SMI GROUP

MarKoLine

MK4

MK4

MM

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MarKo Line

MarKo Line is a modular expandable line that offers you different models of digital minilabs to choose from... the right choice for your present and future needs!

The Line provides the capacity and the formats you need for your business.

- **Unique easy-to-use interface and less operator training**
  Intuitive user interface with unmistakable icons
  to guarantee easy operation with minimal training.

- **Superior image quality on all paper brands**
  First-run prints thanks to the w/w undisputed Swiss know-how
  in color science, tested on millions of images in leading labs.

- **Maintenance saving LCD/LED innovative technologies**
  Very stable and reliable proprietary Swiss made LCD/LED printing
  technology; printing modules replacement or costly programmed
  maintenance not needed.

- **Lower inventory costs**
  Highly interchangeable components for all models to attain
  maximum efficiency and lower inventory costs.

Innovative Digital Product Award Winner

Distinguishing Breakthrough Features

maximum compactness

state-of-the-art
technologies

extreme multitasking
and versatility

w/w renowned color
science technologies

unique user interface

high modularity

MarKoLine

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Maximum Compactness

The smallest, cost-effective, revenue-generating digital minilab!

MK4, the entry-level of the new MarKo line, is the most compact, cost-effective, revenue-generating digital minilab that makes the perfect retailer's solution to enter today's highly profitable digital world.

With the smallest footprint of any digital minilab, **MK4** occupies only **10 sq.ft. (0.95 m^2)**. Its extremely compact architecture perfectly fits even into the smallest location, reducing rental costs and leaving additional space for profitable retailing. In addition, it can be connected with in-store terminals to create a local network for digital and mobile input and to facilitate business growth.

As an all-in-one unit, MK4 comprises a film and paper processor, a high-resolution film scanner, a digital printer and a workstation.

Small footprint...all space problems solved!

400 p/h

Max Format:

8x12″
(20x30 cm)

from either digital input or conventional films

Footprint:

10 sq.ft.
(0.95 m^2)

As an entry-level digital minilab, **MK4** produces 400 prints per hour 4x6″ (10x15 cm), printing up to a maximum format 8x12″ (20x30 cm).

State-Of-The-Art Technologies

Proprietary Swiss made LCD/LED

The core of **MK4** is the proprietary Swiss made LCD printing technology, equipped with the highly reliable miniaturized LED array illumination system.

This innovative technique ensures an extremely accurate pixel structure that practically eliminates overlapping of adjacent pixels. It is designed to produce all types of prints in premium quality.

A high-resolution LCD ensures a resolution of 500 dpi (4″) resulting in very homogeneous and highly contrasted pictures. Even for 8″ enlargements, 300 dpi of resolution is guaranteed.

This state-of-the-art technology is very stable and reliable, rarely requiring maintenance.
In addition, LED light source, compared to regular lamps, lasts longer.
Therefore, it increases your workflow efficiency, leading to reduced failures and service costs.

LCD printing system

Maximum Quality….minimum makeovers!

The consistent and steady LCD printing technology together with automatic image enhancement and the unique software interface assure hands-off operation. This results in fewer rejects, first-run quality prints and more time for your customer.

SMI Group digital imaging technologies make the difference in quality output!

Resolution
500 DPI
AT 4″

Extreme Multitasking and Versatility
Business-building opportunities in real time

MK4 is the only minilab equipped with multitasking software that allows you to make many operations and CD burning simultaneously without affecting machine speed.

While processing an order the attention can be directed to the next one or to other specialty services. On the same equipment, of course, because **MK4** includes everything in one single unit and performs all services in real time, increasing the actual overall productivity.
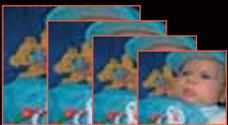
Films

Digital Cameras

Digital Media

INPUT

OUTPUT

Prints

Digital Services

Digital Writing Services

Extreme Multitasking and Versatility

Business-building opportunities in real time

With **MK4** a wide variety of value-added printing services can be easily handled, increasing machine profitability and adding additional value to the everyday business. CD-burning in real time, passport and package prints, calendars up to 8x12″ (20x30 cm) with individual pictures, a distinctive border around the most promising photos, cropping, automatic red-eye removal, conversion of color images to B&W…these are just a few of the digital applications that will attract and satisfy your customers!
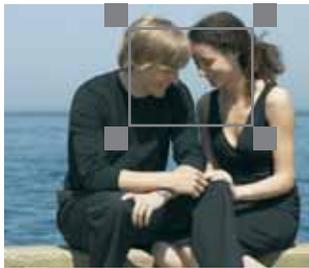
Built-in CD-burning in real time

Frames and Calendars

Text Addings and Greeting Cards

Welcome little Talin

Cropping

Automatic red-eye removal

W/W Renowned Color Science Technologies

Unrivalled expertise in color science

The jewels of SMI Group technologies - image enhancement and scanning technology - are fully embedded in **MK4**. SMI Group's undisputed know-how in color science is now applied not only on films but also on digital files.

Responding to the growing number of digital images, an innovative technology has been developed specifically for automatic corrections on digital files. Based on the unmatched results obtained on films with the **Eye-Tech Scanning**™ and **LODECO**™ technologies the **d!pep**™ assures automatic correction and enhancement on images coming from digital files.

d!pep™: Digital Picture Enhancement Process
Automatic corrections - instead of endless tweaking - provide superior quality for all consumers: no specialist's expertise needed.
Without requiring the operator's attention it helps keep your minilab busy and your staff free to take care of customers!

Detects & enhance skin tones   Enhances pictures with vegetation and sky

Trained on more than 40,000 hand-corrected images and already tested on millions of images in leading labs, d!pep is the ideal solution for making digital images perfect! Based on an advanced image content analysis and thanks to global and local corrections, all essential aspects of images are automatically enhanced: colors become more brilliant and natural; color casts due to white balance failures are removed. Automatic black and white point selection improves the overall contrast; flat images regain their vividness. Local contrast correction reveals hidden details in shadows and simultaneously brings back lost colors in the highlights. With d!pep digital images become more pleasant, more expressive and closer to reality - automatically!

Boosts both overall and local contrast

W/W Renowned Color Science Technologies

Unrivalled expertise in color science

- **Eye-Tech Scanning™** technology and **LODECO™ (LOcal DEnsity COntrol)** are the only reliable solutions for automatic corrections on films to make your image perfect.

- **Eye-Tech Scanning™** technology guarantees reliable analysis for optimal image rendering: even difficult-to-print images are automatically corrected.

with standard film correction   with Eye-Tech Scanning™

- **LODECO™ (LOcal DEnsity COntrol)** assures unfailing control of flashlight, backlight, image sharpness and contrast.

Boost both overall and local contrast

Recovers details both in shadows & highlights

Unique User Interface

Intuitive icon-based user interface for easier operation

A 15" LCD touch screen monitor with unmistakable icons increases operating comfort and the unique, proprietary software interface guarantees easy operation with minimal training. Time-consuming explanations belong to the past: when processing a new order, only two buttons are needed!

No complicated procedures are required to operate the minilab. Simply clicking the appropriate icon on the main menu screen enables you to provide whatever digital service you choose. This simplicity helps to enhance the workflow.

Simple & Efficient!

The overall intuitive system improves workflow management and optimizes the entire operation cycle. Procedural steps and optional choices are laid out clearly on the screen with help provided for every step of all operations. Continuous diagnostic information is available on **MK4** in real time: potential problems triggering an onscreen alert can be dealt with as quickly as possible. Remote diagnostic procedures allow you to check operator messages and view statistical data.

State-Of-The-Art Technologies

Save time while adding professionalism!

The high-resolution F235 Plus film scanner (standard) reveals all the image details at a speed of 26 rolls per hour (medium resolution). It accepts 135 negative film, black and white film, 135 color reversal film and APS film.
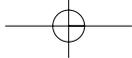
This system is fast and efficient: images are scanned by a tri-linear CCD chip. Scanning is separate from printing so films can be scanned one after the other, without waiting for printing to finish.

In addition, the standard Digital ICE™ software is automatically applied to remove undesired dust and scratches on the film. This technology uses infrared light to pinpoint any elements of dust and scratches and automatically corrects them by extrapolating image data from the surrounding area.
The combined use of Digital ICE™ and automatic red-eye correction permits even higher quality printing.

High Modularity

Great and useful options for your choice

FILM PROCESSOR

Feel free to decide whether to have a film processor on board and take advantage of an all-in-one minilab…or just use your already existing processor to optimize your equipment

FILM SCANNER

A range of 2 possible units:
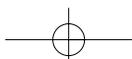**Pakon F235 Plus** (standard) •
Pakon F235 C •
with magnetic code reader (MOF)
In any case, feel free to decide whether to have it or not on board.

CONSOLE

You can use any brand of chemistry and have a simplified chemistry management and a global production monitoring with internal or external replenishment console, at your convenience.

MK4. Technical Specifications.

Film Processor
Chemical Process:	C-41 RA NP
Film Formats:	110, 135, 120, and IX-240 (APS)
Processing Capacity:	21 rolls per hour (135-24 exp.)
Replenishment System:	Internal or external console
Chemistry Level Control:	Automatic evaporation compensation

Film Scanner
Film Formats:	135 (negative, color reversal, B&W classic, B&W Chromogenic) APS, APS Cartridge, as per film scanner model
Scanning Capacity:	720 frames/hour (medium resolution base 8, no Digital ICE™)
Scanning Method:	Single tri-linear CCD sensors
Max Resolution:	135: 2000x3000 ppi (Base 16) APS: 1700x3000 ppi (Base 16)
Dust & Scratch Removal:	Automatically done with Digital ICE™ software

Digital Media
Digital Input/Output:	Compact Flash™, Smart Media™, Sony Memory Stick, SD, MMC, xD, USB Memory Stick, CD-R/RW, ZIP, Floppy Disk, Internet, LAN, Bluetooth, Infrared

Image Data Management
Automatic Correction & Optimization	d!pep™ for digital picture enhancement Eye-Tech Scanning™ for under/overexposure, color shift, artificial light LODECO™ (LOcal DEnsity COntrol) for contrast and sharpening
Buffer Storage Capacity:	100 orders (135/24 exp. @ high resolution)
Composition tools:	Text, frames, calendars, packages, passport prints, greeting cards, cropping, automatic red-eye removal.

Printer
Technology:	LCD with LED array illumination
Resolution:	500 dpi at 4″ – 300 dpi at 8″
Print sizes:	From 3.5x5″ (9x13 cm) up to 8X12″ (20X30 cm)
Capacity:	400 prints per hour 4x6″ (10x15 cm)
Monitor:	15″ Touch screen LCD monitor
PC:	Built-in

Paper Processor
Chemical Process:	RA-4 NP
Paper Transport System:	Roller transport double track up to 4″ paper Single Track for higher paper width
Replenishment System:	Internal or external console
Chemistry Level Control:	Automatic evaporation compensation

Accessories
Back-Printing Unit:	1-line impact printing unit, up to 80 char. per line
Densitometer:	Built-in densitometer

System
Footprint:	0.95 m^2 / 10 square feet
Dimensions (mm):	1240 (L) x 780 (W) x 1700 (H) mm
Weight:	370 kg (empty), 445 kg (with chemicals)
Power Requirements:	3,3 kvA max, 220V/240V single or three phase (50-60 Hz) 380V/415V three phase neutral (50-60 Hz)

Technical specifications are subject to change without notice