

SHARP RAZOR
WELLBORECLEANUP

Sharp Razor
Wellbore Cleanup Tools

Sharp Razor Wellbore Cleanup Tools

Sharp Razor is a young team who has led in our industry and continues to grow quickly. Our current wellbore cleanup tools are a significant improvement over the current market. We are currently in the process of developing a new generation of wellbore cleanup tools.

Our wellbore cleanup tools are designed to be used in a variety of wellbore conditions. They are designed to be used in a variety of wellbore conditions. They are designed to be used in a variety of wellbore conditions.

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Sharp Razor™ Series

1

SUPER Unique Sharp-
Razor™ Scraper



2

Sharp-Razor™ (SR)
Non-rotating Casing
Scraper



3

HD Sharp-Razor™
Casing Scraper



4

RIGID Sharp-Razor™
Casing Scraper



SUPER Unique Sharp-Razor™ Scraper

INTRODUCTION

Sharp-Razor™ Series is a heavy duty wellbore clean-up scraper suitable for all downhole conditions and with robust, high performance features.

The scraper cage flexes like a spring, to conform to the casing internal surface, to mechanically remove hard debris from the casing.

The alloy bronze bearings feature both axial and radial elements to allow extended rotation in harsh environments preventing tool and casing wear. The Heavy Duty version includes an integral string mill. The Standard Duty version comes with a plain external diameter.

SUPER Unique Sharp-Razor™ Scraper



SUPER Unique Sharp-Razor™ Scraper



FEATURES

- Solid state scraper cage and centralizers, manufactured from a single billet without the need for springs, bolts or pads
- Non-rotating design with high performance alloy bronze bearings, compatible with high temperature and chemical applications
- Optional integral string mill with crushed carbide blades to remove cement
- Available with all API and premium drill pipe connections



One piece scraper cage
and centralizers



Integral string
mill (Optional)



Alloy bronze
bearings

BENEFITS

- *A properly executed wellbore clean-up mitigates risk during completion operations and the productivity of the well.*
- *Prevent debris related premature packer setting while RIH*
- *Assists in chemical cleans action*
- *Prepare casing wall to ensure packer element sets and mitigate premature elastomer failure*

Sharp-Razor™ (SR) Non-rotating Casing Scraper

INTRODUCTION

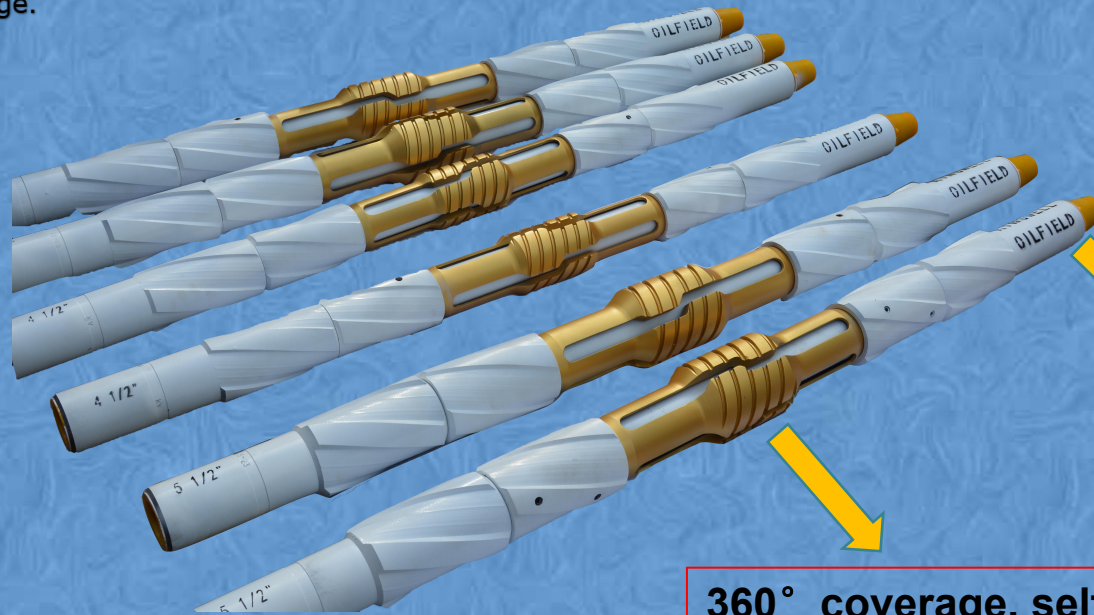
Sharp-Razor™ (SR) Non-rotating Casing Scraper used for wellbore cleanup and casing scraping operations, with the new-generation improvement in integral blade design, it is more effective, more robust and safer for most complex wellbore condition.

Application:

- Removes cement sheath, burrs, and pipe scale
- Pre-completion wellbore clean-up
- Workovers and sidetracking
- Abandonment
- Drilling / milling cement plugs

FEATURES

- Non-rotating, 360° coverage, self centralizing metal-bladed lantern
- Integral blade manufactured from a single billet, one piece mandrel.
- Optional mill ring for cement removing request.
- Available with all API and premium drill pipe connections
- Easy to replace the blade cage.



Easy to replace the blade cage

360° coverage, self centralizing inside the tubular to ensure equal cleaning force at all angles of well inclination

The mandrel rotates through the stabilizer sleeves and lantern to avoid wear or damage to the casing during pipe rotation

How it works

The SHARP RAZOR Series can run as an integral part of the drillstring to scrape the casing as the pipe is run in hole. It can be run as part of most drilling/milling/polishing assemblies, as a standalone device or, more often, with circulating tools and as part of the cleanup system. It can be rotated and reciprocated without fear of damage to casing or the tool itself.

The SHARP RAZOR Series consists of a main mandrel complete with non-rotating, right-hand spiral stabilizer sleeves and a metal-bladed lantern covering 360°. The metal-bladed lantern is both strong and flexible, and provides the force to contact and scrape the pipe ID effectively. While running in hole, it is good practice to break circulation and reciprocate the pipe regularly (every 5,000 ft [1,524 m]) to disperse and enhance the cleanup of any debris buildup.

Heavy Duty (HD) Sharp-Razor™ Casing Scraper

INTRODUCTION

The HD Sharp-Razor™ Casing Scraper consists of: a high-strength, one-piece mandrel and is designed to meet the demands of Complex wellbore cleanups. By allowing a higher RPM and weight-on-bit rating than the standard Shape-Razor device. The HD Sharp-Razor Casing Scraper unit is well suited for drilling up cement accessories commonly found inside the liner or casing.

Application

- Removes cement sheath, burrs, and pipe scale
- Pre-completion wellbore clean-up
- Workovers and sidetracking
- Abandonment
- Drilling / milling cement plugs

Compared with Standard Sharp-Razor™

4 Typical Advantages

Fixed mill rings to enhance efficiency when drilling cement accessories

1

Max. running speed (150ft/m) , allow higher RPM and weight-on-bit rating

2

More effective. robust and safer for complex cleanup

3

HTHP-compatible

4



Technical data

Sharp-Razor™ Series ™ Series Non Rotating Casing Scraper DIMENSIONAL DATA						
Nominal OD(in)	Weight (ppf)	Connection	Centralizer OD(mm)	ScraperCage OD (mm)	ID(in)	Length (in)
4-1/2"	11.6-15.1 PPF	2-3/8 REG B*P	3.78"	4.05"	0.78	65
5"	11-24.1 PPF	2-3/8 REG B*P	3.94"	4.56"	0.78	65
5-1/2"	14-43.1 PPF	2-3/8 REG B*P	4.33"	5.03"	1	69
6-5/8"	20-32ppf	3-1/2 REG B*P	5.31"	5.86	1	70
7"	26-35 lb/ft	3-1/2 REG B*P	5.83"	6.3"	1.18"	74
9-5/8"	43-53.5 lb/ft	NC50 B*P	8.07"	8.77"	2.81"	86
10-3/4"	32.75--85.3	6-5/8 REG B*P	9.17"	9.76"	2.81"	98
13-3/8"	48-54.5-61-68-72	6-5/8 REG B*P	12.32"	12.83"	2.81"	110

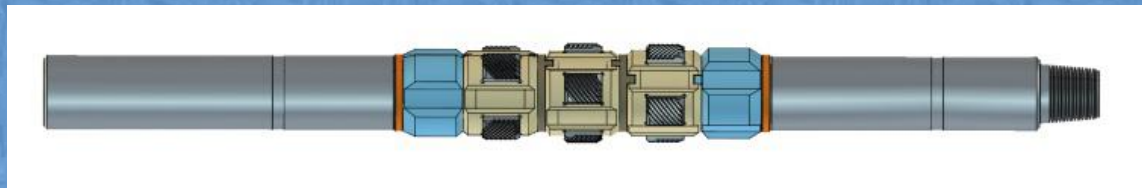
RIGID Sharp-Razor™ Scraper

INTRODUCTION

The RIDGE Sharp-Razor™ Casing Scraper developed for use in perforated casing or liner to remove perforation burrs and to ensure the safe passage of completion equipment. Provides advanced wellbore cleanup in the post-perforating well phase, where a high degree of casing or liner ID smoothness through the perforated interval is required . Completely removes perforation burrs, preventing damage to completion equipment, including expandable screens/expandable pipe used in complex/smart completion .

Structure:

The RIDGE Sharp-Razor™ Casing Scraper consists of: a high-strength, one-piece mandrel and is designed to meet the demands of Complex wellbore cleanups. By allowing a higher RPM and weight-on-bit rating than the standard Shape-Razor device. The HD Sharp-Razor Casing Scraper unit is well suited for drilling up cement accessories commonly found inside the liner or casing.



Feature

- Robust enough to remove bigger and large volume burrs, cementing accessories.
- Clean by rotation and up/down pipe movement..
- Supplied with drill-pipe box up/pin-down connections .
- Available in all common casing/ liner sizes

Application

Mainly used in perforated casing or liner to remove perforation burrs and to ensure the safe passage of completion equipment

Length (inch)	Bore (inch)	Casing weight PPF	Centralizer OD inch	Blade OD (inch)	OD (inch)	Connection (API)	Max. Tensile (t)	Max. Torque (KN.M)
68 1/2	1	11.5-15	4	4 2/3	4	2 3/8REG	65	25
68 1/2	1 1/2	14-17	4	4 2/3	4	NC31	80	30
71	1 7/8	17-29	5 4/5	6 3/5	5 4/5	NC38	120	40
71	1 7/8	36-58.4	8 1/4	9	8 1/4	NC50	150	50

KrinBack™ Casing Brush

INTRODUCTION (Option 1)

KrinBack™ utilizes a unique lantern design that provides greater brush life. This lantern design also allows easy, remote location redressing when required, saving time and delivering a higher level of service. The tool's effective, robust, and flexible design allows for complex operations.



Feature

- Brush cleaning life prolonged during rotation .
- Self-centralizing, flexible-brush lantern .
- Available in all common casing/ liner sizes.
- Supplied with drill-pipe box-up/ pin-down connections .
- Brush pads can easily be replaced on location

KrinBack™ Casing Brush

INTRODUCTION(Option 2)

- Pre-completion/Drill-Stem Test (DST) and workover cleanup operations
- Can be used as an integral part independently, or as a part of KINGWELL COMBO Wellbore Cleanup tools.
- Can be rotated and reciprocated without damage to either the casing or the tool.

DIMENSIONAL DATA				
Max. OD (in)	Connection	Max. OD. Of Brush (in)	ID(in)	Length (in)
4 1/8	NC31	5 1/8	1	78
5 7/16	NC38	6 7/8	1 5/8	83
6	NC38	6 7/8	1 5/8	83
8 3/16	NC50	9 1/8	2 3/4	85 11/16

Tools picture of option 2



KrinBack™ Casing Brush

Upgraded Design in 2021

- Non-rotating .
- More robust
- Ball bearing
- Improving the brush area by enhance the length of Brush Parts.(12 number of blade and brush)



Giant-Mag™ & Magstar™

INTRODUCTION

The Giant-Mag™ is a wellbore clean-up magnet suitable for all downhole conditions and with robust, high performance features, is designed to recover large volumes of ferrous debris to ensure the integrity of the wellbore cleanup. The magnet features a large magnetic surface area along with discrete flow channels to combine higher magnet strength with greater volume to optimize recovery.

Giant-Mag™ (Option 1)



Giant-Mag™ & Magstar™

Magstar™ (Option 2)



Feature

- Compact design- Single piece mandrel.
- High strength rare earth magnets.
- Fixed stabilizer sleeve to provide stand off when POOH.
- Optional dedicated flow channel to prevent flow path restrictions when packed full of debris

Giant-Mag™ & Magstar™

Advantages

1. Removable magnets for body inspection .
2. Recovered material is easily removed on location.
3. High temperature rating on magnets up to 350°F (177° C) .
4. Debris channels allow for larger volume of ferrous material to accumulate.

Application

Run separately or as part of a comprehensive wellbore clean-up, which designed to capture ferrous metal debris in the wellbore. or as an integral part of the drillstring during wellbore preparation operations.

DIMENSIONAL DATA					
Max. OD (in)	Connection	Working Temp	Max. OD. Of Blade (in)	ID(in)	Length (in)
5.75	NC38 X NC38	Up to 400 F	7	1.97	82.44
8.23	NC50 X NC50	Up to 400 F	9 1/2	2.81	81.65

Grand-Mix™ (GM) Combination casing cleaning tools

INTRODUCTION

The Grand-Mix™ (GM) consists of the latest generation scraper, brush and high capacity magnet, combined them into a simplified and rugged tool, which has an integral magnet section to capture ferrous debris, scrapers to dislodge difficult to-remove debris, and brushes to disturb the sheath and any other fluid build-up on the inner wall of the casing or liner. The tool can be run in the inner production riser, casing, and liner to remove a combination of scale, rust, mud film, drilling debris, ferrous debris, and pipe dope.

Feature

- One tool carries scrapers, brushes, or magnets on the same mandrel.
- Large flow area between magnets to capture large debris
- Brush component can be readily redressed at remote locations
- Available with any tubing connection to run directly on the completion tubing.

Application

The Grand-Mix™ can be configured for any Casing and Tubing combination with matching metallurgy and connections

