

## SCORPION™ WITH DISSOLVABLE PUMPDOWN RING

Classic reliability with added savings on fuel, power, and water.

We've upgraded a reliable standard. Constructed from thermoset-molded composite and filament-wound fiberglass, the Scorpion with Dissolvable Pumpdown Ring dramatically reduces your diesel fuel, power, and water needs during pumpdown operations. Shorter than conventional frac plugs, it delivers reliable zonal isolation from heel to deepest toe, with quick and easy mill-out, reducing costs, effort, and emissions.

### 3,208 BARRELS OF WATER SAVED

On a 56-stage trial, the Scorpion with Dissolvable Pumpdown Ring saved the operator an estimated 3,208 bbls of water, a 27% reduction. At \$3 per barrel, that's a savings of \$9,624. Diesel fuel consumption was also reduced by 516 gallons.



#### Features

- Improved pumpdown efficiency
- Reduced power, fuel and water requirements
- Wellbore Zonal Isolation
- Reduced Milling Time
- No Metallic Material
- Segmented backup rings
- Ceramic gripping buttons
- Compatible with 1.75" OD – 2.375" OD frac balls
- 50% faster mill-out than common plugs
- Molded and filament wound composite material for optimized performance
- Single elastomer element, compression-energized

Plug	Plug Set Depth	Top of Curve	PD footage	No PDR Bbls	PDR Bbls	Diesel - no PDR (16 bpm, 5,500 psi)	PDR (10 bpm @ 4,500 psi)
1	20984	9728	11256	405	293	43	25
2	20783	9728	11055	398	287	43	25
3	20582	9728	10854	391	282	42	24
4	20381	9728	10653	384	277	41	24
5	20180	9728	10452	376	272	40	24
6	19979	9728	10251	369	267	40	23
7	19778	9728	10050	362	261	39	23
8	19577	9728	9849	355	256	38	22
9	19376	9728	9648	347	251	37	22
10	19175	9728	9447	340	246	36	21
11	18974	9728	9246	333	240	36	21
12	18773	9728	9045	326	235	35	20
13	18572	9728	8844	318	230	34	20
14	18371	9728	8643	311	225	33	19
15	18170	9728	8442	304	219	33	19
16	17969	9728	8241	297	214	32	19
17	17768	9728	8040	289	209	31	18
18	17567	9728	7839	282	204	30	18
19	17366	9728	7638	275	199	30	17
20	17165	9728	7437	268	193	29	17
21	16964	9728	7236	260	188	28	16
22	16763	9728	7035	253	183	27	16
23	16562	9728	6834	246	178	26	15
24	16361	9728	6633	239	172	26	15
25	16160	9728	6432	232	167	25	14
26	15959	9728	6231	224	162	24	14
27	15758	9728	6030	217	157	23	14
28	15557	9728	5829	210	152	23	13
29	15356	9728	5628	203	146	22	13
30	15155	9728	5427	195	141	21	12
31	14954	9728	5226	188	136	20	12
32	14753	9728	5025	181	131	19	11
33	14552	9728	4824	174	125	19	11
34	14351	9728	4623	166	120	18	10
35	14150	9728	4422	159	115	17	10
36	13949	9728	4221	152	110	16	10
37	13748	9728	4020	145	105	16	9
38	13547	9728	3819	137	99	15	9
39	13346	9728	3618	130	94	14	8
40	13145	9728	3417	123	89	13	8
41	12944	9728	3216	116	84	12	7
42	12743	9728	3015	109	78	12	7
43	12542	9728	2814	101	73	11	6
44	12341	9728	2613	94	68	10	6
45	12140	9728	2412	87	63	9	5
46	11939	9728	2211	80	57	9	5
47	11738	9728	2010	72	52	8	5
48	11537	9728	1809	65	47	7	4
49	11336	9728	1608	58	42	6	4
50	11135	9728	1407	51	37	5	3
51	10934	9728	1206	43	31	5	3
52	10733	9728	1005	36	26	4	2
53	10532	9728	804	29	21	3	2
54	10331	9728	603	22	16	2	1
55	10130	9728	402	14	10	2	1
56	9929	9728	201	7	5	1	0
				11,549	8,341	1,239	723

Bbls Saved 3208	
Cost of Water/Bbl	\$3.00
\$ Saved	\$9,624.00
Cost per plug	\$600
Stages	56
Total Plug cost	\$33,600
Plug cost - Water Savings	\$23,976.00
Cost per plug	\$428.14

Diesel Usage	
No PDR (gal per hour)	103
PDR (gal per hour)	52
No PDR rate (bpm)	16
PDR rate (bpm)	10
Diesel saved per well (gallons)	516

For recommended safe bypass rate parameters, please refer to the Completions Technologies page at [nineenergyservice.com](http://nineenergyservice.com)

For more information, and to find a representative near you, visit [nineenergyservice.com](http://nineenergyservice.com)

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