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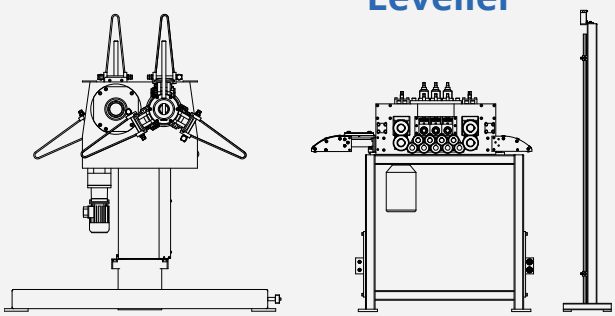
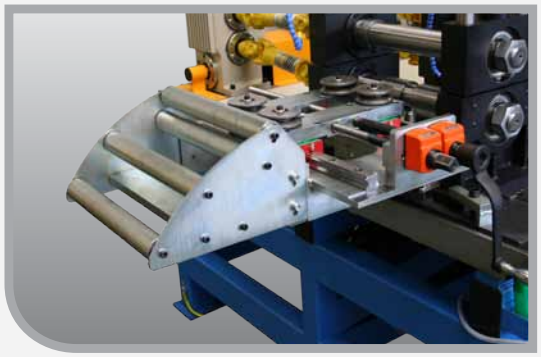
ROLLFORMING LINES

Universal Rollforming Lines



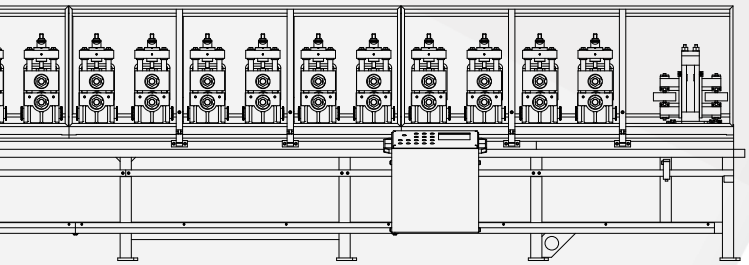


Guiding vice

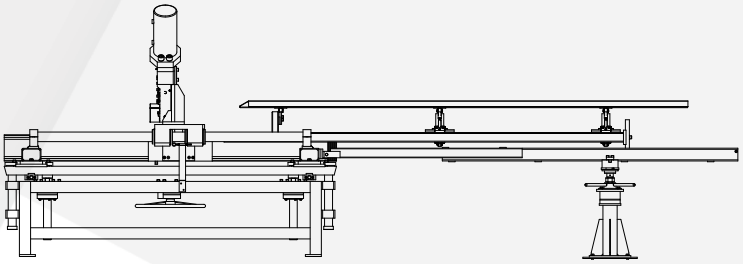
Quick change cassettes

We design the rollforming line according to your requirements

- Custom design and manufacturing
- Own production of all machine parts
- Connection to a company computer control system
- Quick change cassette system
- Parts production, including holes, cutouts and bends
- Automatic stacking systems
- Speed up to 80 m/min
- Production accuracy +-0,1 mm



Rollforming line



Cutting unit

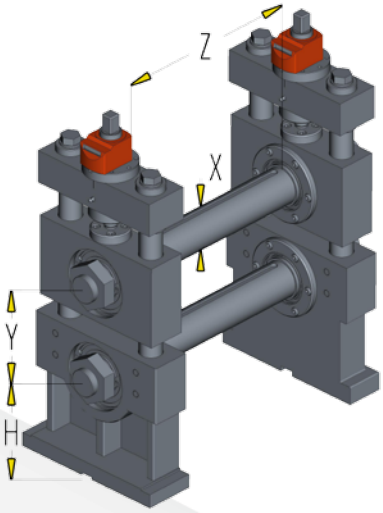
Run out table

Straightener

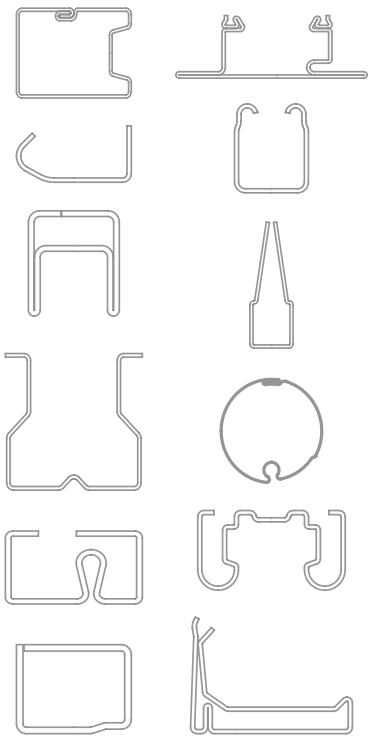
Machine drive

Flying cutting unit

Profiling stand	H	Y	X	Z
PZM	100	97 - 140	35	160 - 300
PZA	120	90 - 145	44	160 - 420
PZB	150	116 - 176	50	140 - 730
PZC	180	140 - 200	65	160 - 760
PZD	220	160 - 270	80	400 - 820

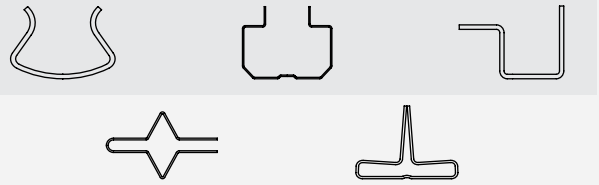


Examples of use



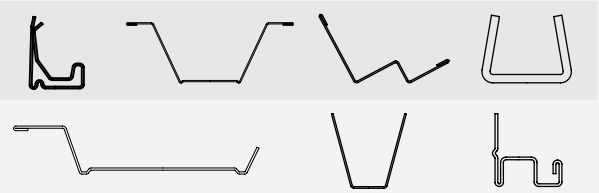
Compact Rollforming Lines

VS 7



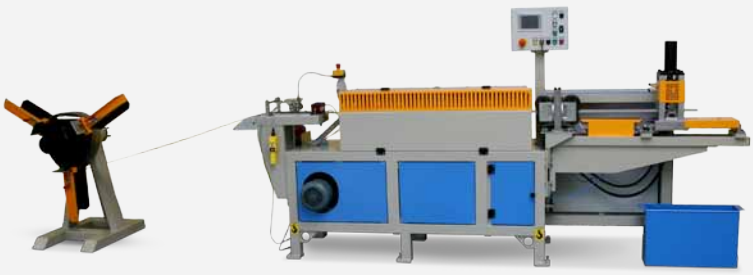
Number of stands	Shaft diameter	Material thickness	Material width
8/16	Ø 50 mm	max. 2 mm	150 mm

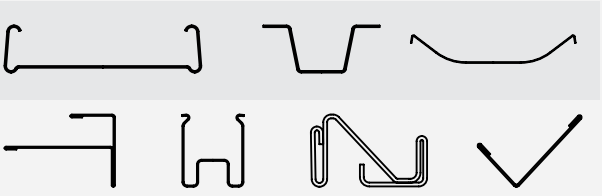
VS 5



Number of stands	Shaft diameter	Material thickness	Material width
10/20	Ø 35 mm	max. 1,5 mm	120 mm

VS 4

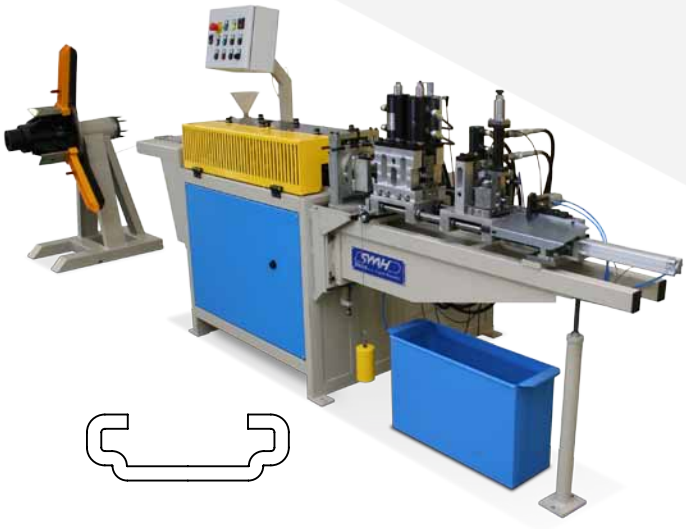


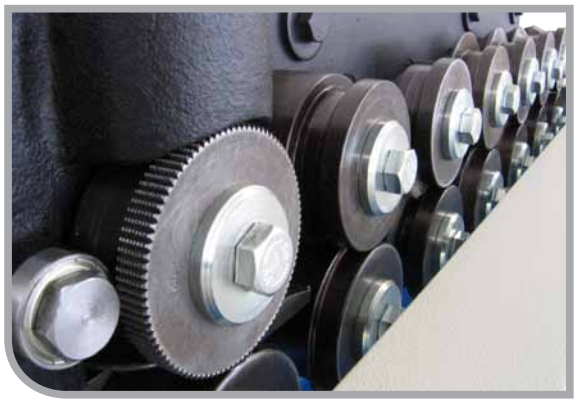


Number of stands	Shaft diameter	Material thickness	Material width
8/16	Ø 35 mm	max. 1,5 mm	120 mm

- Simple rollforming lines
- Double sided rollforming
- momentary placement of the rolling tools
- Cost effective machines
- Manual and automatic control
- Parts production from a coil or from the sheet metal strip
- Fixed shafts pitch
- CNC control

VS 1, 2, 3





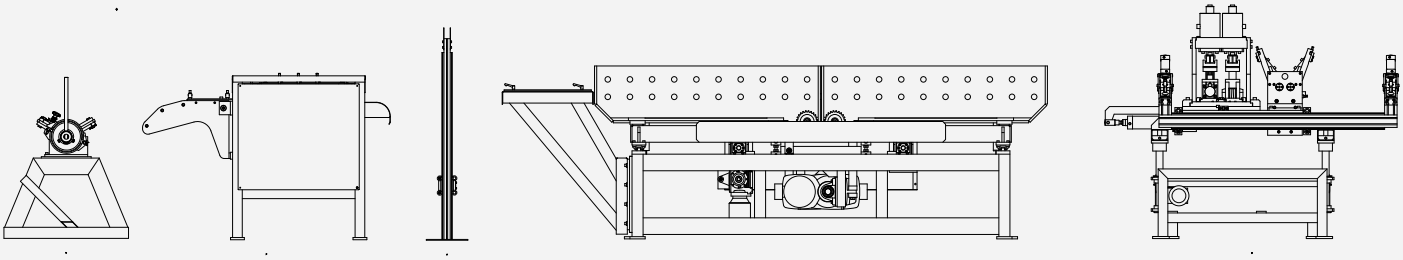
	Number of stands	Shaft diameter	Material thickness	Material width
VS1	7	Ø28 mm	max. 1 mm	60 mm
VS2	9	Ø28 mm	max. 1 mm	60 mm
VS3	11	Ø28 mm	max. 1 mm	60 mm

VS1

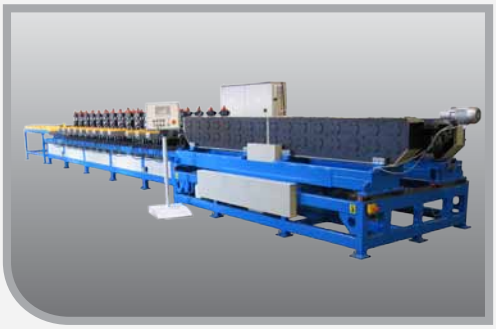
VS2

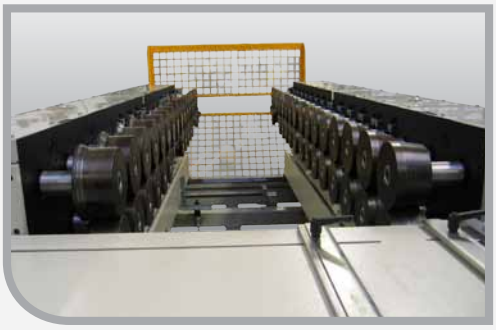
VS3

Duplex Rollforming Lines

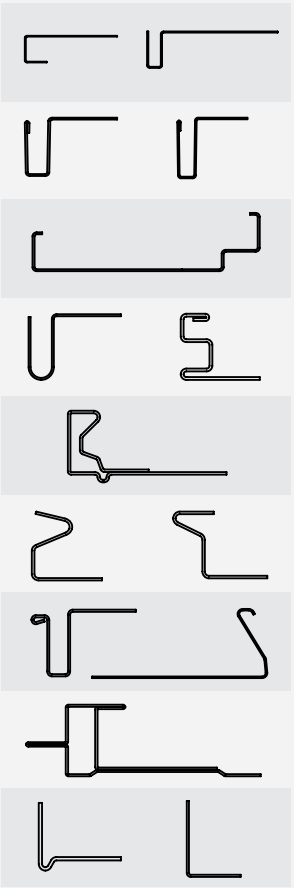


Machine details



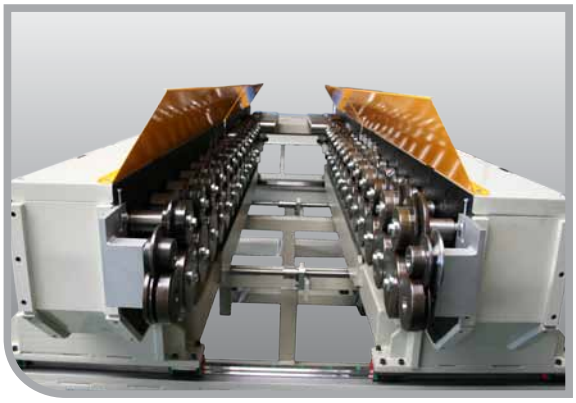


Profiles samples



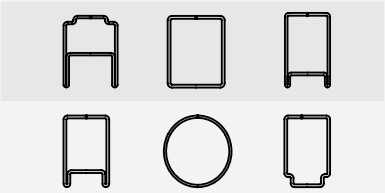
- Parts production with a variable width
- Quick change cassettes system
- Parts production from a coil or from sheet metal strips
- Manual and automatic control
- Main rollforming gearbox in oil bath

- Complete production of shelves, panels and other similar parts
- Precutting, punching, rollforming, cutting and cross bending
- Machines custom design and construction



Longitudinal Welding

Profiles samples



- HF, laser or TIG
- up to 70m/min
- Material thickness 0,6-4mm
- Fully automatic CNC control

Decoilers

1t

- Mechanical brake
- Mechanical expansion

2t

- Pneumatic brake
- Mechanical expansion
- Pushing arm (optional)
- Drive (optional)

2x2t turning

- Pneumatic brake
- Mechanical expansion
- Electric turning (optional)
- Punshing arm (optional)
- Drive (optional)

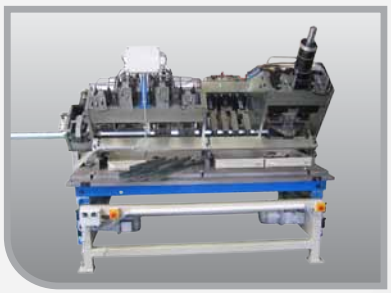
5t vertical

- Pneumatic brake
- Hydraulic expansion
- Drive (JOG or full drive)
- Pushing arm (optional)
- Loading car (optional)

5t horizontal

- Mechanical brake
- Mechanical expansion
- Strip width up to 1500mm

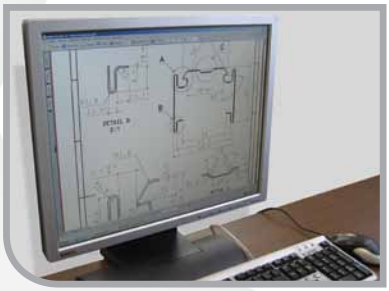
Punching and Forming Presses



- Up to 400 strokes/min
- Punching and profiling up to 60 m/min.
- Multi punching and forming
- Hydraulic drive
- Link to the automatic line
- Pre-punching prior to rollforming
- Punching and forming after rollforming

Sets of forming rolls

- Our own design and production
- Rolls machining after heat threatment
- Heat threatment
- Calibration tests
- Universal rollforming sets for various profiles
- Production of forming rolls for rollforming machines of other producers



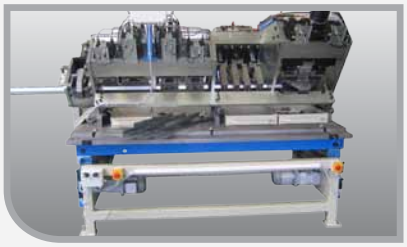
Profiles Cutting

Flying Cutting With Linear Motor

- The highest speed
- The highest load
- Robust construction
- Travel length of 2000/3000mm

Flying Cutting Unit with Servo Drive and Ball-screw

- Lighter construction of cutting adaptors
- Travel length 1200mm



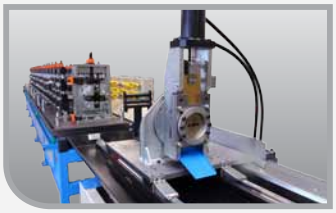
START-STOP Cutting

- Cost effective
- High accuracy of positioning
- Suitable for multi punching and forming

Cutting Adaptors

Adaptor for cutting without scrap

- High productivity
- Simple profiles
- Simple tools



Adaptor for cutting with scrap

- Mid-high productivity
- Complex profiles

Adaptor for cutting closed profiles

- Middle productivity
- Very complex profiles
- Complex tools

Sawing adaptor

- Medium and low productivity
- The most complex profiles
- Highspeed and low-speed version

Run-out Tables

Fixed Table

- For profiles in the range of 2500-6000mm
- Hydraulically tilting
- Single side or double side version

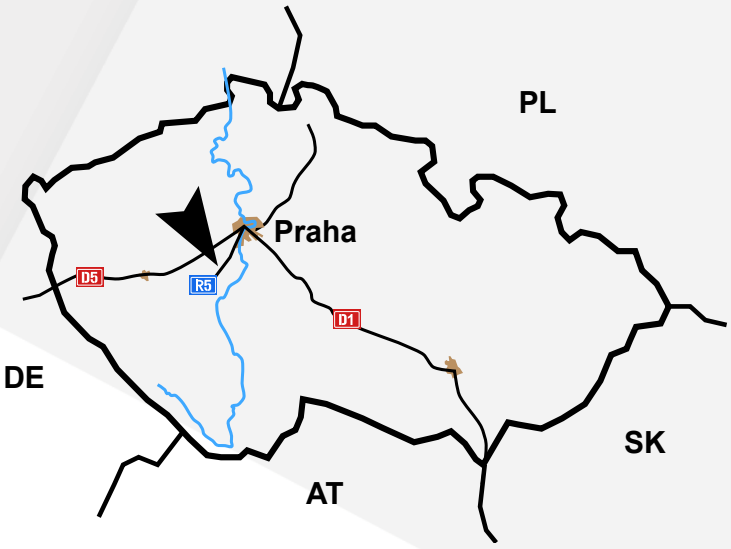
Towed Table

- For profiles 20-3000mm
- Suitable for short profiles
- Pulled by cutting unit
- Pneumatically tilting

Chain and Fork Stacking Equipment

- Accessories for stacking
- Suitable for fluent production
- Simple stacking to a package

About the company



History

Beginnings of the SWAH company reach back to 1988 when a small single-purpose machine manufacturing plant came into being. After ten years of successful operations, new manufacturing premises were established with an area of 3000 m2, only 30 minutes away from Prague airport. The production is focused on roll-forming lines and machines manufacturing HVAC duct.

Current production

Nowadays, the company is present on a global scale and has a strong position in the production of roll-forming lines. Constant improvement and development of machines brings significant success and many loyal customers.

People

SWAH was established and built by three partners supported by their families. People working in the company are professionals in their branches and most of them have been working here since the company's establishment. People are the most important part of our company.

SWAH s.r.o.

Pražská 354

252 29 Dobřichovice - Lety

GPS: 49°55'28.301"N, 14°15'43.140"E

Production

Design, selection of suitable material, technology, manufacturing precision and mostly experienced people are the prime mainstays

of our company. Thanks to the most modern production technology and ongoing renewal of our machinery, we manufacture high-quality, productive machines with a long lifespan.

SWAH s.r.o.
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Česká republika

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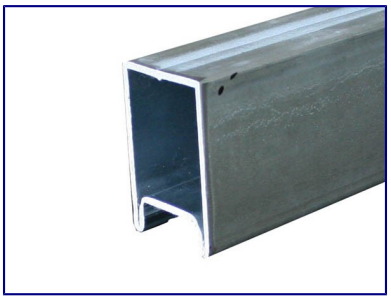
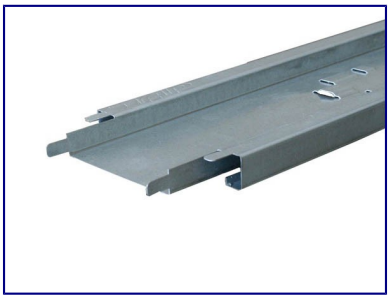
Our machines are designed for production of many various profiles



Plasic windowows reinforcement

- welded and metalized profile
- material thickness 2 mm
- production speed 50 m/min

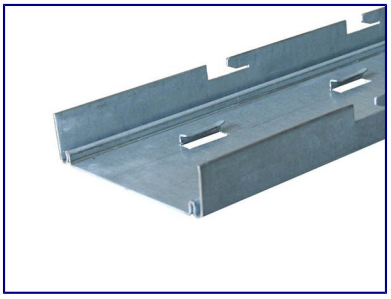


Door frame housing

- profile perforated and cut START-STOP before and after rollfor

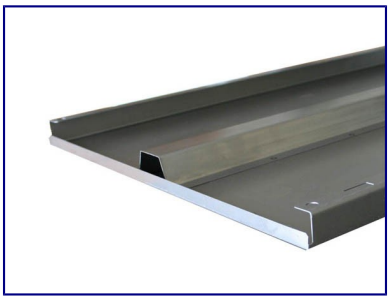
Curved profile of garage door system

- curving in rollforming process
- cut is done “flying” after rollforming



Door frame housing

- profile perforated and cut START-STOP before and after rollfor

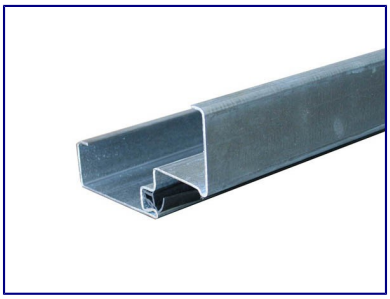


Shelve

- duplex rollformer
- adjustable width and length
- including of bends and holes

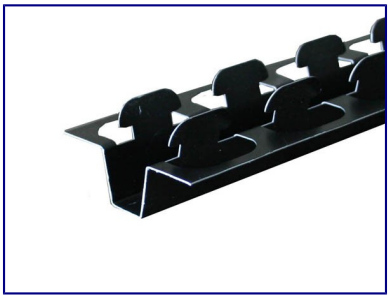
Car door sill

- high productivity machine with quick change system of tools
- processed material 1100MPa



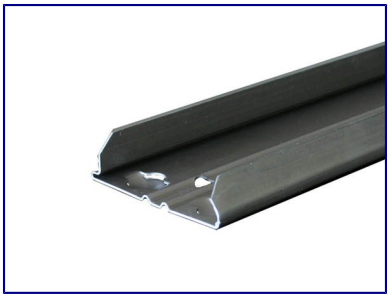
Door frame

- high capacity production including of 90 and 45 deg. cut



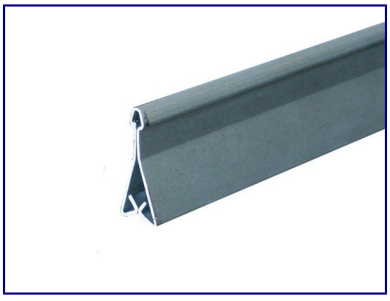
Supporting ceiling crossbar

- profile pre-punched in a rollforming line in hi-speed press
- cut after rollforming



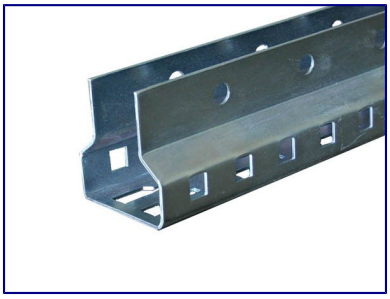
Light shelving system

- high production capacity including of holes perforation



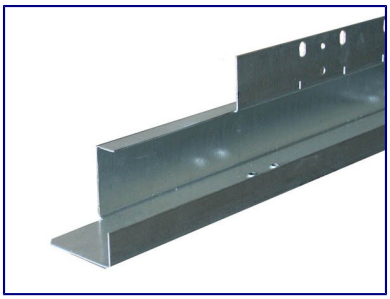
Hanging profile

- accurate profile
- cutting with cold cut saw



Heavy rack system

- high production capacity including of holes perforation



Electric cabinet profile

- profile perforated and cut START-STOP before and after rollfor

Line for the manufacture of HVAC ductwork – LCP

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Line for the manufacture of HVAC ductwork – LCP

Line for the manufacture of HVAC ductwork – LCP

This high-performance line is used to enable the maximum automation of the production process of the straight parts of the square HVAC duct. This includes the entire production process of the HVAC duct, from a sheet metal coil, by means of a fully automatic cycle.

This is a machine designed for the automatic production of square HVAC ducts, allowing production of the duct with the highest efficiency in the smallest possible space.

When running, the machine executes the following operations:

- decoiling the sheet metal from one of the horizontal decoilers with a load of up to 5 tons
- straightening sheet metal using a double straightening device
- if required, forming cross beads with “Z” or “trapeze” shapes on sheet metal
- measuring the unwind length of a duct and carrying out edge bending
- cutting the formed duct with an addition for any seam

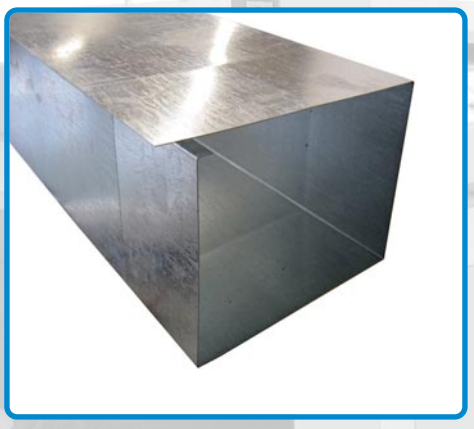
Programming of individual dimensions and of the addition for any duct seam is carried out on a control panel located directly on the machine. Software for the line is created with the capacity to conform to the products of all duct manufacturers.

If the beading and the bending functions are omitted, the machine can also serve solely for cutting flat sheets of metal of up to 10 m in lengths.

The machine can be equipped with a special device for the easy selection of coils – the "selector". In this case, you can easily and swiftly choose between three types of coils that are then loaded directly into the machine.

The beading part of the machine is equipped, in accordance with the customer’s wishes, with either the "Z" or the "trapeze" profile. However, it can also be equipped with both types of profiles simultaneously.

For the following technological operation – – closure of the duct, it is appropriate to use the machine seaming the square HVAC duct.



Technical specifications:

Voltage:	400 V
Power consumption:	6.5 kW
Max. width of coil:	1,500 mm
Max. thickness of sheet metal:	1.3 mm
Max. weight of coil:	5 tons
Number of decoilers:	in accordance with the customer’s wishes; the standard number is 3
Inner diameter of coil:	460 to 630 mm
Weight of the line:	3,300 kg

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Flanging Machine

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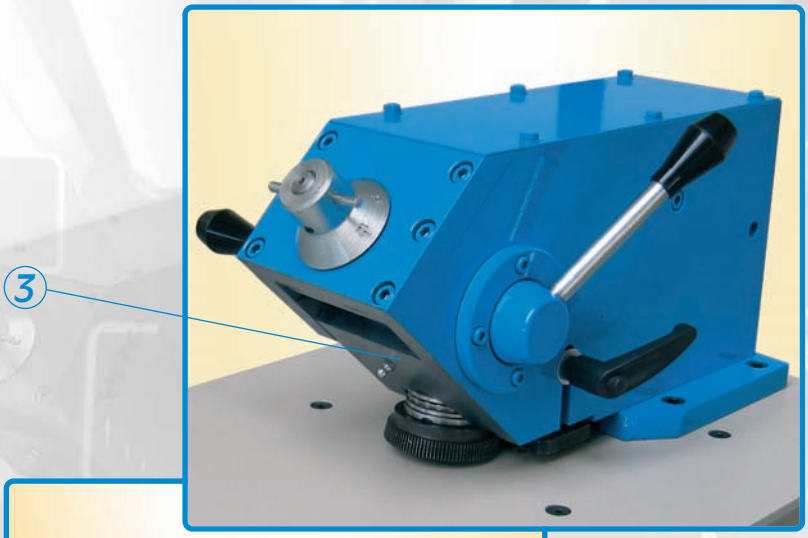
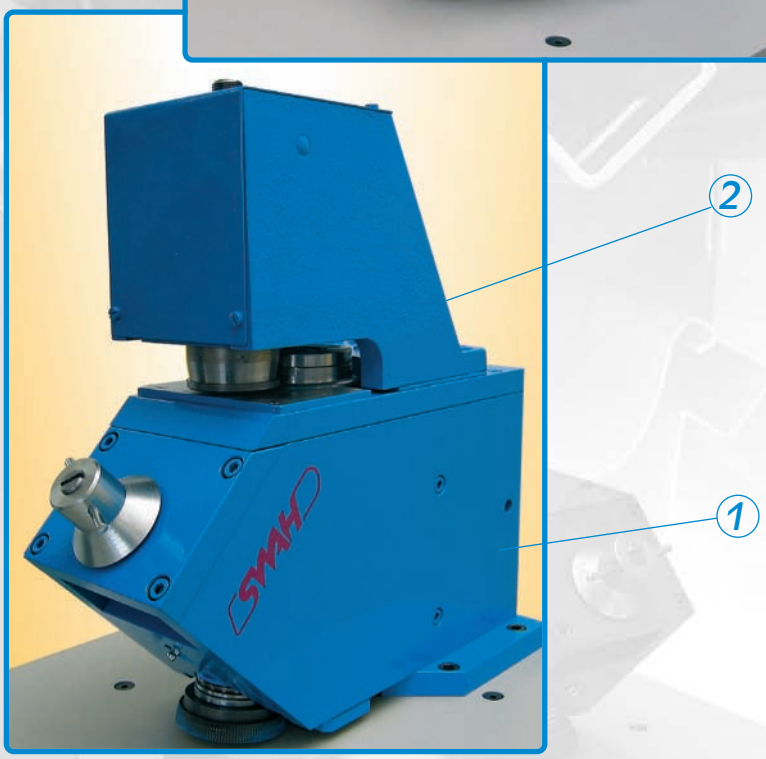
Flanging Machine

Flanging Machine

This machine serves to set up flange of 7 mm height on flat or curved sheet metal pieces. Most often it is used when producing side parts for square HVAC duct fittings. The flange can be set up on inner or outer radius.





There are three basic versions of the machine.

1. For making the Pittsburgh lock, we can get along with a basic design.

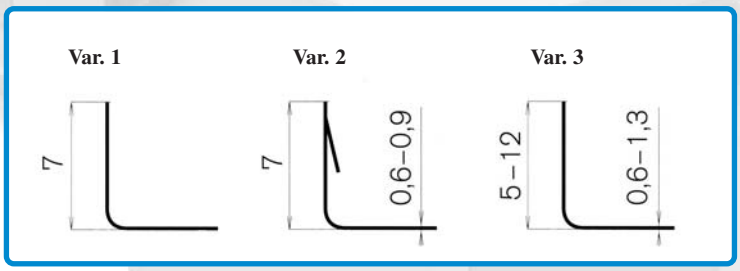
2. As concerns Snap lock, the machine has to be complemented with punching head pos. 2. After setting up the flange at the basic part of the machine, the semi-product has to be inserted into the upper head, where desired cuts will occur.

3. Concerning closed circular caps production, the machine is equipped with skids pos.3 with rapid driving out of the front head for easy unloading of finished product. In this design the machine is added with adjustable stopper for flange height within the range of 5 – 12 mm, and with auxiliary roller for automatic creation of radius.

Technical parameters:

Voltage	400 V
Input	0,37 kW
Forming speed	5,3 m/min
Max. sheet thickness	0,6 – 1,3 mm
Weight	119/150 kg
Dimensions (h x w x l)	1 100 x 400 x 500 mm

Table of profiles



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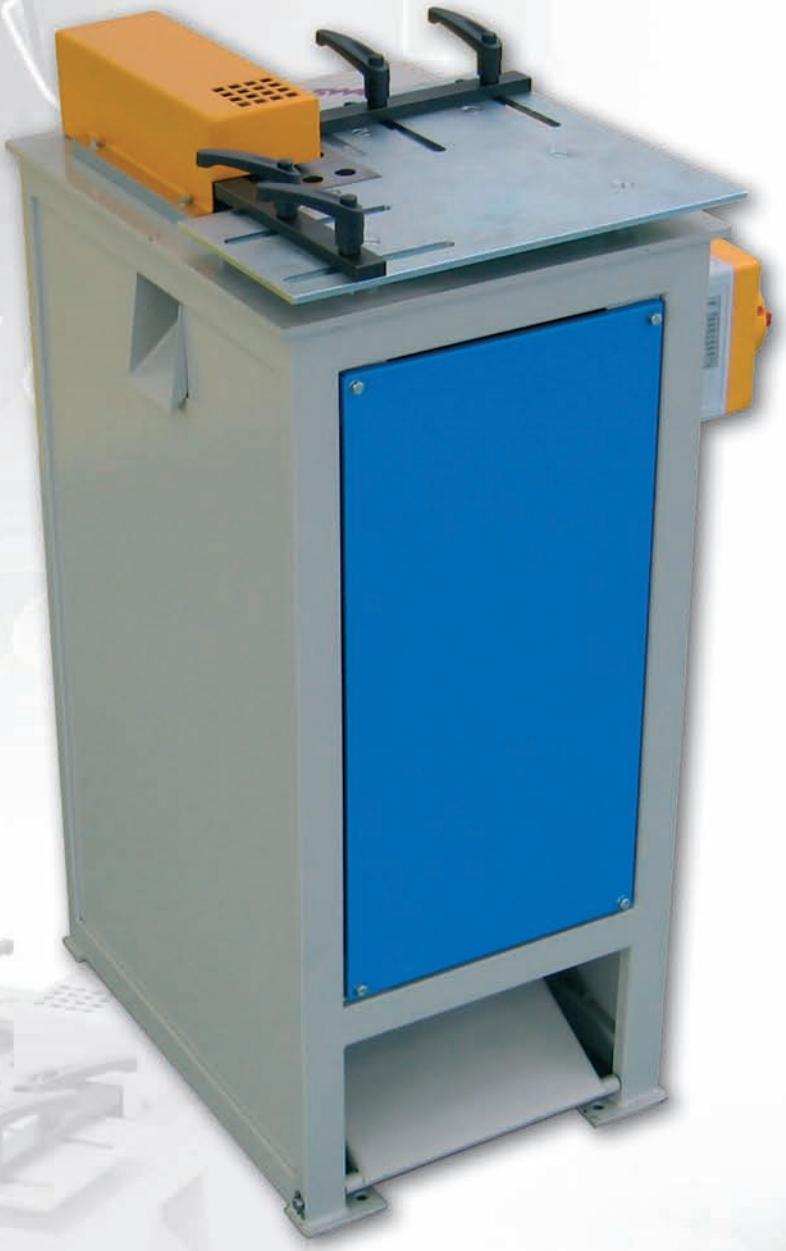
Corners Notching Machine



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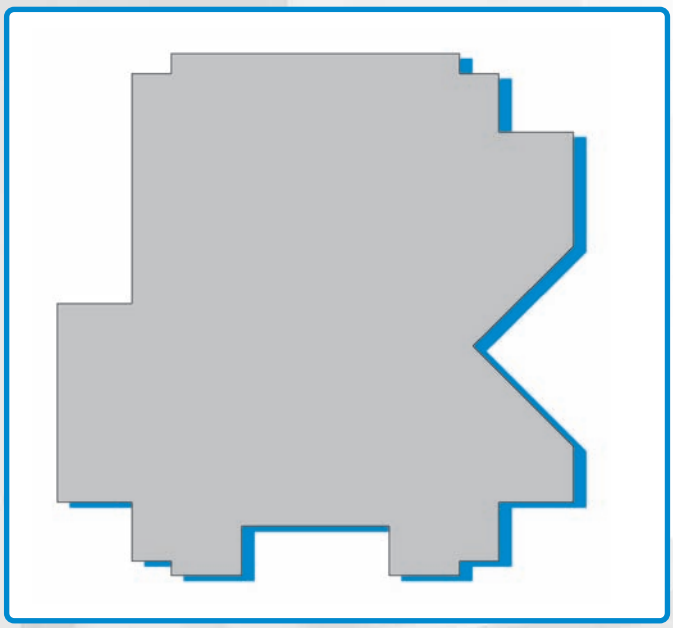
Corners Notching Machine

Corners Notching Machine

This electrically powered machine is designed for notching rectangular corners on the sheet metal of maximum thickness of 3 mm. Two easily adjustable rulers are attached to the work bench. According to these rulers it is possible to set the notch in both axes in the range of 0 – 50 mm. In case of need of the notch being longer than 50 mm, it is necessary to remove one of the rulers and to make the notch of arbitrary length using several strokes. The machine drive is started by main switch and individual strokes are controlled by pressing the foot pedal (controller). Punching die and punch are made of tool steel and can be easily dismounted for easy grinding and simple setup of shearing clearance.

Cut examples



Technical parameters:

Voltage	400 V
Input	1,1 kW
Max. number of strokes / min	58
Sheet thickness	
- metal sheet strength up to 370 MPa	3 mm
- metal sheet strength up to 500 MPa	2,5 mm
- stainless steel sheet	1,7 mm
- aluminium sheet	3 mm
Max. notch dimensions	50 x 50 mm
Weight	127 kg
Dimensions (h x w x l)	970 x 500 x 520 mm

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Lockforming Machine
VS1, VS2

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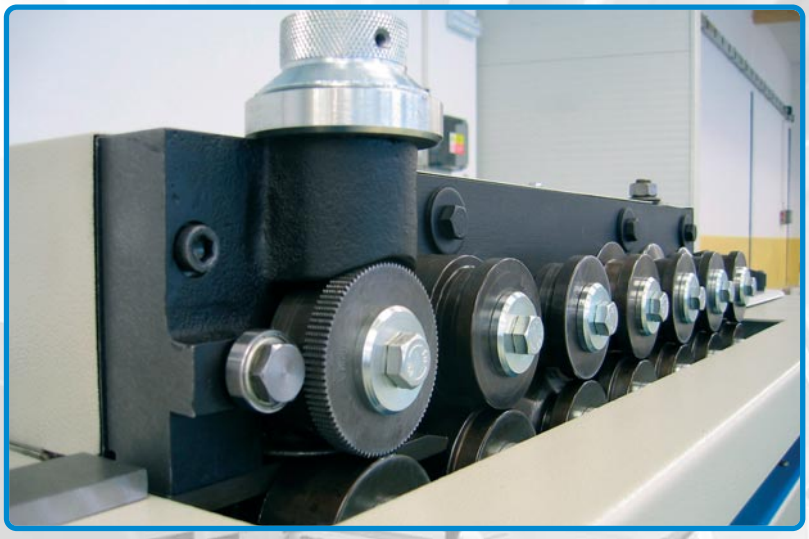
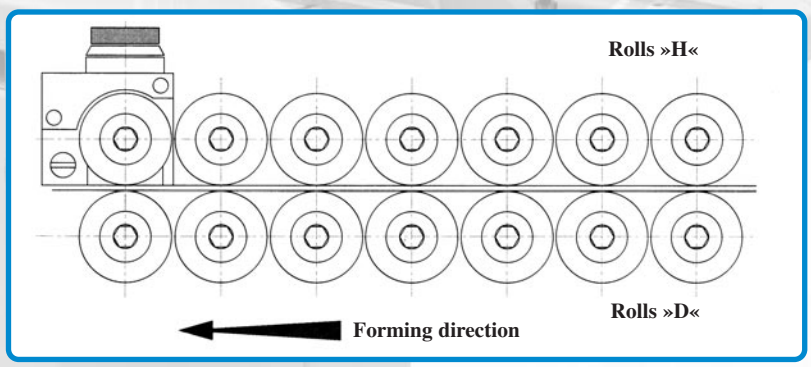
Lockforming Machine - VS1,VS2

Lockforming Machine - VS1, VS2

The machine serves to form standard profiles intended for manufacture of HVAC duct as well as other metal work. Prearranged sheet metal blanks of 0.6 – 1.2 mm thickness are processed on this machine. Profiling is carried out by seven or nine pairs of forming rolls. The machine is bilateral, so the rolls can be set up for two profiles at the same time. Forming rollers are located outside the main gear box, allowing easy replacement. All shafts are embedded on special needle bearings and the whole distributing gear box lays in oil bath. Easily adjustable guiding rulers are placed on two separate work benches. The upper part of the machine is fitted with protective cover with safety bars.

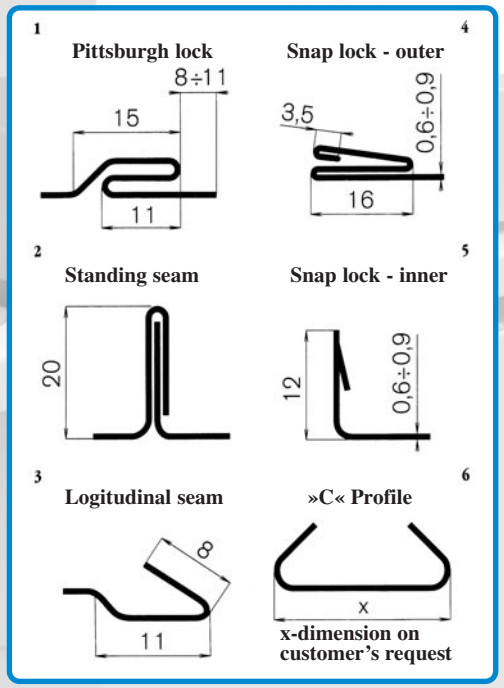


Rolls in detail



Assembly diagram

Table of profiles



Technical parameters:

	VS1	VS2
Number of forming passes	7	9
Recommended shapes of profiles	1,2,3,6	1,4,5
Voltage	400 V	400 V
Input	2,2 kW	2,2 kW
Forming speed	8 m/min	8 m/min
Max. sheet thickness	0,6 - 1,2 mm	0,6 - 1,2 mm
Weight	430 kg	470 kg
Dimensions (h x w x l	1300 x 550 x 1 730 mm	1300x500x1930 mm

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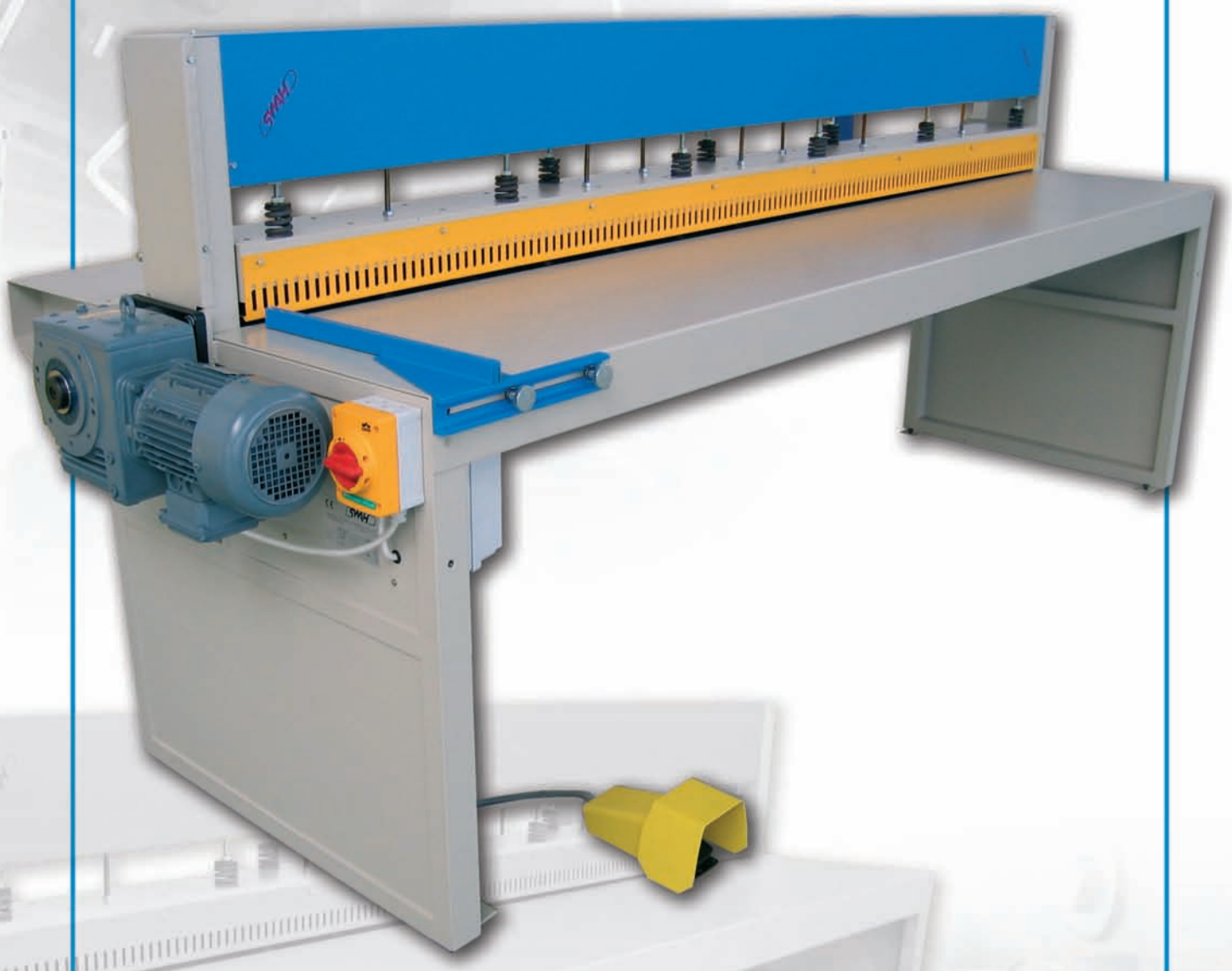
Beading Machine



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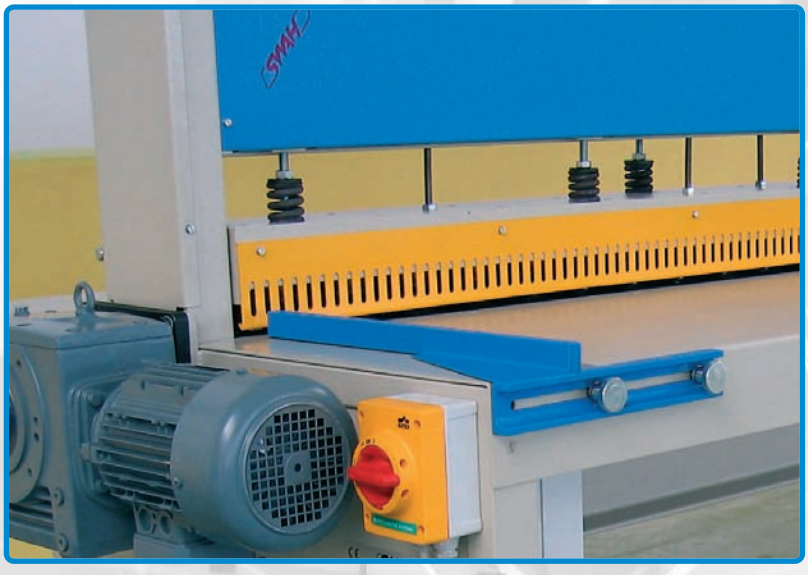
Beading Machine

Beading Machine

The machine is designed to shape reinforcing beads over whole sheet metal tables as well as on individual blanks of arbitrary shapes. Reinforced sheet metals are being used for HVAC duct production as well as other metal works, where it is beneficial to use thin sheet metals reinforced in this way. The machine drive is provided from central gear box that drives directly the shafts with profiling rolls. These shafts have multiple-bearing so as the formed beads lay-out can be even. The profiling rollers are heat-treated and ground. The machine control system allows continuous running or control by the foot pedal. The machine can be delivered in three variants in accordance to kind of profile, the machine is also manufactured in three sizes according to maximum width of sheet metal processed: 2000, 2500, 3000 mm.

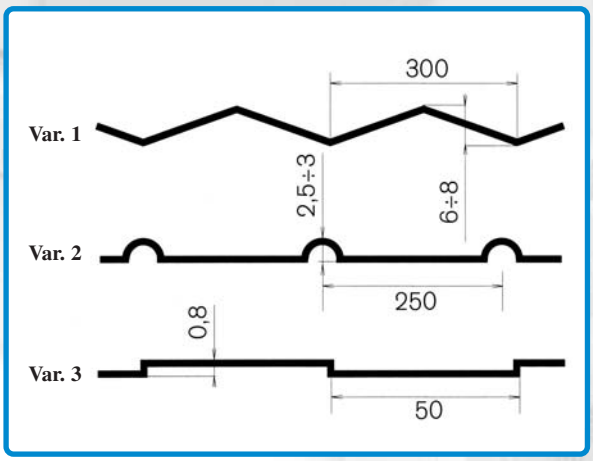


View of engine

Technical parameters:

Voltage	400 V
Input	1,1 kW
Forming speed	13 m/min
Max. sheet thickness	0,55 – 1,2 mm
Max. sheet width	2000 mm
Max. sheet width (on special request)	2500, 3000 mm
Weight	500 kg
Dimensions (h x w x l)	1 280 x 1 300 x 2 520 mm

Table of profiles



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Roll-forming machine VS5

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Roll-forming machine VS5

Roll-forming machine VS5

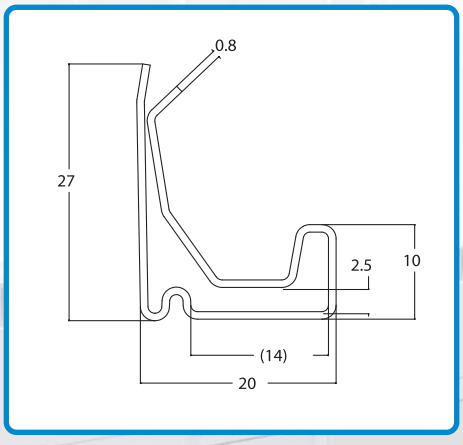
This machine is designed for fully automatic forming of HVAC flanges from the coil, with cutting to lengths exactly according to the size of the duct. This is suitable for all types of manufacturers who wish to be independent of external suppliers and who wish to make flanges inexpensively, easily and precisely.

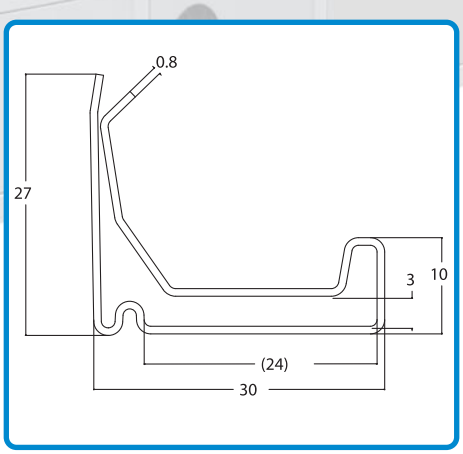
The VS5 roll-forming machine was specially designed for the production of HVAC flanges in the sizes of 20 and 30 mm for medium and large-scale producers of square HVAC ducts. Its principal advantage is that it is no longer necessary to purchase the flanges in lengths of 4 to 6 m and then cut them to specific sizes. Profiles can be produced on this machine with dimensions exactly corresponding to those of manufactured air ducts.

The VS5 roll-forming machine is consists of several parts. At the beginning of the process, sheet metal is unwound from the vertical decoiler and it then enters through a feed into the main rollformer. Subsequently the flange is straightened and cut by hydraulic shears into the desired number of pieces of the required length, precisely in accordance with the set parameters. The automatic line control system can be also connected to the central production control.

Even changing of production from 20 mm to 30 mm and from 30 mm to 20 mm flange is also very simple; it is requisite only to feed the sheet metal either into the left or the right side of the machine and to switch the control system.

The line can also be equipped with a device for the injection of the sealant during the actual forming process.





Technical specifications:

Voltage:	400 V
Power consumption:	5,5 kW
Number of forming passes:	2 x 20
Diameter of the forming shafts:	35 h 7
Horizontal distance between the shafts:	160 mm
Profiling speed:	2 – 14 m/min. (Depending on the length of the flange)
Shearing:	2 x Hydraulic shears
Number of decoilers:	the standard number is 2
Sheet metal width for a flange of 20 mm:	95 mm
Sheet metal width for a flange of 30 mm:	115 mm
Thickness of strip for both flanges:	0,8 mm
Required quality for the sheet metal for both flanges:	DX51D + Z275 MA, (DX52D + Z 275MA) in accordance with EN 10142/10143
Weight of machine:	3,000 kg
Dimensions (h x w x l):	6000 x 1800 x 1500 mm

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Straightening line for plasma machines - LVP

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Straightening line for plasma machines - LVP

Straightening Line for Plasma Machines - LVP

This machine is an effective solution for all producers seeking a cost-effective solution when cutting fittings using a plasma-cutting machine. The machine is able to unwind, straighten and feed metal from a coil into the cutting device and then remove the waste material.

It is an automatic device for processing coils of sheet metal with a thickness of up to 1.3 mm. It has generally been used as an adjunct to plasma-cutting machines when cutting HVAC duct fittings, in addition to other sheet metal pieces.

This line is generally composed of the following units:

– Optional number of horizontal decoilers (two are standard) with a maximum load of 5 tons.
– Feed for sheet metal into the machine by the use of two mechanically adjustable guides.
– Multiple straightener with four fixed and three freely-adjustable rolls.
– Unloading of the waste material is carried out using rolls with a specially treated surface, ensuring that the sheet metal cannot slip. The unloading rolls are located behind the actual plasma-cutting device and they are controlled synchronously with the feeding of the fresh sheet metal.

The entire line is controlled by means of a control panel, located directly on the machine. A 3-phase motor is used as the drive, and its torque is distributed towards cylinders utilising a gear-wheel assembly.

Technical specifications:

Voltage:	400 V
Power consumption:	2.2 kW
Max. width of coil:	1,500 mm
Max. weight of coil:	5 tons
Max. thickness of sheet metal:	1,5 mm
Inner diameter of coil:	460-630 mm
Weight of machine:	1,800 kg

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Tvářecí stolice VS5

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Tvářecí stolice VS5

Tvářecí stolice VS5

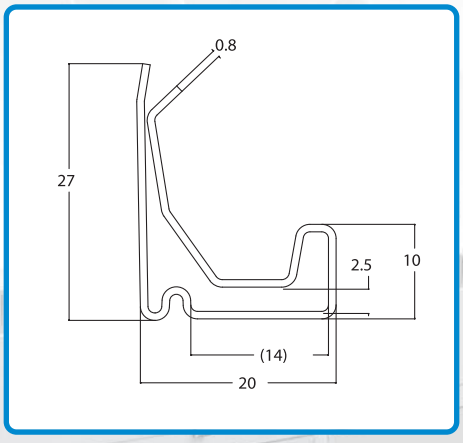
Tento stroj je určen pro plně automatické profilování vzduchotechnických přírub ze svitku s jejich současným odstřihováním na délky přesně podle velikosti potrubí. Hodí se do všech výrob, které chtějí být nezávislé na externích dodavatelích a chtějí si vyrábět příruby levně, jednoduše a přesně na míru.

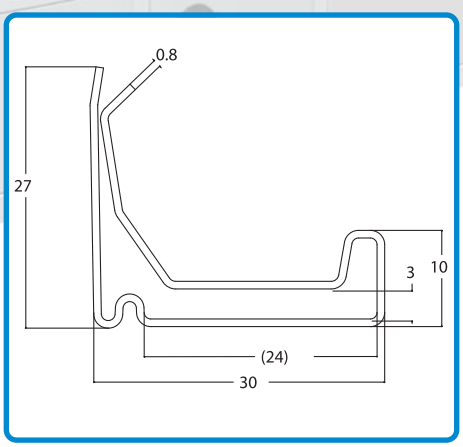
Tvářecí stolice VS5 byla speciálně vyvinuta na výrobu vzduchotechnických přírub velikosti 20 a 30 mm pro střední a velké výrobce čtyřhranného vzduchotechnického potrubí.
Hlavní výhodou je, že již dále není nutné nakupovat příruby v délkách 4 až 6 m a rozřezávat je na různé délky. Na tomto stroji lze vyrábět lišty přesně podle rozměrů vyráběných vzduchovodů.

Tvářecí stroj VS5 se skládá z několika částí. Na začátku se odvíjí plech ze svislého odvíjecího bubnu, poté vchází přes zavádění do samotné profilovací části. Následně je lišta vyrovnána a přesně podle zadaných parametrů hydraulickými nůžkami dělena na potřebný počet kusů a požadované délky. Automatický řídící systém linky může být napojen i na centrální řízení výroby.

Velmi jednoduchá je i změna typu vyráběné příruby 20-30 nebo 30-20, stačí pouze zavést plech do levé nebo pravé části stroje a přepnout řídící systém.

Linka může být vybavena i zařízením pro vstřikování těsnícího tmelu přímo v procesu tváření.





Základní technické parametry:

Napětí:	400 V
Příkon:	5,5 kW
Počet profilovacích míst:	2 x 20
Průměr profilovacích hřídelů:	35 h 7
Rozteč profilovacích míst:	160 mm
Profilovací rychlost:	2 – 14 m/min. (Podle délky přístřihu)
Odstřihávání profilu:	2 x Hydraulické odstřihávají zařízení
Počet odvíjecích bubnů:	standardně 2
Šíře plechu na přírubu vel. 20 mm:	95 mm
Šíře plechu na přírubu vel. 30 mm:	115 mm
Tloušťka plechu na obě příruby:	0,8 mm
Jakost plechu obě příruby:	DX51D + Z275 MA, (DX52D + Z 275MA) dle EN 10142/10143
Hmotnost:	3000 kg
Půdorysné rozměry stroje:	6000 x 1800 x 1500 mm

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Cut to length line

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Cut to length line

Cut to length line

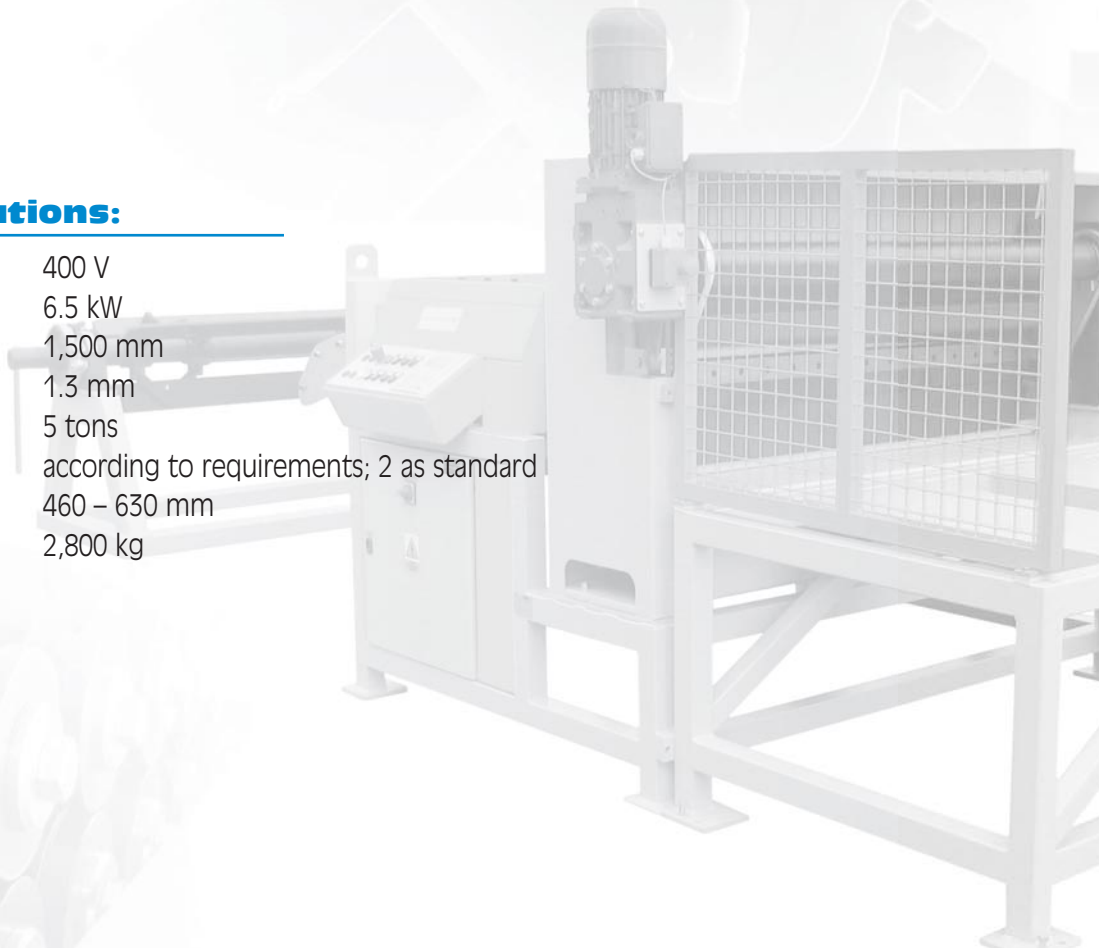
This automatic line is used for simple and effective cross cutting of sheet metal coils. It can unwind and straighten coils of a width up to 1,500 mm and cut them crossly, in accordance with the specifications of the programme.

This automatic line for cutting to length of sheet metal has been specially designed in order to effectively cut sheet metal crossly from a coil with a width of up to 1,500 mm.
The machine consists of a compact steel frame with an integrated straightening device and with electrically operated powerful shears placed in front.

The functioning and operation of the line runs as follows:

- Unwinding of sheet metal from one of the horizontal decoiler, with a capacity of 5 tons
- Straightening of sheet metal on the triple straightening device
- Precise measuring and unwinding of sheet metal
- Cutting to length of sheet metal by the use of powerful electric shears

The cut sheets fall into the prepared container or is carried away by a conveyor belt



Technical Specifications:

Voltage:	400 V
Power consumption:	6.5 kW
Max. width of the coil:	1,500 mm
Max. thickness of sheet metal:	1.3 mm
Max. weight of coil:	5 tons
Number of decoilers:	according to requirements; 2 as standard
Internal diameter of the coil:	460 – 630 mm
Weight of the line:	2,800 kg

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Machine for the production of stainless steel chimney-liners

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Machine for the production of stainless steel chimney-liners

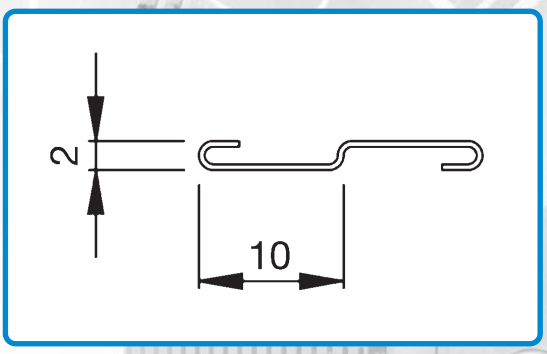
Machine for the production of stainless steel chimney-liners

This single-purpose machine is used for the production of flexible stainless steel chimney-liners. It produces flexible stainless steel chimney-liners from a strip of sheet metal with a diameter between 100 and 200 mm.

This single-purpose machine was designed for the production of flexible stainless steel chimney-liners. From a decoiler a stainless steel strip, passing through the forming rolls, an "S" profile is gradually shaped. Finally, it is bent to the required diameter, by a special bending head. The prepared liner is unwound to the run-out tables.

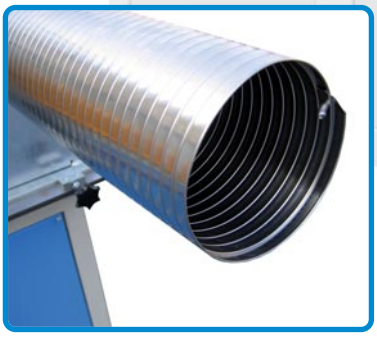
The entire machine consists of a compact frame with a main gearbox and forming rolls. The bending head is adjustable multilaterally in order to achieve the optimum shape of the final product. Adjustment of the required diameter of the steel chimney liner is a matter of a few minutes.

The whole machine is controlled by simple system, with continuous regulation of speed.



Technical Specifications:

Voltage:	400 V
Power consumption:	2.2 kW
Speed of forming of the strip:	15 m/min.
Thickness of processed sheet metal:	0.35 – 0.45 mm
Weight of machine:	470 kg
Dimensions (h x w x l):	1300 x 550 x 1730 mm



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