



Plastics Systems

Kautex Textron Mallersdorf

Project: Insertion of tank ventilation systems
Customer: Kautex Textron GmbH
Technology: Automated insertion into blow moulding tools

Kautex manufactures plastic fuel tanks for different vehicle models. These plastic fuel tanks manufactured in a coextrusion process have to be in conformity with the legal provisions as to the emission of hydrocarbons. The coextrusion structure of the in-tank bladder consisting of 6 layers prevents the permeation of fuel vapours. Commonly used tank systems as hitherto welded onto the plastic fuel tank would not fulfil these emission requirements. For this reason Kautex developed a method where the tank system is blown into the tank using the extrusion process. This leads to significantly less interfaces that normally admit fuel vapours to escape.

Project scope realized by SAR:

- Evaluating of different solution possibilities for inserting the harnesses into the blow moulding tool
- Establishing a concept for the favoured production possibility
- Detail engineering
- Generating the corresponding drawings

Project realization:

In a drawer-type system, a worker inserts the harness, the swirl pot and the sucking jet pump and checks them for being present. A scanner detects type, fuel- or diesel fuel variant and the data are then sent to a label printer and to the customer's BDE system. After having inserted all components into the drawer, the components are picked up by a robot - equipped with a gripper especially developed for this purpose – fixed and finally inserted into a center of tools.

Another robot inserts a SAE-ring into the blow moulding tool ensuring that all relevant tank components are brought into the plastic fuel tank in one extrusion process.

Following the blow moulding process any excess material is removed from the tank and the plastic fuel tank is immersed into a water bath. Here, the fuel tank is cooled down, checked for being tight and then picked up by another robot. For further processing the plastic fuel tank is then deposited onto a buffer conveyor on several levels.



SAR Elektronik GmbH
Nürnberger Straße 96
91710 Gunzenhausen
Germany

Pho: +49-9831-8811-0
Fax: +49-9831-8811-111

www.sar.biz
kss@sar.biz