

Medium voltage switchgear facility in Dalmine Production line for metal sheet components

Quality, speed and high levels of energy efficiency are the key features of the new production line for metal sheet components installed in the Dalmine facility.

Thanks to this flexible system, production can be easily adjusted to cope with requests that are not strictly pertinent to Dalmine's core business.

From storage of materials to unloading of finished products, all stages of the process are perfectly integrated and automated.

Performance

- High-speed bending and punching
- High quality processes

Flexibility

- Quickly set up and reconfigured
- Fully automated management of material
- Integrated vertical lift storage system

Low environmental impact

- High energy savings thanks to servo-electric technology
- Reduced CO2 emission levels and low maintenance costs

▼ Dalmine, Production line for metal sheet components



Unique performance thanks to integration of all processing stages. The vertical lift storage system, which connects punching press and panel bending machine, allows both raw materials and semi-finished products to be stored.

Punching press

The punching press can process metal plates measuring up to 1500x3000 mm at a positioning speed of 150 m/min. The process takes place at a speed of 1000 strokes/min and 300 kN press force. In addition, servo-electric technology ensures lower energy consumption and less material wasted, thereby contributing towards reducing CO2 emissions into the environment.

Panel bending machine

This machine can produce very narrow components and form negative bends. The power used is adjusted automatically to suit the thickness, length and type of material. The maximum bend dimension is 2650 mm with 200 mm maximum bend height obtained by applying 41 tons maximum bending force. High-level accuracy thanks to +/- 0.15 mm and +/- 0° 25' tolerance guarantees top quality operation. Besides minimizing both energy and maintenance costs, the servo-electric technology employed also generates minimum noise and vibration levels, and has a very low impact on the work environment. In addition, neither ambient temperature nor the different temperature conditions affect the machining process, thereby guaranteeing excellent quality products.

Unloading

Integrated with the panel bending machine, the unloading area is automated thanks to use of an ABB IRB 6700 robot which, besides being highly efficient and fast, also makes the operations safer.

With its 4 grippers (3 of which are magnetic and 1 with suction pads), the Robot is able to handle components of different sizes.

Component manufacturability

Send a mail to ordini.unisec@it.abb.com if you require a manufacturability assessment of a metal sheet component. Attach the following documents to your request:

- flat pattern drawing of the component in the dxf format, showing the bend lines
- drawing in pdf format of the bent component
- 3D file in the stl format (binary format, low quality) of the bent component.

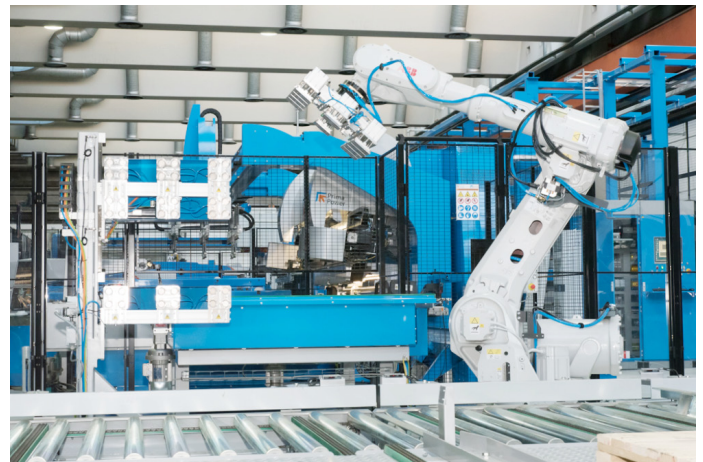


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