

Product Name :
Automatic Production Line Training and Assessment Equipment

Product Code :
NLAB-ENGINEERINGLB17004



Description :

Automatic Production Line Training and Assessment Equipment

Technical Specification :

consists of aluminum alloy guide rail type training platform, feeding mechanism, process unit, assembly unit, carrying mechanism and sorting unit. Each unit can be as one independently system, also can be one related mechatronics technology training system. They can be combination, installation and debugging freely to realize the target for simulating production function.

includes each unit working station, automatic production line, pneumatic system, inverter, PLC high speed pulse and counter, servo motor, analog, networking technology, HC interface, configuration technology etc.

Material delivery and sorting mechanism, etc. Mechanisms are closely connected, students are freely to assemble and debugging

TECHNICAL PARAMETER

Working Source: Three phase five wire system AC 380 V $\pm$ 10%, 50 Hz;

Equipment overall size: 2100mm×1000mm×1500mm;

Computer desk overall size: 600mm×530mm×1000mm;

Whole set consumption apparent power: ?2 KVA

Frame material: aluminum steel structure

TRAINING ITEMS

Automatic detection technology using training

- Understanding and application of magnetic switch
- Understanding and applications of the photoelectric switch
- Understanding and applications of the optical fiber photoelectric proximity switch
- Understanding and applications of the inductive proximity switch
- Understanding and application of photoelectric encoder

Pneumatic technology application training

- Single rod cylinder installation and debugging
- Double rod cylinder installation and debugging
- Rotating cylinder installation and debugging
- Single control electromagnetic directional valve installation and debugging
- Double control solenoid directional valve installation and debugging
- Magnetic switch installation and debugging
- Filtering deceleration valve installation and debugging

PLC programming training

- PLC hardware and software using
- PLC instruction training
- PLC control of feeding unit
- PLC control of processing unit
- PLC control of assembly unit
- PLC control of carrying unit

- PLC control of sorting unit
- PLC control of automatic production line

PLC network establishing training

- PLC network introduction
- PLC network communication instruction
- PLC networking training

Converter application training

- BOP operation panel control frequency converter operation
- Inverter inching operation
- Frequency converter running based on external potentiometer control
- Frequency converter running based on external voltage control
- Converter analog output test
- Converter switch value output test
- Frequency multi-stage speed control
- PLC control frequency converter running

Motor drive and position control training

- Start control of the three-phase asynchronous motor
- Three-phase asynchronous motor forward and reversal control
- Three-phase asynchronous motor frequency control
- Understanding of the servo motor
- Servo motor speed control
- Servo motor position control

Mechanical system installation and debugging

- Feeding unit installation and debugging
- Processing unit installation and debugging
- Installation and debugging of assembly unit
- Carrying unit installation and debugging

- Sorting unit installation and debugging

System maintenance and fault detection training

- Feeding unit system maintenance and fault detection
- Processing unit system maintenance and fault detection
- Assembly unit system maintenance and fault detection
- Carrying unit system maintenance and fault detection
- Sorting unit system maintenance and fault detection

Touch screen configuration programming training

- Touch screen acknowledge training
- Touch screen picture making training
- Touch screen window switching training
- Touch screen and PLC communication application training

Naugralabequipments

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