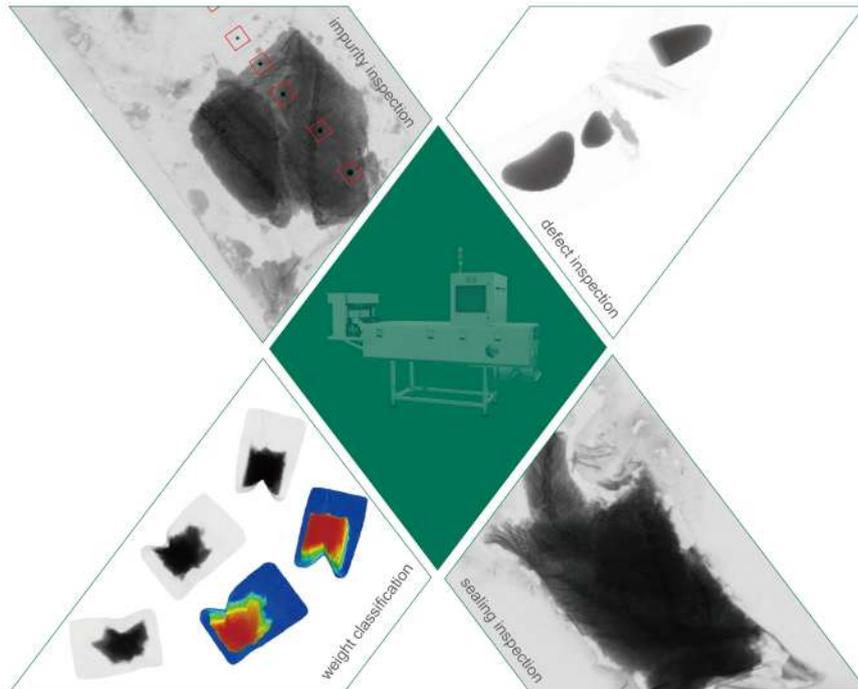


The New Generation of AI+ Digital Intelligent X-ray Machine



MEYER X-RAY INSPECTION SOLUTIONS

Strictly adhering to the core value of "Pursue Quality, Serve Customers", Meyer is committed to the performance, reliability and other key indicators, and endeavors to achieve the best products, and continued to create values for customers. Through standardization, modularization and intelligent design at source, Meyer had built two intelligent factories with multiple advanced intelligent production lines, including fully intelligent bending centre, robotic welding production line, robotic spraying production line, unmanned production line of core components, flexible assembly workshop, etc., to achieve the consistent quality of Meyer products, no matter whether it is one unit or ten thousand units.

Adhering to the mission of "making everyone enjoy safe and healthy life", Meyer has expanded X-ray detection application to cover packaged food inspection, canned food, aquatic products inspection, fish bone, sealing oil leak detection etc., mainly provided X-ray foreign impurity detection, defect detection, weight, and the sealing solution, create greater value for customers.



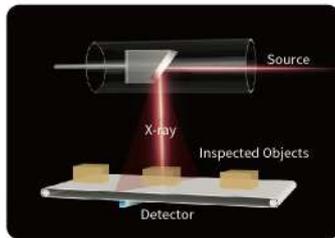
MEYER X-RAY INSPECTION MACHINE

Four advantages

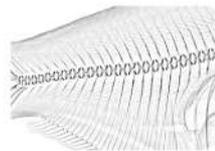
PART 1

High Precision Advantage

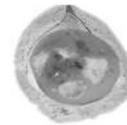
Using the international advanced beryllium window source, equipped with X-ray imaging technology, the imaging is clearer, and impurities with similar density can be easily identified



Can match 0.1mm TDI detector, minimum recognition accuracy up to 0.05mm



0.05mm fish bones



0.5mm nut internal disease spot

Five advantages of Meyer AI deep learning technology

Data Advantage

Built the industry's first large sample library and large model library

Programme Advantages

The 4M1E foreign impurities and defects fine detection system covering a wide range of areas

Innovation Advantages

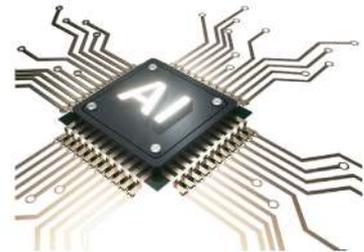
Breaking the industry bottleneck of deep learning for small target detection

Reliability Advantages

Distributed AI edge computing units dedicated to industrial scenarios

Platform Advantages

With an experienced AI team

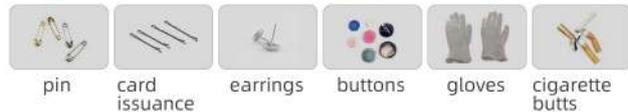


4M1E Foreign Impurities and Defects Refinement Detection System

Five key elements to detect foreign impurities and defects that may be present or mixed in at all stages of food processing

Element One — Man

Production personnel and maintenance equipment personnel who come into contact with products



Element Two — Machine

Equipment and processing utensils used in the production of foodstuffs, etc.



Element Three — Material

Raw materials used in the production and processing of food, including raw materials for food and packaging materials



Element four — Method

Methods and processes used in the production and processing of food



Element five — Environments

The environment in food production and processing includes storage, ingredients, processing, packaging and logistics processes

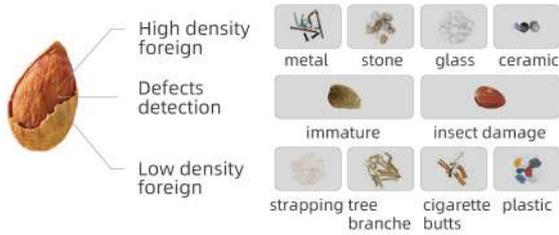


IMPURITIES AND DEFECTS REFINEMENT DETECTION EXPERTS

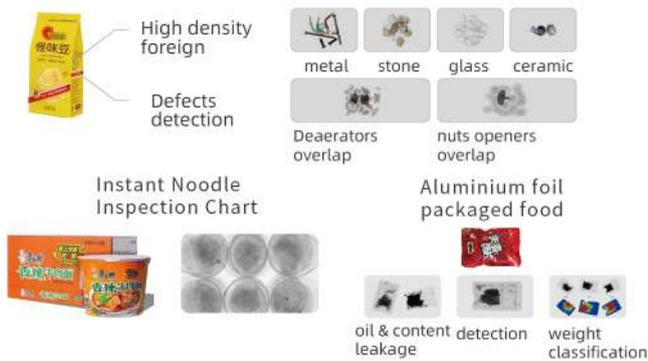
PART 2

Full-scene Advantages

Detection of foreign impurities and defects in food ingredients



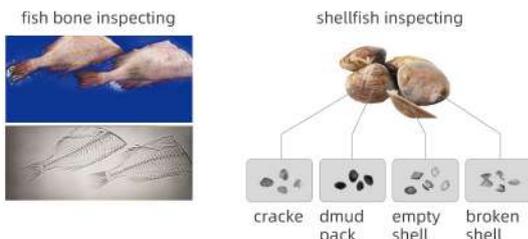
Detection of foreign impurities and defects in packaged food



Bottled and canned food foreign impurities detection



Sea food foreign impurities detection



PART 3

High Reliability Advantages

Engineering design, standard production

Highly stable and reliable structure of the whole machine



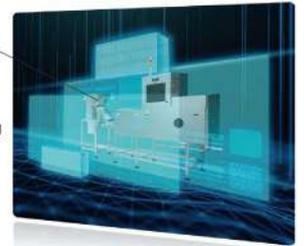
Innovative equipped with digital electrical topology

The ability to control sudden failures of core components from the source, ensuring stable and reliable line operation

45% less redundant control modules than conventional color sorters

High level of integration and interference immunity

Can be connected to the electronic control system together with packaging machines, multi-head weighing machines, specific gravity machines, gold detectors, etc. to facilitate the user's centralized management of production operations



Self-adjusting parameters, no manual intervention required

Stable and reliable detection, easy to use and maintain



Omits parameter adjustment process to ensure stable performance

Extremely simplified interface for hassle-free operation

Digitalization and Intelligence Advantages

PART 4

Digitalization and Intelligence Advantages

AI Stable Efficiency Manager

Smart Imaging

Real-time calibration of the imaging system improves detection accuracy and eliminates interferences such as temperature, light source, debris and dust. The dynamic sleep mode of the light source saves energy and reduces consumption, and extends the lifespan of the light source.

Intelligent Control

Real-time monitoring of material blockage, self-protection in abnormal conditions to ensure continuous production; Provide IO status switch signals to achieve control linkage between the front and rear ends of the production line.

AI Device Manager

Multi-device Management

All production information, alarm information, etc. of the devices can be viewed on the mobile phone, and one person can control multiple devices.

Smart Maintenance

Timely push maintenance and upkeep reminders on the mobile phone, such as parts replacement and air compressor maintenance, to prevent a series of subsequent malfunctions caused by untimely maintenance.

AI Operation and Maintenance Manager

Online Operation&Maintenance

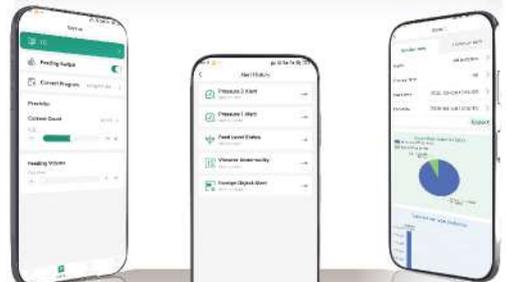
Online diagnosis of the status of key components reduces the risk of downtime and provides remote debugging.

Status Monitoring

Real-time monitoring of status such as images, output, and impurity content.

1+N Integrated Line IoT

Through the digital and intelligent large screen, the data of each section can be viewed, and the processing parameters can be dynamically adjusted to ensure efficient operation.



MY INTEGRATED STRUCTURE DESIGN MORE PRECISE AND RELIABLE



Standard Definition Version

Suitable for foreign impurity detection, nut deflation detection

High Definition Version

0.4mm TDI detector for spotted nut detection

Ultra HD Version

100% higher resolution than HD version, suitable for detecting internal moldy and wormhole of macadamia nut, sunflower seed etc.

AI Deep Learning Technology

Optional AI deep learning technology, can identify and reject high-density foreign impurities such as metal and stones, as well as to accurately identify low-density foreign impurities with complex characteristics and other defects.

Outstanding Yields

Special wide range detection sensor and high-frequency vibrator satisfy large yields requirement.

Low Consumption, High Profits

Creative high speed ejector removal device accurately removes impurities.

Wide Application

Widely used in the sorting and detection of nuts, kernels, peanuts, beans, dehydrated vegetables, tea, herbs and other bulk materials.

Meyer X-ray Inspection Machine for Food Material

Apply To



Macadamia



Sunflower seed



Walnut



Cashew



Peanut



Red bean



Chili



Raisins



Vegs

Application Field



Empty



Moldy



Germinant



Insect Damaged



Deflated



Insect Damage



Metal



Glass



Stone

Model	MY8090-120XS/MY8060-80XS/MY8045-60XS	Power supply	AC180~240V, 50Hz±3Hz, single phase
Dimensions (mm)(LxWxH)	2530x1560x2200/2530x1250x2400/2530x1100x2200	Air pressure(MPa)	0.6-0.8MPa
Net weight (kg)	780/680/580	Air consumption (m ³ /min)	≤0.6/≤0.4/≤0.3
Conveyor belt width(mm)	1030/720/570	X-ray output	210W, Max45kV/6.0mA(120XS) / 350W, Max80kV/8.0mA(80/60XS)
Detected material size range(mm)	widths900, heights35/widths600, heights35/widths400, heights35	X-ray leakage(μSv/h)	≤1
Conveyor belt speed(m/min)	10-120 (Adjustable)	Detect accuracy(mm)	SUS ball≥Φ0.4
Rated power (kw)	2.8/2.5/2.0	User Interface	17" LCD touch screen
Ambient temperature(°C)	0 ~ 40	Ambient humidity RH(%)	30 ~ 85

MY PACKAGED FOOD INSPECTION EXPERT



Inspection Size Table

Width	Thickness
247mm(9.72")	150mm(5.91")
273mm(10.75")	125mm(4.92")
298mm(11.73")	100mm(3.94")
324mm(12.76")	75mm(2.95")
349mm(13.74")	50mm(1.98")
375mm(14.76")	25mm(0.98")
400mm(15.75")	conveyor belt

Meyer X-ray Inspection Machine for Small and Medium-sized Packaged Food

AI Deep Learning Technology

Optional AI deep learning technology, can identify and reject high-density foreign impurities such as metal and stones, as well as to detect foreign impurities in the package that overlap with deoxidizers and nut openers, effectively avoiding the detection of blind zones.

Rich Removal Devices

Equipped with swing removal, turning removal, pushing removal, blowing removal etc., meet different needs.

All-in-one Machine

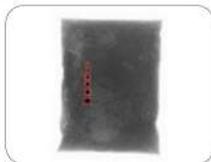
Three-in-one of oil leakage detection, weight classification, and foreign impurities detection.

Wide Application

Widely used in the sorting and detection of leisure food, baked food, meat, dairy products, frozen food, veg products and packaged products missing detection.



Packaged Nuts



Inspection Image



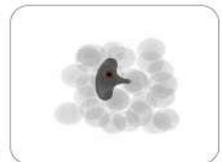
Barreled Instant Noodle



Inspection Image



Deaerators Overlap



Inspection Image



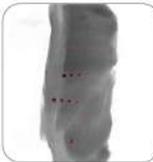
Jelly



Inspection Image



Meat



Inspection Image



Ham



Inspection Image



Meat Balls



Inspection Image

Model	MY8045-XM	Power supply	AC220V±10%, 50Hz±3Hz, single phase
Dimensions (mm)(L×W×H)	1108×1101×2045	Air pressure(MPa)	0.6 ~ 0.8
Net wight (kg)	300	Air consumption (m ³ /min)	≤0.4
Conveyor belt width(mm)	570	X-ray output	350W, Max80kV/8.0mA (adjustable)
Detected material size range(mm)	widths445, heights200	X-ray leakage(μSv/h)	≤ 1
Conveyor belt speed(m/min)	10-80 (adjustable)	Detect accuracy(mm)	stainless steel ball ≥Φ0.3, stainless steel wire ≥0.2×2, ceramic/glass ball ≥1
Rejection device	Alarm, air blowing, push plate, flip plate, etc. (optional)	User Interface	17" LCD Touch Screen
Rated power (kW)	2.0	Maximum load capacity (kg)	10
Ambient temperature(°C)	-10 ~ 40	Ambient humidity RH(%)	30 ~ 90

MY LARAGE PACKAGED FOOD INSPECTION EXPERT



Inspection Size Table

Width	Thickness
292mm(11.50")	300mm(11.81")
340mm(13.38")	250mm(9.84")
388mm(15.28")	200mm(7.87")
436mm(17.16")	150mm(5.91")
484mm(19.06")	100mm(3.94")
532mm(20.94")	50mm(1.97")
580mm(22.83")	Conveyor belt

Wide Detection Range

480W high-power high-pressure emitter, stronger to penetrate heavy materials, support large packaged food detections $\leq 25\text{kg}$

High Inspection Accuracy

Equipped with deep learning technology and patented enhancement algorithms, it focuses on the recognition of foreign impurities in thick and heavy materials with excellent sorting effect

Stable Operating

Automatic anti - deviation conveyor belt design avoids the belt deviation

Meyer X-ray Inspection Machine for Food Material



Additives



Inspection Image



Yeast Powder



Inspection Image

Model	MY12060-XM	Net weight(kg)	680
Conveyor belt speed(m/min)	10-60	Load(kg)	25
Conveyor belt width(mm)	680	Removal device	Alarm and pneumatic push plate rejection
Size of materials(mm)	Widths580, Heights300 Trapezoidal detection area	Main material	SUS 304
Configuration(mm)(L*W*H)	2035x1350x2190	Power supply (V)	2KW, AC220V+10%, 50Hz \pm 3
X-Ray output(W)	480W(Max)120kV/8.0m adjustable optional350W(Max) 80kV/8.0m adjustable	Protection Level	Transmission part IP65, Other IP54
Sensitivity (no-load)	SUS ball \geq ϕ 0.4, SUS wire \geq ϕ 0.2x2, Glass ball \geq ϕ 1.0, Ceramic ball \geq ϕ 1.0		
Service environment	(Ambient temperature)-10-40 °C , Relative humidity30-90% , No condensation,no freezing,upheaval		

MY FOUR-VIEW ANGLE TECHNOLOGY DESIGNED FOR CANNED AND BOTTLE FOOD INSPECTION



Wide Detection Range

Unique four-viewing angle technology, breaking through the bottoms of bottles and cans can not detect the technical bottleneck of foreign objects, more comprehensive imaging

Higher Precision

Equipped with deep learning technology, more efficient and accurate detection of foreign impurities and defects of complex features, significantly improving detection accuracy

Outstanding Yield

Based on rapid imaging and efficient rejection, the output increased by 60%, significantly improving efficiency, to meet the needs of high-speed production lines

Meyer X-ray Inspection Machine for Canned and Bottle Food



Milk Powder Can



Luncheon Meat



Canned Yellow Peaches



Canned Asparagus



Glass Bottle Sauce



Pickled Vegetables In Glass Bottles



Model	MY12015-XL	Net weight(kg)	950
Conveyor belt speed(m/min)	10-60(adjustable)	Removal device	Pneumatic push plate rejection
Conveyor belt width(mm)	170	Air pressure	0.6-0.8MPa
Size of materials(mm)	width≤150, height≤240	X-ray output	350W, Max80kV/8.0mA
Configuration(mm)(L*W*H)	3000×1237×2104	Interface	17 inch LCD touch screen
Service environment	Ambient temperature 0-40°C, relative humidity 30-90% no condensation, no freezing, upheaval	Protection Level	IP65
Power supply (V)	AC220V±10%, 50Hz±3, ≤4.5kW		
Sensitivity(mm)	SUS ball≥0.3, SUS wire≥0.2X2, Ceramic ball≥1.0, Glass ball≥1.0		

MY REVEAL THE HIDDEN FISHBONE



High Inspection Accuracy

Equipped with ultra - high resolution sensor, the minimum detection accuracy can reach 0.05mm

Faster Recognition of Impurities

Equipped with 4K HD screen, clearer image display

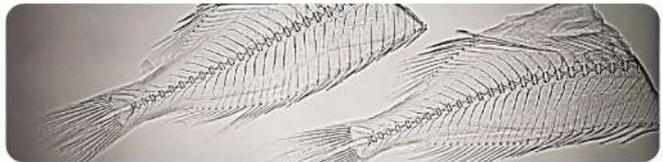
Wide Application

Suitable for impurities detection of fish bone, infant food and other products with high standards

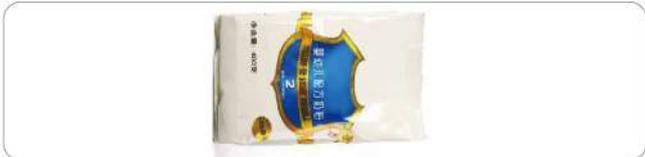
Meyer Ultra HD X-ray Inspection Machine



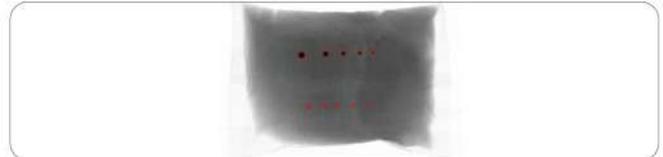
Fillet



Inspection Image



Baby Milke



Inspection Image

Model	MY8045-XM (fish bone)	Power supply	AC220V±10%, 50Hz±3Hz, single phase
Dimensions (mm)(L×W×H)	2261×1101×2045 (main body only, excluding independent screen)		
Net wight (kg)	350		
Conveyor belt width(mm)	570	X-ray output	350W, Max80kV/8.0mA (adjustable)
Detected material size range(mm)	width≤190, heights200 (narrow version) width≤390, heights200 (broad version)	X-ray leakage(μSv/h)	≤ 1
Conveyor belt speed(m/min)	10-80 (adjustable)	Detect accuracy(mm)	0.1mm TDI detector, minimum resolvable feature size 0.05mm for stainless steel ball or wire
Rejection device	Alarm, air blowing, push plate, flip plate, etc. (optional)	User interface	17" LCD Touch Screen
Ambient temperature(°C)	-10 ~ 40	Ambient humidity RH(%)	30 ~ 90

X-RAY SECURITY AND RELEVANT REGULATIONS

Removal Structure



Food Safety

According to relevant regulations, X-ray dose for food should be lower than 0.1Gy, that will not affect the quality of food. As the statement of Food Health Organization in 1980, "there is no problem about toxicity, nutrition and microorganism for the food under X-ray dose below 10KGy".

▶ Meyer X-ray Inspection Machine
Maximum X-ray dose is **0.001Gy**

▶ Operation staff whole body exposure
 $5\text{mSv} \times 1000 / (365 \text{ days} \times 8 \text{ hours}) = \mathbf{1.71\mu\text{Sv/h}}$

Personal safety

According to *Ionizing Radiation Failure Prevention Rules Japan*, administrative areas and operation managers need to be set up when accumulative X-ray leakage dose reaches 1.3mSv in three months.

The X-ray leakage of our machine is $1\mu\text{Sv/h}$ or less. For the value is lower than 1.35 mSv/3 months, there is no need to set up administrative areas and operation managers.

(example)

Three months' X-ray leakage calculation.

The same staff works 5 days a week and 10 hours a day 3 months, 13 weeks:

$1 \text{ Sv/h} \times 10 \text{ hours} \times 5 \text{ days} \times 13 \text{ weeks} = 0.65 \text{ mSv/3 months}$

★ In accordance with Chinese national standards



Meyer - Global Leading Provider of X-ray Inspection Machine

A - share stock code: 002690

- National Certified Enterprise Technology Center
- National Agriculture Product Intelligent Sorting Equipment Engineering Research Center
- National Postdoctoral Research Workstation
- National Innovative Enterprise
- National Technological Innovation Model Enterprise
- Key Software Enterprises within the National Planning Layout
- Key High-Tech Enterprise of the National Torch Plan
- National Intellectual Property Model Enterprise
- National Industrial Brand Cultivation Model Enterprise
- Key Laboratory of Photoelectric Sorting Technology in Anhui Province
- Intelligent Sorting Technology Innovation Center in Anhui Province
- Top 100 in value among listed companies on the stock market
- Top 100 potential listed companies in China by Forbes
- Top 500 in value among listed manufacturing companies in China
- Top 500 in China's machinery industry
- Top 500 in China's new economy enterprises
- Top 500 Chinese innovative brands
- Top 500 Chinese brands
- Top 50 in tax contribution among private enterprises in Anhui Province
- Top 100 Private Enterprises of Import and Export in Anhui Province



Major Events

- | | | | |
|------|---|------|---|
| 2000 | · Meyer was founded | 2019 | · First X-Ray inspection machine for nuts with empty and wormhole was released |
| 2006 | · First-time recipient of the Chinese National Science and Technology Progress Award | 2020 | · Meyer Intelligent Factory(component assembly production base) put into operation successfully
· Awarded "Satisfactory Equipment Supplier for Canned Enterprises" |
| 2009 | · First X-Ray inspection machine was released (inspection of food material and small package) | 2021 | · First X-Ray inspection machine for sealing oil leakage was released
· Second-time recipient of the Chinese National Science and Technology Progress Award |
| 2012 | · Listed in stock market(A - share stock code: 002690) | 2022 | · Meyer Intelligent Factory(painted sheet metal production base) put into operation successfully |
| 2014 | · First X-Ray inspection machine for large package food was released
· First UHD X-Ray inspection machine for fishbone was released | 2023 | · First engineering X-Ray inspection machine was released |
| 2015 | · First X-Ray inspection machine for canned and bottled food was released
· First all-in-one X-Ray inspection machine for bulk material was released | | |

MY CUSTOMER CASE

Thanks for your smart choice.

M CUSTOMER PRODUCTION LINES



THE 1ST SMART FACTORY IN THE INDUSTRY

STANDARDIZATION MODULARIZATION INTELLIGENTIZATION DIGITALIZATION

- Over 20 automatic intelligent production lines and unmanned core component workshops
- World-leading machining equipment ensure high consistency and precision of parts
- Advanced production technology and strict debugging ensure the stable performance of core components
- The only high-standard intelligent painting workshop in the industry makes Meyer color sorter more corrosion-resistant and more environment-friendly
- The only final assembly line in the industry, with the CNC system automatically monitoring the whole process, boosts production's efficiency
- Making products to the best, whether 1 or 10,000 sets, always with the consistent quality.



Sheet Metal Flexible Processing Line



The first intelligent plate bending centre in Anhui Province



Automated Racks Welding Production Line



Robot Coating Production Line



Meyer Intelligent Factory (component assembly production base)



Meyer Intelligent Factory (painted sheet metal production base)



Maglev Ejector 3.0 Unmanned Production Line



Color sorter assembly line

Intelligent Partner, Infinite Wisdom

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