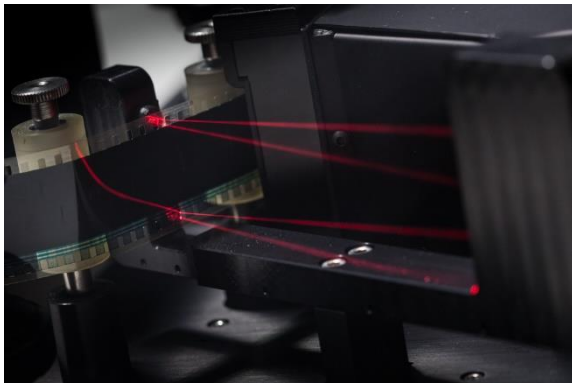
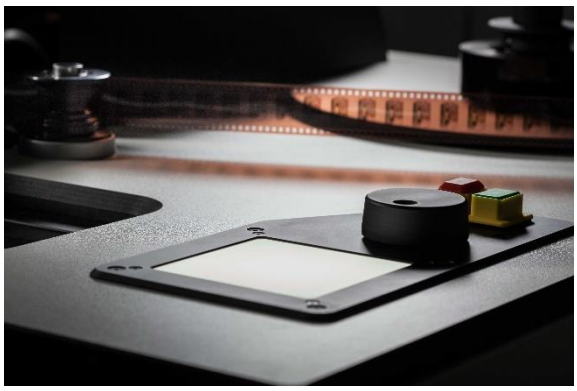
spinner® S

Pioneering Concept Scanner-Technology
Developed for everyday use
No sprocket – no capstan – no limits

With the new Spinner S, MWA Nova has successfully established another technology-advancing film scanner, to accompany the flashscanHD, Choice and Vario models. This enables users to more safely digitize the shrunken, warped or damaged older analogue motion picture material found in today's archives or presented by private customers. Highly flammable nitrate, warped and shrunken film benefits from Spinner S's simpler film path. The new MWA Spinner S scanner achieves a gentle, minimum film tension of 20 grams /0.2 Newton. The newly developed, sprocketless and capstantless film transport, has a few large rollers, only one tension arm and normal-use gates designed to makes digitizing difficult film easier and less expensive.





Hardware features:

- Sprocketless and capstanless motion transport with RGB LED flash technology
- Unlimited shrinkage, any film geometry definable
- Electric height adjustment, usable horizontal and vertical

Optical features:

- **2.3k - 2.5k HDR - 5.1k up to 16 Bit**
- **8k RGB & Monochrome with MWA Multi Flash Technology**
- **Realtime capturing DCI-4k@25fps**
- Full camera resolution usable for the picture **(no picture pixel wasted for sound or sync)**
- Motorized zoom, focus and panning position
- Full zoom range from 35 mm edge to edge down to standard 8 mm – no lens change necessary
- Image sensor options for more than realtime speed and HDR

Sound features: No extraction from the picture!

- Dedicated sound heads from 8mm to 35mm for optical and magnetic sound
- Combined optical sound head for 16 & 35mm
- Standalone operation as a sound producer, no computer needed.
- Two Spinner synchronizable for sepmag (two Strip)
- transfer, biphase, master or slave, sync to other scanners/telecines

Software flashSuite2 features:

- New : Metadata protocol with scanning parameters, perf condition and user actions.

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Technical Specification for MWA Nova Spinner

Film Formats	8mm/S8 – 9.5mm – 16mm/S16 – 17,5 mm 22mm – 28mm – 35mm			
Film Transport	Sprocketless & Capstanless - Automatic stop on sticky reels,- Adjustable endstop on core size			
Sensors	8k 35mm CMOS / 4:3	5.1k CMOS / 4:3	2.5k HDR sCMOS / ~5:4	2.3k CCD / 4:3
	7920 × 6004 px	5120 X 3840 px	2560 X 2160 px	2336 X 1752 px
Sensor format / diagonal	36,4 x 27,6 mm/45,7 mm	32.8 x 24.6 mm/41mm	16.6 x 14.0 mm/21.8 mm	12.85 x 9.64 mm/12 mm
Pixel Size	4.6 × 4.6 µm	6.4µm	6.5µm	5.5µm
Optical System	Canon 65mm Makro Lens Motorized Zoom, Frame Line, Pan, Auto Focus & Manual Focus			
Autocolor / Autolight	software based			
Overscan	35mm edge to edge – UHD (@5k)			
Image Sensor	12 bit nativ / Bayer RGB	10 bit nativ / Bayer RGB	16 bit nativ / Bayer RGB	12 bit nativ / Bayer RGB
Video Processing	12 bit	16 bit	16 bit	16 bit
Output Resolutions	8k / 7904 × 5928	5.1k / 5120 X 3840	2.5k / 2560 X 2160	2.3k / 2336 X 1725
Output Options	GPIOs, Audio in/out – Display Port/HDMI via Workstation + SDI option			
Tension	variable tension from 0.2N (20 grams)up to 6N (600 grams)			
Skrinkage	±5% for predefinded formats, custom formats definable for any shrinkage.			
Light source	cool LED – RGB flashlight technology			
Max. Preview Frame rate	8k@5fps	5.1k@25fps	2.5k@50fps	2.3k@25fps
Max. Capturing Speed	8k@5fps	5.1k@5fps DCI-4k@25fps	2.5k@40fps	2.3k@25fps
Opt. Preview Speed	8k@5fps	UHD@50fps	-	720p@50fps
Opt. Capturing Speed	8k@5fps	DCI-2k@50fps	-	720 @50fps
Vertical Stabilization	Optical Pin Registered pat. MWA Laser Registration 2.0 with two lasers @35mm Optical Image Stabilization			
Horizontal Stabilization	Edge Guided			
Max. Reel Diameter	420 mm	420 mm	420 mm	420 mm
Shuttle Speed	35mm@300fps – 16mm@600fps – 8mm@1200fps			
File Output Standards	TIFF 8 & 16 bit / DPX 8 / 10 / 12 / 16 bit, DPX log. 10 bit & 12 bit, DNxHD, ProRes 422, 422HQ, 422LT, 422 Proxy, Uncompressed YUV 422 8/10 bit, Motion JPEG			
Video Processing	Workstation / flashsuite2			
Sound Sampling Rate	24Bit 48kHz / WAV			
Audio Bandwidth / -3dB)	5Hz – 20kHz			
Connector Option	SPDIF, AES/EBU IO for external sound capturer and replay Biphase Sync IO. MWA Sepmag Sync for precise coupling of two machines			
Power Consumption	50W ... 100W average, play forward 25fps (scanner hardware only) 800W rated supply, only exhausted for short time when accelerating heavy reels			
Dimensions / Weight	Spinner only 1100mm X 960mm X 350mm / ppr. 80kg			