

Air Amplifiers Deliver Reliable, Cost-Effective Solution for High-Pressure Testing of Heating and Cooling Systems



Client: Trane Co.

Location: Nuevo Leon, Mexico

Product: Haskel air pressure amplifiers are automatically cycling simple ratio pumps utilizing large area air drive pistons directly connected to small area pumping pistons to produce amplified air output pressures.

Challenge

Trane, a world leader in providing heating and cooling systems, services and solutions for residential and commercial facilities, pressure tests its equipment in order to ensure their products meet their high reliability and durability standards.

Trane needed to conduct high-pressure tests using pressure at 560 psi and 760 psi. Their current compressor could only go as high as 200 psi. Purchasing a compressor that could achieve pressures up to 800 psi was cost prohibitive.

Solution

Haskel distributor, Controladores Industriales, S.A. de C.V., of Nuevo Leon, Mexico, designed a system of air amplifiers for a reliable and most cost-effective solution. The company built a bank of sixteen (16) 5:1 ratio, AAD-5 air amplifiers, operating in 2 stages.

The air amplifier bank is a central system that starts and stops automatically according to the pressures and flows required. The air amplifiers were arranged in a manner so that they could be individually removed for maintenance without interrupting the system, and to handle the versatility of switching between the required medium and high pressure flows.

Results

Controladores Industriales proposed an efficient and more cost-effective solution using Haskel air driven air pressure amplifiers instead of a compressor, enabling Trane to achieve pressures of 560 psi for one of their tests, with the optional second stage of air amplifiers to achieve 760 psi where needed.