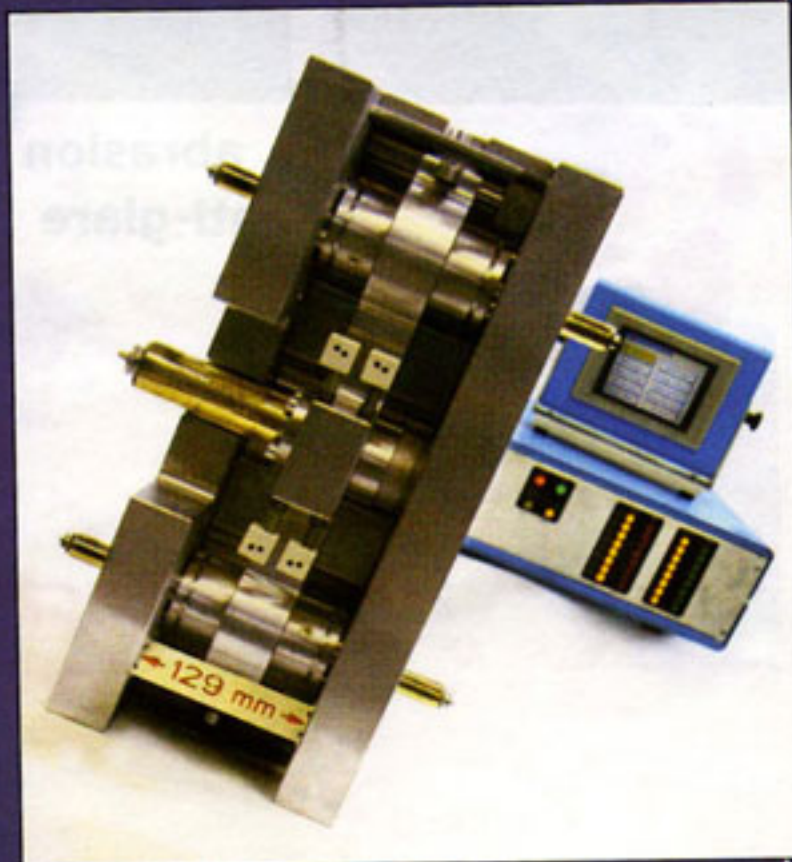


Stack Mould with Integrated Shut Off Valves

One of the most important devices that Thermoplay presented at the K2007 was the stack mould with opposed nozzles and shut off system. Thermoplay has a long experience of hot halves that use a traditional shut off system, where the shut off group is external to the nozzle, mounted on the manifold. The innovative feature of the new stack mould is that the shut off group is integrated inside the nozzle, so that space is saved in the mould. This new principle has been studied in order to reduce the hot runner seat dimension inside the mould. As a consequence, the height of the spacer plate is reduced to 129 mm. Another important feature is that a sequential controller can be connected to handle the stack mould nozzles and shut off valves independently. The nozzle types that are now available on this kind of system are nozzle type F3 with integrated pneumatic shut off system. The diameters available are 16mm and 24 mm, with related standard lengths up to 206 mm. Different diameters and lengths can be properly studied upon the customer's request. The typical



application of this stack mould is the packaging sector such as containers with thin walls and caps. Thermoplay will be present at Fakuma 2008 on stand 5107 in hall A4.

Thermoplay SpA

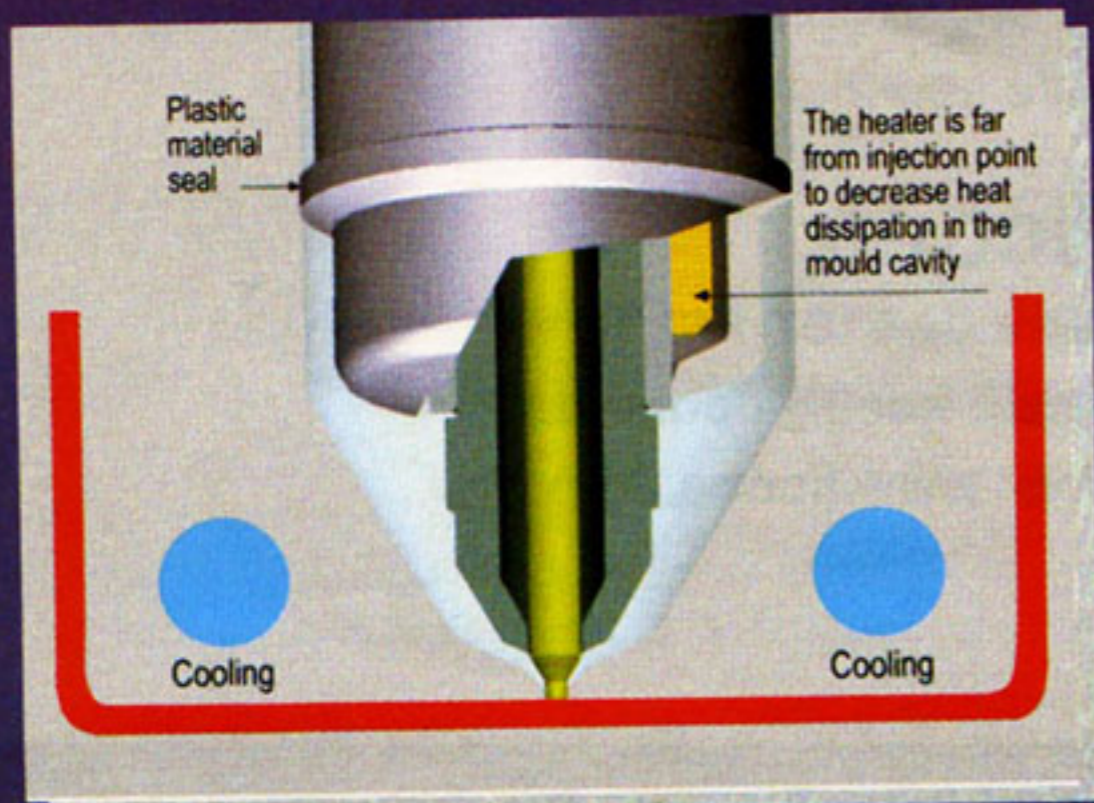
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Fakuma A4-5107

Spotlight



Special Nozzles for Thin Wall Applications

A new shut off nozzle type has been developed, which is particularly suitable for injecting parts in PP, PE, PS, with fast cycles and for thin wall parts (below 0.8 mm). The new nozzle type 3B is available for both F and DN series. The F type has only one seal area for plastics, therefore the seat needs more precision workshop than the DN type. The 3B nozzle types are provided with extra-long

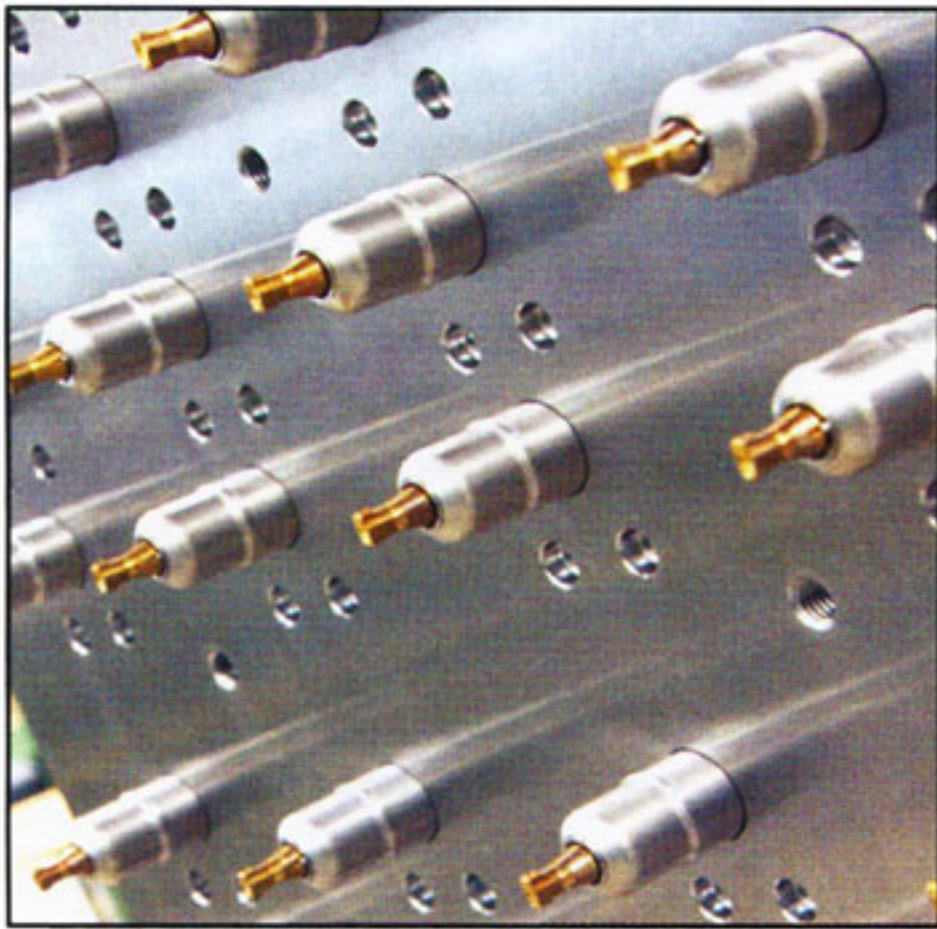
tip and the heater is far from the injection point, allowing less heating of the gate area. In this way it is possible to improve cooling in the gate area and in the contact zone between the pin and the plastics. As a consequence, the aesthetical defects due to the excessive heating of the thin wall and the plastics gluing around the pin are eliminated. Therefore the 3B types (F or DN) are suggested for injection moulding of thin wall parts, with fast cycles. The 3B types are to be used with shut off valves, therefore it is suitable for the sequential control injection. This allows to regulate the plastic flow at the best rate in special applications, such as containers that cannot be injected externally, due to the presence of the label. Moreover, the shut off injection nozzles leave a very clean injection point that is quite invisible and free from imperfections or material threads that could affect the content.

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Equipment:

Hot Runner Systems Design and Manufacturing

Manufacturer:

THERMOPLAY SpA

Tel: +39 0125 800311

Web: www.thermoplay.com

Equipment Tech Spec:

Multiple nozzles and single nozzles, standard and special manifold systems, temperature controllers, flow analysis, special custom projects, bi-injection, multimaterial, sequential injection with pneumatic and hydraulic valves, sequential gate controllers, and hot halves.

Reviewer:

Company: Gefit

Job Title: Technical Department Manager

Key Industry Focus: Caps and Closures for Food Packaging

Key Purchasing Criteria:

1. Special nozzle design requested by the customer, for double side internal injection
2. Small tip of nozzle for very clean and invisible injection point
3. Application in multicavity moulds, 16 to 72 cavities
4. Reliability of the injection system in quality of final part and in the system operation
5. Technical service worldwide

FINAL SAY:

The main purchasing decision was the good cooperation between the two companies for 20 years. The benefits experienced since the purchase include research and development capability to provide special projects on particular request of the customer. Ongoing implications of the machine include reliability of the special development, prompt answer for maintenance and service. Full respect of the privacy agreements with the customers.