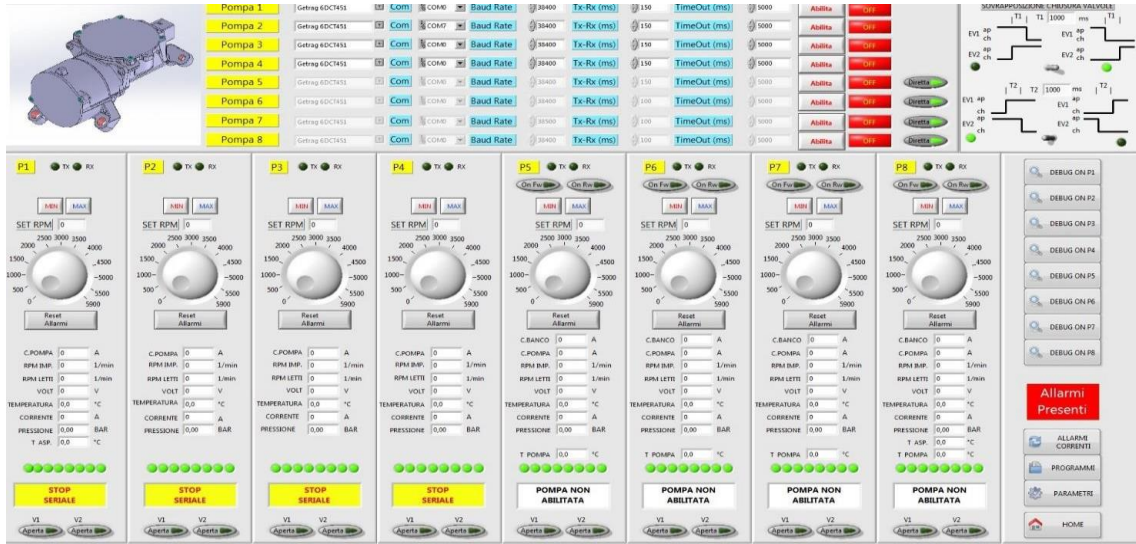


### Eight Heads Electrical Oil Pump Durability Test Bench



# DTB-08EOP

## Machine Description:

The bench is designed to test the electrical oil pumps.

The bench is made up of a tank for test oil with the possibility to perform heating and cooling thermal cycles up to 150 °C.

Optionally, the system can be provided with a cooling unit for lower temperatures (-40 °C).

The bench is designed to manage 4 pumps driven by LIN protocol and 4 pumps with direct power supply. The oil pump can be powered from 0 to 15V with 50A max. The hydraulic circuit of each pump is composed of two micrometric valves to adjust the load. They can be inserted by two pneumatic ON/OFF valves. The bench test is equipped with a DAQ and a HMI software to involve functions control, recipes, logs and trends.

## Technical Specifications

### A. Main technical parameters (for each head):

- Carbon steel structure;
- Aluminum base plan for up to No. 8 pumps;
- Aluminum/PTFE Mechanical interfaces to support pumps;
- Adjustable pumps power supply – voltage and current (max 18V /40A);
- 200 liters tank for test oil;
- 2 manual control valves for each tested pump (16 valves total);
- Dripping oil collection fond under the compartment;
- Fully insulated hydraulic system and hydraulic components;
- 2 heating resistors and 1 oil/air heat exchanger for thermal cycles of the tested oil;
- 4 heads with LIN control and 4 heads arranged with direct power and reverse polarity with static devices;
- 8 independent hydraulic circuits;
- 1 control cabinet, overall dimensions 2000x600x400 mm, in which are installed control devices and power supplies;
- 1 data acquisition system.

### B. Control and data processing software features:

- Advanced software automation with Advanced HMI interface.
- The HMI allows the complete management of the bench, allowing the management of the test recipes and displaying the status of the tests in progress. In addition, the HMI interface, allows the display of alarms and / or system alerts
- Recipe and operation cycles creation allows saving recipes on file;
- Automatic stop of the running test in case of exceeding the threshold of pressure/ torque/ temperature;
- Automatic data bachup during the test in CSV/ Excel files;
- Possibility of performing tests in 'free running' mode.

### C. Standard parts with machine

- Mechanical aassembly
- Electrical cabinet

### D. Extra charge

- Data analysis computer HP machine
- Windows 7 HMI Advanced Software
- Cooling thermostats temperature range from -50 up to 200 °C



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