

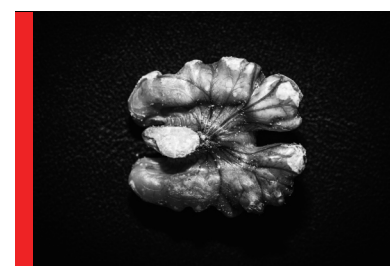
PRODUCT CATALOG

全氮工业



*ENABLE THE MACHINE UNDERSTAND THE RESOURCE*

ENABLE THE MACHINE  
UNDERSTAND THE RESOURCE.



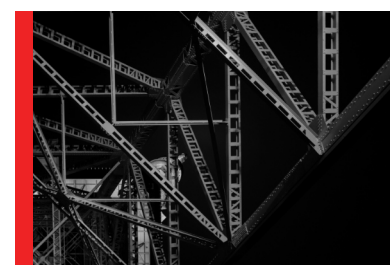
#### UNDERSTAND MATERIALS •

Through intelligent identification and data analysis, we evaluate quality, grade, and characteristics with precision—making sorting more scientific, efficient, and value-driven.



#### UNDERSTAND TIME •

With high-speed processing and intelligent decision-making, our systems reduce sorting cycles, optimize production flow, and enable higher output within the same timeframe.



#### UNDERSTAND SPACE •

By optimizing machine structure and process design, we help customers maximize limited space, streamline operations, and achieve better efficiency with lower cost.

RESOURCE

Since •

2019

Ifsquare Industrial Technology is headquartered in Hangzhou, China, specializing in intelligent agricultural equipment and integrated system solutions. Our core businesses include agricultural product quality inspection, intelligent sorting, and agricultural robotics. "Ifsquare" represents infinite possibilities, reflecting our continuous exploration of new frontiers in smart agriculture.

With the mission of "Enable the Machine Understand the Resource," we are committed to connecting advanced technologies with agricultural production. Beyond equipment manufacturing, we focus on developing intelligent solutions that improve efficiency, precision, and automation across the agricultural industry.

Since our establishment, Ifsquare has been dedicated to agricultural product quality inspection, building advanced technology platforms and delivering reliable solutions to customers worldwide. Our systems have been deployed across multiple countries and regions, with strong expertise and leading capabilities in nut internal sorting.

Looking ahead, Ifsquare Industrial Technology will continue to drive innovation in inspection, sorting, robotics, and intelligent agricultural systems, shaping a more automated and efficient future for global agriculture.

Ifsquare's intelligent sorting solutions cover major global nut producing regions, with up to 70 percent market share. Partnering with leading nut and agricultural companies worldwide, we continue to drive the industry toward greater intelligence and efficiency.

## • CORE MARKET SHARE

70%

IFSQUARE INDUSTRIAL



# QMAX

Four-Class Optical Sorter



| Machine Dimensions    | Feeder Dimensions   | Scanning Width | Cameras |
|-----------------------|---------------------|----------------|---------|
| 4910 × 800 × 2115 mm  | 900 × 700 × 700 mm  | 600 mm         | 2 - 5   |
| 4910 × 1400 × 2115 mm | 900 × 1300 × 700 mm | 1200 mm        | 4 - 10  |
| 4910 × 2000 × 2115 mm | 900 × 1900 × 700 mm | 1800 mm        | 6 - 15  |
| 4910 × 2600 × 2115 mm | 900 × 2500 × 700 mm | 2400 mm        | 8 - 20  |

| Air Pressure | Air Consumption | Power Rating | Power Supply     |
|--------------|-----------------|--------------|------------------|
| 0.6 Mpa      | 1800L / min     | 7.5 kW       | 220VAC 50 Hz 8kW |

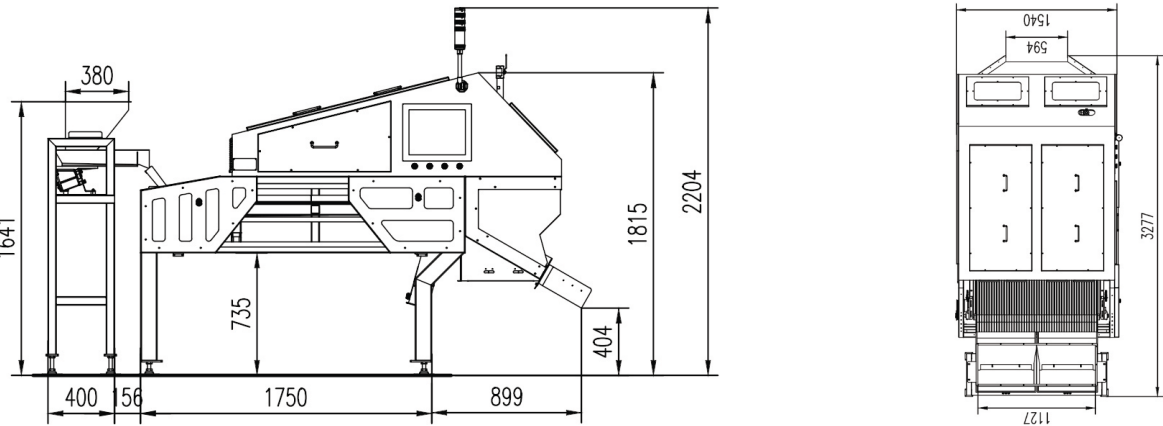
- Four-Level Synchronous Sorting

Complete four-way sorting in one pass, reducing repeated processes and improving efficiency.
- Intelligent Recognition

AI-powered sorting detects color differences, defects, impurities, and shape variations.
- High-Speed Imaging

Captures color, texture, and surface details accurately during high-speed operation.
- Stable & Efficient Output

Industrial software ensures fast processing, low latency, high accuracy, and stable sorting performance.



360°  
Omnidirectional  
Detection

8  
HD Cameras

4  
Sorting Levels

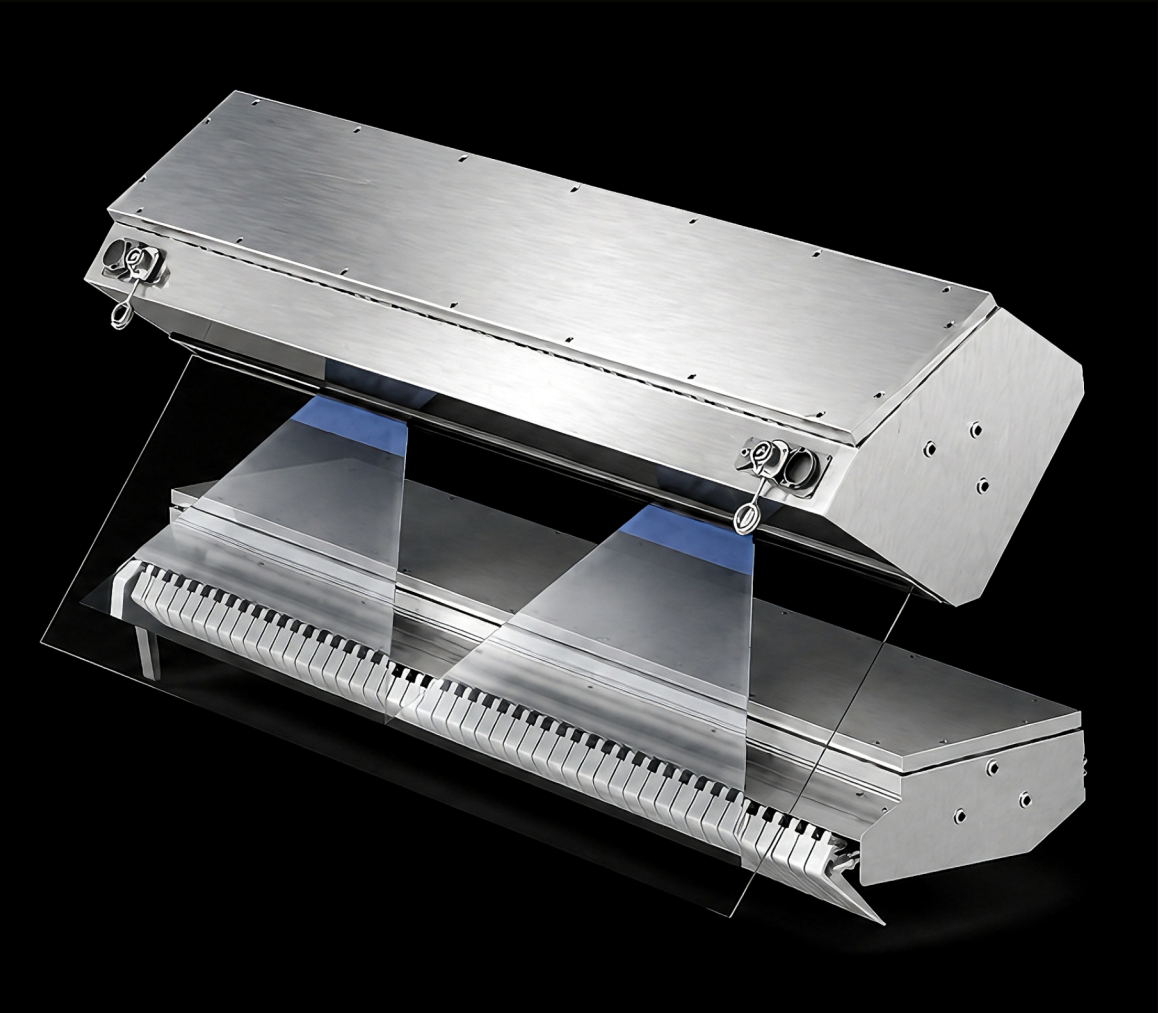
4  
Detection Angles

1-3  
m / s  
Conveying Speed

1-3  
Valve Groups

# QMAX-T

Tomato Optical Sorter



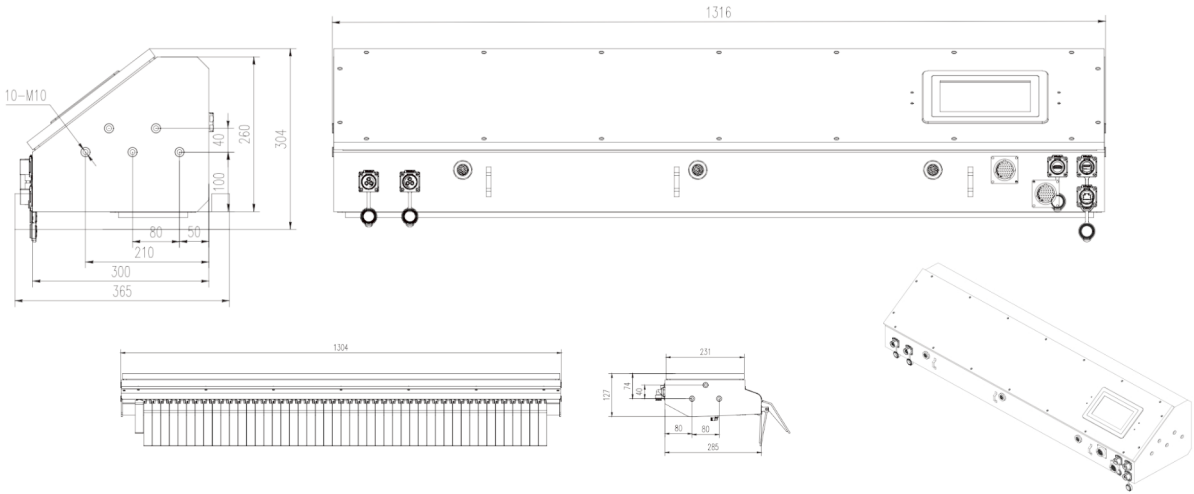
250<sup>°</sup>  
Wide-Angle  
Detection

8  
HD Cameras

3  
Sorting Levels

|                    |              |                      |
|--------------------|--------------|----------------------|
| Machine Dimensions |              | 4910 × 1400× 2115 mm |
| Feeder Dimensions  |              | 900 × 1300 × 700 mm  |
| Ejectors           |              | 48                   |
| Scanning Width     |              | 1200 mm              |
| Resolution         |              | 0.125 - 0.5 px / mm  |
|                    |              |                      |
| Air Pressure       | Power Rating | Power Supply         |
| 0.4 - 0.5 Mpa      | 0.5 kW       | 24V DC 0.55KW        |

- Tomato-Specific Sorting Model  
Designed for tomato ripeness detection, ensuring consistent sorting quality.
  - High-Speed Continuous Processing  
Enables real-time detection and ejection for efficient production.
- Multi-Angle Stable Imaging  
Captures surface details from multiple angles with fewer blind spots.
  - AI Intelligent Recognition  
Uses AI algorithms to identify maturity and color variations accurately.



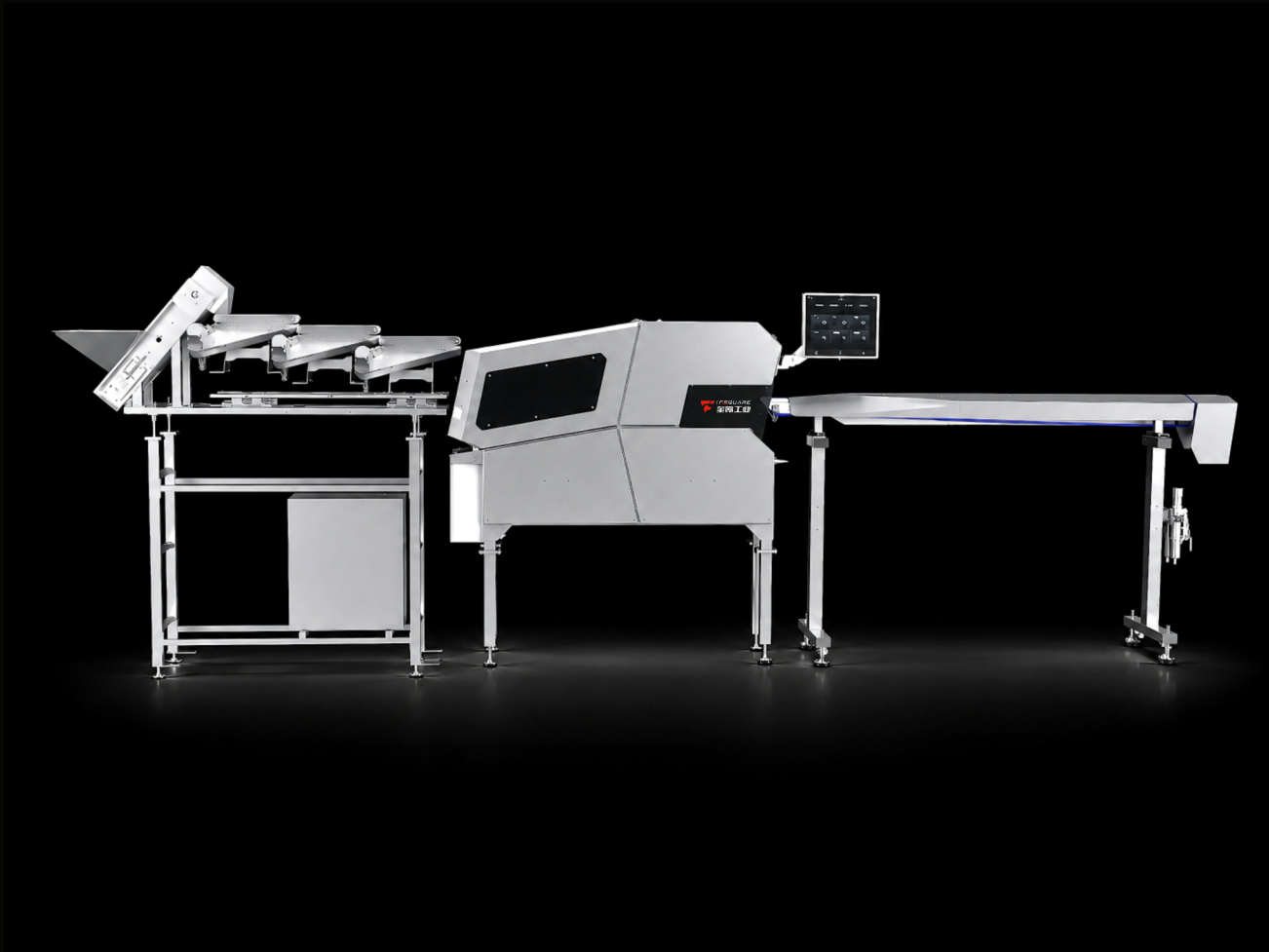
2  
Detection Angles

1-3  
m / s  
Conveying Speed

48  
Solenoid Valves

# IDS

Individual Optical Sorter



|                    |  |                      |              |
|--------------------|--|----------------------|--------------|
| Machine Dimensions |  | 6767 × 505 × 2166 mm |              |
| Feeder Dimensions  |  | 400 × 300 × 300 mm   |              |
| Ejectors           |  | 6 / 8 / 10           |              |
| Conveying Speed    |  | 1.6-3 m/s            |              |
| Air Pressure       |  | Air Consumption      | Power Rating |
| 0.6 Mpa            |  | 1240 L / min         | 8 kW         |
|                    |  | Power Supply         |              |
|                    |  | 220V AC 50 Hz 8.5kW  |              |

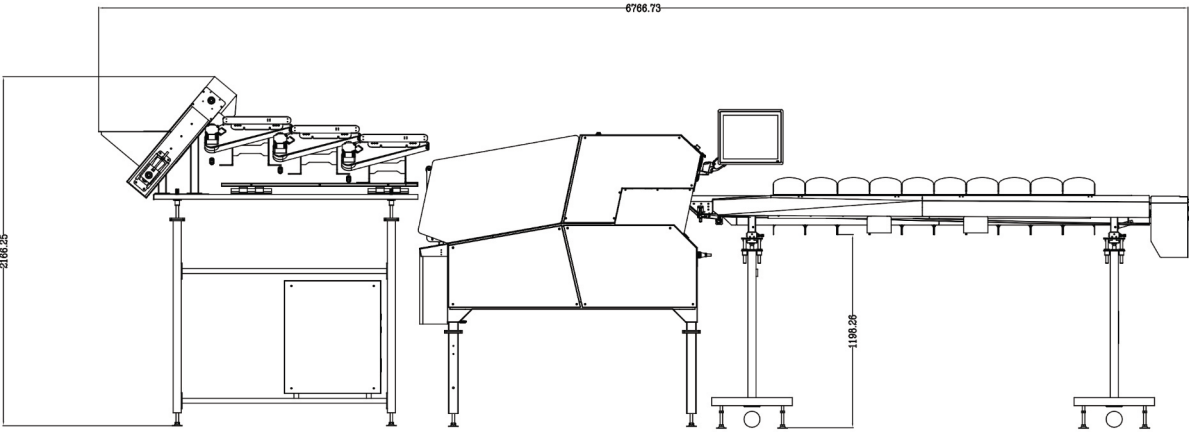
- Single-Piece Precision Sorting

Accurately identifies and sorts individual items, improving sorting efficiency and overall quality.
- 360° Full-View Imaging

Captures complete surface information from all angles for precise defect detection.
- Multi-Category Synchronous Sorting

Enables simultaneous sorting of multiple categories, enhancing processing efficiency and consistency.
- High-Speed Stable Operation

Provides fast detection and reliable sorting performance during continuous production.



360°  
Omnidirectional  
Detection

6  
AI Vision  
Modules

60 mm  
Scanning Width

10  
px / mm  
Resolution

1.6-3  
m / s  
Conveying Speed

6-10  
Ejectors

# VALOR 8

X-Ray Imaging Sorter



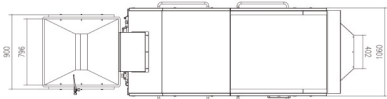
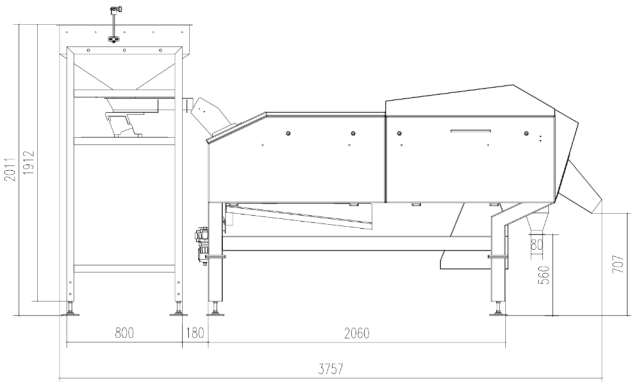
600 mm  
Belt Width

2-2.5 m / s  
Conveying Speed

2 HD Cameras

|                    |                             |                   |
|--------------------|-----------------------------|-------------------|
| Machine Dimensions | 2880 × 2250 × 1100 mm       |                   |
| Feeder Dimensions  | 940 × 910 × 2020 mm         |                   |
| Scanning Width     | 460 mm                      |                   |
| Ejectors           | 96                          |                   |
| X-Ray Output       | 320 W                       |                   |
| X-Ray Leakage      | <0.2 μSv/h ( No Shielding ) |                   |
| Air Pressure       | Power Rating                | Power Supply      |
| 0.6 Mpa            | 4.5 kW                      | 220V AC 50 Hz 5kW |

- Lightweight Material Design  
Optimized for lightweight materials with stable conveying and consistent imaging performance.
- High-Precision X-Ray Inspection  
Detects internal defects, insects, cracks, foreign objects, and quality issues with high accuracy.
- AI Intelligent Recognition  
Combines X-ray imaging with AI algorithms for fast and accurate defect identification.
- High-Speed Stable Processing  
Ensures continuous operation with fast analysis and reliable sorting performance.



## Adaptive AI Learning

The system uses deep learning technology to analyze material features, adapt to different conditions, and achieve more accurate recognition and stable sorting performance.

# VALOR 5

## X-Ray Imaging Sorter



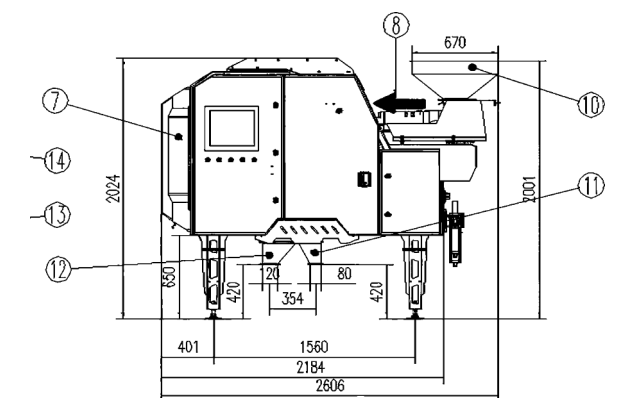
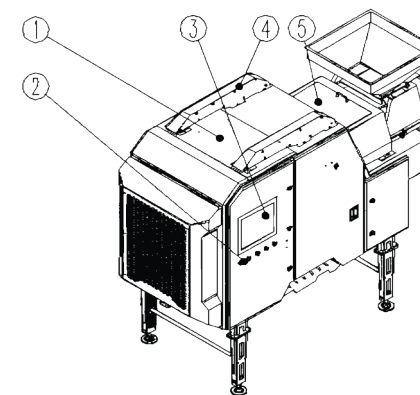
600 mm  
Belt Width

2-4 m / s  
Conveying Speed

## 2 HD Cameras

|                    |                             |                   |
|--------------------|-----------------------------|-------------------|
| Machine Dimensions | 2610 × 1100 × 2030 mm       |                   |
| Feeder Dimensions  | 700 × 700 × 300 mm          |                   |
| Scanning Width     | 460 mm                      |                   |
| Ejectors           | 96                          |                   |
| X-Ray Output       | 320 W                       |                   |
| X-Ray Leakage      | <0.2 μSv/h ( No Shielding ) |                   |
|                    |                             |                   |
| Air Pressure       | Power Rating                | Power Supply      |
| 0.6 Mpa            | 4.5 kW                      | 220V AC 50 Hz 5kW |

- **Internal Defect Detection**  
Combines X-ray and RGB imaging to accurately detect internal defects, cracks, insects, and foreign objects.
  - **Low-Interference Imaging**  
Drum-type imaging reduces belt interference and provides clearer internal structure details.
  - **High-Speed Parallel Processing**  
Multi-CPU processing handles large image data efficiently for faster sorting performance.
  - **AI Intelligent Recognition**  
AI algorithms enhance defect features for more accurate and stable identification.



# Adaptive AI Learning

The system uses deep learning technology to analyze material features, adapt to different conditions, and achieve more accurate recognition and stable sorting performance.

# VALOR MINI

X-Ray Imaging Sorter



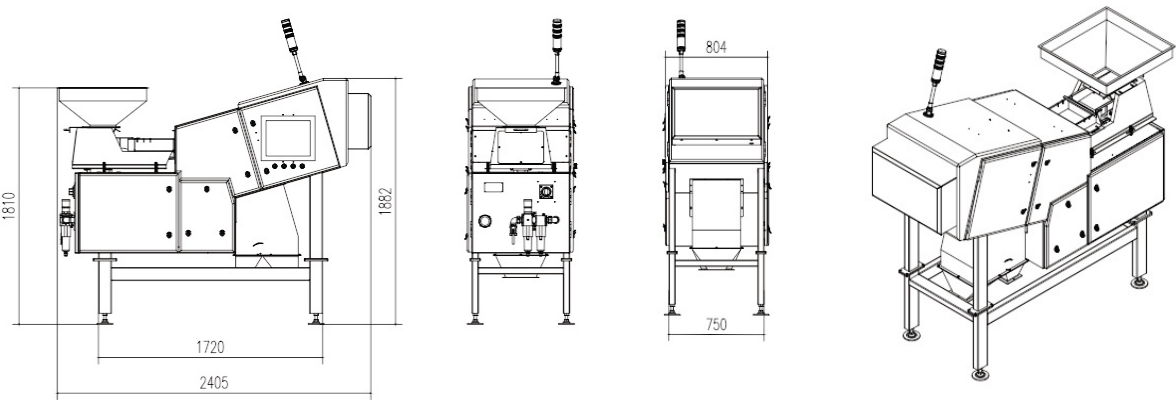
300 mm  
Belt Width

2-2.5 m / s  
Conveying Speed

56 Solenoid Valves

|                    |                             |                   |
|--------------------|-----------------------------|-------------------|
| Machine Dimensions | 2405 × 804 × 1882 mm        |                   |
| Feeder Dimensions  | 940 × 910 × 2020 mm         |                   |
| Scanning Width     | 350 mm                      |                   |
| Ejectors           | 56                          |                   |
| X-Ray Output       | 320 W                       |                   |
| X-Ray Leakage      | <0.2 μSv/h ( No Shielding ) |                   |
| Air Pressure       | Power Rating                | Power Supply      |
| 0.6 Mpa            | 4.5 kW                      | 220V AC 50 Hz 5kW |

- **Compact Design**  
Compact structure integrates full inspection functions, saving space and supporting easy production upgrades.
  - **Internal Defect Detection**  
Uses X-ray imaging technology to identify mold, insects, cracks, shells, and foreign objects.
- **AI Intelligent Recognition**  
Combines multi-source imaging and AI algorithms for accurate internal feature analysis.
  - **Flexible & Efficient Operation**  
Provides stable performance with balanced accuracy, efficiency, and continuous operation..



## Adaptive AI Learning

The system uses deep learning technology to analyze material features, adapt to different conditions, and achieve more accurate recognition and stable sorting performance.

# MACADAMIA KERNEL PROCESSING LINE

## ULTIMATE SOLUTION

Our complete macadamia kernel processing line delivers a smarter and more efficient solution from pre-sorting and cracking to shell and kernel separation, color sorting, and final grading. With every stage integrated into one complete system, it ensures a smooth workflow, reliable performance, and higher efficiency throughout the entire process.

By replacing multiple standalone machines from different suppliers, this solution helps reduce investment cost, equipment quantity, floor space, and the time spent on sourcing and integration. More than just equipment, it is a flexible solution that can be customized with different modules to match different production needs.

**CRACKING**

**VIBRATION SCREEN  
SHELL AND KERNEL**

**PRE-SORTING  
AND SIZE GRADING**

**COLOR SORTER**

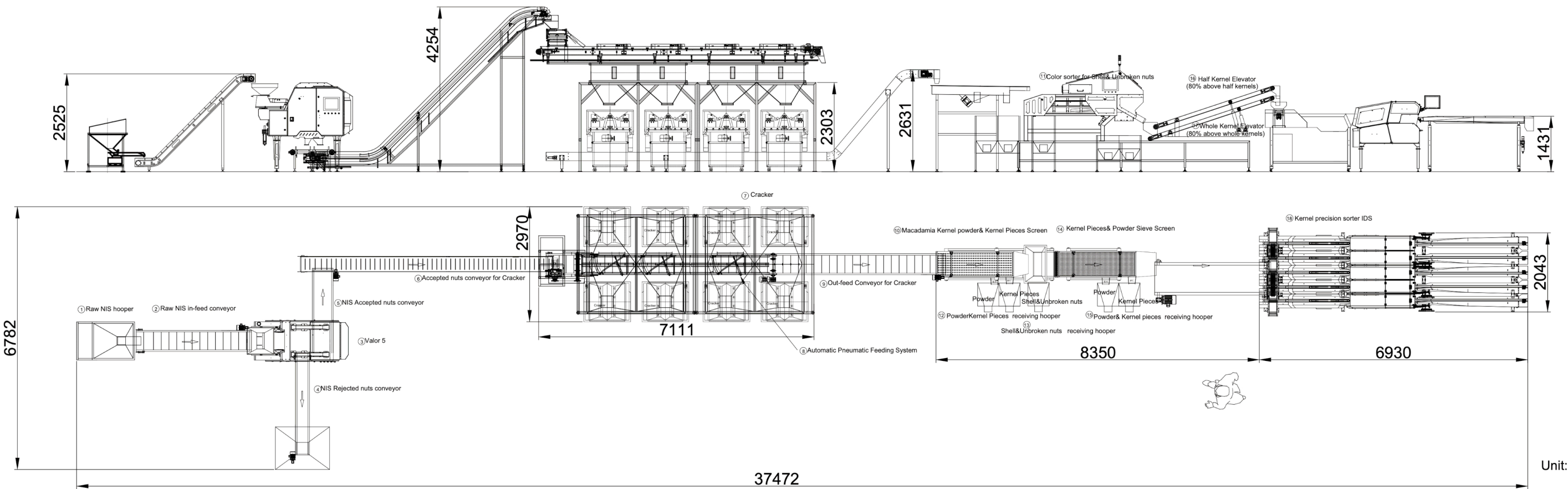
**GRADING**



SPECIFICATIONS

5 T / DAY

Kernel Capacity Per Standard Line



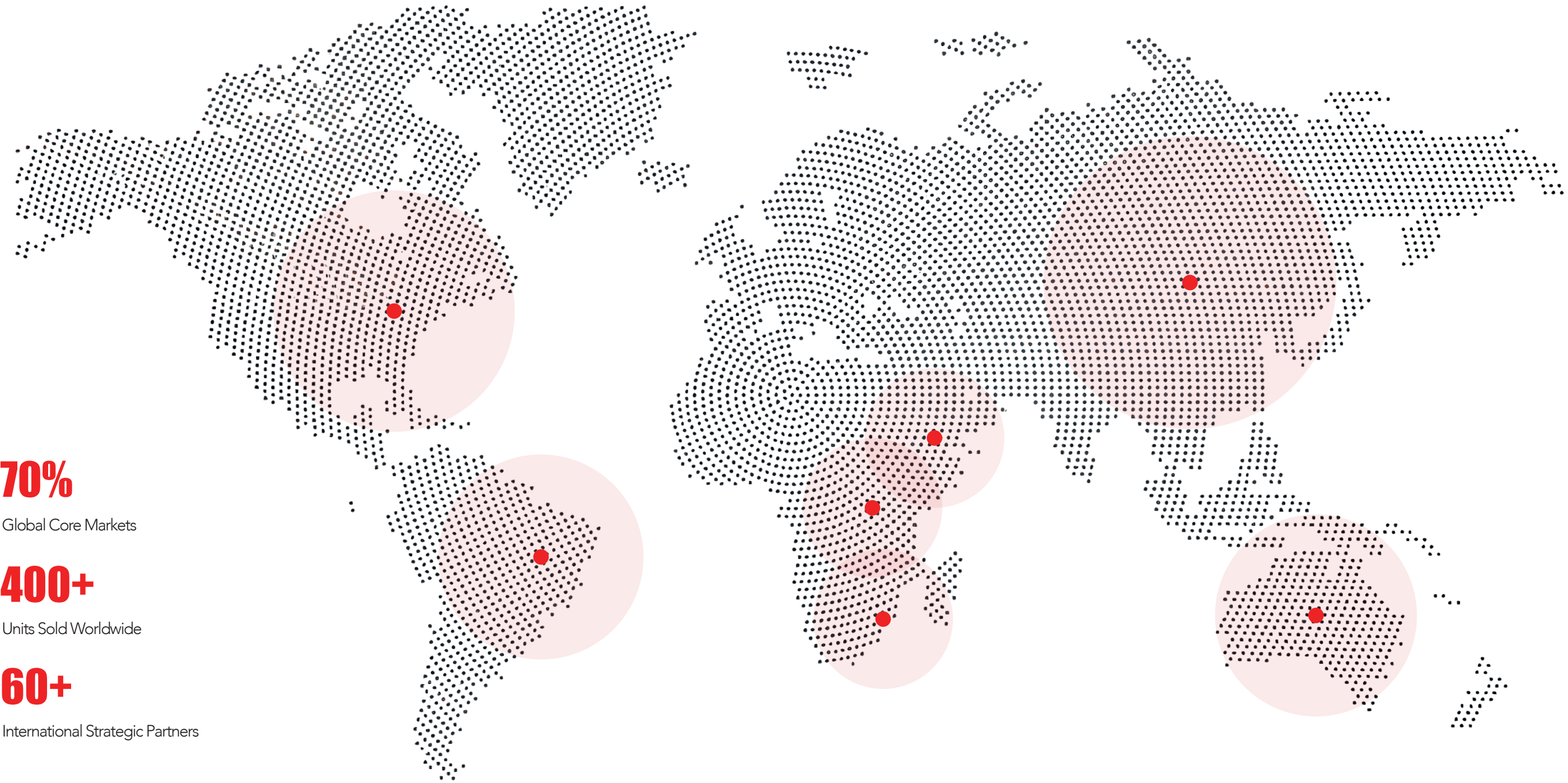
\* Customizable To Different Capacity Requirements

| X-Ray Imaging Sorter | Cracker | Vibrator | QMAX | IDS |
|----------------------|---------|----------|------|-----|
| 1                    | 8       | 2        | 1    | 5   |

| X-Ray Imaging Sorter | Cracker        | QMAX       | IDS            |
|----------------------|----------------|------------|----------------|
| 2 - 7 t/h            | 150 - 300 kg/h | 2 - 10 t/h | 100 - 150 kg/h |

# GLOBAL FOOTPRINT

Our sorting machines are widely used in major nut-producing regions across China, Vietnam, Australia, Kenya, South Africa, Malawi, Zimbabwe, Zambia and the United States giving the company about 60% market share and long-term partnerships with leading nut and agricultural companies



**70%**

Global Core Markets

**400+**

Units Sold Worldwide

**60+**

International Strategic Partners

# GLOBAL PARTNERS



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Video



Whatsapp



LinkedIn

