

METALMASTER XCEL *X-TREME* SPEEDS FOR INCREASED PRODUCTION



METALMASTER XCEL

Industry leading speeds for increased production.

Combine plasma and fiber laser to offer the most economical cuts in any material up to 3".



STANDARD FEATURES

Global ControlPlus

EASY-TO-USE, FEATURE RICH,
WINDOWS® INTERFACE.



- + 24" touch screen with multiple process databases, custom shape library, true shape nesting, and productivity monitoring.
- + Remote diagnostics with a push of a button.

The METALMASTER XCEL features state-of-the-art industry leading speed, and multiple tools allowing for maximum performance and versatility. Precision fiber laser / plasma option in conjunction with linear ways and helical gear rack creates the finest cut part quality. Additional options include oxyfuel cutting, drilling up to 1/2", marking, pipe and tube cutting, material handling featuring a pallet shuttle system with enclosure, and so much more.



Produces beveled cut parts to reduce downstream operations or offers grater value to your customers.



STANDARD FEATURES

Drive Axis

HIGH SPEED DRIVES



- + Propelled by X and Y axes, backlash free helical rack and pinion digital 8.4 H.P. and 4.7 H.P. AC servo motors, driven through planetary gear reducers with a maximum acceleration rate of 193in/sec² or .5g ensures smooth precise motion.
- + 25 times faster than competitive systems.

Scan to watch the MetalMaster Xcel video





PROCESS OPTIONS

CSL Plasma Torch Lifter with SureStop Collision Sensor

Messer Cutting Systems CSL TORCH LIFTER features an adaptive initial height system for plasma and fiber laser torches. Productivity enhancing features produce more parts in a shorter period of time. As the system “learns” the height of the plate on the cutting table, it quickly positions the torch to the correct pierce height. Customizable parameters keep the torch close to the plate between pierces, reducing the frequency of initial height senses.



PROCESS OPTIONS

Oxyfuel – ALFA

For over 120 years, Messer Cutting Systems has provided and developed leading-edge technology for oxyfuel, plasma and laser cutting machines. We deliver high-quality cuts, reliable service, and considerable savings to the cutting process.

Oxyfuel cutting is the most economical method to produce high-quality parts from mild steel and low alloy steel. The ALFA torch contributes to low operating costs by reducing setup and process monitoring labor. Remote ignition eliminates manual strikers, consumables can be changed without tools. Height sensing quickly positions all torches at the optimum cut height to substantially reduce pierce time. Integrated height sensors provide protection to the torch by reducing the risk of torch damage due to collision.

ACCOMMODATES THE SURESTOP COLLISION SENSOR



- + Rapid recovery saves money and downtime.
- + No expensive after collision repair cost.
- + Torch is simple to remove and easy to re-align.

HIGH QUALITY RESULTS IN MILD STEEL AND LOW ALLOYS GREATER THAN 2".



- + Reduce time and labor.
- + Up to two torches.



PROCESS OPTIONS

Plasma/Fiber Laser Combination Cutting

Messer Cutting Systems plasma/fiber laser combination cutting allows parts to be processed with either plasma, fiber laser or both. When combination cutting on the same piece part, productivity will increase by allowing critical internal features to be cut with the fiber laser and external features to be cut with the plasma torch without moving the part to another piece of equipment. This process option provides greater flexibility and production ensuring a faster return on investment. **Laser cutting up to 20kW.**



BEVEL OPTIONS

Delta^e

Messer Cutting Systems Global Rotator DELTA^e can accurately cut bevel profiles (non-vertical) on almost any contour. The bevel angle is derived automatically using a combination of A-Axis and C-Axis interpolation by the CNC using unique compound skew technology from Messer Cutting Systems. The C-Axis may be programmed as a positioning axis or a coordinated motion in conjunction with the X/Y linear and circular motion. When operated with X/Y motion, the C-Axis maintains the bevel position tangent to the direction of travel.

2.5 TIMES MORE
PRODUCTIVE OVER
TRADITIONAL PLAMSA OR
OXYFUEL SYSTEMS



- + Maximum laser cutting thickness up to 2".
- + Maximum plasma cutting up to 3".
- + Up to two precision plasma torches (maximum) 400 amp capacity each.

USED TO CREATE BEVELS FOR
WELD-PREPARATION SURFACES .



- + Rotation of +/- 460° with results in cut part angles of +/- 45°.
- + Complete with bevel programming software and training.



BEVEL OPTIONS

Bevel-R®

The compact size of this robotic style bevel unit provides excellent results for most weld preparation applications without sacrificing vertical cut quality.

Contour beveling is done via five synchronized axes allow for standard bevel profiles on most parts. Repeatability is maintained via an automatic software calibration routine to align the bevel head.

Patented collision protection and unlimited torch lead rotation provide high reliability in day-to-day operations.



MARKING OPTIONS

Markers

Plate marking offer flexible and adaptable solutions for creating lasting marks on a range of metal materials. Messer offers different marking tools dependant the marks you want to make, the scale of your operations, and the desired durability of the mark.

Marking equipment offered on the MetalMaster Xcel are: Plasma, Airscribe, Ink-Jet and Pinstamp®. Inkjet marks can be applied to primed, rusted, or milled scaled plate, an either be painted over or removed without a trace. Plasma, scribed, or Pinstamp® marks remain visible after painting.

MOST APPLICATIONS
REQUIRING STANDARD WELD
PREPARATION PROFILES



- + +/- 45° bevel angles.
- + I, A, V, Y, X, and K weld profiles.
- + Interpolation of the bevel angle (change-on-the-fly while cutting).

TEXT AND LAYOUT
LINES THAT ARE MORE
PERMANENTLY VISIBLE



- + Clear, physical markings that cannot be easily removed.
- + Variable marking depth.
- + Multiple ink and marking styles.



SPECIAL FEATURES

Video Camera and Plate Alignment

The on-board video camera is used by the operator to both monitor the cutting process and for a plate alignment tool. The operators nest parts as efficiently as possible to get the best plate utilization to reduce scrap as parts are processed. Multiple times per day, a plate is placed on the cutting table and then matched or aligned to the plate.

The bright dot of a laser pointer or the crisp image of the plate edge on the Global Control^{Plus} allows the operator to quickly capture the location or angle of the plate. This operation can even be automated using an optional laser system to increase productivity. The on-board video camera also monitors the cutting process.



SPECIAL FEATURES

Self-cleaning Table

Taking time to clean a cutting table of all the scrap material and slag is one of those things that has to be done but also something no one wants to do. It also has a big impact on meeting production requirements.

What if you could push a button and clean an entire table in just a few minutes? The Slagger[®], exclusively from Messer Cutting Systems, is the solution.

A powerful blade pushes all the accumulated debris to the other end where it can be easily collected for disposal. This patented time-saver table also does a great job of removing smoke by dividing the table into smaller sections, allowing the dust collector to work efficiently as it only exhausts from where the machine is actively processing.

REDUCE SETUP TIME AND
ELIMINATE SCRAP



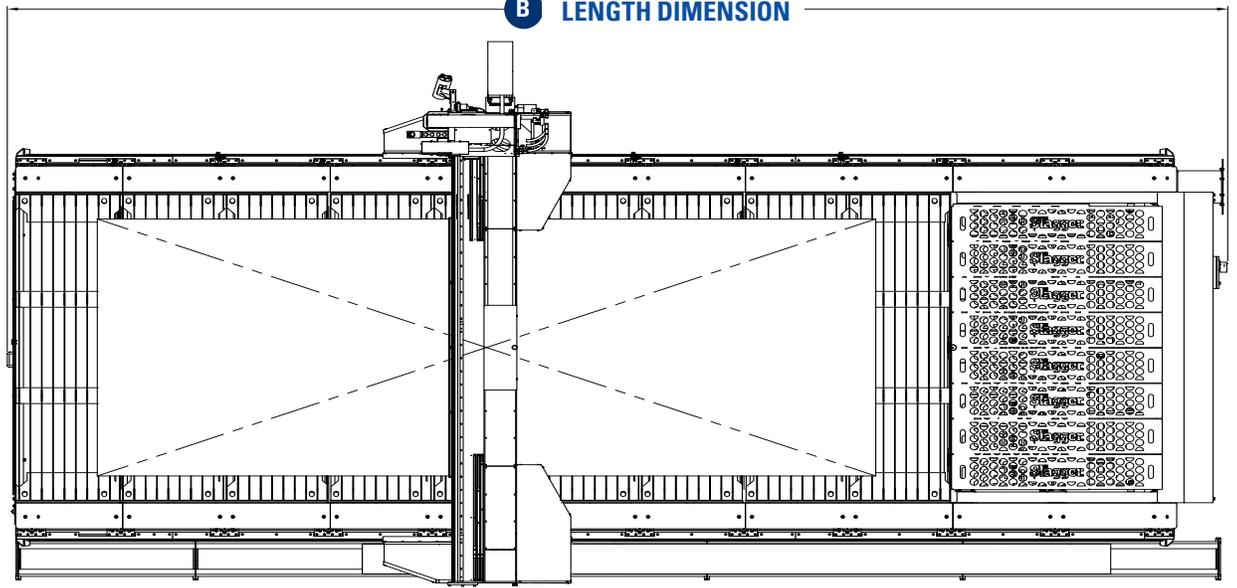
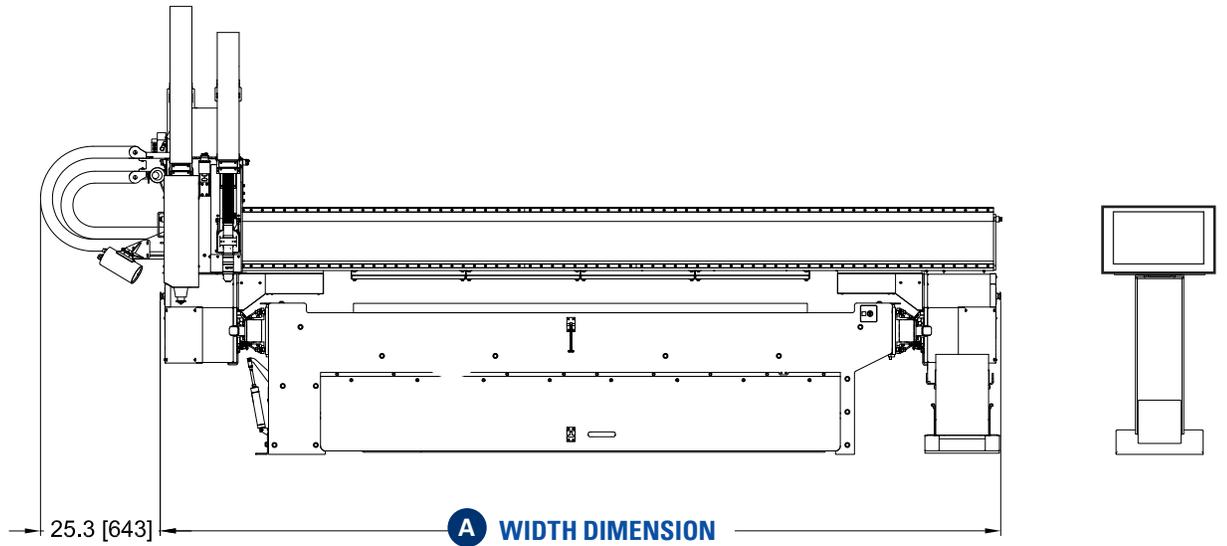
- + Image Displayed on 24" TFT color screen of the Global ControlPlus
- + Automatic operation more accurate than a laser pointer resulting in less scrap.

EFFECTIVE SMOKE
REMOVAL AND MINIMAL
CUTTING TABLE
MAINTENANCE



- + Can be used with plasma, oxyfuel and laser applications.
- + Small parts may also be easily retrieved.
- + Table widths from 6', 8, to 10'.
- + Table lengths 10' to 55' in 5' increments.

METALMASER XCEL MACHINE MEASUREMENTS



Model	A Machine Width 6'	A Machine Width 8'	A Machine Width 10'	B Machine Clearance Length
MetalMaster Xcel 6' by 10' 15' 20' 25' 30' 40' 50' 55' all	153.8" (12.81')	-	-	-
MetalMaster Xcel 8' by 10' 15' 20' 25' 30' 40' 50' 55' all	-	177.8" (14.81')	-	-
MetalMaster Xcel 10' by 10' 15' 20' 25' 30' 40' 50' 55' all	-	-	201.8" (16.81')	-
MetalMaster Xcel 10'	-	-	-	248.3" (20.69')
MetalMaster Xcel 15'	-	-	-	312.3" (26.02')
MetalMaster Xcel 20'	-	-	-	376.3" (31.35')
MetalMaster Xcel 25'	-	-	-	440.3" (36.69')
MetalMaster Xcel 30'	-	-	-	504.3" (42.02')
MetalMaster Xcel 35'	-	-	-	568.3" (47.36')
MetalMaster Xcel 40'	-	-	-	632.3" (52.69')
MetalMaster Xcel 45'	-	-	-	696.3" (58.02')
MetalMaster Xcel 50'	-	-	-	760.3" (63.35')
MetalMaster Xcel 55'	-	-	-	824.3" (68.69')

Standard features

- + Cutting widths: 6', 8' and 10'.
- + Cutting lengths: 10' to 55' in 5' increments.
- + Cut material from 26 ga. to 3" thick plate based on process.
- + Cuts mild steel, stainless steel, aluminum.
- + Machine motion accuracy to +/- .002" in an 80" area verified with a laser interferometer.
- + Positioning speeds up to 3000 ipm with acceleration up to .5g.
- + The Slagger® self-cleaning zoned and ducted dry exhaust table.
- + Global Control^{Plus}, Windows® based with easy to use operator interface.
- + Multiple reference point positions for efficient start-of-cut locations.
- + Advanced plasma technology provides consistent piercing and faster cutting.
- + High-speed CSL Torch Lifter (1180 ipm) with arc voltage height control and infinite adjustable programmable retract (only offered by Messer) features the SureStop Collision Sensor with easy and accurate reset.
- + Fast installation due to modular design.
- + Virtual Service™ remote diagnostics and consultation.
- + Designed and manufactured in the USA to machine tool and ISO 230-2 standards.
- + UL/cUL compliant.

Optional features

- + Two precision plasma torches (maximum) 400 amp capacity each.
- + Two fiber lasers up to 20kW.
- + Plasma bevel units: Delta®, Bevel-R®, and Manual Plasma Stripping Bevel Unit for X-Axis.
- + Two Turbo Flame™ or three ALFA oxyfuel torches (maximum).
- + Gas cutting with advanced oxyfuel technology using Omniflow automated gas regulation system.
- + Various plate markers: Plasma, Air Scribe, Ink-Jet and Pinstamp®.
- + Digital video camera.
- + Laser Pointer.
- + Global Reporter.
- + Slag Scoop or Slag Pit with Bucket.
- + Shuttle system with dual pallets.
- + Shuttle table enclosure.
- + Storage retrieval tower system.
- + Programming and nesting software. OmniWin, OminFab, and OmniBevel.
- + Drilling up to 1/2" diameter.
- + Flex Zone for processing materials outside of the table.
- + Two Zone Protection System.
- + Pipe and Tube Cutting System.
- + Operator glare curtain.
- + Messer dust collector systems.
- + Sentry Service Preventative Maintenance Program.
- + Visual Service™.

YOUR DIGITAL WORKFLOW

PRODUCTION DIGITIZATION

Our solutions ensure maximum transparency in operations management, production planning and control.



OMNIWIN

Ideal for work preparation



OmniWin is a powerful, easy to use designing and nesting software that saves time, material, and costs. It is the ideal tool for work preparation in oxyfuel, plasma, and laser cutting with CNC machines, taking over all cutting tasks for order-based production. The software is both effective and economical – for small productions as well as for just-in-time manufacturing with changing quantities in custom cutting operations.

OMNIBEVEL

The tool for bevel cutting



OmniBevel is the software for dimensionally accurate parts and the leading product for bevel cutting. The post-processor module with a graphical, easy to use interface delivers optimal cutting results.

It stands for straight cuts, cylindrical holes, exact bevel angles and enormous flexibility. Almost all possible technology parameters and operation details are adjustable.

OMNIFAB

Software suite for digital transformation

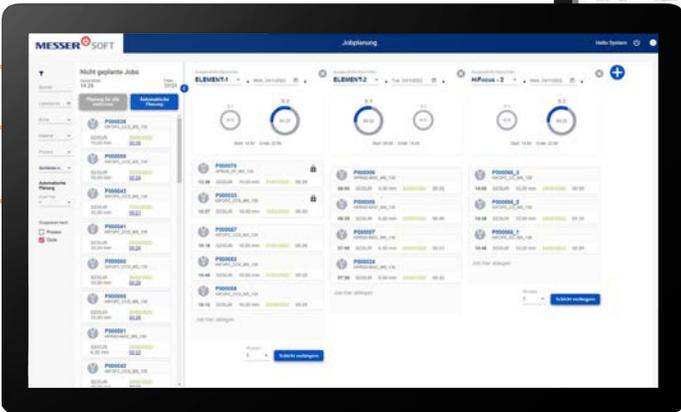


OmniFab is the software suite that integrates Messer Cutting Systems' engineering technology into commercial processes in a holistic and process-oriented manner.

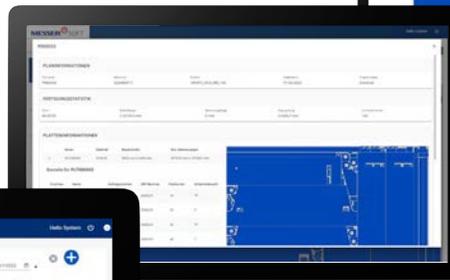
It provides relevant information for work preparation, production planning and plant management by connecting all systems. OmniFab also integrates material handling systems like loading/unloading stations, towers, material transportation devices and more – even on mobile devices.

Everything at a glance

With OmniFab Job Management, you always have an overview of all jobs. The software ensures the jobs are done on the right machines and with the best utilization, whether you are scheduling manually or automatically. Via OmniFab PDC, feedback from the running operation comes in real-time from the machine operators. You can use this information to react quickly to unforeseen events and make the right decisions.



**OmniFab
Job Management**



**OmniFab
PDC Digital
Work Sheets**



**OmniFab
PDC Parts Status**

**Novice operators become experts.
Programmers control the process remotely.
Maintenance employees prevent downtime.
Production managers know the job status
and reduce operating costs.**

All of this is possible if you see the CNC control as the connector between production plant, machine and its operator to allow local as well as remote production scheduling. Data transparency to others within the organization provides key information which is needed to make better business decisions.

- + Flexible job-centric environment for new operators to learn quickly and experienced operators to excel.
- + Job scheduling for improved production flow.
- + Quick processing of past or repetitive jobs.
- + Local nesting and standard shape library for just-in-time workflow.





CREATING SOLUTIONS BEYOND MACHINES

What we stand for

Messer Cutting Systems is a global supplier of cutting-edge technology for the metalworking industry.

Our portfolio is built on the pillars of PRODUCT, DIGITAL, SERVICES, AUTOMATION and KNOW-HOW. With over 900 employees worldwide in over 50 countries, we maintain a constant dialogue with our customers. Through these partnerships, we achieve customer-oriented innovation and focus on “creating solutions beyond machines”.

We deliver not just modern cutting systems and solutions for plasma, laser, and oxyfuel technology, but appropriate services, training, our own software applications, and the integration of solutions from our technology partners in the field of automation. A network encompassing the machine, providing total solutions.

Our know-how combined with our customer-oriented attitude and actions have made us the worldwide partner of choice, delivering innovative solutions to the plate processing industry for over 120 years.

PRODUCT

AUTOMATION

DIGITAL

SERVICES

KNOW-HOW

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