

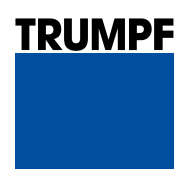


TruServices

.NEW

Qualification support

Machine tools/Power tools
Laser technology/Electronics



How to reliably install and qualify laser systems

When designing and further developing our services, our main focus is on the especially comprehensive standards in medical technology and in the aerospace industry. As a result, our services are primarily based on the requirements of the following standards and institutions: ISO/ASTM 52941/52942, ISO 13485, ISO 9100, FDA, NADCAP, AMS 7003 and others.

If you have questions regarding the details of our range of services or requirements based on your own company-specific standards that need to be taken into account, please do not hesitate to contact us – our experts would be glad to help.

We offer the following services:

- Installation Qualification (IQ)
- Operational Qualification (OQ)

Our expertise can also support you in additional qualification steps:

- Design Qualification (DQ)
- Performance Qualification (PQ)
- Maintenance Qualification (MQ)



More information on qualification support:
www.trumpf.com/s/x40agk



Design Qualification (DQ)

We help you to select the optimum production technology for your application.

Content

- Consultation on the process and material processing
- Application tests for technology selection
- Customized solutions

Your benefits

- Foundation for successful equipment qualification
- Suitable economical and technical solution that meets your individual requirements

Installation Qualification (IQ)

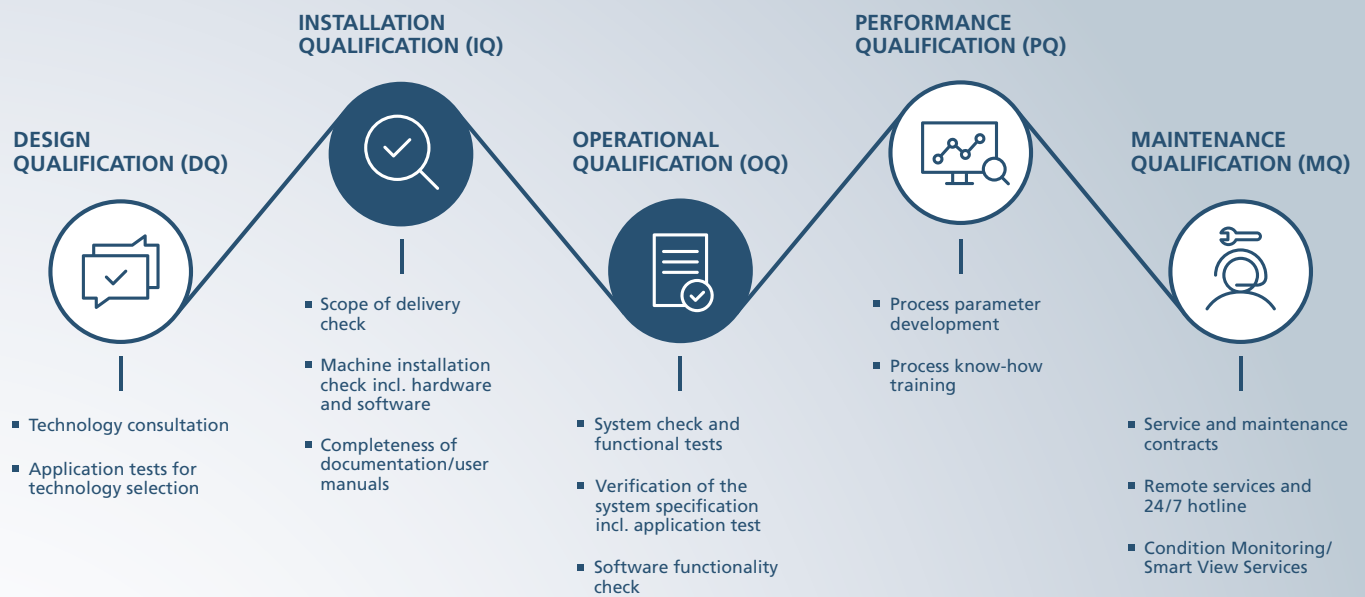
Documented evidence that the device has been received with specifications and is installed and configured for the intended application.

Content

- Scope of delivery check
- Machine installation check incl. hardware and software
- Completeness of documentation
- IQ report

Your benefits

- Time-efficient check of the scope of delivery and of the correct installation of the system by an expert



Operational Qualification (OQ)

Check of the correct basic functionalities of the system in the selected work environment. In this process, it is verified that the entire system works according to the specifications.

Content

- System check and functional tests
- Safety function check
- Verification of the system specifications
- Software functionality check
- Application tests
- Test record and OQ report

Your benefits

- Ensuring the specifications of the entire machine as defined in the DQ
- Time-efficient documentation of the specifications by an expert
- Ensuring proper operation of the machine for the start of PQ

Performance Qualification (PQ)

Observation of the system in the production process. Proof is provided that the defined performance parameters are consistently complied with and the system delivers reliable and repeatable results under real production conditions.

Content

- Performance of application tests to determine the process limits
- Imparting process know-how to employees

Your benefits

- Achievement of high quality and additional productivity through fine adjustment of the parameters
- Well-trained employees with an excellent understanding of the product and process ensure permanently stable and effective production processes

Maintenance Qualification (MQ)

Observation of the system in the production process. In doing so, we support the smooth series operation of your system with our services.

Content

- Training on system operation and maintenance
- Service and maintenance contracts
- Remote services and 24/7 hotline
- Support for application tests
- System status monitoring with Condition Monitoring and Smart View Services

Your benefits

- High availability of the machines in production thanks to the offered services and TRUMPF's global presence
- Long-term use of the machines in the established customer process thanks to long-term availability of spare parts
- Well-trained employees ensure stable and effective production processes – because they perform maintenance themselves internally

Complementary services to maintain your certification

Initial qualification is only one part of the certification; it must be maintained by a Maintenance Qualification (MQ). With a wide range of service contracts available, TRUMPF provides the necessary support for fast reaction times and minimal machine downtime with transparent and controllable costs.

A comprehensive annual check-up of the entire system by our service experts – combined with the possibility of measuring the key influencing factors of the process yourself – facilitates continuously high production quality.

What happens in the event of an error correction, repair or an update?

Certified production has specific requirements when it comes to the resumption of production after a malfunction. Based on a consultation and a detailed analysis of the situation, we jointly define which measures are to be taken to maintain the certified status and to reduce the effort required for requalification.

The qualification support service is available for the following systems:

METAL 3D PRINTING

TruPrint 1000	■
TruPrint 2000	■
TruPrint 3000	■
TruPrint 5000	■*

LASER MARKING

TruMark Station 5000 + TruMicro Mark	■
TruMark Station 5000 + TruMark 3000 (infrared only)	■
TruMark Station 5000 + TruMark 5000 (excluding TruMark 5010)	■
TruMark Station 5000 + TruMark 6030 G2	■
TruMark Station 7000 + TruMicro Mark	■
TruMark Station 7000 + TruMark 6030 G2	■

LASER WELDING

TruLaser Station 7000 + TruDisk	■
TruLaser Station 7000 + TruFiber	■
TruLaser Station 7000 + TruDiode	■
TruLaser Station 7000 + TruPulse	■

* For the TruPrint 5000, coordination with TRUMPF is required.



Find out more about the customer story of toolcraft AG and its NADCAP certification:
www.trumpf.com/s/oi4rcp



The product-specific scope of services depends on the technical design of the machines and may therefore vary. Please do not hesitate to contact us if you have any questions or require further information.