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PLASTIC
MACHINERY
艾尔法注塑机



Ferrimino®

中国区指定制造商

Authorized Manufacturer By Ferrimino In P.R.C

您拥有怎样的眼光，
就决定了您对它持有怎样的看法
Your Vision Decides Your Perspective



高新技术企业证书
发明 / 实用专利证书
ISO9001 质量认证
CE 国际认证



公司简介 | Abaot us

宁波艾尔法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品牌企业。公司自成立以来，一直主导和建立面向国际市场的营销体系，艾尔法品牌受到了中东、南美、东南亚、东欧等各个国家和地区客户的使用和好评，并在多个国家设立了营销及服务机构。艾尔法公司长期以来聘请高端技术人员和海外技术顾问，结合国外先进技术专注研发和生产高性能伺服节能注塑机并成功研发推出了第二代伺服驱动注塑机，受到国际市场的青睐。公司通过严格的品质管理体系以及各项产品认证，所生产的专业伺服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。艾尔法公司本着“为客户创造价值，为员工创造价值，为社会创造价值”的理念，尽力满足客户需求，精益求精，开拓进取，为中国塑胶机械产业的发展和提高做出自己的贡献。

Ningbo Alfa Machinery Manufacture Co., Ltd. is a famous enterprise devoted to manufacturing plastic injection molding machine, lying in the Ningbo, China. Airfa plastic injection molding machine machines Focus on quality and professional industries solution. Airfa have several series which are suitable for general and engineering plastic products, A F Series machines are equipped with double linear motion guide injection unit and world-famous hydraulic parts, electrical parts, servo system and controller system. A Y- Ferrimino Series are equipped with Swiveling and Double Layers Linear Guide Rails Injection Unit, Wider Space Between Tie-bars Clamping Unit and so on. We also have varies types, such as high speed machine, special series to suit P V C/ P E T/ P C/ P M M A/ Fiber Glass plastic materials. Because of strict system for inspection and assembling, Airfa has provided first-class products and services. Airfa has set up a marketing system aiming at international market. Machines are sold all over the world including Middle East, South America, Southeast Asia, East Europe, and receives good reputation from them. It has established overseas sales & service branches and agent as technician consultant in these countries. With the pursuit of "Create value for customer, Create value for staff, Create value for society", the company is trying its best to meet the requirements of customers, strive for better, and make its own contribution for the development and improvement of national plastic industry.





细节决定成败

DETAILS MAKE PERFECT

全新双导轨注射系列

NEW LINEAR MOTION GUIDE INJECTION UNIT

卓越的性能

- 全系列机型均适用于生产一般通用和工程塑料的产品（如ABS/PC/PA/含玻纤塑料）
- 液压耗能降至最低，避免油温上升，有效减少油压冷却水的耗量
- 极高的稳定性和经济性
- 确保一切能顺利运行的责任和承诺

Outstanding Performance

- All models are suitable for general and engineering plastics Products
(For example: ABS/PC/PA/Fibre Glass reinforced plastic materials)
- Hydraulic energy consuming reduces to the lowest in case of the high oil temperature so that reduces the cooling water consumption effectively
- High stability and economy
- Ensure everything run smoothly



韩国技术，中国制造
Technology from Korea, Made in China

锁模机构

CLAMPING UNIT

后置式机械保险杆
Mechanical Safety Bar in the Rear



整体连杆结构
Whole Unit Toggle Design



高精度位移传感器
High Precision Transducer



优质黄铜导向套
High Quality Copper Bush

- 优化模板结构设计，具有更大的容模空间，适合更广的模具尺寸范围；
- 模板兼具欧规T形槽和常规螺纹孔，符合欧规要求的移动模板定位结构，适合不同客户的使用要求；
- 移动模板新型结构设计，具备更大的顶出空间和行程，模板和顶出机构刚性好，变形小；
- 液压驱动齿轮调模机构，调模快速可靠；
- 后置式机械安全保护装置；
- 前连杆全部采用整体连体结构,大幅提高了连杆的强度,同时也极大提高整个锁模机构的刚性和精度。

- Optimized platen design with high rigidity and enlarged space between tie bars.
- European platen layout with both T-slot and tap holes. Locating design in moving platen is more suitable for various molds.
- New ejection system design with longer ejection stroke, bigger space and better rigidity.
- Hydraulic adjustment gear system makes molds adjust faster and more stable.
- Mechanical safety bar is for easier operation.
- Linkage structure of front connecting rod increases connecting rod's strength greatly, as well as the whole clamping unit rigidity and accuracy.



注射机构

INJECTION UNIT



双射移油缸
Balanced Twin Cylinder Injection System



进口高精度直线导轨
Imported High Quality Linear Motion Guide



陶瓷加热圈
Ceramic Heater

- 线性滑轨保证注射平稳和精度
- 高速高压用注射结构，提高注射速度
- 双射移油缸保证射台受力均匀，提高射胶精度
- 针对不同特性工程塑料，可配置专业制造的螺杆料筒，确保制品品质



- High quality linear motion(LM)guide ensures injection smoothly and accurately
- High speed and high pressure adopt special injection design, improves injection speed
- Twin nozzle cylinder ensures more even and stable structure
- Specific screw and barrel designs are available for processing different material requirements



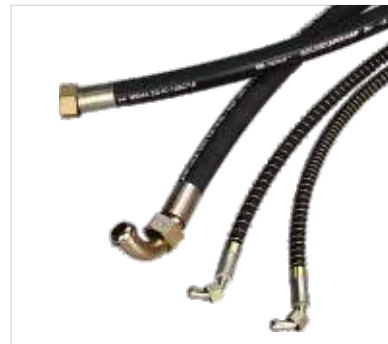
液压控制系统 HYDRAULIC SYSTEM



自动润滑装置
Auto Lubrication Device



进口液压油泵
Imported Hydraulic Pump



进口锥面高压油管
Imported Hydraulic hose



自封式过滤装置
Suction Filter With Check Valve



高性能油冷却器
High quality Cooler

- 通过伺服系统对压力和流量进行精密控制，系统反应更快，重复精度更准
- 采用进口油泵，噪音低，寿命长，性能稳定可靠
- 标配高性能液压阀，故障少，切换快，维护便捷
- 配有低压模具保护功能，更适合保护精密模具
- 熔胶背压使用比例压力阀控制，方便工艺调整
- 可选配世界名优伺服液压系统，噪音更低，节能显著
- 黄油和稀油润滑采用独立的多点检测、分配式润滑，使每个润滑点均处于最佳润滑状态



- The optional world-class servo hydraulic system, lower noise, energy-saving
- Adopt the imported pump, low noise, long lifetime, stable performance
- High performance hydraulic valve, less failure, fast switch, convenient maintenance.
- Low pressure mould protect system, which is more suitable for the precision mould
- Adopt proportional pressure valve to control charging backpressure, it is easier to make products setting.
- The precise feedback control of servo system to the pressure and flow, with higher sensitivity and more accurate repeatability precision
- Grease and oil - double lubrication systems can lubricate everywhere in the best situation

伺服控制部分

SERVO CONTROLLER PART



伺服节能注塑机的特点：

The Characteristics of Servo Saving for Injection Molding Machine

- 控制高精度
伺服系统可精确控制机器各动作的压力、速度和位置。确保射胶计量的重复精度误差≤0.3%，实现精密成型。
- 响应速度快
通过将电机矢量控制和电脑的正确匹配，使机器从零输出到最大输出量仅需0.05S，相比传统液压注塑机响应速度明显加快，缩短产品成型周期，提高生产效率。
- 运行噪音低
与传统机器的定量泵系统、变量泵系统对比，在绝大部分工况下噪音低1/10，在高速状态下整个系统的噪音小于80dB。更适合应用于密闭无尘车间生产。
- 高效节能
总效率比普通机提高10%左右，拖动能力提高18%左右。节能方面伺服机比传统机可节能30%~80%，达到一级能效。
- 节约冷却水
系统工况中避免高压卸荷，不存在多余的功率输出，可节约大量冷却水。

-High Precise Control

The servo System can control the machines' pressure, speed and location precisely makes sure that the error of accurate repeatability Precision for the shot measure is 0.3%. So that it can achieve the Precision Injection Molding Machine.

-High Sensitive Response

Because the motor vector is matched with the controller accurately, it just takes the 0.05S when input the number from 0 to max. Compared with other traditional hydraulic injection molding machine, AF series machine's speed is obviously more quickly, each cycle time is shorter, the production efficiency is higher.

-Low Noise

Compared with the traditional fixed pump and variable pump system, the noise will be lower 1/10 under normal circumstances. What's more, the noise of overall system will be less than 80dB when under the high-speed circumstances. So this series is more suitable for the sealed dustless workshop.

-Energy-Saving

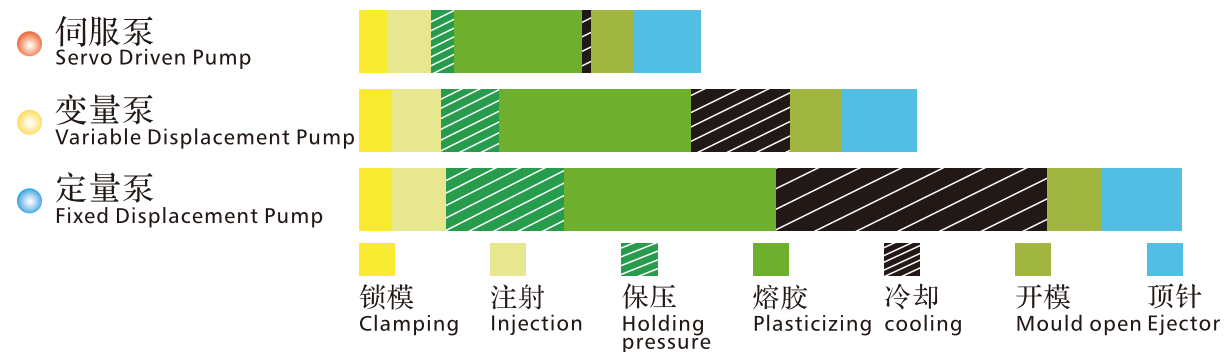
Overall efficiency is more 10% and the driving capacity is more 18% than the common machine. Related to the energy saving, this series Can save energy about 30%~80%, with the first-class energy efficiency.

-The Cooling Water Saving

The system condition prevent high pressure unloading without any power output leads to the cooling water saving.

耗能比较

ENERGY CONSUMPTION COMPARISON



电气控制系统

ELECTRICAL SYSTEM

- Linux Os系统
- 内建超过29种语言
- 监测资料，储存模具数，记录警报，倍增存储，增加参数修改纪录
- 画面工具栏位可以自由选择图片模式或文字模式
- SPC监控
- 各种动作状态图形表示，更直观了解机器的状况：射出曲线、储料曲线、料温曲线、品质曲线、驱动器温度曲线、定时加温、半温功能
- 客制化的设计及多样图形库，客户自行选择专属画面与操作模式
- 用户权限等级管理功能
- 停机功能：按期数或按时间分批停机
- 具备网路连线功能，使用iNet软件系统实现机器联网，并可透过互联网了解机器动态
- 人机界面模组化设计，使得控制面板多元化
- 程序控制采用DSP高速度、高精度、高稳定度
- 提供输出点保护装置
- 快速温度控制，满足高速模温机要求
- 使用USB或SD卡，线上更换程式、列印参数

-Techmation has launched Linux panel

-HMI built-in more than 29 languages

-Software,including monitoringdata,Molding data storage, Alarm records,10 historical injection curves,Log parameters modified etc

-The TOOL in the screen can be selected to display by icon or by characters.

-SPC monitor

-Every action displays its curve,to understand the condition of this machine more detail:Injection curve,charge curve,melted resin temperature curve,quality curve,temperature curve of the driver,heater ON time setting, keeping warm function (available in 386 CPU)

-Multi levels security and manage function setting in customer side

-Stop function: By payment schedule, or by time interval

-With network connectivity, iNet software system to realize the machine network, and through the internet to know the machine dynamics

-Modular design makes HMI more fully diversified

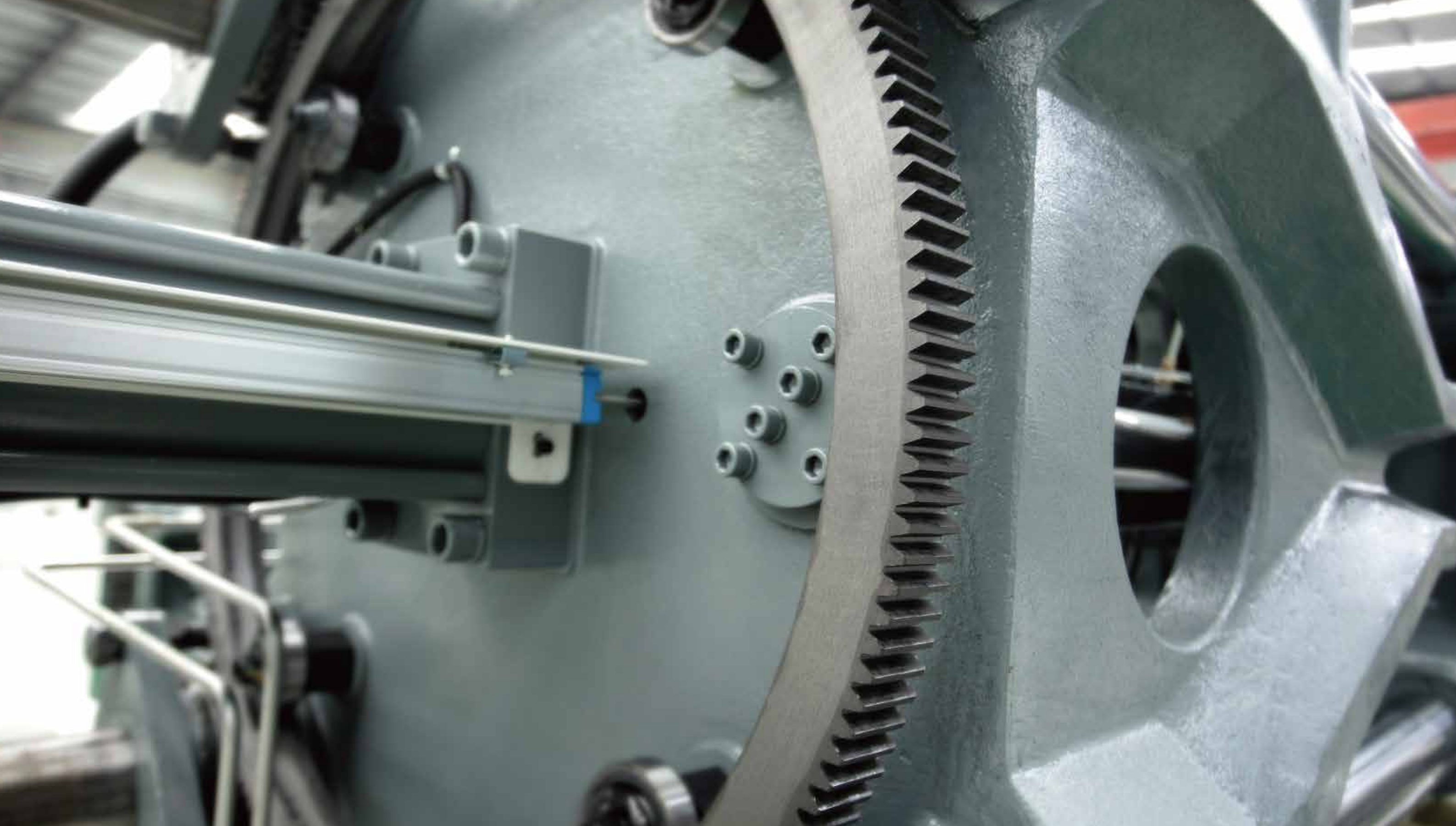
-With high-speed, high precision and high stability DSP Control program structure can easy customized and online modifications without re-compiler

-Output short circuit protection

-Rapid temperature control to meet with the requirements of high speed hot runner control

-Via SD/ USB interface to achieve data storage, the screen screenshots,print parameters,and update the software





实用、美观、可靠，艾尔法绝不止于此。
PRACTICAL , ARTISTIC , RELIABLE , AIRFA WILL NEVER STOP HERE.



AF系列参数表 I Specification

规格		SPECIFICATION	单位	AF100- II			AF130- II			AF170- II			AF220- II			AF260- II			AF330- II			AF400- II			AF500- II			AF600- II		
国际标准型号		international size rating	UNIT	350/100			505/130			688/170			868/220			1160/260			1990/330			3376/400			3936/500			4654/600		
射胶系统 INJECTION UNIT			A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	
螺杆直径	Screw diameter	mm	32	36	40	36	40	45	40	45	50	45	50	55	50	55	60	65	70	75	75	80	85	80	85	90	85	90	95	
螺杆长径比	Screw L/D ratio	/	23.8	21	19	23.3	21	18.6	24.5	22	20	24.4	22	20	24.2	22	20	22.6	21	19.6	23.2	21.8	20.5	23.3	21.9	20.6	23.3	22	20.8	
理论注射容积	Shot volume	cm³	140	178	220	203	251	318	288	365	451	413	510	617	539	653	777	1094	1269	1457	1766	2009	2268	2135	2410	2702	2552	2861	3188	
实际注射量 (ps)	Shot weight(ps)	g	128	162	200	185	228	289	262	332	410	376	464	516	491	594	707	996	1155	1326	1607	1828	2064	1943	2193	2459	2322	2603	2901	
注射压力	Injection pressure	Mpa	249	196	159	248	201	159	238	188	152	210	170	140	215	177	149	181	156	136	186	164	145	184	163	145	182	162	146	
理论注射速率 (ps)	Injection rate(ps)	g/s	78	98	106	97	120	152	128	162	200	184	228	275	225	273	324	333	386	444	416	474	535	473	534	599	532	596	664	
螺杆行程	Screw stroke	mm	175			200			230			260			275			330			400			425			450			
螺杆转速	Screw speed(stepless)	rpm	0~250			0~240			0~230			0~210			0~230			0~185			0~175			0~160			0~135			
锁模系统 CLAMPING UNIT																														
锁模力	Clamping force	KN	1000			1300			1700			2200			2600			3300			4000			5000			6000			
开模行程	Opening stroke	mm	350			370			450			520			540			650			720			780			850			
模板尺寸(宽x高)	Platen size (WxH)	mmxmm	550x550			610x610			690x690			765x765			850x850			980x980			1060x1060			1190x1160			1270x1240			
拉杆间距(宽x高)	Space between tie bars (WxH)	mmxmm	375x375			425x425			475x475			530x530			580x580			680x680			730x730			830x800			875x845			
模板最大距离	Max.daylight	mm	750			820			990			1090			1140			1330			1470			1590			1730			
容模量(最薄-最厚)	Mold thickness(min.-max.)	mm	150-400			150-450			150-540			180-570			200-600			220-680			250-750			300-810			350-880			
顶出行程	Hydraulic ejection stroke	mm	110			130			150			160			170			190			210			230			260			
顶出力	Hydraulic ejection force	KN	31			38			45			61			70			90			113			138			166			
其它 OTHERS																														
液压系统压力	Hydraulic system pressure	Mpa	16			16			16			16			16			16			16			16			16			
油泵电机	Pump motor	KW	16			21			25			30			40			47.3			55.8			40+30			40+40			
伺服驱动器功率	Servo Drive Power	KW	15			18.5			22			30			37			45			55			37+30			37+37			
电热量	Heating capacity	KW	8.1			10			12.4			16.7			18.4			26.4			31.5			35			39			
油箱容积	Oil tank capacity	L	160			180			200			250			300			400			500			650			800			
外形尺寸 (LxWxH)	Machine dimensions (LxWxH)	mxmxm	4.6x1.2x1.8			5.1x1.25x1.95			5.4x1.37x2.05			6.0x1.45x2.1			6.2x1.52x2.2			7.2x1.66x2.3			8.0x1.72x2.4			8.5x1.95x2.5			9.1x2.0x2.6			
理论机重	Machine weight	ton	3.7			4.2			5.5			7			9			13			16.5			20			27			

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AF系列参数表 I Specification

规格		SPECIFICATION	单位	AF700- II			AF800- II			AF1080- II			AF1300- II			AF1680- II			AF2000- II			AF2200- II			AF2500- II			AF2800- II		
国际标准型号		international size rating	UNIT	6264/700			7580/800			9090/1080			10800/1300			15200/1680			15200/2000			18800/2200			31100/2500			61300/2800		
射胶系统 INJECTION UNIT			A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	
螺杆直径	Screw diameter	mm	90	95	100	90	100	110	100	110	120	110	120	130	130	140	150	130	140	150	140	150	160	160	170	180	180	210	220	
螺杆长径比	Screw L/D ratio	/	22.3	21.2	20.1	24	21.6	19.6	23.1	21	19.2	23	21	19.3	23.7	22	20.5	23.7	22	20.5	23.6	22	20.6	22.4	21	19.8	22	21	20.4	
理论注射容积	Shot volume	cm³	3020	3365	3728	3179	3925	4749	4317	5224	6217	5509	6556	7695	9286	10770	12363	9286	10770	12363	11539	13246	15072	17081	19283	21618	29884	40676	44642	
实际注射量 (ps)	Shot weight(ps)	g	2748	3062	3393	2893	3571	4321	3928	4754	5657	5013	5966	7002	8450	9800	11251	8450	9800	11251	10500	12054	13715	15544	17548	19673	27195	37015	40625	
注射压力	Injection pressure	Mpa	207	186	168	238	193	159	210	174	146	197	165	141	164	141	123	164	141	123	163	142	125	182	161	144	205	150	137	
理论注射速率 (ps)	Injection rate(ps)	g/s	526	586	649	508	627	759	656	793	944	789	939	1102	1210	1403	1611	1313	1523	1749	1426	1637	1862	1517	1713	1920	1511	2057	2257	
螺杆行程	Screw stroke	mm	475			500			550			580			700			700			750			850			1175			
螺杆转速	Screw speed(stepless)	rpm	0~130			0~130			0~115			0~110			0~85			0~90			0~85			0~80			0~60			
锁模系统 CLAMPING UNIT																														
锁模力	Clamping force	KN	7000			8000			10800			13000			16800			20000			22000			25000			28000			
开模行程	Opening stroke	mm	930			1050			1100			1250			1520			1650			1800			1900			2000			
模板尺寸(宽x高)	Platen size (WxH)	mmxmm	1350x1320			1480x1480			1630x1630			1860x1860			2200x2070			2410x2280			2440x2480			2700x2550			2735x2685			
拉杆间距(宽x高)	Space between tie bars (WxH)	mmxmm	930x900			1010x1010			1150x1110			1280x1280			1500x1350			1650x1500			1750x1600			1800x1720			1900x1750			
模板最大距离	Max.daylight	mm	1880			2050			2200			2530			3020			3220			3510			3700			3900			
容模量(最薄-最厚)	Mold thickness(min.-max.)	mm	380-950			400-1000			500-1100			550-1280			700-1500			770-1570			770-1710			800-1800			1000-1900			
顶出行程	Hydraulic ejection stroke	mm	280			300			320			350			400			400			400			450			450			
顶出力	Hydraulic ejection force	KN	180			246			246			322			363			430			430			430			553			
其它 OTHERS																														
液压系统压力	Hydraulic system pressure	Mpa	16			16			16			16			16			16			16			16			16			
油泵电机	Pump motor	KW	47.3+40			47.3+47.3			55.8+47.3			55.8+55.8			55.8+47.3+47.3			55.8+55.8+47.3			55.8+55.8+55.8			55.8+55.8+47.3+47.3			55.8+55.8+55.8+55.8			
伺服驱动器功率	Servo Drive Power	KW	45+37			45+45			55+45			55+55			55+45+45			55+55+45			55+55+55			55+55+45+45			55+55+55.8+55.8			
电热量	Heating capacity	KW	48			52			68.5			78			94.5			94.5			110			155			187			
油箱容积	Oil tank capacity	L	900			1000			1300			1500			1700			1900			2100			2300			2600			
外形尺寸 (LxWxH)	Machine dimensions (LxWxH)	mxmxm	10.1x2.1x2.8			10.5x2.4x3.0			11.5x2.8x3.5			12.6x3.1x3.8			14.6x3.5x4.0			14.8x3.6x4.3			15.5x3.7x4.2			17x3.9x5.1			18.9x3.9x5.5			
理论机重	Machine weight	ton	31			42			56			65			100			128			148			175			195			

本技术参数的解释权归宁波艾尔法机械制造有限公司所有
以上技术参数仅供参考,由于技术进步引起技术参数的变更,恕不另行通知。

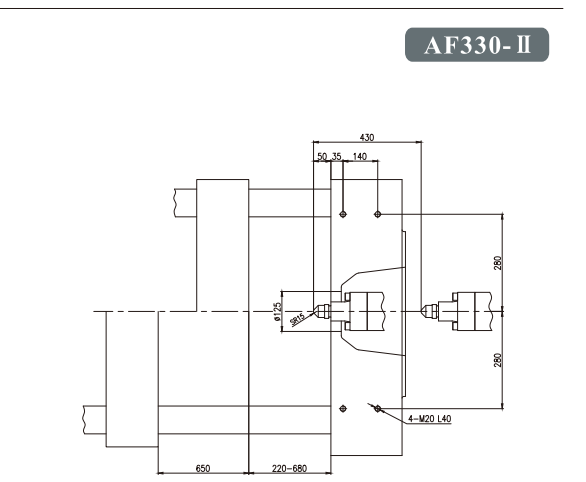
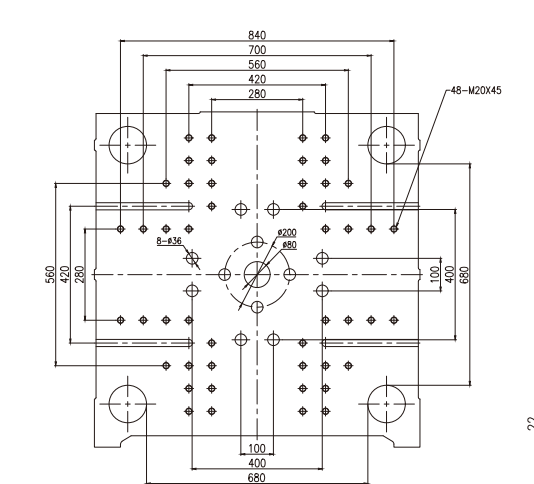
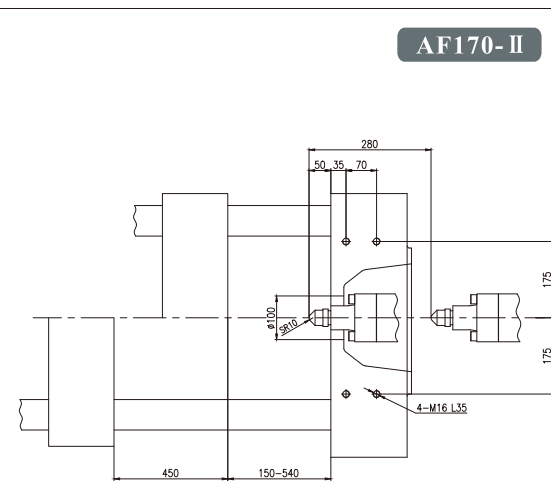
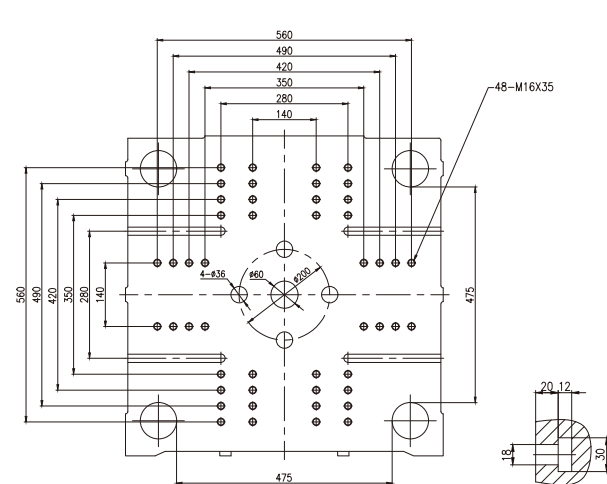
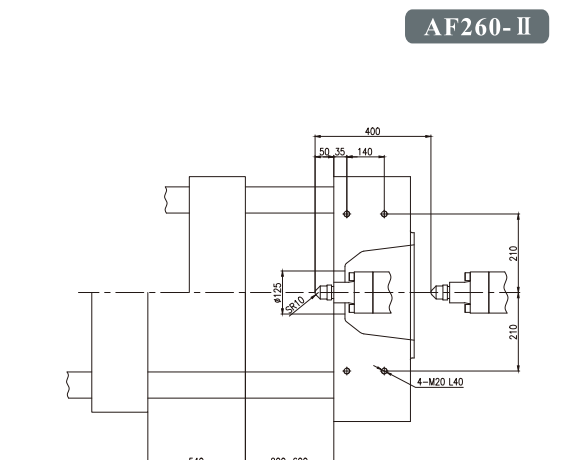
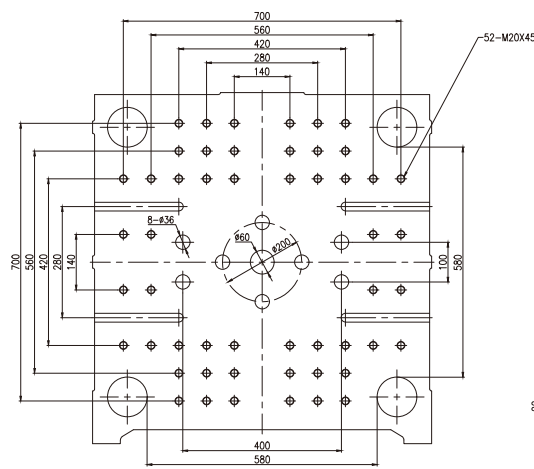
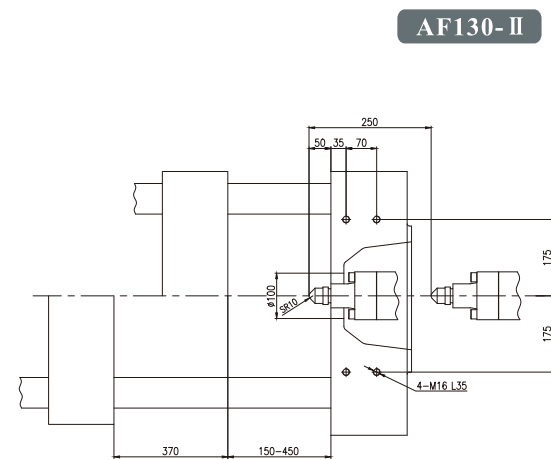
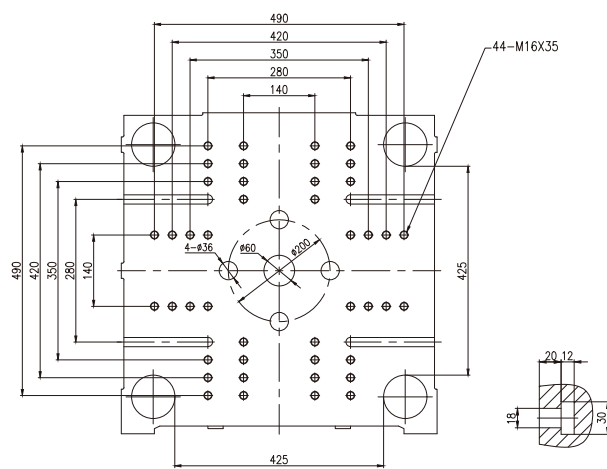
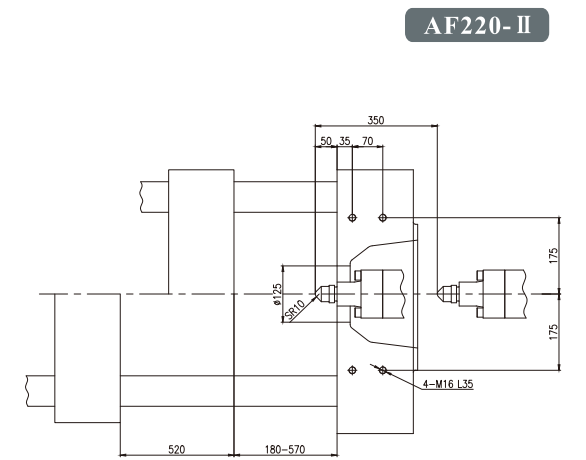
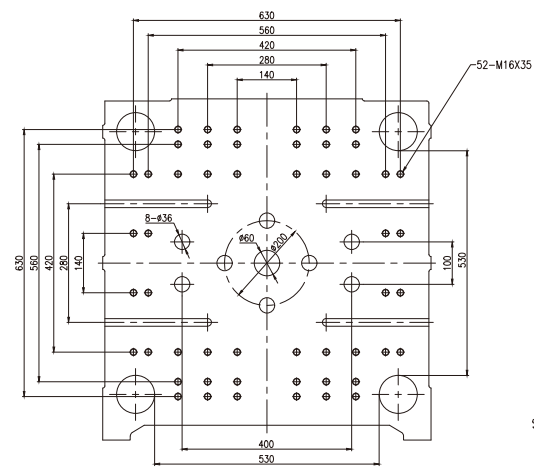
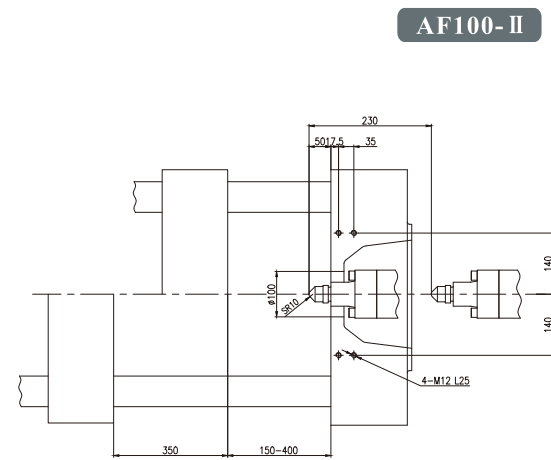
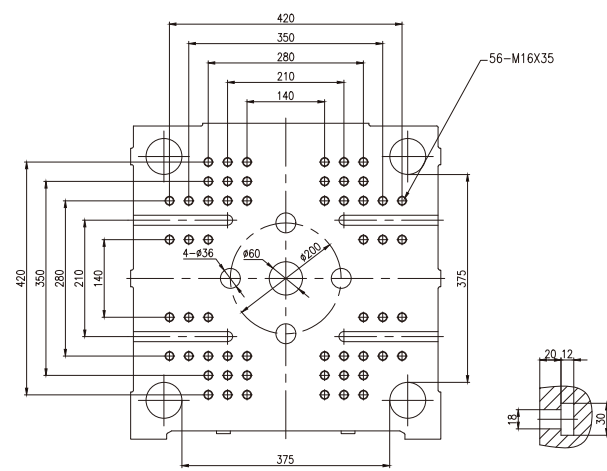
Above information is for reference only We reserve the right to make any technical improvement without prior notice.

模板正面尺寸
Platen dimensions

模板侧面尺寸
Platen dimensions

模板正面尺寸
Platen dimensions

模板侧面尺寸
Platen dimensions

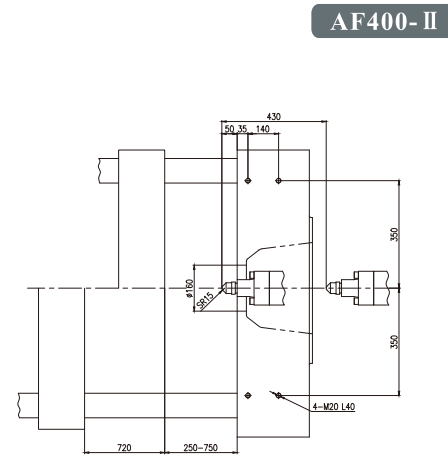
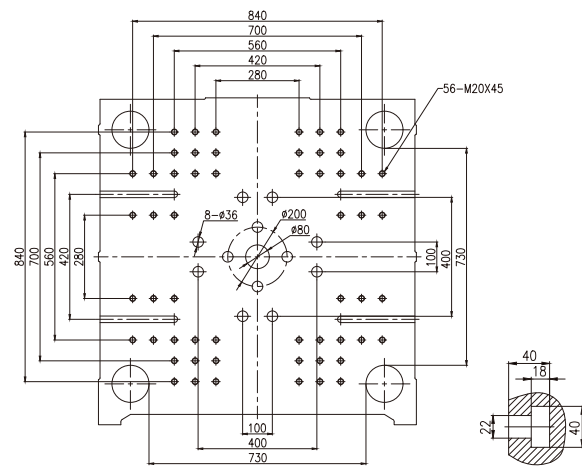


模板正面尺寸
Platen dimensions

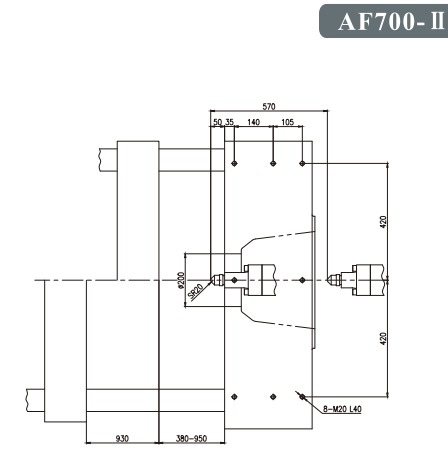
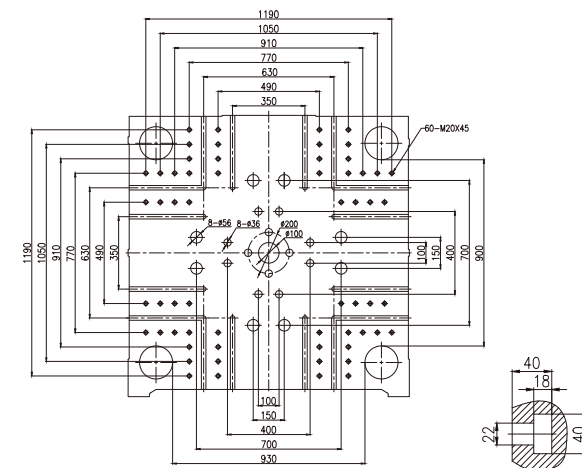
模板侧面尺寸
Platen dimensions

模板正面尺寸
Platen dimensions

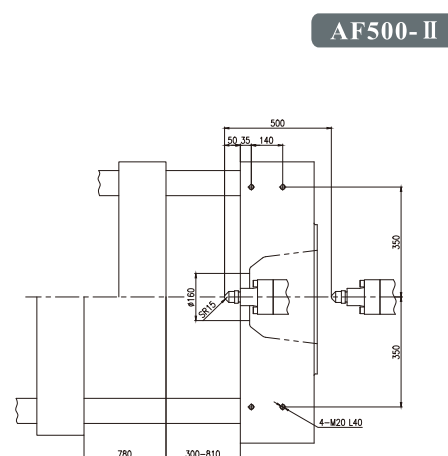
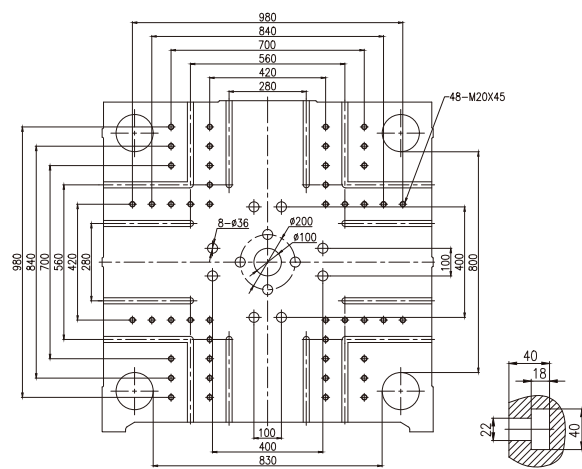
模板侧面尺寸
Platen dimensions



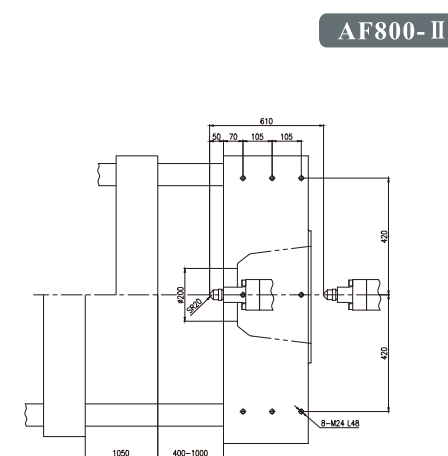
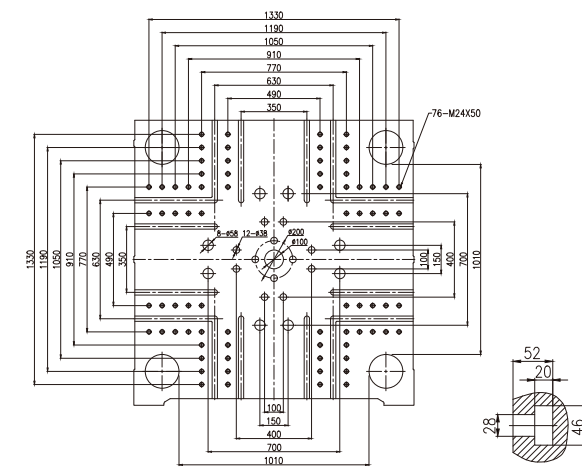
AF400-II



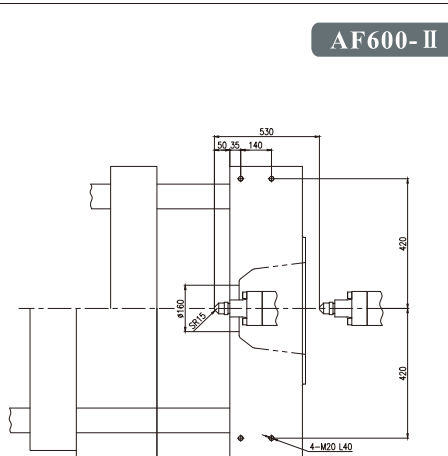
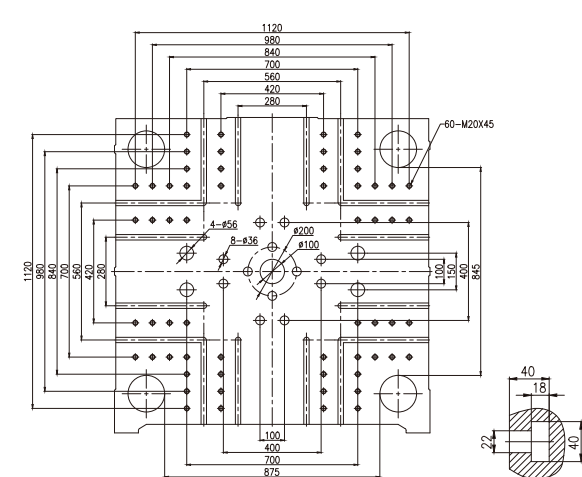
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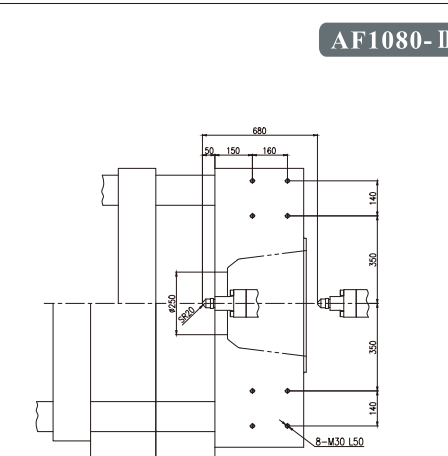
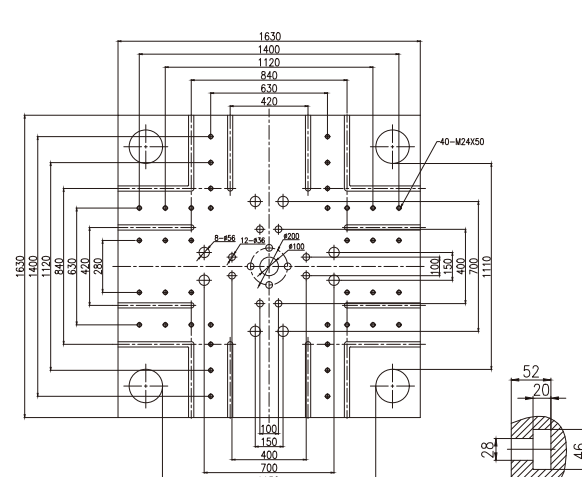
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AF800-II



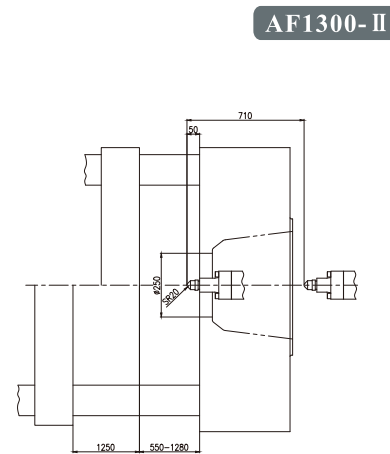
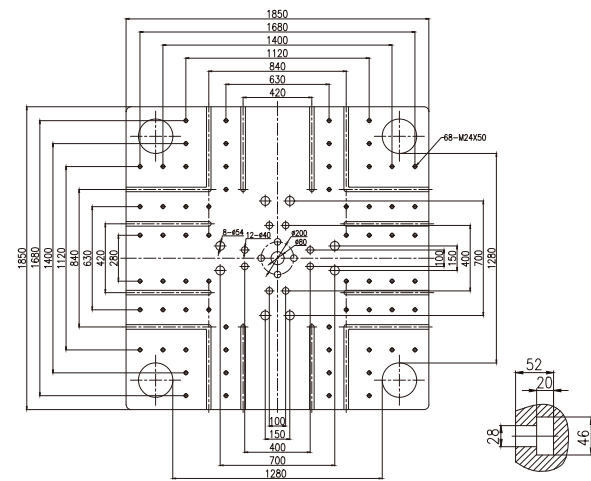
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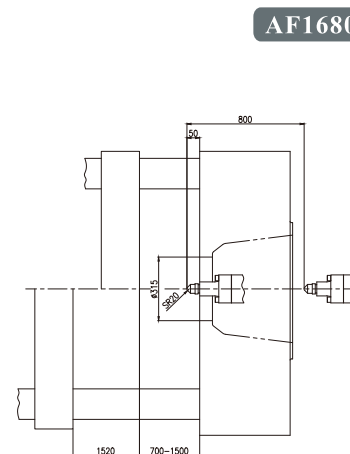
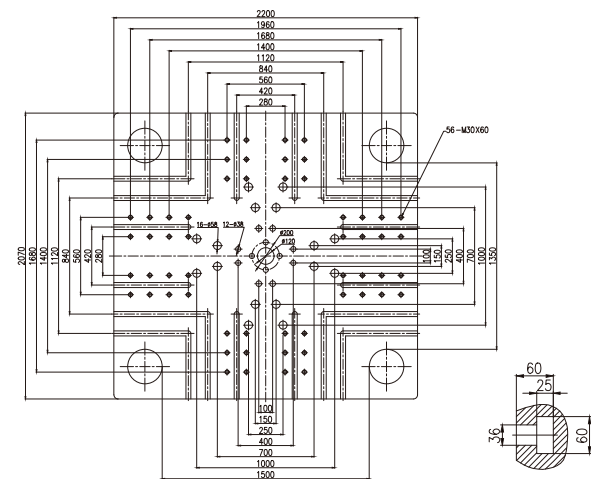
AF1080-II

模板正面尺寸
Platen dimensions

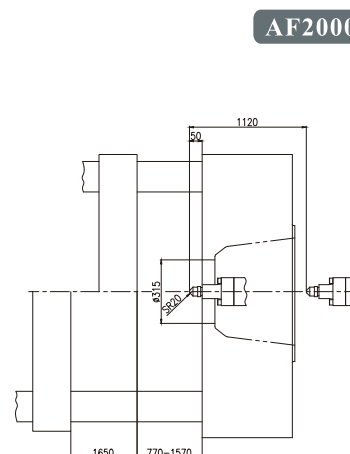
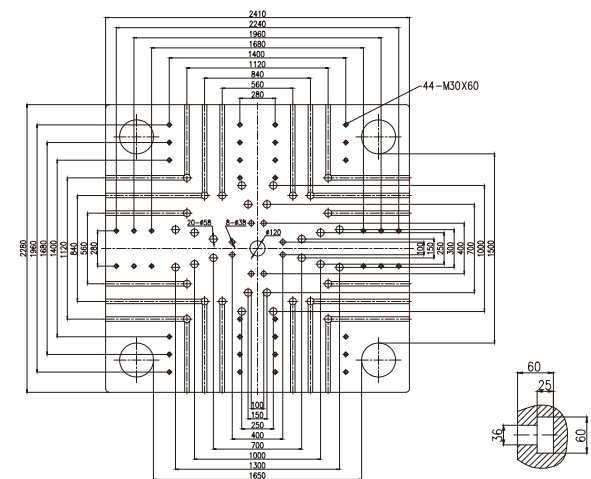
模板侧面尺寸
Platen dimensions



AF1300- II



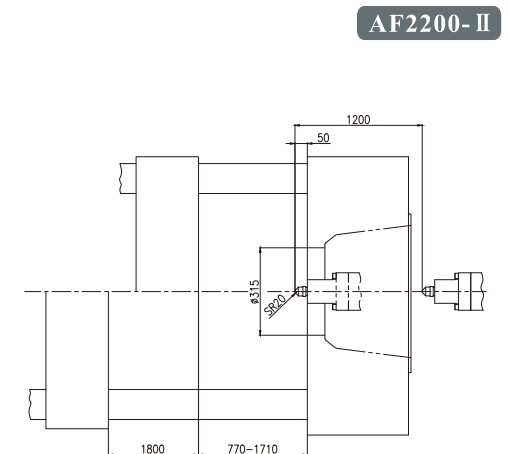
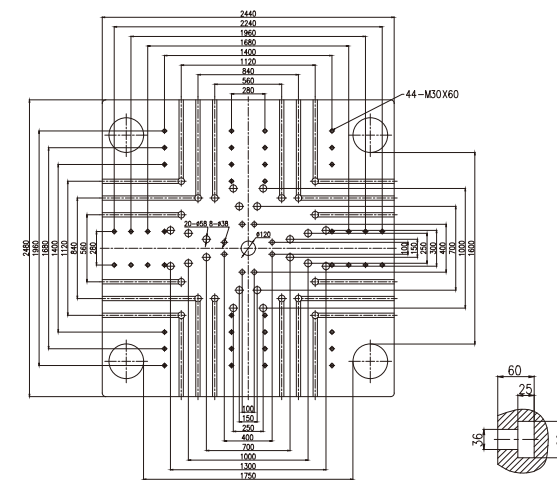
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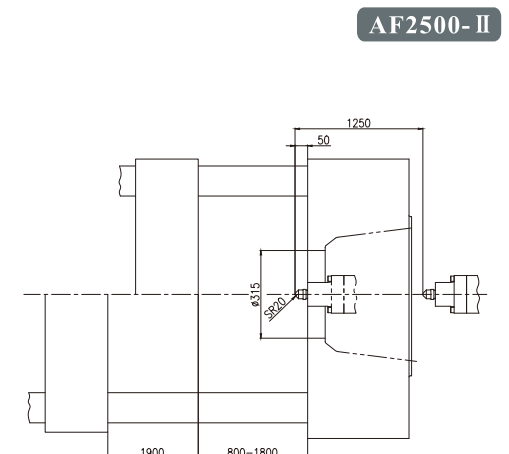
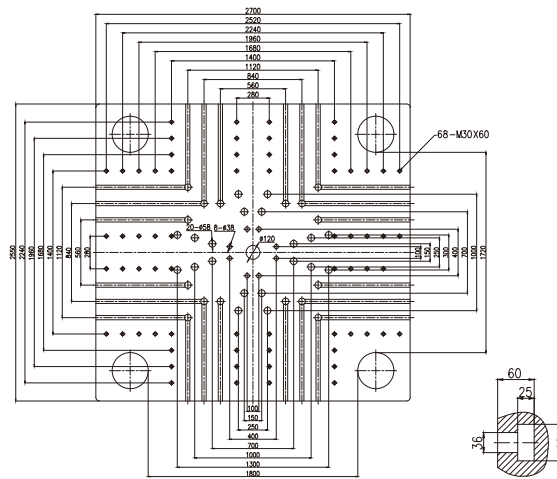
AF2000- II

模板正面尺寸
Platen dimensions

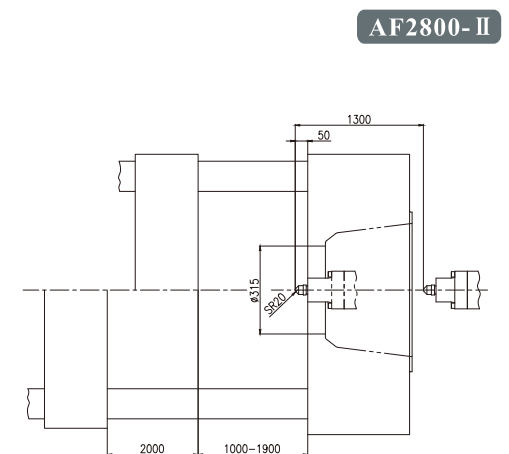
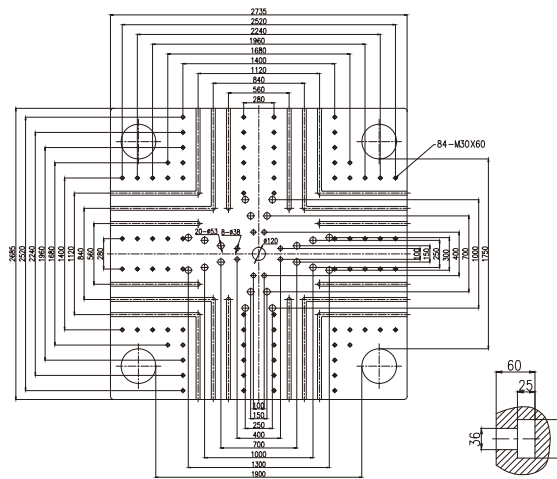
模板侧面尺寸
Platen dimensions



AF2200- II



AF2500- II



AF2800- II

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