All-electric winch technology dramatically simplifies and improves take-up capabilities when compared to traditional hydraulic cylinder systems with their array of ropes, clamps, thimbles and an assortment of sheaves. Our state-of-the-art design consists of an AC electric motor, electric fail-safe brake, encoder, planetary reducer and a winch drum. All hydraulics are eliminated. All-electric winch technology uses a simple, rotating drum and single rope design to increase conveyor belt availability and maintain constant tension with an improved take-up reaction time. The Joy all-electric winch is easy to install and simple to operate.

We have incorporated progressive engineering, dependability and ruggedness into our latest winch design.

- The gearbox is internal to the winch drum for a more compact design, reduced maintenance and longer life for the equipment
- Winches are shipped mounted, aligned and ready for installation, reducing set-up time required during commissioning
- The winch brake is located on the high-speed input side allowing for a smaller unit and ease of maintenance
- More line pull with less horsepower equals savings in operational costs

Properly equipped all-electric winches can maintain precise tension control by achieving full torque of an AC motor with zero shaft RPM. With line pull ranging from 25,000 lbf – 150,000 lbf, the Joy constant tension winch take-up is capable of maintaining line pull and providing belt tensioning requirements for a wide range of applications including lengthy, high-tension conveyor systems.

The Pony version of our full-size winch also provides the efficiency, proven reliability, and savings of all-electric winch technology, but in a smaller package. With the Pony winch, there is no need to grease and maintain sheaves, change hydraulic filters, replace hydraulic fluids or even perform simple hydraulic maintenance. Plus, the Pony winch makes tension adjustments quick and easy—resulting in less stress on belts, splices, and the entire conveyor.

The Pony winch electrical package is offered in three different arrangements:

1. Basic Package – Precision tension control and accelerated reaction times when compared to hydraulic take-ups. Safety features necessary to comply with local regulations are included. A simple programmable logic controller (PLC) is offered, but not required for control. This package can also be offered with or without an human-machine interface (HMI) screen.

2. Enhanced Package – Basic Package features, plus HMI screen, PLC, and a simple communication protocol are included.

3. Premium Package – Enhanced Package features, plus options commonly offered with our full-size winches are available. A more advanced PLC and higher quality HMI screen are included. Additional safety checks are added to the operating program inside the PLC and much more.

Consult your Komatsu Mining representative to determine the right control package for your budget and operating requirements.

Available as a retrofit package

Existing hydraulic take-ups can be retrofitted to all-electric winch systems. The hydraulic power, sheave section and cylinder pack are eliminated.