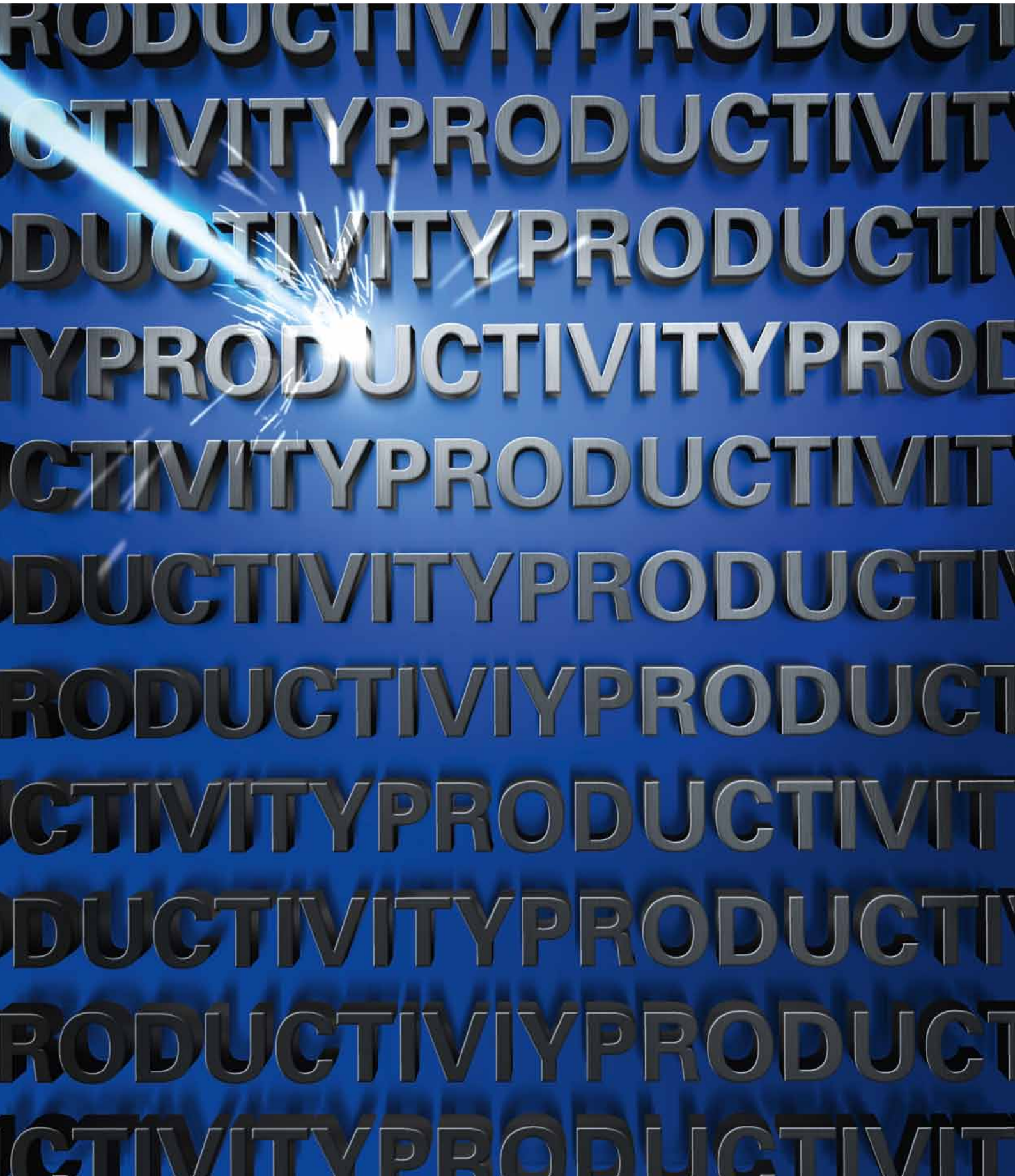


ACADEMY



FIT FOR EXCELLENCE

Messer Cutting Systems Academy



FIT FOR EXCELLENCE

USE PRODUCTS FROM MESSER CUTTING SYSTEMS MORE EFFECTIVELY

To enable you to employ our products most effectively we have established the Messer Cutting Systems Academy in Groß-Umstadt. Here, we impart knowledge and competence to you and your employees on how to handle our machines, equipment and our software.

We offer to our customers in the Messer Cutting Systems Academy:

- >> Concentration of Messer technical Know-how into a comprehensive training curriculum
- >> Documentation of our technical expertise and its concentration into didactically optimised training material
- >> Professionally and didactically trained personnel (ongoing professional development in cooperation with the Technical University of Dortmund)
- >> Access to an online learning platform for self-managed learning and knowledge management (E-Learning)
- >> **Tips for better and faster cutting.**

You need further information on our training courses or want to book a course? Please, visit our website <http://www.messer-cs-academy.de> or call Tanja Schemensky
Tel.: +49 (0) 6078 787 787.



The Messer know-how in a comprehensive training curriculum.

FIT FOR MORE — OUR OPERATOR TRAINING

We turn your operators into professionals so that you can generate productivity out of work. How? Quite simply: by giving your employees the knowledge of how to coax the best out of your cutting system.

WHY HAVE OPERATOR TRAINING WHEN EVERYTHING WAS EXPLAINED DURING COMMISSIONING?

Just as the driving test qualifies a candidate to drive a car, so the instructions allow the unit to be used.

However, if you require more from a driver than just being able to get from A to B, namely to demonstrate safety and experience, for example to

then he must be trained for this. Such operator training do not just make sense, they pay off. In high wage countries the amortisation time for investments in labour is usually shorter than for machines. So training is not just “nice to have” it is a decisive factor for competitiveness.

Our promised success for you

>> interrupt his route between stops >>>>> *flexibility*

>> simply carry out more tasks >>>>>>>>>> *speed*

>> be active himself to make changes >>>> *independence*

GLOBAL CONTROL OPERATOR TRAINING

Duration: 2 days

An Introduction to Computer Numeric Controls for Thermal Cutting Machines

This course will suit operators and service technicians who will start running a thermal cutting machine with a CNC and will ensure or restore its proper functioning.

Content:

- >> How do you operate a CNC cutting machine?
- >> How do you set up a machine?
- >> How can you configure settings?
- >> How do you perform diagnostics?
- >> How can you execute an operational order autonomously?



OXYFUEL CUTTING VERTICAL

Duration: 4 days

Introduction to Oxyfuel Cutting

This basic training has been developed for persons who want to produce components from a plate with a simple vertical cut.

Content:

- >> Which are the functional principles of oxyfuel cutting?
- >> Which standards and rules, cutting quality and dimensional tolerances, occupational safety and environmental standards apply?
- >> How do you set up a machine?
- >> How do you cut a plate?
- >> How can you analyse faults and optimize processes?
- >> How can you execute an operational order autonomously?
- >> Practical projects of participants



PLASMA CUTTING VERTICAL

Duration: 4 days

Introduction to Plasma Cutting

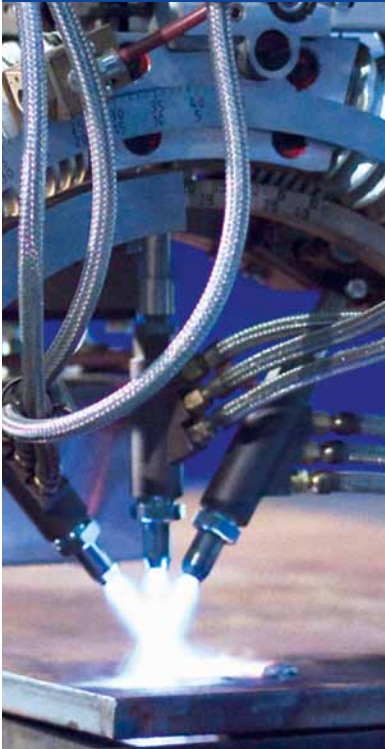
This basic training has been developed for persons who want to produce components from a plate with a simple vertical cut.

Content:

- >> Which are the functional principles of plasma cutting?
- >> Which standards and rules, cutting quality and dimensional tolerances, occupational safety and environmental standards apply?
- >> How do you set up a machine?
- >> How do you cut a plate?
- >> How can you analyze faults and optimize processes?
- >> How can you execute an operational order autonomously?
- >> Practical projects of participants



Duration: 2 1/2 days

OXYFUEL BEVEL CUTTING

Note: All practical training will be carried out on the DAFL

Advanced Training Course

This training is addressed to persons who will do Oxyfuel bevel cuts. Prerequisite for attending the course is expertise in operating the CNC Global Control. Therefore we recommend to first attend our "Global Control Operators' Training" and our course "Oxyfuel Cutting Vertical".

Content:

- >> Which are the basic principles of the technology?
- >> How do you skillfully operate the process modules?
- >> How do you determine cutting parameters for customer-specific materials?
- >> How do you set up a machine?
- >> How do you avoid cutting faults?
- >> How do you carry out a fault analysis? (Plus tips for maintenance work)
- >> How do you carry out a practical project "Oxyfuel bevel cutting on the machine"?

Duration: 2 1/2 days

PLASMA BEVEL CUTTING

Note: All practical training will be carried out on the Skew Rotator Infinity

Advanced Training Course

This training is addressed to persons who will do plasma bevel cuts with the Skew Rotator. Prerequisite for attending the course is expertise in operating the CNC "Global Control". Therefore we recommend to first attend our "Global Control Operators' Training" as well as our course "Plasma Cutting Vertical".

Content:

- >> What is the functional principle of plasma bevel cutting?
- >> What are the technical limitations?
- >> Which details of plasma bevel cutting do you have to know?
- >> How do you determine cutting parameters for plasma bevel cutting?
- >> How do you successfully complete a practical project "plasma bevel cutting on the machine"?

THE DRILL UNIT OPERATOR TRAINING

Duration: 3 days

Advanced Training Course

This course has been developed for persons who shall operate a drill unit. Prerequisite to attending the course is a functional knowledge of how to operate the CNC "Global Control". Therefore we recommend to first attend our "Global Control Operator's Training".

Content:

- >> What is the design of the drill unit and how does it function?
- >> How do you operate the drill unit?
- >> How is the minimum quantity lubrication designed and how does it function?
- >> How do you set up a new tool?



FIBER LASER OPERATOR TRAINING

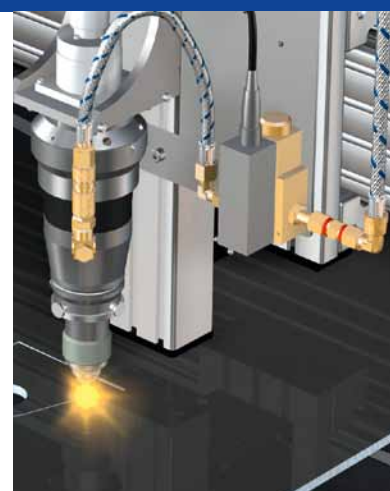
Duration: 5 days

Introduction to Laser Cutting with a Fiber Laser

This basic training has been developed for persons who will produce components with simple vertical cuts on a Fiber laser machine.

Content:

- >> What is the functional principle of laser cutting?
- >> What are the demands of the safety training for laser according to BGV B2?
- >> How do you set up the machine?
- >> How do you use the cutting parameter database?
- >> How do you cut mild steel and stainless steel?
- >> How do you analyse faults?
- >> How do you optimise processes?
- >> How can you execute an operational order autonomously?



LASERMAT OPERATOR TRAINING

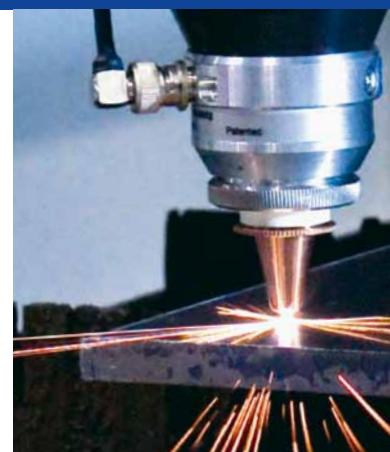
Duration: 5 days

Introduction to Laser Cutting with the LaserMat

This basic training has been developed for persons who will produce components with simple vertical cuts on a LaserMat.

Content:

- >> What is the functional principle of laser cutting?
- >> What are the demands of the safety training for laser according to BGV B2?
- >> How do you set up the machine?
- >> How do you use the cutting parameter database?
- >> How do you cut mild steel and stainless steel?
- >> How do you analyse faults?
- >> How can you optimise processes?
- >> How do you execute an operational order autonomously?





Duration: 2 days

GLOBAL CONTROL SERVICE

Attendance of "Global Control Operator Training" and Electrical/PLC knowledge required

Practical Training for Service Technicians

This training is addressed to operators and service technicians who will ensure or restore the proper functioning of a thermal cutting machine by means of the CNC.

Content:

- >> What different types of controls are there?
- >> How do you operate the System Manager (repetition)?
- >> How do you configure the Global Control?
- >> How do you proceed with an error analysis on plasma?
- >> What do PLC sequences look like? (practical advice and tips)
- >> How do you perform PLC-Diagnostics?
- >> What does the HMI look like?

Duration: 1 day

ALFA TORCH SERVICE

Attendance of "Global Control Operator Training" and Electrical/PLC knowledge required

Practical Training for Service Technicians Lifter, Height Sensing and OmniFlow

In this training service technicians will learn how to correctly adjust the ALFA torch mechanically and electrically.

Content:

- >> Which are the mechanical and electronic components of the torch?
- >> How do you adjust ALFA electronics?
- >> How do you mechanically align the ALFA torch?
- >> How do you set up the torch lifter (OL200) and its motor drive?
- >> How do you service the gas console?
- >> Note: the PAN sensing system will be covered if requested!

Duration: 2 1/2 days

SERVICE FOR DAFL OXYFUEL BEVEL UNITS

Attendance of "Global Control Operator Training" and "Global Control Service" required

Practical Training for Service Technicians

This training has been designed for maintenance personnel and service technicians who service or replace DAFL oxyfuel bevel cutting units.

Content:

- >> What is the functional principle of the DAFL?
- >> How do you proceed with the mechanical alignment of the unit?
- >> How do you proceed with the electrical adjustment of the unit?
- >> How do you determine the Tool Center Point?
- >> How can you analyze faults on the DAFL?

SERVICE FOR SKEW ROTATOR BEVEL UNITS

Duration: 2 1/2 days

Practical Training for Service Technicians

This training has been designed for maintenance personnel and service technicians who service or replace Skew Rotator plasma bevel cutting units.

Content:

- >> What is the functional principle of the Skew Rotator?
- >> How do you proceed with the mechanical alignment of the unit?
- >> How do you proceed with the electrical adjustment of the unit?
- >> How do you determine the Tool Center Point?
- >> How can you analyze faults on the Skew Rotator?
- >> Note: The training is provided for the Skew Rotator Infinity or Skew Delta.



“Global Control Operator Training” and “Global Control Service” required

SERVICE DRILL UNIT

Duration: 3 days

Practical Training for Service Technicians

This training has been designed for maintenance personnel and service technicians who service or exchange a drill unit. Prerequisite for attending the course is expertise in operating the CNC “Global Control”.

Content:

- >> What is the design of the drill unit and how does it function?
- >> How do you set up Initial Height Sensing?
- >> How do you mechanically adjust the unit?
- >> How do you electrically adjust the unit?
- >> What is the design of the minimum quantity lubrication and how does it function?
- >> How do you determine changing positions (five- or twelvefold magazine)?
- >> How do you set up new tools?
- >> How do you adjust settings in the CNC „Global Control“?
- >> How do you operate the drill unit?
- >> How do you analyze faults?



“Global Control Operator Training” and “Global Control Service” required



OMNIWIN 2011**Duration: 5 days****Introductory course to the design and nesting software**

This training is addressed to persons who want to start out with NC-programming using nesting software. CAD knowledge is not prerequisite for this training.

Content:

- >> How do you import components?
- >> How do you design components?
- >> How do you define machines and processes?
- >> Which basic nesting techniques are at your disposition?

- >> How do you successfully complete a self-organised practical project "From design to component part"?

OMNIWIN 2011 CLASSIC I**Duration: 2 days****Introductory course to the programming software "OmniWin 2011 Classic" – Component "CAD"**

This training is addressed to persons who are familiar with applied thermal cutting processes and start out with NC-programming. It serves as an introduction to the programming software "OmniWin 2011 Classic" and covers the component "CAD". You are already familiar with third-party CAD programs. Nevertheless we recommend participation to training

component "CAD", as it is an integral part of "OmniWin 2011 Classic" and conveys process-relevant knowledge.

Content:

- >> What is the overall concept of "OmniWin 2011 Classic"?
- >> What is a coordinate system?
- >> Which functions are offered by the component "CAD"?
- >> How can you set up "CAD"?
- >> How do you include process characteristics during construction?
- >> What do you have to consider when

- designing component parts in "CAD"?
- >> How do you transfer component parts into the nesting program?
- >> How do you design a component part in practice? (exercise)
- >> How do you import graphs from third-party systems?

OMNIWIN 2011 CLASSIC II**Duration: 3 days****Introductory course to the programming software "OmniWin 2011 Classic" – Components "Conv", "Nest", "MPConfig"**

This training is addressed to persons who are familiar with applied thermal cutting processes and start out with NC-programming. It serves as an introduction to the programming software "OmniWin 2011 Classic" and covers

modules "Conv", "Nest", "MPConfig". Process-specific CAD-knowledge is indispensable.

Content:

- >> How do you import designs from third-party systems (component "Conv")?
- >> How do you define machine- and process parameters in "OmniWin 2011 Classic"

- (component "MPConfig")?
- >> Which are the basic nesting techniques (component "Nest")?
- >> How can you successfully complete a self-organised practical project "From design to component part"?

OMNIBEVEL 2011**Duration: 5 days**
Introductory course to the programming software "OmniBevel 2011"

This training is addressed to persons who are familiar with the programming software for vertical cutting and know their relevant cutting process as well as their CNC. Their task is to program mechanized bevel units.

Content:

- >> Which factors influence bevel cuts?
- >> What are the technical limitations to bevel cutting?
- >> Which are the operating sequences in the software during bevel cuts?
- >> What is the structure of the "OmniBevel 2011" database like?
- >> How do you establish cutting parameters for bevel cuts?
- >> How can you successfully complete a self-organised practical project "From design to component part"?
- >> Prerequisite: "OmniWin 2011"

OMNIWIN 2011, OMNIWIN 2011 CLASSIC**Duration: 2 days**
Introductory course for drill support

This training is addressed to persons who will program drill units. The participant is familiar with the mechanised drill process and is able to work with the programming software "OmniWin 2011 Classic" or "OmniWin 2011". It is indispensable to first attend courses "OmniWin 2011 Classic" or "OmniWin 2011" or, where applicable, "OmniBevel 2011" for bevel cutting.

Content:

- >> Which are the factors influencing drilling?
- >> What are the technical limitations to drilling on a machine?
- >> How is the drill database structured?
- >> How do you configure the drill software?
- >> Which are the operating sequences in the software when drilling?
- >> How can you successfully complete a self-organized practical project "From design to component part with cutting and drilling"?
- >> Please, consider prerequisites!





FIT FOR SPECIALS – OUR WORKSHOPS

We help companies to make more out of their company ... by targeted optimisation.

How? Quite individually: you decide who, from which division, needs a special training in which area of expertise.

Our promise of success to you:

**WE WILL STRENGTHEN THE
ABILITY OF YOUR STAFF AND
YOUR COMPANY TO INNOVATE.**

Your employees are already really fit,
but a valuable potential is lying fallow.

Just as with driving a car: they are
all already experienced but none are
excellent drivers. To be prepared for
critical situations advanced driver
training, for example, is missing.
Or a rally to establish team spirit.

You decide who should undergo a
special training and with which
colleagues. Whether solo or in a
group, we will train you in areas
which go far beyond standard training.
Specifically designed for your needs.
Carried out by real cutting experts.

Duration: 5 days

INTENSIVE COURSE OXYFUEL AND PLASMA VERTICAL CUTTING ON A CNC MACHINE



Introduction to thermal cutting on a machine

This basic training is intended for persons who want to produce components from a plate with simple vertical cuts using thermal cutting machines. It includes the courses Oxyfuel and Plasma vertical cutting as well as the Global Control operator training.

Content:

- >> Which are the functional principles of oxyfuel and plasma cutting?
- >> Which standards and rules, cutting quality and dimensional tolerances, occupational safety and environmental standards apply?
- >> How do you operate a CNC cutting machine?
- >> How do you put a machine into operation and make the necessary settings?
- >> How can you configure settings?
- >> How do you make a diagnosis?
- >> How do you set up a machine?
- >> How do you cut out a part?
- >> How can you analyse faults and optimise processes?
- >> How do you execute an operational order autonomously?

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