

NINGBO HAITIAN SMART SOLUTIONS TECHNOLOGY CO., LTD.

ADD: No.32 Jiangnan Zhong Road, Xiaogang, Beilun, Ningbo , P.R.China.
Zipcode: P.R.China 315801
Tel: +86-574-86185122 86185758
Fax: +86-574-86181692
E-Mail: htsmart@mail.haitian.com



Auxiliary Equipment

Smart products and solutions
for manufacturing enterprises



WeChat Official
Account

HT-20240423-CV



Smart Solutions

Connectineers for Intelligent Factories



Focusing on the three modules including product pickup, quick die change, and centralized control, Smart Solutions' smart product business provides manufacturing customers with products and service systems such as robots, magnetic templates, hydraulic fixtures and smart peripheral equipment, covering the whole life cycle of production and manufacturing. With advanced technology and products, Smart Solutions meets customers' different needs for manufacturing intelligence, helping enterprises to reduce costs, increase efficiency, and realize turnkey solutions for smart manufacturing.





Auxiliary Equipment

Smart products and solutions for manufacturing enterprises

01

Product pickup

Robots

PAGE 4 - 9



02

Quick die change

Magnetic template / hydraulic fixture

PAGE 10 - 15



03

Molding assistant

Smart auxiliary machine / visual monitoring

PAGE 16 - 30



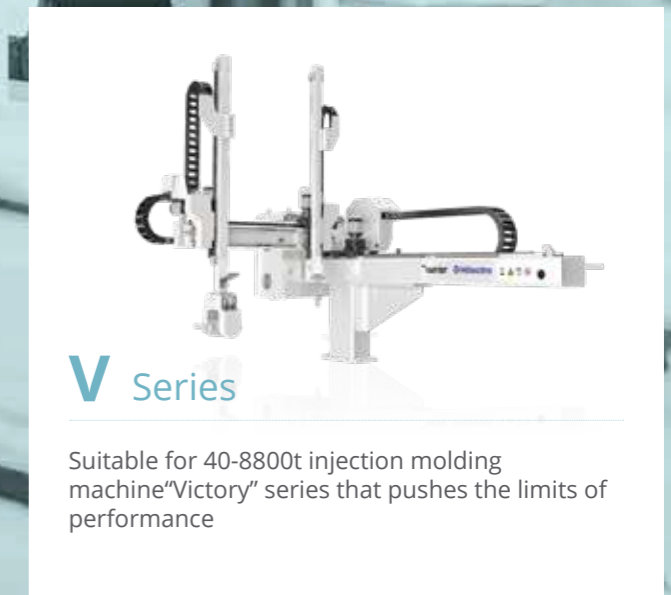


01

Product pickup

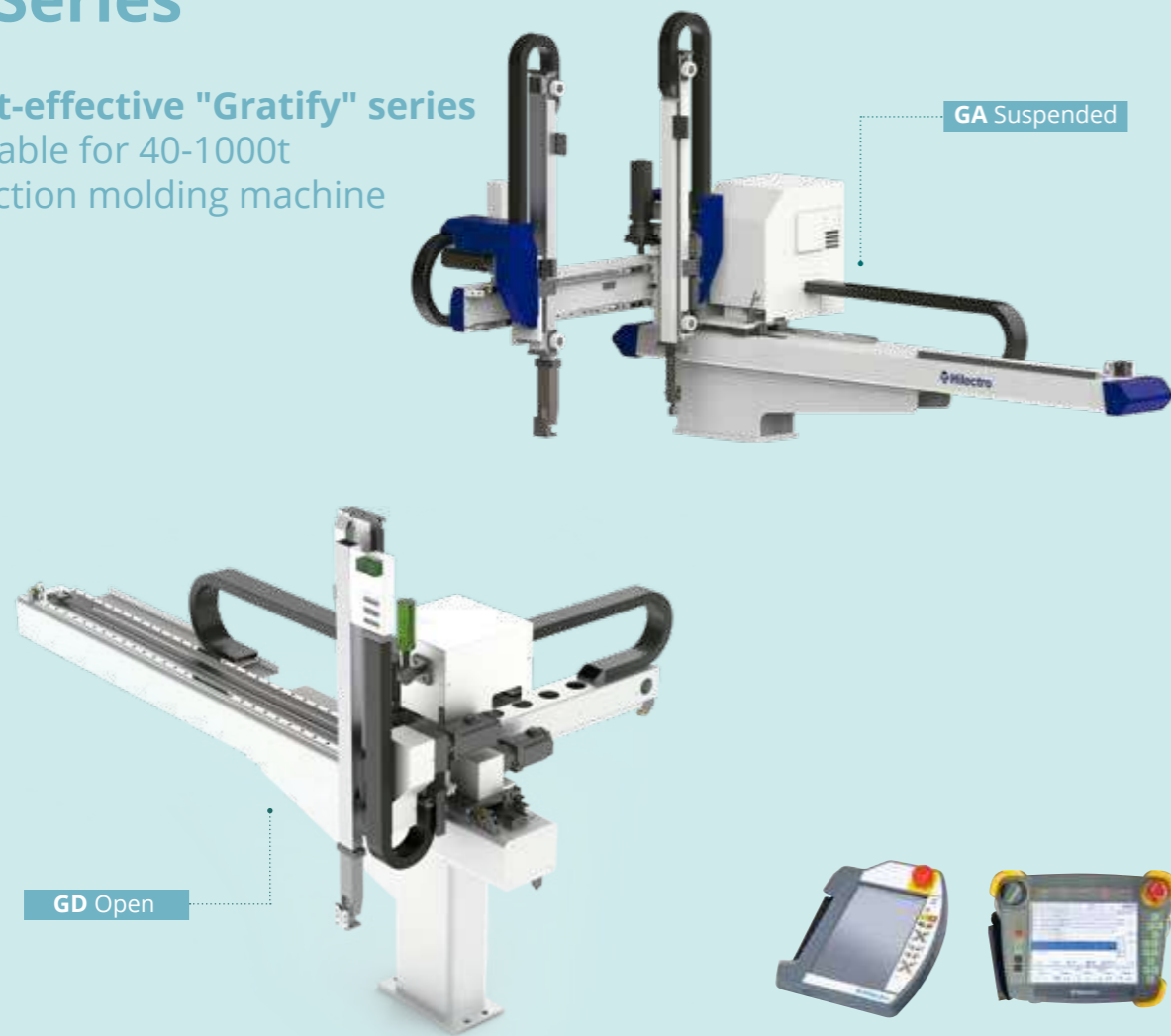
Robots

Customizable and automated pick-up schemes of robots to realize the automation of the entire plant, helping customers to build a smart factory based on individual customer requirements.



G Series

Cost-effective "Gratify" series
Suitable for 40-1000t
injection molding machine



Product introduction

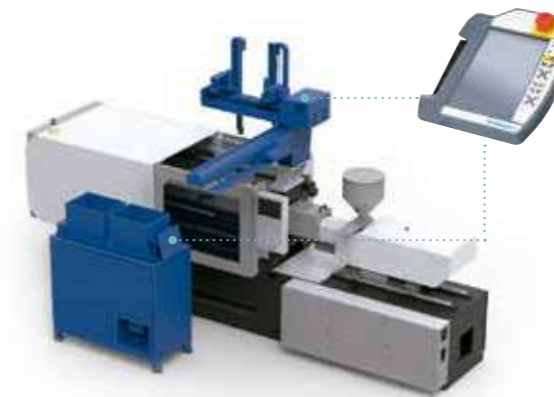
G series is a pretty cost-effective full servo robot, including GA and GD models. With a suspended structure, GA is suitable for five-axis application scenarios where products and biscuits are simultaneously picked up. GA-SE is a more cost-effective special customized version, designed with drive and control integrated, while GD, with an open (commonly known as "bullhead") structure, is suitable for scenarios where a single product is picked up. GD-1100ID/h-SE, with in-mold time $\leq 0.97s$, is an economical high-speed machine especially suitable for picking up thin-walled products such as fast food containers. In addition, for pure biscuit pick-up applications, the user can choose the small jib P series.



Ether-link

Integrated communication for intelligent injection molding

- Based on Modbus-TCP protocol, the robot synchronizes information such as working status, production history and equipment data to the user database in real time to assist lean production;
- In conjunction with Haitian's injection molding machines, the integrated communication system allows the robot to intelligently switch the corresponding programs of mold numbers, thus ensuring efficient die change and production.



Program-think

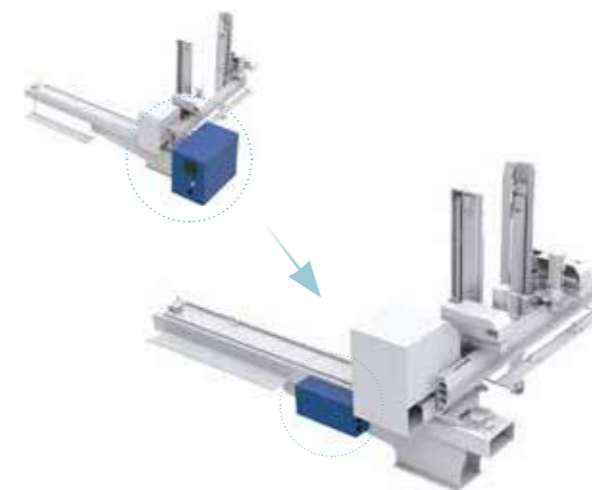
Create a machine-side automation environment for efficient resource allocation

- When the main program of the robot is running, it integrates the control of the machine-side automation equipment by calling the logic judgment instruction of the Program PLC" sub-thread;
- Downgraded procurement of automation equipment without PLC control saves user equipment investment.

Model-pick

Free and flexible dual mode switching

- "Simple" framework mode, built-in fixed program, simple operation, short training cycle, tailored for beginner users;
- "Flexible" teaching mode and high degree of operation openness, providing a more free programming environment and more choices for high-level users.



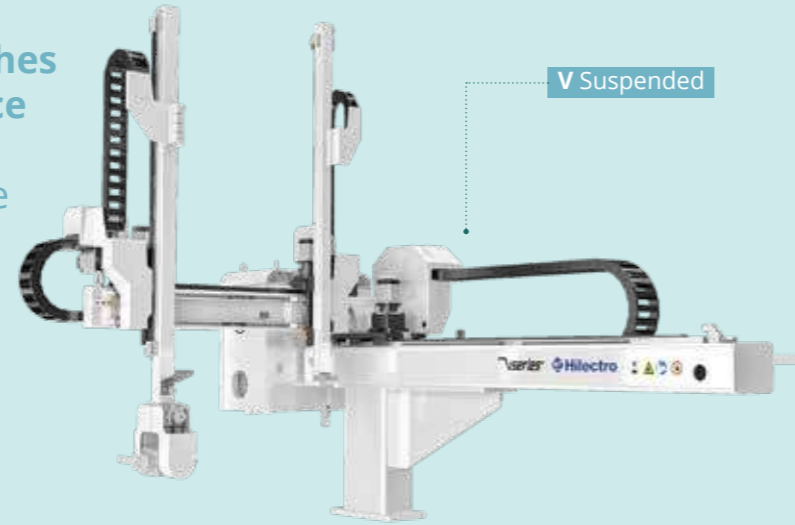
Decabinetization

No separate electrical cabinet to free up more duty cycle

- With the integrated design of drive and control, the volume of the electric control cabinet is reduced by 91.79%, which greatly reduces the user's duty cycle and realizes fuller information interaction and better real-time control.

V Series

"Victory" series that pushes the limits of performance
Suitable for 40-8800t injection molding machine



Product introduction

V series, with a Haitian self-developed control system, is a full servo robot that pushes the limit of performance, including V and VD models. With a suspended structure, V is suitable for five-axis application scenarios where products and biscuits are simultaneously picked-up and it is also highly adaptable to inserts and peripheral automation of molding machines, while VD, with an open structure and with a maximum load of 150kg, is especially suitable for picking up large products on large two-platen injection molding machines. In addition to all the features of G series, V-Series also has advanced features for users to choose from.



Energy saving mode

Intelligent consumption reduction for stable and high-efficiency production

- By intelligently adjusting the running speed, the robot follows the production rhythm of the molding machine, saving energy by up to 19% while reducing the wear and tear of the equipment and prolonging its service life.



Flexible control points

Flexible configuration of points and free control of status

- It can realize the free matching of functions and I/O points, support the user to control the state of I/O points, and flexibly expand the application boundary.



Intelligent pickup

Follow the molding machine formwork in real time and synchronize intelligently with the ejector for better pickup

- Equipped with Zhafir injection molding machines, the robot monitors the real-time position of the formwork, lowers the formwork in advance and follows the formwork for safe and efficient pickup while supporting intelligent synchronization of the ejector for better pickup.



High load, high precision and fast response

The three-in-one design achieves greater load, higher precision and faster speed

- The load of V series is one stage larger than the models of the same range, and the maximum load of VD series is 150kg. The maximum linear speed of the V series high-speed machine can reach 6.4m/s, and the positioning accuracy of the V series is ± 0.05 mm, which makes the injection molding machine robot "stable, accurate and tough" by means of the high rigidity structure, high responsiveness transmission, and high sensitivity control.

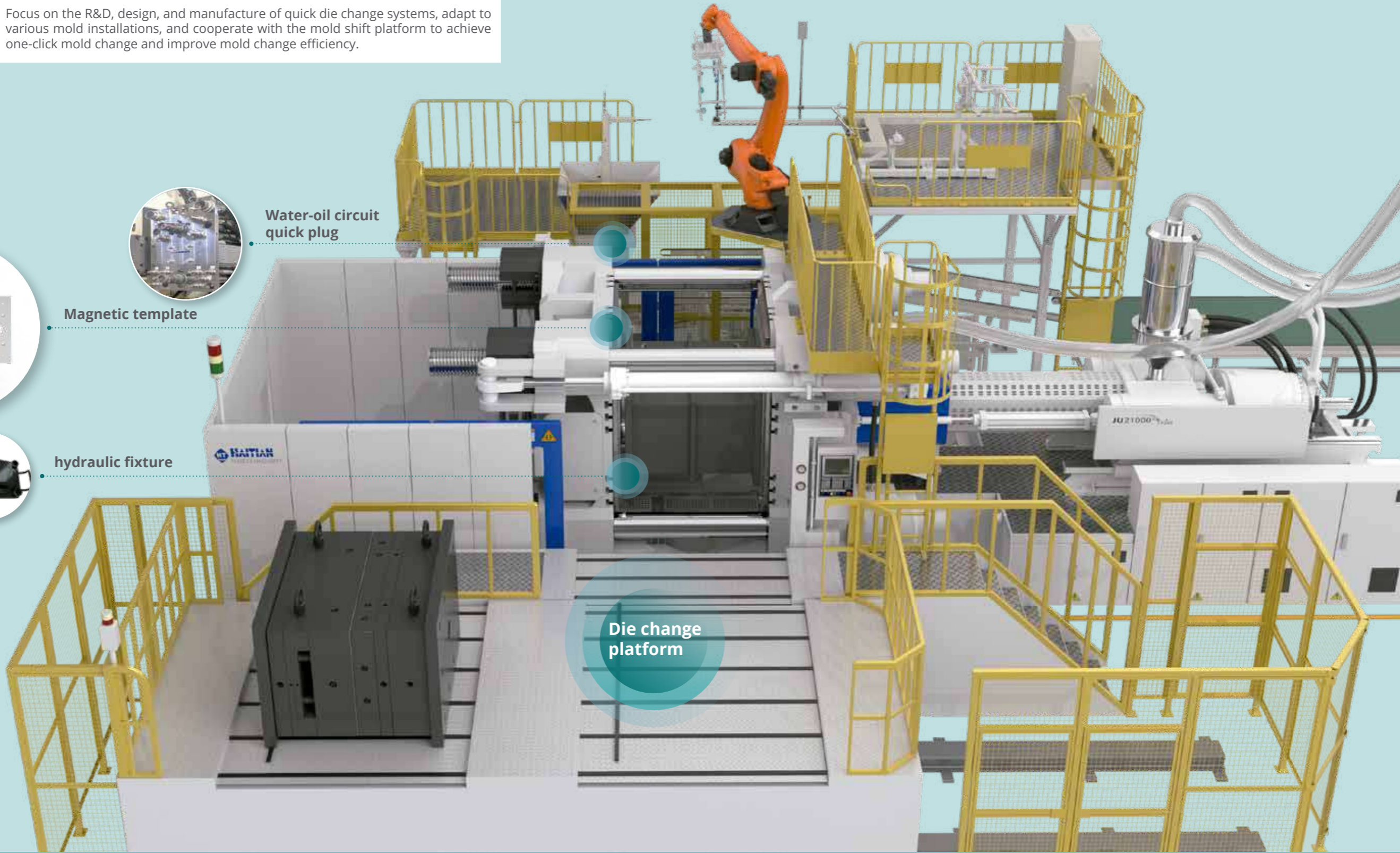


02

Quick die change

Magnetic template / hydraulic fixture / mold changer

Focus on the R&D, design, and manufacture of quick die change systems, adapt to various mold installations, and cooperate with the mold shift platform to achieve one-click mold change and improve mold change efficiency.



Water-oil circuit quick plug



Magnetic template

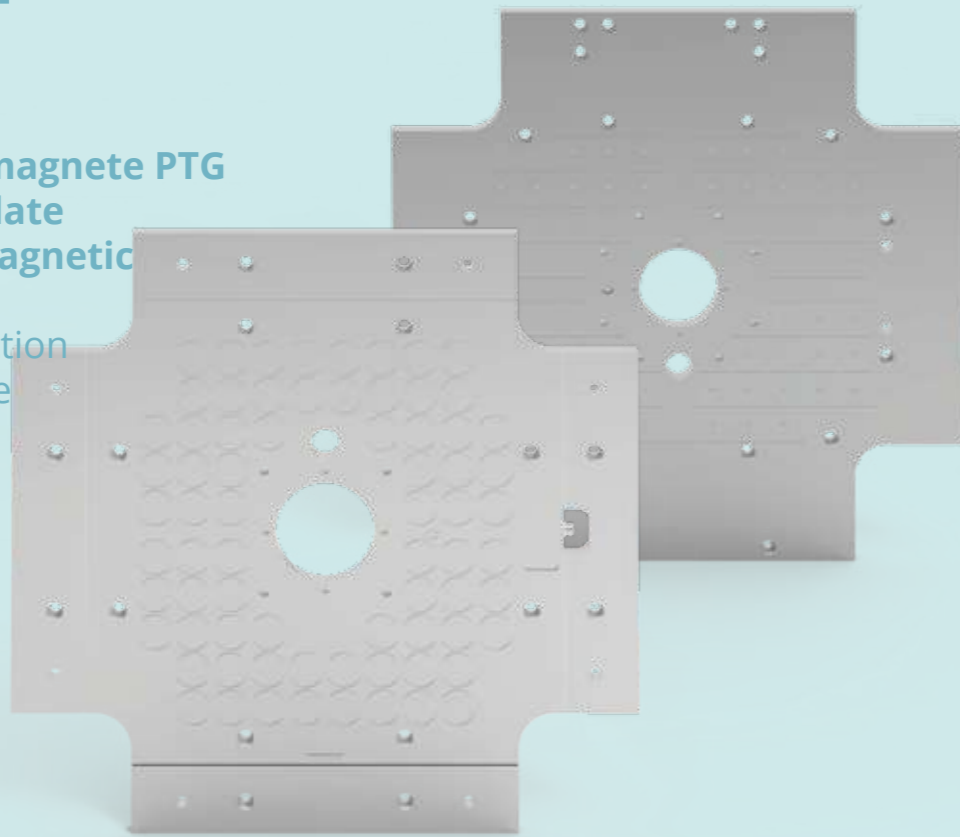


hydraulic fixture

Die change platform

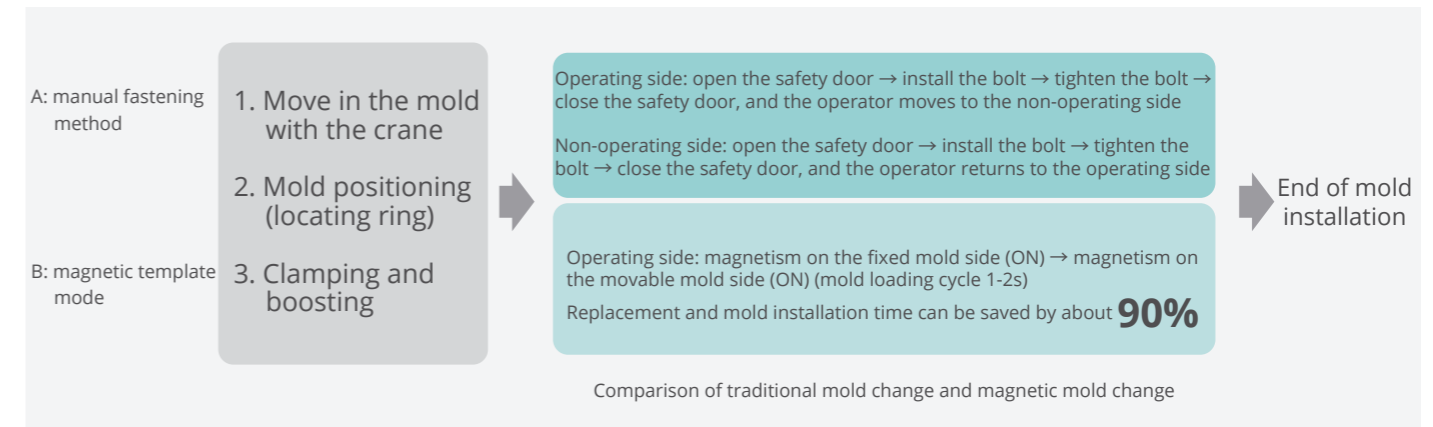
PTG / HQP Series

Hilectro Tecnomagnete PTG magnetic template
 Hilectro HQP magnetic template
 Suitable for injection molding machine



Improve production efficiency

- 90% time saving for installing and disassembling the mold; for plants with multiple injection molding machines and frequent mold change, the overall production efficiency can be greatly improved by shortening the mold change time;
- Simplify work, save labor and improve workshop management.



Improve mold capacity and high universality

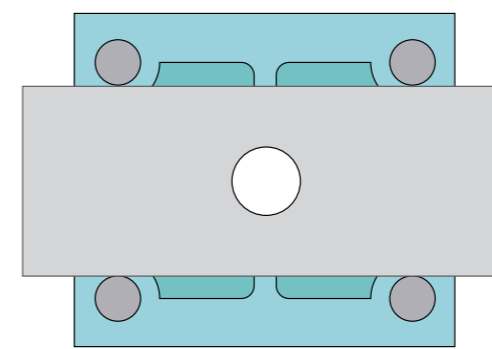
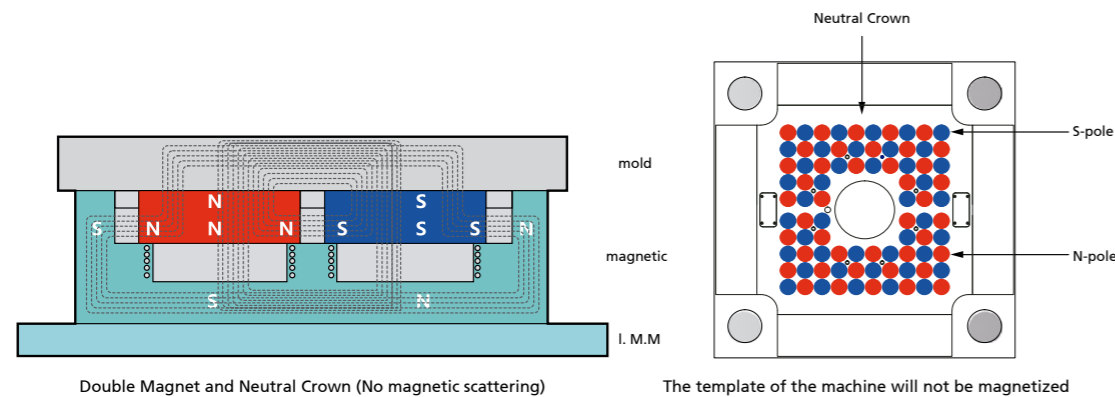
- It is easy to arrange the peripheral connections of the mold (water, gas, electricity, etc.), which greatly improves the design freedom of the mold;
- There is no need for a fixed-size mold back plate, and the magnetic plate has strong applicability to the mold;
- It can suck the back plate of mold evenly, prevent mold stress deformation, improve product quality and consistency, and prolong the service life of the mold.

High quality, high precision

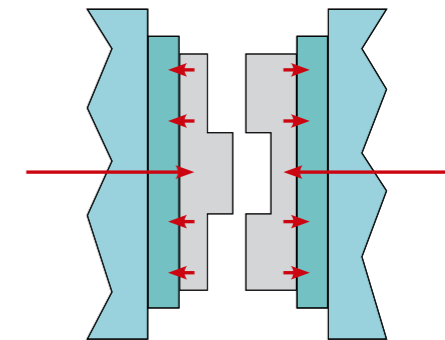
For multi-cavity mold clamping, rotary table machine and mold clamping cases where labels or other plug-ins need to be inserted, the accuracy and stability of the magnetic template can provide perfect precision mold clamping.

Bipolar Neutral Crown Technology (Tecnomagnete Technology)

- The adjacent magnetic poles are N/S independent magnetic poles, and the substrate is neutral, which perfectly achieves the balance of N/S two-pole magnetic lines of force;
- During operation, the mold will not cover the N/S poles unevenly due to different back plate sizes, the magnetic force will be concentrated without scattering, there will be no unbalanced attenuation and magnetic scattering of magnetic poles, the magnetic energy can be brought into full play with high efficiency, and the utilization rate of magnetic energy will be more than or equal to 99%;
- The template, tie rods and ejector rods of the machine will not be magnetized;
- When there is an air gap between the mold back plate and the magnetic template (the mold back plate is uneven), the suction attenuation rate will be small.



Strong universality



Uniform magnetic clamping

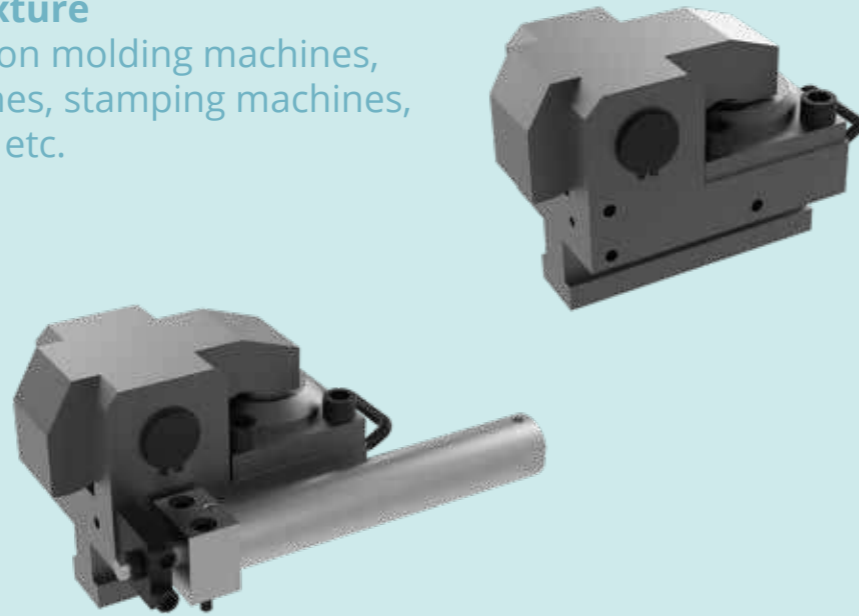
High Return on Invest

- Except for a few seconds during magnetization and demagnetization, no electric energy is required for the adsorption state;
- There is no need to invest in pressing plates, bolts, consumables, hardware and other accessories to release storage space;
- The later use and maintenance cost is almost zero;
- Improve mold stability through magnetic adsorption, reduce product defect rate, and improve efficiency.

HW/HWS Series

HW hydraulic fixture
HWS hydraulic fixture

Suitable for injection molding machines, die casting machines, stamping machines, hydraulic presses, etc.

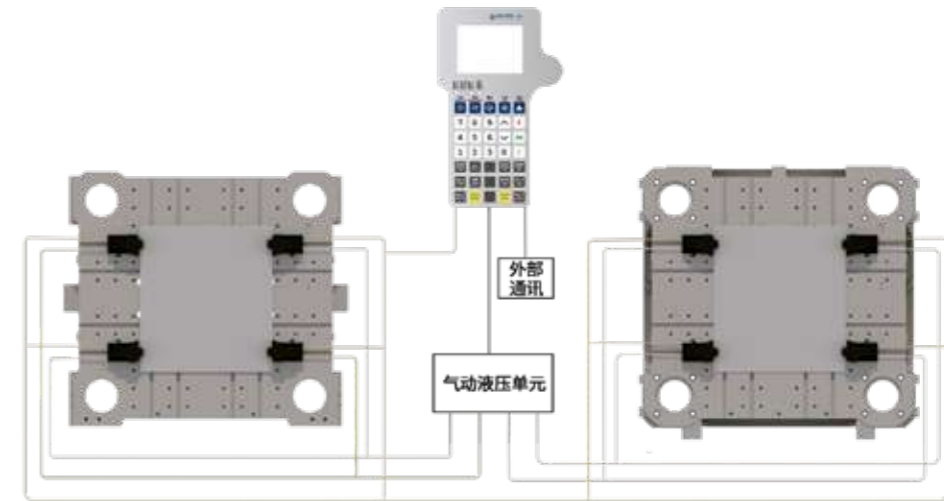


The HW/HWS series is suitable for production equipment such as injection molding machines, die-casting machines, stamping machines, and hydraulic presses. It has compact product dimensions and simple operation, making it easy to replace the cumbersome traditional screw locking method. It is an ideal solution for semi-automatic/automatic mold changing.

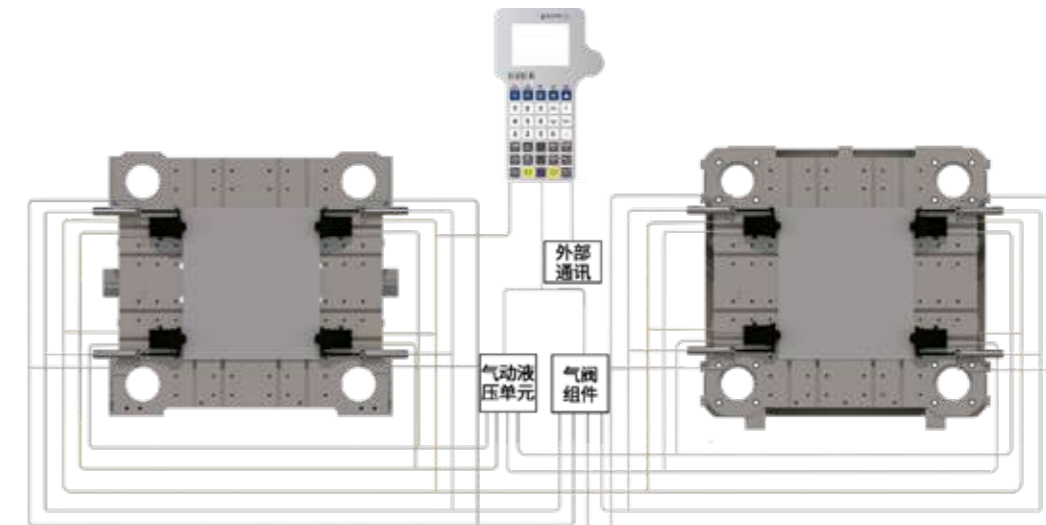
Product features and safety control

- ◎ The hydraulic fixture has an independent hydraulic circuit, and every 2 diagonal mold clampers share a hydraulic circuit to ensure that the hydraulic fixture can be interlocked diagonally;
- ◎ Each group of oil circuit has a pressure detection function. When the oil circuit is lower than the safe pressure, the system will automatically alarm and transmit a shutdown signal to the injection molding machine to stop working for a safe production;
- ◎ The pressure is compensated automatically, and the pump is driven with air pressure. When the outlet pressure reaches the set value, it stops working and does not need to continue to consume energy; when the outlet pressure drops, it automatically compensates for pressure for continuous pressure adjustment;
- ◎ The electric control system is equipped with a key switch. When the key is in the forming state and removed, the operation of the button on the fixture panel is invalid, so as to avoid the fault caused by the staff's error or accidental touch of the button in normal production;
- ◎ The oil pressure has been maintained continuously for more than 1 68 hours in the state of power failure and gas disconnection.

HW series arrangement diagram



HWS series arrangement diagram



Application of hydraulic fixture in injection molding machine

It can realize fast, efficient and automatic production instead of ordinary screw pressing plate.



Left and right arrangement



Left and right arrangement



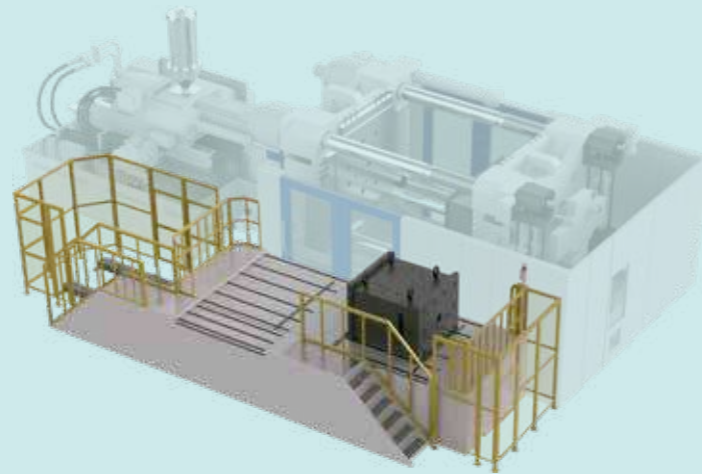
Up and down arrangement

Mc Series Die Change Cart

MC Series Die Change Cart
MCC Rail-Type Die Change Cart -RGV
MCD Trackless Die Change Cart -AGV
MCE Fixed Die Change Cart
MCF In-mold Roller Mechanism

Productivity Improvement | Plastics | Healthcare

MC series die change cart is a kind of automated die change system which can realize the function of quick, one-button and unmanned die change. Integrating a variety of cutting-edge technologies covering mechanical, electrical, visual, electromagnetic and soft control technologies, the product provides customers with targeted and efficient automated die change solutions.

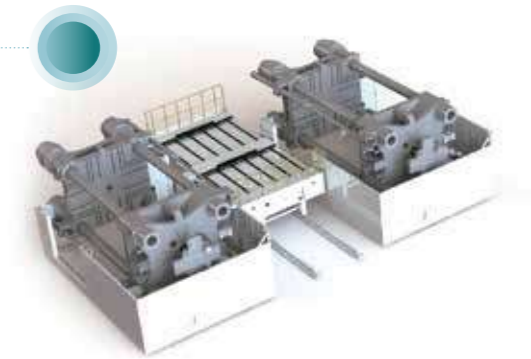


Features

- ◎ Suitable for product types with a high frequency of die changes
To meet customers' requirements for fast and frequent die changes;
- ◎ Significantly increase production efficiency
Die change cycles can be reduced to less than 10min;
- ◎ Fast and accurate die change
Relying on the positioning datum of the cart itself, it ensures that the mold is quickly and accurately placed without manual intervention;
- ◎ High safety configuration
Efficient linkage and interlocking with the host, forming a meticulous safety network, and multiple sets of safety systems, preventing mold drops and other man-made accidents;
- ◎ High extension
The system can be extended with different products to complete the whole die change system, e.g. with a hydraulic fixture or a clamping system for magnetic formwork, and with an automatic water-oil insertion and removal system;
- ◎ Personalized customization requirements
It can provide professional and reliable personalized customization requirements for different production and operation systems;
- ◎ Simple and efficient operation
Equipped with the Euromap71 interface, the die change cart does not require additional interface adapters, minimizing investment and project duration.

MCC Series Die Change Cart

With the layout of dual work stations, the track die change cart is applicable to the die change between 15T and 60T. Featured with fully automatic one-key die change, high efficiency of die change, safety, reliability, etc., it can satisfy the customers' needs to the maximum extent with optional mold identification, mold preheating, quick insertion of water, electricity and liquid, etc.



MCD Series Die Change Cart

The trackless die change cart serves as a die change solution for small injection molding machines. With compact body and simple operation, it is popular among small injection molding machine enterprises.

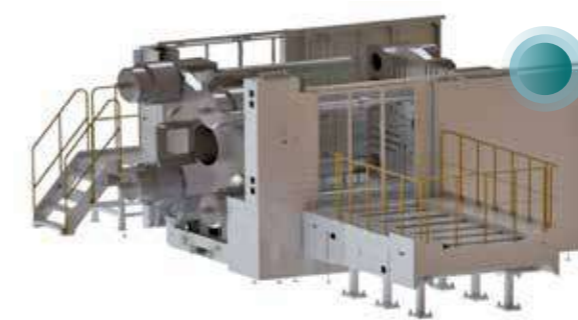
Economical: Manual

- ◎ Trackless manual die change cart is suitable for the 5T and less die change. Featured with compact structure, simple operation, flexible application, etc., it has manpower push and pull or mechanical push and pull models, and manpower push and pull model can be selected for the 2T and less molds.



High-efficient: Automatic

- ◎ Trackless automatic die change cart is suitable for the 15T and less mold. Featured with full-automatic one-button die change, strong interoperability, high efficiency of die change, high degree of automation and high safety performance, it maximizes to meet the customers' practical application requirements with functions such as mold identification and mold height detection.

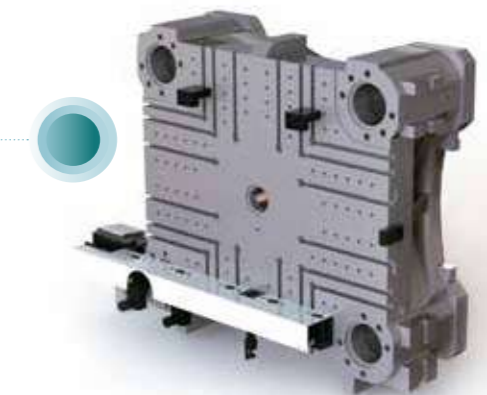


MCE Series Die Change Cart

Fixed die change cart, with single station layout, is suitable for all die change between 0.3T and 60T. Featured with compact structure, high efficiency of mold change, safety, reliability, etc., it meets the customers' actual application requirements to the maximum extent with optional mold identification function.

MCF Series In-mold Roller Mechanism

The in-mold roller mechanism is suitable for all die change between 0.3T and 60T. As part of the die change cart, we can provide customized services to extend the application of the existing cart for our customers.





03

Molding assistant

Smart auxiliary machine / visual monitoring

Relying on the advantages of core technology, it provides a full set of smart peripheral equipment and system solutions to accurately match the needs of enterprises.

Dehumidification and drying

HTDL Dehumidifying Dryer

HTDL series is mainly used for dehumidification, drying and feeding of hygroscopic plastics, such as PET, PA, PC, etc. Combining the functions of dehumidification, drying and feeding in one unit, the HTDL series has a simple appearance and a compact structure, making it easy to maintain.



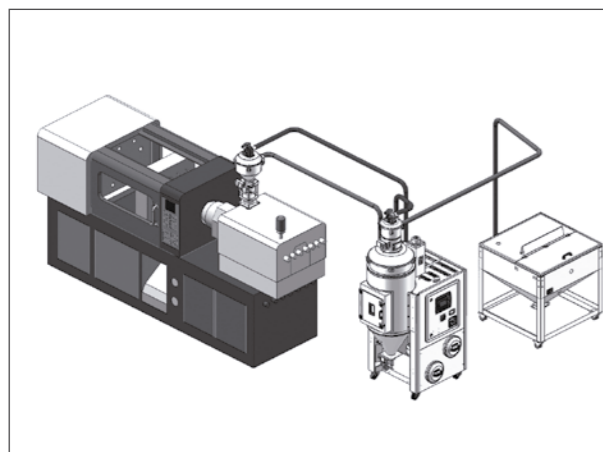
- ◎ The heatless type uses a low-maintenance- cost dehumidification bucket for dehumidification, which provides stable dehumidification air with a dew point of -40°C.

Optional items

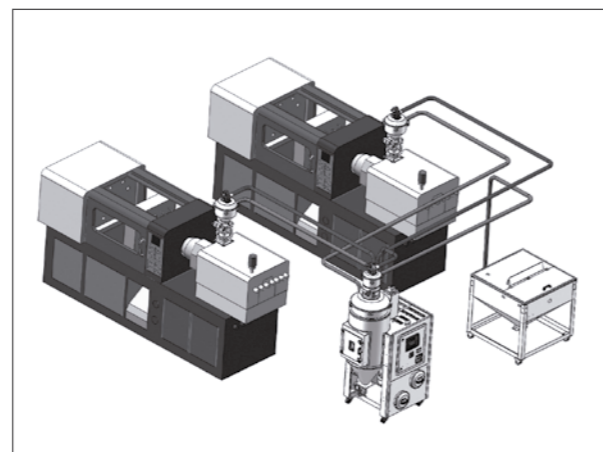
- ◎ Dew point meter - monitor the dew point in real time;
- ◎ 1T2 - transport dehumidified and dried raw materials for two plastic machines at the same time;
- ◎ Cyclone separator - optional for use with return materials;
- ◎ High temperature cylinder - 180°C high temperature type;
- ◎ Oil mist filter - used when the raw material is volatile;
- ◎ TCP communication function - communicate with the host to realize centralized monitoring.

Features

- ◎ Integrating dehumidification, drying and feeding, it has simple appearance and small footprint;
- ◎ The feeding is equipped with a vacuum box as standard to ensure that there is no residue of raw materials in the pipe and avoid the resurgence of raw materials;
- ◎ Thermal insulation and heat preservation cylinder with down-blowing design ensures no heat loss and improves drying efficiency;
- ◎ Closed circulation dehumidification and conveying system avoids re-moisture of dried materials in contact with air;
- ◎ Microcomputer control ensures precise control of drying temperature;
- ◎ The weekly calendar timing function makes it possible to schedule for automatic operation;
- ◎ Multiple safety protection devices ensure the safety of the machine;
- ◎ The rotor three-in-one has a honeycomb runner with stable dew point and long service life of the honeycomb for dehumidification;



Installation Diagram of One-to-one Molding Machine



Installation Diagram of One-to-two Molding Machine

Dehumidification and drying

HTHD Hopper Dryer

HTHD series hopper dryer can be used to dry most of the plastic raw material that are not hygroscopic, such as PP, ABS, PS, etc. It is an effective and economical model for drying plastic raw materials. In addition, it can realize the functions of recycling hot air and filtering the iron impurities in the raw materials through the option, and it can also be used with the kickstand to realize the floor installation.



Features

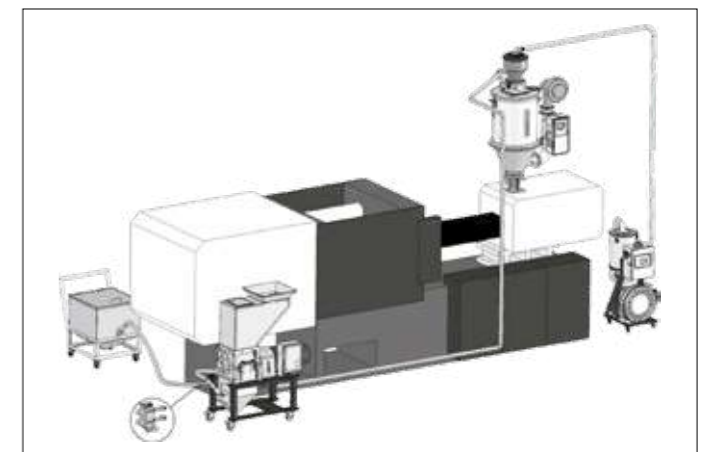
- EU series europeanized dryer:
- ◎ Double-layer heat preservation cylinder for small heat loss;
 - ◎ Down-blowing double-process heat exchange design for fast heating, material temperature uniformity and high drying efficiency;
 - ◎ P.I.D. temperature controller for accurate temperature control, weekly calendar timing for automatic switching on and off;
 - ◎ All with cleaning door for good sealing and easy emptying;
 - ◎ Exhaust air filter to prevent the dust in the cylinder from being sent out into the air;
 - ◎ 300kg and less one with magnetic base, 400kg and above one with floor support and material vacuum box.

Optional items

- ◎ Fan filter - prevent airborne dust from contaminating the raw material;
- ◎ Floor support - floor installation;
- ◎ Vacuum box - for use with floor support;
- ◎ Hot air recovery unit - recycle hot air to reduce energy consumption;
- ◎ Exhaust air filter to prevent;
- ◎ TCP networking function - communicate with the host to realize centralized monitoring.

HL Series Standard Dryer:

- ◎ Assembled with thickened precision die-cast aluminum parts and stainless steel for strength and durability;
- ◎ Raw material contact part made of stainless steel to ensure that the raw material is not contaminated;
- ◎ Separate design of barrel and hopper body for easy emptying;
- ◎ Electric heating barrel designed with a curved tube to prevent dust from going in and causing combustion;
- ◎ Exhaust air filter to prevent the dust in the barrel from being sent put into the air;
- ◎ Magnetic base to prevent iron filings from entering the machine.



Schematic Diagram of Molding Machine Installation

Dehumidification and drying

HTLD-50MHL/1.5P HUL drying feeder

HTLD drying feeder, a combination of the dryer and the feeder through an L-shaped support, is equipped with a vacuum box and casters for easy movement. With a combination of drying and feeding functions, it is convenient for customers to use directly.



Suction and conveying

HTAL-1.5P HUL feeder

HTAL Series feeders characterized by light and durable structure, strong in suction, easy to install, and easy to operate. Stainless steel; high efficiency vacuum motors; equipped with motor overload protection devices and automatic alarms for lack of materials.



Features

- Refer to the corresponding dryer configuration for drying part configuration;
- Refer to the configuration of the corresponding loading machine for the configuration of the loading part;
- An L-shaped support with a single-tube vacuum box is included as standard.

Optional items

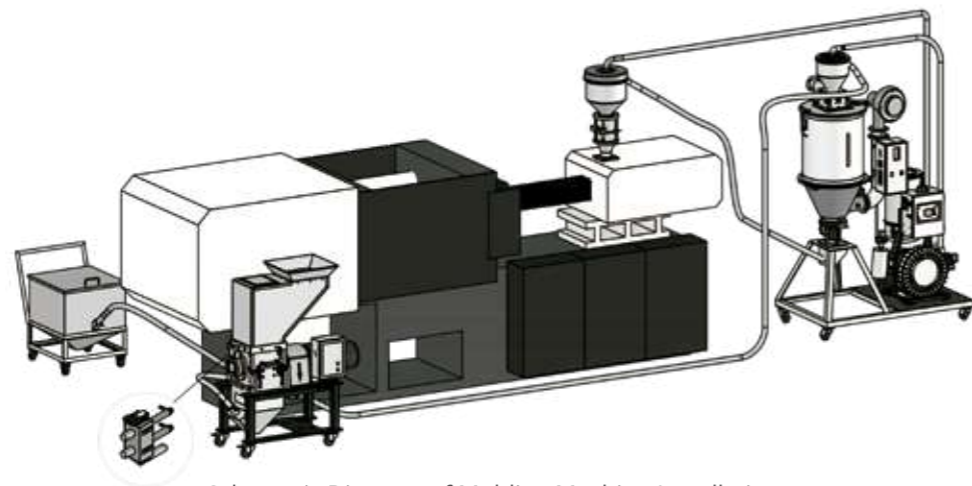
- 1. Hot air recovery
- 2. Vacuum box
- 3. Magnetic frame
- 4. Exhaust air filter
- 5. Fan filter



MH-7.5L mechanical hopper



PH-12L photoelectric hopper



Schematic Diagram of Molding Machine Installation

Features

- Separate design of main unit and material cup for easy installation;
- Microcomputer control operation, LED display and convenient operation;
- Separate filter + dust bin design for easy removal of dust;
- Motor overheating protection to increase the service life of the equipment;
- Sound and light alarm prompts when there is a lack of material for timely notification of customer of troubleshooting and processing;
- Powder feeding models for conveying well-flowing powders, crushed materials, and color-containing powder mixtures.

Precautions

- Dual-stage suction - two-station suction;
- Pulse dusting - cartridge auto wash dusting.



MH Mechanical Hopper



PH Photoelectric Hopper



Powder Loader

Metering color mixing

HTCM Metering Screw Doser

HTCM series metering masterbatch is mainly used for injection and extrusion molding and it can also be used for automatic proportional mixing of new material, secondary material, masterbatch or additives, etc. There is also a double-station masterbatch available, which supports screw metering and mixing of two kinds of additives. There are five kinds of metering screws including A5, A10, A15, A20 and A30, with error no higher than 1%, providing different conveying capacity from 0.2 to 88kg/h for customers to choose.



Features

- ◎ The screw is precision-made of stainless steel, which is durable;
- ◎ The stepper motor is used for accuracy and stability;
- ◎ Modular assembly structure makes it easy to disassemble and assemble, easy to clean and interchangeable;
- ◎ It can meet the requirements of external signal input at the same time;
- ◎ It has the function of forced cleaning, which is convenient for replacing the masterbatch;
- ◎ It can be applied to extruders with a little wiring conversion;
- ◎ RPM can be adjusted automatically with extruder speed to maintain a fixed masterbatch ratio;
- ◎ There are 21 parameterized recipes with permanent record of discharge time and finished weight.

Optional items

- ◎ Heavy duty base
 - Without agitator: HF-1, for 100-300kg dryer; HF-2, for 400-600 dryer;
 - With agitator: HFX- 1/MIX3, for 100-300kg dryer, with MIX3 agitator;
 - HFX-2/MIX3-6, for 400-600kg dryer, with MIX3/MIX6 agitator;
 - HFX-3/MIX12, for 400-600kg dryer, with MIX12 agitator;
 - HFX- 4/MIX24, for 400-600kg dryer, with MIX24 agitator;
 - HFX-5/MIX48, for 400-600kg dryer, with MIX48 agitator;
- ◎ High-temperature type masterbatch - for PET and other high-temperature occasions, to be cooled by warm water usually;
- ◎ Agitator - for uniform mixing of materials;
- ◎ Main material receiver hopper - with the cup to add the main material;
- ◎ Low level gauge - detect the level of color masterbatch drums and alarm when lack of material;
- ◎ Unloading support - for installing the feeder on the masterbatch drum;
- ◎ TCP communication function - communicate with the host to realize centralized monitoring.

Metering color mixing

HTGB Gravimetric Blender

HTGB series metering and weighing machine is mainly used to weigh, meter and uniformly mix 2 to 7 kinds of raw materials. This series of products adopts imported control system, high-precision AD conversion module and adaptive algorithm to ensure that the mixing and proportioning error of the batch (depending on the size of the set proportion) can be controlled at +0.1% to 0.5%. The complete range of models can meet the requirements of high-precision proportional mixing without requiring the amount of material.



Features

- ◎ All raw materials are evenly mixed after gravity measurement, and the accuracy can be strictly controlled;
- ◎ Advanced dosing technology allows precise control and measurement of the proportion of each processed raw material;
- ◎ The automatic repeat calibration function will automatically correct and adjust after each weighing to ensure the best dosage accuracy;
- ◎ Up to 7 raw materials can be processed simultaneously;
- ◎ Modular detachable structure design makes it easy to clean;
- ◎ With recipe storage function, it can store up to 40 sets of recipes;
- ◎ It has the function of alarm history;
- ◎ HTGB-5 and lower systems come standard as machine-installed models (with standard base and manual shut-off plate);
- ◎ HTGB-10 and above systems come standard with a stand- installed models (with stand, hopper, feeding valve and vacuum box);
- ◎ The USB data export function allows you to save and record your ratio data for the purpose of quality control;
- ◎ Optional items: 1. stand, 2. GB with material feeding machine, 3. TCP communication function.

Precautions

- ◎ Mix proportioning error is the difference between the set percentage and the actual percentage of each component;
- ◎ The gate dosing valves are suitable for ratios of 5% and above and the mixing ratio error can be controlled at + 0.3-0.5%;
- ◎ Screws or micrometers are suitable for ratios of 0.2% to 0.5%;
- ◎ The above maximum processing capacity and mixing ratio error data are measured in continuous operation with granular uniform raw materials with a bulk density of 0.65kg/L and a diameter of 3 to 4 mm, and the maximum throughput varies depending on the number and ratio of metering groups;
- ◎ Ensure that the working pressure of the valve is 6kgf/cm².

Metering color mixing

HTHS Mixer



HTHS vertical color mixer characterized by simple structure, easy operation, convenient maintenance and cleaning, high speed and good mixing effect. Color Mixer for granular materials, which is mainly used for mixing plastic particles or widely used in plastic, metallurgy and ceramic industries. It is an ideal mixing equipment.

Features

- ⊙ The material tank and mixing blade are made of all stainless steel, which is easy to clean and free of pollution;
- ⊙ Chain safety protection device ensures the safety of the operator and the machine itself;
- ⊙ Made of sufficient materials, it is strong and durable;
- ⊙ With low energy consumption and high efficiency, it completes uniform mixing in a short time;
- ⊙ With an automatic stop device, it can be set for 0 to 15 minutes.

Crushing recovery

HTGS Slow Speed Crusher HTGM Medium Speed Grinder

HTGS series slow speed crusher adopts teeth gnawing cutter with no screen design. Crushing particles uniformly and producing very few chips, it is suitable for all kinds of hard plastic edge crushing and recycling and especially suitable for crushing PC, ABS, nylon and other hard degraded materials. HTGM series medium speed crusher is suitable for all kinds of soft and hard plastic edge crushing and recycling. Excellent shear angle and moderate speed will minimize the powder, noise and tool wear. The product has high cutting efficiency, simple operation and excellent performance.

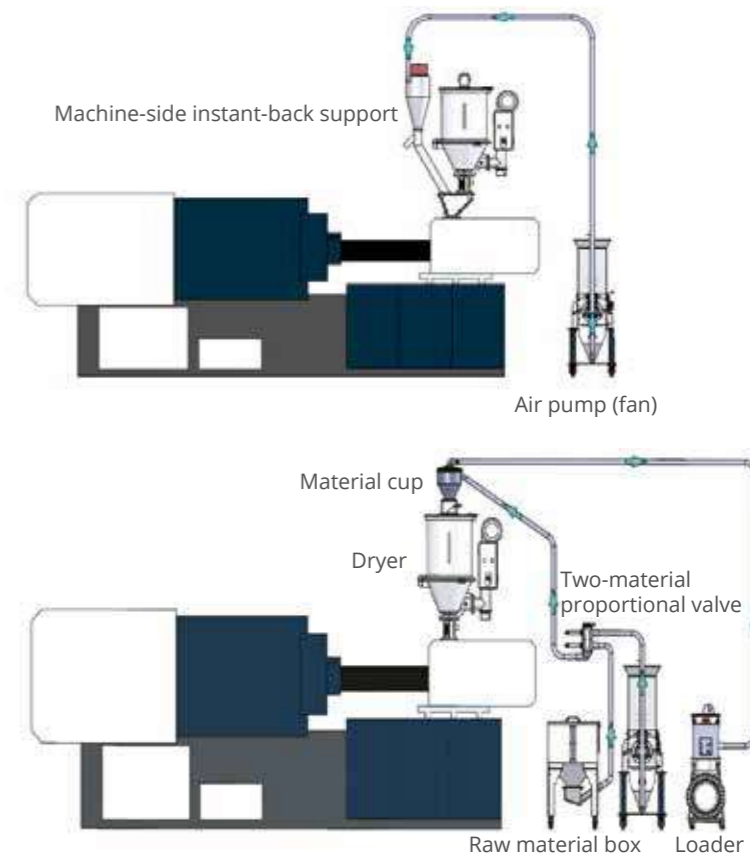


Features

- ⊙ Compact structure, small footprint and easy movement;
- ⊙ The feed hopper, made of stainless steel on the inside, is designed in a double-layer sound proof;
- ⊙ Easy-to-detach design makes it easy to clean and maintain;
- ⊙ Less dust, low noise and low energy consumption;
- ⊙ With a timing switch, it can automatically run and stop in a cycle to save electric energy;
- ⊙ A variety of safety protection devices to ensure the safety of man and machine;
- ⊙ High-quality gear motor with high efficiency and durability;
- ⊙ The moving blade is made of SKD-11 alloy steel, which has better performance than Cr 12MoV.

Precautions

- ⊙ Back immediately after air pump feeding - blowing feeding + recycling proportional seat;
- ⊙ Strong magnetic attraction at the inlet - prevent ferrous foreign matter from entering the crushing chamber;
- ⊙ Manual aggregate box - manual collection storage box, convenient for the collection of crushed materials;
- ⊙ Full material alarm device - alarm for shutdown when the square bucket is full.



Crushing recovery

HTSS Centralized Crusher



HTSS centralized crusher is suitable for crushing different types of soft and hard plastics, and crushing blocks, balls, strips and degraded materials into granules. In the plastics industry, it plays an important role in the rapid processing and recycling of defective plastic products and degraded materials, and improves the utilization rate of plastics.

Features

- ⊙ HTSS crusher can be equipped with A- -type flat knife and B- type slice knife as standard;
- ⊙ Standard all-steel blade enhances wear resistance, and SKD11 blade material is optional;
- ⊙ Models of 800 and above are equipped with a cart mobile collection box as standard;
- ⊙ The standard equipment includes: overload protection, short circuit protection, and shutdown protection when the hopper is opened;
- ⊙ Fan feeding cyclone separation and secondary dust removal are optional.



A-type flat cutter



B-type blade

Mold temperature control

HTC-A Air-Cooled Chiller HTC-W Water-Cooled Chiller

HTC series industrial chiller is mainly used for mold cooling, shortening the molding cycle, and it can also be used to cool equipment to ensure its normal operating temperature, or cool other industrial areas that need to be cooled. This chiller is divided into air-cooled and water-cooled chiller, with compressor powers ranging from 5HP to 50HP and cooling capacities from 6,800 to 120,000kcal/hr.



Features

- ⊙ Imported high quality compressor and famous brand water pump and fan for power saving and durability;
- ⊙ Unique new design radiator for good heat exchange efficiency;
- ⊙ Stainless steel open tanks for quick and easy cleaning and maintenance;
- ⊙ Microcomputer temperature controller for accurate temperature control at $\pm 1^\circ\text{C}$;
- ⊙ The machine comes with safety protection and functions such as automatic water replenishment, reverse phase protection, current overload protection, high and low voltage protection, and a number of electronic time delays as standard to give an alarm in the event of a malfunction;
- ⊙ The cumulative time of the compressor of the double-head model is turned on in turn, which effectively balances the running time and improves the life of the machine;
- ⊙ Optional TCP communication function - communicate with the host to realize centralized monitoring.

Mold temperature control

HTMC-H Mold Temperature Controller HTMC-W Water Mold Temperature Controller



TMC series mold temperature controller is divided into water mold temperature controller and oil mold temperature controller. Heat exchange by direct or indirect cooling is mainly used for the heating and constant temperature of molds, but can also be used in other areas where there is demand. The maximum heating temperature of the water mold temperature controller is divided into 120C, 160C and 180C; the maximum heating temperature of the oil mold temperature controller is divided into 200C and 300C.

Features

- Microcomputer control, liquid crystal display, intuitive display, simple operation;
- Weekly calendar timing power on/off function, support Chinese/English switching and 'C/'F conversion;
- The electric control box and chassis adopt isolation design, which has good isolation effect and prolongs the service life of electric parts;
- The main pipeline is made of 304 stainless steel for corrosion resistance, high-pressure explosion proof and long service life;
- High-quality and high-efficiency pumps are used to meet the temperature control requirements of various molds;
- Dual temperature detection of incoming and returning media is carried out for real-time monitoring of the health status of the mold waterway;
- Power reverse phase protection, pump overload protection, over-temperature protection and insufficient media protection;

Optional items

- Auto water/oil drain - water/oil can be drained from the mold at the end of production;
- Water filter - filter sediment, iron filings and other particulate impurities in cooling water;
- Pressure and flow monitoring - real-time display of media pressure and flow;
- TCP communication function - communicate with the host to realize centralized monitoring.

Visual Surveillance

HDC Mold Monitor



HDC series in-mold monitor uses visual comparison and inspection functions to calculate image data in real time. With functions such as monitoring equipment operation, protecting molds, and inspecting products, it is widely used in injection molding, stamping, die casting, and other industries because of its ease of learning, ease of use, and flexibility.

Features

- The combination of near infrared light and camera technology solves the potential problem of ambient light and darkness in the factory environment;
- Any monitoring area can be set according to your production needs, allowing you to monitor multiple cavities and the location of special inserts;
- The mold monitor, suitable for deep cavity and multi-cavity adjustment to avoid false alarms, adjusts the sensitivity of each area independently;
- Powerful image processing software greatly reduces the false alarm of the system;
- It supports program storage and recall with no need to adjust parameters for mold change and NG screen can be stored automatically, which is good for quality tracking;
- High-speed and high-definition digital camera with precise detection, position detection accuracy up to 0.05mm and judgment processing time of 0.02s is used;
- With professional machine vision sensors, it operates stably and reliably, creating superb performance.

