

## EskoScan 2024 – High Resolution Flatbed CCD Scanner

EskoScan 2024 is designed to meet the demands of magazine publishers, trade shops, commercial printers and newspapers who need a high quality, yet productive large format scanner.

EskoScan 2024 scans at high resolution and holds one broadsheet or up to four A4 pages which makes it the ideal scanner for multiple scanning purposes.

Purup-Eskofot supplies various EskoScan models which match different requirements in terms of format, resolution and productivity. Today many of the world's leading newspapers, printers and repro houses already benefit from using the EskoScan for converting prescreened originals into electronic data.

### Job Preparation Station

The EskoScan concept comprises two units; the scanner and the Job Preparation Station, JPS, which controls the scanner. The JPS is based on a PC platform and includes the JPS software and a digitizer for defining images for scanning. Register pins to facilitate insertion of carrier sheets and predefined scanning programs are among the features which cut job preparation time to a minimum. As soon as the actual scanning of one job is initiated, the JPS is available for preparation of a new scan job.

### CopyDot Scanning

Like all EskoScan models, EskoScan 2024 is – thanks to Purup-Eskofot's awarded CopyDot technology – capable of digitising prescreened originals. Furthermore, it may be upgraded to scan CT B/W and CT colour as well.

CopyDot scanning is advanced line work scanning at resolutions which are high enough to reproduce even the smallest dot of a prescreened original without losing any details. In order to achieve the same high resolution over the entire scanned area the EskoScan employs a scanning technique referred to as XY scanning. This means that the CCD sensor moves across the image in subscans which are then stitched together mechanically creating a complete image.

To achieve the best CopyDot results, there are some basic rules which must be observed; The scan resolution must be 10-12 times higher than the original screen ruling over the entire scan area (i.e. a 150 dpi screen ruling requires a scan resolution of 1,800 dpi) and the output resolution must equal that of the target output device. The scanner therefore includes the technology necessary to observe these rules.

Various options may be added to the EskoScan to enhance productivity and improve the scanning quality.

### Data Compression

Due to the high resolution scanning required for CopyDot reproduction the resulting bitmap files are often huge. Purup-Eskofot therefore offers a variety of compression algorithms. Packbit is included as standard whereas CCITT is optional. These compression methods apply for bitmap, TIFF, EPS, DCS1 & 2, and PostScript files, and images may be compressed up to 50 times depending on the level of detail. For continuous tone B/W and colour files JPEG compression is available (from JPS version 7.2).

### Automatic Register

The automatic register software aligns colour separations in vertical and horizontal direction through an automatic pattern recognition. This allows you to mount all separations on the same job sheet, CMYK as well as spot colours, or on separate ones. The corrections are done during the actual scanning and require no further time consuming attention afterwards.

### Rotating Copyboard

Another feature is the rotating copyboard which performs register corrections, if the films have been slightly rotated in the mounting process. The rotation is done mechanically prior to scanning which means that no post processing is necessary.

### ATMF

The area Adaptive Threshold and Moiré Filter board ensures full dot range and Moiré free reproduction when scanning prescreened originals. By automatically selecting individual thresholds in shadow, midtone and highlight areas, you may reproduce dots from 1-99% with an accuracy of +/- 1%.

### Additional Options at a Glance

- EskoProof workstation – converts CopyDot files into CT images and allows you to proof these on a CT colour proofer
- PERfection workstation – removes dust and scratches from CopyDot files and edits text
- EskoDDS workstation – converts prescreened originals into CT images and allows you to make changes in size and screen ruling or do image retouching
- EskoColor software – is your ICC-based colour management system which ensures true and predictable colours every time you scan

(For further details c.f. additional data sheets)



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[www.purup-eskofot.com/eskoscan](http://www.purup-eskofot.com/eskoscan)

## EskoScan 2024 – Continued

### Technical Specifications

#### Scanner Unit

##### Technology

Flatbed CCD scanner  
CCD: 1000 pixels  
Main scan: Moving copyboard  
Sub scan: Moving CCD camera  
Scan directions: Bi-directional

##### Accuracy

Absolute: 100 µm  
Repeatability: ± 5 µm  
Optional Rotating Copyboard:  
Absolute: Max. 50 µm - Typically 20 µm  
Repeatability: Max. 20 µm - Typically 5 µm

##### Light Source

Two white halogen lamps

##### Colour Filters

Line work: Eight different  
Continuous tone: Four different

##### Register System

Montaloch

##### Types of Originals

Reflection / Transparency  
Colour / Monochrome  
Continuous tone / Line art / Prescreened material

##### Maximum Original Thickness

Standard: 3 mm (1/8")  
Optional book adapter: 25 mm (1")

##### Number of Grey Levels

Line art: 8 bit (256 levels)  
Continuous tone: 12 bit (4096 levels) per colour

##### Density Range

Dynamic range: 3.6 logD starting from Dmin  
Density offset: 0.4  
Dmax: 4.0

##### Scan Resolutions

Optical: 1000 l/cm (2540 l/in)  
Interpolated: 2000 l/cm (5080 l/in)

##### Recommended Maximum Magnification

Reflections: 1000%  
Transparencies: 1000%

##### Maximum Scanning Area

Reflective: 51 x 61 cm (20 x 24")  
Transmissive: 41 x 58 cm (16 x 22.8")  
Optional book adapter: 38 x 48 cm (14.9 x 18.8")

##### Interface

Dedicated SCSI from scanner to JPS PC, 10/100  
BASE-T Ethernet from JPS PC to file server

##### Ethernet Protocols

Novell Netware, NFS, AppleTalk and NT Server

##### Data Formats

TIFF, JPEG, EPS, DCS 1 and 2, Composite EPS,  
PostScript, Dalim LW and Scitex HandShake

##### Physical Dimensions

Width: 115 cm (45.3")  
Depth: 142 cm (55.9")  
Height: 100 cm (39.4")  
Weight: 400 kg

##### Crate Dimensions

Width: 163 cm (64.2")  
Depth: 133 cm (52.4")  
Height: 135 cm (53.2")  
Weight: 560 kg

##### Power Requirements

Scanner: 220 - 240 V, 50/60 Hz, 1600 W  
JPS PC: 100 - 120 V, 220 - 240 V, 50/60 Hz,  
750 W

##### Environment Requirements

Dust and chemical free environment  
Temperature: 24 °C ± 2°C  
Humidity: 55 ± 5%

##### Recommendation for CopyDot Originals

Maximum screen ruling: 70 l/cm (177 l/in)  
Paste-up: Single lay, no film edges or tape in scan area

##### Dot Reproduction Accuracy with the Optional AT Board

Reflections 60 l/cm (150 l/in): 2% - 98% ± 2%  
Transmissives 60 l/cm (150 l/in): 1% - 99% ± 1%

##### Certifications

CE, UL, cUL and FCC

##### Job Preparation Unit

Type	(PentiumII) 1 x 300 MHz
Internal RAM	Min. 32 MB
Hard Disk	Min. 4GB
Monitor	VGA 17"
Operating system	Windows95/NT

##### Technology

Fixed table with a built-in digitizer tablet  
Supports all EskoScan models

##### Accuracy

0.1 mm (0.004")

##### Light Source

Eight white fluorescent tubes

##### Register System

Montaloch

##### Mouse

Five button cursor

##### Maximum Original Thickness

1 cm (0.39")

##### Active Working Area

50.8 x 76.2 cm (20 x 30")

##### Interface

RS 232 serial from controller to JPS PC

##### Physical Dimensions

Width: 140 cm (56")  
Depth: 120 cm (48")  
Height: 91 cm (35.9")  
Weight: 55 kg

##### Crate Dimensions

Digitizer table, monitor and JPS PC:  
Width: 163 cm (64.2")  
Depth: 133 cm (52.4")  
Height: 110 cm (43.3")  
Weight: 250 kg

##### Power Requirements

100 - 120 V, 220 - 240 V, 50/60 Hz, 450 W

##### Environment Requirements

Dust and chemical free environment  
Temperature: 20 - 35°C  
Humidity: 55 ± 5 %

##### Certifications

CE

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