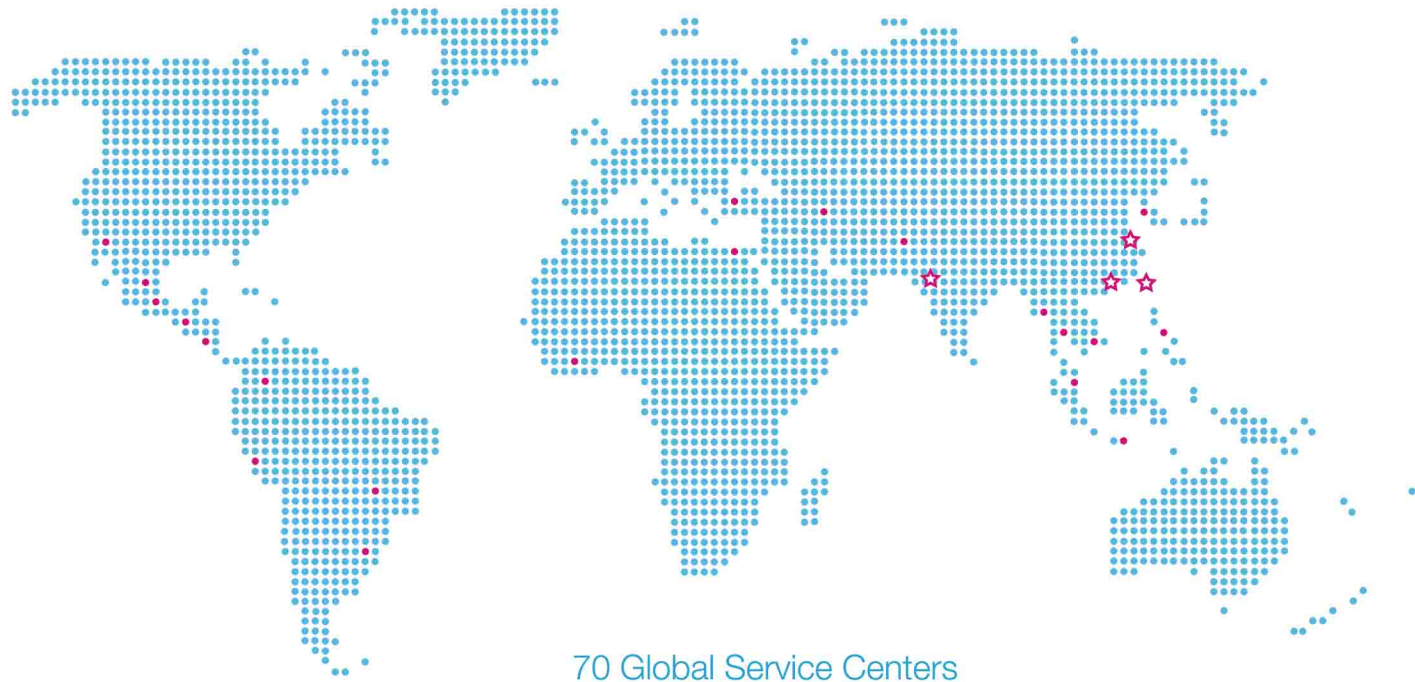


【全球行銷服務網】Global Marketing Network



70 Global Service Centers

富強鑫集團 FCS Group

富強鑫精密工業股份有限公司
Fu Chun Shin Machinery Manufacture Co., Ltd.

71841 臺灣台南市關廟區埤頭里保東路269號
No.269, Baodong Road, Pitou Village, Guanmiao District, Tainan City 71841, Taiwan
TEL: +886-6-5950688 • FAX: +886-6-5951129 • E-mail: fcsco@fcs.com.tw

東莞富強鑫塑膠機械製造有限公司
Dongguan Fu Chun Shin Plastic Machinery Manufacture Co., Ltd.

廣東省東莞市大朗鎮石廈管理區金廈東路18號 郵編：523792
No.18, Jinsha East Road, Shixia Administration District, Dalang Town,
Dongguan City 523792, Guangdong Province, China
TEL: +86-769-83313753 • FAX: +86-769-83181903 • E-mail: cdg@fcs.com.tw

富強鑫(寧波)機器製造有限公司
Fu Chun Shin (Ningbo) Machinery Manufacture Co., Ltd.

浙江省寧波市江北區海川路115號 郵編：315032
No.115, Haichuan Road, Jiangbei District, Ningbo City 315032, Zhejiang Province, China
TEL: +86-574-56138688 • FAX: +86-574-56138600 • E-mail: cnb@fcs.com.tw

印度富強鑫
FCS Manufacturing (India) Private Limited

Block Number 218, Xcelon Industrial Estate, Near Intas Pharmaceutical, Village Chancharvadi Vasna,
Sarkhej Bavla Road, Taluka Sanand, Ahmedabad, Gujarat - 382213
TEL: +91-99-98897768 • E-mail: fcsindia@fcs.com.tw

FCS
www.fcs.com.tw



39 years

富強鑫多組分成型技術39周年
Multi-Component IMM - Since 1984

FCS
www.fcs.com.tw

FB-2023-02-cn/en Copyright © 2023 FCS Group All rights reserved



FB SERIES

多組分·夾層混色注塑機

Multi-Component Injection Molding Machine

FB-R 轉盤式

FB-T 轉軸式

FB-C 夾層混色式

本公司為業界最早研發生產雙色機之廠商，技術先進且經驗豐富，可滿足客戶各類之成型需求！

富強鑫雙色機具有轉盤、轉軸、夾層混色多種設計，目前已廣泛運用在手機業、製筆業、汽車業、手工具業及日用品業等，最大鎖模力可達1900噸。

FCS is the first company which researched & developed the two-component injection molding in Taiwan, which is the most experienced and full of advanced technology to offer the customer needs.

With designs of Rotary Table, Rotary Shaft, Sandwich/Interval and the maximum mold clamping force of 1900 tons, FCS two-component machine has been widely applied to cell phones, pen-making, automobiles, handworking tools and commodities, etc.

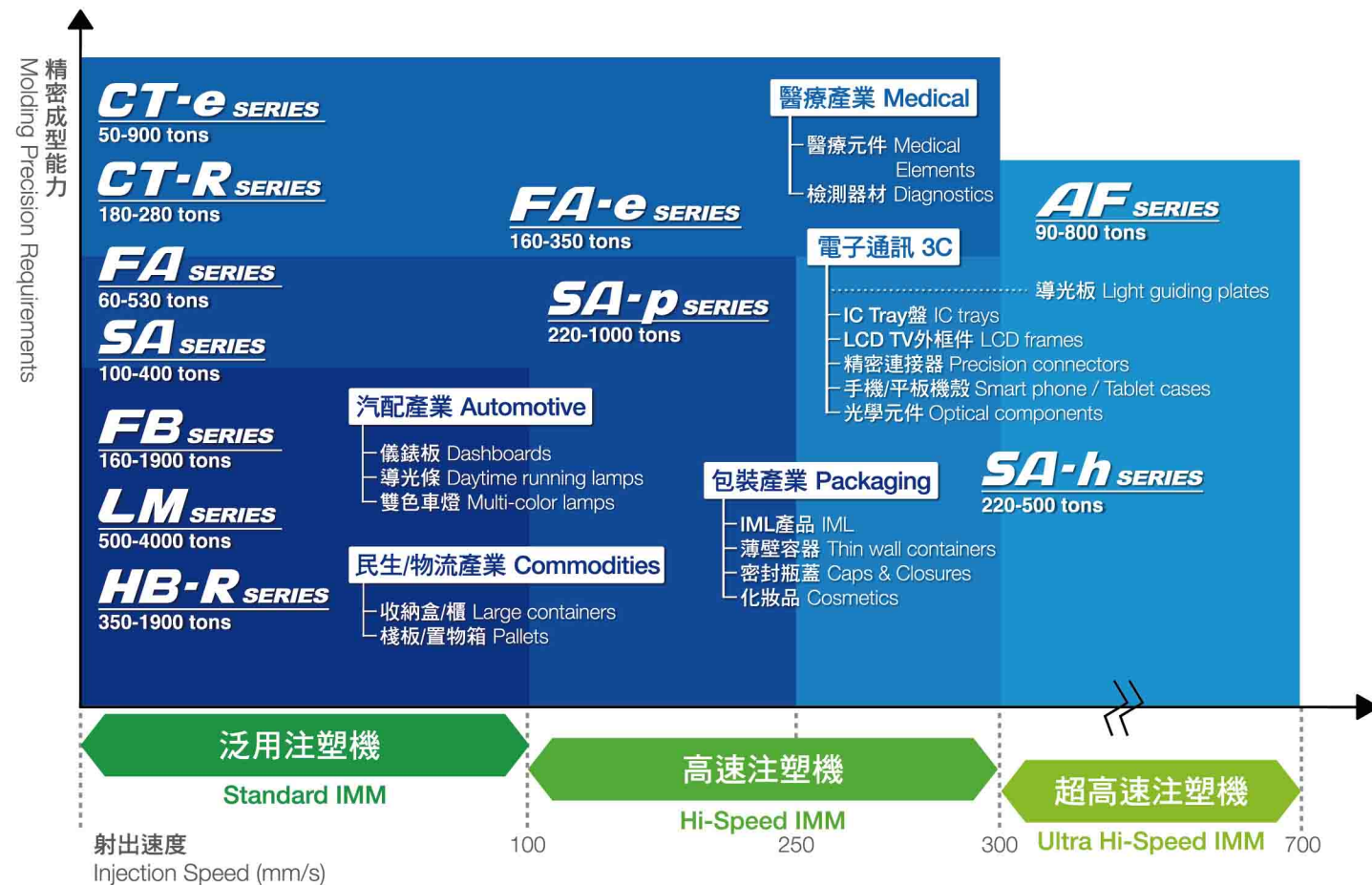
最值得信赖的中国企业
An Chinese Enterprises of Most Trustworthy Certificate by US-ETCC

高新技术企業
Hi-Tech Enterprise

高品質高新技术產品
High-quality and High-tech Products Certificate by US-FQA

ISO品質管制體系認證
ISO9001:2015 Certification

CE認證 CE Mark



- 組合式結構的射出單元，與單射機體積相同，節省佔地空間，且可滿足更小中心距的需求。
- 配置開關模定位裝置，頂出採比例控制（精度達0.1mm），可滿足機械手生產的精度要求。
- 此類型雙色機產品採用特殊方式移位，不需轉盤，因此本機也可以當成標準單色機使用。
- 模組化射出單元設計，生產、備料更精簡，可按客製化要求生產。
- 高精度、低壓、低流量域的重複再現性為±0.5%。成型產品重量誤差越控制0.4%-0.7%，接近半閉迴路控制的水平。

- Barrel sets are special arranged, it takes the same space as single-component machine in horizontal direction. This structure can save space and can suit the mold on which the two gates are extremely close.
- Machine adopts mold open-close positioning device, and equip proportion control on ejector (accurate to 0.1mm), which can totally meet the demand of robot.
- This type of two-component machine use special way to achieve overmolding, without rotary table. It could also be used as single-component machine.
- Modularized injection unit is easy for production and material preparation, which can be easily customized accordingly.
- Precise control of low pressure & low flow, repeating precision is less than 0.5%. Weight error of the products is 0.4%-0.7%, with semi-close loop system nearly.

FCS多組分注塑機射出形式 FCS Multi-Component IMM Injection Unit Combination

類型 Item	射出型式 Describe	代號 Type	圖示 Drawing
雙射出 (2K)	1 平行雙射 Parallel 平行雙射出 Parallel double inj.	P型	
	2 直角雙射 Right angle-Horizontal 單射出 + 水平直角射出 Side inj. + Back inj.	L型	
	3 天側雙射 Right angle-Vertical 單射出 + 垂直直角射出 Side inj. + Top inj.	V型	
	4 背式雙射 Piggyback 斜背式雙射出 Side inj. + Oblique inj.	W型	
	5 對向雙射 Opposite 對向雙射出 Opposite double inj.	H型	
三射出 (3K)	6 平行三射 Parallel 平行三射出 Parallel triple inj.	P型	
	7 直角三射 Right angle-Horizontal 平行雙射出 + 水平直角射出 Parallel double inj. + Back inj.	L型	
	8 天側三射 Right angle-Vertical 平行雙射出 + 垂直直角射出 Parallel double inj. + Top inj.	V型	
	9 背式三射 Piggyback-Horizontal 斜背式雙射出 + 水平直角射出 Piggyback inj. + Back inj.	LW型	
	10 背式三射 Piggyback-Vertical 斜背式雙射出 + 垂直直角射出 Piggyback inj. + Top inj.	VW型	
	11 獨立三射 Isolated Triple 單射出 + 水平直角射出 + 垂直直角射出 Side inj. + Back inj. + Top inj.	LV型	
	12 對射直角三射 Opposite & Horizontal 對向雙射出 + 水平直角射出 Opposite double inj. + Back inj.	HL型	

類型 Item	射出型式 Describe	代號 Type	圖示 Drawing
三射出 (3K)	13 對射天側三射 Opposite & Vertical 對向雙射出 + 垂直直角射出 Opposite double inj. + Top inj.	HV型	
	14 對射背式三射 Opposite & Piggyback 對向雙射出 + 斜背式射出 Opposite double inj. + Oblique inj.	HW型	
	15 對射平行三射 Opposite & Parallel 對向雙射出 + 平行射出 Opposite double inj. + Parallel inj.	HP型	
四射出 (4K)	16 直角四射 Right angle-Horizontal 平行三射出 + 水平直角射出 Parallel triple inj. + Back inj.	L型	
	17 天側四射 Right angle-Vertical 平行三射出 + 垂直直角射出 Parallel triple inj. + Top inj.	V型	
	18 直角天側四射 Parallel & Right Angel 平行雙射出 + 水平直角射出 + 垂直直角射出 Parallel double inj. + Back inj. + Top inj.	LV型	
	19 背式四射 Piggyback & Right Angle 斜背式雙射出 + 水平直角射出 + 垂直直角射出 Piggyback inj. + Back inj. + Top inj.	LWV型	
	20 四角四射 Square 平行四射呈四角形排列 Parallel quartet inj.	X型	
	21 對射背式四射 Opposite: Piggyback-Vertical 對向雙射出 + 垂直直角射出 + 斜背式射出 Opposite double inj. + Top inj. + Oblique inj.	HVV型	
五射出 (5K)	22 直角天側五射 Parallel & Right Angle 平行三射出 + 水平直角射出 + 垂直直角射出 Parallel triple inj. + Back inj. + Top inj.	LV型	
	23 背式五射 Parallel & Piggyback 平行三射出 + 斜背式雙射出 Parallel triple inj. + Piggyback inj.	W型	
六射出 (6K)	24 背式六射 Parallel & Piggyback & Vertical 平行三射出 + 斜背式雙射出 + 垂直直角射出 Parallel triple inj. + Piggyback inj. + Top inj.	VW型	

備註1：2K在此指雙色或雙料(源德文2 Komponente)之簡稱，依此類推。
Note1 : 2K here means 2 component (from German"2 Komponente").

備註2：對射機型請參閱HB-R目錄
Note2 : Opposite Molding Machine Specifications, please refer to HB-R

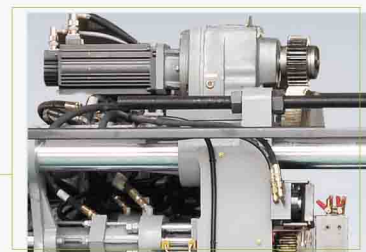
多組分注塑機-轉盤式(FB-R) Multi-Component Injection Molding Machine-Rotary Table

精密安全的轉盤設計

轉盤上兩組中子裝置及模具冷卻裝置領先業界，轉盤轉動時與模盤不接觸，避免磨耗造成故障，轉盤轉動後機械本身做自檢，準確後再關模，確保避免模具損傷。獨特精準的轉盤定位系統及專利夾具，採用專利節能伺服配置，注塑成型產品精密穩定。

Precise and Safety Rotary Table

With two sets of core equipment on the rotary table and cooling system in the mold, being the best option in the industry nowadays. Rotary table wouldn't touch the platen thus the damage could be reduced. Besides, the accurate confirmation of the rotation position could protect the molds themselves. Precise rotary table positioning system and the patented clips can stabilize the injection molding process and products.



高速轉盤控制(選配)

採用伺服馬達控制轉盤動作，提升轉盤轉速30%-50%，縮短成型週期，速度切換快速平穩，定位精準。

High-Speed Rotation Control (Optional)

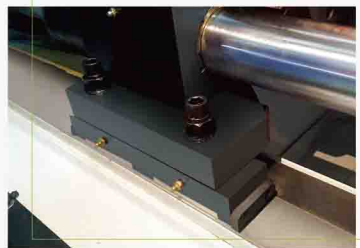
Rotary table controlled by servo motor could increase rotary speed by up to 30% - 50% which could shorten cycle time, make switch speed more stable and positioning more precise.

高端控制器

採用網路注塑機專用系統，人性化操作介面，系統反應速度高達1ms，精度更高、操作方便，擴展性更好。

High-End Controller

Applying network control system capacitate with user friendly operation interface and high speed central processor, which offers high response and easy extending.

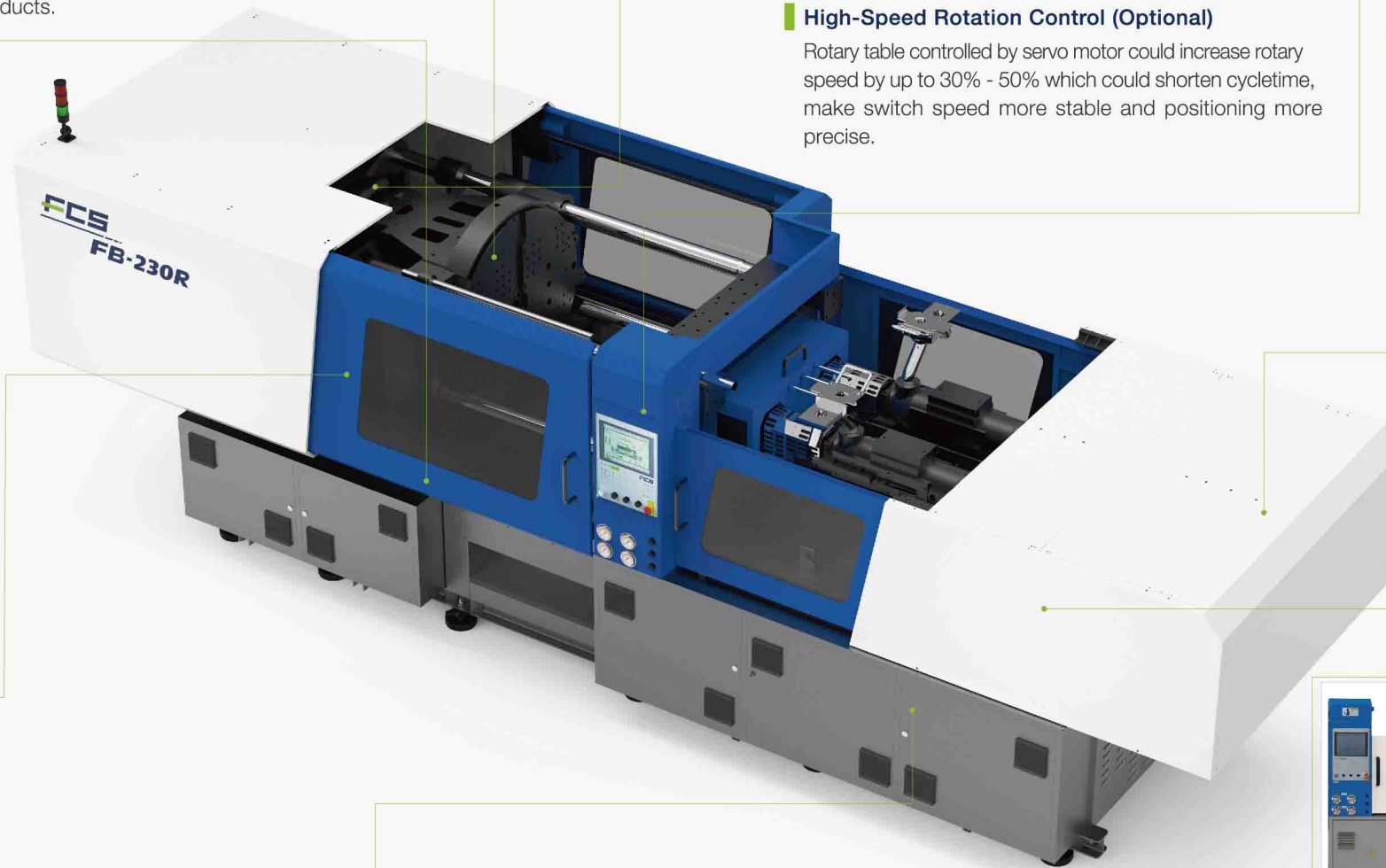


配備多重保護裝置

配備多重安全保護裝置，滑腳加長且調整螺絲加大，增加活動壁運動時的導向作用，可根據模具大小重量調整滑腳高度，防止因模具重量而導致轉盤下垂，確保模具180°精準定位，保護模具。

Protection Devices

Applying multiple protection devices. Enlarged skates and adjustable screws help guide the moving platen and ensure the mold position to be precise, to protect the molds.



緊湊高效的射出單元

射出部分有兩組獨立料管組，同步做射出動作，大幅縮短成型週期。螺桿及料管採用國外特殊合金鋼材，經離子淡化處理，耐腐蝕、耐磨性和耐高溫。採用PID溫度控制，具螺桿冷間啟動限制，斷線偵測功能，並控制溫度在 $\pm 1^{\circ}\text{C}$ 。

Compact and High Efficiency Injection Unit

Two isolated barrel sets can inject at the same time to reduce the cycle time to get more profit. With finest steel and most innovative ino-nitriding process, the hardness of screw and barrel reaches above HV950, to ensure high wear-resistance. Using PID temperature control, with a cold start between the screw limite, breakage detection, and control the temperature at $\pm 1^{\circ}\text{C}$.



簡約優化的管路設計

主油路管直線布置，油路壓力損失小，更為合理美觀，安裝維護更為方便。

Piping Design Improvement

The straight main piping declines the oil pressure and makes installation and maintenance more effective.



優異的夾模機構

採用PRO/ENGINEER實體模型電腦輔助設計之鎖模系統，運用寬模板設計，其開模行程及大柱內距均特別加大，運用範圍廣泛。

Highly Rigid Clamping Unit

By PRO/ENGINEER computer aid designed clamping system, the clamp stroke and distance between tie bars have been enlarged for versatile usage.



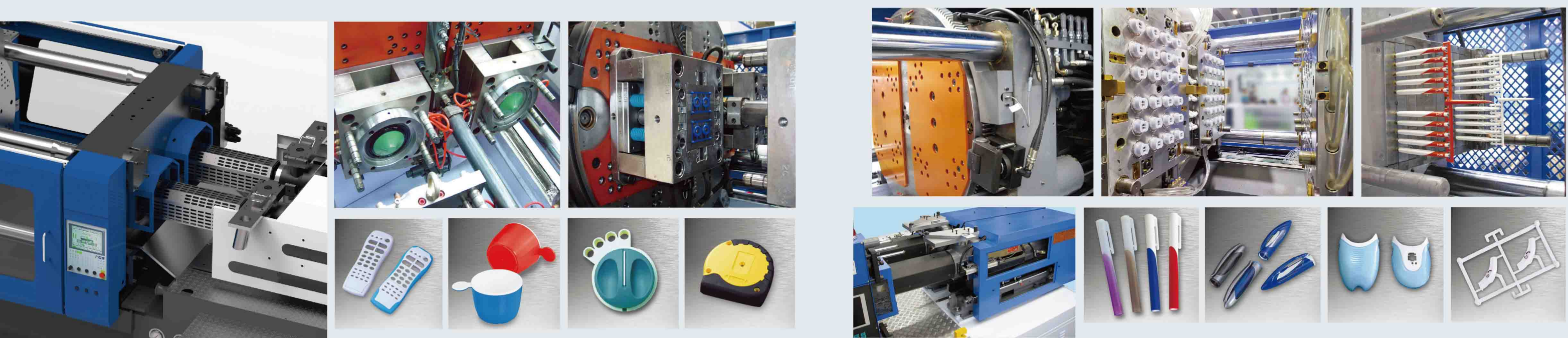
高效節能伺服動力系統

配置高性能伺服電機可節能約30% - 70%。

High Efficiency Servo Power System

Adopting AC/PM synchronous servo motor. Energy-saving can reach up to 30% - 70%.

多組分注塑機-轉盤式(FB-R) Multi-Component Injection Molding Machine-Rotary Table



- 本機型於活動車壁上有往復180°旋轉之轉盤，可置放兩副模具，生產雙色分明之產品。
- 射出兩組及夾模均採用線性電位計，可準確控制開關模及射出行程，準度可達0.1mm。
- 可選購轉盤轉軸共用裝置。

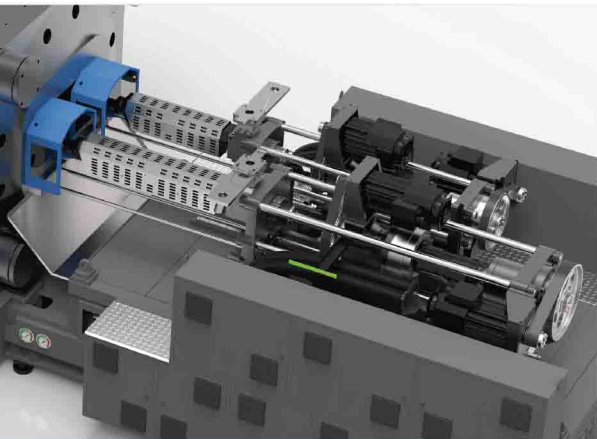
- This type of machine equipped the 180° degree rotary table which may put two molds to produce two component products.
- With an accuracy reaching 0.1mm, liner potentiometers are used in the two injection sets and clamping molds to accurately control mold closing and opening and the injection process.
- Optional rotary table & rotary shaft to share the device.

- 射出部分有兩組獨立之料管組，同步做射出動作，雙色一次成型，可大幅縮短成型週期，增加經營利潤。
- 螺桿及料管採用國外特殊合金鋼材，經離子氮化處理，耐腐蝕且耐磨性特高。
- 優良油壓迴路設計，能使油管壓力降低，加上幫浦與馬達精密結合；使機器噪音小於70分貝。
- 採用高扭力、效率佳之油壓馬達，直接驅動螺桿，可縮短塑化時間，節省能源。

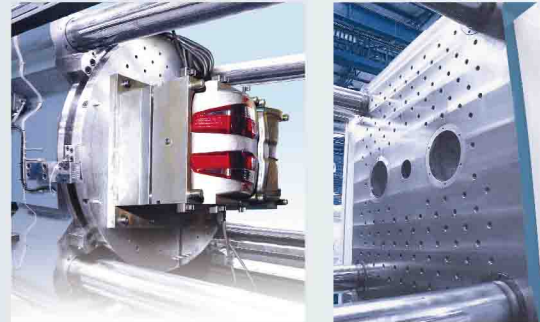
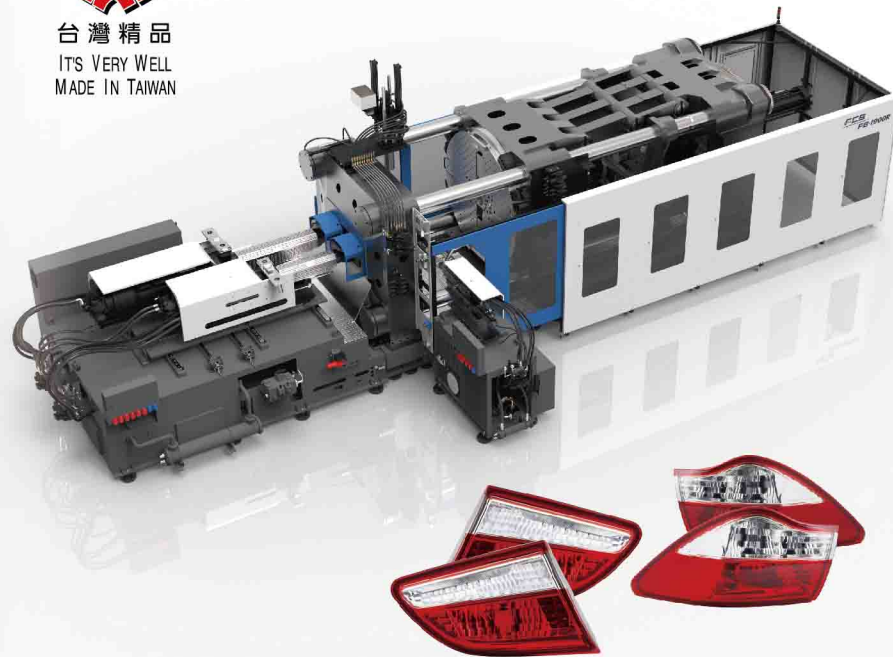
- Two isolated barrel sets inject the same time to reduce the cycle time to get more profit.
- With finest steel and most innovatory ion-nitriding process, the hardness of screw and barrel reaches above HV950 to ensure high wear resistance.
- Superior hydraulic design system ensures the decrease of tube pressure. Assembled with pump and motor, it can lower the machine's noise to 70dB below.
- High torque and excellent performance of hydraulic motor can drive screw directly and shorten plasticizing time so that saves energy.



超大型多組分注塑機 Super-Large Multi-Component Injection Molding Machine



台灣精品
IT'S VERY WELL
MADE IN TAIWAN



富強鑫以先進技術且豐富的經驗，成功開發出超大型多組分注塑機！鎖模力可達1900噸。

轉盤容模直徑可達2250mm，廣為汽車車燈業所採用。

With superior technology and rich experience, FCS successfully developed super-large multi-component injection molding machine. The mold clamping force is up to 1900 tons and rotation plate diameter reaches 2250mm.

- 本機所採用的新一代曲肘夾模結構，結合箱型活動壁及高剛性固定壁結構，精簡堅固的設計，經有限元素分析變形量及應力分佈，確實達到高強度且耐疲勞之特性，可確保成型品質及大柱壽命。
- 兩組射出單元均採用新式單缸射出結構，射出與加料獨立運作，可進行多項複合射出動作。
- 高應答，性能穩定的伺服電機，配備了高精度，高敏感度的壓力回饋裝置，形成閉迴路精準控制，有效縮短週期，提高生產效率。

- Increased durability through the application of new series toggle system upon Finite Element Analysis (FEA), high strength to increase lifespan of tie bars and assure quality of products.
- Both sets of injection units adopt a single hydraulic cylinder structure, the injection and feeding are independent, and multiple composite injection operations can be performed.
- With Steady capability, Servo gearshift dynamical control system has equipped with pressure feedback device with high precision and sensitivity, which forms closed-loop precision control, cycle time effectively shortened and improving production efficiency.

電控單元 Control Unit



Specific Features

- The PID barrel temperature control, SSR temperature controller can reach precise levels with margins of $\pm 0.5^{\circ}\text{C}$. It has an irregular temperature detector, wiring disconnection alarm function, and a limit value setup function to control the barrel temperature accurately.
- Both clamping and ejection are equipped with precise linear potentiometers accurately controlling them by up to $\pm 0.1\text{mm}$.
- A 32-bit high speed central processor operates the system at a reaction speed of 1.0 ms, for an accurate and stable motion.
- Its non-volatile storage can hold 250 sets of molding data, 500 alarm records, plus 100 modification records and features a file management function for quick and easy access.
- Its built-in Statistical Process Control (SPC) statistics allows molding data to be saved in a USB flash drive and can be optionally linked to FCS' Hot Runner system under the RS422 interface. Equipped with a production control information system, it serves as a central factory management and quality parameter inspection, and can monitor long distance production via Internet. (Optional)
- A multi-level password protection enables parameters setups based on different degrees of authority.
- Various choices of languages- Chinese, English, Portuguese, Vietnamese, Spanish, Turkish.
- A stand-in interface is prepared for robots and quick mold-change systems.
- With modular controllers design, rapid expansion of software and hardware modules to connect more peripherals (valve gate, quick mold change system...etc.)

產品特點

- 十二段PID料溫控制，採用SSR無接點溫控，精確度達 $\pm 0.5^{\circ}\text{C}$ ，並具溫度異常斷線警報及上下限設定功能，可精確掌控料溫。
- 螺桿低溫啟動保護，防止螺桿意外損傷，並具有強制等待功能，確保料管內外無溫差，使螺桿保護更確實。夾模、頂出均採用線性電位計，精密度達0.1mm，可準確控制夾模及頂出行程。
- 採用32位元高速中央處理器，系統反應速率高達1.0ms，有效提升動作靈敏度及穩定性。
- 具備停機記憶功能，可隨機存取250組模具資料、500筆警報記錄及100筆修改記錄，並具備檔案管理功能，使資料讀取更快速方便。
- 具SPC生管統計功能，可以下載模具參數到USB隨身碟，也可以透過RS422介面連結FCS自製的熱澆道系統，搭配生管資訊系統，進行中央整廠管理及品質參數監視，並可透過INTERNET進行遠端生管監控。(選購)
- 具多階密碼保護功能，可依不同授權等級更改設定，並有資料硬體鎖功能，防止一般操作員任意修改成型參數。
- 中、英、葡等多國語言可供選擇。
- 預留機械手標準介面及快速換模系統線路。
- 模組化控制器，可快速擴充軟、硬體模組以連接更多週邊設備(如:閥澆口、快速換模系統...等)。

FB-R規格表 FB-R Specifications

① 頂出杆能夠突出轉盤模具安裝面的最大數據。 ★ FB-200R為窄模板。FB-200R is special model.
 ② 轉盤上模具安裝面的最大直徑。 ☆ FB-850R為筆電專用機。FB-850R for Laptop.

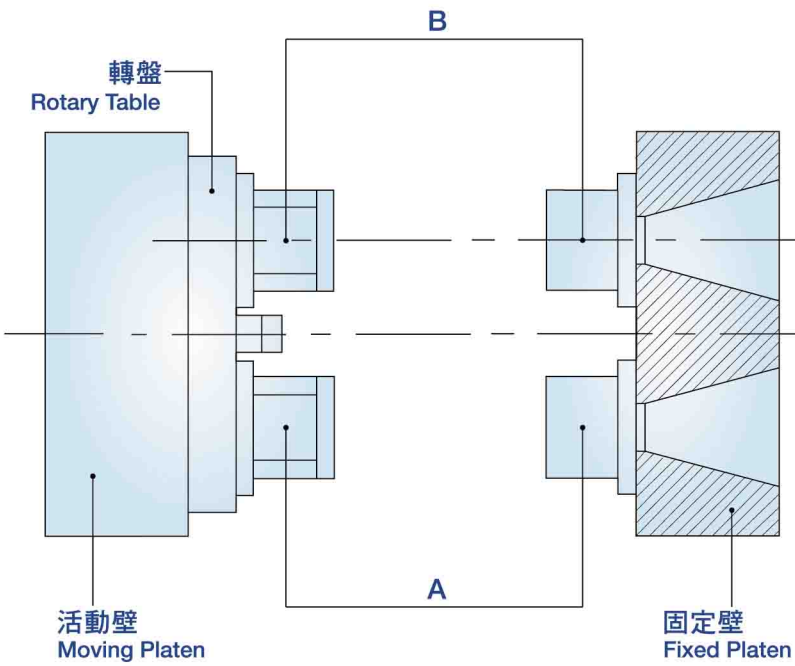
ITEMS		UNIT	FB-160R								★FB-200R		FB-230R								FB-280R								FB-400R																		
射出單元 Injection unit	類型 Type	-	141				201				251		141				201				141				201				401				401				611		1301								
	螺桿直徑 Screw diameter	mm	22	24	26	26	28	30	32	36	40	22	24	26	26	28	30	32	22	24	26	26	28	30	32	32	36	40	45	32	36	40	45	40	45	50	55										
	射出行程 Screw stroke	mm	124				137				165		124				137				124				137				200				200				220		286								
	理論射出容積 Theoretical shot volume	cm³	47	56	66	73	84	97	110	168	207	47	56	66	73	84	97	110	47	56	66	73	84	97	110	161	203	251	318	161	203	251	318	276	350	561	679										
	理論射出量 Shot weight of injection (PS)	g	43	51	60	66	77	88	100	153	189	43	51	60	66	77	88	100	43	51	60	66	77	88	100	146	185	229	289	146	185	229	289	251	318	511	618										
	射出壓力 Injection pressure	kgf/cm²	2929	2461	2097	2791	2406	2096	1842	1456	1179	2929	2461	2097	2791	2406	2096	1842	2929	2461	2097	2791	2406	2096	1842	2529	1998	1619	1279	2529	1998	1619	1279	2205	1742	2240	1851										
	射出率 Injection rate	g/s	66	78	92	70	81	93	106	134	166	66	78	92	70	81	93	106	75	89	104	90	130	149	170	124	156	193	244	124	150	193	244	142	179	218	264										
	料管中心距離 Distance between barrel centers	mm	400				400				200(250)		500				500				500				500				550				550														
夾模單元 Mold clamping unit	閉模力 Mold clamping force	tonf	160								200		230				280				400				400				600				600														
	夾模行程 Mold clamping strokes	mm	320								470		400				450				600				600				600				600														
	模厚 Mold thickness	mm	200~550								200~550		200~650				200~650				200~700				200~700				200~700				200~700														
	大柱內距 Tie bars spacing (HxV)	mm	730x400								530x530		935x420				950x540				1100x610				1100x610				1100x610				1100x610														
	模盤尺寸 Mold platen (HxV)	mm	960x630								770x770		1200x685				1230x820				1450x930				1450x930				1450x930				1450x930														
	有效頂出行程① Effective ejector stroke ①	mm	70								150		90				120				110				110				110				110														
	頂出力 Ejector force	tonf	4.0x2								4.0x2		40x2				4.0x2				5.4x2				5.4x2				5.4x2				5.4x2														
	轉盤容模直徑② Rotary table diameter ②	mm	810								700		980				1050				1200				1200				1200				1200														
電氣單元 Electrical equipment	最大油泵動力 Max. pump driving motor	kW	13+13								13+13		13+13				22+22				22				22				30				30														
溫度控制器 Temperature controller	set	4				5				5		4				5				4				5				5				5				5											
電熱容量 Heater capacity	kW	8.7				10.9				21		8.7				10.9				8.7				10.9				19.3				19.3				28.3				36.4							
其他 Others	機械尺寸 Machine dimensions (LxWxH)	mm	5785x1730x1870								6070x1540x1900		6555x1950x1920				7010x1940x2040				8210x2230x2190				8210x2230x2190				8210x2230x2190				8210x2230x2190														
	油箱容量 Oil tank capacity	liter	410								420		530				590				890				890				890				890														
	機械重量 Machine weight	ton	7.2								9.8		11				16				20				20				20				20														
	最高系統壓力 Max. system pressure	kgf/cm²	140								140		140				140				140				140				140				140														

ITEMS		UNIT	FB-550R								FB-700R								FB-850R		☆FB-850R		FB-1000R				FB-1250R				FB-1420R				FB-1600R				FB-1900R															
射出單元 Injection unit	類型 Type	-	401				611				1301				401				611				1301		1301		3261				401				1301				1301				3261				401				3261			
	螺桿直徑 Screw diameter	mm	32	36	40	45	40	45	50	55	32	36	40	45	40	45	50	55	50	55	50	60	70	30	45	50	60	70	50	60	70	50	60	70	50	60	70	80	90	50	60	70	80	90	50	60	70	80	90					
	射出行程 Screw stroke	mm	200				220				286				200				220				286		286		340				400				286				340				400				450				450			
	理論射出容積 Theoretical shot volume	cm³	161	203	251	318	276	350	561	679	161	203	251	318	276	350	561	679	561	679	561	961	1539	141	455	561	961	1539	561	961	1539	561	961	1539	2261	2861	561	961	1539	2261	2861	961	1539	2261	2861									
	理論射出量 Shot weight of injection (PS)	g	146	185	229	289	251	318	511	618	146	185	229	289	251	318	511	618	511	618	511	874	1400	129	414	511	874	1400	511	874	1400	511	874	1400	2057	2604	511	874	1400	2057	2604	874	1400	2057	2604									
	射出壓力 Injection pressure	kgf/cm²	2529	1998	1619	1279	2205	1742	2240	1851	2529	1998	1619	1279	2205	1742	2240	1851	2240	1851	2240	2882	2117	2878	2765	2240	2882	2117	2240	2882	2117	2240	2882	2117	2198	1737	2240	2882	2117	2198	1737	2240	2882	2117	2198	1737								
	射出率 Injection rate	g/s	154	194	240	304	221	280	218	264	154	194	240	304	221	280	218	264	218	264	218	278	378	180	405	218	278	378	218	278	378	218	278	378	218	278	378	218	278	378	218	278	378	218	278	378	218	278						
	料管中心距離 Distance between barrel centers	mm	650								650				650		650		710				710				710				710				710				710															
夾模單元 Mold clamping unit	閉模力 Mold clamping force	tonf	550								700				850		850		1000				1250				1420				1600				1900				1900															
	夾模行程 Mold clamping strokes	mm	600								690				1000		1000		1080				1200				1400				1400				1400				1400															
	模厚 Mold thickness	mm	320~800								400~900				500~1050		500~1050		550~1350				600~1400				700~1600				700~1600				700~1700				700~1700															
	大柱內距 Tie bars spacing (HxV)	mm	1196x660								1260x780				1060x1010		1060x1010		1260x1130				1360x1210				1460x1330				1530x1380				1650x1550				1650x1550															
	模盤尺寸 Mold platen (HxV)	mm	1610x1065								1700x1200				1480x1470		1480x1470		1730x1600				1840x1740				2110x1980				2190x2040				2430x2340				2430x2340															
	有效頂出行程① Effective ejector stroke ①	mm	150								150				145		145		140				140				140				200				275																			
	頂出力 Ejector force	tonf	10.0x2								11.0x2				11.0x2		11.0x2		17.2x2				17.2x2				17.2x2				17.2x2				17.2x2				24.7x2															
	轉盤容模直徑② Rotary table diameter ②	mm	1300								1420				1460		1460		1570				1800				1900				1935				2250				2250															
電氣單元 Electrical equipment	最大油泵動力 Max. pump driving motor	kW	30+30								30+30				30		30+22		30				30+22				30				30+22				30+30				45+30															
溫度控制器 Temperature controller	set	5				5				6				5		5		6				6				6				6				6				6																
電熱容量 Heater capacity	kW	19.3				28.3				36.4				19.3		28.3		36.4				18.2		22		39				7.4				14.5				18.2				22				39				50.7				
其他 Others	機械尺寸 Machine dimensions (LxWxH)	mm	8630x2800x2260								8980x2800x2190				11000x2950x2300		10600x2950x2300		12140x2840x2520				12750x3010x2700				13715x3150x2850				13850x3220x2900				14500x3500x3100				14500x3500x3100															
	油箱容量 Oil tank capacity	liter	1040								1040				1600		1600		1400				1580				2000				2000				2500				2500															
	機械重量 Machine weight	ton	30								35				50		50		55				60				85				95				130				130															
	最高系統壓力 Max. system pressure	kgf/cm²	140								140				140		140		140				140				140				140				140				140															

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。

The features are for your reference only. Due to continuous improvements, we reserve the right to amend any of the above specifications without prior notice.

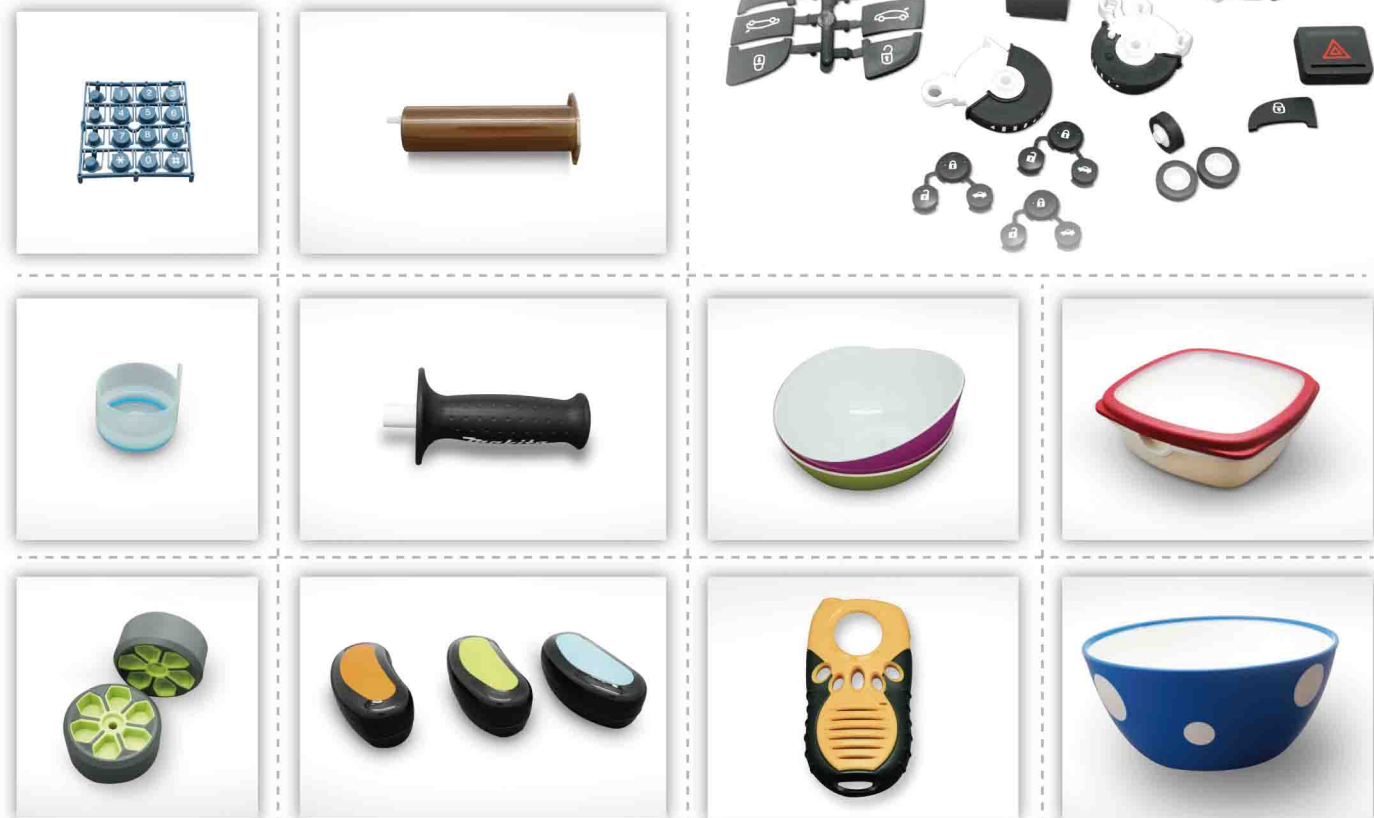
FB-R系列可承受模具重量 Max Mold Weight: FB-R Series



機種	轉盤側 Rotary Table		固定側 Fixed Platen	
	A	B	A	B
FB-160R	500	500	1000	1000
FB-200R	500	500	1000	1000
FB-230R	1000	1000	2000	2000
FB-280R	1200	1200	2400	2400
FB-400R	1500	1500	3000	3000
FB-550R	2000	2000	4000	4000
FB-700R	2000	2000	4000	4000
FB-850R	3000	3000	6000	6000
FB-1000R	5000	5000	10000	10000
FB-1250R	5500	5500	11000	11000
FB-1420R	7000	7000	14000	14000
FB-1600R	8000	8000	16000	16000
FB-1900R	8000	8000	16000	16000

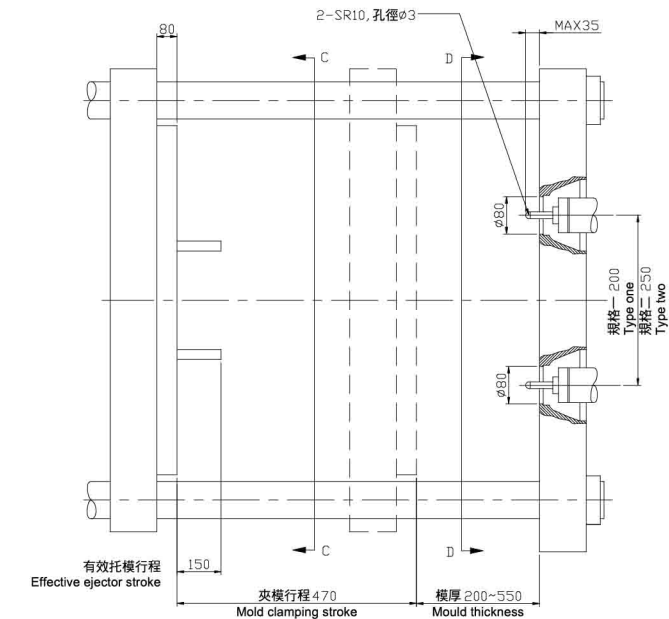
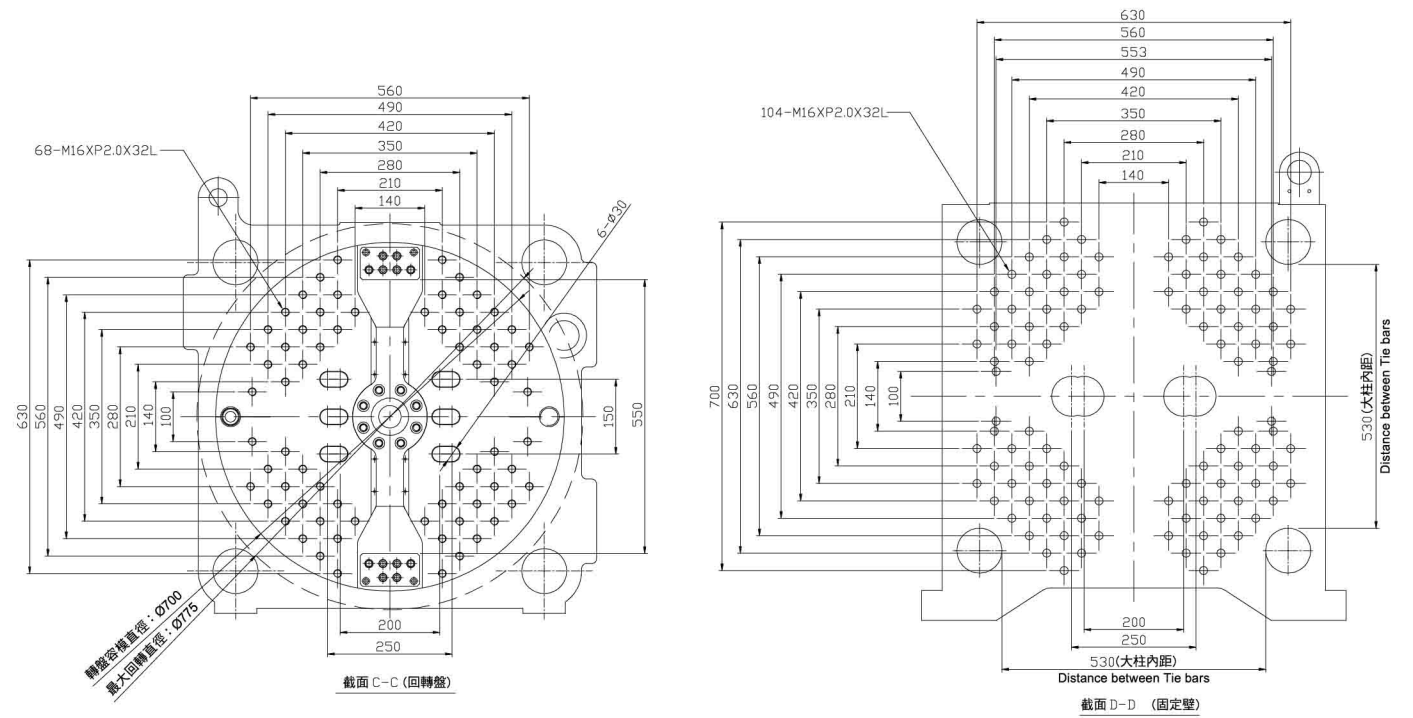
單位 Unit: kg

應用圖例 Examples of FB-R



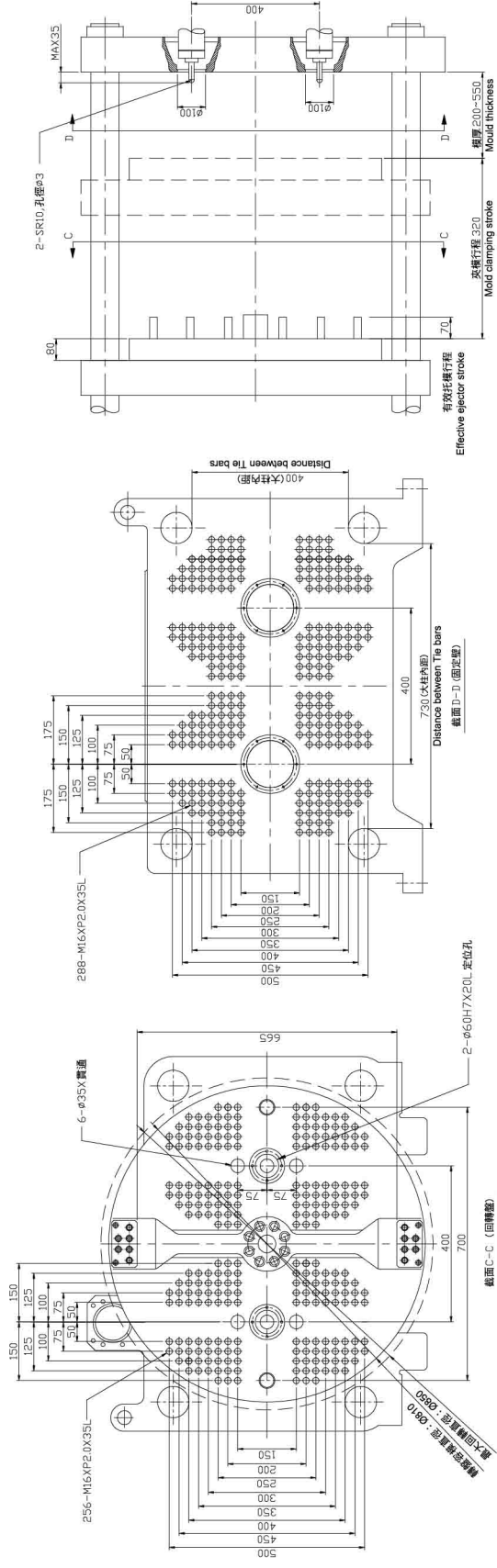
FB-R模壁尺寸圖 FB-R Mold Platen Dimensions

FB-200R 轉盤式雙色機 (窄模板) Rotary Table (Special Model)

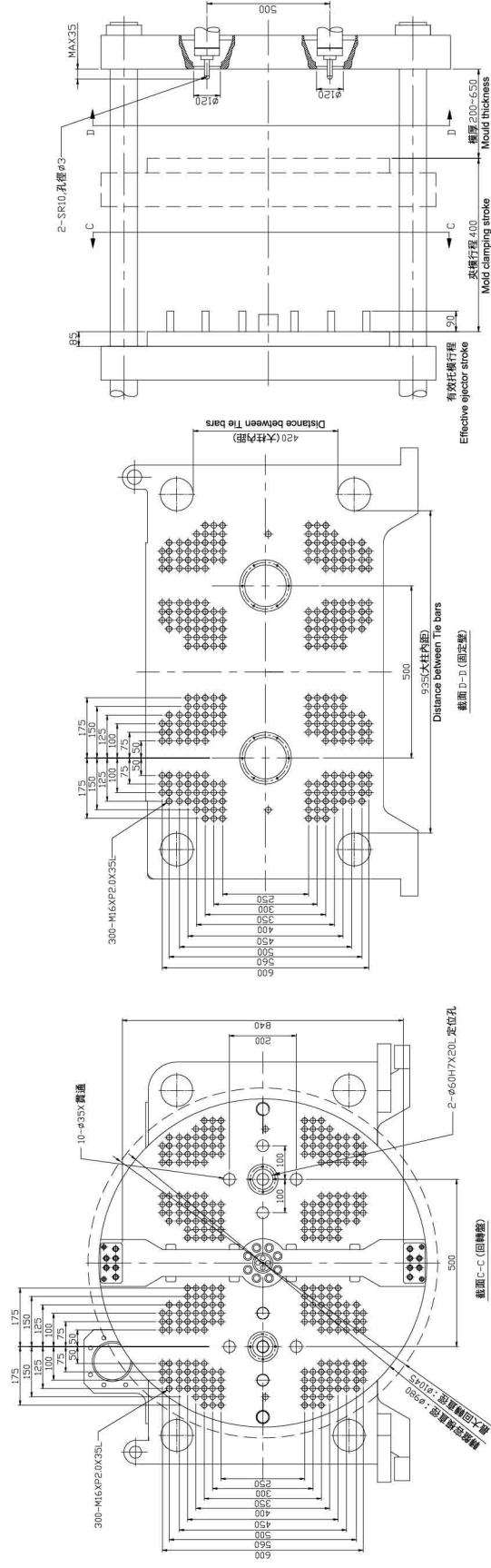


FB-R模壁尺寸圖 FB-R Mold Platen Dimensions

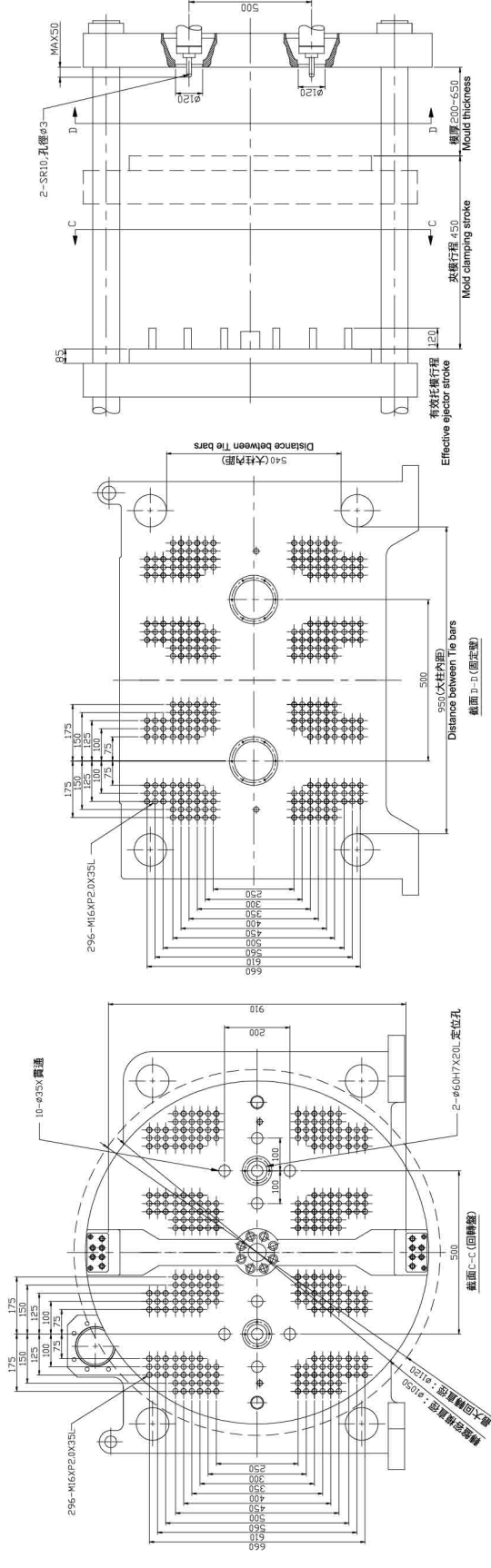
FB-160R 轉盤式雙色機 Rotary Table



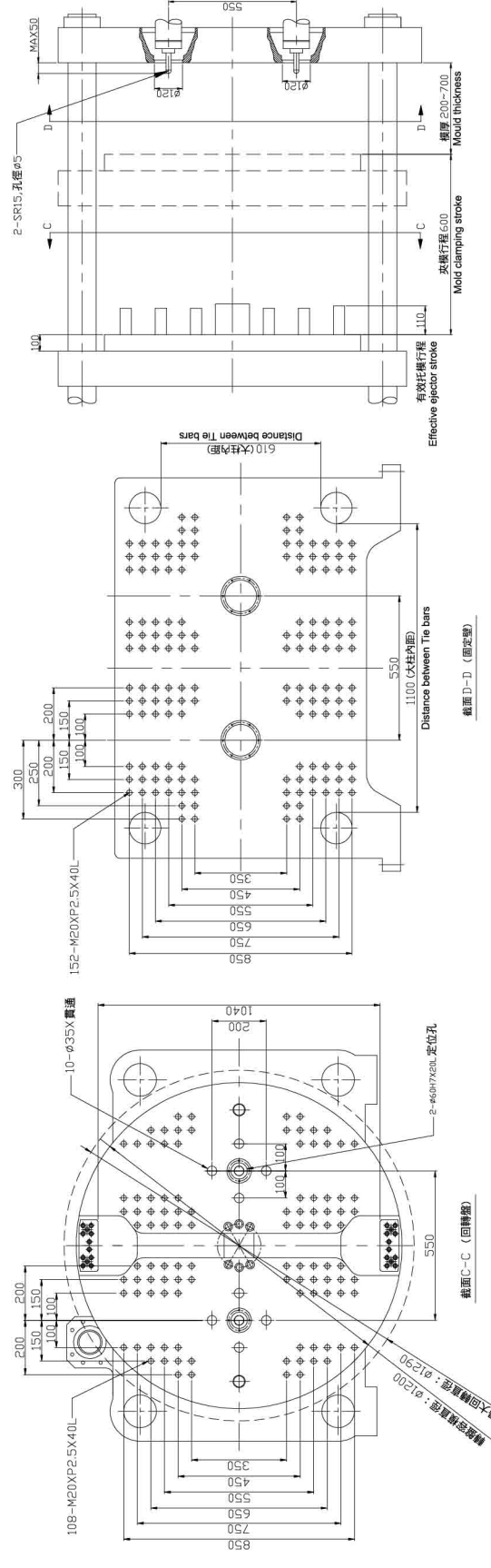
FB-230R 轉盤式雙色機 Rotary Table



FB-280R 轉盤式雙色機 Rotary Table

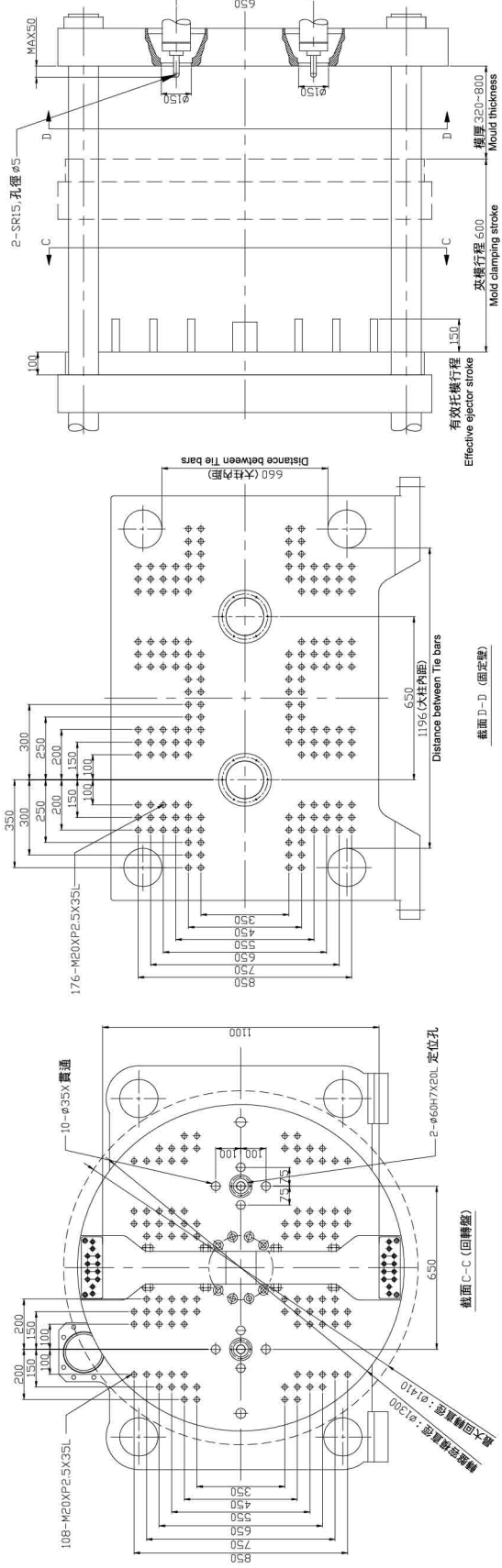


FB-400R 轉盤式雙色機 Rotary Table

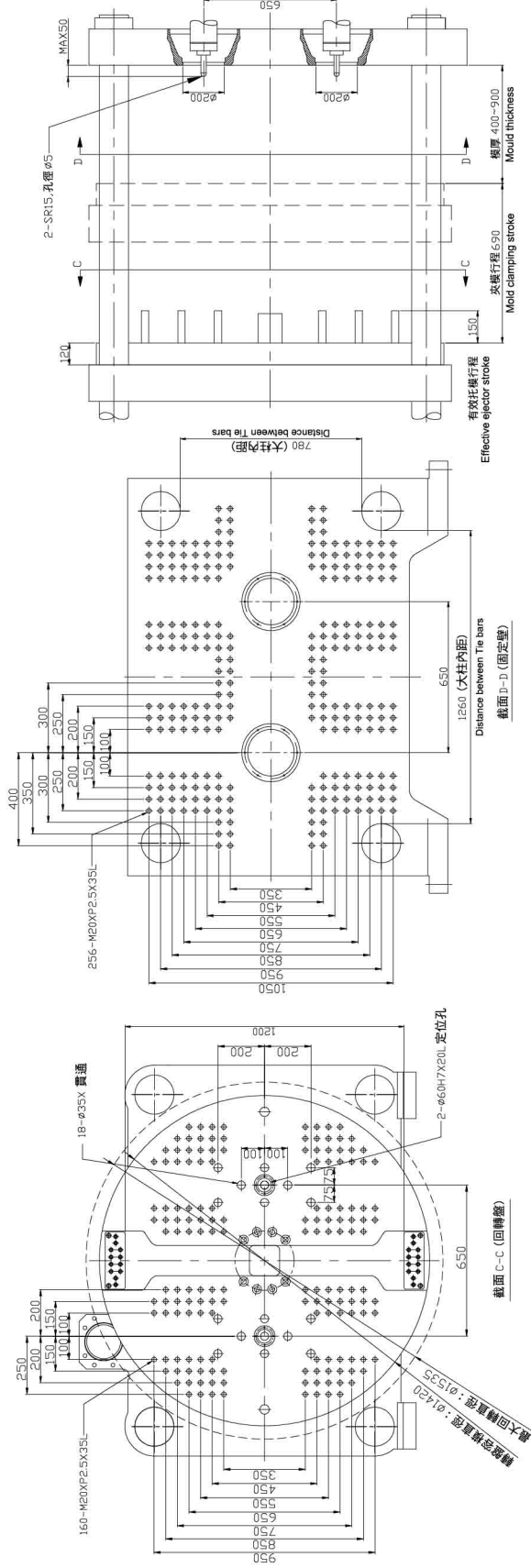


FB-R模壁尺寸圖 FB-R Mold Platen Dimensions

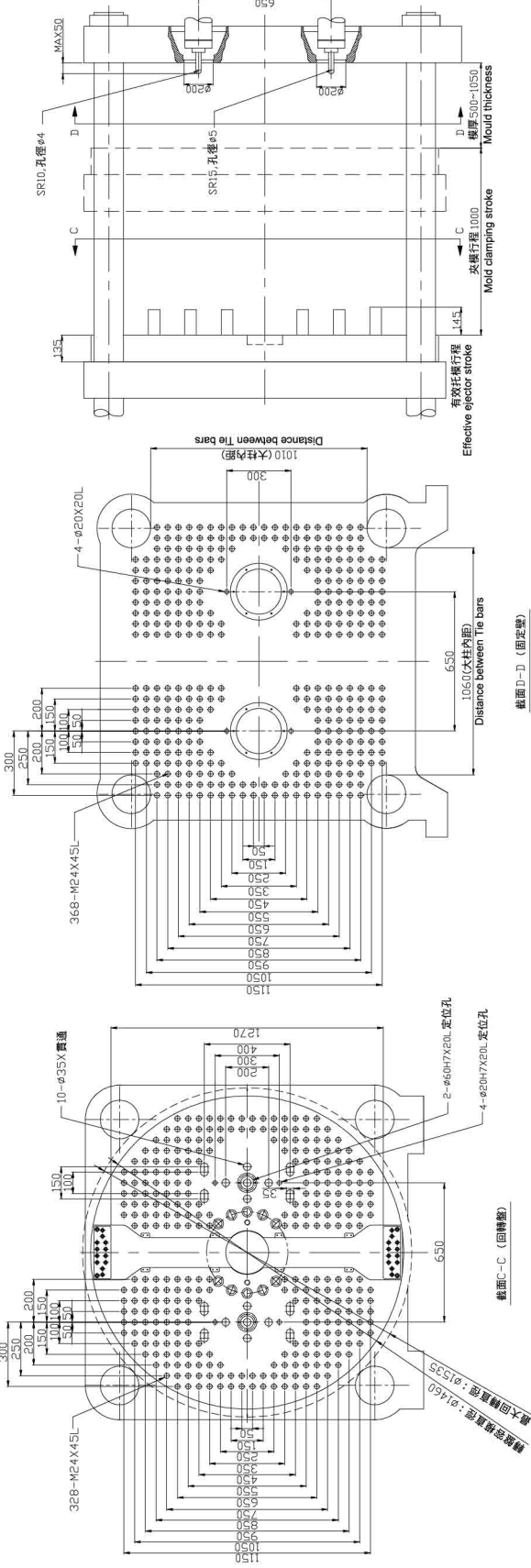
FB-550R 轉盤式雙色機 Rotary Table



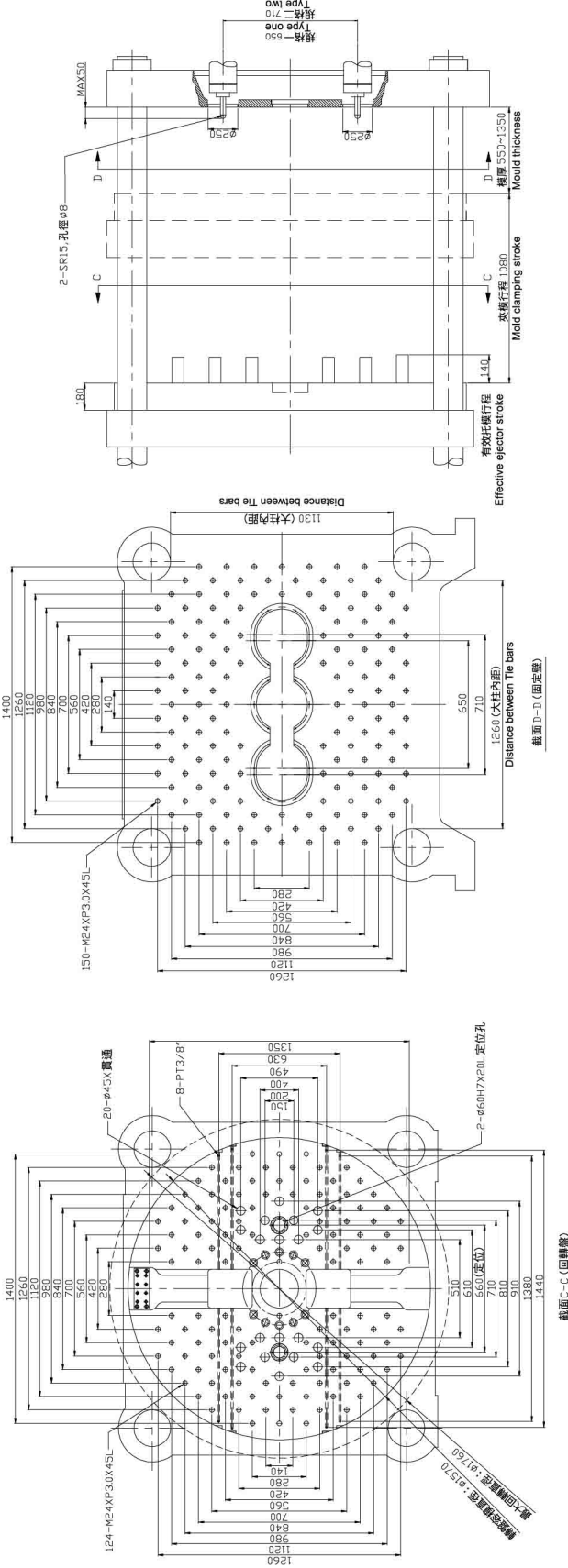
FB-700R 轉盤式雙色機 Rotary Table



FB-850R 轉盤式雙色機 Rotary Table

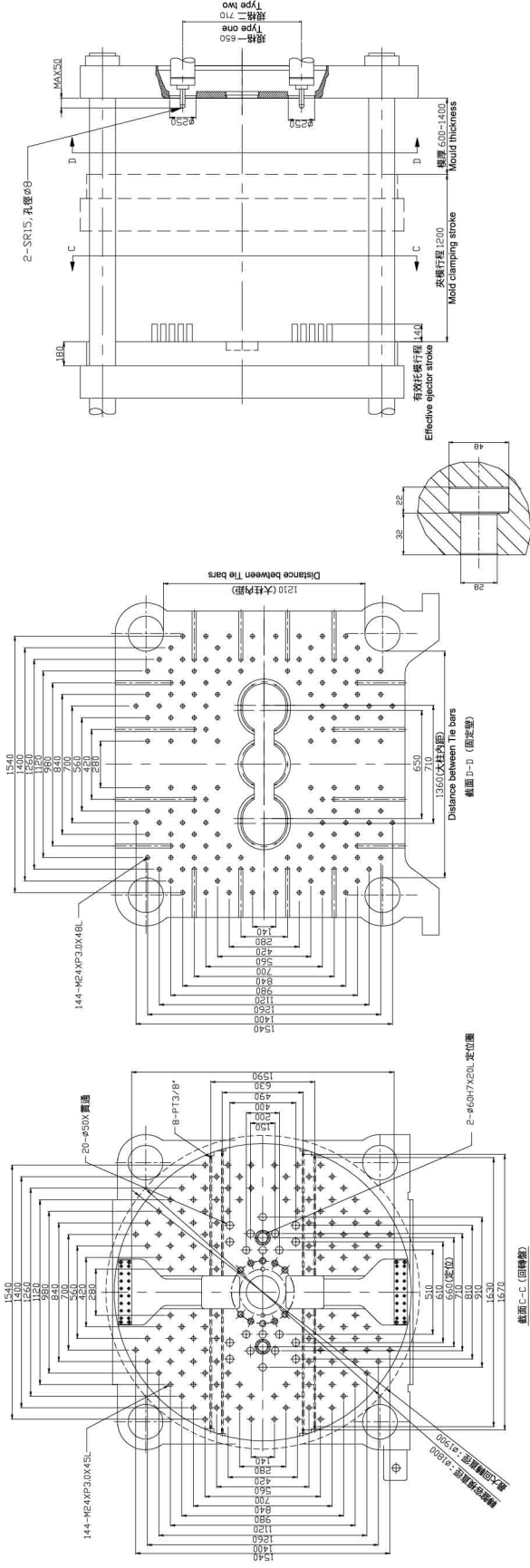


FB-1000R 轉盤式雙色機 Rotary Table

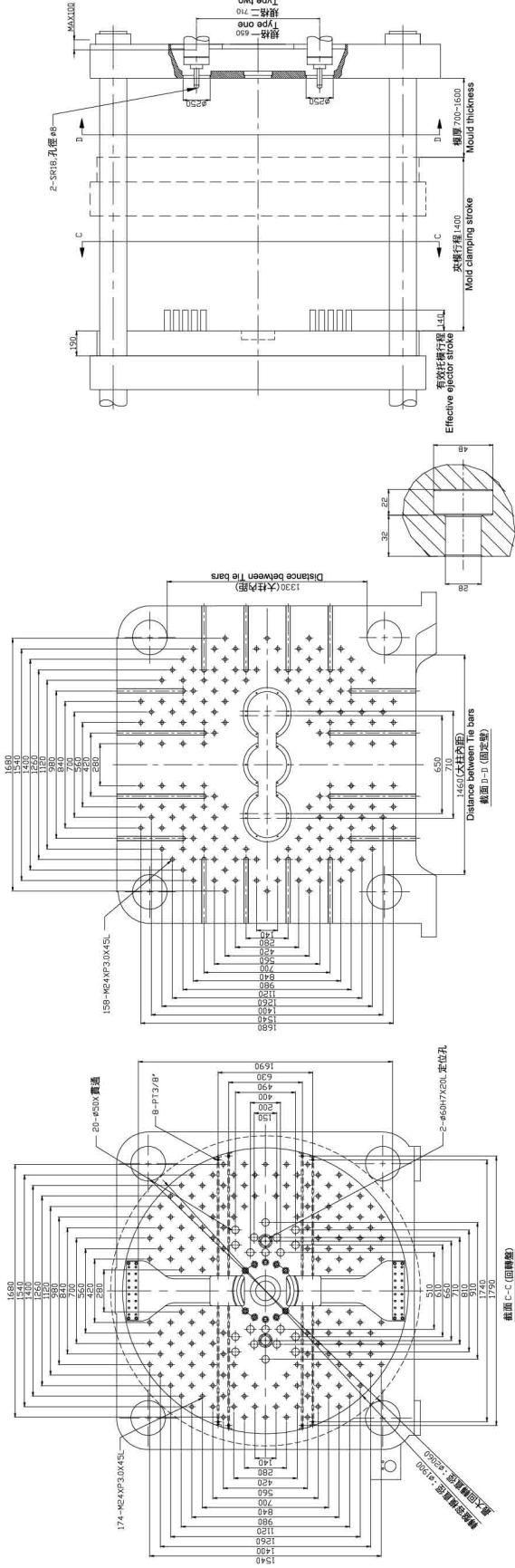


FB-R模壁尺寸圖 FB-R Mold Platen Dimensions

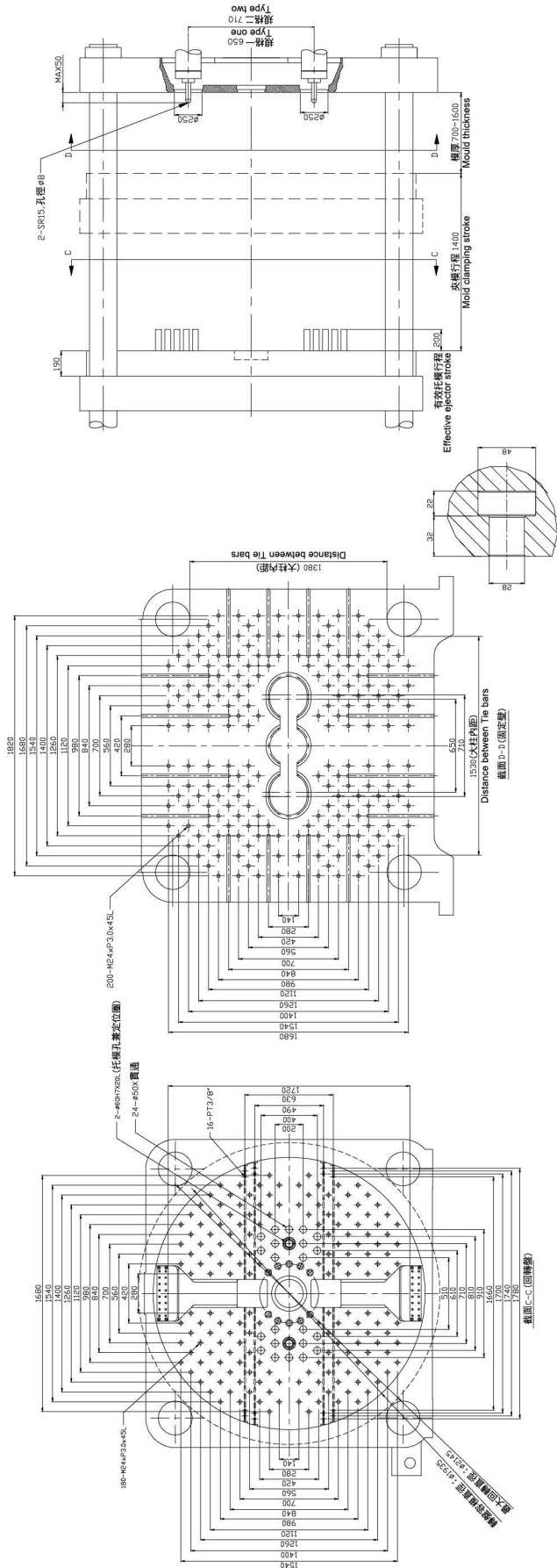
FB-1250R 轉盤式雙色機 Rotary Table



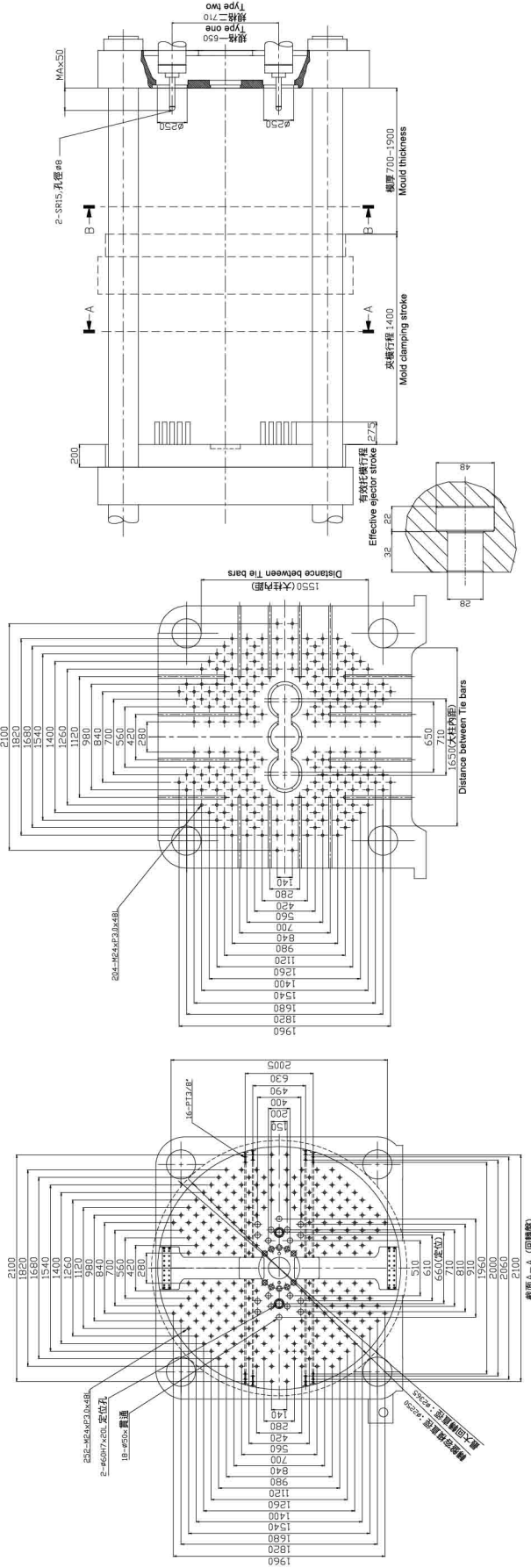
FB-1420R 轉盤式雙色機 Rotary Table



FB-1600R 轉盤式雙色機 Rotary Table

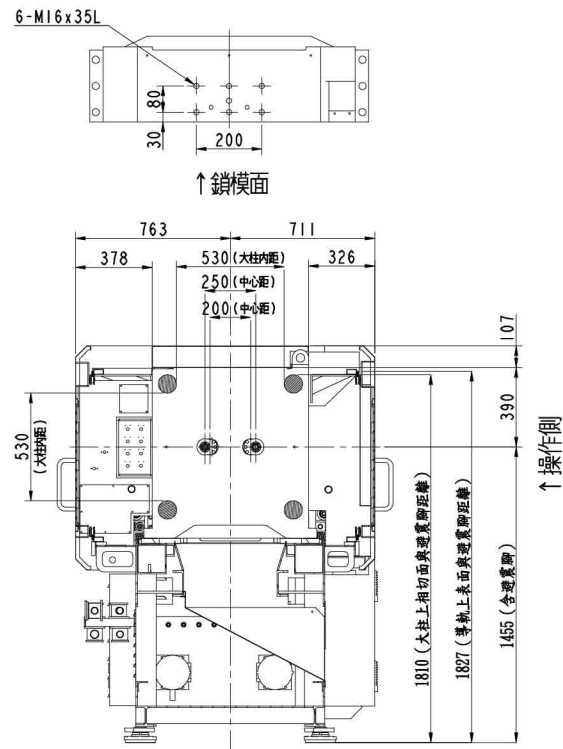


FB-1900R 轉盤式雙色機 Rotary Table

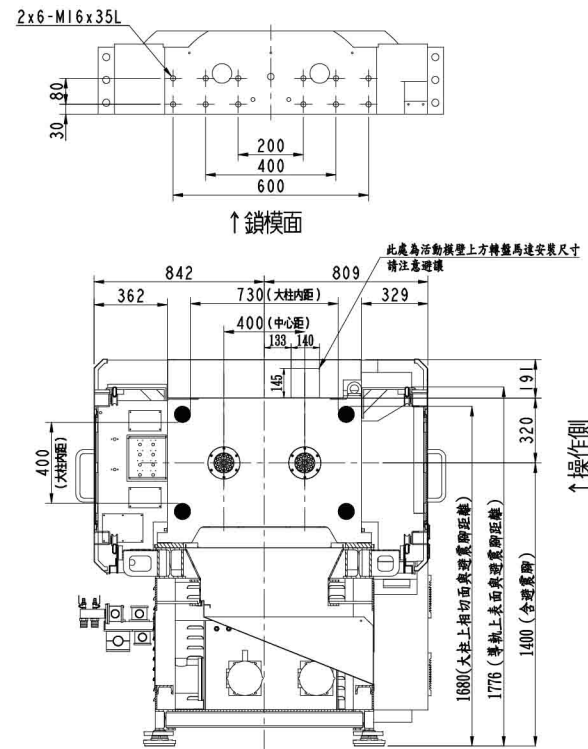


FB-R機械手孔位圖 FB-R Mold Platen Dimensions

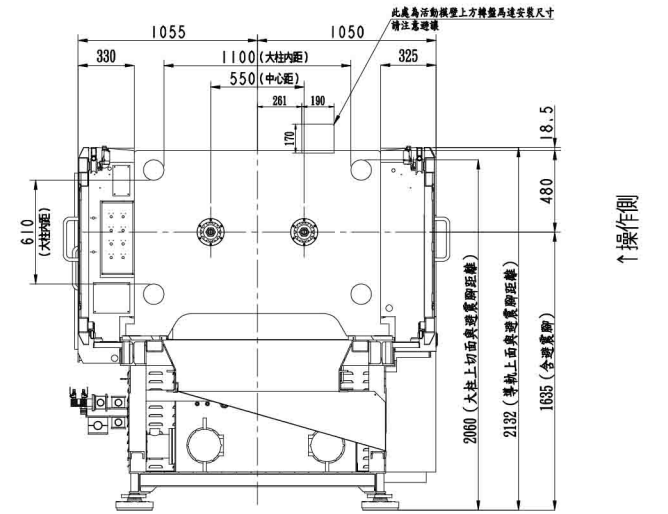
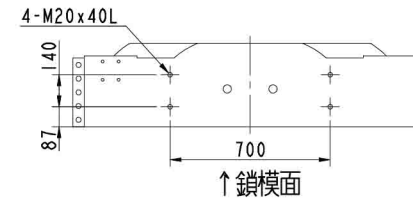
FB-200R 轉盤式雙色機 Rotary Table



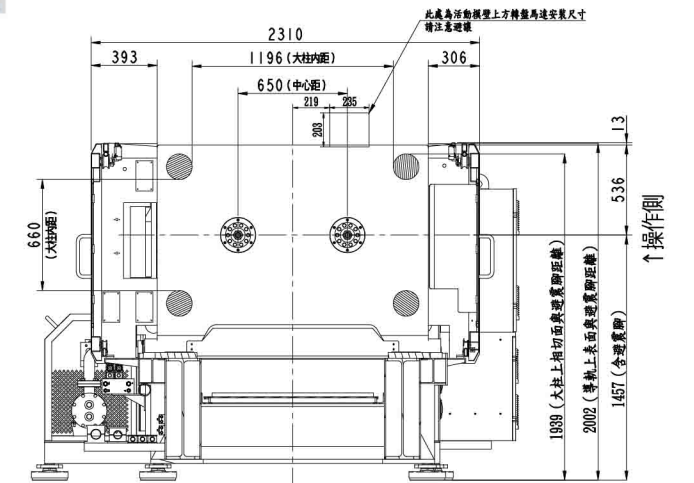
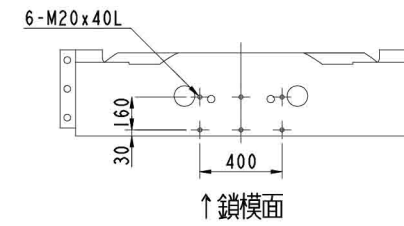
FB-160R 轉盤式雙色機 Rotary Table



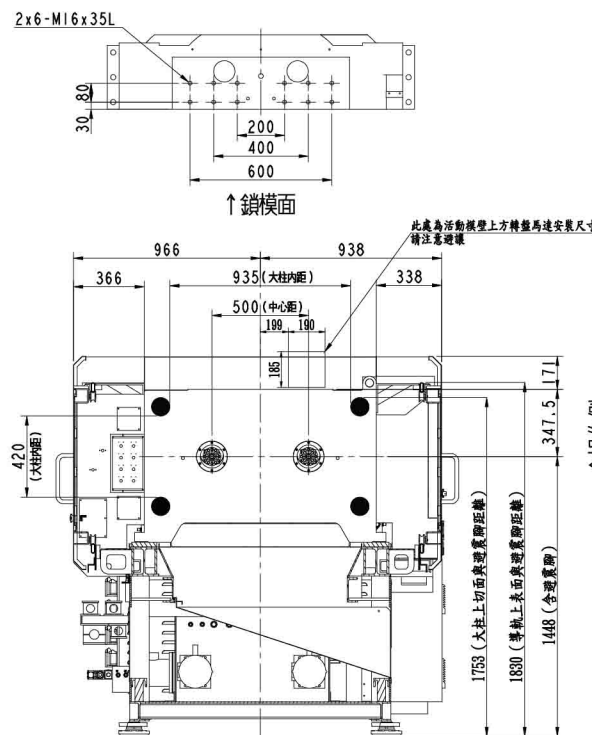
FB-400R 轉盤式雙色機 Rotary Table



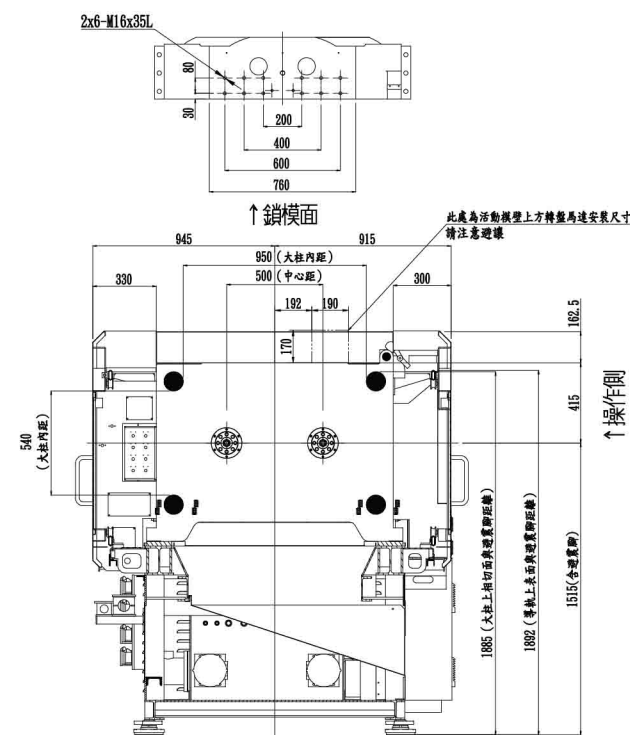
FB-550R 轉盤式雙色機 Rotary Table



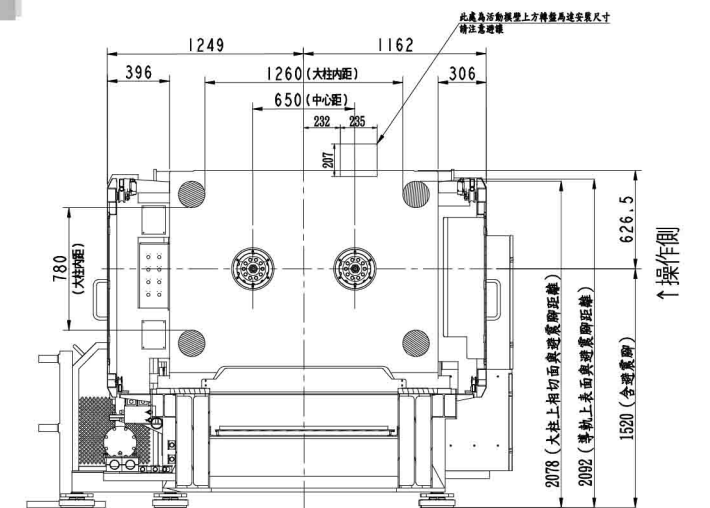
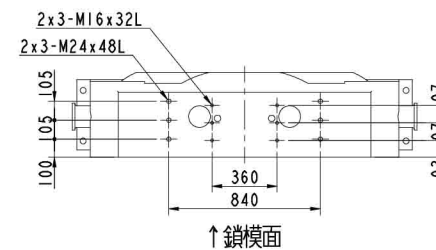
FB-230R 轉盤式雙色機 Rotary Table



FB-280R 轉盤式雙色機 Rotary Table

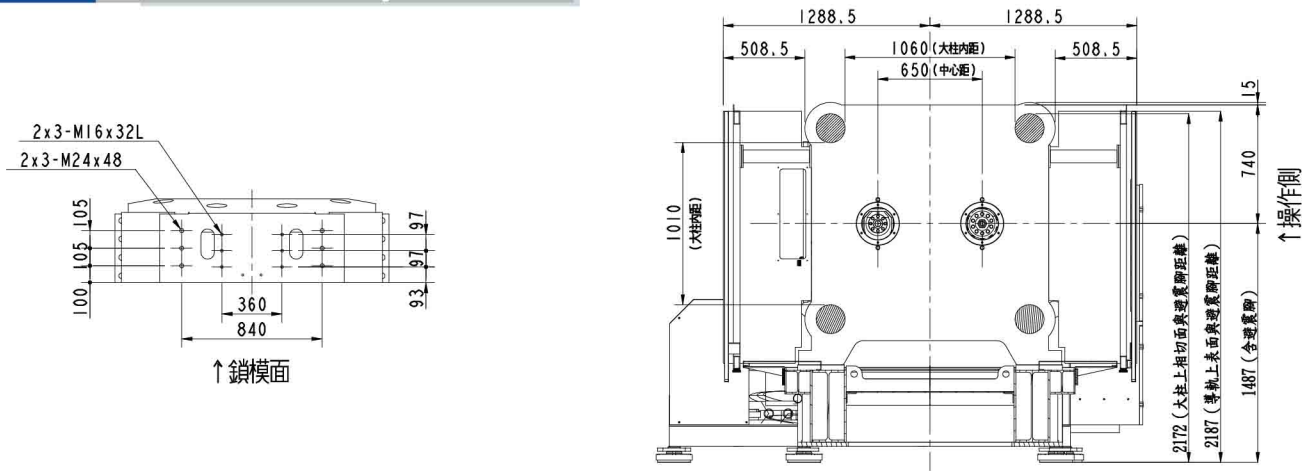


FB-700R 轉盤式雙色機 Rotary Table

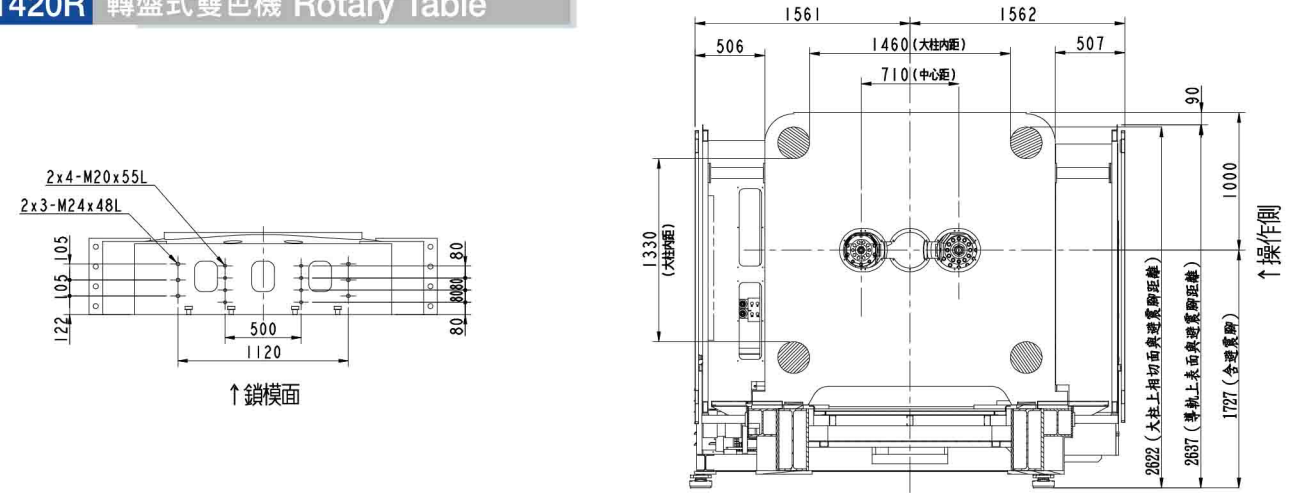


FB-R機械手孔位圖 FB-R Mold Platen Dimensions

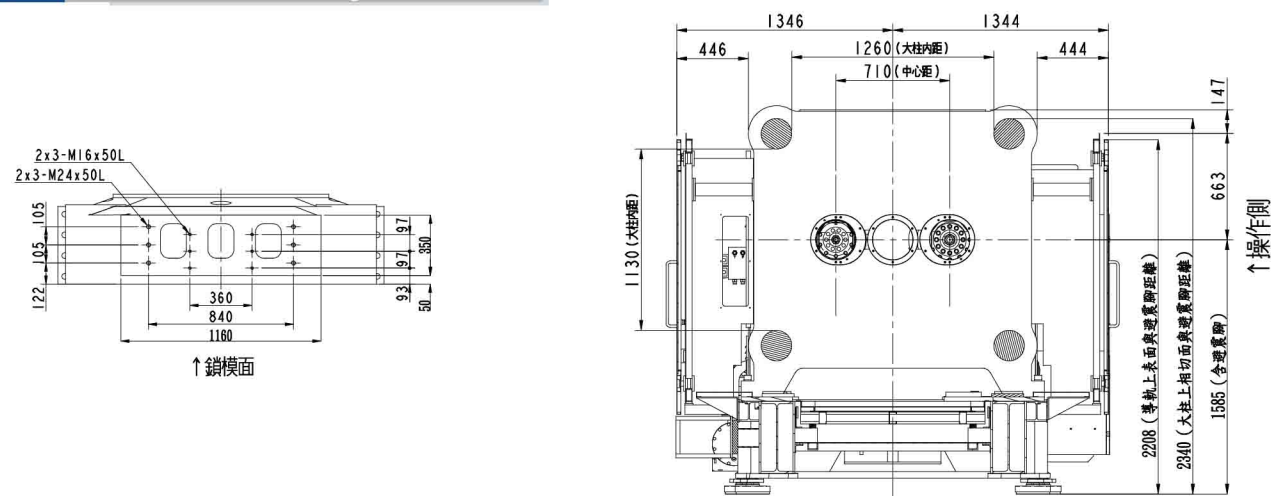
FB-850R 轉盤式雙色機 Rotary Table



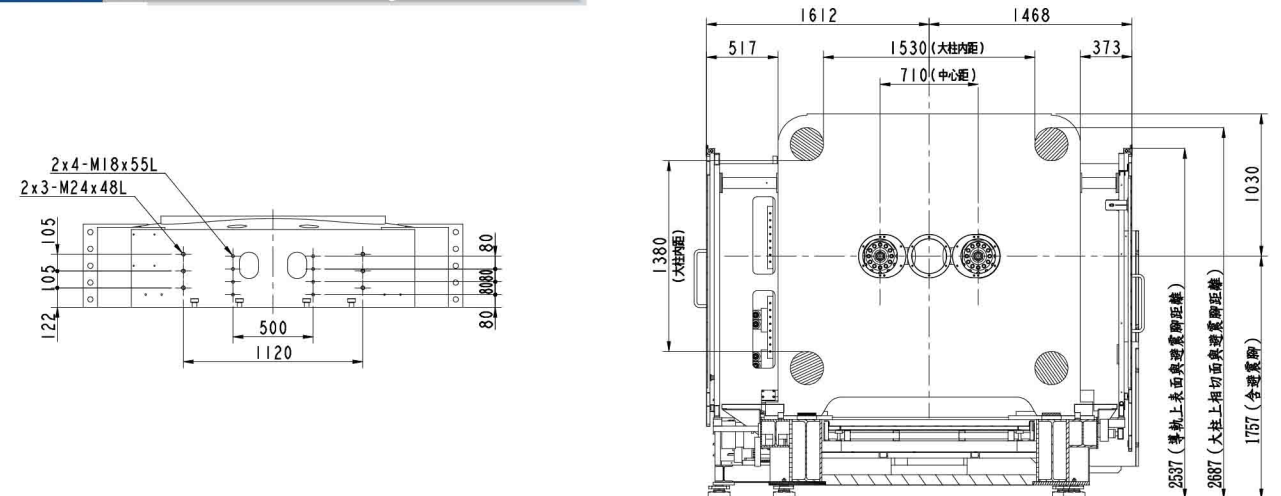
FB-1420R 轉盤式雙色機 Rotary Table



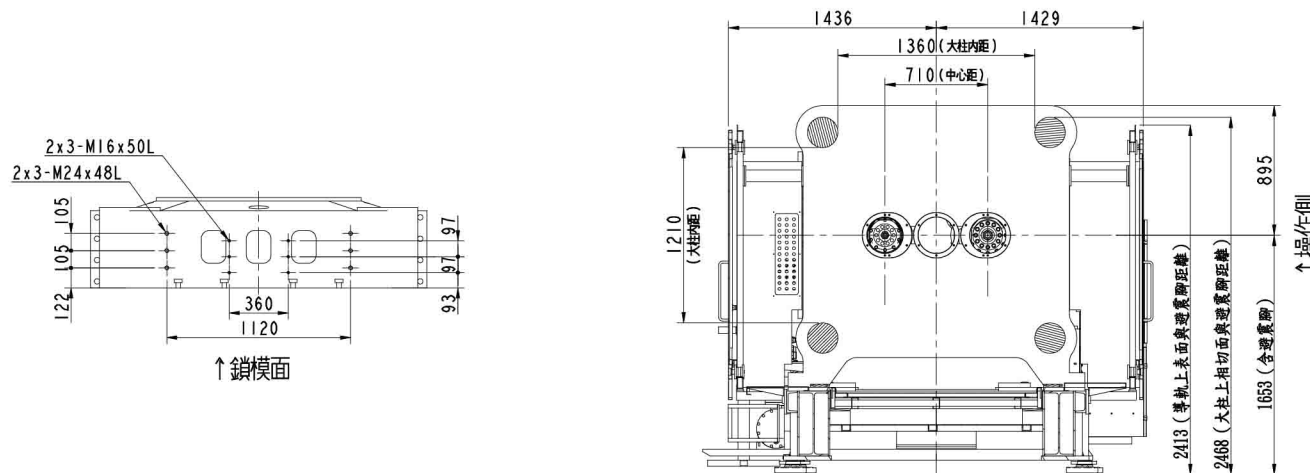
FB-1000R 轉盤式雙色機 Rotary Table



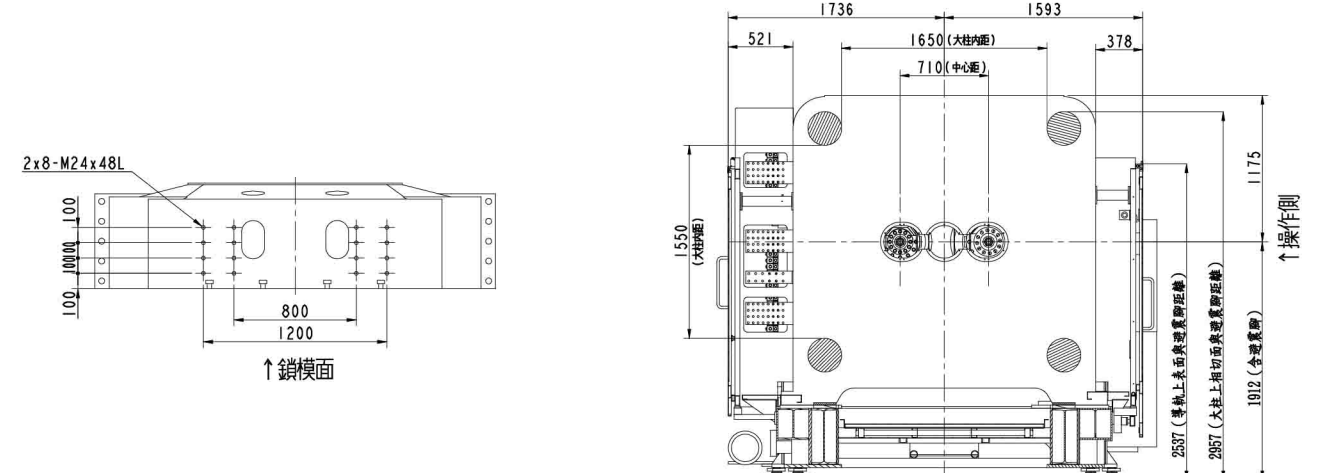
FB-1600R 轉盤式雙色機 Rotary Table



FB-1250R 轉盤式雙色機 Rotary Table



FB-1900R 轉盤式雙色機 Rotary Table



多組分注塑機-轉軸式(FB-T) Multi-Component Injection Molding Machine-Rotary Shaft



- 活動車壁中心有180°之轉動機構，帶動模具旋轉板轉動，來生產雙色分明產品。
- 射出部分有兩支獨立料管組，可同時作射出成型產品。
- 機器動作可同時依產品需求，作頂出再轉動模具旋轉板，或先轉動模具旋轉板再頂出之彈性操作。
- 本機適合生產按鍵、把手、握柄……等產品。

- A rotary shaft is located at the center of moveable platen, which could drive mold move around to produce individual two-component products.
- There are two independent barrel sets at injection unit; each of them could do unit injection simultaneously.
- According to the request of product, the machine with flexibility could do ejection then turn the rotary table or turn rotary table first then do the ejection action as well.
- This series machine is suitable for producing keyboard, handle bar, and hanger..... etc.



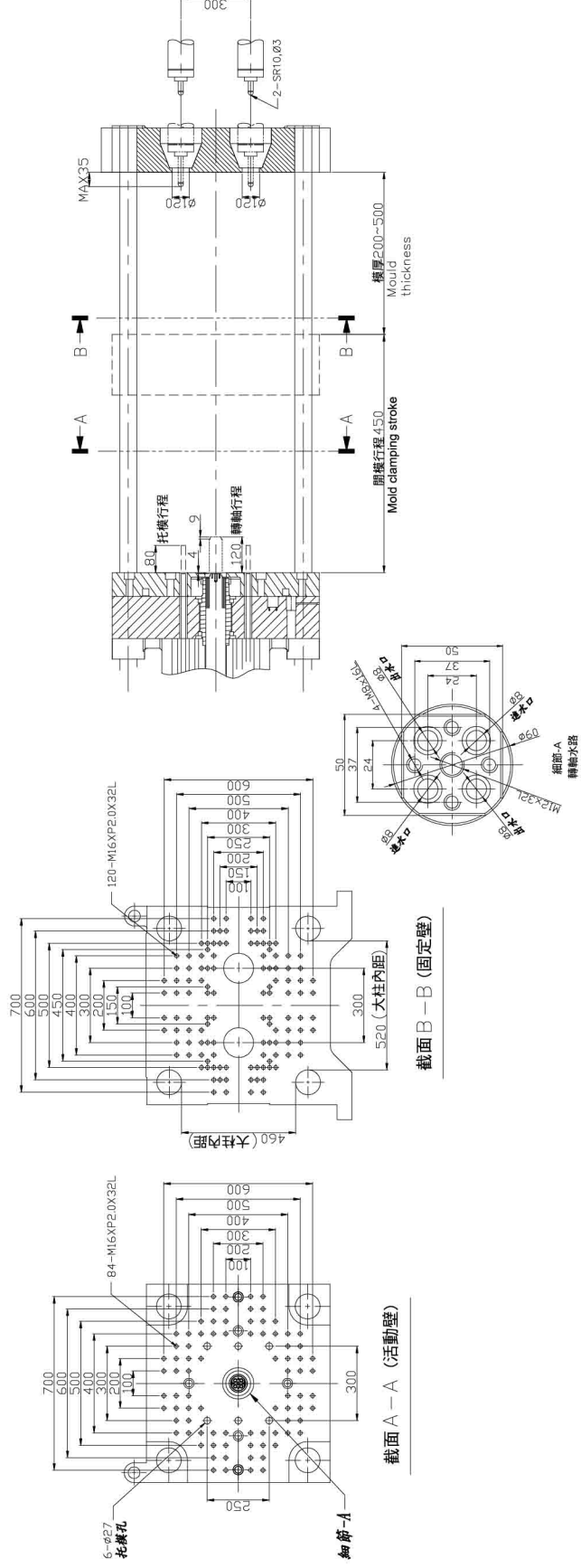
FB-T規格表 FB-T Specifications

ITEMS		UNIT	FB-160T				FB-220T		FB-250T	
射出單元 Injection Unit	類型 Type	-	201				401		201 401	
	螺桿直徑 Screw diameter	mm	26	28	30	32	42	45	32	42
	射出行程 Screw stroke	mm	137				200		137 200	
	理論射出容積 Theoretical shot volume	cm ³	73	84	97	110	277	318	110	277
	理論射出量 Shot weight of injection (PS)	g	66	77	88	100	252	289	100	252
	射出壓力 Injection pressure	kgf/cm ²	2791	2406	2096	1842	1468	1279	1842	1468
	射出率 Injection rate	g/s	70	81	93	106	133	153	170	213
	料管中心距離 Distance between barrel centers	mm	400				300		300	
夾模單元 Mold Clamping Unit	閉模力 Mold clamping force	tonf	160				220		250	
	夾模行程 Mold clamping stroke	mm	320				450		530	
	模厚 Mold thickness	mm	200~570				200~500		200~580	
	大柱內距 Tie bar spacing (H x V)	mm	730x400				520x460		580x580	
	模盤尺寸 Mold platen (H x V)	mm	960x630				800x740		845x845	
	頂出行程 Ejector stroke	mm	150				75		120	
	頂出力 Ejector force	tonf	4.0x2				2.2x2		2.7x2	
電氣單元 Electrical Equipment	轉軸行程 Rotary axis stroke	mm	120				120		150	
	最大油泵動力 Max. pump driving motor	kW	13+13				13+13		22 22	
	溫度控制器 Temperature controller	set	5				5		5 5	
	電熱容量 Heater capacity	kW	10.9				19.3		5.47 9.66	
其他 Others	機械尺寸 Machine dimensions (LxWxH)	mm	5600x1655x1800				6355x1615x1980		6655x1620x2020	
	油箱容量 Oil tank capacity	liter	410				530		590	
	機械重量 Machine weight	ton	7.2				10		13	
	最高系統壓力 Max. system pressure	kgf/cm ²	140				140		140	

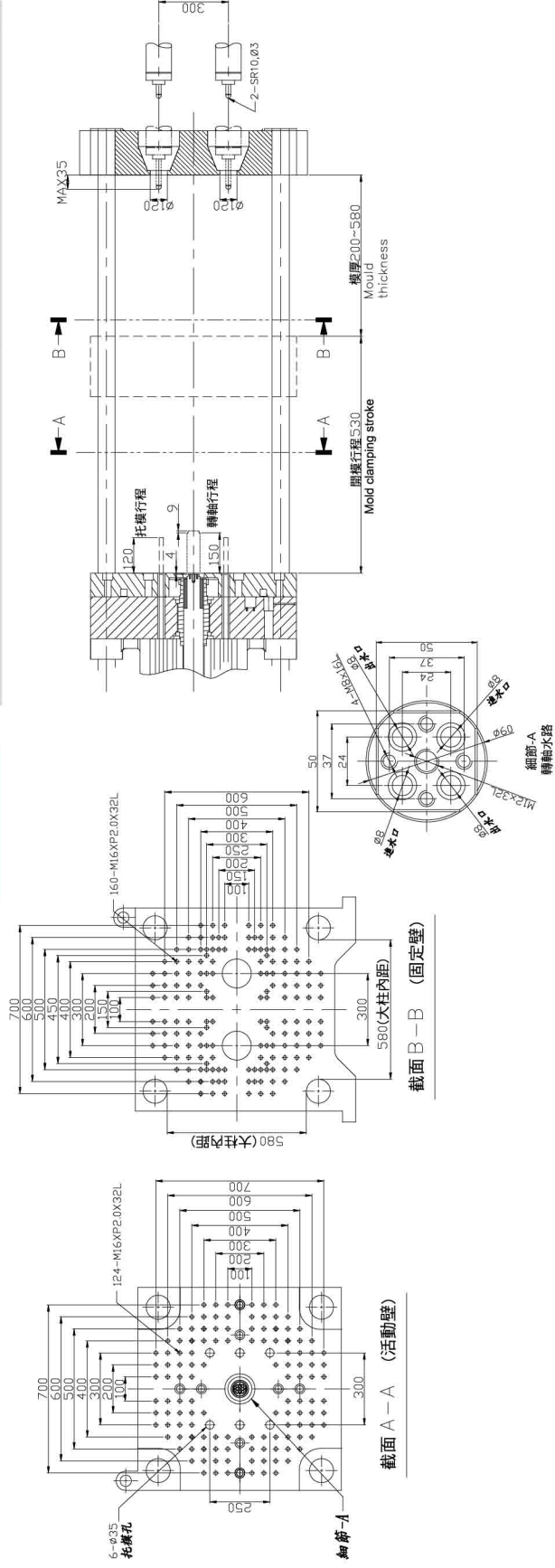
ITEMS		UNIT	FB-280T				FB-400T	
射出單元 Injection Unit	類型 Type	-	401				401 1301	
	螺桿直徑 Screw diameter	mm	32	36	40	45	36	50
	射出行程 Screw stroke	mm	200				200 286	
	理論射出容積 Theoretical shot volume	cm ³	161	203	251	318	203	561
	理論射出量 Shot weight of injection (PS)	g	146	185	229	289	185	511
	射出壓力 Injection pressure	kgf/cm ²	2529	1998	1619	1279	1998	2240
	射出率 Injection rate	g/s	124	156	193	244	194	218
	料管中心距離 Distance between barrel centers	mm	500				550	
夾模單元 Mold Clamping Unit	閉模力 Mold clamping force	tonf	280				400	
	夾模行程 Mold clamping stroke	mm	450				600	
	模厚 Mold thickness	mm	250~700				250~700	
	大柱內距 Tie bar spacing (H x V)	mm	950x540				1100x610	
	模盤尺寸 Mold platen (H x V)	mm	1230x820				1450x930	
	頂出行程 Ejector stroke	mm	150				190	
	頂出力 Ejector force	tonf	4.0x2				5.4x2	
電氣單元 Electrical Equipment	轉軸行程 Rotary axis stroke	mm	150				160	
	最大油泵動力 Max. pump driving motor	kW	22+22				30 30	
	溫度控制器 Temperature controller	set	5				6 5	
	電熱容量 Heater capacity	kW	19.32				9.66 18.2	
其他 Others	機械尺寸 Machine dimensions (LxWxH)	mm	6840x2000x2085				8215x2235x2215	
	油箱容量 Oil tank capacity	liter	590				870	
	機械重量 Machine weight	ton	16				20	
	最高系統壓力 Max. system pressure	kgf/cm ²	140				140	

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。
The features are for your reference only. Due to continuous improvements, we reserve the right to amend any of the above specifications without prior notice.

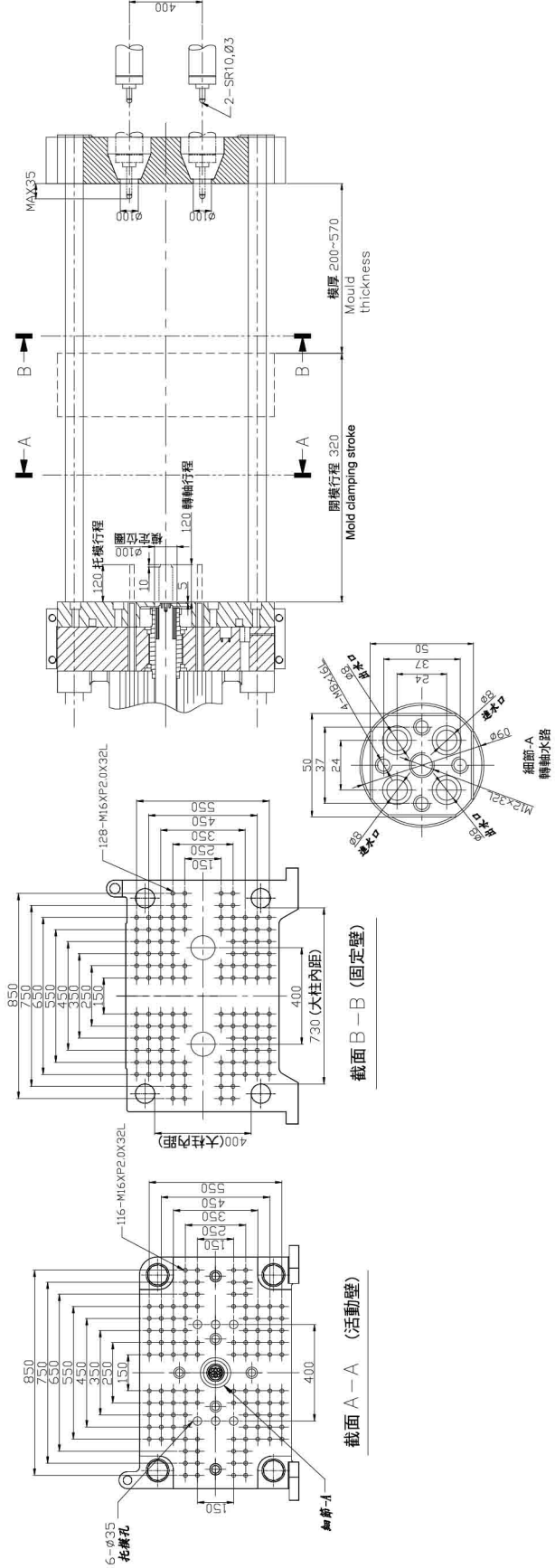
FB-220T 轉軸式雙色機(窄模板) Rotary Shaft (Special Model)



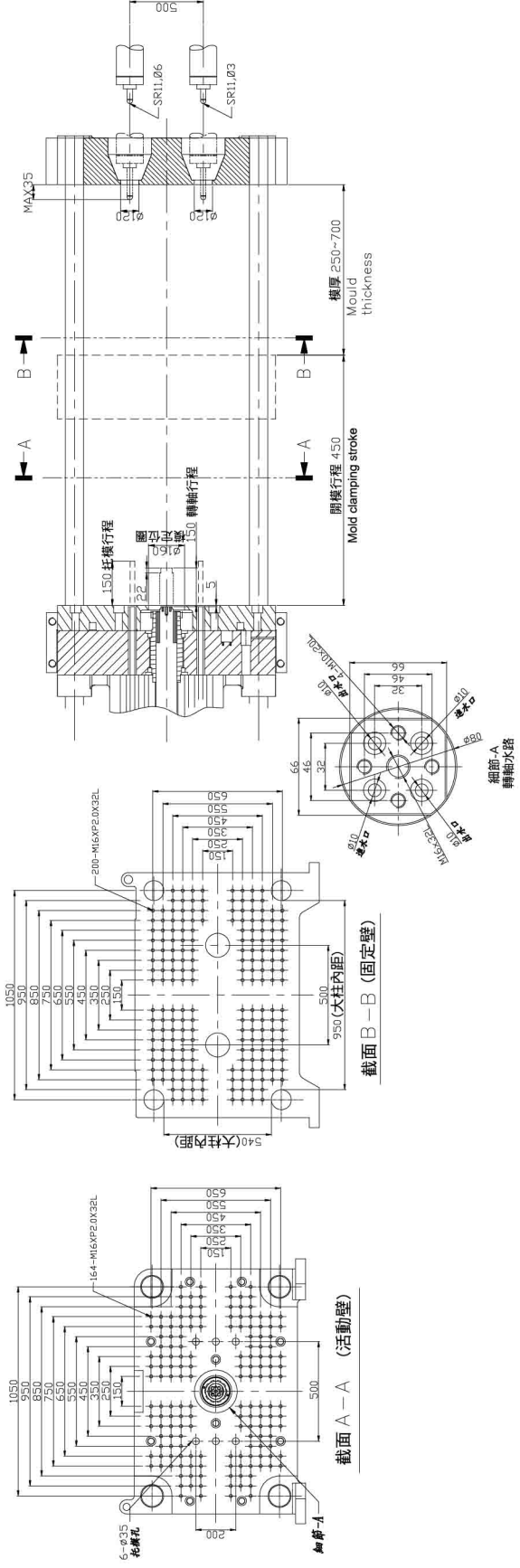
FB-250T 轉軸式雙色機(窄模板) Rotary Shaft (Special Model)



FB-160T 轉軸式雙色機 Rotary Shaft

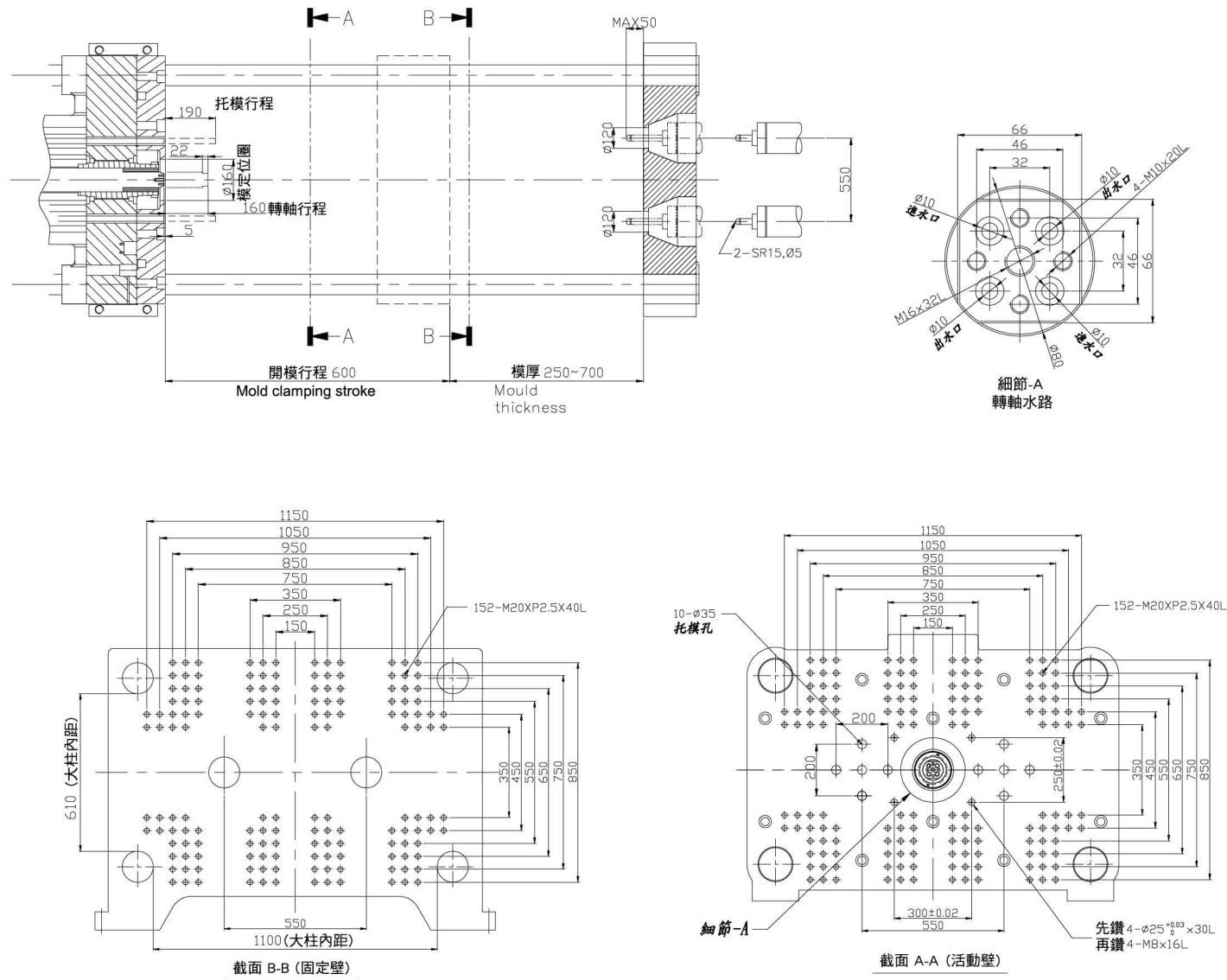


FB-280T 轉軸式雙色機 Rotary Shaft



FB-T模壁尺寸圖 FB-T Mold Platen Dimensions

FB-400T 轉軸式雙色機 Rotary Shaft

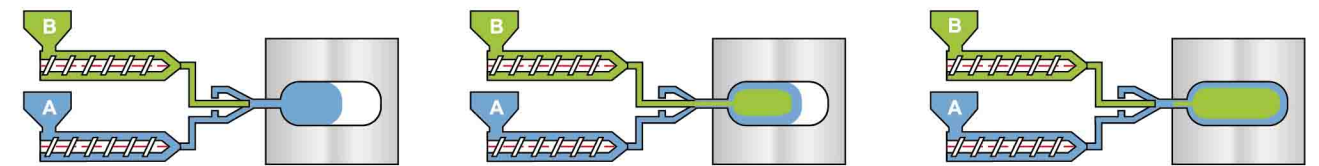


夾層混色注塑機(FB-C) Sandwich/Interval Injection Molding Machine

夾層注塑成型是新近發展的創新注塑成型加工技術，其操作方法是：在傳統塑膠注塑成型機上增加一組複合式射嘴及料管組成獨立的雙料管，在射出的過程中可以同時或間隔方式將兩種熔膠，透過共同射嘴射入模穴中達成雙料共射，其中外層的熔膠稱為皮料層，內層的熔膠稱為核心料。

塑膠加工廠在市場競爭壓力下，如何產生附加價值較高產品及降低成本，以維持廠商生存和發展為重要課題，富強鑫為協助廠商產業轉型及升級，經過多年之努力和研發，領先業界成功開發夾層混色注塑成型機。

Sandwich injection molding is one of the newly developed injection molding methods. To accomplish such a molding method, an additional barrel is added to a traditional plastic injection molding machine to form an independent double barrel with special design nozzle, during the injection process, this double barrel can concurrently inject two types of molten plastic, via the same nozzle into the mold to achieve double material simultaneous injection. The outer layer of the mixed molten plastic is called the skin material, while the inner layer is called the core material.



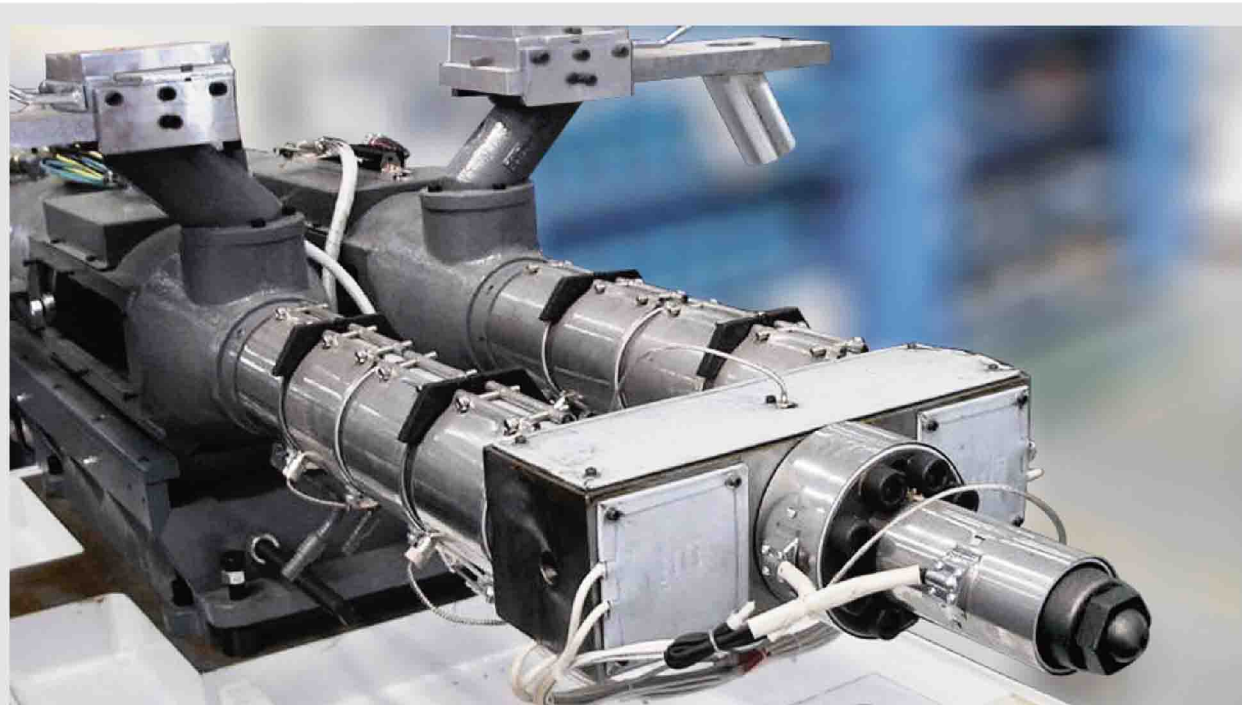
先注入皮料層
Skin material is injected first.

再注入核心料層
The core material is injected after.

最後注入皮料層封口
Seal of skin material is injected lastly.



夾層混色注塑機(FB-C) Sandwich/Interval Injection Molding Machine



本機型搭配特殊設計之複合射嘴，在使用原有模具下，即可產生特殊花紋及多層次顏色，直接提升產品之附加價值，再造就模具的第二春，創造額外利潤。

By matched with special design nozzle, sandwich injection molding machine might produce the special flowered & multilevel colors, thus to create high values-added products while keeping the costs down and creating the additional profit.

夾層注塑成型比起傳統的注塑成型具有如下特色：

Sandwich injection molding has the following advantages over traditional injection molding:

- 對內外層不同塑料之產品，可取代二次加工改為一次成型。
- 由於同顏色組合，可賦予舊品(模具)新生命。
- 核心料可使用低黏度之原料，降低射出壓力。
- 本機型亦可用於生產單色產品，一機兩用，提供多元化功能及全方位服務。
- 核心料可使用回收之廢料或低品質原料來降低成本。
- 皮層料可採用優質具特殊表面性質或防電磁波干擾等材料，以增加產品功能性。
- 適當的皮層料與核心料配合可以減少殘餘應力，增加產品強度。
- For products with different outer and inner layer materials, the traditional two-step insert molding becomes one-step.
- The different color combinations give old products(molds) new life.
- Low-viscous materials can be used as core materials to reduce injection pressure.
- Sandwich injection molding machine can also produce single color which provides a multi-function and flexible molding method, increasing the processor's capability to produce high-quality and low-cost products.
- Recycled and low-quality materials can be used as core materials to reduce production costs.
- High-quality materials with anti-magnetic interference properties and high surface quality can be used as skin materials to increase product utility.
- Appropriate core and skin material combinations can reduce the residual stress and increase product hardness.

- A組B組一起射出
Unit A & unit B inject at the same time.

- 先A組射出→B組射出
Unit A inject first and then unit B injects after.

- 先A組射出→A組及B組同時射出
→A組射出
Unit A injects and then unit A & B both inject at the same time and then unit A injects again.

FB-C規格表 FB-C Specifications

ITEMS		UNIT	FB-100C		FB-150C		FB-250C		FB-350C	
射出單元 Injection unit	類型 Type	-	201		201		401		1301	
	螺桿直徑 Screw diameter	mm	28	30	30	32	40	40	50	50
	射出行程 Screw stroke	mm	137		137		200		286	
	理論射出容積 Theoretical shot volume	cm ³	84	97	97	110	251	251	561	561
	理論射出量 Shot weight of injection (PS)	g	77	88	88	110	229	229	511	511
	射出壓力 Injection pressure	kgf/cm ²	2406	2096	2096	1842	1619	1619	2240	2240
	射出速度 Injection speed	mm/sec	145		145		132		122	
射出率 Injection rate	g/s	81	93	93	106	151	151	218	218	
夾模單元 Mold clamping unit	閉模力 Mold clamping force	tonf	100		150		250		350	
	夾模行程 Mold clamping strokes	mm	350		460		550		645	
	模厚 Mold thickness	mm	100~430		130~550		200~670		200~790	
	建議最小模具尺寸 Suggested min. mold dim. (HxV)	mm	234x234		299x299		364x364		429x429	
	大柱內距 Tie bars spacing (HxV)	mm	355x355		462x462		555x555		680x680	
	模盤尺寸 Mold platen (HxV)	mm	525x525		670x670		820x820		969x969	
	頂出行程 Ejector stroke	mm	90		110		150		200	
頂出力 Ejector force	tonf	2.7		4.0		5.4		11		
電氣單元 Electrical equipment	最大油泵動力 Max. pump driving motor	kW	13+13		13+13		18+18		30+30	
	溫度控制器 Temperature controller	set	7		7		9		11	
	電熱容量 Heater capacity	kW	10.9		10.9		19.3		36.4	
其他 Others	機械尺寸 Machine dimensions (LxWxH)	mm	5200x1400x1800		6100x1600x1900		7300x1700x2100		8100x1800x2220	
	油箱容量 Oil tank capacity	liter	430		450		530		1000	
	機械重量 Machine weight	ton	5		7		14		17	
	最高系統壓力 Max. system pressure	kgf/cm ²	140		140		140		140	

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。
The features are for your reference only. Due to continuous improvements, we reserve the right to amend any of the above specifications without prior notice.

標準與選購配備 Standard & Optional Accessories

- 機台模壁若加裝T型墊板或隔熱墊板，會使模厚及頂出行程的規格改變。
- If clamping unit adopting T-slot board or insulator sheets, the "mould thickness" & "ejector stroke" dimensions will be different.

配備項目	ITEM	FB-160R	FB-200R	FB-230R	FB-280R	FB-400R	FB-550R	FB-700R	FB-850R	FB-1000R	FB-1250R	FB-1420R	FB-1600R	FB-1900R	FB-160T	FB-220T	FB-250T	FB-280T	FB-400T	FB-100C	FB-150C	FB-250C	FB-350C
夾模模板形成：窄(N)/寬(W)	Mold platen:Narrow(N)/Wide(W)	W	N	W	W	W	W	W	N	N	N	N	N	N	W	N	N	W	W	N	N	N	N
PVC、PC、壓克力、尼龍專用螺桿	Special Screw for PC/PMMA/PA/PVC	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
雙合金螺桿、料管	Bi-alloy Screw/Barrel	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
拖拉式落料裝置	Sliding material feeding device	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
多段數位背壓(螢幕設定)	Multi-stage back pressure control(Screen set up)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
射出閉迴路	Close-loop control for injection pressure & speed	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
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	L/P for injection unit	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
曲手：套鋼	Steel bearing (Toggle)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
開關模比例閥控制	Proportional valve for mould open and close	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
模壁T型槽	T-slot platen	-	-	-	-	-	○	○	○	○	○	○	○	○	-	-	-	-	-	-	-	●	●
模壁T型墊板	T-slot board	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●
隔熱墊板	Insulator sheets	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
活動式模定位圈	Check ring of mold (Replaceable)	●	-	●	●	●	●	●	●	●	●	●	●	●	●	-	-	●	●	-	-	●	●
固定式模定位圈	Check ring of mold (Non-replaceable)	-	●	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	-	●
安全踏板	Security Pad	-	-	-	-	-	-	-	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-
曲手電動注油器(1組)	Auto lubrication system for toggle(1 set)	●	●	●	●	●	●	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●
曲手電動注油器(2組)	Auto lubrication system for toggle(2 set)	-	-	-	-	-	-	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-
車壁潤滑：手動注油器	Manual lubrication system (platen)	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●	-	-	-	-
車壁潤滑：電動注油器	Auto lubrication system (platen)	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○
雙托模	Double ejector	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-
單中子	Single core pull device	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●
雙中子(二公)	Double core pull device	●	●	●	●	●	-	-	-	-	-	-	-	-	●	●	●	●	●	○	○	○	○
四中子(二公二母)	Four core pull device	○	○	○	○	○	●	●	●	●	●	●	●	●	○	○	○	○	○	-	-	-	-
轉牙裝置(計時計次)	Unscrew device by timer or counter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	○	○	○	○
比例閥轉盤控制裝置	Proportional valve control for rotary table	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-
伺服馬達轉盤驅動裝置	Servo motor drive for rotary table	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	-	-	-	-
夾模電阻尺	L/P for clamping unit	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
拖模電阻尺	L/P for ejection unit	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
兩個風托(兩公)	Air ejector sets	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○
成品落下口	Article Collecting Channel	●	●	●	●	●	-	-	-	-	-	-	-	-	○	○	○	○	○	○	○	○	○
電動安全門	Automatic safety gate (Electric type)	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-
水流分佈器4入4出(銅製)	Water manifold - 4 in & 4 out (copper)	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
水流分佈器8入8出(銅製)	Water manifold - 8 in & 8 out (copper)	●	○	●	●	●	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●
水流分佈器10入10出(銅製)	Water manifold - 10 in & 10 out (copper)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
雙回路(開模與托模同動)	Double loops system (mould open - ejector start)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
伺服節能系統	Servo power-saving system	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
電眼檢出	Photo cell drop-out checking device	○	○	○	○	○	-	-	-	-	-	-	-	-	○	○	○	○	○	○	○	○	○
油溫顯示	Oil temperature display for hydraulic system	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
油溫省水閥控制	Water valve for hydraulic oil temperature control	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
油溫預熱功能	Oil temperature preheating function	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
FCS-6500微電腦控制器(彩色觸控:KEBA)	FCS-6500 controller (color & touch screen:KEBA)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
資料保護鎖(硬體鎖)	Data lock function (key)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
機械手電氣接口	Robot electrical interface	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
電控穩壓器	Power stabilizer	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
三色警示燈	Three colors alam light	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
CE安全插座	Outgoing Socket	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
主電源斷路器	Main power breaker	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
24H料管自動定時預熱	24 hours Auto-preheat	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
油壓、電氣雙重保護裝置	Dual safety device: hydraulic and electrical	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
機械安全桿保護裝置	Mechanical Saty bar Protection device	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
不銹鋼漏斗	Stainless hopper	▲	▲	▲	▲	▲	▲	-	-	-	-	-	-	-	▲	▲	▲	▲	▲	▲	▲	▲	▲
乾燥機	Hopper dryer	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
抽料機	Auto loader	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
落地式送料裝置(乾燥機/抽料機/L型腳架/吸料盒)	Loading set (Dryer, Auto Loader, L-Frame, Suction Box)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
模溫機	Mold temperature controller	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
乾燥機磁鐵	Magnet for hopper dryer	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
吊桿組	Mold lifting hanger set	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	○	○	-	-
避震器	Anti-vibration mounting pad	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
填料台	Filling material stand	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
工具箱組	Tool box set	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
電氣及其他附件	Accessory for electrical and others	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

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