## Extraction 05-01

HIEFF CE 02/13 12 300.08

#### 12.300.08

Benex<sup>\*</sup>II Extractor acc. to Dr. med., med. dent. Benno Syfrig

# Extraction System

acc. to Dr. med., med. dent. Benno Syfrig

Pursuing logically the quest of gentle extraction, **HELMUT ZEPF** Medizintechnik GmbH has developed a new, patented (Pat. No. CH 696 458) **Benex**<sup>\*</sup> extraction system in close collaboration with Benno Syfrig Dr. med., med. dent from Switzerland. You will find further information, application examples and the **Benex**<sup>\*</sup> user forum at: www.benex-dent.com

# 05-02 Extraction

K2016-12/1-E



Picture 1 Longitudinal extraction with Benex\*II step by step: Pivot tooth extracted due to root fracture



Picture 2 Longitudinal extraction with Benex\*II step by step: Axial removal



Picture 3 Longitudinal extraction with Benex II step by step: Soft and hard tissues preserved



Picture 4 Longitudinal extraction with Benex\*II step by step: Soft tissue, 12 weeks after extraction



Picture 5 Longitudinal extraction with Benex II step by step: Alveolar ridge, 12 weeks after extraction

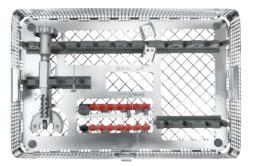
#### **Extraction System** Ben**ex**<sup>®</sup>II acc. to Dr. med., med. dent. Benno Syfrig Polygon of forces, Polygon of forces conventional: with Benex\*II: Pressure on the Purely axial traction alveolar wall by forceps or root elevator

All CE marked products according to the Medical Device Directive 93/42/EEC

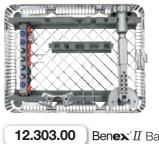
are mentioned in the index from page 11-07.

In modern dental treatment, implantology following extraction is increasingly favoured. Consistent with the principle of minimal invasion, conserving soft and hard tissue structures is a must. Starting with extraction. The modified Benex II guarantees a gentle and simple extraction of roots in the whole mouth. It is nearly impossible to harm the soft tissue and the surrounding bone. Due to the longitudinal extraction, Benex IIis an optimal basis for direct implantation. It is also a valuable help for retarded implantation after the extraction with the Benex II system. Studies made after the use of  $Benex^*II$  prove that the reossification of the extraction alveole is advancing optimally. This is a great advantage for the retarded implantation.

The new  $Benex^*II$  is now available in a washbasket complying with the RKI guidelines. That way, the requirements of optimal cleanability and sterilization were taken into account. You will find further information, application examples and the Benex<sup>®</sup> user forum at: www.benex-dent.com



12.302.00 Benex<sup>®</sup>II Extraction System



Benex II Basic Kit



## Extraction 05-03

#### Alveolar Ridge Preservation with Benex®

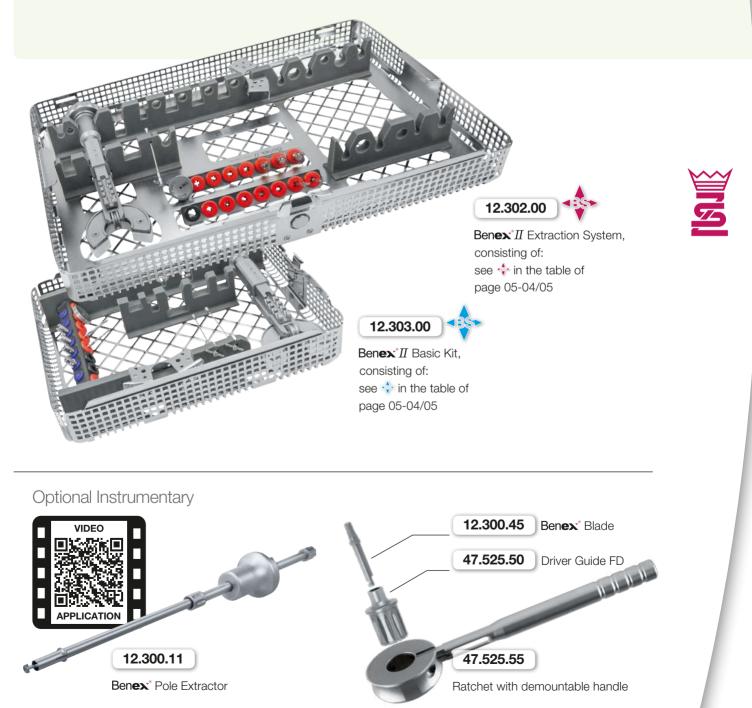
#### What does it mean?

Alveolar Ridge Preservation means the treatment of the dental alveolus after extraction. 3 months after the **Benex**<sup>\*</sup> extraction you find a considerably better ridge relation than with conventional gentle extractions. The **Benex**<sup>\*</sup> finds its successful application in both, private practices and universities. The **Benex**<sup>\*</sup> has achieved an excellent status worldwide as basis for a subsequently successful implantation.

The new support for the dismounted **Benex**<sup>\*</sup> System in a washbasket guarantees an optimal cleanability of **Benex**<sup>\*</sup> in a washing machine or in an ultrasonic bath. All components can be fixed safely in the support.

Upon cleaning, the system can be sterilized in assembled condition.

In addition to the **Benex**<sup>\*</sup> components, an optional periotome, an Xtool and an optional **Benex**<sup>\*</sup> Pole Extractor can be placed in the support.



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<sup>05-04</sup> Extraction

05

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Illustration	Article Description	Order Quantity
*	<b>12.302.00</b> Benex <sup>*</sup> II Extraction System, consisting of: Benex <sup>*</sup> II Extractor, 2 Pullropes 48 mm, Driver Guide, Screw short 1.6 mm + 2.1 mm,	1 piece
	Screw long 1.6 mm + 2.1 mm, 1 Drill ea. for 1.6 mm, 2.1 mm Screws, Quadrant Support, 85.195.10 Washbasket with Lid, 12.302.01 Tray / Rack for <b>Benex</b> *II	
	<b>12.302.01</b> Ben <b>ex</b> * <i>II</i> Tray / Rack	1 piece
*	<b>85.195.00</b> Washbasket 1/1 with Lid and Press Button Lock	1 piece
	<ul> <li>12.303.00</li> <li>Benex II Basic Kit, consisting of: Extractor, 2 Pullropes 48 mm, Driver Guide, Screw short 1.6 mm + 2.1 mm, Screw long 1.6 mm + 2.1 mm, 1 Drill ea. for 1.6 mm + 2.1 mm Screws, Quadrant Support, 85.194.10 Washbasket with Lid</li> </ul>	1 piece
*	<b>85.194.10</b> Washbasket 1/2 with Lid and Press Button Lock	1 piece
	<b>12.300.08</b> Ben <b>ex</b> ° <i>II</i> Extractor	1 piece
	12.300.15 Replacement Support Disc, 8 mm (PTFE), optional	1 piece
	<b>12.300.16</b> Support Disc, diagonally right, optional	1 piece
	<b>12.300.17</b> Support Disc, diagonally left, optional	1 piece
A ++	12.300.20	2 pieces

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llustration	Article Description	Order Quantity
	<ul> <li>12.300.30</li> <li>Diamond coated Drill for Screws</li> <li>Ø 1.6 mm 12.300.60 and 12.300.70</li> </ul>	2 pieces (1
and the second se	<b>12.300.35</b> Diamond coated Drill for Screws Ø 2.1 mm 12.300.65 and 12.300.75	2 pieces (1
*	12.300.47 Driver Guide, short	1 piece
	12.300.60 Screw, Ø 1.6 mm, 10 mm, S = Short	2 pieces (1
A.D.	<b>12.300.65</b> Screw, Ø2.1 mm, 10 mm, SF = Short & Fat	2 pieces (1 • • • • • )
\$.A.	12.300.70 Screw, Ø 1.6 mm, 16 mm, L = Long	2 pieces (1
	<b>12.300.75</b> Screw, Ø2.1 mm, 16 mm, LF = Long & Fat	2 pieces (1 -
* •	12.300.80 Quadrant Support for Benex* to bridgeover bigger gaps and for the universal molding	1 piece
	<b>12.300.11</b> Benex* Pole Extractor, optional	1 piece
	<b>47.525.55</b> Ratchet with demountable handle, optional	1 piece
	<b>47.525.50</b> Driver Guide FD, optional	1 piece
	<b>12.300.45</b> Benex* Blade for Driver Guide FD, optional	1 piece

Extraction 05-05

0-5

05-06 Extraction







## Application of the Extraction System

1. Anaesthesia. Cutting periodontal fibres (Sharpey fibres) in the sulcus by using the Periotome or the **HELMUT ZEPF** Nod.

2. Strong, large roots must be loosened / luxated by axial movements within 30 sec., using a slim elevator / twister (Xod from HELMUT ZEPF). Without using transversal movements. In case of multi-rooted teeth, the roots are divided and extracted separately.

3. Drilling with the diamond coated twist drill should be in the axis and center of the root fragment. It should be approx. 7 mm in the hard tissue, deeper drilling will not be necessary. Drilling is performed with water-cooling. In order to remove drilling chips more easily, an inward and outward movement is recommended for deep drilling.

**Recommended rpm:** 500 - 700 rpm REF 12.300.30 max. 3000 rpm REF 12.300.35 max. 2200 rpm

4. According to circumstances, the short or long extraction screw with screwing support **EF** 12.300.47 is inserted.

5. The extractor is positioned on the adjacent crowns: The opening of the round, revolvable segment plate is adjusted in vestibular direction ensuring a good view of the extraction screw. After the pullrope has been hooked into the extraction screw, it is guided over the reverse roller and fixed to the hook of the extraction slide. Under slight traction - so that the rope does not hang out - the instrument is placed on the adjacent teeth by turning the hand screw. During positioning it is important to see that both the screw and the rope do have the same axial direction.

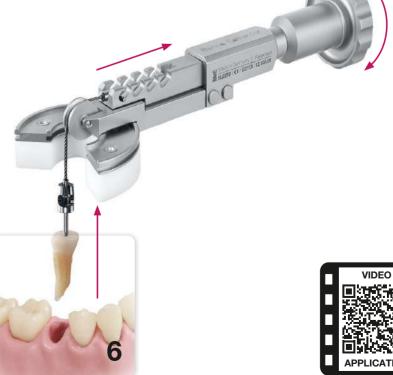
6. Once the extractor is positioned properly, the extraction is carried out by turning the hand screw. In case of strong, long roots the periodontal fibres have to be pre-stretched during 30 seconds by applying a sub-maximum traction.















Dr. Maty Design

The exclusive design and 25% reduced weight make the *the cisica*-Instrument-Line light as a feather.

Extraction 05-07

The ergonomic handle design enables uniform power transmission during pressing, pulling and rotary movements and is equally suited for both right handed as well as left handed practitioners. The unique tip design adapts exactly to the tooth and is beyond comparison to other instruments.

The smooth handle with circular openings makes the *terf Cisic*-Instrument-Line extraordinarily easy to be cleaned since there are no more hygiene-critical zones as with instruments with serrated handles.

The ideal handling and tactual sensation is guaranteed.

From design to functionality, this product line answers all your concerns. The <sup>TEPF</sup> ★ *Cisi*() Handle is a registered model of **HELMUT ZEPF**, which has been developed with Dr. Maty.



# 05-08 Extraction

+49 (0) 74 64 / 98 88 0

#### Extracting Forceps





#### Patterns

All figures from **HELMUT ZEPF** are available in the following patterns:  $A = \lambda cisic m$  and S = Standard English Pattern



#### **Standard Pattern**

Our Standard **HELMUT ZEPF** Extraction Pliers combine highly refined, proven technology with modern design and provide superior performance/price ratios over their entire service lives.

#### **Diamond-Coating**

All extracting forceps are available with diamond-coating for better grip. For ordering etc. just add to the item number the letter **D**.



#### **Teflon Disc**

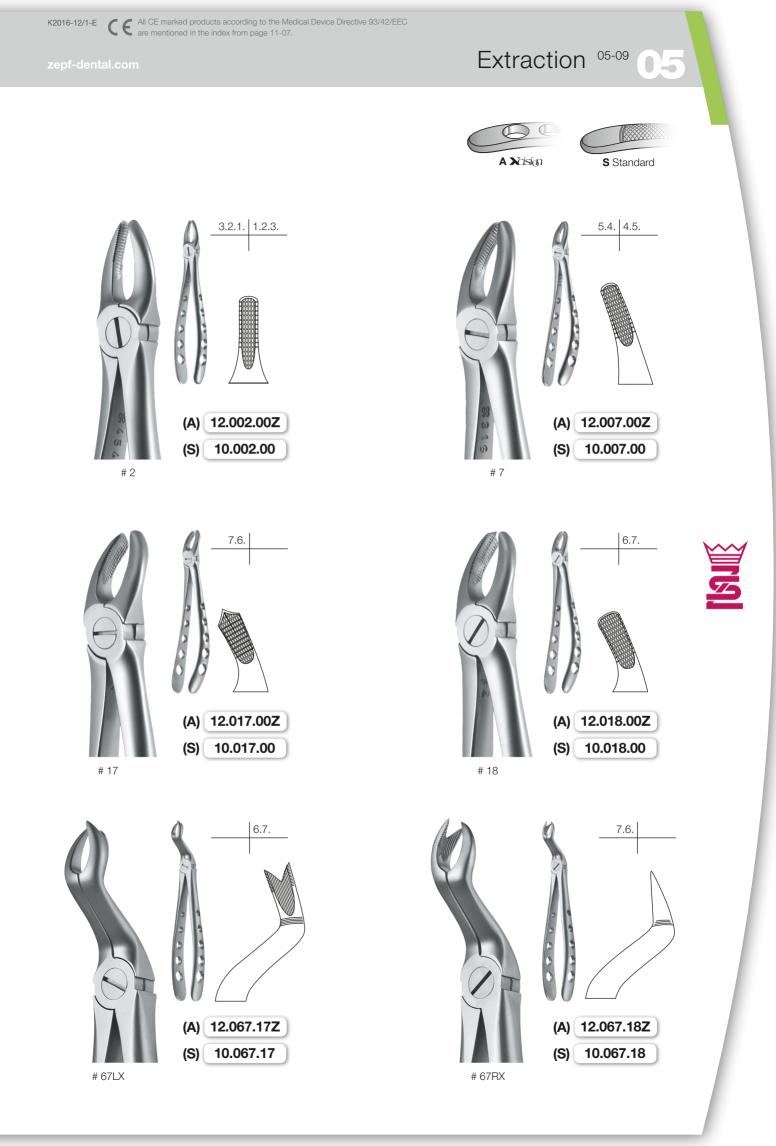
The wear-resistant Teflon Disc eliminates wear and tear in the joints and provides a light action at all times.



#### **Grooved Gripping Surfaces**

Grooved gripping surfaces provide a secure grip and prevent slipping.





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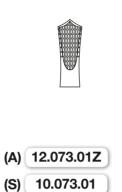
# 05-10 Extraction



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The slim, compact design of these **TEPF X**cision Extraction Forceps allows easy accessing molar areas, even when mouth openings are restricted.







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(S)

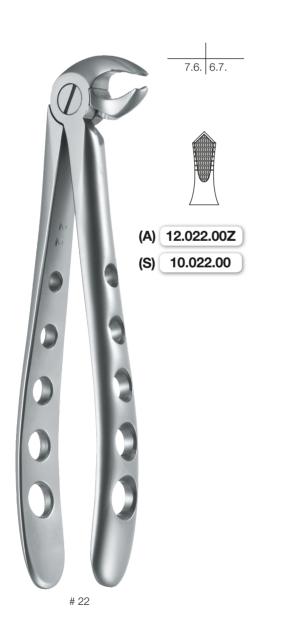
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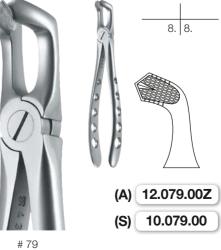












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# <sup>05-12</sup> Extraction



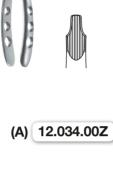
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<sup>05-14</sup> Extraction

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+49 (0) 74 64 / 98 8



#### Secure-Line

Our special **HELMUT ZEPF** Extracting Forceps in our modern **\*\*\*** *Cisi*(3) Design have tapered jaw tips. Their fine, sharp tips which have been anatomically shaped to match perfectly the teeth and allow to reach deep and large contact areas, which in turn provides better mechanical advantages and a more secure grip. Since these special **HELMUT ZEPF** Extracting Forceps have been designed for performing luxations, they have longitudinal grooves only on their jaws' gripping surfaces. The easy handling and superior "feel" of all our **\*\*\*** *Cisi*(3) Lines of Extracting Forceps are of prime importance for this product line!

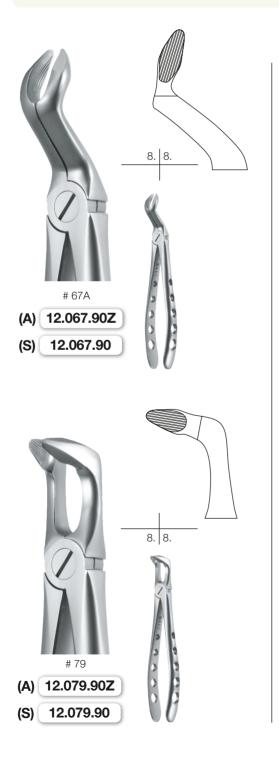


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#### **Rescue-Line**

No reason to panic! These forceps will allow you to carry out any extraction and work more efficiently even under complicated circumstances. If teeth break during extraction, these are the tools you need to rapidly, safely, solve your problems.

These forceps have special all-purpose jaws designed to cover a broad range of applications and have sharp pointed tips that allow separating the tips of roots from surrounding tissue by slightly twisting them and then securely trapping the extracted roots in the gaps between their jaws. The article numbers of extracting forceps with serrated edges are amended by 'ZS'.





# A Xcisian S Standard W

Extraction 05-15



# 51Z (A) 12.051.15Z 12.051.15ZS

12.051.15 (S)

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# 05-16 Extraction

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# Special Wisdom Routurier Extracting Forceps

Their angled shape will allow you to reach around obstacles and protect the corners of patients' mouths whenever their mouth openings are restricted or their jaws have been firmly clamped in position. Their slim compact design allows readily accessing molar areas.

#### Witzel All-Purpose Root-Splinter Forceps diamond-tipped

Our special forceps for extracting root splinters from both upper and lower jaw have diamond-tipped jaws for the best possible grip, and are the ideal complement to our Rescue-Line.

If their diamond tips should ever become worn, simply contact our retipping service, who will put new diamond tips on them for a fixed charge.









<sup>05-20</sup> Extraction

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## Extracting Forceps, American Pattern

#### **Diamond Version**

All forceps are also available in the diamond version. For ordering etc., just add a  ${\bf D}$  to the article number

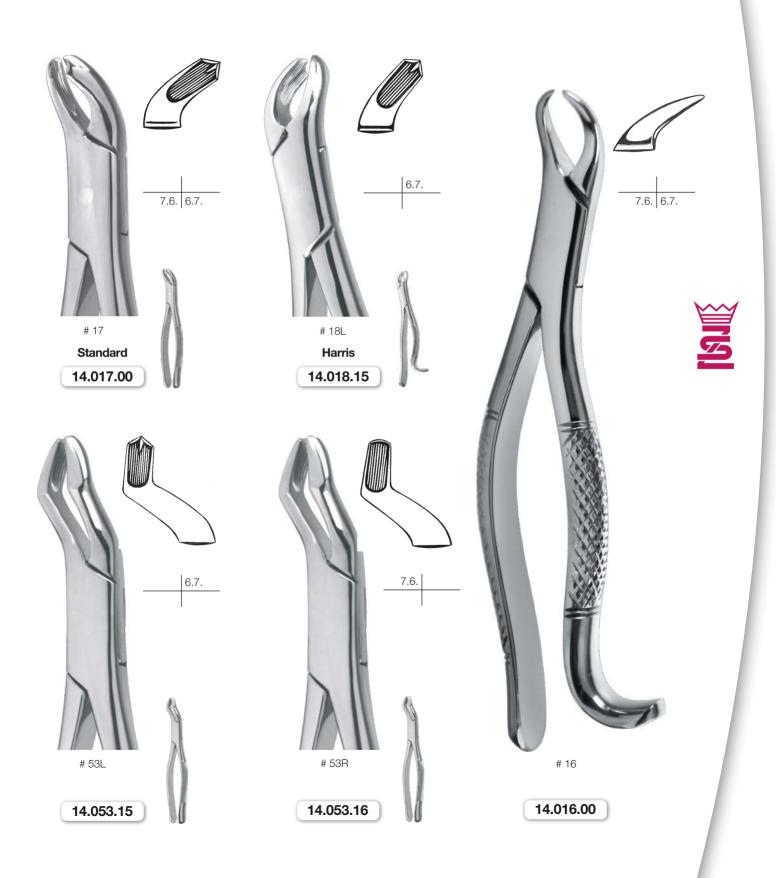






Extraction 05-21

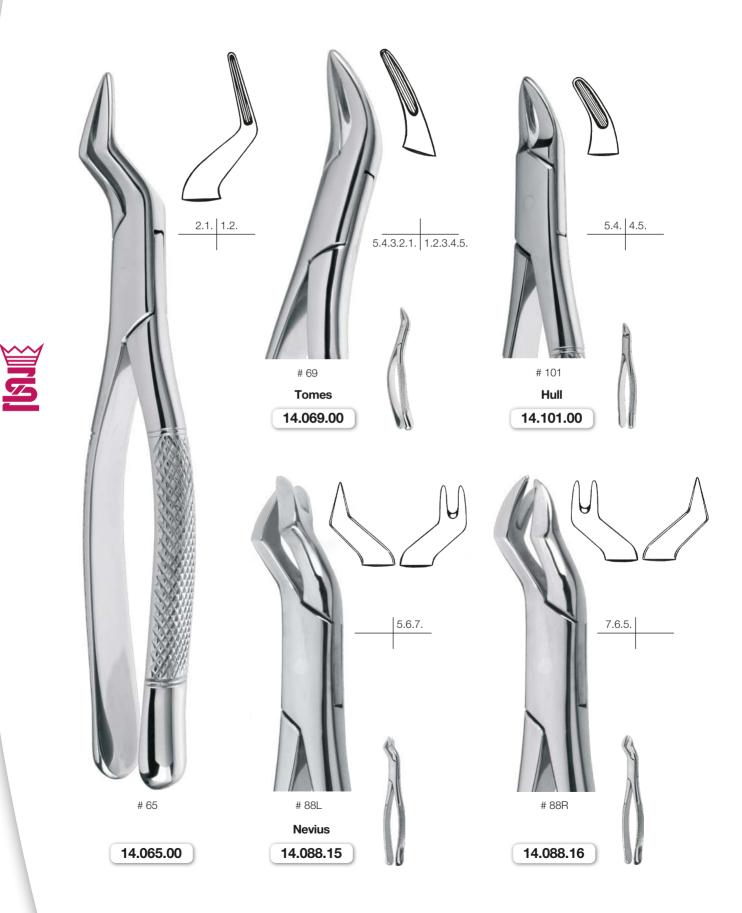
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# <sup>05-22</sup> Extraction

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Extraction 05-23

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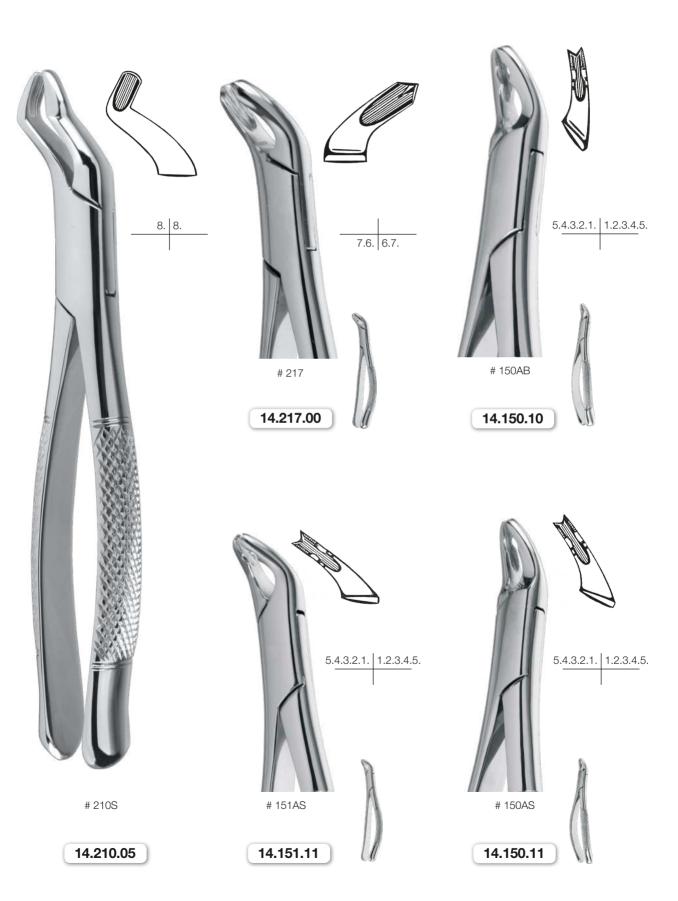


# <sup>05-24</sup> Extraction

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## Extracting Forceps, American Pattern

Extraction 05-25

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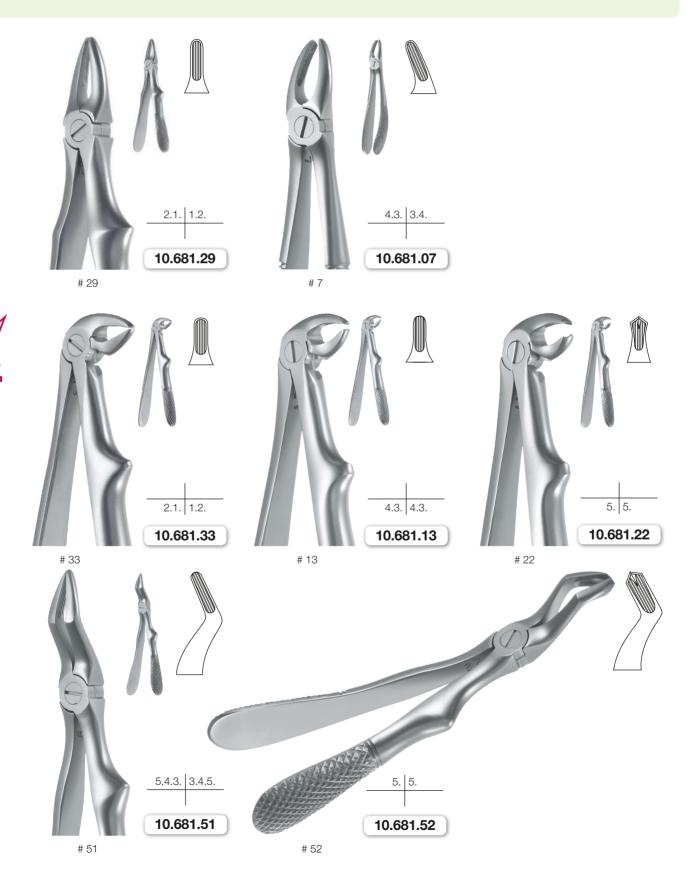
05-26 Extraction

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#### Pedodontic Extracting Forceps

These pedodontic extracting forceps have been designed to be as small as possible in order to avoid frightening younger patients with large, aggressive-looking instruments, thereby providing relaxed working conditions.

Further RoBa-Design Pedodontic Extracting Forceps are illustrated on page 05-32!





Extraction 05-27

**ZEPF RoBa-Edition** by dentist Beck

Dedicated to the long-standing employees Mr. Horst Roos and Mr. Reinhold Bacher, who worked for Helmut Zepf for more than 50 years since their time as trainee.

The **ZEPF** RoBa-Edition completes the innovative advancement of the famous **ZEPF C***isi* **(**) Extracting Forceps. It has been developed under the aspects of a secure and gentle appliance.

The problem of tooth fractures during extraction is considerably reduced due to the innovative geometry of the beaks.

The new ONYX coating makes the impact-resistant surface of these extracting forceps almost indestructible.

Compared with other methods, in ONYX coating the carrier material is applied in a more gentle way, as ONYX coating in comparison to other coatings is performed with significantly less influence of heat.

The surface shows excellent sliding features to reliably counteract contamination. An incrustation of proteins etc. is not possible.

The matt-finished black surface not only prevents reflection of the OT light, but also guarantees an optimal contrast in the OR environment during extraction.

## 05-28 Extraction

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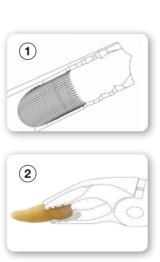
## ZEPF TO E D I TO PATENTED

With the patented RoBa-Edition **HELMUT ZEPF** introduces a new generation of extracting forceps. Deduced from the **TEPF X** isign Instruments the RoBa-Edition has been especially developed in consideration of easy and gentle extraction.

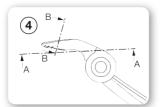
The patented RoBa-Edition according to Dentist Beck is the consequential advancement of conventional extracting forceps with the advantages of the tapered deep-grip extracting forceps. The modified beaks according to Dentist Beck fit exactly on the teeth which ensures a maximum grip in the appliance. These new beaks are available for all figures in upper and lower jaw (incisors, premolars, molars and wisdom teeth).

Due to the fact that all teeth show a convex crown contour (upper jaw: labial, buccal, palatal and in lower jaw: labial, buccal, lingual), the beaks have been developed under this anatomical conditions The handle is a protected design from **HELMUT ZEPF**, which was developed in co-operation with Dr. Maty, Germany.





- (1) The serrated jaws grip onto into the teeth and avoid a "riding" in-between the tooth crown and the inner contour of the beak.
- (2) Concavely elaborated inner contours of the forceps beak fit in the convex tooth contour. With deep grip in the alveolus on the neck of the tooth or on the crown, the RoBa Edition ensures a parallel and maximum grip in any situation. Root fracture almost can be excluded.



- (3) The different deeply elaborated inner contours ensure maximal adaptation on the teeth in different actualities. No tilting of the teeth while rotary and / or lifting movement.
- (4) Tapered outside contour of the beak affords deep grip even subgingival.

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# Extraction 05-29



#### Black Finish Coating

#### Design meets functionality.

Users with highest demands will appreciate the elegant, black finish providing the instrument with a non-reflecting, extremely smooth and scratch-resistant surface. The article number is complemented by **TI**.





## **Diamond Version**

All RoBa-Edition extracting forceps in the classic satin-metallic finished surface are available with diamond coating for a better grip.

The lower part of the **TEPF** Cisic Handle is gold-plated. For ordering etc., just add a **D** to the article number.

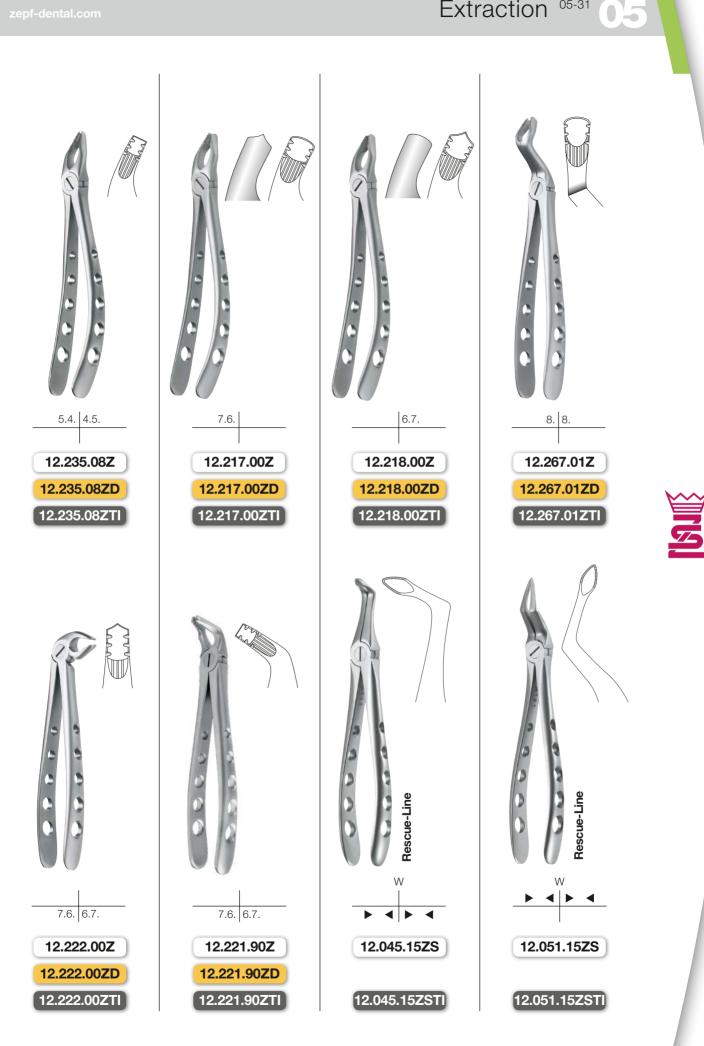


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# Extraction 05-31



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# <sup>05-32</sup> Extraction

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#### **Children Forceps** RoBa-Edition

Extracting Forceps modif. by Dentist Beck

These deciduous teeth extraction forceps have been designed to be as small as possible in order to avoid frightening younger patients with large, aggressive-looking instruments, thereby providing relaxed working conditions.

The patented Deciduous Teeth RoBa-Edition Forceps according to Dentist Beck are the consequential advancement of conventional extracting forceps with the advantages of the tapered deep-grip extracting forceps. The modified beaks according to Dentist Beck fit exactly onto the teeth which ensures a maximum grip during the appliance.







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# 22

5.4.3. 3.4.5. 10.685.51

# 51



The wear-resistant Teflon<sup>®</sup> disc eliminates wear and tear in the joints and provides a light action at all times. **K2016-12/1-E CE** All CE marked products according to the Medical Device Directive 93/42/EEC are mentioned in the index from page 11-07.

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## Refreshingly Innovative

Pat. U.S. 7,318,725 B2

The new generation of extracting forceps in the patented **ZEPF ext** Design was designed to meet the special requirements of gentle removal of teeth. To meet these requirements, we composed a programme of 11 extracting forceps figures out of more than 400 existing figures. These were chosen according to anatomy, ergonomics and hygiene.

Extraction 05-33



The **exio**<sup>©</sup> Forceps offer an excellent anatomic fit and only need enough pressure so they do not slip out of the hand. The forceps guarantee a balanced axial luxation, better periodontal fibre dilatability and increased sense of touch. They reduce traumata of surrounding tissue.

The assimilated handles allow an individual and equal power transmission for left- and right-handed surgeons during pressing, pulling and turning movements.

Due to the smooth handles and the possibility of dismantling, the **exige** Forceps can be cleaned extremely well. So there are no hygiene-critical areas any more like they are known from forceps with conventional lock. Especially with automatic reprocessing in a washtray the disassembly is a great advantage as they need less space.



# 36

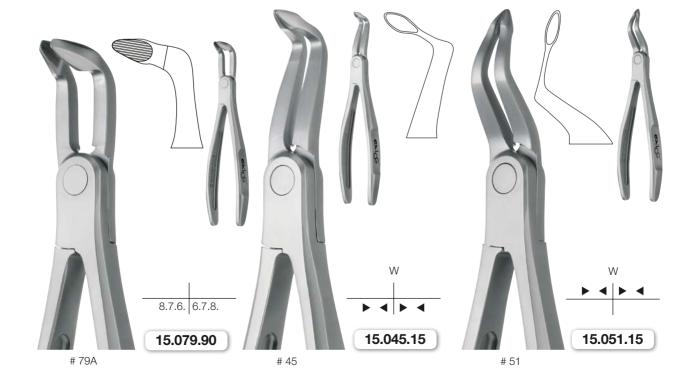
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Extraction 05-35

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# <sup>05-36</sup> Extraction

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#### All Advantages on One View:

- excellent anatomic adaptation on the tooth surface
- tapered beaks for less trauma and protection of the alveolar loculus
- linear serrated jaws for equal axial luxation
- better fibre dilatability and increased sense of touch
- optimal cleaning through the demountability of the forceps into two parts (RKI-compliant)
- long lasting, patented, high precision joint for radial and axial mechanical load
- made out of one piece (5-axis CNC-milling) for ultra high precision
- no maintenance of the joint necessary

Focus on the **exio**, the standard of tomorrow.

#### A NEW STANDARD IS DEFINED



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ZEPF

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PATENTED



## **ZEPF** EXLOG RoBa Edition Extracting Forceps

Extraction 05-37

With the new **exice** RoBa Edition **ZEPF** introduces a new generation of patented extraction forceps. Two patented extraction forceps are combined into one.

The EXLOG Forceps characterized by the fact that it's easy to disassemble and the RoBa characterized by its patented jaws.

It made sense to combine both patents as the combination results in a type of forceps which is easier to clean than ever before and additionally offers the dentist a functional extraction tool which leaves no desire unfulfilled.

These patented forceps are the consequent development of conventional forceps with the advantage of tapered and deep grip extraction forceps. The modified jaws exactly match the tooth and guarantee a maximum grip during the application.



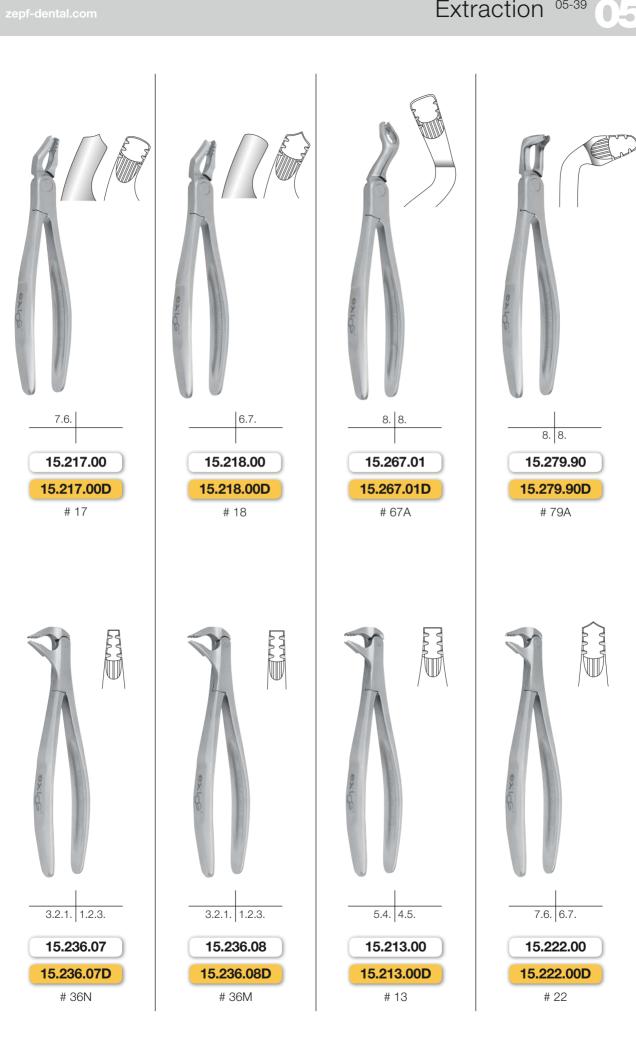




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## Extraction 05-39

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## 05-40 Extraction

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ZEPF

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## **ZEPF** EXLOG RoBa Edition Extracting Forceps

This new development involves all figures for maxilla and mandible (incisors, premolars, molars and wisdom teeth).

As every tooth shows a convex crown shape (maxilla: labial, buccal, palatal – in the mandible: labial, buccal, lingual), the jaw was developed according to these anatomical conditions.

- excellent anatomical adaption on the neck of the tooth surface
- tapered jaws for less traumatization and for conservation of the alveolus
- better fibre dilatability and increased sense of touch
- optimal cleaning due to the possibility to disassemble the forceps into two pieces (RKI compliant)
- long life time, patented, high precision joint for radial and axial pressure
- produced from one piece (5-axis CNC milling) and therefore ultra precise
- no maintenance of the joint





PATENTED

The following problems might occur if the extraction forceps are not suitable:

- root fracture
- crown fracture
- damage of the soft tissue caused by bruising
- damage of the alveolar ridge and the buccal bone lamella



#### Advantages of deep-grip extraction forceps:

- due to the specially shaped jaws it is easy to place the forceps subgingivally directly on the root (below the gingival margin)
- parallel contact on the root
- atraumatic, as the soft tissue is not bruised
- root fractures are avoided
- slim jaw design for subgingival grip without bruise of the soft tissues

zepf-dental.com

## Extraction 05-41

THE ORIGINAL

## Xtod Instruments











17.007.01

In the illustrations an extraction under use of the  $\lambda tod$  Instruments is shown.

**IMPORTANT:** Complete removal of all inflammable and convective tissue structures.

- Initial loosening of the desmodontal fibres. Apply the X-Desmo-Tool first approximally then buccally and palatinally (pencil handle).
- (2) Then progressive luxation with the X-Luxa-Tool (first narrow then wide). Ideal positions: Approximal (mesial or distal) to the tooth which should be extracted!
- (3) Complete luxation of an upper right molar with support of a wide X-Luxa-Tool. Gentle extraction without root fractures!
- Inspection of the empty tooth socket and curettage with support of the X-Spoon.



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## <sup>05-42</sup> Extraction

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**N**tod Instruments DBGM by Dr. Detlef Hildebrand

# THE ORIGINAL

The implantology with immediate insertion after the tooth extraction is more and more a focus of interest in modern dentistry. It appears to be more than necessary to protect soft and hard tissue structures already during the extraction phase and to follow the principles of minimal invasiveness. Here is an ideal complement for this:

The Xtod Instruments! In contrast to existing instruments this clearly arranged and universal Xtool Set supports you during the gentle and uncomplicated extraction of teeth which cannot be preserved.

# Modern therapy methods require modern instruments!



- Color coding for clear handling.
- Universal and complete extraction instruments in one tray.
- Ergonomic handle design (pencildesign) prevents unintended slipping during usage.
- Direct and controlled power transmission to prevent tooth and root fractures.
- Non-traumatic tooth extraction without injuring surrounding structures.



#### Design meets functionality.

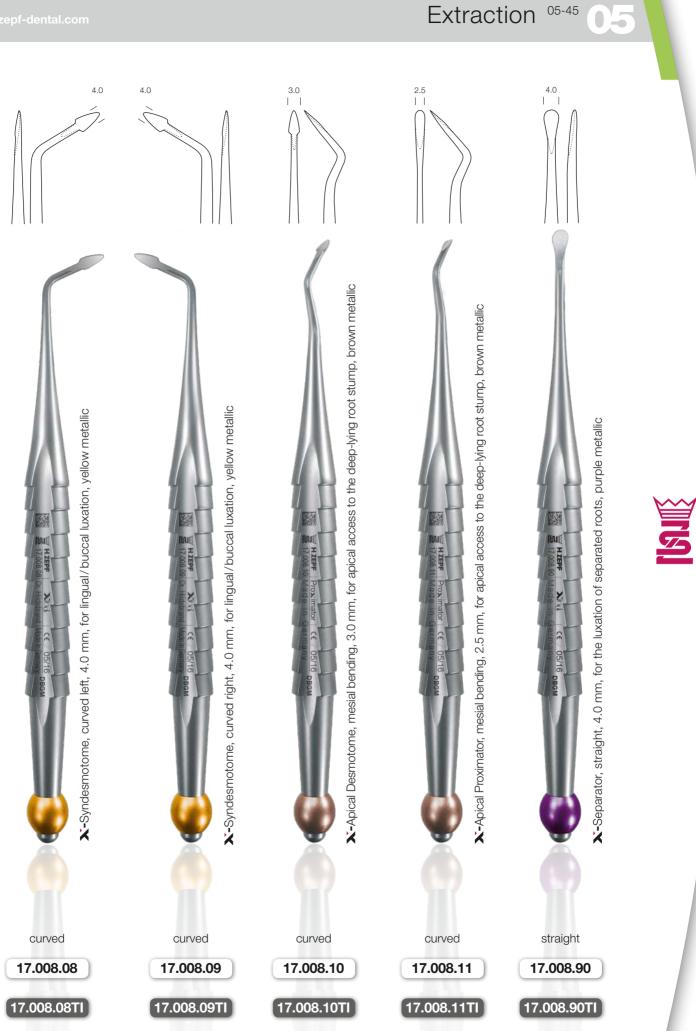
Users with highest demands will appreciate the elegant, black finish providing the instrument with a non-reflecting, extremely smooth and scratch-resistant surface. The article number is complemented by **TI**.







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All CE marked products according to the Medical Device Directive 93/42/EEC CE K2016-12/1-E are mentioned in the index from page 11-07.

## 05-46 Extraction

+49 (0) 74 64 / 98 88 0

ZEPF-Xtod-Tray

DBGM by Dr. Detlef Hildebrand

#### "Extraction in its most pleasant way"

The **ZEPF-X**od-Tray offers a universal instrument set for medical tooth extraction. The **X**od instrumentation includes six different instruments:



consisting of

17.007.01 - 17.007.05 and 41.855.01Z in the washtray

17.007.00

**Complete Set** 

#### X-Desmo-Tool (yellow):

The X-Desmo-Tool easily penetrates into the periodontal gap with its pointed tip and initially loosens the Sharpey's Fibres. The modified pencil handle and the handy shaft shape offer a depth sensibility like never experienced before without destroying related structures.

#### X-Luxa-Tool-3 (blue):

bent + narrow for tooth loosening

#### X-Luxa-Tool-1 (green):

straight + narrow:

A delicate and controlled power transmission guarantees a specific loosening and luxation of the tooth without any risk of crown or root fractures. **Ideal position:** approximal (mesial or distal) to the tooth which is to be extracted.

#### X-Luxa-Tool-2 (green):

straight + wide:

Complete, non-traumatic luxation of upper molars (e.g. tooth 16). The ergonomic instrument shape ensures a gentle extraction without tooth fractures or any damage to the alveolar wall.

#### X-Luxa-Tool-4 (blue):

bent + wide: for tooth luxation

#### Lucas Schaber **ZEPF**-Line:

Inspection and curettage of the empty dental alveolus. Complete removal of all inflamed and connective tissue fibres.



## ZEPF FLEX-EX Power Periotome



While using new materials, we were successful in the development of the **ZEPF** *FLEX*-EX Power Periotome, a symbiosis of Power Periotome, Elevator and Xtool.

The flexible working tip will enable you to build up a phenomenal pressure for the luxation in a radial direction and a perfect match to the contour of the tooth at the same time without bending. The name stands for the excellent product features united in this instrument.

### **ZEPF** Power Periotome

The Power Periotomes allow a gentle loosening of ligaments in the sulcus. The handle allows optimal power transmission and controlled luxation.



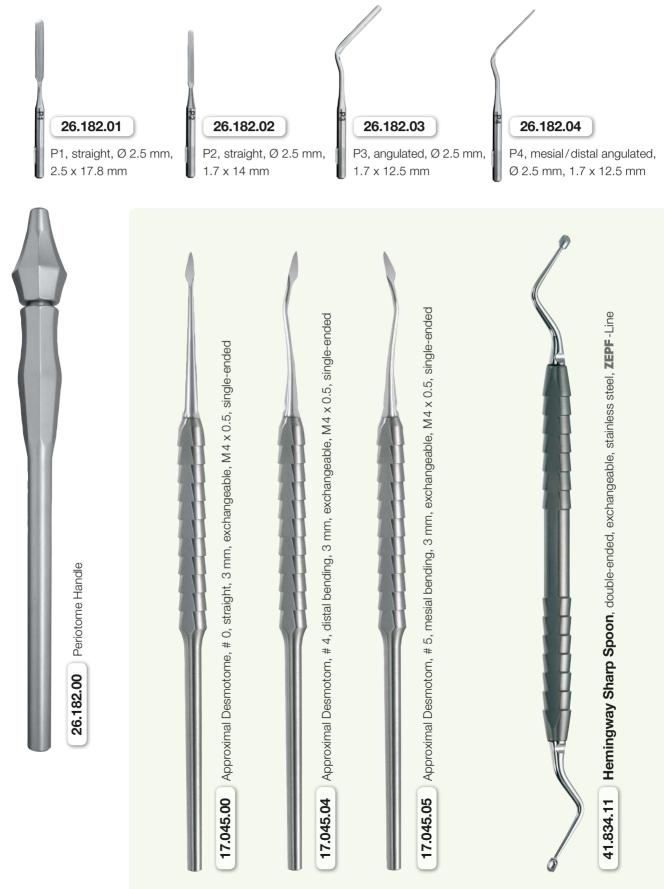
## 05-48 Extraction

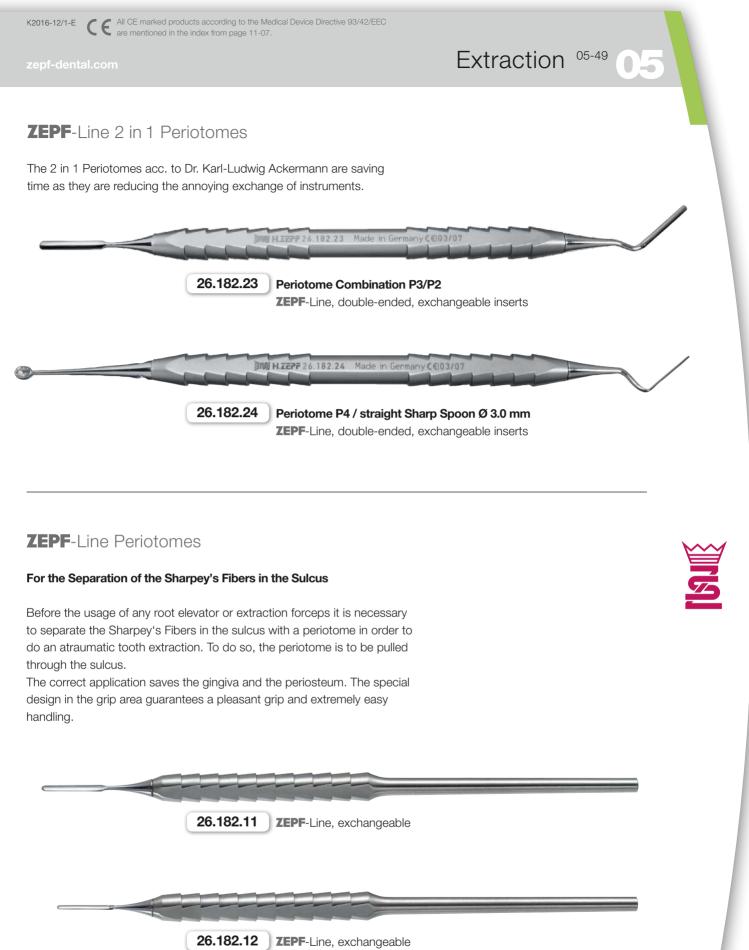
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### Ergonomical and heavy

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Heavy, ergonomic handle design with exchangeable tips, for optimal access to all quadrants.





26.182.13 ZEPF-Line, exchangeable

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## 05-50 Extraction

K2016-12/1-E

5.0 mm

### **Root Elevators**

Root elevators are used for the surgical tooth extractions. They are used to luxate the tooth in the osseous alveolus and to expand the alveolus walls. They are also used to open the gingival sulcus prior to the tooth extraction.

Straight instruments are used in the anterior region and in the maxillary area. Curved root elevators are ideal for the back teeth in the mandible.

### The Workmanship

The shafts of **HELMUT ZEPF** Boot Elevators are welded onto their hollow handles, and each and every one is checked for leakage at their welded joints.

This manufacturing method virtually eliminates the leakage compared to cheap root elevators with pressed-in shafts.







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B)	17.001.03
S)	17.001.13

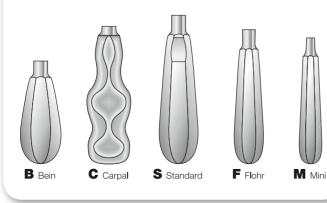
### Bein (B) 17.001.00 (S) 17.001.10

Bein

## The Handle Versions

Except for the Xtool-Series, the Elevators from HELMUT ZEPF mainly differ in their 6 different handle designs such as: 'Bein', 'Carpal', 'Standard', 'Flohr', 'Mini'.

These are handle versions which can be assigned easily due to their letter coding:













## Extraction 05-53

📜 🖪 Bein

🕽 C Carpal

S Standard

🗏 F Flohr

🕽 🖬 Mini

### Root Elevator No. 195

The drop-shaped, blunt working end makes the new **ZEPF** Root Elevator No. 195 ideal for the separation and luxation of roots. The tapered working end allows its special use in the molar region in all quadrants. It can also be used for initial loosening of the desmodontal connection.

Due to its geometry and smooth luxation and rotary motion, the root fragment to be

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removed will be moved very easily in "crestal direction" (in relative terms!). The luxated fragment can therefore be grasped easily with deep-gripping forceps or with Luer bone rongeur forceps.



Picture: Courtesy of Dr. Florian Steck

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Root Elevator No. 195

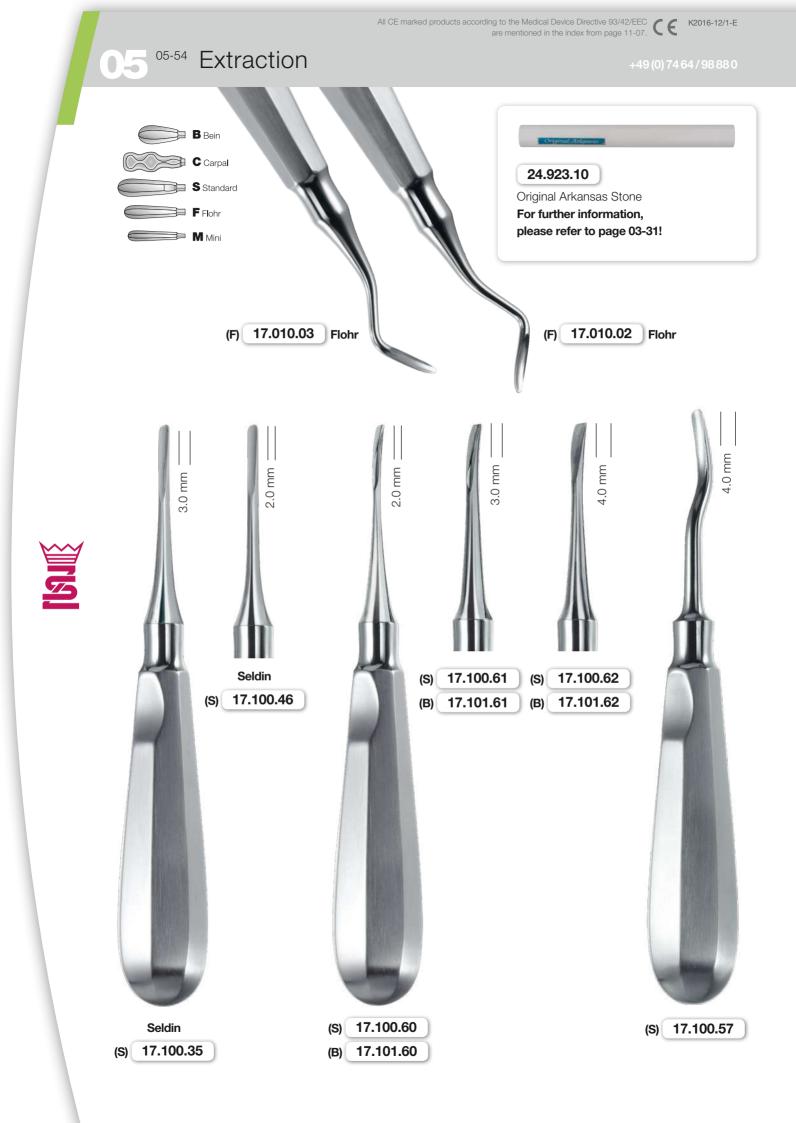
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(S)



The LINDO-LEVIEN Root Elevators are pushed into the periodontal gap in apical direction until the serrations will grip on the roots. The root is extracted via a barb effect by straight pulling without leverage.

	-	
4.0 mm	3.5 mm	3.0 mm
(S) 17.395.01 # LLL	(S) 17.395.02 # LLM	(S) 17.395.03 # LLS
4.0 mm	3.5 mm	3.0 mm
(S) 17.396.01 # LLLC	(S) 17.396.02 # LLMC	(S) 17.396.03 # LLSC







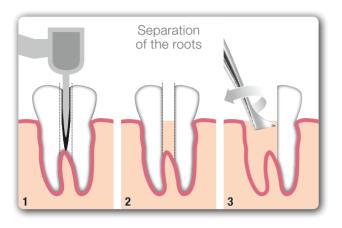




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## Root Elevators Cryer and Winter

Claw elevators are ideal to extract molars in the mandible after separation of the roots.



The bend of the working ends, combined with the shortened tips, allows a gentle lifting of the opposite root without contact to the neighboring crown.

The special claw elevators are ideal to luxate roots if an apical access is possible from the neighboring alveolus, e.g. if a root has already been removed and if the empty alveolus can be used as access. It is recommended first to remove the root which is bent less.





Extraction 05-59

