Optimal vulcanization of tires using nitrogen

Advantages

• Improved heat distribution
• Reduced cycle time
• Higher production rates
• Less steam consumption
• Increased pressure stability
Optimised Tire Manufacturing

During tire manufacturing it is important to meet the high demands set by the product, whilst at the same time continuously optimizing the complex manufacturing process. Vulcanization is a production step which plays an important role here. Conventional processes, such as the steam system, have many disadvantages associated with them. Process parameters like pressure and temperature cannot be set independently of each other, resulting in a negative effect on tire quality. In this case, using nitrogen provides a reliable remedy.

Nitrogen-steam-systems allow for individual setting of process parameters. Steam provides heat, and nitrogen stabilises the pressure at the required level. As a result, nitrogen-steam-systems demonstrate a shorter cycle time. Furthermore, they increase the production rate whilst simultaneously improving product quality as localized steam overheating can be avoided. This helps to protect the bladder and rubber. In addition, as an inert gas nitrogen provides greater safety.

Gases: Our Expertise & Service

Gases are as important for many industrial processes as water and electricity. With this in mind, Messer provides reliable gas supply from its own production sources. It goes without saying that flexibility and individuality are of utmost importance to our supply concept. Whether tank or on site plant, we reliably provide your production facility with exactly the quality and volumes you require.

Messer places great importance on a close cooperative partnership. Our specialists look forward to supporting you in manufacturing products of a higher quality, both more cost effectively or more safely.