

## 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: fcsc@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

### 富強鑫(寧波)精密科技股份有限公司

Fu Chun Shin (Ningbo) Precision Technology Co., Ltd.

浙江省寧波杭州灣新區啟源路166號 郵編：315336

No.166 Qiyuan Road, Hangzhou Bay New District, Ningbo 315336, Zhejiang Province, China

TEL: +86-574-56138689 • FAX: +86-574-56138699 • E-mail: chz@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



目錄編號：SG-2024-CP-cn/en

Copyright © 2024 FCS Group All rights reserved

SHOW GUIDE

# CHINAPLAS 2024

## 國際橡塑展

4/23-26

Booth

# 4.1館 C18



Chinaplas® 2024  
國際橡塑展

**50**<sup>th</sup>  
Since 1974  
FCS Group



全球70+處行銷服務據點，您可以在世界各地找到最近的支援



醫療用品



交通器材



包裝容器



資訊家電電子



精密光學



家庭五金日用品



建築建材管件



了解更多

索引

Index

- ▶ **Booth Layout** \_\_\_\_\_ 03  
攤位平面圖
- ▶ **iMF 4.0** \_\_\_\_\_ 05  
智能製造工廠  
Intelligent ManuFactory
- ▶ **FB-300Re** \_\_\_\_\_ 07  
電動式多組分成型系統  
Electric-Driven Multi-Component Molding System
- ▶ **FA-350e** \_\_\_\_\_ 09  
電動式精密光學成型系統  
Electric-Driven Precision Optical Element Molding System
- ▶ **CT-280R** \_\_\_\_\_ 11  
智慧醫療雙色成型系統  
Two-component Medical Parts Molding System

▶ **SA-380h** ————— 13

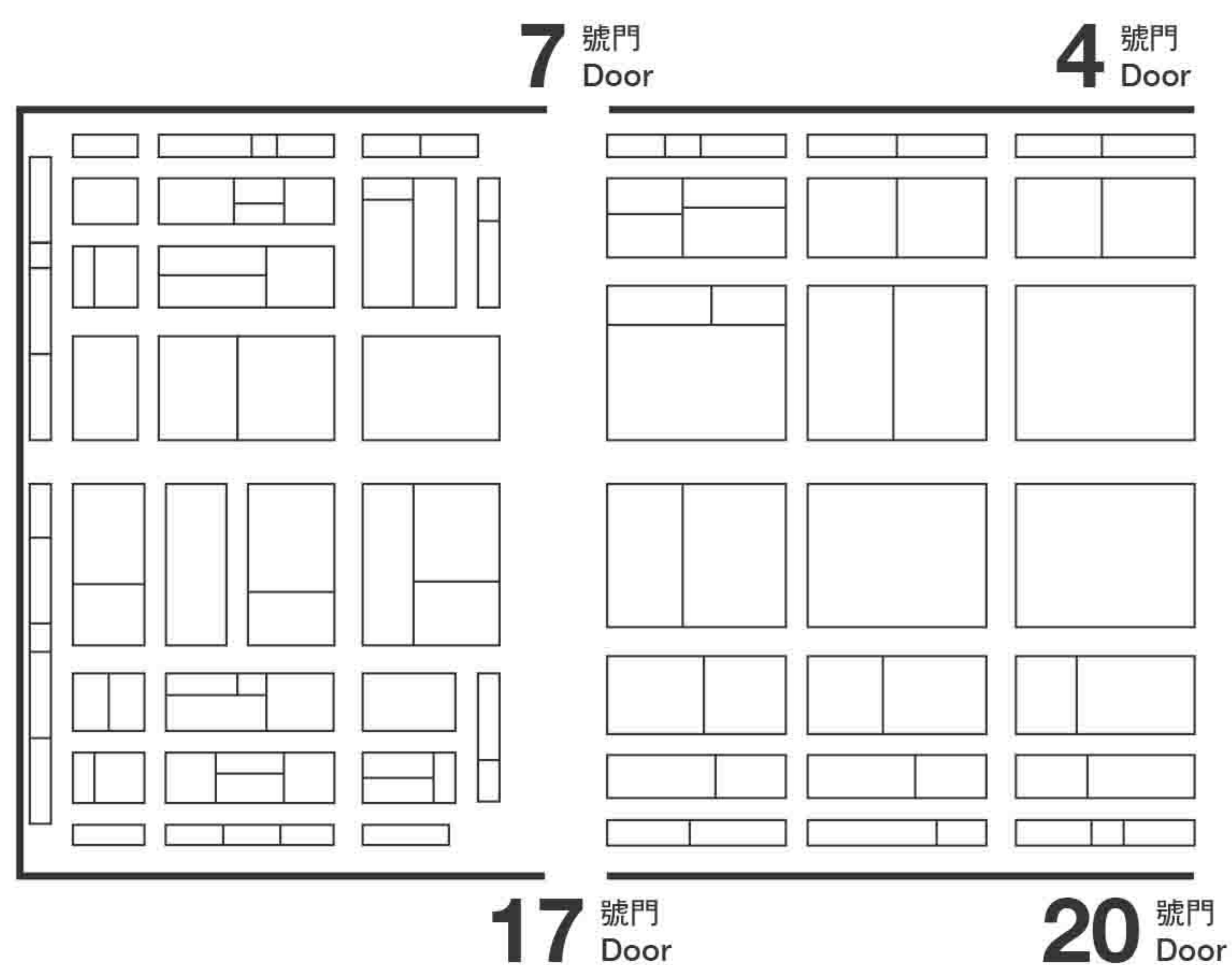
多組分模內貼標高速生產系統  
Multi-Component In Mold Labeling Turnkey Solution

▶ **FA-160** (超群展台 5.1館 D75) ————— 15

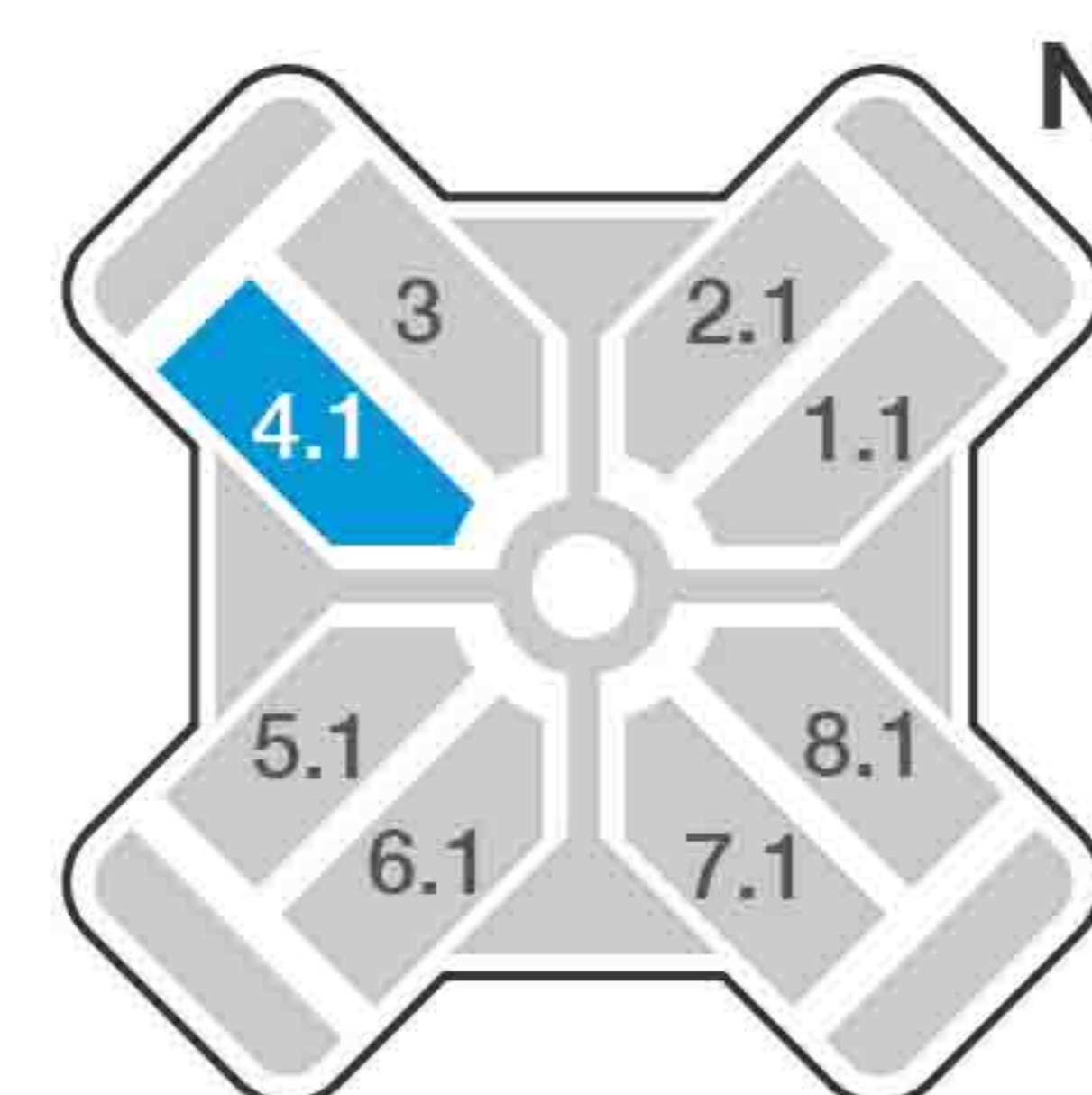
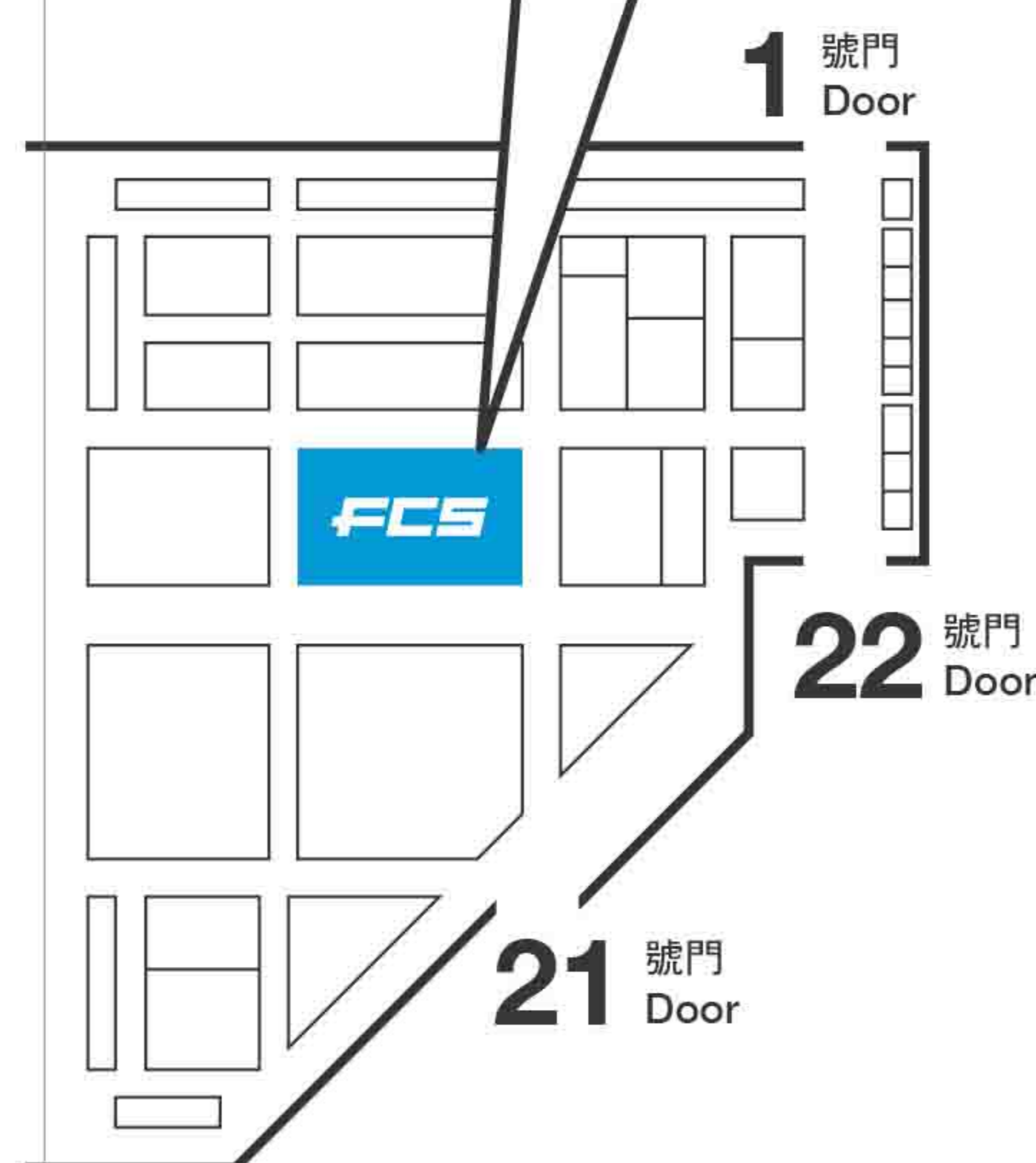
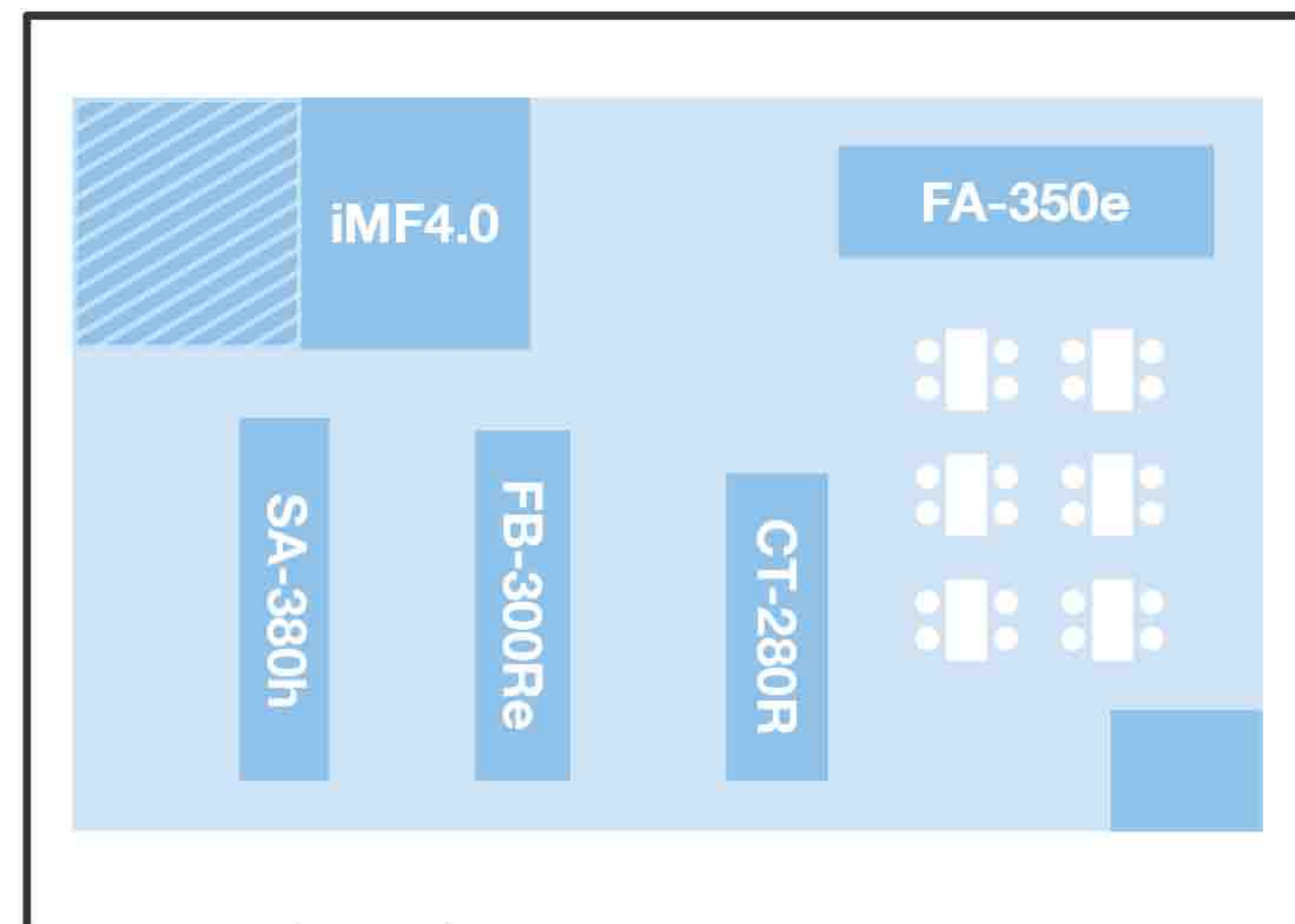
新世代智慧成型系統  
Advanced Servo Hydraulic Intelligent Molding System

▶ **CT-220e** (弗倫克展台 5.2館 F100) — 17

車規級透鏡成型系統  
Automotive-Grade Lens Molding System



# Booth 4.1 館 C18



# iMF 4.0

## 智能製造工廠

Intelligent ManuFactory

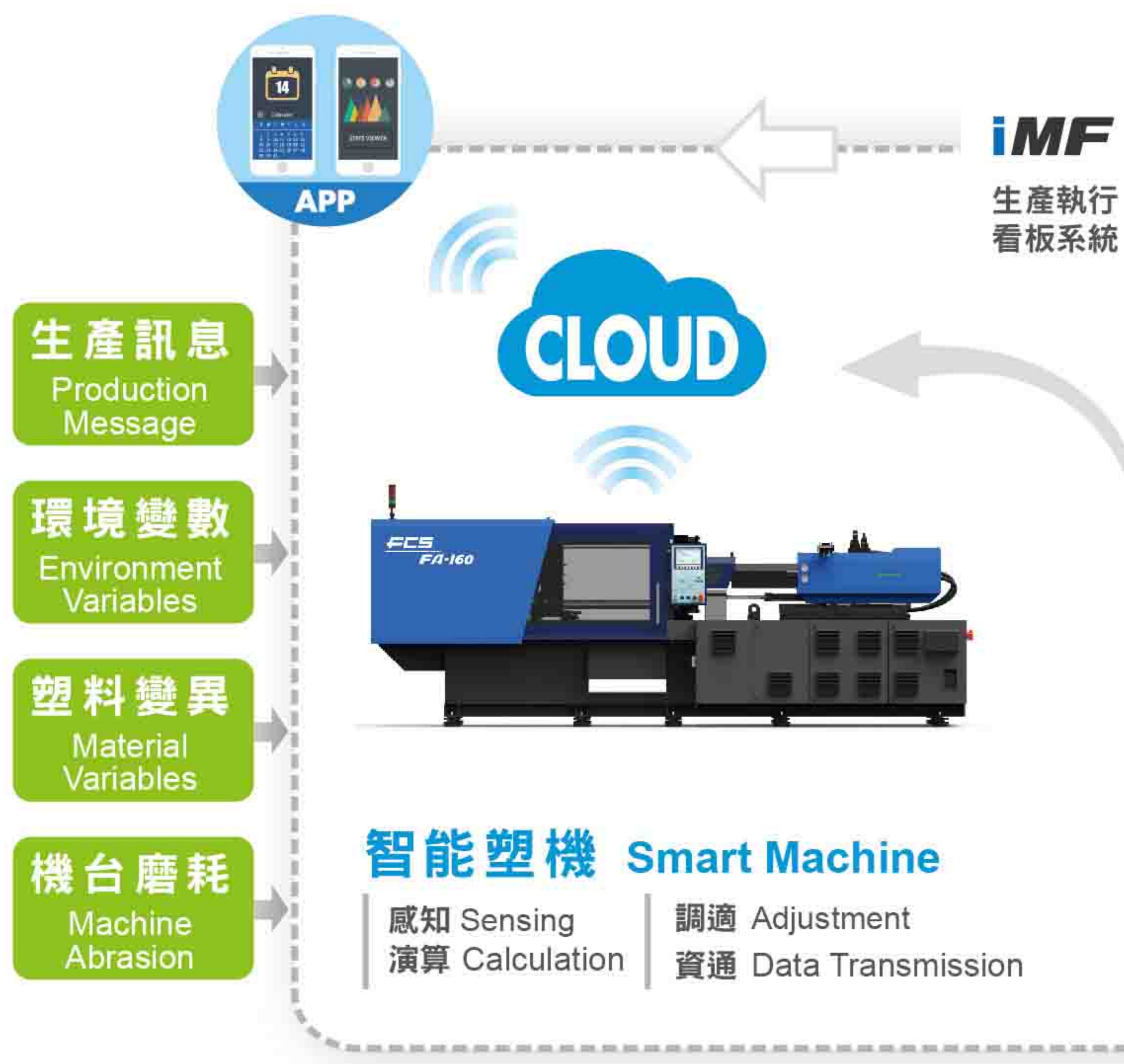
### ▶ 系統說明

**智能塑機** 運用外加感測器，掌握因環境、塑料、設備磨耗的微量變異，提升射出機自適應調控能力。

**智能周邊** 透過標準通訊協定，達到設備運轉、互聯及調控之目的。

**智能管理** 透過智能管理系統收集關鍵熔體變異數據。

**智能製造** 判別良窳、增進效率、促進良率。



### ▶ System Introduction

**Smart Machine** Applying additional sensors to monitor and meet the slight fluctuations caused by the environment, material, or machine abrasion, and to improve the adaptive control of injection molding machines.

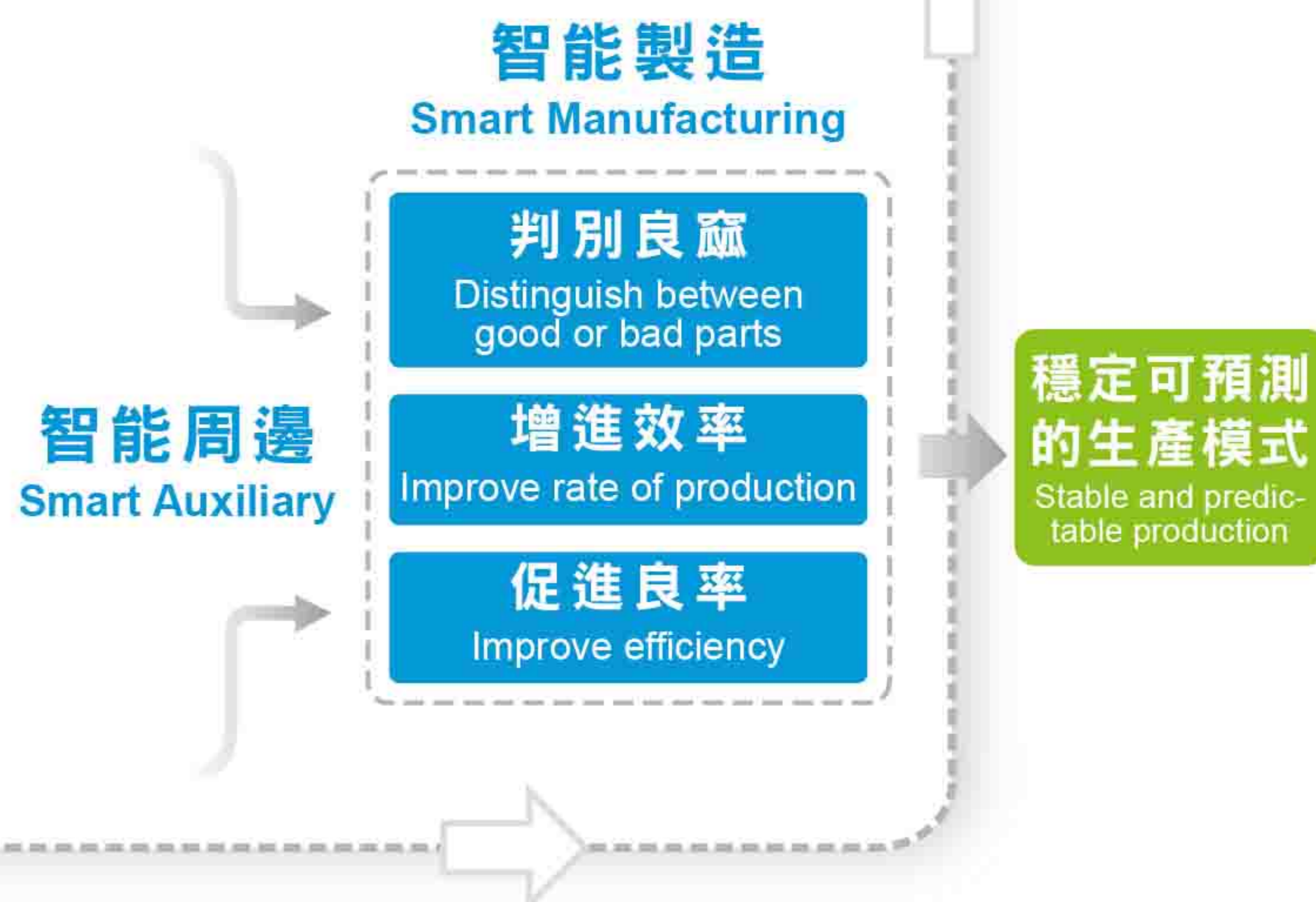
**Smart Auxiliary** The IMM and auxiliaries could operate, communicate with each other through the standard communication protocol, to be adjusted and controlled.

**Smart Management** Using intelligent managing system to collect the key data of viscosity variation of melt.

**Smart Manufacturing** Distinguish good or bad, Improve rate of production, Improve Effectiveness.

### 4.0 智能管理 Smart Management

Production Auditor | 生產管理 Production Administrator  
Production Monitor | 分析報告 Production Analysis



# 電動式多組分 成型系統

Electric-Driven Multi-Component Molding System

## 第五代電動式雙色機

The 5<sup>th</sup> generation Multi-Component IMM with Electric-driven Injection Unit

### ▶ 特點 Feature

- 全新夾模機構，剛性提升15%，動模板與大柱無接觸，速度提升15%。
- 射出及夾模單元採用線性滑軌，零污染、更節能。
- 標配電動轉盤，速度切換平穩，定位更精準。
- 全電式射出單元，定位精準，性能穩定，更加節能。
- New clamping mechanism enhances rigidity by 15%, the tie bar are not held by the platens increase speed by 15%.
- Injection and clamping units adopt linear guide, zero pollution and more energy efficiency.
- Equipped with electric rotary table for smooth speed transitions and more precise positioning.
- All-electric injection unit for precise positioning, stable performance, and energy efficiency.

### ▶ 規格 Specification

機器型號	Machine Model	FB-300Re
鎖模力	Clamping Force	300 tonf
射出代號	Injection Type	300e / 300e
螺桿直徑	Screw Diameter	PET : 40mm / TPE : 32mm
射出速度	Injection Speed	A:160 mm/s / B:160 mm/s
轉盤容模直徑	Rotary Table Diameter	1100 mm
模具最大迴轉直徑	Max. Rotary Diameter of Mold	1160 mm
大柱內距	Tie Bar Spacing (HxV)	950x600 mm

系統搭載 System Equipped (optional)

**iMF4.0** 智能製造工廠 *Intelligent ManuFactory*

# FB-Re SERIES



### ▶ 產品 Product

名稱	Part	PET保鮮盒 (PET Airtight Container)
尺寸	Size	盒身 Box : 167.3x96.3x73.3 mm
		盒蓋 Cover : 176.4x105.9x18.8 mm
重量	Weight	盒身 Box : 107.5 g/pcs
		盒蓋 Cover : 80 g/pcs
模穴數	Cavities	1+1
原料	Material	PET+TPE
成型時間	Cycle Time	35 sec



### ▶ 合作夥伴 Project Partners



梵科 模具  
Mold Supplier



泰瑞豐 塑料(TPE)  
Plastic Material



SEPRO 機械手  
Robot System



信易 輸送帶/供料系統/冷凍機  
Conveyor / Material Feeding / Chiller

# 電動式精密光學 成型系統

Electric-Driven Precision Optical Element Molding System

## 光導產品專用電動化注塑機

Electric-Driven IMM for Light Guide Products

### ▶ 特點 Feature

- 射出/儲料全電化，優越的低速穩定性，控制升級，反應更快，穩定性更高。
- 射座採線性滑軌及座進缸前拉設計。
- 楔形塊滑腳設計。
- 高剛性鎖模單元。
- Servo-electric screw drive (Injection/ Charge), low speed stability, upgraded controller, faster response, higher stability.
- Injection carriage uses linear guide and pull forward design.
- Wedge block slide design.
- High rigidity clamping unit.

### ▶ 規格 Specification

機器型號	Machine Model	FA-350e
鎖模力	Clamping Force	350 tonf
射出代號	Injection Type	300e
螺桿直徑	Screw Diameter	32 mm
射出速度	Injection Speed	160 mm/s
大柱內距	Tie Bar Spacing (HxV)	720x680 mm

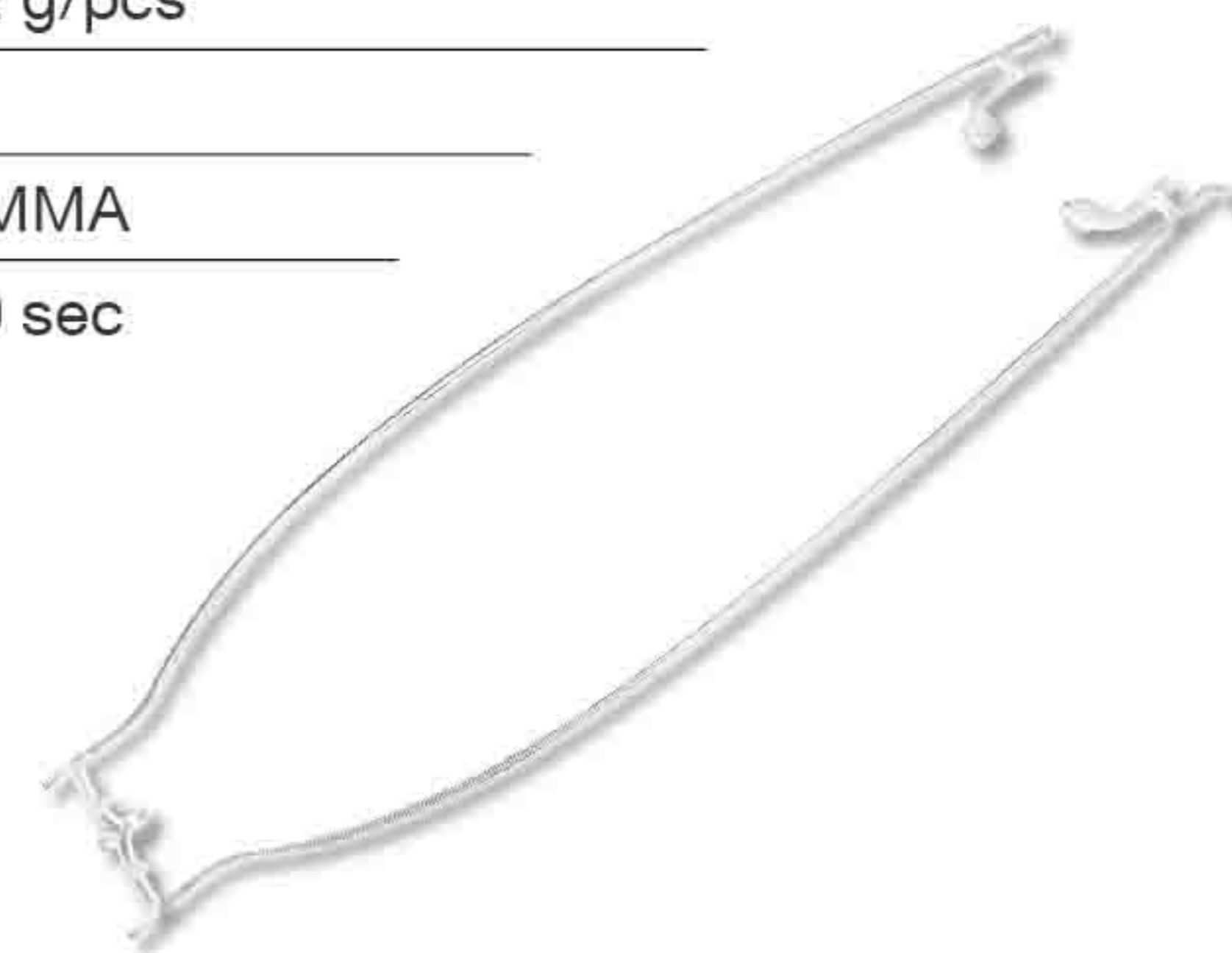
系統搭載 System Equipped (optional)

FA-e SERIES



### ▶ 產品 Product

名稱	Part	導光條 (Light Guide Strip)
尺寸	Size	70 cm
重量	Weight	42 g/pcs
模穴數	Cavities	2
原料	Material	PMMA
成型時間	Cycle Time	60 sec



### ▶ 合作夥伴 Project Partners



享亮光學 模具  
Mold Supplier



信易 輸送帶/供料系統/冷凍機  
Conveyor / Material Feeding / Chiller



超群 機械手  
Robot System



松科 快速換模系統  
Quick Mold Change System



松井 溫控箱  
Temperature Controller

# 智慧醫療 雙色成型系統

Two-component Medical Parts Molding System

## 全電式多組分注塑機

All-Electric Multi-Component IMM

### ▶ 特點 Feature

- 射出/儲料採用伺服馬達，兩組或多組獨立料管組同步射出，大幅縮短成型週期。
- 伺服轉盤速度提升30%-50%，定位系統之精度達0.005°。
- 射座採線軌使加料基礎背壓趨近0，有效減少射嘴或熱流道熔膠溢流。
- 高性能伺服驅動系統及控制器，射出控制精度達0.01mm。
- Adopting servo motor and multiple independent barrels for injection, greatly shortens the cycletime.
- The rate of servo rotary table improved by 30%-50%, and the positioning precision up to 0.005°.
- Linear guide at injection unit makes back pressure approach 0 when charging, reduces the melt overflow.
- High-performance servo driver and controller system make injection accuracy up to 0.01mm.

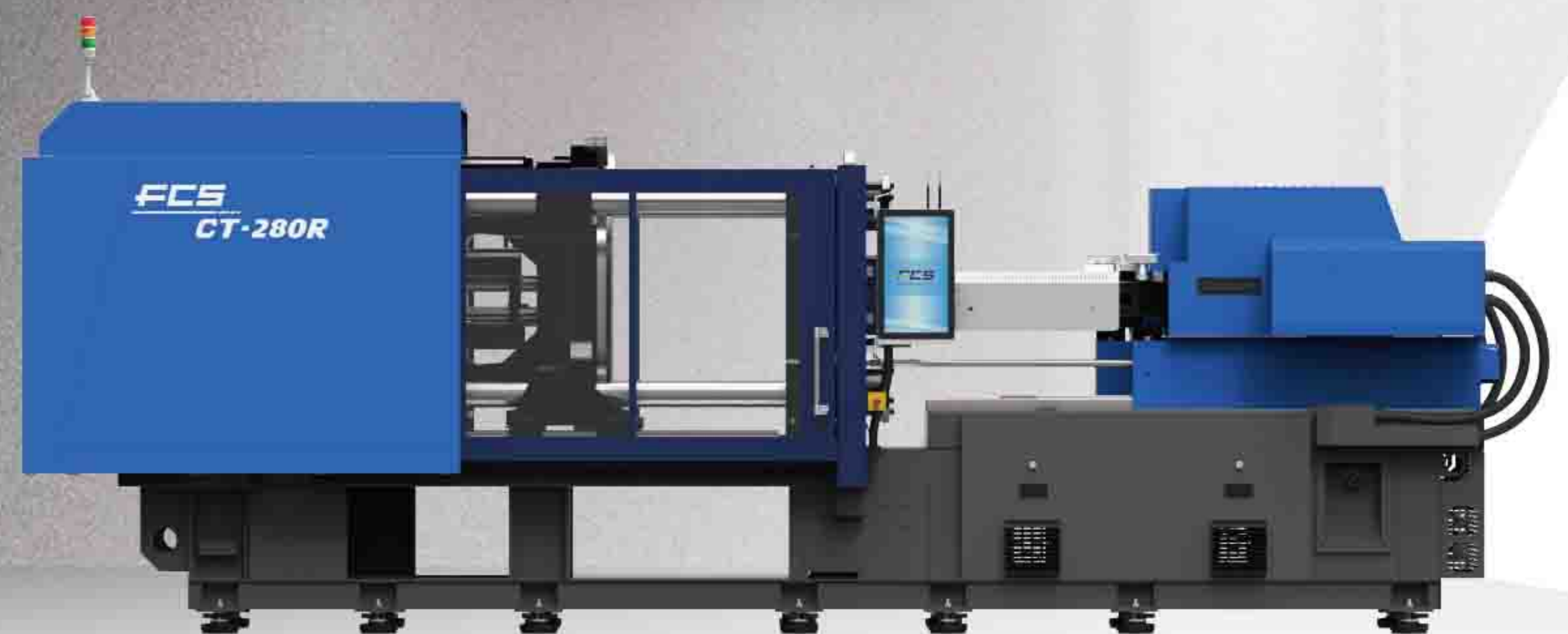
### ▶ 規格 Specification

機器型號	Machine Model	CT-280R
鎖模力	Clamping Force	280 tonf
射出代號	Injection Type	290 / 290
螺桿直徑	Screw Diameter	A : 30 mm / B : 30 mm
射出速度	Injection Speed	200 mm/s
轉盤容模直徑	Rotary Table Diameter	1050 mm
模具最大迴轉直徑	Max. Rotary Diameter of Mold	1218 mm
大柱內距	Tie Bar Spacing (HxV)	960x680 mm

系統搭載 System Equipped (optional)

**iMF4.0** 智能製造工廠 *Intelligent ManuFactory*

CT-R SERIES



### ▶ 產品 Product

名稱	Part	醫療用細胞凍存管 (Cryovial Tube)
尺寸	Size	φ 6×46 mm
容量	Volume	1 ml
厚度	Thickness	1 mm
重量	Weight	0.8 g/pcs
模穴數	Cavities	16+16
原料	Material	PP+PP
成型時間	Cycle Time	12 sec



### ▶ 合作夥伴 Project Partners

**BROSEN**

5.2館B02

博來盛 模具/熱澆道  
Mold Supplier / Hot Runner



中国石油

6.2館C71

中石油蘭州石化 塑料  
Plastic Material



5.1館D75

超群 機械手  
Robot System



5.1館D62

信易 供料系統/冷凍機/色母機  
Material Feeding / Chiller / Volumetric Doser

# 多組分模內貼標 高速生產系統

Multi-Component In Mold Labeling Turnkey Solution

## 薄壁包裝高速雙色機

High-Speed Multi-Component IMM

### ▶ 特點 Feature

- 整合高速注塑及天側射出單元，蓋勺一次成型、實現雙色產品的高速生產。
- 射台及座移採用雙線軌設計，摩擦阻力低、精度高。
- 整合模內貼標及模外蓋勺組裝系統，實現高效能自動化生產，佔地精簡。
- One-step molding completed by top injection for producing two-component lid and spoon in short cycle time.
- The injection unit support adopts high-precision double linear guides ensures the lower friction resistance and the higher precision.
- IML and OMA Integrated System for two-component lid and spoon accomplishes high-efficiency Automation, Production System with small footprint.

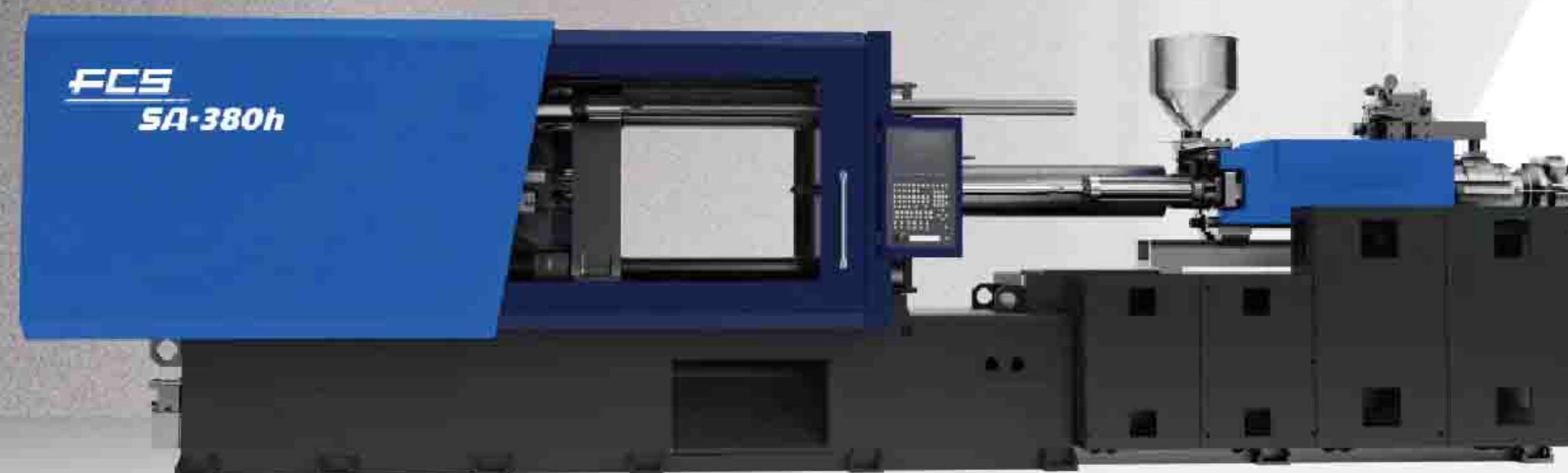
### ▶ 規格 Specification

機器型號	Machine Model	SA-380h
鎖模力	Clamping Force	380 tonf
射出代號	Injection Type	900 / LZ600
螺桿直徑	Screw Diameter	A: 50 mm / B: 35 mm
射出速度	Injection Speed	A: 465 mm/s : B: 225 mm/s
大柱內距	Tie Bar Spacing (HxV)	670x640 mm

系統搭載 System Equipped (optional)

**iMF4.0** 智能製造工廠 *Intelligent ManuFactory*

SA-h SERIES



### ▶ 產品 Product

名稱	Part	酸奶杯蓋+勺子 (Lid with Spoon)
尺寸	Size	杯蓋 lid: $\phi 88 \times 13.5$ mm 勺子 spoon: $80 \times 27.7$ mm
厚度	Thickness	杯蓋 lid: 0.55 mm 勺子 spoon: 1.15 mm
重量	Weight	杯蓋 lid: 5.44 g/pcs 勺子 spoon: 1.65 g/pcs
模穴數	Cavities	12+12
原料	Material	PP+PP
成型時間	Cycle Time	7 sec



### ▶ 合作夥伴 Project Partners



博來盛 模具/熱澆道  
Mold Supplier / Hot Runner



信易 供料系統/冷凍機/色母機  
Material Feeding / Chiller / Volumetric Doser



博祿  
Plastic Material



景華 機械手/輸送帶  
Robot System / Conveyor



中域 標籤  
Label



# 新世代 智慧成型系統

Advanced Servo Hydraulic Intelligent Molding System

## 高效節能注塑機

Advanced Servo Hydraulic IMM

超群展台  
5.1館D75

### ▶ 特點 Feature

- 射速提升20%以上，並採射出線軌與座進前拉設計，注塑同步且穩定。
- 車壁結構強度提升30%，開關模運動平滑控制優化，成型穩定並延長設備壽命。
- 高效能伺服節能油泵達GB一級節能驗證，系統壓力提升至160 bar。
- The injection speed is increased by more than 20%; the linear guide and forward pull design are adopted for injection carriage to improve the synchronism and stability.
- Strength of the platen design reinforced by 30%, and the closing-opening smoothness control optimized makes molding stable and machine lifetime extended.
- The high-performance servo energy-saving oil pump achieves GB first-class verification, and the system pressure is enhanced to 160 bar.

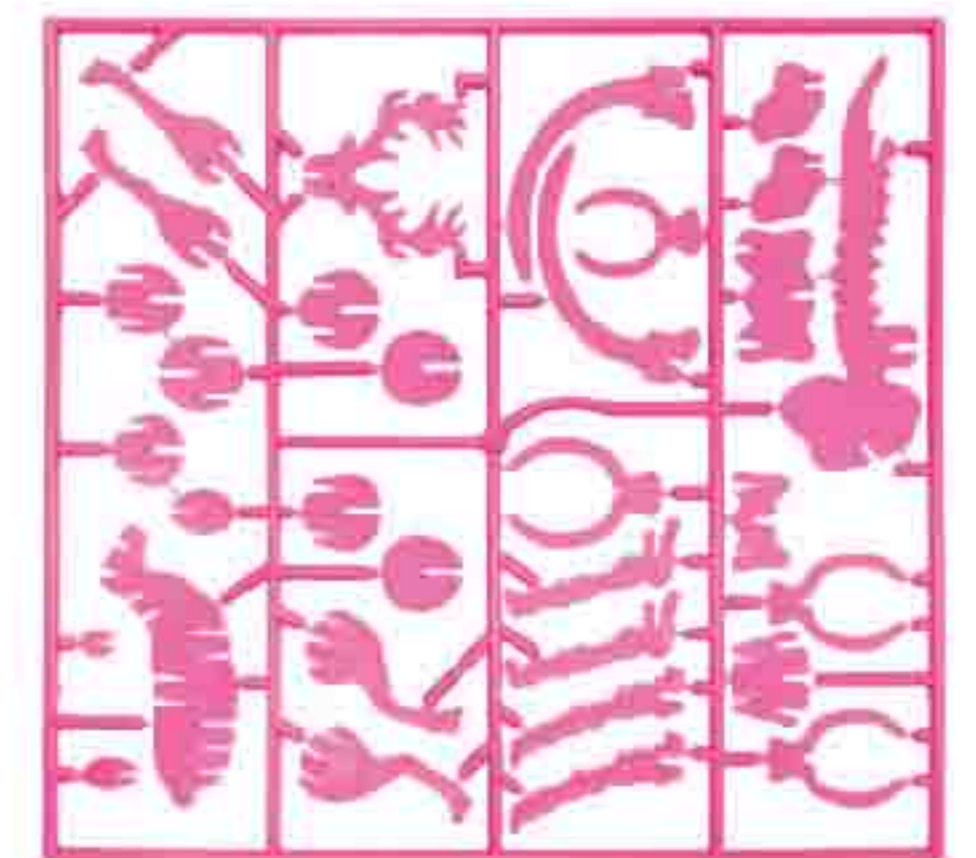
### ▶ 規格 Specification

機器型號	Machine Model	FA-160
鎖模力	Clamping Force	160 tonf
射出代號	Injection Type	600
螺桿直徑	Screw Diameter	45 mm
射出速度	Injection Speed	100 mm/s
大柱內距	Tie Bar Spacing (HxV)	470x470 mm



### ▶ 產品 Product

名稱	Part	長毛象/麋鹿組裝模型 (Mammoth & Elk Puzzle)
尺寸	Size	350x353 mm
重量	Weight	142 g/pcs
模穴數	Cavities	1
原料	Material	PP
成型時間	Cycle Time	32 sec



### ▶ 合作夥伴 Project Partners



梵科 模具  
Mold Supplier



超群 機械手  
Robot System



富偉 快速換模系統  
Quick Mold Change System

# 車規級 透鏡成型系統

Automotive-Grade Lens Molding System

## 全電式注塑機

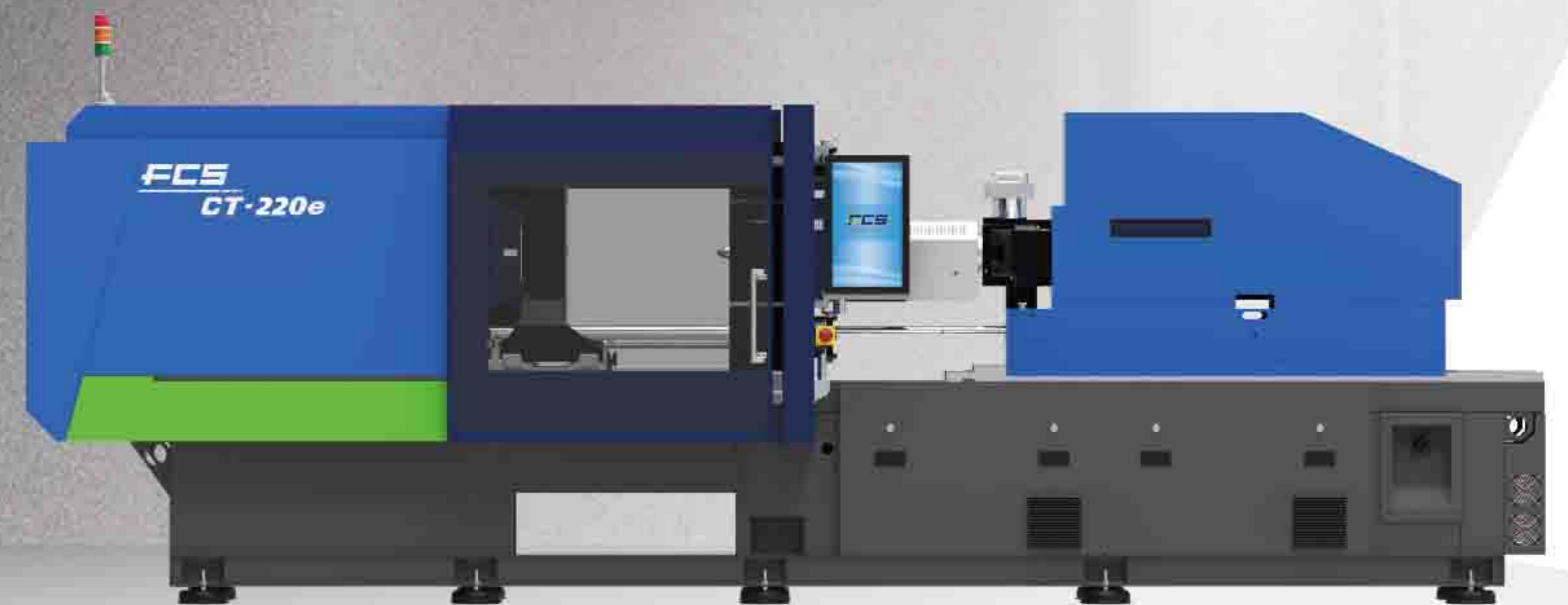
All-Electric Injection Molding Machine

弗倫克展台  
5.2館 F100

### ▶ 特點 Feature

- 高性能伺服系統及控制器，射出控制精度達0.01mm。
- 進口高精密壓力感測器(LoadCell)與高響應射出單元，具優越壓力閉迴路運算控制。
- 線性滑軌不抱持大柱設計，低磨損且低能耗。
- 電動調模且閉迴路控制，閉模力控制更為精準。
- 模組化規格選型，可提供大小配置，滿足更多市場需求。
- 21.5吋全觸控螢幕，全新電控介面設計，操作簡易。
- 標準配置開模中頂出等同步功能，可縮短成型週期。
- 智能模具低壓保護功能，降低壓模危險。
- High-performance servo systems make injection accuracy up to 0.01mm.
- The LoadCell and high responsive injection unit with optimized pressure closed-loop algorithm.
- Adopting linear guide for injection carriage that reduces abrasion and power consumption.
- Clamping force was tuned by using a closed-loop electric mold height adjustment motor.
- Optional modular specification offers flexible injection unit combinations.
- 21.5-inch capacitive touch screen and new control unit interface are very user-friendly.
- Parallel movement of the ejector on the fly is standard, effectively shortening the cycle time.
- Intelligent mold clamp low-pressure protection reduces the risk of mold crush.

CT-e SERIES



### ▶ 規格 Specification

機器型號	Machine Model	CT-220e
鎖模力	Clamping Force	220 tonf
射出代號	Injection Type	1000
螺桿直徑	Screw Diameter	45 mm
射出速度	Injection Speed	160 mm/s
大柱內距	Tie Bar Spacing (HxV)	620x620 mm

### ▶ 產品 Product

名稱	Part	透鏡 ( lens )
尺寸	Size	74x75x25 mm
重量	Weight	216 g/模
模穴數	Cavities	4
原料	Material	PMMA
成型時間	Cycle Time	1000 sec

### ▶ 合作夥伴 Project Partners



5.2館 F100

弗倫克 熱澆道  
Hot Runner



4.1館 C66

松井 供料系統/冷凍機/溫控箱  
Material Feeding / Chiller / Temperature Controller