

Just In Time Printing Solutions

For every Pack Form, Material and Process



Solutions as unique as your challenges

No matter the run or batch size, and no matter the substrate you use, Hapa technologies help make your packaging production more cost-effective, flexible, and environmentally friendly.

We've got the technology, know-how and experience to put you in command of your challenges and prepare you for those that lie ahead.

Follow our four-step process to discover the Hapa world of Just-in-Time solutions.

YOUR CHALLENGES



1

PACK FORM



2

PACKAGING PROCESS

Facing the challenges ...

1 Your Pack Form

Hapa printers are designed for the inline or offline printing of packaging substrates including aluminium foils, films, paper, labels, laminates, plastic materials and Tyvek®, for the following packaging products:

- Blisters
- IV Bags
- Cartons
- Leaflets
- Pouches
- Strip Packs
- Medical Packs
- Suppositories
- Ampoules
- Syringes
- Bottles
- Vials

Hand us any form you desire to pack and we'll run with it.

2 Packaging Process Dynamics

Are you handling an increasing number of products and product variants? Are the demands on your packaging production increasing? Becoming progressively more stringent and complex? JIT brings the flexibility to your production process so that you can respond immediately and more resourcefully to all demands.

Strategies for improving your production processes include identifying requirements and the sources of all demands, which can be operational, managerial or market-driven. Consider whether your line challenges consist of:

- Frequent artwork changes
- Escalating number of market variants
- Excessive reconciliation
- Lengthy turn-around times

- The inability to accurately forecast market horizons
- Having the flexibility to grab new markets
- Needing to more economically foster micro-markets
- Need to improve OEE
- Numerous downtimes
- Increasing number of SKU's
- Unwarranted waste and obsolescence
- The drive to operate more eco-friendly

Hapa JIT technologies are prepared to meet a diversity of packaging requirements in any combination. Our printers produce the highest quality print for graphics in up to five colours, variable barcodes, 2D matrix codes and text, random and registered print, and pocket-specific printing, even at very small point sizes up to full web width.

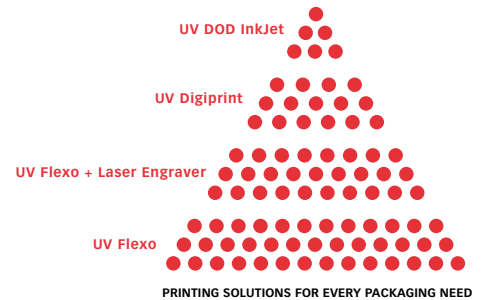
3 Tailor-Made Solutions

Our experts are experienced, proficient guides. Consulting with you, they analyse your packaging form, production process dynamics and the degree of customisation you require to determine the most efficient and economical JIT system for your needs...

At Hapa, we offer you all of the most sought-after JIT print technologies. UV Flexo technology is ideal for all bulk printing – runs in the tens or hundreds of thousands – and for product information and artwork requiring the highest print quality.

When batch sizes shrink, and runs shorten, in response to market or regulatory demands, digital technology becomes more cost-effective. Hapa offers UV Digiprint, the efficient computer-to-print technology for medium-sized batches where more frequent changeovers are required, and UV Drop on Demand, the non-contact, fully-digital print technology, ideally suited for the smallest batches, serialisation and Track & Trace.

The Freedom Concept Hybrid allows you to combine any of our technologies, or those of any other supplier, into one system, adding a new dimension to solutions that can meet and anticipate any individual requirement.



HAPA SOLUTIONS



... fuels our innovations.

4 Straightforward Integration, Reliable Performance

Hapa machines are easily installed on virtually every type of packaging machine and are simple to operate. All are compatible with intermittent or continuous motion machines with platen or rotary sealing.

Configurations

- _ Top-mounted
- _ Integrated modular unit
- _ Stand-mounted
- _ Roll-to-roll

Validation and Compliance

With 50 years experience in providing On Demand print solutions for the pharmaceutical packaging industry, Hapa understands the complex regulatory environment in which its customers operate. Hapa machines are designed to meet current and future needs.

- _ Easy validation through repeatable process
- _ Inbuilt security system to ensure quality and accuracy of print
- _ Compliant with 21 CFR Part 11 regulations
- _ Data Flow, Data Management
- _ Text and graphics process
- _ Validation services (DQ, IQ, OQ, PQ)
- _ Training and maintenance programs

Technical Data	UV Flexo	UV Digiprint	UV DOD InkJet
Short description	Designed for printing larger volumes of flat pharmaceutical packaging substrates. This contact printing technology uses rubber or photopolymer mats for the highest quality reproduction of graphics, verifiable bar/matrix codes, and text – even at the smallest point sizes – in up to five colours. The reusable print mats can be stored for unlimited usage ensuring consistent results for each throughput.	This contact print technology is particularly suitable for the efficient production of medium-sized batches where more frequent changeovers or unit dose coding is required. From electronic artwork, an individual print master is generated and then used to print in a repeatable manner using a method similar to screen printing. The computer-to-print process is entirely automatic, and takes only a matter of moments.	This non-contact, fully-digital print technology is ideal for the smallest batches of blisters, cartons and labels, finished and semi-finished products, as well as any type of web material. Hapa's UV DOD InkJet technology has the unique ability to print both artwork and variable data in a single pass, allowing the highest flexibility to production planning and the fastest response to market-specific changes and serialisation.
Resolution, max.	2400 dpi	600 dpi	720 dpi
Speed, max. (m/min)	34	20	30
Print width, max. (mm)	600	290	430
Web width, max. (mm)	610	300	470
Print length, max. (mm)	420	285	unlimited
Colours	Up to 5 in all PMS shades	Single colour in all PMS shades	Up to 4 spot colours or CMYK
Working mode	Continuous and intermittent	Continuous and intermittent	Continuous and intermittent
Computer-to-print capability	Yes via Hapa Print Mat Laser Engraver, powered by Hapa's Place-It software	Yes via integrated print master production, powered by Hapa's Place-It software	Yes via Hapa's Place-It software, or customer-specific data interface

Printing Characteristics			
Type of fonts	All	All	All
Font size, min. (points)	2-3 (depending on font)	4 (depending on font)	5 (depending on font)
Codes	All established bar codes and 2D codes	All established bar codes and 2D codes	All established bar codes and 2D codes
Variable data print	Yes via variable data strip	Yes via new print master	Yes fully-digital
Serialisation / Track & Trace	No	No	Yes
Press proof	Yes via print mat	Yes via print master	Yes via vision control system

Hapa – Your total solution provider

FOUNDED IN 1933, HAPA IS THE **WORLD LEADER IN LATE STAGE CUSTOMISATION AND ON DEMAND PRINTING** TECHNOLOGIES FOR THE PHARMACEUTICAL SECTOR, **DELIVERING FAST, ACCURATE AND VALUE-CREATING PACKAGING SOLUTIONS**. SINCE THE INTRODUCTION OF ITS FIRST OVERPRINTING MACHINE MORE THAN FIVE DECADES AGO, HAPA HAS DELIVERED A **CONSTANT STREAM OF INNOVATIONS** TO HELP ITS CUSTOMERS REMAIN RESPONSIVE AND COMPETITIVE IN A FAST-CHANGING MARKET. HAPA'S RANGE OF TECHNOLOGY – **UV FLEXO, UV DIGITAL, UV DOD INKJET, LASER ENGRAVER & HYBRID TECHNOLOGIES** – MAKES US UNIQUELY QUALIFIED **TO CONSULT WITH YOU TO FIND THE RIGHT PACKAGING PRINT SOLUTION** FOR YOUR NEEDS. HAPA IS HEADQUARTERED NEAR ZURICH, **SWITZERLAND**, WHERE A TEAM OF OVER 150 SPECIALISTS ARE ENGAGED IN R&D, DESIGN AND PRODUCTION, SALES AND PROJECT MANAGEMENT AND AFTERMARKET. IN ADDITION, A **WORLDWIDE NETWORK OF SALES AND SERVICE CENTERS** PROVIDES PROFESSIONAL, LOCAL SUPPORT TO HAPA'S INSTALLED BASE OF **OVER 8,000 MACHINES IN 50 COUNTRIES**. HAPA IS A PROUD MEMBER OF **COESIA GROUP**, AN INTERNATIONAL, PRIVATELY OWNED ENTERPRISE. COESIA IS A FEDERATION OF AUTOMATED MACHINERY COMPANIES DEVOTED TO GROWTH AND MARKET LEADERSHIP.



Hapa AG
 Chriesbaumstrasse 4
 8604 Volketswil
 Switzerland
 Phone +41 43 399 32 00
 Fax +41 43 399 32 01
 info@hapa.ch
 www.hapa.ch