

HD Super Slider 3 (SS3) Non-Rotating Protectors (NRP)™

Reduce torque and drag • Protect against casing, riser, and drill pipe wear
Reduce buckling, heat checking, vibration and stick-slip • Open-hole capabilities



WWT NRP Model	HD-SS3-400-SLIM	HD-SS3-400	HD-SS3-450-SLIM	HD-SS3-450	HD-SS3-500	HD-SS3-550	HD-SS3-578	HD-SS3-658-SLIM	HD-SS3-658
Drill Pipe Size	4.00"	4.00"	4.50"	4.50"	5.00"	5.50"	5.88"	6.63"	6.63"
Sleeve Max OD	5.50"	5.75"	6.25"	6.75"	7.30"	7.75"	8.00"	8.75"	9.13"
Sleeve Effective OD	5.30"	5.47"	6.00"	6.25"	6.79"	7.26"	7.52"	8.31"	8.52"
Collar OD	5.07"	5.38"	5.88"	6.00"	6.50"	7.00"	7.38"	8.13"	8.13"
Sleeve Length	12"	12"	12"	12"	12"	12"	12"	12"	12"
Sleeve Volume	111 in ³	120 in ³	153 in ³	168 in ³	177 in ³	203 in ³	206 in ³	233 in ³	252 in ³
Sleeve Weight	6.7 lbs	9 lbs	9.5 lbs	10 lbs	11 lbs	13 lbs	13.3 lbs	15.8 lbs	16 lbs
Assembly Weight	19 lbs	22 lbs	24 lbs	25 lbs	27 lbs	30 lbs	31 lbs	39 lbs	40 lbs
Continuous Side-Load Rating	2,200 lbs	2,200 lbs	3,000 lbs	3,000 lbs	3,000 lbs	3,000 lbs	4,000 lbs	5,000 lbs	5,000 lbs
Intermittent Side-Load Rating	6,600 lbs	6,600 lbs	9,000 lbs	9,000 lbs	9,000 lbs	9,000 lbs	12,000 lbs	15,000 lbs	15,000 lbs
Cross-Sectional Area	9.5 in ²	10.9 in ²	12.4 in ²	14.8 in ²	16.6 in ²	17.6 in ²	17.3 in ²	19.8 in ²	22.6 in ²
Total Flow Area									
7" x 32 ppf Csg.	7.1 in ²	5.7 in ²							
7" x 29 ppf Csg.	8.0 in ²	6.6 in ²							
7" x 26 ppf Csg.	8.9 in ²	7.5 in ²							
7-5/8" x 39 ppf Csg.	12.4 in ²	11.0 in ²	6.2 in ²						
9-5/8" x 53.5 ppf Csg.	35.1 in ²	33.7 in ²	28.9 in ²	26.5 in ²	21.0 in ²	15.8 in ²	12.8 in ²		
10-3/4" x 55.5 ppf Csg.	52.7 in ²	51.3 in ²	46.5 in ²	44.1 in ²	38.6 in ²	33.5 in ²	30.4 in ²	20.5 in ²	
13-3/8" x 72 ppf Csg.	97.7 in ²	96.3 in ²	91.4 in ²	89.0 in ²	83.5 in ²	78.4 in ²	75.3 in ²	65.5 in ²	62.7 in ²
Collar Material	6061-T651 Extruded Aluminum Alloy With Features for Wear Resistance								
Sleeve Material	Advanced Low-Friction Polymer With Proprietary Wear Additives, Nitrile Rubber and Alloy Steel Sheet								
Max. Temperature	220° F (105° C)								

Refer to document TSI017 for additional information regarding side force capabilities

Features and Benefits

- New sleeve design enhances side force capabilities.
- Positive protection against casing and riser wear during drilling and completion operations.
- Significant torque reduction created by WWT's patented fluid bearing design allows for improved ROP, RPM, and hole cleaning.
- Compatible with almost all drilling and completion fluids.
- SS3 Protector design allows for open-hole applications. Optimum operating performance range of 20 – 250 RPM.
- Each assembly accepts up to 80,000 lbs. of axial force before slippage.
- Installation time per assembly: less than 1 minute.
- Free, no-obligation, confidential torque, drag and wear analysis.
- Global leadership in some of the world's most challenging drilling environments since 1989.
- On/off-site technical support 24/7.



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