



**Prosthetic Manual
2014**



Dear FairImplant User,

the success of a prosthetic restoration depends greatly on the cooperation between the dentist and laboratory as well as consideration of routine prosthetic aspects with the implant system.

This prosthetic manual contains detailed descriptions and practical tips for ensuring the success of the prosthetic restoration.

At this point we would like to thank you, in particular the dental technicians, for your many suggestions.

We would be pleased to receive any suggestions from you. Please call or send me an email: j.thurow@fairimplant.de

I will answer you personally!

Your

Dipl. Ing. Jörn Thurow
CEO FairImplant

Acknowledgment:

This manual includes many pictures which are not owned by FairImplant. We like to thank for the right of publishing Hannes Thurm-Meyer (Bremen), Dr. Dieter Hartung (Witzenhausen) and the laboratory of Hamburger Zahntechnik.

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For modern, biological implantology for the benefit of your patients.

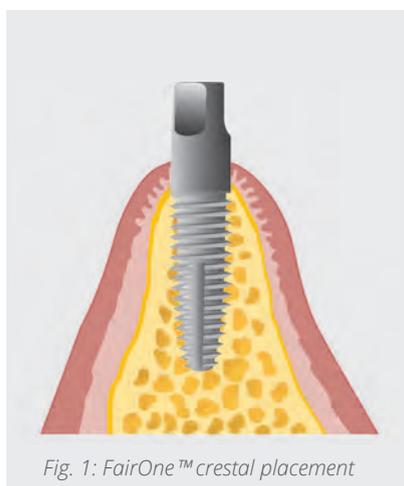
1. Implant System

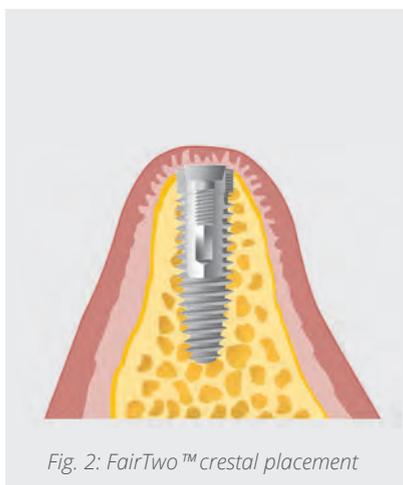
The first ideas for the FairOne™ implant in 2004 signalled the start of a development of implants and associated components meeting the requirements of implantological practitioners by FairImplant™. This approach was only possible by very close contact to dentists and dental technicians.

At the end of 2005 the first implants were placed and in 2006 FairOne™ was successfully launched in the market. Consistent development of a one-piece-implant concept based on biological aspects, which also takes all lengths and diameters into consideration, is an innovative approach.

The current discussion concerning the biology of the microgap, which is associated with the problem of peri-implantitis, fully vindicates this approach. Material selection, implant design and high-quality system components are key success factors of the system.

FairOne™ simplifies implant prosthetics and opens up implant-supported restorations to an increasing number of patients. Dentists and dental technicians basically restore one-part implants using the same procedures as they are accustomed to in conventional prosthetics.





The logical extension of the system followed in 2009 with FairTwo™. Following several years of intensive development work, a reliable two-piece implant was successfully produced alongside FairOne™ according to current state of the art implantology. The two types of implants correspond with regard to the external form and are placed using identical instruments.

The introduction of FairTwo™ has greatly increased the options for different types of prosthetic restoration. This manual is intended to support the dentist and dental technician in prosthetic planning and implementation. For this purpose the most important procedures are illustrated and the abutments, in particular, are described in detail. Another focal point is the LOCATOR® from Zest Anchors.

At this point we would like to thank you very much for your feedback and many suggestions. The objective of our approach is consistent, continuous development of the system with a fair economic concept. A wide ranging system is now already available with regard to coverage of numerous implantological indications. Therefore implantologists can work with only one integrated system.

We are pleased to continue along this approach with you.

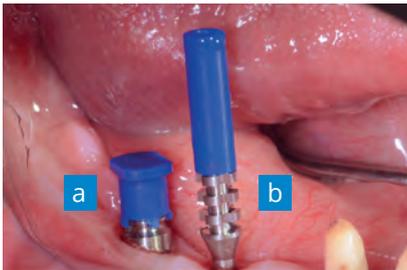


Fig. 3: impression coping closed (a) next to impression coping open (b)



Fig. 4a: dental floss for fixing structure



Fig. 4b: fixing

The quality of an impression is always the basis for a precise prosthetic restoration

2. Impression-taking

This is why particular attention is paid to open and closed impressions with FairTwo™ and prepared/non-prepared impressions with FairOne™.

2.1. FairTwo™ open impression-taking

Two types of impressions available with FairTwo™: The closed impression (Fig. 3a) and the open impression (Fig. 3b).

Particular attention must be paid to positioning the impression post at exactly the correct height in the conical inner connection to ensure reliable transfer to the model. **The impression posts are designed so that the screw only engages, if the post fits in the correct rotational position.**

The screw must then be slightly tightened (max. 10 Ncm). In the correct position the shoulder on the conical section should be flush with the implant shoulder (Fig. 5). Despite this it may make sense to take a control radiograph to ensure that the post fits correctly and that no foreign particle is in between post and implant (Fig. 6).

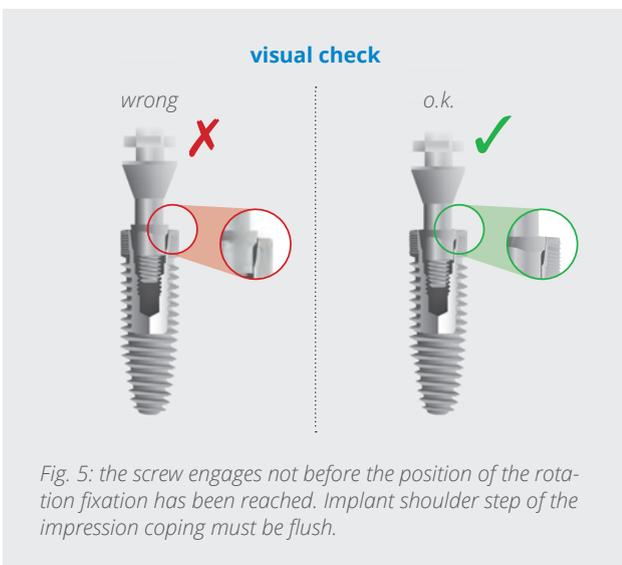


Fig. 5: the screw engages not before the position of the rotation fixation has been reached. Implant shoulder step of the impression coping must be flush.

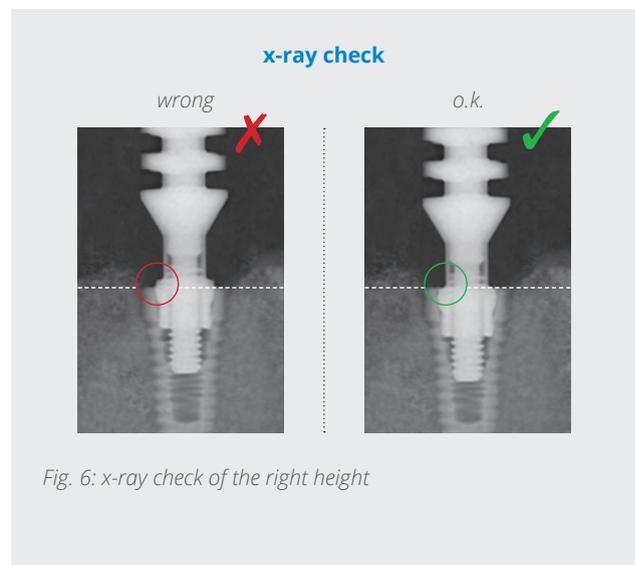
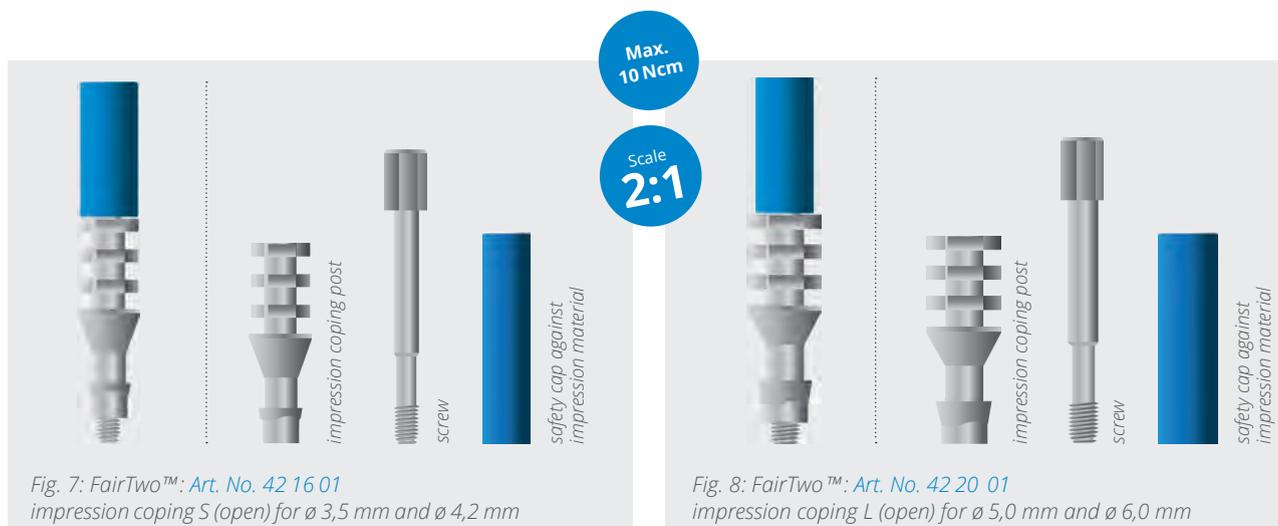


Fig. 6: x-ray check of the right height



The open impression is the gold standard

When taking an open impression, it is recommended to splint the impression posts using resin. In the case of restorations with several implants, splinting should be segmented according to the path of insertion.

First a figure-of-eight ligature should be placed with dental floss (Fig. 4a). The posts should be connected with resin along the dental floss (Fig. 4b). Once splinted in

this way the posts can be connected to the custom impression tray (Fig. 10). To connect the impression posts securely with the individual tray they should be splinted, e.g. using Pattern Resin (Fig. 11). When connecting the posts, it is important to ensure that the screw of the impression post can turn freely; use the safety cap, if necessary. When fabricating single restorations, the posts should be splinted to the tray.

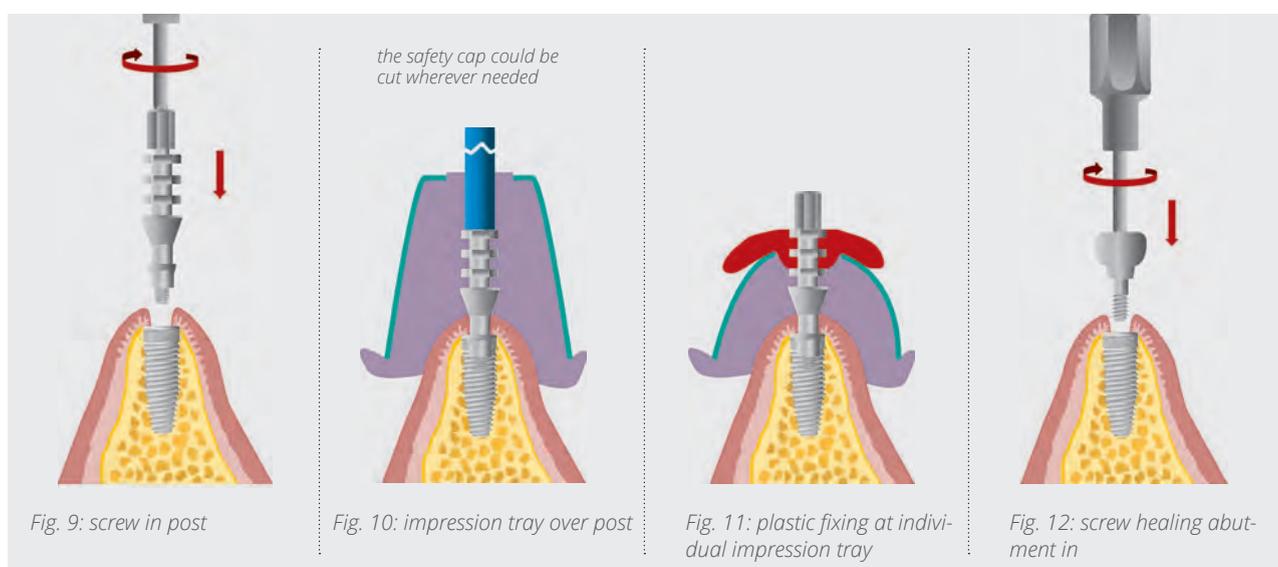




Fig. 13: the basal cylindrical part (green) of the post might be cut of. The rotation fixation should have a minimum of 0,5 mm length.

2.2. Divergent directions

It can be difficult to take an impression of the splinted posts with highly divergent set of implants. In extreme cases closed impression posts must be used or the basal section of the impression posts must be shortened individually. When shortening the posts, it should be noted that rotational security is only provided by this cylindrical section.

2.3. FairTwo™ closed impression-taking

Closed impression is a possible alternative to open impression (Fig. 14 – 18). Special impression copings are available for the closed impression technique. The closed impression coping includes a corresponding transfer cap, which remains in the impression and ensures reliable placement of the laboratory implant during model fabrication.

The impression post must be precisely screwed into the implant before the coping is fitted. The control criteria described in the instructions apply for checking the fit. The two clamping lugs of the copings should be fitted into the guide groove of the post until they snap into place to ensure transfer of the implant position and the four-point index. Their use is a prerequisite for precise model fabrication. If a closed impression is taken, a framework try-in is strongly recommended for splinted restorations.

REMEMBER: The closed impression posts are required in the laboratory for model fabrication.

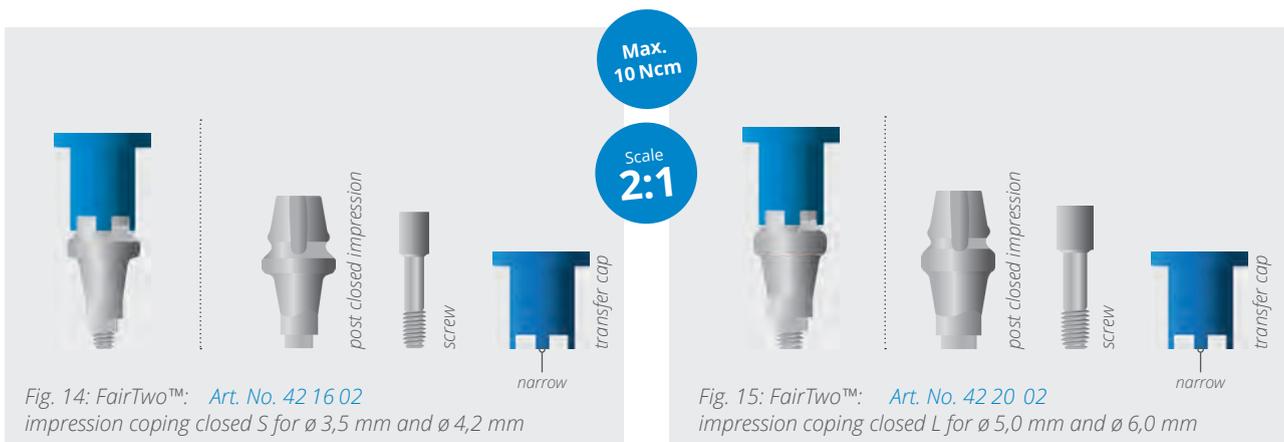


Fig. 14: FairTwo™: Art. No. 42 16 02
impression coping closed S for \varnothing 3,5 mm and \varnothing 4,2 mm

Fig. 15: FairTwo™: Art. No. 42 20 02
impression coping closed L for \varnothing 5,0 mm and \varnothing 6,0 mm

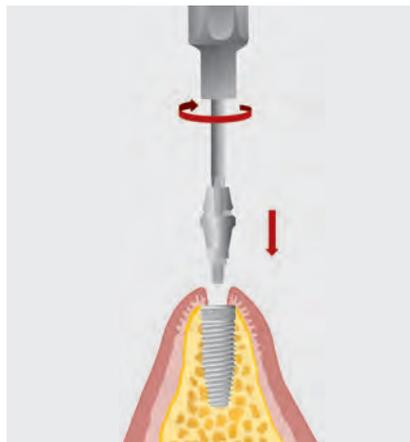


Fig. 16: screw in post

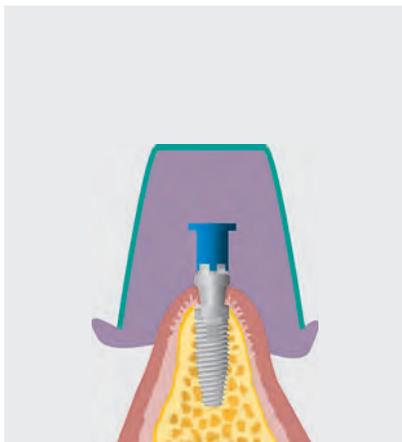


Fig. 17: impression-taking

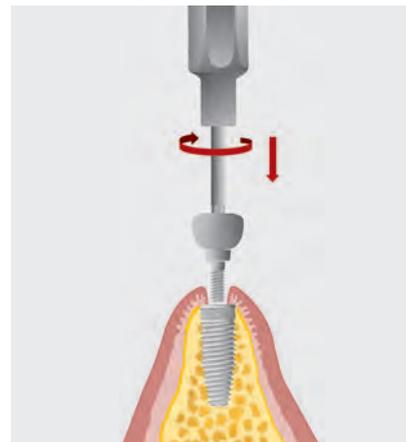


Fig. 18: screw healing abutment in

2.4. Model fabrication

The master model is fabricated both in the open and closed impression with the impression post and laboratory implant screwed in position.

The laboratory implant is available for platform S and L.

The impression copings are designed so that the screw only engages once the posts sit in the correct rotational position.

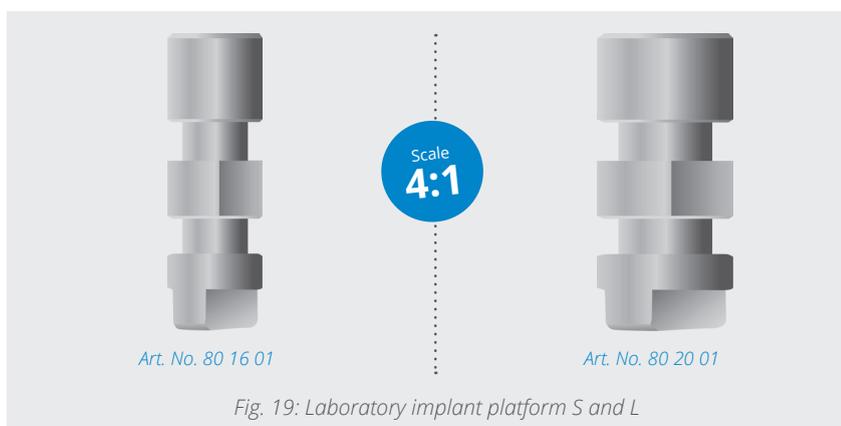


Fig. 19: Laboratory implant platform S and L

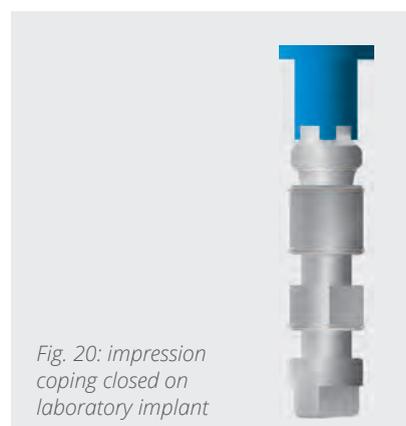
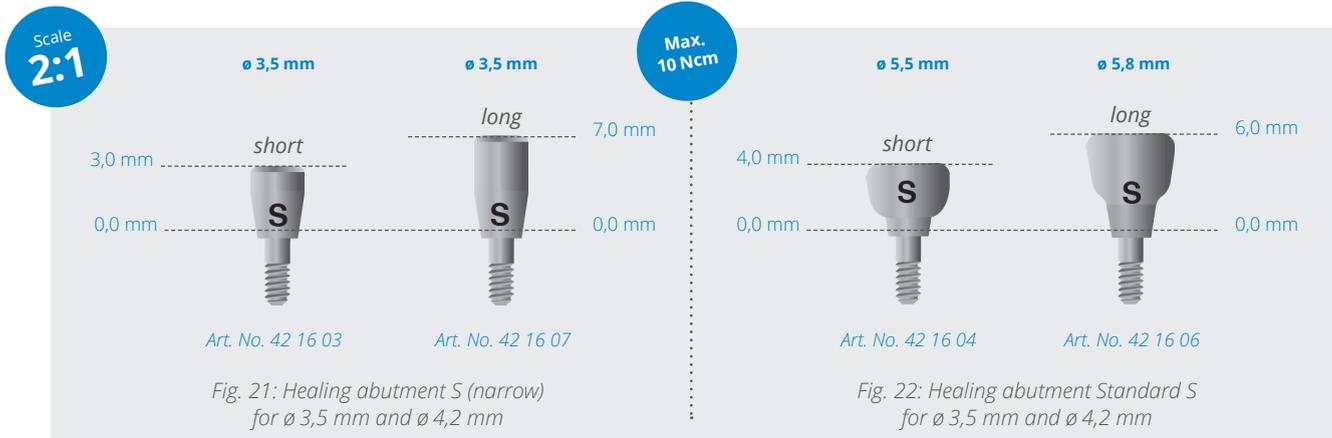


Fig. 20: impression coping closed on laboratory implant



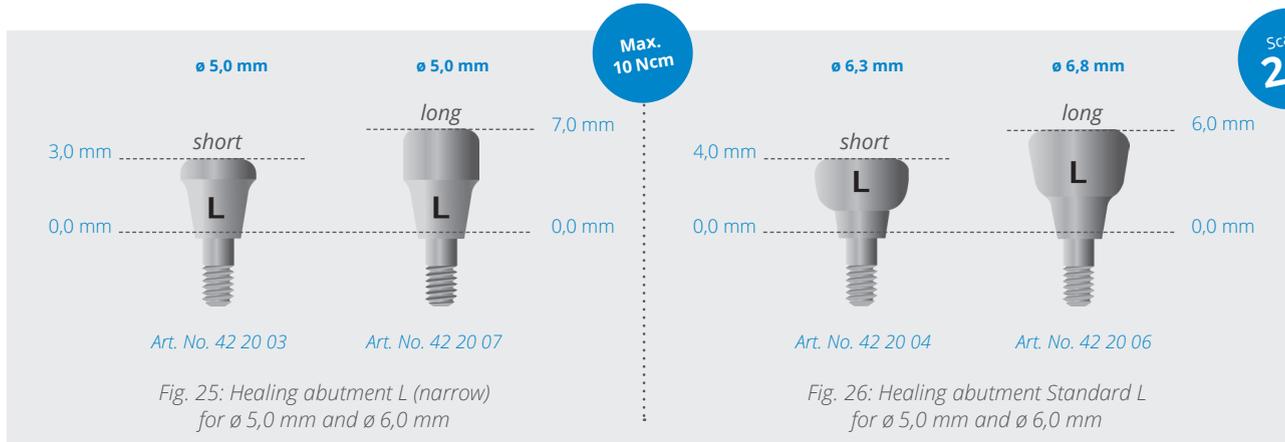
2.5. Healing abutment FairTwo™

Different healing abutments are available for contouring the gingiva after the impression has been taken. Healing abutments are available in narrow and standard designs each with short and long mucosal heights.

The selected healing abutment influences the abutments used at a later stage. The emergence profile of the standard healing abutment is the same as the emergence profile of the standard and angulated abutments. This ensures that the mucosa is optimally pre-contoured when the abutment is fitted later.

Special healing abutments should be used for the special rescue abutment.





How are the healing abutments coloured?

The healing abutment is, of course, not coloured with a dye. Due to contact with the mucosa only pure titanium comes into consideration with regard to superior biological tolerability. The colours are produced by specific shaping of the surface structure. The structure causes interference of the light.

If this surface is damaged, for example by a sharp instrument, the specific structure and uniform interference are also damaged. This tends to result in the surface of the titanium resuming its familiar grey colour.





Fig. 29: individual transfer cap
(pictured: LuxaBite, DMG)

2.6. FairOne™ impression-taking

Many procedures in the prosthetic restoration of a FairOne™ implant are the same as in the restoration of a prepared tooth. Two basic cases are differentiated:

- Impression-taking without preparation using laboratory implants
- Impression-taking with preparation

Finally, the comparatively simple intraoral preparation will be described.

2.6.1. Without preparation using a laboratory implant

Often implants can be placed, so that preparation is no longer required. In this case an impression is simply taken of the prosthetic head of the FairOne™. Conventional impression techniques are used for this. Transfer caps may be used if no preparation is required. Laboratory implants are used in this case for model fabrication. Transfer caps can be easily fabricated in the practice using hard bite registration material (Fig. 29) or prefabricated transfer caps (Fig. 30) can be used.

2.6.2. Model fabrication with a laboratory implant

Following impression-taking, the respective laboratory implants are fitted in the transfer caps in the laboratory and a master model fabricated. In addition to the exact transfer of the implant position, it is also possible to place individual crown margins subgingivally on the master model using the laboratory implant. Use of a trimmable gingival mask is recommended (Fig. 31). Adjustments should be agreed with the dentist and should not generally exceed 1 mm.



Fig. 30: transfer cap for FairOne™



Fig. 31:
master model with trimmable gingiva mask

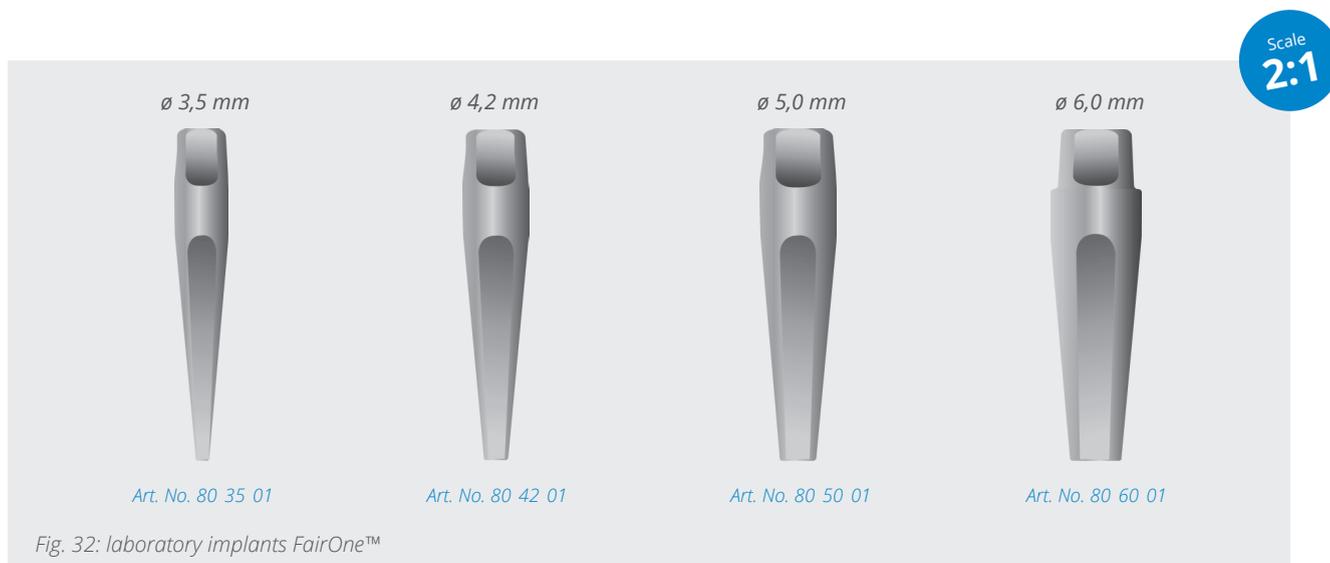


Fig. 32: laboratory implants FairOne™

The laboratory implants are designed like a dowel pin. This allows them to be removed from the master model. Die spacer is applied in the laboratory when using the casting technique. This keeps the space free for the respective planned cement gap (non-binding guideline 0.05 mm).

Subsequent preparation of the implant head may be necessary with regard to producing the best possible prosthetic restoration. In this case adjustments can be made to the laboratory implant and transferred to the intraoral situation using a preparation cap. This is then used as a trimming coping for the dentist. (Fig. 33)

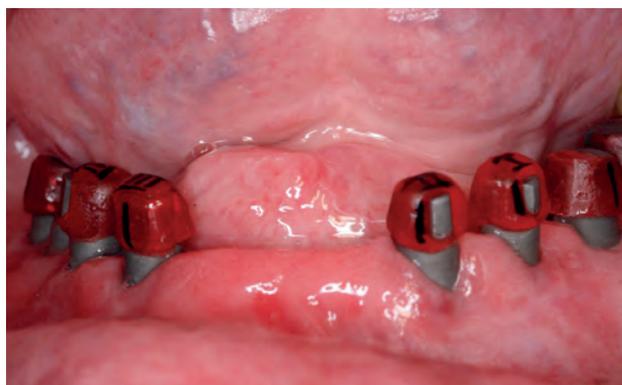


Fig. 33: post preparation with individual preparation caps

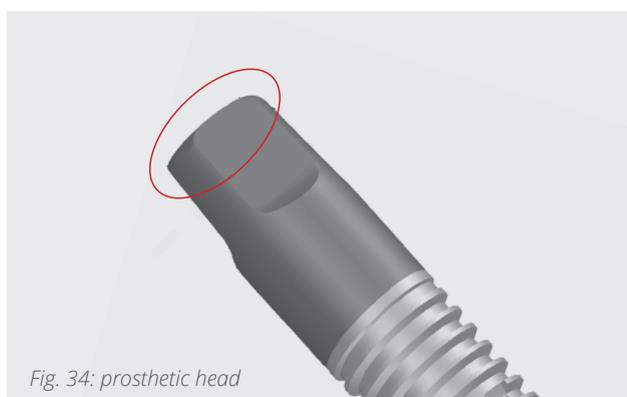


Fig. 34: prosthetic head

TIP: The FairOne™ is designed so that the upper 4 mm has a 3° conical section. The walls of the implant are parallel in the gingival emergence zone. If a splinted restoration is planned, it should be ensured that the crown margins are prepared or lie completely in the conical section to ensure that no undercuts are created.

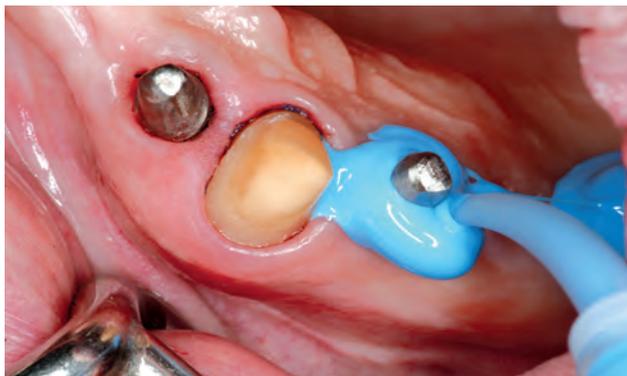


Fig. 35: impression-taking



Fig. 36: the precise impression-taking is the basis for succes

2.6.2. Impression-taking with preparation

The implant head is customised by preparing it intraorally. Impression-taking and model fabrication are completed analogous to the usual procedures with a prepared tooth (Fig. 35 + 36).

If the preparations are thin, the dies should be strengthened in the master model using resin.

TIP: Thin endodontic glass-fibre posts can be used for strengthening the resin during model fabrication.



Fig. 37: burs for preparation

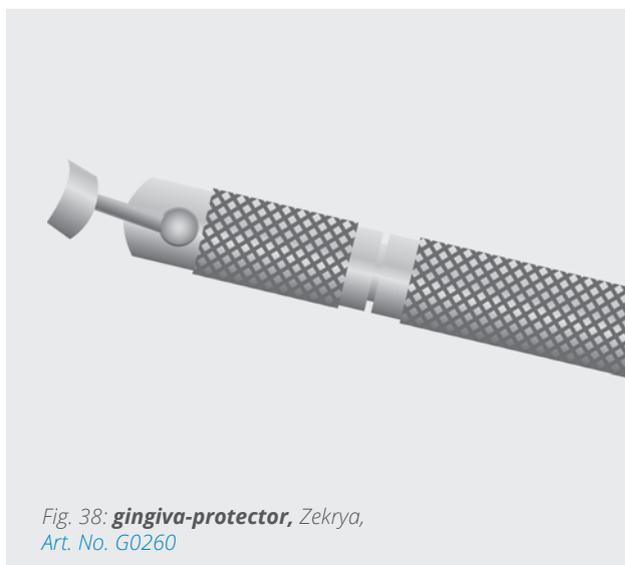


Fig. 38: **gingiva-protector**, Zekrya, Art. No. G0260

2.6.4. Preparation

It is not always possible to place implants so that no preparation is required.

The pure titanium head is easily prepared (Fig. 39). The poor thermal conductivity of pure titanium is also an advantage with intraoral preparation.

It is advisable to mark the area to be prepared (Fig. 40). If prepped immediately post operation the mucosa should be protected in advance with resin as when bleaching or a rubber dam. Provide for adequate cooling.

The use of the Zekrya gingival retractor is recommended to protect the gingiva (Fig. 41). Carbide drills (Fig. 42) and finishing diamonds (Fig. 43) have proven successful for preparation.



Fig. 39: FairOne™-head after preparation



Fig. 40: The Zekrya protects the gingiva. Pictured preparation with ball (k-bite, FRAGA DENTAL)



Fig. 41: hollow is prepared; resin protects gingiva.

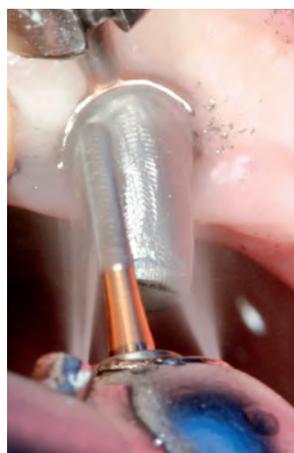


Fig. 42: cooling is important



Fig. 43: final preparation with diamond

3. Abutments

All FairImplant™ abutments and included abutment screws are made of medical grade 4 pure titanium. In accordance with the FairTwo™ philosophy they have a conical connection to the implant. This connection is leak-proof and reduces micromovements during loading. This leak-proof, stable connection is very important for bone preservation around the implant head. Micromovements between the implant and abutment are excluded with the one-part Fair-One™.

The connection between the implant and abutment is very firm after final tightening of the screw exerting 20 Ncm. Please note Section 3.1. "Loosening of abutment connections".

The different types of abutment available provide an optimum prosthetic restoration and can meet all clinical challenges.

We recommend a model with removable gingival mask for abutment selection. The choice of abutment design depends on the alignment of the placed implant and the distance between the implant and opposing dentition. This should be checked in the articulator.

Customised trimming of all abutments is possible, so that the correct shape can be adapted to the overall height and the mucosal thickness. The load-bearing conical section should not be modified during trimming. This also applies to the retention screw (Fig. 53 on Page 20).



Fig. 44:
individual zircon-abutment on metal base

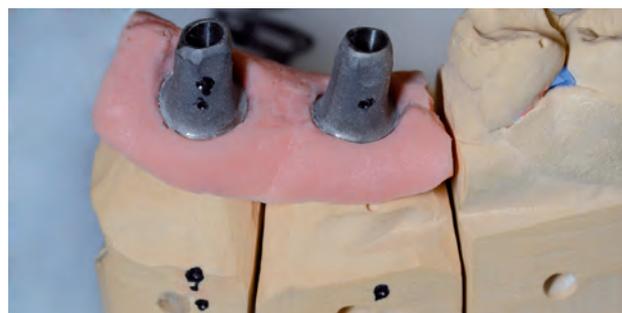


Fig. 45: prepared abutment on master model

Note: The screw and screw channel are highly precisely matched. It is essential to ensure during trimming that no metal chips get onto the screw head or enter into the screw channel. If this nevertheless occurs, the chips must be completely removed. Otherwise the screw may jam in the screw channel and the abutment can no longer be used.



Fig. 46:
Scanbody S (left) Art. No. 801602
Scanbody L (right) Art. No. 802002

Two platforms are available depending on the diameter of the implant:

Platform S is for implants with \varnothing 3.5 mm and \varnothing 4.2 mm (see next double page)

Platform L is for implants with \varnothing 5.0 mm and \varnothing 6.0 mm (see next double page)

The second selection criterion is the differentiation between short (thin mucosa) and long (normal mucosa). A decisive factor for selection is the distance between the implant shoulder and the upper edge of the buccal mucosa.

Mucosal height, thickness and contour determine the selection of abutments. To ensure satisfactory aesthetics, it is important to avoid the abutment showing through. The short abutment should be used with thin mucosa to achieve satisfactory aesthetics.

A set containing all available abutments (Art. No. 40 35 50) is practical for selecting specific abutments individually to achieve optimum prosthetics.



Fig. 47: transfer-key

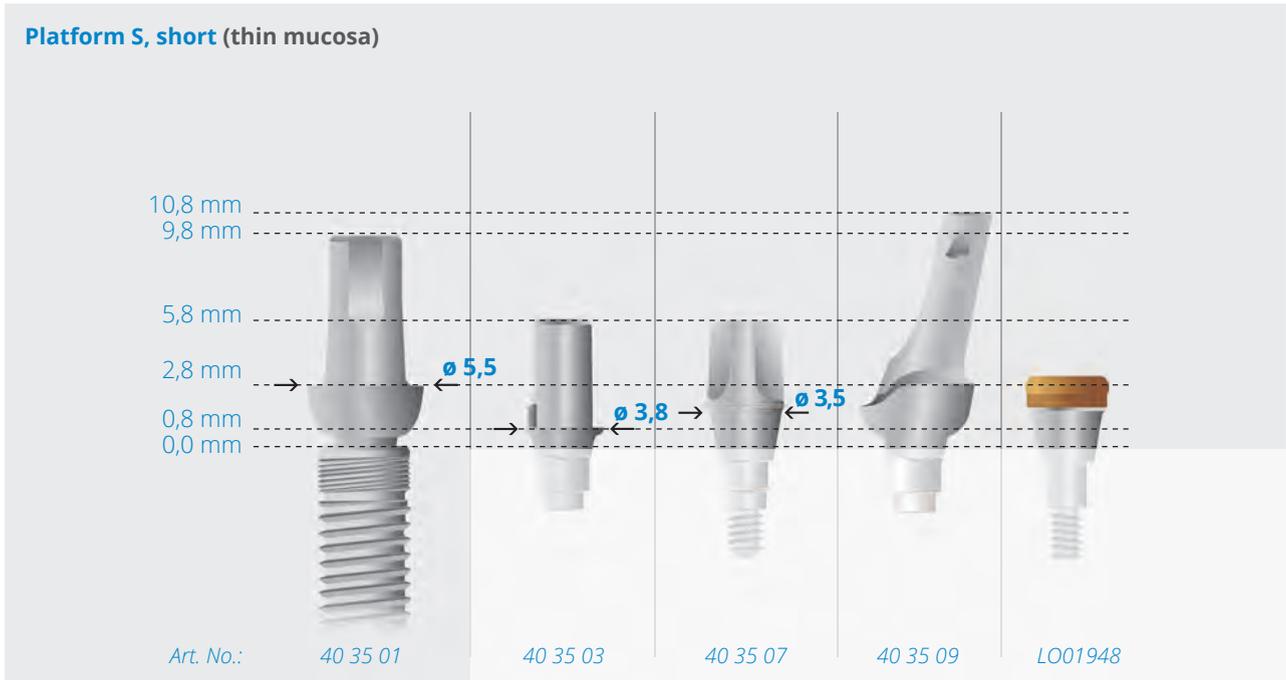


Fig. 48: Platform S, short for implants with diameter 3,5 mm und 4,2 mm

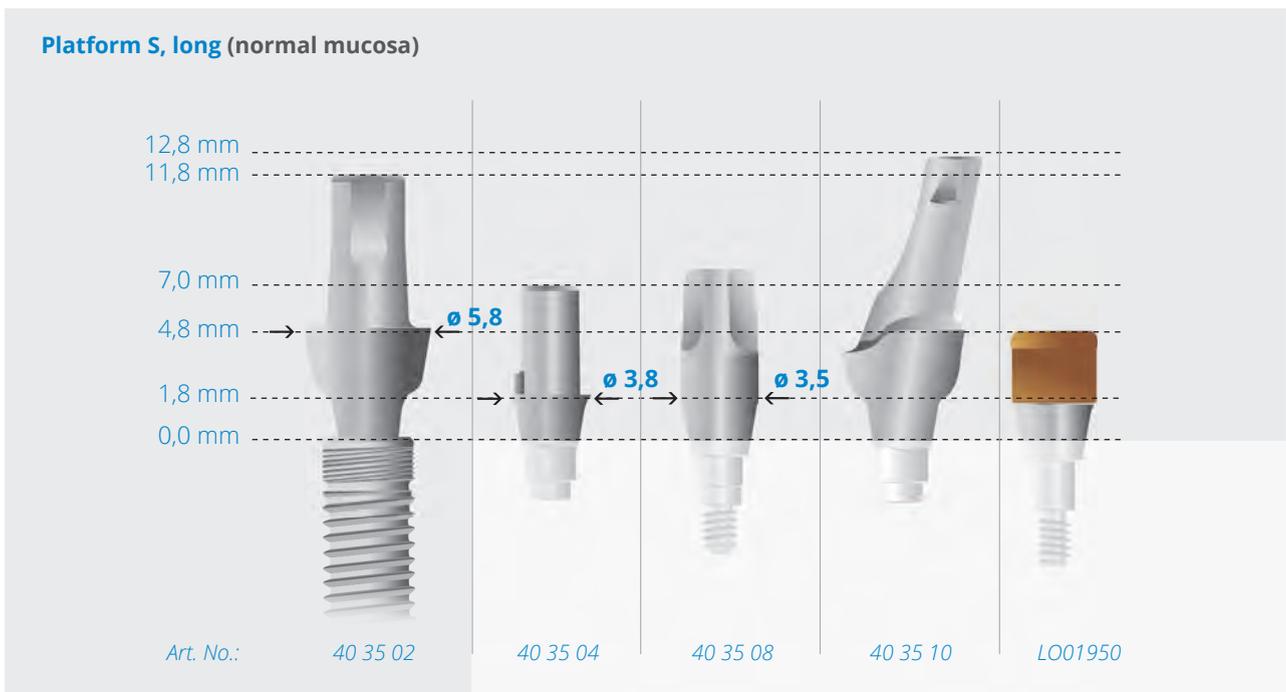


Fig. 49: Platform S, long for implants with diameter 3,5 mm und 4,2 mm

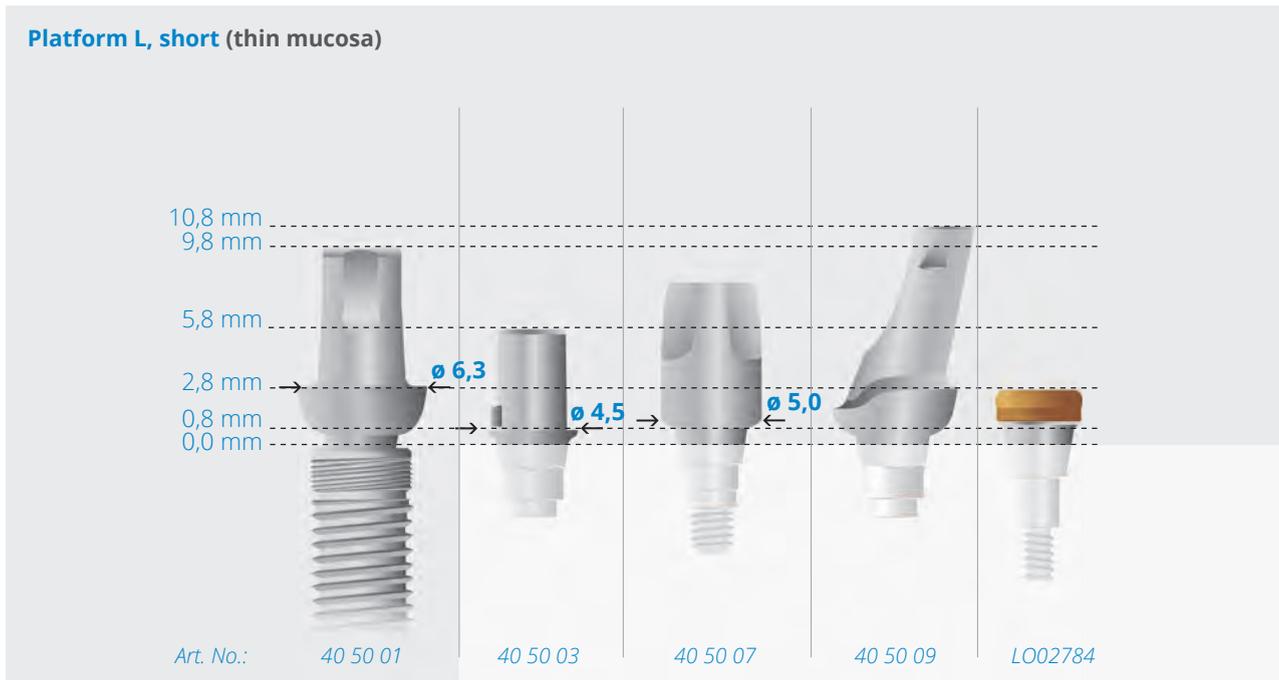


Fig. 50: Platform L, short for implants with diameter 5,0 mm und 6,0 mm

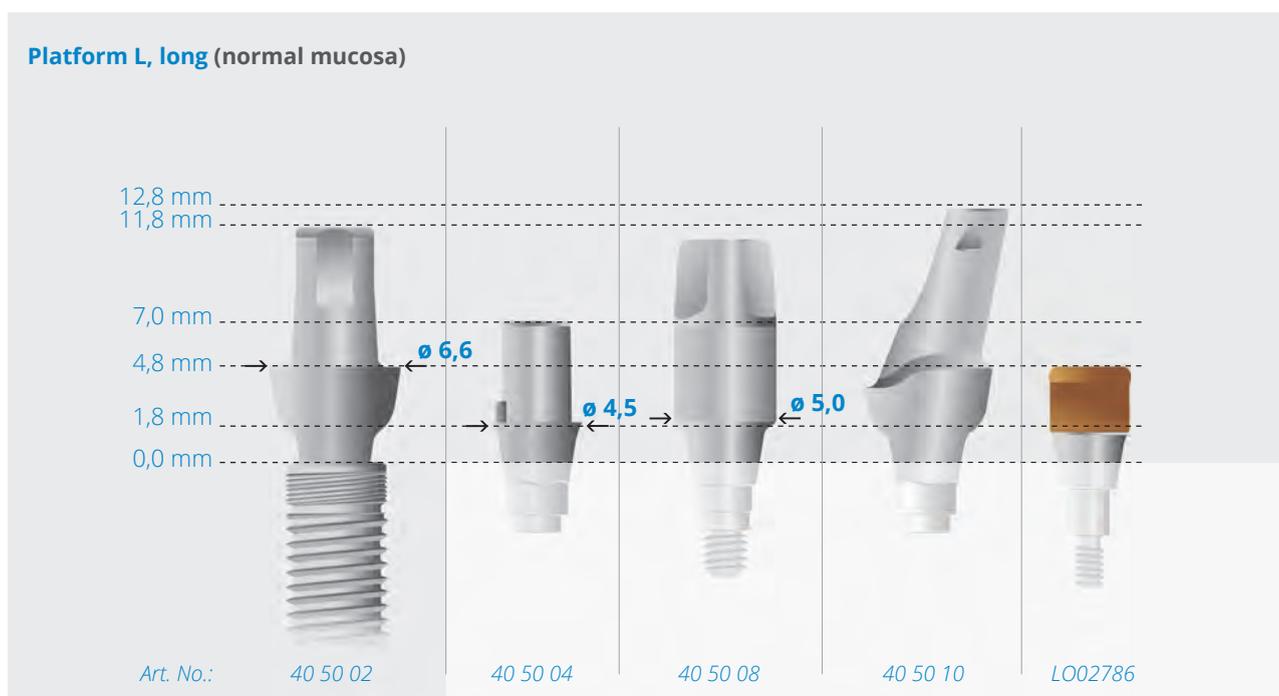


Fig. 51: Platform L, long for implants with diameter 5,0 mm und 6,0 mm

NOTE:

If an abutment cannot be loosened manually, use the take-out tool and DO NOT grip the abutment with pliers.

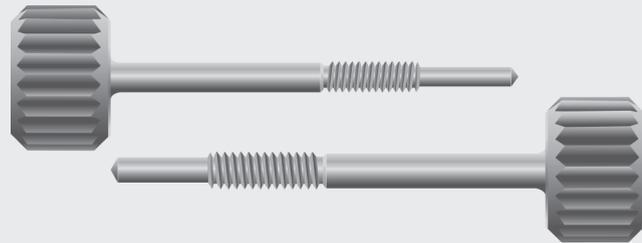


Fig. 52: Take-out tool
Art. No. 91 16 00 (Platform S)
Art. No. 91 20 00 (Platform L)

TIP: *If the abutments are to be splinted in the laboratory for a restoration, it may be difficult to fit the abutments to divergent preparations (see impression-taking Page 9). In these cases the cylindrical rotational security section can be shortened individually. It is essential that the conical section is not damaged during shortening.*



Fig. 53

3.1. Loosening of abutment connections

The connection between the laboratory implant / implant and abutment is very firm after final tightening using 20 Ncm.

A special instrument is available for loosening the screw-retained connection between the abutment and implant. First remove the abutment screw. It is designed to be friction gripped with the FairImplant™ screwdriver (Fig. 54). Should the abutment be jammed in place, the screw must be loosened before carefully removing it from the inner thread in the abutment (Fig. 55). This requires frictional gripping of the screw. The screw is then removed from the abutment channel.

The take-out tool (Fig. 52) is inserted in the abutment and pushes the abutment axially from the connection (Fig. 56 3+4).

Fig. 54



Ratchet adaptor
Art. No. 90 00 03



Mini screwdriver, long
Art. No. 90 00 08



Screwdriver FT, 31 mm
Art. No. 90 00 06

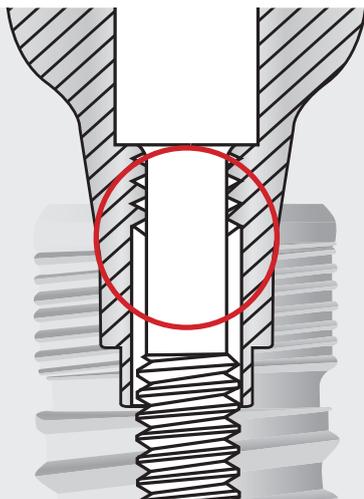


Fig. 55: female thread within abutment, screw and screw-channel

Why does the screw not fall out after loosening?

Abutments and impression posts have a safeguard against the screw falling out accidentally. This provides for increased safety and avoids unnecessary searching during treatment, in the laboratory or size S and L screws being mixed up.

1 The abutment screw must first be removed from the abutment to use the take-out tool.

2 The screw should then be removed from the inner thread of the abutment. To remove the screw, secure the screwdriver in the abutment screw using slight pressure. Turn the screw anticlockwise out of the thread.

3 The take-out tool can now be inserted in the abutment.
4 Turn the screw until the abutment comes loose from the conical section.

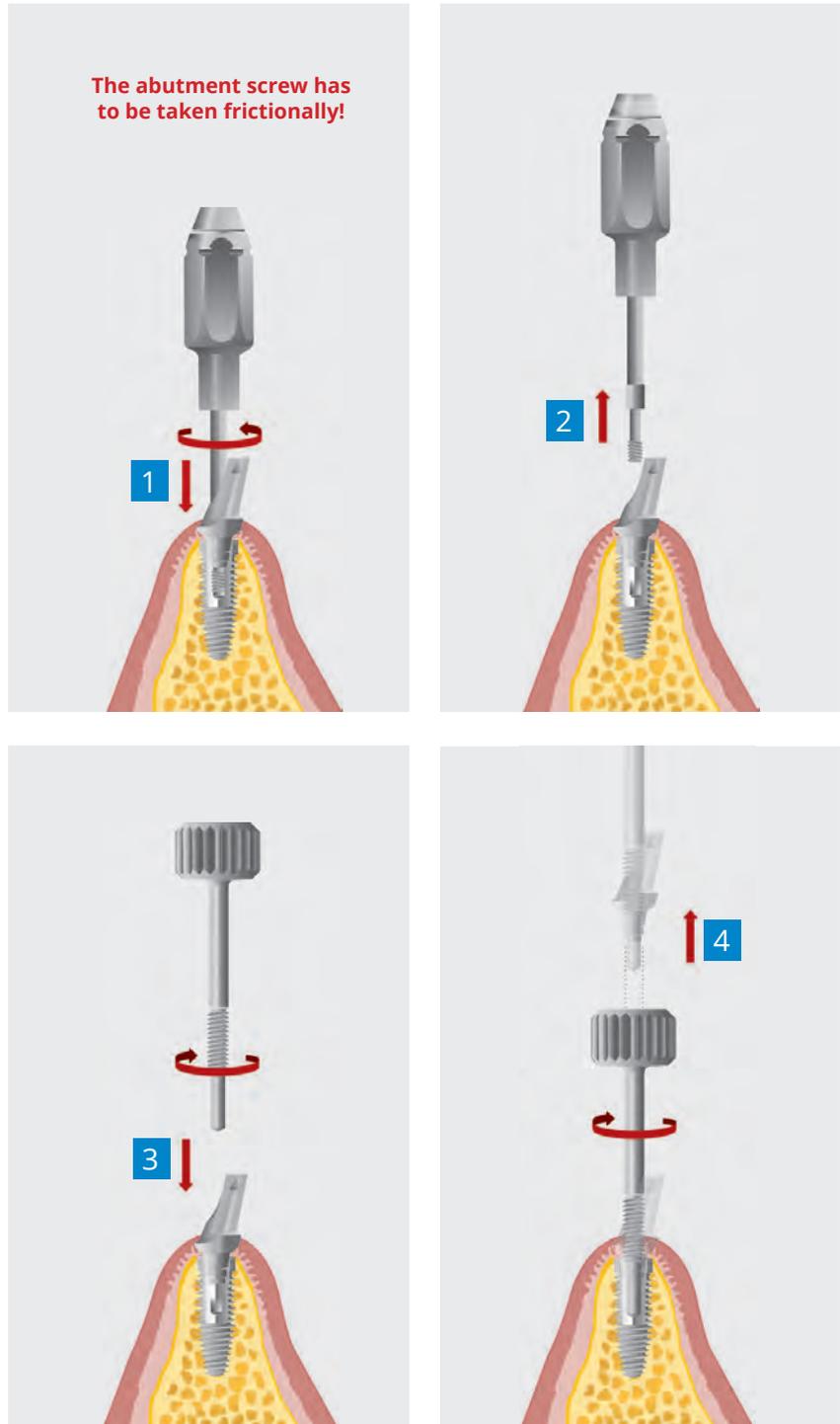


Fig. 56: Procedure – Removing a jammed abutment; 1. Remove screw; 2. Clamp screw and unscrew from the inner thread of the abutment; 3. and 4. insert the take-out tool

TIP: Also use the take-out tool in the laboratory for abutments that are jammed.

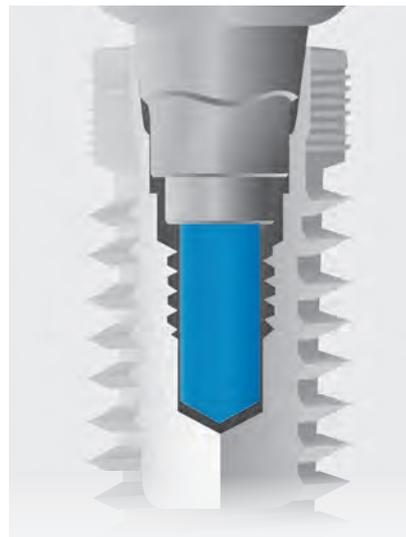


Fig. 57: Take-out tool (blue) in implant

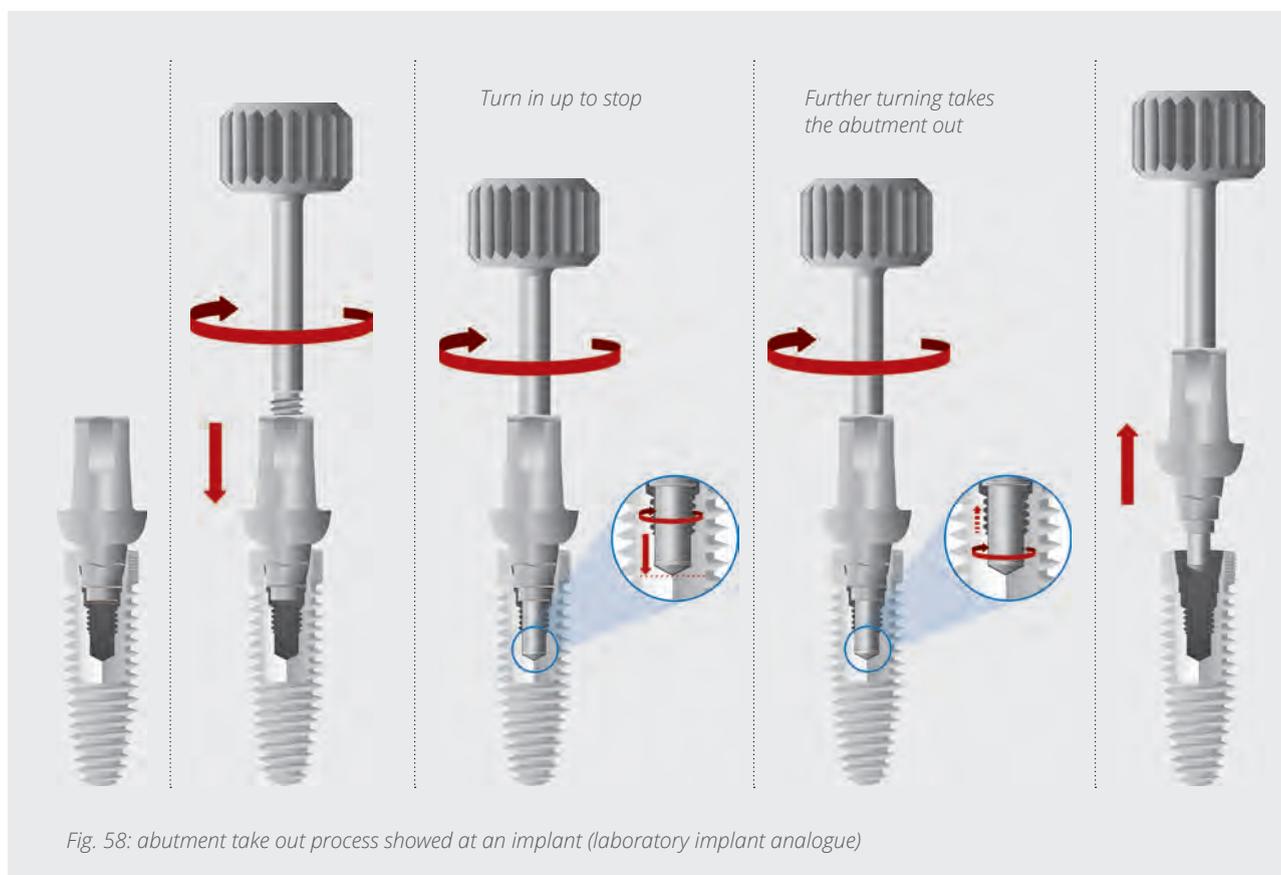
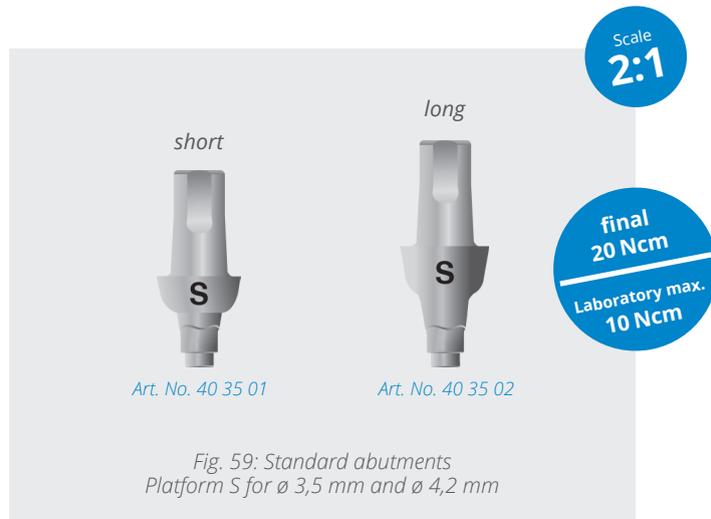


Fig. 58: abutment take out process showed at an implant (laboratory implant analogue)

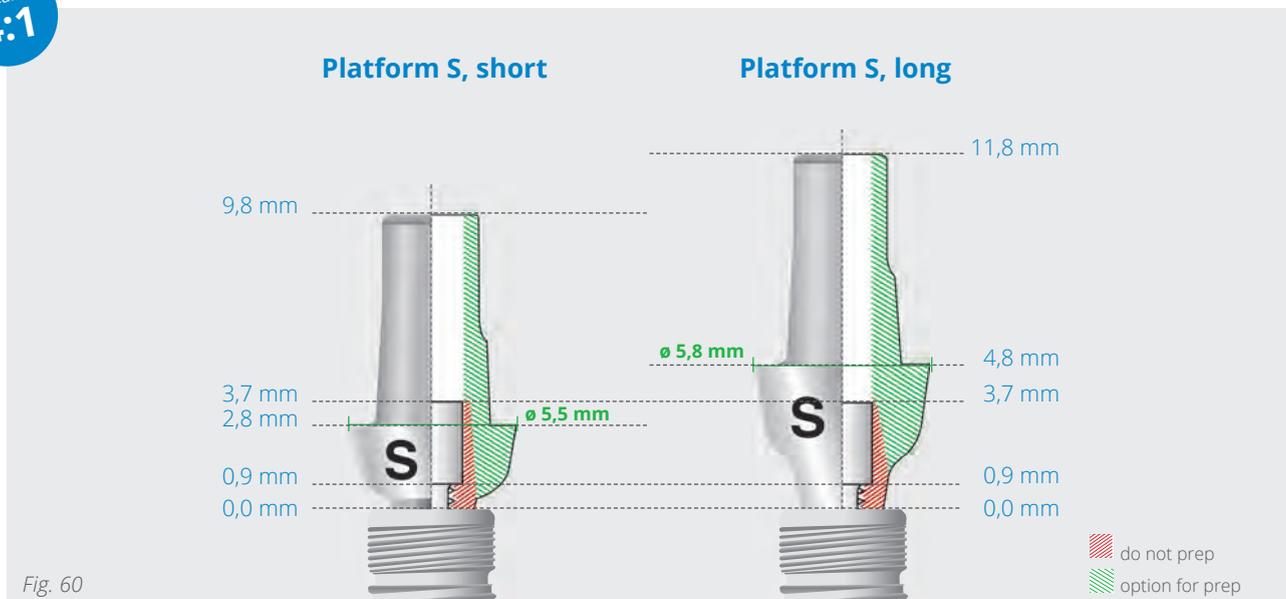


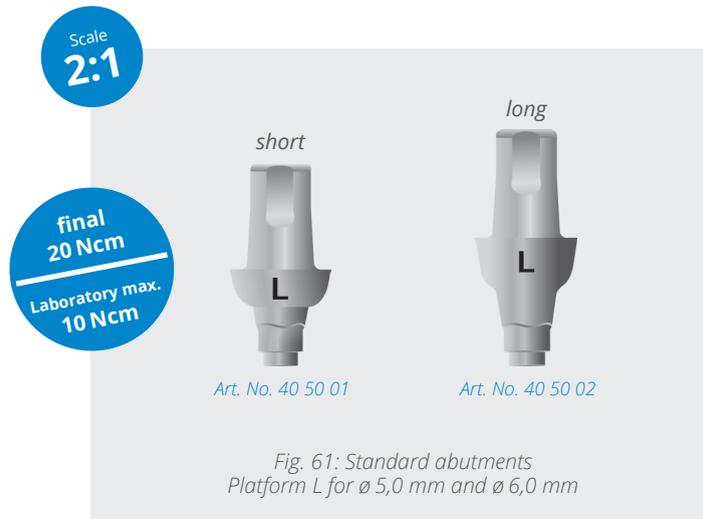
3.2. Standard abutment

Standard abutments can be used for single restorations and implants placed parallel and straight. The insertion torque for final retention is 20 Ncm.

Standard abutments can be highly customised. The design provides a maximum amount of material. A torque of 10 Ncm is recommended for the laboratory implant.

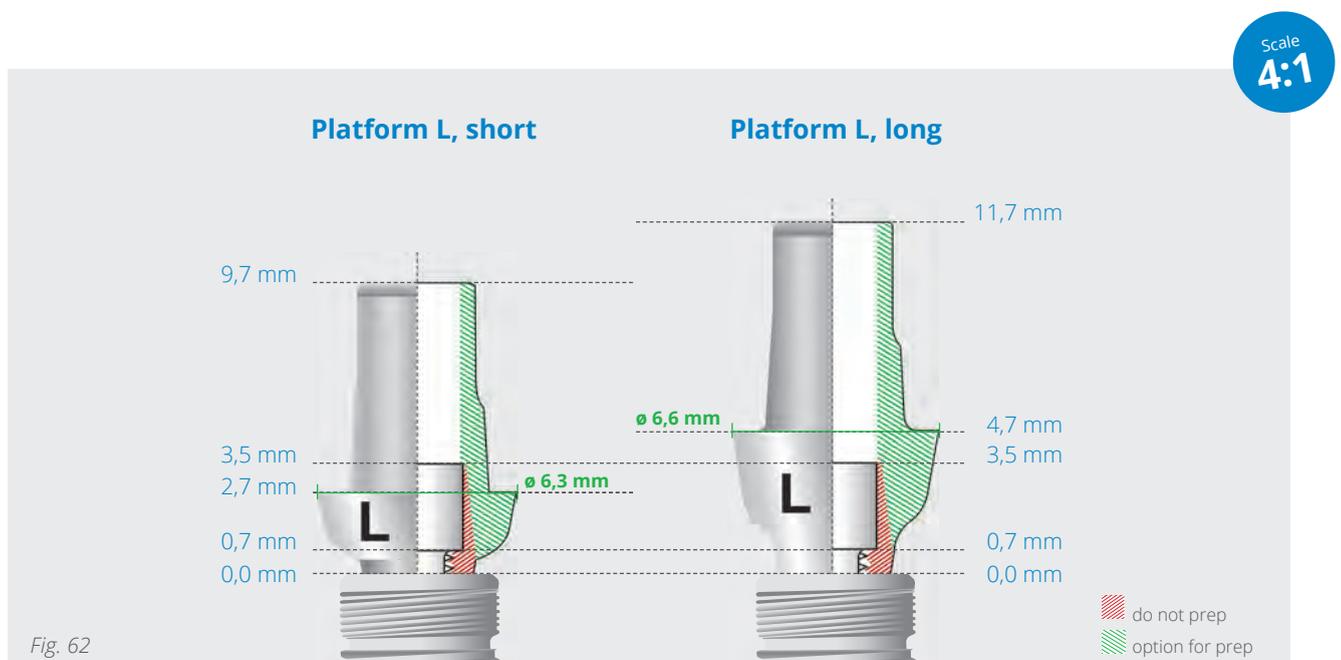
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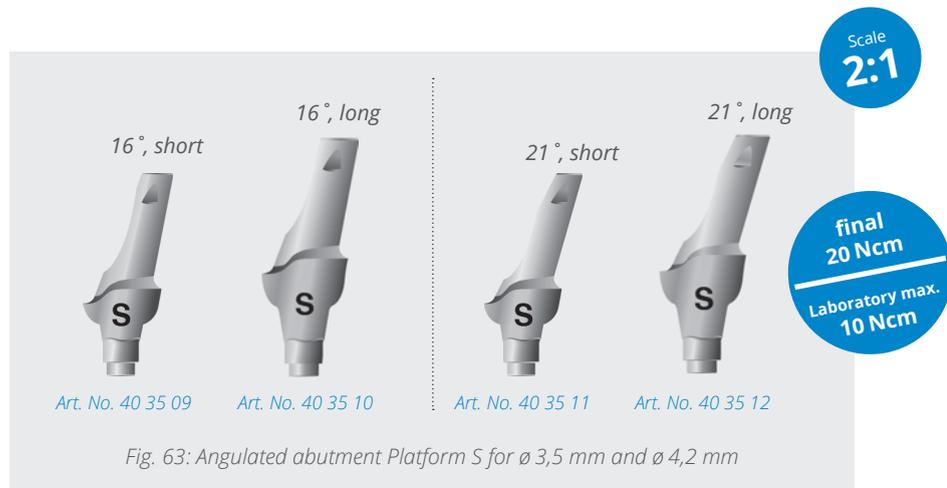




Healing abutments with the same emergence profile are available for standard and angulated abutments (see Page 10/11).

TIP: If it is suspected that the screw has been subjected to excessive stress in the laboratory, it is also possible to order abutment screws for the permanent restoration in addition.



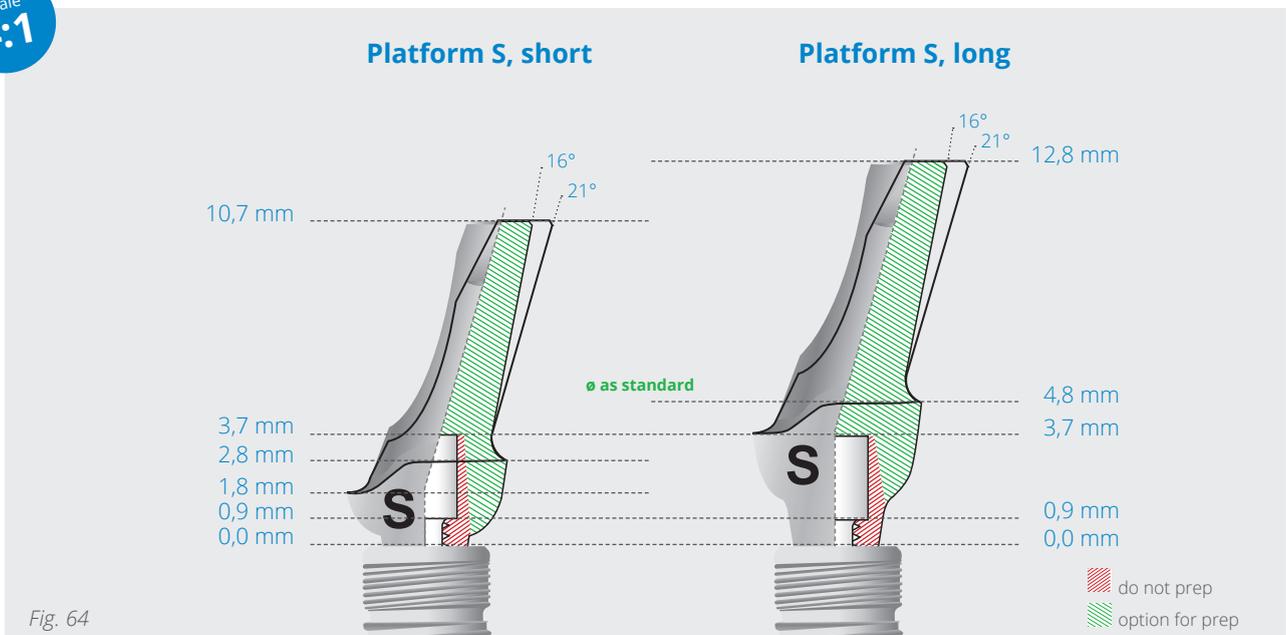


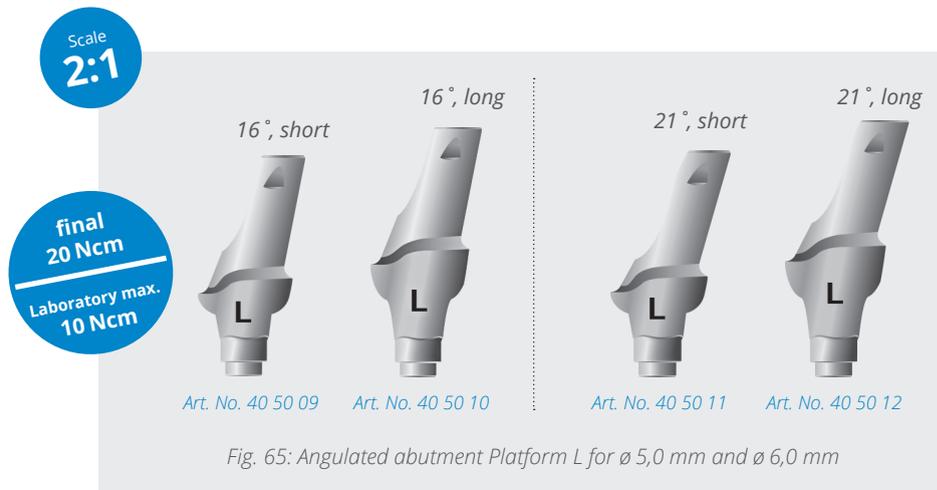
3.3. Angulated abutment

16° and 21° versions of angulated abutments are available for selection. These are intended for use with different angulations. They are used for single and splinted restorations.

The abutments are anatomically shaped. Emergence corresponds to that of the standard abutments. The shoulder of the collar has a height of 1 mm. The emergence zone and angulated abutment can be customised. The insertion torque for final retention is 20 Ncm and max. 10 Ncm for the laboratory implant.

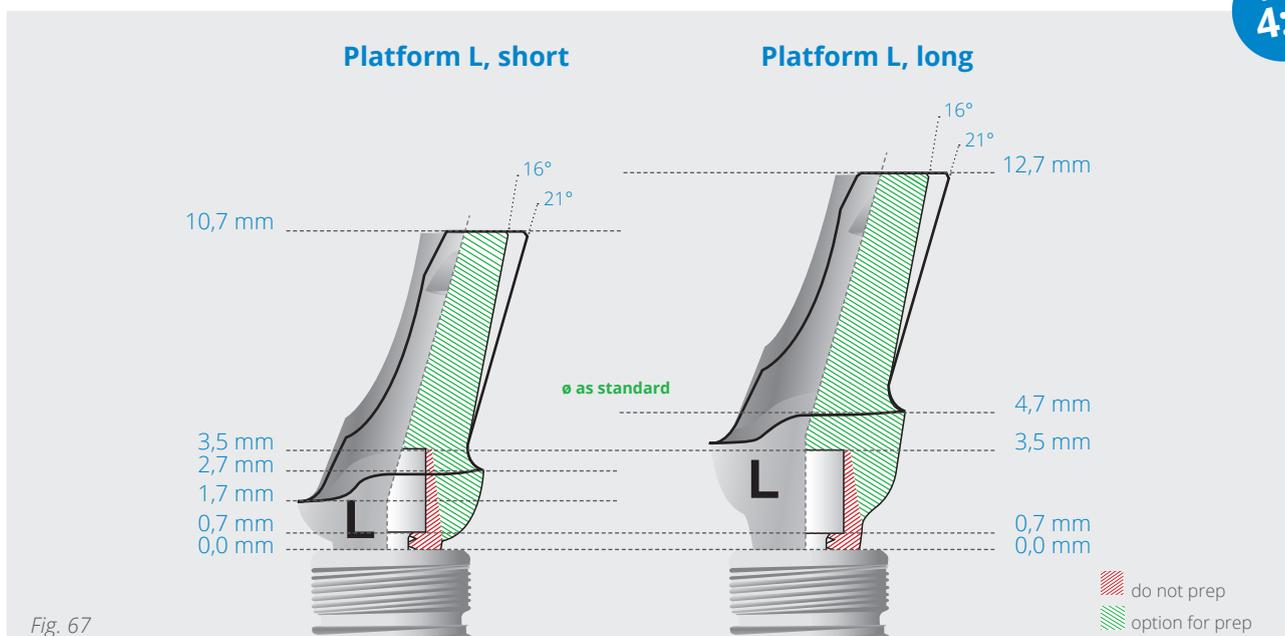
Scale 4:1



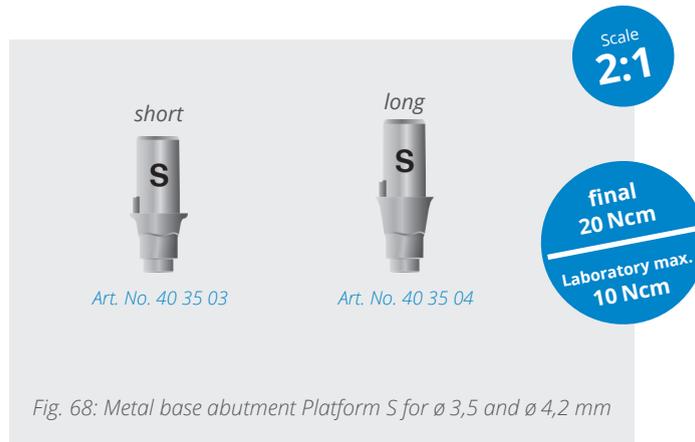


Why is the rotational security section twisted?

The innovative rotational security section developed by FairImplant™ has a specific twist. This design ensures that the abutments are not only easily fitted but also have extremely low circumferential backlash. Patented design



Scale 4:1



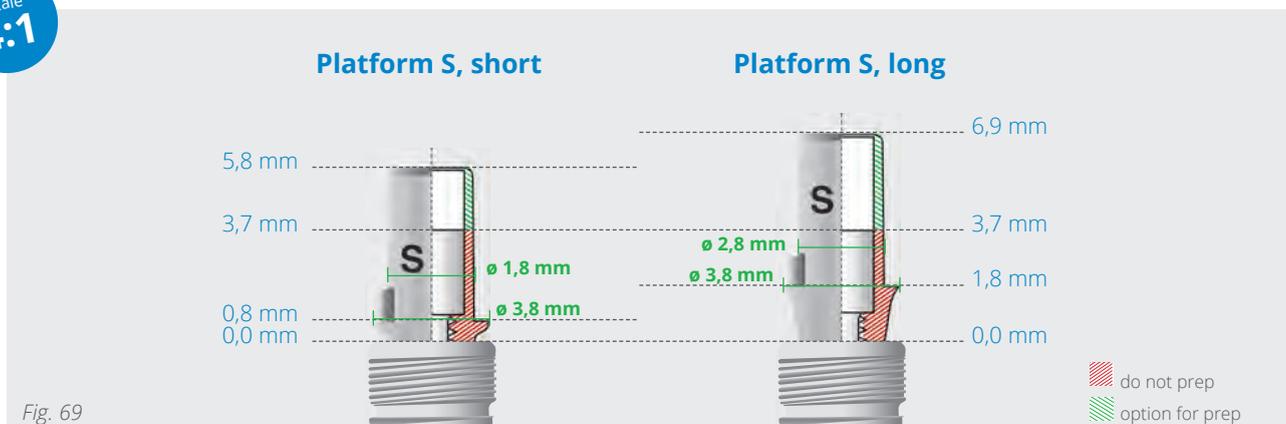
3.4. Metal base abutment

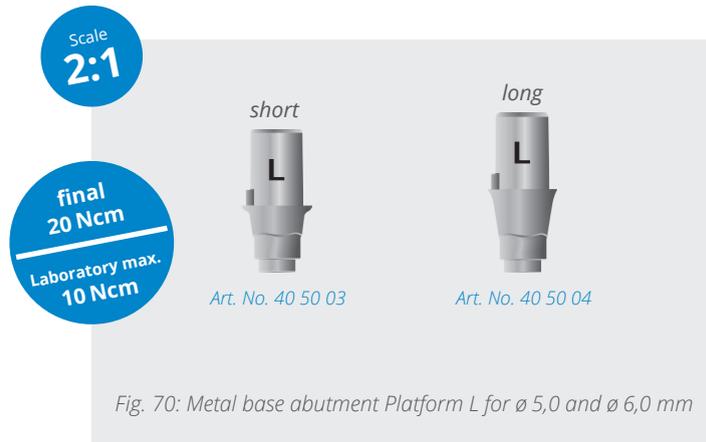
The emergence profile is particularly important when restoring the aesthetic region. The restoration can be optimally adapted with the aid of metal bases in combination with suitable all-ceramic abutments (e.g. zircon oxide).

The metal base abutment is suitable for use with very thin mucosa, as only a distance of 0.8 mm is required for placing the crown margin submucosally.

The abutment has been specially designed for CAD/CAM technology and is suitable for customised abutments. These can be milled from titanium or all-ceramic blocks (e.g. zircon oxide) and can therefore be adapted to any possible situation.

Scale 4:1

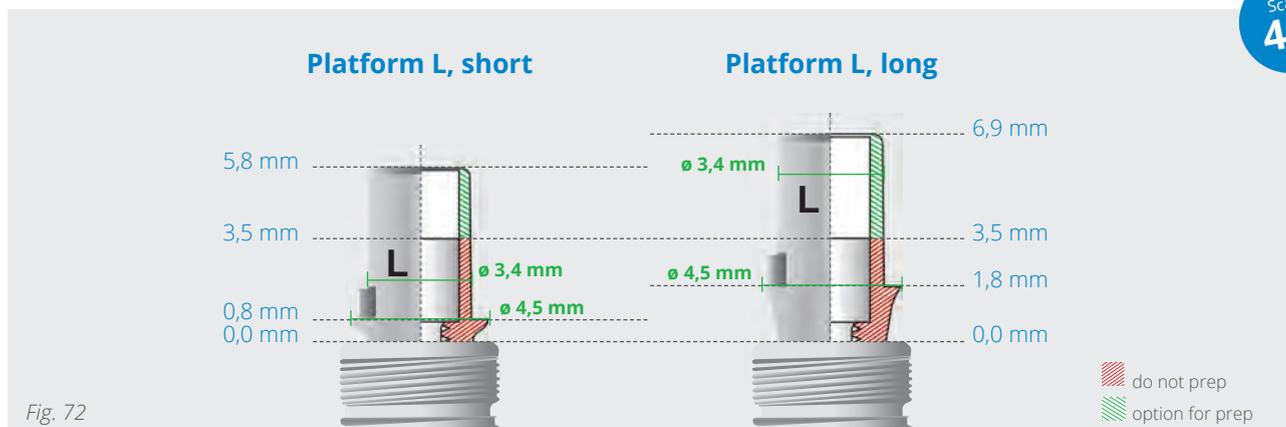
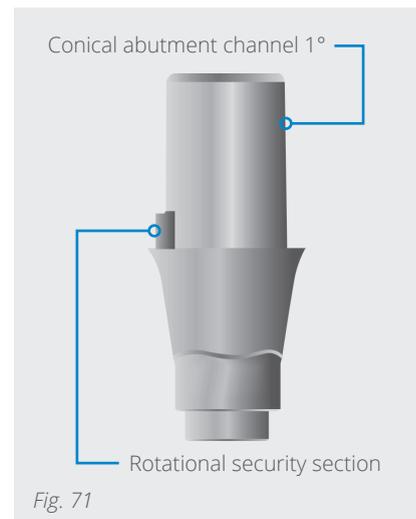




The abutment channel is slightly conical. There is a rotational security section on the shoulder.

Custom-fabricated abutments can also be combined with this base using suitable procedures.

The insertion torque for final retention is 20 Ncm and max. 10 Ncm for the laboratory implant.



Scale 4:1

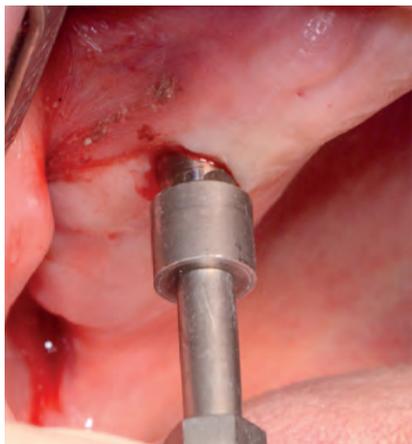


Fig. 73: Insertion of One-Piece abutment

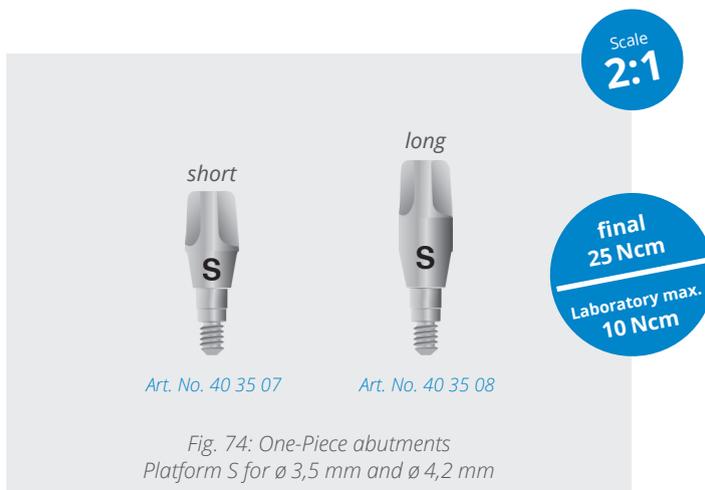


Fig. 74: One-Piece abutments Platform S for \varnothing 3,5 mm and \varnothing 4,2 mm

3.5. One-Piece abutment

One-Piece abutments do **not** include a **rotational security section** and can only be used for primary or secondary splinted restorations, e.g. telescope restorations. They are fitted using 25 Ncm and can be trimmed intraorally, if necessary (see Section 2.6.4).

The impression is taken analogous to conventional prosthetic impressions. The head is the same:

as the FairOne™ \varnothing 3.5 mm implant head for platform S, as the FairOne™ \varnothing 5.0 mm implant head for platform L.

Scale
4:1

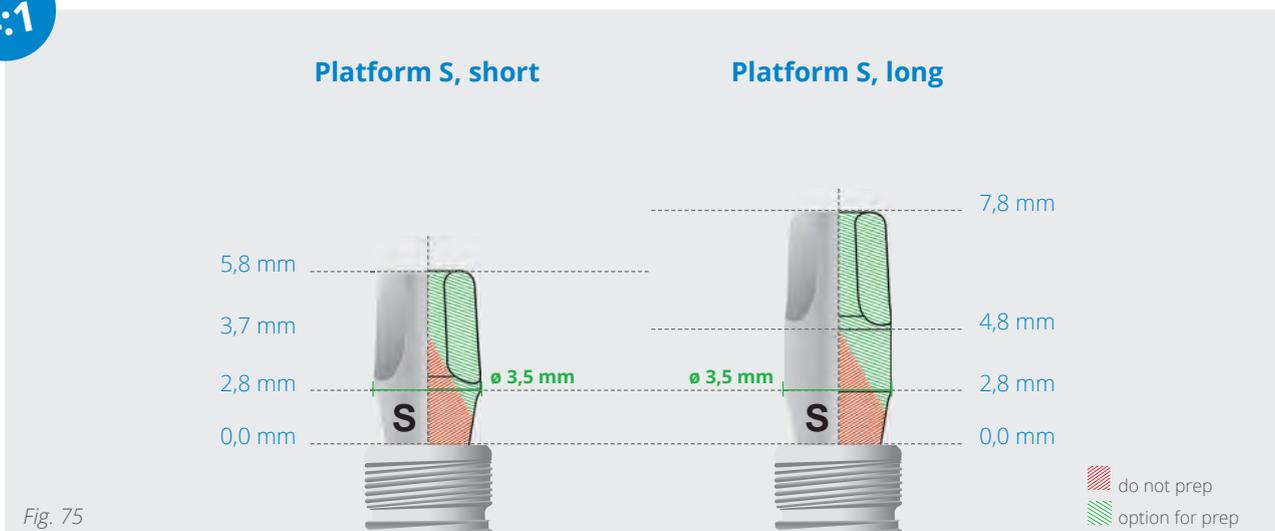


Fig. 75

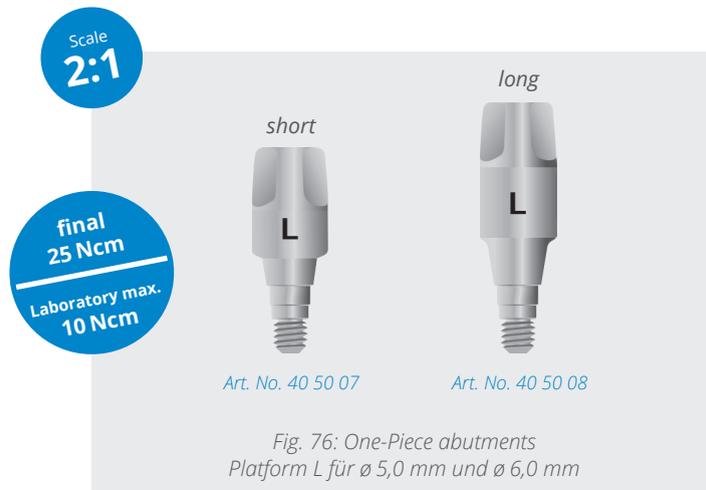
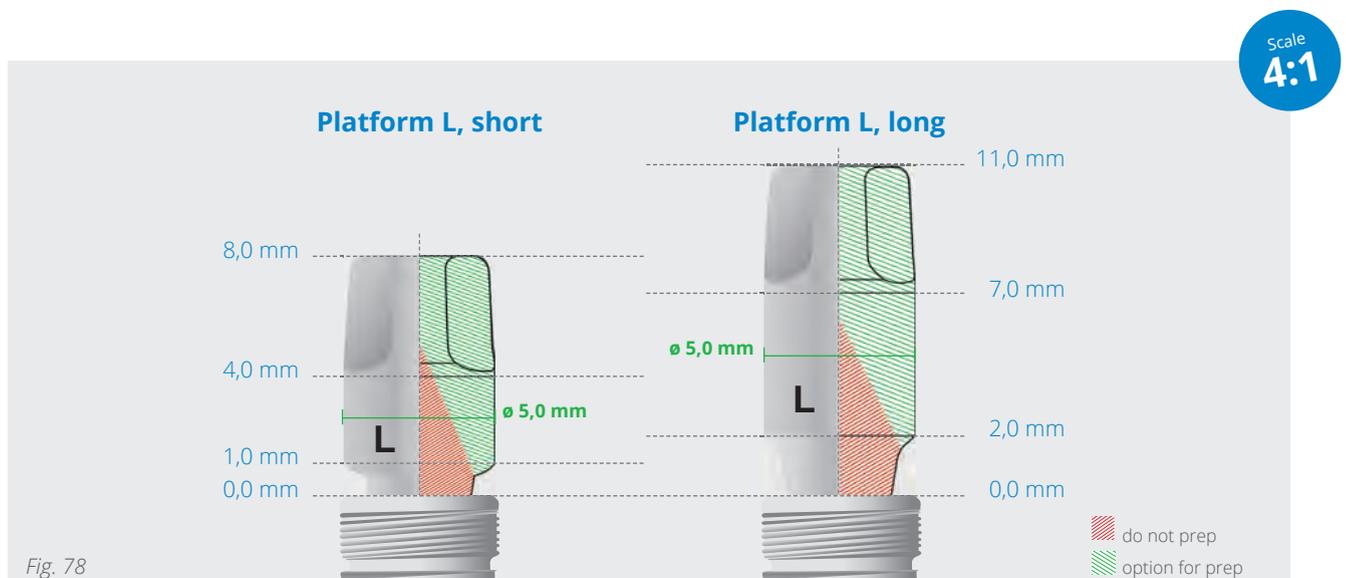


Fig. 77: inserted One-Piece Abutment

Use the corresponding FairOne™ insertion key \varnothing 3.5 mm and \varnothing 5.0 mm (Fig. 73) for fitting.

The impression should be taken using your usual intraoral precision impression technique. It is also possible to take an impression of the coping using the FairOne™ coping. The FairOne™ laboratory implants can then be used for model fabrication (see Page 12/13). Intraoral preparation is possible (see Page 15).



NOTE: There is no conical connection with the rescue abutment! All the advantages of a conical connection to the implant are lost. Please ensure that you include the implant diameter when ordering, as the shoulder is adapted to the respective diameter.

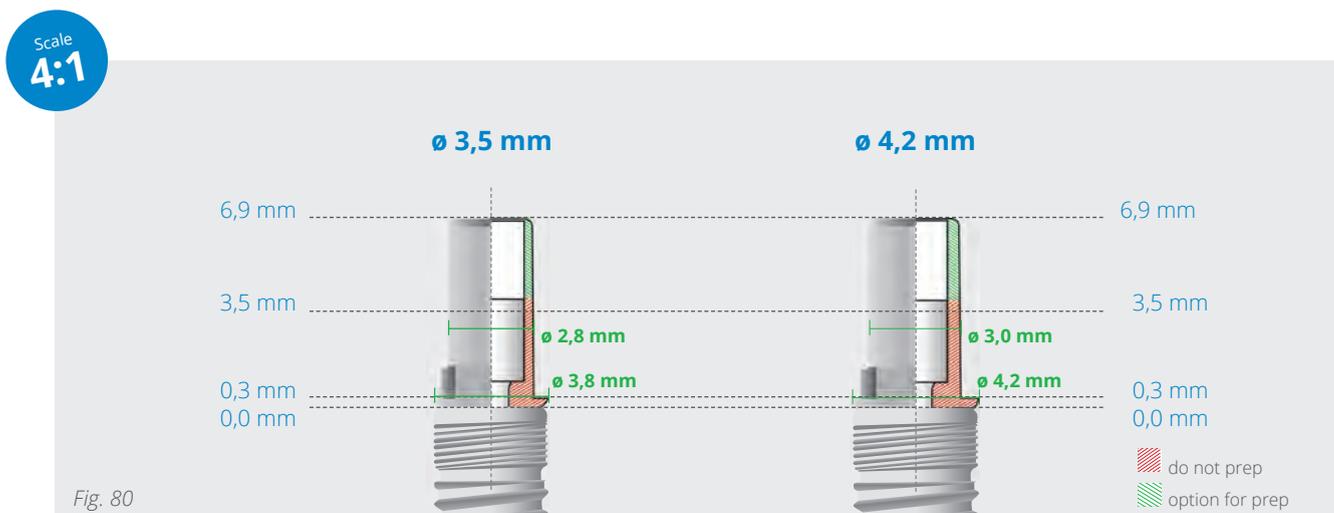


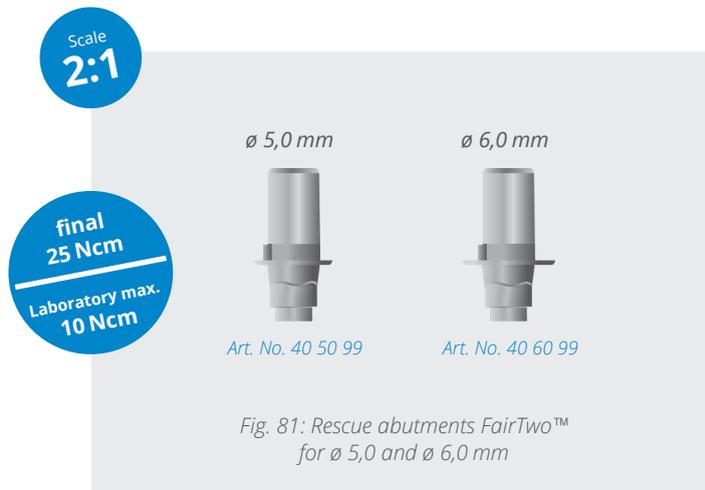
3.6. Rescue abutment

Only in exceptional situations should rescue abutments be used in the aesthetic region! Wherever possible they should be avoided during implant placement by ensuring that the requirements for correct placement and respective soft tissue management are taken into account.

A rescue abutment can be used if the implant is placed supracrestally, at gingival height or above with thin mucosa. In this case the shoulder fits directly on the implant.

A customised abutment can be adhesively retained on the rescue abutments analogous to the metal base abutment. There is no inner thread with this type.



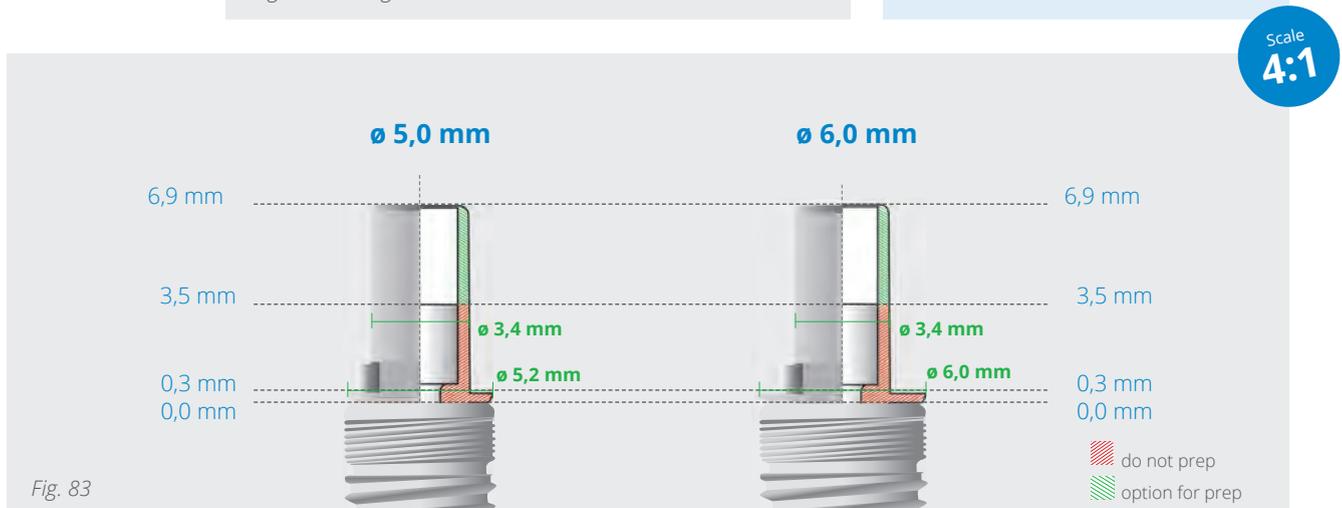


NOTE:
As the abutments do not have an inner thread, the abutment screw is not secured.

The rescue abutment should be processed prosthetically in the same way as the metal base abutment. The insertion torque for final retention is 25 Ncm and max. 10 Ncm for the laboratory implant.



NOTE:
Rescue abutments have a different emergence profile. Special healing abutments are available for each diameter.



Scale 4:1

Fig. 83

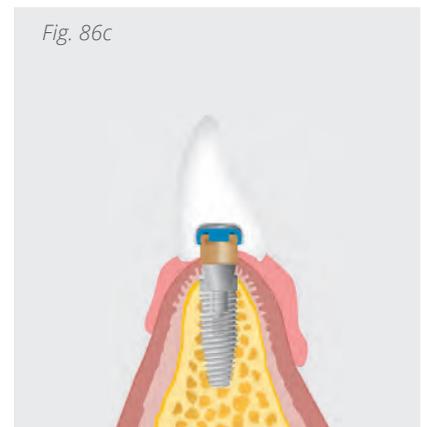
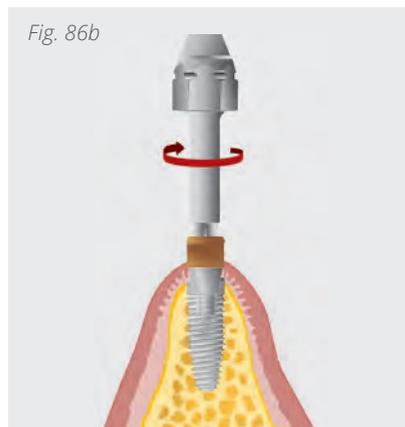


4. LOCATOR®

The LOCATOR® for FairTwo™ is manufactured by Zest Anchors. Unlike FairImplant™ components, a medical grade 5 titanium alloy (Ti6Al4V) is used.

The LOCATOR® is available in different mucosal heights for platform S (Fig. 85) and platform L (Fig. 87).

Impression-taking and processing of the LOCATOR® abutments can, in accordance with the Zest Anchors protocol, be integrated into an existing restoration or fabricated with a closed impression via a model with LOCATOR® laboratory implants. Alternatively, the impression technique in the FairImplant™ system can be used, as described previously in Section 2.

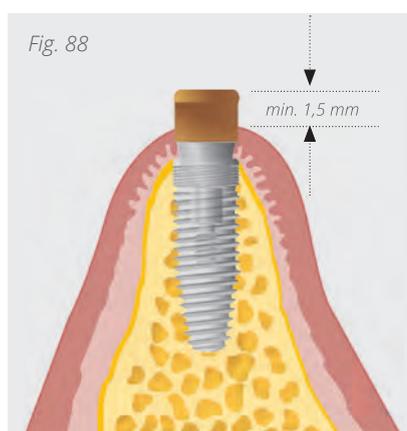




To avoid dentures fracturing, particularly in the lower jaw, we recommend integrating a tertiary framework into the restoration. Use the appropriate screwdriver for placing the LOCATOR® abutment. This incorporates the FairImplant™ ratchet adaptor (Fig. 84).

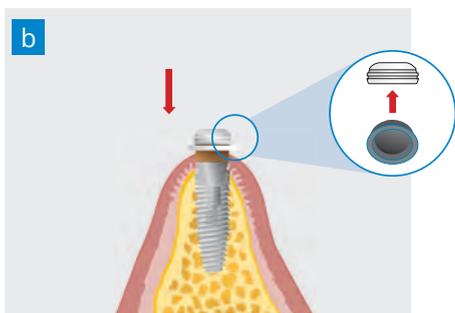
The males are supplied in two different angulations up to max. 20° and contain the inserts for selection. Use the LOCATOR® core tool (LO08393 – Page 40) for fitting and exchanging the retention inserts. We recommend using the low retention inserts initially and exchanging them as required. This applies particularly, if more than two LOCATORS® are used.

After opening the LOCATOR® abutment can be placed immediately to function as a healing abutment. The functional section must not be subgingival when selecting the appropriate LOCATOR® (Fig. 88).

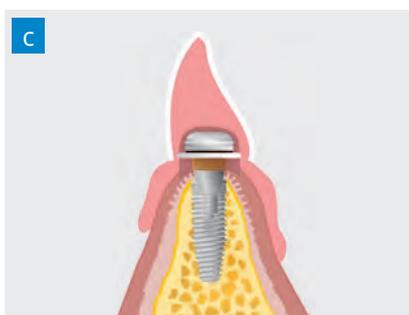




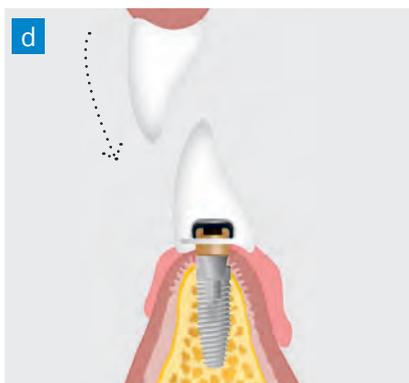
Determine the angle using the paralleling pin and angulation gauge



Attach the block-out ring and fit the LOCATOR® titanium coping with retention insert (black) on the LOCATOR®



Denture before polymerising into place, not in contact with the titanium coping



Polymerising into place, ask patient to bite down carefully

4.1. Method: Fitting the LOCATOR® directly in the dental practice

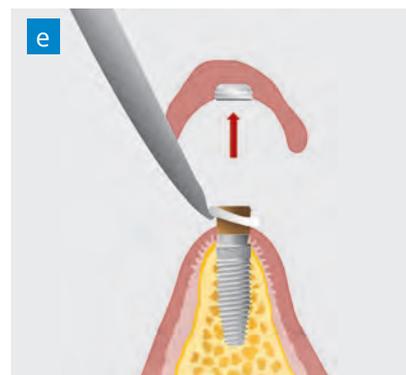
This protocol ensures that the denture fits stressless.

1. The divergence of the placed implants should be determined when fitting the LOCATOR® abutment. The paralleling pins (Art. No. LO08517) and angulation gauge (Art. No. LO09530) (Illus. a) can be used for this purpose.

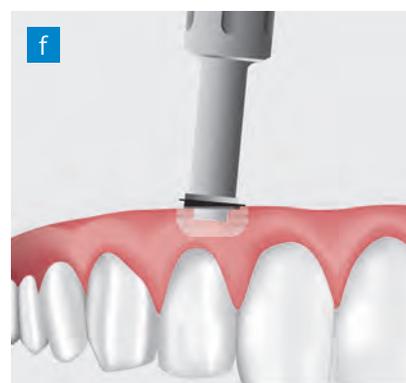
The male processing package is required after fitting the LOCATOR® abutment. This is available in two versions: Standard (Art. No. LO08519-2) and extended range for divergences between 10° and 20° (Art. No. LO08540-2). The sets contain two titanium copings with a black processing male, two block-out spacers and two males each for low, medium and high retention.

2. The block-out spacer should be positioned over the abutment after healing (Illus. b). This spacer provides a fixed distance, which ultimately guarantees the function. The ring spacer also prevents the luting resin flowing into the retentive zone of the abutment; otherwise the denture would be difficult to remove.

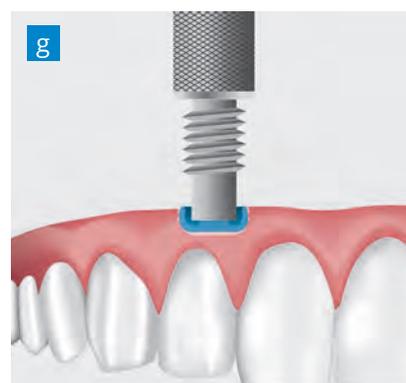
3. The titanium coping with the black insert is then fitted on the abutment (Illus. b). The denture should be relieved in the space around the respective coping. Contact with copings and denture should be avoided.
4. The titanium copings are retained in the denture using a self-curing or light-curing resin. Contact with the gingiva should be avoided (Illus. c).
5. The patient bites carefully to the correct position (Illus. d). This allows the dentist to check the correct occlusion. Excessive masticatory pressure should be avoided during curing. Heavy masticatory pressure in this phase can result in retraction of the tissue, which would also increase the wear of the retention insert.
6. After curing, the denture should be taken out and the block-out spacer removed (Illus. e).
7. If necessary, any defects in the denture should be filled with acrylic and then polished.
8. The black processing male is then removed using the LOCATOR® core tool (Art. No. LO08393) and the planned male (no, low, medium or high friction) fitted (Illus. f+g).



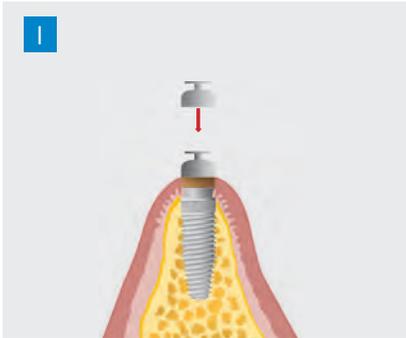
Remove white block-out spacer



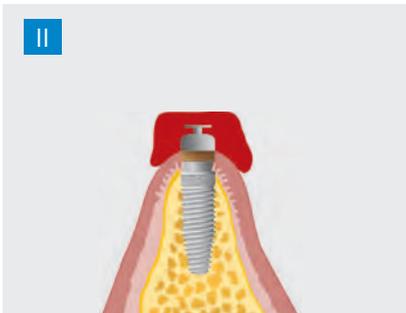
Remove the retention insert (black) using the LOCATOR® core tool



Fit the planned retention insert



Place the impression coping on the LOCATOR® abutment



Take the impression



The impression coping remains in the impression. The laboratory implant is fitted



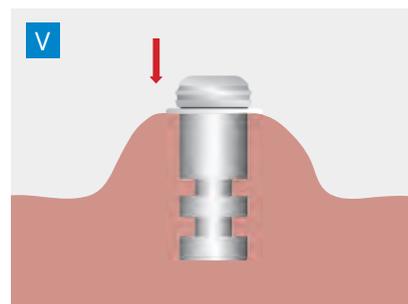
Determine the angle using the paralleling pin and angulation gauge

4.2. Method: Fabricating the denture in the laboratory

This protocol is easier with regard to handling.

1. An impression coping (Art. No. LO08505) is placed on the screw-retained LOCATOR® abutment (Illus. I). An impression is then taken (Illus. II).
2. A female analog (Art. No. LO08530) is placed on each of the impression copings (Illus. III) in the laboratory. The female analogs correspond to the exact positions of the abutments. The master model and, if necessary, a new denture can be fabricated.
3. The divergence should be determined for selection of the male processing package (Art. No. LO08519-2 up to 10° or between 10° and 20° Art. No. LO08540-2). The paralleling pins (Art. No. LO08517) and angulation gauge (Art. No. LO09530) can be used for this purpose (Illus. IV).

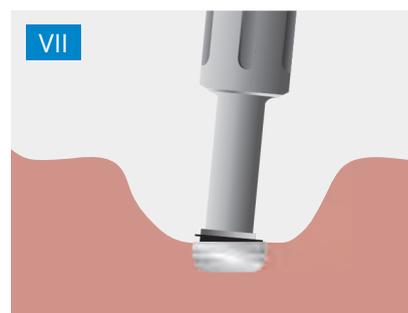
4. The block-out spacer and the titanium coping with the black retention insert from the laboratory set should first be fitted on the laboratory implant in the master model (Illus. V).
5. The titanium copings can now be polymerised into place, ensuring that the retention inserts are not polymerised into place too. Undercuts etc. should therefore be blocked out (Illus. VI).
6. The denture should be polished after the titanium copings have been polymerised into place. To exclude the risk of damage, the final retention inserts should only be placed after the completion of all processing stages. The black processing male should then be removed using the core tool (Art. No. L008393) (Illus. VII) and the planned male (no, low, medium or high friction) fitted (Illus. VIII).



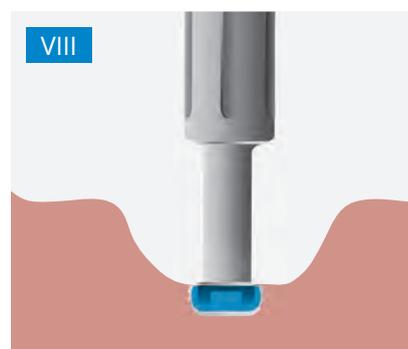
Fit the block-out spacer and re-fit the LOCATOR® metal coping and black transfer cap



Denture before polymerising into place, not in contact with the titanium coping



Remove the black transfer cap using the core tool

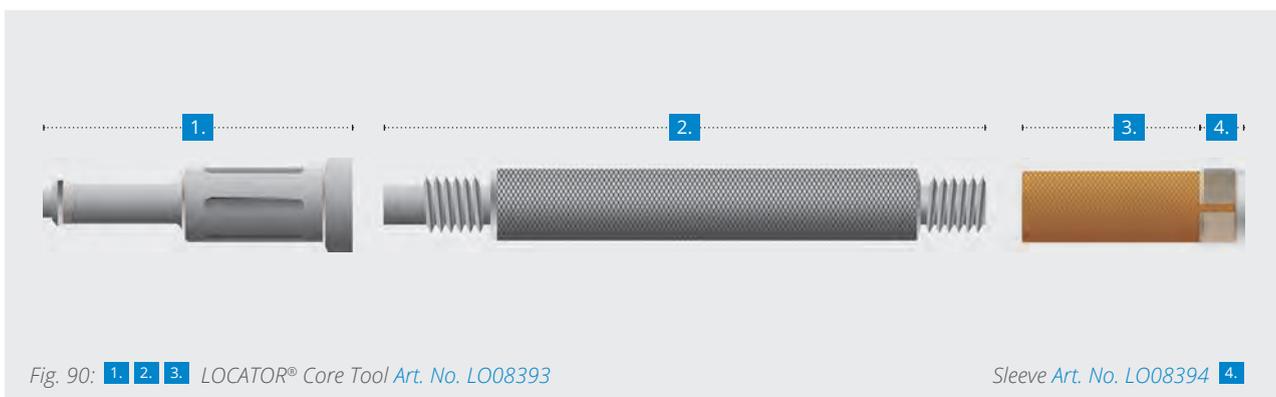


Fit the planned retention insert

4.3. LOCATOR® Core Tool

The LOCATOR® Core Tool consists of:

- 1. Male Removal Tool
- 2. Male Seating Tool
- 3. Abutment Driver
- 4. Abutment Retaining Sleeve



Overview Retention Males

	Replacement Male	Range	Removal force	Art. No.
	clear	up to 10°	about 2300 g	LO08524
	pink, light	up to 10°	about 1400 g	LO08527
	blue, extra light	up to 10°	about 700 g	LO08529
	green	up to 20°	about 1800 g	LO08547
	orange, light	up to 20°	about 900 g	LO08915
	red, extra light	up to 20°	about 500 g	LO08548
	grey, zero retention	up to 20°	zero	LO08558

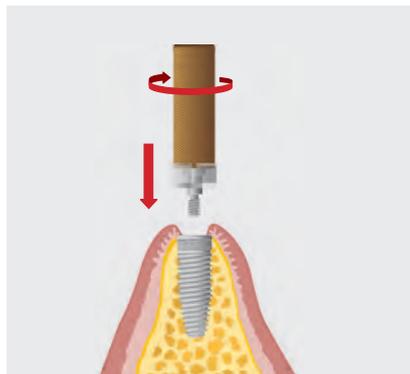


Fig. 91: LOCATOR® inserted by Abutment Driver with Sleeve

Insertion using the abutment driver

Both the abutment driver and LOCATOR® hex driver (Art. No. 90 00 09) can be used for fitting. The sleeve (Art. No. LO08394) should be used for protecting the surface of the abutment against damage.

Male removal

With the core tool screwed in position, the male removal tool should be rotated to the left twice against the male seating tool, so that the tip of the take-out tool is no longer visible. The tip is then guided into the titanium coping with the insert to be removed. The insert is gripped using the circular edge and then removed. The take-out tool pushes the insert from the tool when the tip is retracted.



Fig. 92: removal of the black processing male by the LOCATOR®-Core Tool



Fig. 93: insertion retention male

Male seating

The insert should be placed on the end of the centre piece. The insert should then be pressed into the titanium coping using the male seating tool. The retention insert must fit uniformly flush with the edge of the titanium coping.

5. Prosthetic instruments

5.1. FairTwo™ Prosthetic starter set

The set for dentists and dental laboratories contains a combination of all instruments required for prosthetic restorations in a mini-tray.

- Ratchet with torque control (90 00 11),
- Ratchet adaptor (90 00 03),
- Hex driver, long (90 00 06),
- Mini screwdriver, long (90 00 08),
- LOCATOR® hex driver (90 00 09),
- Take-out tool S+L (91 16 00 and 91 20 00)

This set contains the entire range of prosthetic instruments for performing reliable, successful treatment. There is also still space for a particular favourite instrument in the mini-tray.



Fig. 94: FairTwo™ Prosthetic starter set
Art. No. 90 90 20

5.2. Ratchet with torque control

The ratchet (90 00 11) has settings from 10 to 70 Ncm with a tolerance of +/- 10%. When the set torque is reached, the ratchet kinks slightly. The ratchet consists of four parts. Before sterilisation, the disassembled ratchet must be greased or oiled to secure functionality. The ratchet might be stored assembled in the tray with a setting of max. 10 Ncm.

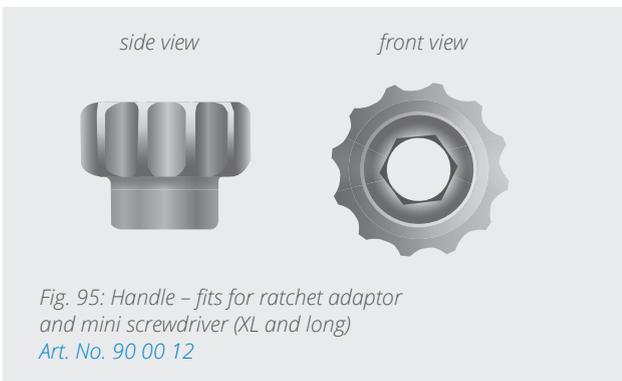


Fig. 95: Handle - fits for ratchet adaptor
and mini screwdriver (XL and long)
Art. No. 90 00 12

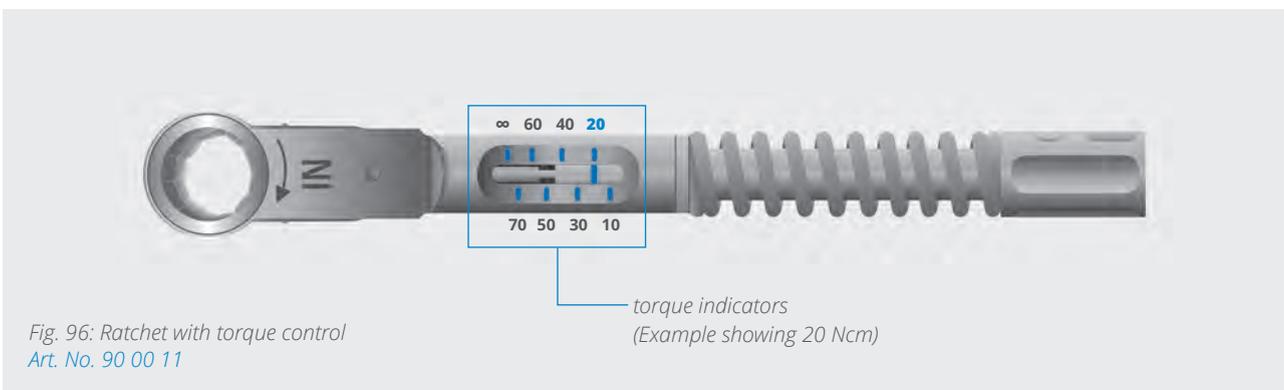


Fig. 96: Ratchet with torque control
Art. No. 90 00 11

5.3. Ratchet adaptor with hex driver

The ratchet adaptor is used for picking up the Fair-Implant™ instruments. The adaptor is suitable for use as a manual instrument and as an attachment in the torque ratchet.

Unlike other adaptors, the ratchet adaptor does not transmit the torque via the conventional contra-angle coupling but via a special FairImplant™ hex.

In contrast to the contra-angle coupling, the Fair-Implant™ hex can transmit considerably greater torque without damaging the instrument. During insertion, it is particularly recommended to discontinue handpiece insertion from a torque of approx. 25 Ncm onwards and continue manually – this protects the contra-angle coupling and contra-angle from excessive torsion.

Handling of the ratchet adaptor and mini screwdrivers (XL and long) could be improved by the handle (Art. No. 90 00 12).

5.4. Mini screwdriver

These screwdrivers are suitable for use with all screws of the FairTwo™ system and hold the screws frictionally. They fit in the torque ratchet and can also be used as manual instruments. The short version is ideal for healing abutments.

5.5. Hex driver, long

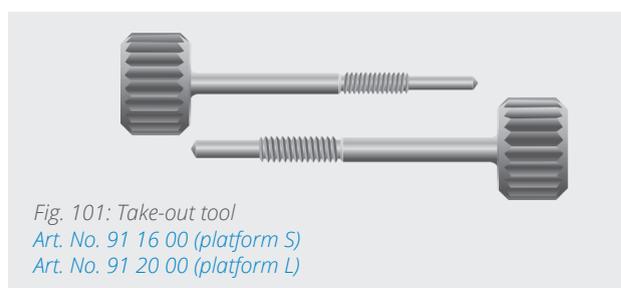
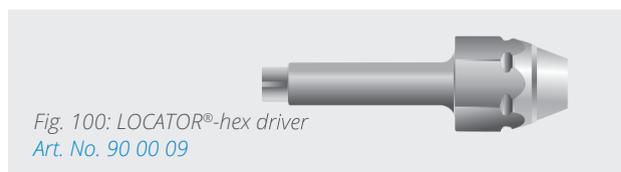
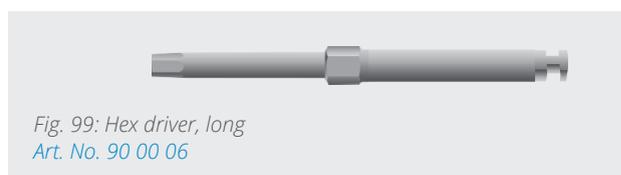
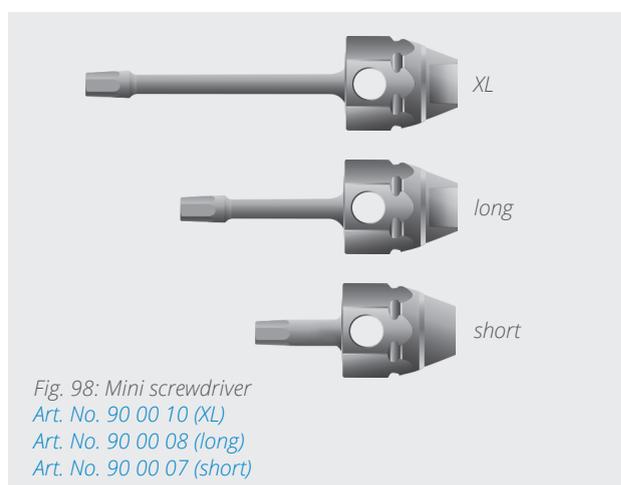
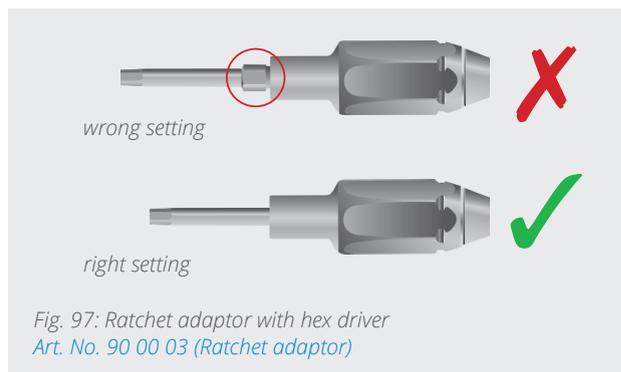
This screwdriver is suitable for use with all screws of the FairTwo™ system and holds the screws frictionally. It has a contra-angle coupling and fits in the ratchet adaptor.

5.6. LOCATOR® hex driver

This screwdriver is suitable for inserting LOCATOR® abutments and fits in the torque ratchet.

5.7. Take-out tool S + L

The abutment take-out tool is available in platform sizes S and L for gentle, safe removal of abutments with a screw connection from implants and laboratory implants (description see Section 3.1).



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**Qualität made
in Germany**

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