

# Data Centre Solutions Provider



®  
**FLOWTECH**  
a world of motion

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# About Flowtech



## People Capabilities & Skills

121 engineering and technical specialists



## Core Capabilities

Bid capacity, Custom engineering solutions, Repair & overhaul service



## Product & Technical Innovation

In-house design, Strategic partnerships with market-leading suppliers



## Reduced Cost to Serve

75,000 products in stock, Same day dispatch before 10pm, 97% availability



## Sustainability

Striving to reduce emissions through fleet, supply chain and reduced landfill & waste

## Evolving our Relationship from Tactical to Strategic

The specialist in Process, Hydraulic and Pneumatic engineering solutions.

- UK Plc. with £120m+ of revenues
- 21 Operational locations in UK, Ireland and Benelux
- 620+ highly skilled technical people
- Leading global brands and broad product range
- High service product distribution capability
- Manufacturing, service & repair capability



# Strategic Brands

At Flowtech, we offer an extensive product range of proven data centre solutions in flow control, fluid conveyance and pipe systems enabling our data centre clients to maintain high uptime, avoid outages and keep disruptions to a minimum.



When it comes to temperature control, SMC offer a complete control solution for chillers up to 60kW



A range of valves with smart capabilities supporting data centres to reduce energy consumption and carbon emissions



Pipe systems for safe transport of liquid and gases in critical applications both internally and external in data centres



European manufacturer of ANSI and DIN floating and trunnion mounted ball valves



Ensuring safety in data centres with EN 13160 Class 1 leak monitoring technology



100% European forged ball valves that are installed in critical applications due to the zero leakage capabilities



Delivering customised fluid conveyance and thermal management solutions in data centres



Comprehensive and complete range of process valves and ideal for isolating sections of cooling systems



Transforming the data centre industry through advanced cooling technologies and energy efficiencies



Engineered to be reliable and long-lasting, FT Pro butterfly valves are already specified installed in data centres



Zero emission solutions for 1/4 turn and multi-turn electric valve automation



Manufacturer of industrial valves for cooling solutions and fire suppression systems



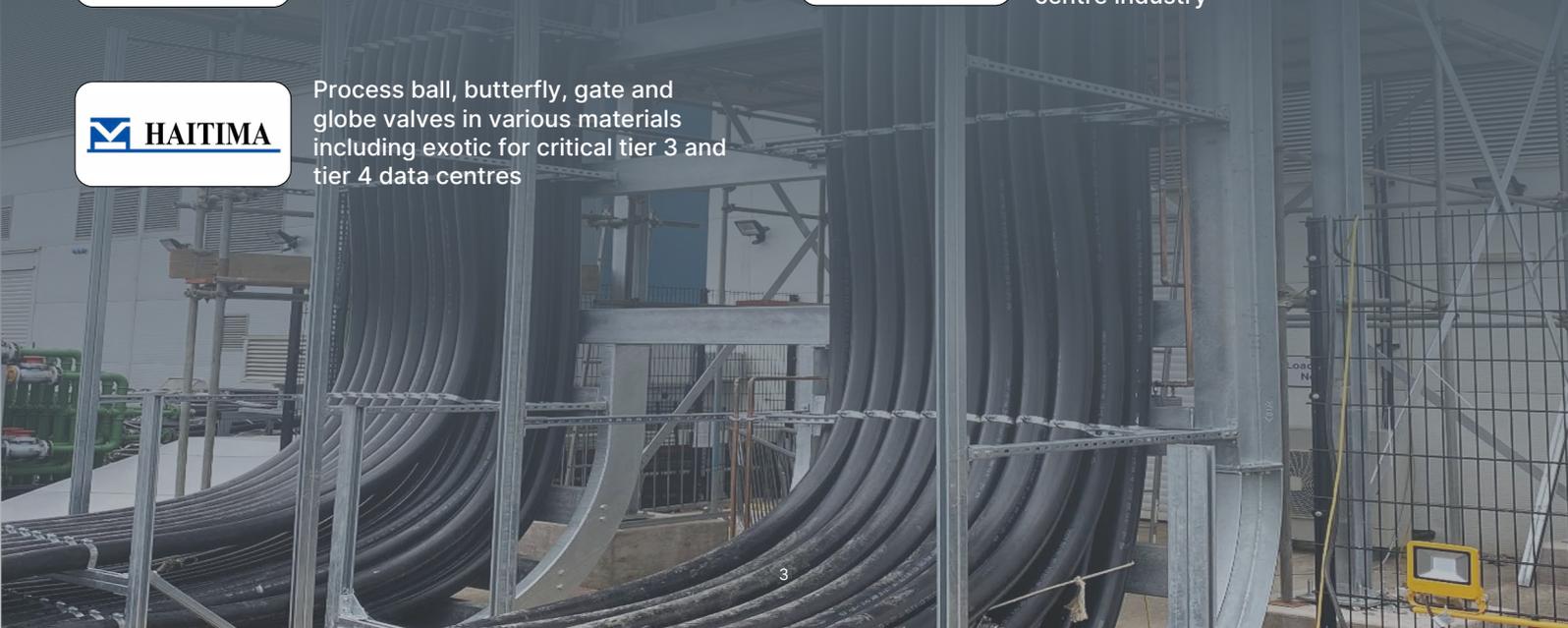
Offering scalable IIoT solutions for process monitoring from sensors to the cloud



Trusted global provider of valves, actuators, and control solutions tailored to the unique demands of the data centre industry



Process ball, butterfly, gate and globe valves in various materials including exotic for critical tier 3 and tier 4 data centres



# Our Products & Services



## Storage Tanks

- Floating ball valves
- Triple offset butterfly valves
- Gate valves
- Globe valves
- Check valves
- Pressure relief valves
- Control valves
- BRUGG pipe systems
- Leak detection technology



## Chillers

- Isolation valves- ball and butterfly
- Control modulating valves - ball and butterfly
- Temperature sensors
- Digital pressure gauges
- SMC thermo-chillers



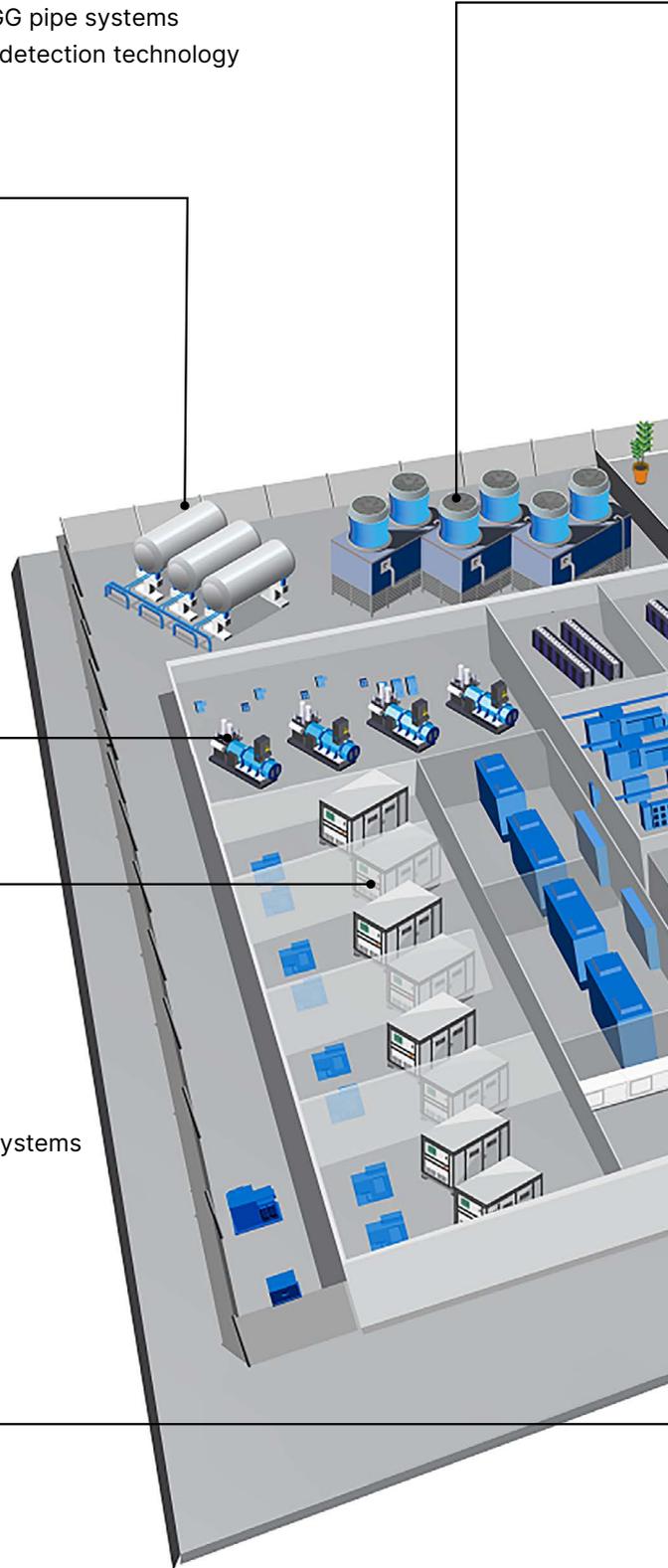
## Generators

- Fire safe trunnion mounted ball valves
- Emergency shut off electric fail-safe actuated ball valves
- High performance butterfly valves
- Gate valves
- Globe valves
- Check valves
- BRUGG pipe systems



## CRAHs

- V-control ball valves
- Pressure independent control valves





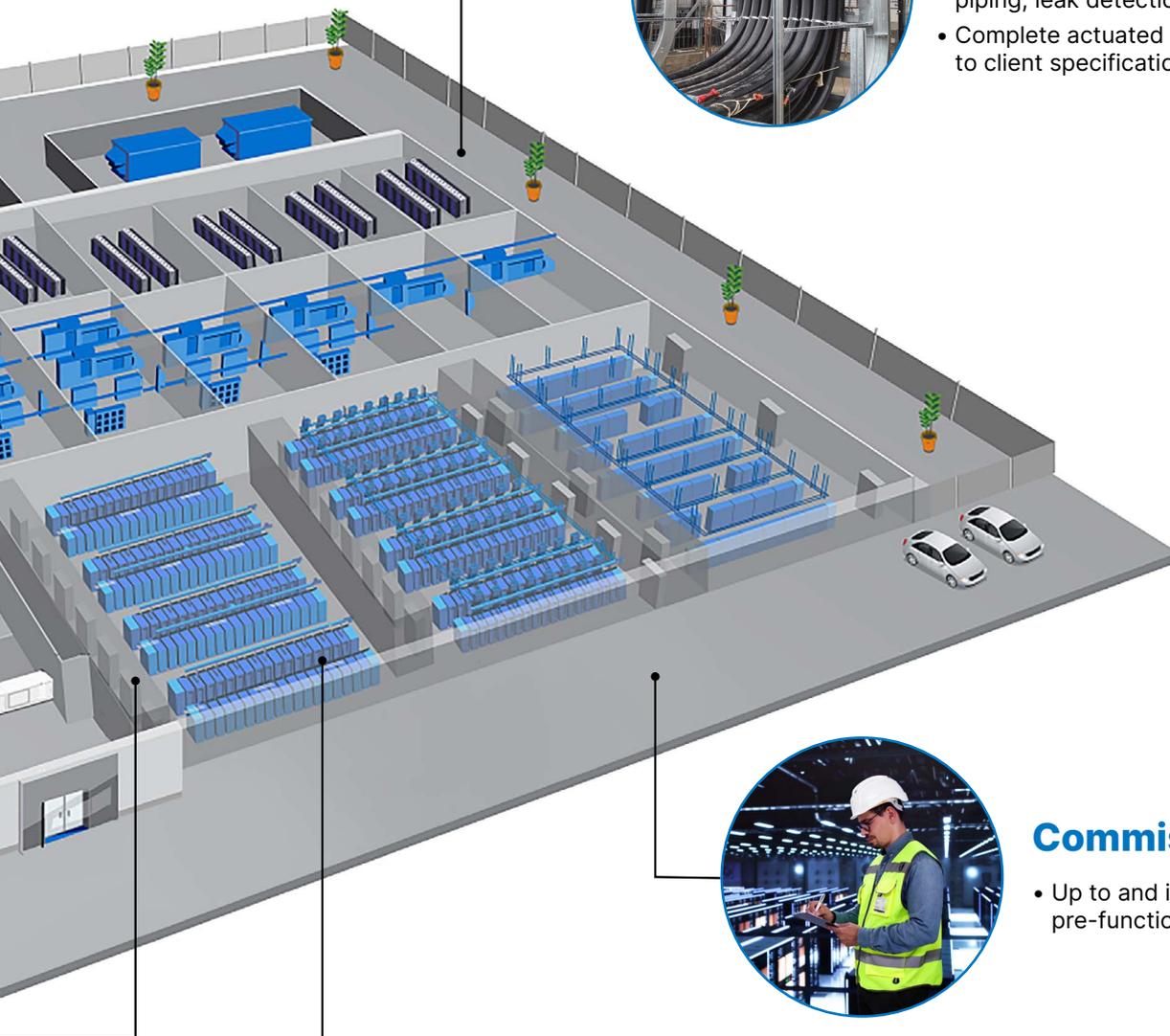
## Cooling Towers

- Isolation valves – ball and butterfly
- Control modulating valves – ball and butterfly
- Magnetic flow sensors
- Temperature sensors
- Liquid filled gauges



## Engineering Solutions

- Design, fabrication and installation of flexible piping, leak detection and fuelling systems
- Complete actuated valve packages modified to client specification



## Commissioning

- Up to and including level 3 - pre-functional testing (PFT)



## Servers – CRAC and Liquid Cooling

- Danfoss and Parker liquid cooling solutions - quick couplings, fittings and hoses
- BRUGG pipe systems
- Leak detection technology
- Electric actuated ball valves
- Pressure independent control valves

BRUGG stainless steel piping solutions are used in backup generator fuel supply and liquid cooling systems. BRUGG pipes can be equipped with permanent leak monitoring to ensure additional fault redundancy before failure to critical systems. Flowtech is the sole supplier of BRUGG flexible pipework for industrial applications across the UK.



## Flexwell Safety Pipe - Fuel Supply

A flexible, continuous, double-walled stainless steel pipe system with a monitoring option for industrial application and tank facilities. The flexwell safety pipe (FSR) is a solution for applications such as emergency power system, emergency power, supply lines and transporting hazardous liquids and gases.

## Secon-X - Liquid Cooling

Secon-X is a proven pipe solution in the data centre industry in providing a reliable and efficient cooling solution. Due to the flexibility of the pipe and fast and easy installation without welding, installation time and downtime can also be reduced.

**FSR and Secon-X types of pipe can be permanently monitored for leakage while remaining in operation.**



# SGB Leak Detection Technology



SGB leak detectors provide permanent and dependable monitoring for leaks in double walled tanks and pipelines, for example in diesel powered emergency generators. Flowtech have over 20 years experience in supplying and installing SGB leak detection systems.

## Benefits of leak detection:

- Early detection and prevention
- Safeguarding valuable assets such as servers, computers and IT equipment
- Enhanced efficiencies and maintaining optimal operational conditions



### Pipeline Vacuum Leak Detectors - VLR 410 E

Vacuum leak detector for double walled pipes.  
Plastic or stainless steel housing materials.  
Extended electronic functions.  
Additional sensors and solenoid valves can also be connected.



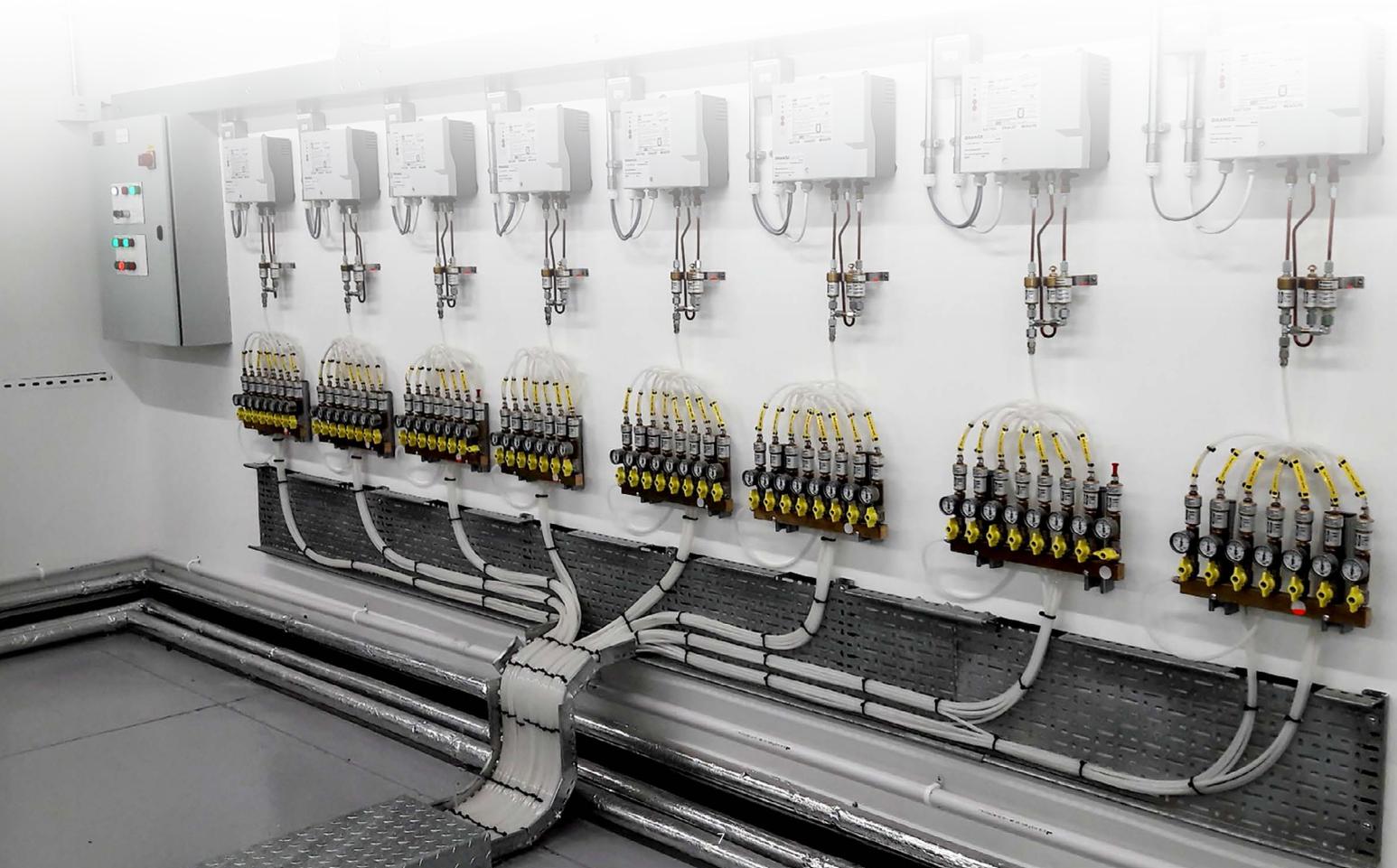
### Tank Vacuum Leak Detectors- VL 34 & VL 330

For double walled tanks.  
Plastic or stainless steel housing materials.  
Additional options available such as level indication and digital manometer.



### Pipeline Pressure Leak Detectors - DLR-G

For double walled pipes  
Plastic or stainless steel housing materials.  
Additional options available such as pressure sensors and digital manometer.



# Manual Valves

Pressure and leak tested according to EN 1266-1 and API 598 standards, quality and reliability are guaranteed.



## Ball Valves

Floating and trunnion design available in various sizes and end connections from leading manufacturing brands such as Haitima, Pekos and Starline. These brands hold numerous approvals and certifications to support global design and installation requirements.



## Butterfly Valves

Resilient seated, high performance and triple offset design options that provide zero leakage, flow control accuracy and improves energy efficiency. We can ensure you select the correct butterfly valve for your medium application, as we stock various body, disc and liner material options.



## Check Valves

Offering a range of mechanical check valves that provide maximum performance and excellent sealing for both low and high pressure to prevent water hammering, backflow and maintain constant water pressure in the system.



## Strainers

Designed to protect sensitive components in piping systems, Flowtech can offer a range of mechanical and magnetic filtration strainers to extend service life and minimise additional expenditure.

# Process Automation

As data centres continue to evolve and grow, process valve automation will play an increasingly important role in ensuring efficiency and reliability. We offer a range of pneumatic and electric actuated valves to regulate and control the flow of water, air, gases and other fluids. These solutions provide live data and optimal flow to improve energy efficiency.

## Additional options available:

- Modulating functionality to provide precise control
- Fail safe - fail open or fail close
- Bluetooth functionality
- Modbus technology





## Pressure Independent Control Valves (PICVs)

**Pressure independent control valves (PICVs) allow for precise control of flow rates whilst maintaining a constant differential pressure. Due to their design characteristics, PICVs are used in large-scale data centres.**

Flowtech offers modular valve systems designed for precise flow control within a compact unit. By combining this with a Modbus actuator, the operator can remotely adjust the flow rate via the BMS. This capability enables improved management and optimisation of systems, enhanced energy efficiency while streamlining control processes.

# PICV Selection for Energy Efficient Solutions



Pressure Independent Control Valves (PICVs) are commonly used for hydronic balancing and precise temperature control in HVAC heating and cooling systems. The control accuracy, controllers to be used, project price and many more aspects are mostly determined by the selection of the PICV actuator.



**Small combinations  
for terminal units**



**Medium combinations  
for air handling units**

## Why choose?

- Simplified commissioning
- Easy integration of new equipment
- High accuracy control at full and partial load conditions
- Stable room temperature for reliable performance
- Improved productivity and temperature accuracies
- Increased energy efficiencies leading to savings on energy costs
- Reduced maintenance costs
- BMS and IoT integrated solutions available



**Large combinations  
for chillers**



**X-large combinations  
for district cooling**

Participating in data centre innovation, Parker actively contributes to the Open Compute Project (OCP), setting the benchmarks for hardware design and performance. Parker's liquid cooling solutions are crucial to maintaining optimal performance in high-powered computer environments.



## UNIVERSAL QUICK DISCONNECT (UQD) SERIES COUPLINGS

These flat face hydraulic couplers are ideal for liquid cooling and thermal management applications for electronics, servers and supercomputers. The Universal Quick Disconnect (UQD) is based on an Intel inspired open specification.

- Flush face design prevents any fluid loss and optimum protection of electrical components
- High resistance to vibrations and rotations
- Reduced pressure drop for superior energy efficiency and system performance



## NSP1 SERIES QUICK CONNECT COUPLINGS

These dry break couplings feature flat face valving virtually eliminating drips during disconnection. The compact design makes them suitable for reduced spaces in data centre, rackable systems. The couplings feature an easy to use push-to-connect design.



## NSG SERIES QUICK CONNECT COUPLINGS

The NSG series features dry break couplings with flat face valves, perfect for liquid cooling applications. Their compact design suits tight spaces.



## PUSH-TO-CONNECT LIQUIFIT® FITTINGS

Engineered for liquid applications with unmatched reliability and compliance with stringent regulations, these fittings feature high chemical resistance, compact design and eco-friendly materials. Safe and easy to clean, they're ideal for cooling systems.



## PUSH-LOK EPDM-P HOSE 807 SERIES

The 807 series hose is designed for transferring air, water (including PCW) and coolant. Its peroxide-cured EPDM tube ensures fluid purity, thermal resistance, and superior leak-free performance, making it the ideal solution for thermal management systems.

The 807 series has UL 94 V-0 flammability rating.



## SERVER BLADE HOSE 150 PSI 629 SERIES

The 629 series hose is designed for transferring coolant solutions in direct liquid cooling servers within data centre rack manifolds. Made from specially formulated peroxide-cured EPDM, it ensures robust sealing properties and fluid purity for various industry coolants.

The 629 series has UL 94 V-0 flammability rating.



## THERMAL COOLING HOSE 627 SERIES

The 627 series hose is designed for coolant transfer in high-performance computers and data farms. Made from peroxide-cured EPDM, it offers excellent chemical and temperature resistance, while the reinforced cover ensures durability and effective temperature control.

The 627 series has UL 94 HB flammability rating.

# Danfoss' Solution to Liquid Cooling Challenges



## Danfoss Hansen® FD83 Series

An industry standard, our stainless steel FD83 has been supporting data center liquid cooling reliably for decades.



## Boston by Danfoss™ EHW194 EPDM-P Hose

Engineered for durability and ease of use, EHW194 UL94 V-0 hoses feature industry-leading safety ratings, superior kink resistance and long-lasting performance.



## Danfoss Hansen® Universal Quick Disconnect Blind-Mate (UQDB)

Offers a self-alignment feature to help connect in location with limited access or visibility and guarantees 100% helium-leak testing.



## Danfoss Hansen® OCP ORV3 Blind-Mate Quick Connector

Its self-centering design offers misalignment compensation, ensuring simple and secure connection between the blade and rack manifold.



## Danfoss Hansen® Universal Quick Disconnect Coupling

Complying to OCP standards, the UQD provides high flow and reduced pressure drop to fit inner-rack application needs.



## EverCool™ GH001 Hose & EZ Clip Fittings

Compatible with main refrigerant on the market with low permeation assembly – ideal solution for the application.



## 90° Swivel Adapter

Specifically developed for liquid cooling hose assembly connection.



## Socketless Hose & Fitting

Engineered to be flexible, abrasion resistance, perfect for low pressure and very easy to assembly, no tools needed.



Location:  
Ireland



Product Area:  
Process Valves



Service Area:  
Specification & Supply



## Powering Data Centres with Reliable Valve Solutions

A mechanical contractor in Ireland approached Flowtech to support and supply a range of products for multiple phases of data centres. This included industrial valves, building services and critical valves to support with standby power from backup generators.

### Challenge

The lead time for the client was an important factor, as any delays would significantly impact both the project installation and handover date. On a critical application valve, the customer requested PN63 rather than ANSI Class 600 and because this isn't standard for this valve type, it resulted in having to be manufactured. Other solutions were presented to the customer but due to the pipework being installed already, PN could only be accepted.

### Solution

Over the duration of the project, multiple meetings were held with the client to run through requirements and ensure we understood and met their schedule. Regular updates and communication reassured engineers and project managers that the deadline was on track to be met. Flowtech specified products from a European manufacturer due to it being a brand certified and trusted in the industry.

This included a range of trunnion mounted ball valves that hold numerous approvals such as SIL 3, ATEX and Fire Safe API 607 as well as providing zero leakage performance.

### Benefit

- Used our global network of suppliers to reduce lead time for the customer
- Customer was delighted with our product technical support, experience and communication

Read more of our Case Studies at [flowtech.co.uk](https://www.flowtech.co.uk)



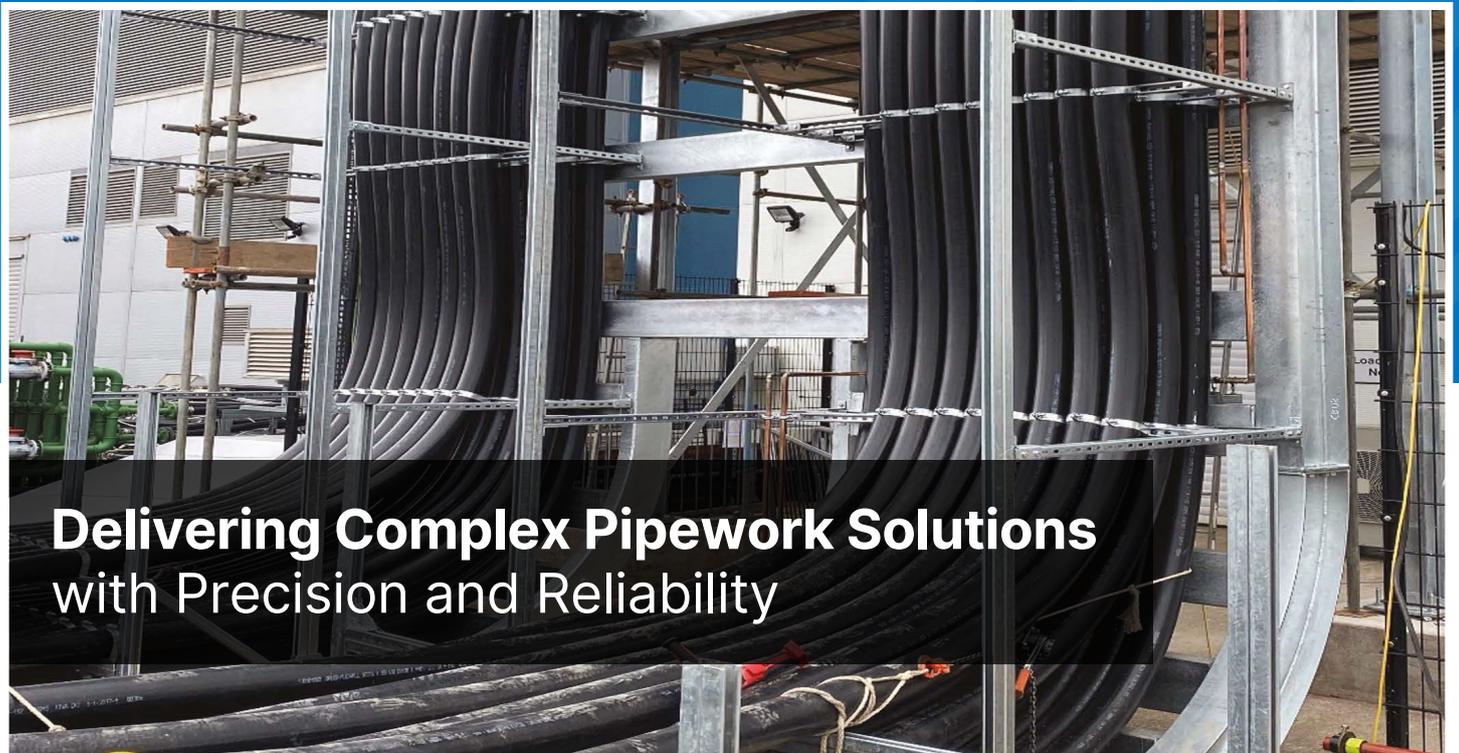
Location:  
**South Wales**



Product Area:  
**Pipework**



Service Area:  
**Supply & Installation**



## Delivering Complex Pipework Solutions with Precision and Reliability

A Data Centre in South Wales commissioned Flowtech to deliver a pipework project that would run chilled water pipes to a computer room air-conditioning system. This pipe route spanned multiple floors and required a complex installation from our team to ensure that the project would be fulfilled.

### Challenge

The ask for our installation team was to supply and install 5km of BRUGG DN100 secondary contained Secon-X pipe into a Data Centre in South Wales, with a challenging and complex pipe route. It would have to be a twin walled pipework system, with 24/7 SGB vacuum monitored leak detection system included as part of the build.

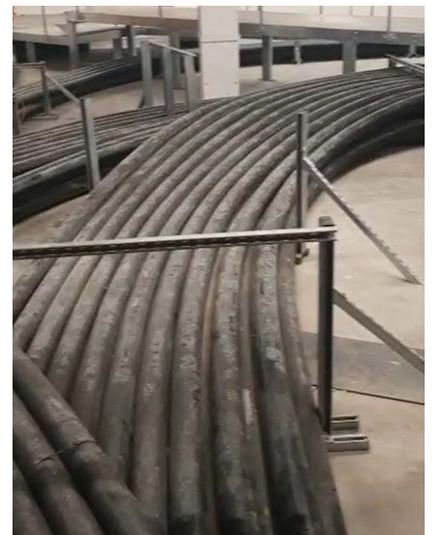
### Solution

There was 5km of DN100 pipework supplied to the site, delivered across 18 cable drums with a diameter of 2.9m each. A cable drum trailer was utilised to control the pipework pull off each drum. Pipework was pulled from a confined outdoor space, between generator banks, up the pipework gantry to the first floor data centre, and continued through the building for up to 140m. Lastly, 7 vacuum leak detectors were installed, complete with their own 8-way manifold.

### Benefit

- 5km of piping and 112 end fittings installed and tested in just 7 weeks
- Installation time drastically reduced with continuous flexible pipe installation vs site welded construction
- Each individual pipe able to be monitored and inspected individually for any leaks
- Customer extremely satisfied with project and short time scale of completion

Read more of our Case Studies at [flowtech.co.uk](http://flowtech.co.uk)





**Get in touch with our experts**

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