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**Product Name :**  
Water Treatment Studies Bench

**Product Code :**  
LBNY-0005-16300015



#### **Description :**

A panel with tubular supports is provided for storing filter columns not in use. Dosed or untreated water is transferred from the sample tank to the filter system by a centrifugal feedwater pump at reduced pressure and a metered rate; treated filtered water is either collected in a portable 25 litre storage tank or passed to the Steam Boiler Bench, depending on the use of the unit. Water Treatment Studies Bench consists of a sturdy framework and panels of all steel construction, fitted with a student work surface, interconnecting back panel and adjustable feet. These are fitted with top and bottom quick release couplings. Two of the columns may be used at any one time in a system of inter-connecting pipework and selection valves, set to allow the columns to be circulated with dosed or untreated water either independently, in parallel, in series or in reverse, and with a backwash connection from the service water line. The studies bench comprises five interchangeable, clear filter columns, each of which can be filled with a sand filter or ion exchange medias. A variable chemical dosage system, comprising a dosage pump and a chemical additive mixing vessel, is supplied to inject diluted additive at a controlled rate to either a portable 25 litre sample tank or the boiler feedwater tank on the Steam Boiler Bench. A control box, suitable for either 110V or 240V a.c. supplies, provides separate ON-OFF switches and associated indicator lamps for each pump and a switch to select the pumps for either Water Treatment Studies or Feed Water Service to the Steam Boiler Bench. Pressures at the inlet and outlet of either filter column are indicated on separate 0-2.5 bar Bourdon tube pressure gauges. Sample cocks are included in the system to enable water samples to be collected for analysis by test kits supplied with the unit.

#### **Experimental Capability:**

To demonstrate the abilities and combined effects of the base exchange, de-alkalinising and demineralisation units.

#### **Technical Specification :**

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The bench includes five interchangeable clear filter columns each of which can be filled with either filter sand or one of three ion exchange media which are supplied loose. Dual purpose bench designed to demonstrate the basic principles of water treatment by filtration and chemical means, or to supply treated water to a Steam Boiler Bench. Any two columns can be included in a system of inter-connecting pipework, including one 2- position and five 3-position selection valves and a pressure relief valve set as 1.5 bar, and fitted with filter inlet and outlet pressure measuring points driving corresponding 0-2.5 bar Bourdon type pressure gauges via 3-position selection valves.



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