

Voortman

FLAT AND ANGLE PROCESSING

High performance flat and angle processing machinery



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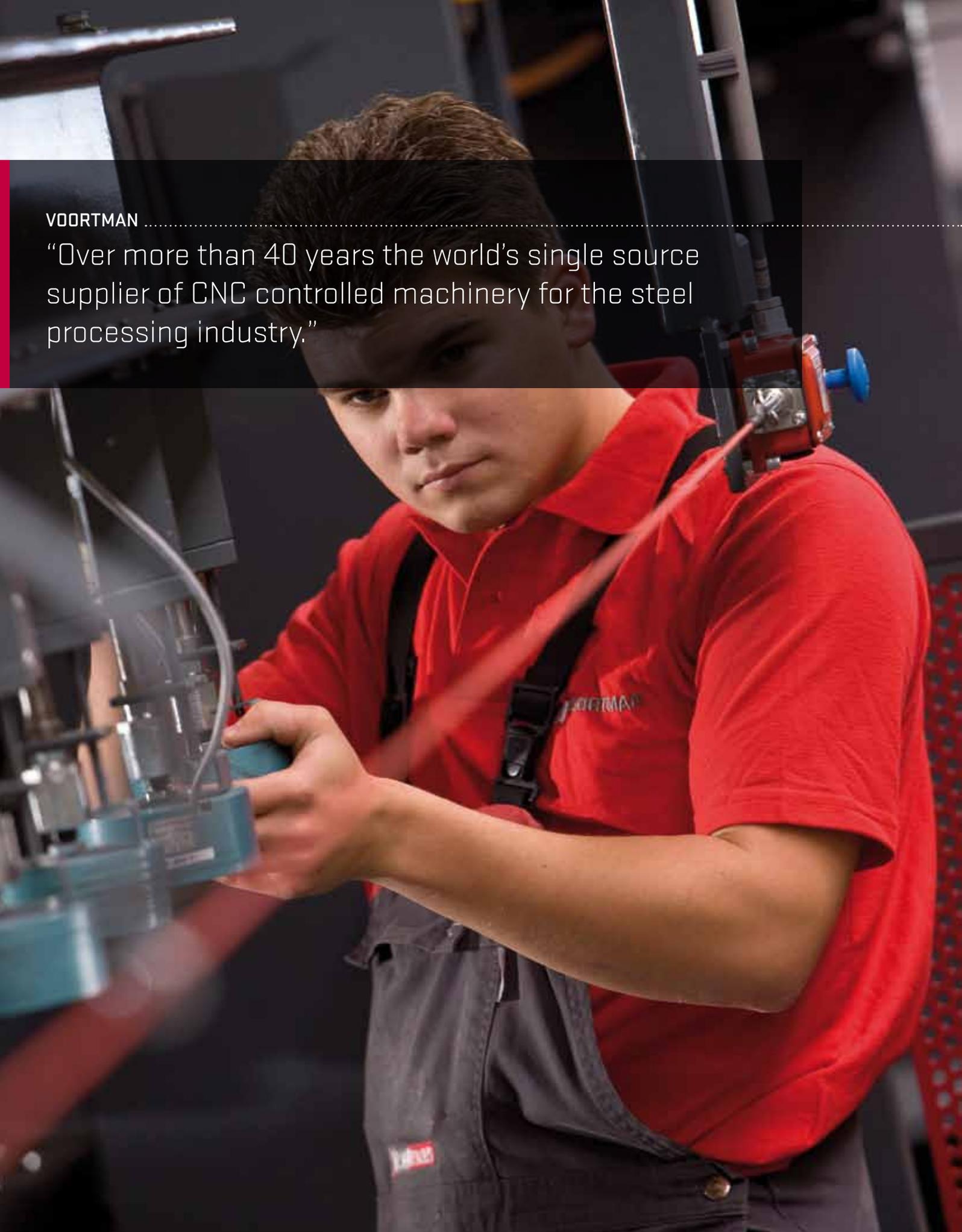
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A young man with dark hair, wearing a red polo shirt and grey overalls, is focused on adjusting a blue component of a large industrial machine. The machine has various metal parts, a blue handle, and a red laser line. The background is a blurred industrial environment with metal structures and a red perforated safety fence.

VOORTMAN

“Over more than 40 years the world’s single source supplier of CNC controlled machinery for the steel processing industry.”

VOORTMAN

Voortman has designed, developed and manufactured machinery for steel fabrication and plate processing related industries for more than 40 years. With international subsidiaries responsible for sales and service, we are a globally recognized supplier with thousand's of Voortman systems installed. We continually develop our equipment range to enable us to keep at the forefront of technology and in step with any new developments in the market.

Tailor made

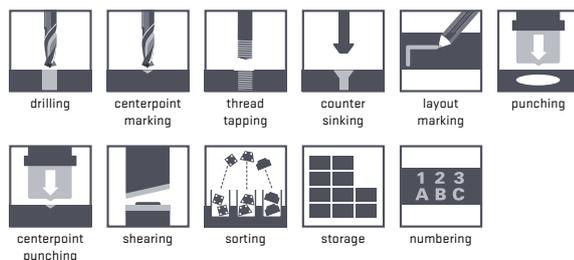
Voortman has developed machinery to cover all aspects in processing structural steel. The extensive range of equipment guarantees the right solution for every application.

Voortman has designed different angle processing machines covering the complete industry. The wide product range in combination with the various material handling options ensures that Voortman is able to offer a tailor made configuration for production of various products like connection plates, base plates, stiffeners, clip angles, truss components, wind braces, electricity towers etc.

Examples

This brochure shows you examples of flat and angle processing systems. The three-dimensional images give you a glance of the advantages of each individual system. The angle processing machines can be equipped with different measuring systems at customer's choice. For the towering industry the angle machines are equipped with a feeder truck while machines used for structural steel fabrication are mounted with measuring rolls.

LEGEND



SOFTWARE

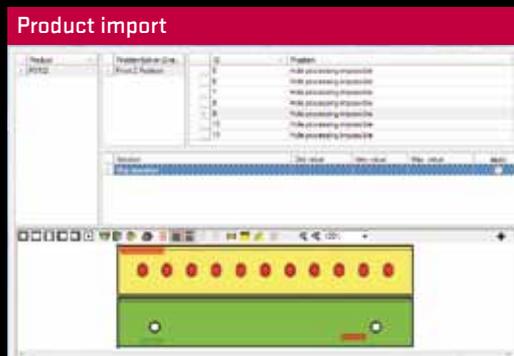
“Voortman’s software VACAM is the most sophisticated and user-friendly machine software in the market.”



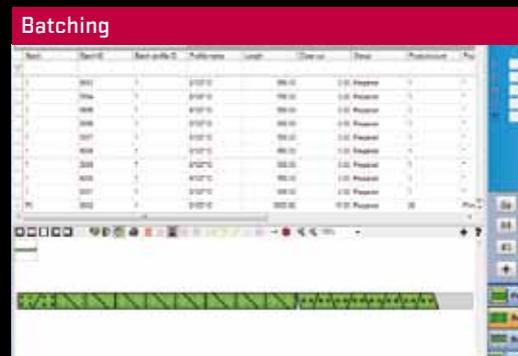
SOFTWARE

The VACAM Control Software is a Voortman development and a result of many years of experience in the steel machinery business.

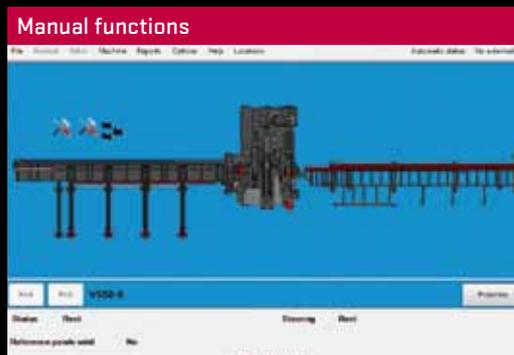
Every machine in the Voortman delivery program is equipped with the VACAM Control Software. As a result all machines have the same “look-and-feel” which significantly reduces the learning curve.



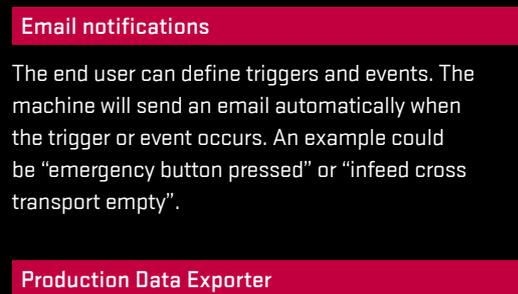
If there are any foreseeable production problems the integrated problem solver will be started and will suggest the best solution(s). This increases the efficiency and runtime of the system because it will not stop during production.



VACAM will analyze the imported products and batches instantly and mirrors, where necessary, the profiles for efficient use of the material.



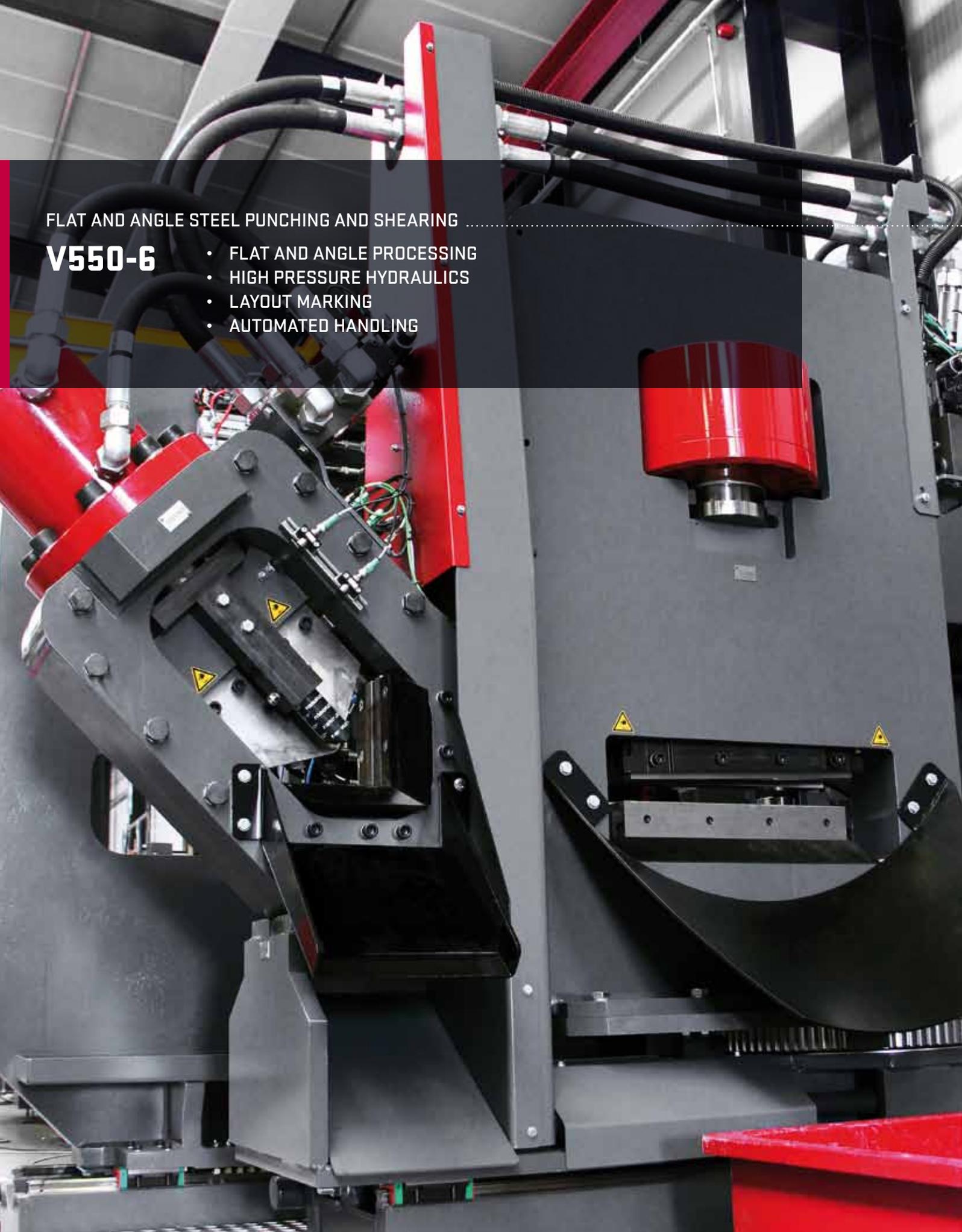
Operators have a clear overview of all active components in the manual mode of the system where several settings can be modified instantly. In this way diagnostics can be made very quickly.



The end user can define triggers and events. The machine will send an email automatically when the trigger or event occurs. An example could be “emergency button pressed” or “infeed cross transport empty”.



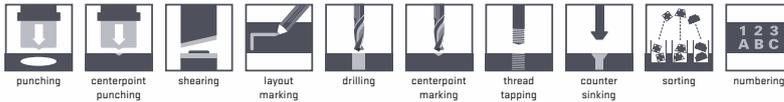
All operations and motions performed on the system are stored in an SQL database for sharing with any ERP, MRP, MIS and BIM software systems. For a more detailed report the Production Data Exporter module can be used. This module allows real-time fabrication information sharing.



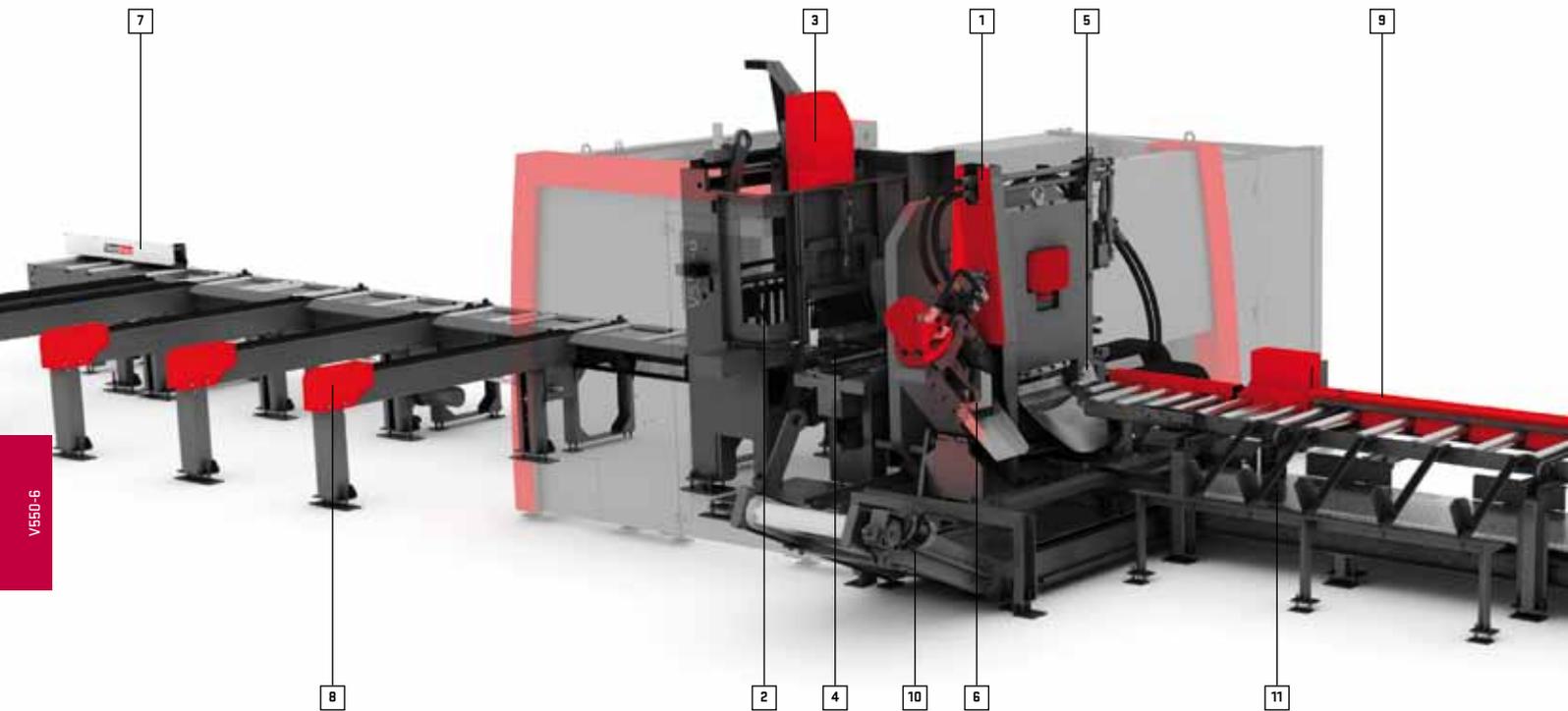
FLAT AND ANGLE STEEL PUNCHING AND SHEARING

V550-6

- FLAT AND ANGLE PROCESSING
- HIGH PRESSURE HYDRAULICS
- LAYOUT MARKING
- AUTOMATED HANDLING



Specifications		V550-6
Flat steel	mm	50 x 5 - 500 x 25
	inch	2 x 19/64 - 19-5/8 x 1
Angle steel	mm	50 x 5 - 200 x 16
	inch	2 x 19/64 - 8 x 5/8
Positioning weight	kg	750
	lbs	1,650
Positioning		servo motor
Positioning speed	m/min	70
	f/min	230
Hydraulic unit	kW	30
	Hp	40
Hydraulic pressure	bar	350
	psi	5,075
Hydraulic flow	L/min	260
	Gal/min	69
Marking		milling
Vertical punches		6
Punch capacity	tonnes	110 (metric)
	tons	120
Horizontal punches		1
Punch capacity	tonnes	70 (metric)
	tons	77
Flat shear (45°)	tonnes	220 (metric)
	tons	242
Angle shear	tonnes	100 (metric)
	tons	110
Drilling units		1 vertical (option)
Nominal drill power	kW	30
	Hp	40
Speed	rpm	0 - 2.500 stepless
Tool changer		1 x 5
Drill holder		SK40
Drill diameter	mm	5 - 40
	inch	19/64 - 1-9/16
Thread tapping		M6 - M30
	inch	1/4 - 1-1/16
Machine weight	kg	15,000
	lbs	33,100



6-fold punch



The V550-6 has 6 punches available offering high flexibility. With a large capacity hydraulic pump, it creates the highest speed possible and is therefore the fastest punch in the market.

Horizontal punch



For punching the holes in your angle steel, the V550-6 has a horizontal punching machine. It has the capacity of 70 tonnes (77 tons) for punching \varnothing 31 mm in 16 mm thick material.

Drilling unit



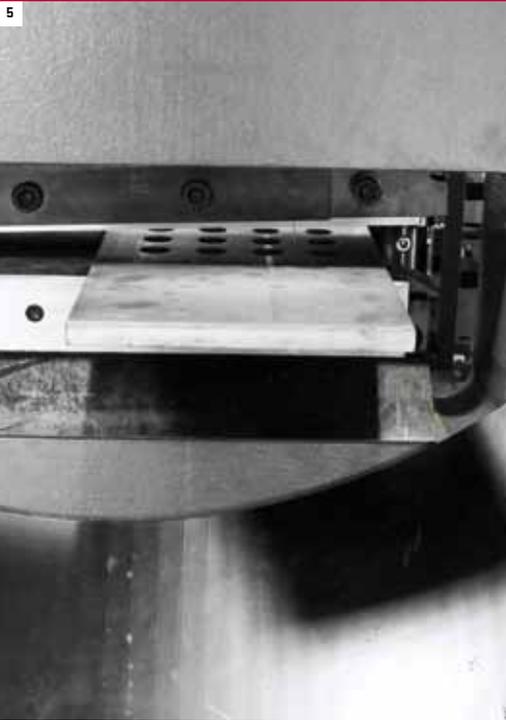
This drilling unit is a perfect example how Voortman builds her program of machines. The drilling head as well the automatic tool changer with 5 tools, are the same as all other drilling machines in the Voortman range. This means the same large 30 kW servo drive with a maximum of torque in the full range from 1 up to 2.500 rpm: perfect for carbide drilling. Our new design of the drilling unit enables high speed drilling on less floor space.

Layout marking by milling



Layout marking is a standard feature on the V550-6. It is used for marking part numbers and of course all required lines and contours on your products for quick assembly of your construction. The layout marking unit is integrated in the horizontal punch.

Flat steel shear



The flat steel shear has an unmatched stability and strength. The 220 tonnes (242 tons) capacity combines strength with high speed shearing. And standard, of course, mitre cuts +/- 45° possible.

Angle steel shear



The angle steel shear now shears an angle according to a double cut principal. This means the benefit of the best quality possible of the products, unmatched in the world. And due to its new design, less floor space.

Servo drives



Due to the layout marking unit, the V550-6 is equipped with servo drives: high controllable movements for perfect and accurate lines on your products. Next to that, high speed transport of the feeder truck, up to 70 m/min (230 f/min).

Automatic infeed cross transfers



The cross transports with pneumatic drag-dogs, take care of the automatic infeed of the material on to the roller conveyor. There is space to load enough material, to run the system fully automatic for periods of time, without the need of an operator.

Automatic outfeed roller conveyor

To transport long products, Voortman offers the outfeed roller conveyor. The rolls are motor driven to ensure high speed. After positioning, the long products will be pushed in cross direction. When producing short products, the first part of the conveyor will automatically go up, without any downtime of the machine.

Product outfeed conveyor belt

After the finished products are released they end up on the conveyor belt under the system. The products are fed in cross direction to a comfortable position at operator's height or discharged in a product bin.

Automatic sorting system

To prevent additional work for the operator and to be able to nest the same width of material from different orders, this sorting system is your solution. With the VACAM software your products can be sorted in different bins, one bin for each order or phase. With this sorting system the output of your V550-6 punching and shearing system can easily be increased by 25%. This system can be combined with the automatic outfeed roller conveyor.

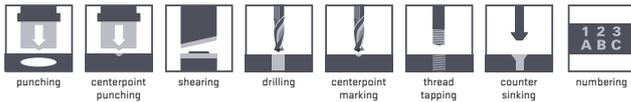
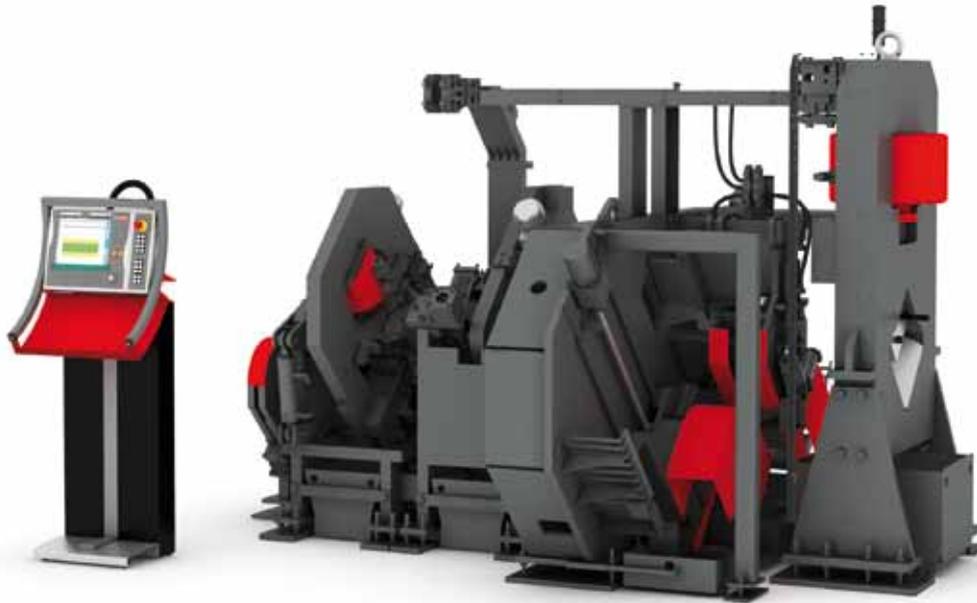
Voortman

ANGLE PUNCHING AND SHEARING FOR TOWER MANUFACTURING

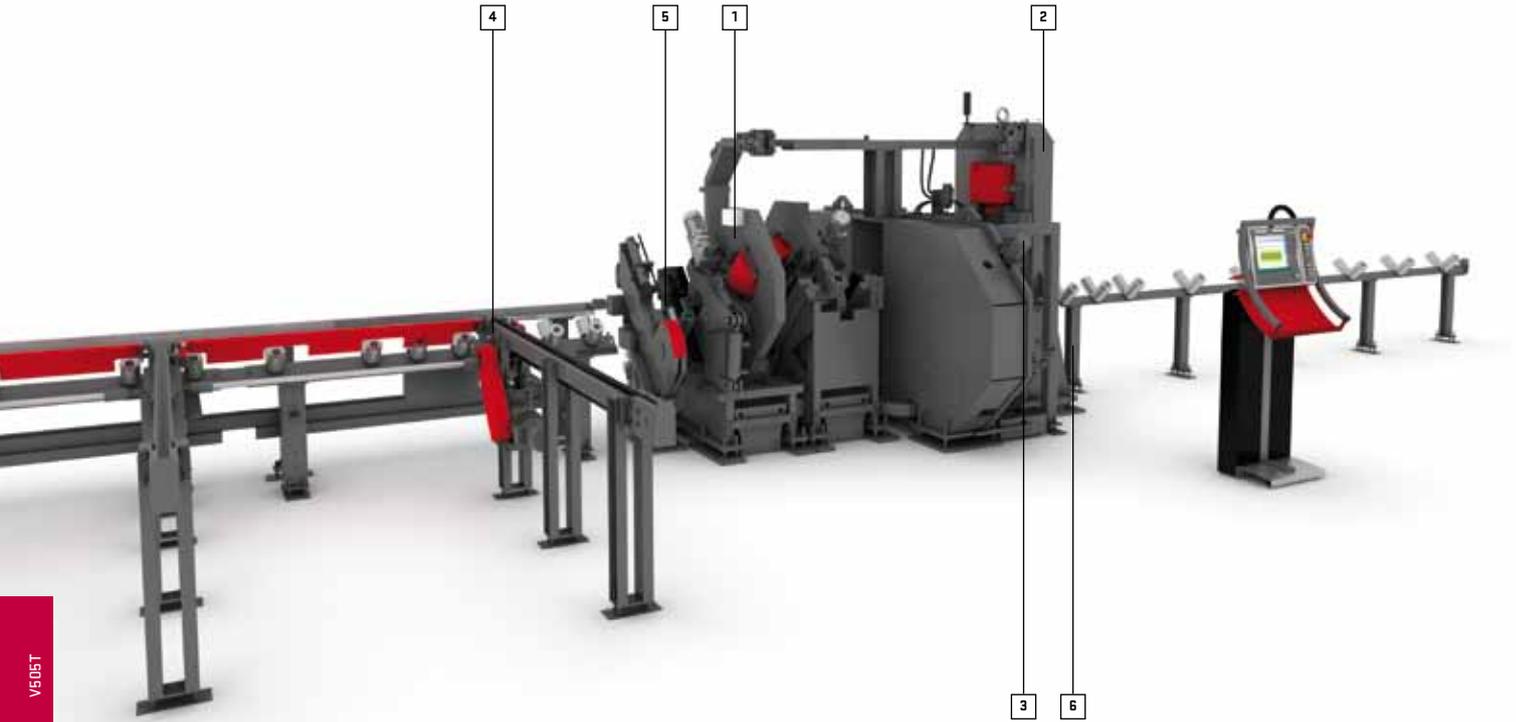
V505T

- TOWER INDUSTRY
- HIGH PRODUCTION VOLUME
- FULL AUTOMATION
- HIGH PRESSURE HYDRAULICS
- CARBIDE DRILLING



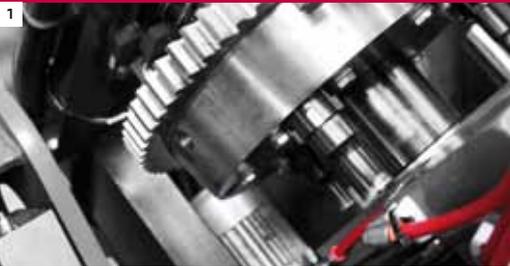


Specifications		V505-250T
Angle steel	mm	60 x 6 - 250 x 29
	inch	2-3/8 x 1/4 - 9-7/8 x 1-1/8
Positioning		servo motor
Positioning speed	m/min	100
	f/min	328
Hydraulic unit	kW	30
	Hp	40
Hydraulic pressure	bar	350
	psi	5,075
Hydraulic flow	L/min	260
	Gal/min	69
Punches		2 x 3 (option) 2 x 6 (option)
Punch capacity	Tonnes	110 (metric)
	Tons	120
Angle shear	Tonnes	500 (metric)
	Tons	550
Drilling units		2 (option)
Nominal power	kW	30
	Hp	40
Speed	rpm	0 - 2.500 stepless
Tool changer		2 x 5
Drill holder		SK40
Drill diameter	mm	5 - 40
	inch	3/64 - 1-9/16
Thread tapping	mm	M6 - M30
	inch	1/4 - 1-1/16
Punch weight	kg	6.500
	lbs	14,300
Drill weight	kg	5.000
	lbs	11,000
Shear weight	kg	4.000
	lbs	8,800



V505T

2x 3-fold rotating punch head



The V505-250T can be equipped with 2 punch stations. Each station has a rotating punch head with three or six punches and a die holder with three dies. When different hole sizes are required, the machine switches automatically between punch and die diameters.

Angle shear



The shear blades of the Voortman angle lines can be used on 4 sides, each having a different radius to ensure the best quality cut.

2x Drilling unit with tool changer



The V505-250T can also be equipped with 2 drilling units, each having a tool changer with 5 tools. All axes, including the 30 kW drilling motor, are synchronized servo drives for optimal performance.

Hydraulic numbering unit



The hydraulic numbering unit can be used to mark products with part numbers, so it can be recognized in further production steps. The disc holds 36 characters, which are selected automatically.

Feeder truck with material sensor



Making the V505T angle lines unique is the servo driven feeder truck, accelerating to its full speed of 100 m/min (328 ft/min) in a fraction of time. The feeder truck is equipped with a material detection sensor eliminating manual intervention completely. It grips the material by itself and start processing immediately.

Additional punches

The V505-250T punching unit is prepared to have 3 additional punches next to the standard 3 which are always included. An advantage if a lot of different hole sizes are used in the production, saving precious time to change tools.

Servo driven spindles

All the main movements within the machine are driven by synchronized servo drives with spindles, for example the movement of the punching frames and drilling units.

Automatic infeed cross transfers



The entire infeed cross transport can be loaded with angles positioned next to each other. When the DSTV files are loaded, the system automatically separates the first angle and drops it down towards the roller conveyor. Rubber stoppers catch it just before hitting the rollers in order not to cause any damage.

Automatic outfeed system



To ensure the Voortman angle lines fully automatic production cycle, an automatic outfeed system can be added. This system exists out of a short liftable conveyor section to drop small pieces behind the shear without damaging the roller conveyor, a driven material advance to push the angle forward until it is free from the machine and a tilting conveyor to drop the angles in either of the two outfeed positions.

VM 8/13 numbering unit

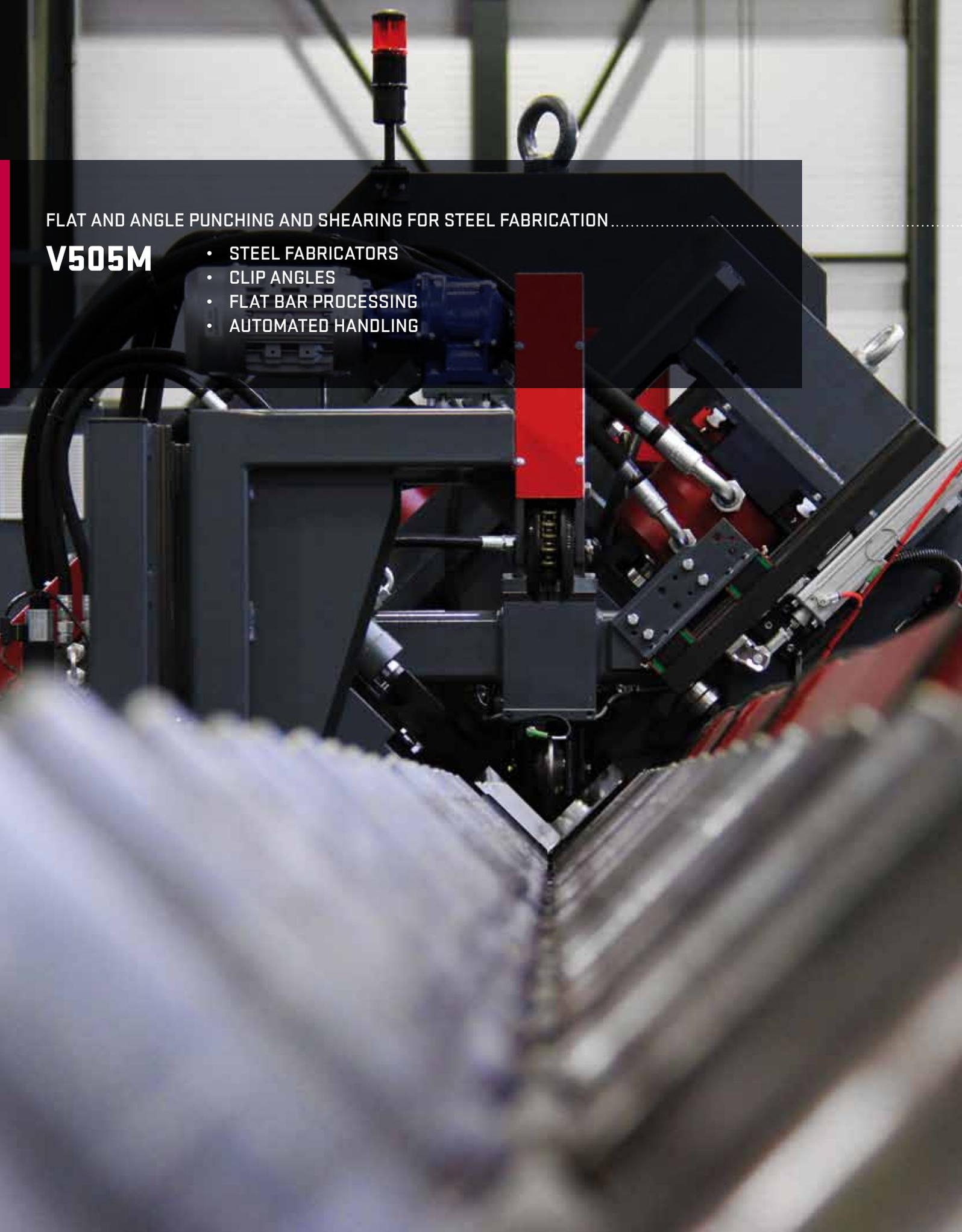


The VM 8/13 exists out of a frequency driven rotating drum which contains 8 character magazines with each 13 characters. It can imprint a complete row of characters at once. When different character sets are required the machine switches automatically.

High pressure hydraulic



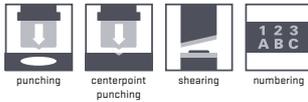
The hydraulic system of the angle lines is optimized to a high volume and maximum pressure and flow, making the punching and shearing speed extremely fast.



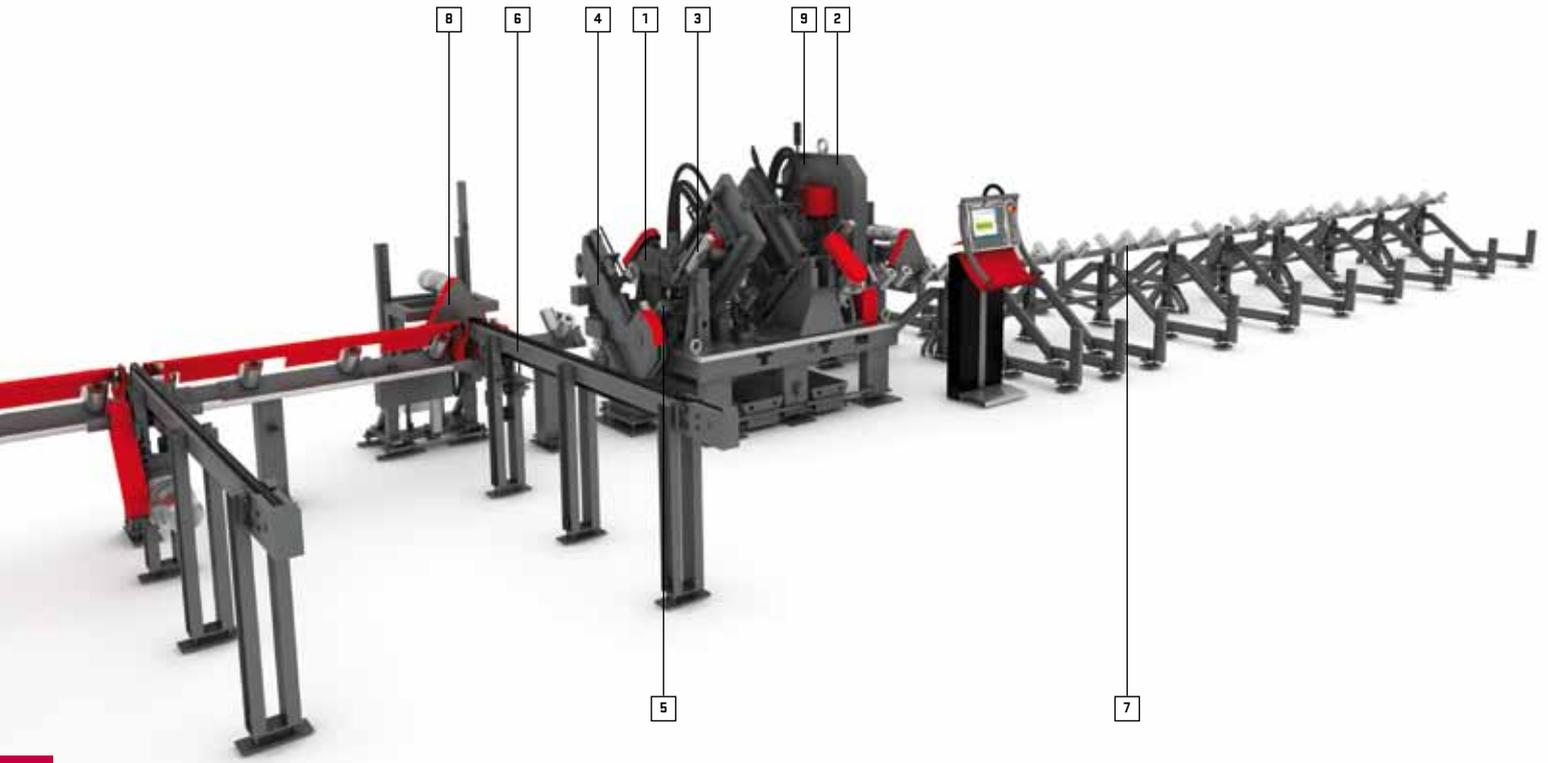
FLAT AND ANGLE PUNCHING AND SHEARING FOR STEEL FABRICATION

V505M

- STEEL FABRICATORS
- CLIP ANGLES
- FLAT BAR PROCESSING
- AUTOMATED HANDLING



Specifications		V505-160M	V505-200M
Angle steel	mm	40 x 4 - 160 x 16	50 x 5 - 200 x 25
	inch	1-9/16 x 5/32 - 6-5/16 x 5/8	2 x 19/64 - 8 x 1
Flat steel	mm	75 x 6 - 160 x 16	75 x 6 - 300 x 25
	inch	3 x 1/4 - 6-9/16 x 5/8	3 x 1/4 - 11-3/4 x 1
Hydraulic unit	kW	15	15
	Hp	20	20
Hydraulic pressure	bar	315	315
	psi	4,570	4,570
Hydraulic flow	L/min	105	105
	Gal/min	28	28
Punches		2 x 2	2 x 4
Punch capacity	tonnes	70 (metric)	120 (metric)
	tons	77	132
Angle shear	tonnes	245 (metric)	400 (metric)
	tons	270	440
Punch and shear weight	kg	6,295	9,000
	lbs	13,880	19,850



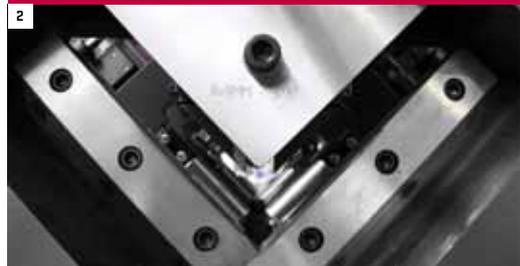
V505M

2x Double punch unit



Both V505M angle lines have automatic punch selection. The V505-160M has 2 double punch units, the V505-200M has 2 rotating punch units with 4 punches each.

Angle shear



The shear blades of the Voortman angle lines can be used on 4 sides, each having a different radius to ensure the best quality cut.

2x 4-fold rotating punch head



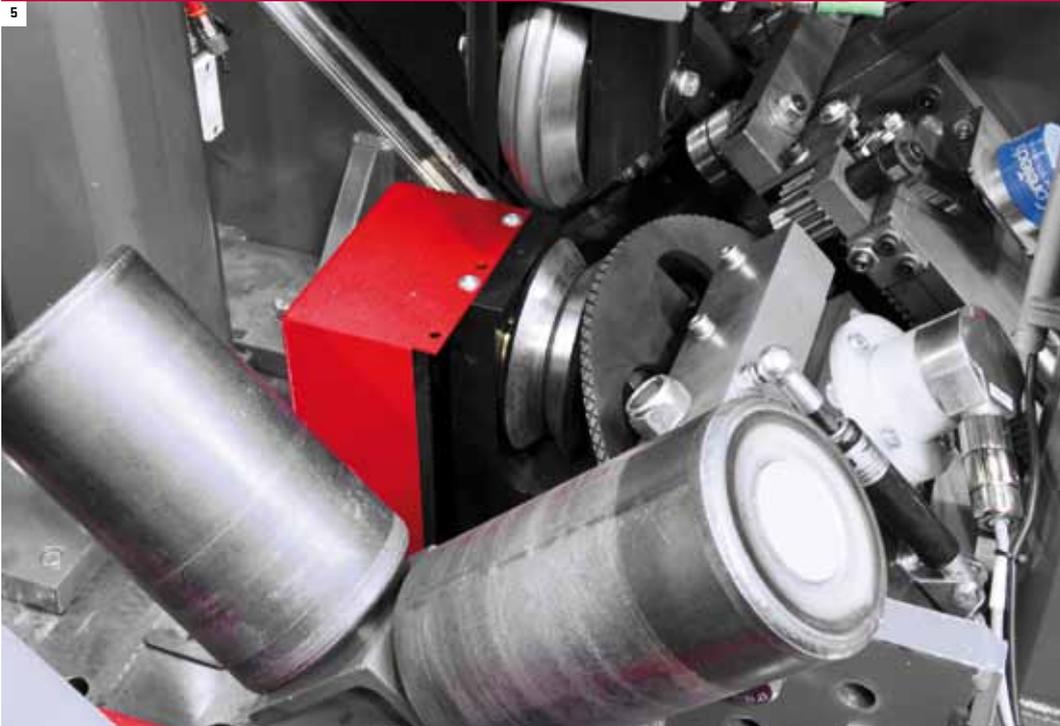
The V505-200M is equipped with 2 punch stations. Each station has a rotating punch head with four punches and a die holder with three dies. When different hole sizes are required, the machine switches automatically between punch and die diameters.

Hydraulic numbering unit



The hydraulic numbering unit can be used to mark products with part numbers, so it can be recognized in further production steps. The disc holds 36 characters, which are selected automatically.

Roller feed measuring unit



The roller feed measuring system makes especially the short movements in these angle lines fast, which is very suitable to make clip angles. Another advantage is that next to processing angles, the roller feed system is also suitable for flat bars.

Automatic infeed cross transfers



The entire infeed cross transport can be loaded with angles positioned next to each other. When the DSTV files are loaded, the system automatically separates the first angle and drops it down towards the roller conveyor. Rubber stoppers catch it just before hitting the rollers in order not to cause any damage.

Automatic outfeed system



To ensure the Voortman angle lines fully automatic production cycle, an automatic outfeed system can be added. This system exists out of a short liftable conveyor section to drop small pieces behind the shear without damaging the roller conveyor, a driven material advance to push the angle forward until it is free from the machine and a tilting conveyor to drop the angles in either of the two outfeed positions.

Powered material advance



The powered material advance system moves the angle lying in the roller conveyor forward and hands it over to the roller feed measuring system. This unit is required to make the entire system fully automated.

Compact all-in-one frame



All machine parts are built on one frame. This ensures fast installation and a small foot print for minimal loss of valuable workshop space.

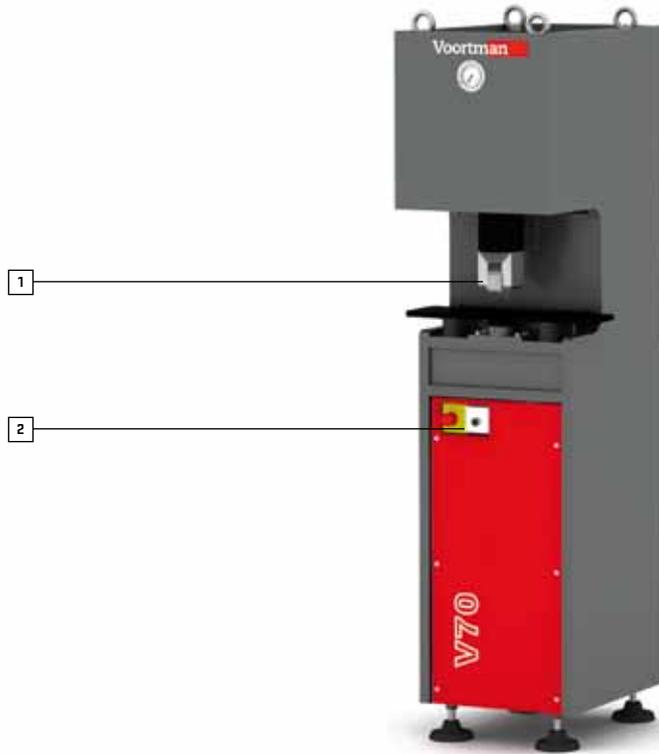
FLAT AND ANGLE NUMBERING

V70

- 6 CHARACTER NUMBERING
- MANUAL OPERATION

Voortman





numbering

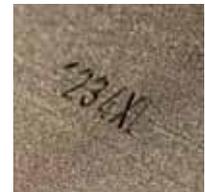
Specifications		V70/6
Discs/characters		6 x 10
Character height x imprint	mm	10 x 1
	inch	$\frac{3}{8}$ x $\frac{3}{64}$



Quick numbering



Easy control



Highly visible

FLAT AND ANGLE STORAGE.....

V3100

- SAVES PRECIOUS FLOORSPACE
- ORGANIZED MATERIAL STORAGE
- EASY MANUAL OPERATION





storage

Specifications		V3100
Number of bins		7
Capacity	kg/bin	10.000
	lbs/bin	22.000
Length inside	mm	6.300
	feet	20-5/8
Width inside	mm	2.320
	feet	7-5/8
Height inside	mm	170
	inch	6-3/4



1
Organized storage
of material



2
Bins controlled by
electro motors

AFTER SALES

“Reliability, speed and continuity, would describe the Voortman Service Department.”



AFTER SALES

OUTSTANDING SERVICE AND SUPPORT

Thanks to many years of experience we know how important it is to have a dependable helpdesk. The qualified service team at Voortman is capable of repairing all kinds of disruptions and minimizing the result of any interruption. All of our engineers started their careers in either the workshop or in field service, so they know the ins and outs of the Voortman machines and what happens on the fabrication level.

Over 90% of all requests are solved directly by our helpdesk. When it is not possible to help in this manner, an engineer will arrive on site. To avoid machine disruptions and to minimize the results of any interruption of production processes we offer our customers various types of maintenance contracts.

For all questions regarding maintenance, installation and other technical issues, please call our helplines or send an e-mail. A Voortman engineer will respond as soon as possible.

Contact details Voortman helpdesk:

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PARTS AND CONSUMABLES

Using the correct tools and lubricants is of great importance for the lifespan of your machine and helps to maximize production and minimize downtime. In our large, fully stocked, automated warehouse we have all the parts and consumables for our machines and other brands in stock. In this way we can guarantee favorable prices and fast delivery. Thanks to our many years of experience in the steel processing sector we know exactly which tools can be used for each machine type.

Contact details Voortman parts and consumables:

Voortman (General)	Voortman (USA)	Voortman (Russia)	Voortman Cutting Systems
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parts@voortman.net	parts@voortmancorp.com	parts@voortman.ru	parts-vcs@voortman.net

Online spare parts catalog

Voortman also offers the possibility of ordering your spare parts online. From now on all new machines are connected with an online spare parts catalog. Select your parts in the corresponding drawing of the machine modules and a few clicks later your order is placed.

VOORTMAN ACADEMY

To lift the knowledge and skills of your personnel to a higher level Voortman organizes operator and maintenance trainings and consultancy services. The Voortman Academy instruction hall is completely equipped with modern training facilities in order to reduce the training time on-site to a minimum.

For more information, please contact us on +31 (0)548 536 373

CONTACT

“Contact us and find out how Voortman makes your business more productive.”



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VOORTMAN DEALER NETWORK

Our comprehensive dealer network is here for you - wherever you are, whatever the job calls for. The strength of the Voortman network is built around supporting you - not just at the time of purchase, but throughout the long life of your Voortman equipment.

Find your local dealer at www.voortman.net

