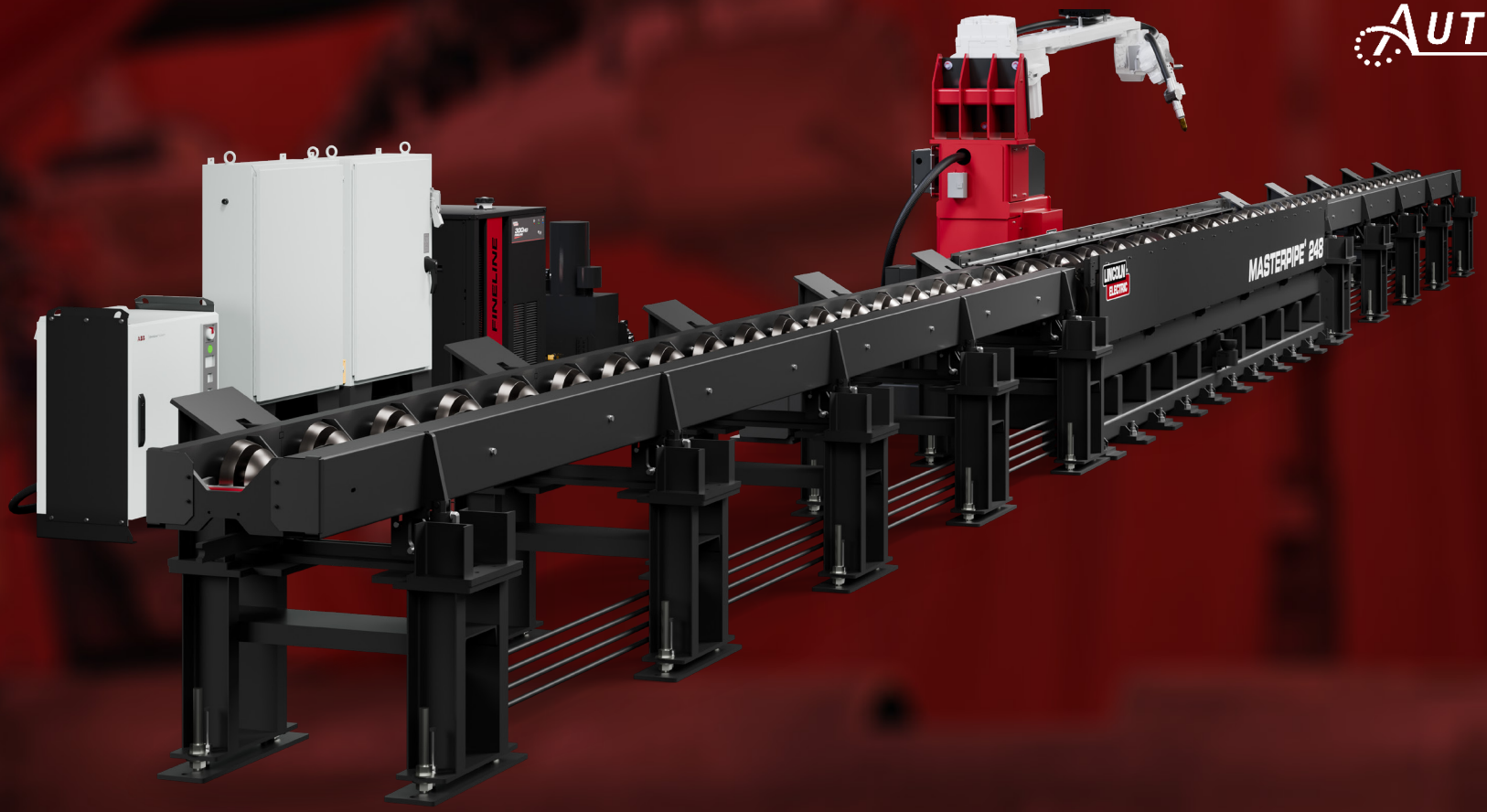
LINCOLN ELECTRIC

AUTOMATION



MasterPipe 248

YOUR NEXT **BIG UPGRADE.**

ROBOTIC PIPE CNC CUTTING SYSTEM

WHAT IS **THE CHALLENGE?**

Many older chuck style and traditional CNC pipe cutting machines require manual processing, allow for inaccuracies and can be unsafe. Tired of setting up Chucks and idlers when switching pipe diameters? Roller bed systems can be fed a high mix of pipe diameters with no tool changeovers. It's not only expensive to hand-cut or outsource hundreds of parts, but relying on inferior processes or third party vendors to deliver high quality parts in a timely manner, is inefficient and time consuming.

Pipe fabricators are facing several challenges globally, including fluctuating steel prices due to changes in demand, labor shortages, stricter environmental regulations, competition from alternative materials, and the need to invest in new equipment and training to keep up with technological advancements.

PRODUCTIVITY AND EFFICIENCY

LABOR SHORTAGES

QUALITY CONTROL

HEALTH AND SAFETY RISKS



BEFORE: Outsourcing or cutting pipe using an old-school chuck or roller-bed style pipe cutting machine with complicated assembly and mediocre accuracy and performance.

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THE MASTERPIPE 248 **SOLUTION**

When it comes to CNC pipe cutting machines, the industry is dominated with outdated, slow and complicated systems. The MasterPipe® robotic pipe CNC cutting system offers a modern solution with a high performance and accurate robotic arm for processing high-definition plasma cuts on pipe, and does so more safely and cost effectively than most systems in the industry. The MasterPipe 248 is a premium, high-throughput solution for customers who process a high variety and volume of pipe and expect modern automation, serviceability, and support; and enables you to do so with only a single operator.

They say: Quality over Quantity. We asked: Why not both?
With a mast to support an industry leading robotic arm and the capability of supporting and conveying pipes up to 1,000 lbs. per foot8 or 11,000 lbs. maximum. The MasterPipe system can production cut up to 44 foot long by 48 inch diameter pipe quickly, easily and with little to no compromise to quality.

SAVE VALUABLE TIME & MONEY

INCREASED THROUGHPUT + SINGLE OPERATOR

REDUCE INCONSISTENCIES

IMPROVE ACCURACY & PERFORMANCE

AFTER: Meet quality expectations on every cut, reduce lead times and save costs. Easy machine installation with first of its kind robotic arm pipe cutting technology.

ROBOTIC PLASMA PIPE CUTTING

Introducing the Lincoln Electric® MasterPipe® 248 robotic pipe CNC cutting system. The next generation of pipe profiling: robotic accuracy, high-definition plasma quality, and a roller-bed architecture built for quick changeovers and speed. Process 2"–48" OD pipe with confidence, from straight cut-offs and bevels to complex T-K-Y joints, saddles, miters, and more.

CONTROL
CUT QUALITY

EASY PART
FILE IMPORT

MATERIAL
OPTIMIZATION

OPERATOR
TRAINING SYSTEM

REDUCE ERRORS

INTUITIVE OPERATION

ECONOMIC
INVESTMENT

ONLY ONE
OPERATOR NEEDED

INCREASED PRODUCTION
CAPABILITIES

AUTOMATED
CUTTING

INTELLIGENT
SOFTWARE

UPGRADEABLE
SOFTWARE

LINCOLN ELECTRIC AUTOMATION

ROBOTIC PRECISION. THROUGHPUT WITHOUT COMPROMISE.

COUNTLESS PROCESSING **FUNCTIONS**

HOLE FOR BRANCH
Easily cut round holes for pipe branches.



SADDLE CUT
Very difficult to produce manually, a basic function for the VT Pipe System.



DOUBLE SADDLE
Automatically calculate and produce multi-branch intersection saddle cuts.



STRAIGHT CUT WITH BEVEL
Produce fast straight bevel cuts; the most common cut in pipe fabrication..



MITER CUTS
Produce precise miter cuts for easy fit-up.



SAW CUTS
Produce straight saw cuts at various angles.



SLOTS
Cut slots and other shapes anywhere on the pipe surface complete with weld prep.



BUMPERS
Produce bumper cuts at any angle for any sized intersecting pipe.



SADDLE-MITER
Combine different cuts for various intersections including a saddle-miter cut.



STRAIGHT THRU HOLES

Produce straight thru holes that line up every time.



REINFORCING PAD

Strengthen branch connections by cutting reinforcing pads



LATERAL BRANCH CUTS

Produce perfect lateral tee branch cuts including Size-ON-Size and various angles



CROWN CUT

Create special application cuts such as the crown cut.



CUSTOM OPENINGS

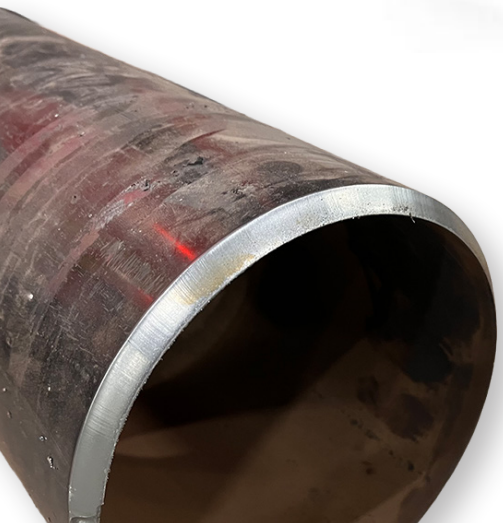
Produce openings and cutouts anywhere on the pipe with any size and shape.



TRANSITION CUT

Cut the difficult transition cut requiring ID and OD fit-up in the same cut.





ENDLESS POSSIBILITIES

The more complicated the more desireable. Create and cut many pipe connections.







ENGINEERED FOR **YOU**

Our MasterPipe systems are a premium, high-throughput, single-source solution for customers who process a high variety and volume of pipe and expect modern automation, serviceability, and support.



LINCOLN ELECTRIC AUTOMATION

INTELLIGENT SOFTWARE

POWERFUL CONTROLS | ROBUST DESIGN

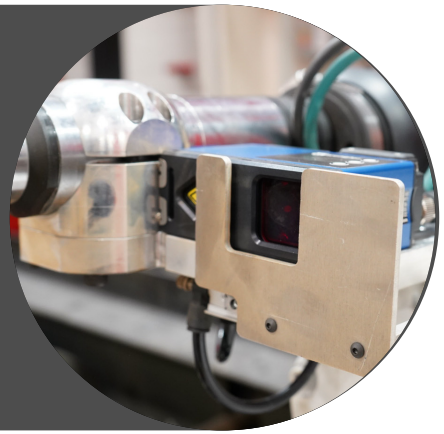
VersaFAB™ + PypeServer software give your operator full control of material handling, job processing, reporting & machine maintenance.

Organize jobs and optimize resources using a detailed operation display.

Effortless nesting and seamless 3D part importing.

LASER SCANNING SYSTEM

LOCATES THE MATERIAL SURFACE, VERIFIES PIPE DIAMETER, PERFORMS AUTOMATIC CIRCUMFERENCE CHECKS, AND IDENTIFIES PIPE ENDS—ENSURING EVERY PROCESS BEGINS WITH ACCURATE DATA



DIRECT IMPORT OF FILES

Supports direct PypeServer integration, enabling shops to import fabrication data directly from BIM and ERP environments.

1

STREAMLINED JOB MANAGEMENT

Operators easily load, verify, and sequence jobs for smooth production flow. Automatic import of cut geometries, lengths, bevels, and joint profiles.

2

CONTINUOUS WORKFLOW

Open-bed bi-directional system paired with additional infeed and discharge conveyors allows for continuous material workflow, thereby increasing production throughput. Conveyors available in 20’ or 40’ standard lengths.

3

ARC VOLTAGE HEIGHT CONTROL

Non-contact precision on imperfect pipe. The robotic arm uses Arc Voltage Height Control to automatically compensate for certain out-of-round pipes during cutting. This eliminates the need for traditional sensor arms.

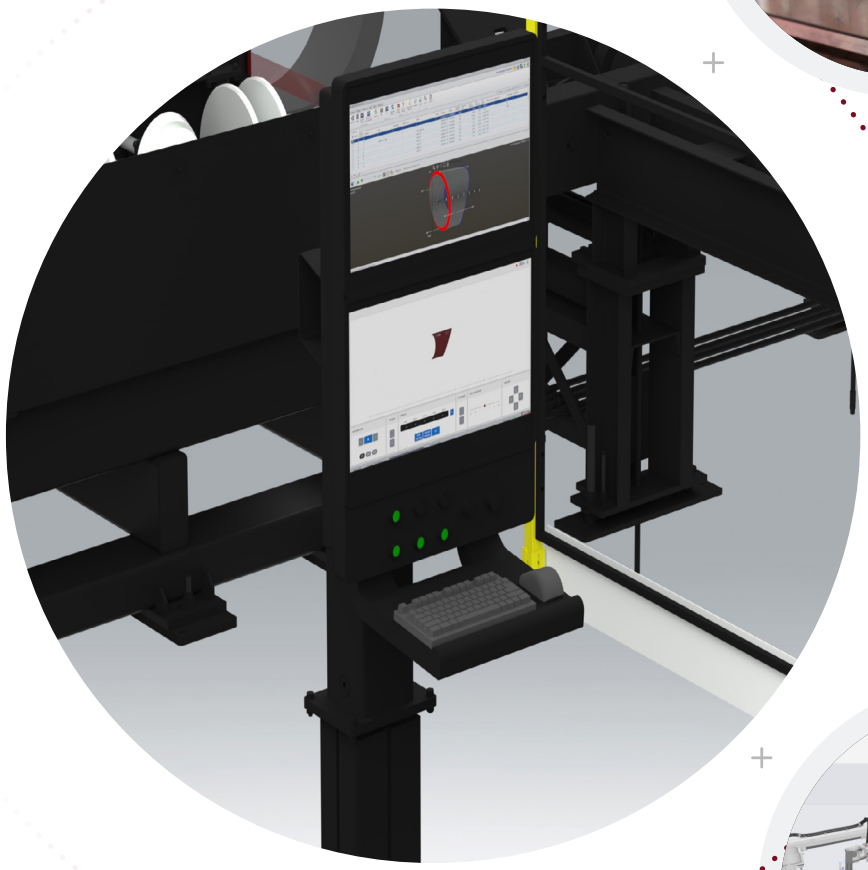
LINCOLN ELECTRIC

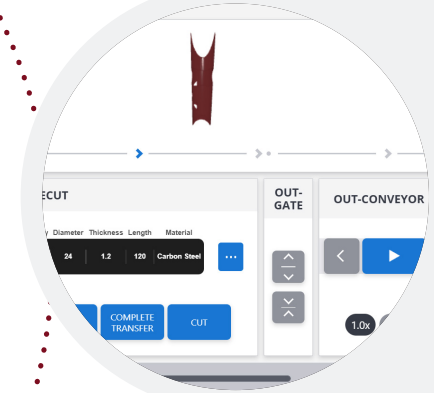
VersaFAB OPERATOR INTERFACE



AUTOCAL ROBOTIC TOOL CALIBRATION

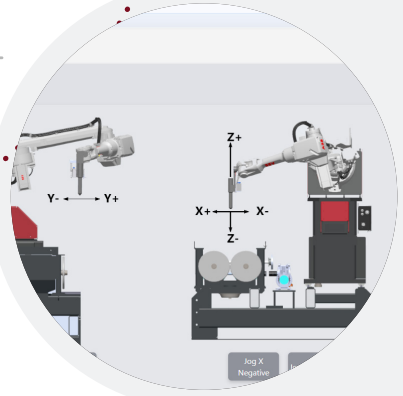
Maintain accuracy and repeatability with automatic tool-center-point calibration with Auto-Cal.





USER-FRIENDLY MACHINE CONTROL

The mobile pedestal console includes robust locking options and an intuitive layout, giving operators both flexibility and stability during use.

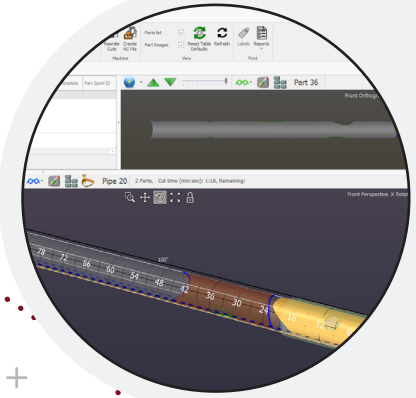


EASY-TO-USE INTERFACE

Designed with the operator in mind, combining intuitive navigation with a clean, modern layout that minimizes training time and maximizes productivity. Clear visuals, logical workflows, and responsive controls make it simple to monitor processes, and access critical information at a glance.

KEY FEATURES





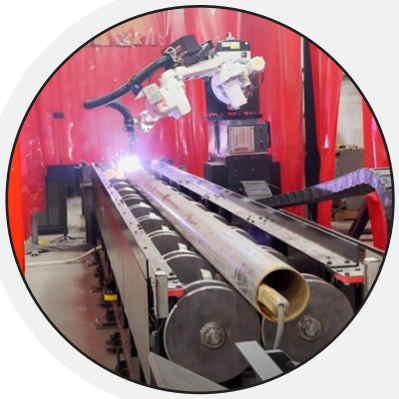
BIM-READY WORKFLOW

Seamlessly transfer nested parts into Versafab and queue for fabrication



FLEXIBLE FLOW

Quick diameter changeovers and flexible, bi-directional flow



MODULAR INSTALLATION

Ships largely assembled allowing for quicker time-to-production and an easy setup process

LINCOLN ELECTRIC AUTOMATION

LINCOLN ELECTRIC ENGINEERED **FUME EXTRACTION SYSTEM**

Available with a recirculating fume extraction system from Lincoln Electric. Uses intelligent fan control technology, maximizes fume extraction, conserves energy and extends equipment life.

QUIET OPERATION

Silencer and sound deadening materials drastically reduce airflow noise.
Equipped with a variable speed drive that adjusts extraction airflow to application.

ADDED SAFETY

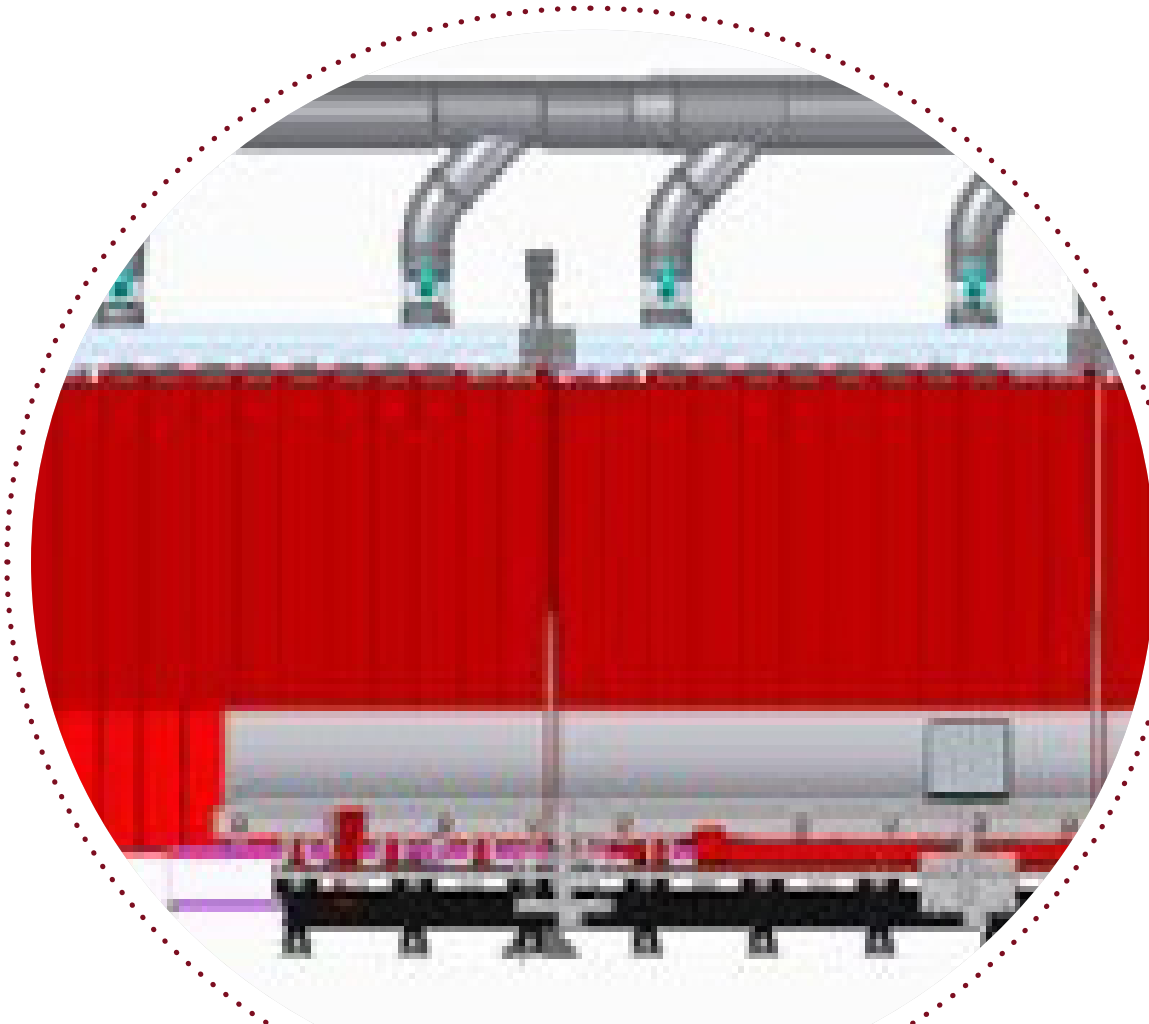
Integrated spark arrestor and optional Prism Thermal Suppression System. Capture fume and particulate matter for increased operator safety. Easy to change MERV 16 filters.

SIMPLE MAINTENANCE

Automatic cleaning process once pre-set pressure differential is reached. Particulate is collected into the 20-gallon dust bin.

FULL LENGTH SOLUTION

Covers the entire 20‘ or 40‘ bed for maximum fume collection. Drop-down curtains prevent fume from escaping during cutting processes.



BUILT TO BE **EXCELLENT**



MODERNIZE PIPE CUTTING WITH ROBOTIC ACCURACY

MasterPipe combines an ABB robotic arm with a roller-bed architecture to bring consistent precision to high-definition plasma cutting across a full 2"–48" OD range. From straight cut-offs and bevels to T-K-Y joints and saddles, it handles day-to-day work and the complex profiles that set your shop apart.

QUALITY YOU CAN REPEAT

FineLine 300A high-definition plasma, a 50° torch angle for 45° bevels, and Auto-Cal calibration keep cut quality consistent, even after collisions or maintenance so you spend less time re-working and more time delivering.

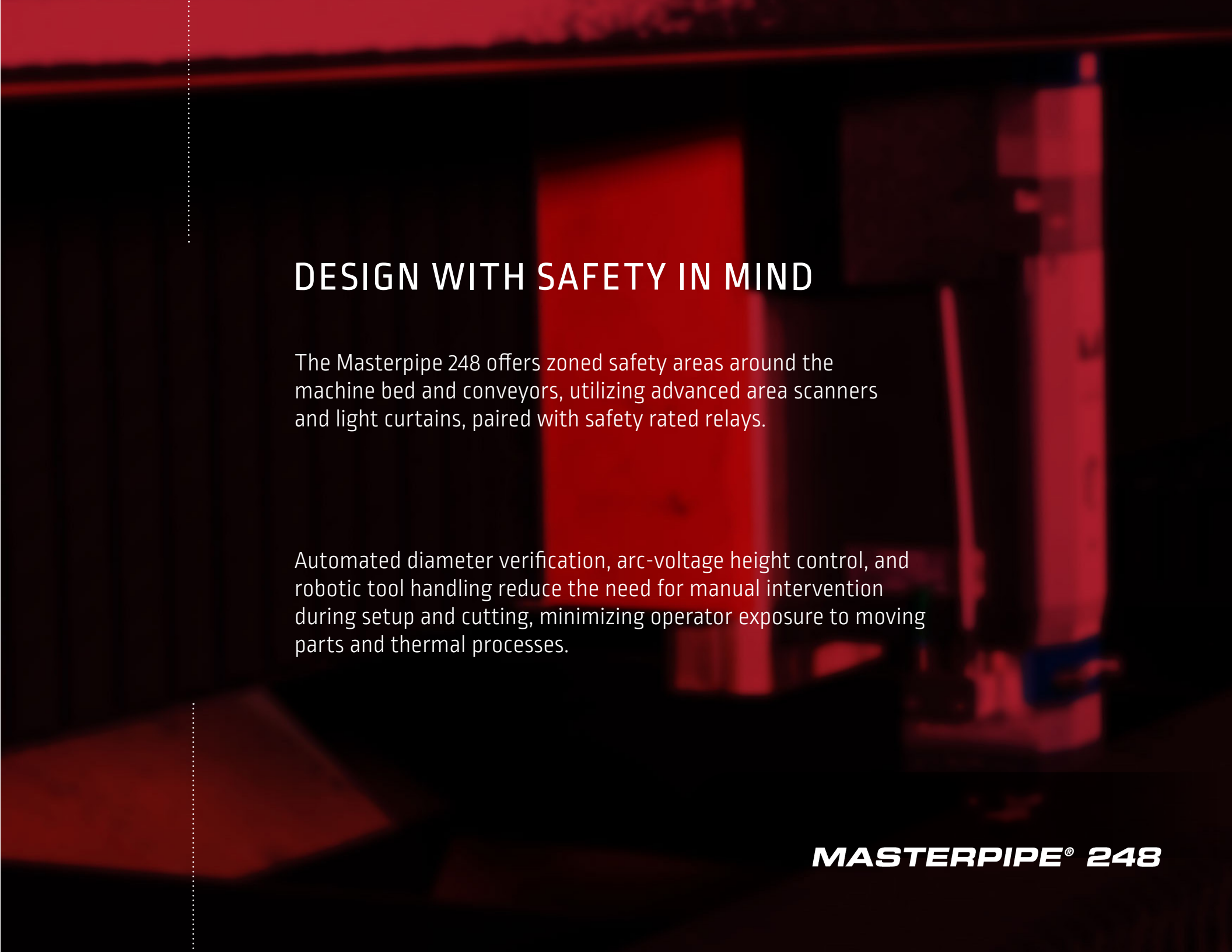
BUILT FOR THROUGHPUT, NOT JUST SPECS

Automated material verification, bi-directional flow, and fast diameter changeovers help reduce idle time between jobs. With automated conveyance, rapid traverses, and automated diameter scaling, the system is designed to surpass the cycle times of legacy mast machines

EASY TO INSTALL. EASIER TO LIVE WITH.

Standardized quick-connects, and container-ready shipping simplify installation and service. Lincoln Electric fume control compatibility keep the system productive in real-world conditions.

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DESIGN WITH SAFETY IN MIND

The Masterpipe 248 offers zoned safety areas around the machine bed and conveyors, utilizing advanced area scanners and light curtains, paired with safety rated relays.

Automated diameter verification, arc-voltage height control, and robotic tool handling reduce the need for manual intervention during setup and cutting, minimizing operator exposure to moving parts and thermal processes.

MASTERPIPE **SERVICE & SUPPORT**

With every purchased MasterPipe machine, you get the peace of mind that our expert technicians are available to support your operations.



WE PROVIDE FULL SUPPORT IN **NORTH AMERICA**

- Monday-Friday phone support included with machine purchase
- Fully trained field service engineers
- Fast spare parts fulfillment
- Online courses and trainings

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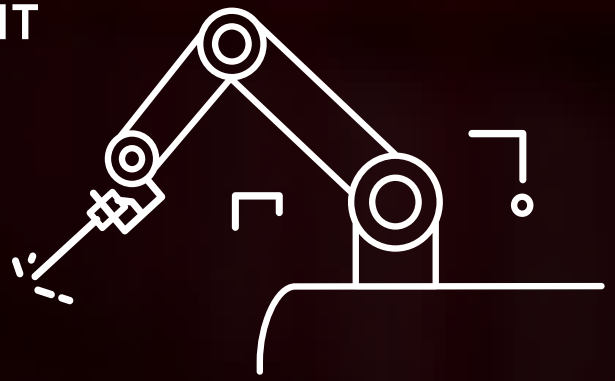
JOIN THE INNOVATIVE WORLD OF **LINCOLN ELECTRIC AUTOMATION**!

Custom state-of-the-art tailored solutions set us apart from the rest.

WE COLLABORATE WITH OUR CUSTOMERS TO DEFINE **THE RIGHT SYSTEM FOR THEIR NEEDS.**

We pay attention to:

- Given surroundings and onsite conditions
- Your future expansion plans
- Process implementation



125+ YEARS OF EXPERIENCE & INNOVATING WITHIN THE INDUSTRY

TAKE CNC CUTTING TO THE NEXT LEVEL



LINCOLN ELECTRIC AUTOMATION

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