

Robotic arc welding of seat frames

Challenge of ARSED

When Faurecia, one of the leading car seat structure manufacturers, won the contract for the complete seating part for the new Renault Twingo, they immediately contacted AWL for the supply of the robotic arc welding cells and their dedicated tooling. With its great knowledge in seat structures manufacturing machines, combined with the fact that production takes place in Slovenia at the company ARSED (in a JV with Faurecia) and the international character of the project, Faurecia preferred to do business with a reliable and smart partner. AWL is such a partner who proved his abilities over the last 15 years in this segment.

AWL Solution

To fulfill the daily production requirement of 650 cars per day, AWL proposed one of its advanced cells, the Basic Arc welding Cell, an independent production unit consisting of a base frame, which is build up with a two positions index table, a Fronius MIG welding process and two operating ABB welding robots. According to the customer, the ongoing reliability of the AWL welding cell, the intuitive interface, the advanced controls, the project guidance and the good service back-up, gave Faurecia every reason to place the order for this project to AWL. The Twingo front and rear car seats comprise each multiple formed and pre assembled components, which are assembled by MIG welding in different steps. When the operator is loading the parts in their dedicated jigs, the two MIG welding robots weld the previous structure. After the welding cycle the turntable swings 180° in a matter of seconds. For starting the next production cycle ensuring uninterrupted production. A total of 8 Basic Arc MIG welding cells are installed on the customers shop floor by AWL.

Results

With the installed Basic Arc welding Cells the total production exceeds the 650 cars per day, therefore ensuring the requested output of the assembly lines with a total production efficiency of 98%.

CUSTOMER FACTS:

Customer:	Faurecia by its Joint Venture ARSED	Industry:	Automotive
Product:	Seat frames	Application:	MIG welding
Country:	Slovenia	AWL solutions:	BASIC ARC welding cell
Overall Results:	Output: > 650 cars per day Total production efficiency: 98%		