



The complete Work Bench is made with Sheet metal and MS Tubes with powder coated in two colours for better aesthetic looks. Overall dimensions of the workstation approx. 1500X 1300 X 800 with caster wheel and locking mechanism is to be provided for easy movement, working area is made from 25mm Thick wood based plain particle board with one side post forming 9 (flat profile) 0.8mm Marino laminate and another side 0.6mm white balancing laminate. Fixed drawer units for storage facility (400mmX200mm).

Additional pedestal wood encabinet (approx. 450mmX450X700) mm with 3 drawers and castor wheel with centre locking facility has provided for Safety

Optional holder to fix PC Desktop & LCD Monitor, Keyboard drawer.

Perforated Sheet for hanging tools and other accessories, 2 Nos of exhaust fan is provided for better ventilation and heat distribution, Workstation has got 4points AC input sockets and Switches for Additional instruments connections on the Work area.

Workstation has got Emergency pushbutton for any unpredicted Short circuits.

Two suitable students Stools/chairs will be provided for the students to perform their experiments by sitting.

MCB of 2 poles provided with Panel.

Workstation has got the unique identification number and centralized monitoring and control facility by instructor remotely, workstation has got the facility to identify and alert the physical and Mechanical damage over cloud/text to instructor and maintenance team.

Workbench consist of following instruments with centralized control.

Technical Specification

1. 1 No of Digital Storage Oscilloscope:

- 50MHz Bandwidth, Four channel digital storage oscilloscope, Memory depth of digital channel up to 24 Mpts, real-time sample rate of up to 2 GSa/s, 7 inch WVGA (800×480) TFT LCD, intensity graded color display, with option of Integrated 2 Channel full function 25MHz generator, 30,000 wfms/s Waveform Capture rate, Multi-Level intensity graded display, Serial Triggering and Analysis Options, Low noise floor, vertical scale range: 1 mV/div to 10 V/div, 4 Nos of Passive probes, Real-time waveform recording and playback functions (up to 60,000 frames).

Note: Specifications are subject to change.

2. 2 Nos of Programmable Power Supply:

- Output voltage range: 0-50.00V with 0.01V resolution,
- Output current range: 0-5.000A with 0.001A resolution,
- Output power range: 0- 250.0W,
- Display Screen: .4inch colour LCD display for display of voltage, current, power and other set parameters, CC and CV facility, combinational numerical keypad and encoder adjustment, data storage & recall facility, facility to connect PC for data acquisition
- Fixed voltages: +/-5V DC, +/-12V DC.

3. 1 No of Function-Pulse Generators with 40MHz Frequency Counter.

- Frequency Range 0.3 Hz – 3 MHz,
- Sine, Square, Triangle, Ramp, Pulse and TTL outputs
- 20 Vpp output and DC Offset
- 40 MHz Frequency Counter
- Rise time & Fall time \leq 50 ns
- Digital Readout with backlit Color LCD
- TTL output
- 50 Ω Output Impedance
- FM modulation
- 20 dB/ 40 dB (fixed) & 20 dB variable attenuation

4. 1 No of Soldering Station: Power – 60Watt, Input voltage:

- 170 to 270 V, Temperature range: 180 to 480 °C Temp
- stability : \pm 10°C Temp accuracy : \pm 1°C of tolerance, Set / Read of temperature Control facility, Password protection facility to stop tampering with set temperature, Burn proof silicon cable with thermal resistance up to 600 °C.

5. Meters**• Analog**

- 2 Nos of 0-100mV DC Voltmeter and 2 Nos of 0-100V DC Voltmeter
- 2 Nos of 0-10mA DC Ammeter and 2 Nos of 0-1A DC Ammeter

• Digital

- 2 Nos of 0-100mV DC Voltmeter and 2 Nos of 0-100V DC Voltmeter
- 2 Nos of 0-10mA DC Ammeter and 2 Nos of 0-1A DC Ammeter
- Energy Meter: 1 No of Single phase Energy Meter
- 1 No of 3 phase Energy Meter.

• Digital Multimeter (1 No)

- Auto Ranging 4 ½ Digit,
- DC Voltage: 0.1mV ~ 1000V, AC Voltage: 0.1mV ~ 750V,
- DC Current : 0.1 uA – 20A, AC Current : 0.1 uA – 20A,
- Resistance, Capacitance, hfe test facility,
- Frequency: 0.1Hz ~ 30MHz, Standard Accessories: Test leads, holster, manual, TP 01 temperature probe.

• Digital Clamp Meter

- Current Range: 0-1000A AC, Voltage Range: 0-1000V AC and DC, 3 ½ digit digital display.

Simulation Software (2 User)

- Analog and Digital Circuit Designing Software will be provided to perform circuit simulation and perform experiments with more than 20 different analysis modes including DC Analysis, AC Analysis, Transient Analysis, Digital step by step analysis, Symbolic Analysis, Network Analysis, Noise Analysis, Tolerance Analysis, Optimization, etc.

Note: Specifications are subject to change.