

Gryphon Oilfield Solutions

Auto Fill Float Valve Product Line

Introduction

Customers rely on dependable float valves that perform as designed. Float valves need to be reliable, especially when it comes to Auto Fill Float Equipment. Auto Fill equipment is an effective part of surge reduction and reducing the piston ram effect when running casing. These valves cannot deactivate inadvertently. Having to fill casing from surface when running in the hole because of prematurely closed float valves can take additional rig hours especially on rigs without the use of a casing fill-up tool. Running casing too fast and surging producing formations by exceeding ECD's can cause unrepairable mud damage to pay zone formations. Gryphons Auto Fill Float Valves are reliable and can only deactivate by ball drop methods.

Auto Fill Float Shoes and Float Collars

Gryphon's Auto Fill Float Valve permits the casing to fill automatically while being run into the hole. The valve is always in the open position, allowing maximum filling of the casing. The valve is converted into a check valve by dropping a weighted ball. The deactivation ball is pumped from surface until the ball lands in the sleeve of the Auto Fill Valve. When the ball seats in the ball seat, pressure is increased until the shear pins shear. The sleeve then shifts to release the flapper valve to allow it to seal. The same ball will convert both the float shoe and float collar valves.

Design

- Gryphon's Float Shoes and Collars are made from seamless casing grade steel
- High strength Aluminum Valves ensures positive sealing in all well angles
- Case Bodies are Phosphate and Powder Coat finished for; maximum rust protection, make-up torque reduction, reduced galling occurrence, and improved cement to case body bonding
- The valve is encased and held in place by a high-strength cement mixture
- Float Valve equipment has been tested in-house in a Flow Loop and HPHT Testing Equipment
- Compatible with all mud types (WBM-OBM-SBM)
- Compatible in H₂S environments
- Available in casing sizes of 5-1/2" to 20" and custom sizes upon request

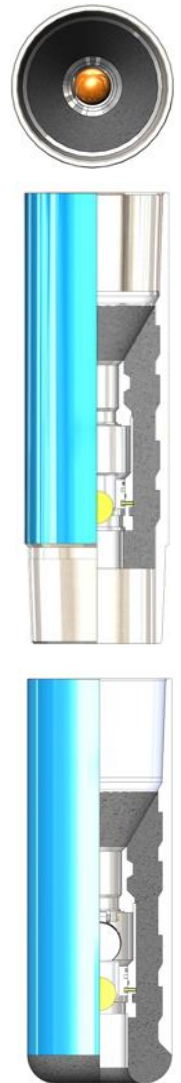
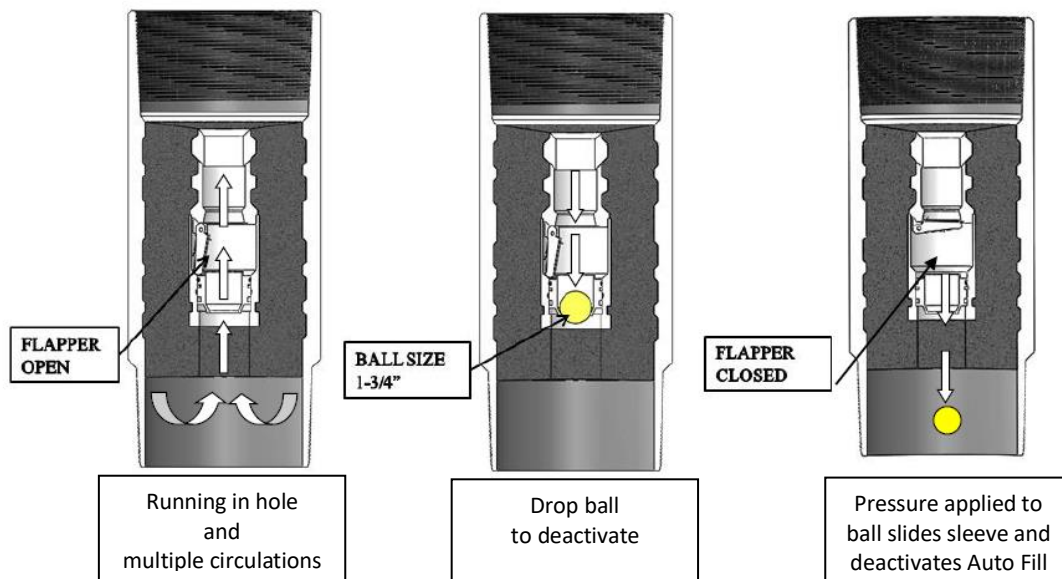
Features

- Provides auto fill of casing until 1-3/4" ball is dropped and pumped from surface to deactivate the Auto Fill mechanism and close the flapper valve
- Auto Fill Valve has a rated flow area of 2.40 sqin
- Can be supplied in all casing grades of steel
- Full traceability of component material starts from the mill material certificates to delivery
- Universal Blank, API, and Premium Threading capable
- All machining is processed in-house on CNC machines operated by special skilled technicians
- All valve components are manufactured and assembled in house
- Equipment is tested and rated in compliance with API RP10F required specs

- API rated at category III-C (10 BPM/24 hrs. and 5000 psi/400 degF)
- PDC drillable
- Auto Fill Float Valve designs can be ordered in various combinations such as;
 - Single or Double Valve Configuration
 - Non-Rotating with matching NR Plug sets
 - Latch Down Plug type
 - Stab-in and Latch-in for Inner String Cementing with or without matching wiper darts
 - Multiple Float Shoe Nose designs available
- API specifications; Q1 and ISO Quality Management Systems.

Benefits

- Multiple circulation times without deactivation of auto fill mechanism
- Casing is auto filled from bottom up while running casing
- Provides surge reduction while running casing
- Enables faster casing running times
- Reliable float check valves provide well control while running casing
- Prevents flowback of cement slurry when pumping stops
- Provides optimal shoe track integrity
 - Plug landing pressure tested and pressure rated
 - Back pressure ratings tested to API RP10F requirements



For Additional Information or questions please contact Gryphon Oilfield Solutions at;

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