

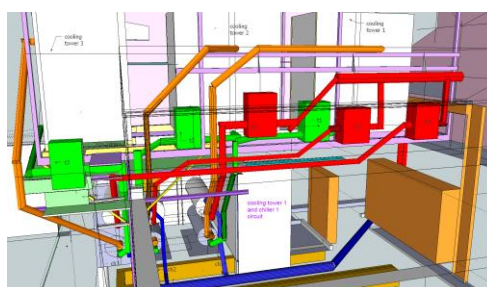


Data Centre cooling with aquatherm blue pipe.

In 2013 Aquatherm's supplier in WA, Galvins Plumbing Supplies in Osborne Park (Perth), received an inquiry for pipe systems for a Data Centre. This Data Centre was part of E&P IT Solutions, based in Subiaco, Perth. Applications were chilled water (9°C / 16°C flow/return) and condenser water (25°C / 30°C).



Not many details were available at the time but, with the input and technical support from the HVAC Mechanical Division of Galvins (Galvins HVAC), the decision was made to use **aquatherm blue pipes** and fittings for the cooling of the racks and the condenser water pipes in the E&P IT Solutions Data Centre.



The main reason for choosing **aquatherm blue pipes** and fittings was the favourable capital cost. Other reasons were: less insulation required, no internal and external corrosion of pipes and fittings (longevity) and no noise and vibration issues, by using the **aquatherm blue pipe** and **aquatherm PP-R fittings**.

Late 2013, around Christmas and New Year's Eve, Aquatherm Australia supplied, via Galvins HVAC in Perth, the required **aquatherm blue pipes**, **aquatherm PP-R fittings** and clips in the range of Ø90 - Ø250 (OD). Galvins HVAC also supplied the required metal valves and rubber bellows. Especially around the holidays, just-in-time supply from Aquatherm / Galvins HVAC was essential.

The installation of the required pipe systems, in sometimes very tight spaces, took only approx. 3-4 weeks.

The used welding techniques for the **aquatherm blue pipes** and **aquatherm PP-R fittings** were socket fusion (Ø90 – Ø125) and the butt welding technique (Ø160 – Ø250).



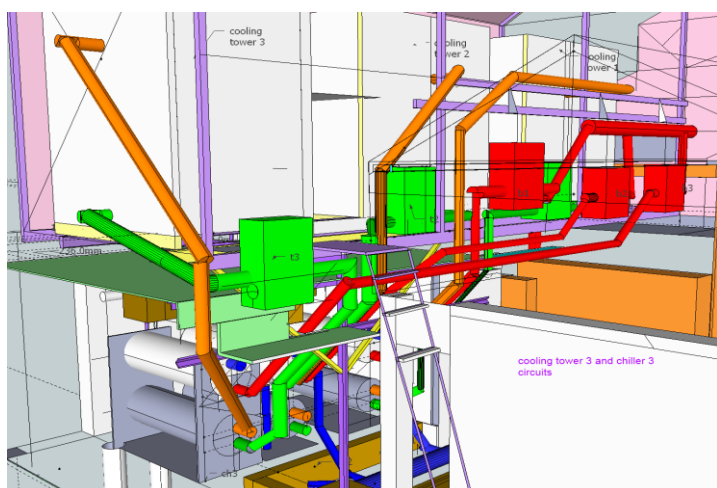
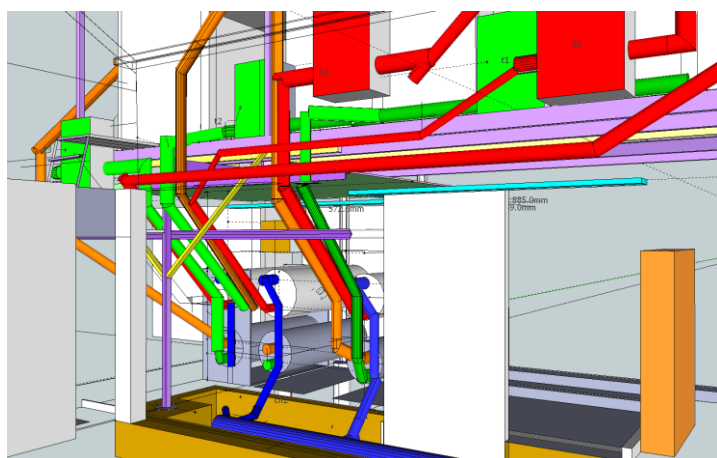
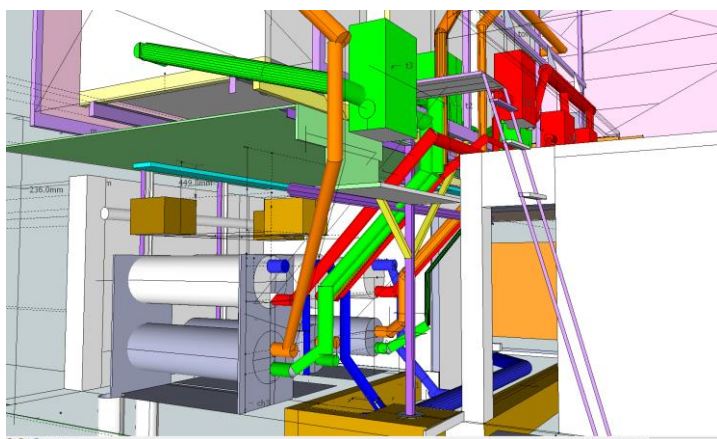
Socket Fusion (Ø90 – Ø125)



Butt welding technique (Ø160 – Ø250)

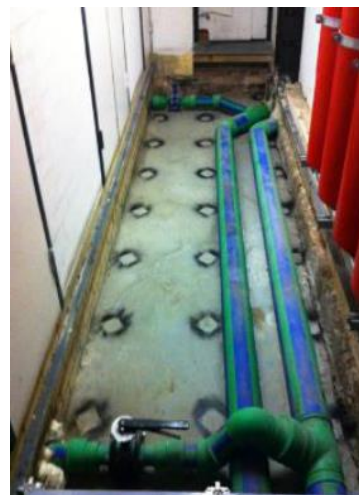


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Advantages of the aquatherm blue pipe system:

- The chemical inertness of the **aquatherm blue pipe** (PP-R) system ensures complete compatibility with sensitive computer equipment.
- Cleanliness of the **aquatherm blue pipe** system; halogen free, no residual oil in the pipe, as can be with metal pipe systems.
- No mitigating fumes or particles during processing of the pipes and fittings.
- Leak proof socket fusion and butt welding joints. No glue or chemicals used during processing.
- No internal or external corrosion of pipes and fittings.
- Smooth bore and no future increase of pipe roughness; less pressure loss and therefore smaller pumps required, which provides you energy savings.
- Low thermal conductivity ($\lambda = 0.15 \text{ W/mK}$); less thermal insulation required and less energy loss.
- **aquatherm blue pipe** is recyclable.
- Cost savings by quick and easy processing of pipes and fittings.



Charlie Butterworth General Manager E&P IT Solutions

21st Century Pipe Innovation with aquatherm PP-R



aquatherm
state of the pipe