

shall be cut out and delivered for testing. They shall comprise at least 1 of each type of electro-fusion fitting even if this requires more than 1 % of all electro-fusion fittings to be tested. Please note that the test requirement is for one fitting of each type i.e. bend, coupling, tapping saddle, tee etc. not one of each size and type.

- C. All costs associated with the testing, together with any consequent rectification of faults and retesting shall be borne by the Contractor.

20.3.5 Tying-In

- A. Where sections of the line are to be tied-in after being laid and filled in the trench the length of pipeline left un-backfilled shall be kept to a minimum, but shall be sufficient to allow some flexibility in the uncovered pipe and to facilitate the tying-in process.
- B. Tie-in joints in restrained sections of the line shall be made when the ambient temperature is at the daytime minimum, as far as is practical, to avoid strain in the pipe. Under no circumstances shall the line be left in tension after the completion of a tie-in connection.
- C. Bell holes made in the trench bottom to facilitate electro-fusion or mechanical jointing shall provide adequate clearance to enable the jointer to undertake their work without any restrictions.
- D. Tie-ins after hydro-testing shall be kept to a minimum and will be permitted only where approved by the Engineer.
- E. The Contractor shall ensure prior to hydrostatic testing that sufficient length of pipe (overlap) is available to facilitate tying-in.

20.3.6 Hydrostatic Testing

General

- A. Upon substantial completion of the pipeline or major sections, the line shall be cleaned and hydrostatically tested to prove integrity of the pipeline section and to detect any leakage prior to commissioning. Testing shall be performed in accordance with the Finnish Standard SFS 3115:E and the procedure described below. The Contractor shall supply all necessary fittings, equipment and facilities required to undertake the testing.
- B. The Contractor shall prepare a detailed Method Statement for the pressure test