



TruServices

Monitoring  
for TruPrint

## Intelligent digitalization for the total transparency of your machinery



### Keeping an eye on everything

Keep a constant overview by using key production figures and system conditions of your entire machinery



### Produce reliably

Early error detection and notification enable a quick reaction



### Increased efficiency

Optimize your processes long-term with better transparency



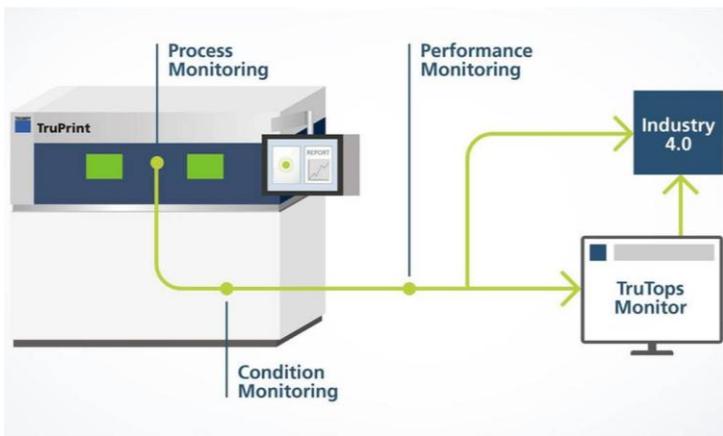
### Quality verification

Benefit from the variety of information for verification of your build part quality



### Individual analysis

Only view the key figures relevant for your build job and then analyze these



## Efficient production thanks to comprehensive monitoring

The monitoring from TRUMPF makes the presentation and evaluation of sensor-supported data possible. This offer involves solutions for the monitoring of processes, conditions, and performance. The results can be seen directly on the HMI.

With TruTops Monitor you not only get access within the network but also the possibility of remote access to the machine. Or you can use the standardized OPC UA Monitoring interface for the connection to your own software.

## Process Monitoring

Keeping the powder bed in view with Powder Bed Monitoring

Process Monitoring focuses on the build process. Powder Bed Monitoring monitors the powder bed during the scanning process. With this you have complete monitoring of your build part quality and can analyze quality parameters layer-by-layer. With the quick and automatic error identification, your production is more efficient.

## Condition Monitoring

Maintaining an overview of the machine conditions and process environment

A wide variety of data concerning the current condition of the TruPrint machines is gathered by Condition Monitoring. This is documented and can be used for quality control purposes. Analyze only the information that is relevant for your application. Indicators for the build chamber such as moisture and protective gas speed, or for the ambient conditions such as temperature or oxygen level are recorded.

## Performance Monitoring

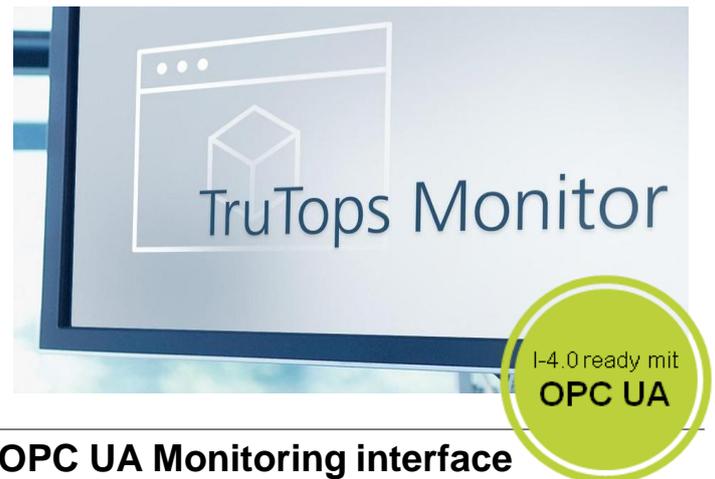
Generating productivity analyses and individual reporting

Use Performance Monitoring to keep an overview of all of the key productivity figures, status and consumption data for the TruPrint machine. Assesses the machine performance right at the machine HMI and benefit from your total overview of the LMF process. The key figures help you achieve profitable production. For every build job, you can configure an individual report and have it displayed at the HMI.

## TruTops Monitor

Flexibility by monitoring in the network

With TruTops Monitor, you get total transparency of your machines and the possibility of remote access even outside your company. Observe and control your TruPrint machines easily from your desktop or on a mobile device using the TruTops Fab app. The analysis of your machine data and of the utilization of the entire machinery will enhance your industrial additive manufacturing. You can document your Laser Metal Fusion process optimally using error messages via email and the external saving of build job reports.



## OPC UA Monitoring interface

Monitoring with your own software thanks to an integrated interface

With the OPC UA monitoring interface you have the possibility of flexible connections of TruPrint Monitoring data to individual software programs. All of the monitoring data is transmitted live over a standardized interface.