



中国的华美达，世界的工匠心

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SP III 第三代 高速精密注塑机

HIGH SPEED INJECTION MOLDING MACHINE
FOR THIN-WALL PRODUCTS



2020年5月修订

宁波华美达机械制造有限公司

NINGBO HWAMDA MACHINERY MANUFACTURING CO., LTD.

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HWAMDA INTRODUCTION 公司简介



宁波华美达机械制造有限公司地处“中国塑机之都”的浙江省宁波市，是一家专业化生产塑胶注塑成型机械的高新技术企业，经过不断的技术创新，公司开发制造的产品已广泛应用于汽车、电子、医疗、包装等众多注塑制品行业，目前，华美达已经成长为具有规模和雄厚竞争实力的注塑机械研发制造企业。

华美达公司拥有4个生产基地，超过10万平方米厂房设施，各种大型先进精密加工设备，团结了一支高素质的企业管理与技术创新团队。公司一直致力于高效节能型注塑机的开发生产与市场推广，已成功推出的有伺服节能注塑机、二板注塑机、全电动注塑机、高速精密注塑机、双色注塑机等多个系列各种通用及专用型产品。

为贴近客户，公司大力开拓国际市场，在国内外建立60余处完善的销售机构及海外服务中心，华美达注塑机受到了中东、南美、东南亚、东欧等各个国家和地区客户的使用和欢迎，建立了面向国际市场的营销体系。

华美达公司通过了ISO9001、ISO14001、OHSAS18001管理体系认证以及CE产品认证，所生产的各系列注塑机均配备世界知名品牌的液压、电器及控制系统，引进国际领先设计理念，通过严格的检验、装配、调试，为客户提供最优质的产品与服务。

一流的品质，是华美达执着追求的重要目标。尽力满足顾客需求，以精益求精、开拓进取的企业精神缔造辉煌的未来，公司始终坚持“专心专注，做好塑机”的企业理念，为中国注塑机械产业的发展和提高做出自己的贡献。



CHINA-HWAMDA
THE CRAFTSMANSHIP OF THE WORLD
中国的华美达，世界的工匠心



About us

Ningbo Hwamda Machinery Manufacturing Co., Ltd. is a new and high technology enterprise devoted to manufacture plastic injection machine, lying in the "City of China plastic molding machine" - Ningbo, Zhejiang.

Now, Hwamda Company owns four factories with more than one hundred thousand square meters. There are over 300 workers and staff members, holding together a high-quality team of managers and technical team. Our company always devoted to R&D for high efficiency and energy-saving injection molding machine. At present, our main products including servo motor energy saving machines, two platen machines, full electric machines, high speed machine for thin-wall products, twin-color machines and other standard or special injection molding machines.

Following the idea of serving customers, we have established more than 60 perfect sales & service branch in China and abroad. Hwamda machine has sold to many countries such as Russia, Poland, Mexico, India, Sri Lanka, Egypt, Brazil, Peru, Colombia, etc. Hwamda has gradually set up a marketing system covering both the domestic and overseas markets.

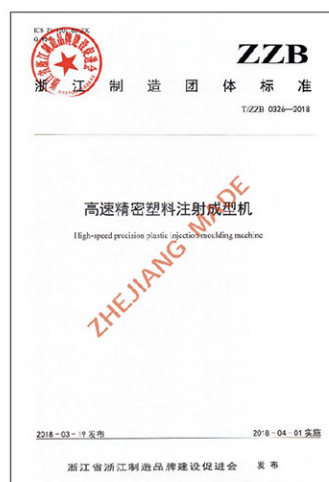
Hwamda has passed the ISO9001, ISO14001, OHSAS18001 and CE certification. All the series of injection machine are equipped with world famous hydraulic & electric elements and control system. Through strict inspection, assembly and test, Hwamda has provided first-class products and services to customers.

"First-class quality" is what we are pursuing the most. We will try our best to meet the requirements of customers and create even better future. Our company firmly sticks to the idea of "With undivided attention to manufacture excellent plastic injection molding machines", and makes our own contribution for the development and improvement of national plastic industry.



高速精密注塑机标准制定者

THE STANDARD MAKER OF HIGH-SPEED PRECISION PLASTIC INJECTION MOLDING MACHINE



一流的装备是生产一流产品的基础和保证。华美达先后斥巨资引进行业领先的制造设备，形成了完善的工艺流程和生产环境，并在生产管理中，坚持“深思熟虑、精益求精”的质量方针，建立起一套完整的质量管理体系。现代科技与有效管理相结合，创造一个制造、检测系统管理的完美体系。

华美达产品之所以能获得广大客户的青睐，有赖于华美达产品质量的精益求精。多年来，华美达始终以国际标准为准则，不断发展产品的科技力量。依靠世界领先的软硬件设备，不断引进、消化、吸收国际最先进的工艺技术，并凭借自身的强大研发能力，迅速成为中国塑机行业综合技术和生产规模极具优势企业。

华美达拥有现代化生产厂房，引进精密数控镗床、钻床、大型卧式龙门铣、进口数控加工中心等先进生产设备，并建有一流的管理中心，具有开发国际先进技术产品的能力。

The first-class production equipment is the foundation and guarantee of first-class products. Hwamda has spent a lot to introduce the industry-leading manufacturing equipments and established a well-formed production process and environment. Holding the idea of “purchasing the excellence quality”, we have formed a comprehensive quality management system and have passed ISO9001 quality system certification long time ago.

With the principle of pursuit high quality product, our product has been adopted by the majority of customer. We always adhere to the international industry-leading standards, and continually to develop our R&D ability. Continuing to introduce, digest and absorb the most leading technology in plastic machinery industry and with our own strong R&D capability, we have become a very competitive enterprises in China plastic

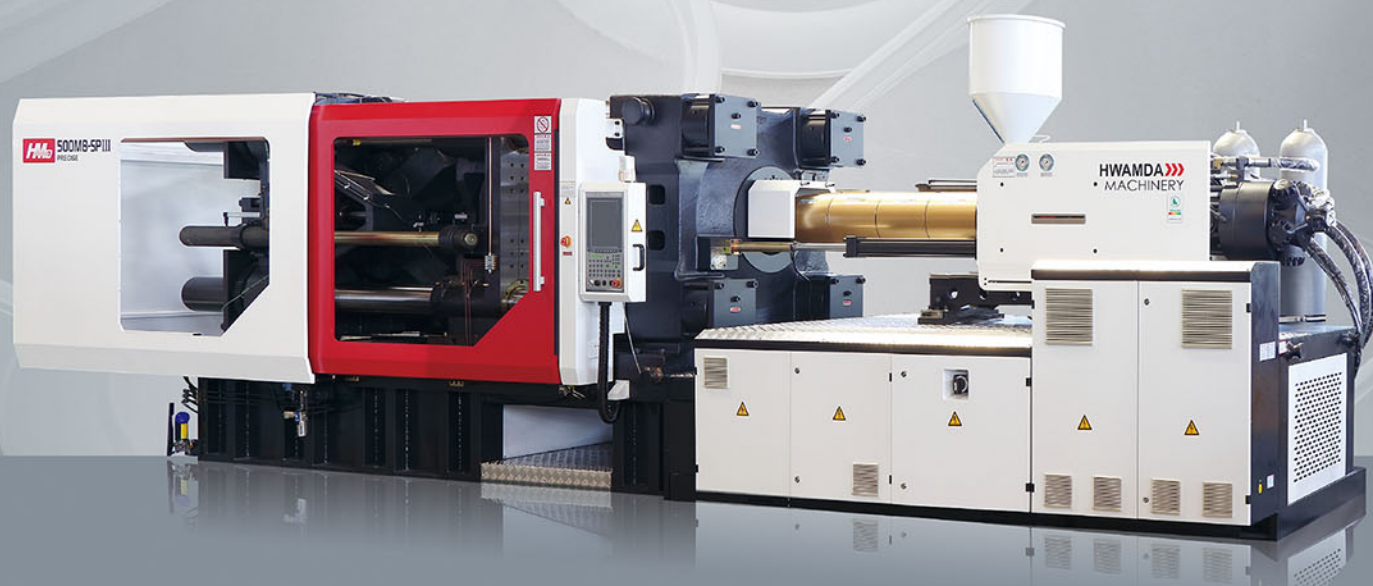
machinery industry both in technology and Production scale.

We have a modern production plant, and introduced precision CNC boring machine, drilling machine, large horizontal gantry milling machine, CNC machining centers, and first-class management center, and we have the ability to develop a international advanced technology products.





SP III 第三代 高速精密注塑机 HIGH SPEED INJECTION MOLDING MACHINE FOR THIN-WALL PRODUCTS



华美达SP系列高速精密注塑机采取“高速低压注射”和“多动作复合运行”设计理念，对锁模机构、润滑系统及油路系统重新设计并作强化处理，在除注射外单个动作运行速度加快15%的情况下，通过多动作复合运行大幅缩短薄壁制品的生产周期，相比普通机型通过加大油泵提高所有动作速度的常规方法，成型周期更短，机械结构及熔胶马达负载更轻，设备运行更加平稳，延长机器使用时间的同时，采用伺服泵设计也更加节能。

Not only high speed/low pressure injection movement and multiple parallel movement the new concept injection machine combined, but also utilized optimized clamping unit and lubrication unit and regenerated hydraulic system, thereby it guarantees a shortened circle time for thin wall products. Comparing with normal type machine, high speed servo series machine priors to both circle time and energy-saving, minimizing the overload of mechanical structure and hydraulic motor, heightening stability and lifespan.



适用成型产品：
APPLICABLE PRODUCTS

快餐盒、酸奶包装盒、冰淇淋盒、PS航空杯、一次性餐具、瓶盖等薄壁制品。
Smack-box, Yogurt packaging, Ice-cream box, PS Aviation cup, Disposable cutlery, Bottle cap etc.



Injection unit

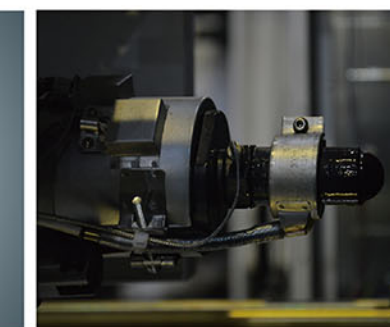
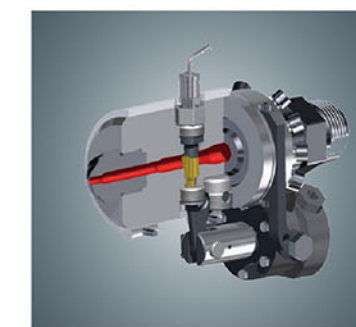
注射单元

1 螺杆料筒 Screw & Barrel

特别设计专用下料螺杆料筒，下料速度快，塑化效果好。配合精密止退环、过胶垫圈设计，大幅提高注射精度。料筒加热圈外部可选装专用设计的保温装置，拆装方便，保温节能，进一步提升塑化品质。Efficiency performance in material feed and high injection precision. Heat-insulated barrel enclosure enhance plasticizing capacity by minimizing the lose of heat.

2 气动喷嘴 Pneumatic Shut-off Nozzle

选配原装进口气动喷嘴，动作迅速，封胶可靠，无流延。Optional standard for Swiss brand Herzog shut off nozzle, it has effectively avoid suck-back.



3 注射油缸双出杆 Double Rod for Injection Cylinder

专用注射活塞杆双出杆设计，受力平衡，可延长射胶油封使用时间。大幅减少高速注射时回油量，从而降低注射时回油阻力。Bi-directional piston rod for injection cylinder.

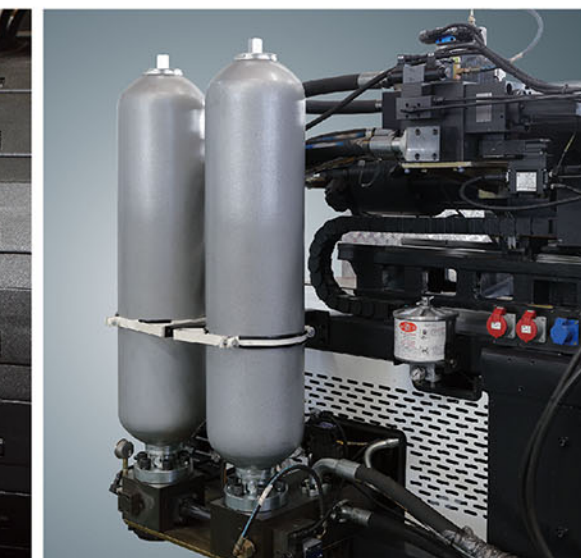
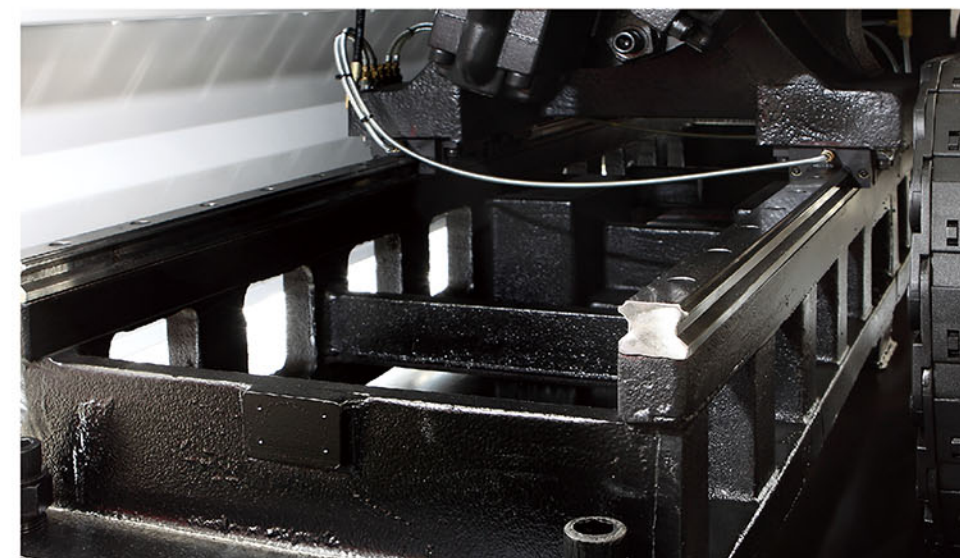
4 低阻力设计 Low Friction Design

射移部分采用线性导轨设计，减少运行时移动部件的摩擦阻力，缩短注射加速时间。

The injection unit use linear guide, to minimize the friction and increase speed when injection.

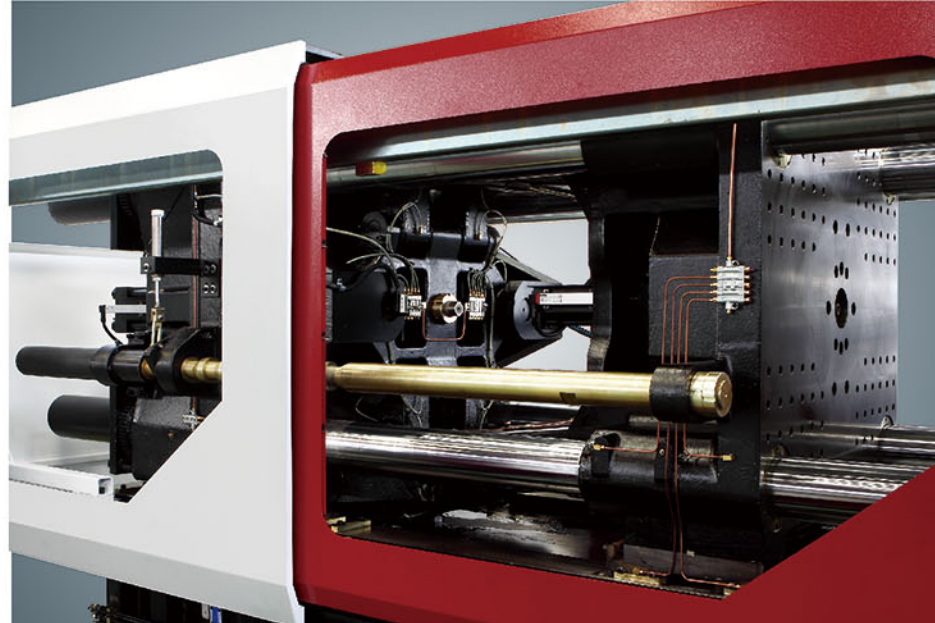
5 高速注射 Injection Speed

引进高速低压注塑及多动作复合运行设计理念，提高薄壁类制品生产效率。Parallel movement and high-speed/low pressure injection movement that shortens circle time, especially for thin wall products.



Clamping unit

合模单元



1 全新设计加强型模板 Platen

采用适合薄壁精密产品成型的加强型模板，经过有限元技术分析，优化结构，降低应力，提升模板刚性。
Improved platen with high rigidity structure. Especially suit to thin-wall products.

2 自润滑钢套、铜套 Cooper Bush

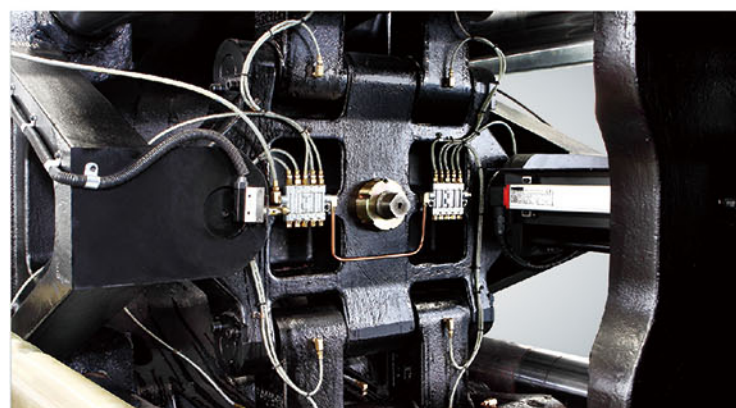
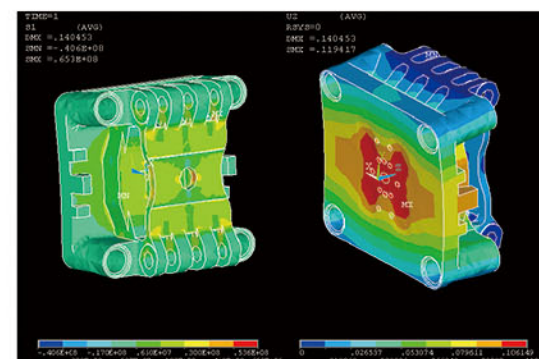
钢套和铜套均采用自润滑设计，减少润滑油用量，保证高速运行时销轴及拉杆的良好润滑。
Self-lubrication bushes ensure high-speed performance.

3 销轴 Pin

采用专用氮化销轴，并加大销轴尺寸，大幅减小销轴的接触应力。
Nitride link with optimized structure and more robustness and stability.

4 拉杆 Tie Bar

拉杆采用合金钢材质并加大设计，延长高速运行工况下的使用寿命。
Equipped with ally metallic tie bar with enhance strength to lengthen the lifespan.



Hydraulic unit

液压单元

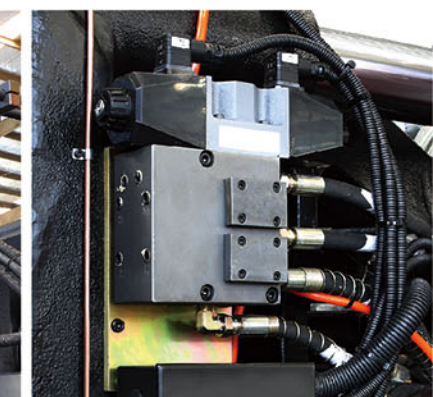
1 油路系统 Hydraulic System

采用多伺服泵组合油路，可进行开模储料同步运行，如需增加开模顶出同步，请与我们联系，我们可提供成熟的解决方案（开顶动作同步为选装项）。

Parallel movement of charging on fly drastically shortens circle time. It is a optional selection for parallel movement of eject on fly.

2 熔胶马达 Hydraulic Motor

熔胶马达采用专用高速马达设计，确保运行年限。
High-speed hydraulic motor.



Electric unit

电控单元

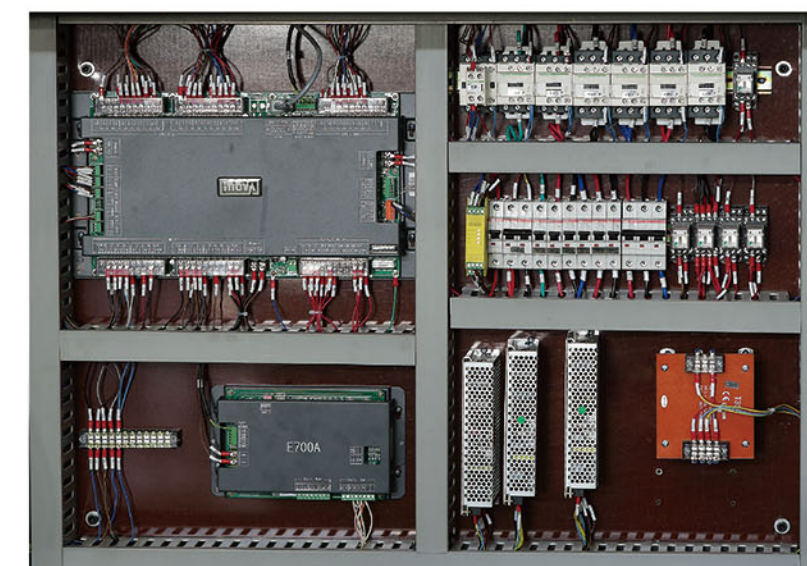
1 控制器 Controller

专用高速意大利INOVA电脑，10英寸彩色显示屏，高精度、高响应。

Adapt Italy INOVA computer, with 10 inch color LED screen, realize the precision and fast reaction.

2 电器元件 Electric Element

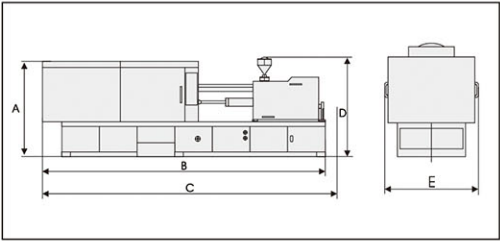
接触器、行程开关等主要电器零件均采用施耐德，欧姆龙等进口品牌，性能稳定。
Contactor and limited switch adapt Omron and Schneider.



HMDM8-SP III

SPECIFICATIONS

注塑机参数表



	HMD218M8-SPIII	HMD 268M8-SPIII
A	1825	1925
B	5546	6145
C	5724	6145
D	2293	2340
E	1320	1605

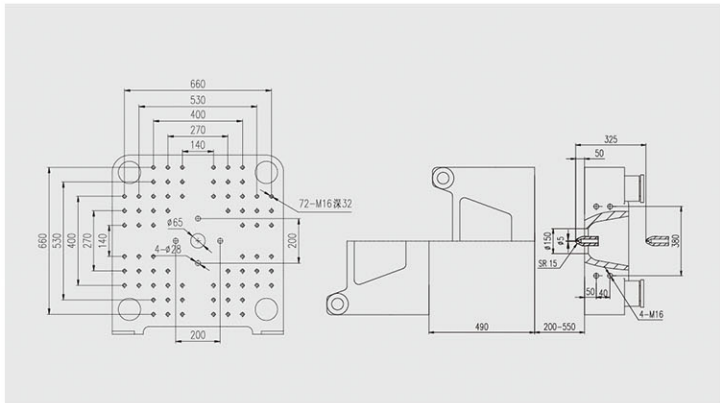
说明	DESCRIPTION	UNIT	HMD218M8-SPIII	HMD 268M8-SPIII
国际公认型号	International size rating	——	599/218	848/268

射胶系统	INJECTION UNIT		A	B	A	B
理论注射容积	Shot volume	cm³	399	529	530	595
实际注射量	Shot weight (PS)	g (克)	375	481	482	541
		oz (盎司)	13.1	16.8	17	19
射出速度	Injection speed	mm/s	250	250	275	275
螺杆直径	Screw diameter	mm	46	53	50	53
射胶压力	Injection pressure	MPa	150	113	160	142
螺杆长度直径比	Screw L:D ratio	——	24:1	21:1	25:1	23:1
螺杆行程	Screw stroke	mm	240		270	
螺杆转速	Screw speed(stepless)	r/ min	0~245		0~300	
锁模系统	CLAMPING UNIT					
锁模力	Clamping force	kN	2180		2680	
开模行程	Opening stroke	mm	490		560	
模板尺寸	Platen size	mm×mm	770X770		850X850	
连接柱内距	Space between tie bars	mm×mm	520X520		555X555	
模板最大距离	Max.daylight	mm	1040		1160	
容模量 (最薄-最厚)	Mold thickness(Min-Max)	mm	200-550		220-600	
油压顶出行程	Hydraulic ejection stroke	mm	140		160	
油压顶出力	Hydraulic ejection force	kN	50		77	
动力/电热	POWER UNIT					
油压系统压力	Hydraulic system pressure	MPa	17.5		17.5	
油泵马达	Pump motor	kW	22+37		30+37	
电热量	Heating capacity	kW	18.6		23.5	
温度控制区数	Number of temp control zones	——	6		7	
其它	GENERAL					
油箱容量	Oil tank capacity	L (升)	275		295	
机械外形尺寸 (L× W ×H)	Machine dimensions (L× W ×H)	m ×m ×m	5.7x1.3x2.3		6.1x1.6x2.3	
机 重	Machine weight	kg	6500		10000	

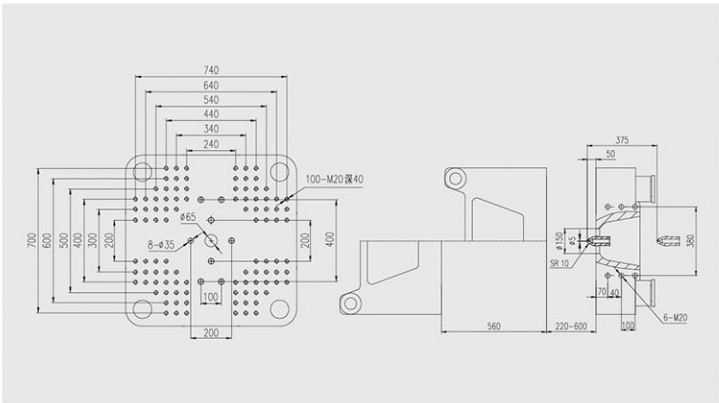
说明：由于产品改进，技术参数的变更，恕不另行通知。
Remark:We reserve the right to make any technical improvement without prior notice.

模板尺寸

PLATEN DIMENSION



HMD218M8-SPIII

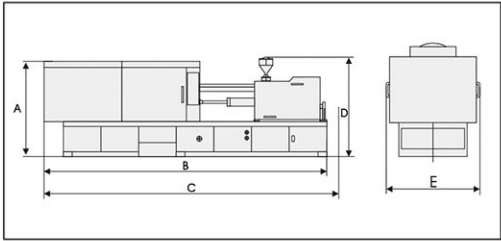


HMD268M8-SPIII

HMDM8-SP III

SPECIFICATIONS

注塑机参数表



	HMD298M8-SPIII	HMD368M8-SPIII
A	2015	1900
B	6275	7192
C	6275	7272
D	2448	2366
E	1735	1910

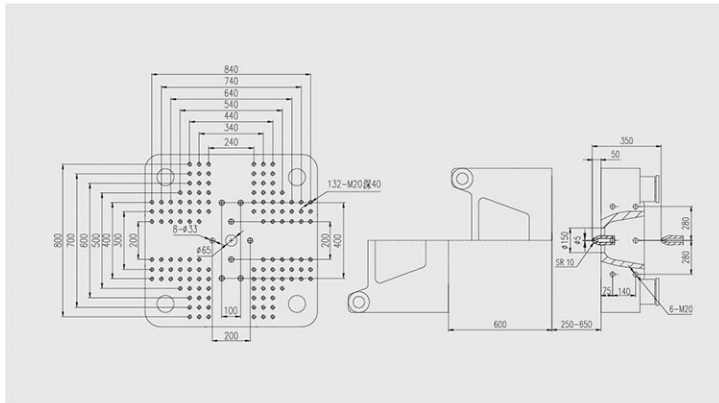
说明	DESCRIPTION	UNIT	HMD298M8-SPIII	HMD368M8-SPIII
国际公认型号	International size rating	——	848/298	865/368

射胶系统	INJECTION UNIT		A	B	A	B
理论注射容积	Shot volume	cm³	530	595	475	510
实际注射量	Shot weight (PS)	g (克)	482	541	432	465
		oz (盎司)	17	19	15.4	16.5
射出速度	Injection speed	mm/s	365	365	400	400
螺杆直径	Screw diameter	mm	50	53	55	57
射胶压力	Injection pressure	MPa	160	142	182	169
螺杆长度直径比	Screw L:D ratio	——	25:1	23:1	25.5:1	23.7:1
螺杆行程	Screw stroke	mm	270		200	
螺杆转速	Screw speed(stepless)	r/ min	0~300		0~300	
锁模系统	CLAMPING UNIT					
锁模力	Clamping force	kN	2980		3680	
开模行程	Opening stroke	mm	600		640	
模板尺寸	Platen size	mm×mm	960X930		1030X1000	
连接柱内距	Space between tie bars	mm×mm	615X585		670X640	
模板最大距离	Max.daylight	mm	1250		1310	
容模量 (最薄-最厚)	Mold thickness(Min-Max)	mm	250-650		270-670	
油压顶出行程	Hydraulic ejection stroke	mm	100		100	
油压顶出力	Hydraulic ejection force	kN	77		77	
动力/电热	POWER UNIT					
油压系统压力	Hydraulic system pressure	MPa	17.5		19	
油泵马达	Pump motor	kW	37+37		45+45	
电热量	Heating capacity	kW	23.5		28.5	
温度控制区数	Number of temp control zones	——	7		7	
其它	GENERAL					
油箱容量	Oil tank capacity	L (升)	360		420	
机械外形尺寸 (L× W ×H)	Machine dimensions (L× W ×H)	m ×m ×m	6.3x1.7x2.4		7.3x2.0x2.4	
机 重	Machine weight	kg	12000		17000	

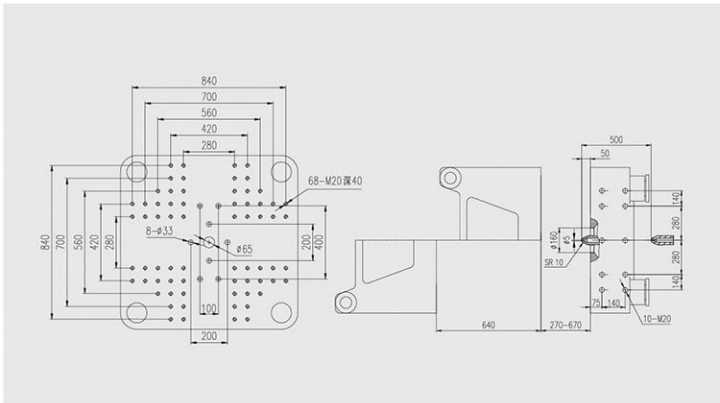
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模板尺寸

PLATEN DIMENSION



HMD298M8-SPIII

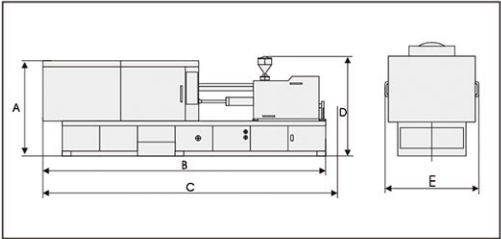


HMD368M8-SPIII

HMDM8-SP III

SPECIFICATIONS

注塑机参数表



	HMD400M8-SPIII	HMD420M8-SPIII
A	1956	2112
B	7612	8005
C	7692	8085
D	2374	2605
E	1965	1900

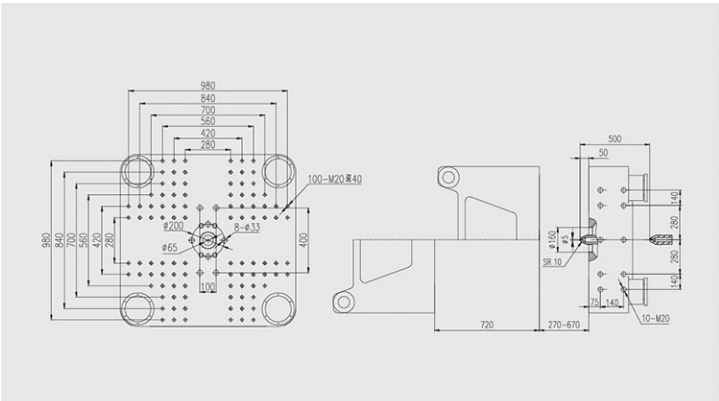
说明	DESCRIPTION	UNIT	HMD400M8-SPIII	HMD420M8-SPIII
国际公认型号	International size rating	——	1509/400	865/420

射胶系统	INJECTION UNIT		A		B	
理论注射容积	Shot volume	cm³	829		919	
实际注射量	Shot weight (PS)	g (克)	755		836	
		oz (盎司)	26.6		29.5	
射出速度	Injection speed	mm/s	442		442	
螺杆直径	Screw diameter	mm	57		60	
射胶压力	Injection pressure	MPa	182		164	
螺杆长度直径比	Screw L:D ratio	——	26:1		25:1	
螺杆行程	Screw stroke	mm	325		200	
螺杆转速	Screw speed(stepless)	r/ min	0 ~ 350		0-300	
锁模系统	CLAMPING UNIT					
锁模力	Clamping force	kN	4000		4200	
开模行程	Opening stroke	mm	720		650	
模板尺寸	Platen size	mm×mm	1080×1060		1060X1000	
连接柱内距	Space between tie bars	mm×mm	720×700		700x640	
模板最大距离	Max.daylight	mm	1390		1650	
容模量 (最薄-最厚)	Mold thickness(Min-Max)	mm	270 ~ 670		400-1000	
油压顶出行程	Hydraulic ejection stroke	mm	100		160	
油压顶出力	Hydraulic ejection force	kN	77		77	
动力/电热	POWER UNIT					
油压系统压力	Hydraulic system pressure	MPa	17.5		19	
油泵马达	Pump motor	kW	55+55		55+55	
电热量	Heating capacity	kW	30.9		28.5	
温度控制区数	Number of temp control zones	——	6		7	
其它	GENERAL					
油箱容量	Oil tank capacity	L (升)	420		625	
机械外形尺寸 (L× W ×H)	Machine dimensions (L× W ×H)	m×m×m	7.7x2.0x2.4		8.1×1.9x2.6	
机 重	Machine weight	kg	18000		20000	

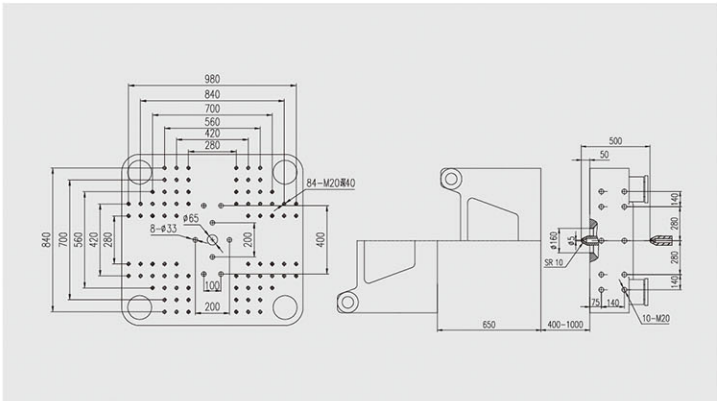
说明：由于产品改进，技术参数的变更，恕不另行通知。
Remark:We reserve the right to make any technical improvement without prior notice.

模板尺寸

PLATEN DIMENSION



HMD400M8-SPIII

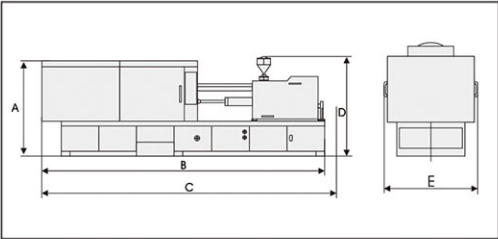


HMD420M8-SPIII

HMDM8-SP III

SPECIFICATIONS

注塑机参数表



	HMD450M8-SPIII	HMD500M8-SPIII
A	2056	2138
B	8030	8500
C	8110	8577
D	2546	2674
E	2041	2260

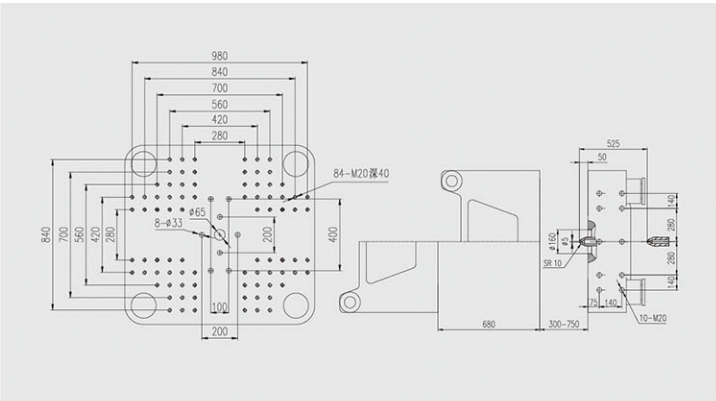
说明	DESCRIPTION	UNIT	HMD450M8-SPIII	HMD500M8-SPIII
国际公认型号	International size rating	——	865/450	1525/500

射胶系统	INJECTION UNIT		A		B	
理论注射容积	Shot volume	cm³	475		510	
实际注射量	Shot weight (PS)	g (克)	432		465	
		oz (盎司)	15.4		16.5	
射出速度	Injection speed	mm/s	470		470	
螺杆直径	Screw diameter	mm	55		57	
射胶压力	Injection pressure	MPa	182		169	
螺杆长度直径比	Screw L:D ratio	——	25.5:1		23.7:1	
螺杆行程	Screw stroke	mm	200		275	
螺杆转速	Screw speed(stepless)	r/ min	0~300		0~300	
锁模系统	CLAMPING UNIT					
锁模力	Clamping force	kN	4500		5000	
开模行程	Opening stroke	mm	680		720	
模板尺寸	Platen size	mm×mm	1160X1090		1310X1310	
连接柱内距	Space between tie bars	mm×mm	730X660		780X780	
模板最大距离	Max.daylight	mm	1430		1570	
容模量 (最薄-最厚)	Mold thickness(Min-Max)	mm	300-750		350-850	
油压顶出行程	Hydraulic ejection stroke	mm	160		160	
油压顶出力	Hydraulic ejection force	kN	77		182	
动力/电热	POWER UNIT					
油压系统压力	Hydraulic system pressure	MPa	19		16 (17.5)	
油泵马达	Pump motor	kW	55+55		55+22	
电热量	Heating capacity	kW	28.5		36.9	
温度控制区数	Number of temp control zones	——	7		7	
其它	GENERAL					
油箱容量	Oil tank capacity	L (升)	625		655	
机械外形尺寸 (L× W ×H)	Machine dimensions (L× W ×H)	m×m×m	8.1x2.0x2.6		8.6x2.2x2.7	
机 重	Machine weight	kg	23000		31000	

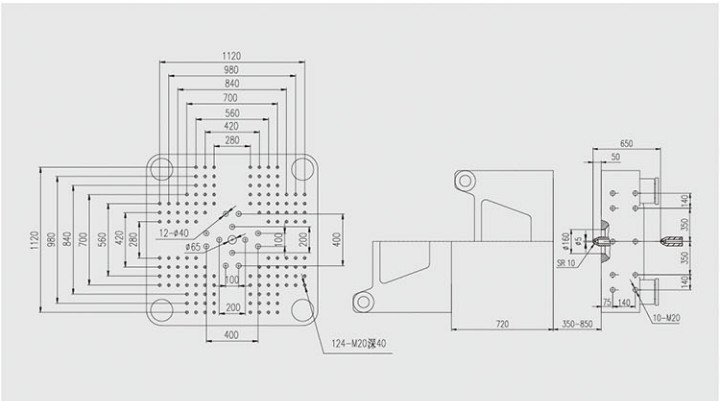
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模板尺寸

PLATEN DIMENSION



HMD450M8-SPIII



HMD500M8-SPIII