

快速換模/台車系統 QUICK MOLD CHANGE SYSTEM

壓鑄機

DIE CASTING MACHINE

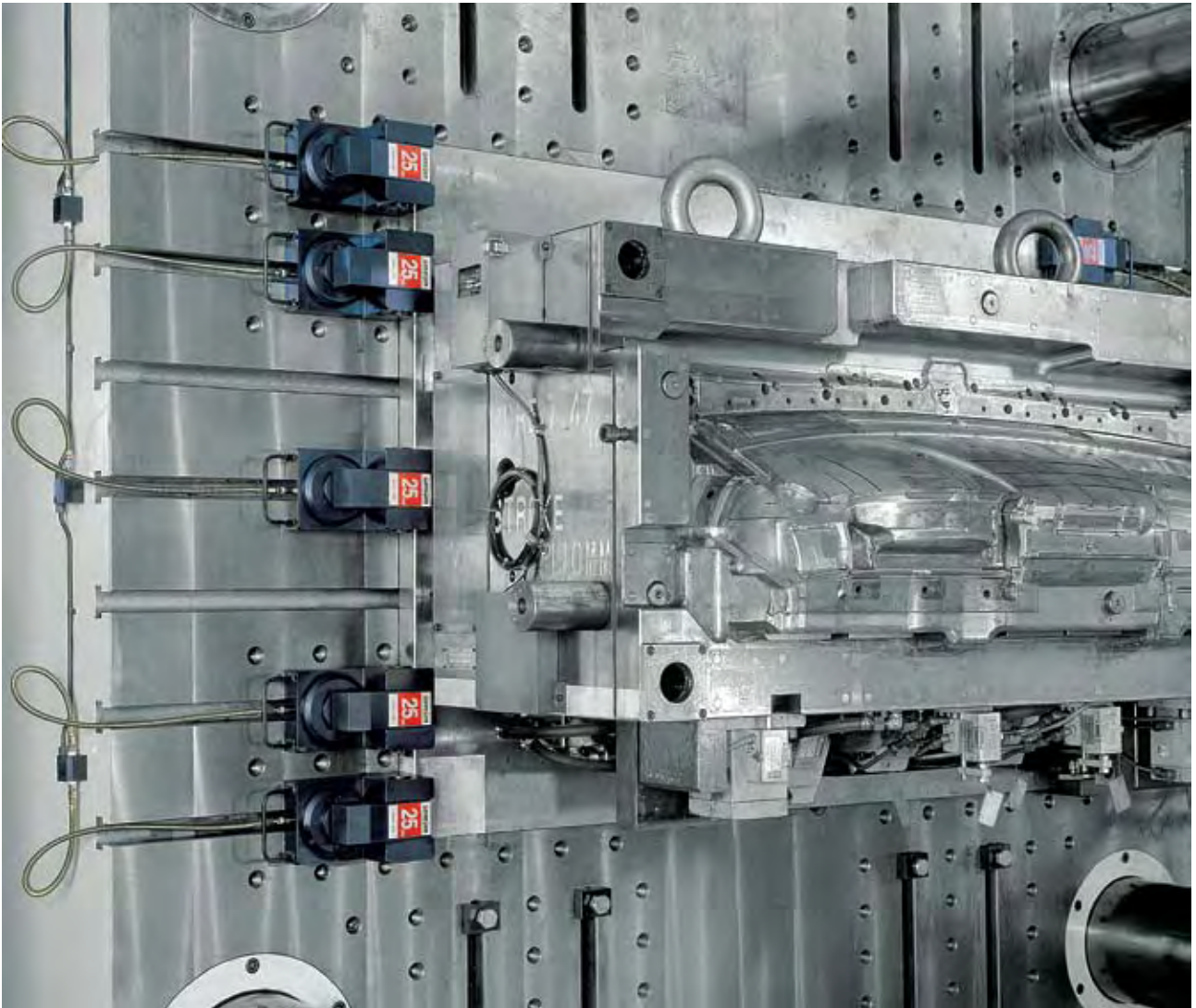
射出成型機

INJECTION MOLDING MACHINE



QUICK MOLD CHANGE SYSTEM

It is an era for making high frequency mold change with multiple patterns and small quantity. In order to save time for the mold change and ensure the safety of the operation, it is just in time to apply Quick Mold Change System.



Safety function of system

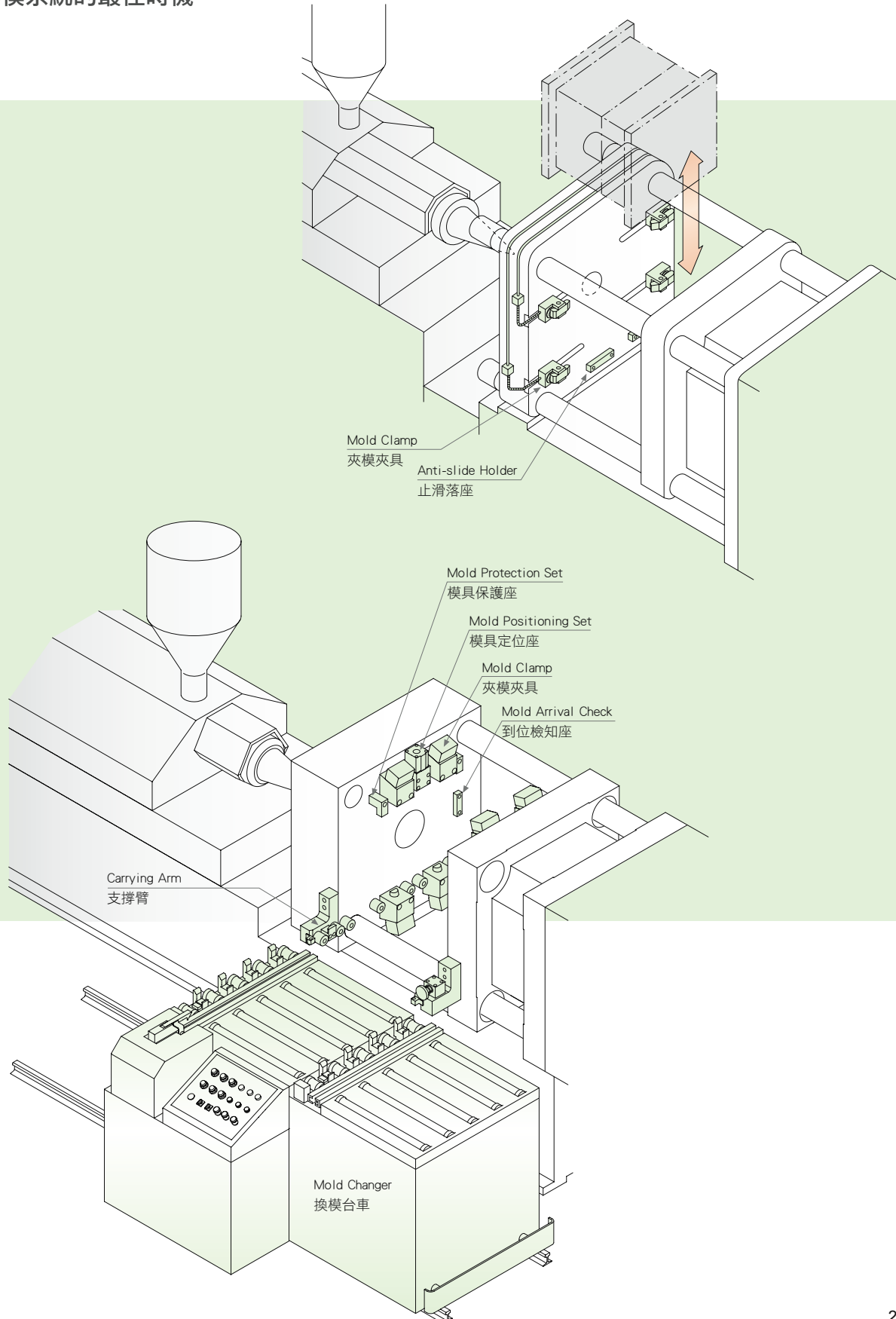
- Each hydraulic circuit has the function of check and avoiding oil leaking.
- This system can add pressure automatically when the pressure reduction.
- Each hydraulic circuit has the function of inspection pressure and can be interlocked with the machine.
- It adopts the intersecting direction to clamp the mold.
- There are several functions to avoid operation error.

系統安全功能

- 各油壓迴路具有逆止防漏功能。
- 此系統具壓降時自動補壓功能。
- 各油壓迴路具低於安全壓力檢知功能，並與機台連線。
- 夾模採對角交叉方向鎖模控制。
- 操控具多項防呆功能。

快速換模 / 台車系統

迎接少量多樣高頻率換模生產型態的時代，爭取換模時效、確保操作安全—正是導入快速換模系統的最佳時機。

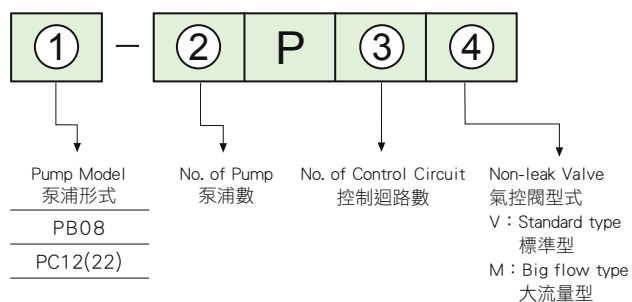


AIR DRIVEN HYDRAULIC PUMP UNIT 氣動油壓泵浦單元

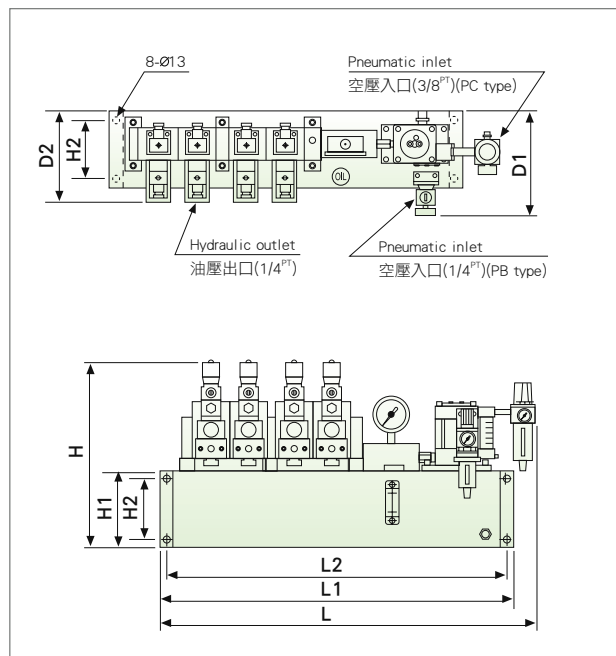


- Use the air driven hydraulic pump. Once the outlet hydraulic pressure reaches the setting pressure, it will stop driving which won't waste any energy. Or, it will add the pressure automatically if the outlet pressure is reducing. It consists of the function to keep the pressure continuously.
- 利用空氣壓力驅動泵浦，出口油壓達設定壓力即停止作動不需繼續消耗能源，出口壓力下降則自動補壓，具持續保持該壓力功能。

Model Selection 型式選定



Outline Dimensions 外型尺寸

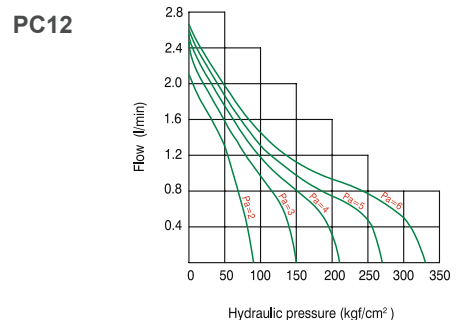
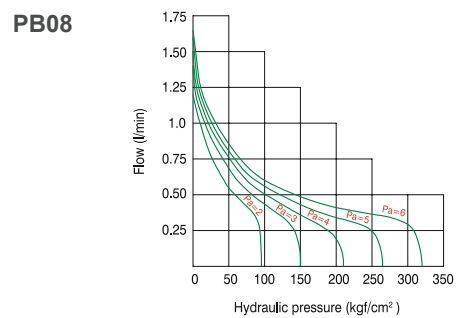


Unit : mm

MODEL 型式	L	L1	L2	H	H1	H2	D1	D2	V
PB08-1P4V	-	588	563	367	150	80	235	-	10ℓ
PC12-1P4V	650	588	563	367	150	80	-	175	10ℓ
PC12-1P4V	650	588	563	417	200	80	-	225	17ℓ
PC1222-2P4M	990	868	843	417	200	80	-	225	27ℓ

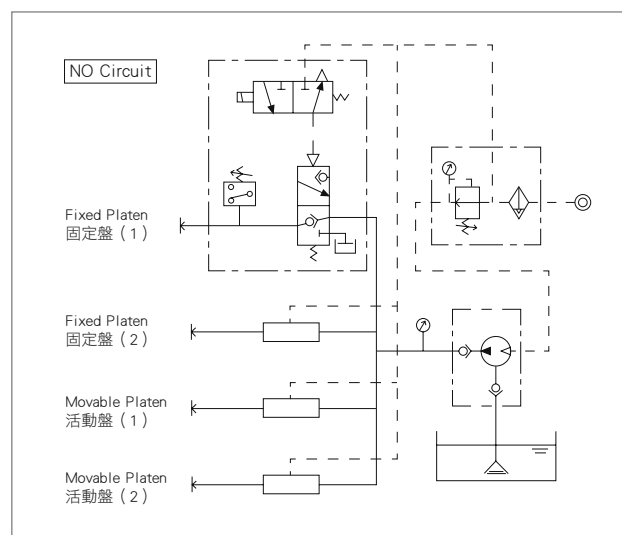
- V : Volume of oil tank (Liter) 油箱容量

Discharge Flow Characteristics 吐出量特性圖



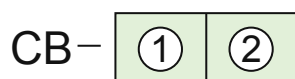
Pa : Pneumatic Pressure 氣壓壓力

Circuit Control System 迴路控制系統



CLAMP SELECTION 夾具選用

Model Selection 型式選定



Capacity of clamp / 夾力 : 2~50 (tons)

- ① **EMPTY** : Standard type
無 : 標準式
- ② **C** : Pneumatic cylinder movable type
氣缸移動式
- ③ **B** : Fixed type
固定式
- ④ **S** : Slide movable type
導座式
- ⑤ **V** : Heat-resistant type
耐高溫式
- ⑥ **VR** : Heat-resistant with cover type
耐高溫式 (加護蓋)



CB



CB-C



CB-B



CB-S



CB-VR

Instruction of Specification 規格說明

Unit : mm

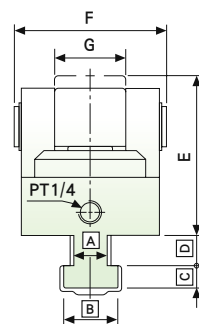
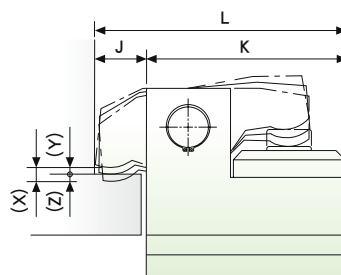
MODEL 型式		CB-2	CB-4	CB-6	CB-10	CB-16	CB-25	CB-50
Capacity of clamp 夾力	* tons	2	4	6	10	16	25	50
Total stroke (X) 總行程 (X)	mm	8	8	8	8	8	8	10
Stroke of clamp (Y) 夾具行程 (Y)	mm	3	3	3	3	3	3	4
Preserved stroke (Z) 預留行程 (Z)	mm	5	5	5	5	5	5	6
Total volume of cylinder 油缸總容量	cc	7.5	13	21	38	55	98	220

* Hydraulic Pressure 使用油壓壓力 : 250kgf/cm²

Selection of System Components 選用規範

MACHINE TONS 機台噸數	CLAMP 夾具	NO. OF CLAMP 夾具數量	PUMP UNIT 泵浦單元	HEIGHT OF TANK 油箱高度
100~150	CB-2	8	PB08-1P4V	150
150~250	CB-4	8		
280~350	CB-6	8		
380~500	CB-10	8		
550~800	CB-16	8		
850~1250	CB-16	12	PC12-1P4V	200
	CB-25	8		
1300~1600	CB-16	16		
	CB-25	12		
1800~2500	CB-25	16	PC1222-2P4M	
2600~3200	CB-25	20		
	CB-50	12		
3300~4000	CB-50	16		

Model CB



Outline Dimensions 外型尺寸

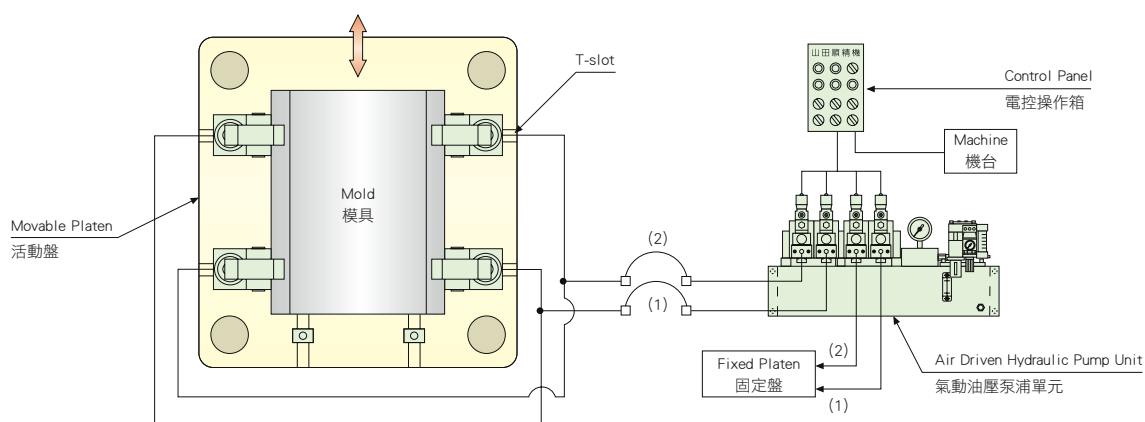
Unit : mm

MODEL 型式	L	K	J	min. E	F	G	min. C
CB-2	110	90	20	73	68	32	10
CB-4	134	110	24	77	79	40	12
CB-6	159	130	29	92	96	46	14
CB-10	189	159	30	114	117	54	16
CB-16	230	200	30	126	129	58	20
CB-25	265	235	30	148	156	70	23
CB-50	320	290	30	180	246	110	34

- The size of clamps **A** **B** **C** and **D** are made based on the size of T-slot.

- 夾具 **A** **B** **C** **D** 尺寸係配合T槽尺寸製作。

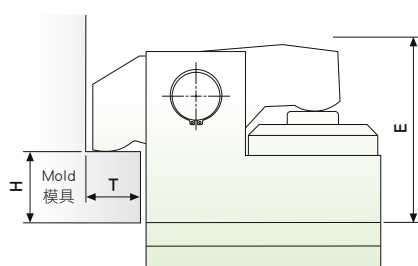
Vertical Loading / 上方換模

Platen with T-slot
台盤有T型槽


- Optional for position checking sensor 可選配定位檢知配備

The Requirement of Mold Dimension / 模具配合尺寸

Flange Type of Mold 模具標準型



Unit : mm

MODEL 型式	E	T	H
CB-2	73	20	25
CB-4	77	24	25
CB-6	92	29	30
CB-10	114	30	40
CB-16	126	30	40
CB-25	148	30	45
CB-50	180	30	60

- The dimension is as minimum.
左側尺寸為min.
- If $H < \text{min size}$, it needs special design.
H 如小於左述尺寸需特殊設計
- The template thickness : $H \pm 2\text{mm}$
模板厚度 : $H \pm 2\text{mm}$



The operating function

1. Machine will be stopped automatically in case of operation error.
2. Mold change for single side is functioned with two-way operation and avoiding operation error.
3. It is equipped with a key switch for preventing operation error.
4. When in mold change, it will check the following steps automatically-Injection unit backward, ejector backward, manual mode, finishing mold closing, and forbidding mold opening / closing. These steps are the signals for unclamping. It can prevent operation error and machine damage. (Remark)
5. When the system is not in use, it can be departed from the machine control. It can prevent the mold clamp clamped without the existing mold and ensure the life of mold clamp.
6. This system adopts inbuilt non-voltage contact to interlock with the machine.

Remark : Please offer the signal contact of these steps when placing order.

操控功能

1. 具有誤操作停機保護功能。
2. 具有單側換模二道操作防呆功能。
3. 裝有鑰匙開關，避免人為誤操作。
4. 換模時會確認：機台射座後退、托模後退、手動模式、合模完成及禁止開關模等動作信號為鬆模依據，避免誤操作而造成機台損傷。(註)

5. 不使用時可與機台脫離，避免夾具空夾確保夾具壽命。
6. 與機台連線採用無電壓接點。

註：訂購時須配合提供機台動作信號之接點。

POWER CONTROL PANEL 動力控制箱



1. This panel is applied for clamp CB-C type.
2. Distribution of panel :
 - Air driven hydraulic pump unit.
 - Solenoid valve of air pressure.

1. 夾具採CB-C型時，搭配此控制箱。
2. 控制箱配置：
 - 氣動油壓泵浦單元。
 - 氣壓電磁閥組。

DATA REQUIRED FOR Q.M.C.S. 快速換模系統訂購所需資料

Company 訂購公司			
Machine Type 機台種類		☐ Injection molding machine / 射出機 ☐ Die casting machine / 壓鑄機 ☐ Vertical injection molding machine / 直立式射出機	
Machine Brand 機台廠牌	Capacity 機型噸數	☐ New purchased / 新購 ☐ Existing / 舊機	
Drawing 圖面		☐ Machine outline / 機台外型圖 ☐ Platen drawing / 車壁圖	
Item 項目	Pump unit / 泵浦單元	Mold clamp / 夾模夾具	Remark / 備註
Model 型式			
Q'ty 數量			

Technical Data 技術資料

1 Control Voltage / 控制電壓：
☐ AC110V ☐ AC220V ☐ DC24V

2 The thickness of template / 模具底板厚度 (H) : _____ mm

3 Mold size / 模具尺寸：Max : _____ (L) × _____ (W)
 Min : _____ (L) × _____ (W)

4 Mold type / 模具：
☐ Flange type / 標準型
☐ Concave type / 凹入型 (Please offer the size of concave area / 需提供凹入尺寸)
 S : _____ R : _____ T : _____

5 Working temperature / 工作溫度：_____ °C

6 Mold with heating insulation platen / 模具附加隔熱板：
☐ Yes (Please offer the thickness) / 有 (請提供厚度) ☐ No / 沒有

7 Clamping direction / 夾模方向：
☐ Up-Down / 上-下 ☐ Left-Right / 左-右

8 When the clamping direction is up-down, is there any "Safety platform" ?
 夾模方向為上-下時，機台是否有安全踏板？
☐ Yes (Please offer the installing drawing) / 有 (請提供安裝圖面) ☐ No / 沒有

9 Platen with other equipment / 車臂加裝其他配置：
☐ Robot / 機械手 ☐ others / 其它

10 Please offer the following signal contact. / 請提供以下動作之訊號接點
☐ Injection unit backward / 射座後退 ☐ Ejector backward / 托模後退 ☐ Manual mode / 手動模式
☐ Finishing mold closing / 合模完成 ☐ Forbidding mold opening/ closing/ 禁止開關模

11 T-slot / T槽尺寸：

Movable platen / 活動側	Fixed platen / 固定側
a : _____	a : _____
b : _____	b : _____
c : _____	c : _____
d : _____ (±0.2)	d : _____ (±0.2)

*For existing machine, please offer "d" size with the first decimal digit.
 * 舊機請提供d尺寸至小數點第一位。

Others 其他

CE certificated required / 產品是否須CE認證 ☐ Yes / 需要 ☐ No / 不需要

Installation by Sandsun / 山田順需安裝 ☐ Yes / 需要 ☐ No / 不需要