

Installation of forever heat shrinkable sleeves

----Special tools

Blast burner Fire torch with nozzles
Shovel Scissors Steel wire brush
Grinder Thermometer Pressure roller
Abrasive cloth Cotton yarn

1. Rust Removing the Pipe first

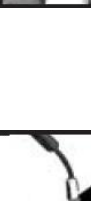
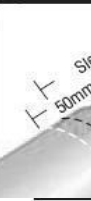
- ① Use grinders to smooth the welding seam and make sure there are no water, oil and other adherent substances on it.
- ② Shear the pipe exterior coatings on both butt ends to bevel edges, use abrasive clothes or steel wire brushes to scrub the areas of pipe exterior coatings which will connect with heat shrinkable sleeves
- ③ Pipe surface prepared up-to a level of Sa 2 or 2 ½ or St 2/st by mechanical or sandblasting the projectile rust method.
- ④ In order to guard against oxidate of the steel body during the preheat after the burnishing , it is better to make preheat up to 60°C -80°C first and then to make rust removing.

2. Preheating

- ① Make clean on the patched rim with clean rag, make sure there are no water no rust.
- ② Use Fire torch to Make preheat on the patched rim with medium firearms.
- ③ Note: The preheat should be even. The temperature is at 70- 80°C. If available, the medium-frequency resistance heater can also be used, to pre-heat the pending anti-corrosion areas to 80°C.(the temperature is measured with a thermometer)

3. Apply epoxy primer

- ① When the temperature of the steel body is not less than 80°C , the first paint is to be made . Under the normal condition of temperature, blending with the proportion A and B(A:B is 3:1), At the same time , the agitation should be even .



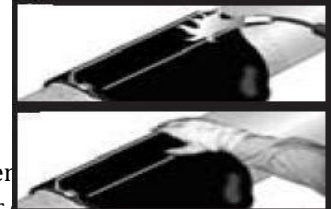
② Use brush to apply the primer uniformly on field joint area and plant-applied PE coating overlap area to specified thickness.



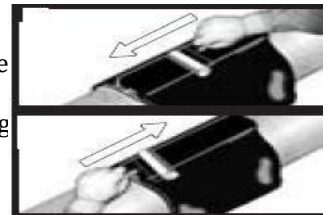
4. Installation Heat shrinkable sleeve

① .Remove the plastic film and lining paper on the heat shrinkable sleeve.

Make heating on the adhesive surface at the end with a mark by medium firearms. When is melting, make it parallel with the pipe as a lap joint on the patched rim . The width of the two sides must be uniform..



② Make heating on the adhesive surface at the other end with fire .When the adhesive joint can be made between the fringe of the end with the mark line on the other end aligned with a pressure roller.



③ Make Heating on the adhesive surface of closure patch with fire(150-170°C) ,When melting, the adhesive of closure patch color changed to black color (previous is white color) patch on the HSS. the closure patch is covered onto the mark line. The lap joint must be equal



④ Make the closure patch soundly adhered to the girdle with a pressure roller. Make the patch for 2-3 times by medium firearms, and press with a pressure roller for 2-3 times. The process from middle and then equably heat the sleeve along its circumference, in order to shrink flatly, sleeve combing tightly on the pipes and no air entering. After one side is heated the other side can be heated 1.The contraction must be even.2. The two fire torches are made at 180 degrees. Bumping each other is not permitted .



After all shrinkage, reheat the uneven surface to make it completely flat. After the whole sleeve is heated, turn down the flame and reheat again to make the hot melt adhesive overflow fully. The angle of the lap joint must be 180 degrees . The surface temperature is controlled between 150°Cto 190°C.The control time is 15 minutes. In summer it is 15 minutes.



5. Installation HDD shrinkable sleeve if have

① . The HDD shall be used to cover the pipe, the two ends of the pipe to be connected horizontally, and the gap between the two sections shall be kept as small as possible. When the gap is more than 15mm, the end face of the pipe shall be treated to minimize the gap.



② Heat evenly along the circumference from the middle, make it shrink completely, and



ends for heating. When heating, the allowable heating temperature of the heat shrinkable zone shall not exceed 250 °C, and pay attention to uniform use of fire. After all shrinkage, reheat the uneven surface to make it completely flat. After the whole heating, turn down the flame and reheat again to make the hot melt adhesive overflow fully.

③. During the heating process, the joint is rolled several times with the pressure roller, and the fusion lap joint is mainly rolled to eliminate bubbles.

6. Installation quality judgment

- ① The heat shrinkable belt shrinks evenly along the circumference, and the surface is smooth without wrinkles, bubbles, voids, scorching and cracking.
- ② The adhesive layer at the edge of the heat shrinkable zone is fully melted and evenly overflowed.

7. Remarks

- ①. The overlapping width between sleeve and pipe exterior shall be no less than 80cm.
- ②. The installation should be operated by experienced workers strictly according to the above installation method.
- ③. The pre-heat temperature of pipes must reach to the required 70-80°C, if the temperature is lower, the adherence between the melting glue and pipes will become loose, which will reduce the exfoliation strength.
- ④. The sleeve heating should be done evenly, or the overheating of partial area will cause the crack of sleeves.
- ⑤. We suggest installing the sleeve when the atmosphere temperature is above 0°C, if the temperature is too low, it will be more difficult for you to preheat pipes.
- ⑥. When the connected pipe needs to be moved, it should be moved after the joint is cooled to below 50 °C, and the position with less stress at the joint should be kept as far as possible.
- ⑦ The heat shrinkable tape after installation shall be covered to avoid direct sunlight. When the temperature of the joint is too high, the cooling measures (such as watering, etc.) should be taken.

Cut length of Sleeves (Suggestion)

Pipe Outside Diameter		Sleeve length	Patch Width	
inch	mm		Inch	mm
8	219.1	800	4	100
16	406.4	1490	6	150
24	610	2170	6	150

Note: Tolerances (out-factory) on Sleeves length are: ±20mm

Tolerances (out-factory) on Patch width are: ±10mm