



Incremental Lifting System

JS-Series, Jack-Up Systems

Synchronously Lift
and Mechanically
Hold



▼ JS-250, Enerpac Jack-Up System (one lifting tower shown)



- Self-contained hydraulics in each jack-up unit for uncluttered work area
- Synchronously lift loads with multiple jack-up units. The most common system set-up includes 4 jack-up units but can be expanded to include more
- Lifting barrels are stacked together to mechanically hold the load
- Up to 5% side load capacity depending on lifting height
- Computer controls for operating the jack-up system with automatic lifting settings.

Incremental Lifting System – Synchronously Lift and Mechanically Hold



Typical Applications

- Bridge construction and demolition
- Port crane lifting
- Shovel undocking
- Top side lifting
- Ship hull block installation.



Computer Controls

Enerpac Jack-up Systems provide precision control suitable for many demanding lifting and lowering applications. The comprehensive self-contained design features simple to use software.

- Computer control for operating the jack up system with automatic and manual lifting settings.
- Automatic synchronization of multiple networked lift units.
- Center of Gravity calculation
- Overload and stroke alarms
- Emergency stop switch at jack-up units and controls.

▼ Lifting an oil and gas pipe module.



▼ A load is lifted in increments as barrels are slid into the system, lifted, and stacked; forming 'lifting towers'.



▼ The steel barrels are stacked together to mechanically hold the load.





Enerpac Jack Up Systems

The jack up system is a specialized multi-point lifting system. A typical system setup includes four jack up units positioned under each corner of a load.

Example: A four unit setup with JS250 has a lifting capacity of 1000 ton (250 ton per unit). The lifting frame of a jack up unit contains four hydraulic lifting cylinders, one in each corner, which lift the load using the stacked steel barrels.

A load is lifted in increments as barrels are slid into the system, lifted, and stacked; forming 'lifting towers'. A jack up system is operated and controlled by a computer control unit.

Each unit's lifting and lowering operations occur simultaneously; the computer control unit's synchronous technology maintains the balance of the load.

JS Series

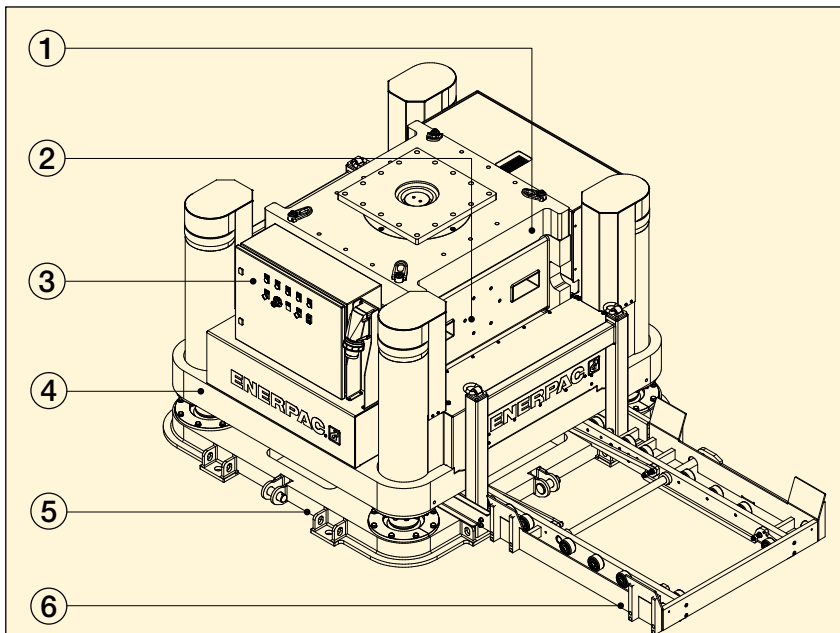


Capacity Per Lifting Tower:

125 - 750 ton

Lifting Height:

Up to 6 - 20 metres



Enerpac Jack Up System (one unit shown)

A typical system setup includes 4 jack-up units and include:

- 4x Jack-up legs
- 4x End Barrel with 3D swivel saddle
- 4x Loading system:
 - manual for JS125, JS250 and JS500
 - automatic for JS750
- 4x 25 metres power cables
- 4x 25 metres data cable
- 1x SBLT1 Laptop
- 1x SBJS-V4 Jack-up System Smart Box

① End Barrel

The top barrel with 3D swivel saddle where the load is placed upon.

② Steel Barrels

Barrels are slid into the lifting frame and are lifted up by the hydraulic cylinders.

③ Electric Powerpack

The power unit is integrated within each unit's lifting frame.

④ Lifting Frame

Contains 4 hydraulic cylinders located in each corner to lift the barrels.

⑤ Base Frame

Supports the lifting frame.

⑥ Barrel Loading System

With rollers to facilitate easy entry of steel barrels into the lifting frame.



Jack-Up System Options

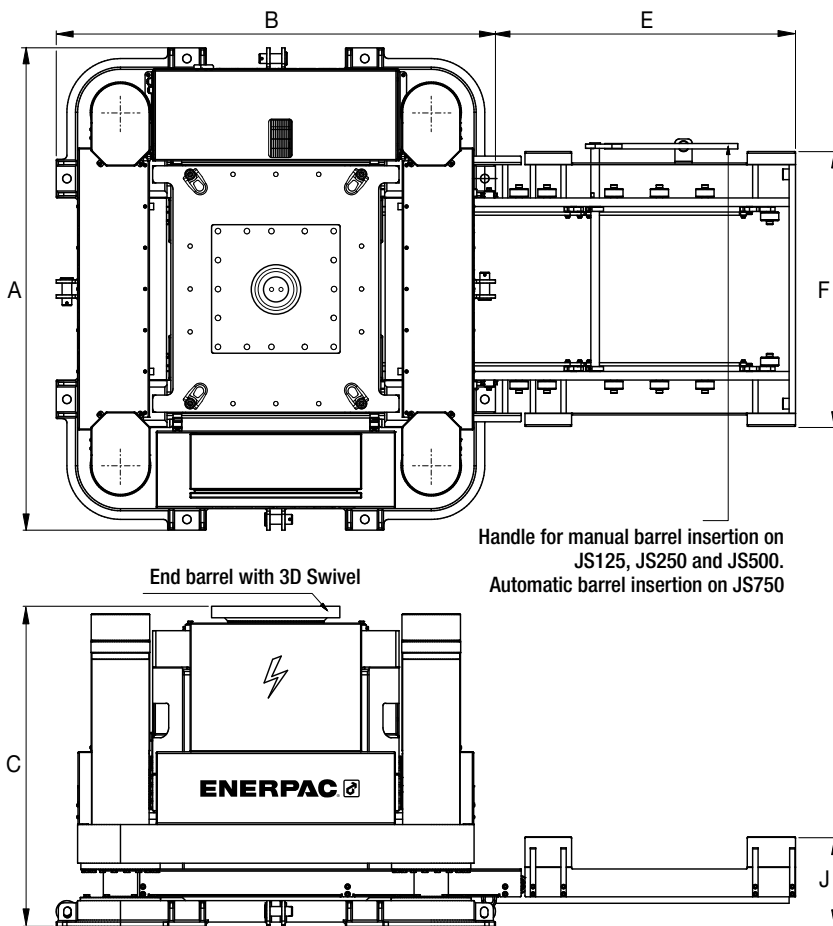
- Bracings between jack-up bases
- Automatic barrel feeding
- Header beams with side-shifts
- Skidding ability
- Custom configurations are available
- Service Kits.

▼ Custom designed Jack-Up System with options and accessories: barrel sets, bracings between jack-up bases, header beams with side-shifts and skid tracks.



JS-Series, Jack-Up Systems

▼ From left to right: JS-125, JS-250, JS-500, JS-750 Jack-Up System (one lifting tower shown)



Header Beams

Sold in pairs and includes lifting points and fork pockets for easy positioning. Available in standard lengths of 8, 10 and 12 meters



Powered Side Shift

Electric propulsion Side Shift. Each set consists of 4 units and 2 extension bars.



Lifting Lugs

Designed to transfer the load to the top of the header beam. Can accommodate a 250 ton shackle or attach directly to the lifted load.

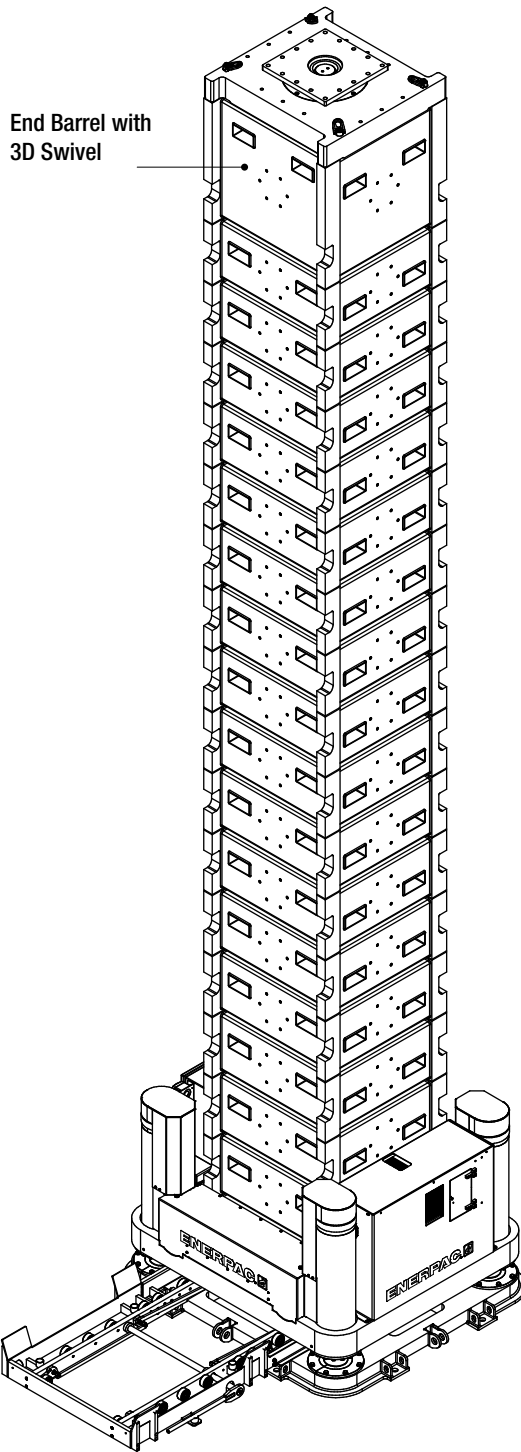
Jack-Up Systems

Capacity per Tower		Model Number	Maximum Sideload	Maximum Lifting Speed *	Base Frame Dimensions (mm)			Barrel Loading System (mm)			Electric Power Pack (kW)	Weight per Jack-Up Unit ** (kg)	Weight End Barrel (3D Swivel) (kg)
ton	kN				A	B	C	E	F	J			
125	1250	JS-125	3% @ 6m	1,5	1200	1100	950	750	700	233	8,8	2200	540
250	2500	JS-250	3% @ 10m	3	2250	2050	1475	1400	1341	418	15	7500	2400
500	5000	JS-500	4% @ 15m	4,2	2800	2300	1700	2200	1983	548	22	13.000	5600
750	7500	JS-750	5% @ 20m	6	3670	3250	2375	2850	2495	744	22	24.000	9000

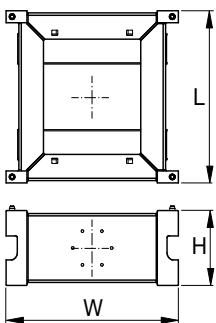
* Lifting speed approximately 6 barrels per hour.

** Weight per jack-up unit, excluding end barrel or barrel sets.

Enerpac Jack-Up Systems



End Barrel with 3D Swivel



Steel Barrel

One JS-250 Jack-Up Unit with Barrel Sets installed

JS Series



Capacity Per Lifting Tower:

125 - 750 ton

Lifting Height:

Up to 6 - 20 metres



Self-Propelled Modular Transporter

The Enerpac SPMT-Series linear drive transport system features a minimized height and slim design.



Skidding Systems

The jack and slide solution. The HSK-Series skidding system is comprised of a series of skid-shoes powered by hydraulic push-pull cylinders, travelling over a pre-constructed track.



Contact Enerpac!

Contact the Enerpac office nearest to you for advice and technical assistance in the layout of your ideal Lifting System or visit us at: www.enerpac.com. Or ask Enerpac for assistance by email: integratedsolutions@enerpac.com

▼ Enerpac Jack Up System Hoists 1500 ton span on Fore River Bridge.



Barrel Dimensions (mm)			Weight per Barrel (kg)	Barrel Set Model Number	Number of Barrels per Set	For use with Jack-Up System
L	W	H				
600	600	250	100	BLJS-125	4	JS-125
1150	1150	500	360	BLJS-250	4	JS-250
1700	1700	700	1000	BLJS-500	4	JS-500
2300	2300	1000	2350	BLJS-750	4	JS-750



JACK-UP SYSTEM REACH TO 36 METRES

Enerpac has been awarded a contract by Burkhalter to extend the height of Enerpac's 2000 ton (500 ton per tower) jack-up system from 20m to 36m for future projects.



JACK UP SYSTEM LIFTS 1500 TON SPAN

The bridge span was raised 20 meters on a barge and floated into place. Safety, as always, was a primary concern, particularly while lifting incredibly heavy loads into place from barges.



JACK-UP FOR HEIGHTENING DOCK CRANES

The Enerpac Jack-up System holds the key to safely increasing the height of dock cranes to unload these vessels. Based on its proven jack-up technology, the multipoint, synchronised lifting system can raise crane height by up to 20m as a complete solution and execute crane lifts.



BRIDGE DECK LIFTING AND POSITIONING

Bridge lifting with Enerpac Jack Up System on Self-Propelled Modular Transporters SPMT's. The stacked steel boxes are support by bracings as fortification to provide maximum structural integrity.



OFFSHORE GANTRY CRANE

The Enerpac Over Head Travel Crane (OHTC) comprises two pairs of lifting beams, with an overall width of 30m, and a lifting capacity of 4800 ton for lifting, moving and lowering the concrete blocks for the offshore highway.



SYNCHOIST SYSTEM - POWER GENERATION

The SyncHoist System allowed operators the freedom to precisely monitor and adjust each lifting point independently, or together in a synchronized manner. The rigging engineers were able to level the 1140 ton nuclear plant module more efficiently and accurately, saving considerable amount of time.



SYNCHOIST SYSTEM - BRIDGE BUILDING

Positioned below the lattice spreader, the SyncHoist System enabled finite adjustment of the beams during placement on the bearings. The system also helped save up to half a day in downtime. The team only needed to adjust the slings, rather than changing the rigging gear between arrangements.



SELF-ERECTING TOWER

The Enerpac Self Erecting Tower (ESET) is a self-erecting tower lift system that enables you to build a free standing gantry from ground level. The ESET can be supplied in various capacities and lifting heights and is built with standard modular components, enabling a flexible solution to future project demands.



TRAVEL GANTRY

The travel gantry combines the safety and efficiency of a hydraulic gantry with the ease of use of SPMT (self-propelled modular transporter) technology. The Enerpac travel gantry is a self-folding rubber tire gantry with a 60 ton lifting capacity. It features self-contained hydraulics, telescopic cylinders and wireless controls.

Custom Heavy Lifting Solutions

When your application requires something other than our standard product offering, look to Enerpac's Integrated Solutions, Experience and Expertise.

Our group of engineers, designers and specialist, will work with you to understand your specific application and provide a turn-key solution that will exceed your expectations.



STEEL FABRICATION

Enerpac has a dedicated facility for steel fabrication and welding. We design and manufacture custom structures used in demanding heavy-lifting applications.



ENGINEERING

Enerpac has a multi-disciplined engineering team capable of design and development of all aspects of an Integrated Solutions system. Leveraging design and application experience with the latest in computer software, rapid prototyping and analysis methods ensures delivery of the highest quality systems.



ELECTRONICS

Enerpac designs all control systems in-house. This capability keeps control technology close to the design engineers who are developing the rest of the system. In doing so, we can tailor the control system to match unique project requirements.



MACHINING

Enerpac utilizes the latest in CNC machining technologies and manufactures all large and special hydraulic cylinders in-house. We can machine diameters up to 1000 mm with lengths to 6000 mm.



FIELD SUPPORT

Enerpac Heavy Lifting is available to provide on-site support including training and troubleshooting of systems. We also stock repair parts and consumable items at several locations to ensure fast delivery and minimal downtime.



HYDRAULIC POWER UNITS

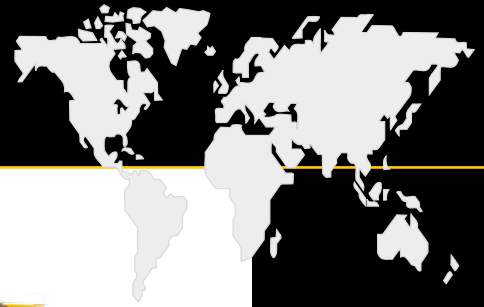
Enerpac designs, assembles and tests small to large hydraulic power units in-house. Power units range from 0,5 to 240 kW and are tested with the system they are intended to operate.



MAINTENANCE and REPAIR

Due to the unique nature of Enerpac's Integrated Solutions systems, we offer complete maintenance and repair services. Our M&R group is available to assist customers who do not have access to local service facilities qualified to work on these systems.

JS-Series, Jack-Up Systems



The Industrial Tools Line

Cylinders and Lifting Products

- General Purpose
- Aluminium Lightweight
- Pancake
- Flat-Jac®, Low Height
- Pull
- Hollow Plunger
- Precision
- Long Stroke
- High Tonnage
- POWR'RISER® Lifting Jacks
- Jacks
- Cylinder-Pump Sets

Pumps

- Manual
- Cordless & Electric Driven
- Compressed Air Driven
- Petrol Driven

System Components

- Hoses, Couplers, Oil
- Gauges, Adaptors
- Manifolds, Fittings

Valves

- 3-and 4-Way Directional
- Pressure and Flow Control

Presses

- Bench, Workshop, Roll Frame
- Arbor and C-Clamps
- Tension Meters, Load Cells

Pullers

- Master Pullers Sets
- Multi Purpose Puller Sets
- Posi Lock® Pullers

Tools

- Maintenance Sets
- Punches
- Machine Lifts
- Lifting Wedge
- Load Skates
- Cutters
- Pipe Benders
- Wedgie, Spreaders

Bolting Tools

- Multipliers
- Torque Wrenches
- Impact Sockets
- Bolt Tensioners
- Wrench and Tensioner Pumps
- Flange Alignment Tools
- Flange Facing Tool
- Nut Splitters

Enerpac Service Van



Heavy lifting and rigging equipment

While Enerpac has the world's largest product portfolio for heavy-lifting and load-control applications, we also have the knowledge to put all these programs together or modify them to provide a lift system for your most demanding and unique applications.

- Synchronous Lifting Systems
- Jack Up Systems
- Bridge Launching Systems
- Synchronous Hoisting Systems
- Hydraulic Gantries
- Heavy-Lifting Strand Jacks
- Skidding Systems
- Self-Erecting Towers
- Chain Pulling Systems
- Self-Propelled Modular Transporter.

Enerpac Worldwide Locations

For a complete list of addresses see:
www.enerpac.com/en/contact-us

About Enerpac

Enerpac is the leading global provider of high-pressure hydraulic tools and solutions with a broad range of products, local expertise and worldwide distribution network. With a proven track record in a wide range of markets, Enerpac designs and manufactures high-quality tools and solutions for all industrial applications.

Enerpac has gained unique experience in delivering hydraulic solutions for the controlled movement and positioning of heavy objects. Enerpac supports your business by offering the right solutions and service to help you get your work done efficiently and safely.

Your Enerpac Distributor: