

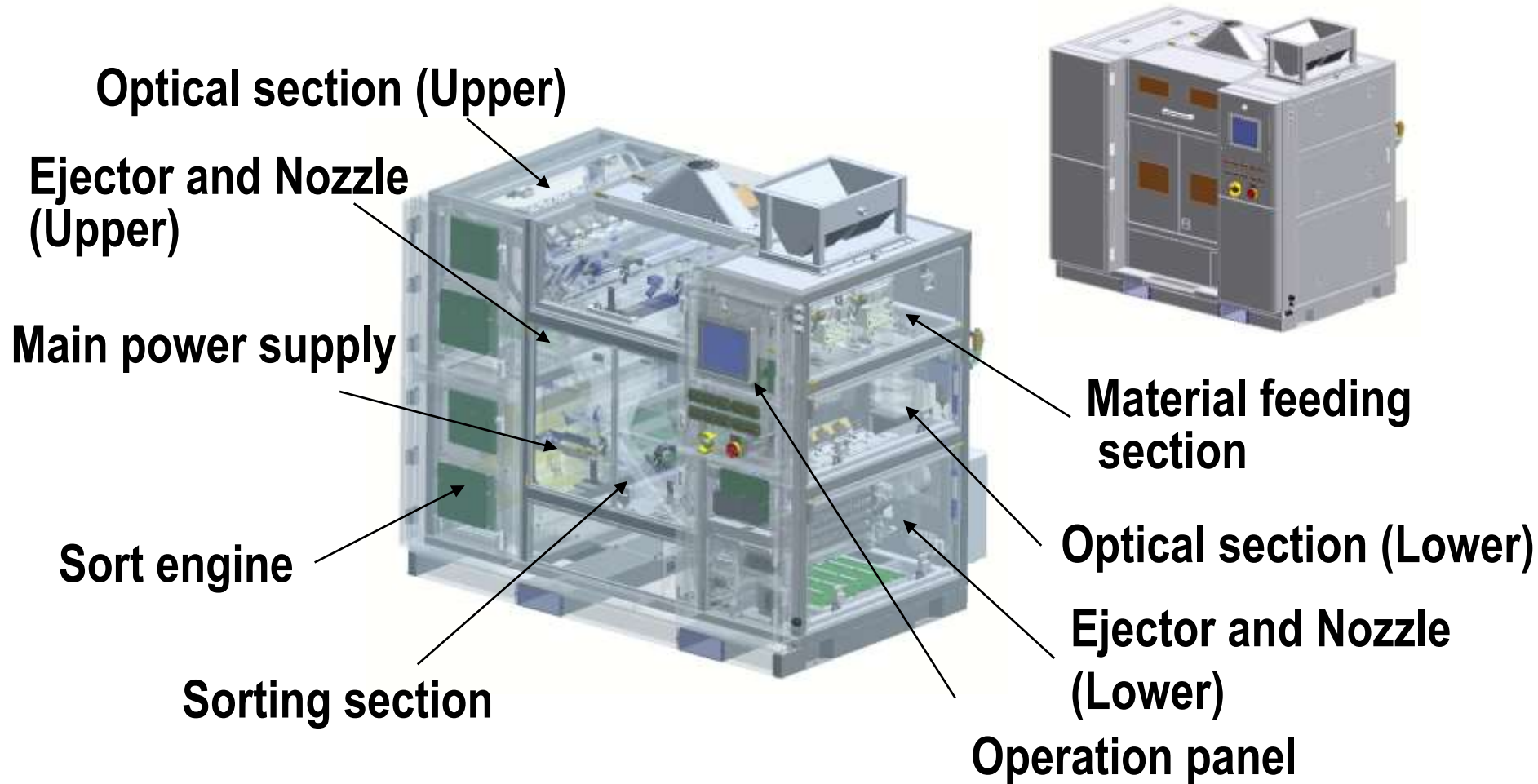
# PCS600BFD

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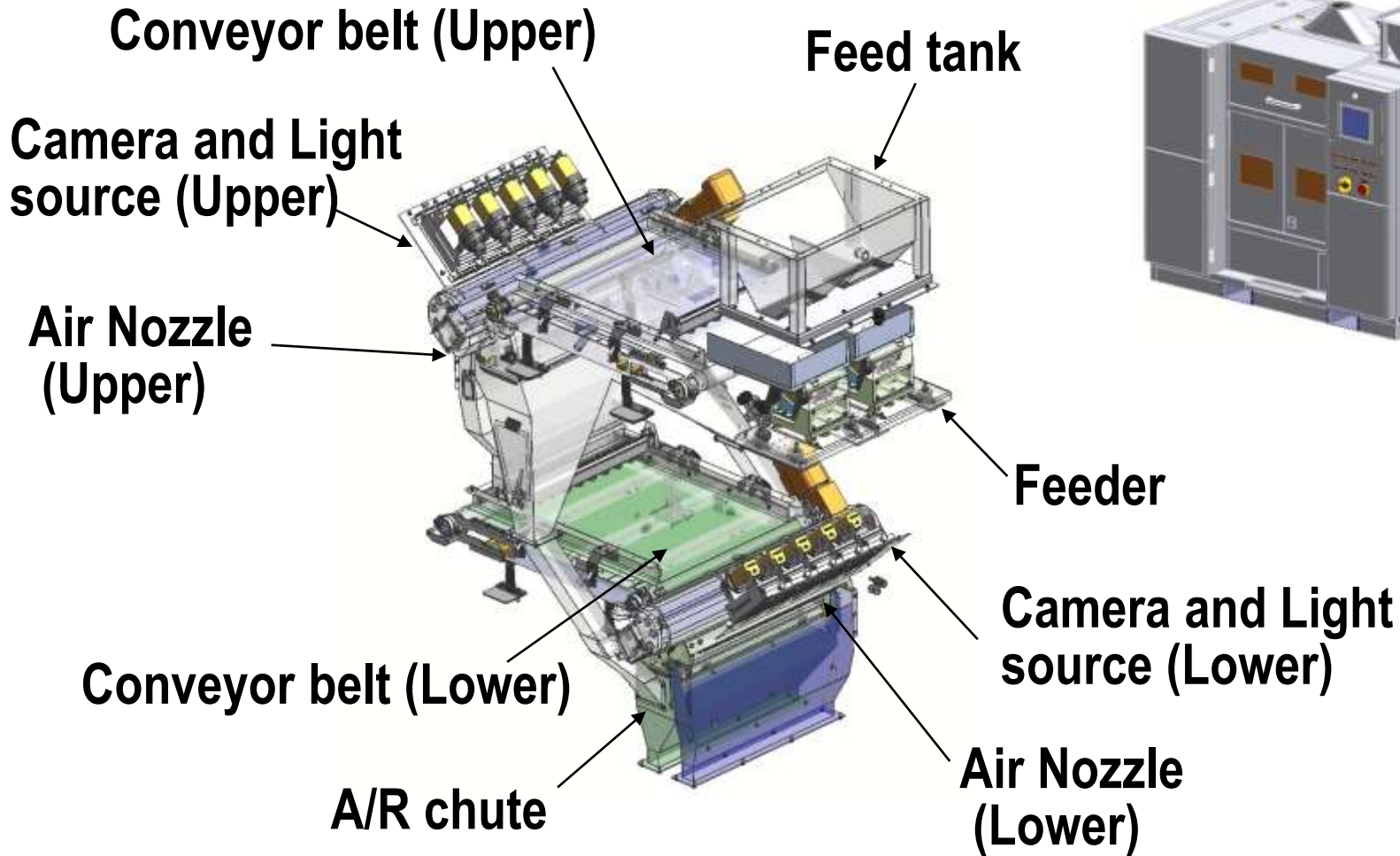
**PCS600BFD**

# Construction of PCS600BFD

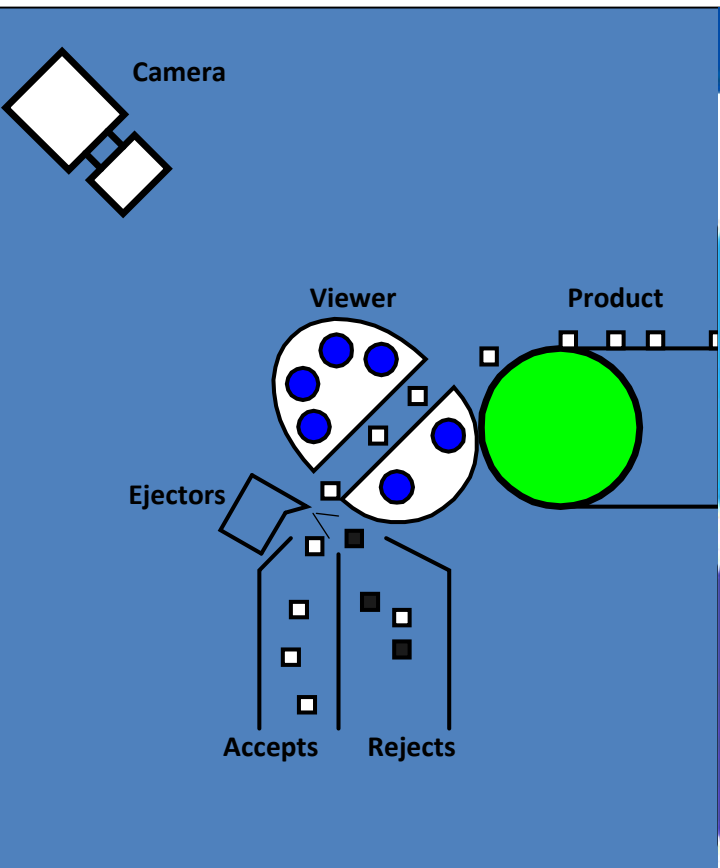


**Closed Body with Air conditioning system**

# Construction of PCS600BFD



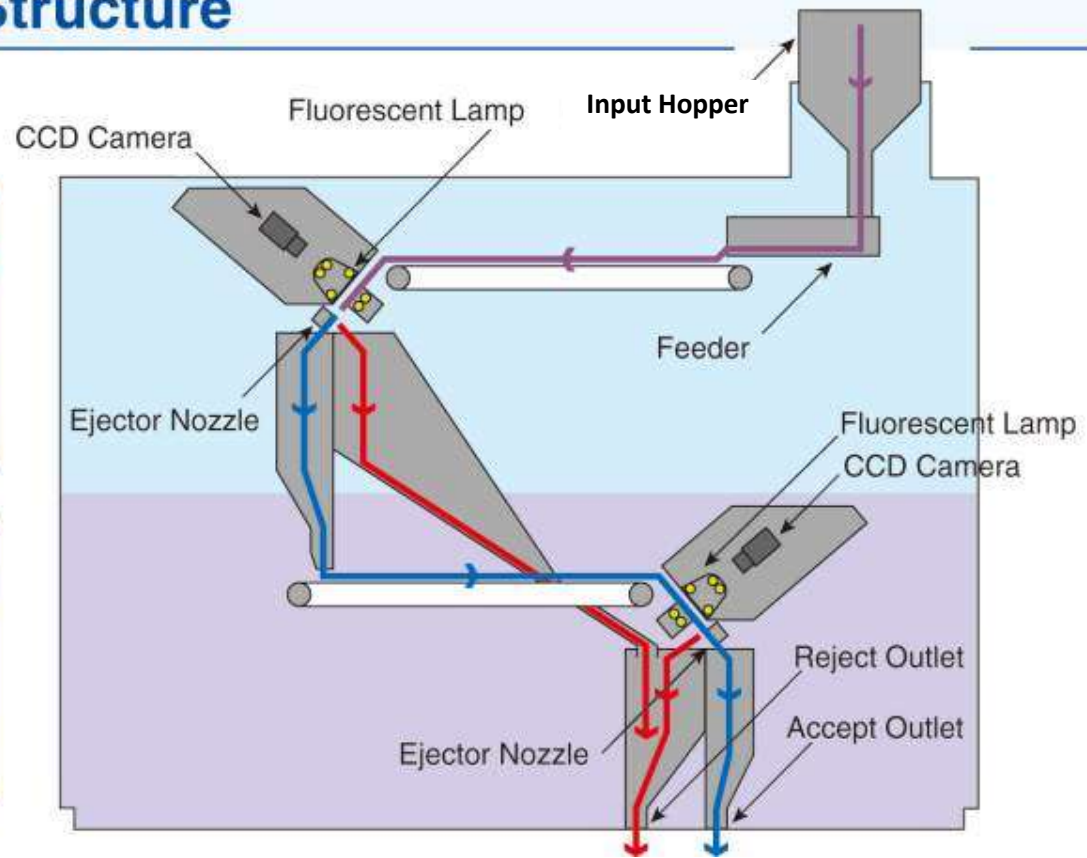
# Construction of PCS600BFD



## Structure

1st Stage

2nd Stage



One side view and 2 pass system

# Feature of PCS600BFD

## ■ High Resolution

5 monochromatic cameras 2048 pixels

Resolution =  $600\text{mm}/2048/5 = 0.06\text{mm}/\text{pixel}$

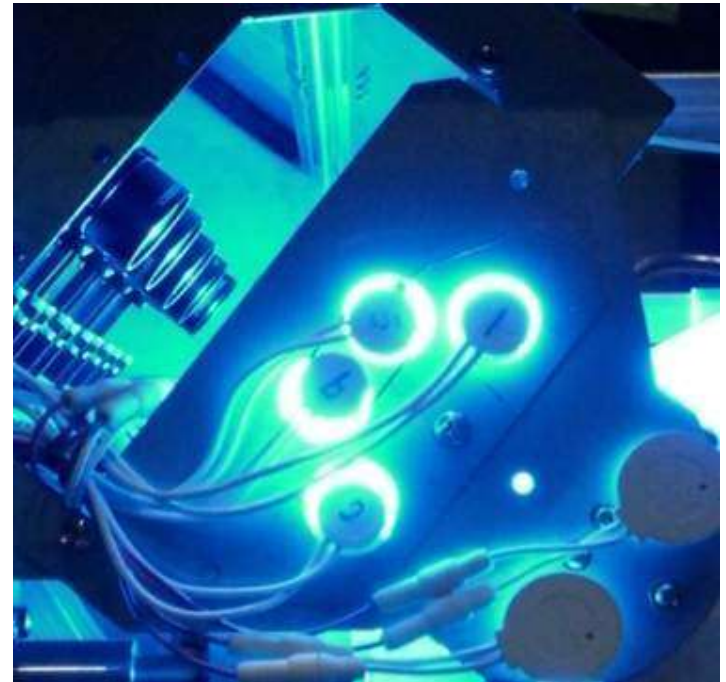
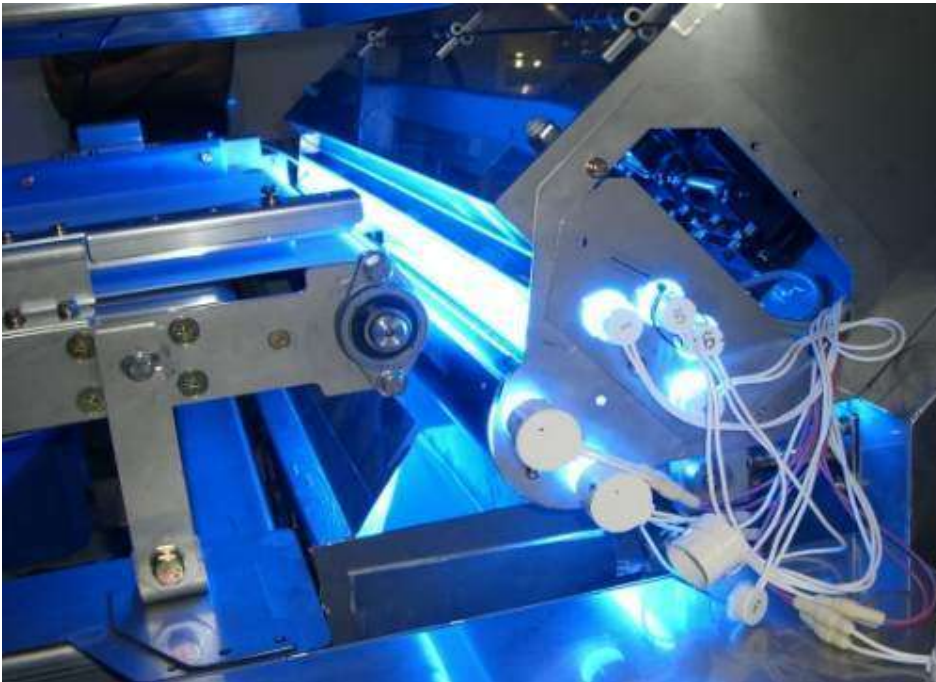


# Feature of PCS600BFD

## ■ Special lighting system in viewer

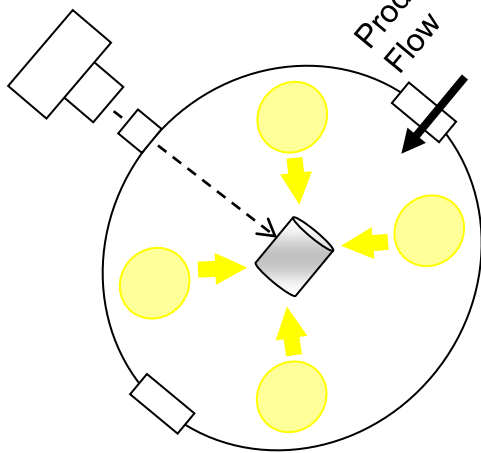
6 Blue Fluorescent Lamps (4 Top, 2 Bottom) for each viewing pass

Adjustable light level to accommodate different sorting applications such as transparent product.

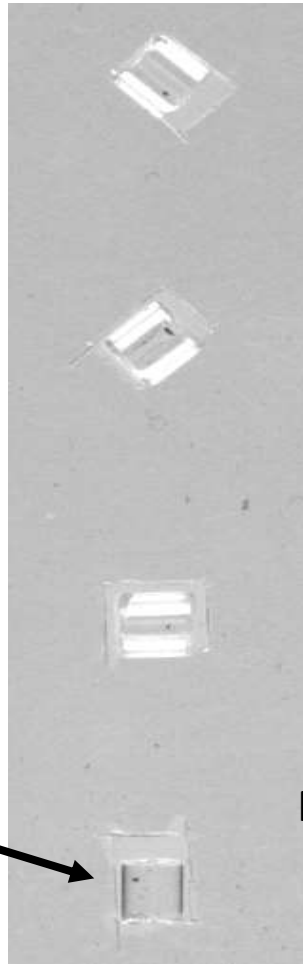


# Feature of PCS600BFD

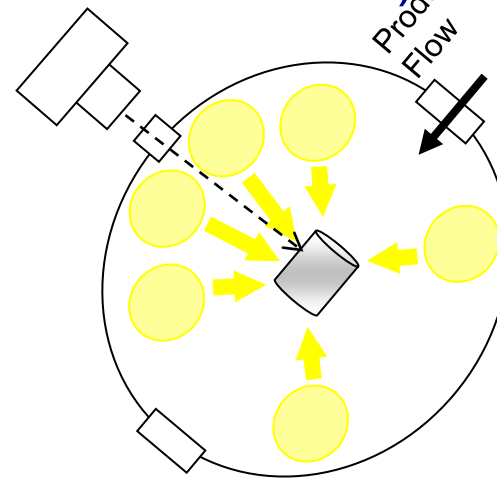
Pellet Sorter  
(CS  
Conventional)



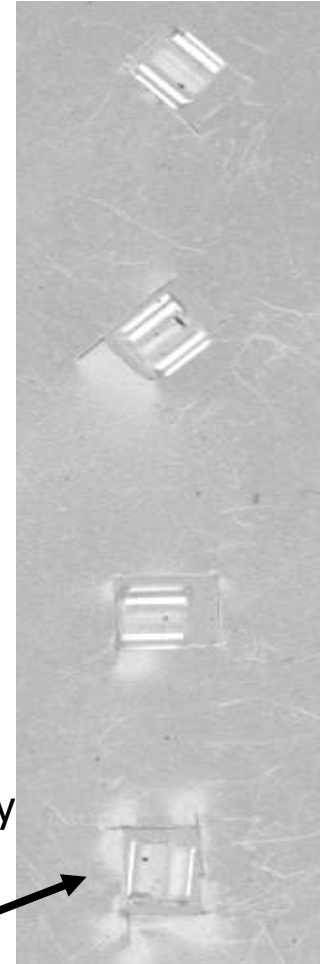
Miss detect  
shadow on both  
edges of pellet



Pellet Sorter  
(PCS  
Current model)



Possible to increase sensitivity  
due to reduce shadow  
by new optical box

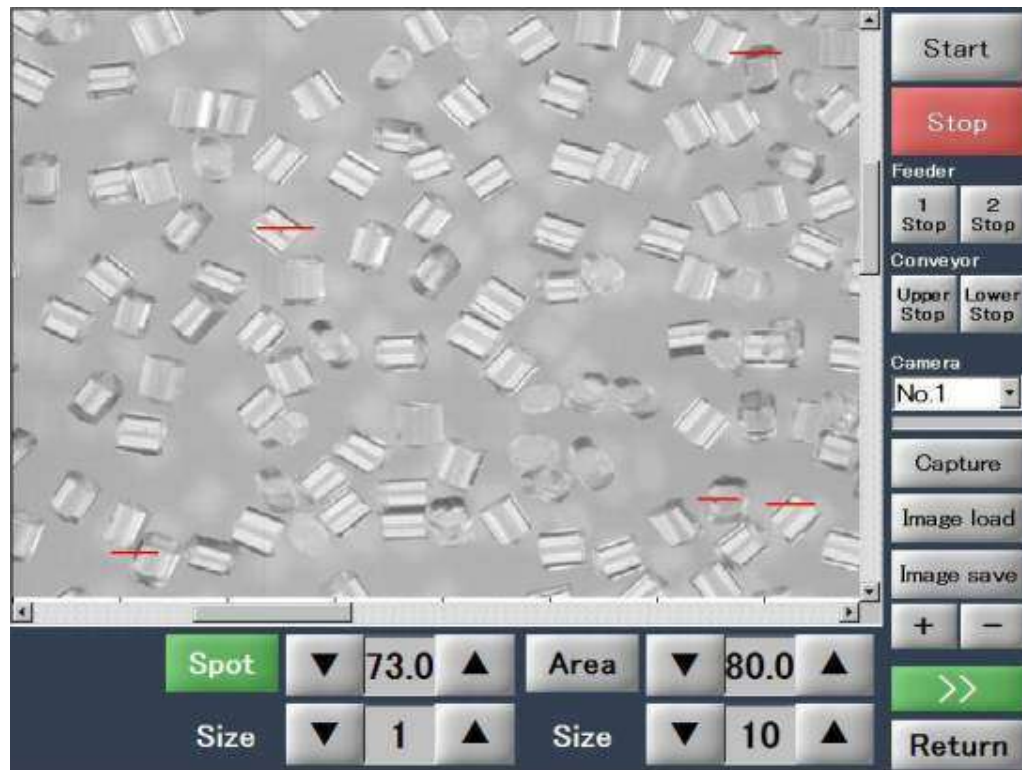


**Special lighting structure for reducing shadow**

# Feature of PCS600BFD

## ■ Sensitivity Simulation

The system can simulate Sorting Sensitivity by capturing image of the product. The defect is highlighted.



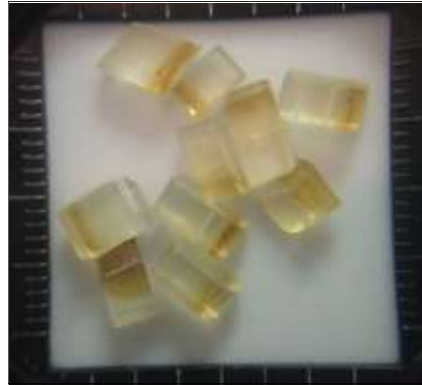


# Sort sample of PCS600BFD

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**Accept**



**Defects**

# Sort sample of PCS600BFD

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**Accept**



**Defects**

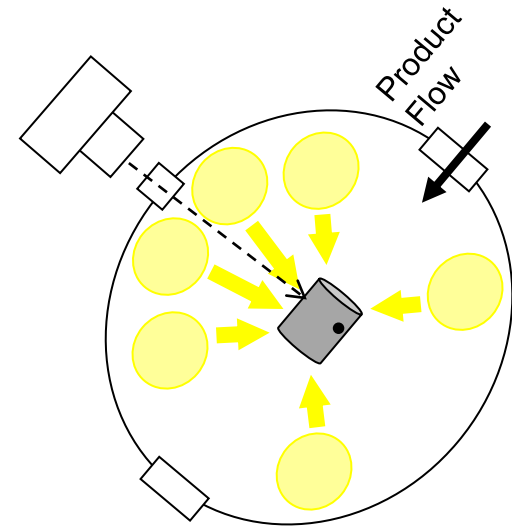
# Concern of PCS600BFD

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One side view **can not** detect defect spot on back side of  
Non-transparent (opaque) product.

# Concern of PCS600BFD



One side view

50% sorting efficiency (1st pass) + 50% sorting efficiency (2nd pass) gives **75% sorting efficiency MAX** theoretically.

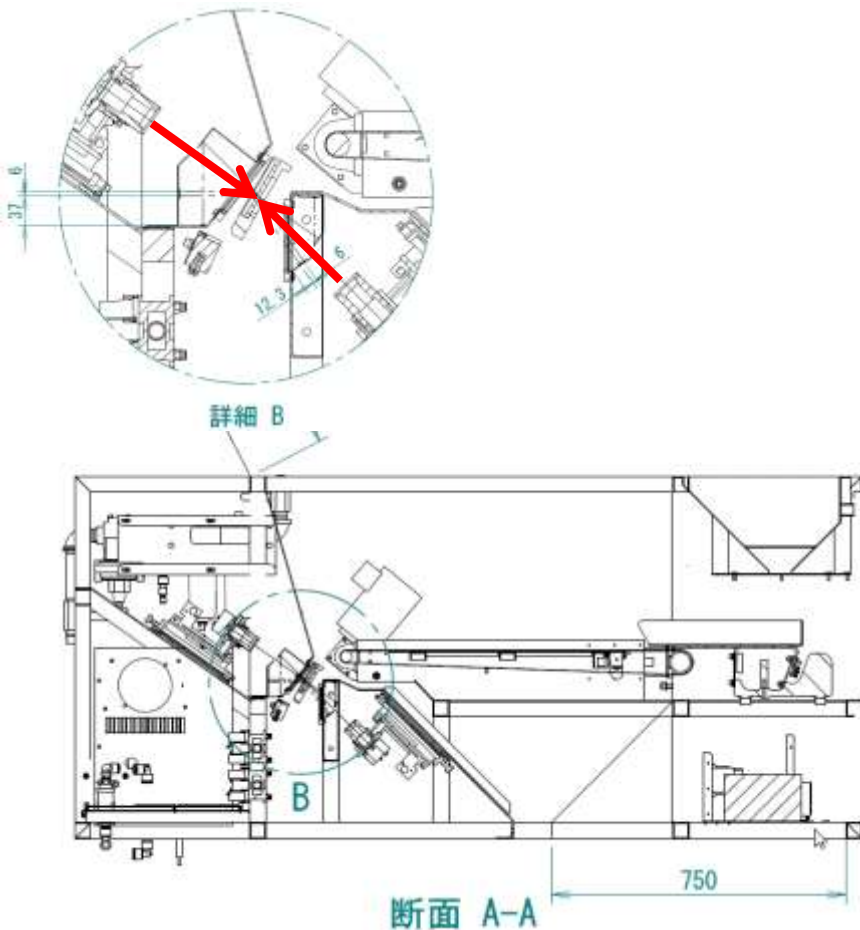
***New Model***

# **PCS600BDS**



**Both sides view 1pass system**

# Specification of PCS600BDS



Camera	Monochromatic
Resolution	0.06×0.06mm
Lighting	Blue LED
Ejector	5mm pitch×120
Belt width	600mm
Power	200V Single phase
Size (W,D,H)	1750*1388 * 1388
Option	White LED Additional Ionizer Tank shutter

# Specification of BFD and BDS

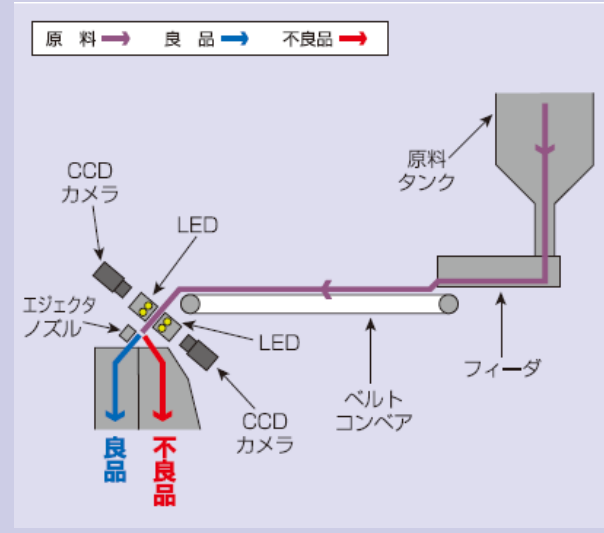
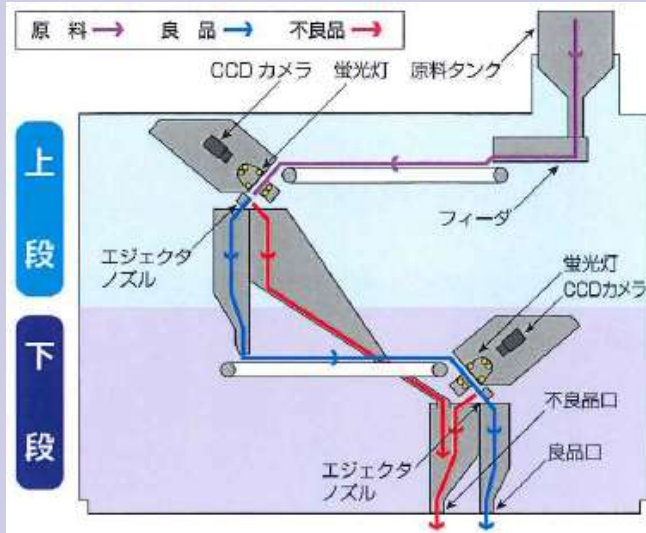
	PCS600BFD	PCS600BDS
Structure	<p>原料 → 良品 → 不良品 →</p> <p>上段</p> <p>下段</p> <p>CCDカメラ 蛍光灯 原料タンク</p> <p>フィーダ</p> <p>エジェクタノズル</p> <p>蛍光灯 CCDカメラ</p> <p>不良品口</p> <p>良品口</p> <p>エジェクタノズル</p>	<p>原料 → 良品 → 不良品 →</p> <p>原料タンク</p> <p>フィーダ</p> <p>CCDカメラ</p> <p>LED</p> <p>エジェクタノズル</p> <p>LED</p> <p>CCDカメラ</p> <p>ベルトコンベア</p> <p>良品</p> <p>不良品</p>
Spec.	One side view, 2 Pass	Both sides view, 1 Pass
Target	Transparent	Non-Transparent (Opaque)
Feature	Minimize shadow effect	Both sides detection

# Specification of BFD and BDS

## PCS600BFD

## PCS600BDS

Structure



Target





# Detection Principle

## Two Types of Defect Sensitivity:

1. Speck Sensitivity: To detect small black specks
2. Area Sensitivity: To detect whole or mostly discolored pellets. Sensitivities can be used simultaneously (together).

