

EVO-Series, Synchronous Lifting Systems

ENERPAC

▼ EV0840380



- 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 700 bar hydraulic power unit and 250 litres reservoir
- Network capability to link up to 4 EVO-units (HPUs) to a separate network controller
- Intuitive user interface providing easy set up, control and navigation
- Data storage and recording capabilities
- Variable frequency drive motor (VFDM) and PLC for precise synchronization and oil flow control.

▼ The superlifting and launch of a 43,000-ton floating oil production system in Malaysia for the Gumusut-Kakap offshore field has set high benchmarks for safety through its use of sophisticated EVO-Series synchronous hydraulics to lift, balance, weigh and smoothly launch massive resource structures.



The multi-functional synchronous lifting systems



CLNC12 Network Controller

Easily monitor and control a multipoint synchronized lift. All network control boxes feature an industrial grade touch screen

and a user-friendly interface. Same controller can be used to operate either SFP-Series Split-Flow Pumps or multifunctional EVO-Series lifting systems.



EVO-SC, Stroke Sensor Cables

Can be connected together for additional length. Ordered separately, requires one for each stroke sensor.

Model Number	Length (m)	Model Number	Length (m)
EVO-SC-6	6	EVO-SC-25	25



EVO-WSS, Wire Stroke Sensors

Provides stroke feedback to controls. Includes magnets for mounting. Ordered separately, requires one sensor for each

lifting point. Available in measuring range of 500 and 1000 mm. Other lengths available on request.

Model Number	Range (mm)	Model Number	Range (mm)
EVO-WSS-500	500	EVO-WSS-1000	1000



Communication Cables

EVO-COMM-Series communication cables transfer information about the synchronized lift operation

from the network control panel to each of the connected hydraulic pumps.

Model Number	Length (m)	Model Number	Length (m)
EVO-COMM-25	25	EVO-COMM-75	75
EVO-COMM-50	50	EVO-COMM-100	100

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 (VDFM) and PLC for precise synchronization and control of oil flow, stroke and speed.
- Depending the cylinder capacities used, an accuracy of 1,0 mm 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".

EVOLCK-12 Load Cell Connection Kit

- Install electronic load cells when applications require high accuracy of load measurement
- Kit allows connection of up to 12 electronic load cells
- Plug and play connection to standard EVO lifting system
- Weighing accuracy as good as 1% of total load

Global standardized system

- Enerpac global coverage ensures local support.

EVO Series



Number of Lifting Points:

4 - 8 -12 (up to 48)

Reservoir Capacity:

250 litres

Flow at Rated Pressure:

0,75 - 4,80 l/min

Motor Size:

3,50 - 7,50 kW

Maximum Operating Pressure:

700 bar



EVOLCK-12, Load Cell Connection Kit

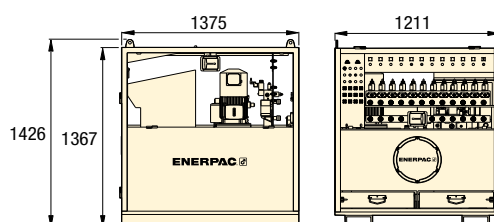
Allows connection up to 12 electronic load cells to standard EVO-system.



High-Tonnage Cylinders

The Enerpac High-Tonnage Cylinders are particularly suitable for (multipoint) lifting applications. Options include single or double-acting with and without mechanical lock nuts for load holding.

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EVO-Series (Standard)

Lifting Points	Variable Oil Flow at 50 Hz ¹⁾ (l/min)		Model Number ²⁾ 380-415 V, 3ph, 50-60Hz	Usable Oil Capacity (litres)	Motor Size (kW)	Motor Speed ³⁾ VFDM	Load Capacity (kg)
	(< 125 bar)	(> 125 bar)					
4	4,0 - 13,3	0,75 - 2,51	EVO421380	250	3,5	VFDM	910
4	4,7 - 15,6	1,44 - 4,80	EVO440380	250	7,5	VFDM	1005
8	4,0 - 13,3	0,75 - 2,51	EVO821380	250	3,5	VFDM	910
8	4,7 - 15,6	1,44 - 4,80	EVO840380	250	7,5	VFDM	910
12	4,0 - 13,3	0,75 - 2,51	EVO1221380	250	3,5	VFDM	920
12	4,7 - 15,6	1,44 - 4,80	EVO1240380	250	7,5	VFDM	1025

¹⁾ Oil flow will be approximately 6/5 of these values at 60 Hz.

²⁾ For 460-480 VAC, 3 phase, 50-60 Hz change 380 in model number into 460. Example **EVO421460**.

³⁾ VFDM = Variable Frequency Drive 15-60 Hz.

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



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