

Pneumatic machine maintenance Endurance test

DESCRIPTIF

- The test endurance machine is an industrial automated pneumatic application for the industrial maintenance training.
- The running is founded on the endurance test of an automobile speed changing system.
- The structure suits with all the suggested activities.
- The unit is delivered complete with technique and didactic manuals, software and links for PC.
- Design, manufacturing and material are industrial.
- System with automaton and piloting interface.



DIDACTIC APPLICATIONS

- Diagnostic of sensors, distributors and actuators
- Replacement / reparation of faulty components
- Modification / improvement of the machine
- Physic integration of new functions (mechanic mounting, pneumatic piping and electric cabling)
- Modification of programming
- Etc.

Technique description:

Protecting carter risable with gaz jacks for access on 3 sides to the working area

Passage for cables of sensors and pneumatic pipes

Terminal for sensors connection



Mecanism simulating the behaviour of speed selector of the clutch, the piloting jacks and sensors

Electric enclosure integrating TELEMECANIQUE automaton, electric securities, piloting station of the unit with MAGELIS modulus for displaying, parametering and help for diagnostic

Working station with orifices for the passage of pipes and cables toward terminals of connection

Storage for components

Diversity of the material :

- ⇒ **Jack** alu and iso - simple and double effect – until Ø80mm, mounting on cope, “paletta” track rod head, fixed...
- ⇒ **Distributors** : bistable and monostable 5/3CO, 5/3CF, 3/2, 5/2 mounted on common distribution support placed in the electric cupboard/multiwire control cable on sub D plug / central pneumatic supply
- ⇒ **Sensors** ILS, PNP magnetic, PNP inductive
- ⇒ **Securities** : magnetic contact on case, electronic and pneumatic cutters, safety electrovalve...

Maintenance activities:

Important : all the **maintenance activities** we suggest are associated with a **real problematic** that need their operating (modification of the material, the configuration of the system or functions of the system for e.g.)

Improvement of the system

- ⇒ **Changing of technology** of the distributor for improvement of the control of intermediary positions of the speed selector
- ⇒ suppression of compression phenomena and expansion of the compressed air in the jacks
- ⇒ **Improvement** of the representativity of the unit: installation of two-speed pneumatic circuits for management of the clutch sliding
- ⇒ **integration of a complete action chain** allowing test the selector on reverse position (pre-actuator, sensor, actuator allowing to lift the passage ring of reverse)

Diagnostic and repairing :

- ⇒ clutch **distributor**
- ⇒ clutch **sensor**

Utility : electricity 230V/50Hz singlephased / compressed air: 5/10 bars

Dimensions : (L*I*h en mm) : 1100*840*1710 (height when case lift = 2650mm)

weight : 100kg