

Tubing Data & Performance Sheet

2.875" 7.90 ppf R-2 P-110 PH-6 Type

TUBE BODY DATA

Tube OD	2.875 in.
Wall Thickness	.276 in.
Tube ID	2.323 in.
Tensile Yield Strength	194,100 lbs. (API Premium 80% Inspection Class)
Torsional Yield Strength	11,005 ft./ lbs. (API Premium 80% Inspection Class)
Compression Yield Strength	248,000 lbs.
Tube Burst	16,896 psi. (API Premium 80% Inspection Class)
Tube Collapse	16,082 psi. (API Premium 80% Inspection Class)
Bending Yield Strength	175 ° / 100 ft.

CONNECTION DATA

Connection	PH-6 Type
Connection OD	3.438 in.
Connection ID	2.265 in.
Make-Up Loss	3.040 in.
Drift	2.229 in.

Item No. : TUB278PH6P110

Notes:

¹ Operational Rotating Torque is provided to allow for additional rotating torque, if needed, based on well conditions. Operational Rotating Torque is based on 80% of the connection's torsional yield value. **DO NOT** apply Operational Rotating Torque with tubing tongs during connection make up. Operational Rotating Torque may only be applied with equipment designed to rotate the entire tubing string while inside the well. Maximum Make Up Torque should be applied to the connection prior to using Operational Rotating Torque, with calibrated tubing tongs. Connection Breakout Torque may be approximately 80% of the maximum Operational Rotating Torque applied to the tubing. Extra care should be taken during the Connection Breakout process to prevent damage to the tubing as well as the tubing handling equipment.

The technical information contained herein, including the product performance sheet and other attached documents, has been extracted from information available from the manufacturer and is for reference only and not a recommendation. The user is fully responsible for the accuracy and suitability of use of the technical information. Patterson Servicers, Inc. cannot assume responsibility for the results obtained through the use of this material. No expressed or implied warranty is intended. Drill pipe assembly properties are calculated based on uniform OD and wall thickness. No safety factor is applied. The information provided for various inspection classes and for various wear conditions (remaining body wall) is for information only and does not represent or imply acceptable operation limits. It is the responsibility of the customer and the end user to determine the appropriate performance ratings, acceptable use of the product, maintain safe operational practices, and to apply a prudent safety factor suitable for the application. For API connections that have different pin and box IDs, tool joint ID refers to the pin ID. Per Chapter B, Section 4 VII of the IADC drilling manual, it is recommended that drilling torque should not exceed 80% of MUT.

MAKE-UP TORQUE

Make Up Torque - Minimum	3,500 ft./ lbs.
Make Up Torque - Optimum	3,938 ft./ lbs.
Make Up Torque - Maximum	4,375 ft./ lbs.
¹ Operational Rotating Torque	8,678 ft./ lbs.

CONNECTION PERFORMANCE

Tension Efficiency	108 %
Compression Yield	284,042 lbs.
Torsional Yield	10,848 ft./lbs.
Bending Yield Strength	210.3 ° / 100 ft.
Connection Burst	18,480 psi.
Connection Collapse	19,090 psi.

FEATURES

Hardbanding	None
-------------	------



WWW.PATTERSONSERVICES.COM

Alice, Texas
361-668-8231

Broussard, Louisiana
337-359-9900

Elk City, Oklahoma
580-243-0055

Odessa, Texas
432-563-2172

Washington, Pennsylvania
724-222-1219

Williston, North Dakota
701-572-1914