

# PaperSchmidt Hammer

Model: 3421-0000

*a measurable difference...*

# IDM<sup>®</sup>

## instruments

PaperSchmidt is a rebound test hammer designed specifically for paper roll hardness testing. Irregular rolls and other defects such as corrugations and telescoping are caused by non-uniform paper roll hardness profiles are a major cause of lost production for both producers and converters alike. A reliable measurement of the roll hardness profile is of critical importance in deciding whether a roll is good or bad. Production staff needs to be able to test quickly and reliably and to interpret the results as efficiently as possible.

It has an extended lifetime to cope with the heavy demands of the paper industry and dedicated tools, such as pre-defined tolerances that make assessing a profile a simple matter.



### Applications:

- Paper rolls
- Film rolls
- Foil rolls

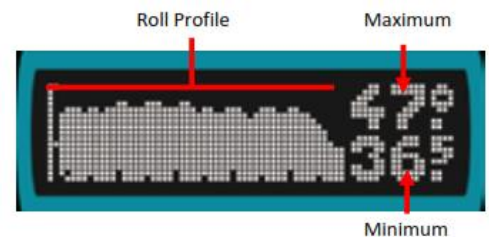


### Benefits:

- Accurate Profiling
- Durability
- Easy Use

### Features:

- Sensitivity and repeatability to a degree unmatched by conventional roll testers. Dedicated firmware allows instant analysis of the data on the instrument's display.
- A vastly improved service lifetime compared with traditional instruments.
- Intuitive operator interface (displaying hardness, profiles, limits, roll IDs, etc.).
- Automatic reloading and automatic data storage allows the fastest possible test performance.
- Paperlink software provides simple tools to make a clear



### Standards:

- TAPPI T 834 om-07 (2007)

### Software:

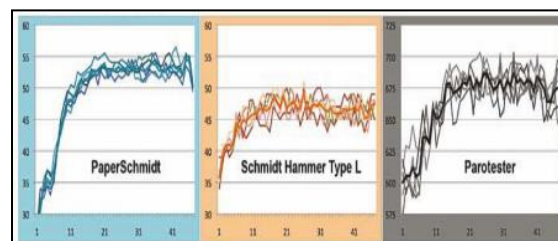
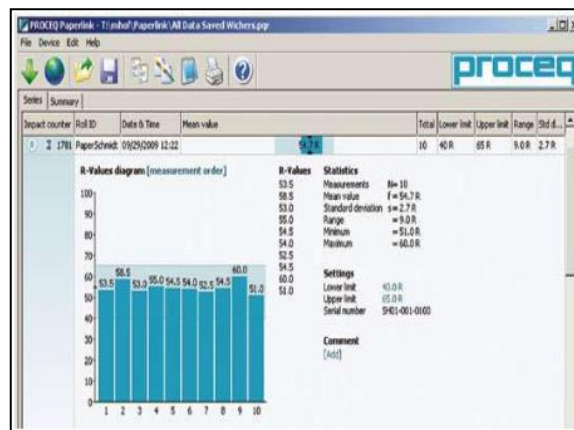
The Windows based software Paperlink, developed by Proceq SA, makes it possible to download, present and edit data measured by the PaperSchmidt in a fast and easy way using a PC. This allows the user to quickly check the roll profile against user defined tolerances. It also allows the user to define roll identifier names for batch testing and download these onto the hammer. All data can be exported to third party applications.

### System requirements:

- Windows XP, Windows Vista
- USB-Connector
- An internet connection is necessary for software and firmware updates when available.

### Comparison:

The following graphics show comparison tests made with the PaperSchmidt, a classical Schmidt hammer and the Parotester. Repeatability has also traditionally been an issue in the paper industry. Again the PaperSchmidt excels in this. A roll with a soft edge was tested using the three different roll profile test devices based on rebound. The step interval was 2cm, subsequent scans were spaced 4cm. Five passes were done with each instrument. Each test series was done on a "fresh" section. The results of the single passes and the average are plotted. The PaperSchmidt clearly excels in sensitivity, specificity and repeatability.



### Specifications:

#### MECHANICAL DATA

Impact Energy	0.735Nm
Hammer Mass	135g
Spring Constant	0.262 N/mm
Spring Extension	75mm
Dimensions of Housing	55 x 54 x 245mm (330mm to tip of plunger)
Dimensions of Tip	94 x 15mm dia
Weight	648g

#### MEMORY DATA

No. of Series Names	50 Series Names (up to 12 characters long)
Memory Capacity	Dependent of Series length (eg. 428 series with 10 values per series)

#### ELECTRICAL DATA

Display	17 x 71 pixel graphic
Power Consumption	~13mA measuring ~4mA set up and review ~0.02mA Idle
Accumulator Duty	>5000 impacts between charges
Charger Connection	USB Type B (5V, 100mA)
Accumulator Capacity	~150mAh
Operating Temperature	0 to 50 deg C
Storage Temperature	-10 to 70 deg C