

TA - H.U.B. incl.
-TBV-CM
-STAP
-STAD

REFERENCE >

Pressurisation & Water Quality > Balancing & Control > Thermostatic Control

ENGINEERING ADVANTAGE



A close working relationship
increases comfort and
efficiency in Brisbane



FACTS

Project type:	New office building
Building name:	154 Melbourne Street
Location:	Brisbane, Australia
Gross area:	12,000 m ²
Consultant:	Webb Australia Group
Owner:	Pardella
Customer investment:	€65,000
Products: Balancing and control:	TA-H.U.B., STAP, STAD and TBV-CM

When engineers on a new office-building project needed a fully balanced air conditioning system, TA Hydronics' expertise provided a high-efficiency answer.

Webb Australia Group's consultant engineers knew of TA Hydronics' solid reputation in Australia and had also heard of the success stories with Centralised Hydronic Balancing and Control Systems in the UK. This motivated them to attend a trade night in Brisbane where the new TA-H.U.B balancing system was being presented. After seeing the system and how TA Hydronics' expertise can reduce ongoing heating and cooling costs, they were convinced TA Hydronics could help optimise efficiency in their new development – an 11-storey office building in Brisbane.

The challenge

The major challenge was to provide a solution that helped get the HVAC system working in the most energy efficient way. In doing so, the solution would also meet another vital requirement by helping the owner to obtain a 5-star Green Star rating for the development. The Green Star rating system was developed by the Green Building Council of Australia to provide a recognised standard that would indicate the environmental credentials of a building. As such, the rating system aims to improve the sustainability of the Australian property industry.

The solution

TA Hydronics' dedicated Engineering Support Centre in Hungary and the local TA Hydronics team worked closely with Webb Australia

Group's engineers to determine the optimal hydronic solution. As chilled beams would play a vital role in achieving that goal, Webb Australia Group supplied a schematic detailing chilled beam positions, piping and the required flow rate and pressure drop at each chilled beam. Temperature zone drawings were also supplied. A number of ways to precisely control the chilled water were examined closely before TA Hydronics proposed a solution incorporating TA-H.U.B. working together with differential pressure controllers and terminal balancing and control valves. The Engineering Support Centre added an extra dimension to the process by assisting with hydronic calculations, component selection and by supplying complete drawings of the solution.

There are several key advantages to making TA-H.U.B. an integral part of the solution. The customised balancing solution enables up to eight terminal units to be balanced quickly from one location. By having eight terminal units together, the time spent on installation, commissioning and maintenance is reduced. Its compact size also simplifies its integration into the total system.

Working closely with the contractor to the very end of the project, TA Hydronics made sure the entire solution was installed and commissioned in precisely the right way.

The outcome

Since completing the project, TA Hydronics has returned to the site numerous times to check the system which is working exactly as intended. The good working relationship between TA Hydronics and WEBB Australia Group helped create a solution that keeps energy consumption down and comfort high. In addition the building was successful in obtaining a 5-star Green Star rating for both 'Design' and 'As Built' categories.

“The opportunity to use a leading hydronic expert that works on many different building designs throughout the world, whilst being able to utilise their expertise and on-going support, gave us the confidence to use the solution incorporating TA-H.U.B. on this project.”

Roger Briggs, Webb Australia Group