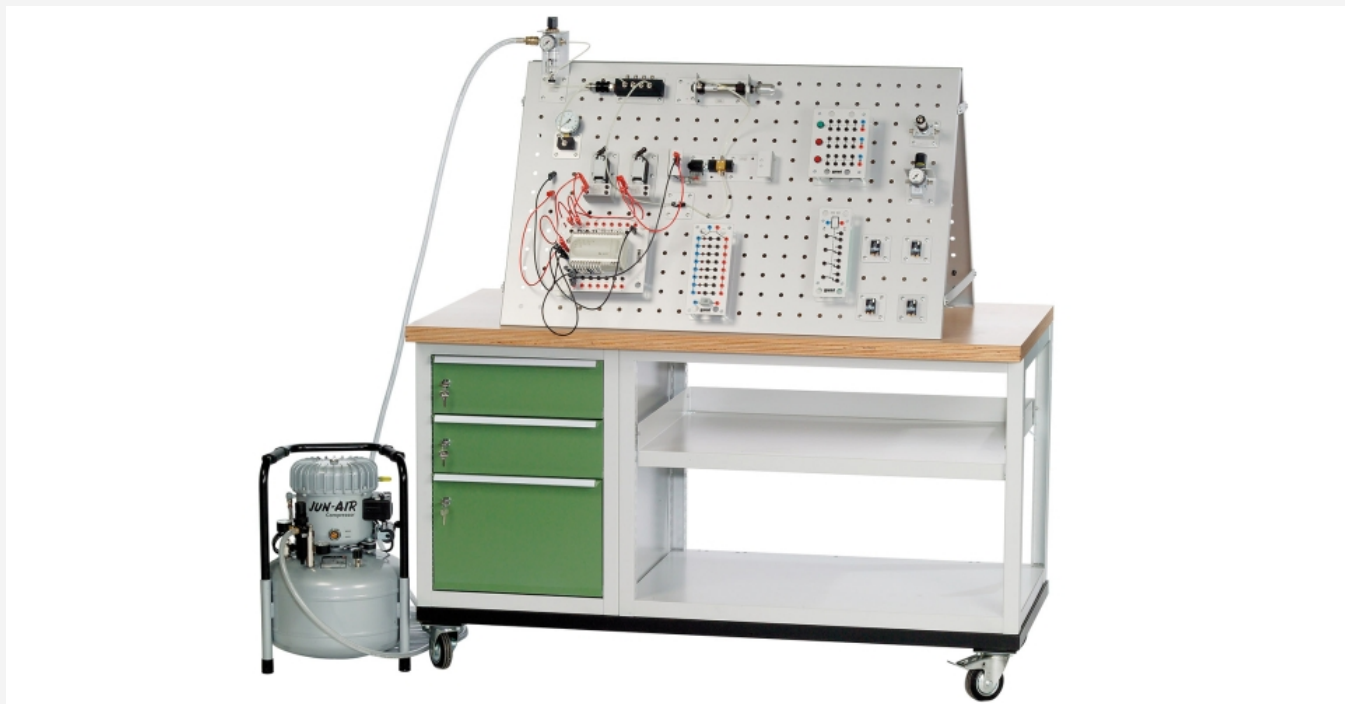


RT 770

Training system: pneumatics, electro-pneumatics and PLC



Description

- **complete training system providing an experimental introduction to the fundamentals of pneumatics and electro-pneumatics – with PLC**
- **experiment scope and configuration based on the tried and proven concept course developed by the Bundesinstitut für Berufsbildung (BIBB; Federal Institute for Vocational Training)**
- **2 large-format metal assembly panels for fast, secure component mounting**
- **Sturdy base construction, mobile, with drawer system for storage**

The RT 770 is a fully equipped training system with all necessary components and aids to conduct a comprehensive training course in the fundamentals of pneumatic and electro-pneumatic controls. The didactic structure of the course is based on the long-established BIBB training concept. In addition to the BIBB course experiments, RT 770 also includes a PLC (programmable logic controller).

The system comprises standard industrial components. The board-mounted components are securely attached to the assembly panels by a special quick-clamping system. The assembly area consists of two panels that are arranged in a roof-like configuration and can be used simultaneously. Pneumatic and electro-pneumatic circuits are constructed with the aid of pneumatic hoses and laboratory cables. A compressor supplies the experiments with compressed air.

The sturdy trolley provides clearly laid out storage for the components.

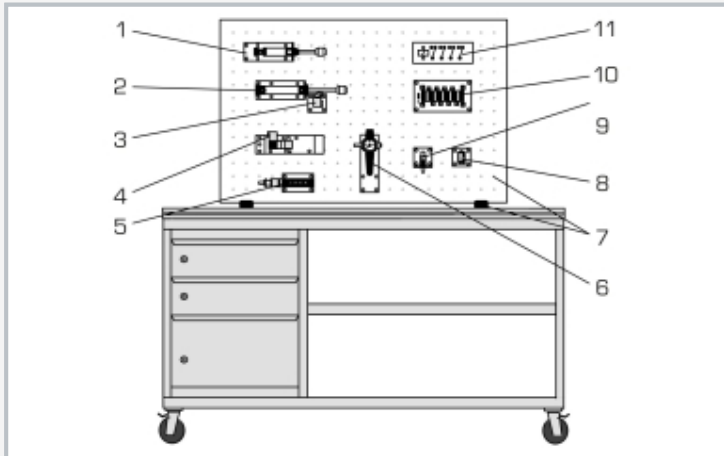
An extensive package of literature and media is supplied.

Learning objectives/experiments

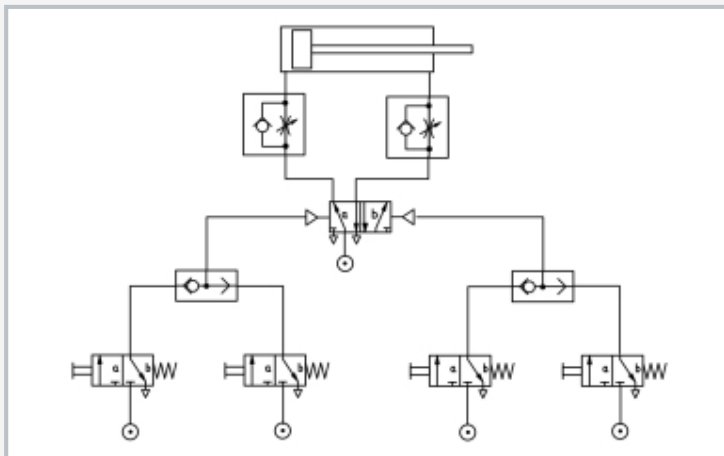
- physical principles of pneumatics and electro-pneumatics
- fundamentals of, and terms used in, process control
- design and function of pneumatic components
- logic elements, logic diagram
- multi-way valves, pressure, shut-off and flow control valves
- controls with starting and setup conditions (automatic/manual/jog mode)
- controls with boundary conditions
- routing and time controls (process and time controlled sequencers)
- position-dependent controls
- troubleshooting and commissioning

RT 770

Training system: pneumatics, electro-pneumatics and PLC



1 cylinder, single-acting, 2 cylinder, double-acting, 3 3/2-way valve with roller lever, 4 3/2-way valve, 5 distributor block with hand valve, 6 maintenance unit, 7 assembly panel, 8 dual pressure valve (AND gate), 9 quick-vent valve, 10 sequencer, 11 relay board



Circuit diagram of experimental setup for logical OR element



Relay board

Specification

- [1] comprehensive trainer for demonstration and exercises in pneumatics, electro-pneumatics and PLCs
- [2] 2 perforated metal panels for quick component fixing
- [3] standard industrial pneumatic and electro-pneumatic components
- [4] various multi-way valves, pressure, shut-off and flow control valves
- [5] electric limit switch, various proximity switches, solenoid valves, signal board
- [6] PLC with programming software
- [7] integrated power supply unit to supply the electro-pneumatics and the PLC
- [8] 2x maintenance units + distributor block for simultaneous use of both panels
- [9] hoses, cables and tools to construct the experiments
- [10] compressor for compressed air supply, esp. silent

Technical data

2 assembly panels, LxH: 1100x700mm each
Compressor

- noise level: approx. 45db
- tank: 24L
- intake capacity: 50L/min
- power output: 32L/min at 8bar
- max. pressure: 8bar
- motor: 0,34kW

PLC with display

- inputs: 8
- outputs: 4
- EEPROM
- programming software

Size of components: nominal width 3

Pneumatic hose: 4/2mm

Power supply unit: 24VDC, 4A

230V, 50Hz, 1 phase

230V, 60Hz, 1 phase

120V, 60Hz, 1 phase

LxWxH: 1530x750x1540mm

Weight: approx. 160kg

Required for operation

PC with Windows recommended

Scope of delivery

- 1 training system, complete
- 1 compressor, esp. silent
- 1 PLC with software
- 1 set of instructional material