

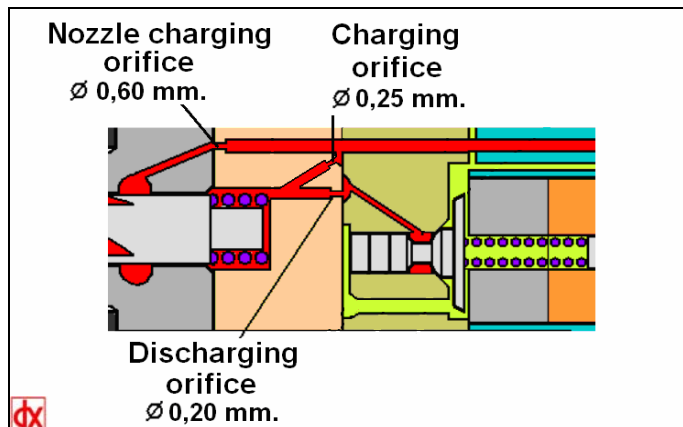
Components Cleaning


Fig. 43

Using the microscope back light on the calibrated orifice body, check that all calibrated orifices are free.



Fig. 44

Clean the valve body and particularly the valve seat using the minidrill with felt brush lightly smeared with green lapping paste. Clean the valve shaft and the valve tightening cone using the minidrill with cloth brush smeared with green paste.



Fig. 45

Using the minidrill with cloth brush smeared with green paste, clean all injector surfaces.

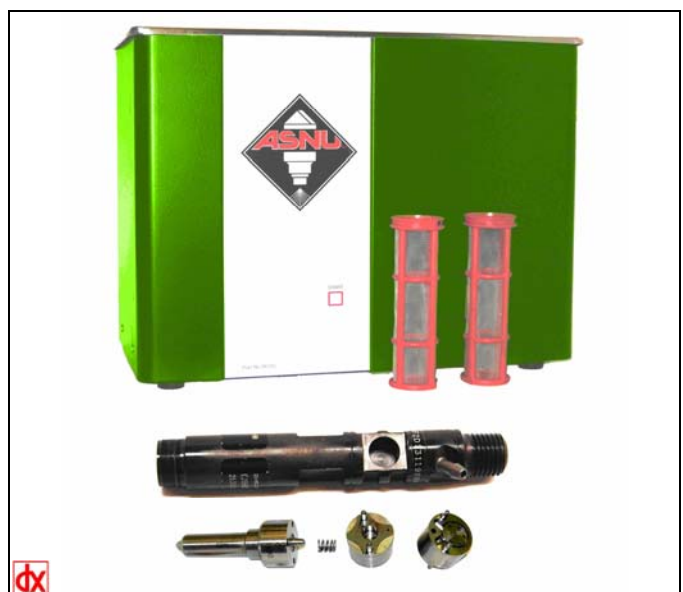


Fig. 46

Put all the parts of every single injector inside a net filter, to avoid mixing of the parts with other injectors. Finish the cleaning operations with ultrasonic washing. After Ultrasonic cleaning blow immediately all parts with compressed air and immerse them in clean test oil for lubrication.

Reassembly



Fig. 56

After the cleaning operation, proceed with the selection of the parts which can be utilized again and the parts that should be scrapped and replaced.
Replacement parts are available as shown in the picture to carry out a successful injector reconditioning.

REASSEMBLY



Fig. 57

Insert the spring setting pin.



Fig. 58

Insert the valve spring.



Fig. 59

Fit the valve unit.



Fig. 60

Fit the calibrated orifice body.

Reassembly



Fig. 61

Fit the nozzle and the nozzle cup nut without tightening it.

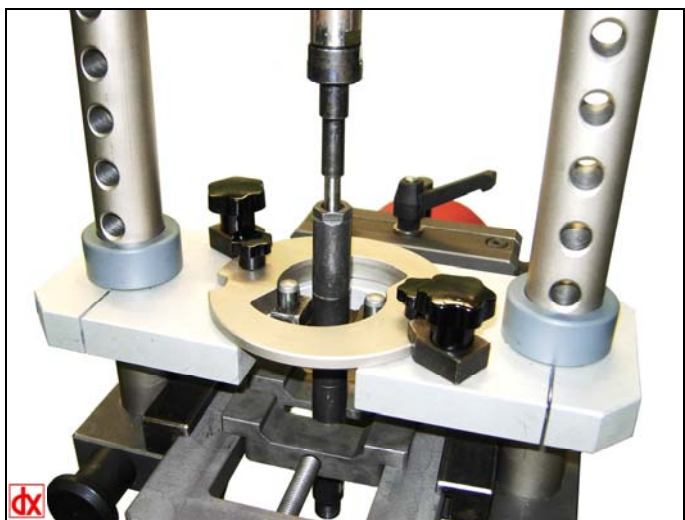


Fig. 62

Fit the injector into the press and center it so that the press cup fits freely into the nozzle.



Fig. 63

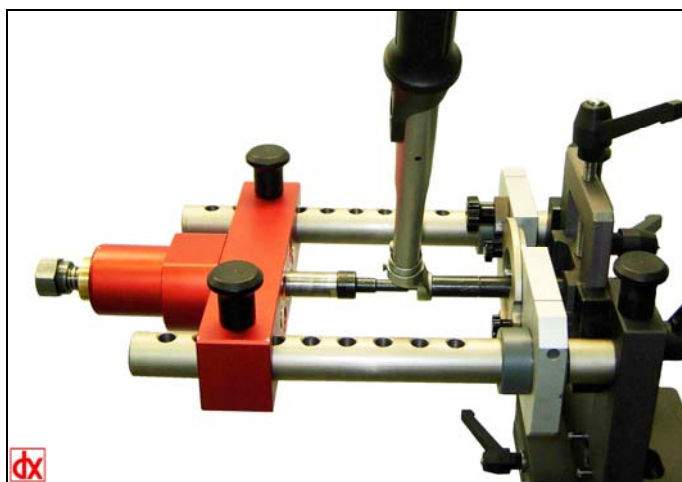
Insert the torque wrench onto the injector and tighten the press top bolt using the torque wrench, in order to put the injector in axis under pressure.

Reassembly**Fig. 64**

Put the press on the horizontal position.

Apply one brake-thread drop to two opposite sides of injector body thread.

Attention: the drop must be applied on the thread far from the injector body tightening surfaces.

**Fig. 65**

With the torque wrench tighten the nozzle cup nut at required value (Nm 55). Wait for the sealing fluid complete polymerization.

**Fig. 66**

Fit a new copper washer. The washer should fit with little clearance but free onto the nozzle body.

Should the copper washer fit too tight against the nozzle body, mounting the injector on the engine head and squeezing the washer, may cause the nozzle needle sticking.

TESTING


Fig. 67

For testing reconditioned injectors it is necessary to have an equipment which can guarantee the correct functioning of the injectors. Only in this way the different tests quoted in the DiteX test plans can be reliable. The picture shows the DiteX equipment which allows the testing of the multibrand injectors available on the field.


Fig 68

The equipment shown in the picture is the basical one to obtain the values required to generate a new C2I Delphi code. These instruments are:
CRI 1000 for injector testing.
MTR 3000 for checking the response time.


Fig. 69

Aside is displayed the "C2I Code Test Kit" DX75 which includes the equipment for the C2I coding (the black box is the MTR3000 tester as shown in the previous picture).

Testing

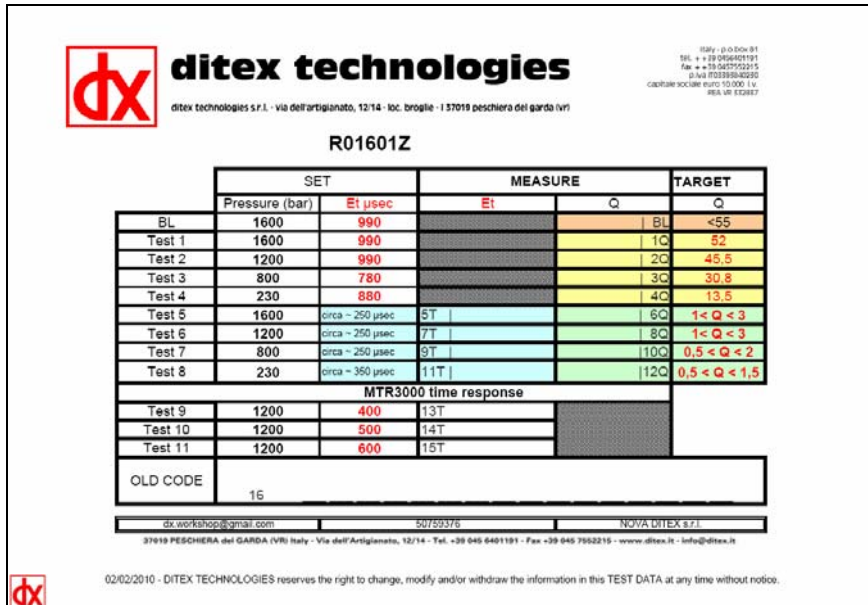


Fig. 70

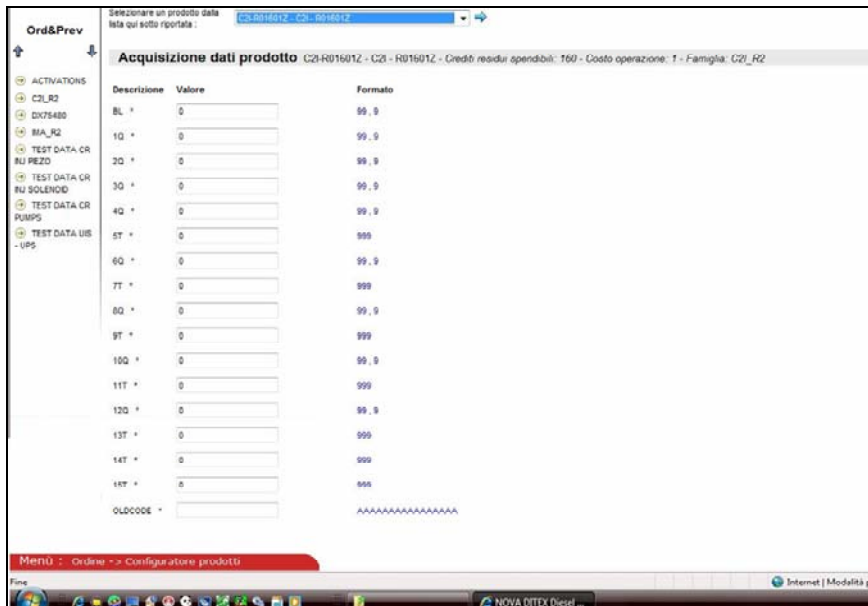


Fig. 71

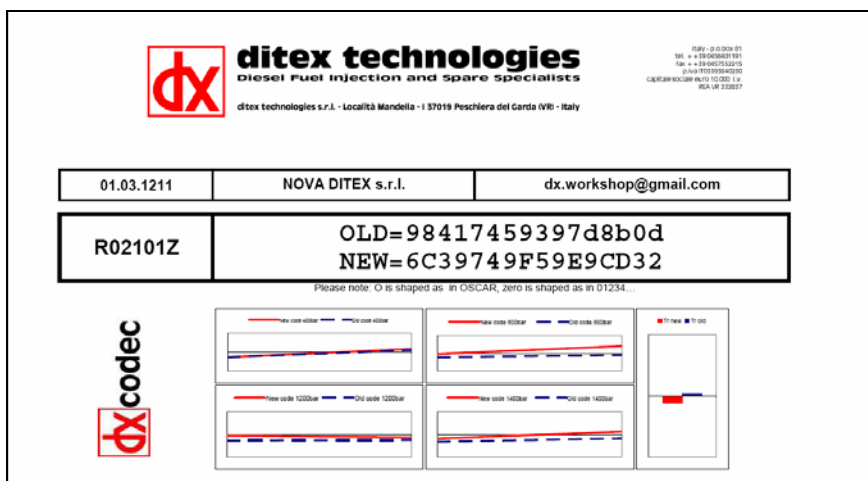


Fig. 42

Example of test plan to check injectors values at test bench.
Via internet customers require the test plan pertaining to the injectors under test. He receive this plan on which all values obtained on test bench should be noted.
For 4 injectors, testing values should be reported separately, each one in its plan dedicated to its specific injector.
If values are mixed up the codification is useless.

When all values are available the customers accede to DITEX internet page and report the obtained values. One page for each injector.
If the values are correct (inside the given tolerance) the codification is accepted, otherwise the eventual error must be found and repeat the test.

The customer receives his reply automatically without working hours limit.
The reply quotes not only the new code, but also the old one in order to trace the correct injector which the new code pertains, without confusion risk.
In the same time the customer will receive 4 plans (one for each injector) on which a comparison between the old and the new codification is shown.



CONCLUSION

On test bench testing no particular problem should arise if, on reconditioning, the instructions given in this manual were correctly followed and if the defective parts were replaced with new ones.

Using Ditex Simulators and the recommended test instruments it is possible to obtain a reliable reconditioning in the shortest possible time.

