

# Four Application Fields

## 四大应用领域

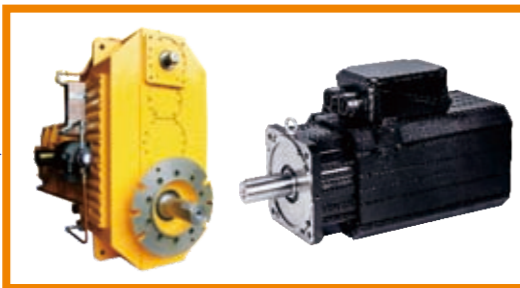
(ETHERCAT+ABSOLUTE)



• 直驱伺服熔胶方案  
Direct-driven servo plasticizing scheme



• 全电动伺服方案  
Fully Electric servo scheme  
A、注射 Injection  
B、熔胶 Plasticizing  
C、开合模 Clamping control



• 伺服+减速齿轮箱熔胶方案  
Plasticizing scheme with servo and gearbox



• 伺服转盘方案  
Servo turntable scheme



• 伺服液压系统方案  
Servo hydraulic system scheme



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PROFESSIONAL MANUFACTURER OF SERVO MOTORS,  
SERVO DRIVES AND SERVO SYSTEMS

伺服电机、伺服驱动器及伺服成套系统的专业制造商

# Electronic-Hydraulic Servos

## 电液伺服



盛迈电液伺服系统的特点是性能稳定，油泵、电机和驱动器的匹配性好，流量和压力的控制精度高，动态响应快。电液系统的功能丰富、支持多泵合流/分流模式、整体节能效果好，售后服务简单。

**Synmot electro-hydraulic servo systems** are highly integrated systems, with the

perfect matching of pumps, motors and drives. It can achieve precise flow and pressure control, and the dynamic response is fast. Synmot electro-hydraulic servo systems support multi pump confluence control, with excellent energy-saving performance and simple maintenance.

### 1、电液用风冷式伺服电机，含190/200/260/360mm 四个机座号系列

- 效率高，响应快，转子采用高性能的稀土永磁材料，运行可靠
- 低惯量，大过载力矩，易于提高系统的快速性
- 采用非线性补偿d-q轴电流控制技术，将转矩控制精度从±5%提高到±2%
- 采用多对极全塑封旋变，防护等级高、可靠性强，相比单对极旋变，分辨率更高，速度更加平稳。



Air cooling electro- hydraulic servo motors, include 190/200/260/360mm frame sizes.

- High efficiency, fast response, using high-performance rare earth PM materials, highly reliable.
- Low inertia and high peak torque, to achieve excellent dynamic performance.
- Adopting none-linear parameter compensated d-q axis current control techniques, improve the torque control accuracy from ±5% to ±2% ,
- Using multi pole- pair plastic- coating resolver, fully protected, high reliable. Compared with single pair polar resolver, high resolution and smooth operation.

### 2、电液用油冷/水冷式伺服电机，含200/260/360/450mm 四个机座号系列

- 采用定子外壳液冷技术
- 防护等级更高，更可靠、更安全
- 相对风冷电机，整机运行噪音小，温升更低
- 体积小，速度响应快，峰值扭矩大。



oil/water-cooling electro- hydraulic servo motors including 200/260/360/450 frame sizes.

- Stator housing liquid cooling design.
- Higher level of protection, more reliable and safety.
- Comparing with air- cooling motors, low noise and low temperature rise. Small volume size, high speed response, high peak torque.

# Fully Electrical Servo Systems

## 全电动伺服

### 全电动伺服电机系统

作为塑机的注射、熔胶和开合模的执行机构，其主要特点：

- 响应快，效率高，提升单位产能
- 噪音小，无油污，耗能小，节能环保
- 采用德国绝对值编码器，控制精度高和运行平稳，提升产品品质
- 优化的电机和驱动设计，保证产品整体性能的同时，提高了产品的性价比，在中小塑机应用领域，增强了竞争力。



### Fully Electric servo motor systems

to control injection, plasticization, clamping action, its main features are:

- Fast response, high efficiency, improve machine productivity.
- Low noise, no oil stain, energy saving and eco-friendly.
- Using German absolute encoder, high control accuracy and smooth operation, better product quality.
- Optimized motor and drive design account for the application, improve the overall performance, and better cost performance.



### 塑机转盘伺服电机系统

相比由传统液压马达驱动转盘的系统，其主要特点：

- 不使用液压油，无漏油等问题，进而提升产品质量
- 耗能更小，节能环保
- 优化快速正反转位置控制，精度高，提升产品品质
- 采用日本绝对值编码器，精度高，速度运行平稳，噪音小。

### Turntable servo systems for Injection molding machines

Compared to turntable system driven by hydraulic system, its main features are:

- No hydraulic oil, no leakage phenomenon, improved product quality.
- Less energy consumption, energy saving and environmental friendly.
- Optimizing fast rotating position control, high precision, better product quality.
- Using Japanese absolute encoder, high position accuracy and smooth operation, better cost performance.



# Synchronous Plasticizing Servos

## 同步熔胶伺服

### 采用传统液压系统实现同步熔胶

缺点：

- 耗电量大，通过液压马达进行熔胶动作，效率低，耗电量大
- 结构复杂，通过液压系统实现，整机结构复杂
- 速度不稳定，由于不同负载下熔胶马达内泄不一致，引起熔胶转速不稳定。

### Using traditional hydraulic system to realize synchronous plasticization

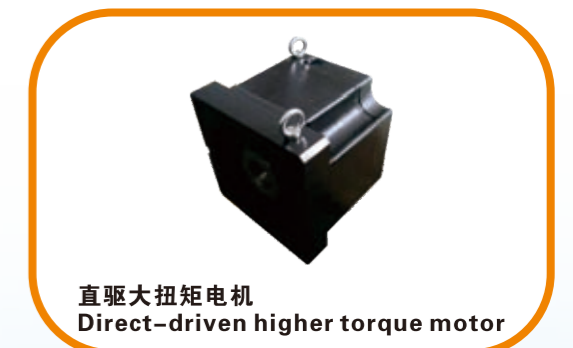
Disadvantages:

- High power consumption. Using oil hydraulic motors, inefficient, large power consumption.
- Complicated structure. Using the hydraulic system, the whole structure is complicate.
- Speed is not stable. Due to the leakage variation of oil motor under different load, cause the melting speed unstable.



伺服高速电机+减速机  
High speed servo motor+ Gearbox

方案一 Option One



直驱大扭矩电机  
Direct-driven higher torque motor

方案二 Option Two

### 采用伺服系统实现同步熔胶(二种方案)

- 伺服电机+减速机构
- 大扭矩直驱伺服电机

### 优点:

- 节能:伺服电机驱动，效率更高、更节能
- 结构简单:由伺服驱动器+伺服电机(或伺服电机+减速机构)进行驱动，结构简单
- 速度稳定:通过编码器反馈实现闭环控制，速度稳定性高
- 采用大扭矩直驱伺服电机时，机械免维护，没有减速机构，无需润滑与维护。

### Synchronous plasticization using servo systems (Two options)

- Servo motor + reduction gearbox
- Direct-driven servo motor

### Advantages:

- Energy Saving: operating with servo motors, high efficiency, more energy saving.
- Simple structure: servo drive+servo motor ( or with gearbox ) control, simple structure.
- Stable speed: Implement of closed-loop control with encoder feedback, smooth operation.
- When using direct-driven motors, mechanical maintenance-free, no gearbox, no lubrication and maintenance.