

EXPERIENCE

RESULTS

SOLUTIONS

SHEET METAL PROCESSING EQUIPMENT CATALOGUE



ERS
Engineering Corp.



**AUTOMATION
MECHANICAL ENGINEERING
TECHNOLOGIES**

ROLL FORMING SYSTEM

SHEET METAL

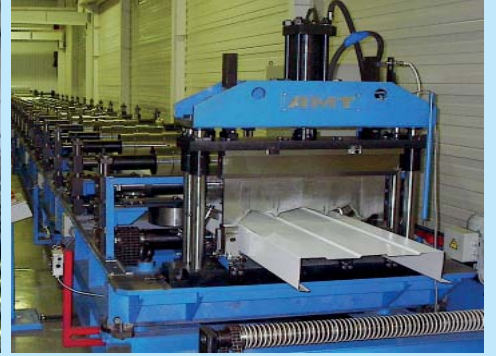
PROCESSING EQUIPMENT

ROLLFORMING LINES

LPRF Series



LPRF (single purpose) series are designed for manufacturing only one type of corrugated profile (corrugated board, cassette profile, panels of prefabricated buildings, etc.) with a width up to 1600 mm, thickness up to 3 mm, and profile depth up to 250 mm. The maximum profiling speed is 40 m/min.



The lines can be equipped with flying scissors that provide a production capacity of 60 m/min, i.e. 20 sheets (4 m length) per minute.



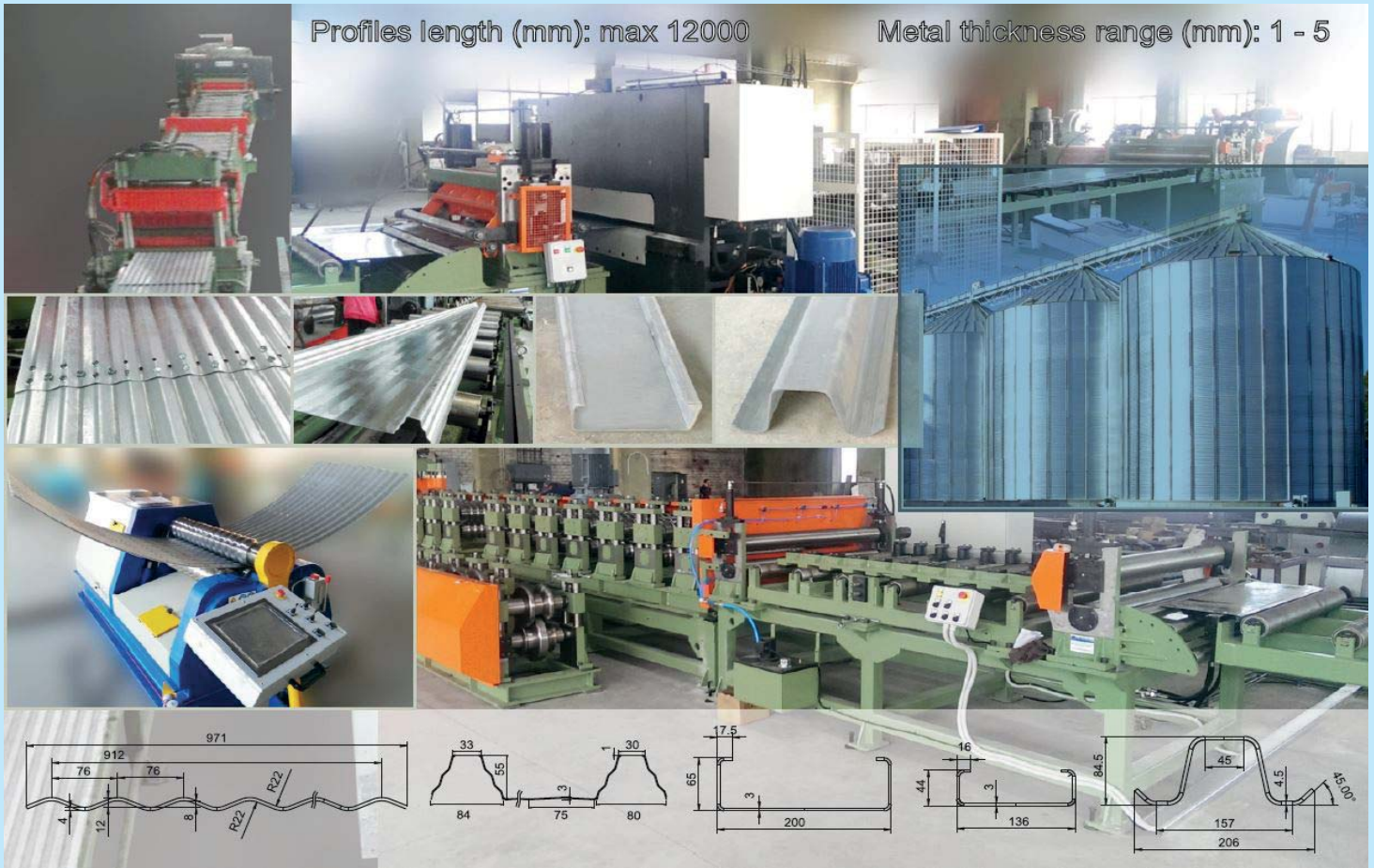
LPRF (multi-purpose) series are designed for manufacturing several types of corrugated profiles using one piece of equipment (profile depth from 8 mm up to 75mm). Tool change is carried out by use of quickly removable modules. Change-over time to move from one profile to another is 20 minutes. The lines can be equipped with flying scissors that provide a production capacity of 12 sheets (6 m in length) per minute.

LPRF series are designed for manufacturing metal tile “Monterrey”, “Super Monterrey”, “Kaskad”, “Elit”, etc. The production capacity is about 1,2...2 sheets (6 m in length) per minute. When using lines with two dies, the production capacity will increase 2-fold.





EQUIPMENT FOR MANUFACTURING OF THE GRAIN STORAGE SILOS



Roll-forming lines **LPP** series are designed for manufacturing panels of various configurations (racking systems, linear and other front panels).

Roll-forming lines **LPKP** series are designed for manufacturing profiles for fixing front panels, facing of buildings, etc.

Roll-forming lines **LPSHR** series are designed for manufacturing "splint rail" type profile.

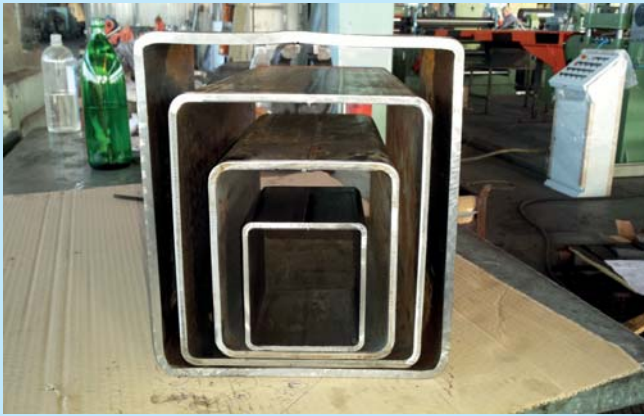


DIRECT FORMING TUBE MILL LINE FOR PRODUCTION SQUARE AND RECTANGULAR TUBES

ERS Engineering Corp. is showing a new tube mill line of its partner ZMM Pobeda SA. That line is designed and manufactured for production of square and rectangular electro-welded tubes for the steel construction industry.



The direct forming method offers the following advantages:



a) Skipping production first of a round tube and then a square (or rectangular) shape provides for material saving because the necessary material width is 3-5% less compared to classical lines.

b) The total line length is smaller than that of the classical line length.

c) Square or rectangular tube dimensions are automatically adjusted (without dismantling the rolls) only by program control of the following unit positions:

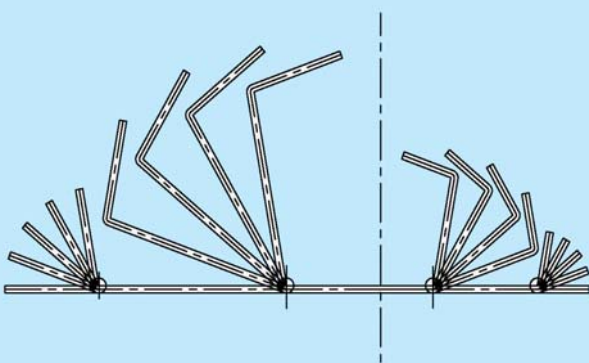
- Horizontal roll positions in every roll forming station;

- Opposite stations horizontal positions;

- Vertical distances between rolls in every station, depending on material thickness;

- Ready set-up for all standard square and rectangular tube dimensions. Those settings are saved or downloaded on/from a PC (notebook) drive.

- In addition, every station in this ZMM Pobeda SA tube mill line has its own control system, including a PLC, linear sensors for all movements and a touch-screen. This way, any changes in used material quality that cause problems with the dimensions of finished tube can be solved very quickly and easily with necessary roll position re-adjustment directly from the operator's station. These changes can be also saved back into the PC (notebook) drive.



The line is also equipped with a ThermoTool High-Frequency Welder (it can weld tubes by contact or induction coil welding), welding seam scarfing unit, cooling tunnel, calibration section with 4 calibration heads (they are also automatically adjustable), flying cut-off unit (it has twin disks, orbital and cold saw type), run-out conveyor and packaging system.

The range of square and rectangular tubes dimensions is:

a) Square tubes: from 100x100x3mm up to 250x250x8mm;

b) Rectangular tubes: from tube with 100mm minimum width up to 250mm maximum and with 100mm minimum height up to 250mm maximum;

Line production speeds are as follows: about 100x100x3mm: 35 m/min and for 250x250x8mm: 15m/ min.

EQUIPMENT FOR PRODUCTION OF THE ELEMENTS OF RAINWATER SYSTEM

LPKT series are designed for manufacturing round cross section pipes of various diameters from 28 mm to 200 mm.



LPKV series are designed for manufacturing round cross section gutters of various diameters.



Bending Machines **MGKT** series are designed for manufacturing corrugated round pipe bends with the required bending radius.



LPPT series are designed for manufacturing rectangular cross section pipes of various dimensions.



LPZH series are designed for manufacturing rectangular cross section gutters of various dimensions.



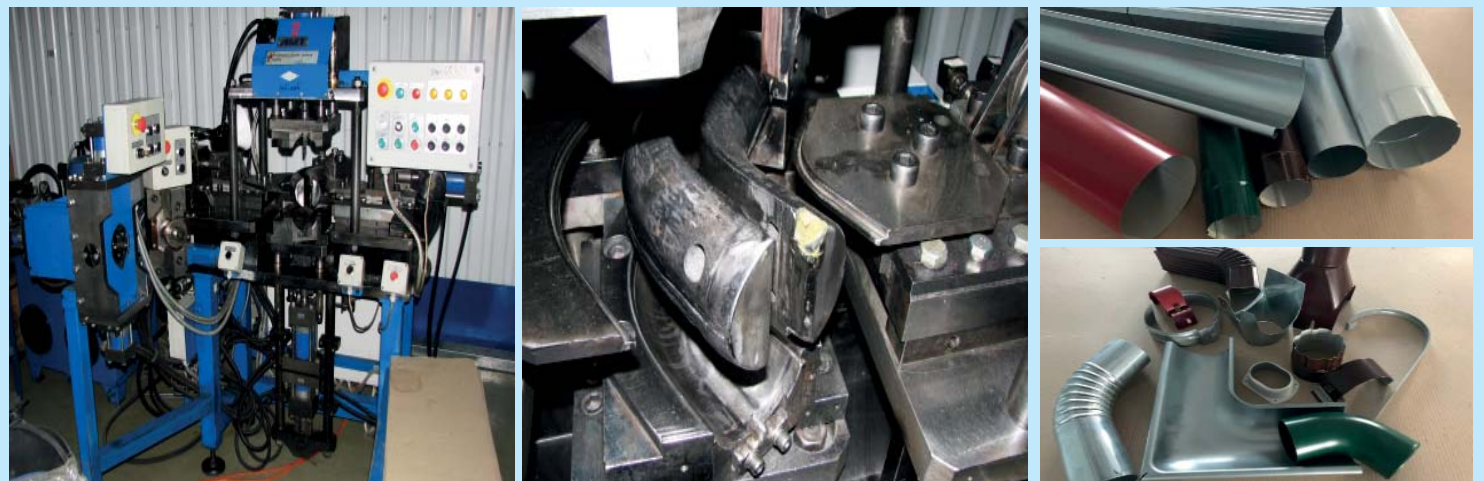
Bending Machines **MGRP** series are designed for manufacturing corrugated rectangular pipe bends with the required bending radius.



Dies for rainwater system elements



Machines for funnel and pipe bend assemblage



LPEK series are designed for manufacturing roof elements such as “wind board”, “angle”, “ridge”, “cornice plank”, etc.

LPKM series are designed for manufacturing roof elements, such as “round ridge”.



LPS series are designed for manufacturing siding-panels (“ship board”, “L-beam”, “log”, “beacon”, “angle”, etc.), decorative profiles, profiles for fixing plasterboard plates, and other special profiles.



LPA series are designed for manufacturing various reinforcing profiles with an option for perforations or knurling.

LPB series are designed for manufacturing beam type profiles, thermoprofiles, boxes for wiring, guardrails, etc. By using modular tool design, the range of profiles can be considerably expanded. The line could be adjusted for the production of another type of profile within 15 minutes.

AUTOMATIC CONTROL SYSTEMS

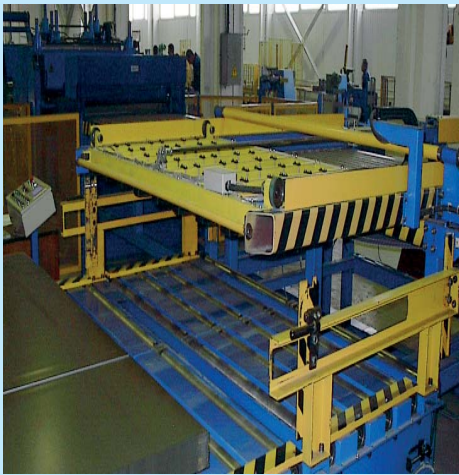
The purpose of automatic control systems is automation of profiling and cutting processes and correction of their parameters depending on material coating, hardness, and thickness.

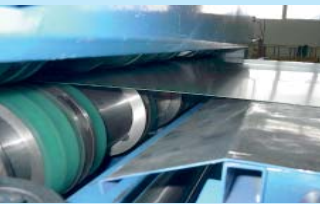
Automatic control systems make possible on-line control of the line operation and perform remote diagnostics. Use of components produced by such world-famous manufactures as Mitsubishi, Omron, Hitachi, Siemens, and Allen-Bradley in our automatic control systems allows us to produce world - class equipment.



SLITTING AND CUTTING-TO-LENGTH LINES

Slitting and Cutting-to-Length Lines are designed for longitudinal, transverse or longitudinal-transverse cutting of coiled sheet metal with widths up to 1600 mm and a thickness from 0.2 to 12.0 mm with zinc or plastic coating and speed up to 200 m/min.





DECOILERS

Carrying capacity from 50 kg to 35 tons; metal thickness from 0.15 mm to 12 mm; speed up to 300 m/min.



SPECIAL MACHINES AND SUPPORT EQUIPMENT

Packaging machines are designed for wrapping packages of profile products of various configurations with polymeric tape.



Bending machines of MGPL series are designed for bending sheet panels with a radius of 12 m to 100 m.

Roller feeders UVP series are designed to feed steel strip into a press with a maximum speed of 60 m/min



Perforating machines are designed for making spherical deformation plots on the original strip by means of rotation in order to increase its rigidity.

Flying scissors integrated in roll-forming lines are designed for cutting steel profiles to pieces without stopping.



Conveyors and stackers are designed for stacking sheets in a pack and transferring them along and across the profiling axis.



EXPERIENCE

RESULTS

SOLUTIONS

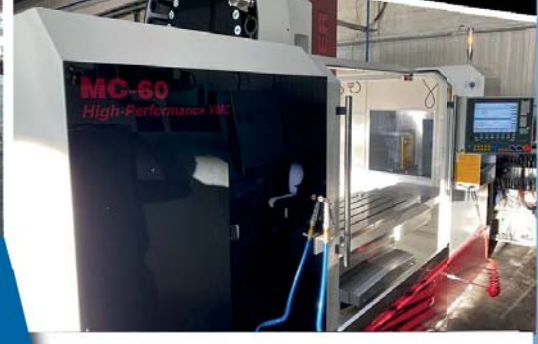
ERS Engineering Corp. specializes in design, engineering and manufacturing of equipment for the metal-working industry.

Over the years ERS Engineering Corp. has assisted its customers in increasing profitability and discovering new business opportunities. ERS's main goal is to meet and exceed its customers' expectations and become the most advanced and respected metalworking equipment supplier worldwide.

Many years of research activities and design developments are reflected in the high quality of ERS's equipment.



ERS
Engineering Corp.



6346 ORCHARD LAKE RD. SUITE 103
WEST BLOOMFIELD, MI 48322
248-538-9082
WWW.ERSENGINE.COM