Peddinghaus Peddi XDM-630

HIGH SPEED DRILL SAW COMBO

A Letter from the CEO

Anton Peddinghaus

Welcome to the World of Peddinghaus – The World of "BETTER".

Thank you for considering Peddinghaus for your fabrication equipment requirements. Since 1903, Peddinghaus has supplied superior quality machine tools to thousands of satisfied customers throughout the world.

I have often mentioned that I enjoy the opportunity to travel throughout the world - touring every continent to visit with structural steel fabricators. During my travels, I observed that many small/medium sized fabricators rarely process structural profiles wider than 600 mm. Larger fabricators may produce beams over 600 mm, but these larger sections are about 20 to 30% of their entire production workload.

With this knowledge in mind, Peddinghaus Corporation expanded upon my father's idea of a 300 mm fabrication center, with our new Peddi XDM-630.

Welcome to the Peddi XDM-630 Drill Saw Combo Machine – More than Just a Machine.

After endless months of research, our engineers developed the concept of a true multi-spindle drill/sawing machine, designed especially for those 600 mm shapes processed every day in a fabrication shop. The technologies of carbide drilling, miter sawing, 4-axis scribing, tapping, countersinking and milling (slot and cope) are all employed on this productive, yet space-saving machine.

Utilizing ultra-modern "PeddiMatic" technology, the operator can monitor functions for loading, processing, offloading, trim cut and part removal. This new "PeddiMatic" system innovation means more production at less cost for every structural fabricator - regardless of shop size.

Whether the Peddi XDM-630 is employed as a primary fabrication system in a small/medium shop or as the perfect back up for a larger 1250 mm system, the result is the same - a fabrication center that works for you 24/7.

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.

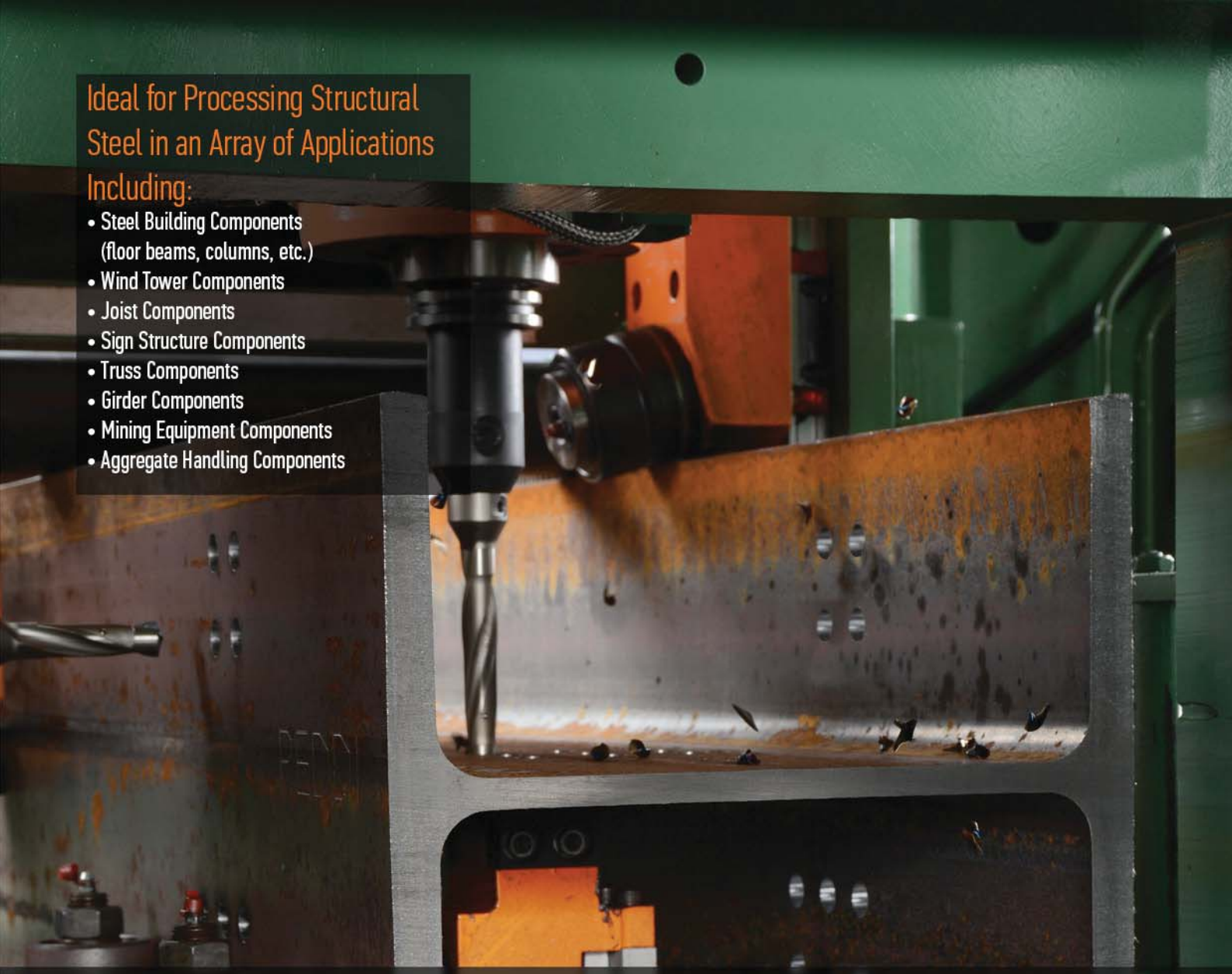
My great-grandfather and grandfather perfected Ironworkers during their time with Peddinghaus; then it was my father's turn to pioneer the TDK drill line. In today's world I am proud that we at Peddinghaus continue to offer new solutions for our customers such as the Peddi XDM-630. This is only possible through constant innovation, and continuing investment in research and development. I invite you to see why Peddinghaus technology is the chosen provider for steel fabricators the world over.

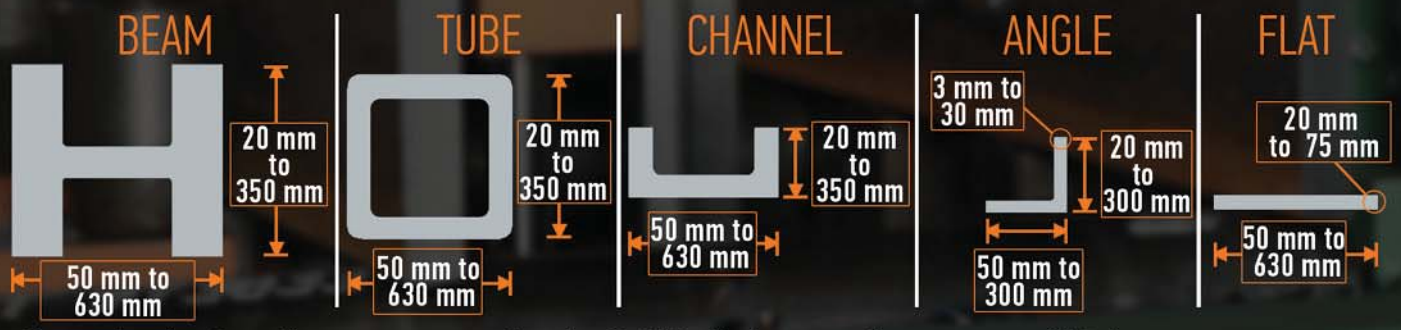
Please visit www.peddinghaus.com for a "video test drive" and additional technical details on the Peddi XDM-630. Or, plan a visit to the Peddinghaus manufacturing campus at our headquarters in Bradley, IL USA. See the depth of our organization, and our commitment to your success with world class customer support.

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

Ideal for Processing Structural Steel in an Array of Applications Including:

- Steel Building Components (floor beams, columns, etc.)
- Wind Tower Components
- Joist Components
- Sign Structure Components
- Truss Components
- Girder Components
- Mining Equipment Components
- Aggregate Handling Components





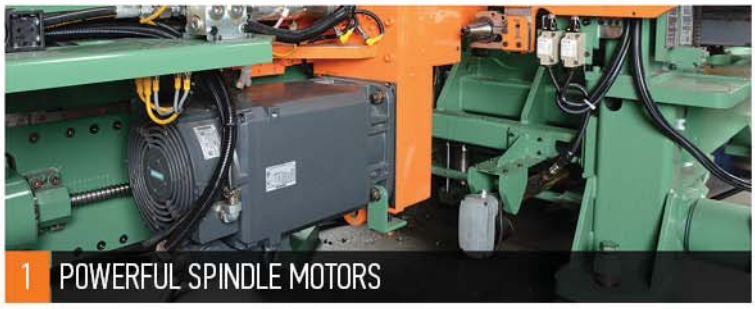
Maximum length is dictated by a maximum material weight of 8,164 kg. Machine is rated for sections up to 446 kg/m.

Drill Specifications	
Maximum Profile Dimensions	630 mm x 350 mm
Minimum Profile Dimensions	50 mm x 20 mm
Maximum Profile Thickness	75 mm
Minimum Profile Thickness	3 mm
Maximum Profile Weight	8,164 kg (446 kg/m)
Spindle Power	18.5 kW
Hydraulic Power Unit Size	7 kW
Optional Tool Changer	5 Stations per Drilling Axis
Optional Layout Marking	1 to 4 Axis

Saw Specifications	
Maximum Profile Dimensions 0°	630 mm x 350 mm
Maximum Profile Dimensions 30°	550 mm x 350 mm
Maximum Profile Dimensions +45°	410 mm x 350 mm
Maximum Profile Dimensions -45°	435 mm x 350 mm
Maximum Profile Dimensions +60°	206 mm x 350 mm*
Maximum Profile Dimensions -60°	289 mm x 350 mm*
Saw Blade Attack Angle	5°
Drive Motor	5 kW
Saw Blade Dimensions	41 mm x 1.3 mm x 6100 mm

**For materials that are 308 mm x 108 mm the band saw has the capability to miter at ± 60°*

Another Industry First From Peddinghaus

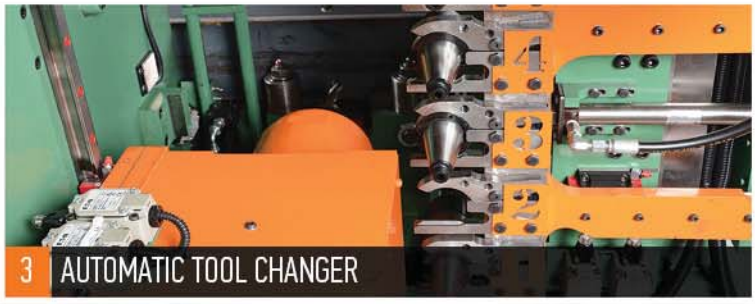


1 POWERFUL SPINDLE MOTORS

- 18.5 kW high-torque Siemens Smart Spindle motors
- 3000 RPM guaranteed to perform programmed RPM regardless of hard or soft spots in material
- Servo driven ball screw axes with precise positional feedback

2 HIGH-SPEED CARBIDE DRILLING

- Maximum productivity utilizing multi-spindle carbide tooling
- Three powerful spindles designed for simultaneous drilling on an array of profiles



3 AUTOMATIC TOOL CHANGER

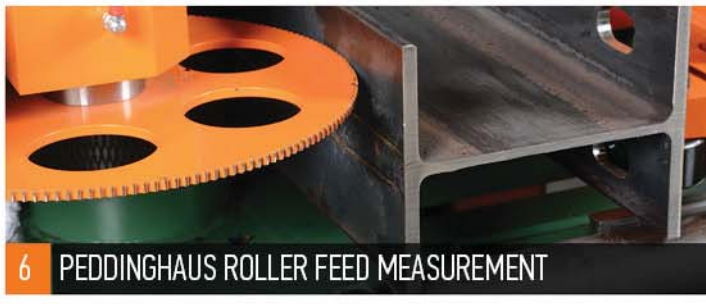
- Three tool changers each with five stations
- Eliminate the need to manually change tooling during production
- Tool automatically selected upon program command
- Unique holder design ensures all tools are securely held regardless of weight or length

4 4-AXIS CARBIDE SCRIBING

- Eliminate the human error of manual layout operations
- Increase efficiency with automatic 4-axis layout marking
- Ideal for marking part numbers and designating weld locations
- Adjustable marking depth of 1.5 mm - 3 mm
- Visible after coatings processes such as painting or galvanizing

5 ROBUST CLAMPING SYSTEM

- Eliminating vibration is critical to successful carbide drilling
- The Peddi XDM-630's enhanced clamping system provides maximum rigidity even on small profiles, thus higher speeds/feeds and superior tool life
- Small material clamp for processing large quantities of small materials (smaller than 150 mm tall) to ensure proper guidance throughout the machining process



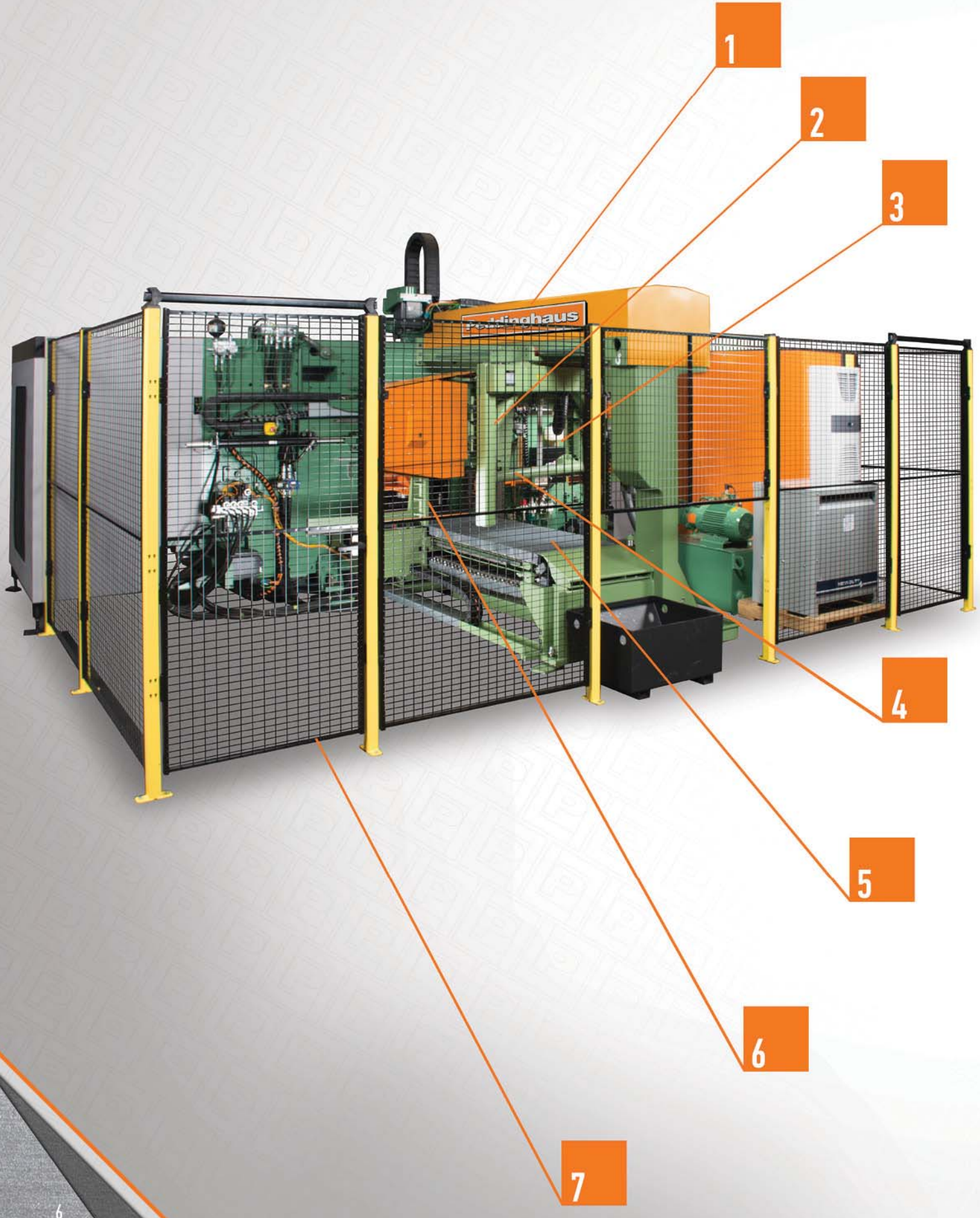
6 PEDDINGHAUS ROLLER FEED MEASUREMENT

- The industry standard for Roller Measurement
- Superior accuracy and flexibility on all profiles
- Unparalleled efficiency - load material while machine is in production
- Easily integrate into an existing system due to the completely modular design

7 ADVANCED PEDDINGHAUS CONTROL

- All of the electronics on the Peddi XDM-630 are state-of-the-art Siemens solutions
- Robust and intuitive user interface
- Allows for modern remote assistance and webcam technology for fast and real-time troubleshooting
- Siemens 10 year spare parts guarantee

Another Industry First From Peddinghaus

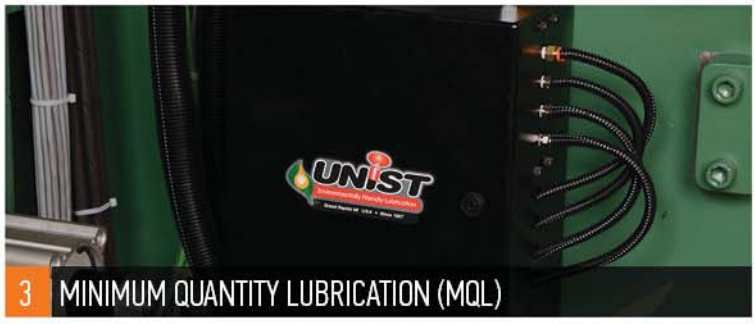


1 BAND SAW CARRIAGE SYSTEM

- Unique traveling system transfers saw to profile location
- Ball screw accuracy for saw carriage positioning
- Process material faster with continual material flow following drill processing
- Never lose measurement capabilities, no need for manual positioning
- Process material with final remnants as small as 330 mm

2 MITER CUTTING CAPABILITIES

- Double miter capacity of ± 60° from a straight cut
- 5 degree saw blade attack angle
- Blade guide adjusts for maximum rigidity
- 41 mm x 1.3 mm x 6100 mm saw blade
- 5 kW drive motor



3 MINIMUM QUANTITY LUBRICATION (MQL)

- 97% air, 3% eco-friendly vegetable oil-based lubricant
- Eliminates flood coolant mess
- No need to clean parts before painting or other fabrication processes

4 SPEED SAWING TECHNOLOGY

- Reduce cut times and increase productivity with these features:
  1. Rapid advance blade approach
  2. Automatic material sensing
  3. Automatic cutting speed transition
  4. Feed compensation during the cut
  5. End of cut sensing and automatic retract

5 PARTS CONVEYOR SYSTEM

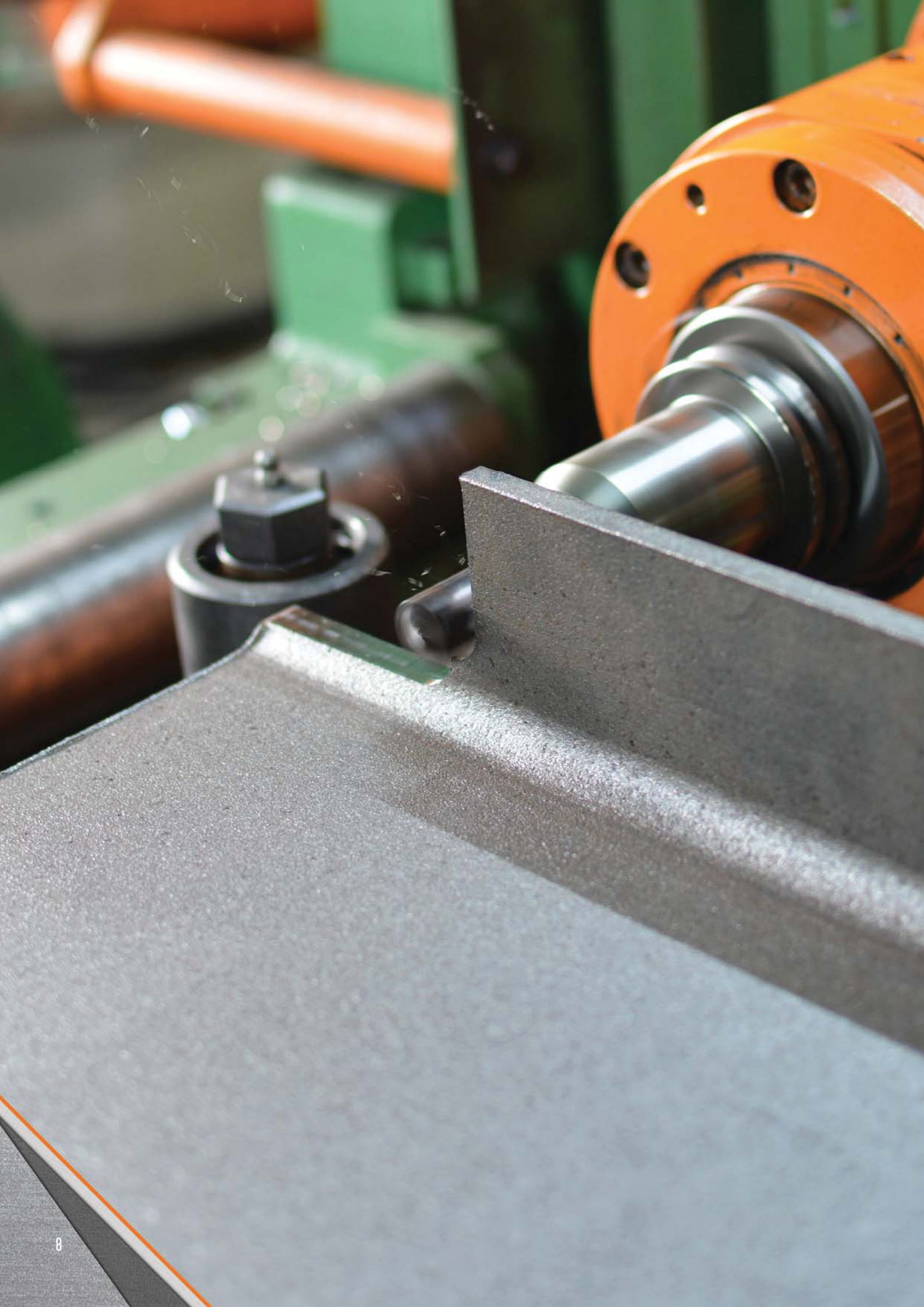
- Convenient part removal for automated handling
- Roller conveyor can be positioned after machine conveyor to transport cut pieces to the next station for processing

6 SUPERIOR SAW CLAMPING

- Hydraulic clamping minimizes harmful vibration
- Additional profile rigidity entering and exiting the cut
- Maintains maximum material clamping at all ranges of the miter cut due to its unique horizontal clamp design

7 PROTECTIVE SAFETY GUARDING

- Uphold shop floor safety requirements
- Guarding aids in protecting employees during machine operation
- Intuitive light curtain allows quick operator access to the machine while placing machine into an idle state



How It Works

Material Advances via Roller Feed Measurement

The Roller Feed drive and measurement system is engaged via operator and part program. The material to be processed enters the drill line passing one of two encoders. An automatic vertically adjusting measuring disc with encoder is positioned at the entrance of the machine to measure distance for precision processing. An additional encoder is fixed to the exit side to continue accurate measurement as the profile passes through to the saw for the next stage of processing.

Custom Clamping System Engages Profile

Once the profile is positioned, an advanced clamping system is employed. 3 vertical hold-downs (2 on the entry and 1 on the exit) ensure optimum guidance of the workpiece through the machine. 2 vertically adjustable horizontal clamps (1 on the entry and 1 on the exit) are enabled and are ideal for processing structural angle. A web support clamp and an additional horizontal clamp complete the custom clamping system to increase hole accuracy on a variety of material, including small, distorted profiles.

Peddi XDM-630 Drill Performs Processing

The drill begins processing utilizing three spindles simultaneously or independently of one another. The Peddi XDM-630 employs Smart Spindle drilling for optimized accuracy and operating time. Boasting 18.5 kW high-torque Siemens motors, spindle speed ranges up to 3000 RPM. Due to servo driven ball screw axes with precise positional feedback, the spindle is able to drill, tap, countersink, mill and scribe using carbide tooling accessed via automatic tool changing stations.

Peddi XDM-630 Saw Engages Material

Continual processing occurs once the drilling operations are complete. The saw positions itself by way of carriage system as close as needed to the drill. This action enables the saw to perform trim cuts and process small material seamlessly. The material is met with 2 superior hydraulic clamping supports. The saw performs rapid advance blade approach with automatic material sensing to optimize cutting times. The Peddi XDM-630 has a full, double miter capacity of ± 60° from a 0° cut. Once the cut is complete, the saw enables end of cut sensing and automatic retract is executed.

Convenient Part Conveyor for Continuous Production

Once cutting is completed, the part conveyor lowers and moves the processed piece down the end of the conveyor into a designated parts tray. The conveying system allows for the saw to complete trim cuts and continue processing the rest of the profile without interruption. This means that the operator does not need to enter the system to manually remove each individual part, which would cause the machine to enter a shutdown state.

Modular Designs The Peddinghaus Way

Easily Integrate into an Existing Layout – Modular Design

The Peddinghaus Roller Feed measurement system allows for an array of material handling options. Peddinghaus conveyors can be quickly expanded, split apart, transferred across to another conveyor and modified with no sacrifice in machine accuracy or functionality.

Minimize Footprint – Store Material Handling Outdoors

Peddinghaus' Roller Feed design makes it easy to place conveyors and cross transfers outdoors. In addition to saving shop space, this innovative method eliminates unnecessary crane handling that inhibits other operations inside of the shop. Easily unload delivery trucks outside and load conveyor without slowing other portions of production.

Your Resource for Superior Shop Flow

Shop layout and material handling efficiency is paramount for cost savings. Every time a profile is handled with a crane, profits are lost. This unnecessary shop cost not only slows the productivity of other processes, but creates unneeded work related hazards. With the help of Peddinghaus' seasoned layout engineers and systems personnel, fabricators learn the secrets to shop floor success without experiencing the pitfalls of poor layout and planning.

Minimize Footprint

Modular Configurations

Outside Material Storage

Peddinghaus Software

Raptor from Peddinghaus is today's premier structural machine tool 3D CAD/CAM platform. Equipped with versatile modules to import, modify, inspect, create and export part programs, Raptor is fully customizable to fit the unique needs of the individual fabricator.

3D Module – Modify, Inspect, Create

The core of Raptor is the 3D Module. If part data has been imported into Raptor, the 3D Module works as an inspection tool and is capable of modifying imported part information. If part files need to be created, the intuitive design and user-friendly interface of the 3D Module allows for powerful programming options.

Tekla API Import Module

The Tekla API Module allows for the direct importation of Tekla part files into Raptor software, eliminating the need to convert to an intermediary file type.

By referencing part data with the Tekla BIM model, Raptor's Tekla API Module is capable of generating scribe marks and weld locations based on the model's original geometry. Using Raptor's Tekla API, Peddinghaus bridges the gap between design and fabrication. This is ideal for machines utilizing 4-axis layout marking.

DSTV Import Module

Raptor integrates with popular Building Information Modeling (BIM) software programs capable of generating the common file standard – DSTV. DSTV files are imported into Raptor software for editing or for CNC file creation Commonly used BIM programs include SDS/2 by Design Data, Tekla Structures, Graitec and more.

Peddinghaus Software

Linking Design to Fabrication

DSTV Export Module

Raptor is capable of exporting part information into a DSTV file format (including scribes, copes, pop-marks and holes). All enhancements or corrections applied within Raptor are included within the exported DSTV file using this module. The DSTV export module brings the power of Raptor to third party CNC machinery that can import files of this type.

iDSTV+ and DSTV+ Import/Export Module

Select MRP systems are capable of exporting batch nested files in a format known as DSTV+ and iDSTV+. These file types play an important role in the automated development of cut sheets for production. Raptor is capable of importing and exporting these DSTV+ and iDSTV+ files for production on equipment. This eliminates the need to manually batch nest files, which have already been batch nested within third party MRP platform.

Peddimat Import and Export Module

The Peddimat Import and Export Module provides users with the ability to create new Peddimat files or utilize existing Peddimat files within Raptor. This option allows users complete flexibility in regards to legacy software compatibility.

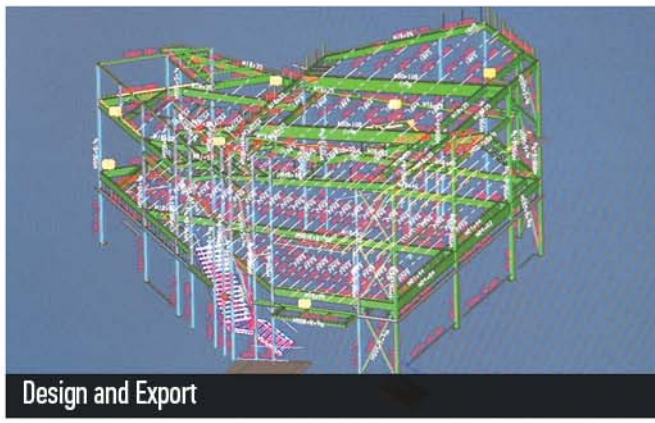
PeddiTrack Parts Tracking Module

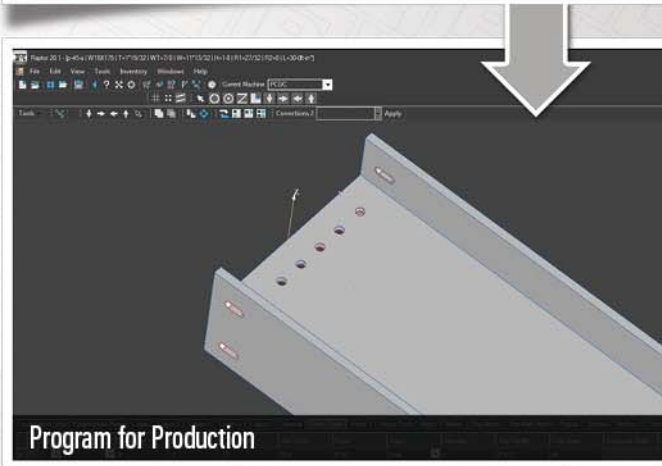
The PeddiTrack parts tracking utility is a module for monitoring the production of parts on Peddinghaus machines using Siemens controls. PeddiTrack works in the background of the CNC control creating output files that display vital information regarding part production.

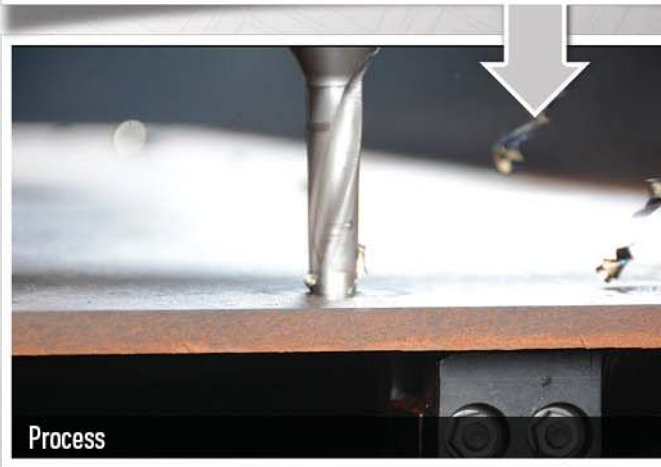
Benefits of PeddiTrack Include:

- Documentation of production
- Potential to view progress remotely
- Ability to monitor employee productivity
- Elimination of human error in the production monitoring process

Raptor Software Modules	
IMPORT	Tekla API / DSTV / DSTV+ iDSTV / iDSTV+ / Peddimat
MODIFY / INSPECT / CREATE	3D Module
EXPORT	Post Processor / DSTV / DSTV+ / iDSTV+ / Peddimat


Design and Export


Program for Production


Process

Fabricate

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 throughout the world. 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.

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.

PeddiUniversity Training Center

Peddinghaus www.peddinghaus.com

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