

## User guide for “Pneumatic pressure testing of a gas pipeline”

***Important: This guide is given as an "illustration only" of the equipment being used, and locally enforced operating procedures should always be used.***

This leakage test simulates a system at its maximum operating pressure under gas conditions. When conducting this test, account must be taken of the barometric pressure, and the results adjusted accordingly.

The correct pressure Cow-Horn must be selected for the pressure test being carried out on the gas main. This cow horn should be connected into the top of the common base using an appropriate sealing tape or compound. Check that the valves, gauge and pressure relief valve are not damaged and appear to be functioning properly. The cow horn & common base assembly should be connected in to an approved valve on the end of the pipe being tested.

The test valve on the side of the base should be closed, and the main valve on the base should be opened. The main valve on the cow horn should also be opened and compressed air introduced in to pipe through the hose connector on the cow horn.

When the correct pressure is achieved, the pressure relief valve will blow-off. Close the valve on the cow horn and disconnect the air supply hose. Minor adjustments to the pressure can be made by venting air through one of the valves and reading the pressure on the gauge.

Before the start of the test period, the temperature of the air in the pipe should be allowed to stabilize. The pressure will change with temperature and any calculations must consider this. To reduce temperature variations as much as possible the pipe trench should be backfilled.

A pressure chart or recorder should be attached onto the test valve on the common base. At the start of the test period a pressure reading should be taken followed by another reading at the end. If the period is long, it may be wise to take several readings during the test. In this way, any early indication of probable test failure avoids the need to run the test for the full period. A calculation of pressure loss should be made in accordance with custom and practice.

When the test is complete, air should be vented from the pipe in a controlled manner until the main is at atmospheric pressure.

For service pipes of diameter 63mm or less, and of low pressure (not greater than 75 mbar), the test cap or bayonet tester should be used.

The test cap is attached to the top of the tapping saddle and locked down. The meter control valve should be closed, and air introduced into the service pipe through the valve on the test cap. The pressure test should be carried out in accordance with custom and practice.

The bayonet tester is attached into the "meter" end of the service pipe before the meter control valve is attached. The end of the service pipe at the tapping saddle should be closed, and air introduced into the service pipe through the valve on the bayonet tester. The pressure test should be carried out in accordance with custom and practice.