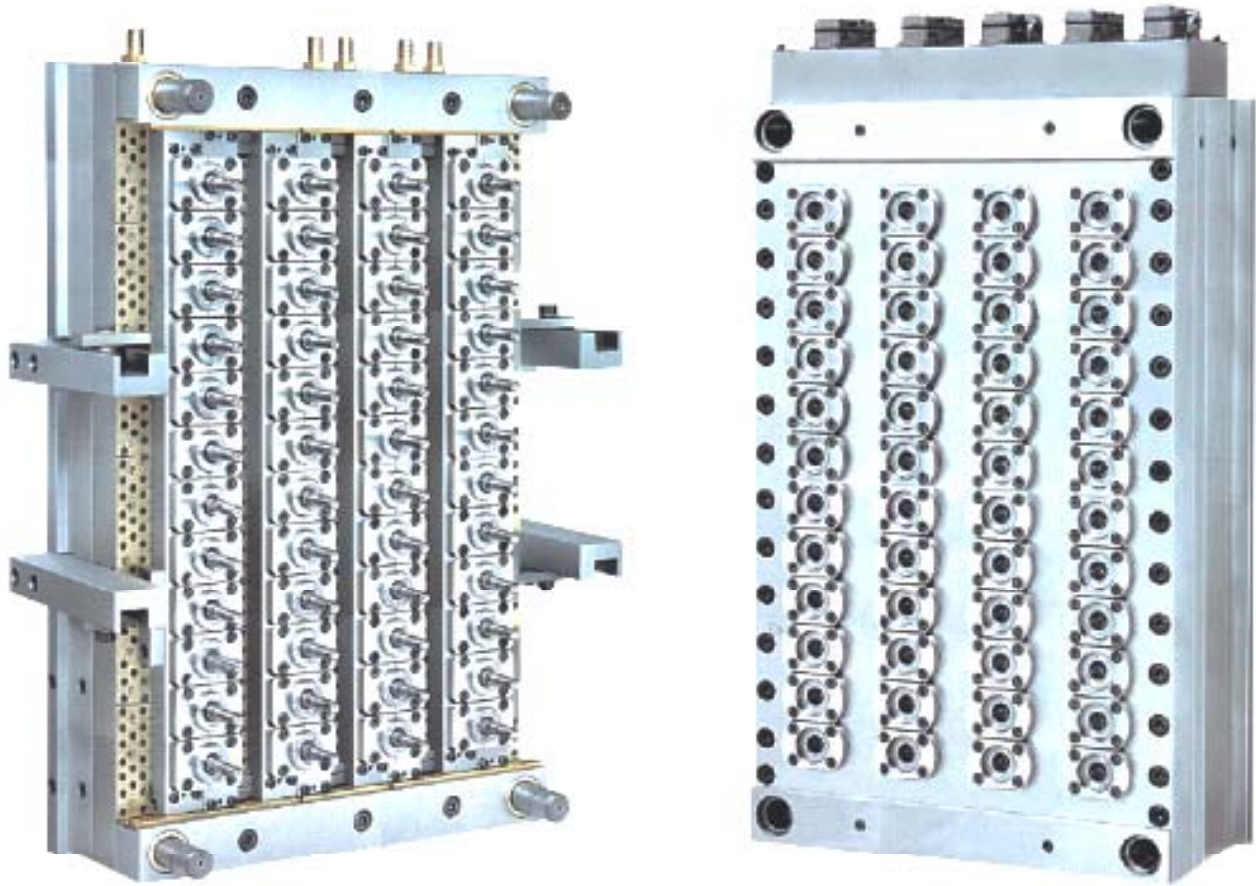




All Right Machinery

Preform Mold and Hot Runner System



With simple communication and reliable operation of hot runner system, our molds deliver high flexibility, affordability and quality preforms

Visit our website www.allrightmachinery.com
Email us for more information sales@allrightmachinery.com

Provide affordable, reliable machines and molds for PET bottle production Line

Features

* **Preciseness**

Apply Two-stage double-taper positioning technology. Each cavity is self-locked to ensure preform concentricity to avoid accumulated tolerance.

* **High interchangeability**

Cavities, cores, split neck inserts are standardized and processed. They are highly interchangeable.

* **Flexibility**

Possibility to make preforms with a few grams weight difference or neck finishing design change by simply replacing a few related parts.

* **Minimized deflection**

Mold base plates are optimized designed to minimum deflection.

* **Excellent material**

Use best material for all cavities, cores, split neck inserts as well as mold base plates

Cavities, cores, split neck inserts

German made steel treated to HRC46-55

Mold base plates

Combined with quenched and tempered P20/heat resistant steel/high end steel

Bushings and guides

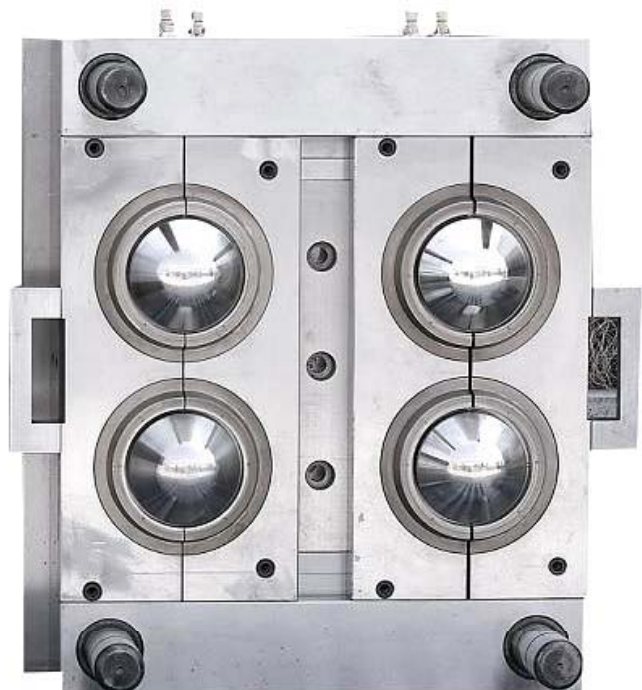
20CrMnTi surface nitride to HRC60-63

center HRD35-40

Mold with 16 cavities or more using self-lubricated material

* **High cavitations**

Cavity number from 1 to 48 for different applications/design/weight



Hot Runner system

* **Multi-material**

Hot nozzle, nozzle tips, valve stems, heating elements, cylinders, pistons, bushings, seals ... all materials are carefully sourced and parts are precisely processed for accuracy and durability.

Valve stems - made from SKH51 import from Japan

Nozzle tips – made from high thermally conductive and tough wear-resistant material such as beryllium bronze

Seals – Wear and hear resistant seals directly bought from Italy



Some parts of the molds



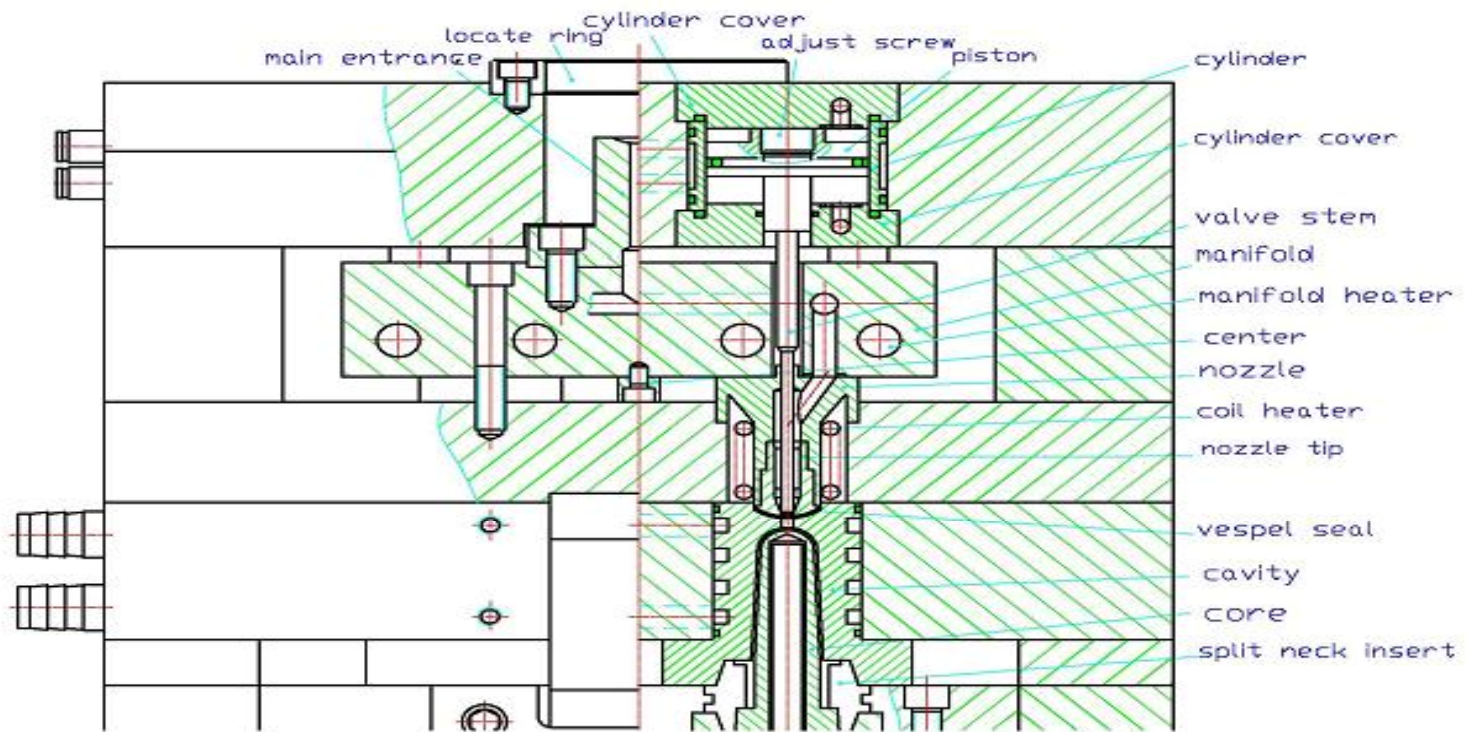
24-cavity preform mold

32-cavity preform mold

Estimate Preform Mold Measurement

*The mold measurements on the table below are based on preform length 85mm, weight 16 gram, 30/25 neck finish. It is for reference only.

Cavity	Height (mm)	Width (mm)	Thickness (mm)	Weight (kg)
4	345	390	466	370
6	410	390	466	440
8	475	390	466	510
12	605	390	466	650
16	735	390	466	800
24	780	500	490	1250
32	860	600	520	1850
48	1120	640	520	2370



The machine and mold make your own bottles

- * **Gated Valve**
Sequentially performance
- * **Individual cavity temperature control**
Each nozzle has a coil heating element with its temperature controlled individually. Each cavity has a bar heating element on the manifold with temperature controlled in groups. Each group consists two or four cavities depends on the total cavity number and preform design.
- * **PID controller**
Proportional-integral-derivative controller ensures accurate temperature in the nozzles.
- * **Balanced melt channels** with optimized thermal layout and flowing
- * **Manifold Cooling**
Manifold has cooling passages to reduce potential cylinder/seal wear and deflection caused by high temperature from cavities.
- * **Air Seal**
Nozzle has air sealing to prevent overflow after injection.
- * **In-machine maintenance**
Some parts such as split neck inserts, cavities are be replaced as simple as ABC without need to dismantle mold from injection machine.

Remarks

- * A low pressure (0.6 – 0.7 MPa) air shall be provided to run the preform mold. This air compressor is not included in the mold price/delivery unless specified when ordering.
- * A solenoid valve shall be connected to control the mold working. This valve is not included in the mold price/delivery.
- * A time relay (3/10 – 5/10 seconds delay) shall be set on the injection machine to delay the injection beginning time after the nozzle valve stem opens. This time relay is not included in the mold price/delivery.

Estimated power of hot runner system

Neck range	Cavity #	Heater on manifold	Heater on nozzle	Total power
≥Ø30	2	3.2kw	0.6kw	3.8kw
	4	3.2kw	1.2kw	4.4kw
	6	4.8kw	1.8kw	6.6kw
	8	6.4kw	2.4kw	8.8kw
	12	9.6kw	3.6kw	13.2kw
	16	11.2kw	4.8kw	16.0kw
	24	20.0kw	7.2kw	27.2kw
	32	23.2kw	9.6kw	32.8kw
	48	35.0kw	14.4kw	49.9kw
Ø30-Ø85	4	4kw	1.2kw	5.2kw
	6	6kw	1.8kw	7.8kw
	8	8kw	2.4kw	10.4kw
	12	12kw	3.6kw	15.6kw
Ø90-Ø120	2	5kw	0.6kw	5.6kw
	4	5kw	1.2kw	6.2kw
	8	10kw	3.0kw	13.0kw

- * Above table is for estimation purpose. Actual power of the hot runner system for specific mold shall be determined on case by case basis.
- * Mold temperature controller needs small amount of power.
- * The table may not reflect all preforms with their specific designs, length as well as neck finishes.