MACH6 – MACH7

MEKEL Technology
A CROWLEY Company

HIGH PERFORMANCE MICROFICHE SCANNERS
FROM THE FIRST NAME IN MICROFILM SCANNING

LEADING THE INDUSTRY

In 1987, **Mekel Technology** introduced the first production microfilm scanner to the world followed closely by its first commercial microfiche scanner. Today, the Mekel **MACH-series microfiche scanners** are the most advanced fiche scanning systems on the market.

- Scans **microfiche**, **jacket** and **aperture card** media
- Offers advanced image quality capture at high speeds from even the most difficult film
- Recognized throughout the industry for automation, reliability and ease-of-use over other microfiche scanners

VERSATILITY AND SUPERIOR IMAGE QUALITY

COM. Jackets. Step and Repeat. Using the latest in Mekel's CCD camera, lens and smoothlight fiber optic technologies, the **MACH-Series** microfiche scanners seamlessly convert any microfiche into a digital file. Crowley microfiche scanners deliver clear and consistent image quality while offering a variety of automatic image adjustment features including:

- Automatic crop
- Automatic rotation
- Automatic invert
- Automatic mirror
- Automatic deskew
- Software focus

HIGH SPEED

In addition to providing high-quality images, the MACH7 microfiche scanner is designed to operate at speeds of 200 images or more per minute. The MACH6 microfiche scanner, a mid-range unit, achieves 100 images or more per minute. **Both scanner models can create bitonal and grayscale images simultaneously without impacting speed.**

EASY TO USE SOFTWARE

All MACH-Series scanners deliver with Mekel's *FastFiche* software for one step, "on-the-fly" scanning and processing. For additional image customization and enhancements, MACH7 scanners also deliver with Mekel's acclaimed *QuantumScan* and *QuantumProcess* software suite.

FEATURES

MEKEL 2.0

Mekel 2.0, the latest evolution in Mekel Technology's acclaimed line of microform capture and processing solutions, includes new features to increase the efficiency of production microfiche scanning.

- **Serpentine scan mode** increases throughput and reduces hardware wear-and-tear
- **OCR title naming** recognizes header or title text for accurate, convenient file naming
- **Windows 10** support
- **Optical Character Recognition (OCR)** creates searchable files (MACH7 only)
- **Opaque capture** for aperture card text and microfiche title bars (MACH7 only)

FastFiche HIGHLIGHTS

- Easy-access tabs for quick job set-up
- Intuitive software and help menus to eliminate traditional software learning curve
- Advanced menus for detailed image enhancement
- Dual-view capability to view bitonal and grayscale images simultaneously without impacting speed
- Image quality controls and previews for real-time image enhancement
- Flexible and simple to use file-naming capability

Quantum HIGHLIGHTS

QuantumScan

- OCR title naming
- Automatic frame detection
- Speed
- Optimum resolution
- Template options
- Image quality settings
- Easy workflow integration
- Easy IMAGEhost integration

QuantumProcess

- Optical character recognition
- Keyword searchable images
- Batch processing
- Zoom capability
- Editing toolkit
- Irregular frame flag
- Blackout framing
- Multiple dual-outputs

EQUIPMENT FEATURES

Camera/Optics	- Up to 12-bit dynamic range with gamma correction grayscale output. Full depth of pixels processed - Advanced adaptive Automatic Gain Control (AGC). Handles varying film density in real-time across the film 80 megapixel/second camera; 160 megapixel/second output - Full 8,192 pixel CCD array for highest optical dpi in the industry - Mekel smoothlight fiber optic bundle offers balanced lighting across the entire scan area with no hotspots or shadowing
Resolution	100-600 true optical dpi; 4x-96x reduction ratio
Film Handling	- Hands-free automatic loading/unloading or manual loading - Input hopper capacity up to 75 fiche - Optional automatic aperture card loading arm
Speed (fully processed)	**MACH6** 24x/200 dpi – up to 100 ppm 42x/200 dpi – up to 100 ppm 48x/200 dpi – up to 130 ppm **MACH7** 24x/200 dpi – up to 200 ppm 42x/200 dpi – up to 200 ppm 48x/200 dpi – up to 260 ppm
Formats	Supports all standard aperture card and fiche types including standard or long jackets; COM; AB Dick; Ultra Fiche and Microx. Images can be 16 or 35mm; combo 16/35mm; simplex or duplex; positive or negative; Diazo; Silver; Vesicular; duplicates; cine/comic mode
Hardware Enhancements	- Real-time image sharpen and enhancement done in hardware; no reduction in throughput - Optional microcard module - Pre-scan lamp enables aperture card text and opaque title bar capture (MACH7 only)

SOFTWARE FEATURES

Image Scanning and Processing	- Continuous automatic scanning - Interactive selection of individual images or automatic capture of entire fiche row as an individual image - Real-time automatic and manual control of rotation, cropping, deskew and automatic compression of film background density - Real-time image processing provides 5x the typical processing speed - Task set-up by job or saved in set-up file - Optical Character Recognition (OCR)
Frame Detection	- Single-pass intelligent pre-scan automatically detects all images regardless of size or location "Presence Pre-scan" feature allows for faster throughput on COM by automatically detecting and scanning only those frames that contain data
Capture Options	In addition to individual image capture, full-row, full-microfiche, full-aperture cards and user-defined title bar/header (translucent/opaque) pre-scans can be captured for layout, naming and indexing reference
Viewing/Browsing	- Full or partial screen in real-time or by thumbnail, emulating fiche layout - Real-time dual view of bitonal and grayscale images
File Formats	Simultaneous output to grayscale and bitonal formats Output to single or multi-page TIFF and PDF Output to TIFF (G4/LZW/uncompressed), JPEG, PDF, PDF/A, JPEG2000, bitonal CALS type 1 and others OCR output to single/multi-page .pdf, .txt and HOCR formats

TECHNICAL SPECIFICATIONS

Dell high-end multi-processor, multi-core workstation ensures maximum uptime and performance. Contact Crowley for current specs.

Power Requirements	50Hz or 60Hz/100v to 240v AC/800 watt single-phase, switchable for domestic and international use
Operating System	Windows 7, 8, 10 — all Professional and 64-bit only
Agency Approvals	FCC, UL and CE certification
Dimensions (LxWxH)/Weight	33 x 18 x 19 in. (130 lbs.)