

TB-SE/IE Series

The best choice HWA CHIN Machine

熱固性塑膠射出成型機



HWA CHIN



SINCE 1970

機械特色

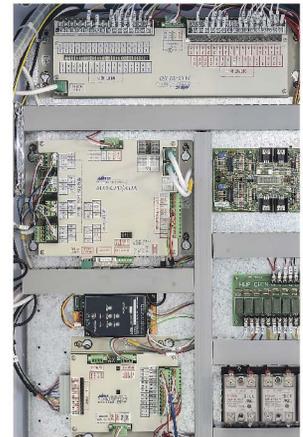
Products' Features

最新專用微電腦控制系統

1. 採用最新15吋觸控螢幕且精確穩定的專用微電腦控制系統（選配）。
2. 可記憶240組完整的成型條件。
3. 內含PID溫度控制系統，使溫度控制準確穩定。
4. 機台裝配電阻尺，可更精確有效地滿足各類射出成型使用需求。
5. 可擴增電腦連線功能，達到整廠射出機資料管理。

QUALITY PROVEN CONTROL CIRCUIT

1. Adopts Microcomputer Control System For Special Purpose Provides Accuracy And Stability.
2. Great Memory Capacity Up To 240 Sets Of Molding Data.
3. PID Temperature Control Module Assures Maximum Stability And Accuracy.
4. Equipped With Position Transducers Precisely Satisfy Various Requirements.
5. Can Be Expanded Online Function With A Personal Computer In Order To Reach The Management Of Injection Molding Data For Each Machine.



STABLE
efficiency
HO

加熱管分段溫度顯示，且溫度準確

1. 分段熱媒油加熱並附冷卻水路，溫度準確。
2. 加熱管內成型材料不硬化，成型穩定快

ACCURATELY-CONTROLLED MULTI-STAGE TEMPERATURE DISPLAY HEATING TUBE

1. With Saplse Thermic Oil being heated in several stages and the cooling system, it can control temperature accurately.
2. This device guarantees that thermosetting plastics will not harden before molded, and prodrces stable products fastly.



內循環曲肘潤滑系統

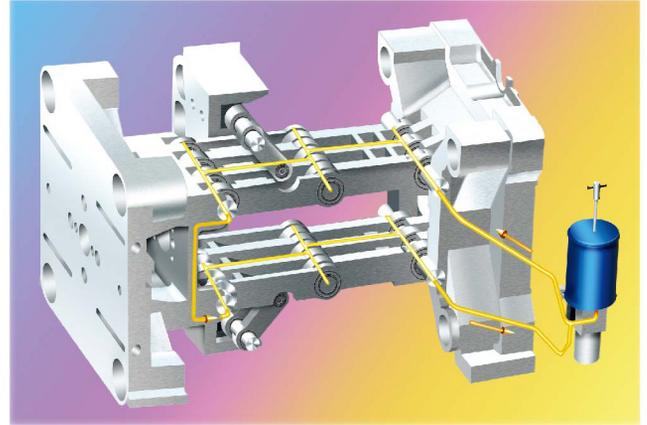
1. 內藏式潤滑孔免外接管，無配管老化斷裂問題。
2. 多餘潤滑油回收至潤滑油桶，合乎環保要求。
3. 配有末端檢知器，可確保曲肘各部位皆充滿潤滑油。

■ 台灣、美國、大陸等地專利

BUILT-IN CIRCULATING LUBRICATION SYSTEM OF TOGGLE

1. Free Outside Piping And Easy To Be Maintained.
2. Surplus Lubricator Is Recycled With Efficiency.
3. Terminal Sensor Can Assure Of Full Lubricator In Lubricating Circuit.

■ Patented In Taiwan, China And USA



FAST

ONOR

半圓形曲肘構造

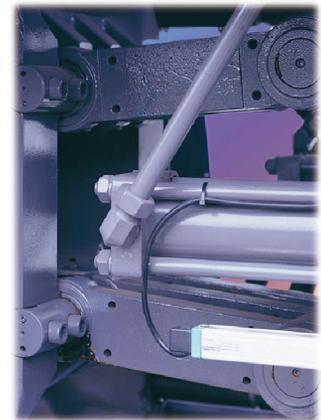
1. 模壁支柱孔與曲肘軸孔同向加工，精度可大幅提昇。
2. 曲肘軸以螺栓固定於模壁，作動時噪音低，組裝及維修快速。

■ 台灣、美國、日本、德國、大陸等地專利

SEMICIRCLE STRUCTURE OF TOGGLE

1. Coaxial machining on those platen, holes of toggle pin and tie bar conducting increase great precision.
2. Toggle pins are fixed by screws. it makes assembly easier and faster.

■ PATE NED IN USA, GERMANY, JAPAN, CHINA, TAIWAN...ETC.



耐腐蝕耐磨耗之雙合金料管

1. SE系列配備雙合金料管，提昇機台性能。
2. 適合各種腐蝕性及磨耗性之塑料可延長機台壽命。

HIGH ANTI-CORROSION AND ANTI-WEAR BIMETALLIC BARREL

1. Bimetallic barrel suits the materials with proerties of corrosion and wear. It extends the operation life of machines. (SE Series)



機械特點

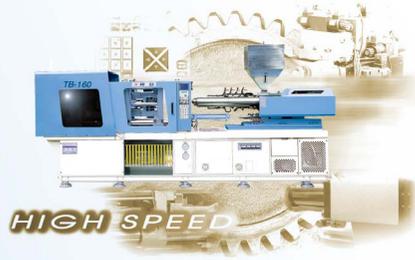
1. 現代化微電腦數位控制系統，精密準確穩定、速捷，可儲存240組模具成型條件，並有自動偵錯監視，能迅速檢出異常動作，穩定生產效率。
2. 微電腦控制多段射出壓力、定點、定時適合多樣化的射出成型。
3. 鎖模裝置採用外曲肘機構，附加低壓保護裝置，確保模具安全，曲肘孔徑全部加上經特殊處理之合金剛襯套，並附自動打油系統可以延長保養潤滑時間。
4. 新型曲肘機構，具有更高強度，於不增加機台長度下，大幅提升開模行程，客戶可針對其廠房空間作更彈性的運用。
5. 油壓系統採用集體回路，並附壓力追蹤節省能源，降低噪音。管路置於機架外，使維護更便捷迅速。
6. 全系列機種之加工、檢測採自日本引進之大型CNC及大型三次元檢測儀，確保高品質、高穩定性之機台。
7. 本系列機種經三十餘年來不斷的改良及創新設計，已使其在使用操作，尺寸規格、結構強度、維護與安全、迅速與穩定等各方面，均可滿足工業社會進步迅速之需求。



TB-Series

Characteristic:

1. Microcomputer controller provides accuracy, precision, stability and fast reaction. System memory can store up to 240 sets of molding parameters. Auto diagnostic monitor system can detect malfunction immediately to shorter the troubleshooting time.
2. Microcomputer control system provide 4-step injection control with adjustable pressure/speed and 3-step holding pressure to meet most complicated molding requirements.
3. Special toggle design of the toggle has smooth and stable movement. Low-pressure protection device is utilized to prevent unintended damage of the mold. Toggle pins equipped with oil-less bushings and auto lubrication device provide excellent lubrication efficiency and extend the machine life.
4. Shorter machines make the room can be used with good flexibility. The toggle mechanism has much longer clamping stroke than traditional toggle machines.
5. Lumped hydraulic circuit reduces power resumption and noise. Exposed hydraulic circuit makes maintenance easier.
6. HWA CHIN machine parts are machined by imported Japanese machining equipment, and rigorously inspected by 3D measuring device to ensure superior quality and accuracy.
7. Through 30-years improvement and upgrade, specification, construction strength and functions absolutely satisfy customers' requirement.



| 系統別 | 項目 | 型式 | 鎖模力(ton) | | | | | | | | | | |
|--------|---------------|--------------------|----------------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|---------------|-------------|-------|
| | | | TB 100SE/IE | TB 125SE/IE | TB 160SE/IE | TB 210SE/IE | TB 250SE/IE | TB 300SE/IE | TB 350SE/IE | TB 400SE/IE | TB 450SE/IE | TB 600SE/IE | |
| 射出機系統 | 螺旋桿直徑 | mm | 36 | 36 | 42 | 48 | 55 | 60 | 65 | 70 | 75 | 80 | |
| | 理論射出容積 | cm ³ | 180 | 180 | 276 | 361 | 558 | 734 | 994 | 1307 | 1767 | 2210 | |
| | 射出重量 | g | 214 | 214 | 328 | 430 | 664 | 877 | 1183 | 1555 | 2100 | 2630 | |
| | SE | 雙缸射出壓力 | kg/cm ² | 1615 | 1615 | 1440 | 1460 | 1481 | 1360 | 1590 | 1485 | 1588 | 1680 |
| | | 雙缸射出率 | cm ³ /sec | 111 | 181 | 203 | 310 | 306 | 429 | 370 | 503 | 470 | 525 |
| | | 螺旋桿回轉數 | rpm | 0~258 | 0~410 | 0~315 | 0~320 | 0~242 | 0~252 | 0~210 | 0~228 | 0~130 | 0~135 |
| | IE | 雙缸射出壓力 | kg/cm ² | 1511 | 1511 | 1472 | 1461 | 1481 | 1428 | 1590 | 1487 | 1624 | 1640 |
| | | 雙缸射出率 | cm ³ /sec | 148 | 148 | 193 | 253 | 309 | 396 | 357 | 475 | 435 | 551 |
| | | 螺旋桿回轉數 | rpm | 0~258 | 0~258 | 0~275 | 0~210 | 0~228 | 0~200 | 0~160 | 0~170 | 0~120 | 0~83 |
| 鎖模系統 | 開模行程 | mm | 380 | 450 | 500 | 550 | 600 | 650 | 710 | 765 | 900 | 970 | |
| | 柱內間隔(HxV) | mm | 360x360 | 410x400 | 460x450 | 510x500 | 560x550 | 610x600 | 655x650 | 705x700 | 780x780 | 880x880 | |
| | 模板尺寸 | mm | 515x515 | 580x580 | 660x660 | 735x735 | 810x810 | 880x880 | 960x960 | 1035x1035 | 1160x1160 | 1300x1300 | |
| | 模厚範圍 | mm | 70~330 | 95~380 | 120~455 | 120~505 | 150~555 | 115~590 | 135~640 | 155~690 | 205~810 | 230~960 | |
| | 油壓油托行程 | mm | 110 | 110 | 130 | 150 | 150 | 180 | 180 | 200 | 240 | 300 | |
| SE電氣系統 | 電氣馬達(最大負載) | kW | 11 | 16~20 | 16~20 | 25~35 | 25~35 | 33~35 | 33~35 | 41~55 | 41~55 | 49~55 | |
| | 幫浦最高使用壓力 | kg/cm ² | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | |
| IE電氣系統 | 電氣馬達(最大負載) | kW | 18 | 18 | 20 | 24 | 34 | 36 | 36 | 48 | 48 | 68 | |
| | 幫浦最高使用壓力 | kg/cm ² | 175 | 175 | 175 | 175 | 175 | 175 | 175 | 175 | 175 | 175 | |
| 機械尺寸 | 最大機械尺寸(LxWxH) | M | 3.8x1.2x1.7 | 4.0x1.2x1.75 | 4.5x1.2x1.85 | 4.9x1.4x1.9 | 5.4x1.5x2.0 | 6.1x1.6x2.1 | 6.4x1.7x2.2 | 7.0x1.9x2.1 | 7.8x1.2.0x2.2 | 8.4x2.2x2.3 | |
| | 機械重量 | ton | 3.6 | 4.3 | 5.3 | 6.8 | 8.5 | 10.5 | 12.5 | 16.5 | 21 | 27 | |

1. 射出量以PS為準，(螺桿斷面積X射出行程)X(比重)X(射出效率)
 2. 本型錄僅供參考，變更時恕不另行通知

標準裝置：

- 自動調模裝置
- 五點振動式油壓頂出裝置
- 中子裝置
- 多段射出裝置

附屬零件：

- 工具箱一只
- 六角扳手一組(8把)
- 1 4mm六角扳手一把
- 2 3x2 6梅花扳手一把
- 雙面安全門裝置
- 漏電保護裝置
- 送風開關
- 防震腳
- 夾鐵八組(小型車)
- 儲料桶、看料器一組
- 油壓頂出桿五支

特殊裝置：

- 油溫機
- 計數式絞牙裝置(或計時式絞牙)

| SYSTEM | ITEMS | MODELS | Clamping Force(ton) | | | | | | | | | | |
|----------------------|-------------------------|----------------------|----------------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|---------------|-------------|-------|
| | | | TB 100SE/IE | TB 125SE/IE | TB 160SE/IE | TB 210SE/IE | TB 250SE/IE | TB 300SE/IE | TB 350SE/IE | TB 400SE/IE | TB 450SE/IE | TB 600SE/IE | |
| Injection System | Screw Diameter | mm | 36 | 36 | 42 | 48 | 55 | 60 | 65 | 70 | 75 | 80 | |
| | Theoretical Shot Volume | cm ³ | 180 | 180 | 276 | 361 | 558 | 734 | 994 | 1307 | 1767 | 2210 | |
| | Shot Weight(PS) | g | 214 | 214 | 328 | 430 | 664 | 877 | 1183 | 1555 | 2100 | 2630 | |
| | SE | Injection Pressure | kg/cm ² | 1615 | 1615 | 1440 | 1460 | 1481 | 1360 | 1590 | 1485 | 1588 | 1680 |
| | | Injection Rate | cm ³ /sec | 111 | 181 | 203 | 310 | 306 | 429 | 370 | 503 | 470 | 525 |
| | | Screw Rotating Speed | rpm | 0~258 | 0~410 | 0~315 | 0~320 | 0~242 | 0~252 | 0~210 | 0~228 | 0~130 | 0~135 |
| | IE | Injection Pressure | kg/cm ² | 1511 | 1511 | 1472 | 1461 | 1481 | 1428 | 1590 | 1487 | 1624 | 1640 |
| | | Injection Rate | cm ³ /sec | 148 | 148 | 193 | 253 | 309 | 396 | 357 | 475 | 435 | 551 |
| | | Screw Rotating Speed | rpm | 0~258 | 0~258 | 0~275 | 0~210 | 0~228 | 0~200 | 0~160 | 0~170 | 0~120 | 0~83 |
| Clamping System | Clamping Stroke | mm | 380 | 450 | 500 | 550 | 600 | 650 | 710 | 765 | 900 | 970 | |
| | Tie Bar Clearance(HxV) | mm | 360x360 | 410x400 | 460x450 | 510x500 | 560x550 | 610x600 | 655x650 | 705x700 | 780x780 | 880x880 | |
| | Platen Size | mm | 515x515 | 580x580 | 660x660 | 735x735 | 810x810 | 880x880 | 960x960 | 1035x1035 | 1160x1160 | 1300x1300 | |
| | Range of Mold Height | mm | 70~330 | 95~380 | 120~455 | 120~505 | 150~555 | 115~590 | 135~640 | 155~690 | 205~810 | 230~960 | |
| | Ejector Stroke | mm | 110 | 110 | 130 | 150 | 150 | 180 | 180 | 200 | 240 | 300 | |
| SE Electrical System | Electrical Motor Power | kW | 11 | 16~20 | 16~20 | 25~35 | 25~35 | 33~35 | 33~35 | 41~55 | 41~55 | 49~55 | |
| | Pump Pressure(Max.) | kg/cm ² | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | |
| IE Electrical System | Electrical Motor Power | kW | 18 | 18 | 20 | 24 | 34 | 36 | 36 | 48 | 48 | 68 | |
| | Pump Pressure(Max.) | kg/cm ² | 175 | 175 | 175 | 175 | 175 | 175 | 175 | 175 | 175 | 175 | |
| Machine Dimension | Machine Size(LxWxH) | M | 3.8x1.2x1.7 | 4.0x1.2x1.75 | 4.5x1.2x1.85 | 4.9x1.4x1.9 | 5.4x1.5x2.0 | 6.1x1.6x2.1 | 6.4x1.7x2.2 | 7.0x1.9x2.1 | 7.8x1.2.0x2.2 | 8.4x2.2x2.3 | |
| | Net Weight | ton | 3.6 | 4.3 | 5.3 | 6.8 | 8.5 | 10.5 | 12.5 | 16.5 | 21 | 27 | |

1. Shot weight for polystyrene.(Cross section area of screw X Injection stroke)X(Injection efficiency.)
 2. Specification subject to change without notice on this catalog.

Standard Equipment

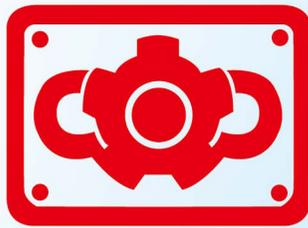
- Automatic mold-adjusting device
- 5point vibration hydraulic ejector
- Core puller
- Multistage injection device
- Double side safety doors
- Electric current leakage protector
- Air control switch
- Vibration absorbing base

Attached Parts

- Tool box.....1ea.
- "L"shape wrench.....1set.
- 3.14mm"L"shape wrench.....1ea.
- 2 3 X 26double ended wrench..1ea.
- Mold fixing irons.....8sets or more
- Funnel and observer1set.
- Hydraulic ejecting rod.....5pcs.

Option Equipment

- Oil temperature controller
- Digital or timing mold screw fit device



樺欽機械廠有限公司

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