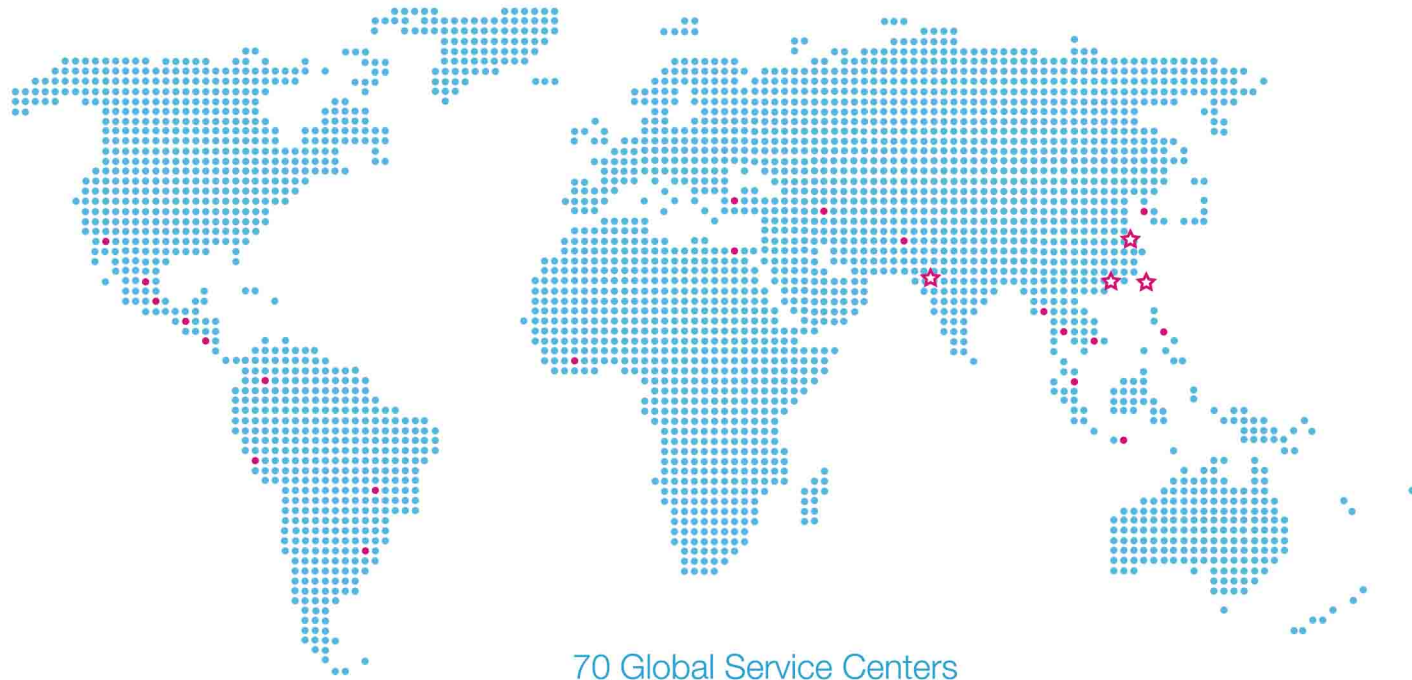


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SA-h/p SERIES

高速成型專用注塑機 High Speed Injection Molding Machine

SA-h 薄壁包裝專用機

SA-p 桶專用機

SA-h PET 採血管專用機

產品定位 Product Position

FCS五十年技術結晶與積累，創造了多樣性的產品與穩定的性能品質，同時針對各行業不同產品特性，提供差異化整合與服務。

SA-h/p系列為FCS全新發表之高速成型專用注塑機，除了標配紅外奈米加熱圈，採用比例閥，開模響應快且定位精準，更可選配雙迴路動作，最大程度縮短成型週期。

本設備適用於生產薄壁或桶型食品包裝容器，更可搭配專用料管組，生產PET採血管。

FCS has created various products with steady performance by utilizing its 50 years expertise in technological developments and innovations; also providing customized integration and service for different product characteristics for many industries.

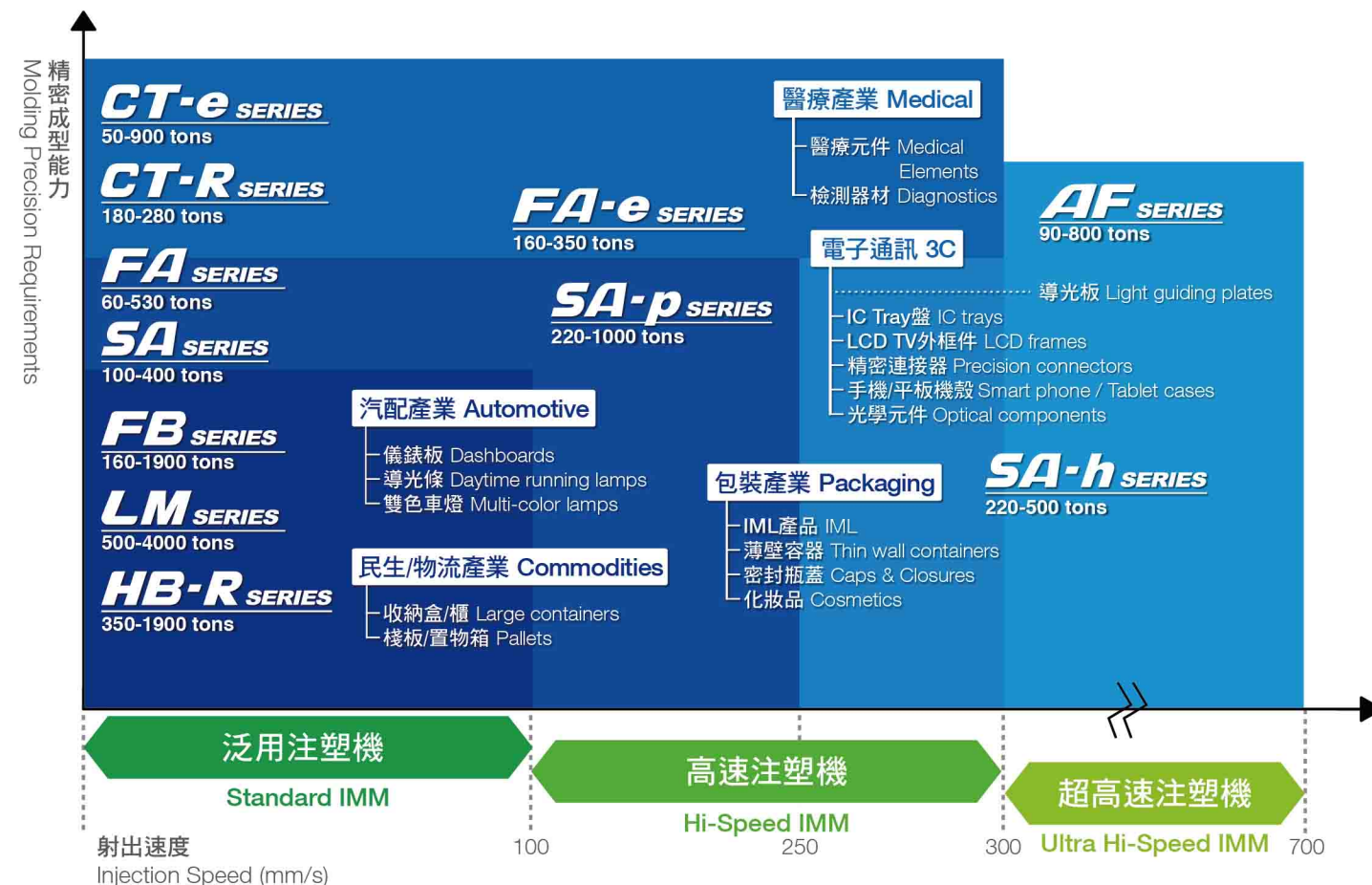
The brand new released SA-h/p series is a High-Speed model. It standardly adopts the infrared heater which can be quickly heat up and with good heat preservation. The proportional valve offers fast mold open response and accurate positioning. It's also can be optional equipped with double loops system to improve production efficiency.

SA-h/p series High-speed Injection Molding Machine is suitable for food packaging containers with thin-walled or bucket body and lids. It can also be matched with a special injection unit to produce PET blood collection tubes.

電控單元 Control Unit



FCS-6500S ▲



應用功能 Application

- 全新設計畫面風格與圖示，操作更為便利。
- 具多階密碼保護功能，記錄與限制各階使用者參數修改。
- 提供統計製程控制及射出波形圖，提高生產品質與效率。
- USB資料存取介面，模具參數、顯示畫面存取便利。
- 採多重通訊介面(USB、串行接口、Ethernet、EtherCAT、Sercos III)。
- 支援OPC協定，且依據IEC-61131設計，其特點為模組化並易於軟硬體維護。
- 多種語言可供客戶選擇。

應用功能 Application

- New control is designed for easy operator interface.
- The multi-level password protection function is used to record and limit the parameters modification from various levels of users.
- Provide statistical process control and injection waveforms to improve production quality and efficiency.
- Convenient access to USB data, mold parameters and display screens.
- Multiple communication interfaces (USB, serial interface, Ethernet, EtherCAT, Sercos III).
- Control supports OPC protocol and has a modular design to easily maintain the software and hardware.
- Multiple languages are available for users.

夾模設計 Clamping structure design

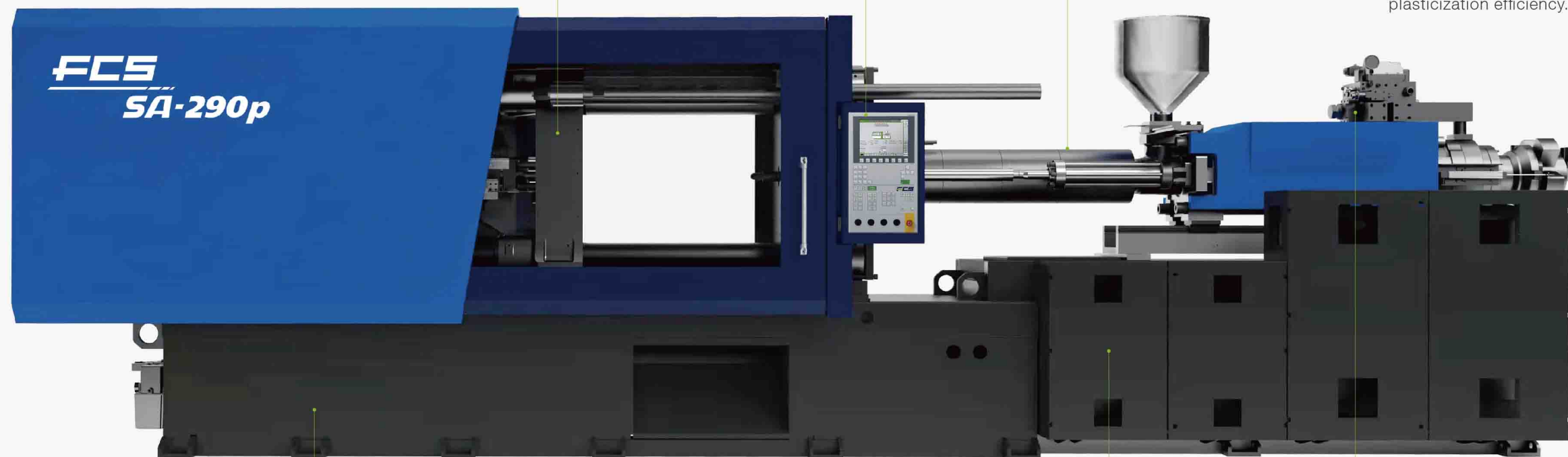
- 高剛性模板設計，彈性變形小，成型鎖模力更低。
- 標配高速比例閥，開模響應更快，定位更準，循環週期短。
- High rigidity platen mechanism, less deformation, lower clamping force.
- Standard high-speed proportional valve, with fast mold open response, accurate positioning and short cycle time.

電控單元 Control system

- 標配KEBA控制系統。
- 動作掃描週期1ms以內。
- 符合人體工程學佈局。
- 具資料圖像監控功能。
- Standard equipped with KEBA control system.
- Operation mode scan within 1ms.
- Ergonomic layout.
- Data image monitoring.

精準溫控 Precision temperature control

- 標配紅外奈米加熱圈，升溫快，保溫性能好，節能超過30%。
- 採用PID溫度控制，可控制在 $\pm 1^{\circ}\text{C}$ 。
- 採用大L/D比，高混煉螺桿，塑化效果好。
- Standard infrared heater, fast heating, good heat preservation, energy saving over 30%.
- Adopt PID temperature control, temperature control within $\pm 1^{\circ}\text{C}$.
- Adopt large L/D ratio, high mixing screw and good plasticization efficiency.



先進機架工藝 Advanced machine base technology

- 整機管路採用無焊接工藝，降低漏油風險。
- 提升油路清潔度，機台壽命更長。
- The pipelines adopt no welding processing, decreasing the risk of oil leaking.
- Improving the cleanness of oil circuits and increase machine life.

伺服電機系統 Servo motor system

- 標配高性能伺服動力系統，響應時間最快至40ms。
- 獨特的模組化設計，方便維修。
- 可以實現雙迴路動作，最大程度縮短成型週期。
- Equipped with high performance servo power system, the fastest response time is up to 40ms.
- Unique modular design, easy maintainance.
- It can be realized double loops system, improving production efficiency.

精準注射 Precision injection molding

- 射台及座移採用雙線軌設計，摩擦阻力低，精度更高。
- 中慣量單缸射出結構，起速快，重複精度高。
- The injection unit support adopts high-precision double linear guides, the lower friction resistance, the higher precision.
- The medium-inertia single-cylinder injection mechanism, fast response and high repeatability.

SA-h薄壁包裝專用機規格表 SA-h Specifications

ITEMS		UNIT	SA-170h	SA-220h	SA-290h	SA-330h
射出單元 Injection unit	類型 Type	-	400	600	770	770
	螺桿直徑 Screw diameter	mm	40	45	50	50
	射出行程 Screw stroke	mm	190	230	230	230
	理論射出容積 Theoretical shot volume	cm³	239	366	452	452
	理論射出量 Shot weight of injection (PS)	gram	217	333	411	411
	射出壓力 Injection pressure	kgf/cm²	1663	1651	1710	1710
	射出速度 Injection Speed	mm/sec	365	330	395	445
夾模單元 Mold clamping unit	射出率 Injection rate	cm³/sec	460	528	778	876
	閉模力 Mold clamping force	tonf	170	220	290	330
	夾模行程 Mold clamping stroke	mm	430	500	550	640
	模厚 Mold thickness	mm	180~520	200~550	220~580	250~610
	大柱內距 Tie bar spacing (H×V)	mm	470×410	530×470	580×515	630×585
	模盤尺寸 Mold platen (H×V)	mm	745×655	800×800	875×875	940×900
	頂出行程 Ejector stroke	mm	135	135	140	140
電氣單元 Electrical equipment	頂出力 Ejector force	tonf	6.7	6.7	8.8	8.8
	最大油泵動力 Max. pump driving motor	kW(380V)	58	58	46.2+46.2	58+46.2
其 他 Others	電熱容量 Heater capacity	kW	10	19.4	20.4	20.4
	機械尺寸 Machine dimensions (L×W×H)	mm	4900×1430×2100	6100×1550×2050	6590×1630×2120	6900×1710×2125
	油箱容量 Oil tank capacity	liter	260	420	500	500
	機械重量 Machine weight	ton	5.5	8	11	13

ITEMS		UNIT	SA-380h	SA-460h	SA-500h	SA-600h
射出單元 Injection unit	類型 Type	-	900	1000	1000	1100
	螺桿直徑 Screw diameter	mm	55	58	58	60
	射出行程 Screw stroke	mm	230	230	230	230
	理論射出容積 Theoretical shot volume	cm³	546	608	608	650
	理論射出量 Shot weight of injection (PS)	gram	497	553	553	592
	射出壓力 Injection pressure	kgf/cm²	1655	1707	1707	1712
	射出速度 Injection Speed	mm/sec	445	475	475	515
夾模單元 Mold clamping unit	射出率 Injection rate	cm³/sec	1057	1260	1260	1459
	閉模力 Mold clamping force	tonf	380	460	500	600
	夾模行程 Mold clamping stroke	mm	690	750	790	820
	模厚 Mold thickness	mm	250~680	280~730	300~800	300~850
	大柱內距 Tie bar spacing (H×V)	mm	670×640	720×720	770×720	830×750
	模盤尺寸 Mold platen (H×V)	mm	1000×970	1090×1090	1175×1120	1230×1150
	頂出行程 Ejector stroke	mm	140	140	145	180
電氣單元 Electrical equipment	頂出力 Ejector force	tonf	8.8	8.8	13.0	13.0
	最大油泵動力 Max. pump driving motor	kW(380V)	58+58	63.5+63.5	63.5+63.5	63.5+63.5+37
其 他 Others	電熱容量 Heater capacity	kW	29.2	32.6	32.6	32.6
	機械尺寸 Machine dimensions (L×W×H)	mm	7170×1810×2060	7850×1950×2080	8230×2020×2100	8610×2170×2200
	油箱容量 Oil tank capacity	liter	580	580	580	630
	機械重量 Machine weight	ton	14.8	18.5	21	25.5

本資料僅供參考。因產品不斷研究改良，設計變更時恕不另作通知。
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薄壁包裝經典應用 Application of Thin-Walled Packaging

產品 Product	容量 Capacity	腔數 Cavity	單個產品 克重 Weight (g)	壁厚 Thickness (mm)	成型周期 Cycle time (s)	適配機型 IMM Model
	1000ml	4	14~16	0.35~0.4	4.5~5.5	SA-380h/900
		6			5.2~5.8	SA-460h/1000
		8			5.5~6.0	SA-500h/1000
	-	6	7~8	0.35~0.4	4.5~5.2	SA-330h/770
		8			5.0~5.5	SA-380h/900
		12			5.5~6.5	SA-500h/1000
	700ml	6	21~25	0.4~0.5	6.0~7.0	SA-380h/900
		8			6.5~7.2	SA-460h/1000
	-	12	4~6	0.4~0.5	5.2~5.5	SA-290h/770
		16			5.5~6.0	SA-330h/770
		24			6.0~6.5	SA-380h/990
	1000ml	2	22~26	0.35~0.4	6.5~7.0	SA-290h/770
		4			6.0~6.5	SA-460h/1000
	120ml (4 oz)	16	5.0~5.5	0.35~0.4	6.0~7.0	SA-290h/770
		32			6.5~7.0	SA-460h/1000
	1000 ml	2	55~60	0.7~1.2	7.0~7.5	SA-290h/770
		4			9.0~9.5	SA-380h/990
	-	32	1.7~1.8	0.4~0.6	7.0~8.0	SA-290h/770
		48			8.5~9.0	SA-290h/770

SA-p桶專用機規格表 SA-p Specifications

ITEMS			UNIT	SA-220p	SA-290p	SA-330p	SA-460p	SA-550p
射出單元 Injection unit	類型	Type	-	770	900	1100	2500	3900
	螺桿直徑	Screw diameter	mm	50	55	60	70	80
	射出行程	Screw stroke	mm	230	230	230	375	450
	理論射出容積	Theoretical shot volume	cm³	452	546	650	1443	2262
	理論射出量	Shot weight of injection (PS)	gram	411	497	592	1313	2058
	射出壓力	Injection pressure	kgf/cm²	1710	1655	1736	1736	1750
	射出速度	Injection Speed	mm/sec	195	220	165	205	205
夾模單元 Mold clamping unit	射出率	Injection rate	cm³/sec	389	530	478	793	1030
	閉模力	Mold clamping force	tonf	220	290	330	460	550
	夾模行程	Mold clamping stroke	mm	500	550	640	750	830
	模厚	Mold thickness	mm	200~550	220~580	220~610	280~730	300~800
	大柱內距	Tie bar spacing (H × V)	mm	530×470	580×515	630×585	720×720	770×720
	模盤尺寸	Mold platen (H × V)	mm	800×800	875×875	940×900	1090×1090	1175×1120
	頂出行程	Ejector stroke	mm	135	140	140	140	145
電氣單元 Electrical equipment	頂出力	Ejector force	tonf	6.7	8.8	8.8	8.8	13.0
	最大油泵動力	Max. pump driving motor	kW(380V)	41.6	53	53	53+41.6	63.5+53
其 他 Others	電熱容量	Heater capacity	kW	20.4	29.2	32.6	34.5	42
	機械尺寸	Machine dimensions (L × W × H)	mm	6320×1550×2050	6570×1620×2120	6950×1710×2125	7850×1950×2080	8250×2030×2120
	油箱容量	Oil tank capacity	liter	420	500	500	580	580
	機械重量	Machine weight	ton	10.8	11	12.8	17.8	20.3

ITEMS			UNIT	SA-650p	SA-700p	SA-800p	SA-1000p
射出單元 Injection unit	類型	Type	-	5000e	7600e	7600e	8800e
	螺桿直徑	Screw diameter	mm	90	100	100	110
	射出行程	Screw stroke	mm	450	550	550	550
	理論射出容積	Theoretical shot volume	cm³	2863	4320	4320	5227
	理論射出量	Shot weight of injection (PS)	gram	2605	3931	3931	4757
	射出壓力	Injection pressure	kgf/cm²	1762	1764	1764	1692
	射出速度	Injection Speed	mm/sec	175	170	170	160
夾模單元 Mold clamping unit	射出率	Injection rate	cm³/sec	1126	1343	1343	1549
	閉模力	Mold clamping force	tonf	650	700	800	1000
	夾模行程	Mold clamping stroke	mm	930	1000	1100	1300
	模厚	Mold thickness	mm	410~1000	400~1000	450~1000	500~1000
	大柱內距	Tie bar spacing (H × V)	mm	900×810	910×820	1000×870	1090×950
	模盤尺寸	Mold platen (H × V)	mm	1310×1310	1320×1320	1410×1280	1540×1400
	頂出行程	Ejector stroke	mm	175	175	230	270
電氣單元 Electrical equipment	頂出力	Ejector force	tonf	13.0	13.0	25.0	25.0
	最大油泵動力	Max. pump driving motor	kW(380V)	63.5+63.5	63.5+53+53	63.5+53+53	63.5+63.5+41.6
其 他 Others	電熱容量	Heater capacity	kW	51.4	57.1	57.1	61.8
	機械尺寸	Machine dimensions (L × W × H)	mm	9600×2220×2170	9700×2220×2180	9750×2400×2220	11200×2800×2450
	油箱容量	Oil tank capacity	liter	880	880	960	1050
	機械重量	Machine weight	ton	27.2	29	40	48.2

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桶體應用 Application of Bucket Body

產品 Product	規格 Dimension (TopxBottomxHeight) (mm)	腔數 Cavity	產品克重 Weight (g)	壁厚 Thickness (mm)	成型周期 Cycle time (s)	適配機型 IMM model
	10L	1	400	1.5	14.3	SA-460p/2500
		2	800		15.0	SA-550p/3900
		2	800		15.8	SA-800p/7600e
	20L	1	800	1.85	22.0	SA-550p/3900
		1	800		19.7	SA-650p/5000e
		1	800		18.0	SA-700p/7600e
		2	1600		21.9	SA-1000p/8800e
		1	1020		22.5	SA-800p/7600e
33L	350x310x400	1	1020	2	22.5	SA-800p/7600e

桶蓋應用 Application of Bucket Lids

產品 Product	規格 Dimension (mm)	腔數 Cavity	產品克重 Weight (g)	壁厚 Thickness (mm)	成型周期 Cycle time (s)	適配機型 IMM model
	10L	1	140	1.6	14.8	SA-220p/770
		2	280		15.6	SA-290p/900
	20L	1	245	2	20.2	SA-290p/900
		2	490		21.3	SA-330p/1100
33L	O385	1	296	2.15	23.0	SA-290p/900

SA-h PET 採血管專用機規格表

SA-h PET Blood Collection Tubes Specifications

ITEMS			UNIT	SA-220h	SA-290h
射出單元 Injection unit	類型	Type	-	770	900
	螺桿直徑	Screw diameter	mm	50	55
	射出行程	Screw stroke	mm	230	230
	理論射出容積	Theoretical shot volume	cm ³	452	546
	理論射出量	Shot weight of injection (PS)	gram	411	497
	射出壓力	Injection pressure	kgf/cm ²	1710	1674
	射出速度	Injection speed	mm/sec	395	415
	射出率	Injection rate	cm ³ /sec	778	993
夾模單元 Mold clamping unit	閉模力	Mold clamping force	tonf	220	290
	夾模行程	Mold clamping stroke	mm	500	550
	模厚	Mold thickness	mm	200~550	220~580
	大柱內距	Tie bar spacing (H × V)	mm	530×470	580×515
	模盤尺寸	Mold platen (H × V)	mm	800×800	875×875
	頂出行程	Ejector stroke	mm	135	140
	頂出力	Ejector force	tonf	6.7	8.8
電氣單元 Electrical equipment	最大油泵動力	Max. pump driving motor	kW(380V)	58	46.2+46.2
	電熱容量	Heater capacity	kW	19.4	29.2
其 他 Others	機械尺寸	Machine dimensions (L × W × H)	mm	6400×1550×2100	7000×1810×2200
	油箱容量	Oil tank capacity	liter	500	580
	機械重量	Machine weight	ton	11.5	14.5

本資料僅供參考。因產品不斷研究改良，設計變更時恕不另作通知。
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SA-h PET 採血管應用

Application of PET Blood Collection Tubes

產品 Product	尺寸 Size(mm)	容量 Capacity	腔數 Cavity	單個產品克重 Weight (g)	壁厚 Thickness (mm)	成型週期 Cycle time (s)		適配機型 IMM Model
						油壓加料 Hydraulic screw drive	電動加料 Electric screw drive	
	φ 12.4*100	5ml	24	5.2	0.95	12.0-13.0	7.0-8.0	SA-220h/770
			32			13.0-13.5	8.0-8.5	SA-290h/900
			48			13.5-14.0	8.5-9.0	SA-290h/900
	φ 12.4*75	3ml	24	3.7		12.0-13.0	7.0-8.0	SA-220h/770
			32			13.0-13.5	8.0-8.5	SA-290h/900
			48			13.5-14.0	8.5-9.0	SA-290h/900

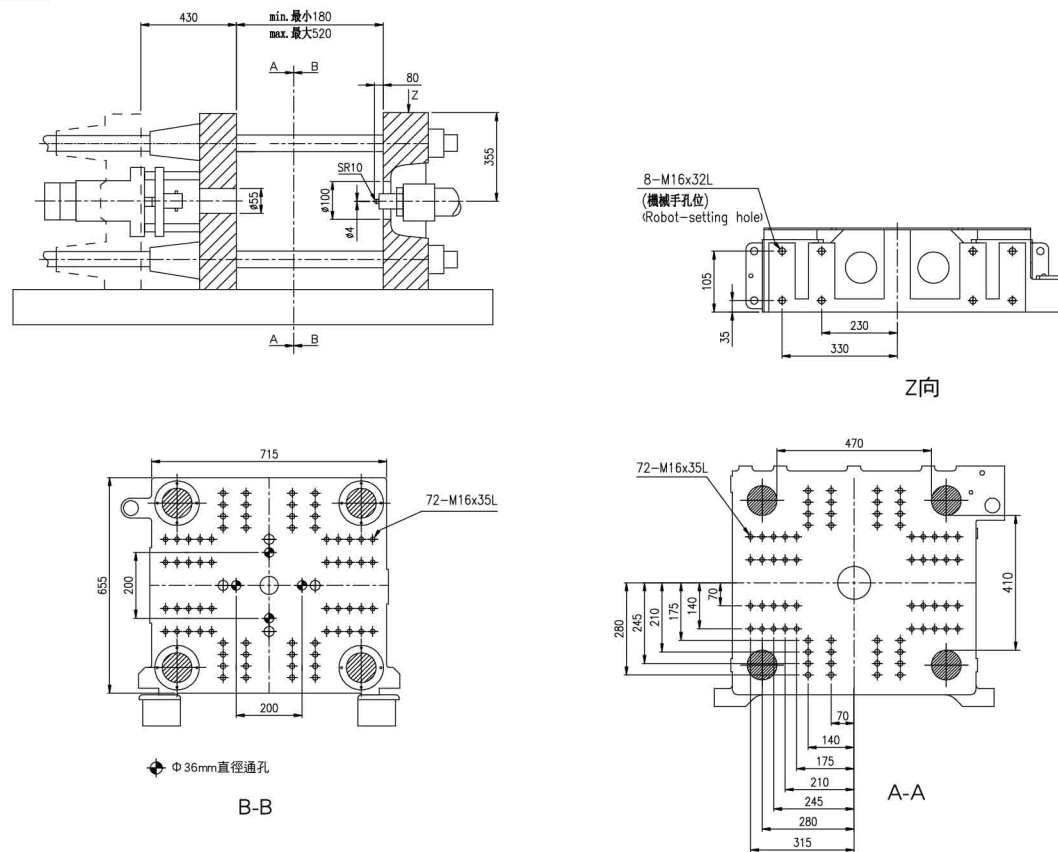
應用產品

Examples of SA-h PET Series

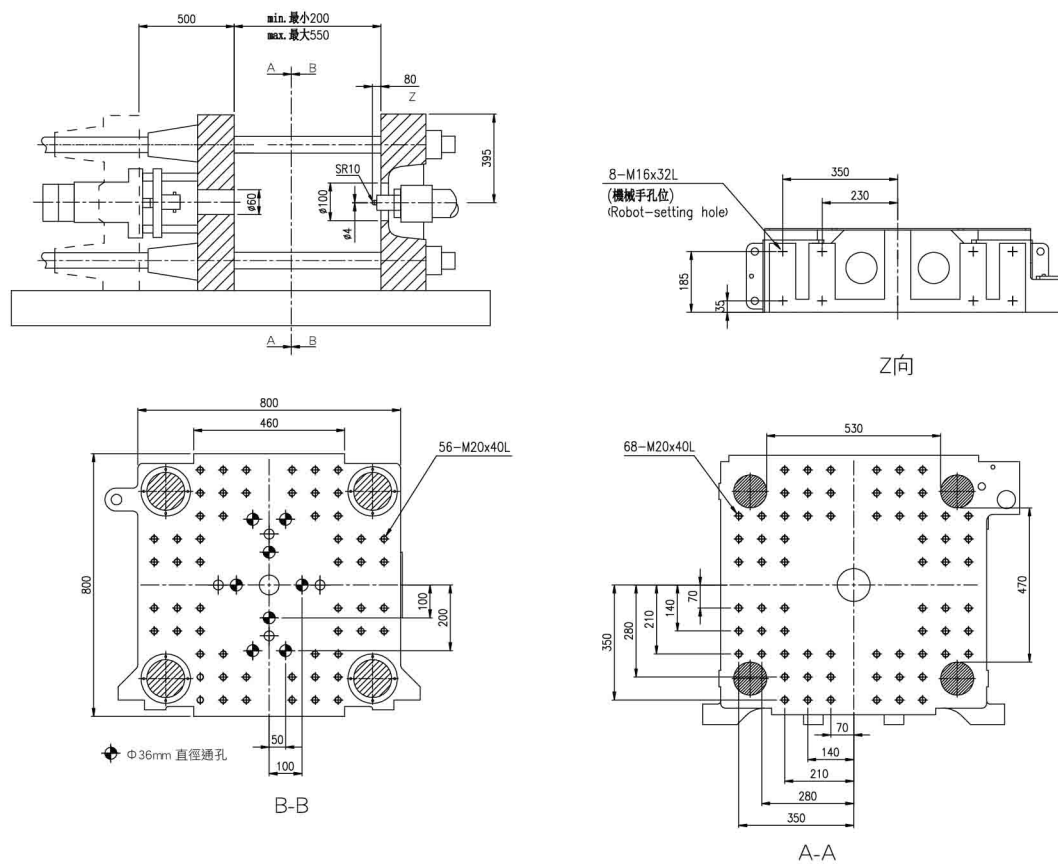


SA-h 模壁尺寸圖 SA-h Mold Platen Dimensions

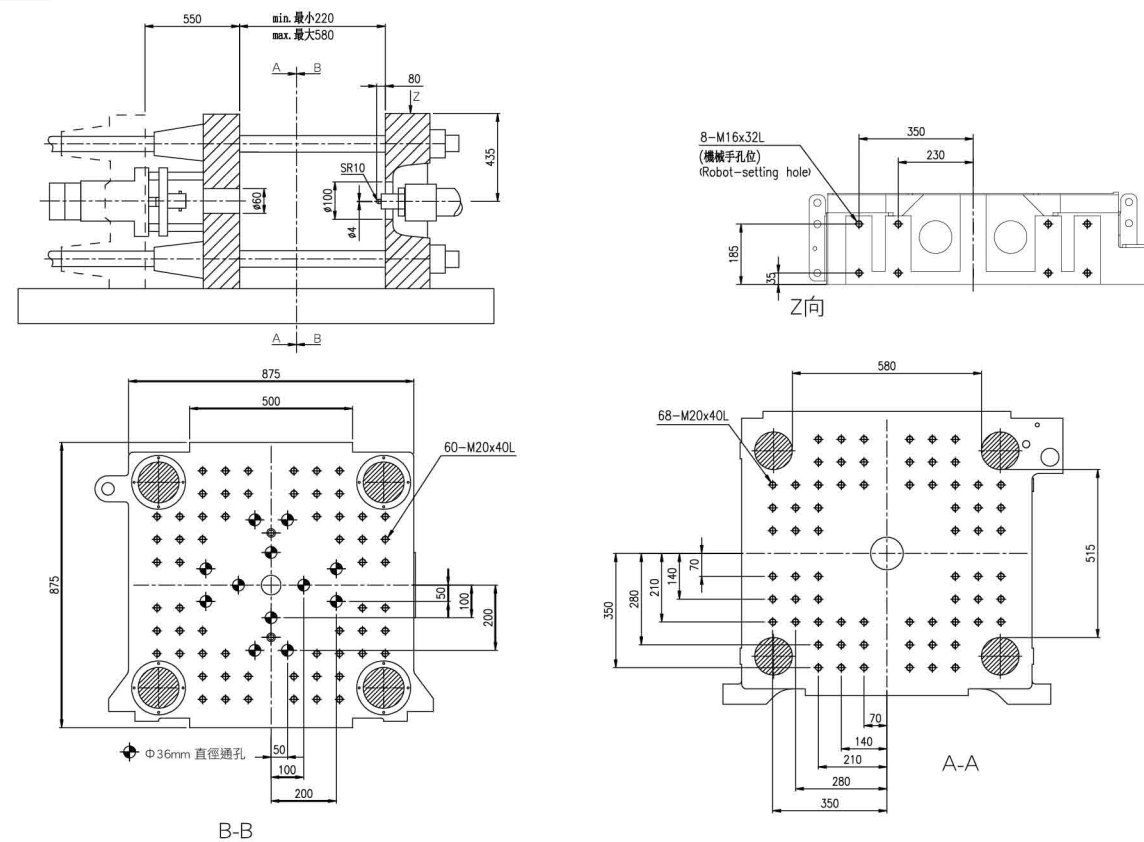
SA-170h



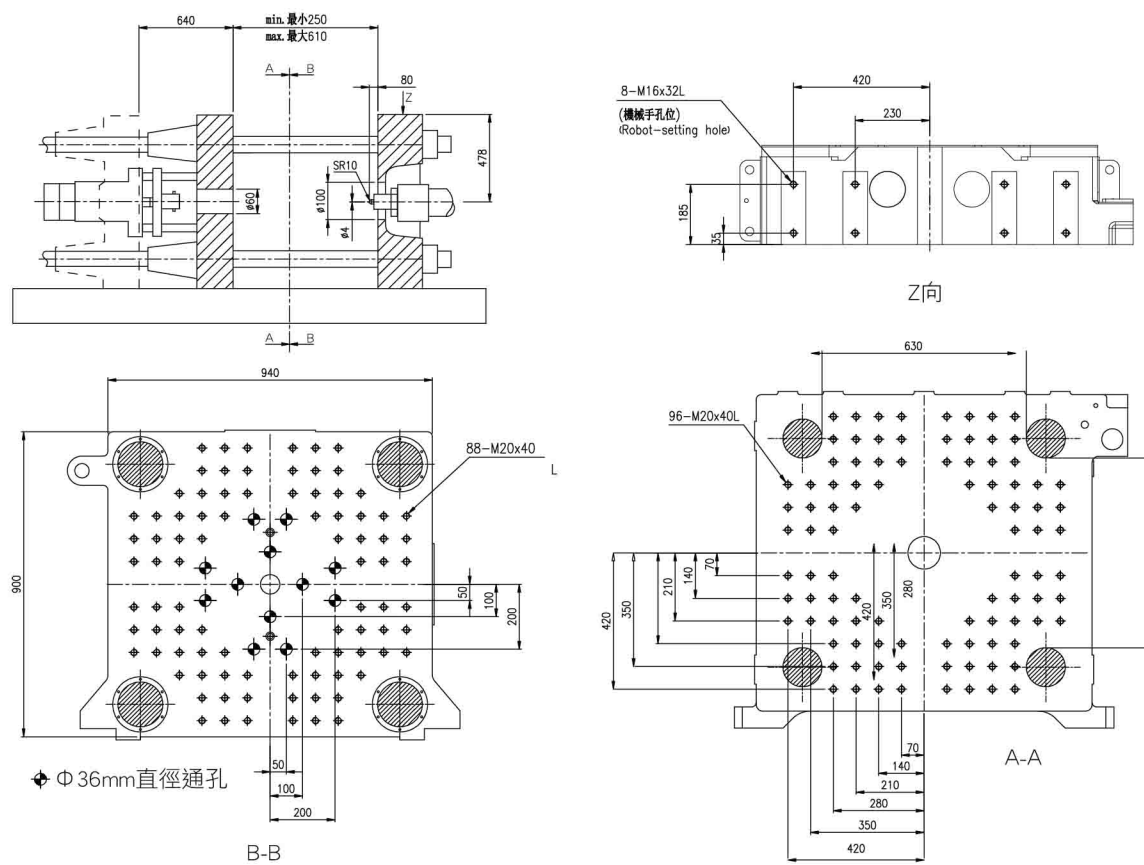
SA-220h



SA-290h

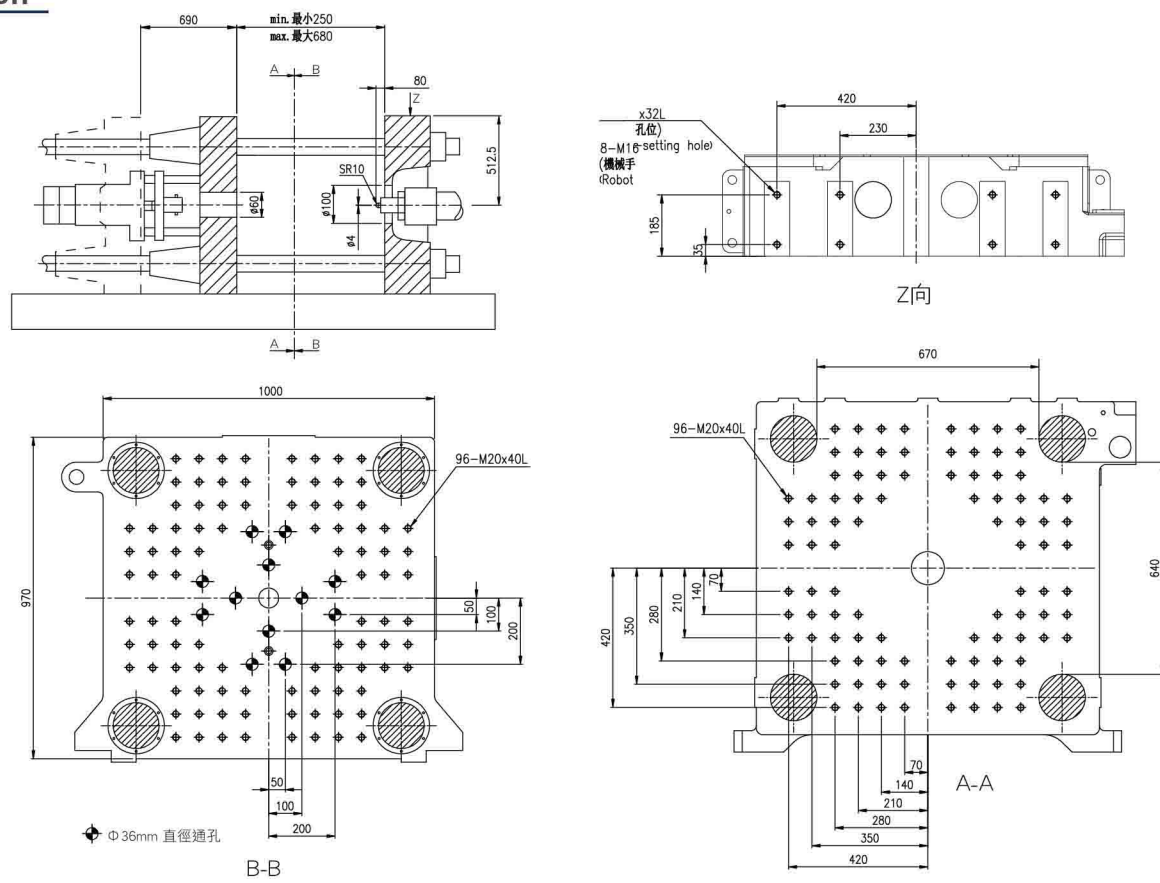


SA-330h

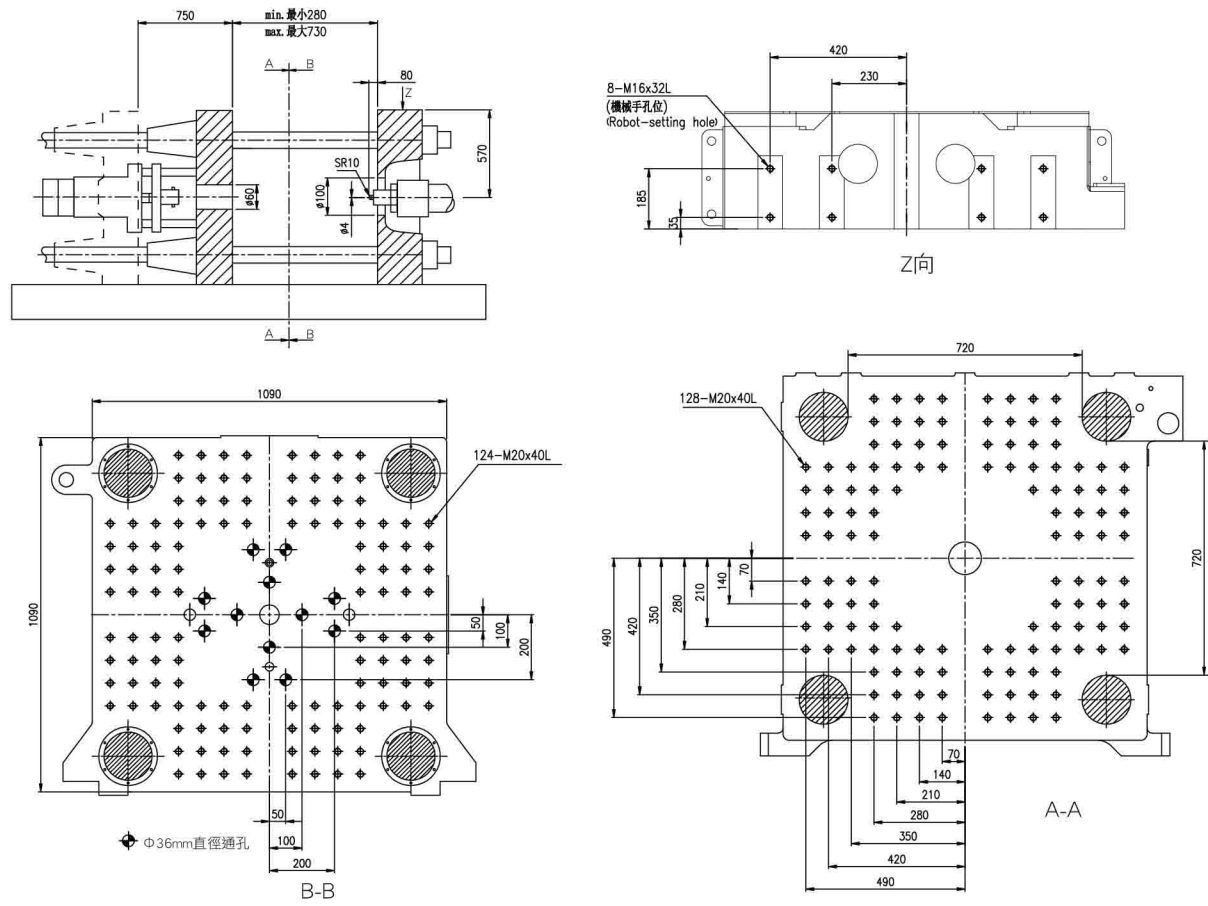


SA-h 模壁尺寸圖 SA-h Mold Platen Dimensions

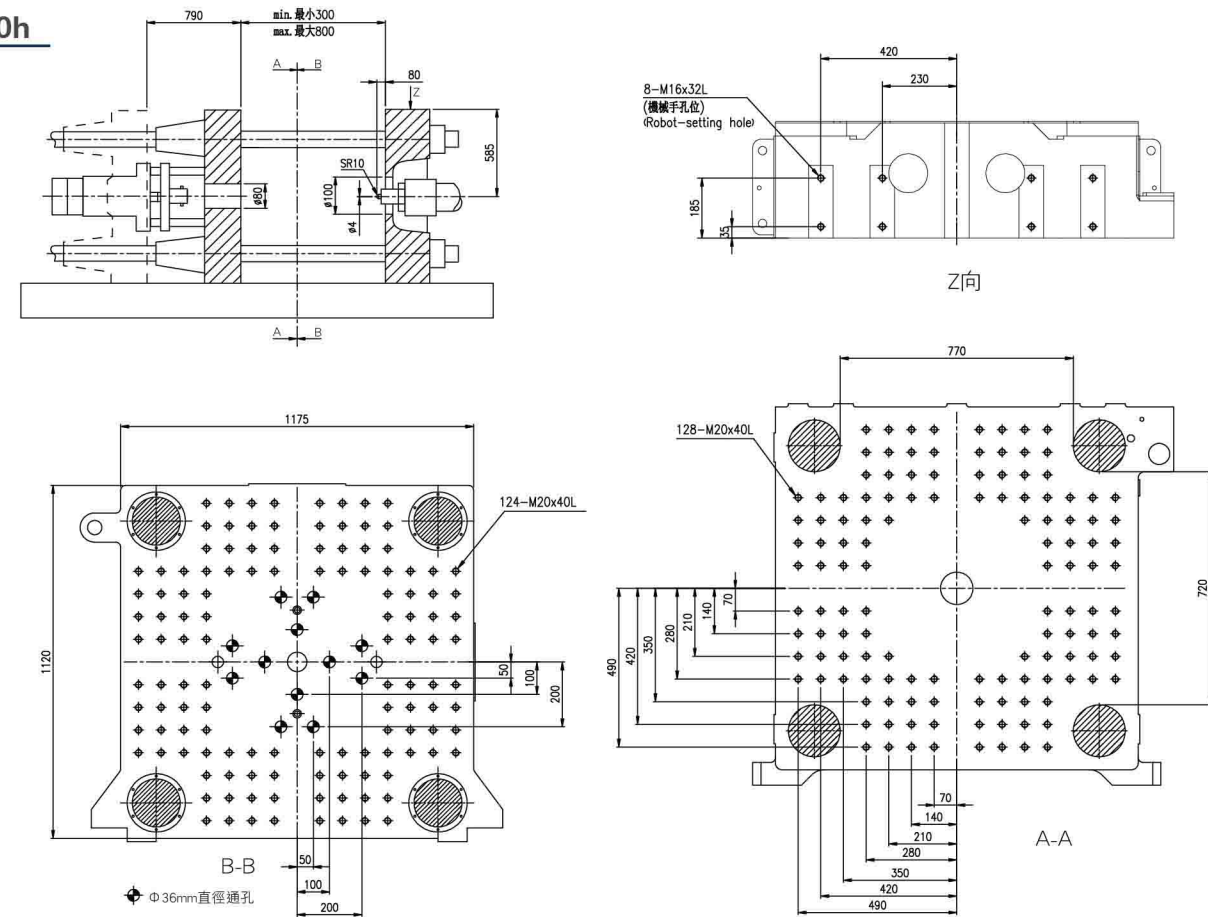
SA-380h



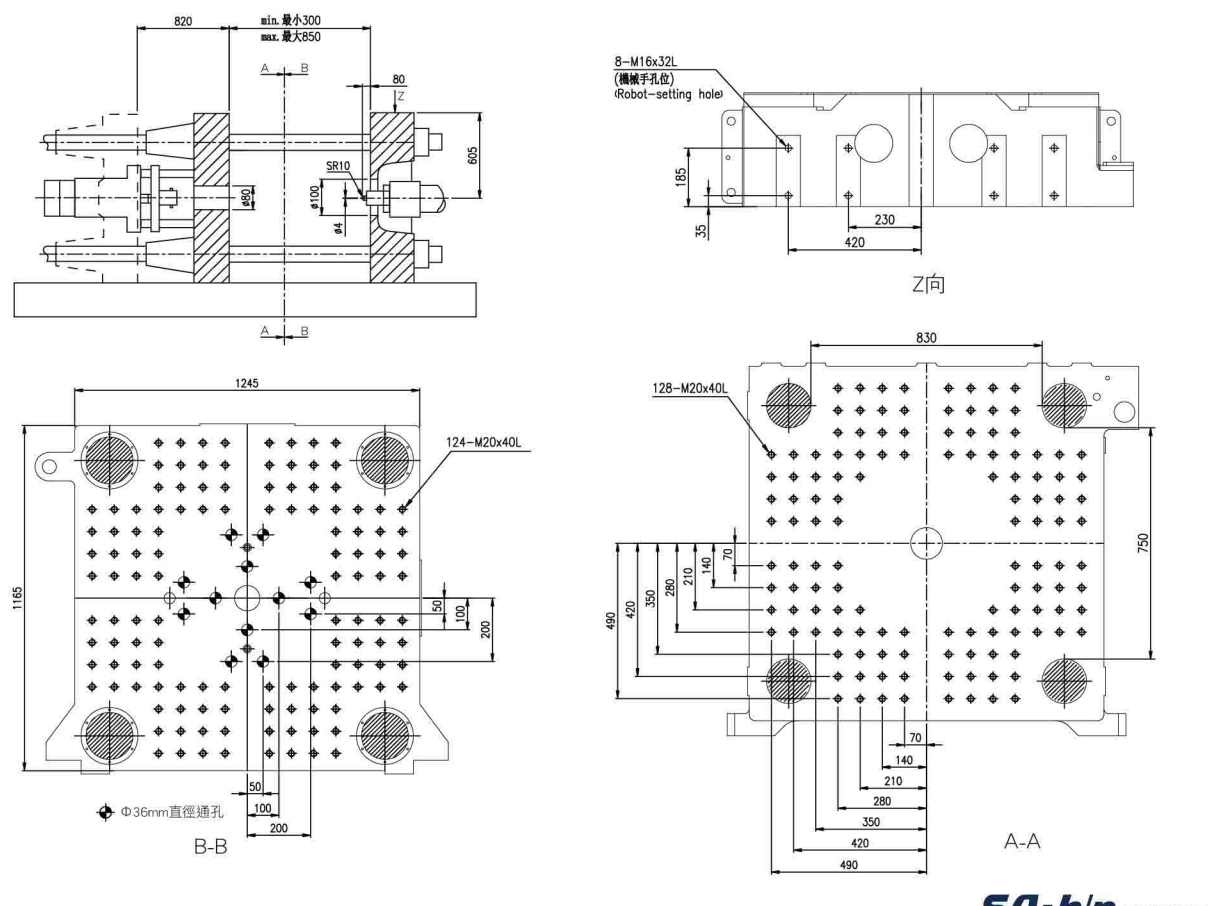
SA-460h



SA-500h

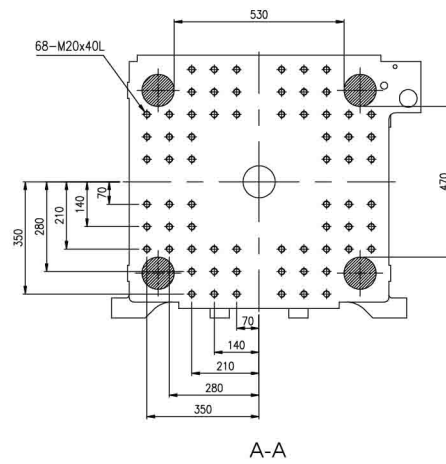
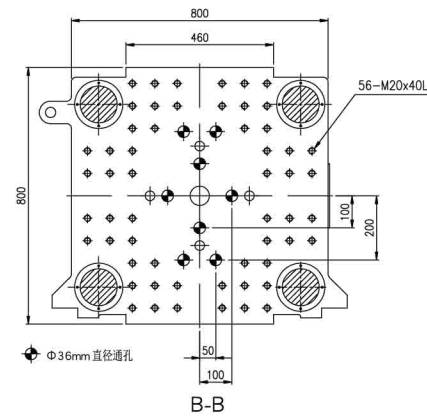
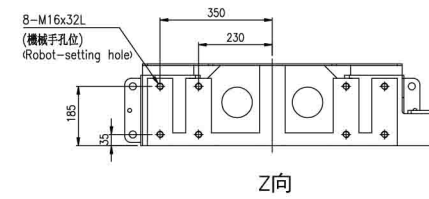
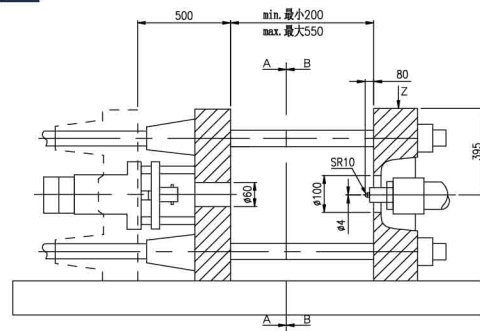


SA-600h

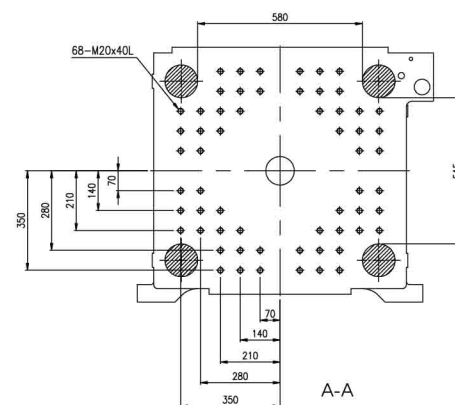
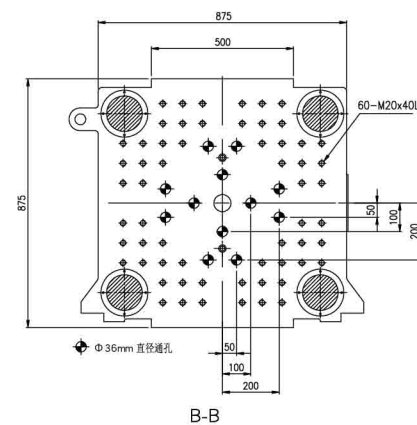
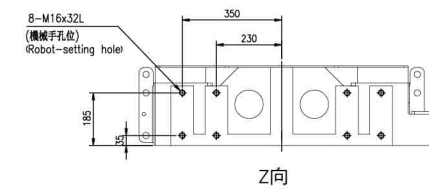
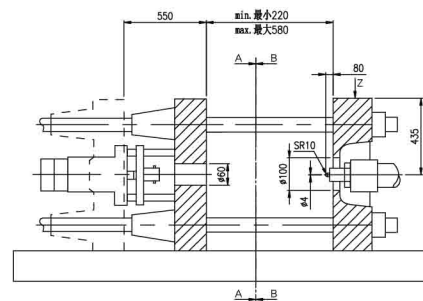


SA-p 模壁尺寸圖 SA-p Mold Platen Dimensions

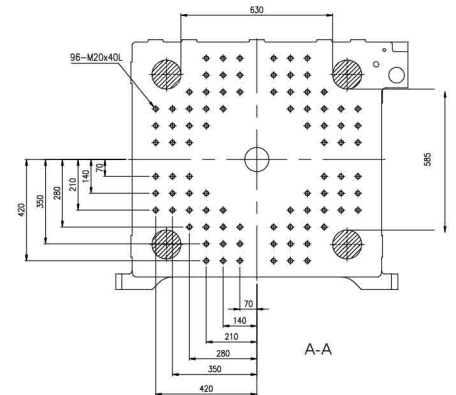
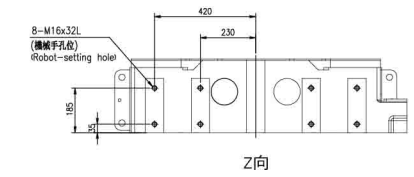
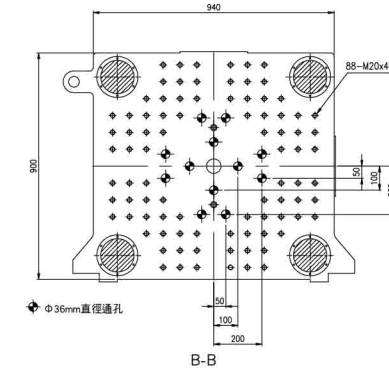
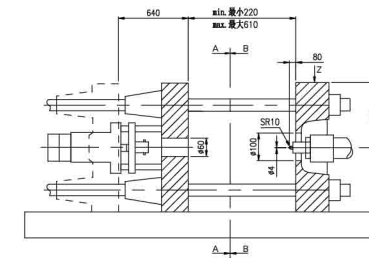
■ **SA-220p**



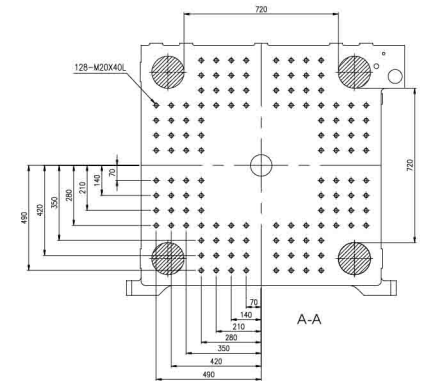
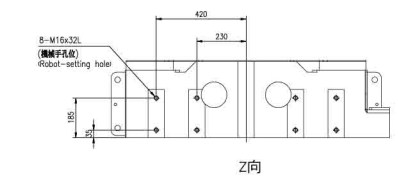
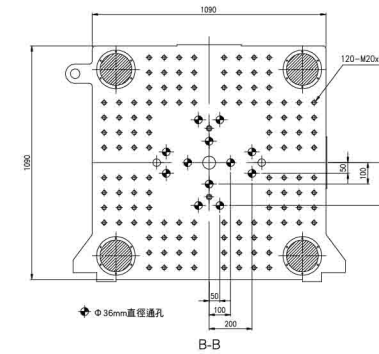
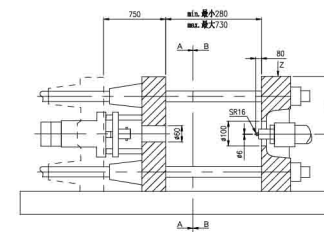
■ SA-290p



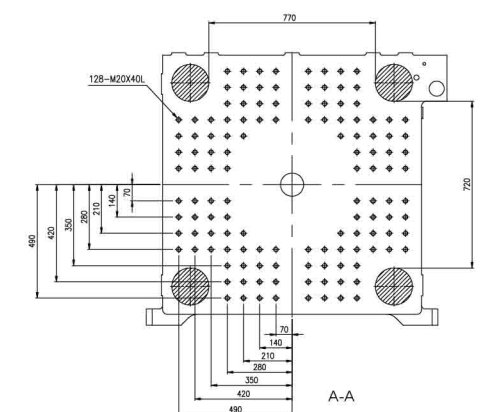
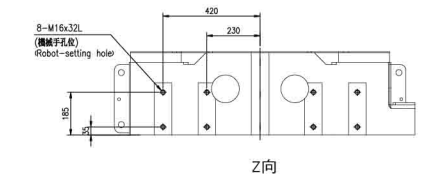
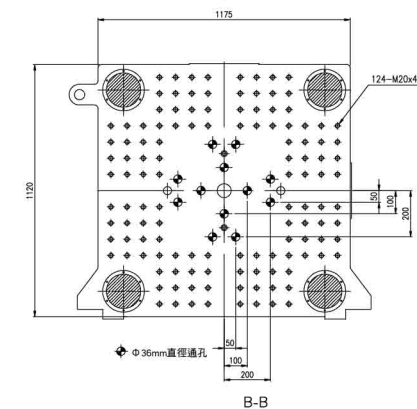
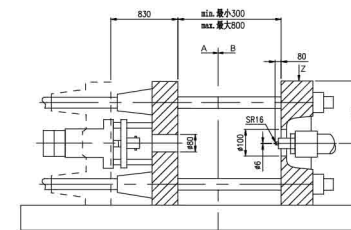
■ **SA-330p**



■ **SA-460p**

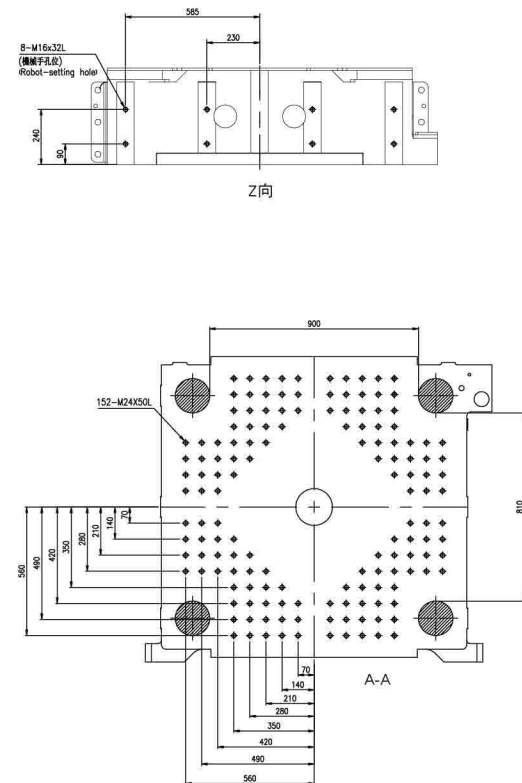
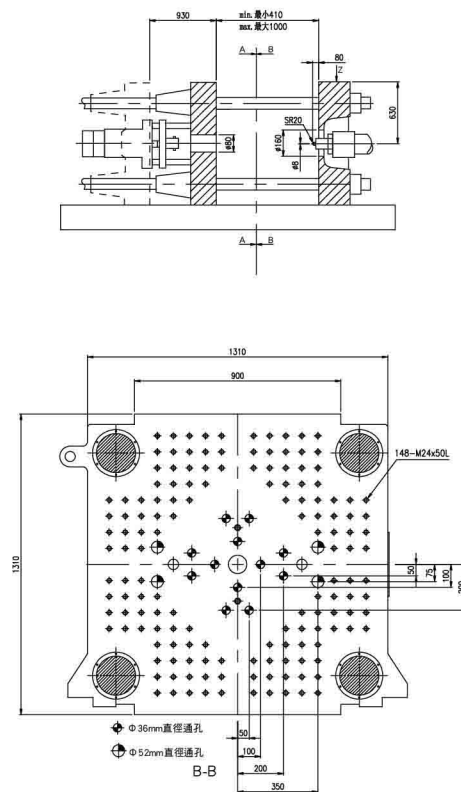


■ SA-550p

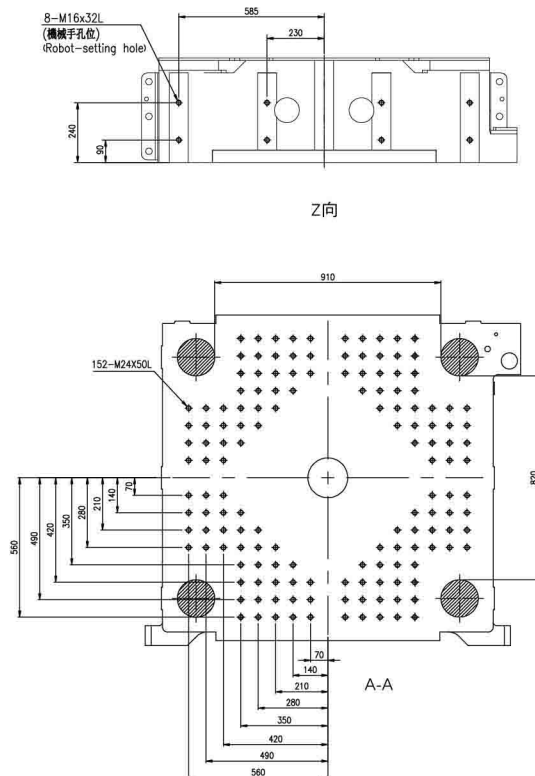
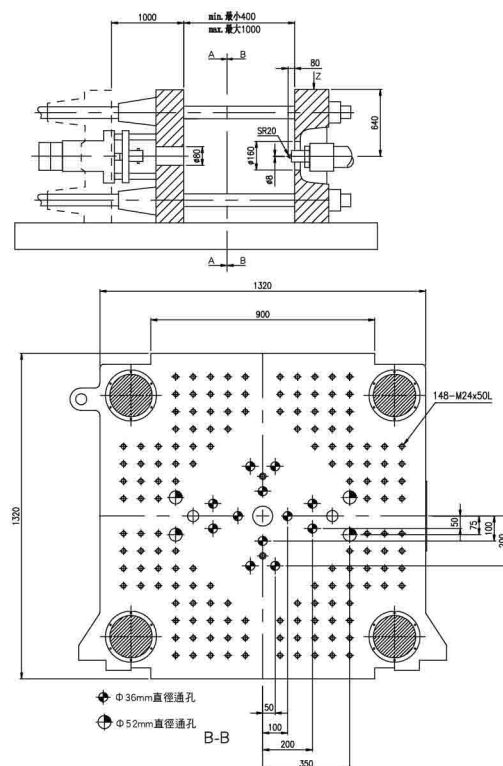


SA-p 模壁尺寸圖 SA-p Mold Platen Dimensions

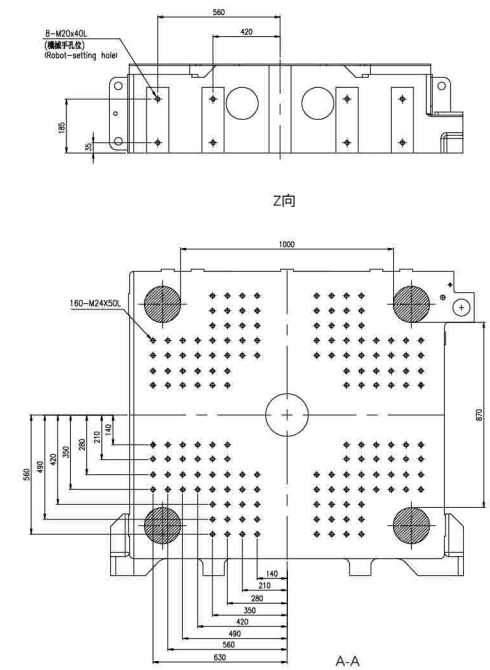
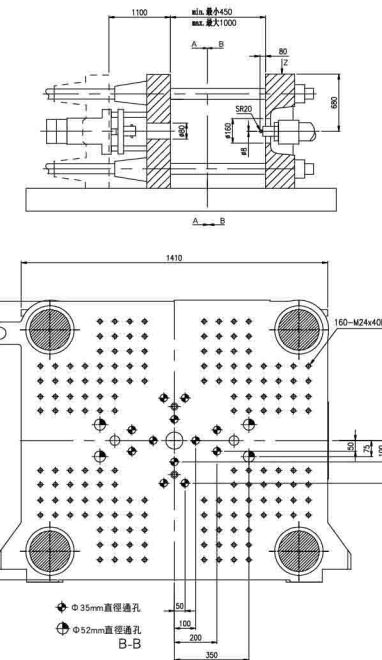
■ **SA-650p**



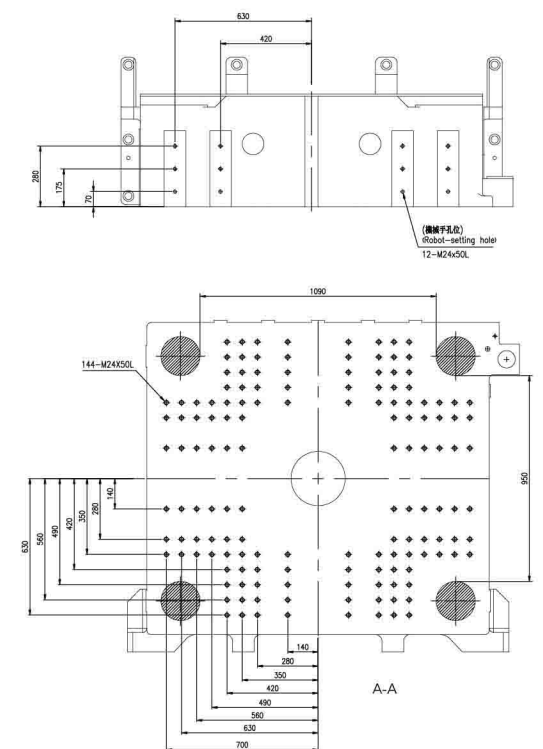
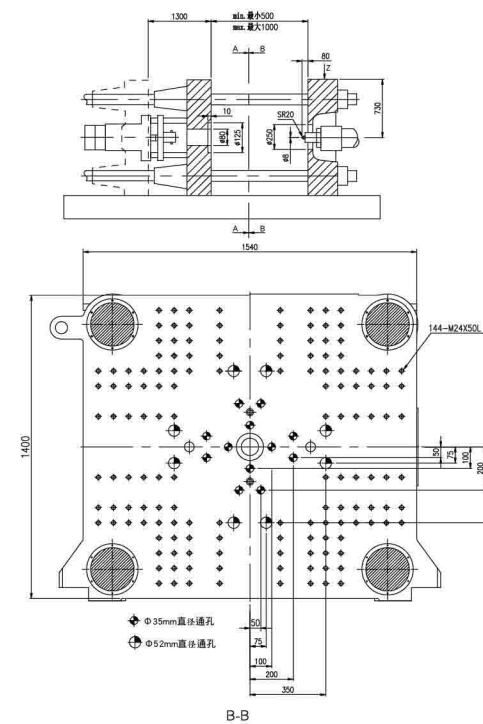
■ **SA-700p**



■ **SA-800p**



■ **SA-1000p**



SA-h 標準與選購配備 SA-h Standard & Optional Accessories

- 曲手潤滑油品：採用多效齒輪油。
- Toggle lubricating by gear oil.
- 外銷機台配置與內銷相同。
- Configuration is same between Export and domestic machines.

配備項目	ITEM	SA-170h	SA-220h	SA-220h	SA-290h	SA-290h	SA-330h	SA-380h	SA-460h	SA-500h	SA-600h
		/400	/600	/770	/770	/900	/770	/900	/1000	/1000	/1000
射出安全護罩	Safety cover for injection	●	●	●	●	●	●	●	●	●	●
射出止逆裝置	Shot-off Nozzle	○	○	○	○	○	○	○	○	○	○
伺服馬達加料	electric screw drive	—	—	○	—	○	—	○	○	○	○
PVC、PC、壓克力、尼龍專用螺桿組	Special Screw for PC/PMMA/PA/PVC...	—	—	—	—	—	—	—	—	—	—
雙合金螺桿、料管	Bi-alloy Screw/Barrel	○	○	○	○	○	○	○	○	○	○
托拉式落料裝置	Sliding material feeding device	●	●	●	●	●	●	●	●	●	●
模壁T型槽	T-slot platen	—	—	—	—	—	—	—	—	—	—
隔熱墊板	Insulator sheets	—	—	—	—	—	—	—	—	—	—
固定式模定位圈	Check ring of mold (Non-replaceable)	●	●	●	●	●	●	●	●	●	●
成品落出口	Article Collecting Channel	●	●	●	●	●	●	●	●	●	●
電動安全門	Automatic safety gate (Electric type)	—	—	—	—	—	—	—	—	—	—
機械安全桿保護裝置	Mechanical Safety bar Protection device	○	○	○	○	○	○	○	○	○	○
水流分佈器16入16出(鋁合金)	Water manifold - 16 in & 16 out (aluminum alloy)	●	●	●	●	●	—	—	—	—	—
水流分佈器24入24出(鋁合金)	Water manifold - 24 in & 24 out (aluminum alloy)	—	—	—	—	—	●	●	●	●	●
強制托退	Ejector pull back	—	—	—	—	—	—	—	—	—	—
電眼檢出	Photo cell drop-out checking device	○	○	○	○	○	○	○	○	○	○
成品落板	FINISHED DROP BOARD	●	●	●	●	●	●	●	●	●	●
開模定位迴路	Mold opening positioning device	●	●	●	●	●	●	●	●	●	●
多段數位背壓(螢幕設定)	Multi-stage back pressure control(Screen set up)	○	○	○	○	○	○	○	○	○	○
多段數位背壓(螢幕設定及顯示)	Multi-stage back pressure control(Screen set up and display)	○	○	○	○	○	○	○	○	○	○
蓄壓器高速射出	Accumulator for high-speed injection	—	—	—	—	—	—	—	—	—	—
射出閉迴路(伺服閥)	Closed-loop control for injection(servo valve)	—	—	—	—	—	—	—	—	—	—
曲手電動注油器(1組)	Auto lubrication system for toggle (1 set)	●	●	●	●	●	●	●	●	●	●
車壁潤滑：電動注油器	Auto lubrication system(platen)	●	●	●	●	●	●	●	●	●	●
單中子(一公)	Single core pull device	○	○	○	○	○	○	○	○	○	○
雙中子(一公一母)	Double core pull device	○	○	○	○	○	○	○	○	○	○
轉牙裝置(計時/計次)	Unscrow device by timer or counter	—	—	—	—	—	—	—	—	—	—
雙迴路(開模與托模同動)	Double loops system(mold open - ejector start)	○	○	○	○	○	○	○	○	○	○
雙迴路(開模與加料同動)	Double loops system(mold open - screw charge start)	—	—	○	—	○	—	○	○	○	○
三迴路(開模、托模與加料同動)	Parallel movement for material charging & mold ejecting during mold opening	—	—	○	—	○	—	—	—	—	—
伺服節能系統	Servo power-saving system	●	●	●	●	●	●	●	●	●	●
托模止逆閥	Non-return valve for ejector	—	—	—	—	—	—	—	—	—	—
射出壓力螢幕顯示	Injection pressure display on screen	○	○	○	○	○	○	○	○	○	○
射嘴獨立溫控	Temperature control of injection nozzle	○	○	○	○	○	○	○	○	○	○
落料口溫度顯示及控制	Temperature display & control of feeding gate	—	—	—	—	—	—	—	—	—	—
射出電阻尺	Linear potentiometer for injection	●	●	●	●	●	●	●	●	●	●
射座電阻尺	Linear potentiometer for injection carriage	—	—	—	—	—	—	—	—	—	—
夾模電阻尺	Linear potentiometer for clamping	●	●	●	●	●	●	●	●	●	●
托模電阻尺	Linear potentiometer for ejection	●	●	●	●	●	●	●	●	●	●
六個風托(四公兩母)	Air ejector sets	●	●	●	●	●	—	—	—	—	—
八個風托(六公兩母)	Air ejector sets	—	—	—	—	—	—	●	●	●	●
油溫顯示	Oil temperature display for hydraulic system	●	●	●	●	●	●	●	●	●	●
油溫顯示及控制	Oil temperature display & control	○	○	○	○	○	○	○	○	○	○
微電腦控制器(彩色：KEBA)	Controller (color& key screen:KEBA)	●	●	●	●	●	●	●	●	●	●
微電腦控制器(彩色觸控：KEBA)	Controller (color & touch screen:KEBA)	—	—	—	—	—	—	—	—	—	—
電控穩壓器	Power stabilizer for controller	○	○	○	○	○	○	○	○	○	○
資料保護鎖(硬體鎖)	Data lock function(key)	●	●	●	●	●	●	●	●	●	●
機械手電氣接口	Robot electrical interface	●	●	●	●	●	●	●	●	●	●
機械手電氣接口（歐規12）	Robot electrical interface（EUROMAP 12）	○	○	○	○	○	○	○	○	○	○
三色警示燈	Three-color alarm lamp	●	●	●	●	●	●	●	●	●	●
CE安全插座	CE safety socket	●	●	●	●	●	●	●	●	●	●
電源插座	Power socket (110V/220V)	○	○	○	○	○	○	○	○	○	○
主電源斷路器	Main power breaker	●	●	●	●	●	●	●	●	●	●
24小時管自動定時預熱	24 hours auto-preheat for barrel sets	●	●	●	●	●	●	●	●	●	●
氣壓式閥澆口控制閥	Pneumatic type Valve Gate	○	○	○	○	○	○	○	○	○	○
不銹鋼漏斗	Stainless hopper	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
乾燥機	Hopper dryer	—	—	—	—	—	—	—	—	—	—
抽料機	Auto loader	○	○	○	○	○	○	○	○	○	○
模溫機	Mold temperature controller	○	○	○	○	○	○	○	○	○	○
乾燥機磁鐵	Magnet of hopper dryer	—	—	—	—	—	—	—	—	—	—
吊桿組	Hanger set for lifting molds	—	—	—	—	—	—	—	—	—	—
避震器	Anti-vibration mounting pad	●	●	●	●	●	●	●	●	●	●
工具箱組	Tool box	●	●	●	●	●	●	●	●	●	●
標準出車附件	Spare parts	●	●	●	●	●	●	●	●	●	●
外銷出車附件	Export accessories	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲

● 標準配備 Standard ○ 選購配備 Option ▲ 選附配備 Free Option — 無 N/A

SA-p 標準與選購配備 SA-p Standard & Optional Accessories

- 曲手潤滑油品：採用多效齒輪油。
- Toggle lubricating by gear oil.
- 外銷機台配置與內銷相同。
- Configuration is same between Export and domestic machines.

配備項目	ITEM	SA-220p	SA-290p	SA-330p	SA-460p	SA-550p	SA-650p	SA-700p	SA-800p	SA-1000p
		/770	/900	/1100	/2500	/3900	/5000e	/7600e	/7600e	/8800e
射出安全護罩	Safety cover for injection	●	●	●	●	●	●	●	●	●
射出止逆裝置	Shot-off Nozzle	○	○	○	○	○	○	○	○	○
伺服馬達加料	electric screw drive	—	—	—	—	—	●	●	●	●
PVC、PC、壓克力、尼龍專用螺桿組	Special Screw for PC/PMMA/PA/PVC...	—	—	—	—	—	—	—	—	—
雙合金螺桿、料管	Bi-alloy Screw/Barrel	○	○	○	○	○	○	○	○	○
托拉式落料裝置	Sliding material feeding device	●	●	●	●	●	●	●	●	●
模壁T型槽	T-slot platen	—	—	—	—	—	—	—	—	—
隔熱墊板	Insulator sheets	—	—	—	—	—	—	—	—	—
固定式模定位圈	Check ring of mold (Non-replaceable)	●	●	●	●	●	●	●	●	●
成品落出口	Article Collecting Channel	●	●	●	●	●	●	●	●	●
電動安全門	Automatic safety gate (Electric type)	—	—	—	—	—	—	—	○	○
機械安全桿保護裝置	Mechanical Safety bar Protection device	○	○	○	○	○	○	○	○	○
水流分佈器16入16出(鋁合金)	Water manifold - 16 in & 16 out (aluminum alloy)	●	●	●	—	—	—	—	—	—
水流分佈器24入24出(鋁合金)	Water manifold - 24 in & 24 out (aluminum alloy)	—	—	—	●	●	●	●	●	●
強制托退	Ejector pull back	—	—	—	—	—	—	—	—	—
電眼檢出	Photo cell drop-out checking device	○	○	○	○	○	○	○	○	○
成品落板	FINISHED DROP BOARD	●	●	●	●	●	●	●	●	●
開模定位迴路	Mold opening positioning device	●	●	●	●	●	●	●	●	●
多段數位背壓(螢幕設定)	Multi-stage back pressure control(Screen set up)	○	○	○	○	○	●	●	●	●
多段數位背壓(螢幕設定及顯示)	Multi-stage back pressure control(Screen set up and display)	○	○	○	○	○	○	○	○	○
蓄壓器高速射出	Accumulator for high-speed injection	—	—	—	—	—	—	—	—	—
射出閉迴路(伺服閥)	Closed-loop control for injection(servo valve)	—	—	—	—	—	—	—	—	—
曲手電動注油器(1組)	Auto lubrication system for toggle (1 set)	●	●	●	●	●	●	●	●	●
車壁潤滑：電動注油器	Auto lubrication system(platen)	●	●	●	●	●	●	●	●	●
單中子(一公)	Single core pull device	○	○	○	○	○	●	●	●	●
雙中子(一公一母)	Double core pull device	○	○	○	○	○	○	○	○	○
轉牙裝置(計時/計次)	Unscrow device by timer or counter	—	—	—	—	—	—	—	—	—
雙迴路(開模與托模同動)	Double loops system(mold open - ejector start)	○	○	○	○	○	○	○	○	○
雙迴路(開模與加料同動)	Double loops system(mold open - screw charge start)	—	—	—	—	—	●	●	●	●
三迴路(開模、托模與加料同動)	Parallel movement for material charging & mold ejecting during mold opening	—	—	—	—	—	○	○	○	○
伺服節能系統	Servo power-saving system	●	●	●	●	●	●	●	●	●
托模止逆閥	Non-return valve for ejector	—	—	—	—	—	—	—	—	—
射出壓力螢幕顯示	Injection pressure display on screen	○	○	○	○	○	○	○	○	○
射嘴獨立溫控	Temperature control of injection nozzle	○	○	○	○	○	○	○	○	○
落料口溫度顯示及控制	Temperature display & control of feeding gate	—	—	—	—	—	—	—	—	—
射出電阻尺	Linear potentiometer for injection	●	●	●	●	●	●	●	●	●
射座電阻尺	Linear potentiometer for injection carriage	—	—	—	—	—	—	○	○	○
夾模電阻尺	Linear potentiometer for clamping	●	●	●	●	●	●	●	●	●
托模電阻尺	Linear potentiometer for ejection	●	●	●	●	●	●	●	●	●
六個風托(四公兩母)	Air ejector sets	●	●	●	—	—	—	—	—	—
八個風托(六公兩母)	Air ejector sets	—	—	—	—	—	●	●	●	●
油溫顯示	Oil temperature display for hydraulic system	●	●	●	●	●	●	●	●	●
油溫顯示及控制	Oil temperature display & control	○	○	○	○	○	○	○	○	○
微電腦控制器(彩色：KEBA)	Controller (color& key screen:KEBA)	●	●	●	●	●	●	●	●	●
微電腦控制器(彩色觸控：KEBA)	Controller (color & touch screen:KEBA)	—	—	—	—	—	—	—	—	—
電控穩壓器	Power stabilizer for controller	○	○	○	○	○	○	○	○	○
資料保護鎖(硬體鎖)	Data lock function(key)	●	●	●	●	●	●	●	●	●
機械手電氣接口	Robot electrical interface	●	●	●	●	●	●	●	●	●
機械手電氣接口（歐規12）	Robot electrical interface（EUROMAP 12）	○	○	○	○	○	○	○	○	○
三色警示燈	Three-color alarm lamp	●	●	●	●	●	●	●	●	●
CE安全插座	CE safety socket	●	●	●	●	●	●	●	●	●
電源插座	Power socket (110V/220V)	○	○	○	○	○	○	○	○	○
主電源斷路器	Main power breaker	●	●	●	●	●	●	●	●	●
24小時管自動定時預熱	24 hours auto-preheat for barrel sets	●	●	●	●	●	●	●	●	●
氣壓式閥澆口控制閥	Pneumatic type Valve Gate	○	○	○	○	○	○	○	○	○
不銹鋼漏斗	Stainless hopper	▲	▲	▲	▲	▲	▲	▲	▲	▲
乾燥機	Hopper dryer	—	—	—	—	—	—	—	—	—
抽料機	Auto loader	○	○	○	○	○	○	○	○	○
模溫機	Mold temperature controller	○	○	○	○	○	○	○	○	○
乾燥機磁鐵	Magnet of hopper dryer	—	—	—	—	—	—	—	—	—
吊桿組	Hanger set for lifting molds	—	—	—	—	—	—	—	—	—
避震器	Anti-vibration mounting pad	●	●	●	●	●	●	●	●	●
工具箱組	Tool box	●	●	●	●	●	●	●	●	●
標準出車附件	Spare parts	●	●	●	●	●	●	●	●	●
外銷出車附件	Export accessories	▲	▲	▲	▲	▲	▲	▲	▲	▲

● 標準配備 Standard ○ 選購配備 Option ▲ 選附配備 Free Option — 無 N/A