



Hydraulic Trainer

Category: Pneumatic, Hydraulic & Fluid Mechanics · Model reference: MZM-6007



SPECIFICATIONS

DESCRIPTION:

The MZM-6007 advanced electro hydraulic training system is developed according to the teaching and training requirements of vocational education. It integrates actual hydraulic components, execution modules, relay control unit, and PLC unit. Students can assemble various hydraulic circuits and control systems themselves.

With strong operability, this training equipment is suitable for the practical teaching of Hydraulic Transmission, Hydraulic Transmission and Control, Hydraulic Technology, and other related courses in vocational colleges, secondary technical schools and training institutions.

- This advanced electro hydraulic training system adopts actual industrial components. The training process is clean with no oil leakage.

- This product can be used to train basic hydraulic control and advanced hydraulic control. Meanwhile, proportional and servo control can also be implemented on this equipment.

- Measuring variables such as pressure, flow and time

- Calculating surface ratio, force, output and speed

- Physical principles of hydraulics

- Applying basic hydraulic equations

- Using symbols (DIN/ISO 1219)

- Drawing displacement-function diagrams

- Drawing hydraulic circuits

- Setup and commissioning of controls, including troubleshooting

- Basic hydraulic circuits such as pressure sequencing circuit, feed and return circuits, bypass circuits with non-return valve

The training system shall comprising the following elements:-

1. Hydraulic Workstation; Single-sided

2. Hydraulic Component Set; Basic Level

3. Accessories for Hydraulic Training System

4. Training media Set for Hydraulic Training System

1. Hydraulic Workstation; Single-sided

- The workstation is used designed to support the technical training system of following modules namely Hydraulic Set, Basic Level.

- The workstation complete with drawer unit. Each layer of drawer fitted with easy sliding devices. The drawer unit can be lock by front locking unit.

- The workstation should provide sufficient space for work area, storage compartment as well as optional temporarily storage compartment.

- The workstation should be single sided metal profile assembly board for the mounting of exercise components with assembly devices.

- The workstation complete with heavy duty costar and lockable brake. Work surface should be durable and non-corrosion resistant.

- The workstation is to be provided with FRP oil drip tray that provides clean working environment.

2. Hydraulic Component Set ; Basic Level

A. Each training set comprises following components:-

- Hydraulic Pressure Gauge (3 units / set)

- Inline connection; Glycerin filled type.

- Include self-closing quick connector

- Nominal size 63 mm, steel casing.

- Range of Indication: 0 – 100 bar

- Operating pressure static: 3/4 of full scale value

- Operating pressure dynamic: 2/3 of full scale value

- Standard: comply to EN 837-1

B. Flow Control Valve (Throttle Valve) (1 unit / set)

- Inline connection

- Adjustable by Rotary Knob, with status setting indicator

- Include self-closing quick connector

- Operating pressure 0 – 60 bar

- Maximum pressure: approx.. 100 bar

- Nominal flow rate: approx.. 12 l/min Max.

C. One-way Flow Control Valve (Throttle Check Valve) (1 unit / set)

- Inline connection

- Adjustable by Rotary Knob, with status setting indicator

- Include self-closing quick connector

- Operating pressure 0.4 – 60 bar

- Maximum pressure: approx.. 100 bar

- Nominal flow rate: approx.. 12 l/min Max.

- Maximum flow rate: approx.. 12 l/min

D. Manual Shut-off Valve (1 unit / set)

- In-line type, manually actuated, Swiveling, 90o variably

- Include self-closing quick connector

- Operating pressure: 60 bar

- Maximum pressure: 100 bar

- Maximum flow rate: 12 l/min

E. Non-Return Valve, Cracking Pressure 1 bar (1 unit / set)

- In-line connection, Unidirectional

- Include self-closing quick connector

- Operating pressure: 60 bar

- Maximum pressure: approx.. 100 bar

F. Cracking pressure: approx.. 1 bar

- Non-Return Valve, Cracking Pressure 6 bar (1 unit / set)

- In-line connection, Unidirectional

- Include self-closing quick connector

- Operating pressure: 60 bar

- Maximum pressure: approx.. 100 bar

- Maximum flow rate: approx.. 12 l/min

- Cracking pressure: approx.. 6 bar

G. T-Distributor (4 units / set)

- Inline connection; Aluminum block

- 2 nos. of Safety flat face nipples

- 1 no. of Safety flat face Coupler

- Operating pressure: approx.. 60 bar

- Maximum pressure: approx.. 100 bar

- Maximum flow rate: approx.. 12 l/min

H. Pressure Relief Valve (1 unit / set)

- Modular type, dual function

- Pressure adjustment by means of rotary knob

- Equip with tandem quick locking device for mounting to assembly profile board

- Valve mounted on NG6 or CETOP 3 standard manifold

- Include self-closing quick connector

- Operating pressure: 60 bar

- Maximum pressure: approx. 100 bar

I. Pressure Reducing Valve (1 unit / set)

- Modular type

- Pressure adjustment by means of rotary knob

- Equip with tandem quick locking device for mounting to assembly profile board

- Valve mounted on NG6 or CETOP 3 standard manifold

- Include self-closing quick connector

- Operating pressure: 60 bar

- Maximum pressure: approx.. 100 bar

- Maximum flow rate: approx.. 12 l/min

J. 2-way Flow Control Valve (1 unit / set)

- Modular type

- Flow level adjustment by means of rotary knob

- Equip with tandem quick locking device for mounting to assembly profile board

- Valve mounted on NG6 or CETOP 3 standard manifold

- Include self-closing quick connector

- Operating pressure: 60 bar

- Maximum pressure: approx.. 100 bar

- Maximum flow rate: approx.. 12 l/min

K. Pilot Operated Check Valve (Non-return valve; DE lockable) (1 unit / set)

- Modular type

- Equip with tandem quick locking device for mounting to assembly profile board

- Valve mounted on NG6 or CETOP 3 standard manifold

- Include self-closing quick connector

- Operating pressure: 60 bar

- Maximum pressure: approx.. 100 bar

- Maximum flow rate: approx.. 12 l/min

L. Hydraulic Motor (1 unit / set)

- Side port with approx.. 16 mm cylindrical shaft

- Approx.. 2000 rpm. Max. output 1.8-2.0 kW

- Approx.. 16 l/min oil flow max. bi-directional rotation

- Equip with quick locking device for mounting to assembly board

- Include self-closing quick connector

- Operating pressure: 60 bar

- Maximum pressure: 100 bar

M. 4/2-way Directional Control Valve, Hand Lever Operated, Spring Return Type (1 unit / set)

- Manual operated, Nominal size 6 or CETOP 3 Industrial Model

- Equip with quick locking device for mounting to assembly profile board

- Valve mounted on NG6 or CETOP 3 standard manifold

- Include self-closing quick connector

- Operating pressure: approx.. 60 bar

- Maximum pressure: approx.. 100 bar

- Maximum flow rate: approx.. 12 l/min

N. Hydraulic Cylinder (1 unit / set)

- Single-acting or double-acting function linear actuator,

- Diameter: 25 mm

- Stroke: 200 mm

- Piston rod: 12 mm

- Equip with manual turning knob locking device for quick mounting to assembly profile board at vertical or horizontal position.

- Include self-closing quick connector

- Operating pressure: approx. 60 bar

- Maximum pressure: approx. 100 bar

- Approx.. 8.2 cm³/rev displacement

N. 4/3-way Directional Control Valve, Hand Lever Operated with detent, spring center with mid-position recirculating (1 unit / set)

- Manual operated, Nominal size 6 or CETOP 3 Industrial Model

- Equip with tandem quick locking device for mounting to assembly profile board

- Valve mounted on NG6 or CETOP 3 standard manifold

- Include self-closing quick connector

- Operating pressure: approx.. 60 bar

- Maximum pressure: approx.. 100 bar

- Maximum flow rate: approx.. 12 l/min

O. Variable Annular Orifice Flow meter (1 unit / set)

- In-line connection, with compression spring recovery

- Include self-closing quick connector

- Stainless steel sharp-edged orifice

- Weather-tight external construction

- Operating pressure: approx.. 60 bar

- Maximum pressure: approx.. 100 bar

- Measuring range: approx.. 2 – 18 l/min

- Transfer magnet

3. Accessories for Hydraulic Training System

The set comprises following components:

1. Hydraulic Power Unit (1 unit / set)

- The hydraulic power unit is to supply the pressurized fluid to the hydraulic circuit. This unit should be quiet and easy to mobilize, can be installed horizontally or vertically. The unit contains pressure relief unit with external turning knob type, pressure indicator, distribution block, pump unit, suction filter, breather cap, oil reservoir tank, electric motor with incoming supply connection etc.

Complete with quick Connector and mounting kits.

2. Hydraulic Oil, 18 liters (1 unit / set) : Hydraulic oil, with approx.. 22 cSt viscosity at 20°C

3. Hydraulic Hose Holder (1 unit/set) :

- Able to mount with quick release coupler.

- Holder bracket attached to Aluminum lockable Mobile Stand

- Max. 24 holding slots

4. Hydraulic Hose, 600 mm length (8 units/set)

- Hydraulic hoses with safety quick release coupler at both end-point.

- Synthetic Rubber within burst pressure >250 bar

- Operating pressure: 60 bar

5. Hydraulic Hose, 1,200 mm length (4 units/set)

- Hydraulic hoses with safety quick release coupler at both end-point.

- Synthetic Rubber within burst pressure >250 bar

- Operating pressure: 60 bar

6. Hydraulic Hose, 1,500 mm length (2 units/set)

- Hydraulic hoses with safety quick release coupler at both end-point.

- Synthetic Rubber within burst pressure >250 bar

- Operating pressure: 60 bar

7. Hydraulic Distributor Unit – P Line (1 unit/set)

- 5-way with quick release nipple and pressure indicator

- T-slot nut locking device for mounting to assembly profile board.

- Operating pressure: 60 bar

- Maximum pressure: 100 bar

H. Hydraulic Distributor Unit – T Line (1 unit/set)

- 5-way with quick release nipple

- T-slot nut locking device for mounting to assembly profile board.

- Operating pressure: 60 bar

- Maximum pressure: 100 bar

4. Training Media Set for Hydraulic Training System (1 unit / set)

Workbook, Hydraulic Technology; Fundamental Level; English (1 copy / set)

- Section A : Introduction

- Section B : Exercises

- Section C : Data Sheets

Send Enquiry **Your Name**

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