

## Müller HM Data Framescanner

**Frame by frame photography.** The machine operates fully automatic and makes a digital picture of every frame with a speed of 28 frames per second at 1.2 K (1200 pixels wide) and 48 frames per second at 800 pixels. At 800 pixels one half hour of film is scanned in just 10 minutes. The series of photographs are combined back into film with the same speed as the film was originally shot. The films are scanned directly from the film emulsion without the use of mirrors. **Drive & PTR.** The machine works without sprockets and grabbers so that even shrunken and difficult to scan films can be digitized. The film is maintained on tension by means of rollers. The scanner comes with 4 PTR rolls to remove dust and hairs effectively from the film.

**LED powerflash.** The emulsion of film is very small: 0.2 to 2 microns. Müller has done extensive research on the diffusion of light and came to the conclusion that with a standard frequency of light as we know, it is impossible to see emulsion as separate dots. The frequency is just too low. Müller has managed to increase the frequency of the light and thus able to decrease the diffusion which results in showing all of the emulsion dots however small they actually are. **Film formats.** All Müller HM framescanners are standard equipped with three interchangeable modules for the following film formats: Double 8/Super 8, 9.5 mm Pathé, 16 mm/Super 16 mm. They are included with the standard delivery. A module for 17,5mm is sold. **Industrial Digital Photo Camera.** The Müller HM is equipped with an industrial Digital Photo camera. The picture size is adjustable to any aspect ratio up to 1388 x 1038. The Müller HM captures uncompressed lossless formats like BMP, TIFF and GIF but also compressed lossless PNG or compressed lossy JPEG. Formats: Mono, YUV 4:1:1, YUV 4:2:2, RGB8, RAW-8, RAW-12 and RAW-16. LUT tables are programmable directly to the camera for grayscale correction and adjustable real-time when scanning. The camera use is a Pike F-145, a high performance digital camera with Fire-Wire interface. The camera is equipped with a Schneider Kreuznach Componon 2.8/28 lens with Macro UNIFOC12. **Scan speed.** Up to 42 frames per second depending on the chosen picture size. Picture size is adjustable with ROI (Region Of Interest). at 28 fps: 1216x1000, 3.6 Mb. At 42 fps: 720x576, 1.3 Mb. The Müller HM is not equipped for sound because of the variable and high scanspeed. Transfer speed to the computer is maximum 64Mb/s with FireWire 800. **Dimensions:** 770 x 600 x 445 mm. **Weight:** 43 kg.

