

ENERPAC APPLICATION INSPIRATION



- Buildings and Stadiums
- Bridges and Infrastructure
- **Manufacturing**
- Power Generation
- Steel and Metal Production
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- Shipbuilding
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Enerpac Application Inspiration



POWERFUL SOLUTIONS. GLOBAL FORCE.

With more than 50 years of experience, Enerpac has gained unique expertise in delivering hydraulic solutions for the controlled movement and positioning of heavy loads.

This expertise has been acknowledged by the world's leading industrial professionals and has contributed to the successful movement of a number of the most recognizable structures on earth.

In addition to providing the most comprehensive line of globally-supplied, locally supported Heavy Lifting products, Enerpac combines hydraulics, steel fabrication and electronic control with engineering and application knowledge, to design and manufacture solutions that ensure your projects are completed safely and efficiently.

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Hydraulic Boom Gantry Safely Transports 120 ton Machine Bed

Customer: Gushee's Rigging and Heavy Hauling

Location: New England, USA

Challenge: Gushee's Rigging and Heavy Hauling, the premier machinery mover in New England, was tasked to safely transport a 243,000 pound machine bed for one of its customers. The machine bed had to be unloaded from a truck, uncrated and placed in a 183 cm deep pit inside a building.

Solution: Enerpac supplied its SBL500 hydraulic boom style gantry, 12,2 long header beams and gantry skid track to help with the job. The gantry assisted in unloading the machine bed from the transport trailer to unlevelled ground and the crate was removed from around the machine bed. The machine was then lifted again with the SBL500 hydraulic boom style gantry and placed on a trailer to move through a narrow door into the building.

Solution: SBL500 Telescopic Hydraulic Gantry



Safely Releasing Furnace Bricks from a Steel Fixture



Customer: Vesuvius

Location: Skawina, Poland

Challenge: Vesuvius processes the bricks which are used in the interior of an industrial furnace. The bricks begin in a 'soft' state and need to be compressed, hardened and heated before they are installed in a furnace. A steel box is filled and compressed hardening the bricks. After compression the bricks stick to the steel fixture and a significant amount of force is needed to release the bricks from the steel fixture.

Solution: A 50 ton hydraulic cylinder and manual hand pump are used to apply pressure to a release rod which removes the brick from the steel fixture. The hydraulic system provides a fast and safe solution.

Products: RC-Series hydraulic cylinder,
P-Series hydraulic hand pump



Transporting a 1200 ton Hydraulic Press to the Second Floor with a Hydraulic Gantry

Customer: JH Kemp and Rangemaster

Location: Derbyshire, United Kingdom

Challenge: Before Rangemaster could install their new 1200 ton ring frame Hydraulic press they needed to remove the existing hydraulic double-action press. Located on a second floor mezzanine, their existing press needed to be dismantled, lifted, lowered and transported through several space confined areas to the ground floor in order to be removed. The new press weighed about 60 tons, about twice that of the existing press. Getting the press to fit through the bay doors required it to be in a horizontal position. Once inside, the press needed to be flipped vertically and lifted to the second floor in order to reach its location on the production floor.

Solution: A SL400 hydraulic gantry was utilized to lift and lower the crown and base of the existing press onto load skates. Once onto load skates the crown and base were rolled to the end of the mezzanine. Weighing less than 30 tons, both pieces were lowered to the ground level with a 15 ton overhead crane and heavy-duty forklift. With the existing press removed, the new press was backed halfway into the bay doors on a semi-trailer. The SL400 hydraulic gantry was used to off load and transport the new press horizontally through the bay doors. Once inside, the press was lifted to a vertical position. Two gantry units were then moved to the second floor mezzanine and re-shackled to the press. Supported by props, the gantry tracks were extended beyond the edge of the mezzanine. With two gantry units on the ground floor and two units on the second floor, the press was lifted to the second floor and tilted back to a horizontal position. The two gantry units on the ground floor were moved to the second floor and proceeded to lift and transport the press to its new foundation. Once again the press was lifted from a horizontal to vertical position and lowered onto securing bolts.

Product: SL400 Telescopic Hydraulic Gantries



Precision Lowering of Large Water Tank



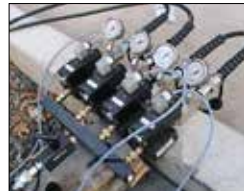
Customer: Cobra Tanks, Inc.

Location: New Jersey, USA

Successful completion of a unique tank fabrication process requires precisely lowering the almost-finished tank from a working height of about four feet unto its pad. By analogy, think of balancing a tall stack of poker chips in the palm of your hand. Similarly, although the tank is empty, it must be lowered at all support points in a precise and uniform manner in order to avoid undue stresses or even distortion.

Solution: Synchronization is Key to Lowering. A computer-synchronized hydraulic jacking system from Enerpac met Cobra's needs and was first used by the tank fabricator for the large double-wall wastewater tank at a New Jersey manufacturing facility described here. Near the end of the on-site fabrication process, the almost-completed tank had to be lowered uniformly from the approximately four-foot height used for the spiral fabrication process.

Products: The tank lowering proceeded smoothly because of the "Synchronous Lifting" digital control system using position sensors. As configured for this job, the system used four jacks, each accompanied by a pressure gauge, a flow control valve, a solenoid valve, and a position sensor.



General Rubber 500 ton Test Press

Customer: General Rubber

Location: Tucson, Arizona, USA

Enerpac provided a synchronous lift system to automate the function of a 500 ton test press. The system raises the gasket on the test bed a distance of approximately 25,4 cm, and then provides constant loading as the customer pressurizes the gasket with water up to 11 bar.



Compact 1500 Ton Press



Customer: Caterpillar Inc.

Location: USA

Caterpillar's Danville, KY plant makes bushings and pins that allow parts to pivot in machines such as large wheel loaders, and it also assembles prototype machines. CAT's volume has nearly doubled over the past three years, and it has been on the lookout for ways to improve manufacturing execution. A sophisticated new press is one of those ways.



Improving the Safety and Efficiency of Lifting Carpet Spools with a Cordless Pump

Customer: Cavalier Bremworth, Jonel Hydraulics

Location: Auckland, Australia

Challenge: When a manufacturer boosts production to cope with burgeoning demand, efficiency-minded operations staff keenly seek out technologies to help them minimise costs and manual labour while maximising safety and ongoing returns.

Solution: The highly safety conscious company found exactly what it had been looking for when it replaced time-consuming manual pumping of hydraulic spool lifting machinery in its Auckland manufacturing operation with an Enerpac XC cordless electric pump that does the job in less than half the time with minimal physical effort.

Product: XC-Series, Cordless Hydraulic Pump



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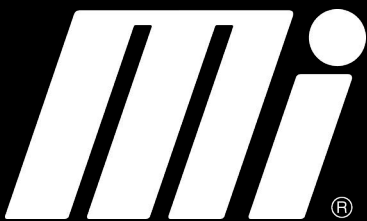
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