

Texas Steel Conversion TSDS 50 comparison with API NC 50

| Box OD (in) | Pin ID (in) | Make-Up Torque (ft-lbs) | Torsional Yield (ft-lbs) | Pin Tensile Yield (lbs) | Connection Size and Style RSC Type |
|---|----------------|----------------------------|-----------------------------|----------------------------|---------------------------------------|
| Values in green indicate the improved performance of TSDS over API | | | | | |
| 6 3/8 | 2 3/4 | 54,170 + 79% | 90,290 b + 79% | 1,745,600 + 12% | TSDS 50 |
| | | 30,290 | 50,484 b | 1,551,700 | API NC 50 |
| | 3 | 51,370 + 70% | 85,620 b + 70% | 1,593,200 + 12% | TSDS 50 |
| | | 30,290 | 50,484 b | 1,416,200 | API NC 50 |
| | 3 1/4 | 48,220 + 59% | 80,380 b + 59% | 1,427,500 + 12% | TSDS 50 |
| | | 30,290 | 50,484 b | 1,268,900 | API NC 50 |
| | 3 1/2 | 40,650 + 52% | 67,750 + 52% | 1,248,600 + 12% | TSDS 50 |
| | | 26,674 | 44,456 | 1,109,900 | API NC 50 |
| 6 1/2 | 2 3/4 | 58,570 + 71% | 97,620 b + 71% | 1,745,600 + 12% | TSDS 50 |
| | | 34,191 | 56,984 b | 1,551,700 | API NC 50 |
| | 3 | 55,760 + 63% | 92,940 b + 63% | 1,593,200 + 12% | TSDS 50 |
| | | 34,191 | 56,984 b | 1,416,200 | API NC 50 |
| | 3 1/4 | 48,720 + 59% | 81,200 + 59% | 1,427,500 + 12% | TSDS 50 |
| | | 30,730 | 51,217 | 1,268,900 | API NC 50 |
| | 3 1/2 | 40,650 + 52% | 67,750 + 52% | 1,248,600 + 12% | TSDS 50 |
| | | 26,674 | 44,456 | 1,109,900 | API NC 50 |
| 6 5/8 | 2 3/4 | 62,900 + 65% | 104,830 + 65% | 1,745,600 + 12% | TSDS 50 |
| | | 38,036 | 63,393 | 1,551,700 | API NC 50 |
| | 3 | 56,140 + 63% | 93,560 + 63% | 1,593,200 + 12% | TSDS 50 |
| | | 34,520 | 57,534 | 1,416,200 | API NC 50 |
| | 3 1/4 | 48,720 + 59% | 81,200 + 59% | 1,427,500 + 12% | TSDS 50 |
| | | 30,730 | 51,217 | 1,268,900 | API NC 50 |
| | 3 1/2 | 40,650 + 52% | 67,750 + 52% | 1,248,600 + 12% | TSDS 50 |
| | | 26,674 | 44,456 | 1,109,900 | API NC 50 |
| b - Torsional yield values shown in yellow indicate the connection is box weak in torsion. | | | | | |
| TSDS Values based on 135Ksi Material Yield Strength. API NC Values based on 120Ksi Material Yield Strength. | | | | | |
| Torsional values are based on using a thread compound with a 1.0 API friction factor. | | | | | |
| Pin tensile yield values are based on tensile loading conditions only, and do not include the combined effect of torsional and tensile loading. | | | | | |