







CENTRALIZERS, STOP COLLARS, CEMENT BASKETS, CEMENTING PLUGS & FLOAT EQUIPMENT



## **CASING CENTRALIZERS**

### **API 10D Standard for Oil & Gas Cementing**

Casing centralizers are important cementing tools to position the casing uniformly inside the wellbore to offer a more uniform distribution of cement slurry around the casing. They can also reduce the friction between casing and wellbore and keep the casing from hitting the wellbore walls.

By this tool, a continuous annular clearance around the casing allows the cement to completely seal the casing to the casing to the borehole wall.

All our casing centralizers are accord with API RP 10D-2 recommendations.

### **Categories ▼**

#### **Bow Spring Centralizers**

Bow spring centralizers have slightly larger diameter than the wellbore, which is effective in vertical and slightly deviated wellbores to centralize the casing in borehole so as to improve the cementing efficiency. Bow spring centralizers are available in single piece, hinged and slip-on types with or without welding process.

Adjustable bow heights and full ranges of sizes ranging from 4-1/2" to 20" can satisfy almost all cementing projects in oil and gas cementing constructions.

### Solid Rigid Centralizers

Solid rigid centralizers is built using cast aluminium or steel materials. Because the diameter is smaller than the wellbore, so the solid rigid centralizers are not as effective as bow spring centralizers in vertical wells. But they are rugged and works well in the deviated wellbores. Solid rigid centralizers are available with straight or spiral vanes & rollers. And the length can be regular or short lengths.

4-1/2" to 20" standard sizes and customized service help you find the best solid rigid centralizers for oil and gas cementing projects.

### **Advantages ▼**

- Simple Structure
- Convenient Use
- Long Service Life
- Low Maintenance Cost
- Improve Cementing Quality
- High Centralizing Performance
- Reduce Casing and Wellbore Friction
- Excellent Corrosion and Abrasion Resistance
- Wide Ranges of Structures and Sizes Options
- Customized Service Satisfy All Your Projects Requirements



### **CEMENTING PLUGS**

Cementing plug is used to separate cement slurry from other fluids, reducing contamination and maintaining expected slurry Performance. Varshco Industries provides two types of cementing plugs which are generally used on a cementing operation.

#### Conventional (Standard) Cementing Top & Bottom Plug

### Non-Rotating Cementing Top & Bottom Plug

These cementing plugs are made of Natural Rubber with aluminium alloy or Phenolic core inside.

# **FLOAT EQUIPMENT**

### **API 5CT Standard for Oil & Gas Cementing**

Float Collar and Float Shoe are important floating equipment in petroleum and natural gas fields. They are used to guide the casing to set in the hole and ensure the quality of cementing. They are widely used in the lower section of the well to help decrease strain on the derrick while directing packaging past edges and bog zones in the opening.

All our Float Equipment threads are in accord with API 5CT recommendations.

### **Categories ▼**

#### Float Shoe

The float shoe contains a backpressure valve that prevent fluids from entering the casing while the pipe is lowered into the hole and prevents cement from flowing back into the casing after placement, while enabling circulation down through the casing.

Full ranges of sizes ranging from 4-1/2" to 20" can satisfy almost all cementing projects in oil and gas cementing constructions.

#### Float Collar

The float collar includes a backpressure valve and serve basically the same function as the float shoe.

The float collar is run in a casing assembly, usually several joints above the float shoe. It provides a seat for the cement plugs, to help top plugs shuts off fluid flow and prevents over-displacement of the cement. The space between the float shoe and float collar provides a containment area to entrap the likely-contaminated fluids from the wiping action of the cementing plug, securing the contaminated fluid away from the shoe where a strong cement bond is of primary importance.

4-1/2" to 20" standard sizes and customized service help you find the best float collar for oil and gas cementing projects.



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## **CENTRALIZERS**

#### BOW SPRING CENTRALIZERS

# HINGED NON-WELDED BOW SPRING CENTRALIZER PRODUCT CODE: VI-010101



Non-Welded Bow Spring Centralizers are designed for vertical, deviated and deviated and horizontal well for enhanced restoring force combined with low stating force ensuring good zone isolation.

Bow springs are of high-quality alloy steel, hot bent to shape using die and then heat-treated under controlled time cycled for consistent tensile strength and spring characteristics for spring back action.

#### Features & Benefits:

- High-performance bows provide maximum standoff in multiple locations of the annulus, which provides optimal conditions for primary cementing to achieve zonal isolation.
- Extended profile prevents them from hitting against casing collars.
- Five standard size bows can be configured to any hole diameter.
- Special zinc phosphate and powder coating process to prevent from rust and ensure stocking in the open for a long time.
- These are shipped in half assembled condition for economical in freight and storage costs.
- All common centralizer sizes have been tested and validated to meet API Specification 10D for providing reliability and durability during operations.

- Stop collar available with same technology.
- Supplied with stop collar and hinged pin.
- Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.









# HINGED WELDED BOW SPRING CENTRALIZER PRODUCT CODE: VI-010102



Welded Bow Spring has more restoring force as compare to non-welded centralizer. The centralizers have bow spring strongly welded to the end collar required temperature and condition with extra low hydrogen coated electrodes.

Integral hinge folded on the inside stay intact even under extreme stress. The end collars are designed with a reinforcing rib stamped into the End collar to give maximum structural roughness.

#### Features & Benefits:

- High-performance bows provide maximum standoff in multiple locations of the annulus, which provides optimal conditions for primary cementing to achieve zonal isolation.
- > Extended profile prevents them from hitting against casing collars.
- Five standard size bows can be configured to any hole diameter.
- Special Iron phosphate and powder coating process to prevent from rust and ensure stocking in the open for a long time.
- These are shipped in half assembled condition for economical in freight and storage costs.
- All common centralizer sizes have been tested and validated to meet API Specification 10D for providing reliability and durability during operations.

- Available with high performance stop collars.
- Supplied with stop collar and hinged pin.
- Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.









# SLIP-ON WELDED BOW SPRING CENTRALIZER PRODUCT CODE: VI-010103



Slip-on welded centralizers are manufactured with solid end rings that can be easily slipped on the casing OD during installation. Slip-on welded centralizers are designed for high restoring force combined with low starting force for centralizing the casing pipe. High performance characteristics are combined with easy field assembly.

Bow springs are manufactured of high-quality alloy steel, hot bent to shape using dyes and then heat treated under controlled temp and time cycles for consistent spring characteristics to ensure a crack free weld with a minimum amount of distortion and maximum amount of rigidity.

#### **Features & Benefits:**

- Special Zinc phosphate and powder coating process to prevent from rust and ensure stocking in the open for a long time.
- All common centralizer sizes have been tested and validated to meet API Specification 10D for providing reliability and durability during operations.

- > Available with high performance stop collars.
- Supplied with set screw stop collar.
- Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.









# HINGED NON-WELDED BOW SPRING TURBOLIZER PRODUCT CODE: VI-010104



Non-Welded Turbolizer has deflector blade fitted on standard bow spring which creates difference from the standard centralizers. These blades or Fins are specially made of Heat-Treated spring steel.

The metal fins are installed on the Bows, to help induce turbulence in the cement slurry during pumping operation. Spring action of blades makes them flexible, which minimize damage while moving.

#### Features & Benefits:

- Device improves the cleaning action of drilling fluid.
- Distribute the cement slurry into well bore irregularities and minimizes channelling.
- > Special Zinc phosphate and powder coating process to prevent from rust and ensure stocking in the open for a long time.
- All common centralizer sizes have been tested and validated to meet API Specification 10D for providing reliability and durability during operations.

- Available with high performance stop collars.
- Supplied with stop collar and hinged pin.
- Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.









# HINGED WELDED BOW SPRING TURBOLIZER PRODUCT CODE: VI-010105



Welded Turbolizer has deflector blade fitted on standard bow spring which creates difference from the standard centralizers. The End Collars are designed with a reinforcing Rib stamped into the End Collar to give maximum structural toughness.

Another special characteristic are built in Stop device on leading End Collar. The metal fins are installed on the bows, to help induce turbulence in the cement slurry during pumping operation. Spring action of blades makes them flexible, which minimize damage while moving down hole.

#### **Features & Benefits:**

- Device improves the cleaning action of drilling fluid.
- Distribute the cement slurry into well bore irregularities and minimizes channelling.
- Special Zinc phosphate and powder coating process to prevent from rust and ensure stocking in the open for a long time.
- These are shipped in half assembled condition for economical in freight and storage costs.
- All common centralizer sizes have been tested and validated to meet API Specification 10D for providing reliability and durability during operations.

- Available with high performance stop collars.
- Supplied with stop collar and hinged pin.
- Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.









# SLIP-ON WELDED BOW SPRING TURBOLIZER PRODUCT CODE: VI-010106



Slip-On Welded Turbolizer has deflector blade fitted on standard bow spring which creates difference from the standard centralizers. These blades or Fins are specially made of Heat-Treated spring steel. The metal fins are installed on the Bows, to help induce turbulence in the cement slurry during pumping operation. Spring action of blades makes them flexible, which minimize damage while moving down hole. Collars are specially designed with roll formed peripheral ridges which provide extra rigidity.

Slip-On Turbolizers are provided for direct installation on pipe by slipping on stop collar and can be provided with Setscrew for elimination of Stop collar.

#### **Features & Benefits:**

- Device improves the cleaning action of drilling fluid.
- Distribute the cement slurry into well bore irregularities and minimizes channelling.
- Special Zinc phosphate and powder coating process to prevent from rust and ensure stocking in the open for a long time.
- All common centralizer sizes have been tested and validated to meet API Specification 10D for providing reliability and durability during operations.

- Available with high performance stop collars.
- Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.









# HINGED NON-WELDED SEMI RIGID BOW SPRING CENTRALIZER PRODUCT CODE: VI-010107



Semi Rigid Centralizers are designed to pass through tight spots and doglegs. This device ensures high efficiency in casing jobs on Deviated and Horizontal wells. This Design makes these Centralizers act as a rigid centralizer under high side loads. The construction is with Hinges and a Non Welded Bow.

#### **Features & Benefits:**

- Low start and running forces
- Flexible and High restoring force
- Developed to have good stand-off
- > Used in vertical, deviated and horizontal wells
- Special Zinc phosphate and powder coating process to prevent from rust and ensure stocking in the open for a long time.
- All common centralizer sizes have been tested and validated to meet API Specification 10D for providing reliability and durability during operations.

- Available with high performance stop collars and hinge pin
- Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.









# HINGED WELDED SEMI RIGID BOW SPRING CENTRALIZER PRODUCT CODE: VI-010108



Hinged Welded Semi Rigid Centralizer ensures high efficiency in casing. Welded Centralizer has more Restoring Force as compare to Non-Weld Centralizer. The Centralizers have double crested Bow Spring strongly welded to the End Collar under required temperature and condition with extra low Hydrogen coated Electrodes, which assures ultimate strength and uniformity in every weld. Integral hinge folded on the inside stay intact even under extreme stress. The End Collars are designed with a reinforcing Rib stamped into the End Collar to give maximum structural toughness.

#### **Features & Benefits:**

- Low start and running forces
- Flexible and High restoring force
- Developed to have good stand-off
- Used in vertical, deviated and horizontal wells
- Special Zinc phosphate and powder coating process to prevent from rust and ensure stocking in the open for a long time.
- All common centralizer sizes have been tested and validated to meet API Specification 10D for providing reliability and durability during operations.

- Available with high performance stop collars and hinge pin.
- Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.









# SLIP-ON WELDED SEMI RIGID BOW SPRING CENTRALIZER PRODUCT CODE: VI-010109



Slip-on Welded Semi-Rigid Centralizers share many of the same design and operational features as Hinged Welded Centralizers. They can be directly installed onto pipe and are provided with set screw style Stop Collars to increase the holding force.

The Collars are innovatively designed with roll formed peripheral ridges that provide extra rigidity. The Centralizers are available in a variety of Bows configured from a choice of four standard Bow heights.

#### Features & Benefits:

- Low start and running forces
- Special Zinc phosphate and powder coating process to prevent from rust and ensure stocking in the open for a long time.
- All common centralizer sizes have been tested and validated to meet API Specification 10D for providing reliability and durability during operations.

- > Available with high performance stop collars.
- Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.

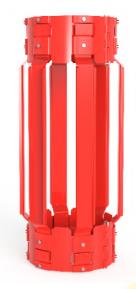








# HINGED NON-WELDED POSITIVE BOW CENTRALIZER PRODUCT CODE: VI-010110



Non welded positive Centralizers are uniquely designed with flat bottom U profile of different depths. The Centralizers significantly reduce frictional drag while being used in deviated holes. They provide almost 100% Stand Off when run inside a cased hole. They are supplied 1/4" or 6 mm less than the inside diameter of the hole size in which Centralizer is to be run. This design eliminates weak (brittle) spots passage. The flat U profile is fitted in self-locking retaining lips for firm and positive hold.

#### **Features & Benefits:**

- Special Zinc phosphate and powder coating process to prevent from rust and ensure stocking in the open for a long time.
- These are shipped in half assembled condition for economical in freight and storage costs.
- All common centralizer sizes have been tested and validated to meet API Specification 10D for providing reliability and durability during operations.

- Available with high performance stop collars.
- Supplied with stop collar and hinged pin.
- Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.

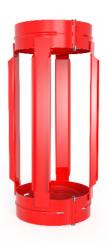








# HINGED WELDED POSITIVE BOW CENTRALIZER PRODUCT CODE: VI-010111



Hinged welded positive bow centralizers have strongly welded to the end collar under required temperature and condition with extra low hydrogen coated electrodes. Operational and general design features are the same as non-welded positive bow centralizer

#### **Features & Benefits:**

- Special Zinc phosphate and powder coating process to prevent from rust and ensure stocking in the open for a long time.
- These are shipped in half assembled condition for economical in freight and storage costs.
- > All common centralizer sizes have been tested and validated to meet API Specification 10D for providing reliability and durability during operations.

- Available with high performance stop collars.
- Supplied with stop collar and hinged pin.
- Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.









# SLIP-ON WELDED POSITIVE BOW CENTRALIZER PRODUCT CODE: VI-010112



Slip-On Positive Bow Centralizer are manufactured with solid end rings that can be easily slipped on the casing OD during Installation. Centralizer's bow has strongly welded to the end Collar under required temperature and Condition with extra low hydrogen coated electrodes. Operational and Design features is the same welded positive bow centralizer.

#### **Features & Benefits:**

- Special Zinc phosphate and powder coating process to prevent from rust and ensure stocking in the open for a long time.
- All common centralizer sizes have been tested and validated to meet API Specification 10D for providing reliability and durability during operations.

- Supplied with Slip-on stop collar.
- Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.

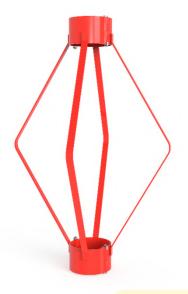








# DRILL PIPE WELDED CENTRALIZER PRODUCT CODE: VI-010113



Drill Pipe Centralizer Runs freely into difficult well-bores while providing excellent standoff. The Bows of these Centralizers are heat treated in special furnace which gives it a peculiar 'bow spring' action. The Heat-Treated bows enable these centralizers to provide best centralization as well as help in faster running of casing. In this type of Centralizers, the End Collars have hinges which makes it in two halves. The longer bow profile allows centralizers to be pulled into restrictions and into larger under reamed open hole.

### **Key information and Rating:**









# SINGLE PIECE BOW SPRING CENTRALIZER PRODUCT CODE: VI-010114



Single Piece Welded Bow Spring Centralizer is integrated steel flexible Centralizer used to centralizer casing during the cementing stage of oil wells. Single Piece Centralizers is designed for tight tolerance applications. It performs very well in open hole as well as in cased hole.

#### **Features & Benefits:**

- Low start and running forces
- Flexible and High restoring force
- Developed to have good stand-off
- Used in vertical, deviated and horizontal wells
- Special Zinc phosphate and powder coating process to prevent from rust and ensure stocking in the open for a long time.
- All common centralizer sizes have been tested and validated to meet API Specification 10D for providing reliability and durability during operations.

- > Available with high performance stop collars.
- Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.









### > SOLID RIGID CENTRALIZER

# STRAIGHT VANE SOLID RIGID CENTRALIZER PRODUCT CODE: VI-010201



Straight Vane solid rigid centralizer is designed to provide the right feature to achieve a good primary cementing job with maximum wellbore standoff using suitable functionality. It provide ultimate drag and torque reduction with maximum fluid by pass. Available in different material grades.

- > Aluminium
- > Zinc
- Steel
- Polyamide

#### **Features & Benefits:**

- High axial load strength
- Construction provides superior toughness

### **Key information:**



# SPRIAL VANE SOLID RIGID CENTRALIZER PRODUCT CODE: VI-010202



Spiral Vane solid rigid centralizer provides the right feature for getting a good primary cementing job with maximum wellbore standoff with suitable functionality. The vortex motion generated by the spiral vanes helps to increase the fluid velocity with reduced flow area.

- > Aluminium
- > Zinc
- > Steel
- ➤ Polyamide



#### **Features & Benefits:**

- > High axial load strength
- Construction provides superior toughness
- Spiral blades allow passage through unexpected under gauge open hole
- Units can be run between casing and less demanding wells

### **Key information:**



# HEAVY DUTY WELDED SPIRALIZER PRODUCT CODE: VI-010203



Solid Heavy duty Spiralizer are specially designed for extra heavy load in highly deviated Horizontal well and for use with Liner Hangers. Hydrodynamic shapes of spiral fins allow optimal mud displacement and minimal pressure drop across centralizer. Wide symmetrical Spiral fins are welded to the one piece rolled formed Sleeve under required temperature and condition, which assures ultimate strength and uniformity in every weld.

The heavy steel construction is highly effective as compare to other alloy. Solid Spiralizer are provided for direct installation on the pipe by slipping on and can be provided with compatible Stop Collars.

### **Key information:**



# SLIP-ON WELDED SPIRALIZER PRODUCT CODE: VI-010204



Slip-On Spiralizer is designed especially for highly deviated or horizontal wells. The fins glide smoothly in the low side of horizontal bore holes. Wide symmetrical fins are smoothly bevelled on the both ends to have lower coefficient of friction and to ease casing movement in either direction. Slip-On Spiralizer are provided for direct installation on the pipe by slipping on and can be provided with compatible Stop Collars.

The steel construction ensures extra strength and superior toughness. These Centralizers undergo a special Iron Phosphate coating process to prevent from Rust then coated with special Polyester Powder.

### **Key information:**



### STAND OFF BAND PRODUCT CODE: VI-010205



Slip-on Stand Off Band rigid centralizer is designed to provide a positive stand off the for both cased and open Holes. The angled fins provide increased turbulent flow. These Slip-on Stand Band is required where close tolerance between the casing and the hole is being encountered. Mainly it's designed for the liner applications.

Design of the stand-off band allow for reciprocation and rotation during cementing and can be installed between Set Screw Stop Collar.





These Stand Off Band undergo a special Phosphate coating process to prevent from Rust then coated with special Polyester Powder.

### **Key information:**



# LOW TORQUE ROLLER CENTRALIZER PRODUCT CODE: VI-010206



Roller Centralizer is a complete mechanical friction reduction solution designed for extended-reach wells. It reduces torque, drag, casing wear, tooljoint wear and differential sticking while also improving directional control, ROP and hole cleaning. Low Torque Roller Centralizers are specially designed to run in deviated or horizontal sections and are effective in reducing friction.

When casing equipped with Roller Centralizer runs into a deviated or horizontal hole, the sliding friction between the casing and the borehole is converted into rolling friction. Torque reduction is provided by vertical alignment of rollers on the periphery of roller centralizer. When running cases, irregular hole diameters can lead to the wall of the borehole having an impact force on the spiral centralizer. The use of rollers significantly reduces this impact.

### **Key information:**



# LOW DRAG ROLLER CENTRALIZER PRODUCT CODE: VI-010207



In Low Drag Roller Centralizer, all rollers are arranged in horizontal direction. This kind of arrangement of rollers efficiently reduces dragging force. 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 helps to avoid ploughing through wellbore material that has settled, alleviating major drag problems in deviated and horizontal wells.

### **Key information:**



# **CASING ACCESSORIES**

### > STOP COLLARS

# HINGED BOLTED STOP COLLAR PRODUCT CODE: VI-020101



Hinged bolted stop collar has cross bolt locking system with one go locking for easy installation. No markings or indentations are produced on the casing after installation. It is fabricated using ductile iron therefore it has a good impact and fatigue capability. These kinds of collars are used in place where high axial loads are expected.

The bolt lock gives a firm grip to the stop collar and when tested as per API 10D-2 Specifications they provide high holding force

### **Key information and Rating:**







# HINGED SPIRAL NAIL STOP COLLAR PRODUCT CODE: VI-020201



Hinged spiral Nail types has internal grooves onto which the specially designed spiral nail fastens onto the casing pipe. Collars are hinged at two places 180 degrees apart and one spiral nail in each half is driven between collar and casing. It can be latched on the casing pipe without having to be slipped on. These are most effective where low annular clearance is encountered.

The spiral nail gives a firm grip to the stop collar and when tested as per API 10D-2 specifications the provide high holding force.

### **Key information and Rating:**







# HINGED SET SCREW STOP COLLAR PRODUCT CODE: VI-020301



Hinged Set Screw Stop Collar are designed with two pieces and hinged at the two ends which makes 180 degree angle in between them. One of the row of Set Screw apply the gripping force which tightens the collar to the casing firmly.

They can be fastened on to the casing pipe and much easy to install. They are most effective in low annual clearance conditions. To prevent it from getting rust, a special iron phosphate coating is applied on these collars.

### **Key information and Rating:**







# SLIP-ON SET SCREW STOP COLLAR PRODUCT CODE: VI-020302



Slip-On set screw stop collar is of one-piece high strength corrosion resistant alloy collar and the gripping force is applied by one row of set screws. The outside ends of these collar are generally tapered to a degree which helps to hold the centralizer and avoid the ends to hit the bows or vanes when the centralizers are places over them.

- Available with high strength material grade.
- Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.







# WIRE BRISTLE SCRATCHER PRODUCT CODE: VI-020401



Wire Bristle Scratcher is designed with a hinged collar and wire bristles are attached to it. The use of wire scratcher improves the bonding of the cement between the porous formation and the casing.

Hinge pins are used to stop the collars firmly around the casing. On the other hand, the wire bristles are hardened and tempered.

- Available with high strength material grade.
- Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.





# WELLBORE WIPERS PRODUCT CODE: VI-020501



Wellbore Wipers are used to clean the well bore efficiently so that removed filter cake can be passed thereby providing excellent reinforcement to the cement column especially under close spacing.

These wipers are made up of loop wire cables of tempered steel laced into a collar. The overlapping high-alloy cable is interlaced with a full 360 degrees around the band.

### **Key information and Rating:**







### > CEMENT BASKETS

# HINGED WELDED CEMENT BASKET PRODUCT CODE: VI-030101



Hinged Welded Cement Basket is designed with Flexible Bow Springs, heat-treated under controlled conditions for maximum strength and uniformity are welded to slip-on collars and overlapping metal fins for flexibility and strength to support long columns of cement during primary cementing operations it is easily installed by sliding it over the pin end of a casing joint, prior to make-up of the joint.

#### **Features & Benefits:**

- Its design allows cement to flow in an upward direction, yet helps to prevent it from falling downward.
- > Special Zinc phosphate and powder coating process to prevent from rust and ensure stocking in the open for a long time.
- All common sizes have been tested and validated to meet API Specification 10D for providing reliability and durability during operations.

### **Key information and Rating:**









# SLIP-ON WELDED CEMENT BASKET PRODUCT CODE: VI-030102



Slip-On Cement Basket is designed with Flexible Bow Springs, heat-treated under controlled conditions for maximum strength. The circulation is not restricted whenever in the process of running casing, during lifting and lowering or in the half way.

#### Features & Benefits:

- Can be used with relevant small casing
- Its design allows cement to flow in an upward direction, yet helps to prevent it from falling downward.
- Special Zinc phosphate and powder coating process to prevent from rust and ensure stocking in the open for a long time.
- All common sizes have been tested and validated to meet API Specification 10D for providing reliability and durability during operations.

## **Key information and Rating:**









# SLIP-ON WELDED CANVAS CEMENT BASKET PRODUCT CODE: VI-030201



Slip-On Canvas Cement Baskets aka Open Top Cement Baskets consists of heavy-duty liners concentrated to staves and fabricated using high strength, flexible steel bows that are mounted on the steel slip-on end collar. The baskets are not duplicated and occasionally allow traveling the length of the joint to allow pipe movement.

The cement basket has better ability to adapt to the bore hole and can accommodate larger than nominal hole sizes.

#### **Features & Benefits:**

- Low start and running forces
- Flexible and High restoring force
- Developed to have good stand-off
- > Used in vertical, deviated and horizontal wells
- Special Zinc phosphate and powder coating process to prevent from rust and ensure stocking in the open for a long time.
- All common centralizer sizes have been tested and validated to meet API Specification 10D for providing reliability and durability during operations.

- Available with high performance stop collars.
- Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.









## **CEMENTING PLUGS**

### > CONVENTIONAL CEMENTING PLUGS

# CONVENTIONAL TOP & BOTTOM CEMENTING PLUGS PRODUCT CODES: VI-040101 & VI-040102

Conventional Cementing plugs are used for the removal of mud at the time of cementing operations, basically two types of cementing plugs, Bottom and Top cementing plug are used in the cementing process.

The bottom plug (In Blue/Red) is launched ahead of the cement slurry to minimize contamination by fluids inside the casing prior to cementing. A rupture disk in the plug body ruptures to allow the cement slurry to pass through after the plug reaches the Float Collar.

The Top Plug (In Black) has a solid body that provides positive indication of contact with the Float Collar and Bottom Plug through an increase in pump pressure.

#### **Features & Benefits:**

- > Internal core is available in Phenolic as well as aluminium.
- Oil Resistant.
- Plugs are available in Nitrile, Viton, Alfas and other elastomers.
- One plug can be used in range of PPF for same size of casing.
- Maximum temperature rating 400°F.

### **Key information:**







# NON-ROTATING TOP & BOTTOM CEMENTING PLUG PRODUCT CODES: VI-040201 & VI-040202

The Non rotating cementing plug is used in the cement slurry to minimize problems caused by mud/fluids inside the casing. These plugs have reinforced locking teeth built into the plugs. The cementing plugs lock together between the top plug and the bottom plug to eliminate rotation of the plug during drill out. These cementing plugs have been designed to decrease drill out time.

Non-Rotating Cementing Plug is used with profile float collar. It consists of wiping fins are molded from natural rubber or hydrogenated nitrile (HNBR). They are suitable for standard and high temperature well conditions.





#### **Features & Benefits:**

- Internal core is available in Phenolic as well as aluminium.
- Oil Resistant.
- Plugs are available in Nitrile, Viton, Alfas and other elastomers.
- > One plug can be used in range of PPF for same size of casing.
- Maximum temperature rating 400°F.
- Non-Rotating profile reduces the drilling time.

#### **Key information:**



# **PROPERTY OF STREET STREET**

### FLOAT COLLAR & FLOAT SHOE

# SINGLE & DOUBLE VALVE FLOAT COLLAR PRODUCT CODES: VI-050101 & VI-050102

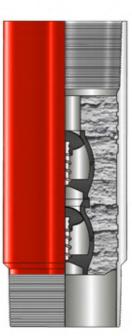
Float Collar is a cylindrical steel section with box and pin threads. Float Collar generally uses one string above the Float Shoe. It contains a check valve to permit fluid to pass downward but not upward through the casing and provides a flat landing surface for cementing plugs.

#### Features & Benefits:

- > Fast Drill Out.
- Internal Parts are PDC drillable.
- Float Collar is available in all API grade material.
- Float Collar can be furnished in API threads as well as in Premium threads.
- Maximum Back Pressure rating 5000 psi @400°F
- > Tubing Float Collar for high pressure up to 10000 PSI.
- Orifice float collar for Tie-back application.
- Flat surface provides platform to bump the bottom plug.
- > Baffle plate float collar is available upon request.
- > Inner String float collar is available.

### **Key information:**







# NON-ROTATING SINGLE & DOUBLE VALVE FLOAT COLLAR PRODUCT CODES: VI-050103 & VI-050104

Float Collar is a cylindrical steel section with box and pin threads. Float Collar generally uses one string above the Float Shoe. It contains a check valve to permit fluid to pass downward but not upward through the casing and provides a flat landing surface for cementing plugs

#### **Features & Benefits:**

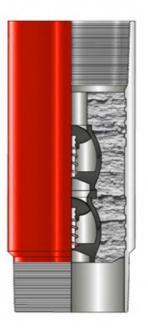
- > Fast Drill Out.
- Non-Rotating Profile.
- > Internal Parts are PDC drillable.
- Float Collar is available in all API grade material.
- Float Collar can be furnished in API threads as well as in Premium threads.
- Maximum Back Pressure rating 5000 psi @400°F.
- > Tubing Float Collar for high pressure up to 10000 PSI.
- > Orifice float collar for Tie-back application.
- > Flat surface provides platform to bump the bottom plug.
- > Baffle plate float collar is available upon request.
- > Inner String float collar is available.

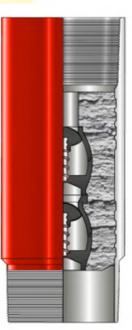
### **Key information:**

Available in 4 1/2" to 20" sizes, any special size/combination can be available on request.



Non-Rotating profile







# SINGLE & DOUBLE VALVE FLOAT SHOE PRODUCT CODES: VI-050201 & VI-050202

Float Shoe is a cylindrical steel section with a rounded nose which guides the casing toward the that is attached to the bottom of the casing string towards the center of the hole. It contains a check valve to permit fluid to pass downward but not upward through the casing.

#### **Features & Benefits:**

- > Fast Drill Out.
- Non-Rotating Profile Available
- Available in side jet, down jet, up jet port
- Stab In Profile Available in large size
- Internal Parts are PDC drillable.
- > Float Shoe is available in all API grade material.
- Float shoe can be furnished in API threads as well as in Premium threads.
- Jet port/Nose configuration is available upon request. Varshco offers Side Jet Ports, Down Jet Ports and Up Jet Ports.
- Float Shoe is available in Single and Double valve Configuration.
- Maximum Back Pressure rating: 5000 psi @400°F.
- Tubing Float Shoe for high pressure up to 10000 PSI.
- Float Shoe is available in different type of nose as per the application.
- Chip breaker features are in all type of aluminium nose as well as Phenolic nose.

### **Key information:**







#### > STAB IN STINGER

STAB IN STINGER PRODUCT CODE: VI-050301

Stab in Stinger allows large diameter casing strings to be cemented through the drill pipe or tubing that is stung into and/or sealed into the float collar or float shoe.

#### **Features & Benefits:**

- > Eliminates need to conventional top and bottom plugs.
- Provides a seal between stab in float shoe and drill-pipe to enable cementing.
- Large inside diameter allows passage of drill pipe wiper plug.

### **Key information:**





#### > GUIDE SHOE

**GUIDE SHOE** 

PRODUCT CODE: VI-050401

Guide shoe is cylindrical steel section with round nose which guides the casing towards that is attached to the bottom of the casing string towards the center of hole.

A guide shoe is used in combination with a float collar in the casing string for conventional cementing operations and is installed at the bottom joint of casing. The guide shoe through bore permits evacuation of tubes, conversion balls and debris from the casing without obstruction.



#### Features & Benefits:

- > Guide shoe is available in all API grade material.
- Guide shoe can be furnished in API threads as well as in premium threads.
- Guide shoe is useful in Load bearing capability for setting on bottom.
- Rounded cement bull nose allows for smooth running and provides the ability to guide past ledges.
- > It is PDC drillable and composite eccentric nose available.

### **Key information:**



### > REAMER SHOE

# SINGLE VALVE REAMER SHOE PRODUCT CODE: VI-050501

Reamer Shoe is a cylindrical steel section with an eccentric nose which guides the casing toward the that is attached to the bottom of the casing string towards the center of the hole. It contains a check valve to permit fluid to pass downward but not upward through the casing.

#### **Features & Benefits:**

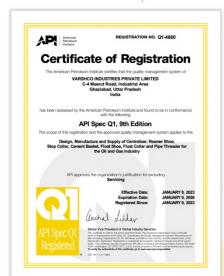
- Carbide spiral vanes and diamond shape's structure provides full-bore coverage in rotating and reciprocating applications, which provides easy passage to total depth.
- The eccentric nose can climb ledges and negotiate other well bore obstructions while the cutting structure reams out tight spots.
- Reamer shoe enables both rotating and reciprocating reaming action while running casing and liners.
- Flow ports provide full-bore coverage while rotating and reaming, and they prevent channelling while cement is pumped.
- All internal parts and standard aluminium alloy nose are PDC drillable.
- Reamer Shoe is available in all API grade material.
- Reamer shoe can be furnished in API threads as well as in Premium threads.
- Maximum Back Pressure rating is 5000 psi @400°F.

### **Key information:**





## **CERTIFICATES**

















# CONTACT

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YOUR GROWTH IS OUR SUCCESS

Product Catalogue R04