



## GULF ENGINEERING SERVICES LTD. DRILL PIPE PERFORMANCE SHEET

**Size and Weight:** 5.000" 19.50 ppf 0.362" wall IEU  
**Grade:** S-135  
**Range:** 2  
**Tool Joint:** 6.625" x 3.750" XT50

### PIPE BODY:

	Nominal 100% RBW	95% RBW	Ultra Class 90% RBW	Premium 80% RBW
OD (in):	5.000	4.964	4.928	4.855
Wall Thickness (in):	0.362	0.344	0.326	0.290
Nominal ID (in):	4.276	4.276	4.276	4.276
Tensile Strength (lbs):	712 070	673 826	635 861	560 763
Torsional Strength (ft-lbs):	74 100	70 043	66 026	58 113
Burst Capacity (psi):	17 105	18 571	17 593	15 638
Collapse Capacity (psi):	15 672	14 292	12 892	10 029

Notes: Body Properties are calculated based on uniform OD and wall thickness. Burst capacity for Nominal (100% RBW) based on 87.5% RBW per API.

### CONNECTION: XT50

Tool Joint OD (in):	<b>6.625</b>
Tool Joint ID (in):	<b>3.750</b>
Connection MYS (ksi):	120
Maximum MUT (ft-lbs):	<b>46 100</b>
Tension at Shoulder Separation @ Max MUT (lbs):	Tensile Limited
Tension at Connection Yield @ Max MUT (lbs):	864 400
Minimum MUT (ft-lbs):	<b>38 500</b>
Tension at Shoulder Separation @ Min MUT (lbs):	1 077 000
Tension at Connection Yield @ Min MUT (lbs):	1 078 000
Tool Joint Torsional Strength (ft-lbs):	76 900
Tool Joint Tensile Strength (lbs):	1 078 000

XT50 is a trademark of NOV Grant-Prideo.

Note: MUT values are based on a friction factor of 1.0. There is no published pressure rating for this connection.

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### TUBULAR ASSEMBLY:

Adjusted Weight (lbs/ft):	23.65	Fluid Displacement (gal/ft):	0.36
Approximate Length (ft):	32.0	Fluid Displacement (bbls/ft):	0.0086
Box TJ Length (in):	15	Fluid Capacity w/IPC (gal/ft):	0.71
Pin TJ Length (in):	12	Fluid Capacity w/IPC (bbls/ft):	0.0169
Upset Type:	IEU	Fluid Capacity w/o IPC (gal/ft):	0.72
Max Upset OD (in):	5.125	Fluid Capacity w/o IPC (bbls/ft):	0.0171
Drift Size (in):	3.625		

Note: These are OEM values that may vary with actual values due to mill tolerances, IPC tolerances, OEM rounding, and other factors. Pipe is purchased at a guaranteed 95% RBW. IPC is applied to a nominal thickness of 0.009".

### ELEVATOR SHOULDER:

Smooth Edge Height (in):	N/A
Smooth Edge OD (in):	N/A
SE Elevator Shoulder Capacity (lbs):	N/A
Nominal TJ OD (in):	6.500
Nominal TJ OD Elevator Shoulder Capacity (lbs):	1 270 000
Assumed Elevator Bore (in):	5.250

Note: Elevator capacity based on assumed elevator bore, no wear factor, and contact stress of 110 100 psi. An increased elevator shoulder OD increases elevator capacity without affecting make-up torque.