

PRODUCT GUIDE

MOD. SHUKLA HIP

Universal Hip Implant Extraction System

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System 6 of 15



SHUKLA MEDICAL
Universal Orthopedic Extraction Technologies
THE EXTRACTION EXPERTS

MOD SHUKLA HIP

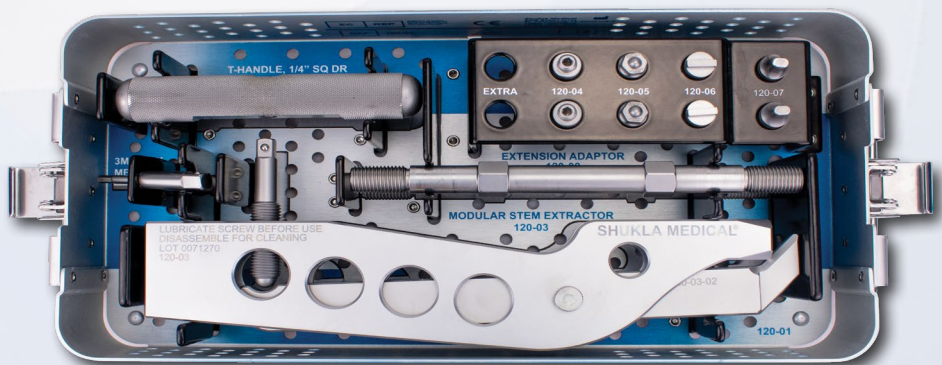
Universal Hip Implant Extraction System

System Name: SHUKLA Mod Hip v1

Primary Use

SHUKLA Mod Hip is an accessory system, intended to be used with the SHUKLA Hip Mallet & Strike Plate Frame instrumentation.

The system includes multiple tip configurations for universal compatibility with any modular hip stem.



System History

Work on the Modular Hip system began right after the main Hip system launched. It all began with a surgeon from Wisconsin. After medical company Stryker had a recall on their Rejuvenate model modular hip stem, the call went out for revisions.

Osteotomies were being ordered for everyone affected - over 170 of them by that surgeon alone! A Shukla engineer flew out to Wisconsin to help design a modular hip extractor. This would go down as the fastest product development cycle ever for Shukla Medical.

When we are needed, Shukla answers the call.

2013: Version 1 Introduced

**Stryker Rejuvenate
Modular Hip Stem**

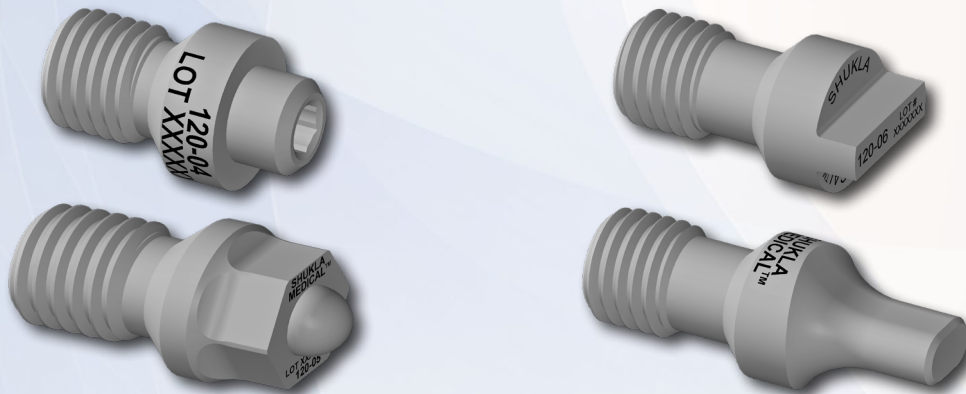


Key Benefits

- Strike Plate Frame and Mallet combo makes extraction simple, effective, and fast.
 - **PLEASE NOTE:** The Strike Plate Frame and Mallet are **not** part of the SHUKLA Modular Hip system. They are included in the SHUKLA Hip system.
- Extraction force remains inline with implant, reducing risk of fractures.
- T-Handle easily tightens the Modular Hip Stem Extractor and locks onto the implant.



- Four different specialized tip configurations for matching proximal geometry of modular hip stems.



- Removes the need to perform an osteotomy.

Universal Shukla System Benefits for Better Patient Outcomes

Less Time Spent in O.R.

- Reduces risk of infection to patient
- Reduces time spent under anesthesia
- Reduces cost to the hospital

Universal Designs

- Less prep time for surgeons
- Less space taken up in the O.R.
- Reduces need for other systems or tools

Ergonomic Design

- Reduces surgeon stress
- Reduces surgeon fatigue
- Better grip/reduces slippage

Comprehensive Design

- Addresses all known challenges
- Tools ensure surgery is a success
- Provides backup solutions during surgery

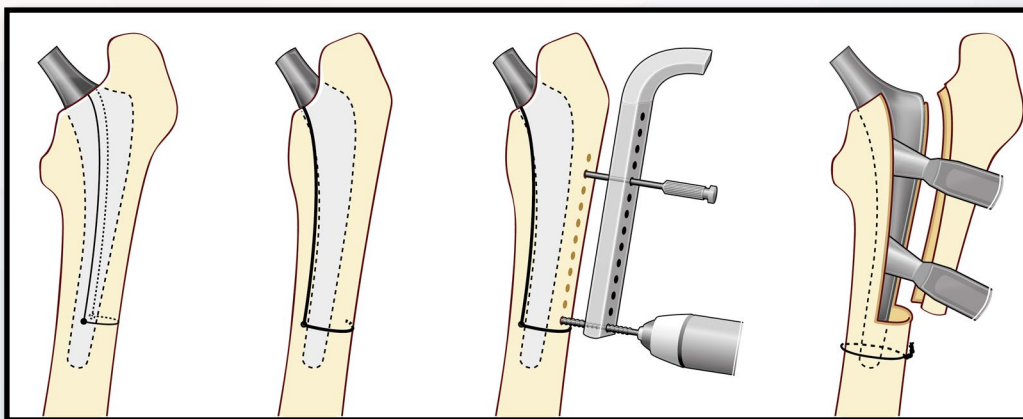
Alternative Method Comparison

Just like with the SHUKLA Hip set, an osteotomy is the most common alternative procedure for difficult modular hip stem revisions. An osteotomy is a surgical operation whereby part of the bone is removed to allow easier access to the implant.

Modular Hip Stems have their own unique complications when it comes to revision surgery; complications such as the lack of a trunnion to grab onto. The SHUKLA Modular Hip system may be a niche product used for a specific purpose, but when you need to remove a modular hip stem, nothing else comes close.

Benefits to Avoiding an Osteotomy

- Reduces risk of infection
- Reduces risk of nonunion fractures
- Reduces risk of complication due to bone loss
- Reduces need for physical therapy
- Reduces cost to hospital
- Reduces length of hospital stay for patient



Visual representation of an Extended Trochanteric Osteotomy procedure.

Return On Investment Justification

According to a study published in *JAMA Surgery*, the cost of one minute in an O.R. can vary anywhere from \$36 per minute to \$100 per minute, with the average cost of a minute in the O.R. at a staggering \$66! Taking just the lowest estimate of time savings, the savings per surgery can be estimated at 30 minutes x \$36 per minute = \$1,080. Since modular hip stems are more uncommon and overly tricky to deal with compared to other types of hip stems, they can pose quite the time consuming challenge! Or, they would, if not for our awesome Modular Hip system. In fact, a SHUKLA Mod Hip sells for \$5,600, and with an average time savings in the O.R. of about an hour, the system pays for itself in just three uses!

As always: Shukla Extraction = Quick = Less Time = Less Money Spent = Everyone is Happy!

When You Don't Have It

When using a hip stem extraction system from our competitors, you immediately run into the "Three Strikes" of extraction for all types of hip stems.

- **STRIKE ONE** - Competitor's system extractors are not inline with the hip stem itself, wasting up to 60% of the force exerted and increasing the risk of fractures.
- **STRIKE TWO** - Failing to get a good "bite" on the stem, resulting in wasted time and effort for the surgeon.
- **STRIKE THREE** - The inefficiency of the traditional slap hammer system. The slap hammer does not generate significant force on the implant, does not employ vibrational harmonics, and leads to both increased surgeon fatigue as well as wasted time in the O.R.

But when it comes to modular hip stems, a rare fourth strike is encountered.

- **STRIKE FOUR** - Since modular hip stems are less common and more difficult to remove, most other extraction sets are not equipped to properly remove them.

How We Compare

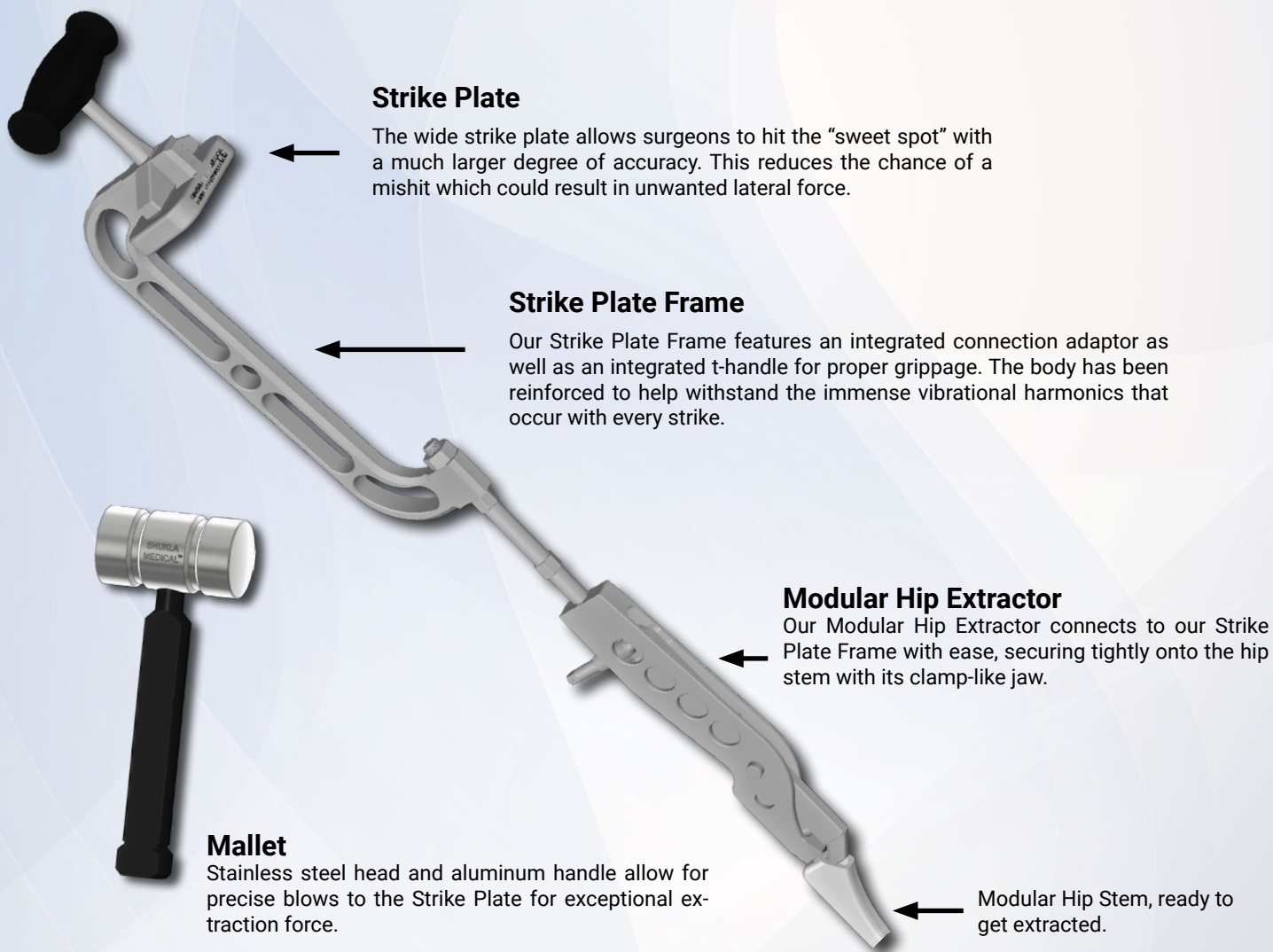
Most orthopedic implant manufacturers provide revision/extraction tools suited *only* for their own implants. Even suppliers that claim to offer extraction sets basically have an assortment of tools thrown together as an afterthought. For Shukla Medical, **extraction is what we do**. Our engineers design truly universal tools to help remove any implant/hardware out there, making our competition essentially nonexistent. Our patented designs are revolutionizing the art of revision surgery; we proudly stand alone. We have still tried to provide a comparison to other systems on the market.

The biggest advantage of the SHUKLA Mod Hip over the competition is that our system will work on modular hips from virtually any manufacturer. We are the only universal modular hip extraction set on the planet proving that we are not only a company that provides tools but one that is dedicated to providing solutions.

PATENT

- Strike Plate Frame

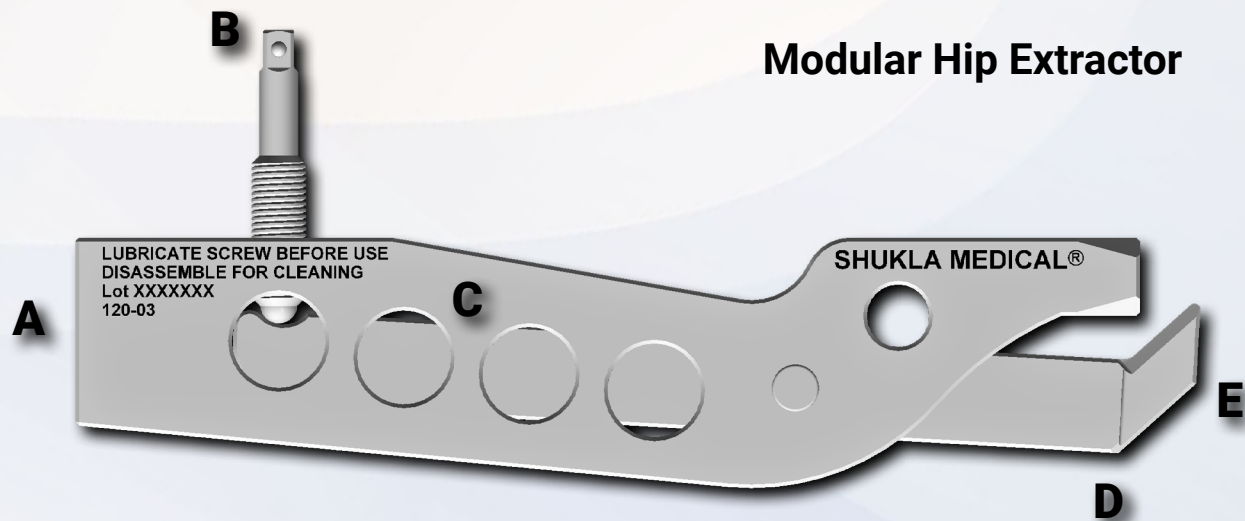
The SHUKLA Modular Hip system is a little unique compared to other SHUKLA sets. The patented item is not included with it - our Strike Plate Frame that is used in conjunction with our Modular Hip Extractor is included in the Hip system.



Attention to Detail

Our Modular Hip Extractor is the all-star of the SHUKLA Modular Hip system. It aggressively attaches to modular hip stems, eliminating the risk of slippage.

The extractor itself is filled with small little engineering decisions that show just how dedicated the team at Shukla is at making even the smaller details matter.



- A.** Attachment for the Strike Plate Frame Connector Shaft, allowing for quick extraction of the implant.
- B.** Built in T-Handle compatibility to easily tighten the “jaw” down onto the modular hip stem.
- C.** Holes provide both weight reduction for the instrument as well as easier cleaning and sterilization.
- D.** Large lever arm gives exceptional clamping force.
- E.** Angled “jaw” of the lever matches the angle of modular hip stem necks.

The four included tip configurations are engineered to work with the modular hip stems of specific companies: Stryker, Smith & Nephew, Wright Medical, and Zimmer.

However, they are also designed to work alongside all other types of modular hip stems as well, making it a universally compatible system.

Components List

Components List		
Part #	Description	Std Qty
120-01	Case, Modular Hip System	1
120-02	Lid, Modular Hip System	1
120-03	Extractor Assy, Modular Stem	1
120-04	Tip, Modular Stem, Stryker	2
120-05	Tip, Modular Stem, Smith & Nephew	2
120-06	Tip, Modular Stem, Wright Medical	2
120-07	Tip, Modular Stem, Zimmer	2
120-08	Connector Shaft, Strike Plate to Extractor, 7/16-20 UNF 2A both ends	1
HD218	THandle Assy, Square, 1/4"	1
MBT130	Tip Assy, Hex, Male, 3 mm	1

† For use in conjunction with the SHUKLA Hip (S9HIP)



THE EXTRACTION EXPERTS

Shukla Medical designs and manufactures instrumentation for orthopedic implant extraction at our headquarters in St. Petersburg, Florida, USA. We are proud to be an ISO 13485:2016 Certified company.

In 1998, aerospace component manufacturer S.S. White Technologies, Inc. acquired the Medical Products Division of Snap-On. S.S. White rebranded the medical division in 2007 to create Shukla Medical.

Today, Shukla Medical is the industry leader in orthopedic implant extraction tools. We are the only company to offer a comprehensive, truly universal orthopedic revision line for removing IM nails, hip and knee implants, spine hardware, and broken or stripped screws. Surgeons and industry leaders know: **If Shukla can't get it out, no one can.**

Contact us to learn more

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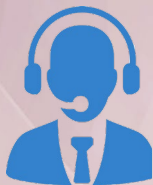
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CONSULT
INSTRUCTIONS
FOR USE



NON-STERILE
PRODUCT



SHUKLA Surgical Tech Support
24 hours a day, 7 days a week
727-626-2771

When you have tried all known techniques to extract an implant or remove a screw but determine you need suggestions for alternate techniques, help is only a phone call away. We will quickly put you in touch with our Technical Experts who will suggest other solutions to use our tools.



SHUKLA Medical offers the best warranty in the industry. Every component in a SHUKLA extraction system is designed and manufactured by us. Every component in our extraction systems that is not a single-use* or a wear* component is warranted against manufacturing defects for the life* of the system. All other parts are covered for as long as the purchased version of the system is actively marketed by SHUKLA Medical.

*Please see our website for the complete explanation of these terms and full details on our warranty.