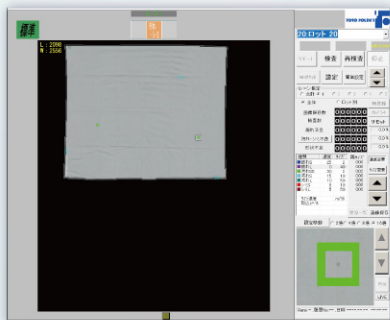


Response to higher quality requirements

Back-side Inspection Device for linens

VISION7

Stability & Space saving



Back-side Inspection Device for linens

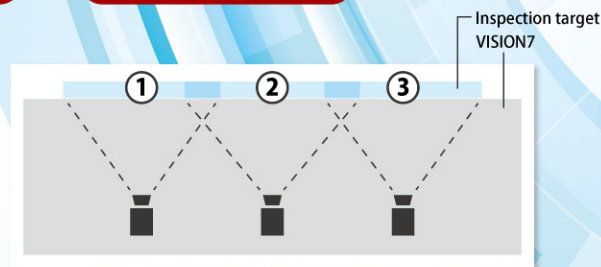
VISION7

Stability

& Space saving

This device is to inspect the linen products such as bed sheets to detect whether there are dirt and tears during the "Drying, Ironing, Folding" process in Linen Supply Industry. The device inspects the products (target) in expanded condition between the ironer and the folder. Bed sheets that are defective during inspection are automatically rejected by Folder.

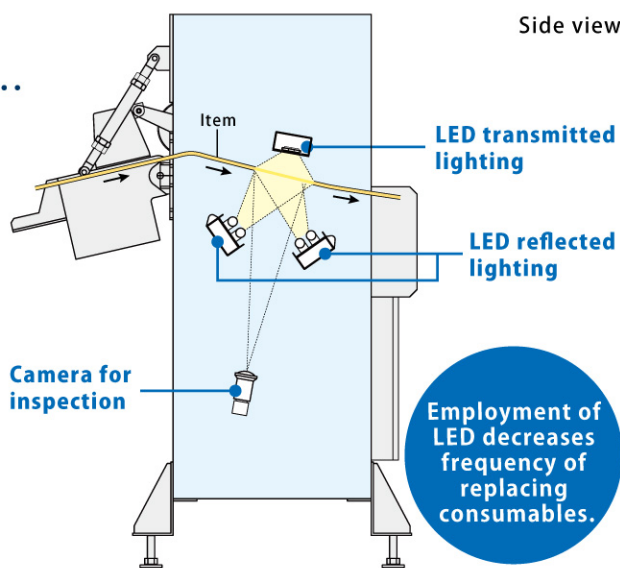
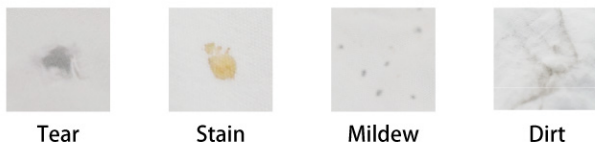
3 cameras shoot the areas ①, ② and ③. These 3 images are connected and formed to one image



1 High-precision inspection

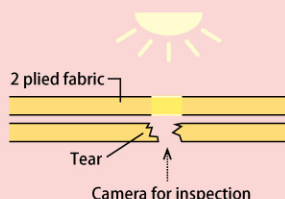
Inspections for "Tear", "Stain", "Mildew", "Dirt" are made using transmitted lighting and reflected lighting. And employment of LED lighting provides more lights than conventional models, which improves especially inspection accuracy of "one ply tear" (tear occurred only on one ply of two plied fabrics, such as duvet cover).

● Target items

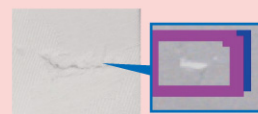


● Detection of "one-ply tear" on covers is now possible

By using transmitted light, detection accuracy of "one-ply tear" on 2 plied linen such as duvet covers, pillowcases has been improved.



Inspection display



The torn area is detected to be brighter than normal. The system determines there is a "tear". This is the feature unique to VISION7.

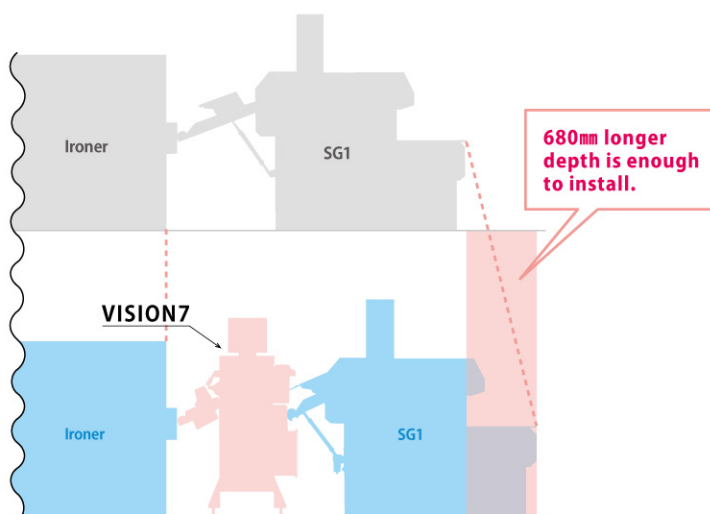
2 Space Saving

By shortening the feeding arm of Sheet Folder, more space can be saved. Besides, as this is a stand-alone unit, it can be installed later date.



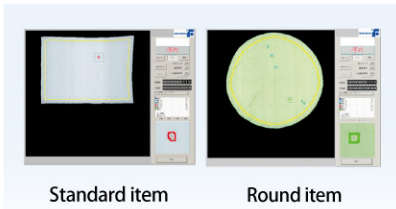
In case of combination with small sized Sheet Folder (SG1)

Making use of shortened Feeding Arm, only 680mm longer size is enough to install VISION7.



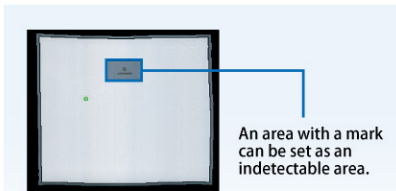
3 Wide range of Inspection function / Inspection area

● Usual Indetectable function



Front/rear and right/left indetectable area (non-inspection) can be set variably 1 cm unit. Available not only for sheets, but also round tablecloths. ※※

● Center Indetectable function



Items with a mark such as a hotel name around the center can be inspected as well. ※※

● Tears in patterned sheets

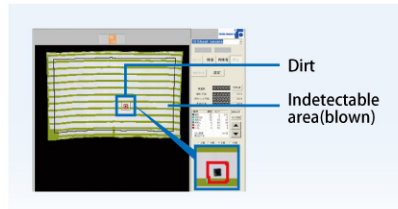


It is possible to inspect even tears in patterned sheets which are difficult to judge.

※ In some patterns, inspection is impossible or unstable. ※ It is not possible to inspect patterned covers.

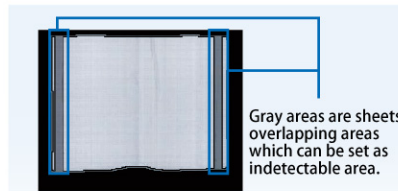
※※In some cases, indetectable function will be unstable due to finishing conditions of items (unevenness during transportation, deterioration because of washing frequency, design).

● Stripe Indetectable function



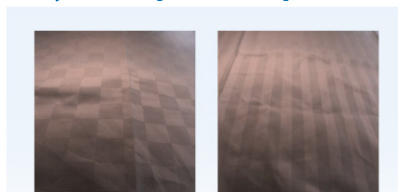
Sheet stripe lines are to be set as non-inspection area. Both vertical and horizontal stripes are to be inspected. ※※

● Quick sheet auto mask function



Malfunctions in discrimination of step portions between 2 pieces of fabric is prevented. Step portions can be automatically set as indetectable areas. ※※

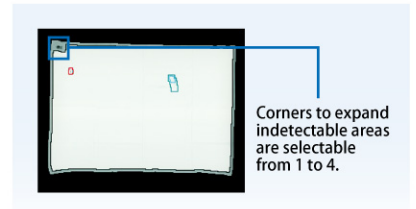
● Classification Function by wave patterns Option



It is possible to identify multiple wave patterns already registered.

※ A sample test is required to determine identification possibility.

● Corner Indetectable function



At only corners with a mark indetectable areas can be expanded. ※※

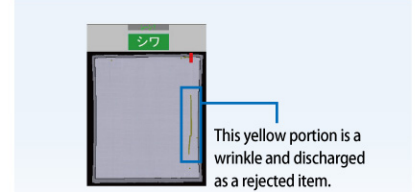
● Support to dark colored sheets



Tears in dark colored sheets which were not targeted to date are now inspected.

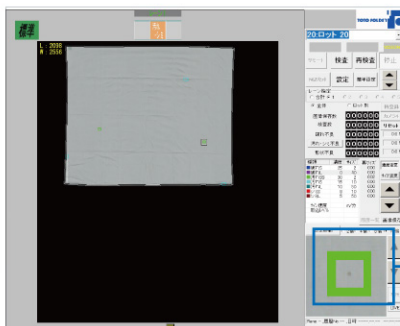
※ A sample test is required to determine identification possibility.
※ It is not possible to inspect dark colored covers.

● Detection of vertical wrinkles

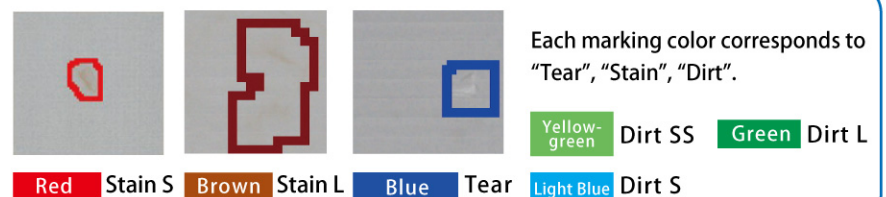


Detects vertical wrinkles in 2 plied linen such as duvet covers, pillowcases and discharged as defected items, if any.

4 Defect marking display



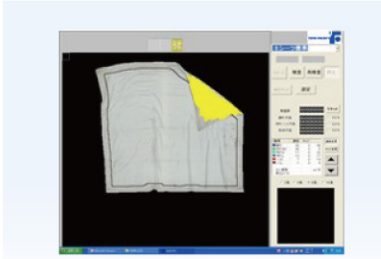
If any defect is found during inspection, the defect area is marked by color and displayed. The area can be displayed with up to 16 times expansion.



Other functions

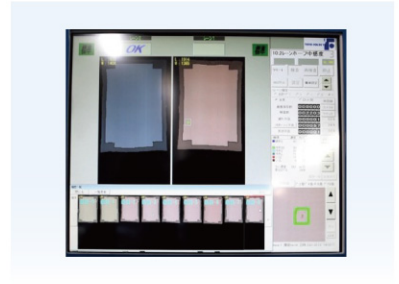
Detection of defective shapes of sheets

Detects defective shapes (oblique, corner bending) and discharges outside of Folder



Simulation function

Automatically stores latest 10 images of defect detection. This is useful for sensitivity setting because "Simulation retest function" which sets inspection level by reading out images is available. When inspection software is closed, stored images are deleted.



Easy software upgrade

Software updates are easily made because this is PC-based image process device.

Decrease of malfunction by wrinkles

For decrease of malfunction caused by wrinkles, Wrinkle mitigation logic is equipped.

Model	VISION7-33 (35)	
Dimensions	Width	4,398mm (4,598mm)
	Depth	1,200mm
	Height	1,830~1,920mm
Conveyor speed	10~60m/min	
Power Supply	3Ph AC200V	
Power Capacity	3.35kW	
Compressed air	0.5MPa 10L/min	
Weight	Approx. 1,500kg	
Max. Target size	Width	3,300 (3,500mm)
	Length	3,500mm ※1
Accuracy	Minimum 2mm square	
Non-inspection area	Front and Back, Right and Left, Variable in 1mm unit	

Garbage warning function

When an item longer than a set value is detected, "Garbage" is shown on the display.

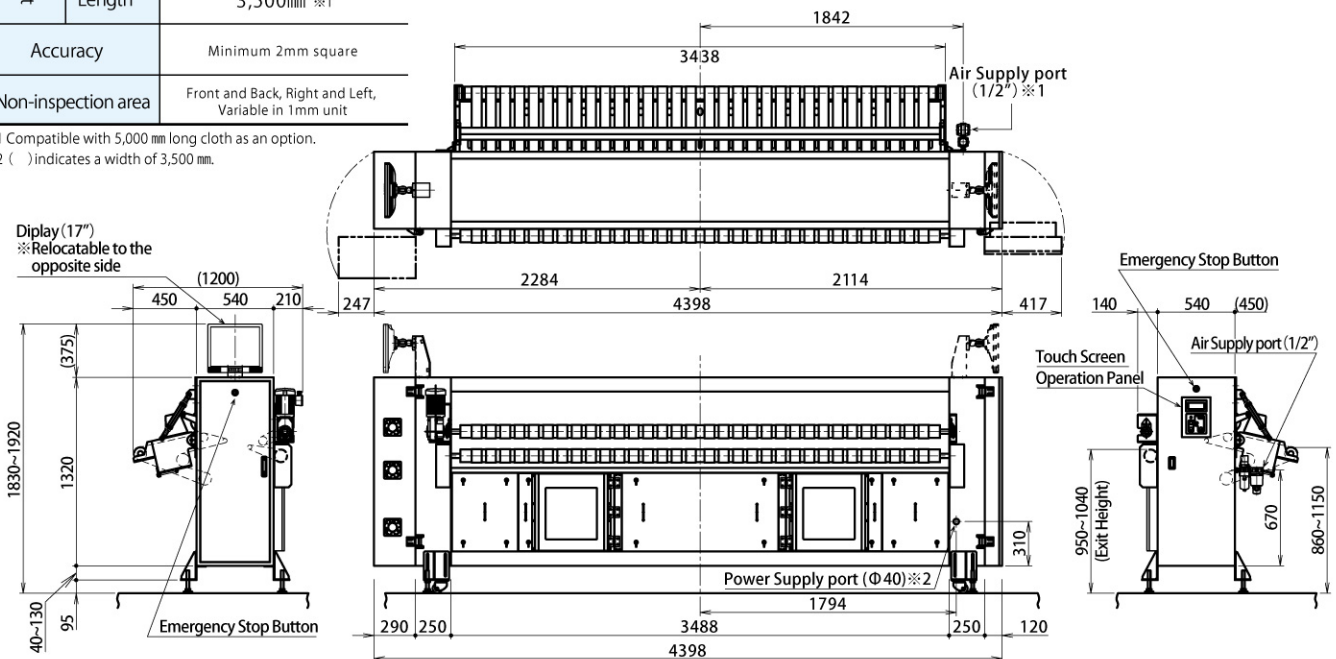
Linkage Operation

Operation mode could be made from Toto SONIC Feeder Series. (except for SONIC-A/ SONIC-F II Series)

● Full Line-up to match Folder models

VISION7-1S (1 Lane model)	VISION7-2M (2 Lanes model)	VISION7-4M (4 Lanes model)	VISION7-5M (5 Lanes model)
Sheet, Duvet Cover, Tablecloth and others		Pillowcase (Small pieces) and others	

* 1 Compatible with 5,000 mm long cloth as an option.
* 2 () indicates a width of 3,500 mm.



※1 The height of Air Supply port from the floor varies according to the machine height adjustment.

※2 The height of Power Supply port from the floor varies according to the machine height adjustment. ※3 The drawing above shows the dimensions of 3,300mm width machine.



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