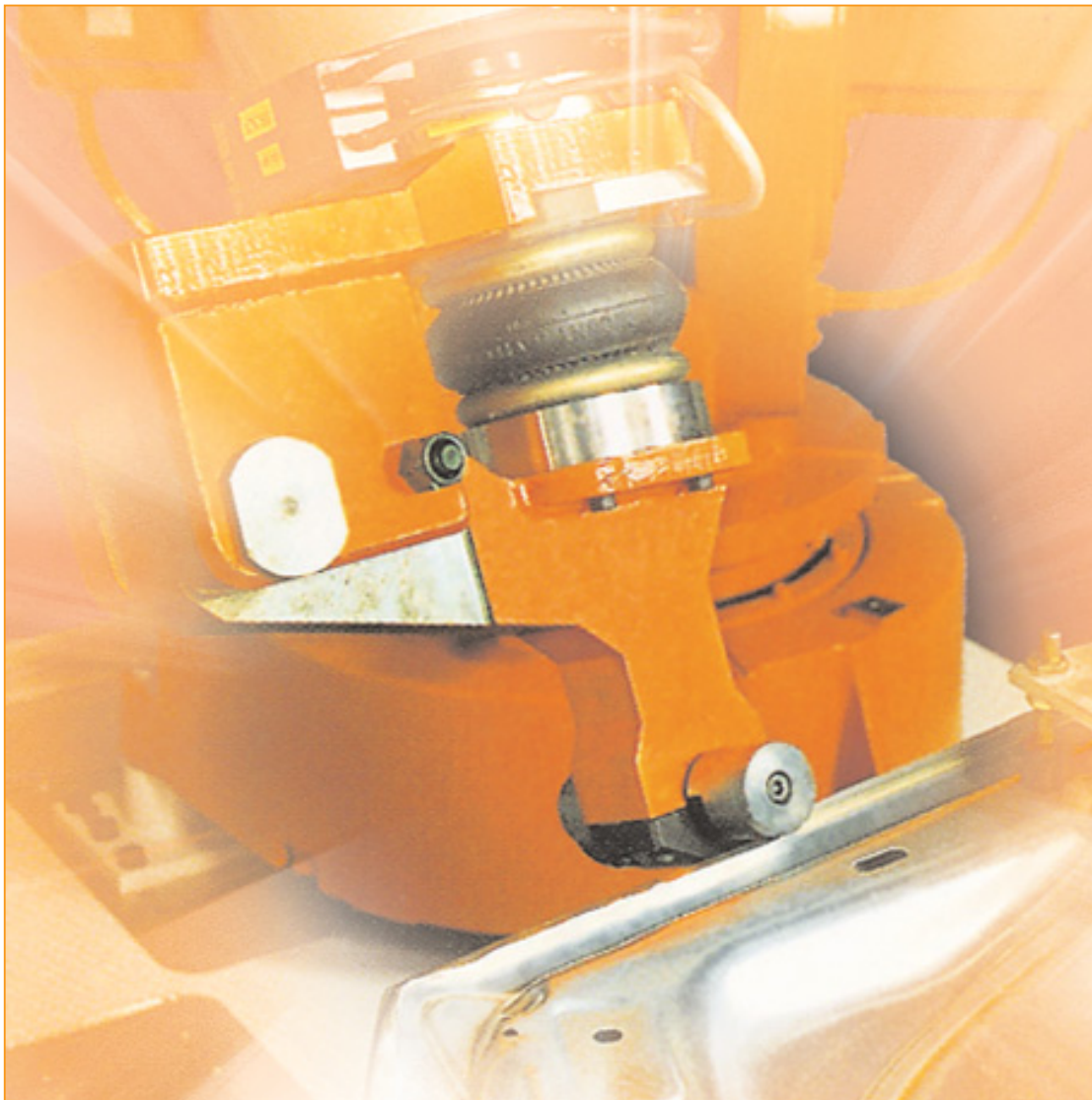


Full Range of Standardized and Flexible Robotic Hemming Solutions

For small and high production rates



The **heart** of Robotics

ABB

Hemming perfection

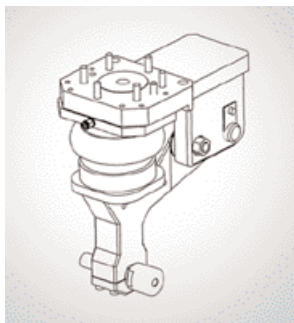
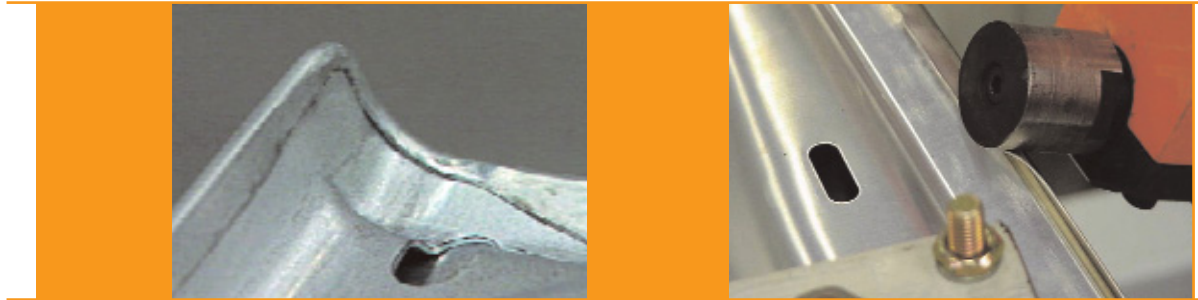
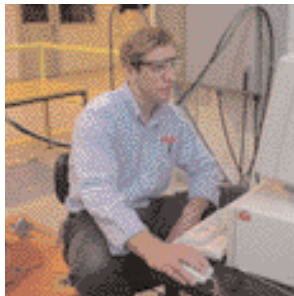


ABB has developed and patented a unique hemming tool suited to the robotic process which easily provides very high hemming quality.

It includes:

- Programmable adjustment of hemming force during the process, guaranteeing high hemming quality.
- A business software program enabling minimum programming time and rapid adjustment of hemming parameters. Quality is obtained in record time, significantly reducing set-up times.



- The possibility of changing the tool automatically, depending on the process.

Pre-hemming operations in the corners of the part are eliminated.

The continuous action of the roller on the part ensures reliable hemming, perfectly closed along the full length, with no contour discontinuity. The surface quality and regularity of the hemming radius are guaranteed by the principle of the hemming tool.

ABB robots – a plus in the hemming process



ABB designs and manufactures its own industrial robots for installation in a wide range of applications. The efficiency of these robots, both as regards to movement precision and process control are especially suited to hemming applications. In addition, the IRC5, the latest ABB robot controller, can be used to coordinate the control of up to 4 robots at the same time, using only one control cabinet. This capability reduces cycle time, in particular when the robots are working within the same zone, what is the case for hemming solutions using 2 or 3 robots.

Easy, economical and quickly put into production



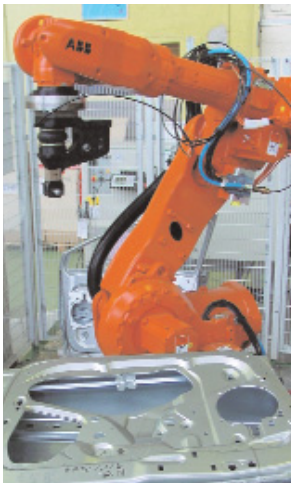
ABB, the specialist in robotics applied to the assembly of automobile bodywork parts, offers a wide range of hemming solutions based on its standard robots.

Standard solutions for all your hemming projects

ABB has developed easily adaptable, modular closure hemming systems at a highly competitive price. The solutions offered represent an investment in capacity that can be used for various product types. They are based on proven and tested standard equipment, which are easy to maintain, quick to install and offer the following benefits:

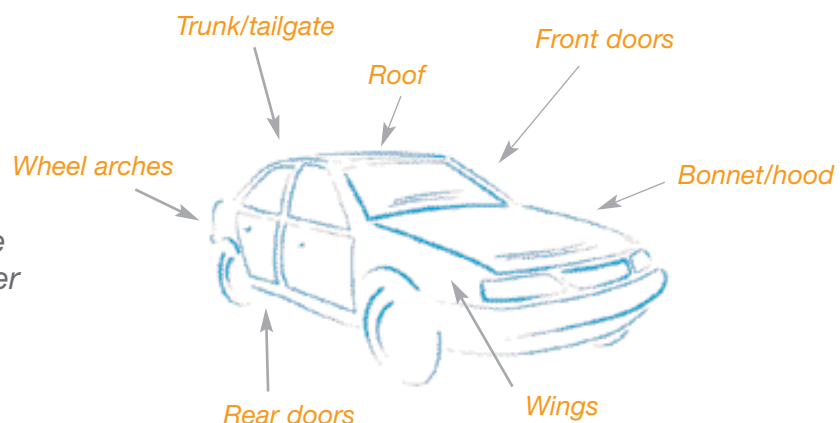
- Production of different types of parts. The solution chosen for the tools – a rotating table – enables different types of closures to be made by using the 2 or 4 table positions.
- Large production runs, prototypes or spare parts. You choose the solution that best suits your output and flexibility requirements from the range of options available.

- High hemming quality thanks to force control, a special feature of the hemming tool developed and patented by ABB.
- Ease of maintenance. The use of standard equipment and its modular design enable maintenance operations to be significantly reduced.
- Transport from one site to another. All equipment is mounted on a metal platform. This enables the production system to be moved easily, but above all, allows it to be put into production quickly thanks to the “plug and produce modules or cells.
- ABB engineering can provide support to the stamping process to get a high quality of hemming.



Parts produced

Hemmed parts are mainly vehicle closures. The technique selected for this process is roller hemming, using a tool carried by the robot.



Output
Number of parts/hour

140

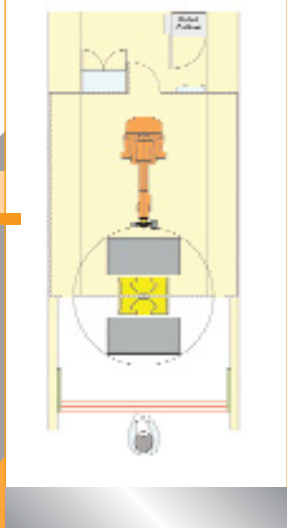
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100

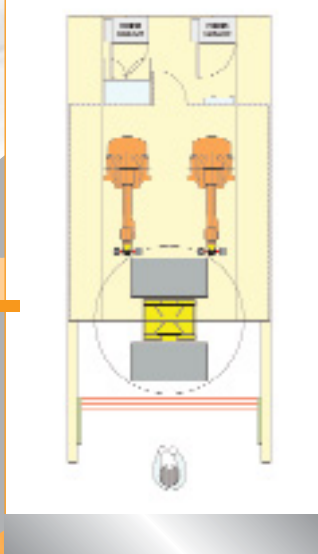
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40

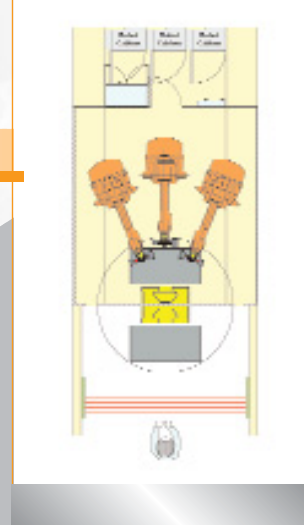
FlexiHem 1R-20



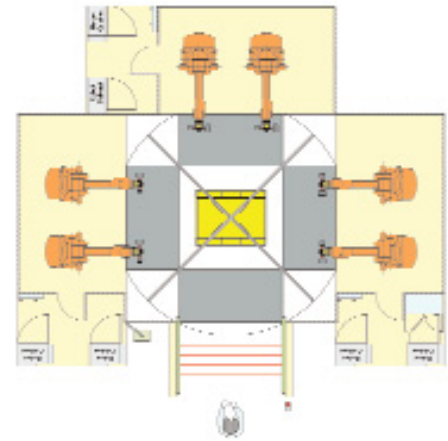
FlexiHem 2R-20



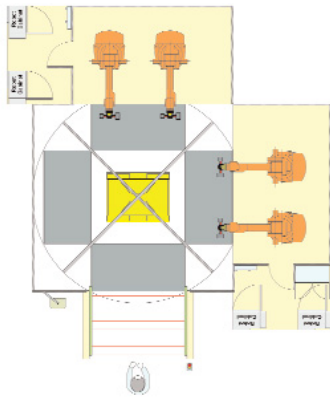
FlexiHem 3R-20



FlexiHem 6R-40



FlexiHem 4R-40



Choose your solution!

ABB hemming solutions can be adapted to meet various production speeds and degrees of flexibility for parts produced on the same cell.



The heart of Robotics



For more than three decades, ABB has remained committed to building and strengthening relationships with our customers, integrators and partners throughout the world. With this commitment, it is our belief that at the heart of innovative robotics lies mutual trust and confidence. This belief has helped us to achieve clear leadership in a highly competitive market. Today, in the automotive, metal fabrication, foundry, plastics and consumer industries, our wide range of products and solutions help to pave the way for optimized manufacturing. Around the world, our global lead centers, service centers and our partners bring our expertise, products, systems and services to your door.

Welcome to ABB – The heart of Robotics



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