

Super 4 (S4) Non-Rotating Protectors (NRP)

Reduce rotary torque • Protect against casing, riser and drill pipe wear

Reduce buckling, heat checking, vibration and stick-slip • Open-hole capable



S4 Sizes	350	400-SLIM-RS	400-SLIM	400	450-SLIM	500	550	578	658	658-LF
Drill Pipe Size (in)	3.5	4	4	4	4.5	5	5.5	5.88	6.63	6.63
Sleeve Max OD (in)	5.5	5.5	5.5	5.75	6.25	7.3	7.75	8	9.13	9.63
Collar OD (in)	5	5.07	5.07	5.38	5.88	6.5	7	7.38	8.13	8.13
Sleeve Length (in)	12	12	12	12	12	12	12	12	12	16
Sleeve Volume (in ³)	123	102	102	127	140	196	199	202	265	386
Sleeve Weight (lbs)	8.9	6.6	7.7	9.2	10.1	11.6	12.3	12.5	15.4	25
Assembly Weight (lbs)	15.9	15.6	16.7	21.2	22.1	26.6	28.3	30.5	38.4	48
Continuous Side-Load Rating (lbs)	2,200	2,200	2,200	2,200	3,000	3,000	3,000	3,500	3,500	5,000
Intermittent Side-Load Rating (lbs)	6,600	6,600	6,600	6,600	9,000	9,000	9,000	10,500	10,500	15,000
Cross-Sectional Area (in ²)	11.2	9	9	11	12.2	17.4	17.9	17.9	24.1	26.6
Collar Material	6061 – T651 Extruded Aluminum Alloy With Features for Wear Resistance									
Sleeve Material	Proprietary High-Temperature, Wear Resistant Polyurethane									
Minimum Temperature	190° F (88°C), for fluid bearing ID									
Max Temperature	275° F (135°C)									

Features and Benefits

- Positive protection against casing and riser wear during drilling and completion operations.
- Significant torque reduction created by WWT's patented fluid bearing allows for improved ROP, RPM, and hole cleaning.
- Compatible with almost all drilling and completion fluids.
- Optimum operating performance range of 30 - 250 RPM.
- Reduces drill string and surface equipment stress.
- 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.



WWT International supports your operations from start to finish with full-service onsite mobilization and support 24/7. To find out more, visit: www.wwtco.com

