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Locking

Hand-Wrist PLATE SYSTEM SURGICAL TECHNIQUE

zimed®

Locking
Distal Radius
VOLAR PLATE

Locking
Distal Radius
DORSAL PLATE

Locking
Distal Radius
ULNA PLATE

Locking
Distal Radius
VOLAR EXTENSION
PLATE

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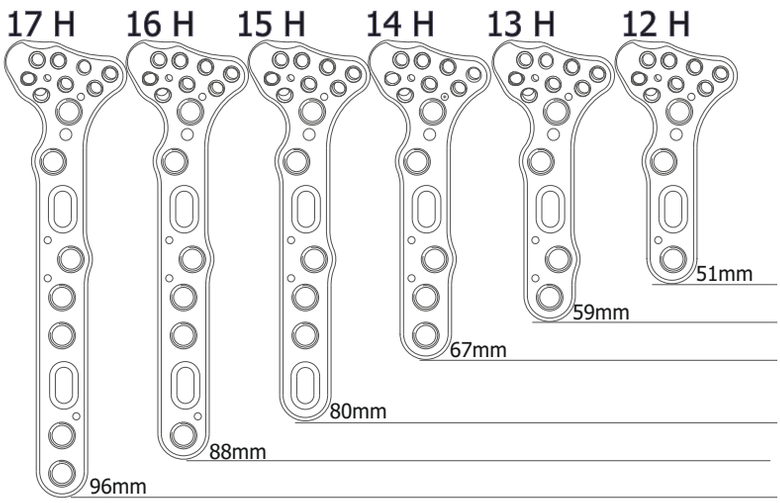
ISO 9001
ISO 13485

CE 1984

1.1.Locking Distal Radius Volar Plate

1.1.1.Specification

Locking Distal Radius Plates are used in the surgical treatment of fractures and nonunions of the distal radius. Distal Radius Volar Plate used with Ø3.5 mm cortical screw, Ø 3.5 mm locking screw and Ø2,4mm locking screw. 5-17 holes and 51, 59, 67, 80, 88, 96 mm length options are available. Locking Distal Radius Volar Plates are manufactured from titanium alloy manufactured according to ASTM F136.



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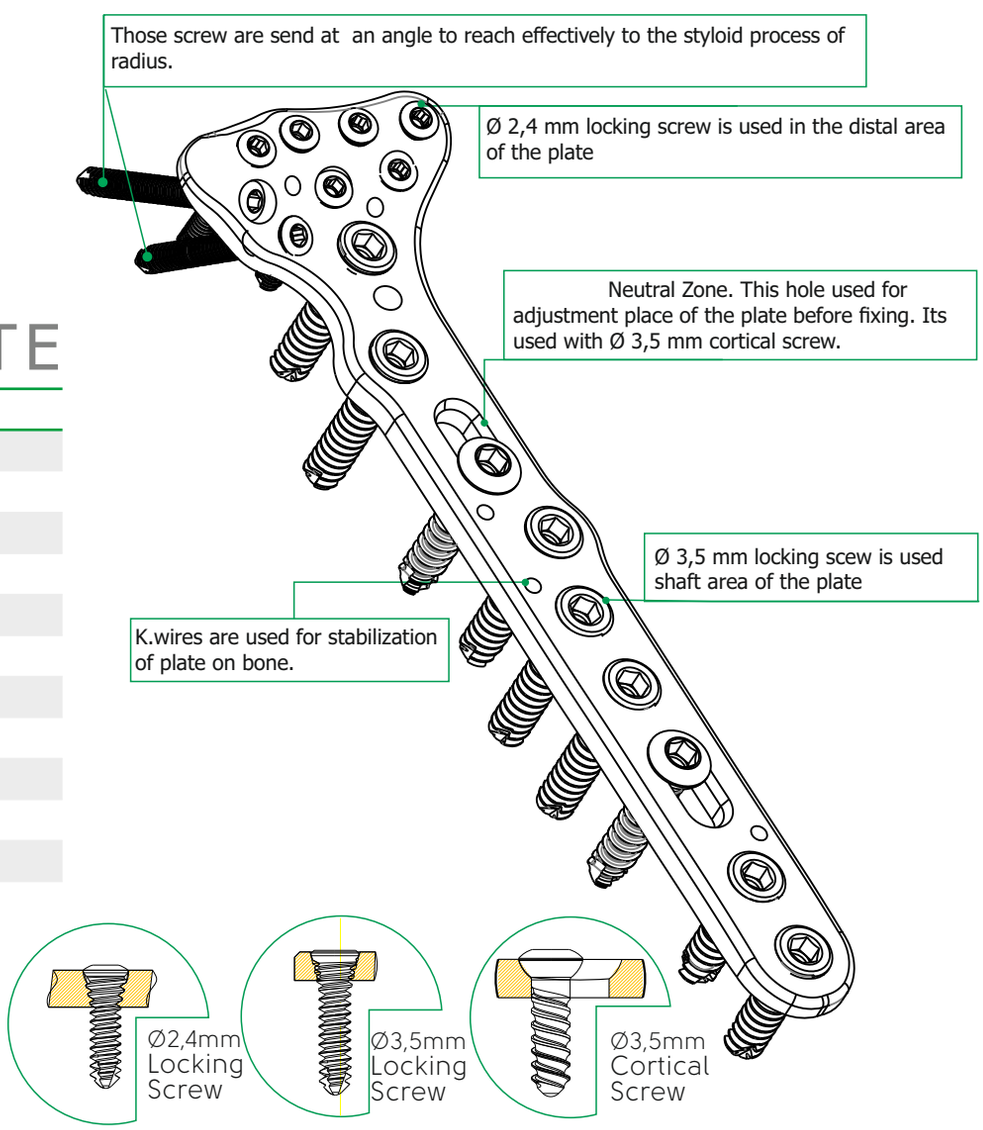
Locking
DISTAL RADIUS
VOLAR PLATE

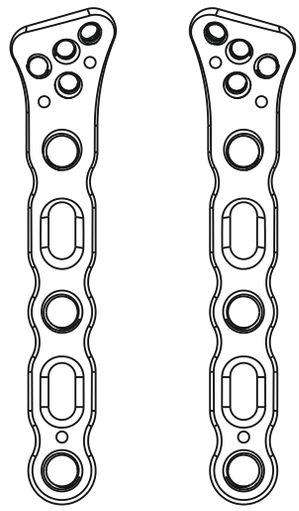
REF. NO	HOLES
1442-1012	12-R
1442-1013	13-R
1442-1014	14-R
1442-1015	15-R
1442-1016	16-R
1442-1017	17-R
1442-2012	12-L
1442-2013	13-L
1442-2014	14-L
1442-2015	15-L
1442-2016	16-L
1442-2017	17-L



1.2.Locking Distal Ulna Plate

1.2.1.Specification

It is indicated in the surgical treatment of distal ulna fractures resulting in loss of stabilization of the distal radioulnar articulation, distal ulna head fractures in which the articular surface is displaced, rotated or angled, and comminuted ulna neck fractures that affect distal radioulnar articular stabilization. It is used with locking distal ulna plate, Ø3.5 mm locking screw, Ø3.5mm cortical screw, Ø2.4 mm locking screw. 7,8,9 hole, 46,6, 60, 68 mm length options are available. It is produced from ISO 5832-2 TiGr3 (ASTM F 67) material.



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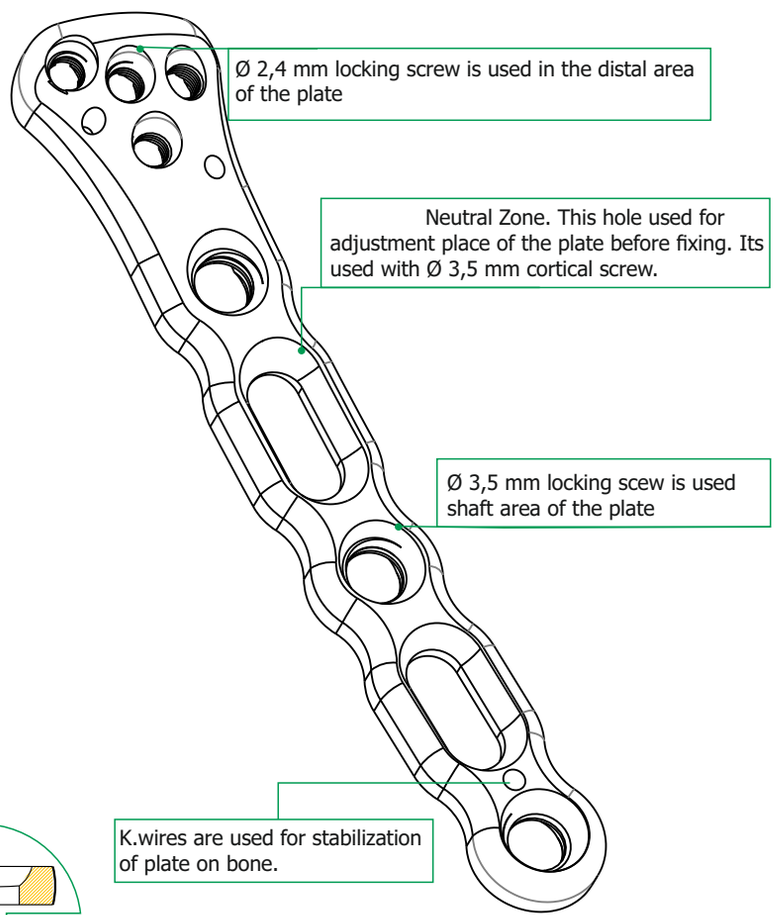
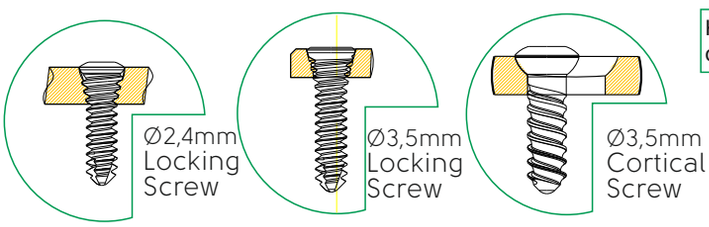
Locking
DISTAL ULNA
PLATE

REF. NO	HOLES
8732-1007	7-R
8732-1008	8-R
8732-1009	9-R
8732-2007	7-L
8732-2008	8-L
8732-2009	9-L





1.3.Locking Distal Radius Dorsal Plate

1.3.1.Specification

Locking Distal Radius Plates are used in the surgical treatment of fractures and nonunions of the distal radius. Distal Radius Dorsal Plate used with Ø3.5 mm cortical screw, Ø 3.5 mm locking screw and Ø2,4mm locking screw. 10-15 holes and 52, 61,5, 70, 79, 87, 95 mm length options are available. Locking Distal Radius Dorsal Plates are manufactured from titanium alloy manufactured according to ASTM F136.

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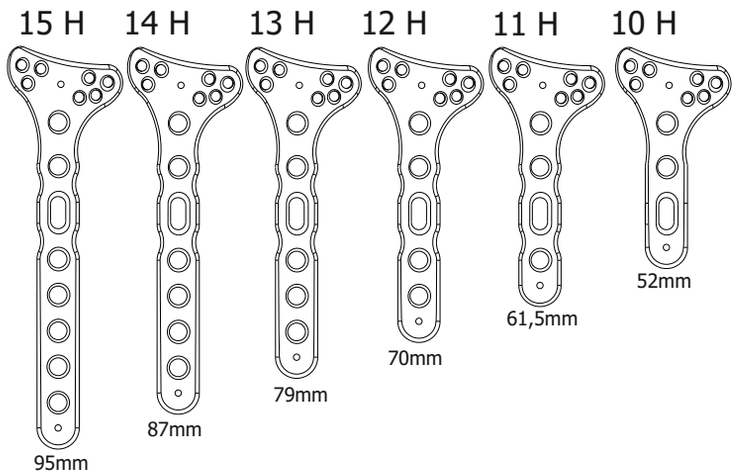
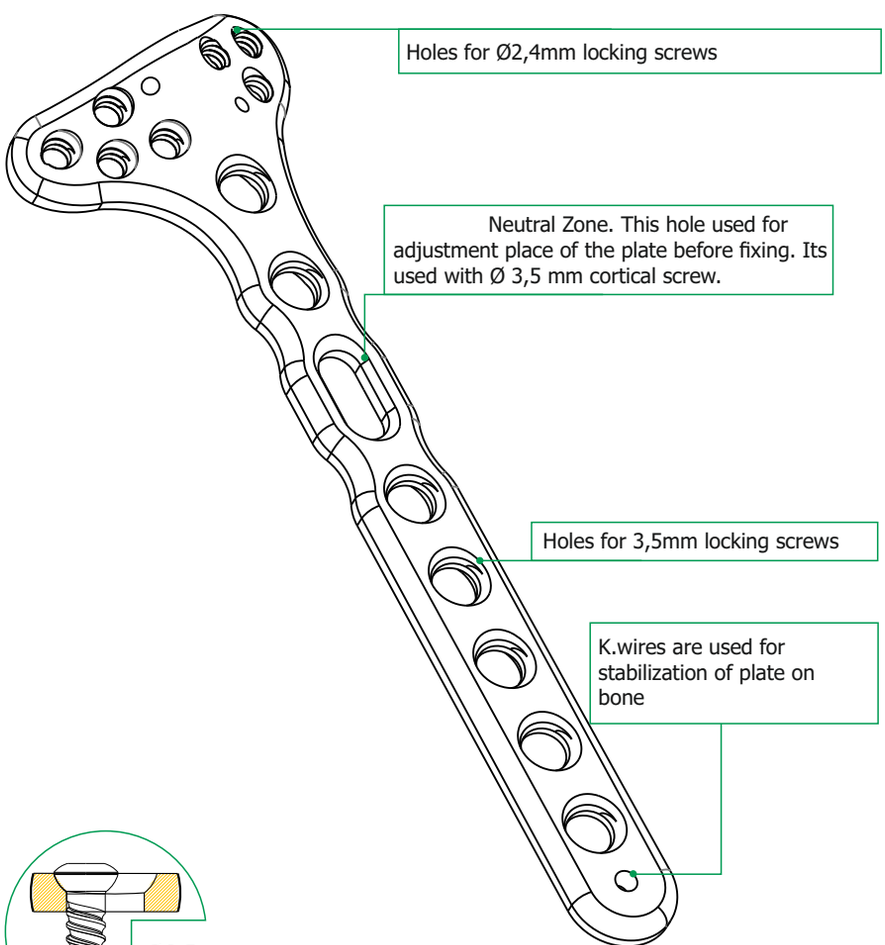


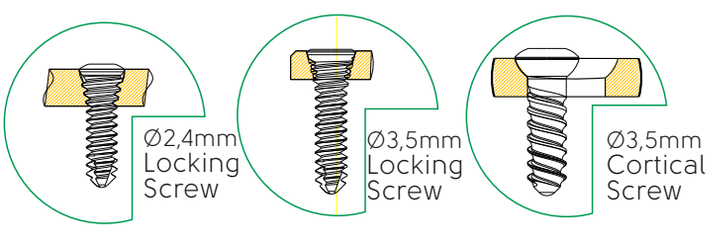
zimed®

Locking

DISTAL RADIUS
DORSAL PLATE

REF. NO	HOLES
1992-1010	10 - R
1992-1011	11 - R
1992-1012	12 - R
1992-1013	13 - R
1992-1014	14 - R
1992-1015	15 - R
1992-2010	10 - L
1992-2011	11 - L
1992-2012	12 - L
1992-2013	13 - L
1992-2014	14 - L
1992-2015	15 - L



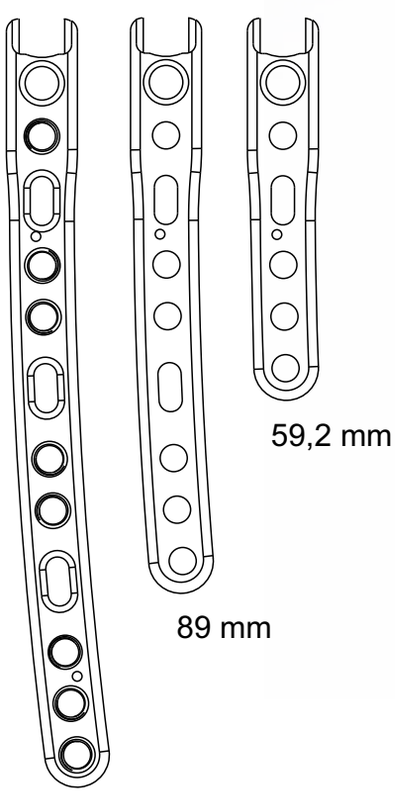


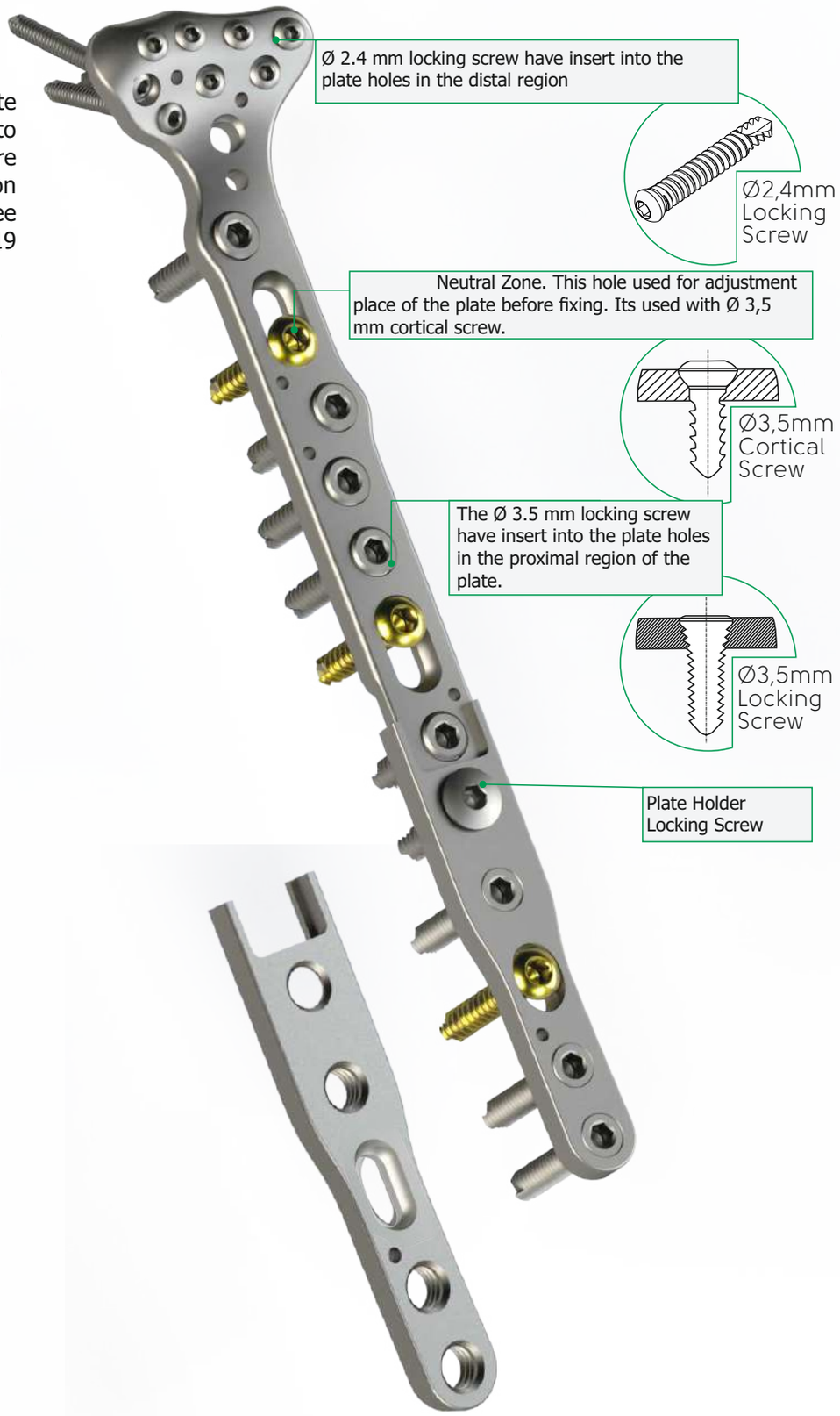
1.4.Locking Distal Radius Volar Extension Plate

1.4.1.Specification

Zimed Medical Distal Radius Plate extension part; it allows the surgeons to extend the plates to treat the fracture without using another plate. The extension part allows the extension of plates of three different lengths, 59.2 mm, 89 mm, 119 mm.

REF. NO	HOLES
1442-1012	12-R
1442-1013	13-R
1442-1014	14-R
1442-1015	15-R
1442-1016	16-R
1442-1017	17-R
1442-2012	12-L
1442-2013	13-L
1442-2014	14-L
1442-2015	15-L
1442-2016	16-L
1442-2017	17-L



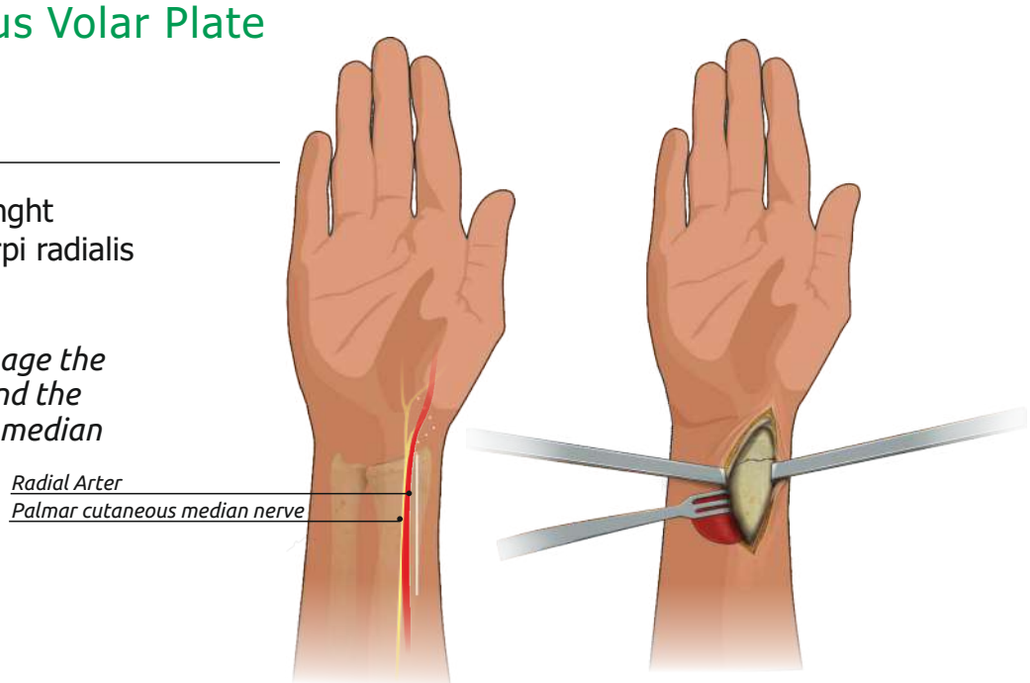


2.1.Locking Distal Radius Volar Plate

2.1.1.Volar Approach
Distal Radius(Mod. Henry)

Aproximately make a 6 cm in lenght longitudinal incision to flexor carpi radialis tendon

Care should be taken not to damage the radial artery on the radial side and the palmar cutaneous branch of the median nerve on the ulnar side.



2.1.2. Fracture

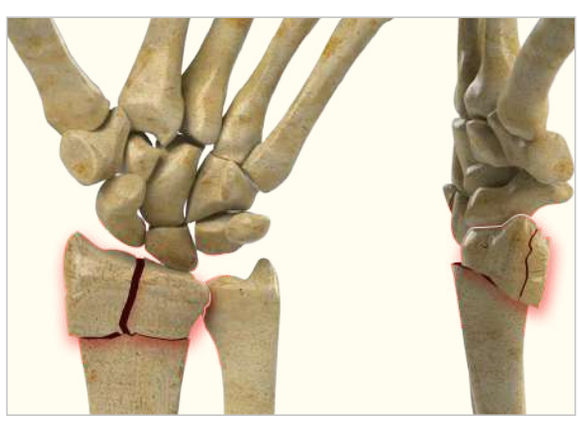
Volar Plate It can be used in unstable distal radius fractures, articular and extra-articular fractures, as well as dorsal and volar angulations.

It supports the healing of subchondral bone in the reduction of extra-articular fractures.

Prevents the need for bone grafts

Some of the distal radius fractures also affect and concern the ulna. *(Look,S.11)*

Extraarticular
Radius Multifragmentary



Partial Articular
Coronal, Palmar Rim

Complete Articular
Articular Simple, Methaphysial simple

2.1.Locking Distal Radius Volar Plate

2.1.3.Reduction & Placement

Before the placement of the plate, fracture can be reduce by the Kirschner wire. After you can decide place of the plate *(Fig.1-2)* In Volar Rim, it can bu used cortical screw for reduction. For Example see *(Fig.3)*

Fig.1

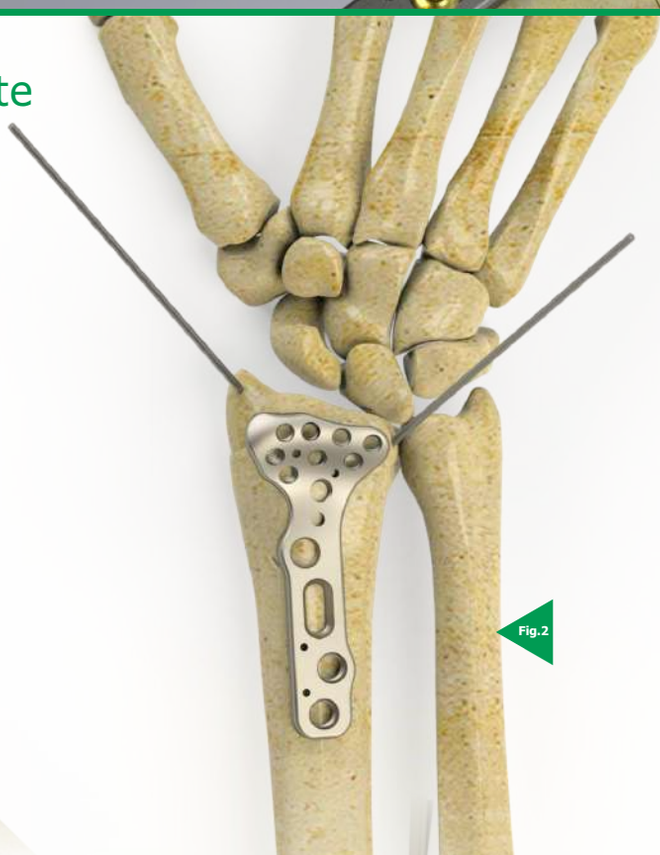


Fig.2

Fig.3

Buttressing

Before fully tightening, check the plate position using intraoperative imaging, adjusting the position of the plate as necessary to ensure optimum support effect.

2.1.4. Ø3,5mm Cortical Scew

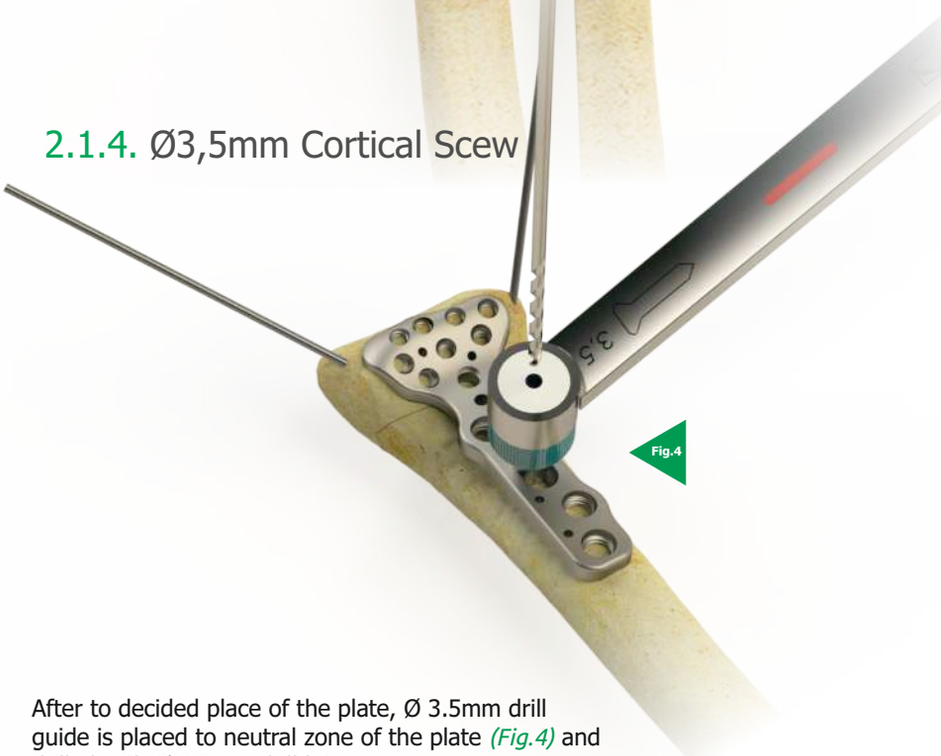


Fig.4

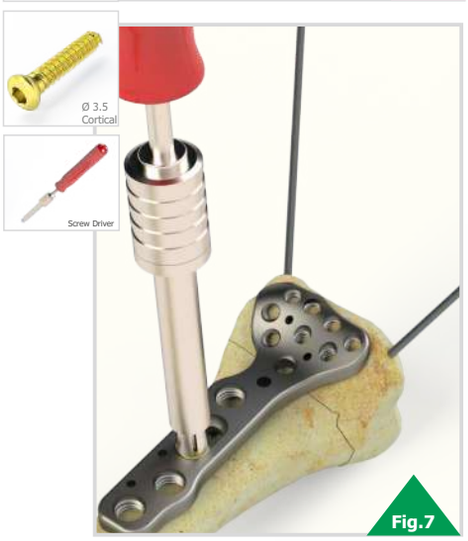
After to decided place of the plate, Ø 3.5mm drill guide is placed to neutral zone of the plate *(Fig.4)* and drilled with Ø 2.5mm drill bit

2.1.Locking Distal Radius Volar Plate

2.1.4. Ø3,5mm Cortical Screw

*You can decided with the depth guide to lenght of the screw *(Fig.5)*

OPS.
Tapping with Ø 3.5 Tap in case of hard bone.(Fig.6)*



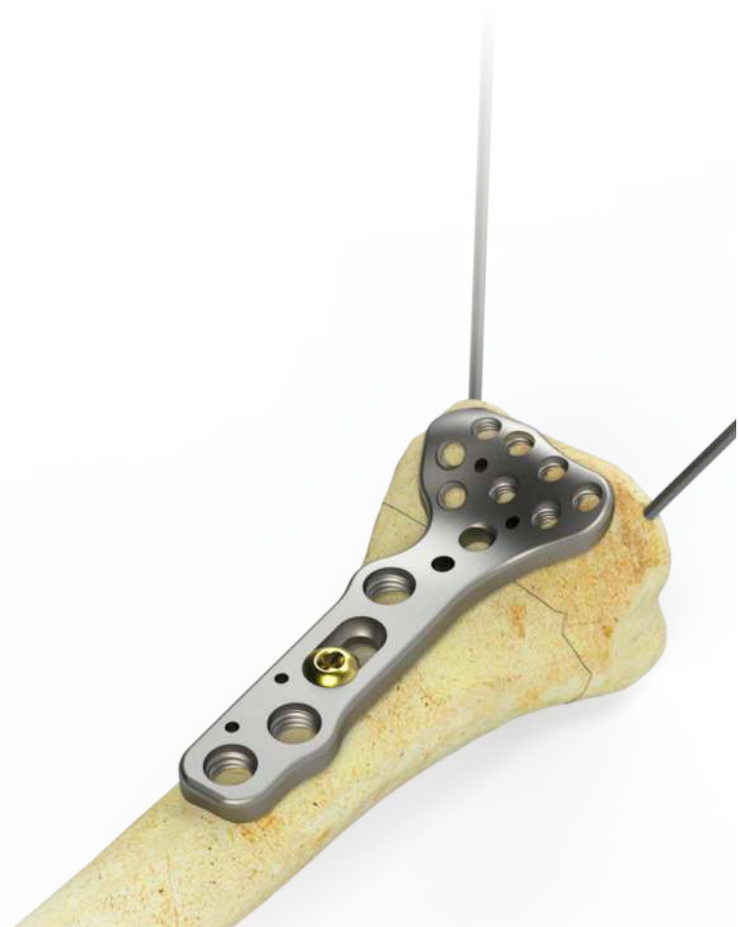
Ø 3.5 mm cortical screw send with 2.5 screwdriver.(Fig.7)*

2.1.Locking Distal Radius Volar Plate

2.1.5. Ø 2,4mm Locking Screw

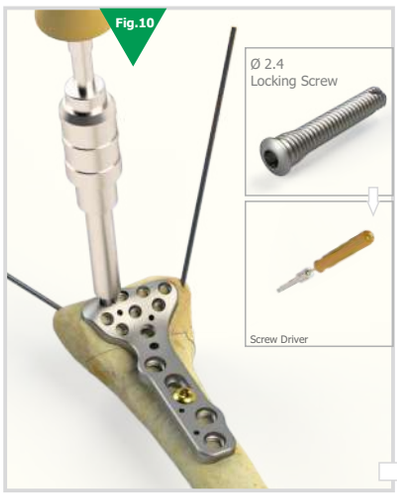
*Put the Ø 1.75 mm drill guide on volar part holes.
*Open the way for locking screw with using Ø 1.75 mm drill bit.
* *(Fig.8)*

*'For Ø2,4mm mlocking screws, you can decide to size of locking screws while drilling process.' There is black strip on the drill. In this way, you can decide screws size with usign measure which is on guide. *(Fig.9)*

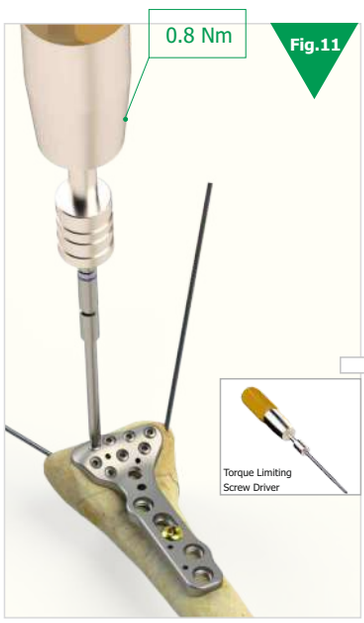


2.1.Locking Distal Radius Volar Plate

2.1.5. Ø 2,4mm Locking Screw

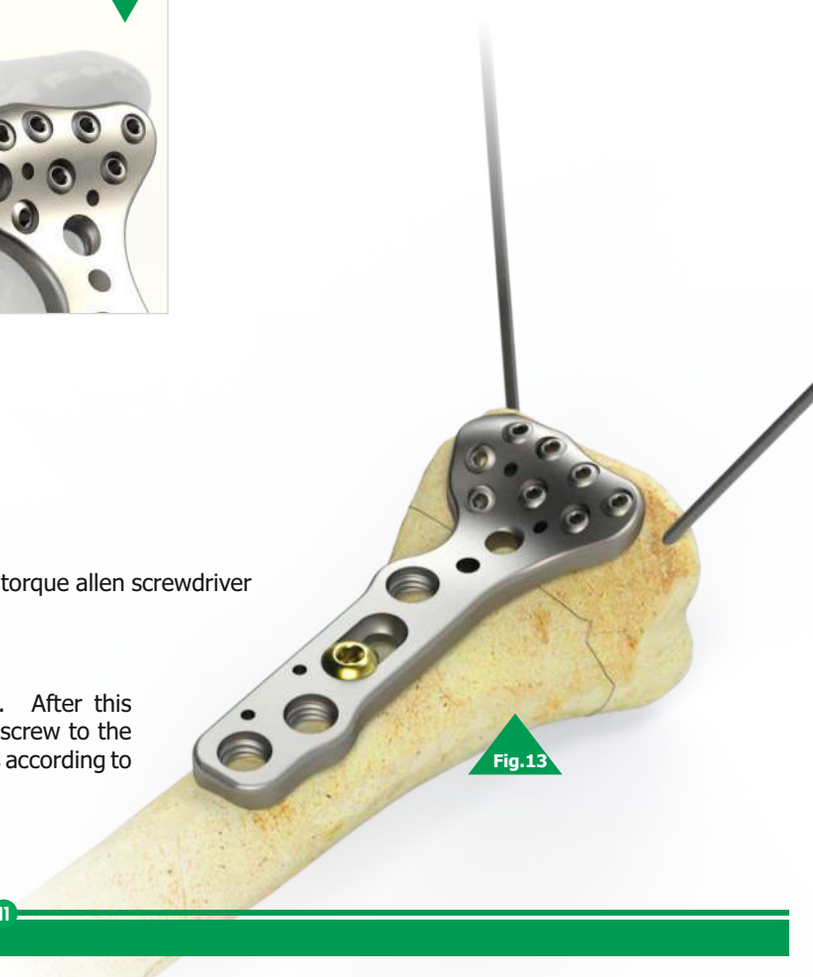


*Send Ø2.4mm locking screw with Ø1.5 screwdriver *(Fig.10)*



*Complete the screwing process with using Ø1.5 torque allen screwdriver (0.8Nm torque) *(Fig.11-12)*

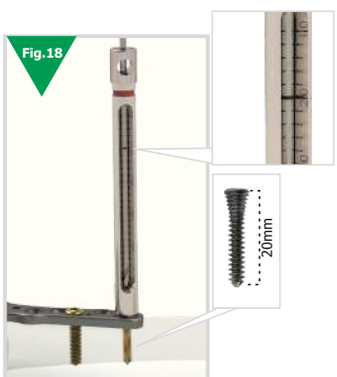
*Stabilization of the plate is completed *(Fig. 13)*. After this section You can have to be send Ø3.5mm locking screw to the distal part of the plate. The number of screws varies according to the plate length and fracture pattern.



2.1.Locking Distal Radius Volar Plate

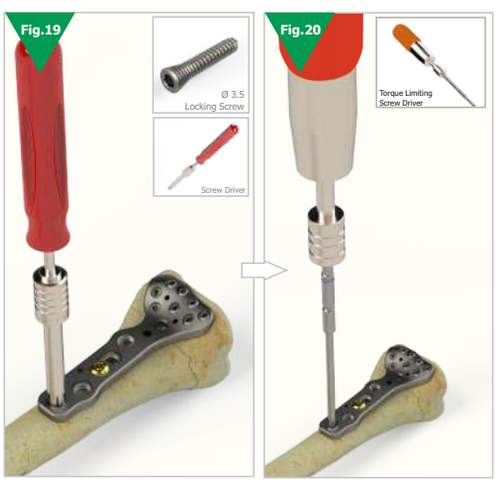
2.1.6. Ø 3,5mm Locking Screw

*Put the Ø2.6 mm drill guide on locking screw hole.. *(Fig.17)*
*Open the way for locking screw with using Ø2.6 mm drill bit *(Fig.18)*.

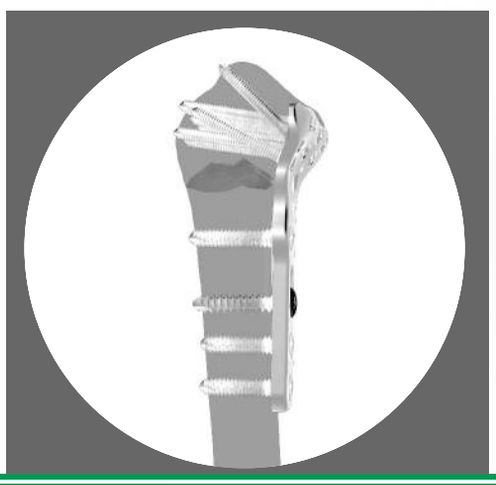


"*'For Ø3,5mm locking screws, you can decide to size of locking screws while drilling process.' There is black strip on the drill. In this way, you can decide screws size with usign measure which is on guide. *(Fig.18)*"

Note : You should use non-deformed drill for perfect screws match



*Send Ø3.5 mm locking screw with 2.5 screwdriver. *(Fig.19)*
*Complete the screwing process with using 2.5 torque screwdriver. (1.5Nm torque) . *(Fig.20)*

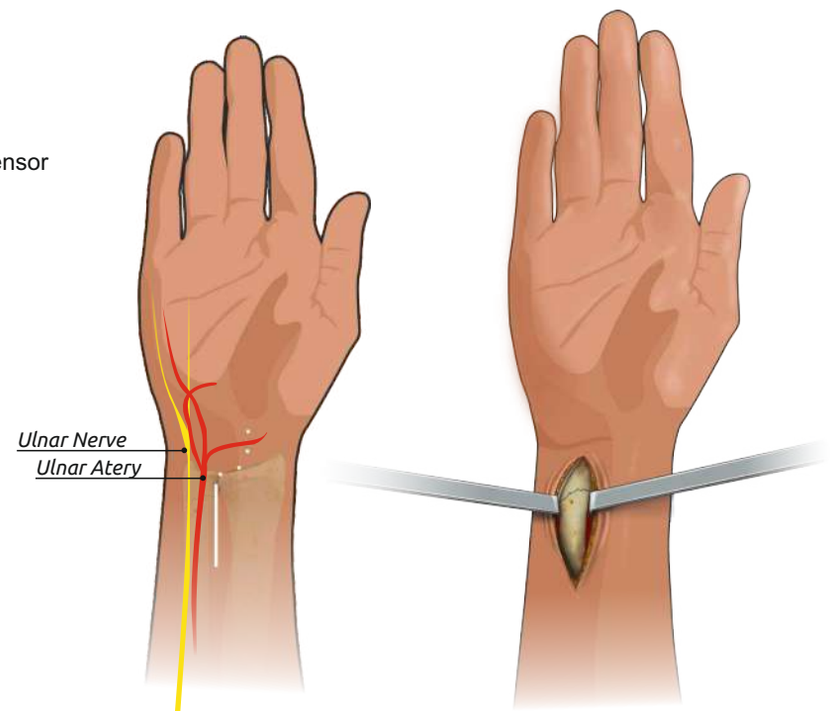


2.2.Locking Distal Ulna Plate

2.2.1. Ulnar Approach *Palmar*

Make an incision along the distal ulnar border of the forearm between the flexor carpi ulnaris and the extensor carpi ulnaris.

The ulnar nerve and artery should be pay attention



2.2.2. Fracture

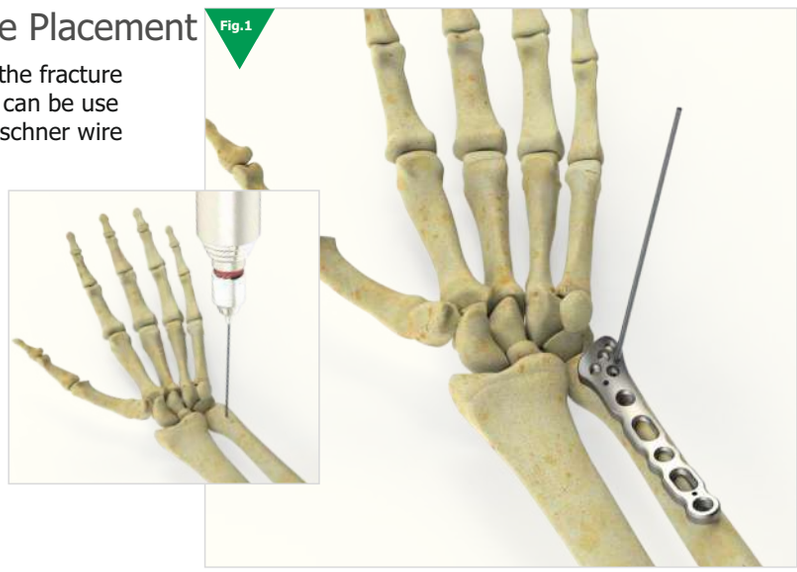
Ulnar head, ulnar neck, and comminuted
are the types of fractures.
Ulna Fracture occurs impact of distal radius to ulna
or effect of distal radius fracture to Ulna

Simple ulnar metaphysis fractures.

2.2.Locking Distal Ulna Plate

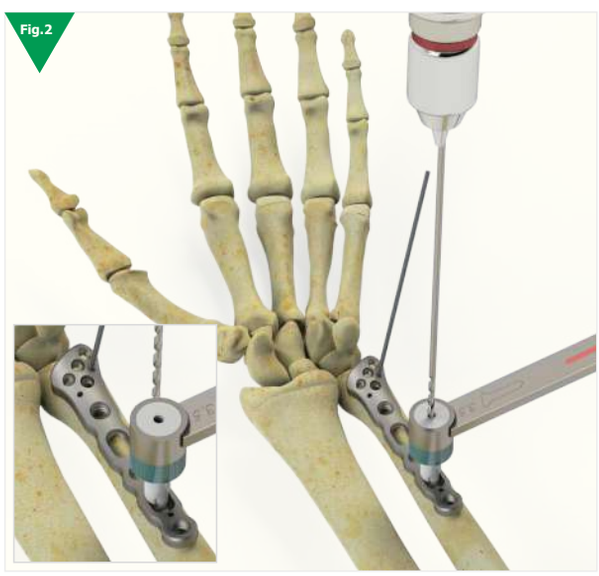
2.2.3. Kirschner wire and Plate Placement

Fracture have to reduct before placement. if the fracture allows at the appropriate angle Kirscher wire can be use like a guide. Plate can be passed over the Kirschner wire *(Fig.1)*



2.2.4. Ø 3.5mm Cortical Screw

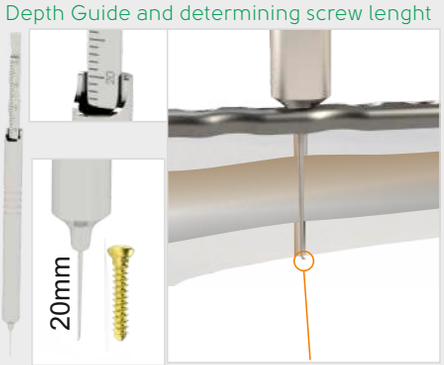
After to decided place of the plate, Ø 3.5 drill guide is placed to neutral zone of the plate *(Fig.2)* and drilled with Ø 2.5mm



*You can decided with the depth guide to lenght of the screw *(Fig.3)*

*Ø 3.5 mm cortical screw send with Ø2.5 screwdriver *(Fig.4)*

Depth Guide and determining screw lenght



2.2.Locking Distal Ulna Plate

2.2.5. Ø 2.4mm Locking Screw

*Put the Ø 1.75 mm drill guide on volar part holes.
*Open the way for locking screw with using Ø 1.75 mm drill bit.
* *(Fig.5)*

Fig.5

"*'For Ø2,4mm locking screws, you can decide to size of locking screws while drilling process.' There is black strip on the drill. In this way, you can decide screws size with usign measure which is on guide. *(Fig.5)*

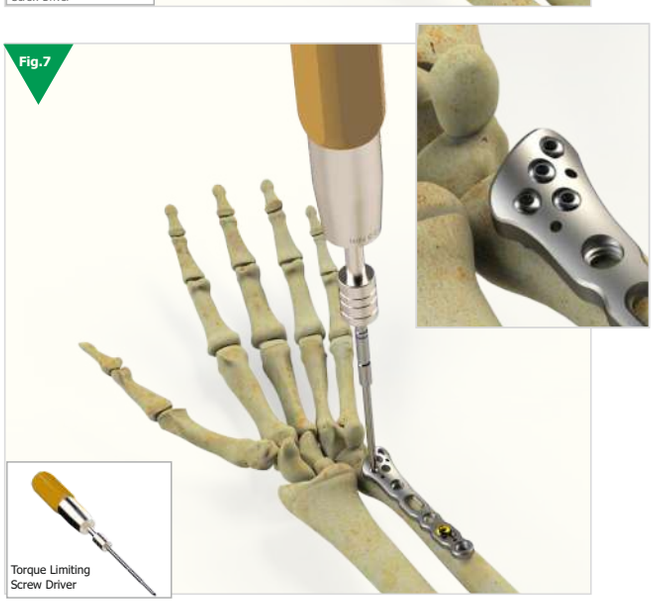
Note : You should use non-deformed drill for perfect screws match"

*Send Ø2.4 locking screw with Ø1.5 screwdriver *(Fig.6)*

Fig.6

*Complete the screwing process with using Ø1.5 torque allen screwdriver (0.8Nm torque) *(Fig.7)*

Fig.7



*Stabilization of the plate is completed. After this section You have to be send Ø3.5mm locking screw to the distal part of the plate. The number of screws varies according to the plate length and fracture pattern.

2.2.Locking Distal Ulna Plate

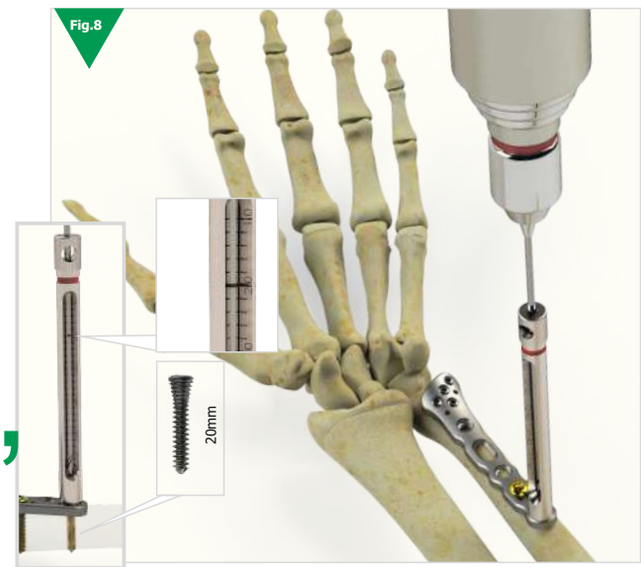
2.2.6. Ø 3.5mm Locking Scew

*Put the Ø2.6 mm drill guide on locking screw hole. *(Fig.8)*
*Open the way for locking screw with using Ø2.6 mm drill bit *(Fig.8)*.

*'For Ø3,5mm locking screws, you can decide to size of locking screws while drilling process.' There is black strip on the drill. In this way, you can decide screws size with usign measure which is on guide. *(Fig.8)*

Note : You should use non-deformed drill for perfect screws match

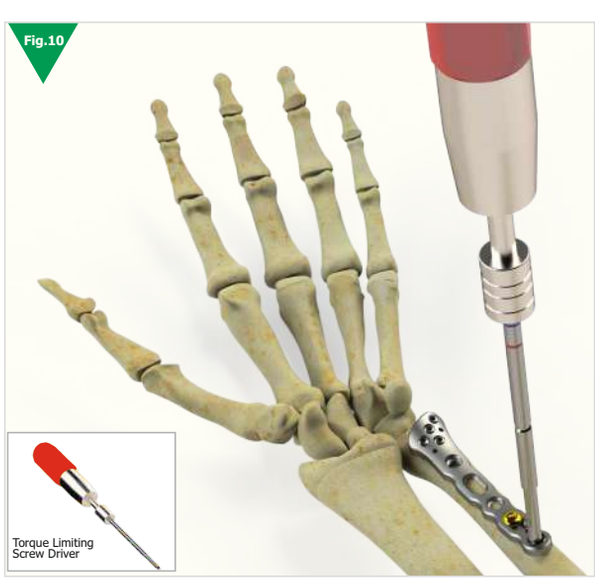
Fig.8



*Send Ø3.5 mm locking screw with Ø2.5 screwdriver. *(Fig.9)*
Complete the screwing process with using Ø2.5 torque screwdriver. (1.5Nm torque) .(Fig.10)*

Fig.9

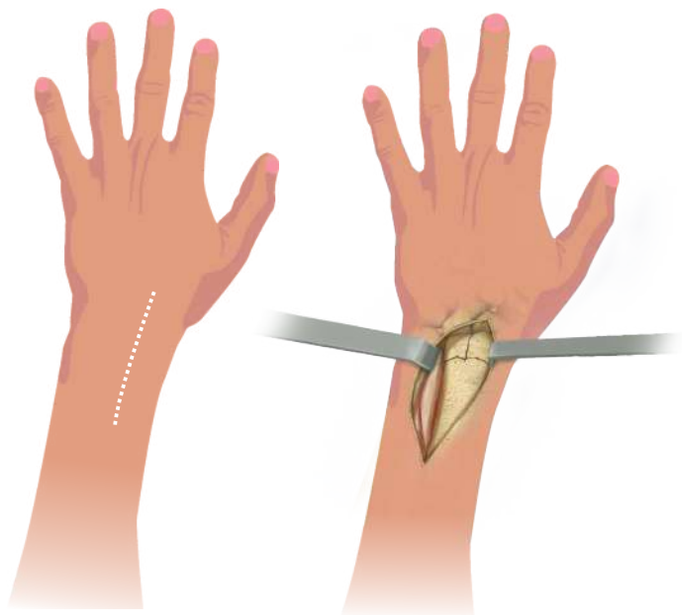
Fig.10



2.3.Locking Distal Radius Dorsal Plate

2.3.1. Dorsal Approach

Make a incision line to lister tubercle and long finger radial border.
When opening the tendon sheath, be careful not to cut the tendon



2.3.2. Fracture

It includes both extra-articular and intra-articular distal radius fractures and shows various combinations of various dorsal angulations (apex volar), dorsal displacement, radial displacement, and radial shortening.

It is a shared injury mechanism that results in fracture-dislocation or subluxation of the wrist, where the dorsal or volar edge of the distal radius is replaced by the hand and carpus. Volar relationship is more common

Extraarticular
Radius simple and impacted,
or Radius Multifragmentary

Partial Articular
Coronal, Dosral Rim

2.3.Locking Distal Radius Dorsal Plate

2.3.3. Kirschner wire and Plate Placement

Fracture have to reduct before placement. It can bu use Kirschner wire for the temporarly fixing *(Fig.1)*and than it can be adjust placement of the plate*(Fig.2-3)*

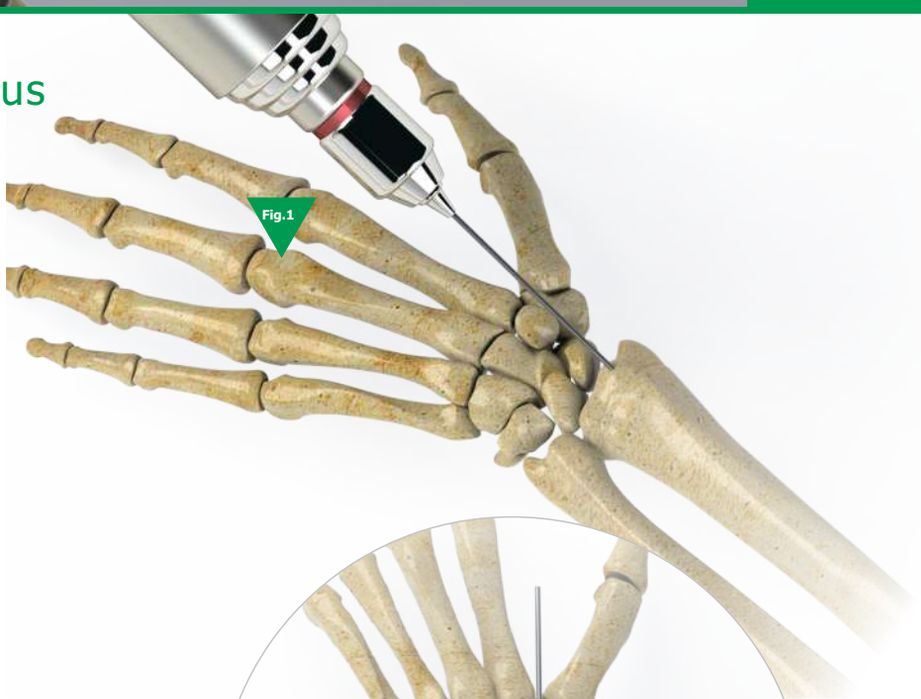


Fig.1

Fig.2

if the fracture allows at the appropriate angle Kirscher wire can be use like a guide. Plate can be passed over the Kirschner wire .

Fig.3

2.3.Locking Distal Radius Dorsal Plate

2.3.4. Ø3,5mm Cortical Scew

After to decided place of the plate, Ø 3.5mm drill guide is placed to neutral zone of the plate *(Fig.4)* and drilled with Ø 2.5mm

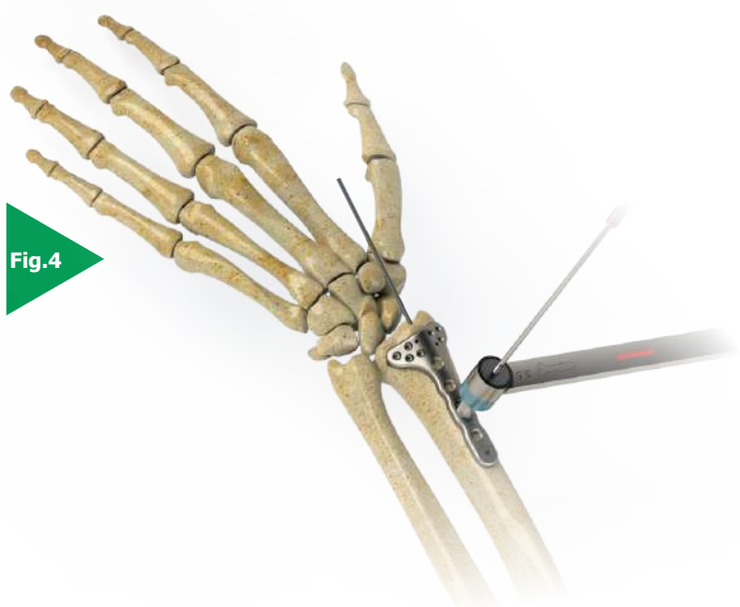


Fig.4

*You can decided with the depth guide to lenght of the screw *(Fig.5)*

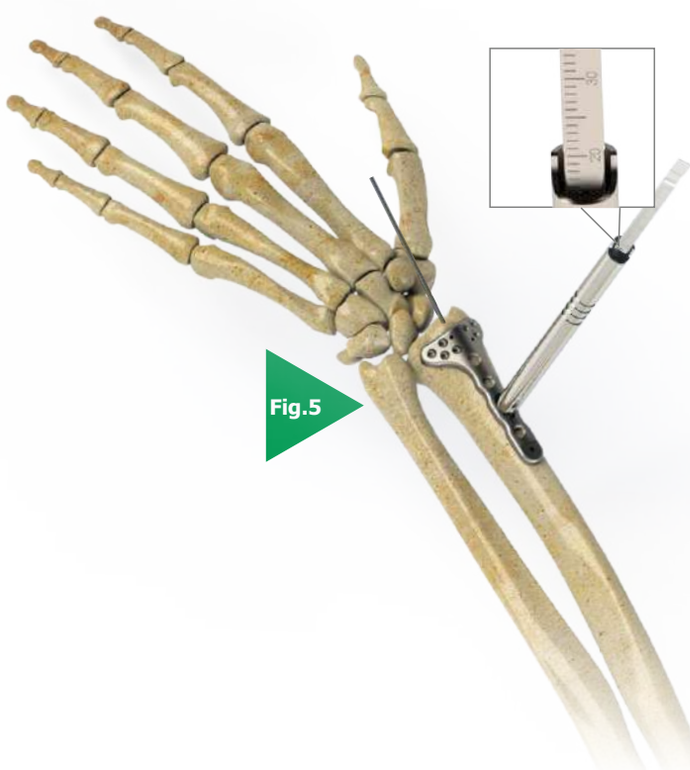
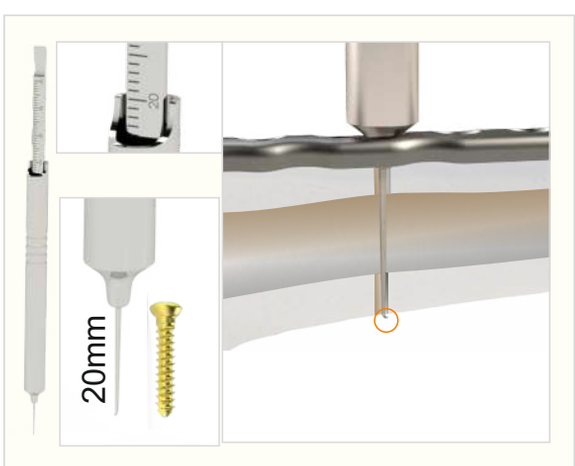


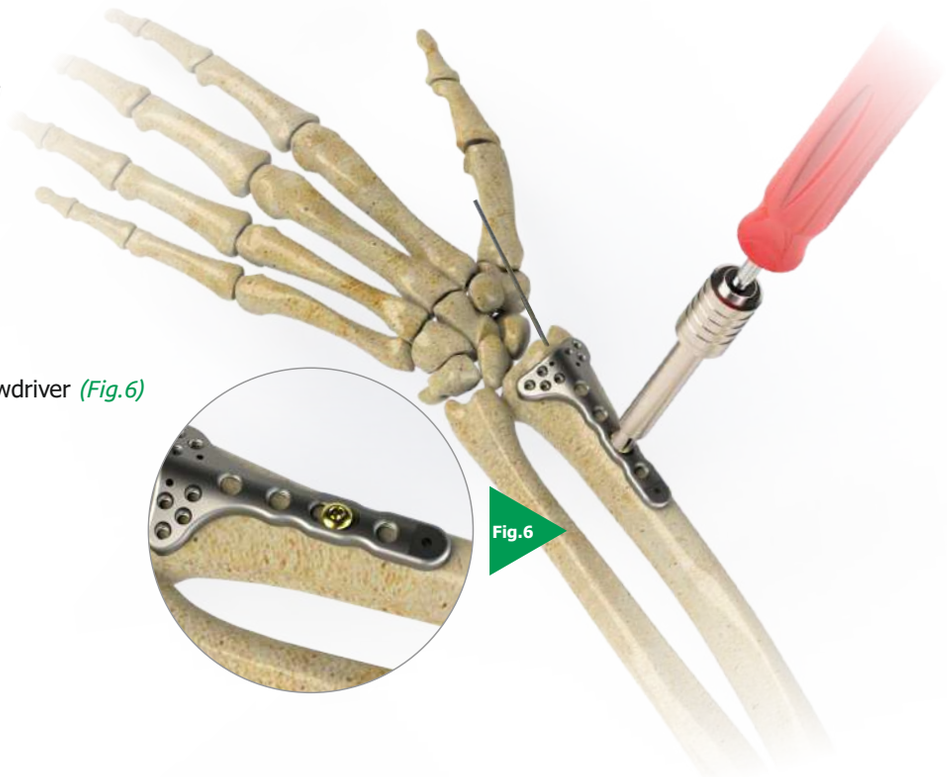
Fig.5



2.3.Locking Distal Radius Dorsal Plate

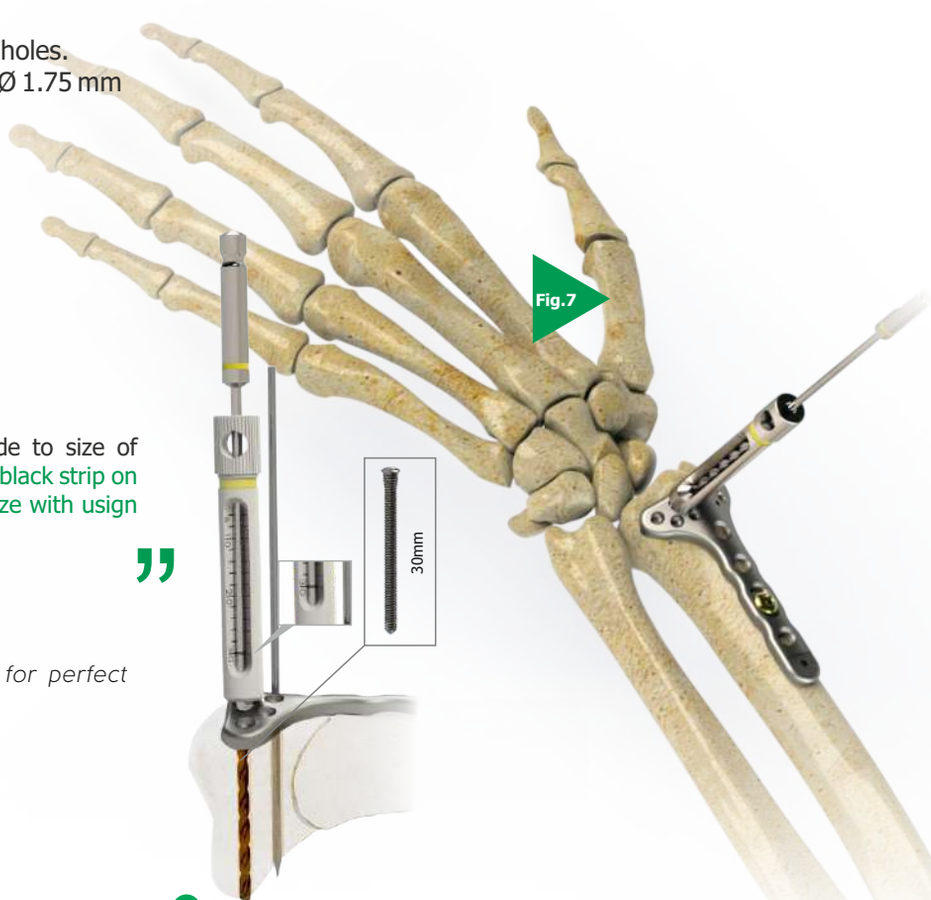
2.3.4. Ø3,5mm Cortical Scew

*Ø 3.5 mm cortical screw send with 2.5 screwdriver *(Fig.6)*



2.3.5. Ø2,4mm Locking Scew

*Put the Ø 1.75 mm drill guide on volar part holes.
*Open the way for locking screw with using Ø 1.75 mm drill bit.
* *(Fig.7)*



"*'For Ø2,4mm locking screws, you can decide to size of locking screws while drilling process.' There is black strip on the drill. In this way, you can decide screws size with usign measure which is on guide. *(Fig.7)*"

Note : You should use non-deformed drill for perfect screws match

2.3.Locking Distal Radius Dorsal Plate

2.3.5. Ø2,4 Locking Screw

*Send Ø2.4mm locking screw with Ø1.5 screwdriver *(Fig.7)*

*Complete the screwing process with using Ø1.5 torque allen screwdriver (0.8Nm torque) *(Fig.8)*

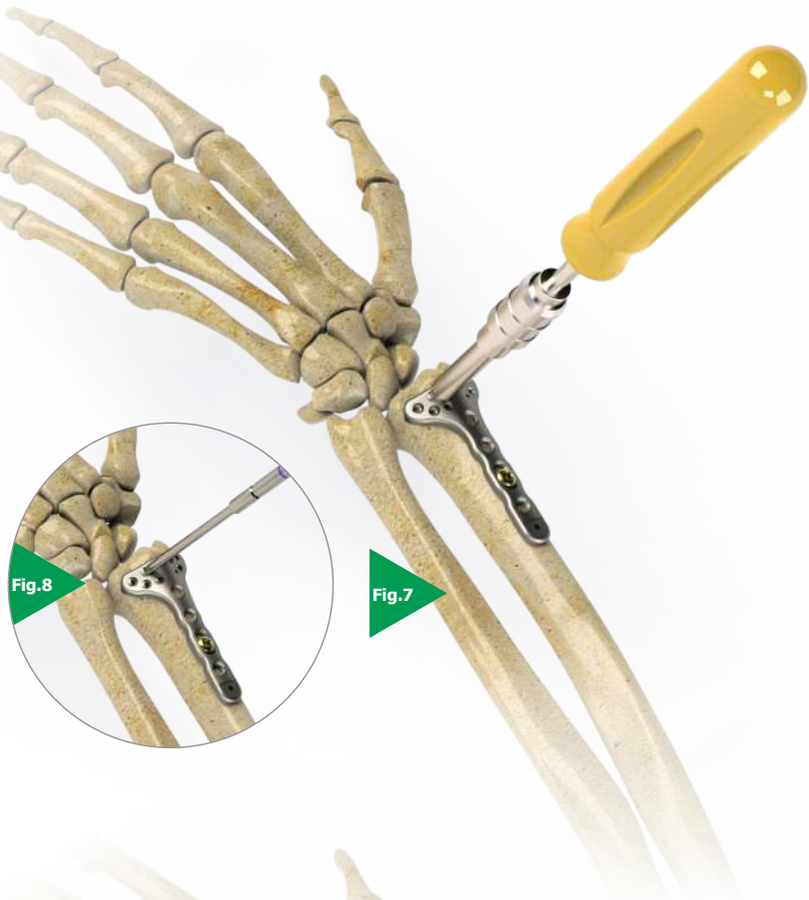


Fig.8

Fig.7

*Stabilization of the plate is completed *(Fig. 9)*. After this section You can have to be send 3.5 locking screw to the distal part of the plate. The number of screws varies according to the plate length and fracture pattern.

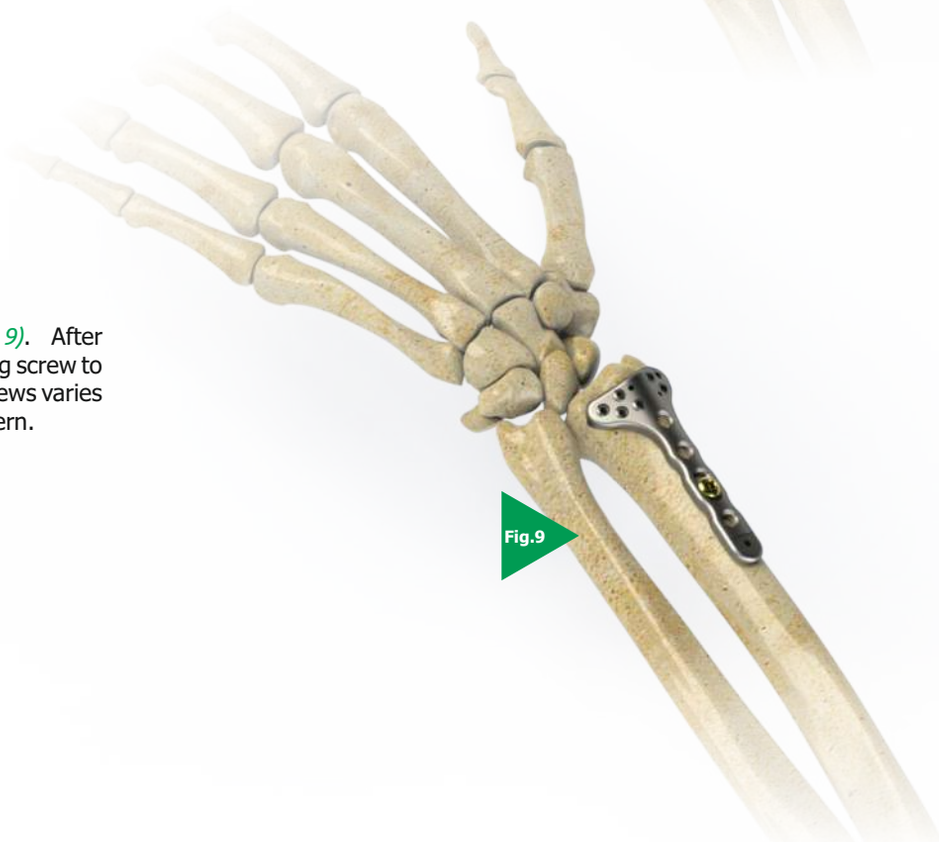


Fig.9

2.3.Locking Distal Radius Dorsal Plate

2.3.6. Ø3,5mm Locking Scew

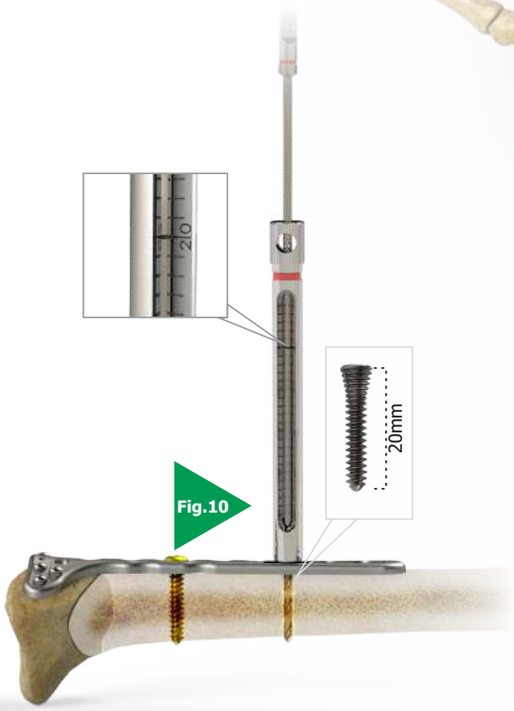


Fig.10

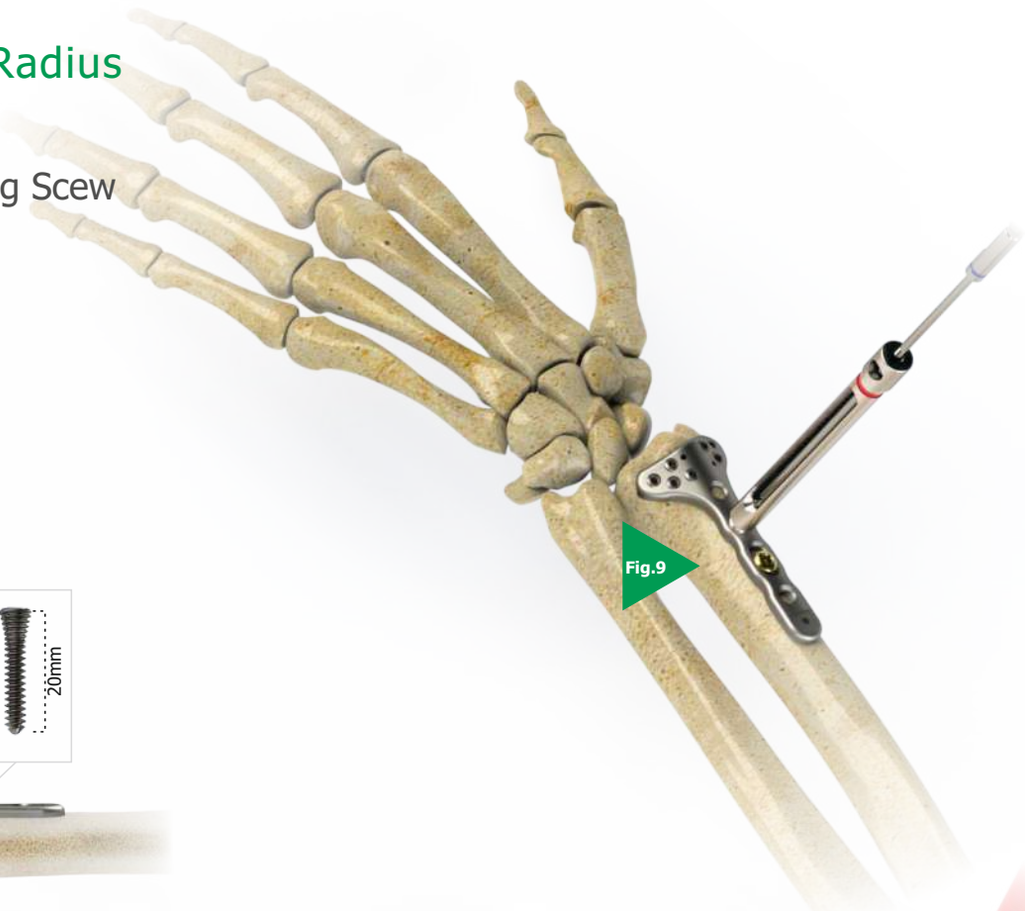


Fig.9

*Put the Ø2.6 mm drill guide on locking screw hole.. *(Fig.9)*
*Open the way for locking screw with using Ø2.6 mm drill bit *(Fig.10)*.

“*'For Ø3,5mm locking screws, you can decide to size of locking screws while drilling process.’ There is black strip on the drill. In this way, you can decide screws size with usign measure which is on guide. *(Fig.10)*”

Note : You should use non-deformed drill for perfect screws match

Fig.11

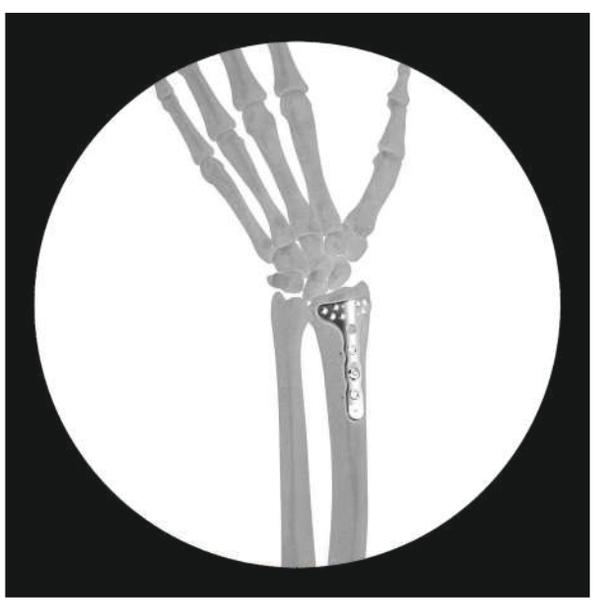
Send Ø3.5 mm locking screw with Ø2.5 screwdriver.(Fig.11)*

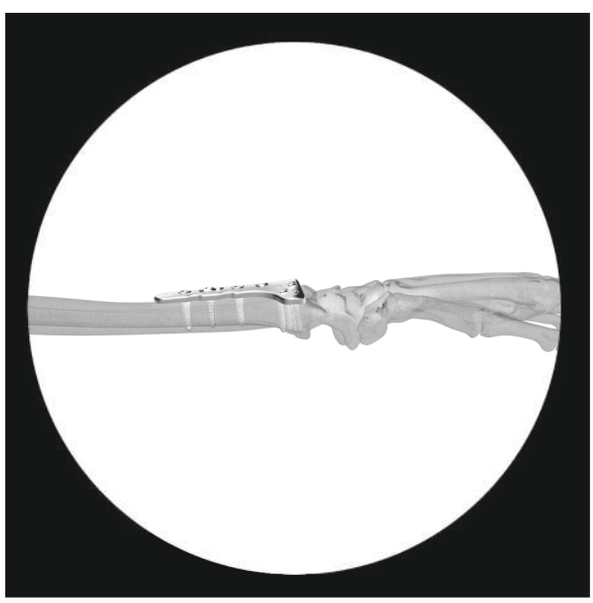
2.3.Locking Distal Radius Dorsal Plate

2.3.6. Ø3,5mm Locking Scew

*Complete the screwing process with using Ø2.5 torque screwdriver. (1.5Nm torque) . *(Fig.12)*

Fig.12





2.4.Locking Distal Radius Volar Extension Plate

2.4.1. Volar Approach Henry

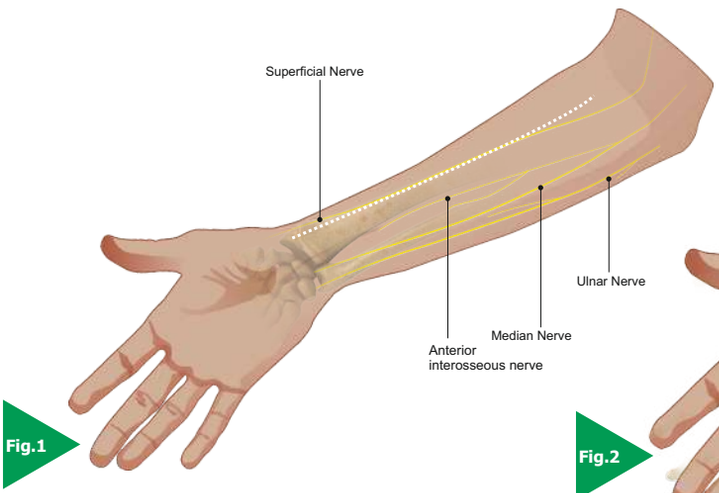


Fig.1

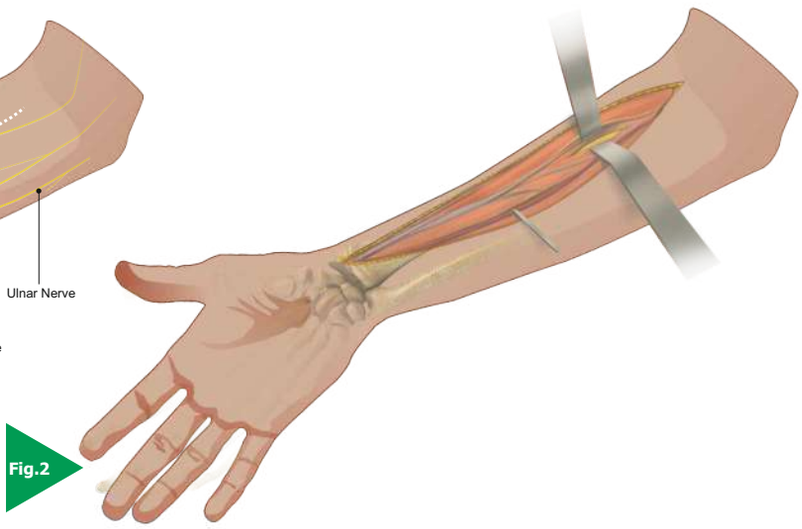


Fig.2

2.4.2. Fracture

Complete articular fracture
Radius articular simple
When there is additional extensive metaphyseal comminution, it can be use volar extension plate. *(Fig.3)*

Fig.3

Complete articular
Articular simple, Metaphysial Multifragmentary

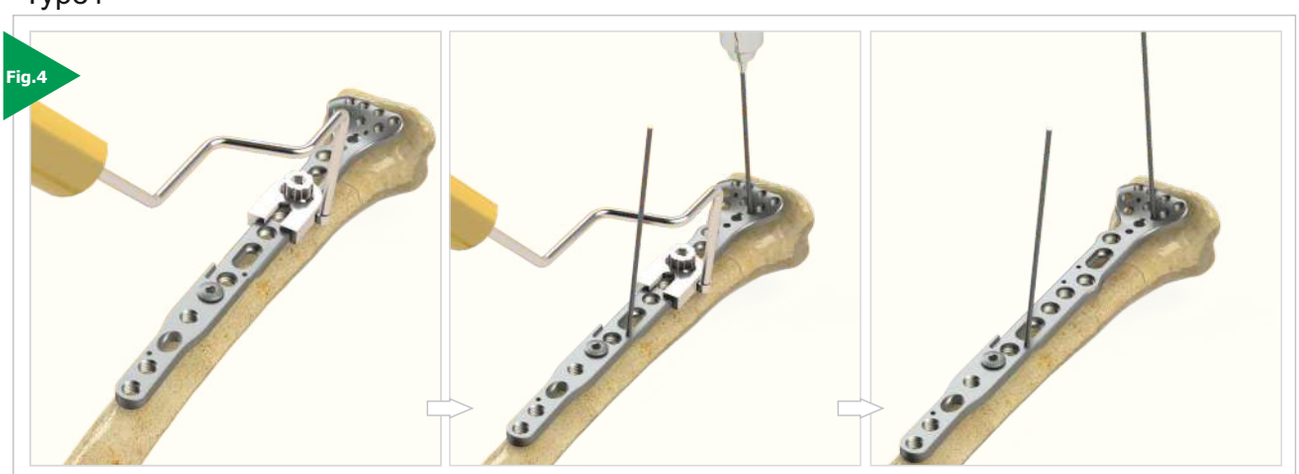
2.4.Locking Distal Radius Volar Extension Plate

2.4.3. Plate Placement Variety

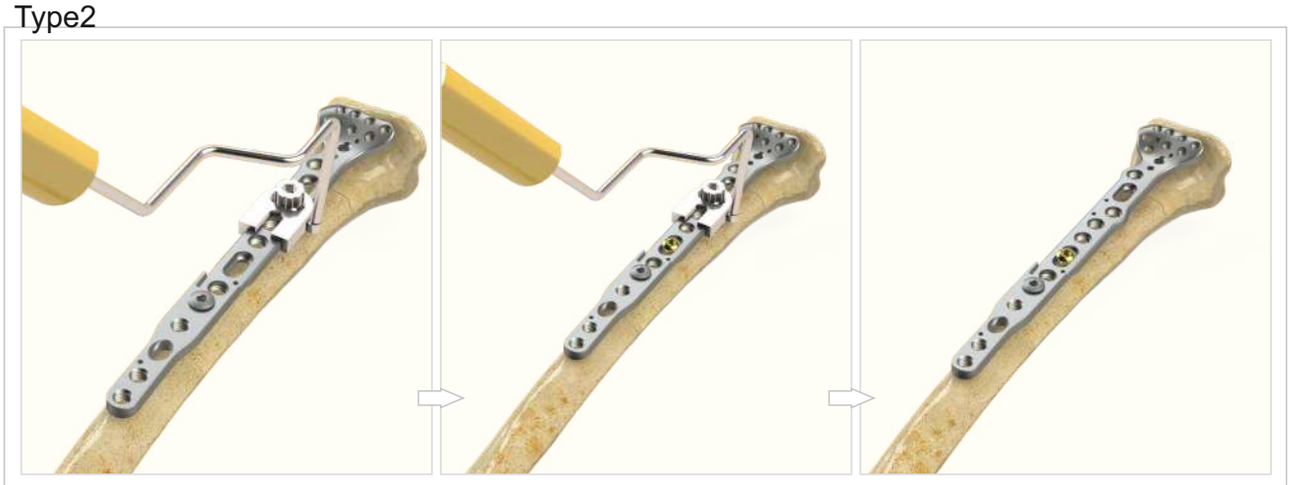
*Before plate placement it has to be made fracture reduction accordingly plate placement can be made. Volar Extension Plate can be place in several ways. You can see two different ways in the picture. Surgical Tecnique will continue Type 1

Type1

Fig.4



Type2



2.4.Locking Distal Radius Volar Extension Plate

2.4.4. Ø3.5mmCortical Screw

A cortical guide is placed in the neutral hole on the plate fixed with Kirschner wires. Ø2.5mm drill is placed and drilled. *(Fig.5)*

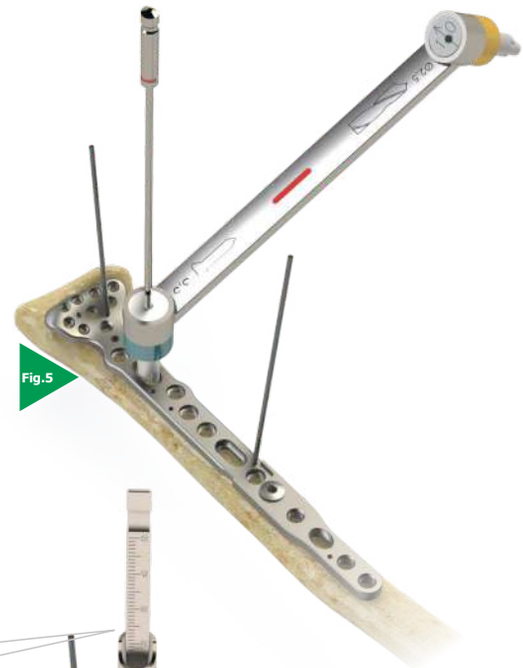
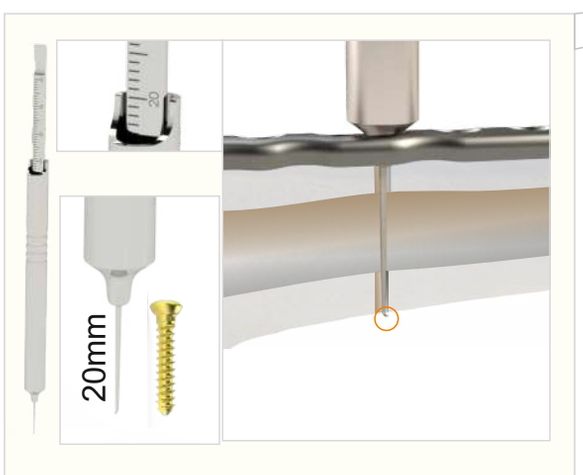


Fig.5

Screw size is determined with Depth guide. *(Fig.6)*



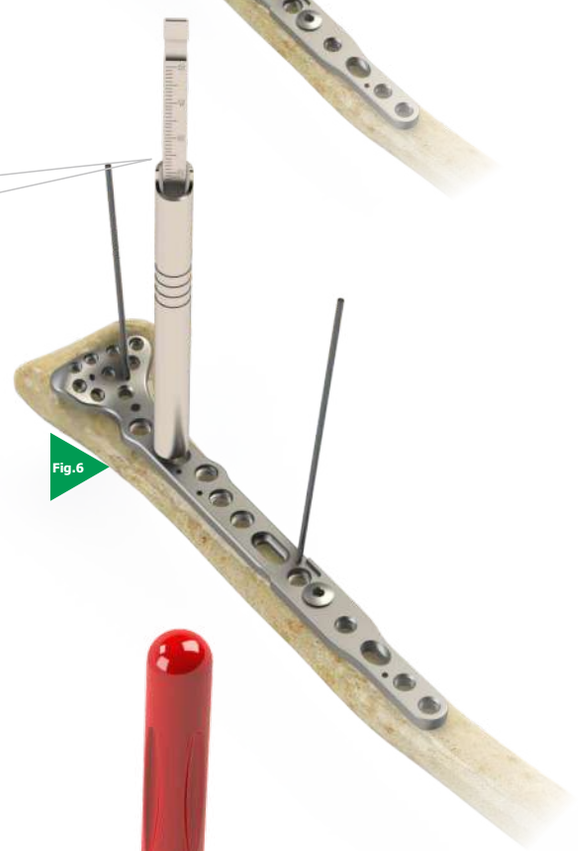


Fig.6

Screw size is determined with Depth guide. *(Fig.7)*

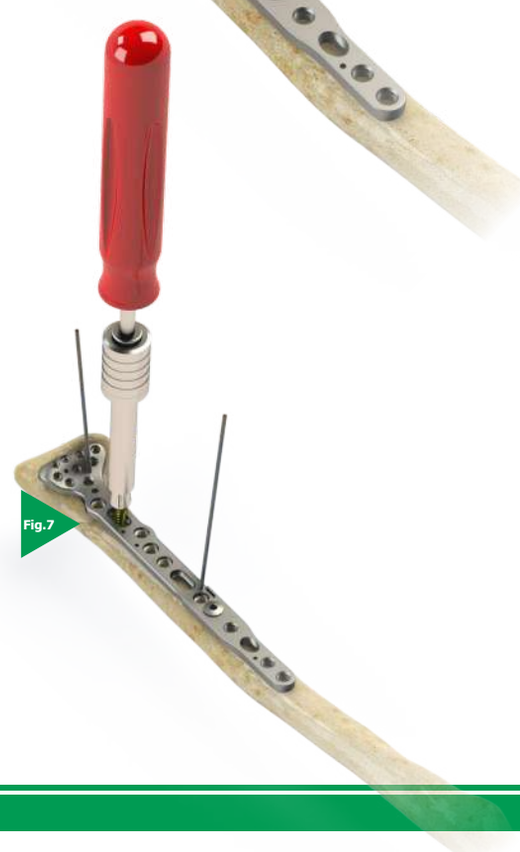


Fig.7

2.4.Locking Distal Radius Volar Extension Plate

2.4.5. Ø.2.4 Locking Screw

**Put the Ø 1.75 mm drill guide on volar part holes.
*Open the way for locking screw with using Ø 1.75 mm drill bit.
* *(Fig.8)*

Fig.8

*'For Ø2,4 mmlocking screws, you can decide to size of locking screws while drilling process.' There is black strip on the drill. In this way, you can decide screws size with usign measure which is on guide. *(Fig.8)*

Send Ø2.4mm locking screw with 1.5 screwdriver(Fig.9-10)*.

Fig.9

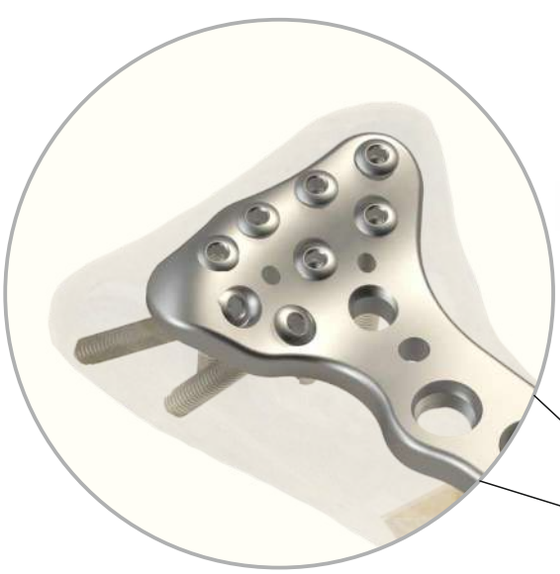


Fig.10

2.4.Locking Distal Radius Volar Extension Plate

2.4.6. Ø3.5mm Locking Screw

*Put the Ø2.6 mm drill guide on locking screw hole *(Fig.11)*.
*Open the way for locking screw with using Ø2.6 mm drill bit *(Fig.11)*.

*'For Ø3,5mm locking screws, you can decide to size of locking screws while drilling process.' There is black strip on the drill. In this way, you can decide screws size with usign measure which is on guide. *(Fig.11)*

Note : You should use non-deformed drill for perfect screws match

*'End of the screw sending , control all screw and torque all locking screw *(Fig.13)*

Remove Kirschner wires. *(Fig.13)*

Fig.11

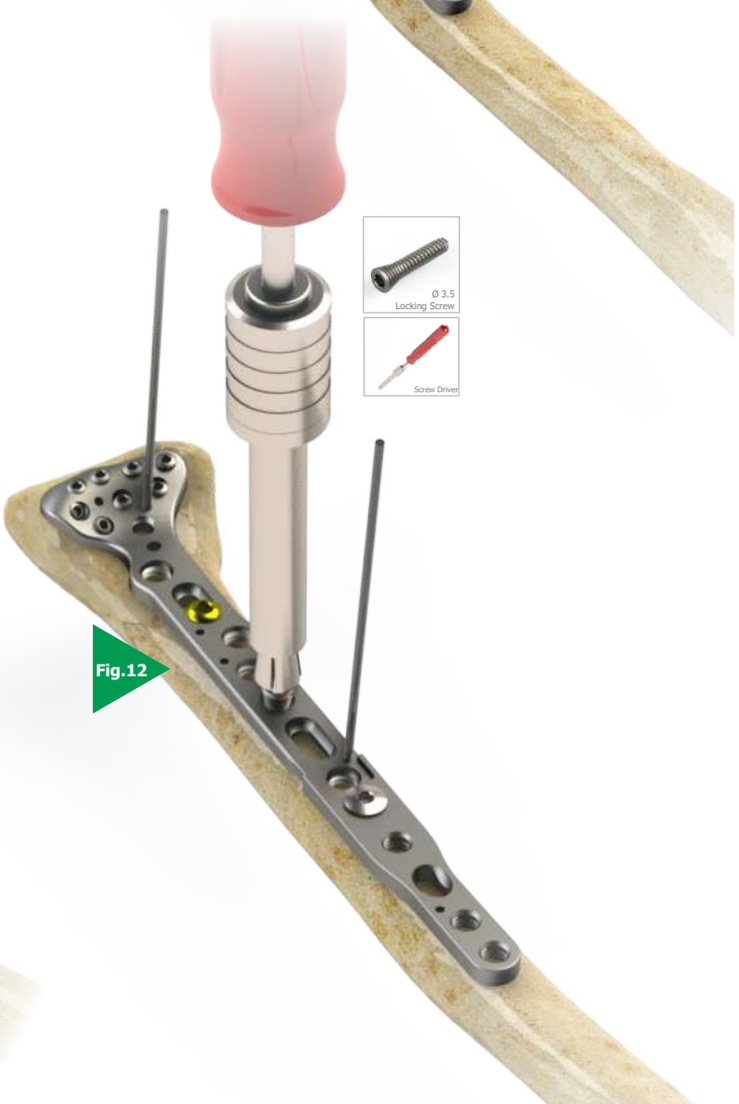
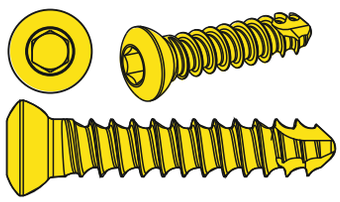


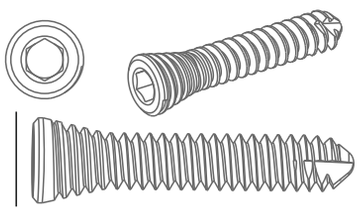
Fig.12


Fig.13



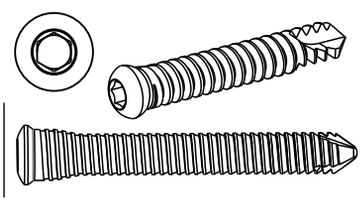
3,5 Cortical Screw

Ref.No.	Size
2012-3512	3,5 X 12 MM
2012-3514	3,5 X 14 MM
2012-3516	3,5 X 16 MM
2012-3518	3,5 X 18 MM
2012-3520	3,5 X 20 MM
2012-3522	3,5 X 22 MM
2012-3524	3,5 X 24 MM
2012-3526	3,5 X 26 MM
2012-3528	3,5 X 28 MM
2012-3530	3,5 X 30 MM
2012-3532	3,5 X 32 MM
2012-3534	3,5 X 34 MM
2012-3536	3,5 X 36 MM
2012-3538	3,5 X 38 MM
2012-3540	3,5 X 40 MM
2012-3542	3,5 X 42 MM
2012-3544	3,5 X 44 MM
2012-3546	3,5 X 46 MM
2012-3548	3,5 X 48 MM
2012-3550	3,5 X 50 MM
2012-3555	3,5 X 55 MM



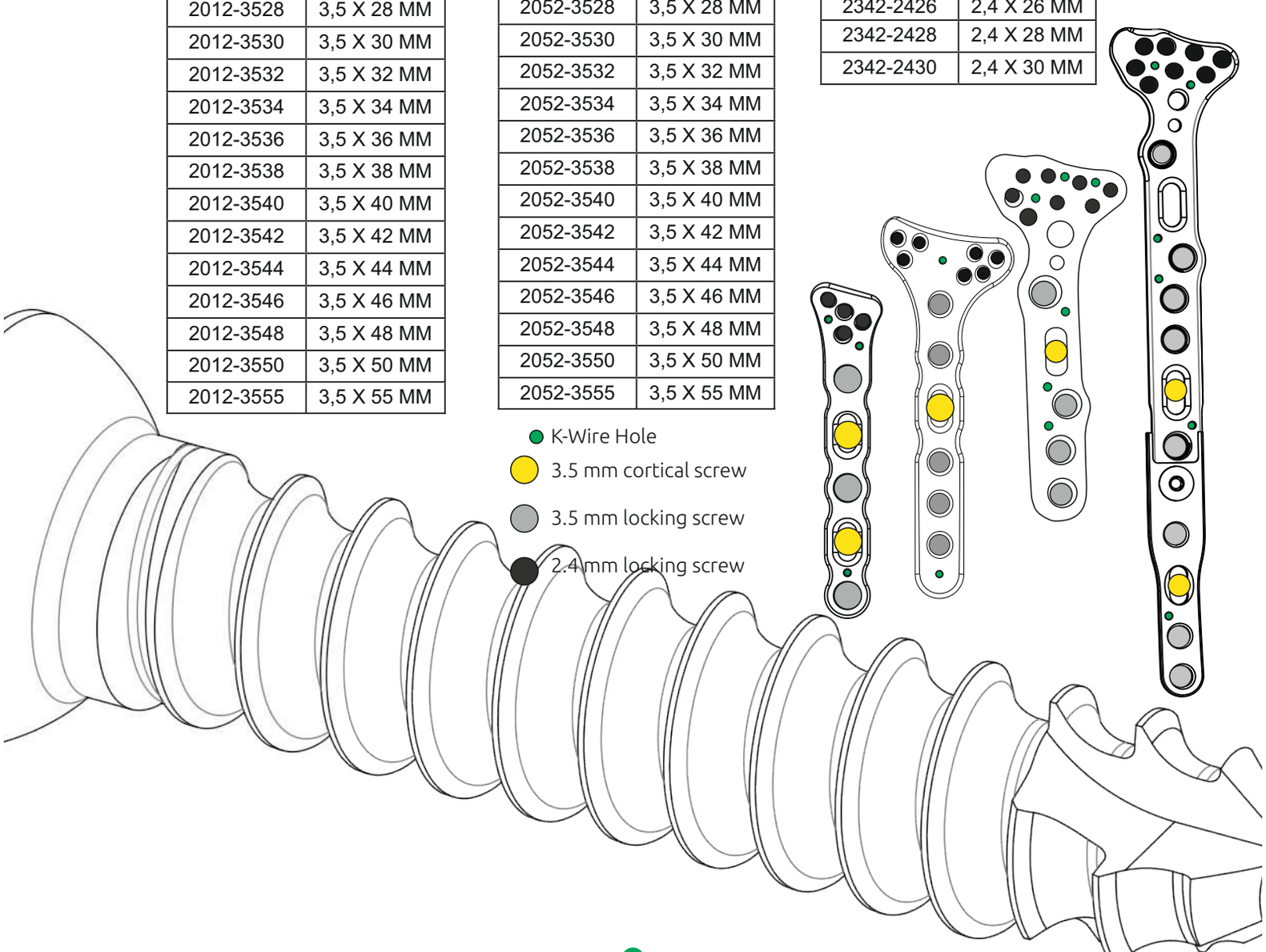
3,5Locking Screw

Ref.No.	Size
2052-3512	3,5 X 12 MM
2052-3514	3,5 X 14 MM
2052-3516	3,5 X 16 MM
2052-3518	3,5 X 18 MM
2052-3520	3,5 X 20 MM
2052-3522	3,5 X 22 MM
2052-3524	3,5 X 24 MM
2052-3526	3,5 X 26 MM
2052-3528	3,5 X 28 MM
2052-3530	3,5 X 30 MM
2052-3532	3,5 X 32 MM
2052-3534	3,5 X 34 MM
2052-3536	3,5 X 36 MM
2052-3538	3,5 X 38 MM
2052-3540	3,5 X 40 MM
2052-3542	3,5 X 42 MM
2052-3544	3,5 X 44 MM
2052-3546	3,5 X 46 MM
2052-3548	3,5 X 48 MM
2052-3550	3,5 X 50 MM
2052-3555	3,5 X 55 MM



2,4Locking Screw

Ref.No.	Size
2342-2410	2,4 X 10 MM
2342-2412	2,4 X 12 MM
2342-2414	2,4 X 14 MM
2342-2416	2,4 X 16 MM
2342-2418	2,4 X 18 MM
2342-2420	2,4 X 20 MM
2342-2422	2,4 X 22 MM
2342-2424	2,4 X 24 MM
2342-2426	2,4 X 26 MM
2342-2428	2,4 X 28 MM
2342-2430	2,4 X 30 MM



4.1 DEVICE CLEANING CONDITIONS

Do not use metal brushes or rubbing pads during Decontamination of the tools should be performed immediately after the surgical procedure is completed. Contaminated tools must not be allowed to dry before reprocessing.

Excessive blood or debris must be removed in order to prevent the drying on the surface. All users must be qualified staff with documented evidence of training and competence. Training should include the current guidelines, standards and hospital policies. Even if they are made of high-grade stainless steel, the surgical tools must be thoroughly dried in order to prevent rust formation. Prior to sterilization, all the tools should be examined for the cleanliness of the lumens of the joints of the surfaces. manual cleaning process. Use cleaning agents with low-foam surfactant to be able to see the tools in the cleaning solution. Rinse the cleaning materials easily from the tool in order to prevent residue formation.

Mineral oil or silicon lubricants should not be used on Zimed tools. Neutral pH enzymatic and cleaning materials are recommended for cleaning the reusable instruments. It is very important to neutralize and rinse the alkaline cleaning materials thoroughly from the tools. Anodized aluminum should not contact with certain cleaning or disinfectant solutions. Avoid strong alkaline cleaners and disinfectants and solutions containing iodine, chlorine or certain metal salts.

4.1.1 Manual Cleaning/Disinfection

Prepare the enzymatic and cleaning materials at the dilution rates and temperatures as recommended by the manufacturer. New solutions should be prepared when the existing solutions are heavily contaminated. Place the tools in the enzymatic solution so that they are completely immersed. Operate all the movable parts so that the detergent contacts with all the surfaces.

Keep in the fluid for minimum 20 min. Use a nylon, soft-bristled brush to gently rub the tools until all visible debris is cleaned. Pay particular attention to the accessible areas and use a suitable bottle brush. In order to remove the dirt in the open springs, coils or flexible parts, wash the recesses with plenty of cleaning solution. Rub the surface with a scrubbing brush to remove all the visible dirt from the surface and the recesses. To ensure that all the recesses are cleaned, turn the component while rubbing. Remove the tools and rinse them for minimum 3 min. under running water. Pay particular attention to the cannulas and use a syringe to pass the fluid through the hard-to-reach areas. Place all the tools that are completely immersed in water, in an ultrasonic unit containing teh cleaning solution. Operate all the movable parts so that the detergent contacts with all the surfaces. Expose the tools to sonification process for minimum 10 min..

Remove the tools and rinse with deionized water for at least 3 minutes or unless all the blood or dirt traces are eliminated in the rinsing water. Examine the tools under normal light to verify that visible dirt is removed. If visible dirt is present, repeat the above mentioned sonification procedure and the rinsing steps. Remove the excessive moisture on the tool with a clean, absorbent, lint-free cloth.

4.1.2 *Combination Manual / Automated Cleaning and Disinfection*

Prepare the enzymatic and cleaning materials at the dilution rates and temperatures as recommended by the manufacturer. New solutions should be prepared when the existing solutions are heavily contaminated. Place the tools in the enzymatic solution so that they are completely immersed. Operate all the movable parts so that the detergent contacts with all the surfaces. Keep in the fluid for minimum 10 min. Use a nylon, soft-bristled brush to gently rub the tools until all visible debris is cleaned. Pay particular attention to the accessible areas and use a suitable bottle brush. A sonicator will help to clean the instruments thoroughly. The use of a syringe or a water fountain will facilitate passing of the liquid from the low-spaced areas and difficult-to-access areas. Remove the tools from the enzyme solution and rinse them for minimum 1 min. under deionized water. Place the tools in a suitable washer / disinfector basket and perform a standard washer / disinfector cycle. Specific minimum parameters are essential for a complete cleaning and disinfection. These parameters are given in a below mentioned table.

4.1.3 *Automated Cleaning and Disinfection*

Automated washing / drying systems are not recommended as the only cleaning method for surgical tools. An automated system can be used as a follow-up operation after manual cleaning. To ensure an effective cleaning, tools must be thoroughly examined before sterilization. For detailed information on Washing and Disinfection see

Specific minimum parameters used for a complete cleaning and disinfection:

	Definition
1	Pre-washing for 2 minutes with cold tap water
2	enzyme sprey for 20 seconds with hot tap water
3	Immersion in enzyme after 1 minute
4	rinsing for 15 seconds with cold tap water (Should be repeated twice)
5	Washing with detergent for 2 minutes with hot tap water
6	rinsing for 15 seconds with hot tap water
7	Rinsing with 10 seconds with optional lubricated purified water
8	Drying for 7 minutes with hot air

Note: Follow the isntruction of the washer/disinfector manufacturer

● *Zimed Medical, as the manufacturer of this device, and their surgical consultants do not recommend this or any other surgical technique for use on a specific patient. The surgeon who performs any implant procedure is responsible for determining and utilizing the appropriate techniques for implanting the device in each individual patient. Zimed and their surgical consultants are not responsible for selection of the appropriate surgical technique to be utilized for an individual patient.*

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