

Pipe Size:	4.000 in	Grade:	S135	Range:	2
Pipe Weight:	15.70 lb/ft	Upset:	IU	Connection:	390 DUO

### Pipe

		NEW	API PREMIUM
Pipe size	<i>in</i> 4.000	OD <i>in</i> <b>4.000</b>	3.848
Pipe weight	<i>lb/ft</i> 15.70	Thickness <i>in</i> <b>0.380</b>	0.304
Upset Type	IU	X-Sec Area <i>in<sup>2</sup></i> <b>4.322</b>	3.385
Tube grade	S135	Section Modulus <i>in<sup>3</sup></i> <b>3.578</b>	2.782
Range	2	Polar Section Modulus <i>in<sup>3</sup></i> <b>7.157</b>	5.564
Tube Yield	<i>ksi</i> 135	Tensile Yield <i>lbs</i> <b>583,000</b>	457,000
ID	<i>in</i> 3.240	Torsional Yield <i>ft-lbs</i> <b>46,500</b>	36,100
		80% Torsional Yield <i>ft-lbs</i> <b>37,200</b>	28,880
		Internal Pressure Yield <i>psi</i> <b>22,400</b>	20,500
		Collapse Yield <i>psi</i> <b>23,200</b>	18,600
		D/t <b>10.53</b>	12.66
		Connection/Tube Torsional Ratio <b>0.759</b>	

### Tool Joint

		NEW
Connection Type	390 DUO	OD <i>in</i> <b>4.875</b>
Material Yield Strength	<i>ksi</i> 130	Tensile Yield Strength <i>lbs</i> <b>732,000</b>
OD	<i>in</i> 4.875	Torsional Yield Strength <i>ft-lbs</i> <b>35,300</b>
ID	<i>in</i> 2.688	Recommended Makeup Torque <i>ft-lbs</i> <b>21,200</b>
Pin Shoulder Angle	<i>deg</i> 18	Maximum Makeup Torque <i>ft-lbs</i> <b>22,900</b>
Pin Tool Joint Length	<i>in</i> 14.0	
Box Tool Joint Length	<i>in</i> 14.0	

### Drill Pipe Assembly

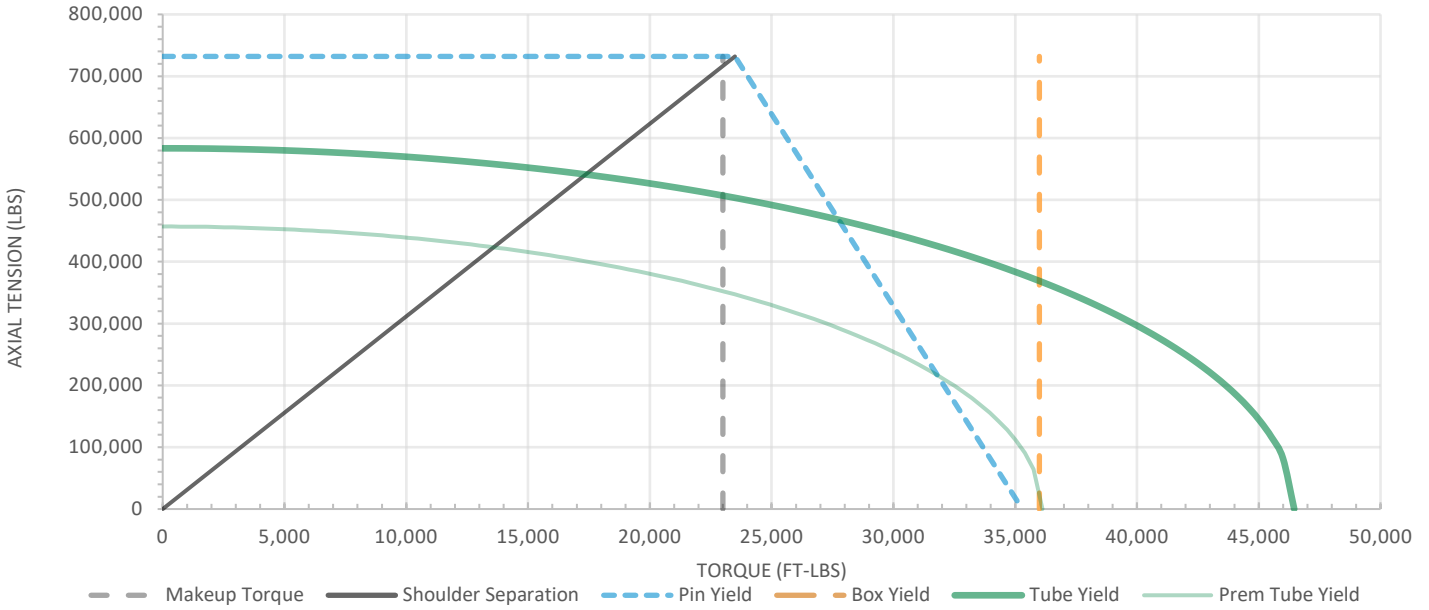
Shoulder-Shoulder Length	<i>ft</i> <b>31.50</b>	
Adjusted Weight	<i>lbs/ft</i> <b>17.17</b>	
Closed End Displacement	<i>gal/ft</i> <b>0.677</b>	<i>bbl/ft</i> 0.0161
Open End Displacement	<i>gal/ft</i> <b>0.262</b>	<i>bbl/ft</i> 0.0062
Fluid Capacity	<i>gal/ft</i> <b>0.415</b>	<i>bbl/ft</i> 0.0099
Drift Size	<i>in</i> <b>2.563</b>	

The information contained in this data sheet and other attached documentation is for reference use only. It is not intended to imply any explicit recommendation regarding processes, procedures, or performance of the end product. It is the responsibility of the end user to verify and determine the appropriate use of the technical information - no expressed or implied warranty by Complete Tubular Products is intended.

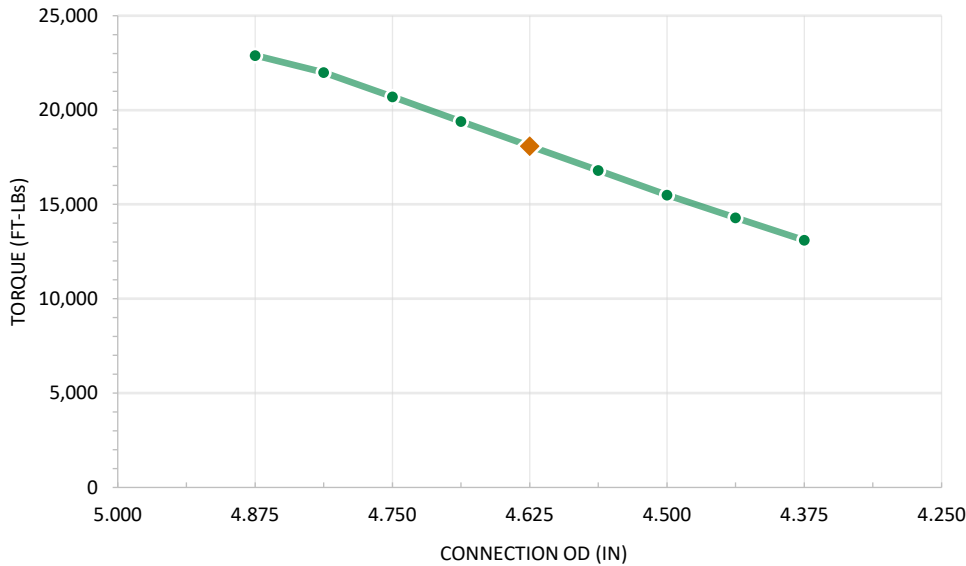
Calculations are based on uniform wall thickness and outside diameter – no safety factor has been applied. The information provided for inspection classes is based on uniform wear and is not intended to recommend or confirm operational limits of any used product. It is recommended that drilling torque not exceed 80% of the makeup torque, however it is the responsibility of the end user to determine the acceptable use of the end product including appropriate performance ratings and safety factors where applicable. All connection torque calculations have been performed using a thread compound friction factor of 1.0. Complete Tubular Products does not endorse any specific thread compound and waives all responsibility in determining appropriate makeup torque values for any specific drilling circumstance. Modifying makeup torque values for any reason shall be done at the end users discretion and risk.

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### Makeup Torque Then Tension Chart



### Connection Wear Chart



CONNECTION OD (in)	MAXIMUM MAKEUP TORQUE (ft-lbs)
4.875	22,900
4.813	22,000
4.750	20,700
4.688	19,400
4.625	18,100
4.563	16,800
4.500	15,500
4.438	14,300
4.375	13,100
MIN REC OD (in)	4.625
	18,100

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