

## »Joint Project Gekko«



Conventional production



Variothermic process control

The Gekko sample project highlights the performance of contour-following, variothermic temperature control in combination with additional, progressive production methods of the companies participating in this project.

CONTURA® MTC GmbH developed the complex, close-contour cooling. In designing the sample component, the flow behaviour of the plastic material was intentionally disrupted by openings on the back. Here the benefits of close-contour temperature control are clearly apparent based on the result – there are no visible joint lines.

Heat dissipation in the tool is accelerated, hot spots are avoided and the cooling time is drastically reduced.

The production process becomes more economical and efficient.

Deckerform, a proven mould maker, performed calculations in advance and then designed and fabricated the injection mould.

This joint project focused on an optimal surface appearance and matt gloss. Reichle Technologiezentrum GmbH contributed the laser-textured class A surface. The component has high-gloss polished surfaces next to matt microstructures and complex 3D geometric structures. Thanks to the digital database, the structures can be reproduced in a tool. A fundamental improvement of dimensional accuracy for injection processes with close-

contour temperature control further enhances the quality.

With this sample item, the high complexity and intentionally demanding geometry of the Gekko with its sophisticated surface structure highlights the extraordinary performance of all technologies used in this project, with outstanding collaboration between the participating companies.

Thus the Gekko is an impressive example of what is possible today.

For the added support, we would like to express our appreciation to

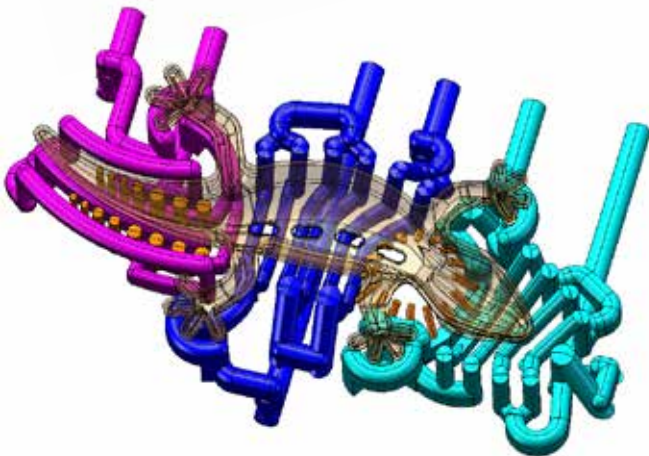


Contour-following temperature control on the injector side. Controllable in two different cycles.

**The combination of variothermic process control with contour-following tool temperature control results in the following benefits.**

Benefits of a warmer cavity during the injection process:

- Reduced visible flow lines and silver streaks
- Greater homogeneity during the orientation of glass fibres
- Reduced visible joint lines
- Reduced risk of warping due to shrinkage
- Improved dimensional stability and consistency
- Better mechanical characteristics
- Reduced sink marks away from the sprue



Location of the variothermic, close-contour tempering channels on the nozzle side (visible face), divided into three zones.

**Intelligent and highly customisable injection moulding production.**

A temperature control unit suited for the injection moulding process is a tremendously important component of contoured and variothermic mould temperature control.

That is why CONTURA® – the mould temperature control specialist – offers a temperature control unit optimised to meet these requirements. It sets itself apart with the following special benefits:

- **Low space requirements**
- **Extremely fast heating and cooling cycles**
- **Operated via touch screen**
- **Integrated trend recording**
- **Moveable base**



**DECKERFORM**

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