

Predictable performance

Alfa Laval AHRI certified plate heat exchangers save energy



With its more than 300 member companies, AHRI (the Air-conditioning, Heating and Refrigeration Institute) is one of the major trade associations in the world. In fact, its members manufacture close to 90 percent of the HVAC and water heating equipment produced and sold in the US and Canada. In 2001, AHRI launched a certification program for liquid-to-liquid plate heat exchangers (the AHRI LLHE Certification Program).



We asked Bill Tritsis, AHRI Vice President, Certification, to explain the basic benefits of this program.

Q: Could you explain the role and basic mission of AHRI?

A: We are a non-profit trade association offering our members—who in daily life are competitors—a forum for discussion and promotion of their common interests. We initiate scientific research, develop standards and certification programs, address legal and technological issues and advocate for our members and our industry with policy makers around the world.

Q: Why then, is performance verification of plate heat exchangers so important?

A: Simply stated, unbiased third party verification of performance claims vouches for adequate dimensioning of the heat transfer area. If the dimensioning does not meet the task, pumps and chillers have to work harder. This results in wasted energy, often over extended periods of time. For manufacturers, certification is an investment in credibility.

Q: The AHRI certification program is now a global standard. What are your intentions behind this strategy?

A: Since the HVAC and water heating industry is global, this was a very natural step. The energy saving potential of certification from a global perspective is indeed impressive, especially so in emerging economies. Climate change and regulatory demands are potent drivers for certification all around the world. Certification of their products will no doubt give manufacturersa competitive advantage.

Q: So, the horizon is rather bright then?
A: It is brightening, I would say. The awareness of energy-efficiency is rising around the world and the use of certified plate heat exchangers is helping customers meet their efficiency goals.



Mitchel W. Simpler, P.E. is the Managing Partner at Jaros Baum & Bolles (JB&B). A leading American consulting engineering firm operating worldwide, JB&B includes a portfolio of some of the best known buildings

in the world. After more than 35 years within the field of mechanical engineering, Mitchel Simpler's perspective on AHRI certification is based on experience from a great number of projects.

Q: JB&B is exclusively specifying plate heat exchangers that are certified according to the AHRI standard. As a representative for the engineering community, what would you say are the major benefits of this policy?

A: As engineers, we are responsible for the predictable performance of the mechanical and electrical systems within a building. Our job is to not only design these systems to operate efficiently upon start-up, but to specify and design these systems to function to optimal performance levels during the entire life cycle of the building. By using heat exchangers that are certified according to AHRI standards, you get predictable performance coupled with the ability to do "apples to apples" comparisons between manufacturers.

Q: Could you describe the situation before the AHRI standard was launched and widely accepted by manufacturers?

A: We had some significant issues in the past. In tests that JB&B initiated, we found the actual heat transfer capacity of several plate heat exchangers from varying manufacturers quite often deviated considerably from the values declared by manufacturers. So, to protect the interests of our clients, we became strong advocates of AHRI certification.



AHRI FAST FACTS

AHRI represents more than 300 manufacturers and runs some eighty certification programs. AHRI 400 for liquid-to-liquid heat exchangers is one of them. Within Alfa Laval, AHRI certification is a tradition. The first gasketed plate heat exchangers certified according to the AHRI standard were the ones in Alfa Laval's AlfaQTM series.