

Industry: Automotive

Used equipment: Motion Q170M CPU, HMI GT16, Servo MR J3

Automatization of brake pipes production

TI Automotive is a U.S. company that has been manufacturing components for the automotive industry for almost 100 years. The company employs 18,500 employees in 28 countries all over the world. TI Automotive's Polish branch is located in the city of Bielsko-Biala and deals with the production of fuel and brake pipes for leading German and Japanese car brands.



At TI Automotive Poland, brake pipes are made of steel, and then coated for corrosion. A key element of the product technology is the process by which a pipe of the proper length is shaped into a right angle with an automatic bending machine.

The company decided to improve the process by applying a Mitsubishi Electric solution to modernize the bending machine. Among other equipment used were a stand-alone Q170M CPU motion controller to control the process, the GT 16 control panel for process visualization, and 9 motors and MR-J3 servo amplifiers (7 bending and 2 forwarding axes).

Mitsubishi Electric equipment is used to manufacture brake pipes for cars such as the Opel Astra or the Volkswagen Caddy 4.

The duty cycle of the automated bending machine is similar to that of a manual bending machine. The main advantage of the automated machine is the changeover time needed for refitting the production line to another car. In such case, with only few clicks of the control panel, the bending machine will automatically load the correct program, which has the relevant bending angles for brake pipes appropriate for a particular type of car.

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Thanks to the use of Mitsubishi Electric equipment, our machine has no downtime and we have eliminated problems with control issues, failures in programming, and problems with spare part availability for the machine.

Sławomir Tokarski

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