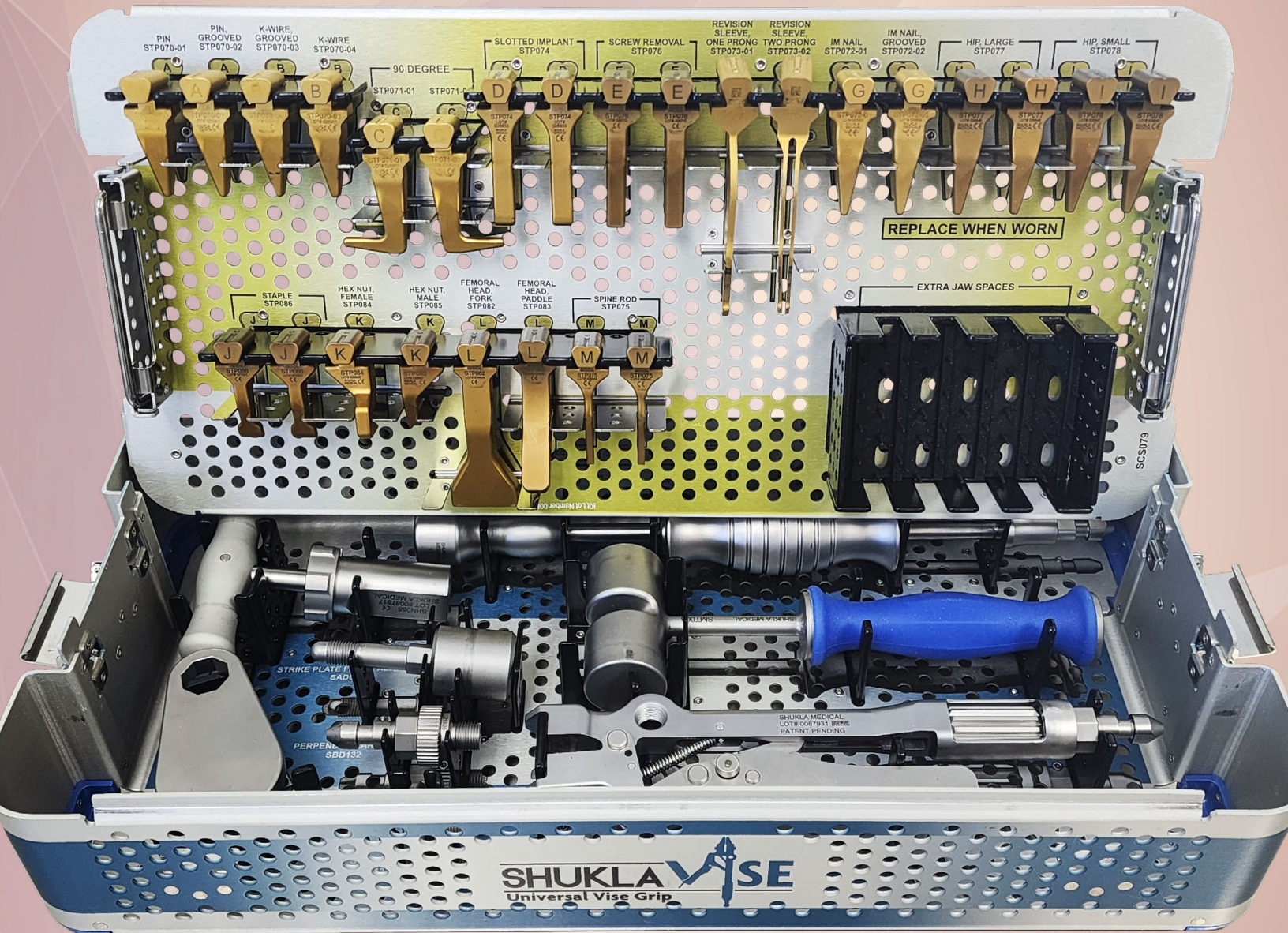


PRODUCT GUIDE

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SHUKLA VISE

Universal Vise Grip System



SHUKLA MEDICAL
Universal Orthopedic Extraction Technologies
THE EXTRACTION EXPERTS

SHUKLA



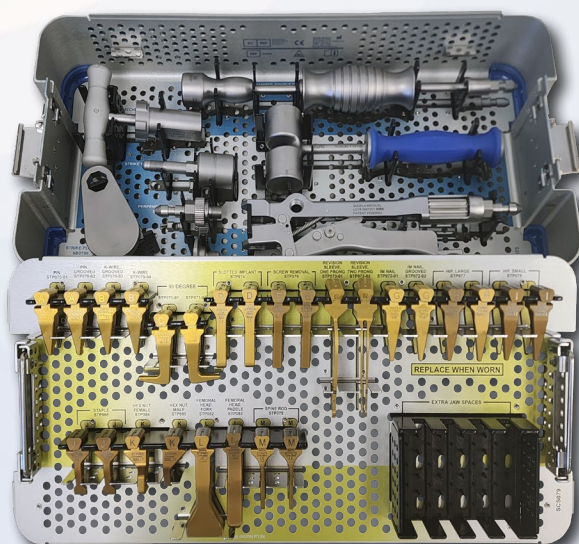
Universal Vice Grip

System

System Name: SHUKLA Vise v1

Primary Use

The SHUKLA Universal Vice Grip is designed for use during revision procedures to remove IM nail implants, knee implants, hip implants, pins, k-wires, nuts, spine rods, staples, and screws. It is designed to be used in multiple types of revision surgeries, instead of a single type as is the case with most other SHUKLA Medical products.



System History

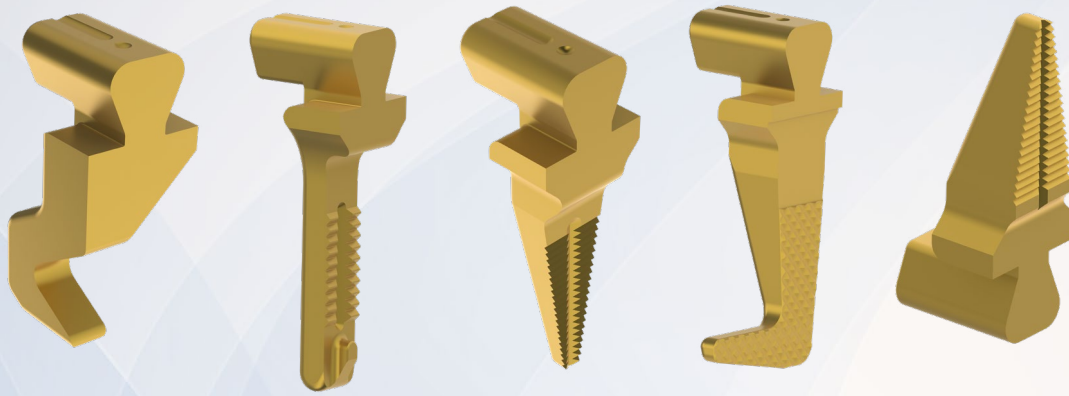
The SHUKLA Vise universal vice grip started its life during the development of the SHUKLA Shoulder system. It graduated from concept to active design status in 2021, when the engineering team settled upon the idea of repurposing the SHUKLA Shoulder system's Glenosphere Extractor. The modular nature of the extractor immediately lent itself to other applications, and within a short time frame a long list of potential modular jaws had been prototyped. The SHUKLA Vise is the latest Shukla Medical system engineered from the ground up to be utilized in any type of orthopedic revision surgery as opposed to being procedurally dependent.

Version History

- 2023: Version 1 Introduced

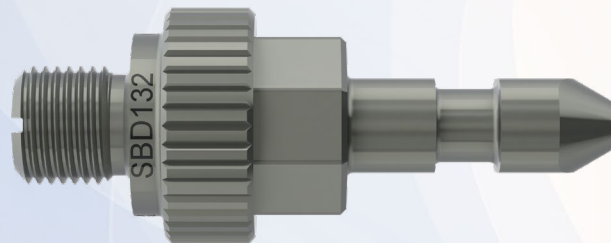
Key Benefits

- Ability to remove a wide range of implants, pins, k-wires, nuts, spine rods, screws, and more.
- 20 different jaws to configure the Vise Grip Extractor for any scenario.



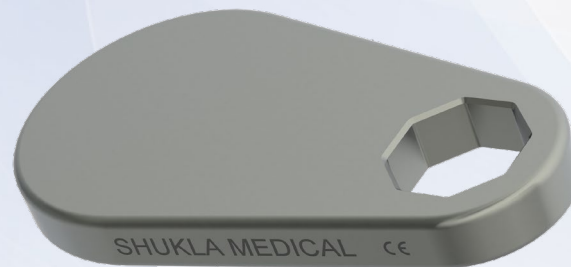
Sample Selection of Vise Jaws

- Perpendicular Hub allows for the use of extraction options while gripping perpendicular to the implant or object.



Perpendicular Hub

- Strike Plate applies extraction force in line with the object to be extracted. Its octahedral design allows it to be positioned in the direction best accessible to the surgeon at any point.



Strike Plate

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

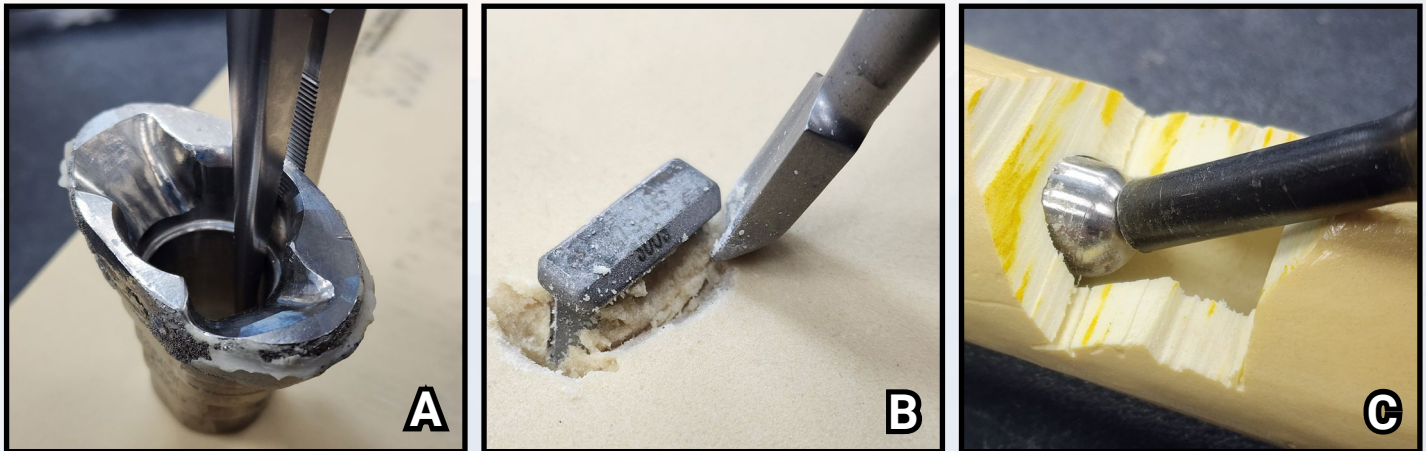
Comprehensive Design

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

Alternative Method Comparison

Most of Shukla Medical's products are geared towards a specific type of revision surgery. However, the SHUKLA Vise's modular jaw functionality allows it to be used in a broad spectrum of orthopedic revision surgery scenarios. From revision sleeves to broken trunnions to staples to pins to k-wires and beyond, the capabilities of the Vise Grip jaws are vast. As such, each jaw configuration has its own Alternative Method to how surgeons have to fall back on if Shukla isn't in the operating room.

Three prime examples of when having our Vise Grip Extractor on hand leads to a better situation are with knee or hip revision sleeves, staples, and IM nails. For a revision sleeve, trying to clamp onto it with pliers, or digging it out with an osteotomy or chisel leads to wasted time and bone. For a staple, using a chisel to remove the bone enough to remove it leads to unnecessary bone loss. For an IM nail, an osteotomy so a punch can be used is never good for the patient. All of these scenarios and more can be avoided with the SHUKLA Vise system.



Three examples of scenarios that occur if a proper extraction option isn't available.

A: Pliers attempting to grab onto a revision sleeve.

B: A chisel trying to remove a staple from bone.

C: A punch trying to dislodge an IM nail.

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 60 to 90 minutes. At 75 minutes per surgery, the savings would be $75 \times \$36$ per minute = \$2,700. The SHUKLA Vise v1 sells for \$29,500, meaning that even at the lowest cost per minute in the O.R. it would only take 11 uses for it to pay for itself.

When You Don't Have It

Not having a SHUKLA Vise system on hand during orthopedic revision surgeries essentially means you are flipping a coin and hoping you won't run into a complication during the procedure. Pins, K-Wires, Hex Nuts, Staples, and Screws can show up in all kinds of revisions. Why waste surgeon time and patient bone getting those out any other way? When it comes to more specialized components like Revision Sleeves, Broken Trunnions, Spine Rods, and more, the benefits become even more pronounced. Being able to avoid situations that result in an osteotomy, reducing the time spent in the operating room, decreasing surgeon fatigue, and reducing both patient bone loss and time spent under anesthesia are all benefits that should never be undervalued.

With our universal modular vise grip extractor, it does not matter if surgeons know 100% what is inside the patient before beginning the procedure. Why waste your time, the S.P.D.s time, or the patient's time, when instead you can just use a SHUKLA Vise system?

PATENTS

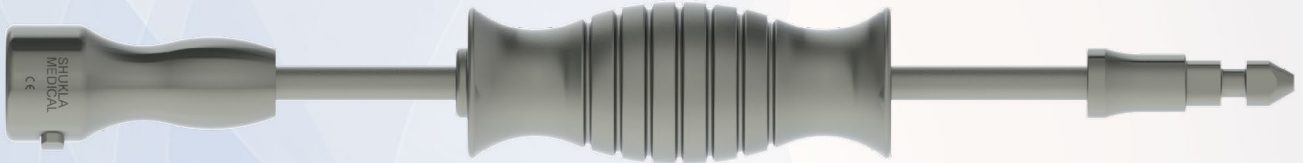
- Vise Grip Extractor
- Slide Hammer
- Ratcheting T-Handle
- Dovetail Connection
- Revision Sleeve Jaws
- Hex Nut Jaws
- Screw Jaws
- Slotted Implant Jaws

The SHUKLA Vise v1 system is filled with patented instruments thanks to our incredibly hardworking and talented engineering team



Vise Grip Extractor

Universal vise grip extractor. Includes two push-to-connect slots for modular jaws as well as a quick-connect end for instrumentation.



Slide Hammer

Quick-connect functionality allows the slide hammer to be equipped and engaged in moments, allowing for rapid extraction of orthopedic hardware.



Dovetail Connection

The quick-connect dovetail is for the rapid attachment and removal of different types of jaws. The dovetail has a detent which keeps the jaws in place until they are removed by hand.

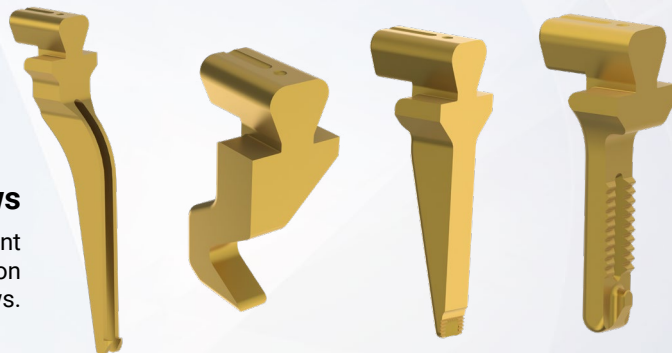


Ratcheting T-Handle

The quick-connect capability allows for rapid insertion of extractors. The symmetric T-shape allows for solid and stable grip while extracting implants using a strike plate.

Vise Grip Extractor Jaws

Modular jaws designed for a wide array of different applications. Our patented jaws include Revision Sleeve, Hex Nut, Screw, and Slotted Implant Jaws.



How We Compare

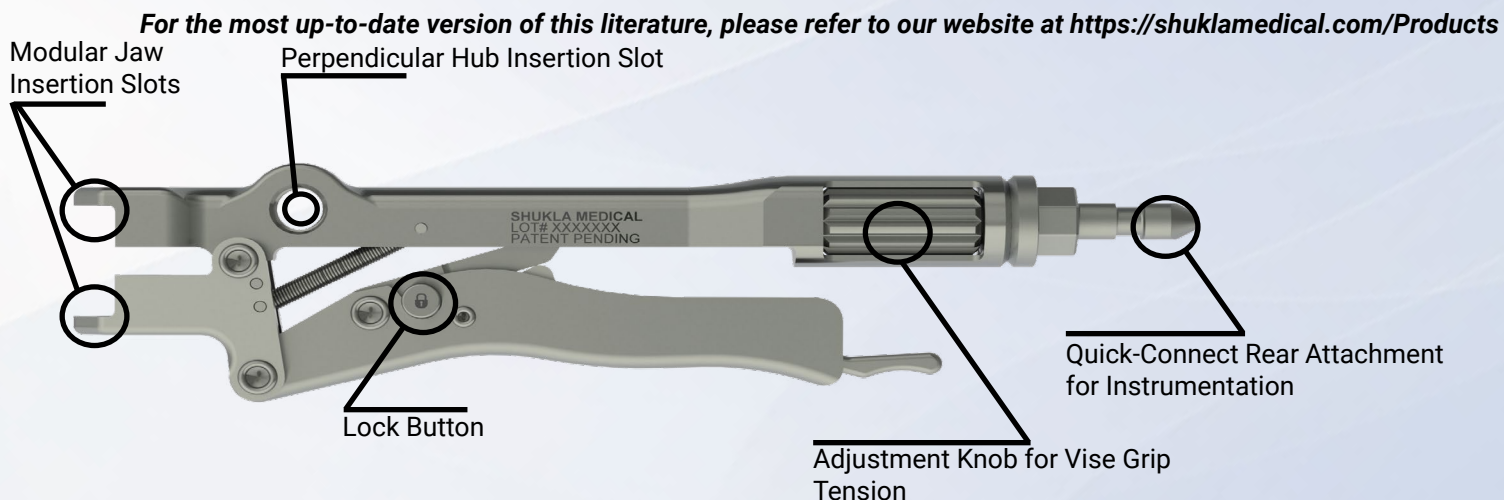
Most orthopedic implant manufacturers provide revision/extraction tools suited *only* for their own implants. Even suppliers that claim to offer extraction sets basically have an assortment of tools thrown together as an afterthought. For Shukla Medical, **extraction is what we do**. Our engineers design 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 SHUKLA Vise is the market's first universal and modular vise grip extractor designed to work with pins, k-wires, screws, nuts, and more no matter who the manufacturer is. The modular nature of the jaws allows for rapid swapping to match whatever situation the surgeon finds themselves in. There is no true comparison to be made, because nothing else comes close to the capabilities of the SHUKLA Vise.

Attention to Detail

The SHUKLA Vise system showcases our engineer's attention to detail for extraction. The wide range of modular jaws available in the system are a result of their research into all of the potential situations the Vise Grip Extractor might be used. The Vise system is intended to be a universal companion product to Shukla Medical's wide range of procedure specific extraction systems. All of the extraction instrumentation were designed to make sure all extraction impacts remain in line with the component to be removed, reducing the risk of fractures and keeping bone loss at a minimum. The modular jaws are coated with titanium nitride to prevent galling during the extraction or removal process. This also gives the jaws an extra level of hardness, increasing their durability.

The Vise Grip Extractor has several features that showcase the care our engineers put into its design. The modular jaws all have a quick-connect dovetail connection which allows for the rapid insertion and swapping of the jaws while in the middle of a surgery. The adjustment knob allows the surgeon to accurately size the jaws while wearing surgical gloves without worrying about tearing or snagging them. The perpendicular hub allows for the extraction and removal of components that are not inline with the extractor itself. And the rear attachment chuck allows for the quick-connection of our extraction instrumentation.



Components List

Component List			
Std Qty	Part Number	Description	Jaw Letter
1	SCS073	Case, Universal Vise Grip	
1	SCS074	Lid, Universal Vise Grip	
1	SCS079	Tray, Universal Vise Grip	
1	SXT095-02	Universal Vise Grip	
1	SAD017	Adaptor, Strike Plate Frame	
1	SIN012	Slide Hammer, Female Chuck	
1	SMT003	Mallet, Slotted	
1	SBD106	Strike Plate	
1	SHN055	T-Handle, Ratcheting	
1	SBD132	Perpendicular Hub	
1	SBD133	Strike Plate, Side	
1	STP070-01	Jaw, Pin	A
1	STP070-02	Jaw, Pin, Grooved	A
1	STP070-03	Jaw, K-Wire, Grooved	B
1	STP070-04	Jaw, K-Wire	B
1	STP071-01	Jaw, 90 Degree A	C
1	STP071-02	Jaw, 90 Degree B	C
1	STP072-01	Jaw, IM Nail	G
1	STP072-02	Jaw, IM Nail, Grooved	G
1	STP073-01	Jaw, Revision Sleeve, One-Prong	F
1	STP073-02	Jaw, Revision Sleeve, Two-Prong	F
2	STP074	Jaw, Slotted Implant	D
2	STP075	Jaw, Spine Rod	M
2	STP076	Jaw, Screw Removal	E
2	STP077	Jaw, Hip, Large	H
2	STP078	Jaw, Hip, Small	I
1	STP082	Jaw, Femoral Head, Fork	L
1	STP083	Jaw, Femoral Head, Paddle	L
1	STP084	Jaw, Hex Nut, Female	K
1	STP085	Jaw, Hex Nut, Male	K
2	STP086	Jaw, Staples	J



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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S9VISE



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CONSULT
INSTRUCTIONS
FOR USE



NON-STERILE
PRODUCT



For the most up-to-date version of this literature, please refer to our website at <https://shuklamedical.com/Products>



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.