MULTIVAC Smart Services

MULTIVAC

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Digital products and services

Future-proof solutions for machine monitoring, control and optimisation

Transparent processes and process data in real time make an important contribution to the efficiency and cost-effectiveness of systems and lines.

With MULTIVAC's digital products and services, we offer our customers innovative solutions for monitoring, controlling and optimising production - even networked across all locations to facilitate comparison. Simple, convenient and "live". For new equipment as well as retrofitting to existing machines.

The use of MULTIVAC Smart Services does not require a large start-up investment, since the modular range of digital wizards allows them to be tailored flexibly to the particular MULTIVAC machine or appropriate line components.

This means our customers benefit equally in all operational and strategic areas, from machine operator to factory manager.

Greater efficiency for existing machines:

Simply retrofit Smart Services

So that you too can benefit from our digital products and services on existing packaging machines, we can offer a secure and cost-effective retrofit solution for many models.

With you on site

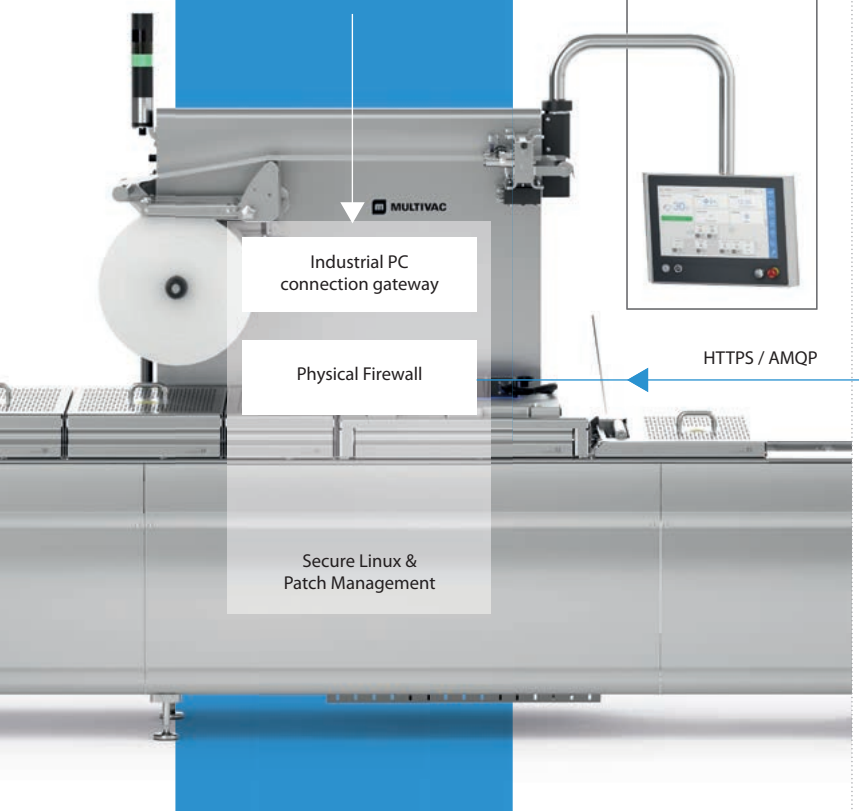
MULTIVAC
Smart Service

HTTPS / AMQP

Read-only
connection

SMART
LINK

Machine data



Industrial PC
connection gateway

Physical Firewall

HTTPS / AMQP

Secure Linux &
Patch Management

SMART
HUB

IoT platform beneath the
Azure technology

Microsoft Azure Environment

SMART LINK

Simple and secure

MULTIVAC Smart Link is a two-piece hardware set, which is installed on site in your MULTIVAC machine. Smart Link consists firstly of an industrial computer (edge device), which is connected to the machine control via a "read only" connection. It can read, pre-process, encrypt and send machine data in real time - but it can not have any "write" access to either the machine control or the rest of the machine. The second component of Smart Link is an Internet router with firewall. This ensures a secure Internet connection for data transmission between your machine and MULTIVAC's "data world" of the Smart Hub, and it enables our Remote Assistance service to be accessed via VPN tunnel.

For single machines and complete lines
If required, MULTIVAC Smart Link can also capture the data from production lines equipped with MULTIVAC Line Control (MLC).

Plug & play
Automatic set-up and simple connection

IT-friendly
Easy and rapid integration into your IT environment

Future-proof
Automatic updates of applications and programs, as well as remote firmware updates and security settings

MULTIVAC Remote Assistance
Thanks to this remote assistance system, our experts can gain access to your MULTIVAC equipment at your request, so they are able to support you in eliminating faults and optimising the machine processes. MULTIVAC Smart Link creates the secure technical basis for this.

MULTIVAC Smart Hub is a secure Microsoft Azure environment, in which data is available 24/7 for monitoring, optimising and supporting your production by means of the various Smart Services. Benefit from greater efficiency and transparent processes.

SMART HUB

The home of Smart Services

MULTIVAC Smart Services

Digital solutions at a glance

Smart Production Dashboard

The Smart Production Dashboard provides your production figures at a glance, any time from anywhere, and you are always at the front line.

Smart OEE Analyzer

Using the Smart OEE Analyzer, you can view effectiveness based on data. You can identify whether your production is operating as planned or whether optimization needs to be carried out for one or more places.

Smart Log Analyzer

Using the Smart Log analyzer, you can identify the leading causes of downtimes, the most common faults, and their average downtime at a glance.

Smart Data Backup

With the help of Smart Data Backup, all recipe changes are automatically backed up. So you can quickly restore recipes without this affecting your packaging process.

Smart Maintenance Manager

Practically plan your service work. Smart Maintenance Manager makes the organization of maintenance work on any machine easy.

Smart Widget Dashboard

Everything important at a glance. The Smart Widget Dashboard makes it possible to display any key figures of a packaging line individually. Completely according to your needs.

PI

Smart Production Insights

Everything important at a glance. With Smart Production Insights, FRITSCH bakery lines can be comprehensively monitored and possible irregularities detected at an early stage.

WD

MULTIVAC Watchdog

Always informed on time. MULTIVAC Watchdog monitors the status „live“ of the machine components and the production process.

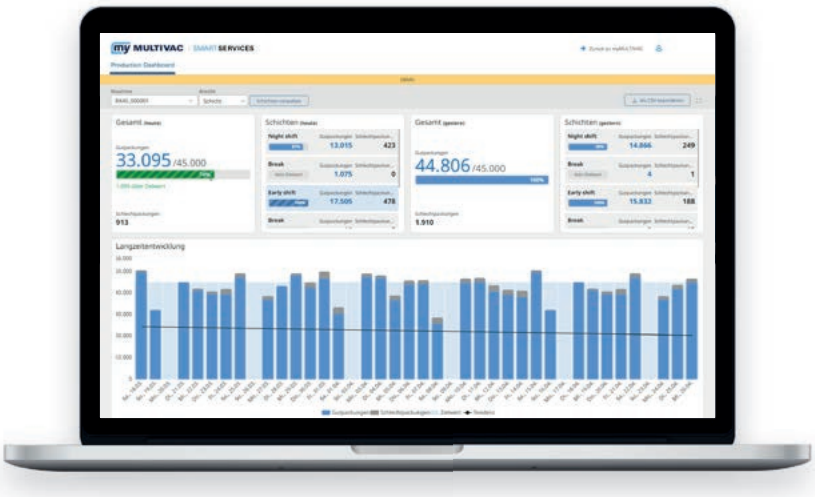
Smart Production Dashboard

Control centre for digital machines

From the user's point of view, the control centre of a digitalised machine is the dashboard, which can be run not only on a large flatscreen beside the machine, but also viewed remotely if required on a PC in an office. This means not only does the operator at the machine have "live" access to all the relevant information about the current performance, but company management has the same access. The benefit of such a tool lies in the significant reduction of communication channels and reaction times.

Benefits of the Smart Production Dashboard:

- Access to the packaging process in real time
- Important key performance indicators are shown on a clearly arranged dashboard, and they are itemised according to production days and shifts
- Any differences between shifts, as well as longer-term trends, can be easily identified and analysed



my MULTIVAC | SMART SERVICES
Production Dashboard
Maschine
RX40_000001
Ansicht
Schicht
Schichten verwalten
DEMO
Gesamt (heute)
Gutpackungen
33.095 /45.000
74%
1.095 über Zielwert
Schlechtpackungen
913
Schichten (heute)
Night shift
Gutpackungen 13.015
Schlechtpackun... 423
Break
Kein Zielwert
Gutpackungen 1.075
Schlechtpackun... 0
Early shift
100%
Gutpackungen 17.505
Schlechtpackun... 478
Break
Gutpackungen
Schlechtpackun...
Gesamt (gestern)
Gutpackungen
44.806 /45.000
100%
Schlechtpackungen
1.910
Schichten (gestern)
Night shift
Break
Early shift
Break
Langzeitentwicklung
60.000
50.000
40.000
30.000
20.000
10.000
0
Gutpackungen
Schlechtpackungen
Zielwert
Tendenz
MULTIVAC RX 4.0

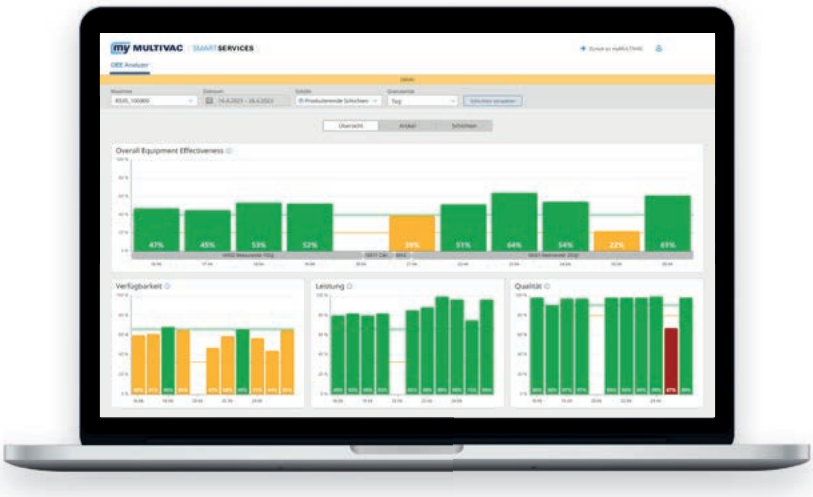
Smart OEE Analyzer

A strategic instrument for increasing efficiency

The Smart OEE Analyzer offers in various degrees a detailed analysis of a packaging machine's operating data within a time period of up to four weeks. The software captures the percentage availability, pack quality and output of the machine, then multiplies these values and calculates the overall equipment effectiveness (OEE) of the packaging machine.

Benefits of the Smart OEE Analyzer

- Simple overview of the effectiveness of the packaging process on the machine or line
- The data is shown as a time series on an interactive dashboard. The characteristic features can be tailored by selecting various time periods or shift models
- Since output, availability and quality are displayed separately, the causes of inadequate OEE can be identified simply and precisely



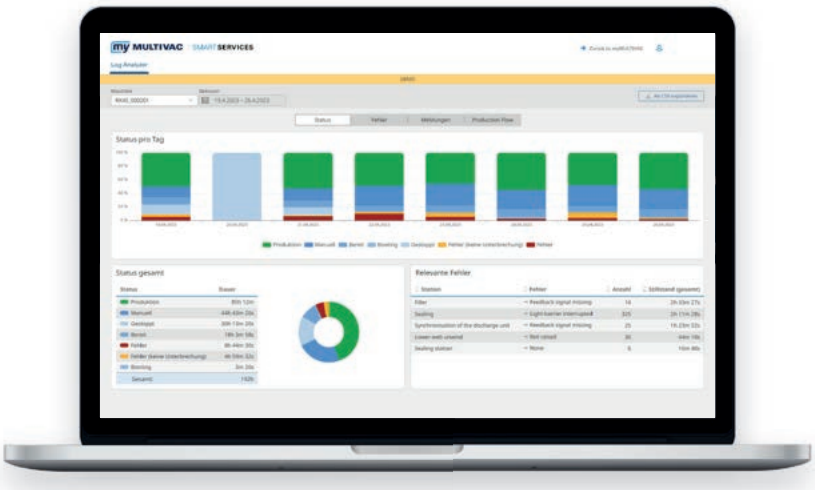
Smart Log Analyzer

A flexible tool for optimisation

The Smart Log Analyzer reads the report and fault memory of the machine, then loads the relevant data to the Smart Hub, where it is subsequently analysed. The data capture ranges from higher-level information, such as the machine's productive time, right up to individual events that cause downtime. The Smart Log Analyzer is aimed not only at users of the machine, but also service technicians. In the event of a fault, the important data is available immediately to the service technician for troubleshooting, allowing machine downtime to be reduced to a minimum.

Benefits of the Smart Log Analyzer

- Precise evaluation of the protocol data from a MULTIVAC machine or line allows for quick identification of the main cause for unplanned downtime.
- All faults, which occur in the time period under consideration, are listed and visualised according to the total downtime caused, the average downtime, or the frequency of the downtime.
- The Smart Log Analyzer enables customers to detect the main causes of discrepancies in output during the packaging process, and then to eliminate the specific problems.



VAUDE

Smart Data Backup

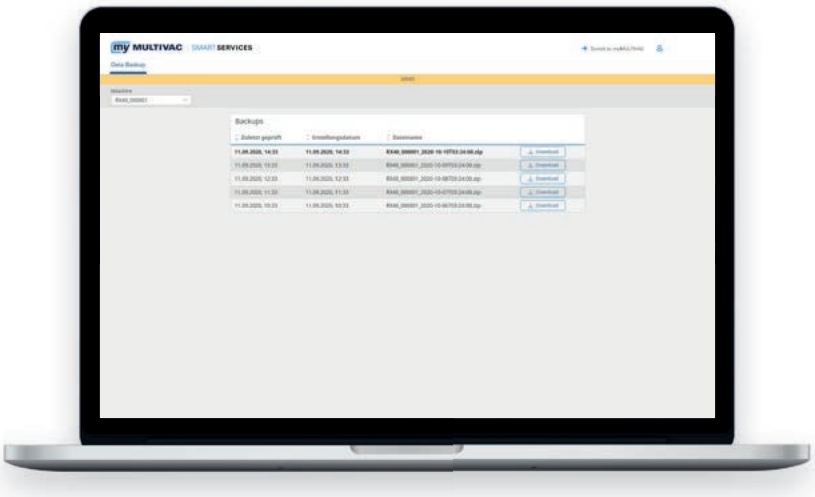
Valuable data automatically backed up

You are always on the safe side with MULTIVAC Smart Data Backup!

Thanks to this really smart tool, the settings on a MULTIVAC packaging machine are always backed up automatically in a protected online domain. Smart Data Backup runs smoothly in the background without adversely affecting your packaging process. It can be accessed very flexibly from anywhere via a browser. All the settings can be downloaded in this MULTIVAC Smart Service at any time and easily restored as required.

Benefits of the Smart Data Backup

- Automatic data backup in a protected online domain
- Flexible access via browser
- Simple downloading and reliable restoring of machine settings



Smart Maintenance Manager

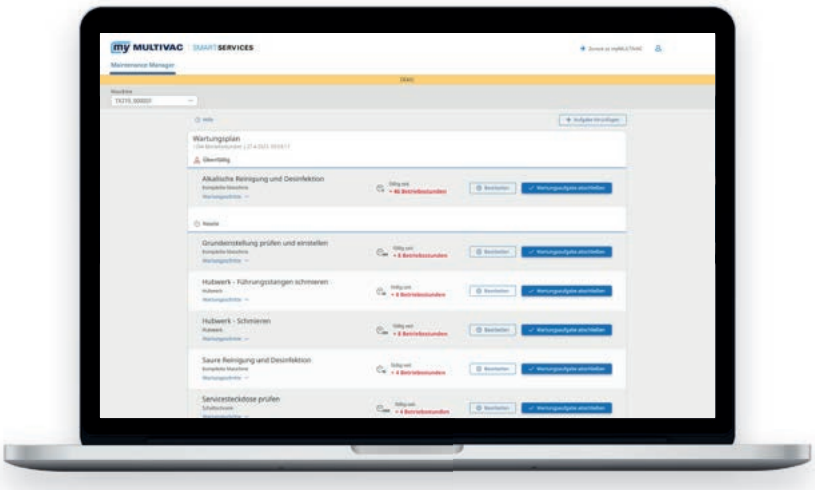
Practical planning of maintenance tasks

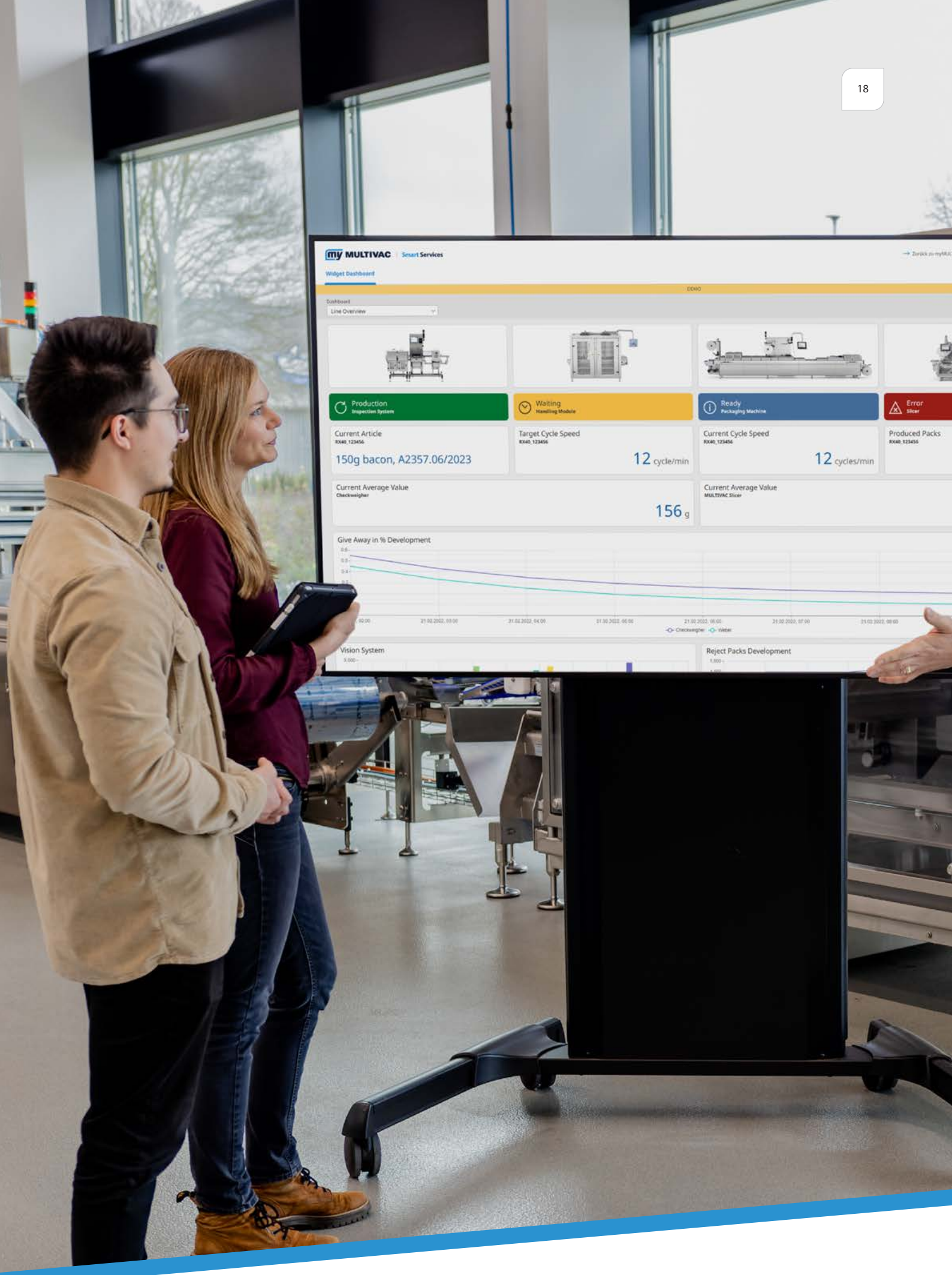
The Smart Maintenance Manager makes it particularly easy to organise the maintenance of each machine. An automatic reporting system indicates when maintenance work is due by evaluating the operating hours and sorts them according to the recommended completion date.

There they can be quickly and easily organised, e.g. marked as done, added, changed or deleted.

Advantages of the Smart Maintenance Manager

- The Smart Maintenance Manager is a practical tool for organising maintenance for any for any machine
- A notification system automatically and reliably points out due maintenance and simplifies planning and management
- By consistently using the Smart Maintenance Manager, you will benefit from higher productivity, less downtime and longer machine life




my MULTIVAC | Smart Services
Widget Dashboard
Dashboard
Line Overview
Production
Inspection System
Waiting
Handling Module
Ready
Packaging Machine
Error
Slicer
Current Article
150g bacon, A2357.06/2023
Target Cycle Speed
12 cycle/min
Current Cycle Speed
12 cycles/min
Produced Packs
Current Average Value
Checkweigher
156 g
Current Average Value
MULTIVAC Slicer
Give Away in % Development
Vision System
Reject Packs Development

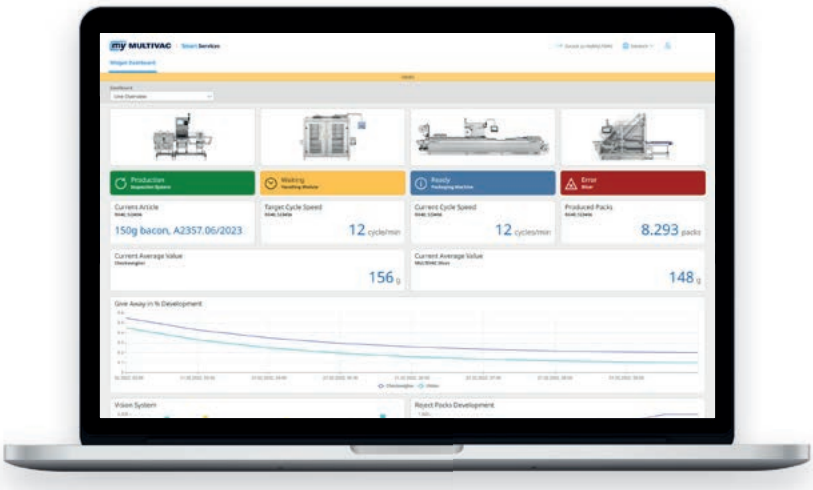
Smart Widget Dashboard

Everything important at a glance

The Smart Widget Dashboard clearly and meaningfully visualises any key figures of a packaging line - even if line modules from other manufacturers are integrated. It supports the operator in visually monitoring and analysing his production line and identifying potential for optimisation. Whether current and past machine data, image files or information over time: With the Smart Widget Dashboard, we offer you a monitoring tool for your lines that is easy and intuitive to configure and operate via widgets.

Advantages of the Smart Widget Dashboard

- Visual display of individually defined key figures of a packaging line
- Can be easily and flexibly adapted to the respective monitoring and analysis requirements using widgets
- For all MULTIVAC lines, even if line modules from other manufacturers are integrated



Smart Production Insights

Comprehensive monitoring of FRITSCH lines

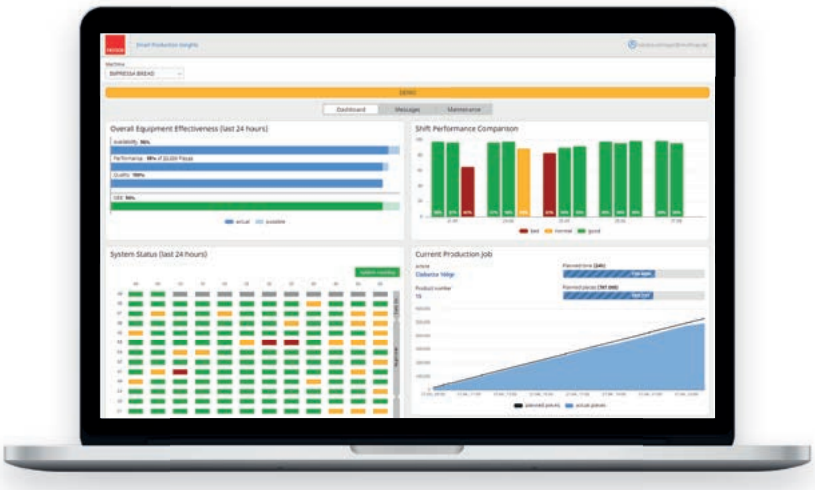
With Smart Production Insights, you clearly visualise the key figures of your production process on a dashboard. Irregularities can be identified at an early stage, and you can react more quickly. Smart Production Insights makes comprehensive monitoring particularly simple and is structured in a practical way into the areas of

- OEE (Overall Equipment Effectiveness)
- Shift Performance Comparison
- System Status (last 24 hours)
- Current Production Job
- Production / Hour (last 48 hours)
- Warnings und Maintenance

Advantages of the Smart Production Insights

Smart Production Insights makes the comprehensive monitoring of FRITSCH lines particularly clear:

- Dashboard: Central overview of your production process
- Warning: Informs directly about warning messages, reasons for downtimes, etc.
- Maintenance: Shows upcoming and completed maintenance work



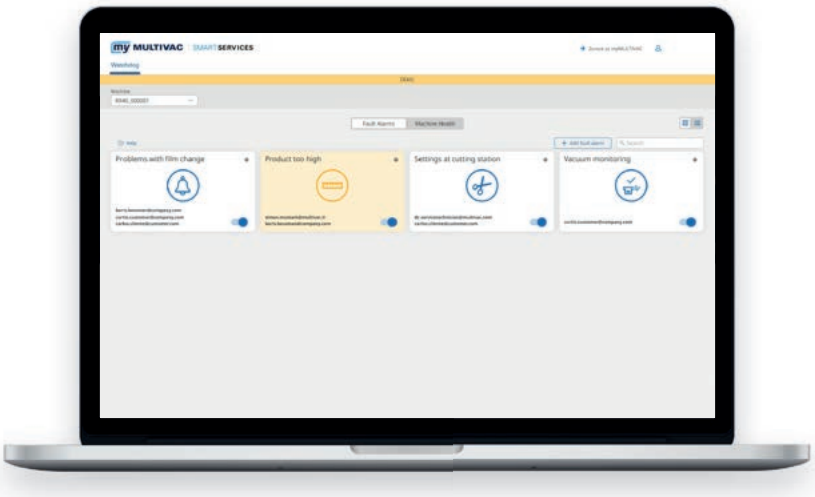
MULTIVAC Watchdog

Always informed in time

The MULTIVAC Watchdog monitors the status of machine components and the production process „live“. An automatic alarm system notifies the user, for example, in the event of irregularities, the frequent occurrence of faults or due maintenance work. By shortening your reaction times, the MULTIVAC Watchdog helps you to avoid or reduce downtime and optimise your process times.

Advantages of the MULTIVAC Watchdog

- Automatic „live“ monitoring of the condition of machine components and the production process
- Avoidance or reduction of downtimes through shortened reaction times as well as optimising process times



myMULTIVAC

Sign up now and exploit all the benefits

myMULTIVAC provides a customer portal, which can be fully personalised and covers a wide range of applications as a digital self-service, extending from the ordering of spare parts and consumable materials right up to digital products and training courses. By incorporating the Smart Hub, MULTIVAC Smart Services can be booked directly online and used via a personal login.

Using an intuitive web browser, which has also been optimised for use on mobile devices, you can conveniently call up all the required order, machine, material and service documents. It is also possible to easily view and control a machine's servicing, maintenance and repair details.

- Buy spare parts & consumables, book services
- 24/7 availability
- Order history, documents, dispatch tracking
- All machine data & documents, 3D catalogue
- Mirror your HMI with Remote Screen Sharing
- Analyse the performance of your machines with MULTIVAC Smart Services
- Create service history, service reports and service tickets
- We always keep you up to date with mobile notifications via SMS & WhatsApp
- One single, personalised access to all MULTIVAC applications
- Machine reports on your connected machines

www.my-multivac.com

Maximum security

Separate hardware and transparent data protection

MULTIVAC Smart Services are activated through their own stand-alone hardware, completely independent of the actual machine control. This means that MULTIVAC Smart Services will always contribute to greater efficiency and production reliability, without ever adversely affecting the operation of the machine. All machines, for which we offer Smart Services, are also equipped with an outgoing Internet connection that is encrypted. Since technically only "read" and not "write" authorisation is assigned to the digital services, there can be no external influence on the machine operation at any time.

Transparency in data usage is ultimately very close to our heart. All MULTIVAC Smart Services are therefore subject to a special Data Usage Agreement, in which we explain to our customers the purpose of collecting the data and how it is used. Customers are invited at any time to make a disk image themselves of the stored machine data as part of a data audit.

As a founding member of the Open Industry 4.0 Alliance, MULTIVAC champions the cause of interoperability within the industry.

MULTIVAC supports the Blue Competence Initiative of the Association of German Machinery and Equipment Manufacturers (VDMA)

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