



Portable Basic Hydraulics Training Box



Note :
Due to keeping innovation,
the specification and
Machine pictures or color
are subject to alteration
without notice!

Equipment Overview

- The portable hydraulic principle trainer is designed for common courses such as 'hydraulic control technology', 'hydraulic and pneumatic transmission', which is widely used in industrial area and school education.
- It is suitable for technical secondary school, junior college, vocational school, mechanical engineering major education. By the experiment operation and course design, students can understand the structure of hydraulic components, loop control principle, design method and so on.
- The trainer is mainly composed of training box, oil tank, motor and gear pump (one body design), hydraulic components, oil tubes and so on, with the advantage of small size, light weight, easy to move. It is an excellent solution for the traditional teaching way that teachers can only conduct the course in one place.

Training Content

- Understanding of hydraulic components structure, signal and functions
- Single stage pressure regulating loop of overflow valve
- One level pressure-relief loop of reducing valve
- Oil in speed regulating loop of flow control valve
- Oil return speed regulating loop of flow control valve
- Side oil line throttle governing loop of one way throttle valve
- Reversing loop of hand directional valve
- Series speed regulating loop of flow control valve and throttle valve
- Parallel speed regulating loop of flow control valve and throttle valve
- Oil in and oil return speed regulating and throttling loop
- Disassembly and assembly of reducing valve
- Disassembly and assembly of overflow valve
- Disassembly and assembly of hand directional valve
- Disassembly and assembly of hydraulic cylinder
- Disassembly and assembly of throttle valve
- Disassembly and assembly of flow control valve
- Disassembly and assembly of self-locking hydraulic connector
- Hydraulic simulation software
 - (1) Component introduction function
 - (2) Connection and operation tips
 - (3) Manual connection function
 - (4) Automatic connection function
 - (5) Two-dimensional diagram hydraulic loop dynamic simulation
 - (6) Two-dimensional diagram hydraulic loop dynamic simulation with stop/start function
 - (7) Hydraulic loop schematic diagram, component dynamic inner structure display



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Technical Parameters

1. Input Voltage: AC220 V $\pm$ 10%, 50 Hz;
2. Complete appliance capacity: 0.3KVA
3. Working temperature: -5°C~40°C
4. Operating humidity: Less than 90% (40°C)
5. Dimensions: 620mm $\times$ 480mm $\times$ 280mm (approx.)
6. Safety protections: Grounded, lead protection, safety in accordance with related GB standards.

Basic Configuration	
1	Experiment box
2	Tool kit (for assembly and disassembly)
(1)	Straight screwdriver
(2)	Cross screwdriver
(3)	Monkey wrench
(4)	Needle nose pliers
(5)	External circlip pliers
(6)	Internal circlip pliers
(7)	Socket head wrench suite
(8)	Portable tool box
3	Power cord
4	Air switch
5	Transparent hydraulic tube
6	Hydraulic simulation software

Hydraulic Components	
1	Double acting hydraulic cylinder
2	Flow control valve
3	One way throttle valve
4	Reducing valve
5	Directing acting overflow valve
6	Pressure gage
7	Hand directional valve
8	T-joint
9	Cross joint
10	Motor and gear pump station
11	Oil tank
12	Safety excess flow device

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Hydraulic Components



1



2



3



4



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