

VP-Handisport - 25

Training and analysis of the power developed while using a wheelchair

Applications:

- Rehabilitation
- Training
- **SWEET: Square Wave Exercise Training**
- Or charge increasing charge step by step
- Stress test
- Biomechanical analysis of the locomotion.
- Well design for handi-sport medicine.

VPHandisport- 25: angle adjustment 0 to 25 degrees

The brand new VP handisport is adapted to high level working for sport medicine and sport training applications using wheelchairs equipped with angle set wheels. The principle of measurement remains unchanged.

As far as the applications are concerned, the ergometer is equipped with 2 electromagnetic brakes (right and left side), each one assembled in scale on a strain gauge sensor.

- 2 incremental encoders are used for the measurement of the instantaneous speed,
- an angular adjustment of the roller holders has been introduced enabling angle set from 0 to 12 or 0 to 25 depending on the model

This design has two main advantages:

- 1) Keeping excellent rolling performance by adaptation of the roller angle (the wheels of the chair remain perpendicular to the rollers)
- 2) allows the separate analysis of the developed power , right and left side.

An integrated calibration system guarantees the accuracy of the torque measurement.

Like the VP100 model, the ergometer is delivered with 2 adapted software's:
Handisoft© and Handitraining©



Acquisition and analysis on both sides of Instantaneous and mean values:

The working speed

- The power developed on both sides (including the power developed to accelerate inertia during the pushing phase)
- Brake torque
- Cadence
- Calculation of cycle period, pushing and discovery time.

User and patient files management,

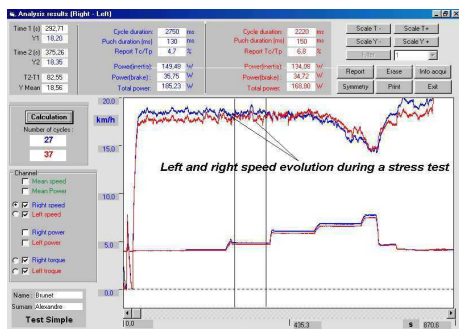
Print curve function, report

Language: French or English

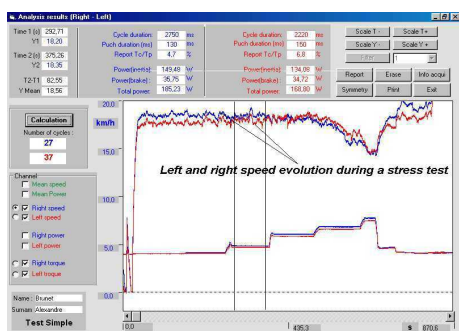
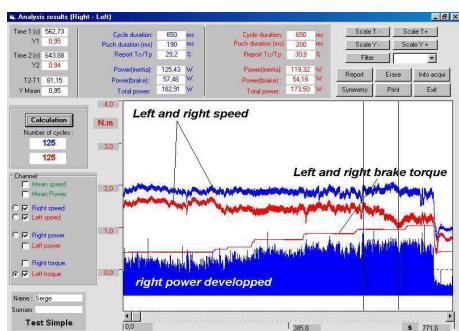
Delivered as VP100: Ergometer ready to use with access ramp

Interface box, data acquisition board (PCI 6024E), National Instrument drivers

adapted acquisition and analysis software, user guide



Example of recorded curves
Blue curves: right side
Red curves: left side



Vue générale
avec rampes d'accès

