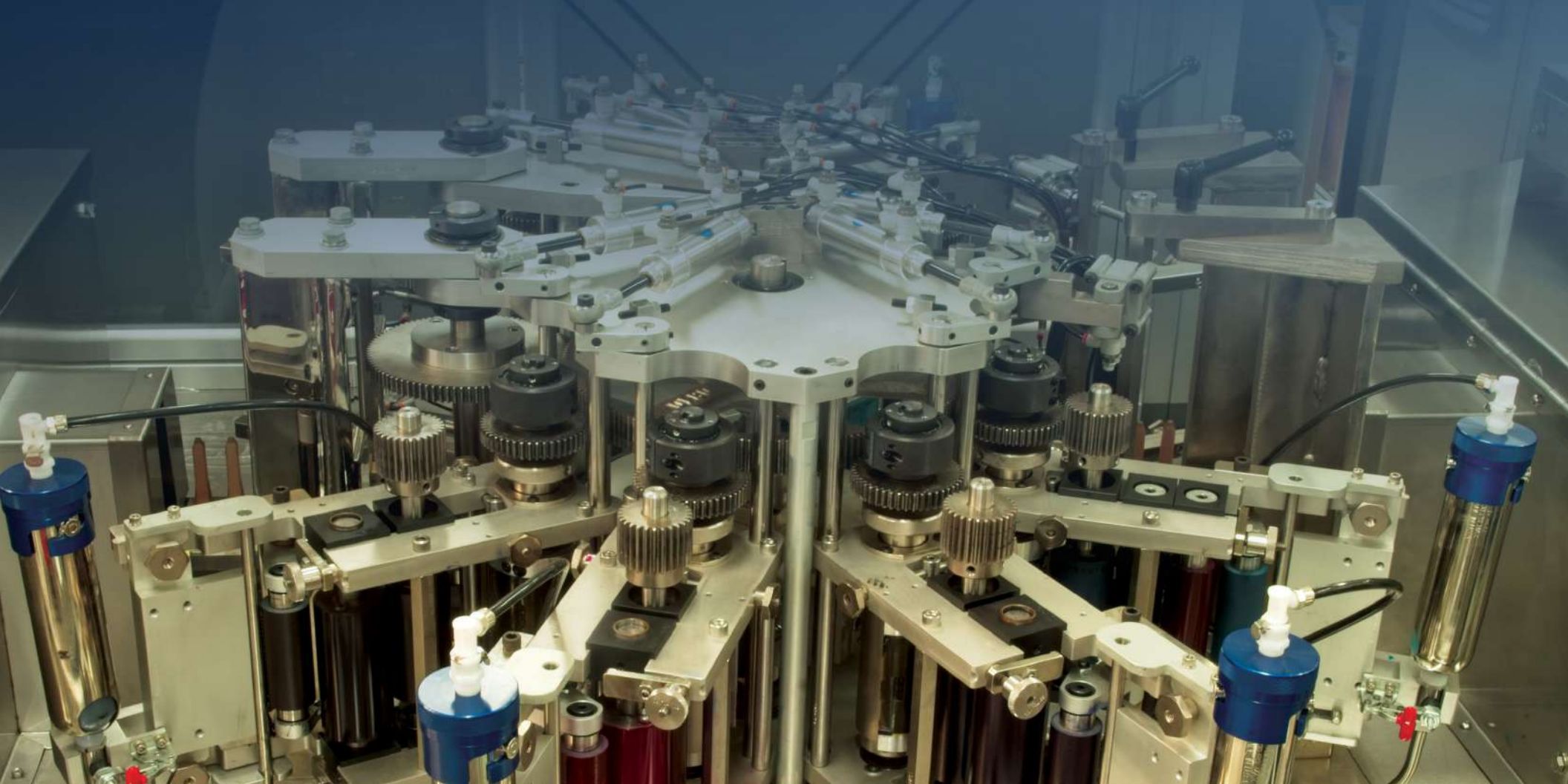




apex
machine company

Printers for components
with flat surfaces



Quality & Innovation

Apex Machine Company has been engineering and building specialized machinery for printing and decorating three-dimensional products since the start of the 1900's. The company has built a worldwide reputation for engineering innovation and excellence in the handling, printing, and decorating of rigid and semi-rigid products. The company's headquarters and main manufacturing base is situated in Fort Lauderdale, Florida, USA.

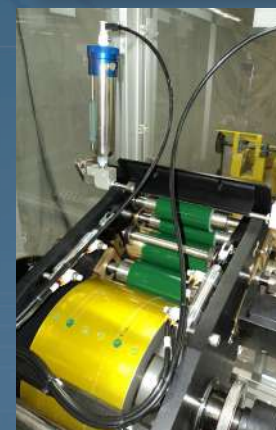
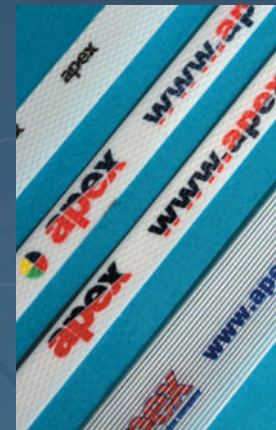
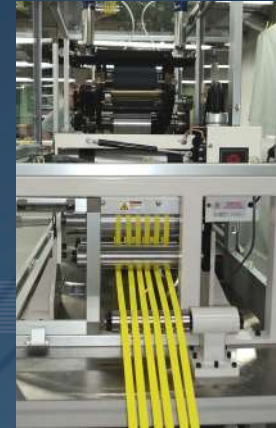
Flat Parts Printers

Apex supplies machines, for printing and decorating flat surface parts and components, into a wide variety of industry sectors and provides turn-key printing solutions for literally hundreds of different types of products. Our various machine types are capable of handling and decorating items as small as paper clips, all the way up to large size clamshell packs, plates and a huge variety of other parts, printing high quality graphics in up to 6 colors.

We supply flat-surface solutions for printing onto many common types of plastic clips, lids, caps, markers, hanger clips, paperclips, erasers, egg cartons, clamshell packs, razor handles, toothbrushes, rulers, cassettes and more across a wide spectrum of industry sectors including food, medical,

hardware, drinks, stationery and many others. We offer machines for metal products like tape measures, circular saw blades, jigsaw blades, hacksaw blades and knife blades; wooden products like rulers and ice cream sticks; paper and cardboard product over-printers for customising cartons and folded packs.

In short, if we haven't already handled and printed the exact item you need to find a decorating solution for, you can rest assured we will have done something similar, perhaps in another industry or product area, and will have the expertise and know-how to propose the right solution for your particular requirements. The well-proven range of Apex printing and decorating machines is highly customizable to suit specific product and decoration requirements. At Apex, every machine is unique, as product handling and printing characteristics are specifically engineered to suit each customer's product.



S-11 Model Range

S-11-C

- 1-6 lanes
- Up to 200 feet per minute
- 1-4 colors with 9020-series color heads
- 17" repeat pattern

S-11-TC

- 1-6 lanes
- Up to 200 feet per minute
- 1-4 colors with 9020-series color heads
- 17" repeat pattern
- Optional corona per-treatment

S-11-TE

- 1-6 lanes
- Up to 300 feet per minute
- 1-3 colors with 1000-series color heads
- 17" repeat pattern
- Optional corona per-treatment

S-11-TS

- 1-6 lanes
- Up to 375+ feet per minute
- 1-3 colors with 10,000-series color heads
- 27" repeat pattern
- Optional corona per-treatment

S-11-TAMG

- 1-12 lanes
- Up to 375+ feet per minute
- 1-3 colors with 10,000-series color heads
- 27" repeat pattern
- Optional corona per-treatment

NEW High Quality Solutions for Printing onto Strapping

Apex strapping printer systems have been specifically designed to print on a wide variety of different strapping materials, in a variety of widths, to provide multi-color printed images with close registration capability between the colors.

The Apex systems are offered in three basic configurations, covering 5 models, to meet virtually any production requirement and can be configured in 1 to 4 colors, offering capability and quality solutions not previously available in the industry.

Operation

The appropriate width strapping material is webbed onto an automatic pulling unit where controls are activated to pre-treat the material (where required), to print it in multiple colors using the dry offset printing

process, and to either dry the print image by exposure to ultraviolet light, or cure the graphics by hot air.

The printers can be configured to handle from 1 to 12 lanes (maximum dependant on the strapping width) - thus providing the potential for high production levels where needed. The standard printing heads will provide a maximum repeat length of up to 17 inches (431mm) - where longer repeats are required, a machine variety with larger print cylinders can be offered with a maximum repeat length of 27 inches (685mm).

Apex Strap Printers can be engineered to run as stand-alone off-line systems or, alternatively, can be configured to run in line with customer's extruders in multi-lane configurations at production rates of up to 375 feet per minute per lane.



Strapping materials

Diverse range of varying types including:

- Polypropylene
- Polyethylene
- Woven polyester
- Woven corded polyester
- Non-woven polyester

Strapping widths from 3/8" to 5.5" (9mm to 140mm)

1 to 12 lanes (depending on strapping width)

Machine

Voltage: 220/240v - 50/60 Hertz, or
380v - 50 Hertz, 415v - 50 Hertz,
480v - 60 Hertz 3-phase

Amperage: 40 amps

Compressed air: 10 cfm at 80 psi (5.5 bar)

PLC: Allen Bradley, Siemens or Schneider

1 to 4 colors

UV or hot air drying

Optional corona pre-treater
(required for some material substrates)

Printing system

Dry offset printing system using:

- Low cost photopolymer printing plates
- Water wash out
- Air dry or UV dry inks (depending on system)



S-40 Flat Surface Printers



High Quality Print onto Plastics & Metals

The S-40 range of printers can be configured to handle and print a very wide variety of flat-surface products from tiny coat hanger markers to clamshell food packs and egg cartons, caps & closures and lids of all sizes, to mention just a few of the applications possible.

The S-40 is a modular construction machine which features a horizontal parts transport mechanism which can be tooled to handle a huge variety of different product types. The machine can be made as long as needed to allow incorporation of pre-treaters, multiple printing stations and dryers which can be positioned above, behind or to the front of the product transport system thus allowing printing on multiple planes in a single pass. Square or multi-facet products can be rotated between print stations to allow printing on 4 or more side faces.

Stand-alone or in-line - S-40 printers can be supplied as stand-alone systems with semi or fully automatic feeding, or as fully in-line systems to suit particular production needs.

Single or multi-face printing in up to 6 colors - The S-40 can be configured with 1 to 6 color capability with single or multi-face printing heads to provide the capability to print on sides and tops of containers in a single handling.





Solutions for product handling

Many options are available for and feeding, de-nesting and re-nesting, counting and packing to suit most requirements.

A variety of printing solutions

Depending on material substrates and decoration requirements we offer a choice of pre-treatment and printing methods to achieve perfect results to meet customers' expectations. We offer dry offset, Flexapex® offset, rotary gravure, hot foiling, flexographic and other printing systems as needed. Most systems these days utilize UV cured inks and integrated UV driers, although air dried and solvent release inks are still used in some applications. Options for base coating/drying before print and clear coating after print are also available for achieving special effects and/or finishes.

From 100 to 2000+ parts per minute

Subject to product types and sizes the S-40 range can be tooled for single or multi-lane product handling to provide a wide range of production speeds and capabilities to suit most requirements.

The S-40 machine range provides high speed, high quality, solutions for parts handling and printing for:

- Caps & closures - all sizes
- Lids
- Hanger tabs & markers
- Egg cartons
- Ice cream container lids
- Razor handles
- Saw blades
- Folded carton overprinting
- Rulers & yardsticks
- Circuit boards
- Clamshell packs
- Flat plastic & metal components

S-40 Flat Surface Printers

Digital Inkjet Printers for Industry

Advances in Inkjet head technology have now reached the level where direct to product, single pass, full color, inkjet printing has become a realistic and viable option for 24/7 industrial production processes.

The design on demand capability of a digital printing system is well suited for situations where short production runs and frequent design changes are required, as well as in situations where individual product coding or differentiation may be needed.



DB1000 Linear Path Digital Printers

This printer series is designed for the handling of a variety of flat parts that can be loaded onto a continuous motion belt for transport through a pre-treatment station (where required), a base coat white and UV pinning station (optional), a full 4-color CMYK print station and a UV curing station to an automatic unloading conveyor after processing.

A variety of loading, unloading and other handling or decorating modules can be provided to meet most requirements.

- Full color capability (CMYK)
- Design on demand capability
- Optional white base coat plus pinning
- High quality 360dpi or 720dpi printing (up to 1200 dpi available)

DRT2000 Digital Printers

This printer series is designed for the handling of a variety of flat parts that can be loaded onto pallets for transport via a continuous motion, fully programmable, magnetic linear rail system (racetrack).

Parts are moved through a pre-treatment station (where required), a base coat white and UV pinning station (optional), a full 4-color CMYK print station and a UV curing station to an automatic unloading station. A variety of loading, unloading and other handling or decorating modules can be provided for most requirements.



Technical Specifications

- Fully programmable handling system
- Full color printing capability (CMYK)
- Design on demand capability
- Integrated barcode driven production batch control system
- Adjustable for a multitude of different product geometries

Maximum print width: 72mm (up to 144mm available)

Printing speed: 40 to 100+ parts per minute

Print Resolution: From 360dpi up to 1200dpi (print head dependent)

Voltage: All voltages - to suit requirements.

Curing Technologies: UV and LED

Speciality Inks: UV and LED optimized for substrates

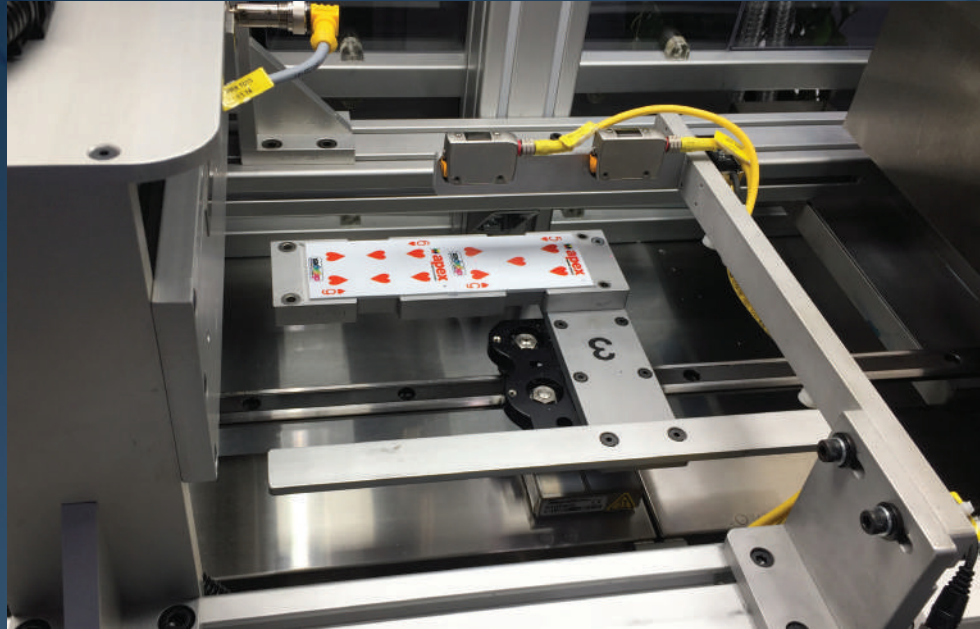


INKJET TECHNOLOGY
digapex

Direct to Product Digital Printing



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machine company



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PRINTERS FOR COMPONENTS WITH FLAT PARTS