

ANSTI Testing Equipment - LSTF



JFD offers a range of ANSTI breathing simulator test facilities providing the capability of performance assurance testing of life support equipment to the limits their design requirements, ideally suited to product development and routine testing of production.

The Life Support System Test Facility (LSTF) is a fully integrated laboratory system offering the capability to conduct tests at the surface and immersed in temperature controlled water to a maximum depth of up to 500msw (or deeper upon request).

The systems enable precise testing to extreme conditions so design engineers can ensure the effectiveness of critical equipment.

- Diving depth
- Breathing rate
- Work of breathing
- Valve cracking effort
- Exhaust resistance
- Hydrostatic Imbalance
- Cold water chiller
- Breathing air heated & humidified

BENEFITS

- ✓ Suitable for CE marking performance tests of defence, commercial and recreational SCUBA equipment
- ✓ Verify whether equipment meets or exceeds dynamic breathing performance requirements
- ✓ Define the limits of product performance under diverse operating conditions
- ✓ Reduce costs of product testing with real time results achieved accurately and efficiently every time
- ✓ View the performance of breathing apparatus under test with real time data acquisition and display
- ✓ Large test vessel diameters up to 1000mm and internal variable orientation accommodate twin cylinder SCUBA equipment, rebreathers, diving masks, helmets, bandmasks or other equipment
- ✓ Intuitive console controls, clear computerised virtual instruments and printable test certificates



SPECIFICATION

Test demand regulators	EN250:2014				
Test rebreathers	EN14143:2013				
Test helmets	EN15333-1:2008				
US Navy	Unmanned testing procedures				
Conditioned breathing gas	28+/- 2°C and 32 +/- 4°C, >90%RH				
Simulate respiration	O2 uptake and CO2 injection *				
Test environment temp control	+2°C to +34°C of ambient water				
Breathing rate	Selectable 10 to 40 breaths per minute				
Tidal volume	Variable sinusoidal 1.0 – 4.5 litres				
Simulated depth, msw	100	200	100	200	500
Test vessel internal dims	Diameter (mm)	610	610	1000	1000
	Height (mm)	1300	1300	1300	1300
LSTF model	100 - 600	200 - 600	100 - 1000	200 - 1000	500 - 1000

(*mass spectrometer option required for breath by breath analysis deeper than 50msw)

