

ColorSort



TS Color Sort
Series Brochure
Odd-color Ejector Machine

GENERAL CATALOG

TS-1850
TS-7400L
TS-7400T
TS-7400TH
TS-7500C



Remove impure plastic pellets!

FMR
*Foreign
matter
removal*
Product specification



Tecman Industries Co., Ltd.



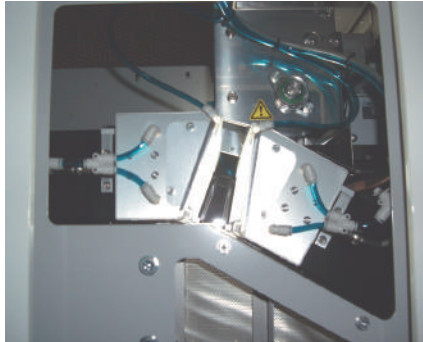
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MADE in
JAPAN
Innovation

High-precision odd-color ejector machine featuring high-resolution cameras and LED lights formed in the shape of dome

Pellet screening



- Highly precise screening achieved by high-resolution cameras

- Compressed air cleaning nozzle built in standard

- As many as 20 units of highly responsive and durable air ejector valves installed to consistently detect and remove impurities

- LED lights formed in the shape of dome making it significantly effective to detect impurities



Operation panel



- Color touch panel making it easier to view and control

- Memory function providing 40 different screening conditions

- Capable of recording errors and detections

ColorSort



TS-1850

Quality and reliability improved to remove impure PET flakes and crushed materials!



TS-7400L

LEDs adopted for energy saving, long life span and eco friendliness



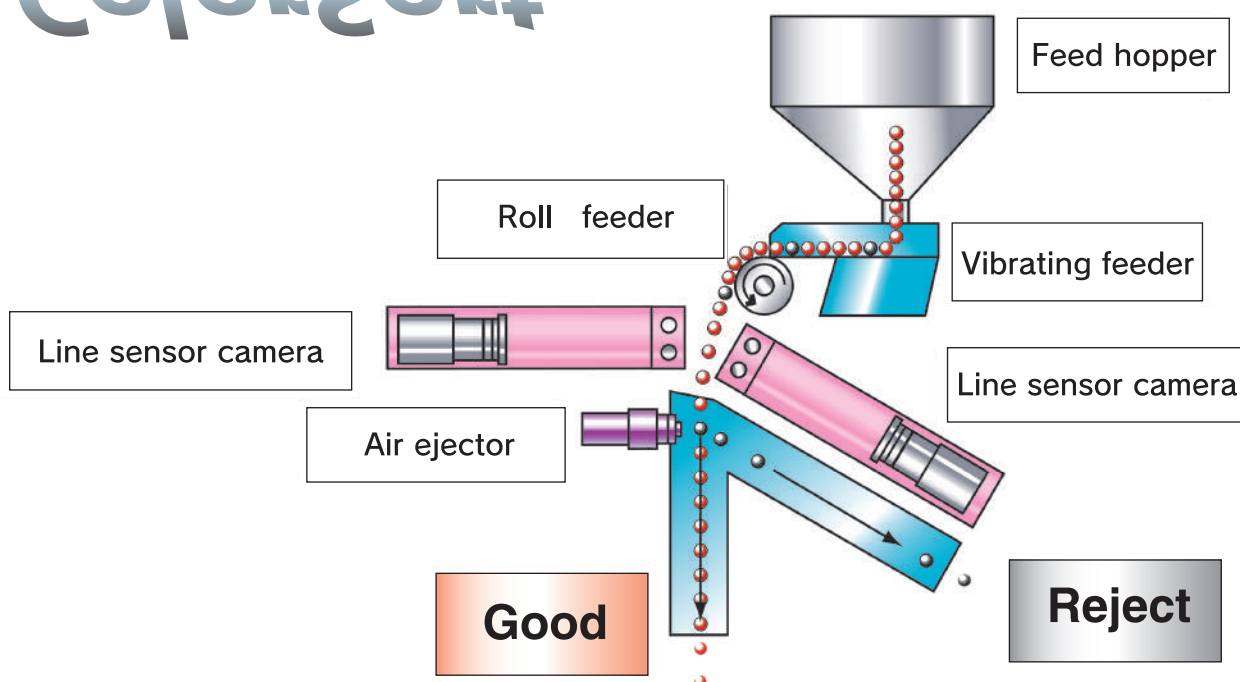
TS-7400T

Perfect for screening 100% clear plastic pellets!

Full lineup of Tecman odd-color ejector machines

Structure diagram

ColorSort



TS-7400TH

Exclusively designed for clear pellets through the evolution of illumination optical system



TS-7500C

Full-color cameras making it ideal for a wide variety of colored pellets

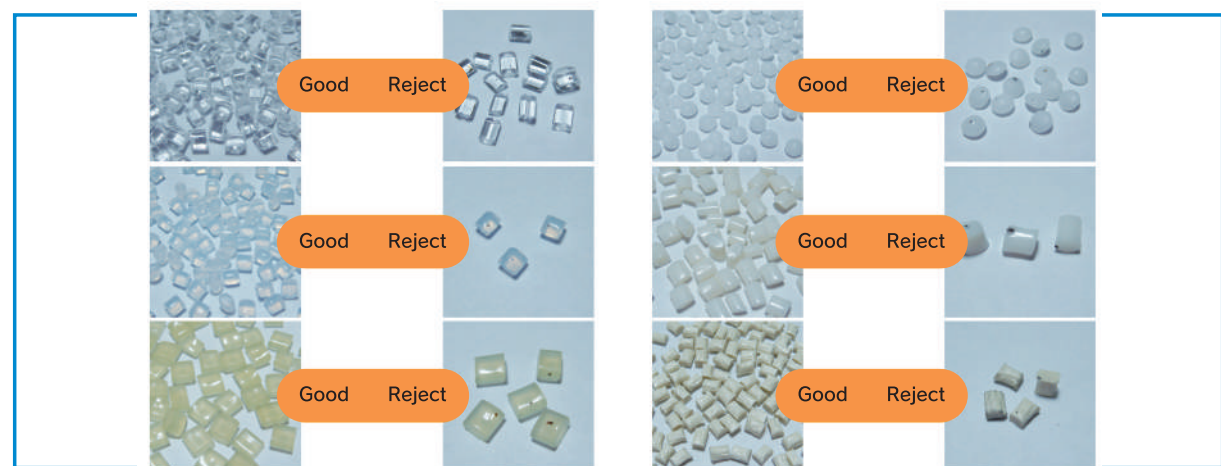
Screening matrix

Color		Light (Whites, natural colors)		Clear		Dark (Red,blue,etc.)
Impurity		Burn/black spot	Tiny spot	Burn/black spot	Tiny spot	Burn/black spot
Model	TS-1850	○	×	×	×	×
	TS-7400L	○	○	△	×	×
	TS-7400T	○	○	○	△	×
	TS-7400TH	△	△	○	○	×
	TS-7500C	○	△	△	×	○

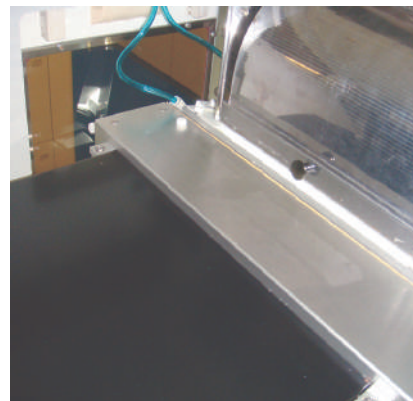
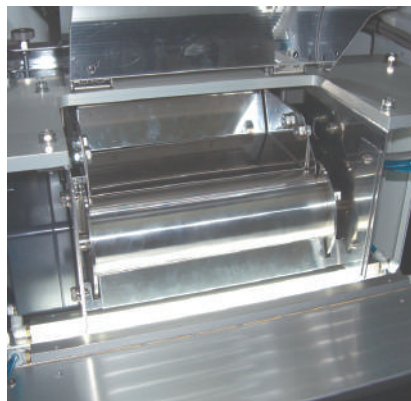
○: Able to screen △: Able to partially screen ×: Not able

Examples of the resin proven to be screened by the machine

ABS	Acrylonitrile-Butadiene-Styrene ressin
HDPE	High density polyethylene
LCP	Liquid Crytal Polymer
LDPE	Low Density Polyethylene
PA	Polyamide (Nylon)
PBT	Polybutylene Terephthalate
PC	Polycarbonate
PE	Polyethylene
PES	Polyester sulfone
PET	Polyethylene terephthalate
POM	Polyacetal
PP	Polypropylene
PPS	Polyphenylene sulfide
TPE	Thermoplastic-Elastomer



Aligning feeder



- Because a roller is designed to drop pellets straight down, an aligning feeder is affected by negligible friction.
- Steady pellet screening is achieved because they are screened as being dropped in the range of low speeds.
- High-output, high-precision motor is employed to regulate and align the pellets.

Maintenance



- The cover can be detached with one gentle tug without tools.
- A dust tray is installed underneath each unit to prevent pellets from scattering.
- Chutes for good pellets and rejects can be detached without tools for easy cleaning.

Reject samples



Burn



Tiny black spot (0.1mm)



Blended



Black spot



Yellow discoloration



Black spot in long pellets

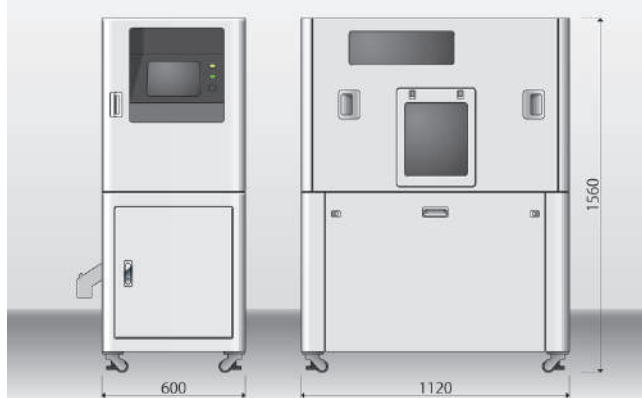
Using your samples of good and reject pellets we are ready to run a screening test for you. Also, a witness test can be arranged in order for you to observe our pellet screening capabilities at our site.

Main specification

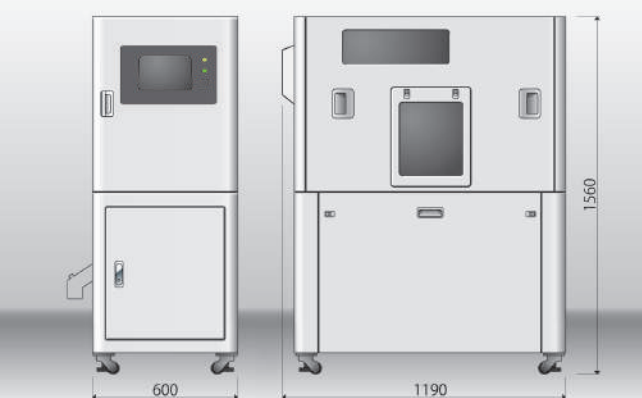
TS-1850



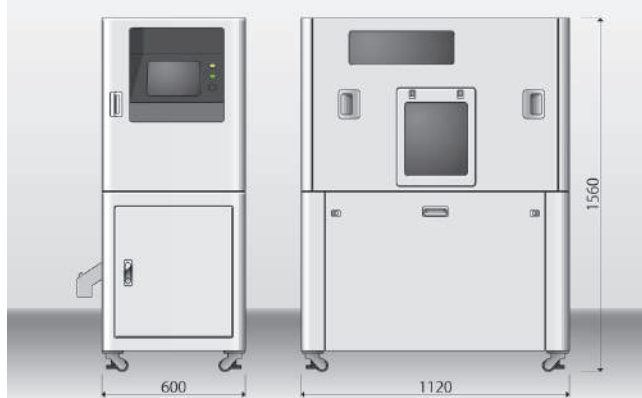
TS-7400L TS-7400T



TS-7400TH



TS-7500C



TS Color Sort Series Odd-color Ejector Machine

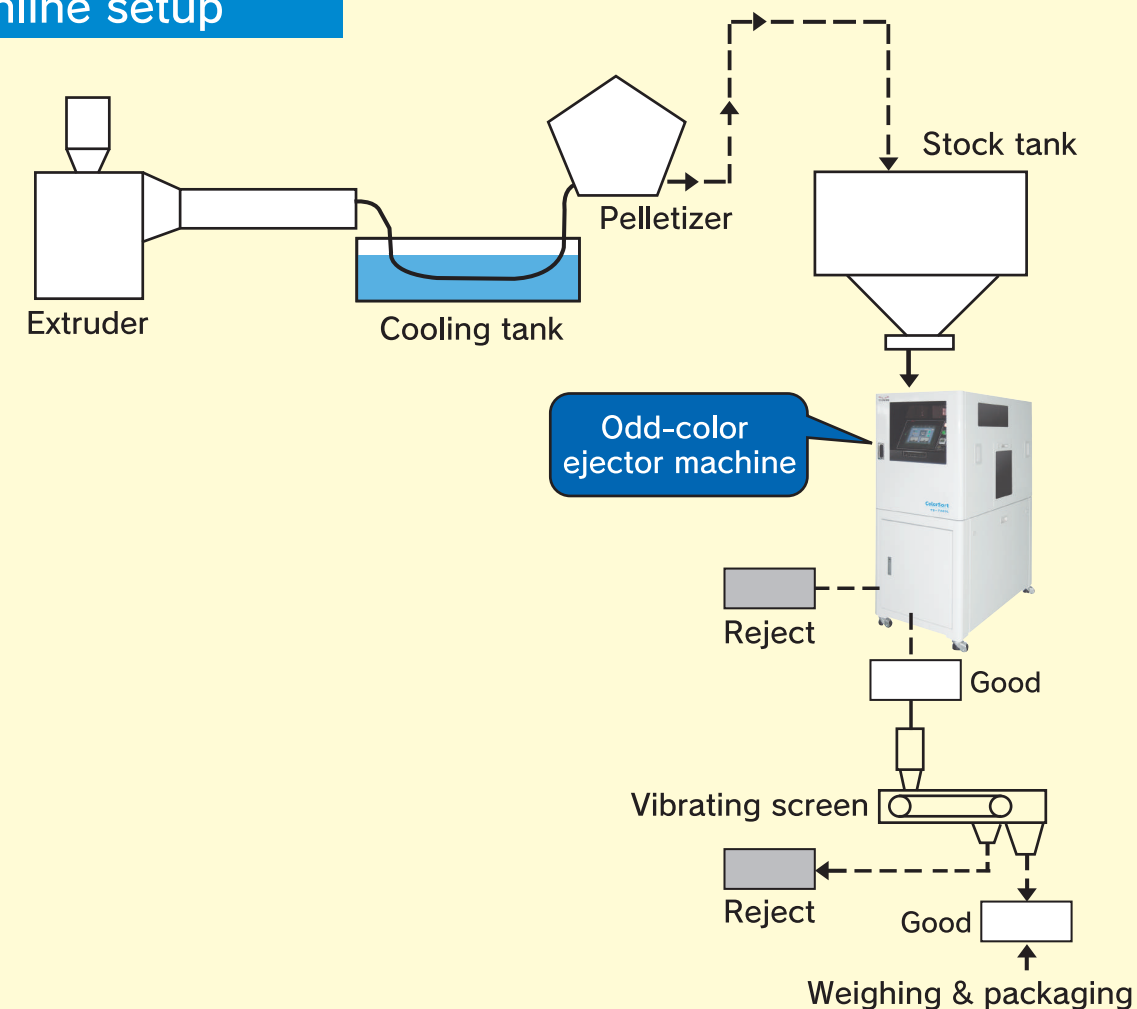
ColorSort

Camera		Monochrome camera		Monochrome camera for clear pellets		Color camera
Model		TS-1850	TS-7400L	TS-7400T	TS-7400TH	TS-7500C
Specification	Power supply	Single phase AC200V				
	Unit dimension	600W×1050D×1530H	600W×1120D×1560H		600W×1190D×1560H	600W×1120D×1560H
	Unit weight	240kg	270kg	275kg		270kg
	Maximum processing capacity	800kg/h	1,000kg/h			
	Illumination	Twin fluorescent lamp	LED lights formed in the shape of dome			
Camera	Camera	CCD monochrome line sensor cameras				CCD color line sensor cameras
	Pixel number	1850	7400			7500
	Minimum resolution	160 μm	40 μm			
Feed	Feed Feeding method	Vibration Feeder				
	Transfer unit	Roll feeder				
	Pellet separation method	Separate by speed difference between feeder and roller				
Eject	Eject Electromagnetic ejector valve	16 in a row	20 in a row			
Feature	Memory	—	40			
	Operation panel	Touch panel LCD Color 4"	Touch panel LCD Color 8.4"			
	Other	—	PC monitor system (option)			

* The maximum processing capacity varies depending on material and shape properties.

Setup example of odd-color ejector machine

Inline setup



Off-line setup

