



**Advanced Cooling- Chiller Hire Case Studies**

#### Rental Systems Available For;

- Process cooling
- Building Air conditioning
- Chilled water systems
- Low temperature refrigeration
- Ice rinks
- Events/film set cooling
- Data centre cooling
- Disaster recovery stand-by systems

#### **London Docklands Engineering Depot**

Wood Wharf Business Park  
100 Prestons Rd  
London  
E14 9SF

#### **City Branch**

Unit 5, Atlantic House  
Waterson Street  
Shoreditch  
London  
E2 8HH

#### **Useful Links**

[Chiller Hire Fleet](#)

[Advanced Cooling Group](#)

[Advanced Cooling Service](#)

[Advanced Cooling Hire](#)

[Cooling4FilmSets](#)

[Events Cooling](#)

[Data Centre Cooling](#)

[Latest News](#)

**Advanced Cooling Hire is the specialist rental cooling division of the Advanced Cooling Group. We specialise in supplying temporary water chillers and space cooling systems nationwide.**

The division was created by the management team at Advanced Cooling Solutions which has been trading successfully in the air conditioning service industry for many years- specialising in water chillers. The company has built a solid reputation within the industry and with our many clients. We wanted to bring our engineering know-how to bear on the niche high capacity rental cooling market, supplying high quality reliable units and systems.

The high capacity temporary cooling sector presents unique challenges in terms of the capital and running costs required to maintain a large fleet. As a specialist in the field we are able to closely control these costs by sourcing high quality equipment from major manufacturers, and utilising our extensive engineering capabilities, operate it reliably with minimal downtime costs. These cost efficiencies can be passed onto the customer, meaning we can offer some of the most cost effective rates in the industry without compromising on standards of customer service or equipment reliability.

#### **OUR RENTAL FLEET:**

**Specialist rental chillers and systems to suite all applications**

**Over 10 Megawatts of portable cooling capacity available for hire**

**Only chillers with an excellent record for reliability stocked**

**Large stocks of hosing, cabling, pumps etc. for fast turnaround**

**New to the fleet is the Star Refrigeration Turbocor water chiller. We are one of the very first companies to offer this technology to the rental cooling market. Please see further details below.**

#### **OUR SERVICE:**

**24/7 Nationwide next day service for most installations**

**Long and short term hire/ lease periods at unbeatable rates**

**All temporary systems designed to fully meet your requirements**

**24/7 technical back-up for complete peace of mind**

call now for a quote

**0207 739 1151**

24hr technical support and advice line

**0797 632 9294**

E-mail enquires to

**[rentals@advancedcooling.co.uk](mailto:rentals@advancedcooling.co.uk)**

## CASE STUDY # 1 1000KW PROCESS CHILLER INSTALLATION



Chiller sections being installed



The completed installation



The main module including the evaporator and water connections

**A 1 megawatt chiller was installed to provide emergency process cooling for the WH Smith Halo plastic injection moulding factory.**

The client was experiencing increasing production difficulties in the hot summer months due to on site chiller failures. Chilled water performs the important role of cooling the extrusion after the injection molding process. The situation was becoming critical and a production shut-down was looking increasingly imminent due to loss of cooling capacity.

A modular chiller was installed to meet the cooling needs of the plant. Water was pumped from the hot side of a mixing pit through the chiller and into the cool side, forming a primary circuit that was pumped into the building. The complete installation was installed in two days completely meeting all their cooling requirements. The system ran at consistent loads of 6-800Kw through-out the rental period.

The chiller provided seamless operation for 4 months which allowed for full production capacity through the warm summer months.

This Modular cooling rig is a modified Climaveneta BE/SRAT/SL3603 chiller. The modification design criteria was to allow for increased flexibility of use. This chiller is more portable than the original, can be fitted into awkward areas and can be used in a 650 or 1000Kw configuration- a very flexible, powerful, reliable machine.

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## CASE STUDY # 2

### 700Kw DATA CENTRE AND COMFORT COOLING EMERGENCY HIRE INSTALLATION

**Two very reliable Trane RTAB water chillers installed to meet the complete cooling needs of government offices.**

When a long term client approached us with a request for an emergency replacement for their existing faulty Carrier water cooling plant, we responded quickly with an effective recovery system for seamless operation of the building. Critical data centre operation was maintained saving considerable costs from unplanned down time.

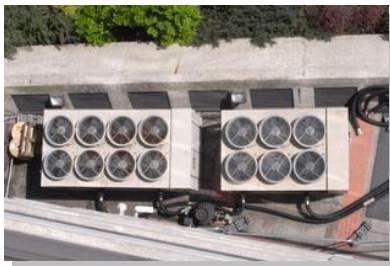
The total building load was calculated at 650Kw. Two reliable Trane RTAB air cooled temporary water chillers with a total cooling capacity of 750Kw were installed along with all cable, pumps and hosing as required. The complete system was successfully installed in one day, leaving the client with a reliable fully commissioned chilled water system.

The plant has to date been in successful operation for 18 Months. The lead chiller in the circuit has run continuously in all load conditions and has clocked up over 12,000 hours operation. Weekly service checks by our fully qualified engineers have given the client high levels of peace of mind and ensured complete reliability.

The chillers were piped in series for closer more stable temperature control. Low supply water temperatures of 1.3 degrees were safely possible due to a 20% glycol mixed water system and the excellent controls fitted which constantly adapt to load conditions. The lag machine set-point was set at 1.6 degrees to enable running only after the lead unit reached capacity. In this way very stable close control was achieved with flow temperatures in the range of 1.2- 1.6 degrees in all load conditions.



The chillers loaded and ready for delivery



Elevated view of the completed installation



The completed installation

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### **CASE STUDY #3**

## **FULL N PLUS 1 COMMUNICATION CENTRE**

## **TEMPORARY COOLING INSTALLATION.**

**Two Carrier Global Screw chillers were installed with a total cooling capacity of 1.4 Megawatts, maintaining operations at a critical Docklands communications centre.**

Advanced Cooling Hire was approached by the communications centre operator at short notice to provide an emergency replacement system for their site units which had failed. Full N plus 1 cooling capacity was required with a total capacity of 1400Kw. The system was quickly installed and the client left with a fully commissioned system within 2 days from first instruction.

Two Carrier 30GX 207 water chillers were installed with 6" flexible rubber hosing and primary pumps connected to the clients water circuit. All cabling used for connection was of the HN-07 standard used for its flexibility and resistance to abrasion.

The system stayed in operation for a 5 month period whilst the on-site problems were solved. Weekly checks by our technicians ensured that the system provided a completely reliable service to the client over the hire period.

The Carrier 30 GX chillers on this project were piped in series for more stable temperature control of the delivery water. In this configuration there was no dilution of the chilled water flow through the stand-by chiller which is set-up to lag. Two 17Kw high pressure 6" pumps were installed at either end of the temporary loop in a push- pull configuration. In this way maximum flow was achievable through the chillers and full capacity operation of both units concurrently was possible @ an 8degree deltaT.

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The Carrier 30 GX rental chillers being lifted into position by Hiab lorry



Final Positioning of the units



The completed rental installation providing data centre chilled water for close control units

