

# Drill Pipe Performance Characteristics Sheet



**Pipe Size & Weight:** 6-5/8 34.00# IEU  
**Pipe Grade:** S-135  
**Range:** 2  
**Tool Joint Dimensions:** 8-1/2" OD x 4-1/4" ID  
**Connection:** 6-5/8 FH DS

THIS TECHNICAL INFORMATION IS FOR REFERENCE ONLY

Pipe Body Information			
	<u>New-API</u>	<u>New 95% RBW</u>	<u>Premium</u>
OD (in)	6.625	7.120	6.416
Wall Thickness (in)	.522	.560	.418
ID (in)	5.581	6.000	5.581
Calculated Plain End weights (lbs./ft)	33.988	36.540	26.726
<i>* Note: Premium Properties are calculated based on uniform OD and wall thickness.</i>			
	<u>New-API</u>	<u>New 95% RBW</u>	<u>Premium</u>
Cross Sectional area pipe body (in <sup>2</sup> )	10.008	10.760	7.870
Cross Sectional area OD (in <sup>2</sup> )	34.472	37.060	32.333
Cross Sectional area ID (in <sup>2</sup> )	24.463	26.300	24.463
Section Modulus (in <sup>2</sup> )	14.170	15.230	11.087
Polar Section Modulus (in <sup>2</sup> )	28.340	30.470	22.174
	<u>New-API</u>	<u>New 95% RBW</u>	<u>Premium</u>
Torsional Strength (ft-lbs.)	184,000	197,800	143,900
Tensile Strength (lbs.)	1,351,100	1,452,432	1,062,400
80% Torsional Strength (ft-lbs.)	147,200	158,240	115,200
Pressure Capacity (psi)	18,615	20,011	17,019
Collapse Capacity (psi)	18,500	19,888	12,435
Tool Joint Information			
<b>6-5/8 FH DS</b>			
OD (in)	8-1/2"		
ID (in)	4-1/4"		
<i>* Tool Joint with a Material Yield Strength of 120,000 psi</i>			
Pin Tong length (in)	10"		
Box Tong length (in)	15"		
<b>Torsional Strength (ft-lbs.)</b>	<b>159,700</b>		
<b>Max Recommended Make-up Torque (ft-lbs.)</b>	<b>95,800</b>		
<b>Min Recommended Make-up Torque (ft-lbs.)</b>	<b>66,500</b>		
Balance OD (in)	8.31		
<b>Tensile Strength (lbs.)</b>	<b>2,133,900</b>		
Tool Joint / Drill Pipe torsional ratio (New Pipe)	0.87		
Tool Joint / Drill Pipe torsional ratio (Premium Pipe)	1.11		
Min OD for Premium Class (in)	7.78125		
Drill Pipe Assembly w/ 6-5/8 FH Conventional Connection	Drill Pipe Bend Radius		
Adjusted Weight (lbs./ft.)	43.12	<i>* These calculations are based on new pipe with nominal wall</i>	
95% Adjusted Weight (lbs./ft.)	46.35		
Approximate Length (ft.)	31.78		
Fluid Displacement (gal./ft.)	0.660	Based on Bending Stress (psi) at Pipe OD	15,000
Fluid Capacity (gal./ft.)	1.217	Radius of Curvature ® (ft.) (@ OD of pipe)	552.1
Drift Size (in)	4.125	BUR (dogleg) deg/100 ft.	10.4