JS-SERIES
JACK-UP SYSTEMS

INCREMENTAL LIFTING SYSTEM
SYNCHRONOUSLY LIFT AND MECHANICALLY HOLD

ENERPAC

▼ **JS250, Enerpac Jack-Up System** (one lifting tower shown)

Incremental Lifting System – Synchronously Lift and Mechanically Hold

- **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**
- **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 and manual lifting settings.**

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/lowering applications. The comprehensive self-contained design features simple to use software.

- Automatic synchronization of multiple networked lift points.
- Overload and stroke alarms
- Emergency stop switch at jack-up units and controls.

▼ *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 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.

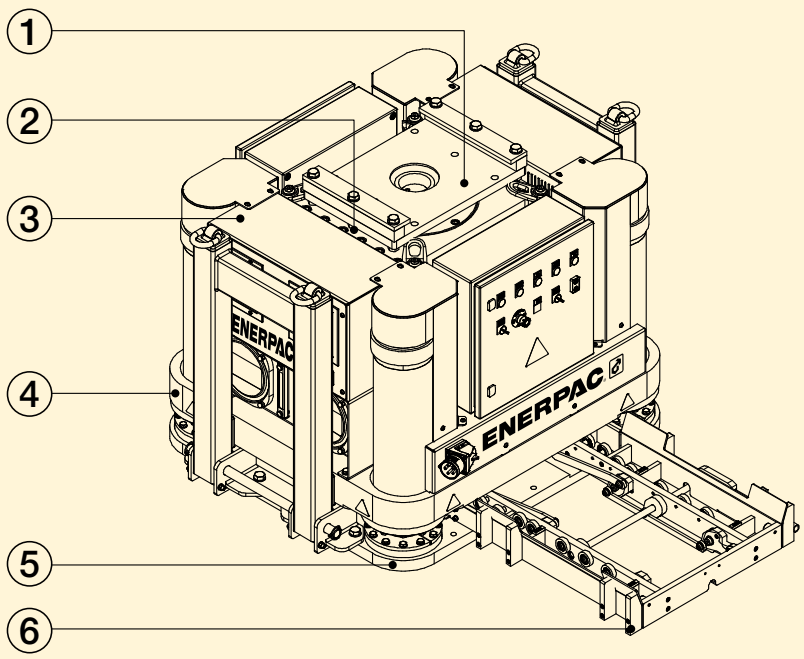
JS Series

Capacity Per Lifting Tower:

125 - 750 ton

Lifting Height:

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 JS500 and 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 end 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.

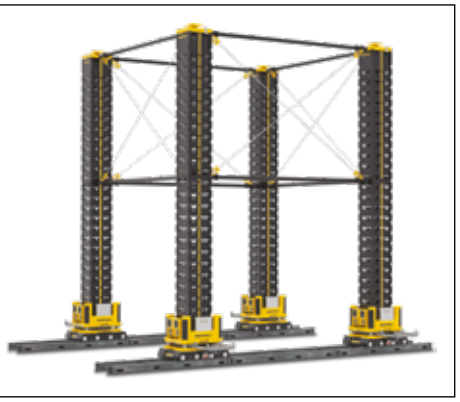
⑥ **Barrel Loading System**
With rollers to facilitate easy entry of steel barrels into the lifting frame.

Jack-Up System Accessories

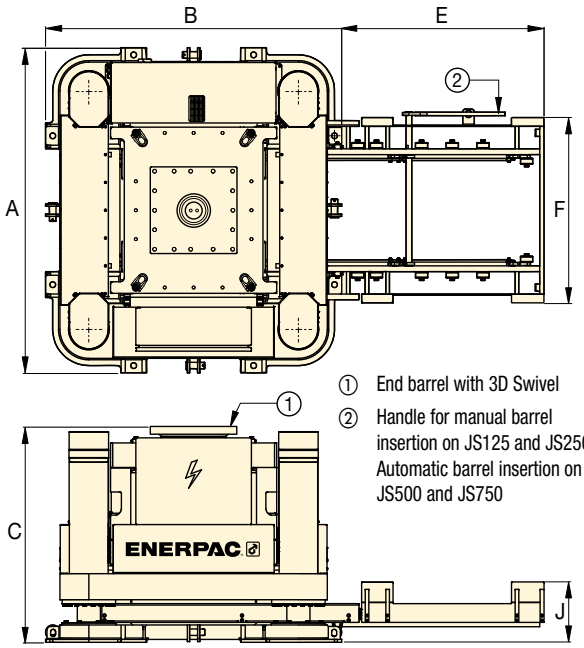
Custom versions Jack-Up systems designed to your specific application are available upon request:

- 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.

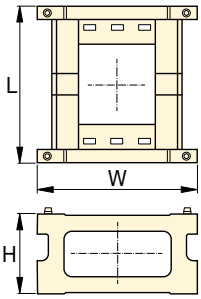
▼ *Custom versions designed to your specific application are available upon request:Jack-Up System with options and accessories: barrel sets, bracings between jack-up bases, base frame trolley systems and skid tracks.*



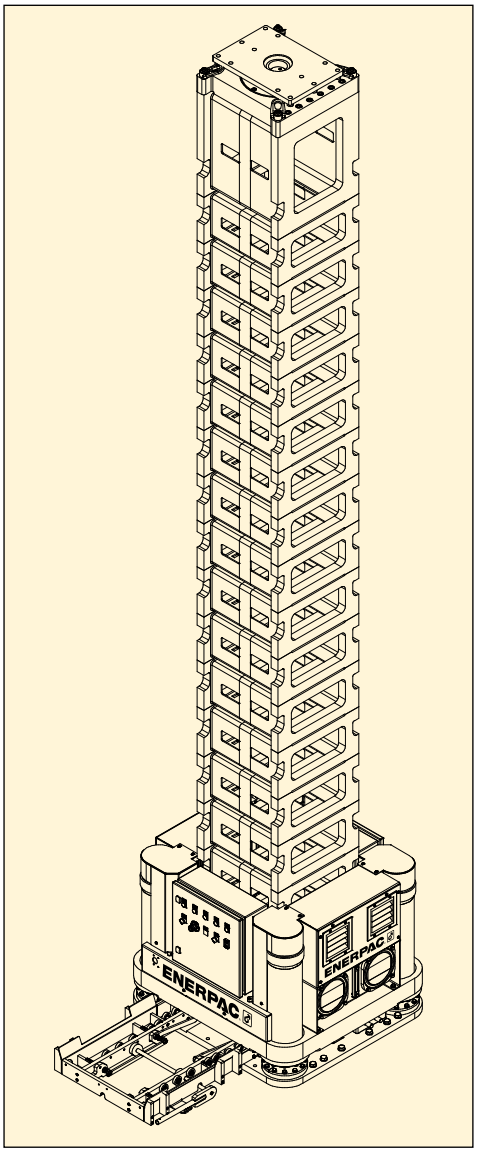
▼ From left to right: **JS125, JS250, JS500, JS750 Jack-Up System** (one lifting tower shown)



Jack-Up System (JS)



Steel Barrel (BLJS)



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

Steel Barrels

For use with Jack-Up System	Barrel Set Model Number	Number of Barrels per Set	Barrel Dimensions (mm)			Weight per Barrel
			L	W	H	(kg)
JS125	**BLJS125**	4	600	600	300	105
JS250	**BLJS250**	4	1150	1150	500	360
JS500	**BLJS500**	4	1700	1700	700	950
JS750	**BLJS750**	4	2300	2300	1000	2350

▲ *Barrel for JS125.*

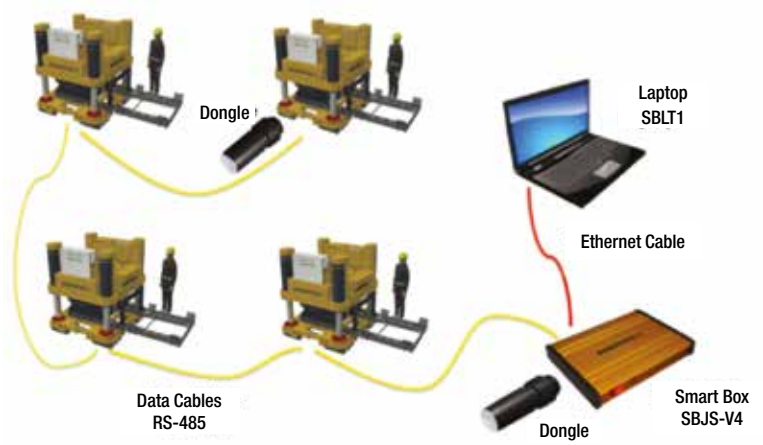
Jack-Up Systems

Capacity per Tower		Model Number	Maximum Sideload	Maximum Lifting Speed	Base Frame Dimensions (mm)			Barrel Loading System (mm)			Electric Power Pack	Weight per Jack-Up Unit *	Weight End Barrel (3D Swivel)
ton	kN			(m/hr)	A	B	C	E	F	J	(kW)	(kg)	(kg)
125	1250	**JS125**	3% @ 6m	5	1200	1100	955	750	700	205	8,8	2400	570
250	2500	**JS250**	3% @ 10m	4	2250	2050	1475	1400	1341	418	15	7500	2400
500	5000	**JS500**	4% @ 15m	4	2800	2300	1700	1980	1771	458	30	13.750	3850
750	7500	**JS750**	5% @ 20m	4	3670	3250	2375	2850	2495	744	30	24.000	9000

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

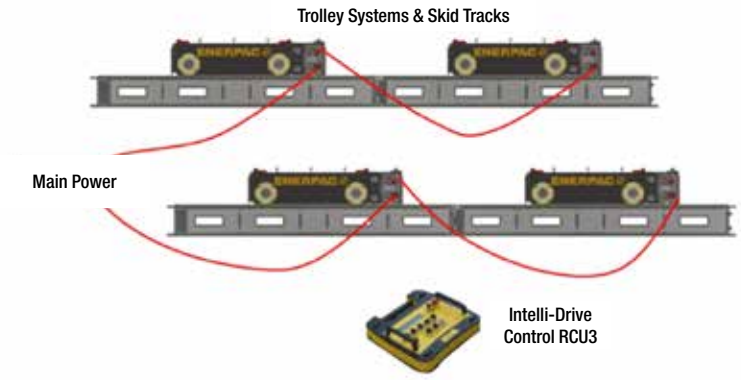
Accessories for Jack-Up Systems

Jack-Up System Controls



▲ *Visual reference of the smart box control screen.*

Trolley System Controls



JS Series

Capacity Per Lifting Tower:
125 - 750 ton

Lifting Height:
6 - 20 metres

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.

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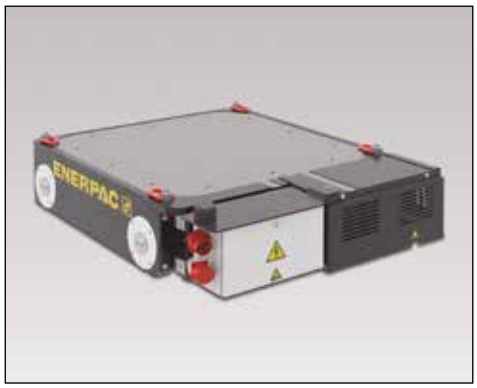
	Jack-Up System Accessories						
Jack-Up System	**Barrel Sets** (include 4 barrels)	**Adjustable Top Barrel** (one top barrel)	**Base Frame Trolley System** (one trolley)	**Skid Tracks** 3 m length	**Skid Tracks** 6 m length	**Intelli-Drive Control** (controls 4 trolleys)	**Bracing Kits** (connects 4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

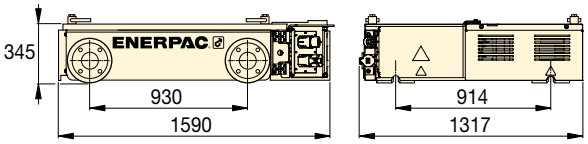
Accessories for Jack-Up Systems

ENERPAC

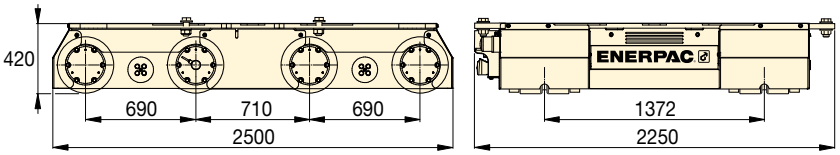
▼ **BFTJS125 Base Frame Trolley**



BFTJS125



BFTJS250



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.**

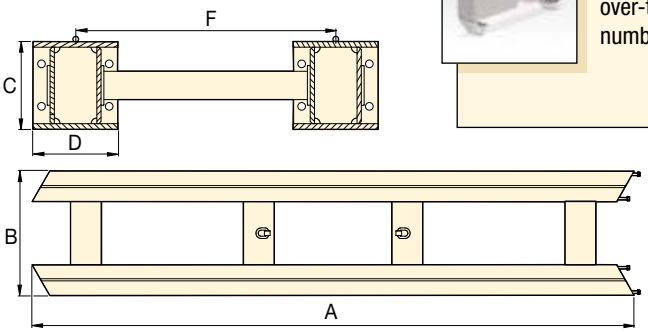
Used with Jack-Up System	Model Number Trolley System (one trolley)	Capacity per Trolley Unit (kN)	Travel Speed (m/hr)	Power 400 VAC (kW)	Weight per Unit (kg)
JS125	**BFTJS125**	1250	20	0,75	1750
JS250	**BFTJS250**	2500	25	1,10	5500

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

▼ **Skid Tracks**

Skid Track End-Stop

Safety device prevents over-travel. Order model number: **TES**



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.**

Used with Trolley	Model Number Skid Track	Track Length A (meters)	Track Width B (mm)	Track Height C (mm)	Track Base D (mm)	Track Gauge F (mm)	(kg)
BFTJS125	**GST1100-3**	3,0	1214	310	300	914	1040
	GST1100-6	5,9	1214	310	300	914	2030
BFTJS250	**TTJS250-6**	5,9	1672	310	300	1372	2260

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 5 meters
  4x Adjustable bracing tubes
  16x Bracing end pieces
  8x Threaded rods up to 15 meters.

Bracing Kits

Each loadcase must be calculated. Maximum distance between lifting towers is 10 meters.
Custom versions designed to your specific application are available upon request. Contact Enerpac for details.

JS Series

Capacity Per Lifting Tower:
125 - 750 ton

Lifting Height:
6 - 20 metres

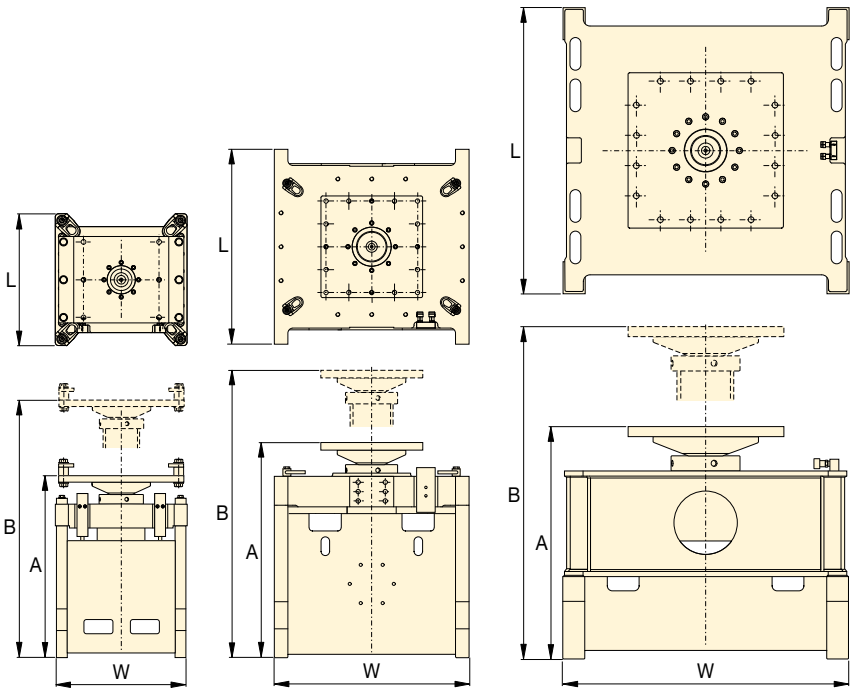
For Jack-Up Systems	Model Number Bracing Kits (connects 4 towers)
JS125	**BKJS125**
JS250	**BKJS250**

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 300 mm of adjustment to make contact with load**
- **Minimizes need for auxiliary cribbing and support material.**



ATBJS125 **ATBJS250** **ATBJS500**

Used with Jack-Up System	Model Number Adjustable Top Barrel	Capacity (max 5% side-load) (kN)	Collapsed Height A (mm)	Extended Height B (mm)	Barrel Width L (mm)	Barrel Depth W (mm)	Cylinder Stroke * (mm)	(kg)
JS125	**ATBJS125**	1250	842	1142	610	610	300	670
JS250	**ATBJS250**	2500	1266	1566	1150	1150	300	2460
JS500	**ATBJS500**	5000	1368	1668	1700	1700	300	3820

* The HCRL-Series double-acting lock nut cylinders must be operated with separate 700 bar hydraulic pump. Pump and hoses are not included.

LIFTING SYSTEMS

We design and manufacture heavy lifting equipment. For more than 60 years, we've combined high pressure hydraulics and controls to deliver intelligent and innovative solutions that maintain the highest level of quality, reliability and safety. We will be your supplier and partner; we will support you throughout the entire life of your project, your success is ours.

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JS-Series
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SL, SBL-Series,
Telescopic Hydraulic Gantries

HSL-Series,
Strand Jack Systems

SHS, SHAS-Series,
Synchronous Hoisting Systems

LH, HSK-Series
Skidding Systems

ETT-Series, Turntables

ETR-Series, Trolley Systems

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