

# M.C. TEC

## *Measurement & Control Technology*

*for process en laboratory analysis*



Testing Instruments for pulp, paper, board & packaging

# Instruments for every measurement that you need...



**M.C. TEC offers top quality instruments for many measurements and analyses that are needed in the pulp, paper, board & packaging industry. Our instruments are used in the laboratory, at-line and online at the production line.**

We are especially proud of our sophisticated “modular line” instruments, which can be used as stand-alone instruments, but also can be connected together in our automated test line. All our instruments are built to the highest

quality standards with the best materials. Our team of experts makes it possible to offer solutions instead of “just” instruments.

Our dedicated support team is committed to provide the best service and support and we offer on-site installation, commissioning, training, certification, maintenance and repair services. Whether at your site or in our fully equipped workshop, service is not simply another department, it is the way we do things.

This brochure gives an overview of a selection of our product range. If you can’t find the instrument that you need please don’t hesitate to contact us because we are continuously developing new instruments and it very well possible that we can deliver the instrument that you need.

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**PFI-Mill**

For refining of pulp samples under laboratory conditions.



**Laboratory Refiner**

For beating of pulp under production conditions in the laboratory.



**Valley Laboratory Beater**

For beating of pulp under standardized conditions for laboratory purposes.



**Sheet Press**

For de-watering and pressing of laboratory hand sheets, produced on TAPPI sheet machines.



**Speed Dryer**

For the rapid drying of hand sheets after pressing or for determining the dry content of hand sheets or pulp for speedy evaluation.



**Drum Dryer**

Drying paper during handmaking paper sheet process.



**Somerville Shive Content Analyzer**

For determination of shive content in pulp.



**Brecht Holl Fibre Analyzer**

For classification of mechanical pulp and shive content analysis.



**Bauer McNett Fibre Classifier**

For the determination of fibre length of pulp by classification.



### Chip Classifier

For quick and reproducible determining the mean thickness and thickness distribution of wood chips intended for the production of chemical or mechanical pulps.



### Schopper-Riegler Freeness Tester

For the determination of the degree of refining (beating) of a pulp suspension in water and expressing it in terms of the Schopper-Riegler (SR) number, and to determine the de-watering time.



### Canadian Standard Freeness Tester

For measuring the rate of drainage of a dilute pulp suspension and expressing it in terms of freeness.



### Tappi Sheet Former

For the semi-automatic production of standardized hand sheets.



### Rapid Köthen Sheet Former Manual

For the production of standardised hand sheets with a diameter of 200 mm.



### Rapid Köthen Sheet Former Automatic (optional with KWT)

For the production of standardized hand-sheets (Ø 200 mm). Optional to enrich the white water with chemicals from the suspension.



### Equalizer

For homogenisation and continuous stirring of disintegrated pulp suspension.



### Disintegrator

For standardized disintegration of pulp suspensions.



### Fibre Quality Analyzer

The FQA rapidly and accurately measures fibre length, width, curl, % numeric fines and kink in dilute pulp samples.



### Twin Folding Tester

Determines the folding resistance of paper, according to the Louis Schopper principle.



### Micro meter

Measures the thickness of various materials.



### Gurley Air Permeability Tester

Measures the air permeability of papers and boards according to Gurley.



### Internal Bond Tester

Determines the internal bonding of paper and board (Z-direction).



### Brightness & Colour Meter

For the determination of ISO brightness, colour, colour difference, fluorescence, and opacity of paper.



### Static Friction Tester

Measures the static friction coefficient.



### Elmendorf Tear Tester

Determines the tearing resistance of various materials (e.g. paper, board, foils, etc.).



### Bending Stiffness Tester

Determines the dynamic forces in a 2-point bending test.



### Horizontal Tensile Tester

For an accurate and fast measurement of all parameters of dry and wet samples of paper, board and tissue.



### Tensile Tester

For various tensile tests.



### Cobb Absorption Tester

For determination of oil- or water-absorption of paper or board.



### Tissue Absorption Tester

For determination of oil- or water-absorption of paper or board.



### Micro Scanner

Measures visible dirt, sheet formation quality, pin holes, print uniformity, watermark quality and pattern recognition.



### Paper Formation Analyzer

Measures the uniformity of paper formation.



### Sheet Inspector A4 & Print Mottle Analyzer

Measures dirt specs in pulp and paper. Measures print non-uniformity.



### Bristow Tester

Measures the absorption of liquids in paper with various contact times.



### Automatic Absorption Tester

Measures automatically the absorption of liquids in paper with various contact times.



### Laboratory coater

With this dryer, the raw paper is applied on the moving table, and coated with colour by the blade or rod, and immediately it is dried while moving in the dryer room.





## Crush Tester

Determines the compressive strength of board and corrugated board (CCT, CLT, CMT, ECT, FCT, PAT, RCT).



## Box Compression Tester

For the testing of resistance and capacity of boxes against compression.



## Short Span Compression Tester

For the determination of the compression strength and compression index on paper and board samples.



## S-Tester

For the determination and strength classification of medium waves.



## Burst Tester

Determines the bursting strength of board and corrugated board.



## Puncture Tester

For measuring of the energy absorption when puncturing board or corrugated board.



## Modular Line Control & Transport Unit

All Modular Line instruments can also be used as "stand-alone" instruments.



## Modular Line Micro Meter

Measures thickness of various materials.



**Modular Line Brightness & Colour Meter**

For the determination of ISO brightness, colour, colour difference, fluorescence, and opacity of paper



**Modular Line Bendtsen**

Measures the air permeability and surface roughness according to Bendtsen.



**Modular Line Bekk Smoothness Tester**

For smoothness tests on papers according to BEKK.



**Modular Line PPS Roughness Tester**

Measures the roughness according to the Print Surf method.



**Modular Line Tensile Tester**

Tensile tester MD or CD.



**Modular Line Gloss Meter**

Measures the gloss on paper samples.



**Modular Line Burst Tester**

Determines the bursting strength of paper.



**Modular Line Sonic Sheet Tester (TSO)**

Ultrasonic measuring device for the determination of the tensile stiffness index (TSI), tensile stiffness orientation (TSO), ratio (MD/CD) of TSI.



**Modular Line Short Span Compression tester**

For the determination of the compression strength and compression index on paper and board samples





**Manual Circular Cutter**



**Sample Punch**

For easy punching of samples for bending stiffness and tearing tests as well as various other tests.



**Round Sample Punch**



**Double Blade Cutter**



**Sample Strip Cutter with fixed or variable side guide**



**Strip Punch**



**ECT Sample Saw**

For making ECT samples



**FCT Circular Cutter**

For corrugated board samples of 100 cm<sup>2</sup> for FCT tests.



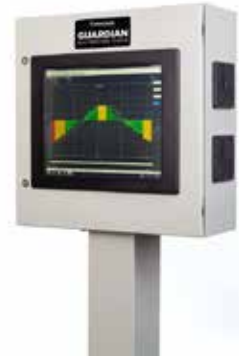
**Concora Medium Fluter**

For the preparation of corrugated samples for CMT and CCT tests.



## Moisture & Coat Weight Profiling System

Moisture and coating thickness measurement fixed on a scanning frame.



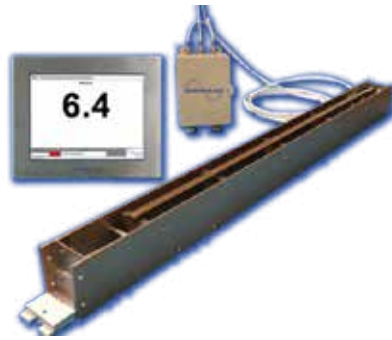
## NIR Moisture Sensor

Moisture and coating thickness measurements on fixed location.



## RF Moisture Sensor

Moisture measurement in board products.



## Refractometer

Measurement of concentration in lines or in tanks.



## Microwave sensor

Measurement of concentration in lines or in tanks.



## PapriSpec

Monitoring of plastic contamination online.



## On-Machine Dirt Inspector

Measurement of number and sizes of dirt particles on paper.



**ProbeNet Laboratory Software**

Software for collecting, saving and printing of test-results of various laboratory devices.



**Handheld Moisture Meters**

For measuring the moisture on various paper types. Various models available.



**Laboratory Refractometer**

Measurement of concentration and refractive index of liquids



**Dennison waxes**

For the evaluation of pick resistance and surface strength of paper and board samples.



**Analytical & Precision Balances**

For balancing out papers for determination of humidity according to the drying oven method, as well as for determining the grammage of 100 cm<sup>2</sup> samples. Various models available.



**Furnace**

For determination of the ash content of paper.



**Drying Oven**

For determination of the humidity of paper.



**Viscometer**

For determination of viscosity of liquids.



**Bucher Funnel Set**

For determination of pulp consistency.



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