

1.2.2.2 Steel Casing Pipe

- a) Steel casing pipe for pipe jacking shall comply with the following requirements, unless otherwise approved by the Engineer.
 - i. Minimum wall thickness shall be 12mm.
 - ii. All joints shall be fully welded.
 - iii. All holes or openings shall be closed.
 - iv. Grouting spigots shall be fitted as necessary.

1.2.2.3 Pipe Testing

- a) Quality control tests at the factory should include subjecting the pipe joints, at maximum permissible deflection, to:
 - i. Internal hydrostatic pressure of 1.5 times the working pressure.
 - ii. External pressure, vacuum, of 0.9bar.
- b) Unless independently authenticated test results acceptable to the Engineer are available, two consecutive axial tests incorporating a 1° angular deflection with the application of double the maximum permissible thrust force or, if greater, of the greatest thrust force that the proposed thrust equipment can apply, shall be successfully conducted without any visible crushing, cracking or spilling of the pipe being evident before any pipes will be accepted for use. The tests shall be extended to record the loading at which any visible signs of failure become evident and shall be carried out in an approved manner to simulate actual working conditions. Pipes which have been submitted to the proof load test will not be permitted for use in the permanent works.

1.2.3 Joint Packing

- A. Joint packing material when subjected to the maximum permitted bearing pressure shall have under dry conditions:
 - 1. A restoration after 1 hour of at least 65% of the original thickness.
 - 2. A compression of at least 50% of the original thickness. Independently authenticated test results to demonstrate that the packing complies with the specification shall be submitted and shall include a graph of the stress/strain relationship over the range of conditions which will be encountered during the Works.