

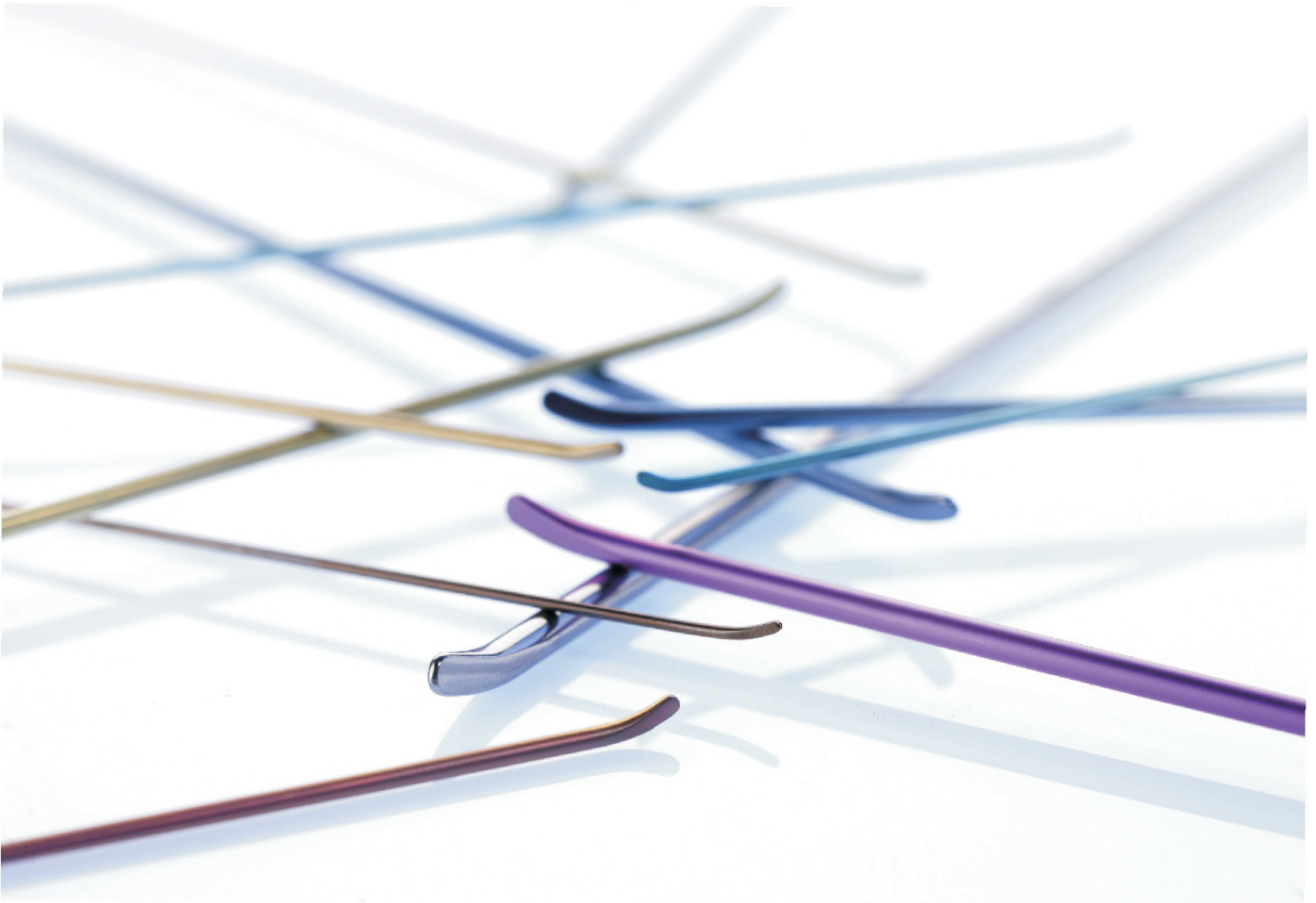
# Intra-Nail

10/2016

INTRAMED-Schienen

Pin for Elastic stable intramedullaryNailing (ESIN)

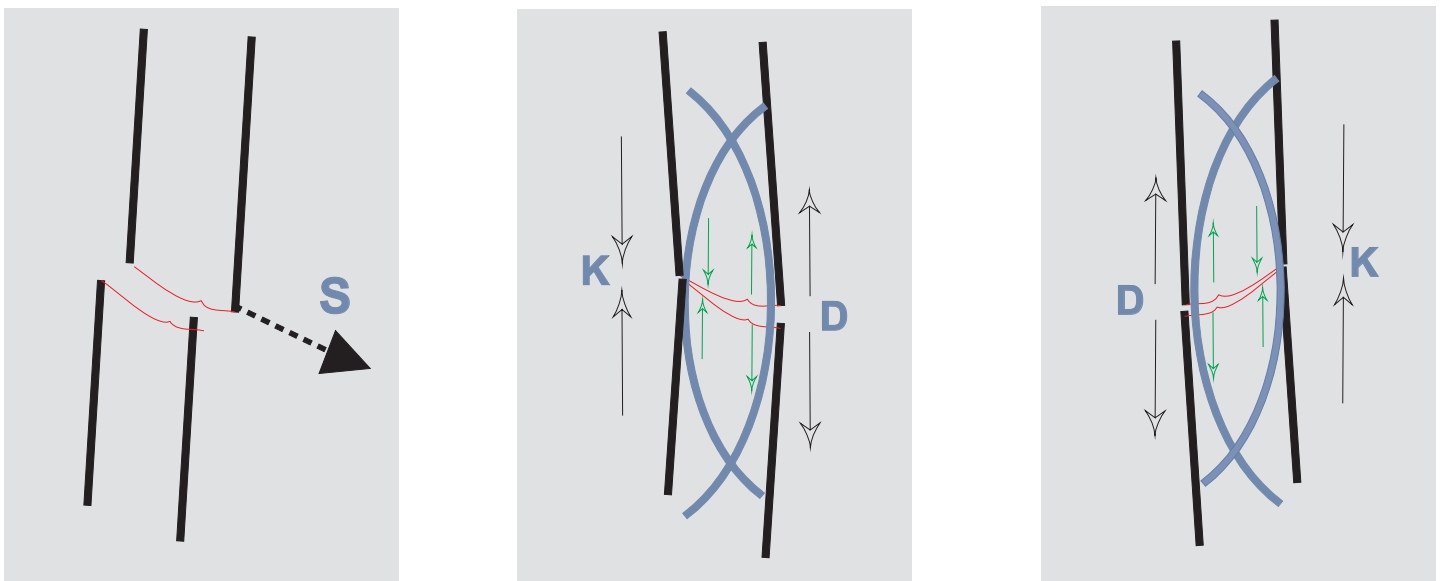
modified acc. Dietz / Schmittenebecher



Bäramed

# Biomechanics

The principle of the intramedullary Nailing is based on an apparent contradiction. The Nailing of the medullary cavity with elastic nails is on the one hand flexible, on the other hand sufficient stability for an early mobilisation. The negatively influencing thrust and shearing energy is transformed into compressive and traction stress. Through early exercises the new formation of the bone is stimulated.



## General Information

Intramed Nails are made of Implant steel and titanium.

The implants are available in different diameters and lengths.

The atraumatic tip is formed as a skip, which guarantees a better gliding inside the corticalis. For the anchorage in the spongiosa bone the nail is sideways flat. The end of the nail is flat, therefore you can see in which direction the tip shows. After cutting the implant it could be necessary to put a protection cap on the end to prevent a irritation of the soft parts.

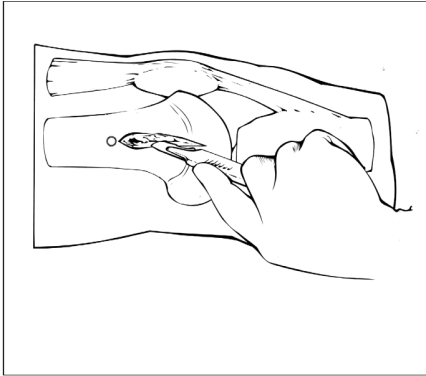
Do not countersink the nail into the bone

Do not bend or nick the Intra Nail

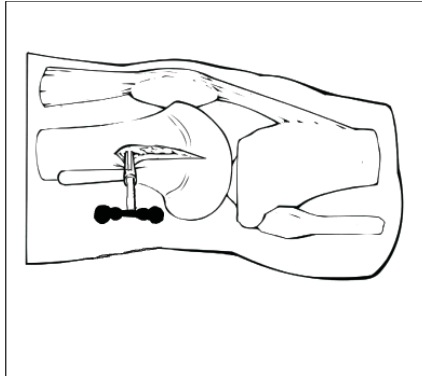
Intra Nails are for Single Use only!

After the cure of the fracture the Intra Nails must be removed.

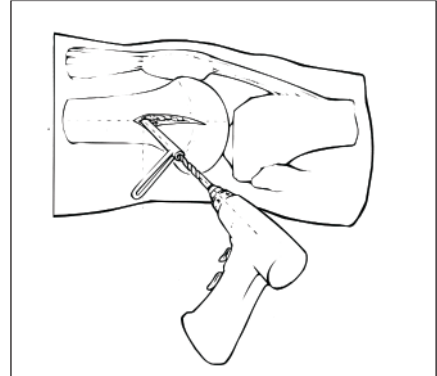
# short description



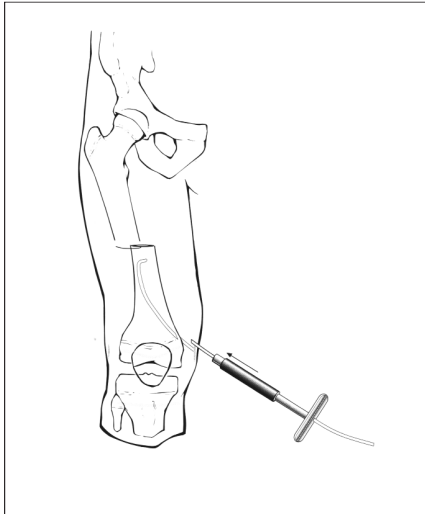
1. The incision resulting from the desired osseous entry point to epiphyseal.



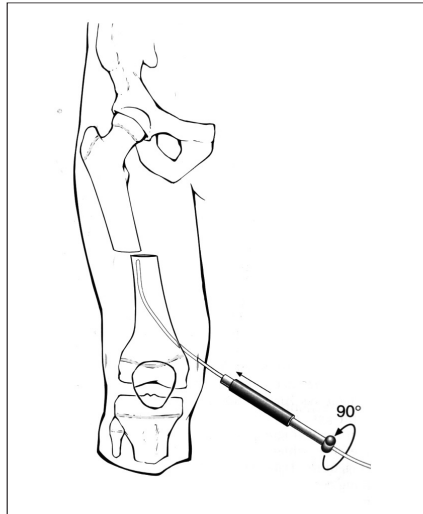
2 The bone is opened with the awl or a drill..



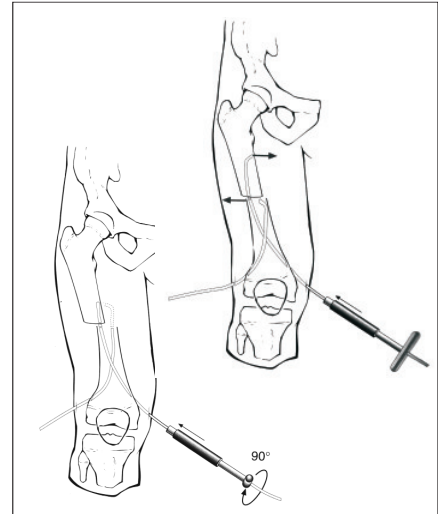
3 Then we lower the instrument to enter oblique into the bone.



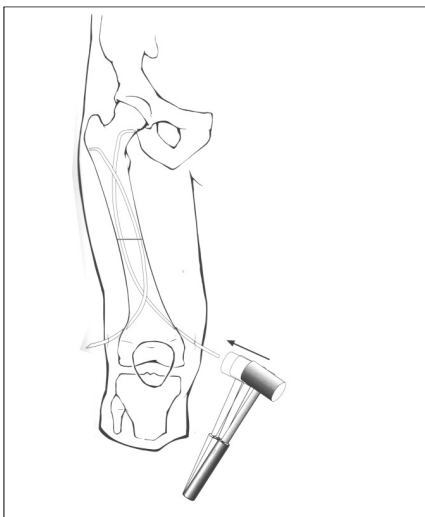
4 The T-handle with chuck is used to fix the implant.



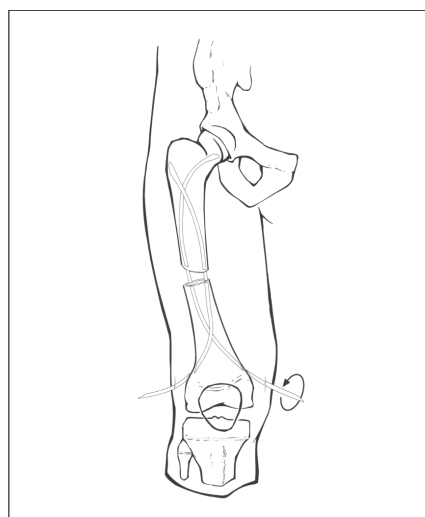
5 If there is a limited fragment contact at the Fracture, the tip of thenail, by rotating maneuvers can be aligned accordingly.



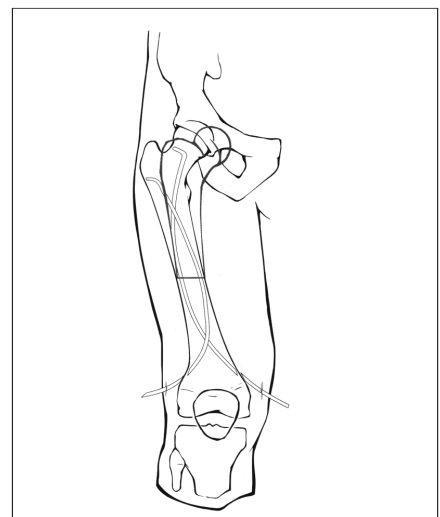
6 To introduce the second nail easier , the first nail can be used to get the fragment into correct position.



7 anchorage of the implants in the solid metaphyseal cancellous bone of the counter fragment by a few hammer strokes.



8 If there remains a slight angular differencey, it may be reduced by small rotational maneuvers of a nail to be corrected.



**Diameter of the nail = diameter of the cavity divided by 3**

# instruments

## instruments for opening the cavity



Awl 3 mm  
Art. Nr: SO-100-003



Awl 4 mm  
Art. Nr: SO-100-004



Awl with slotted sleeve,  
small Ø 1,5-3,0 mm  
Art.-Nr.: SO-100-024



Awl with slotted sleeve,  
large, Ø 3,5-5,0 mm  
Art.-Nr.: SO-100-025

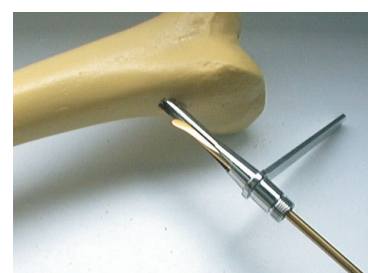
## technique



Opening of medullary canal  
with trocar and sleeve.



Removal of the trocar  
Sleeve is held in position

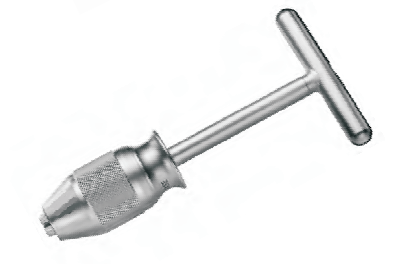


Introduction of nail  
through slotted sleeve

## instruments for implantation



T-Handle with J-chuck  
and key  
Art. Nr.: SO-100-009



T-Handle , self fixing  
Art. Nr.: SO-100-105



Hammer, with bore 400 gr,  
Art. Nr.: SO-100-007



Hammer 350 g  
Art. Nr.: SO-410-399



Intramed-Impactor complete  
Art.-Nr.: SO-100-030

technical changes are subject to change without notification

# instruments

## instruments for implantation



Slide with bore  
up to  $\varnothing$  2,5 mm  
Art. Nr.: SO-100-015

Slide with bore  
from  $\varnothing$  3,0 mm  
Art. Nr.: SO-100-016

Slide with bore  
oblique, up to  $\varnothing$  2,5 mm  
Art. Nr.: SO-100-017

Slide with bore  
oblique, from  $\varnothing$  3,0 mm  
Art. Nr.: SO-100-018



## medium cutting instruments



front cutter up to  $\varnothing$  3,0 mm  
length 26 cm  
Art.-Nr.: SO-100-020



Side cutter TC,  
angled, 22 cm  
Art. Nr.: SO-545-022

technical changes are subject to change without notification



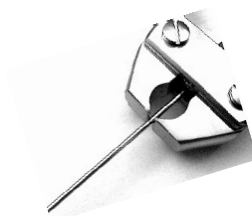
## cutting instruments, heavy



Bolt cutter, 57 cm  
with detachable handles  
up to Ø 6,3 mm  
Art. Nr.: SO-100-006



Bolt cutter, 48 cm  
mit festen Griffen  
up to Ø 5,0 mm  
Art. Nr.: SO-100-022

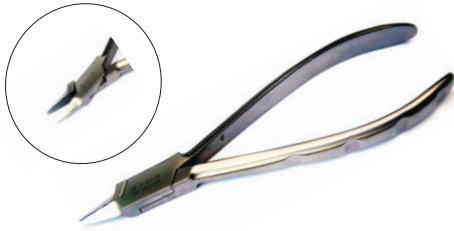


Front cutter, 38 cm  
up to Ø 4,7 mm  
Art. Nr.: SO-100-021

technical changes are subject to change without notification

# instruments

## instruments for extraction



Frcps with groove  
length 160 mm  
Art. Nr.: SO-100-008



Extracting Frcps  
w. ratchet ,length 180 mm  
Art. Nr.: SO-100-011



Extracting Frcps  
without ratchet ,length 180 mm  
Art. Nr.: H-399000



Extraction Frcps heavy  
length 230 mm  
Art. Nr.: SO-100-012

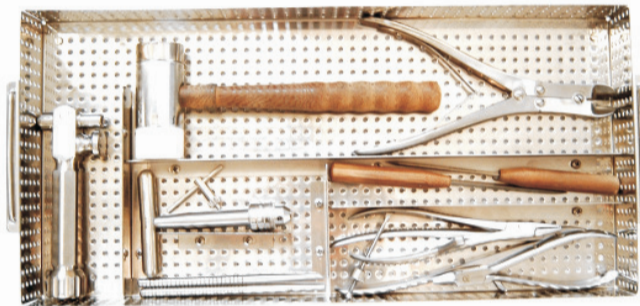


Extracting Frcps fine  
without ratchet,length 180 mm  
Art. Nr.: SO-100-013

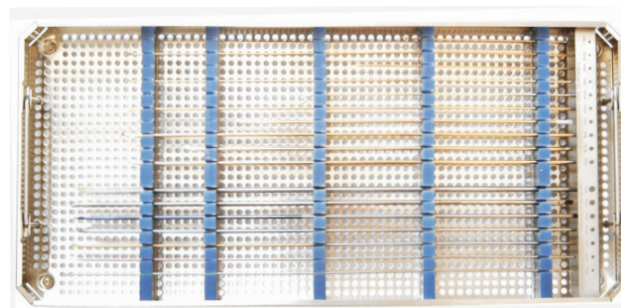
technical changes are subject to change without notification



# storage and sterilisation



Tray (without instruments)  
Art.-Nr.: SO-100-000



Tray with fixation  
device for nails  
Art.-Nr.: SO-100-001  
(without nails)



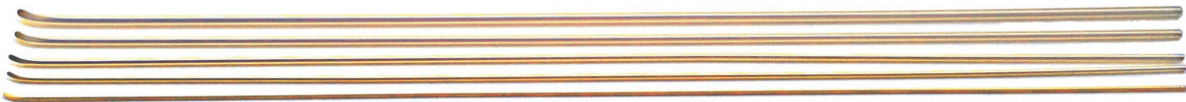
Sterilisiercontainer, Aluminium  
580 x 280 x 100 mm  
Art. Nr.: Y-110-100

technical changes are subject to change without notification

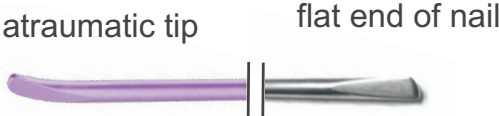
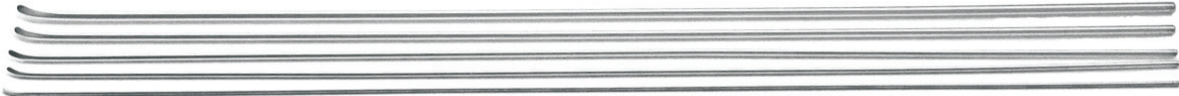
Intra-Nail, TITAN (with color coding diameter length 450 mm)



Intra-Nail, steel (with TiN Coating)



Intra-Nail, Implant steel



Intra-Nail, Implant steel for supracondylary Fractures



technical changes are subject to change without notification

## Titan- Nail Intra-Nail, colour coded (anodized)

Ø	Farbe	Länge	Art-Nr.
1,5 mm	braun	450 mm	AS-450-115
2,0 mm	grün	450 mm	AS-450-120
2,5 mm	rot	450 mm	AS-450-125
3,0 mm	gelb	450 mm	AS-450-130
3,5 mm	blau	450 mm	AS-450-135
4,0 mm	violett	450 mm	AS-450-140
4,5 mm	grau	450 mm	AS-450-145
5,0 mm	silber	450 mm	AS-450-150

## Steel Nail Intra-Nail with TiN coating.

Ø	Farbe	Länge	Art-Nr.
1,5 mm	Gold	150 mm	AS-150-015
1,5 mm	gold	400 mm	AS-400-015
2,0 mm	gold	200 mm	AS-200-020
2,0 mm	gold	400 mm	AS-400-020
2,5 mm	gold	250 mm	AS-250-025
2,5 mm	gold	400 mm	AS-400-025
3,0 mm	gold	300 mm	AS-300-030
3,0 mm	gold	400 mm	AS-400-030
3,5 mm	gold	350 mm	AS-350-035
3,5 mm	gold	400 mm	AS-400-035

## Steel Nail Intra-Nail no coating

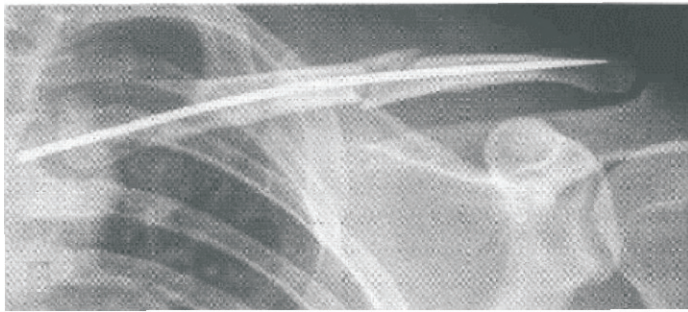
Ø	Farbe	Länge	Art-Nr.
1,5 mm	silber	150 mm	US-150-015
1,5 mm	silber	400 mm	US-400-015
2,0 mm	silber	200 mm	US-200-020
2,0 mm	silber	400 mm	US-400-020
2,5 mm	silber	250 mm	US-250-025
2,5 mm	silber	400 mm	US-400-025
3,0 mm	silber	300 mm	US-300-030
3,0 mm	silber	400 mm	US-400-030
3,5 mm	silber	350 mm	US-350-035
3,5 mm	silber	400 mm	US-400-035

## Supracondylar Nail Implant steel without coating

Ø	Farbe	Länge	Art-Nr.
1,5 mm	silber	400 mm	UK-400-015
2,0 mm	silber	400 mm	UK-400-020
2,5 mm	silber	400 mm	UK-400-025

technical changes are subject to change without notification

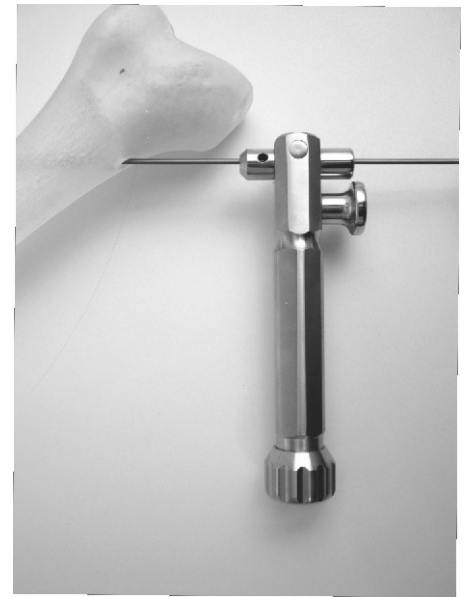
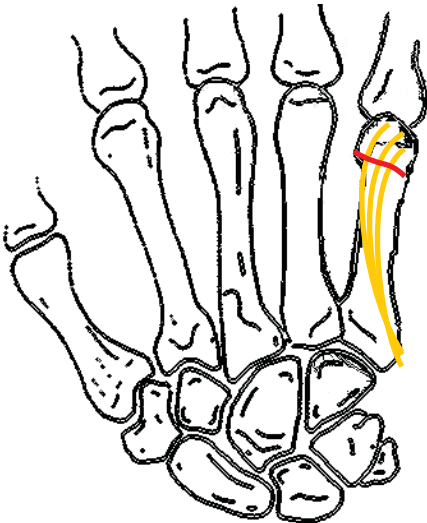
# intra nail family



Clavicula Pin



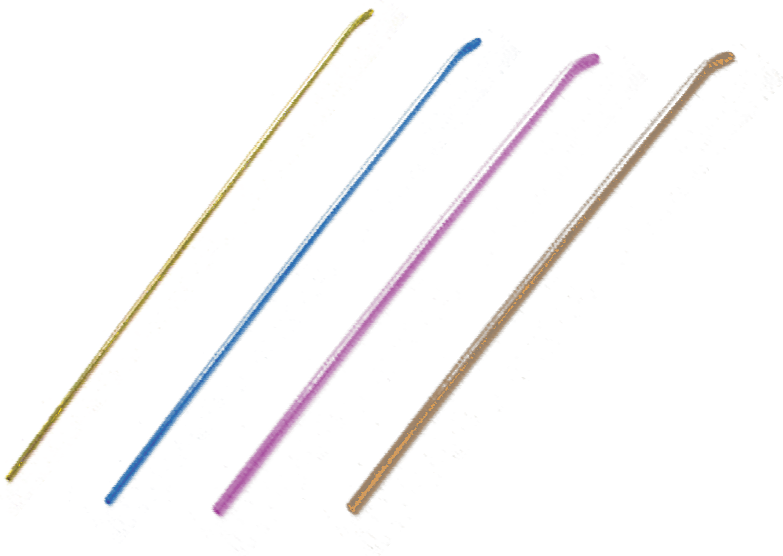
## Mini Intra nail for hand surgery



Intramed-Impactor for Implantation

### Literatur:

Dietz / Schmittbecher / Illing  
INTRAMEDULLÄRE SCHIENUNG IM WACHSTUMSALTER  
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