

EA1504 Packer Penetrator and Crossover System



Useful for Mudline and Deep Set Packers

| | |
|---|---|
| Packer Penetrator: 2 inch maximum diameter | Suitable for installation with limited space. |
| Supplied with cable above and below the packer | Minimal training required for installers. |
| Penetrators use separate cross-over adapters. | Ease of installation. No need to rotate the penetrator in the packer. |

Simplified Installation

Penetrators may be installed either above the packer or below the packer, with equivalent performance. Penetrators may be attached to ESP cable using splices or mechanical splice devices.

The Packer Penetrator is supplied with factory-installed cable on both sides of the packer. The recommended length is 30-ft of cable on both the top and bottom of the penetrator. Penetrators may be attached to ESP cables using conventional splices, or supplied factory molded to otor Lead Extensions.

These penetrators are installed using separate cross-over adapters, which thread directly into the packer, using pipe threads. This avoids the need to rotate the penetrator in the packer, when long sections of cable are attached.



EA1504 Crossover shown below the packer, and as a cut-away view. Assembly on left is shown installed in a small secondary bore. ESP cable can be supplied with factory molded MLE to avoid splicing below the packer.



EA1504 Crossover shown above the packer, and as a cut-away view. Assembly on left shown installed in a packer with larger secondary bore.

Performance Features

When used with deep-set packer, this penetrator can be installed below the packer, with an integrally molded motor lead extension attached. Using this configuration, splicing is eliminated within the harsh environment below the packer.

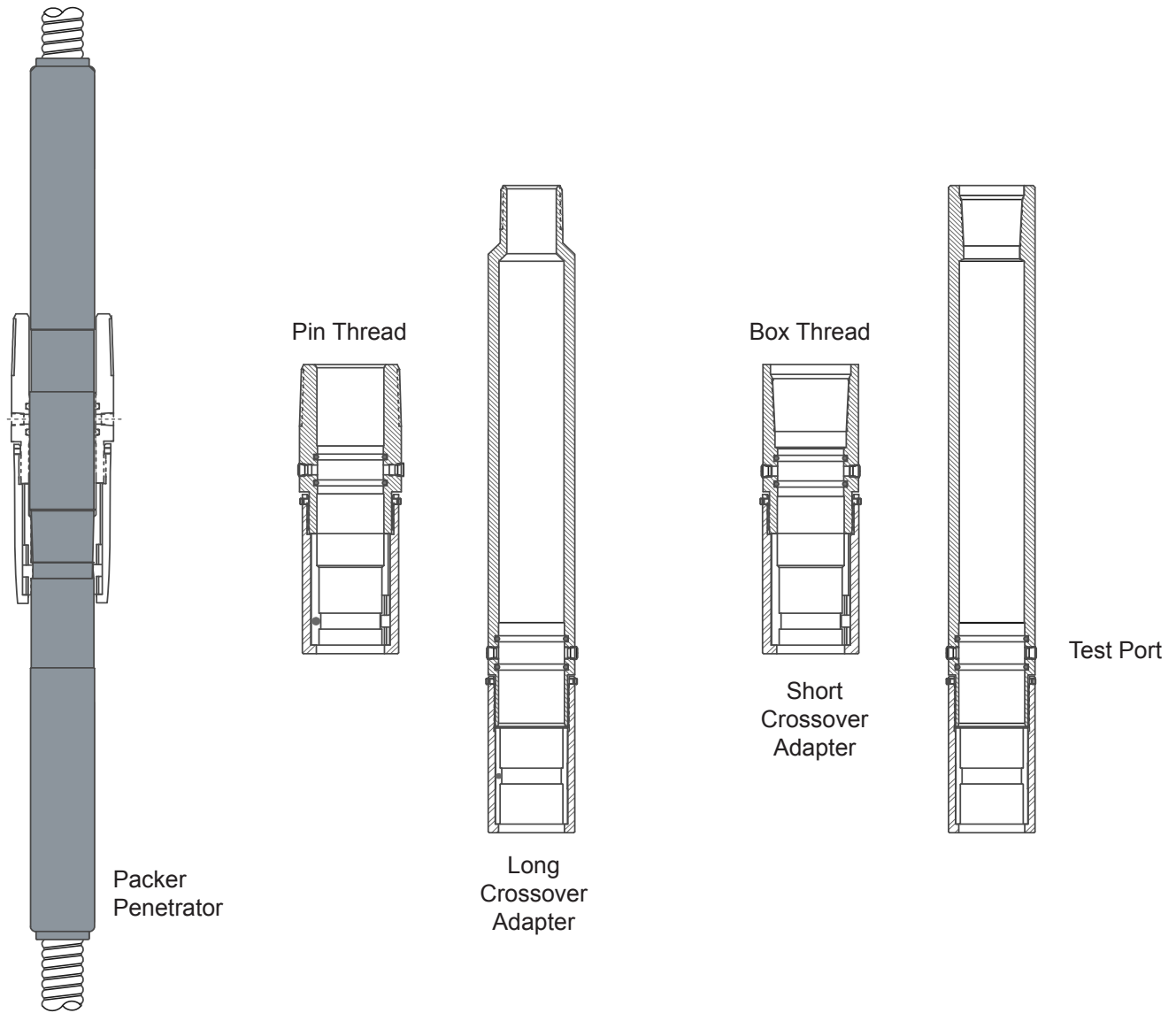
Packer Penetrators are manufactured with outer housings made from NACE compliant 4130 Alloy Steel, suitable for sour service. For situations demanding more corrosion resistant metallurgy, Series 410 corrosion resistant steel and Monel 400 are also offered. Cross-over adapters are offered in matching materials.

All cross-over adapters for these packer penetrators are supplied with two test ports, 180-degrees apart, to allow for verification of the O-rings seals between the penetrator and the sealing bore of the adapter.

Rating Table

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|--------------------|-----------------|
| Voltage | 5 kV |
| Current | up to 140 A |
| Temperature | 300 °F (149 °C) |
| Pressure | 5000 psi |

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Options Table

| Length | | Diameter | | Test Port Size | Thread (pin or box) | Material |
|-------------------------|-----------|-------------------|-----------------|----------------|---------------------|------------------|
| Packer Penetrator | 28 inch | Crossover Adapter | 2.6-3.09 inch | 1/4 inch NPT | 1.9 NU-10 RD | 4130 Alloy Steel |
| | 711 mm | | | | 2-3/8 EU-8RD | 410 Stainless |
| Long Crossover Adapter | 20.3 inch | Packer Penetrator | 1.95-2.0 inches | | 2-3/8 EU-10RD | Monel |
| | 516 mm | | | | 44-51 mm | 2-7/8 EU-8RD |
| Short Crossover Adapter | 9.08 inch | | | | | |
| Adapter | 231 mm | | | | | |