



# *Large Bore Auto-Fill II Float Collar*

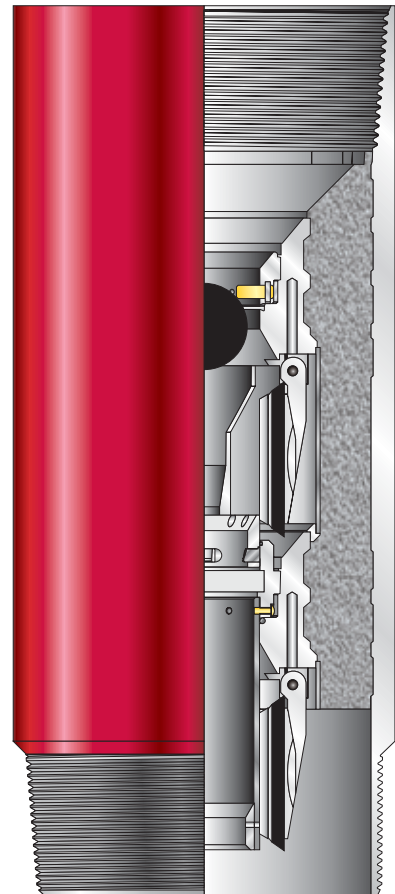
Weatherford's large bore auto-fill II float collar is a surge-reducing, debris-tolerant, and PDC-drillable valve used in primary cementing. The collar features two large-diameter valves, held open by a unique auto-fill sleeve and tube mechanism. This large bore auto-fill collar reduces surge pressure, allowing casing and liner runs at higher speeds while reducing mud losses, especially where close casing tolerances exist, while its large-diameter, two-valve system provides added security.

## *Applications*

- Pressure-sensitive formations
- Close-tolerance annuli
- Vertical and high-angle wellbores

## *Features, Advantages and Benefits*

- The float collar's large, open bore promotes solids tolerance, allowing drilling fluids and wellbore debris to flow easily.
- By providing faster casing and liner running speeds, the large bore auto-fill float collar provides cost savings to operators.
- The system's two ball-activated valves contribute to operational safety, security, and efficiency with:
  - High-pressure, high-volume, and temperature resistant.
  - Standardized 3 1/4-in. trip ball diameter.
  - Conversion pressure adjustable from 0 to 7 bpm (Models B47 and B45).
  - Optional removable ball retainer available (Model B45).
  - Aluminum and phenolic valve versions available.
  - Improved service and production life with less formation damage because of overpressurization.
  - PDC drillable, high-strength, non-ferrous components
  - Non-rotating profile facilitates easy drillout of cementing plugs.





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### *Performance Specifications*

<b>Back pressure rating:</b>	
9 5/8-in. to 13 3/8-in. (psi/MPa)	3,000 20.68
16-in. (psi/MPa)	2,000 13.79
18 5/8-in. to 20-in. (psi/MPa)	1,700 11.72
<b>Plug bump pressure rating at 250°F/120°C with Wiperlok plugs:</b>	
9 5/8-in. (psi/MPa)	8,000 55.16
10 3/4-in. to 13 3/8-in. (psi/MPa)	6,000 41.37
16-in. to 20-in. (psi/MPa)	3,000 20.68
Temperature rating: phenolic valves (°F/°C)	300° 150°
Temperature rating: aluminum valves (°F/°C)	400° 204°
<b>API RP 10F category: IIIB (psi/MPa)</b>	3,000 20.68
<b>Maximum flow rate (24 hours): 15 bbl/min after conversion.</b>	
Conversion pressure: (psi/MPa)	500 to 900 3.45 to 6.21
Minimum flow area after conversion (in. <sup>2</sup> /cm <sup>2</sup> )	8.45 54.5
Minimum flow area with 3 1/8-in. ID ball seat (in. <sup>2</sup> /cm <sup>2</sup> )	7.67 49.5



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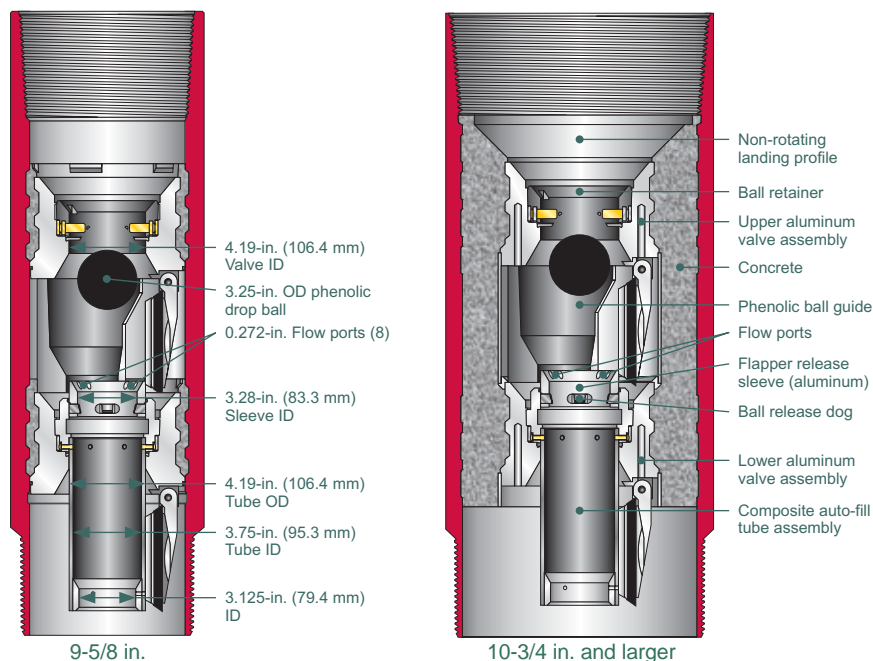
### Specifications

Size (in./mm)	OD (in./mm)	Grade	Casing Weight Range (lb/ft)	Drillout ID (in./mm)	Overall Length (8 RND and BTC) (in./mm)	Back Pressure Rating (psi/MPa)	Bump Pressure Rating (psi/MPa)
9-5/8 244.5	10.63 270.0	STD	32.30 to 53.50	8.865 225.17	32.00 812.80	3,000 20.68	8,000 55.16
9-5/8 244.5	10.63 270.0	PG	40.0 to 71.80	8.699 220.95			
10-3/4 273.1	11.75 298.5	STD	32.75 to 65.70	10.056 255.42			6,000 41.37
10-3/4 273.1	11.75 298.5	PG	51.00 to 71.00	9.770 248.16			
11-3/4 298.5	12.75 323.9	STD	42.00 to 71.00	11.020 279.91			
11-3/4 298.5	12.75 323.9	PG	54.00 to 71.00	10.770 273.56			
13-3/8 339.7	12.75 323.9	STD	48.00 to 72.00	12.579 319.51	33.50 851	2,000 13.79	3,000 20.68
13-3/8 339.7	12.75 323.9	PG	48.00 to 86.00	12.579 319.51	33.50 851.00		
16 406.4	17.00 431.8	STD	65.00 to 109.00	15.124 384.15	34.75 882.65		
18-5/8 473.1	19.63 498.6	STD	87.50 to 139.00	17.755 450.98	36.00 914.40	1,700 11.72	
20 508.0	21.00 533.4	STD	94.00 to 133.00	19.125 485.78	36.75 933.45	1,700 11.72	

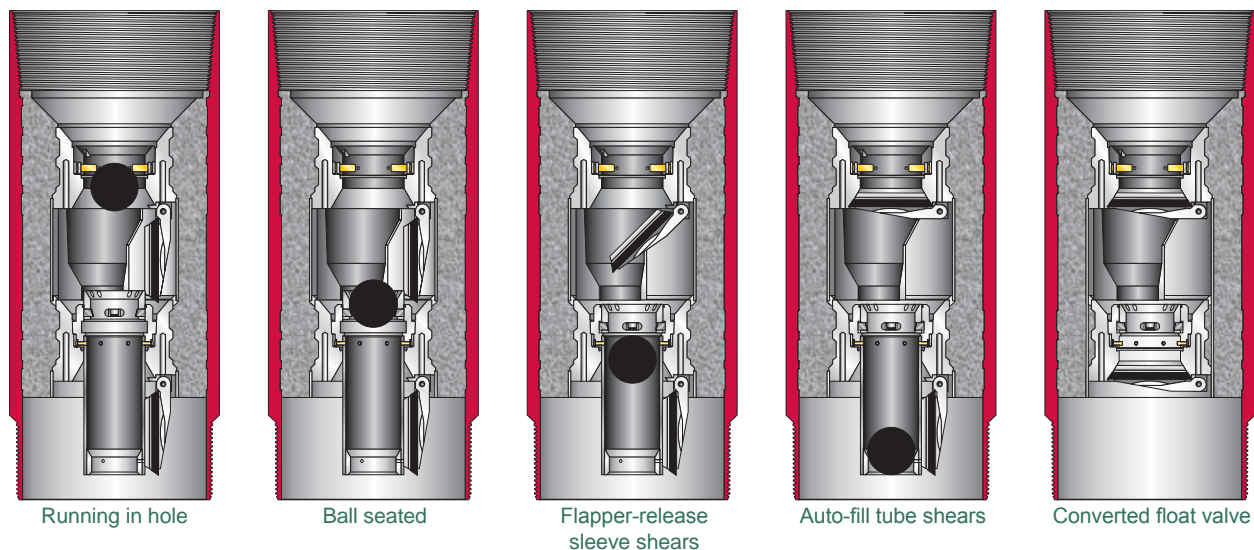


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### Dimensions and Components



### Operational Sequence

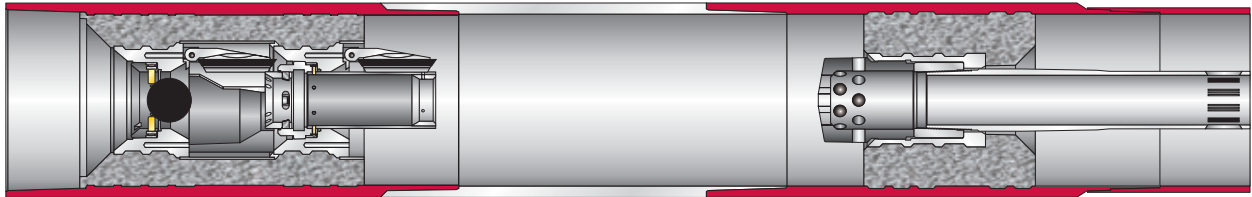




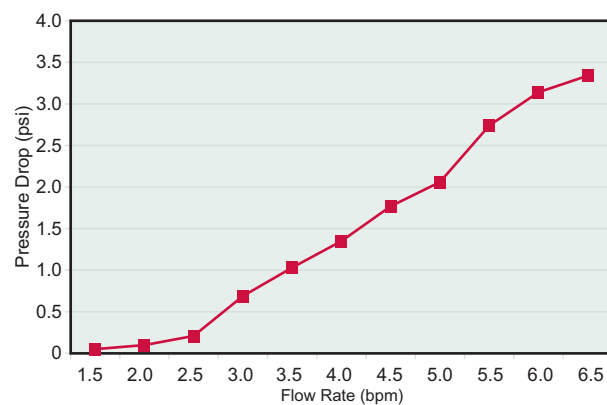
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### Guide Shoe Combinations

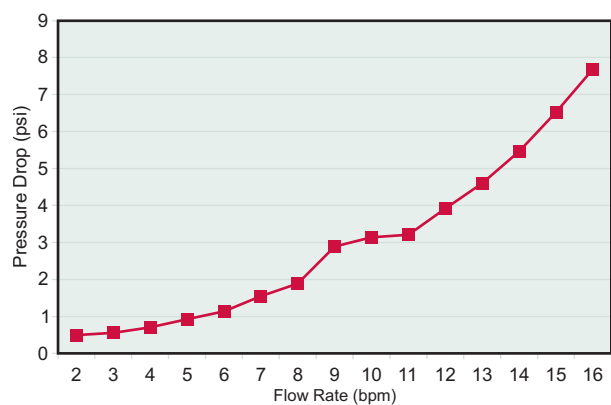
#### Mudmaster™ II Filter Shoe Option (Recommended)



#### Cemented or Composite Guide Shoe with 5 1/2-in. (127-mm) Bore



**Large Bore Auto-Fill II Float Collar**  
Pressure Drop vs. Flow Rate with 12.3 ppg Mud  
(Model B45 auto-fill mode with 3 1/8-in. [79.4 mm] ballseat with  
all flow ports plugged)



**Large Bore Auto-Fill II Float Collar**  
Pressure Drop vs. Flow Rate with 12.3 ppg Mud  
(Forward flow after activation with all flow ports plugged)