

COMPANY OPERATING PROCEDURE.

Quality Assurance Procedure

VM3/COP/50.13

Date: 13-Jul-2015.

Revision date: 20-Jul-15.

Issue: 1.

Quality Checks: Tom Thumb

Do not carry out QA checks on Tom Thumbs until at least 1 hour after testing – this allows Oxygen-Compatible threadlock, applied during testing, to be totally dry.

- 1) Check the Tom Thumb for damage i.e. scratches to plastics, poor chroming, etc.
- 2) Set the adjustable valve to minimum (fully counter clockwise).
- 3) Connect the inlet to the oxygen supply at a pressure of 4 bar.
- 4) Connect the digital manometer (on 0-100.0 mbar range) with T piece adapter to the Tom Thumb outlet.
- 5) Set the flow of oxygen to 10 Lpm.
- 6) Check all mechanical connections between parts for leaks; use Snoop fluid and check for bubbling.
- 7) Check for minimum pressure out: Cover the T piece adapter port. Check the TT pressure gauge is less than 8.0 cmH₂O. Check that the digital manometer reading is less than 7.8mbar and record on the Tom Thumb Calibration / Test & QA Sheet.
- 8) Set up the adjustable valve: Set the adjustable valve control to maximum. Cover the holes in the precision valve and the T piece adapter port. Ensure a reading of 42.1±1 mbar on the digital manometer and record on the Tom Thumb Calibration / Test & QA Sheet.
- 9) Check for TT pressure gauge sticking: Release and cover the T piece adapter port a number of times, ensuring that TT pressure gauge returns to 43±1 cmH₂O. Uncover the precision valve holes.
- 10) Set up the precision valve: Cover the holes in the adjustable valve and the T piece adapter port. Carefully adjust the precision valve screw in quarter turns to achieve a reading on the TT pressure gauge of 45±1 cmH₂O (clockwise adjustment on precision valve screw to increase). Record the digital manometer reading on the Tom Thumb Calibration / Test & QA Sheet
- 11) TT pressure gauge accuracy check: Cover the T piece adapter port and ^{decrease} increase the flow of gas to achieve a displayed reading of 30 cmH₂O on the TT pressure gauge. Ensure a reading of 29.4±0.5 mbar of the Precision Valve Reading on the digital manometer and record.
- 12) Turn the flowmeter and adjustable valve to minimum. Disconnect from oxygen supply and disconnect the digital manometer.
- 13) Clean the Tom Thumb with isopropyl alcohol.
- 14) Ensure the appropriate labels have been fitted and the Instructions for Use card is attached. Complete stock sheets and file. Ensure the unit is booked onto the computerised stock system.

15) Check parts cannot be removed without tools?