

CO₂-Temperature Control

in cooperation with 

Optimization of quality and economy by using CO₂-temperature control

Addition to conventional temperature controls within injection molds

Regarding molding quality and short cooling times, a specific temperature control with even temperature distributions on the cavity surface is a deciding factor. Generally, injection molds for thermoplastic processing are controlled with water led through respective runners. Especially the temperature control of long and thin cores, guide bars or other hardly accessible areas causes difficulties in practice (too high temperatures by clogged runners caused by deposits, too high pressure lost caused by too

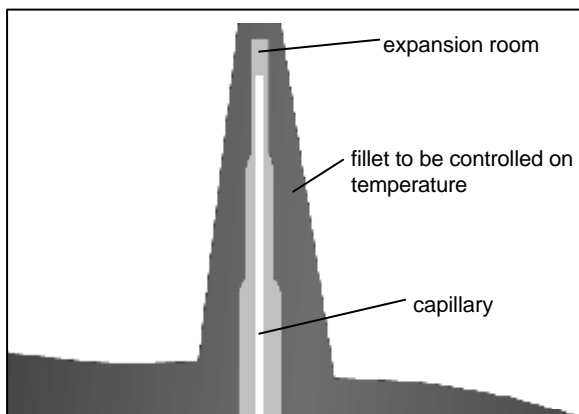


Part with thin fillet and CO₂-temperature control

capacity – no other temperature control can be used effectively. Flexible and slender feed lines (Ø 1.6 mm), which let the liquid gas emerge with a temperature down to -79°C, enable a

temperature control of the hardly accessible areas at any will. Cycle time reductions up to 60 % could be reached by using the temperature control for practical molds. Additionally, quality can be increased decisively by a more even temperature control.

The temperature control is not only useable for new molds but can also be retrofitted on present molds.



Cut of a core with CO₂-temperature control

small runner diameters and too big distances from cooling channel to moulding surface). This leads to removal problems, surface defects, warpage and long cooling times. Right here the CO₂-temperature control in massive metal starts.

The CO₂-temperature control can be used where – due to cramped circumstances or lacking cooling

Advantages of CO₂-temperature control

- more even temperature in mold and molding – therefore better quality and economy
- intensive heat removal in problem areas (little cores, material accumulations)
- small runner diameter (Ø 1.6 mm) and flexible feed lines
- easy locating in conventional tool steel
- reduction of cooling times (up to 60 % proved on practical molds)

contact • development and technology

Iserlohner Kunststoff-Technologie GmbH
Max-Planck-Str. 5c
D-58638 Iserlohn
Tel. +49 (0)2371 / 1537-0
Fax +49 (0)2371 / 1537-11

markus.berghoff@isk-iserlohn.de 1537- 20
christian.kuerten@isk-iserlohn.de 1537- 12
www.isk-iserlohn.de

contact • gas technology

Linde AG
Linde Gas Division
Andreas Praller
Carl-von-Linde-Straße 25
D-85716 Unterschleißheim
Tel. +49 (0)89 / 31001-654

andreas.praller@linde-gas.com
www.linde-gas.com



Mold with CO₂-temperaturare control