



FINELINE

FineLine 300HD

HIGH DEFINITION PLASMA CUTTING SYSTEM

LINCOLN[®]
ELECTRIC



Shown:
FineLine 300HD Power Source
FineLine Arc Start Console
FineLine Gas Controller
Magnum® PRO LC300M Plasma Straight Torch w/ handle and torch leads

The Muscle Behind Your Industrial Plasma Cutting Equipment

When it comes to maintaining a competitive automated plasma cutting operation, maximizing output and productivity is essential. Whether the material is a flat plate, structural beam, or pipe, the FineLine High Definition Plasma Cutting System delivers excellent cut quality. If you're planning to stay ahead of the game, you need quality cuts, a fast production rate, and a low cost the first time, every time. You need a FineLine Plasma Cutting System from Lincoln Electric.



DESIGNED TO PERFORM

Superior Cut Quality and Consistency

Lincoln Electric advances cutting technology with the FineLine High Definition Plasma Cutting System by delivering exceptional cut quality when cutting mild steel, stainless steel, and aluminum. The FineLine 300HD System provides superior cut quality, minimizing the need for grinding, edge preparation, or other secondary operations.

Easy to Install, Integrate, and Use

The FineLine 300HD plasma cutting system was specifically designed to allow full user control from a single interface and allows the FineLine Automatic Gas Controller to rapidly change plasma current and gas pressures for better cut quality and longer consumable life. The FineLine 300HD system features easy maintenance and a system status through the HMI.

Lower Operating Costs

The combination of our advanced technology, Magnum PRO plasma torch, and consumable design ensures a precise gas flow that creates a consistent plasma arc. This patented torch technology allows for consistent cuts and uses up to 54% less plasma gas* than competing technology when cutting at 140A. This helps reduce operating costs.

Exceptional Reliability & Productivity

The FineLine 300HD is a reliable plasma power supply that offers high amperage plasma cutting at a lower cost, helping you save both time and money during the cutting process. Fast cutting speeds maximize productivity and reduce time spent waiting for jobs to complete.

Processes »

Plasma Cutting, Marking

Cutting Type »

Mechanized Cutting

Applications »

- Steel Fabrication
- Pipe Cutting
- Structural Steel Fabrication
- Automotive/Transportation
- Maintenance and Repair
- Shipbuilding
- Steel Service Center

Output »



Input »



Cutting Capacity

| Type | Production Pierce | Max. Thickness Edge Start |
|-----------------|-------------------|---------------------------|
| Mild Steel | 1.75" (45 mm) | 3" (75 mm) |
| Aluminum | 1" (25 mm) | 2" (50 mm) |
| Stainless Steel | 1.25" (32 mm) | 2" (50 mm) |

*Cutting Mild Steel at 140A on PythonX® STRUCTUAL

Designed to Maximize Cut Quality

Smallest Diameter 300A Torch in the Industry at 1.5" (38 mm)

Minimize secondary processing and maximize bevel and robotic cut capabilities with the Magnum PRO LC300M torch, the smallest diameter high definition 300A plasma torch in the industry.

33%
Smaller Diameter Torch

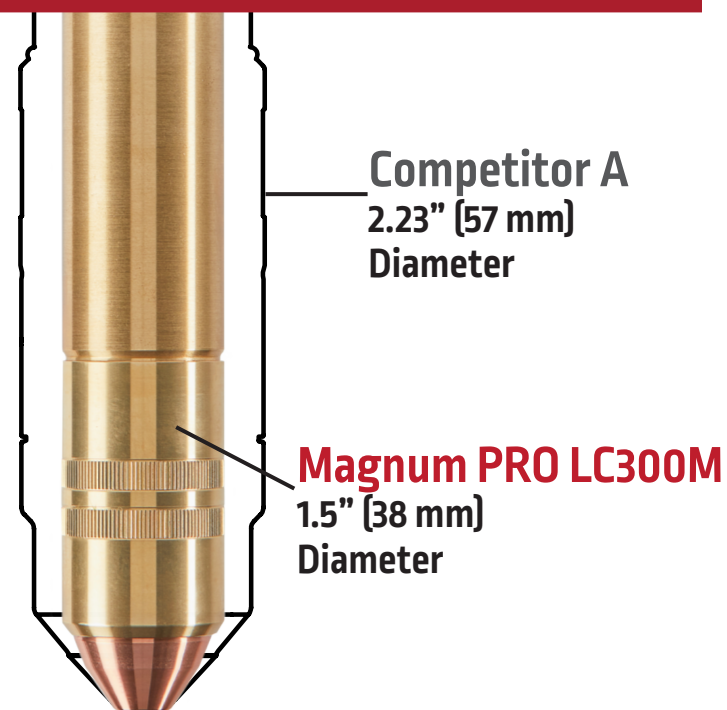
UltraSharp 2.0 Goes Beyond "Bolt Hole" Quality

No complicated software needed. When motion, gas, cut speeds, height control, and plasma current controls are all synchronized, the UltraSharp® 2.0 technology minimizes process errors to help provide repeatable, high-quality cutting. This is UltraSharp 2.0 technology for all geometries, not just a selection of hole diameters and material thicknesses other competitors offer.

Maintain Cut Quality Through Consumable Life

In industries where every millimeter counts, we add an extra degree of precision and quality to your cut. This results in outstanding consumable life that maintains a consistent ISO 9013* Range 3 on mild steel in production with high definition edge quality.

* The International Standards Organization (ISO) 9013 measures the quality of thermally cut materials in ISO 9013. Please review the standard for more information at www.ISO.org



Designed for Simplicity and Control

Quick-Disconnect Torch for Improved Productivity

The Magnum PRO LC300M quick-disconnect torch enables quick and easy changeover, which reduces machine downtime and improves productivity. The quick-disconnect detachable torch head allows operators to change consumables faster.



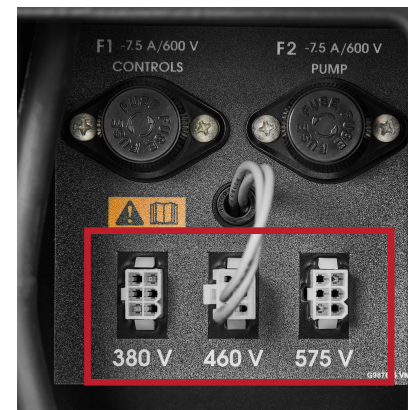
Easy-to-Use Operator Interface

The HMI enables you to select the material type, thickness and gasses, and optimal cut settings to help produce high quality and repeatable cutting. Application programming interface (API) can be supplied to support 3rd party HMI integration.



Flexibility to Tackle a Wide Range of Input Power

The FineLine 300HD power supply runs on a wide range of voltage inputs, 380-575 V, three-phase. The input voltage can be adjusted by changing the voltage selection jumper inside the machine.



Designed to Reduce Operating Cost

Cut More Using Less Gas

Lincoln Electric's advanced plasma torch technology does not vent plasma gas while cutting, providing efficient plasma gas consumption for given cutting parameters. Our patented plasma torch and consumables allow for consistent cuts, and our system uses up to 54% less plasma gas than competing technology when cutting at 140A.

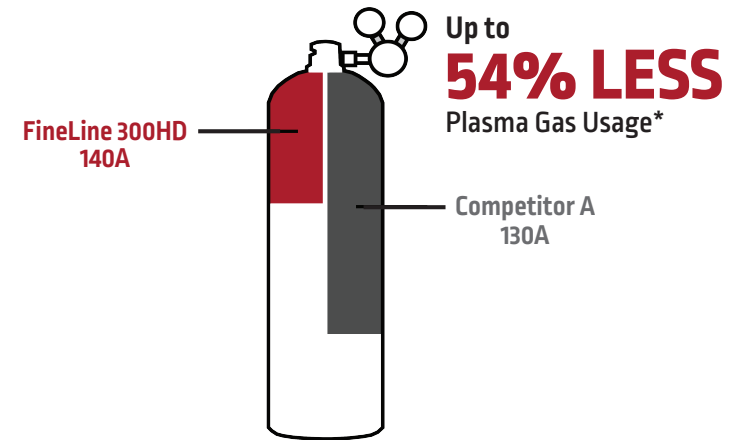
Smart Consumable Design

FineLine 300HD technology controls operating costs by using the same set of consumables for all process needs, including cutting, marking, and bevel cutting. Plasma arc consistently transfers in less than three milliseconds, minimizing misfires and extending consumable life. The user interface will allow the operator to select the cut quality filter by providing a choice between production, quality, optimal, or severance cutting performance.

Reduces Secondary Operations

Engineering advancements in the FineLine 300HD system result in faster cut speeds, sharp edges, reduced kerf lines, and nearly dross-free cuts. The system supports oxygen, nitrogen, air, and H17 for cutting and argon, nitrogen & air for marking. This produces cleaner and smoother edge finishes, which helps reduce the need for secondary processing such as grinding for weld preparation.

*Cutting at 140A on PythonX STRUCTUAL



2X PLUS
Consumable Life*
Against Competitor A



Designed for Reliability and Productivity



Industry Proven Inverter Design

The FineLine power supply was built on the industry-proven inverter design elements of Lincoln Electric Welders used for the last thirty years. Internal components are designed and tested to run cool for long life in high-temperature environments. Electronics are fully encapsulated and protected. FineLine 300HD power supply is IP-23 rated.

Intelligence Included

The FineLine 300HD system is Lincoln Electric's most intelligent industrial high-definition cutting system. The FineLine HMI is the system's user interface, which gives you real-time diagnostics, including cutting/marking parameters, gas/coolant pressures, communications, electrical, cutting history, and error log data. The system will also perform self-diagnostics and display errors and notifications. These controls allow the operator to maximize performance and streamline system operations.

Safety Built In

The FineLine 300HD System incorporates an Emergency-Stop circuit capable of meeting Performance Level (d) Category 3 requirements as per ISO 13849-1 and IEC 62061 standards. The E-Stop circuit employs a safety relay which controls both the Power Supply and Gas controller outputs, disabling both when the E-Stop is engaged.

Industry Leading Warranty

When we say the FineLine 300HD power supply will outperform and outlast any competitive system, we're confident enough about that claim to back it up with a three-year limited warranty** on parts and labor. Competing companies will give you two years. We go one better.



**For a copy of our warranty visit www.lincolnelectric.com

PRODUCT SPECIFICATIONS - FineLine 300HD

| Product Name | Product Number | Input Power Voltage/Phase /Hertz | Rated Output: Current/ Voltage/Duty Cycle | Input Current @ Rated Output | Output Range | Plasma Gas Maximum Flow Rate | Shield Gas Maximum Flow Rate | Pre/ Post Gas Maximum Flow Rate | Inlet Gas Pressure | H x W x D in (mm) | Net Wt. lb (kg) |
|--|----------------|----------------------------------|---|------------------------------|--------------|---|--|---------------------------------|--------------------------|---|-------------------------------|
| FineLine 300HD Power Supply [CSA, CCC] | K4900-1 | 380-415/ 460/575V/3Ph/ 50/60Hz | 300A/210V/100% | 3PH/100% /123/108/95 | 20-300A | 92 SCFH (2605 SLPH) Oxygen, 80 SCFH (2265 SLPH) Air, 125 SCFH (3540 SLPH) H17 or Nitrogen | 250 SCFH (7079 SLPH) Air 300 SCFH (8495 SLPH) Nitrogen | 125 SCFH (3540 SLPH) Nitrogen | 105-145 PSI (7.6-10 Bar) | 50.40x33x36.93 (1280x838x938) Power Supply Only | 750 (340.2) Power Supply Only |
| FineLine 300HD CE Power Supply [CE, RCM] | K4900-2 | 380-415/3Ph/ 50/60Hz | | 3PH/100%/123 | | | | | | | 750 (340.2) Power Supply Only |

CUTTING CAPACITY - Mild Steel

| Current | Thickness in. (mm) | Speed ipm (m/min.) | Cutting Gasses (Plasma/Shield) |
|---------|--------------------|--------------------|--------------------------------|
| 30 | 0.030 (0.8) | 125 (3050) | Oxygen/Oxygen |
| | 0.048 (1.2) | 100 (2550) | |
| | 0.105 (2.5) | 55 (1450) | |
| | 3/16 (5) | 30 (725) | |
| 80 | 0.135 (4) | 180 (4300) | Oxygen/Air |
| | 1/4 (6) | 110 (3050) | |
| | 3/8 (10) | 75 (1800) | |
| | 1/2 (12) | 50 (1400) | |
| 140 | 3/16 (5) | 205 (5050) | |
| | 3/8 (10) | 120 (3600) | |
| | 1/2 (12) | 86 (2375) | |
| | 1 (25) | 35 (925) | |
| 200 | 1/4 (6) | 230 (6075) | |
| | 1/2 (12) | 120 (3200) | |
| | 3/4 (20) | 75 (1800) | |
| | 1 1/4 (30) | 30 (900) | |
| 300 | 1/2 (12) | 135 (3550) | |
| | 3/4 (20) | 90 (2200) | |
| | 1 1/4 (30) | 50 (1400) | |
| | 1 3/4 (45) | 30 (750) | |
| | 3 (75)* | 6 (150) | |

CUTTING CAPACITY - Stainless Steel

| Current | Thickness in. (mm) | Speed ipm (m/min.) | Cutting Gasses (Plasma/Shield) |
|---------|--------------------|--------------------|--------------------------------|
| 30 | 0.038 (1.0) | 200 (4975) | Air/Air |
| | 0.063 (1.5) | 125 (3475) | |
| | 0.078 (2) | 90 (2250) | |
| | | | |
| 80 | 0.141 (3) | 120 (3200) | Air/Nitrogen |
| | 1/4 (6) | 86 (2275) | |
| | 3/8 (8) | 57 (1875) | |
| | | | |
| 140 | 1/4 (6) | 140 (3650) | |
| | 3/8 (10) | 100 (2475) | |
| | 1/2 (12) | 80 (2150) | |
| | 3/4 (20) | 42 (950) | |
| 200 | 1/4 (6) | 160 (4200) | |
| | 1/2 (12) | 90 (2400) | |
| | 3/4 (20) | 60 (1450) | |
| | 1 (25) | 40 (1050) | |
| 300 | 1/2 (12) | 120 (3200) | |
| | 3/4 (20) | 85 (2075) | |
| | 1 1/4 (30) | 38 (1125) | |
| | 2 (50)* | 11 (300) | |
| | | | |

CUTTING CAPACITY - Aluminum

| Current | Thickness in. (mm) | Speed ipm (m/min.) | Cutting Gasses (Plasma/Shield) |
|---------|--------------------|--------------------|--------------------------------|
| 30 | 0.040 (1) | 150 (3850) | Air/Nitrogen |
| | 0.050 (1.2) | 120 (3250) | |
| | 0.062 (1.5) | 90 (2525) | |
| | | | |
| 80 | 1/8 (3) | 170 (4625) | Air/Nitrogen |
| | 1/4 (6) | 60 (1625) | |
| | 3/8 (10) | 46 (1125) | |
| | 1/2 (12) | 34 (925) | |
| 140 | 1/4 (6) | 135 (3575) | |
| | 3/8 (10) | 100 (2450) | |
| | 1/2 (12) | 75 (2050) | |
| | 1 (25) | 25 (650) | |
| 200 | 1/4 (6) | 170 (4450) | |
| | 3/8 (10) | 125 (3075) | |
| | 1/2 (12) | 100 (2675) | |
| | 3/4 (20) | 65 (1525) | |
| 300 | 3/8 (10) | 175 (4300) | |
| | 5/8 (15) | 115 (3050) | |
| | 1 (30) | 65 (1375) | |
| | 2 (50)* | 11 (300) | |
| | | | |

* Edge start recommended

This is not a complete list of thickness and process that are available, please reference the cut charts for complete cutting specifications

CUSTOMER ASSISTANCE POLICY

The business of Lincoln Electric is manufacturing and selling high quality welding equipment, automated welding systems, consumables, and cutting equipment. Our challenge is to meet the needs of our customers, who are experts in their fields, and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or technical information about their use of our products. Our employees respond to inquiries to the best of their ability based on information and specifications provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment, or to provide engineering advice in relation to a specific situation. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or communications. Moreover, the provision of such information or technical information does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or technical information, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose or any other equivalent or similar warranty is specifically disclaimed.

Lincoln Electric is a responsive manufacturer, but the definition of specifications, and the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

Subject to Change - This information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.com for any updated information

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