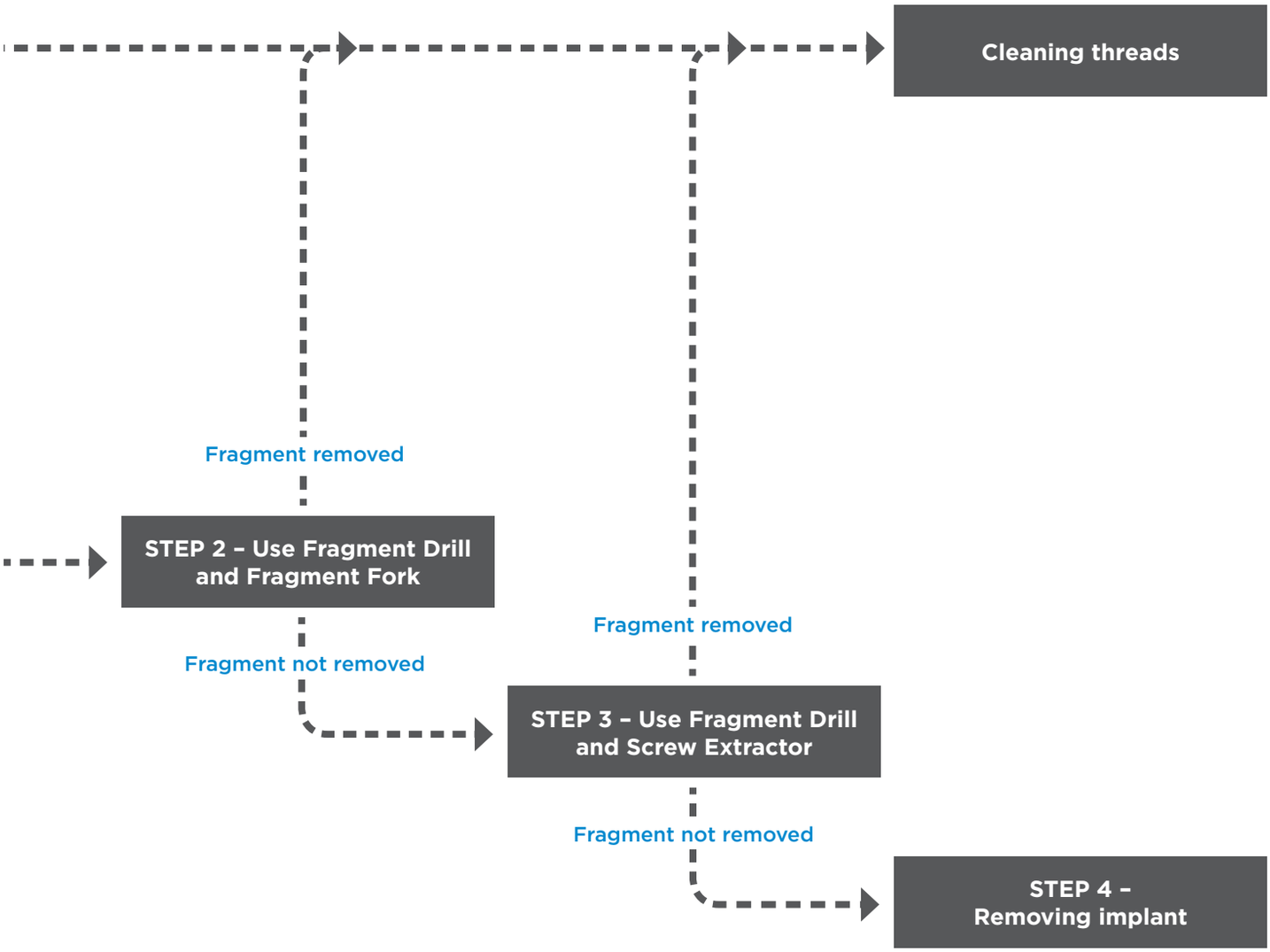
Remove/retrieve on abutment-level

p.16

Note: The products and instruments for repair procedures are delivered non-sterile. Before use, the products/instruments must be cleaned and sterilized. Most of the products are single-use; for detailed information about which products are single-use only and those which are not, refer to the product catalog section.

Workflow – Abutment screw fracture in an implant





Abutment screw fracture in an implant

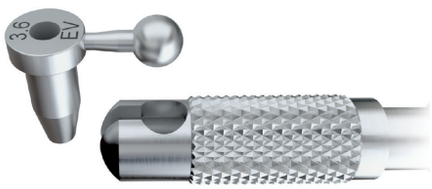
Screw fractures may occur in implants when unfavorable stress or forces are applied. The remaining screw fragments may be retrieved with Fragment Fork instruments.
The Fragment Fork is designed to be used counter-clockwise and can often be used without damaging the implant threads.

The following steps describe the step-by-step procedures for retrieval of an abutment screw fragment in an OsseoSpeed EV 3.6 implant.

Identify the size of the implant and use the instruments accordingly (see the compatibility table on page 29).

Start by using a sharp probe to evaluate the mobility of the fragment and try to remove the screw fragment from the implant by rotating it in a counter-clockwise direction.

STEP 1



Connect and adjust

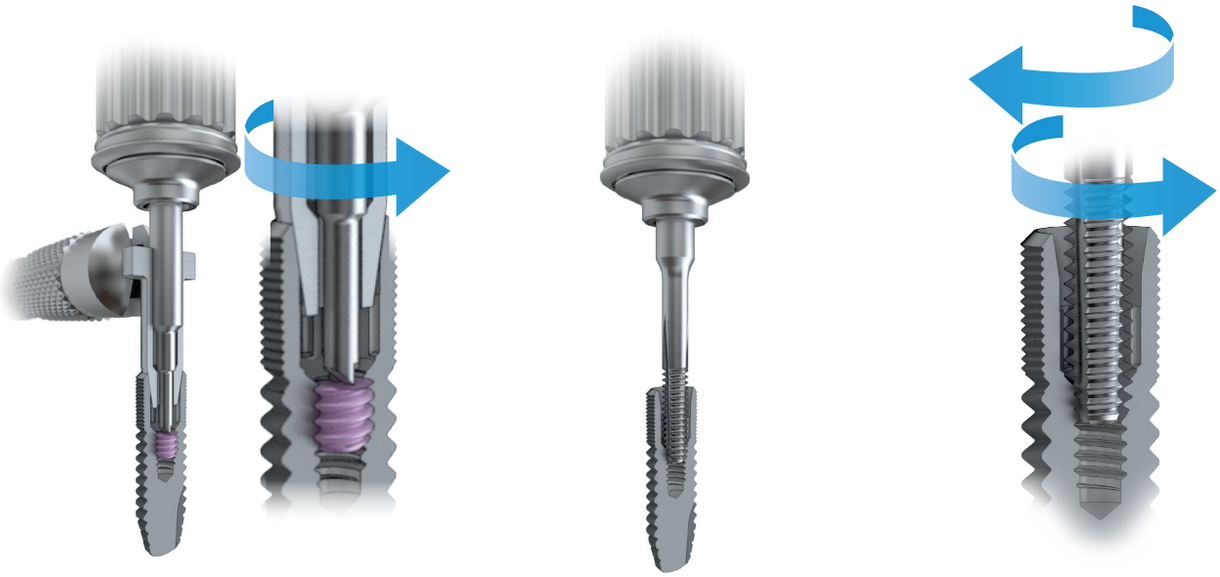
- Connect, adjust and lock the Guiding Cylinder Handle firmly into the ball joint of the Guiding Cylinder EV.

Insert

- Insert the guiding cylinder into the implant and hold it firmly.
- Ensure that the cylinder is aligned with the vertical axis of the implant throughout the whole procedure.

Attach the Fragment Fork

- Attach the Fragment Fork into the Restorative Driver Handle EV.



Using Fragment Fork

- Manually rotate the Fragment Fork in a counter-clockwise direction while pressing towards the screw fragment through the Guiding Cylinder.
- When the fragment is loose, continue unscrewing the screw fragment.
- Remove the guide and retrieve the fragment with a pair of forceps or similar instrument.

Note: If the fragment cannot be removed, go to Step 2 using the Fragment Drill.

Attach Thread Cleaner

- Attach the appropriate Thread Cleaner into the Restorative Driver Handle EV.
- Insert the Thread Cleaner carefully into the implant by hand and make sure that it engages properly into the threads.

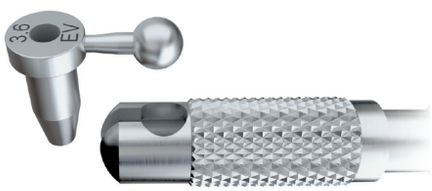
Thread cleaning

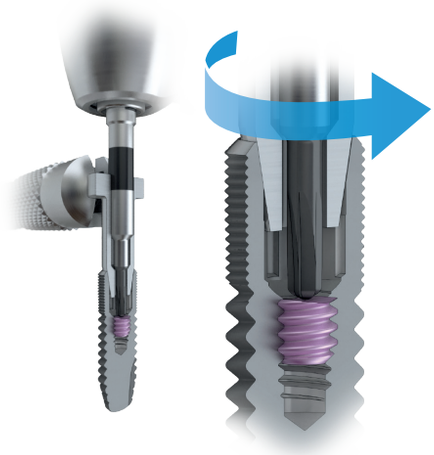
- Work the whole length of the thread intermittently with the Thread Cleaner, half of a turn at a time, and reverse in between to clean the threads and remove possible fragments.

Abutment screw fracture in an implant

Drill with the Fragment Drill to make an indentation in the screw fragment as a starting point for the Fragment Fork.

STEP 2





Connect and adjust

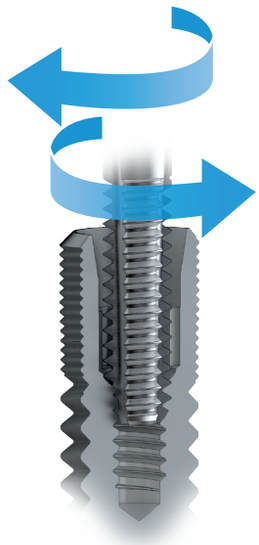
- Connect, adjust and lock the Guiding Cylinder Handle firmly into the ball joint of the Guiding Cylinder EV.

Insert

- Insert the Guiding Cylinder into the implant and hold it firmly.
- Ensure that the cylinder is aligned with the vertical axis of the implant throughout the whole procedure.

Attach Fragment Drill

- Connect the Fragment Drill into the contra angle (contra angle 20:1).
- **Drill counter-clockwise** with the Fragment Drill through the Guiding Cylinder with the **drilling equipment set at 1500 rpm.**
- Ensure that the indentation is centered in the screw fragment.
- Work intermittently with the drill and in between clean out possible fragments.
- Drill gently until a small cavity/indentation is created in the screw fragment.



Fragment Fork

- Attach the Fragment Fork into the Restorative Driver Handle EV.
- Manually rotate the Fragment Fork counter-clockwise while pressing towards the screw fragment through the Guiding Cylinder.
- When the fragment is loose, continue unscrewing the screw fragment.
- Remove the guide and retrieve the fragment with a pair of forceps or similar instrument.

Note: If the fragment cannot be removed, go to Step 3, using the Screw Extractor.

Attach Thread Cleaner

- Attach the appropriate Thread Cleaner into the Restorative Driver Handle EV.
- Insert the Thread Cleaner carefully into the implant by hand and make sure that it engages properly in the threads.

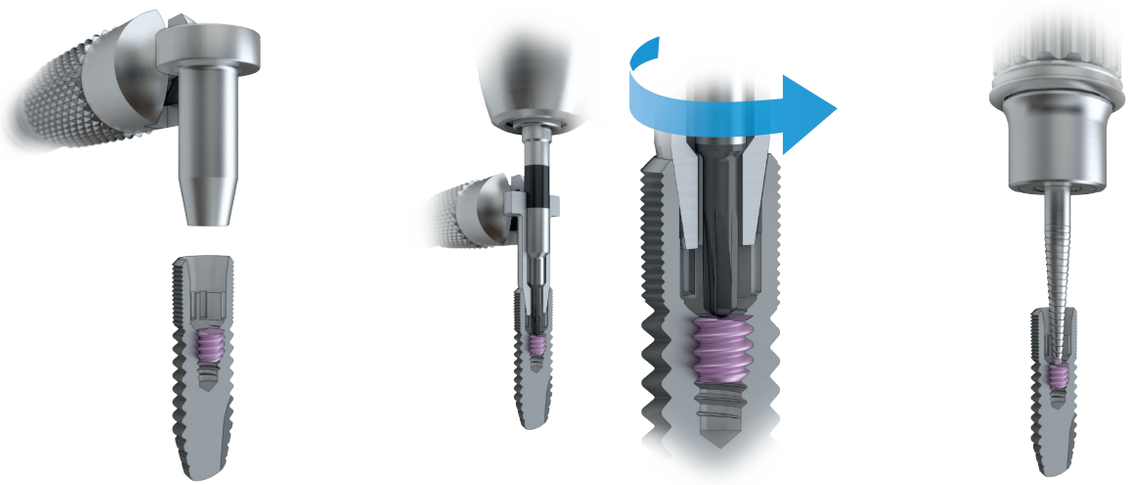
Thread cleaning

- Work the whole length of the thread intermittently with the Thread Cleaner half of a turn at a time and reverse in between to clean the threads and remove possible fragments.

Abutment screw fracture in an implant

Drill with the Fragment Drill to make an indentation in the screw fragment for the Screw Extractor.

STEP 3



Connect, adjust and insert

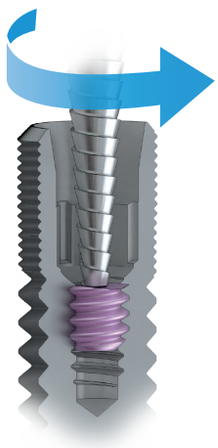
- Connect, adjust and lock the Guiding Cylinder Handle into the ball joint of the Guiding Cylinder EV.
- Insert the Guiding Cylinder into the implant and hold it firmly.
- Ensure that the cylinder is aligned with the vertical axis of the implant throughout the whole procedure.

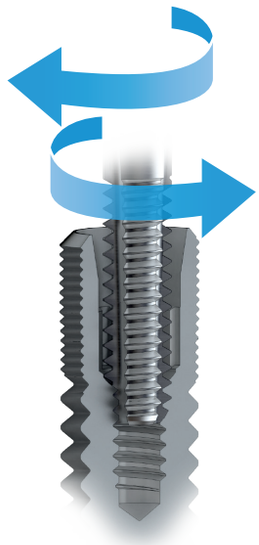
Fragment Drill

- Connect the Fragment Drill into the contra angle (contra angle).
- **Drill counter-clockwise** with the fragment drill through the Guiding Cylinder with the **drilling equipment set at 1500 rpm.**
- Ensure that the indentation is centered in the screw fragment.
- Work intermittently with the drill and in between clean out possible fragments.
- Drill gently until a full depth cavity is created in the screw fragment. The drill limit is reached when the upper end of the black marking is in line with the upper end of the cylinder.

Attach the Screw Extractor

- Attach the Screw Extractor into the Surgical Driver Handle.
- Make sure that the Screw Extractor is correctly placed into the handle. The hexagonal part of the shaft shall be fully inserted into the handle.





Using the Screw Extractor

- Manually turn the Screw Extractor counter-clockwise into the fragment.
- Use the Torque Wrench EV as a ratchet wrench and turn counter-clockwise.
- Maintain downward pressure on the Screw Extractor.

Note: If the fragment cannot be removed, go to Step 4, removing the implant.

Attach Thread Cleaner

- Attach the appropriate Thread Cleaner into the Restorative Driver Handle EV.
- Insert the Thread Cleaner carefully into the implant by hand and make sure that it engages properly in the threads.

Thread cleaning

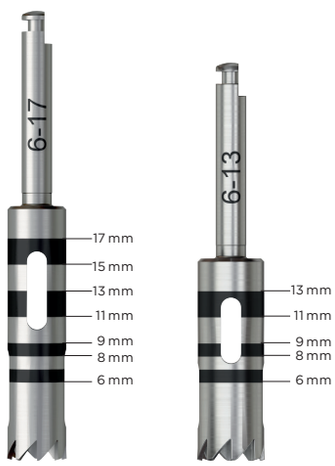
- Work the whole length of the thread intermittently with the Thread Cleaner half of a turn at a time and reverse in between to clean the threads and remove possible fragments.

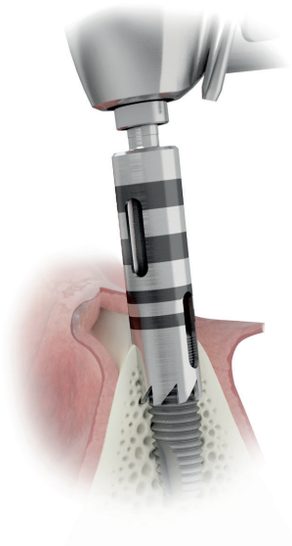
Removal of an OsseoSpeed® EV implant

If all other methods to remove a partly or fully integrated implant are unsuccessful, a final option is to use a trephine drill to remove the implant.

This procedure should be used at the lowest possible speed under profuse irrigation and with the bone exposed for optimal visibility.

STEP 4





Trephine Drill

- Markings: Diameter and length.

Select Trephine Drill

- Select the appropriate Trephine Drill and mount it into a contra angle (contra angle 20:1).
- **Drill under profuse irrigation at the lowest possible speed (a maximum of 300 rpm)**
- Make sure to follow the axis of the implant.

Using Trephine Drill

- Creating a starting groove in the periphery of the implant with a bur or similar can be a guide to help the trephine drilling.
- Continue to drill until the top of the implant reaches the appropriate depth marking.
- Lift out the implant with a pair of forceps or other appropriate instrument.

Removal of an OsseoSpeed® TX implant

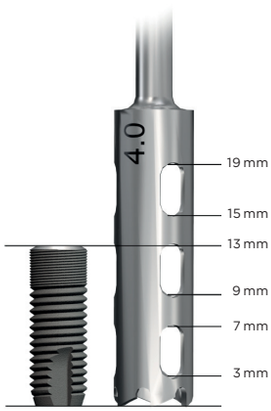
If all other methods to remove a partly or fully integrated implant are unsuccessful, a final option is to trephine out the implant. This procedure should be used at the lowest possible speed under profuse irrigation and with the bone exposed for optimal visibility.

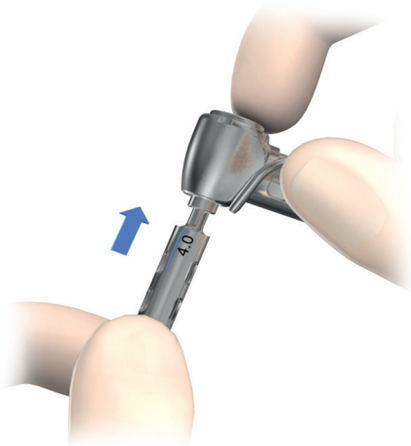
The Trephine Drill have slots that serve as depth markings. Please see the illustration below.

Trephine Drill
3.5, 4.0 and 5.0.

Use Trephine Drill 5.0 for implant 4.5.

STEP 4





Trephine Drill

- The Trephine Drill has depth markings, and diameter

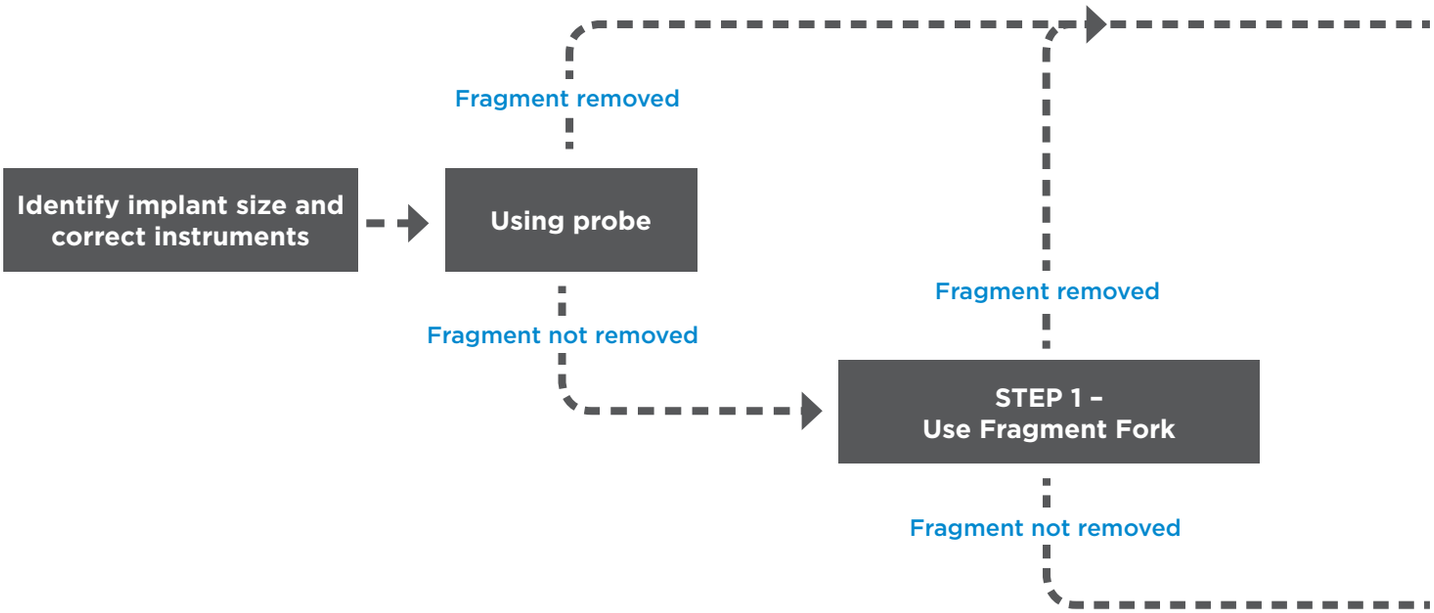
Select Trephine Drill

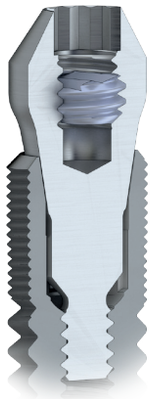
- Select the appropriate trephine drill and mount it into a contra angle.
- **Drill under profuse irrigation at the lowest possible speed (a maximum of 300 rpm).**
- Make sure to follow the axis of the implant.

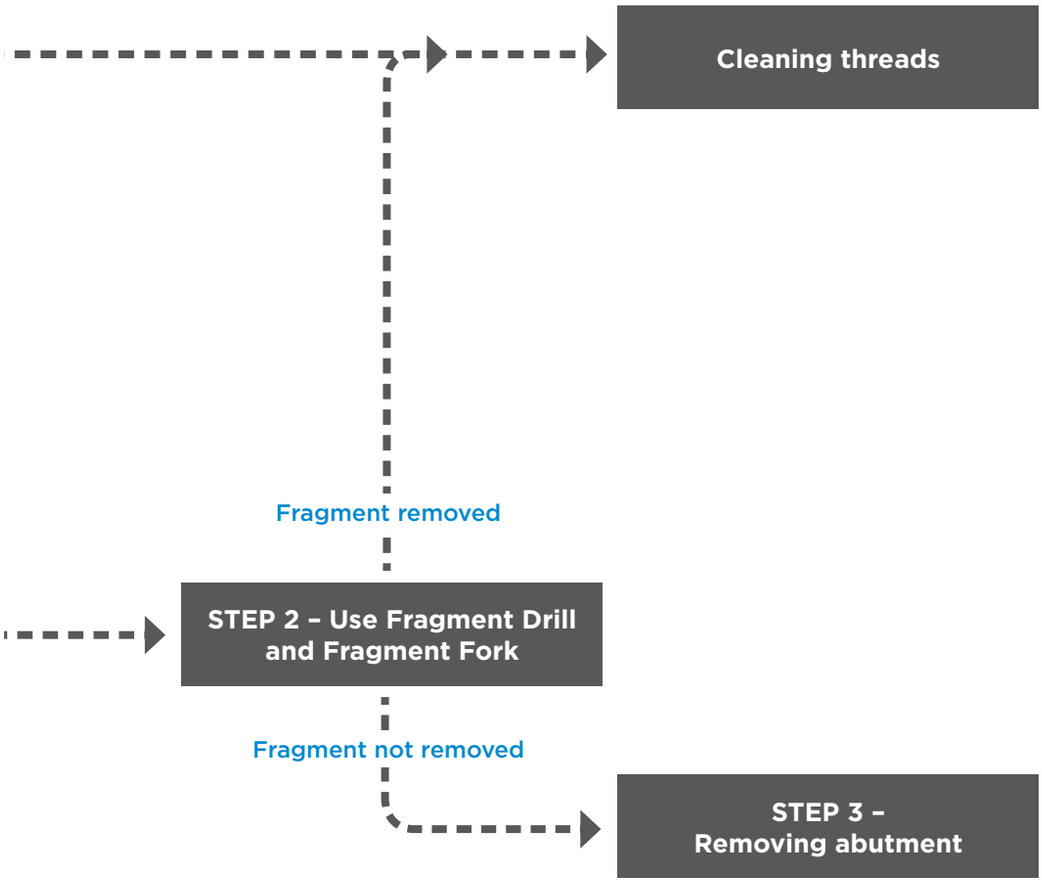
Using Trephine Drill

- Creating a starting groove in the periphery of the implant with a bur or similar can be a guide to help the trephine drilling.
- Continue to drill until the top of the implant reaches the appropriate depth marking.
- Lift out the implant with a pair of forceps or any other appropriate instrument.

Workflow – Bridge screw fracture in an abutment







Bridge screw fracture in a Uni Abutment

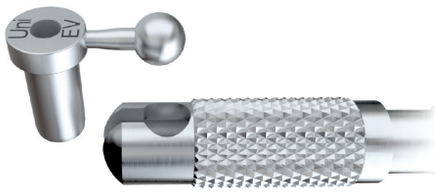
Screw fractures may occur in abutments when unfavorable stress or forces are applied. The remaining screw fragments may be retrieved with Fragment Fork instruments. The Fragment Fork is designed to be used counter-clockwise and can often be used without damaging the threads.

The following steps describe the step-by-step procedures for retrieval of a bridge screw fragment in a Uni Abutment EV.

Identify the size of the implant/abutment and use the instruments accordingly (see the compatibility table on page 29).

Start by using a sharp probe to evaluate the mobility of the fragment and try to remove the screw fragment from the abutment by rotating it in a counter-clockwise direction.

STEP 1



Connect and adjust

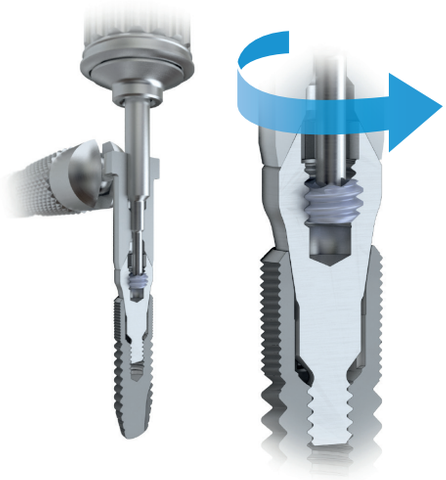
- Connect, adjust and lock the Guiding Cylinder Handle firmly into the ball joint of the Guiding Cylinder EV.

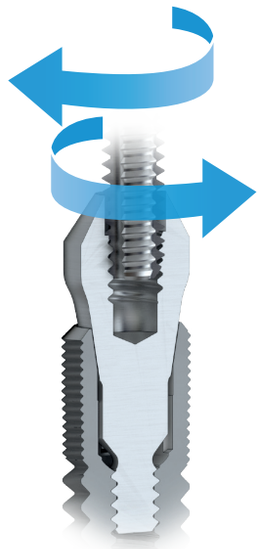
Place

- Place the guiding cylinder onto the abutment and hold it firmly.
- Ensure that the cylinder is aligned with the vertical axis of the abutment throughout the whole procedure.

Attach the Fragment Fork

- Attach the Fragment Fork into the Restorative Driver Handle EV.





Using Fragment Fork

- **Manually rotate the Fragment Fork in a counter-clockwise direction** while pressing towards the screw fragment through the Guiding Cylinder.
- When the fragment is loose, continue unscrewing the screw fragment.

Note: If the fragment cannot be removed, go to Step 2, using the Fragment Drill.

Attach Thread Cleaner

- Attach the appropriate Thread Cleaner into the Restorative Driver Handle EV.
- Insert the thread cleaner carefully into the screw hole by hand and make sure that it engages properly in the threads.

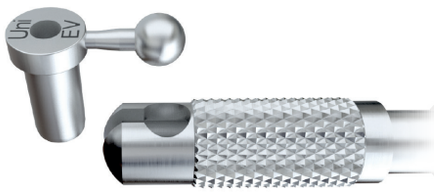
Thread cleaning

- Work the whole length of the thread intermittently with the Thread Cleaner half of a turn at a time and reverse in between to clean the threads and remove possible fragments.

Bridge screw fracture in an abutment

Drill with the Fragment Drill to make an indentation in the screw fragment as a starting point for the Fragment Fork.

STEP 2



Connect and adjust

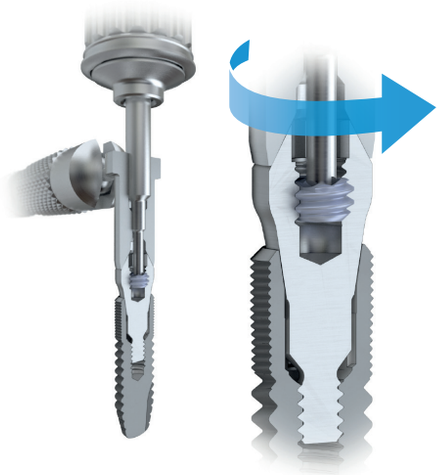
- Connect, adjust and lock the Guiding Cylinder Handle firmly into the ball joint of the Guiding Cylinder EV.

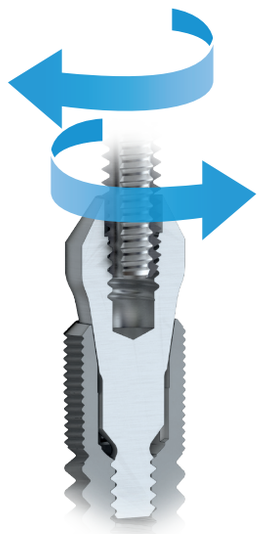
Place

- Place the guiding cylinder onto the implant and hold it firmly.
- Ensure that the cylinder is aligned with the vertical axis of the abutment throughout the whole procedure.

Attach Fragment Drill

- Attach the Fragment Drill into the contra angle (contra angle 20:1).
- **Drill counter-clockwise** with the fragment drill through the guiding cylinder and the **drilling equipment set at 1500 rpm.**
- Ensure that the indentation is centered in the screw fragment.
- Work intermittently with the drill and in between clean out possible fragments.
- Drill gently until a small cavity/indentation is created in the screw fragment.





Using Fragment Fork

- Attach the Fragment Fork into the Restorative Driver Handle EV.
- **Manually rotate the Fragment Fork in a counter-clockwise direction** while pressing towards the screw fragment through the Guiding Cylinder.
- When the fragment is loose, continue unscrewing the screw fragment.
- Remove the guide and retrieve the fragment with a pair of forceps or similar instrument.

Note: If the fragment cannot be removed, go to Step 3 and remove the abutment using the Rescue Driver Uni Abutment EV.

Attach Thread Cleaner

- Attach the appropriate Thread Cleaner to the Restorative Driver Handle EV.
- Insert the thread cleaner carefully into the screw hole by hand and make sure that it engages properly in the threads.

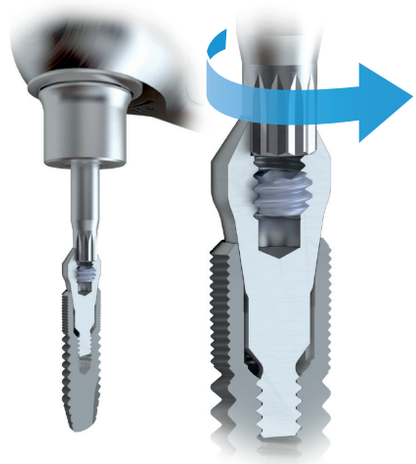
Thread cleaning

- Work the whole length of the thread intermittently with the Thread Cleaner half of a turn at a time and reverse in between to clean the threads and remove possible fragments.

Removal of Uni Abutment EV

Use the Rescue Driver Uni Abutment EV to remove the abutment.

STEP 3



Rescue Driver Uni Abutment EV

- Use the Rescue Driver Uni Abutment EV for Uni Abutment EV.

Attach

- Insert the Rescue Driver Uni Abutment EV into the Surgical Driver Handle and into the wrench until there is an audible click.
- Make sure that the driver is correctly placed into the handle. The hexagonal part of the shaft shall be fully inserted into the handle.
- The arrow on the head of the wrench shows the direction in which the wrench is functioning and should be in ”out” reverse mode.

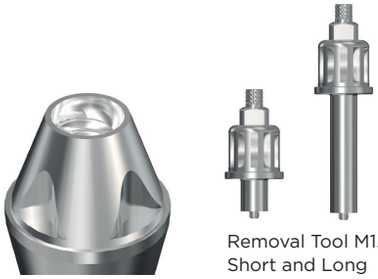
Using Rescue Driver Uni Abutment EV

- Use the Torque Wrench EV as a ratchet wrench to reverse the abutment.

Note: The driver does not have any pick-up function; lift the abutment with a pair of forceps or other appropriate instrument.

Removal of undamaged abutments ***with*** removal grooves

Abutments for screw-retention supplied with removal grooves, i.e. UniAbutments and Cresco Inserts within the Astra Tech Implant System, can be removed with the Removal Tool M1.4.



Removal Tool M1.4, Short and Long

STEP 3

Removal Tool M1.4

- Place the Removal Tool M1.4 on the abutment/insert. Make sure the ridges in the Removal Tool seat properly and engage the removal grooves in the abutment/insert.
- Tighten the screw with a Hex Screwdriver.

Using Removal Tool

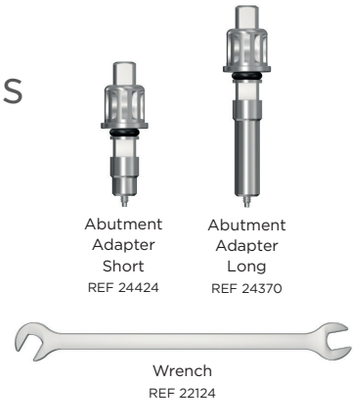
- Use either the open-end Wrench or the Restorative Driver Handle 4x4 low and the Torque Wrench EV together and attach to the Removal Tool.
- Release the abutment/insert by turning it counter-clockwise with a firm, short movement.

Remove

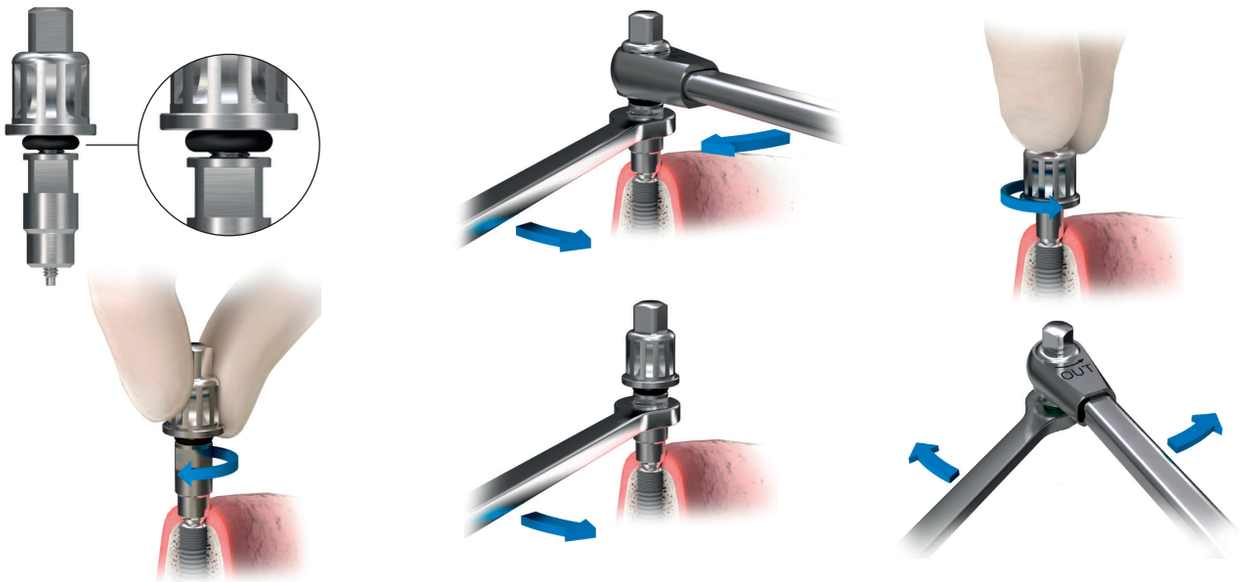
- Unscrew manually when the abutment/insert is loose.
- To remove the abutment/insert from the Removal Tool, loosen the screw, which will separate the parts.

Removal of undamaged abutments pre EV assortment ***without*** removal grooves

UniAbutments without removal grooves, can be removed using an Abutment Adapter. This instrument can also be used for UniAbutments and Cresco Inserts with removal grooves.



STEP 3



Prepare the Abutment Adapter

- Adjust the lock nut of the adapter until a gap is visible between the O-ring and the metal (1–2 mm).
- Make sure to keep the gap while mounting the adapter to the abutment/ insert with finger light torque.

Note: Do not compress the O-ring.

Using the wrenchs

- Attach the open-end wrench on the lock nut and attach any of the ratching wrenches in the "IN" position onto the adapter head. Tighten/activate the adapter by moving the two instruments towards each other.
- When tightened/activated, use the wrench on the lock nut with a firm, short movement counter-clockwise to release the abutment.

Release the abutment

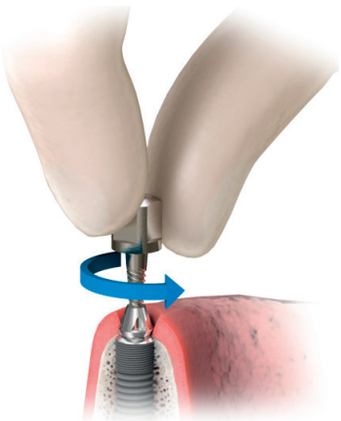
- When the abutment is released, manually unscrew the abutment completely.
- Detach the adapter from the abutment with the open-end wrench and any of the ratchet alternatives in the "OUT" position. Move the instruments away from each other to loosen/deactivate the adapter.

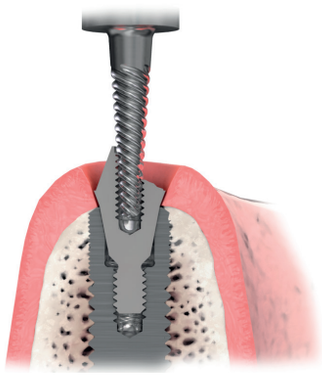
Retrieval of damaged abutments

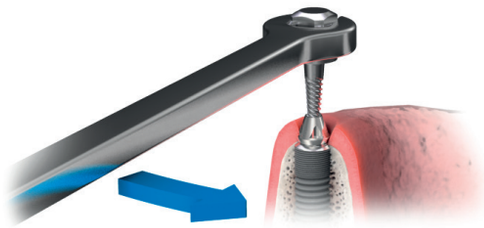
While the methods previously described can be used for removing fractured UniAbutments 20°/45° and Creco inserts with intact threads, in most cases, using a UniAbutment Retriever is a more efficient method. A UniAbutment Retriever must also be used to retrieve abutments with damaged threads.

Note: Using an Abutment Retriever for undamaged abutments with undamaged threads will cause damage to the threads during retrieval and the abutment will need to be replaced.

UniAbutment Retriever







UniAbutment Retriever

- Place the UniAbutment Retriever in the threaded hole of the abutment and turn counter-clockwise while pressing down until it friction fits in the threads.

Using UniAbutment Retriever

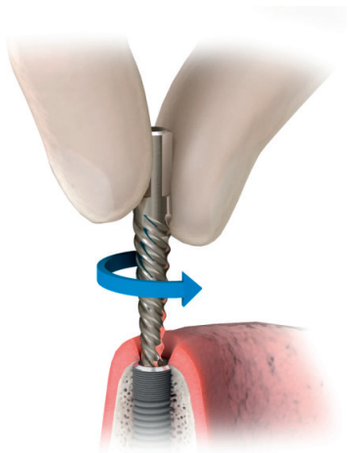
- In situations when only a short fraction of the screw hole remains, it may be difficult to achieve enough friction. In such instances, cut or grind off some of the instrument tip and try again.

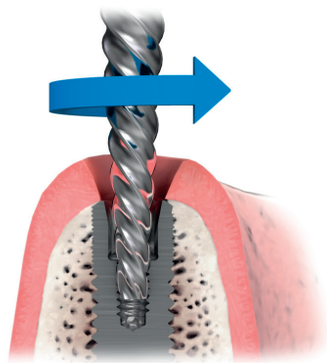
Remove

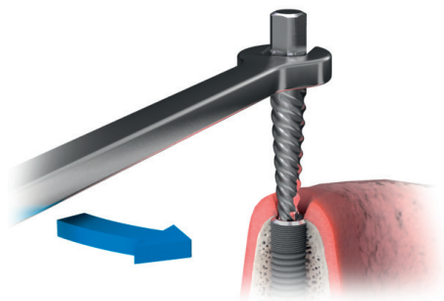
- Use either the open-end Wrench or the Restorative Driver Handle 4x4 low and the Torque Wrench EV together and attach to the UniAbutment Retriever. Continue the counter-clockwise rotation while maintaining a downward pressure until the abutment loosens.
- Continue manually until the abutment is completely detached.

Retrieval of damaged implants

Removal of damaged implants or implants with damaged internal threads may require alternative methods, e.g., the use of the Implant Retriever. The Implant Retriever will fit in any of current or earlier implant product lines. It is designed to squeeze in the threaded area and create a friction grip when rotated counter-clockwise.







Implant Retriever

- Place the Implant Retriever in the threaded area of the implant and turn counter-clockwise while pressing the retriever down until it sticks in position.

Using Implant Retriever

- In situations where only a short fraction of the screw hole remains, it may be difficult to achieve enough friction. In such instances, cut or grind off some of the instrument tip and try again.

Remove

- Use either the open-end Wrench or the Restorative Driver Handle 4x4 low and the Torque Wrench EV together and attach to the Implant Retriever. Continue the rotation while maintaining a downward pressure until the implant starts to rotate.
- Continue until the implant is out of the bone.

Torque Wrench EV – handling

A torque wrench together with the driver handle is used for the repair procedures.

Assemble

- Insert the Hex Driver EV or appropriate product / instrument 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.

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

Disassemble

- Remove the driver 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.

Cleaning and sterilization

Cleaning and sterilization before use

The products and instruments for repair procedures are delivered non-sterile. Before use, the non-sterile products must be cleaned and sterilized.

Remove residual tissue or bone debris by immersing the used products in lukewarm water (<40° C/104° F). Do not use fixation agents or hot water as this could influence subsequent cleaning results. Products should be kept in a wet environment until the next step is initiated.

Note: Single use products should not be reused.

If cleaning is delayed more than 120 minutes, place the devices in a bath of a cleaning and disinfection solution to avoid drying of soil and/or debris, blood and other contaminations.

The Guiding Cylinder Handle must be disassembled before cleaning.

Manual procedure

Apply detergent, Neodisher MediClean-Forte (Dr. Weigert, Hamburg) or similar solution to all surfaces. Scrub the outer and, if applicable, the inner side of the product with a soft bristled nylon brush until all visible soil and/or debris is removed. Flush the inner channels/lumen with cleaning solution using an irrigation needle connected to a syringe. Check channels/lumen for residual soil and/or debris. Run the products in an ultra-sonic bath with cleaning solution for a minimum of ten minutes, drills and trays excluded. Rinse under clean running water until all trace of cleaning solution is removed. Flush the inner channels/lumen with water using an irrigation needle.

Prepare a bath with a disinfection solution, ID212 instrument disinfection (DÜRR SYSTEM-HYGIENE) or similar, according to the detergent manufacturer's instructions. Immerse the products completely for the time specified by the manufacturer. Flush the internal channels/lumen using an irrigation needle for a minimum of 3 times. Rinse under clean running water until all trace of disinfection solution is removed. Flush the inner channels/lumen with water using an irrigation needle.

Dry the products using medical compressed air and clean lint-free single-use wipes.

Automated procedure

Place instruments in a washer-disinfector, Vario TD or similar, according to recommendations from the supplier. The Vario TD washing program, found below, will serve as an example:

- Pre-wash, 20° C
- Cleaning with detergent, Neodisher MediClean-Forte (Dr. Weigert, Hamburg) or similar solution at 45–55° C
- Neutralization
- Intermediate rinse
- Disinfection, >90° C (preferable 93° C), 5 min
- Drying

Inspection and function testing

Discard blunt or damaged products.

Packaging pre-sterilization

Thoroughly dry everything prior to the sterilization process to prevent the risk of corrosion. Wrapping the instruments according to the sterilization wrap manufacturer's instructions and applicable products in a sterilization bag is recommended.

Note: For the US: Use a FDA cleared sterilization bag and 16 minutes drying time at the end of the steam sterilization cycle.

Sterilization

Steam sterilization with a pre-vacuum cycle (134° C/275° F for 3 minutes).

Storage

The products should be stored in their package in a dry place, at normal temperature (18–25° C/64–77° F). Use the sterilized components from the sterile bag manufacturer within the stated time period.

Note: Follow the manufacturer's instructions for the maintenance and cleaning of the Contra Angles and the Torque Wrench EV.

Product catalog
Repair procedures

If you need drills and other instruments, please refer to the Product catalogs for Astra Tech Implant System EV and Astra Tech Implant System.

Compatibility table

Identify the implant/abutment size for OsseoSpeed EV or OsseoSpeed TX assortment.

Select the corresponding instruments; see the order number in the table below.

Astra Tech Implant System® EV

	OsseoSpeed EV					OsseoSpeed Profile EV		Uni Abutment EV
								
	3.0	3.6	4.2	4.8	5.4	P 4.2	P 4.8	
Fragment Fork	25856	25856	25857	25857	25857	25857	25857	25857
Fragment Drill	25858	25858	25859	25859	25859	25859	25859	25859
Screw Extractor	25860	25860	25861	25861	25861	25861	25861	N/A
Thread Cleaner	25862	25863	25864	25865	25865	25864	25865	25864
Trephine Drill	25866	25867	25886 25868	25887 25869	25888 25870	25886 25868	25887 25869	N/A
Rescue Driver Uni Abutment EV								25794

Astra Tech Implant System®

	OsseoSpeed TX				OsseoSpeed TX Profile	20°/45° Uni Abutment
						
	3.0	3.5	4.0	4.5 5.0	4.5/5.0	
Fragment Fork	25856	25856	25856	25857	25857	25856
Fragment Drill	25858	25858	25858	25859	25859	25858
Screw Extractor	25860	25860	25860	25861	25861	N/A
Thread Cleaner	25862	25863	25863	25865	25865	25862
Trephine Drill	25866	22884	22885	22890	22890	N/A
Retriever	22429	22192	22192	22192	22192	22429

Instruments to remove/retrieve screw fragments

Guiding Cylinder EV

Order no.	25846	25847	25848	25849	25850

Guiding Cylinder EV
Stainless steel, non-sterile, single-use only

- Guides the instruments into the center of the fragment
- Protects the internal threads in the implant
- Marked with diameter and EV
- Use together with Guiding Cylinder Handle and Fragment Drill or Fragment Fork for OsseoSpeed EV implants

Guiding Cylinder Uni Abutment EV

Order no.	25851

Guiding Cylinder Uni Abutment EV
Stainless steel, non-sterile, single-use only

- Guides the instruments into the center of the fragment
- Protects the internal threads in the abutment
- Marked with diameter and EV
- Use together with Guiding Cylinder Handle and Fragment Drill or Fragment Fork for Uni Abutment EV in Astra Tech Implant System EV

Guiding Cylinder Handle

Order no.	25855

Guiding Cylinder Handle
Stainless steel, non-sterile

- Adjustable handle for Guiding Cylinders

Guiding Cylinder TX

	3.0	3.5/4.0	4.5/5.0
Order no.	25852	25853	25854

Guiding Cylinder TX
Stainless steel, non-sterile, single-use only

- Guides the instruments into the center of the fragment
- Protects the internal threads in the implant
- Marked with diameter
- Use together with Guiding Cylinder Handle and Fragment Drill or Fragment Fork for OsseoSpeed TX implants

Guiding Cylinder UniAbutment 20°/45°

	20°	45°
Order no.	25884	25885

Guiding Cylinder UniAbutment 20°/45°
Stainless steel, non-sterile, single-use only

- Guides the instruments into the center of the fragment
- Protects the internal threads in the abutment
- Marked with diameter and TX
- Use together with Guiding Cylinder Handle and Guiding Fragment Drill or Fragment Fork for UniAbutment 20°/45° in Astra Tech Implant System

Fragment Fork

Tungsten-Carbide, non-sterile, single-use only

- Used for retrieval of factured abutment- and bridge screws fragment
- For manual use only
- Rotate the Fragment Fork counter-clockwise
- Marked with thread size
- Use together with Restorative Driver Handle EV

Note: Manual use only.

Fragment Fork

	M1.4/M1.6	M1.8/M2.0
Ø	0.8	1.0
Order no.	25856	25857

Fragment Drill

Shank: Stainless steel
Cutting portion: Tungsten-Carbide
Non-sterile, single-use only

- Used for creating an indentation in the abutment- or bridge screw fragment
- Drill counter-clockwise
- Marked with diameter

Fragment Drill

Ø	0.8	1.0
Order no.	25858	25859

Screw Extractor

Stainless steel, non-sterile, single-use only

- Used for retrieval of abutment screw fragments
- Rotate the screw extractor counter-clockwise
- Marked with diameter
- Use together with Surgical Driver Handle EV

Note: Manual use only.

Screw Extractor

Ø	0.8	1.0
Order no.	25860	25861

Instruments to clean internal threads

Thread Cleaner

Stainless steel, non-sterile, single-use only

- Used for cleaning of threads internally in an implant/abutment
- Marked with thread size
- Use together with Restorative Driver Handle EV

Note: Manual use only.

Thread Cleaner

	M1.4	M1.6	M1.8	M2.0
Order no.	25862	25863	25864	25865

Instruments to remove/retrieve abutments

Rescue Driver Uni Abutment EV

Order no.	25794

Rescue Driver Uni Abutment EV
Stainless steel, non-sterile

- Used for retrieval of Uni Abutment EV

Removal Tool M1.4

	Short	Long
Length mm	18	30
Order no.	24021	24037

Removal Tool M1.4
Stainless steel, non-sterile

- For removal of UniAbutment 20° and 45° with grooves and Cresco Insert 20° and 45°
- Use together with Ratchet Wrench/ Torque Wrench/Surgical Wrench or Wrench (22124)

Abutment Adapter

	Short	Long
Length mm	25	35
Order no.	24424	24370

Abutment Adapter
Stainless steel, non-sterile

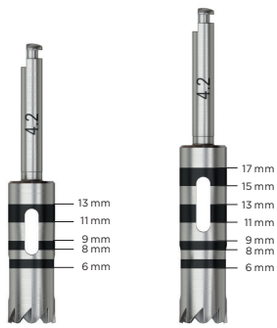
- For removal of UniAbutment 20° and 45° without grooves
- Use together with Ratchet Wrench/ Torque Wrench/Surgical Wrench or Wrench (22124)

Instruments to remove/retrieve implants

Trephine Drill

Stainless steel, non-sterile, single-use only

- Used for the retrieval of partly or fully integrated OsseoSpeed EV implants.
- Marked with diameter and length.



Trephine Drill

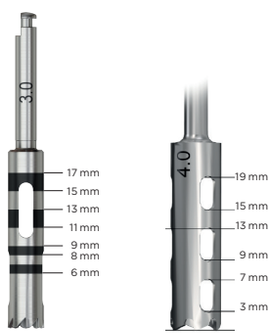
	3.0*	3.6	4.2	4.2 P4.2	4.8	4.8 P4.8	5.4	5.4
Length mm	6–17mm	6–17mm	6–13mm	6–17mm	6–13mm	6–17mm	6–13mm	6–17mm
Inner Ø mm	3.2	3.8	4.4	4.4	5.0	5.0	5.6	5.6
Outer Ø mm	4.0	4.6	5.2	5.2	5.8	5.8	6.4	6.4
Order no.	25866	25867	25886	25868	25887	25869	25888	25870

***Note:** Same drill for all 3.0 implants and single-use only.

Trephine Drill

Stainless steel, non-sterile

- Used for the retrieval of partly or fully integrated implants.
- Marked with diameter and length.



Trephine Drill

	3.0*	3.5	4.0	4.5 5.0 4.5/5.0
	6–17 mm	3.5	4.0	5.0
Inner Ø mm	3.2	3.65	4.2	5.15
Outer Ø mm	4.0	4.5	5.1	6.15
Order no.	25866	22884	22885	22890

***Note:** Same drill for all 3.0 implants and single-use only.

Abutment Retriever

Stainless steel, non-sterile, single-use only

- Use together with a Wrench.

Abutment Retriever

Order no.	22429

Implant Retriever

Stainless steel, non-sterile, single-use only

- Use together with a Wrench.

Implant Retriever

Order no.	22192

General instruments

Torque Wrench EV

Order no.	25774

Torque Wrench EV
Stainless steel, non-sterile

- Use together with a Driver Handle.

Torque Wrench EV, Surgical Driver Handle

Ø mm	8.9
Length mm	15.3
Order no.	25775

Torque Wrench EV, Restorative Driver Handle

Ø mm	8.9	8.9
Length mm	15.5	11.5
Order no.	25776	25777

Torque Wrench EV, Restorative Driver Handle 4x4 low

Ø mm	8.9
Length mm	9.7
Order no.	25730

Torque Wrench EV, Surgical Driver Handle
Stainless steel, non-sterile

Torque Wrench EV, Restorative Driver Handle 4x4 low
Stainless steel, non-sterile

Hex Driver EV Manual

	Short	Intermediate	Long
Total length mm	20	31	38
Order no.	25771	25772	25773

Hex Driver EV Manual
Stainless steel, non-sterile

Wrench

Order no.	22124

Wrench
Titanium, non-sterile

- Use together with an adapter and/or retriever.

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Order by reference number

Alphabetical order

Notes

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.

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