



AutoSeal™ II Fill-Up and Circulation Tools

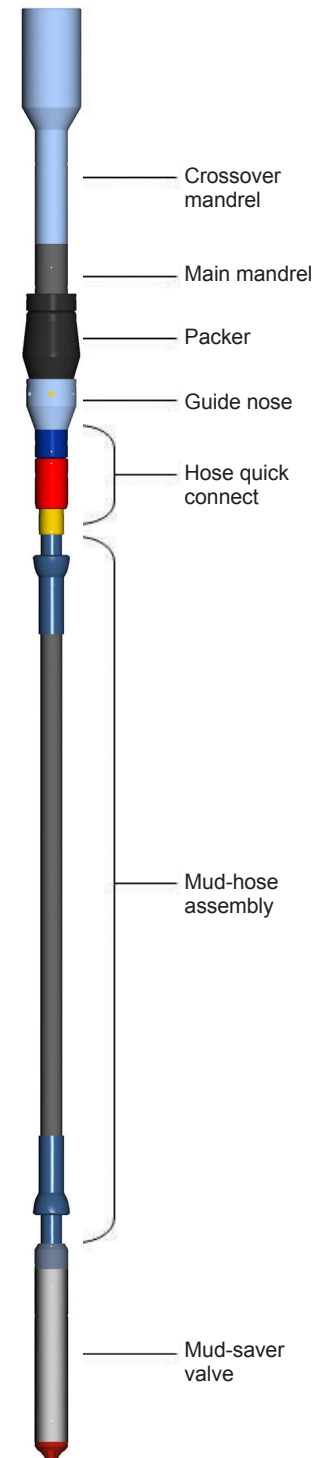
Weatherford AutoSeal II fill-up and circulation tools facilitate fill and circulation of casing with mud at any point as the casing is run into the well. These tools can instantly transition from fill-up mode to circulation mode, which significantly reduces the risk of stuck casing, especially in highly deviated wellbores. The AutoSeal II tools incorporate new design features, such as the packer cup and mud-saver valve with flowback capabilities. The tools can accommodate virtually any common casing size with only two mandrel sizes, which reduces operational costs. The AutoSeal II tools are designed without a housing for easy, safe handling. This design feature also saves rig time and costs by eliminating the potential for elevator lock-up and the need for hydraulic or mechanical safety-release subs.

Applications

- Long casing strings for which manual fill-up methods are inefficient or impractical
- Operations with tight casing tolerances, where flowback is a concern
- 4 1/2-in. to 20-in. casing

Features, Advantages, and Benefits

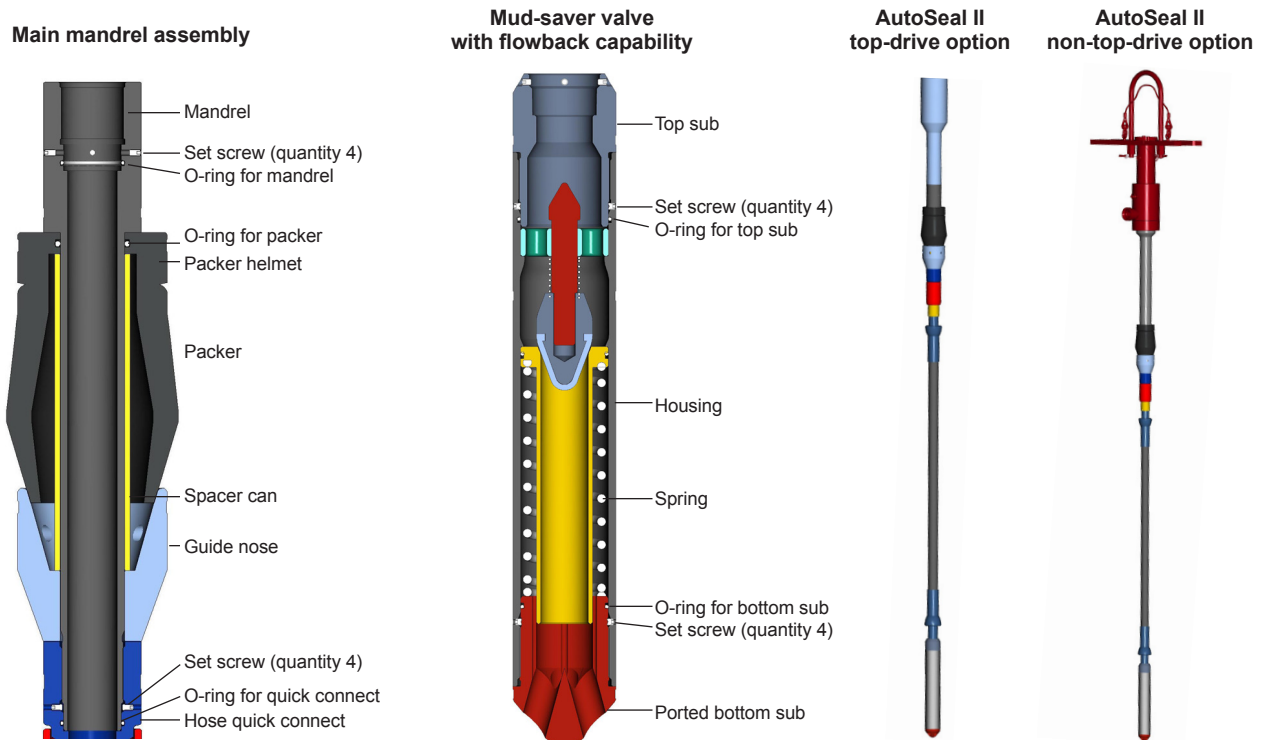
- Both AutoSeal models have an innovative design and softer packer-cup material to accommodate a wider range of casing sizes. This advantage reduces equipment costs by minimizing the number of packer cups required; it also enhances operational efficiency by minimizing the potential for dressing the tool with a packer cup of the wrong size.
- The packer cup and the helmet are integrated in a single piece, which enhances operational efficiency by reducing the potential for mismatching packer cups and helmets and reduces the inventory-management requirement.
- The absence of external housing enhances safety while saving time and costs. The lighter-weight tools require less time for maintenance. They also eliminate the potential for elevator lock-up and the need for hydraulic or mechanical safety-release subs.



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Features, Advantages, and Benefits (continued)

- The hose quick connect makes assembly and disassembly of the mud-hose assembly easy.
- These tools include a metal guide nose rather than a centralizer, which makes the tools more robust and wear-resistant. It also saves time and costs by reducing the potential for lost-in-hole items resulting from a damaged centralizer.
- The mud-saver valve enhances operational efficiency; no change in configuration is required to convert the tool from fill-up to flowback mode.
- The variety of non-top-drive space-out subs provided with these tools promotes equipment integrity and saves costs by eliminating the need for third-party sourcing.
- The AutoSeal tools are adaptable to all rig types (hook and top drive) for operational flexibility.
- Model 100 accommodates 4 1/2-in. to 9 5/8-in. casing; Model 200 accommodates 9 5/8-in. to 20-in. casing. The overlap coverage of the most commonly used size (9-5/8 in.) can result in additional cost savings.
- A push plate is available to provide casing push-down force and overcome tight spots.





AutoSeal™ II Fill-Up and Circulation Tools

Specifications

	Model 100	Model 200
Tool length (in., mm)	136.50 3,467.1	139.26 3,537.2
Approximate tool weight (lb, kg)	850 to 900 386.00 to 408.00	750 to 900 340.20 to 408.23
Casing size range (in., mm)	4-1/2 to 9-5/8 114.3 to 244.5	9-5/8 to 20 244.5 to 508.0
Maximum system pressure (psi, bar)	2,000 138	
Operational temperature (°F, °C)	5° to 302° -15° to 150°	
OD of mud saver (in. mm)	3-5/8 93.3	5 127.0
Maximum flow with mud-saver valve attached (bbl/min, L/min)	15 2,385	20 3,180



AutoSeal™ II Fill-Up and Circulation Tools

Specifications (continued)

Standard Packer-Guide Nose Sizes: 100 Series

	Assembly Number*	Casing Size (in.)	Casing Weight (lb/ft)	Packer Number	Guide Nose Number	Spacer Can Number	Helmet/Guide Nose OD ^b (in., mm)	
101	1232391	4-1/2	15.10	1213288	1213358	1213232	3.661	
			13.50				92.99	
102	1232392	4-1/2	11.60	1213289	1213359	1213232	3.827	
			10.50					97.21
		5	24.10					
		4-1/2	9.50					
		5	23.20					
103	1232393	5	21.40	1213291	1213361	1213232	4.111	
			18.00					104.42
			15.00					
			13.00					
104	1232394	5-1/2	23.00	1213292	1213362	1213232	4.495	
			20.00					114.17
			17.00					
			15.50					
			14.0					
105	1232396	6-5/8	32.00	1213297	1213363	1213240	5.510	
			35.00					139.96
			28.00					
		24.00						
		7	38.00					
		6-5/8	20.00					
106	1232397	7	7	1213298	1213364	1213240	5.920	
			35.00					150.37
			29.00					
		26.00						
		23.00						
		20.00						
7-5/8	47.10							
107	1232398	7-5/8	55.30	1213301	1213365	1213240	6.270	
			45.30					159.26
			17.00					
		7-5/8	42.80					
		7-3/4	46.10					
		7-5/8	39.00					
			33.70					
29.70								
26.40								
108	1232399	8-5/8	24.00	1213304	1213366	1213240	7.346	
			49.00					186.59
			44.00					
			40.00					
			36.00					
			32.00					
			28.00					
			24.00					
109	1232400	9-5/8	61.10	1213307	1213367	1213240	8.179	
			58.40					207.75
			53.50					
		9-7/8	66.40					
		9-3/4	59.20					
		9-7/8	62.80					
		9-5/8	47.20					
			43.50					
			40.00					
		9-7/8	54.00					
		9-5/8	36.00					
32.30								
29.30								

*Assembly includes packer, guide nose, and spacer can.

^bOutside diameter of guide nose and packer helmet.



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Specifications (continued)

Standard Packer-Guide Nose Sizes: 200 Series

	Assembly Number ^a	Casing Size (in.)	Casing Weight (lb/ft)	Packer Number	Guide Nose Number	Spacer Can Number	Helmet/Guide Nose OD ^b (in., mm)	
201	1232402	9-5/8	61.10	1213310	1213368	1213241	8.179 207.75	
			58.40					
			53.50					
		9-7/8	66.40					
		9-3/4	59.20					
		9-7/8	62.80					
		9-5/8	47.20					
			43.50					
			40.00					
			9-7/8					54.00
9-5/8	36.00							
202	1232403	9-5/8	32.30	1213314	1213369	1213244	8.799 223.49	
			29.30					
			97.10					
		10-3/4	85.30					
		79.20						
		73.20						
71.10								
203	1232404	10-3/4	65.70	1213316	1213370	1213244	9.364 237.85	
			60.70					
			55.50					
			51.00					
			45.50					
40.50								
204	1232405	10-3/4	32.75	1213319	1213371	1213244	9.996 253.90	
		11-3/4	71.00					
			65.00					
205	1232406	11-7/8	71.80	1213320	1213372	1213244	10.509 266.93	
			60.00					
		11-3/4	54.00					
			47.00					
			42.00					
206	1232407	12-3/4	71.00	1213325	1213373	1213244	11.741 298.22	
			63.90					
			57.00					
		13-3/8	98.00					
			92.00					
		12-3/4	49.40					
			44.40					
		13-3/8	86.00					
			85.00					
			80.70					
			77.00					
			72.00					
			68.00					
		13-1/2	81.40					
14	119.38							
13-5/8	88.20							
	68.00							
207	1232409	14	117.00	1213326	1213374	1213244	12.165 308.99	
			112.78					
			114.00					
		13-3/8	61.00					
		14	106.13					
		13-3/8	54.50					
		14	103.50					
			99.43					
			13-3/8					48.00
			14					92.68

^aAssembly includes packer, guide nose, and spacer can.

^bOutside diameter of guide nose and packer helmet.



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Specifications (continued)

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	Assembly Number ^a	Casing Size (in.)	Casing Weight (lb/ft)	Packer Number	Guide Nose Number	Spacer Can Number	Helmet/Guide Nose OD ^b (in., mm)
208	1232410	16	128.00	1213327	1213375	1213244	14.632 371.65
			109.00				
			97.00				
			84.00				
			75.00				
			65.00				
209	1232411	18-5/8	139.00	1213329	1213376	1213244	17.526 445.16
			115.00				
			97.70				
			96.50				
			94.50				
			87.50				
210	1232412	20	166.00	1213331	1213377	1213244	18.516 470.31
			133.00				
			129.30				
			106.50				
			94.00				

^aAssembly includes packer, guide nose, and spacer can.

^bOutside diameter of guide nose and packer helmet.