Thru-Kote™ U.B.

Thru-Kote™ U.B. is a welded connection system for joining internally coated pipelines and piping systems. The Thru-Kote U.B. system utilizes a patented insert sleeve designed to protect the internal coating during the welding process. This system offers an economical and flexible method of field construction while eliminating expensive custom fabrication.

Advantages

- Applicable to onshore/offshore pipelines as well as plant/municipal pipe systems worldwide
- Available for all pipe sizes and grades
- Compatible with Tube-Kote™ liquid or powder coatings
- Field applied, heat cured mastic forms a smooth surface at sleeve edge providing a continuous barrier
- Full penetration, 100% X-Rayable welds to API 1104 and ASME 31.3, Chapter 9
- Accommodates internal pigging equipment
- Utilized with pipe field cuts to achieve exact length requirements.
- Fast assembly and easy fabrication

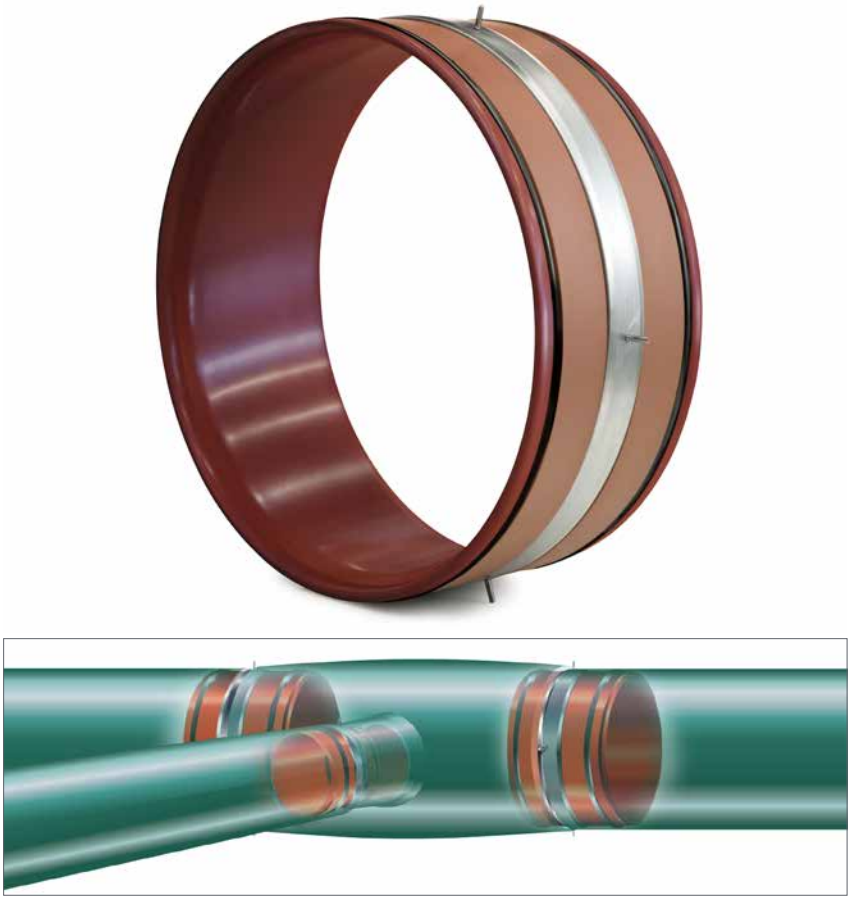

Illustration of Thru-Kote U.B. Sleeves

Thru-Kote Recommended Installation Procedures

1. Ensure that pipe ends are clean and damage free. Gauge inside diameter with field gauge provided. No resistance should occur. Inspect Thru-Kote U.B. sleeve for coating damage or other harmful defects, making sure that o-rings and heat tape are in place.
2. In all applications TK™ Epoxy system must be used. While wearing protective gloves mix product according to manufactures specification. Pot life depends on ambient temperature, however at 80°F *(26.6°C)* it is approximately 30 to 45 minutes. At a point ½" *(12.7 mm)* inward from the bevel apply a ¾" *(19 mm)* band of epoxy 1⁄16" *(1.6 mm)* thick. This amount should form a good bead at both ends of the sleeve after installation. Ensure that epoxy does not get on bevel face.
3. Insert Thru-Kote U.B. sleeve into the prepared pipe end until the backing ring posts are against the weld bevel. A slight resistance may be encountered, however, the sleeve must be inserted by hand and never hammered. Insert the next prepared pipe end over the protruding sleeve until the backing ring posts contact the bevel.
4. Standard, API 1104 or ASME 31.3, Chapter 9 weld procedures are applicable to this process. Use lowest possible heat setting of welding machine to achieve this goal. Area where welding is done must be well ventilated and protected from inclement weather. Pipe coatings and epoxy system may burn and give off harmful fumes during welding. Please consult the MSDS of these products for respirator usage.
5. If preheating is desired it can be done from the OD surface after application of epoxy, not to exceed 250°F *(121°C)*. The ground lead should be attached mechanically to either pipe end. It should never be tack welded or attached in the center of the pipe. An external pipe clamp may be used to assist in alignment and securing ends against weld tabs. When tack welding ends, never tack on top of a weld tab.
6. All welding must be downhill at 7 to 10 inches *(175 to 250 mm)* per minute, a weep hole of ½" to 1" *(12.7 to 25.4 mm)* must be left to allow expanding gas to escape.
7. Do not start intermediate passes until the weld has cooled to 250°F *(121°C)* or less. The weep hole can be closed at the beginning of the first filler pass. Apply as many passes as necessary to complete the weld, always welding downhill, and removing slag and other weld products between passes.
8. Please consult your Tuboscope representative if deviations from above procedures are required.

Tuboscope | NOV Wellbore Technologies
2835 Holmes Road
Houston, Texas 77051, USA
Phone 346 223 6100
tuboscopesales@nov.com nov.com/tuboscope