

# PET Preform Molds



  
Engineering  
made in Germany





## 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 700 molds and spare parts to more than 50 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.

- 2009: Strong focus on light weight solutions and reduced water and power consumption
- 2008: Foundation of MHT Hotrunner GmbH
- 2008: Presentation of first 128 cavity mold for 3,500 kN machines
- 2006: Foundation of MHT USA
- 2004: Presentation of first 192 cavity mold and first 48 cavity mold for 1,750 kN machines
- 2001: Presentation of first 144 cavity mold worldwide
- 2000: New production facility in Hochheim/Main
- 1998: Foundation of MHT Luxembourg
- 1998: Presentation of first vertical PET system
- 1996: Foundation of MHT by 11 partners with a profound knowledge of the PET industry





## Our Expertise And Your Benefit

### MHT Preform Molds

- Molds for all well known PET systems
- Conversions (light weight, low thread)
- Mold refurbishments
- Mold spare parts
- PET 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

Cavities	Ø Thread	Min. Clamp Force
24	28 - 48 mm	1,750 kN
32	28 - 48 mm	1,750 kN
48	28 - 38 mm	1,750 kN
60	28 - 30 mm	2,000 kN
72	28 - 38 mm	3,000 kN
96	28 - 38 mm	3,500 kN
128	28 - 30 mm	3,500 kN
144	28 - 38 mm	5,000 kN
192	28 - 30 mm	6,000 kN

Many other mold designs available on request!



# Variety of Mold Solutions



## Your Challenge - Our Answer

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 (alternative) supplier and gives you more independence and flexibility.

We build molds for KraussMaffei, Netstal, Husky, Engel, Arburg, Cincinnati, SIG, and BMB machines.

**Hot fill? Wide mouth? Low thread?**  
**We make things possible!**

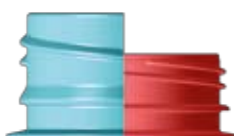
### Mold Conversions

- New thread design (e.g. 1881 med, 30/25 MHT<sup>superSHORT</sup>)
- Modification of preform weight
- New preform design
- Conversions for other machines

Save money with low thread!

Thread	Height	Weight	Saving
PCO 1810	21 mm	5.1 g	
PCO 1881 med	21 mm	3.9 g	<b>-1.2 g</b>
PCO 1881 (ISBT)	17 mm	3.8 g	<b>-1.3 g</b>
Example: 200 Mio preforms / year x 1.2 g			
= 240 t resin x 1,000 € / ton ► <b>240,000 € / year!</b>			

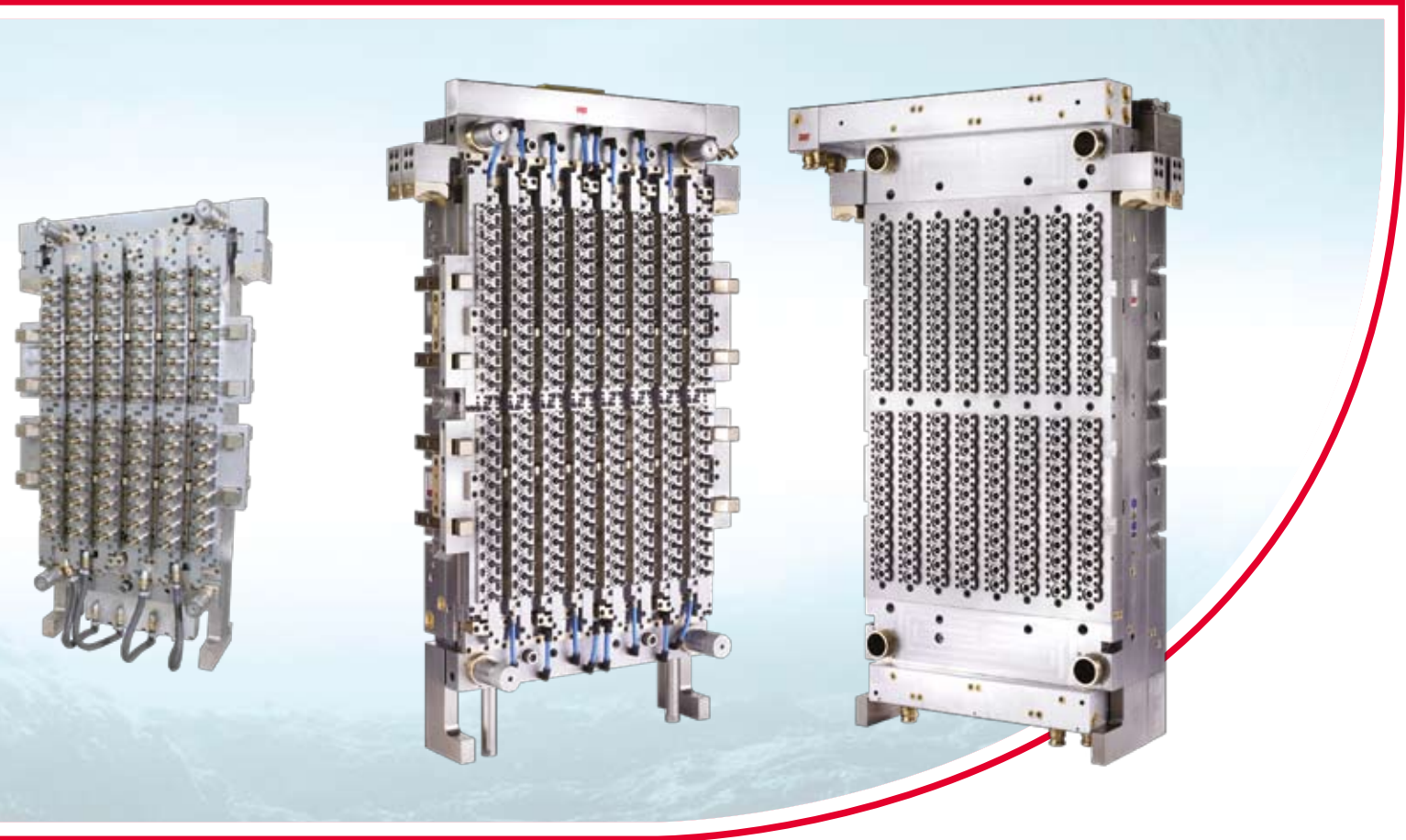
And you save money on the closures as well!



30/25 Standard vs. 30/25 MHT<sup>superSHORT</sup>



PCO 1810 vs. 1881 med (3.9 g) vs. 1881 (ISBT)



## MHT Repair Solution

### Mold Refurbishing

- Cold half refurbishing
- Hotrunner refurbishing
- Take off plate refurbishing
- Complete refurbishing



Refurbished cold half

You have a running system and need a new cold half?  
 You are looking for an alternative supplier?  
 MHT is the right partner for you!



MHT mold in Husky machine

- Cold halves for your existing hot half and vice versa
- PET preform mold with hotrunner system
- Three step cooling plate (end of arm tool)
- Innovative post mold cooling unit



# Engineering

Intelligent  
customer  
solutions

## Innovative Strength: Advanced Inserts And Stacks

MHT is well known throughout the PET industry for its innovative strength and the ability to develop new technical solutions. We were the first to present high-output molds to the public (e.g. 192 cavity mold in 2004) and we are constantly working on new ideas for the benefit of our customers.

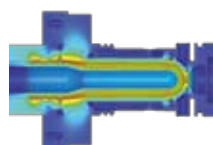
**Two types of mold inserts** are on offer to provide the best cooling performance for your stack and a mold that makes sense technically and economically. **MHT<sub>hp</sub>STACK®** for the critical parts of your preform, standard line wherever possible.

### MHT<sub>hp</sub>STACK® Components

- Advanced cooling design
- Reduced cycle time
- Reduced water consumption
- Reduced wear of tapers

You are a PET expert? Then you know the advantages of a core lock. With short threads realisation was always difficult. Now there is a solution: **The MHT<sub>care</sub>LOCK® - a symbiosis of core lock and cavity lock.**

- For short threads
- For parting lines shortly behind support ledge
- Minimal splitline on preform
- Effective venting
- Two taper design always possible



Thermal pictures of MHT<sub>hp</sub>STACK® (above) and standard stack

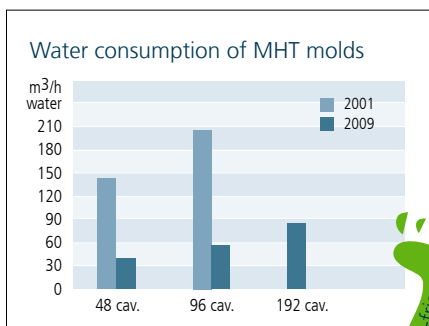




## Environmental Responsibility

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 m<sup>3</sup>/h water compared to 57 m<sup>3</sup>/h now. **That's 72% saving** on water and pump capacity! Power efficiency is guaranteed by MHT hotrunners.



## Post Mold Cooling

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



above: 96 cav. vertical 4 station post mold cooling  
below: 96 cav. horizontal 3 station post mold cooling



Of course MHT molds also work perfectly well with post mold cooling technologies of other manufacturers (HyPET, G-Line, Netstal calitec).



The team:

Professional.

