



# PythonX STRUCTURAL

**PYTHONX**  
STRUCTURAL

**LINCOLN**  
ELECTRIC

## Endres Manufacturing

Endres overcomes production challenges with PythonX

### CHALLENGES

#### 1. ELIMINATE BOTTLENECK CREATED BY FABRICATORS

Before the PythonX®, a band saw and punch were used and a lot of time was spent interpreting drawings, laying out pieces and then performing copes and cuts manually.

#### 2. CHANGING WORKFORCE

As more experienced employees were nearing retirement, Endres had to find a way to process steel with less experience on the shop floor.

### SOLUTION

#### RESEARCH

Endres began to research several different pieces of equipment but they were drawn to the PythonX. One of the main reasons was the lifespan. Many PythonX systems have been in service for more than 10 years. They were also drawn to the number of PythonX systems that have been sold around the world.

#### THE PRODUCT

PythonX, a versatile and complete solution that requires only one operator and no programming. All processing operations are automated, helping to create increased productivity, unmatched cut quality, predictable and consistent throughput.



### RESULTS

#### QUICK ROI

When Endres purchased the PythonX, they estimated it would be about 3 years before they saw a return on investment but that was not the case. When the PythonX was fully up to speed, it had only taken 11 months for the PythonX to pay for itself.

#### DECREASED PRODUCTION HOURS

PythonX drastically reduced production time that led to delivering a better quality product faster. It opened opportunities to bid on different kinds of projects that led to a period of growth and now they are strongly considering purchasing a second PythonX.

Since opening its doors in 1926, Endres Manufacturing has been an innovative family business in its fourth-generation based in Waunakee, WI, U.S.A.



**SAM BALLWEG**

President,  
Endres Manufacturing



Watch the Video: [www.pythonx.com/endres](http://www.pythonx.com/endres)

Customer results may vary.



In Structural Steel Fabrication, the **Lowest Cost Per Ton Producer** usually wins.

How do you get the lowest cost per ton if you pay about the same as your competitor for steel and labor?

**You Get Lean.** PythonX® STRUCTURAL is the lean machine that helps you do more with **less**:

- » **Less Time per Piece**
- » **Less Material Handling**
- » **Less Inventory**
- » **Less Waiting**
- » **Less Waste**
- » **Less Space**
- » **Less Overhead**
- » **Less Programming**
- » **Less Errors**
- » **Less Scrap**



## 15+ YEARS OF EXPERIENCE & OVER 500+ MACHINES IN SERVICE WORLDWIDE

PythonX STRUCTURAL is the robotic CNC plasma cutting system that has helped revolutionize structural steel fabrication. More than a machine, PythonX STRUCTURAL has created a **NEW STANDARD** in the way you think about running a fabrication shop.

Compared to traditional machines, PythonX STRUCTURAL:

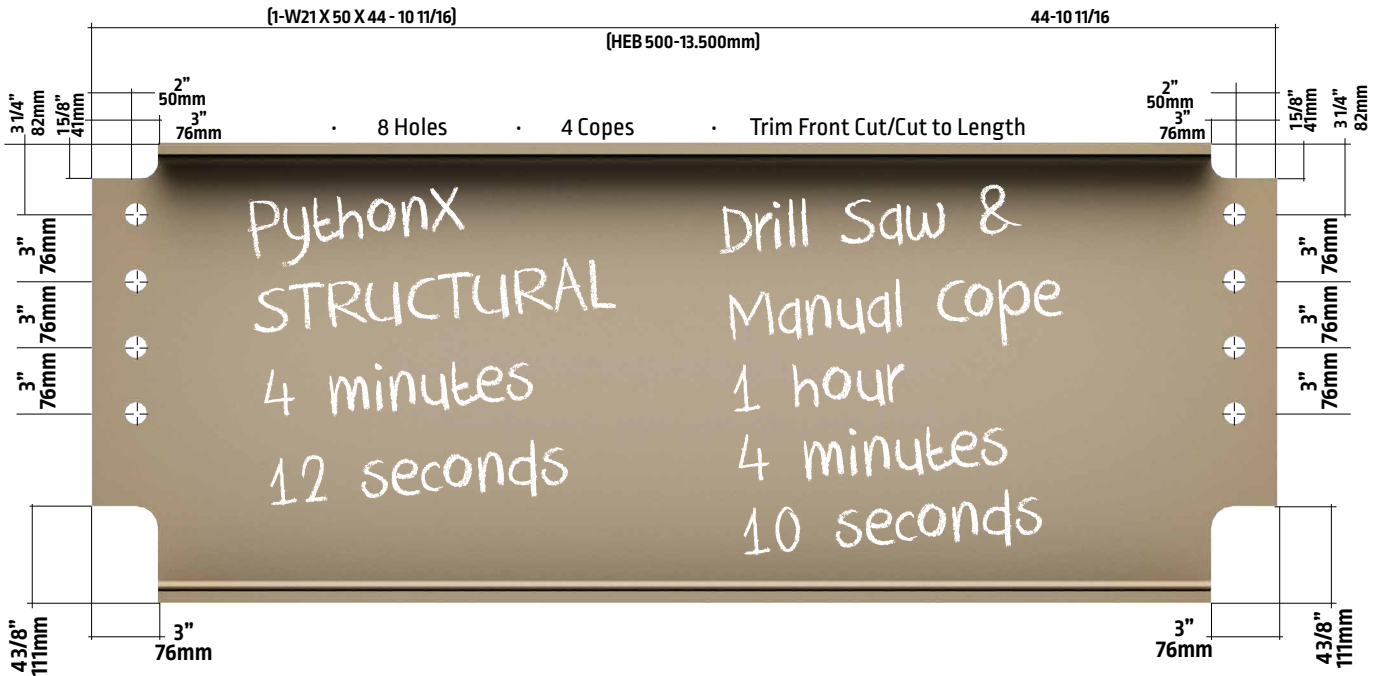
- » Uses just a fraction of the floorspace
- » Needs only a fraction of processing time
- » Requires only One Operator and No Programming
- » Offers complete fabricating capability for a fraction of the price



PythonX STRUCTURAL can help users process steel at the lowest cost per ton in the following industries:

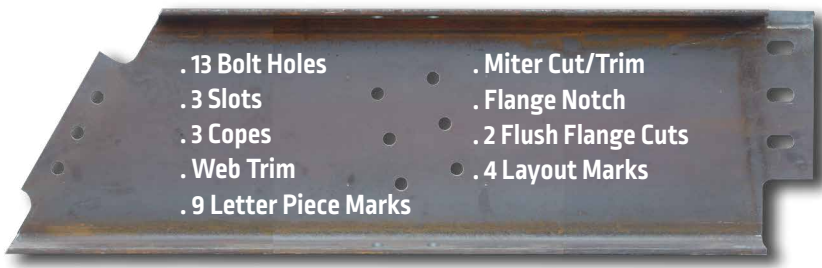
- » Buildings
- » Oil and Gas
- » Industrial
- » Mining
- » Off Shore Rigs
- » Pipe Racks
- » Transmission Towers
- » Stadiums
- » Elevators
- » Trailers
- » Shipbuilding
- » Bridges
- » Equipment Manufacturers

Let's analyze a common beam in structural fabrication.



## HOW LONG TO FABRICATE THIS BEAM IN YOUR SHOP?

**4 MINUTES 26 SECONDS**



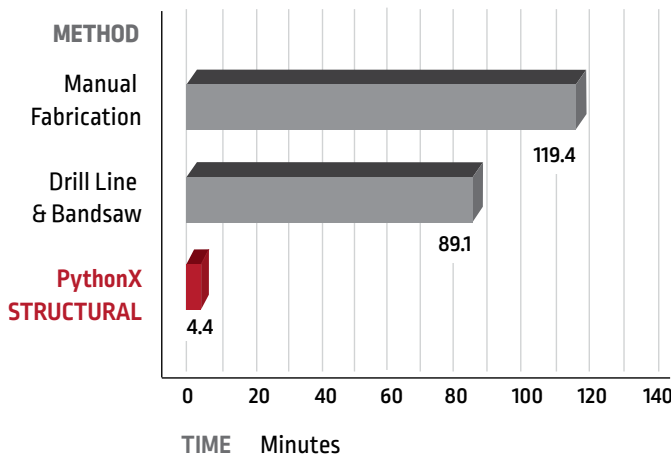
That is the total time it took PythonX STRUCTURAL to make all these features, start to finish, with location accuracy.

How does traditional fabrication perform against the PythonX STRUCTURAL?

Let's consider the time required for reading the drawing, measuring/marketing the piece, and making the cuts. The same beam took 89 minutes in a shop using a combination CNC drill line/bandsaw unit and manual coping/torching. It took two hours in an all-manual shop. And in those cases, the time study did not include time to move the beam between operations in the total.

The chart on the left shows where time was consumed. Or, with PythonX STRUCTURAL, where it was saved.

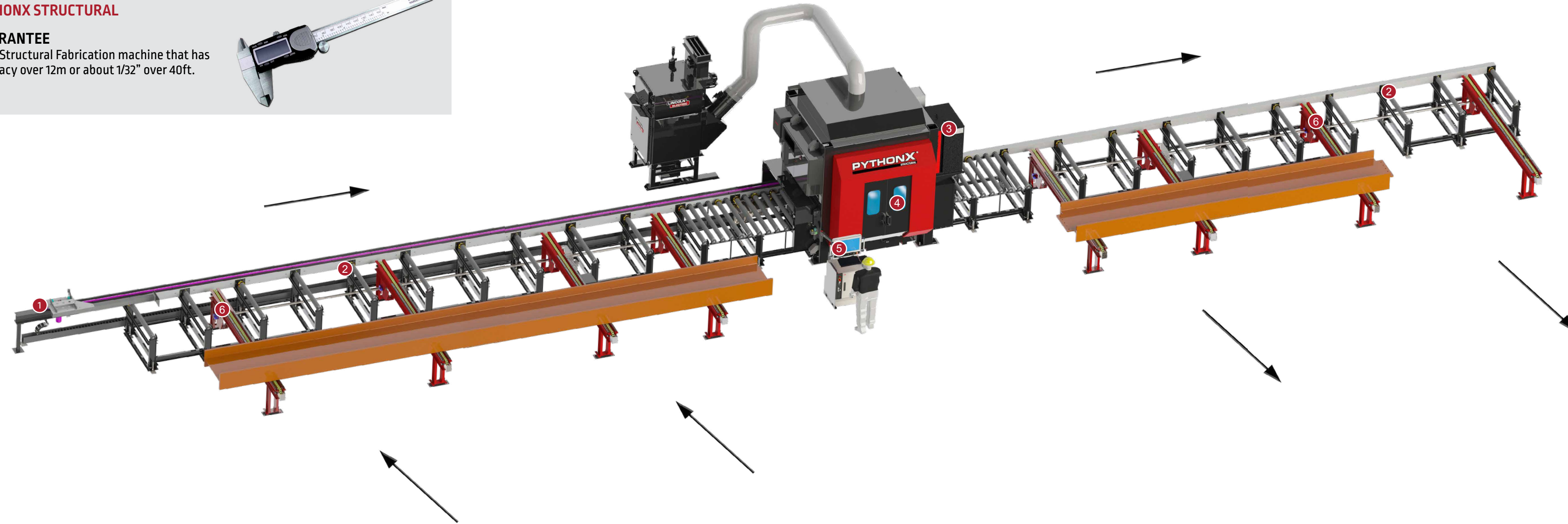
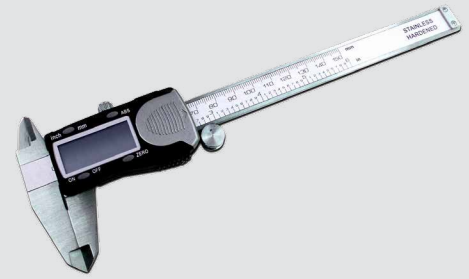
Contact your local Sales Representative for more details.



**ONLY AVAILABLE WITH PYTHONX STRUCTURAL**

**1mm = 1/32" - ACCURACY GUARANTEE**

PythonX STRUCTURAL is the only Structural Fabrication machine that has a written guarantee of 1mm accuracy over 12m or about 1/32" over 40ft.



A single PythonX STRUCTURAL machine replaces all traditional equipment:

- » Beam Drill Line
- » Angle Line
- » Bandsaw
- » Plate/Bar Line
- » Coping Machine/Torch
- » Marking Machine

**1. MEASURING CART**



The measuring cart relays the exact position of the work piece to the robot.

- » Superior accuracy and measurement compared to pinch roll systems, which can slip
- » Initially measures and displays the full length of the beam, which is not possible on pinch roll systems

**2. INFEEED/OUTFEED CONVEYORS**



Precision machined rollers with no flat spots for ultimate accuracy.

- » 4" [101mm] diameter on heavy duty welded frames
- » Built to last with oversized 7.5 hp motors, compared to most others using 2.0 hp
- » Standard rollers are 48" [1219mm]

**3. NEW! MAGNUM® PRO LC300M TORCH**



Minimize secondary processing and maximize robotic cut capabilities.

- » Smallest diameter high-definition 300A plasma torch in the industry
- » Superior cut quality and consistency
- » Cut quality maintained throughout consumable life

**4. MULTI-AXIS ROBOTIC ARM**



Tuned twice for absolute best in class accuracy and least cut-path following error.

- » Complete with collision detection
- » Stronger with a higher payload, further reducing vibration and sway

**5. OPERATOR CONTROL SYSTEM**



New features and capabilities let you get more done, more quickly and easily.

- » 24" [61cm] HMI with ergonomic/industrial designed handles that allow ease of movement into optimum positions for any Operator.
- » Intuitive touch screen

**6. CROSS TRANSFERS**



Accumulate and transfer material for Infeed and Outfeed conveyors (optional feature).

- » Reduces material handling, increases output
- » Heavy duty motor and gear reducer controlled by a variable frequency drive
- » Separate Operator Station

# SUCCESS STORY

## Hidayath Group

Edges Competition with PythonX STRUCTURAL

### CHALLENGE

The construction industry is booming in the UAE; however, Hidayath struggled to be a competitive supplier. With more and more complex projects coming in, it was getting difficult to keep up with project deadlines, precision, and market demand. All structural operations were performed manually and had to go through several processes, and this was difficult to manage. So they decided to automate their manufacturing process with the PythonX STRUCTURAL.

### SOLUTION

#### THE PRODUCT

When they discovered the PythonX STRUCTURAL, they knew it was the solution to their production problems because they could perform all operations on a single machine. PythonX STRUCTURAL proved to be a complete fabrication shop by itself.



### RESULTS

#### INCREASED EFFICIENCY

Hidayath estimates that the PythonX STRUCTURAL is performing the work of 20 to 25 employees, and this gave them an edge on their competitors.

#### BEST CUT QUALITY AND ACCURACY

PythonX STRUCTURAL produces best in class holes, slots, copes and notches and no rework is required.

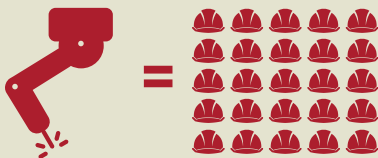
Hidayath Group was established in 1976 in Dubai, UAE. Over the years, they have emerged as the largest solution provider in stainless steel and allied metals and have diversified into structural steel fabrication.



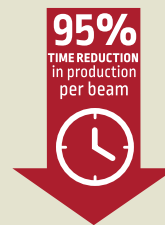
#### REHAN HIDAYATH

President and CEO,  
Hidayath Group

#### EFFICIENT AS 25 PEOPLE



#### BEST CUT QUALITY



Watch the Video: [www.pythonx.com/hidayath](http://www.pythonx.com/hidayath)

Customer results may vary.

# MATERIAL CAPACITY



## PART LENGTH:

A standard system accommodates 40ft [12m] lengths that can be increased up to 80ft [24m] by increments of 4ft [1.2m] at a time.

## MATERIAL THICKNESS:

Max pierce thickness is 1.75" [45mm],  
Edge start max thickness is 3" [76mm]

## OTHER MATERIALS:

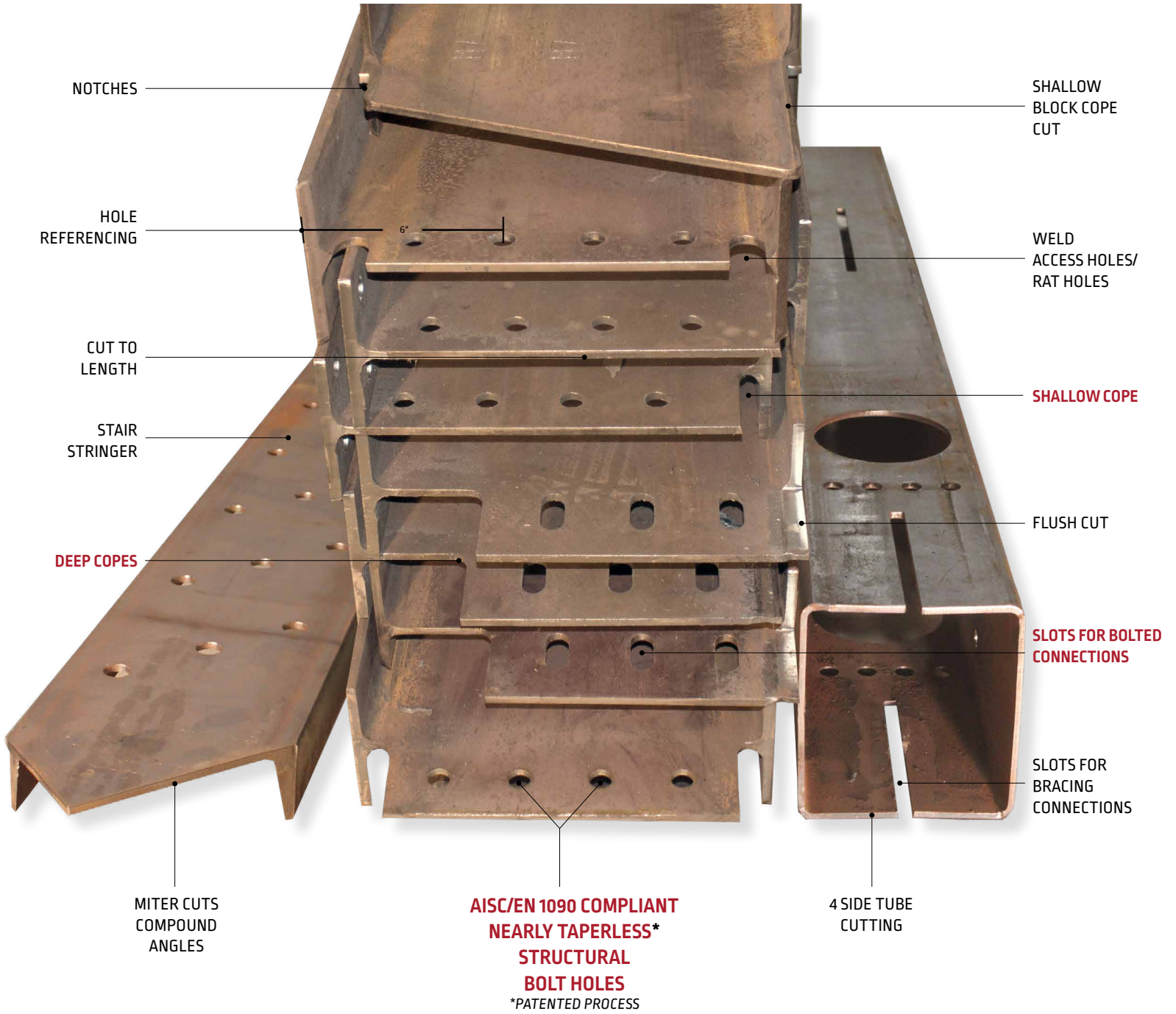
Bulb, Flatbar, Strip Plate, Aluminum, Stainless

	Minimum Capacity		Maximum Capacity	
	Width in (mm)	Height in (mm)	Width in (mm)	Height in (mm)
BEAM	4 [101]	4 [101]	48 [1219]	18 [457]
CHANNEL	3 [76]	1 [25]	36 [914]	4 [101]
HSS TUBE	2 [51]	1 [25]	12 [308]	18 [457]
ANGLE	2 [51]	2 [51]	10 [254]	10 [254]

\*36" [914mm] is standard and most popular size. 48" [1219mm] is an upgrade



# CUTTING CAPABILITIES



WELD PREP BEVEL ANGLES



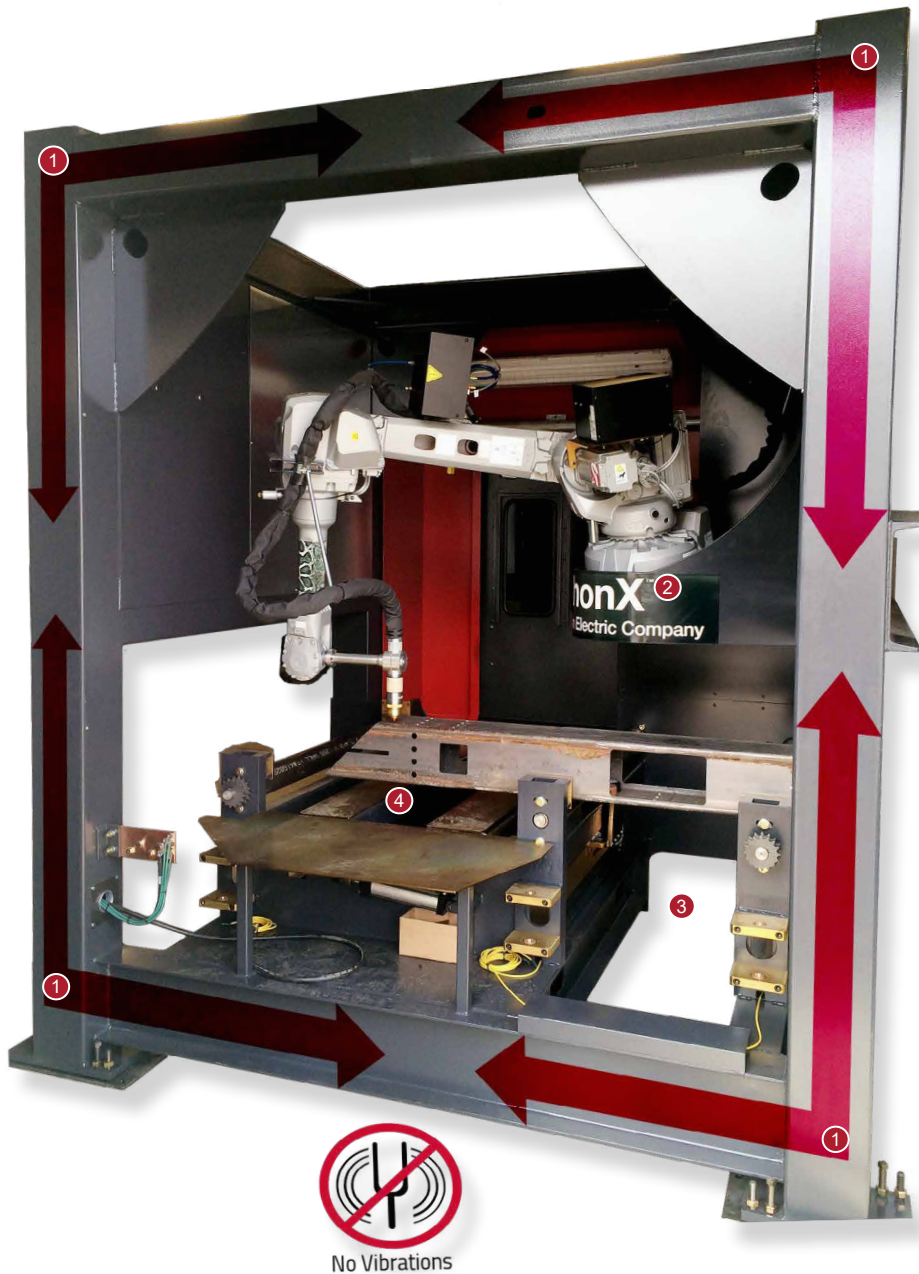
PART MARKING/SCRIBING



BEAM SPLIT



# BUILT FOR MAXIMUM PRECISION



## 1. ONE PIECE WELDED BOX FRAME

Heavy, robust, and designed to be extremely rigid. The uni-body welded frame provides the most stable vibration-free foundation for the cutting system.

## 2. FIXED STATIONARY ROBOT BASE

A fixed non-moving base welded to the box frame lets the PythonX STRUCTURAL use only the robot motion to perform the cutting. There are no additional axes of motion that add vibration, backlash, and sway, resulting in poor cut quality.

## 3. UNDERSIDE CUTTING



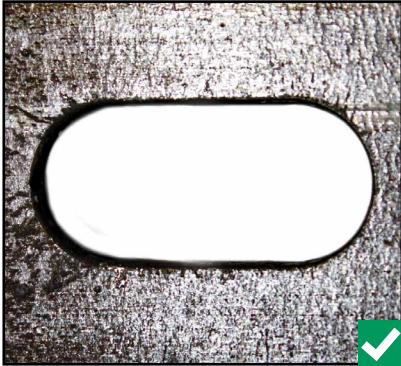





The underside cuts are performed in a separate zone where no scrap pieces fall, and no crash can occur.

## 4. CUTS AND SEVER

All sever operations occur in this zone, which allows ample room for end cuts and scraps to accumulate without worrying about crashes since no underside cutting is performed here.

# BEST IN CLASS CUT QUALITY AND ACCURACY

The **PythonX STRUCTURAL** can help ensure that your business may exceed expectations with every ton of steel produced. The **PythonX STRUCTURAL** pioneered robotic plasma hole technology, enabling industry-leading bolt holes and cuts for many years. The bolt holes have been lab-tested and are AISC/EN 1090 compliant.

	PythonX STRUCTURAL	Competitors
<p><b>BEST BOLT HOLES</b></p> <p>PythonX STRUCTURAL automatically tilts the cutting torch using a patented process resulting in a NEARLY TAPERLESS and straight-through hole.</p>		
<p><b>SLOTS</b></p> <p>PythonX STRUCTURAL cuts slots and other shapes to the exact specified dimensions allowing for accurate fit-up.</p>		
<p><b>COPEES</b></p> <p>Copes are produced with a mirror-like finish and a smooth corner radius on the PythonX STRUCTURAL. No touch-up is required.</p>		
<p><b>NOTCHES</b></p> <p>Notches, cutouts, and flush cuts are smooth and do not require additional grinding or shaping. A perfect fit-up also results in less welding.</p>		

## A POWERFUL SINGLE-SOURCE SOLUTION

Lincoln Electric® advances cutting technology by adding the FineLine® High Definition Plasma Power Source to the PythonX STRUCTURAL System. This powerful 300A, 100% duty cycle delivers 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 allow for repeatable cuts, fast gas response, arc stability & less secondary processing reducing operating costs.

## SUPERIOR CUT QUALITY AND CONSISTENCY

### Smallest Diameter 300A Torch in the Industry at 1.5" [38 mm]

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

### Maintain Cut Quality Throughout 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.

### Reduce 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, argon, air and H17 for cutting and marking. This produces cleaner and smoother edge finishes, which helps reduce the need for secondary processing such as grinding for weld preparation.

\* The International Standards Organization (ISO) 9013 measures the quality of the cut surfaces of thermally cut materials in ISO 9013. Please review the standard for more information at [www.iso.org](http://www.iso.org)



**33%**  
Smaller Diameter Torch

**Magnum PRO LC300M**  
1.5" [38 mm]  
Diameter

**Competitor A**  
2.23" [57 mm]  
Diameter



## LOWER OPERATING COSTS

### Cut More Using Less Gas

Lincoln Electric's advanced plasma torch technology does not vent plasma gas, 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.

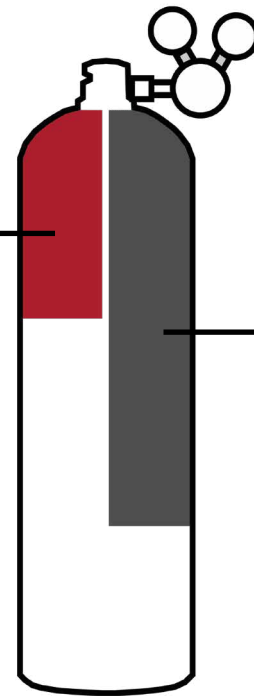
### Smart Consumable Design

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. In addition, 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.

Up to  
**54% LESS**  
Plasma Gas Usage

FineLine 300HD  
140A

Competitor A  
130A



## EXCEPTIONAL RELIABILITY AND PRODUCTIVITY

### Industry Proven Inverter Design

The FineLine power supply was built on the industry-proven inverter design elements of Lincoln Electric Welders that have been 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. In fact, FineLine 300HD power supply is IP-23 rated.

### Industry Leading Warranty

When we say the FineLine 300HD system will outperform and outlast any competitive system, we're confident enough about that claim to back it up with a three-year Lincoln Electric warranty on the system. You can extend the duration by two years\*\* with the Extended Warranty program. Competing companies will give you two years.

**2X PLUS**  
Consumable Life\*  
VS Previous System



\*Cutting at 140A on PythonX STRUCTURAL

\*\*Available only in the United States and Canada. Visit [www.lincolnelectric.com](http://www.lincolnelectric.com) for more information.



# PRISM COMPACT AIR FILTRATION SYSTEM

The Prism® Compact welding and cutting fume extraction system from Lincoln Electric delivers less noise, lower costs and maximum results to customers in need of a solution for space constraints.

## COMPACT SIZE

- » Can be placed directly next to a cutting table or robotic cell
- » Reduced height for areas with space constraints

## QUICK AND SIMPLE INSTALLATION

- » Crane-less assembly
- » Lincoln Smart Connect™ technology results in quick and seamless wire connectivity to the robot
- » Connect power, compressed air and duct sensor for fan speed control

## QUIET OPERATION

- » Silencer and sound deadening materials drastically reduces airflow noise
- » Equipped with a variable speed drive that adjusts extraction airflow to application
- » Intelligent fan control technology maximizes fume extraction, conserves energy and extends equipment life

## SIMPLE MAINTENANCE

- » System automatically starts cleaning process once pre-set pressure differential is reached
- » Vertical filter orientation allows for more efficient cleaning
- » Particulate will be collected into the 25 gallon dust bin
- » Alarm notifies maintenance to change filters

## ADDED SAFETY

- » Integrated spark arrestor
- » Optional Prism Thermal Suppression System



Shown  
AD2455-3

### Processes

Stick, TIG, MIG, Flux-Cored, Plasma Cutting Arc  
Gouging, Grinding

### Input



# SUCCESS STORY

## Mike's Metal Works

Meets Challenging Deadline with PythonX STRUCTURAL

### CHALLENGES

#### 1. MISSED OPPORTUNITIES

Because they strictly focused on miscellaneous steel, they were missing out on a lot of structural opportunities that their competitors were bidding on.

#### 2. UNABLE TO MEET DEADLINES WITH OUTDATED TECHNOLOGY

Unable to meet a customer's deadline with their current outdated technology, they knew they had to upgrade their equipment.

### SOLUTION

#### RESEARCH

An industry expert recommended the PythonX STRUCTURAL, and they had watched PythonX STRUCTURAL videos online and were amazed at the speed that the PythonX STRUCTURAL processed structural steel. So they decided to take a closer look at FABTECH and bought it on the spot. The primary reason they chose PythonX STRUCTURAL is that Lincoln Electric makes it, and they were impressed with the quality, workmanship, and support that are superior to competitive systems.

#### THE PRODUCT

PythonX STRUCTURAL, a versatile and complete solution that requires only 1 operator and no programming. All processing operations are automated, resulting in increased productivity, unmatched cut quality, predictable, and consistent throughput.



### RESULTS

#### INCREASED EFFICIENCY OPENS UP NEW OPPORTUNITIES

When they implemented the PythonX into their production process, they didn't anticipate its effectiveness and the new opportunities that the PythonX STRUCTURAL would open up with other customers with their new manufacturing potential. Growth was imminent.

Since starting the business from a single person operation in the family's garage, they have expanded to a 50,000 sq. ft. facility with 37 employees based in San Diego, CA.



#### MIKE & JACKIE HANCOCK

President and CEO,  
Mike's Metal Works



PythonX paid for itself  
with its first job processing  
500 pieces of steel




**Decrease Time**  
To complete infill beam  
production from a minimum of  
90 minutes to 6-8 minutes



Watch the Video: [www.pythonx.com/mikesmetalworks](http://www.pythonx.com/mikesmetalworks)

Customer results may vary.



“The PythonX Structural Fabrication System has helped us increase production by 300% since it was installed. I have no idea how we would be able to get this work out without this machine.”

- Justin Airhart, **Southern Services & Equipment**  
St. Bernard, LA, USA

“We are saving about \$500,000 a year in labor costs. We have had zero rework from fab work. We can put 10x more volume through our shop than before. We have increased our capacity 10 fold since purchasing the PythonX.”

- Jeff Holley, **LMC Industrial Contractors**  
Avon, NY, USA



# REFINED FEATURES

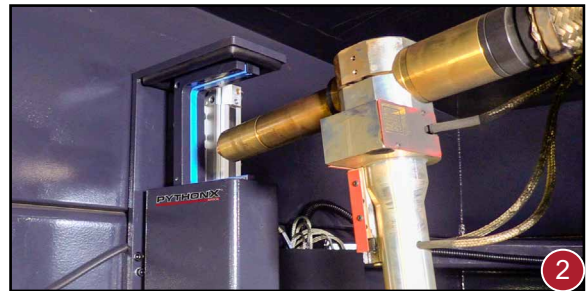
After years of field testing, the **PythonX STRUCTURAL** is faster, more accurate, and more reliable, strengthening it as the #1 choice with structural steel fabricators.

## 1. 4-SIDE TUBE CUTTING WITH BEVEL/MITER

With one stationary robotic arm, the machine cuts the underside of square or rectangular tubes and processes all 4 sides in 1 error-free pass. **PythonX STRUCTURAL** is the first and only robotic plasma to achieve 4-side cutting without mounting the robot on a moving or rotational base, which greatly sacrifices cut quality.

## 2. PYTHONX AUTOCAL

An easy solution to resolve torch misalignment that can arise in real-world manufacturing. Collisions occur for various reasons, such as operator, drawing errors, and material conditions; torch misalignment results. As a result, your shop can lose gained efficiencies, and the momentum of production is compromised. Rework or improper fit-up can also occur. PythonX AUTOCAL helps to speed up the realignment and calibration process. Your **PythonX STRUCTURAL** is automatically recalibrated and restored to help produce the best cut quality in just a few minutes.



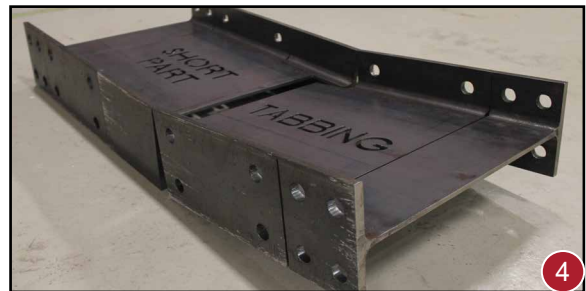
## 3. SHORTER PIECE TRANSFER

Advanced software combined with closer roller spacing allows for shorter parts to be severed from longer material and conveyed from the cell without stopping production and forcing an operator to remove manually.



## 4. PART TABBING

Part tabbing allows shorter structural steel parts to remain attached to the main beam for easier handling and storage. The type of tab and tab length is programmable by the operator.



## 5. LARGER WORK ENVELOPE

Expanded robot cutting area allows for more features to be cut at once, reducing material indexing, leading to an even lower total time per piece.

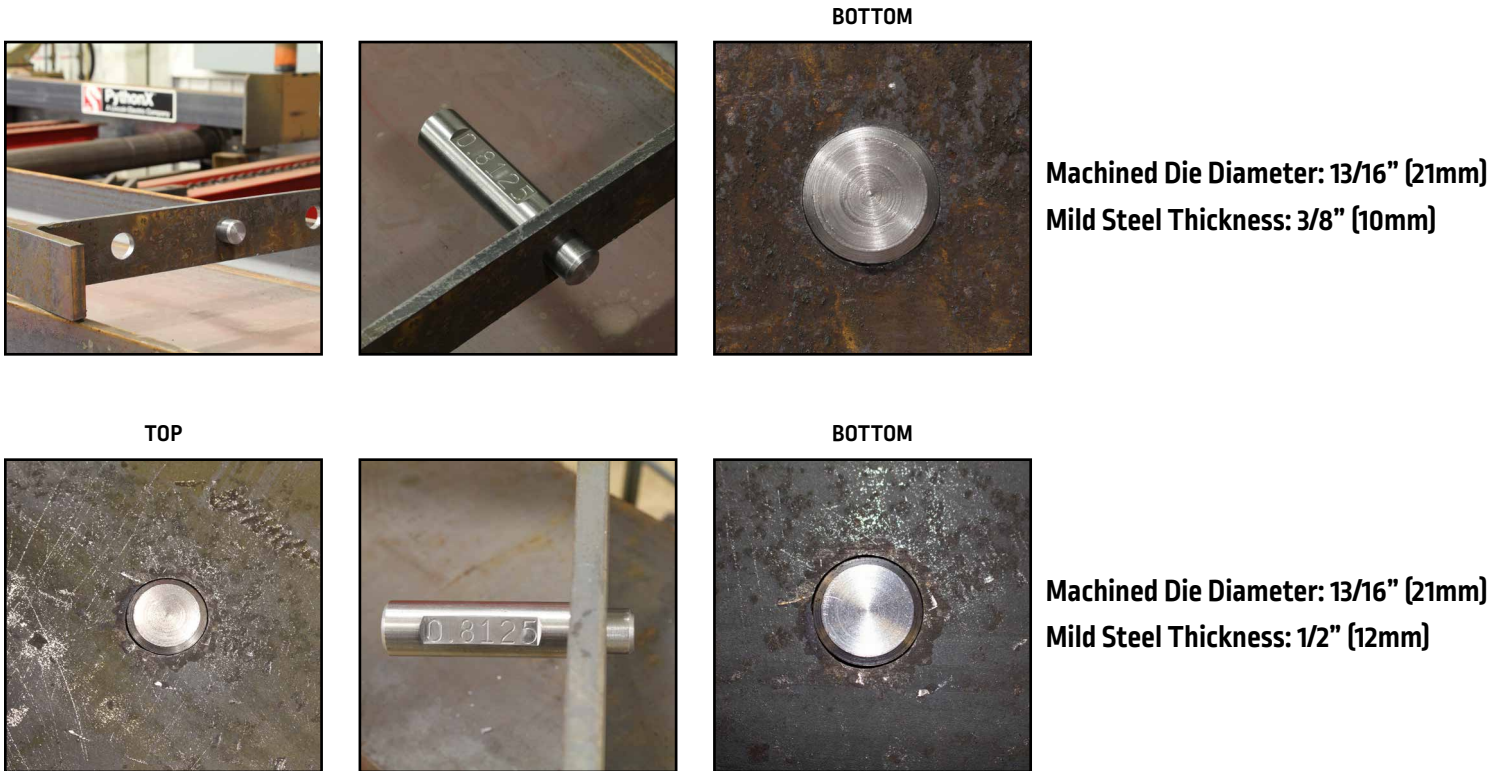


# BOLT HOLE QUALITY

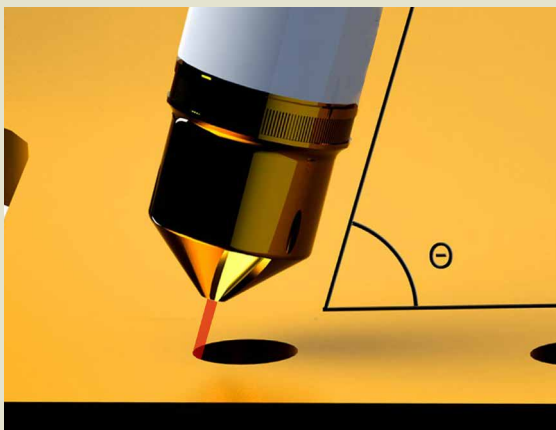
PythonX STRUCTURAL produces unmatched bolt hole quality helping to reduce the need for operator intervention and consistently outperforms competitive systems. Engineers around the globe can design with confidence knowing that plasma cut holes cut by PythonX STRUCTURAL can be used in a broad range of load applications\* such as:

- » Static
- » Cyclic
- » Seismic

## PYTHONX STRUCTURAL PLASMA CUT BOLT HOLES

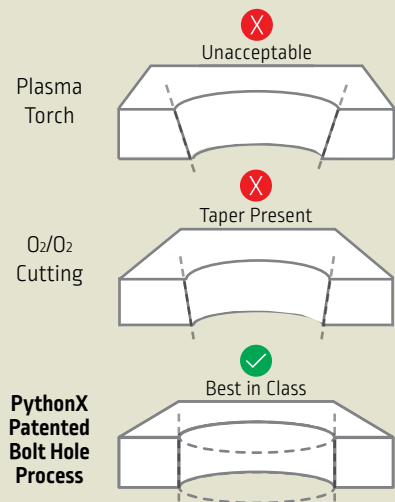


### ONLY AVAILABLE WITH PYTHONX STRUCTURAL

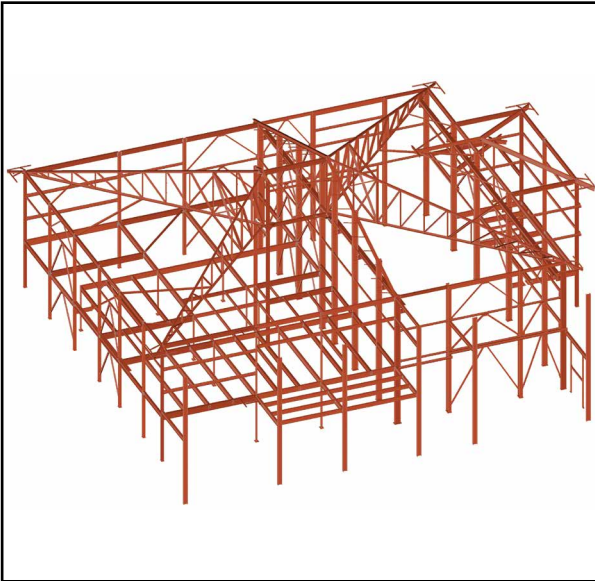


#### PATENTED BOLT HOLE PROCESS

PythonX STRUCTURAL tilts the torch instantaneously, changes speeds, and uses sophisticated software to produce straight-through holes that are **NEARLY TAPERLESS**.



\*For complete details, refer to **The PythonX® Guide to Plasma Cutting in Codes and Standards** available from your local Sales Representative.



## EASY AS 1, 2, 3 WITH PYTHONX STRUCTURAL

Advanced CNC robotics and high-definition plasma cutting, equipped with sophisticated software, programs all the cuts by itself.

### 1 LOAD THE WORKPIECE

Load piece on the infeed conveyor. The measuring cart shuttles the work piece into the work envelope and measures and displays the length of the piece on the operator screen.

### 2 OPEN A PART FILE

The **PythonX STRUCTURAL** is capable of reading DSTV files from 3D detailing software such as TEKLA, SDS/2, AceCAD, ProSTEEL and others. 2D DXF AutoCAD files can also be read by the **PythonX STRUCTURAL**.

### 3 PRESS START

The **PythonX STRUCTURAL** takes it from here by identifying all the features and dimensions required and generates the cut sequence. Next, the pieces are probed to determine the exact position and the robot automatically adjusts to the exact dimensions. After completion, the part is shuttled out on the outfeed conveyor for transfer to fit-up, welding, and painting.

# MACHINE CAPABILITY COMPARISONS

Machine Capability	Single Spindle Beam Drill Line	Three Spindle Beam Drill Line with Band Saw	PythonX STRUCTURAL
Produces Quality Bolt Holes <small>(Approved for Structural Joints)</small>	YES	YES	YES
Maximum Hole Diameter	2" (50mm)	2" (50mm)	24" (609mm)
Produce Layout Marks for Clips & Stiffeners	LIMITED	LIMITED	YES
Downloads from Design / Detailing Software <small>(TEKLA, SDS/2, StruCAD, ProSTEEL, AUTOCAD)</small>	YES	YES	ANY SHAPE
Time to Cut-to-Length one W24 x100	INCAPABLE	5 MINUTI	1 MIN 15 SEC
Automatic Part Handling <small>(set it and forget it)</small>	FLIP MANUALLY	YES	YES
Cut Copes with CNC Accuracy	INCAPABLE	INCAPABLE	YES
Make Cutouts for Bracing & Knife Connections	INCAPABLE	INCAPABLE	YES
Text Scribing <small>(any size)</small>	INCAPABLE	INCAPABLE	YES
Fabricate Complete Stair Stringers <small>(including Tread Layout)</small>	INCAPABLE	INCAPABLE	YES
Miter Cut	INCAPABLE	COSTLY OPTION	YES
Cut Slots & Any Other Shapes	INCAPABLE	INCAPABLE	YES
Weld Prep Bevel Cut	INCAPABLE	INCAPABLE	YES
Rip I-Beams into T-Beams	INCAPABLE	INCAPABLE	YES
Tool Change Required	YES	YES	NEVER
Overall Production Output	SLOW	AVERAGE	FASTEST
Price	LOWEST	HIGHEST	MID RANGE

"I went and looked at other machines but the PythonX was the only machine that was going to make us better at what we already do. It brought us into the modern world. We have realized an increase in throughput of at least 40%."

- Bray Bourne, **Universal Steel Inc.**  
Lithonia, GA, USA

"We installed the PythonX system in the summer of 2015 and it immediately began opening new doors for us. Traditionally, we have, and continue to fabricate parts for bridges and heavy infrastructure projects. The PythonX helped us to be more competitive within our niche, and allowed us to bid and get jobs that we never would have gone after in the past. Now with the addition of 4-sided processing we will be going after an even wider array of projects!"

- Jesse Johnson, **C&K Johnson Industries**  
Arcata, CA, USA

# SUCCESS STORY

## M&G Steel

Retains a competitive edge with 14-year-old PythonX STRUCTURAL

### CHALLENGE

M&G Steel is not your typical structural steel fabricator; they do more customized structural steel. Their niche is working on and through very complex projects that present challenges in engineering, site access, tight timelines and coordination. Their customers expect a quality product that is on time and as cost-effective as possible in the market and sometimes that can be a challenge. So they needed to think outside the box to find a way to provide a good quality product to their customers at a competitive price.

### SOLUTION

Since they performed all fab shop operations manually, they quickly needed to get up-to-date with technology. M&G realized that adding a traditional drill line and saw only brought their capabilities to that of their competitors. What they were looking for was something that gave them a distinct advantage over others within their market.



### PRODUCT

Coincidentally, they received a CD from PythonX in the mail, and once they viewed the CD, they were impressed with this new technology. PythonX STRUCTURAL was completely different from any of the other machines that they were considering. So they took a leap of faith and purchased it a week later. After 14 years, the PythonX STRUCTURAL is better than ever and has proven to be the most profitable piece of equipment they have ever owned.

### RESULTS

**INCREASED THROUGHPUT**



Production more than doubled

**PERFORMANCE**



IN OPERATION

**MINIMAL**



**WEAR & TEAR**  
Virtually maintenance-free

Based in Oakville, Ontario, M&G Steel Ltd. has grown into one of the leading structural steel fabrication and erection contractors in Canada.

**BRIAN THOMPSON**

Vice President, Operations

**Watch the Video:** [www.pythonx.com/mgsteel](http://www.pythonx.com/mgsteel)

Customer results may vary.

### 4 WEEKS DELIVERY

PythonX STRUCTURAL typically starts paying for itself 4 to 6 months sooner than others; results in the fastest return on investment (ROI).

PythonX STRUCTURAL	4 WEEKS	Machine Build	
Other #1	16 WEEKS	Installation	
Other #2	25 WEEKS	Training	
Start of Your ROI (MONTHS)	1	2	3 4 5 6 7 8

### SERVICE COMMITMENT

Our expert trained technicians are committed to helping you by providing:

- » A single focus and dedication to the only system that we build, the PythonX STRUCTURAL
- » 24/7 access to support specialists
- » Remote access control with online diagnostics
- » Advanced troubleshooting capabilities and procedures
- » Sophisticated Service Tracking system and logging



#### 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](http://www.lincolnelectric.com) for any updated information.

# #1

## ROBOTIC STRUCTURAL FABRICATION SYSTEMS IN THE WORLD



### 500+ PYTHONX SYSTEMS IN OPERATION

**Burlington Automation** (A Div. of Lincoln Electric Company of Canada LP) is focused on applying LEAN manufacturing and automation principles to structural steel industries through the implementation of the **PythonX STRUCTURAL**. The drive to improve the capabilities of our clients, to ensure they are better than their competitors, is a passion our employees embrace every day. We are dedicated to making our clients be as good as they can be, better tomorrow than today, by committing to continued research and development, providing value-added industry-leading upgrades as well as real-time and interactive remote support on the **PythonX STRUCTURAL** system.



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