SocialProduction INNOVATIVE PRODUCTS FOR PRODUCTION MONITORING

THE PRODUCT FAMILY

Google Pla



Pioneering Plastics

socialProduction THE PRODUCT FAMILY AT A GLANCE



KraussMaffei smartCube

CONNECTIVITY IS KEY TO DIGITALIZATION

- Innovative connectivity solution for using socialProduction products
- Future-proof and standardized industrial PC with highest security standards

social Production ^{KraussMaffei}

socialProduction

PRODUCTION. COMMUNICATION. PROACTIVE. INTUITIVE.

The socialProduction family of products facilitates the intuitive monitoring of injection molding machines, the production process and the condition of machine components. socialProduction products combine the benefits of social media with cutting-edge production monitoring technologies.



2nd KrausMaffei Technologies Combining economic success and sustainability: Using IoT to move towards carbon-neutral production



INDUSTRY AWARDS FOR EXCEPTIONAL MECHANICAL ENGINEERING SERVICES AND DIGITAL SERVICES

- Second prize for socialProduction in the 2021 Industry of Things World Awards
- Ranked in the top 5 of the 2021 Champions of Digital Transformation

productionMonitor

DIGITAL PRODUCTION MONITORING

- Quick overview of the machinery
- Efficient monitoring of all machines with intelligent production figures



processSupport

DIGITAL PROCESS SUPPORT

- Continuous monitoring of the production process using self-learning technologies
- Proactive reporting of irregularities in the process
- Detailed visualization and analysis of all available process parameters

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liveCare

CONDITION MONITORING FOR MACHINE COMPONENTS

- Continuous online monitoring of the state of wear of machine components
- Helps with the implementation of efficient, condition-based maintenance strategies and with determining the optimum service life of components





social Production KrussMatriei Social Production **PRODUCTION. COMMUNICATION.** PROACTIVE. INTUITIVE.

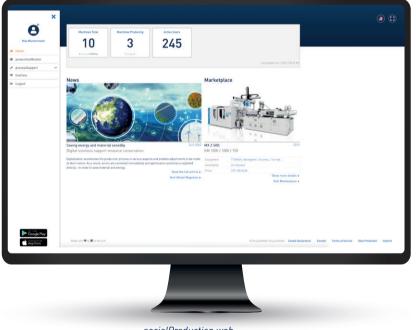
The socialProduction family of products combines the benefits of social media with cuttingedge production monitoring technologies. With a range of modular products to choose from productionMonitor, processSupport and liveCare – socialProduction can be tailored to the precise needs of the users in the field of plastic production. With socialProduction, the monitoring of machines and production processes is no longer site-dependent or time-dependent.

Insights into your machines and processes at any time, in any place

Your production is visible in real time around the clock, including all relevant machine information. That way, you'll always be completely up to date.

Tailored to your requirements

You can use socialProduction via a smartphone app or via a web application on a PC or tablet. Whatever your requirements, both applications can be integrated into your daily work with ease.





socialProduction web Start page

socialProduction app Machine overview

Using socialProduction, KraussMaffei combines the communication between humans and machines in shared chat rooms. The machines send chat messages independently to report events and problems that have occurred. With seamless integration, users can communicate about these events and problems with texts and images. The machine thus becomes an active team member in the production hall.

	A TI N
< 🝙 Machine 1 📉 🗠	ta
In production	as
Yesterday	pr
Alarms	
Alarm Nr. 642: HYDR. OIL TEMPERATURE	
MINMAX.	
 Oil temperature <32 °C or >60 °C <32 °C: Semi- and automatic 	
operation blocked	
 >60 °C: Machine cutout, check cooling 	
water circuit	
9:53 AM	
-	
Andrey H. Hi, I have some problems with the oil	
temperature on this machine, can someone	
support me here please! 9:23 AM	
Fixed it. The temperature should be back to normal now. Let me know if you need anything	
else.	
9:24 AM 🗸	
🖸 🖉 Write message 🕣	

socialProduction app Integrated messenger A fast and targeted flow of information in production The modern messenger unites man and machine.

Notifications provide instant information about imporant events. Consequently, the messenger also serves as a digital log book for complete documentation of production.

BENEFITS TO YOU:

- Fast, targeted and secure means of communication on the shop floor
- Products that save time in everyday operations and do not take up extra time
- Flexible products that you can pick and mix to suit your needs

productionMonitor DIGITAL PRODUCTION MONITORING

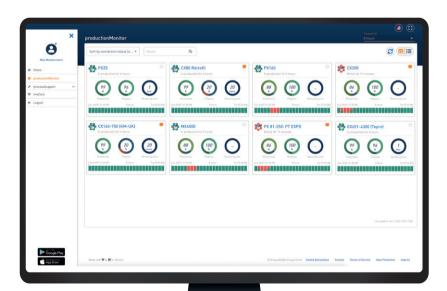
productionMonitor guarantees a fast overview of all machinery and supports the efficient monitoring of every connected machine by means of intelligent production figures.

The key figures at a glance

With productionMonitor, you gain a quick insight into important indicators such as productivity, order progress and time remaining for all connected machines. The machine status is displayed in the form of a machine-time profile and can be adapted depending on the requirement and the time frame selected. This means the progress of current production orders is transparent and traceable.

Notifications about production-relevant events

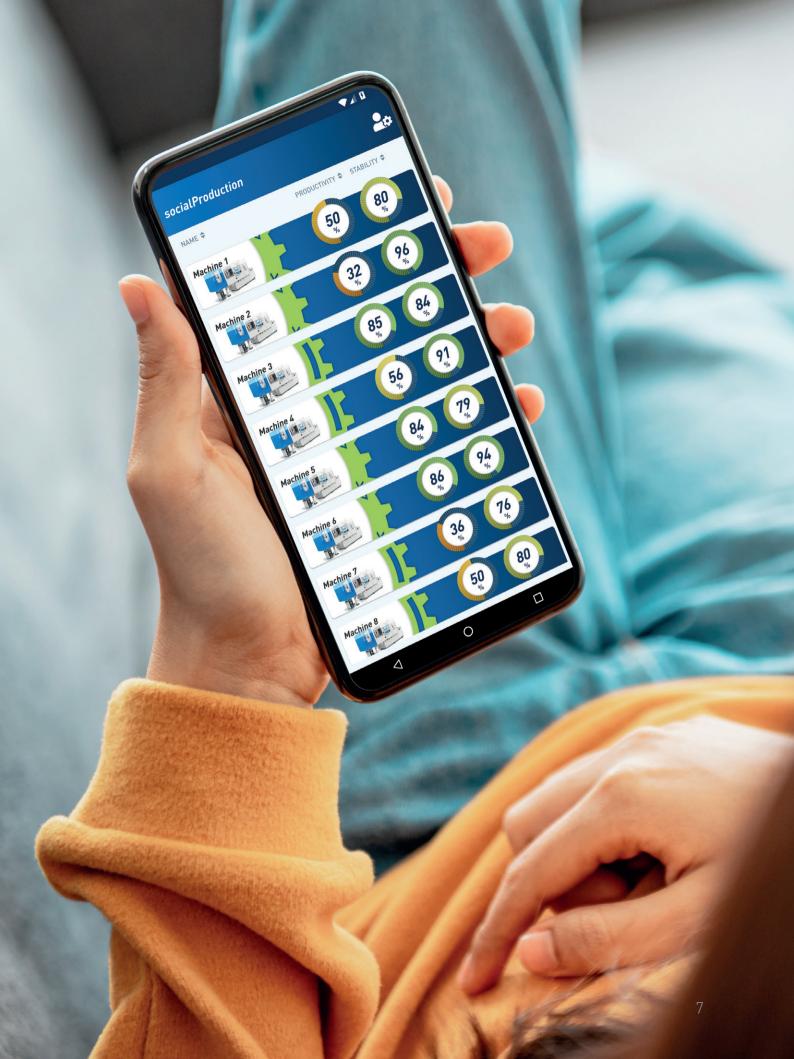
Important events such as alarms or parameter changes during ongoing production are automatically sent by the machine to your in-house machine chat. Users of socialProduction receive live push notifications on their desktop PC or smartphone and can subscribe to notifications for each machine as required.



socialProduction web Machine overview

BENEFITS TO YOU:

- Access to machine status and intelligent, preconfigured KPIs
- The machines are always live in any place, at any time



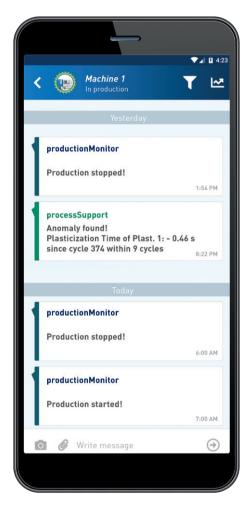
processSupport DIGITAL PROCESS SUPPORT

With processSupport, the production process is continuously monitored by self-learning technologies. The technology is rooted in the in-depth plastics process knowledge of KraussMaffei, which has been embedded in a complex algorithm for this purpose. All available machine parameters can be utilized at any time within socialProduction for visualization and analysis purposes.

Increasing the stability of the production process with automated process monitoring

Relevant anomalies in the process are identified at an early stage by means of continuous evaluation of the machine data captured and are proactively communicated to the user by means of anomaly notifications. Process parameters are evaluated completely autonomously and without the need for preconfiguration by process owners. processSupport can be used to make the production process more stable and to reduce machine downtime.

The process parameters can also be used outside socialProduction as required by using the export function.



socialProduction app Machine notifications

Detailed insight into all available machine parameters and correlation with occurrence of events

The intuitive configuration means important machine parameters can be accessed quickly. Simply clicking on the anomaly notification opens the data analysis window to show the underlying process parameters and the time frame to be considered.

BENEFITS TO YOU:

- Detect process faults early and avoid machine downtime
- Detect process deviations before component quality suffersActive notifications of faults and faster
- problem identification



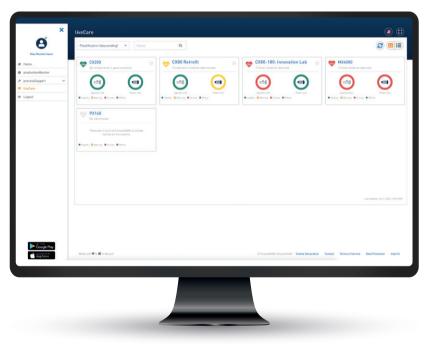
socialProduction web Data analysis and machine notifications



The liveCare condition monitoring solution provides continuous online monitoring of the state of wear of machine components. This allows maintenance strategies to be condition-oriented and proactive.

All condition information at a glance

The relevant information can always be called up in a way that suits the user and the specific application. Choose between an overview of the condition of all machines or a detailed machine page containing information about the various components. It is also possible to view detailed process data and the wear history of individual components. liveCare does not use any additional, external sensors, and instead calls only upon data that is already available. This data forms the basis of the calculation of the relevant condition by means of internally developed and component-specific algorithms and mathematic models.



liveCare web Machine overview

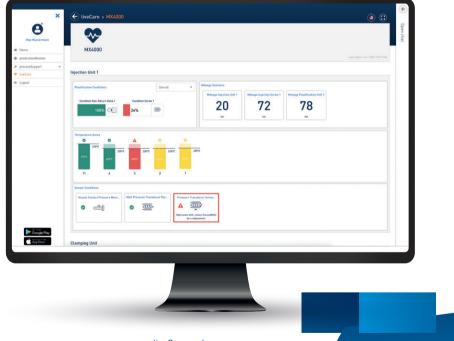
Foundation for the implementation of condition-based maintenance strategies

Information about the exact wear condition and detailed process data help to ensure components are replaced in good time.

This can limit the extended cycle times or increased energy consumption associated with wear. liveCare makes it possible to order replacement parts at the right time, removing the need to keep replacement parts in stock for long periods.

Unscheduled downtimes caused by wear-related problems can be avoided.

Maintenance work can also be scheduled and performed more efficiently to reduce downtimes.



liveCare web Machine detail page

BENEFITS TO YOU:

- Condition information forms the basis for more efficient conditionoriented maintenance strategies
- Storage costs are saved
- Optimized service life of machine components

KraussMaffei smartCube CONNECTIVITY IS KEY TO DIGITALIZATION

The KraussMaffei smartCube is the standardized and future-proof connectivity solution from KraussMaffei for use with digital products.

Powerful and integrated

Whether it's recording individual process parameters or gathering high-resolution real-time data for calculating the condition of machines, the KraussMaffei smartCube has more than enough processing power. This makes the machine ready for the digital future.

Secure and future-proof

We consider IT security a lifelong commitment. The KraussMaffei smartCube is run on a hardened Linux operating system. Throughout its service life, KraussMaffei deploys new functions and security updates on an ongoing basis. New products can be activated remotely for speed and convenience.

Flexible and retrofit-ready

Thanks to its many interfaces, the KraussMaffei smartCube is compatible with all new KraussMaffei machines and can be used for virtually all existing machines. The operation of our digital products and the reliable and continuous supply of security updates is guaranteed for every KraussMaffei smartCube with a purely outgoing Internet connection.

Within the customer network, the connection can be limited to a select few ports and target Internet addresses to operate the digital products.







OUR WORLDWIDE EXPERTISE IS YOUR ADVANTAGE DIGITAL & SERVICE SOLUTIONS

With your KraussMaffei machine, you have chosen a product that delivers the highest levels of productivity and reliability. In addition to our range of machinery, KraussMaffei focuses on comprehensive and future-oriented solutions, innovative business models and an innovative portfolio of digital products.

Customer service at the touch of a button

The process of digital transformation is becoming faster and easier than ever for the customer. Our Digital & Service Solutions unit makes your production chain even more flexible and efficient with future-oriented solutions. KraussMaffei thus globally provides an all-inclusive customer service package and networks machines and processes with each other. Our global support offers a sound basis for your local long-term success.

Individual challenges in mechanical engineering call for intelligent solutions

With our services portfolio, we support you throughout your machine's lifecycle with a strong focus on your specific needs. In order to satisfy your wishes, we offer you a wide range of solutions in order to ensure maximum availability and optimum productivity of your machines.

Technology³ as a unique selling proposition

KraussMaffei is the only supplier in the world with a product range comprising the most important machine technologies for plastic and rubber processing: injection molding machinery, automation, reaction process machinery and extrusion technology. KraussMaffei is represented worldwide with more than 30 subsidiaries and over 10 production plants as well as about 570 commercial and service partners. Working together with our customers and partners, we are thus in a position to offer vast and unique expertise in the industry.

You can find further information at: www.kraussmaffei.com

KRAUSSMAFFEI – PIONEERING PLASTICS



Extensive expertise from a single supplier

KraussMaffei is one of the world's leading manufacturers of machinery and systems for producing and processing plastics and rubber. Our brand has been synonymous with cutting-edge technology for over 180 years. Our product range includes all technologies in injection molding, extrusion and reaction process machinery. KraussMaffei has a unique selling proposition in the industry as a result. By drawing on our proven innovative capacity, we can guarantee our customers sustained additional value over their entire value-adding chain through our standardized and individual product, process, digital and service solutions. The range of our products and services allows us to serve customers in many sectors including the automotive, packaging, medical and construction industries. We also supply manufacturers of electrical and electronic products and household appliances.

At your service all over the world

KraussMaffei is represented all over the world. Subsidiaries provide you with support in the countries shown in light blue. Our sales and service partners take care of you in the regions shown in white.

You can find all contact information at www.kraussmaffei.com

socialProduction INNOVATIVE PRODUCTS FOR PRODUCTION MONITORING



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