

# BEHIND *the* STEEL

## 150HP Constant Tension Winch Assembly

A **Constant Tension Winch** is used in conjunction with high capacity belt storage and/or take-up units. Line pulls can vary from 25,000 to 100,00 lbs. depending upon the HP required. Added metal safety guarding and covers can be affixed to this unit to protect workers from moving parts.

### BENEFITS:

- Quicker response time
- Improves conveyor operation
- Minimal installation
- Provides constant tension under dynamic loads to relieve motor overload — regardless of belt speed
- Better option for longer take-up travel for high tension applications
- Varying amounts of line pull and greater belt storage capacity

### » MSB-9 Force Control Brake

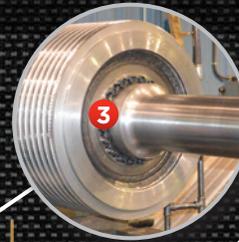
A MagnaShear® MSB-9 fully electric motor brake readily mounts to a NEMA standard motor frame size. The technology within this totally enclosed braking unit stops activity that could deform or damage motor shafts in high-torque applications. The “Quick Mount” design of this part allows for easy connection to a drive motor.

### » Reliance 150HP Motor

This winch has a custom Reliance 150HP L3213Z variable speed alternating current motor with 1800RPM. The totally enclosed unit is designed for a shaft-mounted motor brake that mounts to the input shaft of the motor.

### » Winch Drum

This heavy-duty winch drum has 150 ft. of live wire rope capacity. It's grooved to prevent the wire rope (single lap design) from collapsing on a flat surface. The drum has an **3** oversized keyless shaft locker and is rated at 39,000 lb. capacity.



### » Bearings

One SAF22538 split-house, 4-bolt pillow block bearing is affixed to either side of the drum.

### » 1170T10 Grid Coupling

The reducer and winch drum are connected by the output shaft using an 1170T10 grid coupling.



Reverse Angle

### » Roof/“Back” Mount Frame

Depending on operational needs, the winch assembly can be set up for roof mount. In this example, vertical beams have been attached to support the unit from the roof, allowing for proper connection to the client's take-up unit. Added metal safety guarding surrounding the drive and frame is an extra measure to protect workers from moving parts.

### » Sumitomo Paramax 9000 Reducer

A good selection for this unit, it offers full design availability while being economical at the same time. The **1** input shaft of the reducer is connected to the motor by a 1090T10 grid coupling. The **2** output shaft is using an oversized 1170T10 grid coupling for connection to the drum.

### » 1090T10 Grid Coupling

This type of closed coupling that connects the motor and reducer at the input shaft has tapered grid style hubs, grids, and covers that are interchangeable with other industry standard tapered grid couplings. The horizontally split cover allows for grid replacement without having to remove the other connected equipment.

