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CHEN HSONG

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CH 20260302-CV

CHEN HSONG

DMZ III Series

For Multi-Material Injection Molding

JM-DMZ III, SM-NTP-DMZ III

SINCE 1969

CHEN HSONG

Powering Your Future in Intelligent Injection Molding

Driven by its founding principle, "Your Vision is Our Mission", the Chen Hsong Group, established in 1958 and publicly listed in Hong Kong since 1991, has evolved over nearly 70 years from an injection molding machine manufacturer into a one-stop total solutions provider in plastics manufacturing. As one of the world's largest producers of injection molding machines, Chen Hsong achieves unmatched quality through complete in-house manufacturing. This vertically integrated approach means controlling everything from ductile iron castings, parts fabrication and core components (such as advanced controllers) to final assembly. With a comprehensive product matrix serving diverse industries like automotive and medical, we are also spearheading smart manufacturing upgrades through the iChen™ Smart Family Suite, including the iChen™ Smart Factory MES, iChen™ Cloud platform, and iChen™ AI Molder, making the path to Industry 4.0 easily accessible for our global clientele.

1,000,000m²
R&D and Production Facilities (Five locations)

85+
Countries Globally

1,000,000+
Injection Molding Machines in the Field

120+
Global Technical & Service Centres

Hong Kong Headquarters


Shenzhen Industrial Park Facility — 560000m²


Taiwan Taoyuan Facility — 30000m²


Foshan Shunde - Two Facilities — 150000m²


Zhejiang Ningbo Facility — 70000m²


Shanwei Luhe Facility — 62360m²

Over 1 Million+ Chen Hsong Machines Are in Operation Worldwide.

They all use Chen Hsong.

BYD · &alongs · CHANGHONG · JAKI · DEFY
ALPHA GROUP · SM TOYS · 華隆玩具有限公司 Wah Lung Toys Co., Ltd. · mindray · arçelik
Porsche · Mercedes-Benz · Dawlance · FOXCONN · GREE
TTI · Zen Global · CHINT · Jingjin Equipment Inc. · DAIKIN
FAW · beko · Haier · Midea · Skyworth
vtech · Rotoplas · DONLIM · AEQUS ecosystems of efficiency
BOE · Joybos · PICA · GREEN LEAF

Flexible Multi-Material Injection Molding

Modular Add-On's -- 1 machine+N materials,
More Compact, More Precise, More Energy-Efficient Easily
adaptable to Multiple Applications.

JM-DMZ III
Toggle Clamping
168-468T

SM-NTP-DMZ III
Two-Platen
550-750T

* The above product pictures are for reference only. Please refer to actual product drawings.

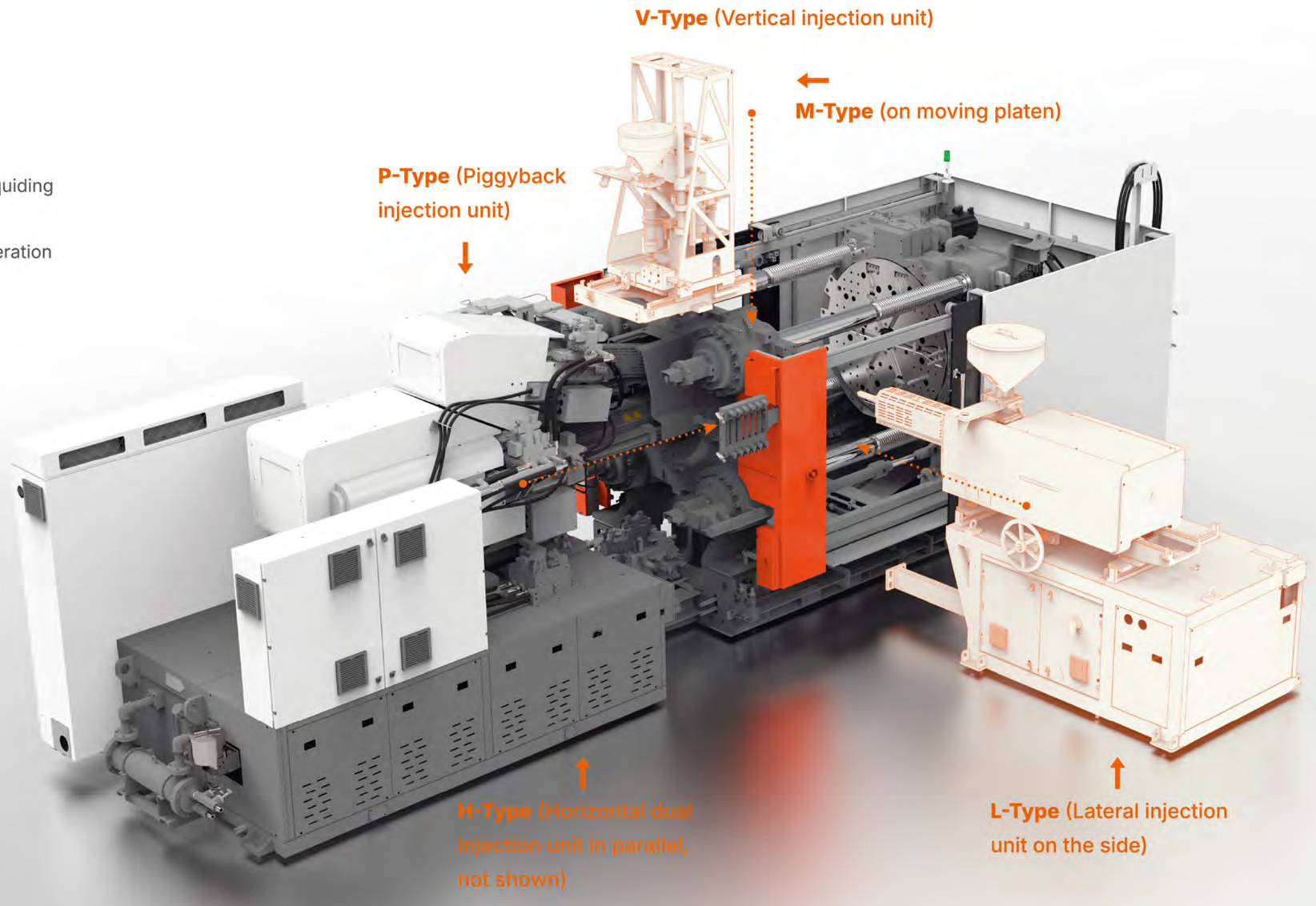
Flexible Multi-Material Injection Molding

Flexible Mix-n'-Match

01. Small footprint: Main and auxiliary injection units, sharing frame and quiding structure; compact layout, significantly saving space.

02. Modular integration: Main and auxiliary units achieve coordinated aperation through rigid connection, reducing redundant components.

03. Flexible switching between single/multi-material production modes



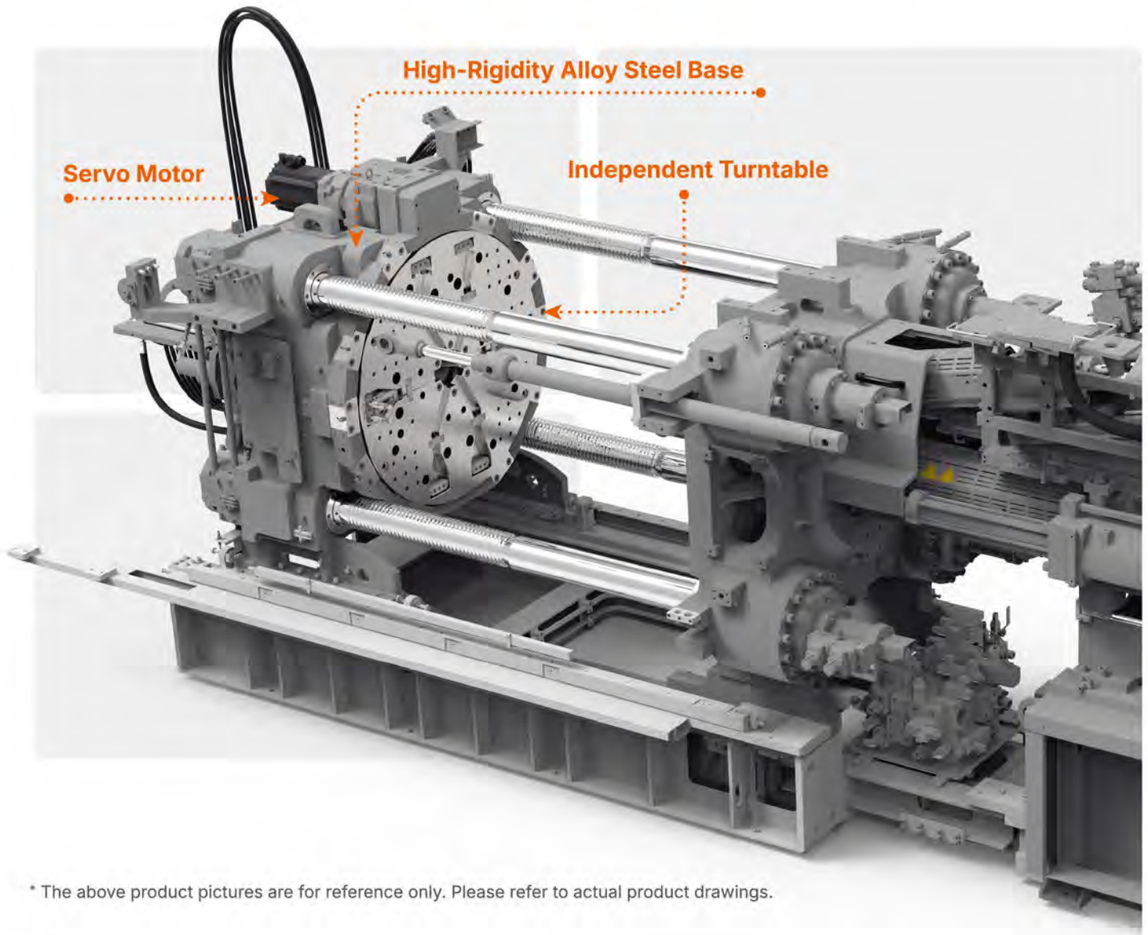
* The above product pictures are for reference only. Please refer to actual product drawings.

Flexible Multi-Material Injection Molding

High Precision Turntable

01. European-style precision turnable design with clearance≤0.15mm (industry average 0.3-0.5mm) yields superior stability. Combined with a high-rigidity alloy steel base, mold alignment accuracy during forming improves by 60%.

02. Driven by a servo motor and paired with closed-loop control via an optical encoder, positional accuracy reaches ±0.005°, improving mold alignment accuracy by 60%. This eliminates misalignment issues, significantly increases yield, ensures high-quality output, substantially reduces material wastage, and achieves cost-effective effciency.



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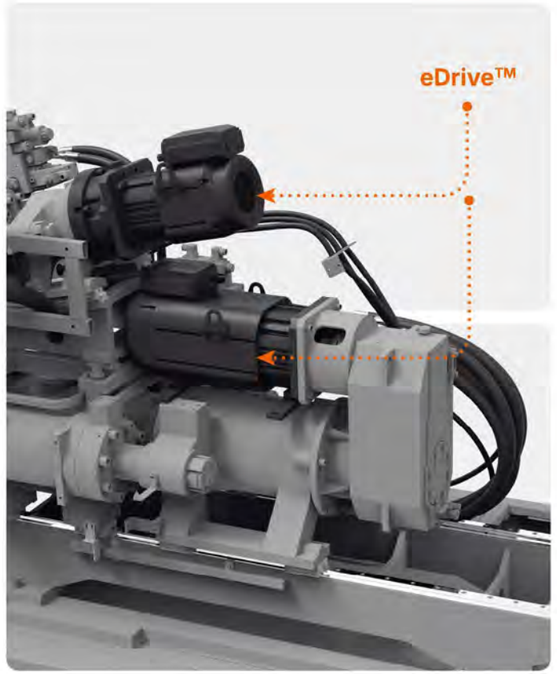
eDrive™

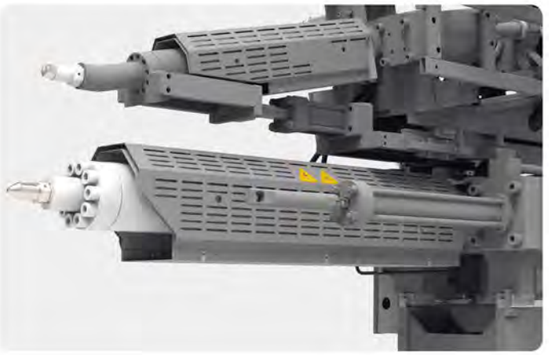
30% increase in efficiency with parallel operations as well as energy saving.

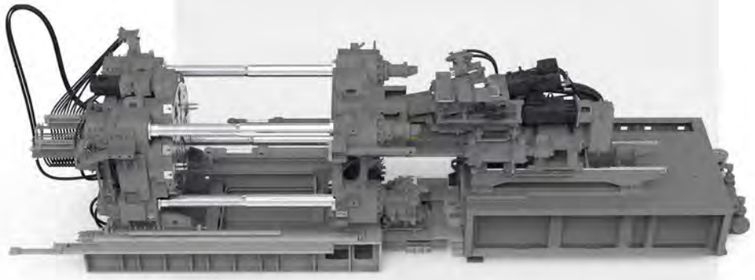


Modular Design: Built for Flexibility

01. Adjustable nozzle distance to accommodate various mold sizes. 10% lower investment with zero-waste expansion-expand as needed, avoid subsequent equipment alterations, maximise investment value.

02. Modular and flexible host architecture supporting rapid injection system changes/upgrades, with seamless multi-station turntable switching to accommodate diverse application needs.





Flexible Multi-Material Injection Molding

New Intelligent Control Unit

15" touch screen, European-standard, advanced controller with high-speed CPU, fast responses, industrial-grade reliabilit and easy-to-operate UI.

01. High-Performance Hardware Configuration
- Powered by Intel Atom Triple-core 1.9GHz processor delivering powerful computing, with fastest task scanning cycle of 0.5ms, The speed of the holding transformation is fast,with the maximum reaching 62.5μs.
- Linux-based to ensure system stability and high-efficiency response.

02. Superior UX
- Large, True-Color TFT touch-screen display providing clear visuals.

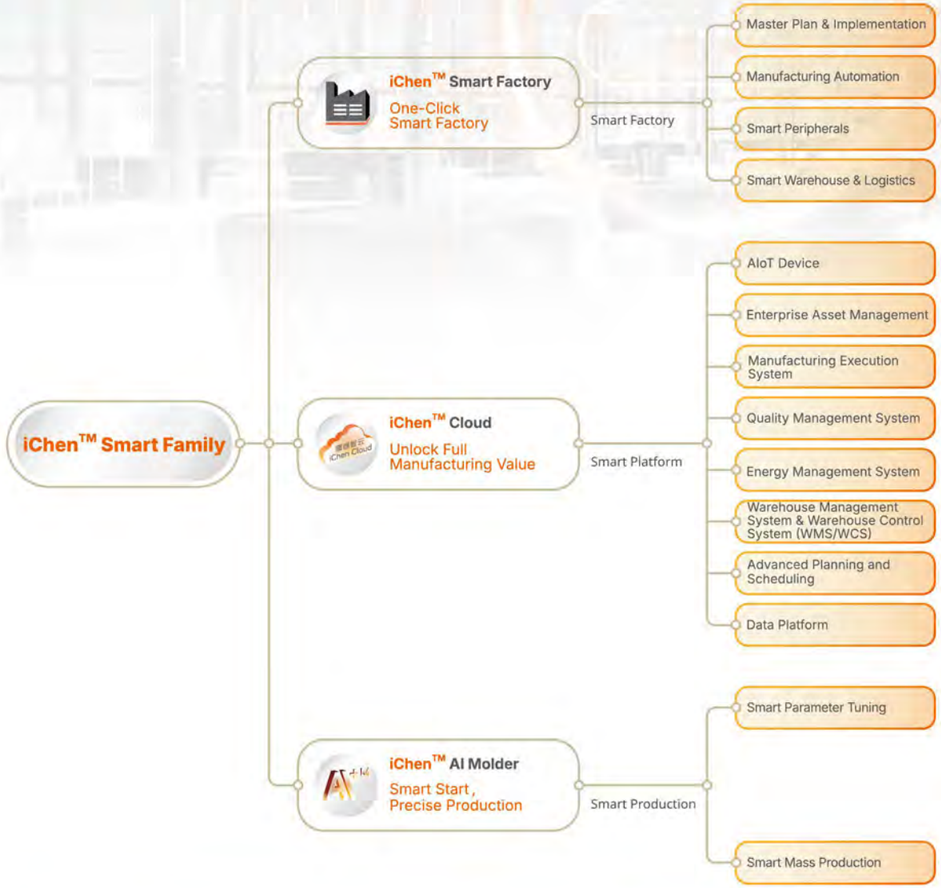
03. Functional Features
- IEC61131-3 compliant.
- Multi-level user authorization.
- i18n (multilingual) support.
- Built-in closed-loop control for motion and temperature.
- EtherCAT digital bus for fast, smooth and precise turntable control.

04. Interoperability
- Supports common industrial buses and mainstream protocols: Modbus, CANOPEN, OPC UA/DA, EtherCAT etc.
- Easy device interconnections for diverse application scenarios.

05. Powerful Adaptability
- Flexible expandability via multiple I/O modules.

* The above product pictures are for reference only. Please refer to actual product drawings.

iChen™ Smart Family



iChen™ Smart Factory

One-Click Smart Factory

iChen™ Smart Factory delivers plant-wide, end-to-end line engineering and integration. Covering planning and design, auxiliary-system configuration, automation, smart peripherals, and warehouse and logistics setup, we integrate the entire production chain and deliver complete turnkey factory projects.

iChen™ Cloud

Unlock Full Manufacturing Value

iChen™ Cloud is a Smart Manufacturing Operations Management Platform covering Artificial Intelligence Internet of Things (AIoT), Enterprise Asset Management (EAM), Manufacturing Execution System (MES), Quality Management System (QMS), Energy Management System (EMS), Warehouse Management System & Warehouse Control System (WMS/WCS), Advanced Planning and Scheduling (APS) , and the Data Platform. Together, these enable end-to-end digital control with real-time visibility and executive dashboards for faster, data-driven decisions.

iChen™ AI Molder

Smart Start, Precise Production

iChen™ AI Molder is an AI-driven injection-molding solution developed by Chen Hsong Group in collaboration with industry–academia research teams. It integrates AI with injection-molding process expertise to recommend and optimize parameters, stabilize mass production, reduce defects, and increase yield.

iChen™ Smart Family

Toggle Clamping | JM-DMZ III

High-Stability Toggle Mechanism

Hydraulic and toggle designs perfectly integrated for smooth clamp opening/closing - both fast and precise.

High-Efficiency Lubrication

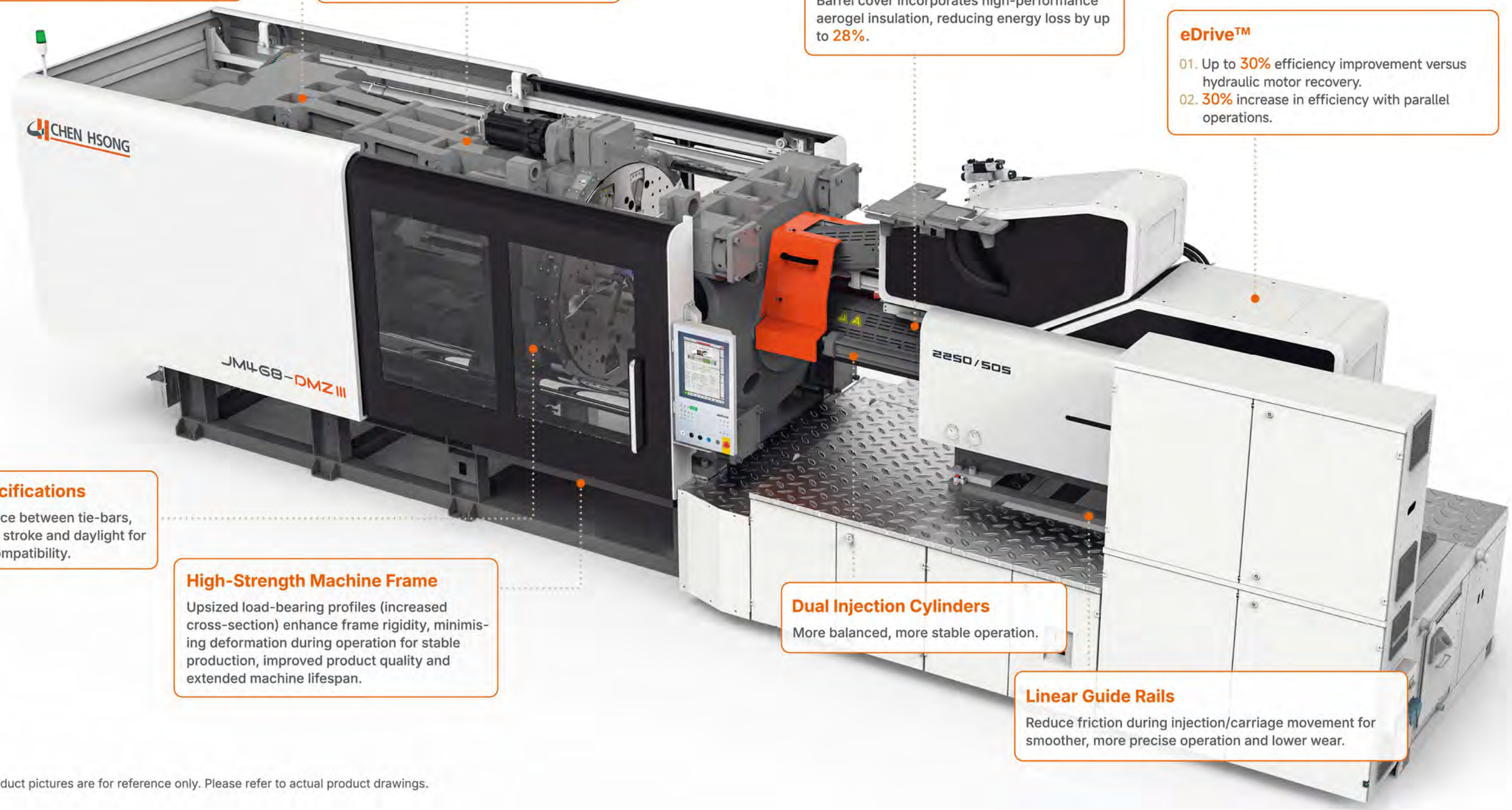
Moving platen and toggle employs oiless bushings with smart lubrication control for superior lubrication, extended component life and worry-free operation.

Aerogel Insulation Unit

Barrel cover incorporates high-performance aerogel insulation, reducing energy loss by up to 28%.

eDrive™

01. Up to 30% efficiency improvement versus hydraulic motor recovery.
02. 30% increase in efficiency with parallel operations.



Large Specifications

Larger distance between tie-bars, long opening stroke and daylight for wide mold compatibility.

High-Strength Machine Frame

Upsized load-bearing profiles (increased cross-section) enhance frame rigidity, minimising deformation during operation for stable production, improved product quality and extended machine lifespan.

Dual Injection Cylinders

More balanced, more stable operation.

Linear Guide Rails

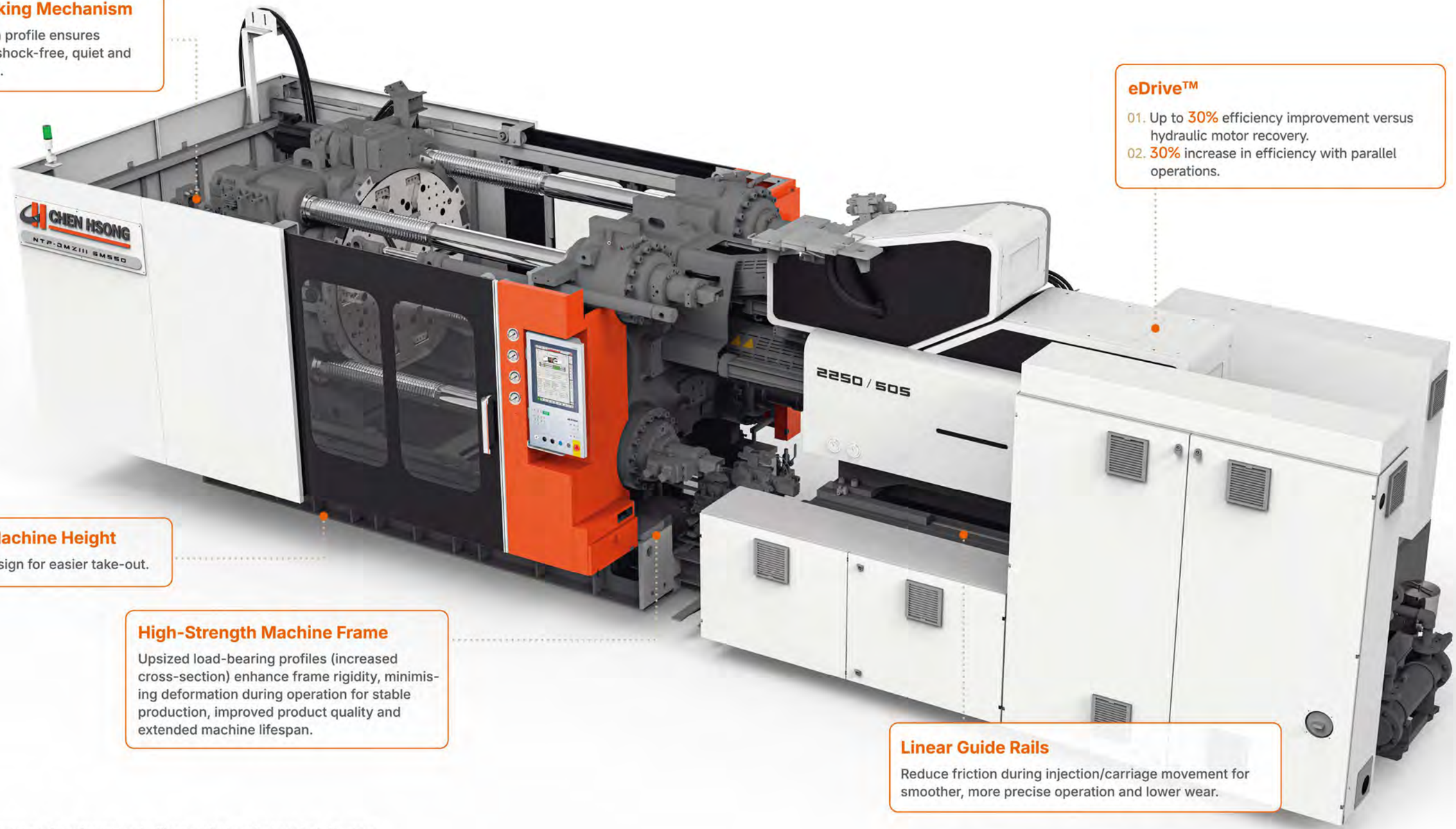
Reduce friction during injection/carriage movement for smoother, more precise operation and lower wear.

* The above product pictures are for reference only. Please refer to actual product drawings.

Two-Platen | SM-NTP-DMZ III

Patented Locking Mechanism

Optimised motion profile ensures balanced, rapid, shock-free, quiet and reliable operation.



eDrive™

01. Up to 30% efficiency improvement versus hydraulic motor recovery.
02. 30% increase in efficiency with parallel operations.

Reduced Machine Height

Ergonomic design for easier take-out.

High-Strength Machine Frame

Upsized load-bearing profiles (increased cross-section) enhance frame rigidity, minimising deformation during operation for stable production, improved product quality and extended machine lifespan.

Linear Guide Rails

Reduce friction during injection/carriage movement for smoother, more precise operation and lower wear.

* The above product pictures are for reference only. Please refer to actual product drawings.

Specifications

| | | Toggle Clamping | | |

DMZ III Series Features

Note: ● Standard, ○ Optional, × Not available, Numbers indicate required quantities.

		JM-DMZ III
CLAMPING UNIT	Servo turntable	●
	Automatic toggle lubrication	●
	Safety door with mechanical and electrical safety interlock protection	●
	Automatic mold thickness and clamping force adjustment	●
	T-slot	●
	High-tensile chrome-plated tie-bars	●
	Ejector rod pull-back mechanism	●
	Adjustable ejector return stroke	●
	Mold locating ring	●
	Turntable cooling water channels - 2 sets (168T-358T)	●
	Turntable cooling water channels - 4 sets (398T-468T)	●
	Euro-standard robot mounting holes	●
	Glass tube water flow metres (6 sets)	●
	Three-station turntable	○
	Four-station turntable	○
	Increase mold thickness	○
	Increased mold opening stroke	○
	Automatic toggle lubrication	○
	Insulation board for mold	○
	Euromap 70 and 70.1 magnetic platen interface	○

		JM-DMZ III
INJECTION UNIT	Servo-Motor Plasticising/Recovery (eDrive)	●
	Modular injection unit assembly	●
	Central lubrication points	●
	Bimetallic screw and barrel	●
	Plastication screw speed display	●
	CNC-controlled back pressure device	●
	Cold material start-up protection	●
	Temperature sensor break detection	●
	Linear guide rails on the injection unit	●
	Nozzle alignment fine-tuning device	●
	Aerogel insulation unit	●
	Multi-component injection molding (≥3 materials)	○
	Barrel cooling water with solenoid valve control	○
	Special material barrel sets (PC, PMMA, etc.)	○
	Automatic injection unit lubrication	○
	Closed nozzle	○
	Injection unit hopper	○
	Mobile hopper unit	○
	Infrared heating bands	○
	Ceramic heater bands	○

		JM-DMZ III
HYDRAULIC UNIT	Low-noise, energy-efficient internal gear oil pump	●
	High-efficiency hydraulic oil cooler	●
	Oil temperature control device	●
	Suction and bypass oil filtration unit	●
	Servo-driven flow and pressure control	●
	Turntable core-pull - 2 sets (288T-468T)	●
	Multiple sequence (injection) valve interfaces	○
	Hydraulic oil level indicator with alarm	○
	Thread-unscrewing function	○
	Synchronised core/ejection	○
	Oversized cooler	○
	Increased power capacity	○
	Hydraulic oil pre-heating	○
	High-stability hydraulic control	○
	Injection closed-loop system	○
	Non-standard core-pull sets (fixed platen, turntable)	○

		JM-DMZ III
CONTROL UNIT	15" intelligent panel	●
	PID temperature control	●
	Tri-color status indicator	●
	Robot interface	●
	Low-pressure mold protection	●
	Electrical safety protection	●
	Nozzle guard with electrical interlock	●
	OPC-UA communication interface	●
	Multiple operation languages available	○
	EU12/EU67 robot interface programme	○
	Controller networking function	○
	Integrated hot runner control system	○
	Moving/fixed platen air blow device	○
	Digital kWh meter	○
	Multiple power sockets	○

* The company keeps upgrading the products and reserves the right to change the product specifications and parameters without prior notice.
The final interpretation to the above specifications and parameters belongs to the company.

DMZ III Series Features

Note: ● Standard, ○ Optional, × Not available, Numbers indicate required quantities.

		SM-NTP-DMZ III
CLAMPING UNIT	Servo turntable	●
	Automatic mold thickness adjustment	●
	High-tensile steel tie-bars	●
	Proprietary moving platen slider mechanism	●
	High-end ductile casted platens	●
	Moving platen multi-core-pull system	●
	Moving platen high-temperature resistant water lines	●
	Water manifold (4 channels each on moving platen)	●
	Euro-standard robot mounting holes	●
	Glass tube water flow metres (6 sets)	●
	T-slots	○
	Three-station turntable	○
	Four-station turntable	○
	Increase mold thickness	○
	Increased mold opening stroke	○
	Increase ejector stroke	○
	Insulation board for mold	○
	Euromap 70 and 70.1 magnetic platen interface	○

		SM-NTP-DMZ III
INJECTION UNIT	Servo-Motor Plasticising/Recovery (eDrive)	●
	Modular injection unit assembly	●
	Central lubrication points	●
	Bimetallic screw and barrel	●
	Plastication screw speed display	●
	CNC-controlled back pressure device	●
	Cold material start-up protection	●
	Temperature sensor break detection	●
	Nozzle clogging and overflow control	●
	Linear guide rails on the injection unit	●
	Nozzle alignment fine-tuning device	●
	Aerogel insulation unit	●
	Multi-component injection molding (≥3 materials)	○
	Barrel cooling water with solenoid valve control	○
	Special material barrel sets (PC, PMMA, etc.)	○
	Automatic injection unit lubrication	○
	Closed nozzle	○
	Injection unit hopper	○
	Mobile hopper unit	○
	Infrared heating bands	○
	Ceramic heater bands	○

		SM-NTP-DMZ III
HYDRAULIC UNIT	Low-noise, energy-efficient internal gear oil pump	●
	High-efficiency hydraulic oil cooler	●
	Oil temperature control device	●
	Suction and bypass oil filtration unit	●
	Servo-driven flow and pressure control	●
	Turntable core-pull - 2 sets (288T-468T)	●
	Multiple sequence (injection) valve interfaces	○
	Hydraulic oil level indicator with alarm	○
	Thread-unscrewing function	○
	Synchronised core/ejection	○
	Oversized cooler	○
	Increased power capacity	○
	Hydraulic oil pre-heating	○
	High-stability hydraulic control	○
	Injection closed-loop system	○
	Non-standard core-pull sets (fixed platen, turntable)	○

		SM-NTP-DMZ III
CONTROL UNIT	15″ intelligent panel	●
	PID temperature control	●
	Tri-color status indicator	●
	Robot interface	●
	Low-pressure mold protection	●
	Electrical safety protection	●
	Nozzle guard with electrical interlock	●
	OPC-UA communication interface	●
	Multiple operation languages available	○
	EU12/EU67 robot interface programme	○
	Controller networking function	○
	Integrated hot runner control system	○
	Moving/fixed platen air blow device	○
	Digital kWh meter	○
	Multiple power sockets	○

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Modular Injection Unit Configuration

(Use new naming scheme)
P: Piggyback
L: Lateral (side)
V: Vertical
M: Vertical on moving platen
H: Horizontal parallel

Standard Optional

	MAIN INJECTION UNIT	AUX INJECTION UNIT			
		340	505	715	1040
JM168-DMZ III	715	Z/L/V	Z/L		
	1040	Z/L/V	Z/L		
JM228-DMZ III	715	Z/L/V	Z/L		
	1040	Z/L/V	Z/L		
JM288-DMZ III	1040	Z/L/V	Z/L/V	Z/L	
	1585	Z/L/V	Z/L/V	Z/L	
	2250	Z/L/V	Z/L/V	Z/L	
JM358-DMZ III	1040	Z/L/V	Z/L/V	Z/L/V	Z/L
	1585	Z/L/V	Z/L/V	Z/L/V	Z/L
	2250	Z/L/V	Z/L/V	Z/L/V	Z/L
JM398-DMZ III	1040	Z/L/V	Z/L/V	Z/L/V	Z/L
	1585	Z/L/V	Z/L/V	Z/L/V	Z/L
	2250	Z/L/V	Z/L/V	Z/L/V	Z/L
JM468-DMZ III	1585	Z/L/V	Z/L/V	Z/L/V	Z/L
	2250	Z	Z/L/V	Z/L/V	Z/L
SM550-NTP-DMZ III	1585		Z/L/V	Z/L/V	Z/L/V
	2250		Z/L/V	Z/L/V	Z/L/V
SM750-NTP-DMZ III	1585		Z/L/V	Z/L/V	Z/L/V
	2250			Z/L/V	Z/L/V



Engineered for Multi-Material Excellence







Encounter Chen Hsong's craftsmanship where least expected

"Your Vision is Our Mission"