Pecans Cracking & Shelling Production Line

Quick Pecans Cracking Kernel Shell Separation

Hefei Zhongan Intelligent Vision Technology Co., Ltd.

- 📞 +86 173 0565 1407
- ✉ sortedmachine@hotmail.com
- 🌐 www.sortedmachine.com
- 📍 Intersection of South Jinzhai Road & East Jiangjunling Road Feixi County, Hefei, Anhui China 231241

Hefei Zhongan Intelligent Vision Technology Co., Ltd.

Set Sailing to Create a new Era of Pecans Cracking Shelling & Sorting

Hefei Zhongan Intelligent Vision Technology Co., Ltd. is located in Hefei China. It is a national high-tech company specializing in R&D, production and sales of artificial intelligent sorting equipment. Our company owns an AI sorting equipment production base covering an area of 60,000 sq.m with more than 200 employees. Our annual output has exceeded 100 million. We focus on the AI sorting equipment industry, and have won honors of AKSTSPE (Anhui Key Science and Technology Special Project Enterprises), ASE (Anhui Software Enterprises), AADEoFUMTE (Anhui Application Demonstration Enterprises of First Unit Major Technical Equipment), AADEoICIP (Anhui Application Demonstration Enterprises of Information Consumption Innovation Product), HBDE (Hefei Big Data Enterprises), HHDGE (Hefei High-tech District Gazelle Enterprises). Meanwhile, our company attached great attention to product quality since its establishment, and passed Three System Certifications of QMS (Quality Management System), EMS (environmental management system) and OHMS (occupational health management system) in 2020.

Zhongan is a tech-oriented technology enterprise, it owns a R&D center, of which staff proportion hits 40% among the company, including more than 50 Doctors & Masters. Our R&D team has 20 years' experience in optical sorting section, dozens of long-term core tech members engaged in visual sorting, all of them is competent with rich practical experience and strong R&D, possessing core independent intellectual property rights in new technologies and new fields. By using new generation of deep self-learning system and FPGA fusion algorithm, through industrial grade ultra-HD digital cameras, materials are 360° rotational captured, and sorting simultaneously with multiple wanted discharges only one time after special computer data model processing. We have achieved nearly 100 intellectual properties so far.

Zhongan AI Sorting Robots with complete models have superior performance, which can meet different processing requirements from different type of companies. According to different sorting requirement, we are able to provide complete tailored production line. Our robots are widely used for sorting various Fruits (such as Apples, Oranges, Pears, Kiwis, Plums) and various Nuts & Dried Fruits (such as Dates, Chestnuts, Hazelnuts, Lotus, Walnuts, Pistachios). Our strict QMS guarantees the qualities of our products and services, which have been exported to many countries and regions around the world. In 2021, Zhongan successfully developed complete production lines for Walnuts/Pecans cracking & shelling processing, they are used to replace labor work and increase efficiency and yield, breaking foreign monopoly, realizing localization of cracking shelling processing equipment, and widely praised by our customers.

Company Introduction

HEFEI ZHONGAN

PROFESSIONAL MANUFACTURER

PECANS CRACKING SHELLING EQUIPMENT

Company Culture

Corporate Vision: focus on user experience's value, strive to be a leader in AI sorting

Company Philosophy: co-create a healthy ecological environment for the Internet of Things (IoT) with partners on basis of open and win-win platform

Company Purpose: user value oriented, satisfy user needs with excellent products and services

Company Spirit: dare to be the first, pursue excellence, and achieve the mission

Pecans Cracking Shelling Production Line

Dry Cracking Leading Tech

Advanced dry cracking process, high speed cracking
Avoids issues of mildew and deterioration caused by soaking in water during wet cracking process

② Pecans Sheller

pecans kernel shell separation

① Pecan Cracker

pecans raw material inlet
pecans shell cracking process

④ Pecans Shell Discharge

quick shell separation

③ Pecans Kernel Shell Discharge

pecans kernel shell, chopped kernels separated automatically

Features

01 Leading Dry Shelling Technology

02 High output - 24000 pecans each hour each set

03 Mechanical processing to achieve pecans mass production

04 Pecan production line is labor saved, output and value added

05 Breaking foreign monopoly, realized localization of pecans cracking shelling equipment

Effect Overview

Pecan Raw Material

Pecan Cracking Effect

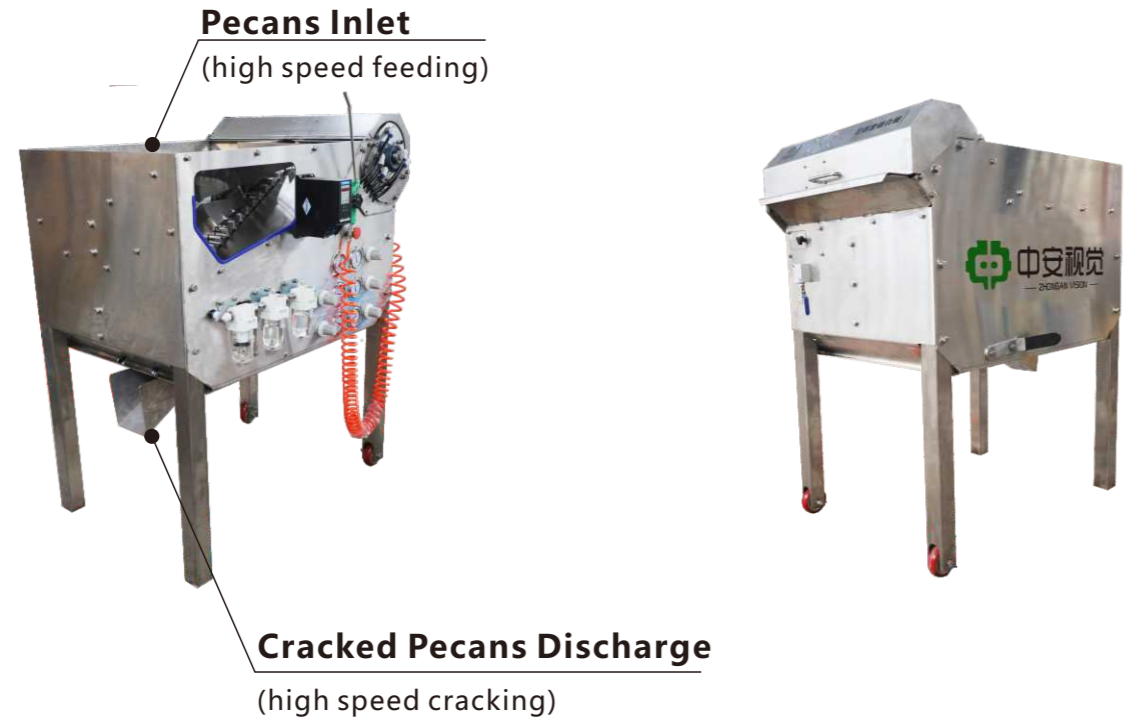**1st Channel Kernels**

2nd 3rd Channel kernels

Chopped kernels

Pecan shells

Production Line Introduction

Pecans Cracking Module

Pecans Inlet
(high speed feeding)

Cracked Pecans Discharge
(high speed cracking)

Pecans Cracking Module Technical Parameters

Details

Name	Power (kW)	Voltage (V/Hz)	Air Pressure (MPa)	Output (piece/h)	Dimension (LxWxH mm)	Weight (kg)
Cracking Module	0.5	380/50	0.5<p<1.0	24,000	1130*750*1310	230

Remarks: The effect of the pecans production line is related to the pecans variety, kernel moisture, etc. Above data for reference only

Pecans Sheller Module

Automatic feeding system suitable for mass production

Kernel Shell Discharge

Pecans Sheller Module Technical Parameters

Details

Name	Power (kW)	Voltage (V/Hz)	Process	Output (piece/h)	Dimension (LxWxH mm)	Weight (kg)
Sheller Module	1.2	220/50	Mechanical	100,000	2610*740*1100	800

Remarks: The effect of the pecans production line is related to the pecans variety, kernel moisture, etc. Above data for reference only
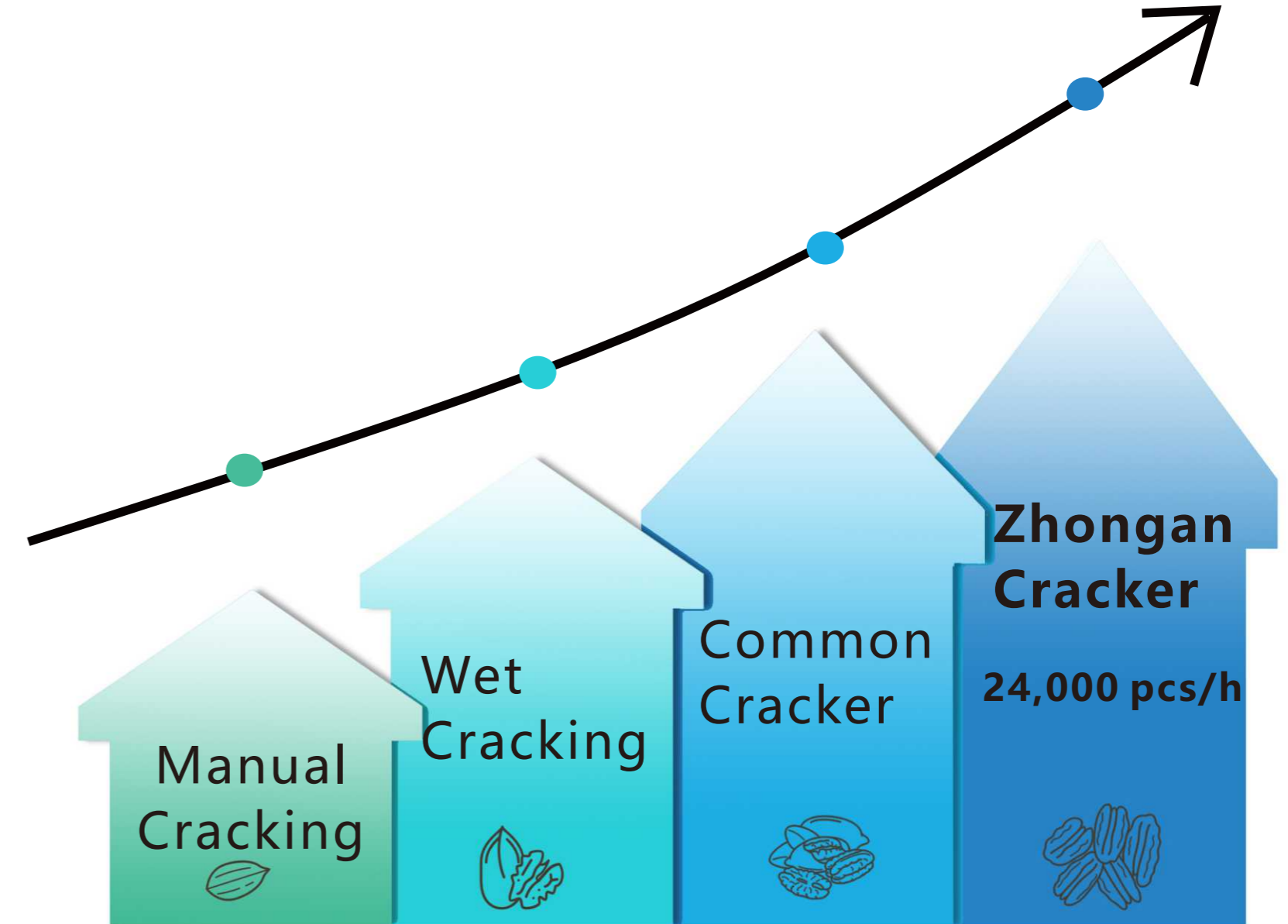
Kernel Shell Separator Module

Pecans Shells Discharge

Kernel Shell Discharges
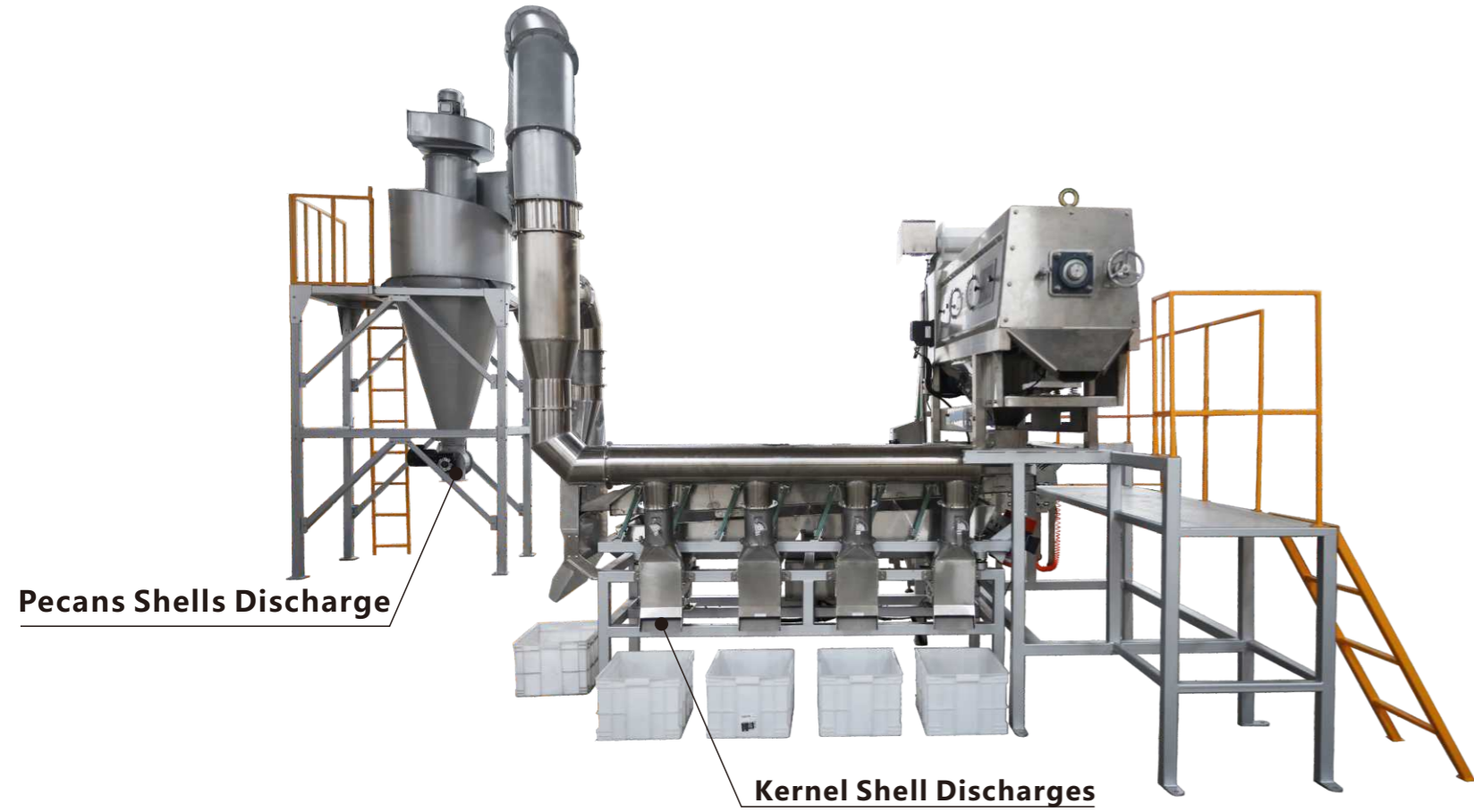
Kernel Shell Separator Technical Parameters

Details

Name	Power (kW)	Voltage (V/Hz)	Process	Weight (kg)
Kernel Shell Separator	1.2	220/50	Merchanical	800

Output Advantages

Zhongan Cracker

24,000 pcs/h

Common Cracker
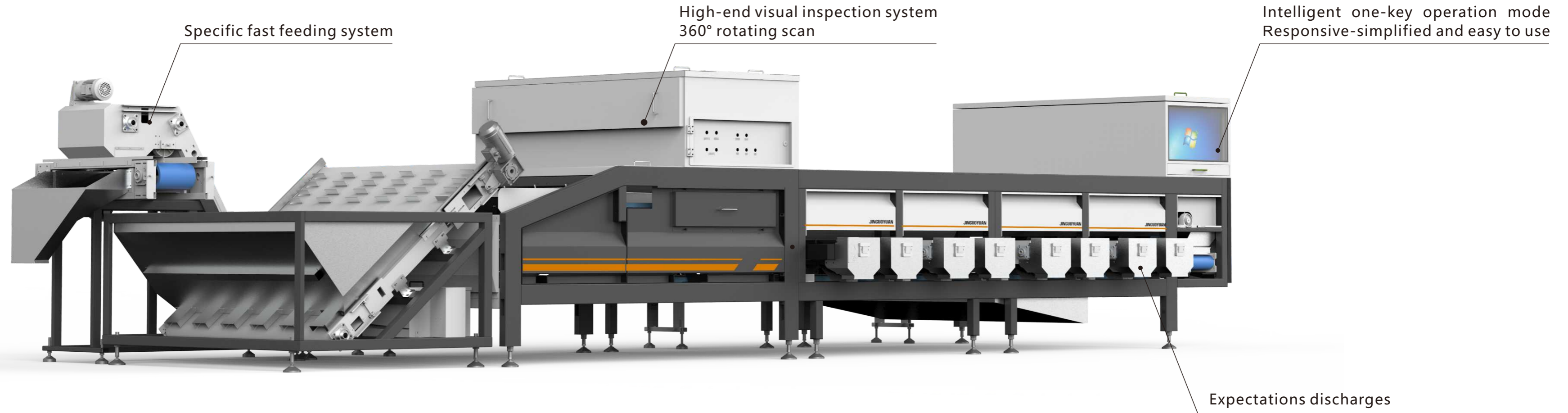
Wet Cracking

Manual Cracking

Nuts Sorting Robot

AI | Material 360° Rotating Scan
AI Deep Learning Technology

Roasted
Seeds & Nuts
Wisdom Choice

◆ Exclusive products customized according to actual needs
◆ Advanced with high efficiency, high precision, high output etc.

High-end visual inspection system
360° rotating scan

Specific fast feeding system

Intelligent one-key operation mode
Responsive-simplified and easy to use

Expectations discharges

Sortable Materials

Chestnuts   Chestnut Kernels   Pistachios   Walnuts   Macadamias   Hazelnuts   Lotus   Pecans   Almonds   Ginkgos   Brazil Nuts   Pili Nuts

X-ray Sorting Module

Empty Shrunken Pecans, Metal Removal

Pecans Inlet
high-speed reciprocating feeding system

Good Pecans Discharge
Intact pecans automatically enter visual sorting module

Bad Pecans Discharge
empty shrunken pecans removal

Technical Parameters

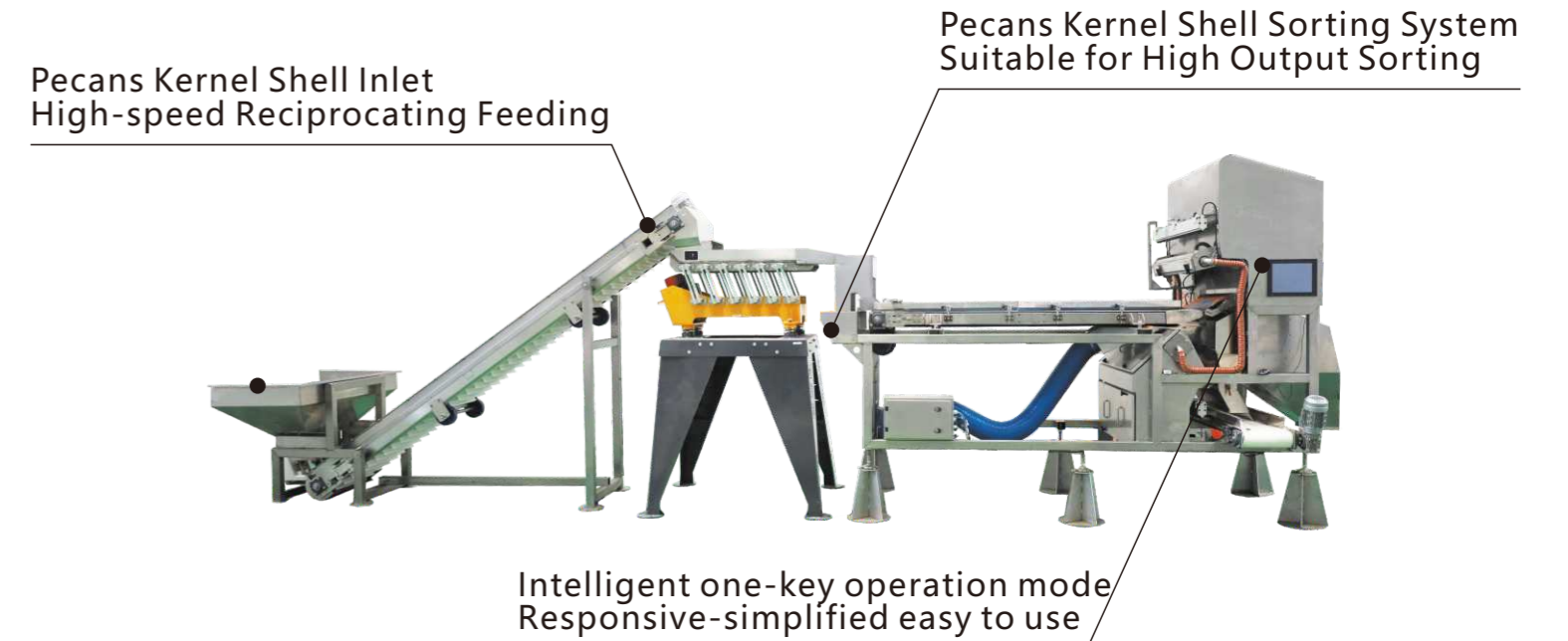| Model	JSDX5T-HT	JSDX6	JSDX8T-HT	JSDX8	JSF6
Standard dimension	2880*1360*2343 (2343≈2008 hosts+335 lights)		2880*1360*2343 (2343≈2008 hosts+335 lights)		2880*1360*2343 (2343≈2008 hosts+335 lights)
X-ray output	350W (max)				
Conveyor speed	10-120 m/min				
Output	50-5000 kg	50-5000 kg	50-7000 kg	50-7000 kg	50-5000 kg
Conveyor belt width	710	710	710	710	710
Total power	< 3kW		< 3kW		< 3.5kW
Power supply	Host AC220 single phase Ac220				
HMI	17 inch LCD touch screen				
X-ray leakage	up to European standards				
Protection	Transmission part IP54 , other IP53				
Environment requirements	Ambient temperature 0 -40, relative humidity 30-85 % without condensation				
Best detection accuracy	0.3 mm Stainless steel ball, 0.2 *2 mm stainless steel wire				
Case material	304 stainless steel				

Remarks: X-ray module is outsourced, above data for reference only

Empty Shrunken Pecans Removal Effect

Multi Spectral Crawler Module

High Speed Kernel Shell Separation

Pecans Kernel Shell Inlet
High-speed Reciprocating Feeding

Pecans Kernel Shell Sorting System Suitable for High Output Sorting

Intelligent one-key operation mode
Responsive-simplified easy to use

Separation Module Technical Parameters

No.	Output (t/h)	Kernel rate	Bring out ratio	Power (kW)	Weight (kg)	Air consumption (m3/min)	Dimension (LxWxH mm)
K320I-S	0.3~0.6	>99.8%	>500：1	3.9	970	0.5~1	5306*1315*2408
K640I-S	0.5~1	>99.8%	>500：1	5.8	1200	1~1.5	5306*1635*2408
K960I-S (2:1)	0.5~1	>99.8%	>500：1	7.9	1500	1.5~2	5306*1955*2408

Remarks: kernel shell separation module is a purchased product, above is the test of 10% impurities in walnut kernels.Differences may occur in output and kernel rate from different walnut types. Above data for reference only.
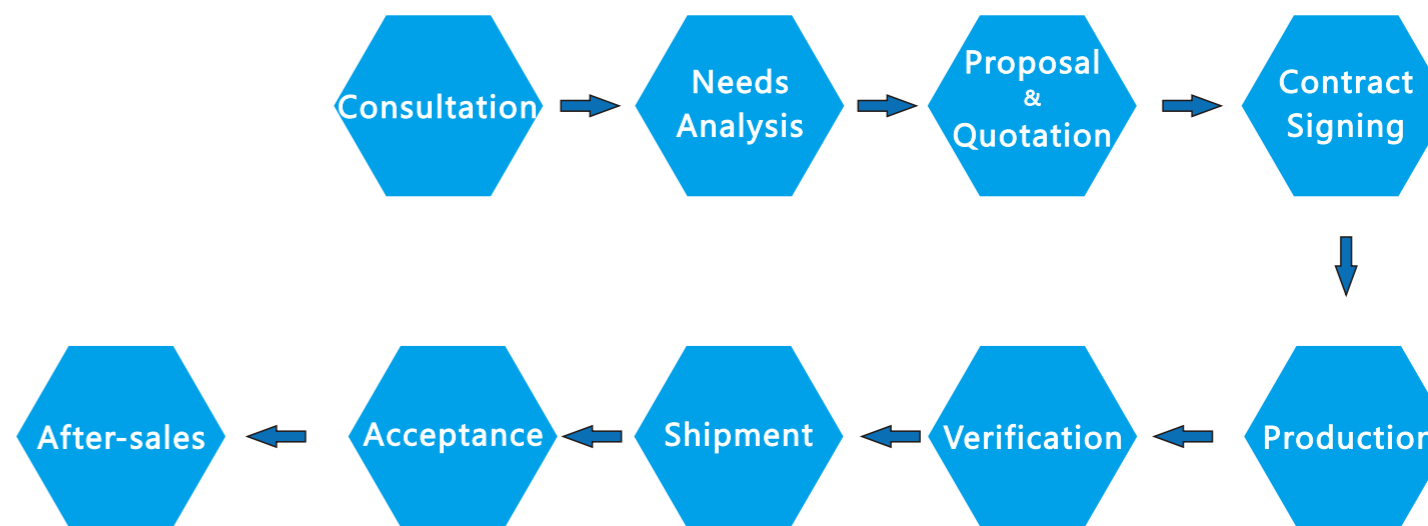
Customer Cases >>

Customer Cases

Business Procedures

Consultation → Needs Analysis → Proposal & Quotation → Contract Signing

↓

After-sales ← Acceptance ← Shipment ← Verification ← Production
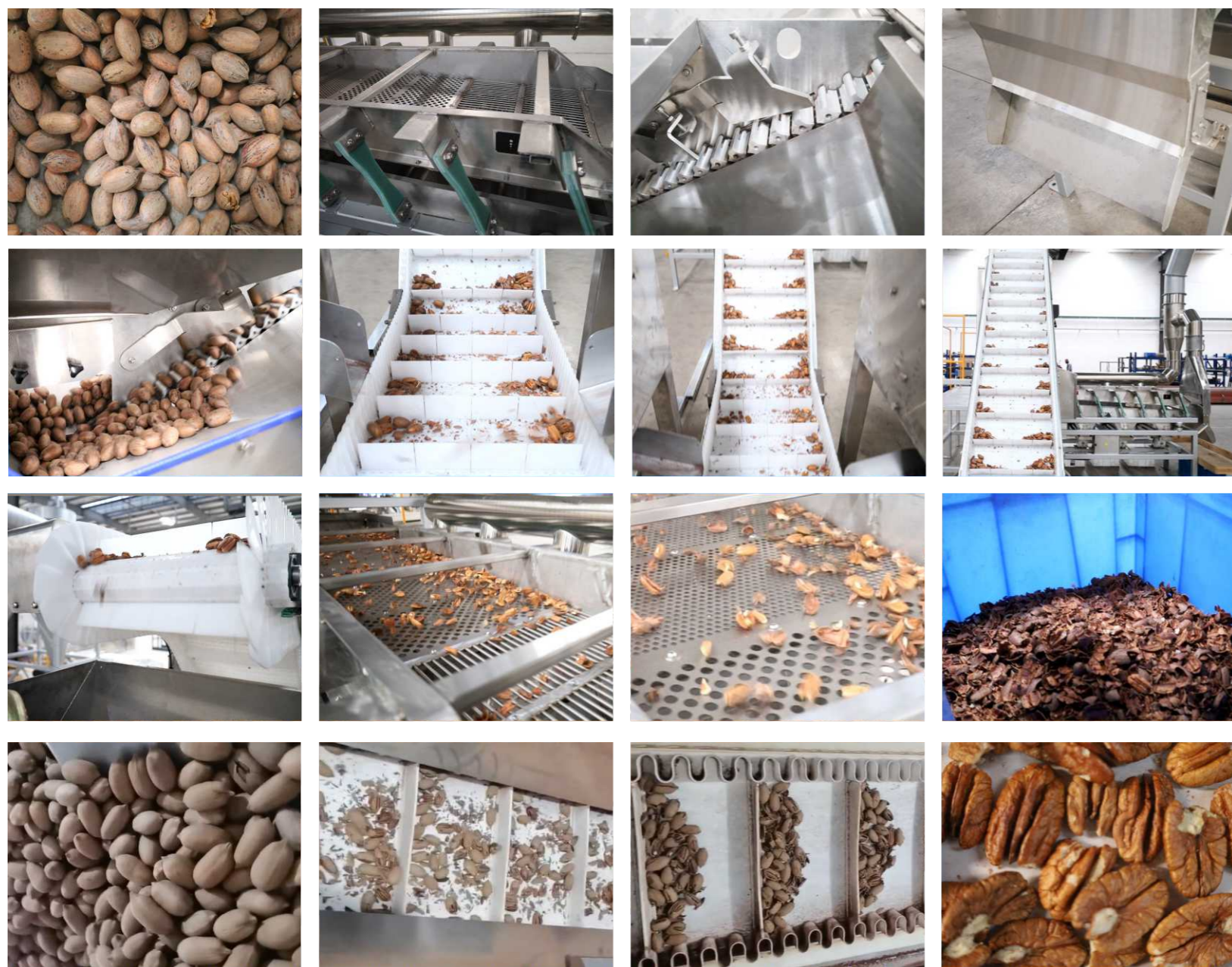
Business Partners

Company Horons »

3A Enterprise Certificates

Software Test Certificates

Computer Software Copyrights

Software Certificates

Invention Patents

Utility Model Patent Certificates

Management System Certificates

Anhui Science & Technology Major Special Project

2021年度省科技重大专项立项项目清单（第二批）

序号	项目编号	项目名称	项目类别	承担单位	项目负责人	项目合作单位	归口管理单位	省支持经费	
								总计	2021年
10	202103a06020015	优质薄皮水果智能化分选装备研发与产业化	公开竞争类-技术领域项目-农业领域	合肥金果缘视觉科技有限公司	方诚	安徽农业大学	合肥市科技局	150	150

Other Honors Certificates