

Ei 系列標準規格表

Standard Specifications of Ei Series

規格與配件如有更動,恕不另行通知。

Specifications and accessories are subject to change without prior notice.

| 型 式 Models | | SJ-100Ei | SJ-120Ei | SJ-160Ei | SJ-180Ei | SJ-240 Ei | SJ-300 Ei | SJ-350 Ei | SJ-450 Ei | SJ-500 Ei | SJ-600 Ei | SJ-850 Ei | SJ-1000 Ei |
|---|-----------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|------------------|-----------------|------------------|----------------|------------------|-------------------|
| 射出單元 Injection Unit | | | | | | | | | | | | | |
| 螺絲桿直徑 Screw Diameter | mm | 28 32 35 | 32 38 42 | 38 42 45 | 42 45 52 | 45 52 55 | 50 55 60 | 60 65 70 | 65 75 80 | 70 80 85 | 75 80 90 | 85 90 100 | 90 100 110 |
| 理論射出容積 Theoretical Injection Volume | cm ³ | 86 112 134 | 136 192 235 | 215 263 302 | 277 318 424 | 349 467 522 | 510 617 734 | 848 995 1154 | 1161 1546 1759 | 1539 2010 2269 | 1767 2010 2544 | 2552 2861 3532 | 3179 3925 4749 |
| 射出重量 Shot Weight (P.S.) | g | 79 103 123 | 125 177 217 | 198 243 279 | 255 293 390 | 322 431 482 | 471 570 678 | 783 919 1066 | 1072 1428 1625 | 1421 1856 2095 | 1632 1857 2350 | 2357 2642 3262 | 2936 3625 4386 |
| | OZ | 2.8 3.65 4.37 | 4.4 6.26 7.67 | 7 8.6 9.8 | 9 10.3 13.8 | 11.4 15.2 17 | 16.6 20.1 24 | 27.7 32.5 37.6 | 37.9 50.4 57.4 | 50.2 65.6 74 | 57.7 65.6 83 | 83.3 93.4 115.3 | 103.8 128.1 155 |
| 可塑化能力 Plasticizing Capacity (P.S.) | kg / hr | 21 37 44 | 37 51 61 | 45 61 76 | 61 76 110 | 76 105 110 | 100 124 136 | 140 164 191 | 164 235 280 | 235 280 340 | 235 280 350 | 340 350 450 | 350 450 530 |
| 射出率 Injection Rate | cm ³ / sec | 56 74 88.5 | 80 112 137 | 107 131 151 | 134 154 206 | 168 225 251 | 192 232 277 | 240 282 327 | 262 353 402 | 338 441 498 | 345 392 496 | 459 515 636 | 508 628 760 |
| 射出壓力 Injection Pressure | kg / cm ² | 2491 1876 1594 | 2572 1824 1493 | 2330 1908 1662 | 2333 2032 1522 | 2333 1747 1562 | 2237 1848 1553 | 2245 1913 1650 | 2226 1672 1470 | 2250 1722 1525 | 2265 1990 1572 | 1936 1727 1398 | 2170 1756 1451 |
| 螺絲桿轉速 Screw Speed | rpm | 0 ~ 200 | 0 ~ 210 | 0 ~ 270 | 0 ~ 220 | 0 ~ 210 | 0 ~ 185 | 0 ~ 185 | 0 ~ 140 | 0 ~ 160 | 0 ~ 160 | 0 ~ 155 | 0 ~ 125 |
| 鎖模單元 Clamping Unit | | | | | | | | | | | | | |
| 開模力 Clamping Force | ton | 100 | 120 | 160 | 180 | 240 | 300 | 350 | 450 | 500 | 600 | 850 | 1000 |
| 開模行程 Opening Stroke | mm | 390 | 460 | 500 | 555 | 600 | 650 | 700 | 810 | 810 | 930 | 1050 | 1200 |
| 模厚 Mold Thickness (Min-Max) | mm | 110 ~ 380 | 140 ~ 425 | 150 ~ 500 | 200 ~ 550 | 200 ~ 600 | 200 ~ 650 | 200 ~ 700 | 250 ~ 830 | 250 ~ 830 | 275 ~ 1050 | 300 ~ 1100 | 300 ~ 1250 |
| 模板大小 Platen Size (H x V) | mm | 550 x 550 | 610 x 610 | 680 x 680 | 680 x 680 | 810 x 760 | 900 x 900 | 950 x 900 | 1150 x 1150 | 1150 x 1150 | 1290 x 1290 | 1500 x 1500 | 1640 x 1640 |
| 支柱內距 Distance between Tie Bars (H x V) | mm | 360 x 350 | 410 x 410 | 460 x 460 | 510 x 460 | 560 x 510 | 630 x 630 | 660 x 610 | 810 x 810 | 810 x 810 | 910 x 910 | 1060 x 1060 | 1120 x 1120 |
| 突模力 Ejector Force | ton | 3.3 | 3.3 | 4 | 4 | 4 | 7 | 7 | 11 | 11 | 11 | 13.2 | 18.5 |
| 突模行程 Ejector Stroke | mm | 110 | 110 | 130 | 140 | 150 | 180 | 210 | 220 | 220 | 270 | 300 | 320 |
| 電氣 Electrical Equipment | | | | | | | | | | | | | |
| 電機馬達 Pump Motor | KW | 9 | 9 | 15 | 15 | 22 | 22 | 27 | 27 | 30 | 30 | 37 | 52 |
| 溫度段數 Heat Zones | set | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 7 |
| 電熱容量 Heater Capacity | KW | 5.2 | 6.5 | 6.5 | 10.1 | 10.2 | 12.6 | 15.3 | 20.2 | 26 | 26 | 30 | 37.7 |
| 機械尺寸 Machine Dimension | m | 3.6 x 1.13 x 1.6 | 3.9 x 1.19 x 1.7 | 4.5 x 1.25 x 1.8 | 4.8 x 1.34 x 1.85 | 5.3 x 1.42 x 1.95 | 6.1 x 1.52 x 2.15 | 6.9 x 1.85 x 2.2 | 8.2 x 1.9 x 2.1 | 8.4 x 1.9 x 2.12 | 9 x 2.0 x 2.3 | 10.5 x 2.4 x 2.6 | 10.6 x 2.33 x 2.6 |
| 機械重量 Machine Net Weight | ton | 3.9 | 4.6 | 5.6 | 6.6 | 8.1 | 11.1 | 14.1 | 21.1 | 22.6 | 25.1 | 40 | 45 |



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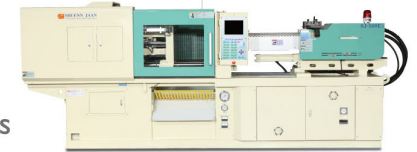


Plastic Injection Molding Machine
塑膠射出成型機

外曲肘節能系列

Toggle Outward Energy Saving Series

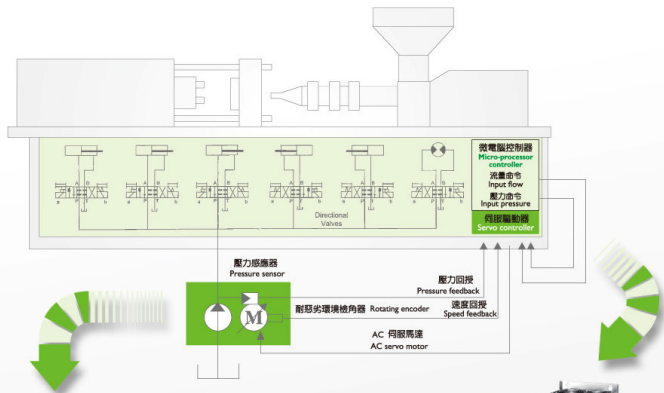
100Ei 120Ei 160Ei 180Ei 240Ei
300Ei 350Ei 450Ei 500Ei 600Ei
850Ei 1000Ei





高精度 高應答
High Precision High Response
高效率 更環保
High Efficiency Environment Friendly

省電伺服馬達系統 Energy-saving Servo Motor System



獨特伺服馬達與定量齒輪泵

Unique Servo Motor with Constant Displacement Gear Pump
具有省電、安靜、低噪音、低發熱及高應答與高重複性特性，是降低成本、創造利潤的最佳利器。It features energy-saving, silence, low-noise, low thermal growth, high response and high repeatability. The unit is a proven cutting edge that helps to lower production costs while creating more profits.

全系列採用伺服系統

A Series Fully Equipped with Servo System

極限節能

Dramatic Energy Saving



耀眼的射出性能

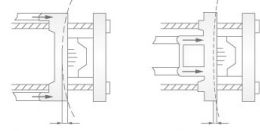
Exceptional Injection Performance



高響應伺服馬達驅動器

High Response Servo Motor Driver
採用先進的高響應伺服馬達驅動器，大幅提升產品精度與穩定性。The use of high response controller dramatically upgrades product accuracy and stability.

消除模板變形 ELIMINATING HOLD DEFORMATION



傳統曲肘-顯著模變形 Conventional tags - Significant deformation of mold plan
新外曲肘-低模變形 New curved tags - minimum deformation of mold plan

鎖模單元 -

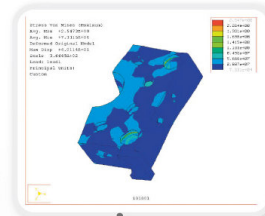
超強剛性結構，確保機器及模具壽命
集中於機架中心的上下外曲肘，具有超長開模行程，及靠近帶的模壁變形量，滿足各型產品需求及提高成型品質。

超大柱內距及模厚可容納大型模具，比傳統相同鎖模力的機型有更大的容模空間，使模具安裝及拆卸更加有效。

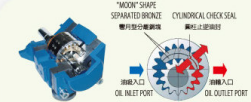
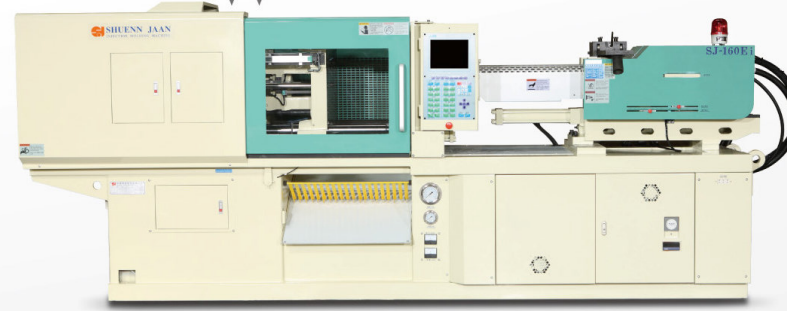
Clamping Unit - Ultra-high Rigidity Assures Increased Service Life of Machine and Mold

The top and bottom outward toggles are concentrated at the center of machine frame, featuring extra long opening stroke and minimized deformation of mold plan. This feature not only meets various product requirements, but also provides an increase in molding quality.

With extra large distance between the tie bars and large mold installation capacity, this machine features larger mold installation space compared with conventional models with same clamping force. This also results in increased efficiency in mold installing and dismantling.



機架結構加強設計，均由Pro-E電腦輔助做應力分析，具有高剛性，受力平均的特性，可避免應力集中，延長機器使用壽命。
The machine frame is reinforced by using Pro-E computer-aided stress analysis, assuring high rigidity, uniform stress distribution, no stress concentration problem and longer service life.



高效率、高精度 HIGH EFFICIENCY HIGH ACCURACY

利用新月形密封油封，來阻止液壓回流，同時在液壓產生時，將新月形分離銅柱齒輪兩側壓緊，自動補償間隙、無洩漏，使射出量效率高達95%~98%，同時低速高壓設計，使其在100 rpm、200bar 壓力下轉動，亦能保持高效率，更兼為射出機之節能保證，提供最佳特性。

低漣波、低噪音、壽命長 LOW RIPPLING WAVE, LOW NOISE, LONG SERVICE LIFE

由於新月形密封油封，補償壓力間隙及液壓平衡設計，使其無磨損及無洩漏洩漏，而達到最低漣波(1.5%~2%)、最低噪音及最長壽命。一般常用的齒輪轉動，其缺點在齒隙的產生，壓力的控制就不精準，且齒隙的產生約在12~16%，相對的會產生較多的震動及噪音的缺點，使用壽命也較為縮短。

The unit applies a cylindrical check seal to stop return-flow of hydraulic oil. When hydraulic pressure generates, the "moon" shape separated bronze presses against both sides of the gear. It automatically compensates gap to avoid leakage, enabling discharge efficiency to reach 95%~98%. In addition, with its low speed with high pressure feature, such as running at 100rpm with 200 bar pressure, the unit is also capable of exhibiting high efficiency. It's an excellent unit specially designed for energy-saving and pressure-raising for plastic injection molding machines.

With the use of a moon shape separated bronze in combination with pressure gap compensation and hydraulic balance design, there is no wearing problem and no particles. This results in minimum rippling wave (1.5%~2%), minimum noise and longer service life.
The effect of conventional gear pump is its gear clearance, causing inaccuracy 12~16% of pulsation. This defect leads to more vibration, more noise and shorter service life.

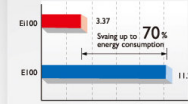


高應答 HIGH RESPONSE

此款機為射出機內部設計之伺服馬達，透過自開發的高密度磁鐵技術，轉力小、轉子慣量最低。如例，汽馬加壓要變，要變油，汽馬本身重量放更輕。因此，伺服馬達轉動力更爽快，要省電，用伺服馬達轉動之心機要少好。
The servo motor is specially designed to meet the requirement of energy saving for a plastic injection molding machine. With the self-developed high-density magnet technology, the construction of the servo motor is greatly reduced with minimum rotor inertia.

The principle is the same as a car: if a car requires faster acceleration and more fuel saving, the car weight must be lighter. Similarly, if a servo hydraulic drive requires faster rated pressure and more power saving, the rotor inertia of the servo motor should be as small as possible.

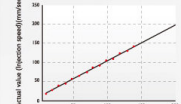
消耗電力比較 Comparison of Electricity Consumption



依據實際流量及壓力需求設定，在到達壓力設定值時，馬達以極低速運轉，消除溢流能量損失，達到省電目的。
The low rated pressure can be set according to actual requirement. Once the pressure reaches the set value, the motor will run at low speed, eliminating energy loss due to over-flow for saving power consumption considerably.

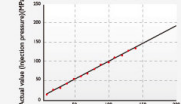
大幅節能削減成型機長期經營成本
Significant energy saving permits great reduction of injection molding cost.

射出速度直線特性 Linearity of Injection Speed



射出速度與壓力，再線性，射出速度與壓力設定值與實際值誤差1%以下
High response of injection control can reach 99% repeatability. In addition, the linear error of injection speed is controlled within 1%.

射出壓力直線特性 Linearity of Injection Pressure



精確，射出壓力與壓力設定值與實際值誤差1%以下
Extra-high precision pressure control allows pressure linearly error within 1% between setting values and actual values is maintained.