

Brand and place of origin of key electrical and hydraulic components
 电器液压主要配件品牌及产地

序号 No.	主要配件名称 The main parts name	品牌 brand
1	控制器Control	伊士通 \ EST \ 麦格迷特 \ MEGMEET
2	伺服控制器 Servo system	汇川 \ Inovance
3	伺服电机Servo motor	汇川 \ Inovance \ 韵升 \ Yunsheng
4	接触器Contactor	伊顿 \ ET.N
5	断路器Circuit breaker	伊顿 \ ET.N
6	位移传感器Displacement transducer	杰佛伦 \ GEFRAN
7	行程开关Limit switch	霍尼韦尔 \ Honeywell
8	接近开关Proximity switch	索能 \ SONON
9	齿轮泵Screw pump	欧力德 \ ALLEAD
10	主要换向阀Main Directional valve	东京计器 \ Tokimec



NPC 宁波宁塑机械有限公司
 NPC Precision Machinery Co.,Ltd

分厂一 宁波市鄞州区东吴镇史家湾147号
 147 Shijiawan Village, Dongwu Town, Yinzhou District, Ningbo City

分厂二 宁波市鄞州区东吴镇栗树塘村顾少线东150米 (宁塑机械)
 Gushaoduan East 150 meters, Lishutang Village, Dongwu Town, Yinzhou District, Ningbo City

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www.npcinjection.com

PLASTIC INJECTION MOLDING MACHINE

伺服节能精密注塑成型机

NPC 系列
 Series



宁波宁塑机械有限公司
 NPC Precision Machinery Co.,Ltd



ABOUT US

公司简介

宁波宁塑机械有限公司，是一家集专业开发、生产制造、销售服务于一体的精密塑料注塑成型机的制造企业，公司总部坐落于浙江省宁波市东吴镇，总面积20000余平方米。

公司自2009年成立至今，凭借自身在塑机行业二十多年的专业经验和产品优化的结构设计、高档配置、优良的性能以及诚信的服务，推出的NPC系列精密机、高速机、果筐机、打桶机等一系列专用注塑成型机，受到客户的一致肯定。我们也积极开拓海外市场，产品已远销欧洲、中东、非洲、东南亚等国家。

公司始终坚持以诚信、创新为发展理念，求实、奉献为企业精神，遵行“服务客户，合作共赢”的合作理念，致力于向全球客户提供最高性价比的产品和最优质的服务。

NPC Precision Machinery Co.,Ltd is a manufacturer of precision plastic injection moulding machine which integrates professional development, production, manufacturing and sales services. Its headquarters is located in Dongwu Town, Ningbo City, Zhejiang Province, with a total area of more than 20,000 square meters.

Since its establishment in 2009, with more than 20 years of professional experience in the plastic machine industry and optimization of product structural design, high-grade configuration, excellent performance and integrity services, our company has launched a series of NPC series precision machines, high-speed machines, fruit basket machines, bucket machines and other special injection moulding machines, which have been unanimously affirmed by customers. We also actively explore overseas markets, and our products have been exported to Europe, the Middle East, Africa, Southeast Asia and other countries.

Our company has always adhered to the development concept of honesty and innovation, the spirit as being realistic and dedicated, adhered to cooperation concept of "serving customers, win-win cooperation", committed to providing customers around the world with the highest cost-effective products and the best quality services.



PRODUCTION BASE

生产基地

FIND DEFECT TO MAKE IT PERFECT!

寻找缺陷，塑造完美！

The company keeps finding and improving if production, and makes the product perfect. Development principle of credit and innovation are strictly upheld.

善于在生产中不断的发现和改正，力求做到完美，秉承了公司以诚信，创新的发展理念。

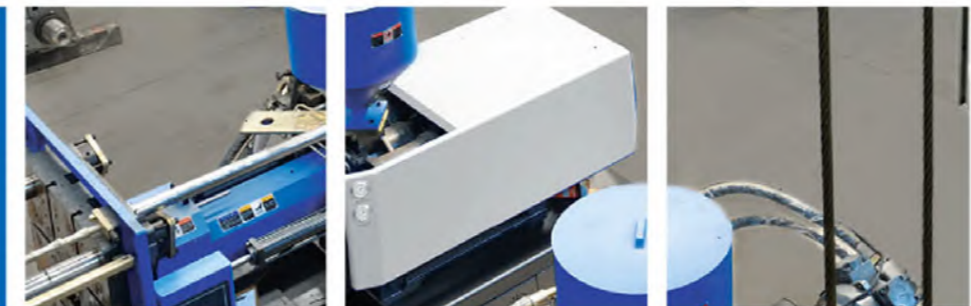


注塑机车间 1
the plastic injection machine 1



FINE EQUIPMENT TO GUARANTEE THE QUALITY
精良的设备是品质的保证

PRODUCTION BASE
生产基地



FIND DEFECT TO MAKE IT PERFECT
寻找缺陷 塑造完美

注塑机车间 2
the plastic injection machine 2

FINE EQUIPMENT TO GUARANTEE THE QUALITY

精良的设备，是品质的保证！

Product quality is the life of the company. The processing center and NC boring and milling machine guarantee the precision of parts.

产品的质量是企业的生命，这是宁塑的一贯宗旨，所有的零件均采用加工中心和大型数控镗铣床，确保了零件的精度。

Advanced precise rod clamping force sensor is adopted. Compared with the traditional clamping testing method, it is more precise and reliable, and easier and more convenient in operation.

采用先进的精密拉杆锁模力感测仪，与传统的拉杆测试法相比，不仅提高了绝对精度和可靠性，操作也更为直观和方便





Optimized one-piece front connecting rod is wholly casted, thus to guarantee a fine rigidity and smooth movement. The main locking shaft remains static during opening and closing action, thus to reduce wearing of the die.

经过优化设计的连体前连杆,采用整体铸造,刚性好、运动平稳,当进行合模和开模动作时,大锁轴始终保持不动,从而更好的保护了模板的磨损。



Molybdenum-contained copper sleeves or a self-lubricating guide sleeves are used on the draw bar and the guide bar. By means of its special abrasion resistance and low friction coefficient, it dramatically increases the life service of the draw bar.

拉杆及导杆处采用含钼铜套或自润滑导向套,利用其特有的耐磨性和摩擦系数低,大大增加了拉杆的寿命。



The moving template adopts an extended anti-skid design, which makes the machine run more smoothly and protects the mold.

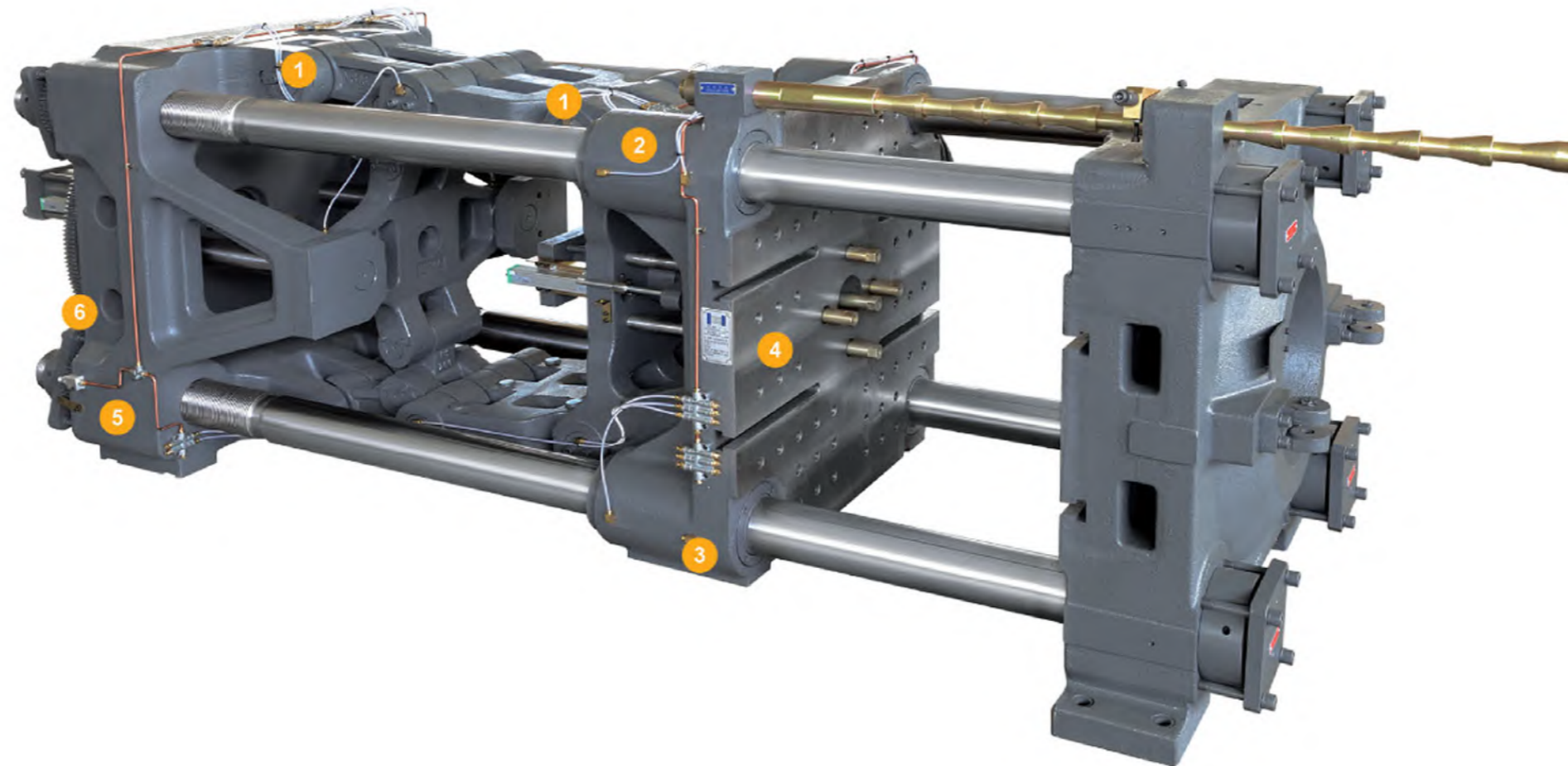
动模板采用加长防倾滑设计,调节方便,使机器运行更加平稳,并保护模具。

CLAMPING UNIT

合模单元

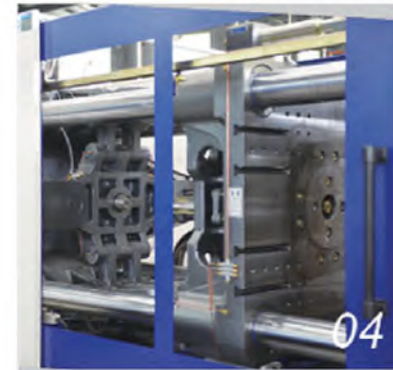
Strong rigidity of the template and stable operation

模板刚性强、运行平稳



- Diagonal type dual toggle mechanic mould clamping mechanism
- One-piece casting of the connecting rod before connection
- Triple mechanical, hydraulic and electrical interlocking protection
- Standard interface of the neutron device
- Automatic centralized lubrication system
- Automatic mould adjustment function

- 斜排式双曲肘机械锁模机构
- 连体前连杆整体铸造
- 机械、液压、电气、三重安全联锁保护
- 中子装置标准接口
- 自动集中润滑系统
- 自动调模功能



The templates adopts T-shape slot. The reasonable T-shape slot arrangement not only makes it convenient to install moulds, but also enhances the strength of the template.

模板采用T型槽,合理的T型槽布局,不仅方便模具的安装,同时也增加模板的强度。



Below the tail board of NPC730 or above products is installed with an antiwear pad to lower the friction coefficient of the template during adjustment and make it convenient for adjustment.

NPC730以下产品尾板下加装耐磨垫,降低调模时模板的摩擦系数,调模更方便。



The tie bar is analyzed by CAE. After professional heat treatment and centralized treatment by CNC machining, it can effectively control the precision and quality of the tie bar and improve the service life of it.

拉杆采用有限元分析,经过专业热处理和CNC加工中心的集中化处理,更能有效控制拉杆的精度和品质,提高拉杆的使用寿命。



INJECTION UNITE

注射单元

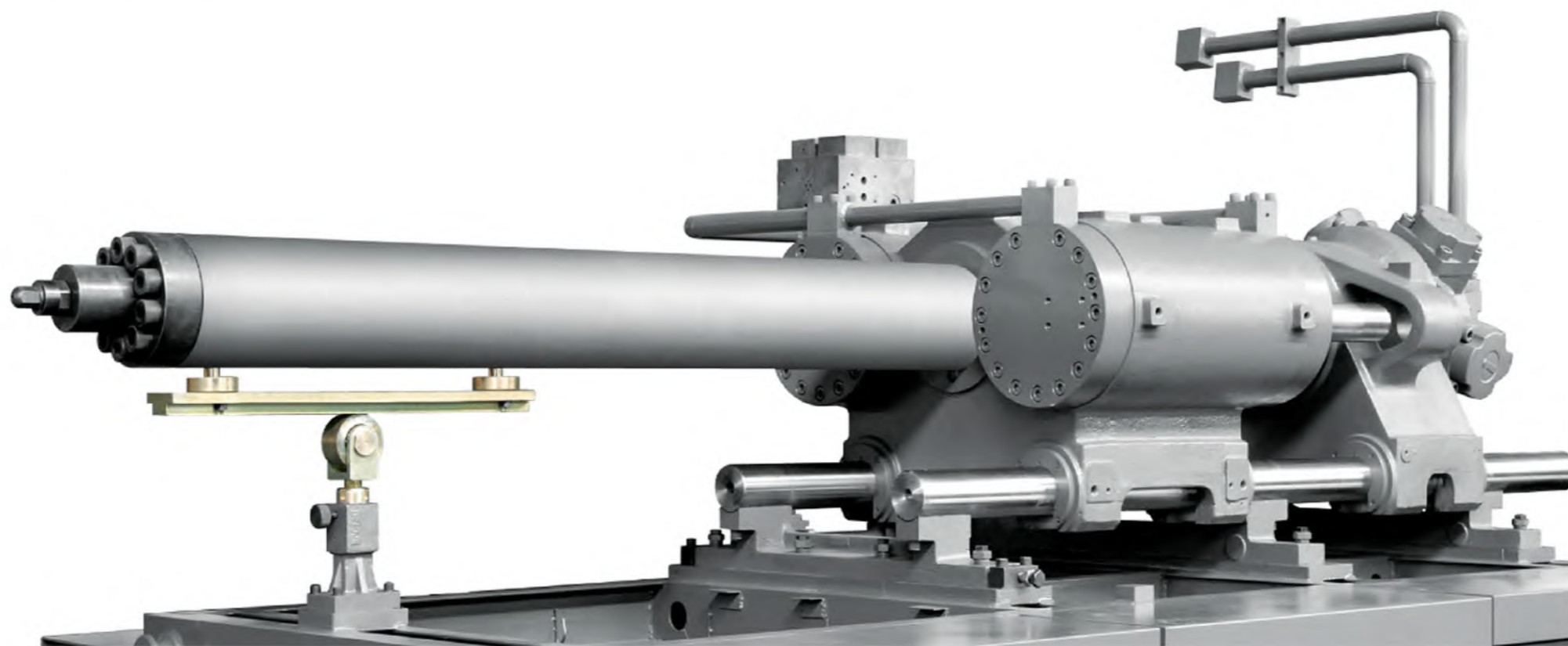
ACCURATE INJECTION and stable operation

注射精准、运行平稳



- Dual-cylinder balanced injection system
- Dual-cylinder base forward
- Multi-stage injection pressure/speed & position control
- Multi-stage storing pressure/speed & position control
- High-torque oil motor drive screw preplasticizing device
- Screw draw-back anti-drooling device
- Hopper temperature control by computer PID
- Ceramic hopper heating device
- Hopper blanking opening cooling system
- Screw speed tester

- 双缸平衡注射系统
- 双缸座台进移
- 多级注射压力/速度&位置控制
- 多级储料压力/速度&位置控制
- 高扭矩油马达驱动螺杆预塑装置
- 螺杆倒索防流涎装置
- 料筒温度通过电脑PID控制
- 陶瓷料筒加热装置
- 料筒下料口冷却系统
- 螺杆测速装置



- It adopts dual-injection structure, vertically balanced at each side of the body, which makes the whole injection part work stably.
- Dual-cylinder horizontal injection and low-speed high-torque motor directly driving the screw to finish preplasticizing.
- The injection part is equipped with three kinds of screws with different diameter to satisfy demands of products with different weight. A screw speed tester is also installed.
- The injection part adopts a centralized manual lubricating device, which is convenient for maintenance.
- Screws adopt dual alloy or nitridation.
- The adopting infrared heating coil (optional part)

- 采用双射移结构，垂直平衡于机筒两侧，使整个射台部分工作更平稳。
- 双缸平行注射，低速高扭矩马达直接驱动螺杆完成预塑。
- 注射部分配有三种不同直径的螺杆，以满足不同克重的产品需要，并安装了螺杆测速装置。
- 注射部件采用集中手动润滑装置，维护保养方便。
- 螺杆采用双合金或氮化
- 采用红外线纳米加热圈(选配件)

HYDRAULIC UNIT

液压单元

The hydraulic system wholly adopts imported hydraulic components of famous brands, which improves the oil circuit combining inserts and slide valves, and also effectively raises the response speed of the system. speed.

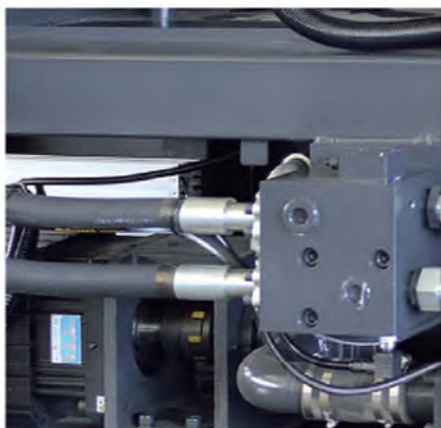
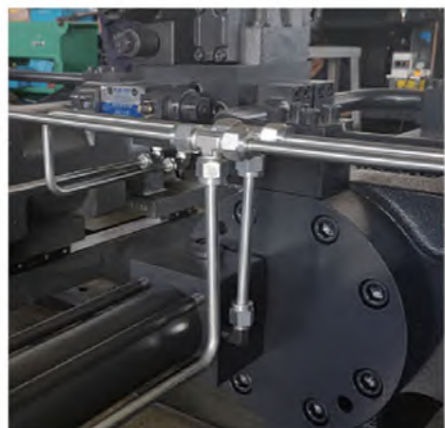
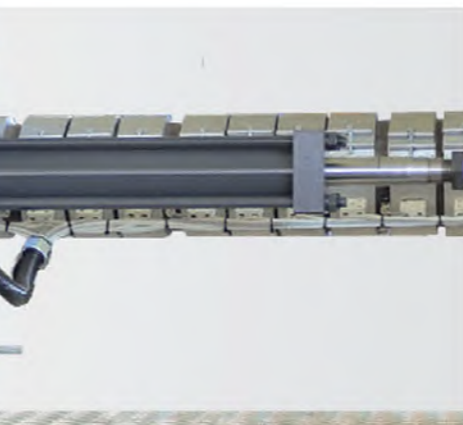
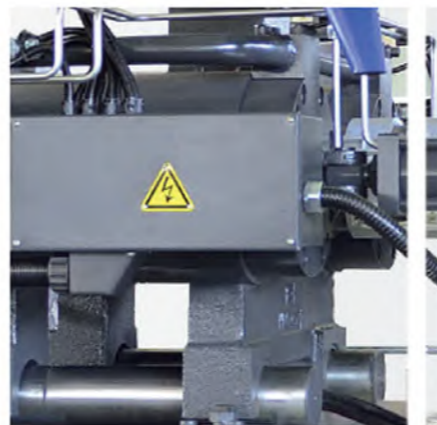
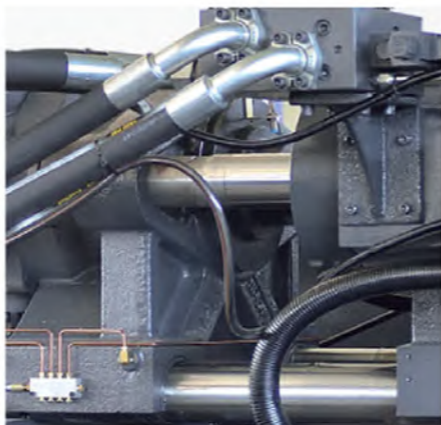
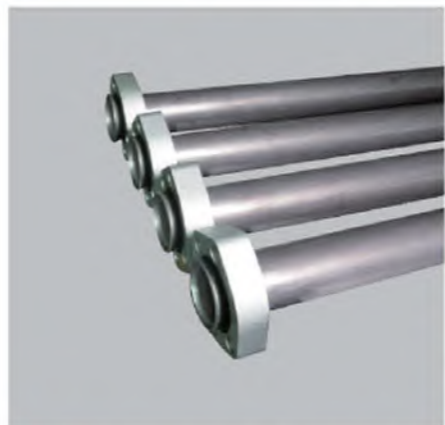
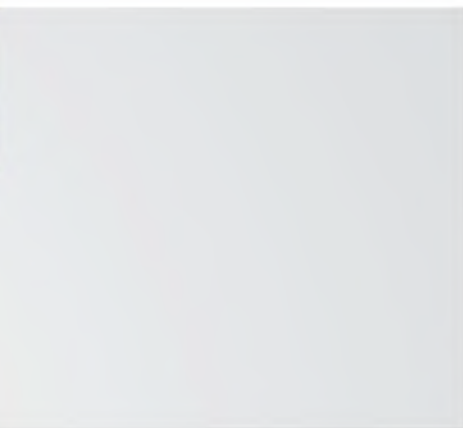
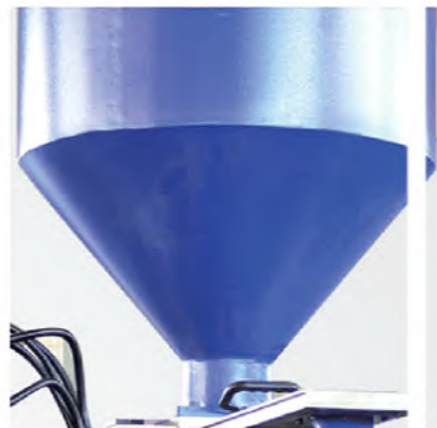
液压系统全部采用进口名牌液压元件，采用插装和滑阀相结合的油路，有效提升系统响应速度。

- Precise and stable hydraulic power device;
- Sensitive and stable hydraulic control elements;
- Oil circuit control system combining reasonably optimized inserts and slide valves, which improves the response speed of the system, and makes it convenient for maintenance;
- Proportionally optimized multi-pump control system;
- High-efficient and energy-saving servo control system;
- The whole series adopts flaring type seamless steel pipe to solve the problem of oil leakage.

- 精密稳定的液压动力装置；
- 灵敏稳定的液压控制元件；
- 合理优化的插装与滑阀相结合的油路控制系统，不仅提高了系统的响应速度，同时也方便维护；
- 优化配比的多泵控制系统；
- 高效节能的伺服控制系统；
- 全系列采用扩口式无缝钢管，解决了管路的漏油问题。

Fast response

and stable output 快速响应、稳定输出



HIGH-END CONTROLLER

高端控制器



JLINK IOT iLink物联网智能管理系统

- 完整的注塑机生产网络化管理解决方案
- 数据云端和客户终端相连接
- 统一分析监管注塑机的基本信息、故障情况、运行数据等机器的状态信息
- 塑料产品生产过程中的订单分配，工艺设定，模具选择等机器的生产信息
- Complete production network management solution for Injection molding machine.
- Data cloud and client terminal are connected.
- Analyze and supervise the basic information, fault, information, running data and other state information of injection molding machine.
- Order distribution, process setting, mold selection and other machine production information during the production process.

OPTIONAL FUNCTION
此功能为选配功能

NPC

NPC伺服驱动节能型精密注塑机



More efficient

And More Economical 更高效、更精确



- NPC伺服驱动节能型精密注塑机采用卓越系统，很好的解决了开锁模具震动大，运行不顺畅，从而影响机器寿命，并且导致良品率低的问题。
- NPC servo drive energy-saving precision injection molding machine adopts excellent system, which can solve the problem of large vibration of unlocking mold and unsmooth operation, thus affecting machine life and leading to low yield.
- 开模位置重复偏差<0.5mm
- Open position repeat deviation<±0.5mm
- 开模定位位置偏差<2.0mm
- Open locating position deviation<2.0mm
- 注射位置重复偏差<0.2mm
- Injection position repeat deviation<0.2mm
- 储料射退终点误差<0.1mm
- Charging and suck back end deviation<0.1mm

One-key setting of mold opening and closing

智能开模，一键设置。



相比于手动调节开关模，伺服系统运用智能AI技术，可一键设定开关模，完全自动化，简单化效率更高更节省时间和成本。

- One-key setting of mold opening and closing, easy to use
- Mold opening is fast and smooth to reduce machine wear
- High pressure clamping without impact to extend the life of the machine

该系统为选配置

NPC SERVO Technical Parameter

NPC伺服驱动节能型精密注塑机技术参数

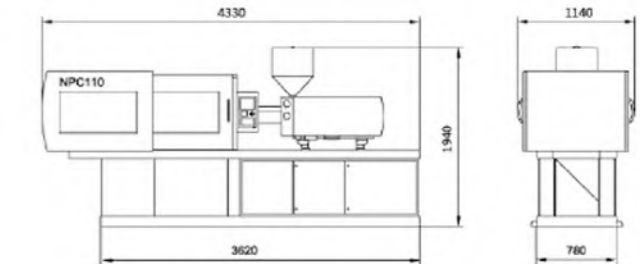
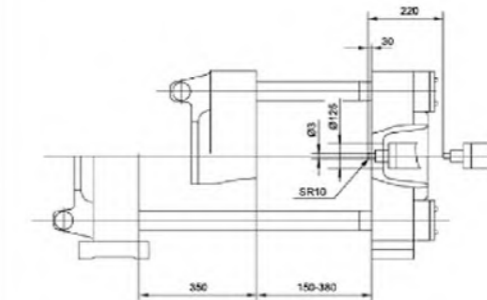
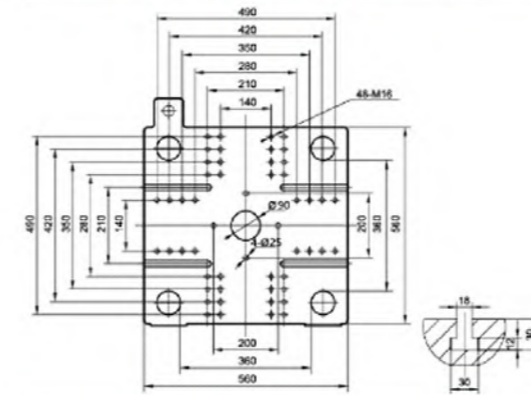
项目 Item	规格 Specification	NPC110				NPC140			NPC160		
		A	B	C	D	A	B	C	A	B	C
注射装置 Injection Unit											
螺杆直径 Screw diameter	mm	32	35	38	42	38	42	45	42	45	50
螺杆长径比 Screw L/D ratio	L/D	24.1	22	20.2	18.4	23.8	21.4	19.9	23.6	22	19.8
理论注射容量 Shot volume(theoretical) (ps)	cm ³	137	163	192	235	193	235	270	305	350	432
注射重量 Injection weight(ps)	g	125	148	175	213	176	213	246	277	319	393
注射速率 Injection rate	g/s	74	89	105	128	102	124	143	130	150	185
注射压力 Injection pressure	MPa	249	208	176	144	218	179	156	213	185	150
螺杆转速 Screw speed	rpm	210			190			180			
锁模装置 Clamping Unit											
锁模力 Clamping force	Kn	1100			1400			1600			
移模行程 Open stroke	mm	350			380			435			
拉杆间距(宽x高) Space between tie bars(WxH)	mm	360x360			410x410			470x470			
最大模厚 Max.Mould height	mm	380			450			520			
最小模厚 Min.Mould height	mm	150			160			180			
顶出行程 Ejector stroke	mm	100			120			135			
顶出力 Ejector force	Kn	38			50			50			
其他 General											
最大油泵压力 Max.Pump pressure	MPa	16			17.5			17.5			
伺服功率 Motor power/servo power	kw	18.7			18.7			23			
电热功率 Heating power	Kw	9.6			10			12.5			
外形尺寸(长x宽x高) Machine dimension(LxWxH)	m	4.32x1.1x1.9			4.75x1.19x1.98			5.28x1.34x2.06			
伺服机容积 Oiltank cubage	L	155			155			205			
机器重量 Machine weight	t	3.1			3.6			5.0			

注: 本公司将保留配置更改权, 上述配置如有变动, 恕不另行通知!

Note: We reserve the right as a result at future technical advances.due to continue improvement specifications are subject to change without notification!

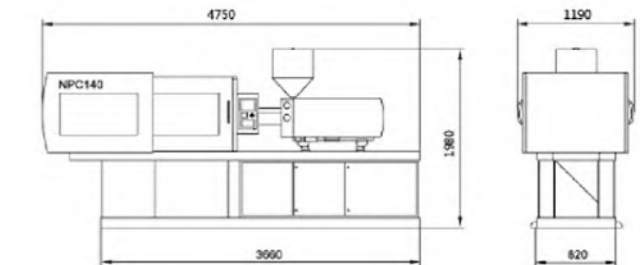
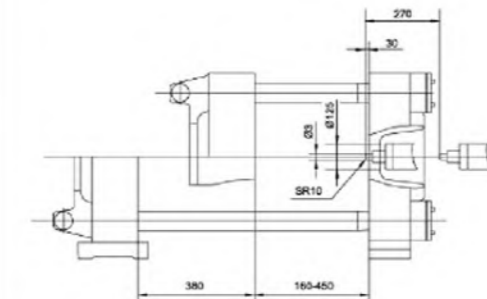
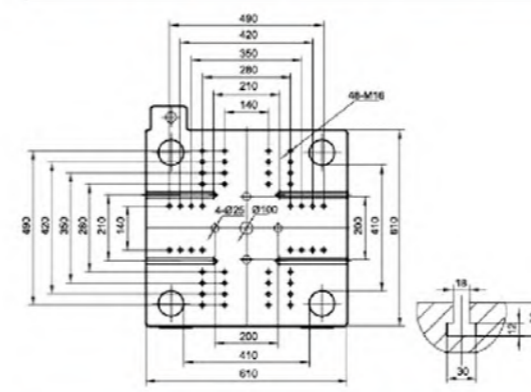
NPC110模板图, 机器外型图

Platen Figure Machine Exterior Figure



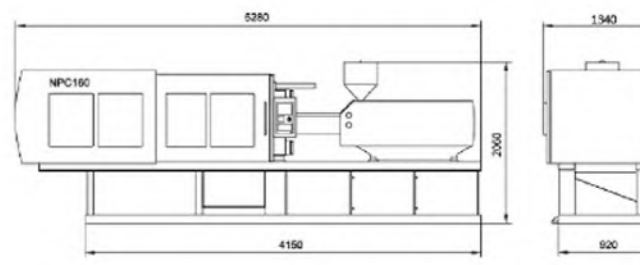
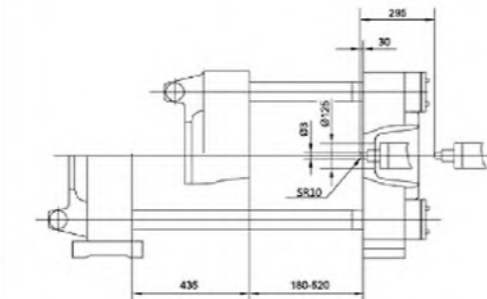
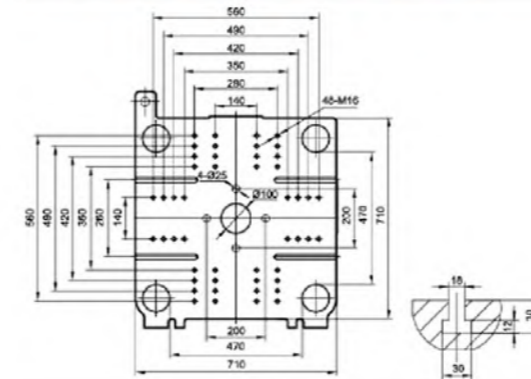
NPC140模板图, 机器外型图

Platen Figure Machine Exterior Figure



NPC160模板图, 机器外型图

Platen Figure Machine Exterior Figure



NPC SERVO Technical Parameter

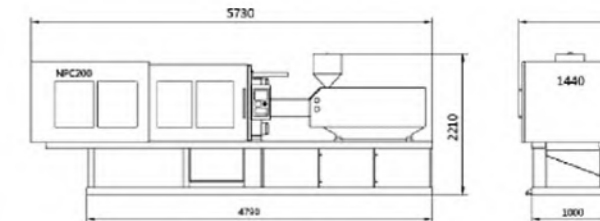
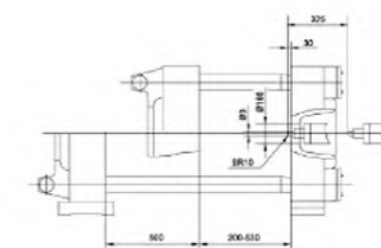
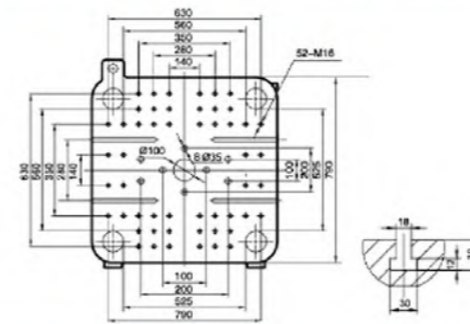
NPC伺服驱动节能型精密注塑机技术参数

规格 Specification		NPC200			NPC260			NPC280		
		A	B	C	A	B	C	A	B	C
注射装置 Injection Unit										
螺杆直径 Screw diameter	mm	45	50	55	50	55	60	55	60	65
螺杆长径比 Screw L/D ratio	L/D	23.3	21	19.1	23	21	19.2	22.9	21	19.4
理论注射容量 Shot volume(theoretical) (ps)	cm ³	397	490	593	510	617	735	676	805	945
注射重量 Injection weight(ps)	g	361	446	540	464	561	669	616	733	860
注射速率 Injection rate	g/s	146	180	218	198	240	285	202	241	282
注射压力 Injection pressure	MPa	239	194	160	224	185	155	240	201	171
螺杆转速 Screw speed	rpm	165			180			220		
锁模装置 Clamping Unit										
锁模力 Clamping force	Kn	2000			2600			2800		
移模行程 Open stroke	mm	500			540			590		
拉杆间距(宽x高) Space between tie bars(WxH)	mm	525x525			580x580			610x610		
最大模厚 Max.Mould height	mm	530			580			630		
最小模厚 Min.Mould height	mm	200			200			200		
顶出行程 Ejector stroke	mm	150			150			150		
顶出力 Ejector force	Kn	70			70			70		
其他 General										
最大油泵压力 Max.Pump pressure	MPa	17.5			17.5			17.5		
伺服功率 Motor power/servo power	kw	27.8			31.3			31.3		
电热功率 Heating power	Kw	14.9			18.1			21.2		
外形尺寸(长x宽x高) Machine dimension(LxWxH)	m	5.73x1.44x2.21			6.05x1.54x2.4			6.17x1.62x2.43		
伺服机容积 Oiltank cubage	L	205			275			300		
机器重量 Machine weight	t	6.8			7.8			8.4		

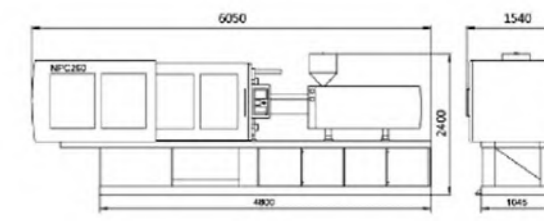
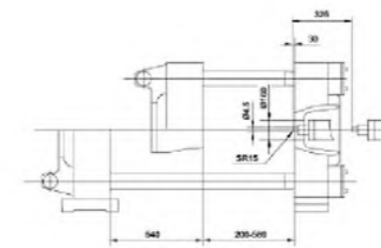
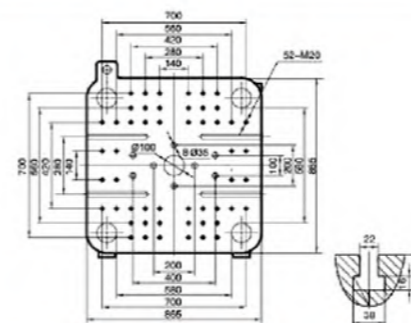
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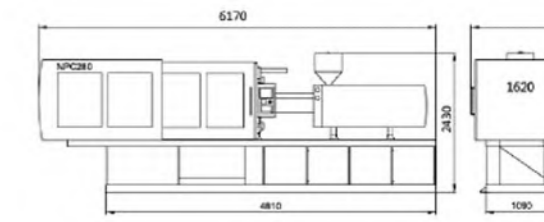
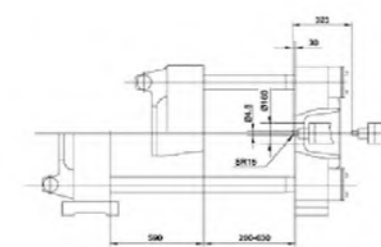
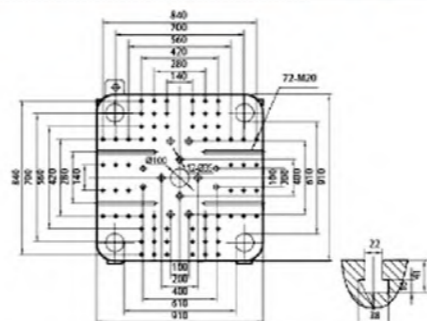
NPC200模板图, 机器外型图 Platen Figure Machine Exterior Figure



NPC260模板图, 机器外型图 Platen Figure Machine Exterior Figure



NPC280模板图, 机器外型图 Platen Figure Machine Exterior Figure



NPC SERVO Technical Parameter

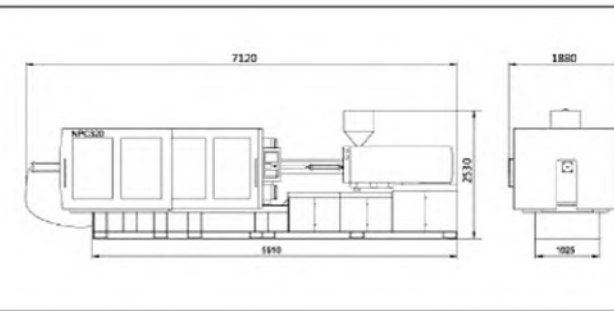
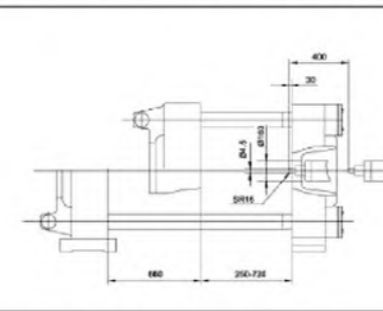
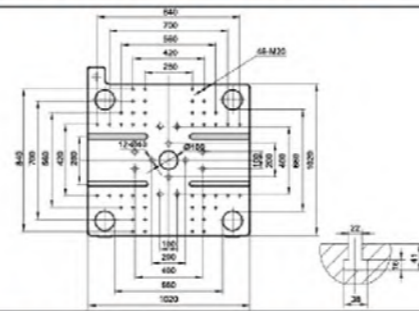
NPC伺服驱动节能型精密注塑机技术参数

项目 Item		规格 Specification		NPC320			NPC380			NPC450			NPC500			
		A	B	C	A	B	C	A	B	C	A	B	C	D		
注射装置 Injection Unit																
螺杆直径 Screw diameter	mm	65	70	75	70	75	80	70	75	80	75	80	85	90		
螺杆长径比 Screw L/D ratio	L/D	22.5	21.5	20	23.6	22	20.6	23.6	22	20.6	22.7	21	20	18.9		
理论注射容量 Shot volume(theoretical) (ps)	cm ³	1111	1289	1480	1500	1723	1960	1500	1723	1960	1948	2216	2485	2785		
注射重量 Injection weight(ps)	g	1013	1175	1349	1365	1567	1784	1365	1567	1784	1747	2016	2257	2538		
注射速率 Injection rate	g/s	263	304	350	336	386	439	336	386	439	396	451	509	571		
注射压力 Injection pressure	MPa	215	186	162	206	180	158	206	180	158	224	197	174	156		
螺杆转速 Screw speed	rpm	190			150			160			130					
锁模装置 Clamping Unit																
锁模力 Clamping force	Kn	3200			3800			4500			5000					
移模行程 Open stroke	mm	660			720			770			850					
拉杆间距(宽x高) Space between tie bars(WxH)	mm	660x660			720x720			770x770			820x820					
最大模厚 Max.Mould height	mm	720			780			780			910					
最小模厚 Min.Mould height	mm	250			250			250			330					
顶出行程 Ejector stroke	mm	180			180			200			240					
顶出力 Ejector force	Kn	70			110			110			150					
其他 General																
最大油泵压力 Max.Pump pressure	MPa	17.5			17.5			17.5			17.5					
伺服功率 Motor power/servo power	kw	50.7			50.7			50.7			60.5					
电热功率 Heating power	Kw	31.4			35			35			40.7					
外形尺寸(长x宽x高) Machine dimension(LxWxH)	m	7.12x1.88x2.53			7.83x1.83x2.58			8.08x2.0x2.62			8.53x2.08x2.6					
伺服机容积 Oiltank cubage	L	635			745			815			890					
机器重量 Machine weight	t	12.5			14.0			16.3			20.0					

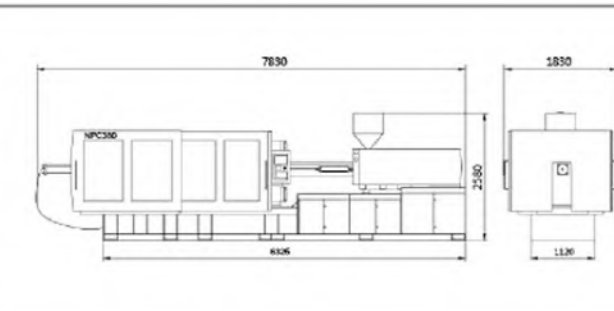
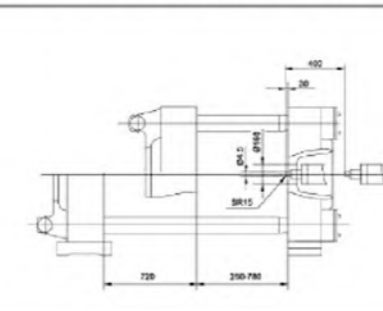
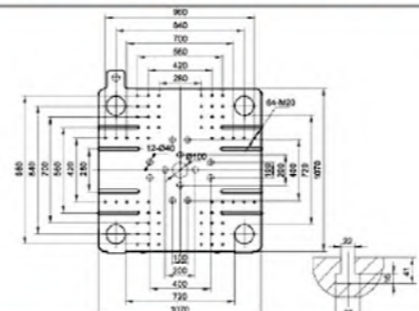
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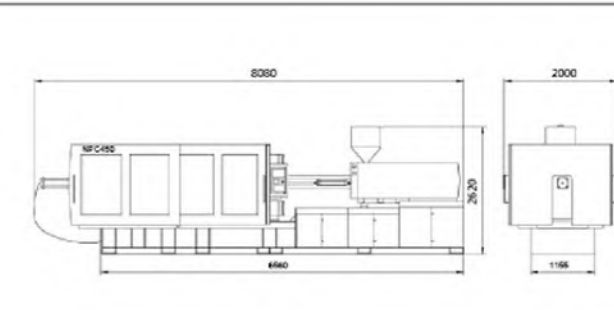
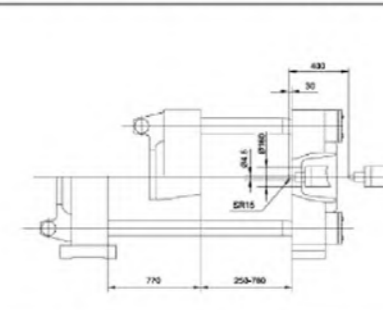
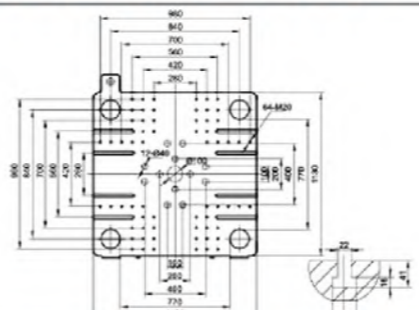
NPC320模板图, 机器外型图 Platen Figure Machine Exterior Figure



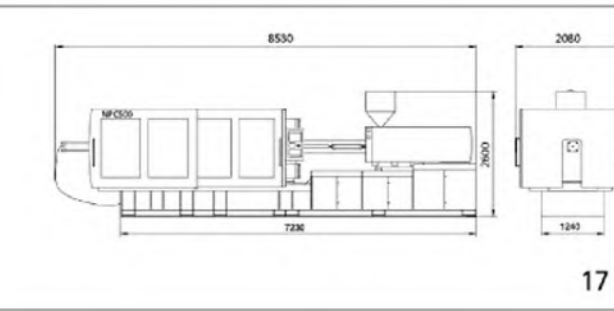
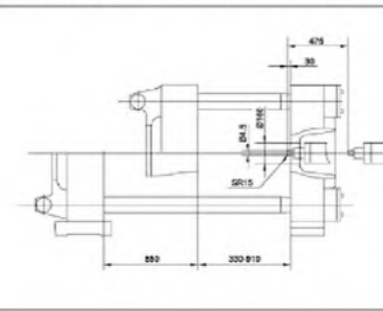
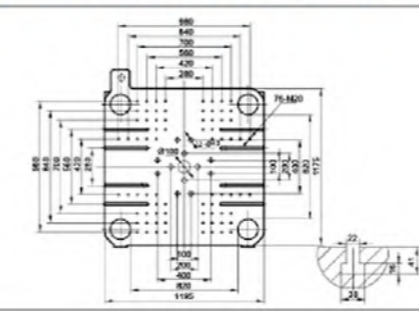
NPC380模板图, 机器外型图 Platen Figure Machine Exterior Figure



NPC450模板图, 机器外型图 Platen Figure Machine Exterior Figure



NPC500模板图, 机器外型图 Platen Figure Machine Exterior Figure



NPC SERVO Technical Parameter

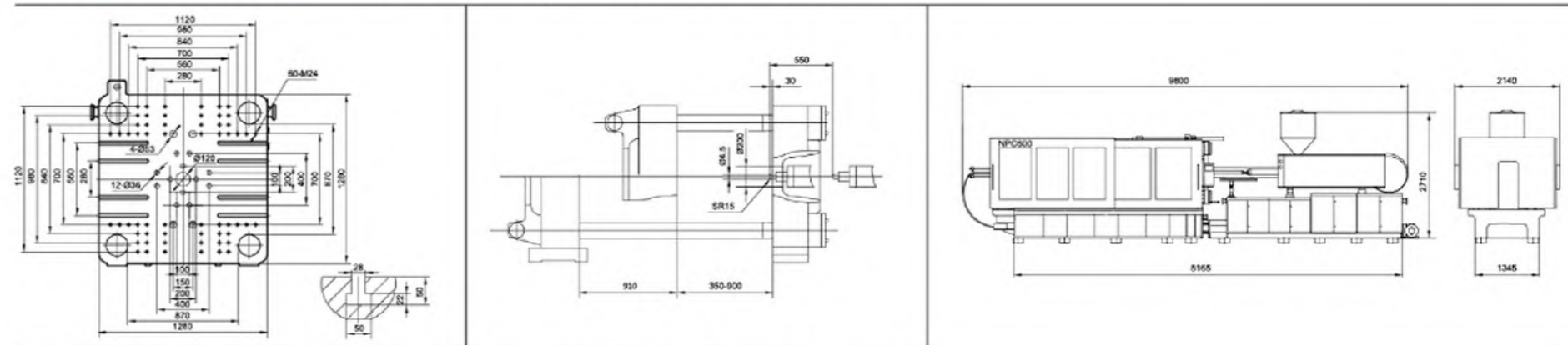
NPC伺服驱动节能型精密注塑机技术参数

项目 Item		规格 Specification		NPC600				NPC730				NPC900			
		A	B	C	D	A	B	C	D	A	B	C	D		
注射装置 Injection Unit															
螺杆直径 Screw diameter	mm	90	95	100	105	90	95	105	110	90	100	110	120		
螺杆长径比 Screw L/D ratio	L/D	23.1	21.9	20.7	19.7	23.2	22	19.9	19	24.2	22	20	18.3		
理论注射容量 Shot volume(theoretical) (ps)	cm ³	2544	2835	3140	3461	2926	3260	3983	4371	3499	4320	5227	6220		
注射重量 Injection weight(ps)	g	2315	2580	2858	3152	2663	2967	3625	3977	3184	3930	4757	5660		
注射速率 Injection rate	g/s	653	727	806	889	588	656	801	879	583	720	871	1036		
注射压力 Injection pressure	MPa	185	166	150	136	206	185	151	138	237	192	159	133		
螺杆转速 Screw speed	rpm	150				115				100					
锁模装置 Clamping Unit															
锁模力 Clamping force	Kn	6000				7300				9000					
移模行程 Open stroke	mm	910				970				1100					
拉杆间距(宽x高) Space between tie bars(WxH)	mm	870x870				970x970				1080x1030					
最大模厚 Max.Mould height	mm	900				960				1100					
最小模厚 Min.Mould height	mm	350				400				450					
顶出行程 Ejector stroke	mm	250				280				300					
顶出力 Ejector force	Kn	150				210				245					
其他 General															
最大油泵压力 Max.Pump pressure	MPa	17.5				17.5				17.5					
伺服功率 Motor power/servo power	kw	60.5+20.5				60.5+20.5				50.7+50.7					
电热功率 Heating power	Kw	55.55				61.1				65.6					
外形尺寸(长x宽x高) Machine dimension(LxWxH)	m	9.8x2.14x2.71				11.2x2.35x2.90				12.00x2.62x3.01					
伺服机容积 Oiltank cubage	L	990				1180				1565					
机器重量 Machine weight	t	26.3				32.6				47.3					

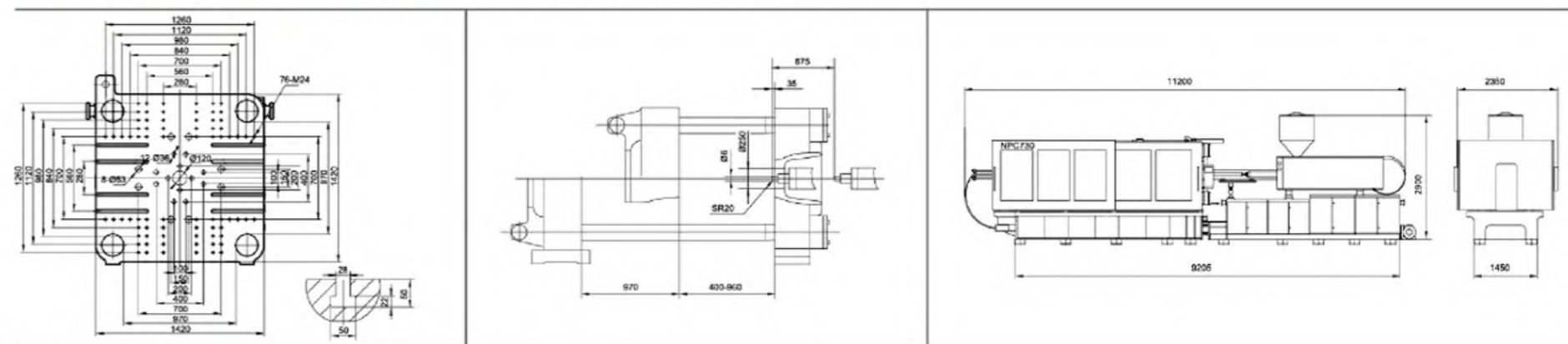
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NPC600模板图, 机器外型图 Platen Figure Machine Exterior Figure



NPC730模板图, 机器外型图 Platen Figure Machine Exterior Figure



NPC900模板图, 机器外型图 Platen Figure Machine Exterior Figure

