



# arburgXworld

Digital transformation for the factory  
of the future

**ARBURG**

# **EFFICIENCY DRIVER**

**Digitalisation of plastics processing.**

Digitalisation means becoming more efficient – at every point along the entire value chain. Starting with machine purchasing and order planning, production and quality assurance through to maintenance and spare parts purchasing. This includes the responsible use of resources. This is where the world of our digital networking comes in. Our arburgXworld will support you in all aspects. Work with us to increase your production efficiency and strengthen your competitiveness sustainably.

**WIR SIND DA.**



## AT A GLANCE

// Traceability, production on demand, mass customisation, resource management and circular economy – these are just a few examples of what is possible with the digital transformation of production. Our “arburgXworld” (aXw for short) offers you everything you need. As a technology and system partner, our expertise ranges from the machine, process, automation and controller technology through to IT networking. With us, you can systematically implement your individual digitalisation requirements. This will lead to maximum production efficiency and greater value creation as well as completely new business models! //

### This is what our “arburgXworld” means for you:

- Supporting qualified personnel with expertise and AI
- Interlinking of production and information technology
- Assistance tools for control systems
- Online data management
- Platform for digital services

## Individual strategy required

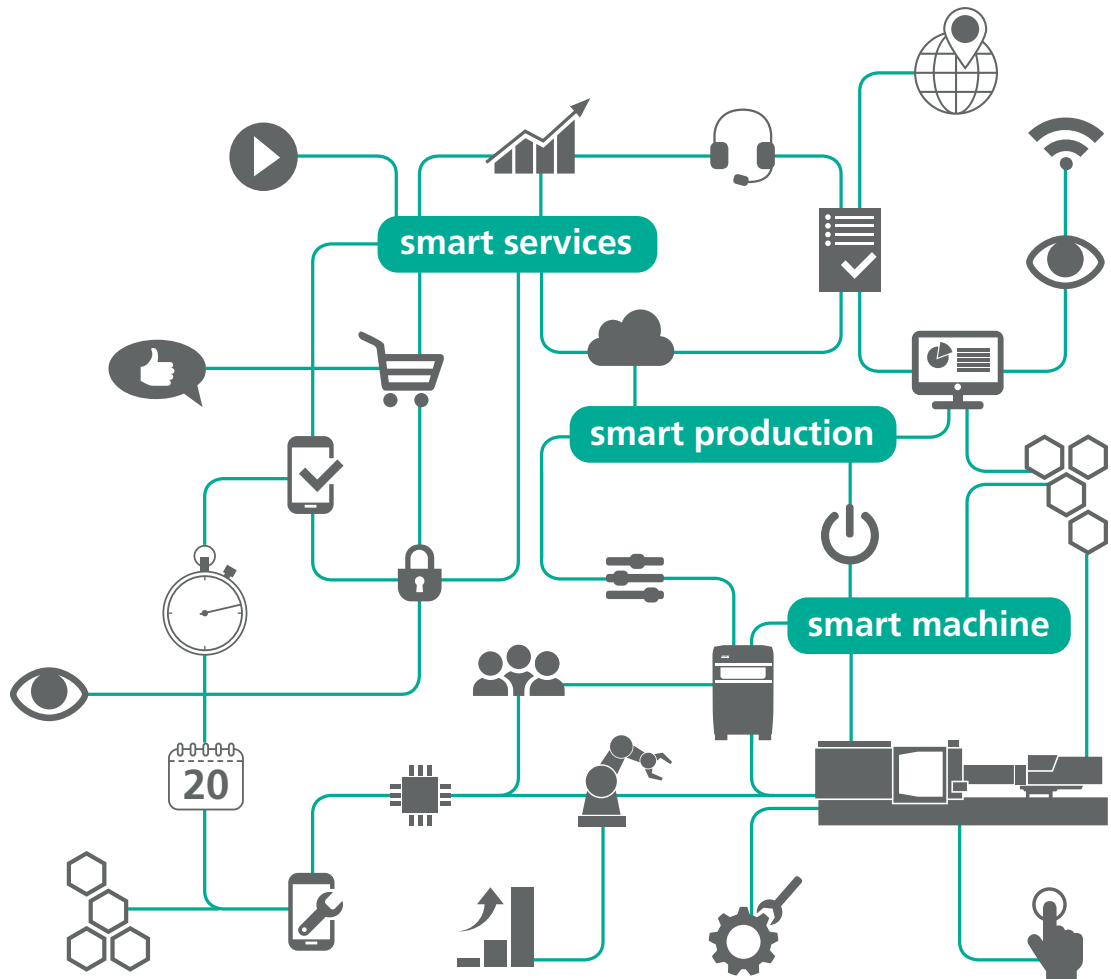
Digitalisation offers enormous potential:

- Transparent production – employees are kept reliably informed
- Process-reliable manufacturing – processes and products are traceable
- Flexible production – small-volume and one-off parts can be produced economically
- Efficient production – processes are resource-saving and fast

There is no general solution for digitalisation! This is because no two injection moulding production tasks are alike and you need to develop your own production solutions. We will be delighted to help you achieve this.

## ARBURG components for all areas

Are you looking to increase operating convenience and process control of your machines with smart assistance functions and connectivity modules? Do you need 100 percent traceability even of interlinked work steps in production cells? Would you like to plan your entire production more accurately on the basis of online data and dynamically control processes? Do you want to reduce your organisational effort by using digital services? Our aspiration is: We are your technology and system partner, especially when it comes to digitalisation! You will benefit from our extensive expertise and individually combinable digital components. Come and join our arburgXworld!



# SMART MACHINE: ASSISTING AND CONTROLLING

// Operators need to be able to adjust and control production processes intuitively, however complex they may be. This calls for a smart machine that offers extensive data integration options, monitors and adaptively controls your processes, and supports you in every operating situation. This is precisely the aim of many of our control system features. For higher productivity. For reliable processes. For improved part quality. For fault-free operation. In other words: For more value all-round! //



GESTICA

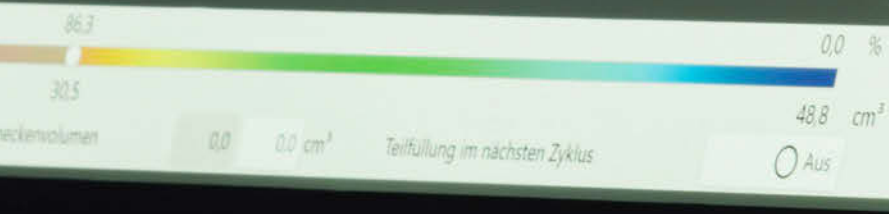
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KONFIGURATION

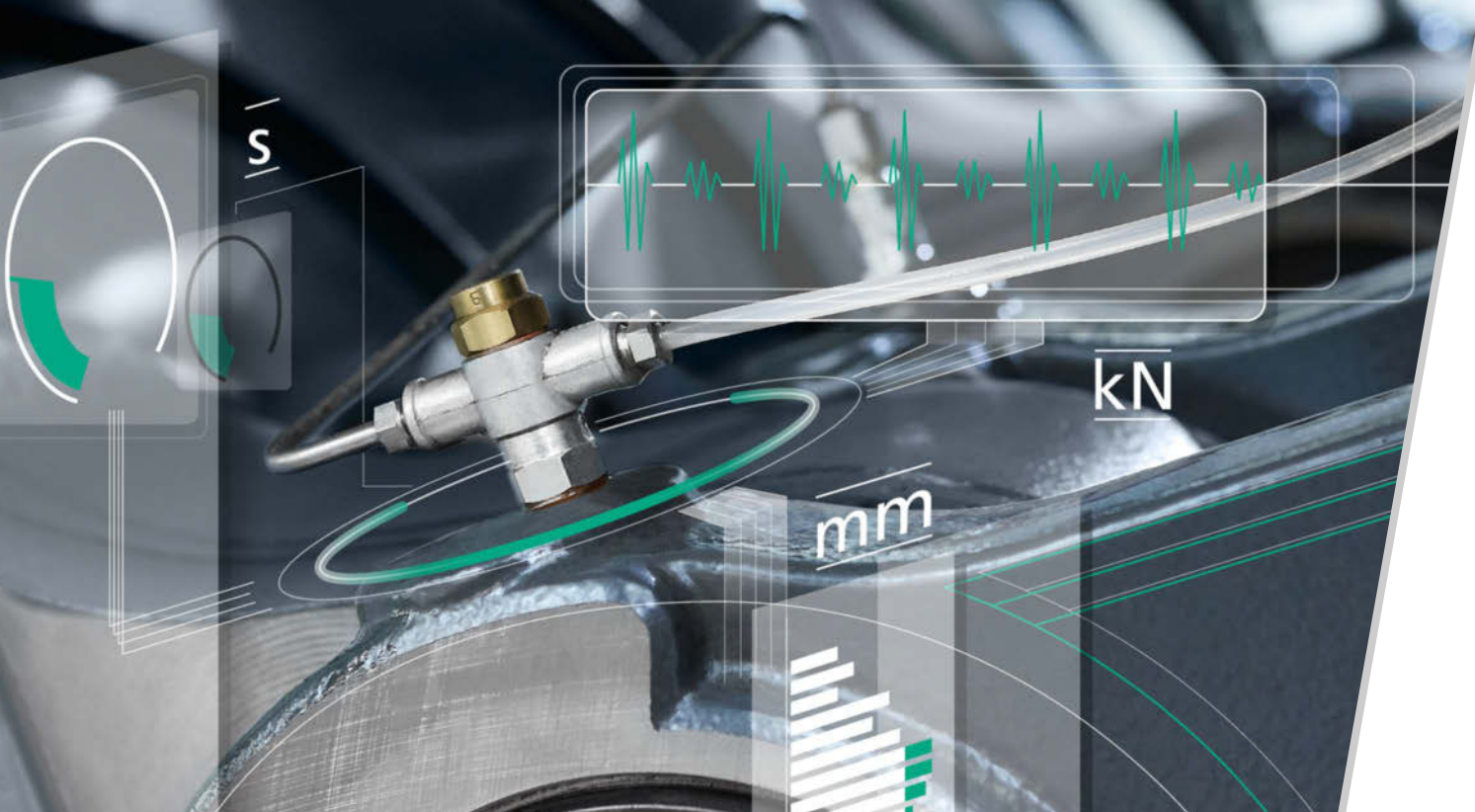
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Navigation and control icons including zoom, pan, and view options.

Grid of directional buttons for navigation.

Grid of function buttons for simulation control.



## Predictive maintenance

Reduced maintenance costs and higher availability: the real-time capable network system of our machine technology combined with smart data analyses form the basis for predictive maintenance. These solutions include load-dependent lubrication for electrical toggle-type clamping units and for servo axes on robotic systems. Lubrication intervals are calculated individually, depending on the forces, speeds, strokes, and times that have been set.

## Comprehensive connectivity

Simple, standardised networking – the OPC UA communication protocol creates ideal conditions for this with its manufacturer and language-independent technology. And this is precisely what our flexible connectivity modules are based on: for process control without limits between the ALLROUNDER and its production environment. For the online provision of process information to higher-level software tools and platforms. Or to put it briefly: for practice-oriented digitalisation!

## Clever assistants

How do you make a control system provide even more support? Our aXw Control FillAssist for the GESTICA allows the filling level of the produced component in relation to the current position of the plasticising screw to be animated as a 3D graphic in real time. Expert installation technicians also benefit from this information as it saves them valuable time. Another example is our aXw Control MeltAssist. It uses the data stored on a memory chip in the cylinder module to automatically determine parameters such as plasticising capacity and residence times.

**i** Further information:  
GESTICA brochure



# WE HELP YOU GET THE MOST OUT OF YOUR PROCESS!



## 4.set-up

Guided set-up: you receive active support during set-up and parameter input, leaving you more time for productive tasks.



## 4.start-stop

Fast production start-up: start-up and shut-down of complex processes are made easier for you, reducing the number of start-up parts required.



## 4.optimisation

Assured quality and productivity: allows you to get even more out of your machine in each case – because every split second counts.



## 4.production

Greater programming freedom: special processes become standard for you and even complex moulds can be mastered quickly.



## 4.monitoring

Controlled system status: comprehensive monitoring functions enable you to detect deviations early and seamlessly document them.

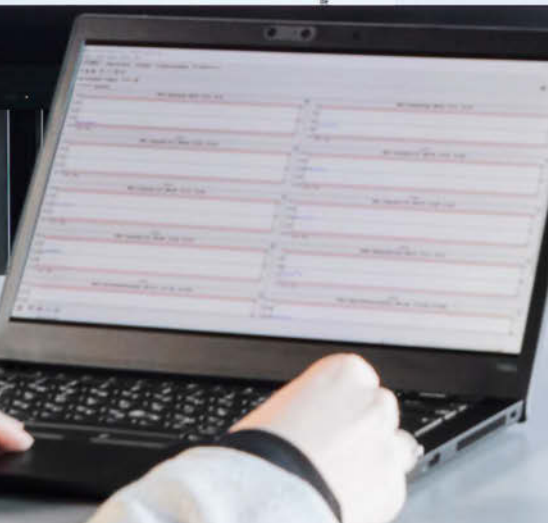
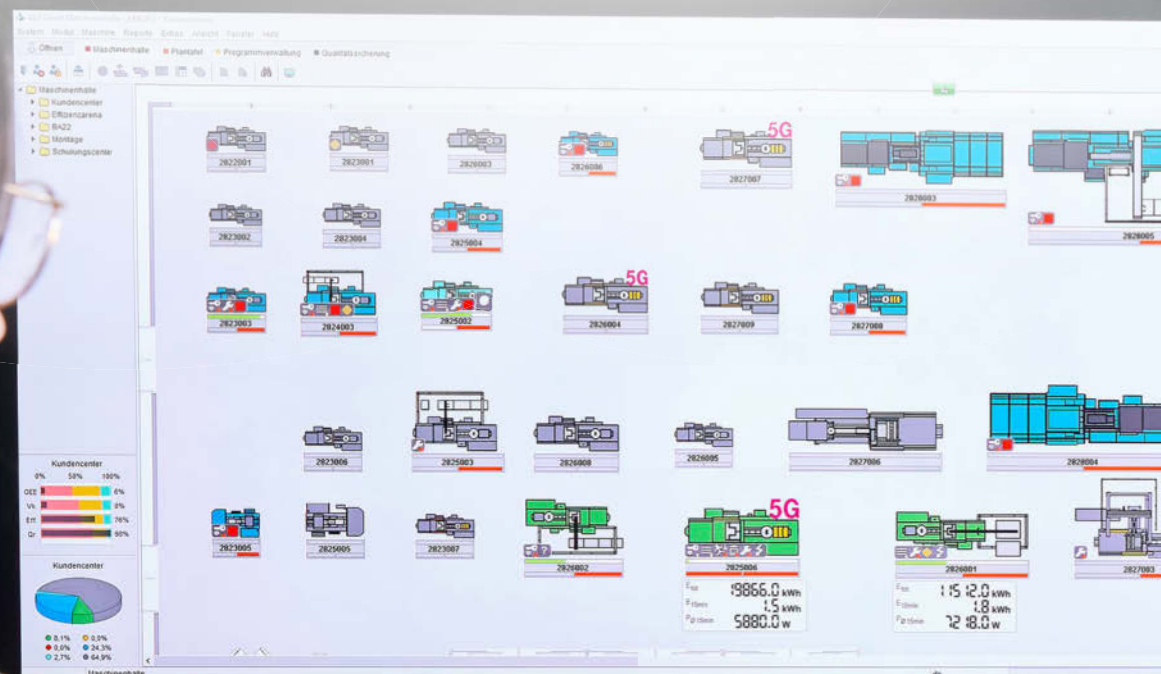


## 4.service

Time-saving online support: have faults analysed quickly, efficiently and safely in a remote process – for even greater machine availability.

# SMART PRODUCTION: CONTROLLED DYNAMICALLY

// Utilise your available resources much more effectively – whether it's during order planning, quality assurance, mould management or maintenance. Direct exchange of information forms the basis for this. Process data is captured online, clearly prepared and available end to end. You will always be aware of what is going on in your production – wherever, whenever and however you want! Processes can be dynamically controlled and systematically optimised. As a technology and system partner, we also take care of the implementation of a digital data management system for the organisation of production. Turning big data into smart data! //





## Online data acquisition

Reliable documentation with no effort or incorrect entries. Directly available feedback and key indicators for the management level – even mobile!

Detailed planning down to the minute to optimise capacity utilisation, quality and delivery reliability. Manufacturing Execution Systems (MES) play a key role when it comes to IT networking of production. Our ARBURG host computer system (ALS), specially designed for injection moulding companies, permits data exchange across production facilities and locations (horizontal integration) as well as with an ERP system (vertical integration).

## Traceability

Collect relevant process and quality data for specific parts and forward them to an evaluating system: This requires a SCADA system such as the ARBURG Turnkey Control Module (ATCM). It also visualises the key functions of complete production cells, including log graphics, system statuses, alarms or the results of camera inspections. If required, you can also use the ATCM to start non-cyclical production processes such as ejection.

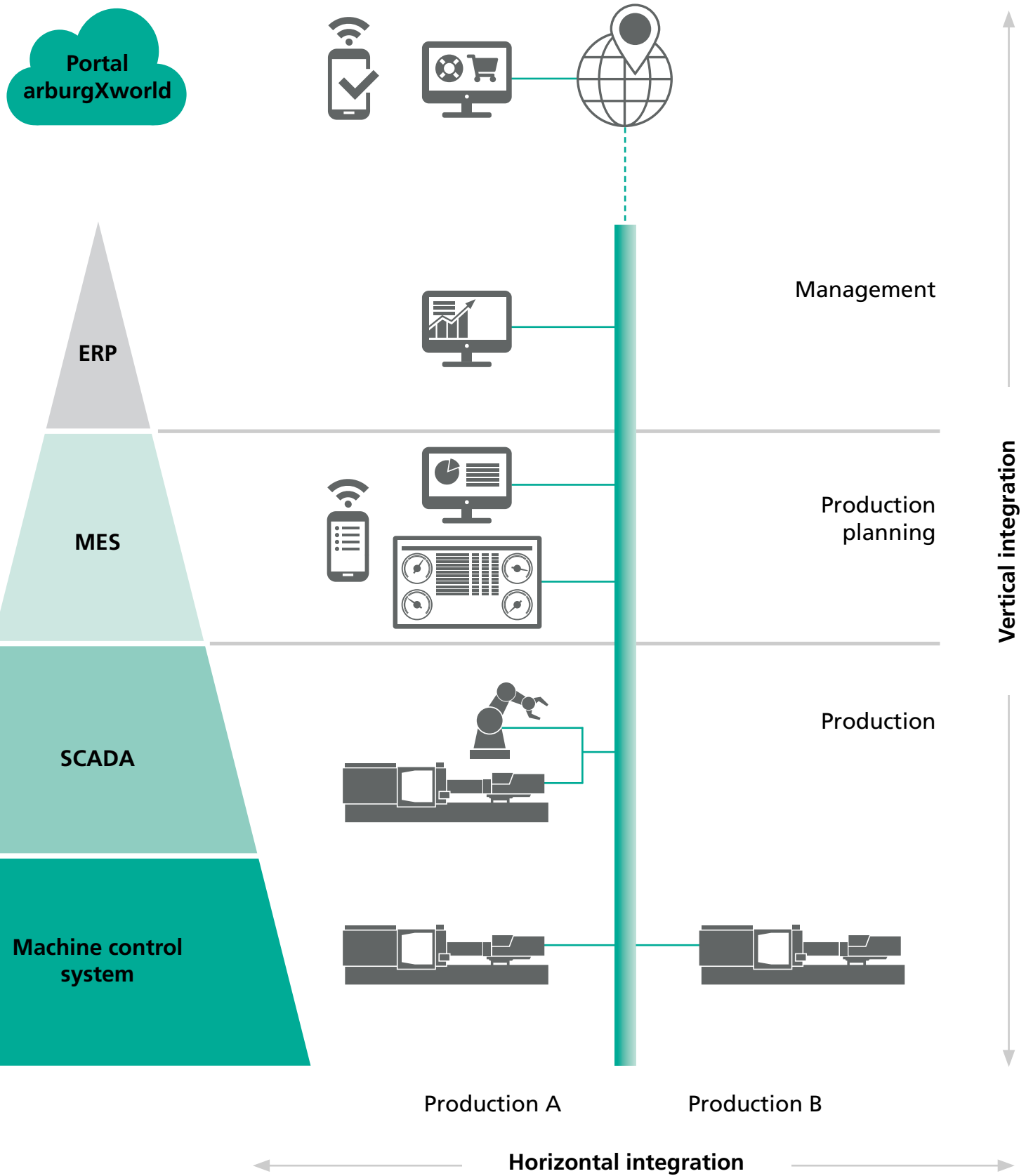


Consistently transparent: targeted data exchange as the basis for maximum availability.

Always ready to make decisions: precise information available worldwide at any time.



Further information:  
Host computer system brochure



**arburgXworld:** The ARBURG customer portal

**ERP:** Enterprise Resource Planning

**MES:** Manufacturing Execution System – ARBURG host computer system (ALS)

**SCADA:** Supervisory Control and Data Acquisition – ARBURG Turnkey Control Module (ATCM)



# SMART SERVICES: RETHINKING WORK, DIGITALLY

// Become more efficient! Through the digitalisation of work procedures and business processes. This is exactly what our "arburgXworld" customer portal is designed to do. You have secure access to the latest information on your machine fleet – whether at your workplace or on the move. It will help you immediately in the event of malfunctions - around the clock. Order spare parts directly online, an interactive and convenient route. Work with time-saving calculation tools and knowledge databases – from work preparation and production planning to sales and management. Enter a world that offers you completely new possibilities! //

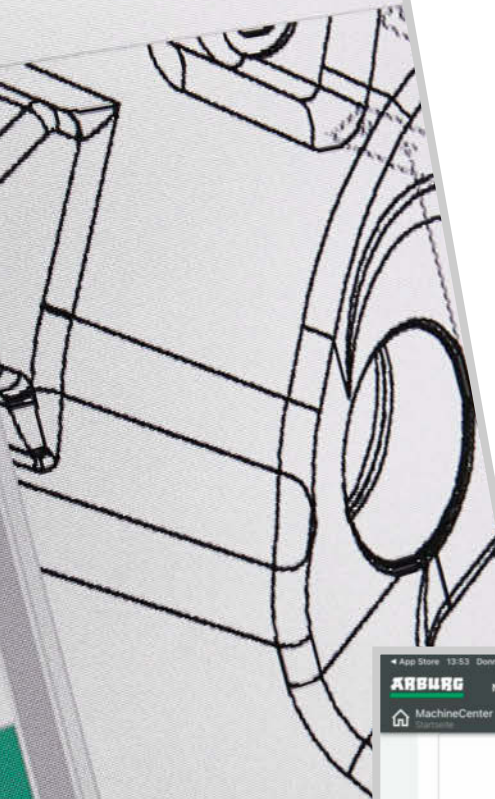


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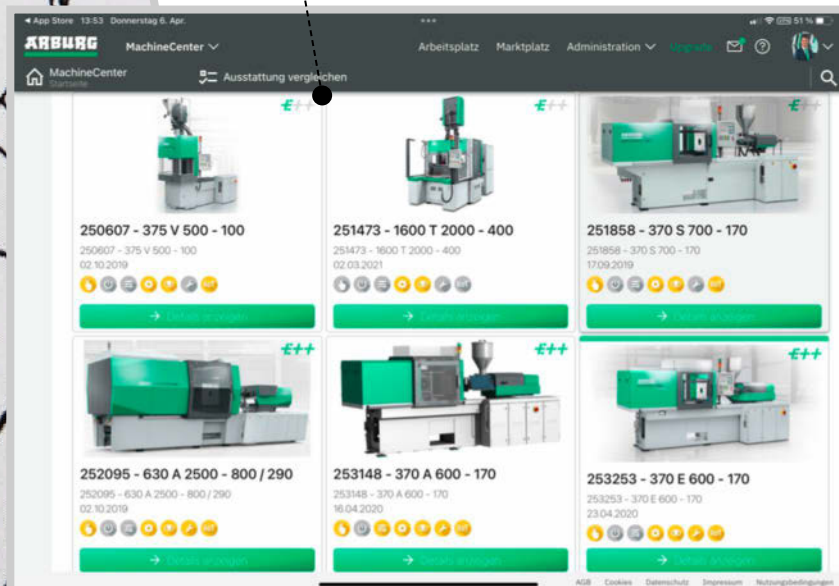
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## arburgXworld – the digital platform

Our customer portal "arburgXworld" offers a classic win-win situation: You get access to unique digital value-added services. And by staying in touch with you, we can make your processes even easier and faster. It is an extraordinary offer that we will continue to expand. Joining our arburgXworld with the "Basic" package is free of charge. Those who want additional functionality can expand their digital options at any time to suit their specific needs with the "Premium" and "Premium Connect" packages.

We can also work with you to develop individual solutions for your needs. For example, when linking with the ARBURG host computer system, or if you require special packages and support services. Talk to us about how we can help (support\_portal@arburg.com).

Always up to date: The virtual representation of your machine fleet is sourced from the ARBURG database.





## “Basic” package – get started free of charge

Our “Basic” package provides access to up-to-date data, makes communication easier and facilitates rapid responses right from the start. And all of this 24/7!

**aXw App MachineCenter:** Rapid virtual overview of the machine fleet. Access current production-related information and documents centrally.

**aXw App ServiceCenter:** Easily launch enquiries to ARBURG Service or Application Technology. Track ticket status and automatically documented ticket history to save time.

**aXw App Shop:** Search and order spare parts interactively online. Direct information on: prices, availability, offers, orders, shipments and invoices. Avail of exclusive special offers. Overview of immediately available warehouse and used machines (Ready2Go).

**aXw App Calendar:** Track spare parts deliveries and view scheduled service appointments.

**aXw App SelfService:** Analyse malfunctions yourself and solve problems quickly. Access directly suggested solutions for machine controller messages. Assistance with moulding errors for quick parameter optimisation.

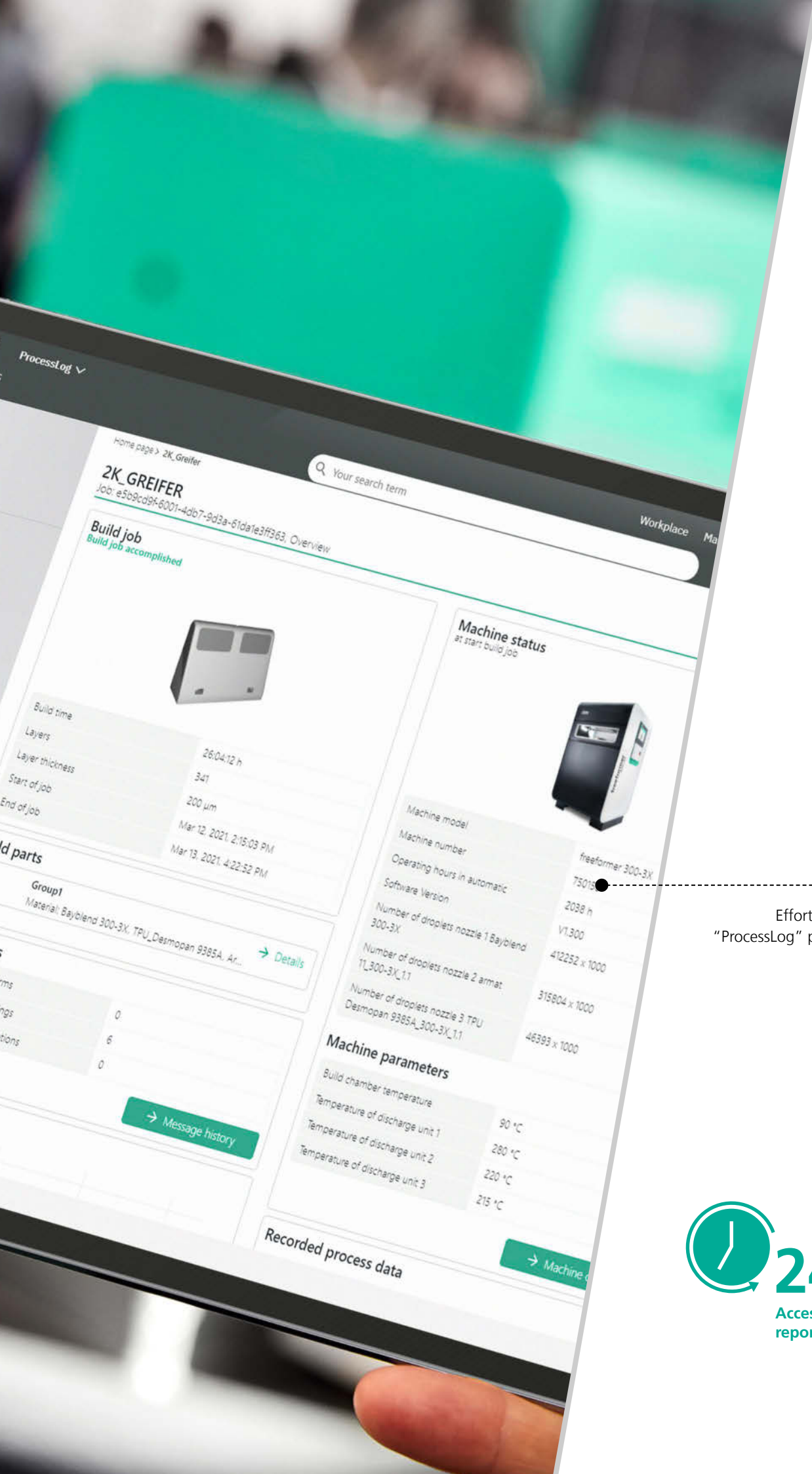
**aXw App Configuration:** Configure standardised machine offers online.

**aXw App ProcessLog:** The app specially for freeformers. Display and archive build jobs with process and machine data. Easily create reports on build jobs.

 Companies wishing to use access to ARBURG's digital service world can register at [www.arburgXworld.com](http://www.arburgXworld.com)

**REGISTER  
NOW**





### 2K\_GREIFER

Job: e5b9cd9f-6001-4db7-9d3a-61da1e3ff363, Overview

Search: Your search term

#### Build job

Build job accomplished



Build time	26:04:12 h
Layers	341
Layer thickness	200 µm
Start of job	Mar 12, 2021, 2:15:03 PM
End of job	Mar 13, 2021, 4:22:52 PM

#### Machine status

at start build job



Machine model	freeformer 300-3X
Machine number	75015
Operating hours in automatic	2038 h
Software Version	V1.300
Number of droplets nozzle 1 Bayblend 300-3X	412252 x 1000
Number of droplets nozzle 2 armat TL_300-3X_1,1	315804 x 1000
Number of droplets nozzle 3 TPU Desmopan 9385A_300-3X_1,1	46393 x 1000

#### Machine parameters

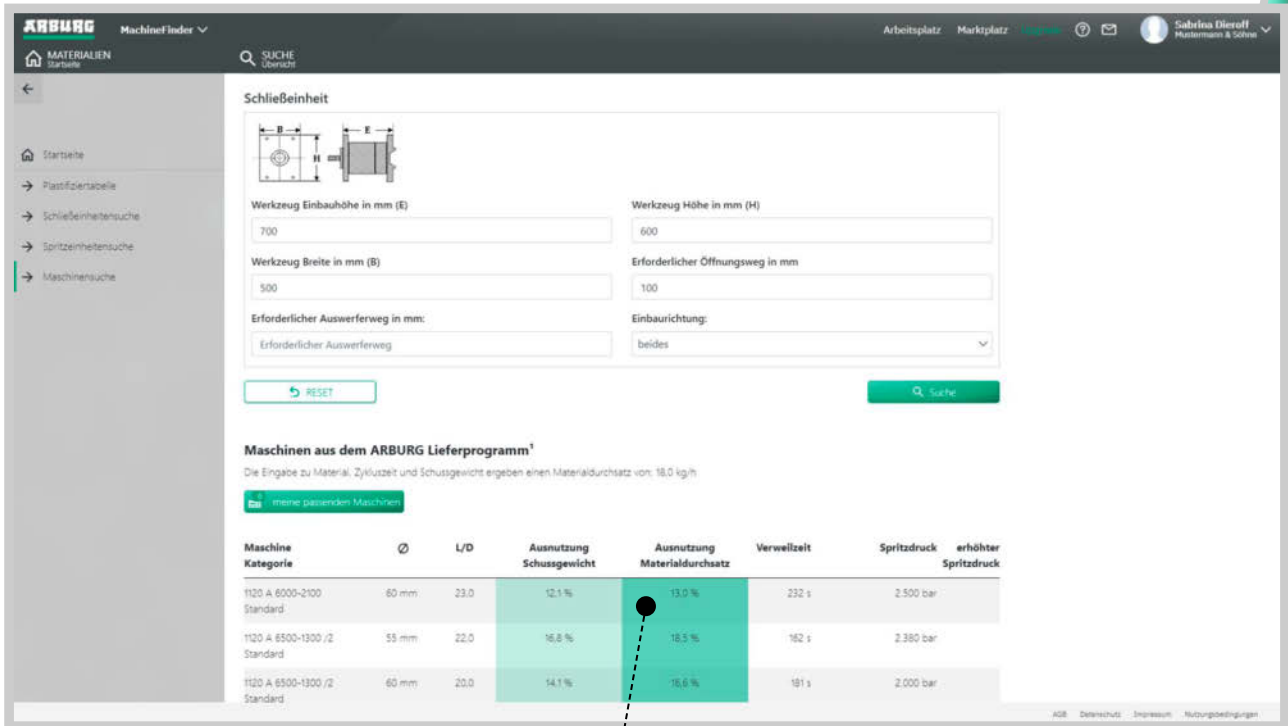
Build chamber temperature	90 °C
Temperature of discharge unit 1	280 °C
Temperature of discharge unit 2	220 °C
Temperature of discharge unit 3	215 °C

#### Recorded process data

Effortless: Apps such as "ProcessLog" provide automatic documentation.



Access and report information



Interactive: Knowledge databases such as "MachineFinder" make work easier.

## "Premium" package – an enhanced user experience

Our "Premium" package includes calculation tools, knowledge databases and AI to help you and your qualified personnel save even more production and working time.

**aXw App VirtualControl:** Simulates control of the respective ALLROUNDER so that you can create and optimise data sets on your PC or train employees.

**aXw App MachineFinder:** Assistant for designing ALLROUNDERS on the basis of saved data on materials, plasticising and machinery. Search your own machine fleet.

**aXw App DataDecoder:** Analyse and save important parameters from a machine data set. Directly compare up to five data sets with filter function.

**aXw App Ask ARBURG:** Answers specific questions about the machine and process, which makes it even easier to eliminate the causes of faults.

**aXw App Programs:** Centrally manage programs and data sets across all machine manufacturers and types.

# WE SHOW YOU WHAT DIGITALISATION CAN ACHIEVE.

## “Premium Connect” package – Get live information

Building on the “Premium Package”, “Premium Connect” provides you with reliable online information about machinery and processes. The required data is collected on the basis of the production protocol via an IIoT gateway in your ALLROUNDER, and prepared for you on a continuous basis. More transparency, whenever you need it – including on the move!

### **aXw App MachineDashboard:**

Access status information relating to specific machines. Visualise the production process using trend diagrams.

### **aXw App AnalyticsCenter:**

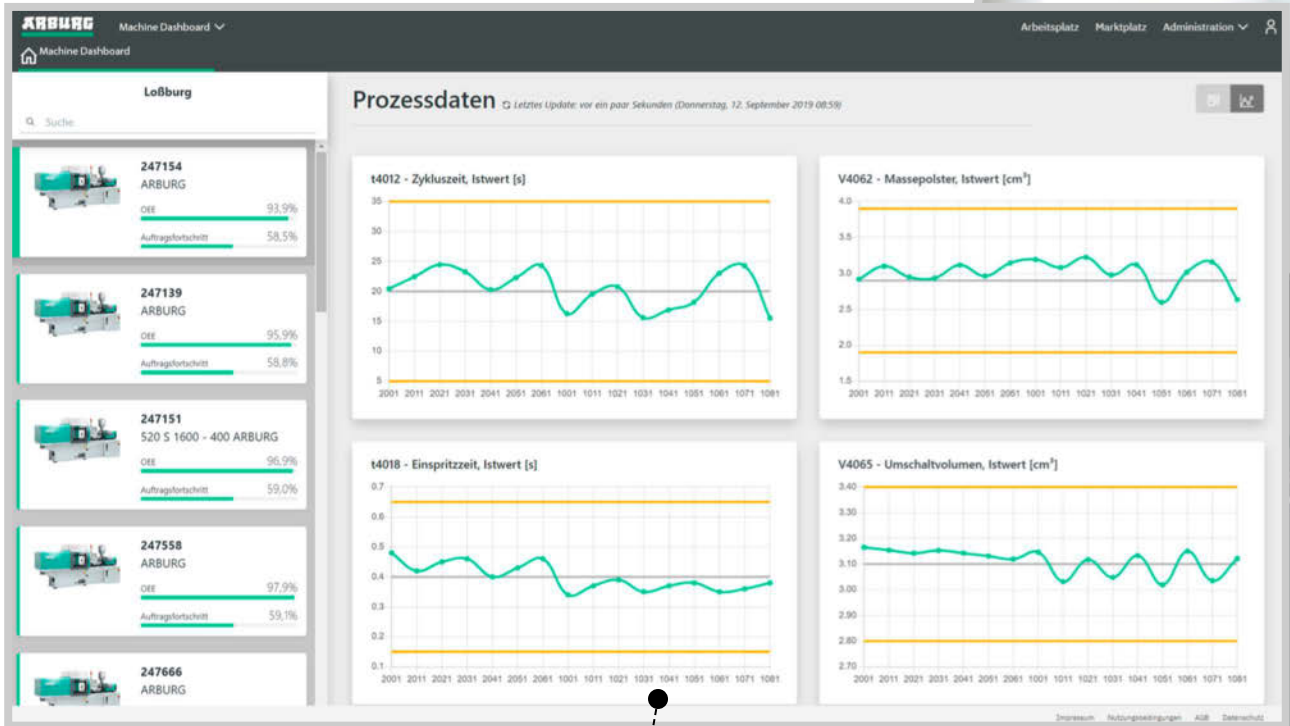
Document injection moulding parameters. Directly monitor and analyse the production process using trend diagrams. Easily create reports on orders. Viewing the cycle diagram.

With the digital added-value services  
from arburgXworld, annually up to

**EUR 25,000  
PROFIT\***

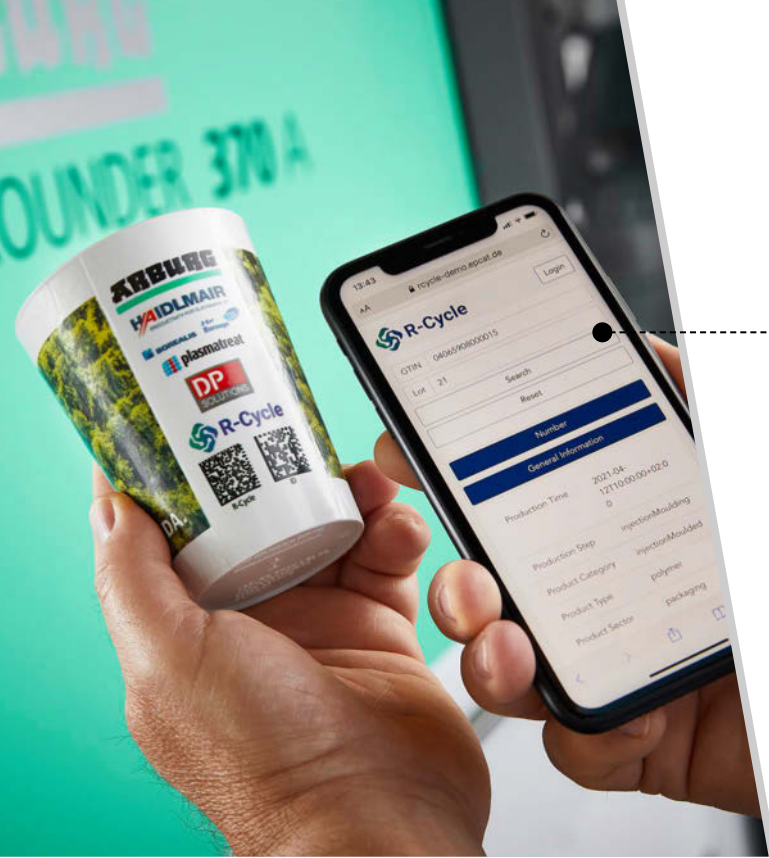


\*Estimate based on production with  
20 machines and Eurostat values



Keeping up to date: reliable information on the current status of production.





Traceable: Information on material and process digitally available and linked to product.

## BEST PRACTICES: DIGITAL POTENTIALS

// This digitalisation of the factory makes it possible to integrate processes that respond extremely flexibly to changes and can largely control themselves. This leads to a higher value creation from products. Furthermore, completely new business models can be developed, e.g. through the direct integration of customer wishes. As a technology leader and trendsetter in the plastics industry, we are constantly opening up new horizons in what is technically possible. And we impressively demonstrate this with specific solutions. This means that the associated potential is directly available for you. //



### Online examples

What is possible with digitalisation?  
Be inspired by some more examples.

Individualisation "on demand"  
Automated additive manufacturing  
with integrated data management.



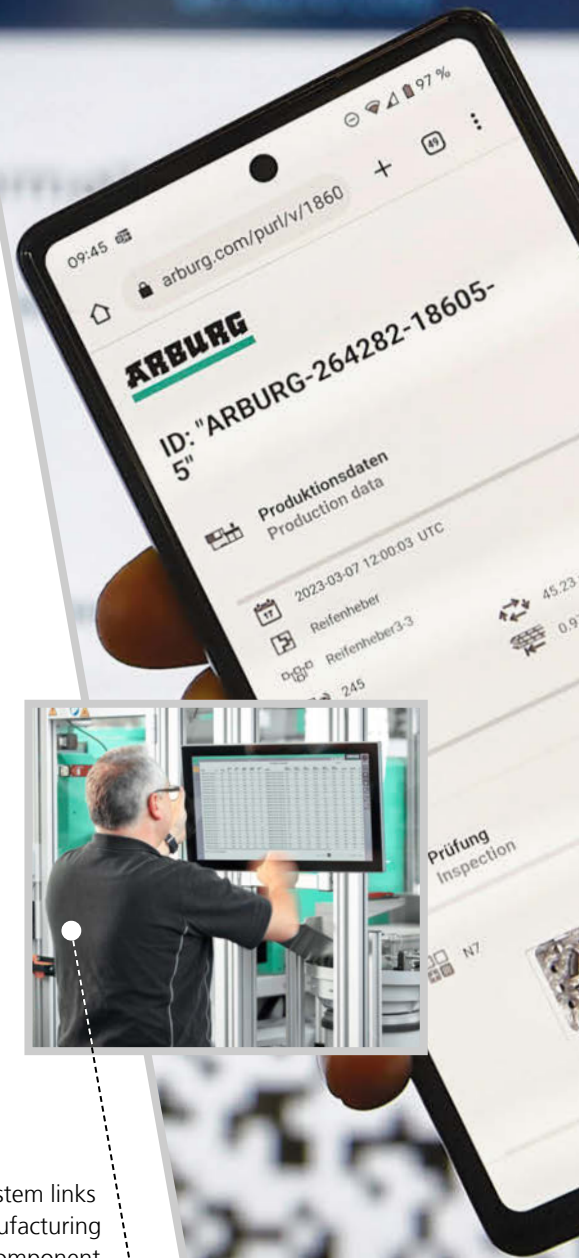
Unique identification: Code  
on product provides data on  
process and material.

High-volume, multi-variant production:  
IT networking is a key prerequisite for  
process optimisation.



Individual product passport:  
Invisible tags provide important  
tracking data, for example for  
recycling and copyright.

Traceability: SCADA system links  
process data of a manufacturing  
cell for each component.





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