Validation Test – Manawa Ora Ventilator

This test should be conducted on a minimum of a monthly basis. This test ensures that the machine is running consistently and accurately.

1. Setup
   a) Connect the machine to pressurised oxygen and air supplies. Leave outlet of expiratory unconnected.
   b) Connect auxiliary pressure gauges to the inspiratory outlet (patient end) and expiratory inlet (patient end).
   c) Connect inspiratory and expiratory lines to y connection and then to a dummy set of lungs that can provide compliance.

2. Pressure Set Point Testing
   a) Run the system at the IP and PEEP set points outlined in the table below. Fill in the table recording the results of the tests. Record IP and PEEP both from the output graphs and from the auxiliary gauges.

IP Set Point (cmH20)	PEEP Set Point (cmH20)	IP from aux gauge (cmH20)	Percentage difference from set point (%)	PEEP from aux gauge (cmH20)	Percentage difference from set point (%)	IP from graph (cmH20)	Percentage difference from aux gauge (%)	PEEP from graph (cmH20)	Percentage difference from aux gauge (%)	Tidal Volume from graph (ml)	Notes
40	20										
35	15										
30	10										
25	5										
20	0										

3. FiO2 Set Point Testing
   a) Run the system at the FiO2 set points outlined in the table below. Fill in the table recording the results of the tests.

IP Set Point (cmH20)	PEEP Set Point (cmH2O)	FiO2 Set Point (% O2)	FiO2 Recorded from graph (% O2)	TV recorded from graph (ml)	Notes
40	20	20			
40	20	30			
40	20	40			
40	20	50			
40	20	60			
40	20	70			
40	20	80			
40	20	90			
40	20	100			

4. B.P.M Set Point Testing
    a) Run the system at the B.P.M set points outlined in the table below. Fill in the table recording the results of the tests.

IP Set Point (cmH20)	PEEP Set Point (cmH2O)	B.P.M Set Point	B.P.M Recorded from graph	Percentage difference from set point to recorded B.P.M (%)	TV recorded from graph (ml)	Notes
40	20	5				
40	20	10				
40	20	15				
40	20	20				
40	0	5				
40	0	10				
40	0	15				
40	0	20				