

FOLDER

TOTOFOLDER Product Information Magazine

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T-ROLL 1335-3S

FEATURE

Productivity Improvement with "T-ROLL" chest roll ironer

Installation of large-diameter chest roll ironer "T-ROLL" and after-sales service

- Customer's Report FIRST LINEN SUPPLY CO., LTD.
- Site Interview TOTOFOLDER Kansai Branch
- TIPS for maintenance Why Towels Catch Fire—and How to Prevent It

TOTOFOLDER
TOTOFOLDER MANUFACTURING Co., Ltd.

Ironer

T-ROLL

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Large-diameter Steam Chest Ironer T-ROLL

This 1300mm large-diameter chest roll ironer is equipped with our proprietary direct-drive system, featuring individual motors on each roll. The roll speed ratio can be set according to each finishing mode, while pressing pressure and exhaust blower output are independently adjustable for each roll. T-ROLL 1335-3S enables high-speed operation.



Large-diameter rolls enable high-speed finishing.

By operating at lower rotational speeds, the system delivers both high quality and fast processing.



Inspection Device

VMS-GL-700

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Automatic Top-Side Inspection

Automatically detects stains and tears in linen products such as bed sheets. Equipped with proprietary mold-detection logic, it identifies even low-contrast defects.

Sheets with shape defects are detected and automatically discharged outside the folder.

Defect marking indication

If there is a defect during the inspection, the marking will be displayed by color on the defect part. The markings by color are displayed in the appropriate color for each "tears", "stains" and "dirt".



Red Stain(S) Brown Stain(L) Blue Tear

*Other indicators are also available. For details, please contact us.

Folder

Inspection Device

VSTV-N5+VISION

VISION-Connected Bi-directional Sheet Folder + Automatic Bottom Side Inspection

A bi-directional sheet folder with a sorting stacker, exclusively designed for connection with the VISION bottom-side inspection system. The dedicated design minimizes installation depth, achieving an ultra space-saving footprint.

The bottom-side inspection device is a stand-alone module, allowing easy retrofit installation.

A mirrorless inspection system eliminates image distortion, while the built-in camera design ensures protection against dust and heat.



Scan QR code for more information



Scan QR code for more information



Folder

SG1-5FP

Bi-directional Folder for Sheets and Pieces

A multi-purpose folder for linen sheets, duvet covers, and pillowcases.

This machine supports a wide range of applications, such as bi-directional sheet folding, 2-fold, 4-fold folding and flat stacking for small pieces.



Scan QR code for more information



Feeder

PCF-400

Clamping type pillowcase feeder

Simply set the pillowcase on the left and right clamps for easy and consistent feeding.

Operation does not depend on operator skill, allowing even beginners to work with confidence.



Scan QR code for more information





For this feature, we spoke with President Nakane, focusing on the T-ROLL chest roll ironer, which was newly installed in February of this year, as well as other TOTO FOLDER products currently in operation. We greatly appreciate President Nakane for taking the time to share valuable insights during the interview.



Balance high production with high quality finishes

This three-story factory features sheet and duvet processing lines on the first floor, along with a Yukata line. The second floor houses the towel area and an additional duvet line, while the third floor is dedicated to the pillow line and gown equipment. We are happy to see that TOTO FOLDER products are running on all floors. In particular, the sheet line on the first floor is composed of SONIC-ES4 (feeder), T-ROLL (chest roll ironer), VS1V-N5 + VISION (folder + inspection device), which realizes highly efficient operation.

Installed in February of this year, this sheet line is a newly installed system that demonstrated stable operation during our visit. On the feeding side, an existing floor pit was effectively utilized, incorporating thoughtful design measures aimed at enhancing product quality.

T-ROLL chest roll ironer was selected based on the plant's commitment to quality-first and customer-focused operations, despite an industry trend toward calendar rolls driven by rising fuel costs.

Operating at 50 meters per minute, T-ROLL delivers both high-speed production and high-quality finishing. A particularly clear difference from other products was observed in the dryness of the finish, earning high praise from President Nakane, who commented on his strong satisfaction with the results.

The installation led to upgrades across the plant, including 3,300–3,500 mm rolls and the expansion of Washer Tunnels to a 60 kg capacity, enabling improved drying performance and productivity. As a result, the plant successfully achieved its production targets. President Nakane also expressed appreciation, saying "Once again, I am thankful that the maintenance staff carried out precise adjustments with great care until the very last moment." and shared expectations for the upcoming installation of the P4i Series later this year.

Encouraged by those words, we are committed to further improving our quality and strengthening our efforts to earn and maintain the customer trust.



Sheets moving smoothly through the line



Sheet Folder [VS1V-N5]

FIRST LINEN SUPPLY CO., LTD.

Established : September 1969
Location : Otsu city, Shiga
Number of Employees : Approx.70



Factory surrounded by nature in Shiga

The factory is located in Otsu City, Shiga Prefecture, in a mountainous area close to Lake Biwa. Celebrating its 50th anniversary in September 2019, the company delivers high-quality linen products to hotels and Ryokan, mainly in Kyoto, with the goal of achieving "Assured Stable Supply" through daily operations.

The daily output of this factory reaches about 23 tons. It is said that its business partners include Hotel Okura Kyoto, Okazaki Bettei, Takarazuka Washington Hotel, and M's Hotel. In addition, there are many deliveries to shrines and temples such as Oumi Jingu Shrine, Taga Taisha Shrine, and Enryakuji Temple on Mt. Hiei, which is a sight unique to the linen factory near Kyoto..



BIWAKO HOTEL towers on the shores of Lake Biwa



Outstanding Support by Mr.K

During the interview, we repeatedly heard words of praise for Mr.K, one of our service engineers. His work is highly regarded by the entire plant, particularly for his commitment to working through issues until a full solution is achieved.

Going beyond routine maintenance, Mr.K is known for offering forward-looking advice, including not only repairs but also improvement proposals for related components. This sincerity and proactive mindset have built strong trust among on-site staff.

In the early stages of T-ROLL operation, several issues arose before the system fully stabilized. However, the dedicated support provided by Mr.K and the entire team left a lasting impression on President Nakane. "During one installation, although the work was outside TOTO FOLDER's original scope, they took care of everything," President Nakane recalled with a smile. "That was the moment I became a TOTO FOLDER fan."

He also shared a heartwarming episode in which he later sent a personal letter of appreciation to our president, Mr.Maejima. Receiving such encouraging feedback reaffirmed our commitment to delivering even greater value to our customers.

TOTOFOLDER products that have been in operation for many years

On the third-floor pillow line, PCF-400 feeder and SG1-4FP folder are in operation.

At SG1 discharge table, a custom-built extension table, personally designed by President Nakane, enhances operator convenience.

In the second-floor towel area, four T1A folders—including older models—operate alongside a TF-30K face-towel multi-folder. Some machines have remained in service for as long as 40 years, reflecting the care and respect with which they are maintained.

Despite the wide variety of products handled, the facility makes efficient use of space with a clear and well-organized workflow.

During the photo shoot, employees greeted us warmly as they passed, and the factory was filled with the energy and confidence of professionals supporting the linen supply industry.

Pursuing Further Evolution

The plant featured in this interview, which operates our folding machines, has established a five-phase, 10-year development plan beginning in 2021, aimed at further strengthening its commitment to "Assured Stable Supply".

In 2022, the replacement of pillow-case feeder and folder was completed. The plant is now entering the final stage of Phase 3, with ongoing upgrades to Tunnel Washers, Washer-Extractors, and Yukata line. Installation work is also scheduled for November this year.

Upon completion of this phase, the next step will be Phase 4, which includes the construction of a distribution center exceeding 3,300 square meters, followed by Phase 5, involving the launch of a new factory. With land for these future projects already secured, the plant continues to move steadily forward through a well-structured, phased plan. As the supplier of Linen finishing machines, we remain fully committed to supporting this project with heightened focus and dedication at every stage.



President Nakane responded warmly from beginning to end



Factory surrounded by rich natural surroundings



Kansai Branch INTERVIEW



01 Inside the Kansai Branch

Everyone gets along well. We value communication and enjoy a bright, friendly work environment, often chatting about hobbies, weekends, and professional baseball. The topic of a local team, **Hanshin Tigers' fastest league title clinch in history** has recently been a hot issue.

02 Kansai Branch Motto

We practice thorough **Ho-Ren-So (reporting, communicating, and consulting)**. Even small matters are shared as a team, and **we work together to support anyone in need**.

Hey, that part is over here



03 We look forward to hearing from you.

With several new team members, the **Kansai Branch is energized and growing**. While response times may occasionally vary, **our "Customer First" policy remains unchanged**. We will continue to improve and grow together with our partners and the industry.



TOTOFOLDER MANUFACTURING CO., LTD. Kansai Branch

Dainichi-machi, Moriguchi City, Osaka, Japan
[Primary Business Activities:
Sales and Service Maintenance]



TIPS for Maintenance

Why Towels Catch Fire and How to Prevent It

Daily maintenance allows us to identify common failure points and implement effective preventive measures. Proper maintenance not only protects machines but also improves operator safety and working efficiency.

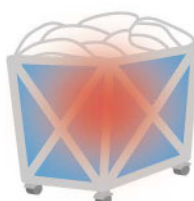
In the towel linen industry, several fires believed to result from spontaneous combustion occur every year. The resulting damage can be significant, even if a total loss is avoided. This article highlights the measures of fire-prevention for towel linen factories.

1 Fire Occurrence Mechanism Heat Accumulation

Towels are stacked immediately after drying without sufficient cooling, and staff leave the facility. Heat buildup in piled-up towels, eventually leading to ignition. This is a typical fire scenario in linen factories.

Past Case

After the employees had gone home, a fire broke out around a wagon full of dry towels.



●How does Heat Accumulation occur?

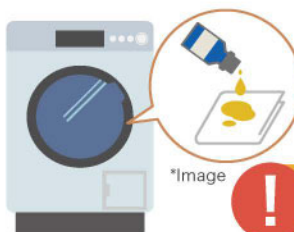
Dry in a dryer and heat the towel

If heat is not released, heat builds up

! Heat buildup in stacked towels can cause fires.

2 Fire Occurrence Mechanism Esthetic Oils and Residual Heat Ignition

In addition to Heat Accumulation, esthetic oils used in beauty salons can increase the risk of ignition. Such fires have been reported not only in large-scale linen supply plants but also in household dryers.



*Image

Causing Oils

- Esthetic Oil,
- Salad Oil, etc.

! Oil residues oxidize and heats-up by dried hot air, causing spontaneous combustion.

How can we prevent fires?

How can we prevent fires in our towel linen factory? It can prevent the occurrence of fire by eliminating the elements of "Heat Accumulation" and "Esthetic Oil" from the mechanism of fire occurrence.

1 Don't pile up towels -Preventing Heat Accumulation -

Towel Farm

Always perform a final inspection before leaving the facility

Dry Machines

Check that no towels remain stacked or inside the dryers

2 Measures against Esthetic Oils

Wash with additives and pay attention to cooling after drying



Inquiries about
this article



parts-order.overseas@totofolder.jp

TOTOFOLDER MANUFACTURING Co., Ltd.