

## Varioplast

# Resource Conservation with Networked Process

Since many years, the South German plastics processor/finisher Varioplast Konrad Däbritz GmbH has focused on the subject of resource conservation. In particular, this is achieved in that the company has networked the different production and finishing procedures in one line. In addition to resource-conserving production, uniform high quality with lower manufacturing costs is also attainable. Compared with conventional production, practice has shown that resource savings of 45% are possible. Varioplast will present its latest inline production options at the Fakuma.

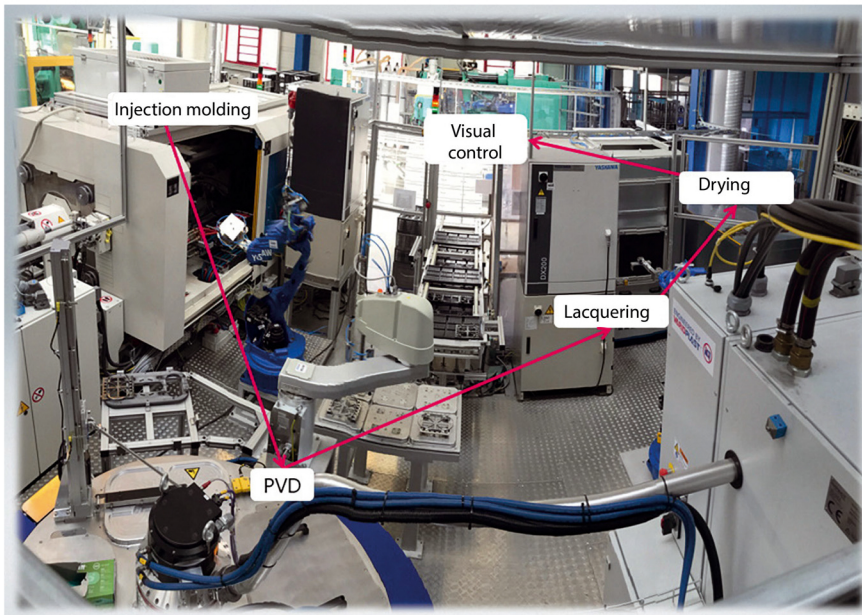
For example, Varioplast produces the front display trim frame with a 2-layer lacquer coating in chrome look for the current Mercedes E-Class. Initially, the project started with a conventional manufacturing concept. Hereby, the raw part was injection molded, and then packed for storage. The next step involved power-wash cleaning before the component was finally lacquered on a flat bed system.

In 2020, and together with the customer, it was decided to convert to a modern inline process. With robot-assisted lacquering, the component outlines are now scanned pre-

cisely. This results in a substantial reduction of lacquer consumption, less overspray in the cabin, and last not least to fewer rejects. Simultaneously, the required quantity of raw plastic material was reduced, which turned out to be a major benefit, particularly in view of the present raw materials scarcity. Apart from these obvious advantages, inline production also offers considerable savings potentials in terms of energy demand, transport routes, storage, and manpower requirements.

Recently, Varioplast's in-house automation team used the same principle to integrate the second PVD installation in an inline production system, with which articles up to a size of 430 x 230 mm can be coated. The system is used for series production of a "chrome ring bezel" for the current BMW Mini.

Hereby, in a networked concept, components are injection molded, PVD-coated, and dried after the application of a protective coating. At the end of the line, and synchronized with the injection molder, assembly-ready rings are removed and packaged. In addition to the previously mentioned advantages, this permits the components to be inspected in accordance with the cycle time. Possible faults in the process are detected at an early stage and can be rectified directly – without a quantity of reject parts building up, as is the case with conventional production. Consequently, the amount of reject parts produced is correspondingly low, so that once again Varioplast can live up to its claim of resource-conserving manufacturing.



Networked processes reduce the number of rejects, cut energy demand, and shorten transport routes, thereby contributing towards resource conservation © Varioplast