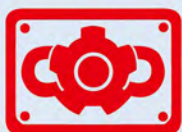


DC-SE DCW-SE 系列

(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

CE
TÜV Rheinland
Approved

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 ambiance.
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.

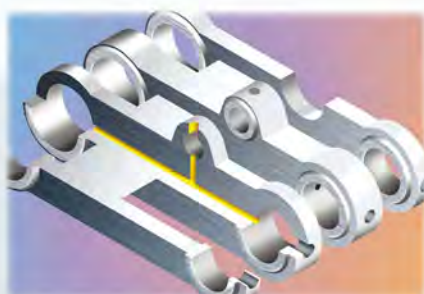
更豐富的彩色生活創意- 樺欽雙色機系列

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

- 1.免外接管 無配管老化、斷裂之問題。
- 2.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

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



獨立、便利、準確之頂出裝置

- 1.採前中後，三支頂出油缸配合三支電阻尺。
- 2.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

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

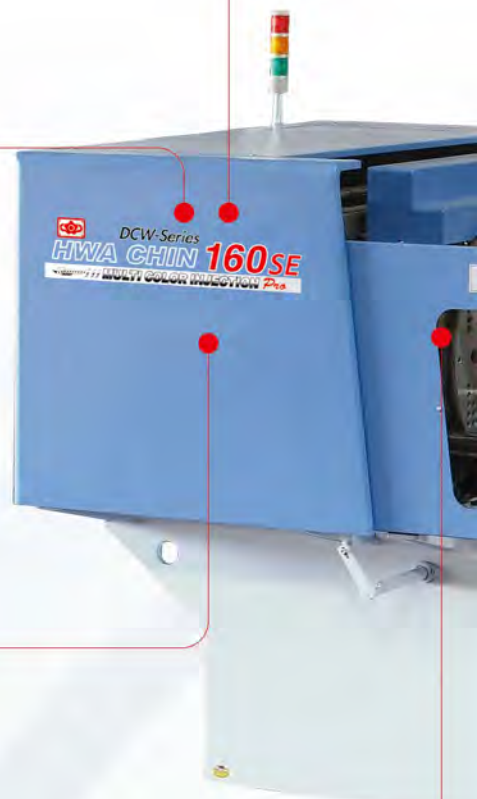


模具轉動接合系統

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

MOLD TURNING SYSTEM

- 1.Turning system has either rotational plate or rotational axle which can be suited with various dual color mold.
- 2.Precise mechanism for fixed position is suited with high-precision products.
- 3.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. 防塵的觸摸式按鈕。
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														
		mm	28	32	38	28	32	38	28	32	38	28	32	38	38	42	48	38	42	48	38	42	48	38	42	48	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	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	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	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	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	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	130.8	159.8	208.7	178	323	305
螺旋桿回轉數 Screw Revolving Speed	rpm	250			250			250			250			300			300			300			300			323						
鎖模機 構系統 Clamping System	開模行程 Clamping Stroke	mm	425			460			500			550			600																	
	柱內間隔 Space between Tie Bar(HxV)	mm	460x450			510x500			560x550			610x600			655x650																	
	模板尺寸 Mold Platen Dimensions(HxV)	mm	660x660			735x735			810x810			880x880			960x960																	
	模厚範圍 Range of Mold Height	mm	95~445			95~495			120~540			150~640			190~710																	
	油壓油托行程 Hydraulic Ejection Stroke	mm	110			130			150			150			180																	
電氣系統 Electrical System	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																
	幫浦最高使用壓力 Pump Pressure(Max.)	kg/cm ²	140			140			140			140			140																	
機尺寸 Machine Dimension	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								
38	42	48	42	48	55	38	42	48	42	48	55	48	55	60	48	55	60	55	60	65	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	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	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	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	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	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	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					
705x 700						780x 780						880x 880						1005x 1000						1120x 1120						1350x 1220					
1035x 1035						1160x 1160						1300x 1300						1470x 1470						1630x 1630						1900x 1770					
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			27.4			12.5			27.4		
140						140						140						140						140						140					
7.2x 2.0x 2.7						7.65x 2.0x 2.8						8.5x 2.2x 2.9						9.0x 2.3x 2.8						11.2x 2.5x 2.95						11.5x 2.9x 3.3					
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.

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														
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														
		mm	28	32	38	28	32	38	38	42	48	38	42	48	42	48	55	42	48	55	48	55	60	48	55	60
	雙缸射出壓力 Injection Pressure	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
	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
	螺旋桿回轉數 Screw Revolving Speed	rpm	250			250			300			300			323			323			242			242		
鎖模系統 Clamping System	開模行程 Clamping Stroke	mm	425						500						650						740					
	柱內間隔 Space between Tie Bar(HxV)	mm	660 x 360						860 x 460						1000 x 600						1260 x 800					
	模板尺寸 Mold Platen Dimensions(HxV)	mm	860 x 560						1120 x 720						1335 x 935						1680 x 1220					
	模厚範圍 Range of Mold Height	mm	70~420						95~515						105~655						205~950					
	油壓油托行程 Hydraulic Ejection Stroke	mm	130						150						200						300					
電氣系統 Electrical System	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		
	幫浦最高使用壓力 Pump Pressure(Max.)	kg/cm ²	140						140						140						140					
機尺 Machine Dimension	最大機械尺寸 Machine Dimension(LxWxH)	M	4.7 x 1.55 x 2.0						5.4 x 1.85 x 2.2						7.0 x 2.3 x 2.25						8.5 x 2.5 x 2.65					
	機械重量 Net Weight	ton	6.6						10.7						19						35					

1. DCW-SE為寬模壁省能源伺服泵系列
2. 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)
3. 本表及圖片僅供參考，一切規格造型以實物機台為主

1. DCW-SE Series are wide platen energy- saving type.
2. Injection weight is calculated by PS material.
3. 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

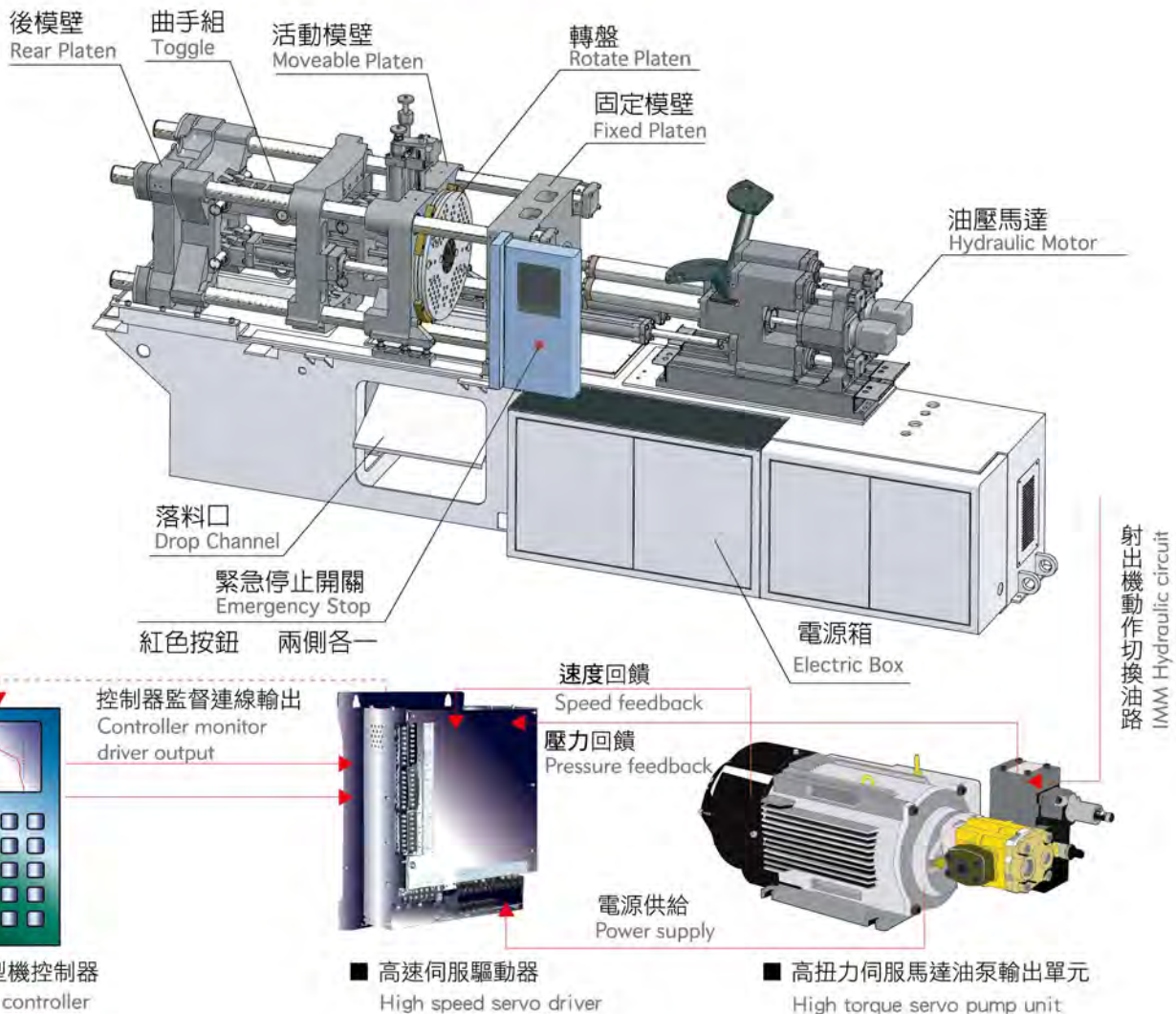
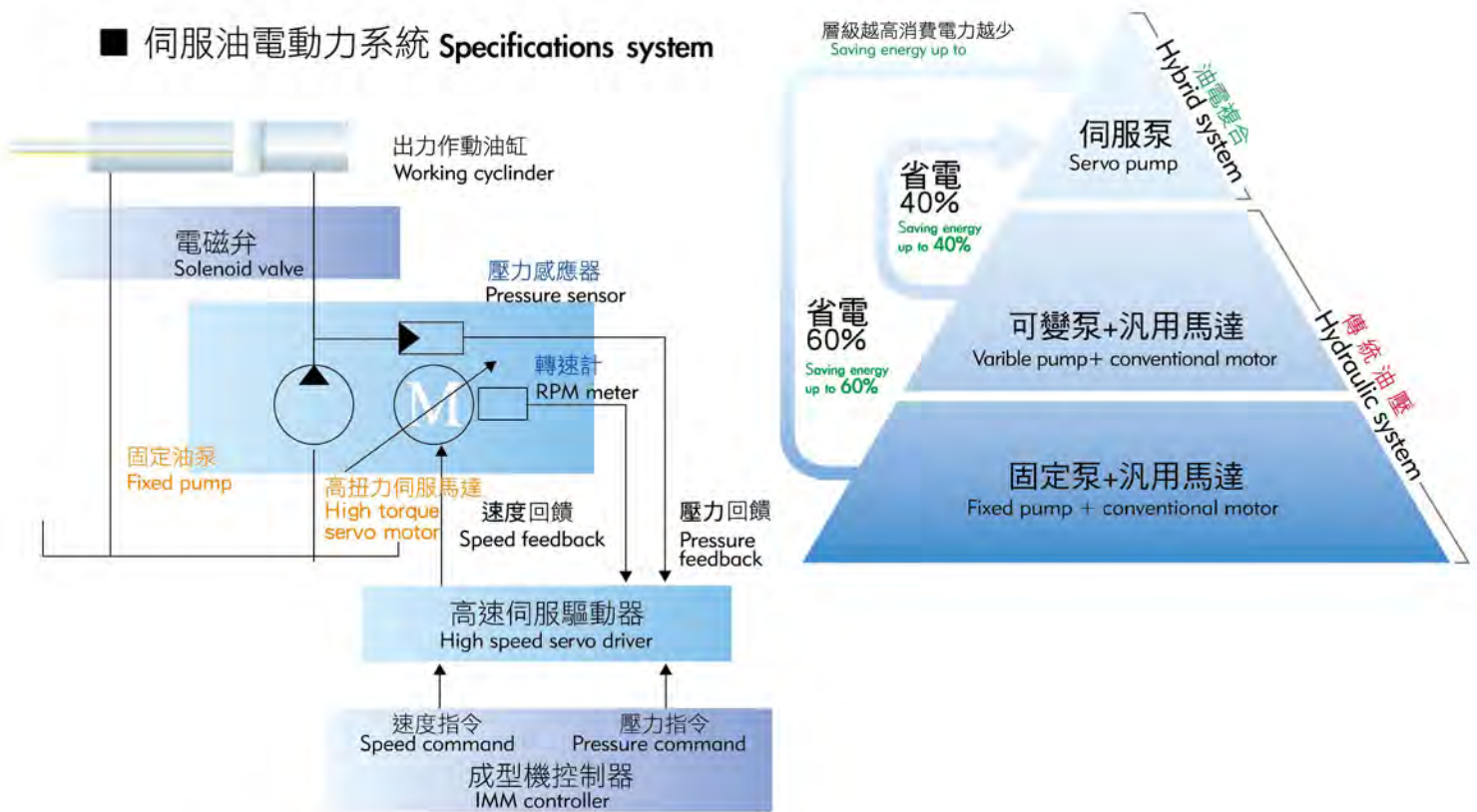
Multi Color Injection Molding Machine



DC(W)-SE 伺服油壓系統架構

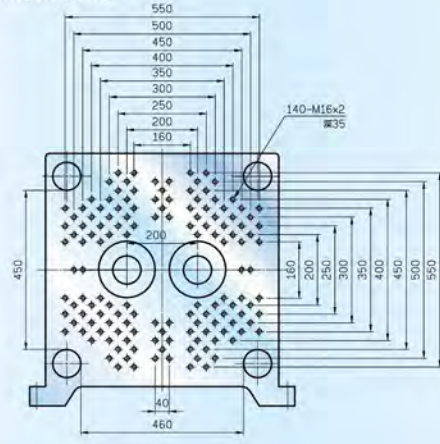
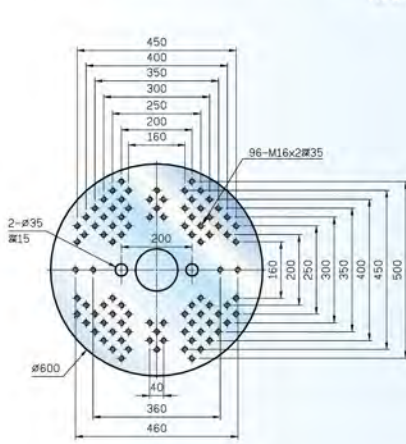
DC(W)-SE System Structure

■ 伺服油電動力系統 Specifications system

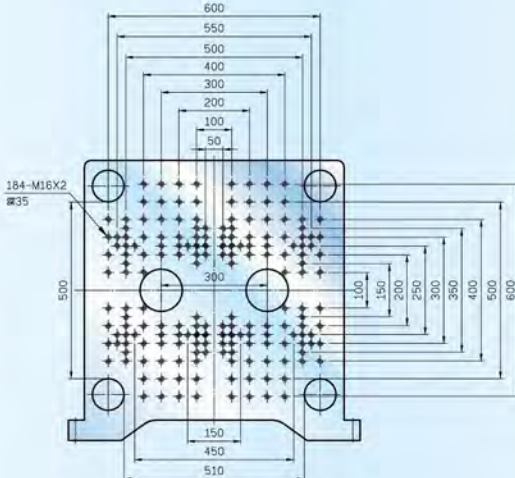
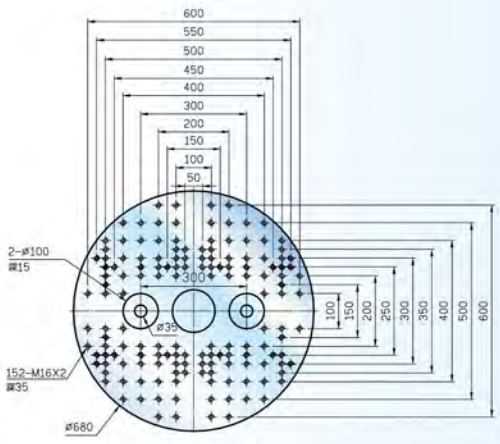
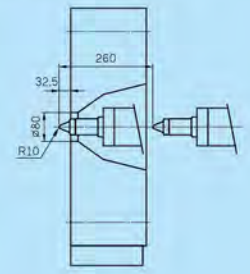


模具固定螺孔位置

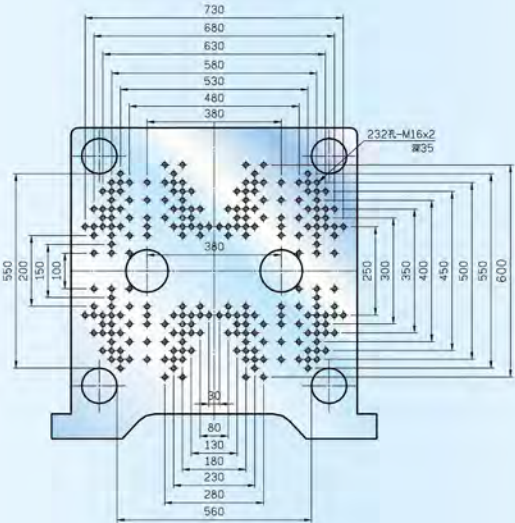
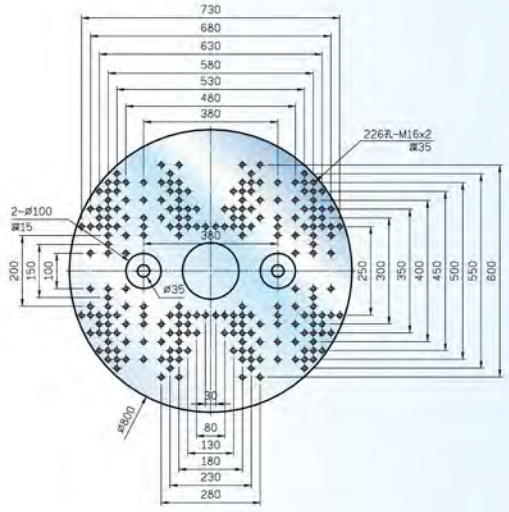
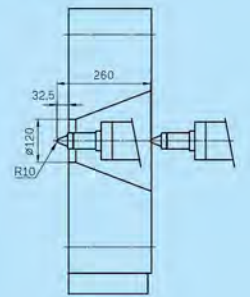
Mold Platen Dimensions



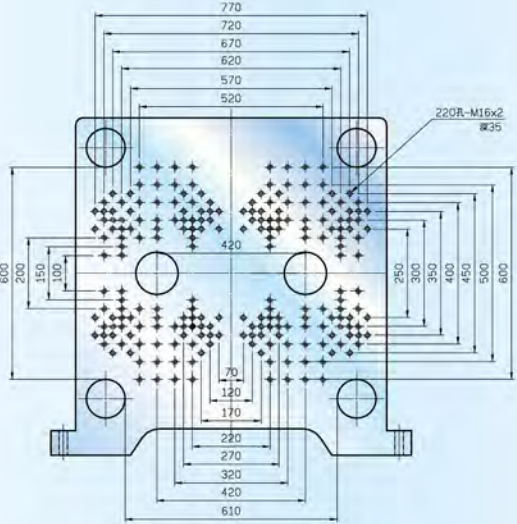
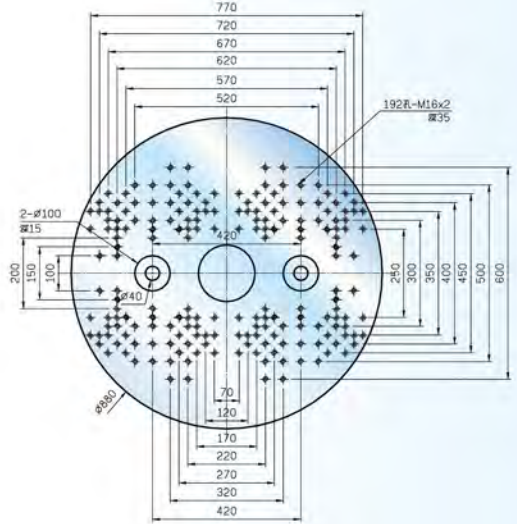
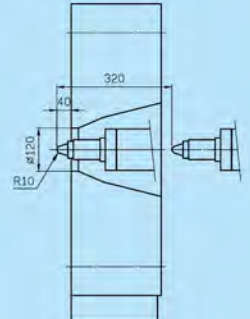
DC-160SE



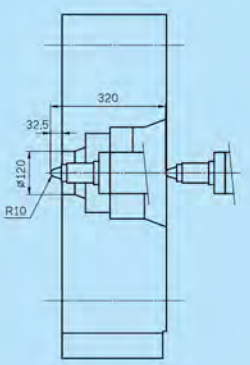
DC-210SE



DC-250SE



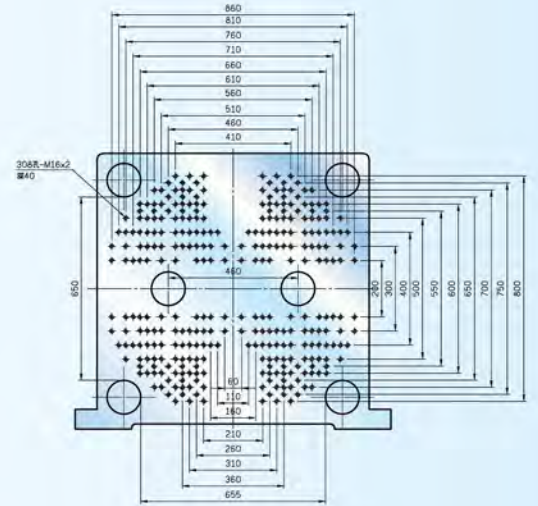
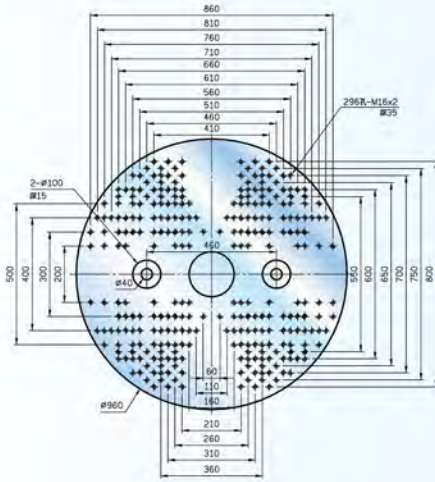
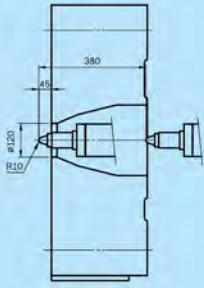
DC-300SE



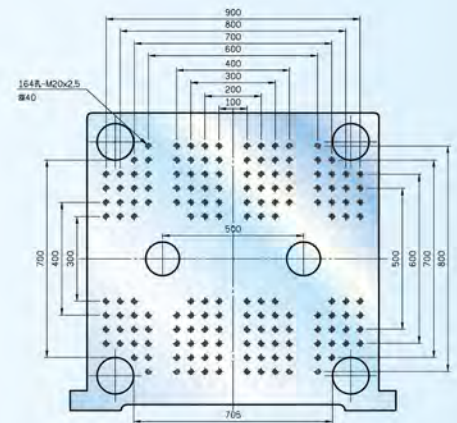
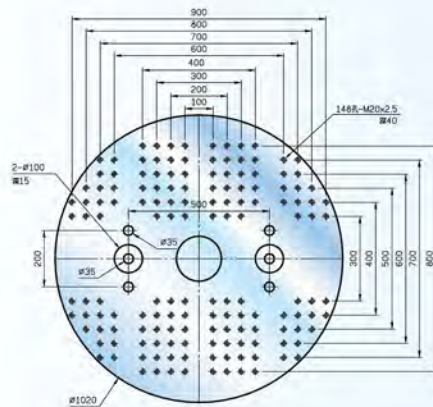
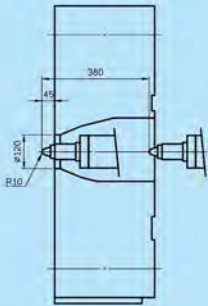
模具固定螺孔位置

Mold Platen Dimensions

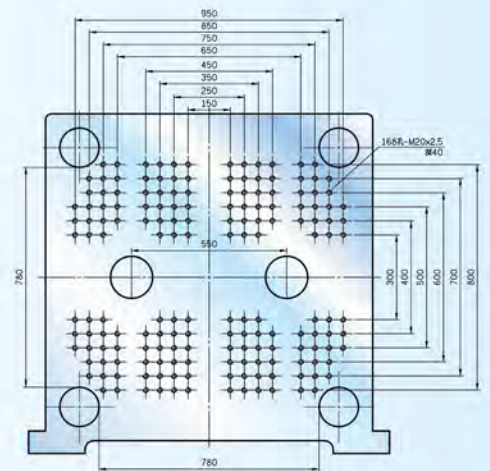
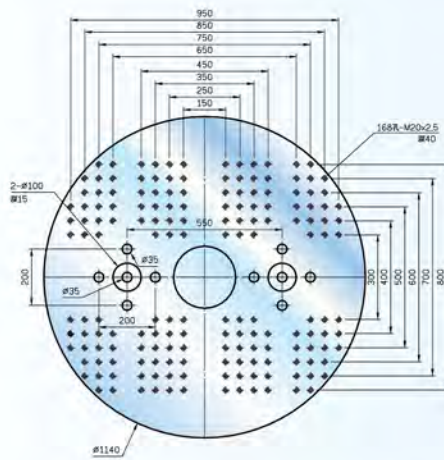
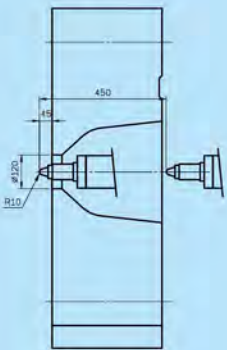
DC-350SE



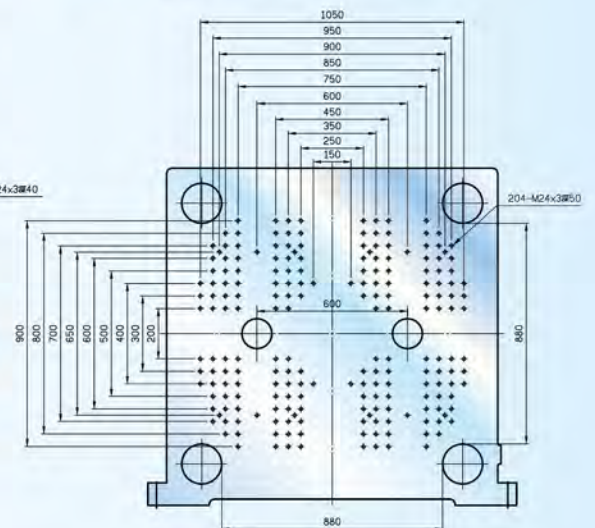
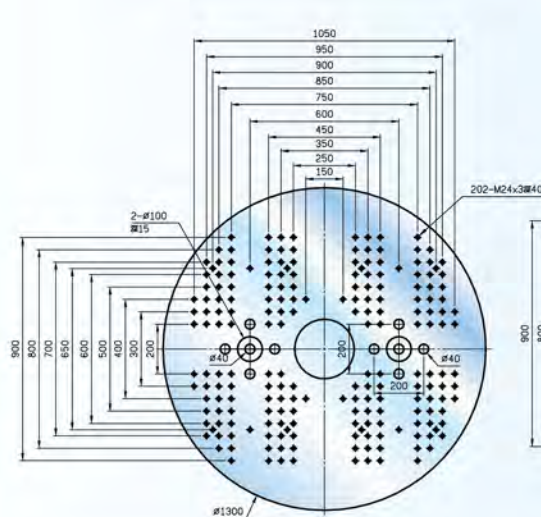
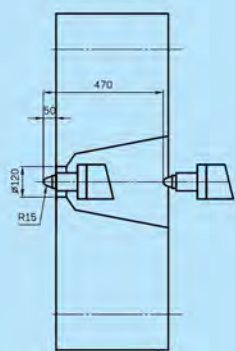
DC-400SE

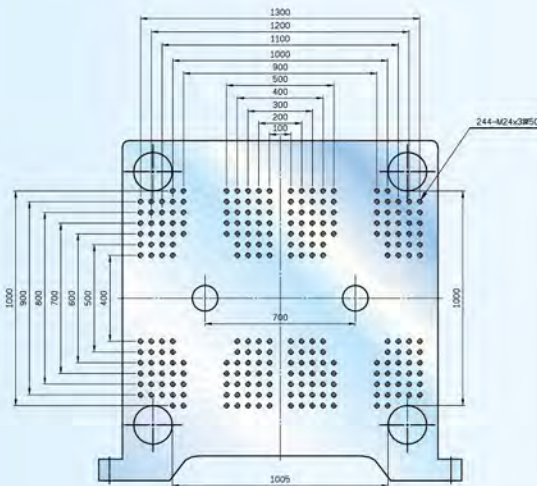
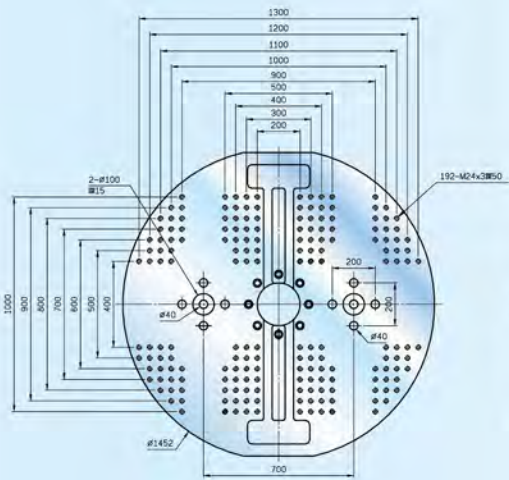


DC-450SE

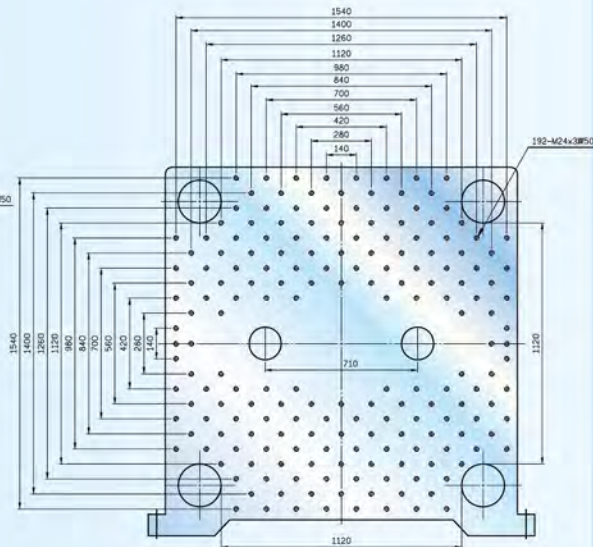
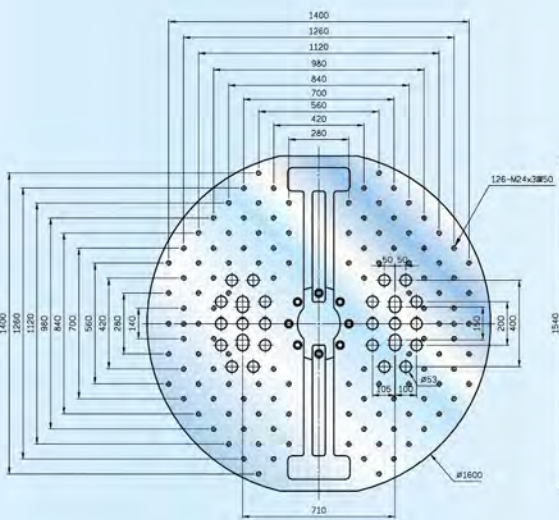
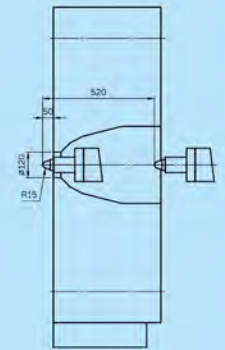


DC-600SE

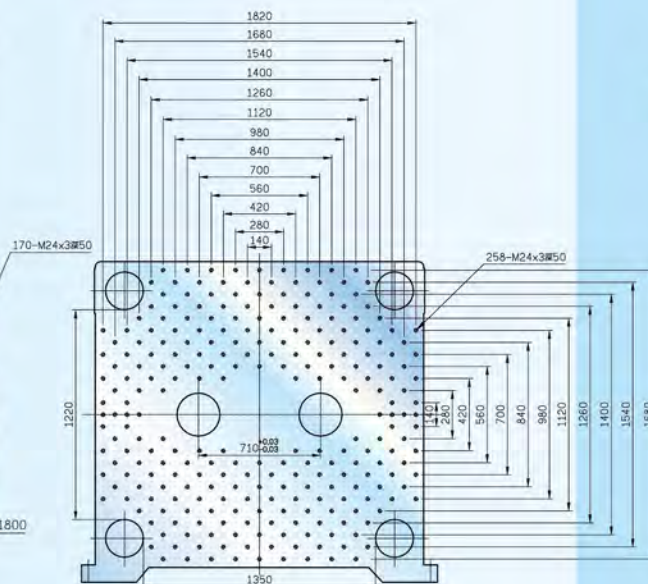
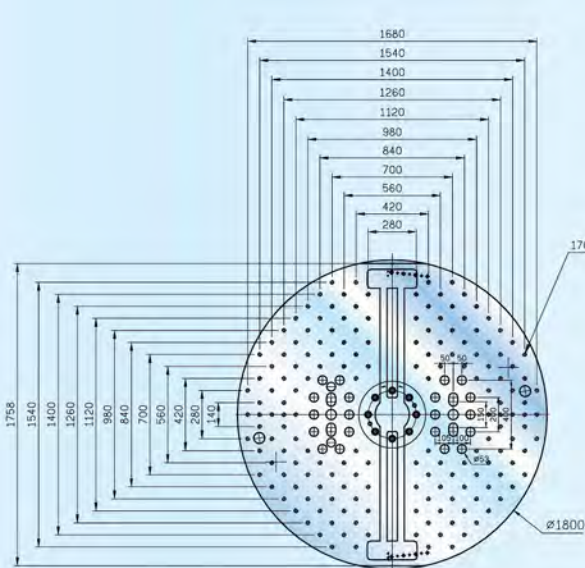
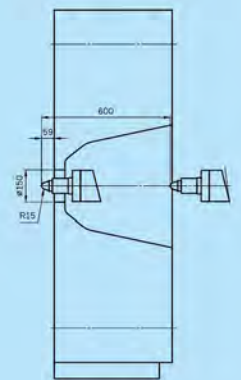




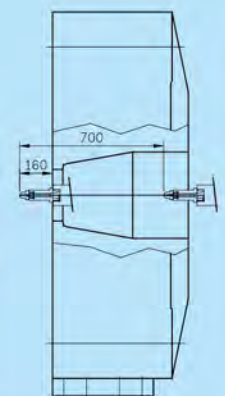
DC-800SE

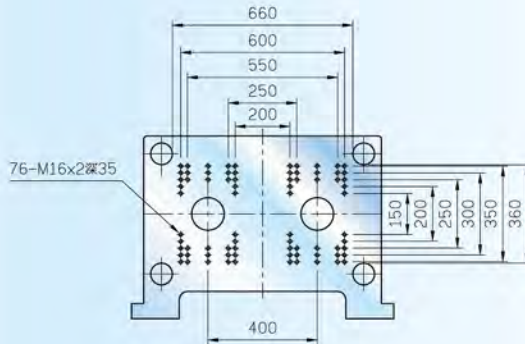
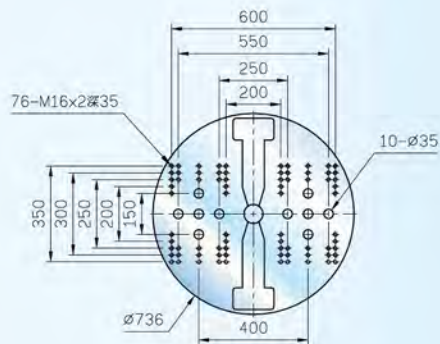


DC-1060SE

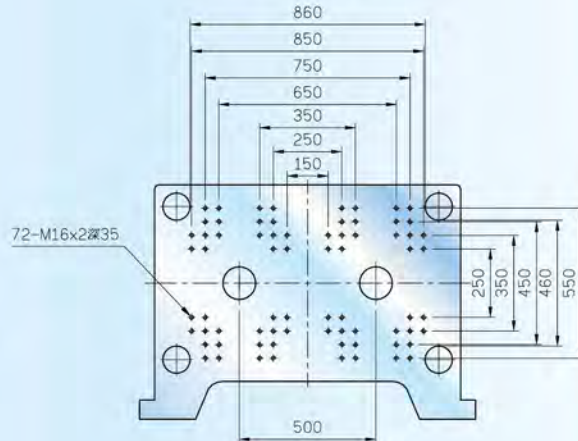
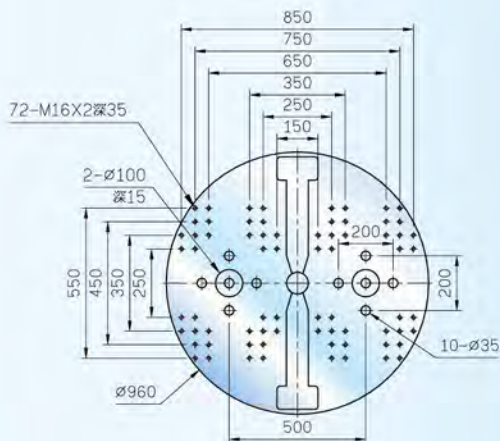
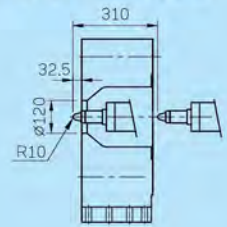


DC-1480SE

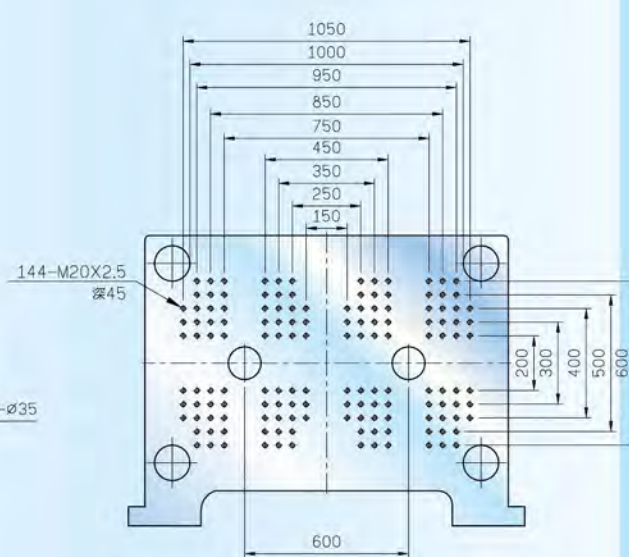
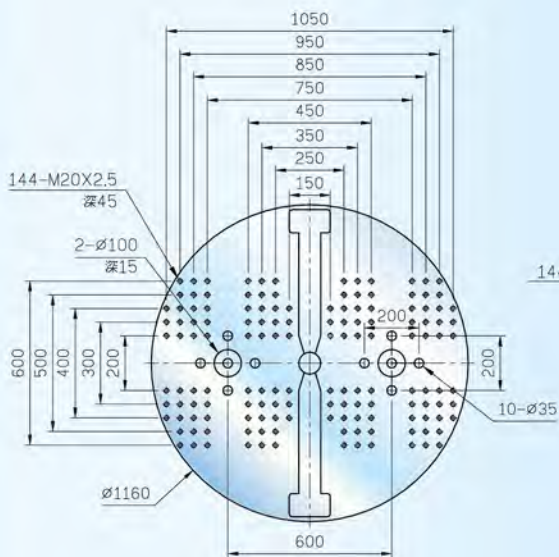
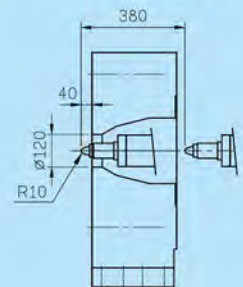




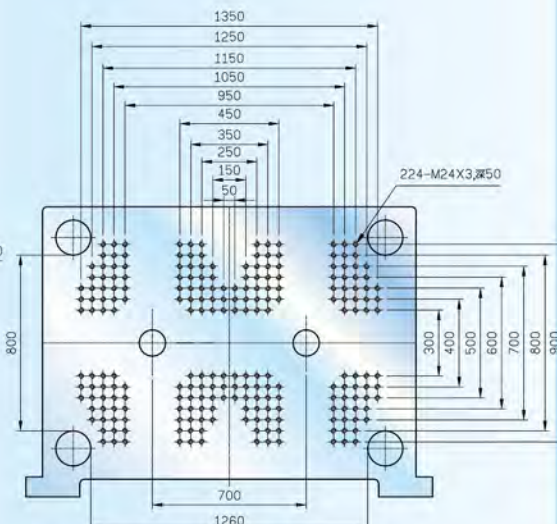
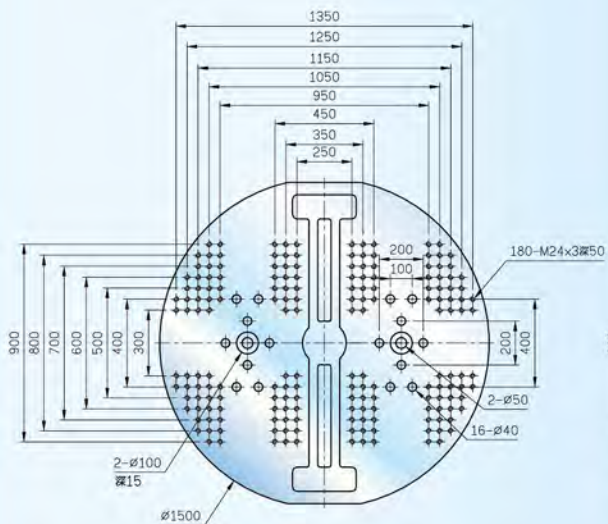
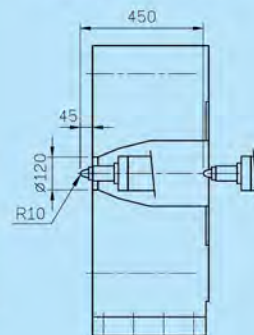
DCW-160SE



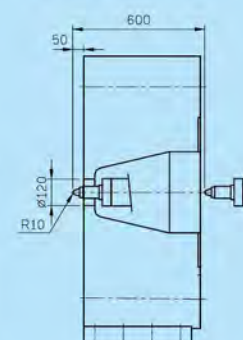
DCW-250SE



DCW-400SE

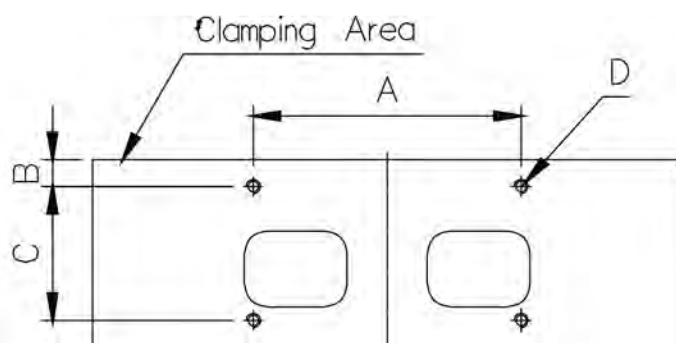


DCW-600SE

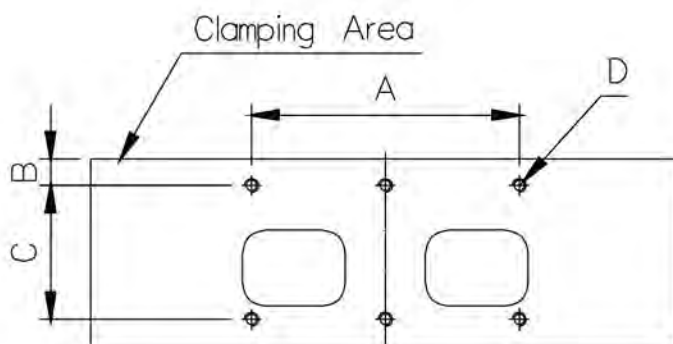


機械手固定孔位置

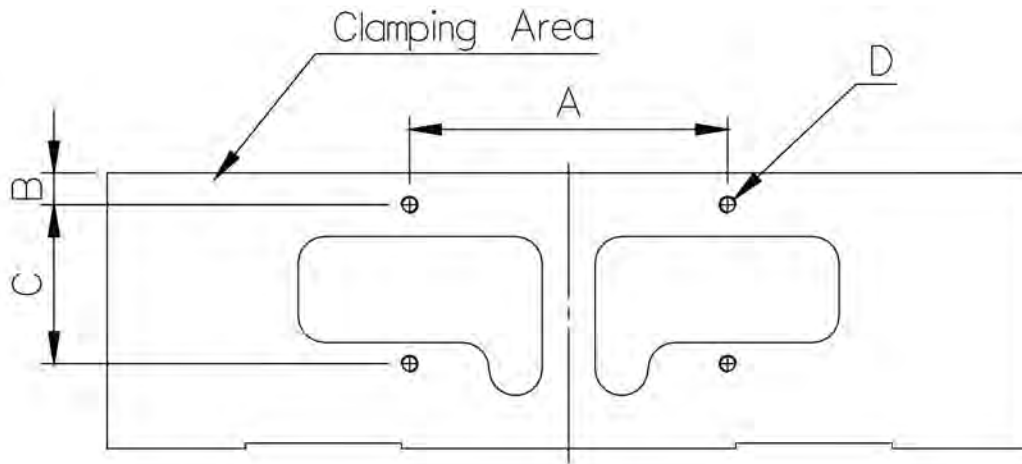
Hole Pattern For Robot



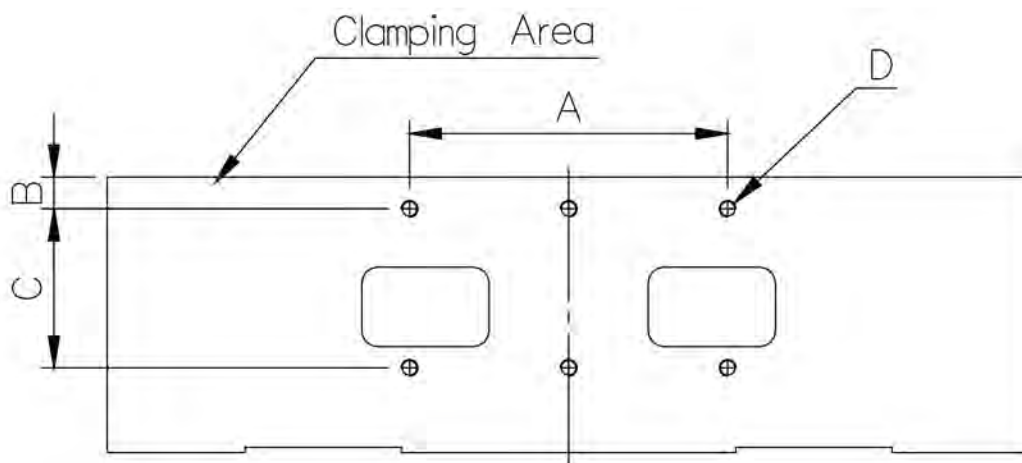
Model	Item	A	B	C	D
DC-160		300	30	150	4XM16 D35
DC-210		300	30	170	4XM16 D35
DC-250		350	30	190	4XM16 D35
DC-300		350	40	210	4XM20 D40
DC-350		350	40	240	4XM20 D40
DC-400		400	40	240	4XM20 D40
DC-450		400	50	300	4XM24 D50



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

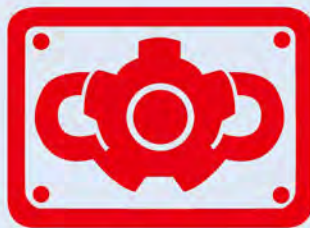
Sales And Service



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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