

# OIL-HYDRAULICS PRACTICAL SYSTEM Mod. KMO/EV

The oil-hydraulics practical system has been designed to implement complete courses on oil-hydraulics.

The system is conceived for use with work-bench mod. WT/EV and consists of the following elements, which include real industrial components:

- Vertical panel for oil-hydraulic component assembly
- Set of oil-hydraulic components with quick acting couplings
- Set of hoses with quick acting couplings

Each system can be used as 2-place work-station. To operate, the oil-hydraulics practical system for the students mod. KMO/EV needs the oil-hydraulics power unit mod. CO/EV. The electro-oil-hydraulic practical system mod. KMEO/EV and the proportional oil-hydraulics system mod. KMOP/EV have been designed and manufactured to supplement the oil-hydraulic practical system for the students mod. KMO/EV.

## TRAINING PROGRAM:

The program suggests different exercises among which:

- Analysis of the operation of the supplied components
- Q-p characteristics of the pump
- Control of a single-acting actuator
- Control of a double-acting actuator
- Control of a hydraulic motor
- Regenerative circuit
- Sequential cycle of two actuators
- Actuator operation at different speeds
- Use of the hydraulic accumulator in emergencies

## TECHNICAL SPECIFICATIONS:

### Vertical panel

Omega guides are fixed on the panel in order to fit all the supplied oil-hydraulic components and the panel is supplied with the following fixed elements:

- Single- or double-acting cylinder with adjustable load,  $\varnothing 1 = 25$ ,  $\varnothing 2 = 14$ ,  $l = 200$
- Double-acting differential cylinder,  $\varnothing 1 = 32$ ,  $\varnothing 2 = 22$ ,  $l = 150$
- Membrane accumulator,  $V = 1,4$  l, pre-loading of  $N_2 = 25$  bar
- Reversible hydraulic gear motor,  $5.6$  cm<sup>3</sup>/rev

### Set of oil-hydraulic components

- Flowmeter
- 2 shut-off valves



- 1 pressure relief and/or sequence valve
- 1 4/2 bistable solenoid valve, lever control
- 1 closed-center 4/3 solenoid valve, lever control, 3 fixed positions
- 2 non-return valves
- 1 piloted non-return valve
- 2 one-way flow control valve
- 1 adjustable one-way throttle valve
- 1 pressure reducing valve

### Set of couplings and hoses

- 4 quick acting couplings with 0-100 bar pressure gauge
- 10 flexible hoses with quick-acting couplings

All the described oil-hydraulic components are provided with quick acting couplings.

**Dimensions:** 100 x 40 x 85 cm

**Weight:** 97 kg

## REQUIRED

- Oil-hydraulics power unit mod. CO/EV

## OPTIONAL

- Electro-oil-hydraulics practical system mod. KMEO/EV
- Proportional electro-oil-hydraulics practical system (open and closed-loop) mod. KMOP/EV
- Work-bench mod. WT/EV
- Design, simulation and animation software for the study of electro-pneumatics & electro oil-hydraulics mod. SW-FLU/EV

**SUPPLIED WITH**  
**THEORETICAL-EXPERIMENTAL HANDBOOK**  
**WITH INTRODUCTION TO THE EXERCISES**  
**INSTALLATION, USE AND MAINTENANCE**  
**HANDBOOK**

