



## OVERVIEW

Chemical fume removal is a breeze with Optidrive.

Global Solutions...

wireless control for hundreds of applications

with Invertek Drives the solutions start here!

- easy to use and incredible performance
- leading edge design and technology
- highly committed to innovation
- products you can rely on
- global support and suppliers

For more information, visit [www.invertek.co.uk](http://www.invertek.co.uk)

## COMPANY

## LABQUIP (S) PTE LIMITED

Efficient ventilation for laboratories saves energy

Singapore

The Optidrive E inverter from Invertek Drives is delivering significant operational benefits and energy savings for laboratory ventilation systems recently installed in Singapore. The Optidrive E is supplied through Invertek Drives Far East Pte Ltd in Singapore, a newly setup subsidiary of Invertek Drives Ltd.

Labquip (S) Pte Ltd has successfully installed 133 fume removal systems at Nanyang Technological University in Singapore, an organisation that is ranked among the top 20 technology universities in the world today.

In this application, each of the American Labconco fume cupboards are fitted with a Swiss Colasit exhaust fan controlled by an Optidrive E variable speed drive. The key requirements are to provide completely reliable removal of potentially dangerous chemical fumes whilst minimising the energy costs associated with this process.

The Optidrive E is used to vary the speed of the exhaust fan according to feedback from the fume exhaust controller situated in the fume cupboard. The Optidrive E makes it incredibly simple to programme acceleration and deceleration times of the fan in order to maintain an accurate air velocity at the face of the fume removal hood. It also allows quick set up of maximum and minimum air flows to suit each application.

Maintaining an optimum fan speed ensures energy efficient fume extraction. However the Optidrive E also has an HVAC mode of operation which allows even greater energy savings to be achieved compared to a standard inverter. Using variable torque characteristics, the HVAC mode exploits the comparatively large drop in power consumption that is associated with a small reduction in fan speed and thereby maximises energy savings without compromising performance.

Roland Cheong at Labquip (S) Pte Ltd confirms: "Optidrive E is already giving us a significant competitive edge. As we exploit more of the innovative features offered with the Optidrive E we anticipate even greater uptake of the product. In fact, a second university has already ordered 50 units."



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