

PYTHONX[®]
SPG

PythonX SPG

Structural | Pipe | Grating

PYTHONX[®]
SPG

CA30-032221AS1-02

LINCOLN[®]
ELECTRIC



Don't let the size fool you

The PythonX® SPG from Lincoln Electric® helps deliver fast, precise cuts and continuous automated processing. This structural powerhouse packs next-generation capabilities and lots of speed in a space-saving beamline that's ultra-productive and extremely easy to operate.

Powered by FullCircle® robotic software, the PythonX SPG will help optimize workflow (and profit) the moment you power it up. More built-in productivity tools include high-definition plasma, ASYNC processing, a high-precision gear track, PythonX AUTOCAL and a pressure booster.

HIGH DEF
7-AXIS
CUTTING

STRUCTURAL
STEEL
UP TO 65ft. x 44in.

LARGE DIAMETER
PIPE*
UP TO 16in.

TORCH
HEIGHT
CONTROL

LOOK-AHEAD
ASYNC
TECHNOLOGY

CENTER POINT
AUTOCAL
CALIBRATION

FROM THE INDUSTRY LEADERS IN 3D PLASMA CUTTING

PROFILE TYPE	MINIMUM	MAXIMUM
Beam (web height)	4in (100mm)	44in (1117mm)
Beam (flange height)	4in (100mm)	17in (430mm)
Round pipe (O.D.)*	3in (75mm)	16in (400mm)
HSS	3in x 3in (76mm x 76mm)	24in x 20in (609mm x 508mm)
Channel (height)	3in (76mm)	18in (457mm)
Channel (width)	11.4in (31.75mm)	5in (127mm)
Angle	2in x 2in (50mm x 50mm)	8in x 8in (203mm x 203mm)
Flat bar	33.8in (31.75mm)	13.780in (350mm)
Bulb flat	6.3in x 0.275in (160mm x 7mm)	13.4in x 0.47in (340 mm x 12mm)

*Optional. Ask Sales Representative for full details.



1	MEASURING CART Servo motor integrated absolute encoder resets at startup. Detects beam-ends—no need to grind and no touch-sensing mechanisms that can fail due to rust or issue false positives. It helps ensure cut-to-size stock is correctly processed.
2	FINELINE®HIGH DEFINITION PLASMA SYSTEM This powerful 300A, 100% duty cycle helps deliver exceptional cut quality and consumable life for all day production. The combination of our proven inverter technology with our patented 1.5" (38 mm) diameter Magnum® PRO plasma torch and consumables allows for repeatable cuts, fast gas response, arc stability & less secondary processing which helps to reduce operating costs.
3	INTEGRAL DOWNDRAFT VENTILATION SYSTEM* Controlled fume extraction helps provide maximum efficiency and increase operator safety. Integrates with Lincoln Electric dust collection systems.*
4	INTEGRAL PRESSURE BOOSTER TO HELP EXTEND CONSUMABLE LIFE Run your compressor at normal psi (100) without exerting your shop air. AIRPACK comes standard to supply clean, dry, 220+ psi air to the machine. Meets plasma specifications.
5	HEAVY-DUTY FRAME ENCLOSURE The processing environment comes with safety features, including an interlocking access door observation windows, spark, and noise reduction curtains.
6	7-AXIS ROBOTIC CELL + THRU-ARM™ Industrial robot, coupled to a precision gear track, helps provide high cutting accuracy and versatility. Thru-Arm technology enables the torch to travel through the robot arm and helps improve cable management, tool compactness and stiffness.
7	OPERATOR STATION Helps to control, monitor and communicate all machine functions. This comes with a standard desktop computer and the FullCircle software suite to help administrate batch operations and real-time control.
8	CONVEYORS Up to 65ft.(19.8m.) processing capacity. 48in.(1219.2mm.) chain-driven 11 steel rollers that manipulate workpieces up to 44in.(1118mm.) wide and 228.5lb./ft. (340kg./m.).

STANDARD EQUIPMENT

Multi-axis industrial robot (total 7 axes)

High-definition, high-power 300 amp plasma cutting system

65ft.(19.8m.) material capacity conveyors with 48in.(1219.2mm.) × 4in.(101.6mm.)

SOFTWARE AND CONTROLS

FullCircle 3D nesting/cutting/tracking software suite

Bolt-quality holes using proprietary FullCircle software

OPTIONAL EQUIPMENT

Material transfer system (12,000lbs.(5443kg.) maximum loading)

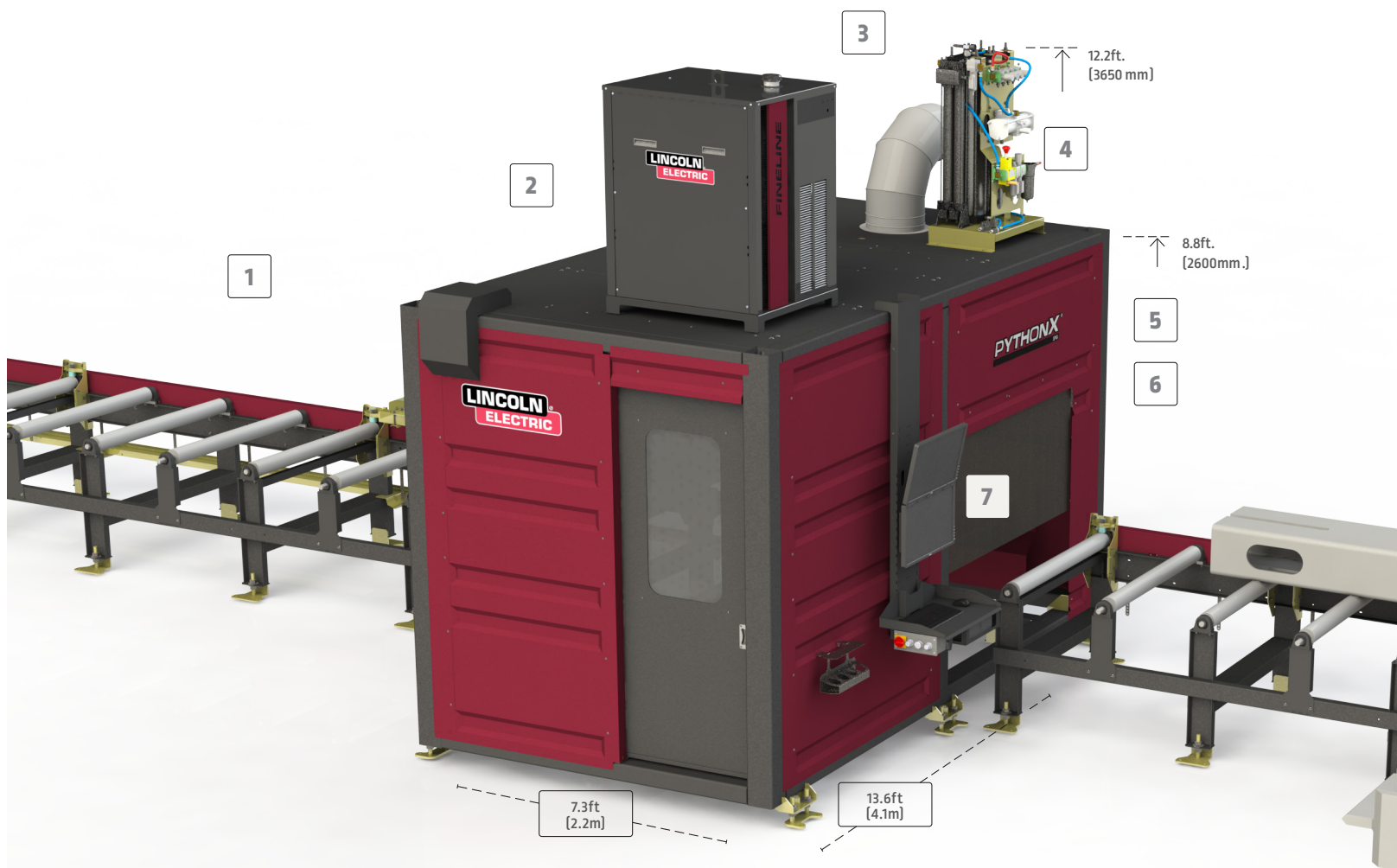
Pipe cutting/marking – thick-wall round pipe 3in.(76.2mm.) to 16in.(406.4mm.) O.D.

Integrated dust collection system



*Optional. Ask a Sales Representative for details.

PythonX SPG



REVERSIBLE FEED

The feed system can be reversed if the system needs to be moved.

NON-STOP PRODUCTION

FITS ANY STRUCTURAL SHOP

- ▶ 7.3ft.(2.2m.) × 13.6ft.(4.1m.) footprint
- ▶ I-beams, H-beams
- ▶ Square or rectangular tubing
- ▶ Angle, channel, round pipe*
flat bar, bulb flats and more

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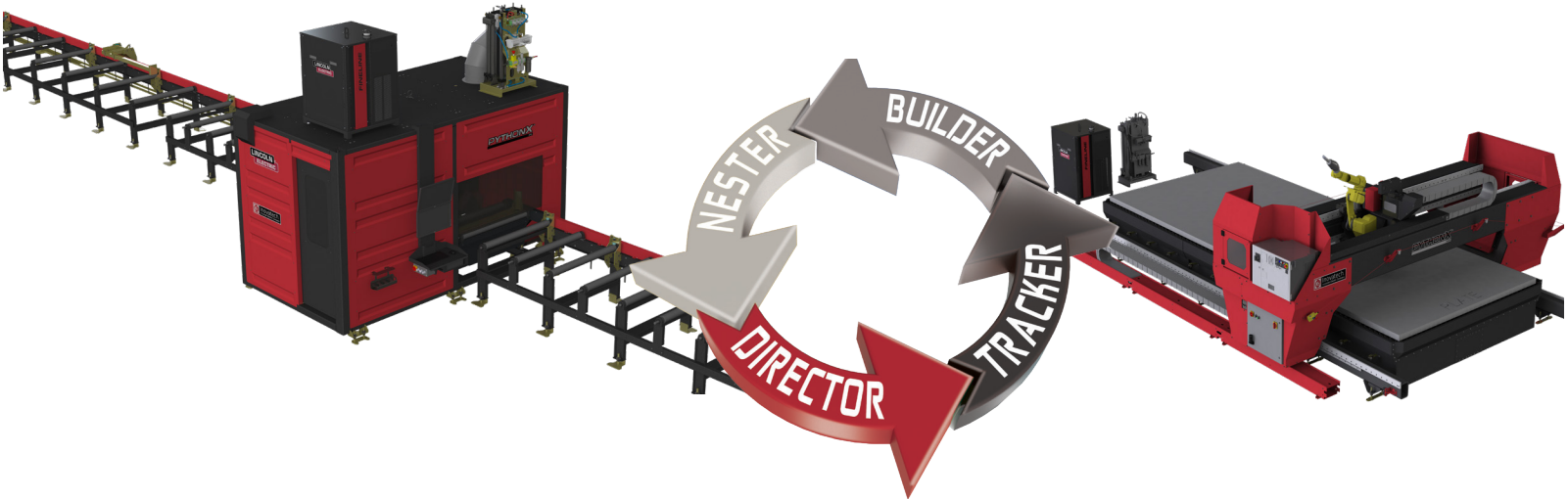
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SOFTWARE + CONTROLS

FULL CIRCLE

Easy to use CNC software can help improve your bottom line. Optimize efficiency, adjust settings, cuts, track inventory. Full Circle will boost your productivity, cut costs, and control every aspect of production.



PYTHONX[®]

SPG

PythonX SPG is a space-saving beamline that processes structural sections. Adding optional nested plate, bar grating and pipe cutting capabilities allows this system to maximize productivity.



PYTHONX[®]

PLATE

PythonX PLATE is a robust robotic plate cutting solution for a wide range of plate sizes. 3D cutting and grating cutting capabilities are optional.

Total Cost of Ownership or TCO is an important consideration when purchasing automated cutting equipment. TCO calculations include a combination of direct costs (hardware, software, operations, consumables, and administration) and indirect costs (end-user operations and downtime).

Motion control systems require configuring and maintenance. Ongoing costs related to security measures, free software updates, and general support are unavoidable. However, simplifying your IT infrastructure and management processes will increase efficiency, expand productivity and significantly reduce your TCO.

PythonX SPG and PythonX PLATE machines are configured with a single-source software solution to allow you to expand your cutting needs while maintaining a single operating system.

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.

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