

## MEGA SPEED DYNAMOMETER

### EQUIPEMENTS

The system shown includes:

- 1 Test Bench with Mechanical Protection
- 1 Contactless Braking System
- 1 Speed Sensor
- 1 Infra Red Temperature Sensor
- 1 Torque Transducer (25 or 50 N-mm version available) accuracy  $\pm 0,2\%$
- Very Low Inertia  $\sim 8 \times 10^{-9}$  Kg.m<sup>2</sup>
- No Residual Torque (no bearing)
- Torque/Speed Acquisition Software

### TESTS

This closed-loop system measures braking torque which can be controlled by limiting the number of desired cycles whose parameters can be saved using M-TEST 5.0 Motor Testing Software.

An disk with a diameter of 10 mm or 20 mm is mounted on the shaft of the motor under test. A special motor fixture has been designed to hold the motor under test. M-TEST 5.0 software controls the braking force by controlling the eddy current induced in the disk.

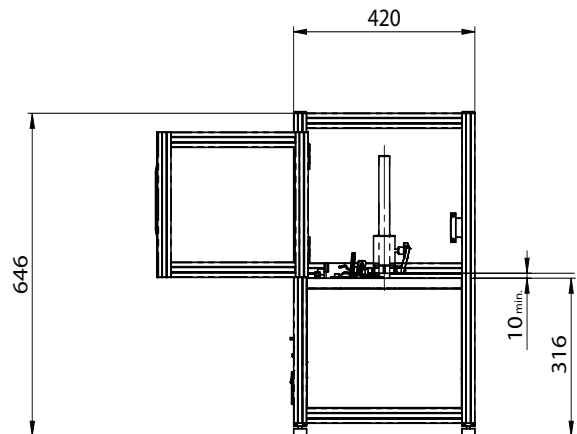
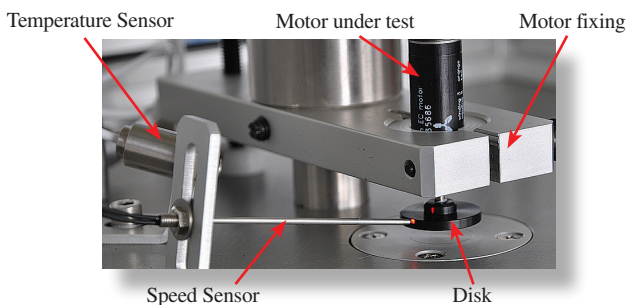
One advantage of the system is the use of contactless braking. This allows testing at high speeds (up to 320'000 rpm) with no free alignment problem. Operating without bearings eliminates any residual torque.

Another advantage of the system is a very low inertia. The inertia is about 400 times smaller than equivalent devices.



### APPLICATION

This system was specially developed by Magtrol to test high speed motors for the dental and surgical tool industry.



*Due to the continual development of our products, we reserve the right to modify specifications without forewarning.*



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