

Texas Steel Conversion TSDS comparison with API Drill Pipe Connections

Connection Size and Style RSC Type	Box OD (in)	Pin ID (in)	Make-Up Torque (ft-lbs)	Torsional Yield (ft-lbs)	Pin Tensile Yield (lbs)
Values in green indicate the improved performance of TSDS over API					
TSDS 38	4 7/8	2 7/16	19,830 + 50%	33,060 + 50%	796,500 + 13%
API NC 38			13,221	22,035	708,000
TSDS 40	5 1/4	2 9/16	24,740 + 49%	41,240 + 49%	943,000 + 13%
API NC 40			16,616	27,694	838,200
TSDS 46	6 1/4	2 3/4	42,260 + 59%	70,430 + 59%	1,331,800 + 12%
API NC 46			26,615	44,359	1,183,900
TSDS 50	6 5/8	3 1/4	48,720 + 59%	81,200 + 59%	1,427,500 + 12%
API NC 50			30,730	51,217	1,268,900
TSDS 55	7 1/4	3 1/2	69,200 + 60%	115,330 + 60%	1,821,600 + 13%
API 5 1/2 FH			43,328	72,213	1,619,200
TSDS 65	8 1/4	4 3/4	79,150 + 54%	131,930 + 54%	1,887,900 + 13%
API 6 5/8 FH			51,280	85,467	1,678,100

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.