

Peddinghaus

PeddiBot-1200

POWERED BY HGG

ROBOTIC THERMAL PROCESSOR



A Letter from the CEO



Anton Peddinghaus

Welcome to the World of Peddinghaus – The World of “BETTER”.

In the world of Peddinghaus we aim to be better. Take a look at any of our 5,000+ installations throughout the globe. These fabricators experience reduced costs and higher production using our equipment. Why? Because with Peddinghaus they receive better technology, better service and better quality than anyone else can provide. These things aren't easy to do, and not every company can guarantee what Peddinghaus does. I am proud that I can say these things because at Peddinghaus we work harder than anyone to give our customers the best. Whether they are located in New York, Los Angeles or Chicago; they all receive the very same service, spare parts and support that is second to none.

Welcome to Partnerships – From Software to Service to Sales.

At Peddinghaus, we not only build machines; we build partnerships. These relationships with global industry leaders provide you with the latest advancements not only in machinery, but in software and support. Success is often the result of teamwork. With partners such as Hypertherm, HGG, AGTOS, Shop Data Systems, Tekla, Sigmanest, Steel Office, AceCad, FabTrol, Design Data and more, we combine

structural forces to bring you the most powerful solutions. Together with Peddinghaus' regional sales and support organizations – our goal is to work together to serve you better.

Welcome to the PeddiBot-1200 Robotic Thermal Processor – More than Just a Machine.

You asked for it, and now you got it. Peddinghaus proudly introduces the PeddiBot-1200 heavy duty robotic thermal processor. The newest member in the Peddinghaus robotic family is designed specifically to revolutionize your beam cutting production. This advanced robotic technology takes innovation further with a scanning system that measures deviations in material and then adapts the robot's cutting path to ensure perfect fitting – no probing necessary. Specialized torch movements throughout production on the PeddiBot-1200 practically eliminate the need for grinding. And that, my friends, equals labor savings and more profit in your pocket.

Welcome to Peddinghaus Service – Unmatched Global Support.

At Peddinghaus, service is priority number 1. Peddinghaus' global team of customer support representatives are on duty, on call, all the time at our very own 24-hour customer support center. Combined with state-of-the-art remote diagnostic software, readily available local field support professionals and the industry leading warranty – customer support from Peddinghaus is only a call or a click away.

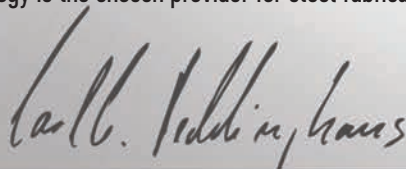
Welcome to Peddinghaus – A Tradition of Innovation, a Reputation for Excellence.

Four generations of the Peddinghaus family have revolutionized the structural steel industry since 1903. As the leading global provider for heavy plate and structural fabrication technologies, I am proud that we continue to offer new solutions for our customers such as the PeddiBot-1200. This is only possible through constant innovation and continuing investment in research and development for the future of our industry and you.

Thank You for Considering Us.

We know that you have many choices when selecting structural fabrication equipment. That is why we appreciate your time and interest when reviewing our technology. Plan a visit to the Peddinghaus manufacturing campus at our headquarters in Bradley, IL, USA. See the depth of our organization, and our commitment to your success with world class customer support.

I invite you to see why Peddinghaus technology is the chosen provider for steel fabricators throughout the world.

A handwritten signature in black ink that reads "Carl G. Peddinghaus". The signature is written in a cursive, flowing style.

Carl G. (Anton) Peddinghaus | Chief Executive Officer | Peddinghaus Corporation

Ideal for Processing Structural Steel in an Array of Applications

Including:

- Agricultural Equipment
- Farm Implement Manufacturing
- Automotive Conveyor
- Assembly Line Fabrication
- Solar Panel Fabrication
- Trailer Manufacturing
- Conveyor Manufacturing
- Earth Moving Equipment Fabrication



Robot Specifications*

Maximum Profile Dimensions	1220 × 420 mm
Minimum Profile Dimensions	75 × 75 or 100 × 50 mm
Maximum Profile Thickness	50 mm
Minimum Profile Thickness	5 mm
Maximum Profile Weight	12,000 kg
Robot Arm	6-Axis
Torch Options	Plasma with Marking Functionality
Maximum Bevel Angle	45°
Material Processing	4 Sides

Plasma Specifications

Plasma Torch (Integrated Layout Marking)	Kjellberg HiFocus 440i
Maximum Plasma Edge Start Thickness	50 mm
Maximum Plasma Piercing Thickness	50 mm
Plasma Processing Speed	510 mm/min @ 50 mm
Torch Amps	440

Plate Specifications***

Plate Width	200 × 1220 mm
Plate Thickness	8 × 40 mm
Plate Length	300 × 3070 mm
Effective Cutting Zone	1220 × 1500 mm

*Machine specifications are subject to change pending specific application requirements.

**Machine processes all standard rolled profiles within dimensions above conforming to accepted mill tolerances.

***Plate cutting on the PeddiBot-1200 is available with the purchase of an optional plate cutting bed.



Bust the Processing Bottleneck

The PeddiBot-1200 is Structural Robotics Done Right

Accelerate processing structural sections with the all new PeddiBot-1200 from Peddinghaus.

Imagine One Machine That Can ...

- Operate burning and integrated layout marking functions on top and bottom flange and web
- Utilizes a triangulation scanning system - the PeddiBot-1200 adjusts to the material's deviations in shape ensuring continuous cutting
- Minimize overhead and human error associated with manual layouts by marking weld data onto a profile
- Eliminate the need for constant probing of material
- Streamline material handling by minimizing crane lifting of a section to and from a layout station
- Easily integrate into your existing Peddinghaus system due to its modular design
- Do the work of a drill line, coper, band saw and plate line all in one machine



What's the Difference? Old Way vs. New Way

	MANUAL METHODS	PeddiBot-1200
Overall Speed	SLOW - Completely Manual	FAST - Fully Robotic
Slows Other Processes	YES - Requires Regular Crane Use	NO - Standalone
Accuracy	UNPREDICTABLE - Manual	SUPERIOR - Robotic Controlled
Repeatability	UNPREDICTABLE - Manual	SUPERIOR - Robotic Controlled
Labor Cost	HIGH - Multiple Employees	LOW - 1 Operator
Material Handling	HIGH - Requires Regular Crane Use	LOW - Roller Handling System
Labor Skill Level	HIGH - Skilled Trade	MINIMAL - Automated Program
Footprint	HIGH - Several Fitup Stations	MINIMAL - 1 Machine and Handling

Do the Work of Five Workers with One PeddiBot-1200

MANUAL PROCESS		PEDDIBOT-1200	
Cost of 1 Worker/Hour	\$50 per Hour Based on Surveyed Average	Cost of 1 PeddiBot-1200/Hour	\$125 per Hour Based on Surveyed Average
Cost of 1 Worker/Year	\$100,000 per Year Based on \$50/Hour × 2,000 Hrs/Year	Cost of 1 PeddiBot-1200/Year	\$250,000 per Year Based on \$125/Hour × 2,000 Hrs/Year
Cost of 5 Workers/Year	\$500,000 per Year Based on \$100,000 × 5 Workers	Total	\$250,000 Annually
Total	\$500,000 Annually		

Easily Save \$250,000 Each Year

High Capacity Processing for Steel





1 ROBOTIC ARM ASSEMBLY

- 6-axis Staubli robot arm cuts and marks 360° around material
- Staubli-patented reduction gear system creates unrivaled precision, flexibility and speed
- Metal casting allows for highly dynamic movements and stability
- Shock sensor protects robot from collision damage



2 PROFILE SCANNING SYSTEM

- The triangulation laser scanner promotes ultimate accuracy for precise measurement
- Torch mount has a built in optical scanner to detect material distortions and deviations
- Eliminate timely probing with one 3D measurement scan visible by the operator



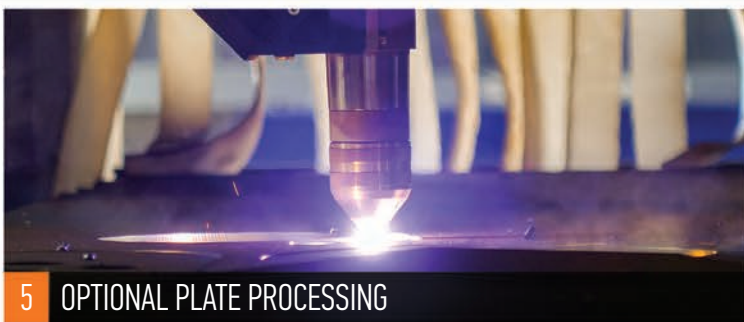
3 PLASMA TORCH + INTEGRATED LAYOUT MARKING

- Kjellberg HiFocus 440i high definition plasma system
- Near flange cutting allows for vast array in processes performed
- Capable of reaching speeds of up to 1778 mm/min



4 4-SIDED LAYOUT MARKING

- Layout mark on all four sides of profiles for complete weld prep assistance
- Integrated layout marking functionality for weld information and manual layout error reduction



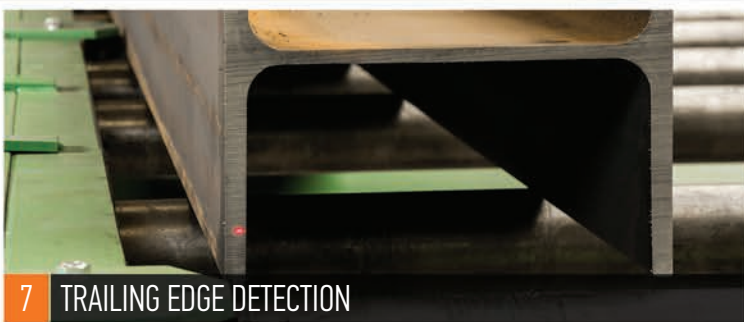
5 OPTIONAL PLATE PROCESSING

- Removable plate cutting bed attachment
- Utilizes the PeddiBot-1200's laser measurement system, maintaining the cutting cycle
- Increase plate processing capacity without sacrificing shop space



6 MACHINE HOUSING

- Rigid frame improves accuracy with robotic arm movements
- Increase operator safety and visibility with the protective machine frame and filtration system
- Limits noise levels caused from the machine processes



7 TRAILING EDGE DETECTION

- Laser reference point positioned at the end of the conveyor system
- Defines longitudinal material position working in tandem with leading edge measurement
- Robot is able to nest multiparts more effectively based off of precise measuring



8 MODULAR MACHINE CONTROL

- Raptor 3D CAD/CAM Software integration for maximum control of production processes
- Intuitive and easy to use touch screen display
- Swing arm design allows for manual positioning for best viewing angles for operator



STÄUBLI
UNIMATION

Stäubli

Maximum Profile Accuracy

Introducing the Triangulation Scanning System

The PeddiBot-1200 comes equipped with a triangulation scanning system. This state-of-the-art configuration creates a precise readout of the material being processed without the need for continual probing. The robot utilizes an accurate reading of the materials torsion to create better cutting paths based on the information provided. This maximizes cutting and eliminates down time due to lost burns and rework from failed cutting paths.

Cutting Intelligence

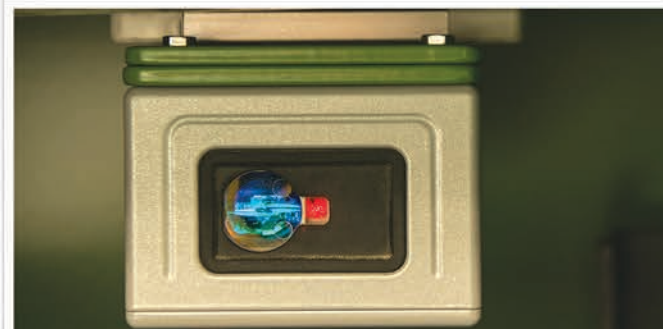
Accurate measurement is critical to the profitability and production of the PeddiBot-1200. By initializing the process with the trailing edge scan, the material moved into the machine is already defined. The triangulation scan allows the robot to perform accurate cutting helping reduce shop errors. The base of the speed and accuracy of the machine is in the kerf width compensation, arc shape compensation, optimized cutting direction and special lead-in and lead-out programming.

Multipart Nesting Made Easy

The PeddiBot-1200 has an interface for easy assignment of parts to available stock items. The module uses advanced nesting techniques to lower consumable costs, save material usage, increase profiling and part handling. The robot has a module that reverses and turns over multipart to fit them as close together to reduce scrap on one piece of material.

Optical Scanning

An optical scanner system is built into the torch mount to measure the entire profile, detecting any material distortions and deviations. These accurate measurements are necessary to define the actual material position and shape and are used to recalculate the robot arm's theoretical cutting paths. Scanning tube sections with this technology enables the PeddiBot-1200 to cut all 4 sides of a square tube in just 2 cuts, saving ignitions and processing time.



Trailing Edge Detection Laser



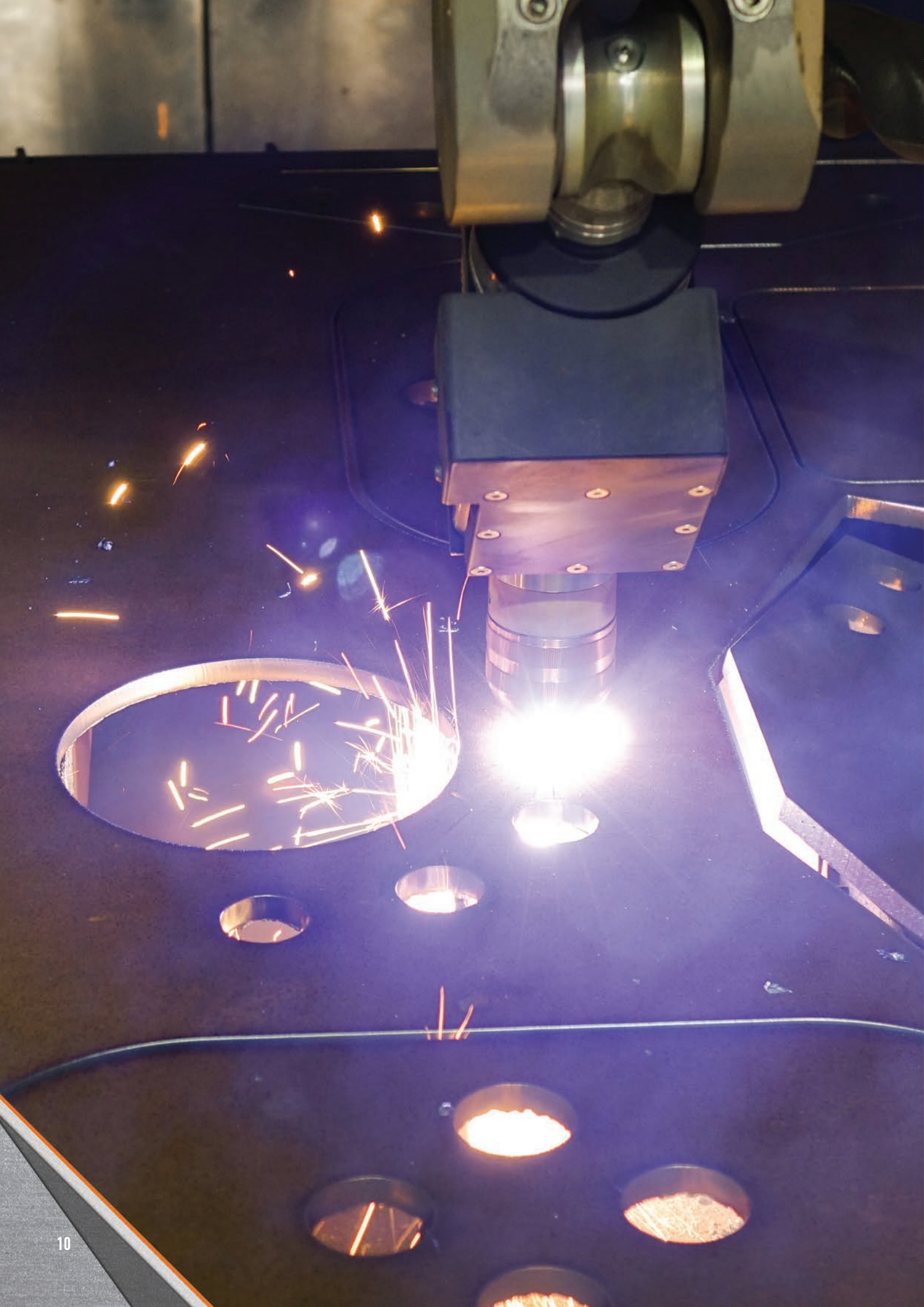
Trailing Edge of Beam Measured



Profile Torsion Measurement



Accurate Profile Measurement Display



Intelligent Plasma Cutting

Bolt Hole Creation

The PeddiBot-1200 determines the correct sequence of cutting required to create the perfect bolt hole. Kerf width compensation, optimized cutting direction and a special lead-in and lead-out are the core of this technology. This leads to a perpendicular, circular and gouge-free hole.

Plasma Cut Compensation

In most cutting conditions, the plasma arc cuts a convergent kerf. To make sure the bevel angle cut is accurate, the convergence can be compensated by a parameter in the machine software. Intelligent cutting directions ensure the final piece has the cleanest edge possible.

Near Flange Cutting

The most commonly used rathole within the structural steel industry creates a heavy challenge for most plasma torches. The result leaves shops with the time consuming process of manually grinding away left over material while avoiding any damage to the underlying flange. The PeddiBot-1200 applies a unique cutting technique that compensates the torch's height position and tilts the torch head during rathole cutting.

Grind Reduction Technology

One of the biggest challenges during beam cutting is the transition areas from web to flange. The PeddiBot-1200 executes specialized cutting sequences based on plasma techniques to cut away scrap material, taking rework to an absolute minimum. This results in a perfect fit and weld preparation.

Optional Plate Cutting

The PeddiBot-1200 sets a new standard by offering an entire fabrication center in a single machine. Plate cutting is achieved with an optional cutting bed attachment. For fabricators looking to increase plate processing capacity without losing shop space, this accessory allows for the cutting of plate parts on the same machine that cuts beams. Enjoy continuous processing without the footprint of multiple machines.

The optional plate cutting bed comes equipped with four additional guiding wheels and utilizes the PeddiBot-1200's laser measurement system for invariable cutting quality. By making use of the existing conveyors, the automatic cutting cycle is maintained. The PeddiBot-1200's impeccable measurement and proven repeatability supply perfectly accurate parts faster than traditional burtable systems and manual plate measurement processes. Take advantage of cost savings offered by a compact, versatile and more productive option for processing plate.



Accurate Bolt Hole Creation



Near Flange Cutting

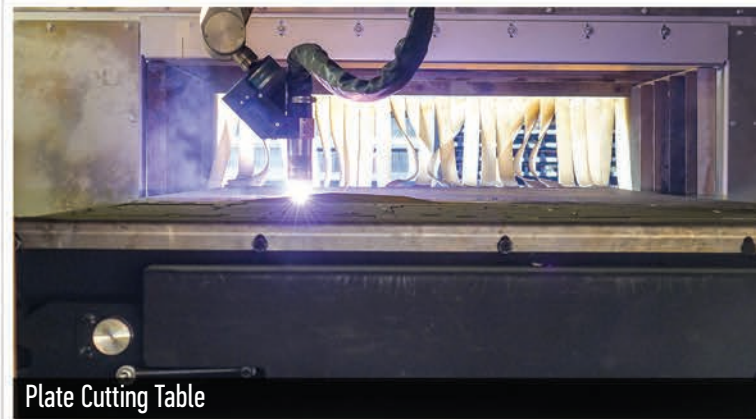


Plate Cutting Table



Cut Plate with No Additional Floor Space



Peddinghaus Software

Linking Design to Fabrication

Software Overview

The PeddiBot-1200 software is specifically designed to be both versatile and intuitive for many different project environments. DSTV and Raptor 3D CAD/CAM Software compatibility along with a 432 mm flat screen control set the software standards high for structural steel fabrication.

Raptor Ultimate Software Package

Raptor Ultimate enables all features of Raptor Pro with the additional capacity to integrate with third party MRP programs via the import and export of DSTV+ and iDSTV+ files. These file types play an important role in the automated development of cut sheets for production. Raptor Ultimate is capable of importing these files, thus eliminating the need to manually batch nest files which have already been batch nested within a third party MRP platform.

PeddiBot-1200 Control

The intuitive and easy-to-use interface requires minimal training for full control operation. The operators can view and control all functions of the machine as well as complete electronic control of hydraulic and gas pressures.

Raptor 3D CAD/CAM Software Compatibility

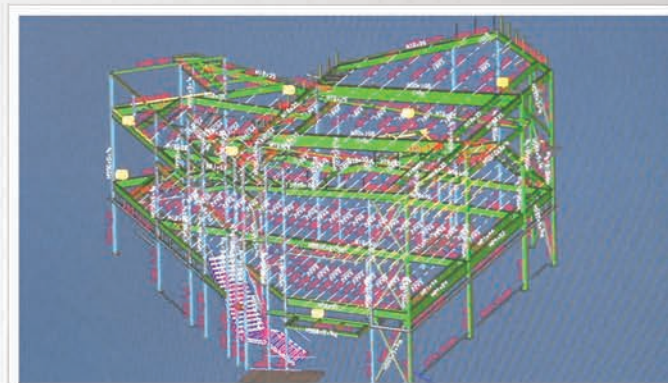
The PeddiBot-1200 software is able to receive DSTV files from Raptor after they have been programmed for production. This allows your shop programmers to keep production flowing by freeing up the operator from having to generate parts at the control.

Programming Parts

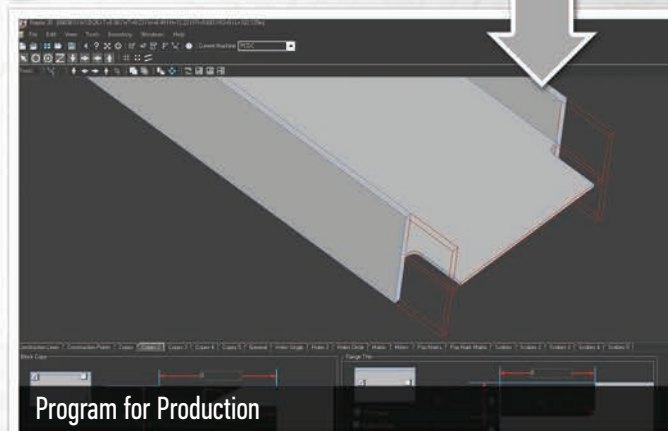
Once the material has been scanned, the control will display a real-time 3D model. This model is overlaid on top of existing project information such as copes, scribes, holes and any other processes that are required by the project. From here, the operator can easily monitor and control the production of each piece that is processed.

Plate Nesting with NestFab

The PeddiBot-1200 optional plate cutting bed proudly operates with today's modern nesting software solution, NestFab. NestFab software allows fabricators to automatically batch nest existing files, edit on the fly or create parts at the control console. Export DXF files to ProCAM on the PeddiBot-1200 and your plate processing problems are yesterday's news.



Design and Export



Program for Production



Process



NestFab Software for Plate Nesting



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PeddiBot-1200
POWERED BY HGG

Peddinghaus

The Best Support in the Industry

Peddinghaus strives to provide an unparalleled level of service for industry partners, no matter where in the world they are located. This is done by offering the only 24-hour technical support center in the industry and employing an expansive team of field service technicians throughout the globe.

24-Hour Technical Support Center

Located in Bradley, Illinois - USA, Peddinghaus maintains a 24-hour technical support center to assist customers with any questions or concerns that may arise in the operation of Peddinghaus machinery. Service technicians leverage remote diagnostic software as well as web cameras in order to troubleshoot questions. Over 95% of telephone calls are resolved without the need for an on-site visit from a Peddinghaus technician.



24-Hour Technical Support Center

Global Access to Spare Parts

Peddinghaus maintains vast amounts of spare parts at their North American locations and are in close proximity to major ports and shipping hubs. For international partners, local spare parts storage is maintained at our sales and service offices around the globe. In addition, local dealer representatives and dedicated parts storage facilities have been established throughout the world to expedite part shipments. This means faster delivery of parts when they are needed.



50+ Field Service Technicians

Expansive Team of Field Service Technicians

For advanced issues, over 50 field service technicians are employed by Peddinghaus. Technicians are conveniently located geographically and may be based out of an office near your installation. These technicians operate globally and are available for on-site assistance.



PeddiUniversity Training Center

World Class Training for Maintenance Staff, Operators and Programmers

Peddinghaus offers training on-site, over the internet and at their corporate headquarters for maintenance staff, operators and programmers. Training at Peddinghaus' global headquarters is free of charge for those willing to make the trip and provides staff with direct access to the masters behind the machinery.

Peddinghaus

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