



# Asperitas launched sustainable liquid cooled modular datacentre solution

## Immersed Computing reduces energy footprint and costs for both datacentre operators and cloud providers

**London, UK, 15 March 2017** - [Asperitas](#), cleantech startup from the Amsterdam area, has introduced a unique solution based on a total liquid cooling concept called Immersed Computing at the international Cloud Expo Europe in London. After 1.5 years of research and development with an extended ecosystem of partners Asperitas has launched their first market ready and plug and play solution, the AIC24.

### **The AIC24**

The Asperitas [AIC24](#) is at the centre of Immersed Computing. It is a closed system and the first water-cooled oil-immersion system which relies on natural convection for circulation of the dielectric liquid. This results in a fully self-contained and Plug and Play modular system. The AIC24 needs far less infrastructure than any other liquid installation, saving energy and costs on all levels of datacentre operations. For example no pump installation is needed to operate the modules. Combined with optimised IT hardware it would possible make the AIC24 the most sustainable and efficient solution available for IT environments today. Ensuring the highest possible efficiency in availability, energy reduction and reuse, while increasing capacity.

### **Improved business case for datacentre operators and cloud providers**

What makes Asperitas's solution unique is that both datacentre operators and cloud providers benefit and improve their business case dramatically. Datacentre operators benefit from the reduced energy footprint, reduced floorspace and reduced requirements

for cooling installations and other facilities. Cloud providers benefit from the reduced energy costs, the high density capabilities and reduced software licensing costs.

### **Plug and Play green advanced computing anywhere**

The AIC24 is plug and play and allows for energy efficient compute also in markets with a higher annual average temperature of 15 degrees Celsius. A single module requires only power, access to a water loop and data connectivity to operate. Combined with its silent workings, these limited requirements enable high flexibility in deployment sites and scenarios for the AIC24. Two specially designed Convection Drives for forced water and natural flow of oil, are capable of transferring 24 kW of heat from the oil while keeping all the IT components at allowable operating temperatures. The Asperitas Universal Cassette (AUC) can contain multiple physical servers. Each module accommodates 24 AUC's, as well as 2 Universal Switching Cassettes. This currently adds up to 48 immersed servers and 2 immersed switches.

### **Immersed Computing**

[Immersed Computing](#) is a concept driven by sustainability, efficiency and flexibility and goes far beyond just technology. In many situations, Immersed Computing can save more than 50% of the total energy footprint. By using immersion, 10-45% of IT energy is reduced due to the lack of fans, while other energy consumers like cooling installations can achieve up to 95% energy reduction. It allows for warm water cooling which provides even more energy savings on cooling installations. One more benefit, Immersed Computing enables high temperature heat reuse.

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### **About Asperitas**

**ASPERITAS IS A CLEANTECH COMPANY** focused on greening the datacentre industry by introducing Immersed Computing.

**[THE ASPERITAS DEVELOPMENT PARTNERS](#)** include University of Leeds, Aircraft Development and Systems Engineering (ADSE), Vienna Scientific Cluster, Super Micro, Schleifenbauer and Brink Industrial. Asperitas is furthermore recognised and supported by the Netherlands Enterprise Agency as a promising new cleantech company.

### **For more information or materials**

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