

## Vectis Refrigeration improve efficiency and ensure accuracy with testo digital refrigeration manifolds



**Vectis Refrigeration Ltd.** provide commercial and high-end domestic refrigeration and air conditioning service, maintenance and installations across the Isle of Wight. Their customers range from small shops, pubs and restaurants, to some of the larger supermarket installations on the island.

Vectis Refrigeration are forward thinking and are the first local company to have CO<sub>2</sub> trained engineers. They also have invested heavily in utilising the latest technology within the tools available for their trade with the result that they are more efficient in the service technology that they offer to customers.



testo 557 Digital Refrigeration Manifold

**The challenge.**

Traditional methods of measuring the performance of refrigeration or air conditioning systems involves the use of many test instruments including; analogue manifold gauges to show the pressures within the system, a digital thermometer to measure suction and discharge line temperatures and a set of temperature/pressure lookup tables, usually in a slide rule format.

This traditional method has several areas of issue:

- Using analogue gauges carries a risk of inaccurate pressure readings due to parallax error, general gauge accuracy, and user misreading.
- Due to engineers having to take separate measurements for both pressures and temperatures and then refer to slide rules or tables to calculate the superheat or subcooling values, there is always the potential for miscalculation and therefore incorrect setting of the system.
- With traditional gauges the only way to document the system parameters is to physically write them down, and again this can lead to error.

**The solution.**

Using Testo digital refrigeration manifolds removes these areas of potential errors, as the manifold automatically shows the temperature and pressures within the refrigeration system, as well as showing live measurement of the superheat or subcooling values. As the manifolds hold the temperature and pressure tables for over 60 refrigerants engineers only need a single set of manifolds to cover most jobs, whereas traditional analogue gauges typically only cover one or two refrigerants meaning engineers end up carrying multiple gauge sets (with both higher associated costs and more risk of units getting damaged and errors being made).

Additionally, the Bluetooth functionality of the Testo 550 and 557 manifolds allows users to send measured data straight to their smartphone or tablet device, so they get both the benefit of remote visualisation, but more importantly they can record results directly into pre-configured reports that can be saved or emailed to clients. This ensures the service process is fully documented.

Further additional benefits of moving to Testo digital manifolds includes the ability to monitor a nitrogen pressure

**“We made the switch to Testo digital manifolds a few years ago and immediately saw the benefits of using the new technology. Every day I use my Testo 557’s they make me smile, whether it’s the ease of superheat settings or whether I’m using the pressure test function and pdf reporting on my smartphone to include to customers on their site reports.”**

**“They help us provide a more complete package for our clients. They are like a 3rd arm, I’d be lost without them. There are also little ‘hidden’ benefits from moving to the Testo digital gauges, for example both sides of the manifold are rated to 50 bar, So there is no chance to blow up the low side gauge which can be an issue with analogue gauges.”**

**Will Overton**  
**Owner, Vectis Refrigeration Limited**

test on the system with temperature compensation which ensures that any changes in ambient temperature do not affect the test, and again the manifold can produce a test report showing both the start/end pressures and the total time of test. For engineers who require confirmation of vacuum when evacuating a refrigeration system, the Testo 557 can additionally monitor and record the vacuum value.

**More information.**

For more information on Testo refrigeration manifolds please go to [www.testo.co.uk](http://www.testo.co.uk) or call us on +44 1420 544433 and we’ll be happy to help.

Further information on Vectis Refrigeration may be found on their website [www.vectisrefrigeration.com](http://www.vectisrefrigeration.com) or telephone 01983 623 100.