

# CONCEPTLASER

a GE Additive company

Individual! Optimizing part quality with open parameters.



## SOFTWARE SOLUTIONS FOR LaserCUSING® MACHINES

Concept Laser is one of the world's leading providers of 3D metal printing systems.

**Our software development is geared around the requirements of "Industrie 4.0":** clever digital interlinking of the machines, automation of the processes and integration into the production environment.

**We develop customized software solutions and high-quality standard software in-house.** Each machine is equipped when it is delivered ex works with the powerful CL WRX Control 2.0 software. CL WRX Control 2.0 offers all the capabilities to control and log the LaserCUSING® process and estimate the build time as accurately as possible.

### CL WRX Control 2.0 SOFTWARE FOR THE STANDARD USER

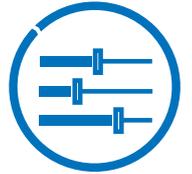


.Machine

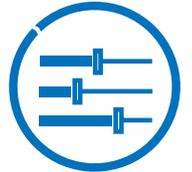


.per material

.Parameter Quality



.Parameter Speed



- . Machines equipped with CL WRX Control 2.0 as standard
- . Concept Laser machines are fitted with one or more powder materials. Customers can choose – any material they want can be provided!
- . **For each material** there is a quality parameter and a speed parameter and all of the available parameters for a specific material



- . CL WRX Control 2.0 is also available as **office software (CL WRX Office 2.0)**. This software makes it possible to do all of the preparation of the build jobs at a workstation while the machine operates fully automatically

Laser power



Scan speed



Spot size



Trace spacing



Offset to original contour



The rule for all parameters is that 5 essential values can be set absolutely

## CL WRX Parameter 2.0

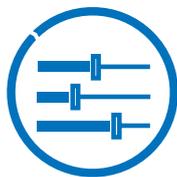
### INDIVIDUALLY EDITABLE SOFTWARE

For companies that need to know about every aspect of the LaserCUSING® process, CL WRX Parameter 2.0 is available as an add-on to the standard CL WRX Control 2.0 software.

CL WRX Parameter 2.0 is the perfect tool for utilizing the same innovative technologies that are used in research & development at Concept Laser.

This system software offers clear benefits to users:

- . Individual control of the LaserCUSING® process as required
- . Qualification of the process for a specific sector
- . Development of optimized parameters for a specific part geometry
- . Qualification of dedicated materials for the LaserCUSING® process



#### .CL WRX Parameter 2.0 software add-on

- . CL WRX Parameter 2.0 is a software with **open and freely editable parameters**
- . All options for settings that define the LaserCUSING® process can be **freely chosen**
- . Other available settings: Segmentation of parts each based on dedicated parameter values (shell/core and upside/downside)



#### .Training

- . **For each material purchased** one available parameter will be provided open and freely editable
- . The term of the license is unlimited
- . **Training content:**  
Sharing detailed knowledge of how to use the software and structured approach to carrying out a parameter study
- . All training takes place at the Concept Laser application center in Lichtenfels or on site at the customer's company premises

You can find further information  
on our YouTube channel





DEUTSCHER ZUKUNFTSPREIS  
Preis des Bundespräsidenten  
für Technik und Innovation  
Kreis der Besten 2015

GERMAN FUTURE PRIZE  
The Federal President's Award  
for Innovation and Technology  
Circle of Excellence 2015



.aerospace  
.automotive  
.medical  
.dental  
.jewelry  
.mold

## TECHNOLOGY TRENDSETTER

Since the year 2000, Concept Laser GmbH, which is based in Lichtenfels in the German region of Upper Franconia, has been regarded as a pioneer in the field of additive metal laser melting technology and is **one of the leading suppliers in the world**. Concept Laser is part of GE Additive, a division of the world's leading digital industrial enterprise General Electric (GE). The company's portfolio includes standard machines and customer-specific machine concepts for the LaserCUSING® of metals as well as general services and development work. Research and further development are continuously reducing the unit costs of the additive process. **Concept Laser GmbH boasts many years of experience and know-how and is synonymous with process-reliable and cost-effective solutions.**

As the perfect high-tech partner, satisfied customers from a wide range of sectors are happy to confirm:  
**Products from Concept Laser are an excellent choice!**

## IN-HOUSE METALLOGRAPHY LAB / MATERIAL TESTING

- . Testing of the material structure
- . Conducting tensile tests to calculate structural and mechanical characteristics
- . Development of new material and industrial applications
- . Additional, dedicated quality testing of the outside material prior to delivery to customers
- . Detailed analysis of test build jobs before each customer machine is delivered

## LaserCUSING® MATERIALS

- . Powder manufacturing based on own design
- . Constant testing and modification of the grain size distribution
- . Devising dedicated steps for thermal after-treatment
- . Powder moisture analyses
- . Flowability investigations
- . Devising suitable methods for powder storage

## TRAINING & SERVICE

We provide you with comprehensive practical and theoretical support with **machine training courses**. We attach the highest priority to **integrating the machine** at your company's premises. You can learn how to operate our machines at our technical center in Lichtenfels. You can get further support and assistance from our application specialists who will visit you at your business premises. We will be happy to help you to devise a **maintenance concept** which is tailored to the needs of your company. Do you have any questions about applications? Our team will be happy to offer you practical advice and assistance.

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