

COMAU AND JEEP INCREASE MANUFACTURING AND MODEL FLEXIBILITY FOR THE NEW COMMANDER SUV

- Comau has enhanced 14 complex manufacturing lines to increase Jeep's high-speed production capacity from 3 to 4 models
- The expanded framework includes 73 automatic and 18 manual stations for better process control, quality validation and efficiency
- Jeep's body assembly and automatic welding set-up combines advanced Comau technology with powerful vision systems and full-line 3D scanning
- Despite pandemic-driven plant shutdowns, Comau managed to stay ahead of schedule, deploying the project in less than 24 months from start to finish

Grugliasco (Turin), May 11, 2022 - Comau has expanded the end-to-end body manufacturing lines at one of the most modern car manufacturing plants in the Brazilian state of Pernambuco to produce the new 7-seat Jeep Commander SUV. Comau has been tasked with increasing the flexibility of 14 complex lines to handle 4 different vehicle models in a completely random production flow. The increased flexibility also extends to model-specific assembly, welding and quality inspection operations based on available inputs. This feature helps optimize Jeep's production volumes in light of the global pandemic, when components may be scarce for some models, because the system can automatically prioritize vehicles for which the inputs are all in stock. Furthermore, the lines, each of which features a combination of automated, semi-automated and manual operations, were installed during the plant's natural downtime to ensure minimum impact on production.

Based on a lean manufacturing approach, Comau's innovative solution delivers increased process optimization and control. This is achieved through fewer manual operations, the deployment of advanced automation products, and the reduction of auxiliary equipment. For example, cameras are used to detect parts by shape, instead of sensors and photocells, and full-line 3D scanning at all stations ensures seamless robot alignment. Other advanced automation products, including proprietary laser welding, vision systems and the RHEvo Roller Hemming solution, were also deployed. As such, Jeep benefits from increased model flexibility, improved equipment efficiency and enhanced quality inspection capabilities. Finally, to help protect the scalability of the customer's investment, the entire project was designed to enable Jeep to introduce new models in the future.

















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After mapping the actual production cycles, Comau engineers worked with simulated cell devices to acquire a more complete vision of the proposed assembly line layout modifications prior to deployment. This allowed the team to optimize on-site commissioning and keep deployment-related downtime to a minimum. In the end, a total of 24 new robots, 24 new welding guns, and 4 conveyors were added to the over 620 assembly and welding robots already installed in the plant.

"Meeting Jeep's challenging requirements has led us to expand our innovative framing stations to four models for the very first time," explained Laerte Scarpitta, Comau Cluster Leader for the Americas. "This important project win is a direct result of our capacity to support the customer in every step of the manufacturing process, and it is great to see our cutting-edge assembly solutions produce this new 7-seat SUV."

In addition to granting increased flexibility and performance, Comau's in-depth knowledge and full integration with Jeep's engineering team assured the automaker that the project would be done right and would be done on time. Sure enough, despite a 2-month COVID-related shutdown, Comau Brazil was able to complete every project phase ahead of schedule.

Mateus Marchioro, Jeep Brazil Plant Manager, "From the very start, Comau has demonstrated its technical competence, automation expertise and commitment to our success. Their total manufacturing solution requires less auxiliary equipment and fewer manual processes. We're happy with the overall performance of the new lines."

Representing Comau's global capacity to respond to complex challenges while meeting the highest manufacturing standards, the Brazilian-led project benefited from direct support from Comau Romania, Comau Italy and Comau China. As such, Comau Brazil leveraged its local presence and longstanding expertise in automation, digitalization and intelligent technologies to deliver the speed, quality and efficiency customers like Jeep can rely on to produce their premium vehicles.

ABOUT COMAU

Comau, a member of Stellantis, is a worldwide leader in delivering advanced industrial automation products and systems. Its portfolio includes technology and systems for electric, hybrid and traditional vehicle manufacturing, industrial robots, collaborative and wearable robotics, autonomous logistics, dedicated machining centers and interconnected digital services and products able to transmit, elaborate and analyze machine and process data.

With over 45 years of experience and a strong presence within every major industrial country, Comau is helping manufacturers of all sizes in almost any industry experience higher quality, increased productivity, faster time-to-market and lower overall costs. The company's offering also extends to project management and consultancy, as well as maintenance and training for a wide range of industrial segments.

















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Headquartered in Turin, Italy, Comau has an international network of 6 innovation centers, 5 digital hubs, 9 manufacturing plants that span 13 countries and employ 4,000 people. A global network of distributors and partners allows the company to respond quickly to the needs of customers, no matter where they are located throughout the world.

Through the training activities organized by its Academy, Comau is also committed to developing the technical and managerial knowledge necessary for companies to face the challenges and opportunities of Industry 4.0.

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