

THE RING OF FIRE

360° THERMAL PROCESSOR



ROF-500

B I G G E R • F A S T E R • S T R O N G E R



Peddinghaus

آرتین بنیان
ARTIN BONYAN CO.



Dear Industry Partner,

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 Mexico City, Mumbai, or Melbourne; 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 maintain strong partnerships with industry leaders to ensure your success. Whether this is our relationship with leading software providers (such as Shop Data Systems, Sigmanest, Steel Office, AceCad, Tekla, FabTrol, Design Data, and more) or our partnership with regional sales and support organizations - our goal is to work together to serve you better.

Welcome to the Ring of Fire - The Definition of Innovation.

Peddinghaus Corporation was the first organization to pioneer plasma coping methods with the initial concept of the Ring of Fire. After years of research and development we are happy to say that this design is here to stay. Content customers on multiple continents are the proof behind the success of this innovation.

What makes the Ring of Fire perfect for fabricators is its advanced 360° approach to cutting sections. This machine not only acts as a copier, drill line, band saw, and angle line, but it also can mark on all 4 sides of a profile with no issue. This machine has it all. Peddinghaus knows this first hand because we have two of these machines within our own production. These machines process parts for our other product lines such as plate machines, drill lines, and more with top-notch accuracy.

The Ring of Fire becomes an even more powerful investment for industries that rely heavily on the production of square or rectangular tubing. Trust me, our team at Peddinghaus is thrilled to have the world's most advanced plasma system in production at two of our manufacturing facilities. I think you will be equally impressed as you research investments to improve your profitability.

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.

My great-great-grandfather and great-grandfather perfected Ironworkers during their time with Peddinghaus; then it was my father's turn to pioneer the TDK drill line. In today's world I am proud that we at Peddinghaus continue to offer new solutions for our customers such as the Ring of Fire. This is only possible through constant innovation, and continued investment in research and development. I invite you to see why Peddinghaus technology is the chosen provider for steel fabricators the world over.

Carl H. Peddinghaus

Carl "Anton" Peddinghaus
Chief Executive Officer - Peddinghaus Corporation



THE FINEST ALL-IN-ONE PLASMA PROCESSOR ON THE MARKET:

- Process Beams, Channel, Angle, Flat Bar, and Square / Rectangular Tube
- Plasma Cut Holes, Slots, Copes, or Cutouts with ease
- Produce weld layout on 4 surfaces of a profile and eliminate manual layout of structural sections



Technical Specification	Metric	Inch
Maximum Profile Dimensions	500mm × 500mm	20" × 20"
Minimum Profile Dimensions	75mm × 75mm	3" × 3"
Max. Material Thickness (piercing)	50mm	2"
Max. Material Thickness (edge start)	82mm	3-1/4"
Plasma Type	Hypertherm HPR400xd	
Layout Marking	4 Axis Using Hypertherm Plasma Marking	
Measurement Type	Roller Measurement	
Acceptable Profiles	Beams, Channel, Square/Rectangular Tubing, Angle, Flat Stock	

ONE MACHINE FOR ALL PROCESSES

The Ring of Fire from Peddinghaus is the ideal solution for facilities looking for a one-stop production package. Harnessing the power of modern plasma technology, the Ring of Fire acts as a copier, angle line, drill line, band saw, and CNC layout machine all in one package. Capable of processing up to 50 tons of steel per week, thermal processors, such as the Ring of Fire are ideally suited for speciality applications, or as a primary production component.

A 360° APPROACH TO PLASMA CUTTING

The Ring of Fire Thermal Processor utilizes a never before seen 360° approach to plasma cutting. A single Hypertherm Plasma torch is fixed to a rotating “ring”, capable of revolving in excess of 360° around the profile being processed. This allows the machine to process all 4 sides of a tube; process each side of a beam, angle, or channel; and mark on 4 sides of any structural member.

In addition to being able to rotate 360°, the Ring of Fire from Peddinghaus is also capable of unmatched mitering. Ideal for the creation of weld prep, or compound mitering of profiles, the Ring of Fire’s cutting capabilities are second to none.

HYPERTHERM HPR400 PLASMA CUTTING

The Peddinghaus Ring of Fire comes standard with the Hypertherm HPR400xd plasma unit. The HyPerformance HPR400xd system, with HyDefinition and PowerPierce technologies, is designed to combine faster cutting speeds, rapid process cycling, quick torch changeovers, and high reliability to maximize productivity in cutting, beveling, and marking.

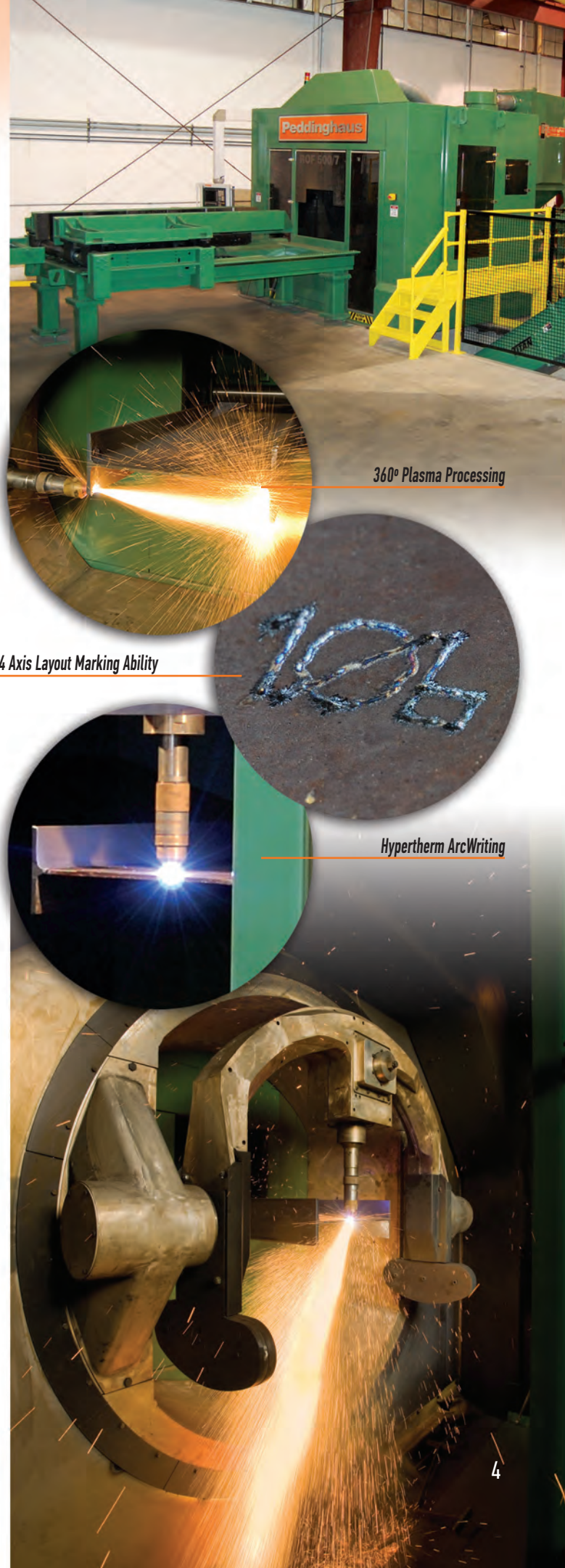
The HPR400xd system is capable of piercing up to 50 mm (2”) thick steel and edge starting material up to (3.2”) thick.

HYPERTHERM PLASMA ARCWRITING

The Ring of Fire is capable of layout marking on all 4 surfaces of a profile using Hypertherm ArcWriting technology. This allows for superior marking times when compared to mechanical scribing, and low cost operation when compared to laser technologies. Plasma ArcWriting maintains its visibility on all surface finishes whether they are blast cleaned, or possess regular amounts of rust or scale.

LASER SURFACE DETECTION

No longer are thermal processors required to probe the surface of material using the tip of the torch. State of the art laser surface detection employed by Peddinghaus allows for touch free probing. This not only makes surface detection faster, but more accurate than ever before. When compared to antiquated electric arc touch probing, the laser probe is in no way affected by the presence of rust, or mill scale.



360° Plasma Processing

4 Axis Layout Marking Ability

Hypertherm ArcWriting

THE INDUSTRY STANDARD FOR ROLLER MEASUREMENT

Peddinghaus designed the Ring of Fire using the time tested technology of Roller Measurement. The very same method of measurement that is applied to the technology of drill lines, angle lines, automatic layout marking machines, and plate processors is now dedicated to the process of thermal processing.

Roller Measurement means no gripper, and no measuring truck. Measurement takes place immediately next to the operating zone, and eliminates the risk of damaging an external measurement appendage during the material handling process.

MATERIAL HANDLING VERSATILITY

As a result of Roller Measurement, material can be stored outside in any climate with no sacrifice in performance. Additionally, Roller Measurement eliminates the need to wait for a gripper, or measurement cart to return to a loading position. Parts can be transferred from the datum, or non datum sides of conveyor and loaded one after another into the machine for no stop in production.

AUTOMATIC PARTS AND SCRAP CONVEYOR

Small parts, or scrap are automatically removed from the inside of the machine with a heavy duty conveyor system. Included as standard equipment for the Ring of Fire thermal processor, the parts and scrap conveyor allows the machine to continue operation as components or remnant pieces are removed from the machine. This not only increases the operation of the machine, but expedites maintenance.

EXIT SIDE GRIPPER ASSEMBLY

To cut the trailing end of a part within a nested program, an exit side gripper assembly is critical to maintain measurement. Not only does the gripper maintain measurement, but also it provides additional support for the underside of material during production.

NO FIXTURES OR SOFTWARE MODULES FOR DIFFERENT SHAPES

The Ring of Fire is a machine that can “do-it-all” right out of the box. This means optional fixtures are not needed for shapes such as angle, or flat bar. Additionally, software comes complete with every feature needed to process these shapes. With the Ring of Fire there’s no surprises, only performance.



Roller Feed Measurement

Parts Conveyor Standard

Powerful Exit Gripper

PEDDINGHAUS SOFTWARE: A COMMON, INTUITIVE PLATFORM

Peddinghaus Software allows for seamless integration across platforms. Each machine, whether it be an angle line, drill line, coper, or automatic marking system utilizes a common software interface. Peddinghaus users enjoy having employees trained to operate several machines within their shop for total work flow flexibility. Easily import common DSTV files and process on the Ring of Fire from Peddinghaus.

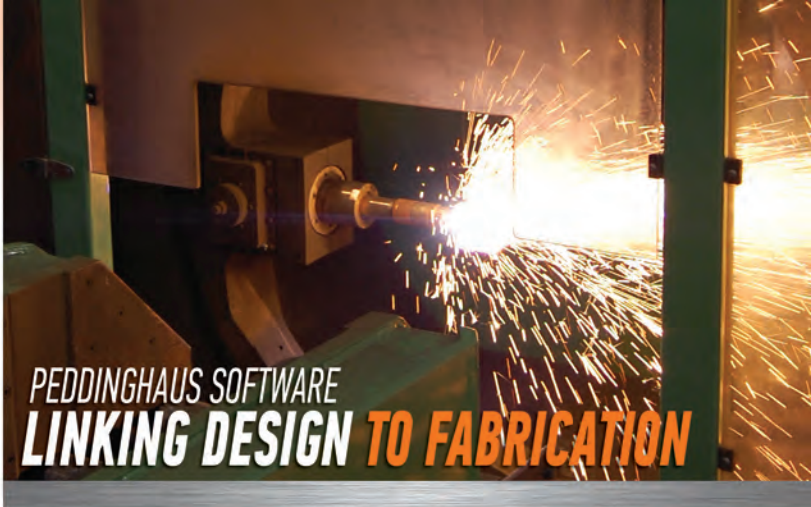
THE RAPTOR TEKLA IMPORT - AUTOMATIC SCRIBE DATA

The Raptor Tekla import allows for seamless importation of Tekla part files into Peddinghaus Software, eliminating the need to convert into an intermediary file type. In addition to removing redundant file conversions Raptor utilizes additional data provided by the BIM model to seamlessly create scribe and connection data. By referencing the parts within a Tekla BIM model, Raptor is capable of automatically generating scribe marks, bolt holes, perfect cope dimensions, and designate weld locations based on the model's original geometry. Using Raptor Peddinghaus bridges the gap between design intent and final fabrication.

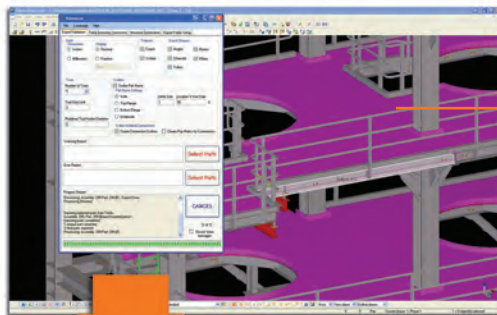
PEDDITRACK PRODUCTION TRACKING SOFTWARE

Peddinghaus offers every tool available to help you manage production, whether you are located at your plant, or across the world. PeddiTrack allows you to manage how many parts have been run, what programs were processed, and how long it took to process each part automatically.

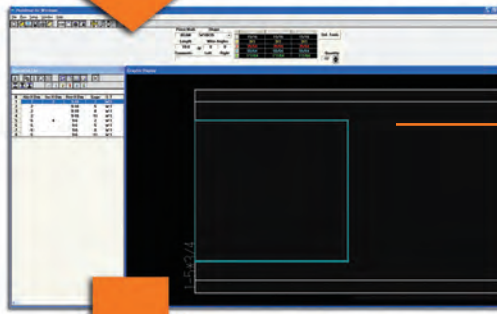
Using modern internet tools PeddiTrack can create an online representation of your production. This allows you access critical manufacturing data from anywhere an internet connection is available.



PEDDINGHAUS SOFTWARE
LINKING DESIGN TO FABRICATION



Design and Export



Program For Production



Process and Fabricate



IS PLASMA CUTTING THE PERFECT SOLUTION?

The allure of a machine that can do it all is almost impossible to resist. All fabricators would love to employ a magic machine that applies all processes to all sections in a single pass with limited material handling. Simply put, there is no such thing as the perfect solution. Plasma has many benefits, but also many faults. Before making important decisions in regards to the future of your organization, explore all options and scenarios thoroughly to avoid the pitfalls of plasma.

WHAT REGULATES PLASMA CUTTING APPLICATIONS?

Every industry has different sets of regulation when plasma cutting is concerned. Many times steel construction applications are reviewed on a case by case basis (typically by a structural engineer). Although plasma cutting is becoming more and more accepted when it comes to standard steel construction, specialty jobs still reject the technology. If bridge work, heavy industrial work, or fracture critical designs are your forte, plasma is typically not an accepted resource for production.

WHAT IS THE BENEFIT OF PLASMA vs. TRADITIONAL MACHINES?

Plasma is becoming more and more refined. This means that it can now perform many of the same functions as drilling or punching machines of the past. This creates a single machine that can perform many operations, while minimizing material handling.

WHAT IS THE BENEFIT OF TRADITIONAL MACHINES vs. PLASMA?

Traditional machines are still the production king of the steel industry. Plasma machines max out production at approximately 50 tons per week of processed steel. When compared to complete production lines of traditional equipment capable of 200+ tons per week, the throughput difference is clear.

Unlike band saws or drilling machines, plasma cutting has limitations in regard to the degree of miter that is possible (maximum is 45°) and the size of hole which can be created (smaller than the thickness of material equates to sacrificed quality).

Lastly, plasma will leave “dross” or “slag” on material post production, requiring additional grinding and cleanup.



THE MOST POWERFUL PLASMA PROCESSOR

INTEGRATED DUST COLLECTION SYSTEM

- Dust collection and filtration unit is included as standard equipment with the Ring of Fire
- Overhead design for maximum effectiveness

ROLLER MEASUREMENT

- Roller Feed measurement allows for superior accuracy
- Elimination of “Gripper” or “Measuring Cart” provides for maximum efficiency and handling ability

360° THERMAL CUTTING RING

- An HPR400xd Plasma Cutting System is affixed to a 360° rotating ring, allowing for superior flexibility
- The rotating ring is also capable of beveling at multiple angles for weld prep, mitered cutoffs, stair stringers, and compound mitered sections

OUTFEED GRIPPER SHUTTLE

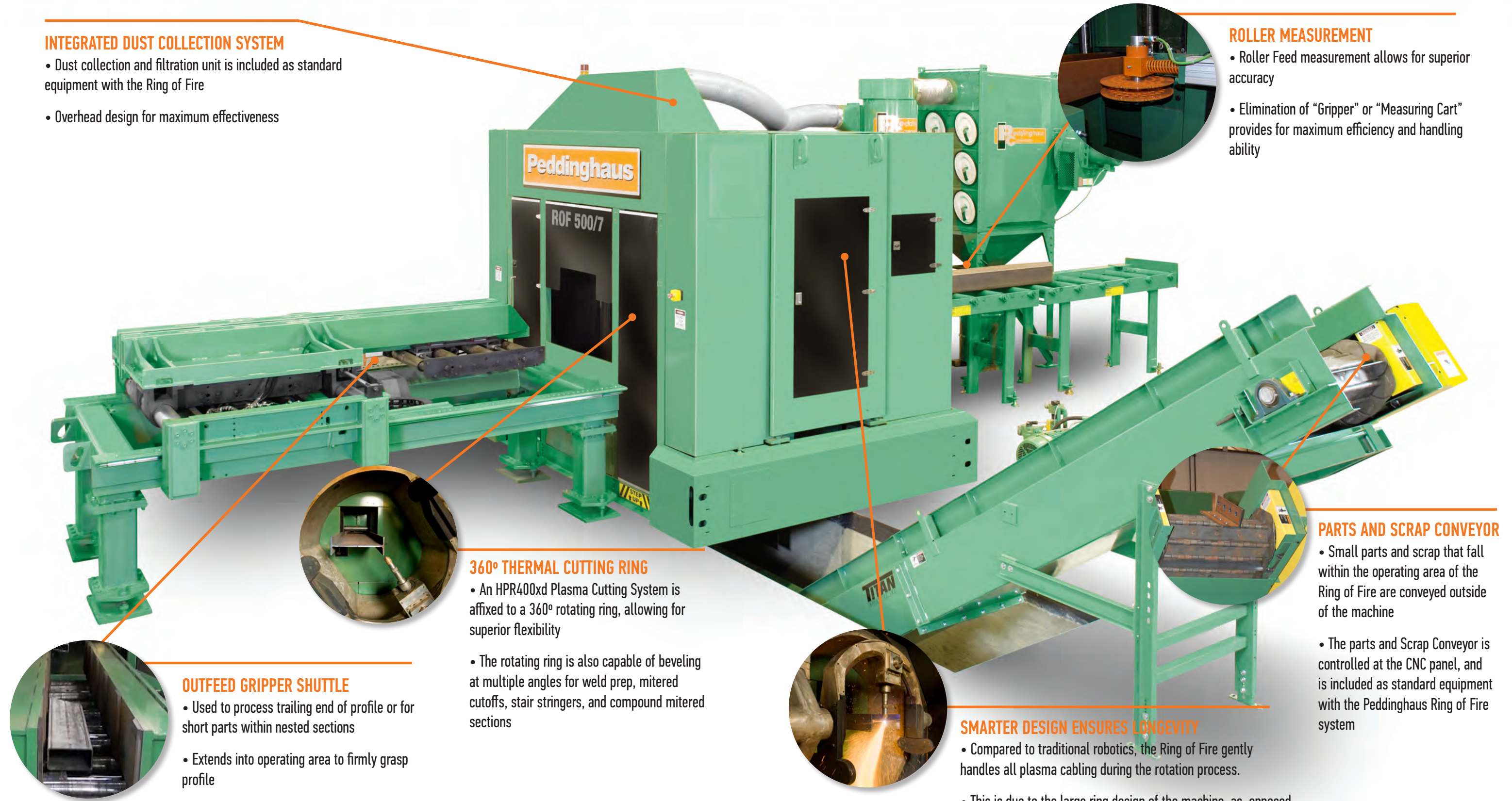
- Used to process trailing end of profile or for short parts within nested sections
- Extends into operating area to firmly grasp profile
- Offers additional support for the cutting of lighter profiles

SMARTER DESIGN ENSURES LONGEVITY

- Compared to traditional robotics, the Ring of Fire gently handles all plasma cabling during the rotation process.
- This is due to the large ring design of the machine, as opposed to tight joints with constant flex

PARTS AND SCRAP CONVEYOR

- Small parts and scrap that fall within the operating area of the Ring of Fire are conveyed outside of the machine
- The parts and Scrap Conveyor is controlled at the CNC panel, and is included as standard equipment with the Peddinghaus Ring of Fire system



ON CALL. ON DUTY. ALL THE TIME.

24/7 Service and Support from Peddinghaus

24 HOUR CUSTOMER SERVICE

The Peddinghaus state-of-the-art Service Center continues to grow to serve you even better - and is now available 24 hours a day!

- Trained traveling field service technicians for on site assistance
- Knowledgeable telephone technicians
- Complete training facility for operators and programmers

WEB CAM TROUBLESHOOTING

Each of Peddinghaus' machines are shipped with a simple to use web cam and software. Peddinghaus technicians can view mechanical questions from anywhere in the globe using this latest in customer service technology.

MODERN REMOTE ASSISTANCE

Peddinghaus' 24 hour tech support center is equipped with modern remote assistance technology. This allows Peddinghaus technicians to remotely diagnose machine questions or issues from anywhere in the globe. With the flexibility of the powerful Siemens control, and modern remote internet software, Peddinghaus technicians can view the control screen of a machine in question with ease. Nearly 90% of service issues can be solved without the need for a service visit using this technology.

**24
HOURS
HELP
DESK**



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QUALITY • INNOVATION • SERVICE

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