

ENERPAC 

Custom Design Presses

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Some Examples
of our Press
Solutions



Responding to Specials is One Thing.....,**.... doing so Economically is what Enerpac is Good at.**

As a 700 bar hydraulic tools manufacturer, Enerpac is renowned worldwide for its top-quality products and its comprehensive product range.

As a custom design hydraulic press manufacturer, Enerpac combines its hydraulic expertise with its top quality products to fulfill customers' special press requirements. Resulting in optimized custom press solutions to be proud of.

Why Enerpac?

- Use our engineering experience in your project development
- Latest technology
- Proven product designs
- Innovative, cost-effective solutions
- Additional features and accessories
- Fully automated systems
- Any other special features your project may require.

Fully Automated PLC-Controlled 1800 Ton High Accuracy Press

The pressing and heating during the production of magnetic acceleration coils for a particle accelerator requires high force and high accuracy to ensure the highest quality.

Enerpac was consulted to design a high-end accuracy press. Pressing may only take place when the coils reach a specific temperature.

The solution was a special high force high accuracy press with a PLC-controlling unit as an interface between the hydraulic and oil heating systems.

An excellent example of Enerpac system integration between hydraulics and electronics. This high-tech solution resulted in zero-defect in manufacturing high level accuracy coils.

**Components:**

- Special 1800 ton press frame
- Nine CLR-2502 double-acting 250 ton cylinders
- PLC-controlled oil heating system
- Two PLC-controlled two speed electric Hushh pumps (GPER-5 series).

600 Ton High Accuracy Collar Press

Before pressing and heating the acceleration coils described above, metal sheets must be pressed into a very solid structure and shape. The sheets must be exactly positioned in the center of the collar press to ensure the highest level of circularity and concentricity.

Our Enerpac team was consulted to design the best method to accomplish this using hydraulic technology: a 600 ton collar press with two hydraulic systems. Eight 25 ton cylinders position the sheets and eight 75 ton cylinders press it into solid structure and shape.

This hydraulic solution provides high accuracy output with zero-defect and lower operating costs.

**Components:**

- 600 ton collar press frame
- Eight RC-256 cylinders, single-acting 25 ton
- Eight RC-756 cylinders, single-acting 75 ton
- Electric two speed Hushh pump (GPER-5 series) with special control unit.



50 ton Workshop Press for High-Cycle Punching

Door lock systems are made of high quality steel plates that need to be punched accurately for smooth functioning. Various hole diameters are required in each plate to be punched on the same press, allowing change of tooling without loss of accuracy and time.

This Enerpac press is designed for the various punching applications, while the T-slotted worktable and threaded plunger allow quick change of tooling. Plunger bearing and guidance ensure the punching of steel plates within narrow tolerances. The two hand control system prevents accidental activation of hydraulics.

Fast punching within close tolerances is achieved. Another example of how Enerpac system design provides safe, cost and labor-saving solutions.



Components:

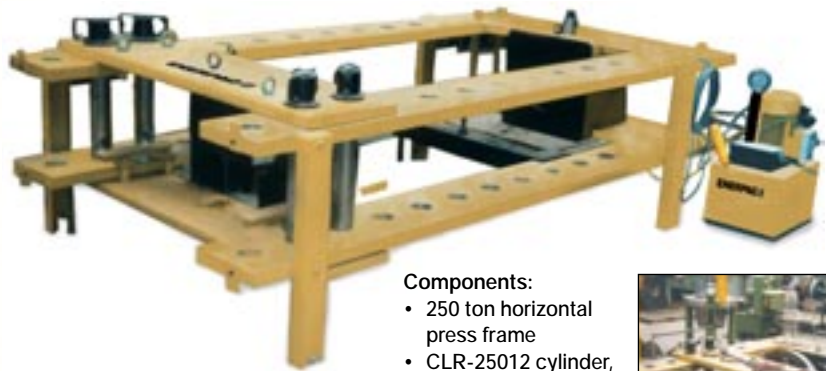
- Special press frame with T-slotted worktable
- Two hand control safety device
- RR-5013 cylinder, double-acting with special bearing guidance system
- Two speed electric pump.

Horizontal 250 Ton Press for Train Maintenance

After millions of kilometers of transportation train wheels must be changed and removed from the axles. High force is needed to remove and mount the wheels. Easy access is a must to allow loading and unloading the press with a crane. Wheels and brakes must be removed using the same press.

This Enerpac horizontal press gives easy access for loading and unloading. The daylight can be adjusted by moving the bed over the full press length, while the opening in the adaptor plate in this moveable bed can be adjusted for various axle diameters.

The double-acting cylinder gives the full advantage of controlling both push and pull forces.



Components:

- 250 ton horizontal press frame
- CLR-25012 cylinder, double-acting, 250 ton, 300 mm stroke
- Two speed electric Hushh pump, GPER-5 series.



50 Ton Workshop Press for Maintenance Jobs

For various maintenance jobs such as pressing, pulling, punching and aligning our customer required a simple reliable solution. The under bed must be fixed and needs a special worktable for various tools and jobs.

This C-shaped workshop press was designed giving access for workpiece loading from three sides while the fixed worktable features T-slots to mount tooling. Pressure and force can be checked with the gauge in the upper bed. Activation of hydraulics can only be done using both hands to press the safety control device.

Another Enerpac user, satisfied by safe and long, trouble-free usage of our hydraulic system design.



Components:

- Special C-shaped 50 ton press frame
- T-slotted fixed worktable
- RR-5013 cylinder, double-acting, 50 ton, 334 mm stroke
- Two speed electric Hushh pump, GPER-3 series.

and Modified Presses

700 Bar Hydraulic Technology

High-Cycle Crimping 30 Ton Production Press

Steel connectors must be crimped with high force onto steel cables to ensure a reliable high strength connection. The cables are used on level and control elevators and rudders on airplanes.

A special C-shaped press is designed for high-cycle applications. For fast return cycles a double-acting cylinder is used controlled by a pressure switch on the electric pump.

The Enerpac press and high pressure hydraulics increase production output of perfect crimp connections in a safe and easy-to-control production process.



Components:

- Special press frame with T-slotted worktable
- Two hand control safety device
- Double-acting cylinder with bearing guidance system
- Two speed electric pump.

200 ton Roll Frame Press for Electric Motor Production

Enerpac designed this press for stator production for electric motors. The press must accommodate various sizes of stators. Metal sheets are heated and pressed on stator shaft. During pressing the dimensions of the metal sheets are checked to allow insertion of additional sheets.

The roll frame is build into the floor and moved hydraulically. The daylight is adjustable with a hydraulic synchronous system with electronic stroke sensors. The pressing process is managed by a remote PC-controlled panel.

This Enerpac system integration, including on the job training resulted in an easy to control production application. A perfect example of how our hydraulics save production time and improve quality with less part rejection.



Components:

- Special roll frame press
- Split-flow pump with synchronous flow control
- Two CLR-20018 cylinders, double-acting 200 ton, 457 mm stroke with stroke sensors
- Two double-acting cylinders with 1500 mm stroke for roll frame movement.



VLP-Series, Bench and Workshop Presses

Enerpac high performance standard presses provide strength, durability and quality. Each press provides the capacity you need to do the job with precision, power and comfort.

- Optimum daylight and bed width
- Height adjustment of underbed on all presses from 25 ton capacity and higher
- Moveable pump table for easy side loading of large workpieces
- With handpump, air or electric driven power source
- Single or double-acting cylinders
- Standard available in 10 ton Bench Presses and 25, 50, 100 and 200 ton Workshop Presses.



Go www.enerpac.com for product details and catalogue requests.

A-Series, C-Clamps and Arbor Presses

In combination with Enerpac cylinders and pumps, these presses become highly versatile tools for pressing, clamping, crimping, punching, holding and assembly applications.

C-Clamp Presses

- 5, 10 and 20 ton capacity
- Operational in all positions

Arbor Presses

- 10 and 30 ton capacity
- Machined working surfaces for easier fixturing
- Slotted back to simplify loading and unloading of workpieces.



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