

▼ Shown: **JS-250-Series Jack-Up System** (one lifting tower shown)



Incremental Lifting System – Synchronously Lift and Mechanically Hold



Typical Applications

- Bridge maintenance
- Lifting and lowering of heavy equipment
- Lifting, lowering and levelling of heavy structures and buildings
- De-propping/load transfer from temporary steel work.



Computer Controls

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

- Automatic synchronization of multiple networked lift points
- Center of Gravity calculation
- Overload and stroke alarms
- Emergency stop switch at Jack-Up units and controls

- 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 four 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 capacity and lift height
- Computer controls for operating the Jack-Up System with automatic and manual lifting settings

▼ *Enerpac JS500 used in bridge construction and de-commissioning.*



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



▼ *Undecking an 1500-ton Electric Rope Shovel in a Copper Mine with a JS500 Jack-Up System for bearing inspection and maintenance.*





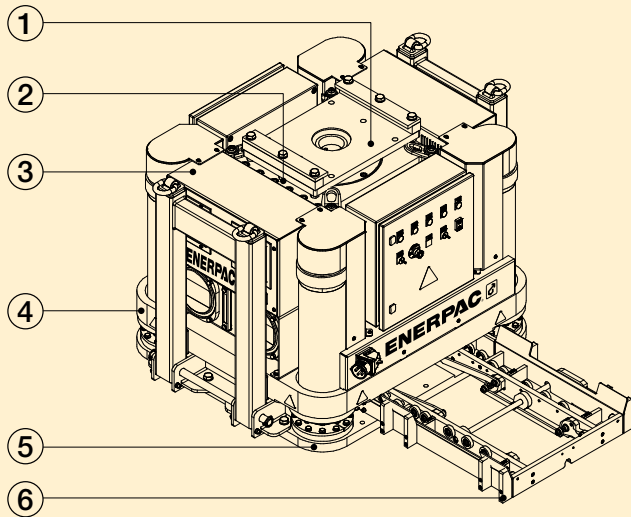
Enerpac Jack-Up Systems

The Jack-Up system is a custom developed, multi-point lifting system. A typical system setup includes four Jack-Up units, one positioned under each corner of a load.

Example: A four-unit setup with JS250 has a lifting capacity of 1100 tons (275 tons 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.



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 82 feet power cables
- 4x 82 feet 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.

JS Series



Capacity per Lifting Tower:

138 - 825 tons

Lifting Height:

19.6 - 65.6 feet



Jack-Up System Accessories

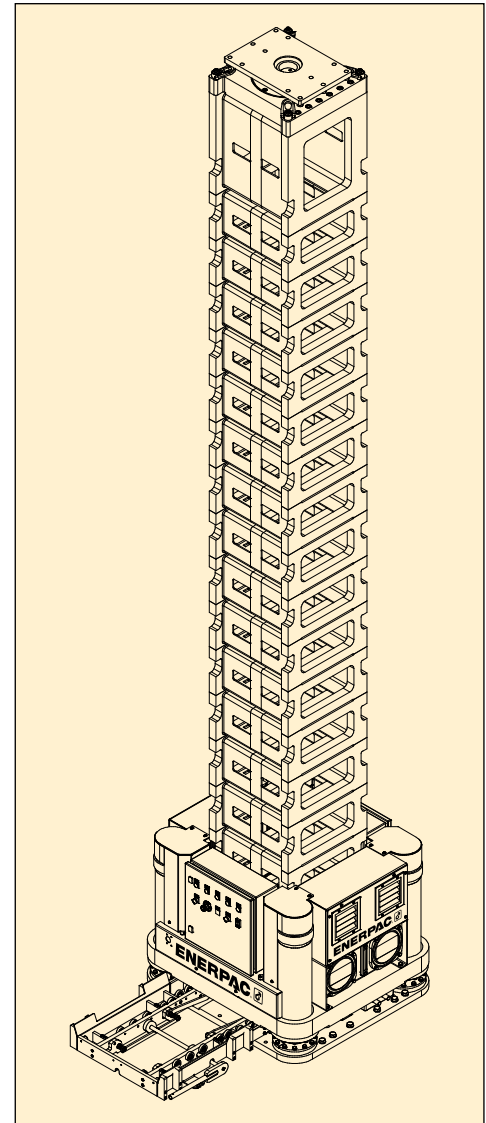
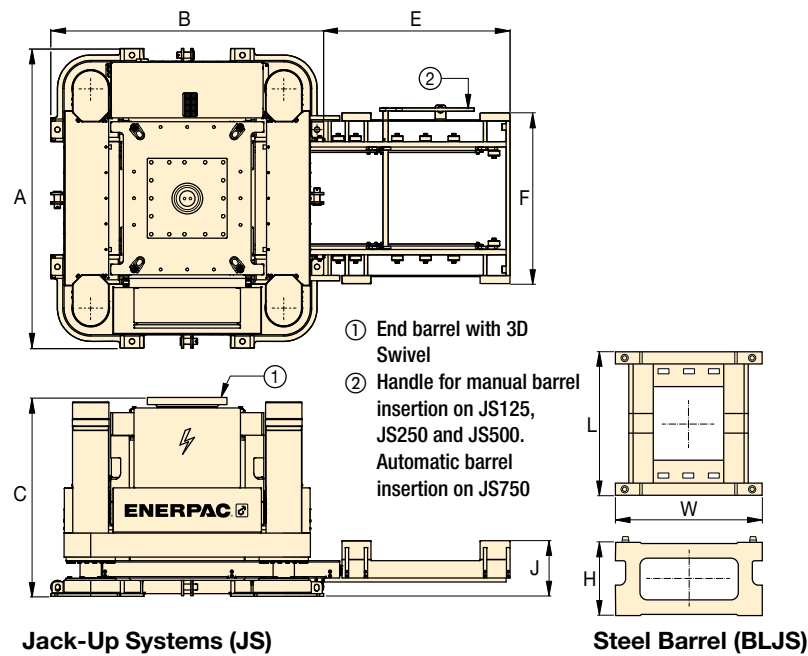
Custom versions Jack-Up systems designed to your specific application are available upon request:

- Base Frame Trolley Systems for JS125 and JS250 for horizontal movement over tracks
- Bracing Kits for JS125 and JS250
- Adjustable Top Barrels for JS125, JS250 and JS500
- Automatic barrel loading system
- Header beams with side-shifts
- Custom configurations are available
- Service Kits

▼ Custom versions designed to your specific application are available upon request: Jack-Up System with options and accessories: barrel sets, bracings between jack-up bases, base frame trolley systems and skid tracks.



▼ From left to right: JS125, JS250, JS500, JS750 Jack-Up System (one lifting tower shown)



▲ One Jack-Up Unit with integrated powerpack, end barrel with 3D swivel saddle and optional barrel sets installed.

▼ Steel Barrel

For use with Jack-Up System	Barrel Set Model Number	Number of Barrels per Set	Barrel Dimensions (in)			Weight per Barrel (lbs)
			L	W	H	
JS125	BLJS125	4	23.62	23.62	11.81	231
JS250	BLJS250	4	45.28	45.28	19.69	792
JS500	BLJS500	4	66.93	66.93	27.56	2090
JS750	BLJS750	4	90.55	90.55	39.37	5170



▲ Barrel for JS125.

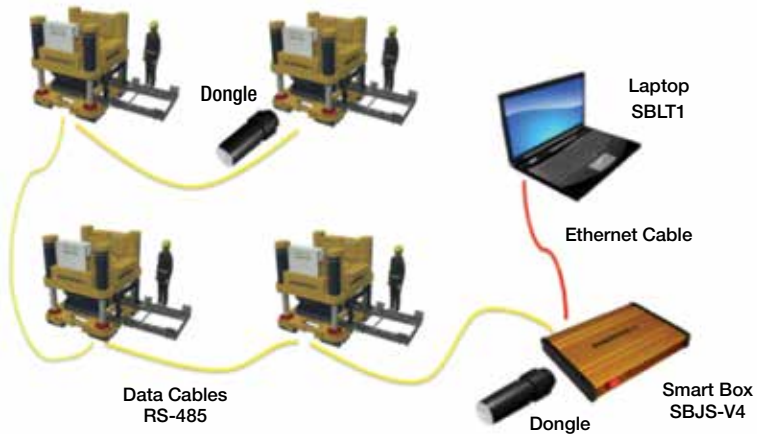
▼ Jack-Up Systems

Capacity per Tower (ton)	Model Number	Maximum Sideload	Maximum Lifting Speed (ft/hr)	Base Frame Dimensions (in)			Barrel Loading System (in)			Electric Power Pack (hp)	Weight per Jack-Up Unit * (lbs)	Weight End Barrel (3D Swivel) (lbs)
				A	B	C	E	F	J			
138	JS125	3% @ 19.6 ft	16	47.25	43.31	37.60	27.56	27.56	8.07	12	5280	1254
275	JS250	3% @ 32.8 ft	13	88.58	80.71	58.07	52.81	52.81	16.46	20	16,500	5280
550	JS500	4% @ 49.2 ft	13	110.25	90.55	66.93	69.75	69.75	18.03	40	30,250	8470
825	JS750	5% @ 65.6 ft	13	144.50	127.95	93.50	98.25	98.25	29.29	40	52,800	19,800

* Weight per Jack-Up unit, excluding end barrel or barrel sets.

Enerpac Jack-Up Systems

Jack-Up System Controls



JS Series



Capacity per Lifting Tower:

138 - 825 tons

Lifting Height:

19.6 - 65.6 feet



Jack-up System Smart Box

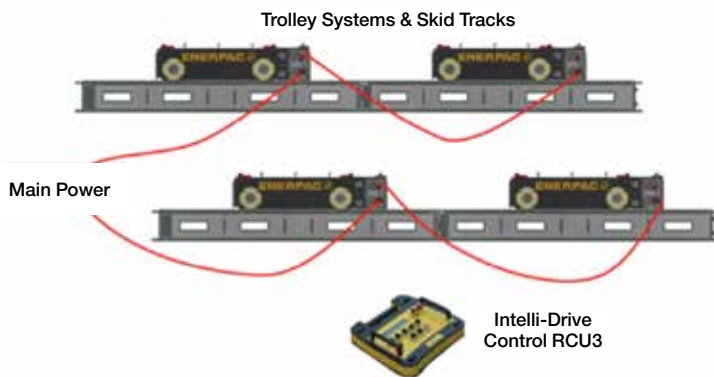
The **Smart Box SBJS-V4** is Enerpac's proprietary control platform. It allows an operator to control up to 8 jack-up towers simultaneously with one **SBLT1** standard laptop.

- Single operator control from a central location provides safe and reliable operation
- Synchronous lift /lower and load control between the lifting positions
- Automatic lifting and lowering cycles
- Displays individual and accumulative stroke/load
- Simple graphical user interface.



▲ Visual reference of the smart box control screen.

Trolley System Controls



Adjustable Top Barrel

Includes double-acting lock nut cylinder with swivel saddle. Cylinder can be extended to contact the load. Provides ability to adjust starting height of each leg, ensuring safe and stable lifting. Must be operated with separate pump.

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Trolleys & Skid Tracks

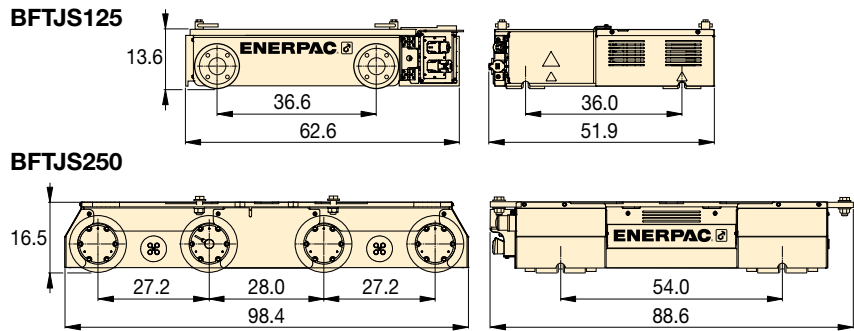
Allows horizontal travel of jack-up systems.

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Jack-Up System Accessories

Jack-Up System	Barrel Sets	Adjustable Top Barrel	Base Frame Trolley System	Skid Tracks		Intelli-Drive Control	Bracing Kits
	(includes 4 barrels)	(one top barrel)	(one trolley)	9.8 ft. length	19.6 ft. length	(controls 4 trolleys)	(connects 4 towers)
JS125	BLJS125	ATBJS125	BFTJS125	GST1100-3	GST1100-6	RCU3	BKJS125
JS250	BLJS250	ATBJS250	BFTJS250	—	TTJS250-6	RCU3	BKJS250
JS500	BLJS500	ATBJS500	—	—	—	—	—
JS750	BLJS750	—	—	—	—	—	—

▼ BFTJS125 Base Frame Trolley



Base Frame Trolleys

- Allows horizontal travel of jack-up system
- Travel under full load and at full height
- Skid tracks required for proper support and guidance

Used with Jack-Up System	Model Number Trolley System (one trolley)	Capacity per Trolley Unit (ton)	Travel Speed (ft/hr)	Power 400 VAC (hp)	Weight per Unit (lbs)
JS125	BFTJS125	138	6	1	3850
JS250	BFTJS250	275	7.5	1.5	12100

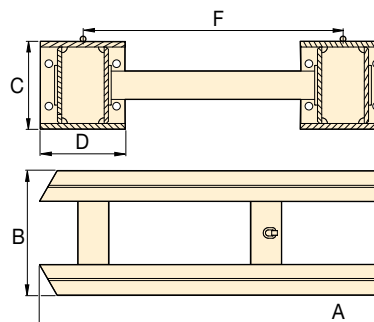
▼ Skid Tracks



Skid Tracks

- Allows horizontal travel of jack-up systems on trolleys.
- Required to support and level trolley
- Smoother travel, better load distribution
- Includes lifting eyes and/or fork pockets.

JS125 Jack-Up on a Base Frame Trolley and Skid Track. ►



Skid Track End-Stop
Safety device prevents over-travel. Order model number: **TES**

Used with Trolley	Model Number Skid Track	Track Length A (ft)	Track Width B (in)	Track Height C (in)	Track Base D (in)	Track Gauge F (in)	Weight (lbs)
BFTJS125	GST1100-3	9.84	47.80	12.20	11.81	36.00	2293
	GST1100-6	19.36	47.80	12.20	11.81	36.00	4475
BFTJS250	TTJS250-6	19.36	65.83	12.20	11.81	54.00	4972

Accessories for Jack-Up Systems

▼ BKJS Bracing Kits



Bracing Kits

- Allows up to 50% higher lift height
- Each kit includes the following:
4x Middle barrels with bracing connection
8x Bracing tubes up to 16.4 feet
4x Adjustable bracing tubes
16x Bracing end pieces
8x Threaded rods up to 49.2 feet



Bracing Kits

Each loadcase must be calculated. Maximum distance between lifting towers is 32.8 feet. Custom versions designed to your specific application are available upon request. Contact Enerpac for details.

JS Series



Capacity per Lifting Tower:

138 - 825 tons

Lifting Height:

19.6 - 65.6 feet

For Jack-Up Systems	Model Number Bracing Kits (connects 4 towers)
JS125	BKJS125
JS250	BKJS250

Bracing details: Dywidag anchor and bar, bracing end piece, bracing barrel eye. ►

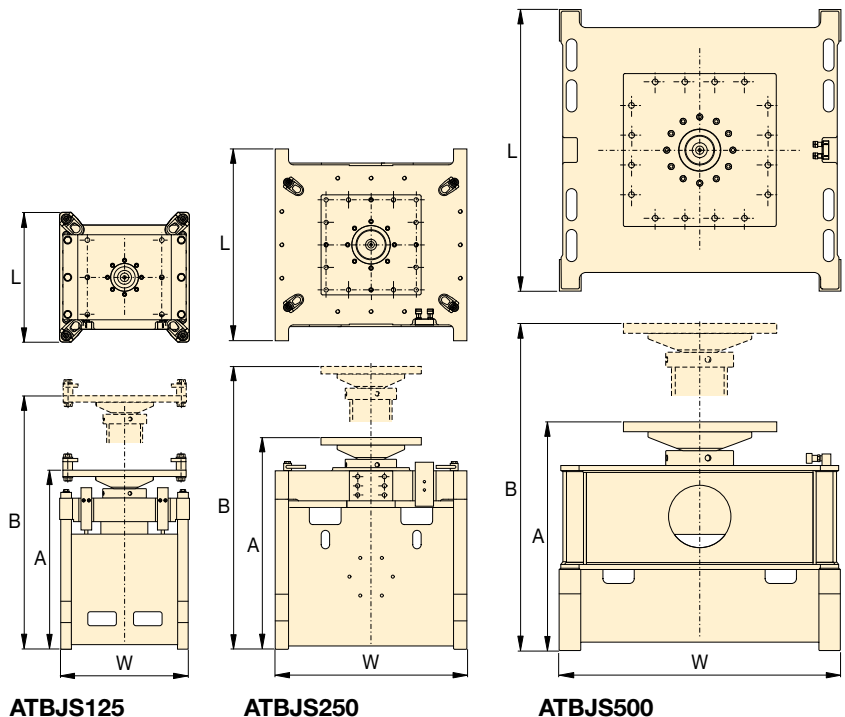


▼ ATBJS125 Adjustable Top Barrel



Adjustable Top Barrels

- Provides ability to adjust starting height of each leg, ensuring safe and stable lifting
- Allows 11.8 inches of adjustment to make contact with load
- Minimizes need for auxiliary cribbing and support material.



For use with Jack-Up System	Model Number Adjustable Top Barrel	Capacity (max 5% side-load) (ton)	Collapsed Height A (in)	Extended Height B (in)	Barrel Width L (in)	Barrel Depth W (in)	Cylinder Stroke * (in)	Weight (lbs)
JS125	ATBJS125	138	33.15	44.96	24.00	24.00	11.81	1474
JS250	ATBJS250	275	49.84	61.65	45.28	45.28	11.81	5412
JS500	ATBJS500	550	53.86	65.67	66.93	66.93	11.81	8404

* The HCRL-Series double-acting lock nut cylinders must be operated with separate 10,000 psi hydraulic pump. Pump and hoses are not included.