

侧面注塑用特殊喷嘴 多头特殊喷嘴

Special nozzles for edge gate
injection, multi-tip nozzles



THERMOPLAY®
HotRunnerSystems

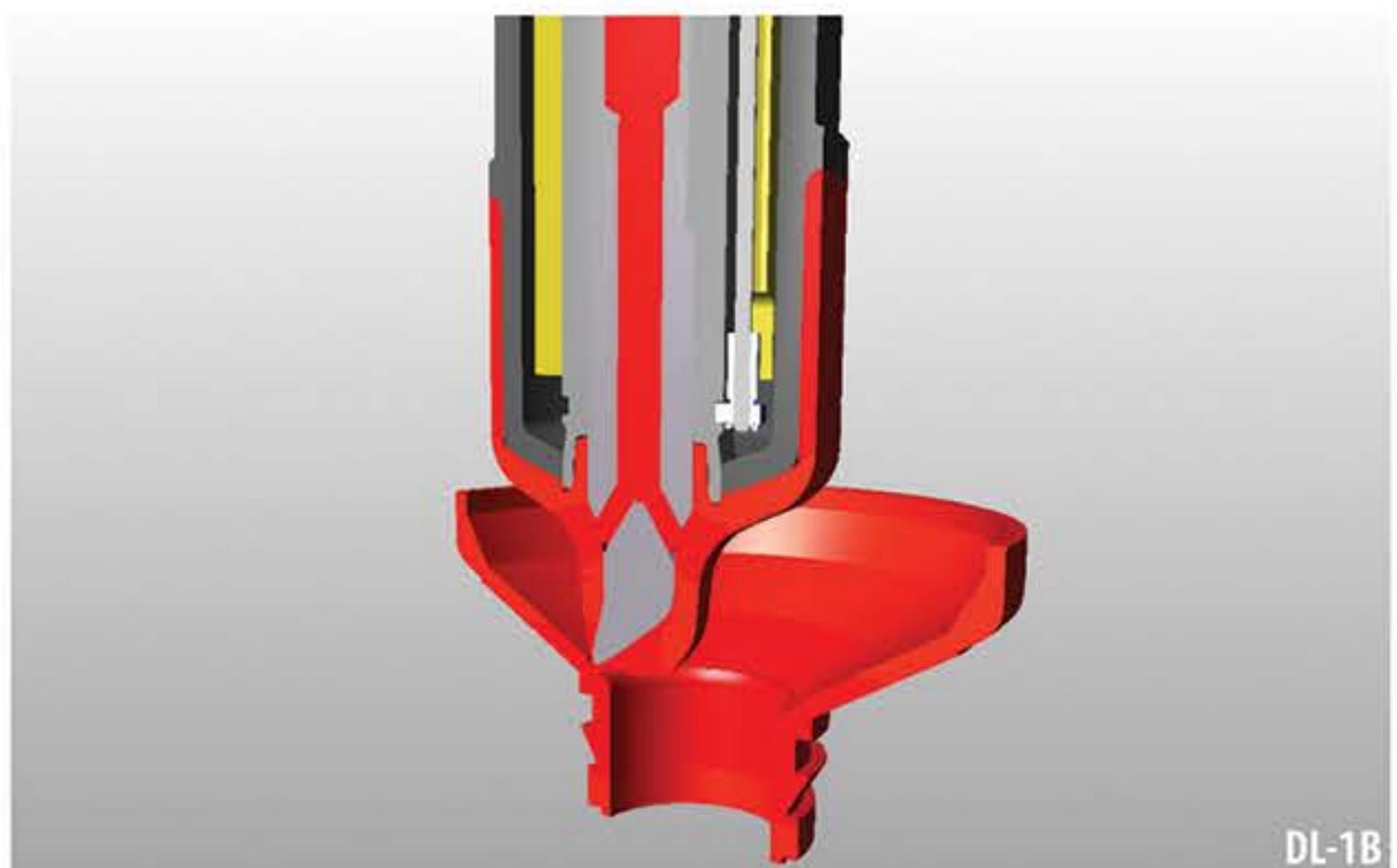
A business of **BARNES**

不易进胶位置注塑 • 可调节角度 • 适合产品的内部及外部注塑
CHALLENGING GATE LOCATIONS • CUSTOM ANGLES • INTERNAL INJECTION



侧面注塑用特殊喷嘴

我们经常会接到客户对于产品的一些特殊需求，基于三十多年的专业积淀，我们可以很好地分析一些特殊的案例并为不易注塑的情况找到相应的解决办法。在此仅向您介绍上述情况下应用的两种特殊喷嘴。



侧面注塑用加长喷嘴

DL1B

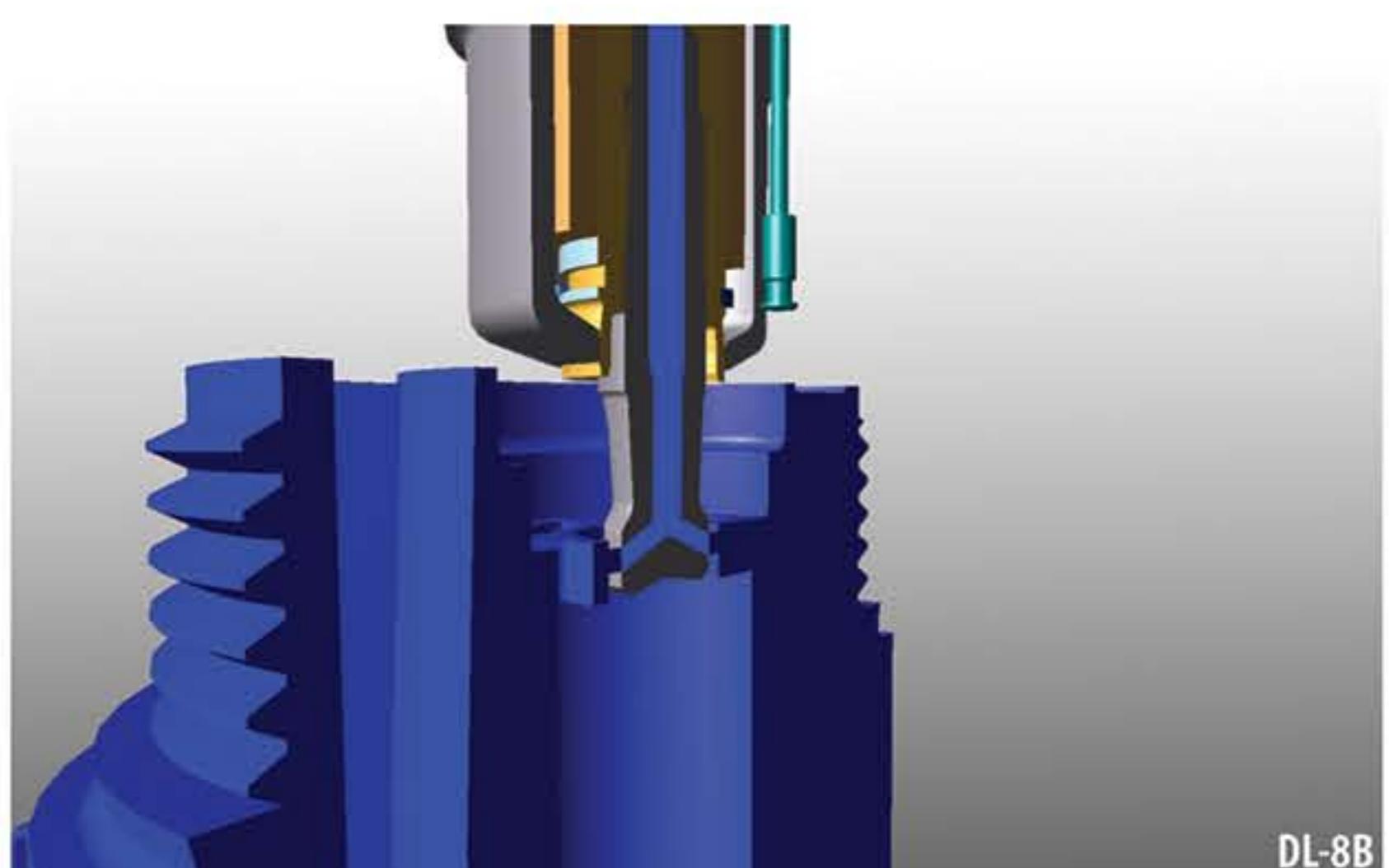
- 用带加长嘴头的喷嘴注塑难打胶的部位
- 极小的喷嘴头有益于注塑产品的关键位置
- 适合产品的内部及外部注塑
- 可以定制注塑点到喷嘴轴的距离
- 可用直径 $\varnothing 22$, $\varnothing 30$ e $\varnothing 44$ mm
- 角度从 0° 到 45° 可调
- 一般情况下应用于PP, PE, TPE, PS, ABS材料注塑, 如使用谨慎也可注塑 POM材料



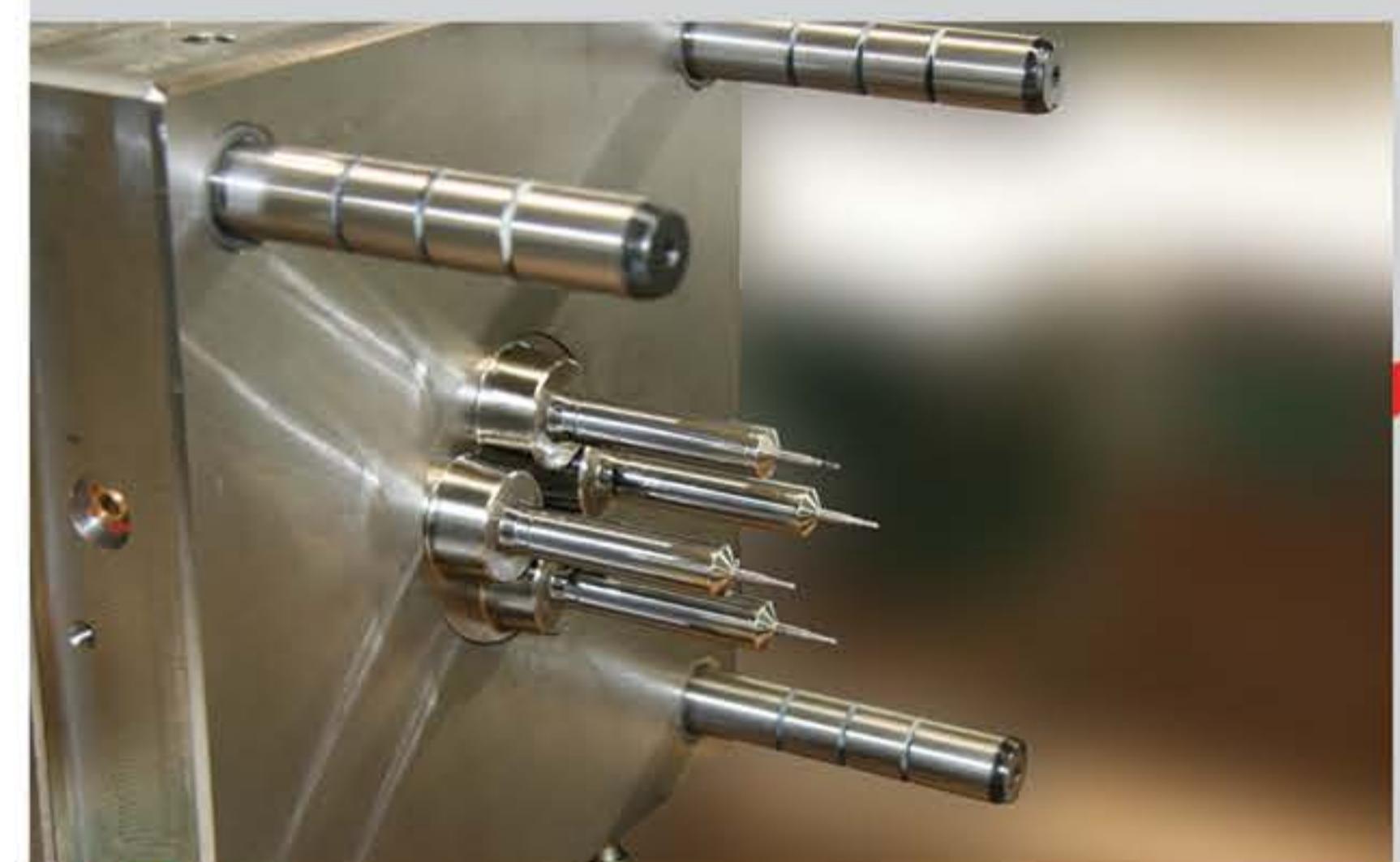
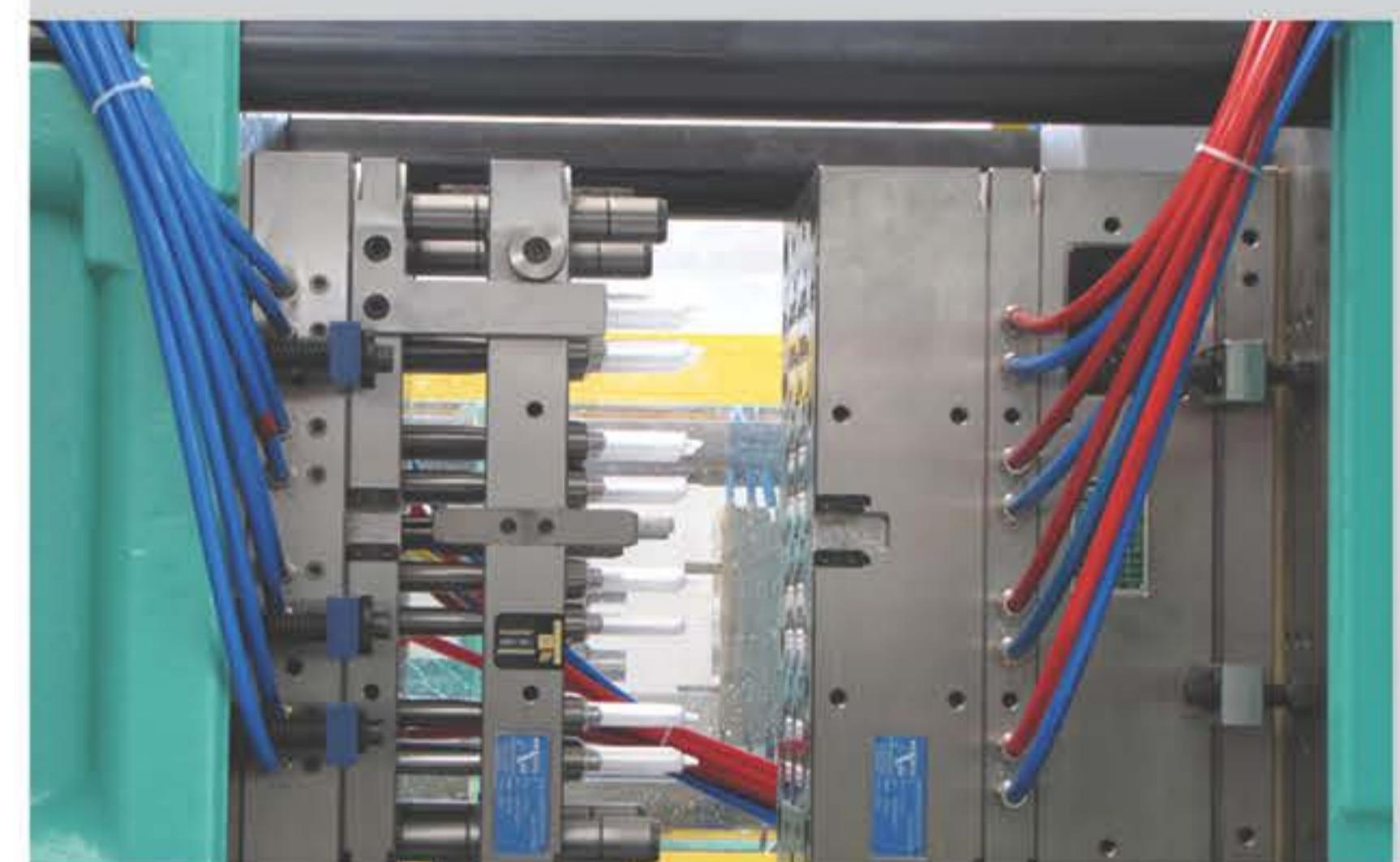
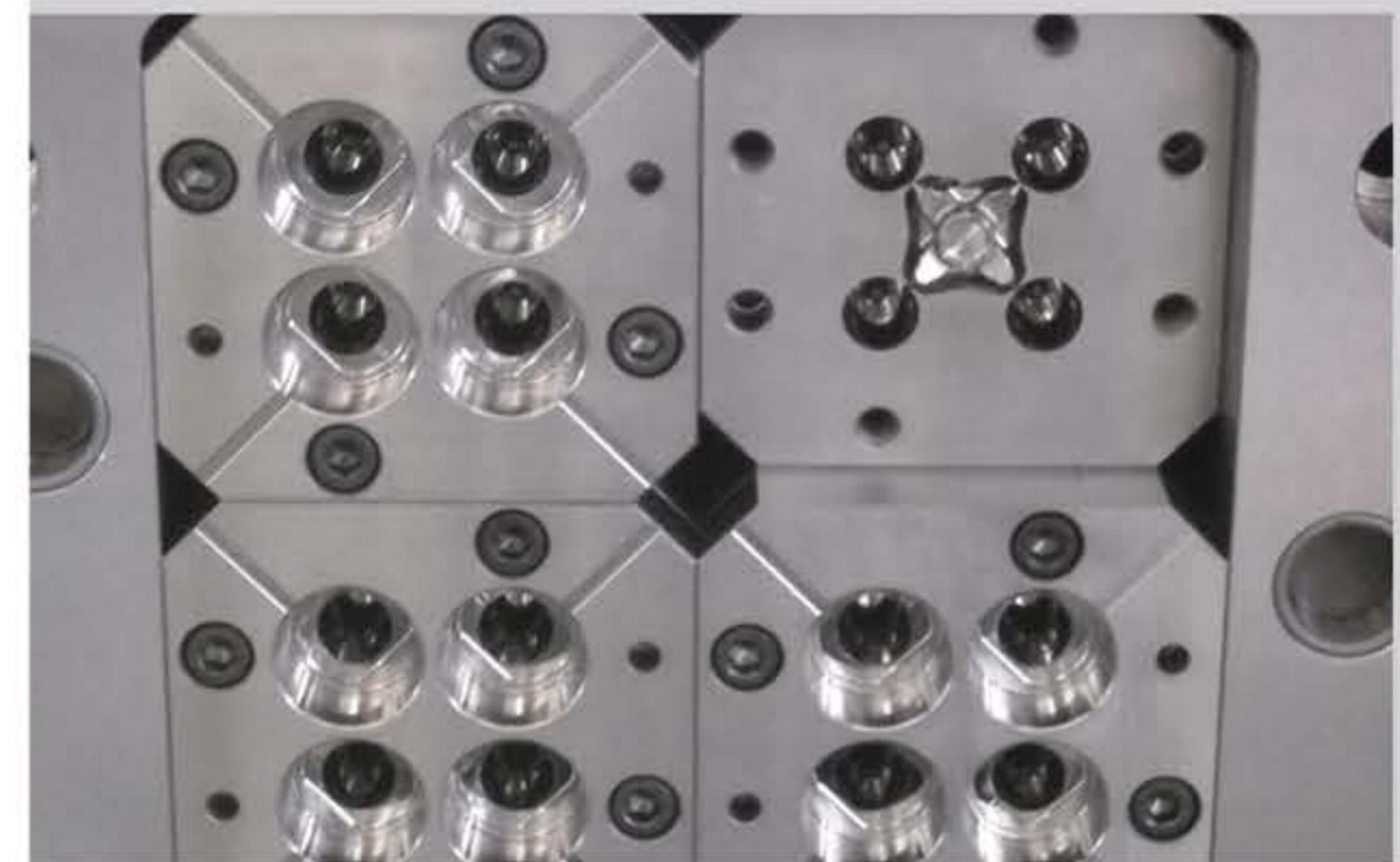
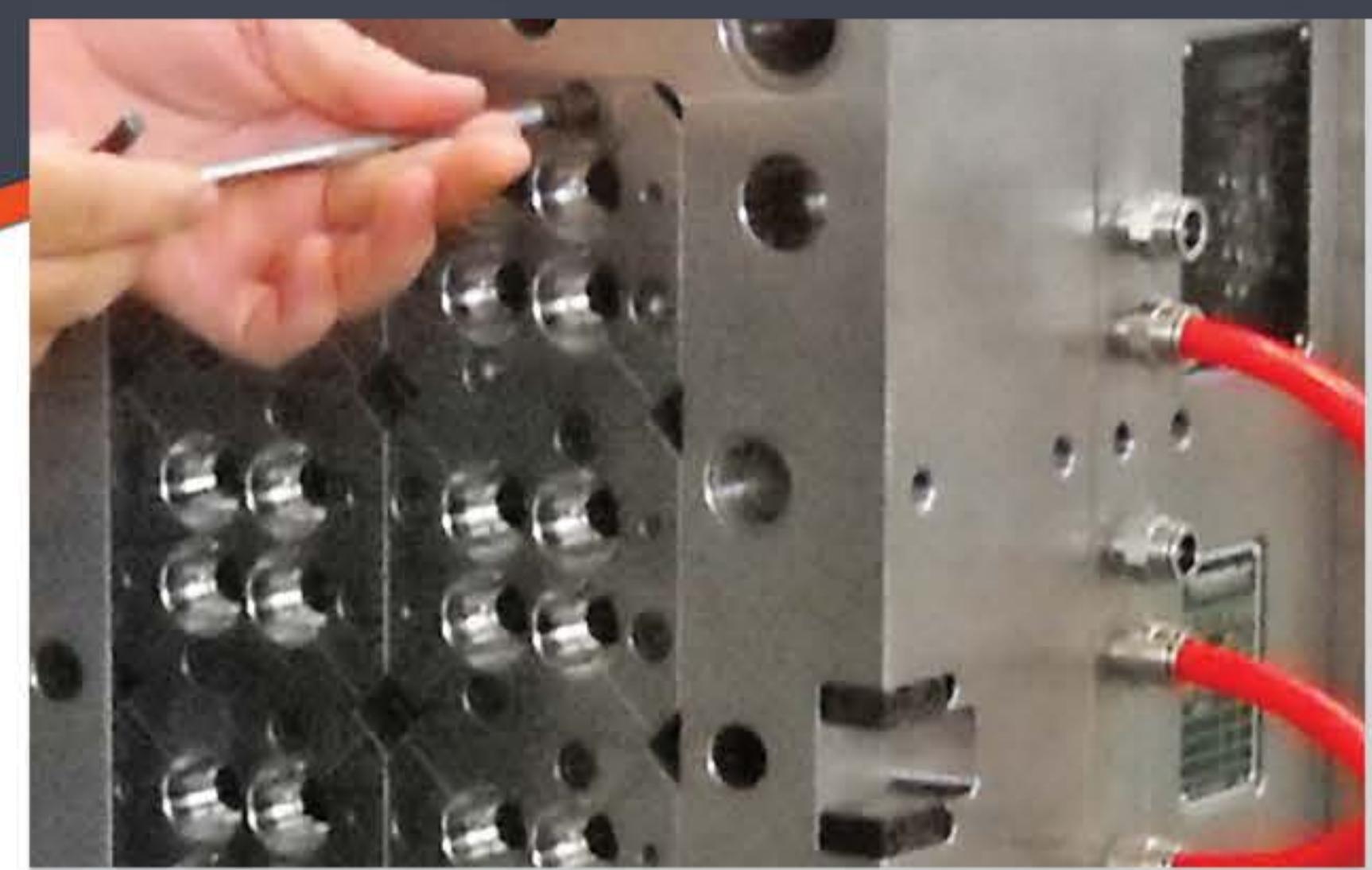
双重侧面直接注塑加长喷嘴

DL8B

- 喷嘴的嘴头加长用双面注塑
- 主要使用于注塑到产品内径
- 缩小的喷嘴嘴头使特殊部位的注塑更加便捷
- 喷嘴加热圈远离注塑件, 避免留下注塑痕迹
- 适合特殊部件内部注塑如瓶盖, 小型部件和加长形状的容器注塑
- 可以定制注塑点到喷嘴轴的距离
- 用于注塑非矿物纤维材料



特殊形状部件 的多点喷嘴



DL90

多年的实践表明，管状产品的长度相对其直径而言特别长，因此很难避免镶件的移位而导致壁厚的改变。由于填充不均匀产生的径向力使镶件侧移，但是浇口在管状产品开口最外端时，这种侧移明显减弱。

Thermoplay新研制的喷嘴摒弃了以往这种情况下应用的“管状”浇口。注塑方式改为环型腔管壁直接注塑。与DN系列喷嘴类似，此种构造的双层密封圈可以有效防止注塑材料泄露，方便了模具厂商开模。Thermoplay在业界的多年经验使其能够很好地控制喷嘴的温度及绝缘，从而可以应用塑胶材料厂商建议的工艺参数。

与所有的侧面注塑一样，成品的注塑点非常小，基本看不到。

- 适用于注塑管状特殊部件的喷嘴
- 适合注塑医用部件
- 管壁上直接注塑
- 厚度一致
- 喷嘴上采用双层密封圈
- 注塑流程优化
- 喷嘴头绝缘
- 注塑点最小化



多头特殊喷嘴

DN5

- 3头特殊喷嘴
- 适合狭小空间多点注塑
- 直接注塑小型管状部件管壁
- 喷嘴头间距最小3.2mm
- 平衡及均匀的填充（无模核移位）
- 适合高流动性聚合物

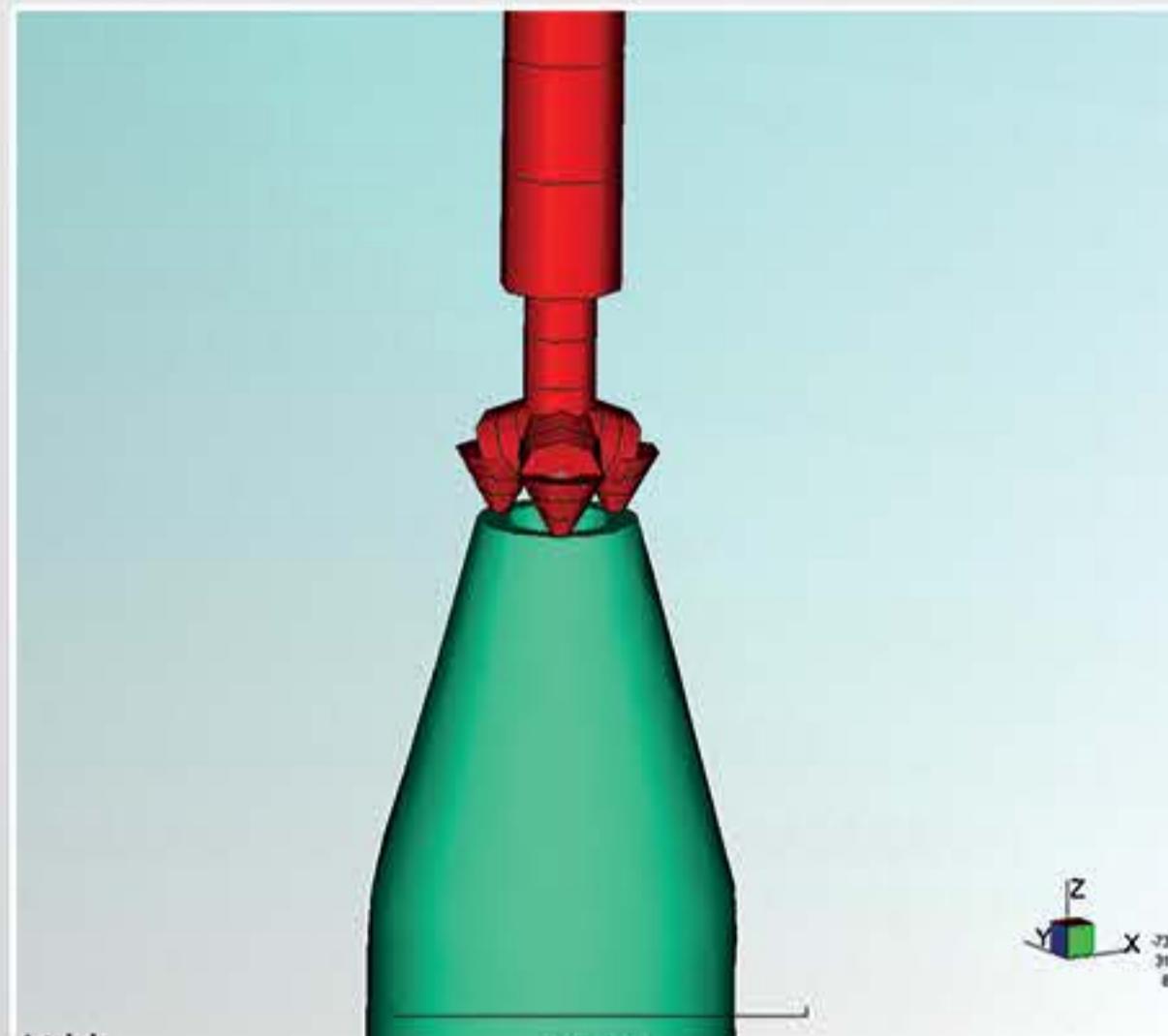
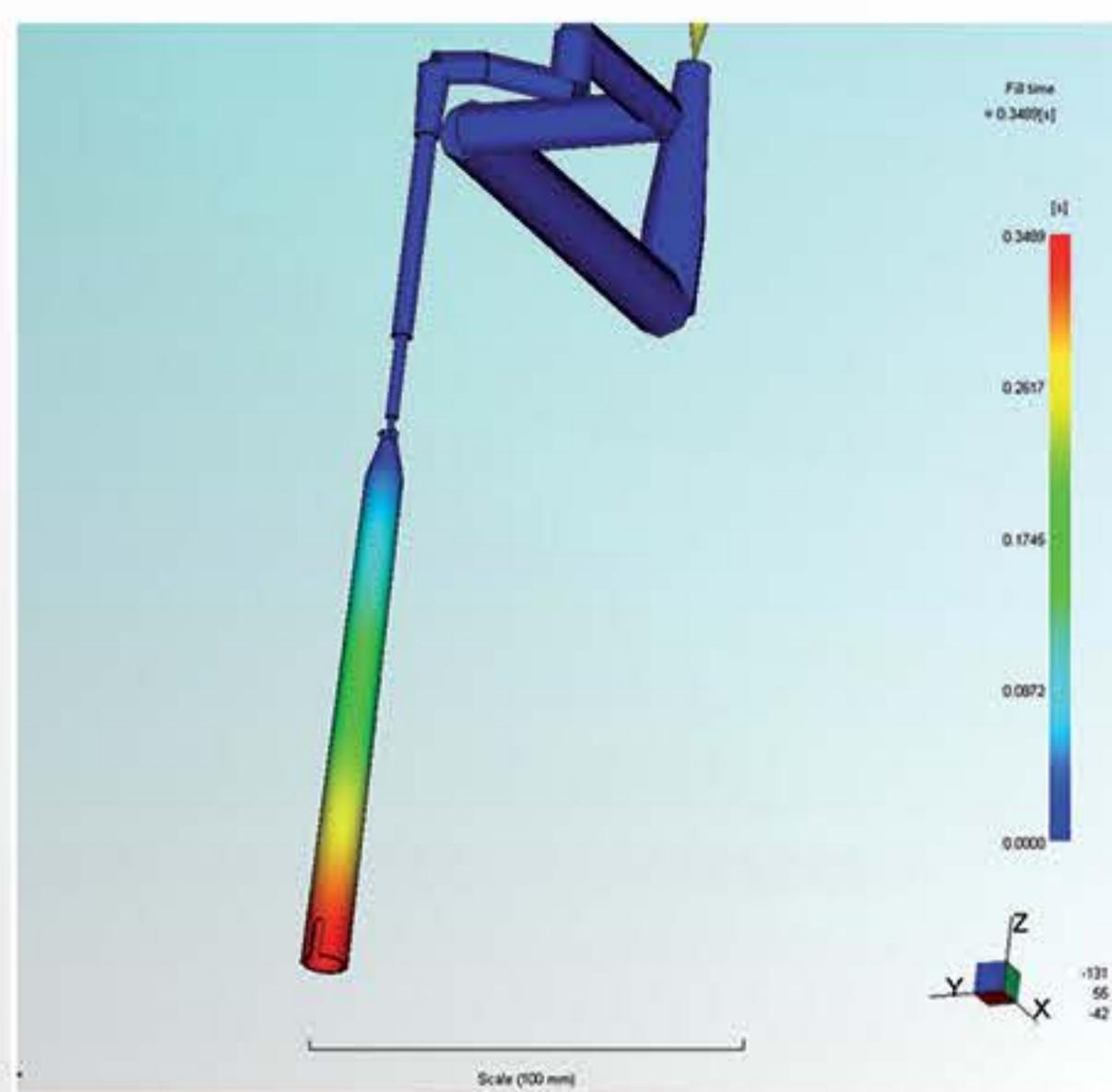
Multi-tip special nozzles

DN5

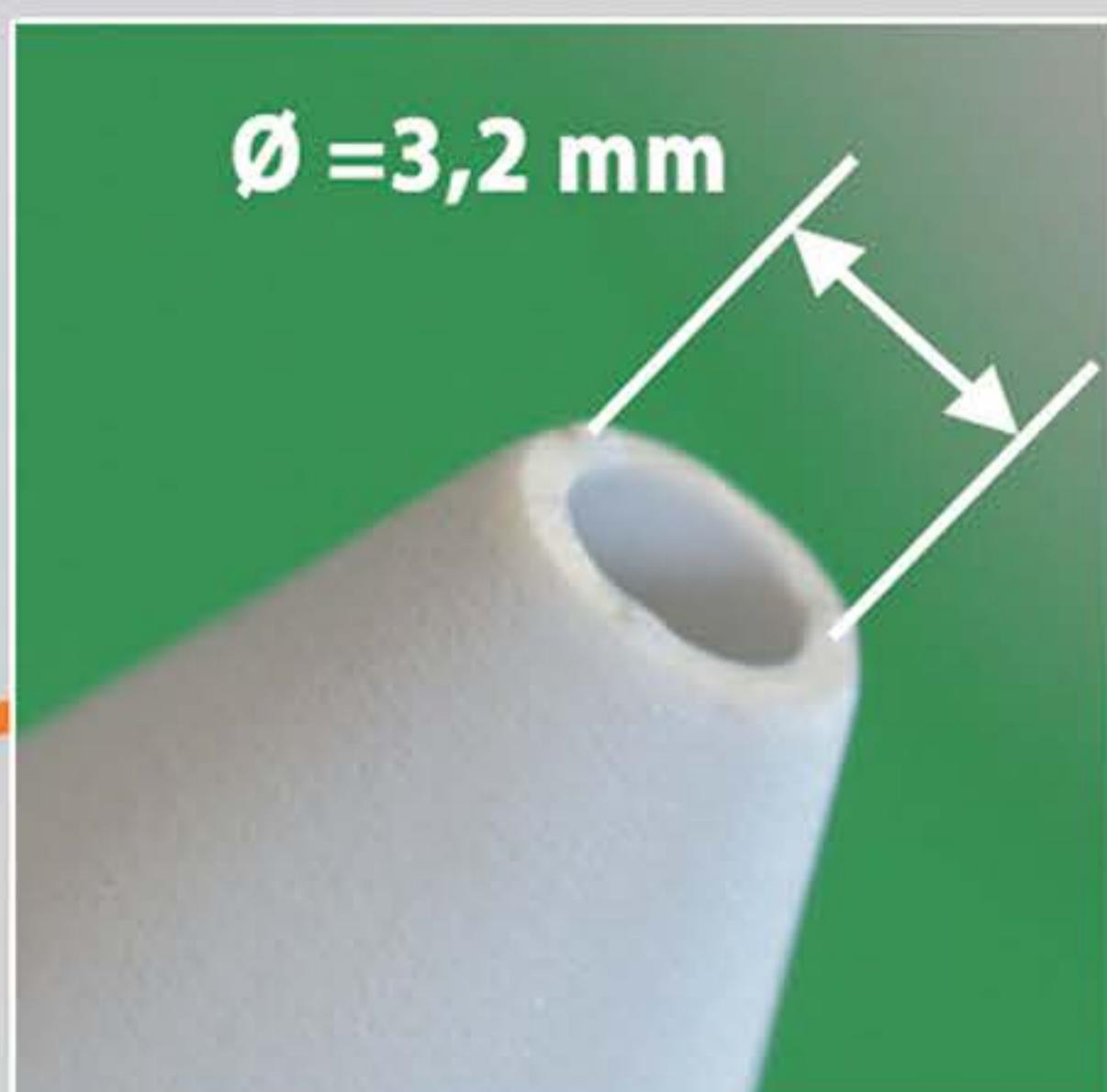
- Special nozzle with 3 gate tip.
- Suitable for parts that require multiple gates in restricted areas
- Axial direct injection of small tubular shape parts
- Minimum distance between nozzle tips: 3,2 mm
- Reduced core deflection
- Available diameters are ø18, ø22, ø30 ø44 mm
- 2, and 3 tips versions
- Suitable for high fluidity polymers

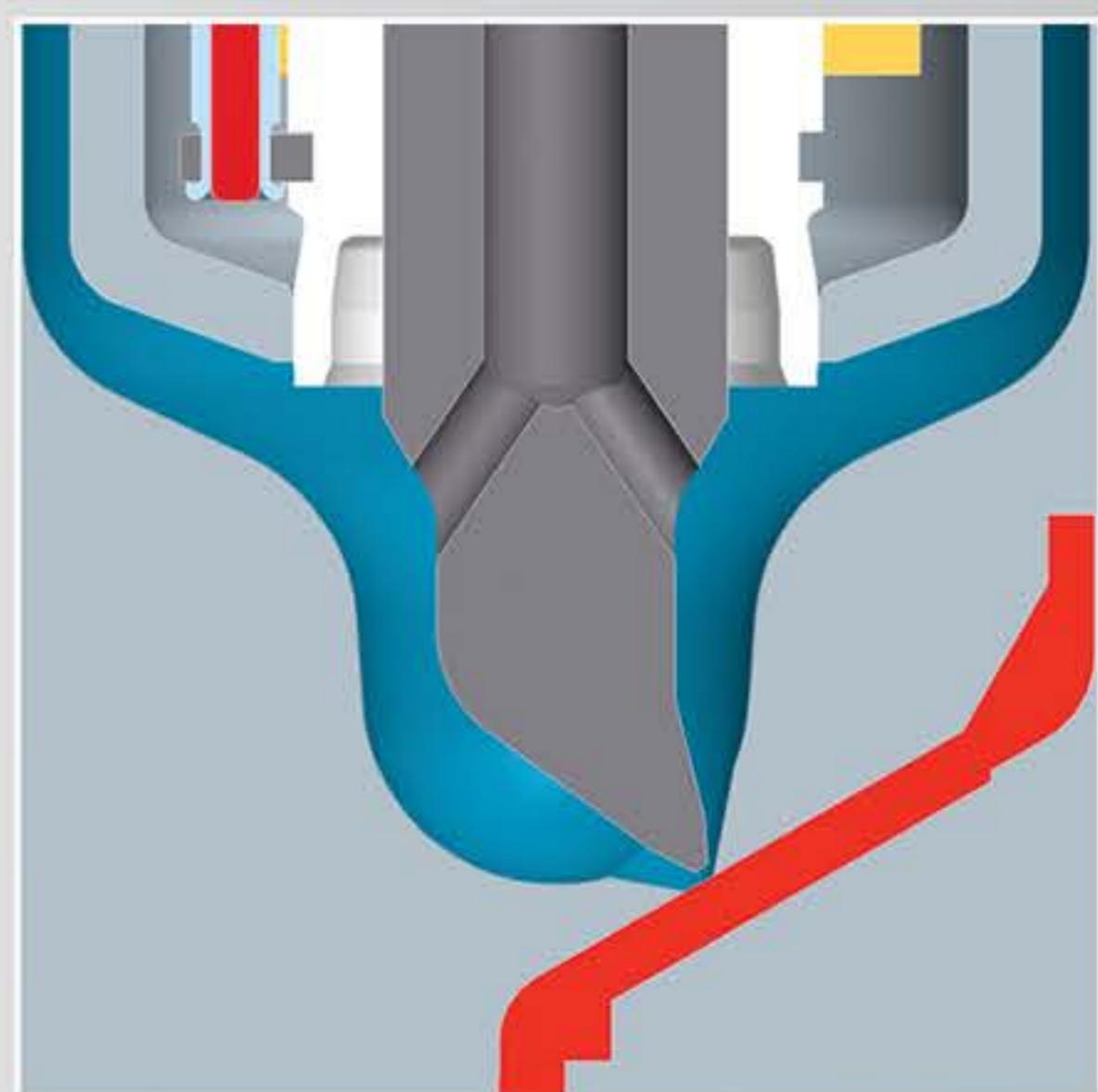
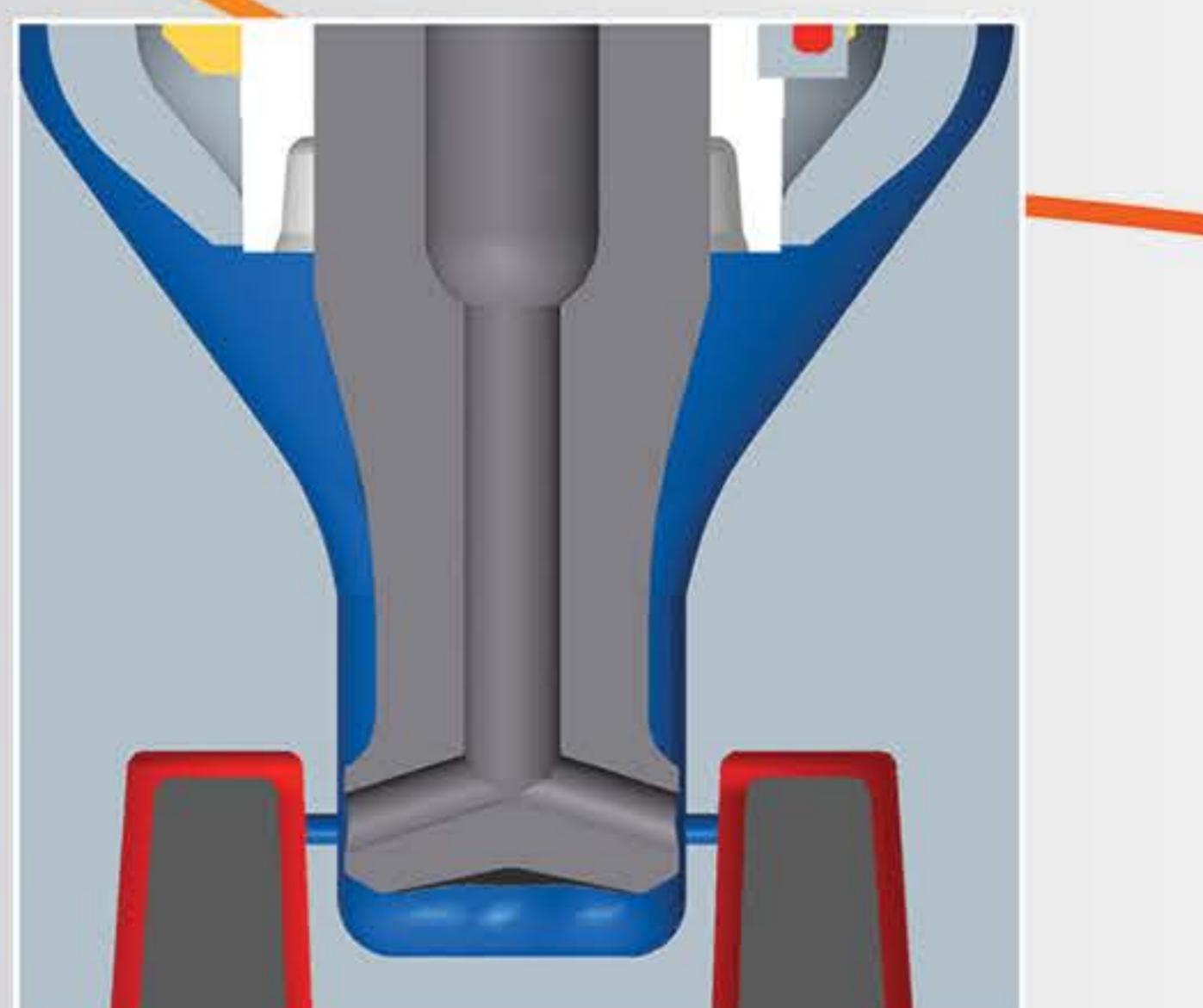


DN5



$\varnothing = 3,2 \text{ mm}$



DL-1B**DL-8B**

Special nozzles for edge gate injection

At Thermoplay we receive frequent requests from our customers asking to develop special nozzle types to optimize injection on a complex part. With over 30 years of experience, we are able to evaluate specific cases and work together with the customer to find the most appropriate solution for these challenging moulding applications. Among the various projects developed, we introduced two nozzles ideally suited for use in these applications.

Extended nozzle for lateral injection

DL-1B

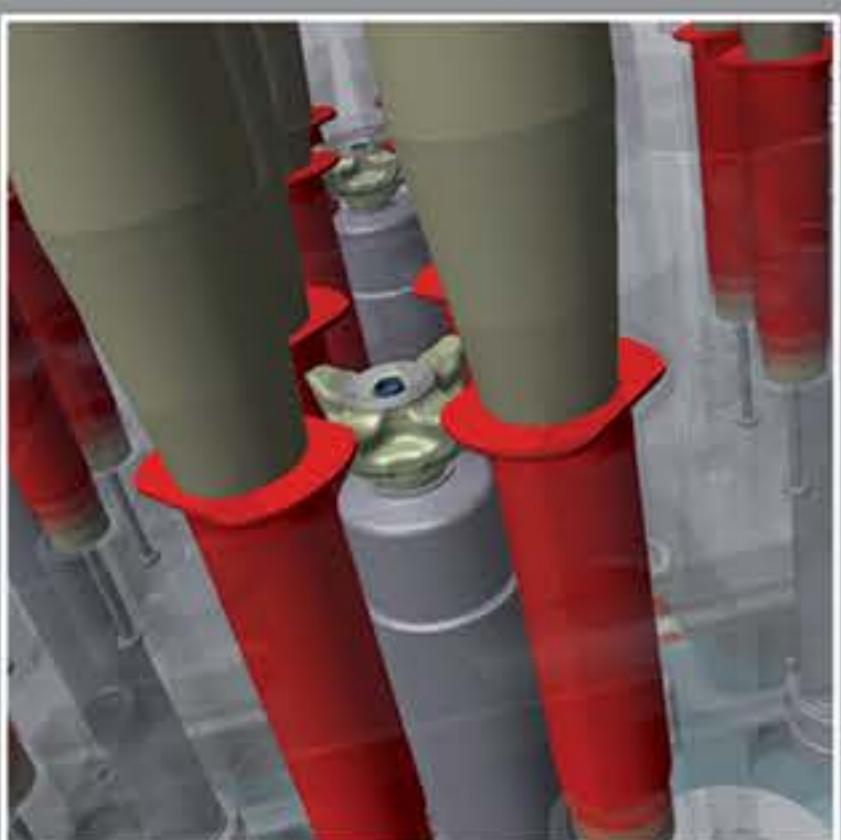
- Extended tip for injection into challenging gate locations
- Very small tip useful when the injection point is in critical positions.
- Suitable for internal and external injection of the moulding parts.
- It is possible to customize the distance between the injection point and the nozzle axis.
- Available diameters are ø18, ø22, ø30 and ø44 mm.
- Maximum inclination adjustable up to 45°
- Generally used to inject materials like : PP, PE, TPE, PS, ABS and with caution, POM.

Extended nozzle for double side injection

DL-8B

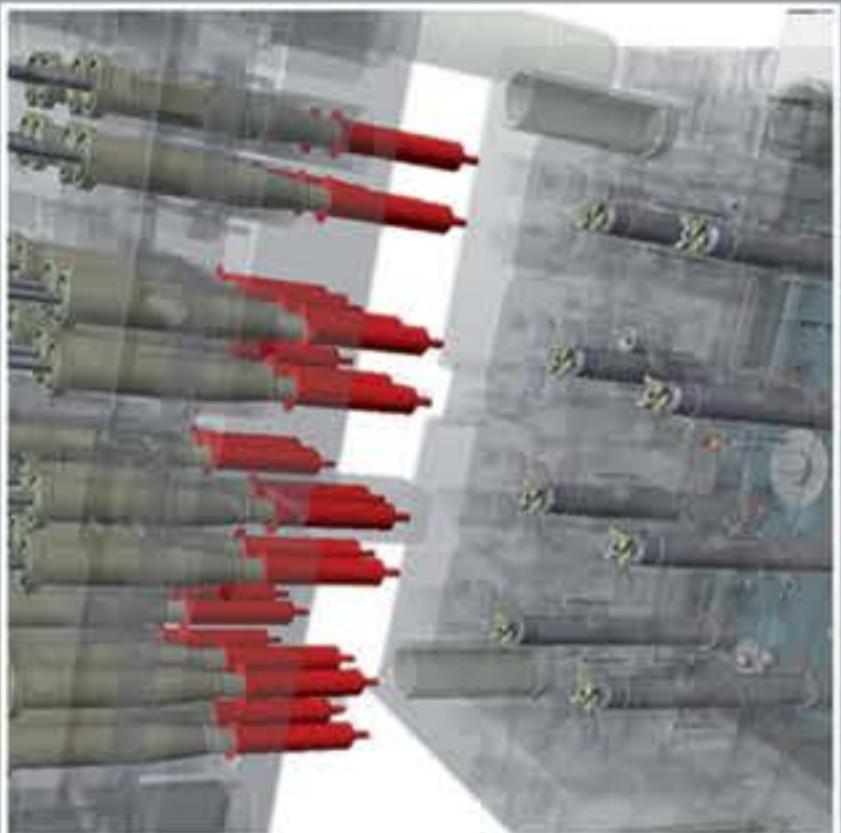
- Extended tip nozzle for double side injection.
- Mostly used for injection onto inside diameter.
- Very small tip adjustable to special needs of the moulding parts.
- Nozzle heater is far from the surface of the moulding part to avoid marks and defects.
- Suitable for internal injection of plastic parts like caps, small parts and long containers.
- It is possible to customize the distance between the injection point and the nozzle axis.
- Available diameters are ø18, ø22, ø30 and ø44 mm.
- This nozzle is not suitable for injection of abrasive materials.





DL 90

Multi-tip nozzles for parts with special shapes

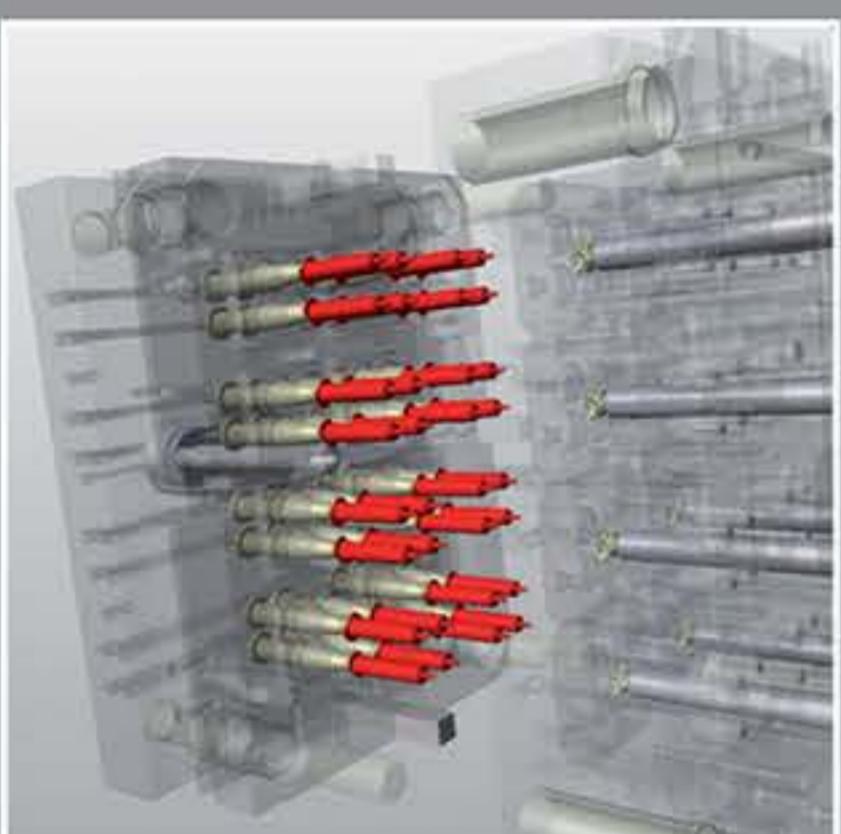


In injection molding applications of long cored out parts, core shift can occur leading to wall thickness differences. By positioning the injection points near the supported end of the core, less core shift is achieved.

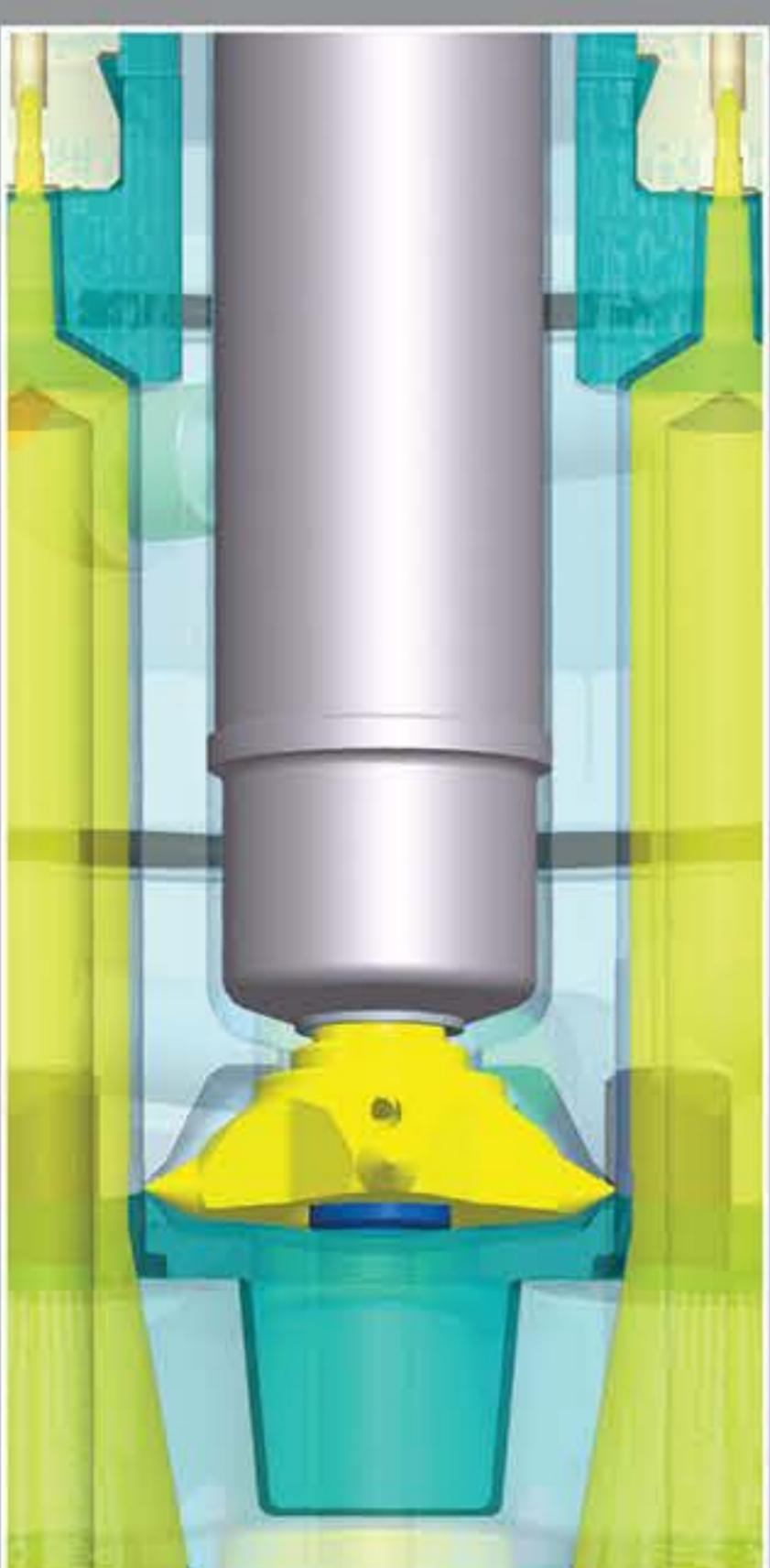
The new nozzle developed by Thermoplay, eliminates the traditional "tunnel" sprues usually associated with these applications. As shown in the picture, injection is directly inside the cylindrical cavity wall. This design allows for easy machining of the hot runner gate geometry in the mould.



The nozzle design facilitates ideal temperature at the gate eliminating the need to run the nozzles higher than the recommended melt temperature for the resin being processed. The lateral injection provides a minimal injection point free from imperfections.



- Special nozzles for molding parts with tubular shapes
- Direct injection on the cylindrical cavity wall
- Reduction in Core shift
- Robust seal design
- Ideal temperature control at the gate
- Insulation of the nozzle tip
- Minimal injection point
- Available diameters are ø18, ø22, ø30 ø44 mm
- 2, 3, 4 tips versions



THERMOPLAY S.p.A.

Via Carlo Viola, 74 - 11026 Pont Saint Martin (AO) Italy
Tel.: +39 0125 800311 - Fax.: +39 0125 800336
thermoplay@thermoplay.com

THERMOPLAY FRANCE s.a.r.l.

Tel.: +33 134 400017
Fax.: +39 0125 800336
info@thermoplay.fr

THERMOPLAY U.K. Ltd.

Tel.: +44 1702 473876
Fax.: +39 0125 800336
thermoplay@thermoplay.co.uk

THERMOPLAY DEUTSCHLAND GmbH

Unter Gereuth 9-11, 79353 Bahlingen, Germany
Tel. +49 (0) 7663 609-0 - info@thermoplay.de

THERMOPLAY PORTUGAL Unipessoal Lda

Rua Dr. Manuel Ribeiro De Oliveira R/C Esq., 2400-178 Leiria, Portugal
Tel.: +351 244 577247 - geral@thermoplay.pt

THERMOPLAY USA

1105 Progress Industrial Blvd.
Lawrenceville GA 30043 USA - Tel.: +1 770-449-1820
Fax: +1 770-449 1821 - info@maenner-group.com

THERMOPLAY ASIA

Barnes Moulding Solutions (JIANGSU) CO. LTD
Building 42, no 2 Taishan Road Suzhou New District
215129 Jiangsu, Suzhou - P.R. CHINA
tel. +86 512 6690 1756 - schina@bginc.com

THERMOPLAY BRASIL Sistemas de Injeção Ltda

Rua Wallace Barnes 301, 13054-701 Campinas, SP, Brasil
Tel.: +55 19 3725 1092 - thermoplaybr@thermoplay.com

THERMOPLAY INDIA Private Limited

1st Floor "Casa Fernandes" - Kamat Kinara Lane
Miramar-Panaji, GOA-403 002, India
Tel. +91 832 2461155 / 2461156 - info@thermoplay.in

www.thermoplay.com

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