

▼ EVO8 (shown with 4 cylinders and stroke sensors, (sold separately))



The Multi-Functional Synchronous Lifting System



EVO-System Work Modes

The application possibilities are infinite with the standard EVO-System, powering interlinked hydraulic cylinders – single or double-acting, push or pull, stage lift, hollow plunger or lock nut cylinders. The EVO-System has 9 work modes. The operator can navigate to any of these menus:

1. Manual
2. Pre-Load
3. Automatic
4. Retract Fast
5. Depressurize
6. Tilting
7. Stage Lift
8. Weighing *
9. Center of Gravity determination *

* Available in the **EVO-W-models**.

- **Modular lifting pumps to control 4, 8 or 12 lifting points**
- **Can be connected to single- or double-acting cylinders with the same or different lifting capacities**
- **PLC-controlled system with integrated 10,000 psi hydraulic power unit and 66-gallon reservoir**
- **Network capability to link up to 4 EVO units (HPUs) to a separate EVO master-control box via wireless control**
- **Intuitive user interface providing easy set up, control and navigation**
- **Data storage and recording capabilities**
- **Variable frequency drive motor (VFD) and PLC for precise synchronization and oil flow control**



Typical Synchronous Lifting Applications

- Bridge lifting and repositioning
- Bridge launching
- Bridge maintenance
- Incremental launching and box jacking
- Lifting and lowering of heavy equipment
- Lifting, lowering, levelling and weighing of heavy structures and buildings
- Structural and pile testing
- Lifting and weighing of oil platforms
- Foundation levelling of onshore and offshore wind turbines
- De-propping/load transfer from temporary steel work
- Foundation shoring

▼ Shown: 3600-ton tunnel boring machine lowered and tilted into its starting position with the EVO-Series Synchronous Lifting System.



Synchronous Lifting Systems



Benefits of the EVO-Series System

Precise control of multiple lift points

- Comprehensive understanding and management of a lifting operation from a central control system improves safety and operational productivity
- Programmable synchronized lifting
- Automatic stop at pre-set cylinder stroke or load limit

Safe and efficient movement of loads

- System secured with warning and stop features to realize optimal safety

High accuracy

- Variable frequency drive (VFD) and PLC for precise synchronization and control of oil flow, stroke and speed
- Depending the cylinder capacities used, an accuracy of 0.040 inches between lifting points is achieved

Ease of operation

- User friendly interface: visual screens, icons, symbols and color coding

- A single operator controls the entire operation

Monitoring and Data Recording

- Displays data of the operation.
- Data recording at user-defined intervals
- Data storage and read-out for reporting

Network capability

- Ethernet IP protocol for communication between hydraulic power units, allow easy “plug and play”

EVOW Weighing System

Weighing applications with 1% accuracy

- Includes calibrated sensors and auto-calibration of external load cells
- Center of gravity determination functionality
- Parameters for “waiting time for stabilization” and “number of cycles”.

Global standardized system

- Enerpac global coverage ensures local support

EVO Series



Number of Lifting Points:

4, 8, 12 (up to 48)

Reservoir Capacity:

66 gallon

Flow at Rated Pressure:

46 - 292 in³/min.

Motor Size:

4 - 10 hp

Maximum Operating Pressure:

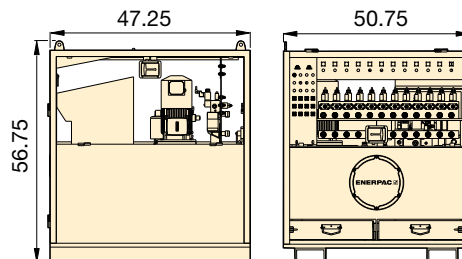
10,000 psi



Stroke Sensors and Cables

Optional accessories required for each lifting point and stroke sensor.

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EVO-Series (Standard)

Lifting Points	Variable Oil Flow (in ³ /min)		Model Number 460-480V, 3ph, 50-60Hz	Usable Oil Capacity (gal)	Motor Size (hp)	Motor Speed ²⁾	Wt. (lbs)
	(< 1,800 psi)	(> 1,800 psi)					
4	243-812	46-153	EVO 421460	66	4	VFD	2000
4	243-812	46-153	EVO 421460 W¹⁾	66	4	VFD	2000
4	285-951	88-292	EVO 440460	66	10	VFD	2210
4	285-951	88-292	EVO 440460 W¹⁾	66	10	VFD	2210
8	243-812	46-153	EVO 821460	66	4	VFD	2000
8	243-812	46-153	EVO 821460 W¹⁾	66	4	VFD	2000
8	285-951	88-292	EVO 840460	66	10	VFD	2000
8	285-951	88-292	EVO 840460 W¹⁾	66	10	VFD	2000
12	243-812	46-153	EVO 1221460	66	4	VFD	2025
12	243-812	46-153	EVO 1221460 W¹⁾	66	4	VFD	2025
12	285-951	88-292	EVO 1240460	66	10	VFD	2250
12	285-951	88-292	EVO 1240460 W³⁾	66	10	VFD	2250

¹⁾ Model numbers with suffix **W** are pumps for weighing systems.

²⁾ VFD = Variable Frequency Drive 18-60 Hz.



EVO-Master Control Box

Required to link up to 4 standard EVO-pumps together to achieve a maximum of 48 lifting points. Contact Enerpac for more information.

▼ Precision levelling caisson pier box: 3 EVO-Systems connected with 32 jacks lowered the 1100-ton bascule pier box.

