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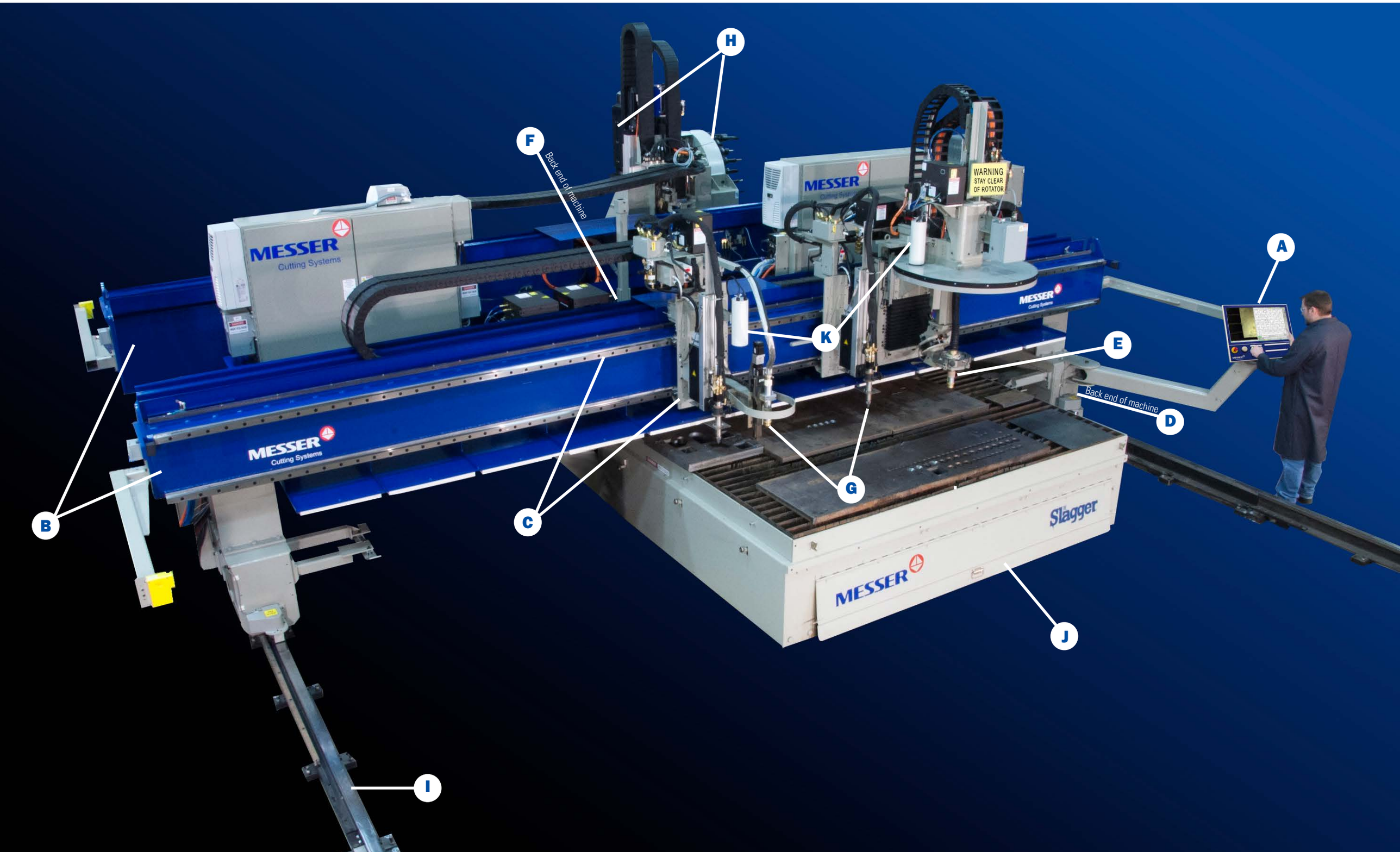
MESSER
Cutting Systems

TMC4500 DB

HEAVY-DUTY CUTTING SYSTEM

Superior technology, multiple processes, contour beveling, and four inch drilling.

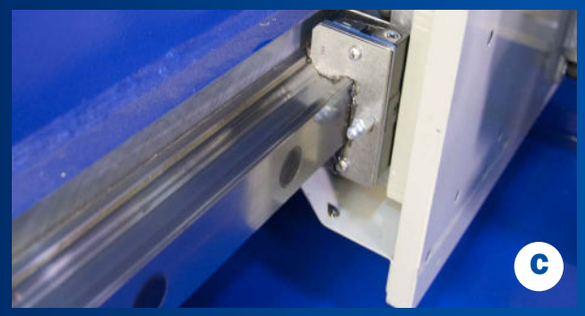
THE **TMC4500 DB**
IS THE **DEPENDABLE WORKHORSE** WITH **SUPERIOR PERFORMANCE**



HIGHLIGHTS

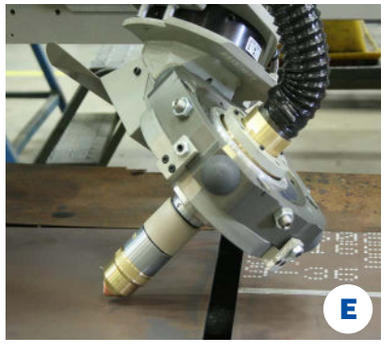
GLOBAL CONTROL[Plus]
Easy-to-use, feature rich, Windows® interface. The Global Control Plus has a 24" touch screen with multiple process databases featuring custom shape library, true shape nesting, productivity monitoring are just a few of the key features. Remote diagnostics and applications support are available with a push of a button. Easy to use functions allows operators to become experts in minutes.

STEEL WELDED BEAMS
Welded steel front and rear beams of various cross sections to provide stability for all processes used.



LINEAR WAYS
Precision linear ways with ball runner blocks in the Y-Axis.

DRIVES
Powerful, precise 6 HP drive for the X and Y-Axis, provide smooth accurate motion for excellent cut quality and accuracy.



GLOBAL INFINITY ROTATOR
Unique compound skew control of A & C-Axis is automatically positions the torch. Cut edges of +45° through -45° with automatic torch height control via arc voltage. Square corners are achieved utilizing custom looping routines. Bevel angle change-on-the-fly (BACF) is available to generate transition angular edges. (Optional)

OMNIFLOW AUTOMATIC GAS CONTROL SYSTEM
Operators can concentrate on cutting and not on costly torch setup and adjustments. Internal database makes novice operators an expert in minutes. Less scrap and setup time means more profit. (Optional)

PLASMA AND OXYFUEL TORCHES SL-200, SL-300 AND PL-1 LIFTERS
Plasma and oxyfuel torches for precision cutting. Supported by the SL Series Oxyfuel Lifters and PL-1 Plasma Lifters provide a smooth and rigid platform for vertical cutting to minimize non-productive time. (Optional)

4"DRILL AND 24 POSITION ROTARY TOOL CHANGER
Featuring a CAT 50 Spindle. Maximum drill diameter is 4". Maximum tapping to 1 ½" diameter. The tool changer holds 24 tools. (Optional)

X-AXIS RAIL SYSTEM
Floor-mounted rail provides a rigid foundation for smooth stable machine motion. Fast and accurate installation with Messer's exclusive precision leveling and alignment pads.

THE SLAGGER® TABLE AND BLADE
Heavy-duty zoned and ducted table with push-button automatic cleaning allows for more time cutting and less time cleaning. The Slagger® Blade pushes slag into the slag bucket. (Optional)

VIDEO CAMERAS
On-board video camera can align tools and monitor the cutting process. The image is conveniently displayed on the 24"color screen of the Global Control Plus. Video cameras are available for digital or manual plate alignment. (Optional)

PIPE AND TUBE CUTTING
Plasma bevel and vertical cutting of pipe and tube from 2 to 24" diameter. Length up to 40' maximum. Cut up to ¼"-1¼" wall thickness. Offline software provided by specialists in 3D pipe and tube profiling. (Optional)

MARKERS
Marking techniques can be added for secondary operations using: Plasma, Air Scribe, Zinc Powder, Ink-Jet, and Telesis® Pinstamp® (Optional)

TMC4500 DB

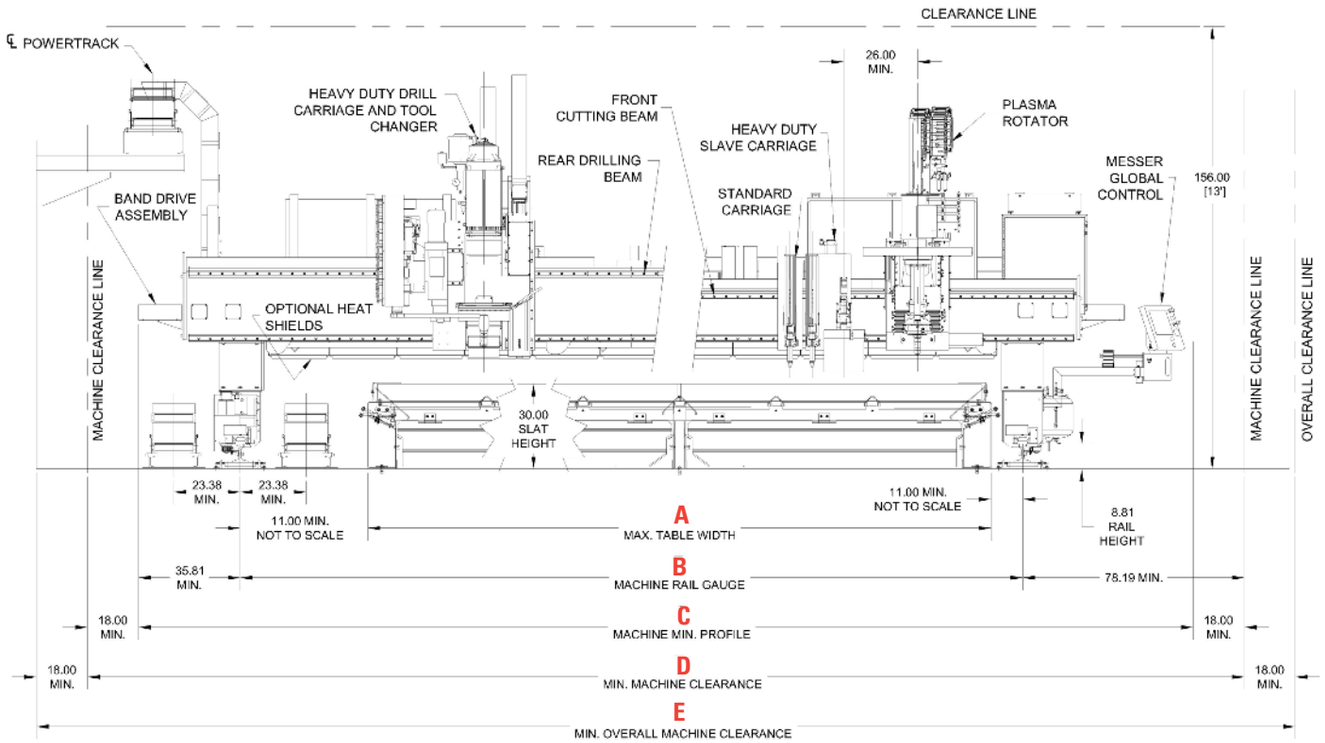
Messer Cutting Systems TMC4500 DB heavy-duty dual box-beam gantry cutting machine is built to perform in rigorous production environments. Finite Element Analysis (FEA) design methods assure the machine can cut with multiple plasma and oxyfuel torches. The TMC4500 DB can be equipped with multiple plasma and oxyfuel beveling options. These units can produce K, V, X, Y, I bevels. Bevel angles ranging from 15° to 60° for oxyfuel, and +45° to -45° for plasma.

The TMC4500 DB supports drilling up to 4" and tapping of 1½" diameter holes. A wide variety of plate marking tools can be added to help you save time by cutting and marking on one piece part.

This durable heavy-duty workhorse has proven its dependability in the demanding surroundings of shipyards, service centers, contract shops, and OEM manufacturers.

TMC4500 DB MODELS MEASUREMENTS

Model	A Max Table Width	B Machine Rail Gauge	C Machine Min. Profile	D Min. Machine Clearance	E Min. Overall Machine Clearance
TMC4512	158.00	180.00	276.00	312.00	344.00
TMC4514	182.00	204.00	300.00	336.00	368.00
TMC4516	206.00	228.00	324.00	360.00	392.00
TMC4518	230.00	252.00	348.00	384.00	416.00
TMC4520	254.00	276.00	372.00	408.00	440.00
TMC4522	278.00	300.00	396.00	432.00	464.00
TMC4524	302.00	324.00	420.00	456.00	488.00
TMC4526	326.00	348.00	444.00	480.00	512.00
TCM4528	350.00	372.00	468.00	504.00	536.00



Operator Convenience.

- Plasma and oxyfuel gas controls located in Global Control[Plus].
- Oxyfuel auto pierce control.
- 20 home positions for multiple start points.
- Lost cut recovery - can reposition to any pierce point.
- All auxiliary functions located at operator station.
- Operator station may be on left or right side, control console swivels and tilts on slide rail for easy viewing.
- Optional riding platform for the operator comfort.

Powerful, smooth, accurate motion yields high quality cut parts.

X and Y Axis: Dual 6 HP AC digital drives move the massive gantry effortlessly with consistent performance. The large diameter pinions provide smooth, reliable motion in the X and Y-Axis. Near zero backlash engagement of the precision gearboxes combined with fast acceleration ensures repeatable, accurate axis positioning.
X-Axis: 115 pound/yd. crane rail and 1.25"wide rack insure a stable base and a sturdy transmission for machine movement.
Y-Axis: 1.0" wide rack powers the sturdy carriages along linear ways providing smooth and easy motion.

STANDARD FEATURES

- Cutting widths from 12 ft. to 28 ft.
- Cutting lengths up to 200 ft.
- Cuts material from 26 ga up to 12" thick plate.
- Cuts mild steel, stainless steel, aluminum.
- Machine motion accuracy ± 0.015" in 72" travel with .010" repeatability measured with a laser interferometer.
- Positioning speeds up to 1,400 ipm.
- Heavy-duty, machined 115 lb./yd. crane rail for X-Axis motion.
- Welded steel end trucks with precision machined mating surfaces with tolerances of .002".
- Massive dual gantry process beams provide superior bending, and torsional strength for any tool combination.
- Precision linear Y-Axis way system with wide spacing provides rigid support for any process tools.
- Global Control[Plus], Windows® based with easy to use operator interface.
- Control slide mount system with optional glare curtain.
- Right or left hand mounted control console with tilt and swivel for operator comfort.
- Machine service power track in both X and Y-Axis.
- SureStop Collision Sensor with easy and accurate reset.
- Messer's high speed programmable lifters (880 ipm plasma, 300 ipm oxyfuel)
- Virtual Service™ remote consultation and diagnostics.
- Designed and manufactured in the USA to machine tool and ISO 230-2 standards.
- UL/CUL.

OPTIONAL FEATURES

- Precision plasma up to 800 amps.
- Plasma bevel units: Infinity, Delta[e] and Manual Plasma Stripping Bevel Unit for the X-Axis.
- Oxyfuel bevel units: Single Position, Triple Position, Contour, and DAF/L.
- Turbo Flame™ or ALFA oxyfuel torches.
- Lifters: SL Series for Oxyfuel, PL-1 Plasma Lifter with SureStop Collision Sensor, SensoMat®-PAN.
- Advanced oxyfuel technology with Omniflow automated gas control system.
- Auto torch spacing with programmable torch selection.
- FT100 Torch ignitor, and automatic height control for oxyfuel systems.
- Dual Hi-Lo for oxyfuel.
- Plate markers: Plasma, Air Scribe, Zinc Powder, Ink-Jet and Telesis® Pinstamp®.
- Video Cameras: Digital and Manual Plate Alignment.
- Laser Pointer.
- Global Reporter.
- Programming and nesting software.
- Drilling up to 4" diameter, and tapping up to 1½"diameter.
- Operator glare curtain.
- Pull Cord and Photo Eye E-Stops.
- Plasma Air Booster.
- Rotary rail cleaners with rack air purge.
- Operator riding platform.
- Zoned and ducted exhaust tables, including self-cleaning Slagger®.
- Rotary Pipe and Tube cutting system.
- Messer dust collection system.
- Exhaust ducting kit.
- Material handling systems.
- Sentry Service Preventative Maintenance Program.
- Visual Service adds the sense of sight to the trouble shooting process.

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