

TWO-STEP HD

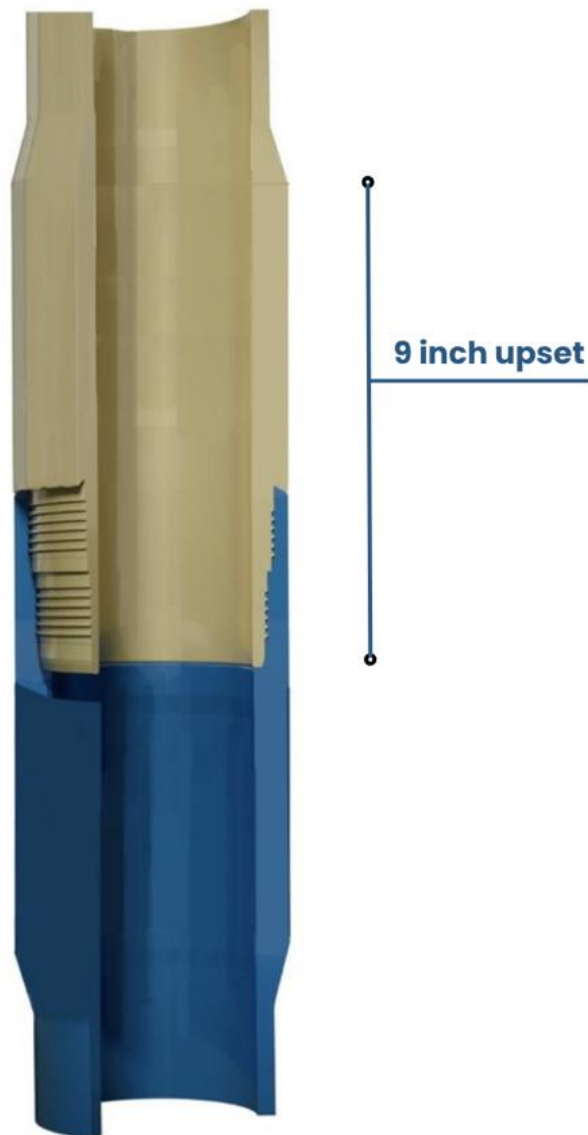
2.875" 7.90 LB/FT (0.276" WALL) – P110

One piece forged 9" upset
Suit to last longer

Long HD Upset:
9.0" $\pm$ 0.5" upset end
length

More Wall. More Life:
Min.wall 99%
Typical delivered wall 102%

High Torque Performance:
Torsional Yield 11,300 ft·lbf
Operating Torque 9,040 ft·lbf



TWO-STEP HD — Pipe Tubing Specification

1. Green Pipe Data

Parameter	Nominal	Min.	Max.
Outside Diameter (in)	2.874	2.874 (-0.0%)	2.905 (+0.031 in)
Wall Thickness (in)	0.276	0.274 (-0.7%)	0.289 (+4.9%)
Weight (lb/ft)	7.67	7.67 (0.0%)	8.17 (+6.5%)



More Wall. More Life

2. Pipe Body Data

Nominal Weight:	7.90	lb/ft
Material Grade	P110	
Upset End Length:	9.0 ± 0.5	in
Yield Strength	110,000	psi
Tensile Strength	125,000	psi
Nominal ID:	2.323	in
API Drift Diameter:	2.229	in
RBW	87.50%	
Body Yield:	247,900	lb
Burst:	18,480	psi
Collapse:	19,090	psi

3. Connection Data

Standard OD:	3.438	in
Pin Bored ID:	2.265	in
Critical Section Area:	2.254	in ²
Tensile Efficiency:	100%	
Compressive Efficiency:	100%	
Longitudinal Yield Strength:	247,900	lbf
Compressive Limit	239,200	lbf
Internal Pressure Rating:	18,480	psi
External Pressure Rating:	19,090	psi
Maximum Bend Rating	90	°/100ft



Real number. Real performance

4. Operational Data

Minimum Makeup Torque:	3,500	ft*lb
Optimum Makeup Torque:	3,950	ft*lb
Maximum Makeup Torque:	4,400	ft*lb
Recommended operating Torque*	9,040	ft*lb
Torsional Yield	11,300	ft*lb
Makeup Loss:	3.032	in

Notes:

* Operating Torque is restricted by workover rig equipment, the listed value is indicative and should be verified



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