USER'S INSTRUCTION OF ELECTROFUSION LINING PROCEDURES

FOR COUPLER, 45/90 ELBOW, 3WAYTEE, CAP, REDUCER, etc.

JOINING PROCEDURE

STANDARD JOINING PROCEDURES

- 1. Pipe ends must be cut square removing any burrs or shavings that may have developed during cutting process. Make sure pipe is not out of round and reround if necessary.
- 2. Clean Pipe ends inside and out with a clean lint free cloth to remove dirt or contaminates. Recommend to use 96% isopropyl alcohol.
- 3. Utilizing scraping tool, scrape pipe ends to remove oxidation and any surface contamination.
 - **CAUTION**: After scraping, protect virgin surface from contamination prior to fusion. (Do not touch inside of fitting or scraped pipe surfaces with hand.)
- 4. Leaving bag over fitting for temporary protection. Utilizing center line marking on coupling, mark stab depth on pipe with permanent marker.
- 5. Remove fitting from plastic bag, sliding fitting onto pipe until reaching center stops.
- 6. Place fitting into recommended clamping device to secure fitting if it is required.
- 7. The fusion processor should be connected to an adequate power source (Minimum 5KW generator, 30Amp circuit) NOTE: If utilizing generator, warm generator up before plugging in processor (Auto throttle should be in off position).
- 8. Make sure to check fitting for correct fusion time and cooling time with reading on processor. If readings match, start fusion if not, refer to COSMOIND EF installation manual.
- 9. After fusion completed, clamping device should remain in place during the recommended cooling time in COSMOIND EF operation manual

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WARNING

- Check processor Operation Manual for electrical requirements & operating instructions.
- Make sure processor is grounded properly prior to use.
- Check all markings on pipe to make sure it is certified to industry standards prior to performing electrofusion.
- Make sure pipe surfaces are dry and clean & scraped properly, prior to installation of fittings.
- Clamping device must remain in place during the recommended (clamp) cooling time in training manual.

NOTICE

To assure the joint quality of this Electrofusion fitting, the operator must follow established joining procedures. Complete and total instructions for procedures can be found in the COSMOIND Training and Qualification manual. As a qualified Electrofusion Operator, you should have one of these manuals in your possession and be totally familiar with the instructions. For additional copies of the manual, contact COSMOIND. For assistance call COSMOIND at (336) 270-4333 or www.cosmoindusa.com

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USER'S INSTRUCTION OF ELECTROFUSION LINING PROCEDURES FOR STD/HV TAPPING TEE, BRANCH SADDLE, GASKET SADDLE, ETC.

JOINING PROCEDURE

STANDRD PROCEDURE FOR SADDLE FUSION

- 1. Clean Joining surface of pipe with a clean cloth to remove dirt or contaminates.
- 2. Center Saddle fusion fitting (while still in bag) on fusion area of pipe & mark pipe with permanent marker
- 3. Utilizing scraping tool, scrape entire pipe surface required for saddle fusion to remove oxidation until virgin material is exposed. We recommend(not required) wiping fusion area of pipe with clean lint free 96% isopropyl alcohol wipe.
- 4. Do not touch fusion zone of pipe or fitting prior to fusion.
- 5. Position saddle on scraped surface utiltzing premarked area for proper alignment.
- 6. Remove sadlle fitting from bag and attach fitting to main by utilizing plastic undercarriage, nylon straps, or clamping device. It is imperative for a tight fit between saddle fitting and PE main. Utilizing hand tool only tighten installation hardware until saddle fitting comes into tight contact with main, yielding no movement. Assure proper tightness has been achieved by grabbing the outlet of the saddle fitting verifying there is no movement of saddle on the main. (Pipe Ovality may create a gap between fusion mat and pipe. if this occurs, remove saddle from main, re-round pipe prior to installation.) WARNING: TIGHTEN SADDLE FITTING WITH HAND TOOLS ONLY. USE OF PNEUMATIC OR AIR TOOLS IS STRICTLY PROHIBITED & OVERTIGHTENING CAN CAUSE NUT TO SEPARATE FROM FLANGE.
- 7. The Universal Electrofusion processor should be connected to an adequate power source(Minimum 5KW generator, 30 Amp Circuit. Do not utilize 20 Amp pulg or extension cord) If utilizing generator, warm generator up before plugging in processor(auto throttle should be in off position)
- 8. Make sure to check fitting for correct fusion time and cooling time with reading on processor. If readings match, start fusion. If not, refer to COSMO I&D EF Installation Manual.
- 9. After fusion is completed, Clamping Device should remain in place during the recommended cooling time in COSMO I&D installation manual. COSMO I&D Plastic and Nylon undercarriages may remain on pipe after fusion or may be removed after recommended cooling time.

PRODECURE FOR TAPPING MAIN (to be used with Tapping Tees only)

- 10. Do not start tapping procedure until total cooling time has elapsed for EF fitting
- 11. Remove cap of tapping tee and insert tapping tool. When utilizing High Volume Tapping Tee Tool, rotate safety ring clockwise into cutter until it stops.
- 12. Screw tapping tee cutter into main with tapping tool. Tapping tool is equipped with traval stop that will bottom out indicating tap is complete.
- 13. Back out cutter with tapping tool and seal against top of tapping tee body. Make sure there is no leak. This will assure that cutter does not restrict flow of gas in outlet of tee.
- 14. Install tapping tee cap. Utilize special cap tool or hand tighten until cap O-rings are properly sealed.
- 15. Optional protective sleeve can be slipped over the outlet of the tapping tee to reduce stress on outlet connection.

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WARNING

- The Operator must be qualified in accordance with DOT 49CFR Part 192.
- Check processor Operation Manual for electrical requirements & operating instructions.
- Make sure processor is grounded properly prior to use.
- Check all markings on pipe to make sure it is certified to industry standards prior to performing electrofusion.
- Make sure pipe surfaces are dry and clean & scraped properly prior to installation of fittings.
- Clamping device must remain in place during the recommended (clamp) cooling time in training manual.

NOTICE

To assure the joint quality of this Electrofusion fitting, the operator must follow established joining procedures. Complete and total instructions for procedures can be found in the COSMOIND Training and Qualification manual. As a qualified Electrofusion Operator, you should have one of these manuals in your possession and be totally familiar with the instructions. For additional copies of the manual, contact COSMOIND.

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