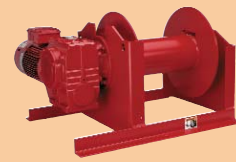


# Thern

## Product Application

Power Gen



### Raising and Lowering Equipment and Tools in Wind Towers



Wind Turbine Towers rise into the sky up to 210 feet, with three turbine blades extending over 110 feet in length. Because these turbines are mounted on towers that are as high as a 20-story building, performing maintenance duties is difficult. The towers are 20 feet in diameter at the base and equipped with access doors to allow maintenance crews inside. Ladders mounted inside are the only means of access to the turbines mounted at the top. Maintenance crews climb 200 feet to a platform and from there are able to access the turbines more easily but transporting tools and equipment to the platform while climbing a ladder is a serious safety concern.

Thern custom built Series 4HWF Helical/Worm Gear Power Winches are used for raising and lowering the necessary materials for maintenance. The maintenance crews are using the winch to raise and

lower everything from wrenches to hydraulic torque tools. The loads may weigh up to 500 lbs.

The Thern Series 4HWF Helical/Worm Gear Power Winches used in these turbines are built with standard features including TEFC severe duty brake motors and enclosed gearing and flange style roller bearings. These winches were custom designed incorporating standard components to allow quick delivery and low cost while meeting the exact requirements of the application. They also are equipped with custom drum guards and a large diameter drum to meet OSHA and ANSI standards.





**Above and Right:** The winches mount in the maintenance access shafts of the turbines allowing tools and equipment to be hoisted to where the maintenance is being done.



## APPLICATION DETAILS

Lifting or pulling:	Lifting
Line pull required:	500 lb
Line speed required:	30 fpm
Travel distance of load:	200 feet
Power source:	230/3/60
Installation requirements:	Custom Wall Mounted
Environment:	Indoor
Frequency of operation:	Intermittent

