

MK Systems, Inc Quality instrumentation since 1969 228 Main Street unit 375 • Williamstown • Massachusetts • 01267• USA Tel (978) 774 1880 / Email: info@mksystem.scom www.MKSystems.com



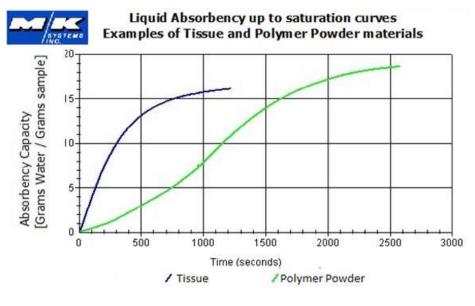
<u>Precision Absorbency Device: The M/K G.A.T.S:</u> Gravimetric Absorption Testing System Easily and reliably measure the liquid absorbency rates and capacities of almost any material

The GATS is an easy-to-use device that accurately measures the liquid absorbency rates and capacities reliably. Easily measure the total absorption with confidence with the GATS. Characterize absorption in paper towels, nonwovens, tissues, feminine hygene products, cat litters, polymers, or almost any solid substrate.

The system measures hundreds of data points per minute and automatically graphs your absorbency curves. Unlike manual or older absorbency methods, this automated device removes user variation and reveals absorbency differences not attainable in vertical methods. Now you can measure the impact from changing your substrates pore size, thickness, coating impact, etc.

We hold 3 design patents for this device. Contact us for a free evaluation of your samples.





## **GATS Features:**

- Absorption data 1/1000g accuracy
- Multiple points per second
- Absorption vs. time graphs and raw data
- Head-leveling mechanism
- Automatic Refilling mechanism
- Real-time graphing

## A brief summary of GATS Absorption Applications

- Tissues, Paper Towels, Nonwovens, Cotton, etc.
- Powders, starches, cat litters, or any granular material.
- Diapers, Feminine Hygene products
- Battery separators and other porous materials.
- Modeling human skin sweating and related skin issues

#### **GATS Standards**

- ASTM Standard D-5802
- TAPPI Standard T-561 is being replaced by M/K's new GATS Tappi standard (under review).

### **M/K GATS Technology Patents**

- US8176769 May 15, 2012
- US20100307228 Dec 9, 2010
- US7779685 Aug 24, 2010

### **GATS** options

- Absorption under pressure option
- Wide variety of test plates
- Thickness gauge option



MK Systems, Inc Quality instrumentation since 1969 228 Main Street unit 375 • Williamstown • Massachusetts • 01267• USA Tel (978) 774 1880 / Email: info@mksystem.scom www.MKSystems.com



# Examples of clients who obtained a US Patent with claims using the M/K GATS data.

#	Patent #	Description
1	8,497,410	Method for making absorbent products
2	8,247,641	Absorbent products and methods of preparation thereof
3	7,288,167	Cross-linked pulp sheet
4	7,258,758	Strong high loft low density nonwoven webs and laminates thereof
5	7,018,511	Crossed-linked pulp and method of making same
6	6,821,383	Preparation of modified fluff pulp, fluff pulp products and use thereof
7	6,548,431	Melt spun polyester nonwoven sheet
8	6,383,609	
_		article comprising the absorbent structure
9	6,310,268	Non-ionic plasticizer additives for wood pulps and absorbent cores
10	5,916,670	Absorbent material for use in absorbent articles
11	5,874,159	Durable spun laced fabric structures
12	5,866,242	Soft, strong, absorbent material for use in absorbent articles
13	5,693,707	Liquid absorbent composition for nonwoven binder applications
14	5,501,772	
_		making improved paper or paperboard
15	5,361,627	Method and apparatus for the measuring the capillary attraction developed at a
_		surface of an absorbent body
16	5,531,727	Fluid absorbing article utilizing a flow control cover sheet