Haitian Mars Series
Specifications / high
1700-4800KN

Haitian Plastics Machinery Group Co., LTD.
No.1688 Haitian Road, Xiaogang, Beilun,
Ningbo, P.R, China.
Zipcode: 315821
Tel.: + 86 (0) 574 86177005 86177242
Fax: + 86 (0) 574 86177181 86221864
Email: haitian@mail.haitian.com

Haitian Partner:
Haitian will consistently and persistently introduce advanced plastic injection molding technology to the market. In close cooperation with our customers, we are always seeking for new solutions in machine engineering and molding processing.

Our MA II/h series high-performance injection molding machines come with an overall improved design. We have carried out great improvements regarding issues that occur during short cycle high-speed molding processes such as oil leakage or machine lifetime. Using modern processing technologies and advanced injection control, we can guarantee a short response time as well as high efficiency, performance and stability.

The MA II/h series with its advanced performance is widely used in the plastic processing industry. Especially for thin-wall products and multi-cavity products, but also in the traditional industry, it remarkably increases the product efficiency.

We Create Advantage

Multifarious: Broader Process Window
Thanks to an immense increase of the injection speed compared to common machines and a substantially shortening of the response time, a broader variety of products can be manufactured.

Solid: Stronger Mechanical Structure
Optimization and strengthening of the clamping and injection unit as well as the machine base; an increased machine weight by 30% compared to common machines guarantees the reliability required for high-speed production.

Fast: Increased Productivity
In order to meet the process characteristics of injection molding manufacturing, an optimized and combinational design, including mechanical parts, hydraulics and controls, greatly shorten the cycle time of the injection molding production.

Economical: Lower Cost
A high performance servo system meets high precision and energy saving requirements, a dynamical system with an optimized torque allows the frequent start and stop of the motor as required for short cycle products.

High injection speed
High-speed filling leads to a relatively lower interior stress of the product, which reduces the risk of deformation and the weight of the end product.

The injection speed chosen for an application depends on the product.

Shorter Dry Cycle Time

Clamping efficiency increased by 20% compared to common IMM.
Haitian Mars II/h Series
High-Performance Injection Molding Machine

Figure ① Machine structure design for a long lifetime:
A double relief notch structure is used for the tie bars to more evenly distribute the stress on tie bars and screw thread, which leads to a longer lifetime.

Figure ② High precision double linear guide rail:
Minimal friction factor, injection and plasticizing process resistance low, and well distributed

Figure ③ High load, self-lubricating shaft bearing:
Machine wear and tear reduced, lower maintenance cost and less oil staining.

Figure ④ High response oil-channel design:
Rapid injection speed acceleration, response time increased by 100% compared to common machines, guarantees the perfect filling of products with a high flow length ratio.

Figure ⑤ Highly rigid machine body:
Finite element analysis applied on initial machine body, compared to machine bodies with similar load, deformation reduced by more than 30%, thus the stability of the whole machine significantly increased.

Our Service:

Professional All-round Service
Rest assured that our senior pre- and after-sales service engineers always provide you with excellent injection molding guidance as well as efficient solutions in the unlikely event of any issues occurring.

Comprehensive Package Service
Besides our plastic injection molding equipment, we also offer comprehensive sets of equipment such as in-mold labeling (IML) systems (incl. injection molding machine, mold, labels, labeling machine, conveyor, as well as corresponding training and guidance for operation and key technology).

Professional Mold Testing Service
We offer professional mold testing areas with complete equipment to meet various mold testing requirements for all kind of end products.

Customized Service
No matter what kind of special requirements you might have, whether the program has to be amended, extra functions have to be added or special specifications are requested - we will always meet all your requirements, because we do not only provide satisfying products, but also products that meet your needs.
Haitian Mars ™ /h Series
High-Performance Injection Molding Machine

Application for Civilian and Household Industry
Description: Simple clothes hanger
Material: PP
Weight: 35g
Mold cavity: 4 out of 1
Used machine model: MA 2700 II /100th (Cycle time: 18 sec)
Formerly used machine model: MA 2800 II /1350 (Cycle time: 22 sec)

Application for Civilian and Household Industry
Description: Middle sized rectangular food storage box
Material: highly transparent PP
Weight: 75g
Mold cavity: 4 out of 1
Used machine model: MA 3300 II /1700h (Cycle time: 22 sec)
Formerly used machine model: MA 3200 II /1700 (Cycle time: 26 sec)

Application for Thin-wall Packaging
Description: Disposable aviation cup
Material: PS
Weight: 10.3g
Mold cavity: 8 out of 1
Used machine model: MA 3300 II /h (Cycle time: 8.5 sec)
Formerly used machine model: 320 T machine (Cycle time: 12.2 sec)

Application for Medical Industry
Description: Needle guard
Material: PP
Weight: 0.57g
Mold cavity: 228 out of 1
Used machine model: MA 2700h (Cycle time: 11.4 sec)
Formerly used machine model: 280 T machine (Cycle time: 15.2 sec, high rate of spoiled products)

Description: 5ml Syringe
Material: PP
Weight: 2.5g
Mold cavity: 48 out of 1
Used machine model: MA 2700h (Cycle time: 10.2 sec)
Formerly used machine model: 250 T machine (Cycle time: 14.9 sec)

Remark: Different machine configurations are required for different applications.
## Specification

### INJECTION UNIT

<table>
<thead>
<tr>
<th>Specification</th>
<th>MA1700 II 580h</th>
<th>MA2100 II 580p</th>
<th>MA2700 II 750p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screw diameter (mm)</td>
<td>A</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>Screw L/D ratio</td>
<td>25</td>
<td>23</td>
<td>25</td>
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<tr>
<td>Shot size (theoretical) cm³</td>
<td>251</td>
<td>318</td>
<td>251</td>
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<tr>
<td>Injection weight (PS) g</td>
<td>228</td>
<td>289</td>
<td>228</td>
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<tr>
<td>Injection pressure MPa</td>
<td>200</td>
<td>136</td>
<td>28</td>
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<tr>
<td>Plasticizing rate (PS) g/rpm</td>
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<td>36</td>
<td>28</td>
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<tr>
<td>Screws speed (rpm)</td>
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### CLAMPING UNIT

<table>
<thead>
<tr>
<th>Specification</th>
<th>MA1700 II 580h</th>
<th>MA2100 II 580p</th>
<th>MA2700 II 750p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clamp tonnage (kN)</td>
<td>1700</td>
<td>2100</td>
<td>2700</td>
</tr>
<tr>
<td>Toggle stroke (mm)</td>
<td>430</td>
<td>480</td>
<td>540</td>
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<tr>
<td>Space between tie bars (mm)</td>
<td>520</td>
<td>570</td>
<td>620</td>
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<tr>
<td>Max. mold height (mm)</td>
<td>180</td>
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<tr>
<td>Ejector stroke (mm)</td>
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<tr>
<td>Ejector force (kN)</td>
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### OTHERS

<table>
<thead>
<tr>
<th>Specification</th>
<th>MA1700 II 580h</th>
<th>MA2100 II 580p</th>
<th>MA2700 II 750p</th>
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<tbody>
<tr>
<td>Max. pump pressure (MPa)</td>
<td>22</td>
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<tr>
<td>Pump motor power (kW)</td>
<td>15.8</td>
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<td>Machine weight (t)</td>
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<tr>
<td>Hopper capacity (kg)</td>
<td>50</td>
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<tr>
<td>Oil tank capacity (l)</td>
<td>455</td>
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We reserve the right to make changes as a result of further technical advantages.
### Specification

<table>
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<tr>
<th>MA3300 II</th>
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<th>MA4800 II</th>
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<tbody>
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<td>1700h</td>
<td>2250h</td>
<td>3150h</td>
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**INJECTION UNIT**
- Screw diameter: mm
- Screw L/D ratio: L/D
- Screw diameter (theoretical): cm²
- Injection weight (PS): g
- Injection speed: mm/s
- Injection pressure: MPa
- Plasticizing rate (PS): g/s
- Screw speed: rpm

**CLAMPING UNIT**
- Clamp tonnage: kN
- Toggle stroke: mm
- Space between tie bars: mm
- Max. mold height: mm
- Min. mold height: mm
- Ejector stroke: mm
- Ejector force: kN

**OTHERS**
- Max. pump pressure: MPa
- Pump motor power: kW
- Heater power: kW
- Machine dimension (L x W x H): m
- Machine weight: t
- Hopper capacity: kg
- Oil tank capacity: l

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**Platen dimensions**
- Moving platen
- Mounting hole for robot/sprue picker top view from fixed platen

**Machine dimensions**
- Machine dimension (l × w × h): m
- Machine weight: t
- Hopper capacity: kg
- Oil tank capacity: l

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