1 What we stand for
2 What unites us
3 What guides us

4 The whole World of Oxyfuel Technology
5 Oxyfuel Technology
6 GRIFLAM Heating Technology
7 Steel Mill Equipment, Services

8 Processes and Systems
9 Cutting Technologies
10 MetalMaster 2.0
11 MultiTherm® Eco
12 MultiTherm®
13 OmniMat®
14 PowerBlade®
15 LaserMat® II
16 Special Portal Machines
17 Bevel Cutting Units
18 PTC 500, ALFA, GLOBAL CONTROL
19 Marking
20 Drilling and Tapping, Strip Cutting, Blasting, Belt Grinder
22 Cutting Tables and Filters
23 Software

24 360° Service

27 Retrofit

28 The Messer World
WHAT WE STAND FOR
CUTTING EDGE TECHNOLOGY
SINCE 1898

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

As the industry pioneer we offer complete solutions and focus strategically on our customers and on customer-driven innovation. The focus here is on digitalising. The company is active in more than 50 countries, with more than 900 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. Our product range has been expanded by solutions from technology partners, for example in the field of automation. 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 over 100 years.
WHAT UNITES 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 multidimensionally.

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.
Our programm 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 gasses, 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 torch systems MINITHERM, STARLET, STAR and SUPERTHERM excel for manual welding, brazing, heating, cutting, flame straightening and flame scarfing.

**Hand cutting torches STARCUT and 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 and PORTACUT 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. Special nozzles for optimized cutting to meet the requirements of DIN EN 1090.
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 authorised 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 guarantee reproducible quality for all oxyfuel processes and the widest variety of research and manufacturing tasks
- Complete range of accessories
- Layout of the complete gas supply system
- Application technicians available for commissioning and service
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. A wide range of high quality flame cutting nozzles, heating nozzles and accessories round out the complete product. Suitable for: Acetylene, Propane, Methane, natural gas, 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

Health and safety regulations mean that companies today are responsible themselves for the necessary operational safety when working with gas supply systems.

Consultation: We will help you to determine all relevant legal requirements and to implement them as fast as possible.

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. With our comprehensive carefree package, consultancy and training

DIN EN 1090, we will help you to get fit for the certification of your company.

Inspections: If required, we will carry out the regular technical safety inspections of your gas supply on site – from the torch tip to the gas supply.
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 – 3200 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: 1 mm – 80 mm
Stainless Steel: 3 mm – 160 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
MetalMaster 2.0
DROP & CUT

Special cutting system for precision plasma processes. Oxyfuel optional.

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 35 m/min
- CNC controlled Z axis with the torch lifter SL100
- Specialised for the latest precision plasma processes
- Dimensional tolerances to DIN EN 28206
- Simple installation drop & cut
- Cutting processes: Oxyfuel, dry plasma
- Marking processes: Punch marking, plasma marking

<table>
<thead>
<tr>
<th>MetalMaster 2.0</th>
<th>3015</th>
<th>4020</th>
<th>4025</th>
<th>6020</th>
<th>6025</th>
<th>8020</th>
<th>8025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working Width</td>
<td>1500</td>
<td>2000</td>
<td>2500</td>
<td>2000</td>
<td>2500</td>
<td>2000</td>
<td>2500</td>
</tr>
<tr>
<td>Overall Width</td>
<td>3200</td>
<td>3900</td>
<td>4400</td>
<td>3900</td>
<td>4400</td>
<td>3900</td>
<td>4400</td>
</tr>
<tr>
<td>Working Length</td>
<td>3000</td>
<td>4000</td>
<td>4000</td>
<td>6000</td>
<td>6000</td>
<td>8000</td>
<td>8000</td>
</tr>
<tr>
<td>Overall Length</td>
<td>7600</td>
<td>8900</td>
<td>8900</td>
<td>10900</td>
<td>10900</td>
<td>12900</td>
<td>12900</td>
</tr>
<tr>
<td>Table Height</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
</tr>
</tbody>
</table>

*all values in mm*
Compact design, simple operation and high flexibility – that is the Multitherm® Eco. 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 and the production 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

* Depending upon machine equipment

<table>
<thead>
<tr>
<th>Multitherm® Eco</th>
<th>Track Gauge</th>
<th>2600</th>
<th>3100</th>
<th>3600</th>
<th>4000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Width*</td>
<td>1500</td>
<td>2000</td>
<td>2500</td>
<td>3000</td>
<td></td>
</tr>
<tr>
<td>Total Width</td>
<td>4070</td>
<td>4070</td>
<td>5070</td>
<td>5070</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>1500</td>
<td>1500</td>
<td>1500</td>
<td>1500</td>
<td></td>
</tr>
<tr>
<td>Track Height</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

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, drilling or a combination of all is your requirement, the MultiTherm® is the machine for you. High power drives for speeds up to 50 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 50 m/min
- Working Length: almost unlimited
- Cutting processes: oxyfuel, dry plasma, fibre laser, UWP
- Equipment options: laser bevel, plasma bevel, oxyfuel bevel, drilling
- Marking processes: powder marking, plasma marking, punch marking, needle marker OmniScript, InkJet
- Process optimisation
- Messer Hole Technology

* Depending upon machine equipment

<table>
<thead>
<tr>
<th>MultiTherm®</th>
<th>Track Gauge</th>
<th>2600</th>
<th>3100</th>
<th>3600</th>
<th>4000</th>
<th>4600</th>
<th>5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Width*</td>
<td>1500</td>
<td>2000</td>
<td>2500</td>
<td>3000</td>
<td>3500</td>
<td>4000</td>
<td></td>
</tr>
<tr>
<td>Total Width</td>
<td>4070</td>
<td>4070</td>
<td>5070</td>
<td>5070</td>
<td>6070</td>
<td>6070</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>1940</td>
<td>1940</td>
<td>1940</td>
<td>1940</td>
<td>1940</td>
<td>1940</td>
<td></td>
</tr>
<tr>
<td>Track Height</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

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, bevels or with drilling unit, 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: 18 (with 24” screen)
- Travel speeds: up to 50 m/min
- Automatic hole piercing up to 130 mm
- Optional: footplate travelling with the machine and much more
- Process optimisation
- Messer Hole Technology
- Marking processes: powder marking, plasma marking, punch marking, needle marker OmniScript, InkJet

* Depending upon machine equipment

<table>
<thead>
<tr>
<th>Track Height</th>
<th>500</th>
<th>500</th>
<th>500</th>
<th>500</th>
<th>500</th>
<th>500</th>
<th>500</th>
<th>500</th>
<th>500</th>
<th>500</th>
<th>500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track Gauge</td>
<td>4000</td>
<td>4600</td>
<td>5000</td>
<td>5600</td>
<td>6000</td>
<td>6500</td>
<td>7000</td>
<td>7500</td>
<td>8000</td>
<td>8300</td>
<td>8800</td>
</tr>
<tr>
<td>Working Width*</td>
<td>3000</td>
<td>3600</td>
<td>4000</td>
<td>4600</td>
<td>5000</td>
<td>5500</td>
<td>6000</td>
<td>6500</td>
<td>7000</td>
<td>7300</td>
<td>7800</td>
</tr>
<tr>
<td>Total Width</td>
<td>4535</td>
<td>5535</td>
<td>5935</td>
<td>6535</td>
<td>6935</td>
<td>7435</td>
<td>7935</td>
<td>8435</td>
<td>8935</td>
<td>9235</td>
<td>9735</td>
</tr>
<tr>
<td>Length</td>
<td>1940</td>
<td>1940</td>
<td>1940</td>
<td>1940</td>
<td>1940</td>
<td>1940</td>
<td>1940</td>
<td>1940</td>
<td>1940</td>
<td>1940</td>
<td>1940</td>
</tr>
<tr>
<td>Height</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
</tr>
</tbody>
</table>

all values in mm
With the modern fibre laser technology, extremely powerful drives, precise linear guides in both longitudinal and transverse directions and a multifaceted bevel head, the PowerBlade® is equipped for a wide range of applications.

As well as vertical cuts, the widest range of bevel cuts can be combined in one part, for example to produce optimum weld seam preparations – and all that in one operation.

**PowerBlade®**

POWERFUL, DYNAMIC AND PRECISE

**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 operation
- Magnetic holder to protect the cutting head
- Multiple cameras for monitoring the machine and process on screen
- Ininitely rotating bevel head
- Second vertical head (optional)
- On request: combination with plasma and drilling head

<table>
<thead>
<tr>
<th>PowerBlade®</th>
<th>Track width</th>
<th>4200</th>
<th>5000</th>
<th>6000</th>
<th>6500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working width*</td>
<td>2600</td>
<td>3200</td>
<td>4200</td>
<td>5150</td>
<td></td>
</tr>
<tr>
<td>Maximum speed</td>
<td>140 m/min</td>
<td>140 m/min</td>
<td>140 m/min</td>
<td>140 m/min</td>
<td></td>
</tr>
<tr>
<td>Acceleration up to</td>
<td>7 m/s²</td>
<td>7 m/s²</td>
<td>7 m/s²</td>
<td>7 m/s²</td>
<td></td>
</tr>
<tr>
<td>Laser power optionaly</td>
<td>2 – 6 kW</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Values in mm
* Depending upon machine equipment
LaserMat® II
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 50 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. Vertical cuts, bevel cuts and appropriate transitions (Joints) as well as the widest range of marking processes to meet the highest requirements.

TECHNICAL DATA
- Cutting system with CO₂ Laser
- Highest positioning speed over the entire working area of up to 140 m/min
- Fulfils laser class 1
- Infinity rotating bevel unit (optional)
- Highest force deployment during acceleration
- Free crane access through on-board safety light barriers

<table>
<thead>
<tr>
<th>LaserMat® II</th>
<th>Track Gauge</th>
<th>Working Width</th>
<th>Total Width</th>
<th>Laser power [W]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4200</td>
<td>3100</td>
<td>5780</td>
<td>optionally 4 or 6 kW</td>
</tr>
<tr>
<td></td>
<td>5000</td>
<td>3500</td>
<td>6580</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6000</td>
<td>4500</td>
<td>7610</td>
<td></td>
</tr>
</tbody>
</table>

all values in mm
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 and the manufacture of wind turbine towers.
### 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

<table>
<thead>
<tr>
<th>Types of bevel</th>
<th>I, K, V, X, Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material thickness for bevelling</td>
<td>up to 80 mm*</td>
</tr>
<tr>
<td>Material thickness for vertical cuts</td>
<td>up to 150 mm*</td>
</tr>
<tr>
<td>Max. Angle</td>
<td>60°</td>
</tr>
</tbody>
</table>

*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)
- Anti-collision system
- Positive and negative bevel angles in one part are possible
- Arc segment system

<table>
<thead>
<tr>
<th>Types of bevel</th>
<th>I, V, X, Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material thickness for bevelling</td>
<td>up to 50 mm</td>
</tr>
<tr>
<td>Material thickness for vertical cuts with edge start</td>
<td>up to 50 mm, up to 100 mm</td>
</tr>
<tr>
<td>Max. Adjustment Angle (depending upon the plasma unit)</td>
<td>52°</td>
</tr>
</tbody>
</table>

#### Laser bevel cutting with CO₂, or Fibre Laser
- 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)
- Anti-collision system
- Positive and negative bevel angles in one part are possible

<table>
<thead>
<tr>
<th>Types of bevel</th>
<th>I, V, Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material thickness for bevelling</td>
<td>up to 15 mm</td>
</tr>
<tr>
<td>Material thickness for vertical cuts</td>
<td>up to 25 mm</td>
</tr>
<tr>
<td>Max. Angle Fibre Laser</td>
<td>50°</td>
</tr>
<tr>
<td>CO₂ Laser</td>
<td>45°</td>
</tr>
</tbody>
</table>
PTC500, ALFA, GLOBAL CONTROL

PTC500

Pipe Cutting System
- For processing pipes with diameters of up to 500 mm
- Pipes can be cut
  - with a plasma torch perpendicular to the pipe surface with a rotating pipe axis or
  - using a plasma bevel unit for weld preparations up to 52°

ALFA

The oxyfuel machine cutting torch of the future
- Patented reliable magnetic height sensing system
- 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
- No need to change sensing rings for different material
- 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
- Global Reporter: Machine data capture and evaluation (Option)

*ESSI format on request
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)
- For 10 mm character height
  Speed: 1 s/character
  Depth: 2.2 s/character

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:
- 6 m/min (lines)
**DRILLING AND TAPPING, STRIP CUTTING, BLASTING, BELT GRINDER**

### Drilling and Tapping, Deep hole drilling

In those cases where
- high accuracy of the holes is required
- threads should be tapped on the same machine
- the hole diameter has to be less than the material thickness,
- the number of thermal hole piercings has to be reduced or very small internal cuts are required, the machines can also be equipped with a drilling head.
- Boring out to 100 mm diameter, depending upon machine, possible.
- hole piercing is no longer possible because of material thickness, then deep hole drilling can be used.

### 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 one head. Height sensing is made by the centre torch which is connected to the SensoMat® ALFA. Multiple strip cutting heads can be combined for simultaneous cutting.
Blasting

This process is mainly used in shipbuilding 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 more quickly. This makes for drastic time savings in the production process.

Belt Grinder

Belt grinding unit to remove paint primer. The ground off material is extracted and trapped in a filter.

The grinding unit is used with two marking tools so that the material can be cleaned and marked in one pass.
Cutting Tables and Filters
Safety and Environmental Protection

Filter

The new filter series 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.

Cutting Tables with fume extraction

Fume extraction cutting tables from Messer satisfy the requirements for optimum production conditions with oxyfuel, plasma or laser cutting. Reliable safety for the machine operator, high energy efficiency and the optimum layout of the production process are the criteria using which Messer can prepare the best cutting table for every application from its extensive modular system.

For simple cleaning of the tables Messer offers not only slag trays but also various automatic systems integrated into the tables and matched to the cutting process. These are also suitable for removing small parts and include: vibration feeders, scraper conveyer tables and belt conveyer 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.
SOFTWARE FROM MESSER
FOR PROCESSES AND PRODUCTION

In industry 4.0 production is integrated with the most modern information and communication technology. This makes possible tailored products to suit individual customer requirements – economical and with high quality.

Messer machines and software from one source ensure the maximum utilisation of available resources. All processes work together smoothly over the entire value creation. There is perfect information management from the part design through the creation of nesting plans, the transfer of plans to the machine and finally the cutting of the parts. This guarantees efficient working with the highest quality standards both in engineering and plant construction as well as in production against orders in contract cutting factories. Because quality, price and times are right, your competitiveness is also right.

Information Technology for machines

OmniWin is a modern and flexible design and nesting software, which adapts intelligently to your machine and your cutting needs. It takes over all cutting tasks for order-based production with CNC thermal cutting machines. OmniWin is effective and economical for small production runs in the machine and manufacturing industry, as well as in just-in-time manufacturing with changing quantities at custom cutting operations. OmniWin is the ideal tool for production planning with thermal cutting for oxyfuel, plasma and laser cutting with CNC machines.

The system architecture permits frictionless use in all of the many Enterprise scenarios and IT environments. Through perfect adjustment of the system to match your production you can use a wide spectrum of configuration options and work extremely efficiently. The entire system concept ensures highest security for your production data and user settings. Our experienced experts will be on your side to apply information and production technology profitably. Qualified consultancy, professional implementation, efficient training and powerful support ensure the optimum implementation of the solutions in your company.

OmniBevel is the professional software product for bevel cutting. It represents straight cuts, cylindrical holes, exact bevel angles and parts with absolute dimensional accuracy. The application is also characterised by enormous flexibility. Almost all possible technology parameters and operation details can be adjusted. OmniBevel gives optimum cutting results and enables your machine to achieve everything which is possible with bevel cutting.

Our experts are there to support you to implement information and process technology profitably. Qualified advice, professional implementation as well as efficient training and powerful support ensure the optimum use of the solutions in your concern.

With OmniWin you can create parts quickly and easily in the integrated CAD system. The 3D view of straight and bevel parts gives a realistic impression of the part geometry.
Combine your original Messer machine with the original Messer service support and ensure the maximum availability of your system and thus an important part of your business success.

With the 360° Messer service concept we offer you Service Level Agreements, which you can match individually and flexibly to your requirements: For a fixed price, for a fixed duration.
Locally on your premises
In case of a breakdown we can be with you on the spot if required. You may be sure that our specialists are always up to date on the latest state of technology and know your unit well. With remote access our support technicians can already make a reliable remote diagnosis in advance and plan what needs to be done.

The originals procured quickly
- Stocking of all normal articles in our European central stores
- Fast processing and dispatch in the event of a breakdown
- Dispatch from the central stores near Frankfurt/Main within one working day as a rule

Around the clock
With eCommerce we make available various electronic business processes – use our network for the purchase of goods and services.

Our eCommerce Service will be a platform which puts you, as customer, in the centre of a 360° service.
CAD/CAM SOFTWARE-SUPPORT

Current and fitting
We offer the complete range of the most modern CAD/CAM support: from telephone Hotline and Remote Support through Update and extension programmes right up to Workshops and Expert dialogs.

REMOTE SERVICE 2.0

Only a link away
- Multi-media communication using M2M technology
- Prioritised support in the case of service need
- Guaranteed reaction time
- Technical quarterly report 2.0 (TQR) on your machine park

ACADEMY

Fit for excellence & fit for more
In times of increasing competitive pressure it is only logical to invest in the know-how and competence of your employees. In the Messer Cutting Systems Academy in Groß-Umstadt technical knowledge is imparted effectively and also practically close to the machine. The combination of methods and media lets you and your staff experience practically based training and so makes it possible for you to get the optimum out of plant, equipment and software.

SERVICE LEVEL AGREEMENTS

Contracts tailored individually
With the Messer Service concept you can compose your requirements in individual Service Level Agreements – over a long period: All service modules individually, various combined or complete in the 360° All-In Service Package.
RETROFIT
INCREASED LIFETIME AND PRODUCTIVITY

The economical alternative
A retrofit (or conversion) means upgrading to the latest technology such as the most modern numerical controls on a PC basis or torch lifters with automatic height control through the new processor oriented sensing methods. Typical components for retrofits are the new generation of plasma systems for the plasma process or high performance oxyfuel torches.

YOUR ADVANTAGES
- Greatly improved performance for low investment
- Short down-times
- Better availability of consumables and spare parts

MATERIAL HANDLING WITH MESSER
Messer Cutting Systems offer complete solutions including material handling, storage and stock management. The solutions to all aspects of material logistics are built modularly.
The Messer brand name stands for a constant presence in the markets for industrial gases and cutting and welding technology. Since 1898, 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.
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953</td>
<td>Dr. Hans Messer assumes control</td>
</tr>
<tr>
<td>1965</td>
<td>Merger with Knapsack-Griesheim AG (Hoechst) to form Messer Griesheim GmbH</td>
</tr>
<tr>
<td>1970</td>
<td>First CNC and laser cutting system on the market</td>
</tr>
<tr>
<td>1978</td>
<td>MG Systems &amp; Welding manufactures flame cutting machinery sold in North America</td>
</tr>
<tr>
<td>1995</td>
<td>Foundation of Messer Cutting &amp; Welding, China</td>
</tr>
<tr>
<td>1998</td>
<td>Stefan Messer becomes member of Executive Board</td>
</tr>
</tbody>
</table>

**Messer World**

**Asco Kohlensäure** is a provider of individual and complete CO2 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.

**MesserSoft** is the software partner 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.