Breathing Regulator Test Rig

CAPABILITY SHEET · THE LOOP IS THE EFFORT. · A BREATHING MACHINE, A TEST CHAMBER, A SUPPLY AND SEN

THE ONE IDEA

PRINCIPLE	The loop is the effort.
WHY IT MATTERS	Mouth pressure plotted against breathed volume encloses an area, and that area is the work of breathing over the whole breath, not only at its start.

THE RIG

BREATHING MACHINE	A piston with a set tidal volume and rate that draws a repeating breath through the regulator.
TEST CHAMBER	A pressure vessel with a window and a relief, so that the denser gas of depth is felt.
SUPPLY AND SENSORS	A controlled supply pressure, with mouth, interstage and supply sensors recorded together.
SOFTWARE	Draws each loop, works out the work of breathing and writes the report.

THE METHOD

ORDER	Mount, seal, static checks, breathe, go deep, judge and record. The static checks come first so that a leak is not read as easy breathing.
LIMITS	The rates, depths and limits come from the standard of the set the regulator belongs to, and are not printed here.

CONFIGURATIONS

BENCH	Bench check: leaks, cracking pressure, pressure between the stages, creep and relief.
SURFACE	Breathing performance at the surface: the bench check with a breathing machine.
DEPTH	Breathing performance at depth: the surface rig with a test chamber.

SCOPE

SCOPE BOUNDARY	It is the regulator test rig: not a pressure regulator bench, not a mask facility and not the apparatus.
STATUS	Neometrix engineers breathing regulator test rigs to order, and no delivered breathing regulator test rig is claimed.

DEFENCE PROGRAMMES DESK

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