

# PRODUCT RANGE

# MESSER CUTTING SYSTEMS

**MESSER**   
Cutting Systems



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# WHAT WE STAND FOR CUTTING EDGE TECHNOLOGY FOR MORE THAN 114 YEARS

**Messer Cutting Systems is a global supplier of cutting edge technology. We provide services for the metalworking industry, setting standards worldwide.**

As the industry pioneer we offer complete solutions and focus strategically on our customers and on customer-driven innovation. The company is active in more than 50 countries, with more than 800 employees in 5 main locations with production sites.

Our product range includes oxyfuel, plasma and laser cutting systems, from hand-guided machines right up to special machines for shipbuilding, as well as plant and equipment for

oxyfuel welding, cutting, brazing and heating. Spare parts, repairs and modernisation services round off the program as well as environmental equipment for the systems. Our software solutions optimise production and business processes. We focus on intensive dialogue with our customers – our modern training and application facilities reinforce this claim.

Our systems, products and services for the metalworking industry stand for cutting technology. Worldwide. For more than 114 years.





# WHAT JOINS US

## WE ARE A WORLD COMPANY

**We are the Cutting Systems Partner of choice and are consultants for our customers - worldwide.**

### **OUR MISSION:**

1. To use the unlimited opportunities we have.
2. To create value for the benefit of our customers.
3. To open up, to think multidimensional.

With this in mind we are able to build bridges for our customers' future.

# WHAT GUIDES US EXCELLENCE FOR OUR CLIENTS

**For Messer Cutting Systems being a World Company is a fact and a vision at the same time.**

In the past our worldwide growth has led us to success, market leadership and multicultural diversity. We believe in the future potential we have as a World Company. Across all countries and regions we want to make the most out of our joint capabilities to guarantee the long-term partnership with our customers.

The **“World of Excellence”** symbolises our approach of providing best quality in all areas of our business. We believe in Excellence as our key success factor.



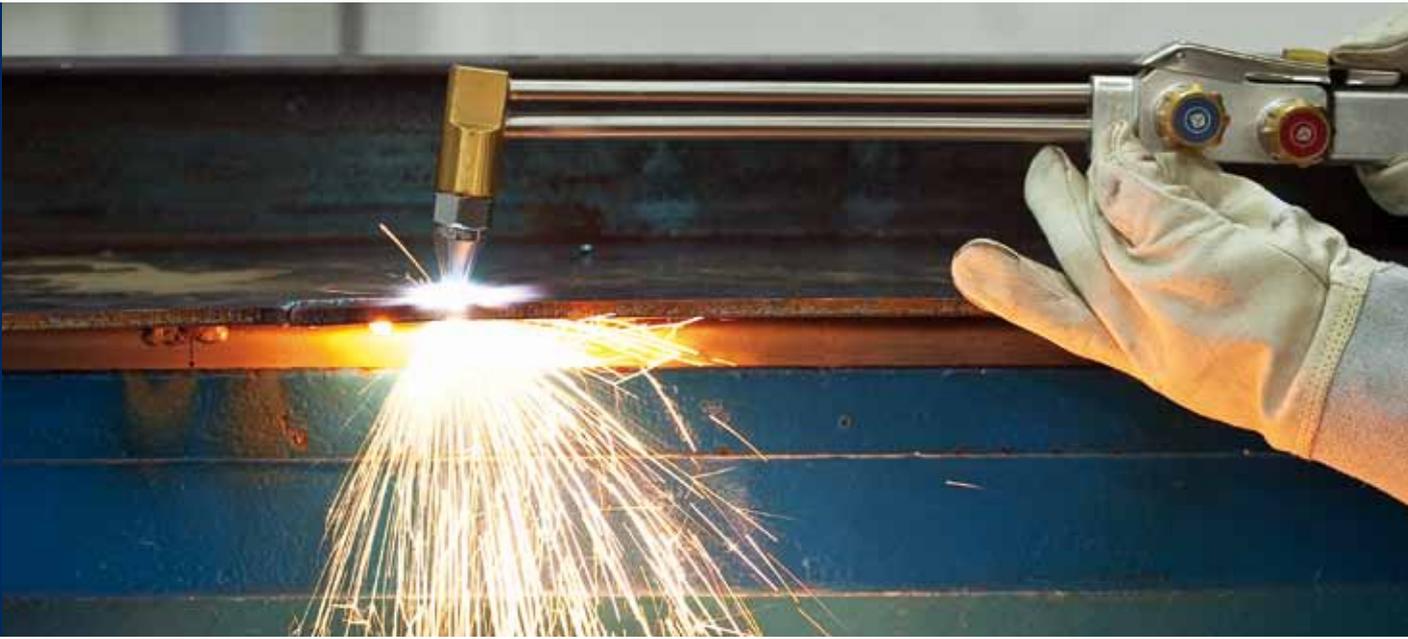
# ORIGINAL MESSER OXYFUEL EQUIPMENT **THE WHOLE WORLD OF OXYFUEL TECHNOLOGY**

Our program is oriented on the multi-faceted demands of modern practices so it offers the suitable systems for every welding, cutting and heating process.

The products are divided into individual ranges according to their main application, so they deliver the best performance both individually and in combination.

To complete these we also offer comprehensive systems for heating and hand equipment for steel mill applications as well as our services.

Our many years of co-operation with gas suppliers have given us a high level of competence in the use of technical gases. Experience in welding and process technology is combined with innovation, quality and reliability.



# OXYFUEL TECHNOLOGY

## PRODUCTS IN ORIGINAL MESSER QUALITY

As market leader in the field of Oxyfuel Equipment we offer a complete product range in ORIGINAL MESSER QUALITY with the most modern solutions for every application. Messer Quality pays off in economy and long productive lives.

### **Cylinder pressure regulator CONSTANT 2000**

for all technical gases, in 200 bar and 300 bar technology.

### **Multi-purpose torch systems**

These products are divided into individual product lines according to their main applications. Our oxyfuel torches MINITHERM, STARLET, STAR and SUPERTHERM excel for manual welding, brazing, heating, cutting, flame straightening and flame scarfing.

### **Hand cutting torches STARCUT und ESSEN**

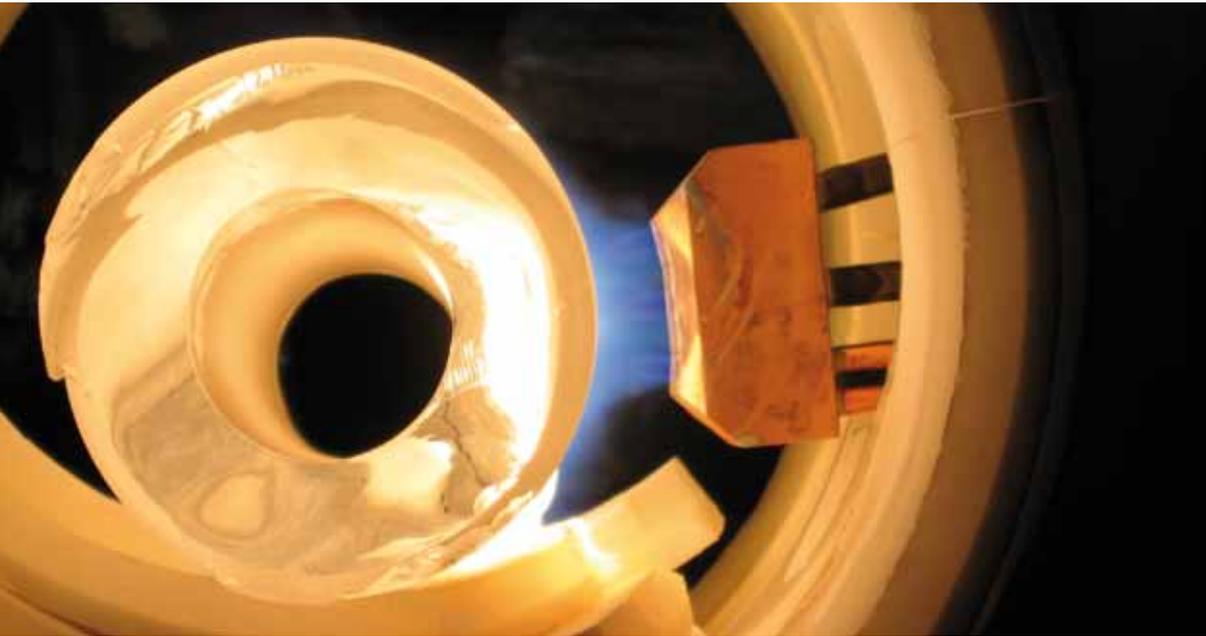
for flame cutting of material up to 500 mm thick and for gouging. Naturally, our range of products also includes all matching cutting and gouging nozzles.

### **Portable flame cutting machines**

With the portable flame cutting machines QUICKY, PORTACUT and SECATOR it is possible to make straight line contour strip as well as bevel cutting on material up to 300 mm thick, flexibly and economically.

### **Machine cutting torches/Machine cutting nozzles**

for automated flame cutting processes.



# GRIFLAM HEATING TECHNOLOGY

## COMPLETE SOLUTIONS FOR ALL INDIVIDUAL HEATING TASKS

GRIFLAM heating technology includes a multitude of heating inserts and heating torches. Our individual torches are manufactured for different gases, for the required work piece-geometry and the necessary flame power. The development and manufacturing of authorized and supervised heating and hardening units belongs to the core competences of GRIFLAM.

### **Implementation:**

For pre and post heating when welding and cutting, stress relieving, normalising and flame hardening, and heat conversion of metals, glass and quartz glass, fusing of powder coatings, preheating of steel ingots, flame straightening, soft soldering, brazing, hard soldering, processing plastics.

### **ADVANTAGES:**

- Unique product variety for all heating and production processes in the field of metal processing, and the processing of glass, quartz glass and plastics
- Multifunctional, cost efficient solutions through the use of standard components and/or special torches
- Automated solutions make accurate control of gas quantities and the production of exactly dosed gas mixtures possible ensuring reproducible quality for all oxyfuel processes and the widest variety of research and production applications
- Complete range of accessories



## STEEL MILL EQUIPMENT PARTICULARLY ROBUSTLY BUILT

Specially suitable for the demands in the steel mill and steel producing industries, scrap yards and foundries. Comprehensive product range for all hand cutting and scarfing applications. The cutting range of heavy duty cutting torches goes up to 700 mm. For Acetylene, Propane, Methane, MAPP®.

### ADVANTAGES:

- Robust, solid design meets the special demands and safety regulations of the steel mill industry
- Special units for scrap cutting and hole piercing of low alloyed steels as well as slag and the processing of fire resistant coatings and concrete
- Continuous quality control guarantees optimum application

## OUR SERVICES MOST EFFICIENT AND COMPETENT

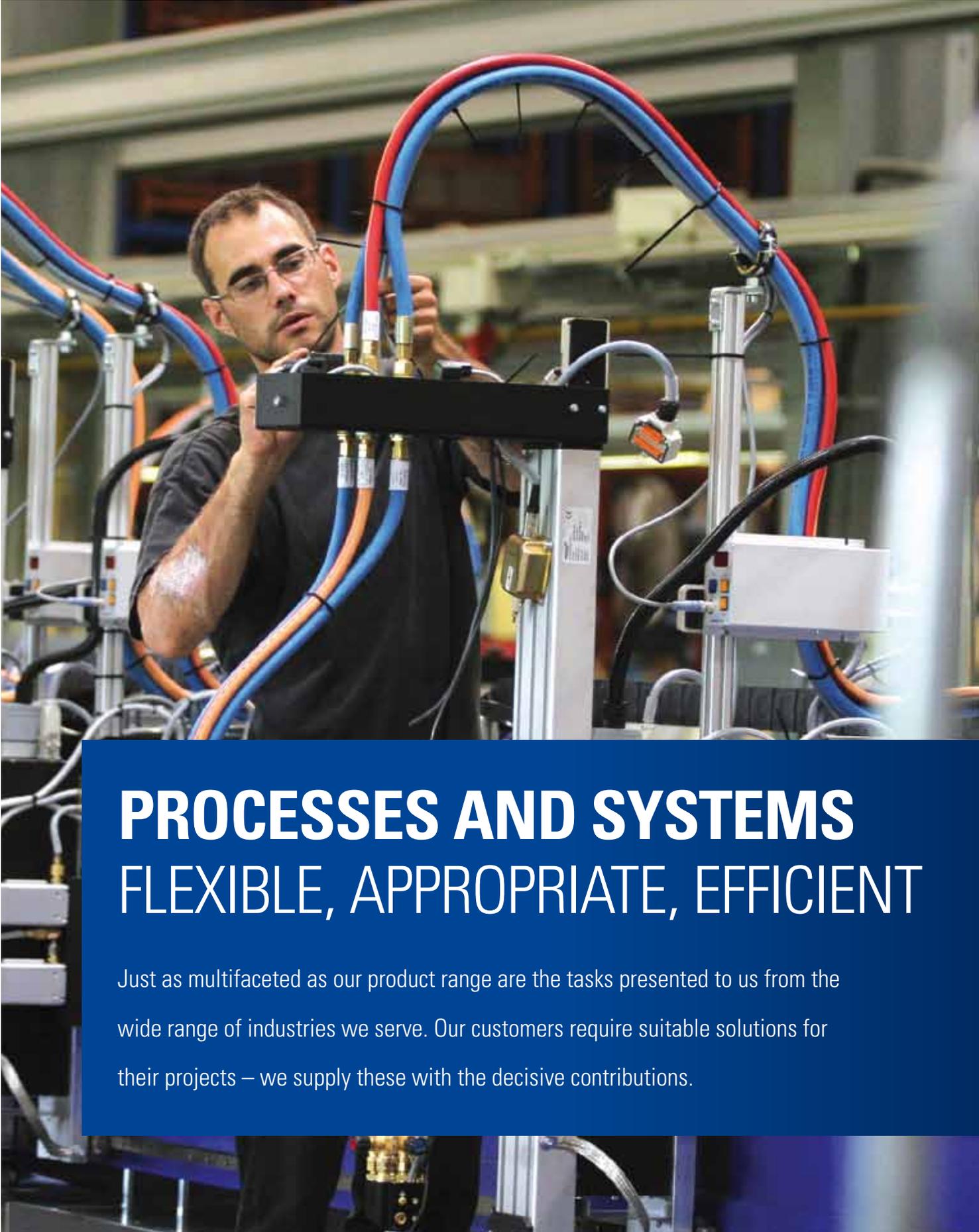
The Health and Safety at Work Regulations make the company itself responsible to a high degree for the operating safety necessary when working with gas supply systems.

**Consultation:** We will tell you how to meet all relevant legal requirements for your company and advise you further on the implementation of measures for safe working.

**Documentation:** We will assist you in documenting the observation of safety standards in the right way to conform with the regulations and thus to create the basis for a preventative safety protection.

**Support for certification:** We will help you to fulfil the requirements for certification and audits.

**Inspection:** We will, on request, carry out regular inspections on your gas supply system on site to recognize potential source of problems in advance.



# PROCESSES AND SYSTEMS FLEXIBLE, APPROPRIATE, EFFICIENT

Just as multifaceted as our product range are the tasks presented to us from the wide range of industries we serve. Our customers require suitable solutions for their projects – we supply these with the decisive contributions.

# CUTTING TECHNOLOGIES

## OXYFUEL, PLASMA, LASER

**Laser, Plasma or Oxyfuel – which process is best suited to and, above all, most economical for your application?**

### OXYFUEL

Oxyfuel flame cutting is the cheapest process for the cutting of mild and low alloy steels, even with weld preparations.

**Plate thickness range:**

3 mm–2800 mm  
(Typical cutting range:  
10 mm–300 mm)



### PLASMA

Plasma cutting is a fast, precise process for cutting unalloyed and high alloyed steels as well as Aluminium with high quality.

**Plate thickness range:**

Mild Steel: 2 mm–90 mm  
Stainless Steel: 3 mm–160 mm  
(Typical cutting range mild steel:  
2 mm–50 mm)



### LASER

If you want cuts of the highest quality with the greatest possible accuracy, then laser cutting with the square cut edge, narrow cut kerf and low heat input is the right technology for you.

**Plate thickness range:**

Mild Steel: 1 mm–25 mm  
Stainless Steel: 1 mm–20 mm



# ProBlade

## SOLID DESIGN, HIGH QUALITY

Value for money price.

The most economical access to the quality and support of the Messer World: **ProBlade**, the first Messer's global machine. With a small size, this CNC cutting machine has a stabile track construction and an ergonomic design, tough enough for a hard days work.

ProBlade allows the combination of oxyfuel and plasma cutting processes, to cover all commonly occurring materials and tasks. The installation of this machine is fast and easy, which saves costs and gets you into production.

### TECHNICAL DATA

- **18 m/min speed: less positioning time, so more output**
- **Direct drive for reduced backlash and better power transmission**
- **Can take up to four torches (maximum one plasma) for higher productivity**
- **Up to 3 m plate width: allows cutting of large parts and efficient nesting of smaller ones to reduce scrap**

### ProBlade

Track Gauge	3100	3600	4000
Working Width	2000	2500	3000
Total Width	4410	5310	5310
Length	1330	1330	1330
Height	2100	2100	2100
Track Height	565	565	565

all values in mm



# MetalMaster®

## DROP & CUT

Special cutting system for precision plasma processes.

Dual side longitudinal drives and precision linear guides guarantee high cutting quality and consistency. The plate support table, which is integrated into the system, is divided into a number of sections for efficient fume extraction even with a smaller fan/filter unit. The highly dynamic performance of the machine is achieved through low weight with high design rigidity.

### TECHNICAL DATA

- Working widths: up to 2,5 m
- Travel speeds: up to 40 m/min\*
- CNC controlled Z axis with the torch lifter OL100SZ\*
- Specialised for the latest precision plasma processes
- Dimensional tolerances to DIN EN 28206
- Simple installation drop & cut

\* Only with the GC<sup>plus</sup>

### MetalMaster®

Working Width	1500–2500
Total Width	2290 – 3290
Working Length	3000 – 8000
Table Height	800
Overall Height	1800
Speed range	0–40*

all values in mm



# MultiTherm<sup>eco</sup>

## EASY OPERATION AND HIGH FLEXIBILITY

Quickly and efficiently.

Compact design, simple operation and high flexibility – that is the **MultiTherm<sup>eco</sup>**. The machine is conceived for daily work in a standard cutting shop. The high level of automation, simple set-up and operation enable high productivity of high quality parts – quickly and economically.

The symmetrical wheel-housings and the parking space for unused torches over them optimise the working width in the narrowest spaces. The electrical cabinet is positioned over the wheel-housing so it is not exposed to thermal radiation from the cut plate. It is accessible from the side to simplify maintenance and service.

### TECHNICAL DATA

- **Working Widths: up to 3 m**
- **Travel Speeds: up to 12 m/min**
- **Cutting processes: Oxyfuel, dry plasma**
- **Marking processes: Punch marking, plasma marking**

MultiTherm <sup>eco</sup>				
Track Gauge	2600	3100	3600	4000
Working Width	1500	2000	2500	3000
Total Width	4070	4070	5070	5070
Length	1500	1500	1500	1500
Height	1980	1980	1980	1980
Track Height	500	500	500	500

all values in mm



# MultiTherm®

## VERSATILE AND EFFICIENT

Always the ideal system for your production.

Whether plasma (straight or bevel), multi-torch oxyfuel cutting, laser, marking or a combination of all is your requirement, the **MultiTherm®** is the machine for you.

High power drives for speeds up to 35 m/min\* enable high positioning and cutting speeds even on tight contours. The effective working width is used to the maximum thanks to parking space for heads over the wheel-housing. Multiple torch operation for high productivity is, of course, possible with oxyfuel, plasma and laser operation.

### TECHNICAL DATA

- Working Widths: up to 4 m
- Travel Speeds: up to 35 m/min\*
- Working Length: unlimited
- Cutting processes: oxyfuel, dry plasma, laser, WIPC
- Equipment options: plasma bevel, oxyfuel bevel, drilling
- Marking processes: powder marking, plasma marking, punch marking, needle marker OmniScript®, InkJet

\*depending upon machine equipment

MultiTherm®						
Track Gauge	2600	3100	3600	4000	4600	5000
Working Width	1500	2000	2500	3000	3500	4000
Total Width	4070	4070	5070	5070	6070	6070
Length	1940	1940	1940	1940	1940	1940
Height	1980	1980	1980	1980	1980	1980
Track Height	500	500	500	500	500	500

all values in mm



# OmniMat®

## MACHINE FOR SPECIAL TASKS

Ideal for large working areas with oxyfuel and plasma.

This machine has been robustly built to guide even the heaviest units accurately. The CNC controlled cutting machine with a high load gantry construction, dual sided longitudinal drives and precision machined guide sections offers you high cutting accuracy and shape consistency even in 24 hour continuous operation. Whether with oxyfuel, underwater or dry plasma, whether vertical cuts or bevels, the **OmniMat®** is the ideal solution for the toughest conditions.

### TECHNICAL DATA

- Working Widths up to 7.8 m\*
- Maximum number of torches on the machine: 16
- Optional: footplate travelling with the machine, automatic hole piercing up to 130 mm

\*depending upon machine equipment

OmniMat®											
Track Gauge	4000	4600	5000	5600	6000	6500	7000	7500	8000	8300	8800
Working Width	3000	3600	4000	4600	5000	5500	6000	6500	7000	7300	7800
Total Width	4935	5535	5935	6535	6935	7435	7935	8435	8935	9235	9735
Length	1940	1940	1940	1940	1940	1940	1940	1940	1940	1940	1940
Height	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Track Height	500	500	500	500	500	500	500	500	500	500	500

all values in mm



# FIBERBLADE

## YOUR ENTRY INTO THE LASER CLASS

Cutting with the compact Fibre Laser.

With the most modern fibre laser, the unit is at right up to date: the laser is characterised by a robust and long life design. No adjustment is necessary right up to the cross carriage and the emitter diodes in the laser have an average lifetime of over 50,000 hours. The laser beam is carried in an optical fibre cable through the drag chain to the cutting head, so no beam path purging gas is required. Because of the high efficiency of the laser and the low gas consumption in total, the cutting costs on the machine are kept very low.

### TECHNICAL DATA

- Cutting system with fibre laser
- Low adjustment and maintenance costs
- Low energy consumption, low running costs
- Laser class 1 because of housing
- Extremely simple
- Magnetic holder to protect the cutting head
- Multiple cameras for monitoring the machine and process on screen

### FIBERBLADE

Working Width	2000
Working Length	4000 / 6000
Laser Power (W)	1200 – 2400

all values in mm



# LaserMat®

## THE APEX OF QUALITY

Constant precision for large format steel plates.

With working widths of over 4 m and bed lengths up to more than 40 m, the system is predestined for large format plates. The CNC controlled laser processing system offers high part accuracy due to linear guides for longitudinal and transverse motion. The laser beam is guided in the transverse direction via moving mirrors with 100% beam path length compensation and thus ensures a consistently high processing quality over the entire operating area. The colour camera which is directed at the cutting head makes possible easy observation on the screen alongside the operating panel.

Apart from vertical cuts, bevel cuts are possible and various marking options are available.

### TECHNICAL DATA

- Cutting system with CO2 Laser
- Highest positioning speed over the entire working area of up to 60 m/min
- Infinitely rotating bevel unit
- Highest force deployment during acceleration
- Fulfils laser class 1

LaserMat®			
Track Gauge	4200	5000	6000
Working Width	2500	3000	4100
Total Width	5780	6580	7610
Laser power	4000	5000	6000
Length without bevelling	4460	5010	5705
Length with bevelling	4710	5260	5955

all values in mm





## SPECIAL PORTAL MACHINES PRECISION BY THE KILOMETRE

Just as varied as our product range are the tasks we are set by the different branches of industry. We not only supply you with cutting machines with the latest technology and high reliability, but also offer know-how, support in application and design, engineering and training, e.g. in the economical use of CNC techniques.

Special portal machines are used, for example in shipbuilding, the manufacture of wind turbine towers and stone mould cutting.

# EQUIPMENT AND TOOLS

## OXYFUEL, PLASMA AND LASER BEVEL CUTTING

### Oxyfuel bevels

- Infinite rotation of the unit about its own axis
- Interpolation of the bevel angle (change on the fly from minimum to maximum torch inclination whilst cutting)
- Positive and negative bevel angles in one part are possible

Types of bevel	I, K, V, X, Y
Material thickness for bevelling	bis 80 mm*
Material thickness for vertical cuts	bis 150 mm*
Max. Angle	60°

\*for manual units



### Plasma bevels

- Infinite rotation of the unit (Skew Rotator®) about its own axis
- Interpolation of the bevel angle (change on the fly from minimum to maximum torch inclination whilst cutting)
- Positive and negative bevel angles in one part are possible
- Arc segment system

Types of bevel	I, V, X, Y
Material thickness for bevelling	bis 50 mm
Material thickness for vertical cuts with edge start	bis 50 mm bis 100 mm
Max. Angle	45°



### Laser bevels

- Infinite rotation of the cutting head about its own axis
- Interpolation of the bevel angle (change on the fly from minimum to maximum torch inclination whilst cutting)
- Positive and negative bevel angles in one part are possible
- Collision protection

Types of bevel	I, V, Y
Material thickness for bevelling	bis 15 mm
Material thickness for vertical cuts	bis 25 mm
Max. Angle	45°



# ALFA, GLOBAL CONTROL AND OMNILIFT

## ALFA

### The oxyfuel machine cutting torch of the future

- Sensing ring and additional cables are no longer present, so there is no wear of the sensor nor any need to change it for different material thicknesses
- Better material utilisation through better sensing right up to the edge of the plate
- The Sensomat® ALFA height sensing is easy to use with a digital display of the current operating status
- With the ALFA torch, fast nozzle change is possible without the use of tools. Set-up times are significantly reduced

## Global Control

### The latest generation controls

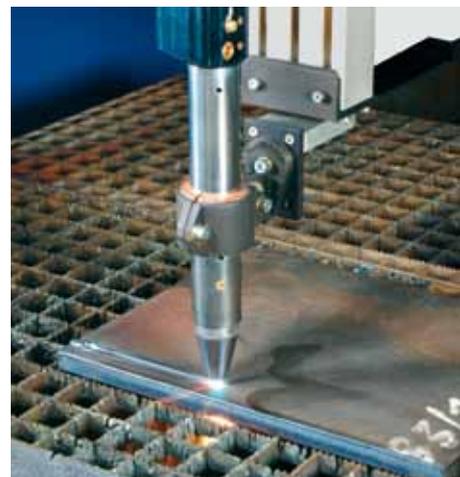
- Automatic and manual control of the cutting processes
- Databases: technology, materials and consumables
- Plate alignment compensation
- Torch positioning supported with camera or laser diode (option)
- Graphic editing/display of the nesting plan elements
- Graphic display of the current torch position with zoom function
- Service / maintenance diagnostics
- Import of DIN/ESSI formats

## OmniLift

### Torch lifter

- Stable and fast cutter suspension for oxyfuel and plasma cutting
- Patented stand-off control SensoMat® ensures the exact distance from torch to material for better cut quality
- Faster stroke with spindle drive ensures lower non-productive times, optimum cut quality and high productivity
- Completely maintenance free

OmniLift	OL 100 S/Z	OL 200 N/S/Z	OL 300 N/S/Z
Stroke	100 mm	200 mm	300 mm
Stroke speed	N = 66 mm/sec (approx. 4 m/min) S = 132 mm/sec (approx. 7,9 m/min)		
CNC controlled Z axis	Z		



# EQUIPMENT AND TOOLS

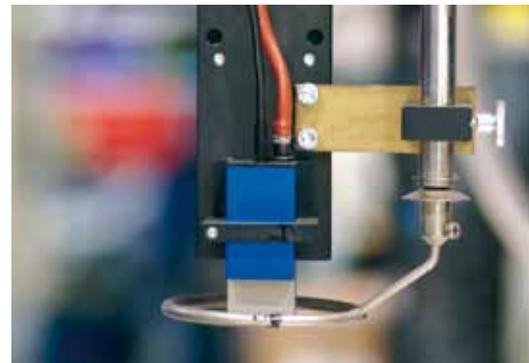
## MARKING

### Inkjet

The system for printing of lines, contours and alpha-numeric characters. The plates are marked fast and silently, with no negative influences on the surface.

**Max. marking speed:**

Single jet system: 3–35 m/min (lines)  
Multi-jet systems: 3–26 m/min (by character)



### OmniScript

Especially suitable for marking texts onto parts (e.g. ISO 9000). The vibrating stylus point with its own axes generates clearly readable, long-lasting marking in just a few seconds. Also suitable for marking lines and curves (e.g. bending lines).

**Max. marking speed:**

- 6,6 m/min (lines)  
- 1 cps for 10 mm character height

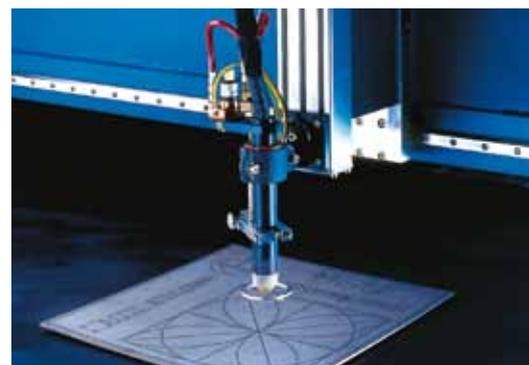


### Plasma marking

The plasma marking unit melts the plate surface and allows fast, precise marking with line widths, depending upon the application, of 0.5 to 1.5 mm.

**Max. marking speed:**

- 20 m/min.

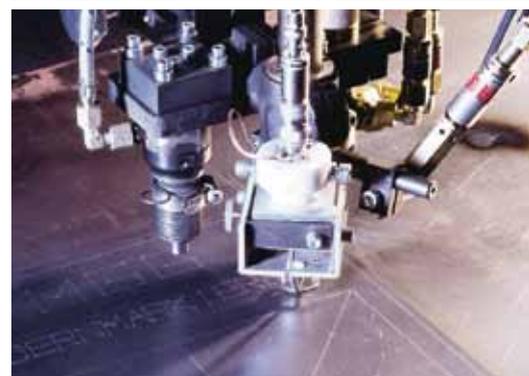


### Punch marking

The unit produces clear lines and punched points on the plate surface for drilling, contours and letters.

**Max. marking speed:**

- 3 m/min



# DRILLING, STRIP CUTTING, BLASTING

## Drilling

In those cases where

- high accuracy of the holes is required (e.g. as preparation for thread cutting),
  - the hole diameter has to be less than the material thickness,
  - the number of thermal hole piercings has to be reduced,
- the machines can also be equipped with a drilling head.



## Strip cutting

The strip cutting unit has been specially designed for cutting shops who have many strips to cut. It can be interchangeably installed on a standard cutting machine. It is possible to cut two strips with widths of 90 up to 180 mm or one

strip with widths of 180 up to 360 mm with this head. Height sensing is made by the centre torch which is connected to the SensoMat® ALFA.



## Blasting

This process is mainly used in ship-building where primed plates have to be prepared for later welding. In one operation the plate is both blasted and

marked. Stiffeners can be welded on at once. This makes for drastic time savings in the production process.



# CUTTING TABLES AND FILTERS

## SAFETY AND ENVIRONMENTAL PROTECTION

### Filter

The new filter series Z-Line offers a large selection of filter solutions for flexible use in industrial extraction. The powerful units guarantee a safe and healthy working environment. Because of their low

consumption of current and compressed air and the long interval between services they are very economical.



### Tables for dry plasma and oxyfuel cutting

The basic construction of the PROGRES<sup>plus</sup> extraction tables ensures reliable material support and an effective extraction of the dust and fumes generated during oxyfuel and plasma cutting.

Thanks to the modular design, any necessary table length and width is possible. The integrated slag trays make for easy cleaning of the tables.



### Water Tables

Based on decades of experience in thermal cutting, Messer also offers every type of water table. For special materials or especially high requirements for low distortion and low heat affected zones, there are cutting processes in, on or over water. Messer can also offer here the optimum solution designed for all conceivable variations, such as, for example:

- Automatic level lowering for loading/unloading
- Agitation devices to prevent the build up of explosive gasses when cutting Aluminium under water
- Fully automatic slag removal
- Stops which can be lowered

To suit the individual application or logistic requirements of our customers the tables are built nearly individually by using modern modular constructions.



# RETROFIT AND AFTER SALES

## INCREASE LIFETIME AND PRODUCTIVITY

### RETROFIT

#### The Economical Alternative

A conversion or retrofit means upgrading to the newest technology such as modern numerical controls based on a PC, or torch suspensions with automatic height control using the latest process oriented sensing methods.

Typical components for Retrofits are the new generation of plasma units for the plasma process or high performance oxyfuel torches.

#### THE ADVANTAGES FOR YOU:

- High increase in output for little investment
- Short down times
- Better availability of spare parts and consumables



### After Sales

#### Everything to keep your Production running

The guarantee for the best productivity for cutting is the use of original spare parts and consumables. We hold all common spare parts and consumables available for you for short delivery.

Ask today about the possibility of special agreements to guarantee you the best prices!

We have well trained teams in our repair workshop who ensure professional repair of components such as gearboxes, torch suspensions, rotating heads, controls and printed circuit boards.



# SOFTWARE FROM MESSER FOR PROCESSES AND PRODUCTION

Machines and software from one source.

## **Use Messer machines more efficiently with Information Technology**

Machines and software from the same supplier guarantee the best utilisation of available resources. Your IT supported production environment meshes with your manufacturing engineering ERP solutions. All processes work together smoothly for the overall added value creation. From preparing quotations to post calculations, from design of the parts to the creation of nested plans, the transfer of the plans to the machines and finally the cutting of the parts, you have perfect information management. This guarantees you efficient production with the highest quality standards whether it be with small batch quantities in engineering and plant construction or with just in time order based production with ever changing quantities in a job shop. Because quality, timing and the price is right, your competitiveness is as well.

## **Business Process Technology**

With our process oriented solutions you have targeted control over your operative daily business and optimise your management tasks. The integration of your production in your ERP world makes your manufacturing engineering economics transparent. Your resources can be planned and calculated. Together with our expert team you develop your individual information management. In this process we apply our extensive technical knowledge and our long years of experience in such a way that you gain the maximum benefit. The outcomes are integrated and optimised processes that manage prices, times and costs for you, organise resources and control results. On the basis of exact cost and production time calculation **OmniCalc** generates quote and order calculations in seconds. The production planning and production control from **OmniSchedule** make processes transparent, give reproducible timing estimates and reliable resource loading.

The Factory Data Capture in **OmniTrack** provides the basis for optimised production control and management. The professional post calculation identifies and combats cost drivers, recognises major turnover sources and actively manages processes.



**Our experienced experts are there to support you in applying information and process technology profitably. Qualified consultancy, professional implementation as well as efficient training and powerful support ensure the optimum implementation of our solutions in your company.**



### Production oriented Information Technology

Your production with CNC controlled thermal cutting machines will be optimised with **OmniWin**. For many machines you have access to preconfigured technologies including postprocessors. For plans with vertical cutting, it calculates the time required quickly and simply. You will draw up exactly those reports which you need to apply your machine in the best possible way with the ideal equipment use for order based work. The integrated product option 'Unfold' makes it fast and easy to select your fittings, input the dimensions, see an actual 3D preview and then you can nest the flat layout immediately. With a simultaneous licensing of OmniBevel, bevel cutting will be totally integrated and gives optimised results in seconds.

**OmniWin Classic** also improves the productions with CNC thermal cutting machines. You will operate with minimum material usage from the simplest to the most complex machines. The system architecture allows smooth application in all conceivable enterprise scenarios and IT environments. With the perfect adaption of the system to your production you can use a wide range of configuration options and work extremely efficiently. The multiuser database ensures the highest level of security for your production data and user settings.

**OmniBevel** is the ideal tool to master even the most complex technology efficiently. It stands for high quality bevel cutting with exact bevel angles.

Cutting speeds match perfectly to the technology selected. All technology parameters can be set extremely flexible for almost any conceivable application.



# FIT FOR EXCELLENCE

## MESSER CUTTING SYSTEMS ACADEMY

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, Germany. Here we impart knowledge and competence to you and your employees on how to handle our machines, equipment and software.**

### FIT FOR MORE

#### OUR OPERATOR TRAINING

We turn your operators into professionals so that you can increase 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

- interrupt his route between stops
- simply carry out more tasks
- be active himself to make changes

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 investment in labour is usually shorter than for machines. So training is not just 'nice to have' it is a decisive factor for competitiveness.

**Our promise of success to you:** flexibility, speed, independence.

### FIT FOR PURPOSE

#### OUR SERVICE TECHNICIAN COURSES

We turn tedious maintenance into far-sighted prevention – so that you can generate uptime out of downtime... and increase productivity.

How? Quite simply: by giving your employees the knowledge of what to do to keep your cutting systems always fit and ready for operation.

#### **Why have service training when everything was explained during commissioning?**

If it were just a matter of a squeaking door then our courses would really be unnecessary. But just as it is with a car:

- a clean filter ensures lower fuel consumption
- checking the oil level prevents serious problems
- a body which is cared for lasts longer

Thus service and maintenance also pay off with a cutting



### IN THE MESSER CUTTING SYSTEMS ACADEMY WE OFFER TO OUR CUSTOMERS:

- 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



machine. However in real life you often discover this too late.

**Our promise of success to you:** reduction in consumable costs, preventing complete breakdowns, increasing operating life.

### **FIT FOR PROCESSING** OUR SOFTWARE TRAINING

We turn your workers into production planners – who optimise material and resources... so that their achievement potential is completely reached.

How? Quite simply: by giving your staff the (Software) knowledge to make operating steps simpler and more transparent.

### **Why does one need all these electronics in new cars?** **It is all just a gimmick.**

To stick to the analogy with cars: obviously if it were just a matter of fancy lights and sounds one could save kilometres of wiring installed in a middle class car.

But just like our car

- uses the tracking assistant to wake us up
- predicts fuel consumption with its board computer
- uses the navigation system to find the fastest route

our software solutions help you to make your business still better and your employees still more efficient.

**Our promise of success to you:** alarm functions, resource planning, optimise sequence of operations.

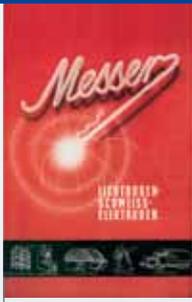
### **FIT FOR SPECIALS** OUR WORKSHOPS

We help companies to make more out of their business ... 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, you will be trained by us in areas which go far beyond standard training. Specifically designed for your needs. Carried out by real cutting experts.

> [www.messer-cs-academy.com](http://www.messer-cs-academy.com)

<p><b>1898</b></p>  <p>Foundation of Frankfurter Acetylen-Gas-Gesellschaft, Höchst am Main</p>	<p><b>1903</b></p>  <p>Ernst Wiss develops the first oxyfuel cutting torch</p>	<p><b>1908</b></p>  <p>Market launch of product range for oxyfuel welding and cutting using the brand name "Original Messer"</p>	<p><b>1911</b></p>  <p>Messer &amp; Co. G.m.b.H.; move into US market</p>	<p><b>1932</b></p>  <p>Production of arc welding electrodes</p>	<p><b>1945</b></p>  <p>Rebuilding Adolf Messer GmbH</p>
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<p><b>1995</b></p>  <p>Foundation of Messer Cutting &amp; Welding, China</p>	<p><b>1998</b></p>  <p>Stefan Messer becomes member of Executive Board</p>	<p><b>2000</b></p>  <p>Foundation of MEC Holding GmbH by merger of Messer Cutting &amp; Welding GmbH with the Eutectic Castolin Group</p>	<p><b>2004/05</b></p>  <p>The Messer family, led by Stefan Messer, acquires all company shares</p>	<p><b>2007</b></p>  <p>Messer Cutting Systems starts off manufacturing in Brazil</p>	<p><b>2008</b></p>  <p>Foundation of MesserSoft and manufacturing site Messer Cutting Systems, India</p>
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# PIONEER IN ELECTRIC WELDING COMMITET TO TRADITION

As a traditional German engineering company, we focus on the development and production of cutting and welding machines for more than 114 years. Our knowledge represents a high degree of investment security to our customers. Messer was the inventor of oxyfuel technology and a pioneer in electric welding. The company made important contributions to the development

of process technology. It emerged from a small engineering company to a global innovative products and consultancy company. We rely on our roots as a German, family-owned company and commit to the values of the Messer World.

1946



Expansion in Europe and the US driven by Adolf Messer

1953



Dr. Hans Messer assumes control

1965



Merger with Knapsack-Griesheim AG (Hoechst) to form Messer Griesheim GmbH

1970



First CNC and laser cutting system on the market

1978



MG Systems & Welding manufactures flame cutting machinery sold in North America

## MANY COMPETENCIES. ONE WORLD. THE MESSER WORLD

The Messer brand name stands for a constant presence in the markets for industrial gases and cutting and welding technology stretching back for more than 114 years. The Messer Group (Messer) and the Messer Eutectic Castolin Group (MEC) operate under the "Part of the Messer World" umbrella brand, signifying that they are part of the "Messer World" group of companies.

They all offer application-specific know-how and products, that extend the life and improve the means of production and production processes significantly.

**ASCO Kohlensäure** is a provider of individual and complete CO<sub>2</sub> solutions.

**BIT Analytical Instruments** produces precision technical instruments for medical applications.

**Castolin Eutectic** specialises in wear protection, repairs and fusion technologies.

**Messer Group** is the largest owner-run industrial gas company in the world.

**Messer Cutting Systems** offers an entire range of thermal cutting solutions and specialises in oxyfuel equipment as well as gas supply systems.

**MesserSoft** is the software partner in the PPS/ERP environment for customers of Messer Cutting Systems.

**Messer Medical Home Care** concentrates on activities in the home care sector.

**Spectron Gas Control Systems** is the specialist for gas supply systems.

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