LIQUID IMMERSION TANK

QUESTIONS CUSTOMERS ASK ABOUT NEXISIMMERSION

The answers our customers most often need before choosing a NexisImmersion tank. For model-by-model specifications, see the NexisImmersion fact sheet and Server Compatibility Guide.

THE PRODUCT

What is NexisImmersion?

A single stainless-steel tank cabinet in which servers sit directly in dielectric oil. Cooling is in the one unit: no CDU and no separate skid. Models from 4 to 40 kW.

Which model do I need?

Add up the peak power of your servers and their total height. The 13U tank covers 4, 6 or 10 kW; the 21U tank covers 10, 20 or 40 kW. We confirm the sizing at site survey.

Why immersion instead of air?

Oil removes heat far better than air, so dense GPU servers run at full power in a small footprint, near-silently, with PUE close to 1.0.

SERVERS & FLUID

Which servers can I use?

Standard 19" rack servers from 1U up to the tank size, in any mix. See the Server Compatibility Guide.

Do servers need changes?

Remove or disable fans, use SSD or NVMe storage only, fit immersion-rated thermal paste and remove paper labels. Semita can prepare servers at commissioning.

Which fluid do you use?

Silicone oil is recommended. Mineral, synthetic and fluorinated fluids are also supported, so the fluid can match a server vendor's requirements.

Will it affect my server warranty?

Standard servers may lose vendor warranty once immersed. For vendor backing, choose an immersion-ready server family and the fluid it was validated with. Ask us for the list.

How do fibre links work?

Optical transceivers and connectors stay above the oil. Inside the tank, use DAC copper cables.

SITE & INSTALLATION

Where does the heat go?

Through the pipe interface to a site water loop, usually a dry cooler or existing chilled water, which Semita sizes and can supply. The air-liquid variant releases heat to room air and needs no external cold source.

What space and power does it need?

13U tank: 1200 × 800 × 1250 mm on 220 V single-phase. 21U tank: 1500 × 800 × 1250 mm on 380 V three-phase. Allow clearance above for the top door.

Can my floor take it?

Filled, a tank weighs far more than its empty 245 or 350 kg. Floor loading is checked at site survey.

How long from order to go-live?

Typically 8–12 weeks, including fluid supply. Installation, filling and commissioning on site take a few days.

OPERATIONS & SUPPORT

How do we service a server?

Open the top door, lift the server out and let it drain. Service can be done with the fluid circulating or stopped.

Does the oil need replacing?

The fluid is designed for long service life in a sealed tank. It is sampled and topped up during maintenance visits rather than routinely replaced.

Is it safe?

The fluid is dielectric, so it does not conduct electricity, and all wetted parts are stainless steel. Leak and temperature monitoring is part of commissioning.

What warranty and service do you offer?

12 months on the tank system from commissioning, with annual maintenance contracts covering fluid checks, preventive visits and priority call-out.

PLAN YOUR NEXISIMMERSION

Specifications in the model fact sheet. Terms confirmed in each quotation.

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