

CERTIFICATE

No. 021/P111-Reg/FRI/XI/2009

F. AMRI RISTADI, ST.

attended successfully the Festo Didactic training program from 23 – 26 November 2009

Festo Didactic Seminar P 111 Modern Industrial Pneumatics - Fundamental

In Jakarta

The following subject matters were covered in this seminar:

- Combination of electrical control section and pneumatic power section
- > Basic principles of compressed air supply: Production, preparation, distribution
- > Power section devices: Cylinder, semi-rotary drive, gripper, vacuum generator
- Use of directional control valve, flow control valve, shut-off valve, pressure limiting valve and sensors
- Structure and function of electrical switching devices and electro-pneumatic valves
- Basic logic functions, time and counter function
- Valve technology
- Symbolic representation of devices and standards
- > Identifying and eliminating faults, including safety aspects
- > Power section optimisation depending on load and speed

Jakarta, 26 November 2009

John M. Nathanael

Trainer