

# SYNMEC

## 5XZ-10B GRAVITY SEPARATOR

To separate materials that in similar size but different in specific weight

www.synmec.com

ISO  
9001:2008  
REGISTERED



SGS



BUREAU  
VERITAS



# SYNMEC

The world top Manufacturer for Grain Cleaning Seed Processing Solutions  
Adviser





## Application:

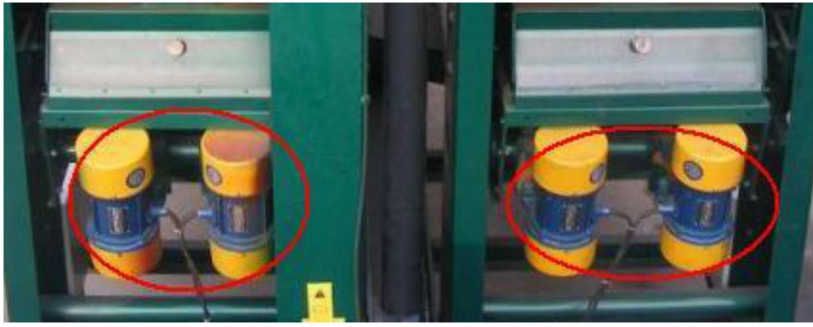
5XZ-10B gravity separator is used to separate seed and grain with same size but difference in specific weight.

It equal to two sets of 5XZ-5B gravity separators, and we made special design enable for it to put inside one 20ft container, very compact structure for exportation.

It can remove partially eaten, immature, insect damaged sick seed, moldy seed from good seed widely used in seed and grain industry ,with best performance for wheat, maize, corn and other proved by users.

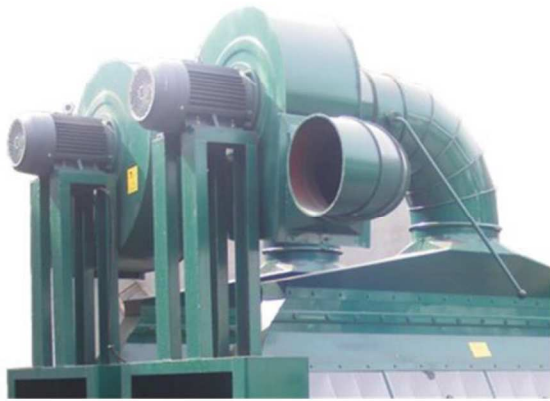
## Specification:

Model	5XZ-10B
Capacity (count by wheat)	10000kg/h
Power	17.3kw
Dimension of sieve	Two 2000*625 mm
Amplitude	4mm
Purity	>98%
Percentage of broken seed	<0.2%
Dimension(mm)	3800*2100*3600mm
Weight(kg)	2150kg



Two sets of Double Vibration Motors

Two air blowers



## Drives: Double Vibration Motors

No easy broken parts, long lifetime and high efficiency, and the vibration more stable which makes cleaning result more stable.

## Motor Details:

### Four Vibration Motors:

YZU-3-6L, 0.25kw, 960r/min

YZU-3-6L, 0.25kw, 960r/min

YZU-3-6L, 0.25kw, 960r/min

YZU-3-6L, 0.25kw, 960r/min

### Two Air Blower Motor:

YBP35-2, 7.5KW, 2880RPM

YBP35-2, 7.5KW, 2880RPM

### Motor for grain return groove:

YS-7114, 0.55KW, 1400 r/min.

### Motor for Elevator:

Y90S-6, 0.75KW 960r/min.

## Introduction of working process:

By air aspiration and sieve oscillation, seed is fluidized and stratified.

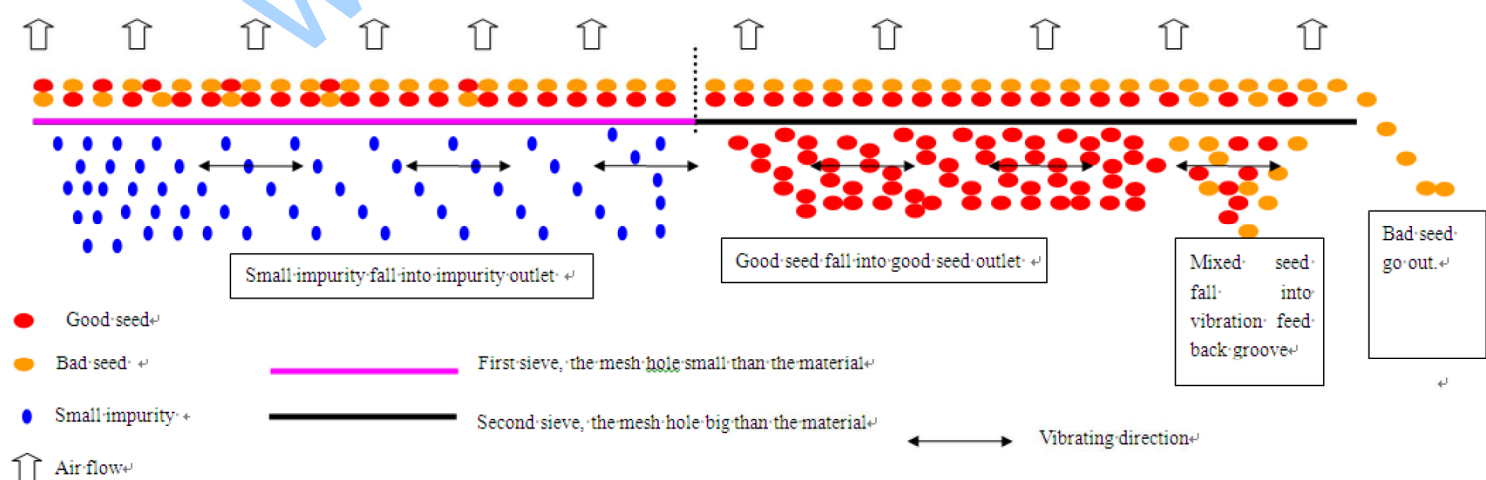
Heavy seed sink into the sieve bottom layer, while light seed suspend to the top layer.

After stratified, seed go forward to the discharging part.

Bottom layer good seed and mixture quality seed fall through the sieve discharge from different outlets successively.

Top light seed with bad quality was discharge directly.

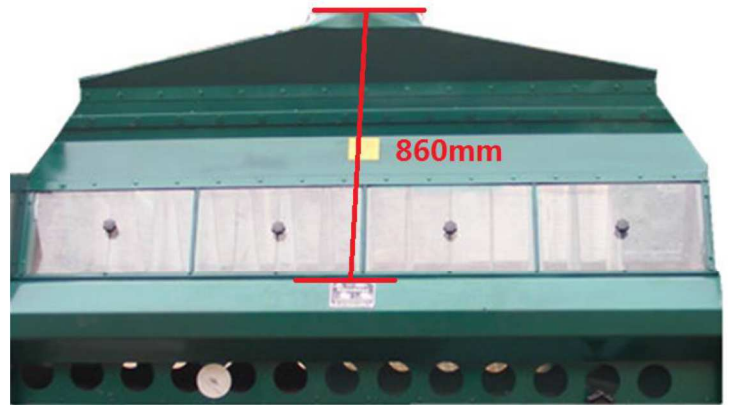
Mixed quality seed in the middle layer fall through sieves and return back by vibrate feeding groove.





### The widest sieve

The widest sieve can make the grains spread more evenly, the selection function more sufficient, and also improve capacity.



### The highest air chamber in China

Which makes air flow more unobstructed, more air storage capacity, stronger air suction that lead to better selection results.

### Advantage of 5XZ-10B Gravity Separator in wheat processing:

Our 5XZ-10B Gravity Separator can remove out all bad wheat, wild oats, wild barley and aegilops tauschii from good wheat. This is the unique machine which can achieve this function.



bad wheat

wild oats

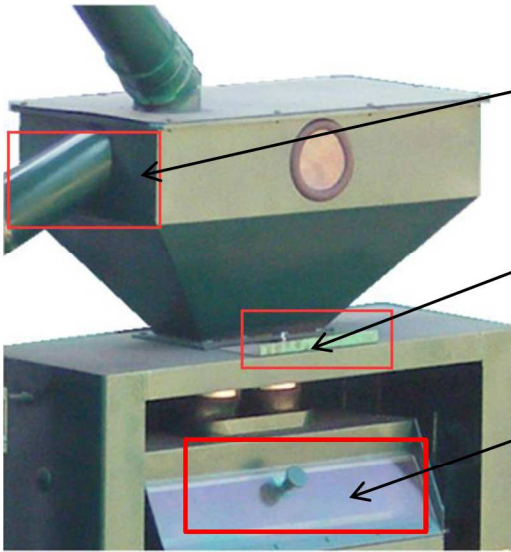


wild barley

aegilops tauschii



## Adjustment:



When the grain over-feeding into the hopper, there is an over flow pipe makes the grain back to the inlet of bucket elevator.

The Insert Plate under Inlet Hopper can control the feeding volume.

Inside have a buffer plate, which ensure grain fall down to sieves evenly.

**Air Adjusting handle to control the air volume produced from air blower.**

14 air adjusting baffle plates on each side will be adjusted according to selection results to control stratified of heavy and light seeds.



**Two 4.5A 7.5KW air blowers**

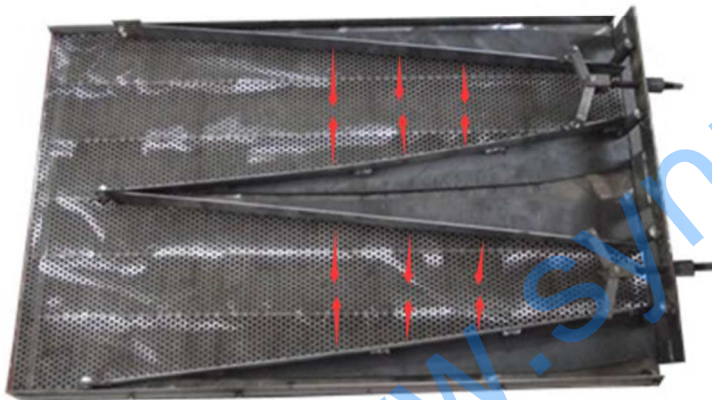


**This is the inside sieve set.**



**The front sieve of Gravity Separator.**

By the air aspiration and sieve oscillation, grain seed will finish layering on front sieve, then seed will go forward to back sieve for separation.

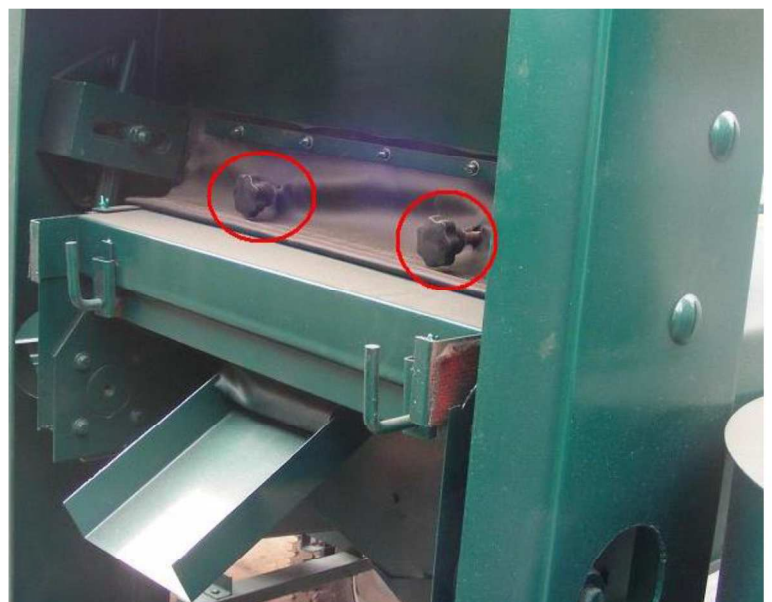


**The back sieve of Gravity Separator.**

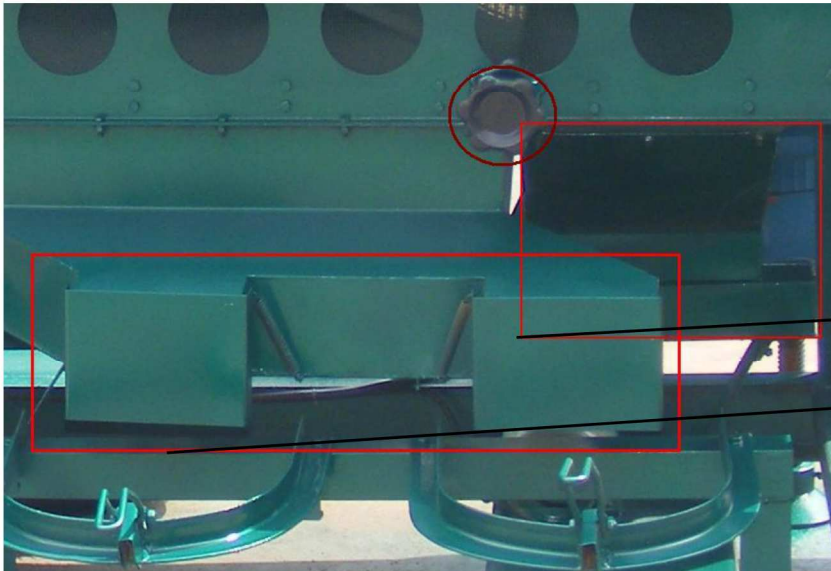
The triangle gap can be adjusted according to different material.

Bad seed will be separated from good seed and discharge from different outlet.

The two black adjusting handles is end of back sieve, it is used to adjust the triangle gap size, lead to control the separation of mixed grain and light grains while control the flow volume of light grains.







The above outlet is **outlet for good seed grains**, and there are a sack holder under it.

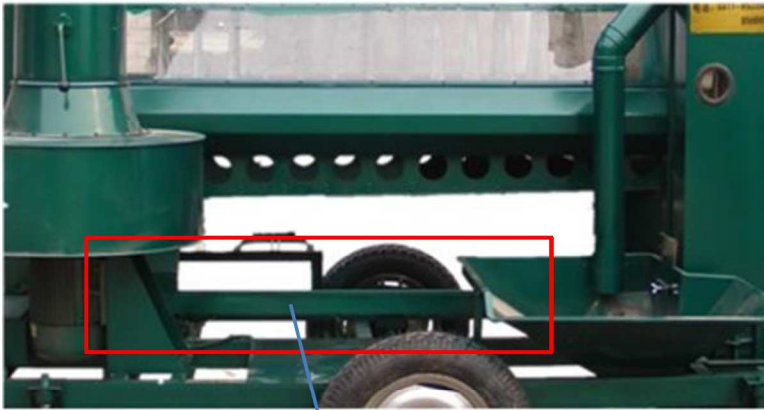
From top to Bottom are adjusting handle, **outlet of mixed seed** and **outlets of good seed**.

The black handle is called **material separation baffle plate adjusting handle**, it is used to adjust separation point of heavy seed and mixed seeds.

Under the outlet of good seed, there are sack holders which use to hold bags to fill in grain.

The grain from the outlet of mixed seeds will flow into grain returning groove and flow back into inlet hopper of elevator for second time selection.





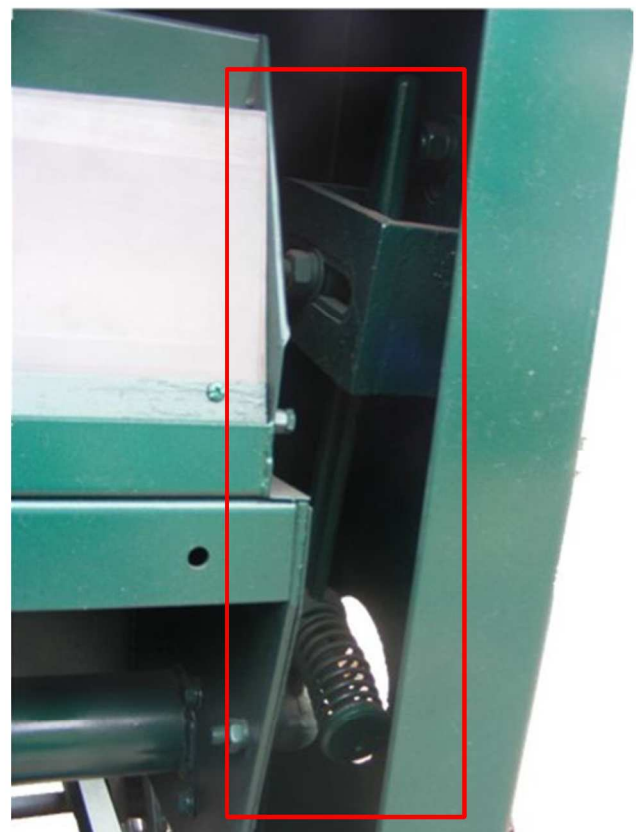
## Grain Returning Groove

The grain seed which mixed good and bad seed will flow from this groove and back into inlet hopper of Gravity Separator for second time selection.



## Damping mechanism:

Which can balance the vibrating force to make working steady,





## Other Features of 5XZ-10B



One Bucket Elevator feed for 5XZ-10 gravity separator.  
The Elevator has two-way valves, which can control the flow direction of grains.



Use same grain reflow pipe, which compact in structure.



Use the same grain returning groove to collect mixed seed, which save power and compact in structure.

We are the best choice for you!

## Factory view



Office Building

Workshops

## We have professional manufacturing equipment!

Drilling and milling machine	CNC lathe	Laser cutting machine
Plasma cutting machine	Bending machine	Shearing machine



We can provide over sea machine assembly and staff training services!



We have strong production capacity!





We have customers all over the world!





# Healthy Grain, Pretty Beans, Strong Seed. SYNMEC

We serve for



Shijiazhuang SYNMEC International Trading LTD. and Hebei RUIXUE Grain Selecting Machinery Limited have all the copyright of the information and pictures provided in this leaflet. We have all the rights to do necessary adjustments on the product, and these changes may not reflect on the leaflet at the moment of production.

Address:  
Head office: 15th Guangan Street,  
Shijiazhuang City, Hebei Province,  
China 050011  
Manufactory: Huaihe Industry Park,  
Hongqida Street, Shijiazhuang City,  
Hebei Province, China 050000

Tel: +86 311 676663887  
+86 311 89901997  
Fax: +86 311 67663887  
Mobile: +86 13273161281 (Tony)  
Whatsapp: +86 13803340060  
Imo: +86 13803340060  
Wechat: 13803340060  
Email: [tony@synmec.com](mailto:tony@synmec.com)