STAMPING OUT WASTE

VFD EFFICIENTLY MANAGES HIGH-INERTIA STAMPING PRESS

YASKAWA SUCCESS STORIES

When flywheels don't stop, neither should your drive.

A metal stamping company needed a variable frequency drive (VFD) capable of handling high-inertia flywheels without triggering overvoltage faults.

Yaskawa, experienced in this type of application, reviewed the system and recommended a solution built to meet the demanding requirements.

Product GA800 Series VFD **Industry** Machine Tool **Application** Stamping Press

CHALLENGE

For this application, the customer required a solution that met the following criteria:

- Eliminate regenerative energy without using a braking resistor
- Reduce stress on the supply transformer and eliminate belt squeal
- Detect and respond to abnormal operating conditions
- Minimize long coast-down times of the flywheel and motor

SOLUTION

Yaskawa recommended its GA800 Series VFD, designed to handle high-inertia loads with precision and reliability. Key features that made it an ideal fit include:

- **Overvoltage Suppression:** Eliminates the need for a dynamic braking resistor by safely managing regenerative energy.
- **Torque Limit and Stall Prevention:** Reduces excessive motor current, easing the demand on the power supply and helping prevent belt squeal and overall machine stress.
- **Overtorque and Undertorque Detection:** Monitors for abnormal conditions such as belt breaks or overloads. Additional features like **Speed Search** allow motors to soft start and resynchronize with already rotating equipment.

IT'S PERSONAL

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RESULTS

With the GA800 Series VFD in place, the customer successfully eliminated overvoltage faults without relying on braking resistors—streamlining the system and reducing system complexity. The torque-limiting and stall prevention features minimized stress on belts, motors, and the supply transformer, helping extend equipment life.

Torque monitoring and speed synchronization capabilities improved reliability and control, allowing for quicker restarts and reduced downtime. Overall, the solution delivered greater machine efficiency, improved safety, and a more stable production environment.

KEY GA800 FEATURES

- Standard control inputs which include eight digital, three analog, two safe torque off, and one pulse
- Standard monitor outputs include four digital, two analog, one pulse, and a 24 Vdc supply
- A high-resolution keypad equipped with a real-time clock, copy and backup functions, and microSD storage for fault history storage
- Normal Duty and Heavy Duty ratings for use in variable torque and constant torque motor applications
- Capable of controlling various motor types, including induction, permanent magnet (both SPM & IPM), and synchronous reluctance motors
- Global certifications such as UL, CSA, CE, TÜV, EAC, RCM, KCC
- Yaskawa's award-winning 24-hour technical support, free of charge

Looking for better performance out of your VFDs? Contact Yaskawa today.

SCAN HERE

For more information on the GA800 Series VFD visit: www.yaskawa.com/GA800

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