Corrosion Protection for pipelines

Heat-shrinkable sleeves for oil, gas and water pipelines

SEALFORLIFE Industries

Covalence® Heat Shrinkable Technology

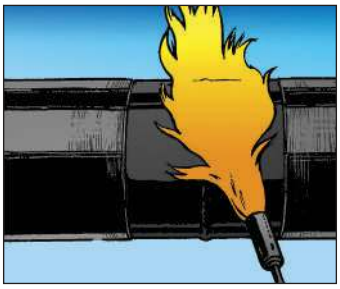
TESI

Covalence® heat shrink sleeves provide **long term corrosion protection** and strong mechanical strength performance for oil, gas and water pipelines. Covalence® offers a broad range of **field joint coating solutions** based on an irradiated cross-linked polyolefin backing combined with a hot melt or mastic pressure sensitive adhesive.

Installation phases

1. SURFACE PREPARATION

Blast-clean the steel to SA 21/2 and sweep-blast adjacent line coating to roughen-up the surface.
On certain sleeve types (power wire) brushing is allowed.



2. PRE - HEAT JOINT AREA

Most sleeves require a steel preheat of 50°C – 80°C (122°F – 176°F). This is easy to achieve using propane gas torches. Induction heating can be used for sleeve types requiring a preheat temperature greater than 150°C (302°F).
Note: 3-layer sleeves require the application of liquid epoxy after preheat.

3. SHRINK THE SLEEVE

Using a propane torch, heat is applied to the sleeve, which has been wrapped around the preheated area. Every part of the sleeve needs to receive a minimum amount of heat. The Permanent Change Indicator (PCI) gives guidance to the applicator both before and after shrinking.

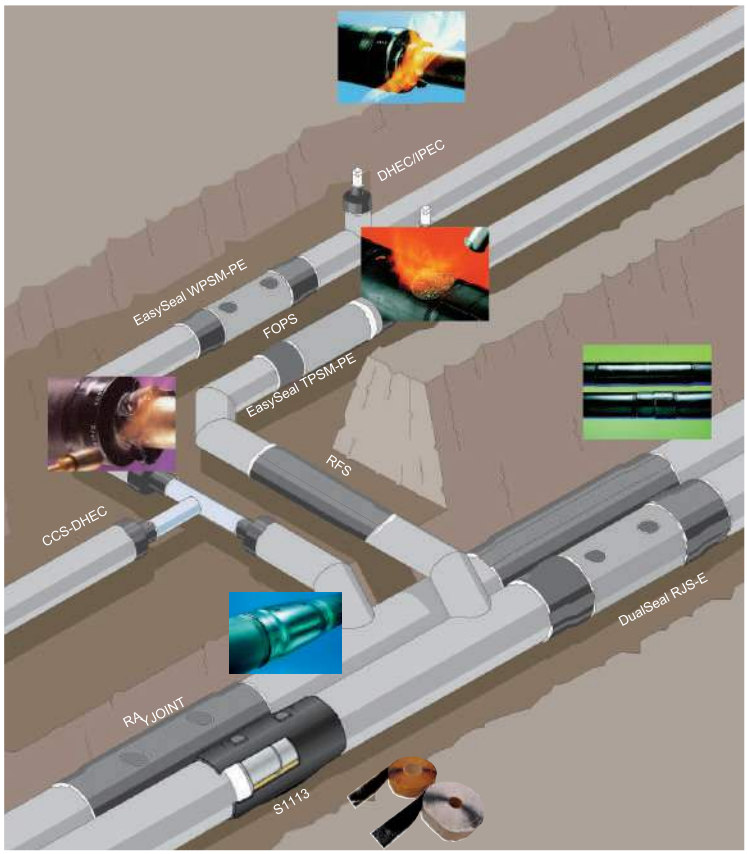
Reliable installation

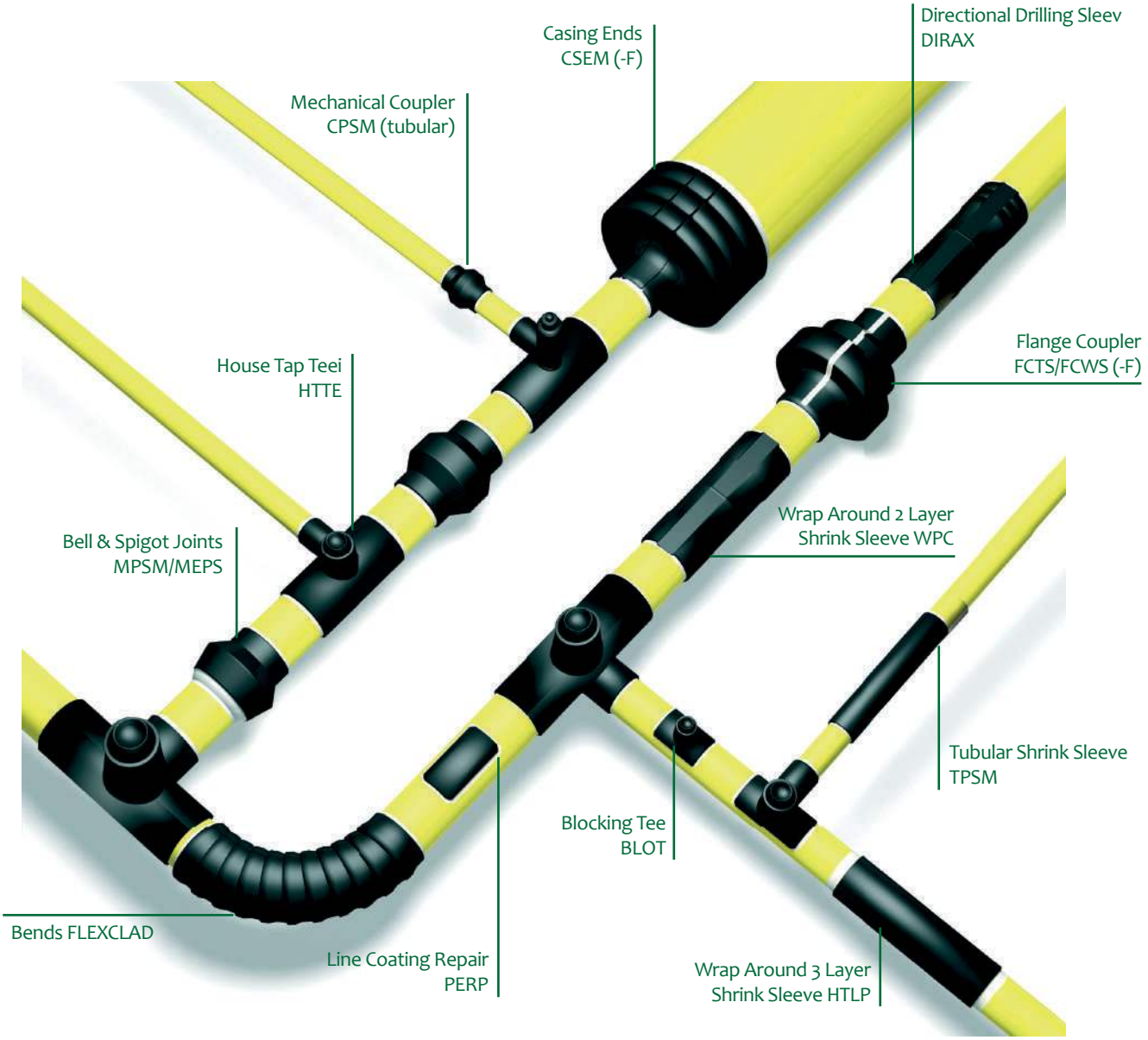
An accurate visual inspection of each sleeve is the key. The dimpled backing of Covalence® heat shrink sleeves offers a **permanent change indicator (PCI)** resulting in reliable installations and full inspectability at any time after installation. These dimples vanish permanently on receiving the correct amount of heat during preheat.

District Heating range

Seal For Life Industries is a **total solution provider** for jointing and sealing techniques in district heating. The product range includes: joint casings & sealing heat shrinksleeves (wraparound and tubular), foaming hole closures, end caps and sealants. In addition, Seal For Life has also designed products based on modern polymer technology for **transmission pipelines and gas and water utilities.** Millions of pre-insulated pipe joints have been sealed with Seal For Life products.

A comprehensive product range answers every application need in a district heating network.





Features and Benefits

- Easy-to understand installation instructions are shipped with every product and clear labeling allows **rapid on-site identification.**
- **Excellent resistance to cathodic disbondment,** hot water immersion, thermal aging and soil stress at maximum-rated operating temperature.
- Systems come in various thicknesses and **conform to all pipe diameters.**
- Covalence® has **40+ years** of proven in-service performance.
- WPC and HTLP products available in Unisleeve construction - with pre-attached closure patch.
- No primer required for two-layer products - install directly on cleaned, preheated surface.
- No waiting for primers to cure – install three-layer sleeves directly over wet epoxy primer.
- Dimpled backing providing a patented **"permanent change" indicator** for application of heat.
- Mastic-coated sleeves balance **performance, economy and ease of installation.**

Two-Layer Heat Shrink Sleeve

The **Covalence® two-layer sleeve system** consists of a first layer of a mastic pressure sensitive adhesive and a second layer of irradiated cross-linked polyethylene backing. The two-layer system is widely used with FBE, coal tar, epoxy, polyurethane and PE tape mainline coatings. Wire brush cleaning is suitable for all Covalence two-layer systems. It is recommended, anyway, to always **refer to installation instructions.**

Three-Layer Heat Shrink Sleeve

The **Covalence® three-layer sleeve system** consists of an initial epoxy primer layer with a second layer of a hot melt adhesive and a top layer of irradiated cross-linked polyethylene or polypropylene backing. Covalence three-layer sleeves are designed for use with three-layer PE or PP mainline coatings.
Blast cleaning is required for Covalence three-layer systems.
DIRAX system is a patented three-layer formulation designed specially for HDD installations.

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