

SMOOTH OPERATOR

MAINTAINING CABLE TENSION
IN COILING PROCESS



YASKAWA SUCCESS STORIES

When flawless coil formation is the goal, precision is non-negotiable. This manufacturer's coiling system relies on a dancer arm to maintain constant cable tension, using tightly tuned PI control to adjust motor speed in real time. But delivering that level of precision isn't easy—until Yaskawa stepped in with the right drive and the application expertise to match.

Product GA800 Series VFD

Industry Wire & Cable

Application Reeling Machine

CHALLENGE The company experienced persistent issues with its dancer control arm, which is responsible for regulating cable tension during the coiling process. During steady-state operation, the arm would oscillate, causing unstable motor speeds and inconsistent tension—resulting in poor coil quality. Frequent starts and stops between spools made matters worse, leading to collisions between the dancer arm and the top of the spool.

These issues created a cascade of operational problems:

- **Disrupted coil formation**, requiring manual intervention.
- **Increased downtime** to remove damaged coils and re-thread the machine.
- **Higher labor costs** due to repeated stoppages.
- **Material waste** from damaged or unusable cable.

SOLUTION After reviewing the application, Yaskawa's local drive specialist recommended the GA800 Industrial VFD for its ability to deliver precise, real-time control—critical for maintaining stable cable tension. With advanced motor control algorithms, high-resolution feedback, and flexible tuning options, the GA800 provided smooth, responsive adjustments that allowed the dancer arm to operate without overshooting or oscillation. These features ensured consistent coil quality, regardless of cable type or spool size.

The drive's advanced diagnostics allowed operators to monitor performance in real time, helping prevent downtime. With improved efficiency, stability, and reduced maintenance, the company now uses Yaskawa as its standard VFD across machine designs.

COMPANY HIGHLIGHTS

This global wire spooling provider supports manufacturers in telecommunications, data networking, and electrical industries. Known for its innovation in tangle-free packaging, the company has set industry standards with advanced coiling systems, making it the preferred choice for packaging fiber optics, plastic tubing, and building wire.

IT'S PERSONAL

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RESULTS

ELIMINATED

Abrupt, Jerky
Movements

With advanced control capabilities, the drive maintained precise cable tension—ensuring smoother dancer arm motion and consistently better coil quality.

REDUCED

Operational
Costs

Fewer interruptions and less waste lowered both labor and production expenses.

ENABLED

Real-time
Diagnostics &
Feedback

Real-time insights allowed operators to troubleshoot faster, reduce intervention, and maintain consistent coil quality.



Struggling with coil
inconsistency & downtime?
Contact Yaskawa today.

KEY GA800 FEATURES

- Standard control inputs which include eight digital, three analog, two safe torque off, and one pulse input
- Standard control 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
- Capability to control various motor types, including Induction, Permanent Magnet (both SPM & IPM), and synchronous reluctance motors
- Normal Duty and Heavy Duty ratings for use in variable torque and constant torque applications
- Support for all major communication networks via an assortment of optional boards (RS-485 Modbus RTU comes as standard)
- Free programming support tools are included, such as DriveWizard® and DriveWizard® Mobile, Programming Simulator, DriveWorksEZ®, Energy Savings Predictor & Harmonic Estimator
- Global certifications such as UL, CSA, CE, TÜV, EAC, RCM, KCC
- Yaskawa's award-winning 24-hour technical support department is free of charge

SCAN HERE



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

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