

DESTONER

SEED PROCESSING



An expert
at your side.



The Experts in Seed Processing.

To find the right machines for your business you need a partner you can rely on. One who understands your business and offers expert advice during selection, installation and beyond. Cimbria has been helping customers succeed for more than 75 years, with extensive know-how and technologically advanced solutions for the entire process of cleaning grain, seed, and food commodities.



Optimize your Cleaning Process with our Destoners.

Destoning is an important step in the cleaning process for the milling industry when processing material harvested from the ground. With the ability to **select elements according to specific weight**, destoners purify the production from heavy impurities, such as stones, as well as metals, plastics and other granular contaminants.

Cimbria's destoners are user friendly and designed to meet the needs of your business, so, you can feel confident you will get the right system tailored to your operation.





Vacuum Destoner.

Suitable for separating heavier impurities such as stones, glass, metal, by means of suction fans or central aspiration.



TS 90 Series Destoner

Vacuum machine
Capacity up to 5 t/h



TS 180 Series Destoner

Vacuum machine
Capacity up to 10 t/h



TS 360 Series Destoner

Vacuum machine
Capacity up to 20 t/h

Granular material is taken to the table deck through an adjustable spring-actuated flap. The deck surface is covered by wire mesh. A steady and adjustable air flow passes through the mesh. **The combined effect of vibrating movement and air passing through the deck arranges the material in layers.** The heavy admixtures sink towards the bottom and are moved to the highest point of the table deck surface (stone outlet) by means of contact with the rough deck covering. Lighter material (= good product) floats on top of the layer and flows to the good product outlet due to the inclination of the deck. The machine consists of a self-supporting steel section frame, holding the inclination frame which, in turn, holds the vibrating frame and the deck. Both are driven by a counterbalanced eccentric drive. Through the dust hood, the necessary process- airstream is aspirated, removing light particles and dust. **The system is in a permanent state of negative pressure, preventing any dust from escaping.**

Pressurized Destoner.

Suitable for separating heavier impurities such as stones, glass, metal, by means of pressure fans.



TS 200 Series Destoner

Pressurized machine
Capacity up to 15 t/h



TS 400 Series Destoner

Pressurized machine
Capacity up to 30 t/h

Grains or particles of almost identical size are fed continuously on the separating deck to ensure a uniform bed of material over the whole width of the deck surface. For better feeding results, a pre bin with an automatic actuator drive is used.

The deck is fluidised by a completely uniform pressurised air system and lifts the light material.

The heavy material (such as stones) sinks towards the bottom and contacts the deck surface. The deck itself is powered by a well-balanced eccentric drive, which moves the deck at low amplitude and high frequency upwards. The heavy material contacting a specially designed square wire deck surface moves up, (stone outlet) while the light material fluidised by the air system is pulled down by gravity.

This system allows for precise adjustments leading to better sorting results.





Vacuum Destoner.

ADVANTAGES

- Only 1 fan required for air and dust aspiration
- Compact design
- 100 % dust-tight due to negative pressure
- Easy to adjust
- Low energy demand

01. INLET

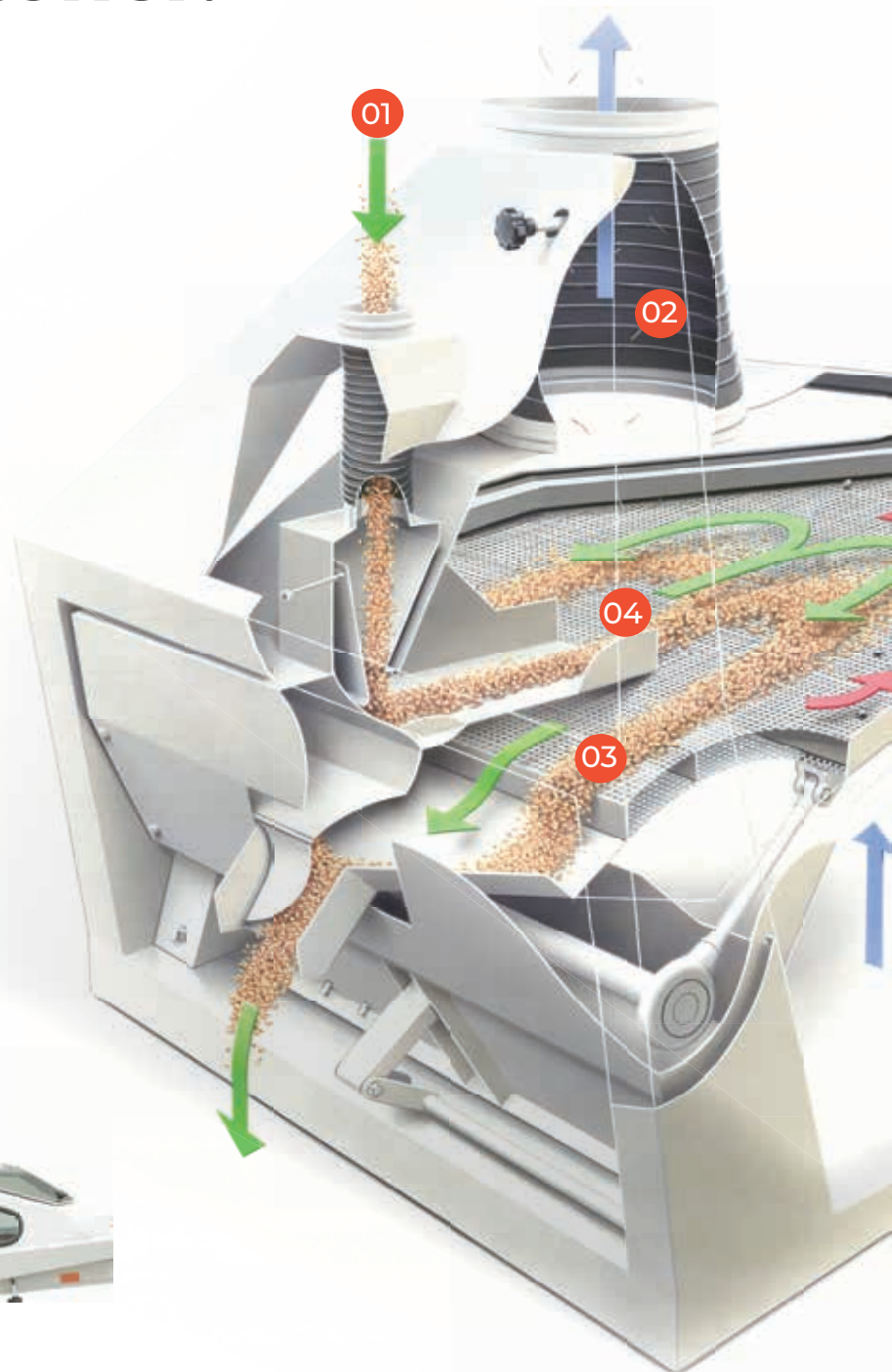
The amount of incoming material can be regulated, enabling **ideal coverage of the deck surface**.

An adjustable spring- actuated flap prevents false air from being sucked in through the material supply pipe.



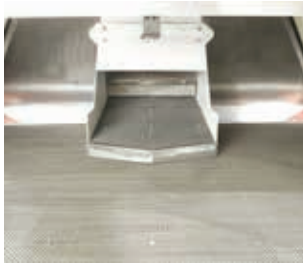
02. ASPIRATION

The required air volume is aspirated through the deck insert, which is permeable and can easily be folded down for cleaning or replacement. Air volume and material input are adjusted to each of the required operating conditions by means of adjustable flaps. The entire deck surface is covered with a dust hood in order to maintain a vacuum



03. OUTLET FOR CLEAN PRODUCT

The good lighter material flows out thanks to the inclination of the deck, **adjustable from 6 - 15°**.



04. DECK SURFACE

The deck can be covered with **4 different types of wire mesh**, each ideally suited to the product that is being processed.



05. STONE OUTLET

An adjustable reverse air flow zone is installed at the stone outlet. This system is designed to prevent good product from being discharged through the stone outlet during operation. A strong reverse air stream will blow good product back towards the clean product outlet.

OPTIONAL ACCESSORIES.



AIR RECIRCULATION SYSTEM

Air is pulled through the destoner by the fan and pushed into the dust separator where the dust is skimmed off before returning the clean air via the air inlet hood. The dust and concentrated outer layer are forced through an adjustable slot and sucked into a general exhaust system or filter. The air volume that is removed is replaced by air from around the destoner.

The negative pressure in the system ensures that dust remains in the circuit.

The amount of air leaving the system can be controlled by adjusting the width of the slot and controlling air velocity in the aspiration duct.



RESIDUAL DISCHARGE

The destoner can be equipped with residual discharge. The sorting table is inclined pneumatically toward the clean product discharge (working inclination +8°) to quickly empty the table.





Pressurized Destoner.

ADVANTAGES

- High capacity
- Easy to adjust
- Very precise sorting due to the advanced pressurized air system
- Simple feeding system
- Optimum aspiration



01. INLET / PRE-BINS

The destoner is constructed with pre-bins to ensure better feeding results. An **adjustable feeding rate** is enabled by a flap driven by an electric motor that is steplessly adjustable by means of a potentiometer. Optionally, a shaker feeder can be delivered.



02. DECK SURFACE

The deck can be covered with **4 different types of wire mesh**, each ideally suited to the product that is being processed on the machine.

Large windows in the dust hood lets the operator view the process.

03. OUTLET FOR CLEAN PRODUCT

The light material fluidised by the air system moves down hill and is conveyed through the outlet spout on the backside of the machine.





04. RADIAL FANS

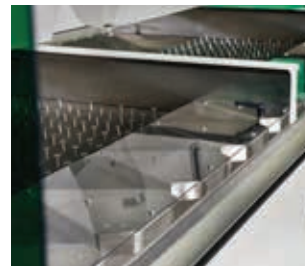
Product is separated into layers by weight using adjustable speed radial wheels.

The high pressure of the fan and its stepless adjustability mean that **the machine can be precisely adjusted to suit any product.**



05. ECCENTRIC DRIVE

The deck is powered by a well-balanced eccentric drive which moves the deck at low amplitude and high frequency.



06. STONE OUTLET

An adjustable reverse air flow zone is installed at the stone outlet. **This system is designed to prevent good product from being discharged** through the stone outlet during operation. A strong reverse air stream will blow good product back towards the clean product outlet.



07. EASY TO OPERATE

Adjust inclination and fan speed at a single central point with optimum view over the entire deck, enabling the operator to make quick and simple adjustments.

A service hatch in the dust hood gives simple and quick access for cleaning and maintenance.





Testing Center.



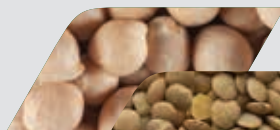
SCAN THE QR
TO SET UP
YOUR TRIAL

PUT US TO THE TEST

Send us your toughest sorting challenge. Cimbria's multiple testing centers are available for customizable lab trials worldwide. Let our experts recommend the best solution for your business.



Grains



Pulses



Food



Seeds



Quality Control.

During the manufacturing process, each machine as well as its components must pass several strict quality controls to meet our customers' requirements at the highest level. Before dispatch, a final quality control process following a sophisticated checklist is carried out, rounded off by a 24-hour test run. We can thus guarantee that each machine is ready to operate at the customer's site very quickly and without any surprises.



CHECK [CIMBRIA.COM](https://www.cimbria.com) FOR MORE
TECHNICAL INFORMATION.

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Service First.

CERTIFICATIONS






- CE conformity certificate
- 2006/42/CE on machinery safety
- 2006/42/CE on machinery Electromagnetic Compatibility

DELIVERING RELIABILITY AND DEPENDABILITY

You are committed to delivering the highest quality for your customers. Cimbria can help you deliver. With our customer service team and partners we offer exclusive after-sales service, for qualified assistance at all times. Aftersales service not only includes spare parts service, but also regular maintenance services, plant check-ups and consulting services.

CONTACT US:

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MACHINE TECHNICAL DATA				Vacuum			Pressurized	
				TS 90-S	TS 180-S	TS 360	TS 200	TS 400
								
Dimensions	Length		mm	1460	1645	2150	2150	2150
	Width		mm	980	1720	2600	2030	3350
	Height		mm	1500	1580	2050	2900	2900
Technical data	Screen area		m²	0.66	1.46	2.8	1.9	3.8
	Power consumption	Fan drive	Kw	—	—	—	7.5	15
		Reciprocating drive	Kw	0.37	0.55	1.1	1.1	1.1
		Air requirements destoner	m³/min	65	95/120	155/200	235	470
		Air requirements dust hood	m³/min	—	—	—	275 (300 Pa)	550 (300 Pa)
Weight	Destoner net		Kg	220	390	890	1235	1700
	Total (dusthood, prebin)		Kg	—	—	—	1665	2350
Capacity	Wheat		t/h	5.0	10.0	20.0	15.0	30.0
	Green coffee		t/h	3.8	7.5	15.0	10	20
	Roasted coffee		t/h	2.5	5.0	10.0	7.5	15
	Rice (Paddy)		t/h	3.2	6.5	13.0	9.5	19.5
	Soybeans		t/h	4	8	16	12.5	25.0



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