

Application Information

Muscle Strength Apparatus Tester

Production quality conformance with force test stand.

A new startup company in the physical therapy and strength testing fields is developing a force resistance apparatus that will uniquely measure muscle performance on evaluated subjects. In order to verify manufactured product is being properly assembled and calibrated off the production line, random units are spot checked and tested in their quality control lab. The main test for determining pass/fail analysis is carried out with an FGS-220VC Force Test Stand and FGV-200XY 200 lb Digital Force Gauge both with data output. The resistance apparatus is affixed to the test stand with a custom designed grip. Once secured, it is stressed at multiple force levels to assess corresponding response. The customer wrote special software to obtain readings from the test stand through RS-232 commands which were provided by Nidec-Shimpo. This was preferred as they were able to customize their test results for ideal lab manager acceptance and adherence to the company's network protocol. This customer uses this quality control testing procedure to determine the accuracy and the durability of the device's assembly. The robust construction and quality of the FGS-220VC stand and FGV-200XY force gauge gave them the peace of mind that this testing equipment will be able to consistently provide accurate, repeatable readings for many years of production.

Equipment Used

- *Nidec-Shimpo FGS-220VC Force Test Stand and FGV-200XY 200 lb Digital Force Gauge*



Force Resistance Apparatus



FGS-220VC with FGV-200XY