KONICA MINOLTA

LASER IMAGER

DRYPRO
MODEL 873

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KONICA MINOLTA

The essentials of imaging

0809U05①

Fastest and smallest in the world

World's fastest dry imager [*1]

Through the adoption of new technologies the first print time has been cut to a mere 50 seconds. The body has the compactness of a small copier, but offers the same high performance as our larger flagship machine. With a throughput of 180 sheets (mixed sizes) per hour, the DRYPRO 873 dramatically improves productivity in all your printing work.

*1: As of August 2008

Five-size print capability and the world's smallest design [*2]

The DRYPRO 873 comes in a less imposing compact body only 1150 mm in height and boasts a footprint of just 0.35 m2, while providing five sizes (in operation 3 sizes at the same time) of printing film ranging from 14"x17" to 8"x10". The main film sizes are supported, enabling the printing of life-size images. Furthermore, it supports supply units of up to 2 trays + 1 additional tray. Film size can be selected depending on the purpose.

*2: Installation area as of August 2008

Range of options to suit your needs

Two trays come as standard for film supply, and an optional third tray can be added. These optional supply units are available in five sizes (from 14"x17" to 8"x10"), which can be combined flexibly to suit your particular needs. A six-channel sorter is also available for convenience in post-print sorting.

Designed for 30% energy saving

Dry imagers use heat processing during the imaging stage. Because Konica-Minolta is committed to pursuing green technologies, we have successfully cut electricity consumption by 30% in normal printing operations (*3), making this a truly eco-friendly dry imager.

*3: 8 hours/day, printing of 100 sheet

Size, touch, mechanisms... all designed wit h the user in mind

User-friendly, quiet design

The DRYPRO 873 emits remarkably little noise, contributing to a pleasant working environment. The running noise has been tuned to the lower tones with reduced high-frequencies, making the unit sound deceptively quiet. While overall noise has been reduced, particular attention has been given to standby noise, providing quietness in today's filmless imaging environment, where standby operation often accounts for most of the usage time.
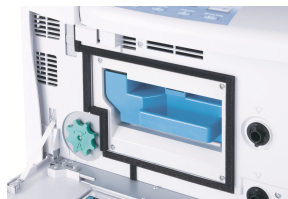
Total commitment to ease of use

In the DRYPRO 873 we aimed to provide a user-friendly unit with an intuitive user interface and simple operation. Status indicators such as 'Film Empty' are recognizable even from a distance and a direct button allows tray selection when setting film. Ease of operation is further enhanced with additional touches such as simplified film setting requiring minimal mechanical operation.

DICOM 3.0 support

Supports DICOM PRINT, BASIC GRAY SCALE, and DICOM STORAGE (SC) and input up to 16 channels. By adding a backup DICOM imager to the output destinations, any output is automatically redirected to the backup destination when a problem occurs with the main imager. (If an imager in which film of the same size and type as that of the one in which the problem occurred is connected.) Data such as patient ID and patient name can be enlarged and output to film. By enlarging and printing patient data on film, you can substantially improve the efficiency of sorting film.

**Not just compact...
Not just fast...
A user-friendly design for
confident and easy operation –
A new dimension in laser imagers.**
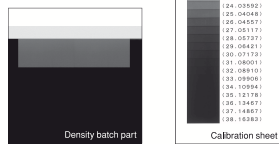
P E R F O R M A N C E

Provision of high-quality images

Image interpolation (pixel replication/function interpolation) has been enhanced, and newly adopted brightness modulation processing allows smooth images and sharp letters to be displayed by automatically identifying image content and letters in the image and processing these appropriately.

■ Comparison of density resolution

16384 grades
4096 grades
14bit
12bit

Pixel replication   Smooth
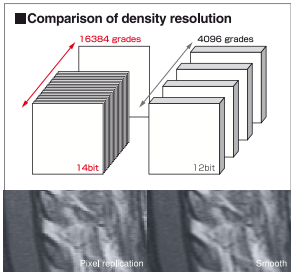
Consistent finish quality

The DRYPRO 873 has an automatic density control function that prints a fixed-exposure density patch onto each film, automatically measures the density with a built-in densitometer, and maintains the output density. Automatic calibration after film replacement further ensures consistent finish quality in printed images.

Density batch part   Calibration sheet

```
(00.16383)
(01.00000)
(02.00156)
(03.00184)
(04.00216)
(05.00258)
(06.00300)
(07.00352)
(08.00412)
(09.00480)
(10.00556)
(11.00644)
(12.00744)
(13.00866)
(14.00984)
(15.01128)
(16.01292)
(17.01476)
(18.01684)
(19.01920)
(20.02184)
(21.02480)
(22.02812)
(23.03180)
(24.03592)
(25.04048)
(26.04557)
(27.05117)
(28.05727)
(29.06421)
(30.07173)
(31.08001)
(32.08910)
(33.09906)
(34.10994)
(35.12178)
(36.13467)
(37.14867)
(38.16383)
```

Films for image recording SD-Q/SD-QC/SD-QM

The silver ion capacity that is pivotal for image formation on dry film has been greatly boosted and the ingredients of developer have changed to achieve highly sensitive, fast developing. As a result, sharp, stable images are swiftly provided.
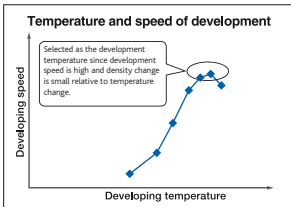The film is available in a vivid blue base type (SD-Q), clear base type (SD-QC) or high maximum density type for mammography (SD-QM), to allow selection of the appropriate film for the application. One pack of daylight package contains 125 sheets that can be handled under room light.

For digital mammography

The combination of the optical unit (43.75 lm) that enables detailed recording and the newly developed image recording film SD-QM can support a maximum density D of 4.0. As for daily maintenance of mammography, this imager can support mammography QC patterns for film density control.

Unparalleled image stability and high-speed tech nology!
The pursuit of dry image quality has entered a ne w dimension.

Temperature and speed of development

Developing speed

Selected as the development temperature since development speed is high and density change is small relative to temperature change.

Developing temperature

Comparison of cooling speed

Temperature

Cooling speed of previous equipment

Reduction to a quarter

Cooling speed at rapid cooling process

Time

Reduction in print out time

Previous equipment

Pick-up time | Positioning time | Exposure time | Developing time

Exposure + development

DRYPRO 873

The logic of fast printing - High-speed thermal development process

For the DRYPRO 873, the film development process has been fully reviewed to respond to fast, high-volume processing. The film is pre-heated from the early stage of film transfer. Unstable temperature regions are minimized when heating the film, and by dividing the thermal development unit into five parts and closely controlling the process, excellent density stability and fast, high-volume processing have been achieved. Ten sheets of 14"×17" film can be printed in the rapid time of under four minutes.
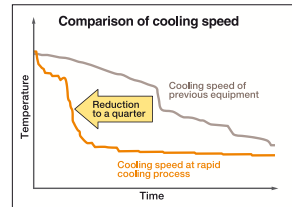
It's small because it's fast - Rapid cooling process

For increased printing speed, in addition to faster image formation a completely new control has been added to the cooling process at the final stage of printing. This film temperature history control system controls both heating and cooling to rapidly cool films after image formation. By reducing cooling time to around 1/4 that of previous equipment and halting thermal development with high precision, stable images can be swiftly obtained even in centralized systems. As well as increasing print speed, the faster cooling time means the unit is now much slimmer and more compact.
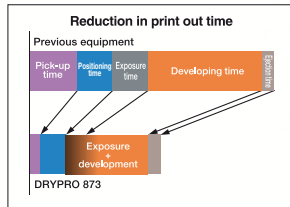
It's fast because it's small - The shortest film path structures

The hardware for the DRYPRO 873 has been completely redesigned for compactness and fast/high-volume processing. The use of a feed roller system for the film supply unit, adoption of a plate-type heating unit, and various other strategies for reducing size have contributed to the shortest film path structure. Speed and compactness combine at a new level in the DRYPRO 873.

A first print time of 50 seconds. With the world's fastest print speed, this imager can print 10 sheets of 14x17 inch film in under 4 minutes. The generous spooling capacity is also highly effective in usual modalities. Superb stability provides high-quality images.

TECHNOLOGY

Specifications and network capabilities focused o n open and flexible imaging environments

Specifications for the DRYPRO MODEL 873

Laser source:	Semiconductor laser	Protocol:	DICOM Print Management Service Class
Film size:	Selectable from 14"×17" (35x43cm), 14"×14" (35x35cm), 11"×14" (28x35cm), 10"×12" (25x30cm), 8"×10" (20x25cm)	Supply:	Two channels standard, maximum of three channels (optional)
Films to be used:	Dry image recording films, SD-Q/SD-QC/SD-QM	Standby function:	Transfers to energy-saving mode after pre-set time for none-printing. Boot time from the energy-saving mode is less than three minutes.
Image format:	1,2,4,6,8,9,12,15,16,20,24,25,30,35,36,42,48,54,56,60,63,64	Border processing:	Black / white
Image memory:	Compact flash (standard 128MB)	Trimmed frame:	Available
Main memory:	(256 MB)	Density correction function:	Automatic via built-in densitometer
Print memory:	(256 MB)	Image inversion (negative/positive):	Available
Input port:	Maximum 16 ports (according to the specs of Printlink5-IN)	Specs for DICOM connection:	Presentation LUT Service Class / Requested Image Size
Number of pixels (14×17):	REGIUS connection: 8079 × 9725 pixels (at 43.75 μm) Non REGIUS connection: REGIUS: 7730 × 9260 pixels (at 43.75 μm)	Noise Level:	Printing: 53 dB or less Standby: 46dB or less
Matrix size:	78.6 μm/43.75 μm	Footprint:	0.35 m²
Image data input:	8-bits,12-bits	Operating condition:	15°C to 30°C, 30% to 70%RH (no condensation)
Output gradation:	16384 Grades (14-bits)	Power:	UL: 120AC ±10% 50/60 Hz±1Hz 10A CE: 220-240V AC± 10% 50/60Hz 1Hz 6A
Image mode:	Pixel replication / function interpolation process (with intensity conversion process function)	Heat generation:	UL: 1200 KJ/H or less CE: 1400 KJ/H or less
Processing capability:	180 sheets / hour (mixed sizes/at ordinary modality)	Size:	H1150 × W599 × DS85 mm
Input interface:	Ethernet 1000 base-T	Weight:	approx. 145 kg

■ Options for the DRYPRO MODEL 873

873 additional supply unit
The supply unit for the third additional tray compatible with five sizes (14"x17" (35x43cm), 14"x14" (35x35cm), 11"x14" (28x35cm), 10"x12" (25x30cm), 8"x10" (20x25cm)).
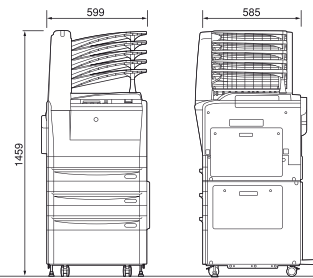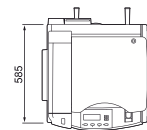
873 sorter (6 bins)
This sorter is useful to sort films. Size: H1459 x W599 x DS85 mm (873 body + sorter) – Weight: 163 kg (873 body + sorter) – Number of bins: 6 – One bin can stock up to 30 sheets – Film size: 5 sizes (14"x17" (35x43cm),14"x14" (35x35cm), 11"x14" (28x35cm), 10"x12" (25x30cm), 8"x10" (20x25cm)) – Power: provided by the DRYPRO 873.

■ Outer sizes

<Two channels standard specs> <Three channels/specs with a sorter>

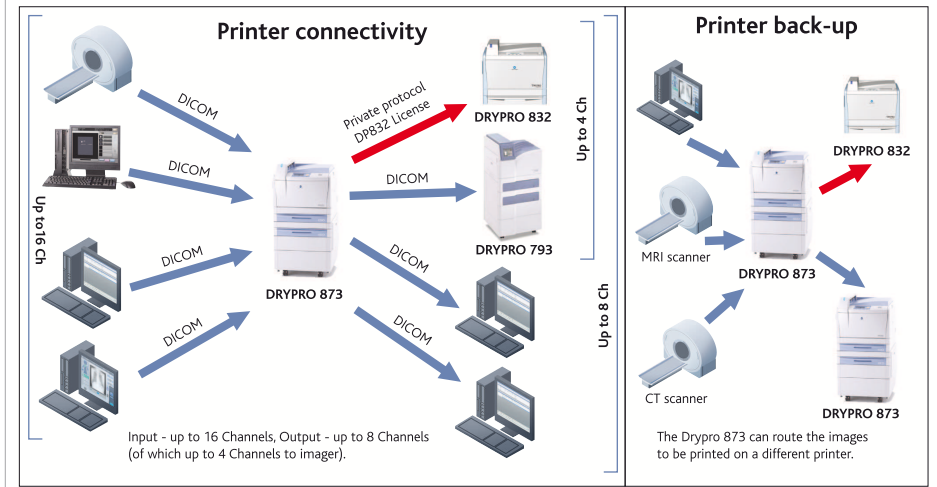585   585   599   585   599   585   1150   1459
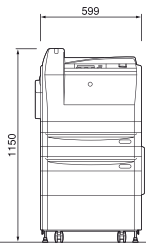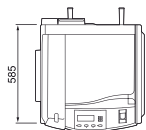
Unit: mm, magnification of 1/30

* The specs above are subject to change without prior notice for performance improvement.

● Imager Network-Building Support

■ DICOM functionality of DRYPRO 873

The DRYPRO 873 enables network printing from DICOM modalities. By employing a variety of different functions, the network can be expanded to include storage that transmits images to an image server or viewer, extraction of patient information from image data by the automatic character recognition function, enlarged printing of the identified patient's name and ID number in the film margin, and MWM compatibility.

Printer connectivity   **Printer back-up**

Up to 16 Ch   DICOM   Private protocol DP832 License   DRYPRO 832   Up to 4 Ch

DICOM   DRYPRO 832

DICOM   DRYPRO 793   MRI scanner   DRYPRO 873

DRYPRO 873   DICOM   Up to 8 Ch

DICOM   DICOM   CT scanner   DRYPRO 873

Input - up to 16 Channels, Output - up to 8 Channels (of which up to 4 Channels to imager).

The Drypro 873 can route the images to be printed on a different printer.

● Storing and Handling Dry Film

Dry image recording film SD-Q, SD-QC, and SD-QM does not require a WET process. When storing and handling film, be sure to observe the following.

1. Storing and handling unused film

After confirming that film is packaged, store unused film, like ordinary film, in a cool, dark place (recommended temperature: 10-23°C (50-73°F)) where it will not be affected by radiation. If film is stored in a place where temperature is more than 30°C (86°F) for a long period of time, the quality of the film may change. When storing film in a film storage, it should be stored in a place where temperature is not likely to rise.

2. Storing and handling processed film (image)

(1) As heat-processed-type film is susceptible to high temperature or strong sunlight even after it is processed, it should be stored in a cool, dark place. When storing film for a long period of time, be sure to place it in a film bag and store it in a place where temperature is 25°C (77°F) or below. The rise in density or discoloration may occur more frequently as the temperature rises.

(2) If the film is stored at a temperature of 40°C (104°F) or higher, this may cause density changes or discoloration even over a short period of storage. Avoid leaving the film in a car in daytime, or using it with a hot lamp etc.

(3) As the film is susceptible to strong sunlight as well as temperature, avoid exposing it to direct sunlight, or leaving it on a viewing screen for a long time.

Dry film should not be cleaned with alcohol or cleaning agents that may cause density blotching and other defects. The film is resistant to water, so it may be cleaned with a soft cloth dampened with water.