

# **PROFILE/Plus**

Solutions for the pulp, paper and allied industries

# **Automated Grammage**

The Technidyne PROFILE/Plus Grammage determines the grammage of paper and board according to the gravimetric method and meets or exceeds these industry standards: TAPPI T410, SCAN P6, DIN 53104, ISO 536.

- + Isolated Measurement Chamber
- + Automatic Coupon Removal
- + Detailed Profiling Capability
- + Fast and accurate results
- + PROFILE/Plus Automated Testing System Ready







PROFILE/Plus

### **Features**

#### **Precisely Engineered Punch and Die Assembly**

The PROFILE/Plus Grammage utilizes a specially designed and engineered punch and die assembly to accurately collect each sample. Once the sample is prepared it is then transferred to a weighing scale to determine the precise weight of the sample and then the proper conversion factors are applied to determine the sample's grammage.

#### **High Precision Sample Scale**

The PROFILE/Plus Grammage utilizes the latest in weighing technology. This means accurate and reliable data to ensure fast and repeatable results.

#### Automatic Sample Removal

PROFILE/Plus Grammage has a unique function that removes the sample from the weighing scale after each grammage determination. This allows the scale to always operate to its highest accuracy. The external sample catcher makes disposal of cut specimens easier and more efficient.

#### **Automatic Zero Point**

Another useful feature of PROFILE/Plus Grammage is the automatic zero point. This resets the weigh scale after each test to increase precision and improve repeatability.

#### **Isolated Measurement Chamber**

The PROFILE/Plus Grammage has a weighing chamber that is isolated from outside influences. This ensures proper measurement conditions that are not affected by air currents and other factors that could disrupt the process.

#### **User Defined Measurement Parameters**

The PROFILE/Plus Grammage allows for the development of product specific testing profiles.

Each profile can be customized for specific grades, machines, or customer and then stored for fast and easy retrieval.

Basis Weight, Substance, and Ream Weight are all terms the paper industry has used in the past to define the mass per unit area of paper and board products. Today the most commonly used term is 'Grammage' and is most often expressed as grams/meter<sup>2</sup>. TAPPI T410 establishes the determine calculations to standardized paper weight values.

Paper Grade	Trade or basic size	Trade Size area, ft <sup>2</sup>	Grammage to Basis Weight Factor
Paperboard	1000 ft <sup>2</sup>	1000	0.205
Writing and Printing	17x22 - 500	1298.6	0.266
Blotting	19x24 -500	1583.3	0.324
Cover	20x26 - 500	1805.6	0.37
Book	25x38 - 500	3298.6	0.676

#### **Technidyne Corporation**

100 Quality Avenue, New Albany, Indiana 47150 – 812-948-2884 – www.technidyne.com



**PROFILE/Plus** 

### **Economic Benefits – Lowering Costs and Saving Money**

**Precisely Engineered Punch and Die Assembly** for results that ensure tighter control of process & on-line gauging thereby reducing operational costs.

**High Precision Sample Scale** promotes accurate results to help Reduce fiber costs, and customer complaints

**Automatic Sample Removal** for improved manpower efficiency, to lower the overall cost of testing.

Automatic Zero Point for increased precision and repeatability to reduce retests and save money.

**Isolated Measurement Chamber** reduces variability and lowers costs by improving accuracy.

User Defined Measurement Parameters eliminates the need for re-calculating the results

A complete grammage profile provides key information about the operation of the paper machine, thus allowing better, more stable production. It allows the operator to more easily verify and calibrate on-line sensors, thus saving time and money.

PROFILE/Plus customers have reported that money savings can be realized in the areas of furnish, chemical addition, customer complaints, and reduced paper machine breaks. Manpower efficiency can also be improved by increasing the testing frequency and accuracy, which lowers the overall cost of testing.

# PROFILE/Plus Automated Test System

PROFILE/Plus is a unique building block approach to automated testing. Each PROFILE/Plus instrument is a standalone instrument that can be easily placed in line with other PROFILE/Plus instruments to operate as an automated test system. This one of a kind versatility allows you the flexibility to build an automated test system that can be established over time or all at once. In addition as your



testing needs change, the versatility of the PROFILE/Plus provides the flexibility to modify the testing sequence or move other test in to or out of the system. PROFILE/Plus puts you in charge of your automated testing program. In today's ever changing markets, having a testing program that can adapt, is key to long term viability.





Solutions for the pulp, paper and allied industries

## **Specifications and Technical Data**

✤ CD or MD profile strips

technidyne

- Single sheet samples (automatically)
  A3, A4, and 8<sup>1</sup>/<sub>2</sub>" x 11"
- Thickness Range 25 to 1000 μm
- In Frammage Range 15 to 600 g/m<sup>2</sup>

🕈 Weight –

- o 120 lb
- o 55 kg
- ➡ Dimensions
  - Height = 26" (66 cm)
  - Depth = 18" (46 cm)
  - Width = 10 <sup>1</sup>/<sub>2</sub>" (26.7cm)
- Voltage/Frequency 0 100-130 VAC/49-61 Hz
  0 210-250 VAC/49-61 Hz
- 🕈 Air
  - o 30 40 psi
  - o 205 275 Kpa



#### **Results:**

Measurement completed in seconds!

Complete Grammage (Basis Weight) profile or single point measurement

Automatic ejection of coupon

Multiple measurement, averaging, statistics and trending capabilities

Average, Maximum Test Value, Minimum Test Value and Standard Deviation

Tabular and Graphical display of results

