

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	0.290	7.37	mm
	95.0%	95.0%	
	GBCD	GBCD	
	HCP110	HCP110	
	13.50	13.50	
lb/ft	13.05	19.44	kg/m
ksi	110	758	MPa
ksi	140	965	MPa
ksi	125	862	MPa
in	3.795	96.38	mm
in	N/A	N/A	mm
lb	422,000	191,420	kg
psi	13,470	92,870	kPa
psi	N/A	N/A	kPa
psi	11,810	81,430	kPa

ksi	See Next Page	See Next Page	MPa
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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

	White
	None
2" Band(s)	One White
	Blue

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**GB Connection Performance Properties Sheet**

Rev. 0 (07/01/2024)

ENGINEERING THE RIGHT CONNECTIONS

Casing: 4.5 OD, 13.5 ppf  
Casing Grade\*\*: WTC HP P110 (95% RBW)

Connection: GB CD Butt 5.250  
Coupling Grade: API P-110



PIPE BODY GEOMETRY					
Nominal OD (in.)	4 1/2	Wall Thickness (in.)	0.290	Drift Diameter (in.)	3.795
Nominal Weight (ppf)	13.50	Nominal ID (in.)	3.920	API Alternate Drift Dia. (in.)	N/A
Plain End Weight (ppf)	13.05	Plain End Area (in. <sup>2</sup> )	3.836		

PIPE BODY PERFORMANCE**					
Material Specification	WTC HP P110 (95% RBW)	Min. Yield Str. (psi)	110,000	Min. Ultimate Str. (psi)	125,000
<b>Collapse</b>		<b>Tension</b>		<b>Pressure</b>	
API (psi)	10,690	Pl. End Yield Str. (kips)	422	Min. Int. Yield Press.** (psi)	13,470
High Collapse** (psi)	11,810	<b>Torque</b>		<b>Bending</b>	
		Yield Torque (ft-lbs)	40,170	Build Rate to Yield (°/100 ft)	112.0

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 P-110	Min. Yield Str. (psi)	110,000	Min. Ultimate Str. (psi)	125,000
<b>Tension</b>		<b>Efficiency</b>		<b>Bending</b>	
Thread Str. (kips)	443	Internal Pressure (%)	100%	Build Rate to Yield (°/100 ft)	96.0
Min. Tension Yield (kips)	687	External Pressure (%)	100%	<b>Yield Torque</b>	
Min. Tension Ult. (kips)	780	Tension (%)	100%	Yield Torque (ft-lbs)	14,870
Joint Str. (kips)	443	Compression (%)	100%		
		Ratio of Areas (Cplg/Pipe)	1.71		

MAKEUP TORQUE					
Min. MU Tq. (ft-lbs)	4,940	Max. MU Tq. (ft-lbs)	9,880	Running Tq. (ft-lbs)	See GBC RP
				Max. Operating Tq. (ft-lbs)*	14,130

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 HP P110 (95% RBW) grade with min. yield 110 ksi.