

ASSIWELL® Metal Hoses Railway Applications



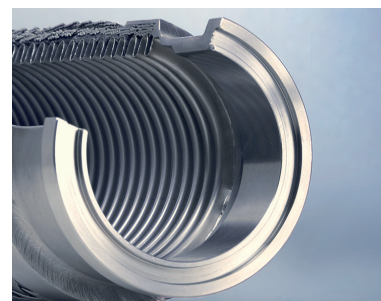
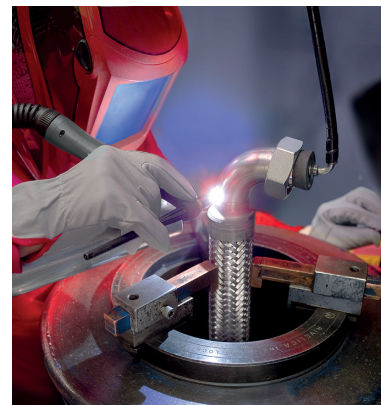
ASSIWELL® Metal Hoses – The ideal solution for railway applications

Products and services with added value – the stainless steel ASSIWELL® hose assemblies set the standard for fluid handling technology in railway applications by reducing the total cost of ownership and improving RAMS (Reliability, Availability, Maintainability and Safety) through a range technical advantages:

- Wide operational temperature range of -196°C to +550°C
- Chemical resistance to all common fluids in railway applications
- Corrosion resistance to salt spray of at least 1'000h according to DIN EN ISO 9227
- Fire safety: non-combustible according to EN45545
- Durability, UV-resistance and impermeability
- Low specific weight
- Efficient installation
- Non-toxicity and low environmental impact



These advantages are optimally leveraged in custom-engineered ASSIWELL® hose assemblies, designed to meet the application-specific requirements.



Angst + Pfister – Certified expertise in metal hose assemblies

ASSIWELL® application engineers support customers in every step with professional expertise, from technical consulting to realization of the ready-to-use solutions. 3D modeling is a key component in the collaborative design process with the customer's engineering department.

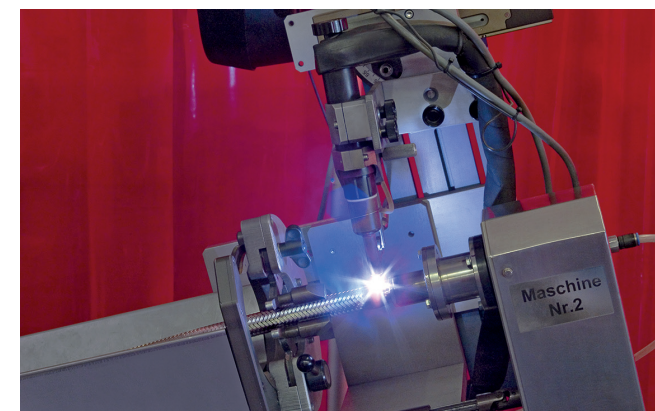
Angst+Pfister has the highest certification level (CL1) for both design and welding of ASSIWELL® metal hose assemblies for railway vehicles in accordance with DIN EN 15085.

From skillful manual welding to automated welding stations: the production capabilities at the ASSIWELL® workshop near Zurich are optimised to efficiently meet every requirement, from quick prototype delivery to high volume series production.



A strategic partner rather than just a supplier

Long-term projects with special requirements and high investment require long-term partners. The development of railway vehicles can take years from prototype to series production, with many design challenges along the way. Angst+Pfister offers a single source for the engineering, production and logistics – the ideal strategic partner along the entire project.



Angst + Pfister – An experienced partner for leading railway manufacturers



Services of the Angst + Pfister Group

Angst + Pfister – Your supply and solutions partner

The Angst+Pfister Group is a leading international technical manufacturer and service provider for high-end industrial components. As a supply and solutions partner for sealing, antivibration, engineering plastics, fluid handling, drive as well as sensors technology, Angst+Pfister combines efficient logistics concept with comprehensive product application engineering services. Besides providing customer-specific parts, the Group offers a product range consisting of approximately 100,000 standard items.

Our core product divisions



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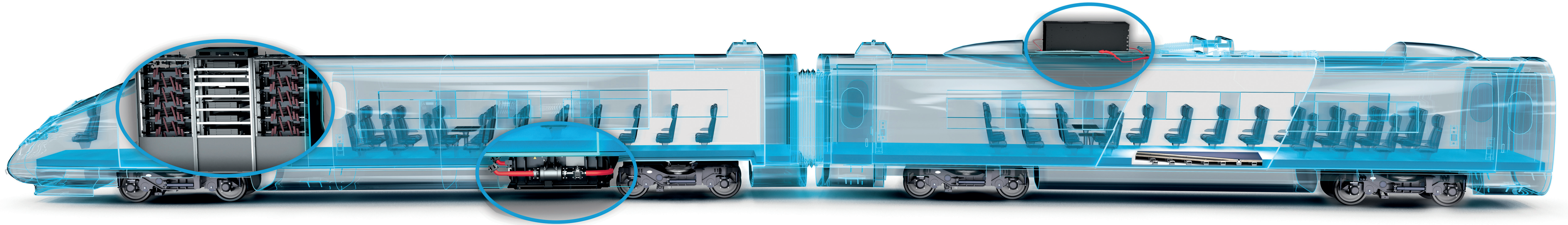
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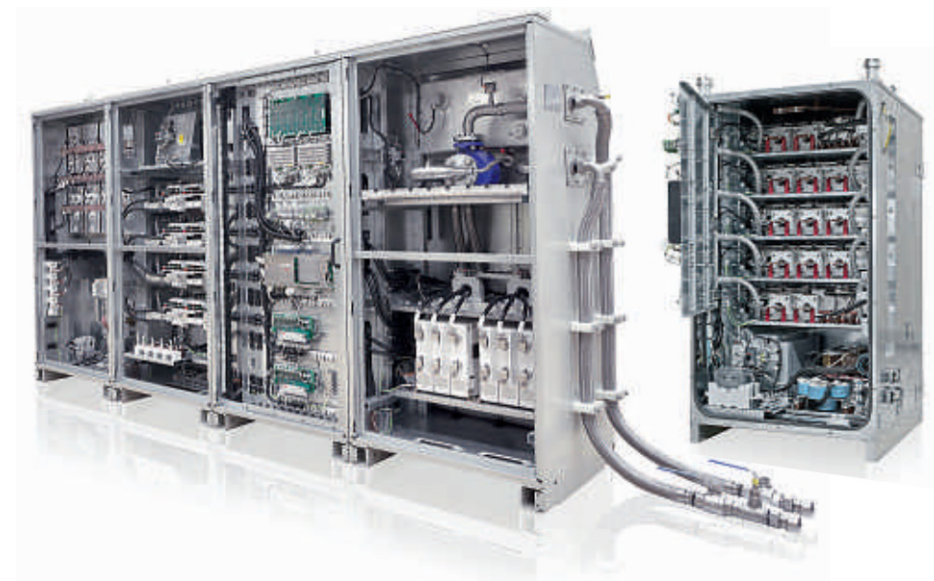
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Power converter

Flexibility and installation convenience are key in the design of power converter cooling connections, as the spaces are tight and there are many points to be connected. Custom designed ASSIWELL® metal hose assemblies reduce the installation time and offer excellent durability, thus improving the reliability and maintainability.



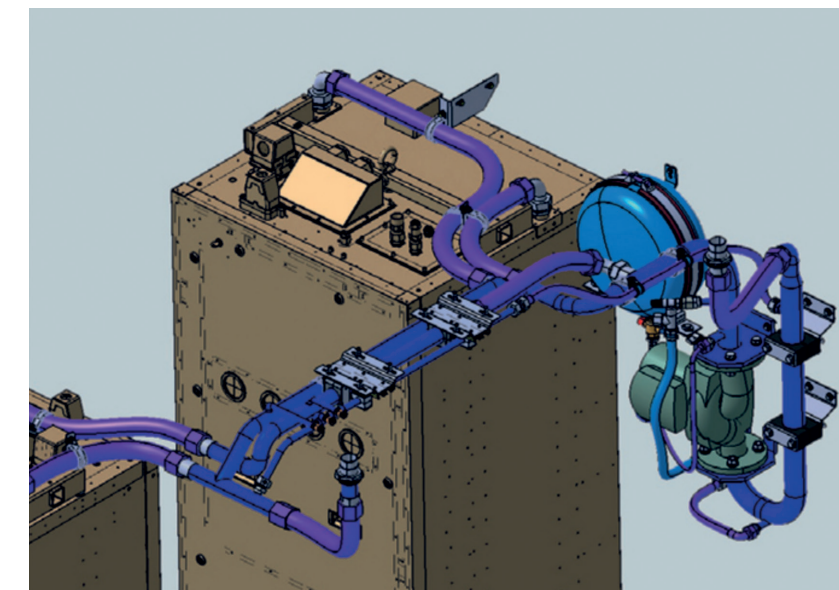
Transformer

ASSIWELL® metal hose assemblies are the state-of-the-art solution for the transformer oil cooling circuit. The metal hose assembly compensates the installation tolerance as well as the vibrations and relative displacements between the connection points of the heavy transformer unit during operation. The combination of rigid tube and flexible metal hose, all welded together in one assembly, makes the installation more efficient and reduces the total weight of the system.



HVAC and sanitary water

The fire safety, non-toxicity, durability, flexibility and low weight of ASSIWELL® metal hose assemblies are properties which are especially appreciated in the passenger compartment of trains, for such applications as HVAC and sanitary water distribution.



Diesel engines

The high temperature resistance, flexibility and durability of ASSIWELL® metal hose assemblies are useful in the many fluid circuit systems of diesel engines:

- Cooling
- Lubrication
- Air intake / turbocharger
- Fuel
- Exhaust

