



**自润滑含油轴承**

锁模移动板和射台移动板均采用自润滑含油轴承，减少润滑油使用，完全杜绝机构卡死现象。
Self-lubricated copper bush using in toggle and injection base unit to avoid jam and save the energy.

1

**机械手安装**

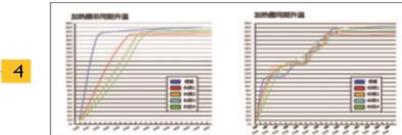
预留机械手安装孔和穿线盒，美观实用。
Robot installation hole are prepared along with the cable connection box. More clean and smart.

2

**大屏幕高速精密控制器**

工业标准软硬件，双CPU控制，通过Internet可实现远程监控。

Adopt high response and precision control system, big LED screen, Double CPU Standard IMM software installed with multi-language selection. Have function to connect with internet for monitor production from computer

**同步升温控制**

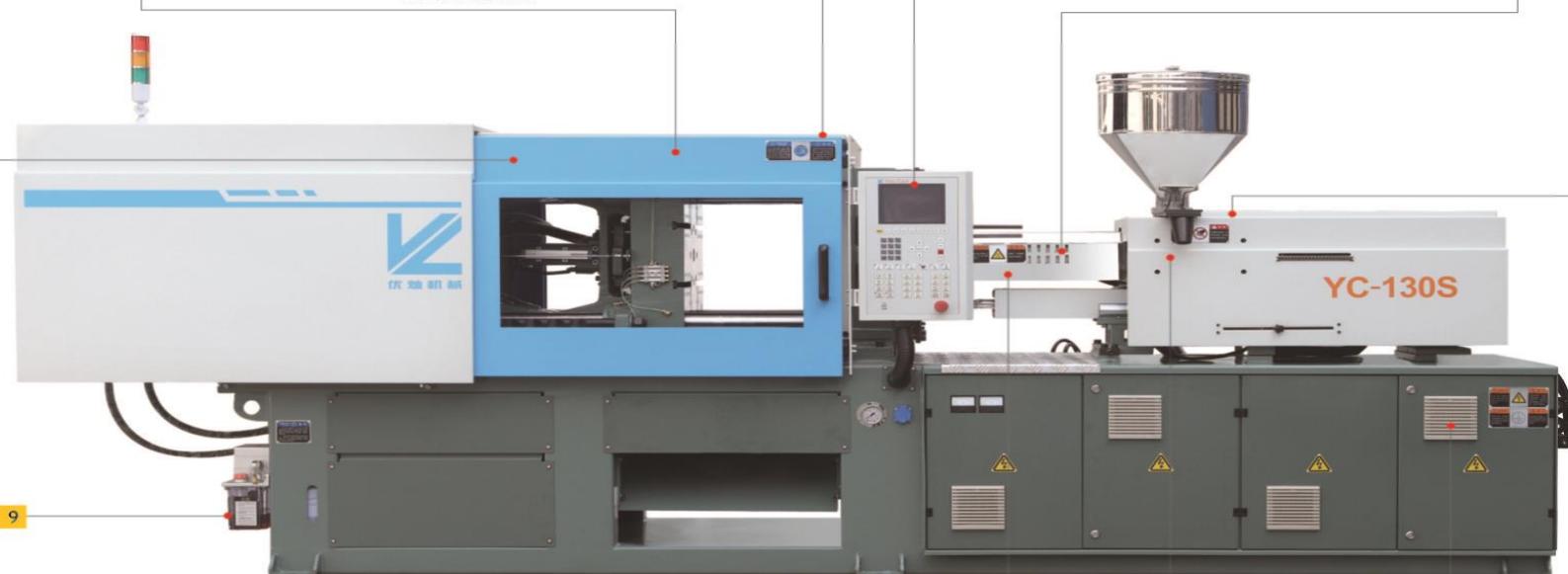
射嘴与料筒同时升温，有效防止射嘴内塑料碳化，提高制品质量。
Barrel and injection nozzle heaters are synchronized by controller to avoid raw material over heated in nozzle part and effect the production.

4

**重载移动门行程开关**

采用Telemecanique重载行程开关、经久耐用
Adopt "Telemecanique" heavy load type limited switch in operating door, endurable and safer.

10

**检知容积式润滑分配系统**

点对点润滑，油量分配均衡，确保运动部件少受磨损。

Adopt self-detector type lubrication distributor, point to point to be lubricated individually and equally, any single lubrication point jam can be easily noticed in this distributor.

9

**专业注射解决方案**

针对不同塑料制品的要求，提供专业螺杆料筒，量身定做。

Offer special design and treatment using for screw and barrel to meet different requirement for the products. customized design is available.

8

**整机油缸密封**

机器所有油缸密封采用英国Hallite高品质密封件，提升密封性能。
All hydraulic cylinders are using England imported high quality oil seal "HALLITE", make sure the action is powerful with no compromise.

**电气控制箱通风**

采用台湾卡固 (KAKU) 轴流风机，确保电气控制箱散热。

Adopt KAKU-Taiwan axial flow fan to release the heat cut, make sure machine electronics are running stably even in high temperature. Make the electronics life longer.

**锥面密封管接头**

整机采用ALFAGOMMA高品质胶管，接头处采用锥面密封，有效杜绝漏油、渗油现象。

Adopt ALFAGOMMA high quality rubber pipe with special sealing design by conical surface. No possibility of oil leakage.

射出部件

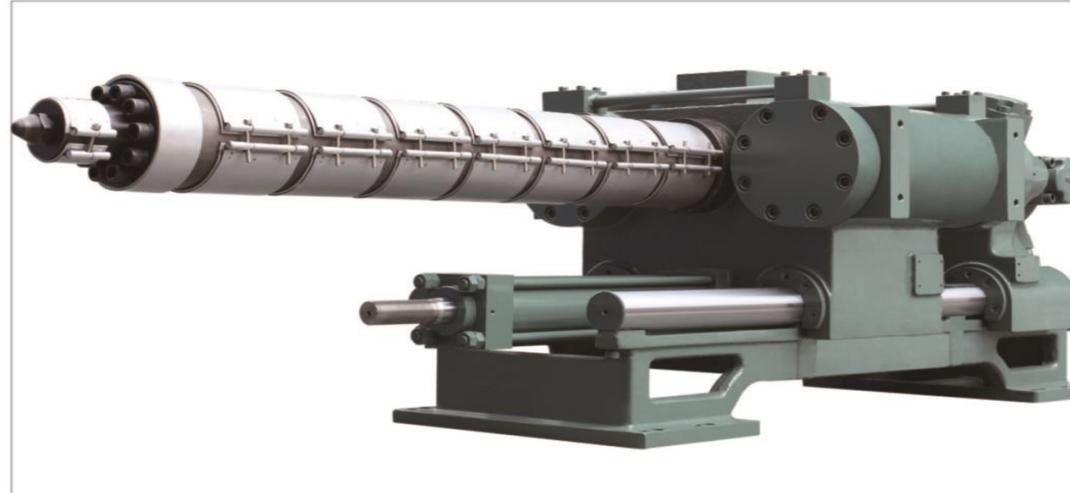
INJECTION UNIT

· 采用短捷有力的双缸射出系统，确保射出动作平稳，及定模板无变形，优化设计螺杆组件，达到更好的塑化能力和效果。螺杆头和止逆环采用日本进口热作工具钢之高韧性材料。经特殊热处理，具有抗高温、耐磨耗，防热熔蚀之特性，在高温作业下仍高硬度，螺杆、料管采用高级合金钢加真空离子氮化处理，具有仍维持极高硬度、耐腐蚀、耐磨耗之特性。

· PID温度控制，配合高精度电子尺和控制器，注射、保压、熔胶、背压等动作的速度压力，保障成型制品品质和生产的连续性，自动清料，防流涎、防冷起动延时等功能，确保工作的高效、简便、安全。高精度机器采用双射移油缸，以及线型导轨引导，精确、低阻力。

-Short and forceful double-cylinder injection system is used to ensure the steady injection motions. The strain free fixed mold plate and screw assembly with optimized design help to reach better plasticizing capacity and effect. The screw head and back stop ring made of Japanese high tenacity hot working tool steel by special heat treatment features high temperature resistance, wear endurance and hot burnout resistance, maintaining extremely high hardness during high temperature operation. The screw and material tube made of high-grade alloy steel by vacuum ion nitriding treatment feature high hardness,corrosion resistance and wear endurance.

-PID temperature control in combination of high precision electronic ruler and control regulate the speed and pressure of injection, pressure keeping, smelting, back pressure and other motions to ensure the quality of formed products and continuation of production. Auto material preparation,drooling proof, and anti cold start lapse functions ensure the high efficient, simple and safe operations.High-precision machines used two-shot move the fuel tank, as well as the linear guide rail, accurate, low-resistance.

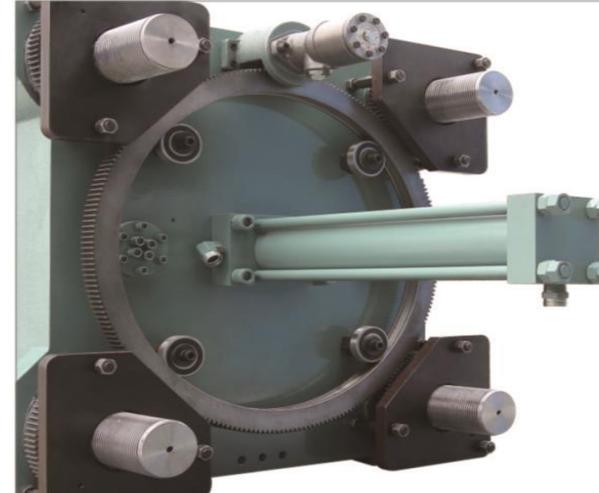


锁模部件

MOLD LOCKING UNIT

采用新一代曲手锁模机构，电脑仿真优化设计曲手参数，使动板运动快速平稳，结合箱型动板、定板及高刚性曲手结构，确实达到高强度且耐疲劳之特性。与同级机器相比，拥有更大的拉杆内距，容模量及开模行程，可加工更大的塑料制品。

The new generation mold locking device and computer emulation optimized parameter makes motions of the moving plate fast and steady when combining the box type moving plate, fixed plate and high rigidity toggle structure, the characteristic of high strength and anti-fatigue is secured. As compared with similar machines ,it owns bigger internal space between tie bars, mold space and mold opening stroke and may process plastic products of bigger size.



调模部件

MOLD ADJUSTING UNIT

液压马达驱动自动调模装置，采用齿轮啮合传动，具有平稳、快速、高效的特点，节省装模时间。

The automatic mold adjusting device driven by hydraulic motor adopts gear coupling drive, features steadiness, speediness, high-efficiency and saving mold loading time.

伺服控制部分 SERVO CONTROLLER PART

伺服节能注塑机的特点：
The characteristics of servo saving 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, ZX 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.

变量泵节能系统

THE VARIABLE PUMP ENERGY SYSTEM

采用高效节能及高精度比例压力流量变量泵系统，令注塑机液压系统输出与整机运行所需功率匹配。无高压节流溢流能量损失，与定量泵相比，节电30%~60%，相同功率的电机可配用更大排量的油泵，令整机速度加快，同时低温使用寿命更长，同时确保液压系统正常工作。在开合模油路中，均采用了缓冲装置，确保开合模平稳无冲击。并设有差动合模动作，生产效率高。

High efficiency, energy-saving and high precise proportional pressure and flow variable displacement pump system make the out of the hydraulic system matching the required power for entire machine operation without loss of high pressure throttle and overflow energy. As compared with constant displacement pump, it saves power by 30%~60%. A motor with same power may be fitted with an oil pump of bigger displacement and thus accelerates the speed of machine. Besides, the low oil temperature will prolong the service life of sealing elements. Use of imported high performance precise oil filter device will further prolong the normal service life of hydraulic oil and also ensure the normal operation of hydraulic system. Buffer device is used in every mold opening and clamping oil way to ensure steady mold opening and clamping operation without any impact. Besides, differential mold clamping operation is fitted to ensure high production efficiency.



注塑机专用控制器 INJECTION MOLDING CONTROLLER

控制器

• 控制器双CPU控制，人机单元使用X86 300MHz 工业级主板，系统单元使用RISC 140MHz 精简指令集微处理器，反应快速，抗干扰，低功耗，独立控制提高控制的稳定性；
• 采用了8.4" TFT 屏幕，分辨率800x600，界面友好，且有多语种选择；
• 具有USB2.0接口及以太网口；
• 8段PID加热控制，温度为1°C；
• 32点数字量输入，32点数字量输出，可以扩展，且有故障点替换功能；
• 设置电子照片的解析度为1/65535，分辨率高，控制更精确；
• 120组工艺参数存取，且可以U盘存储和上传；
• 射出终点以及温度追踪曲线显示，动态记录参数修改，动态警报显示，操作容易方便。

• It is controlled by Double CPU. The system HMI uses X86 300MHz technical grade Display. The system employs A RISC 140MHz microprocessor, with high speed, noise-immunity, fan-less, and low power consumption. Independent control improves the performance of stable.

• The display is 8.4" screen and resolution is 800x600, User-friendly screen and many options of language.

• One USB (2.0) port and two Ethernet (100-BaseT) ports are provided

• 7+1 sections PID temperature control, the temperature is 1°C

• 32 points input, 32 points output. It can extended and have the function to replace trouble spots.

• The Linder Transducer's resolution is 1/65535, so High-resolution makes the control more accurate.

• 120 technological parameters access can be stored or uploaded with an ordinary USB drives

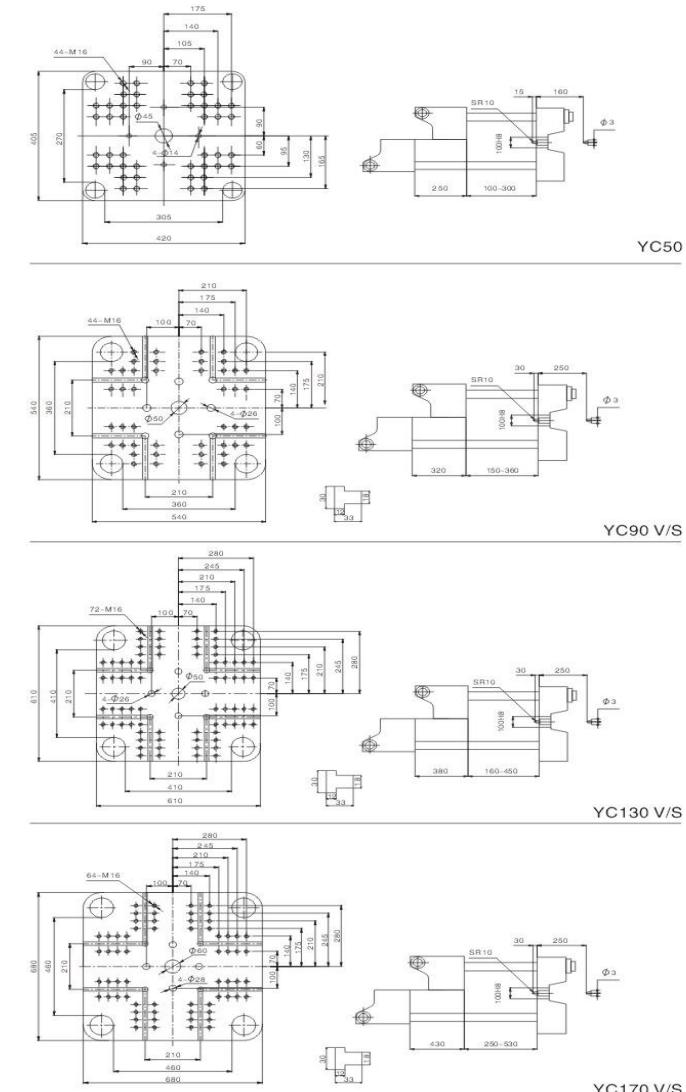
• Injection end and the temperature tracking is Curve Display, dynamic recorder Parameter is modified, Dynamic Warning is exhibited, all these make the operation more convenient.



参数表

MACHINE SPECIFICATIONS

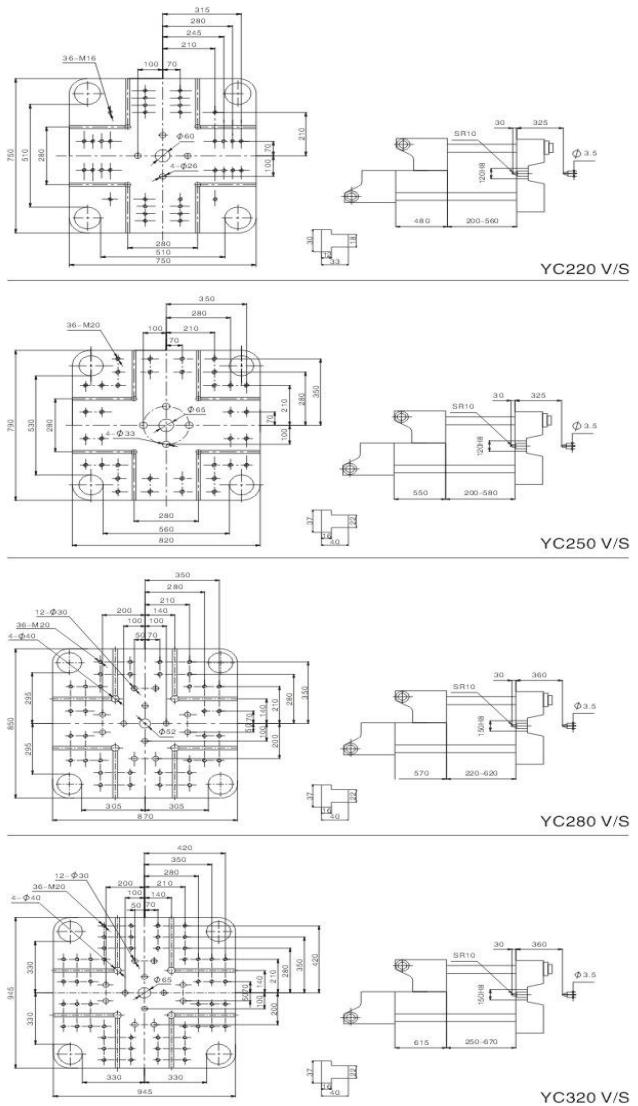
技术参数		单位	YC50			YC90 V/S			YC130 V/S			YC170 V/S		
射胶系统	INJECTION	UNIT	A	B	A	B	C	A	B	C	A	B	C	
理论射胶容积	Shot volume	cm³	70	80	113	154	181	215	263	302	277	318	392	
实际注射量 (PS)	Shot weight	G/克	64	73	106	144	170	196	239	274	260	298	368	
		0z/盎司	2.2	2.5	3.7	5.1	5.9	6.9	8.4	9.6	9.1	10.5	12.9	
螺杆直径	Screw diameter	mm	28	30	30	35	38	38	42	45	42	45	50	
射胶压力	Injection pressure	mpa	224	195	243	179	152	193	158	138	190	166	135	
螺杆长度直径比	Screw L:D ratio		19:1	17.7:1	23:1	20:1	18.5:1	22:1	20:1	18.5:1	21.5:1	20:1	18:1	
螺杆行程	Screw stroke	mm	125		160			190			200			
螺杆转速	Screw speed (stepless)	r/min	200		0~180			0~180			0~200			
锁模系统 CLAMPING UNIT														
锁模力	Clamping force	kn	500		900			1300			1700			
开模行程	Opening stroke	mm	250		320			380			430			
模板尺寸	Platen size	mmxmm	420x405		540x540			610x610			680x680			
连接柱内径	Space between tie bars	mmxmm	280x260		360x360			410x410			460x460			
容模量	Mold thickness(Min-Max)	mm	100~300		150~360			160~450			200~530			
模板最大距离	Max. daylight	mm	550		680			830			960			
油压顶出行程	Hydraulic ejection stroke	mm	65		100			120			140			
油压顶出力	Hydraulic ejection force	kn	20		31			42			50			
动力/电热 POWER UNIT														
油压系统压力	Hydraulic system pressure	mpa	16		16			17.5			17.5			
油泵马达	peating motor	kw	5.5		9/12			11/18.2			15/18.2			
电热量	Heating capacity	kw	4.7		6.5			7.7			12.6			
油温控制区数	Number of temp control zones		3+射嘴 (nozzle)		3+射嘴 (nozzle)			4+射嘴 (nozzle)			4+射嘴 (nozzle)			
其他 GENERAL														
循环时间	Dry-cycle time	sec	1		1.1			1.3			2.0			
油箱容积	Oil tank capacity	λ (升)	115		160			200			210			
机械外形尺寸	Machine dimensions	mmxmxm	3.3x1.1x1.6		4.2x1.1x1.7			4.6x1.2x1.8			4.9x1.2x2.0			



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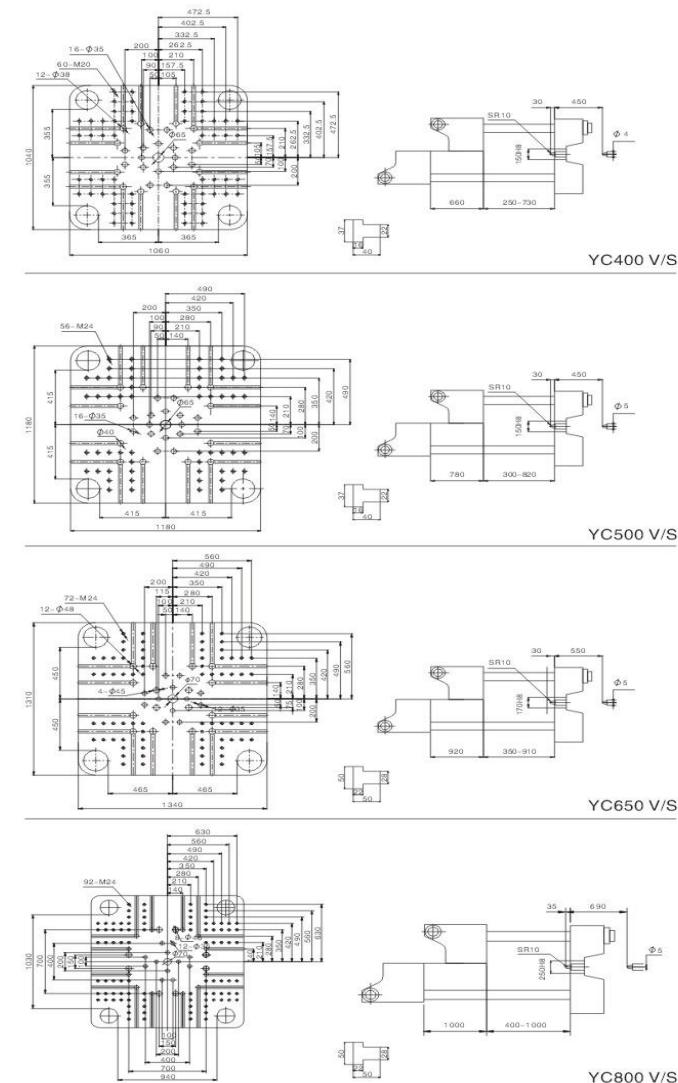
		单位	YC220 V/S			YC250 V/S			YC280 V/S			YC320 V/S		
技术参数	INJECTION	UNIT	A	B	C	A	B	C	A	B	C	A	B	C
射胶系统														
理论射胶容积	Shot volume	cm³	381	470	569	510	617	863	700	792	930	1062	1231	1414
	Shot weight	g/克	347	428	520	464	561	785	636	720	845	966	1120	1286
实际注射量 (PS)		oz/盎司	12.1	15	18.1	16.2	19.6	27.4	22.2	25.2	29.5	33.7	39.2	44.9
	Screw diameter	mm	45	50	55	50	55	65	55	60	65	65	70	75
射胶压力	Injection pressure	mpa	217	176	145	224	185	132	211	177	151	175	152	133
螺杆长度直径比	Screw L:D ratio		22:1	20:1	18:1	22:1	20:1	18:1	22:1	20:1	18.5:1	21:1	21:1	19.6:1
螺杆行程	Screw stroke	mm	240			260			300			320		
螺杆转速	Screw speed (stepless)	r/min	0~200			0~180			0~150			0~150		
锁模系统			CLAMPING UNIT											
锁模力	Clamping force	kN	2200			2500			2800			3200		
开模行程	Opening stroke	mm	480			520			570			615		
模板尺寸	Platen size	mmxmm	745x745			820x790			870x850			945x945		
连接柱内径	Space between tie bars	mmxmm	510x510			560x530			610x590			660x660		
容模量	Mold thickness (Min-Max)	mm	200~560			200~580			220~620			250~670		
模板最大距离	Max. daylight	mm	1040			1100			1190			1285		
油压顶出行程	Hydraulic ejection stroke	mm	150			150			160			160		
油压顶出力	Hydraulic ejection force	kN	67			67			77			77		
动力/电热			POWER UNIT											
油压系统压力	Hydraulic system pressure	mpa	17.5			17.5			17.5			17.5		
油泵马达	peating motor	kw	18.5/22			22/28.3			22/28.3			30/36.7		
电热量	Heating capacity	kw	13.1			16			18			21.5		
油温控制区数	Number of temp control zones		4+射嘴 (nozzle)			5+射嘴 (nozzle)			5+射嘴 (nozzle)			5+射嘴 (nozzle)		
其他			GENERAL											
循环时间	Dry-cycle time	sec	4.5			4.8			5.0			5.0		
油箱容积	Oil tank capacity	升 (L)	310			380			380			500		
机械外形尺寸	Machine dimensions	mmxmxm	5.4x1.3x2.1			6.2x1.5x2.2			6.4x1.5x2.2			6.8x1.6x2.2		



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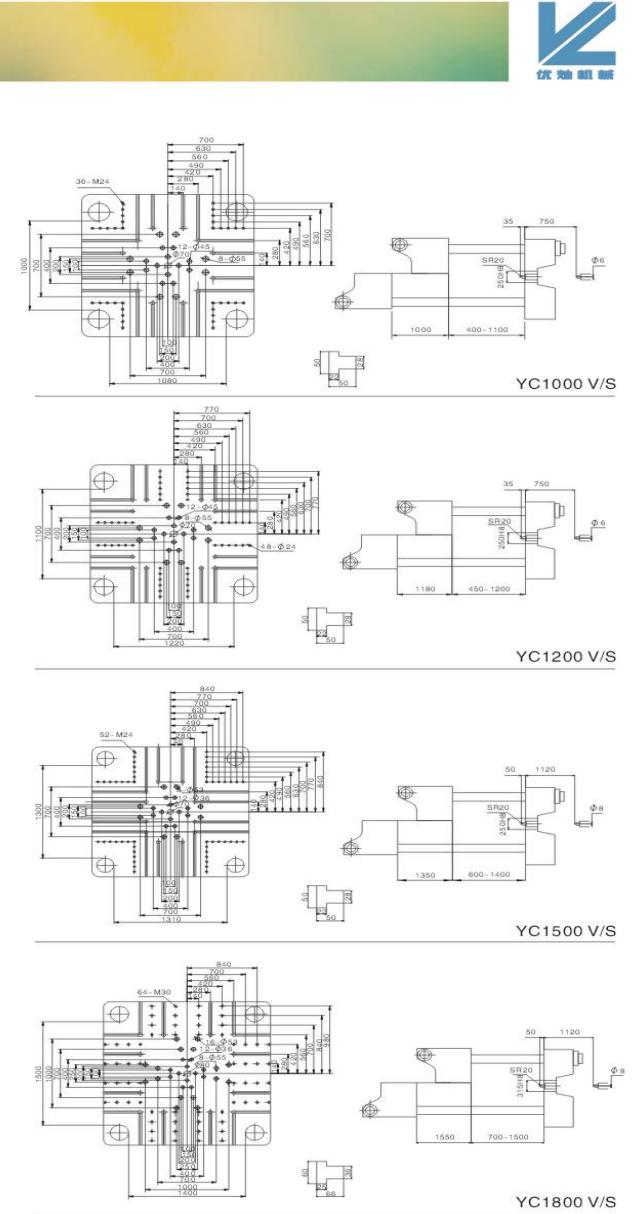
		单位	YC400 V/S			YC500 V/S			YC650 V/S			YC800 V/S		
技术参数	INJECTION	UNIT	A	B	C	A	B	C	A	B	C	A	B	C
射胶系统														
理论射胶容积	Shot volume	cm³	1385	1810	2290	1590	2042	2550	2160	2734	3376	2558	3195	3903
	Shot weight	G/克	1260	1646	2084	1494	1919	2397	1966	2488	3072	2327	2907	3552
实际注射量 (PS)		Oz/盎司	44.1	57.5	72.8	52.3	67.2	83.9	68.8	87.1	108	81	101	124
	Screw diameter	mm	70	80	90	75	85	95	80	90	100	85	95	105
射胶压力	Injection pressure	mpa	206	158	125	204	159	127	215	170	138	218	175	143
螺杆长度直径比	Screw L:D ratio		21:1	21:1	19:1	21:1	21:1	18.7:1	21:1	21:1	19:1	24.5:1	22:1	20:1
螺杆行程	Screw stroke	mm	360			360			430			450		
螺杆转速	Screw speed (stepless)	r/min	0~135			0~150			0~125			0~130		
锁模系统	CLAMPING UNIT													
锁模力	Clamping force	kn	4000			5000			6500			8000		
开模行程	Opening stroke	mm	670			780			920			1000		
模板尺寸	Platen size	mmxmm	1060x1040			1180x1180			1320x1290			1450x1385		
连接柱内径	Space between tie bars	mmxmm	730x710			830x830			930x900			1030x940		
容模量	Mold thickness(Min-Max)	mm	250~730			300~820			350~910			400~1000		
模板最大距离	Max. daylight	mm	1400			1600			1830			2000		
油压顶出行程	Hydraulic ejection stroke	mm	185			210			265			300		
油压顶出力	Hydraulic ejection force	kn	111			111			182			200		
动力/电热	POWER UNIT													
油压系统压力	Hydraulic system pressure	mpa	17.5			17.5			17.5			17.5		
油泵马达	peating motor	kw	37/43			45/2x28.3			55/2x28.3			30+37/2x43		
电热量	Heating capacity	kw	32.3			35.4			38.3			49		
油温控制区数	Number of temp control zones		5+射嘴 (nozzle)			5+射嘴 (nozzle)			6+射嘴 (nozzle)			6+射嘴 (nozzle)		
其他	GENERAL													
循环时间	Dry-cycle time	sec	5.1			5.2			6			7		
油箱容积	Oil tank capacity	λ (升)	820			1150			1500			1500		
机械外形尺寸	Machine dimensions	mmxmxm	8.6x1.8x2.3			9.2x1.8x2.4			9.6x1.9x2.3			10.6x2.6x2.7		



参数表

MACHINE SPECIFICATIONS

技术参数		单位	YC1000 V/S				YC1200 V/S				YC1500 V/S				YC1800 V/S			
射胶系统	INJECTION	UNIT	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
理论射胶容积	Shot volume	cm³	2920	3610	4369	4778	5270	5760	6272	6805	6271	7463	8759	10158	7368	8759	10159	11662
实际注射量	Shot weight	G/克	2657	3285	3976	4348	4796	5242	5708	6193	5707	6791	7971	9244	6705	7971	9245	10612
	(PS)	Oz/盎司	91	115	139	152	168	183	200	217	200	237	278	323	234	278	323	371
螺杆直径	Screw diameter	mm	90	100	110	115	110	115	120	125	110	120	130	140	120	130	140	150
射胶压力	Injection pressure	mpa	216	176	146	133	183	170	156	144	208	175	150	129	195	165	145	126
螺杆长度直径比	Screw L:D ratio		25.5:1	23:1	20.9:1	20:1	23:1	22:1	21:1	20.2:1	25.7:1	24:1	22:1	20:1	25.4:1	23.4:1	21.7:1	18.9:1
螺杆行程	Screw stroke	mm	500				550				575				640			
螺杆转速	Screw speed (stepless)	r/min	0~100				0~90				0~90				0~85			
锁模系统	CLAMPING UNIT																	
锁模力	Clamping force	kn	10000				12000				15000				18000			
开模行程	Opening stroke	mm	1000				1180				1350				1550			
模板尺度	Platen size	mmxmm	1530x1500				1750x1650				1880x1880				2050x2000			
连接柱内径	Space between tie bars	mmxmm	1080x1000				1220x1100				1310x1300				1500x1400			
容模量	Mold thickness (Min-Max)	mm	400~1100				450~1200				600~1400				700~1500			
模板最大距离	Max. daylight	mm	2100				2380				2750				3050			
油压顶出行程	Hydraulic ejection stroke	mm	325				325				360				420			
油压顶出力	Hydraulic ejection force	kn	245				245				260				420			
动力/电热	POWER UNIT																	
油压系统压力	Hydraulic system pressure	mpa	17.5				17.5				17.5				17.5			
油泵马达	peating motor	kw	37+45/43+67				45+55/3x43				2x55/3x43				3x45/2x31+2x43			
电热量	Heating capacity	kw	59				66				86				95			
油温控制区数	Number of temp control zones		6+射嘴 (nozzle)				6+射嘴 (nozzle)				7+射嘴 (nozzle)				7+射嘴 (nozzle)			
其他	GENERAL																	
循环时间	Dry-cycle time	sec	8				12				14				16			
油箱容积	Oil tank capacity	λ (升)	1700				2100				2900				3000			
机械外形尺寸	Machine dimensions	mmxmxm	12.1x2.64x3.0				12.5x2.7x3.3				15.2x3.0x4.1				16.4x3.2x4.2			





V/S系列配置表

V/S SERIES CONFIGURATION TABLE

注射部件

双缸注射系统
抗疲劳、抗腐蚀螺杆料筒
注射、保压、储料、速度、压力时间多段控制
位置或时间注射转保压控制
注射位置电子尺控制
防止螺杆冷启动功能
低速大扭矩油马达预塑
料筒温度闭环控制
喷嘴对中调节装置
螺杆测速装置
不锈钢料斗
料筒下料口冷却

INJECTION UNIT

Double cylinder injection system
High quality barrel and screw
Multi stages of speed pressure and position for injection hold on and charge
Position or time hold on changeover
Screw position transducer control
Prevent the screw cold start
Low speed high torque screw drive motor
Close loop barrel temperature control
Nozzle center adjust
Screw RPM show
Stainless steel hopper
Water cooling for hopper throat

锁模部件

斜口五铰链内卷式双曲肘合模机构
开关模电子尺控制
机械安全机构
多段开合模压力速度位置控制
快速差动合模系统
自动调节功能
低压膜保功能
箱式模板
自动集中润滑系统

CLAMPING UNIT

Five points double clamping unit
Transducer for mold open and close position
Mechanical safety device
Multi stage of mold open/close speed pressure and position
Fast mold close
Automatic mold height adjustment
Low pressure mold protection
Box model platen
Auto centering lubrication system

液压系统

变量泵系统 (V)
伺服驱动系统 (S)
吸油过滤系统
油温检测及报警功能
旁路过滤器

HYDRAULIC SYSTEM

Variable displacement pump system
Servo System
Oil suck filter
Oil temperature control and alarm
By-pass oil filter

电控系统

8.7" LCD彩色显示屏
200组电脑内存模具记忆功能
温度偏差显示，热电偶断路报警功能
系统硬件/O检测功能
预留打印机接口中、软驱接口
电机安全保护功能
紧急停止保护装置

ELECTRICAL CONTROL SYSTEM

8.7" LCD color screen
200sets of mold memory
Barrel temperature monitoring and thermocouple break alarm
System hardware i/o testing function
Interface for printer and floppy driver
Electric motor safety protection
Emergency stop safeguard device

随机附件

可调防震垫脚
易损件
常用工具
机器说明书

ACCESSORIES

Adjustable machine leveling pads
Easily damaged spare parts
Professional tools
Manual

选配装置

相近锁模单元和注射单元交换
特殊原料专用塑化件
特殊材质塑化件
蓄能器辅助快速注射装置
液压抽芯装置
公母模吹气装置
玻管分水器
加长喷嘴

OPTIONAL DEVICE

Wide range of injection unit for specific application
Wide selection of special plasticize subassembly for specific customer applications
Specific material screw and barrel
Accumulator fast injection
Core pull fittings
Air blast fittings
Glass water regulations
Extended nozzle



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