



OmniFab 2021

Automation, transparency and availability in production

OmniFab 2021 is the tool used by companies in the cutting technology industry to drive digital transformation. The OmniFab Suite helps you to create quotes. It is used for production planning, control and monitoring. The collected data brings you real added value by providing you with contextual information.

And when you know what's going on in your company, you can make the right adjustments. With OmniFab 2021, you ensure maximum transparency in operations management, production planning and control, work preparation, machine operation, service and maintenance.

GROWS WITH YOUR REQUIREMENTS

The modular design of OmniFab 2021 allows you to gradually introduce digitization in your company. OmniFab 2021 grows as a flexible suite together with your requirements. In this way, you can integrate Messer's engineering technology into your business processes in a forward-looking manner.

AUTOMATES YOUR PROCESSES

All systems work „hand in hand“ along the entire value chain of the company. Order data from the ERP system is available in your CAD/CAM software. Results from production along with the order data run seamlessly back into your ERP system.

MAKES RESULTS TRANSPARENT

Pre-calculated production times and material usage are checked with real data and flow into the calculation parameters. Data on machine utilization and downtimes are recorded and evaluated.

INCREASES THE AVAILABILITY OF YOUR MACHINES

From the machine data, you generate plannable maintenance intervals and discover potential for optimization.

The result: competitive advantage through digitization in production and increased production efficiency.

ERP CONNECT

Use the potential of all software systems along your entire value chain by connecting them with OmniFab ERP Connect. OmniFab ERP Connect takes data from the ERP system and makes it available for production planning and work scheduling.

Order items, parts, plates and other relevant customer data are automatically available where you need them.

In return, OmniFab PDC sends nesting plans, with the actual results from production, back to your ERP system after production. Each installation is tailored exactly to your needs. When machines, process-oriented software and ERP systems work „hand in hand“, all processes run smoothly.

From quotation to post-calculation, from designing the parts to creating nesting plans, transferring the plans to the machine and finally cutting the parts.

SALES QUOTES

A fast and reliable creation of quotes is one of the major difficulties and time wasting tasks for order-related production. The Sales Quotes Module helps the sales department to collect all parts and working steps for a quotation.

The sales employees can select existing parts or create new parts using fast and easy part templates and add to the quote. Production times, material consumption and weights for the cut parts are calculated.

Sales employees assign further work steps and additional production parameters and attach documents like working papers or dimensioned drawings. All information will be shared with your ERP or CRM system, to create the complete quote with costing and track the status from quotation to produced part.

JOB MANAGEMENT

Production orders - called „jobs“ in OmniFab - are managed by OmniFab Job Management. The powerful module ensures that the jobs along with their nesting information are available at the right time at the right machine. Working papers are no longer required. All important information is available digitally in the job.

For effective job planning, you can filter and sort the jobs by urgency, material or other important attributes. Then you schedule the jobs on your machines manually - or even easier - automatically.

By defining shifts, you get a quick overview of the planned production time and the current shift utilization of each machine.

ERP Connect

- Automatic data exchange between ERP system and OmniWin via XML and web interfaces for: Orders, customers, plates, nesting plans
- Configurable through customer-specific fields
- Interface control with monitoring
- Can be combined with other OmniFab modules

The image displays two overlapping screenshots of the MESSEK SOFT ERP Connect interface. The top screenshot shows the 'QUOTATION DETAILS' page, and the bottom screenshot shows the 'Job Scheduling' page.

QUOTATION DETAILS

Quotation no.: 986276 ERP no.: 48627 Status: Released

Customer

Name	ERP no.	Status	Calculation strategy
Com	48627	Active	Rectangle weight

OVERVIEW PRODUCTION PLAN PARAMETERS ARTICLE DETAILS DOCUMENTS

Quotation items

Pos.	Article No	Quantity	Geo final	Thickness	Due date	Start date	Prod. time	Actions
10	10.1	5		10 mm	06/21/2020	06/22/2020	0:00:20	

Job Scheduling

Selected machines: HIFo Mon, 8/6/2020

Selected machines: Machine 1 Mon, 8/6/2020

Shift 1: 08:00 Shift 2: 02:55 Shift 3: 05:42 Start: 14:00 End: 22:00

Shift 1: 08:00 Shift 2: 05:32 Shift 3: 02:29 Start: 14:00 End: 22:00

Unscheduled Jobs

Total time: 10:07 Filter: 4/4

Auto Schedule

Job ID	Material	Thickness	Due date	Prod. time
NestPlan4	S235JR	10,00 mm	12/06/2020	01:14
00004146	S235JR	10,00 mm	12/06/2020	01:28
0003001	S235JR	15,00 mm	12/06/2020	00:47
0008111	S235JR	35,00 mm	14/06/2020	06:40

Machine 1 Jobs

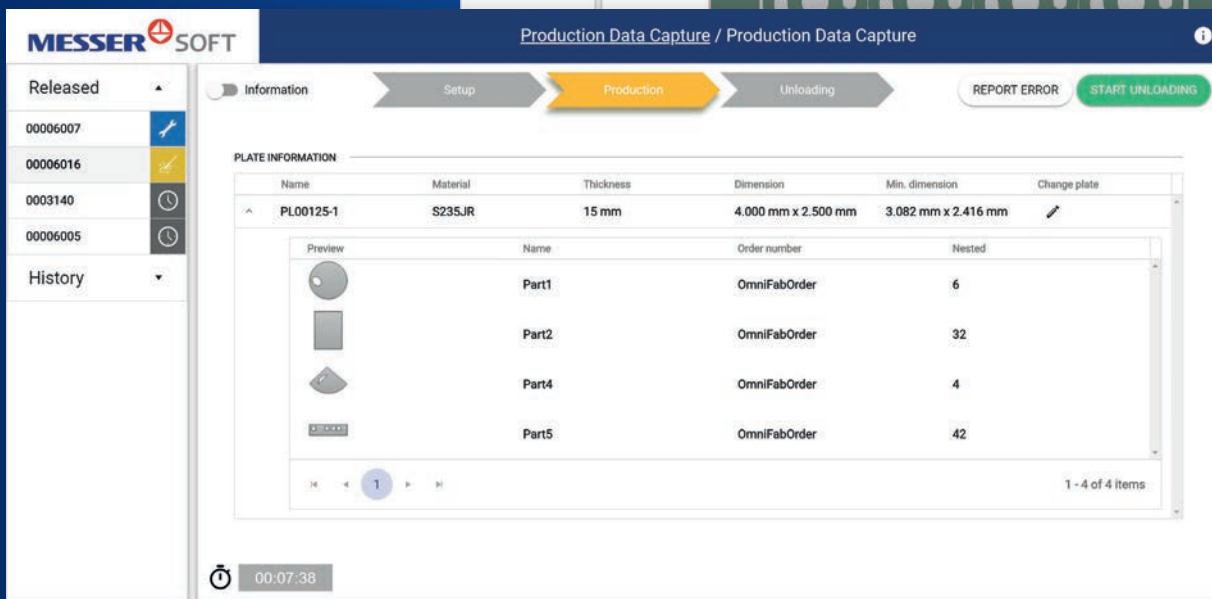
Job ID	Material	Thickness	Due date	Prod. time
0003145	S235JR	10,00 mm	27/05/2020	00:60
0003142	S235JR	10,00 mm	27/05/2020	01:02
0003140	S235JR	10,00 mm	27/05/2020	01:01
0003141	S235JR	10,00 mm	27/05/2020	01:02
0003143	S235JR	10,00 mm	07/06/2020	00:60
0005111	S235JR	35,00 mm	09/06/2020	06:46
0005112	S235JR	35,00 mm	13/06/2020	06:46

Machine operators use OmniFab PDC to record

- Production times
- Loading and unloading times
- Actually manufactured parts and scrap
- Actual used plate

Real-time feedback of errors and problems directly from OmniFab PDC to OmniFab Job Management

- Missing material or consumables
- Errors in nesting plan
- Other reasons



MATERIAL FLOW

Material Flow is the module that connects to a material handling system comprised of material loading and unloading stations, towers, and material transportation devices like pallets and lifters. Material Flow controls and orchestrates the entire material flow automatically. The module is completely integrated into the existing OmniFab Suite.

This integration allows the module to know exactly, which jobs are scheduled for a machine at which time. Operators use the loading stations to get an overview of the planned jobs and their plate information to select the correct plates for feeding into the system.

The material will be optionally stored, then moved to the cutting machines and eventually to unloading stations according to schedule. Material Flow helps to configure jobs completely with all required information in advance so that the machine can automatically start cutting.

Thanks to the integration with other OmniFab modules, Material Flow knows how actual production data is reported back to your connected systems.

PRODUCTION DATA CAPTURE

The OmniFab PDC module is integrated into the machine's Global Control. It also runs on all connected devices that have a web browser, such as tablets or smartphones. With OmniFab PDC you generate complete, up-to-date and reliable data for production control.

Machine operators use OmniFab PDC to record setup, production, loading and unloading times, number of parts produced and scrap, the actual plate used and the actual material usage. The result is transparency and traceability of the process. In combination with OmniFab Job Management, the production results are visible in real time for production planning.

Once the operator has completed a job, this information is displayed directly in Job Management. If problems occur during production, the operator sends a message to the production planning department so that it can react immediately and reschedule or re-nest the jobs.

For all completed jobs, the web-based OmniFab Production Data Review view provides an overview of all reported production data. This allows you to control and adjust production results and ensures that you always have reliable data in your system.

MACHINE INSIGHT

OmniFab 2021 Option Machine Insight provides you with important information about your cutting machines in real time during operation. Real-time machine monitoring provides you with the status and data of each connected machine. You see

- All important information about the program that is currently cut on the machine,
- The shift in which you are currently working,
- A graphical representation of the workload in the last eight hours, and
- The number and type of faults that have occurred on the machine in the last 24 hours.

This enables you to detect faults more quickly and initiate measures to eliminate them at an early stage.

Graphical illustrations show the machine utilization and reasons for downtime for

- Definable periods of time (days, weeks and months),
- Working time
- Idle time and
- Error time

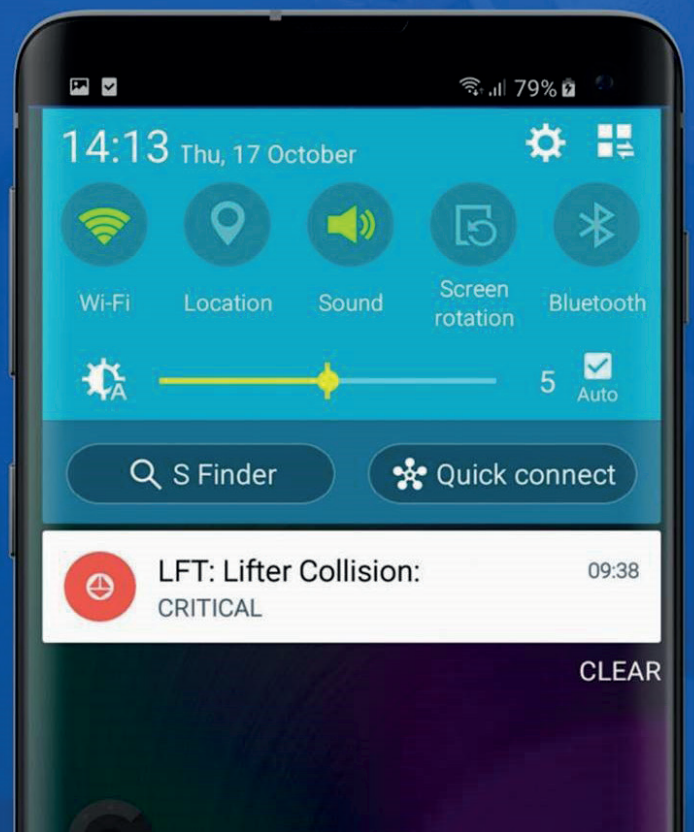
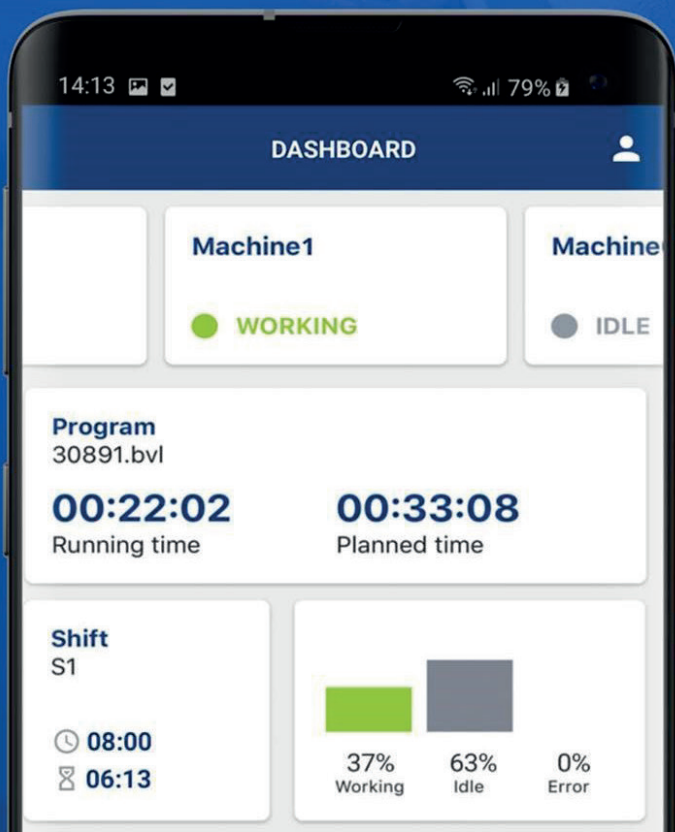
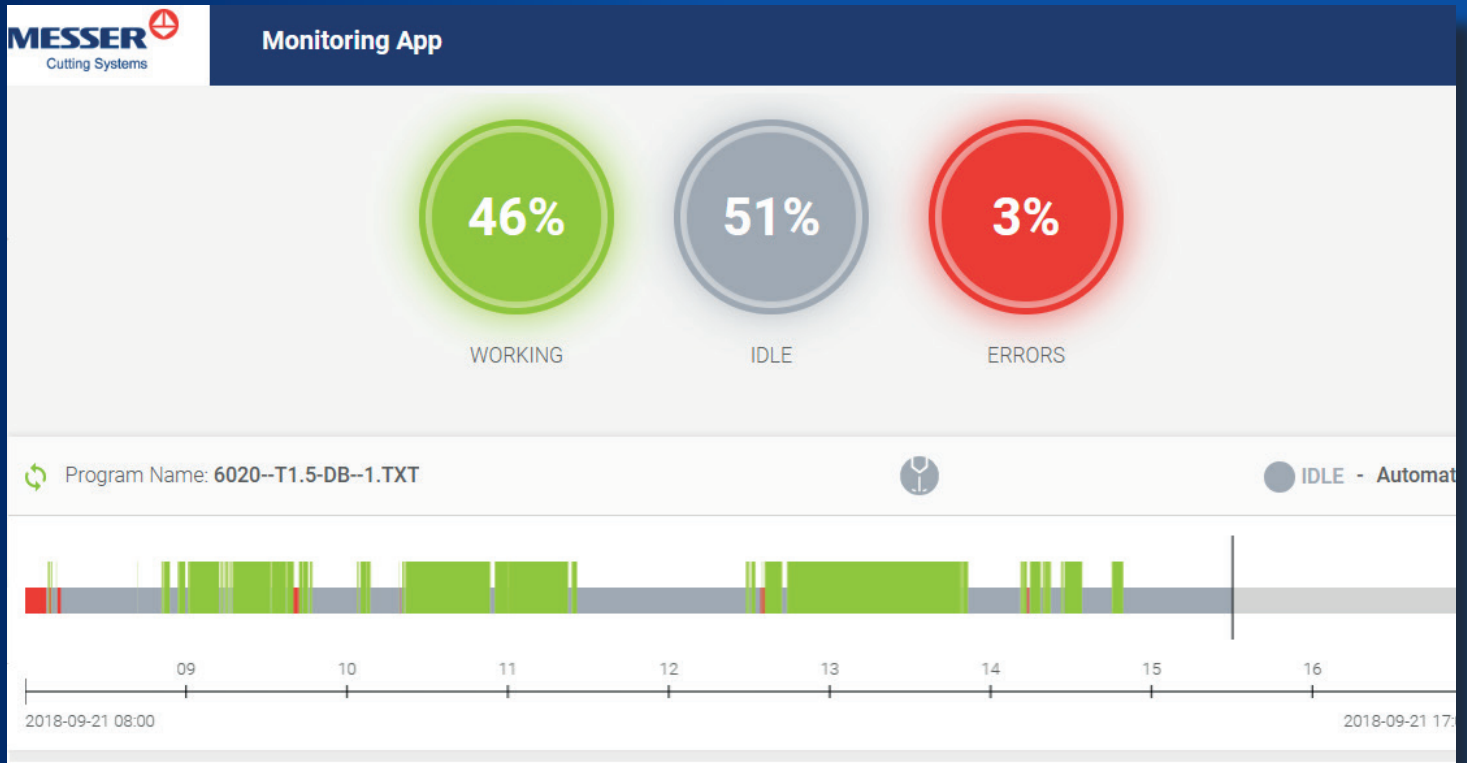
The times used for the various processes (cutting, positioning, piercing and preheating,) are also clearly displayed. Times and work steps can be displayed per shift.

You get an insight into the utilization of the machines, the downtimes and reasons and recognize the accumulation of errors at certain times.

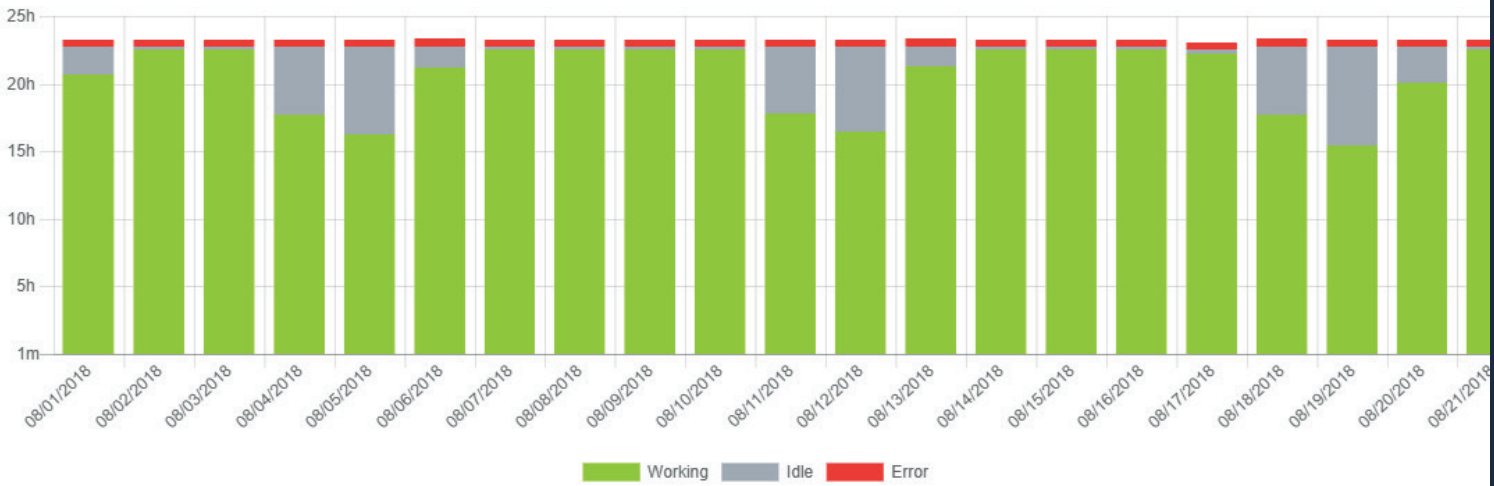
The information about the machines and the current utilization can also be displayed via an app for mobile devices.

Machine Insight

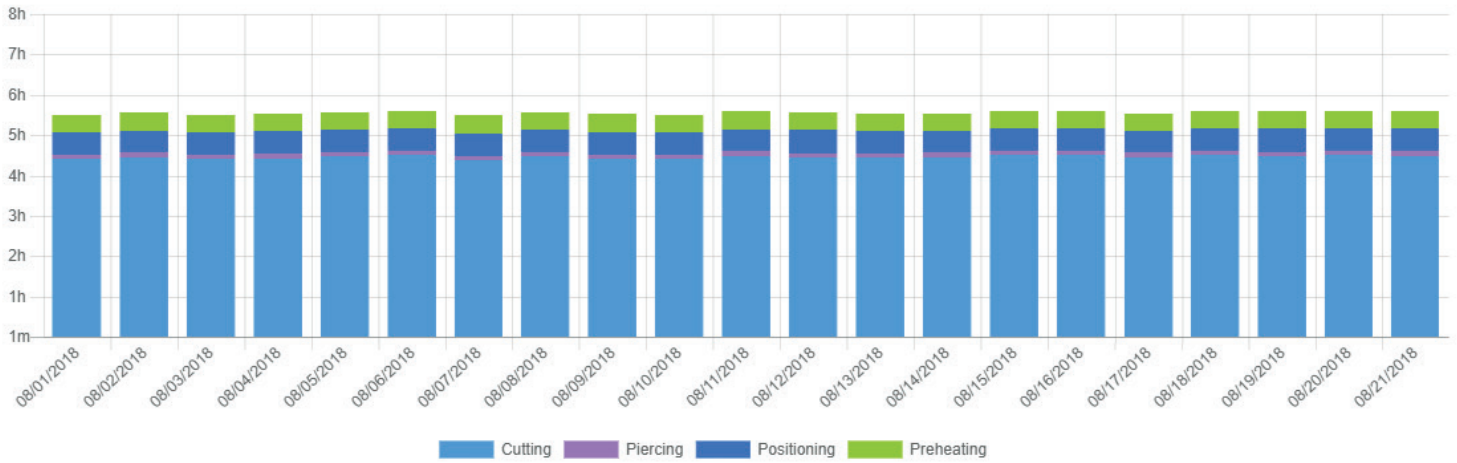
- Machine monitoring and machine utilization
- Reports and statistics
- App for mobile devices



Machine Utilization App



Machine Utilization App



Job Reports App

Machine name	Part program name	Start time	End time	Planned time (h)	Actual time (h)
US - MMX6073 Messer	2018-09-13-08:07:06.089	2018-09-12 15:16:05	2018-09-13 13:07:09	21:51:04	21:51:04
US - MMX6073 Messer	2018-09-12-10:16:03.321	2018-09-12 15:10:31	2018-09-12 15:16:05	00:05:34	00:05:34
US - MMX6073 Messer	2018-09-11-12:40:11.855	2018-09-11 14:53:50	2018-09-12 15:10:31	24:16:41	24:16:41

Reports

Machines	Reports		
Machine Name	Current Working Day	Last Working Day	Last Working Week
A3	<ul style="list-style-type: none"> A S1 B S2 	<ul style="list-style-type: none"> A S1 B S2 C S1 	<ul style="list-style-type: none"> WORKING WORKING WEEK

MACHINE INSIGHT

The **job reports** show you when a job was started, when it was stopped, how much time was scheduled for the job, and how much time was actually needed for the job.

By recording the actual times, you gain better data for planning production. Jobs with the largest deviations between planned and required time are clearly identified and can be optimized.

Reports are available as PDF files based on working days or weeks. Thanks to the compact presentation of the reports, you can also easily keep track of a large number of machines. Additional functions make it easier to recognize patterns in the event of anomalies in the data and initiate necessary measures earlier and more purposefully.

The reports provide you with an overview of

- Machine utilization,
- Downtimes and reasons,
- Process times,
- Frequency of error categories, and
- Errors responsible for the highest downtimes.

Order number	Customer	Nest progress ↓	Cut progress	Latest planned start	Due date	
ORD000007	MesserSoft GmbH	120/150	0/150	15/07/2020	23/06/2020	
ORD000005	MesserSoft GmbH	19/19	0/19	23/06/2020	23/06/2020	
Preview	Number/Name	Material/Thickness	Nest progress	Cut progress	Planned start	Due date
	1 / Part1	S235JR / 10,00 mm	5/5	0/5	23/06/2020	24/06/2020
	2 / 10021	S235JR / 10,00 mm	5/5	0/5	23/06/2020	24/06/2020
	3 / 10019	S235JR / 10,00 mm	7/7	0/7	23/06/2020	24/06/2020
	4 / 10018	S235JR / 10,00 mm	2/2	0/2	23/06/2020	23/06/2020
ORD000003	MesserSoft GmbH	52/130	0/130		24/06/2020	
2000009	MesserSoft GmbH	45/45	35/45		24/06/2020	
ORD000001		0/20	0/20			
ORD000002	MesserSoft GmbH	0/950	0/950			

Welcome to OmniFab Machine Insight

Start exploring one of the solutions provided by us for increasing your productivity, collaborative maintenance and transparency in the production.



Monitoring

Providing real-time insight into the current machine status and proactively notify in case of...



Machine Utilization

Provide insight into the overall cutting machine effectiveness by suitable reports. Accumulat...



Job Reports

Provide information about actual vs. planned cutting times on a regular basis in order to...



Reporting

This module provides you a set of reports after certain time intervals like shifts, working da...



ADDITIONAL OPTIONS

DASHBOARDS AND STATISTICS

You get an overview of available plates, parts or the current orders and their status. Use reliable data from production to identify trends and weaknesses. In this way, you can make the right adjustments to your production process to be more efficiently saving time and money.



SYSTEM REQUIREMENTS AND FEATURES

Requirements for the installation of OmniFab 2021

- Operating system included in delivery
- 8 GB RAM
- 150 GB hard disk space

Requirements for OmniFab PDC on the control

- Windows 10 recommended
- Network connection between control (HMI version 11.14) and OmniFab Server

Requirements Machine Insight

- 4-8 GB main memory, depending on expansion level
- 120 GB hard disk space
- Operating system included in delivery
- Network connection to cutting machines and license server





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