# GRAPHICS INTERNATIONAL GROUP





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Graphics International Group presents a quality line of screen printing machinery and related ancillaries for the decoration of plastic containers and novelty items.













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Graphics International Group Inc., offers a complete line of fully automatic bottle printers for all sizes, including oversized gallons. (Up to 5 liter containers)



#### **GIG-S102**

**5 Color Fully Automatic Screen Printer** 

#### for Cylinders and Ovals:

Max printing length: 300mm Cyl. 120mm Oval. Max printing width: 250mm Cyl. 40~120mm Oval

Max cycle speed: 5000 pph.

Power supply: 380V 220V 50/60Hz 9 KW



# 1 to 7 Color Automatic Screen

Max. Printing Area  $\,^{\phi}$  900 x 250 mm

Min. Cylindrical – Container

**Printing Machine for Pails** 

Diameter \$\phi\$ 160 mm

Max. Cylindrical – Container

Diameter \$\phi\$ 350 mm

Min. Container Height - 200 mm

Max. Screen Frame Size - 1200 x 400

mm

(6 Liter)

Max. Printing Speed – 1000 pcs / hr.

#### **GIG-SSTUV4**

4 Color Automatic, UV Curing Flat / Cylinder

#### **Screen Printer:**

Max Cylinder Dia.: 150 mm. (6")\* Max printing Length: 300mm Max printing width: 300mm Max cycle speed: 3000 pph.

Power supply: 380V 50/60Hz 25KW

Weight: 4000 kg 4 color

\*An Over-size model is available to

178 mm. (7")



Modular Screen Printer from 1 to 6 Colors for Cylinders and Ovals





The **GIG-S102** is a modular concept machine with a drive and modules that can be added on up to 6 colors. The system comes complete with an automatic un-scrambler or an in-feed conveyor with pick and place, plus a heavy duty extended take-out conveyor.

#### **Print Head**

Designed for cylinder high speed printing. However, with a small addition, it can also print oval containers at high speed.

#### **Walking Beam and Print Head**

Ideally suited for larger, heavy bottles, due to horizontal movements.

#### Main features

Highly accurate, precision print head.

Rapid change-over (30 minutes).

Vacuum tray load and vacuum tray discharge to walking beam.

Mechanical pre-search and final registration.

Speeds to 5000+ an hour.

In-feed quality conveyor, with pick and place loading.

Top quality British made UV system, latest technology (Primarc).

Flaming, no-bottle/no-print devices are standard.

Discharge to quality takeout conveyor.

Max. print length 11.8".

Max. print width 9.8".

Weight 3300 lbs.

#### Safety

 $360^{\circ}$  O.S.H.A. type protection shielding, with UV light absorbent access window. E-stop button.

#### **Optional Items**

Un-scrambler with bowl feeder and bowl hopper.

#### Tooling

All tooling manufactured at GID's Toronto workshops where we have designed and built tooling for more than 20 years.

#### **Support and Service**

Engineering centre, backed program with stock parts (next-day delivery) and field technicians/electricians available immediately. 25 years of experience in supporting GIG supplied screen printers, with over 3000 delivered in North America. North America s only full equipped (tooling, parts, engineering, rebuild, electrical) facility.

#### Services/Technical

Voltage: 220v, 60c, 3 phase.

Kw consumption up to 8 kw per print unit.

Air consumption: 100lt/minute each print station.

Gas consumption: 5 lt. /min.







Automatic 1-Color UV Screen Printer for Cylinders and Ovals

#### **Print Head**

Designed for cylinder high speed printing. However, with a small addition, it can also print oval containers at high speed.

#### **Walking Beam and Print Head**

• Ideally suited for larger, heavy bottles, due to horizontal movements.

#### **Main features**

- · Highly accurate, precision print head.
- Rapid changeover (30 minutes).
- Vacuum tray load and vacuum tray discharge to walking beam.
- Mechanical pre-search and final registration.
- Speeds to 5000+ an hour.
- In-feed quality conveyor, with pick and place loading.
- Top quality British made UV system, latest technology (Primarc).
- Flaming, no-bottle/no-print devices are standard.
- Discharge to quality takeout conveyor.
- Max. print length 11.8".
- Max. print width 9.8".
- Weight 3300 lbs.

#### Safety

- 360° OSHA type protection shielding, with UV light absorbent access window
- E-stop button.

#### **Optional Items**

• Un-scrambler with bowl feeder and bowl hopper.

#### **Tooling**

· All tooling manufactured at GID's Toronto workshops where we have designed and built tooling for more than 20 years.

#### **Support and Service**

- Engineering Center, backed program with stock parts (next-day delivery) and field technicians/electricians available immediately.
- 25 years of experience in supporting GIG supplied screen printers, with over 3000 delivered in North America.
- North America's only full equipped (tooling, parts, engineering, rebuild, electrical) facility.

#### Services/Technical

- Voltage: 220v, 60c, 3 phase.
- Kw consumption up to 8 kw per print unit.
- Air consumption: 100lt/minute each print station.
- Gas consumption: 5 lt /min.







Large (Gallon Plus) Screen
Printer for Flats or
Cylinders



The **GIG-SSTUV4** is a large diameter screen printer that can print up to 4 colors. It is available as a 1, 2, 3 or 4 color printer for either large diameter cylinders up to 6" or for "F" style flat gallon containers as a flat screen printer.

A special oversize model is available to order to accommodate up to 7" cylinder diameter.

No automatic feeder is normally available for this system. Bottles are fed by hand onto a large, heavy-duty in-feed conveyor and are taken out automatically on a heavy-duty exit conveyor at right angles to the machine.

Speeds of up to 3000 an hour are possible depending on the operator's ability to feed the machine.

Combinations can also be added in "Z" formation to allow up to 8-color printing by adding 2 machines together with a link conveyor.

#### Technical specifications are as follows:

• Maximum Cylinder Diameter: 6" (Special Machine diameter 7")

Maximum printing length: 11.8""
Maximum printing width: 11.8"
Maximum cycle speed: 3000 pph

Power supply: 220V, 60C, 3 phaseWeight: 8800 lbs (4 colors)



# 1 to 7 Color Automatic Screen Printing Machine for Pails Color Automatic Screen Printing Machine for Pails

The **Automatic Pail Printer** is a highly accurate advanced system based on the design of the popular GID-161 screen printer.

It comes complete with an in-feed conveyor, pick and place and heavy-duty exit conveyor.

#### 1 to 7 Color Automatic Screen Printing Machine For Pails (6 Liter)

Max. Printing Area \$\phi\$ 900 x 250 mm

Min. Cylindrical – Container Diameter  $\,^{\, \varphi}$  160 mm

Max. Cylindrical – Container Diameter <sup>†</sup> 350 mm

Min. Container Height - 200 mm

Max. Screen Frame Size – 1200 x 400 mm

Max. Printing Speed – 1000 pcs / hr.

#### **Special model for Pails with Handles**

A special model is available for pails with plastic or metal handles. These are available in up to 3 colors only. Each machine is constructed to suit the type of handle. Manual feed or Automatic feed are both available.

#### GIG-S101 Labeler:

The labeler is tooled like a screen printing machine for very accurate placement of the label. The label dispenser is comprised of a vacuum blowing device followed by a pad stamping device to lock the label in place once transferred onto the bottle.

Printing Dia. Cyl.: 1" ~4.7"
Printing width Oval: 1.57" ~4.7"
Printing length Cyl: 1.97" ~11.8"
Printing length Oval: 0.78" ~2.36"
Max cycle speed Oval: 5000 pph.
Max cycle speed Cyl: 3600 pph.
Power supply: 220V 60Hz 3 Phase

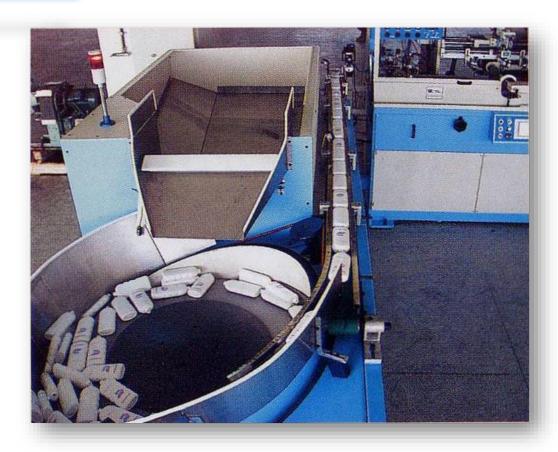
#### Combo Leak Tester / Labeller

Can be converted with a Leak Detector inside the Labeller giving a combo Leak / Labeller System.





#### **Universal Un-scrambler**





#### The **GIG Universal Un-scrambler** can

be fitted to our automatic screen printing machines or can be offered as a separate unit for linking to labelers or competitive machines. It can handle all shapes of containers and feed up to 6000 parts per hour.

The Un-scrambler is in 2 parts, with a hopper feeder to accommodate a large number of bottles, and a belt feeder and an exit conveyor to unscramble the bottles and feed them to the printing machine.



Graphics International Group Inc. is proud to introduce its line of screen printing machinery for the decoration of plastic containers and novelty items.



#### **GIG-131**

#### Semi-automatic screen printer for cylinders and ovals:

Max printing area: 100mm x 200mm Max printing diameter: 150mm Max cycle speed: 1500 parts per hour Power supply: 110V/220V 50/60Hz 50W

Machine dimension: 800mm x 710mm x 1230mm

Weight: 104 kg

Air pressure: 200L/min 4-6bar

GIG-141

(same as 131 but larger, picture not shown)

Semi-automatic screen printer for large cylinders:

Max printing height: 230 mm

Max container diameter: 280 mm

Max cycle speed: 1000 parts per hour





#### **GIG-151**

#### Semi-automatic screen printer for pails and gallons:

Max printing diameter: 300mm Max printing height: 250 mm

Max container diameter: 350 mm

Max cycle speed: 800 parts per hour Power supply: 110V/220V 50/60Hz 50W



#### **UV Dryers, Flaming Units**





#### **UV Without Light Leaking**

PAIL UV DRYER WITH UV LIGHT SHIELD

Max Container Size – Mouth Diameter 310 mm Max Treating Speed 600pcs / hr

Used with Semi-Automatic UV Printing Machines

#### **GIG Peg UV Curing System**

This UV dryer is suited to cure round, oval and flat surfaces of screen and offset printed containers. The containers are loaded by hand onto pegs which travel through the UV tunnel. Upon passing under the UV light, the container is rotated 360°. Conveyor speed is controlled by a variable speed motor. The UV tunnel can also be tooled for handling small neck containers. Container Specifications

- Maximum diameter: 100 mm. (3.93") Maximum height: 200 mm (7.87")
- Inside neck diameter: 10 mm. to 24 mm. (0.4-to 1")

#### **Machine Specifications**

- 2 to 25 second curing time depending on container shape and size
- Machine dimensions: 2150 mm. X 660 mm. X 1420 mm (7.1'X2.2'X4.7') LXWXH
- Machine weight: 300 kg. (660 lbs.)
- Electrics: 220V, 1-phase, 40 amps
- Lamp specifications: 12" arc length, 3.6 KW. 300 W per inch, with high, medium, low adjustments





#### GIG UV Curing System for Bottles (Non-Peg) GID 7.1

This **UV dryer** is suited to cure round, oval and flat surfaces of screen printed containers. The containers are loaded by hand onto the belt which travels through the UV tunnel. Upon passing under the UV light, the container is rotated 360° with a friction bar for cylinder bottles. Conveyor speed is controlled by a variable speed motor with cycle speed up to 3,000 pph.

#### Features:

- 2 to 25 second curing time depending on container shape and size
- Maximum product diameter: 150 mm (5.9")
- Maximum product height: 300 mm (11.8")
- 300W 12" Primarc UV lamp with three power settings
   50 % 70 % 100 %
- UV reflectors inside UV cabinet

#### Electrics:

220 V, 3 - phase, 30 amps

Machine Dimensions:

7.1' (length) x 2.8' (width) x 7' (height)

Machine Weight:

350 kg





#### **GIG Dual Head Flaming Unit**

Ideal for cylindrical and oval containers, this dual head flaming unit treats the surface

of plastic polyethylene and polypropylene containers to improve ink adhesion. The

spikes and flaming heads can be replaced to accommodate different container sizes.

**Container Specifications** 

Diameter of container mouth: 12 mm. to 14 mm. (0.47" to

0.55"

Diameter of container: 12 mm. to 120 mm. (0.47" to 4.72")

Container height: 25 mm. to 250 mm. (1" to 10")

#### **Machine Specifications:**

Speed: Up to 3,000 parts per hour

Machine dimensions: 2250 mm. X 480 mm. X 1250 mm.

(7.5'X1.5IX4I)LXWXH

Machine weight: 200 kg. (440 lbs.)

Electrics: 220V, 400W, 2A

Air supply: 6 bar (87 lbs.) incoming

Gas: 3 bar (44 lbs.) incoming natural or propane



# Multi-Color Rotary Automatic Screen Printers (Turret Printer)



#### **GIG 316 / UV**

#### **3 Color Wheel System**

- 1.**GIG 316/UV Screen Wheel** is a Three Station Fully Automatic Multi-Functional Printing System, is designed for special plastic container printing such as soft tubes, bottle caps, cosmetic jars and other similar round containers.
- 2. To satisfy different requirements, optional devices can be supplied:

Standard stations: Three screen printing stations and three UV curing systems.

Optional Stations: Hot stamping unit, Automatic registration system, lacquering unit before or after print. Automatic feeder can be designed for specific products to increase efficiency.

3. Ideal for high volume single to three color screen printing on bottle caps, soft tubes, cosmetic jars and more.

Max print size:  $\phi (16^{50})X(20^{160})mm$ 

Speed (Pieces/minute): 55

Machine size (L x W x H): 260X270X200cm

Net Weight: 2500kg Air Pressure (bar): 5-7 Power: 380V/3P 50Hz 11kw

#### GIG 12 IR / UV (Infrared)

#### Multi-color Re-register or 360° Print Capability

**Function features**: designed with index mechanical turntable, auto loading, treatment before printing, printing station, UV or IR drying. Multifunction auto screen printer, with mechanical transmission and PLC controlling system.

#### Suitable for Tubes, Caps and Jars.

Parts (brand) are Rexroth, Schneider, SMC, Mitsubishi, and Omron.

Ease of operation: PLC and touch screen, tooling fast changeover, printing-head auto up-down.

**Production:** "No-article, No-printing", fast counting, safety, fault alarm.

**Optional parts:** mechanical loading and unloading system, auto servo left-right registration, step-motor front-back registration device (for tube). Treatment before and after printing and auto loading system.









#### **Rotary Mandrel Screen Printer**

Turret Mandrel Printer (UV)
Auto Screen Printing Machine (12 Stations)

Multi-color Re-register or 360° Print Capable

Suitable for Tubes, Caps and Jars (sidewall)

**GIG 55R** Designed with (UV) index mechanical turntable, auto loading, treatment before printing, printing station and UV drying. Multi-function auto screen printer, with mechanical transmission and PLC controlling system.

Same machine as GIG 12 / IR but UV Model

#### **GIG 525 / UV**

#### **5 Color Jar or Large Tube Printer**

**GIG 525 / UV Screen Turntable** is a Five Station Fully Automatic Multi-Functional Printing System, for special larger plastic container printing such as soft tubes, bottle caps, cosmetic jars and other similar round containers.

**Optional Stations:** Hot stamping unit; automatic pre-registration system, Varnish coating unit before or after print and automatic feeder can be designed specially to increase efficiency.

Max. print size: (13 - 70)(20 - 300) mm

Speed (Pieces/minute): 60

Machine size (L x W x H): 360X300X250cm

Net Weight: 4500kg Air Pressure (bar): 5-7 Power: 220V/50Hz 25kw





# Automatic Decorative Printing Equipment for Pens & Barrels Hot stamping, heat transfer or screen printing options are available for the decoration of pen barrels.

# GIG-P150/A Automatic Screen Printer for Pen Barrels

- Fully automatic with 2 models: UV or conventional drying
- Suitable for writing instruments or lipstick tubes
- Part dimensions: diameter 4-8 mm and length 70-180 mm
- Output up to 3000 parts per hour
- Machine dimensions (L x W x H): 3400 x 700 x 1200 mm





#### **GIG-AHR120** Heat Transfer Machine for Pen Barrels

For diameters 12-20 mm and lengths 60-180 mm

- Speeds up to 2400 parts per hour
- Machine dimensions (L x H x W): 1000 x 1500 x 1100 mm
- Weight: 600 kg
- Machine has CNC and mechanical gearing engineering
- Automatic feeding, web tension control, step-less speed variation
- Automatic head lift for silicone tube changeover
- Excellent for pen barrels and lipstick tubes

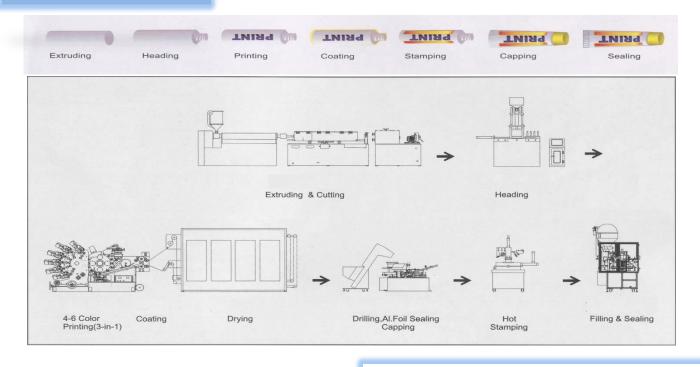
#### **GIG-SF10 Hot Stamper**

- Fully automatic hot stamper and heat transfer machine for pen barrels, lipstick tubes, etc., with outputs up to 2500 parts per hour.
- Automatic feeding, stamping, discharge available on request.
- Round objects only.
- Decoration area: Diameter: 3-12 mm. Height: 120 mm.
- Machine weight: 500 kg.
- Machine dimensions (L x W x H):  $1060 \times 810 \times 176$  mm





#### Tube Manufacture – Flow Chart





#### **SUPPLY RANGE**

#### **Main Equipment:**

- Extruder & Cutting Machine.
- Shuttle Injection Heading Machine.
- Computerized 4/6 Color Printing, Coating & Drying Machine.
- · Hot Stamping Machine.
- Tube Sealing Machine.
- Tube Filling & Sealing Machine.
- Tube Drilling & Capping Machine.
- Tube Head Aluminum Foil Sealing Machine.

#### **Accessory Equipment:**

- Chiller.
- Grinder.
- Mixer.
- Air Dryer.
- Photopolymer Plate Making Machine.
- Air Compressor.
- Cap Making Machine (Injection Molding M/C).

Molds for tubes of various sizes are available.

#### **Product Capacity:**

Dia: 19 ~ 50 mm

Length: 50 ~ 200 mm

Cutting Speed: 60 pcs/min



#### **Tube Screen Printers**



#### Screen Printing for Tubes, Model GIG-250/AC

The **GIG-250/AC** is a ¾ automatic screen printing machine that can be fed from the automatic transfer table at much faster speeds than a standard semi-automatic.

It is excellent for soft tubes or caps up to 35 mm diameter and 80 mm length. The machine can also print flat items with max dimensions  $80 \times 120$  mm.

#### **Machine Specifications:**

- Max output: 40 ppm

- Machine size (L x W x H): 120 x 80 x 115 mm

Net weight: 180 kgAir pressure: 5 bar

- Power: 220V/60hz, 60kw

#### Screen Printing for Tubes, Fully Automatic

#### 3 to 6 Colors

#### GIG-S4R

Fully automatic screen printer for the decoration of flexible plastic tubes in up to 6 colors with UV ink.

#### **Machine Specifications:**

- Max printing length: 160 mm.

- Max output: 3000 pph.

- Max tube dimensions: 50 mm diameter x 200 mm length

- Air Pressure: 6 bar

- Air Consumption: 350 L/min.

- Gas Pressure: 0.8~2 bar- Gas Consumption: 750 g/h

- UV Lamp Power: 400 W/in. 6 in. x 4 or 6 selectable

power output.

- Main Power: 220V, 3-Phase, 60c







# GIG offers a complete line of 4 – 6 Color Automatic Dry Off-set Printers for tubes, with UV or conventional drying.

We also offer a complete line of auxiliary equipment including Automatic Drilling, Tube Aluminum Foil Sealing, Combination Drilling and Capping and Combination Drilling, AL Foil and Capping.



## Screen Printer for Tubes, Fully Automatic 1-Color UV

#### Model GIG-55R

Fully automatic 1-color UV screen printer for the decoration of flexible plastic tubes (with or without registration).

#### **Machine Specifications:**

- Max output: 60 ppm
- Tube diameter: 15-80 mm
- Max printing length: 160 mm
- Power requirement: 3.6KW
- Electrical connection: 220V, 3-phase,
- 60c
- Compressed air: 6-8 bar
- Machine dimensions (L x W x H): 1700 x 1500 x 2100 mm
- Machine weight: 1300 kg
- Automatic feeding (in-feed conveyor and push on to mandrel)
- Twelve mandrel vertical turret
- Flamer for surface pre-treatment
- Stepper motor pre-register with color sensor. Allows color to color registration, necessary for multiple color printing.
- One full equipped screen printing station
- UV cure on the mandrel with British made Primarc UV lamp system
- Touch screen and PLC control

**Dry off-set Printer for Tubes** 





#### Hot Stamping or Pad Printing on Tubes, Caps and Jars



#### **GIG Hot Stamper 80B (Sidewall Printing)**

-12 Mandrel Machine for Tubes, Jars and Caps Up to 3600 Hour

Max Print Size: Ø 60 x 160 mm

#### **GIG Hot Stamper 80 (Cap Top Printing)**

#### 8 Station Machine for top of caps

-Speed to 4800 Hour

-Max print size: Ø 25 x 50







#### **GIG 38 Pad Printer for top of Caps**

#### 38 Station fully automatic for top of caps.

- 4 Colors, with Corona Treatment, to 7500 Hour

- Max print size: 100 x 150 mm



#### **Screen Making Equipment**



#### **GIG SCREEN DRYING CABINET**

#### Features:

- 5 individual drawer compartments, each drawer 1117 mm. wide X 813 mm. deep (44"X32")
- Perforated screen supports inside each drawer.
- Variable temperature controller and warm air blower.
- Shut-off timer.
- Electrics: 110V, 1-phase, 60c

Overall cabinet dimensions: 1041 mm. X 1270 mm. X 965 mm.

(41" deep X 50" wide X 38") tall

#### GIGSCREEN WASHOUT BOOTH

For water systems only:

- Washout area fabricated from stainless steel sheet (16 gauge)
- Complete with outlet drain, flexible mixer hose with spray nozzle and stand with adjustable floor levelers.
- Tank dimensions: 1524 mm. Width X 769 mm. Depth X 1219mm. Height (60" X 30" X 48")
- Stand height: 584 mm. (23")





#### **GIG SCREEN MESH STRETCHING TABLE**

#### Features

- Standard model has 16 pneumatically controlled clamps.
- Air control valves included.
- Main air supply fittings to machine included, but external compressed air lines not included.

#### Specifications:

- Incoming air pressure maximum: 85 psi
- Maximum frame stretching size: 750 mm. X 750 mm. (30" X 30")
- Machine dimensions: 1250 mm. X 1250 mm. X 1060 mm (49" X 49" X 42")

#### GIG EXPOSURE UNIT

#### Features:

- Instantaneous light source via metal halide lamp. (4000 W)
- Durable vacuum blanket.

#### Specifications:

- Glass area: 900 mm. X 1200 mm. (36" X 48")
- Automatic timer: 0 to 99 minutes
- Electrics: 220V, 1-phase, 60c
- Machine dimensions: 1350 mm. X 1070 mm X 850 mm (53" X 42" X 33")

