

Thermal Tubing Drain

Tubing drains allow production tubing to be reliably drained prior to pulling out of the hole. This prevents the difficult and environmentally unfriendly process of pulling wet tubing.

For wells with extreme temperatures, such as in SAGD fields, standard tubing drains with elastomeric seals struggled to perform. Standard seals would break down due to the extreme heat. High temperature elastomers are often prohibitively expensive and only performing marginally better than standard seals. These challenges led to the development of the Plainsman Thermal Tubing Drain.



Features

- No elastomeric seals – designed for hot hole environments – Max 370°C (700°F)
- Sleeve has milled profile configured to burst within $\pm 10\%$ of specified pressure
- Patent Pending Technology
- Rebuildable: A burst sleeve can be replaced, and the body can be reused.
- Sleeve is coated with electroless nickel to reduce corrosion effects
- Press fit helps protect burst profile from Stress Corrosion Cracking (SCC)
- Separate sleeve decouples the burst window from stresses that pass through the body

Specifications

- API 5CT EUE Connections – Available in Pin-by-Box or Box-by-box connection
- Material is compliant with NACE MR0175/ISO 15156
 - Bodies are L80 material
 - Sleeves are 1026 and ENC coated, unless otherwise specified

THREAD	OD	ID	DRIFT	BOX-BY-BOX LENGTH	PIN-BY-BOX LENGTH	BURST FLOW AREA
2-3/8" EUE	2.91" (73.9 mm)	2.00" (50.7 mm)	1.901" (48.29 mm)	7.38" (187 mm)	TBD	1.0in ² (6.7 cm ²)
2 7/8" EUE	3.46" (87.9 mm)	2.44" (62.0 mm)	2.347" (59.61 mm)	8.00" (203 mm)	11.00" (279 mm)	1.5in ² (9.9 cm ²)
3 1/2" EUE	4.18" (106.2 mm)	2.99" (75.9 mm)	2.867" (72.82 mm)	9.10" (231 mm)	TBD	2.2in ² (14.3 cm ²)
4 1/2" EUE	5.56" (141.3 mm)	3.96" (100.5 mm)	3.833" (97.36 mm)	10.00" (254 mm)	TBD	3.7in ² (23.8 cm ²)

1. Burst pressure is specified by the customer and can be expected to be $\pm 10\%$
2. For hot hole applications, burst pressure may be less than specified

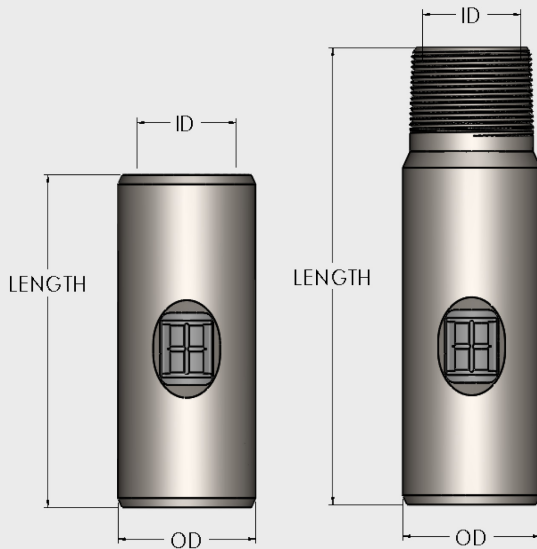


Figure 1: Dimensions



Figure 2: Burst Sleeve Example