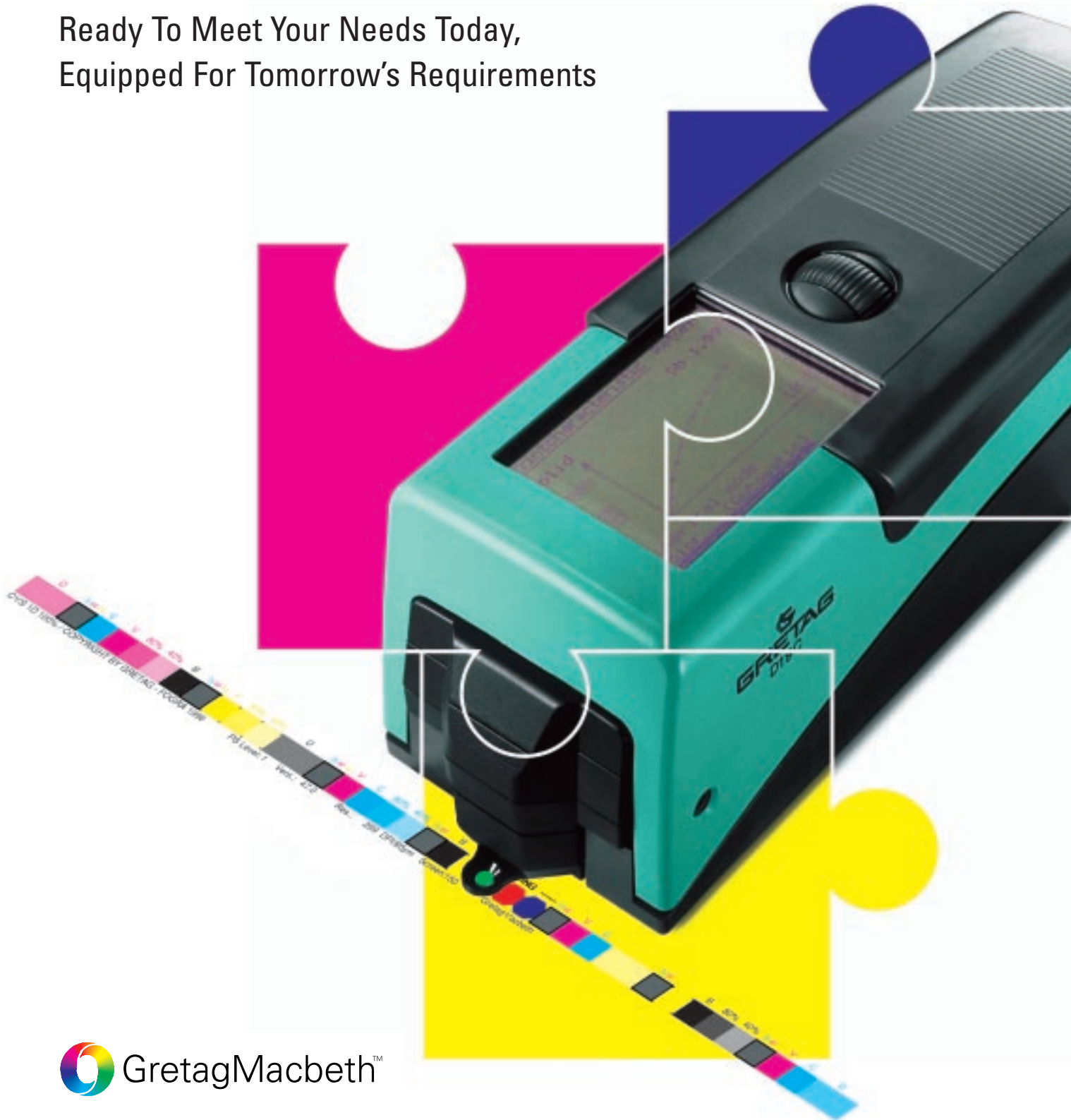# D19C
Densitometer

Ready To Meet Your Needs Today,
Equipped For Tomorrow's Requirements

GretagMacbeth™

Accurate, Flexible And Very Easy To Use

Precision is a prerequisite. You expect accuracy and reliability. You appreciate simple operation. The D19C densitometer from GretagMacbeth provides it all in a single unit. It has everything you need, but gives you the flexibility to choose only what you want. You choose the functions that are important for your work in prepress and print production.

Proven measuring technology combined with user-friendly operation. High quality manufacturing which guarantees the greatest possible durability. D19C – a densitometer that meets today's demands and a system that is sure to fulfill your future requirements. GretagMacbeth's experience and uncompromising quality guarantees convincing printed materials in brilliant quality.

A Basic Model Packed With Operating Convenience

The basic model offers you high quality densitometry with the following features:

- Extendable measuring head for exact positioning and unsurpassed measurement stability.
- GretagMacbeth ring lens system ensures accurate results.
- Onboard software guides you step-by-step through the use of the measuring functions.
- Polarization filter allows you to easily match density measurements between dry and wet sheets.
- Innovative rotary wheel eliminates the need for buttons to push and also allows left or right hand operation.
- High resolution graphic display is extremely easy on your eyes.

Create A Personalized Densitometer To Meet Your Needs And Budget

Additional functions are available and can be selected based on your needs, allowing you to create your own personal densitometer. This means you pay for only what you need. These functions can also easily be added later right at your location. When you call to order, you will be given a simple access code to activate the desired function.

Choose From A Range Of Both Classic Features And New Innovations

Density: Measurement of ink film lay down. Lets you control and calibrate digital output devices. The density function minimizes color deviations invisible to the naked eye. Allows objective evaluation of proofs and production printing.

Dot Gain: Calculates halftone dot gain. The simple dot gain readout lets you take factors such as plate pressure, blanket types and print stock into account when adjusting the press. Allows calculation and control of the correct dot gain in proofs.

Simple menu-guided operation asks the user to enter paper white and solid tone values and measure up to three halftones. Individual steps in the procedure – such as a second measurement of 80 % – can be selected using the control wheel.

Convenience
Exact values, simple user-friendly operation

Automatic Functions: A quick way to keep track of the press or process. As density values are entered in the correct order, this function automatically recognizes which measuring function was selected and shows the corresponding values for density, color trapping or dot gain.

Printing Plate: Direct measurement of halftone values on the printing plate. This function is a necessity for anyone involved in direct computer to plate processing. The halftone dot area can be measured precisely with the easily adjustable Yule-Nielsen factor.

Additional functions are listed in the technical specifications. A specialist from GretagMacbeth will be pleased to provide any information that you might need on possible applications and operational details.

Increased Flexibility With The Optional Printer

Direct connection to the optional printer gives added confidence and security of the measured data when it needs to be shared or stored for future reference.
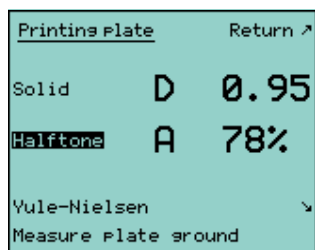

Extendable measuring head
Exact positioning, precise measurement

Date and time imprints complete the printout.

Print characteristics and automatic functions can be viewed in graphical form on the high resolution display and then printed automatically.

Simple Operation Makes Your Work Faster And Easier

The measuring head extends at the touch of a button, thus eliminating additional hand motion. Measurements are always precise and on the exact spot. All measuring sequence values are shown on the display at the same time, in large clear figures.

Direct connection
All important data and values can easily be printed

Operating the graphic software interface could not be easier. Use the rotary control wheel to select a function from the menu and then press the measuring key to carry out the command.

Environmentally Friendly

Your customers value environmentally friendly materials when choosing paper and inks. The GretagMacbeth D19C helps you do your part. Its built-in rechargeable battery made of nickel-metal-hydride provides means you get more measurements while protecting the environment.

Printing plate measurements

Halftone screen dot size in percent

Automatic function selection 1 with color trapping values in percent shown

D19C
Specifications

Basic model functions are already checked. Choose the additional functions you would like and put together your made-to-measure densitometer.

Measuring functions

- ☒ Density
- ☐ All densities, gray balance
- ☐ Density difference
- ☐ All Density differences
- ☐ Dot gain
- ☐ Impression line
- ☐ Dot area
- ☐ Printing plate measurement
- ☐ Contrast
- ☐ Trapping
- ☐ Hue error / Grayness
- ☐ Auto Function 1 / Auto Function 2
- ☐ User password protection
- ☒ Automatic color detection
- ☒ Polarization filters
- ☐ Without Polarization filters
- ☒ Normed filters for all standard colors and black
- ☒ Display reversal
- ☒ Display contrast adjustable
- ☒ Interface for printer / computer
- ☒ Measurement data with date and time printable
- ☒ Extendable measuring head
- ☒ Step-by-step user guidance with the control wheel
- ☒ 32 reference values stored
- ☒ Ring lens system
- ☒ Data interface RS 232 C

Operation
Control wheel and measuring key

Display
Digital LCD, 160 x 128 pixels, full graphics

Measuring geometry
0°/45° Ring lens system

Light source
Filament bulb approx. 2856 K

Color filter:

Filter set 47B DIN 16536
Filter set 47   ANSI status T
Filter set NB   DIN 16536 interference filter
Filter set SPI ISO status I interference filter

Measuring range
0.00 D – 2.50 D

Reproducibility
± 0.01 D
± 1 % (for dot area)

Linearity
± 0.01 D or ± 1 %

Interinstrument agreement
± 0.02 D or ± 2 %

Measuring aperture
Ø 3.6 mm ($^9/_{64}$ in)

Calibration
Slope: For density measurement
Zero: Automatic

Polarization filter
2x linear (tube P)

Warm-up time
none

Power supply
Rechargeable battery NiMH, nom. 7.2 V, 1000 mAh, Rechargeable battery NiCd, nom. 7.2 V, 600 mAh

Charge time
approx. 3 hours, automatic disconnection

Charge status
automatic capacity checking and display; additional lithium battery for data memory

Measurements per charge
approx. 6'000
(with rechargeable battery NiMH)

Measuring time
approx. 0.8 s

Data interface
RS 232 C. Densitometer can be controlled by a remote computer
(details available on request)

Clock
Date and exact time

Weight
approx. 890 g (1.96 lb)

Dimensions
8.3 x 8.0 x 24.5 cm (3.3 x 3.2 x 9.6 in)

Accessories
Calibration card, operating manual, charger

Specifications subject to change without notice

For more information on the D19C, please contact your nearest GretagMacbeth representative.

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