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Digital Medium Format Photoprinter
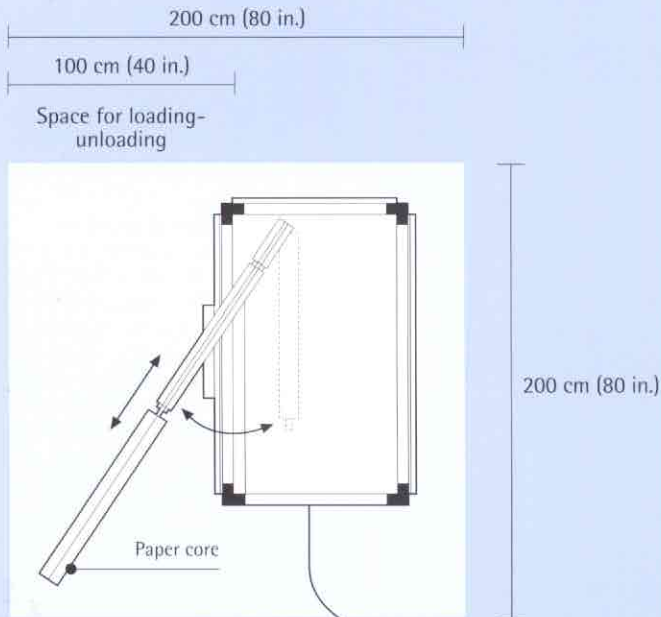
Digitally stored images may be reproduced on photographic paper by various techniques: by Cathode Ray Tubes (CRT) where spot size and thus the resolution limits the image size to be reproduced; by 3-colour lasers which are fast and can reproduce images practically unlimited in size, or by using fibre-optics as in the Durst Epsilon 30. The technology of fibre-optics has the advantage that LEDs have practically an unlimited lifetime - a regular exchange or maintenance as it is the case in the CRT- or laser technology is not necessary.

The light produced by monochrome LEDs „writes" images point by point via fibres and a specially designed optic onto traditional photographic paper producing a „fibreprint".
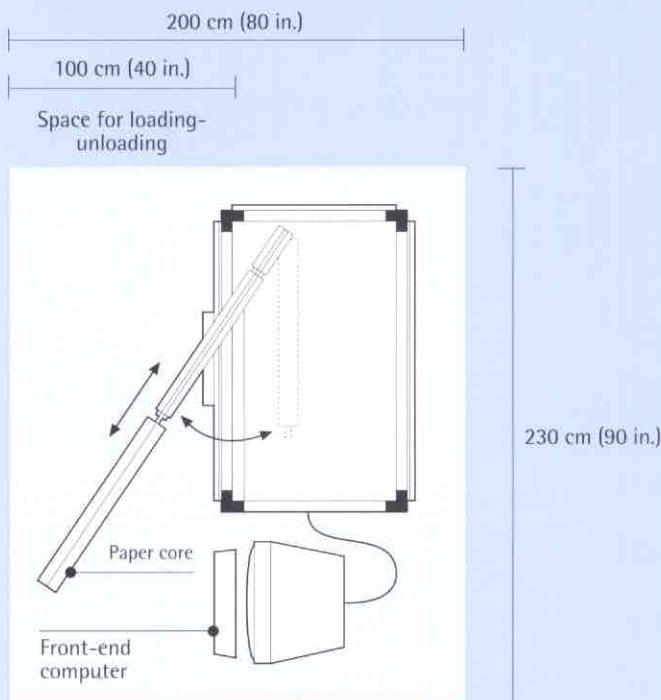
Space requirements/Foot print

Recommended installation options:
Imager in the darkroom and the workstation in the daylight room

200 cm (80 in.)

100 cm (40 in.)

Space for loading-
unloading

200 cm (80 in.)

Paper core

Front-end
computer

Complete system in the same room (to be darkened for paper loading
and unloading)

200 cm (80 in.)

100 cm (40 in.)

Space for loading-
unloading

230 cm (90 in.)

Paper core

Front-end
computer

Technical data

1. General specifications

Power supply:
115 V AC ± 10 %,
single phase/50-60
cycles (100 - 120 VAC),
or 230 V AC ± 10 %,
single phase/50-60
cycles (200 - 240 VAC)

Power consumption:
max. 500 VA

Dimensions:
Width:
approx. 95 cm (37 in.)
Length:
approx. 140 cm (55 in.)
Height:
approx. 165 cm (65 in.)

Space requirement:
approx. 2 x 2 m
(4 sq. m)/80 x 80 in.

Weight:
approx. 400 kg
(880 lbs)

**Safety and standard
specifications:**
CE, GS, UL, CSA

2. Imaging specifications

Exposure system:
Proprietary Fibreoptic-
LED exposing techno-
logy (RGB) continuous
roll to roll exposure
system

**Life time of LED light
source:**
approx. 5 years

Image quality:
True photographic
image quality from
digital files

File formats:
• Grayscale-RGB-TIFF,
JPEG and BMP
• PostScript Level 2
(PS, EPS, including
CMYK, RGB and
Grayscale images)
Type 1 fonts only

**Raster Image
Processor (RIP):**
Integrated Cheetah-
RIP by Durst Dice
America

Colors:
16.7 million possible
colors

Color depth:
39 bits

Addressable levels:
256 levels each RGB

Resolutions:
254 ppi, continuous
tone pixels per inch
with on-the-fly pixel
interpolation

Suitable media:
RA4 type reflective
media,
RA4 type backlit
media

Linear output speed:
• standard imaging
quality (SIQ)
= 102 mm/min. approx.
= 4.6 m²/h approx.
• high imaging
quality (HIQ)
= 52 mm/min. approx.
= 2.2 m²/h approx.

Note:
Output speed may vary
depending on media.

Production capacity:

Print size	Roll width	No. of prints side by side	Prints/hour HIQ	SIQ	Prints/day (8 hours) HIQ	SIQ
13 x 18 cm (5 x 7 in.)	76 cm (30 in.)	6 Horizontal	102	205	816	1.640
20 x 25 cm (8 x 10 in.)	76 cm (30 in.)	3 Vertical	45	90	360	720
30 x 40 cm (12 x 16 in.)	61 cm (24 in.)	2 Horizontal	15	30	120	240
50 x 76 cm (20 x 30 in.)	76 cm (30 in.)	1 Vertical	6	12	40	96
76 x 100 cm (30 x 40 in.)	76 cm (30 in.)	1 Horizontal	4	8	32	64

Production capacity based on Kodak RA-media type Digital III and „Multiple
Print" mode and does not include handling times for file opening, ripping
etc. Capacity may vary depending on media.

3. Paper transport

Feeding device:
Single position roll feed (loading level: approx. 130 cm/51 in.)

Take-up device:
Swing out automatic take-up system with automatic paper loading and cutting device

Paper loading capacity:

Width cm/in.	Length m/ft
30.5 cm/12 in.	83 m/275 ft
50.8 cm/20 in.	83 m/275 ft
61 cm/24 in.	50 m/164 ft
76.2 cm/30 in.	50 m/164 ft

Maximum roll length of exposed paper:
30 m (100 ft)

Minimum print length:
1 cm (0.4 in.)

Minimum paper advance:
approx. 40 cm (15.7 in.) including exposed area

Paper waste when loading and after each cut:
approx. 2 cm (1 in.)

4. Image processor

Image Computer:
Pentium III, 450 MHz

RAM:
128 MByte, intern. expandable to 384 MB

Hard disk:
9 GByte internal hard disk

Drives:
• CD-ROM
• 3.5" Floppy Disk

Operating system:
Windows NT 4.0 Workstation with FTP Services

Monitor:
17" color monitor

Graphic adapter:
24 bit to display 16.7 millions of colors, 4 MB

Network Protocol:
TCP/IP, NFS (Network File System)

Interfaces:
• Ultrawide-SCSI to connect external devices
• 2 FastEthernet (100 Base T), one for the data transfer/ communication between the front-end PC and the imager and one for the network
• RS 232 (for densitometer-online-operation)

5. Environmental requirements and restrictions

Temperature range:
+ 15°C to 30 °C
(+59 °F to 86 °F)

Relative humidity:
25-80 %

Room:
To be darkened for loading and unloading of paper

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