



Leading Mining Innovation

HOT (Chengdu) Industries Co.,Ltd



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About HOT



HOT (Chengdu) Industries Co.,Ltd, a national high-tech enterprise, is committed to providing the resource industry with services from exploration to pit closure, including consulting and design, core equipment supply, intelligence, and "one-stop" engineering technical service.

HOT is committed to the development of optoelectronic technology, industrial Internet of Things, and artificial intelligence algorithm research and development in the mining field. At present, nearly 50 patents and software copyrights have been obtained, and more than 200 patents are being applied for.

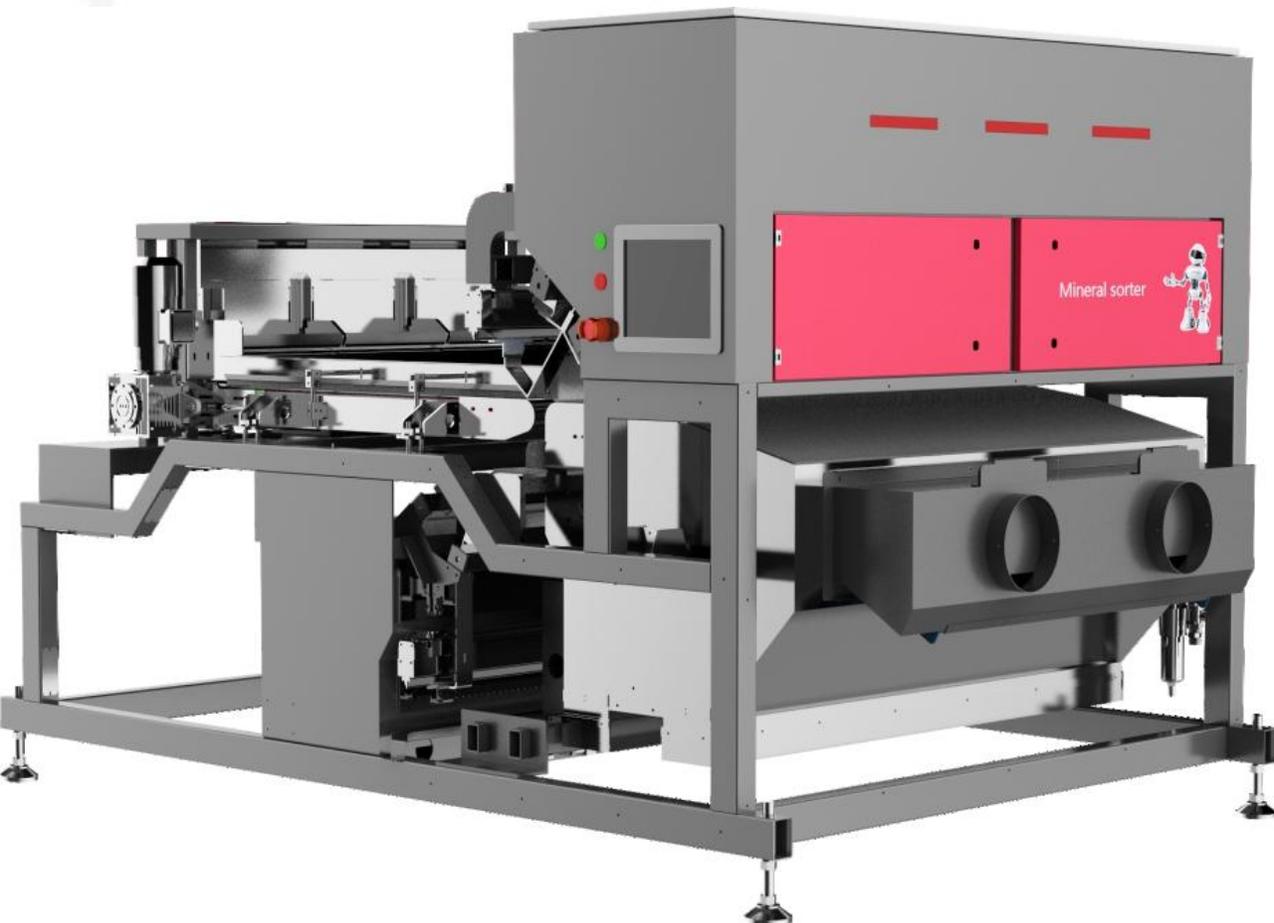




HD HIGH CAPACITY FOR MINERAL COLOR SORTER

Introduction to Ore Color Sorter

The color sorter is an equipment that uses photoelectric detection technology to automatically sort out the heterochromatic particles in the granular material according to the difference in the optical properties of the material. After color separation, the ore has high purity and uniform color, which greatly improves the utilization rate of the ore and doubles its value.

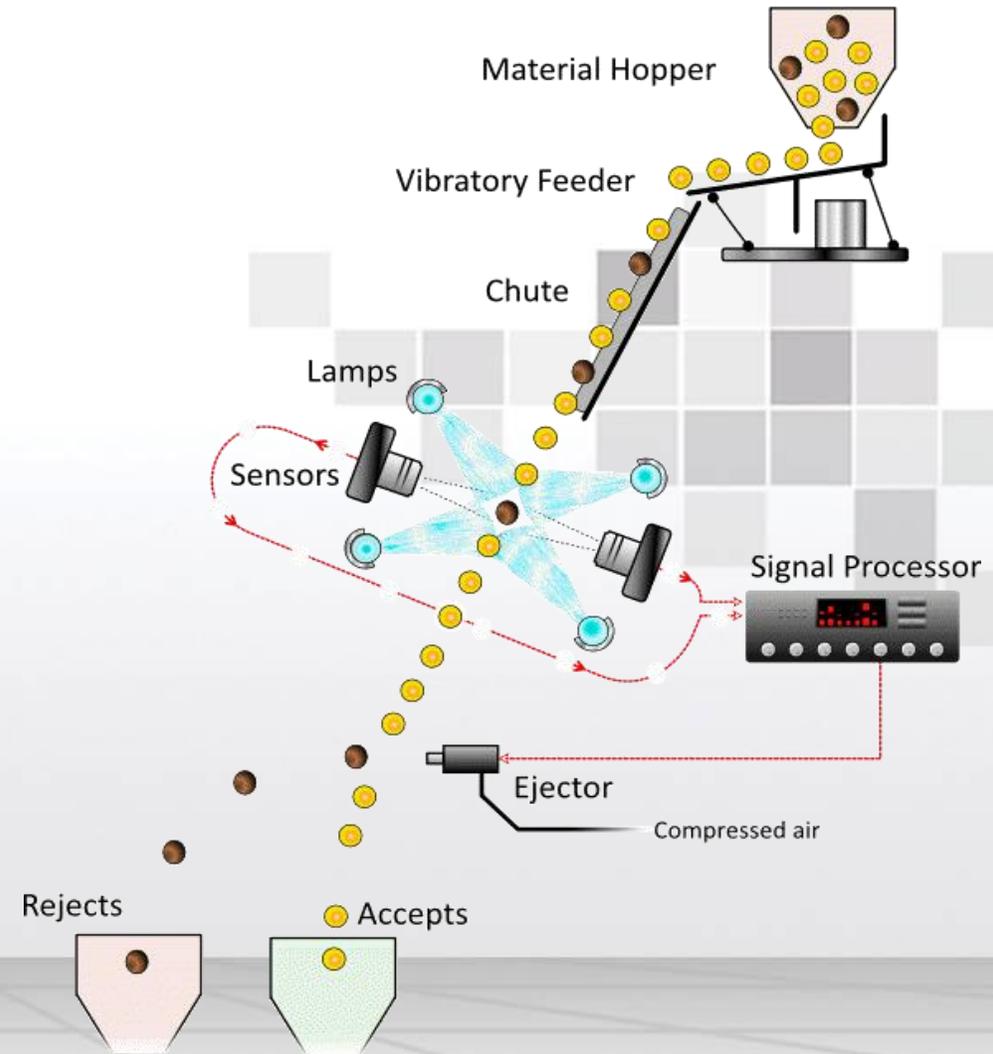


Applied in the field of industrial product sorting:

- Ensure the consistency of material quality;
- Improve the degree of automation and industrial efficiency;
- Improve the efficiency and quality of agricultural product sorting.

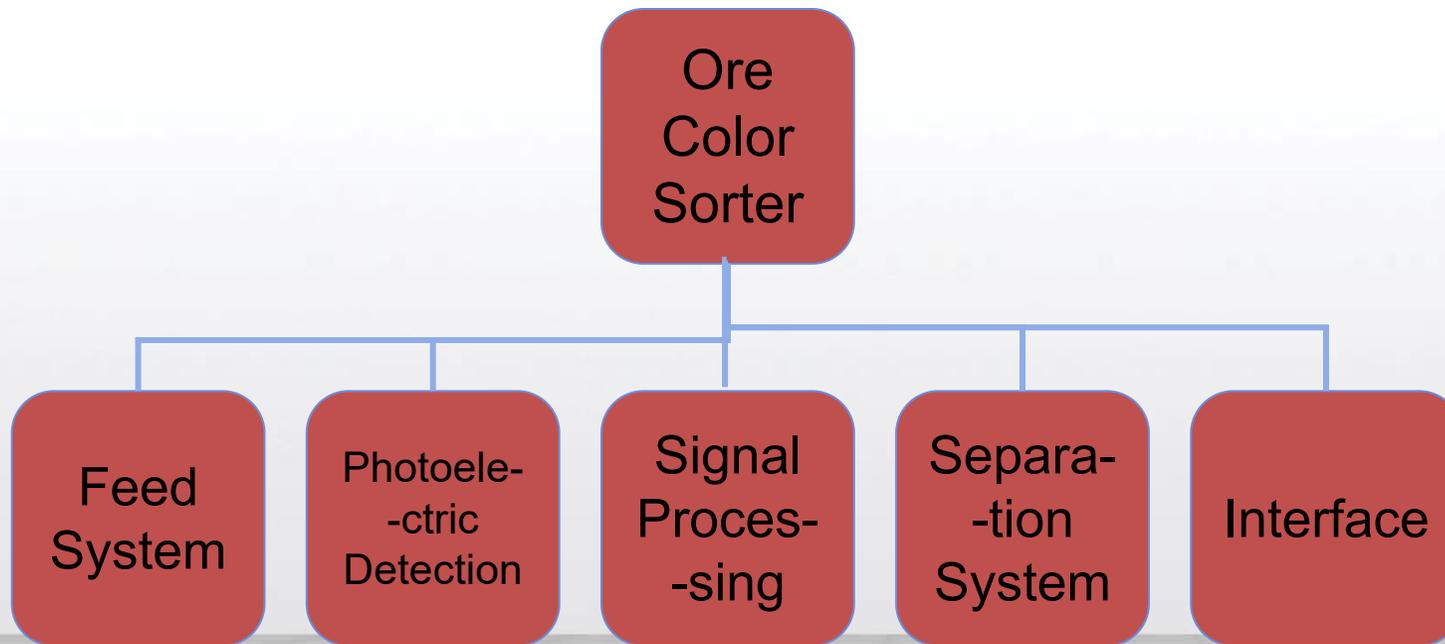
Working Principle of Ore Color Sorter

- Separate different objects according to the color.
- Under certain illumination conditions, different objects are separated according to the difference between the reflection and transmittance of the object to the light of a specific wavelength.
- Separate selected materials according to different colors through high-resolution sensors based on the difference of optical characteristics of materials and the principle of photoelectric detection, so as to realize automatic sorting. There are light source, high-speed camera and air jet nozzle above the material. The air jet nozzle sprays high-pressure air to change the running track of the material, so as to realize the entry of good and bad materials into different receiving areas.



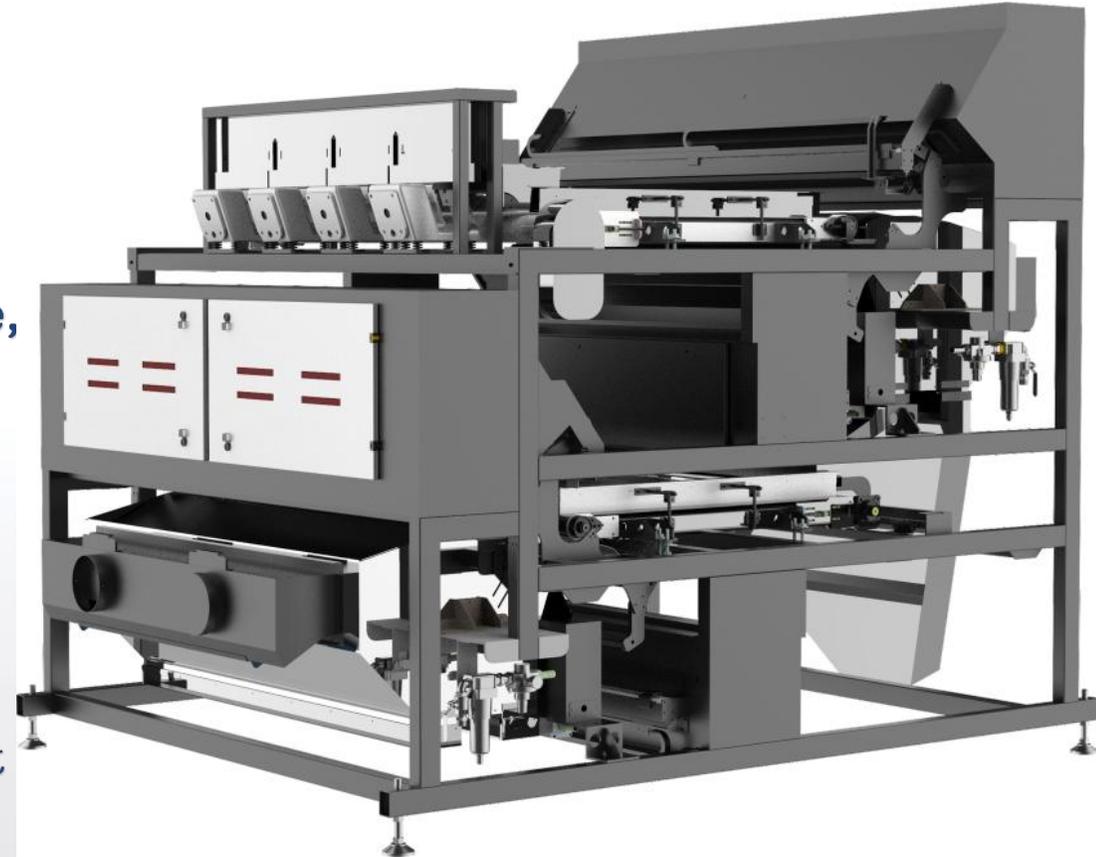
Ore Color Sorter – Main Components

The main components of the color separator are shown in the figure below:



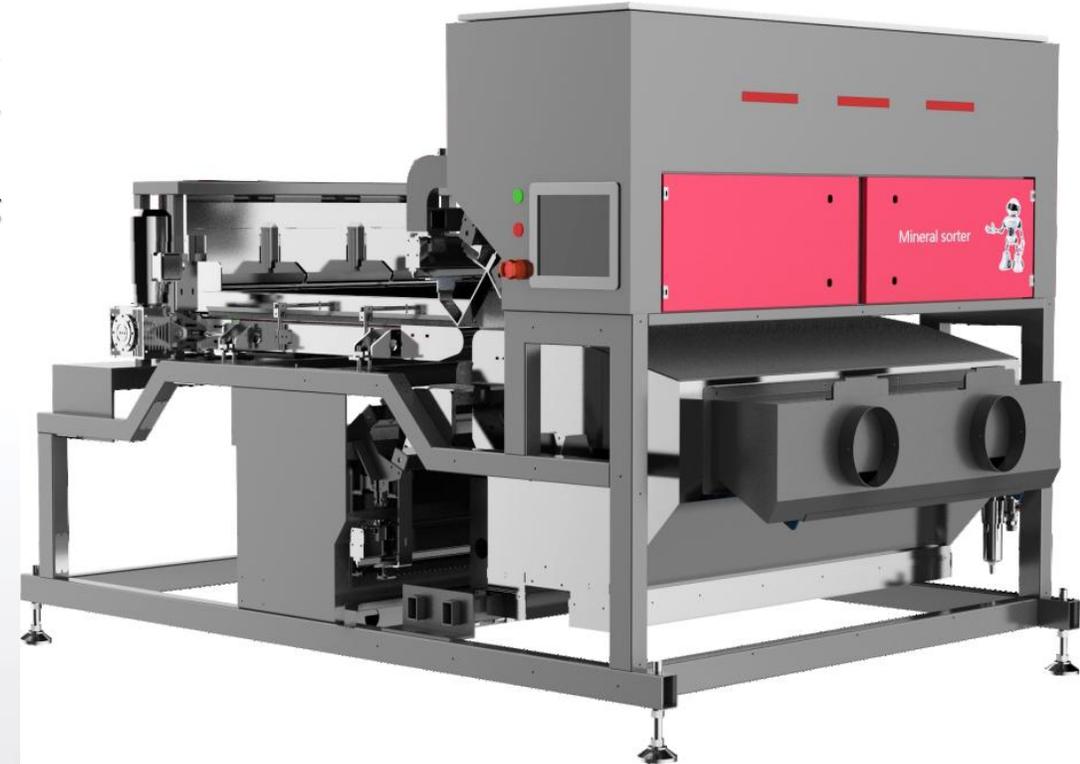
Ore Color Sorter-Advantages

- Crawler structure, high sorting accuracy
- Dry or wet selection, patented drum structure, can achieve continuous production
- Remote control
- Customized algorithm, small take-out ratio
- Real-time display of physical images can sort a variety of ores of different sizes
- Low consumption, high frequency solenoid valve, with anti-powder dust fog environment

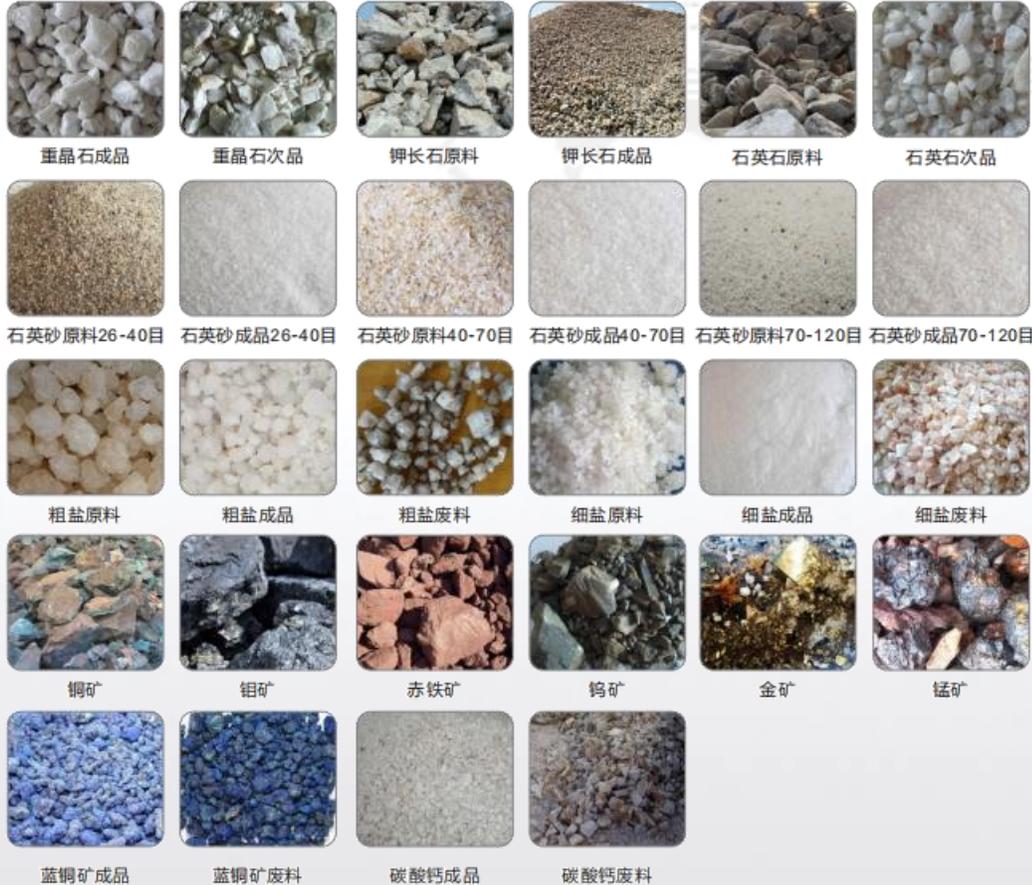


Ore Color Sorter–Core Technology

- **Wet Separation** After the raw ore is crushed in the wet state, the color difference between the finished product and the impurities is larger, the identification is clearer, and the sorting is more accurate; the cost of drying equipment can be saved (more than 200,000 yuan).
- **Environmental Protection** The continuous work of wet separation avoids the dust problem encountered in dry separation, and fully meets the national environmental protection requirements.
- **Double Vision Lens** Up and down can effectively identify bad materials in all directions to ensure that the net rate of one selection reaches more than 99%.



Ore Color Sorter-Cases



At present, the ore color sorter developed by HOT has been successfully applied to a variety of mines and achieved very good sorting results.



HL6Z-2 Ore Powder Double Layer Separator

Scope of application

1. Wide selection of fine ore particles ranging from 26 mesh to 120 mesh
2. The vertical chute solves the problems of ore and crawler adhesion in the process of fine ore sorting.

Features

1. Double check, low take-out ratio, high net rate
2. Special chute, 0.01um high smoothness
3. Low consumption, high frequency solenoid valve, greatly reduce the loss of the take-out ratio, and have the ability to resist powder, dust and fog.
4. Suspended dust cleaning device, which can also show high cleaning rate in high dust environment

Technology Parameters

产品型号Model	HL6Z-2	
产量 (t/h) Output	4.5-6.5	16-26目
	3.5-5.5	26-40目
	2.5-4.5	40-70目
	1.5-2.5	70-120目
带出比 (坏:好) ^{carryover rate} (bad:good)	40:1	
带出比 (坏:好)	>98%	
电源电压 (v/HZ) Voltage	220V/50HZ	
功率 (Kw) Power	6.5	
气源压力 (Mpa) Air pressure	0.6-0.85	
气源消耗 (L/min) Consumption	≥3500	
机器重量 (KG) Weight	2400	
外形尺寸 (mm) Dimensions	2850x2070x2650	

HLB6Z-2矿石粉料双层分选机



HD recognition + intelligent + efficient sorting



Advanced Version

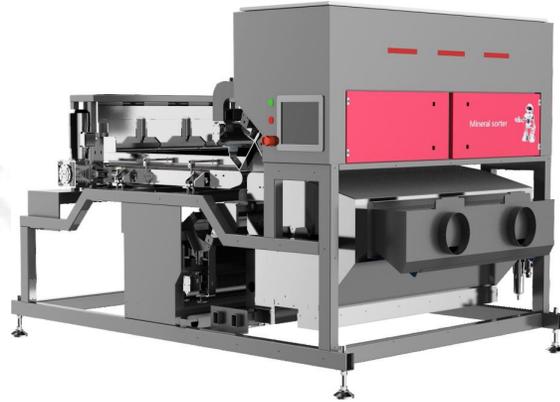
Features

1. Vertical double-layer check, low take-out ratio, high net rate
2. Improve the quality on the basis of HL6Z-2, higher, clearer and more precise

Technology Parameters

产品型号Model	HLB6Z-2	
产量 (t/h) Output	6-7	16-26
	4-6	26-40目
	3-5	40-70目
	2-3	70-120目
选净率 (100%) Accuracy	50:1	
带出比 (坏:好)	>99%	
电源电压 (v/HZ) Voltage	220V/50HZ	
功率 (Kw) Power	6.5	
气源压力 (Mpa) Air pressure	0.6-0.85	
气源消耗 (L/min) Consumption	>4000	
机器重量 (KG) Weight	2700	
外形尺寸 (mm) Dimensions	2850×2070×2650	

Small particle ore single-layer crawler sorting machine



HSL1600

Features

1. Solve multiple sorting at one time, low take-out ratio, high net rate
2. Solve the problem of sorting dry ores in harsh environments such as high dust, pollution, and high corrosion
3. Wide selection range, from 1 cm to 3 cm, ore particles of different sizes
4. The fast crawler greatly improves the processing capacity of the table, and the output is increased by more than half
5. Internet + mobile phone APP, operation and maintenance are more convenient

Cases:



Barite finished product



Defective barite



Potassium feldspar raw material



Potassium feldspar finished product



Quartz stone raw material



Defective quartz stone

Small particle ore double-layer crawler sorting machine



HSL1600-2

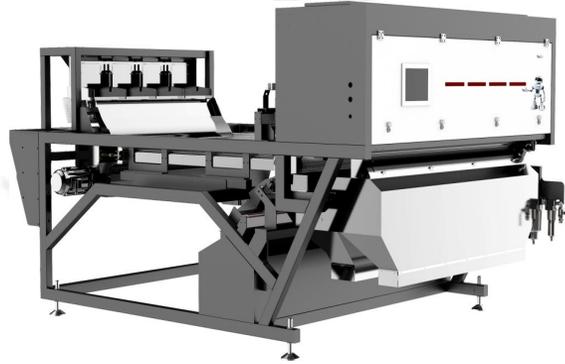
Technology Parameters

产品型号Mode	HSL1600	
层数 Layer number	单层	
	1-3公分	5-10
	4-6目	4-9
产量 (t/h) Output	6-8目	3-8
	8-16目	2-6
带出比 (坏:好) carryover rate (bad:good)	> 10:1	
选净率 (100%) Accuary	≥99%	
电源电压 (v/Hz) Voltage	220V/50Hz	
功率 (Kw) Power	5.5	
气源压力 (Mpa) Air pressure	0.6-0.8	
气源消耗 (L/min) Consumption	≥4000	
机器重量 (KG) Weight	1600	
外形尺寸 (mm) Dimensions	2925*2482*1722	

Technology Parameters

产品型号Mode	HSL1600-2	
层数 Layer number	双层	
	1-3公分	8-15
产量 (t/h) Output	4-6目	7-12
	6-8目	6-11
	8-16目	4-8
带出比 (坏:好) carryover rate (bad:good)	>10:1	
选净率 (100%) Accuary	≥99%	
电源电压 (v/Hz) Voltage	220V/50Hz	
功率 (Kw) Power	7.5	
气源压力 (Mpa) Air pressure	0.6-0.8	
气源消耗 (L/min) Consumption	>8000	
机器重量 (KG) Weight	3100	
外形尺寸 (mm) Dimensions	3471*2482*2722	

Small particle single layer dry material sorting machine



HSL1200

Features

1. Solve multiple sorting at one time, low take-out ratio, high net rate
2. Solve the problem of sorting dry ores in harsh environments such as high dust, pollution, and high corrosion
3. Wide selection range, from 1 cm to 3 cm, ore particles of different sizes
4. The fast crawler greatly improves the processing capacity of the table, and the output is increased by more than half
5. Internet + mobile phone APP, operation and maintenance are more convenient

Cases:



Barite finished product



Defective barite



Potassium feldspar raw material



Potassium feldspar finished product

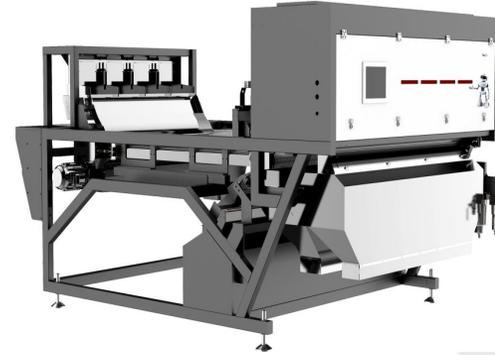


Quartz stone raw material



Defective quartz stone

Small particle single layer dry material sorting machine



HSL1440

Technology Parameters

产品型号Model	HSL1200
层数 Layer number	单层
	1-3公分 5-10
	4-6目 4-9
产量 (t/h) Output	6-8目 3-8
	8-16目 2-6
带出比 (坏:好) ^{carryover rate} (bad:good)	> 10:1
选净率 (100%) Accuary	≥99%
电源电压 (v/HZ) Voltage	220V/50Hz
功率 (Kw) Power	5.5
气源压力 (Mpa) Air pressure	0.6-0.8
气源消耗 (L/min) Consumption	≥4000
机器重量 (KG) Weight	1600
外形尺寸 (mm) Dimensions	2925*2482*1722

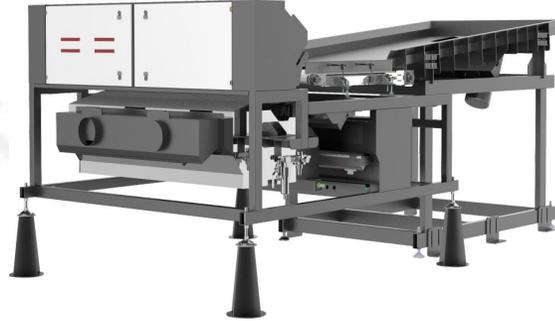
Technology Parameters

产品型号Model	HSL1440
层数 Layer number	单层
产量 (t/h) Output	1-3公分 6-10
	3-5公分 8-13
带出比 (坏:好) ^{carryover rate} (bad:good)	> 10:1
选净率 (100%) Accuary	≥99%
电源电压 (v/HZ) Voltage	220V/50Hz
功率 (Kw) Power	5.5
气源压力 (Mpa) Air pressure	0.6-0.8
气源消耗 (L/min) Consumption	≥5000
机器重量 (KG) Weight	1800
外形尺寸 (mm) Dimensions	3788*2354*2083

Large particle ore single-layer crawler sorting machine



HSL1600



Technology Parameters

产品型号Model	HSL1600
层数 Layer number	单层
	3-8公分
产量 (t/h) Output	20-50T
带出比 (坏:好) carryover rate (bad:good)	> 10:1
选净率 (100%) Accuracy	≥99%
电源电压 (v/Hz) Voltage	220V/50Hz
功率 (Kw) Power	6.5
气源压力 (Mpa) Air pressure	0.6-0.8
气源消耗 (L/min) Consumption	》 11000
机器重量 (KG) Weight	1600
外形尺寸 (mm) Dimensions	5462*2702*1968

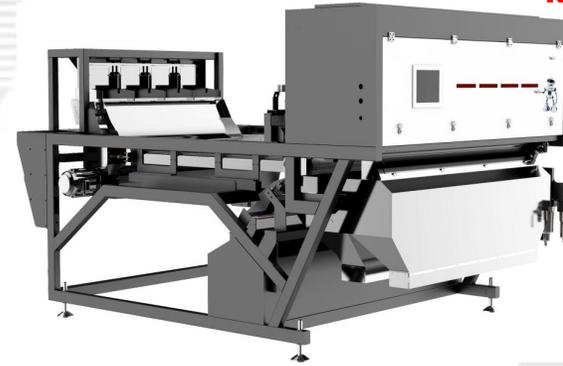
Features

1. Solve multiple sorting at one time, low take-out ratio and high cleaning rate
2. It solves the separation problems of dry ores in harsh environments such as high dust, pollution and high corrosion
3. The selection range is wide, from 3 cm to 8 cm Ore particles of different sizes
4. Fast track, greatly improve the processing capacity of bench time, and increase the output by more than half
5. Internet + Mobile App makes operation and maintenance more convenient.

Wet separation particle ore single-layer crawler sorting machine



HSL1440



Technology Parameters

产品型号Model	HSL1440
层数 Layer number	单层
	1-3公分 6-10
产量 (t/h) Output	3-5公分 8-13
带出比 (坏:好) carryover rate (bad:good)	> 10:1
选净率 (100%) Accuracy	≥99%
电源电压 (v/Hz) Voltage	220V/50H
功率 (Kw) Power	5.5
气源压力 (Mpa) Air pressure	0.6-0.8
气源消耗 (L/min) Consumption	≥5000
机器重量 (KG) Weight	1800
外形尺寸 (mm) Dimensions	3788*2354*2083

Features

1. Solve the problems of mutual adhesion and crawler adhesion in the wet ore sorting process at one time
2. The fifth-generation FPGA chip greatly improves the operation speed and the amount of operation data, which can easily realize ultra-high-speed real-time operation of massive data
3. Wide selection of ore particles ranging from 1 cm to 5 cm in size
4. The fast crawler greatly improves the processing capacity of the table, and the output is increased by more than half
5. Internet + mobile APP, operation and maintenance are more convenient.

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HOT

Process For Environment

Thanks For Your Attention!