



## GULF ENGINEERING SERVICES LTD. DRILL PIPE PERFORMANCE SHEET

**Size and Weight:** 4.000" 15.70 ppf 0.380" wall IU  
**Grade:** S-135  
**Range:** 2  
**Tool Joint:** 5.000" x 2.563" XT39

### PIPE BODY:

	Nominal 100% RBW	95% RBW	Ultra Class 90% RBW	Premium 80% RBW
OD (in):	4.000	3.962	3.924	3.848
Wall Thickness (in):	0.380	0.361	0.342	0.304
Nominal ID (in):	3.240	3.240	3.240	3.240
Tensile Strength (lbs):	583 412	551 332	1 515 070	456 931
Torsional Strength (ft-lbs):	46 457	43 818	39 915	36 120
Burst Capacity (psi):	22 444	24 368	23 215	20 520
Collapse Capacity (psi):	23 213	22 362	20 891	18 591

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: XT39

Tool Joint OD (in):	<b>5.000</b>
Tool Joint ID (in):	<b>2.563</b>
Connection MYS (ksi):	120
Maximum MUT (ft-lbs):	<b>22 200</b>
Tension at Shoulder Separation @ Max MUT (lbs):	530 000
Tension at Connection Yield @ Max MUT (lbs):	530 000
Minimum MUT (ft-lbs):	<b>18 500</b>
Tension at Shoulder Separation @ Min MUT (lbs):	661 000
Tension at Connection Yield @ Min MUT (lbs):	662 000
Tool Joint Torsional Strength (ft-lbs):	37 100
Tool Joint Tensile Strength (lbs):	662 000

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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):	18.60	Fluid Displacement (gal/ft):	0.28
Approximate Length (ft):	32.3	Fluid Displacement (bbls/ft):	0.0068
Box TJ Length (in):	16	Fluid Capacity w/IPC (gal/ft):	0.40
Pin TJ Length (in):	14	Fluid Capacity w/IPC (bbls/ft):	0.0095
Upset Type:	IU	Fluid Capacity w/o IPC (gal/ft):	0.41
Max Upset OD (in):	4.188	Fluid Capacity w/o IPC (bbls/ft):	0.0096
Drift Size (in):	2.438		

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):	3/32
Smooth Edge OD (in):	5.188
SE Elevator Shoulder Capacity (lbs):	746 600
Nominal TJ OD (in):	5.000
Nominal TJ OD Elevator Shoulder Capacity (lbs):	576 800
Assumed Elevator Bore (in):	4.281

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.