

INNOVATIVE STEEL
FABRICATING
TECHNOLOGIES

Peddinghaus

Peddinghaus

BDL-1250/9D

HIGH SPEED STRUCTURAL
CARBIDE DRILL LINE



ADVANTAGE: PEDDINGHAUS

UNPARALLELED CLAMPING SYSTEM

Rigid Beam Clamp Design Insures Incomparable Carbide Drilling Speeds

The drilling of structural steel sections using carbide technology requires not only increased spindle speeds and accelerated feed rates, but is ruled by the engineering principles of absolute material clamping. This tenet of mechanical design is the key to the outstanding performance of the Peddinghaus BDL 1250/9 D.

Peddinghaus employs a superior clamping system with a massive frame to eliminate unwanted vibration – which can occur when drilling at extreme speeds and feeds.

LINEAR RAIL BRAKE SYSTEM

(not in view)

- Functions similar to an automobile's disc braking system
- Engages during the drilling process
- Eliminates unwanted spindle motion during drilling

THE WEB PROBE/MATERIAL CLAMP

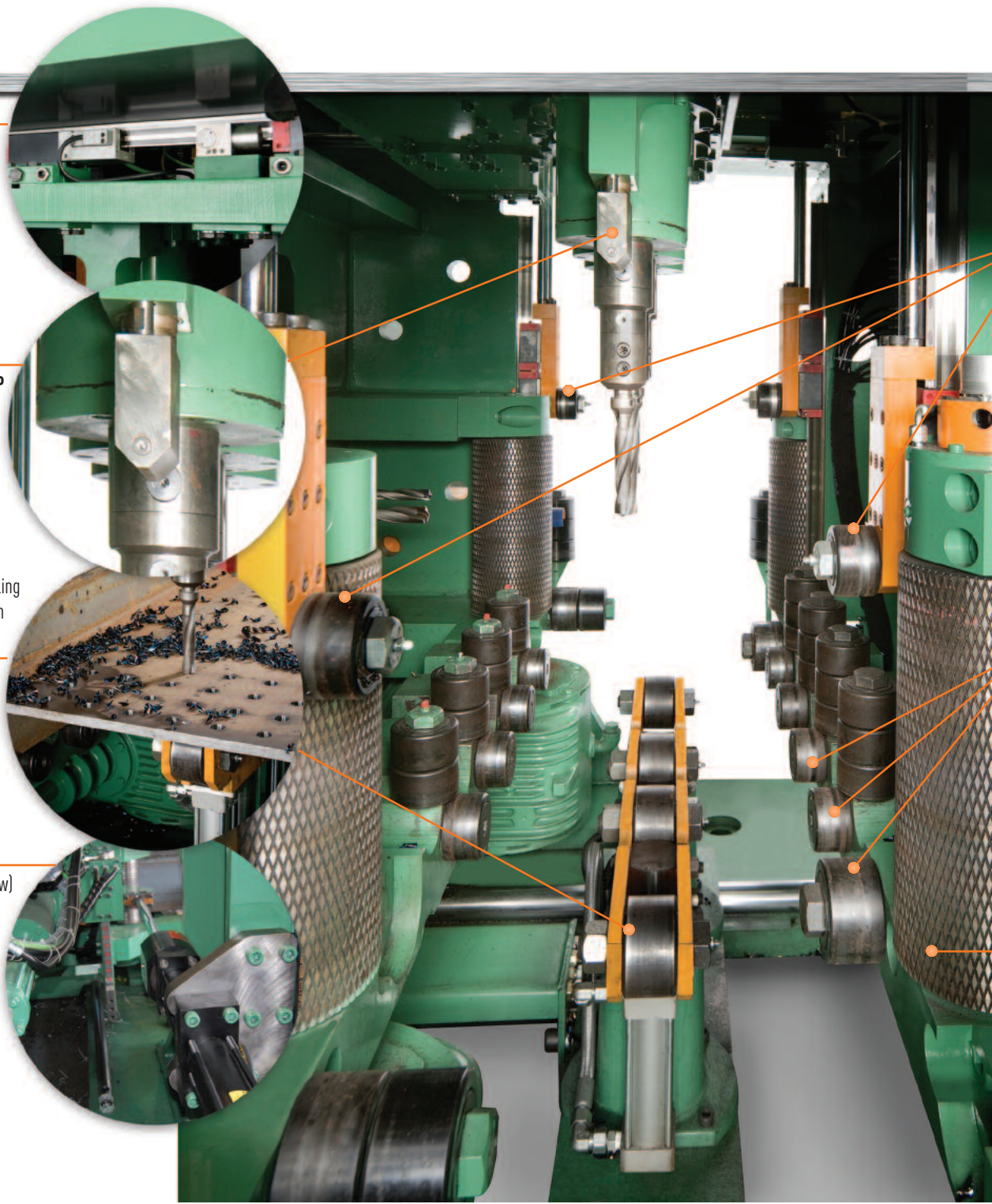
- Probes each side of beam to determine mill tolerance deviation.
- Centers flange holes with the web
- Blows air purge to clear chips when probing
- Clamps beam against underside support
- Securely clamps material during drilling
- Stabilizes web for increased precision

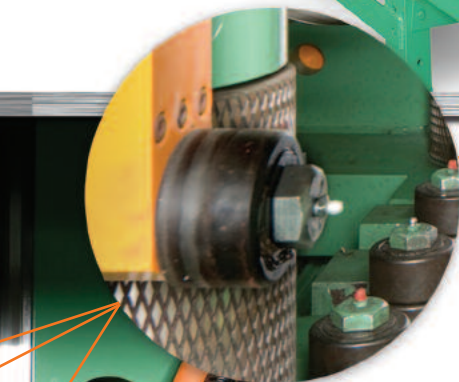
PATENT PENDING UNDERSIDE SUPPORT SYSTEM

- Powers to support web on beams
- Engages before drilling
- Prevents flex on thinner materials
- Adjusts automatically to section width

Z-TOWER BRAKE SYSTEM (not in view)

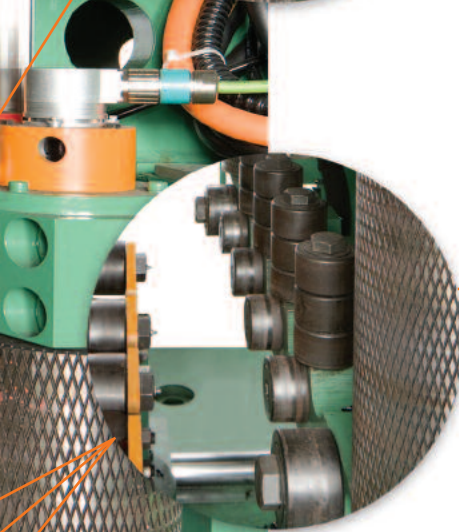
- Tightly clamps Z-tower into place
- Allows Z-tower to push against material without negative force interfering with drilling
- Prevents Z-Tower from moving during high speed drilling process
- Resists up to 20,000 lbs of force





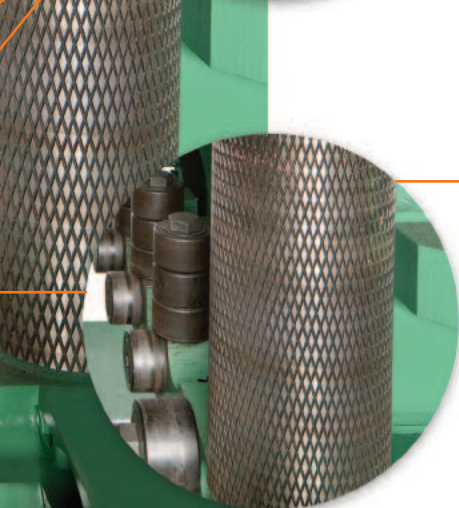
HYDRAULIC VERTICAL HOLD DOWNS

- Located on the entry and exit sides of the machine
- Clamps down on material during motion
- Helps guide work piece during its pass through the machine
- Physically holds material still – eliminating material vibration



NON-TAPERED ROLLERS

- All of the rollers on the BDL-1250/9D are solid cylindrical rollers
- Non-tapered rollers do not allow material to slip off easily and increase contact with material



INCREASED ROLLER SURFACE

- Roller surface is 50% larger than previous roller design
- This gives the machine a firmer grip on the material needed for drilling with carbide tooling regardless of section size
- Virtually eliminates material vibration during drilling

PATENTED SMART SPINDLE II

*When Carbide Drilling,
Drill the Peddinghaus Way!
All New Smart Spindle II Technology
with Linear Feedback!*

When you're drilling with Carbide you want nothing but the fastest in spindle technology. If you can make a hole in 4 seconds what does it matter if your drill needs to return to a stationary tool changer or continually "drills air"?

Our users report 40% throughput increases due to the latest in high speed spindle technology – Smart Spindle II!



- 1 – Drill does initial probe to sense top of material
- 2 – Drill backs to a safe distance and begins to rotate
- 3 – Begins drilling material
- 4 – At 90% through its stroke the machine begins to monitor motor electronic consumption
- 5 – Upon breakthrough, the resulting drop in motor use conveys data to the machine it has completed the hole
- 6 – Spindle immediately retracts above material and efficiently begins drilling the next hole

MATERIAL PROCESSING SPECIFICATIONS

	INCH	METRIC
Maximum Profile Width	50 in	1250 mm
Minimum Profile Width	3 in	75 mm
Maximum Machining Height	24 in	610 mm
Maximum Work Piece Weight	43,800 max lbs	19,867 max kg
Number of Drill Spindles	9	9
Drill Spindles Per Axis	3	3
Power Per Spindle	25 hp @ S6-40	18.5 kW @ S6-40
Drill Diameter	5/16" to 2" min-max inch	8-51 mm

CARBIDE DRILLING AT 1800 RPM

HIGH SPEED CARBIDE DRILLING

The Peddinghaus BDL-1250/9D drill line is the pinnacle of high speed drilling machines on the market today. With its carbide tooling, Siemens 25 hp (18.5 kW) motor generating an 1800 rpm spindle speed and Peddinghaus Smart Spindle II technology, your fab shop will be producing more tonnage in a shorter amount of time.

PATENT-PENDING SMART SPINDLE II TECHNOLOGY

The second generation of Smart Spindle technology utilizes active linear feedback while drilling. Upon sensing breakthrough, the BDL-1250/9D instantaneously moves onto the next hole in the pattern – eliminating the inefficient drilling of air and dramatically increasing the number of holes that can be drilled in a given amount of time.

MINIMUM QUANTITY LUBRICATION


Automated, through-tool cooling optimally lubricates the drilling process which cuts down on the amount of lubrication being used when operating your Peddinghaus drill line. Just fill the reservoir and the machine does the rest. Our safe “green” coolant is a nearly dry, vegetable oil based lubricant. It is environmentally friendly, requires no clean-up, leaves no residue and does not interfere with subsequent processes such as welding, painting, etc.

LAYOUT AND PART MARKING SYSTEM


Eliminate the human error in part marking and layout marks. Each of the three spindle axes has the capability to create pop marks for layout and weld preparation. Combine this with the standard feature of Signo-Script part marking and you will find a whole new level of accuracy in all aspects of your operation.

UNMATCHED CLAMPING POWER


To accommodate carbide tooling and high speed drilling, the BDL-1250/9D has the paramount clamping system in the industry. This 7 point system includes: 4 vertical hold downs, 50% larger infeed rollers, underside support system, linear rail brake systems, Z-Tower clamping systems, non-tapered rollers, and a web probe mechanism that clamps the web of material in place.



*High Speed
Carbide Drilling*



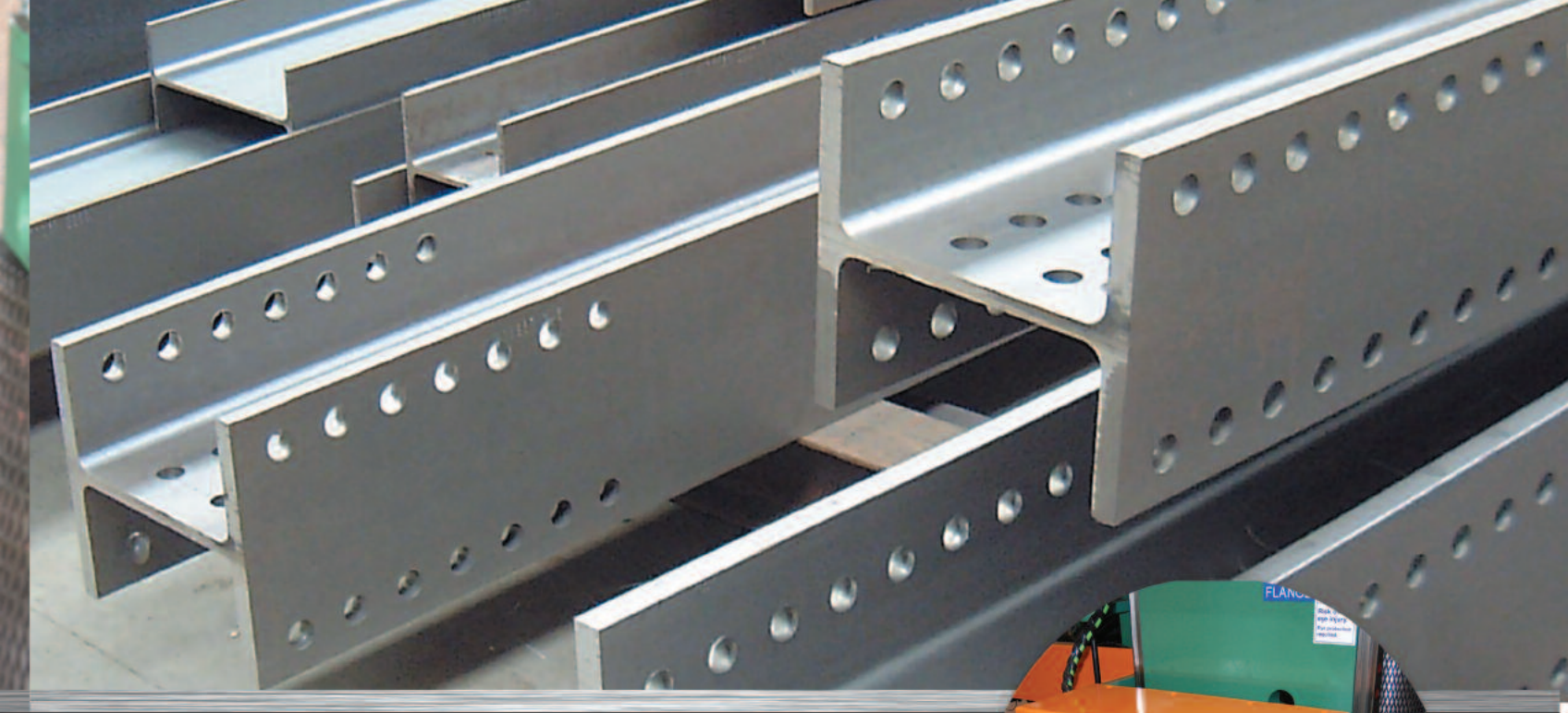
*Minimum
Quantity
Lubrication*



*Layout and Part
Marking System*



Increased Clamping Power



ACCURATE, RELIABLE MEASURING SYSTEM

The time tested technology of Roller Measurement has evolved to accommodate the next generation of cutting-edge accuracy and performance. By utilizing state-of-the-art software to program the Peddinghaus Roller Measurement System, it is able to locate the truest part of the material to measure. By measuring from the heel of angle or channel – or the center of a beam and square tube, the BDL-1250/9D measures with greater accuracy than ever before.

CENTRAL GREASING SYSTEM

Hand greasing fittings are a thing of the past with the central greasing system on the BDL-1250/9D. Simply fill the reservoir and the machine will grease itself automatically – cutting down on costly machine downtime and maintenance.

MASSIVE, INDESTRUCTIBLE FRAME

The frame of the BDL-1250/9D is a prominently stronger and more rigid structure than other drills on the market. The strength and durability of the BDL ensures longevity on your investment.

SIEMENS CONTROL

Peddinghaus equipment proudly uses the operator friendly, yet powerful, Siemens controls and electronics – putting the operator in a familiar PC atmosphere.

SIEMENS SPINDLE SPECIFIC MOTORS

The backbone of carbide drilling is the power source. Peddinghaus uses the latest electronic technology to provide a spindle motor that delivers the exact rpm required for each hole drilling application.

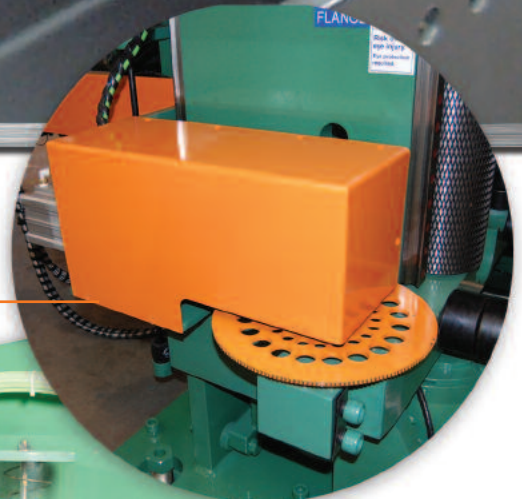
LASER LEADING EDGE TECHNOLOGY

Laser leading edge detection makes the BDL-1250/9D perfect for processing pre-coped or miter beams of all shapes and sizes.

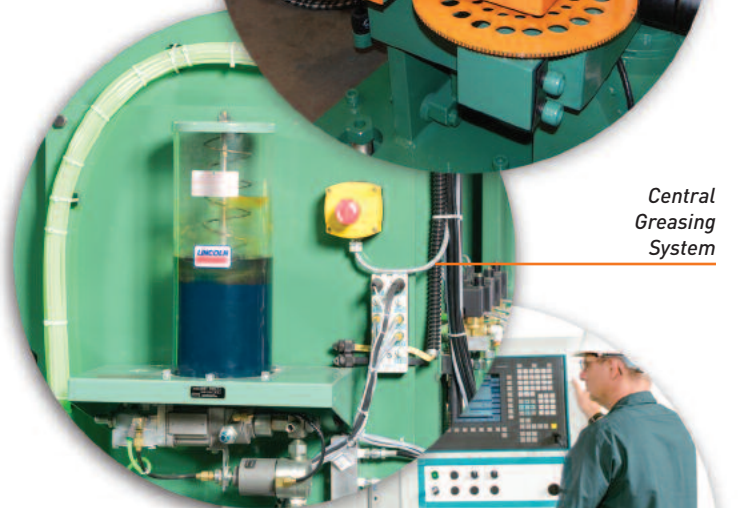
BUILDING MODELING SOFTWARE

Peddimat software works in conjunction with modern building modeling software programs, saving you time and headache of re-formatting materials. Simply import the beam from your BIM software right into Peddimat and you're ready to process.

*Accurate
Measuring
System*



*Central
Greasing
System*



Siemens Control



*Building
Modeling
Software*

EFFICIENTLY DESIGNED MATERIAL HANDLING

THE PROBLEM:

Few industries are required to manage the consistent handling of sections weighing in excess of 20 tons (22 metric tons) with lengths exceeding 60 feet (20 meters). Fabricated sections can easily exceed overhead crane lifting capabilities. Not only does productivity need to be measured, but safety concerns enter the picture as well. When that is all said and done, you have to ask how much shop space you can allocate to accommodate your production requirements.

“EVERY TIME I PICK UP A BEAM WITH A CRANE, IT COSTS ME MONEY!”

The productivity you lose when moving material with a crane can easily add up to substantial shop downtime. Every time you move material, people need to stop what they are doing, stand clear and wait for the material to pass – all for moving one beam. Fabricators estimate that the cost to move 1 beam can reach \$50.00. What can you do to save money and improve productivity?

THE PEDDINGHAUS SOLUTION:

Peddinghaus employs a full team of shop layout professionals. With their years of experience working in and around fabrication, Peddinghaus System Engineers can help your shop achieve optimal efficiency for the goals you have. Peddinghaus equipment is designed to help your shop grow with minimal investment. With our modular design, you can easily expand your system as your company grows.

Choosing the right shop layout is the key to profitability.

*Experienced
System
Engineers*



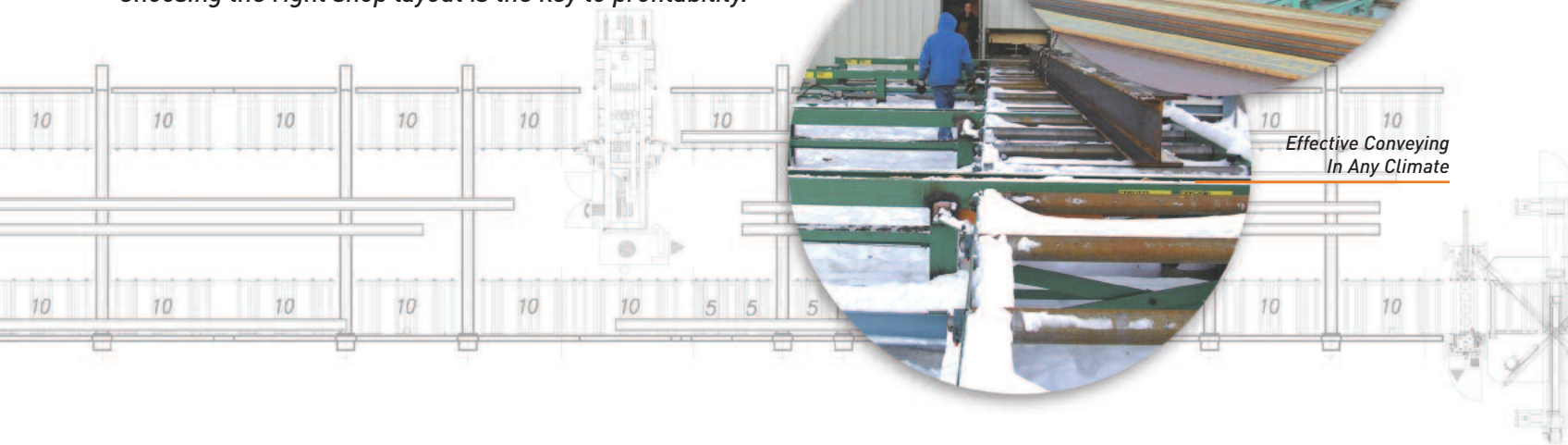
*Outdoor Loading
Prevents Bottlenecks*



*Saves Valuable
Shop Space*



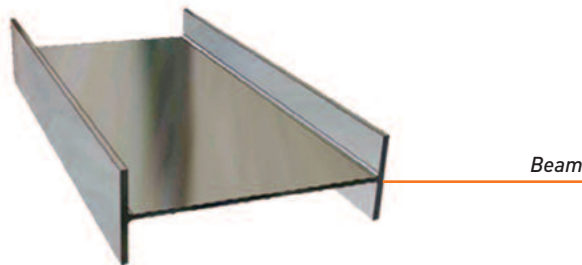
*Effective Conveying
In Any Climate*



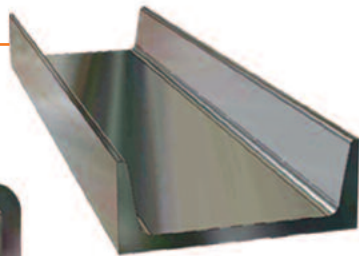


THE PEDDINGHAUS BDL-1250/9 D HIGH SPEED DRILL LINE

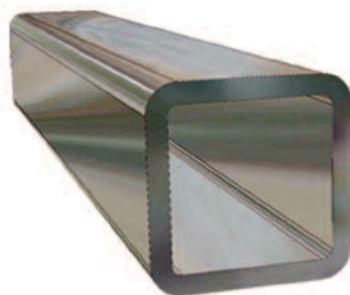
Designed To Process All Structural Shapes



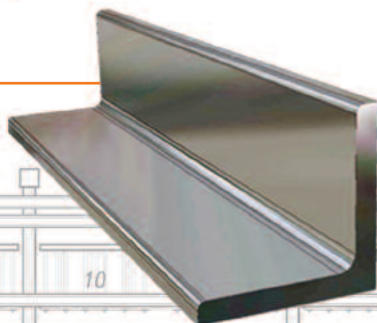
Channel



Tube



Angle



Novel Iron Works

Greenland, NH



Bill Gallant, Production Manager
and Paul Rosenthal, Vice President

“ We purchased the new Carbide drill model BDL 1250 at the Peddinghaus Oktoberfest, and we can honestly say this new drill line has increased our overall production and through-put capability by 40%.

We investigated all the other “carbide drill lines” on the market, and I can tell you that Peddinghaus has got it right. They know drilling, and this machine has everything it takes for high speed drilling. The frame is bigger and stronger, and multiple clamping systems are used on the machine to insure the drill never “chatters”.

A big concern with carbide drilling of structural profiles is running thin web floor beams – but Peddinghaus has a unique underneath web support that eliminates any possible deflection. They effectively reduced maintenance with an eco-friendly air mist cooling and an automatic central lubrication system designed into the machine. That’s just good engineering.

The Peddinghaus Carbide drill BDL 1250 D is the fastest thing on the planet for drilling steel: Peddinghaus engineers nailed this one. ”

Samuel Grossi & Sons

Bensalem, PA



John Grossi, Bob Grossi, President,
Matt Nolin, and Gene Grossi, Jr. –
the management team of
Samuel Grossi and Sons.

“ We installed the new BDL 1250 D drill last December – around the Christmas holiday, and we are very, very pleased with its performance, speed, and versatility for drilling structural sections.

In analyzing our production since the installation of the BDL 1250 D, we can say that our **overall drilling production throughput at that location has increased by 40%.**

In operating this new Peddinghaus carbide drill, our observations:

- The machine installation was fast and simple, as little modification had to be done to the drill location, conveyor line, concrete; the changeover took us about a week
- The speed of the BDL 1250 D is phenomenal; we process many large jobs – such as the Pennsylvania Convention Center – heavy sections with many holes, and we are amazed how fast this drill can process columns with hundreds of holes
- The hole quality is significantly better than our previous BDL 1250: smooth, burr free – perfect for matching up to bolt connections
- The combination of the BDL “Smart Spindle II” technology coupled with Kennametal carbide tooling helps us fly through multiple hole patterns
- We really like the features on the machine like the eco friendly air cooling on the drills, the Siemens electronic components, and the underneath web support clamping system.

Before the Peddinghaus BDL 1250 D carbide drill, we needed to schedule extra shifts to get through some large hole patterns on big columns. That need has been significantly reduced since the BDL D is so fast and accurate. Normal production scheduling keeps us ahead of the game.

Another key is that BDL 1250 D allows us to better process smaller tonnage jobs concurrently with our larger projects. We can run them through the drill line, and fabricate the sections – and still stay on target to meet an existing large project schedule. This gives us enhanced production flexibility and increases overall production throughput.

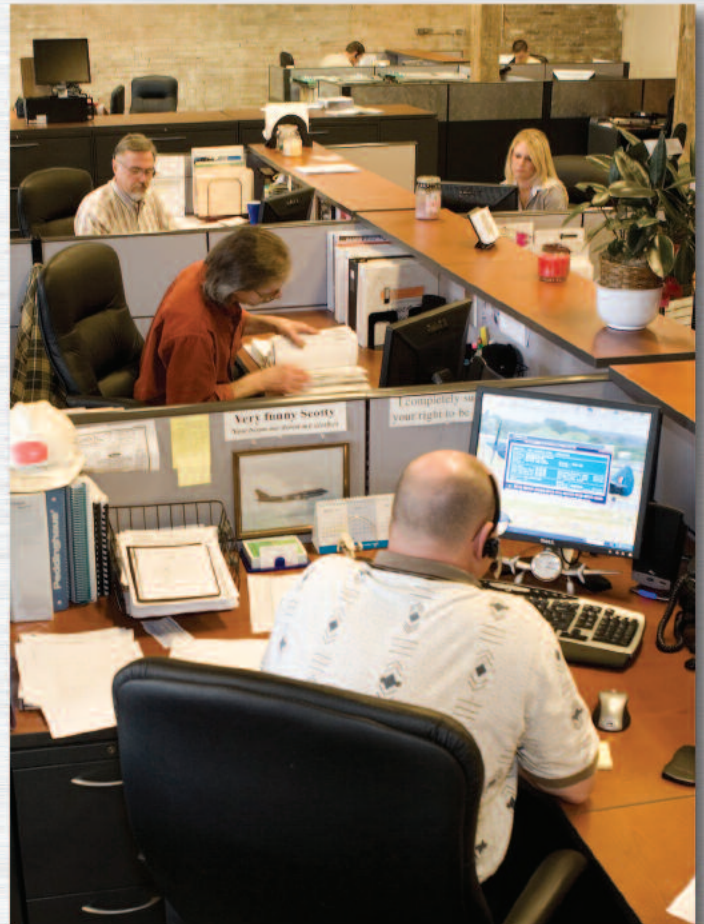
Samuel Grossi and Sons is very pleased with the engineering and design of the BDL 1250 D Carbide drill line. We would recommend it to any fabricator. ”

AT PEDDINGHAUS OUR CUSTOMERS COME FIRST

Our state-of-the-art Service Center continues to grow in order to serve you even better, now and in the future.

- 60+ trained traveling field service technicians for on site assistance
- 20+ knowledgeable telephone technicians – with a collective 70+ years of Peddinghaus dedicated field experience available
- Complete training facility for operators and programmers

With Siemens control technology, our service technicians based in Bradley, IL, can assist with fault finding on your machine by simply “logging on” with remote diagnostics. Our technicians can view your machine in operation from our Service Center and make any correction on the fly – this keeps you running.



INNOVATIVE STEEL FABRICATING TECHNOLOGIES

Peddinghaus

say **yes**

Two of the biggest decisions a structural fabricator will ever make are the layout of his fabrication shop and the selection of the proper equipment to fill that floorspace.

Since 1903 Peddinghaus has met international standards of excellence in the design and manufacture of quality machine tools for the structural steel, heavy plate and related metalworking industries. This coupled with its superior Design Build expertise has proven time and time again there is no second choice. From column lines to concrete floors, Peddinghaus has engineered effective, modern facilities that serve one purpose – to make you more profitable through optimum efficiency.

Through patented, industry leading equipment, Peddinghaus is here to serve you. Whether you're starting a new fabrication shop or revamping an existing one to be more efficient, consider the company with the organizational strength to make it all happen – from planning to production to increased profits... Peddinghaus.

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