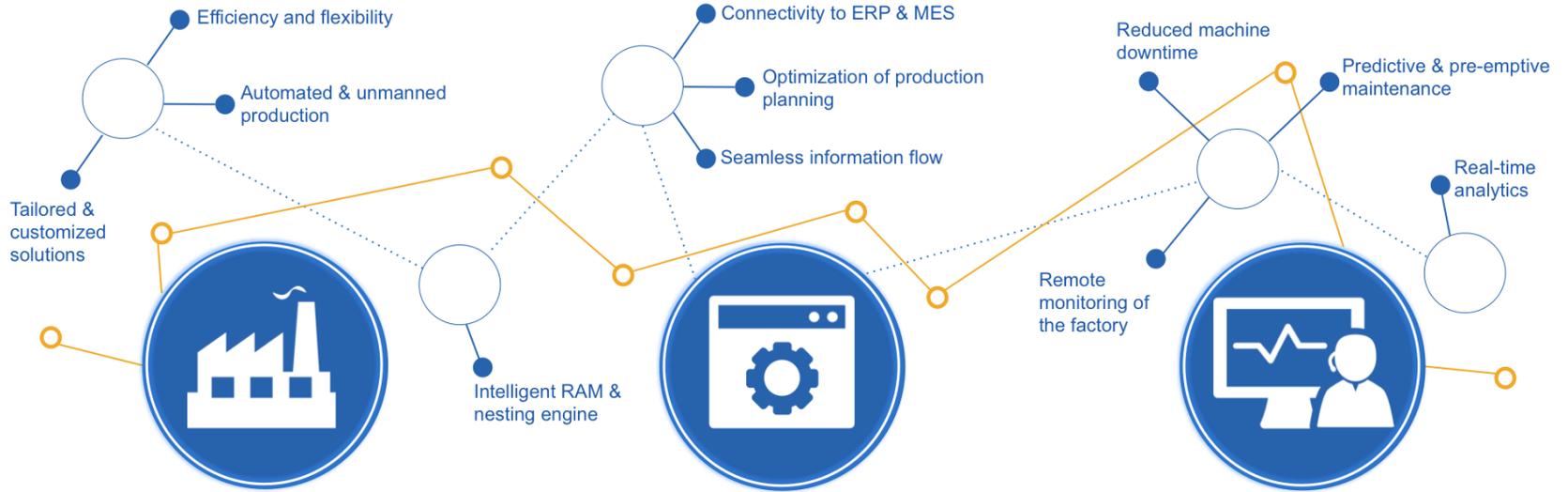




TECHNOLOGIES AND SOLUTIONS FOR INDUSTRY 4.0



Industry 4.0 Inside



Smart Machines

Real-time and historical parameter data collected through sensors and cameras.

Smart Software

Seamless production information flow, connectivity to ERP and MES through storing machine-generated data in the cloud.

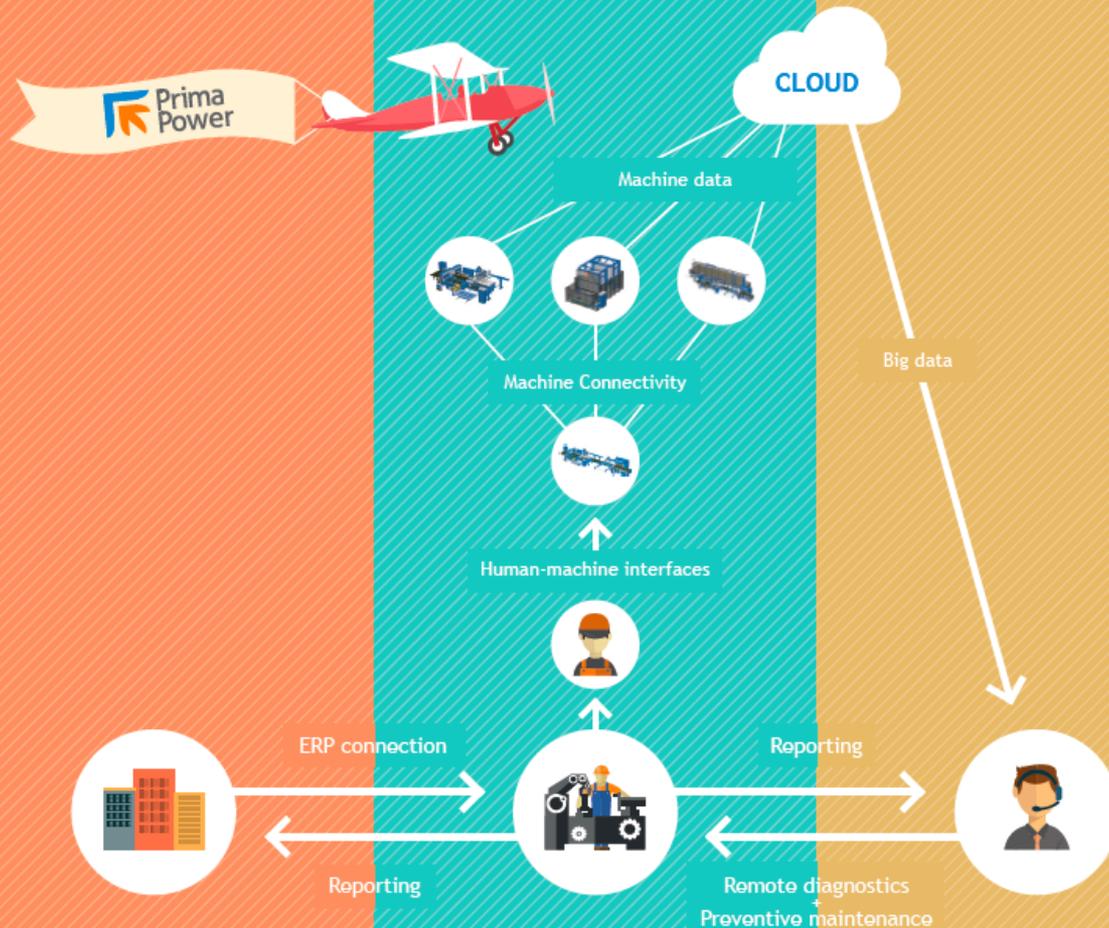
Smart Remote Care

Machine data-driven analytics and predictive maintenance services.

PLANNING & MANAGEMENT

PRODUCTION

SERVICE



Smart machines: New era of sheet metal manufacturing

Prima Power machines are connected through the software with central database ensuring seamless production information flow.

Next level.
Next to you.

1+1 > 2



VISION AND CONTROL

Modern control unit and its touch screen panel



INTELLIGENT RAM

More tools in turret and shorter tool change times



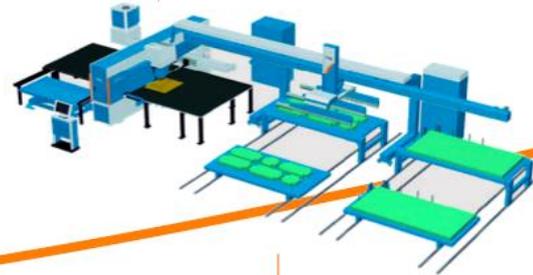
Until 2000



2000 - 2007



From 2008



From 2016 -
era of smart machines

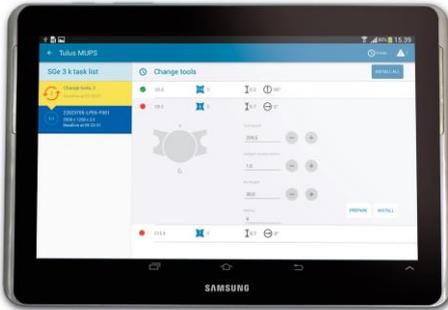
Smart Machines: Control unit and touch screen panel



Four cameras send image to the upper display



Android-based Tulus® MUPS application provides instructions for tool set-ups and other operation tasks



Laser Next: New laser machine for automotive production



HARDER



Improved stiffness
+50% compared to the previous model

FASTER



The fastest 3D laser machine in the world!

Trajectory speed: 208 m/min
Trajectory acceleration: 2.1 g

SMARTER



Smart CAD/CAM
with Fast Curve Connect System
to reduce cutting times

Laser Genius: Next level 2D laser cutting

Best quality, high accuracy and productivity without compromises on the whole thickness range thanks to the best integration of all machine components.



Fiber 3-6 kW



1.5x3 m
2x4 m



Linear drive



Laser **Genius**
LGF 1530



Smart Factory: Machine data-driven analytics

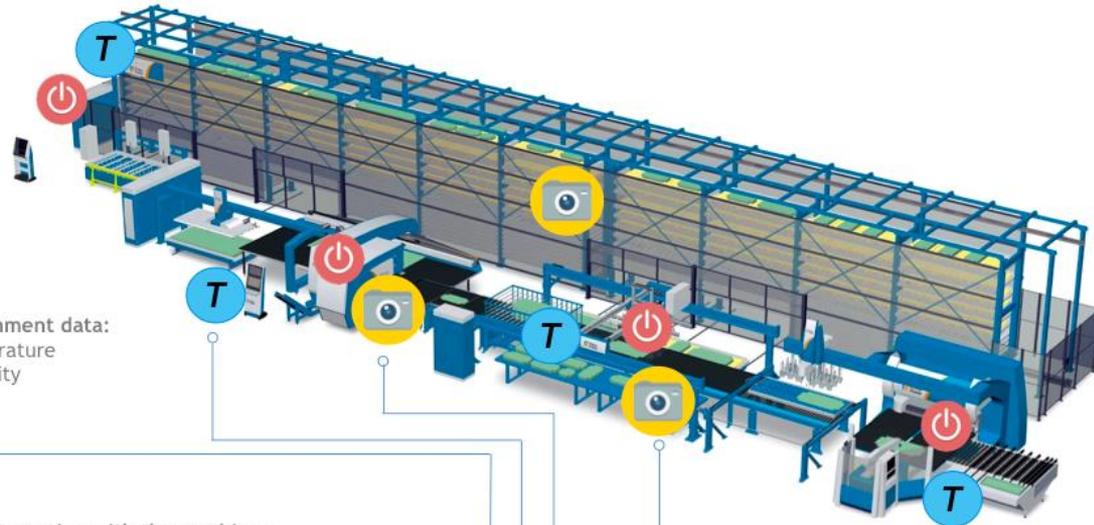
Prima Power machines are equipped with sensors and cameras continuously collecting data for improvements of production performance. Machine data is collected and analyzed in real time, allowing for things such as predictive maintenance, improved efficiency, performance and quality.

Data sources:

-  Machine controls
-  Tulus
-  Cameras
-  Environment
-  User

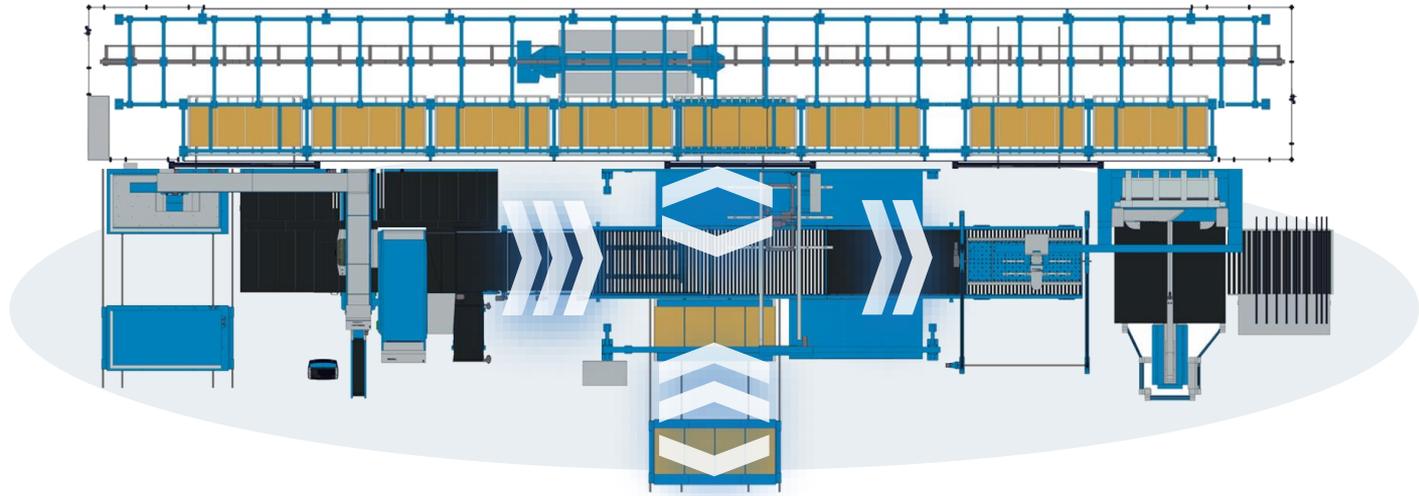
 Environment data:
-Temperature
-Humidity

 User interacting with the machine:
-Using manual buttons
-Using software
-Reporting performance issues



Fleet Management:
Central data collection

Factory of the future: Automated and unmanned production



Added flexibility

- Large stacking area allows kit production
- Possibility to add parts from external sources



Direct connection

- Direct and automatic part flow to bending process

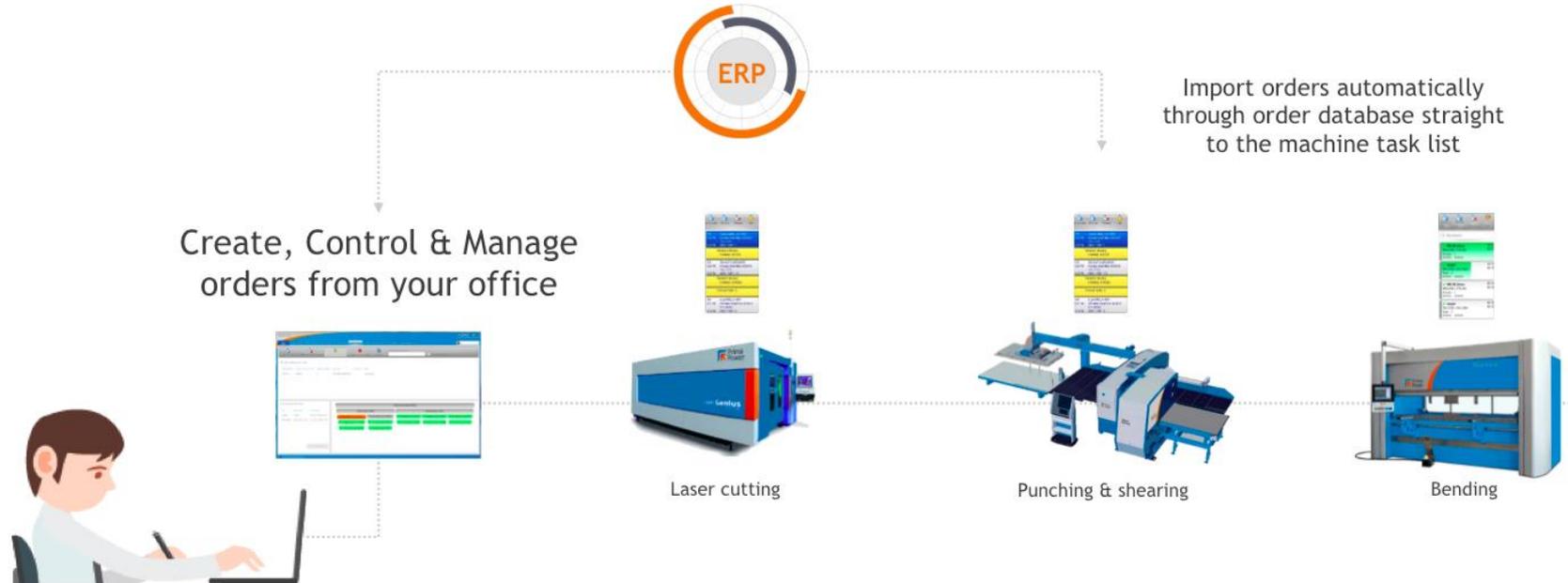


Unmanned operation

- Automated storage makes the manufacturing process completely automated

Automated Production: Tulus® Power Processing

Tulus® Power Processing is a flexible manufacturing execution system (MES). With Tulus® Power Processing you can control the whole production process from order management, programming and machine time scheduling all the way to the finished product and reporting.



Smart Software: Maximizing sheet utilization

NC Express e³ is a part of Prima Power software family. NC Express e³ comes with a powerful nesting module for free-form and sheared parts. It can search for the best suitable sheet size, determine coil cut lengths and nest parts automatically common line for punching, laser and shearing machines. Automatic nesting saves your work time and brings material consumption down.



**UP TO
99%**

**OF SHEET
UTILIZATION**

Smart Software: Improve your production with Tulus® Performance Data Reporting

With Tulus® Performance Reporting you have all the necessary tools for viewing reports of machine status and analyzing production data. The software creates reports on machine efficiency and utilization and gives information where improvement is possible for production planning.

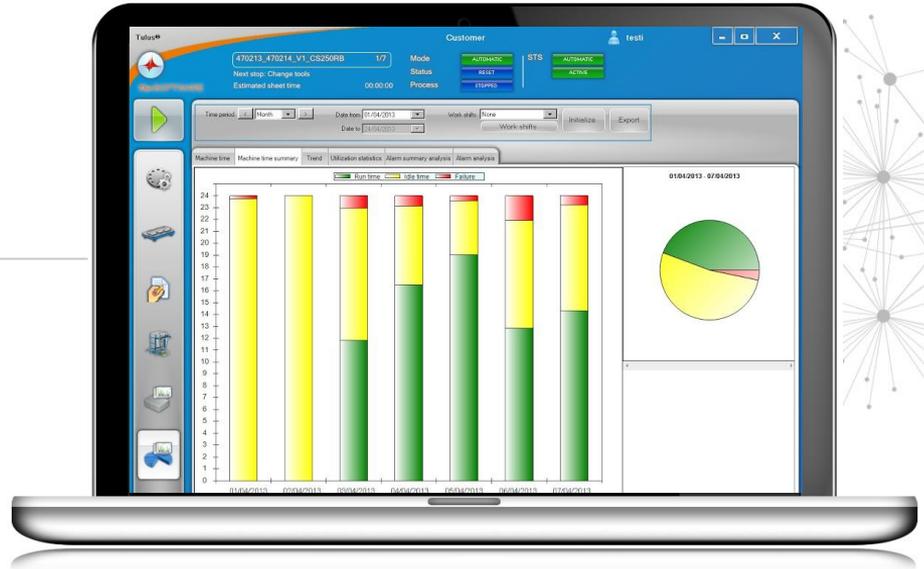
Detailed machine processing, failure and idle times



Weekly machine performance reports

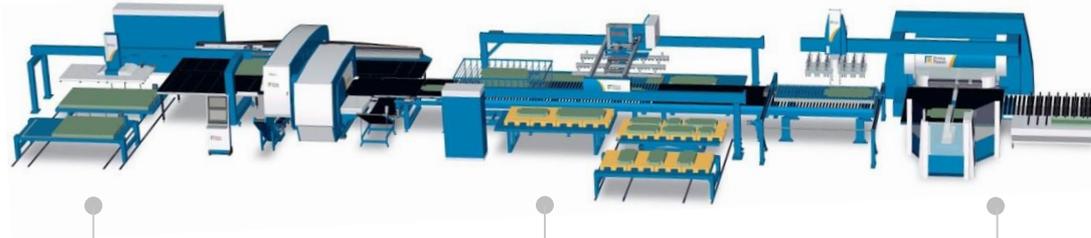


Utilization & alarm history data



Smart Software: User-friendly Human Machine Interface

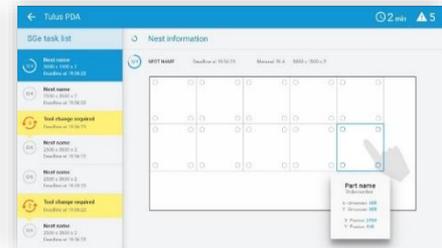
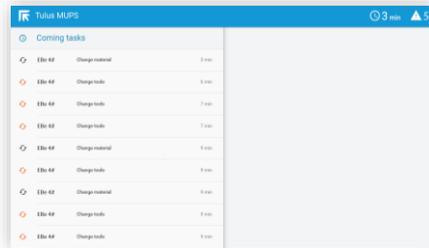
With Prima Power software you can interact in an easy and friendly way through touch screen or a tablet. Tulus® MUPS is a personal user assistant reducing waiting time and improving efficiency. Tulus® MUPS is a smart Android application acting as a remote machine status monitoring tool inside or outside the factory.



1. Gives time to next manual operation

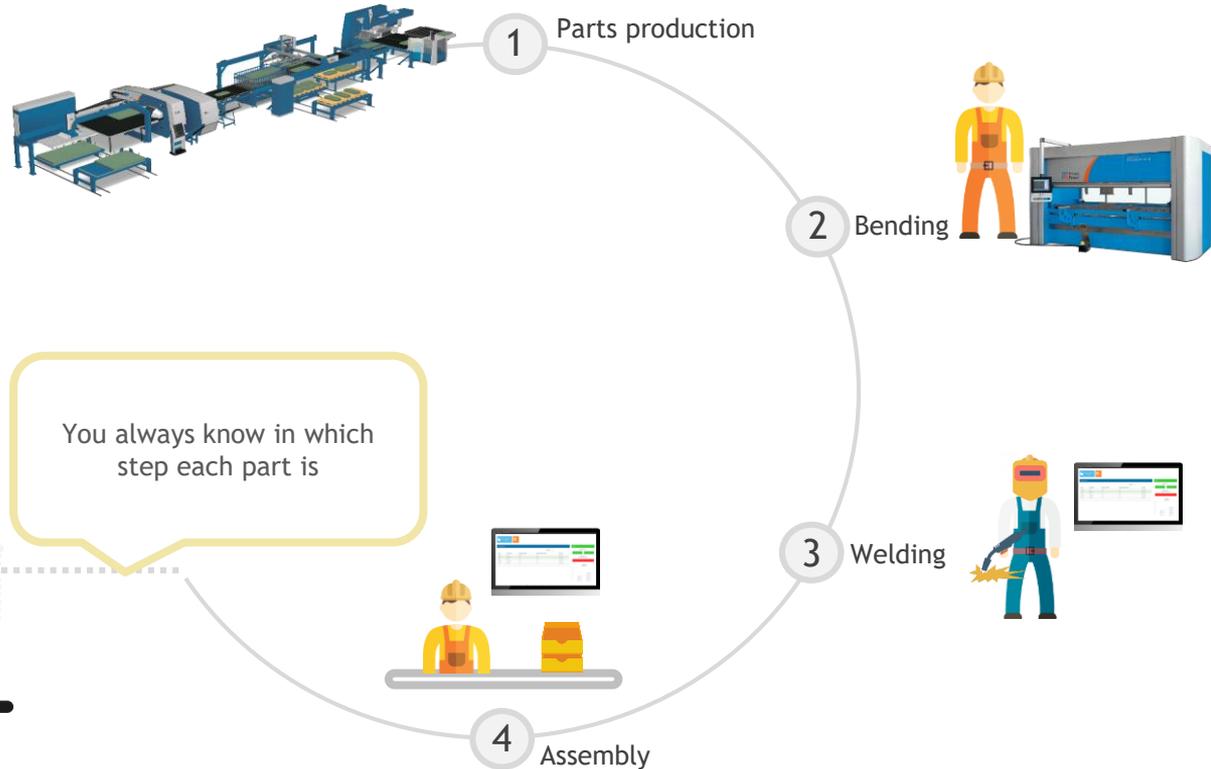
2. Helps placing tool in correct place

3. Shows Nest / part info



Smart Software: Convenient remote monitoring of the factory

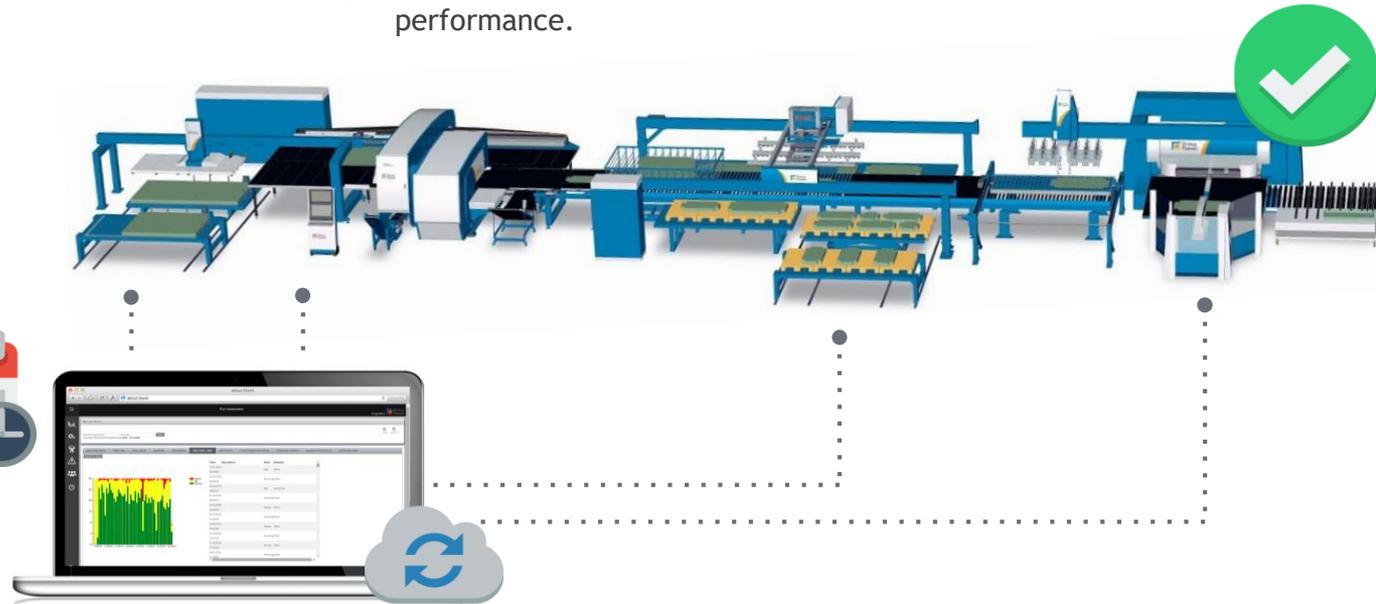
With Tulus® Mobile Information System you can always check the status of your production wherever you are.



You always know in which step each part is

New age of industrial services: **Condition monitoring & preventive maintenance**

Prima Power Remote Diagnostics center continuously collects and monitors different machine parameters to ensure that machines are running efficiently. Machine sensors and cameras deliver valuable data to the Diagnostic Center. With the machine online data, Prima Power service team can get down to the root cause of the problem and instantly improve machine performance.



Remote Care improves operational efficiency

Thanks to the analysis of machine condition and performance, we know in advance when a machine needs an update or when a visit to the customer is necessary. Spare parts can be ordered in advance and delivered on time. Annual maintenance operations and scheduled visits are planned and integrated in advance for maximum efficiency.



A hand is shown checking a smartwatch. A speech bubble above the watch contains the text "TIME FOR ANNUAL MAINTENANCE".

TIME FOR ANNUAL
MAINTENANCE



Remote Care saves time and money for customers

Prima Power customers are located all over the world. In case of unexpected alarms, thanks to Remote Diagnostics, a technician does not always have to visit the site. Unexpected interventions can be fixed remotely and at a more convenient cost.



Remote Care reduces machine downtime

Travelling & fixing machine on-site
Machine is back running in 2 days



2 days

VS

Fixing machine remotely
Machine is back running in 2 hours



2 hours



Remote Care makes a big difference during & after office hours

If customer's machine stops running after office hours, remote monitoring and control ensures that your machine will be shortly back running. We do our best to ensure machine performance and prevent losses of revenue for our customers.



Industry 4.0 Inside

