

# IGT Orange Proofer

## Printability testers for offset inks



**IGT Orange Proofer** are low cost, versatile and easy to operate printability testers to reduce costs in printing and quality control. The Orange Proofer is used in ink laboratories of printing houses and ink manufacturers. With these testers highly reproducible prints are made with offset inks on most substrates. Properties as e.g. colour, transparency, density, ink transfer, penetration can be tested on these prints. The ink tests on the Orange Proofer reduce down-time of the printing press and waste of materials.

- The Orange Proofer prints colour strips of offset inks with a known ink film thickness, which can be used for many purposes
- The Orange Proofer has especially been designed for computerised colour measuring and colour matching systems
- The Orange Proofer saves on costs, because colour testing on the printing press is no longer necessary

### APPLICATIONS

Today many printers have their own ink kitchen. The Orange Proofer can be used to make colour prints, to check the quality of the ink on the substrate before going to press. This way, a quick check of colour matching can be obtained. Used in laboratories of pigment and ink manufacturers, the Orange Proofer forms an important tool to check colour, penetration, drying, density, set-off and others properties.

### Orange Proofer use in industries

- Offset printing ink
- Printing houses
- Paper and board
- Metal, plastics and packaging
- Resins, lacquers, varnishes and coatings
- Raw materials

# IGT Orange Proofer

## Modern design, simple to operate



### IGT ORANGE PROOFER

The printing force is applied manually. Reasons to change the force are a very different substrate, a very different printing form or a different printing form width. If the force is not to be changed regularly the best choice is the Orange Proofer.

### IGT ORANGE PROOFER M

Printing force is applied using push-buttons on the front of the instrument. In cases where the force used for the prints is changed regularly, e.g. when using different types of ink, different substrates or variation in thickness. If the force is to be changed regularly the best choice is the Orange Proofer M.

### Purposes

- Colour measuring
- Visual appraisal
- Density measurement, including establishing colour and density tolerances
- Determination of coverage, transparency, wear

resistance, abrasion resistance, flexibility, adhesion, gloss, ink transfer (in  $g/m^2$ ), light fastness and resistance to chemicals

- Test print quality, mottle, set-off
- Test paper properties as scumming, strike through, smoothness



### Properties

- Simple to operate, short learning time
- Minimum amount of variables reducing error sources
- Adjustable printing force
- Fully compliant with ISO 2834, ISO 2846, ISO 12647 and ASTM 7680
- Extensive processing possibilities for various substrates and offset inks
- Substrate, ink and printing form are easy and fast to change
- Excellent reproducibility; high degree of correlation to press results
- Low investment and low operating costs
- Can print on all types of coated and uncoated materials: paper, board, plastic film, cellophane, laminates, metals, etc.
- Print width max 50 mm (standard) en 70 mm (OP 70)

# IGT Orange Proofer

## Print coated and uncoated materials



### IGT ORANGE PROOFER X3

Printing force is applied using push-buttons on the front of the instrument. The device can print three prints adjacent to each other on the same substrate in three subsequent prints. This is needed in case density or colour tolerances are to be determined on the same substrate, e.g. strips of paper, board, plastic, metal plate, cans (diameter 63-68 mm). If there is a regular need for a number of prints on the same substrate the best choice is the Orange Proofer x3.

### IGT ORANGE PROOFER 70

Printing force is applied using push-buttons on the front of the instrument. With the Orange Proofer 70 it is possible to use printing discs with different width. The device is especially designed to print directly on e.g. credit cards or on substrates used for abrasion tests with a maximum print width of 70 mm. If there is a regular need for a wider print the best choice is the Orange Proofer 70.



Inking the printing disc

### Operation

The IGT Orange Proofer consists of an inking unit and printing unit with removable printing disc (printing form) in one device.

The inking unit consists of two aluminium drums and a top roller. For different types of ink, different types of top rollers are available: for conventional inks, a standard elastomer and for UV-curing inks, a top roller with a rubber resistant to these inks and their solvents. To apply the ink as accurately as possible, the use of an IGT ink pipette with fixed or adjustable volume is strongly recommended. The printing form is placed on the shaft of a movable arm and then inked on the inking unit.

The printing unit consists of a printing form and an impression cylinder. For conventional and UV-inks different printing forms are available. The substrate is attached to a substrate carrier. The substrate carrier with the substrate is placed on the impression cylinder. The printing disc is taken from the inking arm and placed on the shaft of the printing unit. After the printing force has been applied, the print is made. The printed substrate is removed for appraisal and the printing disc is cleaned. The printing speed is fixed at 0,3 m/s. The printing force can be set between 100 and 900 N. See instruction video on [www.igt.nl](http://www.igt.nl).

# IGT Orange Proofers

## Range of accessories and consumables



### Printing discs

The standard printing form (disc) is covered with rubber blanket for conventional (offset) inks. For UV-curing inks, printing discs with rubber blanket or rubber which is resistant to these inks and their solvents are available. There are printing discs with a weight of less than 160 g as well; these discs can be weighed on analytical balances with an accuracy of 0,1 mg. To print in halftone there is a wide choice in special discs with a halftone photopolymer 40-70 l/cm. On request these ones can also be customized.



### Holder for printing discs, top rollers and timer

The Orange Proofers can be equipped with an accessory to store the printing discs and top rollers during the tests. With this accessory flat sides at the printing discs and top rollers as a result of a wrong storage can be avoided; the rollers and printing discs are free to the air for optimum evaporation of solvents after cleaning. Overnight storage still has to be done on a dark, clean and cool place. A timer has been added to improve repeatability and accuracy of critical tests.



### IGT Ink pipette

The use of an IGT ink pipette is strongly recommended. It increases the accuracy of application of ink and therefore the ink transfer and ink film thickness. There are different ink pipettes:

- Ink pipettes with which the applied volume can be adjusted to the need of each individual test (maximum volume 2 ml) available in a resolution of 0,01 ml or 0,001 ml.
- Ink pipettes with a fixed volume of 0,16; 0,24 or 0,40 ml.



The IGT fixed volume ink pipettes



Applying ink with the IGT ink pipette

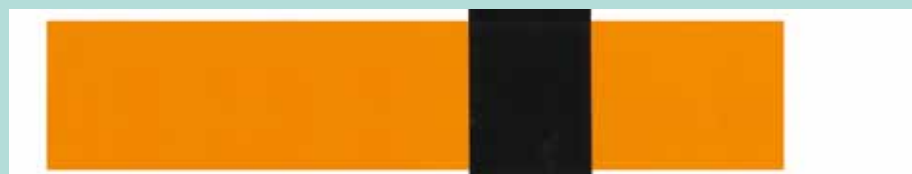
# IGT Orange Proofer

## Used for many test methods

	OP	OP M	OP 70	OP x3
Technical data				
Printing disc width* / Max >	50 mm	50 mm	70 mm	3x15 mm
15 mm	○	○	○	●
50 mm	●	●	●	●
70 mm	–	–	●	–
Printing force	Manually	Motorized	Motorized	Motorized
Inking unit speed	0,3 m/s	0,3 m/s	0,3 m/s	0,3 m/s
Print area	200 mm x 50 mm	200 mm x 50 mm	200 mm x 70 mm	max 200 mm x 50 mm
General				
Test methods inks	Colour, transparency, density, ink transfer in g/m <sup>2</sup> , dry properties as coverage, wear resistance, abrasion resistance, flexibility, adhesion, gloss, light fastness, chemical resistance			
Test methods paper/board	Scumming, striking through, halftone printing, back trap mottle, print mottle, print smoothness, set-off			
Compliance	ISO 2834, ISO 2846, ISO 12647, ASTM 7680			
Substrates	Paper, board, metal, plastic			

- = good
- = excellent
- = not possible

\* lightweight printing disks of C1 type testers also fit on the corresponding Orange Proofer model



Print on reference paper with black band for coverage, transparency, colour, density etc.



Three prints adjacent to each other for colour and density tolerances



Example of halftone print

# IGT Orange Proofer

## Specifications

### TECHNICAL DATA

#### Inking unit

- Area 720 cm<sup>2</sup>
- Two aluminium drums with top roller
- One aluminium drum driven
- Short inking time: inking unit 30 s and printing disc 30 s
- Independent drive

#### Printing unit

- Printing speed: 0,3 m/s
- Printing force: 100 – 900 N
- Max. substrate thickness: 4 mm
- Independent drive

#### Printing discs

- Standard print width :
  - Orange Proofer : 50 mm
  - Orange Proofer 70 : 70 mm
  - Orange Proofer x3 : 3x15 mm
- Print length: 200 mm
- Standard covering: rubber blanket for conventional or UV-curing inks

- Specials: halftone photopolymers  
Other discs request

#### Top rollers

- Elastomer for conventional inks
- Rubber for UV-curing inks

#### General

- Inking unit and printing unit in a single appliance
- Simple operation
- Low initial cost
- Possible to use many substrates and inks

Width:	620 mm
Height:	320 mm
Depth:	350 mm
Weight:	25 kg

#### Electrical connection:

90 - 245 V / 50 - 60 Hz

### Agent



## IGT Testing Systems

Research, development and production of testing equipment for the printing and allied industries

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