





WELLCARE OIL TOOLS

[www.wellcareoiltools.com](http://www.wellcareoiltools.com)



## LINER HANGER SYSTEM

 (+91) 01493 - 250357

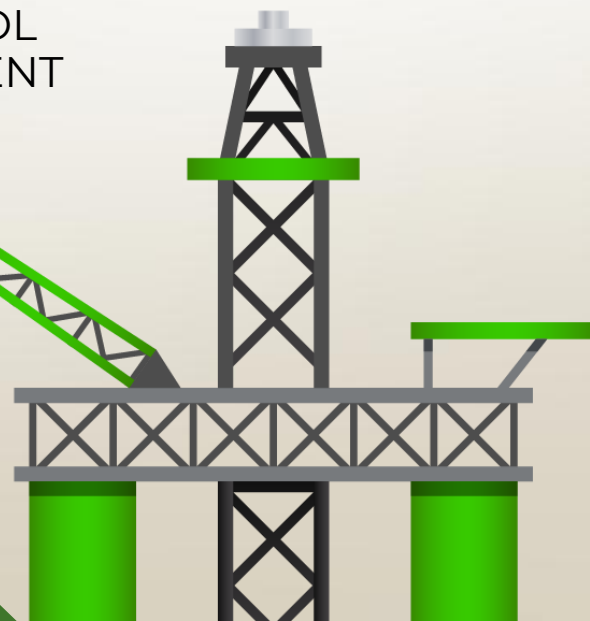
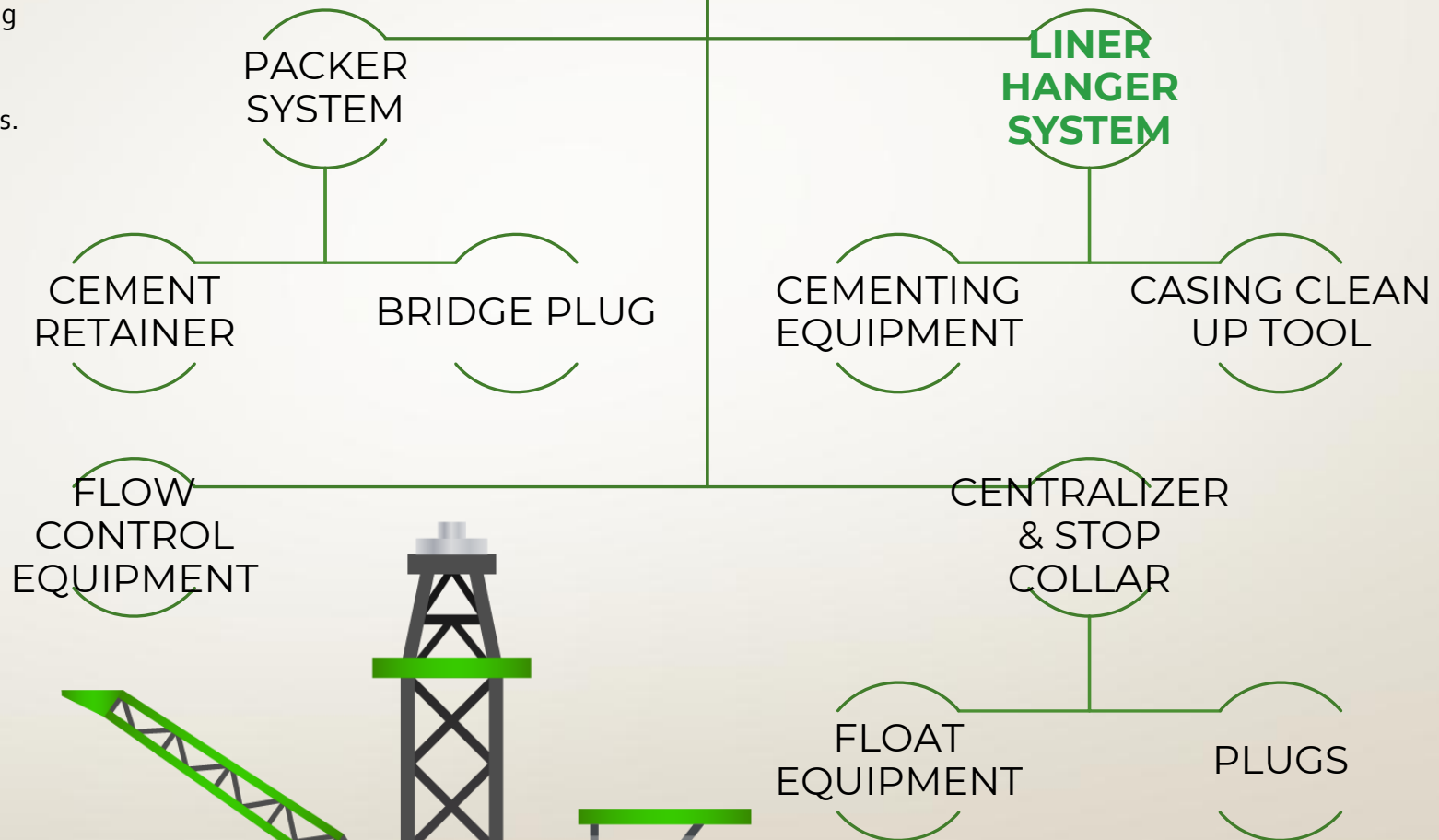
 [info@wellcareoiltools.com](mailto:info@wellcareoiltools.com)  
[sales@wellcareoiltools.com](mailto:sales@wellcareoiltools.com)



## WELLCARE OIL TOOLS

Wellcare has all the quality systems in place for design, planning, manufacturing and quality monitoring & traceability to ensure that WELLCARE products match the highest quality & reliability Standards.

# WELLCARE PRODUCT RANGE





# API Certificates

**API** American Petroleum Institute

**REGISTRATION NO. Q1-4504**

## Certificate of Registration

The American Petroleum Institute certifies that the quality management system of

**WELLCARE OIL TOOLS PRIVATE LIMITED**  
**F-209/210, IID, Riico Industrial Area**  
**Khuskhera, Alwar, Rajasthan**  
**India**

has been assessed by the American Petroleum Institute and found to be in conformance with the following:

**API Spec Q1, 9th Edition**

The scope of this registration and the approved quality management system applies to the

**Design and Manufacture of Oilfield Drilling and Downhole Completion Equipment for the Oil and Gas Industry**

API approves the organization's justification for excluding

**No Exclusions Identified as Applicable**

**Effective Date: AUGUST 24, 2024**  
**Expiration Date: AUGUST 24, 2027**  
**Registered Since: AUGUST 24, 2021**

*Anchal Liddar*  
 Senior Vice President of Global Industry Services

This certificate is valid for the period specified herein. The registered organization must continually meet all requirements of API Spec Q1, Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry, and the requirements of the Registration Agreement. Registration is maintained and regularly monitored through annual full system audits. This certificate has been issued from API offices located at 200 Massachusetts Avenue, NW Suite 1100, Washington, DC 20001-5571, U.S.A. It is the property of API and must be returned upon request. To verify the authenticity of this certificate, go to [www.api.org/compositelist](http://www.api.org/compositelist).

**Q1**  
 API Spec Q1  
 Registered

2021-154 | 11.21 | Digital



**American Petroleum Institute**



2018-151 | Digital

## Certificate of Authority to use the Official API Monogram

**License Number: 11D1-0191** **ORIGINAL**

The American Petroleum Institute hereby grants to

**WELLCARE OIL TOOLS PRIVATE LIMITED**  
**F-209/210, IID, Riico Industrial Area**  
**Khuskhera, Alwar, Rajasthan**  
**India**

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and **API-11D1** and in accordance with the provisions of the License Agreement.

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The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.

The scope of this license includes the following: Bridge Plugs, Packers at V0-R, V0, V1-R, V1, V2-R, V2, V3-R, V3, V4-R, V4, V5-R, V5, V6-R, V6

QMS Exclusions: No Exclusions Identified as Applicable

**Effective Date: AUGUST 28, 2024**  
**Expiration Date: AUGUST 24, 2027**

*Anchal Liddar*  
 Senior Vice President of Global Industry Services

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# API Certificates



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2018-151 | Digital

## Certificate of Authority to use the Official API Monogram

License Number: 14L-0093

ORIGINAL

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Khuskhera, Alwar, Rajasthan  
India

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The scope of this license includes the following: Landing Nipples at V3, V2; Lock Mandrels at V3, V2, V1

QMS Exclusions: No Exclusions Identified as Applicable

**Effective Date: AUGUST 24, 2024**

**Expiration Date: AUGUST 24, 2027**

*Anchal Liddar*

Senior Vice President of Global Industry Services

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# API Certificates



**American  
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2018-151 | Digital

## Certificate of Authority to use the Official API Monogram

License Number: **5CT-2224**

**ORIGINAL**

The American Petroleum Institute hereby grants to

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F-209/210, IID, Riico Industrial Area  
Khuskhera, Alwar, Rajasthan  
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the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and **API-5CT** and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram shall be used in conjunction with this certificate number: **5CT-2224**

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.

The scope of this license includes the following: Pipe Threader

QMS Exclusions: Design and Development

**Effective Date: AUGUST 24, 2024**

**Expiration Date: AUGUST 24, 2027**

To verify the authenticity of this license, go to [www.api.org/compositelist](http://www.api.org/compositelist).

Senior Vice President of Global Industry Services





# API Certificates



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2018-151 | Digital

## Certificate of Authority to use the Official API Monogram

License Number: 19AC-0050

ORIGINAL

The American Petroleum Institute hereby grants to

**WELLCARE OIL TOOLS UNIT-II PRIVATE LIMITED**  
Plot No. G-169, G-170 and G-171  
Karoli Industrial Area  
Bhiwadi, Rajasthan  
India

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and **API-19AC** and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram shall be used in conjunction with this certificate number: **19AC-0050**

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.

The scope of this license includes the following: Completion Accessories - Pressure Containing, Completion Accessories - Non-Pressure Containing

QMS Exclusions: No Exclusions Identified as Applicable

Effective Date: **MAY 24, 2024**

Expiration Date: **MAY 27, 2026**

To verify the authenticity of this license, go to [www.api.org/compositelist](http://www.api.org/compositelist).

*Anchal Liddar*

Senior Vice President of Global Industry Services



## Understanding Wellcare Capabilities

In order for our customers, associates understand about Wellcare facilities and capabilities, have a detailed corporate video available at the below link:

<https://www.youtube.com/watch?v=2ciKprMBaFE>

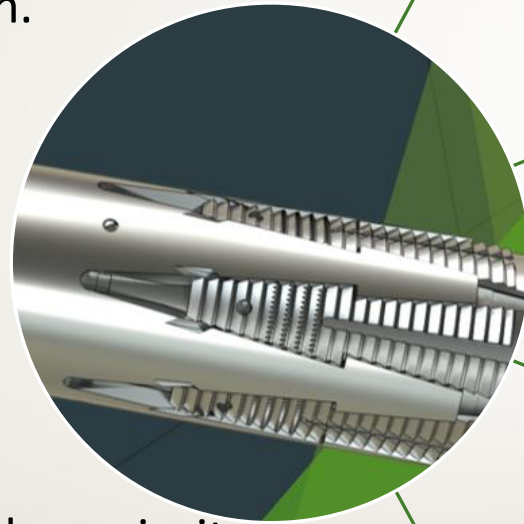




## The Slip Type:

Wellcare offers various kind of slip design as per preference and conversance of a customer for the desired field application.

Two most utilized slips, preferred/vouched for, by majority of Wellcare customers, is the pocket slip and the arm slip design. These constitute 80% of the supplies.

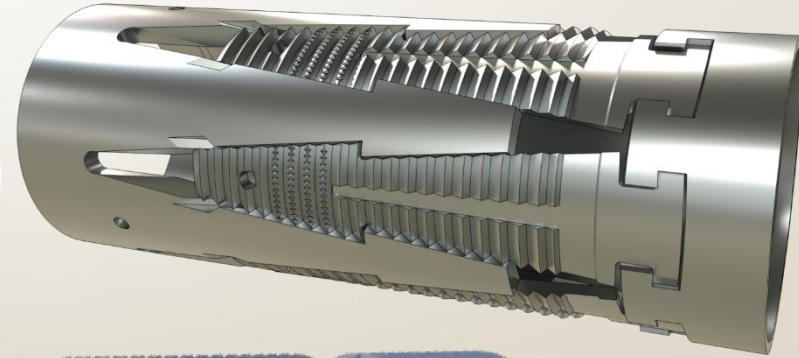
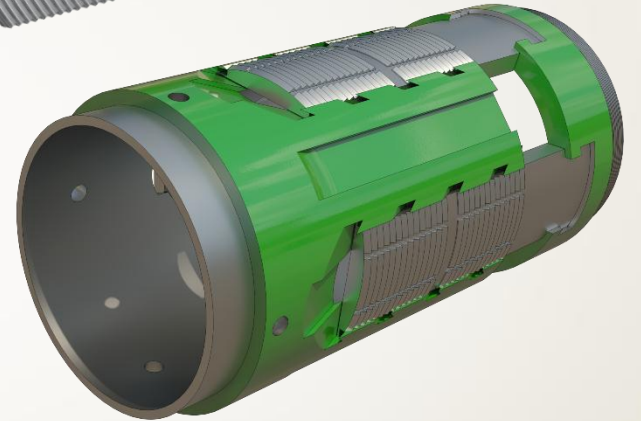


Conventional Mounted Slips/Arm Slips

Protected Pocket Slips/Furl Lock Slips

Crocodile slips for exceptionally heavy liners

Barrel Slips For Non Cemented application/ ERD wells.





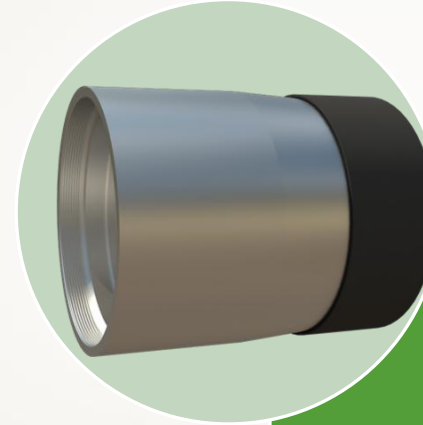


## Next Big Question, the Liner Top Packer Element Design

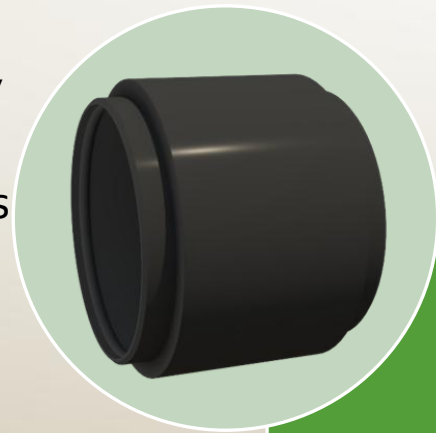
There are basically two kind of packing elements available for different well conditions.

The premium bonded packing element is preferred by the customer in condition where there are chances of elastomer being swabbed off during RIH.

Whereas the standard one is the dearest of some other customers who basically has relatively less troubling well conditions and is looking for an economical solution.



**Metal Expandable Bonded Packing Element:**  
For HPHT well conditions. Suitable to withstand high circulation rates while RIH, 15k PSI, 400 DEG F. Available in V0 VG with up to 10kPSI rating, V3 with up to 15K PSI



**Standard Single Mounted Packing Element**  
Designated for standard well condition. Available in V3 and V0 validation grades. Pressure ratings up to 10KPSI



# Conventional Liner Hanger Systems

## 1. Pocket Slip Liner Hanger Packer:

- Hydraulic-Rotating, Non Rotating
- Mechanical-Rotating, Non Rotating

## 2. Conventional Arm Slip Liner Hanger Packer:

- Hydraulic- Non Rotating
- Mechanical-Non Rotating

## 3. Related Running Tools and Other Accessories.

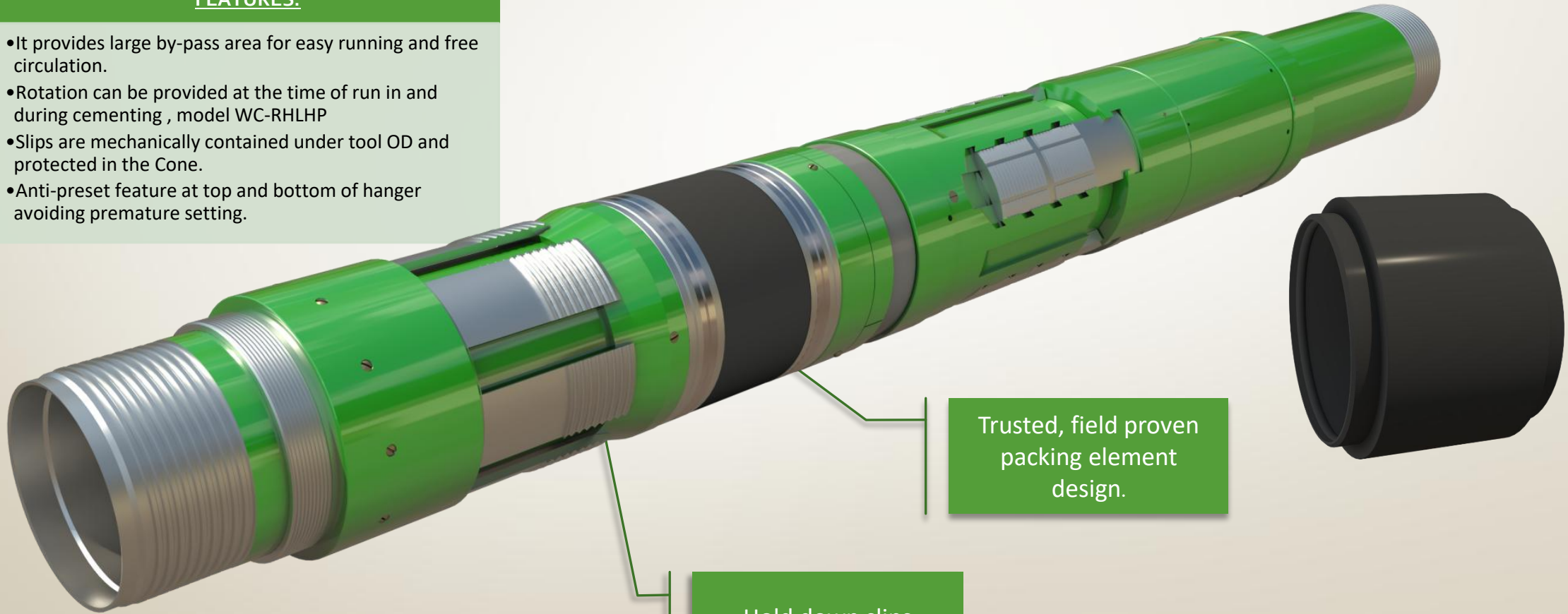


## HYDRAULIC SET FURL-LOCK LINER HANGER WITH INTEGRATED PACKER

Model WC-HLHP is a Hydraulic Set Liner Hanger with compression set integrated packer. The packer is design for both cemented and non cemented liner applications. Set hydraulically either by using a ball seat in Liner string or running tool string itself. Also available and widely used in rotational version, Model WC-RHLHP.

### FEATURES:

- It provides large by-pass area for easy running and free circulation.
- Rotation can be provided at the time of run in and during cementing , model WC-RHLHP
- Slips are mechanically contained under tool OD and protected in the Cone.
- Anti-preset feature at top and bottom of hanger avoiding premature setting.



Trusted, field proven packing element design.

Hold down slips available

**V3& V0 Validation Grade**  
**Working Temperature: 0-400 °F**  
**Pressures Rating: Up to 10,000 PSI**

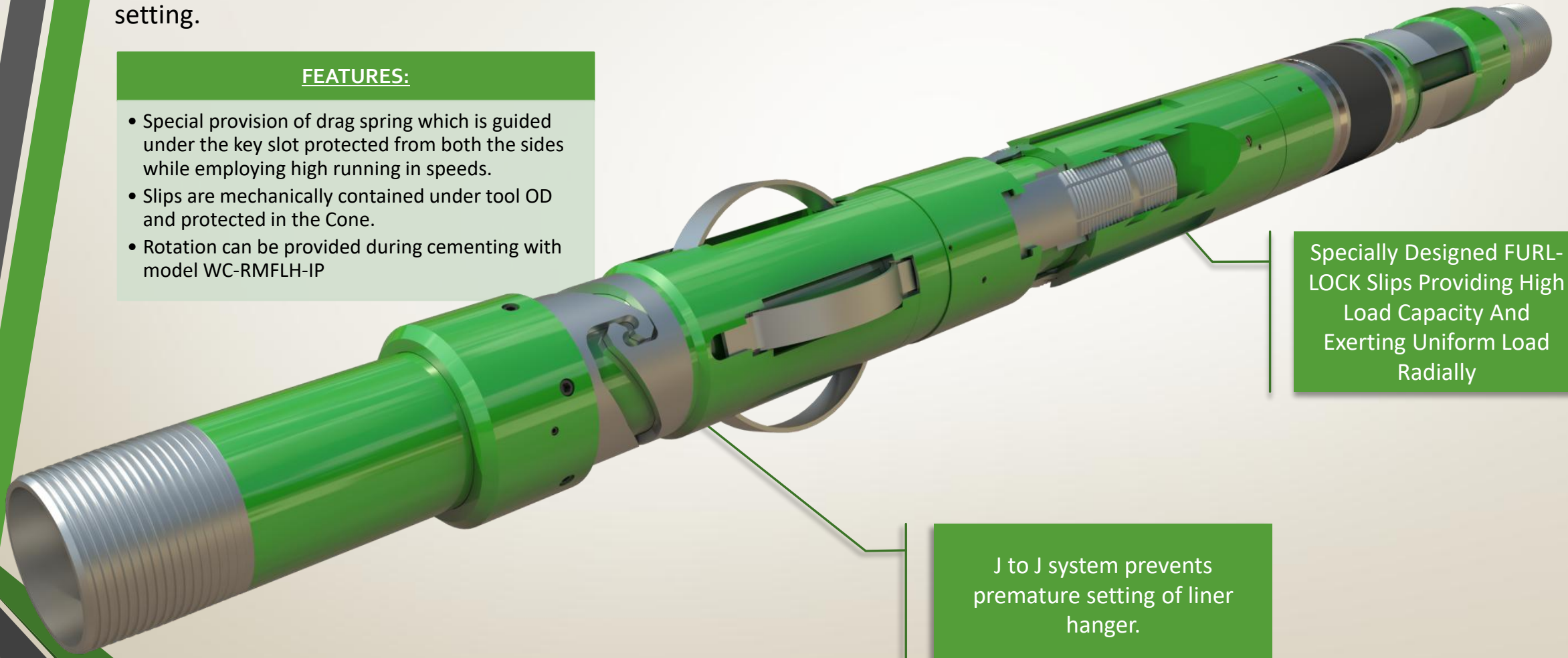


## MECHANICAL SET FURL-LOCK LINER HANGER WITH INTEGRATED PACKER

The Mechanical Set FURL-LOCK Liner Hanger with integrated packer provide a method for suspending a liner off bottom and in tension by anchoring, or hanging, the top of the liner in existing casing. Dependable jay –jay mechanism for convenient setting.

### FEATURES:

- Special provision of drag spring which is guided under the key slot protected from both the sides while employing high running in speeds.
- Slips are mechanically contained under tool OD and protected in the Cone.
- Rotation can be provided during cementing with model WC-RMFLH-IP



Specially Designed FURL-LOCK Slips Providing High Load Capacity And Exerting Uniform Load Radially

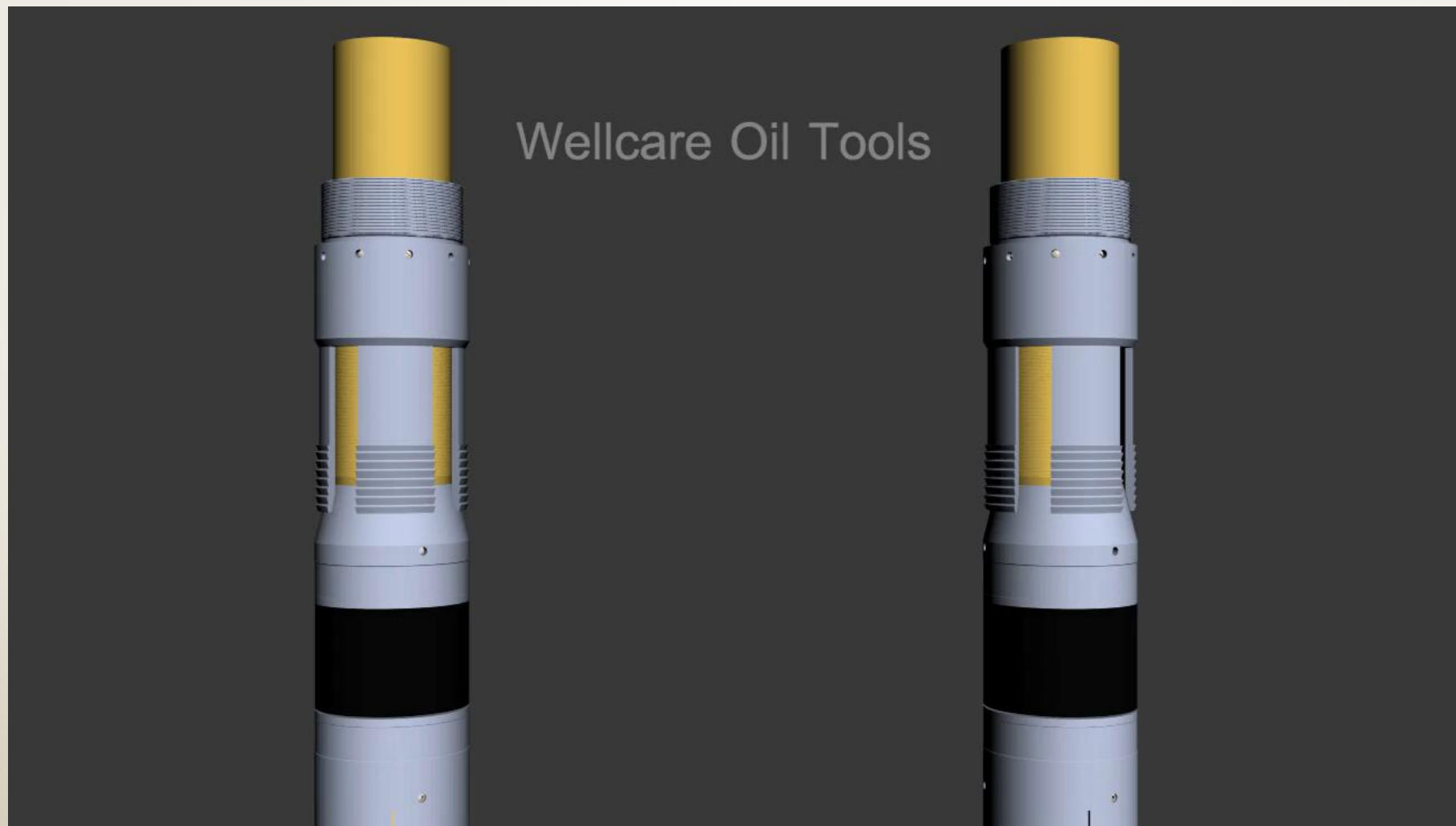
J to J system prevents premature setting of liner hanger.

**V3,V0 Validation Grade**  
**Working Temperature: 0-400 °F**  
**Pressures Rating: Up to 10,000 PSI**



# MECHANICAL SET FURL-LOCK LINER HANGER WITH INTEGRATED PACKER

J-2-J V/s J-Pin simple illustration





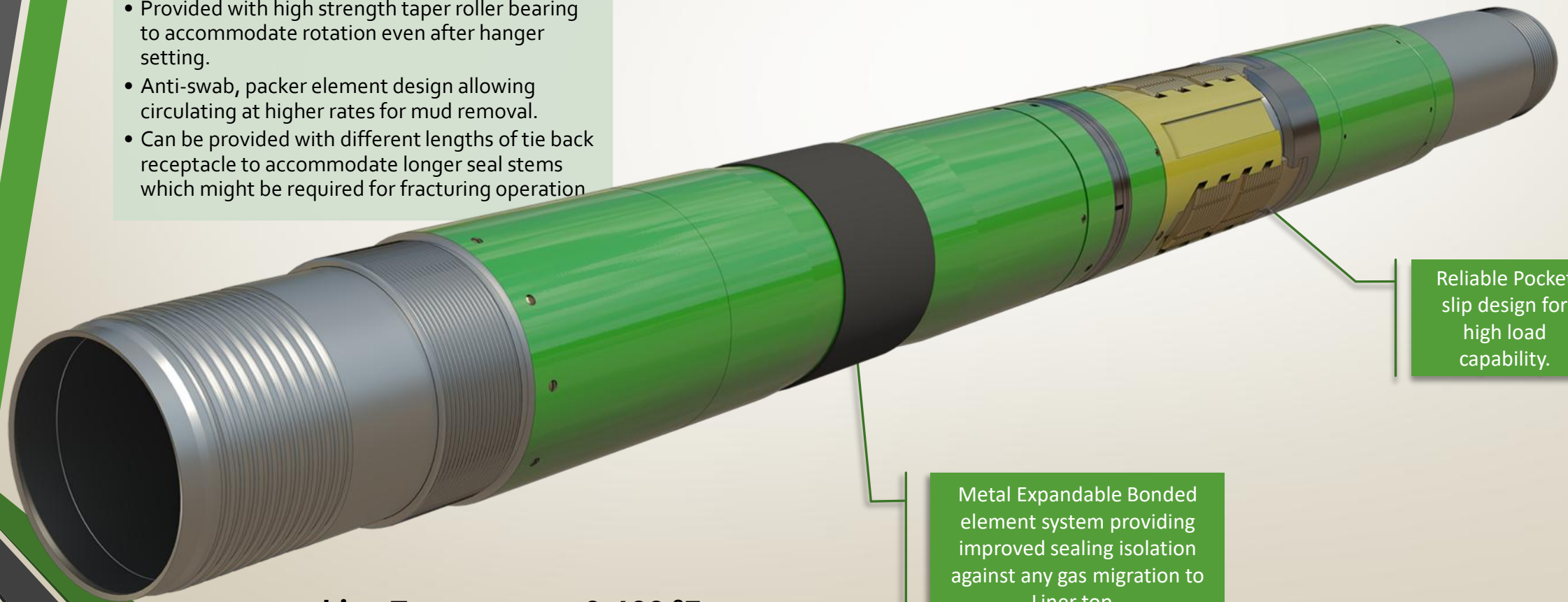


# ROTATING HYDRAULIC SET FURL-LOCK LINER HANGER INTEGRATED PACKER WITH BS BONDED ELEMENT & WITHOUT HOLD DOWN SLIP.

The Model WC-RHLHP-2 is a pocket slip type liner hanger however has a compression set liner top element at the top. Does not include an integral hold down slip assembly and hence made suitable for low clearance wells. These kind of hydraulic hangers are utilized when the manipulation of the string is not desired or efficient to set the hanger, used in deeper and/or deviated wells.

## FEATURES:

- Provided with high strength taper roller bearing to accommodate rotation even after hanger setting.
- Anti-swab, packer element design allowing circulating at higher rates for mud removal.
- Can be provided with different lengths of tie back receptacle to accommodate longer seal stems which might be required for fracturing operation



Reliable Pocket slip design for high load capability.

Metal Expandable Bonded element system providing improved sealing isolation against any gas migration to Liner top..

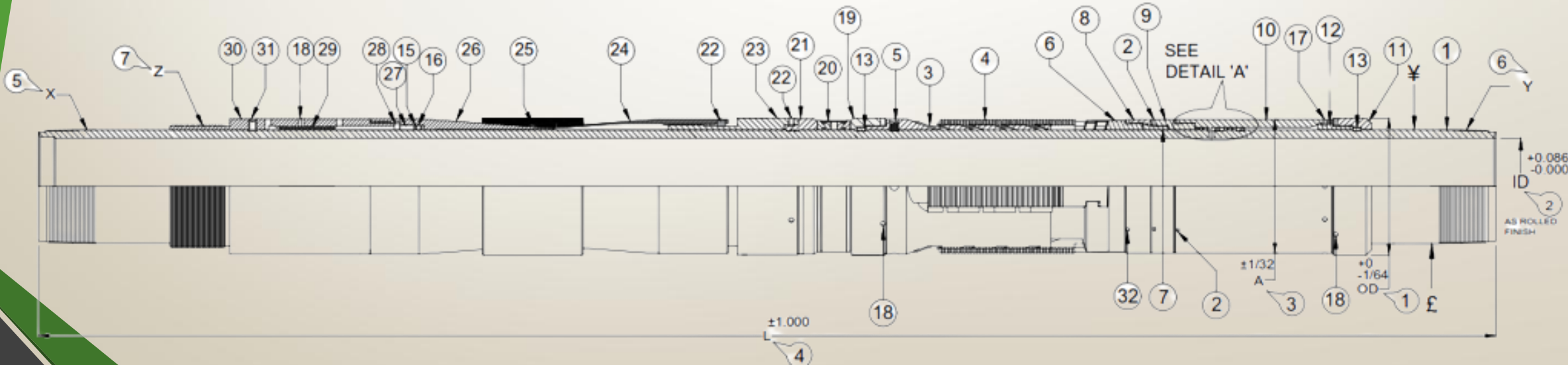
**working Temperature: 0-400 °F**  
**Pressures Rating: Up to 10,000/15000 PSI in V3/V0 grades.**



# ROTATING HYDRAULIC SET FURL-LOCK LINER HANGER INTEGRATED PACKER WITH BS BONDED ELEMENT & WITHOUT HOLD DOWN SLIP.

TECHNICAL SPECIFICATION		
S.NO.	PARAMETERS	SPECIFICATION
1	OD	5.969
2	ID	4.190
3	CYLINDER OD (A)	5.875
4	LENGTH (L)	82 1/2
5	TOP CONNECTION (X)	5 18 PPF WELLCARE PREMIUM PIN
	GAUGE NO.	WC-30190
6	BOTTOM CONNECTION (Y)	5 18 PPF VAM TOP PIN
7	TBR CONNECTION (Z)	5.375 OD 8 TPI STUB ACME STR. RH. THD.
	GAUGE NO.	WC-20004

BILL OF MATERIAL (BOM)					
ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION
1	MANDREL	13	SNAP RING	24	BONDED PACKING ELEMENT
2	SET SCREW	14	METAL BACK UP RING	25	SEAL
3	CONE	15	BACK UP RING	26	CONE
4	SLIP	16	O-RING	27	SPACER
5	BRASS SHEAR SCREW	17	SHEAR SCREW	28	RING
6	SETTING SLEEVE	18	SET SCREW	29	RATCHET
7	INNER ROTATING RING	19	UPPER GUIDE RING	30	RATCHET HOUSING
8	OUTER ROTATING RING	20	THRUST BEARING ASSY.	31	BRASS SHEAR SCREW
9	CYLINDER RING	21	GUIDE RING	32	SET SCREW
10	CYLINDER	22	SET SCREW	33	LOWER SNAP RING
11	LOWER GUIDE RING	23	CONNECTOR	34	SNAP RING RETAINER
12	SHEAR RING RETAINER				



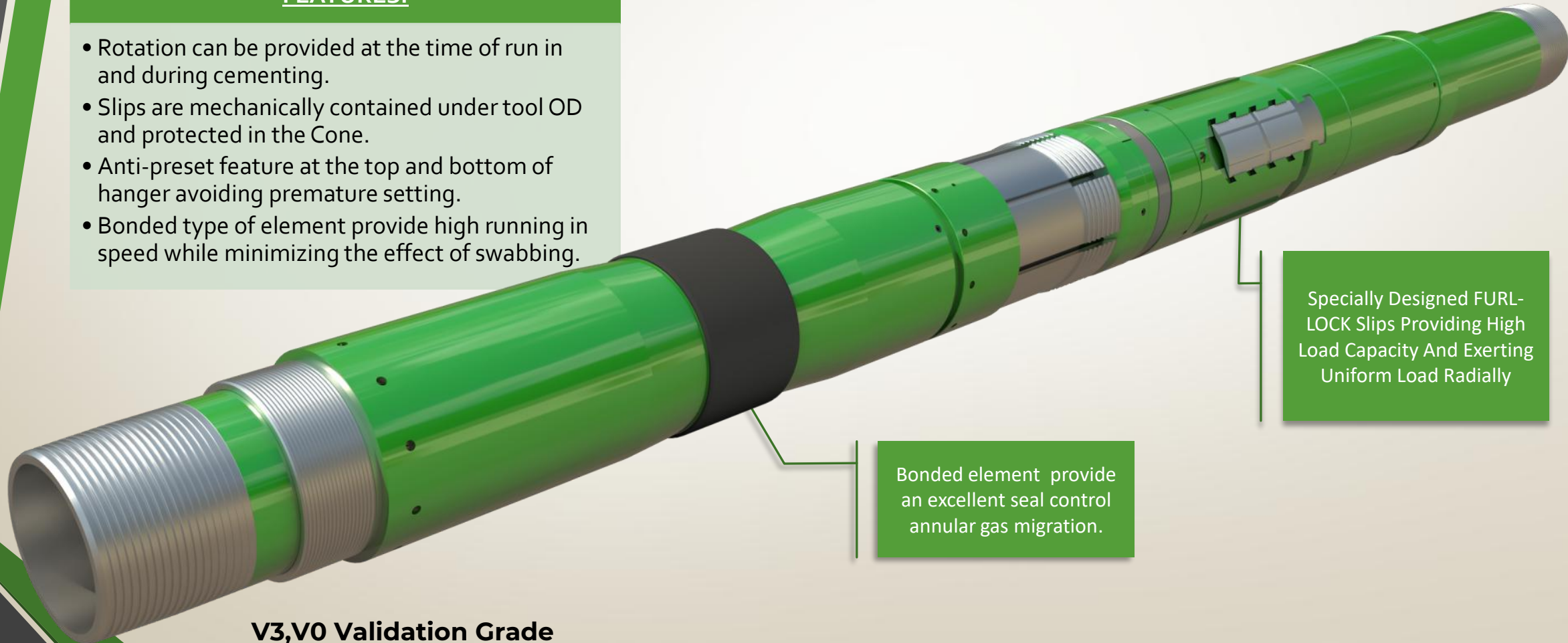


## HYDRAULIC SET FURL-LOCK LINER HANGER WITH BONDED ELEMENT

Similar to the standard Hydraulic Set Liner Hanger-packer, Model WC-HLHP-ZX is a hydraulic set liner hanger however with a high performance bonded element Liner top packer along with an integral hold down slips.

### FEATURES:

- Rotation can be provided at the time of run in and during cementing.
- Slips are mechanically contained under tool OD and protected in the Cone.
- Anti-preset feature at the top and bottom of hanger avoiding premature setting.
- Bonded type of element provide high running in speed while minimizing the effect of swabbing.



Bonded element provide an excellent seal control annular gas migration.

Specially Designed FURL-LOCK Slips Providing High Load Capacity And Exerting Uniform Load Radially

**V3,V0 Validation Grade**  
**Working Temperature: 0-400 °F**  
**Pressures Rating: Up to 10,000 PSI**



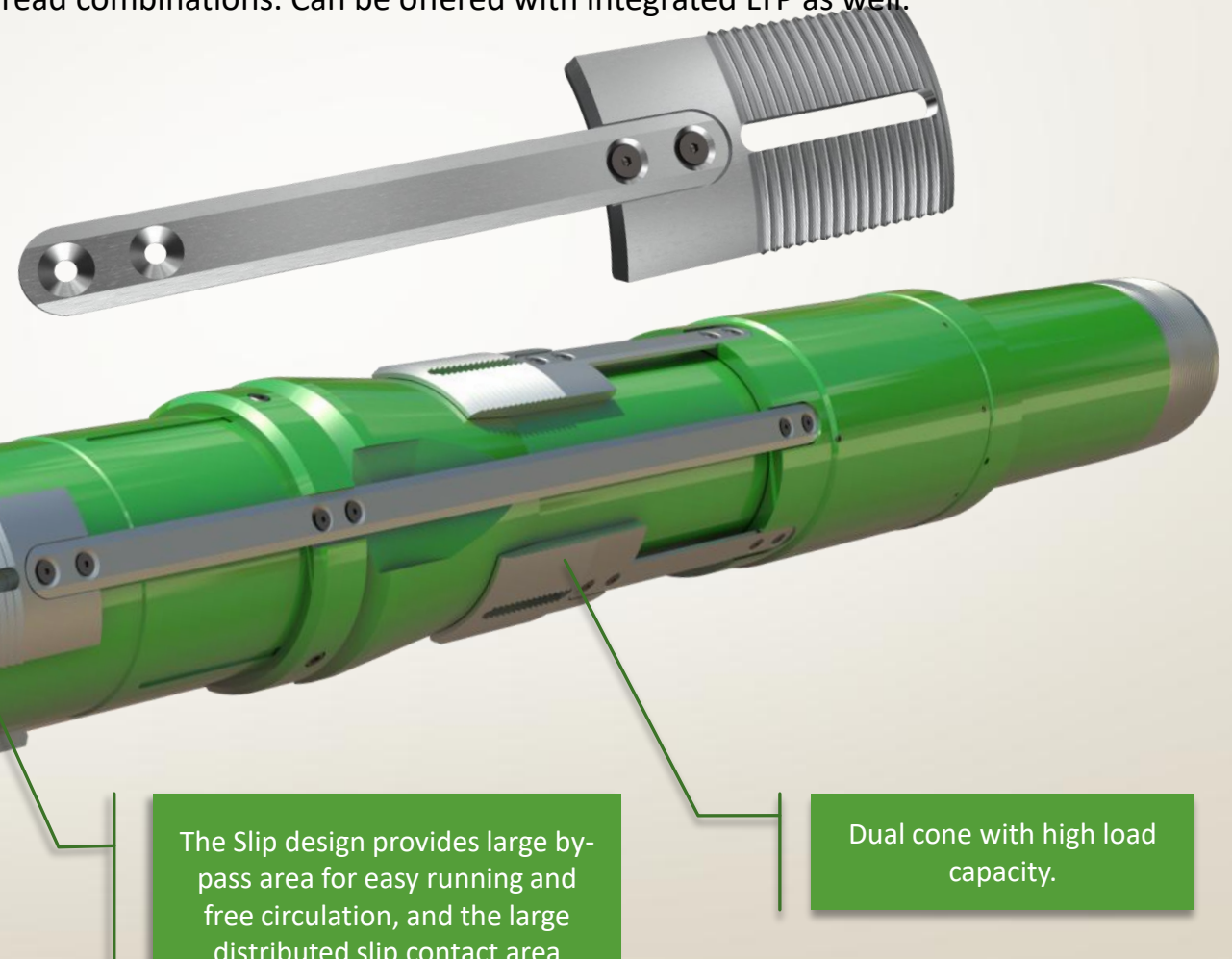


## NON ROTATING HYDRAULIC LINER HANGER

One of the industry's oldest and reliable design of Liner hanger, model WC-NRHLH-2 is a double cone stand alone liner hanger. Available in most combinations of liner to casing sizes, materials and thread combinations. Can be offered with integrated LTP as well.

### FEATURES:

- The Non-Rotating Hydraulic Set Liner Hanger is set by hydraulic pressure within the running-in string; neither reciprocation nor rotation is required.
- The hanger has two staggered rows of slips, with three slip segments in each row.



The Slip design provides large bypass area for easy running and free circulation, and the large distributed slip contact area reduces stress in the supporting casing.

Dual cone with high load capacity.

**V3,V0 Validation Grade**  
**Working Temperature: 0-400 °F**  
**Pressures Rating: Up to 10,000 PSI**

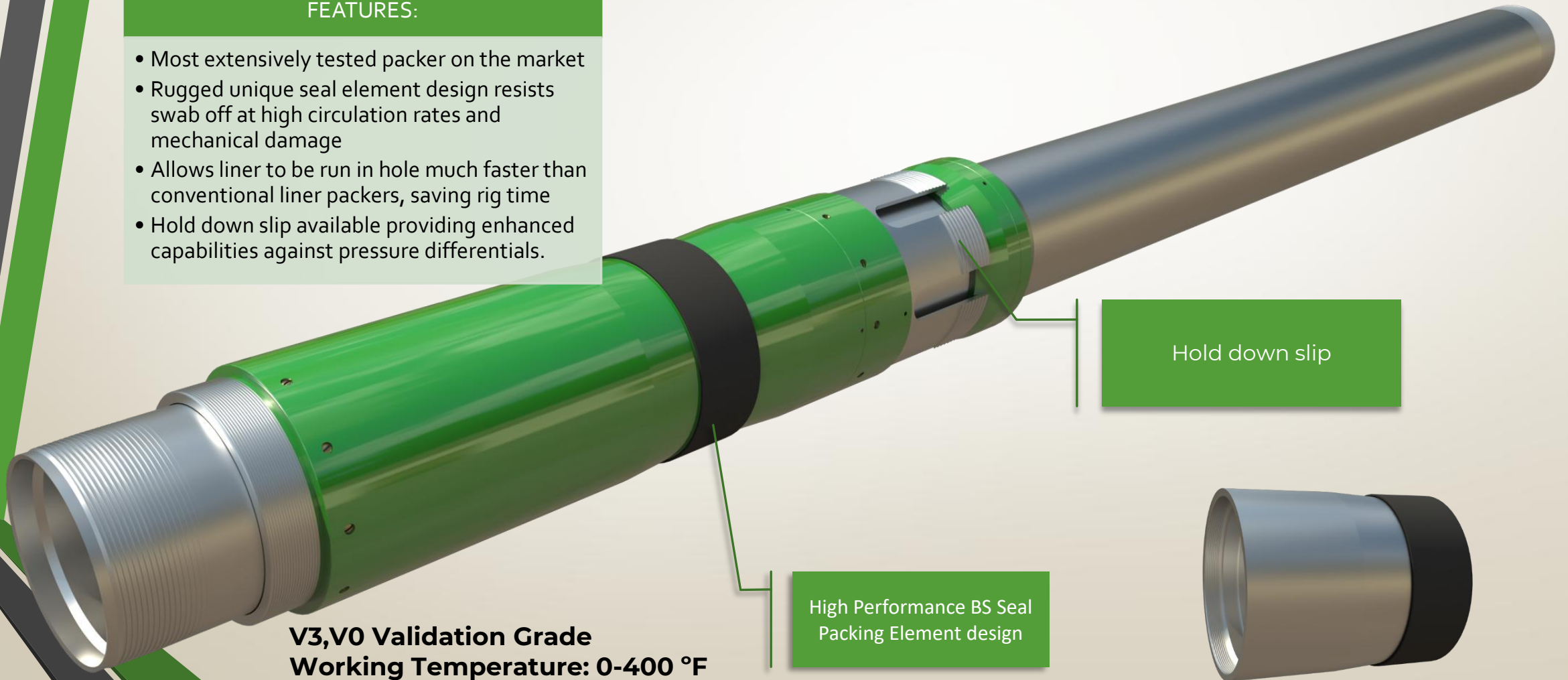


## LINER TOP PACKER WITH BONDED ELEMENT

The compression set liner Top packer with integral Slip that utilizes the High Performance BS Seal Packing Element design. The innovative BS seal element is designed and constructed to endure high circulation rates up to 12 bpm and achieve high-pressure and - temperature sealing in the most demanding wellbore environments.

### FEATURES:

- Most extensively tested packer on the market
- Rugged unique seal element design resists swab off at high circulation rates and mechanical damage
- Allows liner to be run in hole much faster than conventional liner packers, saving rig time
- Hold down slip available providing enhanced capabilities against pressure differentials.



Hold down slip

High Performance BS Seal  
Packing Element design

**V3,V0 Validation Grade**  
**Working Temperature: 0-400 °F**  
**Pressures Rating: Up to 15,000 PSI**

MODEL : WC-LTP-ZX



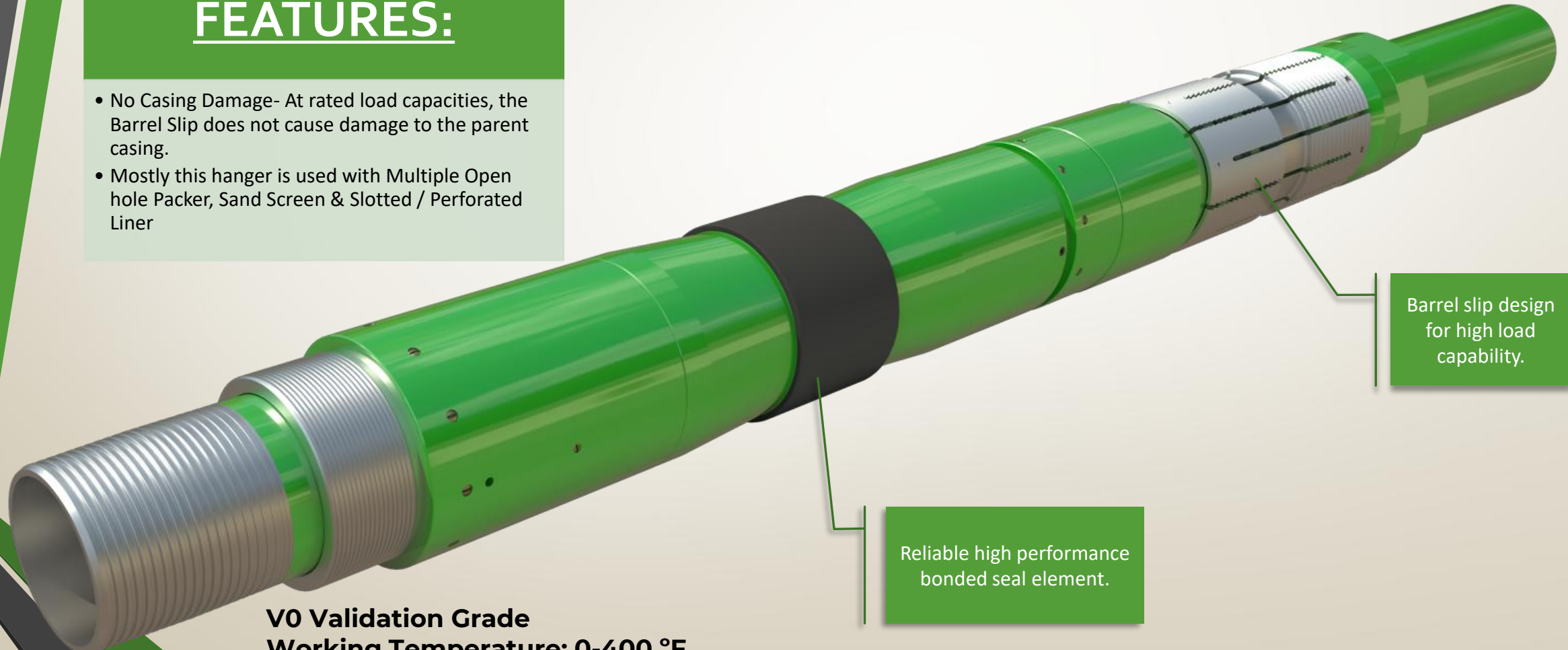


## NON-CEMENTED LINER HANGER PACKER

Wellcare Non Cemented Liner Hanger Packer is highly recommended product in Non Cementing Job, using a Hydraulic Pusher Tool for setting. When connected to a suitable SC-HR setting collar, can be run using a HRT-E running tool, having collet release mechanism which is suitable to run long liner pipes in ERD applications.

### FEATURES:

- No Casing Damage- At rated load capacities, the Barrel Slip does not cause damage to the parent casing.
- Mostly this hanger is used with Multiple Open hole Packer, Sand Screen & Slotted / Perforated Liner



Barrel slip design for high load capability.

Reliable high performance bonded seal element.

**V0 Validation Grade**  
**Working Temperature: 0-400 °F**  
**Pressures Rating: Up to 10,000 PSI**



## Other Consumables



Tie Back Receptacle  
WC-TBR

A **Tie Back Receptacle** provides a high integrity honed seal bore above liner hanger for sealing stab in stinger and for contingency tie back packer.



A **liner wiper plug** is used as a mechanical barrier between the cement and the displacing fluid. It displaces the cement and wipes the liner ID.

Liner Wiper Plug  
WC-LWP



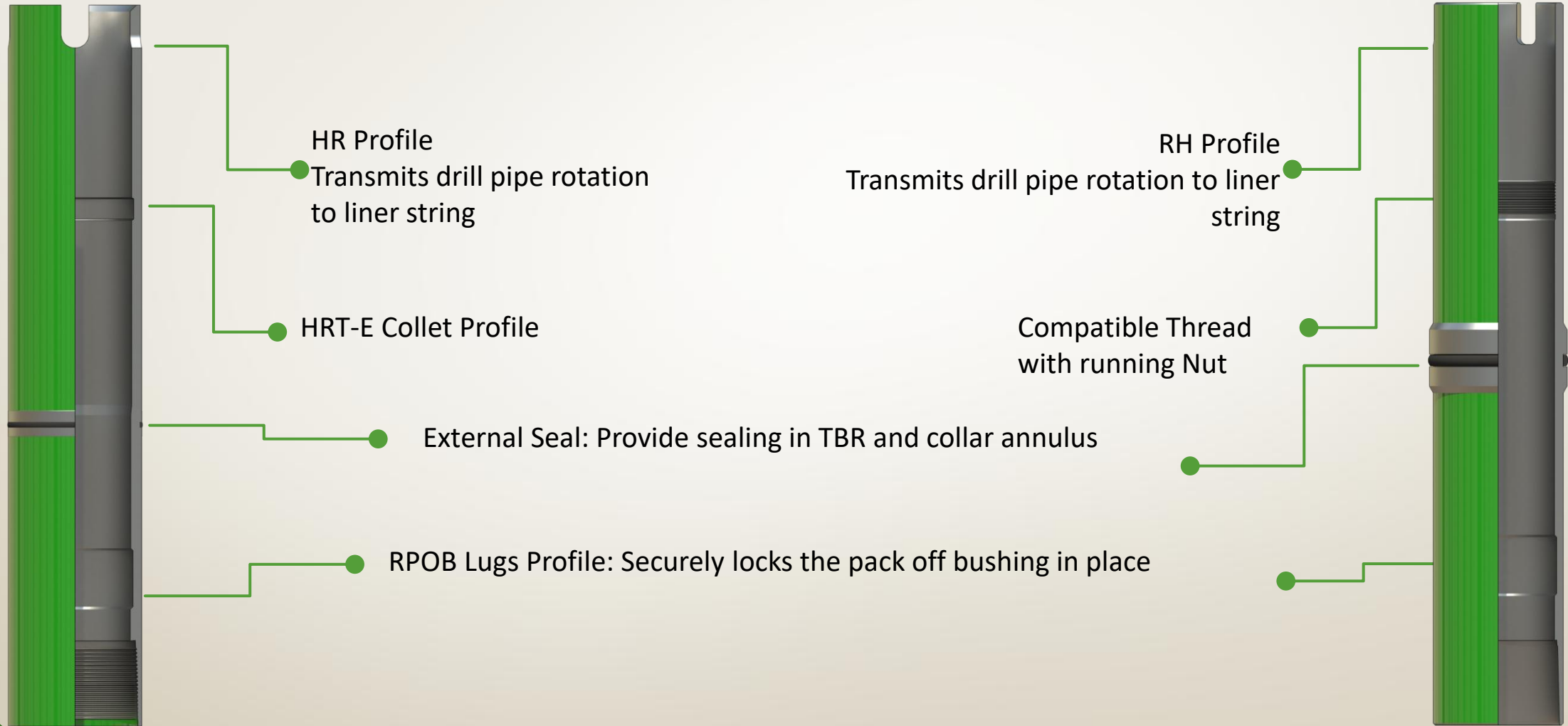
A **Drill Wiper Plug** is used to wipe the drill pipe and running tools and acts as a mechanical barrier between cement and displacing fluid.

Drill Wiper Plug  
WC-DWP



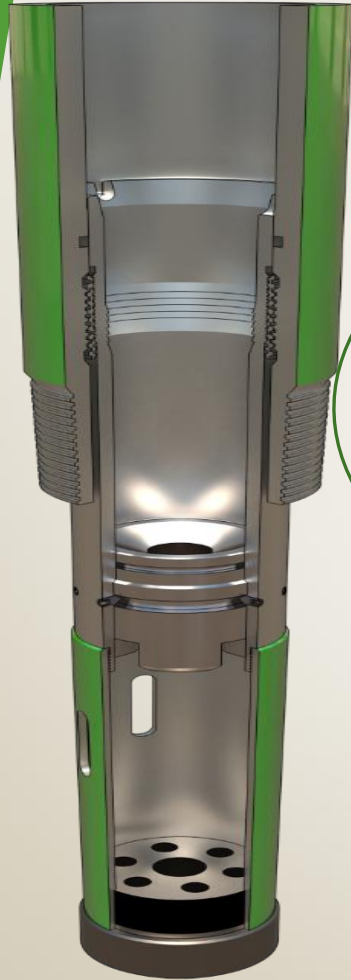
## Other Consumables

- Setting Collar with HR and RH Profile

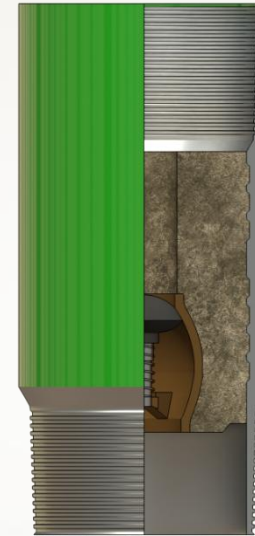




## Other Consumables



Landing Collar consists of the mating LWP latch profile . It also comprises of shear pinned ball seat along with ball catcher sub designed such that it catches the ball seat as well as the ball.



Wellcare Float collar is available in single as well as with double pressure valves. Deployed as a back up to valve of the float shoe.



Double Valve Jet Swirl Float Shoe has two back pressure valves that provides optimum assurance that the cement volume pumped around the liner remains in place.

# STANDARD LINER HANGER RUNNING TOOLS





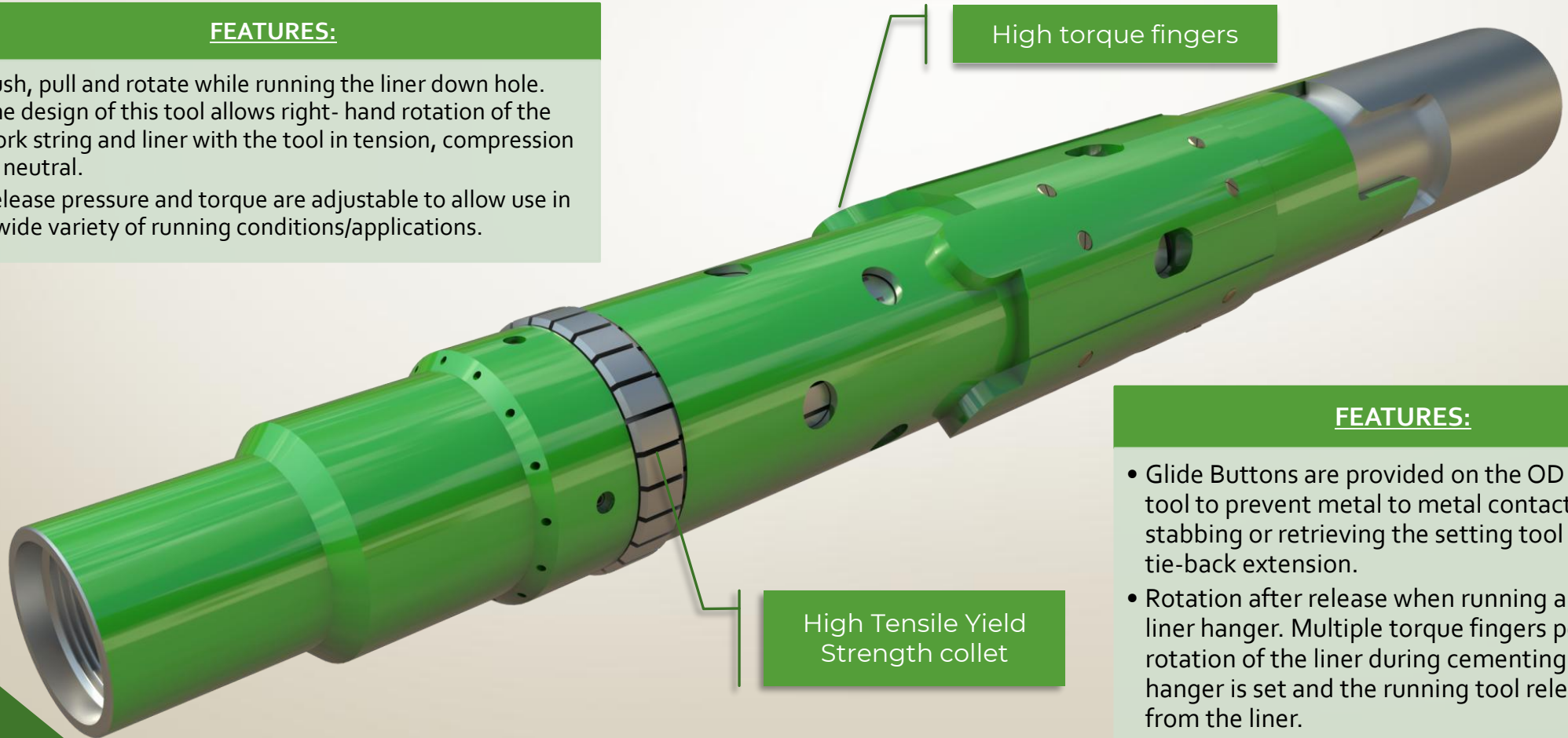
## HYDRAULIC RELEASE RUNNING TOOL

WC-HRT-E provides a means to carry a liner down hole, set a liner hanger and release from the liner. The releasing mechanism is primarily hydraulic however an emergency mechanical back-up release system is already provided for contingencies.

The greater load carrying capacity of the tool comes from the full support collet design. Collet is made from high tensile material to accomplish the objective of running heavy liners as well. High torque ratings of the HRT system allow aggressive rotation if required to work a liner to bottom. Generally, the tool has ratings equivalent to the drill pipe connections, hence does not add any weak torque point in the work string.

### FEATURES:

- Push, pull and rotate while running the liner down hole. The design of this tool allows right-hand rotation of the work string and liner with the tool in tension, compression or neutral.
- Release pressure and torque are adjustable to allow use in a wide variety of running conditions/applications.



High torque fingers

High Tensile Yield  
Strength collet

### FEATURES:

- Glide Buttons are provided on the OD of the tool to prevent metal to metal contact while stabbing or retrieving the setting tool from the tie-back extension.
- Rotation after release when running a rotating liner hanger. Multiple torque fingers permit rotation of the liner during cementing after the hanger is set and the running tool released from the liner.



# HYDRAULIC RELEASE RUNNING TOOL

## Latest Design Amendment:

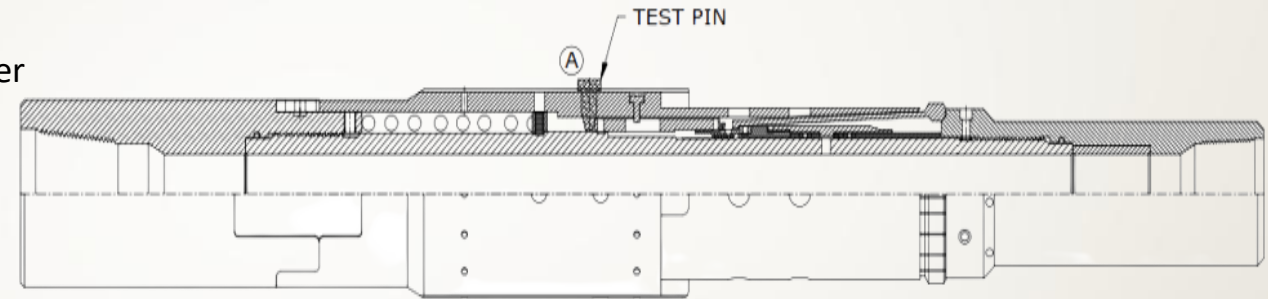
WC HRT-E is a highly reliable tool having vast field run history however there is always scope for improvement. There have been recent amendments made to the HRT-E design to add new features as illustrated below:

### 1. Provision to install Test Pin Fixture:

It is general practice to pressure test the complete liner hanger hook up including the HRT-E before the field deployment. To cover the situation wherein a high pressure hook up test is required, amendment has been done to the housing design allowing installation of test pin fixture locking the parts in such a way that tool does not release during the PT.

### 2. Compression Shear Screws:

For well situations when liner is being worked down the hole to the setting depth with chances of experiencing backlash (left hand torque) in the liner string, adequate enough to shear off the screws installed between the housing and the top sub, the only thing that is preventing the tool from releasing prematurely is the shear rating of the brass shear screws installed between the shear sleeve and mandrel, providing very thin safety margins. To overcome this an additional compression shear feature has been introduced in the tool design.





## RH RELEASE RUNNING TOOL

WC-RHRT, is an industry standard Right hand release mechanical running tool, utilized to run both hydraulic and mechanical liner hanger in cemented and non cemented applications.

High performance running nut with straight threads.



### FEATURES:

- The tool is enabled with a torque control ring feature which engages with the top profile of the RH setting collar enabling the torque transmission to the liner string during running in hole and while cementing.
- Teflon bumper insert provided at multiple maximum OD section of the tool. This is to prevent the metal to metal contact while it remain inside the polished bore receptacle.
- Lower spring design keeps the running nut in place, hence assist while preparing the hook up with the corresponding setting collar.
- Ball type bearing assembly provided, preventing any damage to the tool assembly due to the crushing load experienced during cementing while maintaining slack off on the RT.



## ROTATING PACKER SETTING TOOL

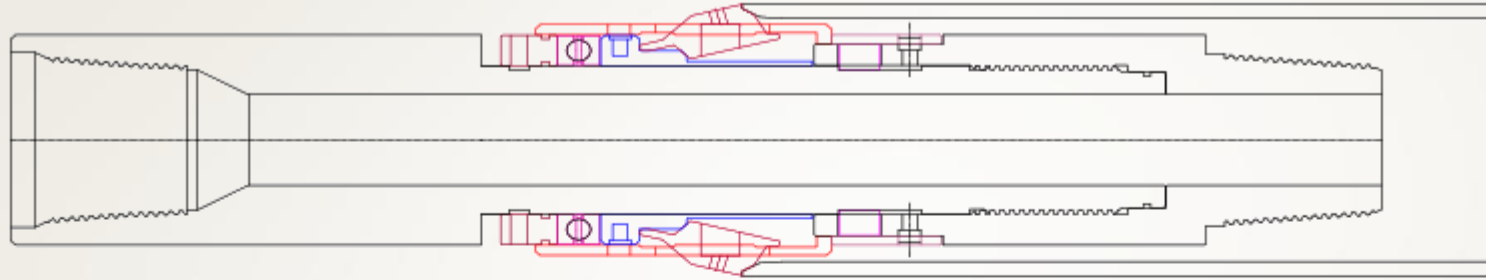
The position of the model WC-RPST setting tool in a LH hook for a normal length TBR scenario is right above running tool. As the name suggest, this is a packer setting tool assembly utilized to set compression type liner top packer by applying set down weight on the TBR top.

1. Its spring loaded setting dogs have an external lip angle which is designed in a way to rest properly on the TBR's top angle profile while the weight is being applied through the drill pipe work string.
2. Provided with an efficient ball type bearing assembly allowing the application of weight combined with rotational forces.
3. Shear indicator feature confirming post pullout that the required weight for LTP element pack off has been applied to the TBR extension.

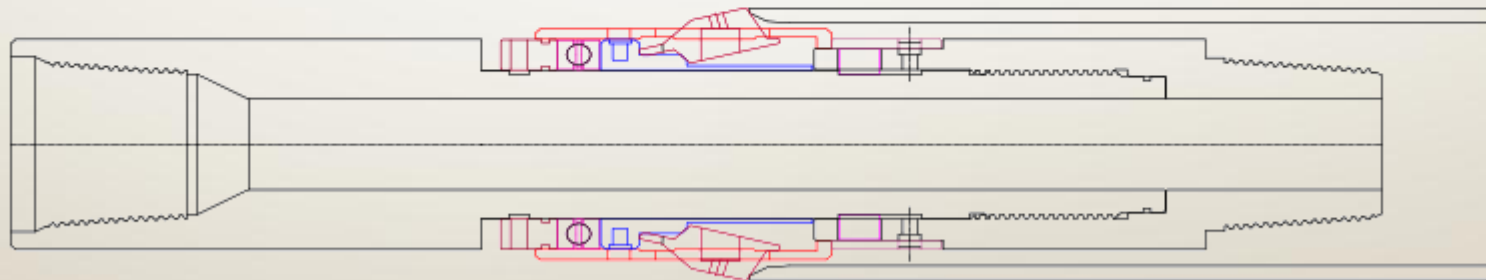




# ROTATING PACKER SETTING TOOL



**WITH LIP ANGLE**



**WITHOUT LIP ANGLE**



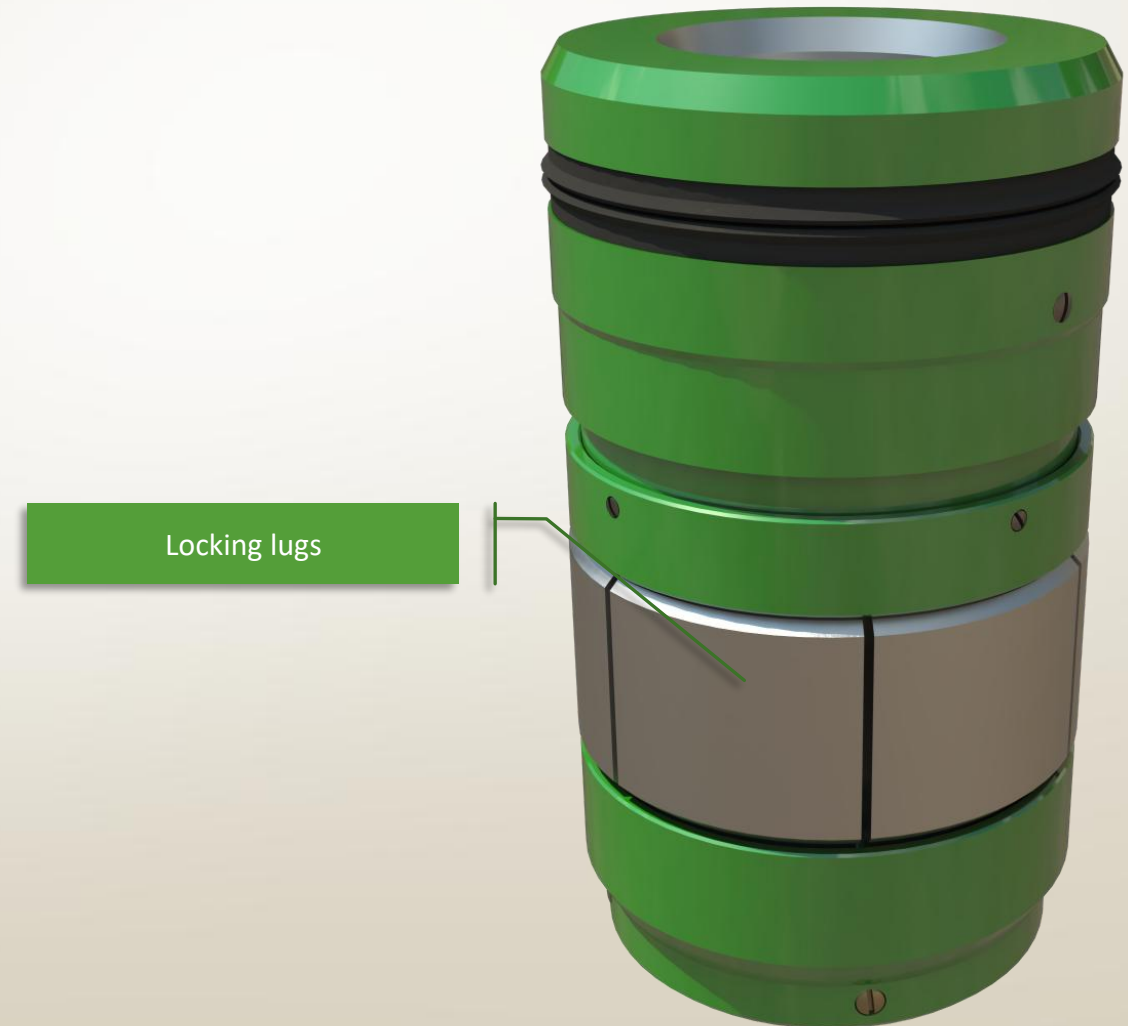


## RETRIEVABLE PACK OFF BUSHING

For setting a hydraulic hanger, a ball seat device is run below the liner hanger, either with liner string or the running tool string itself. The objective of using an pack off bushing is for creation of pressure chamber insides the liner string, i.e. between the pack off at the top and the ball seat at below. Models WC-RPOB-1 do just that while having a retrievability feature as well, eliminating the need to drill out the pack off bushing, in the conventional way.

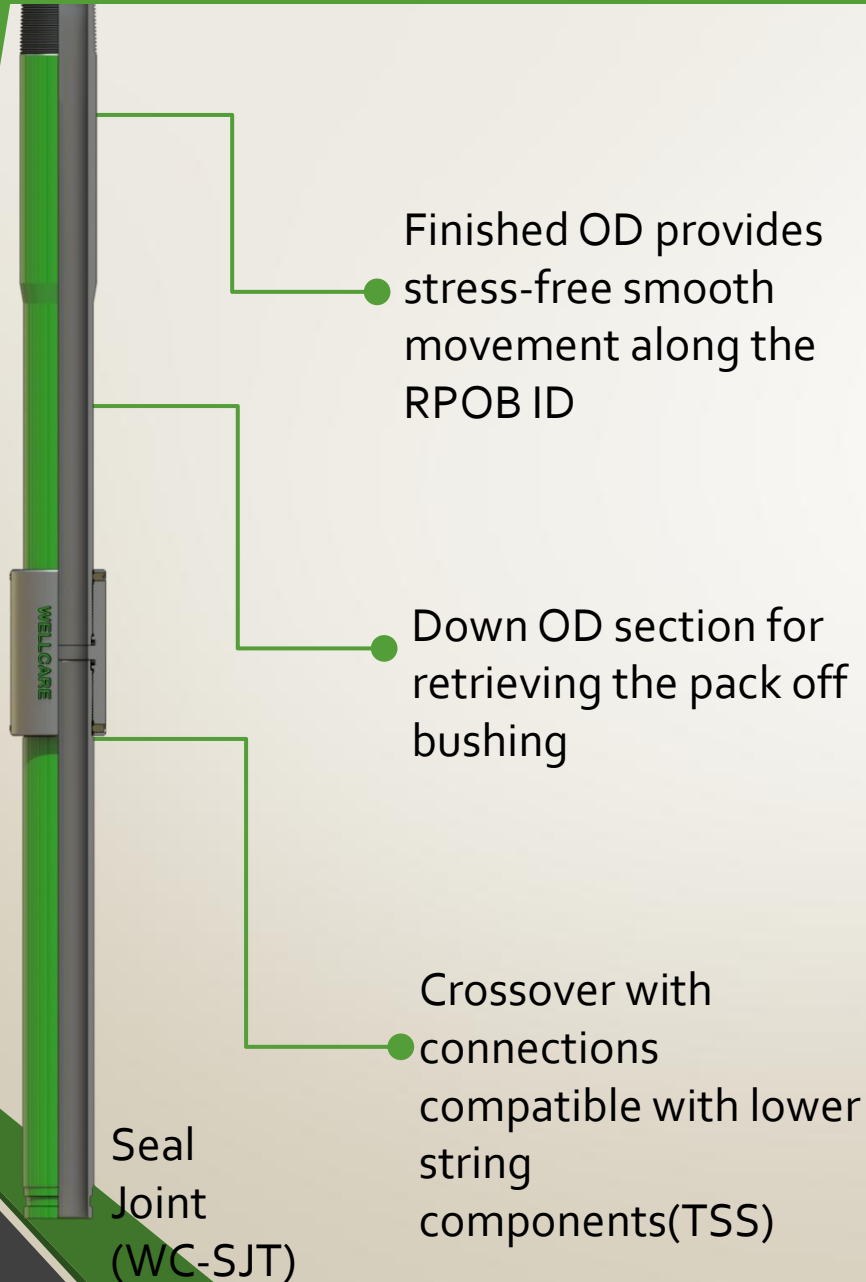
### FEATURES:

- Full circle locking lugs, supported by dowel pins above and below.
- High performance bi-direction chevron seal stack, ensuring great sealing on the seal joint OD.
- Reliable u design seals on the outside for sealing in the setting collar.
- Easy installation and retrieving.

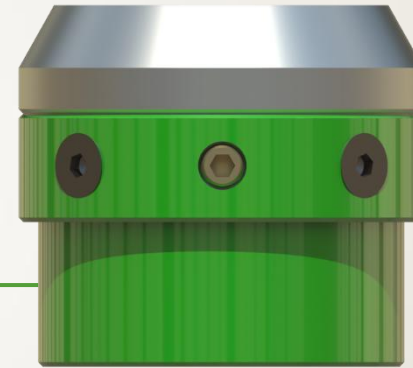




## OTHER MEMBERS OF THE RT STRING



Acts as a physical barrier preventing well debris from falling into the honed TBR ID

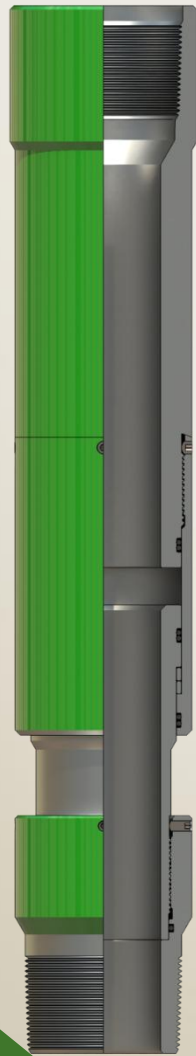


Junk Screen (WC-DSC)

Nipple with drill pipe connections providing means to connect the hanger running string with drill pipe.



## OTHER MEMBERS OF THE RT STRING



### Tubing Swivel Sub

- Allows rotation of the running string without damaging the swab cup elements.



### Swab Cup Packer

- Isolates pressure inside the liner string /RT annulus so that a pressure chamber can be created for transmission to the hanger hydraulic cylinder.

### Hydro Trip Pressure Sub

- Equipped with collet mechanism ball seat providing work string equivalent ID after Shearing.



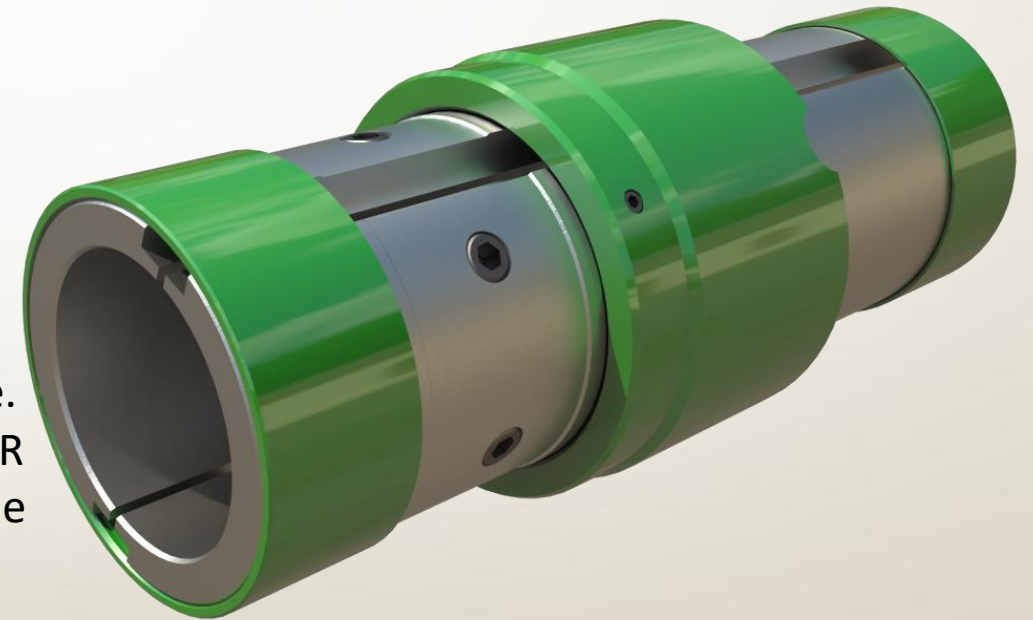


## Alternate RT String Component Designs

In addition to the standard running tools showcased previously, there are certain designs which can be used in place of the standard ones in case required:

### Model WC-JCR Junk Screen in place of standard WC-DSC Junk Screen

- More Reliable design than the standard one.
- The set screws provided on the inner split segments grabs on the drill pipe body whereas the outer cover is engaged with the segments by means of shear screws.
- The Outer part is shear screwed with the inner sleeve. Once sheared, the outer parts stays on top of the TBR at every instance during the operation even when the drill string is being picked up.





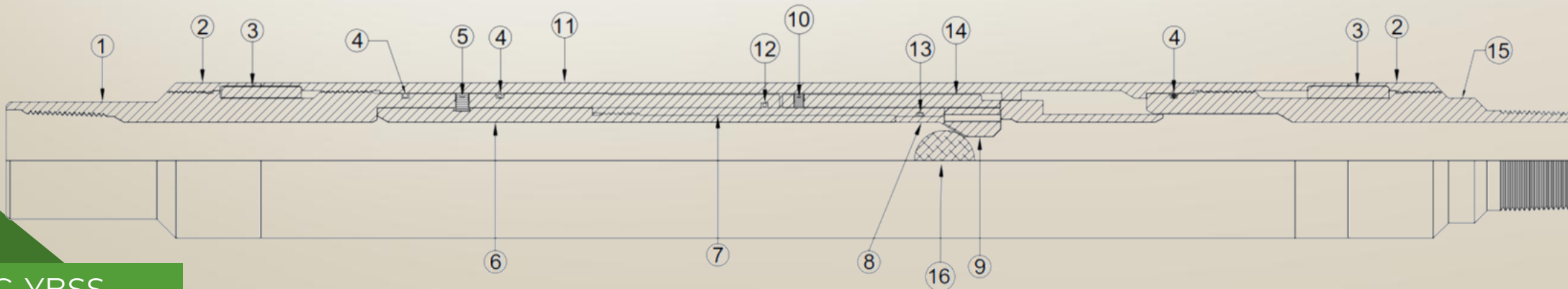
# Yieldable Ball Seat Sub

The model WC-YBSS is another ball seat device alternative can be offered by Wellcare. The assembly constitutes of a soft but erosion resistant material ball seat which expands at a certain pressure allowing the ball to pass post the desired operation.

The ball seat is supported by a set of dynamic dogs from behind. At a rated pressure, the lower sleeve, shear pinned with the top sub moves towards the bottom due to the applied pressure. This will allow loading of the dog retainer sleeve, which is in turn shear pinned with the ball seat retainer.

Once the dogs move inside the resting groove provided at the bottom of the tool, further pressure will make the ball seat to expand and allow the passage of the ball to the Well sump or a ball catcher deployed below.

BILL OF MATERIAL (BOM)					
ITEM No.	DESCRIPTION	QTY.	ITEM No.	DESCRIPTION	QTY.
1	TOP SUB	1	10	SHEAR SCREW	5
2	END RING	2	11	MIDDLE CONNECTION BOTTOM	1
3	SPACER	2	12	O-RING	1
4	O-RING	3	13	O-RING	1
5	SHEAR SCREW	5	14	DOG RETAINER	1
6	LOWER SLEEVE	1	15	BOTTOM SUB	1
7	BALL SEAT RETAINER	1	16	BALL #1 1/2"	1
8	BALL SEAT	1			
9	DOG SETS	4			



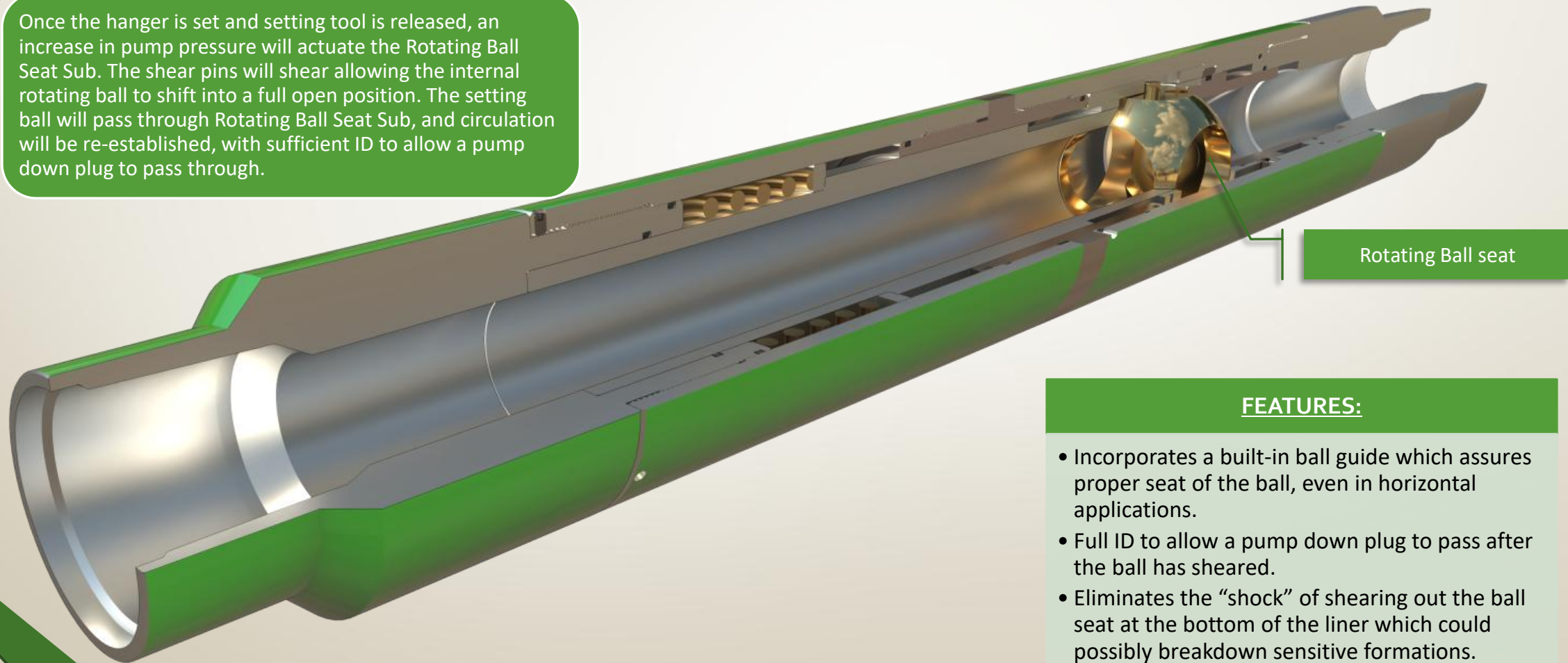




## ROTATING BALL SEAT SUB

The Rotating Ball Seat Sub is installed in the run-in string below the liner setting tool. The Rotating Ball Seat Sub provides a means to temporarily plug the liner run-in string and allow hydraulic pressure to be applied to hydraulically release the HRT-E Setting Tool or to set a hydraulic set liner hanger.

Once the hanger is set and setting tool is released, an increase in pump pressure will actuate the Rotating Ball Seat Sub. The shear pins will shear allowing the internal rotating ball to shift into a full open position. The setting ball will pass through Rotating Ball Seat Sub, and circulation will be re-established, with sufficient ID to allow a pump down plug to pass through.

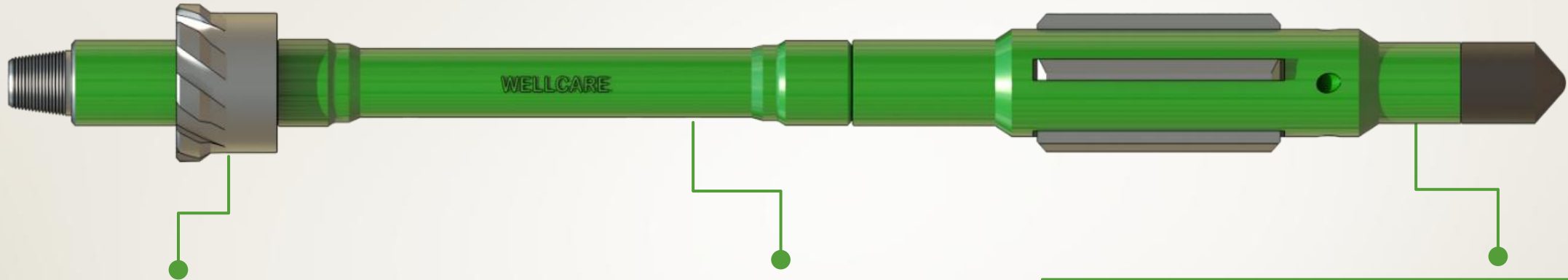


### FEATURES:

- Incorporates a built-in ball guide which assures proper seat of the ball, even in horizontal applications.
- Full ID to allow a pump down plug to pass after the ball has sheared.
- Eliminates the “shock” of shearing out the ball seat at the bottom of the liner which could possibly breakdown sensitive formations.
- Adapts to all standard liner setting tools.



## Clean Out Trip Items



### Top Dress Mill

- Matches angle to angle with the TBR top and mill any residual cement from the TBR top which can damage the seals of subsequent run tie back nipple

### Spacer Tube

- Provide space out between the top dress mill and clean out blade mill according to the TBR length

### Clean Out Blade Mill

- Equipped with carbide coated blades that provides damage less 360 ° cleaning of honed TBR I.D

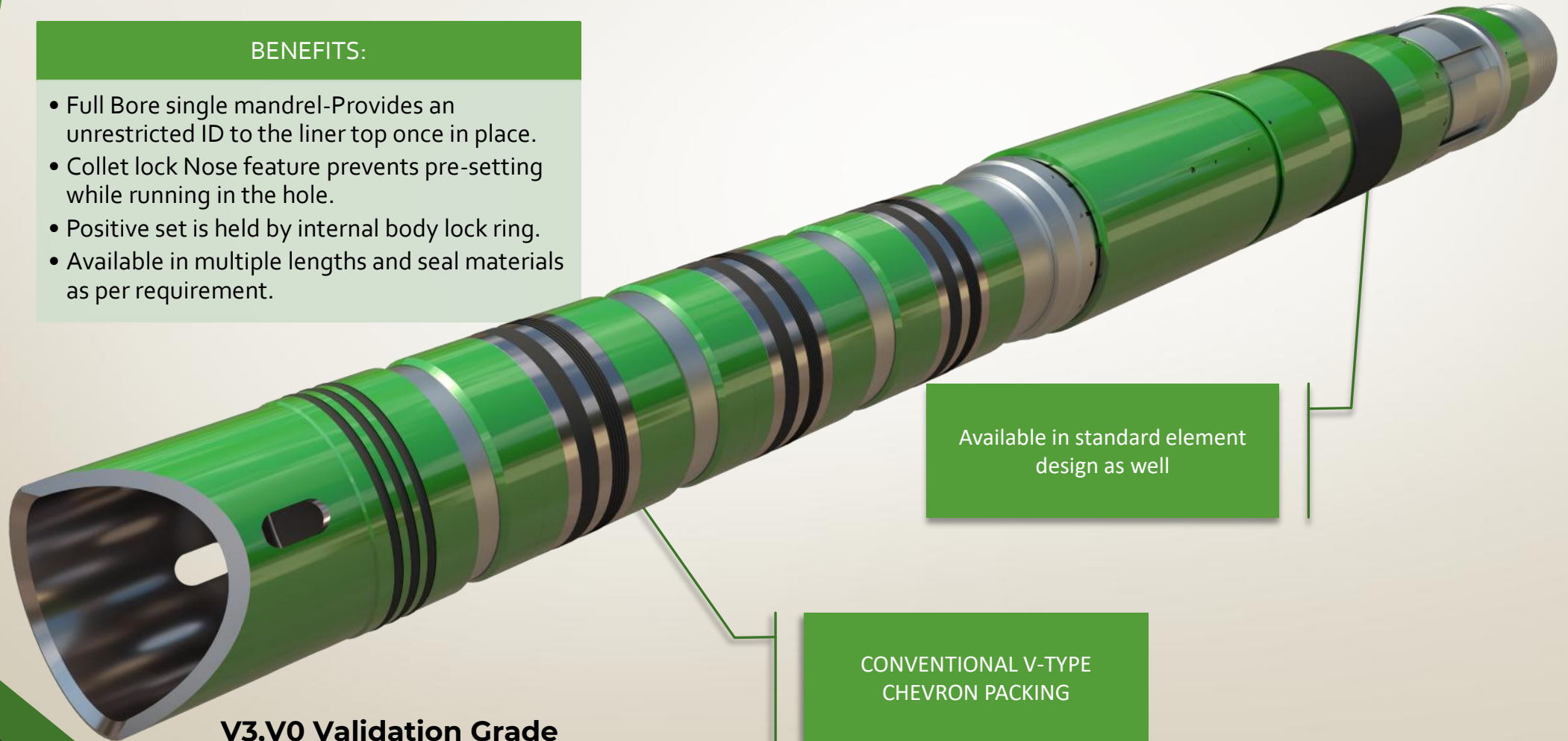


## TIE BACK SEAL NIPPLE PACKER

Wellcare Tieback Seal Nipple Packer is Compression Set, Liner Top Isolation Packer that is run as contingency packer in case the liner top packer is leaking. Run generally on a mechanical release running tool on drill pipe while also deploying a retrievable pack of bushing so that the packing element can be tested post setting.

### BENEFITS:

- Full Bore single mandrel-Provides an unrestricted ID to the liner top once in place.
- Collet lock Nose feature prevents pre-setting while running in the hole.
- Positive set is held by internal body lock ring.
- Available in multiple lengths and seal materials as per requirement.



Available in standard element design as well

CONVENTIONAL V-TYPE  
CHEVRON PACKING

**V3,V0 Validation Grade**  
**Working Temperature: 0-400 °F**  
**Pressures Rating: Up to 10,000 PSI**

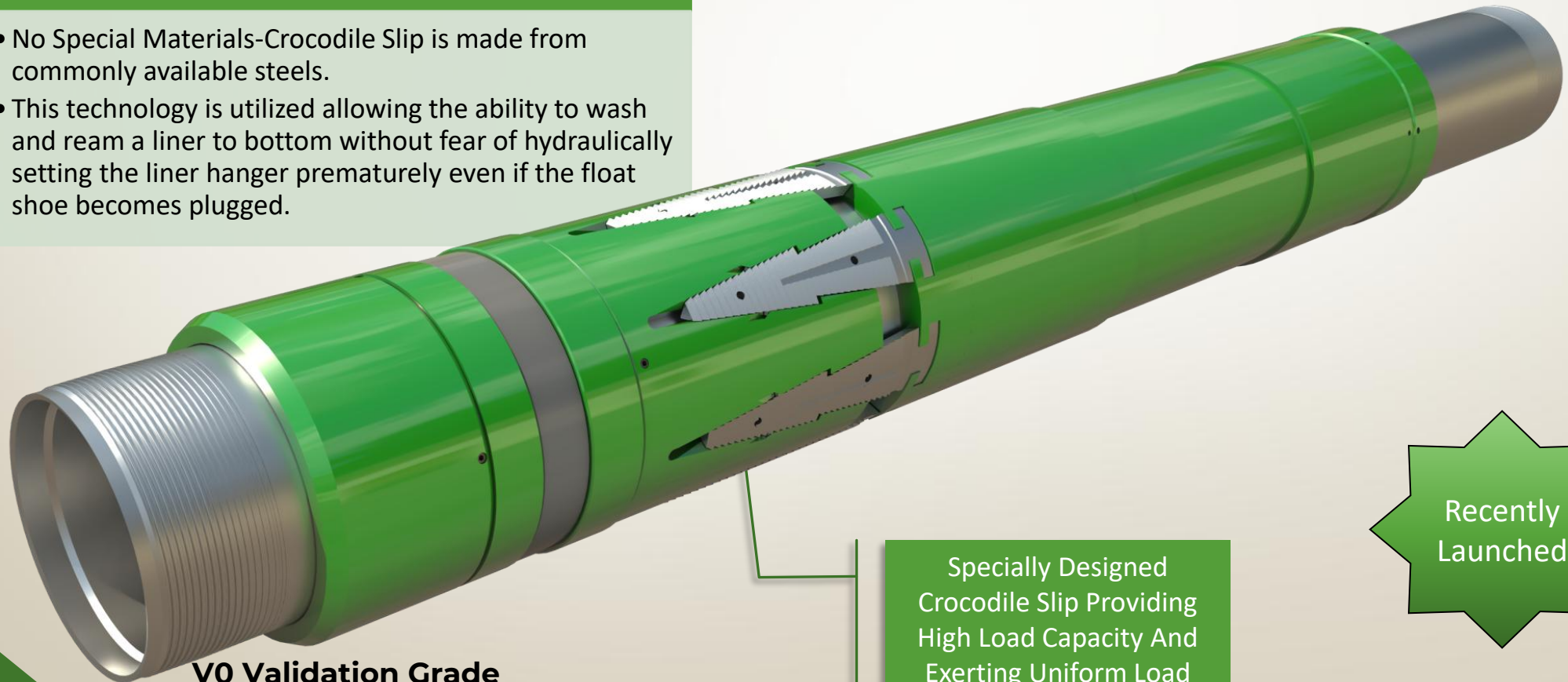


## NIYANTRAN (CONTROL) SET LINER HANGER

Niyantaran (Control) set liner hanger technology which is designed to wash and ream a liner to bottom without fear of hydraulically setting the liner hanger prematurely. This is accomplished by adding a second hydraulic cylinder attached to the upper cylinder and positioned below, so that it maintains the Hanger in balance until the upper hydraulic cylinder is isolated by dropping a ball.

### FEATURES:

- No Special Materials-Crocodile Slip is made from commonly available steels.
- This technology is utilized allowing the ability to wash and ream a liner to bottom without fear of hydraulically setting the liner hanger prematurely even if the float shoe becomes plugged.



Specially Designed  
Crocodile Slip Providing  
High Load Capacity And  
Exerting Uniform Load  
Radially

Recently  
Launched

**V0 Validation Grade**  
**Working Temperature: 0-400 °F**  
**Pressures Rating: Up to 10,000 PSI**





## NIYANTRAN (CONTROL) SET LINER HANGER

Further Details at the below link:

[Wellcare Niyantran Set Liner Hangers Detailed PPT](#)

Upper  
Cylinder

Lower  
Cylinder







## Additional Notes

1. Any special sizes, configurations can also be looked in for potential solutions for a particular requirement. Equipped with a team of dynamic design engineers, we are ready to take up a given challenge.
2. Wellcare provide completion equipment as well as liner hangers in :
  - Majorly all standard API grades like J55, K55, L80, N80, P110, Q125,
  - low alloy steel grades as AISI 4130, 4140 etc.
  - Other exotic metallurgies like:
    - L 8013% Cr
    - Super 13%Cr 110 KSI
    - Nickel alloy 718
    - Nickel Alloy 925
    - Nickel Alloy 825.
3. Wellcare has a network of licensee third party premium threaders possessing license for machining proprietary connections from companies like Vallourec, Tenaris, Hunting, JFE, HSC etc.



WELLCARE OIL TOOLS

## LINER HANGER SYSTEM

For more information, contact **Wellcare representative**

Email – [sales@wellcareoiltools.com](mailto:sales@wellcareoiltools.com)  
visit us at [www.wellcareoiltools.com](http://www.wellcareoiltools.com)

