JZTH

INTELLIGENT
DRY SEPARATOR

天慧系列智能干选机

COMPANY PROFILE

公司简介

JZTH is controlled by Weihai Haiwang Group and specializes in the R&D and production of dry separators, X-ray ash analyzers, intelligent heavy medium cyclones, intelligent heavy medium density control systems, intelligent coarse slime sorters and other equipment. We have a 30 years professional background in coal preparation. JZTH Technology Center has established long-term industry-university-research cooperation relationships with domestic first-class coal universities such as Harbin Institute of Technology (Weihai), China University of Mining and Technology, Central South University, Anhui University of Science and Technology, and Taiyuan University of Technology.

JZTH insists on being led by innovation, adhering to the concept of "intelligent technology, green coal", and continues to develop efficient coal sorting equipment and systems to promote the intelligent and green development of coal.

| 150000㎡	3000台	20000㎡
生产基地面积	装备年产量	备品配件库面积
Production base area	Annual output	Spare parts warehouse area
3个	**100**人	**3000**㎡
大型研发中心	研发人员	试验基地面积
R&D Center	R&D personnel	Testing Area

CONTENTS

QUALIFICATION & HONOR

KEY TECHNOLOGY

PRODUCT INTRODUCTION

▶ Intelligent dry separator - a mineral sorting equipment based on advanced imaging and artificial intelligence technology. The X-ray imaging system is used to obtain the characteristics of coal and gangues. The HX intelligent dry separator establishes an adaptive analysis model to accurately identify coal and gangues. It uses an intelligent algorithm to control high-pressure wind through a unique structure nozzle for precise injection. Realize the separation of coal and gangues
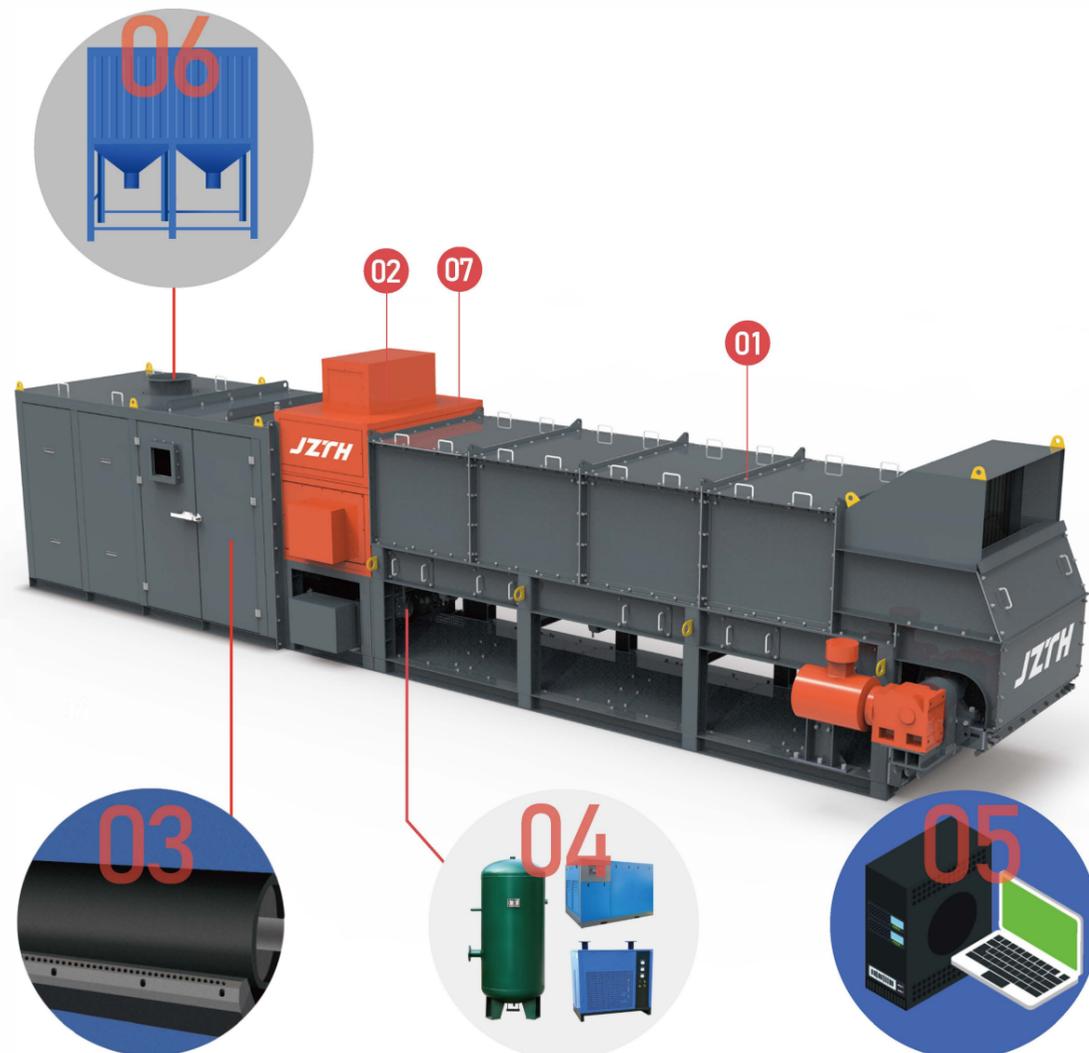
01
Distributed subsystem

It consists of a feeding mechanism, a stabilizing mechanism, a conveyor belt, etc., and spreads the raw coal evenly so that X-ray imaging of the material can be achieved.

02
Imaging recognition subsystem

Dual-energy X-ray, laser area array radar, and CCD customized combined identification solutions can accurately obtain material characteristics and distinguish coal and gangues.

Operation subsystem

The solenoid valve accurately controls the array spray gun to sort the thrown coal or stone through the depressurized air.

03

Air supply subsystem

It is composed of air compressor, cold dryer, gas storage tank and other equipment, which provides power for efficient sorting of dry separator.

04

Intelligent control system 05

The control system includes modules, frequency conversion cabinets, etc. It has local, remote, operation, fault passive dry node signals, industrial Ethernet interface, and accepts centralized control operation signals.
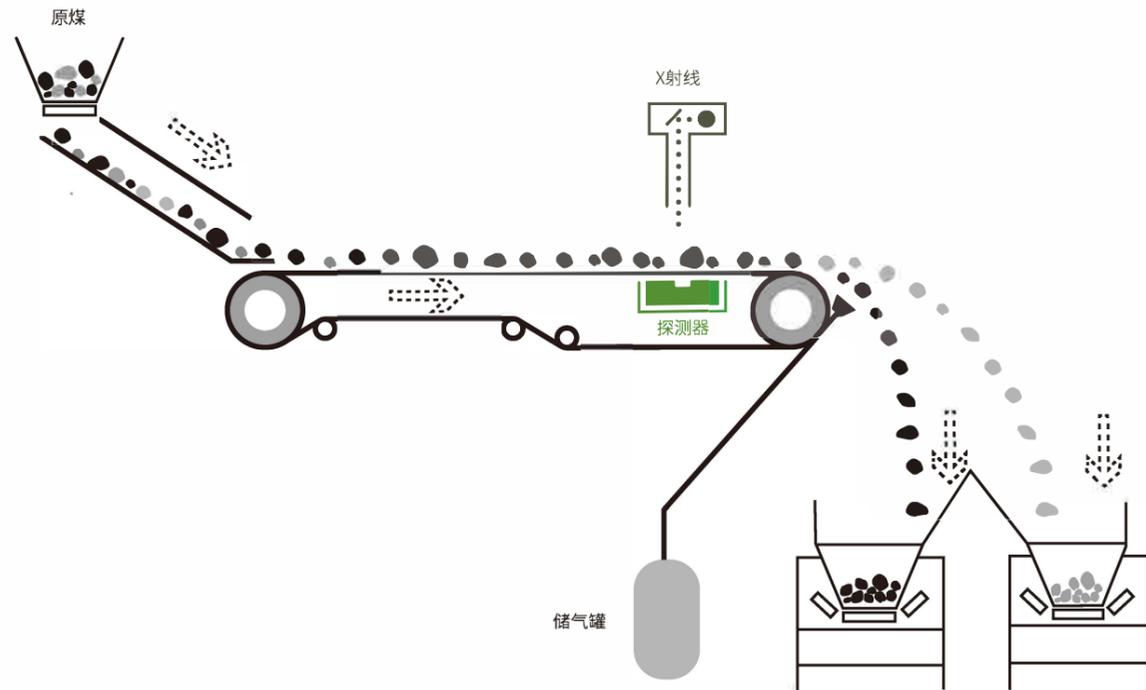
Dust removal system

Equipped with a professional dust removal system, the dust generated during the operation of the equipment can be recovered. The system has the characteristics of simple structure, smooth and reliable operation, long service life and high dust removal efficiency.

07
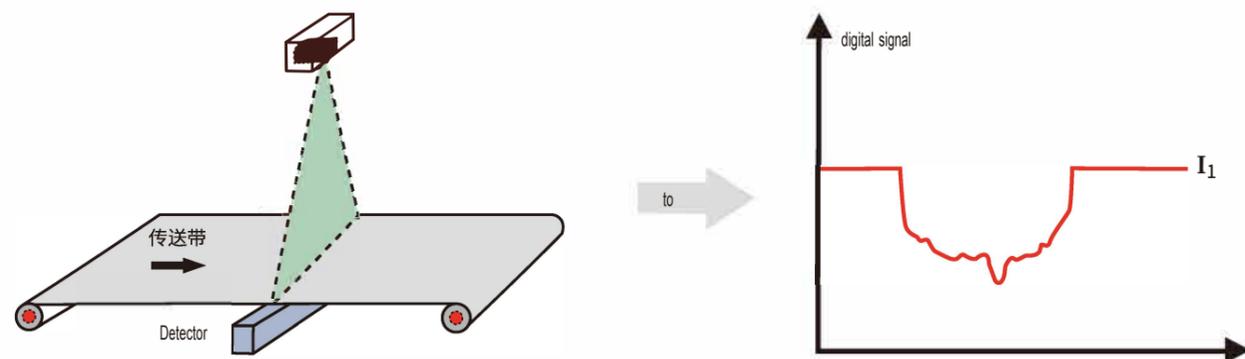### Ray shielding protection system

Using Class III radiation device.
Equipped with a complete radiation shielding protection system, the radiation value is better than the national standard.

EQUIPMENT PRINCIPLE

APPLICATION RANGE

原煤

X射线

探测器

储气罐

Basic Principle

The dual-energy X-ray scanning imaging system is used to collect material images, and deep learning image recognition technology is used to analyze the images, determine the type of material, and accurately control the high-pressure wind to blow coal or rock to achieve accurate, efficient, and energy-saving fully automatic Coal sorting.

传送带

Detector

digital signal

to

I_1

01
Coking coal pre-discharge gangue

02
Thermal coal products

03
Underground pre-discharge of gangue

Electrical coal waste discharge increases calorific value Reduce moisture	Dry coal preparation in cold areas avoid freezing
Coking coal pre-discharge gangue Reduce the proportion of gangue	Remove gangue at pithead Reduce transport costs
Replace manual selection	Lignite meets cement Suitable for dry selection
Replaces moving screen jigging saving water	Replaces tank Avoid using media

TECHNICAL CHARACTERISTICS
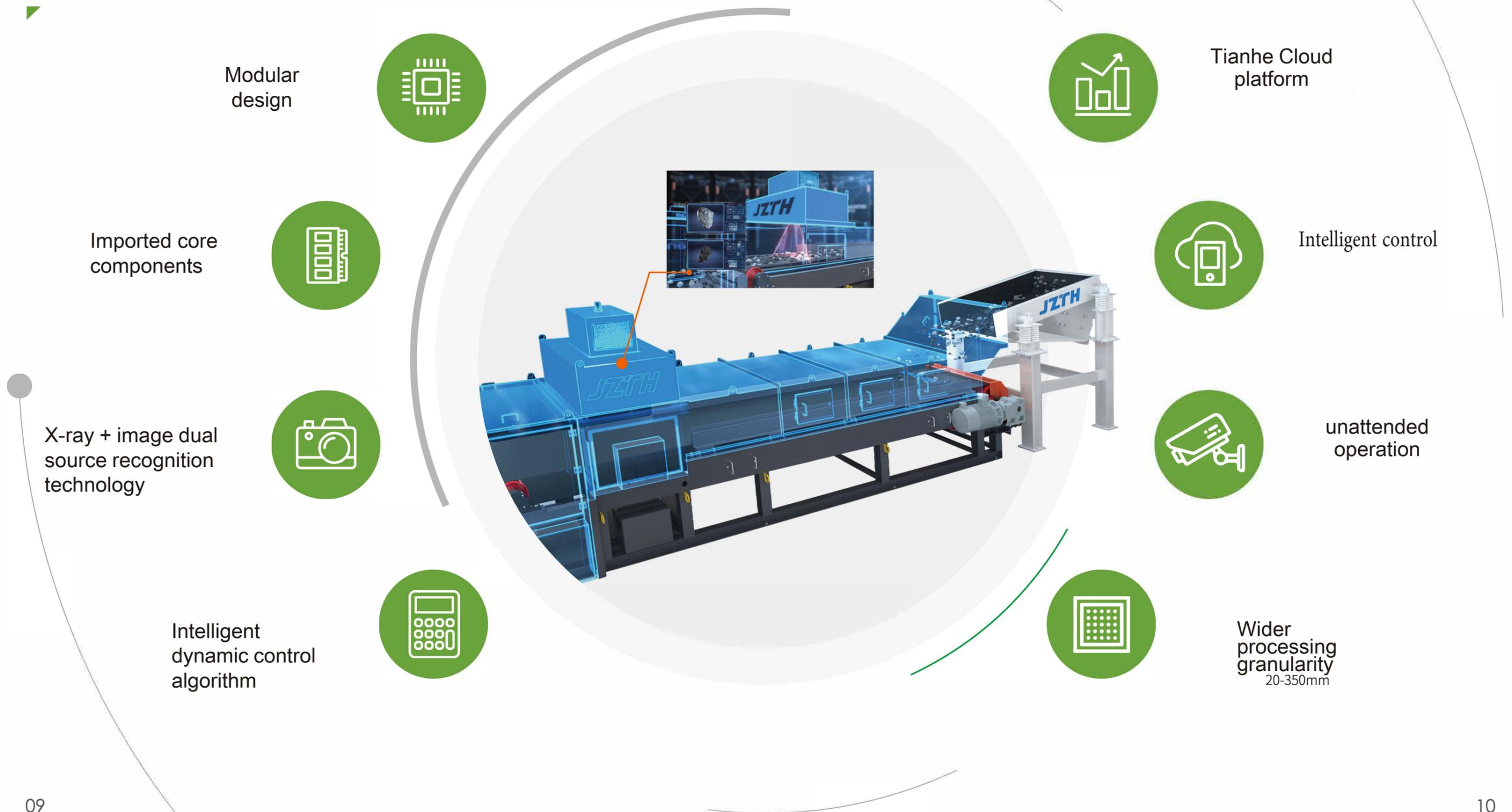
Modular design
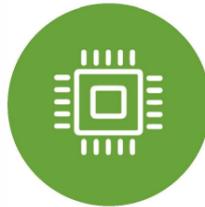
Imported core components

X-ray + image dual source recognition technology

Intelligent dynamic control algorithm

Tianhe Cloud platform

Intelligent control

unattended operation

Wider processing granularity
20-350mm

INDUSTRIAL EXPERIMENTAL BASE

智能干选
工厂级实验基地

PROJECT SERVICE

► "JZTH not only provides high‛quality equipment, but more importantly, professional and high‛quality technology and services!" Adhering to the development concept of mutual benefit, win‛win sharing and joint creation of value, JZTH will stay closely with customers and partners.

24 HOUR

One year guarantee

Professional team Over 100 engineers

EQUIPMENT MODEL SELECTION

350-50mm Intelligent dry separator Model selection list

	TH10-300	TH12-300	TH16-300	TH20-300	TH24-300	TH28-300	TH32-300	TH36-300	TH40-300
Belt distributor width(mm)	1000	1200	1600	2000	2400	2800	3200	3600	4000
Capacity(t/h)	100	120	160	200	240	280	320	360	400

150-20mm Intelligent dry separator Model selection lisy

	TH10-150	TH12-150	TH16-150	TH20-150	TH24-150	TH28-150	TH32-150	TH36-150	TH40-150
Belt distributor width(mm)	1000	1200	1600	2000	2400	2800	3200	3600	4000
Capacity(t/h)	50	70	90	110	130	150	180	200	230

● 动力煤排矸提质

APPLICATIONS AT SITE

● 炼焦煤预先排矸