



Chen Hsong

📍 Unit 2001, 20th Floor, Citicorp Centre, 18 Whitfield Road, Hong Kong

✉ marketing@chenhsong.com

☎ + 852-2665-3222

www.chenhsong.com

202305



MIKGmax

88-668 Ton



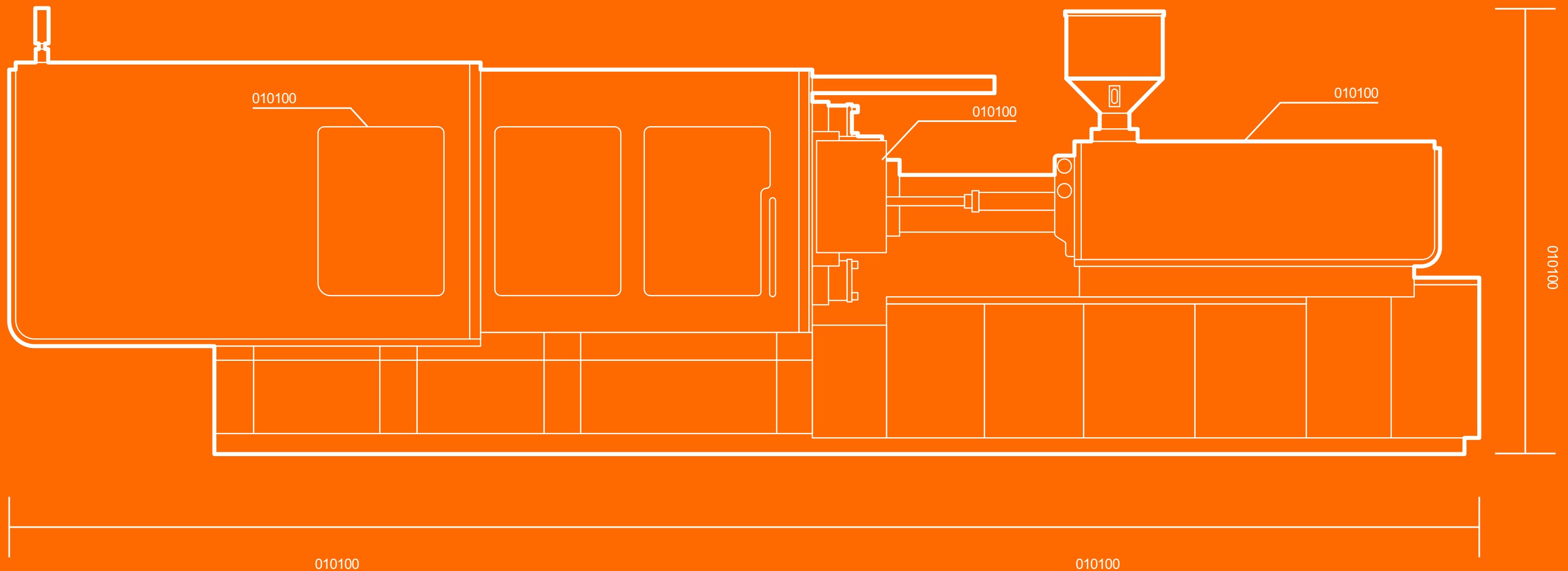
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MK6 max (the Luxury model) Luxury Configuration for Maximum Satisfaction

Redefining Professionalism,
Performance and Value for The Plastics Industry

The MK6 max is a new member of the world-renowned MK6 series, which was originally created by Chen Hsong and Japanese engineers through combining half a century of applications experience with top-of-the-line advanced technology and controls expertise. With “all frills included”, it provides the maximum configuration, almost luxurious, to cater for all your various moulding needs.

The MK6 max starts from the solid base of the ultra-popular MK6, which was world renowned for rock-solid stability, high yields, and high efficiency, but adds on top all the “fills and options” that make your moulding tasks just so much more pleasant. It is the “luxury model” of the MK6 family.



Luxury Flagship of the Exceptional MK6 Family



Experience (65 Years Since 1958)

Over half a century of applications experience and technical expertise.

Global Reach (100+ Countries Worldwide)

The customer is king, almost literally.
For us, your needs are paramount. We exist to provide value.

Mitsubishi Worldwide Strategic Partner (since 2011)

Adopted world-leading Japanese lean manufacturing practices and the M-System (Mitsubishi quality system) to give you 100% perfect products, 100% of the time.

Half a Century of Applications Expertise, Working for You

65 years of focusing on nothing but injection moulding technology – professionalism and technical capabilities you can trust.

65

Years of Excellence
Since 1958

20,000

Sets / year
One of the largest manufacturers of injection moulding machines in the world

200+

Patented technologies

Operates
800,000 m²

of production facilities
With global presence

In Pursuit of 100% Complete Satisfaction

Your Need is our Command



Partnership of The Titans

In 2011, Chen Hsong joined forces with Mitsubishi (Japan) to form a worldwide strategic partnership covering the full range of technical and manufacturing cooperation.




Shioda-sensei, ex-Chief Engineer of Mitsubishi, joined as technical consultant, up-lifting a complete overhaul of Chen Hsong's technical capabilities, including advanced hydraulics, mechanical design and motion control.

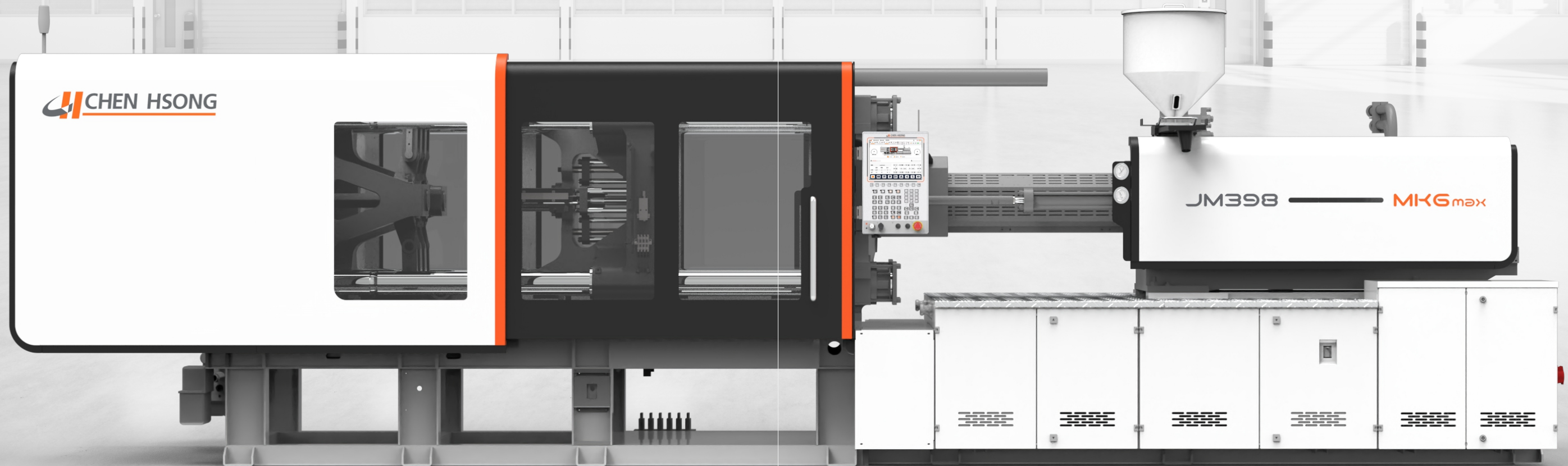
Redefining Professionalism, Performance and Value for The Plastics Industry

- 01 Luxury ergonomics 02 Luxury controller 03 Luxury configuration
- 04 Luxury specifications 05 Luxury performance 06 Luxury experience

Luxury Ergonomics

Beauty is both internal and external

-  **Professional ergonomics**
User-friendly and easy to operate
-  **Optimised structural design**
High-strength construction with rock-solid stability
-  **Masterpiece of industrial design**
High precision with exceptional efficiency.



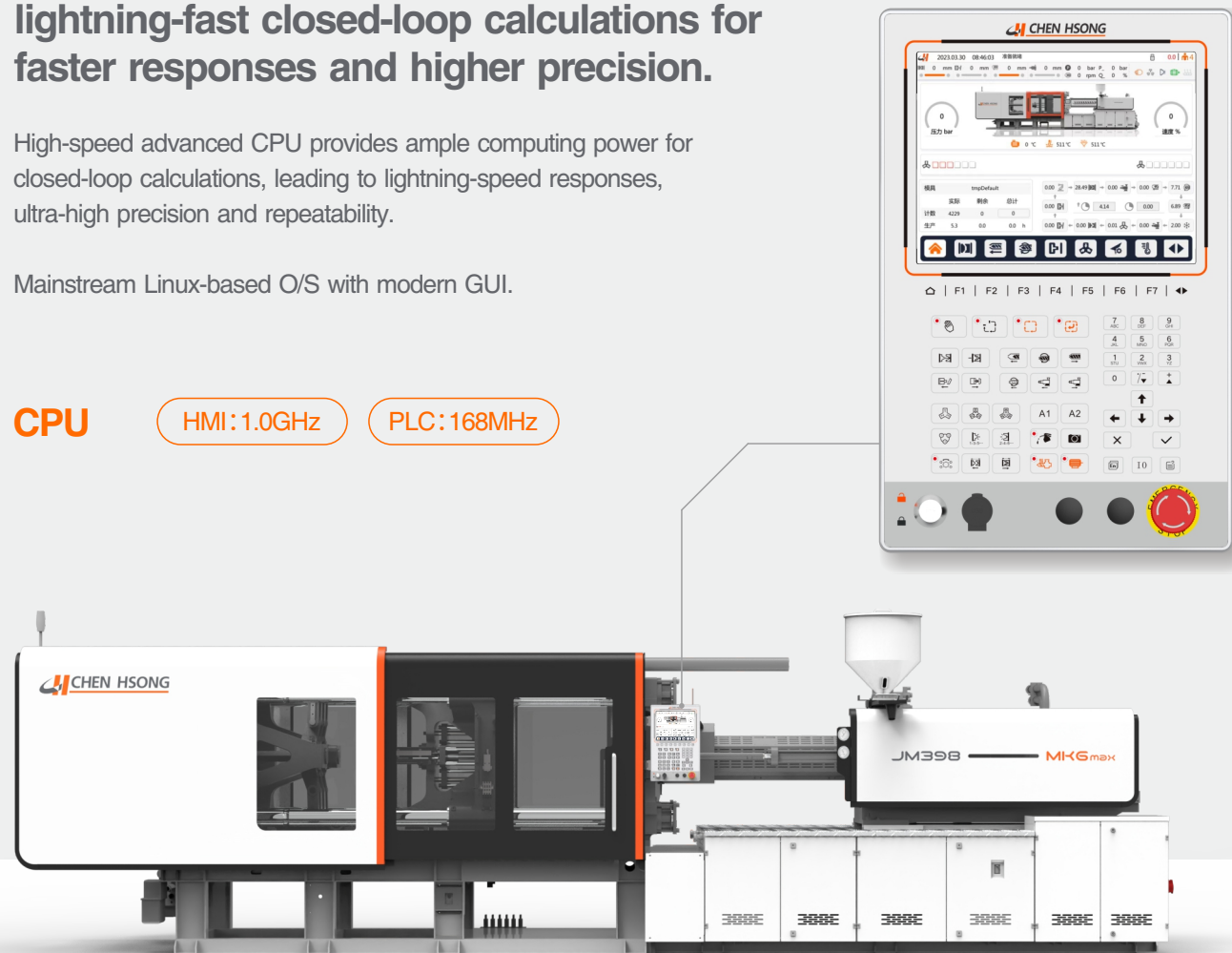
12” Next-gen Intelligent Computer Controller

Advanced high-speed CPU enables lightning-fast closed-loop calculations for faster responses and higher precision.

High-speed advanced CPU provides ample computing power for closed-loop calculations, leading to lightning-speed responses, ultra-high precision and repeatability.

Mainstream Linux-based O/S with modern GUI.

CPU HMI: 1.0GHz PLC: 168MHz



The Largest Features Set

All the professional features you'd ever need for demanding applications.

- | | | | |
|--|---------------------------|-------------------------------------|----------------------------------|
| 1 USB socket | 2 Ethernet socket | 3 Smart clamp motion control | 4 Closed-loop injection/ejection |
| 5 Stored mould recipes | 6 Production log | 7 Upgrade system via USB | 8 Settings change audit log |
| 9 Standardised data interchange format | 10 Rapid-setting page | 11 Comprehensive quality monitoring | |
| 12 Built-in digital oscilloscope to monitor any data point value | 13 SPC data logs | 14 One-touch access to pages | |
| 15 Remap I/O | 16 Screenshot at any time | 17 Interface with auxiliaries | 18 Freely programmable movements |
| 19 MES interface | 20 User control | | |

The Most Intelligent

With Chen Hsong's proprietary advanced Japanese motion-control algorithms, running on a top-speed CPU, the highly-intelligent automatic clamping force adjustment mechanism achieves precision within $\pm 5\%$ of your set-point value without any human interaction.

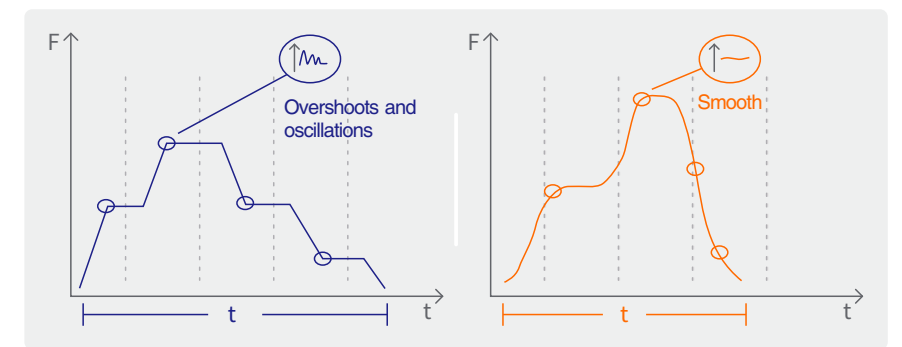
There is no longer any need to rely on expensive high-precision transducers, experienced technicians or "black arts" for fine-tuned clamping adjustments. In the end, much fewer errors are made.



MK6 max intelligent auto clamp adjustment

Dedicated page for one-touch operation

Simple and easy-to-use interface



Shorter cycle time and smoother clamp motion.

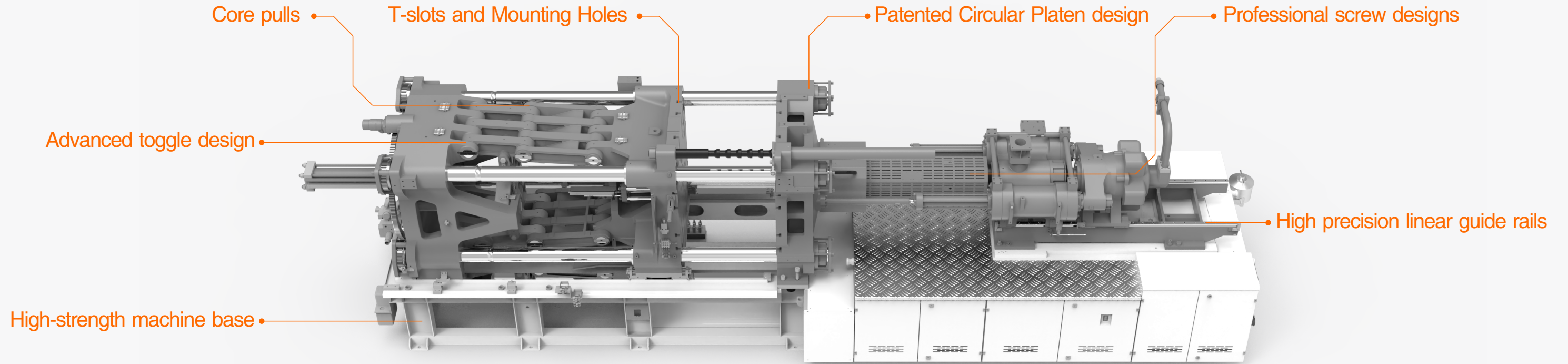
The Most Highly Connected



Easy and effective Industry 4.0 smart manufacturing, now at your fingertips, with Chen Hsong's Mega Cloud online data platform. True IOT connectivity, remote control and diagnostics, and fully networked productivity.

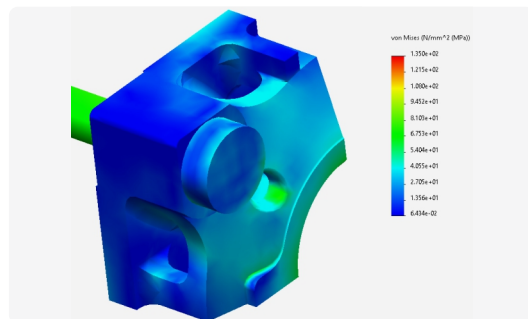
*** iPad visualisation interface**

Luxury Components

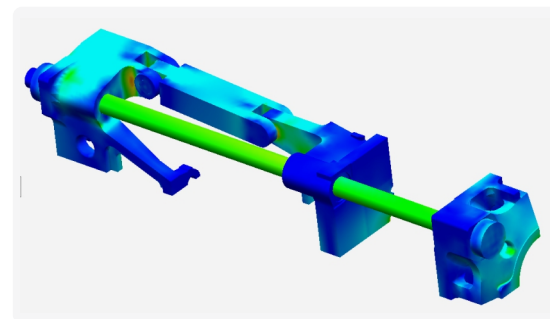


Patented Circular Platen Design

Proprietary Circular Platen design (patented) is a technological marvel perfected from years of detailed structural analysis, ensuring smooth stress distribution throughout the platen for maximum part quality and mould protection.



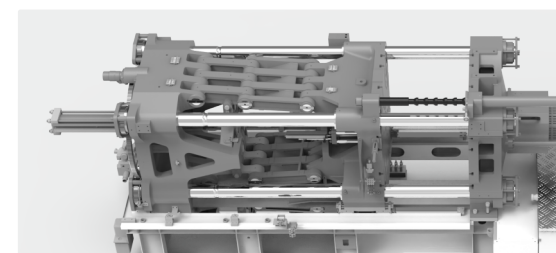
Optimised platen design has superior stress distribution, ensuring perfect part quality



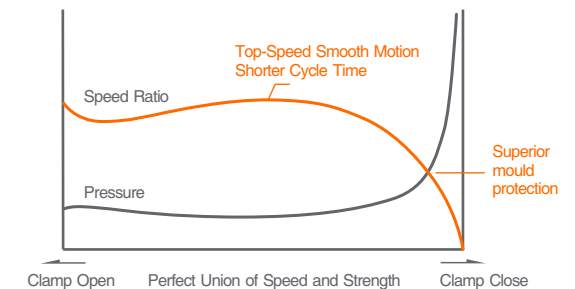
High-tensile tie-bars

Advanced Toggle Design

Professional Japanese mechanical experts took the latest and newest in toggle design and hand-fitted a motion-control profile based on large amounts of software simulation and real-life verification. This combination largely avoids unnecessary friction and shocks among mechanical components, distributes tension uniformly to all tie-bars, and ensures high degree of parallelism, in order to prevent flashes on parts and reduce toggle wear. The result is a toggle system that moves snappily, silky-smooth and with no vibrations, improving power efficiency and usage life while protecting against mould damages and unscheduled downtime.

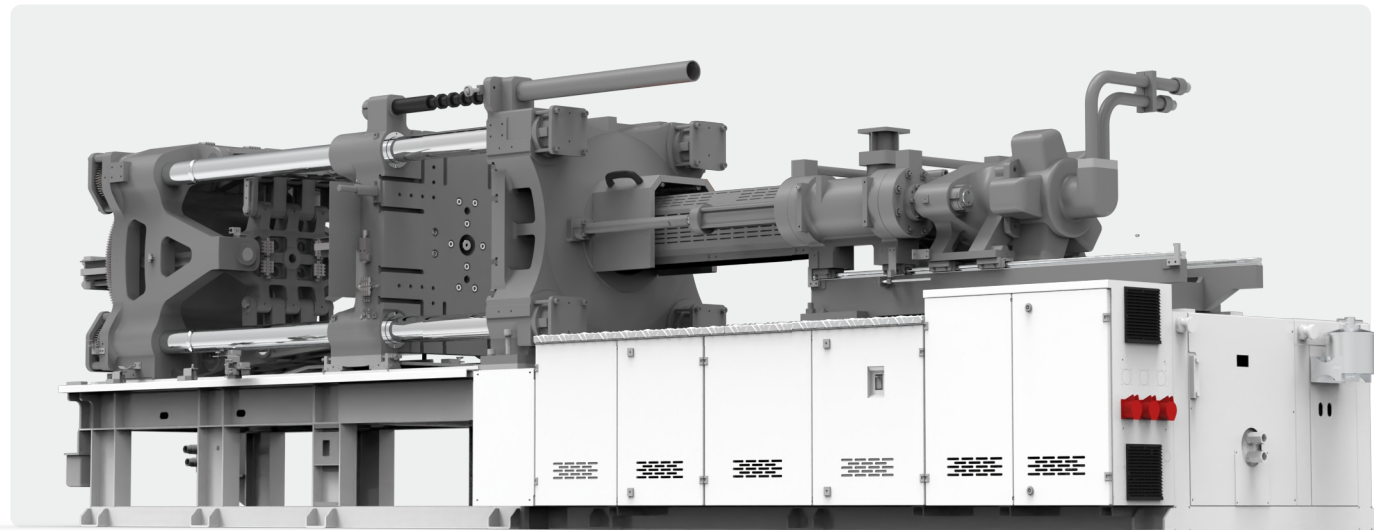


Perfect Union of Toggle Design and Hydraulics
Fast and Precise

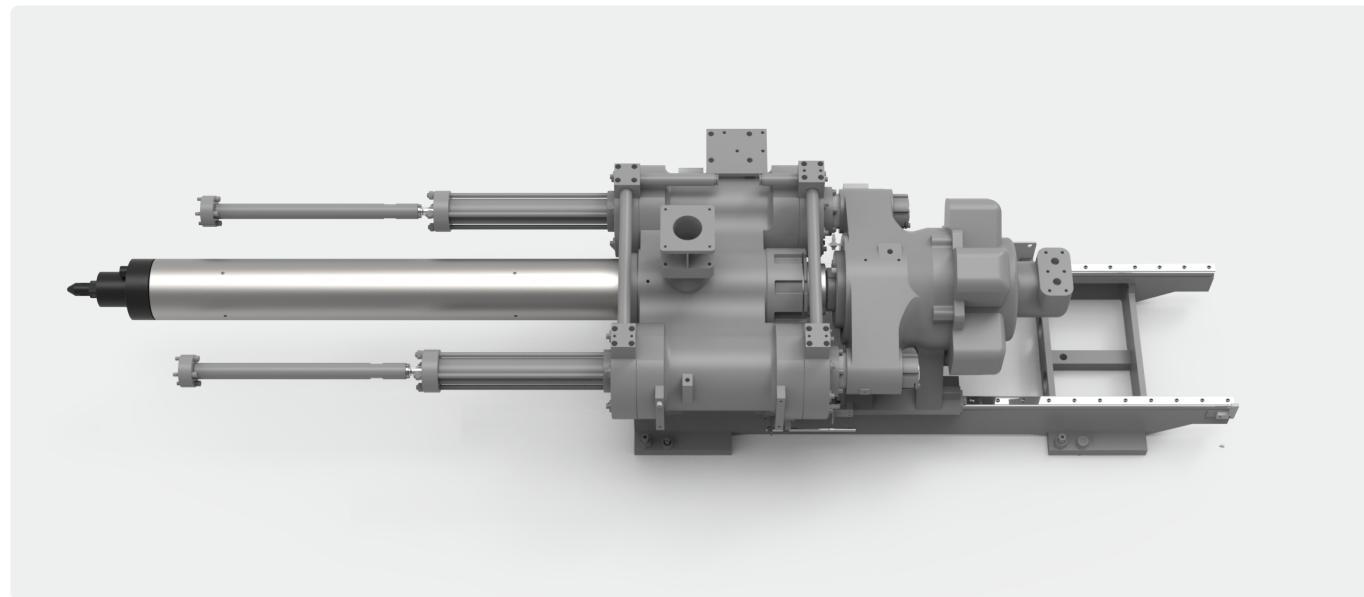


High-strength Machine Base

Improved structural stability, reduced deformation and enhanced torsion resistance from thicker and stronger I-beams that make up the machine base, plus an optimised design created through high-end computer stress simulations of various loading conditions.



High Precision Linear Guide Rails



Silky-smooth – low friction **Precision** – better control and accuracy leads to higher precision

Reliable – longer usage life **Stable** – higher positional accuracy for higher yields

Fast – low friction enables higher speeds and better control

Luxury Configuration

Professional Screw Designs

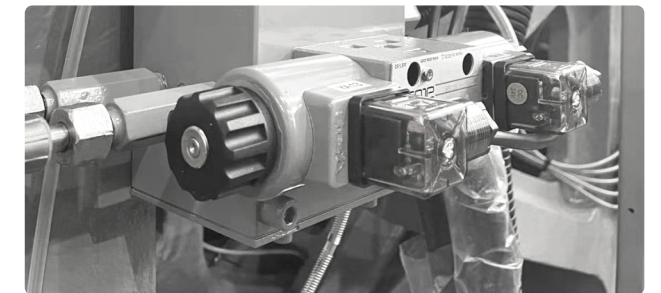
Leveraging over 65 years of application expertise and field experience, professional screw designs are available for an amazingly wide range of applications demands and resins. There is always an optimised screw ready for your particular, unique processing needs.

Versatile mixing screw that provides the right balance of speed, melt quality and mixing capabilities.



Core Pulls

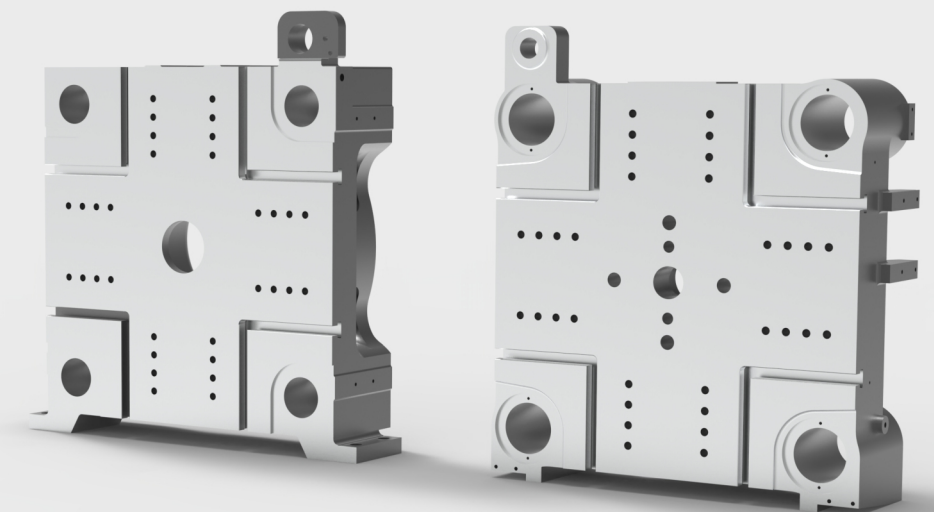
Model	Core pulls
88T-208T	1 set
258T-568T	1 set plus 1 reserved slot
668T	2 sets



T-slot with Mounting Holes, Exquisite Quality

Significantly reduces mould changing time

40%



Luxury Specifications

Larger Daylight

For deeper moulds

Larger Power Pack

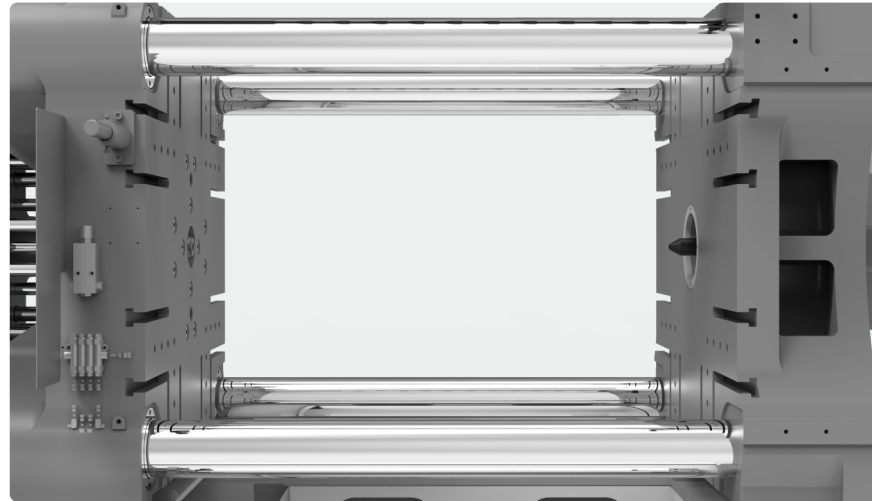
For higher speed, pressure and efficiency

Larger Space Between Tie-bars

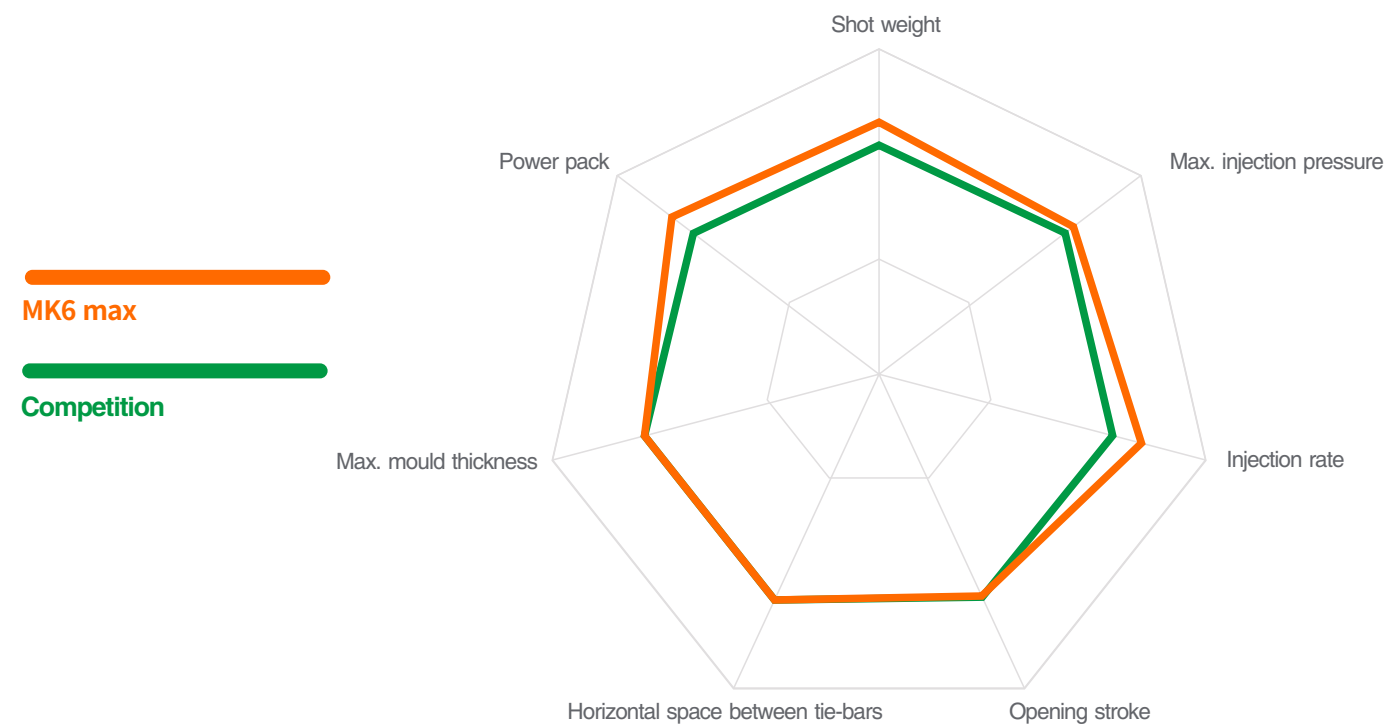
For larger moulds

Longer Opening Stroke

For deep-cavity parts



Luxury Performance



Luxury Experience

Experience Rock-solid Stability



Only the best machining equipment (e.g. Japanese FMS's and CNC's) are good enough to produce core components for the MK6 max, which all but guarantees reliability and stability for long years of operation.

Experience Superior Yields



Your requirements are many and varied, sometimes requiring just the right combination of options and specifications for the right job. The MK6 max has it all, and you are unlikely to need anything extra in general moulding.

Experience Exceptional Productivity



With its larger specifications and power packs, plus no-compromise configurations, the MK6 max gives you the productivity you deserve.

Standard Features

Clamping Unit

- 1 Automatic toggle lubrication 2 Automatic mould thickness and clamping force adjustment 3 EUROMAP ejector
- 4 Hydraulic core pulls 5 Safety door with mechanical and electrical safety interlock protection 6 T-slots
- 7 Adjustment-free mechanical safety lock 8 High-tensile chrome-plated tie-bars
- 9 Differential boost for high-speed clamping

Injection Unit

- 1 Nitrided screw and barrel 2 Automatic PID temperature control (including nozzle) 3 Screw RPM display
- 4 Nozzle guard 5 Digital back pressure control 6 Cold start prevention 7 Barrel safety cover
- 8 Broken thermocouple detection alarm 9 Blocked nozzle and overflow detection
- 10 Movable hopper 11 Ceramic heater

Hydraulics

- 1 Oil temperature control 2 Low-noise internal gear pump 3 High efficiency oil cooler 4 Suction and return line filter
- 5 Pressure controlled by servo system

Controller

- 1 12" touch-screen panel 2 Tri-colour status indicator 3 Robot interface

Optional Features

Clamping Unit

- 1 Additional core pulls 2 EUROMAP 12 or EUROMAP 67 robot interface with connectors 3 SPI mould platen
- 4 Mould hanger 5 Multi-function air blast device 6 Ejection-on-fly/ core-pull-on-fly 7 Increase ejector stroke
- 8 Increase mould thickness 9 Insulation board for mould

Injection Unit

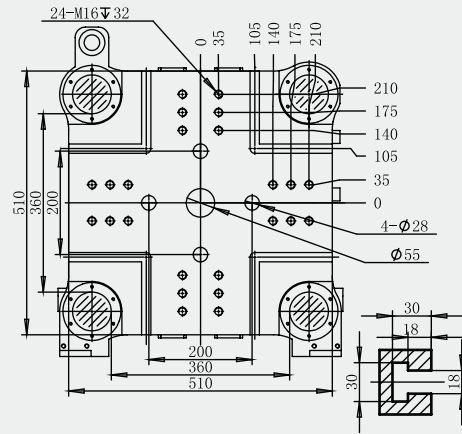
- 1 Bimetallic barrel 2 Barrel thermal insulation cover 3 Reduced/ enlarged injection unit 4 Stainless-steel hopper
- 5 Cooling ring with temperature control 6 Extended nozzle 7 Shut-off nozzle
- 8 Chrome plated nozzle 9 Bimetallic screw 10 PVC specialised injection units 11 Infrared barrel heating system
- 12 Mixing screw head 13 Fans on barrel

Hydraulics

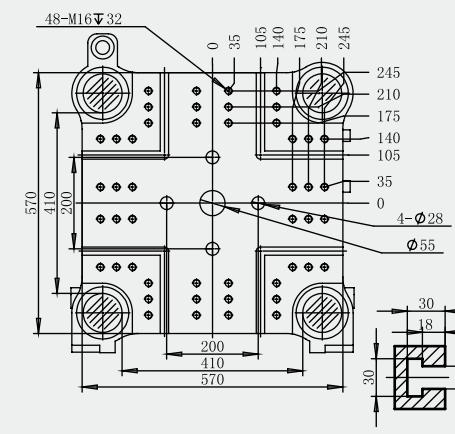
- 1 Oil level alarm 2 Unscrew 3 Larger screw motor 4 Larger oil cooler
- 5 Larger power pack 6 Hydraulic oil preheat 7 High stability hydraulic control

Controller

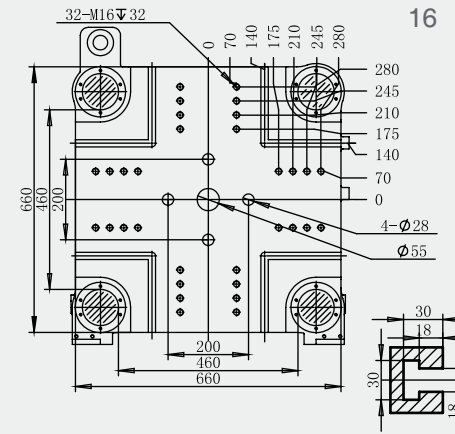
- 1 Feed-throat temperature control 2 Hot runner temperature control



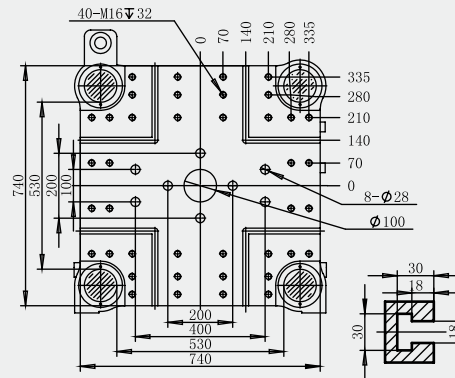
JM88-MK6 max



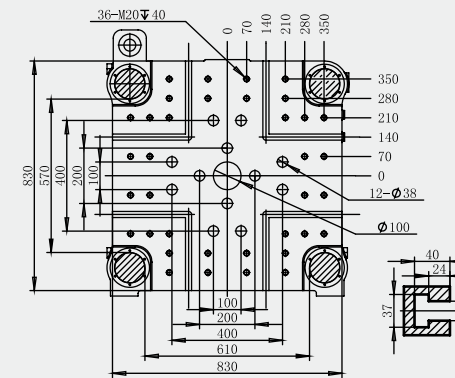
JM128-MK6 max



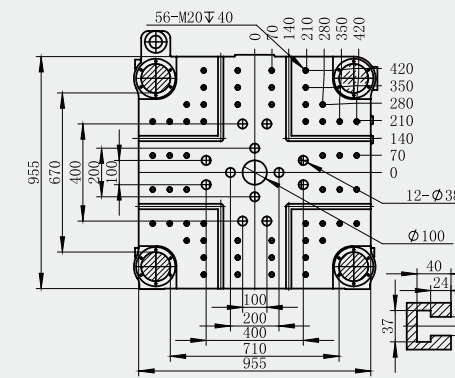
JM168-MK6 max



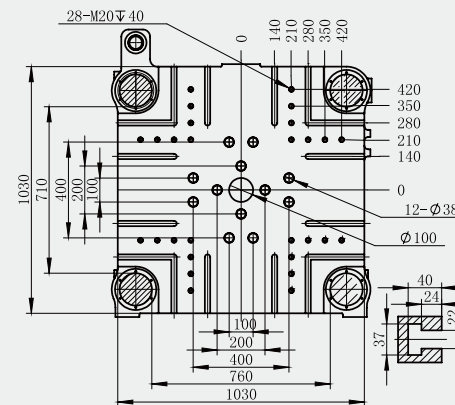
JM208-MK6 max



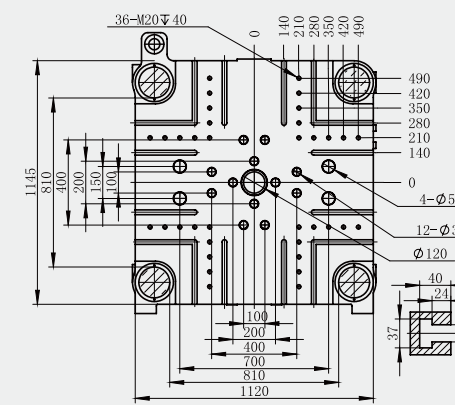
JM258-MK6 max



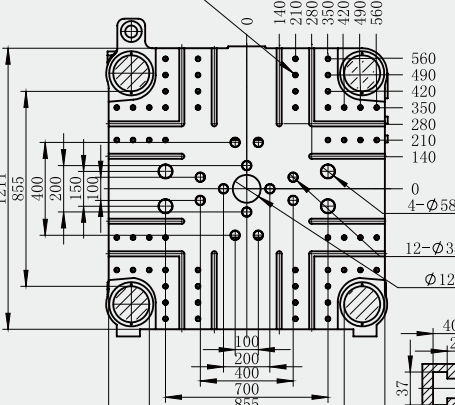
JM328-MK6 max



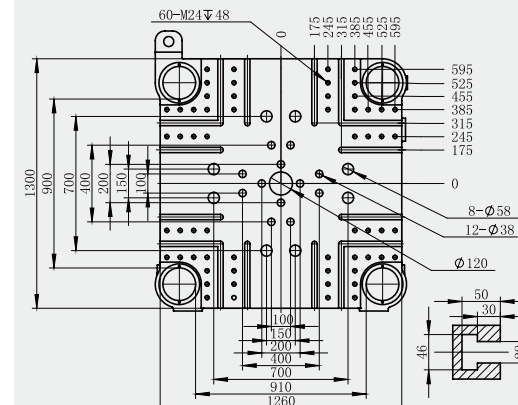
JM398-MK6 max



JM468-MK6 max



JM568-MK6 max



JM668-MK6 max

MK6 max Specifications

Injection Unit		JM88-MK6 max			JM128-MK6 max			JM168-MK6 max			JM208-MK6 max			JM258-MK6 max			JM328-MK6 max			JM398-MK6 max			JM468-MK6 max			JM568-MK6 max			JM668-MK6 max					
Screw Diameter	mm	31	36	41	36	41	46	41	46	52	46	52	60	52	60	67	60	67	75	67	75	83	75	83	90	75	83	90	83	90	98			
Screw L/D	L/D	24.4	21.0	18.4	23.9	21.0	18.7	23.6	21.0	18.6	23.7	21.0	18.2	24.2	21.0	18.8	23.5	21.0	18.8	23.5	21.0	19.0	23.2	21.0	19.4	23.2	21.0	19.4	23.9	22.0	20.2			
Screw Stroke	mm	180			205			230			260			300			335			375			415			415			450					
Calculated Injection Capacity	cm ³	135	183	237	208	270	340	303	382	488	431	551	734	636	847	1057	946	1180	1479	1321	1655	2027	1832	2244	2638	1832	2244	2638	2433	2861	3392			
Practical Injection Shot Weight (PS)	g	123	166	216	189	246	309	276	347	444	393	502	668	579	771	962	861	1074	1346	1202	1506	1845	1667	2042	2401	1667	2042	2401	2214	2603	3087			
	oz	4.4	5.9	7.6	6.7	8.7	10.9	9.7	12.3	15.7	13.9	17.7	23.6	20.4	27.2	33.9	30.4	37.9	47.5	42.4	53.2	65.1	58.8	72.0	84.7	58.8	72.0	84.7	78.1	91.8	108.9			
Injection Pressure (Max.)	kgf/cm ²	2529	1875	1446	2302	1775	1410	2233	1774	1388	2295	1796	1349	2365	1777	1425	2263	1815	1448	2255	1799	1469	2165	1768	1504	2165	1768	1504	2137	1818	1533			
Injection Rate	cm ³ /s	96	129	167	111	144	181	160	201	257	155	199	265	192	255	318	313	391	490	323	404	495	472	578	679	472	578	679	483	568	674			
Screw Speed	r/min	250			250			250			180			183			220			178			185			180			175					
Nozzle Contact Force	ton	4.5			4.5			4.5			4.5			9			9			9			9			9			9					
Nozzle Stroke	mm	250			250			250			280			330			360			420			420			420			460					
Clamping Unit																																		
Clamping Force (Max.)	ton	88			128			168			208			258			328			398			468			568			668					
Opening Stroke	mm	330			370			420			490			530			640			700			770			835			920					
Space Between Tie Bar (HxV)	mmXmm	360x360			410x410			460x460			530x530			610x570			710x670			760x710			810x810			855x855			910x900					
Mould Thickness (Min.-Max.)	mm	130-380			145-450			160-520			180-550			195-610			220-680			250-730			275-810			330-850			350-900					
Max. Daylight Between Platens	mm	710			820			940			1040			1140			1320			1430			1580			1685			1820					
Ejector Force (Max.)	ton	2.8			4.2			4.2			6.7			7.7			7.7			11.1			11.1			16.6			18.2					
Ejector Stroke	mm	100			120			140			150			170			170			220			220			250			265					
Centre Bore	mm	100			100			125			125			125			125			160			160			160			200					
Power Pack																																		
System Pressure	kgf/cm ²	175			175			175			175			175			175			175			175			175			175			175		
Pump Power	kW	16			19			24			24			31			60			60			80			80			80					
Barrel Heating	kW	9.4			13.5			17.1			20.7			26.3			34.3			42			49.2			49.2			59.3					
Temperature Control Zones		3+1			3+1			3+1			3+1			4+1			4+1			5+1			5+1			5+1			6+1					
Others																																		
Machine Dimensions (LxWxH)	mXmXm	4.4x1.2x1.9			4.7x1.3x2.0			5.3x1.4x2.0			5.9x1.5x2.1			6.5x1.6x2.3			6.9x1.7x2.4			7.8x1.8x2.3			8.3x1.9x2.4			8.6x2.0x2.4			9.6x2.2x2.5					
Oil Tank Capacity	L	160			190			240			280			400			520			690			730			730			870					

Note: PS density is calculated at 0.91g/cm³

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.