

TDS Date (MM/DD/YY)

6/25/24

**PIPE BODY DATA**

Nominal Outside Diameter  
Nominal Wall Thickness  
Remaining Body Wall (RBW)  
Type of Thread  
Grade

Label Weight  
Plain End Weight  
Pipe Minimum Yield  
Pipe Maximum Yield  
Pipe Minimum Tensile  
Standard Drift Diameter (min)  
Alternate Drift Diameter (min)  
Pipe Body Plain End Yield  
Pipe Body Internal Yield  
Collapse Pressure - Standard  
Collapse Pressure - High

**CONNECTION DATA**

Coupling Minimum Yield  
Coupling Maximum Yield  
Coupling Minimum Tensile  
Coupling or Joint Outside Diameter (nom)  
Coupling Thread Fracture Strength  
Pipe Thread Fracture Strength  
Pull Out Strength  
Nominal Make-Up Torque or Make-up Torque Range  
Coupling Internal Yield  
Internal Yield of Joint

**WELED TUBE GENERAL INPUT CRITERIA**

Coupling Color Code  
Coupling Color Code for the Band  
Pipe Color Code Identification  
Additional Color Band (approx. 10' from box end)

Note:

Unit	Imperial	Metric	Unit
in	4.500	114.30	mm
in	0.250	6.35	mm
	95.0%	95.0%	
	GBCD	GBCD	
	WTC80	WTC80	
	11.60	11.60	
lb/ft	11.36	16.91	kg/m
ksi	80	552	MPa
ksi	N/A	N/A	MPa
ksi	90	621	MPa
in	3.875	98.42	mm
in	N/A	N/A	mm
lb	267,000	121,110	kg
psi	8,440	58,190	kPa
psi	6,350	43,780	kPa
psi	N/A	N/A	kPa

ksi	See Next Page	See Next Page	MPa
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ksi	See Next Page	See Next Page	MPa
in	See Next Page	See Next Page	mm
lb	See Next Page	See Next Page	kg
lb	See Next Page	See Next Page	kg
lb	See Next Page	See Next Page	kg
ft-lb	See Next Page	See Next Page	N-m
psi	See Next Page	See Next Page	kPa
psi	See Next Page	See Next Page	kPa

	Red
	Brown/Green
2" Band(s)	One Red, One Yellow
	N/A

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**GB Connection Performance Properties Sheet**

Rev. 0 (07/01/2024)

ENGINEERING THE RIGHT CONNECTIONS

**Casing:** 4.5 OD, 11.6 ppf  
**Casing Grade\*\*:** WTC 80 (95% RBW)

**Connection:** GB CD Butt 5.250  
**Coupling Grade:** API L-80

**PIPE BODY GEOMETRY**

Nominal OD (in.)	4 1/2	Wall Thickness (in.)	0.250	Drift Diameter (in.)	3.875
Nominal Weight (ppf)	11.60	Nominal ID (in.)	4.000	API Alternate Drift Dia. (in.)	N/A
Plain End Weight (ppf)	11.36	Plain End Area (in. <sup>2</sup> )	3.338		

**PIPE BODY PERFORMANCE\*\***

Material Specification	WTC 80 (95% RBW)	Min. Yield Str. (psi)	80,000	Min. Ultimate Str. (psi)	90,000
<b>Collapse</b>		<b>Tension</b>		<b>Pressure</b>	
API (psi)	6,350	Pl. End Yield Str. (kips)	267	Min. Int. Yield Press. ** (psi)	8,440
High Collapse (psi)	-	<b>Torque</b>		<b>Bending</b>	
		Yield Torque (ft-lbs)	25,870	Build Rate to Yield (°/100 ft)	81.5

**GB CD Butt 5.250 COUPLING GEOMETRY**

Coupling OD (in.)	5.250	Makeup Loss (in.)	4.0625
Coupling Length (in.)	8.125	Critical Cross-Sect. (in. <sup>2</sup> )	6.570

**GB CD Butt 5.250 CONNECTION PERFORMANCE RATINGS/EFFICIENCIES**

Material Specification	API L-80	Min. Yield Str. (psi)	80,000	Min. Ultimate Str. (psi)	95,000
<b>Tension</b>		<b>Efficiency</b>		<b>Bending</b>	
Thread Str. (kips)	278	Internal Pressure (%)	100%	Build Rate to Yield (°/100 ft)	69.8
Min. Tension Yield (kips)	499	External Pressure (%)	100%	<b>Yield Torque</b>	
Min. Tension Ult. (kips)	593	Tension (%)	100%	Yield Torque (ft-lbs)	8,250
Joint Str. (kips)	278	Compression (%)	100%		
		Ratio of Areas (Cplg/Pipe)	1.97		

**MAKEUP TORQUE**

Min. MU Tq. (ft-lbs)	2,740	Max. MU Tq. (ft-lbs)	5,480	Running Tq. (ft-lbs)	See GBC RP
				Max. Operating Tq. (ft-lbs)*	7,830

Units: US Customary (lbm, in., °F, lbf)

1 kip = 1,000 lbs

\* See Running Procedure for description and limitations.

See attached: Notes for GB Connection Performance Properties.

GBC Running Procedure (GBC RP): [www.gbconnections.com/pdf/RP-GB-DWC-Connections.pdf](http://www.gbconnections.com/pdf/RP-GB-DWC-Connections.pdf)

Blanking Dimensions: [www.gbconnections.com/pdf/GB-DWC-Blanking-Dimensions.pdf](http://www.gbconnections.com/pdf/GB-DWC-Blanking-Dimensions.pdf)

Connection yield torque rating based on physical testing or extrapolation therefrom

\*\* Casing properties applicable to WTC 80 (95% RBW) grade with min. yield 80 ksi.

