|  |  |  |  |
| --- | --- | --- | --- |
| Pipe Size: | | Pipe Class: | |
| Date manufactured: | | Date of Test: | |
| Tested by: | | | |
| Internal diameter | | | |
| Spigot Value 1: | Spigot Value 2: | | Barrel Value 3: |
| Barrel Value 4: | Bell Value 5: | | Bell Value 6: |
| **Mean** Internal Diamter = | | | |
| Within Tolerance? **YES**  or  **NO** (See Table 3.2 – Permissible Tolerance on Internal Diameter) | | | |
| External diameter | | | |
| Value 1: | Value 2: | | Value 3: |
| Value 4: | Value 5: | | Value 6: |
| **Mean** External Diamter = | | | |
| Within Tolerance? **YES**  or **NO** (Where specified the tolerance from internal diameter may be applied.) | | | |
| Wall Thickness | | | |
| Value 1: | Value 2: | | Value 3: |
| Value 4: | n/a | | n/a |
| **Mean** Wall Thickness = | | | |
| Within Tolerance? **YES**  or **NO** (See Table 3.3 – Permissible Tolerances on wall thickness) | | | |
| Effective Length | | | |
| Value 1: | Value 2: | | Value 3: |
| Value 4: | n/a | | n/a |
| **Mean** Effective Length = | | | |
| Within Tolerance? **YES**  or **NO** (The effective length shall not vary ±15mm) | | | |
| Straightness | | | |
| Straightness End to End shall not exceed 12mm: | | | |
| Straightness 1 meter apart shall not exceed 3mm: | | | |
| Within Tolerance? **YES**  or **NO** | | | |
| End Squareness | | | |
| Value 1: | Value 2: | | Value 3: |
| Within Tolerance? **YES**  or **NO** (See Table 3.4 – Permissible Tolerance on End Squareness for Pipes) | | | |
| Tolerance Check by: | | | |

**(Below pages are for Information only, do not submit these with the completed form)**

Graphical user interface

Description automatically generated***Calculation Note:***

***(Reference: AS/NZS 4058:2007, Clause 3.3 Dimensions and Tolerances)***

**Internal Diameter**

The internal diameter shall not vary from the design diameter nominated by the manufacturer by more than the tolerances given in Table 3.2.

No individual measurement of the internal diameter shall vary from the design diameter by more than—

1. 10 mm for design diameters less than or equal to 1200 mm; or
2. 15 mm for design diameters greater than 1200 mm.

The internal diameter shall be determined by taking two measurements, mutually at right angles, at 200 mm from each end and at the center of the length. For socket and spigot joints, the distance from the socket end shall be measured from the point at which the socket meets the barrel. The internal diameter shall be taken as the mean of the six values.

**External diameter**

Where specified, the external diameter (De) shall be determined by taking two measurements mutually at right angles, at 200 mm from each end of the pipe barrel and at the center of the length. For socket and spigot joints, the distance from the socket end shall be measured from the point at which the socket meets the barrel. The external diameter shall be taken as the mean of the six values.

**Effective length**

The effective length (Le) shall not vary from the value nominated by the manufacturer by more than ±15 mm.

The lengths of the long and short sides of a splay-ended pipe shall not vary from the nominated values by more than ±7 mm.

The effective length (Le) shall be determined by measuring along the barrel, at each of the one-third points of the internal circumference, and taken as the mean of the three values. For splay-ended pipes, Lwe shall be determined by measuring along the barrel, at each of the one-quarter points of the internal circumference, and taken as the mean of the four values.

**Wall thickness**

Wall thickness shall comply with the tolerances given in Table 3.3.

The wall thickness shall be determined by direct measurement. The wall thickness shall be determined by taking two measurements through the pipe barrel, mutually at right angles, at 200 mm from each end of the pipe. The wall thickness shall be taken as the mean of the four values.

**End sureness of pipes**

End sureness of a pipe or jacking pipe shall comply with the tolerances given in Table 3.4.

The end sureness of a pipe shall be determined by measuring across three external end- diameters at 60 degrees to one another as shown in Figure 3.1.

**Straightness**

Table

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Description automatically generatedFor straight lengths of pipe, the total deviation from straightness of the inner surface when measured along the pipe axis from end to end shall not exceed 12 mm. In addition to this, the deviation from a straight line taken between any two points, one meter apart, along the pipe barrel shall not exceed 3 mm.

Diagram, engineering drawing

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***(Reference: AS/NZS 4058:2007, Clause 5.2 Testing and Sampling)***

Sampling plan for measurement of dimensions other than concrete cover

Where specified, the sampling plan for measurement of dimensions other than concrete cover shall be as follows:

1. Select one pipe at random from the first batch or the first group of consecutive batches of pipe, with a maximum population of 100 pipes or a maximum period of 3 months production.
2. Take measurements of the selected pipe in accordance with Clause 3.3 and, where the measurements meet the requirements of Clause 3.3, or the specified requirements, for the application; accept the batch or group of batches.
3. If the sample pipe fails the test, select a second random sample of two pipes from the same population and subject them to the same test in accordance with Clause 3.3 and acceptance requirements given in Clause 3.3, or the specified requirements, for the application. If no non-conforming pipes are found in the second sample, accept the batch or group of batches as conforming.
4. If in Step (c) either pipe fails the test, reject the batch or group of batches, or alternatively subject every pipe in the batch or group of batches to that particular failed test and accept or reject individual pipes within the batches.
5. Record the results.

Table

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