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SYNMEC

5XZC-3A Seed Cleaner & Grader

Primary cleaner with maize thresher removes light impurity, small impurity and big impurity.



SYNMEC

The world top Manufacturer for Grain Cleaning Solutions
Adviser for Seed Processing

INTRODUCTION

The 5XZC-3A Seed Cleaner & Grader has a good cleaning effect on grain seeds, tree seeds, forage seeds, beans, and a variety of commercial grains. It can be equipped to suit a variety of special jobs and purposes.

The 5XZC-3A Seed Cleaner & Grader is installed a maize thresher at front, so it will threshing the maize first, then dust and light impurity are removed by aspirator fan, material falls on sieve layers and was separated by sieves according to width and thickness difference. All the oversize and undersize impurities were discharged from outlets.

FEATURES

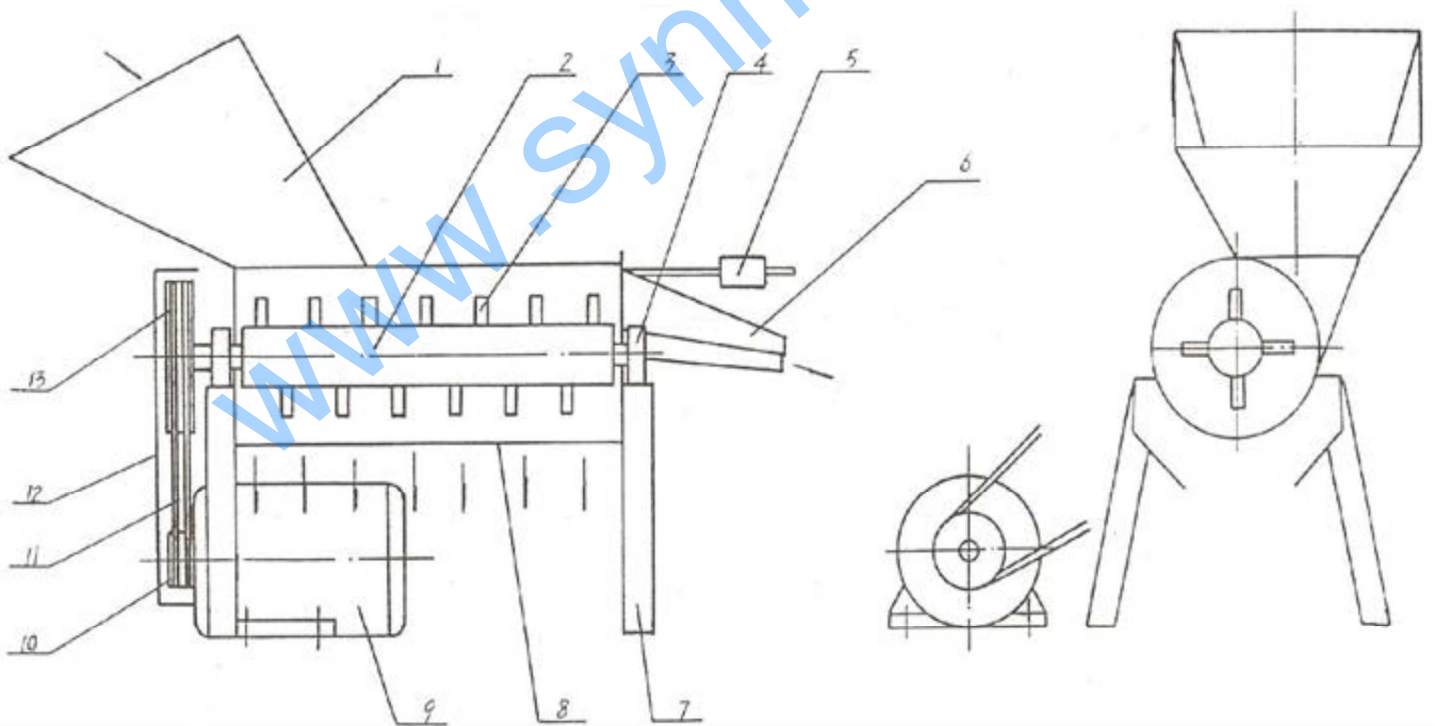
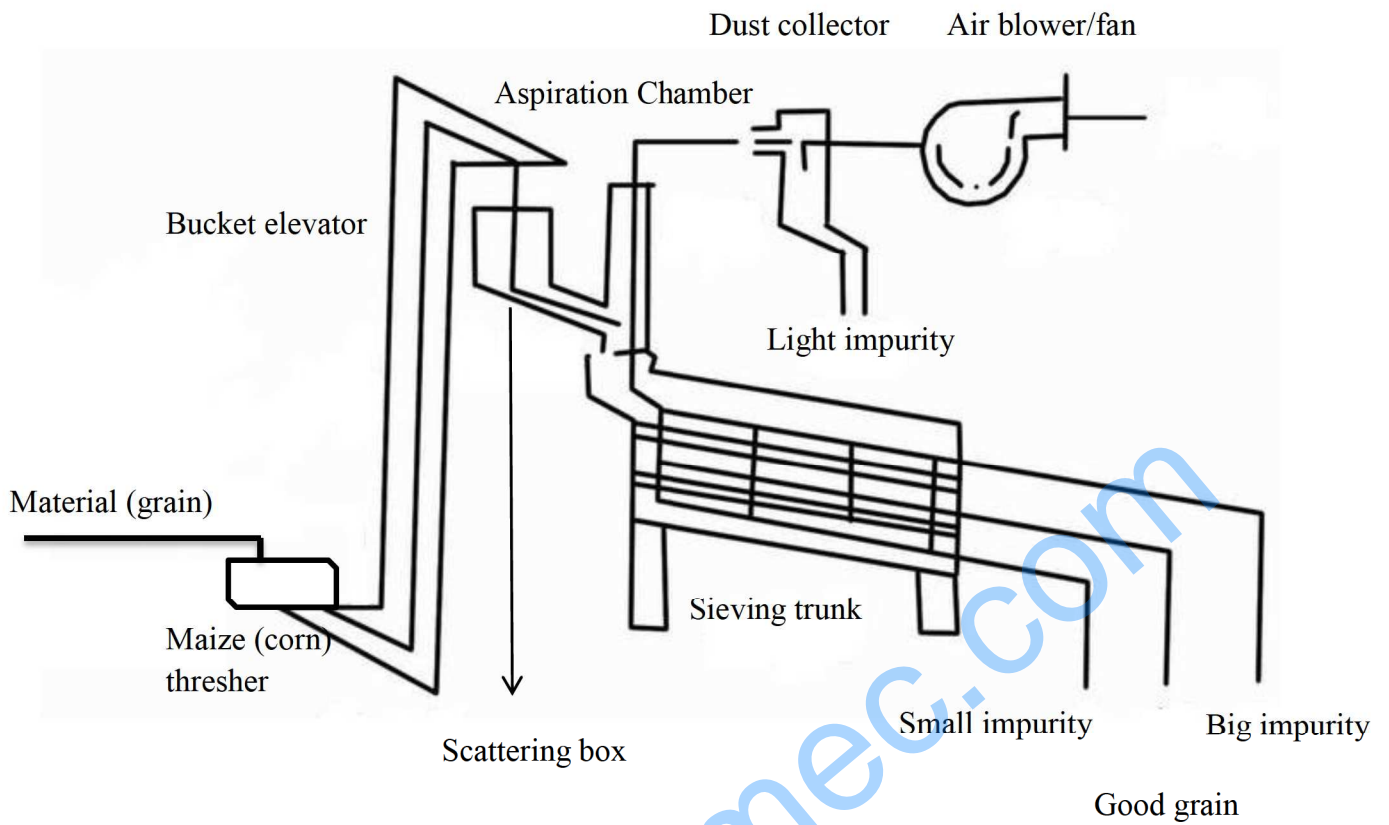
Seed cleaner & grader becomes basic and most favourite cleaning machine in seed and grain industry of global market, with high efficiency, excellent performance, wide application.

It's suitable for processing all kind of seeds, cereals, grains species and crops, such as wheat, paddy, rice, barely, maize, millet, cumin, sunflower seed, soybean, coffee bean, cocoa bean, oil seeds, etc.

Customized sieve layer amount and various machine combinations allow the seed cleaner & grader to be used for a wide range of applications and increase grading efficiency.



Working principle sketch



- 1. Feed in hopper
- 2. Main axle
- 3. Spike-tooth
- 4. Bearing
- 5. Weight block
- 6. Maize core outlet
- 7. Main frame
- 8. Concave plate
- 9. Motor
- 10. Motor belt pulley
- 11. Triangle belt
- 12. Belt cover
- 13. Main axle belt pulley

Working Principle

Feed Maize into the thresher first, after threshing the single seed will fall into grain inlet box after air cleaning, and then under the vibration the grain jumping and flow to the multi-layer sieving trunk, following the grains well-proportioned enter to the upper layer sieve via the rubber curtain. Selected grains will fall into the next lower sieving panel after sieving, chaff and debris blocked by sieves and transfer to the outlet of large impurity. The selected grains will fall into the lower layers sieving panels, and will be graded into different levels of the different grain sizes by sieving in different sieving layers, that caused by the layers sieving panels have different mash size. Selected grains flow to the outlets of good grain, fill into bag hung on the bag holder. Cap of outlets can be used when shift bagging that means the cap can be close when you change the bag. It is the whole work flow for the separator. (Note: If you are not cleaning the maize you can turn off the thresher, and feed into the bucket elevator hopper straight way).

Use different sieve to different process of different type of grains. The observing windows on the sieving trunk are for checking operation.

Multi-angle display



Aspiration Chamber

Removing dust, straws, hay, husk and other light weight impurity out of the grain and seed

Handle and knobs adjusting the gap of channel to obtain optimum aspiration separating result. Removal of all the light weight impurity while fine seed falling down.



Observation window



Dust removal system / dust collector

A settling chamber consists of a large box installed in the ductwork. The increase of cross section area at the chamber reduces the speed of the dust-filled airstream and heavier particles settle out.

Settling chambers are simple in design and can be manufactured from almost any material.



Air flow adjusting handle



Air blower

Seed separating flow



Grain lifted up by bucket elevator and fall into grain scattering box, where grain flow scatter evenly, in case of the grain gather at one side. After that grain fall into sieving trunk and light impurity was removed by aspiration simultaneously.

Handle for adjusting grain flow scattering evenly



Scattered grain feed into sieving trunk for separating. In this part, grain / seed was graded by galvanize sheet with different holes in each layer. Big size and small size impurities discarded in different outlets respectively. Final cleaned seed come out from main outlet.



It's very convenient to pull the sieves out. Client can change the sieve easily when cleaning other grain or seed.

The sieves inside are made of durable galvanized steel sheet. We will equip suitable sieves hole according to client's raw material.

In order to choose perfect sieves, the seed sample (raw material contains impurities) or seed measuring photo are needed after clients placed order. Note that one set sieves are equipped as standard supply, only used for one species seed.

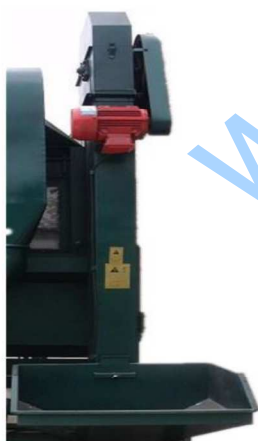
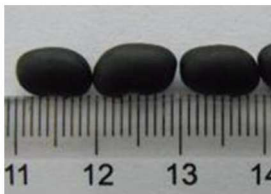
Note: Stainless steel sieve is available.



Knobs and plates press the sieves firmly



Rubber ball
for sieve clog
cleaning



Bucket elevator

Used to transfer materials (grains). Available in both fixed and movable version to adapt different working environment.

Feature

It has compact structure, user friendly interface, easy to maintain, energy saving, easy to clean, efficiently avoid mixture.



Power control cabinet

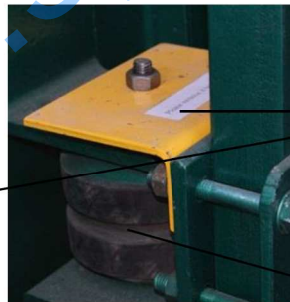
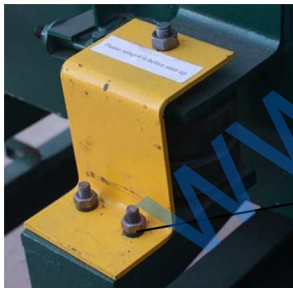
It has the feature of easily operating, only need to connect the power. The wire is 100% copper, which lead to long using life.

Famous brand motors which certified by the nation. It has win an excellent reputation for both its high quality and favorable price.



Two fan shaped metals in two ends of vibration motor set the vibration amplitude.

Engineer will set it before delivery. Not recommend setting by users.



Fixing plates for transportation.

Please remove them before running.

Rubber spring support sieving trunk



Star shape Handle

Fixed the sieves, the sieves can be easily changed

Model Feature & Specification 5XZC-3A Seed Cleaner & Grader

5XZC-3A is a combined model with a maize (corn) thresher mounted on the inlet hopper of bucket elevator. User can feed maize cob into the hopper directly. After threshed, maize kernel / seed was separated and dropped into elevator hopper for cleaning and grading.

Maize cob hopper



Air blower clean the thresher and blow out light impurity and broken cobs.

Maize thresher

After discharged from the bottom of thresher drum, maize seed goes to elevator hopper by vibration feeding groove

The Grid on the bucket elevator hopper avoid foreign matter and impurity enter to the machine.



Note: If you are not clean maize/corn, you can lifting open the grid then feed your grain to the hopper of bucket elevator without turn on the maize thresher.

Dimension (L×W×H)	3970×1800×2750 mm
Dimension of each sieve layer	1250×800 mm
Capacity	3000 kg/h
Weight	1300 kg
Motor Power	
Air Blower	3 kw
Vibration Motors	0.25 kw*2
Elevator Motor	0.75 kw
Maize Thresher	4 kw
Vibration Groove	0.25 kw
Total Power	8.5 kw

Model Directory for Seed (Grain) Cleaner & Grader

No.	Model	Capacity (counted by wheat)	Available Sieve Layers (by Customer require)	Wheat Huller	Maize Thresher	Rice deawner	Dust Reducer	Cyclone Dust Separator	Double Air Cleaning Systems	Destoning function
1	5XZC-3A	3 T/H	2-3		✓		✓			
2	5XZC-3B	3 T/H	2-3				✓			
3	5XZC-3C	3 T/H	2-3	✓			✓			
4	5XZC-3DH	3 T/H	2-3					✓		
5	5XZC-3DS	3 T/H	2-3					✓	✓	
6	5XZC-3P	3 T/H	2-3			✓		✓		
7	5XZC-5A	5 T/H	2-4		✓		✓			
8	5XZC-5B	5 T/H	2-4				✓			
9	5XZC-5C	5 T/H	2-4	✓			✓			
10	5XZC-5CDH	5 T/H	2-4	✓				✓		
11	5XZC-5DH	5 T/H	2-4					✓		
12	5XZC-5DS	5 T/H	2-4					✓	✓	
13	5XZC-5DSH	5 T/H	2-4				✓	✓		
14	5XZC-5P	5 T/H	2-4			✓		✓		
15	5XZC-7.5D	7.5 T/H	3-5					✓		
16	5XZC-15	10 T/H	3-6					✓		
17	5XZC-15A	10 T/H	3-6		✓		✓			
18	5XZC-25	20 T/H	4					✓	✓	
19	5XZD-15AC	20 T/H	Double 3					✓		
20	5XZF-5F	5 T/H	2-4					✓	✓	✓
21	5XZF-7.5F	7.5 T/H	3-5					✓	✓	✓

Note:

1. About sieve layer: two sieve layers is basic, normally top layer remove large impurity and bottom layer remove small impurity, add more sieve layer that can grade your seed/grain to different levels by size, such as add one more layer that can grade your seed/grain to two levels (big and small).
2. For 5XZD-15AC has double three sieve layers, which has two isolated sieving trunks installed in one machine, lead to double capacity
3. Dust reducer and cyclone dust separator are all used for collect the light impurity and dust which sucked by air blower, the cyclone dust separator is high technical one which can collect over 98% dust and light impurity, so very low dust release from the outlet of air blower. But the dust reducer only can collect most light impurity and few dust, so there are many dust release from the outlet of air blower.
4. 5XZC-5DSH has dust reducer and cyclone dust separator together, which used to separate the light impurity and dust when the light impurity is valuable, also provide better dust collection at the same time. Most light impurity will be collected by the dust reducer.
5. 5XZC-3DS and 5XZC-5DS has double air cleaning systems which placed at the front and back of the sieving trunk. Double air cleaning systems of 5XZC-25, 5XZF-5F and 5XZF-7.5F are all placed the front of sieving trunk.
6. Double air cleaning systems will lead to better air cleaning result.

We are the best choice for you!

Factory view



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



One time produce 6 sets 5XZD-15AC



One time produce 33 sets QSX-85 Destoner



One time produce 40 sets 5XZ-6 Gravity Separator



One time produce 30 sets 5BY-5B Seed Coating Machine

We have customers all over the world!



Healthy Grain, Pretty Beans, Strong Seed. SYNMEC

We serve for



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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