

**HIGH SPEED FDB** HEAVY PLATE PROCESSOR



1800 / 2500 / 3200

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





## 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, Mumbai, or Melbourne; they all receive the very same service, spare parts, and support that is second to none.

### Welcome to Partnerships - Meet our local team at Headland.

At Peddinghaus we maintain strong partnerships with qualified distributors to ensure your success. Our regional partner Headland Machinery has offices in Victoria, New South Wales, Queensland, and Western Australia maintaining service and spare parts for our regional installations. Headland represents a variety of global manufacturers such as Trumpf, Omax Waterjets, and Kuka Robotics. I think you will find them to be a valuable resource for your much of your production needs.

### Welcome to the High Speed FDB Plate Processor - More than just a machine.

If you're using a burn table you have already experienced how much labor, floor space, and cost is involved with processing plate. In the world of Peddinghaus we provide solutions that provide twice the production of a burn table system! Capable of Drilling, Tapping, Countersinking, Plasma / Oxy-Fuel Cutting, Part Marking and Milling - the HSFDB is already installed at several industry leading fabricators within your region. Whether it's structural components, or manufactured parts, the HSFDB does it all!

In today's world how do you compete when steel can be purchased and sold at close to the same price as your competitors? You must minimize the cost to fabricate! The HSFDB can process parts at unbelievable speeds, averaging 1 ton per hour of plate up to 15mm thick, and an impressive 2 tons per hour of plate thicker than 15mm. Combine this with scrap ratios lower than 5%, using a single operator, in half the floor space of a standard burn table machine. You can quickly see how this method of processing plate is twice as efficient as old fashioned burn table technology. The HSFDB is more than just a machine, it is a solution to cut costs, increase profits, and succeed in today's globalized business climate.

### 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.

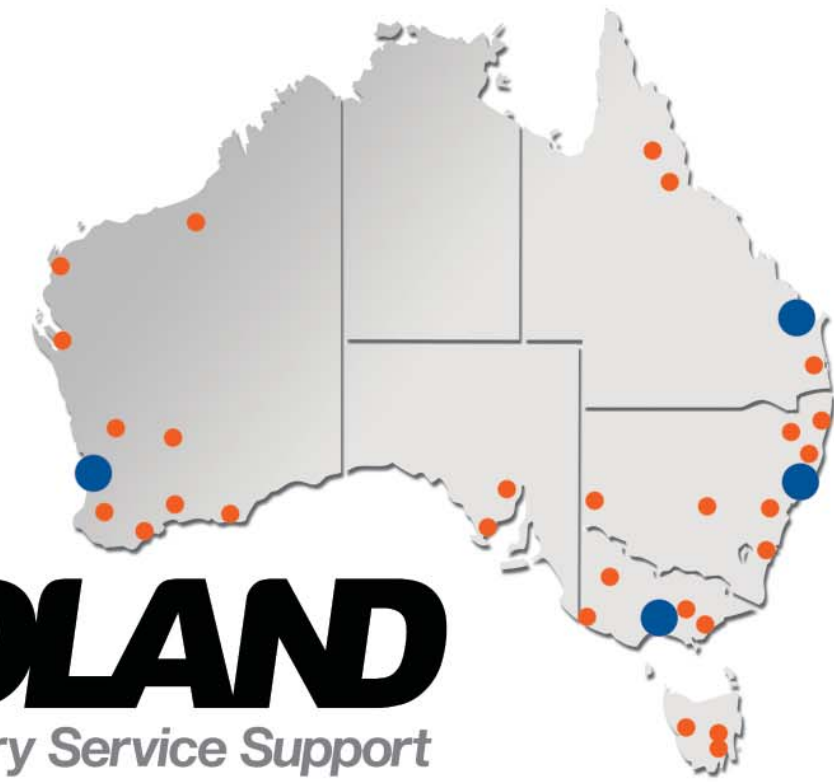
### Welcome to Peddinghaus - Where once again we get to be the "New kids on the Block"!

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 modern world I am proud that we at Peddinghaus continue to offer new solutions for our customers such as the HSFDB. After nearly 110 years of business throughout the globe, Peddinghaus is able to take the time, and focus on our friends in Australia, offering solutions and support that is second to none. I am proud to say that in Australia we get to once again be the "new kids on the block"!

I look forward to meeting you!



**Carl G. "Anton" Peddinghaus**  
Chief Executive Officer - Peddinghaus Corporation



# HEADLAND

Machinery Service Support

● = Headland Offices  
● = Peddinghaus Installations



**Darren Harmsworth**  
PEDDINGHAUS APPLICATION SPECIALIST

Between Headland and Peddinghaus we share a common belief. We believe that people who are just salesmen do not help you succeed - that people who are just salesmen do not help you grow - and that people who are just salesmen do not give you the ability to cut costs and increase profits in today's world. ***That's why at Peddinghaus and Headland we are not just salesmen - we are both consultants and experts that provide real solutions to today's production challenges.***

In just over a decade working throughout the steel industry, I have lived these challenges. I know firsthand the challenges you face every day and have the expertise to help you overcome them in order to exceed your goals. My experience throughout the industry has taken me to organizations you may be familiar with including Sims Metal Recycling, Steelforce Steel Distribution, Beenleigh Steel Fabrication, and finally to my current position at Headland as an application sales engineer.

At Headland we expect nothing but the best when it comes to innovation, quality, and customer service. Our goal is to make Australia more competitive in today's international market so that we can all prosper - whether Small 2 Man Shops or Multi Layered Corporations, we all win when Australia wins. I look forward to solving your production challenges with you -

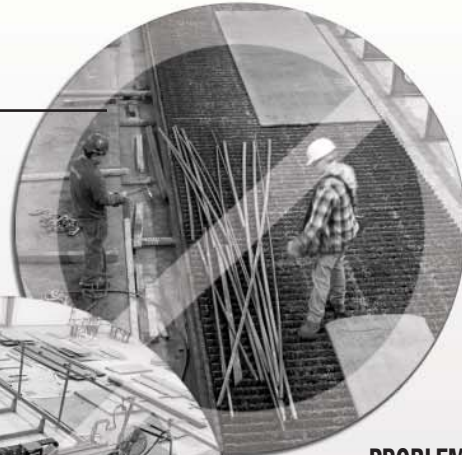
*Darren Harmsworth*

# GET YOUR FEET OFF THE TABLE!

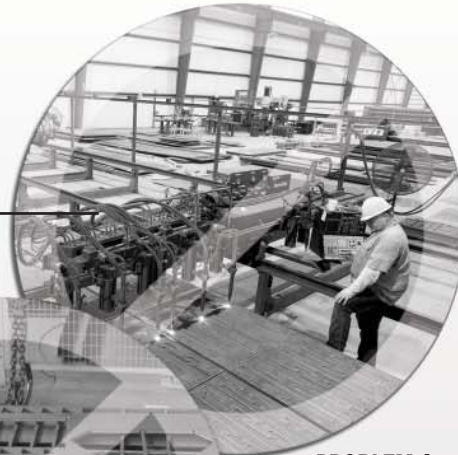
**Traditional Burn Tables Require Costly & Risky Crane Lifts,  
Large Amounts of Shop Space, Labor & Time...  
and Leave Excessive Amounts of Scrap!**

Are These Familiar PROBLEMS that COST You Money When You Process Plate?

**PROBLEM 1:  
MULTIPLE OPERATORS**  
Labor Intensive



**PROBLEM 2:  
ONLY SAME PARTS  
IN 1 PASS**  
No Production  
Flexibility



**PROBLEM 3:  
MORE SHOP SPACE**  
Wasted Floor Space  
Has No Benefit



**PROBLEM 4:  
INCREASED SCRAP**  
Expensive Material  
Waste



**PROBLEM 5:  
REMOVAL OF SKELETON**  
Labor Intensive, Creates  
Scrap, Safety Concerns



**PROBLEM 6:  
OVERHEAD CRANE  
LOADING**  
No Production  
Flexibility



**PROBLEM 7:  
MANUAL  
PARTS REMOVAL**  
Safety Concerns,  
Multiple Operators Needed



**PROBLEM 8:  
PLATE GRIPPING  
MATERIAL HANDLING**  
Inefficient  
Production Method



# TODAY'S SOLUTIONS TO YESTERDAY'S BURN TABLES

**Make Your Shop Safer & More Space Efficient,  
All While Reducing Labor, Scrap & Time...  
With Peddinghaus HSFDB Plate Processing Systems!**

Plate Processing SOLUTIONS that SAVE You Money!

**SOLUTION 1:  
SINGLE OPERATOR**  
Operator Can Load,  
Process, Unload



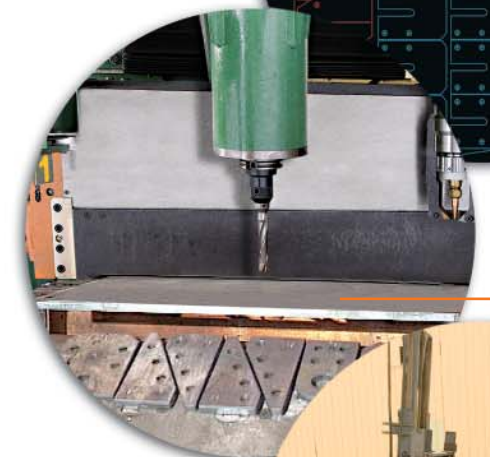
**SOLUTION 2:  
MULTIPLE PARTS  
IN 1 PASS**  
Drill, Mark, Contour  
Cut with  
Continuous  
Through Put



**SOLUTION 3:  
LESS SHOP SPACE**  
Product Finished Parts  
in 56 sq/Meters



**SOLUTION 4:  
LESS SCRAP**  
Innovative  
Cutting Techniques



**SOLUTION 5:  
CONTINUOUS PLATE  
PROCESSING**  
Safer, Less Labor & Scrap



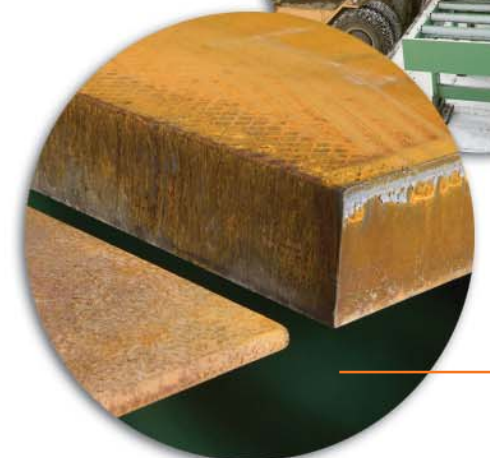
**SOLUTION 6:  
CONVEYOR LOADING  
VIA FORK TRUCK**  
Easier, Safer, Faster



**SOLUTION 7:  
AUTOMATIC UNLOADING**  
No Additional  
Operator Needed



**SOLUTION 8:  
ROLLERFEED  
SINGLE PASS**  
Faster  
Production Method



# HSFDB PLATE PROCESSING SYSTEMS

## HIGH SPEED PLASMA

An efficient 260 or 400 amp high speed plasma system is employed for exceptional cutting speed and quality finish.

## OXY-FUEL CUTTING SYSTEM

With the capability to cut plates up to 75 mm thick, the HSFDB systems process plate economically with excellent square cut quality.

## ULTRA HIGH SPEED DRILLING

The high speed drill head comes complete with a 36 kW motor. This powerful electro/mechanical package coupled with Peddinghaus' 2nd generation "Smart Spindle" technology creates faster drilling times capable of handling any plate operation.

## NO WASTED MOTION

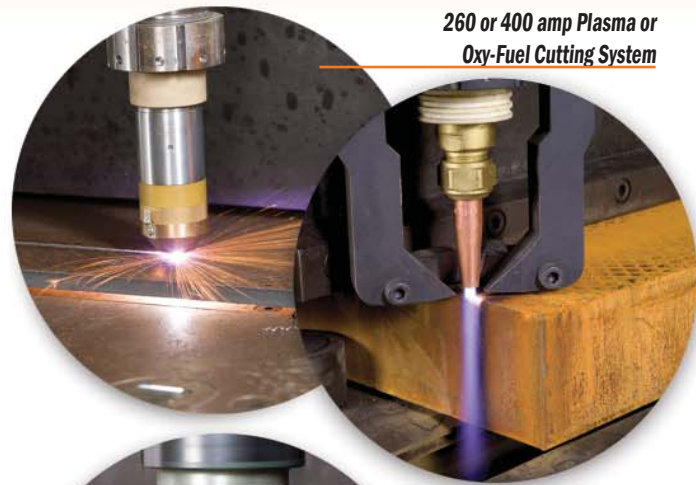
The exclusive HSFDB design speeds your production with a patent pending rotary tool changer that actually travels with the spindle. Able to accommodate up to 8 tools, multiple hole diameter drilling, tapping and marking can be accomplished without wasting time retrieving a new tool. This makes single pass operation even more efficient.

## CARBIDE PART MARKING SYSTEM

The HSFDB rotary tool changer easily accommodates a CNC controlled high speed carbide scribing head which has the ability to identify piece parts with a simple tool change. The carbide marking system can produce any character requirement - regardless of height, depth or orientation.

## SPRAY MIST LUBRICANT

The HSFDB systems use a vegetable oil based mist lubrication process for all tools. Lubrication is applied directly through the tool and is activated with air pressure to insure high speed performance. This environmentally friendly, almost dry, coolant eliminates costly flood coolant and the hazards associated with its use.



260 or 400 amp Plasma or Oxy-Fuel Cutting System



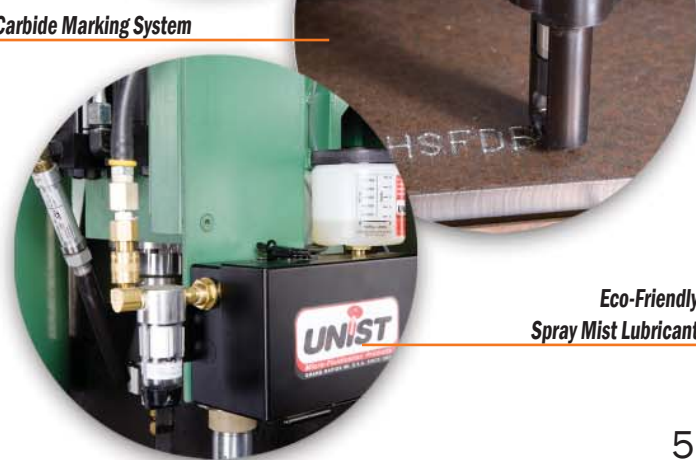
36 kW Motor for Smart Spindle Drilling



8 Tool Options in a Single Pass

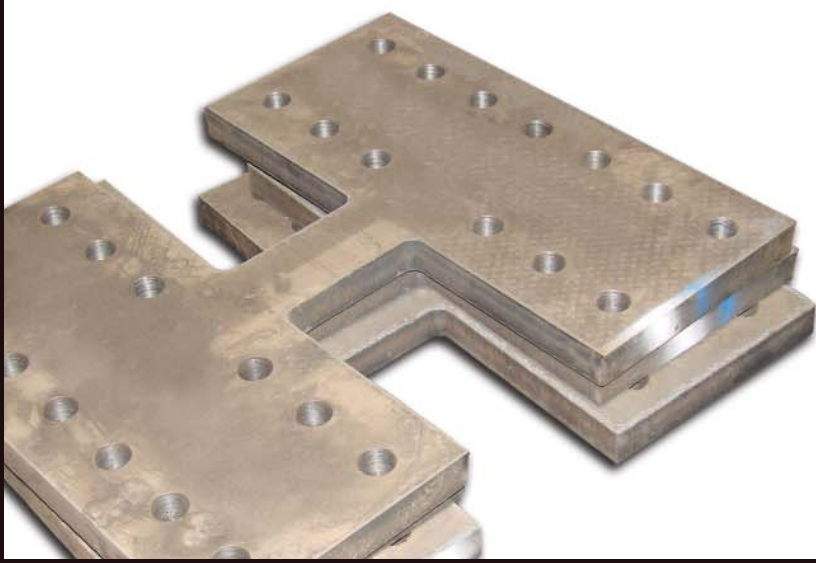


Tapping and Countersinking



Carbide Marking System

Eco-Friendly Spray Mist Lubricant



## AUTOMATED MATERIAL DIMENSIONING SYSTEM

Plate dimensions are automatically detected by the HSFDB. Mill tolerance deviations are detected by Peddinghaus' state-of-the-art laser measuring system while plate thickness is determined by a transducer that is mechanically linked to the plate roller. The work piece width measuring capabilities also allow mirroring of nested parts with the CNC program referencing the non-datum edge. This system guarantees accuracy each and every time material passes through.

## AUTOMATED TOOL HEIGHT MEASURING

The HSFDB rotary tool changer comes complete with an automated tool measuring system that automatically indexes to the tool measuring unit to sense the tool height and dimensions. This pre-operation calculation assures the exact length of the tool prior to machine operation and insures zero errors in tool selection or dimensioning.

## NESTING SOFTWARE

With steel prices continually rising, fabricators need to minimize process times, reduce scrap metal and prolong consumable life in order to stay competitive. Common cut line and chain cutting are a fabricator's best friend in today's demanding market. Peddinghaus engineers work hand in hand with the industry's top software companies in order to offer the most efficient and cost-effective processes fabricators have come to rely on.

## CHAIN CUTTING, COMMON CUT LINE, EDGE STARTING

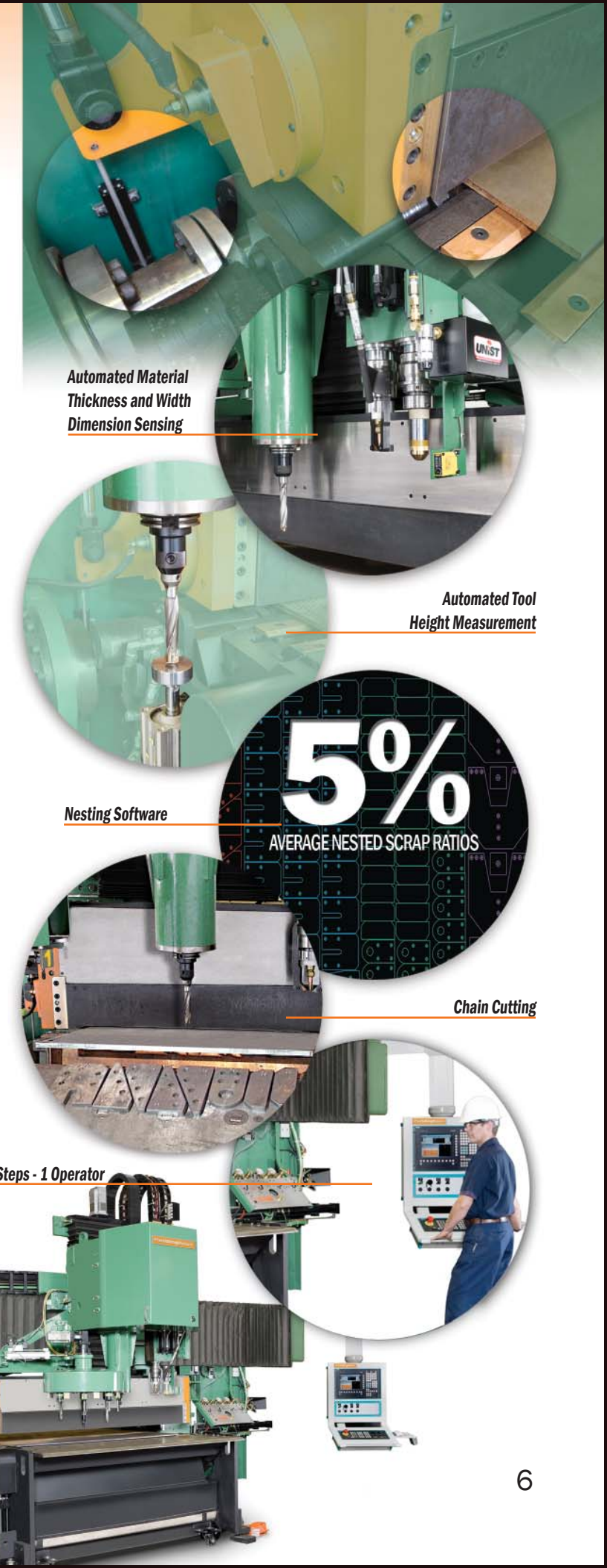
By using oxy-fuel or plasma chain cutting, the torch runs continuously producing multiple nested parts. This not only saves on consumables, but delivers more parts in a shorter period of time with little scrap.

## EASY UNLOADING

Parts up to 450 kilograms can be unloaded with ease by the HSFDB positive unloading system, facilitating the removal of processed parts from remaining stock plate. A copper lined plenum chamber is integrated into the HSFDB system for easy removal and containment of particulate matter.

## 1 OPERATOR DOES IT ALL

Peddinghaus' HSFDB systems utilize pass-through technology which lowers labor costs, minimizes costly crane lifts and saves valuable shop floor space. With this machine, it takes one person to do the job of 10 in three easy steps - load, process, unload.



Automated Material Thickness and Width Dimension Sensing

Automated Tool Height Measurement

Nesting Software

**5%**  
AVERAGE NESTED SCRAP RATIOS

Chain Cutting

3 Steps - 1 Operator



# PEDDINGHAUS HIGH SPEED PLATE SYSTEMS

The HSFDB Series is the industry's most cutting edge CNC plate processing machine. With its small footprint and single operator capabilities the HSFDB combines:

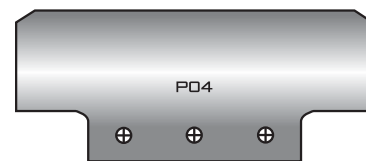
- High Speed Drilling
- Countersinking
- Tapping
- Thermal Contour Cutting via Oxy Fuel or Plasma
- Marking

## DRILL SPECIFICATIONS

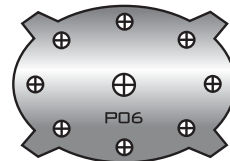
Spindle Power	36 kW
Maximum Drill Thrust	51.6 kM
Maximum Drill Torque	325 N-m
Maximum Hole Size	75 mm
Spindle Speed	0-2250 RPM
Spindle Feed Rate	0-8 M/pm
Tool Holder	International 50 Taper with Through the Tool Lubrication
Number of Available Tools in Tool Changer	8 - Programmable up to 16

## MATERIAL CAPACITIES

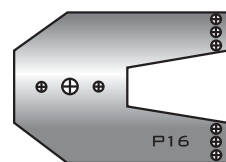
Maximum Material Thickness	75 mm
Optional Maximum Thickness	100 mm
Minimum Material Thickness	6 mm
Maximum Material Width	1800, 2500, or 3200 mm widths available
Minimum Material Width	150 mm
Maximum Length (dependant on weight)	6 Meters
Minimum Length	1219 mm
Maximum Dump Table Capacity	Width of table x 600 mm long



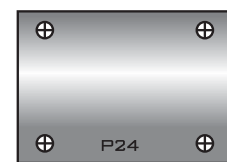
**APPROXIMATE PROCESS TIME:**  
2 Minutes 30 Seconds



**APPROXIMATE PROCESS TIME:**  
2 Minutes



**APPROXIMATE PROCESS TIME:**  
1 Minute 12 Seconds



**APPROXIMATE PROCESS TIME:**  
2 Minutes 6 Seconds



## 24 HOUR CUSTOMER SUPPORT

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

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

With Siemens control technology, our service technicians can assist with fault finding on your machine by simply "logging on". Our technicians can view your machine in operation from our Service Center and make any correction on the fly - this keeps you running.

## TRAINING

Peddinghaus is the industry leader in customer service backed by more experienced telephone and field technicians than anyone else in the industry. Classroom and on-site training assures customers have the knowledge to ensure fast machine start-up and quicker return on investment.

## REMOTE DIAGNOSTICS

The powerful multi-axis Siemens control unit provides fully operational CNC control functionality with an integrated, user-friendly PC platform. This efficient control system provides remote diagnostic capability which brings the expertise of the Peddinghaus service staff directly to your machine.

In addition, our webcam troubleshooting capabilities assists our technicians better serve you by:

- Remotely viewing live video footage for easier diagnosis of problems
- Recording of video of machine problem areas via Web Cam
- Live screen captures
- Easy remote web diagnostics software

**NEW  
24  
HOURS  
HELP  
DESK**



Training



Remote Diagnostics

**All this means faster customer service, more accurate diagnosis and most importantly, LESS DOWNTIME for you!**

## HSFDB PLATE PROCESSING SYSTEMS UNLOADING OPTIONS

*These units provide for a productive and safe environment for the machine operator*

### STEEL TRACK FRONT UNLOADING SYSTEM

Peddinghaus' Steel Track Front Unloader allows for completed parts to drop from the machine table onto a conveyer system and transported to the front of the machine. The parts are deposited for stacking, shipping, or movement to the next work location. Parts up to 600 mm x 2180 mm (maximum 450kg) can be unloaded with ease.

This system contains one 3048mm x 2185mm conveyer system driven by a hydraulic motor that can be operated independently of the machine.

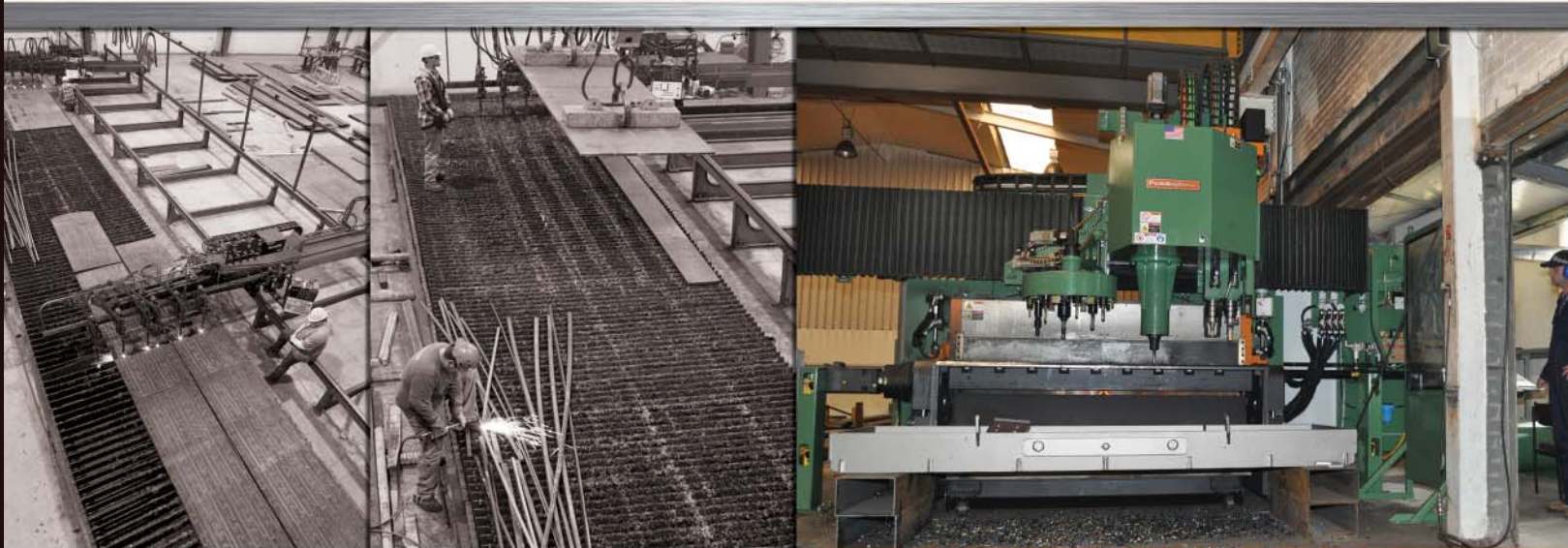


### SIDE UNLOADING SYSTEM

Peddinghaus' Side Discharge Unloader is a labor saving device that allows for completed parts to drop from the machine table into a conveyer system moving out the side of the machine. The parts are deposited for stacking, shipping, or movement to the next work location. Individual parts up to 600 mm x 600 mm (maximum 225 kg) can be unloaded with ease.

This system contains one 3048mm x 914mm conveyer system driven by an electric motor that can be operated independently of the machine.





# OLD WAY vs. NEW WAY

	BURN TABLES	THE PEDDINGHAUS HSFDB
LABOR COST	Commonly at minimum 1 Operator, 2 Material Handlers to keep adding / removing material	1 Operator to load process and unload parts
PRODUCTIVITY	.5 - .75 Tons per hour	1-1.5 Tons per hour
MATERIAL HANDLING	Material moved by hand and crane via additional manual labor - Faster material handling means more employees and higher labor costs	Can be completely automated and controlled by operator via cross transfers and conveyors
FLOOR SPACE	Moderate to Large - Smaller tables do not allow for loading / unloading while operating the machine, while large tables require additional utility costs and floor space up to 50 Meters longer	Extremely Minimal - can store material outside and transfer through an exterior wall minimizing heating, rent, and other utility costs
DRILLING	Very minimal clamping. Tools frequently damaged by material vibration, and hitting material support slats. Not designed for proper drilling	Ideal for high speed drilling. Powerful clamping system allows for maximum tool life and efficiency
MAINTENANCE	Demanding - Must drain water tables, clean and replace material support slats as needed, clean flood coolant	Minimal - Check gauges, refill mist lubricant on occasion
SCRAP	Must maintain a rigid skeleton with scrap commonly ranging from 16 - 30%	Common Cutline and Edge-Start Cutting allows for scrap as low as 4-5% in common plates
CONSUMABLE LIFE	Low - Not designed for proper drilling conditions, must stat torch for each part in a nest for the least accommodating consumable conditions	Superior - Maximum material clamping for carbide drills, and lower number of torch starts due to common cutline keeps consumable costs low

## HOW MUCH MONEY CAN A STRUCTURAL FABRICATOR SAVE WITH THE HSFDB PLATE PROCESSOR?

PLATE COST WITHOUT THE HSFDB PLATE PROCESSOR		
Size of Structural Fabricator in Example	5,000 Tons / Year	For industry, commercial, or industrial steel work.
Percentage that is Plate	10%	Common Industry Percentage for Structural Fabrication
Total Annual Plate Requirement	500 Tons	5,000 Tons × 10% = 500 Tons of Plate
Cost to Purchase 1 ton of Processed Plate	\$3,000	Surveyed Cost from Service Centers
Annual Cost of Plate Without a Machine	\$1,500,000	\$3,000 per ton of Processed Plate × 500 Tons Required Each Year

PLATE COST WITH THE HSFDB PLATE PROCESSOR		
Number of Working Days in 1 Year at Fabricator	260	All working days in a single year for example fabricator
Number of Tons Required Each Day	1.92	Need to process this amount each day to reach 500 tons per year of plate
Hourly Shop Rate for the HSFDB	\$90	Common rate applied by current users
Number of Operating Hours in 1 Day	8 Hours	All hours in a single working day
Cost for Each Day of the HSFDB	\$720	Hourly Shop Rate × 8 Hours in a Working Day
Market Price for 1 Ton of Raw Steel	\$1,300	As surveyed from common suppliers
Cost of Steel per day based on daily requirement	\$2,500	\$1,300 per ton of raw steel × 1.92 tons needed each day to meet requirement
Total Cost to Operate HSFDB for 1 day to process required plate tonnage	\$3,220	Daily Shop Rates + Cost of Steel for Daily Tonnage Requirement
Annual Cost of Plate with the HSFDB Plate Processor	\$837,200	Daily Cost × 260 Working Days in a Single Year

TOTAL COST SAVINGS WITH PEDDINGHAUS		
DAILY SAVINGS WITH HSFDB	<b>\$2,540</b>	Cost for 1 day of plate from service center (\$5,760)- Cost for 1 day of plate produced on the HSFDB (\$3,220)
ANNUAL SAVINGS WITH HSFDB	<b>\$660,400</b>	Cost for 1 year of plate from service center (\$1,500,000)- Cost for 1 year of plate produced on the HSFDB (\$837,200)

# WALL of fame.

## THE PEDDINGHAUS SECRET to saving valuable floor space.



### 1 UNLOAD TRUCKS AND STORE MATERIAL OUTSIDE

- Does steel need heat, shelter, or electricity? NO! Storing material inside costs you all of these things plus other costs associated with maintaining large buildings
- Eliminate the need to load and unload material deliveries inside by storing material outdoors with no consequences
- Other processes aren't affected when the movement of material takes place OUTSIDE OF YOUR SHOP! Increase your entire production efficiency with this easy change



### 2 STORE CONVEYOR AND LOAD FROM OUTSIDE

- Don't compete for the crane indoors. Start your conveyor outside and easily load with a fork truck outside in any climate.
- Other operations such as fit-up, and welding don't have to pause and wait for crane movement associated with indoor crane handling
- Other system components such as dust collection units can also be stored outside for additional space savings



### 3 FEED MATERIAL THROUGH WALL TO MACHINE

- A small hole in the exterior wall allows material to pass seamlessly into the machine inside.
- The construction of a common mezzanine can place additional items such as plasma units, hydraulic power units, and heat dampening systems above conveyor to save further floor space.
- A small door can be placed over the passage to allow it to be closed after hours when the machine is not in operation



### 4 PROCESS PARTS IN A SINGLE PASS

- Drill, Tap, Countersink, Mill, and Cut in a small footprint
- 56 square meters is all you need when it comes to the Peddinghaus footprint
- Peddinghaus power with one operator in a small space means lower operating costs for you!



## LEED STEEL - Albury, NSW, AUSTRALIA

### BEFORE AND AFTER - MANUAL FABRICATION VS. PEDDINGHAUS AUTOMATION AT LEED STEEL:

Production Aspect	Fabricated Manually	Fabricated with Peddinghaus	Difference
Annual Tonnage	2,500 Tons Per Year Manually	6,000-8,000 Metric Tons Per Year with Peddinghaus	2.4 - 3.2 Times Higher Capacity
Average Lead Times	4-6 Weeks Manually	2-3 Weeks with Peddinghaus	Half the Required Lead Time
Tonnage Return Per Employee in Shop	1-1.5 Metric Tons Per Week Manually	2.5-3 Metric Tons per Week with Peddinghaus	Twice the Tonnage per Employee
Tonnage per Square Meter of Shop Space	.6 Metric Tons per Square Meter of Shop Space Manually	2 Metric Tons per Square Meter of Shop Space with Peddinghaus	Shop Space is Twice as Effective

**“With our new capacity, and ability to tackle larger jobs at shorter lead times our customers will be amazed at what our latest capabilities have come to be. We strive to be leaders in the global fabrication community. In the future automation and faster production will continue to be a key part of the services we offer customers. At LEED Steel we tackle bigger jobs, with shorter deadlines with no compromise in quality.”**

**- Andrew Kaye, Partner - LEED Steel**

**“We once had a scenario where we contacted Peddinghaus in the morning for a service visit. That same day we had a service technician at our doorstep ready to help us get going with production as soon as possible. Peddinghaus service has been readily available every step of the way, and their service has been great as we take our first steps into automation.”**

**- Adam Furst, Partner - LEED Steel**





*“My Peddinghaus Plate Processors have made me buckets of money! They work so well, so efficiently and so profitably that my entire operation is focused around them.”*

**- DeWayne Deck, Owner - DenCol - Denver, Colorado USA**

*“Before we bought the Peddinghaus plate machine, we would use up to 30 people with burning tables, mobile cutting torches and magnetic drills. With tight deadlines, we even had to send some work out. Now, all is done in-house with one operator per shift.”*



**- R. Damodharan - Eversendai Engineering L.L.C. - Dubai, United Arab Emirates**

*“We chose Peddinghaus. Their machines contain the three components that we need to be successful - quality in manufacture, strength in productivity, and reliability in operation. Based on the volume of our plate work and the complex connections, we needed to control our plate fabrication costs and Peddinghaus fits that role perfectly. The machines are strong, accurate, and reliable”*



**- Graham Hartley, Works Executive - Genrec - Johannesburg, South Africa**

*“After Hackländer collected information on the available types and manufacturers for almost a year, Hackländer decided in favor Peddinghaus. The Peddinghaus Plate Processor is the heart of our processing operation and is the most modern plate processing system in Europe.”*

**- Mr. Hans-Hartwig Koether, Managing Director - F. Hackländer GmbH - Kassel, Germany**

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