15 Robot arms made of shape memory wire
They snake as precisely as freely in all corners and directions. Flexible robot arms, such as those developed by Stefan Seelecke and his research group at German Saarland University, do not have more or less stiff joints, but rather “muscles” made of metals with shape memory.

16 Tungsten heating elements ensure quality up to 2,800°C
Tungsten has a decisive advantage. With a melting point of 3,400°C, furnace temperatures of up to 2,800°C are possible. It remains dimensionally stable, corrosion-resistant, creep-resistant and durable. The fact that the material is by no means standard is because it is difficult to work with.

17 Induction annealed tubes for the most demanding tasks
In order to cover increasing demand for longitudinally welded, induction annealed stainless steel tubes in the long term, German Schoeller Werk has augmented an existing laser welding line with the newly developed function module “Induction Annealing” to an existing laser welding line.
**Welding**

New possibilities in the production of ram piles

The goal was no less than to produce the baskets of his construction piles fully automatically. Swedish company Skanska found advice, deeds, know-how and — above all — a sophisticated technology at MBK. 20 square-type welding machines convinced with their data.

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**Forming**

Profitable innovations for cold and hot forming

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**Quality management**

Measuring solutions for fibre optic manufacturing processes

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