Fabrication and Steel Processing Metalworking Machinery Brochure

Specialist Machinery Sales clients know how machines are going to deliver efficiency optimisation and improved revenue into their business for the next 10 years.

Superior Machinery Strategies
Australia, SE Asia, New Zealand
www.smales.com.au
Kaltenbach Bandsaw
Steel service centres win work based on their price and delivery.

Now the automation in the larger saws is available on the smaller bandsaws. By automating square and mitre cutting, margins for a price sensitive part can be improved. Your workshop can start with an automated mitre cutting saw with material handling and then plug and play a beamline at a later stage for additional capability.

Kaltenbach Circular Saw
Every steel processor is asking how they can add value to their steel profiles. Stocking or deploying tradesman to cut steel to feed CNC lathes and machining centres increases cost-per-part for the machine shop. Therefore, the preference is to order steel cut from billet ready to be machined.

Kaltenbach has circular with a drilling unit to add value to SHS/RHS to satisfy the galvanising specification for a drilled hole. These machines are fully automatic and can add value to a variety of profiles at significantly less than the cost of a tube laser.
Zeman Steel Beam Assembly (SBA) Machine

Fabricators in Australia and New Zealand that have commissioned six Zeman SBA’s machine are reporting:

- An increase in capacity without increasing labour costs and headcount or the workshop’s footprint;
- Improvements in delivery so a 2nd or 3rd project can be accepted without compromising on the tighter delivery schedules
- The ability to re-task man-hours; and increased bid-to-win ratio and profit.
- Assembly of add-on parts between 1 to 2 minutes depending on SBA model

The early adopters that have commissioned the Zeman SBA are receiving the competitive advantage in their successful bid for fabrication and welding that their peers can not come close to matching.

Automating fabrication and welding is reducing the man-hours per ton to fabricate steel which is allowing the business with a Zeman SBA to win more and do more which is what you want isn’t it?
HGG - 3D profile & plate plasma cutting & coping robot
- 5 machines in one

HGG has the most advanced coping robots commissioned in Australia that are used in the largest fabricators and steel service centres to smaller fabrication workshops.

If the profile can’t be cut on a HGG coping robot the profile can not be processed on any coping robot. Clients of SMS are benefitting from investing in the coping robot that has additional capability so their workshop can win more and do more at margins that traditional coping robots can not achieve.

When your workshop is ready to scale capacity, revenue and profit it will be appropriate to speak exclusively to HGG to evaluate how and why your business can’t afford not to select HGG as your coping robot machinery partner.
Kaltenbach 3 Spindle Beam Line Travelling X-axis
500mm with 100% Lights-out Automation capability

A competitive advantage is achieved when several manual processes can be re-tasked on a beam line, allowing a fabricating business to process more using less-skilled labour and for a lower cost.

Fabricators can V-score add-on part layout marking on all four sides of the beam on the Kaltenbach beamlines without sacrificing ton-per-hour output from the beam line. In automatic mode, it is possible to re-task manual labour previously used to do layout marking, machining bevels on the end of flanges for full penetration welding and machining holes or slots larger than 50mm in the flange or web.

Would your business like to re-task 35 man-hours for every 15 ton of steel fabricated? Or re-task 25 man-hours for every 500 add-on parts fabricated? Contact us today or review our website today!
Add-On-Part Plate Processing Centre

Specialist Machinery combining many of our supplier’s machinery can provide a plate processing centre that can have the following advantages

• **Plasma plate processing centre with these options**
  - Automatic plate storage system to delivering or loading plate from all four sides of the tower to several laser or plasma cutting machines
  - Plasma cutting & drilling machines with various options depending on productivity requirements
  - Automatic plate handling (infeed) part material handling (conveyor)
  - Automatic chamfering holes top and bottom side of the plate
  - Layout marking of H profile to assemble foot or head plates
  - Part stamping 1 second per character (not required if Steel Part Sorting Machine) is specified

• **Plate or flat bar processing machinery**
  - Plasma cutting/punching/drilling with punching at 1 second per hole
  - Flat bar punching and shearing machines that will process 90% of a structural steel fabricators add-on-parts
  - Punching or drilling machinery post plasma or laser cutting with stamping, chamfering, milling etc

• **Deburring machinery**
  - Tumbler deburing machinery
  - Deburring drum and edge rounding machinery

• **Zeman Steel Part Sorting**
  - Scanning and sorting add-on-parts in 15 seconds each
  - Ensuring the first step in fabrication is correct and traceable

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Profile Cutting Systems (PCS)

CNC Plasma / Oxy Cutting Machines

optional Drilling & Extra Machining Capacity

Plasma and oxy cutting is one of the first and most important steps in the metal fabrication process. Profile Cutting Systems have a range of plasma cutting machines that will increase your capacity, improve schedule and quality whilst reducing your cost per part.

The latest plasma cutting machine tools include additional functionality so that several tasks can be completed with the clamp once machine complete principle. Several tasks can now be automated such as drilling, counter boring, tapping, thread milling, countersinking, stud welding, pipe cutting, bevel cutting and percussion marking for plate identification.

This one machine has effectively relegated manual machine operations like bevel cutting and magnetic based drilling to the history books. This style plasma cutting, combination drilling and machining centre is the ultimate fabricator for any operation. Ask us how these machines can transform your business today!
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Kaltenbach Plasma Cutting and Drilling Plate Processing Centre with Automatic Material Handling & Part Marking

The Kaltenbach plasma cutting machines with extra machining and drilling is the fabricator’s best choice for processing price-sensitive add-on assembly parts for the structural steel industry.

Kaltenbach has closed the gaps in processing add-on parts to ensure the most competitive cost-per-part is available to Kaltenbach clients with the following competitive advantages:

1. Less scrap is produced saving up to 16% per nest.
2. Bevel cutting and the latest cutting technology with powerful software
3. Dual plasma torches for increased arc on efficiency
4. Automate plate material handling to maximise plasma cutting arc on time increased tonnage processed per hour. Smaller plates processed maximising the full nested sheet minimises scrap & provides faster deliveries similar to a laser cutting machine with shuttle tables
5. Stamp part numbers or V-scoring for identification or layout marking

Increase your capacity, improve your schedule and reduce costs when deploying a Kaltenbach plasma cutting machine with drilling, punching, extra machining capacity and automatic material handling.
HGG 3D Pipe Profile Cutting Machines

Innovative technologies, intelligent software, robust mechanical engineering and modern designs are the four cornerstones of these Netherlands made 3D profile cutting machines. The full complement of 3D profile cutting machines from semi-automatic to lights out operation pipe shops with automated processes and integrated logistics.

HGG 3D Profile Cutting Machines has a variety of material handling solutions for 3D profile cutting for round pipes, square and rectangular pipes and beams to satisfy the most complex cutting and welding tasks - worldwide.

You will find HGG wherever pipes, tanks, beams and other components for the metalworking industry have to be thermally three-dimensionally cut or welded. HGG 3D Profile Cutting Machines leading position in the 3D pipe profiling machine segment on all five continents are in the offshore plant construction platforms and topsides.

Wind turbines, steel construction, shipbuilding, pipeline and process plant engineering and general engineering.
Plate rolling Section Rolling Machines plus Special Forming, Assembly Equipment or Pipe Mill Production lines

Haeusler has the most superior EVO plate rolling machine that you would have previously witnessed. Advantages at a glance.

1. Most intelligent control that requires no specific experience to reach perfect results
2. Widest bending range that is changing the market
3. Best cost efficiency that cuts the entire machine costs in half
4. The worldwide first being machine with integrated ARTIFICIAL INTELLIGENCE
   a. Perfect bending results right from the first workpiece
   b. This Swiss/German machine deserves the name HAEUSLER

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AUSTRALIA, SE ASIA & NEW ZEALAND
Kaltenbach - commission an automatic mitre cutting bandsaw then plug and play a cost effective but robust beamline at a later date!

The Kaltenbach profile drilling beamlines will relegate the magnetic based drills, hand held plasma/oxy torches and manual dd-on part layout marking to the history books.

Small to medium size workshops (up to 15 ton-per-day) can now automate the drilling, cutting, V-scoring and machining of all profiles starting from 250mm. These fabricators can now process and fabricate steel faster with less skills and cost and win more work to achieve a ROI within 24 months.

**STRATEGY CONSIDERATION** - A strategy considered by many fabricators and steel processors is to invest in the saw and automation infeed/outfeed conveyors and transfer stockyards first. They then commission the Kaltenbach profile drilling beam line at a future date. It's simply a matter of pulling the infeed conveyor back a few meters to plug-and-play the beam line so everything is compatible and future-proofed, avoiding the duplication and waste of purchasing a bandsaw twice.
Kaltenbach/Gietardt Shot Blasting Machines

Fabricated steel that is to be painted requires shot blasting to remove mill scale and rust. Any steel being welded with robots such as the Zeman SBA requires shot blasting pre-welding. A portable drill and wire brush isn’t the answer.

Many fabricators don’t have the luxury of floor space for a shot blasting machine and the steel service centres are not adding this value. The fabricator that invests in an automatic shot blasting machine that then transfers the steel to an automatic profile drilling and machining beamline will win competitive advantage and contract out excess capacity to the market. The early adopter will receive the competitive advantage.

European steel service centres shot blast and then apply one coat of red paint prior and deliver steel profiles processed or not to their fabricator clients. The profiles can be fabricated whilst meeting any specification of timing for the paint to be applied after blasting.
Kaltenbach/Gietart Preservation Paint Lines

Fabricators in the northern hemisphere need heaters to dry paint in the colder months or risk having schedule delay and cost overruns whilst waiting for the paint to dry. Automating painting of structural steel is where the industry is now trending in the southern hemisphere. Automatic painting for short runs and different paints is now affordable. The technology included in the preservation automation that Kaltenbach deploy provides confidence that paint inspectors in your workshop will sign off on all key metrics so projects can receive >15 year paint warranties.

Clients will place orders with your business knowing their cost and schedule will not be impacted waiting for paint to dry because of weather or humidity. Delivery penalties will be relegated to the history books & reputations enhanced supplying to tight deadlines.

Take advantage of less labour, less floor space, less delays and a faster cycle time that will increase capacity, improve schedule and re-task man-hours whilst decreasing footprint and headcount required. Your competitors will be asking if you are interested in contracting out additional capacity to the cost and schedule you set.
Beam Welding Automation

Fabricators can increase the commercial value in projects when automating beam welding to supply markets that are currently not served. The capability gap between where the fabricator currently is positioned and where the business needs to be to serve aspirational markets requires innovation and automation that is possible from a beam welding machine. The fabricator can receive competitive advantage when automating beam welding that compliments a fleet of existing structural steel processing machinery.
Zeman SIN Beam Machine

The corrugated web allows the steel beam to be 30% lighter and as strong as hot-rolled or welded beams. The builder can now have longer and lighter spans with less columns for less cost. The fabricator can process SIN beams through their existing fleet of steel processing machinery or fabricate add-on parts with the Zeman SBA machine.
Magnetic lifting technology

INDIVIDUAL MAGNET LIFTING SYSTEMS TO OPTIMISE PROCESSES

Nowadays, it is hard to imagine internal transport in the steel industry without the use of magnet lifting systems. Carrying out force-locking processes safely, quickly and without damaging materials is the main requirement of magnet lifting technology. In addition, achieving a higher packing density in warehousing operations and making efficient use of operating personnel are the key design criteria for a magnet system tailored to meet the customer’s specific requirements.

Detailed knowledge of the material to be transported is required in order to come up with an ideal solution designed to meet the customer’s needs. Unfortunately, there is no such thing as all-purpose magnets or equal hanging distances for the magnets, nor is there a universal solution when it comes to crossbeams or electrical controls. This is why we cooperate closely with the customer when designing the system.

As a well-established supplier of magnet lifting technology, designs and implements comprehensive solutions which perfectly combine crane and magnet systems. We also specialise in retrofitting existing cranes with our magnet lifting technology.
Rollforming, Coil fed Turret and Col fed Fibre Laser Cutting

Dimeco in France is a 3rd generation precision sheet metal machine tool builder that specialise in coil fed turret punch and laser cutting machinery. The Dimeco have automated processing from coil for rollforming, turret and laser that also include other downstream material handling or folding applications that can be discussed to meet your part performance outcomes.
Tailor-made deburring & leveling machines for enhanced quality in sheet metal.

Whether thick or thin parts, heavy or light burrs: We offer a suitable deburring machine for punched, laser or plasma, flame-cut parts. In order to offer you the optimal machine solution, we specifically focus on your parts and your edge processing requirements. Ultimately, we strive to provide you with the best and most consistent parts quality, while achieving low unit costs.

Reproducible flatness and leveling. Always!

Our roller levelers are extremely precise and deliver consistently excellent results. Enormous added value: they save time and minimize both scrap and time wasted on rework. SMS provides a complete range of high performance levelers: from precision levelers for metal parts, sheets, and plates to high performance coil straighteners capable of processing AHSS materials.
Structural steel fabricators understand the cost to assemble add-on parts to steel beams. Many agree layout marking costs 30% of assembly and fit out for add-on parts. This is often done on the workshop floor by skilled fitters. In fact, fabricators in the USA have reported that 25% of the cost per tonne are associated with assembling add-on parts. Automating layout marking will reduce the man-hours to fabricate which will position the business to win more and do more which is what you want isn't it?

Clients of Specialist Machinery Sales can now automate steel beam layout marking with a laser printer that can layout mark all four sides of all the steel profiles, including the inside of the flange. By doing this, fabricators can increase capacity and improve their schedule by 30% because man-hours that were previously dedicated to layout marking can be re-tasked. Clients that are using the steel beam laser layout printers are also improving their bid-to-win ratio by increasing capacity and improving schedule - without increasing headcount or footprint.

In addition, it is not uncommon for fabricators to question whether their workforce is competent to cope with changing technology. Automation will provide you, your client and your workforce with confidence that the most complex sequence can be produced consistently on schedule.

ROI schedules are forecasted at between 15 and 41 weeks, depending on the headcount of the workshop.