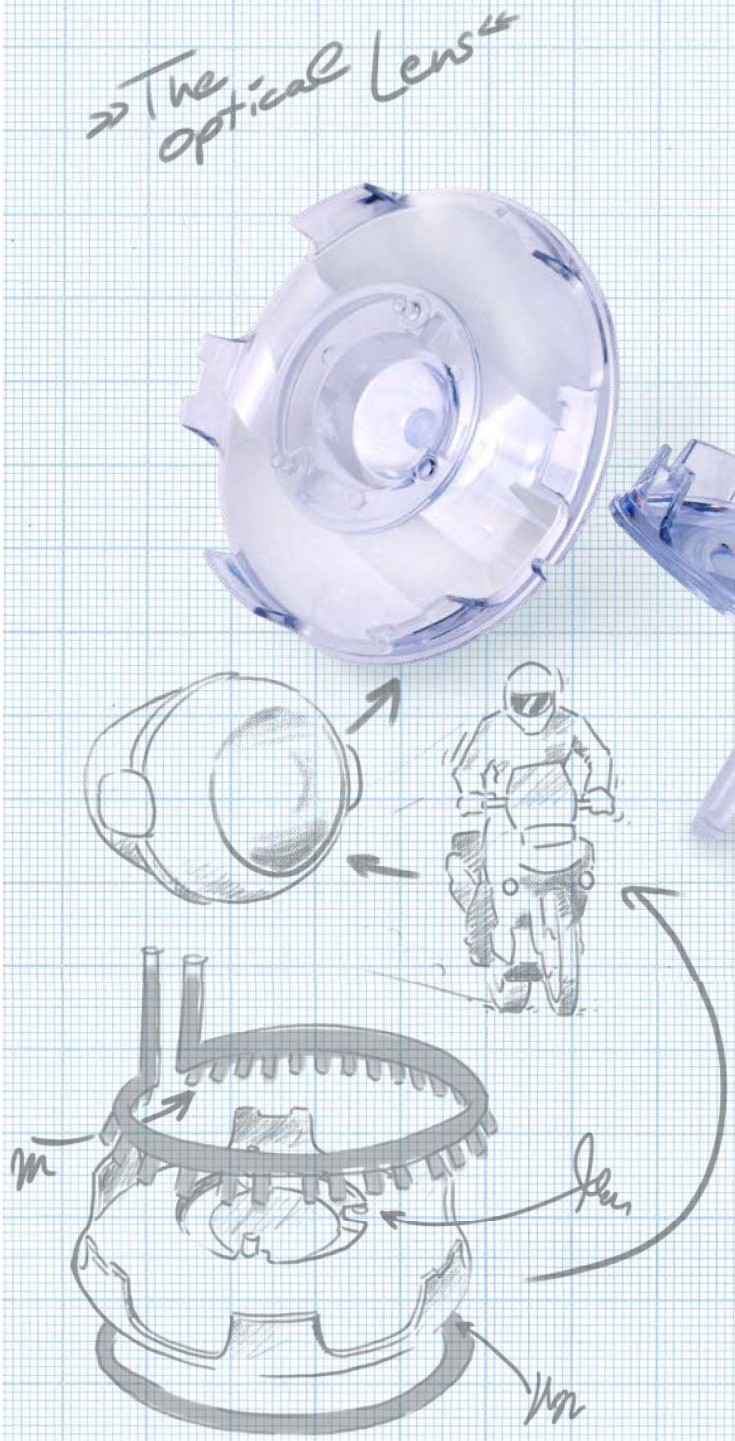
Optical components 光学元件

光学透镜

CASE STUDY



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Typical applications of variothermal technology include:

- Injection molding or pressing tools with cavity-proximal cooling channels.
- Typical tool temperature ranges above 100 °C; up to a maximum of 200 °C.

Heating and cooling according to the injection cycle:

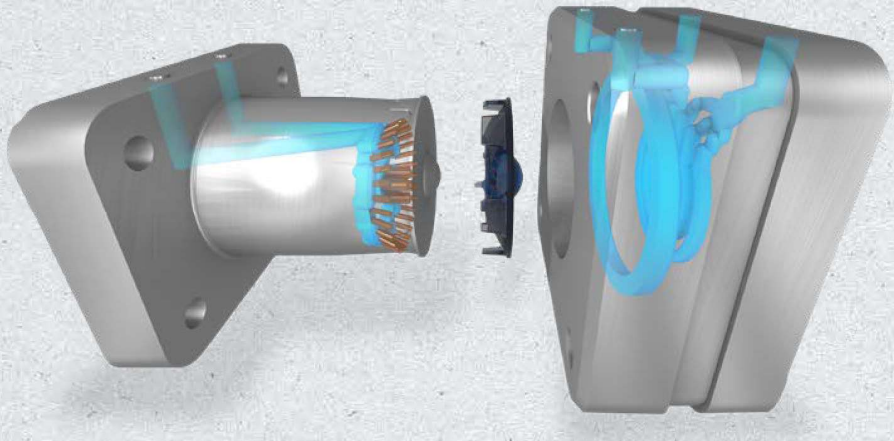
- Up to over 100 K temperature difference between heating and cooling phases within the cavity.
- High capability to enhance the quality of molded parts and/or reduce cycle time significantly.
- Easy integration into a standard tool.

变温工艺的典型应用

- 带有腔内近端冷却水路的注射成型或冲压模具
- 典型模具温度范围在100℃以上、200℃以下

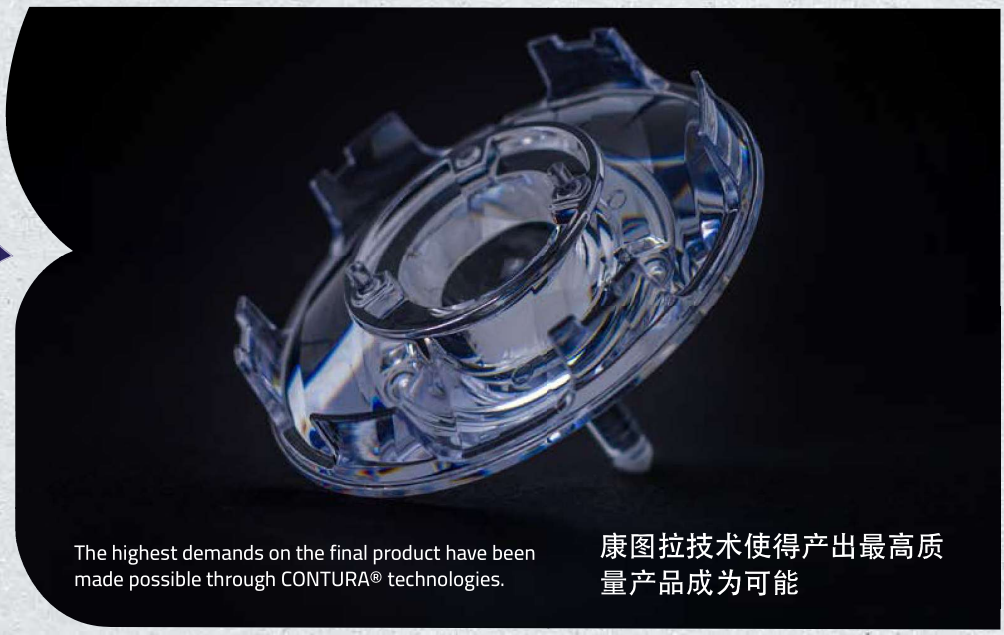
加热和冷却遵循成型周期

- 腔体升温和降温之间的温差高达100 K
- 提高模具产品质量和/或显著缩短成型周期
- 易于集成到标准模具中



The nozzle side and ejector side are depicted as semi-transparent here.

这里显示的是喷嘴侧顶出器侧的半透明效果。



The highest demands on the final product have been made possible through CONTURA® technologies.

康图拉技术使得产出最高质量产品成为可能

Optical components 光学元件

CASE STUDY

Combining variothermal process control and conformal cooling to enhance optical properties.

The advantages of conformal cooling are:

- **Shortening of cycle time by approximately 30%.**
- **Improvement of process stability.**
- **Reduction of correction loops.**
- **Decrease in energy consumption.**
- **Optimization of molded part quality.**

The advantages of variothermal process control include:

- **Reduction of cycle times for thick-walled parts (≥ 6 mm).**
- **Support for filling thin-walled sections.**
- **Improved crystallinity in the component.**
- **Production of visually high-quality parts.**

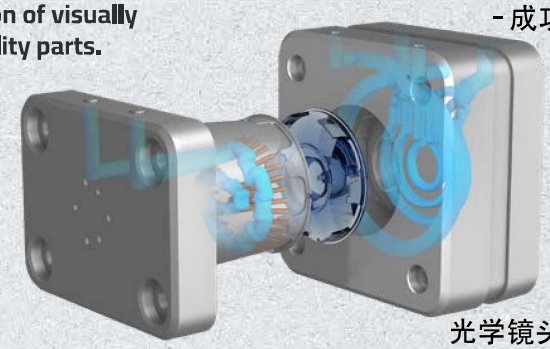
变温过程控制和随形冷却结合提高光学性能。

随形冷却的优势如下

- 成型周期缩短约30%
- 提升工艺稳定性
- 减少校正环路
- 减少能源需求
- 优化成型产品品质

变温过程控制的优点包括:

- 厚壁零件（≥ 6 mm）的成型周期缩短。
- 支持薄壁零件的填充
- 提升组件的结晶性
- 成功生产高品质产品



Optical lens by Rebo Lighting & Electronics from Eisenach. Through the variothermal design of the mold insert, the demolding properties were optimized in a stable process, allowing for an extension of the holding pressure time.

光学镜头来自德国爱森纳赫市的Rebo Lighting & Electronics公司。通过模具镶件的变温设计，过程稳定并优化脱模性能从而延长了保压时间。

Benefits at a glance: 优势一目了然

30% cycletime reduction
成型周期缩短30%以上

COPPER inlets for best performance
最佳性能的铜质镶件

better **MATERIAL-HOMOGENEITY**
材料均匀性更好

reduced CO_2 footprint
减少二氧化碳排放

SURFACE improvement
表面改善

Elimination of elaborate **POST-PROCESSING**
消除复杂的后部工艺

improved **PROCESS STABILITY**
提升工艺稳定性

Significantly **less waste**
显著减少浪费

optional performance **GUARANTEE**
产品视觉保证

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