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CATALOG

Hydraulic & Pneumatic Lab Trainers



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ME 7642 - PNEUMATIC TRAINER WITH WORK STATION



Technical Specification :

- Pneumatic Components
 - Pneumatic Cylinder
 - Single acting cylinder : Max. stroke length 50mm, Bore dia : 20 mm
 - Double acting cylinder : Max. stroke length 100 mm Bore dia : 20 mm
 - Different type of valve
 - 3/2 Way valve : Manually-actuated normally closed
 - 3/2 Way valve : Pneumatically-actuated spring return
 - 1Way flow control valve: 2 Nos
 - 5/2 Way valve : With manually-operated switch
 - 5/2 Way valve : Pneumatically-actuated spring return
 - 5/2 Way pneumatic actuated valve : Double pilot operated
 - 3/2 Way roller lever valve: Direct actuation normally closed 2 Nos.
 - Shuttle valve (OR)
 - Two-pressure valve (AND)
 - 3/2 Way single solenoid valve : With LED
 - 5/2 Way single solenoid valve : With manual override and LED
 - 5/2 Way double solenoid valve : With manual override and LED
 - Pressure gauge : 0-16 bar
 - Manifold : NRV, 6-way (self-closing)
- Profile plate, anodised : 1100x700 mm, with carriers, mounting aluminum frames and mounting accessories (To be fitted onto the pneumatic workstation)
- Compressor unit
 - Suitable for pressure : 8 bar
 - Delivery : 50 lpm (or more)
 - Reservoir capacity : 24 Litres (or more), 230V, 50 Hz, with pressure regulator and water separator

• Pneumatic Workstation Table

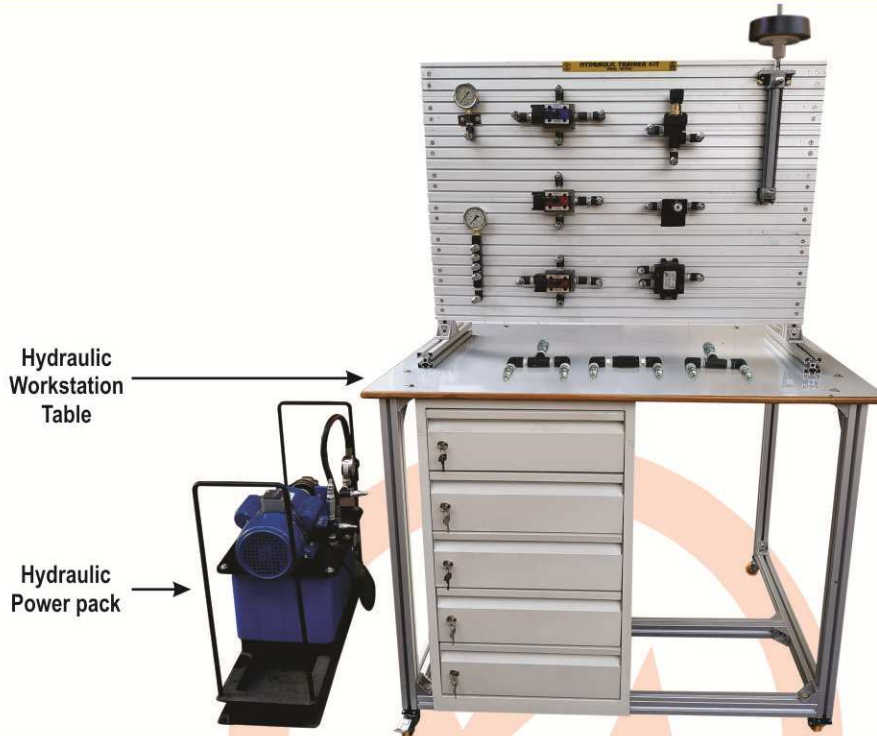
Pneumatic workstation with 45 square mm aluminum profile legs, wooden work surface, and one pedestal drawer unit having 5 drawers, each with handles and individual locks, on metallic full panel drawer slide:

- Work table size : 1200mm(L) x 900mm(W) x 900mm(H), with four castor wheels including two lockable wheels at the front side,
- Drawer size (approx.) : 460mm(L) x 495mm(W) x 158mm(H) each, and over all size of drawer unit (Approx.) 470mm(L) x 495mm(W) x 825mm(H)
- Drawer slide height : 85mm

• Carrier for mounting components, such as PB & relay boxes.

- Carrier : Anodised aluminum profile plate as a carrier for PB & Relay Box
- Pushbutton station for Electrical signal input : With 3 illuminated momentary contact Switches (1 NO + 1 NC) and 1 illuminated maintained contact switch (1 NO+1 NC), contact load 2A
- Relay station : With 3 relays each with 4 contact sets (3NO+1NC or change-over type), 5A
- Power supply unit : Input voltage : 85 265 V AC
Output voltage : 24 V DC
Output current : max. 4.5A
Short-circuit proof

ME 7652 - HYDRAULIC TRAINER WITH WORK STATION



Technical Specification :

Hydraulic Components

- Pressure relief valve : Pilot-operated.
- Drip tray, steel : Size 1160 mm x 760 mm.
- Pressure gauge : Glycerin-damped
Indication range of : 0-100 bar
- Four-Way distributor : With five ports equipped with a pressure gauge

Hydraulic Cylinder

- Double acting hydraulic cylinder : With a control cam
 - Piston diameter : 16 mm
 - Piston rod diameter : 10 mm
 - Stroke length : 200 mm

Different type of valve

- 3/2 Way directional control valve : With hand lever actuation
- 4/2 Way directional control valve : With hand lever actuation
- 4/3 Way directional control valve : Closed-centre position, with hand lever actuation
- Non-return valve
- Pilot-operated check valve : Pilot to open
- One-way flow control valve : With integrated check valve

- Suitable weight : For vertical loading of hydraulic cylinder

- Mounting kit for weight : For realizing pulling and pushing load
- T-Connector with self sealing coupling nipples (2 Nos.) and quick coupling socket (2 Nos)
- Profile plate anodised : 1100x700 mm, with carriers, mounting aluminium frames and mounting accessories (To be fitted on to the hydraulic workstation)

Hydraulic Power pack

- External gear pump having a delivery rate of 2.5 lpm (approx.) @ 1400rpm operating pressure 60 bar, coupled to a single-phase AC motor (230 VAC) having start capacitor and On/Off switch and overload protection,
- Pressure relief valve adjustable from 0-60 bar
- Oil reservoir, 25 litres capacity having sight glass, drain screw, air filter, and P and T ports.

Hydraulic Workstation Table

Hydraulic workstation with 45 square mm aluminum profile legs, wooden work surface, and one pedestal drawer unit having 5 drawers, each with handles and individual locks, on metallic full panel drawer slide:

- Work table size : 1200mm(L) x 900mm(W) x 900mm(H), with four castor wheels including two lockable wheels at the front side,
- Drawer size (approx.) : 460mm(L) x 495mm(W) x 158mm(H) each, and over all size of drawer unit (Approx.) 470mm(L) x 495mm(W) x 825mm(H)
- Drawer slide height : 85mm

ME 7643 - Cut section model for pneumatic components

Following Cut section Model of Pneumatic components mounted on wooden Base Board :-

- Single acting cylinder
- Double acting cylinder
- 3/2 Push button valve
- 5/2 Hand lever valve
- 5/2 Pitot valve
- 5/2 Single solenoid valve
- Manifold
- Pressure gauge



ME 7653 - Cut-section Models for Hydraulic Components

Following Cut section Model of Hydraulic components mounted on wooden Base Board :-

- Double acting cylinder
- Flow control valve with check valve
- 4/3 Hand lever valve
- Non return valve
- 4/2 Hand lever valve
- Pressure relief valve



GN 7640 - ELECTRO-PNEUMATIC TRAINER



Technical Specification:

- Pneumatic Components
 - Filter regulator and lubricator (FRL) unit with pressure gauge
 - Direction control valves of different configuration
 - 5/2 Double solenoid valve
 - 5/2 Single solenoid valve
 - 5/2 Single solenoid timer operated valve
 - 5/2 Pilot operated valve
 - 5/3 Hand lever operated valve
 - 3/2 Roller Switch
 - 4 Way manifold
 - Pneumatic Cylinders
 - Double acting cylinder (Stroke length 100mm & diameter 32mm)
 - Double acting cylinder (Stroke length 125mm & diameter 40mm)
- Electronic Controller
 - 8051 CPU
 - Memory 64kB Flash
 - Selection for Auto / Manual operation through SPST, SPDT & DPDT switches
 - System control manually through Push to ON switches
 - Power Indicator LED
 - Reset button for micro controller
 - USB Connector type B
- Power requirement : 220VAC +10%, 50Hz
- Weight : 30Kg Approx. (Main Control Unit)
10Kg Approx. (Air Compressor)
- Dimensions (mm) : 900(L) x 380(B) x 670(H)

Standard Accessories:

- Air Compressor, Instruction Manual, USB Cable & Program CD with Software

Other Model Also Available :

- GN 7645 - Pneumatic Trainer
- GN 7648 - Pneumatic Trainer (PLC Control)
(Same as GN 7640 but control using PLC)

GN 7650 - ELECTRO-HYDRAULIC TRAINER



Technical Specification:

- Hydraulic Components
 - Hydraulic Power pack with following features
 - Operating pressure 40 bar approx., Flow rate 4-8lpm approx.
 - Hydraulic Tank capacity 20 liters
 - Geared pump coupled with induction motor 220V AC, 50 Hz, and mounted externally over the tank with anti vibration pads
 - Having non return valve, pressure relief valve
- Different type of valves
 - 4/3 Double solenoid valve AC operated
 - 4/2 Single solenoid valve AC operated
 - 4/3 Way hand lever valve (Manual)
 - Flow control valve and pressure reducing valve (Manual)
- Pressure gauges 0-1500Psi - 3nos.
 - Pressure gauges (glycerin filled) to measure the pressure at pressure line, reduced pressure line
- Hydraulic Cylinders - 2nos.
 - Double acting cylinder (Stroke length 100mm & diameter 25mm)
 - Piston rod: Chrome plated and hardened
- Hydraulic pipe for fittings
 - Connection type 1/4", Length 600mm - 15nos
 - Connection type 1/4", Length 1000mm - 2nos
- Hydraulic motor
 - Type : Gear motor and Bi-directional
- Electronic Controller
 - 8051 CPU, Memory 64kB Flash
 - Line indicator
 - DOL starter start/stop button for induction motor
 - Double solenoid control switch (Manual and Automatic)
 - Single solenoid control switch (Manual and Automatic)
 - Push buttons for manual control for actuators I, II, & III
 - USB cable connector
- Power requirement : 220VAC +10%, 50Hz
- Weight : 65Kg Approx. (Main Control Unit)
70Kg Approx. (Hydraulic Power Pack)
- Dimensions (mm) : 900(L) x 380(B) x 670(H)

Standard Accessories:

- Hydraulic Power Pack, Hydraulic oil 20ltr, Instruction Manual & USB cable and Program CD with Software

Other Model Also Available :

- GN 7655 - Hydraulic Trainer
- GN 7658 - Hydraulic Trainer (PLC Control)
(Same as GN 7650 but control using PLC)