PET Preform Molds

MHT MOLD & HOTRUNNER TECHNOLOGY
MHT – Who We Are

MHT Mold & Hotrunner Technology AG was established in 1996. Since then we have been supplying the global market with high performance PET molds and hotrunner products. Our team consists of 160 employees and we own three production facilities which are located in Germany, Luxembourg and the USA. Up to now MHT has shipped over 900 molds and spare parts to more than 60 countries. Partners and agents in Europe, America, Africa, the Middle East, Asia, and Australia provide a perfect service for our customers.

**MHT Network** Together with experienced partner companies we offer complete beverage solutions: preform mold, prototyping with blown bottle, closure system, machine.

- 2012: Presentation of 144 cavity mold for HyPET 500
- 2011: Design of the 112 cavity mold for KM 350
- 2010: Upgrade set: 96 cavity mold for HyPET 300 and 128 cavity mold for HyPET 400
- 2009: Strong focus on light weight solutions
- 2008: First 128 cavity mold for 3,500 kN machines
- 2006: Foundation of MHT USA
- 2004: Presentation of first 192 cavity mold
- 2001: Presentation of first 144 cavity mold worldwide
- 2000: New production facility in Hochheim/Main
- 1998: Presentation of first vertical PET system and foundation of MHT Luxembourg
- 1996: Foundation of MHT by 11 partners
Our Expertise And Your Benefit

**MHT Preform Molds**
- Molds for all well known PET systems
- Conversions (light weight, low thread)
- Mold refurbishments
- Mold and hotrunner spare parts
- Installation, service and repair of molds
- Customized training

**High Quality Preforms**
- No crystallinity
- No scratches
- High quality surface
- Low acetaldehyde (AA) level
- Minimum eccentricity
- Dimensional stability
- Consistent weight
- No flash on split lines

**Product Matrix - Standard Sizes**

<table>
<thead>
<tr>
<th>Cavities</th>
<th>Ø Thread</th>
<th>Min. Clamp Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>28 - 48 mm</td>
<td>1,750 kN</td>
</tr>
<tr>
<td>32</td>
<td>28 - 48 mm</td>
<td>1,750 kN</td>
</tr>
<tr>
<td>48</td>
<td>28 - 38 mm</td>
<td>1,750 kN</td>
</tr>
<tr>
<td>60</td>
<td>28 - 30 mm</td>
<td>2,000 kN</td>
</tr>
<tr>
<td>72</td>
<td>28 - 38 mm</td>
<td>3,000 kN</td>
</tr>
<tr>
<td>96</td>
<td>28 - 38 mm</td>
<td>3,500 kN</td>
</tr>
<tr>
<td>112</td>
<td>28 - 30 mm</td>
<td>3,500 kN</td>
</tr>
<tr>
<td>128</td>
<td>28 - 30 mm</td>
<td>3,500 kN</td>
</tr>
<tr>
<td>144</td>
<td>28 - 38 mm</td>
<td>5,000 kN</td>
</tr>
<tr>
<td>192</td>
<td>28 - 30 mm</td>
<td>6,000 kN</td>
</tr>
</tbody>
</table>

Many other mold designs available on request!
Variety of Mold Solutions

Your Machine - Our Solution

How many preforms do you want to produce? Which design, what weight? How big is the clamp force of your machine? No matter what the requirements are, we build the perfect mold for your project!

MHT molds are compatible with all high quality PET injection machines. This makes MHT an ideal supplier and gives you more independence and flexibility.

We build molds and post mold cooling solutions for KraussMaffei, Netstal, Husky, Arburg, Cincinnati, Sumitomo, Negri-Bossi and BMB machines.

Hot fill? Wide mouth? Low thread? We make it possible!

High Cavitation

MHT has always been the one to take mold cavitations to the next limit. Now we offer a

- 96 cavity mold for Husky HyPET 300
- 112 cavity mold for KraussMaffei 350
- 128 cavity mold for Husky HyPET 400
- 144 cavity mold for Husky HyPET 500

MHT assumes the complete project management and guarantees a smooth-running changeover to the new mold design. The upgrade set for HyPET machines is offered within the context of a mold exchange or conversion.

Note: HyPET® and Husky® are registered trademarks of Husky Injection Molding Systems, Ltd. MHT Mold & Hotrunner Technology is not affiliated with Husky.
Refurbishing and Conversions

Your mold will look and work like new! With our
- Cold half refurbishing
- Hotrunner refurbishing
- Take off plate refurbishing
- Complete refurbishing

you add life time to your mold and ensure the quality of your preforms.

MHTsaveBASE - Free Of Licensing Charges!
A small change in the bottom area of the preform has a number of advantages:
- Bottom of bottle can be made thinner
- Material and energy savings
- Better stretch to blow ratio

Conversion To Light Weight Threads - And More
Save material for thousands of € with light threads (e.g. MHT2FLIGHT, PCO 1881, 30/25 MHTsuperSHORT).
- Modification of preform weight or design
- Conversions to other machines

PCO 1810 (5.1 g) vs. MHT2FLIGHT (3.9 g) vs. PCO 1881 ISBT (3.8 g)
Innovative Strength: Advanced Stacks And Inserts

MHT is well known throughout the PET industry for its innovative strength and the ability to develop technical solutions. In addition to the well-proven titanium-nitride coating for cores, we now offer the **MHTblackLOTUS** coating for neck rings.

**Neckring Coating - Advantages**
- Reduced wear of tapers
- Reduced PET powder deposit
- Improved demoldability
- High mold availability
- Easier filling

**Two types of mold inserts** are available to provide the best cooling performance for your stack and a mold that makes sense technically and economically. **MHThpSTACK®** for the critical parts of your preform, standard line wherever possible.

**MHThpSTACK® Components**
- Advanced cooling design for lower preform temperatures
- Reduced cycle time
- Reduced water consumption

Thermal pictures of standard stack and MHThpSTACK® (right)
Environmental Responsibility

Every MHT mold comes with a data sheet showing its regular water consumption. With this the cooling performance of the mold can be checked any time by simply measuring the water pressure (in and out).

Over the last years the environmental footprints of MHT molds have become much smaller. In 2001 a 96 cavity mold needed 204 m³/h water compared to 57 m³/h now. That’s 72% saving on water and pump capacity! Power efficiency is guaranteed by MHT hotrunners.

<table>
<thead>
<tr>
<th>Water Consumption of MHT Molds</th>
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</thead>
<tbody>
<tr>
<td>m³/h water</td>
</tr>
<tr>
<td>210</td>
</tr>
<tr>
<td>180</td>
</tr>
<tr>
<td>150</td>
</tr>
<tr>
<td>120</td>
</tr>
<tr>
<td>90</td>
</tr>
<tr>
<td>60</td>
</tr>
<tr>
<td>30</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>2001</td>
</tr>
</tbody>
</table>

Post Mold Cooling: MHTcoolMAX®

We offer post mold cooling solutions such as our three step take off plate with a newly developed pin ejector. It is available for all mold types and cavitations.

Advantages

- Easy mounting and excellent performance
- No air leakage when preforms are missing
- Air saving

Of course MHT molds also work perfectly well with post mold cooling technologies of other manufacturers (e.g. Husky HyPET, G-Line; Netstal calitec).
The team:
Professional