

Series
FPT SYNCHRO

Synchronous lifting system

**1mm precision
in the operations of
lifting and lowering**



Lifting with a precision of 1 mm

F.P.T. manufactures integrated lifting systems controlled by PLC. The F.P.T. SYNCHRO allows the operator to carry out each step of the lifting and descending process synchronously through integrated management of the hydraulic and control part. Unbalanced loads are kept levelled during the up or down phases, with leveling accuracy equal to 1 mm.

The system was developed to adapt to customer lifting needs and can be totally customizable with a series of optional. It is the ideal tool for operations of lifting or weighing that need accurate control's systems functions. The F.P.T. system is user friendly, safe and modular.

Typical application of synchronous lifting from 4 to 48 points:

Thanks to stroke and pressure transducers feedbacks, the system allows lifting and lowering in a synchronous way with the precision of 1 mm, reducing the risk of excessive stress due to unbalanced distribution of the loads between the lifting points.

The operator can set on the PC screen the parameters of the operation to be performed, decide the number of cylinders to use, the stroke, the accuracy and the speed to operate. All data during operations are always monitored by the system increasing productivity and safety during operations. All data are stored and can be downloaded later.

Basic system composition:

- 700 bar hydraulic pump with radial piston pump, three-phase motor inverter controlled
- laptop or touch screen panel
- wire transducers for stroke control
- armored cables complete with industrial connectors

For use with single or double acting hydraulic cylinders.

Controls - Operator panel:

- Monitoring from 4 to 48 lifting points.
- Controlled movement for lifting / lowering.
- Possibility to select the cylinders to be operated.
- 2 modes available: automatic or manual.
- Possibility to set the maximum lag permitted.
- Accuracy on synchronism of 1 mm.
- Load and stroke alarm display for maximum safety during operations.
- Display of the maximum relative error between various cylinders.
- Download and storage of data related to lifting.

Speed optimization

The system is able to optimize the speed of load lifting / lowering regardless of number and size of cylinders maintaining the error within the set limit. The operator panel also allows the approach of the cylinders to the structure/formwork to lift, thus allowing a considerable saving of time.

The information displayed for each cylinder are:

- relative and absolute position
- pressure
- force
- direction (upward / downward)
- information relating to errors



Typical synchronized applications lifting:

- Handling of heavy structures.
- Maintenance, launch or construction of bridges
- Load transfer operations
- Installation or maintenance of heavy systems
- Positioning of offshore platforms
- Weighing operations

