

Pipe Hydrostatic Pressure Tester

CAPABILITY SHEET · HOLD IT STILL; READ THE CLOCK · THE TIME TO FAILURE AT A HELD PRESSURE AND TEMPERATURE

THE ONE IDEA

PRINCIPLE	Hold it still; read the clock.
WHY IT MATTERS	A plastic pipe does not fail at a pressure; it fails after a time. So the tester holds the pressure and the temperature still while the pipe creeps, and stops a separate clock the moment each specimen fails.

THE TESTER

STATIONS	Test stations that each hold one pipe, fitting or assembly closed with end caps and filled with water, each with its own pressure sensor, isolating valve and timer.
WATER AND PRESSURE	A pump or intensifier and a reservoir that feed make-up water as the pipe expands, with a smooth control for every station so that the set pressure is held.
BATH	A bath of water, or a heated chamber, with circulation so that the temperature is the same round every specimen, and a probe whose reading goes in the record.
CONTROL	A controller and recorder that set every station and log pressure, temperature and time for each specimen, with vents to bleed the air out and a guard with an emergency stop.

THE METHOD

ORDER	Specify, size, build, calibrate, run and prove. Showing that the pressure holds while a specimen creeps, and that the air is out before the clock starts, are what a quick order skips.
LIMITS	Pressures, temperatures, times and specimen sizes come from the method the customer names and from the pipe, and are not printed here.

CONFIGURATIONS

MULTI-STATION CONSTANT-PRESSURE	Pressure stations in one bath, each holding its own pressure and stopping its own timer, for the time to failure of pipes, fittings and assemblies.
SHORT-TIME BURST	One station behind a clear guard, with a controlled pressure ramp to failure and a record of the pressure reached.
COMBINED MACHINE	Constant-pressure stations in a bath and a burst station on the same pump, control and record.

STANDARDS & SCOPE

STANDARDS	Public references: ISO 1167, ASTM D1598 and ASTM D1599 for pipes under internal hydrostatic pressure, and ISO 9080 for long-term strength by extrapolation.
SCOPE BOUNDARY	It is the pipe hydrostatic pressure tester: not a hydrostatic test bench, not an impulse and load test rig and not a hose test bench.
STATUS	Neometrix engineers pipe hydrostatic pressure testers to order, and no delivered pipe hydrostatic pressure tester is claimed.

DEFENCE PROGRAMMES DESK

sales@neometrixgroup.com · +91 7777 876 876 · neometrixgroup.com
 Neometrix Defence Limited · E-148, Sector 63, Noida, Uttar Pradesh, India