Peddinghaus Advantage-2

HIGH SPEED CARBIDE DRILL LINE

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 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 Advantage-2 Structural Drilling Machine – More Than Just a Machine.

Peddinghaus has shaped today's vision of the drill line with industry firsts such as the BDL and TDK series of equipment. With the introduction of the Advantage-2, Peddinghaus combined time-tested technology with cutting edge innovation to accommodate requests from fabricators in all corners of the globe. The Advantage-2 carbide drill line from Peddinghaus utilizes automatic tool changer technology and completely electronic spindle motion. This combined with Peddinghaus' renowned build quality and mechanical design provide the ultimate combination of agility and strength.

If speed is what you need, look no further. The Advantage-2 drill line from Peddinghaus is capable of processing up to 150 tons of structural steel in a typical 40-hour work week. If versatility is what you require, the ability to drill, mill, tap, countersink and scribe might capture your attention. I invite you to take a moment to learn what this machine has done for Peddinghaus customers in all corners of the world. I think you will be impressed with what you discover.

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.

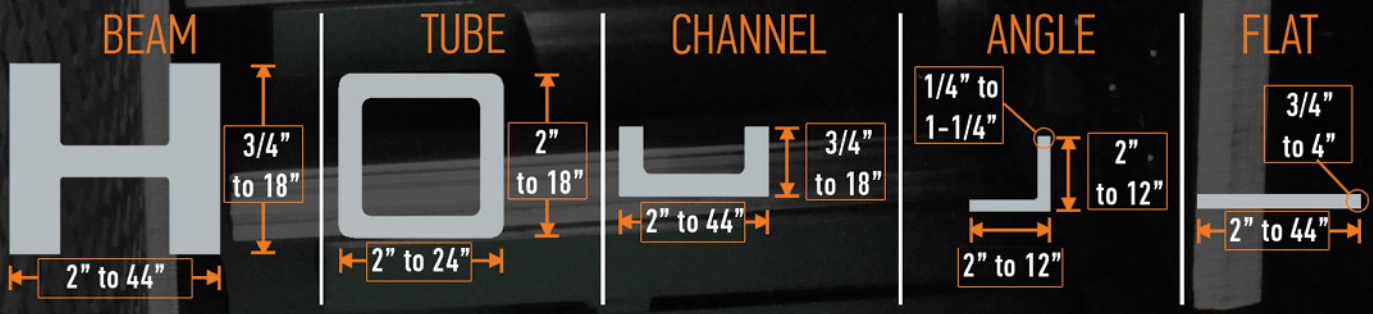
Welcome to Peddinghaus – A Tradition of Innovation, a Reputation for Excellence.

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 Advantage-2. 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.

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

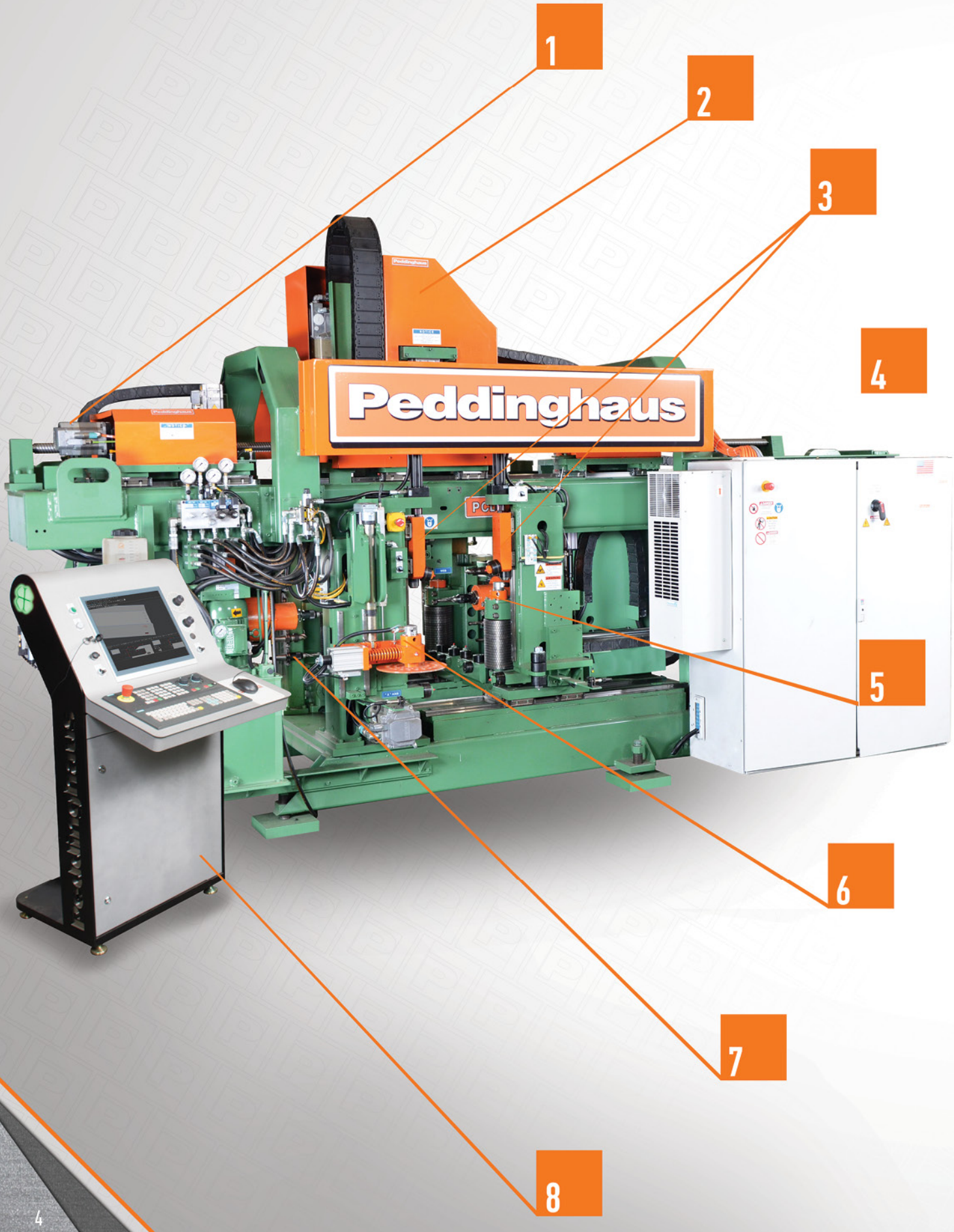


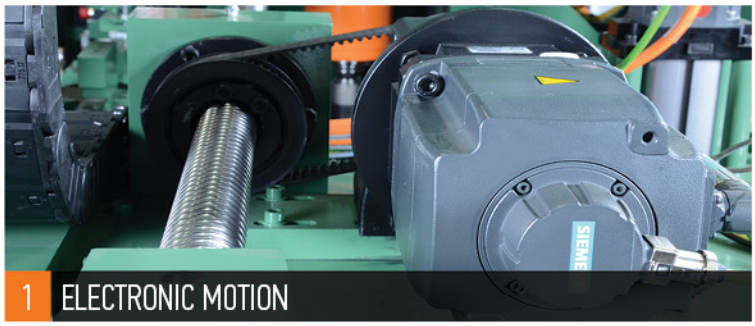
Maximum length is dictated by a maximum material weight of 18,000 lbs. Machine is rated for sections up to 300 lbs per ft.

Technical Specifications

Maximum Profile Dimensions	44" × 18"
Minimum Profile Dimensions	2" × 3/4"
Maximum Profile Weight	18,000 lbs
Number of Spindles	3 Spindles - 1 per Drilling Axis
Spindle Power	25 HP(@S6-40%)
Hydraulic Power Unit Size	5 HP
Optional Tool Changer	5 Stations per Drilling Axis
Optional Layout Marking	1 to 4 Axis

What is Your Advantage?





1 ELECTRONIC MOTION

- Servo driven ball screw axes with precise positional feedback
- Robust 2" lead screw for maximum durability

2 HIGH-SPEED CARBIDE DRILLING

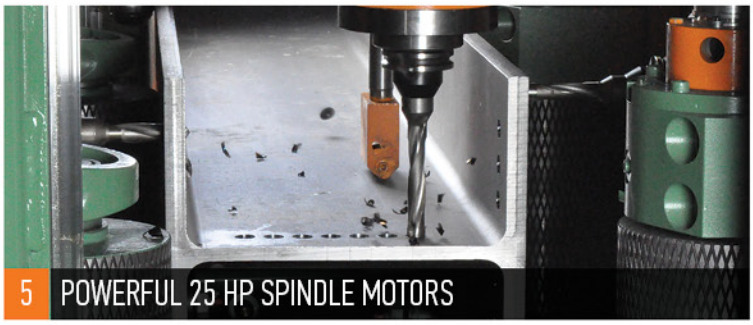
- Maximum productivity utilizing multi-spindle carbide tooling
- Three powerful spindles designed for simultaneous drilling on an array of profiles

3 ROBUST CLAMPING SYSTEM

- Eliminating vibration is critical to successful carbide drilling
- The Advantage-2's ten point clamping system provides maximum rigidity, thus higher speeds/feeds and superior tool life

4 4-AXIS CARBIDE SCRIBING

- Eliminate the human error of manual layout operations
- Increase efficiency with automatic 4-axis layout marking

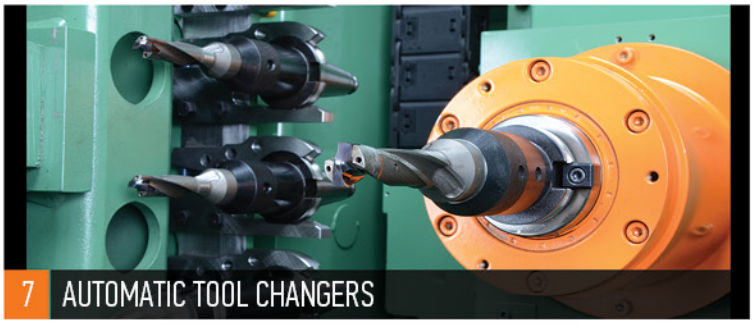


5 POWERFUL 25 HP SPINDLE MOTORS

- High-torque Siemens Smart Spindle motors
- 3000 RPM - Guaranteed to perform progammed RPM of hard or soft spots in material

6 ROLLER FEED MATERIAL HANDLING

- Unmatched accuracy on all structural shapes
- Unparalleled efficiency - load mateial while machine is in production with ease



7 AUTOMATIC TOOL CHANGERS

- Three automatic tool changers, each with five stations
- Eliminates the need to manually change tooling during production
- Tool automatically selected upon program command

8 PEDDINGHAUS CONTROL

- Robust and intuitive user interface
- Siemens 10 year spare parts guarantee
- Allows for modern remote assistance and Webcam technology for fast and painless troubleshooting


Peddinghaus

The MultMaster Measurement System

Peddinghaus Pushes Past the Competition

For a tandem installation where a band saw is positioned after the Advantage-2 drill, the system can be equipped with an optional MultMaster measurement system. The MultMaster works as an extension of the Roller Feed measurement system in order to perform cuts which may otherwise require manual positioning for programs with many small pieces. This accessory allows fast and simple material processing on a Peddinghaus drill and saw tandem system by automating the processing of short remnant sections.

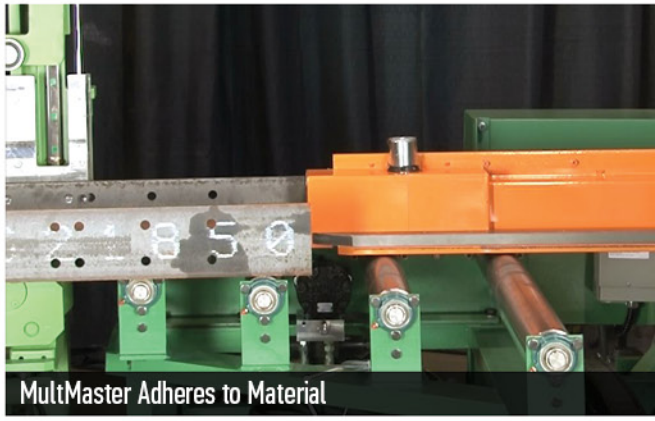
How it Works

A part program is loaded onto the machine control, and material is loaded onto the conveyor. As material is advanced into the system and the operator engages the machine, the machine drills and saws accordingly using the Roller Measurement system of the drill line until the material has nearly exited the machine. Before the material exits the drill and measurement capabilities are lost, the MultMaster is lowered to the conveyor and enters the machine. Once inside the machine, the MultMaster adheres to the material.

Once adhered to the material, the drill line clamps the MultMaster and releases the material, thus transferring Roller Feed measurement to the MultMaster. The MultMaster then extends to the saw for final cuts. Once the material is clamped in the saw for its final cut, the MultMaster releases the material and returns to its station above the infeed roller conveyor. Before finishing the final cut of a program, the next piece of material can be positioned and prepared for production.

The Benefit

When running a program with many small pieces, operators are left handling the last cuts manually. This drain on shop production creates potential risks for injury and compromised man hours. Applying the MultMaster to a drill/saw tandem system means that fabricators retain their measurement capabilities throughout the process. The transfer of measurement information from the Roller Feed of the drill to the MultMaster is critical for efficient throughput. The MultMaster allows a tandem system to process pieces continuously, without stops in production. Because the MultMaster returns above the system's conveyor and does not stay not on it, it is never in the way of material processing.


MultMaster Adheres to Material


MultMaster Extends Material to the Saw


Final Band Saw Cuts

MultMaster Returns to Start Position


Peddinghaus

Modular Designs

The Peddinghaus Way

Easily Integrate into an Existing Layout – Modular Design

The Peddinghaus Roller Feed material measurement system allows for an array of material handling options. Peddinghaus conveyors can be quickly expanded, split apart, transferred across from either side (datum or non datum) 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 material handling 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.

Band Saw Integration

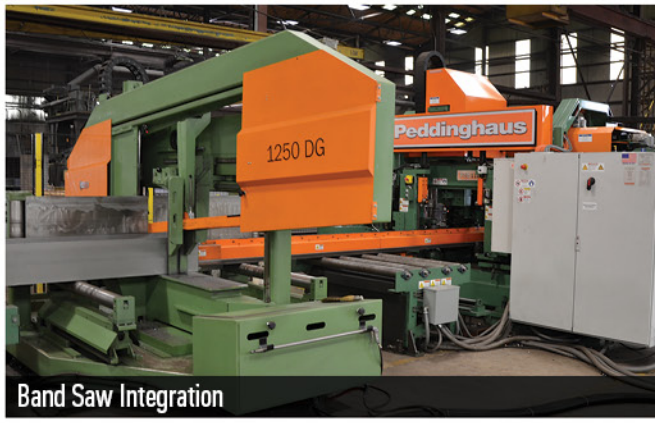
The Advantage-2 drill line with its powerful material handling support, meticulous measurement capabilities and high speed designs are ideal for tandem installations with any of Peddinghaus' automatic sawing systems. The use of high speed carbide tooling and five station tool changers allow this machine to process up to 150 tons of structural steel in a typical 40-hour week.

Accumeasure System

Saw measurement options are available via the Peddinghaus AccuMeasure Roller Feed measurement system. The AccuMeasure allows for complete handling versatility, while maintaining a streamlined CNC solution. Available for all Peddinghaus automatic band saws, the AccuMeasure is the ideal complement to a complete Peddinghaus system.

Modular Configurations

Minimize Footprint



Band Saw Integration

AccuMeasure Roller Feed

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 compatability.

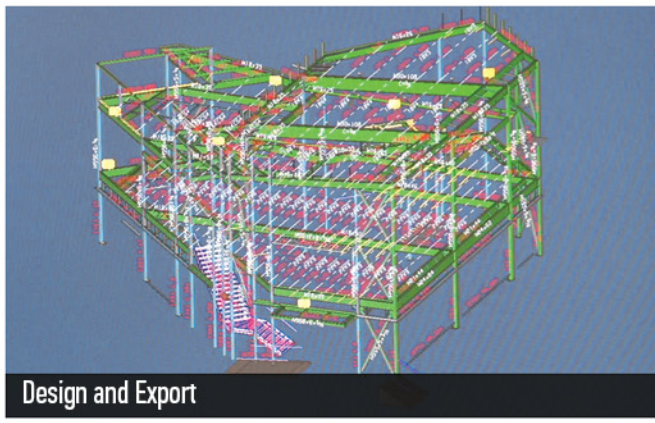
PeddiTrack Parts Tracking Module

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.

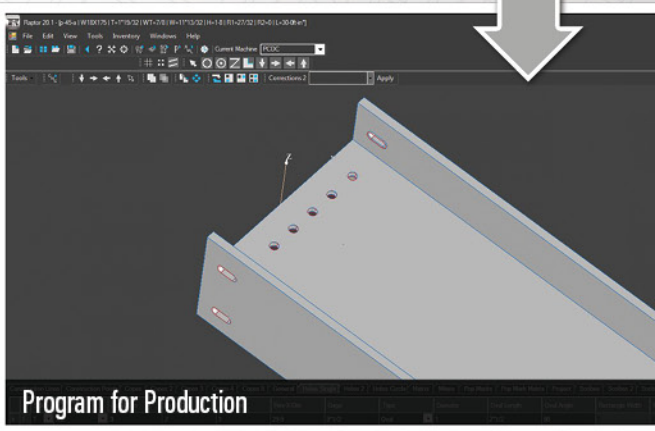
The Peddimat Legacy Export Module

- 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 / iDSTV+ / Peddimat



Design and Export



Program for Production

Process

Fabricate


Peddinghaus

Advantage-2 User Testimonials

HARRELL'S METAL WORKS - Grenada, Mississippi - USA

"We were amazed when we turned the Advantage-2 drill line on and the first few beams went through."

- Bradley Barret, Shop Operator

"I knew in order to grow and increase capacity, I had to get an automated drill line. The Advantage-2 drill line did better than what I thought it would. Before, we would have fitters waiting on our older punch line. Now, they are always busy with the new Advantage-2 drill line's output.

The drill has doubled our production over our older punch line. The volume of our production is up, our profit is up and now we can push more through the door."

- Randy Harrell, Owner

SPERLING INDUSTRIES - Sperling, Manitoba - Canada

"We process structural steel for building fabrication and also the development and installation of kill-floor equipment for the beef and pork industry. Structural steel has always been a major part of our production, but never before did we process the volume that we do now with our Peddinghaus equipment.

Processing of structural steel in our past was a lot of manual work; we didn't have any CNC equipment; we basically manually positioned material and saw cut, manually laid out welds and holes, and punched or mag drilled the holes.

Our Peddinghaus equipment has definitely met or exceeded our expectations. I think we all have great things to say about them, including the operators."

– Jeff Nicolajsen, Owner

SL CHASSE - Hudson, New Hampshire - USA

"We finished installing all of the equipment in March 2014. The last three quarters of that year our revenue increased 23% just by installing the equipment. In the beginning of 2015, we were already on track to doing another 20-23% in revenue growth.

Once we started using CNC equipment, we realized we could do a lot more work with the same amount of people.

It's been an amazing ride to watch what we can do after we automated to the point we are now."

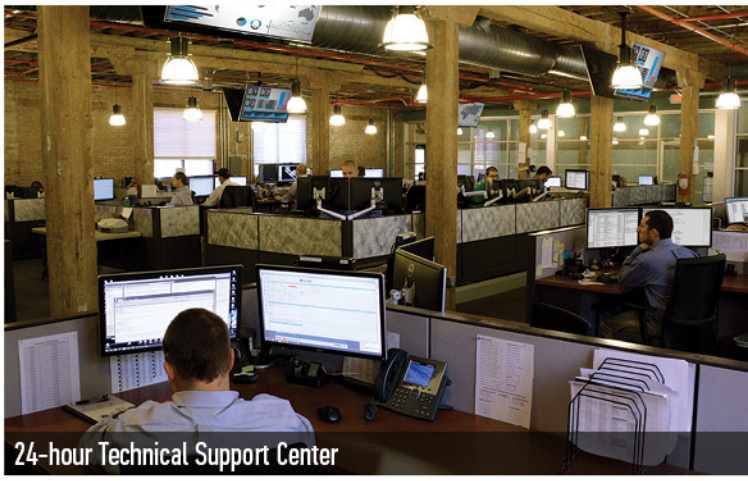
- Steve Chasse, President

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 dealer 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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