WENNIAN

CASING STRING ACCESSORIES

Offering cementing baskets, centralizers, and casing scratchers to ensure cementing quality and wellbore integrity.

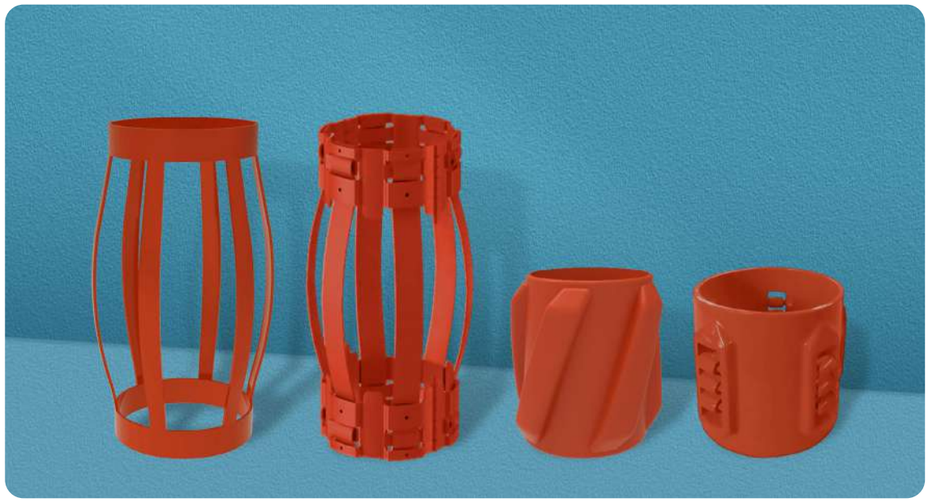
Contents

Casing String Accessories

Casing string accessories refer to a variety of auxiliary tools and equipment used in conjunction with the casing string during oil and gas well cementing operations. Their primary functions are to ensure the smooth running, positioning, sealing, and fixation of the casing, as well as to meet the requirements of subsequent operations. These accessories include tools such as casing centralizers, cementing baskets, casing Scratchers, and casing stop collars.

Casing Centralizer

Casing centralizers are designed to ensure proper casing centralization, improve cementing quality, and minimize wear risk. Our application engineers leverage an extensive product range – including welded, non-welded, and unibody bow spring centralizers – to ensure optimal cement placement in any well condition, from standard to extreme environments. All products comply with API standards and are suitable for vertical wells, horizontal wells, and extended reach wells, with excellent resistant to high temperatures and high pressures. With exceptional centralization performance and reliability, our solutions help drilling contractors enhance operational efficiency and reduce non-productive time.



Advantages

01

Manufactured from high-strength steel, offering excellent resistance to high pressure, corrosion, and high temperatures.

02

A wide range of popular casing centralizers is available, including bow spring and rigid types.

03

All products undergo rigorous testing that exceeds API 10D standards.

04

We maintain a comprehensive inspection process spanning raw materials, semi-finished products and finished products.

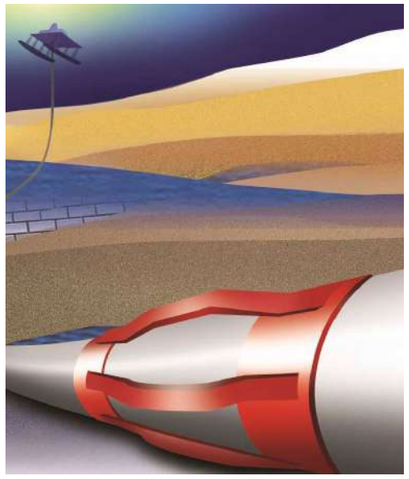
Features

☑ **Diverse designs**
Welded and non-welded centralizers; unibody bow spring centralizers suitable for dynamic well conditions.

☑ **All-condition compatibility**
Applicable to standard and extreme environments; suitable for vertical, horizontal, and extended-reach wells.

☑ **Compliance**
Meets API 10D and API TR 10TR5 standards.

Applications



- Casing centralizers ensure that there is sufficient cement sheath thickness around the casing string, reduce running-in resistance, prevent casing sticking, and contribute to enhanced cementing quality.
- Rigid centralizers are primarily used in horizontal wells and extended reach wells, where high strength and rotation capability are required to run the casing to the bottom.
- Bow spring centralizers are the most common type, and can meet the requirements of most wells, providing an optimal balance between well performance and cost.
- For horizontal wells with extended lateral sections, complex wellbores, and demanding well profiles—including high dogleg severity—the one-piece non-welded casing centralizer is the optimal choice.

Type

◉ Bow Spring Centralizers

This design is common in casing running operations offering a good balance between wellbore performance and cost. The spring steel bows are welded to rigid end collars that supply support to the bows. They are available in both slip on and hinged configurations to aid installation. Bow spring centralizers provide good borehole standoff, have favorable restoring forces, and come in a variety of shapes and lengths for most well requirements.

Features

- Dual configuration options, slip-on and latch-on types available.
- Various shapes and lengths, adaptable to different wellbore diameters and operating conditions.
- High restoring force resists deformation from wellbore compression.
- Reliable welded structure reduces the risk of downhole failure.
- Quick installation design minimizes casing running time.

Bow Spring Centralizer Specifications

Applicable Casing	Applicable Borehole	ID	OD	H (mm)
in		mm		
4-1/2	5-7/8	117	165	525
	6	117	180	525
	6-1/4	117	180	525
	6-1/2	117	194	525
	7-7/8	117	232	525
	8-1/4	117	232	525
	8-1/2	117	232	525
5	6-1/4	131	180	525
	6-1/2	131	194	525
	6-3/4	131	194	525
	7-7/8	131	206	525
	8-1/4	131	245	525
	8-1/2	131	245	525

Bow Spring Centralizer Specifications

Applicable Casing	Applicable Borehole	ID	OD	H (mm)
in		mm		
5-1/2	6-3/4	143	194	522
	7-7/8	143	219	522
	8-1/2	143	242	522
	8-3/4	143	257	522
	9-7/8	143	283	520
6-5/8	8-1/2	170	232	520
7	8-1/4	182	232	520
	8-1/2	182	245	523
	8-3/4	182	257	523
	9-7/8	182	283	520
7-5/8	9-7/8	196	273	520
8-5/8	11	222	298	520
	12-1/4	222	368	520
9-5/8	11	248	324	520
	11-5/8	248	337	520
	11-3/4	248	333	522
	12-1/4	248	371	525
	12-1/2	248	384	525
10-3/4	12-1/4	279	334	525
	13-1/2	279	390	536
	14-3/4	279	413	536
11-3/4	14-3/4	303	416	535
	15-1/2	303	441	535
13-3/8	14-3/4	346	419	535
	16	346	457	535
	17-1/2	346	485	535
13-5/8	17-1/2	351	464	540
14	17-1/2	361	473	540
16	20	410	549	540
	22	410	613	540
18-5/8	22	478	591	560
	23	478	680	560
	24	478	680	560
	26	478	730	580
20	24	513	650	580
	26	513	719	580

Unibody Bow Spring Centralizers

For horizontal wells with long laterals, tortuous boreholes, and severe well geometries (including high doglegs), a one piece, non-welded centralizer is the ideal choice. Unibody bow springs act as a semi-rigid centralizer, designed to be slightly under gauge minimizing drag while offering both flexibility and high restoring force. As the centralizer navigates restrictions, it is designed to compress and deform to a near-flat condition. As the borehole restriction is traversed, the centralizer reverts to its original form and shape without permanent deformation or damage.

Features

- Optimized for long horizontal sections and high dogleg severity wells, ensuring smooth passage through tortuous wellbores.
- Integrated bow-spring design with a semi-rigid structure – no weld joints, eliminating potential weak points.
- Outer diameter slightly smaller than the wellbore to balance running resistance and centralization performance.
- Designed to compress nearly flat for passing through narrow or restricted sections in high-curvature wells.
- Instantly returns to its original shape after release, with no permanent deformation, ensuring continued functionality.
- Achieves a balance between running efficiency and long-term centralization stability.

Unibody Bow Spring Centralizer Specifications

Applicable Casing	Applicable Borehole	ID	OD	H (mm)
in		mm		
4	5	130	105	300
4-1/2	5-3/4	149	118	300
4-1/2	6	149	118	300
5	6	156	131	300
5-1/2	8-1/2	215	143	305
7	8-1/4	215	183	350
	8-1/2	220	183	350
	8-3/4	225	183	350
	9-7/8	255	183	350

Applicable Casing	Applicable Borehole	ID	OD	H (mm)
in		mm		
7-5/8	9-7/8	255	196	365
8-5/8	11	282	223	350
	12-1/4	318	223	350
9-5/8	11	285	248	400
	11-5/8	302	248	400
	11-3/4	305	248	400
	12-1/4	318	248	400
	12-1/2	320	248	400
10-3/4	12-1/4	318	278	444
	13-1/2	350	278	444
	14-3/4	375	278	444
11-3/4	14-3/4	375	303	450
	15-1/2	395	303	450
13-3/8	17-1/2	435	348	450

Solid Rigid Centralizers

Solid, welded blade centralizers offer high strength in horizontal and extended reach wells where rotation is needed to get casing to bottom. Rigid bars are welded to the centralizer collars, giving the design strength and durability. Rigid centralizers come in a variety of configurations, including hinged and slip-on, with both straight blade and spiral designs. Rigid centralizers are also available in composite materials which can reduce drag, enabling conventional casing runs in long laterals. Set screws are used in some configurations to lock the centralizer in place on the casing joint, providing extra holding force.

Besides, we also supply straight/spiral vane solid centralizers, straight/spiral roller solid centralizers, straight/spiral roller ball solid centralizers and solid resin centralizers.

Features

- **Advantages:** High strength and durability, suitable for complex well conditions requiring casing rotation during running.
- **Structural features:**
  - Rigid strips welded to the collar ensure stability.
  - Multiple configurations available (latch-on, slip-on, straight/spiral vanes).
- **Material:** Composite options reduce drag and are ideal for long horizontal sections.
- **Enhanced fixing:** Some designs feature set screws to lock the collar, improving anti-shift performance.
- **Applications:** Optimize casing running efficiency and reliability in horizontal and extended-reach wells.

Type

Straight/Spiral Vane Solid Centralizer

The straight/spiral vane solid centralizer features high-strength steel welded vanes and a unique helical design that combines structural robustness with optimized fluid dynamics, making it ideal for challenging well conditions. Its integral rigid structure withstands high torque during casing rotation, while the spiral vane arrangement effectively reduces running friction and improves mud circulation.

This centralizer is particularly suitable for horizontal and extended-reach wells, ensuring proper casing centralization even in irregular or enlarged boreholes. It can be securely fixed to the casing collar by set screws or welding installation. With excellent wear resistance, it endures prolonged contact and scraping against the wellbore without deformation or failure, providing reliable centralization performance for long horizontal sections and deviated wells.

Features

- Specifically optimized for long horizontal sections and high dogleg severity wells, addressing casing passage challenges in complex borehole geometries.
- Integral bow spring design with a semi-rigid structure and no welded joints, eliminating potential weak points.
- Designed with an outer diameter slightly smaller than the wellbore, balancing running friction and centralization performance.
- Adaptable to high-curvature wellbores, capable of being compressed to near-flattened form to pass through restricted sections.
- Instantly returns to its original shape after exiting tight zones, with no permanent deformation, ensuring continuous functionality.
- Delivers an optimal balance between running efficiency and long-term centralization stability.

Straight/Spiral Vane Solid Centralizer Specifications

Applicable Casing	Applicable Borehole	ID	OD	H (mm)
in		mm		
4-1/2	5-3/4	146	118	128
5-1/2	8-1/2	210	145	150
7	8-1/2	210	182	150
9-5/8	12-1/4	305	248	150
13-3/8	17-1/2	436	343	200
20	26	650	513	200

Straight/Spiral Roller Solid Centralizer

Fully heat treated rollers are fixed on every straight or spiral blades/vanes.Better capacity than the straight/spiral vanes solid centralizers because of rigid body and rolling friction between the roller and inside of well or casing.Made of cast steel, which is high tensile and solid for shock and impact resistance.Roller/ wheeled centralizers are mainly used for high deviated wells and horizontal wells to centralize casing.

Performance Specifications

50%+

Frictional resistance reduced by over 50%, minimizing casing wear and extending its service life.

≥ 800MPa

Manufactured from high-strength cast steel with a tensile strength ≥ 800 MPa, capable of withstanding complex downhole impact loads.

5000h

Roller surfaces are carburized and quenched (hardness HRC 58–62), providing three times higher wear resistance and a service life exceeding 5,000 hours.

Performance Details

Product Features	Technical Description	Core Advantages
Modular roller configuration	Each straight or spiral vane is equipped with independently mounted rollers.	Provides uniform multi-point support to adapt to varying borehole diameters.
Rigid support structure	Designed with an overall rigid body structure to ensure stability under load.	Maintains stable support in highly deviated wells to prevent casing bending and deformation.
Impact resistance	Rollers and brackets are integrally cast, providing high strength and resistance to impact.	Effectively resists drilling fluid impact and downhole collisions, reducing failure rate by 70%.
Highly deviated well adaptability	Optimized roller arrangement angle and contact area for smoother rotation.	Maintains casing centralization above 85% even in wells with inclinations over 60°.
Horizontal well design	Increased roller density and bearing area for improved load distribution.	Prevents casing wall contact and wear in horizontal sections by offsetting gravity effects.
Dynamic passing performance	Rollers can freely rotate 360°, reducing drag and wear during casing operations.	Excellent run-in performance with 40% lower risk of sticking or obstruction.
Standardized installation	Designed with API standard dimensions	Compatible with common casing sizes from 4-1/2" to 13-3/8", following API standard dimensions.

Comparison of Key Technical Indicators

Parameter	Roller Centralizer	Conventional Blade Centralizer	Performance Improvement
Coefficient of friction	0.08–0.12	0.3–0.5	Reduced by 60% to 75%
Maximum lateral load	50kN	30kN	Increased by 66%
Applicable hole deviation angle	0–90°	0–45°	The applicable scope has doubled
Running speed	40–60m/min	20–30m/min	Efficiency has doubled.

Straight/Spiral Roller Solid Centralizer Specifications

Applicable Casing	Applicable Borehole	ID	OD	H (mm)	Unit Weight (KG)
in		mm			
9-5/8	12-1/4	305	248	300	22.8

Straight/Spiral Roller ball Solid Centralizer

The ball-bearing structure of the straight/spiral roller ball solid centralizer significantly reduces friction against the borehole wall. The alloy steel balls enhance lateral strength and load capacity, thereby improving overall reliability. Its low-torque and low-friction characteristics provide effective assistance during both rotational operations and reciprocating pipe string movements.

Key Performance Parameters

80–120 N·m

Rotational torque is Controlled within 80–120 N·m, representing a 60–75% reduction compared with conventional products, significantly improving operational efficiency.

8000 h

Excellent wear resistance and durability with a service life of up to 8,000 hours, 2.7× longer than standard products, effectively reducing maintenance costs.

75 kN

Lateral load capacity achieves 75 kN, an 87.5% performance increase, ensuring stable support under complex downhole conditions.

100%

Pass-through speed reaches 50–70 m/min, providing a 100% increase in efficiency and greatly shortening operation time.

Product Features	Technical Description	Core Advantages
Ball-type friction reduction structure	Designed with high-precision alloy steel ball arrangement	Friction coefficient reduced to 0.05–0.08, lowering frictional resistance by over 70% compared with conventional centralizers.
Ultra-high strength material	Balls made of GCr15 bearing steel (HRC60–64) vacuum heat-treated for maximum hardness and durability.	Each individual ball withstands up to 3000 MPa, improving lateral load capacity by 80%.
Dynamic rotation system	Dual-sealed bearing structure ensures 360° free rotation under varying well conditions.	Torque reduced by 45%, suitable for rotational operations below 200 rpm.
Optimized contact mechanics	Multi-ball evenly spaced design (12–16 balls per ring) provides uniform load distribution.	Uniform stress distribution prevents localized wear, extending service life by 3×.
Composite load-bearing design	Ball bracket forged from 42CrMo alloy steel for superior strength and impact resistance.	Withstands combined loads of 200 kN axial and 150 kN radial simultaneously.
Extreme condition adaptability	Maintains stable performance from –40 °C to 150 °C in harsh downhole environments.	Designed for deep-well environments with high-temperature lubricants up to 150 °C.
Fluid dynamics optimization	Integrated flow channels between balls to enhance mud circulation and reduce drag.	30% increase in drilling fluid flow rate, reducing the risk of mud wrapping.
Anti-seizure design	Each ball has an independent sealed lubrication system to prevent jamming.	Operates smoothly in drilling fluids containing up to 15% sand.
Standardized configuration	Fully compliant with API RP 10D-2018 standards.	Compatible with casing sizes from 5" to 13-3/8".
Smart monitoring interface	Optional RFID module enables temperature and wear monitoring for real-time maintenance tracking.	Supports real-time transmission of centralizer operating data.

Straight/Spiral Roller ball Solid Centralizer Specifications

Applicable Casing	Applicable Borehole	ID	OD	H (mm)	Unit Weight (KG)
in		mm			
5-1/2	8-1/2	210	142	150	14

Solid Resin Centralizer

The solid resin centralizer is made from high-strength composite material using an integrated molding process, providing excellent structural integrity and load-bearing capacity. Its lightweight design allows for easy installation and handling, while offering superior resistance to high temperatures and wear. The low-friction design effectively reduces casing running resistance and protects the wellbore, making it suitable for various complex well conditions and significantly improving operational efficiency.

Performance Specifications

Friction Coefficient

0.15–0.25

30–40% lower than metal centralizers

Compressive Strength

≥ 120 MPa

Meets API RP 10D standard

Operating Temperature

-40 °C to +150 °C

Special formulation can withstand up to 180 °C

Wear Resistance

≤ 5000h

Service life of 3000–5000 hours

Applications

- Conventional vertical and directional wells
- Corrosive environment wells (H_2S-containing wells)
- Shale gas development wells
- Offshore drilling platforms

Solid Resin Centralizer Specifications

Applicable Casing	Applicable Borehole	ID	OD	H (mm)
in		mm		
5-1/2	8-1/2	210	145	250
7	8-1/2	210	182	265
9-5/8	12-1/4	303	248	265
13-3/8	17-1/2	420	344	265

Cementing Basket

A cementing basket protects weak formations from the hydrostatic pressure generated by the weight of the cement column. It is run above weak formations through casing, tubing, and liner strings, and can be used for both single-stage and multi-stage cementing operations. We specialize in the R&D and manufacturing of high-performance cementing baskets, committed to delivering efficient and reliable zonal isolation solutions for oil and gas well cementing. Our cementing baskets are constructed from high-strength materials and feature an optimized structural design to ensure effective isolation of cement slurry under complex well conditions, prevent channeling, enhance cementing quality, and reduce subsequent operational risks.

Advantages

01

Constructed from high-strength metal, offering maximum flexibility, fluid passage, and support.

02

Featuring a slip-on design, the cementing basket allows for rotation and reciprocation.

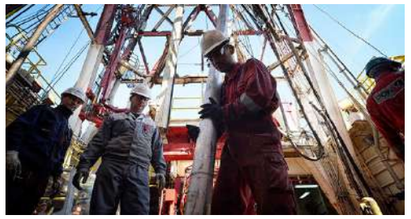
03

The bow springs are hardened and tempered to ensure maximum strength and uniformity.

04

We possess independent testing capabilities, and can perform product material mechanical and chemical testings.

Applications



- Protects weak formations from hydrostatic pressure generated by the weight of the cement column ;
- Prevents cement slurry from flowing downward, ensuring it sets at the designated location;
- Applicable for single-stage or multi-stage cementing operations.

Type

Slip-on Type Cementing Basket

The slip-on type cementing basket features a slip-on mechanism, allowing it to be activated or closed under specific conditions for more flexible cementing control. Its liner can be made of heavy-duty canvas or overlapping metal sheets. This design is particularly suitable for multi-stage cementing and deep well operations. If the slip-on type cementing basket is lined with heavy-duty canvas, it is better suited for applications with lower hydrostatic pressure.

Performance Specifications

5 s

Equipped with a dual-control hydraulic-mechanical sliding sleeve mechanism for precise open/close control, with a response time of less than 5 seconds.

35 MPa

Adjustable working pressure range of 7-35 MPa to accommodate various pumping conditions.

98%

Metal-elastomer composite sealing structure provides a sealing efficiency of over 98%.

90%

Full-open flow area ≥ 90%, ensuring smooth drill string passage after cementing operations.

Latch-on Type Cementing Basket

The latch-on type cementing basket is constructed of flexible steel spring bows welded to latch-on end collars, with an overlapping metal sheet liner. It deploys through a latch-on mechanism, making it suitable for well sections where casing has already been run or where the wellbore diameter is relatively uniform. Due to its simple structure and relatively low pressure resistance, it is more suitable for low-pressure or shallow well cementing operations.

Performance Specifications

90°

Designed with a multi-joint hinge structure that automatically adjusts angles (0–90°) to perfectly conform to irregular wellbore surfaces.

65%

When folded, the outer diameter is reduced by more than 65%, allowing easy passage through complex wellbores and casing collars.

50 MPa

Hydraulic activation combined with mechanical self-locking ensures absolute stability under working pressures up to 50 MPa.

Note: Complies with API 19AC standards and is especially suitable for extended-reach horizontal wells.

Specifications

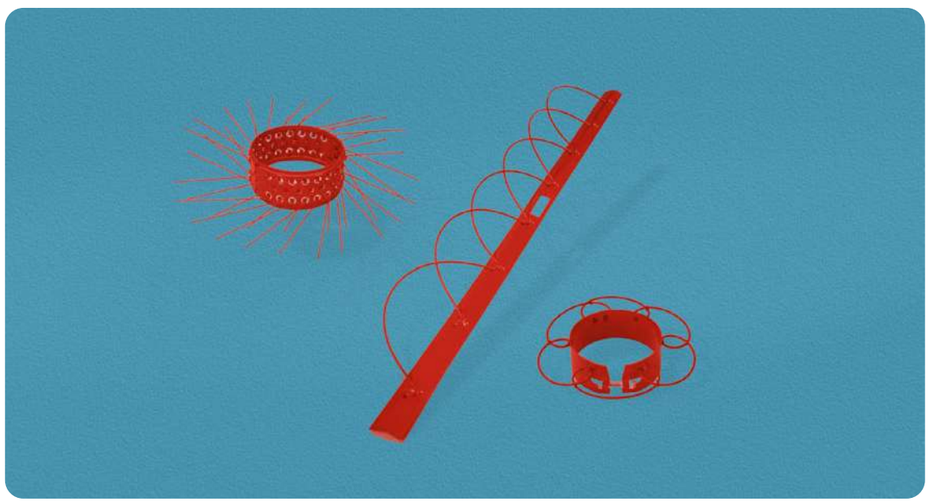
Cementing Basket Specifications

Casing Size (in)	No. of Bows	Total Length	Basket O.D.		Min Hole Size(in)
			in	mm	
4-1/2	10	24-1/2	12-1/2	317.5	6
5	10	24-1/2	13	342.9	6
5-1/2	12	24-1/2	13-1/2	342.9	7-1/4
6-5/8	12	24-1/2	14-5/8	371.5	8-3/8
7	14	24-1/2	15	381.0	8 3/8
7-5/8	14	24-1/2	15-5/8	396.9	9-1/2
8-5/8	16	24-1/2	16-5/8	422.3	10-5/8
9-5/8	18	24-1/2	17-5/8	447.7	11-5/8
10-3/4	18	24-1/2	18-3/4	476.3	12-3/4
11-3/4	20	24-1/2	19-3/4	501.7	13-3/4
11-3/8	24	24-1/2	21-3/8	542.9	15-1/2
16	28	24-1/2	24	609.6	18
18-5/8	34	24-1/2	26-5/8	676.3	20-5/8
20	34	24-1/2	28	711.2	22

Casing Scratcher

The casing scratcher is installed on the outer surface of the casing in the cemented section of the well and is used to remove filter cakes from the borehole wall, thereby improving the bonding strength between the cement ring and the formation.

Casing scratchers are available in two types: reciprocating and rotating. The reciprocating casing scratchers consists of radial steel wires or wire ropes and a coupling; it removes the filter cake through the reciprocating motion of the casing. The rotating casing scratcher is made up of radial steel wires or wire ropes and straight rods; mounted on the casing string, it removes the filter cake during casing rotation.



Advantages

01
Sized range from 4-1/2" to 20", and sizes are customizable.

02
Excellent holding force

03
Consist of a hinged collar and wire bristles are attached to it.

04
Uses the hinged pins to secure the collars around the casing.

05
The wire bristles are hardened and tempered.

06
All sizes are available in standard and customized according to the requirement of the clients.

07
Both designs provide aggressive wellbore cleaning that promotes good cement-to-formation bonding.

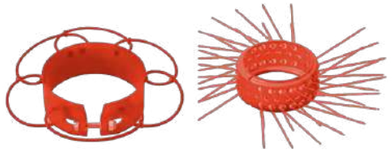
08
The steel wipers and bristles act as reinforcement to the cement column.

09
Secure attachment mechanisms enable easy and secure installation on casing, eliminating the need for separate stop collars.

Applications

- All wellbores requiring mud- and filter-cake removal
- Casing strings that are planned for reciprocation
- Openhole sections of wellbore requiring filter-cake removal
- Significantly improves cement bonding quality (30% enhancement in VDL logging), effectively prevents micro-annuli, and ensures well completion reliability.
- Equipped with a rotary steering mechanism, suitable for horizontal wells, highly deviated wells (torque resistance ≥ 2,000 N·m), and corrosive environments.

Type



Reciprocating Casing Scratchers

These are constructed to withstand any treatment from the casing rack to the bottom of the well without impairing their effectiveness. The high strength wire fingers and cable loops distintegrate the toughest filter cake and their working diameter enables them to reach into enlarged scale sections to agitate gelled mud and to make possible a complete cement fill.

Features

- **High cleaning efficiency.** Multi-stage alloy blade assembly achieves a wellbore cleaning rate of over 90%, ensuring no residue remains.
- **Intelligent operation.** Integrated rotary steering system automatically adjusts scraping pressure, making it suitable for horizontal wells.
- **Strong adaptability.** Operates reliably within a temperature range of -30 °C to 175 °C, compatible with various casing sizes from 5" to 13-3/8".
- **Long-lasting durability.** Rated for 70 MPa pressure, with reinforced alloy steel construction for 50% longer service life.

Rotating Casing Scratchers

These consists of a split collar which houses double coiled external and internal bristles. The external bristle system is incliend 20° and is shielded by slight elevations in the collar. The inclination of these bristles reduces the abrasive action when casing is run into the hole. The bristles are placed in a now position relative to the bore hole wall at each change of direction while moving pipe, thus assuring the cleaning of the entire circumference of the casing and the well bore.

Features

- **High-efficiency cleaning.** 360° rotating blades provide no-dead-angle scraping, achieving a cleaning efficiency of over 95%.
- **Intelligent drive.** Automatically adjusts scraping force according to wellbore conditions for precise and controlled operation.
- **Exceptional durability.** Ultra wear-resistant alloy blades extend service life by 60%.
- **All-condition compatibility.** Maintains stable and efficient performance under high-concentration, high-viscosity, and complex flow conditions.

Stop Collar

Stop collars are designed to grip the casing centralizers and cement baskets in its intended locations and provide the desired standoff. They are available in hinged stop collars and slip-on stop collars and they can be divided into different structures for various conditions and requirements. The stop collars are coated by powder baking or paint baking in high temperature to increase their corrosion and rust resistance performance. Stop collar sizes are ranging from 4-1/2" to 20".

Advantages

01

The robust steel designs can withstand high axial forces, making them suitable for demanding well conditions.

02

The stop collar is a cost-effective tool to prevent centralizer movement, providing excellent casing centralization and standoff.

03

Placing stop collars under bow-spring centralizers ensures that the centralizers are pulled in and out of the wellbore, minimizing centralizer deformation and nonproductive time.

04

It supports customized design and manufacturing.

Features

☑ High-strength locking

Dual mechanical-hydraulic locking mechanism rated to 70 MPa pressure and 3000 N·m torque, ensuring casing string stability.

☑ Full-bore design

Inner bore ≥ 95% of casing ID, allowing unrestricted passage of subsequent tools and ensuring continuous operations.

☑ Intelligent adaptability

Modular design covers wellbores from 4-1/2" to 13-3/8" , with optional pressure monitoring for compatibility with complex conditions.

☑ API 5CT compliant

Suitable for horizontal well fracturing operations.

Applications

- Cased-hole or openhole wellbores requiring pipe centralization.
- Horizontal or vertical wells with tight clearances.
- Drill pipe and low-end applications with a large annular clearance below ID restriction(s).
- Any well where bow-spring or rigid centralizers are run.

Type

◉ Clamp Type Stop Collar

The clamp type stop collar is a high-efficiency fastening device specifically designed for onshore oil wells. Manufactured from the same premium materials as bow spring centralizers, it ensures exceptional durability and full system compatibility. Its innovative design uses a spiral screw and internal groove locking mechanism for quick, secure installation and reliable fixation on the casing. This structure maximizes annular clearance, reduces rig operation time, and simplifies installation procedures, significantly improving operational efficiency. The clamp type stop collar is particularly suitable for wells with moderate operational requirements and standard casing grades – such as surface casing and vertical sections – making it an ideal choice for drilling operations that balance performance and cost efficiency.

Features

- **Quick installation.** Features a spring clamp design that enables casing fixation in just 3 seconds, with a tensile strength of ≥ 50 tons, greatly improving operational efficiency.
- **Full-bore flow.** The inner diameter retains 98% of the casing's drift ID, ensuring smooth passage of completion tools. The maximum outer diameter is reduced by 40%, optimizing wellbore clearance.
- **Adaptive locking.** Equipped with an intelligent adjustment mechanism accommodates 4"–13-3/8" casings, with a temperature resistance from -30 °C to 150 °C, meeting the requirements of various well conditions.

Clamp Type Stop Collar Specifications

Size (mm)/(in)		OD (mm)	ID (mm)	H (mm)
114	4-1/2	119.5	114.5	78
140	5-1/2	145	140	78
178	7	183	178	78
244	9-5/8	249.5	244.5	78
273	10-3/4	278	273	78
340	13-3/8	345	340	78
406	16	411.5	406.5	78
508	20	513	508	78

Screw Type Stop Collar

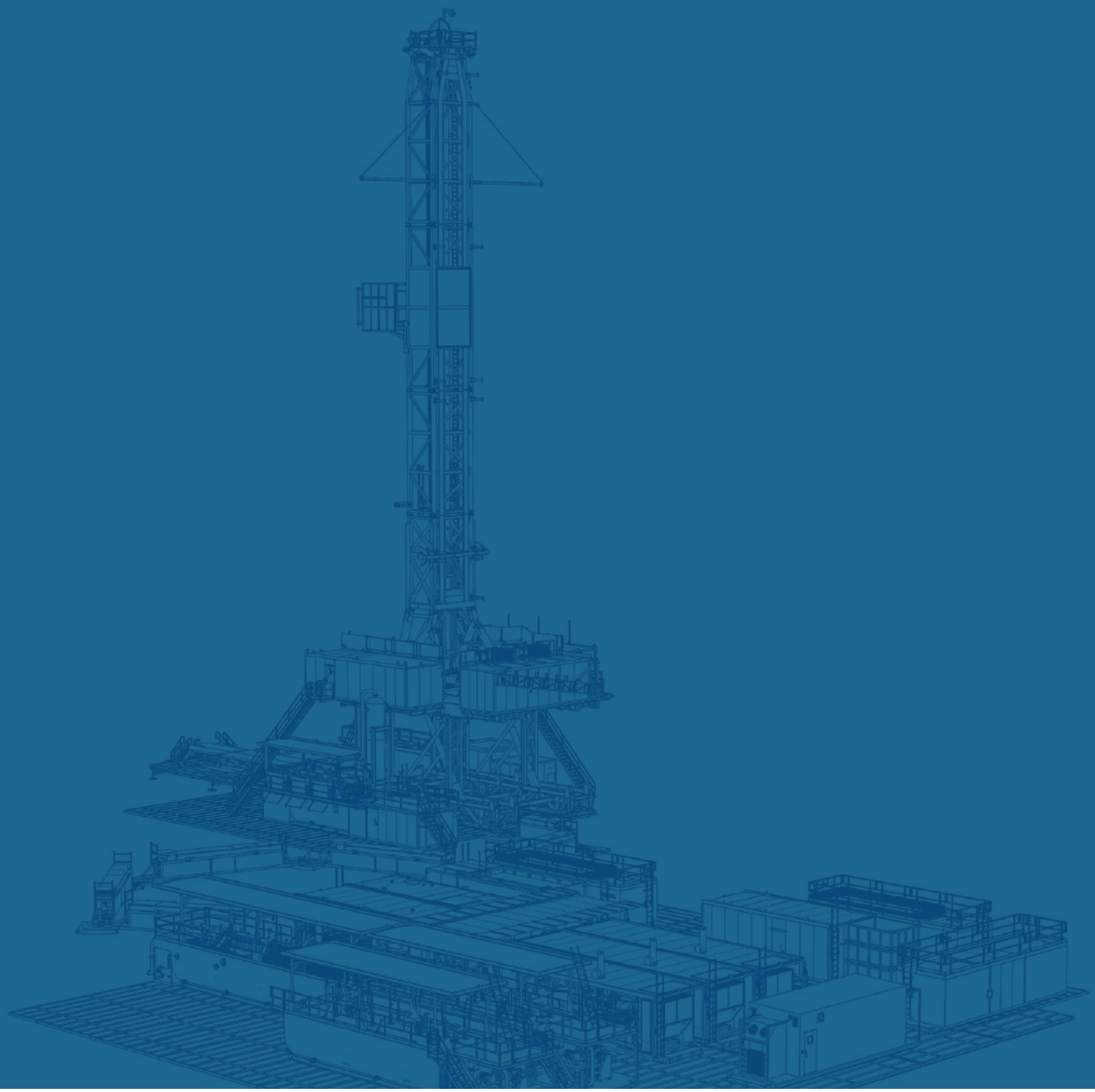
The screw type stop collar features a specially designed screw mechanism that provides strong holding force while minimizing potential damage to the casing string, making it an efficient solution for maintaining wellbore integrity. It is an ideal choice for applications involving standard-grade casing and low-demand well sections. Key features include anti-vibration screw locking to ensure stable performance. For operators seeking a cost-effective and durable option for onshore surface casing and vertical well sections, the screw type stop collar is an excellent choice.

Features

- **Secure locking.** High-strength alloy screws provide multi-point fixation with tensile resistance ≥ 80 tons, ensuring absolute stability of the casing string.
- **Precision adjustment.** It supports fine positioning with 0.5 mm accuracy to accommodate various coupling tolerance requirements.
- **Corrosion resistance.** Nickel-plated for enhanced durability, resistant to H_2S and CO_2 corrosion, with a service life twice that of conventional products.
- **Easy maintenance.** Detachable design allows quick replacement of individual damaged screws, reducing maintenance costs by up to 60%.

Screw Type Stop Collar Specifications

Size (mm)/(in)		OD (mm)	ID (mm)	H (mm)	Unit Weight (Kg)	Number of Set Screws (pcs)
114	4-1/2	128	118	35	0.45	6
140	5-1/2	145	140	40	0.62	6
168	6-5/8	184	172	40	0.95	6
178	7	183	178	40	1	8
194	7-5/8	210	198	40	1.2	8
219	8-5/8	234	222	40	1.4	8
244	9-5/8	232	222	40	2.1	8
273	10-3/4	264	248	40	2	8
340	13-3/8	365	345	40	3.5	12
406	16	430	412	40	3.8	16
473	18-5/8	500	480	40	4.5	16
508	20	530	514	40	4.4	16



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Room 1703, No. 33 Building, Haiyue Mansion, Haigang District, Qinhuangdao City, Hebei Province, China.