



## *Surface-Release Casing-Wiper Plugs* *For Casing Sizes 3-1/2 in. to 24 in.*

Weatherford's surface-release casing-wiper plugs are designed to efficiently wipe casing strings clean of cement while maintaining fluid separation during cementing operations. Designed and built using Weatherford's extensive field-proven experience in elastomer products, the wiper plugs are constructed primarily of high-abrasion, wear-resistant polyurethane to withstand high bump pressures and high-pressure casing tests.

Released from Weatherford's cementing head, the bottom plug is launched in front of the cement slurry and features a rupture disk that enables circulation to be re-established after the plug lands on float equipment below. The top plug is then released, wiping the casing before bumping on the top of the bottom plug, providing a positive indication of cement displacement. A casing pressure test can then be performed to verify proper zonal isolation.

The surface-release casing-wiper plugs are available in either standard flat or Wiperlok® nonrotating profiles. The plugs are compatible and recommended for use with Weatherford's float equipment to enhance pressure ratings and reduce surge pressures.



### *Applications*

- Surface casing strings requiring fluid separation during cementing operations
- Deep, high-angle wellbores anticipating high displacement and bump pressures
- Compatible and recommended for use with Weatherford's Sure-Seal 3™ float equipment



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### *Features, Advantages and Benefits*

- Top and bottom plugs feature secondary sealing and wiping fins, reducing cement contamination by maintaining fluid separation.
- The bottom plug's integral rupture disk is rated at a 400-psi (2.75-MPa) burst pressure, with higher burst pressures available, providing operational flexibility for specific applications.
- Standard plugs feature a flat-bottom profile that forms a face-to-face seal, enabling high bump pressures.
- Nonrotating plugs feature Weatherford's Wiperlok® profile that prevents spinning and increases resistance to rotation as load is applied, producing significantly faster drillout times.
- Plugs are released from surface by Weatherford's cementing head, which uses a flag indicator to give a positive indication that the plugs have successfully launched from the head.
- Wiper plugs are polycrystalline-diamond-composite (PDC) drillable, saving rig time and avoiding bit damage.
- Polyurethane plug fins offer superior abrasion and wear resistance, providing excellent wiping action, resulting in a clean casing ID after passage.
- One-piece durometer core can withstand high torque, ensuring the device will not shear during drillout.

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### *Options*

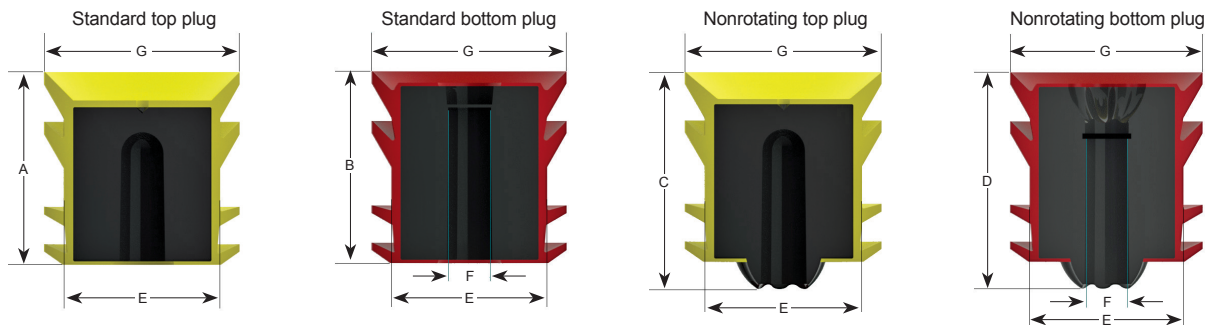
- Plugs are available with standard or Wiperlok® nonrotating profiles.
- Combination plugs are available for casing strings with multiple standard sizes.
- Higher pressure rupture disks are available upon request.

## Surface-Release Casing-Wiper Plugs

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### Specifications

Plug Size (in./mm)	Weight Range (lb/ft,kg/m)	Bump Pressure Rating (psi/MPa)	Minimum ID (in./mm)	Maximum ID (in./mm)	Number of Teeth	Dimensions						
						A (in./mm)	B (in./mm)	C (in./mm)	D (in./mm)	E (in./mm)	F (in./mm)	G (in./mm)
3-1/2 88.9	9.2 to 13.7 13.7 to 20.4	5,000 34.47	2.549 64.74	2.992 76.00	N/A	7.48 190	7.48 190	N/A	N/A	2.17 55	0.87 22	3.15 80
4 101.6	9.5 to 16.5 14.2 to 24.6	6,000 41.37	3.015 76.58	3.548 90.12	5	7.76 197	7.76 197	8.19 208	8.19 208	2.48 63	0.87 22	3.82 97
4-1/2 114.3	9.5 to 17.0 14.2 to 25.3	6,000 41.37	3.615 91.82	4.090 103.89	5	7.87 200	7.87 200	8.31 211	8.31 211	2.99 76	0.87 22	4.33 110
5 127.0	11.5 to 21.4 17.1 to 31.9	6,800 46.88	4.001 101.63	4.560 115.82	5	7.87 200	7.87 200	8.31 211	8.31 211	3.35 85	0.87 22	4.80 122
5-1/2 139.7	14.0 to 26.8 20.9 to 39.9	6,800 46.88	4.375 111.13	5.080 129.03	5	7.87 200	7.87 200	8.31 211	8.31 211	3.62 92	0.87 22	5.31 135
6-5/8 168.3	12.0 to 40.2 17.9 to 59.9	6,800 46.88	5.250 133.35	6.287 159.69	6	9.17 233	9.17 233	9.69 246	9.69 246	4.53 115	1.57 40	6.46 164
7 177.8	20.0 to 38.0 29.8 to 56.6	8,000 55.16	5.795 147.19	6.456 163.98	6	9.17 233	9.17 233	9.61 244	9.69 246	5.31 135	1.57 40	6.69 170
7-5/8 193.7	24.0 to 42.8 35.8 to 63.8	8,000 55.16	6.376 161.95	7.025 178.44	6	9.29 236	9.29 236	9.76 248	9.76 248	5.71 145	1.57 40	7.28 185
8-5/8 219.1	24.0 to 49.0 35.8 to 73.0	8,000 55.16	7.386 187.60	8.097 205.66	6	9.06 230	9.06 230	9.76 248	9.76 248	6.42 163	1.99 51	8.27 210
9-5/8 244.5	32.3 to 70.3 48.1 to 104.8	8,000 55.16	8.001 203.23	9.001 228.63	6	9.06 230	9.06 230	10.16 258	10.35 263	7.40 188	1.99 51	9.25 235
10-3/4 273.1	40.5 to 85.3 60.4 to 127.1	6,000 41.37	9.000 228.63	10.050 255.27	8	9.69 246	9.69 246	10.63 270	10.63 270	8.31 211	3.07 78	10.24 260
11-3/4 298.5	42.0 to 87.2 62.6 to 129.9	6,000 41.37	10.126 257.20	11.084 281.53	8	9.88 251	9.88 251	10.83 275	10.83 275	8.94 227	3.07 78	11.26 286
13-3/8 to 14 339.7 to 355.6	48.0 to 96.0 71.5 to 143.0	6,000 41.37	11.819 300.20	12.876 327.05	8	11.73 298	11.73 298	13.62 346	13.62 346	10.87 276	3.78 96	13.11 333
16 406.4	52.5 to 131.7 78.2 to 196.2	3,000 20.68	14.220 361.19	15.396 391.06	12	15.83 402	15.83 402	17.87 454	17.87 454	13.31 338	4.09 104	15.87 403
18 457.2	70.6 to 128.0 105.2 to 190.7	3,000 20.68	16.387 416.23	17.250 438.15	12	16.46 418	16.46 418	18.50 470	18.31 465	15.35 390	4.53 115	17.91 455
18-5/8 to 20 473.1 to 508.0	73.1 to 122.0 109.0 to 181.8	3,000 20.68	17.000 431.80	19.250 488.95	12	17.05 433	17.05 433	19.09 485	19.17 487	16.22 412	4.53 115	19.61 498
22 558.8	92.5 to 277.0 137.8 to 412.7	3,000 20.68	19.500 495.30	21.222 539.04	12	18.35 466	16.61 422	20.39 518	18.86 479	17.72 450	4.53 115	22.05 560
24 609.6	155.0 to 536.4 231.0 to 799.2	3,000 20.68	21.000 533.40	22.750 577.85	12	18.35 466	16.61 422	20.39 518	18.86 479	19.45 494	4.53 115	23.74 603



## Surface-Release Casing-Wiper Plugs

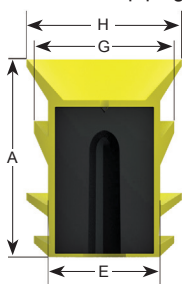
For Casing Sizes 3-1/2 in. to 24 in.

### Specifications (continued)

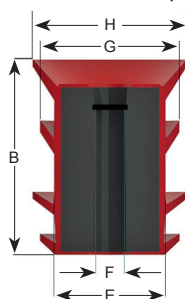
**Combination Cement Plugs, 4-Fin Configuration**

Size (in.) 1* × 2**	Weight Range 1* (lb/ft)	Weight Range 2** (lb/ft)	Bump Pressure Ratings (psi/MPa)	Minimum ID (in./mm)	Maximum ID (in./mm)	Number of Teeth	Dimensions							
							A (in./mm)	B (in./mm)	C (in./mm)	D (in./mm)	E (in./mm)	F (in./mm)	G (in./mm)	H (in./mm)
7 × 4-1/2	20.00 to 38.00	9.50 to 17.00	6,000 41.37	3.615 91.82	6.456 163.98	N/A	8.58 218	7.48 190	N/A	N/A	2.99 76	0.87 22.0	4.33 110	6.69 170
7 × 5	20.00 to 38.00	11.50 to 21.40	6,000 41.37	4.001 101.63	6.456 163.98	N/A	9.29 236	9.13 232	N/A	N/A	3.35 85	1.63 41.5	4.80 122	6.69 170
7-5/8 × 5	24.00 to 42.80	11.50 to 21.40	6,000 41.37	4.001 101.63	7.025 178.44	N/A	9.29 236	9.29 236	N/A	N/A	3.35 85	1.63 41.5	4.80 122	7.28 185
7 × 5-1/2	20.00 to 38.00	14.00 to 26.80	6,000 41.37	4.375 111.13	6.456 163.98	N/A	9.17 233	9.09 231	N/A	N/A	3.62 92	1.63 41.5	5.31 135	6.69 170
7-5/8 × 5-1/2	24.00 to 42.80	14.00 to 26.80	6,000 41.37	4.375 111.13	7.025 178.44	N/A	9.29 236	9.29 236	N/A	N/A	3.62 92	1.56 39.5	5.31 135	7.28 185
7 × 6-5/8	20.00 to 38.00	12.00 to 43.70	6,000 41.37	5.251 133.38	6.456 163.98	6	9.02 229	9.13 232	N/A	N/A	4.96 126	1.57 40.0	6.10 155	6.38 162
7-5/8 × 7	24.00 to 42.80	20.00 to 38.00	8,000 55.16	5.795 147.19	7.025 178.44	6	9.09 231	9.09 231	9.65 245	9.65 245	5.31 135	1.56 39.5	6.69 170	7.28 185
8-5/8 × 7	24.00 to 49.00	20.00 to 38.00	8,000 55.16	5.795 147.19	8.097 205.66	6	9.49 241	9.49 241	10.04 255	10.04 255	5.31 135	1.56 39.5	6.69 170	8.27 210
9-5/8 × 7	32.30 to 70.30	20.00 to 38.00	8,000 55.16	5.795 147.19	9.001 228.63	6	9.88 251	9.88 251	10.39 264	10.39 264	5.31 135	1.56 39.5	6.69 170	9.25 235
8-5/8 × 7-5/8	24.00 to 49.00	24.00 to 42.80	8,000 55.16	6.376 161.95	8.097 205.66	6	9.49 241	9.49 241	10.04 255	10.24 260	5.71 145	1.56 39.5	7.28 185	8.27 210
9-5/8 × 7-5/8	32.30 to 70.30	24.00 to 42.80	8,000 55.16	6.376 161.95	9.001 228.63	6	9.88 251	9.88 251	10.39 264	10.39 264	5.71 145	1.56 39.5	7.28 185	9.25 235
9-5/8 × 8-5/8	32.30 to 70.30	24.00 to 49.00	6,000 41.37	7.386 187.60	9.001 228.63	N/A	9.06 230	9.06 230	N/A	N/A	6.46 164	2.56 65.0	8.27 210	9.25 235
10-3/4 × 8-5/8	40.50 to 85.30	24.00 to 49.00	3,000 20.68	7.386 187.60	10.050 255.27	N/A	9.88 251	10.35 263	N/A	N/A	6.50 165	2.56 65.0	8.27 210	10.24 260
10-3/4 × 9-5/8	40.50 to 85.30	32.30 to 70.30	8,000 55.16	8.001 203.23	10.050 255.27	6	9.72 247	9.72 247	10.98 279	11.02 280	7.40 188	2.00 51.0	9.25 235	10.24 260
11-3/4 × 10-3/4	42.00 to 87.20	40.50 to 85.30	3,000 20.68	9.000 228.60	11.084 281.53	8	9.88 251	9.88 251	10.87 276	10.87 276	8.31 211	3.07 78.0	10.24 260	11.26 286

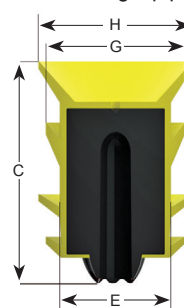
Standard top plug



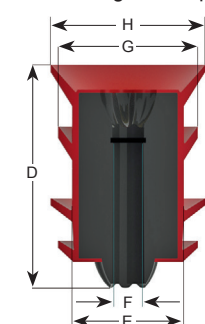
Standard bottom plug



Nonrotating top plug



Nonrotating bottom plug



## Surface-Release Casing-Wiper Plugs

For Casing Sizes 3-1/2 in. to 24 in.

### Specifications (continued)

**Combination Cement Plugs, 5-Fin Configuration**

Size (in.) 1* × 2**	Weight Range 1* (lb/ft)	Weight Range 2** (lb/ft)	Bump Pressure Ratings (psi/MPa)	Minimum ID (in./mm)	Maximum ID (in./mm)	Number of Teeth	Dimensions							
							A (in./mm)	B (in./mm)	C (in./mm)	D (in./mm)	E (in./mm)	F (in./mm)	G (in./mm)	H (in./mm)
4-1/2 × 3-1/2	9.50 to 17.00	9.20 to 13.70	5,000 34.47	2.549 64.74	4.090 103.89	N/A	7.83 199	7.83 199	N/A	N/A	2.36 60	0.87 22	3.46 88	4.33 110
5-1/2 × 4-1/2	14.00 to 26.80	9.50 to 17.00	6,000 41.37	3.615 91.82	5.080 129.03	N/A	8.03 204	8.03 204	N/A	N/A	2.99 76	0.87 22	4.33 110	5.31 135
10-3/4 × 7	40.50 to 85.30	20.00 to 38.00	3,000 20.68	5.795 147.19	10.050 255.27	6	N/A	N/A	12.99 330	12.99 330	5.12 130	1.61 41	6.69 70	10.24 260
10-3/4 × 7-5/8	40.50 to 85.30	24.00 to 42.80	3,000 20.68	6.376 161.95	10.050 255.27	6	13.07 332	13.07 332	13.58 345	13.58 345	5.71 145	1.61 41	7.28 185	10.24 260
11-3/4 × 9-5/8	42.00 to 87.20	32.30 to 70.30	6,000 41.37	8.001 203.23	11.084 281.53	6	12.24 311	12.24 311	13.50 343	13.50 343	7.40 188	2.00 51	9.25 235	11.26 286
13-3/8 × 9-5/8	48.00 to 96.00	32.30 to 70.30	3,000 20.68	8.001 203.23	12.876 327.05	6	13.43 341	13.39 340	14.69 373	14.69 373	7.28 185	2.00 51	9.25 235	13.11 333
13-3/8 × 10-3/4	48.00 to 96.00	40.50 to 85.30	3,000 20.68	9.000 228.60	12.876 327.05	8	11.26 286	12.01 305	12.32 313	12.99 330	8.31 211	2.91 74	10.24 260	13.11 333
13-3/8 × 11-3/4	48.00 to 96.00	42.00 to 87.20	3,000 20.68	10.126 257.20	12.876 327.05	8	14.21 361	12.83 326	15.16 385	14.69 373	8.94 227	3.03 77	11.26 286	13.11 333
16 × 13-3/8	52.50 to 131.71	48.00 to 96.00	4,000 27.58	11.819 300.20	15.396 391.06	8	N/A	N/A	18.03 458	18.03 458	10.83 275	3.78 96	13.11 333	15.87 403
20 × 13-3/8	78.60 to 261.86	48.00 to 96.00	3,000 20.68	11.819 300.20	19.250 488.95	8	20.08 510	20.08 510	21.93 557	21.93 557	10.83 275	3.78 96	13.11 333	19.61 498

