

# SCJ-SERIES SELF-LOCKING CUBE JACK

INCREMENTAL LIFTING SYSTEM WITH AUTOMATIC MECHANICAL LOCKING



**ENERPAC** 

▼ SCJ-50, Enerpac Self-Locking Cube Jack



## Incremental Lifting System With Automatic Mechanical Locking



### Why use Self-Locking Cube Jacks?

The Self-Locking Cube Jack is a safer, more efficient alternative to the jack-and-pack method with wooden cribbing.

The Cube Jack is derived from the proven Enerpac Jack-up System. The Cube Jack has a small footprint and is usable in confined spaces, providing heavy lift contractors with a stable lift up to 118.3". The cribbing blocks are lightweight and can be handled manually.

- System is automatically mechanically locked after the lifting or lowering stroke
- Self-aligning steel cribbing blocks save time, improve side load, and eliminate the need for wooden cribbing materials
- Jobs are completed more efficiently due to simplified operation sequence with 50% less cycles than climbing jacks
- End block with adjustable swivel saddle allows fine adjustment during set-up: 1.97-inch screw extension
- Can be operated with Enerpac's 10,000 psi hydraulic power units
- Maximum sideload 1.5% at full extension
- Lloyds witness tested to 125% of maximum working load



### Markets & Applications

Applications with a minimum starting height of 19 or 22 inches and requirement to lift up to 81 or 118 inches.

- Power Generation transformer jacking
- Mining - equipment maintenance
- Heavy Transport - vehicle unloading
- Oil & Gas - module jacking
- Construction - bridge jacking
- Industrial Movers - lifting, lowering and levelling of heavy equipment.

▼ Typical set-up with 4 Self-Locking Cube Jacks and cribbing blocks to lift a transformer (hydraulic power pack and hoses not shown).



# Self-Locking Cube Jack



## Self-Locking Cube Jack

Easy-to-use, compact and portable jacking system that utilizes base lifting frames and self-aligning, lightweight steel cribbing blocks, instead of wooden cribbing materials.

### Operation is simple:

1. Connect the Cube Jacks to the Enerpac Split-Flow Pump and select lifting mode on each base lifting frame.
2. Insert a cribbing block and actuate the Cube Jack until the cribbing block engages the lock mechanism.
3. Retract the jack and repeat the process until the desired lifting height is reached. For the lowering operation select lowering mode on each base lifting frame and reverse the process.

The Cube Jack End Block is equipped with an adjustable saddle for initial alignment with the load. All controls except for the main directional valve, which is on the hydraulic power unit, are included on the Cube Jack.

### Manual cribbing block insertion

Cribbing blocks are easily managed by hand and the Cube Jack includes integrated fork pockets and lifting rings for effortless positioning.

### Synchronous Lifting & Lowering

If synchronization is required, the Cube Jack can accommodate stroke sensors and be used with any Enerpac Computer Controlled Synchronous Lifting System.

## SCJ Series



Capacity Per Cube Jack:

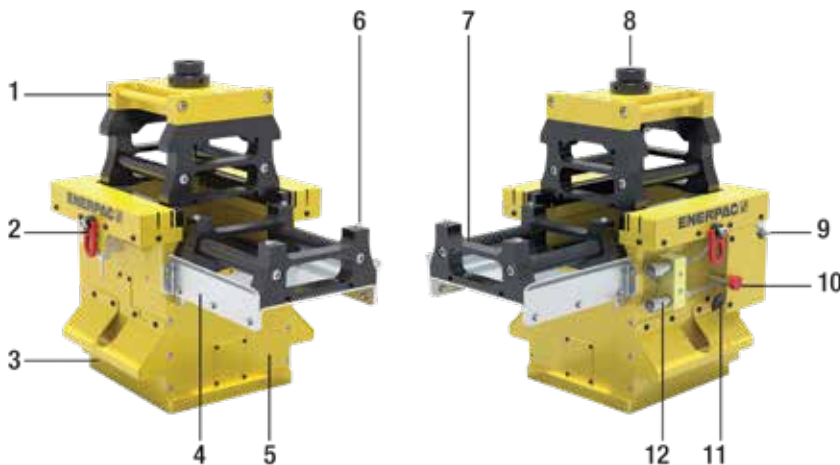
**56 - 110 ton**

Maximum Lifting Height:

**81.4 - 118.3 inches**

Maximum Operating Pressure:

**10,000 psi**



### Self-Locking Cube Jack

- |                                 |   |
|---------------------------------|---|
| 1 End block with tilting saddle | 7 Steel cribbing blocks                         |
| 2 Eye-bolts for hoisting        | 8 Adjustable tilting saddle                     |
| 3 Forklift tabs                 | 9 Flow control                                  |
| 4 Removable insert table        | 10 Mode locking pin                             |
| 5 Cube Jack base frame          | 11 Mode selector lever                          |
| 6 Locating pins                 | 12 Hydraulic connections<br>(Advance / Retract) |



▲ Cube Jack close-up of lifting and lowering valving mode and lock handle.

▼ Optional wire stroke sensor can provide stroke feedback to pump control.



▼ SCJ-100, Enerpac Self-Locking Cube Jack



## Incremental Lifting System With Automatic Mechanical Locking



### Transportation Frame

Provided with purchase of each Cube Jack.

Provides storage and transport for base unit, end block, and all included cribbing blocks.



### Lightweight Cribbing Blocks

Provided with purchase of each Cube Jack.

Spare cribbing blocks can be ordered separately.

| Description       | Model No.     |
|-------------------|---------------|
| 1x Cribbing Block | <b>SCJ5B</b>  |
| 1x Cribbing Block | <b>SCJ10B</b> |



### Split-Flow Pumps

Enerpac recommend to use the SFP-Series Pumps with multiple outlets with equal oil flow.

For lifting and lowering applications on multiple points, Split-Flow Pumps are a far better alternative than using separately operated pumps.

- Included with Cube Jack are:
  - Cube Jack Base Unit
  - End Block with Swivel Saddle
  - Multiple cribbing blocks: 11x on SCJ-50  
18x on SCJ-100
  - Transportation Frame
- Cribbing blocks can be manually inserted into Cube Jack by one person

▼ Forklift tabs on Cube Jacks for easy transportation and positioning with a pallet truck. See dimensions D and I to select the right pallet truck size.

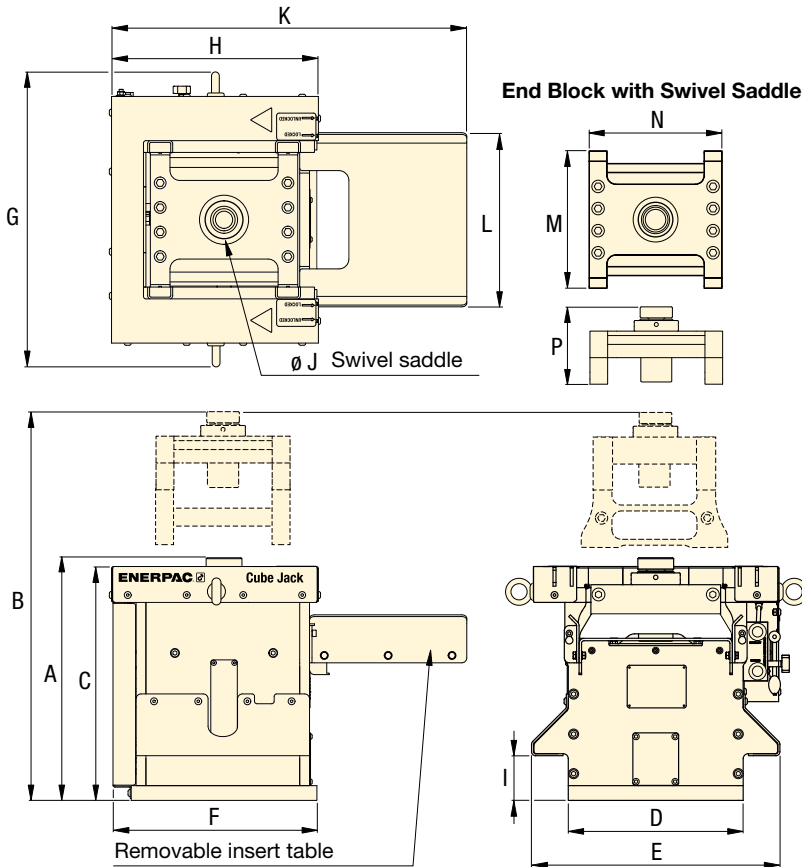


▼ Self-Locking Cube Jacks

| Lifting Capacity per Base Unit<br>(ton) | Lifting Stroke<br>(in) | Model Number   | Maximum Sideload at Full Extension | Oil Capacity per Base Unit<br>(in <sup>3</sup> ) |         |
|---|------------------------|----------------|------------------------------------|--|---------|
|   |                        |                |                                    | Advance  | Retract |
| <b>56</b>                               | 6.14                   | <b>SCJ-50</b>  | 1.5%                               | 75   | 38      |
| <b>110</b>                              | 6.14                   | <b>SCJ-100</b> | 1.5%                               | 152  | 85      |

# Self-Locking Cube Jack and Accessories

## Basic Unit



## SCJ Series



Capacity Per Cube Jack:

**56 - 110 ton**

Maximum Lifting Height:

**81.4 - 118.3 inches**

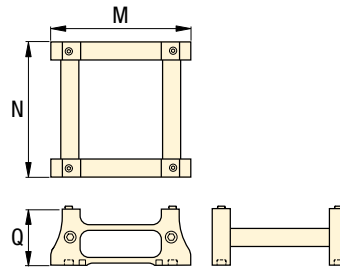
Maximum Operating Pressure:

**10,000 psi**



▲ SCJ-100 Self-Locking Cube Jack at maximum height of 81 inches with 11 lifting barrels.

## Cribbing Block



| Base Unit    |              | End Block    |              | Cribbing Block |              | Transport Frame* |              |
|--------------|--------------|--------------|--------------|----------------|--------------|------------------|--------------|
| Model Number | Weight (lbs) | Model Number | Weight (lbs) | Model Number   | Weight (lbs) | Model Number     | Weight (lbs) |
| SCJ-50       | 794          | SCJ5EB       | 88           | SCJ5B          | 35           | SCJ5F            | 243          |
| SCJ-100      | 1804         | SCJ10EB      | 220          | SCJ10B         | 51.7         | SCJ10F           | 550          |

| Dimensions (inches) |       |      |      |      |      |      |      |     |      |      |      |      |      |       |       | Model Number |         |
|---------------------|-------|------|------|------|------|------|------|-----|------|------|------|------|------|-------|-------|--------------|---------|
| A                   | B     | C    | D    | E    | F    | G    | H    | I   | J    | K    | L    | M    | N    | P     |       |              | Q       |
|                     |       |      |      |      |      |      |      |     |      |      |      |      |      | (min) | (max) |              |         |
| 19.4                | 81.4  | 18.7 | 14   | 19.9 | 17.4 | 21.9 | 16.9 | 3.6 | 4.92 | 28.6 | 13.8 | 11.8 | 12.2 | 6.9   | 8.9   | 4.9          | SCJ-50  |
| 22.0                | 118.3 | 20.7 | 19.9 | 25.8 | 25.0 | 30.4 | 23.5 | 4.0 | 6.69 | 41.2 | 19.8 | 17.7 | 18.1 | 7.4   | 9.4   | 4.9          | SCJ-100 |

\* Dimensions Transport Frame L x W x H: SCJ5F: 36.25 x 33.5 x 34 inches  
SCJ10F: 63 x 47.25 x 59 inches

▼ Shown from left to right: SFP404SJ and SFP613SJ



## Multiple Outlets with Equal Oil Flow

- **Smart valve technology allows both controlled lifting and lowering of multiple points**
- **4, 6 or 8 split-flow outlets with equal oil flow**
- **Valve operation with advance/hold/retract function**
- **Remote pendant (24 V solenoid) control**
- **Flow per outlet from 33 to 94 in<sup>3</sup>/min at 10,000 psi**
- **Pressure compensated flow control per circuit**
- **Adjustable pressure relief valve per circuit**
- **All models include pressure gauge per circuit**

▼ *Typical set-up with 4 Self-Locking Cube Jacks and cribbing blocks to lift a transformer. Enerpac recommends to power the Cube Jack using SFP-Series Split-Flow Pump.*



### Split-Flow Pumps

SFP-Series Pumps with multiple outlets with equal oil flow. For lifting and lowering applications on multiple points, Split-Flow Pumps are a far better alternative than using separately operated pumps.



### Remote Control Pendant

Split-Flow Pumps with solenoid valves include a remote pendant with selector switches for each individual outlet, allowing single or multiple cylinder operation.



### Synchronous Lifting Systems

If synchronization is required, the Cube Jack can be used with any Enerpac Computer Controlled Synchronous Lifting System from the basic EVOB-Series up to 8 lifting points. For more than 8 lifting points Enerpac recommends the EVO-Series. Visit [enerpac.com](http://enerpac.com).

# SFP-Series, Split-Flow Pumps

## ▼ HC-7206 Thermo-Plastic Hose



### Thermo-Plastic Safety Hoses

- For demanding applications, featuring a 4:1 safety factor
- Max. working pressure 10,000 psi
- Outside jacket is polyurethane, to provide maximum abrasion resistance

### Thermo-Plastic Safety Hoses

| Hose Internal Diameter<br>(in) | Hose End Assemblies and Couplers |         | Hose Length<br>(ft) | Model Number | Weight<br>(lbs) |
|--------------------------------|----------------------------------|---------|---------------------|--------------|-----------------|
|                                | End one                          | End two |                     |              |                 |
| 0.25                           | CH-604                           | CH-604  | 20                  | HC-7220C     | 6.8             |
|                                |                                  |         | 50                  | HC-7250C     | 15.4            |

## SFP Series



Reservoir Capacity:

**10 and 40 gallons**

Split-Flow Outlets:

**4, 6 and 8 outlets**

Flow at Rated Pressure:

**33 to 94 in<sup>3</sup>/min**

Maximum Operating Pressure:

**10,000 psi**



### Pump Cart

Easily tows pump around jobsite.

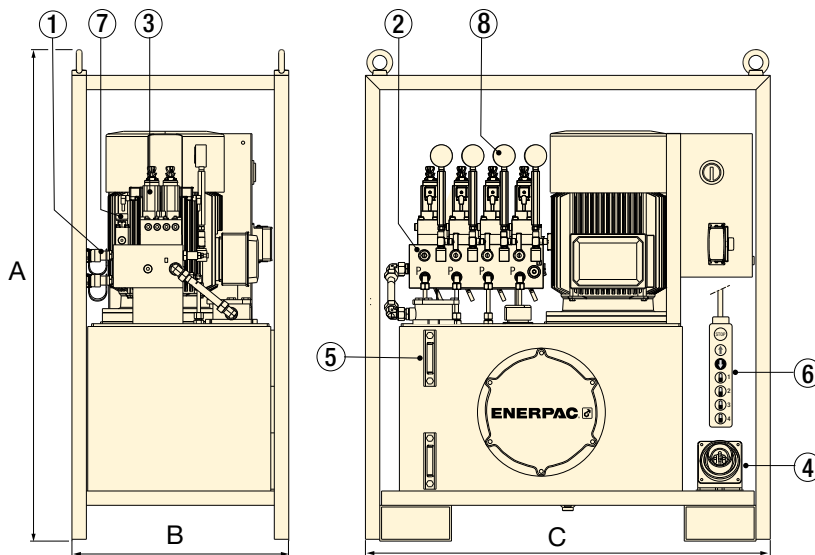
Can be used with all models of Split-Flow pumps.

Dimensions (LxWxH): 48 x 30 x 16.5 inches

Weight: 140 lbs.

| Description | Model No. |
|-------------|-----------|
| Pump Cart   | LHPC      |

## ▼ SFP-Series with 40 gallon reservoir (shown with 4 split-flow outlets)



- ① Manifold with split-flow outlets and CR-400 couplers
- ② Adjustable pressure relief valve per circuit
- ③ Solenoid 4/3 control valves (24 VDC)
- ④ Power receptacle
- ⑤ Oil sight gauge(s)
- ⑥ Remote control pendant with 16 ft. cord
- ⑦ Return flow control valve in each circuit
- ⑧ Hydraulic pressure gauge in each circuit

## ▼ Split-Flow Pumps

| No. of Split-Flow Outlets | Reservoir Size<br>(gal) | Oil Flow per Outlet @ 10,000 psi<br>(in <sup>3</sup> /min) | Model Number *<br>(460V, 3ph, 60Hz) | Motor Size<br>(hp) | Dimensions (in) |      |      | Weight<br>(lbs) | System Lifting Speed<br>(ft/hr) |         |
|---------------------------|-------------------------|--|-------------------------------------|--------------------|-----------------|------|------|-----------------|---------------------------------|---------|
|                           |                         |  |                                     |                    | A               | B    | C    |                 | SCJ-50                          | SCJ-100 |
| 4                         | 10                      | 33   | SFP 404SJ                           | 7.5                | 40.1            | 26   | 35.4 | 529             | 8                               | 4       |
|                           | 40                      | 65   | SFP 409SJ                           | 7.5                | 54              | 23.8 | 44.5 | 1047            | 15                              | 7.5     |
| 6                         | 10                      | 33   | SFP 604SJ                           | 7.5                | 40.1            | 26   | 35.4 | 529             | 8                               | 4       |
|                           | 40                      | 94   | SFP 613SJ                           | 15                 | 54              | 31.7 | 47.2 | 1213            | 20                              | 10      |
| 8                         | 40                      | 94   | SFP 813SJ                           | 20                 | 54              | 31.7 | 47.2 | 1300            | 20                              | 10      |

\* 4/3 Solenoid (24V) Valve Operation with Advance/Hold/Retract. With Remote Control Pendant.



# THE RIGHT TOOL MAKES ALL THE DIFFERENCE

Enerpac heavy lifting technology products are put to work under the most intense and demanding conditions. That's why we never compromise. So you can rely on quality and precision every time, giving you the safest and most efficient path to a successful lift.

Enerpac heavy lifting technology combines technical excellence with proven performance – every day, every year, year after year. We believe that customers shouldn't have to compromise – they can rest easy knowing that even in the most complex situations, their reputations and safety are protected by the most trusted products available.

**ELITE TOOLS. FOR ELITE PROFESSIONALS.**



SFP-Series,  
Split-Flow Pumps



EVOB-Series, Basic  
Synchronous Lifting Systems



EVO-Series, Standard  
Synchronous Lifting Systems



SCJ-Series,  
Self-Locking Cube Jack



JS-Series,  
Jack-Up Systems



SL, SBL-Series,  
Telescopic Hydraulic Gantries



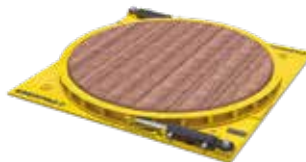
HSL-Series,  
Strand Jack Systems



SHS, SHAS-Series,  
Synchronous Hoisting Systems



LH, HSK-Series,  
Skidding Systems



ETT-Series, Turntables



ETR-Series, Trolley Systems



SPMT-Series,  
Self-Propelled Modular Trailers



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