

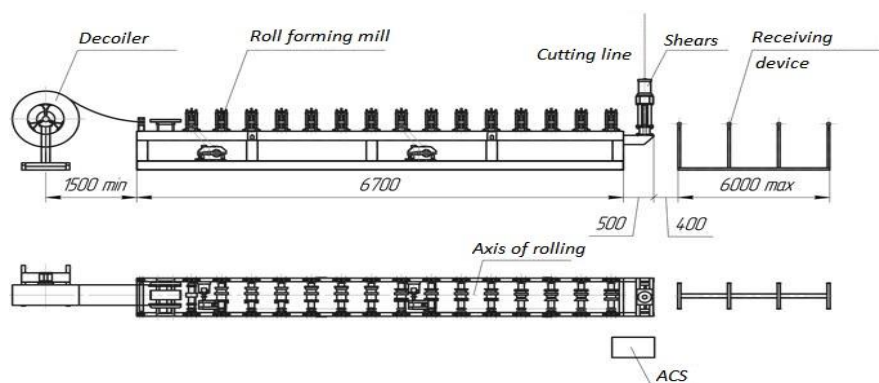
Automatic siding roll forming machinery: Dutchlap, Sofit, Blockhouse, Lineal Trim, V-panel Sidings

Field of use

These roll forming machines can be used in manufacturing of metal wall panels (siding products): Dutchlap, Sofit, Blockhouse, and Lineal Trims, all made of cold-rolled and galvanized steel, and having protective coating, GOST 30246-94 and GOST 52146-2003 compatible (galvanized steel sheets with polymer coating).

Material producers

Novolipetsk Steel (NLMK), Lipetsk, Russia
Severstal (Cherepovets, Russia)
ArselorMittal Temirtau (Temirtau)
Magnitogorsk Iron and Steel Works (Magnitogorsk, Russia)



Machinery configuration:

- 1) overhung decoiler, 3 kW;
- 2) rolling mill;
- 3) slugger shears;
- 4) receiving table;
- 5) Automatic Control System (ACS).

General specifications

Line size, mm:	from 12000x1000x1240
Metal thickness, mm	0.40-0.60
Material roll, material width, mm	from 170
Rolling rate, meters per minute	max 40
Working stands	from 15
Rolling mill motor power, kW	from 7.5
Machinery weight, kg	from 5000



Overhung decoiler

Designed for continuous feeding of material from the coil to the rolling mill, the decoiler has its own control system that coordinates the material feed rate with the running speed of the rolling mill (braking system that prevents the roll from uncoiling by inertia).

Blades	4
Electric motor power, kW	3.0
Axial load, kg	max 4000
Max. roll width, mm	500
Inside roll diameter, mm	480-620
Max. outside roll diameter, mm	up to 1500
Thickness of rolled steel, mm	0.3..1.5
Max. linear speed, d=500 mm, meters per minute	40 (65)
Reverse motion	Enabled
Weight, kg	approx. 1100

Laminating machine

The device is used to fix the roll of a protective film and apply this film on a smooth sheet of metal prior to profiling. This film protects siding from scratches during transportation and installation. It will be later removed upon installation and the siding surface will be free from scratches, with no glare.

Rolling mill

The rolling mill is designed to gradually profile a smooth sheet of metal until the desired configuration of a profile is achieved. It has a feeder, multiple stands of working rolls, and electric motor; shears being installed on the rolling mill frame.

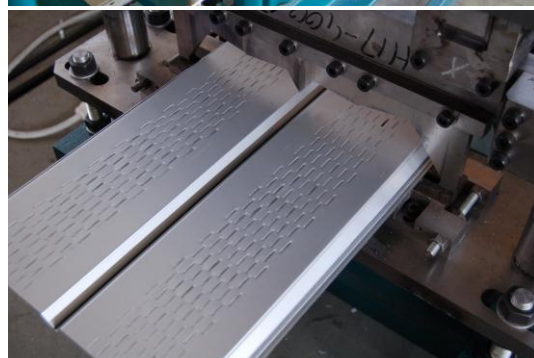
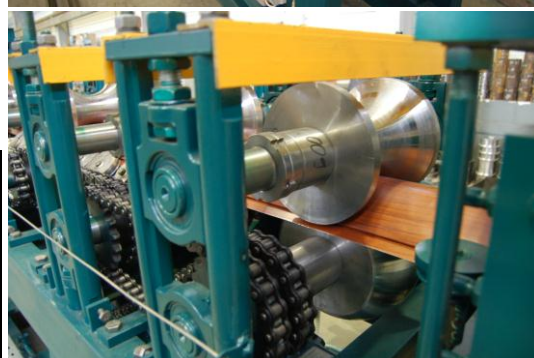
Stands of rolls	from 15
Installed capacity, kW	min 3 (subject to profile material)
Profiling rate, meters per minute	max 40 (to be agreed in TOR when ordering)
Feeder	two shafts and table with guides
Shaft size, mm	min 70
Rollers material	tool steel Cr40X, GOST 4543-71
Tool mounting system	Key-and-slot, mill stand adjustable in all planes
Belt movement sensor	optical encoder
Precision of profile geometry	as per GOST 24045-10, GOST 24045-94
Shafts drive	single-chained with tensioner
Weight, kg	from 3,000

Profile products made on our machinery do not glare under sunlight!

For installation purposes, in case of uneven surface, the machinery is fitted with special legs, their height adjustable.

For Linear Panel profile, with adjustable panel width, the mill width is set up by rotating a special handle which moves the tooling (i.e. rolls) to the desired position, thus increasing or decreasing the width of the bottom panel on a profile.

Perforations can be added, if necessary (for perforated linear panel). This operation is secured by the stands located in the far end of the rolling mill. If no perforation needed, these stands can be driven away.



Slugger shears

These cut rolled sheets of profile. Installed on the rolling mill frame and followed by the receiving table, slugger shears leave some waste (punched material), as siding profiles, their geometry, are not suitable for guillotine shears.

Metal thickness, mm	max 0.6
Installed capacity, kW	3.0
Blade position sensors	non-contact
Blade material	XBF steel (tool steel), hardening 55..60 HRC _a
Length of products to be cut	any
Punching width, mm	5 mm
Dimensions, LxBxH, mm	from 440x1550x1150
Weight, kg	approx. 400

Receiving table

It serves as a receiving device. Finished pieces of profile are removed from the table and manually stacked.

Automatic Control System

The line is fitted with an ACS of industrial make, made of components supplied from manufacturers in Europe only (Siemens, Schneider Electric, RITTAL).

The ACS is supported by original software designed for high precision of cutting, ± 1 mm allowance per 3 meters, provided the roofing product quality is ideal, and the line utilizes high-performance machinery.

ACS keeps the log of operation and allows exporting these data via USB for review, including 1C Accountant Suite compatibility (this functionality to be agreed with the customer).

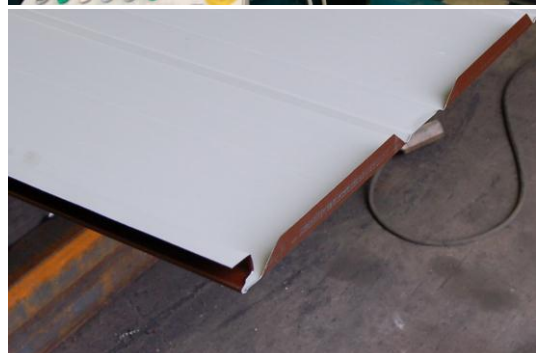
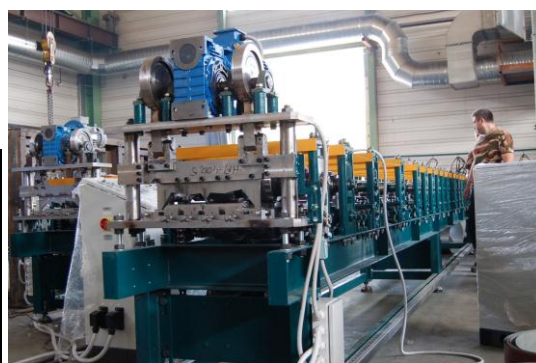
Industry design, no Chinese components in the power section and electronics!!!

Optional equipment

The line may be furnished optionally with 3D shears and special bending device to make flanged edges (e.g. to produce facade cassette systems on the machinery for linear siding panels).

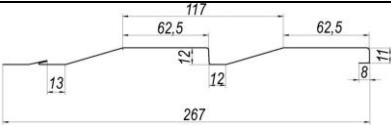
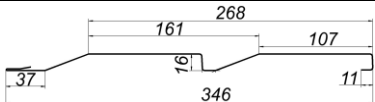
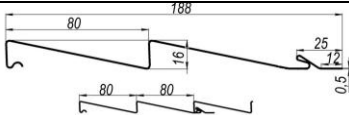
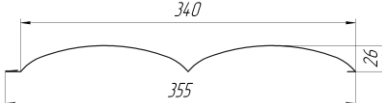
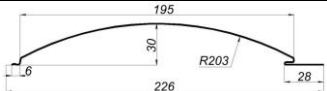
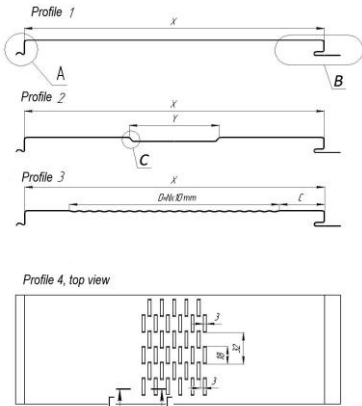
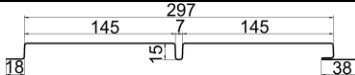
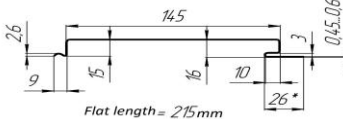
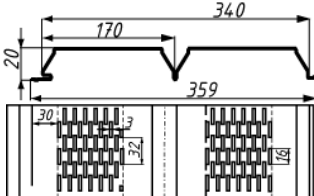


Prices on optional positions will be available after receiving technical details from the customer.





Here you can find the current prices on our siding roll forming machinery (RUB)

Profile type	Price, in RUB (VAT incl.)
Dutchlap two panels (flat length 311 mm)	 1 640 000 (26 000\$)
Dutchlap two panels (flat length 413 mm)	 1 660 000 (26 500\$)
Clapboard (flat length 249 mm)	 1 630 000 (26 000\$)
Blockhouse two panels	 1 940 000 (31 000\$)
Blockhouse single panel (flat length 250 mm)	 1 890 000 (30 000\$)
Lineal Trim (facade Soffit Panel) adjustable width, optional micro corrugations and groove lengthwise, and perforations (4 product types) x = 100..300 mm (max flat length 370 mm)	 2 730 000 (43 500\$)
Lineal Trim, two panels (flat length 413 mm)	 1 670 000 (27 000\$)
Lineal Trim, single panel (flat length 215 mm)	 Flat length = 215 mm 1 580 000 (25 000\$)
V-panel (Sofit) two panels optional perforations and micro-corrugated design (3 product types) (flat length 413 mm)	 1 790 000 (28 500\$)

Prices on optional equipment:

- 1) Profile edge perforations – extra **RUB 80 000 (1 300\$)**;
- 2) Bending press, bended profile edges, 3D shears – extra **RUB 460 000 (7 500\$)** (or as ordered by the customer);
- 3) Hydraulic drum release mechanism for overhung decoiler – **RUB 250 000 (4 000\$)**;

Warranty – **3 years (all units covered, including bought bearings, motors, gears, and other components).**

Commissioning and personnel training are included in the total price of equipment (**including travel and lodging costs**).

Terms of payment: **10% - advance payment, 90% - upon acceptance of equipment in Lipetsk.**