Lincoln Electric MasterPipe 248

ROBOTIC PIPE CNC CUTTING SYSTEM



Renders are for reference only

MASTERPIPE 248 ROBOTIC PIPE CNC CUTTING SYSTEM

When it comes to CNC pipe cutting machines, the industry is dominated with outdated, slow and complicated systems. The 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 safely and cost effectively. 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.

SYSTEM INCLUDES

- 20' or 40' Roller-Bed Cutting System
- 2" to 48" and single or double random lengths
- Industry leading 6-axis robotic arm
- Bidirectional Material Flow
- High-Definition FineLine Plasma System (300A standard)
- Laser Scanning System - for accurate material measurement
- Heavy-Duty Roller Wheels & Conveyance System
- Pneumatic Lift Wheels
- Spool input capable
- Pipe Nesting
- VersaFAB™ HMI Software Suite
- PypeServer® Enterprise with 3 Licenses (1 year license)
- Arc Voltage Height Control
- Mobile Operator Pedestal Console

INDUSTRIES

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Publication LEA-022026HR2-03

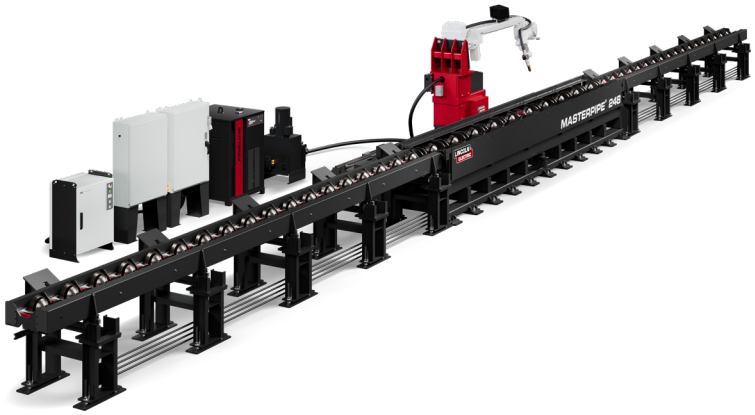
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LINCOLN ELECTRIC AUTOMATION

SMART AUTOMATION IS THE STANDARD

Engineered for high-mix, high-volume fabrication, MasterPipe 248 combines a roller-bed architecture and robotic tool handling with FineLine 300A plasma to produce clean profiles and 45° bevels across an expansive diameter range. Automated diameter verification, Auto-Cal tool centerpoint calibration for increased accuracy, and through-the-arc height control keep quality tight and throughput high; bi-directional flow and modular bed lengths fit your floor and your growth. Available with the Prism® Recirculating Fume Extraction system from Lincoln Electric. Prism uses intelligent fan control technology, maximizes fume extraction, conserves energy and extends equipment life.





SYSTEM DETAILS

ROBOTIC TOOL HANDLING

The MasterPipe 248 innovates with robotic accuracy and a roller-bed architecture built for 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.

INTELLIGENT SOFTWARE

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.

- Auto-cal robotic tool calibration
- Arc voltage height control
- Continuous evolution + updates

Laser Scanning System

Locates the material surface, verifies pipe diameter, performs automatic circumference checks, and identifies pipe ends, helping every process begin with accurate data.

DESIGNED WITH SAFETY IN MIND

Pneumatic lift systems on the cutting bed keep the cutting envelope free from hydraulic oils and high-pressure fluids.* Compatibility with Lincoln Electric fume control solutions helps maintain cleaner air and promotes a safer work environment.

Automated diameter verification, vision-based material identification, arc-voltage height control, and robotic tool handling, reduce the need for manual intervention during setup and cutting.

- Remote operators console
- Light curtain restricted access

*Infeed and discharge conveyors use hydraulics to raise and lower material

PRODUCT SPECIFICATIONS

Product Number	Model	Dimensions L x W x H in (mm)	Shipping Weight lb (kg)
AD2665-1	20' Cutting Bed	255 x 83 x 99 (6,480 x 2,100 x 2,500)	16,200 lbs (7,348 kg)
AD2665-2	40' cutting bed	510 x 83 x 99 (12,960 x 2,100 x 2,500)	30,000 lbs (13,608 kg)
Optional	Infeed Conveyor 20'	260 x 130 x 50 (6,600 x 3,300 x 1,250)	5,600 (2,540)
Optional	Infeed Conveyor 40'	498 x 130 x 50 (12,650 x 3,300 x 1,250)	10,500 (4,763)
Optional	Outfeed Conveyor 20'	244 x 130 x 50 (6,200 x 3,300 x 1,250)	5,500 (2,495)
Optional	Outfeed Conveyor 40'	482 x 130 x 50 (12,250 x 3,300 x 1,250)	11,000 (4,990)

MACHINE SPECIFICATIONS

Max Weight Capacity per 20' Bed	20000 lbs (9070kg)
Max Weight Capacity per 40' Bed	40000 lbs (18140kg)
Cutting Method	Plasma
Minimum Pipe Conveyed Length	60" (1500mm) entrance | 46" (1170mm) Cutting Bed & Discharge
Maximum Pipe Cutting Length (20ft bed)	21'-0" (6.4m)
Maximum Pipe Cutting Length (40ft bed)	42'-0" (12.0mm)
Maximum Pipe Conveyed Length (20ft)	22'-0" (6.7m)
Maximum Pipe Conveyed Length (40ft)	43'-0" (13.1m)
Ambient Operating Condition	4°–40°C (40°–104°F); Humidity 0–95%
Electric Power Input	460 VAC 3 Phase 50/60 HZ ±10%
Conveyor Speed	0-500 IPM (inches per minute)
Machine Ground	Dedicated Earth Ground by customer
Operator Console	Dual monitor - 21" Multitouch Control Panel
Computer Operating System	Windows 10 IoT Enterprise
Number of Axis	8 (6 axis robot + roller bed + tower)
Cutting speed	0–200 in/min (0–5.08 m/min)
Profiling Torch Carriage Speed (Y Axis)	225 in/min (0–5.715 m/min)
Bevel Range (Optional A Axis)	±45° plasma
Miter Range	±179°
Piercing capability	1.75"
Cutting Length Accuracy	0.063" (±1.5mm) within 42' (13m)
Out of Round Compensation	Arc Voltage Tracking
Repetitive Accuracy	±0.01" mm (±0.25mm)
Bevel Accuracy	±1°
Calibration Routine	Automatic
Gas Pressure	Minimum 110 PSI (7.58 bar)
Gas Type	Oxygen, Nitrogen, dry compressed air

CUSTOMER ASSISTANCE POLICY

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