



# MEP Hire

Mechanical, Electrical & Low Level Access Specialist

CASE STUDY

# Imperial Ductwork is taking the pressure with MEP Hire's ALF150

## Principal Contractor:

Multiplex

## Project:

Royal Albert Dock London

## Client:

ABP

The Royal Albert Dock in London's East End is being transformed into the City's third business and financial district, with a complex of offices, apartments and shops. Phase One of this 10-year development, due for completion in 2019, will occupy over 600,000 sq. ft. of former dockland, directly opposite London City Airport, and adjacent to the London Docklands Railway and the Crossrail high-speed rail link.

Installation of ductwork for air conditioning services on this development was contracted to Imperial Ductwork Services Ltd (IDSL) and, as Senior Project Manager Kevin Barcock explained: "The new ALF150 machine that MEP Hire has introduced to its range of hire products is ideal for a project of this type where a great deal of the ductwork will be hidden away in voids - difficult and costly to access if a leak was discovered after completion of fit-out works - and construction is at a stage where multiple trades are competing for space and access, but the compact design of this unit, weighing just 20kgs, makes it easily portable around the site; ideal for one man lift and operation."



Imperial Ductwork Services are utilising MEP Hire's ALF150 mobile duct leakage testing units at Royal Albert Dock London.

The ALF150 (Air Leakage Finder) is a low cost, lightweight, totally self-contained device, capable of generating an airflow of up to 150 litres per second, and testing static pressure up to 2500Pa.



IMPERIAL DUCTWORK SERVICES LTD



2016 Finalist: Air Movement Product of the Year

**“Using the ALF150 the test process is much easier and quicker than with previous generation DLT devices. The automatic test mode is intuitive and quick to set-up, allowing a fitter to be confidently testing a system after just a few minutes of familiarisation.”**

**Kevin Barcock**  
Senior Project Manager

The ALF150 is easily transportable, simple to use and removes the technical complexities often associated with testing ductwork for air leakage. The compact unit includes everything needed to test for air leakage under positive or negative pressure. It uses conical inlet nozzles, which means the unit is a primary device, and the entire measurement range is covered by 3 easy-to-change nozzles designed to ISO5801:2007.

This all-in-one instrument provides a closed-loop controlled leakage test, and the configurable test parameters include duct size, test pressure, test duration & test class. Once it is configured appropriately, the ALF150 control pod will calculate the maximum allowable leakage for the ductwork system and then run the test – first pressurising or depressurising the ductwork to the test pressure set, then monitoring the leakage rate, and finally indicating whether the ductwork installation has failed or passed the test.



ALF150 units are supplied fully calibrated with a UKAS traceable certificate and a user manual, together with all the required accessories to carry out on-site duct leakage testing. Power for the 400 watt fan is supplied via a 110V 50/60Hz AC connection. All test data is clearly displayed on the control pod, and can be downloaded to SD card or streamed over USB.

**iDSL** IMPERIAL DUCTWORK SERVICES LTD

For more information on the ALF150 duct leakage tester and other equipment available for short or long term contract hire from MEP Hire, visit: [www.mephire.co.uk](http://www.mephire.co.uk) or call 0800 587 5121

## MEP Hire

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The ALF150 is capable of developing static pressures from -2500Pa to +2500Pa, and flow rates from 1 to 150 litres/sec – providing approximately 140 litres/sec of air flow for Class A leakage tests, and up to 70 litres/sec for Class C and Class D tests and features PID controlled automatic test mode for DW/143, EN1507/12237 and SMACNA, and 0.5 to 7.5 seconds sensor damping/averaging.

The leakage rate can be calculated using ‘Actual’ conditions, or ‘Standard’ conditions; ‘Actual’ conditions provides a leakage rate based on the density calculated using temperature and barometric conditions input by the user at the time of testing, and ‘Standard’ conditions provides a leakage rate based on a pre-set air density of 1.2 kg/m<sup>3</sup>.

MEP Hire’s Sales Director, Neil Collier, who has responsibility for Low Level Access and Fit Out sales in London, recently introduced the ALF150 to the company’s range of hire products. “The ALF150 Air Leakage Finder fits perfectly into our portfolio – although it’s light enough to move easily around a construction site, the robust construction of the device makes it an ideal hire product; able to withstand the rigours of use on a busy construction site.”

On-site testing for leakage is only needed sporadically, so the unit’s simple operation removes the need to relearn technical skills each time. With ALF150, simply enter the test parameters, using the touch pad, follow the on-screen instructions, then wait a few moments to receive the confirmation of “pass” or “fail”.



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