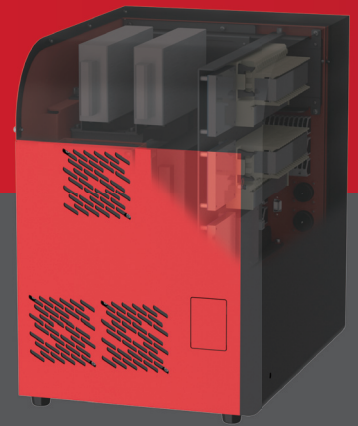
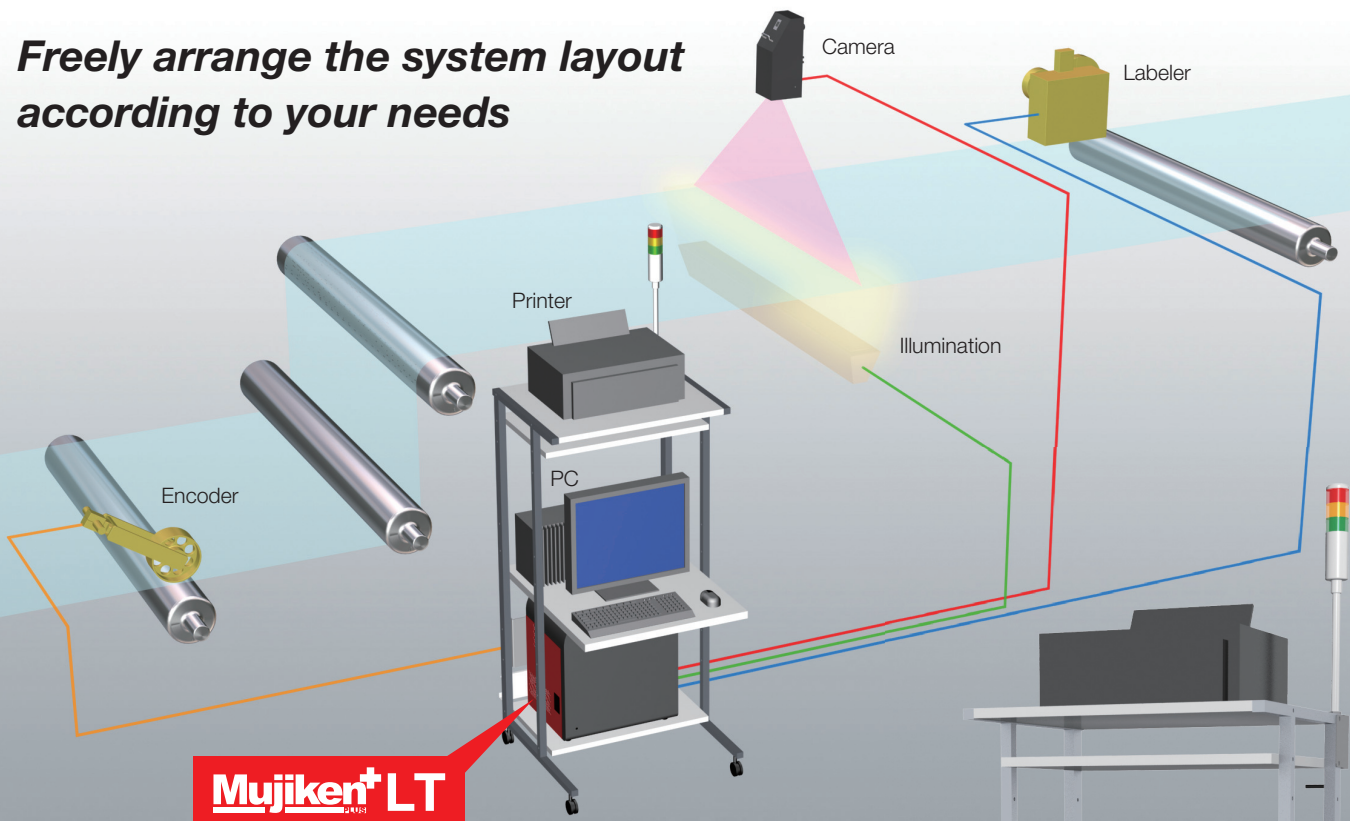


# Mujiken<sup>+</sup> LT



A compact model with Mujiken detection performance at an affordable price!

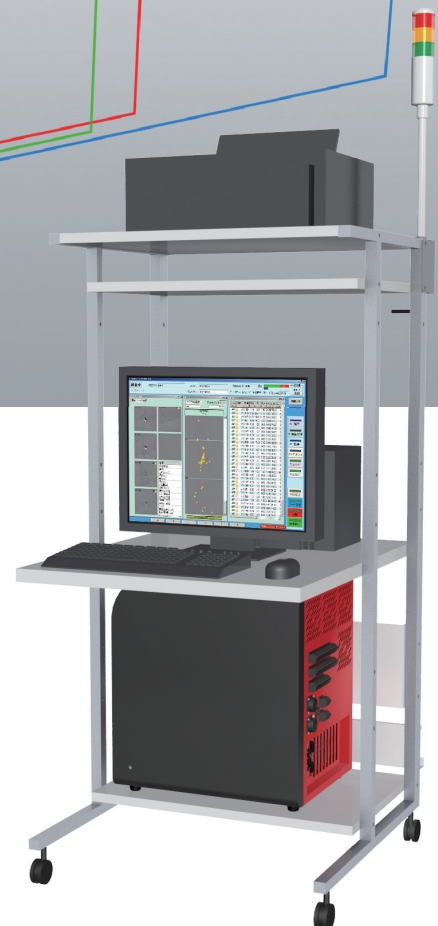
*Freely arrange the system layout according to your needs*



## Ideal for the inspection of film production lines (for films used as industrial materials or for food applications)

Makes high-speed scans of the surface of a continuously moving web and detects quality control problems such as dirt, foreign matter, scratches, wrinkles and pinholes. Prevents the flow of defects before they happen! Also reduces the waste of production materials by allowing you to find the cause of defects early on.

The LT takes the essential concept of the Mujiken series and delivers an easy-to-operate unit with simplified functions. The compact-bodied LT is an inspection system at an affordable price. It can also be used for the inspection of sheets in stages, etc.



Example of the combination of the Mujiken+ LT and a PC stand

**Applications : films, paper, non-woven fabric, synthetic resin sheets, etc.**



**Mujiken+**



**Mujiken+ Types**

The LT doesn't have a control panel, so it takes up **very little space**

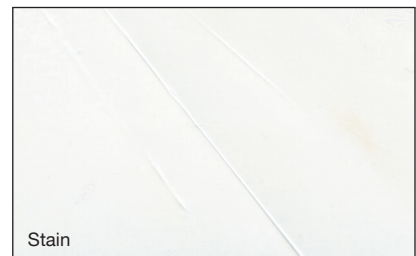
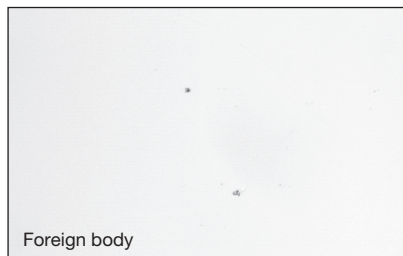
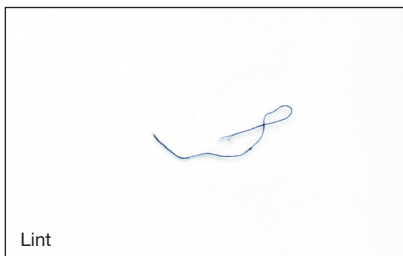


**Mujiken+ LT**

**Mujiken+ LT specifications**

No. of cameras	Max. 8	Main processor	Pixel scanning function	Real-time display of scanning conditions Map display, inspection data display Overall control, instructions for starting/stopping inspections, etc.
Input systems	Max. 2		Storage devices	Internal HDD, external HDD, etc.
Sensors	Monochrome sensors: 40 MHz, 80 MHz, 160 MHz, 320 MHz	Cameras	OS	Windows 7 Embedded 64-bit
Pixels	8,192, 6,144, 4,096, 2,048, 1,024		Signal system	Digital line sensor
Image processing	Gradation conversion, Edge enhancement, Labeling Isolated point removal, Density accumulation, Density histograms Real-time spatial filter (for emphasis, differential, smoothing, etc.)	Other sections	Ultra-high-speed sensor (monochrome)	8,192 pixels 320 MHz (10 bit, MAX 12 bit) 8,192 pixels 160MHz (10 bit, MAX 12 bit) 4,096 pixels 320 MHz (10 bit, MAX 12 bit) 4,096 pixels 160MHz (10 bit, MAX 12 bit) 2,048 pixels 160MHz (10 bit, MAX 12 bit)
Scanning	Automatic correction to maintain the image density at a constant level (AGLC) Shading compensation (offset, automatic tracking correction) Binary detection, Multi-level detection		Signal cable length	Up to 15 m (standard)
Data processing	Defect image display, Defect image files Defect map (specified range, entire span) Defect data list output (CSV) Defect image discrimination function (viewer function option)		External I/F	Labeler output, cutter signal input, alarm output
Defect detection	Foreign objects (point-like marks, streaks, bubbles) Scratches (continuous, discontinuous) Color changes (localized, wide-area) Stains (monochrome, pale spots), etc.	Operating tools	Keyboard, mouse	
Lighting unit	Bright white LED light source Light wavelength 200 to 1600 nm (a light source with a wavelength up to 2400 nm is an option)			

**Examples of detected defects**



In addition to the ones shown above, the system can also detect defects such as fish eyes, burns, dirt, pin holes, and scuffing marks.