

# Surgical Technique

## Instrumentation



**Modular Neck Extraction**  
Total Hip Arthroplasty



AMPLITUDE<sup>®</sup>

## Recommended use

- The surgical technique described within is intended only for the extraction of modular necks with an AMPLITUDE 10/12 taper.
- The instrumentation described in the current surgical technique is used for revision cases with specific precautions. For the intra-operative revision of modular necks (e.g. if a modular neck needs to be removed or final testing showing that wrong modular neck was implanted), we recommend using the modular neck disconnecter present in the femoral stem instrument tray.
- The surgeon is responsible for determining the potential benefit for the patient of changing only the modular neck relative to the potential risk of femoral stem failure.
- The condition of the oblong Morse taper on the modular stem must be carefully inspected before inserting a new modular neck. If the taper is damaged, the modular stem itself must be removed.

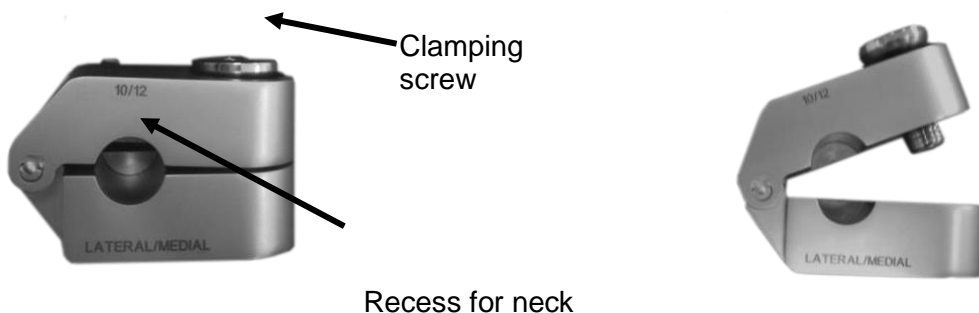
**Warning:** This instrumentation should only be used when revising modular necks that have been implanted for less than one year. Beyond this time frame, we recommend using the universal stem extractor.

# Overview

- The modular neck extraction set consists of:
  - Three (3) types of neck clamps:
    - Ante/Retro 8°
    - Lateral/Medial (used with Lateral/Medial **AND** +10.5 Lateral/Medial necks)
    - Lateral Plus/Medial Plus
  - One (1) modular neck extractor
  - One (1) H5 screwdriver

## 1) Neck clamps

- The neck clamp extractor screw position can be changed to coincide with the operative side or surgical approach being used.



- Each jaw is engraved with an image that shows the correct modular neck position. This engraving is used to determine the neck extraction axis.

Neck clamp for Lateral/Medial neck



Neck clamp for Ante/Retro neck

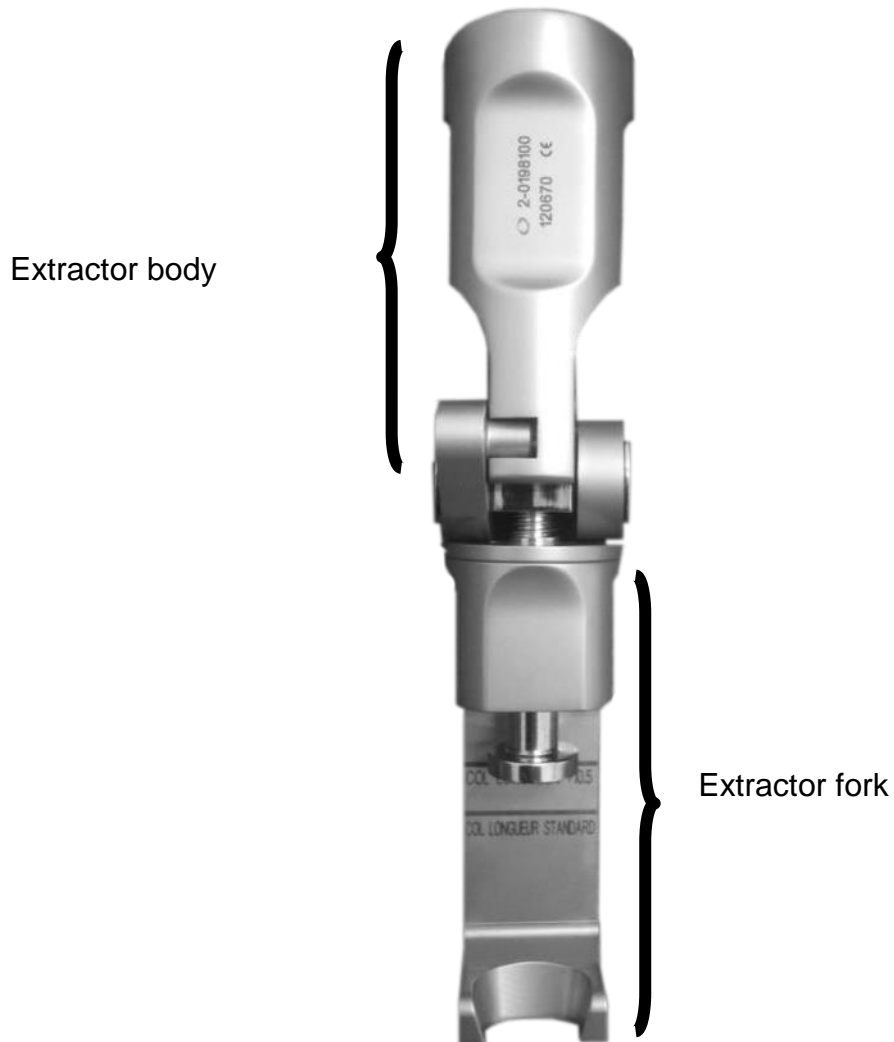


**NOTE:** To be in the neck axis, the neck clamp screw must be aligned:

- with the top of the stem for a modular neck in the Lateral, Lateral Plus or +10.5 Lateral position
- with the bottom of the stem for a modular neck in the Medial, Medial Plus or +10.5 Medial position
- with the top or bottom of the stem for an Ante/Retro modular neck

## 2) Modular neck extractor

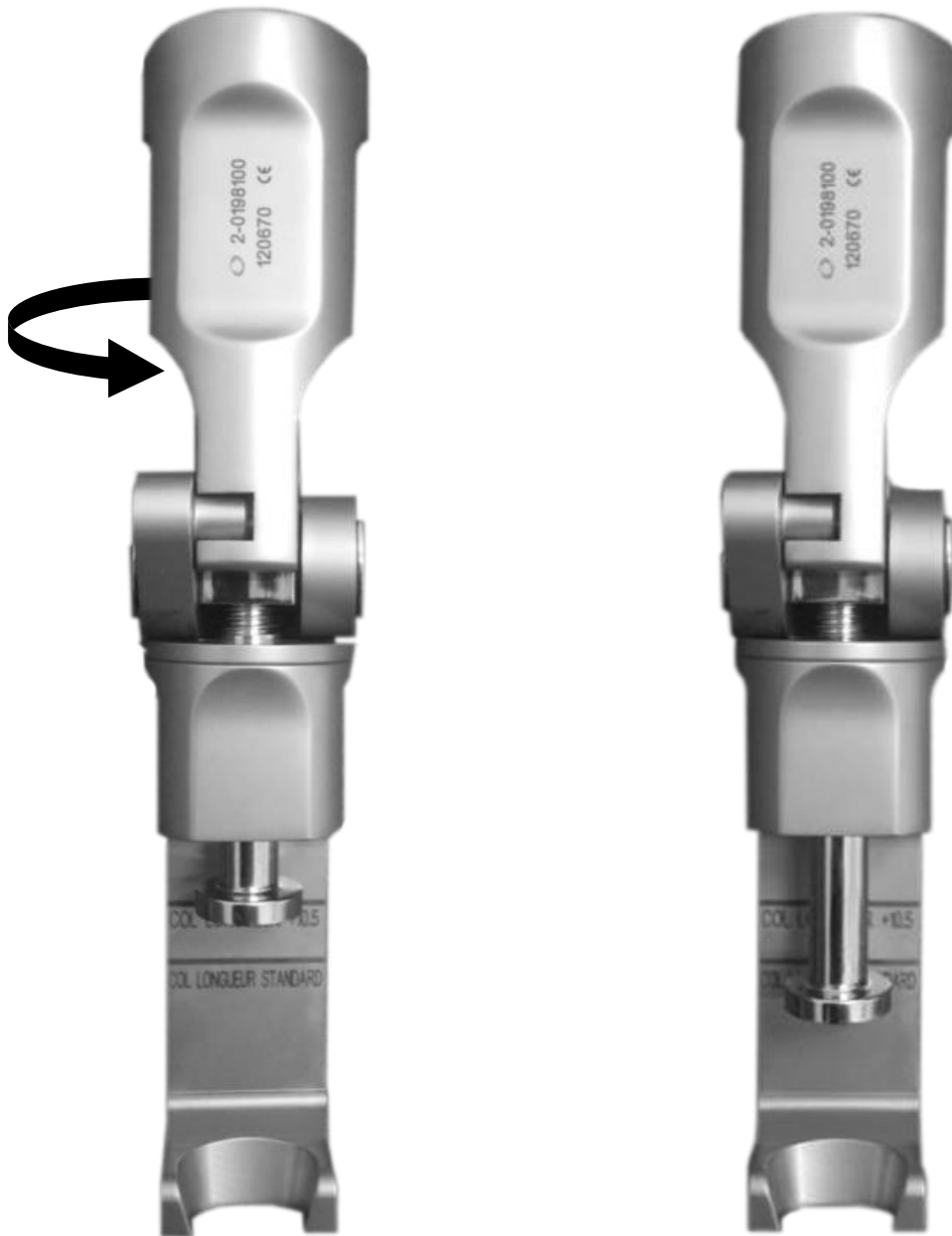
- The modular neck extractor is made up of two parts, an extractor body and an extractor fork.



- There is an adjustable shaft located within the extractor.
- Depending on the length of the neck being extracted, this shaft is placed in either the "Standard length neck" position or the "+10.5 length neck" position (for the +10.5 Lateral/Medial neck).



- Turn the extractor body either clockwise or anticlockwise for the desired setting. Place the neck extractor on the femoral neck to be removed.





# Preparation

## **ON THE BACK TABLE**

- Select the neck clamp corresponding to the implanted AMPLITUDE modular neck.

**NOTE:** Use the "Lateral/Medial" neck clamp if the implanted neck is a "+10.5 Lateral/Medial" neck

- Set the shaft on the extractor to the mark corresponding to the neck being extracted (see above).

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## Placement of neck clamps on neck

### **IN THE PATIENT**

- Place the appropriate neck clamps onto the Morse taper of the stem as indicated on the clamp.
- If needed, move the screw to the other side of the neck clamp corresponding to operative side or preferred approach.
- Tighten the screw with the H5 screwdriver.

Correct engagement



Incorrect engagement





# Assembly of neck extractor with neck clamps

- Slide the shoulder of the extractor shaft into the slot at the top of the neck clamp.
- Turn the extractor body until the fork comes to rest against the stem.

**NOTE:** Make sure the fork contacts the stem over the entire surface of the collar. If there is space between these two components, the wrong neck clamp is being used for the modular neck requiring extraction. Remove the incorrect neck clamp and replace with the correct one matching the appropriate neck.

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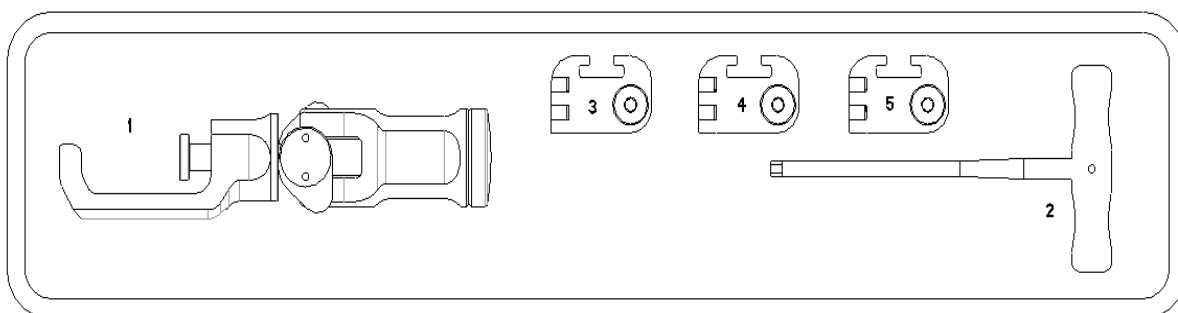
## Extraction of modular neck

- Tap a surgical hammer against the upper part of the extractor body to extract the modular neck.

# Instrumentation set

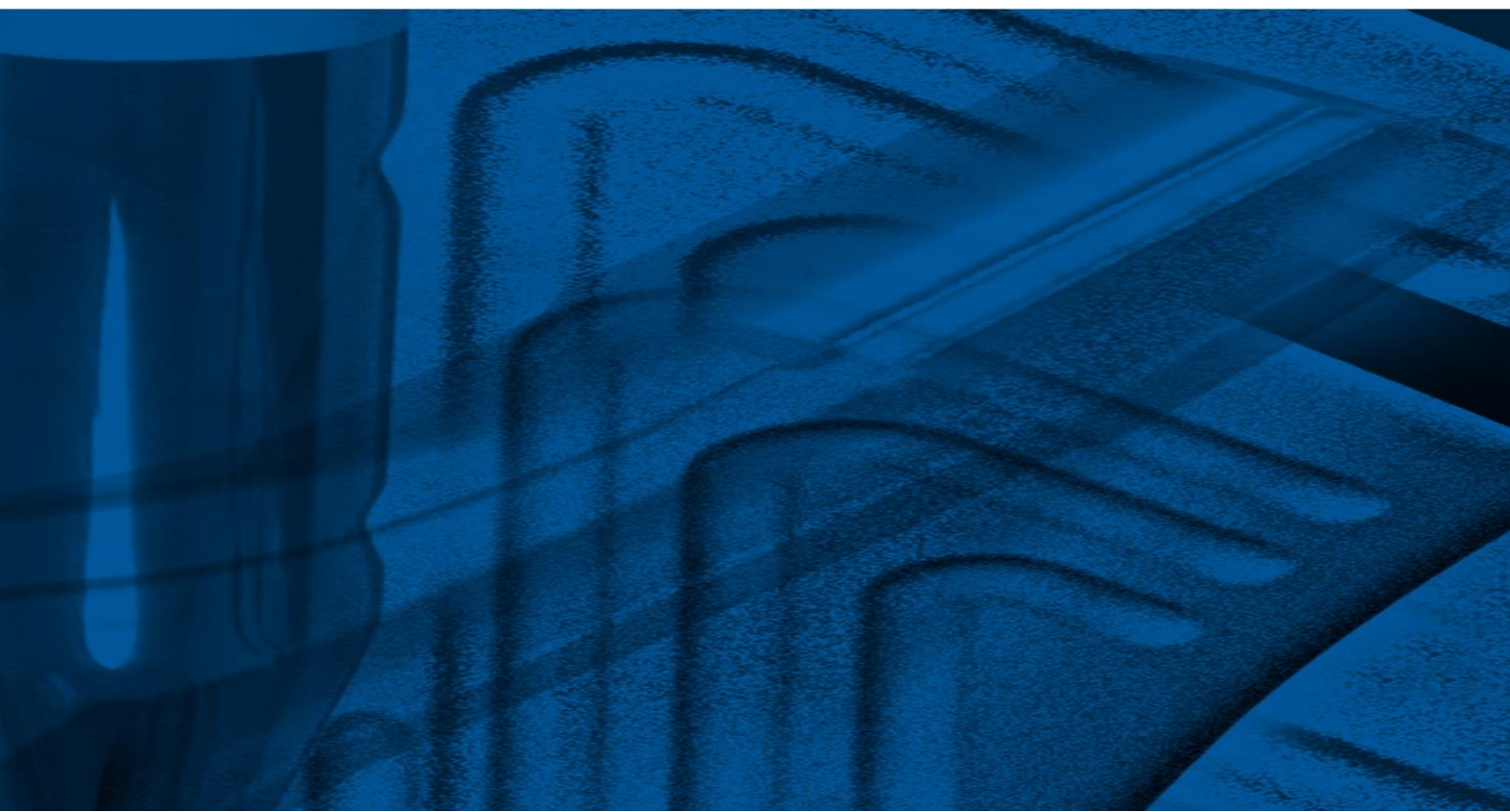
Instrumentation for 10/12 modular neck extraction

Part number: 2-0199969



Item	Name	Part No.	Qty
1	Modular neck extractor	2-0198100	1
2	H5 Screwdriver	2-0200800	1
3	Lateral/Medial 10/12 neck clamp for modular neck extractor	2-0198201	1
4	Lateral plus/Medial plus 10/12 neck clamp for modular neck extractor	2-0198202	1
5	Ante/Retro 10/12 neck clamp for modular neck extractor	2-0198203	1





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