



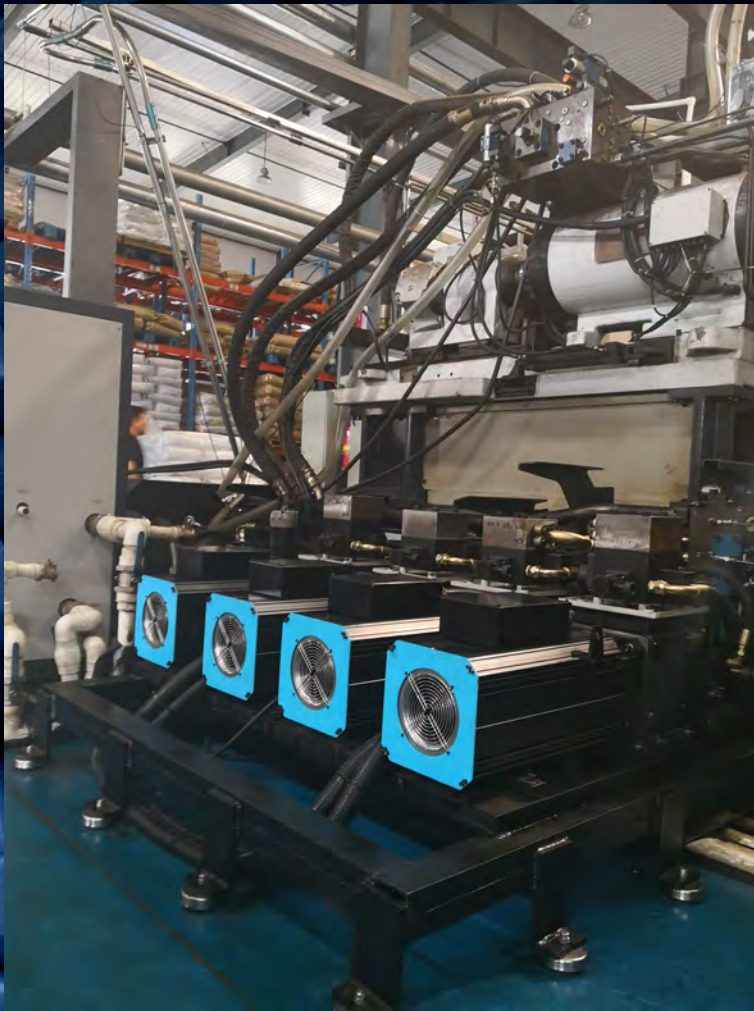
### **Molders Services, Inc.**

*MSI is a domestic manufacturer of injection-end components that also provides extensive consultative and expert problem-solving services.*

### **Over 4 Decades of Excellence**

*At MSI we combine more than 40 years of in-plant diagnostics and trouble-shooting experience in the plastics industry with unparalleled expertise in parts manufacturing and design.*

# Servo Hydraulic System Retrofits



## **Energy Saving Retrofitting**



- 50%+ energy savings
- Improved cycle time
- Quieter operation
- Less downtime

- Reduced carbon footprint
- Replaces old, expensive pumps
- Reduced load on heat exchanger
- Retrofit rebates available



[MoldersServices.com](http://MoldersServices.com)



Call Today 248.585.8120

# Servo Hydraulic Pump Systems

Molders Services, Inc. (MSI) is proud to offer an exciting upgrade for your aging hydraulic presses. Take advantage of the efficiencies found in new equipment without the headaches and expense of replacement. Any press, regardless of OEM, operating on an asynchronous hydraulic system may be upgraded to one of our servo-hydraulic systems to reap significant energy and operational benefits. Call us today for a budgetary quote including implementation, projected savings, and payback.

## The Molders Advantage

Thousands of presses in the field may have a few miles on them, but they're far from retirement. The drawback is that older machines operate on outdated and inefficient hydraulic systems, consuming lots more energy and causing a much greater load on cooling towers than modern systems. Despite being more efficient, new equipment is expensive and requires significant planning and downtime to procure and install. By upgrading the hydraulic infrastructure on your existing machines to servo-hydraulic systems, you forgo the expense of new capital investment while taking full advantage of the efficiency offered by new equipment.

Molders Services can perform these upgrades as a complete turnkey service, from start to finish, usually in less than a week. PLUS, as a certified TradeAlly, Molders can facilitate a rebate filing with your energy provider, putting money back into your pocket more quickly and without the need to assign an engineer to navigate the process.



**Servo system motor** – is smaller with more rapid response and high overload tolerance



**Servo system pump** – has a higher rotating speed, lower leakage and pulsation, operates at lower speeds and is more pressure stable



**Servo system pressure control** – upgraded digital monitoring offers more accurate pressure detection



**Servo system speed control** – motor encoder has 1,024 lines assuring more precise control of speed and flow



**Servo system braking device** – this external braking resistor provides more rapid motor response



**Servo system digital control** – dual closed-loop control of pressure and flow offers improved precision and efficiency

## Results



Before



After

### Nissei 320T OEM

- Original average cycle [kWh/h]: 10.454
- ✓ Post retrofit average cycle: [kWh/h]: 2.772
- Original energy consumption: 83,632 kWh / yr.
- ✓ Post retrofit energy consumption: 22,176 kWh / yr.
- ★ Saving rate: 73%



### Nissei FV9200 1000 Ton

- Original average cycle [kWh/h]: 63.405
- ✓ Post retrofit average cycle: [kWh/h]: 29.593
- Original energy consumption: 384,236 kWh / yr.
- ✓ Post retrofit energy consumption: 169,911 kWh / yr.
- ★ Saving rate: 53 – 56%

**Call Us Today**  
**248.585.8120**

**Molders Services**  
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Pontiac, MI 48340

