



WELL SECURE



# Well**secure** Oil Tools

**PRIMARY**  
CEMENTING  
PRODUCTS

STANDING APART IN QUALITY LEADERSHIP



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Wellsecure was established in 2019 and since then we have been performing consistently to excel and cater to the demands of our clients. We have been offering our equipments to other well known brand names in India since long, now with the backing of our technical team and Drilling Industry experts we are confident to offer our products in the global market under our own @well secure brand name.

We have received excellent feedback for our products from end users, appreciation and encouragement of drilling team gives us tremendous confidence to scale our operations, we are already getting good response from our global customers. We have attained position of quality leaders in the oilfield equipments and tools Industry by offering innovative and highly standardized quality of casing accessories, centralizers, float Equipment and other downhole tools in a short period of time. Well secure product quality is appreciated by clients which results in repeat orders; in addition to high quality products our technical support helps the end users in making critical decision smoothly and in full confidence. Our fast response and complete technical support increases the confidence of our end users and well secure has earned goodwill and word of mouth publicity enabling us to maintain relationships.

Our manufacturing units at Faridabad near national capital Delhi is within 10 Kms of ICD Tughlakabad which is one of the biggest inland dry ports in Delhi which allows us to deliver products all across the globe in shortest possible time.

Our associates and distributors have offices and well stocked warehouses in South-East Asia, Middle East, CIS and African region and are able to supply these items in shortest possible time.

A PROMISING BEGINNING



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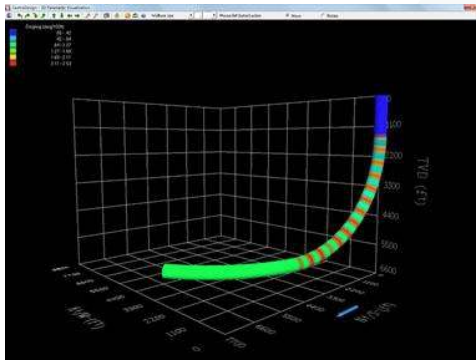
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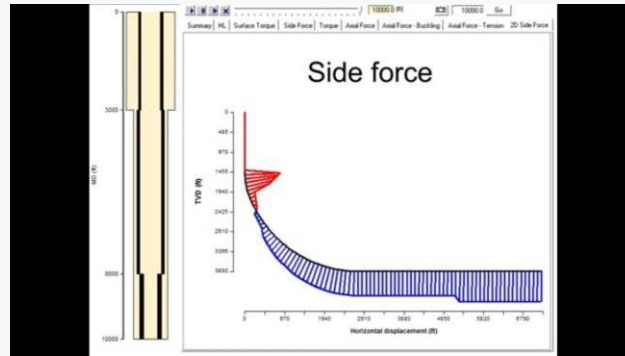
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## CENTRALIZER PLACEMENT SOFTWARE

Wellsecure Centralizer placement Software calculates the centralizer placement, casing standoff and torque and drag. It analyses and recommends the minimum number of centralizers to define string placement, considering standoff criteria, torque or drag reduction requirements or optimum positioning due to high load areas. The simulations can also accommodate casing floatation and air section length optimization as well as Casing deflection and centralizer compression based on the well data and centralizer performance.



Parameter Visualization



Analysis

TECHNICAL SUPPORT

Casing centralization is one of the most important step to ensure the quality of a cementing job. It does so by preventing mud channelling and ensuring complete zonal isolation. While centralizers are used extensively, well problems continue to arise due to poor cementing jobs. The challenge that both operators and service companies face is to choose the right type of centralizers for specific well conditions and place the correct amount of them in the optimum position on the casing to achieve a good standoff profile. Well secure Centralizer software optimizes the centralizer placement, predicts casing standoff and torque and drag for ERD or deviated wellbores. It determines the number and placement of centralizers using one of the four modes: "specify spacing", "specify location", "specify standoff" and "optimum" for bow-spring, rigid, semi-rigid, and solid centralizers



CERTIFICATE



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### WELL SECURE NON-WELD HINGED BOW SPRING CENTRALIZERS

Wellsecure's Hinged Non-weld Bow Spring Centralizers are used to position the casing in the centre of wellbore in both vertical and deviated wells.

These Bow Spring Centralizers help in improving the cement flow and reduce the effect of channeling resulting in highly uniform cement sheath between the casing and wellbore. These centralizers minimize gas channeling by reducing the movement of the pipe before the cement sets in. Well secure non weld bow centralizers provide a semi-rigid casing standoff.

Non-welded design features self-locking lips for holding bows to end collars. Bows of special spring steel are hot-formed and tempered for optimum strength, resilience, and uniform spring action to give optimum standoff for better cementing.

#### Performance Features

- Non-weld design is suited for less demanding application where casing rotation is not essential.
- Non-weld design provides a reliable down hole performance in both cased-hole and open-hole applications due to flexible nature.
- Well secure Non weld bow centralizer offers high restoring force combined with a low starting force with all bow height combinations.
- Wellsecure's bow springs are manufactured from high-quality spring steel and heat-treated to achieve minimum starting and running forces. The heat-treated alloy provides flexibility while minimizing damage when moving downhole.
- Installation on the casing pipe is very convenient since it simply requires the placement of the two assembled halves on the pipe and the insertion of the pin in the end collar hinge.
- The centralizer when unassembled makes a compact package, greatly reducing shipping cost; its assembly on site is straightforward.
- Wellsecure offers a wide range of bow heights and shapes enabling the customer to make an optimum choice matching their requirements.
- These centralizers are designed to be installed and latched on over stop collars or casing collars.

#### Options

- Hinged Non-weld Bow Spring Centralizers are available in the sizes 2 7/8" to 30"
- Special sizes or combinations can be made available on request

#### Recommended For Use With

- Hinged Stop Collar – WS HB
- Hinged Stop Collar with Spiral Nails – WS-HS
- Stop Collar with Set Screws – WS-SOSS

BOW SPRING CENTRALIZERS WS NWB



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## Centralizer Bow Configuration & Standard Bow Height

	WS-BS 0	BWS-BS 1	WS-BS 2	WS-BS 3	WS-BS 4
in.	0.965	1.161	1.437	2.303	3.051
mm	24.5	29.5	36.5	58.5	77.5

### Well Secure Non-weld Bow Centralizers (WS-NWB)

Casing Size in.	Bow Type	Max. O.D. Size mm	Max. O.D. Size mm	Casing Size in.	Bow Type	Max. O.D. Size mm	Max. O.D. Size mm	Casing Size in.	Bow Type	Max. O.D. Size mm	Max. O.D. Size mm
4 1/2	WS-BS-0	6.579	167.1	7 5/8	WS-BS-0	9.760	247.9	13 3/8	WS-BS-0	15.567	395.4
	WS-BS-1	6.972	177.1		WS-BS-1	10.154	257.9		WS-BS-1	15.961	405.4
	WS-BS-2	7.524	191.1		WS-BS-2	10.705	271.9		WS-BS-2	16.512	419.4
	WS-BS-3	9.256	235.1		WS-BS-3	12.437	315.9		WS-BS-3	18.244	463.4
	WS-BS-4	10.752	273.1		WS-BS-4	13.933	353.9		WS-BS-4	19.740	501.4
5	WS-BS-0	7.098	180.3	8 5/8	WS-BS-0	10.756	273.2	16	WS-BS-0	18.193	462.1
	WS-BS-1	7.492	190.3		WS-BS-1	11.150	283.2		WS-BS-1	18.587	472.1
	WS-BS-2	8.043	204.3		WS-BS-2	11.701	297.2		WS-BS-2	19.138	486.1
	WS-BS-3	9.776	248.3		WS-BS-3	13.433	341.2		WS-BS-3	20.870	530.1
	WS-BS-4	11.272	286.3		WS-BS-4	14.929	379.2		WS-BS-4	22.366	568.1
5 1/2	WS-BS-0	7.614	193.4	9 5/8	WS-BS-0	11.748	298.4	18 5/8	WS-BS-0	20.854	529.7
	WS-BS-1	8.008	203.4		WS-BS-1	12.142	308.4		WS-BS-1	21.248	539.7
	WS-BS-2	8.559	217.4		WS-BS-2	12.693	322.4		WS-BS-2	21.799	553.7
	WS-BS-3	10.291	261.4		WS-BS-3	14.425	366.4		WS-BS-3	23.531	597.7
	WS-BS-4	11.787	299.4		WS-BS-4	15.921	404.4		WS-BS-4	25.028	635.7
6 5/8	WS-BS-0	8.728	221.7	10 3/4	WS-BS-0	12.902	327.7	20	WS-BS-0	22.248	565.1
	WS-BS-1	9.122	231.7		WS-BS-1	13.295	337.7		WS-BS-1	22.642	575.1
	WS-BS-2	9.673	245.7		WS-BS-2	13.846	351.7		WS-BS-2	23.193	589.1
	WS-BS-3	11.406	289.7		WS-BS-3	15.579	395.7		WS-BS-3	24.925	633.1
	WS-BS-4	12.902	327.7		WS-BS-4	17.075	433.7		WS-BS-4	26.421	671.1
7	WS-BS-0	9.126	231.8	11 3/4	WS-BS-0	13.898	353.0	24	WS-BS-0	26.298	667.9
	WS-BS-1	9.520	241.8		WS-BS-1	14.291	363.0		WS-BS-1	26.692	677.9
	WS-BS-2	10.071	255.8		WS-BS-2	14.843	377.0		WS-BS-2	27.243	691.9
	WS-BS-3	11.803	299.8		WS-BS-3	16.575	421.0		WS-BS-3	29.015	736.9
	WS-BS-4	13.299	337.8		WS-BS-4	18.071	459.0		WS-BS-4	30.511	774.9

### WS Bow-Spring Selection Guide Non-Weld Centralizer

Casing Size in.	Bow Type	Preferred Hole Size Combination In.	Casing Size in.	Bow Type	Preferred Hole Size Combination In.
4 1/2	WS-BS-0	6, 6 1/8, 6 1/4	9 5/8	WS-BS-0	-
	WS-BS-1	-		WS-BS-1	11 3/8
	WS-BS-2	-		WS-BS-2	11 3/8
	WS-BS-3	7 7/8, 8 1/2		WS-BS-3	11 3/4, 12 1/4, 12 1/2, 12 5/8
	WS-BS-4	-		WS-BS-4	-
5	WS-BS-0	6 1/4	10 3/4	WS-BS-0	-
	WS-BS-1	6 3/4		WS-BS-1	12 1/4
	WS-BS-2	-		WS-BS-2	12 1/4, 12 1/2, 12 5/8, 13 1/2
	WS-BS-3	8 1/2		WS-BS-3	-
	WS-BS-4	12 1/4		WS-BS-4	14 3/4
5 1/2	WS-BS-0	6 5/8	11 3/4	WS-BS-0	-
	WS-BS-1	-		WS-BS-1	-
	WS-BS-2	7 7/8		WS-BS-2	-
	WS-BS-3	8 3/8, 8 1/2, 8 3/4		WS-BS-3	-
	WS-BS-4	-		WS-BS-4	-
6 5/8	WS-BS-0	7 7/8	13 3/8	WS-BS-0	-
	WS-BS-1	8 1/2, 8 5/8		WS-BS-1	14 3/4
	WS-BS-2	8 5/8, 8 3/4		WS-BS-2	-
	WS-BS-3	-		WS-BS-3	15 1/2, 16
	WS-BS-4	-		WS-BS-4	17 1/2

### PERFORMANCE REQUIREMENT : As Per API Specification 10D Force In lbs.

Casing Size In Inches	Starting Force (max.)	Restoring Force (min.)
4 1/2	464	464
5	520	520
5 1/2	620	620
6 5/8	960	960
7	1040	1040
7 5/8	1056	1056
8 5/8	1440	1440
9 5/8	1600	1600
10 3/4	2040	1020
11 3/4	2160	1080
13 3/8	2440	1220
16	2600	1300
18 5/8	3500	1750
20	3760	1880



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### Hinged Welded Spring Bow Centralizer

Wellsecure's welded bow spring centralizers are high-quality welded products that meet or exceed API 10D specifications. These centralizers combine a very high restoring force with a very low starting force. The centralizers feature bow springs strongly welded to its end collars. This welded design provides excellent downhole durability. Premium quality bows made of a special alloy steel with uniform hardness provide optimum performance and excellent stand-off. The end collars are available in a latch-on design with a high-strength steel-locking pin for maximum structural toughness. With a choice of six different bow heights, a perfect combination for casing/open hole configuration can be achieved.

Furthermore, the installation of Wellsecure's welded hinged bow spring centralizers on the casing pipe is very convenient, as it requires only the placement of the two assembled halves on the pipe and the insertion of the pin in the end collar hinge. Additionally, the centralizer when un assembled makes a compact package, greatly reducing shipping cost.

### Performance Features

- Welded centralizers have more running force when compared to their non-welded counterparts.
- Bows can be configured for any hole diameter with a choice of six standard bow heights.
- Compatibility of bows with various end collar sizes reduces inventory requirements and provides tremendous flexibility of casing and hole size combinations.
- A high restoring force combined with a low starting force is achieved with all bow heights.
- The bows provide an excellent standoff, which allows for an efficient mud and cement displacement.
- Hinge locking pins are made of high-strength steel for maximum structural strength.
- Is able to centralize the casing pipe in vertical, deviated and horizontal wells.
- Its high performance characteristics are combined with an easy field assembly.

### Options

- Welded hinged bow spring centralizers are available in sizes 2 7/8" to 30"
- Special sizes or combination can be made available on request

### Recommended For Use With

- Hinged Stop Collar – WS HB
- Hinged Stop Collar with Spiral Nails – WS HS
- Stop Collar with Set Screws – WS HSS

HINGED WELDED SPRING BOW CENTRALIZER WS WB



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### Non-welded Hinged Rigid Bow Centralizer

Well secure's non-welded hinged Rigid bow centralizers are uniquely designed with a flat-bottom U-profile of different depths, which permit an extremely high fluid passage. These centralizers may be used for both casing and tubing applications that require concentric casing strings. The straight bows provide nearly 100% stand-off when running inside a deviated cased hole, while the self-locking design of the centralizer ensures a firm hold. Furthermore, the non-welded structure eliminates brittle spots and enhances durability

### Performance Features

- Wellsecure's non-welded hinged Rigid bow centralizers are designed for use with casing pipe in vertical, deviated, and horizontal wells.
- High-quality steel alloy bows with flat bottom U-profiles of different depths permit an extremely high fluid passage.
- The U-profile bows provide a superior stand-off and more effective centralization than conventional bow centralizers.
- These centralizers are highly suitable for stage and surface cementing.
- Hinge locking pins are made of high-strength steel for maximum structural strength.
- Bows can be configured for any hole diameter with a choice of various standard bow heights for optimum performance and centralization to suit the casing combinations.
- Non welded rigid centralizers can be assembled easily on the field.

### Options

- Wellsecure's non-welded hinged positive bow centralizers are available in sizes 4 ½" to 30"
- Special sizes or combination can be made available on request

### Recommended For Use With

- Hinged Stop Collar –WS HB
- Hinged Stop Collar with Spiral Nails – WS HS
- Stop Collar with Set Screws – WS HSS

RIGID BOW CENTRALIZERS WS NWR



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## Well Secure Non-Weld Rigid Centralizer (WS-NWR)

CASING SIZE	Bow Type/ Maximum Bow OD																			
	WSR-1		WSR-2		WSR-3		WSR-4		WSR-5		WSR-6		WSR-7		WSR-8		WSR-9		WSR-10	
	in.	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
4 1/2	5.831	148.1	6.224	158.1	6.618	168.1	6.854	174.1	7.169	182.1	7.563	192.1	7.957	202.1	8.272	210.1	9.531	242.1	10.875	276.2
5	6.350	161.3	6.744	171.3	7.138	181.3	7.374	187.3	7.689	195.3	8.083	205.3	8.476	215.3	8.791	223.3	10.051	255.3	11.375	288.9
5 1/2	6.866	174.4	7.260	184.4	7.654	194.4	7.890	200.4	8.205	208.4	8.598	218.4	8.992	228.4	9.307	236.4	10.567	268.4	11.875	301.6
6 5/8	7.980	202.7	8.374	212.7	8.768	222.7	9.004	228.7	9.319	236.7	9.713	246.7	10.106	256.7	10.421	264.7	11.681	296.7	13.000	330.2
7	8.378	212.8	8.772	222.8	9.165	232.8	9.402	238.8	9.717	246.8	10.110	256.8	10.504	266.8	10.819	274.8	12.079	306.8	13.375	339.7
7 5/8	9.012	228.9	9.406	238.9	9.799	248.9	10.035	254.9	10.350	262.9	10.744	272.9	11.138	282.9	11.453	290.9	12.713	322.9	14.000	355.6
8 5/8	10.008	254.2	10.402	264.2	10.795	274.2	11.031	280.2	11.346	288.2	11.740	298.2	12.134	308.2	12.449	316.2	13.709	348.2	15.000	381.0
9 5/8	11.000	279.4	11.394	289.4	11.787	299.4	12.024	305.4	12.339	313.4	12.732	323.4	13.126	333.4	13.441	341.4	14.701	373.4	16.000	406.4
10 3/4	12.154	308.7	12.547	318.7	12.941	328.7	13.177	334.7	13.492	342.7	13.886	352.7	14.280	362.7	14.594	370.7	15.854	402.7	17.125	435.0
11 3/4	13.150	334.0	13.543	344.0	13.937	354.0	14.173	360.0	14.488	368.0	14.882	378.0	15.276	388.0	15.591	396.0	16.850	428.0	18.125	460.4
13 3/8	14.819	376.4	15.213	386.4	15.606	396.4	15.843	402.4	16.157	410.4	16.551	420.4	16.945	430.4	17.260	438.4	18.520	470.4	19.750	501.7
16	17.445	443.1	17.839	453.1	18.232	463.1	18.469	469.1	18.783	477.1	19.177	487.1	19.571	497.1	19.886	505.1	21.146	537.1	22.375	568.3
18 5/8	20.106	510.7	20.500	520.7	20.894	530.7	21.130	536.7	21.445	544.7	21.839	554.7	22.232	564.7	22.547	572.7	23.807	604.7	25.125	638.2
20	21.500	546.1	21.894	556.1	22.287	566.1	22.524	572.1	22.839	580.1	23.232	590.1	23.626	600.1	23.941	608.1	25.201	640.1	26.500	673.1

## WELDED CENTRALIZERS (WSWB)

BOW TYPE / MAXIMUM OD												
Casing Size	WS-WB 0		WS-WB 1		WS-WB 2		WS-WB 3		WS-WB 4		WS-WB 5	
in	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
4 1/2	7.250	184.2	7.750	196.8	8.500	215.9	9.250	235.0	11.500	292.1	14.500	368.3
5	7.875	200.0	8.250	209.6	8.750	222.2	9.750	247.6	12.000	304.8	15.000	381.0
5 1/2	8.375	212.7	8.750	222.2	9.125	231.8	10.250	260.4	12.500	317.5	15.500	393.7
6 5/8	9.500	241.3	9.875	250.8	10.375	263.5	11.375	288.9	13.625	346.0	16.625	422.3
7	9.875	250.8	10.250	260.4	10.750	273.1	11.750	298.4	14.000	355.6	17.000	431.8
7 5/8	10.500	266.7	11.000	279.4	11.500	292.1	12.375	314.3	14.625	371.5	17.625	447.7
8 5/8	11.500	292.1	12.000	304.8	12.500	317.5	13.875	352.4	15.625	396.9	18.625	473.1
9 5/8	12.500	317.5	13.000	330.2	13.500	342.9	14.875	377.8	16.625	422.3	19.625	498.5
10 3/4	13.625	346.1	14.125	358.8	14.625	371.5	15.875	403.2	17.750	450.8	20.875	530.2
11 3/4	14.625	371.5	15.125	384.2	15.625	396.9	16.875	428.6	18.750	476.2	21.875	555.6
13 3/4	16.250	412.8	16.750	425.4	17.250	438.2	18.750	476.2	20.375	517.5	23.500	596.9
16	18.875	479.4	19.375	492.1	19.875	504.8	21.375	542.9	23.000	584.2	26.125	663.6
18 5/8	21.500	546.1	22.000	558.8	22.500	571.5	24.000	609.6	25.625	650.9	28.750	730.2
20	22.875	581.0	23.375	593.7	23.875	606.4	25.375	644.5	27.000	685.8	30.125	765.2



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### **Non-welded Hinged Semi-rigid Bow Spring Centralizer**

Wellsecure's non-welded hinged semi-rigid bow spring centralizers ensure high efficiency in casing jobs on deviated and horizontal wells. Combining the features of a standard bow spring centralizer with those of a rigid centralizer, these centralizers provide a very high restoring force in combination with a very low starting force for centralising the casing pipe in vertical, deviated, and horizontal wells. A non-welded design features the self-locking of lips for holding bows to end collars. Bows of special alloy steel are hot-formed and then tempered for optimum strength, resilience, and uniformity. The bows can also be configured for any hole diameter with a choice of various standard bow heights for optimum starting and restoring forces

### **Performance Features**

- Wellsecure's semi-rigid centralizers attain higher stand-off, when compared to other bow spring centralizers, because of their higher restoring force.
- Able to withstand high lateral loads.
- The spring characteristics of its double-crested profile permit compression to facilitate movement through tight spots and dog legs.
- A high restoring force combined with a low starting force is achieved with all bow heights.
- Installation on the casing pipe is very convenient since it simply requires the placement of the two assembled halves on the pipe and the insertion of the pin in the end collar hinge.
- Wellsecure offers a wide range of bow heights and shapes enabling the customer to make an optimum choice matching their requirements.
- These centralizers are designed to be installed between stop collars or casing collars. Wellsecure does not recommend installing semi-rigid centralizers over a stop collar.

### **Options**

- Non-welded hinged semi-rigid bow spring centralizers are available in the sizes 2 7/8" to 30"
- Special sizes or combinations can be made available on request

### **Recommended For Use With**

- Stop Collar with Set Screws – WS HSS
- Slip-On Stop Collar with Set Screws with one side Beveled – WS SOSS

SEMI RIGID BOW SPRING CENTRALIZERS WS NWSR



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### Non-welded Hinged Bow Spring Centralizer with Turbo Fins

Wellsecure's non-welded hinged bow spring centralizers with turbo fins induce a spiral-flow pattern in the slurry, thereby increasing displacement efficiency. Fitted with specially-designed multi-direction turbo fins, these centralizers improve the cleaning action of drilling fluids, distribute the cement slurry into wellbore irregularities and minimize channeling. These centralizers reduce the effect of channeling by improving cement flow. This results in a highly uniform thickness between the casing and the wellbore. Additionally, the centralizers provide a semi-rigid casing standoff.

A non-welded design features the self-locking of lips for holding bows to end collars. Bows of special alloy steel are hot-formed and then tempered for optimum strength, resilience, and uniformity. The turbo fins are made of alloy steel in an annealed state and are attached to the bows from inside

### Performance Features

- Used in conditions where extra fluid movement and cement slurry distribution are desired.
- The turbo fins create turbulence during cementing and improve the placement of the cement slurry
- Designed for use in vertical, deviated, and horizontal wells.
- A high restoring force combined with a low starting force is achieved with all bow heights.
- Wellsecure's bow springs are manufactured from high-quality spring steel and heat-treated to achieve minimum starting and running forces. The heat-treated alloy provides flexibility while minimizing damage when moving downhole.
- Well secure offers a wide range of bow heights and shapes enabling the customer to make an optimum choice matching their starting and restoring force requirements.
- Hinge locking pins are made of high-strength steel for maximum structural strength.

### Options

- Non-welded hinged bow spring centralizers with turbo fins are available in the sizes 2 7/8" to 30"
- Special sizes or combinations can be made available on request

### Recommended For Use With

- Hinged Stop Collar – WS HB
- Hinged Stop Collar with Spiral Nails – WS HS

BOW SPRING CENTRALIZER WITH TURBO FINS WS NWBT



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### Drill Pipe Centralizer

Wellsecure's Drill pipe Centralizers are used to centralize drill pipe, especially to ensure that inner string stab-in stinger is in center and properly in alignment with the corresponding float equipment. These centralizers are designed to have adequate standoff and centralization. It is designed with rigid end collars and heat treated spring steel bows. The bows are heat treated and have spring action property for passing through restrictions. It is easily installed on casing and can be shipped in two halves as it has hinged profile.

### Performance Features

- It is used in stab-in inner string cementing applications.
- Optimum centralization by heat treated bow springs and adequate standoff.
- Bow springs are manufactured from high-quality steel and are heat-treated to achieve minimum starting and running forces.
- Installation on the drill pipe is very convenient since it simply requires the placement of the two assembled halves on the pipe and the insertion of the pin in the end collar hinge.
- The centralizer when unassembled makes a compact package, greatly reducing shipping cost; its assembly on site is straightforward.
- Wellsecure offers a wide range of bow heights enabling it to suit various casing sizes.
- These centralizers are designed to be installed on drill pipes.

### Options

- Drill Pipe Centralizers are available for drill pipe sizes 3 1/2" to 6-5/8" with large sizes bows for various casing sizes.
- Special sizes or design can be made available on request.

### Recommended For Use With

- Hinged Set Screw Stop Collar – WS HSS
- Hinged Bolted Stop Collar – WS HB

DRILL PIPE CENTRALIZERS WSC



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### **SINGLE PIECE MULTITASK CENTRALIZER**

Well secure has developed its Single piece multitask Centralizer model to perform satisfactorily in Open hole as well as cased hole. These are high quality product, developed to meet and exceed API10 D specifications for use in highly demanding downhole conditions.

Wellsecure's Single piece Multitask Centralizer combines the best restoring force with zero starting force and zero running force. Single piece centralizer is used to position the casing in the center of the well bore in vertical deviated and horizontal wells, reduce the effect of channeling by reducing pipe movement before Cement sets in improving the cement flow, this results in more uniform cement thickness in the well bore. Single piece Multitask centralizers are one piece construction in special high strength Steel which imparts excellent hardness and spring action ensuring an unmatched ability to come back to its original shape after undergoing rigorous stress loads conditions.

### **Performance Features**

- Single piece Multitask centralizer is designed for high restoring force combined with zero starting force for vertical, deviated and horizontal wells.
- High performance characteristics are combined with easy installation by slipping over the pipe on the rack.
- These are high quality product, developed to meet and exceed API 10D specifications for use in highly demanding downhole conditions like ERD, Highly deviated and Horizontal wells.
- Single piece centralizers are formed from single sheet of special steel resulting in no weld between bows and end collars, increasing the robustness and ability to withstand higher lateral and side loads during casing running.
- Suitable for RIH, Reciprocation and Rotational applications.
- Optimum performance during casing running.

### **Options**

- The Single piece Multitask Centralizers are available in sizes 4½" to 13 5/8".
- Any special sizes or combination can be made available on request.

### **Recommended For Use With**

- Slip-On Stop Collar with Set Screws on One Side Beveled WS SOSS

SINGLE PIECE CENTRALIZER WS SPM



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### **SPIRAL VANE SOLID RIGID CENTRALIZER**

Well secure's spiral vane solid centralizers were developed in response to the need for better cementing in highly deviated and horizontal wells. These centralizers are designed to provide optimum flow-by area. A reduced flow-by area between the spiral blades produces a vortex motion of the fluids to increase fluid velocity with direction.

Their spiral blades fully overlap to provide 100% wellbore coverage and increase annular turbulence in order to enhance wellbore clean-out. The extra length, meanwhile, provides the maximum centralisation for a rigid centralizer. This gentle flow from the body to the height of the vane is able to eliminate scraping, gouging, or digging into the formation, and consequently reduce balling between the vanes. Wellsecure's spiral vane solid centralizers are available in Steel Alloy , Zinc Alloy, and Aluminium Alloy

### **Performance Features**

- Wellsecure's spiral vane solid centralizers provide high impact, shock, and corrosion resistance, which are combined with their tensile and yield strength.
- The 30° slope of the vane reduces drag and aids the casing in achieving TD.
- Able to eliminate scraping, gouging, or digging into the formation, and consequently reduce balling between the vanes.
- Being lightweight, these centralizers are helpful in reducing drag, and therefore are suitable for extended reach drilling (ERD), horizontal and highly deviated wells, where high drag is expected.
- Suitable for wells where the rotating and reciprocation of casing is anticipated.
- Able to withstand high wellbore temperatures while providing 100% horizontal stand-off.
- Enable cement to be evenly distributed around the casing string.

### **Options**

- Wellsecure's spiral vane solid centralizers are available in Steel Alloy WS SRS , Zinc WS SRZ, and Aluminum WS-SRA
  - Spiral vane steel alloy solid centralizers are constructed of a single-piece of high strength steel alloy
  - Spiral vane zinc solid centralizers are constructed of non-sparking zinc alloy
  - Spiral vane aluminum solid centralizers are constructed of high-strength, corrosion-resistant cast aluminum alloy
- Available in sizes 2 7/8" to 13 3/8"
- Special sizes or combination can be made available on request

### **Recommended For Use With**

Slip-On Stop Collar with Set Screws with one side Beveled – WS SOSS

SOLID RIGID CENTRALIZER WS SPS



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### STRAIGHT VANE SOLID CENTRALIZER

Well secure's straight vane solid centralizers provide the optimal features for achieving a good primary cementing job with maximum casing / wellbore standoff. These centralizers provide the ultimate drag and torque reduction with maximum fluid bypass.

### Performance Features

- Well secure's spiral vane solid centralizers provide high impact, shock, and corrosion resistance, which are combined with their tensile and yield strength.
- Has a low friction factor.
- Able to withstand high wellbore temperatures while providing 100% horizontal stand-off.

### Options

- Wellsecure's straight vane solid centralizers are available in Steel Alloy WS STSS, Zinc WS STSZ, and Aluminum WS STSA
  - Straight vane steel alloy solid centralizers are constructed of a single-piece of high strength steel alloy
  - Straight vane zinc solid centralizers are constructed of non-sparking zinc alloy
  - Straight vane aluminum solid centralizers are constructed of high-strength, corrosion-resistant cast aluminum alloy
- Available in sizes 2 7/8" to 13 3/8"
- Special sizes or combination can be made available on request

### Recommended For Use With

- Slip-On Stop Collar with Set Screws with one side Beveled- WS SOSS

### Solid Rigid Alloy Centralizers (WS STS-WS SPS)

Casing Size	Hole Size	Normal OD	Height (Straight Blade)	Height (Spiral Blade)	Number Of Vanes
in	in	in	in	in	
3 1/2	4 1/2	4 1/4	6	6	4
4 1/2	6 1/4	6	6	6	4
5	6 1/8	6	8	8	4
5	8 1/2	8 1/4	8	8	4
5 1/2	6 1/2	6 3/8	8	8	4
5 1/2	8 1/2	8 1/4	8	8	4
7	8 1/2	8 1/4	8	8	6
7 5/8	9 7/8	9 3/4	8	8	6
9 5/8	12 1/4	12	15	10	8
10 3/4	14 3/4	14 1/2	15	10	8
11 3/4	14 3/4	14 1/2	15	10	8
13 3/8	17 1/2	17 1/4	15	10	8



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STRAIGHT VANE SOLID CENTRALIZER WS STS





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### **Slip-on Welded Secureglider**

Well secure's slip-on welded Secureglider are designed specifically for highly-deviated and horizontal wells. The steel construction ensures extra strength and superior toughness, while the design of the blades yield minimum friction- reducing drag forces while running in the pipe. The blades are spirally welded onto the end collars.

### **Performance Features**

- Designed for highly-deviated and horizontal wells.
- Suitable for casing rotation and reciprocation applications.
- The spiral blades create a vortex fluid motion, leading to better cement placement
- Optimize mud displacement.
- Achieve high stand-off.

### **Options**

- Slip-on welded securegliders are available in sizes 4 ½" to 13 ⅝"
- Special sizes or combination can be made available on request

### **Recommended For Use With**

- Slip-On Stop Collar with Set Screws with one side Beveled – WS SOSS

SLIP ON WELDED SECURE GLIDER WS SOSG



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### **Slip-on Welded Heavy Duty Secureglider**

Well secure's Slip-on Heavy Duty Secureglider are designed specifically for highly-deviated and horizontal wells. The steel construction ensures extra strength and superior toughness, while the design of the blades yield minimum friction- reducing drag forces while running in the pipe. The blades are spirally welded onto the sleeves.

#### **Performance Features**

- Designed for highly-deviated and horizontal wells.
- Able to resist high side loads.
- The spiral blades create a vortex fluid motion, leading the optimization of the mud displacement.
- Achieve high stand-off.

#### **Options**

- Slip-on welded Securegliders are available in sizes 4 ½" to 13 ¾"
- Special sizes or combination can be made available on request

#### **Recommended For Use With**

- Slip-On Stop Collar with Set Screws with one side Beveled – WS SOSS

SLIP ON WELDED HEAVY DUTY SECURE GLIDER WS SG HD



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### **Solid Low Drag Roller Centralizer**

Well secure developed the “Solid Low Drag Roller Centralizer” as axial drag friction reduction tool. The contact area of the rollers with the casing or borehole wall functions well in under pressured conditions, where the risk of differential sticking is high.

The “Low Drag” centralizer with steel rollers helps to avoid ploughing through wellbore material that has settled, alleviating major drag problems in deviated and horizontal wells.

### **Performance Features**

- Casing, Liner and screens are being run into horizontal and extended-reach wells
- Under pressured formations may cause differential sticking

### **Options**

- Non weld bow centralizers are available in the sizes 4 1/2" to 13 3/8"
- Any special sizes or combination can be made available on request

### **Recommended For Use With**

- Run in conjunction with high-strength stop collars
- Slip-On Stop Collar with Set Screws on One Side Beveled WS SOSS

SOLID BODY ROLLER CENTRALIZER WS LDR



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### **Solid Low Torque Roller Centralizer**

Well secure Solid Body Low Torque Roller Centralizers are specifically built to run in an inclined or horizontal section. The rollers outside diameter are kept slightly larger than the centralizer blades outer diameter. When casing equipped with Solid Low Torque Roller Centralizer runs into the deviated or horizontal hole, sliding friction between the casing and the borehole is converted into rolling friction. In case of irregular hole diameter, the borehole wall has an impact force on the spiral centralizer during running casings, the use of rollers reduce this impact.

### **Performance Features**

- Torque reduction is provided by vertical alignment of rollers on the periphery of Roller Centralizer.
  - Used when high torque is anticipated
  - Smooth rotation of the casing facilitates improved cementing and movement of casing to the bottom
- Run in conjunction with high-strength stop collars

### **Options**

- Non weld bow centralizers are available in the sizes 4 1/2" to 13 3/8"
- Any special sizes or combination can be made available on request

### **Recommended For Use With**

- Run in conjunction with high-strength stop collars WS SOSS

SOLID BODY LOW TORQUE ROLLER CENTRALIZER WS LTR



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### **Solid Low Drag Low Torque Roller Centralizer**

Well secure Low drag low torque roller centralizer is provided with a combination of two sets of rollers on the vane, two rollers are placed axially in the centre, in addition, one horizontal roller on top and bottom are provided. When centralizer moves inside the hole, vertical roller in the centre reduce drag forces and the horizontal roller on the top and bottom aids in reducing the torque to enable smooth rotation of the string

### **Performance Features**

- Used when high torque Low Drag is anticipated
- Low torque low drag roller centralizer's enable smooth rotation and running of casing to the bottom.

### **Options**

- Non weld bow centralizers are available in the sizes 4 1/2" to 13 3/8"
- Any special sizes or combination can be made available on request

### **Recommended For Use With**

- Run in conjunction with high-strength stop collars WS SOSS

SOLID BODY LOW TORQUE ROLLER CENTRALIZER WS LDTR

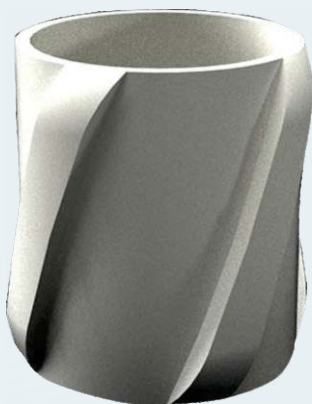


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### Spiral Vane Thermoplastic Centralizer

Wellsecure's spiral vane thermoplastic centralizers are manufactured using engineered thermoplastic material and are designed for the maximum durability, drag, and friction achievable in a centralizer. Additionally, these centralizers have lower friction factors, a rotational torque reduction, and increased abrasion resistance for a maximum stand-off. Spiral vanes help enhance hole-cleaning by using a maximized flow-by area. The vanes overlap the entire 360° open-hole circumference, which creates a vortex motion to increase fluid velocity with direction. Even without rotation, the vanes are able to induce turbulent flows for an improved cutting and filter cake removal.

Well secure's thermoplastic centralizers are one-piece construction from high quality polymer, with optimum tensile and yield strengths, and are able to withstand high well-bore temperatures while providing a maximum horizontal stand- off.

### Performance Features

- Well secure's spiral vane thermoplastic centralizers provide high impact resistance as well as chemical and high temperature resistance.
- The extra length of the vanes provides maximum centralization, a high stand-off, and increased annular turbulence.
- Its high performance characteristics are combined with a quick and effortless installation.

### Options

- Wellsecure's thermoplastic centralizers are available with a swaged mild-steel ring both on the top and the bottom end
- Available in sizes 2  $\frac{7}{8}$ " to 13  $\frac{3}{8}$ "
- Special sizes or combination can be made available on request

### Recommended For Use With

- Slip-On Stop Collar with Set Screws with one side Beveled – WS SOSS

SPIRAL VANE THERMOPLASTIC CENTRALIZER WS TP



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### Wellbore Wipers

Consists of loop wire cables of tempered steel laced into a collar, these wipers clean the well bore efficiently by permitting removed filter cake to pass thereby providing excellent reinforcement to the cement column especially under close spacing.

### Performance Features

- Wellbore Wiper is a hinged collar featuring high strength steel wire cables looped in overlapping manner to produce an uninterrupted wiping action during pipe rotation
- Wellbore Wiper is a hinged collar featuring high strength steel wire cables looped in overlapping manner to produce an uninterrupted wiping action during pipe rotation
- Wiper is highly renowned for its unique features like easy to clean, highly efficient and perfect dimensions
- Wellsecure Wellbore Wiper is manufactured using contemporary technology with quality tested raw material
- Under the direction of our proficient professionals, our provided wiper is manufactured using contemporary technology with quality tested raw material

### Options

- Available in sizes 4½" to 20"
- Any special sizes or combination can be made available on request

WELLBORE WIPERS WS WW



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### Cement Baskets

Well secure's Cement Baskets consists of flexible steel spring bow welded to slip-on collars. Bows are hardened and tempered for maximum strength and uniformity. It is run on casing or liners above weak or porous formations to provide protection from hydrostatic pressure generated by the cement column. Its overlapping metal fins provide flexibility and fluid passages while maintaining optimum support characteristics

### Performance Features

- Cement baskets consist of heavy duty canvas liners and concentrated with high strength and flexible steel staves which are seated on the steel slip-on end collar.
- They have the capability to help in premature cement hydration. This is to check hydro-static fluid column at the point of loss zone or weak formation
- The cement baskets are designed particularly so that it can be able to adapt in a remarkable way as used in most of all types of well, to the bore hole and can hold large than the nominal size of the holes.
- These baskets are designed for installation between two stop collars. Hence, these does not meant to be reciprocated. But travels the length of the joint just to allow the pipe movement.

### Options

- Available from sizes 4½" to 30" sizes configurations.
- Slip-on type and the hinged type cement basket can be normally installed between slip-on type stop collars or stop collar or hinged camp over the casing to hold them in a place.
- These cement baskets are able to rotated and reciprocated

CEMENT BASKETS WSCB



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### Hinge Bolt Stop Collars

Well secure's brand Hinged Bolted Stop Collar is an economical collar suitable for subcritical annular tolerances. The stop collars can be installed on any position on the casing to limit the axial movement of centralizers and cement baskets. Available in the size range 3½ " to 20", it has a cross bolt design which makes it an efficient and user-friendly device.

### Performance Features

- This Hinged bolted Stop Collar can be latched on the casing pipe without having to be slipped on at the end of the casing pipe allowing easy installation
- A single bolt is used to tighten the collar to the casing.
- This design does not make any marks or indentations on the casing

### Options

- Available from sizes 9½"- 30" sizes configurations.
- Any special sizes or combination can available on request

STOP COLLARS WS HB



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### Stop Collar with Set Screw

Well secure Stop Collar with Set Screw has a high cost-utility ratio. This hinged collar with a row of set screws positions easily and firmly around the casing. The combination of set screws gives a firm grip to the stop collar and when tested as per API RP 10D-2 they provide high holding force.

### Performance Features

- Hinged Set Screw Stop Collars is hinged at two places 180 degrees apart and gripping force is applied by a single row of set screws holding the collar to the casing
- It tightens the Collar to the casing firmly
- They can be latched onto the casing pipe without having to be slipped on at the end of the casing pipe allowing easy installation
- These Stop Collars provide operational flexibility for numerous well applications
- It is easy to install

### Options

- Available in sizes 3½" to 20"
- Any special sizes or combination can be made available on request

STOP COLLAR WITH SCREW WS HSS



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### Slip-On Stop Collars with Set Screws beveled

Wellsecure Slip-On Stop Collar with Set Screws Beveled has a high cost-utility ratio. This hinged collar with a row of set screws positions easily and firmly around the casing. The combination of set screws gives a firm grip to the stop collar and when tested as per API 10D-2 Specifications they provide high holding force

### Performance Features

- Heavy duty single piece seamless construction with single side beveled. The bevel provides a good lead-in edge for a rigid centralizer
- It is used when holding force requirement is very high
- Recommended for small hole operations and predominantly used on both sides of rigid or semi-rigid centralizers
- It is easy to install

### Options

- Available in sizes 2 <sup>3</sup>/<sub>4</sub>" - 30"
- Any special sizes or combination can be made available on request.

## STOP COLLARS

COLLAR TYPE / MAXIMUM O.D								
Size	Hinged Bolted		Hinged Spiral		Hinged Set. Screw		Slip On With Set Screw	
	WS- HB		WS-HS		WS-HSS		WS-SOSS	
in	in	mm	in	mm	in	mm	in	mm
3½	-	-	-	-	-	-	4.685	119
4½	5.748	146	5.827	148	5.748	146	5.630	143
5	6.260	159	6.378	162	6.260	159	6.142	156
5½	6.772	172	6.850	174	6.772	172	6.654	169
6 5/8	7.913	201	7.992	203	7.913	201	7.756	197
7	8.307	211	8.386	213	8.307	211	8.150	207
7 5/8	8.937	227	9.016	229	8.937	227	8.819	224
8 5/8	9.921	252	10.000	254	9.921	252	9.803	249

COLLAR TYPE/ MAXIMUM O.D								
Size	Hinged Bolted		Hinged Spiral		Hinged Set. Screw		Slip On With Set Screw	
	WS- HB		WS-HS		WS-HSS		WS-SOSS	
in	in	mm	in	mm	in	mm	in	mm
9 5/8	10.906	277	11.024	280	10.906	277	10.787	274
10 3/4	12.087	307	12.165	309	12.087	307	11.929	303
11 3/4	13.071	332	13.189	335	13.071	332	12.953	329
13 3/8	14.724	374	14.803	376	14.724	374	14.606	371
16	17.362	441	17.480	444	17.362	441	17.244	438
18 5/8	20.039	509	20.118	511	20.039	509	19.882	505
20	21.417	544	21.496	546	21.417	544	21.299	541



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SLIP ON STOP COLLARS WITH SET SCREWS ON SINGLE SIDE BEVELED WS SOSS



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## CASING TABLE

Casing Outside Diameter		Nominal Weight		Wall Thickness		Inside Diameter		Coupling Outside Diameter		Casing Outside Diameter	Nominal Weight		Wall Thickness		Inside Diameter		Coupling Outside Diameter		
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
4 1/2	114.30	9.50	14.14	0.205	5.20	4.090	103.88	5.000	127.00	9 5/8	244.48	29.30	43.60	0.281	7.14	9.063	230.20	10.625	269.88
4 1/2	114.30	10.50	15.63	0.224	5.69	4.052	102.92	5.000	127.00	9 5/8	244.48	32.30	48.07	0.312	7.92	9.001	228.64	10.625	269.88
4 1/2	114.30	11.60	17.26	0.250	6.35	4.000	101.60	5.000	127.00	9 5/8	244.48	36.00	53.57	0.352	8.94	8.921	226.60	10.625	269.88
4 1/2	114.30	13.50	20.09	0.290	7.37	3.920	99.56	5.000	127.00	9 5/8	244.48	40.00	59.53	0.395	10.03	8.835	224.42	10.625	269.88
4 1/2	114.30	15.10	22.47	0.337	8.56	3.826	97.18	5.000	127.00	9 5/8	244.48	43.50	64.74	0.435	11.05	8.755	222.38	10.625	269.88
5	127.00	11.5	17.11	0.22	5.59	4.56	115.82	5.563	141.3	9 5/8	244.48	47.00	69.94	0.472	11.99	8.681	220.50	10.625	269.88
5	127.00	13.00	19.35	0.253	6.43	4.494	114.14	5.563	141.3	9 5/8	244.48	53.50	79.62	0.545	13.84	8.535	216.80	10.625	269.88
5	127.00	15.00	22.32	0.296	7.52	4.408	111.96	5.563	141.3	9 5/8	244.48	58.40	86.91	0.595	15.11	8.435	214.26	10.625	269.88
5	127.00	18.00	26.79	0.362	9.19	4.276	108.62	5.563	141.3	9 5/8	244.48	59.40	88.40	0.609	15.47	8.407	213.54	10.625	269.88
5	127.00	21.40	31.85	0.437	11.1	4.126	104.8	5.563	141.3	9 5/8	244.48	64.90	96.58	0.672	17.07	8.281	210.34	10.625	269.88
5	127.00	23.20	34.53	0.478	12.14	4.044	102.72	5.563	141.3	9 5/8	244.48	70.30	104.62	0.734	18.64	8.157	207.20	10.625	269.88
5	127.00	24.1	35.86	0.5	12.7	4	101.6	5.563	141.3	9 5/8	244.48	75.60	112.51	0.797	20.24	8.031	204.00	10.625	269.88
5 1/2	139.70	14.00	20.83	0.224	5.69	5.052	127.32	6.050	153.67	10 3/4	273.05	32.75	48.74	0.279	7.09	10.192	258.87	11.750	298.45
5 1/2	139.70	15.50	23.07	0.275	6.99	4.950	125.72	6.050	153.67	10 3/4	273.05	40.50	60.27	0.350	8.89	10.050	255.27	11.750	298.45
5 1/2	139.70	17.00	25.3	0.304	7.72	4.892	124.26	6.050	153.67	10 3/4	273.05	45.50	67.71	0.400	10.16	9.950	252.73	11.750	298.45
5 1/2	139.70	20.00	29.76	0.361	9.17	4.778	121.36	6.050	153.67	10 3/4	273.05	51.00	75.9	0.450	11.43	9.850	250.19	11.750	298.45
5 1/2	139.70	23.00	34.23	0.415	10.54	4.670	118.62	6.050	153.67	10 3/4	273.05	55.50	82.59	0.495	12.57	9.760	247.91	11.750	298.45
5 1/2	139.70	26.80	39.88	0.500	12.7	4.500	114.3	6.050	153.67	10 3/4	273.05	60.70	90.33	0.545	13.84	9.660	245.37	11.750	298.45
5 1/2	139.70	29.70	44.2	0.562	14.27	4.376	111.16	6.050	153.67	10 3/4	273.05	65.70	97.77	0.595	15.11	9.560	242.83	11.750	298.45
5 1/2	139.70	32.60	48.51	0.625	15.88	4.250	107.94	6.050	153.67	10 3/4	273.05	73.20	108.93	0.672	17.07	9.406	238.91	11.750	298.45
5 1/2	139.70	35.30	52.53	0.687	17.45	4.126	104.8	6.050	153.67	10 3/4	273.05	79.20	117.86	0.734	18.64	9.282	235.77	11.750	298.45
5 1/2	139.70	38.00	56.55	0.750	19.05	4.000	101.6	6.050	153.67	10 3/4	273.05	85.30	126.94	0.797	20.24	9.156	232.57	11.750	298.45
5 1/2	139.70	40.50	60.27	0.812	20.62	3.876	98.46	6.050	153.67	11 3/4	298.45	38.00	56.55	0.300	7.62	11.150	283.21	12.750	323.85
5 1/2	139.70	43.10	64.14	0.875	22.23	3.750	95.24	6.050	153.67	11 3/4	298.45	42.00	62.50	0.333	8.46	11.084	281.53	12.750	323.85
5 3/4	146.05	18.00	26.79	0.303	7.70	5.144	130.65	6.535	166.00	11 3/4	298.45	47.00	62.94	0.375	9.53	11.000	279.39	12.750	323.85
5 3/4	146.05	19.70	29.32	0.335	8.50	5.081	129.05	6.535	166.00	11 3/4	298.45	54.00	80.36	0.435	11.05	10.880	276.35	12.750	323.85
5 3/4	146.05	21.90	32.59	0.374	9.50	5.002	127.05	6.535	166.00	11 3/4	298.45	60.00	89.29	0.489	12.42	10.772	273.61	12.750	323.85
5 3/4	146.05	24.40	36.31	0.421	10.70	4.907	124.65	6.535	166.00	11 3/4	298.45	65.00	96.73	0.534	13.56	10.682	271.33	12.750	323.85
6 5/8	168.28	17.00	25.3	0.245	6.22	6.135	155.84	7.390	187.71	11 3/4	298.45	71.00	105.66	0.582	14.78	10.586	268.89	12.750	323.85
6 5/8	168.28	20.00	29.76	0.288	7.32	6.049	153.64	7.390	187.71	12 3/4	323.85	45.20	67.27	0.335	8.50	12.081	306.85	13.819	351.00
6 5/8	168.28	24.00	35.72	0.352	8.94	5.921	150.4	7.390	187.71	12 3/4	323.85	50.40	75.00	0.374	9.50	12.002	304.85	13.819	351.00
6 5/8	168.28	28.00	41.67	0.417	10.59	5.791	147.1	7.390	187.71	12 3/4	323.85	58.60	87.21	0.437	11.10	11.876	301.65	13.819	351.00
6 5/8	168.28	32.00	47.62	0.475	12.07	5.675	144.14	7.390	187.71	12 3/4	323.85	65.20	97.03	0.488	12.40	11.774	299.05	13.819	351.00
7	177.80	17.00	25.30	0.231	5.87	6.538	166.06	7.656	194.46	12 3/4	323.85	77.20	111.89	0.583	14.80	11.585	294.25	13.819	351.00
7	177.80	20.00	29.76	0.272	6.91	6.456	163.98	7.656	194.46	13 3/8	339.73	48.20	71.43	0.330	8.38	12.715	322.97	14.375	365.13
7	177.80	23.00	34.23	0.317	8.05	6.366	161.70	7.656	194.46	13 3/8	339.73	54.50	81.1	0.380	9.65	12.615	320.43	14.375	365.13
7	177.80	26.00	38.69	0.362	9.19	6.276	159.42	7.656	194.46	13 3/8	339.73	61.00	90.78	0.430	10.92	12.515	317.89	14.375	365.13
7	177.80	29.00	43.16	0.408	10.36	6.184	157.08	7.656	194.46	13 3/8	339.73	68.00	101.2	0.480	12.19	12.415	315.35	14.375	365.13
7	177.80	32.00	47.62	0.453	11.51	6.094	154.78	7.656	194.46	13 3/8	339.73	72.00	107.15	0.514	13.06	12.347	313.61	14.375	365.13
7	177.80	35.00	52.09	0.498	12.65	6.004	152.50	7.656	194.46	16	406.4	55.00	81.85	0.313	7.95	15.374	390.50	17.00	431.80
7	177.80	38.00	56.55	0.540	13.72	5.920	150.36	7.656	194.46	16	406.4	65.00	96.73	0.375	9.53	15.250	387.34	17.00	431.80
7	177.80	42.70	63.54	0.626	15.90	5.748	146.00	7.656	194.46	16	406.4	75.00	111.61	0.438	11.13	15.124	384.14	17.00	431.80
7	177.80	46.60	69.35	0.687	17.45	5.626	142.90	7.656	194.46	16	406.4	84.00	125.01	0.495	12.57	15.010	381.26	17.00	431.80
7	177.80	50.10	74.56	0.750	19.05	5.500	139.70	7.656	194.46	16	406.4	109.00	162.21	0.656	16.66	14.688	373.08	17.00	431.80
7	177.80	53.60	79.77	0.812	20.62	5.376	136.56	7.656	194.46	16 3/4	425.45	70.10	104.32	0.394	10.00	15.963	405.45	17.756	451.00
7	177.80	57.10	84.97	0.875	22.23	5.250	133.34	7.656	194.46	16 3/4	425.45	76.90	114.44	0.433	11.00	15.884	403.45	17.756	451.00
7 5/8	193.68	20.00	29.76	0.250	6.35	7.125	180.98	8.500	215.90	16 3/4	425.45	83.70	124.56	0.472	12.00	15.805	401.45	17.756	451.00
7 5/8	193.68	24.00	35.72	0.300	7.62	7.025	178.44	8.500	215.90	18 5/8	473.08	87.50	130.21	0.435	11.05	17.755	450.98	20.000	508.00
7 5/8	193.68	26.40	39.29	0.328	8.33	6.969	177.02	8.500	215.90	20	508.00	94.00	139.89	0.438	11.13	19.124	485.74	21.000	533.40
7 5/8	193.68	29.70	44.20	0.375	9.53	6.875	174.62	8.500	215.90	20	508.00	106.50	158.49	0.500	12.70	19.000	482.60	21.000	533.40
7 5/8	193.68	33.70	50.15	0.430	10.92	6.765	171.84	8.500	215.90	20	508.00	133.00	197.93	0.635	16.13	18.730	475.74	21.000	533.40
7 5/8	193.68	39.00	58.04	0.500	12.70	6.625	168.28	8.500	215.90	24	609.60	125.50	186.76	0.500	12.70	23.000	584.20	N/A	N/A
7 5/8	193.68	42.80	63.69	0.562	14.27	6.501	165.14	8.500	215.90	24	609.60	158.50	235.87	0.635	16.13	22.730	577.34	N/A	N/A
7 5/8	193.68	45.30	67.41	0.595	15.11	6.435	163.46	8.500	215.90	24	609.60	176.40	262.51	0.709	18.01	22.582	573.58	N/A	N/A
7 5/8	193.68	47.10	70.09	0.625	15.88	6.375	161.92	8.500	215.90	24	609.60	201.10	299.27	0.812	20.62	22.376	568.36	N/A	N/A
7 5/8	193.68	51.20	76.19	0.687	17.47	6.251	158.78	8.500	215.90	26	660.40	202.30	301.06	0.750	19.05	24.500	622.30	N/A	N/A
7 5/8	193.68	55.30	82.30	0.750	19.05	6.125	155.58	8.500	215.90	26	660.40	267.00	397.34	0.812	20.62	24.376	619.16	N/A	N/A
7 3																			





WELL SECURE



# Well**secure** Oil Tools

**FLOAT**  
EQUIPMENT

STANDING APART IN QUALITY LEADERSHIP

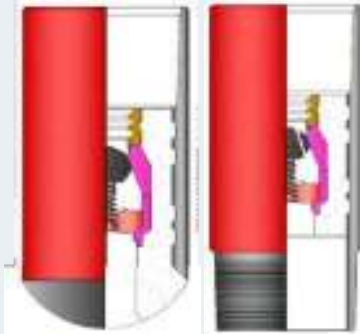


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### Single Valve Cement Float Shoe and Collar

Wellsecure Cement Float Shoe and Collar offer dependable performance for all classes of Oil and Gas Wells. The Plunger type valve prevents cement back-flow, provides casing buoyancy during the run-in, and acts as an internal BOP during the process of running and cementing the casing.

This design ensures the valve the maximum circulation rate in vertical, horizontal and deviational wells. The material used for float equipment is seamless casing grade steel. Float equipment can be supplied in all grades of steel. Traceability of component material starts from the mill material certificates; all machining of collars is processed on CNC machines. Float equipment is manufactured to match customer's casing specifications. All Floats shoes and Float Collars are PDC drillable.

### Performance Features

- Free-floating ball abrades
- Valve parts will not damage PDC bits
- Fast drill-out & No springs
- Operator-controlled buoyancy-regulated by filling casing at surface
- Cost effective

### Options

- Available in all 3 1/2" to 30" sizes and any special size/configuration as per requirement.
- Available with cement nose, aluminum nose or bladed nose.
- API standard threads are cut in-house as are numerous selected premium threads up to certain sizes. Other premium and custom threading can be supplied and cut through our extensive vendor base.



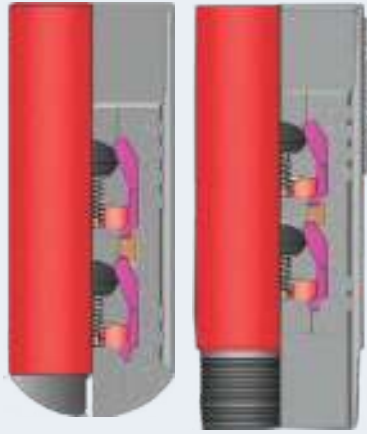
FLOAT SHOE AND COLLAR SINGLE VALVE



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### Double Valve Cement Float Shoe and Collar

Wellsecure Double Valve Cement Float Shoe & Collar Offers dependable performance for all classes of oil and gas wells. The valve prevents cement back-flow, provided casing buoyancy during run-in, and acts as an internal BOP during the process of running and cementing the casing. The Double Valve Float Shoe and Collar acts as an extra back pressure valve sealing against pressure from below when floating in a linear or casing. Float Equipment is manufactured to match customer casing specifications. All Float shoes and collars are PDC Drillable

### Performance Features

- Fast Drill-Out.
- Valve parts will not damage PDC Bits.
- Operator controlled buoyancy regulated by filling casing at surface.
- Double Valve acts as an extra back pressure valve.
- Cost Effective

### Options

- Available from sizes 4-1/2" till 36" + any special sizes configurations.
- Available with shoes with cement nose, aluminum nose or bladed nose.
- API standard threads are cut in-house as are numerous selected premium threads up to certain sizes. Other premium and custom threading can be supplied and cut through our extensive vendor base

FLOAT SHOE AND COLLAR DOUBLE VALVE

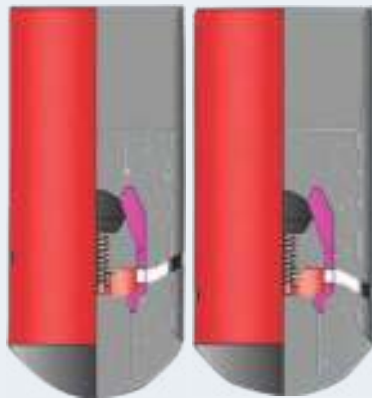


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### Down Jet / Up Jet Cement Float Shoe

Wellsecure Down-jets/Up-jets Cement Float Shoe offers dependable performance for all classes of oil and gas wells. The Plunger Type valves prevent cement backflow, provide casing buoyancy during the run-in, and acts as an internal BOP during the process of running and cementing the casing.

Float equipment is manufactured to match customer casing specifications. All float shoes are PDC drillable. Has the ability to circulate through down-jets/center of the shoe while running in the hole. This provides a means of washing casing/liner to seat if required. Once converted, has the ability for the cement to be pumped through up-jets for optimum cement placement. Ports force circulation flow in a downward jetting action. The Down-jets/Up-jets Cement Float Shoe is also available with Double Valve for extra back pressure, valve sealing against pressure from below when floating in a liner or casing.

### Performance Features

- Fast drill-out
- Valve parts-will not damage PDC bits.
- Operator-controlled buoyancy-regulated by filling casing at surface.
- Float equipment's are PDC drillable
- Cost effective

### Options

- Available in sizes 9 $\frac{5}{8}$ "- 30" configurations.
- Down Jet / Up Jet cement Float Shoes are also available with Double Valve.
- API standard threads are cut in-house as are numerous selected premium threads up to certain sizes. Other premium and custom threading can be supplied and cut through our extensive vendor base

DOWN JET UP JET CEMENT FLOAT SHOE



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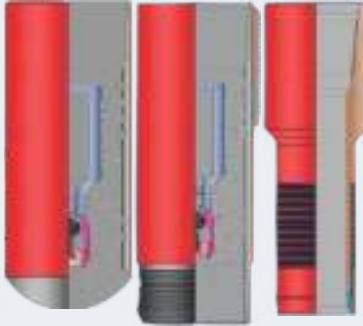
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### Stab-In Cement Float Shoe and Collar

Stab-In cementing is an improved method for cementing large diameter casing. -Conventional method require excessive amounts of cement to ensure cement circulation to the surface because of open hole volume, losses to the formation, or mud displacement efficiency that cannot be determined with sufficient accuracy. In addition, large plugs must be used to separate the cement from the mud and have to be drilled out, along with any cement in the casing. With stab-in cementing, the drill pipe is stabbed directly into the Float Shoe or Collar and cement is pumped through the drill pipe until it returns to reach the surface. Cement is then displaced to the bottom of the drill pipe, a wiper dart can be used. The drill pipe is then picked up, circulated, and pulled out of the hole. The Stab-In Float Equipment is used for cementing large diameter casing, lowered on drill pipe. The string presents special cementing consideration due to high displacement volume of large diameter casing. Problems with high displacement are overcome by using Stab-In cementing equipment to allow cementing through drill pipe.



### Performance Features

- Improves displacement accuracy – cement mixing, while pumping continues until cement returns to reach the surface
- Get better cementing quality – reduced cement/mud interface area and high velocity of flow in the drill pipe minimizes cement contamination while the short pumping time eliminates the need for cement retarders
- Reduces cement volume - conventional displacement requires calculation of excess cement factor, whereas with Stab-in methods excess cement needs to be not greater than the volume of the drill pipe. No large plugs are needed.
- Reduces rig time - circulating, pumping, and drill-out time is minimized.
- Protects casing - cementing pressures are confined to the drill pipes in a squeeze job.

### Options

- Available from sizes 9<sup>5</sup>/<sub>8</sub>"- 30".
- Stab-in cement Float Shoes & Collars are also available with Double Valve.
- API standard threads are cut in-house as are numerous selected premium threads up to certain sizes. Other premium and custom threading can be supplied and cut through our extensive vendor base.

STAB IN CEMENT FLOAT SHOE AND COLLAR



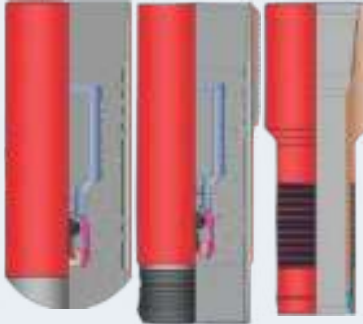
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### Duplex Cement Float Shoe and Collar

• Wellsecure Duplex Shoe and Collar are furnished with heavy duty duplex connection. These heavy duty connections have 4" O.D. left-hand threads, 3¼" to 1" bores, and are capable of carrying 100,000 lbs with a minimum safety factor of 2. Special accessories are available for use with large duplex equipment. The Tubing Seal Nipple has field-proven Chevron Seals for positive sealing of the nipple in the seal bore. Duplex Cement Float Shoe and Collar has an expandable left-hand latch mechanism which allows the nipple to be "stabbed" into the duplex connection and when up-strain is applied the latch is expanded to provide full engagement in the duplex assembly. The nipple is released by rotating to the right, unscrewing the latch mechanism of the duplex connection. Left-hand square thread subs with 4" O.D., left-hand threads are also available for use with large duplex equipment.



### Performance Features

- Float collar & shoe is supplied with plunger valve in most of the application.
- Material used for float equipment is seamless casing grade steel.
- Float equipment's are PDC drillable
- Reduces rig time - circulating, pumping, and drill-out time is minimized.
- Protects casing - cementing pressures are confined to the drill pipes in a squeeze job.

### Options

- Available from sizes 9⅝" - 30"
- Duplex cement Float Shoes & Collars are also available with Double Valve
- API standard threads are cut in-house as are numerous selected premium threads up to certain sizes. Other premium and custom threading can be supplied and cut through our extensive vendor base

DUPLEX CEMENT FLOAT SHOE AND COLLAR



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### Butt Weld Cement Float Shoe and Collar

Wellsecure Cement / Plunger – Type Float Equipment's Offers dependable performance for all classes of oil and gas wells. The valves prevent cement backflow, provide casing buoyancy during run-in, and acts as an internal BOP during the process of running and cementing the casing.

Float Equipment is manufactured to match customer's casing specifications. All plunger type cement float shoe & collar are PDC drillable. Butt Weld Casing Collar O.D matches with the casing O.D and the upper end is only beveled, not recessed for directly welding on to the casing pipe.

### Performance Features

- Cement/Poppet-type Float equipment offers dependable performance for all classes oil and gas wells.
- The valves prevent cement backflow; provide casing buoyancy during run in.
- Act as internal BOPs during the process of running and cementing the casing.
- Float equipment is manufactured to match customer casing specification.
- All ball type cement float collars are PDC drillable.
- Butt-Weld Casing Collar O.D. matches with the casing O.D. and upper end is only beveled, not recessed for directly welding to the Casing pipe.

### Options

- Available from sizes 5-1/2" to 20" + any special sizes configurations.
- Only Beveled upper end & Directly welding to the casing pipe
- API standard threads are cut in-house as are numerous selected premium threads up to certain sizes. Other premium and custom threading can be supplied and cut through our extensive vendor base.

BUTT WELD CEMENT FLOAT SHOE AND COLLAR



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### Slip-On Cement Float Shoe and Collar

Wellsecure Cement / Plunger-type Float equipment offers dependable performance for all classes oil and gas wells. The valves prevent cement back-flow, provide casing buoyancy during run in, and acts as an internal BOP during the process of running and cementing the casing.

Float equipment is manufactured to match customer's casing specifications. All Plunger type cement float shoe & collars are PDC drillable. Slip-On Casing Collar O.D. matches with the casing O.D. and the upper end is only beveled and not recessed for directly welding on to the casing pipe.

### Performance Features

- Fast drill-out
- Valve parts-will not damage PDC bits.
- Operator-controlled buoyancy-regulated by filling casing at surface.
- Float equipment's are PDC drillable
- Cost effective

### Options

- Available from sizes 9<sup>5</sup>/<sub>8</sub>" - 30" sizes configurations.
- Slip-On Float Shoes & Collar are also available with Double Valve.
- API standard threads are cut in-house as are numerous selected premium threads up to certain sizes. Other premium and custom threading can be supplied and cut through our extensive vendor base.

SLIP ON CEMENT FLOAT SHOE AND COLLAR

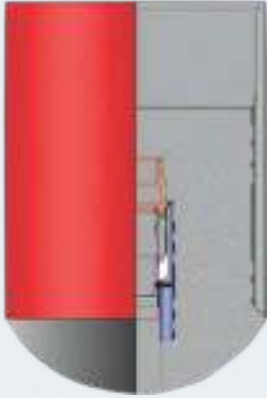


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### Auto Fill Cement Float Shoe & Collar

Wellsecure Auto Fill Cement Float Shoe & Collar permits the casing to fill automatically while being run in the hole. The valve is always in the open position allowing maximum filling of the casing as it is lowered into the well bore. The circulation may be established at any time during or after casing is run. The flapper type back pressure valve does not become operative until the drop ball is dropped or pumped down. Like differential fill-up equipment, the shoe is activated by the same ball. From this point on, like differential fill-up shoe, this model Auto Fill Cement Float Shoe acts as conventional floating equipment. All Auto Fill Cement Float Shoes & Collar are PDC drillable. This is especially effective on liner job and sensitive hole conditions.

### Performance Features

- Flapper type valve that is installed in short 8 round API casing couplings in shallow well applications
- Auto fill-up/pump-out sleeves are available to convert into an automatic fill-up unit.
- Manufactured to withstand various differential pressures.
- Float equipment's are PDC drillable
- Cost effective

### Options

- Available in sizes 9 $\frac{5}{8}$ "- 30"
- Non-Rotating Auto Fill Float Collar also available as per customer requirement.
- Auto Fill Float Shoes & Collars are also available with double valve.
- API standard threads are cut in-house. Other premium and custom threading can be supplied and cut through our extensive vendor base.

AUTO FILL CEMENT FLOAT SHOEC AND COLLAR



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### Non-Rotational Cement Float Collar

Wellsecure Cement/Plunger-type float equipment offers dependable performance for all classes of oil and gas wells. The valves prevents cement backflow, provides casing buoyancy during run-in, and acts as an internal BOP during the process of running and cementing the casing.

Float equipment is manufactured to match customer's casing specifications. All plunger type Cement Float Collars are PDC drillable. Float Collar is Non-Rotational type pressure and cementing plug activated. The latch down type anti-rotational feature of the plug which is compatible with the Float Collar eliminates rotation during drilling. The Cement Float Collar is also available with double valve for extra back pressure valve sealing against pressure from below when floating in a liner or casing.

### Performance Features

- Operator-controlled buoyancy-regulated by filling casing at surface.
- Manufactured to withstand various differential pressures.
- Float equipment's are PDC drillable
- Cost effective

### Options

- Available in sizes 9<sup>5</sup>/<sub>8</sub>"- 30"
- Non-Rotational Float Collars are also available with double valve
- API standard threads are cut in-house. Other premium and custom threading can be supplied and cut through our extensive vendor base.

NON ROTATIONAL CEMENT FLOAT COLLAR



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## Reamer Shoes

Wellsecure Reamer Shoe is designed for demanding downhole applications and is ideal for well bore condition with severe doglegs, high build rates, and extended horizontal runs. The selection of Float Shoes accompanied with a variety of aluminium eccentric noses offer downhole solutions when dealing with well-bore conditions that involve ledges or sloughing.

This Float Shoe is specifically designed for reaming and reciprocating applications. Various styles of noses are offered: Bullet, Eccentric, Spade and Cone. The valves prevent cement back-flow, provide casing buoyancy during the run in, and acts as an internal BOP during the process of running and cementing the casing.

## Performance Features

- Equipped with a Cut-Rite carbide cutting material structure to help eliminate any obstructions and to keep from having to pull the casing to make another wiper run by assuring near gauge hole when running casing.
- A tapered composite nose is standard with high-port up jet and down-jet nose options to help Jet away filter cake and low side debris in horizontal and deviated well-bores.
- For use with and without rotation.
- Specially built to fit any casing and hole size combinations.
- Reamer shoes are equipped with a standard enclosed down-jet nose with an aggressive cutting structure.
- PDC drillable
- Compatible with all casing and liner hanger assemblies. Supplied in casing grade as per requirement

## Options

- Available in sizes 9<sup>5</sup>/<sub>8</sub>"- 30" or other special combinations as per requirements.
- Reamer Cement Float Shoes are also available with Double Valve
- API standard threads are cut in-house. Other premium and custom threading can be supplied and cut through our extensive vendor base

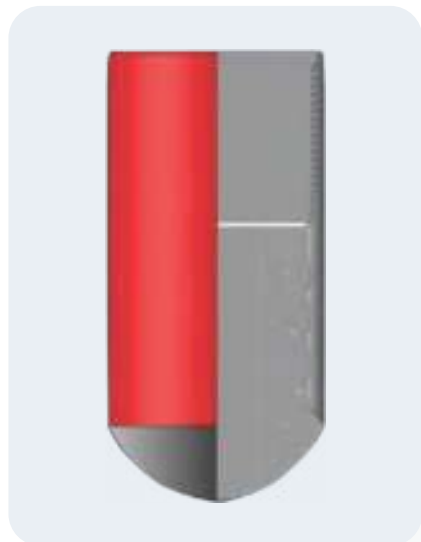
REAMER SHOES



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### Guide Shoe

Wellsecure Guide Shoes are attached to the lowermost end of the casing string to provide a low-cost method of enabling the casing to pass ledges or obstructions in the well-bore, which aids bit re-entry. The cement guide shoe may be used in combination with any type of collar. It efficiently guides casing past sidewall irregularities. It has the ability to circulate through down-jets/centre of the shoe while running in the hole. This provides a means of washing casing/liner to seat if required.

### Performance Features

- Orifice is sufficiently large as to allow tripping balls, tubes and debris to exit the casing without obstruction
- Rounded nose assists while running casing in hole
- Load bearing capability for setting at bottom
- PDC drillable

### Options

- Available in sizes 4 1/2" - 30"
- API standard threads are cut in-house. Other premium and custom threading can be supplied and cut through our extensive vendor base

GUIDE SHOES



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WELL SECURE



## **WELL SECURE OIL TOOLS PVT. LTD**

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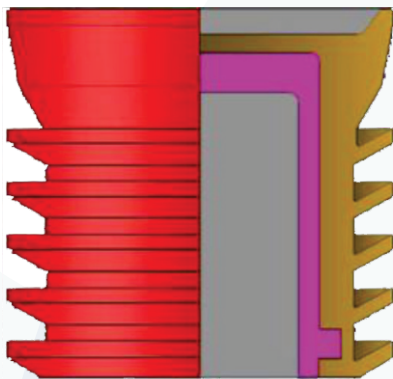




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## Conventional Cementing Plugs (Aluminum Core)

Well Secure Aluminum Core Cementing Plug is manufactured with an aluminum insert and is rubber coated. The Top Plug is manufactured in black natural rubber and bottom plug is orange with rupture diaphragm at 200-500 psi differential. Operating range is up to 200 degrees Fahrenheit/93 Degrees Celsius. Plugs can also be ordered in HNBR/AFLAS/Viton allowing for higher operating temperature and are operational in either synthetic or mud fluids.



## Plastic Core Cementing Plugs

Well Secure Plastic Core Cement plug is designed to replace conventional cementing plug systems by replacing the aluminum and rubber core material in conventional plugs with large crushable plastic core, most of the rubber is eliminated allowing the drill bits to fracture the plastic rather than tear the rubber and aluminum. Thus significantly reducing the drill out time. These plugs are commonly PDC drillable. The plugs are available in 4 1/2", 5 1/2" 7", 9 5/8" 13 3/8" AND THESE PLUGS ARE AVAILABLE IN Natural/ Nitrile/HNBR/AFLAS(Very high temperature) covering based on specific requirements.



CONVENTIONAL CEMENTING PLUGS



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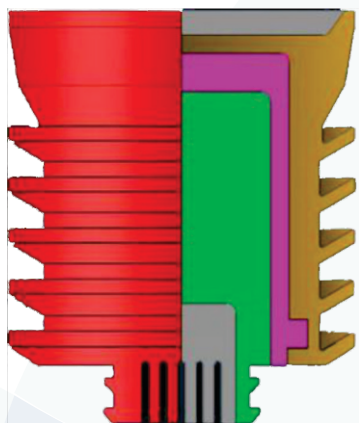
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WELL SECURE

## Non Rotating Cement Plug

Well Secure Non Rotating Cement plugs have been designed to decrease drill out time. This series of cementing plug uses reinforce locking teeth built into the plugs which lock together between plugs and the Float equipment to eliminate rotation of the plug during drill out. The body of the plug is manufactured using a plastic core which eliminates aluminum and large mass of rubber found in conventional cementing. These plugs are completely PDC drillable. The plugs are available in 4 1/2", 5 1/2", 7", 9 5/8", 13 3/8" and these plugs are available in Natural/ Nitrile / HBNR/ AFLAS (very high temperature) covering



## Cementing Plug Manufacturing Range

S. No.	OD (INCH)	MATERIAL	MODEL (TOP PLUG)	MODEL (BOTTOM PLUG)	TYPE	SHELF LIFE	MAX TEMP RATING	PRESSURE RATING
1.	20"	NBR	S-TOPG/	S-BOTG/	CONVENTIONAL/	18 MONTHS	300 DEG F	3000 PSI
		SBR	S-TOPG-NR	S-BOTG-NR	NON ROTATIONAL		200 DEG F	1500 PSI
2.	18 5/8"	NBR	S-TOPG/	S-BOTG/	CONVENTIONAL/	18 MONTHS	300 DEG F	3000 PSI
		SBR	S-TOPG-NR	S-BOTG-NR	NON ROTATIONAL		200 DEG F	1500 PSI
3.	13 3/8" / 13 5/8"	NBR	S-TOPG/	S-BOTG/	CONVENTIONAL/	18 MONTHS	300 DEG F	3000 PSI
		SBR	S-TOPG-NR	S-BOTG-NR	NON ROTATIONAL		200 DEG F	1500 PSI
4.	10 3/4"	NBR	S-TOPG/	S-BOTG/	CONVENTIONAL/	18 MONTHS	300 DEG F	3000 PSI
		SBR	S-TOPG-NR	S-BOTG-NR	NON ROTATIONAL		200 DEG F	1500 PSI
5.	9 5/8"	NBR	S-TOPG/	S-BOTG/	CONVENTIONAL/	18 MONTHS	300 DEG F	3000 PSI
		SBR	S-TOPG-NR	S-BOTG-NR	NON ROTATIONAL		200 DEG F	1500 PSI
6.	7 5/8"	NBR	S-TOPG/	S-BOTG/	CONVENTIONAL/	18 MONTHS	300 DEG F	3000 PSI
		SBR	S-TOPG-NR	S-BOTG-NR	NON ROTATIONAL		200 DEG F	1500 PSI
7.	7"	NBR	S-TOPG/	S-BOTG/	CONVENTIONAL/	18 MONTHS	300 DEG F	3000 PSI
		SBR	S-TOPG-NR	S-BOTG-NR	NON ROTATIONAL		200 DEG F	1500 PSI
8.	5 1/2"	NBR	S-TOPG/	S-BOTG/	CONVENTIONAL/	18 MONTHS	300 DEG F	3000 PSI
		SBR	S-TOPG-NR	S-BOTG-NR	NON ROTATIONAL		200 DEG F	1500 PSI
9.	5"	NBR	S-TOPG/	S-BOTG/	CONVENTIONAL/	18 MONTHS	300 DEG F	3000 PSI
		SBR	S-TOPG-NR	S-BOTG-NR	NON ROTATIONAL		200 DEG F	1500 PSI
10.	4 1/2"	NBR	S-TOPG/	S-BOTG/	CONVENTIONAL/	18 MONTHS	300 DEG F	3000 PSI
		SBR	S-TOPG-NR	S-BOTG-NR	NON ROTATIONAL		200 DEG F	1500 PSI

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