

from development to implementation

Product information

Semi-automatic workplace of assembly of a rod mechanism LabTest MPT 1500-PA - assembly press



Device description and use

The semiautomatic workplace of assembly of a rod mechanism works on a principle of a carousel with four workstations (positions). Each of those workstations has clearly determined: assembly workplace 1, assembly and setting workplace 2, testing station and unloading station. The machine enables, with help of a touch LCD display and with connection of testing software MSVTest v.1, to assemble completely and to measure the rod mechanism.

A manipulator (balancer) is a part of the semiautomatic workplace that provides manipulation with rods and weights.

The device is qualified to be used in quality systems in compliance with ISO 9001:2009

Basic machine configuration

- 1 machine base with a precious seating and measuring
- 1 rigid table of a welded construction in "L" shape
- 1 air balancer for withdrawing and installation of the rod mechanism
- 1 turn-table with 4 workplaces controlled by an AC servomotor
- 1 tool for device blocking
- 1 power sensor HBM, accuracy class according to EN 7500-1
- 1 safety fence EXELENT (according to machine location)
- 1 monitoring of the workplace SICK with cameras
- I hydraulic aggregate to control presses 300 and 1500 kN
- 1 monitoring of the workplace with a safety barrier SICK
- 1 safety cover ITEM
- 2 measuring and evaluating units EDC 220
- 1 19" touch LCD display
- 1 industrial PC with Windows operation system
- 1 industrial rack Rittal 800x600x400 mm
- 1 unit for air circulation
- 1 service remote access LABWebservis
- 1 software MSVTest v. 1 in English language
- 1 documentation in English language



Production of materials testing

equipment and automation

Features and functions

- Very rigid machine construction
- High safety in compliance with EN 954-1, Category 3
- Detection of operation failures and their display in the program
 Centrally located control elements providing simple control,
- assembling and testing
- A digital control unit with a touch LCD display
- Automatic identification of empty workplaces
- Loading of rods by means of the balancer
- Very high speed of assembly and testing of rods
- Piece orientation into the define testing and assembling position
- A safety cover ensuring absolutely safe operation
 - High stiffness of the machine frame and resistance to vibration
 - Exceptionally accurate measuring sensors
 - Options for data output via ethernet or USB interface
- Ideal ergonomic design
- The device complies with all necessary safety requirements such as DIN 51 333, EN ISO 13489, and other European standards





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Technical data

- Type of workplace carousel
- Number of positions 4
- Maximum load of position 2 300 kN
- Cylinder stroke of position 2 300 mm
- Max. testing speed of position 2 600 mm/min
- Max. shifting speed of position 2 2500 mm/min
- Maximum load of position 3 1500 kN
- Cylinder stroke of position 3 300 mm
- Max. testing speed of position 3 550 mm/min
- Max. shifting speed of position 3 1500 mm/min
- Accuracy of position reading of positions 2, 3 0,01 mm
- Accuracy of speed control 0,5 %
- Accuracy of trajectory measurement ±10 μm
- Tact-time included 100 pcs/shift
- Colour treatment according to customer requirements
- Maximum noisiness < 70 dB
- Working environment temperature < 45 °C
- Working environment dampness max. 85 %
- Location of elements at one vertical control panel
- Machine supply 3x400 V/230 V/50 Hz
- Machine weight ca 3500 kg

Description of software MSVTest v.1

This new software enables control and evaluation of more testing and assembling workplaces at the same time. MSVTest is determined not only for classic PC and LCD monitors but also for industrial systems, which are controlled by touch LCD displays. All measured results are stored into a central database. This database contains basic statistic methods and filtration of results according to an order number, a testing date, a type of the assembled and tested piece etc. MSVTest software is predetermined for serial assembly and testing of rods.

Features of software MSVTest v.1

- Assembly and testing of more workplaces at a time
- Unlimited database of tested pieces
- Storage of results into the database
- Filtration of measured results
- Monitoring of a testing cycle including process blocking
- Automatic inspection of the test performed
- Identification according to the part number, the date and the time of measurement
- Automatic evaluation of the rod testing process
- Adaptation to touch LCD displays
- Monitoring of service intervals
- Assignment of a record of performed compression of the rod mechanism
- Option to read rod parameters through a bar code
- Export to SQL or in CSV, Excel etc. format
 - Protocol printing



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Ver. 1.0 - 2018

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