

# CEMENT FLOAT SHOE & COLLAR



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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.

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.

The float collar include 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 provide 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.



# Categories ▼

# Single Valve Float Shoe & Collar

The single valve type of float shoe and collar is the most economical and common seen type, which ensures the valve the maximum circulation rate in vertical, horizontal and deviational wells. And all materials are PDC drillable and all production is processed on CNC machines.

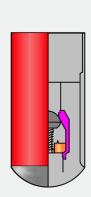
The plunger type single valve can help to prevent cement back-flow, provide casing buoyancy during the run-in. It can also act as an an internal BOP during the process of running and cementing the casing..



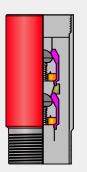
- > The most economical and common seen type
- > Free-floating ball abrades
- > Valve parts will not damage PDC bits
- › All materials are PDC drillable
- > Fast drill-out and no springs
- > Operator-controlled buoyancy-regulated by filling casing at surface

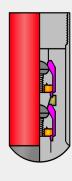
#### **Options**

- > Available with cement nose, aluminium nose or bladed nose.
- Available in 3-1/2" to 30" sizes.
- > Special sizes/configurations are available as customers' requirements.









#### Double Valve Cement Float Shoe & Collar

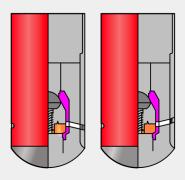
Double valve type of cement float shoe and collar is the advanced configuration of single valve type. It acts as an extra back pressure calve sealing against pressure from below when floating in a linear or casing.

#### Performance features

- > Fast Drill-out
- > Valve parts will not damage PDC Bits.
- > Double valve acts as an extra back pressure valve.
- All materials are PDC Drillable.

#### **Options**

- Available from sizes 4-1/2" till 36" + any sizes configurations.
- > Special sizes and configurations are available as request.
- > Available with shoes with cement nose, aluminum nose or bladed nose.



#### Down Jet / Up Jet Cement Float Shoe

Down jet or up jet cement float shoe make it easy to circulate through down-jets or 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. Parts force circulation flow in a downward jetting action.

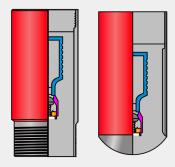
The down-jets/up-jets cement float shoe is also available with double valve for extra back pressure, valve sealing against pressure from below when floating in a liner or casing.

#### Performance features

- > Circulate through down-jets or center of the shoe.
- > Fast drill-out
- › All materials are PDC drillable.
- > Cost effective

#### **Options**

- Available in sizes 9-5/8" to 30" configurations.
- > Also available with double valve



#### Stab-in Cement Float Shoe & Collar

Stab-in cement float shoe and collar is widely used for cementing large diameter casing, lowered on the drill pipe. The string presents special cementing consideration due to high displacement volume of large diameter casing.

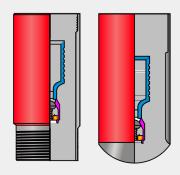
The drill pipe is tabbed directly into the float shoe or collar and cement is pumped through the drill pipe until it returns to reach the surface. Then the cement is displaced to the bottom of the drill pipe, a wiper dart can be use. The drill pipe is then picked up, circulated and pulled out of the hole.

#### Performance features

- > Improves displacement accuracy
- Get better cementing quality
- > Reduces cement volume
- > Reduce rig time
- > Protect casing.

#### Options

- > Available from sizes 9-5/8" to 30"
- > Available with double valve



#### **Duplex Cement Float Shoe & Collar**

Duplex cement float shoe and collar are furnished with heavy duty duplex connection. These heavy duty connections have 4" O.D. left-hand threads, 3-1/4" to 1" bores and are capable of carrying 100,000 lbs with a minimum safety factor of 2. special accessories are available for using with large duplex equipment. The tubing seal nipple has field-proven Chevron seals for positive sealing of the nipple in the seal bore.

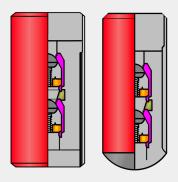
Duplex cement float shoe and collar has an expandable left-hand latch mechanism which allows the nipple to be "stabbed" into the duplex connection and when up-strain is applied the latch is expanded to provide full engagement in the duplex assembly. The nipple is realeased by rotating to the right, unscrewing 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

- > Is supplied with plunger valve in most of the application
- > Material is seamless casing grade steel.
- > PDC drillable.
- > Reduce rig time.
- > Protect casing.

#### **Options**

- > Available from sizes 9-5/8" to 30".
- > Also available with double valve.



#### Butt Weld Cement Float Shoe and Collar

Butt weld cement float shoe and collars are designed with non-thread structure, which have beveled upper end, which is convenient for directly welding onto the casing pipe.

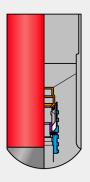
The O.D. of butt weld casing collar matches with the casing O.D.

#### Performance features

- Same performance with other types of cement collar and shoes.
- Deper end is beveled and not recessed for directly welding to the casing pipe.

#### Options

Available from sizes 5-1/2" to 20" sizes configurations.



#### Auto-Fill Cement Float Shoe and Collar

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.

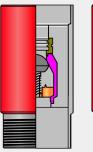
#### Performance features

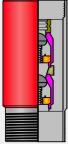
- Auto-fill-up and pump-out sleeves are available to convert into an automatic fill-uo unit.
- > Withstand various differential pressures.
- > Is installed in short 8 round API casing couplings in sallow well applications.

#### **Options**

- Available in sizes 9-5/8" to 30".
- > Non-rotating auto fill float collar is also available.
- > Available with double valve.







#### Non-Rotational Cement Float Collar

Non-rotational cement 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

- > Match with non-rotational cementing plugs.
- > Eliminates rotation during drilling.
- > Operator-controlled buoyancy-regulated by filling casing at surface.
- > Manufactured to withstand various differential pressures.
- > Float equipment's are PDC drillable

#### **Options**

- Available from sizes 9-5/8" to 30".
- > Withstand available with double valve.

### Specifications ▼

#### Material:

floating equipment (float shoe and float collar) is made of seamless casing grade steel. And we can supply all grade of steel. And all our materials are PDC drillable.

#### Connection thread:

- API: EUE, NUE, LTC, STC, BTC.
- GOST: OTTM

Specifications	MAX. O.D. (mm)	Positive Pressure (MPa)	Reverse Pressure	Max. O.D. (mm)
2-3/8" (Ф60.3 mm)	Ф72.4/Ф77.8	25	30	Ф20
2-7/8" (Ф73 mm)	Ф88.9/Ф93.6	25	30	Ф25
3-1/2" (Ф88.9 mm)	Ф108/Ф114.3	25	30	Ф35
4" (Ф101.6 mm)	Ф120.7/Ф127	25	30	Ф35
4-1/2" (Φ114.3 mm)	Ф127/Ф141.3	25	30	Ф50
5" (Ф127 mm)	Ф141.3	25	30	Ф50
5-1/2" (Φ139.7 mm)	Ф153.67	25	30	Ф55
5-3/4" (Ф146 mm)	Ф166	25	30	Ф55
6-5/8" (Ф168.27 mm)	Ф188	25	30	Ф65
7" (Ф177.8 mm)	Ф195	25	30	Ф65
7-5/8" (Ф193.67 mm)	Ф216	25	30	Ф65
7-3/4" (Ф196.85 mm)	Ф220	25	30	Ф65
7-7/8"(Ф200.03 mm)	Ф225	25	30	Ф65
8-5/8" (Φ219.1 mm)	Ф243	25	30	Ф65
9-5/8" (Φ244.5 mm)	Ф270	25	30	Ф65
9-7/8" (Ф250.83 mm)	Ф276	25	30	Ф65
10-3/4" (Ф273 mm)	Ф299	25	30	Ф65
11-3/4" (Φ298.45 mm)	Ф325	25	30	Ф65
12-3/4" (Ф324 mm)	Ф351	25	30	Ф65
13-3/8" (Ф339.7 mm)	Ф365	21	21	Ф65
13-5/8" (Ф346.08 mm)	Ф371	21	21	Ф65
16" (Φ406.4 mm)	Ф432	21	21	Ф65
16-3/4" (Ф426 mm)	Ф451	21	21	Ф65
18-5/8" (Ф473.1 mm)	Ф508	21	21	Ф65
20" (Φ508 mm)	Ф533.4	21	21	Ф65



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