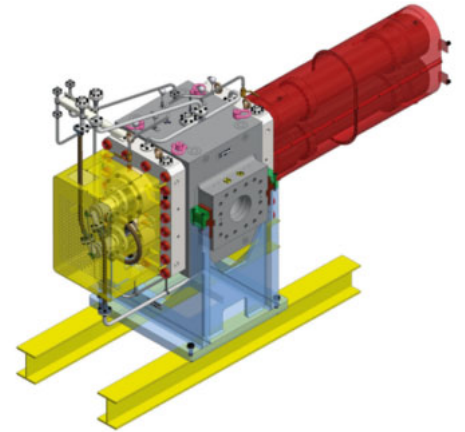


This hose passes every test High-performance components inside a pump are critical for the high performance of the entire pump system. When leading petrochemical and chemical companies produce state-of-the-art polymers like those sold by Angst+Pfister, high quality fluid handling technology is required. So is the engineering and production know-how provided by Angst+Pfister. The ASSIWELL® all-metal hose transports the oil used to cool the gear pumps of Maag Pump Systems AG. These industry-leading pumps form the core of the compounding and mixing systems for polymers and other materials.



The Angst + Pfister welder who connects the ASSIWELL® hose with the double-sided flanges is certified as a matter of course.

The gear pump comprises two gears of equal size. They interlock and are contained within a housing. ASSIWELL® transports the oil used to cool the gear pump.

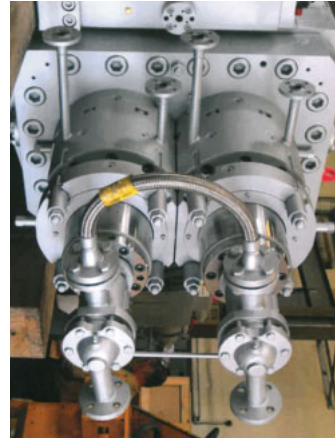


The procedure is basically the same – yet every time a little different. Angst + Pfister's account manager Panagiotis Beis knows it and enjoys continually facing new challenges. He makes sure that every hose and fittings package he supplies to Maag Pump Systems AG is carefully inspected prior to delivery, and he keeps painstaking records of the results. Metal alloys, pressure and leak tightness, helium leakage, elasticity limit and tensile strength – all results of the material inspection and procedure testing must be correct and properly documented. Only then will Panagiotis Beis confirm via signature that the consignment is in accordance with the EU's Pressure Equipment Directive 97/23 EG (PED). The Angst + Pfister welder who connects the flanges on either side of the hoses in our own welding shop must be a certified welder whose name is mentioned specifically in the documentation.

Quality – with an eye on the end customer

The quality that encompasses the product as well as all services provided by Angst + Pfister serves the builder of the compounding plants as much as it benefits the user. "Our customers want quality to be guaranteed for every aspect of the pump," explains engineer and key





Maag Pump Systems AG produces gear shafts with axial distances up to 560 mm: The larger the shaft, the greater the effect cooling has on productivity.

ASSIWELL® hose lines: extremely robust, but still flexible.



account manager Tatjana Dim. She handles the key accounts for Maag Pump Systems AG worldwide in the polymers and compounding sectors. And she knows the importance of quality and that it must be certified anew each and every time.

The gear pump comprises two meshing gears of equal size that rotate inside the housing. The conduit for the transported material runs at a right angle to the axle of the gear shaft. As the gears rotate, the medium is captured in the space between the gear teeth. When the teeth re-mesh, the medium is pushed against the housing wall and transported into the discharge line on the other side.

Temperature as a productivity factor Sensors measure the temperature inside the gear pump. In order to ensure quality, the temperature of the thermal oil used to cool the pumps must be no lower than 130 °C and may not exceed 230 °C, depending on housing and polymer temperature. If these conditions are not met, an alarm sounds and – in the worst-case scenario – operation must be interrupted. This is something manufacturers cannot afford and do not want to tolerate. Production must continue 24 hours a day, seven days a week. “That’s why reliable cooling of the gear shafts is essential,” stresses Tatjana Dim. According to Dim, efficient cooling results in a 30 to 40% increase in production output – with capacities of up to 100 t per hour, this amount literally carries a lot of weight. Thus it is no coincidence that Maag Pump Systems AG produces gear shafts with center-to-center distances of up to 560 mm: The larger the shafts, the greater the effect cooling has on productivity.

This is where the ASSIWELL® 100 W2 corrugated hose with stainless steel braiding demonstrates its superiority: The double-walled element is supplied to Maag Pump Systems AG in nominal widths of DN 25 and DN 40. The ASSIWELL® 100 W2 is extraor-

dinarily robust and withstands high pressure and high temperatures, but at the same time it tolerates even tight bending radii and is suitable for exceptionally dynamic applications. The hose’s flexibility is particularly important, since it may be neither too long nor too short when employed for the cooling of gear shafts. In addition, it may not put pressure or tension on the rotary joints it is connected to, so that the joints remain in place. In conclusion, Tatjana Dim says: “The sophisticated technology that we make available through our gear pumps and the efficiency our customers achieve as a result are dependent upon high-performance hoses.”

“The technological advances and efficiency our customers achieve as a result depend upon a high-performance hose.”

Tatjana Dim, Maag Pumps System AG Switzerland



Angst+Pfister meets all required guidelines and is accordingly certified.