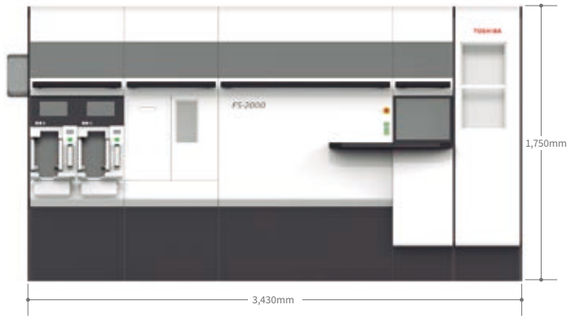
Modular Concept:

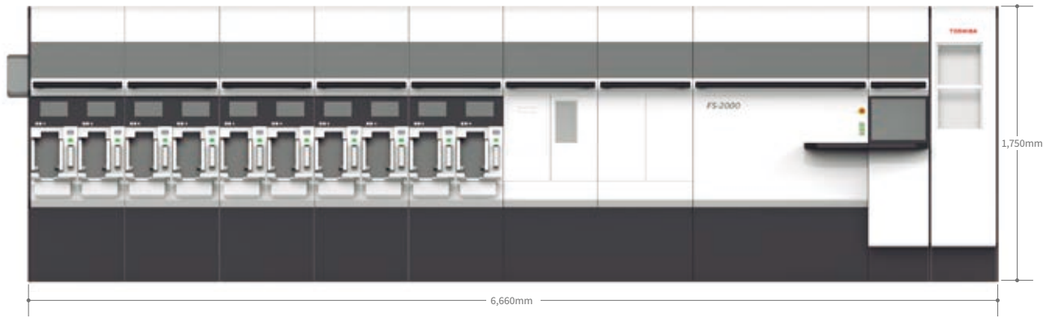
Toshiba can customize the modules according to the customer's needs.

- Feeder Module
- Detector Module
- Additional Detector Modules
- Reject Pocket and Shredder Module
- Pocket Modules
- Pocket with Strapper Modules

• Sorting configuration for the central bank (Single denomination processing)



• Sorting configuration for the CITs and commercial banks (Multi-denomination processing)



General Product Specifications:

Banknote Substrate	Paper, Polymer and Hybrid banknotes
Feeder	Fully continuous feeding with dual paddles
Feeding Speed	600 - 2,200 notes/minute
Feeder Hopper Capacity	6,000 notes
Reject Stacker Capacity	2,000 notes
Stackers	Two types of stackers available. 1) Loose note stacker (2,000 notes) 2) Stacker with on-line strapper
Number of Stackers	Up to customer's requirements
Shredder	On-line shredder (Optional)
Authenticity Detection	Infrared, UV-dullness, Magnetic, Electric Conductivity, Fluorescence and Phosphorescence properties
Fitness Detection	Soil, Wear, Graffiti, Tape, Shape, Hole, Tear, Folded and Missing corner
Others	Multi-denomination processing, Batch card processing, Various reports/logs, Serial number reading (optional)

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TOSHIBA

High Speed Banknote Processing System

FS-2000

TOSHIBA's Banknote Sorting Solutions



Toshiba is one of the largest electric/electronic manufacturers in Japan, with a history that extends over 140 years. Toshiba started the Banknote Sorting related business in the 1970s and has exported these systems globally.

The FS-2000 is our high-end system. It incorporates our latest technologies, experiences and customer's input. The FS-2000 is produced in Japan based on rigorous testing and control.

We are looking forward to delivering this system to the central banks, commercial banks and CITs all over the world.

Strapper and In-Pocket Bundler

100 notes are stacked and the automatic strapper makes a tight strap using 29 or 40 mm banding tape.
The strapper is equipped with a printer, which prints the operational data on the strap (barcode is optional).
The in-pocket bundler bands 5 straps or 10 straps using polymer film, within the machine.
This can then be output to a conveyor system or a container.

Reject

The maximum capacity of reject pocket is 2,000 notes.
Portable cassette can be inserted into the reject pocket to transfer the rejects without manual contact with the rejects.

Transport

The banknote transport is laid out in a straight path throughout the system, which reduces transport jams and makes it easy to clear jams.

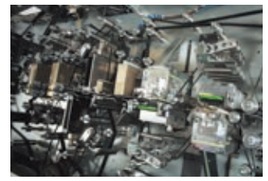
The straight transport path and detectors are located at 1,370 mm height, ergonomically optimum for visibility and accessibility leading to easy jam recovery, cleaning and maintenance.

Detectors

Toshiba's sophisticated image processing software evaluates each banknote with the note's full image captured on both sides by the dual high resolution 4-color (RGB+IR) camera system. This allows the detector to make decisions that closely mimic human perception.

We have a variety of authenticity detectors and also third party detectors can be mounted and supported via Common Detector Interface (CDI).

Thickness and Tape detectors scan the full note with non-contact dielectric sensing technology for accuracy.



Feeder

User friendly feeder position with all input operation occurring on the right hand side.
Maximum capacity of the feeding hopper is more than 6,000 notes and seamless feeding is possible with dual automatic paddles.
The feeder has automatic covers to reduce noise and enhance user safety.

Packaging System

Our heat shrink-wrap packaging system makes a fully enclosed tamper resistant package and up to 5 FS-2000s can be connected to one packaging system.
The system has capabilities to check for 5 or 10 straps and the shape of the bundle.
The auto labeler is an option.

On-line Shredder

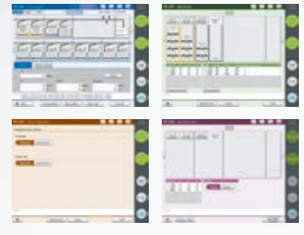
The shredder module is located right after the reject pocket but before the rest of the pockets, thus removing unfit notes from the system without passing through the rest of the system. This reduces jams.
Shredder module has an independent note counter and is constantly (per note) checked against the system counter.
The size of shred residue is 11 mm x 1.5 mm.

Database PC

The database PC stores all operational data in XML format and it can interface with the customer's vault management system. It also generates reports on demand.

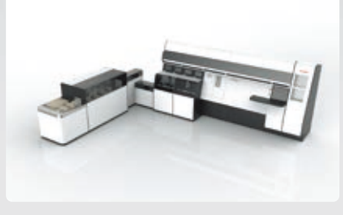
User Interface

A 15 inch touch screen for easy machine operation and maintenance. The user interface has multiple functions, such as operator control panel, status indicator, machine setup, detector result viewer and others as specified by user.



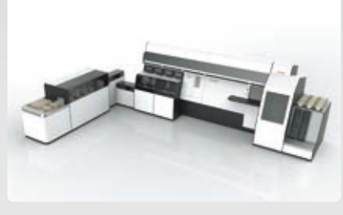
SYSTEM CONFIGURATION

There are multiple configurations for the FS-2000 depending on the customer's requirements.



Configuration 1

FS-2000 with packaging system



Configuration 2

FS-2000 with
- autoloader
- packaging system

Configuration 3

FS-2000 with
- autoloader
- packaging system
- reconciliation station

Configuration 4

Up to 5 FS-2000s can be connected with one packaging system by using a conveyor system.

Note: All images shown in this document are for illustrative purposes only and actual may vary.