KraussMaffei

Engineering Passion

Co-Injection / Sandwich Injection Molding

A Brief Overview

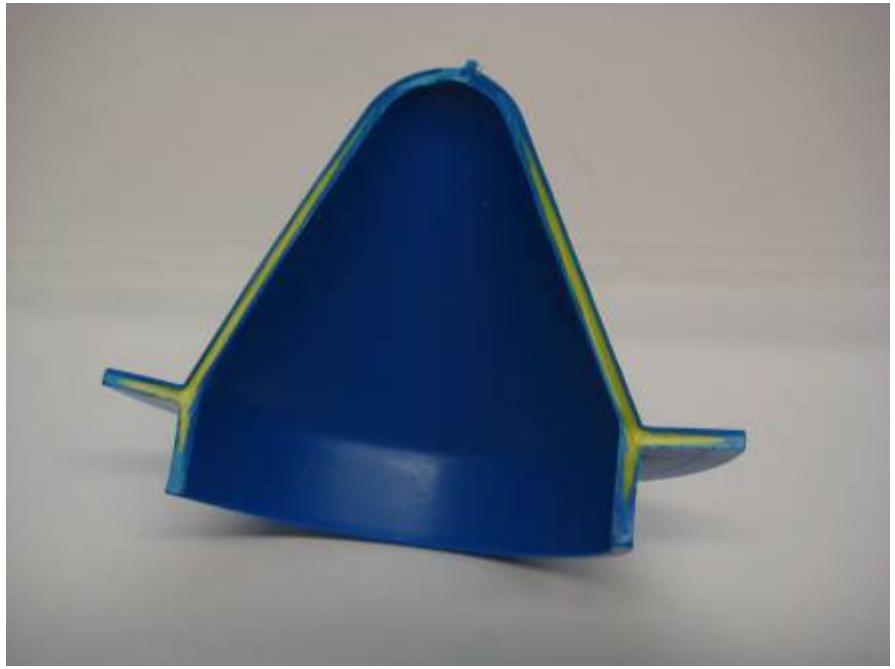
Combination of properties
Multinject sandwich technology

Core material options

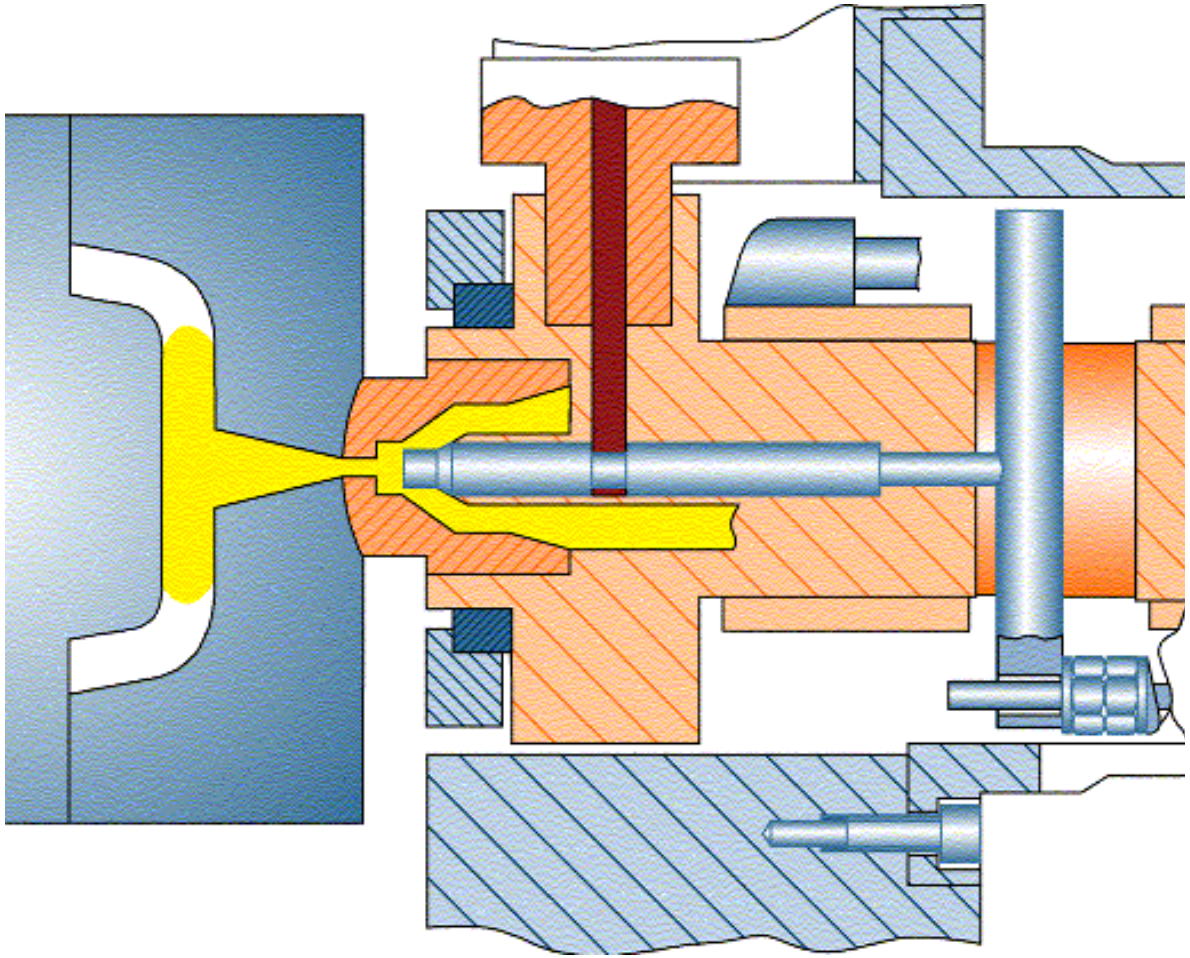
- Reinforced (glass fiber)
- Reduced weight and avoid sink marks (foamed)
- Reduces costs (use regrind)

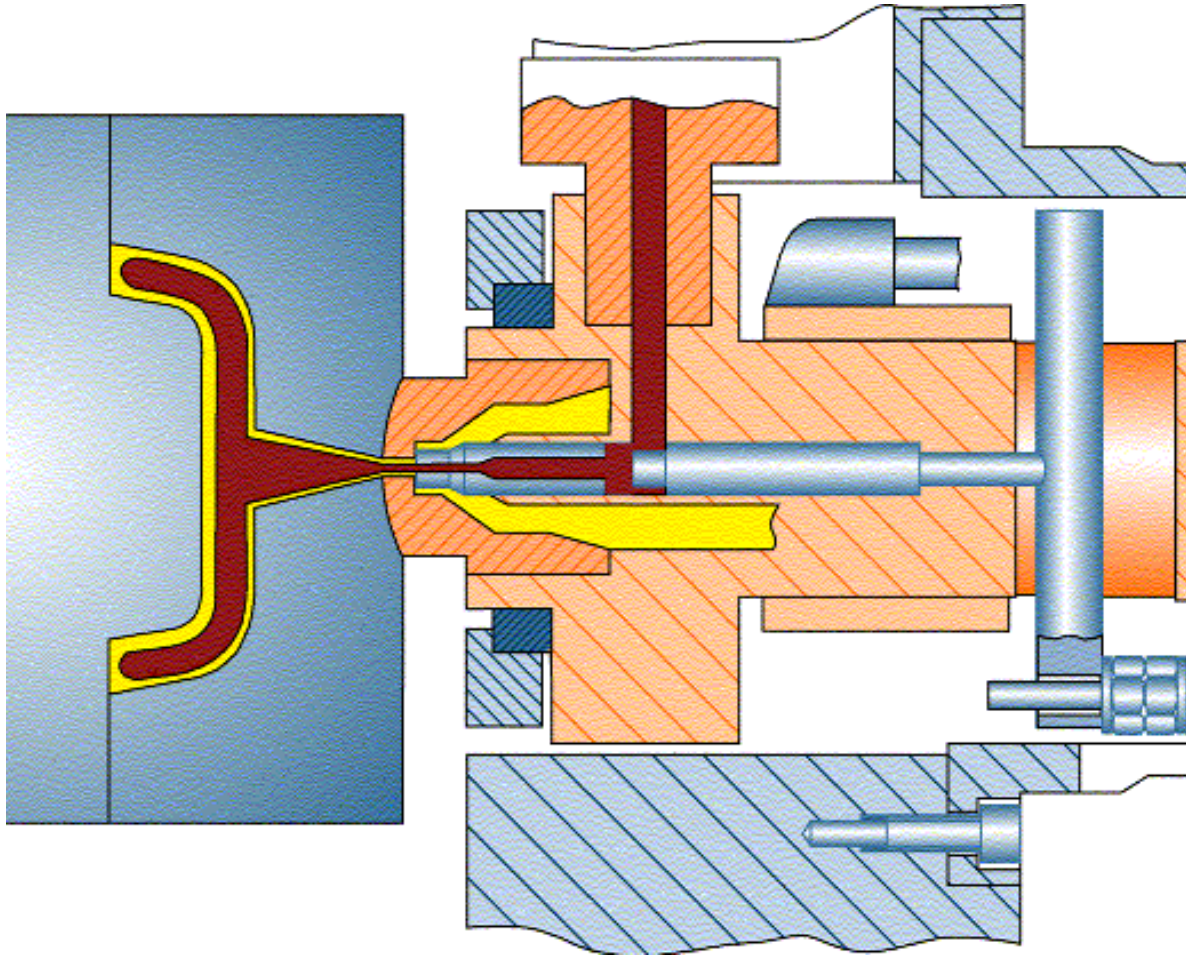
Skin material

- Optimal surface (high-value material)



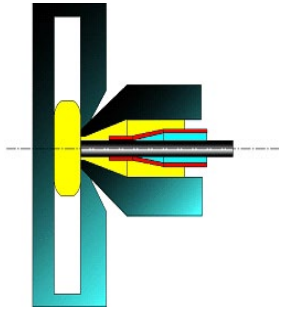
Sandwich Platen – Bolt On



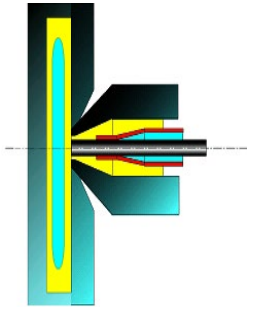


Highest flexibility and repeatability with hydr. controlled needles

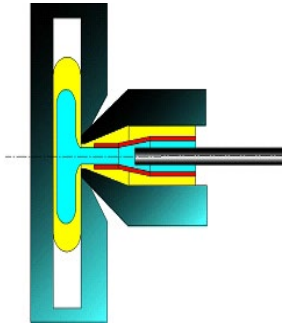
- Needle 1 opens and material 1 (yellow) is injected



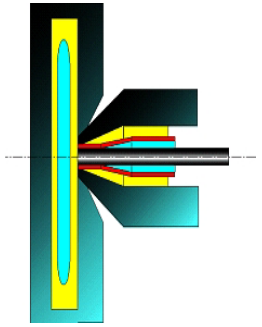
- V Core material (blue) sealed with material 1 (yellow)



- Simultaneous opening of needle 2, injection of material 2 (blue) and continued injection of material 1 (yellow)



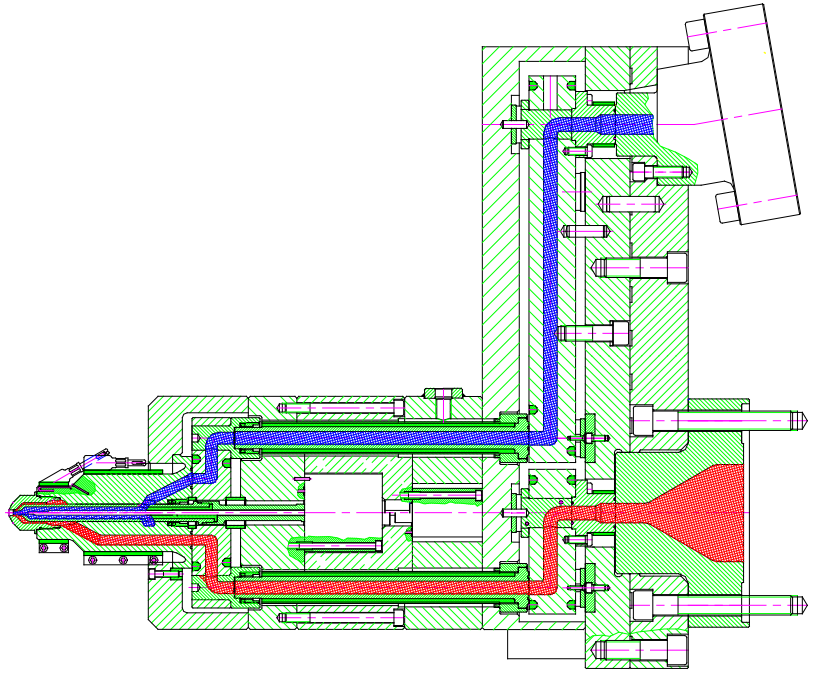
- Part filled, both needles closed

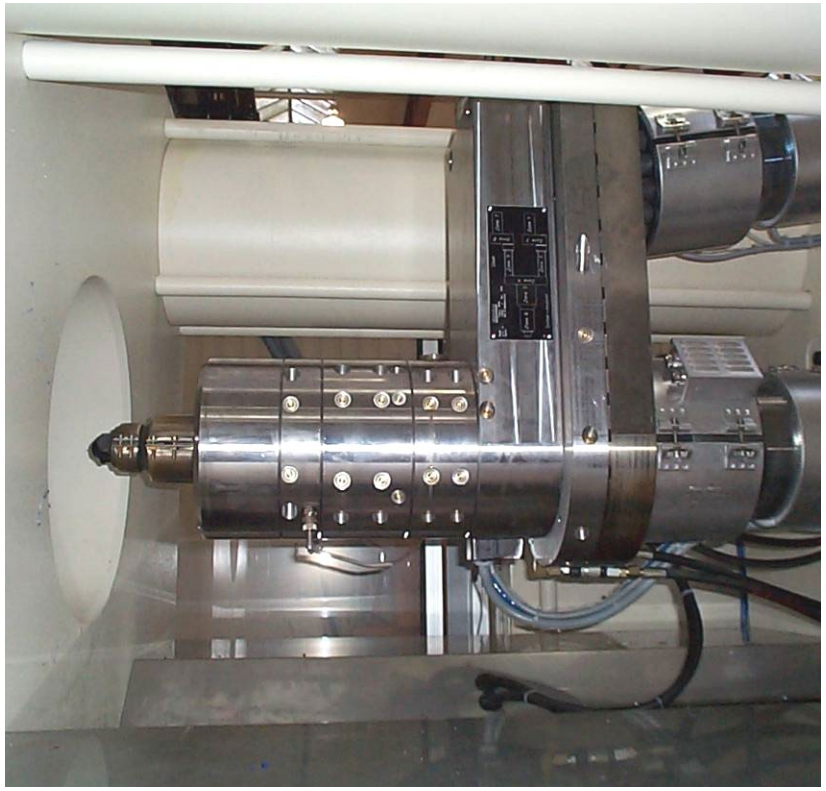


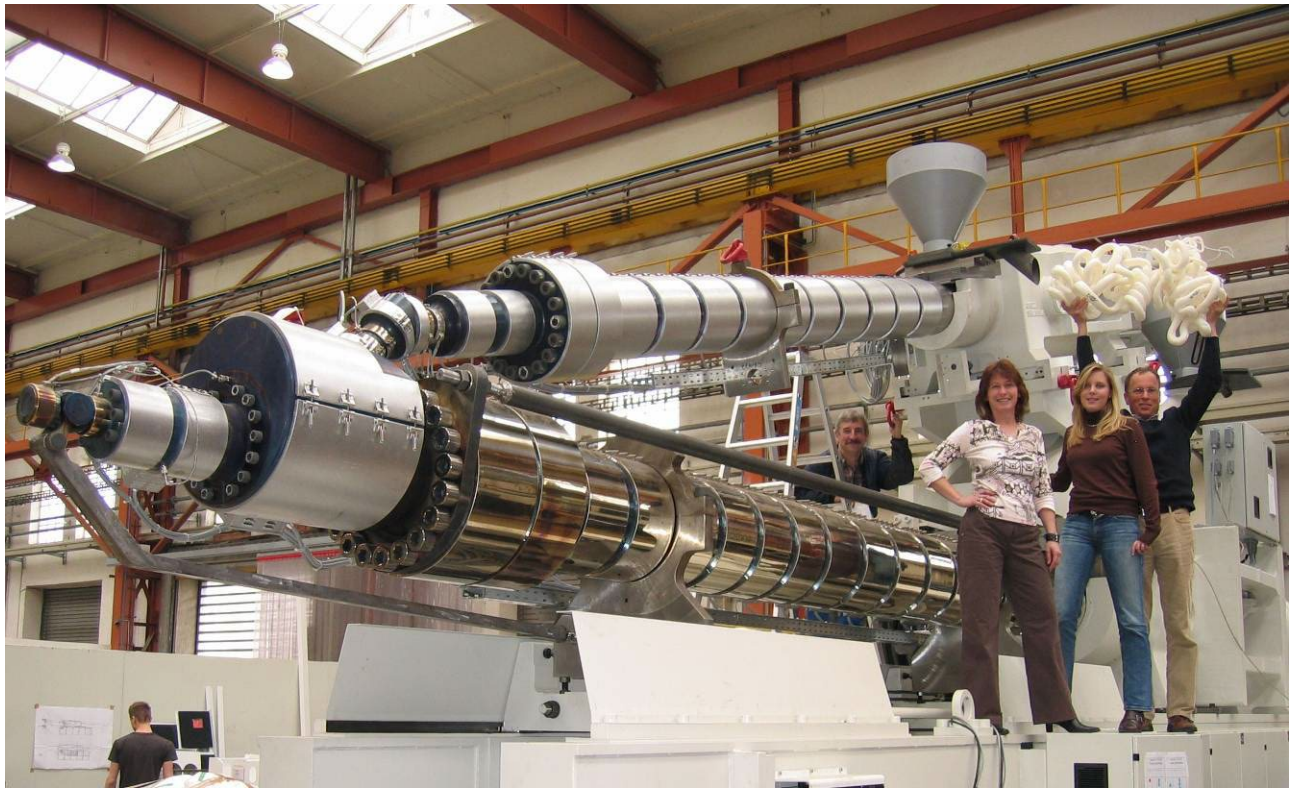
Customer benefits:

- Controlled filling – parallel injection of material 1 and material 2

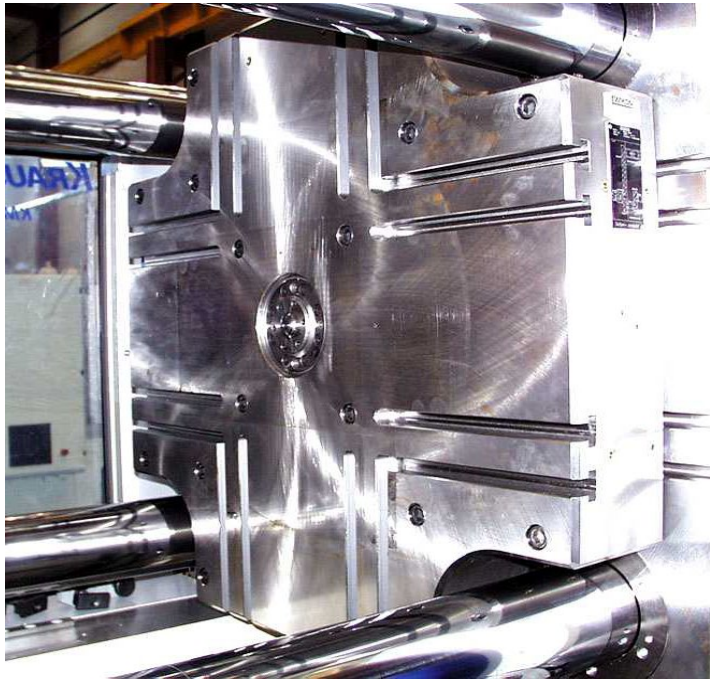
Sandwich head with 2 separately controlled hydraulic needles

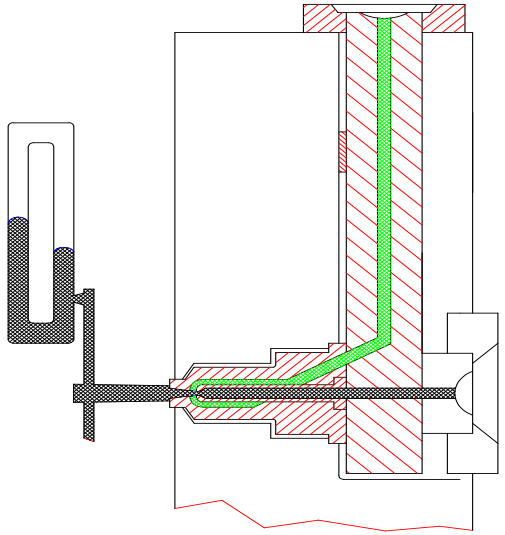


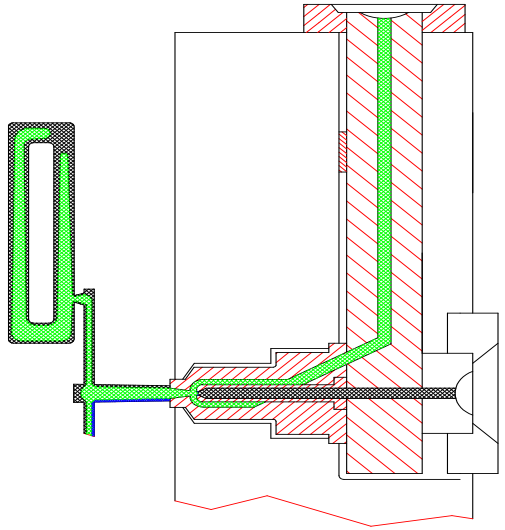




Bolt-on sandwich platen







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Co-Injection with a Sandwich Platen at Fakuma 2024

The all-electric 1200-kN clamping force PXZ 121 Multinject features a **removable sandwich platen** offers a high degree of flexibility in production. This means that the PXZ 121 **can be used as a single-component, two-component, or sandwich machine without any additional effort.**

The blue turtle that will be molded at the international plastics processing trade show, 2024 Fakuma, has a black core made of mechanically recycled PC/ABS and an outer layer made of chemically recycled ABS.

Potential Benefits from Co-Injection Molding

Implementing co-injection molding could offer Lifetime Products several advantages:

- **Cost Savings:** Reduced material costs by using less expensive core materials.
- **Enhanced Product Performance:** Improved mechanical properties, including strength, durability, and thermal insulation.
- **Aesthetic Improvements:** High-quality surface finishes that enhance visual appeal and customer satisfaction.
- **Environmental Benefits:** Opportunity to use recycled materials, aligning with sustainability initiatives.