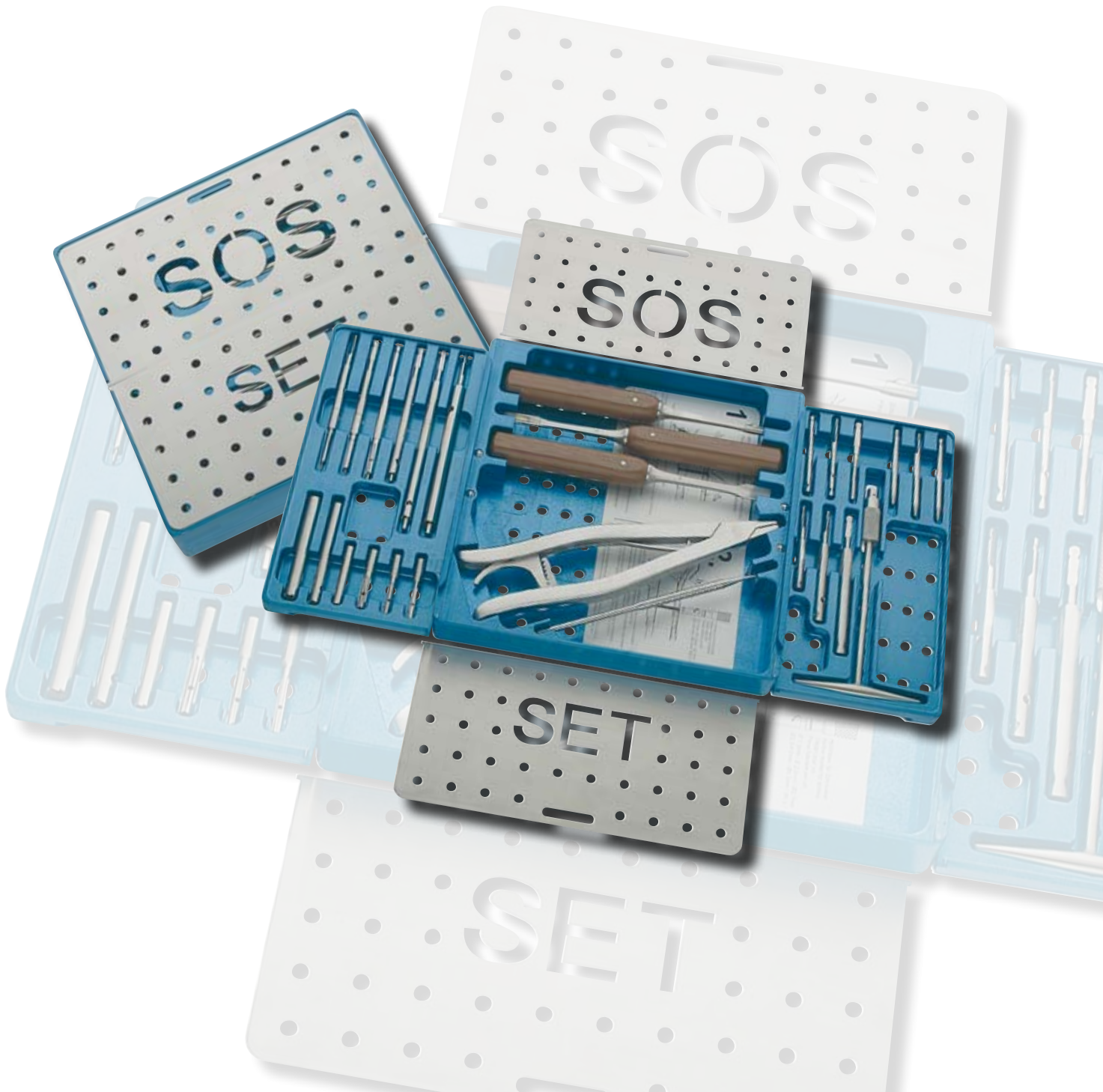




**Medizintechnik Sattler GmbH**  
Innovationen für die Chirurgie

**EMERGENCY INSTRUMENTS TO REMOVE  
DAMAGED AND BROKEN BONE SCREWS**



# EMERGENCY INSTRUMENTS TO REMOVE DAMAGED AND BROKEN BONE SCREWS (UP FROM DIAMETER 1.5 MM TO 7.0 MM SCREWS)



SCREW-EXTRACTION-SET
<b>54-09-25-000</b>
complete



<b>54-09-25-0000-31</b>
TRAY(Empty)



RECOMMENDED FOR STERILIZATION CONTAINER FOR
<b>54-09-25-000</b>
complete

CONTAINER BOTTOM
<b>305-100</b>
285 x 280 x 100 mm

CONTAINER LID
<b>300-010</b>
285 x 280 mm

## SET - LISTING FOR SET: 54-09-25-000 SCREW EXTRACTION-SET COMPLETE

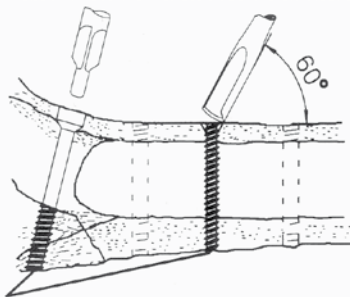


SET - LISTING FOR SET: 54-09-25-000 SCREW- EXTRACTION - SET COMPLETE		
REF. - NO.:	PRODUCT - DESCRIPTION:	
54-09-25-0000-31	AL-Tray for Screw-Extraction 54-09-25-000	-1-Pcs.
52-09-15-1603	Conical Extraction Screw for 1.5 / 2.0 mm Screws	-1-Pcs.
52-09-27-1603	Conical Extraction Screw for 2.7 / 3.5 / 4.0 mm Screws	-1-Pcs.
52-09-45-1603	Conical Extraction Screw for 4.5 / 5.0 / 6.5 / 7.0 mm Screws	-1-Pcs.
52-09-15-1601	Extraction Bolt for 1.5 mm Screws	-1-Pcs.
52-09-20-1601	Extraction Bolt for 2.0 mm Screws	-1-Pcs.
52-09-27-1601	Extraction Bolt for 2.7 mm Screws	-1-Pcs.
52-09-35-1601	Extraction Bolt for 3.5 / 4.0 mm Screws	-1-Pcs.
52-09-45-1601	Extraction Bolt for 4.5 mm Screws	-1-Pcs.
52-09-65-1601	Extraction Bolt for 5.0 / 6.5 / 7.0 mm Screws	-1-Pcs.
52-09-15-1602	Hollow Reamer for 1.5 mm Screws	-1-Pcs.
52-09-20-1602	Hollow Reamer for 2.0 mm Screws	-1-Pcs.
52-09-27-1602	Hollow Reamer for 2.7 mm Screws	-1-Pcs.
52-09-35-1602	Hollow Reamer for 3.5 / 4.0 mm Screws	-1-Pcs.
52-09-45-1602	Hollow Reamer for 4.5 mm Screws	-1-Pcs.
52-09-65-1602	Hollow Reamer for 5.0 / 6.5 / 7.0 mm Screws	-1-Pcs.
52-09-15-1602-03	Spare Reamer (Reamer Tube) for Hollow Reamer 1.5 mm (used for 1.5 mm Screws)	-1-Pcs.
52-09-20-1602-03	Spare Reamer (Reamer Tube) for Hollow Reamer 2.0 mm (used for 2.0 mm Screws)	-1-Pcs.
52-09-27-1602-03	Spare Reamer (Reamer Tube) for Hollow Reamer 2.7 mm (used for 2.7 mm Screws)	-1-Pcs.
52-09-35-1602-03	Spare Reamer (Reamer Tube) for Hollow Reamer 3.5 / 4.0 mm (used for 3.5 / 4.0 mm Screws)	-1-Pcs.
52-09-45-1602-03	Spare Reamer (Reamer Tube) for Hollow Reamer 4.5 mm (used for 4.5 mm Screws)	-1-Pcs.
52-09-65-1602-03	Spare Reamer (Reamer Tube) for Hollow Reamer 5.0 / 6.5 / 7.0 mm (used for 5.0 / 6.5 / 7.0 mm Screws)	-1-Pcs.
30-46-16-1800	Sharp Hook, Length 155 mm	-1-Pcs.
21-03-00-1600	Mini Lexer Gouge, 4 mm	-1-Pcs.
21-03-00-1601	Mini Lexer Gouge, 6 mm	-1-Pcs.
21-03-00-1603	Mini Lexer Gouge, 10 mm	-1-Pcs.
30-01-21-1603	Screw Holding Forceps 20.5 cm / 8"	-1-Pcs.
30-06-16-1600	T-Handle, Large with AO-Quickcoupling Lenght 160 mm	-1-Pcs.
54-09-25-000-01	Template for use Broken Screw-Extraction Instruments (Guide Manual for Use)	-1-Pcs.
89244-25	TC-Drill Bit ø 2.5 mm (used for drill off screw heads)	-2-Pcs.
89244-35	TC-Drill Bit ø 3.5 mm (used for drill off screw heads)	-2-Pcs.
89244-50	TC-Drill Bit ø 5.0 mm (used for drill off screw heads)	-2-Pcs.

# 54-09-25-000-01 TEMPLATE FOR USE BROKEN SCREW - EXTRACTION INSTRUMENTS (GUIDE MANUAL FOR USE IN SURGICAL THEATRE)

## 1.

Bitte Gebrauchsanweisung vor dem Sterilisieren aus der Box entfernen.  
Please remove the instruction before sterilisation.



Abgebrochene Schrauben / Broken Screw / Vis Cassées / Viti Spezzate

Freilegung des Schraubenkanals und der abgebrochenen Schraube als Zentrierung für den Hohlfräser, mit Kopfraumfräser oder Spezialmeißel.

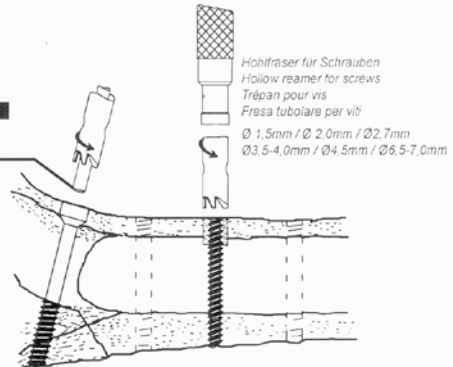
Exposure of the screw hole and the broken screw, which serves to centre the hollow reamer, using a countersink or special osteotome.

Préparation de l'orifice et de la vis cassée pour centrer le trépan au moyen de la fraise à chambre ou du ciseau gouge spécial.

Messa a nudo del canale della vite e della vite spezzata tramite la fresa per sede conica oppure opposto scalpello.

## 2.

Zentrierboizen  
Centering tip  
Guide de centrage  
Perno di centraggio



Hohlfräser für Schrauben  
Hollow reamer for screws  
Trépan pour vis  
Fresa tubolare per viti  
Ø 1,5mm / Ø 2,0mm / Ø 2,7mm  
Ø 3,5-4,0mm / Ø 4,5mm / Ø 5,5-7,0mm

Mit Hohlfräser Zugang für den Extraktionsboizen ausfräsen, Schraubenrichtungen beachten. Bei Hohlfräser Zentrierboizen entfernen wenn der Schraubenstumpf erreicht ist.

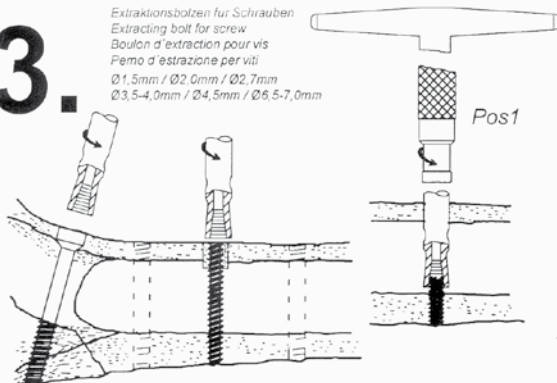
The orientation of the screw is noted. The hole for the extraction bolt is cut using the hollow reamer. The centering tip is removed as soon as it contacts the screw fragment.

Préparer l'approche pour le boulon d'extraction à l'aide du trépan en observant la direction de la direction de la vis. Enlever le guide de centrage au moment où il entre en contact la vis cassée.

Aprire la via per il perno d'estrazione con la fresa tubolare osservando la direzione della vite. Estrarre il perno di centraggio dalla fresa tubolare appena si raggiunge il resto della vite.

## 3.

Extraktionsboizen für Schrauben  
Extracting bolt for screw  
Boulon d'extraction pour vis  
Perno d'estrazione per viti  
Ø 1,5mm / Ø 2,0mm / Ø 2,7mm  
Ø 3,5-4,0mm / Ø 4,5mm / Ø 5,5-7,0mm



Mit Linksdrehung den Extraktionsboizen kräftig auf den Schraubenstumpf drücken und herausdrehen.

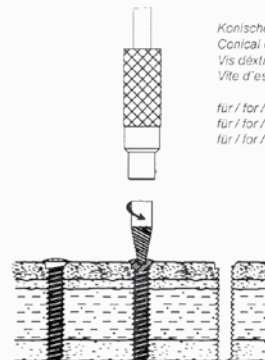
The extraction bolt is strongly pressed onto the screw fragment and rotated anticlockwise, thus allowing the fragment to be screwed out.

Extraction de la vis en enfonceant avec force le boulon sur la vis cassée puis en le tournant de droite à gauche.

Premere forte il perno d'estrazione sulla vite spezzata ed estrarla ed estrarla girando a sinistra.

Konische Extraktions Schraube für  
Conical extraction screw  
Vis d'extraction conique  
Vite d'estrazione conica

für / for / pour / per Ø 1,5/2,0mm  
für / for / pour / per Ø 2,7/3,5/4,0mm  
für / for / pour / per Ø 4,5/5,5/7,0mm#



Bei beschädigtem Innensechskant passende konische Extraktionsschraube mit Griffstück Pos1 unter Druck und Linksdrehung möglichst senkrecht eindrehen und Schraube entfernen.

If the hexagonal socket is damaged, insert the fitting conical extraction screw with handle Pos1 as vertically as possible under pressure and left-hand rotation and remove the screw.

En cas d'une empreinte hexagonale intérieure endommagée, visser la vis d'extraction juste avec poignée Pos1 sous pression et rotation inversée aussi verticalement que possible et enlever la vis.

In caso che l'esagono incassato è danneggiato, avvitare la vite conica per estrazione adatta con l'impugnatura Pos1 sotto pressione e torsione sinistrorsa il più verticalmente possibile e rimuovere la vite.



## SELECTED INSTRUMENTS

### Conical Extraction Screws



<b>52-09-15-1603</b>	Conical Extraction Screw for 1.5 / 2.0 mm Screws
<b>52-09-27-1603</b>	Conical Extraction Screw for 2.7 / 3.5 / 4.0 mm Screws
<b>52-09-45-1603</b>	Conical Extraction Screw for 4.5 / 5.0 / 6.5 / 7.0 mm Screws

### Hollow Reamers complete



<b>52-09-15-1602</b>	Hollow Reamer for 1.5 mm Screws
<b>52-09-20-1602</b>	Hollow Reamer for 2.0 mm Screws
<b>52-09-27-1602</b>	Hollow Reamer for 2.7 mm Screws
<b>52-09-35-1602</b>	Hollow Reamer for 3.5 / 4.0 mm Screws
<b>52-09-45-1602</b>	Hollow Reamer for 4.5 mm Screws
<b>52-09-65-1602</b>	Hollow Reamer for 5.0 / 6.5 / 7.0 mm Screws

### Extraction Bolts



<b>52-09-15-1601</b>	Extraction Bolt for 1.5 mm Screws
<b>52-09-20-1601</b>	Extraction Bolt for 2.0 mm Screws
<b>52-09-27-1601</b>	Extraction Bolt for 2.7 mm Screws



<b>52-09-35-1601</b>	Extraction Bolt for 3.5 / 4.0 mm Screws
<b>52-09-45-1601</b>	Extraction Bolt for 4.5 mm Screws
<b>52-09-65-1601</b>	Extraction Bolt for 5.0 / 6.5 / 7.0 mm Screws

## SELECTED INSTRUMENTS

### Hollow Reamers Tube



<b>52-09-15-1602-03</b>	Speare Reamer (Reamer Tube) for Hollow Reamer 1.5 mm (used for 1.5 mm Screws)
<b>52-09-20-1602-03</b>	Speare Reamer (Reamer Tube) for Hollow Reamer 2.0 mm (used for 2.0 mm Screws)
<b>52-09-27-1602-03</b>	Speare Reamer (Reamer Tube) for Hollow Reamer 2.7 mm (used for 2.7 mm Screws)
<b>52-09-35-1602-03</b>	Speare Reamer (Reamer Tube) for Hollow Reamer 3.5 / 4.0 mm (used for 3.5 / 4.0 mm Screws)
<b>52-09-45-1602-03</b>	Speare Reamer (Reamer Tube) for Hollow Reamer 4.5 mm (used for 4.5 mm Screws)
<b>52-09-65-1602-03</b>	Speare Reamer (Reamer Tube) for Hollow Reamer 5.0 / 6.5 / 7.0 mm (used for 5.0 / 6.5 / 7.0 mm Screws)

### Hollow Reamers Central Bolt



<b>52-09-15-1602-02</b>	Central Bolt used with Hollow Reamer for 1.5 mm
<b>52-09-20-1602-02</b>	Central Bolt used with Hollow Reamer for 2.0 mm
<b>52-09-27-1602-02</b>	Central Bolt used with Hollow Reamer for 2.7 mm
<b>52-09-35-1602-02</b>	Central Bolt used with Hollow Reamer for 3.5 / 4.0 mm
<b>52-09-45-1602-02</b>	Central Bolt used with Hollow Reamer for 4.5 mm
<b>52-09-65-1602-02</b>	Central Bolt used with Hollow Reamer for 5.0 / 6.5 / 7.0 mm

### TC-Drill Bit



<b>89244-25</b>	TC-Drill Bit $\varnothing$ 2.5 mm (used for drill off screw heads)
<b>89244-35</b>	TC-Drill Bit $\varnothing$ 3.5 mm (used for drill off screw heads)
<b>89244-50</b>	TC-Drill Bit $\varnothing$ 5.0 mm (used for drill off screw heads)

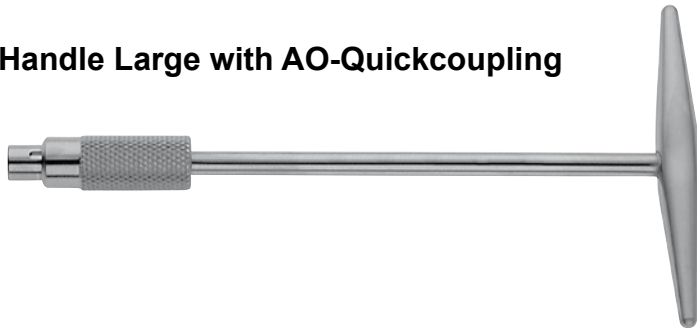
### Sharp Hook



<b>30-46-16-1800</b>
Length 155 mm

## SELECTED INSTRUMENTS

**T-Handle Large with AO-Quickcoupling**



**30-06-16-1600**

Length 160 mm

**Screw Holding Forceps**



**30-01-21-1603**

Length 20,5 cm / 8"

**Mini Lexer Gouge**



**21-03-00-1600**

Width 4 mm

**Mini Lexer Gouge**



**21-03-00-1601**

Width 6 mm

**Mini Lexer Gouge**



**21-03-00-1603**

Width 10 mm



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Innovationen für die Chirurgie

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