

DC-SE DCW-SE 系列

(雙色系統)省能源伺服泵系列

ENERGY-SAVING DUAL COLOR INJECTION MOLDING MACHINE

The vanguard of dual color
injection molding machine



HWA CHIN



HWA CHIN

DC-SE Series

Color life idea to
into practice
HWA CHIN DC Ser



Interact



機械特點

Characteristic

■ 油電伺服系統

1. 與全電式射出機相同，有動作才有電力消耗，且電力僅供給所需之速度，不會造成電力的額外損耗，可達絕對省電之終極目標，約可比變排量幫浦省電40%，較定量幫浦省電60%。
2. 通過控制器及壓力感應器，回饋實踐精密的速度與壓力控制。
3. 0.1sec以下高應答時間及0.1%的重複性及直線性。
4. 採用氣冷式冷卻器，可免去冷卻水及冷卻器清洗的困擾。
5. 油、機、電全方位整合成一單元，輸出更精密穩定閉環壓力控制：系統壓力輸出，不受溫度變化而改變。
低油溫或高油溫自動補償特點。
閉環速度控制：系統流量可依照需求，輸出一定轉速。
搭配齒輪泵，減少低速波動。
6. 節能省電，低噪音
依據實際流量需求，輸出一定轉速，待機無負載時流量極少，無虛功輸出省電顯著，油溫不上升，零件壽命增長。
7. 簡易調整校正的控制界面
全數位式設定，依據性能需要，只要改變參數值，不必做煩瑣的電壓調整、節流孔更改等，...，縮短調整校正工時。

■ Hybrid Servo System

1. DC-SE series has same features with all-electric machine that there is power consumption when machine perform an action.
Power supplies for machine action only without extra power waste so it absolutely reaches energy saving target.
Hybrid servo system saves energy up to 40% than variable pump and up to 60% than fixed pump system.
2. Precise speed and pressure control is executed through controller and pressure sensor.
3. There is fast response with less than 0.1 second and high repetition precision & linearity less than 0.1%.
4. It adopts water air-cooling system without perplexed cooler clean.
5. Unit system of integrated hydraulic, mechanical and electrical engineering makes stable and precise output.
Closed looped pressure control : Automatic pressure compensation makes system pressure output is not influenced by the temperature change of hydraulic oil and ambience.
Closed looped speed control : System flow is according on actual requirement.
Fixed rotation speed of gear pump decreases the variation of low speed.
6. Energy saving & low noise
Fixed rotation speed output in accordance with actual flow requirement.
Very low energy consumption while machine idles.
Power saving is obvious without vain work.
Oil temperature is not getting up and parts life become longer.
7. Simple control interface
All digital setting depends on the system condition.
It saves adjusting time due to no need of voltage adjustment and throttle modification.

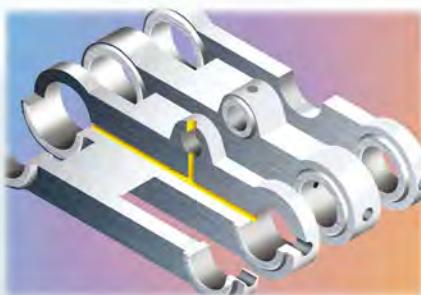
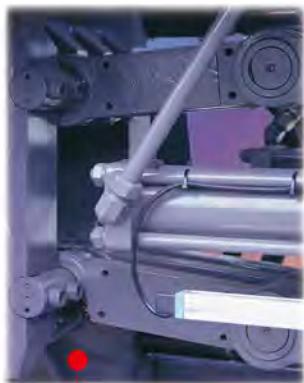
更豐富的彩色生活創意- 樺欽雙色機系列

機械特色

Products' Features

多功能的機械結構，完整的電腦控制程式及順暢可靠之油壓系統，可完全搭配各式雙色模具，並達到精密、準確、穩定、速捷的標準。

MULTI FUNCTION MECHANICAL STRUCTURE. COMPLETE MICROCOMPUTER CONTROL SYSTEM, SMOOTH AND RELIABLE HYDRAULIC SYSTEM, ABSOLUTELY SUITABLE FOR VARIOUS DUAL COLOR MOLD. PRODUCTIVE PROCEDURE COULD BE ACHIEVED PRECISE, ACCURATE, STABLE, AND HIGH-SPEED STANDARD.



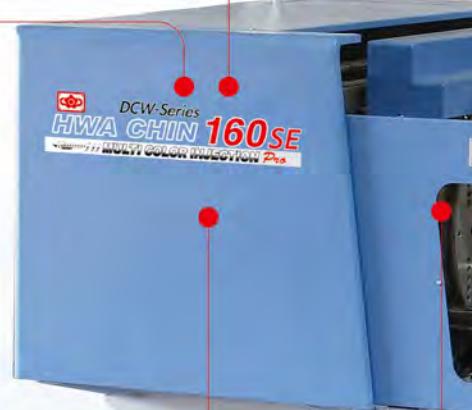
內藏式潤滑孔

- 免外接管 無配管老化、斷裂之問題。
- 潤滑均勻曲肘保養容易，可確保曲肘長期使用不易磨損。

■ 台灣專利第204709號

IN-BUILT LUBRICATION APERTURES

- No external piping and easy maintenance
- TAIWAN PATENT NO. 91206571

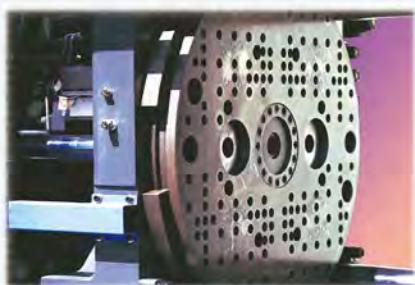


獨立、便利、準確之頂出裝置

- 採前中後，三支頂出油缸配合三支電阻尺。
- 前後油缸並以獨立油路裝設，可充份符合客戶需求。

INDEPENDENT CONVENIENT AND PRECISION EJECTION DEVICE

- Adopt (front ,middle ,rear) three ejection cylinders with individual position transducer.
- Front and rear cylinders equipped with independent hydraulic circuit to meet customers requirement.



模具轉動接合系統

- 具備轉盤或轉軸之功能，可搭配各式模具。
- 精準之定位機構適合高精度之產品。
- 具備高速順暢無衝擊之旋轉動作。

MOLD TURNING SYSTEM

- Turning system has either rotational plate or rotational axle which can be suited with various dual color mold.
- Precise mechanism for fixed position is suited with high-precision products.
- Rotation system is possessed high-speed, smooth and impact free movement.

半圓形曲肘構造

- 1.模壁支柱孔與曲肘軸孔同向加工，精度可大幅提昇。
- 2.曲肘軸以螺栓固定於模壁，作動時噪音低，組裝及維修快速。

■台灣、美國、日本、德國、大陸等地專利

SEMICIRCLE STRUCTURE OF TOGGLE

- 1.Coaxial machining on platen, holes of toggle pin and tie bar increase great precision.
- 2.Toggle pins are fixed by screws. This allows easier and faster assembly and maintenance

PATENTED IN USA, GERMANY,
JAPAN, CHINA, TAIWAN...ETC.



易操作螢幕設定式操作面板

- 1.防塵的觸模式按鍵。
- 2.配合圖形代號及設定式螢幕，使操作簡單易學。
- 3.可顯示輸入 / 輸出狀態，以利迅速排除故障。

SIMPLE AND CLEAR CRT OPERATION PANEL

- 1.Dust-protective and user friendly button.
- 2.Icon panel and digital display makes operating and data setting clearly and easily.
- 3.Input/Output status monitor and fault display makes maintenance easier.



高效率、高精度之射出閉迴路系統（選購）

- 1.適用於超薄、高精度產品。
- 2.射出閉迴路系統搭配蓄壓器，在極快射出中仍可精確、穩定的運作。
- 3.蓄壓器配合四缸射出，可減少回油阻力提高射出速度。

HIGH EFFICIENT AND PRECISION CLOSED LOOP INJECTION UNIT (Optional)

- 1.Suitable for thin and extra precise product.
- 2.Closed loop control system with accumulator completes high precision and stable operation while injecting at very speed.
- 3.Accumulator with four-cylinder injection decreases the resistance of oil return in order to increase injecting speed.



DC-SE 系列規格表

Specification

系統別 SYSTEM	型式 Type		DC-160SE				DC-210SE				DC-250SE				DC-300SE				DC-350SE													
	項目 Items	鎖模力 Clamping Force	160				210				250				300				350													
射出機構系統 Injection System	螺旋桿直徑 Screw Diameter	unit	前側射出 Front Inj		後側射出 Rear Inj		前側射出 Front Inj		後側射出 Rear Inj		前側射出 Front Inj		後側射出 Rear Inj		前側射出 Front Inj		後側射出 Rear Inj		前側射出 Front Inj		後側射出 Rear Inj											
		mm	28	32	38	28	32	38	28	32	38	28	32	38	38	42	48	38	42	48	38	42	48	55								
	雙缸射出壓力 Injection Pressure	kg/cm ²	2665	2044	1450	2665	2044	1450	2665	2044	1450	2665	2044	1450	1755	1440	1100	1755	1440	1100	1755	1440	1100	1905	1460	1110						
	四缸射出壓力 Injection Pressure(Four)	kg/cm ²	-	-	-	-	-	-	2657	1885	-	2657	1885	2281	1872	1430	2281	1872	1430	2281	1872	1430	2476	1898	1430							
	理論射出容積 Theoretical Shot Volume	cm ³	109	142	200	109	142	200	109	142	200	109	142	200	226	276	361	226	276	361	226	276	361	276	361	474						
	射出重量 Shot Weight	g	98	127	180	98	127	180	98	127	180	98	127	180	204	248	325	204	248	325	204	248	325	248	325	426						
	雙缸射出率 Injection Rate	cm ³ /sec	69.7	91	128.3	69.7	91	128.3	69.7	91	128.3	69.7	91	128.3	169.7	207.3	270.6	169.7	207.3	270.6	169.7	207.3	270.6	237	310	407						
	四缸射出率 Injection Rate(Four)	cm ³ /sec	-	-	-	-	-	-	70.9	100	-	70.9	100	130.8	159.8	208.7	130.8	159.8	208.7	130.8	159.8	208.7	130.8	159.8	208.7	323	305					
鎖構機系統 Clamping System	螺旋桿回轉數 Screw Revolving Speed	rpm	250		250		250		250		300		300		300		300		300		323											
	開模行程 Clamping Stroke	mm	425				460				500				550				600													
	柱內間隔 Space between Tie Bar(HxV)	mm	460x 450				510x 500				560x 550				610x 600				655x 650													
	模板尺寸 Mold Platen Dimensions(HxV)	mm	660x 660				735x 735				810x 810				880x 880				960x 960													
	模厚範圍 Range of Mold Height	mm	95~445				95~495				120~540				150~640				190~710													
電系統 Electrical System	油壓油托行程 Hydraulic Ejection Stroke	mm	110				130				150				150				180													
	電器馬達(最大負載) Pump Motor	kW	11+11				11+11				16~20+16~20				16~20+16~20				16~20+25~35													
	電熱容量 Heater Capacity	kW	5.8		5.8		5.8		5.8		7.5		7.5		7.5		7.5		7.5		9.3											
機尺寸 Machine Dimension	幫浦最高使用壓力 Pump Pressure(Max.)	kg/cm ²	140				140				140				140				140													
	最大機械尺寸 Machine Dimension(LxWxH)	M	4.65x1.3x2.1				4.9x1.4x2.15				5.4x1.75x2.25				5.7x1.8x2.5				6.45x1.85x2.55													
	機械重量 Net Weight	ton	6.2				7.5				10.0				12.5				15.2													

1. 射出量以ps為準，(螺桿斷面層x射出行程) x (比重) x (射出效率)

2. 本表及圖片僅供參考，一切規格造型以實物機台為主

DC-400SE					DC-450SE					DC-600SE					DC-800SE					DC-1060SE					DC-1480SE																						
400					450					600					800					1060					1480																						
前側射出 Front Inj		後側射出 Rear Inj			前側射出 Front Inj		後側射出 Rear Inj			前側射出 Front Inj		後側射出 Rear Inj			前側射出 Front Inj		後側射出 Rear Inj			前側射出 Front Inj		後側射出 Rear Inj			前側射出 Front Inj		後側射出 Rear Inj																				
38	42	48	42	48	55	38	42	48	42	48	55	48	55	60	48	55	60	55	60	65	55	60	65	70	75	80	55	60	65	70	75	80															
1755	1440	1100	1905	1460	1110	1755	1440	1100	1905	1460	1110	1945	1481	1244	1945	1481	1244	1629	1360	1160	1629	1360	1160	1823	1588	1395	1629	1360	1160	1823	1588	1395															
2281	1872	1430	2476	1898	1430	2281	1872	1430	2476	1898	1430	2528	1925	1617	2528	1925	1617	2117	1768	1508	2117	1768	1508	2381	2064	1813	2117	1768	1508	2381	2064	1813															
226	276	361	276	361	474	226	276	361	276	361	474	425	558	664	425	558	664	617	734	861	617	734	861	1539	1767	2010	617	734	861	1539	1767	2010															
204	248	325	248	325	426	204	248	325	248	325	426	382	502	597	382	502	597	555	660	775	555	660	775	1385	1590	1809	555	660	775	1385	1590	1809															
169.7	207.3	270.6	237	310	407	169.7	207.3	270.6	237	310	407	233	305	364	233	305	364	361	430	504	361	430	504	409	470	535	361	430	504	409	470	535															
130.8	159.8	208.7	178	323	305	130.8	159.8	208.7	178	323	305	175	230	274	175	230	274	279	332	390	279	332	390	314	360	410	279	332	390	314	360	410															
300		323			300		323			242		242			252		252			252		128			252		128																				
650					700					740					1050					1250					1480																						
705x700					780x780					880x880					1005x1000					1120x1120					1350x1220																						
1035x1035					1160x1160					1300x1300					1470x1470					1630x1630					1900x1770																						
130~680					180~800					179~970					170~970					200~1100					500~1260																						
200					200					300					300					300					300																						
16~20+25~35					16~20+25~35					25~35+25~35					33~35+33~35					33~35+41~55					33~35+41~55																						
7.5	9.3	7.5	9.3		11.2	11.2	12.5	12.5		12.5	12.5	12.5	27.4		12.5	12.5	12.5	27.4		12.5	12.5	12.5	27.4		140	140	140	140	140																		
7.2x2.0x2.7					7.65x2.0x2.8					8.5x2.2x2.9					9.0x2.3x2.8					11.2x2.5x2.95					11.5x2.9x3.3																						
18					23					30					48					62					75																						

1. Injection weight is calculated by PS material.
2. Design and specification are subject to change without prior notice.

Specification

DCW-SE 系列規格表

Specification

系統別 SYSTEM	型式 Type		DCW-160SE				DCW-250SE				DCW-400SE				DCW-600SE											
	項目 Items	鎖模力 Clamping Force	160				250				400				600											
			unit	前側射出 Front Inj	後側射出 Rear Inj																					
射出機構系統 Injection System	螺旋桿直徑 Screw Diameter	unit	28	32	38	28	32	38	38	42	48	38	42	48	42	48	55	42	48	55	48	55	60	48	55	60
	mm	kg/cm ²	2665	2044	1450	2665	2044	1450	1755	1440	1100	1755	1440	1100	1905	1460	1100	1905	1460	1100	1945	1481	1244	1945	1481	1244
	雙缸射出壓力 Injection Pressure	kg/cm ²	-	2657	1885	-	2657	1885	2281	1872	1430	2281	1872	1430	2476	1898	1430	2476	1898	1430	2528	1925	1617	2528	1925	1617
	四缸射出壓力 Injection Pressure (Four)	kg/cm ²	-	2657	1885	-	2657	1885	2281	1872	1430	2281	1872	1430	2476	1898	1430	2476	1898	1430	2528	1925	1617	2528	1925	1617
	理論射出容積 Theoretical Shot Volume	cm ³	109	142	200	109	142	200	226	276	361	226	276	361	276	361	474	276	361	474	425	558	664	425	558	664
	射出重量 Shot Weight	g	98	127	180	98	127	180	204	248	325	204	248	325	248	325	426	248	325	426	382	502	597	382	502	597
	雙缸射出率 Injection Rate	cm ³ /sec	69.7	91	128.3	69.7	91	128.3	169.7	207.3	270.6	169.7	207.3	270.6	237	310	407	237	310	407	233	305	364	233	305	364
	四缸射出率 Injection Rate (Four)	cm ³ /sec	-	70.9	100	-	70.9	100	130.8	159.8	208.7	130.8	159.8	208.7	178	232	305	178	232	305	175	230	274	175	230	274
鎖構系統 Clamping System	螺旋桿回轉數 Screw Revolving Speed	rpm	250	250	300	300	300	300	323	323	323	323	323	323	323	323	323	323	323	323	242	242	242	242	242	242
	開模行程 Clamping Stroke	mm	425				500				650				740											
	柱內間隔 Space between Tie Bar(HxV)	mm	660x360				860x460				1000x600				1260x800											
	模板尺寸 Mold Platen Dimensions(HxV)	mm	860x560				1120x720				1335x935				1680x1220											
	模厚範圍 Range of Mold Height	mm	70~420				95~515				105~655				205~950											
電氣系統 Electrical System	油壓油托行程 Hydraulic Ejection Stroke	mm	130				150				200				300											
	電氣馬達(幫浦) Pump Motor	kW	11+11				16~20+16~20				25~35+25~35				25~35+25~35											
	電熱容量 Heater Capacity	kW	5.8	5.8	7.5	7.5	9.3	9.3	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	
機械尺寸 Machine Dimension	幫浦最高使用壓力 Pump Pressure(Max.)	kg/cm ²	140				140				140				140				140				8.5x2.5x2.65			
	最大機械尺寸 Machine Dimension(LxWxH)	M	4.7x1.55x2.0				5.4x1.85x2.2				7.0x2.3x2.25				7.0x2.3x2.25				35							
機械重量 Net Weight															6.6				10.7				19			

- DCW-SE為寬模壁省能源伺服泵系列
- 射出量以ps為準，(螺桿斷面層x射出行程) x (比重) x (射出效率)
- 本表及圖片僅供參考，一切規格造型以實物機台為主

- DCW-SE Series are wide platen energy- saving type.
- Injection weight is calculated by PS material.
- Design and specification are subject to change without prior notice.

標準裝置

- 轉盤裝置
- 油壓頂出裝置
- 中子裝置
- 自動調模裝置
- 漏電保護裝置
- 空氣頂出裝置
- 水路分佈器
- 自動潤滑裝置
- 防震腳

備品 / 附屬品

- 工具箱 1 只
- 六角扳手 1組
- 14mm 六角扳手 1 把
- 23X26 梅花扳手 1 把

選購配備

- 轉軸裝置
- 閉迴路射出裝置
- 蓄壓器加閉迴路射出裝置
- 料斗乾燥機
- 自動吸料機
- 雙合金料管組
- 資料鎖
- 伺服轉盤系統 (DCW-400 以下)

STANDARD EQUIPMENT

- ROTATION PLATEN DEVICE
- HYDRAULIC EJECTOR DEVICE
- CORE PULL CONTROL
- AUTO MOLD-THICKNESS ADJUSTMENT
- ELECTRIC SAFETY DEVICE
- AIR EJECTOR DEVICE
- WATER DISTRIBUTOR
- AUTO LUBRICATION DEVICE
- LEVEL PADS

SPARE AND ATTACHED PARTS

- TOOLS BOX 1 PC
- "L" SHAPE WRENCH 1 SET
- 14mm "L" SHAPE WRENCH 1 PC
- 23X26 DOUBLE ENDED WRENCH 1 PC

OPTIONAL EQUIPMENT

- ROTATION AXLE DEVICE
- CLOSED LOOP INJECTION SYSTEM
- ACCUMULATOR WITH CLOSED LOOP INJECTION SYSTEM
- HOPPER DRYER
- AUTO LOADER
- BIMETALLIC BARREL
- DATA LOCK FUNCTION
- SERVO MOLD TURNING UNIT

多色機系列

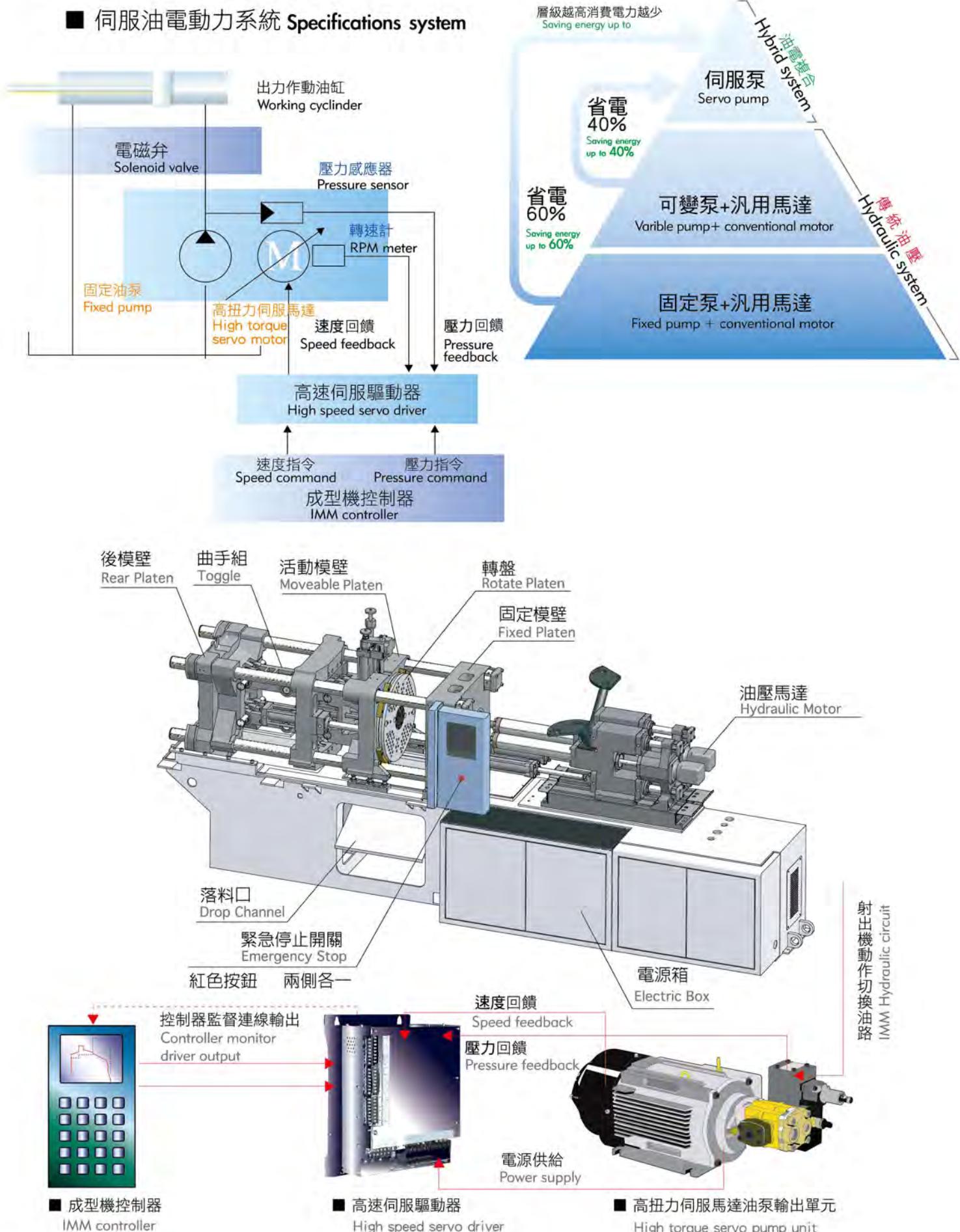
Multi Color Injection Molding Machine



DC(W)-SE 同服油壓系統架構

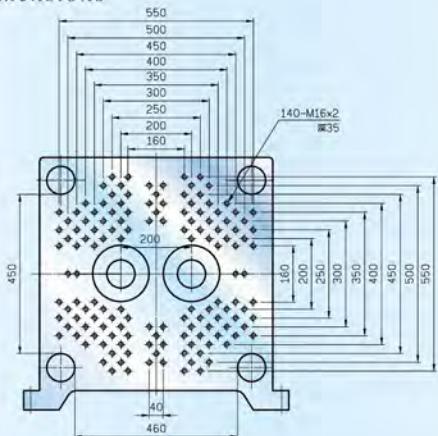
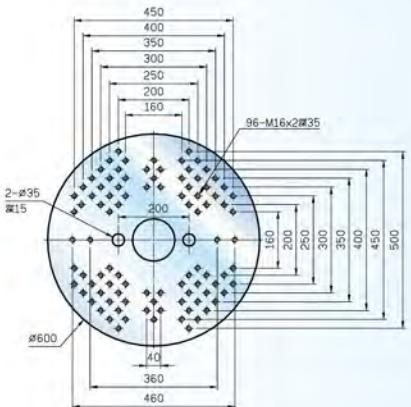
DC(W)-SE System Structure

■ 同服油電動力系統 Specifications system

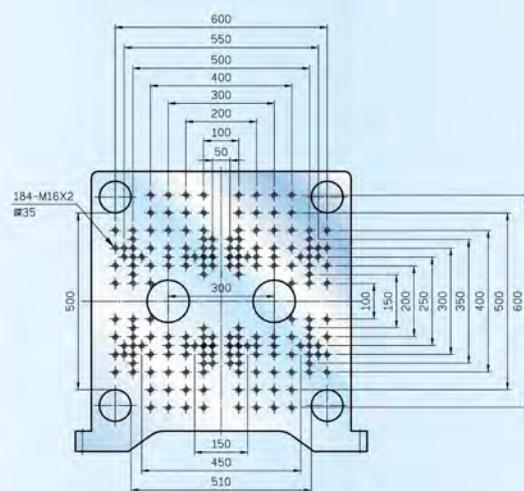
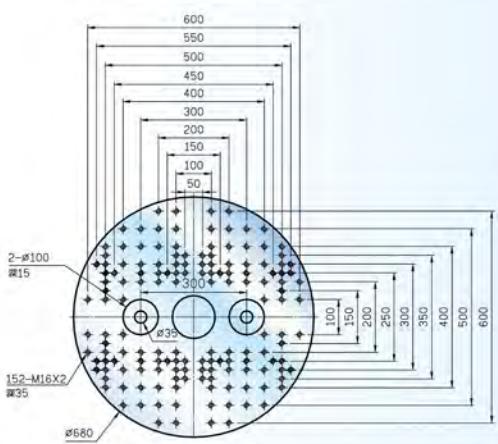
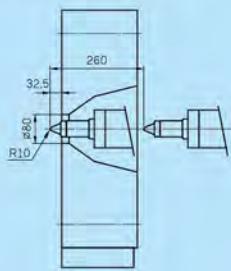


模具固定螺孔位置

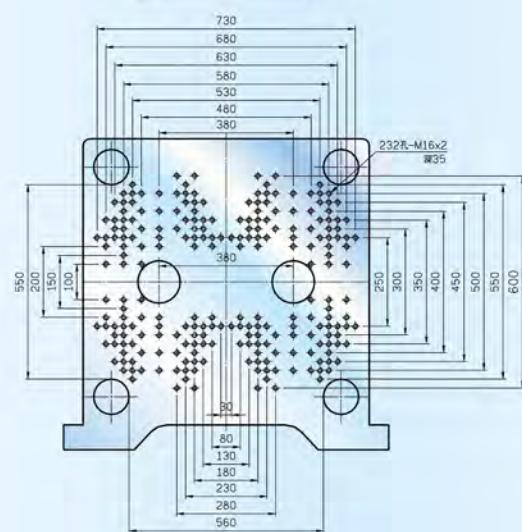
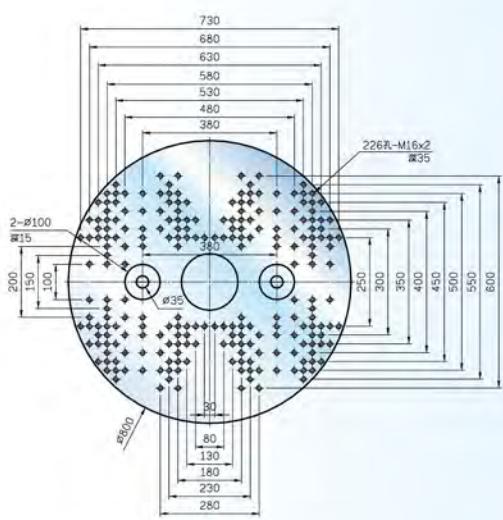
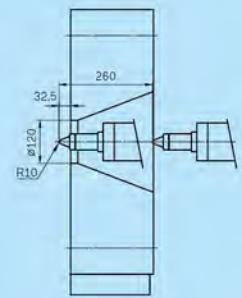
Mold Platen Dimensions



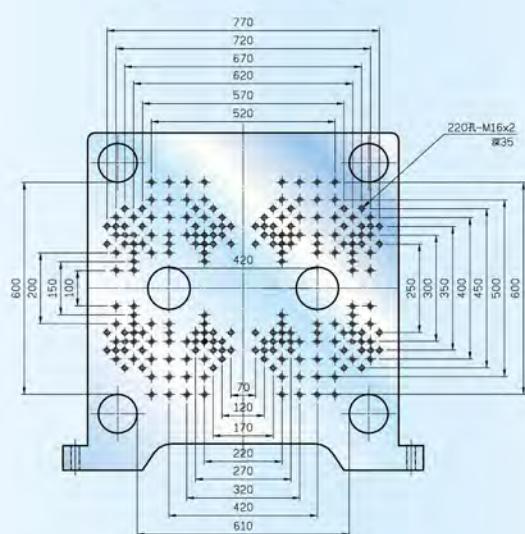
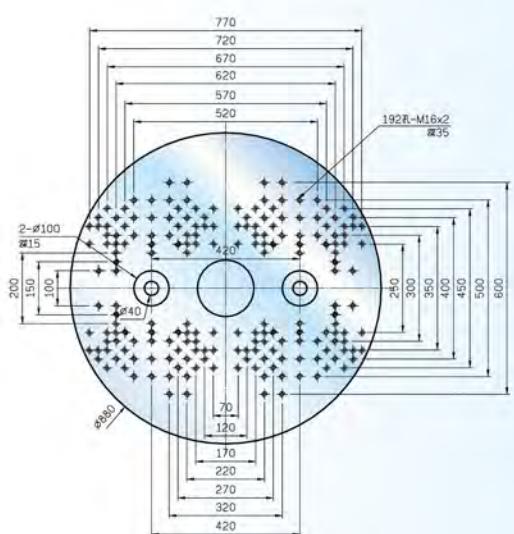
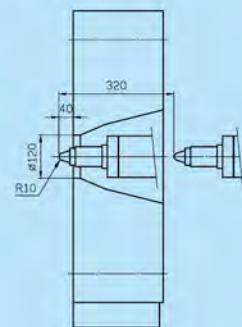
DC-160SE



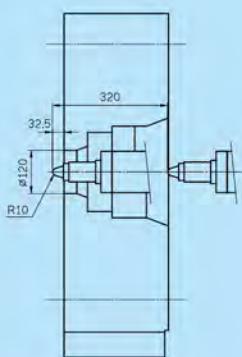
DC-210SE



DC-250SE



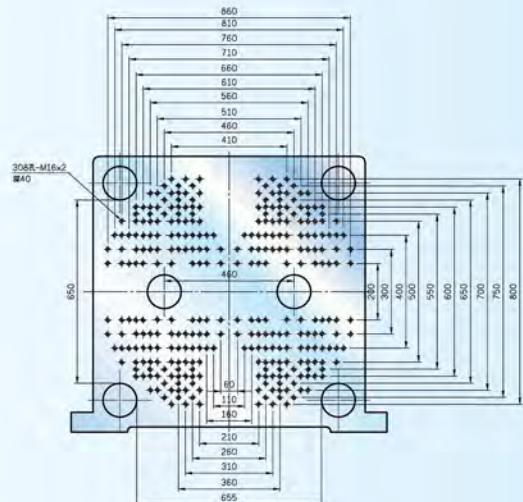
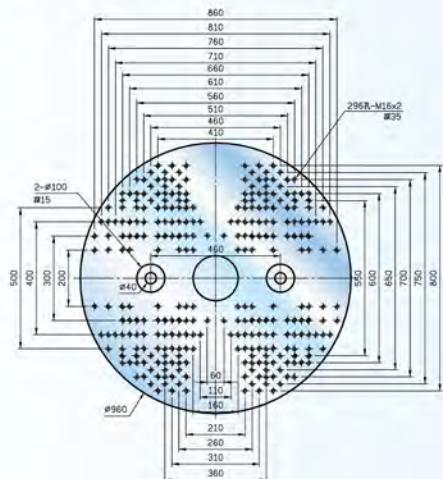
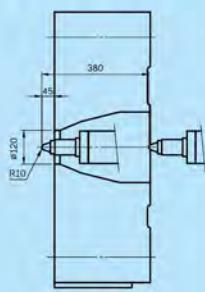
DC-300SE



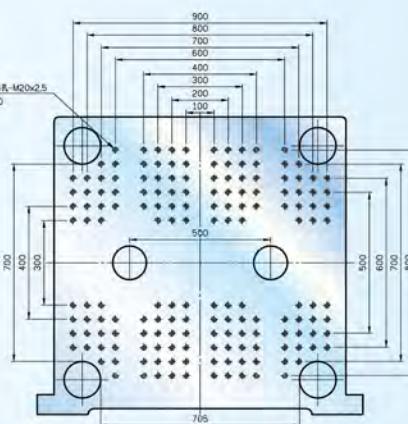
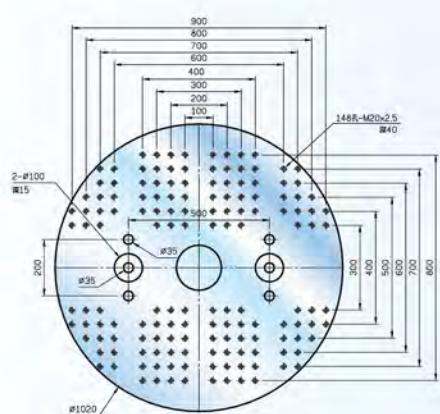
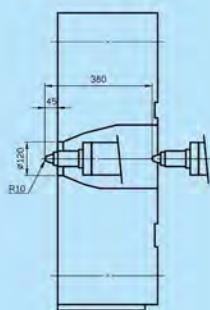
模具固定螺孔位置

Mold Platen Dimensions

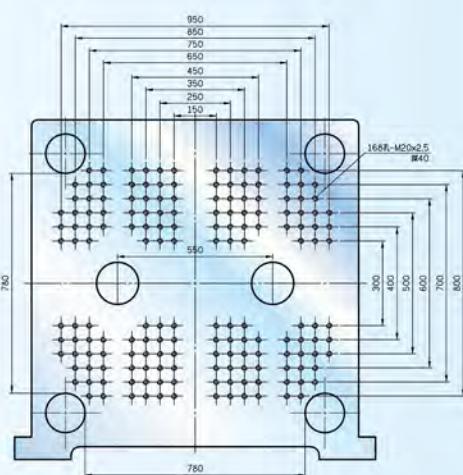
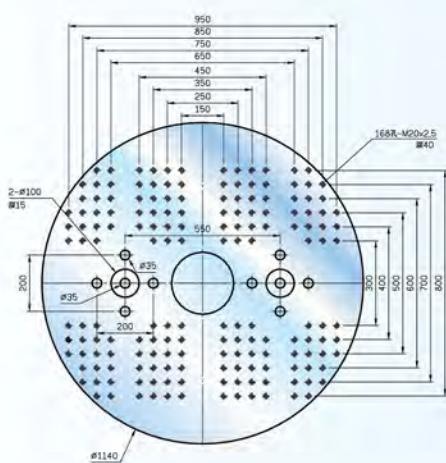
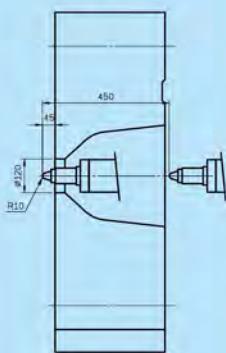
DC-350SE



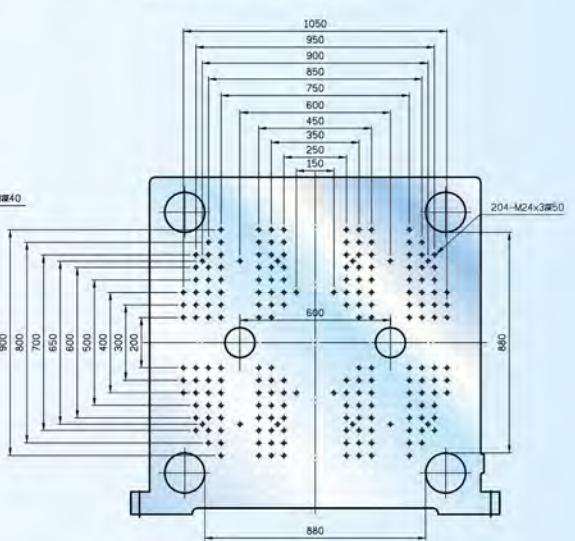
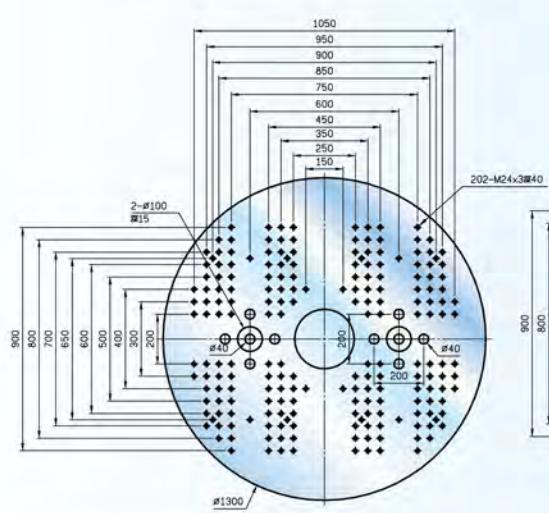
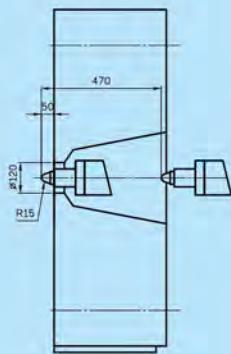
DC-400SE



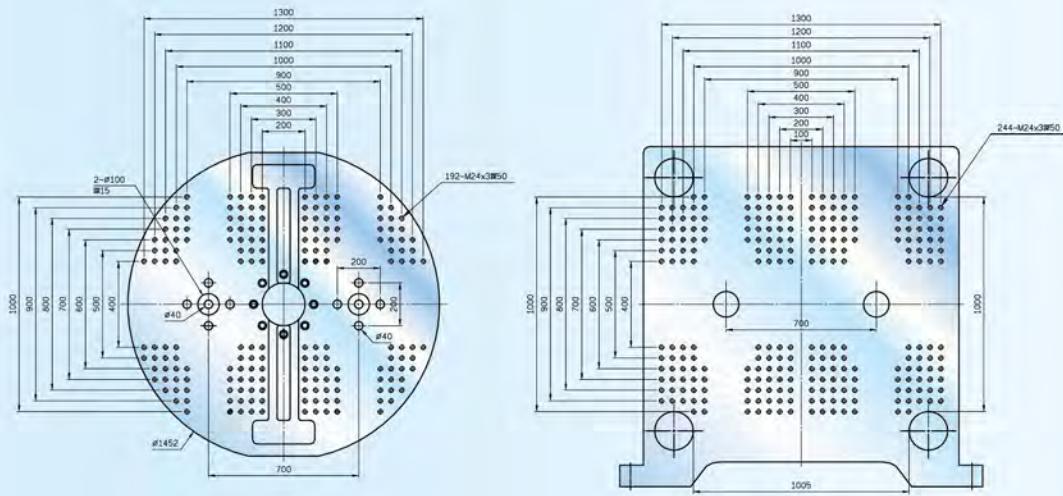
DC-450SE



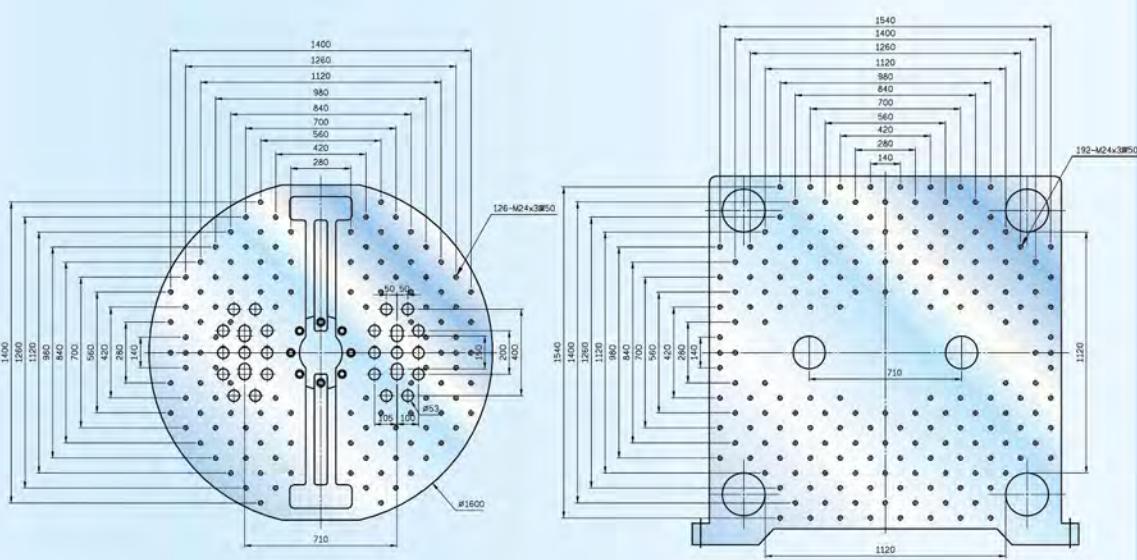
DC-600SE



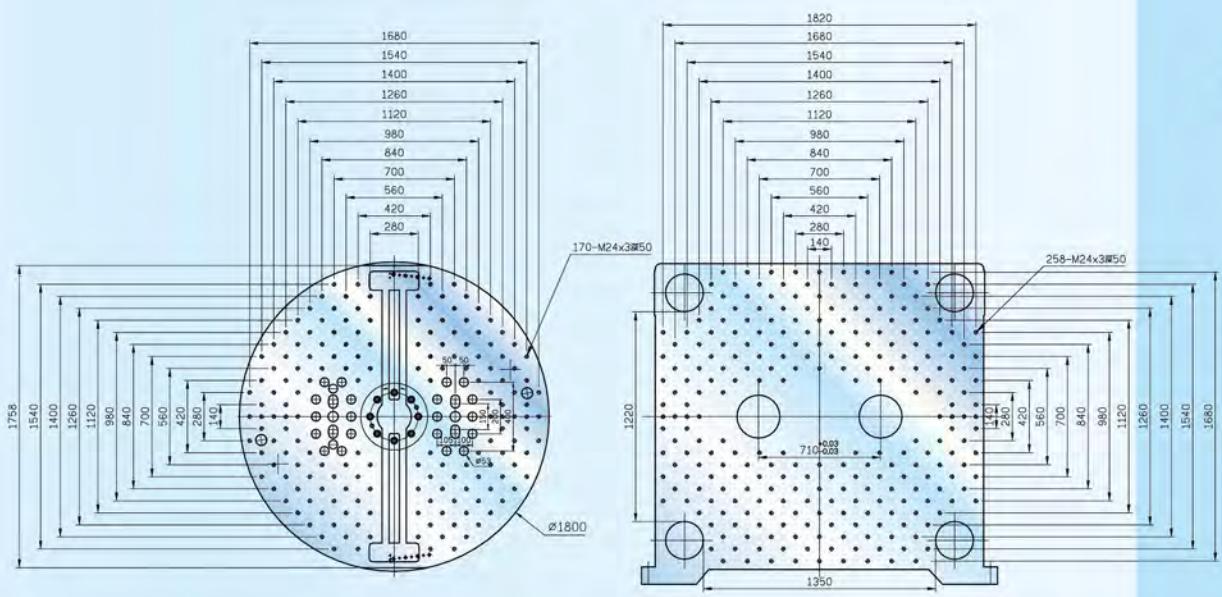
DC-800SE

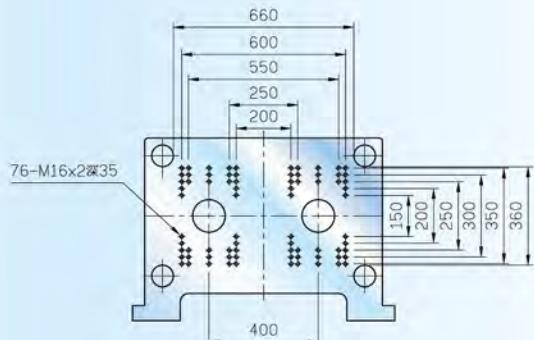
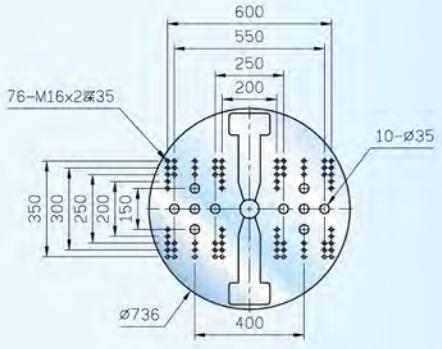


DC-1060SE

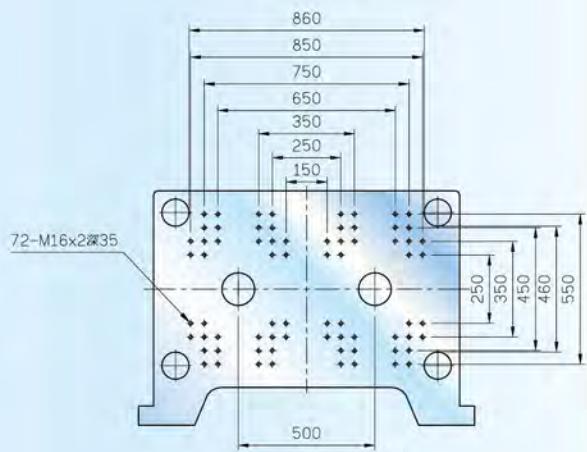
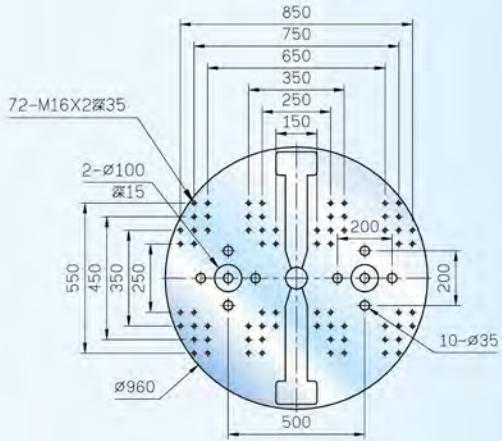
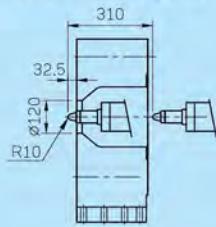


DC-1480SE

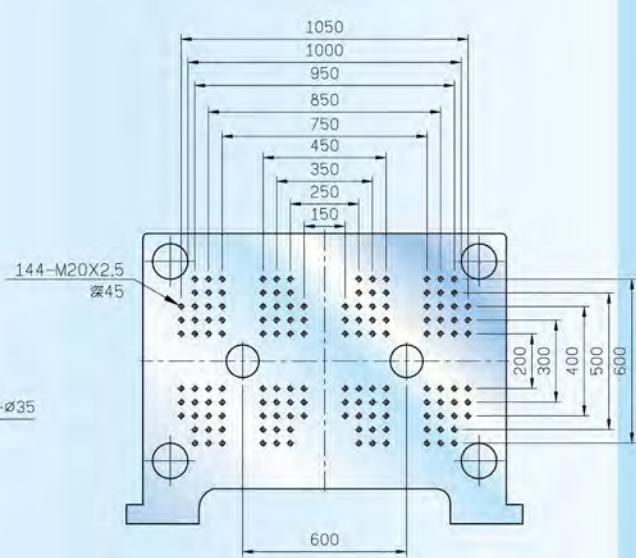
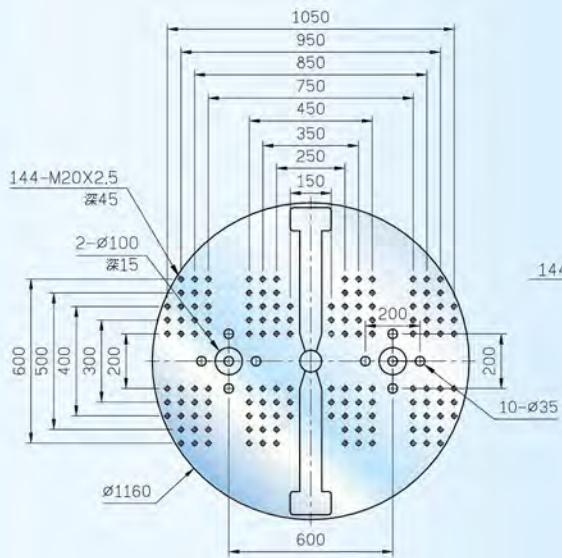
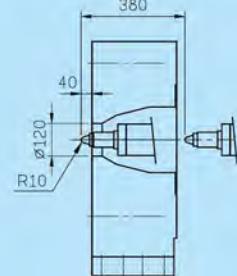




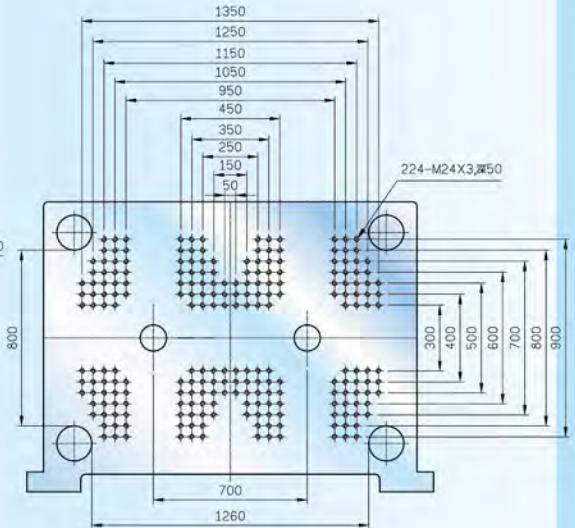
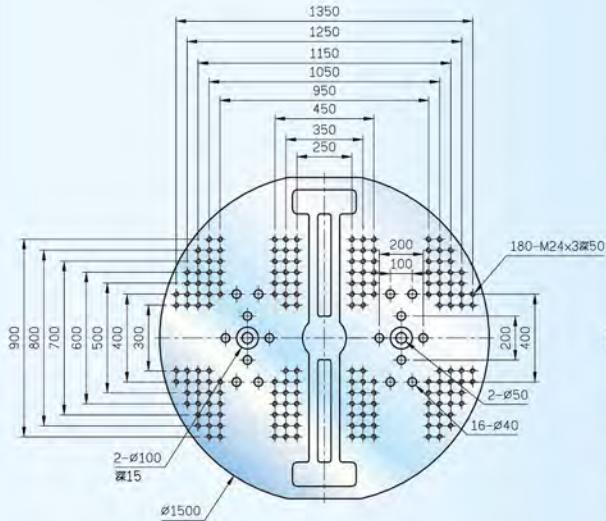
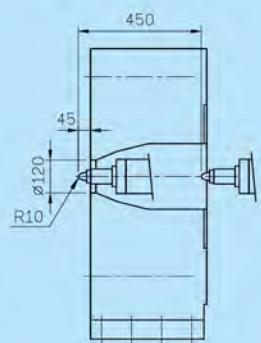
DCW-160SE



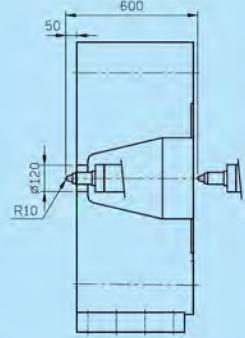
DCW-250SE



DCW-400SE

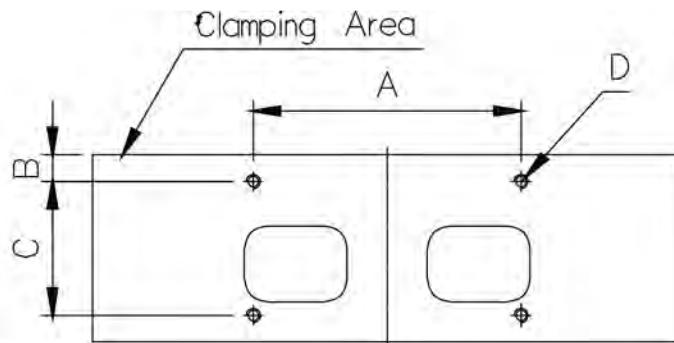


DCW-600SE

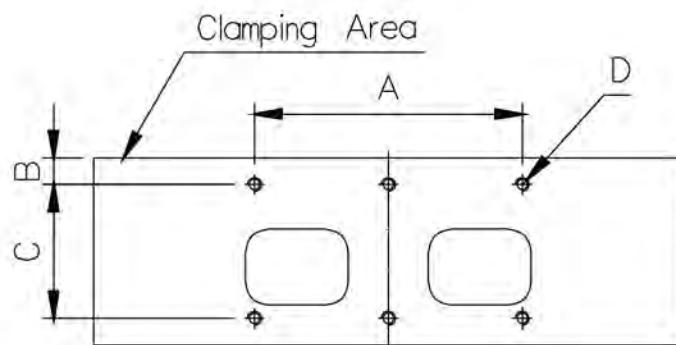


機械手固定孔位置

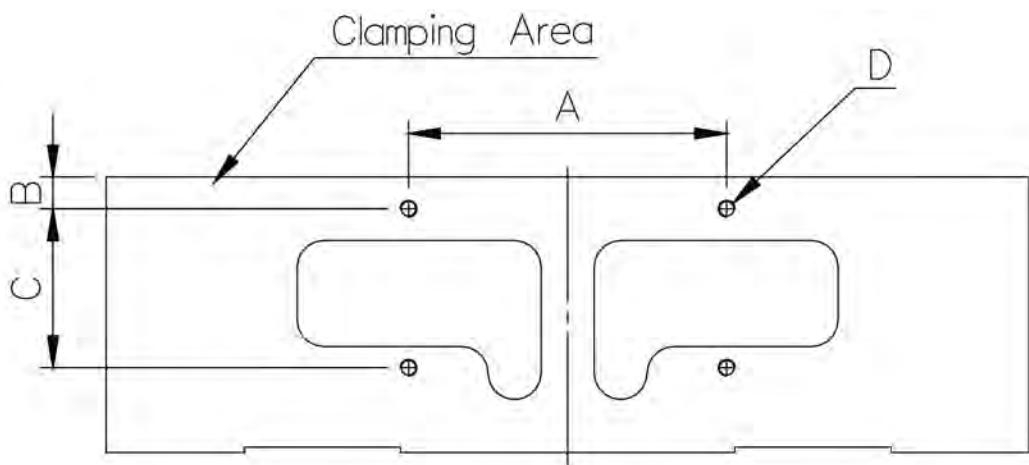
Hole Pattern For Robot



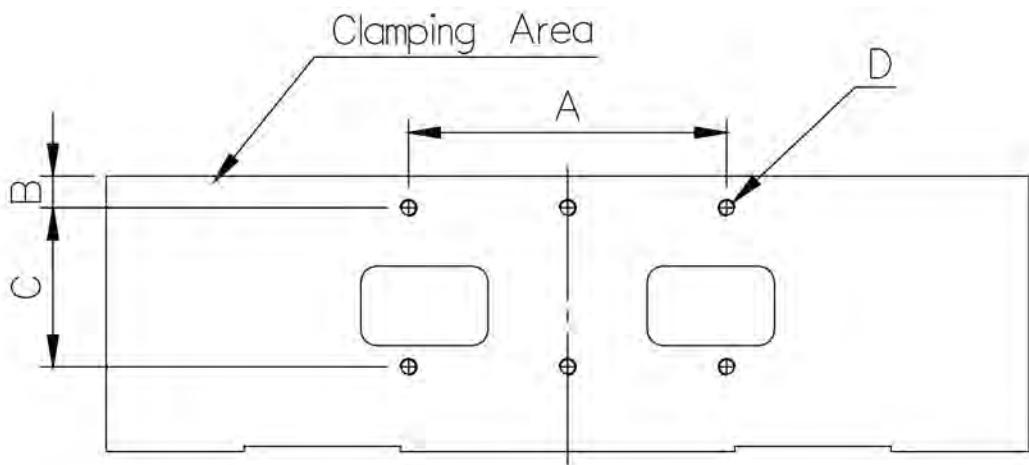
Model \ Item	A	B	C	D
DC-160	300	30	150	4XM16 D35
DC-210	300	30	170	4XM16 D35
DC-250	350	30	190	4XM16 D35
DC-300	350	40	210	4XM20 D40
DC-350	350	40	240	4XM20 D40
DC-400	400	40	240	4XM20 D40
DC-450	400	50	300	4XM24 D50



Model \ Item	A	B	C	D
DC-600	500	50	330	6XM24 D50
DC-800	550	50	380	6XM24 D50
DC-1080	600	50	430	6XM24 D50
DC-1480	1080	50	450	6XM24 D50



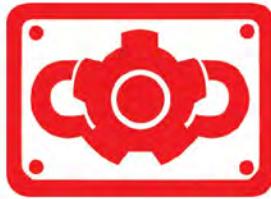
Model \ Item	A	B	C	D
DCW-160	300	30	150	4XM16 D35
DCW-250	350	30	190	4XM16 D35
DCW-400	400	40	240	4XM20 D40



Model \ Item	A	B	C	D
DCW-600	500	50	330	6XM24 D50

行銷與技術服務

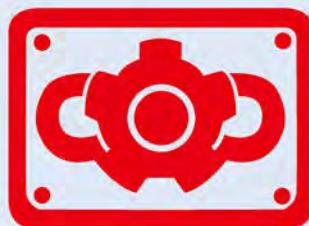
Sales And Service



秉持行銷與服務合一的理念，本公司的行銷及服務網遍及全球，不僅樺欽的行銷人員具有卓越的專業知識，且在世界各地的經銷商，也都在本公司受過專業的技術訓練，能為當地客戶即時解決各種射出成型問題。

本公司服務人員不定期接受專業講習和在職訓練，隨時提昇技術水準。

服務人員均具備機構、油壓、電控和射出成型技術方面的專業素養，可為客戶提供迅速完善的機器維護工作，使每一部樺欽製造的機械，都能即時成為客戶賺錢的利器。



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