PythonX SPG
Structural | Pipe | Grating
Don’t let the size fool you

The PythonX® SPG from Lincoln Electric® delivers fast, precise cuts and 24/7 automated processing—with a very productive price tag. This structural powerhouse packs next generation capabilities and lots of speed in a space-saving beam line that’s ultra productive and extremely easy to operate.

Powered by FullCircle™ robotic software the PythonX SPG will begin to optimize workflow (and profit) the moment you power it up. More built in productivity tools include high-def plasma, fast ASYNC processing, a high-precision gear track, auto center point calibration, and a pressure booster.

FROM THE INDUSTRY LEADERS IN 3D PLASMA CUTTING

<table>
<thead>
<tr>
<th>PROFILE TYPE</th>
<th>MINIMUM</th>
<th>MAXIMUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beam (web height)</td>
<td>4in (100mm)</td>
<td>44in (1016mm)</td>
</tr>
<tr>
<td>Beam (flange height)</td>
<td>4in (100mm)</td>
<td>17in (430mm)</td>
</tr>
<tr>
<td>Round pipe (O.D.)*</td>
<td>3in (75mm)</td>
<td>16in (400mm)</td>
</tr>
<tr>
<td>HSS</td>
<td>3in × 3in [76×76mm]</td>
<td>24in × 20in [609×508mm]</td>
</tr>
<tr>
<td>Channel (height)</td>
<td>3in (76mm)</td>
<td>18in (457mm)</td>
</tr>
<tr>
<td>Channel (width)</td>
<td>11.4in [31.75mm]</td>
<td>5in (127mm)</td>
</tr>
<tr>
<td>Angle</td>
<td>2in × 2in [50×50mm]</td>
<td>8in × 8in [203×203mm]</td>
</tr>
<tr>
<td>Flat bar</td>
<td>33.8in [31.75mm]</td>
<td>13.780in (350mm)</td>
</tr>
<tr>
<td>Bulb flat</td>
<td>6.3in × 0.275in [160×7mm]</td>
<td>13.4in × 0.47in [340×12mm]</td>
</tr>
</tbody>
</table>

*Optional
TORQUE-SENSING FOLLOWER
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. Ensures cut-to-size stock is correctly processed.

HIGH DEFINITION PLASMA
The PythonX SPG features a high-power 300 amp plasma system. Cuts up to 3.3in. (83.82mm.) thick with automated gas control.

INTEGRAL DOWNDRAFT VENTILATION SYSTEM*
Controlled fume extraction provides maximum efficiency and operator safety. Integrates with Inovatech Engineering dust collection systems.*

INTEGRAL PRESSURE BOOSTER
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.

SAFETY ENCLOSURE
Safe processing environment with interlocking access door, observation windows, spark and noise reduction curtains.

8-AXIS ROBOTIC CELL + THRU-ARM™
Industrial robot coupled to a precision gear track provides high cutting accuracy and versatility. Thru-Arm technology lets the torch travel through the robot arm and improves cable management—the holder will not bend during a collision.

OPERATOR STATION
Control, monitor, and communicate all machine functions. Ships standard with industrial PC and FullCircle software suite to administrate batch operations and real-time control.

CONVEYORS
Up to 65ft.(19.8m.) processing capacity. 48in.(1219.2mm.) × 4in. (101.6mm.) solid steel rollers manipulate workpieces up to 44in.(1117.6mm.) wide and 750lbs./foot.

MATERIAL TRANSFER SYSTEM* (not shown)
Optional cross-transfer system stores, loads, and unloads profiles. Provides efficiency, safety, and roller longevity. Supports up to 12,000lbs. maximum profile weight.

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.) solid steel rollers

SOFTWARE AND CONTROLS
FullCircle 3D nesting/cutting/tracking software suite
Bolt-quality holes using proprietary FullCircle cutting software

OPTIONAL EQUIPMENT
Material transfer system (12,000lbs. maximum loading)
Pipe cutting/marking – thick-wall round pipe 3in.(76.2mm.) to 16in. (406.4mm.) O.D.
Integrated dust collection system

AIRPACK supplies clean, dry air at 220+ psi.

*Optional
PythonX SPG

7.3 ft (2.2 m)

13.6 ft (4.1 m)

12.2 ft (3650 mm)

8.8 ft (2600 mm)
**REVERSIBLE FLOW**
CUTS BACK AND FORTH
The PythonX SPG will load, process, and unload profiles up to 65ft (19.8m) from either side of the machine.

**NON-STOP PRODUCTION**
FITS ANY STRUCTURAL SHOP
- 73ft (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
FEATURE-RICH CNC SOFTWARE SUITE DRIVES REAL TIME CONTROL AND BATCH OPERATIONS.

In an industry where profit is counted by the millisecond FullCircle robotic CNC software can help improve your bottom line. Optimize efficiency, tweak settings, cuts, track inventory. FullCircle will boost your productivity, cut costs, and control every aspect of production.

**BUILDER**
Quickly, easily detail parts from scratch.

**DIRECTOR**
Easily produce parts and control all aspects of the production process.

**NESTER**
Nest complex jobs with ease.

**TRACKER**
Analyze production and efficiency using automatically stored machine statistics.