



Datum Datacentres provides leading-edge carrier and cloud neutral co-location data centres to enterprise and service providers. As part of the Attenda IT Services group, delivering always-on availability, robust security and enterprise class service is hard wired into our operations. Our data centres are trusted as secure environments for content, data and business critical IT to connect with a neutral choice of networks and cloud service providers.

**Efficiency through cost effective, state-of-the-art cooling technology**

Our cooling solutions are designed to maximise energy efficiency using cost effective, state-of-the-art cooling technology.

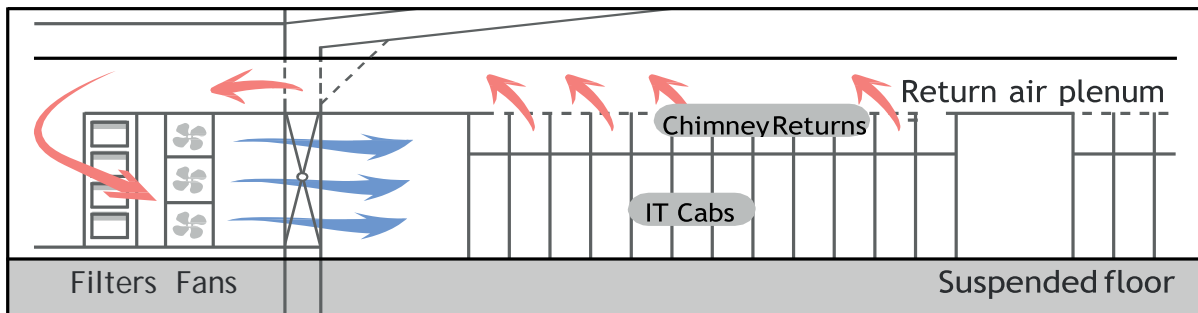
Traditional approaches focus on chilled water RAC units to distribute the supply air under a raised access floor; an approach made more efficient by the use of cold aisle containment. This solution is well suited to low power densities and does not require significant capital investment. It is however limited in energy efficiency and does not work as well at high power densities.

Our Free Cooling design uses a Flooded Airflow approach to deliver energy efficient and cost effective cooling, significantly reducing running costs and carbon footprint.

The flooded air supply, together with separate ceiling return air path, combines a number of optimisations to enable extremely efficient, predictable cooling for high and low densities, whilst completely removing the cooling plant and associated water service risks from the IT space.

- Ambient air indirectly provides free cooling
- Hot and cold aisle isolation separates supply and return air paths
- Supply air is provided for the entire room height - removing the need for higher power to pressurise a raised floor

A ceiling plenum ducts return air directly to the cooling units via - removing hotspots and ensuring a large cold air 'battery' in the event of system failure or generator start



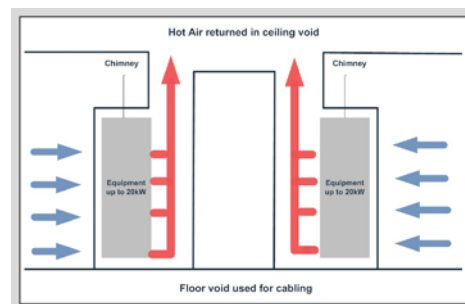
**Free Cooling design using a Flooded Airflow approach**

**Key Metrics**

- Flooded airflow cooling using hybrid cooling adiabatic approach
- Resilience N+1
- Datacentre Temperature Range 24 +/- 2°C
- Datacentre Humidity Range 40-60%

**Main Benefits**

- Industry leading PUE of 1.2 and better achievable even at partial load
- Up to 30kW per rack power density at any rack with no hotspots
- Intelligent air volume flow management
- No water or maintenance within IT space



**“The result is complete alignment of our energy efficiency goals with those of our Clients – a reduced carbon footprint and reduced cost.”** Dominic Phillips, Managing Director