



Drill Pipe Performance Characteristics Sheet

PTECH Canada

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Pipe Size and weight: 5 44.80 EU
 Pipe Grade: HWDP
 Range: 2
 Tool Joint: 5 7/8 X 3 PTECH47+

Pipe Body			
	New-API	Premium	
OD (in)	5.000	4.600	
Wall Thickness (in)	1.000	0.800	
ID (in)	3.000	3.000	
Calculated Plain End weights (lbs/ft)	42.700	32.452	
Note: Premium properties are calculated based on uniform OD and wall thickness.			
Cross sectional area pipe body (in ²)	12.566	9.550	
Cross sectional area OD (in ²)	19.635	16.619	
Cross sectional area ID (in ²)	7.069	7.069	
Section Modulus (in ³)	10.681	7.827	
Polar Section Modulus (in ³)	21.363	15.654	
	New-API	Premium	
Torsional Strength (ft-lbs)	56,500	41,400	
Tensile Strength (lbs)	691,200	525,300	
80% Torsional Strength (ft-lbs)	45,200	33,100	
Pressure Capacity (psi)	19,250	17,600	
Collapse Capacity (psi)	17,600	15,803	
Tool Joint			
PTECH+ CONNECTION	PTECH47+		
	OD (in)	5 7/8	
	ID (in)	3	
Tool Joint with a Material Yield Strength of 110000 psi			
	Pin Tong length (in)	13	
	Box Tong length (in)	15	
	Torsional Strength (ft-lbs)	60,800	
	Recommended Make-up Torque (ft-lbs)	36,500	
	Min Recommended Make-up Torque (ft-lbs)	30,400	
	Balance OD (in)	6.035	
	Tensile Strength (lbs)	1,034,300	
	Tool joint/Drill pipe torsional ratio (New pipe)	1.08	
	Tool joint/Drill pipe torsional ratio (95% New pipe)	#DIV/0!	
	Tool joint/Drill pipe torsional ratio (Prem pipe)	1.47	
	Min OD for premium class (in)	5.594	
Drill Pipe Assembly with PTECH+ Tool Joint		Drill Pipe Bend Radius	
API Adjusted weight (lbs/ft)	44.80	* These calculations are based on new pipe with nominal wall	
Approximate length (ft)	31.50	Based on Bending Stress (psi) at Pipe OD	15,000
API Fluid Displacement (gal/ft)	0.685	Radius of Curvature (R) (ft.) (@ OD of pipe)	416.7
Fluid Capacity (gal/ft)	0.365	BUR (dogleg) deg/100 ft.	13.8
Drift Size	2.875		

TORQUE TENSION COMBINED LOAD CURVE

For PTECH47+ 5 7/8 X 3 Tool Joint with a Material Strength of 110000 psi, using a Coefficient of Friction factor of 0.08 and a Safety Factor of 1.0. On Pipe: 5 44.80 HWDP Premium Class.



