

Industry 4.0

Competitive advantages through networked production





The factory of the future

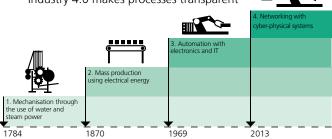
Industry 4.0 describes an approach to production in which things are networked according to the model of the Internet. The aim is to operate a "smart factory" that is characterised by a high level of flexibility, resource efficiency and ergonomics.

When, where and how was the plastic part produced? What is the next processing step? In the injection moulding plant of the future, the products themselves provide the answer and become the information carriers for both man and machines. In short: the plastic parts become "intelligent". This requires that they are clearly identified – for example by means of a DMC code. This ensures that the plastic parts can be identified at all times via a scanner. A host computer system will enable production processes to be controlled dynamically and production data to be recorded and archived online. The result: efficiency in the company is increased and brings competitive advantages.

The fourth industrial revolution

New information and telecommunication technologies such as the Internet and mobile terminals have the potential to change the industrial process significantly and to overcome economic challenges:

- Flexible production Industry 4.0 makes it possible to act swiftly
- Individual production –
 Industry 4.0 makes the production of one-off parts and small-volume batches cost effective
- Traceable production –
 Industry 4.0 makes processes transparent



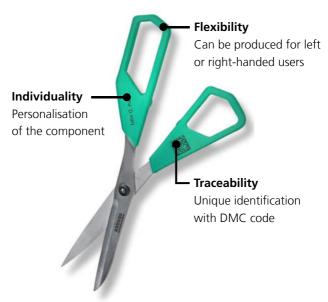
Industry 4.0: our modular kit

Industry 4.0 requires individual holistic solutions deriving from the interaction of various areas:

- Flexible automation design and support of customer-specific turnkey systems
- Integration-capable machine control system integration of robotic systems and peripherals in the SELOGICA system
- Information exchange across all locations online data acquisition and archiving as well as provision of information in real
- time via the ARBURG host computer system (ALS)
- Efficient logistics design and support of scanners or handheld solutions



Example: Office scissors



Flexible, traceable and individual production of the "unique" office scissors in four steps:

- **Entering your ID:** Personalise a chip card with any user name and select the type of office scissors required
- Producing and personalising the scissors*:
 Read your chip card into the SELOGICA control system of the production cell. In the following cycle, your chosen scissors will be produced and personalised with a DMC code and user name.
- **Testing the scissors:** You can test the scissors by scanning the DMC code on an independent scanner. The read-off information is uniquely assigned to the product.
- Retrieving the data: The ARBURG host computer system records and archives the production and test data for the scissors online on a part-specific web page. This data can be retrieved at any time by scanning the DMC code, e.g. via smartphone.
- Personalisation is also available with ARBURG Plastic Freeforming (AKF).

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At a glance

- "Intelligent" products become information carriers for both man and machine
- Mobile end devices provide information at local level in real time
- Maximum flexibility in production one-off parts and small-volume batches can be produced efficiently
- Production can be clearly traced
- Seamless online part documentation

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