



CASING TECHNICAL DATA SHEET
4.5 x 0.337 EPL80 GBCD

Reviewed by: Sr. Quality Engineer
 Approved by: Corporate Director-QEHS

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

Unit	Imperial	Metric	Unit
in	4.500	114.30	mm
in	0.337	8.56	mm
	95.0%	95.0%	
	GBCD	GBCD	
	EPL80	EPL80	
	15.10	15.10	
lb/ft	15.00	22.32	kg/m
ksi	82	565	MPa
ksi	95	655	MPa
ksi	95	655	MPa
in	3.701	94.00	mm
in	N/A	N/A	mm
lb	361,000	163,750	kg
psi	11,670	80,460	kPa
psi	11,330	78,120	kPa
psi	N/A	N/A	kPa

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

ksi	See Next Page	See Next Page	MPa
ksi	See Next Page	See Next Page	MPa
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

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)

	Red
	One Brown
2" Band(s)	One Red, One Brown
	White

Note:

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GB Connection Performance Properties Sheet

Rev. 0 (07/01/2024)

ENGINEERING THE RIGHT CONNECTIONS

Casing: 4.5 OD, 15.1 ppf
Casing Grade:** WTC EP L80 (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.)	0.337	Drift Diameter (in.)	3.701
Nominal Weight (ppf)	15.10	Nominal ID (in.)	3.826	API Alternate Drift Dia. (in.)	N/A
Plain End Weight (ppf)	15.00	Plain End Area (in. ²)	4.407		

PIPE BODY PERFORMANCE**

Material Specification	WTC EP L80 (95% RBW)	Min. Yield Str. (psi)	82,000	Min. Ultimate Str. (psi)	95,000
Collapse		Tension		Pressure	
API (psi)	11,330	Pl. End Yield Str. (kips)	361	Min. Int. Yield Press. ** (psi)	11,670
High Collapse (psi)	-	Torque		Bending	
		Yield Torque (ft-lbs)	33,700	Build Rate to Yield (°/100 ft)	83.5

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. ²)	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
Tension		Efficiency		Bending	
Thread Str. (kips)	385	Internal Pressure (%)	100%	Build Rate to Yield (°/100 ft)	69.8
Min. Tension Yield (kips)	499	External Pressure (%)	100%	Yield Torque	
Min. Tension Ult. (kips)	593	Tension (%)	100%	Yield Torque (ft-lbs)	14,110
Joint Str. (kips)	385	Compression (%)	100%		
		Ratio of Areas (Cplg/Pipe)	1.49		

MAKEUP TORQUE

Min. MU Tq. (ft-lbs)	4,690	Max. MU Tq. (ft-lbs)	9,380	Running Tq. (ft-lbs)	See GBC RP
				Max. Operating Tq. (ft-lbs)*	13,400

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

Blanking Dimensions: 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 EP L80 (95% RBW) grade with min. yield 82 ksi.

