

Final quality control data

Data recorded

In order to ensure the best quality of its stepper motors, FAULHABER PRECISTEP SA controls 100% of the motors after their production. Custom motors are also controlled.

This final test is a “go” or “no go” principle, which means that if any of the requirements is not within the min. and max. specified, the motor is considered as defective. The following parameters are measured:

- Gamma Phase A and Phase B (which is linked with the back-EMF and gives a non-direct information about the torque)
- Difference of Gamma
- Resistance of Phase A and Phase B
- Difference of resistance
- Phase angle
- Frictional torque
- Residual torque

In addition, a GO / No GO Insulation test is realized (not documented).

The measured data must also respect the tolerances. When a parameter is correct and within the tolerance, it appears in a green box (see Figure 1) which enables a quick visual check, otherwise it appears in a red box. The residual torque and the back-EMF are also displayed on two different graphs. A “Good” or “Bad” label is also displayed at the bottom of the interface.

The data are then registered in our system according to the batch number of the motor and available for 10 years on request

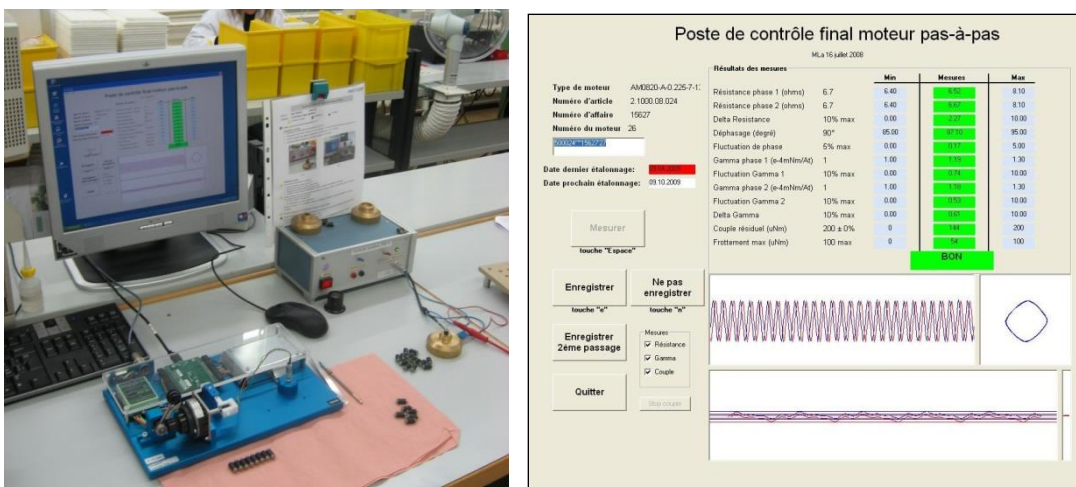


Figure 1 : (left) Final quality control bench. (right) Computer interface of the quality control.

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