



Convenient and reliable examination of the unwinding behaviour of a yarn bobbin demands for a versatile instrument, which allows for accurate recording of the whole range of forces acting on the yarn during the unwinding procedure. This allows for thorough analysis of the impact of various factors such as unwinding speed or package shape on the built-up tension during unwinding.

Lenzing Instruments Package Performance Tester **PPT 100** provides reproducible and accurate determination of the unwinding characteristics of filament yarn of any material. In combination with the specially designed yarn take-off unit, constant and defined yarn take-off speed is guaranteed for.

During the measurement, the built-up tension in the unwinded yarn is displayed graphically and numerically in real time in the PPT software. Moreover, each measured package is characterised by a special key figure, the package performance factor, which is based on the mean, maximum and minimum value and the homogeneity of the measured tension. The Package Performance Factor enables clear classification of the tested packages in terms of unwinding quality.

PPT 100 is designated for laboratory use and is characterised by easy and ergonomic handling.

Developed and manufactured by Honigmann, Wuppertal / Germany

Scope:

Laboratory system for detailed analysis of the unwinding characteristics based on the tension variations during unwinding of a yarn bobbin.

Method:

The yarn is unwinded with constant speed and guided to the tension sensor, which registers each and every tension variation during the measurement.

Results:

Real time graphical and numerical results presentation in the PPT software together with information about the bobbin specific „Package Performance Factor“. The flexible software offers numerous analysis possibilities.

PPT 100 consists of:

- Tension measurement unit PPT 100
- Package support unit
- Thread take-off unit FAG 1200 R

Tension measurement:

- Nominal load 200 cN
- Typical natural frequency approx. 20 kHz
- High zero stability and resolution
- Stable, robust and overload protected
- Module type amplifier with high signal range

Package support unit:

- For easy loading of the bobbin
- Compact base plate with rubber feet, isolating vibrations
- Robust and stable design

Thread take-off unit FAG 1200 R:

- Take-off speed 0 to 1200 m/min
- Other speeds up to 3000 m /min on request
- Compact high-speed device for accurate thread take-off
- Quiet drive and smooth vibration free running
- Accurate and reliable drive technology
- Controlled either manually or automatically, by means of the PPT software

Software:

- Windows® based, data acquisition and storage
- Online display of the measured data (graph or digital value)

Software - analysis functions:

- Calculation **P**ackage **P**erformance **F**actor (PPF)
- Statistical functions (min/max, mean, SD)
- Histogram
- Cursor and zoom functions
- Cycle duration- and frequency calculation

Technical data and pictures are subject to change!