



Press Release

TruConnect: Connected to a New Era of Productivity

With TruConnect, at the Euroblech 2016, TRUMPF is showcasing innovative solutions on the way to Industry 4.0 in the field of sheet metal processing. The concept for networked production links machines, people and information – for example, via the new data output interface Central Link. At the TRUMPF booth, TruConnect is omnipresent: the machines are equipped with smart features, and consulting and software offerings are a recurrent theme throughout.

Hanover / Ditzingen, October 25, 2016 – An important new offer for entry into the world of Industry 4.0 is the data output interface Central Link, which safely provides information about the production status of machines. Customers can use it to easily integrate web applications, platforms, and – with the OPC UA communication protocol – local systems as well. Central Link is the basis for more transparency in production control and plant planning. It transmits production status information to local ERP systems and also, with high data security, to cloud-based solutions – for example, to the business platform AXOOM from the TRUMPF Group. Central Link is a key component of TruConnect.

Monitoring machine status via PC, tablet or smartphone

The connection to the web as well as to local systems is based on standards enabling ease of use. Central Link works across different machine types, and across different technologies. One major benefit of Central Link is the easy connection of offers such as the Performance Cockpit. This new, web-based solution provides real-time, relevant information on the status of all connected devices via PC, tablet or smartphone, and provides information on the productivity of the particular machine. For example, users have the option of viewing the proportion of waste per material type, so that material utilization can be improved. The Performance Cockpit also offers information on which production programs have been run, and thus provides important key figures at a glance.



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On the way to the Smart Factory, assistance systems for man and machine are becoming more and more important. Here, TRUMPF already offers a range of innovative solutions such as Smart Punch Monitoring for punching, or Smart Unload for unloading. A functioning prototype of an assistance system that helps with parts sorting on laser cutting systems can also be seen at the booth; it was co-developed with the Fraunhofer Institute for Production Engineering and Automation (IPA). It provides the operator with information about the respective jobs in real time. Once the parts have been sorted into containers, correct allocation according to quantity and location runs automatically in the background. This ensures more transparency and process stability in order processing and management.

Indirect processes take up too much time

The sheet metal process chain harbors a great deal of optimization potential in upstream and downstream tasks – from the ordering process and material procurement to delivery and invoicing. Today's TRUMPF machines are so fast that parts processing time is no longer always a priority. A joint study by TRUMPF and Fraunhofer IPA revealed that 80 percent of the potential for improvement lies in indirect processes. This is even more the case as the parts to be produced become more complex and batch sizes are steadily growing smaller. For example, the study identified that half of the production orders are already between batch sizes one and four. At the same time, fewer than 50 percent of orders are repeat parts.

Various consulting offers for the right entry

TruConnect therefore combines people, machines, software and services, providing leverage against loss of time or overly complex planning. The solutions help to process low-batch-size orders economically, to eliminate any lack of transparency in order management and to avoid long reaction times and delivery times. TRUMPF accompanies entry into networked production with various consulting service offerings. Specific indications are provided by the one-day Smart Factory Check, in the course of which all indirect processes are analyzed. On this basis, the experts define processes where connectivity offers particularly high optimization potential. In the more detailed, five-day-long Smart Factory



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Consulting process, a detailed concept is developed that includes proposals for solutions, savings potential, necessary investments and implementation planning. Customers receive specific recommendations for action together with suitable solutions from the TruConnect portfolio, into which offers and solutions of the business platform AXOOM can also be integrated.

TruConnect – a holistic approach

With TruConnect, TRUMPF is taking a holistic approach and implementing its vision of the Smart Factory across all business divisions. With the aim of increasing the availability and productivity of networked laser systems, laser technology experts developed Condition Based Services. These consist of the elements Factory Gate, Smart View Services, and Condition Monitoring. The latter minimizes the risks of unscheduled shutdowns. If, for example, a laser threatens to stop working due to insufficient cooling water, the system triggers an alert, and the operator can intervene in good time to ensure availability of the laser. Factory Gate is a software module that transmits data on the status of lasers and peripherals to service experts at TRUMPF with maximum security. Here, customers always have authority over their data, which are stored exclusively with TRUMPF. Smart Services provide an overview on dashboards of the actual status of all connected laser systems.

Goal: 30 percent more productivity in five years

In addition to the comprehensive and tailored solutions for TRUMPF customers, TruConnect services are also available to other manufacturing companies via the AXOOM business platform. And, as a third pillar of its Industry 4.0 strategy, TRUMPF is leveraging digital connectivity in its own value chains, creating more and more flagship companies in which customers can experience connected production – for example, by taking a Smart Factory Experience tour. In punching tools production in Gerlingen, Germany, online ordering of punching tools triggers automated order processing, including generation of the machine program. Production is organized on a paperless basis, and, thanks to a 2D code, the workpiece acts as an information carrier. The result: there were far fewer complaints, delivery time was reduced from four days to just a few hours, and delivery reliability is 98 percent.

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In sheet metal production at TRUMPF's headquarters in Ditzingen, a Shopfloor Management System is supporting digitalization of the production processes. Production orders are generated and controlled digitally, machine statuses are displayed in real time, and the logistics processes are also transparent at all times. The pilot project "Intelligent Production Planning" from the TruConnect modular system, which is currently running there, will partially automate the complex control processes.

In Chicago, TRUMPF is building a new factory with groundbreaking Industry 4.0 solutions and business models. Its official opening is scheduled for mid-2017. TRUMPF wants to realize its vision of the Smart Factory across the entire production network within five years, and has a specific objective: "Comprehensive digital connectivity will boost our productivity by 30 percent," says Mathias Kammüller, head of the TRUMPF Machine Tool division.

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CentralLink.jpg

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TruConnect.jpg

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SheetMetalProduction.jpg

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PerformanceCockpit.jpg

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About TRUMPF

The high-technology company TRUMPF offers production solutions in the machine tool, laser and electronics sectors. We are driving digital connectivity in manufacturing industry through consulting, platform and software offers. TRUMPF is the world technological and market leader for machine tools used in flexible sheet metal processing, and also for industrial lasers.

In 2015/16 the company – which has more than 11,000 employees – achieved sales of 2.81 billion euros. With over 70 subsidiaries, the TRUMPF Group is represented in nearly all the countries of Europe, North and South America, and Asia. It has production facilities in Germany, France, Great Britain, Italy, Austria, Switzerland, Poland, the Czech Republic, the USA, Mexico, China and Japan.

For more information about TRUMPF go to www.trumpf.com

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