

The Gryphon MINOTAUR HBP line of float equipment is engineered to provide optimal shoe track integrity while preventing flowback of cement slurry in high back pressure “HBP” environments of up to 10,000 psi (69 MPa). Gryphons’ MINOTAUR HBP float equipment incorporates a unique poppet valve fabricated from high strength aluminum with full cover HNBR rubber coating. A proprietary mechanical bonding method ensures an effective non-movement seated seal, to survive high pressure and high temperature closures. The balanced flow poppet valve design allows for maximum circulation rates with less wear, insuring consistent reliability. The MINOTAUR HBP valve is available in various single or double valve float shoe and collar combinations, making it ideal for applications where casing floatation, frac sleeves, toe sleeves, and wet shoe cementing completion techniques are utilized.

Features and Benefits

- Can be supplied in various combinations and is available in all grades of steel and desired API or Premium thread connections
- Specialty engineered protected valve spring design ensures positive sealing in vertical, horizontal and deviated wells
- Performance proven, tested in-house using our precision fabricated Flow Loop, exceeding API RP 10F III C ratings
- Exceptional quality control measures, including full traceability documentation of MINOTAUR component materials
- Compatible with all mud types (WBM-OBM-SBM)
- Non-cement construction
- Fully PDC drillable
- Reliable top fill float check valves that provide well control while running casing

Specifications		
Description	Imperial	Metric
Valve Size	2.50 in	63.5 mm
For Casing Sizes	5.0, 5-1/2, 6.0 in	127.0, 139.7, 152.4 mm
Inlet Diameter	2.00 in	50.8 mm
Inlet Flow Area	3.14 in ²	20.26 cm ²
Outlet Flow Area	4.91 in ²	31.68 cm ²
** Flow Rate	10 - 12 bbls/min	1.6 - 1.9 m ³ /min
Valve Body & Seat Material	PDC Drillable Aluminum	
Spring Material	Phosphorus Bronze	
Spring Force	5 lbs	2 kgs
Service Temperature Rating	400° F	204° C
Back Pressure Rating	10,000 psi	68,948 kPa

** Tested to 16 bbls/min (2.5 m³/min)



MINOTAUR HBP
Float Collar



MINOTAUR HBP
Float Shoe