

**A Successful Premiere for the “Stabilizer Bar Project Days”**

It was an excellent debut in Reutlingen. WPT WAFIOS Production Technology, the WAFIOS AG subsidiary established in 2015 for automation solutions in wire and tube processing, organized the “Stabilizer Bar Project Days” in Reutlingen together with SCHNEIDER Maschinenbau, a specialist in multi-stage presses for forming complex end geometries, and a wide range of notable partner firms, including...

...**BENTELER STEEL/TUBE**, producer of custom-made seamless and welded tubes  
...**ROLAND ELECTRONIC**, expert in flexibility and process reliability in weld seam detection

...**AICON 3D SYSTEMS**, specialist in contactless detection of tube geometries

...**ITG**, experienced manufacturer of induction and conduction heating systems

...**RÖSLER OBERFLÄCHENTECHNIK**, leading manufacturer of blasting systems

...**KUKA**, robotics and automation technology pioneer

...**BRÜHL**, manufacturer of flexible, customer-specific guards

...**WAFIOS AG**, manufacturer of wire and tube processing machines

Over a period of three weeks, customers and other interested parties were given the opportunity, by appointment, to experience and critically examine a fully automated, highly flexible, and modular production line for stabilizer bars (bending and end working) in live operation. Smaller lectures or discussions were held for each module according to individual requests, with all of the exhibitors contributing their particular knowledge of stabilizer bar production. Personal conversations and opportunities to exchange experiences were always at the heart of the event, which meant that the days often flew by far too quickly.

Stabilizer bar production is still subject to the current requirements of reduced weight and high torsional rigidity in vehicle construction, which results in thinner tube walls but higher strength levels. Flexible and productive machine concepts are required as an answer to shorter development cycles and smaller batch sizes. For the bending and end working part of stabilizer bar production, the demonstration cell highlighted not only the latest technology, but also additional possibilities afforded by the increasing use of pre-tempered rods and tubes.

The WAFIOS RBV 60 ST fully electrical CNC single-head bending machine – an extremely versatile and cost-effective machine used in stabilizer bar production – was used to show the cold-bending process on the demonstration cell. The benefits of this machine, which has proved very successful on the market, include a high level of added value thanks to its sophisticated, precise technology; diverse application possibilities with a high degree of automation; and high output rates with exceptional process reliability. The fully automatic bending cell used a self-loading method to remove weld seam-oriented tubes from a tube loading unit, after which a handling robot sent the bent stabilizer bars for further processing via a conveyor belt.

The servo-hydraulic SCHNEIDER S 140-5 press cell, developed specifically for multi-stage production of the highly complex end geometries found in state-of-the-art stabilizer bars, was used for end working in the production cell. The following production stages were demonstrated: Orientation of the stabilizer bars in the handling process, inductive heating of the ends of the stabilizer bars to the forming temperature, and the use of up to five different consecutive forming stages using individual modular tools.

In the fully automated press cell, the sequences were automated by two handling robots that not only remove the bent stabilizer bars from the infeed belt and place the stabilizer bars with final end forms on the discharge belt, but also execute all the necessary motions involved in the entire forming process.

Alongside the production cell, numerous technology leaders introduced themselves and presented their specific knowledge of stabilizer bar production in short lectures and on the exhibited machinery system. **BENTELER STEEL/TUBE** develops and produces custom-made seamless and welded tubes for selected customer groups and applications, and specializes particularly in lightweight construction, strength, and surface protection. **ROLAND ELECTRONIC** provides maximum flexibility and process reliability in weld seam detection for cold-drawn or annealed tubes by combining magnetic leakage flux with the eddy current method. **AICON 3D SYSTEMS** specializes in contactless detection of tube geometries. With the TubelInspect P16, AICON premiered the newly developed optical measuring cell with 16 high-resolution digital cameras for detecting the coordinates for the bending program, and determining correction data in the event of discrepancies, in conjunction with bending and end working. **ITG INDUKTIONSANLAGEN** is the leading manufacturer of induction and conduction heating systems, individually produced in accordance with customers' specifications. With its converters and winders, ITG develops and produces the key components for defined power transfer between parts. **RÖSLER OBERFLÄCHENTECHNIK**, a leading manufacturer of blasting systems, provides comprehensive knowledge of shot peening procedures along with expertise regarding all system contexts from a single source. **KUKA ROBOTER**, one of the pioneers in the fields of robotics and automation technology, is among the global technology leaders in the production of industrial robots with different bearing loads, individual control solutions, and individually adjusted software packages for a huge range of applications. **BRÜHL SCHUTZEINRICHTUNGEN** develops and produces customer-specific guards for machine and plant construction which are precisely tailored to the applicable standards and specific requirements of the particular machines.

The demonstrations succeeded in illustrating clearly how automation solutions can be used to develop complex production sequences involving standardized individual processes into coherent production modules. More in-depth information was then provided in the lectures and numerous individual discussions. The number of visitors reflects the success of the exhibition: 68 specialists and decision-makers from 18 companies and from 8 countries and 4 continents visited the three-week long Stabilizer Bar Project Days 2015.

“Prior to the event, it was really difficult to predict how customers would take to the whole concept, but we can now say for sure that there will be a follow-up event next year,” concluded Stefan Fries, Managing Director of WPT.

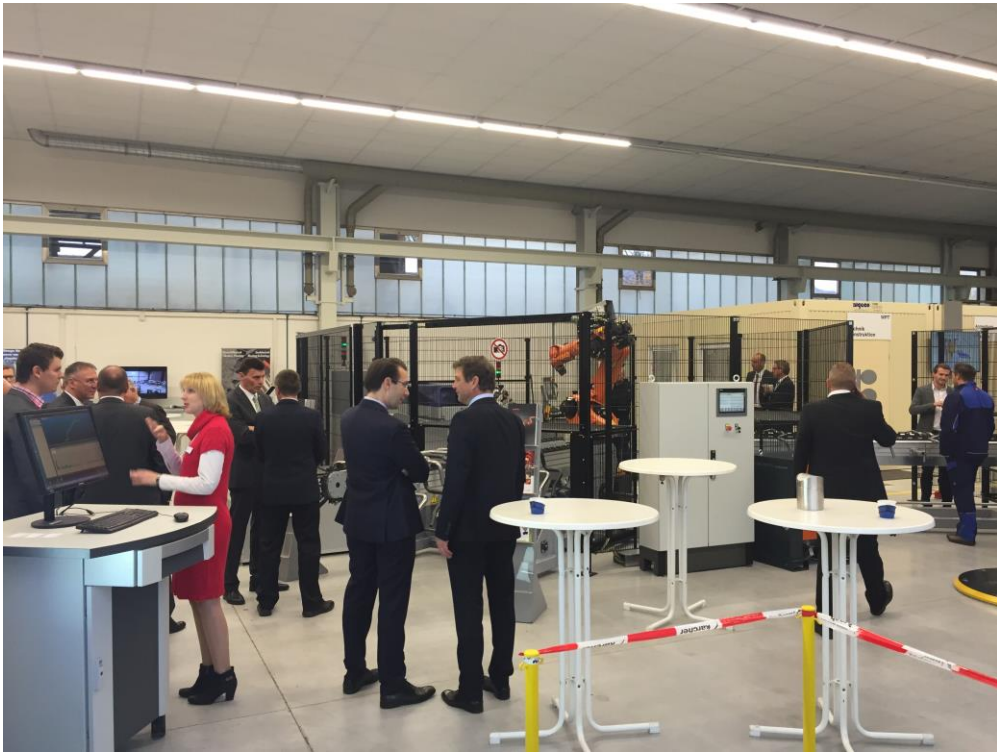


Fig. 1 Impressions