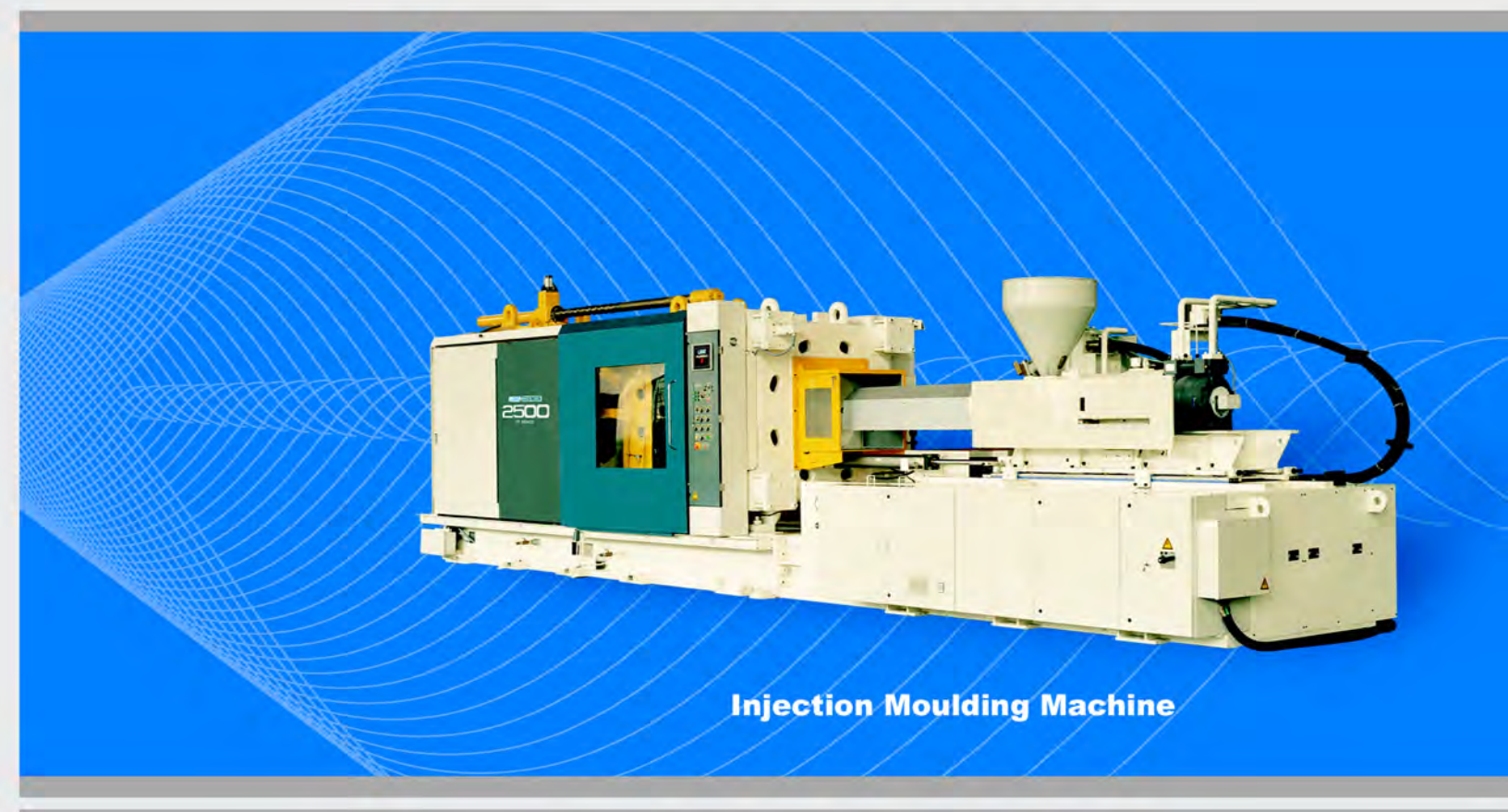


UBE-COSMOS



**PZIII 系列
ST 系列
注塑机**



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COSMOS MACHINERY LTD.
(大同机械企业有限公司成员 Member of Cosmos Machinery Enterprises Ltd.)

大同机械(东莞)销售有限公司
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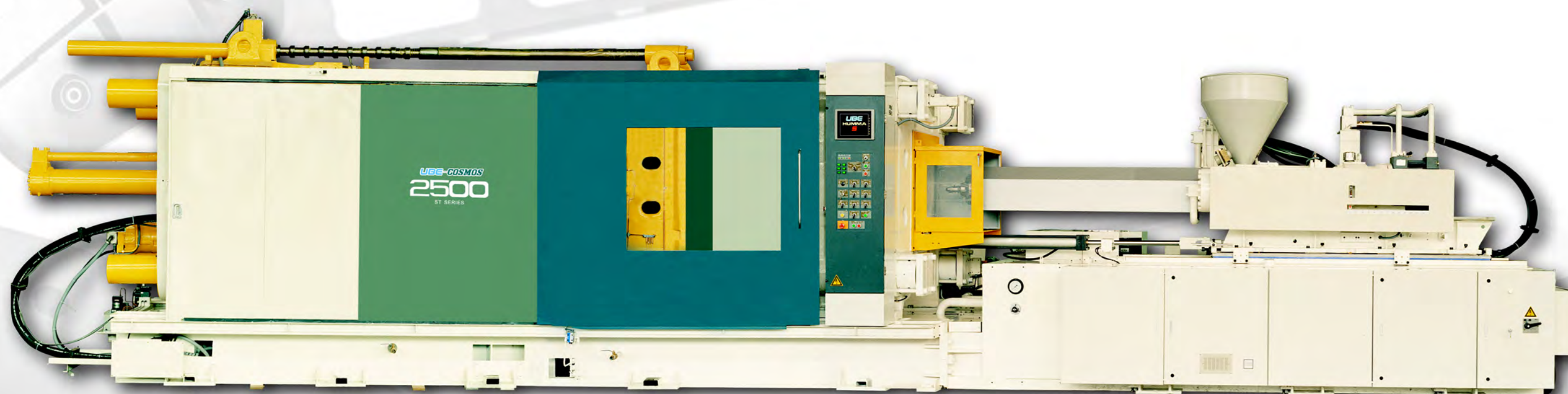
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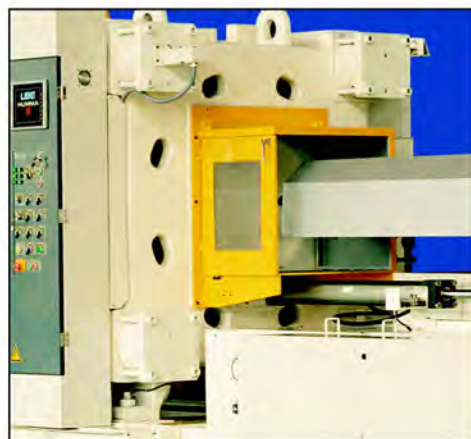
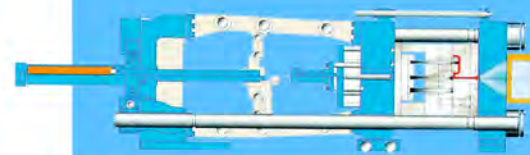
无锡宇部大同机械有限公司
WUXI UBE COSMOS MACHINERY LTD.

UBE-COSMOS

宇部一大同 PZ III、ST 系列注塑机是日本宇部兴产机械株式会社投放市场多年的一款成熟产品，伴随了国际汽车塑件制造发展的历程。如今，合资双方组建的技术研发和服务团队将会更好地为新世纪的汽车工业提供独特的塑件生产解决方案。

UBE-COSMOS PZ III and ST series Injection Moulding Machines are well-proven machines developed by UBE Machinery Corporation, Ltd. (Japan). With the development of auto plastic parts manufacturing in the international market, the technology research and service team established by both parties will contribute on-going unique and professional plastic parts production solution to auto industries in the New Century.





■采用有限元要素法设计的箱式模板具有刚性高的特点，超大四柱内距、超长合模行程设计，适合生产汽车保险杠、仪表盘、大型的家电产品外壳等塑料产品。

■合模力自动纠正功能：当由于模具热膨胀等原因使合模力发生变化偏离原设定值时，机器即时进行自动纠正，使合模力回复到原有设定值，保证了塑料制品的生产始终在恒定的合模力的状态下进行。

■合模力的设定：可用所需合模力的数值直接设定合模力，并配有合模力数值显示功能，操作直观、简便。

■无油衬套被使用在合模机构的肘节部位，避免加油的繁琐以及由润滑油产生的污染，塑造清洁的工作环境。(PZIII系列)

■特殊处理的销轴：曲肘机构的销轴采用了高韧性的特殊材料，并且在轴套和销轴表面均采用了特殊的涂层，大大增加了其耐磨性。(ST系列)



■Featured by high strength, high rigidity, large-dimensioned mould platen and large mould opening stroke, it is favorable for manufacturing plastic products such as automobile bumpers and instrument panels as well as the outer shells of large-sized household appliances.

■ Automatic adjustment for clamping force.

When the clamping force is deviated from the setting data due to the temperature or other environmental changing, the machine will adjust its clamping force at the setting value simultaneously and automatically. As a result, the clamping force can be kept at very stable stage all the time.

■ The clamping force can be set directly by its own data and can be displayed on the screen.

■ Oil-free bushes are used in the clamping units to get rid of the troubles of oil refills as well as the pollution by lubricant, which contributes to a clean working place. (PZIII Series)

■ In toggle mechanism, the pins are made of special material, and the special coating are used on the surface of the pins & bushes to enhance the wear-resisting greatly. (ST Series)



■润滑报警：在曲肘机构润滑管路中，装备润滑油压力检测装置，连续三次压力检测异常，电脑发出警报，提醒及时检修，保证曲肘机构始终保持良好的润滑。(ST系列)

■复合动作：在开合模的同时能进行顶出或抽插芯的复合动作，节约循环时间，大大提高生产效率。

■调模锁紧装置：调模结束后调模机构将被一气动装置立即锁紧，保证已调整好的模厚不会发生任何变化。

■快速拆卸拉杆装置：能在几分钟内，将操作面一侧上部的那根拉杆自动从头板上拔出，并向后退缩到您需要的距离。这使装卸特大型模具变得轻松、快捷和安全。(选项)

■采用了重复精度、检测精度优良，且使用寿命长的回转式编码器控制位移。



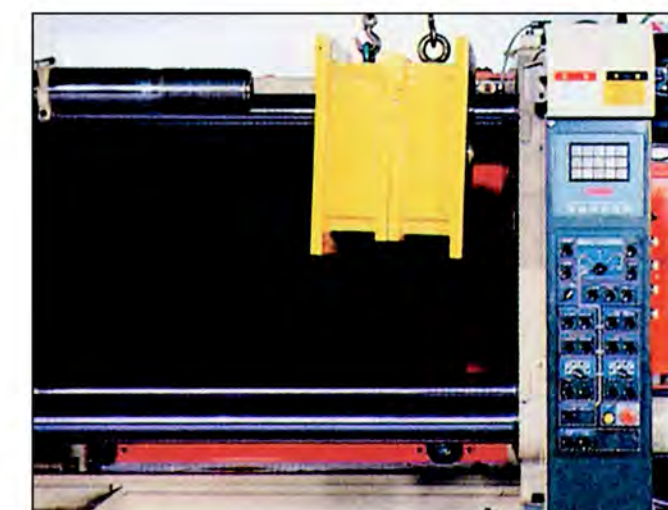
■Lubricant pressure can be examined and the computer will give an alarm if three continual abnormal lubricating pressure are inspected. The customer can then be reminded to check and repair the lubrication system in time and the machine can always run at normal lubrication condition. (ST Series)

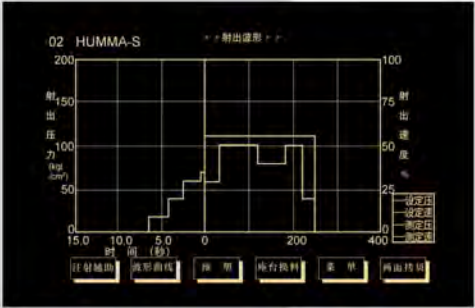
■The ejection and core-in-out movement can be done at the same time during the mold closing & opening so that the production efficiency can be improved a great deal.

■The mold-thickness adjustment device can be locked up by a pneumatic device after the mold-thickness has been adjusted well in case of any mould thickness changing during operation.

■ One tie-bar which located in front & up position can be easily pulled out from the fixed platen to anywhere you want to pull by an auto disassemble device in just a few minutes.(Optional)

■Displacement is controlled by the encoder which features high repeating & detecting precision and long service life.



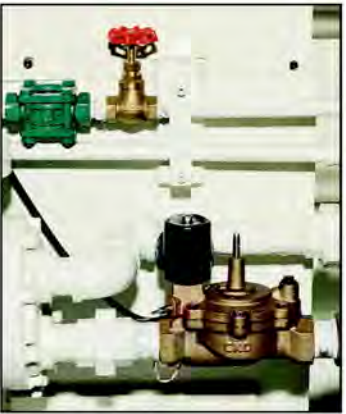


- 多种螺杆设计: 除了高标准的通用螺杆外, 还有双线螺旋的SP 螺杆、带高混均的混炼环的螺杆以及耐磨耐腐蚀的螺杆料筒供选用, 以满足不同树脂生产的需要。
- PPC 高性能注射方式: 以注射压力值的检测作为注射到保压的切换依据, 大大提高了塑制品成型的控制精度。
- 保压闭环控制: 保压时, 电脑对检测到的实际压力进行自动修正, 使之与设定值精确一致, 更进一步提高了塑制品生产的重复精度与完美度。(选项)
- 注射波形图的显示, 让操作人员直观地了解注塑全过程的压力状态, 利于快速调整到理想的注塑工艺参数。
- 耐磨新材料被使用在注射座底部的滑动面, 使移动更轻捷、寿命更长。
- 采用扭矩切换的熔胶马达, 能根据树脂特性设定合适的螺杆扭矩。

- In addition to the normal high-standard screw, several other special screws are developed, such as the double-helical wave screw (SP screw), the wear-resisting & anti-corrosion screw
- The change-over point from injection to hold-on can be controlled by the injection pressure., In this way, the quality of plastic molding can be improved greatly.
- Loop control for pressure hold:The actual pressure detected by the computer will be modified automatically to ensure the accuracy of the setting value.(optional)
- The injection & holding-on pressure oscillogram can be seen on the screen.
- A new wear-resisting material has been used under the injection carriage.
- Suitable screw torque can be selected according to the different resin property since the torque of the plasticizing motor can be changed.

- 全部液压元器件均为世界名牌公司产品, 确保液压系统工作稳定可靠。
- 采用油泵组合回路, 节省能源。
- 可作差动高速合模动作, 生产效率高。
- 在开合模油路中, 均采用了缓冲装置, 确保开合模的平稳、无冲击。
- 液压油多重过滤: 除在油箱内装备了吸入式过滤器和电磁分离器外, 还可装备旁路过滤器供选用, 更好地保证了液压油的工作质量。
- 可对液压油的工作温度 (33℃~55℃) 进行自动控制, 保证各液压元件的工作稳定。
- 进料口冷却水断水检测报警装置的选用可排除您对进料口冷却效果的担心。(选项)

- All hydraulic components are imported from famous companies to ensure working stable & reliable.
- Adopting pump-combined output circuit to save energy.
- The mold closing movement controlled by a differential valve can be done at high speed. The production efficiency is high.
- In the hydraulic circuit, there are buffer devices for both mold opening & closing to ensure no any impact action occurring at all.
- Multi-filter function:Except the suction filter & electric-magnetic separator have been used in the oil tank, a side-filter can be assembled out side of oil tank for optional case. Thus the oil quality can be kept at very good working condition.
- The oil temperature (33℃~55℃) can be controlled automatically to ensure all hydraulic element working stable.
- To alarm for water shortage for in the end of barrel to avoid any worry.(Optional)



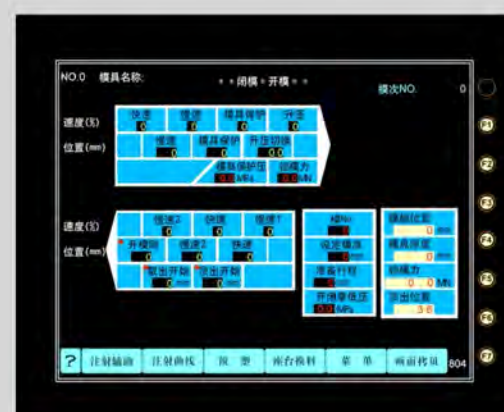
名称	特征	适用树脂
STD螺杆		所有树脂
高混均型螺杆头		特别是对颜色分散性差的树脂成形有效果。而且, 对合金系列的树脂也适用。
SP螺杆		特别是对颜色分散性差的树脂成形有效果。

■采用日本三菱最新PLC电脑,具有非凡的抗干扰性能。确保机器运行的稳定、可靠和快捷。

■所有电器元件均为世界名牌公司产品，确保电器系统控制稳定可靠。

■ The Japanese made Mitsubishi computer (PLC) has been used. It features very strong anti-interference & it runs extremely stable & reliable.

■ All electrical components are imported from famous companies to ensure working stable & reliable.



■采用彩色触摸式显示屏，使调整机器参数和检查监视机器运行状态的功能键及显示页面的数量大大增加，真正实现了内容广泛的人机对话。

■故障诊断显示功能 当机器发生故障时,电脑将自动地作出多达56种不同故障的详细诊断和显示,并配有相应的故障位置示意图,有利于快速地排除故障。

■各段料筒温度控制均采用PID自动调谐精密控制，温控精度极高。

■不但可监察和显示整个成型过程的流程状况,而且还记录并显示最近四模内的各动作的实际运行时间、位置数据,便于监视和分析注塑过程中的成型质量。

■ Adopting the color touching screen, the quantities of function keys & displaying pages, which used for parameter setting & checking the machine running condition, have been increased a great deal. It means the operator can make a easy dialogue with the computer extensively.

■ The computer will do 56 different self diagnosis work automatically if any trouble occur. It will tell you what the trouble is & where the trouble occur with alarming so that you can do trouble-shooting quickly.

- The temperature for the barrel is controlled in PID way. It can be controlled at very high accuracy.

■ Not only the computer can show the whole molding flow chart, but also the actual operating time & position for the latest 4 moldings can be showed on the screen.



PZIII 系列 参数表(350t ~ 850t)

			PZIII350		PZIII450		PZIII650		PZIII850	
			A	B	A	B	A	B	A	B
INJECTION	注射	Screw type	螺杆类型							
		Screw diameter	螺杆直径	mm	63	71	71	80	90	100
		Theoretical injection volume	理论注射容积	cm ³	981	1247	1405	1784	2862	3534
		Injection weight(PS)	注射重量	g	902	1147	1292	1641	2633	3251
				oz	35	45	50	63	100	125
		Injection pressure on material	注射压力	kg/cm ²	1812	1427	1805	1421	1853	1501
		Injection rate	注射速率	cc/sec	266	338	322	422	486	600
		Screw speed	螺杆转速	rpm		174	138	138	107	107
		Plasticizing capacity(PS)	塑化能力(PS)	kg/Hr	188	197	202	212	296	314
		Clamping force	合模力	ton		350		450		650
CLAMPING	合模	Space between tie bars(H × V)	拉杆间距	mm		710 × 710		810 × 810		950 × 950
		Platen size	模板尺寸	mm		1040 × 1040		1170 × 1170		1390 × 1390
		Die thickness(STANDARD)	模厚尺寸	mm		300 ~ 710		380 ~ 800		400 ~ 1000
		Clamping stroke	合模行程	mm		710		800		1000
		Daylight	模板最大开距	mm		1010 ~ 1420		1180 ~ 1600		1400 ~ 2000
		Ejection force	顶出力	ton		8		12.5		20.0
		Ejection stroke	顶出行程	mm		125		140		180
		Motor	油泵电机	kW		45		55		55 + 30 = 85
		Heater capacity	加热器容量	kW		22.0		26.8		44.8
		Tank	油箱容量	L		650		750		1250
GENERAL	整机	Nozzle center height	喷嘴芯高	mm		1455		1475		1485
		Cooling water	冷却水量	L/min		70 × 32℃		85 × 32℃		180 × 32℃
		Machine dimesion(L × W × H)	机械尺寸	m		8.1 × 1.8 × 2.3		8.8 × 1.9 × 2.1		10.8 × 2.4 × 2.5
		Weight	重量	ton		16		20		32

ST 系列 参数表(1000t ~ 3500t)

			ST1000		ST1300		ST1600		ST1800		ST2200		ST2500		ST3150		ST3500	
			A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
INJECTION	注射	Screw type	螺杆类型															
		Screw diameter	螺杆直径	mm	100	112	112	120	120	132	132	140	132	140	140	150	150	160
		Theoretical injection volume	理论注射容积	cm ³	4712	5911	6620	7600	8143	9853	10838	12191	10838	12191	12930	14844	15904	18095
		Injection weight(PS)	注射重量	g	4335	5438	6090	6992	7491	9065	9970	11215	9970	11215	11895	13656	14631	16647
				oz	170	210	240	280	300	360	400	440	400	440	470	540	580	660
		Injection pressure on material	注射压力	kg/cm ²	1731	1380	1708	1487	1704	1409	1722	1531	1722	1531	1761	1534	1748	1536
		Injection rate	注射速率	cc/sec	680	853	821	942	823	996	1087	1223	1087	1223	1063	1220	1408	1602
		Screw speed	螺杆转速	rpm		150		132		107		132		132		105		128
		Plasticizing capacity(PS)	塑化能力(PS)	kg/Hr	400	500	530	550	600	580	670	700	670	700	750	730	800	750
		Clamping force	合模力	ton		1000		1300		1600		1800		2200		2500		3150
CLAMPING	合模	Space between tie bars(H × V)	拉杆间距	mm		1200 × 1200		1310 × 1265		1520 × 1410		1800 × 1600		1800 × 1700		1900 × 1700		2154 × 1900
		Platen size	模板尺寸	mm		1700 × 1700		1915 × 1890		2200 × 2100		2600 × 2300		2600 × 2300		2800 × 2450		3175 × 2800
		Die thickness(STANDARD)	模厚尺寸	mm		600 ~ 1100		650 ~ 1300		800 ~ 1500		900 ~ 1900		880 ~ 1880		900 ~ 1900		900 ~ 1900
		Clamping stroke	合模行程	mm		1400		1500		1700		1700		1700		1800		2000
		Daylight	模板最大开距	mm		2000 ~ 2500		2150 ~ 2800		2500 ~ 3200		2600 ~ 3600		2580 ~ 3580		2700 ~ 3700		2900 ~ 3900
		Ejection force	顶出力	ton		30		38.1		47		47		47		59		59
		Ejection stroke	顶出行程	mm		200		250		250		300		300		350		350
		Motor	油泵电机	kW		55 + 45 = 100		75 + 45 = 120		75 + 45 = 120		55 × 3 = 165		55 × 3 = 165		55 × 3 = 165		75 × 3 = 225
		Heater capacity	加热器容量	kW		40		50		56		60		71		75		80
		Tank	油箱容量	L		1400		1700		1700		2400		2400		2400		3200
GENERAL	整机	Nozzle center height	喷嘴芯高	mm		1620		1620		1750		1950		1950		2000		2200
		Cooling water	冷却水量	L/min		180 × 32℃		180 × 32℃		180 × 32℃		240 × 32℃		240 × 32℃		240 × 32℃		330 × 32℃
		Machine dimesion(L × W × H)	机械尺寸	m		12.5 × 2.7 × 2.9		13.6 × 2.9 × 2.9		15.0 × 3.3 × 3.2		16.5 × 3.7 × 3.5		17.0 × 3.8 × 3.55		18.0 × 3.9 × 3.65		19.5 × 4.3 × 4.1
		Weight	重量	ton		60		72		95		125		145		165		230

规格参数如遇设计更改，恕不另行通知。 the specifications are subject to changes without additional notice.

标准配置 Standard function & allocation

合模部分 Clamping Unit

高刚性、快速曲肘式合模机构
开合模参数数字设定及显示
合模力数据直接设定及显示
调模参数及模厚数据设定及显示
合模力自动纠正控制
差动快速合模功能
模具保护控制功能
开合模中的顶出动作和开合模中的抽插芯动作
合模侧集中式自动润滑系统(ST 系列)
电气、液压二重联锁安全保护功能
安全门和罩壳
模具定位圈

toggle clamping structure with high rigidity & high speed
mould opening & closing data setting & display
clamping force data setting directly & display
mould thickness adjustment data setting and display
automatic correction control system for clamping force
differential valve for mould closing with high speed
mould protection control system
core-in & core-out is done while mould opening and closing
automatic lubricating system at the clamping unit(ST Series)
electronic & hydraulic dual interlock safety protection function
safety door and outer shell
mould fixing gasket

顶出及模具 Ejector and mould unit

2 级顶出数字设定及显示
顶出杆标准组件
模具冷却水标准组件

ejection data setting & display
standard ejector rod unit
standard mould cooling unit

机械手 Robot

机械手安装螺孔加工
机械手接口

fixing hole with thread for robot assembling
interface for robot

注射部分 Injection Unit

标准螺杆、料筒（氮化）
标准螺杆头、止回环
喷嘴及喷嘴头
喷嘴头突出量：50mm
5 级注射、3 级保压
V-P 转换（注射保压转换）：PPC/时间/位置
2 级预塑、2 级背压控制
预塑背压数字设定及显示
防止螺杆冷启动功能
防流涎功能
注射、保压压力波形图显示
喷嘴后退时刻：
固定、注射后、预塑后、冷却后

standard screw and barrel(nitrided)
standard screw head with returning-stop ring
nozzle and nozzle tip
excess for nozzle tip: 50mm
5 steps injection and 3 steps hold-on control
V-P change-over; PPC/time/position
2 steps plasticizing & 2 steps back-pressure control
plasticizing & back-pressure setting and display
protection screw start-up from cold
decompression function
injection and hold-on pressure oscillogram display
nozzle back time:
fixed, after injection, after plasticizing, after cooling

加热及其它 Heating parts and others

PID 方式控制料筒加热温度
料筒加热预设定（一周内）
料筒加热低温控制
料筒温度传感器：K 型热电偶
加热圈隔热罩
加热圈漏电断路器
料筒温度异常报警
液压式注射部件回转装置
喷嘴对中调整机构

barrel temperature control in PID way
the barrel heating time pre-setting (within one week)
low-temperature control for barrel heating
barrel temperature transducer; K-type thermocouple
heatproof cover for barrel heating device
electricity -leakage breaker for heating device
abnormal barrel temperature alarm
hydraulic device for injection carriage rotation
nozzle center adjustment device

液压部分 Hydraulic Unit

压力匹配回路

pressure matching loop

油泵组合输出回路
液压油预热电路（负载式）
油冷却器冷却水自动开闭阀门及油温显示
磁性分离器

pump – combined out put circuit
oil pre-heating circuit (load type)
oil cooling switch on & off automatically ,oil temperature display
magnetic separator

电器控制部分 Electric Control Unit

三菱 PLC 电脑
触摸式彩色显示屏
紧急停止按钮
生产任务结束停止系统
自动洗料运转系统
内部储存模具参数 20 套
故障报警及显示
成型监视显示
联锁检查记录
注塑机运行监察画面显示

Mitsubishi PLC processor
TFT color LCD
emergency button
operation ending control system
automatic material-cleaning system
20 sets mould operating parumeters stored internally
trouble alarm & display
molding monitor display
interlock checking record
whole process moniting & display

其它 Others

标准供电电压 AC380V 50HZ 3 相
标准颜色

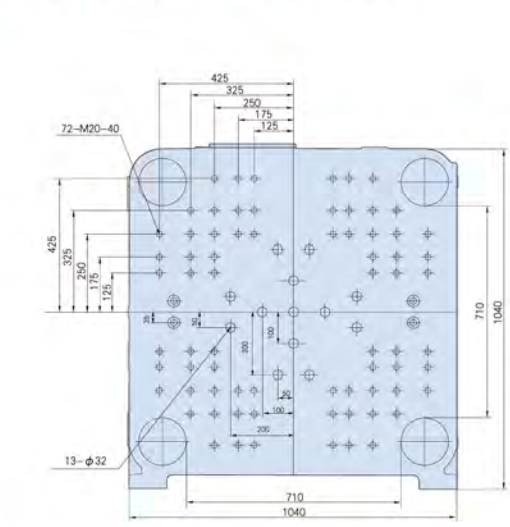
standard power supply:AC380V 50HZ 3-phase
standard colors

备选配置 Optional

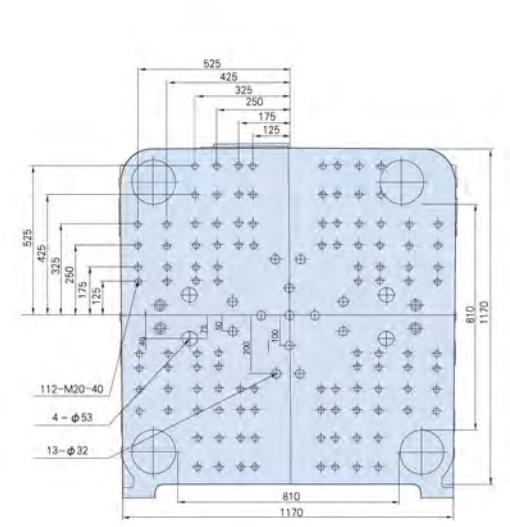
T 型槽模板
标准模板用紧固件（螺钉、螺母、压板）
T 型槽模板用紧固件（螺钉、螺母、压板）
机械安全保护装置
操作侧的自动安全门
液压抽插芯装置：
固定侧：1 回路
移动侧：1 回路
固定侧：2 回路
移动侧：2 回路
气动顶出装置：
固定侧：1 回路
移动侧：1 回路
气动抽插芯装置：
固定侧：1 回路
移动侧：1 回路
氮化规格双螺旋 SP 螺杆及料筒
耐磨、耐腐蚀规格双螺旋 SP 螺杆及料筒
高混均性混炼环及螺杆头组件
加长喷嘴（包括加热圈）
喷嘴防护罩
保压闭环控制
加热圈断线检测及报警
进料口冷却水断水警报
旁路滤油器回路
打印机
快速拆卸拉杆装置
液压系统油箱油位警报装置
料斗检查平台
模具参数储存卡系统
气动回路气压压力不足警报装置

platen with T-slot
standard platen fixing parts (screw, nut and pressboard)
T-type platen fixing parts (screw, nut and pressboard)
mechanical safety protection
auto-safety door at operating side
hydraulic core-in-out device:
fixed platen: 1 set
moving platen: 1 set
fixed platen: 2 sets
moving platen: 2 sets
pneumatic ejector:
fixed platen: 1 set
moving platen: 1 set
pneumatic drawing core device:
fixed platen: 1 set
moving platen: 1 set
nitrided double thread SP screw and barrel
the wear-resisting & anti-corrosion double thread SP screw and barrel
high mix bushes & screw head
long nozzle (including heating ring)
nozzle safety cover
Loop control for pressure hold
heating ring failure detection & alarm
alarm for barrel cooling water shortage
side-filter
printer
fast tie-bar disassembling device
oil level alarm device
hopper checking platform
mould specification storage card system
low pneumatic pressure alarm system

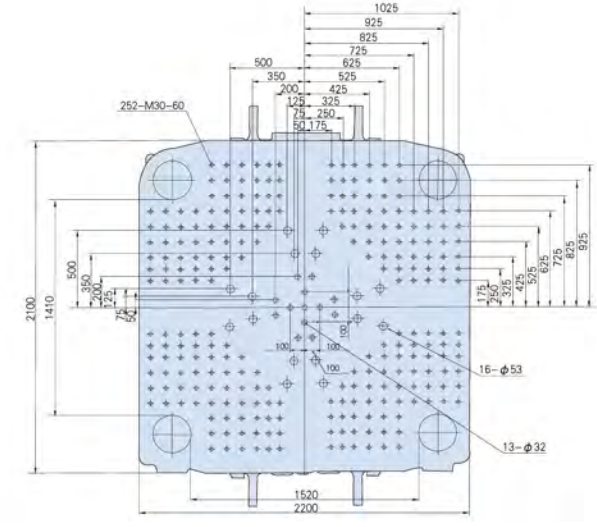
模板尺寸图 Mould planten



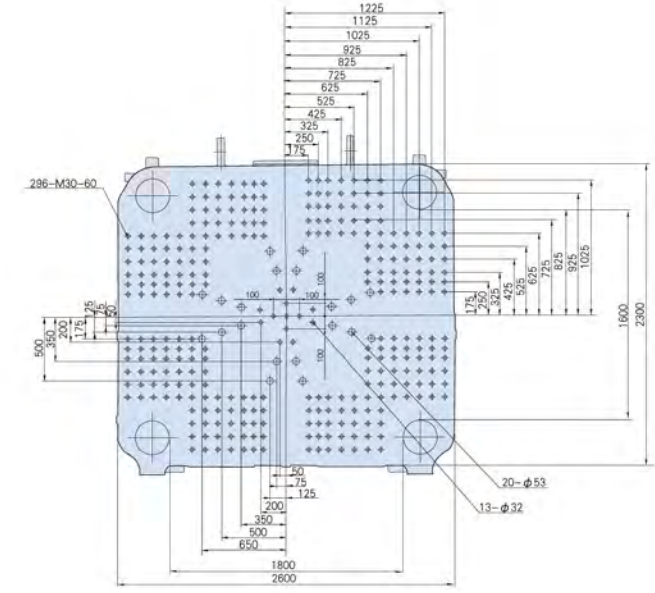
PIII350



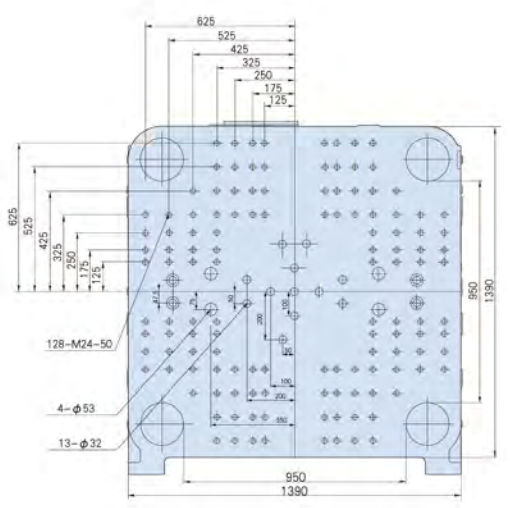
PIII450



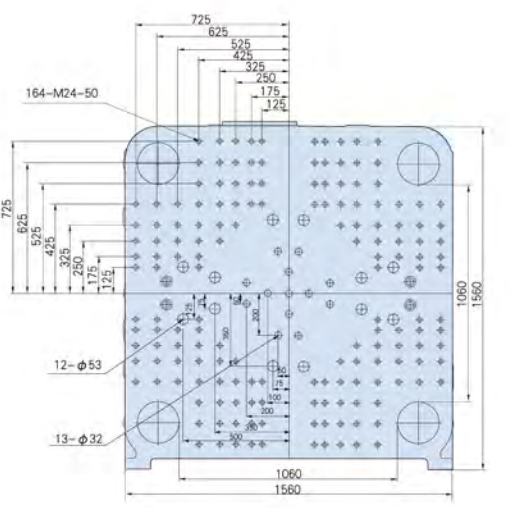
ST1600



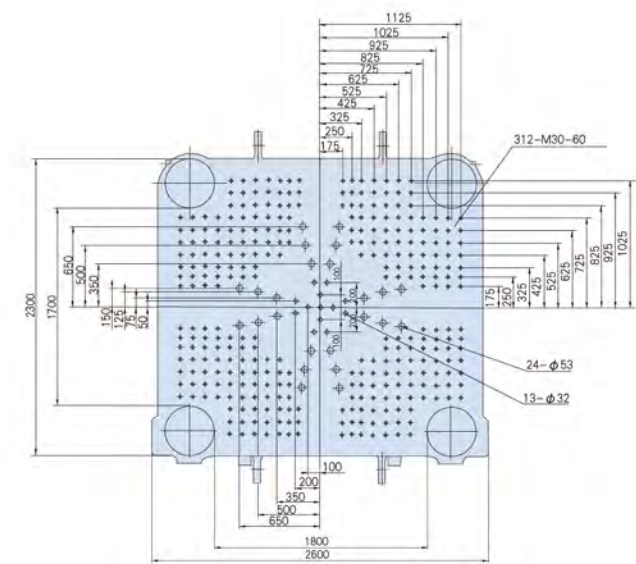
ST1800



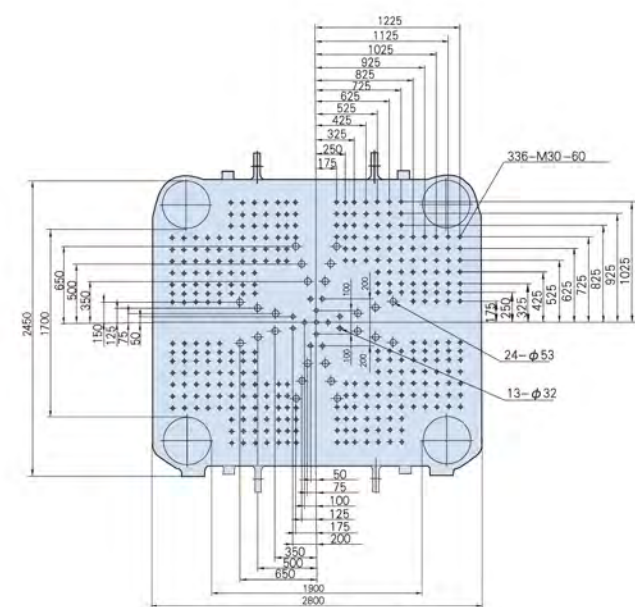
PIII650



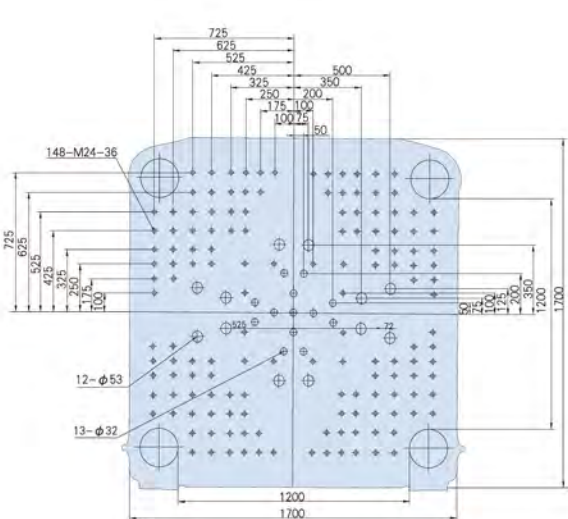
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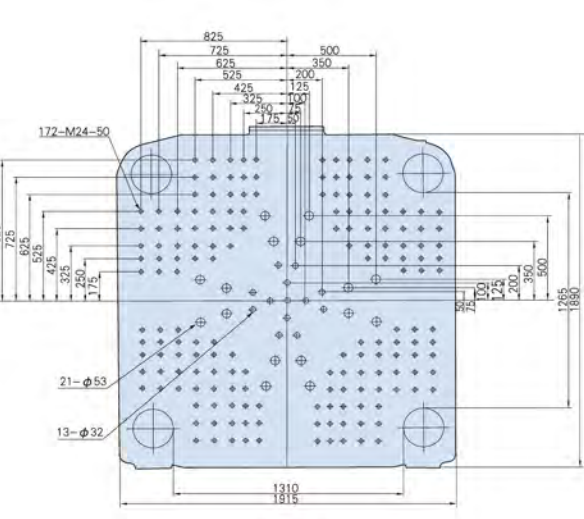
ST2200



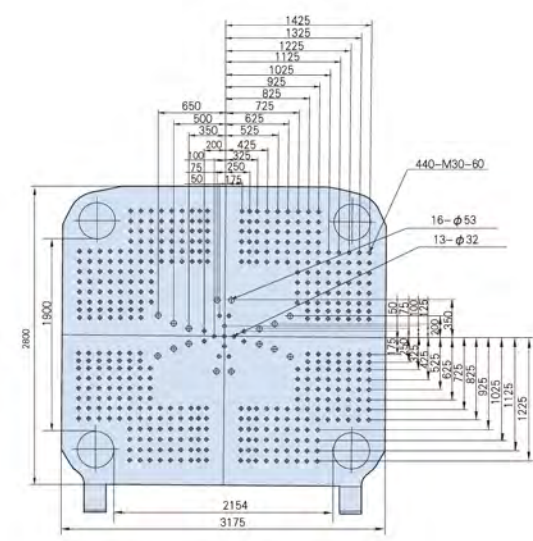
ST2500



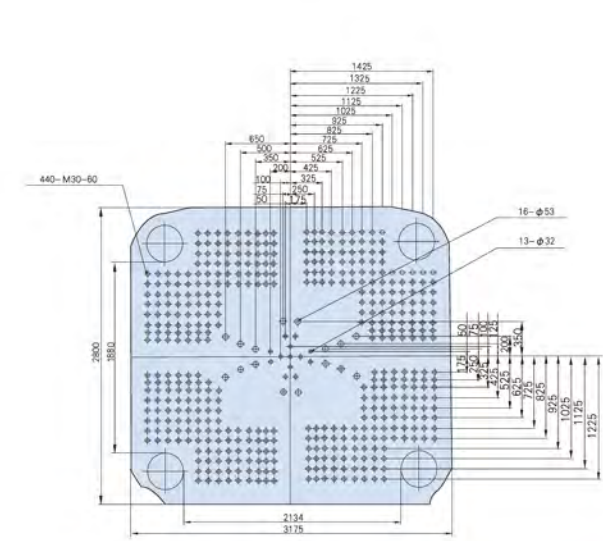
ST1000



ST1300



ST3150



ST3500

