

▼ SyncHoist System with SHC5540S Cylinders and SHP-Series Pump



- High precision load manoeuvring, vertically and horizontally – using one crane
- Reduces the risk of damage from oscillations of wire rope due to crane jogging and sudden starts/stops
- Vastly improving worker safety, operating speed and control
- Weather conditions play less critical role
- PLC-controlled hydraulics turn lifting into high accuracy hoisting and load positioning system
- Double-acting push/pull cylinders with load holding valves for added safety in case of hose rupture or coupler damage
- Cost reduction compared to conventional load positioning methods.

Options for system management & control:

- Manual control with load and position monitoring for up to four cylinders as standard
- Automatic control available with addition of SFPSSC control panel provides automatic movements as well as stroke and load warning functions.

▼ Bridge segments are hoisted from the ground, being positioned with a 4-point SyncHoist system with fully monitored cylinders.



▼ Rigging engineers used the SyncHoist system to precisely monitor and adjust each lifting point independently, or together in a synchronized manner to position the 1140 ton nuclear plant module.



Accurate Hoisting and Load Positioning Enhancing a Crane's Capability



Synchronous Hoisting

Enerpac SyncHoist is a unique crane product for below-the-hook positioning of heavy loads that require precision placement. The SyncHoist system may reduce the number of cranes needed and reduce the costs of multiple picks.

Functions

- High precision horizontal and vertical load positioning
- Load and position monitoring standard on all units to ensure safe and accurate operation.

Applications

- Positioning of rotor, stator and propeller blades of wind turbines
- Positioning of roof sections, concrete elements, steel structures
- Positioning of turbines, transformers, fuel rods
- Precise machinery loading, mill rod changes, bearing changes
- Precise positioning of pipe lines, blow out valves
- Positioning and aligning of ship segments prior to assembly.

▼ Enerpac SyncHoist system in use during roof truss picks: precise lift and positioning of stadium retractable roof trusses. 33 trusses weighing between 450 - 750 ton.



SyncHoist - High Precision Load Positioning



What is SyncHoist?

Enerpac SyncHoist is a hydraulically operated auxiliary attachment for high precision load positioning for cranes.

The automatic version with PLC-controlled hydraulic pump monitors and guides the powerful double-acting push-pull cylinders integrated into the lifting points above the load. The SyncHoist system can be used for positioning, tilting and aligning of loads.

- Patented system
- European lifting directive and safety requirements as well as ASME BTH-1 standard for below the hook lifting devices.

SyncHoist improves safety, operating speed and control of load movement

Geometric positioning of heavy loads in a horizontal and vertical plane are frequently done using more than one crane.

Synchronising movements between cranes are difficult and risky. The lifting inaccuracy can result in damage to the load and support structures and puts workers at risks. The SyncHoist system can be used for controlled hydraulic horizontal and vertical material handling.

SHC-Series Cylinders

Standard stroke lengths and capacities shown serve most common applications. Contact Enerpac for custom stroke lengths and additional capacities to suit your specific application.

SHP-Series Manual Control

- Push button pendant control of up to four cylinders
- Load and position readout from sensors on SHC-series cylinders
- Visual check oil level, filter indicator.

Automatic Control Available

- Connect control panel **SFPSSC** to SHP-Series pumps to enable automatic control
- PLC-control and touch screen
- Pre-programmable motions and data recording
- System warnings for:
 - maximum cylinder load control setting
 - stroke and position control
 - thermal motor protection.

SHC, SHP Series



Capacity Per Lifting Point:

55 - 85 - 110 ton

Maximum Stroke:

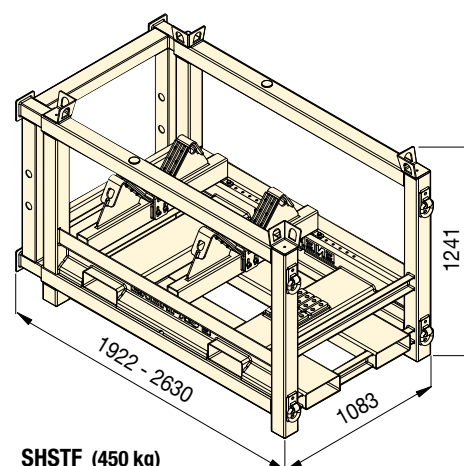
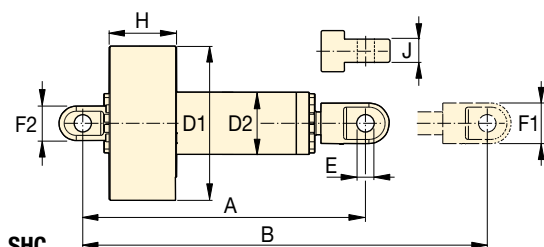
1000 - 1500 mm


Accuracy Over Full Stroke:

± 1,0 mm

Maximum Operating Pressure:

700 bar



| Cylinder Capacity | Cylinder Stroke | Cylinder Model Number * | Dimensions (mm) | | | | | | | | |  |
|-------------------|-----------------|-------------------------|-----------------|------|-----|-----|----|-----|-----|-----|-----|---|
| ton (kN) | (mm) | | A | B | D1 | D2 | E | F1 | F2 | H | J | (kg) |
| 55 (550) | 1000 | SHC5540S | 1800 | 2800 | 690 | 245 | 59 | 160 | 160 | 395 | 80 | 624 |
| 85 (850) | 1000 | SHC8540S | 1830 | 2830 | 680 | 265 | 72 | 164 | 164 | 385 | 100 | 700 |
| 110 (1100) | 1500 | SHC11060S | 2355 | 3855 | 780 | 315 | 85 | 205 | 174 | 405 | 124 | 1235 |

* Each cylinder requires separate purchase of (1) **EVO-SC-25** sensor cable (25 m length) and (2) **SHH25** hydraulic hoses (25 m length) for connection to SHP-series pumps.
All SHC-cylinders supplied with adjustable steel transport frame (model nr. **SHSTF**) to protect your investment.

| Maximum Lifting Points | Reservoir Size (litres) | Pump Model Number | Oil Flow per Outlet (l/min) | Motor Size 400V, 3 ph, 50 Hz (kW) | Dimensions (mm) | | | | (kg) |
|------------------------|-------------------------|-------------------|-----------------------------|-----------------------------------|-----------------|-----|------|-----|------|
| | | | | | A | B | C | D | |
| 4 | 250 | SHP414SW | 1,40 | 7,5 | 1368 | 805 | 1250 | 760 | 780 |
| 4 | 250 | SHP421SW | 2,10 | 10 | 1368 | 805 | 1250 | 760 | 780 |

