

Kubota Pellet Screening System

For Earth, For Life
Kubota

Super PLATON[®] II

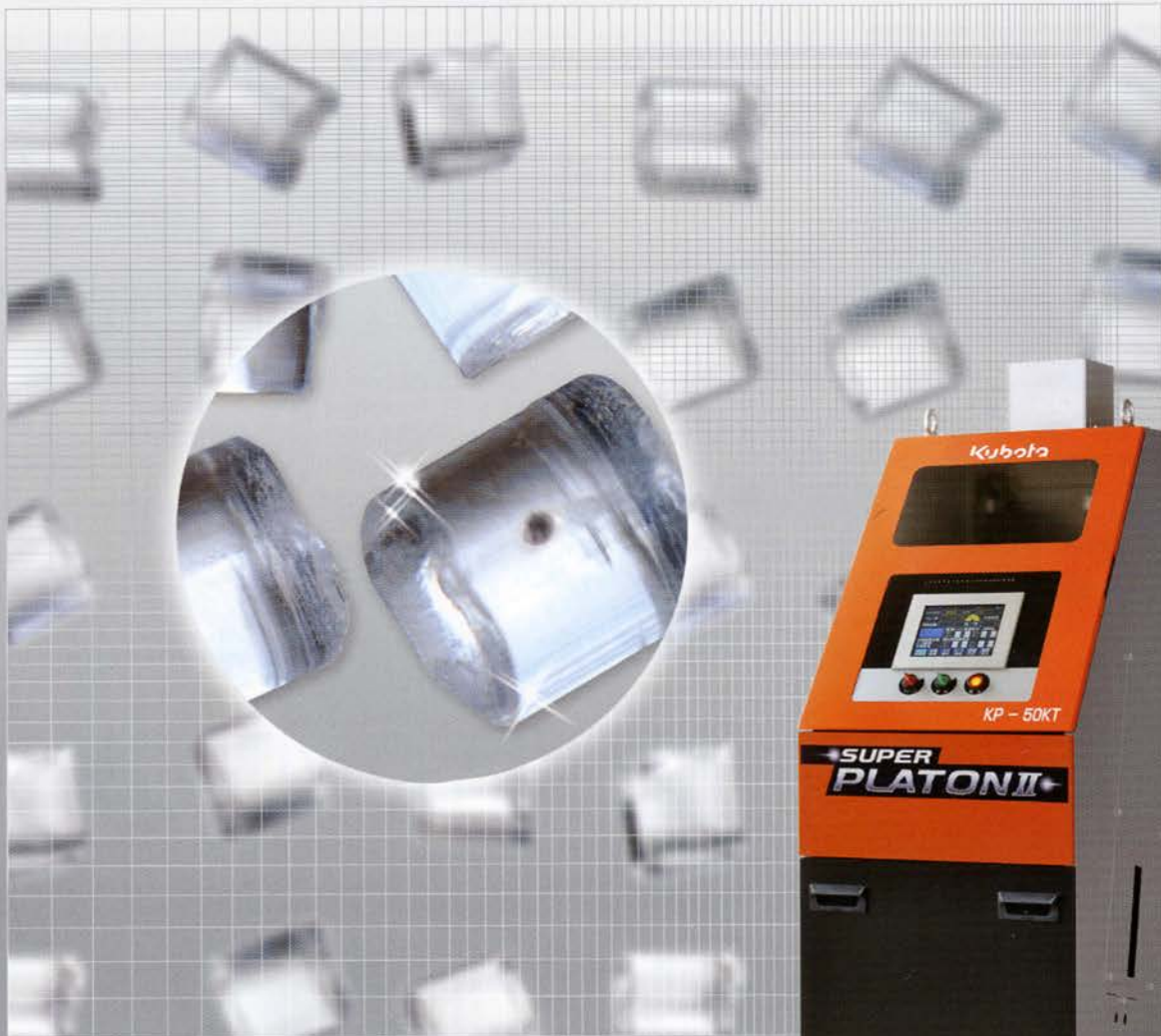
KP-50KT

NEW

Clear image acquisition has been achieved by new technology.

Accuracy of screening transparent pellets greatly increased by improving detection rate.

**This is the flagship model of
KUBOTA Pellet Screening Systems.**



**PLATON is able to solve problems
for many kinds of defective materials.**



Kubota Pellet Screening System

Super PLATON II®

KP-50KT

Screenable material types



Black spot contaminants



Burned pellet



Discolored pellet



Brown stripe contaminants



PET



PBT



Feature 1

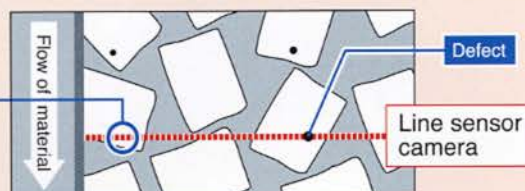
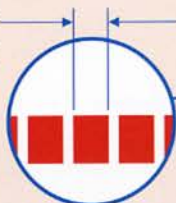
High screening accuracy

1

Adopting line sensor camera with high resolution

Resolution of line sensor camera

0.03mm



2

Higher definition of resolution

New technology

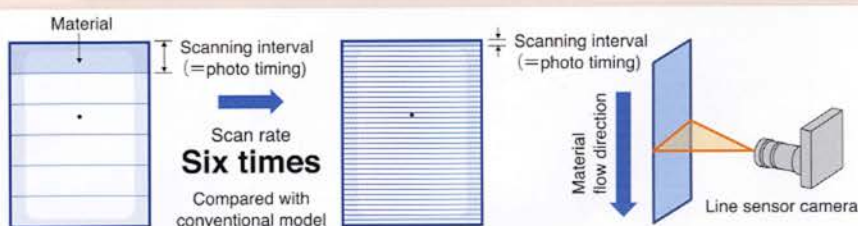
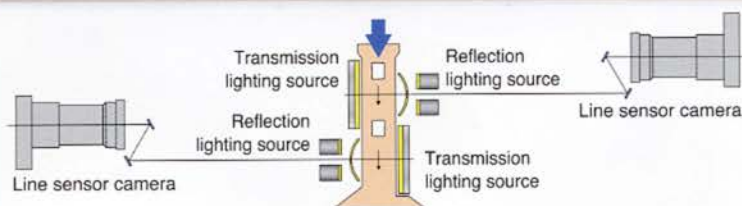
Major development made in resolving detection error by improvements of internal structure like camera and lighting layout compared with conventional system.

NEW [Clear screen]

Camera

Adopting newly developed engine for picture treatment. Making it possible to detect foreign particle by increasing scan rate and improving detecting resolution of vertical flow direction.

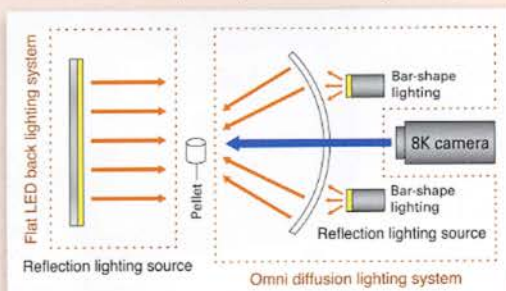
Increasing screening accuracy of transparent pellets



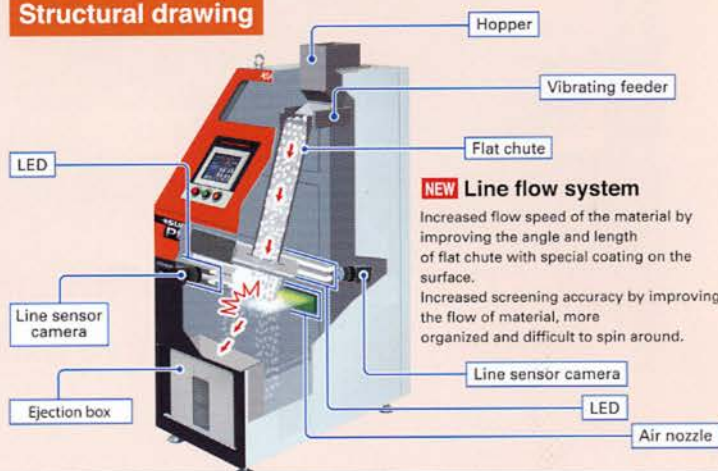
NEW [Detection error proof]

Lighting

Adopted Omni diffusion lighting system as reflection lighting source for the material and Flat LED back lighting system as transmission lighting source. High screening accuracy has been realized by improving the number of detection error and eliminating the shadow created around transparent pellet with a variety of shapes.



Structural drawing



NEW Line flow system

Increased flow speed of the material by improving the angle and length of flat chute with special coating on the surface. Increased screening accuracy by improving the flow of material, more organized and difficult to spin around.

Super PLATON II can screen various kinds of plastic materials including transparent pellets.

Kubota contributes to the quality and productivity improvement of your products by high accuracy of plastic pellet screening system, PLATON series.
Our new Super PLATON II improves the ability of contaminants detection, the structure of chute and operability.
Wide range of plastic materials including transparent pellets can be screened by Super PLATON II.



Sample of materials and contaminants



Feature 2

Easy operation with color liquid crystal touch panel

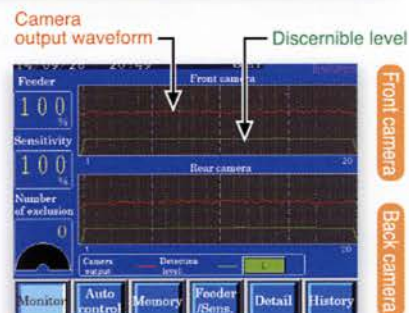
Auto-tuning function

Select material color and type of contaminants easily by confirming sample pictures.



Operation screen

Easy setting by adjusting discernible level (green) against camera output waveform (red).



Four operating languages

Japanese, Chinese, English, Korean are available.

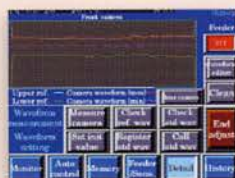


Memory function of screening conditions

Enable to save the data of detailed screening settings and conditions to its memory and USB memory.

Setting of screening conditions

Enable to save the data of screening conditions such as sensitivity, feeder setting, defective size, basic waveform, thresholds and light level of LED lighting.



Memory & USB save screen

Enable memorization of settings for 32 different kinds of materials



Feature 3

Easy maintenance

Anti-dust design

To prevent adverse effects from material dust, the electrical unit is installed inside the cover.



Keeps screening accuracy by automatic self-maintenance function

Self-maintenance function

Check screening performance automatically when power is activated.



Automatic cleaning & sensitivity adjustment function

Keeps screening accuracy by self cleaning at set intervals.



Simple assembly and disassembly without tools

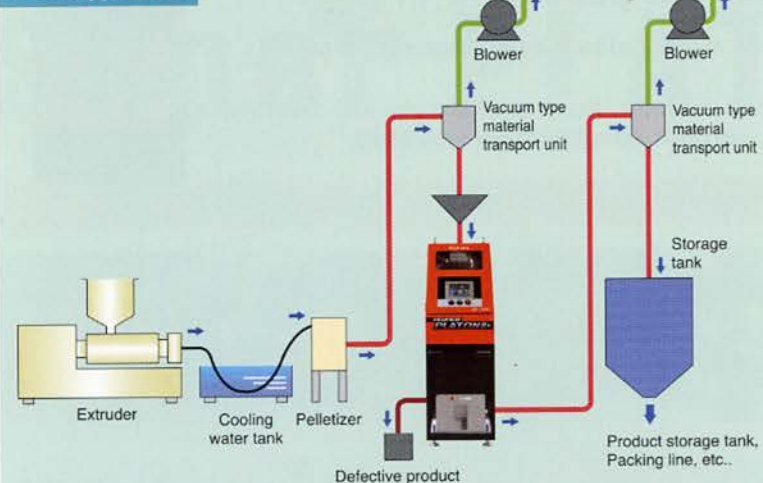
Enables to shorten time of material change by easy and quick cleaning.



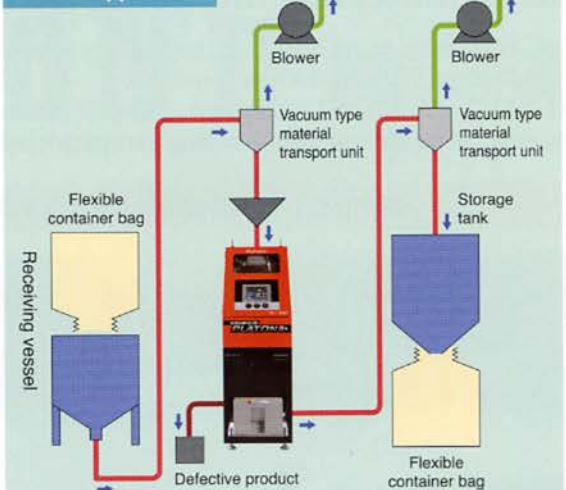
Sample flowcharts

* KUBOTA's scope of supply is only the Super PLATON II.

In-line application



Off-line application



* KUBOTA Keiso, group company of KUBOTA, supplies vacuum type material transport systems

Options available

① Anti-wear transfer system parts

- Hopper
- Trough
- Collection duct

② Collecting of ejected materials

- Bottom-discharge chute
- Front-discharge chute

③ Collecting of good materials

- Duct with ferrule
- Long duct
- Duct of square hole

④ Extended gate for flow rate control

⑤ Air curtain for powder dust proof

⑥ Used for high temperature pellets

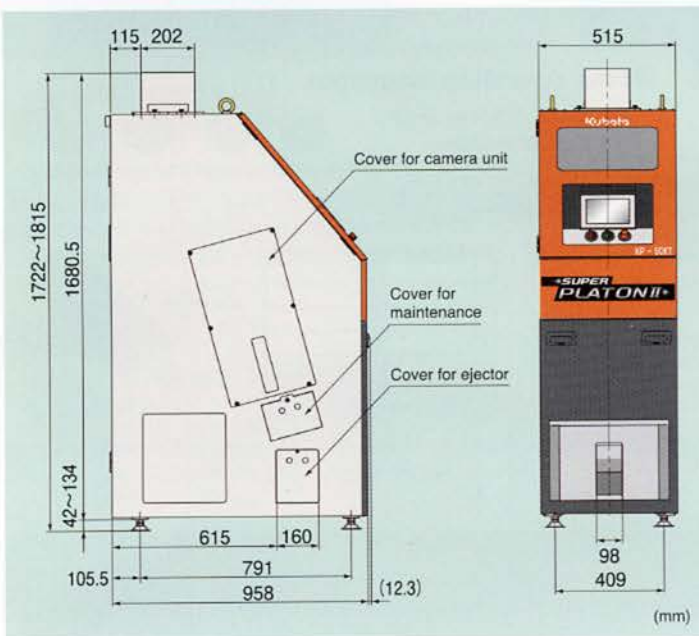
- Special camera box with air cooling

⑦ 50L storage hopper

⑧ Air gun for cleaning

⑨ Tray installed to bottom of main frame

Outside dimensions



Specifications

Model	KP-50KT
Process capacity *1	400~1000Kg/hr
Sensing system	Monochrome CMOS line sensor camera x 2 + RGB color filter
Reject ejection	High-speed air valves x 20
Light source	High luminance LED (Straight pipe type x 4, Surface emitting type x 2)
Accuracy *2	99%
Material flow adjustment mechanism	Vibration feeder
Material alignment mechanism	Flat chute and flat cover with special coating
Operation panel	7.5 inch VGA color liquid crystal touch panel
Outside dimensions	517mm(W)x958mm(D)x1722~1814mm(H)
Weight	Approx. 175kg
Power requirements	For domestic (Japan) AC100V For overseas countries *3 AC120V~240V
Electric power consumption	250W
Compressed air consumption *4	300NL/min
Operating temperature range	0°C~40°C
Camera resolution	0.03mm

*1: Max. throughput varies depending on characteristics, shapes and concentration of contaminants.

*2: Indicates the separation accuracy when the ratio of different-colored pellets (red or black) mixed into natural-colored pellets (milk-white or white) is less than 0.1%.

*3: If power supply is more than 200V, relay substrate, pilot lamp, changing varistor substrate and adding transformer according to power supply are needed.

*4: Air supply in a compressor needs 350 NL/min (0.6 MPa)

Screening Performance Verification Test

The screening test is performed using our testing facilities with materials provided by the customer. Both acceptable and non-acceptable material is necessary for the test. A witnessed test is also available if requested in advance.

- PLATON is the registered name of KUBOTA Corporation.
- Specifications and external appearance, etc., are subject to change without notice.

KUBOTA Corporation

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