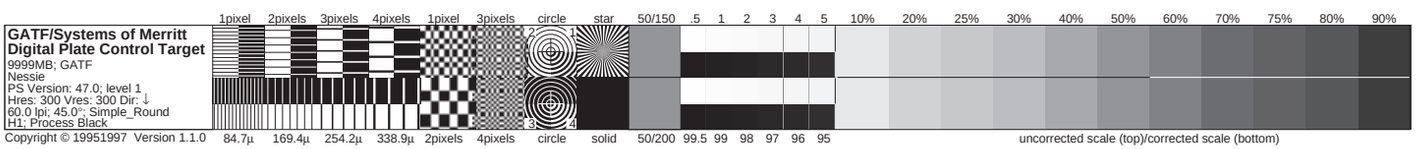
What Are Plate Control Targets?

Plate control targets are highly precise test images for diagnosing, calibrating, and monitoring imagings steps in the graphic reproduction process.

- Improve consistency in the exposure of printing plates and other materials
- Provide measurements of exposure level, resolution, and dot gain
- Indicate problems of halation, or nonuniform imaging

As the name implies, plate control targets are designed for platemaking. However, they are also useful for other graphic arts processes that utilize contact printing and digital imaging.



GATF Digital Plate Control Target

SMART TARGETS

The continuing evolution of computer-to-plate technology provided the initiative for the development of the GATF Digital Plate Control Target. Used as a basis for GATF's computer-to-plate study, this target is a native PostScript file that allows you to monitor the output of digital systems, particularly computer-generated printing plates. If you've implemented a Total Production Maintenance (TPM) Program in your plant, the GATF digital plate control target is very useful for measuring plate and other material exposures. The file generates a target 6 in. wide and 0.5 in. high, containing a wide variety of elements, including:

- Dialog box that reports variable information from the RIP
- Horizontal and vertical microlines in negative and positive patches
- 1-, 2-, 3-, and 4-pixel checkerboard patches
- Negative and positive curved microlines
- GATF Star Targets
- Solid patch
- 50% reference tint patches at 150 and 200 lpi
- Highlight and shadow tints (corrected and uncorrected)
- Tone scales (corrected and uncorrected)

By using the elements in the Digital Plate Control Targets you can measure:

- Exposure
- Pixel resolution
- Directional effects of the imaging system
- Reproduction characteristics
- Minimum and maximum dot sizes

A unique aspect of the digital plate control target is that it carries on a two-way dialogue with the imagesetter/platesetter (output device) by changing its dimensional tolerances and element sizing in response to the resolution of the raster image processor. This avoids confusing interference patterns, which results from running most other digital targets. This interactive target reports several key imaging attributes as well as providing the highest resolution measurements that can be obtained for a given imaging device.

7320I (IBM-Compatible Disk)

7320M (Macintosh-Compatible Disk)

$395 (GATF/PIA Member) $495 (List)

Digital Product Compatibility

All of the GATF digital Smart Target products are designed to be output to a PostScript-compatible device. Some RIPs do not actually image the PostScript information. If the RIP has to rewrite the information to a proprietary format, some of the native PostScript targets may not function properly. Feel free to contact the technical staff at GATF for more information.

The GCA/GATF Digital Proof Comparator

SMART TARGETS

How can you be sure that the proof accompanying the digital file of your brochure or ad work is an accurate representation of the information in the file? The GCA/GATF Proof Comparator is used as a reference tool to determine quality and control of each proof, comparing visually (with the photo image or gray balance) or densitometrically with screen tints and solid density. Use the improved GCA/GATF Digital Proof Comparator to determine whether the digital imaging system is accurately and consistently reproducing the digital files that are processed through it, and also to measure key attributes of the imaging system.

The Digital Proof Comparator is a native PostScript file that generates a one-megabyte target that measures 6.5×2 in.

Using the elements in the Digital Proof Comparator you can measure:

- Solid Density
- Hue/Gray Error
- Dot Gain
- Print Contrast
- Gray Balance
- Resolution

Elements in the GCA/GATF Digital Proof Comparator:

- GATF Star Targets
- Solid Patches (C, M, Y, and K)
- 25%, 50%, and 75% Tints (C, M, Y, and K)
- RGB Solid Overprint Patches
- RGB Tint Overprint Patches (25%, 50%, and 75%)
- SWOP Gray Balance Patches (25%, 50%, and 75%)
- Total Ink Coverage Patches
- Highlight Patches (1%, 2%, 3%, 4%, and 5%)
- Shadow Patches (95%, 96%, 97%, 98%, and 99%)

The Digital Proof Comparator also contains targets that measure the exposure resolution and directional effects of the imaging system in addition to its reproduction characteristics. A unique aspect of the Digital Proof Comparator is that it carries on a two-way dialogue with output devices by changing its dimensional tolerances and element sizing in response to the resolution of the raster image processor. This interactive target reports several key-imaging attributes as well as provides the highest resolution measurements that can be obtained for a given imaging device.

The Digital Proof Comparator works will all PostScript proofing devices including dot-generated, dye-sub, thermal wax, and stochastic.

7344I (IBM-Compatible Disk)

7344M (Macintosh-Compatible Disk)

$225 (GATF/PIA Member) $275 (List)

Digital Product Compatibility

All of the GATF digital Smart Target products are designed to be output to a PostScript-compatible device. Some RIPs do not actually image the PostScript information. If the RIP has to rewrite the information to a proprietary format, some of the native PostScript targets may not function properly. Feel free to contact the technical staff at GATF for more information.

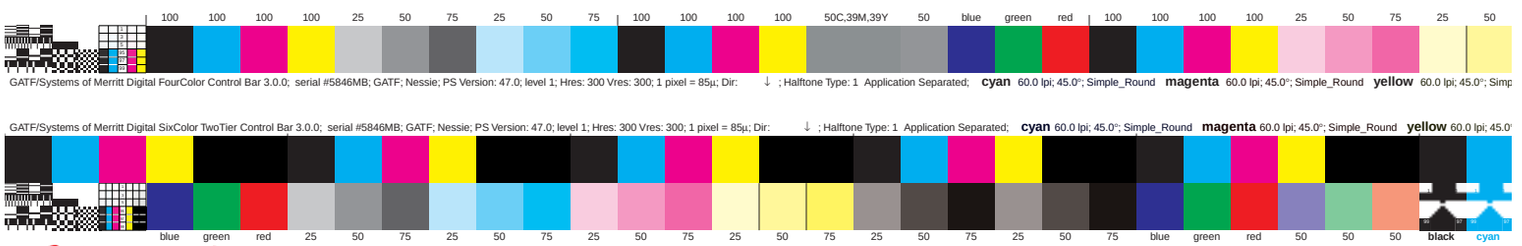
Note: GATF/SWOP Proofing Bar on pages 26–27.

What Is a Color Bar?

A color bar is a device printed in a trim area of a press sheet to monitor printing variables such as trapping, ink density, dot gain, and print contrast. It usually consists of overprints of two- and three-color solids and tints; solids and tint blocks of cyan, magenta, yellow, and black; and additional aids such as resolution targets and dot gain scales. Alternatives terms are color control strip and color control bar. *–from GATF's Glossary of Graphic Communications*

What You Show Know When Ordering a GATF Color Bar

- Is the color bar going to be used on a sheetfed or web press?
- What is the press size?
- Is your press two, four, or six color?
- What screen ruling do you use? ☐ 133 lpi ☐ 150 lpi ☐ 175 lpi ☐ 200 lpi ☐ other_____
- Do you want positive/negative film-based bars or digital?



New!

GATF SMART Color Bars for Four-Color and Six-Color Presses

SMART TARGETS

- **Single-Tiered Four-Color SMART Color Bar**
- **Two-Tiered Six-Color SMART Color Bar**

Using "Smart Target" technology, these new color bars are native PostScript devices that carry on a "dialogue" with the RIP and interpret the file before it is imaged by computer-to-plate devices, filmsetters, digital proofers, digital presses, or large-format printers.

The new targets help improve the workflow of computer-to-plate and other direct imaging devices by:

- Identifying the process that led to the final plates or film
- Recognizing flaws in the calibration and workflow of the entire printing process

The SMART targets "read" the digital imaging device and determine:

- The device type and manufacturer
- Resolution (horizontal and vertical)
- Screen ruling
- Direction of imaging
- PostScript version and level
- Dot shape
- Screen angles

Why Is This Important? (User Benefits)

- You can evaluate the microline resolution of imaging devices.
- You can monitor exposure levels.
- You can show any directional effects.
- GATF SMART targets are the only files that can write consistent line patterns through a variety of devices running at different resolutions. This enables you to image slur and ladder targets that are essential for detailed press diagnosis and control.

Elements of the Single-Tiered Four-Color and Two-Tiered Six Color SMART bars include:

- Solid Patches
- 25%, 50%, & 75% Tint Patches
- GATF Star Targets
- Microline Target
- Checkerboard Target
- Min-Max Ink Target
- Ink Coverage Targets (300% and 330%)
- RGB Overprint Patches
- Highlight/Shadow/Slur Target (Six-Color Bar Only)

Single-Tiered Four-Color SMART Color Bar

Dimensions: Patch size is 0.25×0.25 in. Overall dimensions: 0.4×12.5 in. Includes one disk with self-installing files (specify Mac or PC) and Users Guide. Final EPS file is 65K.

7343I (IBM-Compatible Disk) 7343M (Macintosh-Compatible Disk)

$225 (GATF/PIA Member) $300 (List)

Two-Tiered Six-Color SMART Color Bar

Dimensions: Patch size is 0.25×0.25 in. Overall Dimensions: 0.65×13.5 in. Includes one disk with self-installing files (specify Mac or PC) and Users Guide. Final EPS file in 98K.

7342I (IBM-Compatible Disk)
7342M (Macintosh-Compatible Disk)

$275 (GATF/PIA Member) $350 (List)

Digital Product Compatibility

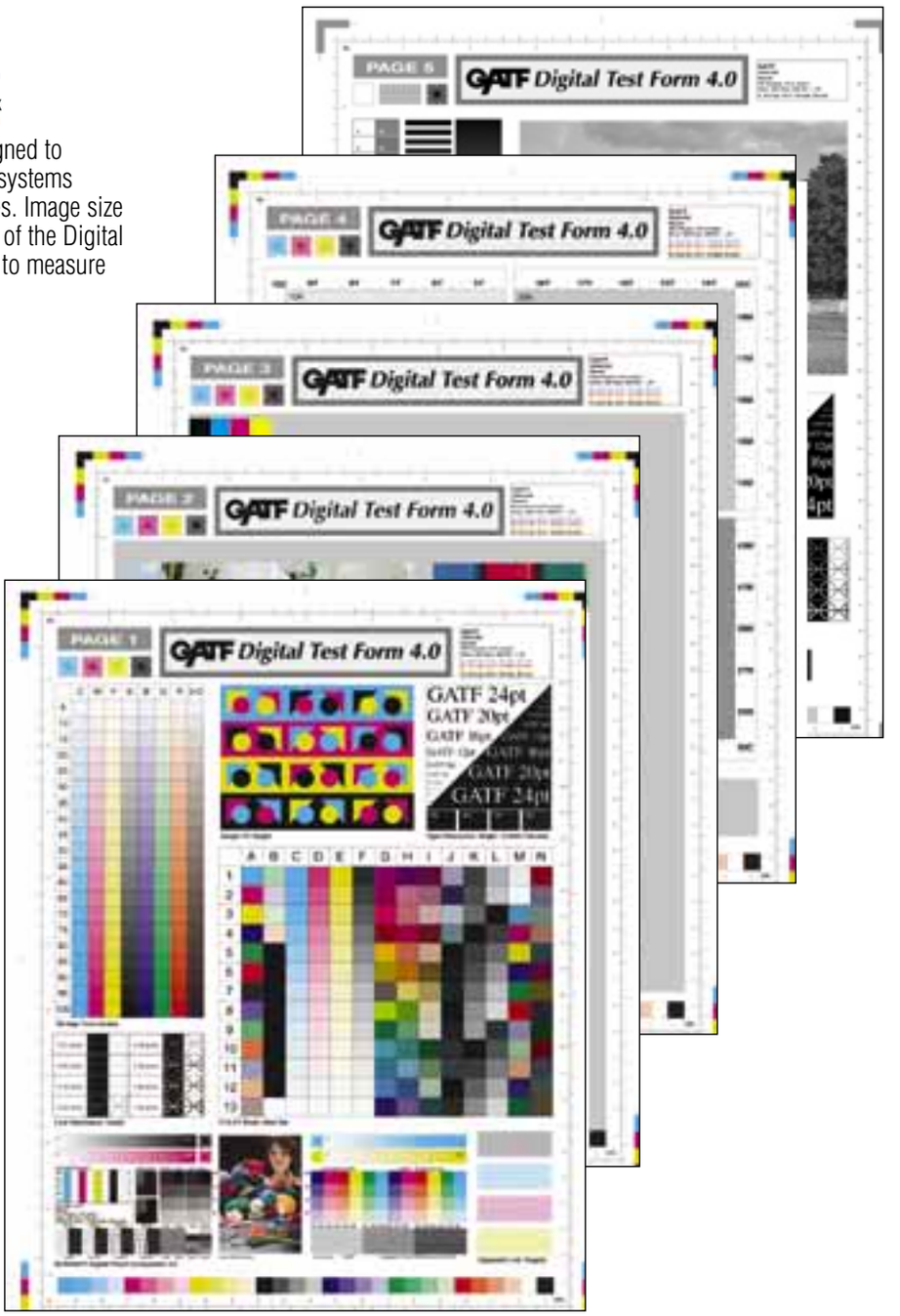
All of the GATF digital Smart Target products are designed to be output to a PostScript-compatible device. Some RIPs do not actually image the PostScript information. If the RIP has to rewrite the information to a proprietary format, some of the native PostScript targets may not function properly. Feel free to contact the technical staff at GATF for more information.

Note: GATF/SWOP Proofing Bar on page 26–27

Digital Test Form Version 4.0

SMART TARGETS

The GATF Digital Test Form is a five-page form designed to provide a uniform means of testing the many digital systems available today, including digital proofers and presses. Image size of each page is 8.5×11 in. plus bleed. The first page of the Digital Test Form 4.0 contains most of the elements needed to measure and compare imaging systems.



These elements include:

- Title Block
- Information Block
- Continuous Register Track
- Type Resolution Target
- Image Fit Target
- GATF Star Targets
- Maximum Density Patches
- Tone Scales
- Color Control Bar
- Standard Color Field
- Gray Balance Chart
- GATF/GCA Digital Proof Comparator
- Pictorials

The Digital Test Form 4.0 is designed to measure dot gain curves, ink trapping characteristics, gray balance and maximum ink coverage requirements, and minimum and maximum printable dots. The form also contains elements sensitive to resolution, directional effects, moiré, and raster imaging patterns.

The product includes one CD-ROM disk with test form in EPS file format and detailed User's Guide. User's Guide is also included as PDF file on the CD.

7346M (Macintosh-compatible CD-ROM)

7346I (IBM-compatible CD-ROM)

$1000 (GATF/PIA Member) $1250 (List)

Digital Product Compatibility

All of the GATF digital Smart Target products are designed to be output to a PostScript-compatible device. Some RIPs do not actually image the PostScript information. If the RIP has to rewrite the information to a proprietary format, some of the native PostScript targets may not function properly. Feel free to contact the technical staff at GATF for more information.

Note: When using a GATF Test Form for press diagnosis only, we strongly recommend that you use one of our film-based test forms. If a Digital Test Form is used, characteristics of the imagesetter may influence your press test. To analyze your electronic output, filmsetter, platesetter, etc., and press you should use one of our Digital Test Forms.

GATF/SNAP Newspaper Test Form

SMART TARGETS

"The SNAP Digital Test Form has been a vital tool for us in bringing our new presses on-line. It has enabled us to analyze and document all the pertinent print characteristics we need in order to fine-tune our prepress for optimum print reproduction."

Kevin Conner
Director, Quality Assurance
The Washington Post

The popular GATF Newspaper Test Form has been updated and expanded to make the new GATF/SNAP Test Form. This new two-page test form was developed with the SNAP Committee and the technical staff of the Newspaper Association of America. It provides greater measuring capabilities and compatibility with today's digital imaging systems. The GATF/SNAP Test Form is available in either film or digital format. The first page measures the characteristics of the newspaper printing system. It can be used to calibrate the output of the prepress system to achieve optimal color reproduction on the press. It can also be used to establish meaningful process control aim points for the pressroom. The second page contains a color chart to help the user get predictable colors from the newspaper printing system. Image size 20.5× 1.5 in.

Elements include:

- GATF Four-Color Single-Tier Color Control Bar
- Information Block
- GATF Type Resolution Target
- GATF Transfer Grids
- GATF Four-Tier Color Control Bar
- Female Portrait
- Fleshtones Photograph
- Memory Colors Photograph
- High-Key Photograph
- GATF Maximum Coverage Target
- GATF Tone Scales
- GATF Hexagon Target
- IT8.7/3 Basic Data Set
- GATF Gray Balance Chart
- A Segment of the GATF/Systems of Merritt Plate Control Target
- GATF Unidirectional Register Track

Film Test Form:

85-lpi screen ruling

Supplied on 0.007-in. film

Digital Test Form:

Supplied on a CD, files are provided in EPS format

File size page 1—25.1 MB

File size page 2—2.2 MB

7087 (Positive) $595 (GATF/PIA Member) $695 (List)

7187 (Negative) $595 (GATF/PIA Member) $695 (List)

7187CD (Digital) $595 (GATF/PIA Member) $695 (List)

Digital Product Compatibility

All of the GATF digital Smart Target products are designed to be output to a PostScript-compatible device. Some RIPs do not actually image the PostScript information. If the RIP has to rewrite the information to a proprietary format, some of the native PostScript targets may not function properly. Feel free to contact the technical staff at GATF for more information.

Note: When using a GATF Test Form for press diagnosis only, we strongly recommend that you use one of our film-based test forms. If a Digital Test Form is used, characteristics of the imagesetter may influence your press test. To analyze your electronic output, filmsetter, platesetter, etc., and press you should use one of our Digital Test Forms.

GATF Register Test Grid

Misregister is a major concern in achieving high-quality printing, especially in process color work. The problem is magnified when you consider the many factors involved in color register—factors such as color contrast, subject, image sharpness, and screen ruling.

Misregister can occur at many stages of reproduction, including proofing, image assembly, contacting, platemaking, or on press. It can be difficult to correct misregister on press if it occurred during prepress.

The GATF Register Test Grid is a film negative containing a precisely ruled pattern of line and highlight tint patches imaged on a dimensionally stable 7-mil (0.007-in.) polyester base. It detects misregister as slight as 0.001 in.(0.25 mm).

The GATF Register Test Grid is available in two sizes, 24×30 in. (610×762 mm) and 30×40 in.(762×1016 mm).

71602 24×30 in.(610×762 mm)
(Negative) $150 (GATF/PIA Member) $190 (List)

71601 30×40 in.(762×1016 mm)
(Negative) $185 (GATF/PIA Member) $240 (List)

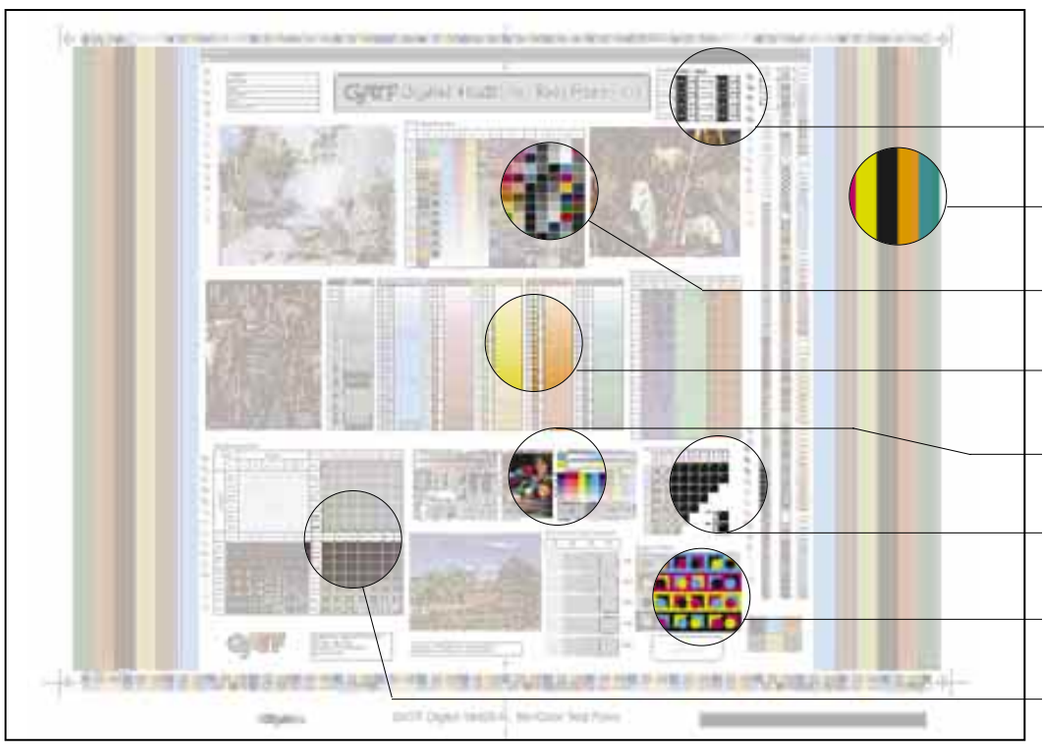
Note: SWOP Calibration Test Kit on page 27

19×25-in. Digital Sheetfed Test Form

SMART TARGETS

The GATF 19×25-in. Digital Sheetfed Test Form 4.1 is a digital version of the GATF film-based 19×25-in. Sheetfed Test Form. It provides a digital file to generate a press form that is used to diagnose and calibrate a 25-in. printing press with up to six units. The GATF 19×25-in. Digital Sheetfed Test Form 4.1 can also be used to diagnose and calibrate the filmsetter or platesetter. Wherever practical, the digital version matches the film version —this is intended to maintain consistency between the press analysis of the digital and film press forms. There are differences, however, between the test forms because of the nature of digital imaging and the resolution of the digital and analog modes. The GATF 19×25-in. Digital Sheetfed Test Form incorporates several native PostScript elements of the multi-page GATF Digital Test Form 4.0 (see page 6) to utilize the full potential of the filmsetter or platesetter.

Digital test form elements include:



The product includes one CD-ROM disk with test form in EPS file format and detailed User's Guide. User's Guide is also included as PDF file on the CD.

File size: 33 MB

File is provided in EPS format

7197CD $995 (GATF/PIA Member) $1295 (List)

Supplied on a CD-ROM, Mac and PC compatible

Digital Product Compatibility

All of the GATF digital Smart Target products are designed to be output to a PostScript-compatible device. Some RIPs do not actually image the PostScript information. If the RIP has to rewrite the information to a proprietary format, some of the native PostScript targets may not function properly. Feel free to contact the technical staff at GATF for more information.

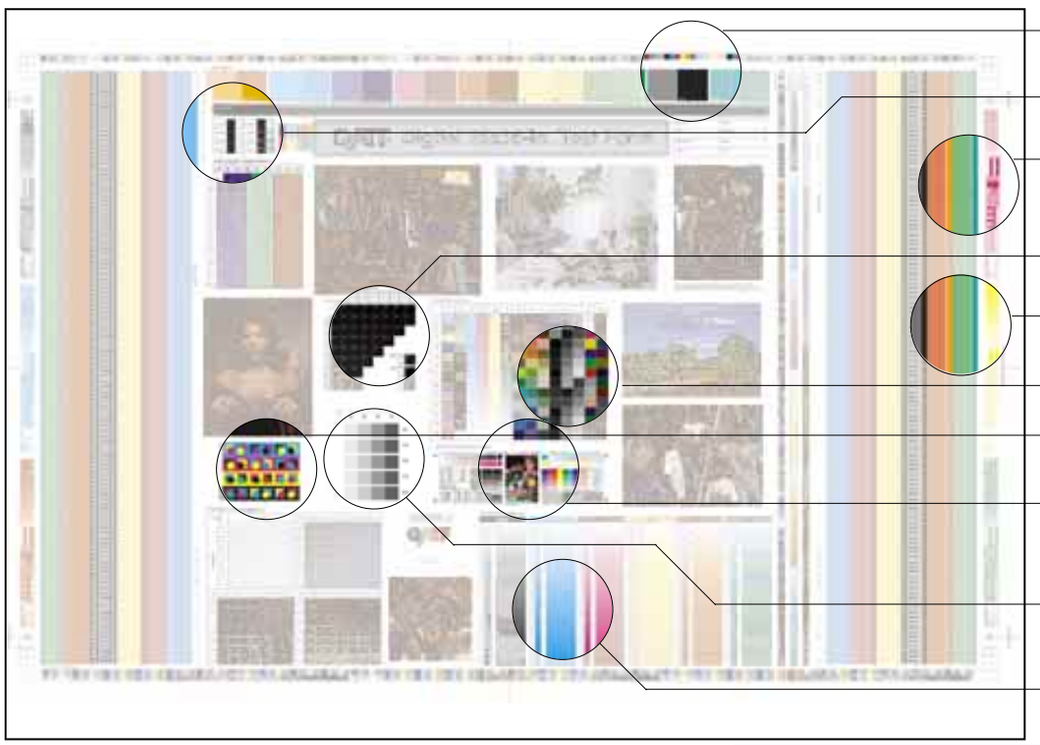
Note: When using a GATF Test Form for press diagnosis only, we strongly recommend that you use one of our film-based test forms. If a Digital Test Form is used, characteristics of the imagesetter may influence your press test. To analyze your electronic output, filmsetter, platesetter, etc., and press you should use one of our Digital Test Forms.

25×38-in. Digital Sheetfed Test Form

SMART TARGETS

The GATF 25×38-in. Digital Sheetfed Test Form 4.1 is a digital version of GATF's widely acclaimed film-based 25×38-in. Sheetfed Test Form, long regarded as the standard of the industry. It provides a digital file to generate a press form that is used to diagnose and calibrate a 25×38-in. printing press with up to six units. The GATF 25×38-in. Digital Sheetfed Test Form 4.1 can also be used to diagnose and calibrate the filmsetter or platesetter. Wherever practical, the digital version matches the film version–this is intended to maintain consistency between the press analysis of the digital and film press forms. There are differences, however, between the test forms because of the nature of digital imaging and the resolution of the digital and analog modes. The GATF 25×38-in. Digital Test Form incorporates several native PostScript elements of the multi-page GATF Digital Test Form 4.0 (see page 6) to utilize the full potential of the filmsetter or platesetter.

Digital test form elements include:



The product includes one CD-ROM disk with test form in EPS file format and detailed User's Guide. User's Guide is also included as PDF file on the CD.

File size: 57.2 MB

File is provided in EPS Format

7190CD $1195 (GATF/PIA Member) $1595 (List)

Supplied on a CD-ROM, Mac and PC compatible

Digital Product Compatibility

All of the GATF digital Smart Target products are designed to be output to a PostScript-compatible device. Some RIPs do not actually image the PostScript information. If the RIP has to rewrite the information to a proprietary format, some of the native PostScript targets may not function properly. Feel free to contact the technical staff at GATF for more information.

Note: When using a GATF Test Form for press diagnosis only, we strongly recommend that you use one of our film-based test forms. If a Digital Test Form is used, characteristics of the imagesetter may influence your press test. To analyze your electronic output, filmsetter, platesetter, etc., and press you should use one of our Digital Test Forms.