INDUSTRIAL
WINCHES AND CRANES
HAND / POWER / HYDRAULIC / AIR WINCHES • DAVIT CRANES
www.thern.com
What We Do
Thern specializes in the design and manufacturing of winches and davit cranes. Thern winches and cranes have established a world-wide reputation for toughness, versatility and reliability. Our ability to provide clients with a full range of services, and custom-built solutions has made us a leader among our peers. Whether you need to lift, lower, pull or position virtually anything weighing 100 lbs. to 100,000 lbs. Thern has the perfect product for you.

Design Leader
Superior quality is designed into every product we manufacture. Any manufacturer can say they build a better crane or winch. Only Thern can back that claim up with a steadfast reputation for dependable products chosen time and again by companies worldwide. Thern products are manufactured to the highest industrial and quality standards because your application is our application. We also understand that some jobs require a tool that isn’t available right off the shelf. That’s why Thern employs an experienced engineering and technical sales staff that can consult, design and make modifications as necessary to provide the best possible product for your application.

Quality Assurance
Every product we manufacture must meet our strict quality standards or it doesn’t carry the Thern name. Our quality management system is certified to ISO 9001/2008 standards. All inspection tools are maintained and calibrated regularly as required under the ISO standard. All new products are rigorously tested to ensure performance and durability. Thern has the ability to test products statically and dynamically with load capacities up to 55,000 lbs. and line speeds of up to 200 fpm. Test and inspection certificates are available upon request.

Markets We Serve
For over 60 years Thern has been serving a broad range of industries all over the world. Our primary markets include these industries: Water/Wastewater, Entertainment, Oil and Gas, Bulk Handling, Government/Defense, Mining, OEM, Construction, Manufacturing and Marine.

Customer Care
The glue that holds our performance together is “service.” We specialize in getting the job done right. Thern is a professional company that is easy to do business with, whether you want to lower the Ball in Time’s Square every New Year’s Eve or position a load-out chute at a mine in Australia, our expertise and experience is here to serve you. It’s been said before, and it’s worth saying again: Thern is big enough to handle any project yet small enough to care.
Fairmount Minerals
Hagar City, WI Facility

Thern power winches provide the power and control needed for dependable handling of heavy loads. Thern provided a 4HPF40M-S7 pulling winch and a 4HS11M-S14 take up winch for pulling and positioning rail cars for Wisconsin Industrial Sand Co.

The pulling winch has a 40,000 lb capacity for positioning rail cars under the load-out chutes in the loading process.

Thern’s single winch solution provided terminal operators with the heavy-duty load capacity they required, at a fraction of the cost of conventional methods. A dual cable anchor design provided a closed loop system, which allowed the winch to move the railcars in two directions with the high level of load control needed for this application.
Las Bambas, Peru
Mining Project

Tern provided ThyssenKrupp with a conveyer belt winch for the Xtrata Copper project in Las Bambas, Peru.

Each of two new overland conveyors at Xstrata’s Las Bambas copper mine will be approximately 2.5 kilometers long and transport ore from the mine to the processing plant. The belts will be 1,830 millimeters wide, travel at 6.5 meters per second, and are designed to transport approximately 9,400 metric tons of material per hour.
POLARCUS NADIA
BUNKER HOSE WINCH
Thern recently built an electric winch model 4HPF15M-S49 which was installed on the Polarcus Nadia ship for pulling bunker hose.

The Polarcus Nadia is an ultra-modern 12 streamer 3D/4D seismic vessel. Built to the ULSTEIN SX124 design and incorporating the innovative ULSTEIN X-BOW® hull, this vessel combines the latest developments in maritime systems with the most advanced seismic technology commercially available. The vessel is also amongst the most environmentally sound seismic vessels in the market with diesel-electric propulsion, high specification catalytic convertors, double hull, and advanced bilge water cleaning system.
Applied Research Laboratories - UT Vessel Winch and Controls

ARL:UT has been engaged in a sponsored research program dedicated to improving our national security through applications of acoustics, electromagnetics, and information sciences.

Thern designed and built a custom winch and control system used to launch and retrieve sophisticated sonar equipment. Thern's model 4HPF40M-S13 VFD control panel is equipped with climate control and wireless remote capabilities.
Recent Projects

Hoover Dam Bypass Bridge

Thern supplied Six Thern 4HS26M electric winches with 26,000 pound load capacity and 15,000 pound line pull.

Obayashi/PSM Jv., the contractor for the project, worked directly with Thern, Inc. to obtain the powerful electric winches used to position the cable stays during each placement. During placement of the cable stay, the winch system counteracted forces in excess of 16,000 pounds. The Thern winches provided Obayashi with the required force and control to lift the stays and position them as each arch segment was advanced.

The bridge is nearly 2,000 feet long spanning the Colorado River canyon.
Thern Inc.  
Product Test Tower
To offer and accommodate needs for lifting product testing, Thern Inc. has recently finished the latest enhancements to its test tower offering 65’ of vertical lifting as well as a true static load testing allowing the ability to test not only the lifting capability of a winch but also the holding power of it’s brake.

The tower weight system, designed and largely fabricated by Thern, uses pins to combine selections of weight plates allowing test crews to set loads ranging from 4,000 to 55,000 pounds in 250 pound increments in just a matter of minutes.

A Thern 5124E2GAL crane is also installed on top of the test tower providing a means for getting tools and equipment to the top of the tower, as well as assisting in the installation of the wire rope that is sized for each product being tested.

With this upgrade Thern has the ability to test a wide variety of products to their full load rating.
New Year’s Ball Winch
Times Square, NY

Once per year, Thern shines on the world’s largest stage on New Year’s Eve at One Times Square, New York, New York. Thern was selected to custom design and manufacture a winch capable of lifting and lowering the New York Times Square ball.

The ball itself is twelve feet in diameter, weighing in at 11,875 pounds and consists of 32,256 LED lights that give the New Years Ball its spectacular effects. Over one million people attend the event each New Year’s eve eagerly waiting for the highlight of the evening - the lowering of the Times Square Ball. Over ONE BILLION people watch the event on televisions all over the world as Thern’s custom made winch performs with perfection. The custom winch had to be geared precisely to lower the ball in exactly the time allotted and also is installed via a unique under-mount system.
HVAC and Maintenance Utility Cranes

A Thern 5124 Series modified davit crane is mounted on the roof of a four story building to raise and lower HVAC components and maintenance equipment. The crane is coated with an epoxy finish to provide superior corrosion resistance. The crane is rated for lifting up to 500 lb at all boom positions. A Thern 477 Series electric winch is used to raise and lower loads. The crane must provide enough horizontal reach to clear the edge of the building and enough vertical height to lift large loads over the curb along the edge of the roof.

Thern Utility and Maintenance cranes are used in a variety of applications to lift heavy equipment, tools and supplies to roof tops, towers, silos and more.
Wind Tower
Utility Winches
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.

Today, Thern has hundreds of Wind Turbine Service Winches in service in the United States. Each Thern winch is manufactured with the same top quality parts and people that have made Thern, Inc. the best in the industry for over 50 years. We stay on top by delivering products that get the job done, fast, effectively and dependably. We will customize each winch to your specific application.
NASA Space Shuttle Platform Winches

Thern supplied the winches required to raise and lower ET Orbiter access platforms on Space Shuttle pads 39A and 39B. Winches were supplied with grooved drums, limit switches and redundant braking.

Because of the hazardous environment with salt air, the winches were epoxy coated.

The platforms will be locked out when in position prior to supporting personnel. Winches were supplied with two speed motor to allow for high speed movement and low speed positioning.
Waupaca Foundry
Dual Drive
Charge Bucket Winch

Thern engineers and craftsmen worked in unison with ThyssenKrupp to meet their exacting specifications and build the largest winch to ever pass through Thern’s doors since the company began in 1948. The huge winch is up and operating beautifully and a second one has been ordered.

The unique project called for a grooved drum winch with high line speed in excess of 400 FPM, precise control and dual motors and gear boxes. The reason for the dual motors and gear boxes was to assure no downtime should one motor fail or need maintenance as the winch will be running 24/7 in the customer’s foundry. Thern’s customer was extremely pleased with their new winch and couldn’t wait to try it out in their Tennessee factory.
Ivanpah Solar Utility Winches

The future of energy generation is underway in the Mojave Desert. Forty miles southwest of Las Vegas, just across the border in California, BrightSource Limitless, in partnership with NRG Solar and Google, is building the world’s largest solar array comprised of three collector towers and 170,000 reflectors or heliostats surrounding them. Each heliostat is the size of a garage door. With a nominal output of 377 megawatts, this facility is set to double the amount of solar power energy in the United States.

Special 4HBP40M-S1 power winches from Thern will be used for maintenance operations, one winch sitting in the top of each tower. Each winch is built with a non-standard drum to hold enough wire rope to cover the 400 foot lift distance, a rotary limit switch and will mount inverted in each tower. The winches are operated via radio remote control which Thern also wired and installed.
Our Family of Products

An innovator providing world-class solutions to lifting, lowering, pulling and positioning challenges

LEAVE THE HEAVY LIFTING TO US

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