CHEN HSONG

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CH 2025.03

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CHEN HSONG

SUPER PACK

Your One-Stop Solution for High-Speed Packaging

SINCE 1988

Core Features

- Superior repeatability.
- High-performance tie-bars with long usage life.
- Tailor-made for thin-walled packaging applications.
- No-weld piping and flanges eliminate any possibility of oil leaks.
- Enhanced rigidity and thickened platens for stable and high-quality production.
- Infrared heater bands provide superior heating efficiency and insulation for greener manufacturing.
- One of the largest power packs in the industry for consistent high-pressure injection and easy setup of any application.
- High-end intelligent computer controller with fast CPU for microsecond-grade ultra-fast dynamic responses. Coupled with advanced hydraulics, it enables much higher speeds, shorter cycle times at consistent high precision and dimensional stability.

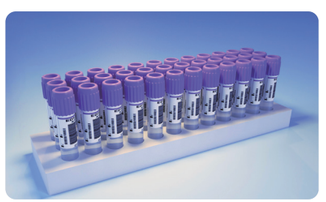
Main Applications

Biodegradable tableware

Thin-walled food packaging

Thin-walled containers

High-gloss products



Medical consumables

Medical consumables

Photos are for reference only.

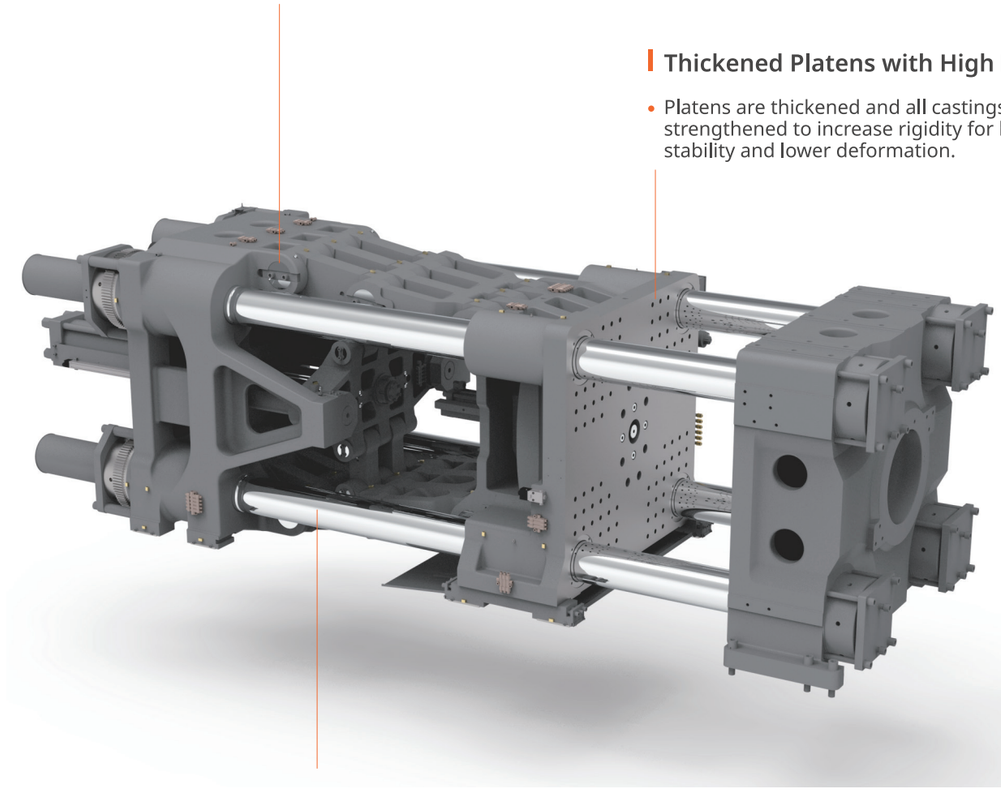
Clamping Unit

Toggle Pin

- Utilizes specialised nitrided pins, increased pin size significantly reduces stress. Contact stress exceeds industry standards, enhancing durability.

Thickened Platens with High Rigidity

- Platens are thickened and all castings strengthened to increase rigidity for higher stability and lower deformation.



High-Performance Tie-bars

- Thicker tie-bars with larger diameters increase the stability and rigidity of the clamping unit, resulting in less deformation, more even stress distribution, smoother dynamical movements, higher positional precision, lower wear and longer usage life.

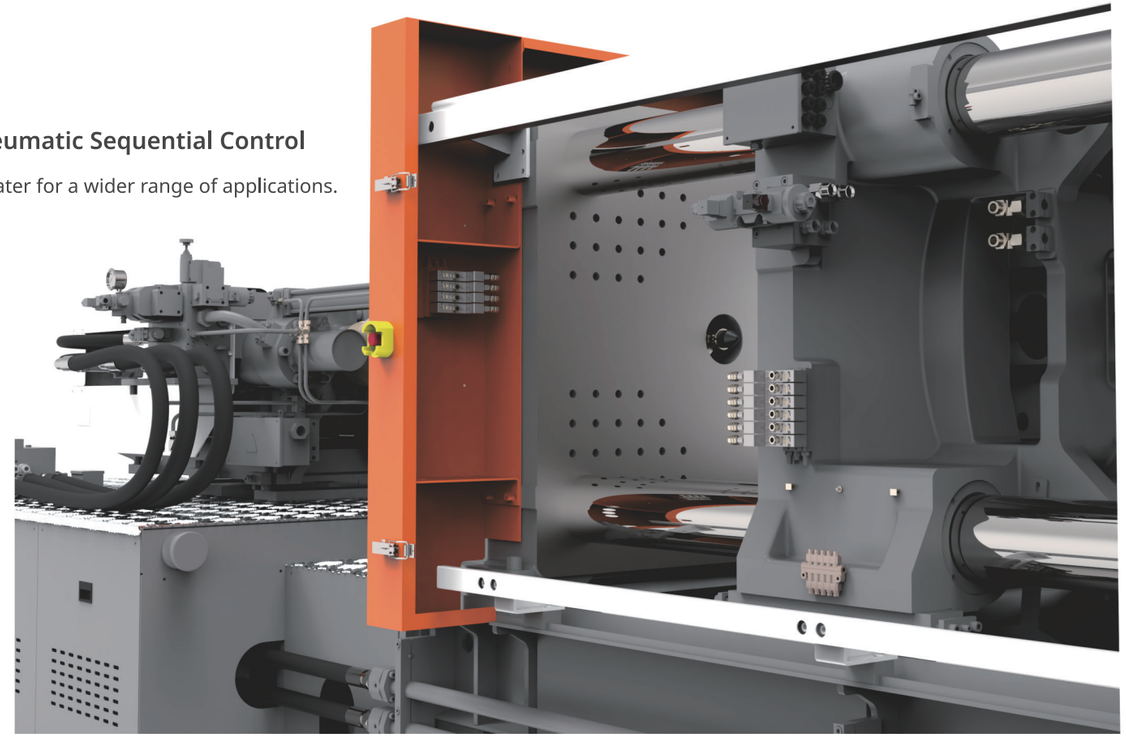
Photos are for reference only.

Air Blows

- Further reduce cycle time.

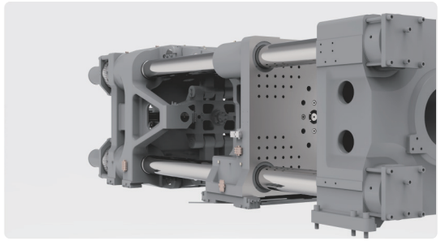
Pneumatic Sequential Control

- To cater for a wider range of applications.



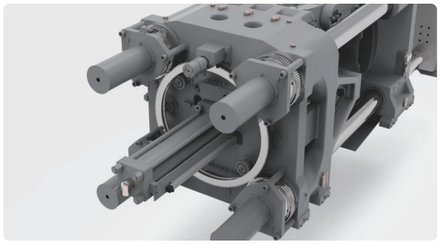
Even Distribution of Clamping Force

- Unique centralised design of the stationary and moving platens ensure more even distribution of the clamping force over the usable area of the platens, resulting in high product quality and much fewer defects such as flashes.

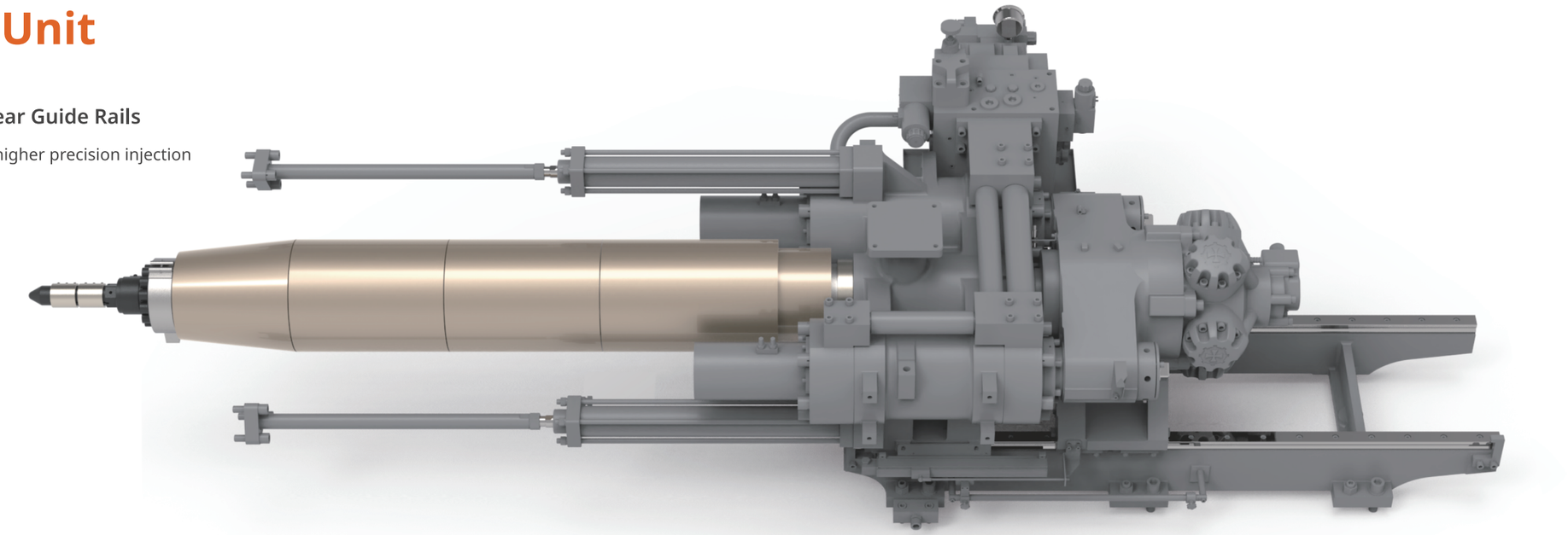


Mould Adjustment Motor with Brakes

- Higher stability for 24x7 production



Injection Unit



High-Precision Linear Guide Rails

- Smoother, faster and higher precision injection

High Efficiency Screw Design

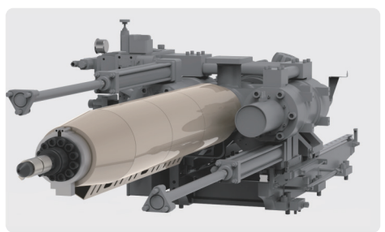
- Designed specifically for thin-walled packaging, up to 51% higher plasticising rate for really short cycle times.

Infrared Heater Bands

- High heat efficiency, faster adjustments, better insulation, more energy efficient for greener manufacturing.

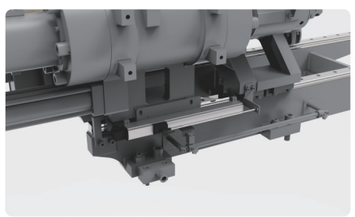
Balanced Dual Injection Cylinders

- Essential for high-speed injection movements.



Non-contact Potentiometers

- For the highest motion-control precision during high-speed injection.



Photos are for reference only.

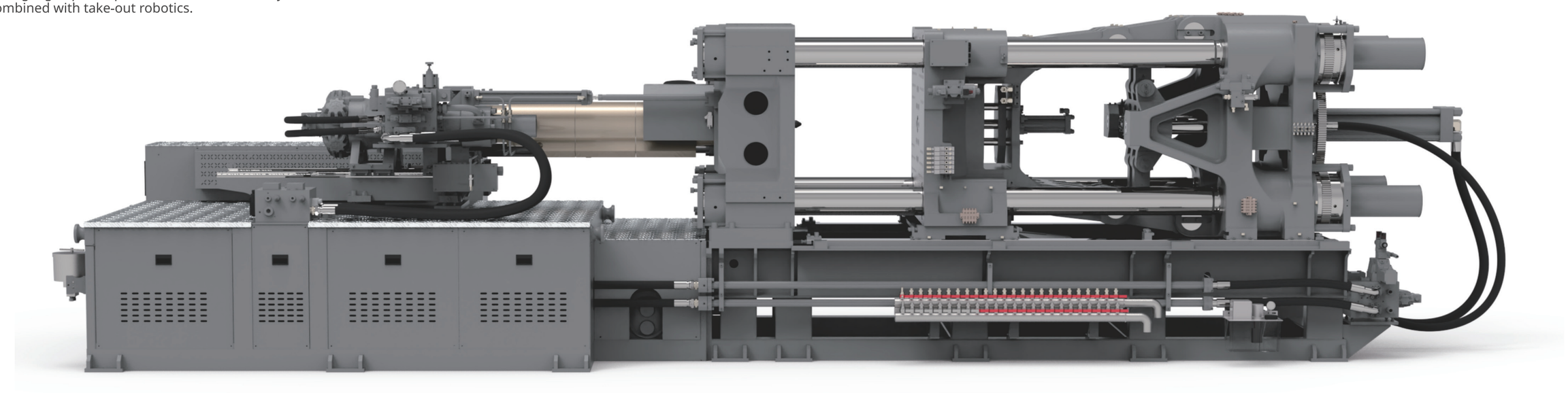
Hydraulics

No-Weld Piping and Flanges

- Eliminate oil leaks.

Proportional Valve for Clamping

- High positional precision and accuracy of platen movements during high-speed operation for the shortest cycle time when combined with take-out robotics.

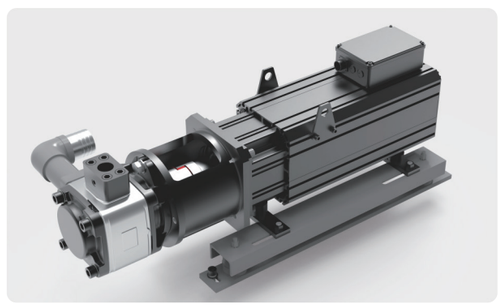


High-Response Servo Drive

- 29% power pack than industry-standard for much higher power efficiency and to tackle the toughest jobs.

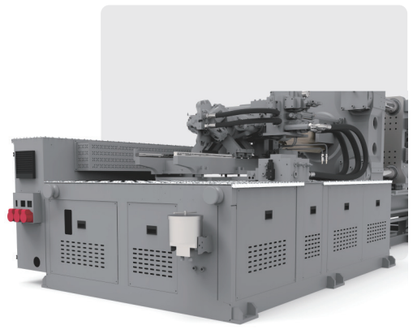
Specialised High-Speed Pump System

- High-efficiency, low-noise internal gear pump designed specifically for high-speed and high-pressure operation.



NAS6 By-Pass Oil Filter

- Ensures clean hydraulic oil and reduces wear on hydraulic components for high long-term stability and usage life.



Photos are for reference only.

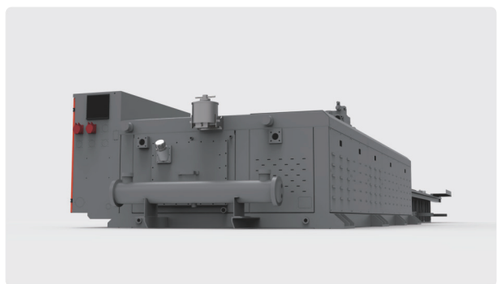
Controls

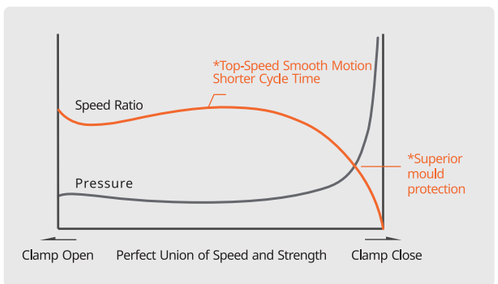
- High-definition 10” TFT colour LED display.
- EtherCAT high-speed digital bus, integrated closed-loop control.
- Complies with IEC and JIS standards.
- Advanced SMT technology with high stability and reliability.
- Intelligent fault diagnostics.

Recovery-on-Fly

- Plasticising during clamp opening and take-out effectively reduces cycle time in many applications.

Other Notable Features





High-Rigidity Machine Base

- Rigidity of the machine base is strengthened by 50% over industry common, with almost 10% lower centre of gravity, ensuring silky-smooth high-speed movements, high stability and repeatability, plus lower defects.

Precision Hydraulics™

- Precise control of hydraulics through high-precision algorithms and patented technology for high efficiency, stability and safety in the entire production process.

iChen Cloud

- **Advanced Production Scheduling (APS)**

  Intelligently optimises production schedules and dispatches based on market demand and actual availability of resources, enhancing production efficiency.

- **Equipment Management (EAM)**

  Centralises equipment information management, providing clear visibility of utilisation rates and improving efficiency and accuracy.

- **Production (MES)**

  Monitor real-time information on planning, progress, quality, processes, and equipment.

- **Quality Management System (QMS)**

  Monitors quality changes through standardisation and process management, enhancing stability and consistency.

- **Warehouse Automation System (WMS + WCS)**

  Improves operational efficiency, optimises layout, enhances inventory accuracy, boosts customer service, reduces costs, and increases safety.

Standard Features

Injection Unit

1.Specialised Screw and Barrel for Thin-Walled Packaging	2.Nozzle Guard	3.Barrel Heating Protection Cover
4.Balanced Dual Injection Cylinders	5.Infrared Heater Bands	6.High-Response Non-Contact Potentiometers for Injection
7.High-Speed Hydraulic Plasticising Motor	8.Recovery-on-Fly	

Clamping Unit

1.Enhanced Platen Design with High Rigidity and Even Clamping Force Distribution	2.High-Performance Chrome-Plated Tie-Bars with Enlarged Diameter	3.Optimised Toggle Design for High-Speed Motion Profile
4.Differential Boost for High-Speed Clamping	5.Mould Adjustment Motor with Brakes	6.Automatic Toggle Lubrication
7.Ergonomic Guard Doors Height	8. Safety Guards with Electrical and Hydraulic Safety Interlock Protection	

Electricals

1.PID Barrel Temperature Control	2.Screw RPM Display	3.Cold Start Prevention
4.Broken Thermocouple Detection Alarm	5.10" LCD Advanced Intelligent Controller	6.Robot Take-out Interface
7.Automatic Mould Thickness and Clamping Force Adjustment	8.Tri-Colour Status Indicator	9.220V/10A Power Socket
10.220V/16A Power Socket	11.380V/32A Power Socket	12.Air Blow
13.Pneumatic Sequential Control	14.Hot-Runner/Valve Gate Control Interface	

Hydraulics

1.High-Response Servo Drive	2.High-Response Hydraulic Components	3.Proportional Valve for Clamping
4.Flared Piping	5.High Precision By-Pass Oil Filter	6.High-Efficiency Oil Cooler
7.High-Efficient Water Manifold (24 in/outs)		

Others

1.Ergonomic Outlook Design	2.Adjustable Hi-Mounts

Optional Features

Injection Unit

1.Customised Design for Screws, Tip Sets and Others for All Applications		2.Ceramic Heater Bands
3.Barrel Insulation Jacket	4.Standard Hopper	5.Stainless Steel Hopper
6.Hopper-Slider	7.eDrive (Electric Plasticising)	

Clamping Unit

1.T-Slots	2.T-Slots + Mounting Holes	3.EUROMAP/SPI Platens
4.Mould Insulation Plates	5.Enlarged Daylight	6.Mechanical Safety Interlock
7.Air Filter for Oil Tank Inlet	8.Ejection-on-Fly	

Electricals

1.Additional 220V/16A Power Socket	2.Additional 380V/32A Power Socket	3.Hot-Runner/Value Gate Control Interface
4.15" LCD touch-screen	5.B&R Computer Controller	6.Feed-Throat Temperature Control
7.Mould Open Position Controlled by Electronic Limiter	8.EU12 Robot Interface	9.EU67 Robot Interface
10.Fully Networkable for Industrie 4.0		

Hydraulics

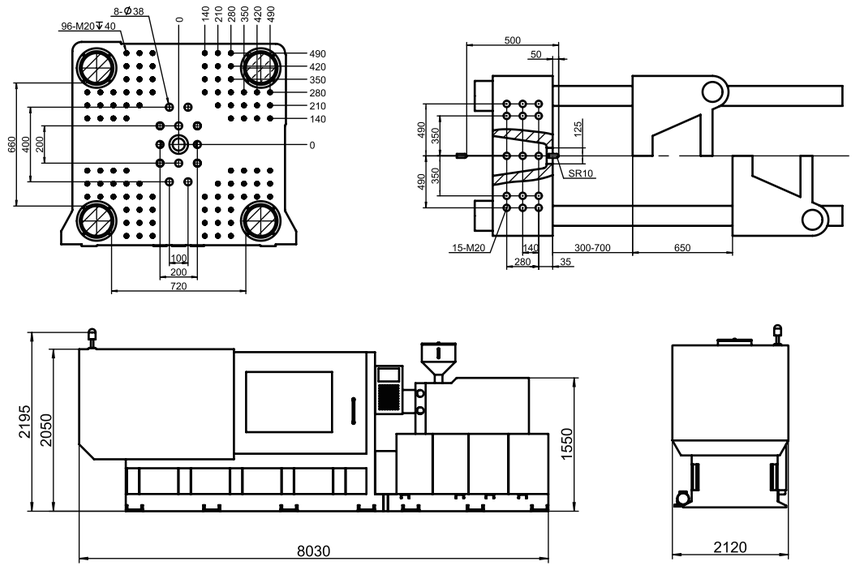
1.Oil Temperature Control	2.Oil Level Display with Alarm	3.Manual Pump for Lubrication
4.Digital Back-Pressure Control	5.Water Flow Regulator	6.High-Stability Hydraulics for High Injection Pressure and Slow Injection Speed

Others

1.Tool Box	2.Loader	3.Dehumidifier
4.Dryer	5.Mould Temperature Controller	6.Take-out Robot
7.Robot Mounting Plate	8.Automation Solutions	

Specifications

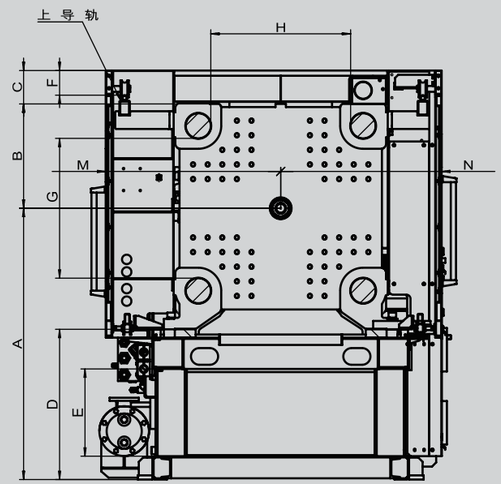
SUPER PACK 428



Injection Unit			Clamping Unit		
Screw Diameter	mm	60	Clamping Unit	Ton	428
Screw L/D Ratio	L/D	26	Opening Stroke	mm	650
Screw Stroke	mm	200	Space Between Tie Bars (HxV)	mm	720x660
Swept Volume	cm^3	565	Mould Thickness (Min)	mm	300
Shot Weight (PS)	g	515	Mould Thickness (Max)	mm	700
	OZ	18.1	Ejector Force	Ton	7.7
Injection Pressure (Max.)	kgf/cm^2	1699	Ejector Stroke	mm	160
Injection Rate	cm^3/s	1328	Mould Register Hole	mm	125
Screw Rotation Speed (Max.)	rpm	300			
Nozzle Stroke	mm	500	Power Pack		
			System Pressure	kgf/cm^2	190
Others			Pump Power	KW	51+51
Machine Dimensions(L*W*H)	mm	8.0x2.1x2.2	Heating Power	KW	25
Machine Weights (Approx.)	ton	19.8	Temperature Control Zone		4+1

*All technical parameters are for reference only and may vary under different conditions. The company reserves the right to modify product specifications and parameters without notice. Final interpretation of this specification sheet belongs solely to the company.

Robot arm Specifications



Series	Model	A	B	C	D	E
SUPER PACK	428	1285	570	134	670	230

Series	Model	F	G	H	M	N
SUPER PACK	428	182	660	720	925	845