

# TOTOFOLDER

## Newsletter



【Volume 87】

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Published by TOTOFOLDER MFG. CO., LTD.  
32-24 Maegami-cho, Kawaguchi-shi, Saitama-ken 333-0843 Japan  
TEL : 048-262-2838 FAX : 048-262-2788  
URL <http://www.totofolder.jp/>

After in-house tests repeated many times, now T-ROLL made a practical debut as a field machine.

Roll with 1300mm large diameter does not cause unevenness because the Roll rotates slowly though the surface speed is high (50M/min, 12.2 rotate/min).

The body is painted in Two-tone color, Toto Blue and Grey, same as the front and the rear Machines.



**Test Machine installed in May, 2019**

**Sano, Tochigi**

**Delivered to Domestic Customer!**



○In May last year Field testing started in cooperation with a certain linen factory in Kanto area anticipating overseas sales.

○The Rolls rotate at 50m/min. and processes average 1,000pcs\* (Feeder: Toto Folder SONIC-ES4)

○The machine stably operates without any troubles for more than half a year since its installation.

○The machine quality, performances including finishing are highly appreciated.

Chest Ironer (T-ROLL) was announced two years ago at our private exhibition, now made its debut in the overseas market. Having taken a role as a maker specialized in Feeder and Folder, we have transformed to the supplier of a full Flatwork line consisting of Feeder, Finisher (Ironer) and Folder. We would like to suggest you to reevaluate the quality of Chest type Ironer again.

**Advanced in Foreign Markets!!**



**Installed in June, 2019  
Busan, South Korea**



※ Operations for Sheets at 40m / Duvet Cover at 27m



**Installed at 2 Customer sites at one time  
January, 2020 Canada**



**Comments from customers**

- The finished items are glossy, beautiful, very satisfying!
- Satisfied with productivity up! (Production up by 20%~30%UP)
- Touch Screen is beautiful and easy to understand

**Flatwork Line Completed!!**

Introduction of T-ROLL enhances Linkage operation of full Flatwork Line consisting of Feeder, Ironer and Folder.



※ Operation for Sheets at 55 m / Duvet Fit Sheet at 25m

**Large Diameter Chest type Roll Ironer ( $\Phi 1300 \times 3500 \text{mm} \times 2$  or 3)**

**T-ROLL 1335-3 / 1335-2**



**◆ Features ◆**

**◆ Large Diameter Roll of Diameter 1300mm !**

- Rotations slower than smaller ones reduce loads at Drive section and does not cause rotation unevenness.

**◆ Each Roll driven by respective motor !**

- Since Rolls are driven respectively, it is possible to make fine speed and pressure adjustments of respective Rolls.
- Output adjustment of the exhaust blower at each Roll can be made at each mode.
- At maintenance, operation in Reverse/Forward is also possible by manual output of each motor.

**◆ Effect of heat insulation and heat storage increased!**

- Installation of heat insulation inside the chassis increases heat efficiency.
- Decreasing heat release to outside,  
you will not feel hot in touching the machine in operation.

**◆ Employment of rigid Chest made of 15mm thick carbon steel!**

- High heat conductivity of rigid Chest prevents from temperature unevenness and finishes the items with high quality and at high speed.
- Proven and highly reliable rigid Chest is employed.
- The Chest surface does not move, the Roll descends by its own weight and pressurizes, no uneven pressurization will occur in the right and left.



**◆ High drying efficiency realized!**

- Original design that Chest and Roll just fit each other at the used steam pressure at 0.8MPa (= 8 bar).
- For 3 Rolls model, operation of high speed at Max. 55m/min for Sheet is possible

**◆ Employment of Steam Trap made of highly precise and long life membrane type**

- In the event of failure, the valve closes and water accumulate inside the machine, which lowers Chest temperature, therefore, it will be found the machine not normal.

**◆ Supply of Remote Control for exchange of Guide tapes as Standard Accessory!**

- Considering safety, the Remote Control is equipped at the rear side of the machine so as to work there.
- The power supply for Remote Control is set up at a different place, which makes malfunctions less likely to occur.

**◆ Enhanced Support Function by Color Touch Screen!**

- Display of temperature of each Chest (Indirectly membrane trap condition will be recognized)
- Display of Alerts like Decrease of Steam Pressure, Air Pressure, Time to change Oil



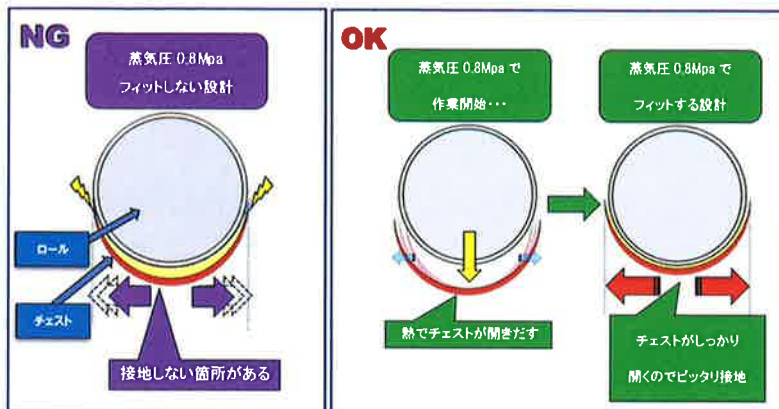
# 【Features of T-ROLL】

## ◆Originally Designed Rigid Chest◆

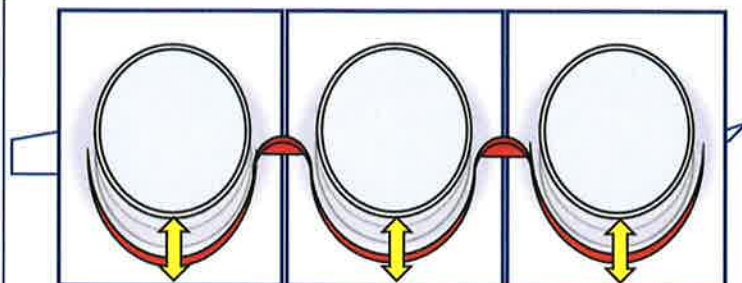
*Why is Rigid Chest used?*

- ⇒When Utilized Steam Pressure is 0.8Mpa, Chest and Roll fit each other completely ! \*1 (Our original design)
- ⇒Chest surface does not move, Roll descends by its own weight and pressurizes, so there will be **no pressure unevenness in the right and left**.\*2
- ⇒It helps to reduce the reaction which occurs when Roll starts operation and stabilize the ground with Roll.

\*1



\*2



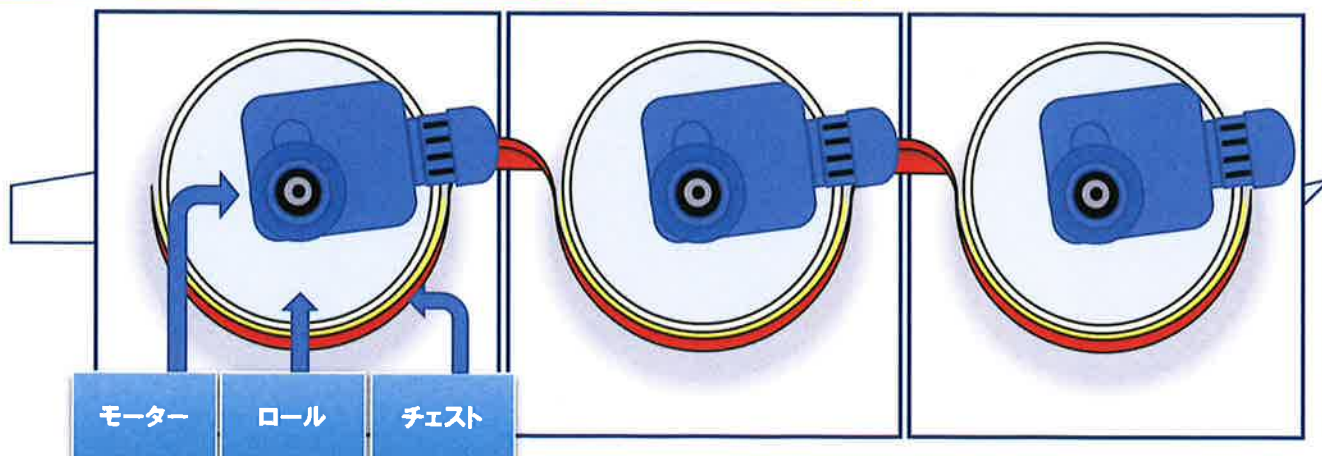
## ◆Original Design Drive System with each Roll carrying a motor◆

*What is the benefit of installing a motor at each Roll?*

- ⇒Roll speed ratio can be freely set for each finishing mode!
- ⇒Compression pressure can be set for each Roll !
- ⇒Output of exhaust blower at each Roll is also adjustable at each mode. Therefore...

⇒Possible to make detailed setting for each kind of items ! !

More beautiful finishing is gotten ! ! !



## Introduction of 3 type handling Towel Folder, "TMF-3VF"

Both high productivity and work load reduction achieved

We have developed the new towel folder "TMF-3" which handles simultaneous feeding of face towels, bath towels and bath mats. It is possible to omit the works to sort bath mats before washing and/or putting into Towel Folder, which brings not only increases of productivity, but also worker's load decreases to the plants. Today, we visited Machida Plant of Ryokan Laundry where TMF-3 was introduced in October and November and spoke with Mr. Satoshi Fujiwara, Deputy General Manager of Production Department.



### ● Possible to distinguish the kinds by detecting length and thickness ! !

The major feature of TMF-3 is that the machine automatically distinguishes three types of items and performs folding work as well. Using the result of measuring the length of an item, the type of the item is determined. Since face towels and bath mats sometimes have the same length, we added a function to distinguish them by measuring the thickness. By adding this sorting function, the sorting work of the bath mat is eliminated, and the work load reduction effect of the workers' is drastically improved. It has been developed for use by many customers by increasing the processing capacity resulting from higher roll speed compared to the conventional towel folder (T1A-S), and by making the machine dimensions as compact as possible.

### ● Impression after introduction

When interviewed, approximately two months passed after the introduction, Mr. Fujiwara said that the workers were immediately accustomed to the new machine and eliminated the work of sorting bath mats, which has brought the decrease of burden to the workers. The total processing capacity of all 6 installed machines is about 24,000 sheets / day (One could be decreased). There is no continuous production during operation, and there is a moderate waiting time, so an environment where workers can work with leeway of time has been set up. The operation in summer, which was a serious concern, is said to be relieved. It was said that no major problems has been experienced and stable production is enjoyed.



▲ Automatic sorting, stacking, transfer by items



▲ Collective transfer by conveyer system

Enabled 3 kinds to be simultaneously fed!!

# Towel Folder TMF-3

All three kinds, Bath Towel, Face Towel and Bath Mats, could be handled by one machine



## Features

**Achieved High Productivity, and Decrease of workers' burden**

1. Simultaneous handling of 3 kinds, face towels, bath towels and bath mats
2. Automated all the process of sorting, folding, distribution and discharge
3. Compact in machine size

## Example



▲ Only feeding items



▲ Automatically sorted, stacked and transferred by items



▲ Works efficiency improved by combination with Conveyer System

High Speed Towel Folder  
for bath towel and face towel

TB-85K



- By making Conveyer speed super high, the process capacity increased !
- BY adopting Feed Support mechanism, easier feeding into high speed conveyer further pursued.
- Knife mechanism renewed! By optimizing knife actions according to sizes of bath towel and face towel, increase of process capacity realized.
- Possible to feed mixture of bath towel and face towel!  
Bath towels and face towels are stacked separately on Stacker A and Stacker B.

Bathrobe Folder

WFO-7-COMB

- Folding machine for all dry products from thin to thick products.
- Either back folding or chest folding could be made.
- Easy start operation by simply placing the items on the mannequin and stepping on the foot switch.
- A newly developed mannequin adopted!
- The new mannequin can throw in various products more beautifully with variable torso width and collar width.



Fully Automated L-Type Packing Machine

L-PACK-120C



- Folded linen products can be packed fully automatically.
- Connectable with uniform folder and blanket folder.
- Realizing an automated line from finishing to packaging, which will greatly contribute to labor cost savings
- ◆ Machine Size: 2100Lx940Wx1580Hmm
- ◆ Packaging Dimension:  
(30~500)x(60~300)x(5~120) (LxWxH mm)
- ◆ Number of Package: 1~18package/min.
- ◆ Power Supply: 200V 1Ph ◆ Electric Capacity: 2KW
- ◆ Conveyer Height: 750mm ◆ Input Conveyer width: 390mm
- ◆ Output Conveyer width: 350mm
- ◆ Film: POF Film Characteristic

Variable string pitch type  
Automatic binding machine

AMB-45

- When binding bath towels and face towels, it is difficult to install an automatic binding machine on the towel line because it is not possible to bind them with the same string pitch.  
This AMB-45 is, however, an automatic binding machine that can automatically change the string pitch according to the product size.

This model is a concept model of up to width x height = 45 x 45 cm binding.

\* At the time of introduction to the CV system, a posture control device is required.

