



# A box of tricks to do the fix

## The Vaalto VT8001 system offers a cost effective solution to the CLASS 170 / 168 cooling system

The Vaalto VT8001 system offers a cost effective solution to the CLASS 170 / 168 cooling system problems.

The kit comes complete with purpose built manifold block, proportional valves & embedded system controller.

A single kit is required for each raft and includes all electrical, hydraulic and mechanical connections. The kit has been designed so it can be installed quickly and easily during any routine service.

The embedded controller has been specifically designed to process the signals from the coolant, charge air and hydraulic reservoir temperature sensors providing essential independent control of the two fans eliminating the cooling issues caused by having a single hydraulic supply.

A simple solution to a troublesome problem

### Benefits of the VT8001

- Individual control of fan motors
- Individual pressure relief of motors
- No over speeding of fans
- Maintains original motors
- Maintains original pumps

# RAIL TECHNOLOGY VT8001

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Talk to our consultants on + 44 (0) 1909 512130  
And we'll walk you through this innovative solution  
to the Class 170 / 168 problem

**VAALTO TECHNOLOGIES**

## Mechanical Components

### Manifold block and Proportional valves

Maximum working pressure 420 bar  
Operating temperature -10 ~ 90° (14 ~ 131° F) @ 5 ~ 85% relative humidity.  
Filtration - 25 microns or better

## Electrical Specifications

### Controller

Power Supply 9 ~ 36 VDC  
Anti-Shock 20 G @ DIN IEC 68 section  
Anti-Vibration 2 G w/ CF @ IEC 68 section 2-6, sine  
Operating Temperature -10 ~ 55° (14 ~ 131° F) @ 5 ~ 85% relative humidity.  
Power Requirement 1 A typical @ +24 V input or 1.5 A typical @ +12 V input

## Ordering Information

**Contact sales at Vaalto Technologies UK  
on +44 (0)1909 512130**

### What issues does the kit resolve?

*The kit resolves the engine over cooling issues on the Class 168/170 train by providing independent control for the hydraulic supplies for the charge air and coolant cooling fans.*

### What's included in the kit?

*The kit comes complete with purpose built hydraulic manifold block, proportional valves, embedded system controller and all the necessary connections and couplings.*

### How long does the kit take to fit?

*The kit can be fitted in 4 hours as part of any routine maintenance at the rail depot.*

### Do I need specialist skills to fit the kit?

*No, the equipment can be installed by any skilled technician and mechanical fitter.*

### Can Vaalto fit the kit for me?

*Yes, Vaalto can supply a trained engineer to install and commission the kit.*

### Do I need a kit per raft?

*Yes, the kit is designed to work for a single raft.*

### Will I need to change pumps or motors?

*No need to replace any components, the kit has been designed to retrofit onto the existing mechanical and electrical control equipment.*