

WEISS KUNSTSTOFFVERARBEITUNG AND POKOLM FRÄSTECHNIK = SECURITY IN PRODUCTION SEQUENCES

Weiss Kunststoffverarbeitung

company's location: Illertissen
family owned since over 58 years
180 employees, there of 20 skilled experts in
the toolmaker's shop and 8 apprentices
turnover expansion from 1996 up to 2004
approx. by 2,6 times
64 injection moulding machines

Pokolm Frästechnik GmbH & Co. KG

company's location: Harsewinkel
founded in 1994
60 employees
Tooling systems, process optimization
consulting in milling strategies

Krebs Werkzeugtechnik

company's location: Burgau
founded 1986

since 1995 distribution of **Pokolm-Voha**-
tooling in southern Germany

Always, our goal at **Pokolm-Voha** has been, supplying perfect tooling combinations to our customers. As a system-oriented company, stocking over 500.000 different combination-possibilities -Arbors, Adaptors, Milling Cutter Bodies, Inserts and Solid Carbide End Mills- **Pokolm** Frästechnik GmbH & Co. KG and **Voha-Tosec** Werkzeuge GmbH are the ideal partners for the company **Weiss** Kunststoffverarbeitung. Optimum milling strategies are developed immediately from our applications engineers together with the customer himself -in this particular case from Stefan Krebs. He is an active partner in designing new tooling and/or in optimizing existing cutting tools. Our customer benefits from his competent consulting, which results from his extended experiences and originates in his own tool-shop **Krebs** Werkzeugtechnik .



Martin Sturm, workshop foreman of Weiss Kunststoffverarbeitung appreciates very much our „...almost 100% stock and our perfect competence and consulting abilities and our **Pokolm-DuoPlug®**-system...” which offers an extraordinary extent concerning rigidity and process security.

This picture shows Martin Sturm, workshop foreman of Weiss Kunststofftechnik and Stefan Krebs, independent applications engineer of Pokolm.

Problem definition for the company Weiss:

Injection Moulding Die for an important customer in winter sports business.

A relatively simple part, looking from the designers point of view, but a safety-relevant part for every skier. That's why highest demand for quality and a maximum degree of accuracy is required.

Already in establishing the manufacturing drawing and during production of the blank, every possible deviation must be avoided.

The Multipart-Injection Moulding Die is pre-worked according to it's technical demands. In non-tempered condition, ejection- and guide holes are produced and the outside contour is machined. After that process, the blank is tempered to 54 HRC in the company's own hardening department. Material used is 45NiCrMo16 / 1.2767 and is well known for highest ductility in connection with an obtainable tensile strength R_m up to 1600 N/mm² and might be seen as today's optimum material for this selected application.

Milling process:

Machine: Mikron, High Speed Machining Centre HSM 700

High Speed Spindle form E

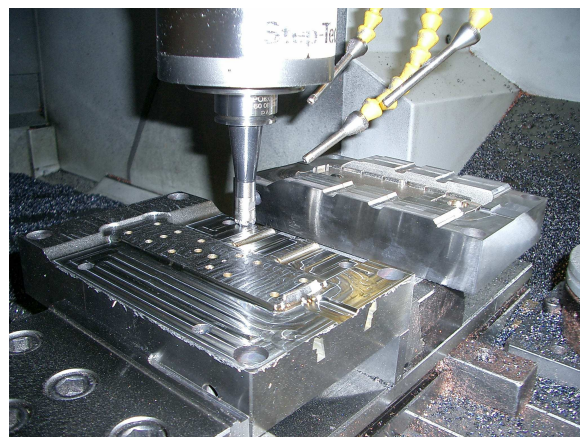
Tool: cutter with round inserts diam. 15 mm; 4 teeth

Inserts: 01 05 835 (HSC 05; PVTi)

Cutting Speed: 260 m/min

Feed per min.: 3.300 mm/min

Tool life: 70 min.



Machining of a Injection Moulding Die with Pokolm Milling Cutter with round inserts..

Solid Carbide End Mills, from smallest Ball Nose End Mills up to the largest possible Corner Radius End Mills: Weiss Kunststoffverarbeitung buys his demands in cutting tools from **Pokolm-Voha**. Our perfect quality level and our optimum range for nearly every possible application, together with our maximum flexibility regarding all necessary specials and short term deliveries give so many advantages to Martin Sturm and his team and makes them profit from a competent partner, offering every possible milling solution.

The close cooperation between Weiss and **Pokolm-Voha**, who is offering a wide variety of tooling combinations as far as Arbors, Adaptors, Milling Cutter Bodies and Solid Carbide End Mills are concerned, together with a number of well experienced applications engineers are the highlights of **Pokolm-Voha** and help the company Weiss and other customers to a perfect quality of their products and a high profitability of their production equipments.

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