

New Tool Joints and New Drill Pipe

Pipe		Tool Joint					Drift Diameter (in)	Pipe	Tool Joint	Pipe	Tool Joint	Torsional Ratio
API Label 1 (Pipe OD) (in)	API Label 2 (Nominal Weight) (lbs/ft)	Grade	Connection Size and Style RSC Type	OD (in)	ID (in)	Make-Up Torque (ft-lbs)		Tensile Yield (lbs)	Tensile Yield (lbs)	Torsional Yield Strength (ft-lbs)	Torsional Yield Strength (ft-lbs)	
5	19.50	E	NC 50	6 5/8	3 3/4	22,361	3.625	395,595	939,000	41,167	37,269	0.91
		X	NC 50	6 5/8	3 1/2	26,674	3.375	501,087	1,109,900	52,144	44,456	0.85
		X	TSDS 50	6 5/8	3 1/2	40,650	3.375	501,087	1,248,600	52,144	67,750	1.30
		G	NC 50	6 5/8	3 1/4	30,730	3.125	553,833	1,268,900	57,633	51,217	0.89
		G	TSDS 50	6 5/8	3 1/4	48,720	3.125	553,833	1,427,500	57,633	81,200	1.41
		S	NC 50	6 5/8	3 1/2	26,674	3.375	712,070	1,109,900	74,100	44,456	0.60
		S	TSDS 50	6 5/8	3 1/2	40,650	3.375	712,070	1,248,600	74,100	67,750	0.91
		S	NC 50	6 5/8	2 3/4	38,036	2.625	712,070	1,551,700	74,100	63,393	0.86
	S	TSDS 50	6 5/8	2 3/4	62,900	2.625	712,070	1,745,600	74,100	104,830	1.41	
	25.60	E	NC 50	6 5/8	3 3/4	22,361	3.625	530,144	939,000	52,257	37,269	0.71
		X	NC 50	6 5/8	3 1/2	26,674	3.375	671,515	1,109,900	66,192	44,456	0.67
		X	TSDS 50	6 5/8	3 1/2	40,650	3.375	671,515	1,248,600	66,192	67,750	1.02
		G	NC 50	6 5/8	3 1/4	30,730	3.125	742,201	1,268,900	73,159	51,217	0.70
		G	TSDS 50	6 5/8	3 1/4	48,720	3.125	742,201	1,427,500	73,159	81,200	1.11
		S	NC 50	6 5/8	3	34,520	2.875	954,259	1,416,200	94,062	57,534	0.61
		S	TSDS 50	6 5/8	3	56,140	2.875	954,259	1,593,200	94,062	93,560	0.99
S		NC 50	6 5/8	2 3/4	38,036	2.625	954,259	1,551,700	94,062	63,393	0.67	
S	TSDS 50	6 5/8	2 3/4	62,900	2.625	954,259	1,745,600	94,062	104,830	1.11		

b - Torsional yield values shown in yellow indicate the connection is box weak in torsion.

The torsional yield strength is based on a shear strength of 57.7% of the minimum yield strength and nominal wall thickness.

TSDS Values based on 135Ksi Material Yield Strength. API NC Values based on 120Ksi Material Yield Strength.

Pin tensile yield values are based on tensile loading conditions only, and do not include the combined effect of torsional and tensile loading.