



The F4504 Multi-Air Tester enables the quality of medical, surgical and breathing-air systems to be established.

Developed from the proven F3004 Medic-Air and F4000 Safe Air Tester series, the F4504 sets new standards in breathing and medical air quality instrumentation. With its user-friendly touch screen colour menu, air quality testing is easy to complete and once set the instrument can be left unattended to complete a test.

The instrument is designed to test in accordance with the medical and surgical air parameters of HTM02-01 and the European Pharmacopoeia Directive. It also can test against the Pharmacopoeia parameters for CO<sub>2</sub>, N<sub>2</sub> and N<sub>2</sub>O supplies.

For breathing-air systems the F4504 can test, both low and high pressure systems to EN12021 (in conjunction with the optional F3002 regulator for HP tests).



The instrument has a built in electronic dewpoint meter, electrochemical oxygen cell and digital flowmeter which allows airflows of up to 600 l/min to be verified. The unit also has test ports calibrated for Draeger chemical reagent tubes / impactor to establish levels of oil, carbon monoxide, carbon dioxide, nitrous fumes, sulphur dioxide, hydrogen sulphide present in the air sample, as well as various easily oxidised compounds via a Polyttest.

The instrument is completely portable, operating from rechargeable lithium batteries which provide a prolonged operating life. The unit is supplied with a 'laptop' style carrying case which protects the unit during transport and has individual pockets for storing chemical reagent tubes, inlet adaptors, tube tip cutter and documentation.

The F4504 will test systems between 2 bar and 10 bar and can be provided with an optional regulator and connecting hose to accept pressures up to 20 bar.



At the end of each test the readings from each tube / impactor can be input into the instrument and it will then automatically calculate if the test was a pass or fail against the selected standard.

The instrument is capable of retaining up to 20 previous tests and these are stored by the date and time when they were undertaken. They can be reviewed on screen and also downloaded to PC software via a USB cable provided with the unit. The software is available to download from Factair's website and allows results to be easily retained and also test result certificates to be printed.

### Multi-Air Tester Results Software

Safe Air Tester - [11-Oct-2016 at 13:01]

File Units Language

Test Info  
 Test Date: 11 Oct 2016  
 Tester Serial Number: 45555  
 Tester Calibration Date: 29 Sep 2016  
 Tester Model: F4504  
 Test Category: Medical Air  
 Location: MEDICAL AIR TP1  
 Oil: Impactor

Test Result  
 Overall Result: Pass  
 Next Test Due: Date 11 Oct 2016  
 Name: Test Engineer  
 Address: Factair Ltd  
 49 Boss Hall Road  
 Ipswich  
 IP1 5BN  
 Load Default  
 Save Default

Test Measurements	Reading	Pass/Fail	*Requirements/Notes
Ambient Temperature:	20°C	--	
Odour:	OK	Pass	Without significant odour or taste
Oxygen (O2):	20.9 %	Pass	20.4 - 21.4% by volume
Carbon Monoxide (CO):	0 ppm	Pass	5ppm (5ml per m3) max
Carbon Dioxide (CO2):	400 ppm	Pass	500ppm (500ml per m3) max
Oil Mist:	Pass	Pass	Less than 0.1 mg/m3
Water Vapour:	10 mg/m3	Pass	45 mg/m3 max
Atmospheric Dewpoint:	-57.5°C	--	
Nitrogen Oxides (NOx):	0 ppm	Pass	2ppm (2ml per m3) max
Sulfur Dioxide (SO2):	0 ppm	Pass	1ppm (1ml per m3) max

Requirements according to EU Pharmacopoeia - Air - \*

### Sample test result certificate

SAFE-AIR **factair**

Test Date: 11 Oct 2016  
 Tester Serial Number: 45555  
 Tester Calibration Date: 29 Sep 2016  
 Tester Model: F4504  
 Test Category: Medical Air  
 Location: MEDICAL AIR TP1  
 Oil: Impactor

TEST	READING	RESULT	*REQUIREMENTS/NOTES
Ambient Temperature:	20°C	--	
Odour:	OK	Pass	Without significant odour or taste
Oxygen (O2):	20.9 %	Pass	20.4 - 21.4% by volume
Carbon Monoxide (CO):	0 ppm	Pass	5ppm (5ml per m3) max
Carbon Dioxide (CO2):	400 ppm	Pass	500ppm (500ml per m3) max
Oil Mist:	Pass	Pass	Less than 0.1 mg/m3
Water Vapour:	10 mg/m3	Pass	45 mg/m3 max
Atmospheric Dewpoint:	-57.5°C	--	
Nitrogen Oxides (NOx):	0 ppm	Pass	2ppm (2ml per m3) max
Sulfur Dioxide (SO2):	0 ppm	Pass	1ppm (1ml per m3) max

\* = Requirements according to EU Pharmacopoeia - Air

Overall Result: Pass  
 Next Test Due: 11 Jan 2017

SIGNED: Test Engineer  
 Factair Ltd  
 49 Boss Hall Road  
 Ipswich  
 IP1 5BN

Name: Test Engineer  
 DATE: 11 Oct 2016



### DRAEGER DETECTOR TUBES

Carbon Monoxide	CO	-ref 6728511	5 -150 ppm
Carbon Dioxide	CO <sub>2</sub>	-ref 6728521	100 - 3000 ppm
Oil Impactor		-ref 8103530	0.1 –mg/m <sup>3</sup> – 1.0mg/m <sup>3</sup>
Nitrous Fumes	NO <sub>x</sub>	-ref CH29401	0.2 -6 ppm
Sulphur Dioxide	SO <sub>2</sub>	-ref 6728491	1 - 25 ppm
Hydrogen Sulphide	H <sub>2</sub> S	-ref 8103661	0.5 – 15 ppm
Polytest		-ref CH 28401	Sensitivity dependant on compound present

Electronic Dewpoint Meter	-65°C to +10°C Pressure Dewpoint
Oxygen Cell	0 to 30%
Digital Flow Meter	0 to 600 l/min

Model	Width	Length	Height	Weight
F4504	180 mm	470 mm	360 mm	7.5 Kg

### Optional Extras



F3005

Up to 20 Bar  
Regulator



F3002 High Pressure Regulator  
Up to 300 bar



8103530

Draeger Oil Impactor



6728371 6728531 6728511 6728521 CH28401 8103661 6728491

Draeger Tubes