



## HYDRA 4.5in. x 11.6 lb/ft P110 EB Flush Joint



### Pipe Body

Nominal OD	4.500	inches
Nominal Weight	11.60	lb/ft
Wall Thickness	0.250	inches
Plain End Weight	11.36	lb/ft
Standard Drift	3.875	inches
Nominal ID	4.000	inches
Grade	P110 EB	
Min Yield	125,000	lb/in <sup>2</sup>
Min Tensile	130,000	lb/in <sup>2</sup>
Critical Section Area	3.338	in <sup>2</sup>
Pipe Body Yield Strength	417	kips
Min Internal Yield Pressure	12,150	psi
Collapse Pressure	0	psi

### Connection

Connection OD	4.500	inches
Make Up Loss	4.038	inches
Critical Section Area	2.003	in <sup>2</sup>
Internal Pressure Rating	9,720	psi
External Pressure Rating	0	psi
Tension Efficiency	60%	
Connection Strength	250	kips
Compression Efficiency	250	kips
Uniaxial Bend Rating	79	° / 100 ft
Reference Depth	14,683	Ft.
Optimal Make Up Torque	4,205	ft-lbs 
Min	3,494	ft-lbs 
Max	4,915	ft-lbs

v1.0

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The performance properties in these data tables are calculated per API 5C3. Calculations are based on nominal wall thickness. Loads do not reflect a design safety factor for walls thinner than nominal or other defects. Reference Depth = Connection Strength/ (PE Wt./Ft)\*(1.5). Reference Depth includes a 1.5 design factor. However, it does not consider bending, temperature, buoyancy or other load considerations.



## Torque Data Sheet - HYDRA

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Min Make Up Torque	3,494	ft-lbs	Nom Shoulder Torque	500	ft-lbs
Max Make Up Torque	4,915	ft-lbs	Max Operating	7,386	ft-lbs
Optimum Torque	4,205	ft-lbs	Yield	8,864	ft-lbs

