

HAGEcut

The first **STEP** into the **FUTURE**



HAGE 
your automatic advantage

www.hage.at

... from automation specialists

Development of the HAGEcut product group is based on thirty years of experience in building special purpose machinery and our striving to create innovative solutions in incomparable sawing machines:

Automatic sawing and deburring of different profile sections and geometries with different cutting angles.

... for manufacturers of all kinds of aluminium and steel profiles

Numerous manufacturers of aluminium and steel profiles already benefit from the automatic advantages of HAGEcut:

- Doors, frames and gates
- Window frames
- Conservatories
- Fittings
- Tubular profiles
- Hydroforming
- Formwork
- Scaffolding

Are you looking for an individual solution to cutting your aluminium and steel profiles fast and precisely?

Then we're the right partner for you!

... take a look at our reference-systems on the following pages



HAGEcut DWS 475



HAGEcut production line



HAGEcut DWS 520



HAGEcut sawing & staming



HAGEcut 720 layer saw

More than thirty years of experience in building special purpose machinery and the team spirit of highly qualified staff combined with top-quality engineering elements make HAGEcut sawing machines what they are:

Highly flexible**Custom degree of automation**

Choose between a partially or fully automated solution. Depending on the requirements of your production and individual needs you can specify the degree of automation of your machine. We focus on YOUR sawing requirements!

Absolute accuracy

We guarantee precise positioning of your workpieces within extremely tight tolerances.

Innovative clamping concepts

Innovative clamping concepts that prevent damage to the workpiece in combination with a precise, stable machine design ensure that the HSS and hard metal saws achieve precision sawing results.

The high-quality saw-blades are manufactured with maximum-sized clamping flanges. This ensures a high level of stiffness of saw-blades in operation.

Great speed**Optimised tooling processes**

With the aid of quick-change clamps, HAGEcut machines are ready for work in next to no time. An automatic saw-blade measuring system after changing blades and extremely short blade changing times optimise the tooling process.

Short production times

The specially developed HAGEcut saw gear system ensures high cutting speeds. Variable saw feed rates across the profile section, rational processes with optimised workpiece handling, innovative concepts, simultaneous machining (sawing, deburring and handling), and dynamic robotic solutions give you a considerable head start.

Extremely user-friendly**Functional design**

Thanks to an optimised design, the energy-efficient HAGEcut machines are easily accessible for everyone. The focus is on optimising space and providing service.

Ingenious machine concept

Easy input of sawing parameters, automatic saw-blade measurement, a soundproofing concept, absolute waste minimisation, and automatic chip disposal increase the quality of working for your staff – and all of this with minimal maintenance required.

Perfectly co-ordinated work processes

You can choose between all customary machine controllers. For example, you visualise your sawing process with a CAD CAM link, while PDA evaluations and an order tracking system deliver transparent, meaningful information about your production data.



Robot loading and unloading workpieces.
Clamp unit mounted on 180° swivel table.



5-axis saw, NC-controlled, Double-angle saw with four positioning axes
(two swivel axes (B, C) and two linear axes (X, Y), and a feed axis.



Excellent running properties thanks to an 11kW saw gear.
Optimised durability by means of extremely small tooth-edge play on the drive (<4 angular minutes).
Chiefly HSSE saw-blades used, but also HM saw-blades.



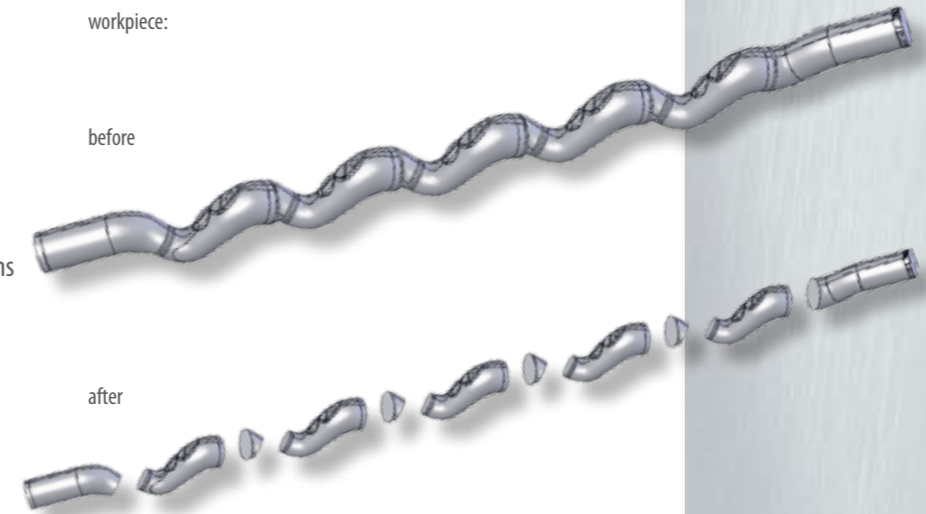
Loading belt:
Manual adjustment to different workpiece dimensions

Quickly turn 1200mm-long different hydroformed construction runs into equal or, if required, different parts:

- Manual placement of pipe runs on the buffer belt
- Automatic identification of parts and position monitoring
- Insertion of pipe runs into clamp workpiece holder by means of robot handling
- Automatic workpiece clamping
- Clamp rotates 180° (sawing position)
- Saw different sections in one clamping
- Clamp rotates 180°
- Robot removes sections and deposits them in separate containers (Bulk goods). The sawing process continues simultaneously.

workpiece:

before



after



The profiles are automatically unstacked and separated, transported by NC to the double-mitre saw, sawn, stamped and stacked in appropriate stacking patterns on post pallets.



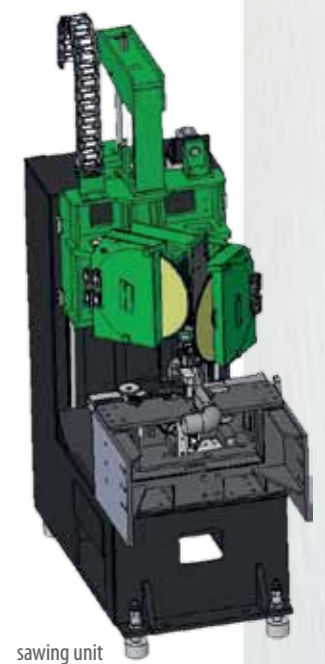
The tried-and-tested HSS double-mitre saw consists of a fixed-mounted and a NC-controlled sawing unit, each with its own clamp and automatic angle adjustment.



Optimised cutting direction feed, angled from bottom to top. Saw gear with 11 KW drive power for saw-blades up to 500 mm diameter.

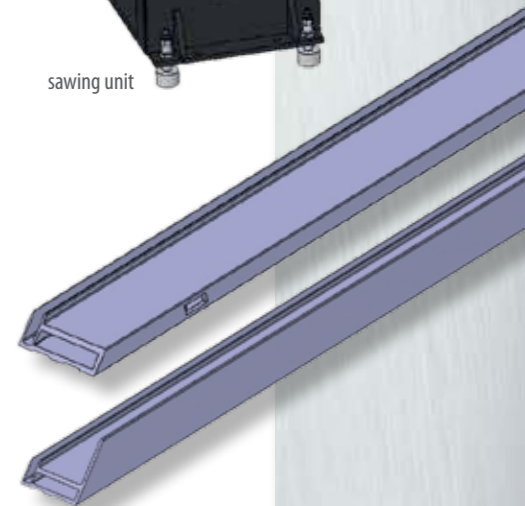
The HAGEcut saw machine for manufacturing solar frame profiles brings automatic benefits for punching and sawing up to 7,000mm-long profiles. With a cycle time of max. 12 sec., up to 486,000 solar frames are machined in one year.

- Manual placement of bars on the buffer feed unit
- Change of type: First part automatically checked for prescribed starting length
- The buffer feed unit feeds the bars into the machine
- The intake roller conveyor is raised to lift the bars off the buffer feed unit
- Alignment of pre-positioned bars by the NC feed grabber by means of a sensor
- The NC feed grabber takes over and positions the bars in the saw
- The cut is performed by saw units with hydropneumatic feed
- A section grabber with fixed stroke transports the cut and punch profile to hand-over position
- Chips and punching waste is blown off and out
- Hand-over to output buffer
- The output buffer feeds the finished profiles out of the machine
- Manual stacking of profiles in transport containers



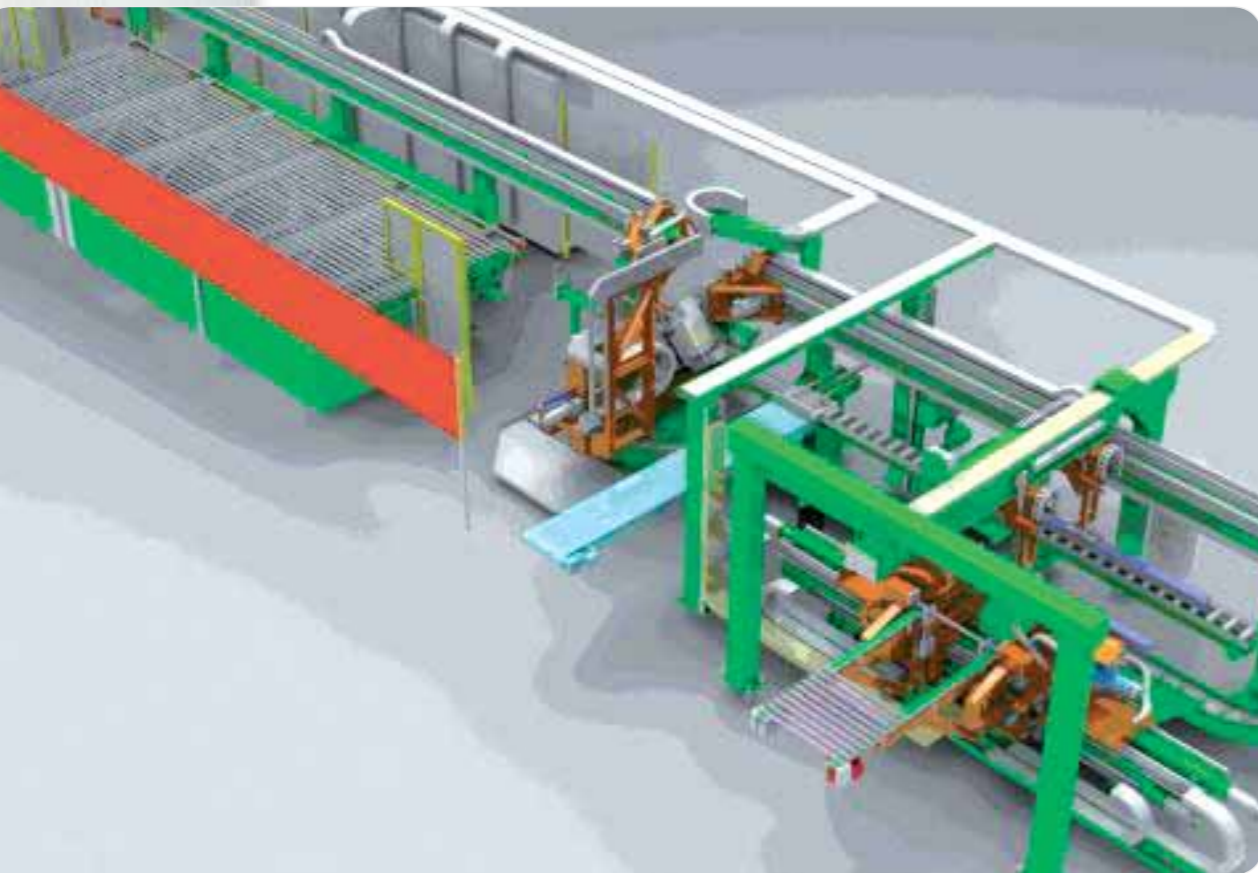
sawing unit

workpieces:



Full view without soundproof cabin





Full view without soundproof cabin



Double-angle saw with two swivel axes and a feed axis for HSS and hard metal blades

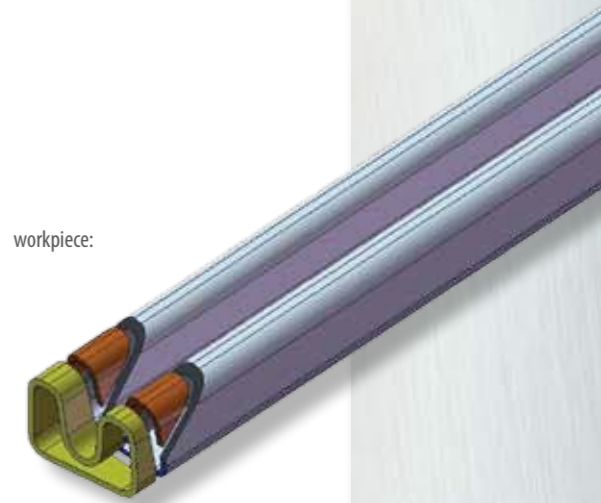
HAGEcut reference systems



Buffer feed unit: intake shuttle

- Manual loading of buffer feed unit (shuttle)
- Hand-over to pneumatically activated loading belt
- The NC feed aggregate positions the single profile in the HM double-angle saw
- Length and angles (multiple angles possible per end) are cut to program
- The NC section grabber positions the part for brush deburring
- The hand-over handling unit feeds the workpieces through the brush/blow-out/measuring station to the finished part storage unit
- Wide range of cut angles deburred by rotating steel brushes in the NC brushing station
- Sawdust is blown out and off the profile in the blow-out station
- Measurement of part length
- Deposited in finished-part storage unit

workpiece:

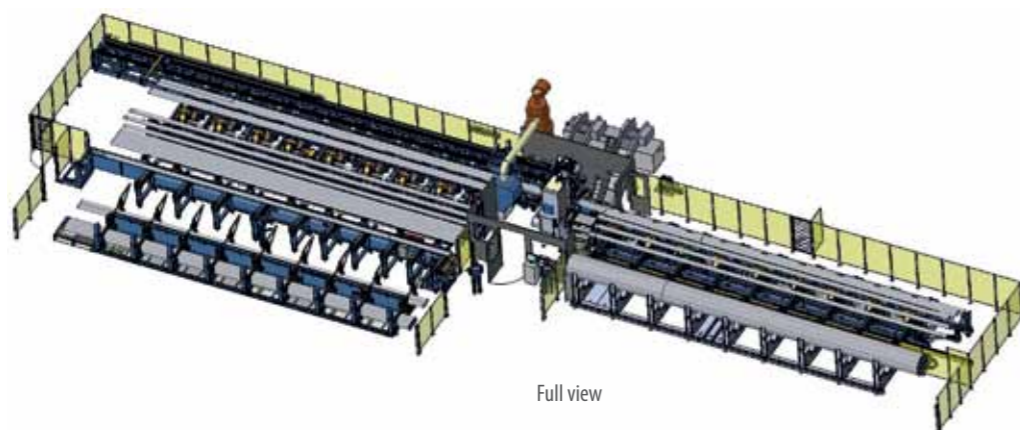


Hydraulic clamping unit



NC brushing and deburring station. The brush aggregates are automatically set to the appropriate cut angle and section length by two swivel axes and a linear axis.

Cuts almost 20-meter-long steel pipes with a diameter of up to 180 mm separately or in layers.

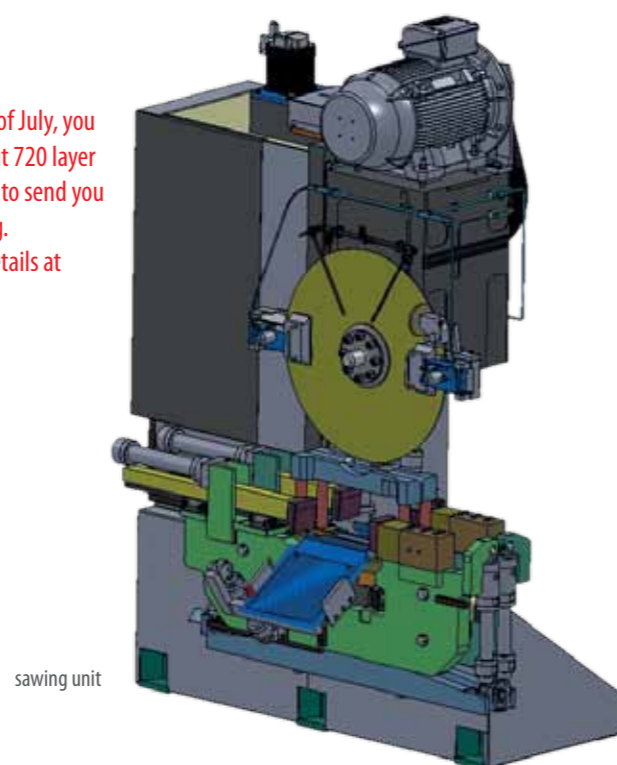


Full view

The pipes are automatically separated, measured and stacked in layers according to their diameter. The layer saw can be fitted with HM saw-blades up to a diameter of 1000 mm, multiple swivelling NC stops with integrated cushioning guarantee fast and precise length adjustment.

After sawing, the machine blows the pipes out, automatically checks inside diameter (drift device), and stores the pipes in trough systems.

At the end of June and beginning of July, you can visit HAGE and see the HAGEcut 720 layer saw for yourself. We will be happy to send you an invitation to a machine viewing. Please let us know your contact details at office@hage.at or by phone on + 43 (0)3578 22 09



sawing unit

At HAGE, we look for challenges. Every day. That's why we look forward to customers with high demands. Only they allow us to wield our full potential in developing machinery.

Our 90 highly qualified members of staff develop and manufacture a unique piece of machinery for every single customer, machinery that is not only fine-tuned to the customer's individual requirements, but also, of course, in line with the latest state of the art.

One-stop solutions

In keeping with our philosophy of providing "one-stop" solutions, the range of services we offer goes from development to engineering, production and assembly to service and maintenance tasks all over the globe.

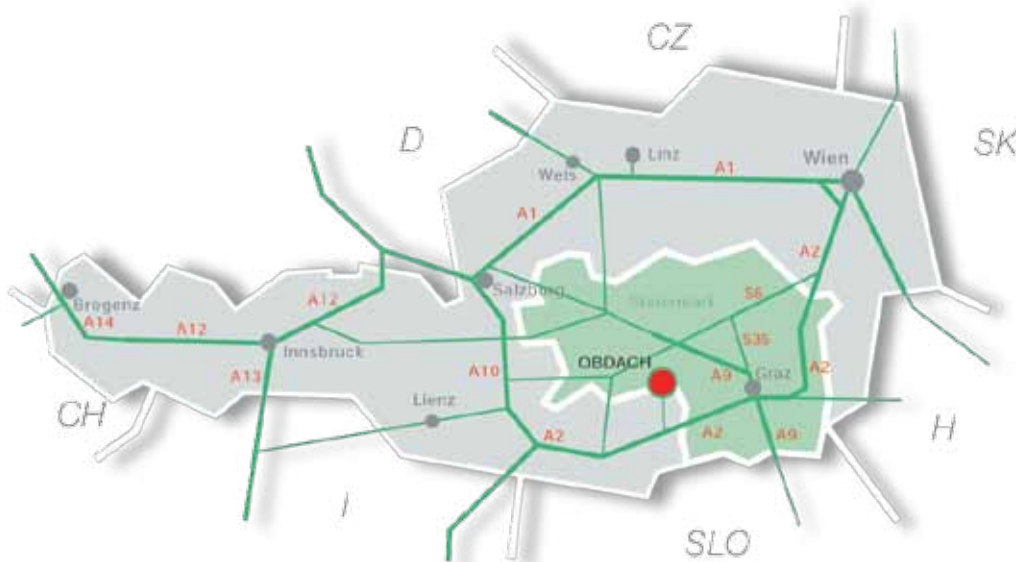
We have specialised

HAGEcut	Fully and partially automated sawing machines
HAGEmatic	Fully and partially automated portal machining centre
HAGEwood	Fully and partially automated timber machining
HAGE your automatic advantage	Special purpose machines
HAGE your automatic advantage	Manufacturing systems
HAGE your automatic advantage	Welding machines

For more information please refer to the appropriate brochures and www.hage.at.



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