

instruction

ChLP SCREWS REMOVING

INSTRUMENT SET ◦
SURGICAL TECHNIQUE ◦

36A

CE 0344
ISO 9001:2000
ISO 13485:2003

ChM[®]



Important Information

Implants and surgical instruments of system **ChLP** meets international quality standards. Implants and surgical instruments are manufactured and delivered to the user in accordance with requirements of

- ISO 9001/ISO 13485;
- Quality System;
- Council Directive 93/42/EEC.

The instruments must be washed and sterilized before the every use.

After use the instruments should be washed immediately in order to remove any organic matter (blood, tissues). Washing may be carried out in warm water using polymeric brush and appropriate solutions (containing anti-corrosion agent) approved for use in medicine. Machined washing is recommended (in ultrasonic camber).

After washing and drying the instruments shall be placed in the case and closed with its lid. Instrument set should be stored in dry condition in temperature ranging from 5 to 30 °C and humidity not exceeding 70%.

The instrument set shall sterilized (in moist heat or dry heat up to 200 °C) in accordance with duly medical procedures. Sterilization in autoclave is recommended.

The instruments constituting the instrument set (made of stainless steel, aluminum alloys and polymers) are subjected to mechanical damages and corrosion process.

It is recommended to follow:

- rules of use presented in the manual of the instrument set,
- appropriate medical rules concerning washing,
- sterilization and storage of medicall instruments.

NON-STERILE
STERILIZE BEFORE USE

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1. Introduction

Instrument set is intended for implants removing of **ChLP** plating system. For selection of adequate instruments, depended on type of removed implant, use below presented table.

Attention: drills included in set are for single use only!

Table 1. Selection of adequate instruments for removing of **ChLP** screws:

System	Ø screw	Instruments							
		screw socket		Screwdriver tip		Extractor	Drill bit	Trepine	Gripping device
		S	T	S	T				
4,0ChLP	2,4	-	8	-	40.5715.000	40.5637.100	40.5657.024	40.5639.100	40.1973.000
	2,7	-	8	-	40.5715.000	40.5637.100	40.5657.024	40.5639.100	40.1973.000
5,0ChLP	2,4	2,5	15	40.5717.000	40.5716.000	40.5637.200	40.5657.032	40.5639.100	40.1973.000
	2,7	2,5	15	40.5717.000	40.5716.000	40.5637.200	40.5657.032	40.5639.200	40.1761.000
	3,5	2,5	15	40.5717.000	40.5716.000	40.5637.200	40.5657.032	40.5639.200	40.1761.000
7,0ChLP	5	3,5	25	40.5719.000	40.5718.000	40.5637.300	40.5657.045	40.5639.300	40.1761.000
	7,3 / 2,2	5	30	40.5721.000	40.5720.000	40.5637.100	40.5657.060	-	40.1761.000

2. Instruments

Item	Catalogue No.	Name	Pcs
1	40.5657.024	Drill 2.4	1
2	40.5657.032	Drill 3.2	1
3	40.5657.045	Drill 4.5	1
4	40.5657.060	Drill 6.0	1
5	40.1973.000	Gripping device of screw 1.5-2.7mm	1
6	40.1761.000	Gripping device of screws 3.5-6.5mm	1
7	40.5637.100	Extractor for ChLP screws - T8/(S5/2.2)	1
8	40.5637.200	Extractor for ChLP screws - T15/S2.5	1
9	40.5637.300	Extractor for ChLP screws - T25/S3.5	1
10	40.5715.000	Screwdriver tip T8/100 - 1/4	1
11	40.5716.000	Screwdriver tip T15/100 - 1/4	1
12	40.5718.000	Screwdriver tip T25/100 - 1/4	1
13	40.5720.000	Screwdriver tip T30/100 - 1/4	1
14	40.5717.000	Screwdriver tip S2.5/100 - 1/4	1
15	40.5719.000	Screwdriver tip S3.5/100 - 1/4	1
16	40.5721.000	Screwdriver tip S5/100 - 1/4	1
17	40.5639.100	Trephine 2.4/2.7	1
18	40.5639.200	Trephine 3.5	1
19	40.5639.300	Trephine 5.0	1
20	40.5638.000	Quick coupling handle T-type	1
21	40.5656.000	Instruments stand for removing ChLP screws	1



40.5655.000

INSTRUMENTS



1. [40.5657.024] Drill 2.4
2. [40.5657.032] Drill 3.2
3. [40.5657.045] Drill 4.5
4. [40.5657.060] Drill 6.0



5. [40.1973.000] Gripping device of screw 1.5-2.7mm
6. [40.1761.000] Gripping device of screws 3.5-6.5mm



7. [40.5637.100] Extractor for **ChLP** screws - T8/(S5/2.2)
8. [40.5637.200] Extractor for **ChLP** screws - T15/S2.5
9. [40.5637.300] Extractor for **ChLP** screws - T25/S3.5



10. [40.5715.000] Screwdriver tip T8/100 - 1/4
11. [40.5716.000] Screwdriver tip T15/100 - 1/4
12. [40.5718.000] Screwdriver tip T25/100 - 1/4
13. [40.5720.000] Screwdriver tip T30/100 - 1/4



14. [40.5717.000] Screwdriver tip S2.5/100 - 1/4
15. [40.5719.000] Screwdriver tip S3.5/100 - 1/4
16. [40.5721.000] Screwdriver tip S5/100 - 1/4



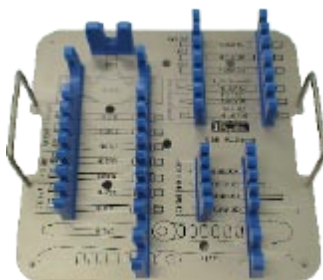
17. [40.5639.100] Trephine 2.4/2.7
18. [40.5639.200] Trephine 3.5
19. [40.5639.300] Trephine 5.0



20. [40.5638.000] Quick coupling handle T-type



+



21. [40.5656.000] Instruments stand for removing **ChLP** screws

Instruments stand for removing **ChLP** screws

Item	Catalogue No.	Name	Pcs
1	40.4775.000	Cassette for palett low	1
2	40.5656.100	Insert for instruments stand for removing ChLP screws	1

3. Unlocking of *ChLP* screws

Select a proper screwdriver tip (column 1 of table 1) for adequate screw socket. **[Fig.1]**



Fig. 1.

Assembly the screwdriver tip with quick coupling T handle **[40.5638.000]** or drive. **[Fig.2]**



Fig. 2.

Unlock all the locking *ChLP* screws from the plate. It will eliminate the risk of the plate rotation while the last locking screw unlocking. **[Fig.3]**

Unscrew loosen *ChLP* screws and remove the plate from the bone.

In case of socket damaging go to point 4.
In case of successful go to point 8.

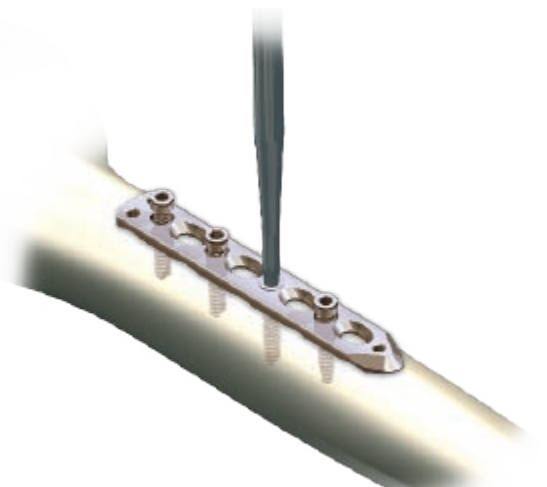


Fig. 3.

4. Extractor usage

Select a proper extractor of **ChLP** screws (column 2 of the table 1) for adequate socket [Fig.4]. Assembly the extractor with quick coupling T handle [40.5638.000] or drive [Fig.5].

Attention: It is recommended to cover the surrounding soft tissues.



Fig. 4.



Fig. 5.

Place the tip of the extractor in screw socket. Turning counter clockwise (left-handed turns), with axial load, unscrew the screw. Remove all implants. [Fig.6]

In case of unsuccessful screw extraction go to point 5.
In case of successful go to point 8

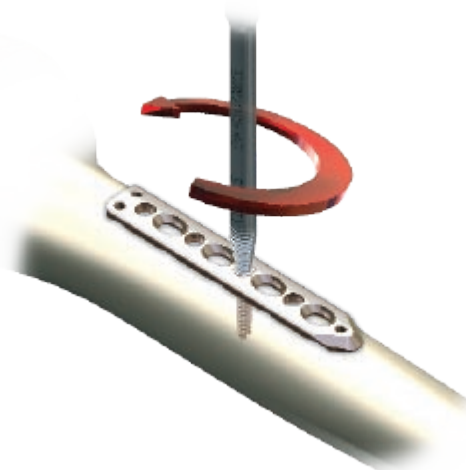


Fig. 6.

5. Drilling

Select a proper drill diameter (column 3 of the table 1). [Fig.7]



Fig. 7.

Mount the drill bit in drive and start the drilling process [Fig.8].

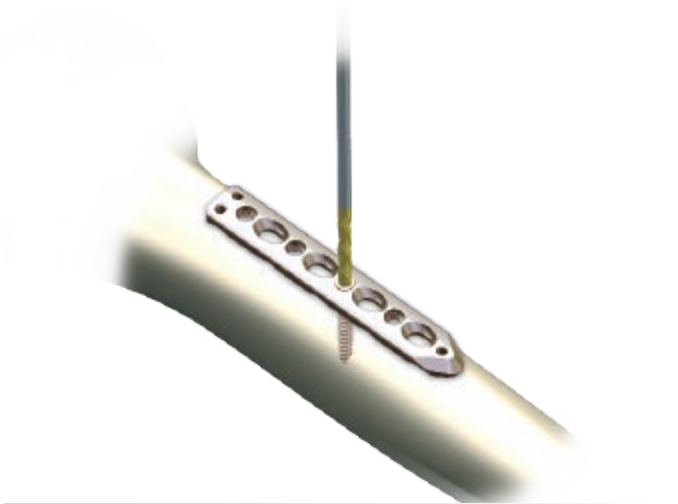


Fig. 8.

Drill off the screw head: [Fig.9]

Attention: It is possible to partially pre-drill of the screw head and reuse the extractor (see pnt 3).

Important: Use the irrigation and suction system while drilling to remove the material remain. Remember about covering of the drilling area with the gauze.



Fig. 9.

6. Trepine usage

If the screw is protrudes from the bone **[Fig.10]**, do not use trephines, go to the point 7.

If the screw does not protrude from the bone **[Fig.11]**, use the trephine to ream the cortical bone.

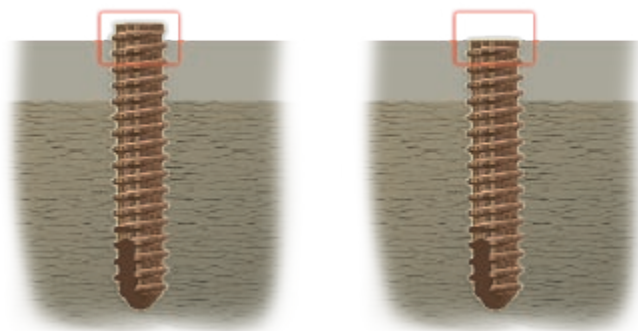


Fig. 10.

Fig. 11.



Fig. 12.

Select a proper trephine **[Fig.12]** adequate to screw diameter (column 4 of the table 1). Assembly the trephine with T handle **[40.5638.000]** or drive.



Fig. 13.

Turning counter clockwise (left-handed turns) ream the cortical bone to the desirable depth (about 5mm) **[Fig.14]**.



Fig. 14.

*The above description is not detailed instruction of conduct.
The surgeon decides about choosing the operating procedure.*

7. Gripping device usage

Choose the proper gripping device to cortical diameter of the screw (column 5 of the table 1) [Fig.15].



Fig. 15.

Remove the screw shaft from the bone [Fig.16].

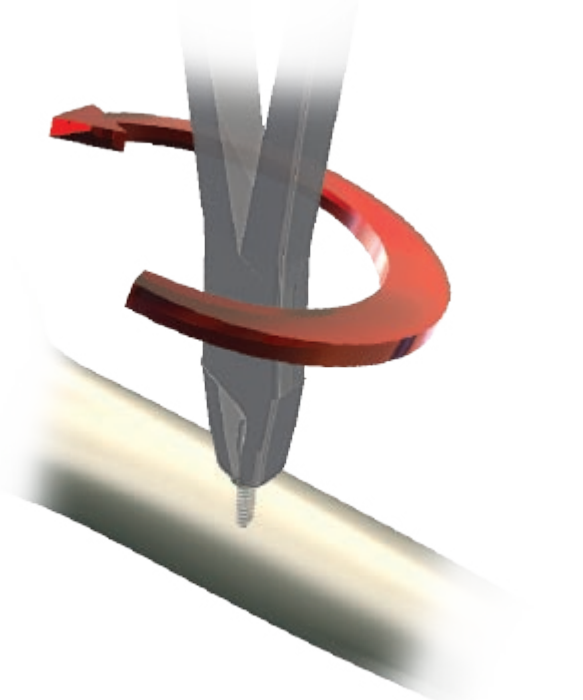


Fig. 16.

8. Wound closure

Before the wound closure clean the procedure area. To confirm removing of the all implants or other undesired materials from the body, perform a final X-ray examination.

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