

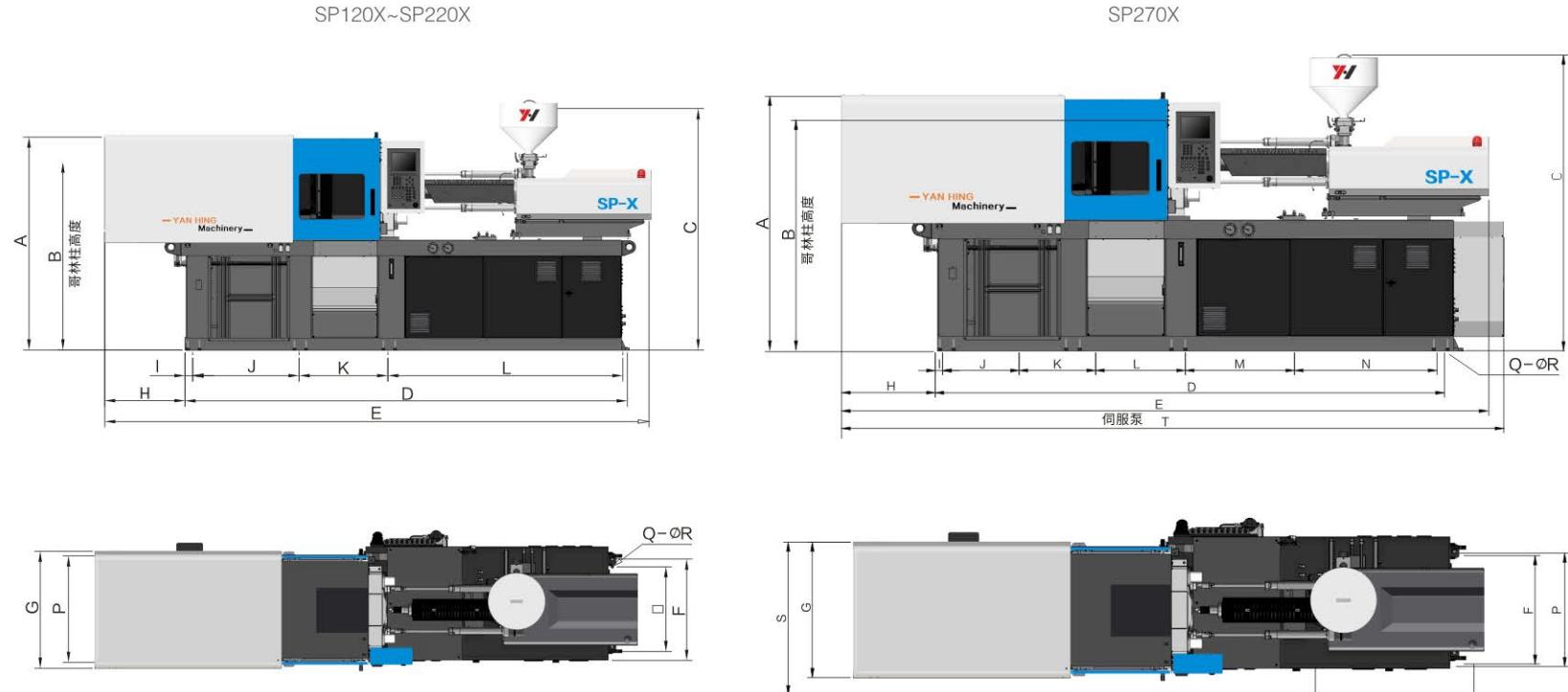


SP-X 高效伺服泵注塑機系列

SP-X EFFICIENT SERVO HYDRAULIC TOGGLE
INJECTION MOULDING MACHINE SERIES



機身尺寸 Machine Dimension



機型	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q-ΦR	S	
SP120X	1717	1522.5	1994	3787	4633	850	974	626	61	900	850	1946	--	--	652	900	8-Φ20	--	
SP180X	1814	1607.5	2069	4177	5169	900	1028	682	66	950	950	2181	--	--	770	950	8-Φ20	--	
SP220X	1870	1655	2172	4755	5816	1010	1125	742	68	1200	1400	2057	--	--	870	1060	8-Φ20	--	
SP270X	1934	1711	2219.5	4992	6107.5	1000	1250	875	73	750	750	880	1070	1396	--	1060	12-Φ22	1410	

注：C--料鬥高度僅供參考

標準配置

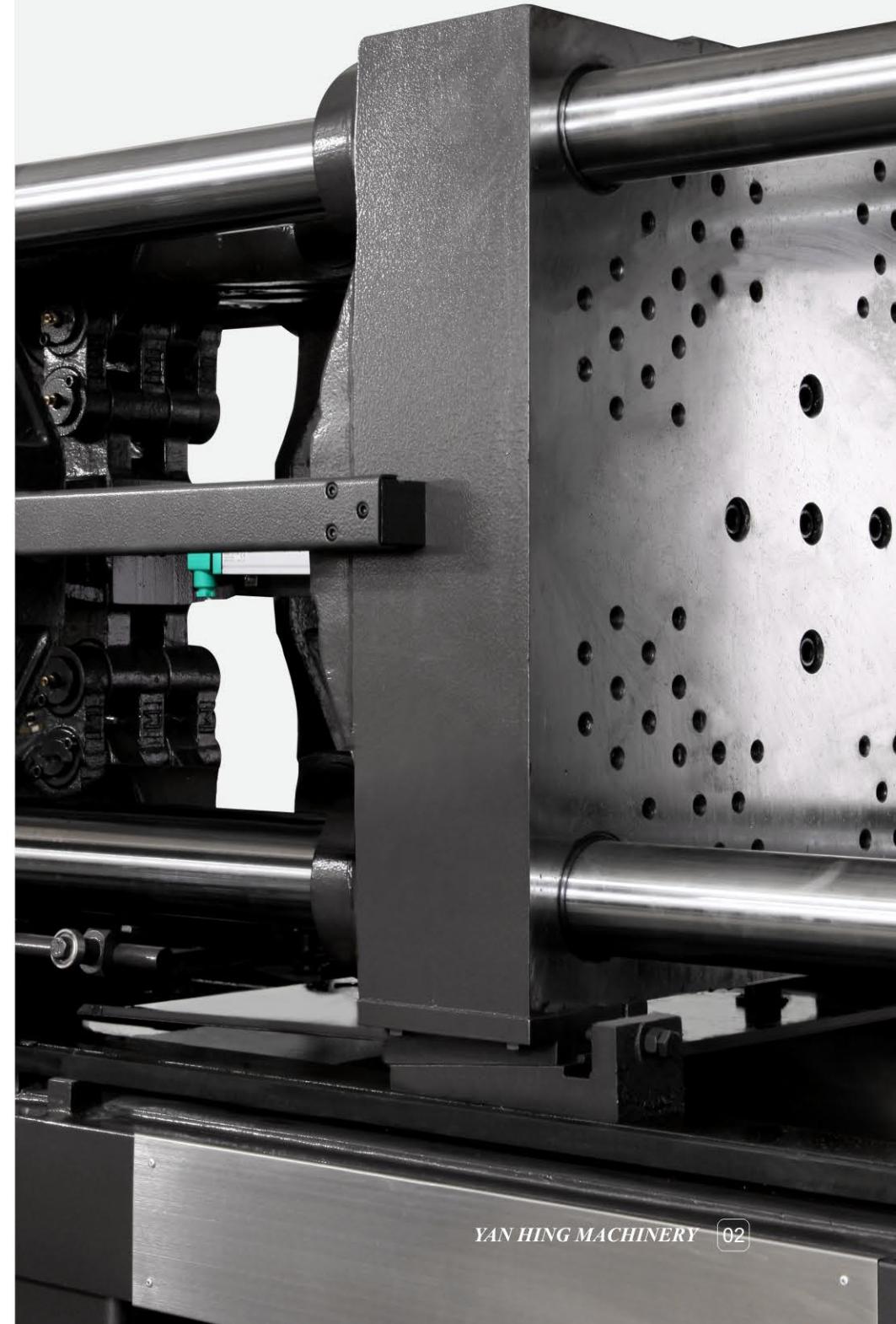
Injection Unit

鎖模部分

- 差動鎖模控制
- 線性電位尺控制開合模及頂針動作
- 模具低壓保護
- 紅外線電眼控制周期
- 調模行程限位裝置
- 4級鎖模壓力及速度獨立控制
- 4級開模壓力及速度獨立控制
- 不退式，震動或多次液壓頂出功能
- 更換模具時，可以選擇慢速開鎖模動作程式
- 安全模塊與安全閥配合確保鎖模安全
- 自動調模功能
- 容積式分配，自動潤滑裝置及控制程式

Clamping Unit

- Differential hydraulic circuit design
- Precise potenio-meters for controlling clamping and ejector position
- Low pressure mould protection
- Infrared photo-cell detector for cycling
- Mould height adjustment limit switch device
- 4 stage independent clamping pressure & speed control
- 4 stage independent mould opening pressure & speed control
- Selection of non-return, vibration or multi-stroke ejection
- Slow mould opening and clamping allowed during mould set-up
- Use of hydraulic safety valve with electrical safety module ensures safety.
- Automatic mould height adjustment device
- Automatic lubrication device with allocation





注射部分

- 兩組移臺油缸裝置
- 鍍硬鉻氮化螺杆，氮化料筒
- 線性電位尺控制注射動作
- 熔膠缺料報警
- 熔膠轉速顯示
- 熔膠背壓裝置
- 移動式卸料門裝置
- 防冷起動螺杆保護
- 時間或位置保壓切換
- 自動清洗料筒程序
- 自動計算熔膠行程
- 熔膠前或熔膠後抽膠選擇
- 六級射膠壓力及速度獨立控制
- 圖形顯示射膠壓力及速度設定數值
- “U”型支架注射結構
- 16安培單相三腳插座

Injection Unit

- Double hydraulic carriage cylinders device
- Nitrided and chromium plated screw & barrel
- Precise potentio-meter for injection control
- Empty hopper warning
- Screw rotation display
- Digitized plasticizing back pressure control
- Moveable hopper
- Screw cold start protection device
- Holding pressure stage transition by time or position
- Automatic purging device
- Plasticizing stroke calculation
- The screw decompression can be activated either before or after the plasticizing process.
- 6 stage independent injection speed and pressure control
- Graphic display of injection pressure and speed setting
- U shaped injection structure support
- 16 Ampere single phase (220v) electrical socket receptacle

控制部分

- 采用PID程式，配合固態繼電器控制溫度，精度達到±1°C。
- 8"彩色液晶顯示器
- 通過SD記憶卡存取模具資料、運行結果、警報資料以及更新畫面程序
- 設有多層級別密碼保護，防止資料被更改
- 備有200套數據儲存記憶及配置外界記憶卡存取功能。
- 21種語言顯示選擇。
- 內置儲能射膠，兩組獨立抽芯或螺旋脫牙，六組吹風，封膠針，
- 電眼控制自動循環以及機械手程式。
- 產品數據統計及自動監控功能
- 保溫設定及預設時間開關電熱功能，節省等待加熱的時間及節能
- 完善的警報及提示功能，給維護和操作提供了方便
- 顯示界面系統規範及友好，便于操作。
- 主要控制元件採用進口品牌，保證控制的精度、穩定性及可靠性。
- 規範的接地聯線及漏電開關確保操作人員安全。

Control Unit

- Heater circuit that consists of built-in PID temperature control program and solid state relays.
- Provides precision as high as ± 1°C.
- 8 inches coloured LCD monitor
- Injection, moulding and warning data can be saved in SD memory card.
- Multi-level password protection, prevents data be mistakenly changed
- Memory storage of 200 moulding data sets (External SD memory card is allowed more data storages)
- Choice of language display including Chinese、English、Thai、Vietnamese, etc up to 21 languages
- Built-in sequence accumulator, 2 sets of core pulling/unscrewing device, 6 sets of air ejectors, photo cell detector and extractor
- Operation parameters analysis and automatic malfunction monitoring function
- Timer control for heater circuit saves waiting time and energy.
- Warning signal and reminder allow ease operation.
- User friendly monitor system
- Imported control parts ensure precision, stability and reliability.
- Effective ground circuit and leakage breaker can ensure operator's safety.

備選配置

Optional Features

鎖模部分

- T形槽模板
- 2~3組抽芯裝置
- 1~4組吹風裝置
- 非標直徑模具定位環
- 電動/液動脫牙裝置
- 電動調模裝置
- 隔熱板
- 容模量擴展
- 冷却水流量計
- 2組模溫控制

注射部分

- 射咀伸出碼模面高度: 70, 100, 130, 160mm (即加長: 40, 70, 100, 130mm射咀)
- 高響應止逆3件 (過膠圈旋轉)
- 指定塑料的螺杆組件
- 氣動單向射咀
- 液壓單向射咀
- 彈簧射咀
- 溫控區域增加段數
- 陶瓷加熱圈
- 高溫加熱圈 (最大500°C)

Clamping Unit

- T-slot platen
- 2–3 sets of core pulling device
- 1–4 sets of blowing device
- Non-standard diameter mould positioning ring
- Electrical and hydraulic unscrew device
- Electrical mould adjusting device
- Insulation board
- Mould height increase
- Cooling water flow meter
- 2 sets of thermo control device

Injection Unit

- Nozzle extrude height from fixed platen: 70, 100, 130, 160mm
- 3 piece high responsive screw head (rotational check ring)
- Specific screw module for different plastic materials
- Pneumatic single direction nozzle
- Hydraulic single direction nozzle
- Spring nozzle
- Increase number injection phases
- Ceramic heating ring
- High temperature heating ring (max. 500°C)



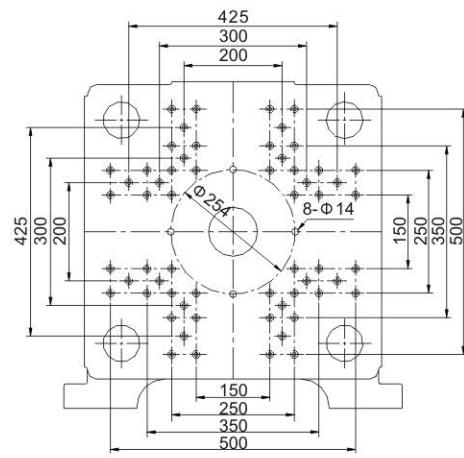
控制部分及其他

- 動力系統加大 (1~2級)
- 16A單相插座
- 16A三相五孔防水插座
- 32A三相五孔防水插座
- AC380V/50Hz以外電壓等級供配電
- 3~4組吹風程序
- 油溫檢測功能
- 工具箱 (扳手、六角扳手、螺絲刀)

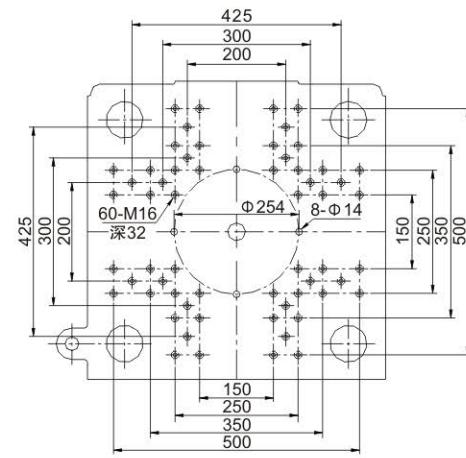
Control Unit and Others

- Increased power system (1–2 levels)
- 16A single phase socket
- 16A 3-phase waterproof socket
- 32A 3-phase waterproof socket
- Other power source option
- 3–4 sets of blower procedure
- Oil temperature sensing function
- Toolbox (wrench and screwdriver)

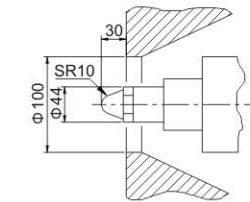
SP120X 模板外形尺寸 (SP120X Platen Size)



固定模板
Fixed Platen

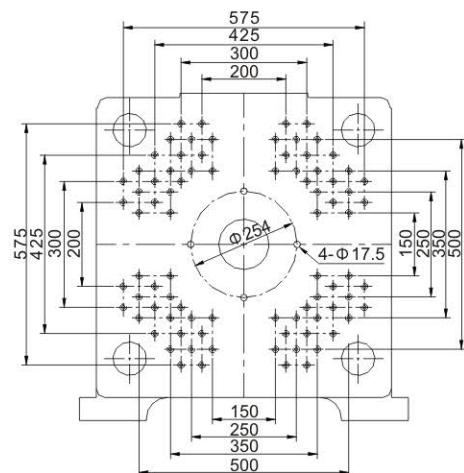


移動模板
Moveable Platen

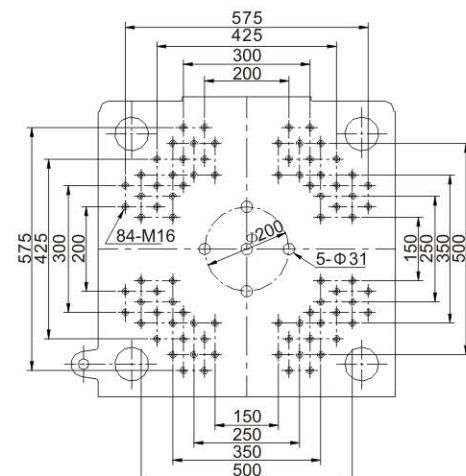


射咀與模板關係尺寸
Nozzle Size for Platen

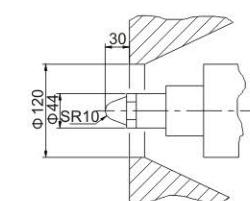
SP180X 模板尺寸 (SP180X Platen Size)



固定模板
Fixed Platen

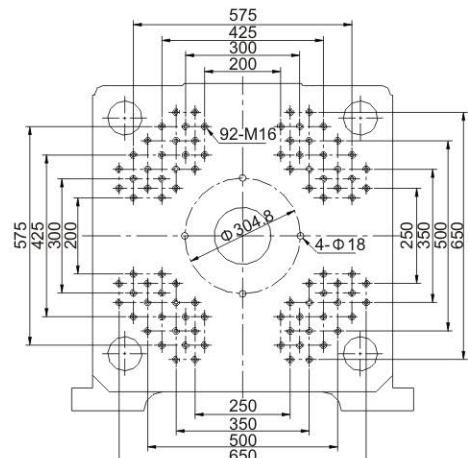


移動模板
Moveable Platen

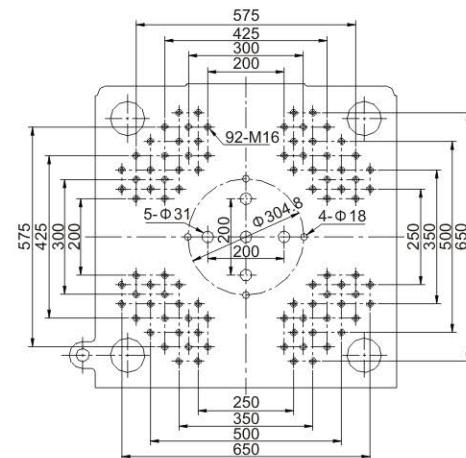


射咀與模板關係尺寸
Nozzle Size for Platen

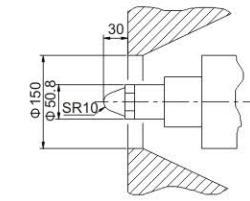
SP220X 模板尺寸 (SP220X Platen Size)



固定模板
Fixed Platen

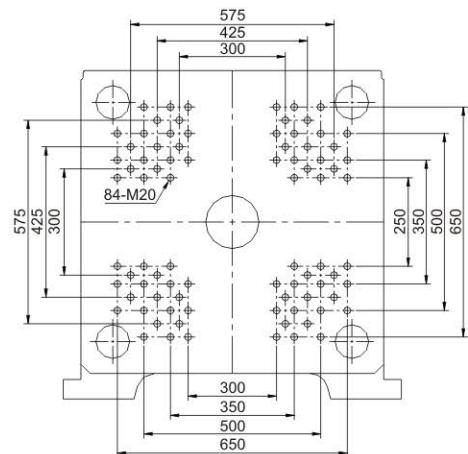


移動模板
Moveable Platen

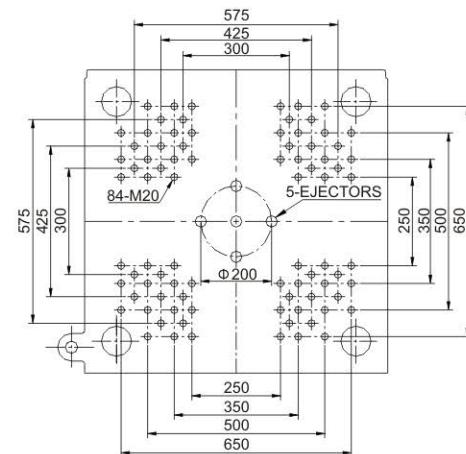


射咀與模板關係尺寸
Nozzle Size for Platen

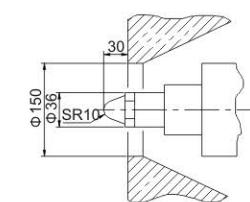
SP270X 模板尺寸 (SP270X Platen Size)



固定模板
Fixed Platen



移動模板
Moveable Platen



射咀與模板關係尺寸
Nozzle Size for Platen

SP-X 高效伺服泵注塑機系列

項目	單位	SP120X	SP180X	SP220X	SP270X
射頭部份	國際標準型號		430/120	789/180	789/220
	射臺型號		430	790	790
	螺杆編號		A B C	A B C	A B C
	螺杆直徑	mm	40 45 50	45 50 55	45 50 55
	螺杆長徑比	L:D	22.5 20.0 18.0	22.2 20.0 18.2	22.2 20.0 18.2
	注射壓力	kg/cm ²	2015 1592 1290	2276 1843 1523	2276 1843 1523
	注射重量 (PS)	g	180 228 281	292 360 436	292 360 436
		oz	6.4 8.0 9.9	10.3 12.7 15.4	10.3 12.7 15.4
	最高注射率	cc/sec	103 130 160	114 141 170	149 184 223
	理論注射容積	cc	214 270 334	347 428 518	347 428 518
	注射行程	mm	170 170 170	218 218 218	218 218 218
	塑化能力 (PS)	kg/h	54 74 94	64 82 106	84 107 139
	塑化能力 (PS)	g/sec	14.9 20.5 26.1	17.8 22.7 29.6	23.3 29.7 38.7
	螺杆轉速	r.p.m.	175 175 175	152 152 152	199 199 199
	射咀接觸力	Tons	3.5 3.5 3.5	4.7 4.7 4.7	4.7 4.7 4.7
	射臺行程	mm	250 250 250	320 320 320	320 320 320
	料鬥容積	L	45	60	70
鎖模部份	鎖模系統類別		五點式機鉸	五點式機鉸	五點式機鉸
	鎖模力	Tons	120	180	220
	鎖模行程	mm	360	415	480
	模板最大開距	mm	770	870	1000
	容模厚度 (小機：最小模厚)	mm	127~410	150~455	200~520
	四柱內距 (水平 x 垂直)	mm	420 x 420	460 x 460	530 x 530
	模板尺寸 (水平 x 垂直)	mm	645 x 635	704 x 706	790 x 790
	模具定位孔直徑	mm	Φ100H8	Φ120H8	Φ150H8
	頂針力	ton	3.1	5.3	5.3
	頂針行程	mm	90	106	116
其他	頂針數量	pcs	1	5	5
	系統壓力	kg/cm ²	160	160	160
	油泵電機功率	kW	14	18	23
	電熱功率	kW	5.90	8.40	9.20
	溫度控制區	區段	2+1	3+1	3+1
	總用電量	kW	19.9	26.4	32.2
	電源需求	A	36	48	59
	油箱容積	L	230	300	350
	機器重量	Tons	4.1	5.3	7.0
外形尺寸(LxWxH)		MxMxM	4.64 x 0.99 x 1.7	5.17 x 1.03 x 1.8	6.08 x 1.12 x 1.87
					6.3 x 1.4 x 1.9

◆ 本公司可隨時修改以上規格而無須預先通知。

SP-X Efficient Servo Hydraulic Toggle Injection Moulding Machine Series

	Project	Unit	SP120X	SP180X	SP220X	SP270X
INJECTION UNIT	International standard model		430/120	789/180	789/220	1109/270
	Injection Unit		430	790	790	1100
	Screw Type		A B C	A B C	A B C	A B C
	Screw Diameter	mm	40 45 50	45 50 55	45 50 55	50 55 60
	Screw L:D Ratio	L:D	22.5 20.0 18.0	22.2 20.0 18.2	22.2 20.0 18.2	22.0 20.0 18.3
	Specific Injection Pressure	kg/cm ²	2015 1592 1290	2276 1843 1523	2276 1843 1523	2189 1809 1520
	Shot Weight (PS)	g	180 228 281	292 360 436	292 360 436	426 516 614
		oz	6.4 8.0 9.9	10.3 12.7 15.4	10.3 12.7 15.4	15.1 18.2 21.7
	Injection Rate	cc/sec	103 130 160	114 141 170	149 184 223	155 188 224
	Swept Volume	cc	214 270 334	347 428 518	347 428 518	507 613 729
	Screw Stroke	mm	170 170 170	218 218 218	218 218 218	258 258 258
	Plasticizing Capacity (PS)	kg/h	54 74 94	64 82 106	84 107 139	92 121 154
	Plasticizing Capacity (PS)	g/sec	14.9 20.5 26.1	17.8 22.7 29.6	23.3 29.7 38.7	25.7 33.5 42.7
	Screw Speed	r.p.m	175 175 175	152 152 152	199 199 199	172 172 172
	Nozzle Sealing Force	Tons	3.5 3.5 3.5	4.7 4.7 4.7	4.7 4.7 4.7	4.7 4.7 4.7
	Injection Stroke	mm	250 250 250	320 320 320	320 320 320	432 432 432
	Hopper Volume	L	45	60	70	70
CLAMPING UNIT	Clamping Type		Five-Point Vertical Double Toggles			
	Clamping Force	Tons	120	180	220	270
	Opening Stroke	mm	360	415	480	525
	Max Daylight Opening	mm	770	870	1000	1105
	Mould Height (Min-Max)	mm	127–410	150–455	200–520	250–580
	Space Between Tie-bars (WxH)	mm	420 x 420	460 x 460	530 x 530	580 x 580
	Platen Dimension (WxH)	mm	645 x 635	704 x 706	790 x 790	856 x 856
	Mould Locator Diameter	mm	Φ100H8	Φ120H8	Φ150H8	Φ150H8
	Ejector Force	ton	3.1	5.3	5.3	6.2
	Ejector Stroke	mm	90	106	116	130
OTHERS	No. of Ejectors	pcs	1	5	5	5
	System Pressure	kg/cm ²	160	160	160	160
	Electric Motor Power	kW	14	18	23	23
	Heating Power	kW	5.90	8.40	9.20	14.00
	Temperature Control Zones	區段	2+1	3+1	3+1	3+1
	Gross Power Consumption	kW	19.9	26.4	32.2	37.0
	Electricity Required	A	36	48	59	66
	Oil Tank Capacity	L	230	300	350	460
Machine Weight		Tons	4.1	5.3	7.0	9.1
Machine Dimensions (LxWxH)		MxMxM	4.64 x 0.99 x 1.7	5.17 x 1.03 x 1.8	6.08 x 1.12 x 1.87	6.3 x 1.4 x 1.9

◆ The above specifications can be altered without prior notice.

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