The cooperation with Schreiner ProTech means above all: To have a future orientated development partner at eye level. Schreiner ProTech is a complete integrated system supplier for labelling solutions, accompanying all project phases—from an intensive consultation on the technology and process integration, to the product development and implementation of the application system as well as the production series.

Together with Schreiner LogiData, the expert for digital label solutions with more than 100 implemented RFID projects and over 20 years’ experience, arises customized solutions that pursue one major goal: optimize processes and reduce cost.

Smart factory, intelligent manufacturing. Whoever turns this future scenario into reality, is making a stride into the modular production world as well as securing a competitive advantage—based on demands in production and logistics becoming increasingly complex. As part of the Industry 4.0 revolution, smart factory is a data-driven process, a production completely networked with machine-material-communication based on the lock-and-key principle and fully automated manufacturing.

What may appear to be a future vision is now possible by means of individually equipping components, systems and containers with RFID labels. RFID provides each item with its own identity, enabling the independent control of a production process and a consistent data log across the entire supply chain.

THE LEAP INTO INDUSTRY 4.0

SMART FACTORY

Read the NFC label with your smartphone for more information about RFID solutions.

www.schreiner-protech.com/rfid
CONCLUSION:

In most cases, RFID labels are not a once-off purchase. Therefore, a sound ROI calculation is only possible based on an exact cost-benefit analysis in advance.

RFID experts from Schreiner ProTech will investigate the application area conditions, review the requirements for process optimization and support their proposed solutions with laboratory and field tests.

This will increase the level of certainty in the planning and concept design of the complete project.

Also this can help determine in greater detail, when and if the application of RFID is worthwhile for the customer.
Wide variety, flexible production models: The challenges for manufacturers are immense. In a single car, as an example, more than 10,000 individual components are installed. This requires an efficient production and assembly combined with intelligent service concepts.

The solution to bring transparency and efficiency to an increasingly complex supply chain: An Industry 4.0 focused production with flexible workflows and components equipped with RFID labels that independently inform the manufacturing cell what to do with them.

- Consistent and compliant **recordings of component groups** (from in-house production and assembly up to full integration in an outsourced production)
- Secure and efficient **process control**
- Valuable **cost and efficiency benefits** in international competition
- Comprehensive **product lifecycle management**
- Automated **documentation** and full **batch traceability**

Learn more about labelling parts with RFID: [www.schreiner-protech.com/ rfid-componentidentification](http://www.schreiner-protech.com/rfid-componentidentification)
In classic production series, the parts to be processed mostly reach their respective assembly stations in various containers and materials via a Kanban system involving barcode stamp-card—a well-established, but not always reliable and comparatively complex logistics system. Cards can get lost, containers must be individually logged, booked and manually forwarded to their respective stations. Due to the immense effort required, documentation of empty containers is often neglected.

The Solution: Containers equipped with RFID labels that organize themselves.

**RFID CONTROLS**

- Optimized **empties management** through inventory information in real-time
- Complete **bulk reading**
- Comprehensive **batch tracing** at container level
- **Intelligent containers that actively steer** the production process and coordinate routing

PERFORMANCE OF RFID LABELS IN LOGISTICS:
RFID communicates

The VDMA* documented: The damage to the German machine and system manufacturers amounts to 7.3 billion euros due to plagiarism. A machine that is not equipped with the original spare parts or consumables will cause errors in production processes, produce faulty products even a complete machine standstill. The consequences for the manufacturer are massive quality problems, turnover and margin losses to compensation claims.

The solution: An RFID system in which the machine and materials communicate according to the lock-and-key principle.

* Society of German Mechanical Engineering Institutes, study on product piracy, 2016

**PERFORMANCE OF RFID LABELS IN**

MACHINE-MATERIAL-COMMUNICATION:

- Counterfeit protection
- Secure proof of authenticity
- Quick data log of consumables on the device
- User control of the device (such as settings, parameters) through material approval
- Unseen detection of consumables
- Documentation of usage and utilization cycles
- Protection against multiple use or use after expiration date