



CNG INJECTORS TEST BENCH



Via Fiume 16
60030 Angeli di Rosora, Ancona, Italy
p +39 0731 8161 f +39 0731 814700
info@loccioni.com - www.loccioni.com

CNG INJECTORS

The system allows the methane and LPG electro injectors manufacturers, the calibration and the test of the electrical and dynamic fluidity characteristics of its own production. The system concurs to carry out the resistance, measure of the resistance, the impedance, the static and dynamic flow. It is also possible to carry out the injector calibration and crimping thus reducing the cycle time by means of test cycle automation. The results are saved in a database that guarantees the maximum production traceability. The opening and closing times monitoring of the injector is guaranteed through the accelerometric analysis with visualization on oscilloscope. The test plans management is characterized by the maximum flexibility. The very low noise level of the machine is guaranteed by sound-absorbent coating.

The main characteristic of the injector are monitored by using Coriolis mass meters, thermocouples and pressure transducers. The electric features test is carried out by means of impedance meters.

The calibration is executed through an automatic device working with an appropriate pole on the spring thrust pin.

The injector spring preload calibration occurs by checking in continuous the flow and the

pressure through regulation system.

At the end of the test the crimping is carried out through a device composed of special hydraulic cylinders and appropriately shaped punches.

The two cylinders are piloted by a pneumatic hydraulic booster with two levels of pressure (low pressure for approach, high pressure for crimping). The crimping pressure is monitored by means of a relative pressure transmitter, while the punches stroke is controlled thanks to two linear potentiometers.

TECHNICAL FEATURES

- > The range of t-on goes from 0.1 to 99.9 ms with a resolution of 0.1 ms
- > The test air pressure is measured with full scale of 6 bar and accuracy of $\pm 0.15\%$ of the f.s.
- > The test pressure is maintained with a stability of ± 0.020 bar
- > With the mass meter it is possible to have a measuring range from 2 nm³/h to 12 nm³/h; the theoretical accuracy is the 0.5% on all the indicated range
- > The injector power supply voltage is automatically set up and visualized with a resolution of 5mv and maintained with an accuracy of ± 20 mv
- > The tolerated frequency range goes from 5 hz to 999 hz with a resolution of 1 hz
- > The clock signal is maintained with an accuracy of 10 μ s and set up with a resolution of 10 μ s

