

Industry: Motor industry suppliers

Products: AC servos and motion control

Maximum Quality and Precision – Lifeblood of the Motor Industry

“Our objectives as a company have always been directly driven by our customers’ wishes,” says Bergmann Group CEO Hans-Hermann Bergmann. “This has proved to be a successful policy: Over the last 45 years we have developed new technologies that have made us a reliable and sought-after partner for the motor industry and a competent manufacturer of compact dumpers and custom machines.” With many years of experience in the production of heavy-duty components, safety-critical components and certified axle components, Bergmann is an innovative company with very extensive manufacturing expertise that supplies parts to leading car manufacturers like Audi, Porsche, PSA and Ford.



Bergmann specialises in the production of cylinder sleeves for car engines. They are made from centrifugally-cast tubing in a fully-integrated manufacturing process that includes cutting, rough machining, finishing, measuring, testing and preparation for shipment with an integrated packaging system. The entire, fully-automated process is performed in machining centres fitted with the latest AC servo and motion control technology from Mitsubishi Electric. These machining centres are designed and manufactured in-house by the company’s own mechanical engineering department. CEO Hans-Hermann Bergmann emphasises that this department is one of the company’s key advantages, enabling them to respond very quickly and flexibly to new requirements for both small and large production runs.

In the course of more than 13 years, the twenty machining centres and transfer lines developed and built by Bergmann’s engineers have turned out several million heavy-duty, safety-critical and axle components for applications throughout the motor industry. The machining centres used for the production of cylinder sleeves each have up to 15 servo axes.

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The complete movement management for the manufacturing process, transportation and packaging is controlled and synchronised by a MELSEC System Q Motion Control system. The individual machine components are networked with CC Link and all the process data is monitored with an HMI control terminal, also from Mitsubishi Electric.

“The advantages of this Mitsubishi Electric system derive from the fact that it is a fully-integrated automation platform with multi-processor technology from a single supplier,” explains Bergmann staff member Franz-Josef Elschen. “This makes it possible to minimize dead time throughout the entire integrated system and the high-end servo amplifiers enable us to maximise system speed. The advanced control technology of the servo drives adapts automatically to changing mechanical conditions, continually and dynamically optimising the internal control circuits in response to the current needs of the process.”



Mitsubishi Electric delivers a complete, integrated system with all components coming from a single supplier, that was really the deciding factor for our choice. We are also completely satisfied with the quality and reliability of the solution.

(Franz-Josef Elschen)



Comprehensive, pro-active environmental protection is a top priority and moral commitment throughout the entire Bergmann Group. Exacting environmental regulations apply for the entire production process and preventive measures have been implemented to keep emissions low throughout.