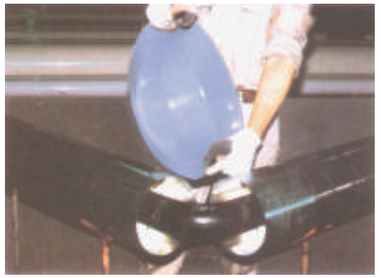
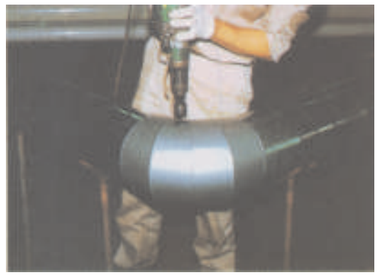
Field Jointing Methods :

Field Joint closure for overground piping

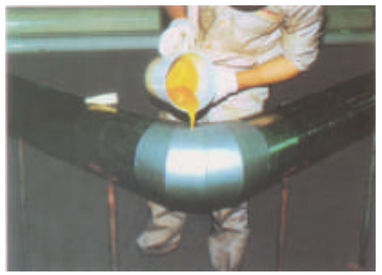
Place sleeve in position



Place elbow cover



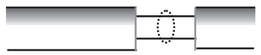
Open pour-hole on fitting cover



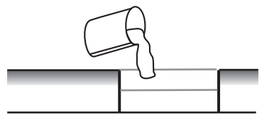
Pour Chemicals through opening

Field Joint closure for buried piping

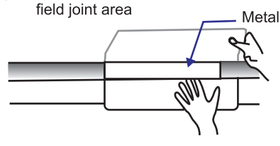
Step 1 Complete service pipe joint.



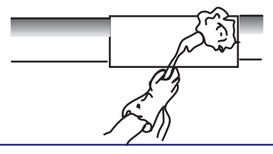
Step 2 Pour foam insulation



Step 3 Wrap shrink sleeve around field joint area



Step 4 Shrink sleeve using propane torch.



Please contact for more details:

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First time in India !
Pre-insulated pipes for hassle-free and faster execution of projects.

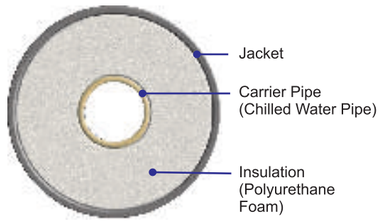
January 2009

Present Scenario

Today in India, Polystyrene or PUF pipe sections of 1m length are fixed to carrier pipes (chilled water pipes) using adhesives like hot bitumen or other compounds. Thus we have two longitudinal and one circumferential joint for every 1m length of pipe. Poor dimensional accuracy of pipe section and mismatch of carrier pipe O.D. and Insulation pipe section I.D. contour leaves a gap along the entire circumference between the two.

Further a combination of factors, like quality of adhesive, improper and insufficient use of adhesive, lack of adequate space at field for proper insulation, poor quality of tradesmen, urgency of completion, lead to poor site insulation work. Thus, the present method gives room to openings and gaps for moisture to permeate and weaken insulation. Over a period of time these thermal losses lead to higher power consumption.

Seven star pre-insulated pipes are designed to resolve all these problems.



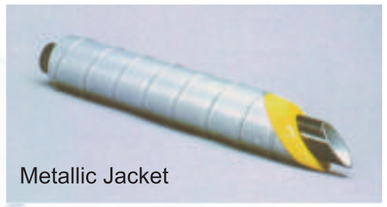
Sectional view of a Pre-insulated pipe

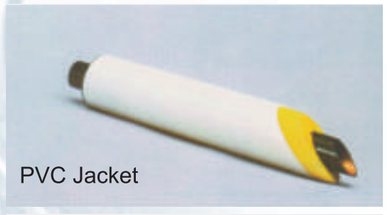
What are pre-insulated pipes?

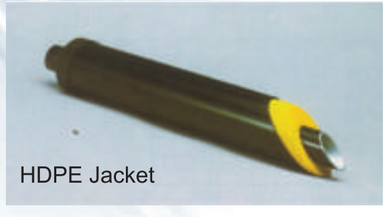
A metered dose of Poly urethane foam (PUF) is injected in the factory, in the angular space between carrier pipe (Chilled water pipe) and the outer jacket. The PUF expands and, upon setting, forms a homogenous insulation around the carrier pipe. The combination of pipe, insulation and jacket together is called pre-insulated pipe.

Specifications :

1) **Insulation**
   - Material : Polyurethane Foam
   - Thickness : 25mm onwards to suit application
   - Density : Standard 36kg/m^3. Other densities on specific request.
2) **Fluid Temp. Range** : -20°c to 120°c
3) **Sizes** : For carrier pipes 19mm onwards
4) **Pre-insulated pipe length** : 6m
5) **Outer Jacket**
   - Metallic : GI/Al/Stainless Steel
   - Non-metallic : HDPE/PVC







Why Pre-insulated pipes?

Using Pre-insulated pipes ensures that the density of the insulation is accurate as metered dosages of chemicals are injected at the factory. ***This means a uniform insulation spread over the entire carrier pipe, ensuring no loss of energy.***

Factory injection of PUF and Pre-fabricated kits for site fittings, ensure that the Carrier pipe, Insulation and Jacket form an integral part with ZERO JOINTS. ***This means no chance for moisture to permeate and therefore much longer life for the insulation.***

More than 2000 metres of insulation can be finished in a day. ***This means faster completion of chilled water piping work at site. This also means that lesser work at site especially where shafts and working spaces are small.***

Factory insulation also ensures that there is a wide variety of choices for the outer skin. ***This enables the use of HDPE jackets for buried pipes which is not possible using the present methods.***

The outer metallic jackets are also made of zero leak lock seam spiral tubes from a special spiral duct machine. ***This ensures that the quality of cladding is not dependent on the skill of the site worker alone.***

Factory insulation and cladding also ensures excellent mechanical protection for the insulated piping. ***This means no special saddle or wooden block is required at site for supporting the insulated pipe.***