



**GRAIN TECH LTD**



# GRAIN & SEED PROCESSING CATALOGUE



**DESIGN | MANUFACTURE | INSTALLATION**

**PROCESSING, MATERIALS HANDLING & STORAGE EQUIPMENT SYSTEMS  
FOR THE GRAIN & SEED INDUSTRY**



## **KNOWLEDGE, EXPERTISE AND EXPERIENCE IN GRAIN AND SEED INDUSTRY PROCESSING APPLICATIONS**

*Grain Tech has been established for the past 33 years as specialists in supplying and installing the complete range of proprietary processing and handling equipment to suit the grain, seed and associated food industry applications from raw material intake through to finished product packout.*

*Design, manufacture and installation to meet new processing requirements is provided as are complete re-modelling and process extensions.*

*Innovative equipment and process design features ensures that Grain Tech processing and handling installations offer economy with superior performance.*

*We can provide complete evaluation and quotations for all services including:*

- *Complete systems design*
- *Equipment manufacture for supply*
- *Detailed planning-in and fabrication drawings*
- *Electrical control system design and supply*
- *Plant installation*
- *Commissioning*
- *Project management*
- *After sales service*

*In providing reliable and powerful technology as a pre-requisite for optimum economic and efficient production we ensure that you can rely on your plant at any time. We deliver not only modular installation arrangements most suitable for all kinds of grain, seed, oilseed and pulses as well as specialized added value processing equipment to meet changing finished product market requirements.*

*To cater for the requirements to achieve greater efficiency and superior quality finished cleaned grains, seed, oilseed and pulse products, we incorporate the world renown, competitively priced, technically advanced and well proven Akyurek plant and equipment items.*

*For further questions about our services, we are at your disposal at any time – get in touch with us.*



*Akyurek Technology has grown with it's partners as an international grain and seed equipment supplier by leading the way to dominate world standards for grain and seed commodities on five continents.*

*Akyurek Technology's 45 years of industry experience in successfully manufacturing post harvest grain and seed conditioning and processing machinery through providing customer satisfaction, product quality, safety and after sales service, continues through providing technological solutions and equipment for grain and seed conditioning for food or seed purpose processing plants for global seed, grain, pulse, oilseed and dry leguminous varieties.*

*With its four decades of food seed processing experience Akyurek Technology has, with long term associations and partnerships coupled with an onsite research and development centre, been able to adapt and improve to enable designs to be tailor-made to its clients' needs.*

*To deliver the global grain and seed processing industries expectations, Akyurek Technology's recipe is to combine the field experience with up to date technological production and manufacturing facilities.*

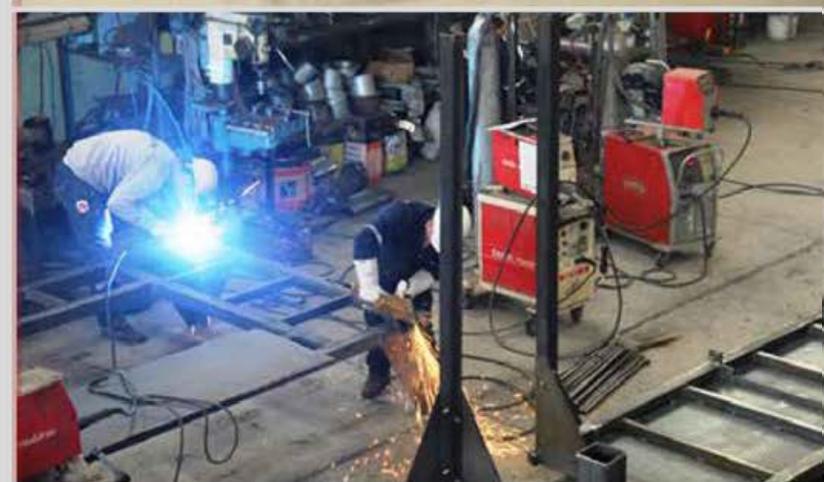
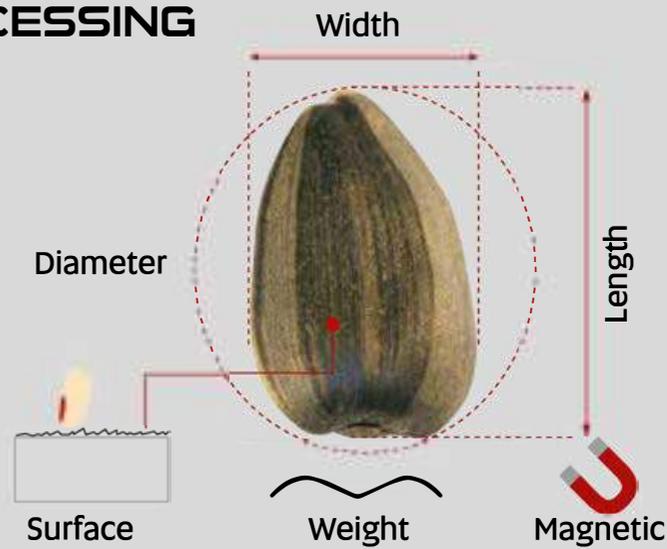
*Akyurek Technology is able to adapt their equipment design to suit customers' requirements and provide a single source for supply who can manufacture and provide not only first class technology, but also a tailor-made service portfolio to enable you to focus on essentials and be able to exploit the potential of your plant to the full. This includes professional installation and personal instruction for your staff, and also an efficient maintenance and servicing plan.*

# SOLUTIONS FOR

GRAIN	PULSES	OIL SEEDS	SPICES	GARDEN SEEDS	GRASS SEEDS
Barley	Bambara	Castor Oil Seeds	Black Cumin Seeds	Carrot	Alfa alfa / Lucerne
Buckwheat	Groundnut	Cotton Seed	Black Pepper	Chervil	Clover
Maize	Chickpea	Flax Seed	Cumin	Chive	Cocksfoot
Millet	Dry Beans	Grape Seed	Coriander	Cress	Meadow Grass
Oats	Dry Broad Beans	Hazelnut	Dry Ginger	Dill	Timoth
Others	Dry Cowpea	Jojoba Seeds	Mint Leaves	Leek	Peas
Rice	Dry Peas	Lin Seed	Rosemary	Lettuce	Potatoes
Rye	Garden Pea	Mustard Seeds	Turmeric	Melon	Poppy
Sorghum	Lentil	Niger Seeds	White Cumin Seeds	Onion	Turnip
Triticale	Lupins	Peanut (Groundnut)	Others	Parsley	Beet
Wheat	Pigeon Pea	Pumpkin Seeds		Parsnip	Coffee Bean
Others	Protein Pea	Rape Seeds		Radishes	Cabbage
	Vetch	Sunflower Seeds		Spinach	Cocoa Bean
	Others	Sesame Seeds		Tomato	Lin Seed
		Soybean		Viper's Grass	Others
				Others	



## EXPERT in SEED PROCESSING



# The one and Only Seed Conditioning & Processing Equipment Showroom





# OUR PRODUCTS

## ↳ SEED SEPARATORS

## ↳ SCREEN CLEANERS

## ↳ PRE-CLEANERS

- Drum Sieve Seed Pre-Cleaner
- Vibratory Sieve Seed Pre-Cleaner
- Rotary Drum Seed Cleaner
- Pre-Cleaner + De-Stoner
- Akyurekexcell Universal Series Seed Pre-Cleaner
- Akyurekexcell 260 Mega Series

## ↳ SUPER FINE SCREEN CLEANERS

- Akyurekexcell 200 Series Super Fine Screen Cleaners
- Akyurekexcell 50 Series Super Fine Screen Cleaners

## ↳ FINE SCREEN CLEANERS

- Akyurekexcell 210 Series Fine Screen Cleaners
- Akyurekexcell 60 Series Fine Screen Cleaners
- Akyurek Brush Type Fine Screen Cleaners

## ↳ SCREEN GRADERS

- Akyurekexcell 220 Series Flat Screen Graders
- Akyurekexcell 230 Series Flat Screen Graders
- Akyurek Brush Type Seed Graders
- Cylindrical Screen Grader

## ↳ ALL IN ONE SCREEN CLEANER & GRADER

- Akyurekexcell 33 Screen Cleaner & Grader
- Combo Screen Cleaner & Grader O.MAC-001
- Modular Combo Screen Cleaner & Grader O.MAC-002
- Optimum Combo Screen Cleaner & Grader C.O.MAC-003
- Double Pre & Fine Screen Cleaner C.O.TEM-004

- Pre & Fine Screen Cleaner O.TEM-006
- Akyurekexcell 80

## ↳ OTHER SCREEN CLEANERS

- Jog Screen Cleaner
- Spiral Separator

## ↳ STONE SEPARATOR

- Pressure Type T.MAC-009
- Vibro Type T.MAC-009
- Peanut Density Separator

## ↳ INDENT CYLINDER SEPARATOR

- Indent Cylinder Separator

## ↳ GRAVITY SEPARATOR

- Gravity Separator

## ↳ COLOR SORTER

- Sorturk Color Sorter - Free Flow Type
- Sorturk Color Sorter - Belt Type

## ↳ INSPECTION CONVEYOR BELTS

- Inspection Conveyor Belts

## ↳ AIR SEPARATOR

- Air Recycling Aspirator
- Zig Zag Separator

## ↳ DE-AWNER & BRUSH MACHINE

- De-Awner Machine
- Brush De-Awner Machine

## ↳ LABORATORY EQUIPMENTS

- Hand Screen Set

## ↳ HAMMER MILL

→ Hammer Mill

## ↳ SEED TREATERS

→ Continuous Seed Treating Machine

→ Batch Type Seed Coating Machine

## ↳ SEED HULLERS

→ Vertical Huller

→ Emery Stone Mill

→ Peanut Blancher

→ Pulses Hull & Split

→ Peanut Sheller

→ Sesame Peeler

→ Belt Thresher

## ↳ SUNFLOWER SEED DE-HULLERS MACHINES

→ Impact De-Huller Single Mill

→ Impact De-Huller 4 Mill with Shell Separator

## ↳ SEED POLISHERS

→ Batch Friction Polisher

→ Continuous Seed Polisher

## ↳ CONVEYORS

→ Bucket Elevators

→ Easy Dump Elevator

→ Pendulum Elevator

→ Continuous Cup Z Elevator

→ Chain Conveyor

→ Telescopic Boom Conveyor

→ Belt Conveyor

→ Inclined Conveyor

→ Screw Conveyor

→ Jog Conveyor

## ↳ WEIGHING & BAGGING

### ↳ NET WEIGHER

→ Flow Scale

### ↳ PRE-BAGGING - NET WEIGHER SCALES

→ Open-Mouth Bag Feeding Robot

→ Semi-Automated Net Weigher & Bagging Scale

→ Linear Scale-Four Multi Head Scale

### ↳ IN BAG-NET WEIGHER SCALE

→ Electronic Scale-In Bag Net Weigher

### ↳ BIG BAG SCALE

→ Big Bag Scale-On & Above Ground Weighing

### ↳ GROSS WEIGHER & BAGGER

→ Mechanical Scale In-Bag Gross Weigher

## ↳ DUST CONTROL

→ Centrifugal Fan & Airlock Valve

→ Jet Filters

→ Blower

→ Modular Pipework System

## ↳ STORAGE

→ Indoor Storage Silos



## DRUM SIEVE SEED PRE-CLEANER AKDS-1000

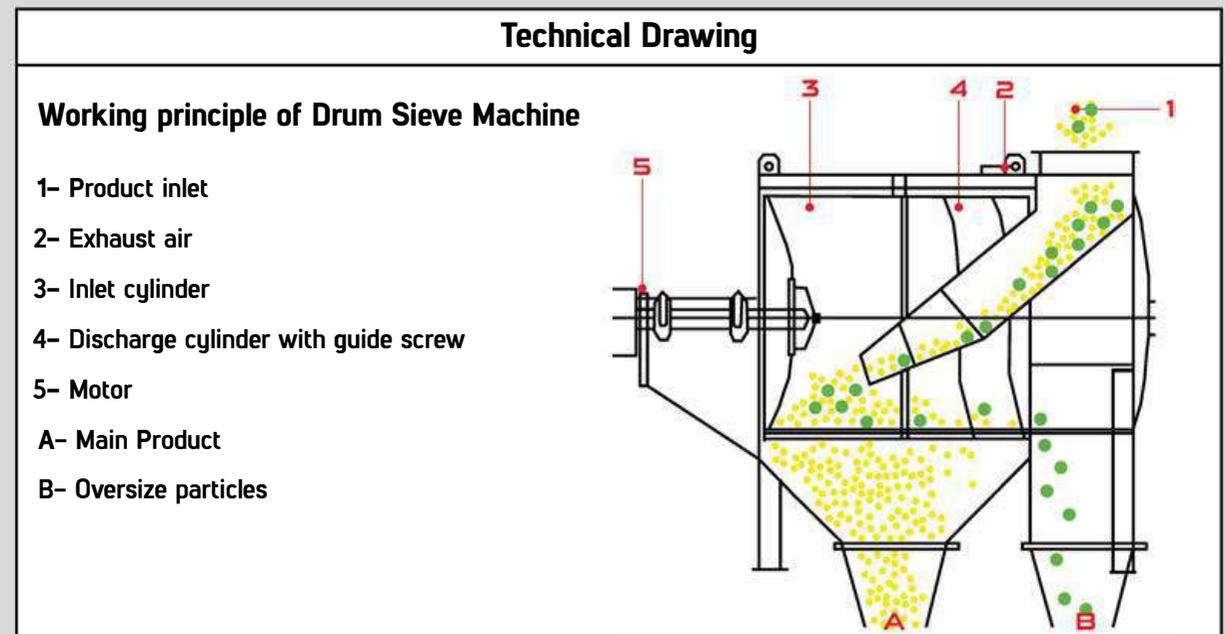
Efficient pre-cleaning machine for high input capacities. The pre-cleaning process decreases the maintenance requirements of the machines and also gives a high quality of cleaned products. The drum sieve is efficient at removing over and undersize impurities such as pieces of wood, stone etc. from product. This makes it necessary to have the drum sieve machine in the input section of the seed storage and transfer facilities or in processing lines. The different drum screens sizes available range from 10 to 60 mm.

All movable components are enclosed and this provides effective protection to operating personnel. Incorporating a pre-cleaning process with the drum sieving machine avoids damage to downstream processing machinery. This improves the operational dependability of the entire production plant.

The use of high quality components makes the machine highly resistant to wear. This decreases maintenance requirements and increases the machine's service life.

The overhanging screening drum allows for quick and easy replacement of screen. The enclosed design of the machine and the aspiration vent ensures that area around the machine also remains clean at all times.

Technical Data		
MODEL		
AKDS-1000		
Cleaning Capacity	Plant Pre-Cleaning	5-15 t/h
	Storage Pre-Cleaning	up to 200 t/h
Overall Dimensions	A (mm)	1000
	B (mm)	2000
	C (mm)	1500
	D (mm)	180
Air Volume	3.00	
Weight	360 (kg)	





## VIBRATORY SIEVE SEED PRE-CLEANER C.SAS.013

The modern design of the vibratory sieve separator allows it to achieve high quality cleaning at large capacities, whilst having small overall dimensions and low power consumption. It is used for separating over and undersize impurities from granular materials.

### OPERATION

The product is fed to the machine by means of supplied conveyor equipment and then moved to the front part of the sieve basket where the grain distribution device spreads the grain across the whole sieve width. The reciprocating movement caused by the vibratory motors moves the stock downwards across the screen surface and, at the same time, effectively directs the grain into a vertical position to pass through the perforated screens.

The Akyurek C.SAS-013 has been designed to ensure that the stock moves more slowly down the sieve towards the outlet/higher end than at the inlet/lower end. This results in stock lingering on the sieve, improving stock distribution and increasing sieve capacity.

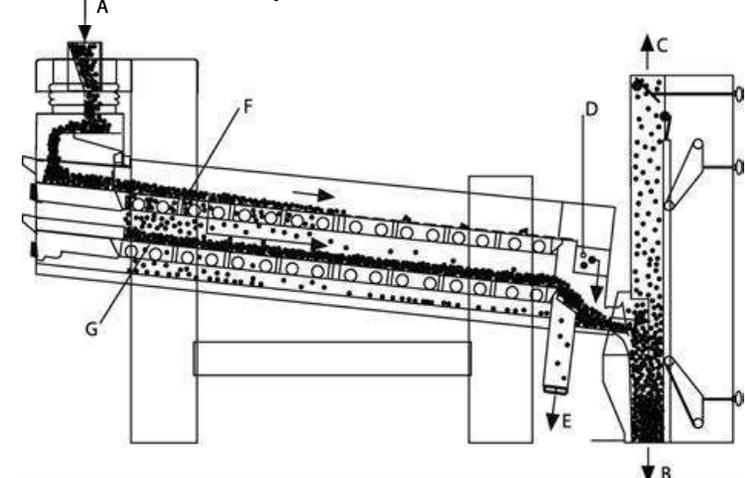
On the first sieve deck, impurities larger than cereal grain are separated and moved out of the machine. The throughs from the first sieve deck move to second sieve deck where impurities smaller than cereal grain are separated.

### Technical Data & Capacity Chart

Models	Cleaning Capacity		Sieve Size W x L (mm)	Air Volume Pneumatic Channel Cubic Mtr/h	Drives			
	Silo Pre-Clean t/h	Mill High Perf. t/h			Screen Deck (kW)		Pneumatic Channel (kW)	
C.SAS-013 100x200	58	15	1000x2000	4800	2 x 0,50	1500 rpm	4	1400 rpm
C.SAS-013 150x200	65	18	1500x2000	4800	2 x 0,75		4	

### Technical Drawing

- A) Product Input
- B) Product Output Chute
- C) Aspiration Connection
- D) Oversize Output Chute
- E) Undersize Output
- F) Oversize Screen
- G) Undersize Screen



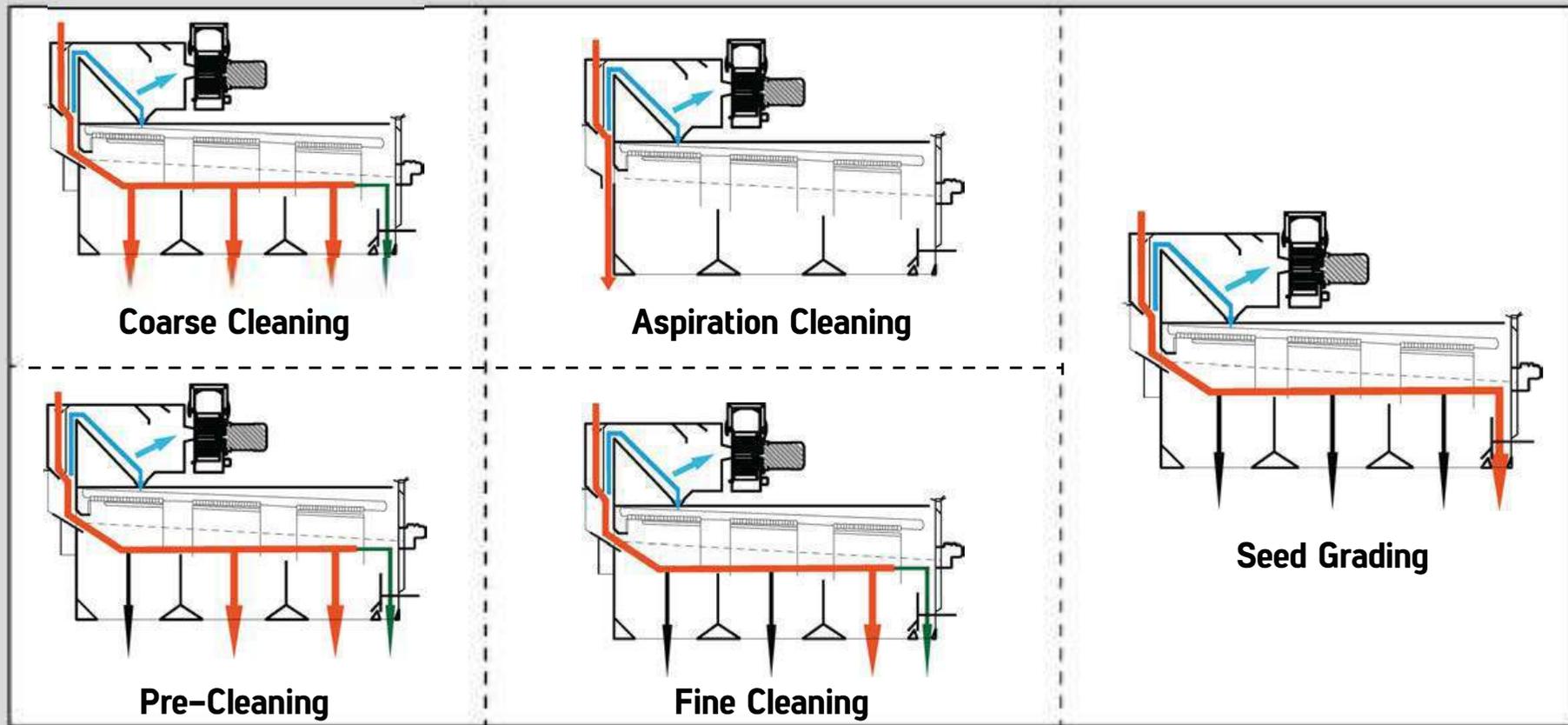
→ Seed Separators → Screen Cleaners → Pre-Cleaners → Rotary Drum Seed Cleaner



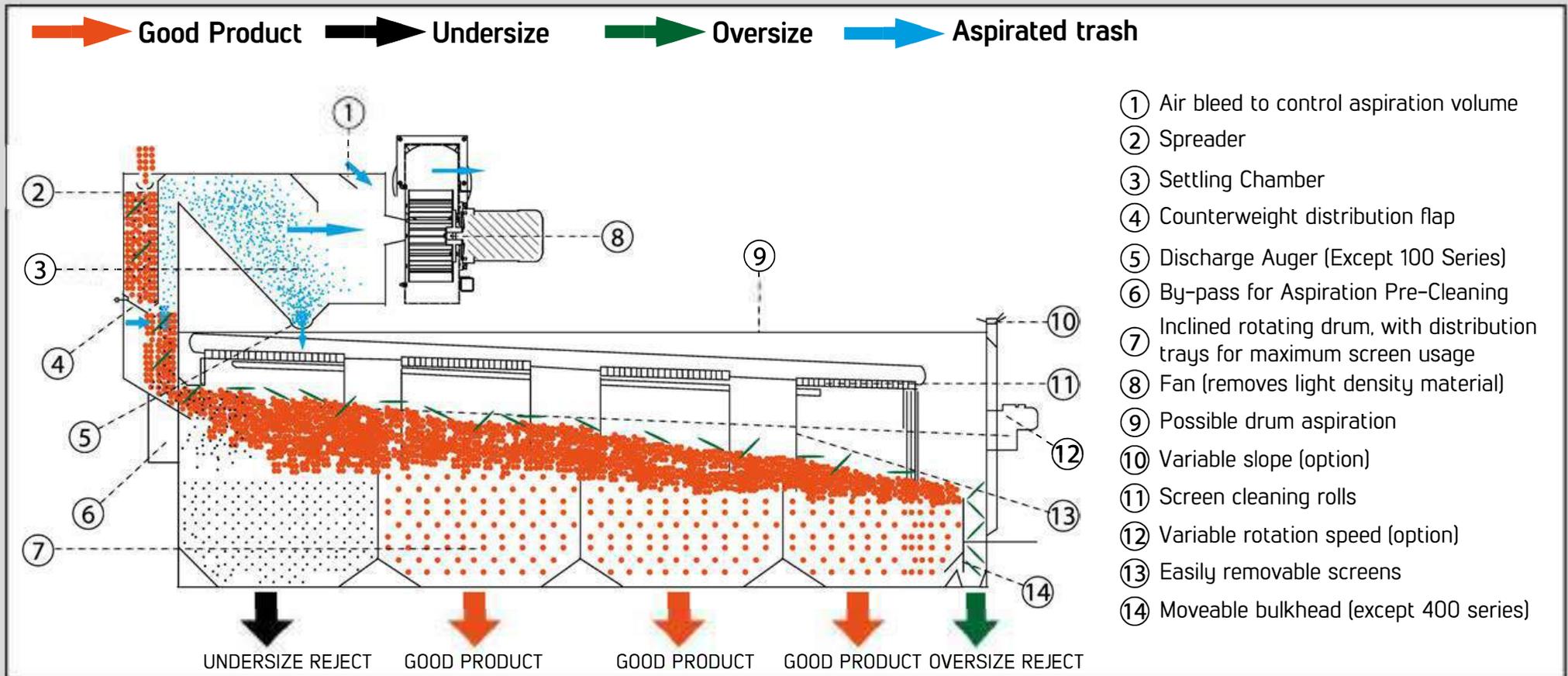
## ROTARY DRUM SEED CLEANER RDSC

**Seed Cleaning;** Rotary Drum Cleaner consists of an aspiration system followed by rotary perforated drum screens. Seed passes through the aspiration system to remove light impurities followed by screening on perforated screens with specific screen apertures to separate undersize material with oversized material separated at the end of the drum.

**Seed Grading;** Rotary Drum Cleaner consists of an aspiration system or it can be supplied without aspiration system if not required for Seed Grading purpose. Seed passes through the aspiration system to separate light impurities (if aspiration system supplied) followed by screening on perforated screens with specific screen apertures to separate undersize material with oversized material separated at the end of the drum.



→ Seed Separators → Screen Cleaners → Pre-Cleaners → Rotary Drum Seed Cleaner



Model	Number of Screens	Drum Diameter (mm)	CAPACITY				Dimensions (mm)			Drum Drive Motor
			Asirating Pre Cleaning* TPH	Course Pre Cleaning* TPH	Cleaning* TPH	Grading* TPH	Length	Width	Height	
RDSC-102	2	550 Ø	-	4,5	3,5	1	1800 mm	650 mm	800 mm	1,1 kW
RDSC-103	3	550 Ø	-	6	5	1,5	2300 mm	650 mm	800 mm	1,1 kW
RDSC-104	4	550 Ø	-	8	7	3	2800 mm	650 mm	800 mm	1,1 kW
RDSC-203	3	650 Ø	40	30	15	4	3100 mm	850 mm	1300 mm	1,1 kW
RDSC-204	4	650 Ø	40	35	25	6	3800 mm	850 mm	1300 mm	1,1 kW
RDSC-303	3	850 Ø	90	70	50	8	4600 mm	1000 mm	1700 mm	2,2 kW
RDSC-304	4	850 Ø	90	90	70	12	5700 mm	1000 mm	1700 mm	2,2 kW
RDSC-403	3	1300 Ø	250	200	110	14	5100 mm	1550 mm	2300 mm	3 kW
RDSC-404	4	1300 Ø	250	250	200	20	6250 mm	1550 mm	2300 mm	4-5,5 - 7,5 kW
RDSC-405	5	1300 Ø	250	250	200	25	7300 mm	1550 mm	2300 mm	5,5 - 7,5 kW

\*T/H, Guide only, based on wheat with density 750 kg/m<sup>3</sup> and 2% impurities



## PRE-CLEANER + DE-STONER GPC-12X28

Akyurek Technology 'Pre-Cleaner + De-Stoner' approves its self with its efficient and successful concept.

Separations of admixtures at first stage in cleaning process allows for increased efficiency. Performing foreign material separation early in the cleaning process allows for increased efficiency by downstream processing equipment.

When receiving product at beginning of season, unload time is very important.

Akyurek Technology 'Ground Peanut Pre-Cleaner' can work at high capacity volumes of product, while performing accurate and precise cleaning.

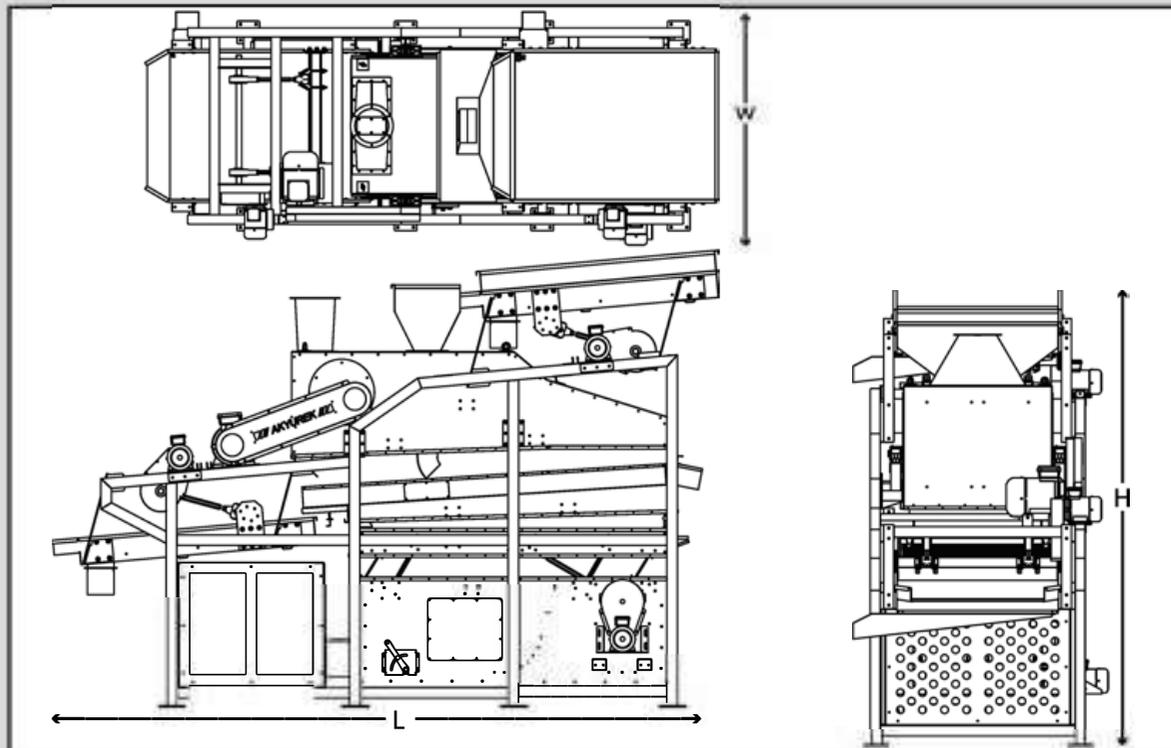
'Pre-Cleaner + De-Stoner' machine has got 3 Stages:

Stage 1- Screen Boat with 2 Levels of Screen for 'Scalping' & 'Screening' designated to separate 'oversize admixtures' like long sticks and large stones and 'undersize admixtures' like sand and fine dust separated by sand screen.

Stage 2-De-Stoner with efficient density separation of heavier admixtures like stones, rocks, glass or any other admixture heavier than Ground Peanut.

Stage 3- Screen Boat with Single Screening Level to separate loose Peanut Kernels that are already shelled from its husk during field to warehouse trip so loose kernels can be processed separately and safely.

**Working Principle:** Product enters the cleaner through a variable speed roll feeder, which allows for flow rate control (optional). The roll feeder evenly spreads the product and transfers it to the deck, large admixtures separated at upper screen, product passes through top screen onto the bottom screen. Dirt and sand is removed on the lower screen with the use of perforated sifting screens. Once the dirt and sand is removed, product is conveyed to the de-stoner. A fluidized air bed is generated on the De-Stoner deck via the lower fan. Eccentric system conveys rejects (stones and heavy admixtures) on opposite direction whilst accept seed lot leaves the machine on opposite direction. Light dust particles travel through the ventilation system and then to a dust collection unit. The remaining acceptable product continues down the deck and flows over another series of perforated screens to remove any meats, splits, or any other siftings that may be present.



Technical Data	
<b>PRE-CLEANER+DE-STONER</b>	
<b>MODEL</b>	<b>AKYUREK GPC-12X28</b>
<b>CAPACITY</b>	
GROUNDNUT	10 to 15 tph
<b>Weight</b>	
Net	3500 kg
<b>Diemensions</b>	
Height	3300 mm
Width	1730 mm
Length	5000 mm
<b>Total Electrical</b>	
Power Consumption	34,5 kW
<b>Air Volume</b>	
Air Requirment	37000 m <sup>3</sup> /h

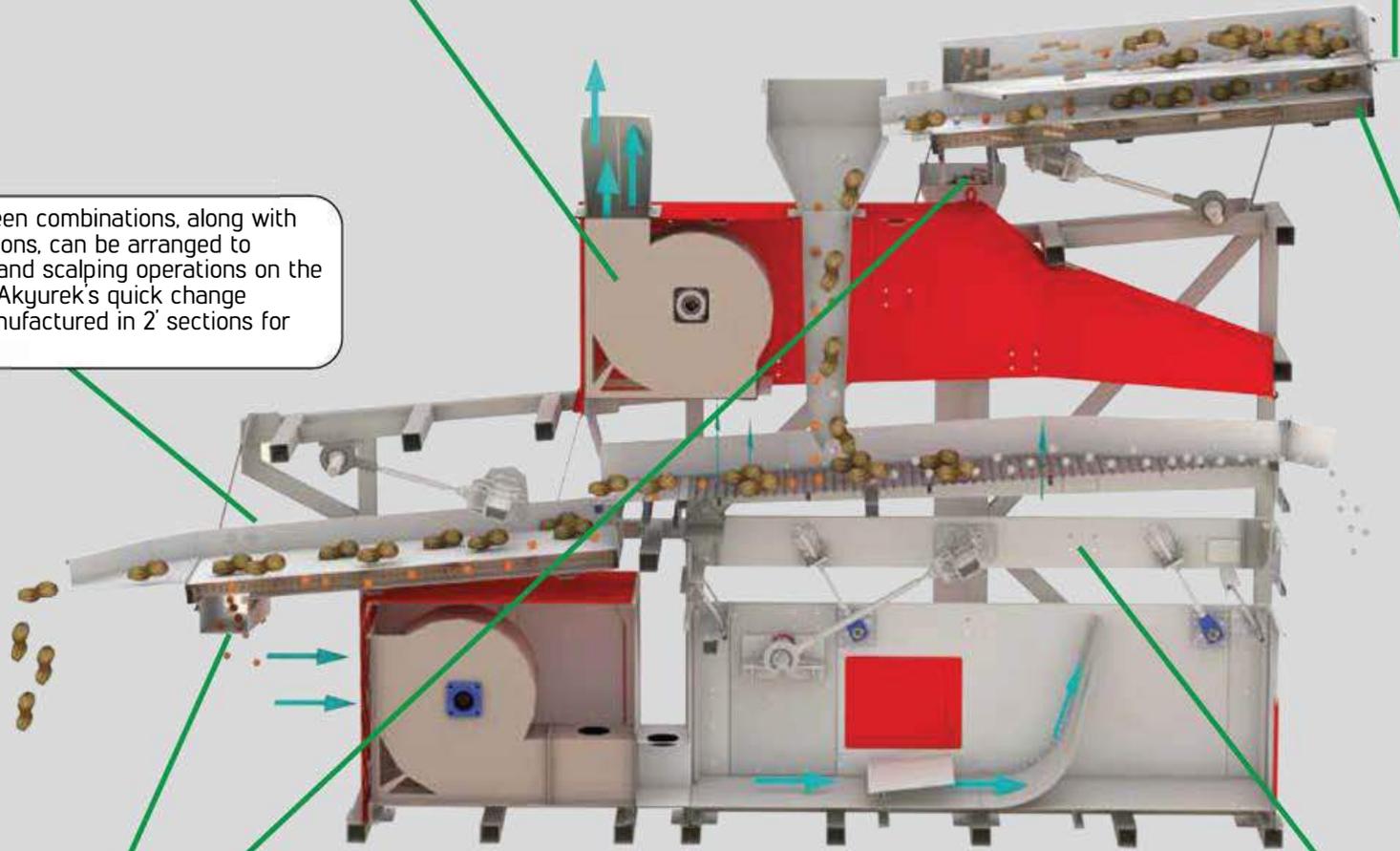
→ Seed Separators → Screen Cleaners → Pre-Cleaners → Pre-Cleaner + De-Stoner

**Aspiration:** In the aspiration section of the Pre-Cleaner de-stoner, light foreign material liftings such as leaves, hay, small sticks, and pops are removed as a result of their lower density when compared to that of the acceptable product.

**DECKS:** It is essential for product to be properly distributed to the screens in order for optimum separation to occur. If the product is too deep, it cannot be adequately presented to the screens for separation. In most cases, the siftings are generally lighter than desirable product. A deep product flow compounds the sifting process, thus causing the lighter siftings to migrate to the top of the flow as it travels down the vibrating deck. Increased screening area ensures adequate product contact allowing for greater screening efficiency. With this knowledge in mind, Akyurek manufactures the Pre-Cleaner in four different widths to ensure that each customer's capacity requirement is met.

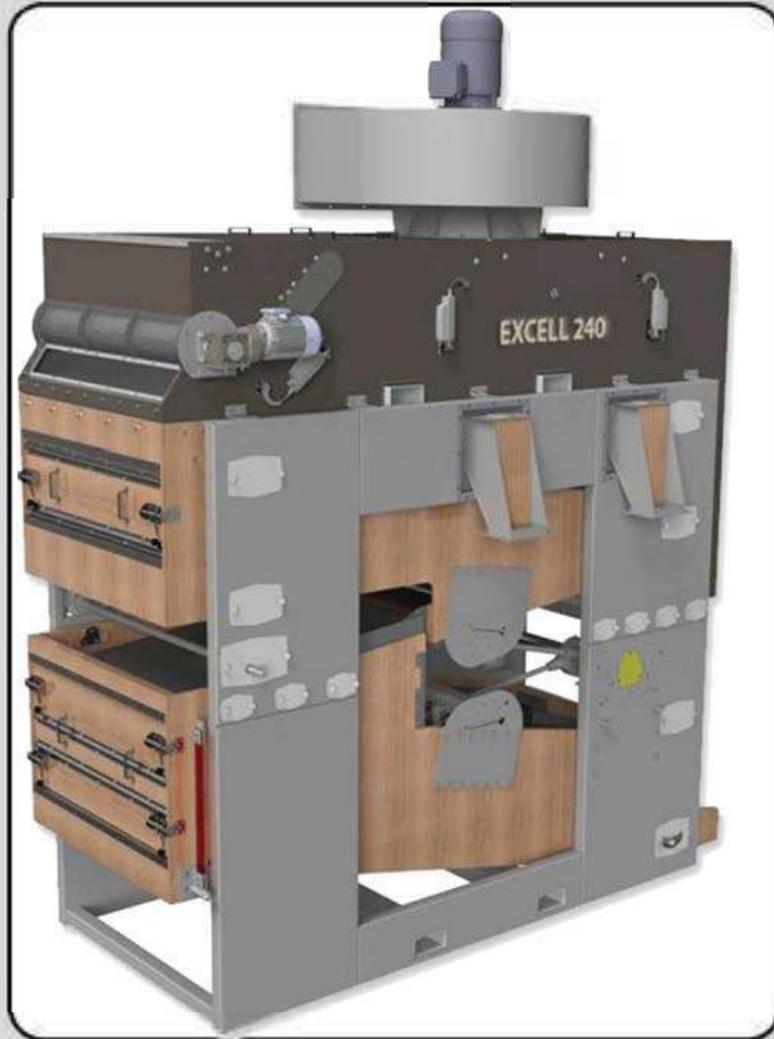
**Screening:** Screen combinations, along with deck configurations, can be arranged to perform sifting and scalping operations on the same machine. Akyurek's quick change screens are manufactured in 2' sections for easy changing.

**Ball Tray:** Akyurek's unique ball tray design gives the 2" ball used for cleaning screens unprecedented random action, and has proven to be far superior to the woven wire systems found in other machines. All ball trays are manufactured in 2' long removable sections for easy clean out when sanitation is a high priority



**Spouts:** Each machine is custom designed to include a spouting configuration that matches each customer's specific situation. Size, location, and orientation of spouts are some of the many modifications that Akyurek can incorporate into the machine's design in order to accommodate unique separations or space constraints.

**De-Stoner:** The Pre-Cleaner De-stoner is designed to lift the acceptable product across the deck. The heavier foreign material, such as stones, heavy dirt balls, and metal will climb up on deck and out of the product flow, accept product will move forward.



## AKYUREK EXCELL UNIVERSAL SERIES SEED PRE-CLEANER

The Akyurek Technology product range covers Akyurek Technology Excell Pre Cleaners, Aspirators and Akyurek Technology Combi Cleaners.

Akyurek Technology UniversalExcell Pre-Cleaners are a versatile screen cleaner specifically designed for pre-cleaning using a 5 – 15m<sup>2</sup> area in conjunction with a sophisticated aspiration system.

Pre-cleaning may replace rough cleaning when receiving a raw material from which, in addition to the large impurities, most of the sand, thin grain and weeds are to be separated. Pre-cleaners have capacities ranging from 5 to 100t/h. All these cleaners have effective pre-suction and after suction systems for separation of light products such chaff, straw, light grain, etc.

### Full-Width Shaker Feeder

- Has infinitely variable adjustment of the feed capacity via a separate control panel.
- Ensures uniform flow over the entire width of screen.
- Considerably improves air cleaning, since the product hits the pre-suction area in a uniform manner.

### Feed Roller

- Has an adjustable capacity shutter in combination with infinitely variable speed control of the feed roller, Which controls the feed capacity.
- Is not affected by light weight waste material and large impurities such as stones etc.
- Has a built-in spring-loaded safety device which protects the feed roller against damage.

### Pre-Suction and Post-Suction System

- Built as two separate air suction units.
- Can be connected to existing central aspiration systems. Due to the small air volume.

### Screw Conveyor Outlet For Light Weight Waste

- Ensures continuous discharge of dust and waste from the air system via screw conveyors
- Has finger flaps to ensure optimal dust separation in the expansion chamber by preventing false air from entering the chamber

### Screen Boxes In Plywood Covered With Swedetex Film

- Are moisture-resistant and insect-resistant. And approved by the food industry
- Are constructed with replaceable wear plates and screen runners in exposed areas
- Have a long lifetime due to the fact that the plywood easily copes with the vibrations of the screen box
- Give less resonance owing to the use of plywood. Thus resulting in a better working environment

### Distributor

- Ensures 50% distribution of the grain flow via the top and bottom screen boxes respectively
- 50% and 33% distributors ensure distribution of the grain flow in each screen box between various screen rows

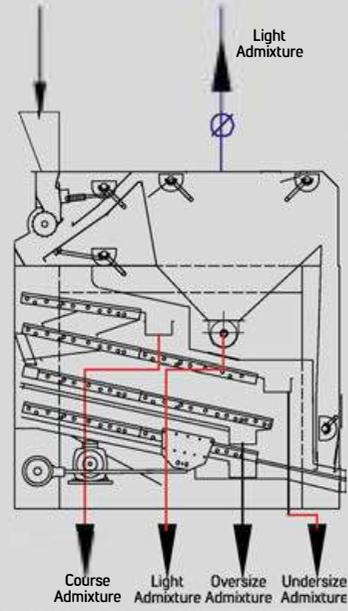
### Access To The Screens

- The access hatches have snap-action locks
- The hatches are small and hinged at the bottom
- Rapid changing of screens

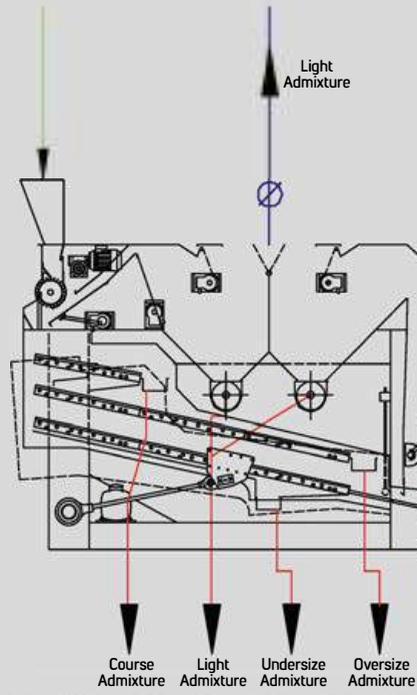
### Technical Data & Capacity Chart

UNIVERSAL Pre-Cleaner	242	243.1&243.2	244.1&244.2	245	246
<b>Capacity Guide (max. 20% moisture)</b>					
<b>Pre-Cleaning</b>	tph	tph	tph	tph	tph
<b>Wheat and Barley</b>	30	45	50	60	100
<b>Rape Seed</b>	25	35	40	50	90
<b>Maize</b>	25	35	40	50	90
<b>Peas</b>	25	35	40	50	90
<b>Paddy Rice</b>	12.5	17.5	20-25	30-35	45-50
<b>Sunflower (14% moisture content)</b>	12.5	17.5	20-26	30-36	45-51
<b>Fine Cleaning (max. 15 % moisture content):</b>					
<b>Malting Barley</b>	3-5 t/h	5-8 t/h	6-10 t/h	10-15 t/h	15-25 t/h
<b>Seed Crain</b>	1-3 t/h	3-5 t/h	4-6 t/h	6-8 t/h	8-12 t/h
<b>Rape Seed (98% purity)</b>	1-3 t/h	3-6 t/h	4-6 t/h	6-8 t/h	8-12 t/h
<b>Maize and Peas</b>	1-3 t/h	3-4 t/h	4-6 t/h	6-8 t/h	20 t/h
<b>Total screen area:</b>	5 m <sup>2</sup>	7 m <sup>2</sup>	10 m <sup>2</sup>	13 m <sup>2</sup>	15 m <sup>2</sup>
<b>Overall dimensions:</b>					
<b>Height (without fan)</b>	2245 mm	2245 mm	2565 mm	2895 mm	3230 mm
<b>Length</b>	2235 mm	3012 mm	3012 mm	3270 mm	3625 mm
<b>Width (incl. motor)</b>	1940 mm	1913 mm	1913 mm	2300 mm	1958 mm
<b>Motors</b>					
<b>Screens</b>	1,5 kW	2,2 kW	2,2 kW	1,5 kW	1,1 kW
<b>Fan</b>	5,5 kW	5,5 kW	7,50 kW	7,50 kW	11,00 kW
<b>Feeding roller</b>	0,75 kW	0,75 kW	0,75 kW	1,1 kW	2,2 kW
<b>Air Volume</b>					
<b>Pre and after suction</b>	6400 m <sup>3</sup>	10600 m <sup>3</sup>	10600 m <sup>3</sup>	11000 m <sup>3</sup>	15000 m <sup>3</sup>
<b>Weight</b>	1610 kg	1935 kg	2140 kg	2310 kg	3035 kg
<b>Freight volume 11 m<sup>3</sup></b>	11 m <sup>3</sup>	15 m <sup>3</sup>	17 m <sup>3</sup>	22 m <sup>3</sup>	25 m <sup>3</sup>

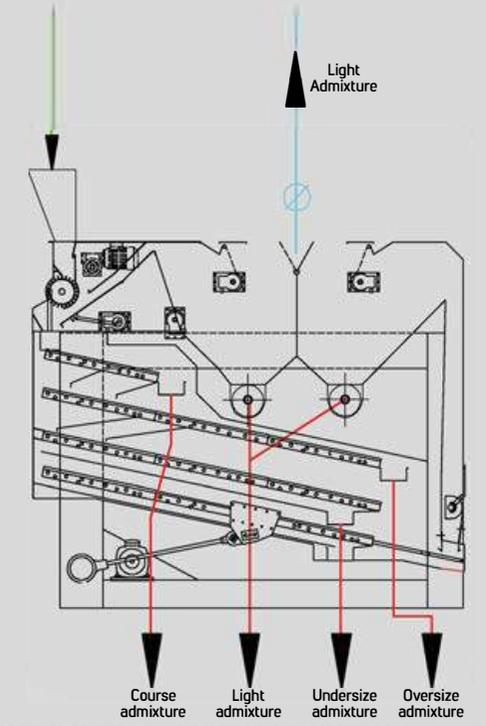
**AKYUREKEXCELL 242**



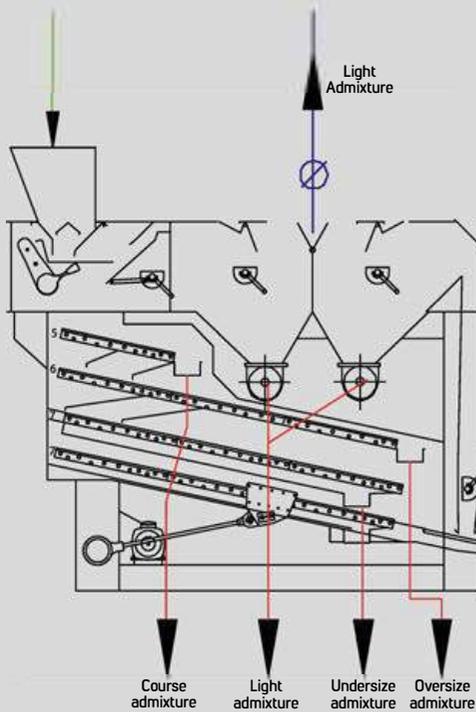
**AKYUREKEXCELL 243**



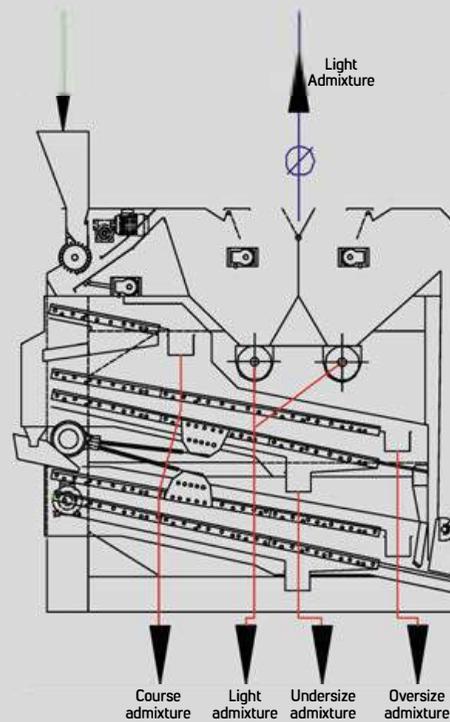
**AKYUREKEXCELL 244**



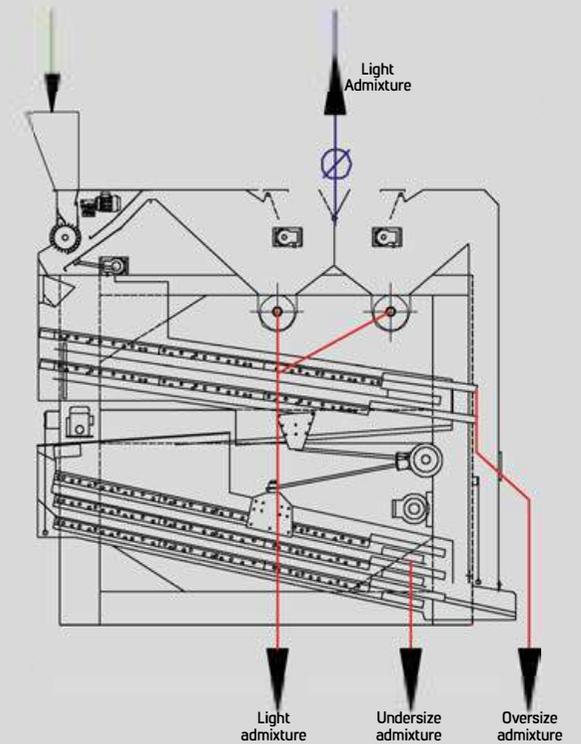
**AKYUREKEXCELL 244.1**



**AKYUREKEXCELL 245**



**AKYUREKEXCELL 246**



## AKYUREKEXCELL 260 MEGA SERIES

Akyurek Mega Cleaner 260 Series has been developed for high capacity in pre-cleaning and grading of grain, peas, rape seed and fine cleaning of grain and malting barley. The machine's large screen area with its accurately matched stroke and frequency is completed by Akyurek's highly efficient pre and after suction system

### Full-Width Shaker Feeder

- Has infinitely variable adjustment of the feed capacity via a separate control panel
- Ensures uniform flow over the entire width of the screen
- Considerably improves air cleaning, since the product hits the pre-suction area in a uniform manner

### Pre and After Suction System

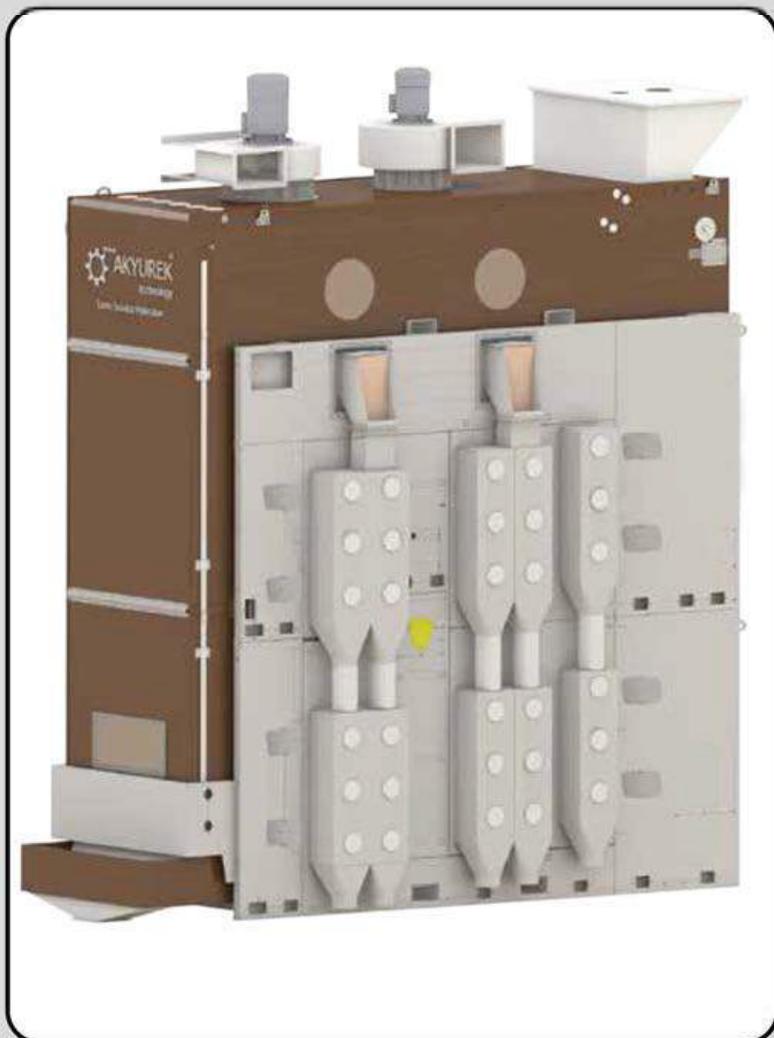
- Has an adjustable capacity shutter in combination with infinitely variable speed control of the feed roller, which controls the feed capacity
- Is not affected by lightweight waste material and large impurities such as stones, etc.
- Has a built-in spring-loaded safety device which protects the feed roller against damage

### Screw conveyor outlet for lightweight waste

- Ensures continuous discharge of dust and waste from the air system via screw conveyors
- Has finger flaps to ensure optimal dust separation in the expansion chamber by preventing false air from entering the chamber.

### Distributor

- Ensures 50% distribution of the grain flow via the top and bottom screen boxes respectively
- 50% and 33% distributors ensure distribution of the grain flow in each screen box between various screen rows



### Ball Box

- Ensures efficient cleaning of sieves by means of rubber balls
- Can maintain the cleaning effect at extremely low temperatures as the rubber balls are cast in a very suitable material
- Is cast solid so that it prevents stuck seeds etc. (self-cleaning)
- Is separately mounted in the screen shoes which ensures a quick change of sieves without removing the ball boxes.

### Balanced eccentric system

- Is fitted with counter weights that ensure smooth running
- Results in minimum stress on buildings and steel structures
- Is fitted with heavy duty bearings
- Ensures maximum utilization of the cleaning effect of the screens owing to carefully matched stroke and speed of rotation

### Access To The Screens

- The access hatches have snap action locks
- The hatches are small and hinged at the bottom
- Rapid changing of screens

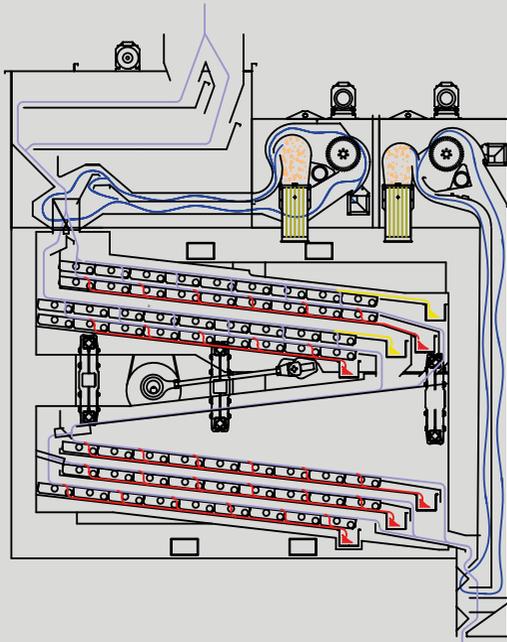
### Technical Data & Capacity Chart

	Screen area m <sup>2</sup> / FT <sup>2</sup>	Cereals							Legumes			Total weight kg / LB	Freight volume m <sup>3</sup> / FT <sup>3</sup>	Air volume m <sup>3</sup> / CFM	Dynamic load Newton at 4,6-4,8 Hz
		Wheat, rye, sorghum	Barley	Oats	Maize	Raw rice	White rice	Soyabean	Peas	Rape seed					
<b>Mega 262</b>	Precleaning max. 20% moisture	100	100	90	100	75	80	80	80	90	38 / 408,5	8400 / 18,5* 5	50 / 538,5	4800 / 2880	PH600/ PV7500
	Malting barley max. 15% moisture		60												
	Malt. max. 4% moisture		65												
	Industrial cleaning max. 15% moisture	75	75	60	75	60	80	80	80	60					
	Rape seed 98% max. 9% moisture									90					
Seed max. 15% moisture	50	50	40	40	25		40	40	40						
<b>Mega 266</b>	Precleaning max. 20% moisture	120	120	100	120	80	100	100	100	100	10,8 / 1161	7000 / 5430	46 / 495,2	4500 / 2700	PH1400/P V1700
	Malting barley max. 15% moisture		15												
	Malt. max. 4% moisture		80												
	Industrial cleaning max. 15% moisture	100	100	80	100	60	80	80	80	80					
Rape seed 98% max. 9% moisture									40						
<b>Mega 267</b>	Precleaning max. 20% moisture	240	240	200	240	160	200	200	200	200	21,6 / 2327	9200 / 20280	50 / 5385	4800 / 2880	PH11200/P V4000 PH1400/P V1700
	Malting barley max. 15% moisture		30												
	Malt. max. 4% moisture		160												
	Industrial cleaning max. 15% moisture	200	200	160	200	120	160	160	160	160					
Rape seed 98% max. 9% moisture									80						
<b>Mega 268</b>	Precleaning max. 20% moisture	360	360	300	360	240	300	300	300	300	32,4 / 348,3	11400 / 25125	85 / 915	5000 / 3000	PH800/PV7500
	Malting barley max. 15% moisture		45												
	Malt. max. 4% moisture		240												
	Industrial cleaning max. 15% moisture	300	300	240	200	200	240	240	240	240					
	Rape seed 98% max. 9% moisture									90					

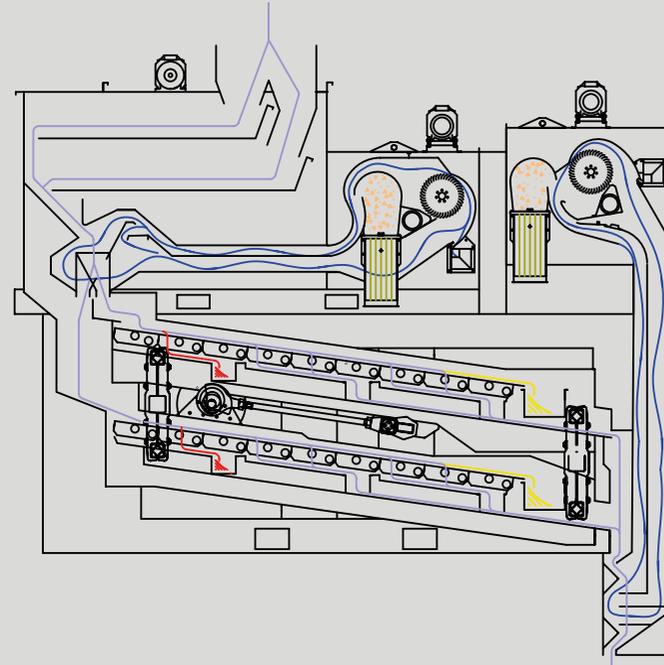
All capacities are indicated in tons per hour

→ Seed Separators → Screen Cleaners → Pre-Cleaners → Akyurekexcell 260 Mega Series

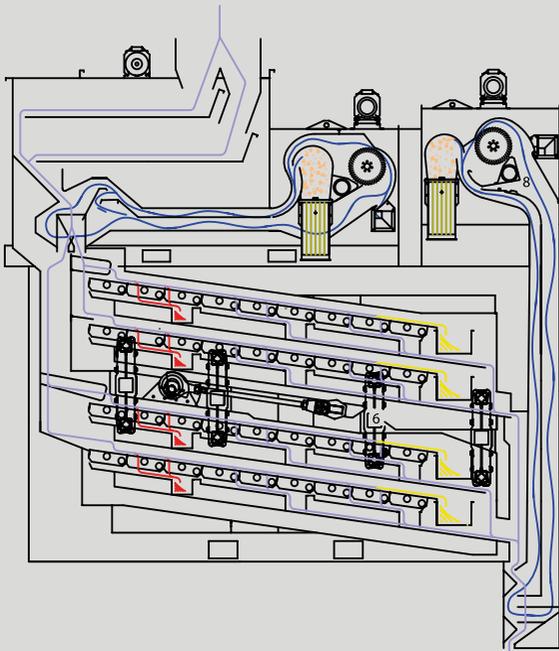
**AKYUREKEXCELL 262**



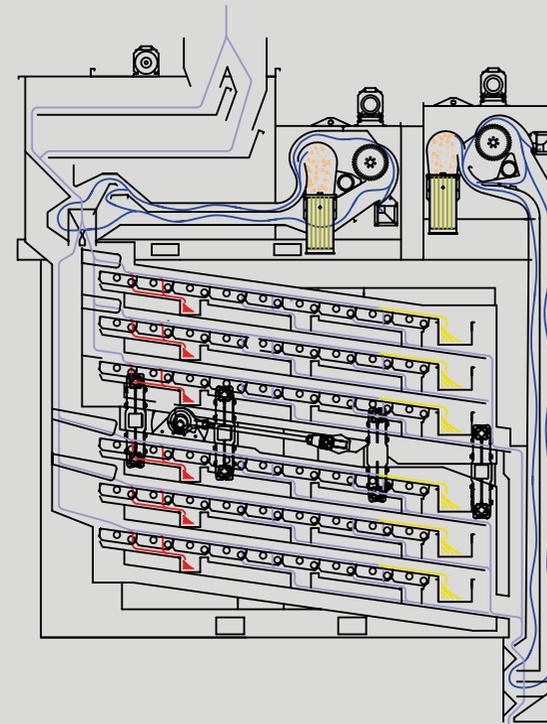
**AKYUREKEXCELL 266**



**AKYUREKEXCELL 267**



**AKYUREKEXCELL 268**





## AKYUREKEXCELL 200 SERIES SUPER FINE SCREEN CLEANERS

### Full-width Vibratory

- Has stepless adjustment of the feed rate by an inverter.
- Separate control panel ensures a uniform flow over the entire width of the sieve
- Is self-cleaning
- Improves the air cleaning considerably as the product hits the pre-suction area uniformly.

### Pre and After Suction System

- Is built as separate systems to ensure a precise and independent air cleaning
- Separates the light particles before the material reaches the sieves
- Improves the cleaning effect and results in a higher capacity
- Ensures an excellent purity of the product due to the suction of light particles such as empty seeds, husks, dust etc. when the product leaves the cleaner via the air screen.

### Change of Product Flow

- Makes many different product flows possible according to the capacity, product, number of fractions etc.
- By means of six different diagrams in the cleaner ensures excellent purity and minimum waste
- Is easily done by changing the size of the sieves and the position of the outlet trays

### Perforated Screens

- Are available with round and long holes from 0,3 to 25,0mm
- Are also available as wire mesh screens are also available as screen plates with very little tolerance which ensures a minimum cleaning loss.
- Are available in a standard size of: 800 mm (L) x 1250 mm (B) = 1 m, which can be used in more than 80% of the Akyurek Excell program so the number of sieves needed is reduced.

### Screenshoes of Birch Plywood

- Are moisture and insect resistant
- Are constructed with replaceable wear plates and sieve runners in exposed areas

### Balanced Eccentric System

- Is fitted with counter weights ensuring steady running
- Involving minimum stress on buildings and steel structures
- Is fitted with "heavy duty" bearings

### Ball Box

- Ensures efficient cleaning of sieves by means of rubber balls
- Can maintain the cleaning effect at extremely low temperatures as the rubber balls are cast in a very suitable material
- Is cast solid so that it prevents stuck seeds etc.(self-cleaning)

### Air Lifting Channel

- Eliminates light seeds in the variable expansion chamber
- Through which husks, dust etc. are led with the airflow to the after suction system.
- Is available with an extra-large expansion chamber and centre outlet for special processes.

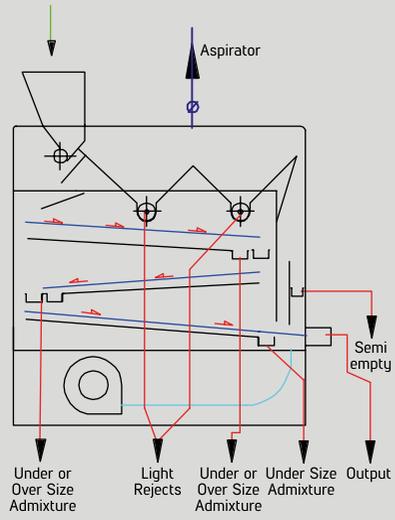
### Screw Conveyor for Light Waste

- Ensures continuous discharge of dust and light waste from the air system via screws
- With finger flaps to ensure optimal dust separation in the expansion chamber by preventing false air from entering into the chamber

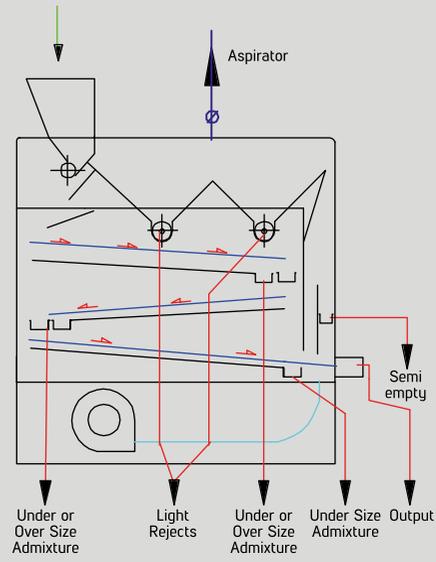
### Technical Data & Capacity Chart

AKYUREKEXCELL 200 SERIES SUPER FINE SCREEN CLEANERS									
Screen Details		201	202	204	205	206	207	208	209
Type									
Screen Area m <sup>2</sup>		0,96	3,0	7,0	10,0	15,0	18,0	24,0	33,0
Screen	Length cm	80	160	160	160	240	240	240	240
	Width cm	40	62,5	125	125	125	125	125	125
Num. of Screens		3	3	3,5	5	5	6	8	11
Counter Flow		1/1/1	1/1/1	0,5/1/1/1	2/1/2	2/1/2	2/1/3	3/2/3	4/3/4
Cereals	Wheat, Rye, Sorghum	0,20	2,5	5,0	7,5	12,0	20,0	25,0	30,0
	Barley	0,20	2,5	5,0	7,5	12,0	20,0	25,0	30,0
	Oat	0,10	2,0	4,0	6,0	9,0	16,0	20,0	24,0
	Maize	0,10	2,0	4,0	6,0	9,0	16,0	20,0	24,0
	Raw Rice	0,08	1,5	3,0	4,5	7,0	12,0	15,0	18,0
	White Rice	0,10	2,0	4,0	6,0	9,0	16,0	20,0	24,0
Legumes	Soyabean	0,08	2,0	4,0	6,0	9,0	12,0	15,0	18,0
	Pea	0,08	2,0	4,0	6,0	9,0	16,0	20,0	24,0
	Clover	0,04	0,5	1,0	1,6	2,2	3,5	5,0	6,5
Other Products	Ray Seeds	0,04	0,4	0,75	1,6	1,8	3,0	4,0	5,0
	Rape Seed	0,04	2,0	4,0	6,0	9,0	16,0	20,0	24,0
	Sunflower Seeds	0,04	1,0	2,0	3,0	4,5	8,0	10,0	12,0
	Sugar Beet	0,04	1,2	2,5	3,5	5,0	9,0	11,0	13,0
	Raw Coffee	0,08	2,0	4,0	6,0	9,0	16,0	20,0	24,0
	Roasted Coffee	0,04	1,2	2,5	3,5	5,0	9,0	11,0	13,0

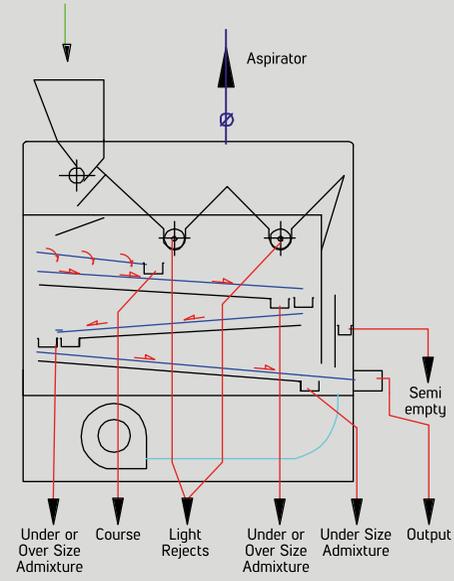
**AKYUREKEXCELL 201**



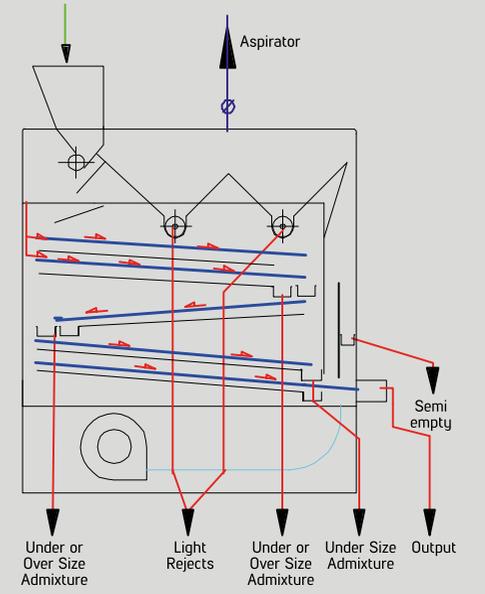
**AKYUREKEXCELL 202**



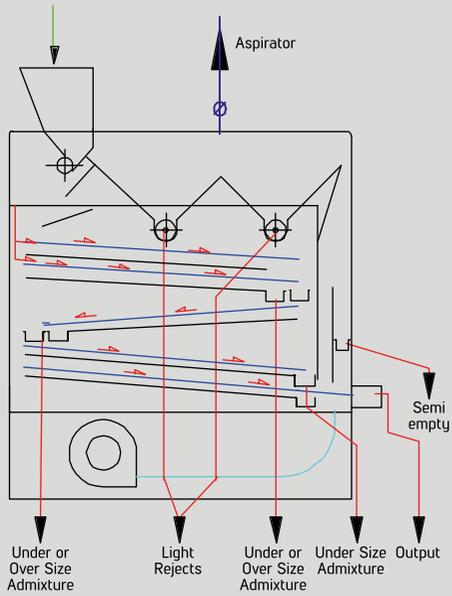
**AKYUREKEXCELL 204**



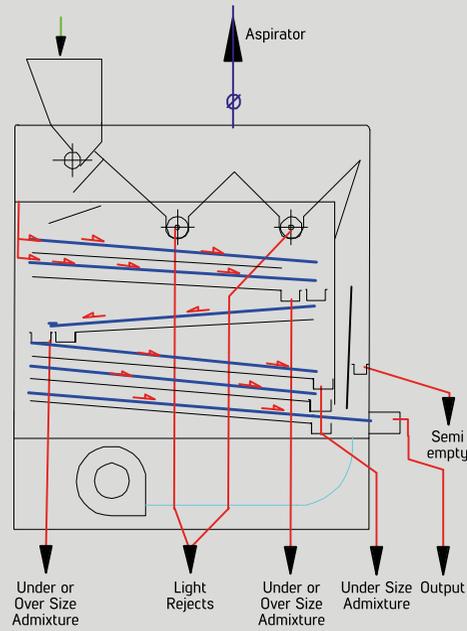
**AKYUREKEXCELL 205**



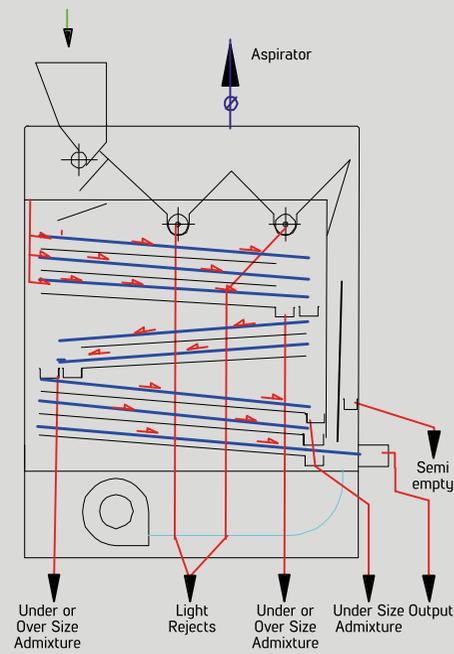
**AKYUREKEXCELL 206**



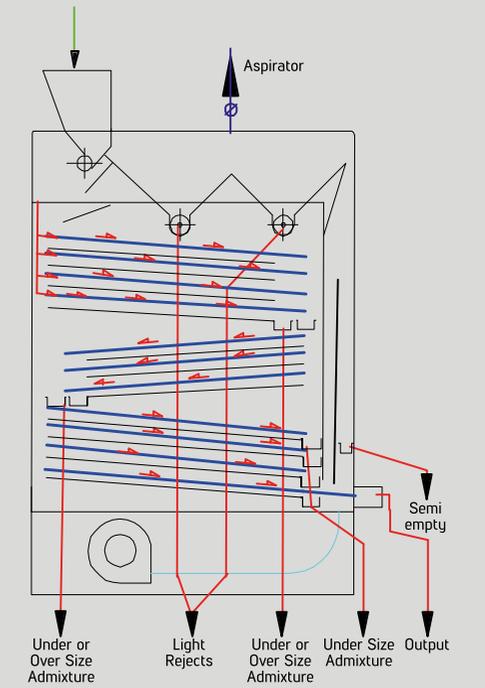
**AKYUREKEXCELL 207**



**AKYUREKEXCELL 208**



**AKYUREKEXCELL 209**





## AKYUREK EXCELL 50 SERIES SUPER FINE SCREEN CLEANERS

### Feed Roller with Built-in stirrer

- Ensures by means of the stirrer that no product build-up
- Is created in the inlet by light products such as grass seeds etc.
- Has feed gate which in combination with variable RPM control of the feed rate.

### Pre & After Suction System

- Is built as separate systems to ensure a precise and independent air cleaning
- Separates the light particles before the material reaches the sieves
- Ensures an excellent purity of the product due to the suction of light particles such as empty seeds, husks, dust etc.

### Screen shoes of Birch Plywood

- Are moisture and insect-resistant
- Are constructed with replaceable wear plates and sieve runners in exposed areas
- Give less resonance owing to the birch plywood and thus a better working environment is obtained

### Ball Box

- Ensures efficient cleaning of sieves by means of rubber balls
- Can maintain the cleaning effect at extremely low temperatures as the rubber balls are cast in a very suitable material
- Is separately mounted in the screen shoes which ensures a quick change of sieves without removing the ball boxes

### Air Lifting Sieve Screen

- Serves to convey the product through the air flow to ensure elimination of light particles
- Forces the product through under passage to turn its biggest surface against the air flow in order to obtain optimal separation
- Is constructed with adjustable air lifting hood over the air lifting sieve, which ensures optimal collecting up of the discarded light particles

### Screw Conveyor for Light waste

- Ensures continuous discharge of dust and light waste from the air system via screws.
- With finger flaps to ensure optimal dust separation in the expansion chamber by preventing false air from entering into the chamber.

### Air Lifting Unit

- Is capable by means of staggered fans and air guides of giving a completely uniform air pressure from beneath the product when it leaves the cleaner
- Ensures a complete blow through of the product which causes an elimination of light seeds, husks, straw and dust
- With specially designed impellers ensuring low noise level

### Balanced Eccentric System

- Is fitted with counter weights ensuring steady running
- Involving minimum stress on buildings and steel structures
- Is fitted with "heavy duty" bearings

### Easy To Operate

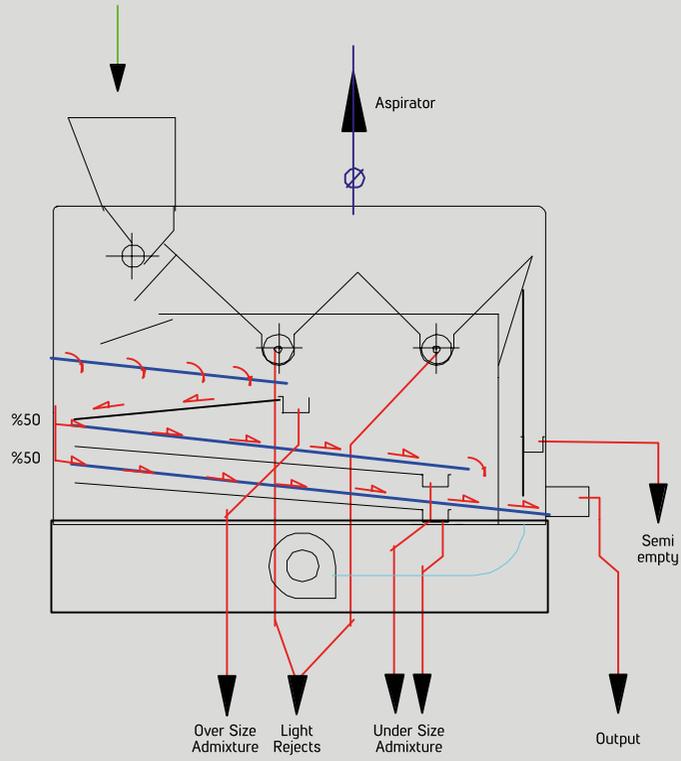
- Because all adjustments are placed at a suitable height
- Owing to adjustments with scales for quick and precise re-adjustment
- Since all operating handles are placed on the same side as the outlets

### Finished Product of a High Quality

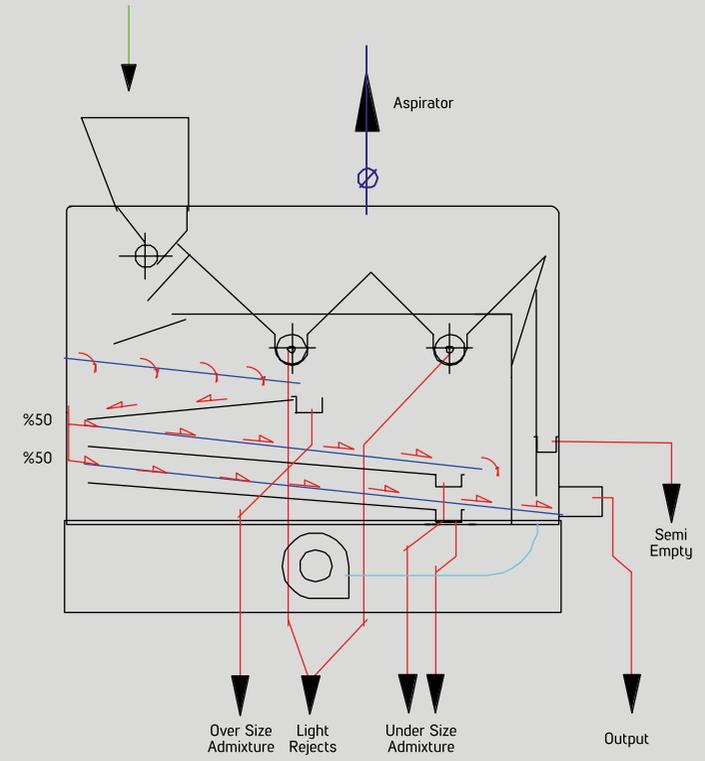
- Is clearly illustrated by the difference between the cleaned seed/product and the discarded light product on the air lifting system.
- Reduces in many cases the size of the subsequent processing machines

Technical Data & Capacity Chart					
Fine-Cleaner EXCELL 50	UQM	51	52	53	54
Over Size Screen LxW	mm	80x80	125x80	125x80	150x160
Undersize Screen LxW	mm	80x160	125x160	125x160	150x240
Undersize Screen LxW	mm	80x160	125x160	125x160	150x240
Screen Area	m <sup>2</sup>	3,2	5	7	9,6
Motor. Feed Roller	kW	0,55	0,55	0,55	0,55
Motor. Eccentric	kW	1,5	2,00	2,00	3,00
Motor. Air Lifting	kW	1,5	2,00	2,00	2,00
Capacity on Wheat	Tn/Hr	2,0-3,0	3,0-4,0	4,0-5,0	7,5-10,0
Capacity on Paddy	Tn/Hr	1,0-2,0	2,0-3,0	3,0-4,0	4,0-6,0

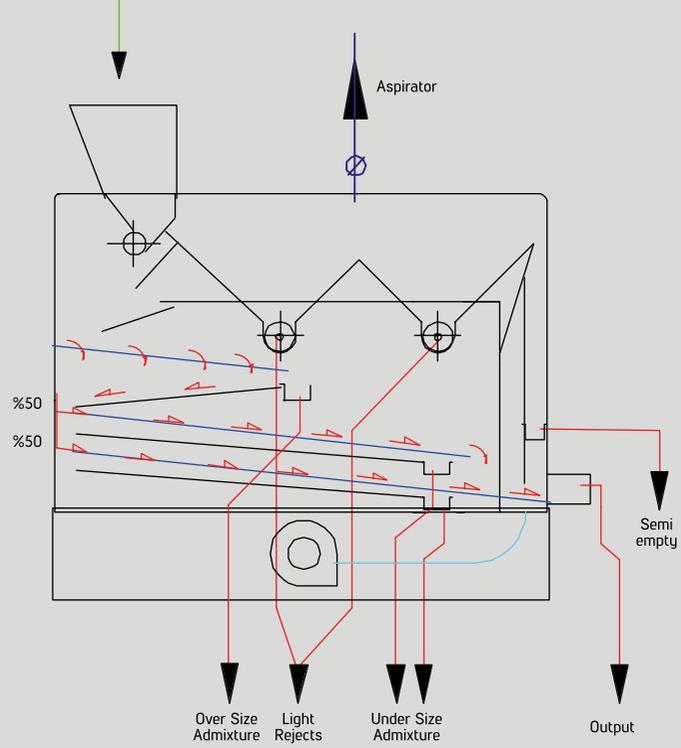
**AKYUREKEXCELL 51**



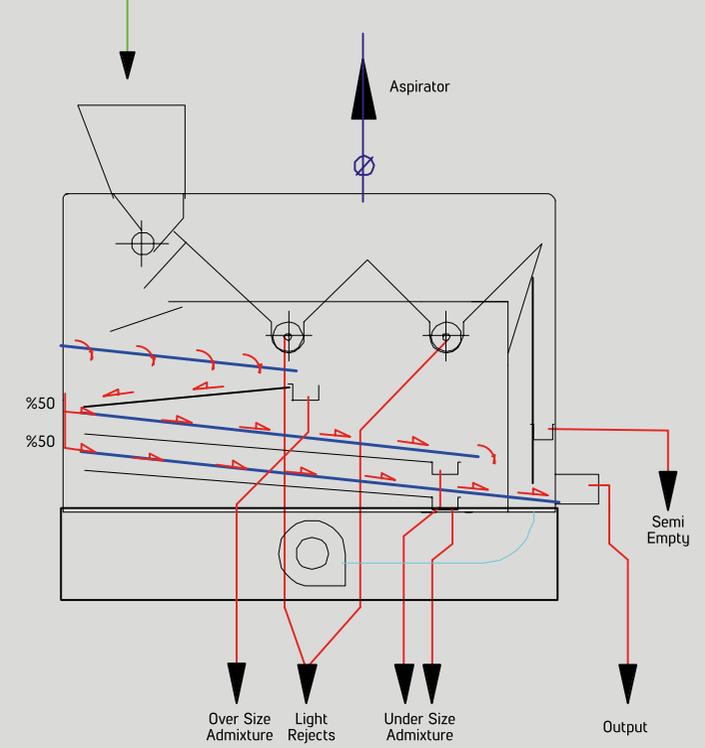
**AKYUREKEXCELL 52**



**AKYUREKEXCELL 53**



**AKYUREKEXCELL 54**





## AKYUREKEXCELL 210 SERIES FINE SCREEN CLEANERS

Compared to the 220 Series but extended with an efficient pre and after suction system, a minimum for high quality cleaning of leguminous seed, malting barley, seed grains etc.

### Pre & After Suction System

- Is built as separate systems to ensure a precise and independent air cleaning.
- Separates the light particles before the material reaches the sieves.
- Improves the cleaning effect and results in a higher capacity.

### Alternative Pre and After Suction System

- Reduces the need for external air to 20% compared to traditional systems.
- Can be connected to existing central aspiration systems due to the small air volume.

### Screw Conveyor For Light waste

- Ensures continuous discharge of dust and light waste from the air system via screws.
- With finger flaps to ensure optimal dust separation in the expansion chamber by preventing false air from entering into the chamber.

### Balanced Eccentric System

- Is fitted with counter weights ensuring steady running
- Involving minimum stress on buildings and steel structures
- Ensures maximum utilisation of the cleaning effect of the sieves owing to accurately attuned stroke and RPM.

### Change of Product Flow

- Makes many different product flows possible according to the capacity, product, number of fractions
- Is easily done by changing the size of the sieves and the position of the outlet trays.

### Akyurek Excell Sieves for all Purposes

- Are available with round and long holes from 0,3 to 25,0mm
- Are available in a standard size of: 800 mm (L) x 1250 mm (B) = 1 m, which can be used in more than 80% of the Akyurek Excell programme so the number of sieves needed is reduced.

### Ball Box

- Can maintain the cleaning effect at extremely low temperatures as the rubber balls are cast in a very suitable material.
- Is separately mounted in the screen shoes which ensures a quick change of sieves without removing the ball boxes.

### Full-width Vibratory

- Has stepless adjustment of the feed rate by an inverter.
- Improves the air cleaning considerably as the product hits the pre-suction area uniformly.

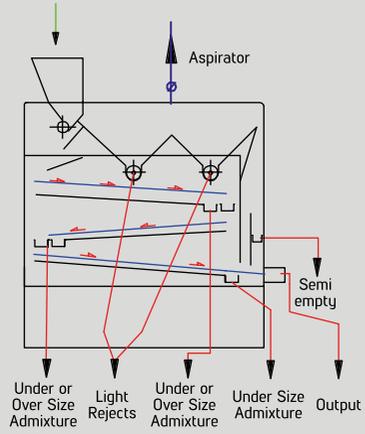
### Feed Roller with Built-in Stirrer

- Has feed gate which in combination with variable RPM control of the feed rate.
- Ensures by means of the stirrer that no product build-up.
- Is created in the inlet by light products such as grass seeds etc. Is sensitive to light waste material and large impurities such as stones etc.

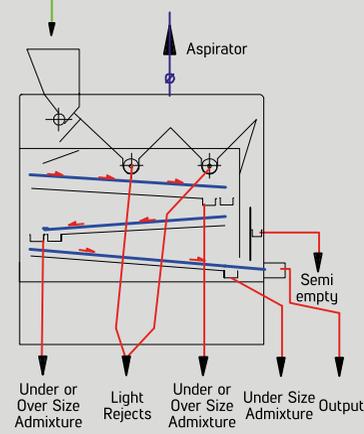
## Technical Data & Capacity Chart

AKYUREKEXCELL 210 SERIES SUPER FINE SCREEN CLEANERS								
Screen Details	Type	211	212	214	215	217	218	219
	Screen Area m <sup>2</sup>		0,96	3,0	7,0	10,0	18,0	24,0
Screen	Length cm	80	160	160	160	240	240	240
	Width cm	40	62,5	125	125	125	125	125
Num. of Screens		3	3	3,5	5	6	8	11
Counter Flow		1/1/1	1/1/1	0,5/1/1/1	2/1/2	2/1/3	3/2/3	4/3/4
Cereals	Wheat, Rye, Sorghum	0,20	2,5	5,0	7,5	12,0	20,0	25,0
	Barley	0,20	2,5	5,0	7,5	12,0	20,0	25,0
	Oat	0,10	2,0	4,0	6,0	9,0	16,0	20,0
	Maize	0,10	2,0	4,0	6,0	9,0	16,0	20,0
	Raw Rice	0,08	1,5	3,0	4,5	7,0	12,0	15,0
Legumes	White Rice	0,10	2,0	4,0	6,0	9,0	16,0	20,0
	Soyabean	0,08	2,0	4,0	6,0	9,0	12,0	15,0
	Pea	0,08	2,0	4,0	6,0	9,0	16,0	20,0
Other Products	Clover	0,04	0,5	1,0	1,6	2,2	3,5	5,0
	Ray Seeds	0,04	0,4	0,75	1,6	1,8	3,0	4,0
	Rape Seed	0,04	2,0	4,0	6,0	9,0	16,0	20,0
	Sunflower Seeds	0,04	1,0	2,0	3,0	4,5	8,0	10,0
	Sugar Beet	0,04	1,2	2,5	3,5	5,0	9,0	11,0
	Raw Coffee	0,08	2,0	4,0	6,0	9,0	16,0	20,0
	Roasted Coffee	0,04	1,2	2,5	3,5	5,0	9,0	11,0

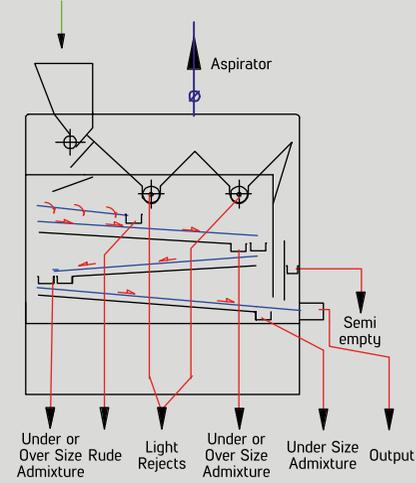
**AKYUREKEXCELL 211**



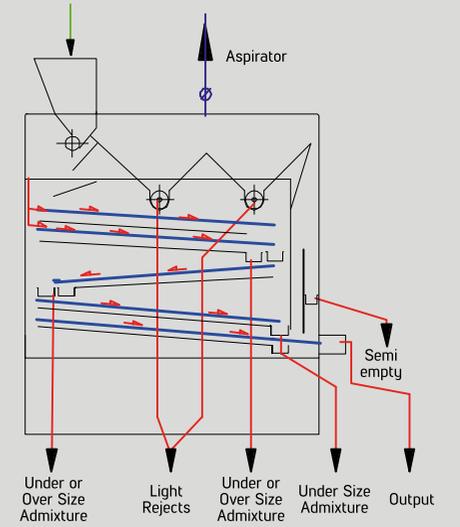
**AKYUREKEXCELL 212**



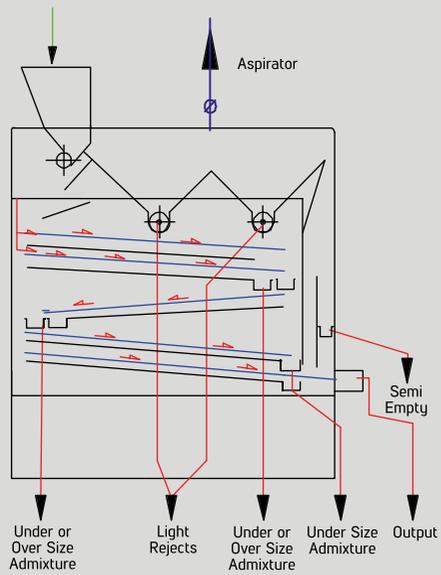
**AKYUREKEXCELL 214**



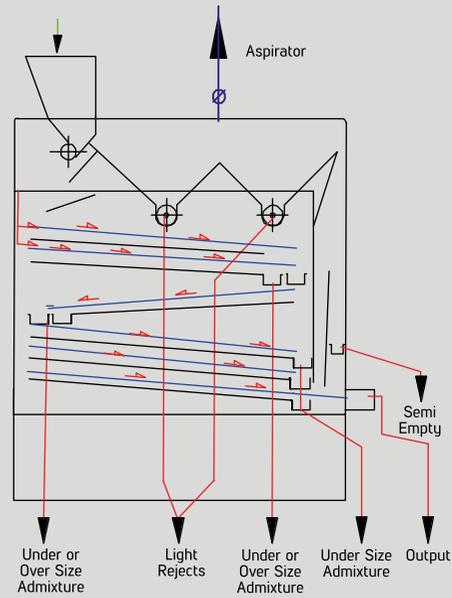
**AKYUREKEXCELL 215**



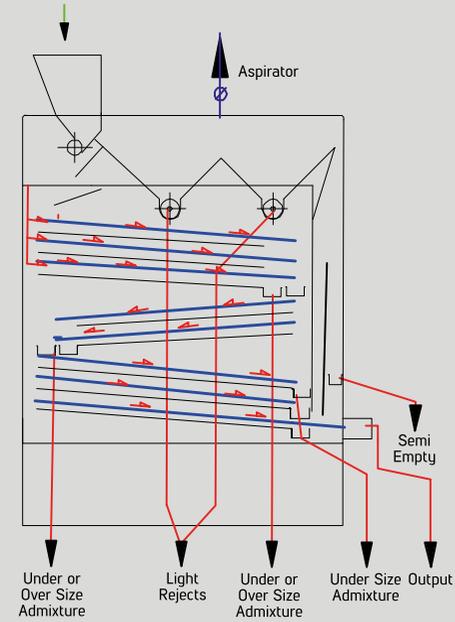
**AKYUREKEXCELL 216**



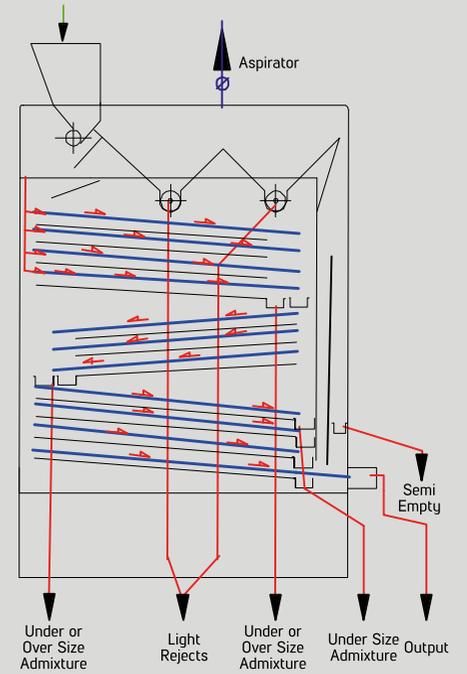
**AKYUREKEXCELL 217**



**AKYUREKEXCELL 218**



**AKYUREKEXCELL 219**





## AKYUREK EXCELL 60 SERIES FINE SCREEN CLEANERS

### Feed Roller width Built-in stirrer

- Ensures by means of the stirrer that no product build-up.
- Is created in the inlet by light products such as grass seeds etc.
- Is sensitive to light waste material and large impurities such as stones etc.

### Pre and After Suction System

- Is built as separate systems to ensure a precise and independent air cleaning.
- Separates the light particles before the material reaches the sieves.
- Improves the cleaning effect and results in a higher capacity.

### Screen shoes of Birch Plywood

- Are constructed with replaceable wear plates and sieve runners in exposed areas.
- Have a long lifetime because the birch plywood easily tolerates the vibrations of the screen shoes.

### Ball Box

- Ensures efficient cleaning of sieves by means of rubber balls.
- Can maintain the cleaning effect at extremely low temperatures as the rubber balls are cast in a very suitable material.
- Is cast solid so that it prevents stuck seeds etc.(self-cleaning).

### Easy To Operate

- Because all adjustments are placed at a suitable height.
- Owing to adjustments with scales for quick and precise re-adjustment.
- Since all operating handles are placed on the same side as the outlets.

### Finished Product of a High Quality

- Is clearly illustrated by the difference between the cleaned seed/product and the discarded light product on the air lifting system.
- Reduces in many cases the size of the subsequent processing machines.

### Balanced Eccentric System

- Is fitted with counter weights ensuring steady running.
- Involving minimum stress on buildings and steel structures.
- Is fitted with "heavy duty" bearings.

### Screw Conveyor for Light waste

- Ensures continuous discharge of dust and light waste from the air system via screws.
- With finger flaps to ensure optimal dust separation in the expansion chamber by preventing false air from entering into the chamber.

### Perforated Screens for all Purposes

- Are available with round and long holes from 0,3 to 25,0mm.
- Are also available as wire mesh screens are also available as screen plates with very little tolerance which ensures a minimum cleaning loss.
- Are available in a standard size of: 800 mm (L) x 1250 mm (B) = 1 m, which can be used in more than 80% of the Akyurek Excell program so the number of sieves needed is reduced.

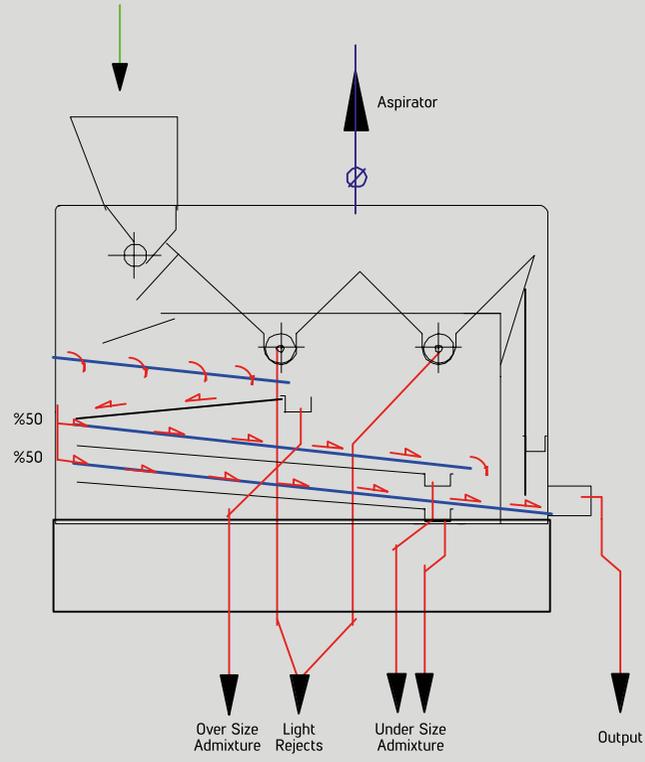
### Air Lifting Sieve Screen

- Serves to convey the product through the air flow to ensure elimination of light particles.
- Forces the product through under passage to turn its biggest surface against the air flow in order to obtain optimal separation.

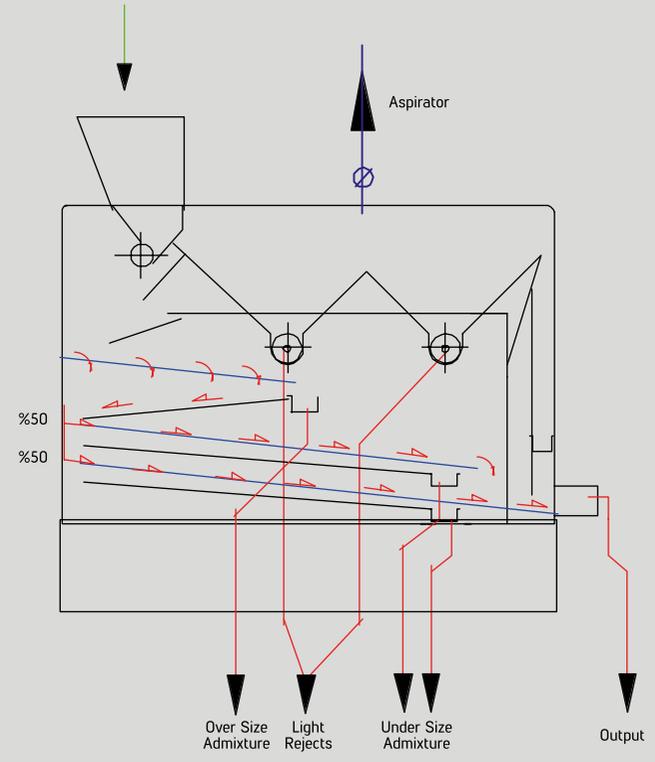
### Technical Data & Capacity Chart

Fine-Cleaner EXCELL 60	UQM	61	62	63	64
Over Size Screen LxW	mm	80x80	125x80	125x80	150x160
Undersize Screen LxW top	mm	80x160	125x160	125x160	150x240
Undersize Screen LxW bottom					
Screen Area	m <sup>2</sup>	3,2	5	7	9,6
Motor. Feed Roller	kW	0,55	0,55	0,55	0,55
Motor. Eccentric	kW	1,5	2,00	2,00	3,00
Motor. Air Lifting	kW	1,5	2,00	2,00	2,00
Capacity on Wheat	Tn/Hr	2,0-3,0	3,0-4,0	4,0-5,0	7,5-10,0
Capacity on Paddy	Tn/Hr	1,0-2,0	2,0-3,0	3,0-4,0	4,0-6,0

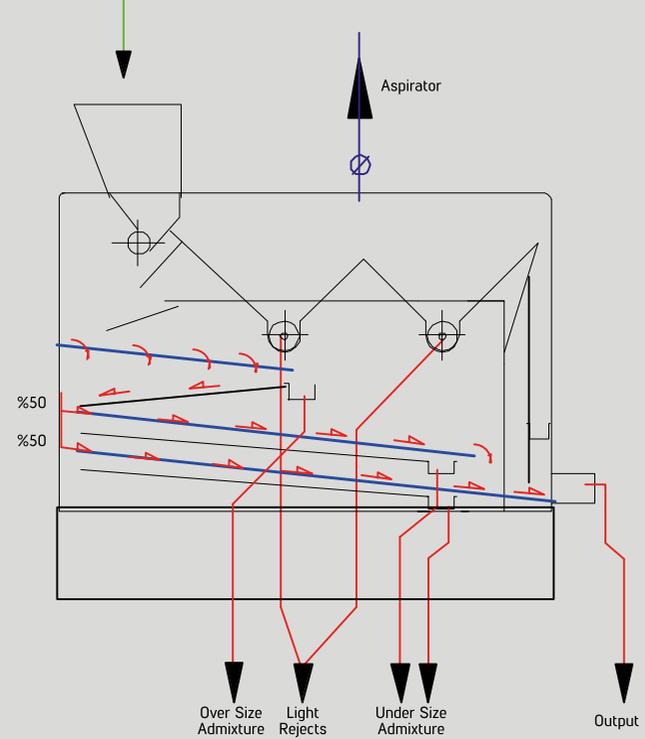
**AKYUREKEXCELL 61**



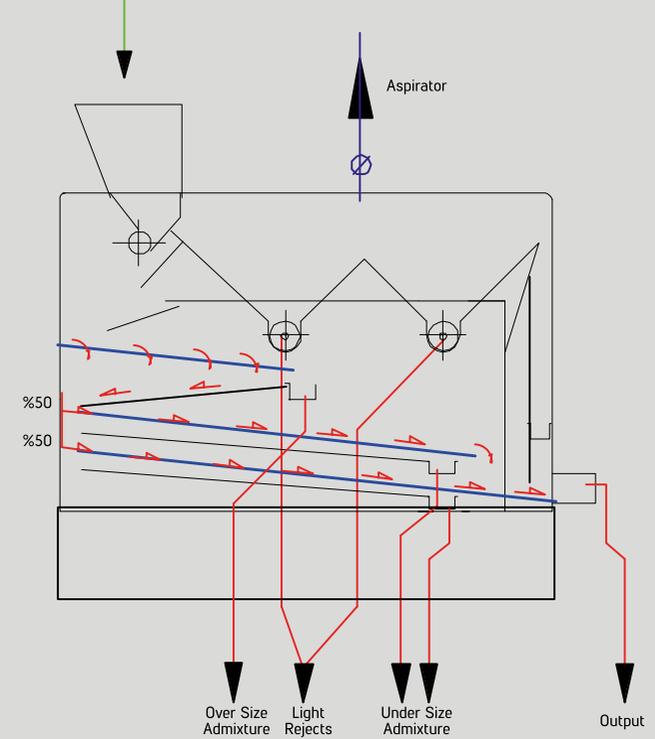
**AKYUREKEXCELL 62**



**AKYUREKEXCELL 63**



**AKYUREKEXCELL 64**





## AKYUREK BRUSH TYPE FINE SCREEN CLEANERS 0.TEM-005

### Work Principle

The product is poured into the inlet which has an adjustable feed gate. Whilst product is falling down through the vacuum chamber on screen, fine particles are separated, at pre-suction stage first of five. Screen with small perforation is deployed for separation of small impurities from product at the first deck.

Whilst the small impurity separation is carried out at the first deck at the same time the vacuum chamber ensures a homogenous airflow with hand-operated adjustable airlifting channels and air screens by sucking the light product up through the airlifting channel in to the vacuum chamber where these light impurities are discharged by screw conveyor from the chamber.

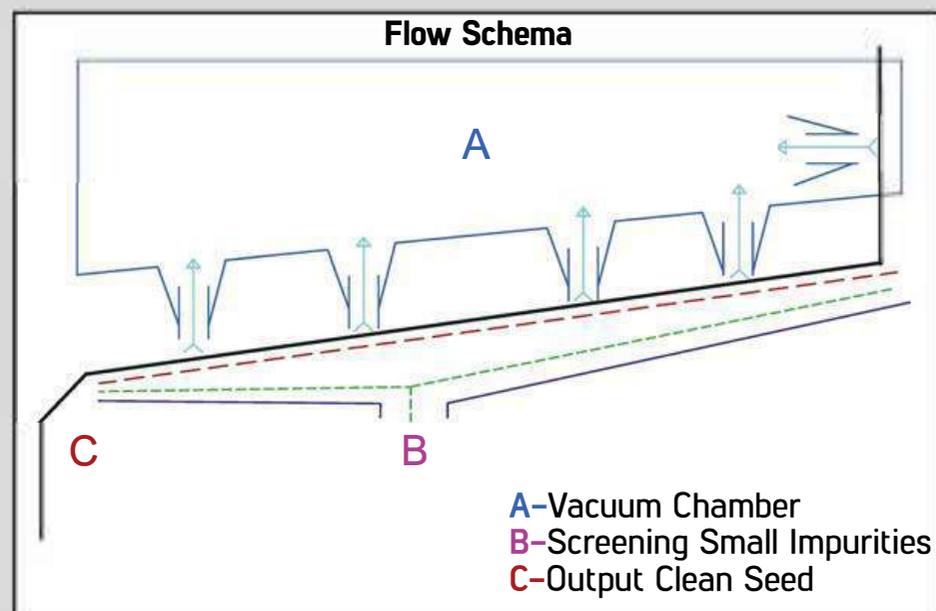
Seeds that are separated from small impurities and light impurities moves onto the second screen that has large perforation (large than good seed) which is deployed for large impurity separation from good seed. Large impurities stay on top of screen and good seeds fall through the perforation and leaves the machine from required side of the machine left or right hand side.

### Single Deck Fine Screen Cleaner

-Single Deck Cleaner machine is for cleaning of all type of dry and granulated seeds from organic and non organic impurities.

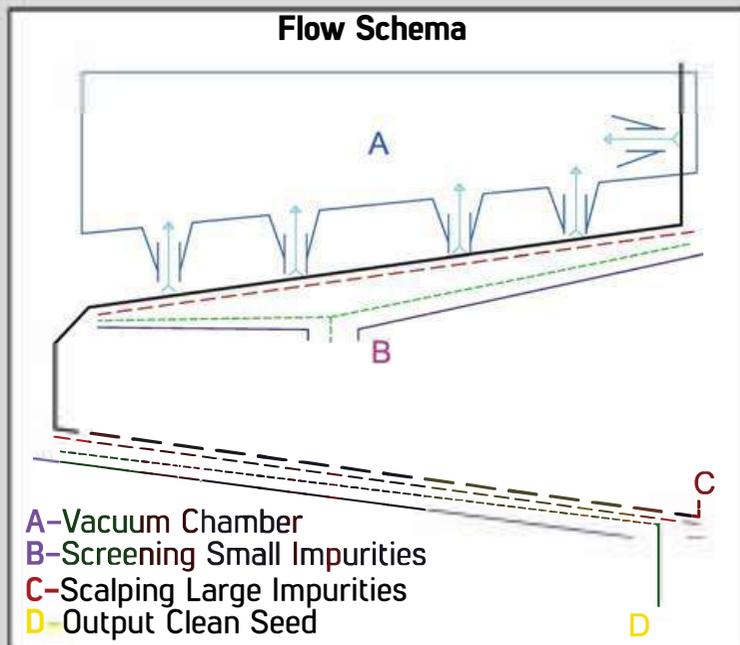
Single Deck Cleaner Machine can separate:

- Small impurities by means of screening / sieve.
  - Light impurities by means of 5 times Air Screening.
- Screen lay out would change the purpose and task.



### Technical Data & Capacity Chart

Model	Single Deck Fine Cleaner	Two Deck Fine Cleaner	Three Deck Fine Cleaner
Technical Info	2	2	3
Air Consumption m <sup>3</sup> /h	12.600 m <sup>3</sup> /h	12.600 m <sup>3</sup> /h	12.600 m <sup>3</sup> /h
Adjustable Air Vacuum Channel Numbers	5	5	5
Number of times product exposed to vacuum	5	5	5
Screen Dimensions	1000*2000 mm	1000*2000 mm	1000*2000 mm
Screening Area	2 m <sup>2</sup>	4 m <sup>2</sup>	6 m <sup>2</sup>
Screen Numbers	1	2	3
Total Number of Brushes	5	10	15
Screening Boats	1	2	3
Number of Motors	5	5	5
Total Power Requirement	6.3 kW	6.7 kW	7.1 kW
Standard Volt	380	380	380
Optional Volt	220-440	220-440	220-440
Weight	1550	1550	1760
Vibration	Eccentric	Eccentric	Eccentric



### Two Deck Fine Screen Cleaner

- Two Deck Cleaner machine is for cleaning of all type of dry and granulated seeds from organic and non organic impurities.

Two Deck Cleaner Machine can separate:

- Large/course impurities and small impurities by means of screening/sieve.
  - Small impurities by means of screening/sieve.
  - Light impurities by means of 5 times Air Screening.
- Screen layout would change the purpose and task.

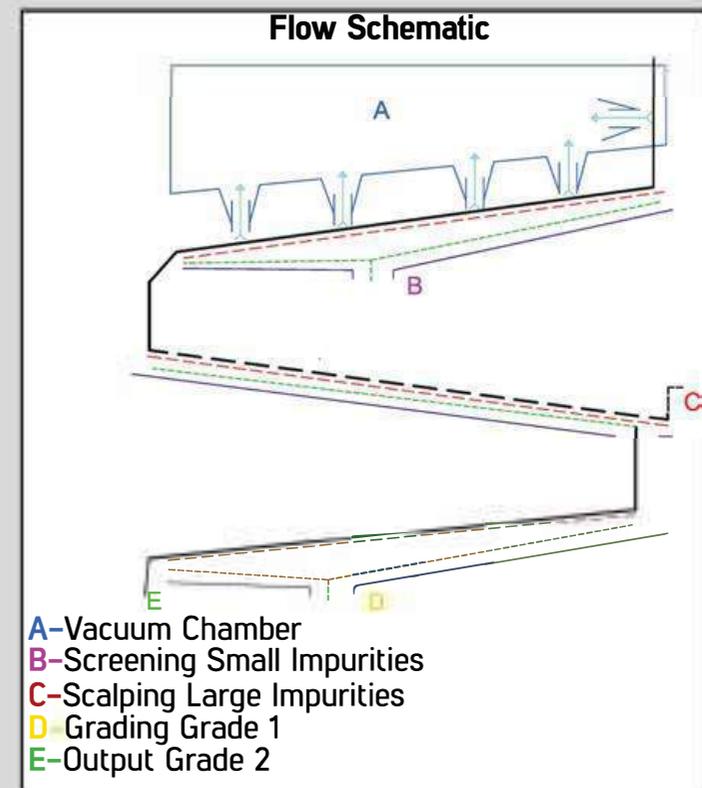


### Three Deck Fine Screen Cleaner

- Three Deck Cleaner machine is for cleaning of all type of dry and granulated seeds from organic and non organic and non organic impurities.

Three Deck Cleaner Machine can separate:

- Large/course impurities and small impurities by means of screening/sieve.
  - Light impurities by means of 5 times Air Screening.
  - 2 grades of seeds as output
- Screen lay out would change the purpose and task.





## AKYUREKEXCELL 220 SERIES FLAT SCREEN GRADERS

### Feed Roller with Built-in Stirrer

- Has feedgate which in combination with variable RPM control of the feed rate.
- Ensures by means of the stirrer that no product build-up.
- Is created in the inlet by light products such as grass seeds etc.

### Full-width Vibratory

- Has stepless adjustment of the feed rate by an inverter.
- Separate control panel ensures a uniform flow over the entire width of the sieve.
- Ensures optimal capacity utilisation of the machine.
- Requires no cleaning in connection with changing products.

### Balanced Eccentric System

- Is fitted with counter weights ensuring steady running.
- Involving minimum stress on buildings and steel structures.
- Ensures maximum utilisation of the cleaning effect of the sieves owing to accurately attuned stroke and RPM.

### Ball Box

- Ensures efficient cleaning of sieves by means of rubber balls.
- Can maintain the cleaning effect at extremely low temperatures as the rubber balls are cast in a very suitable material.
- Is cast solid so that it prevents stuck seeds etc. (self cleaning).

### Change Of Product Flow

- Makes many different product flows possible according to the capacity, product, number of fractions, etc.
- Is easily done by changing the size of the sieves and the position of the outlet trays.

### Screw Conveyor For Light Waste

- Ensures continuous discharge of dust and light waste from the air system via screws.
- With finger flaps to ensure optimal dust separation in the expansion chamber by preventing false air from entering into the chamber.

### Akyurek Excell Sieves For All Purpose

- Are available with round and long holes from 0,3 to 25,0 mm
- Are available in a standard size of 800 mm(L) x 1250 mm(B)= 1 m, which can be used in more than 80% of the Akyurek Excell programme so the number of sieves needed is reduced

### Pre and After Suction System

- Is built as separate systems to ensure a precise and independent air cleaning.
- Separates the light particles before the material reaches the sieves.
- Improves the cleaning effect and results in a higher capacity.

### Easy To Operate

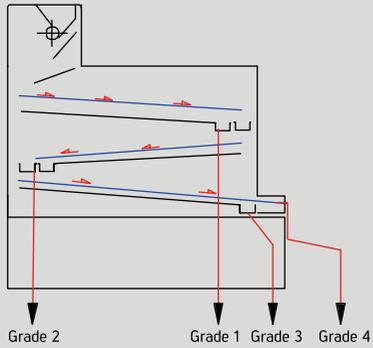
- Because all adjustments are placed at a suitable height.
- Owing to adjustments with scales for quick and precise re-adjustment.
- Is as standard with outlets and adjustments placed on the right hand side seen from the inlet end.

### Finished Product of a High Quality

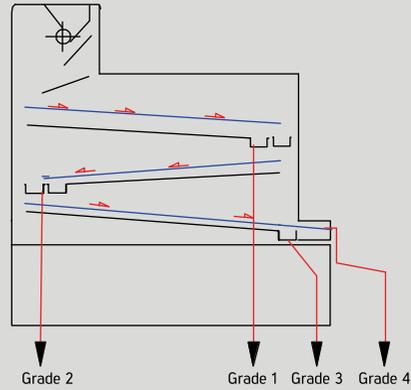
- Is clearly illustrated by the difference between the cleaned seed/product and the discarded light product on the air lifting system.
- Reduces in many cases the size of the subsequent processing machines.

Technical Data & Capacity Chart										
EXCELL 220 SERIES SUPER FINE SCREEN CLEANERS										
Screen Details	Type	221	222	224	225	226	227	228	229	
	Screen Area m <sup>2</sup>	0,96	3,0	7,0	10,0	15,0	18,0	24,0	33,0	
	Screen	Length	cm	80	160	160	160	240	240	240
		Width	cm	40	62,5	125	125	125	125	125
Num. of Screens		3	3	3,5	5	5	6	8	11	
Counter Flow		1/1/1	1/1/1	0,5/1/1/1	2/1/2	2/1/2	2/1/3	3/2/3	4/3/4	
Cereals	Wheat, Rye, Sorghum	0,20	2,5	5,0	7,5	12,0	20,0	25,0	30,0	
	Barley	0,20	2,5	5,0	7,5	12,0	20,0	25,0	30,0	
	Oat	0,10	2,0	4,0	6,0	9,0	16,0	20,0	24,0	
	Maize	0,10	2,0	4,0	6,0	9,0	16,0	20,0	24,0	
	Raw Rice	0,08	1,5	3,0	4,5	7,0	12,0	15,0	18,0	
Legumes	White Rice	0,10	2,0	4,0	6,0	9,0	16,0	20,0	24,0	
	Soyabean	0,08	2,0	4,0	6,0	9,0	12,0	15,0	18,0	
	Pea	0,08	2,0	4,0	6,0	9,0	16,0	20,0	24,0	
Other Products	Clover	0,04	0,5	1,0	1,6	2,2	3,5	5,0	6,5	
	Ray Seeds	0,04	0,4	0,75	1,6	1,8	3,0	4,0	5,0	
	Rape Seed	0,04	2,0	4,0	6,0	9,0	16,0	20,0	24,0	
	Sunflower Seeds	0,04	1,0	2,0	3,0	4,5	8,0	10,0	12,0	
	Sugar Beet	0,04	1,2	2,5	3,5	5,0	9,0	11,0	13,0	
	Raw Coffee	0,08	2,0	4,0	6,0	9,0	16,0	20,0	24,0	
	Roasted Coffee	0,04	1,2	2,5	3,5	5,0	9,0	11,0	13,0	

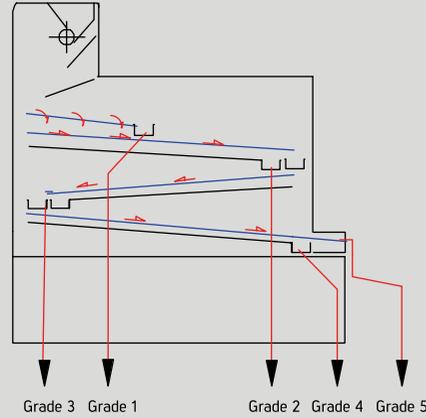
**AKYUREKEXCELL 221**



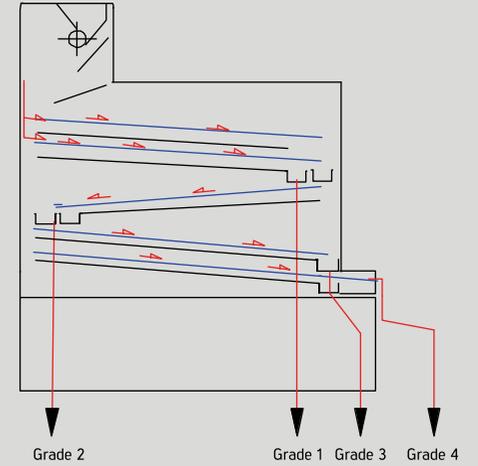
**AKYUREKEXCELL 222**



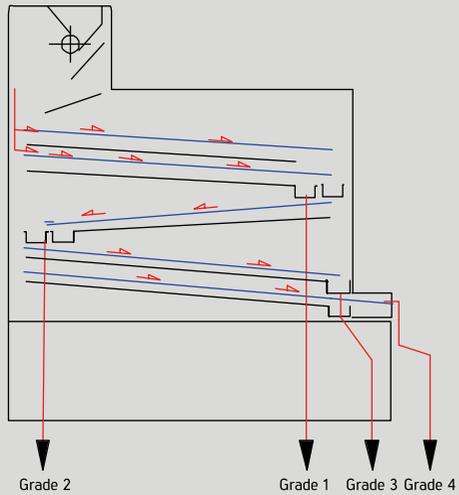
**AKYUREKEXCELL 224**



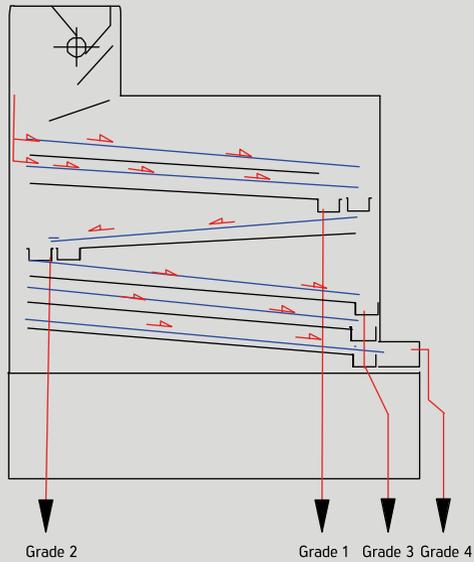
**AKYUREKEXCELL 225**



**AKYUREKEXCELL 226**



**AKYUREKEXCELL 227**



**AKYUREKEXCELL 228**



**AKYUREKEXCELL 229**





## AKYUREK EXCELL 230 SUPER SERIES FLAT SCREEN GRADERS

### Feed Roller with Built-in Stirrer

- Has feedgate which in combination with variable RPM control of the feed rate
- Ensures by means of the stirrer that no product build-up
- Is created in the inlet by light products such as grass seeds etc.
- Is sensitive to light waste material and large impurities such as stones etc.

### Full-width Vibratory

- Has stepless adjustment of the feed rate by an inverter.
- Separate control panel ensures a uniform flow over the entire width of the sieve.
- Is self cleaning.
- Improves the air cleaning considerably as the product hits the pre-suction area uniformly.

### Balanced Eccentric System

- Is fitted with counter weights ensuring steady running.
- Involving minimum stress on buildings and steel structures.
- Is fitted with "heavy duty" bearings.

### Ball Box

- Ensures efficient cleaning of sieves by means of rubber balls.
- Can maintain the cleaning effect at extremely low temperatures as the rubber balls are cast in a very suitable material.
- Is cast solid so that it prevents stuck seeds etc. (self cleaning).

### Change Of Product Flow

- Makes many different product flows possible according to the capacity, product, number of fractions, etc.
- By means of six different diagrams in the cleaner ensures excellent purity and minimum waste.

### Screw Conveyor For Light Waste

- Ensures continuous discharge of dust and light waste from the air system via screws.

- With finger flaps to ensure optimal dust separation in the expansion chamber by preventing false air from entering into the chamber.

### Pre and After Suction System

- Is built as separate systems to ensure a precise and independent air cleaning.
- Separates the light particles before the material reaches the sieves.
- Improves the cleaning effect and results in a higher capacity.

### Akyurek Excell Sieves For All Purpose

- Are available with round and long holes from 0,3 to 25,0 mm.
- Are also available as wire mesh screens are also available as screen plates with very little tolerance which ensures a minimum cleaning loss.
- Are available in a standard size of 800 mm(L) x 1250 mm(B)= 1 m, which can be used in more than 80% of the Akyurek Excell programme so the number of sieves needed is reduced.

### Easy To Operate

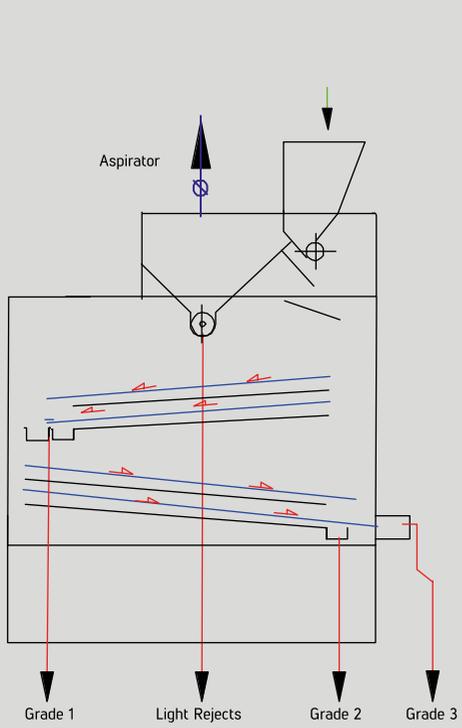
- Because all adjustments are placed at a suitable height.
- Owing to adjustments with scales for quick and precise re-adjustment.
- Since all operating handles are placed on the same side as the outlets.

### Finished Product of a High Quality

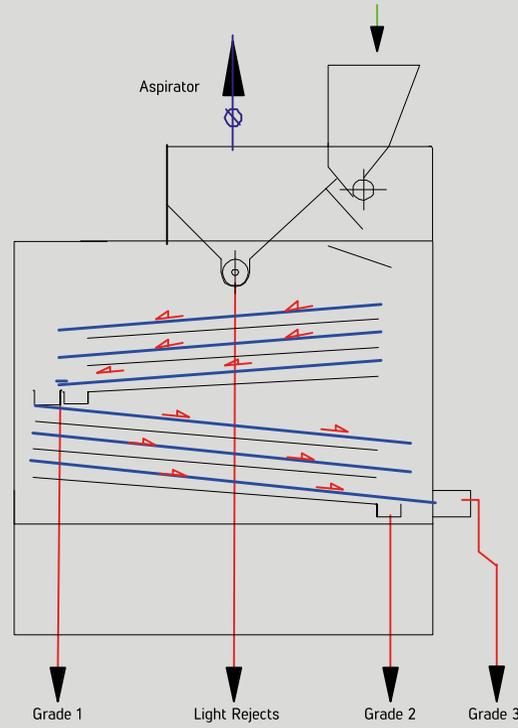
- Is clearly illustrated by the difference between the cleaned seed/product and the discarded light product on the air lifting system.
- Reduces in many cases the size of the subsequent processing machines.

➔ Seed Separators ➔ Screen Cleaners ➔ Fine Screen Cleaners ➔ Excell 230 Super Series Flat Screen Graders

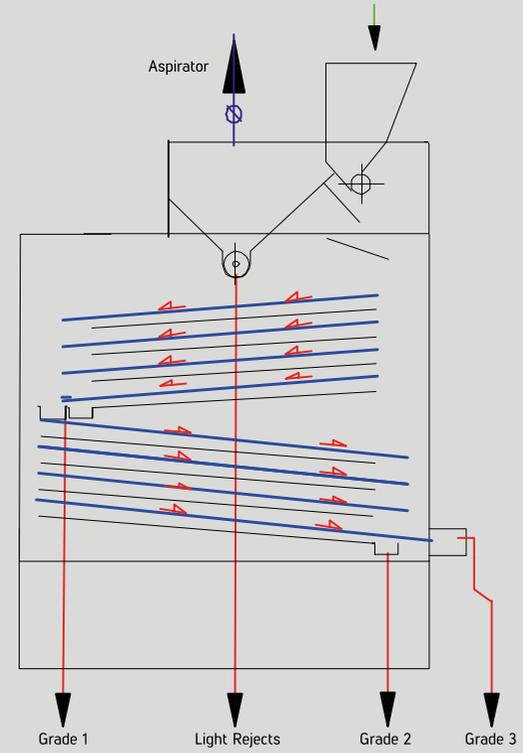
**AKYUREKEXCELL 231**



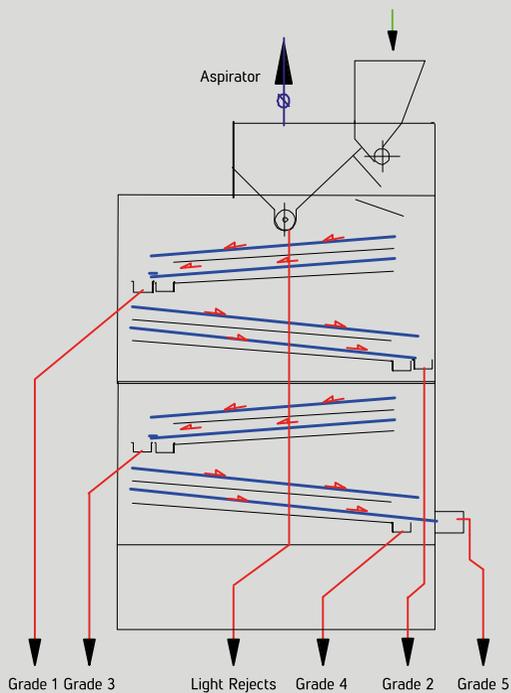
**AKYUREKEXCELL 232**



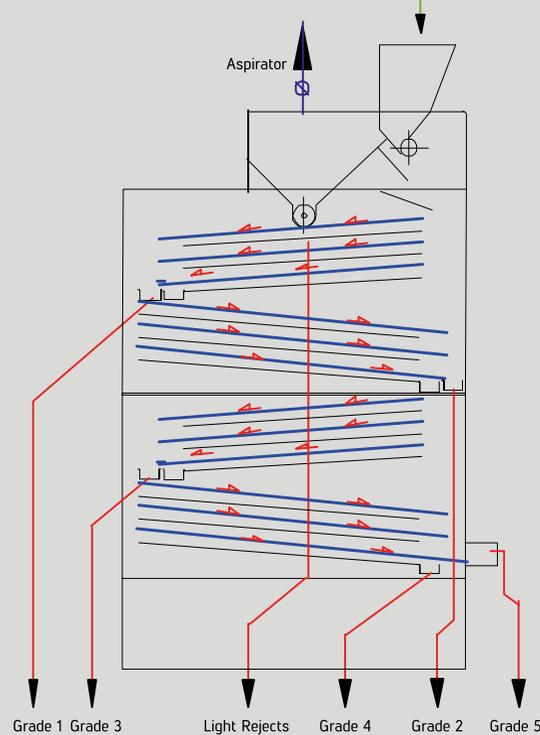
**AKYUREKEXCELL 234**



**AKYUREKEXCELL 235**



**AKYUREKEXCELL 236**



**Technical Data & Capacity Chart**

Excell 230 Series Super Grader Screen Cleaner						
Type	231	232	233	234	235	236
Screen Area m <sup>2</sup>	12	18	24	24	26	48
Screen	Width	cm	125	125	125	125
	Length	cm	240	240	240	240
Num. of Screens	4	6	8	8	12	16
Counter Flow	2/2	3/3	4/4	2/2/2/2	3/3/3/3	4/4/4/4
Grade min/max	2/3	2/3	2/3	2/5	2/5	2/5
Peanut	2,00	3,00	4,00	2,00	3,00	4,00
Beans	12	18	24	12	18	24
Raw Coffee	6	9	12	6	9	12
Pea	12	18	24	12	18	24
Lentil	13	19	25	13	19	25
Soyabean	12	18	24	12	18	24
Sunflower Seeds White	3	4,5	6	3	4,5	6
Sunflower Seeds Black	3	4,5	6	3	4,5	6
Pumpkin Seeds	3	4,5	6	3	4,5	6
Sesame	3	4,5	6	3	4,5	6



## AKYUREK BRUSH TYPE SEED GRADERS B.MAC-007

### Free or Vibratory Product Feed

- Uninterrupted and regular product flow is maintained from elevator or a hopper.
- Optional
- Large Linear feeding vibratory maintains product feed process equally through entire width of the screen.
- As the linear feed vibratory distributes the product evenly, it has an important role in optional dust control system.
- It can keep itself clean.
- Product blocking is prevented thanks to the special product feed chamber.
- Cleaning is not required when various product processing is required.

### Entrance and Exit Air Suction System \*OPTIONAL

- Smooth and independent dust cleaning is manufactured as a separate system.
- It is used for cleaning dust and light products before the product reaches to screens.
- Light grains, shells etc. by products are removed via air suction above outlet to achieve a highly purified finished product

### Screen Decks

- Have long operation life thanks to resistant construction.
- Have long operation life thanks to flyboard absorbing the vibration.
- Screen contact points have easy replaceable pieces.
- \* Optional -laser cut black plate Decks, chrome plate decks and screens.

### Brush System

- Used for keeping perforated screens clean.
- Cleanness is kept at maximum level thanks to its brushes even at lowest degrees.
- Successfully performs cleaning even for most difficult products with its strong structure.
- Screens can be easily replaced since installed separately with screens.

### Balanced Eccentric System

- Balanced with counter weights for smooth operation principle.
- Applies minimum stress to building ground and machine chassis.
- Equipped with special support bearings.
- Maintains correct RPM and stroke effect for reaching the maximum cleanness.

### Product Flow Change

- Fixed; all screens provide sub-screen graded products.
- Chutes are re-designed for separating the over size from screen flow according to requirements during machine ordering and production.

### Easy-to-Use

- All machine adjustment apparatus are at accessible heights.
- Machine adjustments can be done with sensitive and excellent scales.
- All adjustment points are at the same point with output chutes.

### Technical Data

Product Code	B.MAC-007/1	B.MAC-007/2	B.MAC-007/3	B.MAC-007/4	B.MAC-007/5	B.MAC-007/6
Number of Screens	1	2	3	4	5	6
Screening Surface Area	2 m <sup>2</sup>	4 m <sup>2</sup>	6 m <sup>2</sup>	8 m <sup>2</sup>	10 m <sup>2</sup>	12 m <sup>2</sup>
Sizing Number	1	3	4	5	6	7
Number of Screen	5	10	15	20	25	30
Total Power	1.47 kW	2.05 kW	2.95 kW	3.75 kW	4.5 kW	4.8 kW
Weight	550 kg	1050 kg	1150 kg	2200 kg	2580 kg	3075 kg

→ Seed Separators → Screen Cleaners → Screen Graders → Akyurek Brush Type Seed Graders B.MAC-007



**Single Deck Grading Machine  
B.MAC-007/1**



**Double Deck Grading Machine  
B.MAC-007/2**



**Three Deck Grading Machine  
B.MAC-007/3**



**Four Deck Grading Machine  
B.MAC-007/4**



**Five Deck Grading Machine  
B.MAC-007/5**



**Six Deck Grading Machine  
B.MAC-007/3**



## CYLINDRICAL SCREEN GRADER CLS 90x500

By means of the permanent circulation of the product and the resulting centrifugal force, each kernel is forced to be in contact with the screen perforation, enabling sorting operations to be carried out with high accuracy. The single cylinders built as self supporting steel constructions can be joined in various configurations by means of the simple modular system, always using only one drive motor (energy saving) with chain drive connection to the single cylinders. A maximum of 3 cylinders can be installed above each other. So a huge spectrum of sorting targets can be covered.

### Detector box

The detector box is used to detect the product falling through the upper screening cylinder so that it doesn't hit the lower cylinder so as to by-pass the following cylinder.

### Vibrating trough

The vibrating trough is used to feed the product falling through the upper screening cylinder to the inlet of the next cylinder.

When arranged as lowest unit it will collect all throughs and convey them to a discharge pipe.

### Screen cylinder

On the CS300 and CS500 type it is a single-sieve push on cylinder.

The CS700 type has 3 screen segments which are attached on supporting discs.

### Screen box

The screen box houses the screening cylinder.

### Discharge hopper

It is invariably arranged as lowest assembly of the equipment, for collecting the throughs and tailings in troughs from where they are piped out through suitable conduit.

### FEATURES

- The drive can be equipped with variable speed (by frequency inverter or by mechanical speed variator gear).
- Permanent screen cleaning too prevent blockage of the screen-holes. (additional hand operated cleaning device or brush rollers can be installed as an alternative).
- Adjustable screen-inclination for regulation of the throughput capacity. (steplessly adjustable between 0 and 2,5°).
- Simple screen-exchange

### Parallel operation

The grain is divided to the separate inlet channels of each single cylinder, so they receive part of the grain at a time. The over size product is discharged at the end of each cylinder. The product failing through will direct by the detector box so as to by-pass the following cylinder.

### Series operation

The product falling through the upper screening cylinder is fed to the inlet of the next cylinder by means of a vibrating trough.

The oversize product is discharged at the end of each cylinder.

## Technical Data & Capacity Chart

	TYPE	Performance (t/h)						Motor kW		Dust m <sup>3</sup> /min	Dimensions			Net Weight KG	Kilibring the
		Wheat	Round holes	Slot/rd	Soybean	Rassy Rice	Standard adjusting gear	Long	Width		Height				
	CS 300 I	1.0	0.7	0.9	1.6	1	0.37	0.55	10	2242	565	925	230	2	
	CS 500 I	3.75	1.3	1.8	3.3	2	0.75	1.1	10	2527	735	1170	315		
	CS 700 I	7.5	2.5	3.5	6.6	4	1.1	1.5	20	3715	1036	1575	824-tr.		
	CS 300 II-A	3.6	1.4	1.8	3.2	2	0.75	1.1	20	2357	1096	925	460	2/4	
	CS 500 II-A	7.5	2.6	3.6	6.6	4	1.5	2.2	20	2610	1436	1170	790-tr.		
	CS 700 II-A	15	5	7	13.2	8	2.2	3	40	3755	2036	1575	1600		
	CS 300 II-BP	3.6	1.4	1.8	3.2	2	0.75	1.1	10	2531	565	1955	460	2	
	CS 500 II-BP	7.5	2.6	3.6	6.6	4	1.5	2.2	10	2792	735	2450	744-tr.		
	CS 700 II-BP	15	5	7	13.2	8	2.2	3	20	3978	1036	3350	1551		
	CS 300 II-BS	1.8	0.7	0.9	1.6	1	0.75	1.1	10	2531	565	1715	470	3	
	CS 500 II-BS	3.75	1.3	1.8	3.3	2	1.5	2.2	10	2792	735	2210	685		
	CS 700 II-BS	7.5	2.5	3.5	6.6	4	2.2	3	20	3978	1036	3035	1551		
	CS 300 III-P	5.4	2.1	2.7	4.8	3	1.1	1.5	10	2584	565	2770	700	2	
	CS 500 III-P	11.25	3.9	5.4	9.9	6	2.2	3	10	2832	735	3515	1114		
	CS 700 III-P	22.5	7.5	10.5	19.8	12	3	4	20	3991	1036	4900	2400		
	CS 300 III-S	1.8	0.7	0.9	1.6	1	1.1	1.5	10	2584	565	2505	700	4	
	CS 500 III-S	3.75	1.3	1.8	3.3	2	2.2	3	10	2832	735	3250	956		
	CS 700 III-S	7.5	2.5	3.5	6.6	4	3	4	20	3991	1036	4495	2400		
	CS 300 III-PS	3.6	1.4	1.8	3.2	2	1.5	1.5	10	2584	565	2745	700	3	
	CS 500 III-PS	7.5	2.6	3.6	6.6	4	3	3	10	2832	735	3490	956		
	CS 700 III-PS	15	5	7	13.2	8	5.5	4	20	3991	1036	4820	2400		
	CS 300 IV-P	7.2	2.8	3.6	6.4	4	1.5	2.2	20	2584	1096	1955	930	2/4	
	CS 500 IV-P	15	5.2	7.2	13.2	8	3	4	20	2845	1436	2450	1434-br.		
	CS 700 IV-P	30	10	14	26.4	16	5.5	7.5	40	4158	2036	3360	3200		
	CS 300 IV-S	3.6	1.4	1.8	3.2	2	1.5	2.2	20	2584	1096	1715	930	3/6	
	CS 500 IV-S	7.5	2.6	3.6	6.6	4	3	4	20	2845	1436	2210	1275		
	CS 700 IV-S	15	5	7	13.2	8	5.5	7.5	40	4158	2036	3035	3200		
	CS 300 VI-P	10.8	4.2	5.4	9.6	6	2.2	3	20	2624	1096	2770	1400	2/4	
	CS 500 VI-P	22.5	7.8	10.8	19.8	12	4	5.5	20	2892	1436	3515	1912		
	CS 700 VI-P	45	15	21	39.6	24									
	CS 300 VI-S	3.6	1.4	1.8	3.2	2	2.2	3	20	2624	1096	2505	1400	4/8	
	CS 500 VI-S	7.5	2.6	3.6	6.6	4	4	5.5	20	2892	1436	3250	2036		
	CS 700 VI-S	15	5	7	13.2	8									
	CS 300 VI-PS	7.2	2.8	3.6	6.4	4	2.2	3	20	2624	1096	2745	1400	3/6	
	CS 500 VI-PS	15	5.2	7.2	13.2	8	4	5.5	20	2892	1436	3490	1912		
	CS 700 VI-PS	30	10	14	26.4	16									



## AKYUREK EXCELL 33 SCREEN CLEANER & GRADER

### Full-width Vibratory

- Has stepless adjustment of the feed rate by an inverter.
- Separate control panel ensures a uniform flow over the entire width of the sieve
- Improves the air cleaning considerably as the product hits the pre-suction area uniformly.

### Pre and After Suction System

- Is built as separate systems to ensure a precise and independent air cleaning.
- Separates the light particles before the material reaches the sieves.
- Improves the cleaning effect and results in a higher capacity.

### Perforated Screens

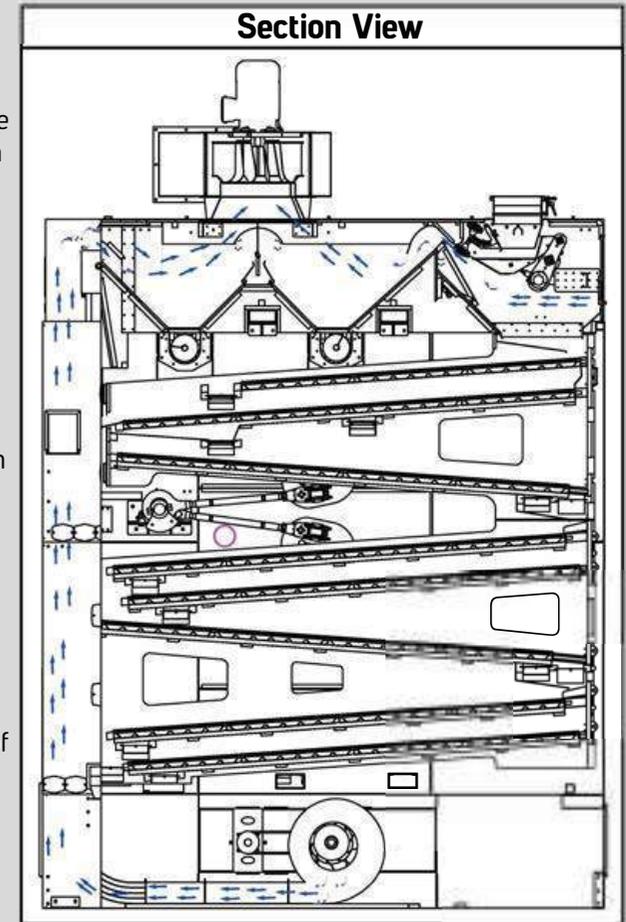
- Are available with round and long holes from 0,3 to 25,0mm.
- Are also available as wire mesh screens are also available as screen plates with very little tolerance which ensures a minimum cleaning loss.
- Are available in a standard size of: 800 mm (L) x 1250 mm (B) = 1 m. which can be used in more than 80% of the Akyurek Excell program so the number of sieves needed is reduced.

### Screenshoes of Birch Plywood

- Are constructed with replaceable wear plates and sieve runners in exposed areas.
- Have a long lifetime because the birch plywood easily tolerates the vibrations of the screen shoes.

### Ball Box

- Ensures efficient cleaning of sieves by means of rubber balls.
- Can maintain the cleaning effect at extremely low temperatures as the rubber balls are cast in a very suitable material.
- Is cast solid so that it prevents stuck seeds etc. (self-cleaning).



### Screw Conveyor for Light Waste

- Ensures continuous discharge of dust and light waste from the air system via crews.
- With finger flaps to ensure optimal dust separation in the expansion chamber by preventing false air from entering into the chamber.

### Air Lifting Sieve Screen

- Forces the product through under passage to turn its biggest surface against the air flow in order to obtain optimal separation.
- Is constructed with adjustable air lifting hood over the air lifting sieve, which ensures optimal collecting up of the discarded light particles.

### Air Lifting Channel

- Through which husks, dust etc. are led with the airflow to the after suction system.
- Is available with an extra-large expansion chamber and centre outlet for special processes.

### Balanced Eccentric System

- Involving minimum stress on buildings and steel structures.
- Ensures maximum utilisation of the cleaning effect of the sieves owing to accurately attuned stroke and RPM.

### Air Lifting Unit

- Is capable by means of staggered fans and air guides of giving a completely uniform air pressure from beneath the product when it leaves the first part of cleaner.
- Ensures a complete blow through of the product which causes an elimination of light seeds, husks, straw and dust.

Technical Data & Capacity Chart	
<b>Capacity: (at max. 15% moisture content)</b>	
Chickpea	8-10.0 t/s
Bean	8-10.0 t/s
Lentil	9-11.0 t/s
<b>Dimensions:</b>	
Weight	6400 kg
Machine Length	4000 mm
Machine Width	2400 mm
Machine Height	5960 mm
Screen area:	32.0 m <sup>2</sup>
<b>Motors: (Standard):</b>	
Aspirator	11 kW
Eccentric	3 kW
Feeder Roller	0.75 kW
Screw Conveyor	0.55 kW
<b>Air Volume:</b>	
Air Volume	21000 m <sup>3</sup> /h



## COMBO SCREEN CLEANER & GRADER O.MAC-001

### Function:

Light impurities and admixture separated by aspirators. There are five sieve boats and six screens within the machine. The machine can separate large admixtures, small admixtures, split or broken seeds and It can classify the seed lot in four different grades.

### Work Principle:

Seed feed into sieve boats through the feeder elevator. Each sieve boat has specific sizes of holes for impurities/admixtures larger than the seed or smaller than the seed. Sieve boats incline downwards where the crop moves to whilst sieve boats vibrates and impurities fall off the sieve perforations.

To separate the straw, chip, glumes etc, the product passes below the aspirator room. Aspirator room has five adjustable suction imports where crops are exposed to air cleaning five times. After cleaning operation, the product is transferred to the grading boats through the middle elevator which is the second elevator in the machine. A maximum of four grades can be achieved. The cleaning system of under screen has brushes moving forward and back, so there is no risk for the screen to be blocked.

### 1- Pre-Clean Section:

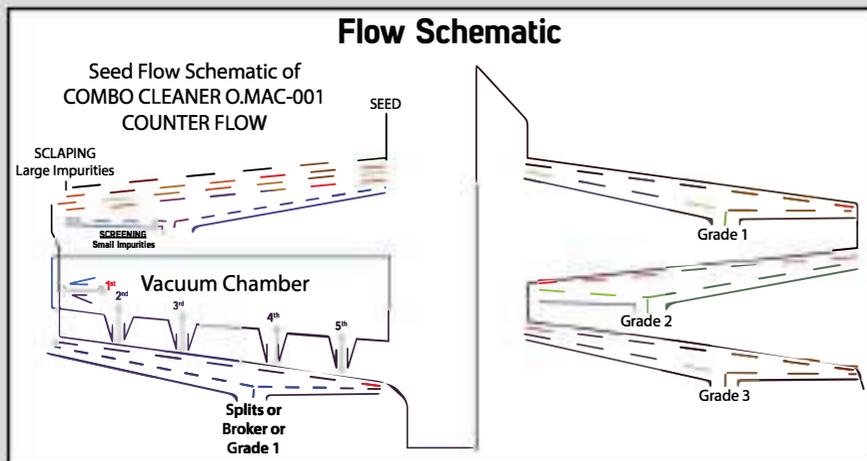
First part of the machine is for pre-cleaning; scalping and screening (clean the large and small impurities from the product).

### 2- Fine Clean Section:

Second part of the machine is for fine cleaning, air screening up to five times in a single process (to clean the light impurities from the product) at the same time screening.

### 3- Grading Section:

Third part of the machine is for grading, three grading screens to be able to get four grades. A multi-tasking Combo Cleaner with grading units. Ideal machine for all type of dry beans, chickpeas and peas that needs grading for price variety in market. Maximum analysis with Akyürek intense screen perforation.



Technical Data									
Dimensions		Engine No (Piece)	Total Motor Power (kW)	Standard Volt (Volt)	Optional Volt (Volt)	Weight (Kg)	Brush No (Piece)	Screen Area (m <sup>2</sup> )	Vibration Type
Length	5850								
Width	2100								
Height	3500								
Machine+Elev. Height	3500+750	6	9	380	220-440	2500	30	12	Eccentric
Machine+Elev. Length	5850+550								

Capacity Chart	
Product	In put Capacity
Soya Beans	4-5 tn/hr
Chickpeas	3-5 tn/hr
Beans	3-5 tn/hr
Kidney Beans	3-5 tn/hr
Vetches	4-5 tn/hr
Sesame Seed	2,5-3 tn/hr
Lentils	3-5 tn/hr
Wheat	4-5 tn/hr
Rice	4-5 tn/hr
Sunflower	1-2 tn/hr
Cumin Seeds	0,8-1 tn/hr
and many more	



## MODULAR COMBO SCREEN CLEANER & GRADER O.MAC-002

### Working Principle:

The product feeds into sieve boats through the feeder elevator. Each sieve boat has specific sizes of holes for impurities larger than the crop or smaller than the crop. Sieve boats incline downwards where the crop moves whilst sieve boat vibrates and impurities fall off the sieve perforations.

To separate the straw, chip, glumes etc, the product passes below the aspirator room. Aspirator room has five adjustable suction imports where crops are exposed to air cleaning five times. After cleaning operation, the product is transferred to the grading boats through the middle elevator which is the second elevator in the machine. The product can be graded maximum to five; the eccentric system obtains the best analysis of the product. The cleaning system of under screen has brushes moving forward and back, so there is no risk for the screen to be blocked.

### 1- Pre-Clean Section:

First part of the machine is for pre-cleaning: scalping and screening (clean the large and small impurities from the product.)

### 2- Fine Clean Section:

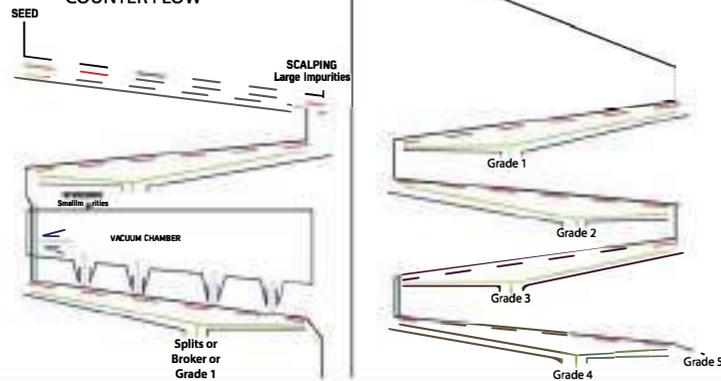
Second part of the machine is for fine cleaning; air screening up to five times in a single process (to clean the light impurities from the product) at the same time screening.

### 3- Grading Section:

Third part of the machine is for grading, four grading screens to be able to get four graders. A multi tasked Modular Combo Cleaner with grading units. Ideal machine for all type of dry beans, chickpeas and peas that needs grading for price variety in market. Maximum analysis with Akyürek intense screen perforation.

### Flow Schematic

Seed Flow Schematic of COMBO CLEANER O.MAC-002 COUNTER FLOW



### Technical Data

Dimensions		Engine No (Piece)	Total Motor Power (kW)	Standard Volt (Volt)	Optional Volt (Volt)	Weight (Kg)	Brush No (Piece)	Screen Area (m <sup>2</sup> )	Vibration Type
Length	5850								
Width	2100								
Height	3500								
Machine+Elev. Height	3500+750	6	9	380	220-440	2750	35	12	Eccentric
Machine+Elev. Length	5850+550								

### Capacity Chart

Product	Input Capacity
Soya Beans	4-5 tn/hr
Chickpeas	3-5 tn/hr
Beans	3-5 tn/hr
Kidney Beans	3-5 tn/hr
Vetches	4-5 tn/hr
Sesame Seed	2,5-3 tn/hr
Lentils	3-5 tn/hr
Wheat	4-5 tn/hr
Rice	4-5 tn/hr
Sunflower	1-2 tn/hr
Cumin Seeds	0,8-1 tn/hr
and many more	



## OPTIMUM COMBO SCREEN CLEANER & GRADER C.O.MAC-003

### Function:

It is a multi tasked machine with fine cleaner and grading units. It can screen clean almost all kind of seeds, grains, dry legumes and vegetables. Light impurities sucked by two aspirator rooms twice all together ten times. There are six sieve boats and six screens. It can classify the product into three different grades. There are two models in its standard: fixed and mobile types.

### Working Principle:

The product feed into sieve boats through the feeder elevator. Each sieve boat has specific sizes of holes for impurities larger than the crop or smaller than the crop. Sieve boats incline downwards where the crop moves whilst sieve boat vibrates and impurities fall off the sieve perforations.

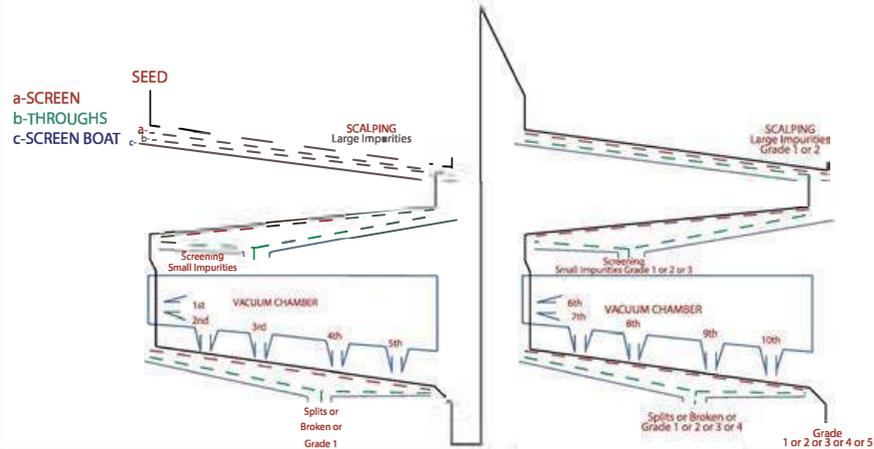
To separate the straw, chip, glumes etc., the product passes below the aspirator room. Aspirator room has five adjustable suction imports where crops are exposed to air cleaning five times. After cleaning operation, the product transferred to the second section.

The same cleaning can be carried out if necessary; 1st scalping, 2nd screening and 3rd air screening. Or 1st and 2nd sieve boats can be for grading cleaned products and for prime product re-air screening. The cleaning system of under screen has brushes moving forward and back, so there is no risk for the screen to be blocked.

1-First part of the machine is for pre-cleaning; scalping and screening (clean the large and small impurities from the product).

2-Second part of the machine is for fine cleaning; air screening up to five times in single process (to clean the light impurities from the product) at the same time screening (cleaning small impurities).

### Flow Schema



3-Third part of the machine (two sieve boats) second pre-cleaning; scalping and screening (clean the large and small impurities from the product. Alternatively - Screening sieve boat can be allocated for grading (1).

4-Fourth part of the machine is for fine cleaning/grading; another air screening up to five times in single process (to clean the light impurities from the product) at the same time screening or grading obtaining graded-sized products. (below screen).

Capacity Chart	
Product	In put Capacity
Soya Beans	4-5 tn/hr
Chickpeas	3-5 tn/hr
Beans	3-5 tn/hr
Kidney Beans	3-5 tn/hr
Vetches	4-5 tn/hr
Sesame Seed	2.5-3 tn/hr
Lentils	3-5 tn/hr
Wheat	4-5 tn/hr
Rice	4-5 tn/hr
Sunflower	1-2 tn/hr
Cumin Seeds	0.8-1 tn/hr
and many more	

### Technical Data

Dimensions		Engine No (Piece)	Total Motor Power (kW)	Standard Volt (Volt)	Optional Volt (Volt)	Weight (Kg)	Brush No (Piece)	Screen Area (m <sup>2</sup> )	Vibration Type
Length	6200								
Width	2100	9	14	380	220-440	2600	30	12	Eccentric
Height	4000								
Machine+Elev. Height	4000+4400								
Machine+Elev. Length	6200+800								



## DOUBLE PRE & FINE SCREEN CLEANER C.O.TEM-004

### Function:

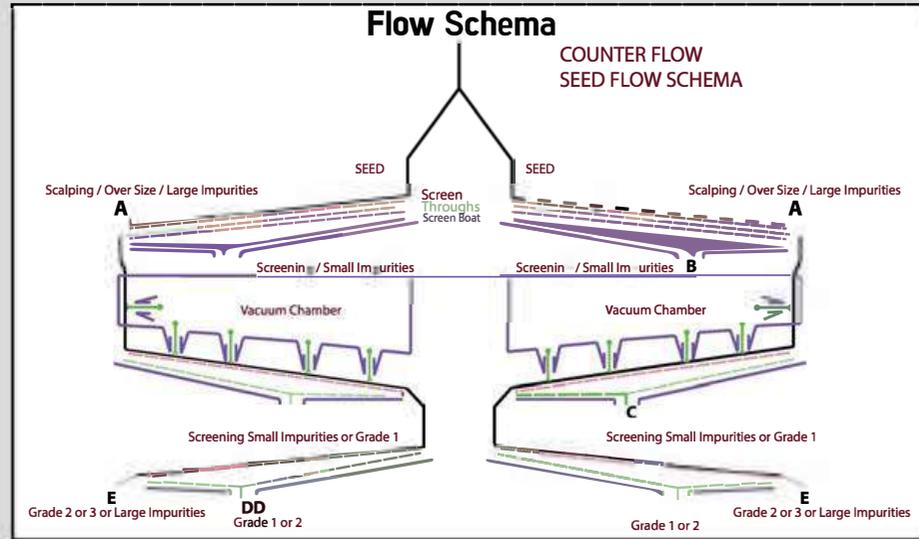
Two machines in one left and right side carries out the same task where a large capacity is obtained. It is a multi tasked machine with pre+fine cleaner and grading unit. It can screen clean almost all kinds of seeds, grains, dry legumes and vegetables. Light impurities sucked by aspirator room. There are four sieve boats and four screens. It can classify the product in two or three (with air screen sieving) different grades. There are two models in its standard; fixed and mobile types.

### Working Principle:

Left hand side section of the machine; the product feed into sieve boats through the feeder elevator. Each sieve boat has specific sizes of holes for impurities larger than the crop or smaller than the crop. Sieve boats inclines downwards where the crop moves to whilst sieve boats vibrate and impurities fall of the sieve perforations.

To separate the straw, chip, glumes, etc, the product passes below the aspirator room. Aspirator room has five adjustable suction imports where crops are exposed to air cleaning five times.

After cleaning operation, the product is transferred to the last sieve boat. The product can be graded a maximum of two or three times with air screen sieving; or another scalping task can be carried out. The eccentric system obtains the best analysis of the product. The cleaning system of under screen has brushes moving forward and back, so there is no risk for the screen to be blocked. Right hand side section of the machine carries has the same working principle of the left side. Machine has two outputs. The product feeds into left and right side of the machine.



1- First part of the machine is for pre-cleaning; scalping (clean the large and small impurities from the product.)

2- Second part of the machine is for fine cleaning; air screening up to Ave times in single process (to clean the light impurities from the product] at the same time screening, alternatively grading.

3- Last sieve boat of the machine is for grading or scalping above screen grade 2 and below screen size 3.

Left side of the machine carries out the same functions as per above if screens are same. Above description can differ according to product and purpose. A multi tasking cleaner with grading units. Ideal machine for all types of grains, seed and dry legumes pre+fine cleaning.

Capacity Chart	
Product	In put Capacity
Soya Beans	8-10 tn/hr
Chickpeas	6-10 tn/hr
Beans	6-10 tn/hr
Kidney Beans	6-10 tn/hr
Vetches	8-10 tn/hr
Sesame Seed	5-6 tn/hr
Lentils	6-10 tn/hr
Wheat	8-10 tn/hr
Rice	8-10 tn/hr
Sunflower	2-4 tn/hr
Cumin Seeds	1.6-2 tn/hr
and many more	

Technical Data									
Dimensions (mm)		Engine No (Piece)	Total Motor Power (kW)	Standard Volt (Volt)	Optional Volt (Volt)	Weight (Kg)	Brush No (Piece)	Screen Area (m <sup>2</sup> )	Vibration Type
Machine+Elev. Length	5850+500								
Machine+Elev. Length	2000+105								
Machine+Elev. Length	3200+2050	7	13	380	220-440	2600	30	2x8=16	Eccentric





## AKYUREKEXCELL 80

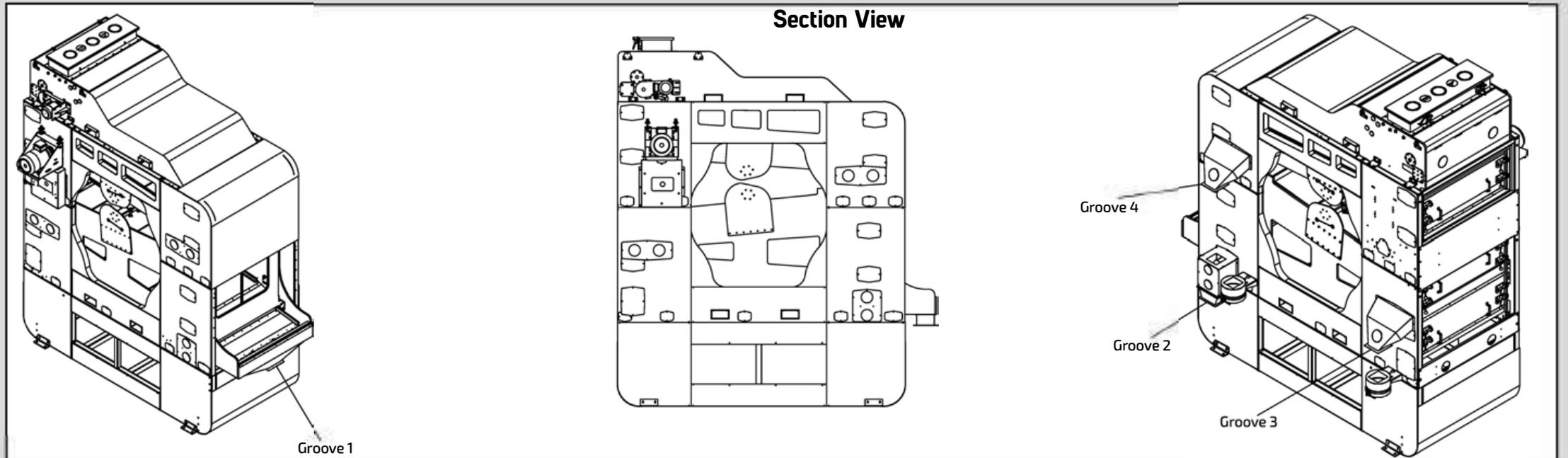
### Function:

Akyurek Technology Excel 80 is designed and produced specially for peanut kernel grading. It enables to grade the product to four sizes. In its standard, it is a fixed closed machine. It is a very sensitive machine, developed to suite the customers' needs in grading peanut kernels.

### Work Principle:

The product is fed to the inlet for optimal feed over the width of the machine. There is an adjustable feed gate which will be adjusted when the opening needs to be bigger due to the difficult floating.

Technical Data			
Akyurekexcel 80 Technical Specification			
Weight	3500 Kg		
Size	3680	4180	1
Screen Area	18 m <sup>2</sup>		
Screen No	6		
Screen Size	2400	1250	
Eccentric	3		
Product Distributor	0,75		
Sound Level	72 Decibel Maximum		
Air Volume	m <sup>3</sup>		





## JOG SCREEN CLEANER 380 SS-US1

### Function:

380 Seed Screener designed for easy seed screen cleaning tasks where space is limited. Machine features allows operator to have acceptable results.

380 Seed Screener available in two models:

380 SS-US1 - 380 Seed Screener with 1 level of screens (undersize separation)

30cm width and 380cm length screen area

380 SS-OSUS2 - 380 Seed Screener with 2 levels of screens (oversize and undersize Separation)

2x 30cm width and 380cm length screen area.

### Working Principle:

The product is fed to the machine by means of supplied conveyor equipment or hopper, and then moved to the front part of the sieve basket where the grain distribution device spreads the grain across the whole sieve width.

The reciprocating movement caused by the eccentric motors, moves the seed forward across the screen surface and at the same time effectively directs the grain into a vertical position to pass through the perforated screens.

The Akyurek 380 Screener has been designed to ensure that the seed moves more slowly down the sieve towards the outlet/tail end than at the inlet/head end.

This results in over tailing stock lingering on the sieve, improving stock distribution and increasing sieve capacity.

With Model 380 SS-US1- 380 Seed Screener with 1 level of screens (undersize separation)

On the single sieve deck, impurities smaller than cereal grain are separated and moved out of the machine.

With 380 SS-OSUS2- 380 Seed Screener with 2 levels of screens (oversize and undersize separation).

On the double sieve deck, impurities larger than cereal grain are separated and moved out of the machine on the top screen.

The troughs from the first sieve deck move to the second sieve deck where impurities smaller than cereal grain are separated again. These impurities are collected in the bottom of the sieve basket from where they are discharged. Acceptable seeds move forward from the end of the screener.

Technical Data				
JOGGING SCREEN				
Weight	Kg	400		
Diameters	LxWxH (mm)	3800	885	840
Number of Screens		2		
Screen Diameters	W x L (mm)	350	3400	
Eccentric Motor	kW, RPM, Pieces	0.75	900	1



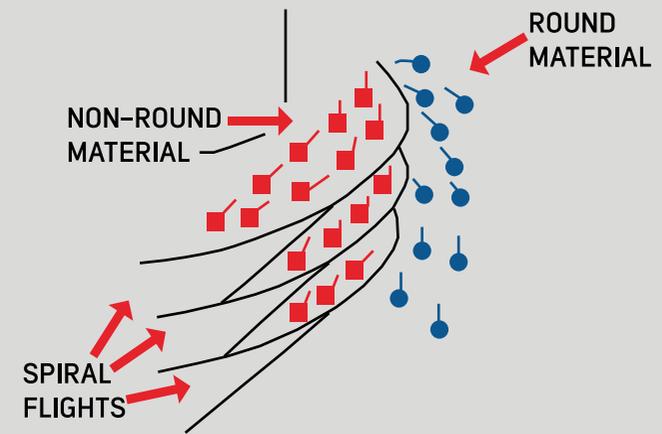
### SPIRAL SEPARATOR SFN

Spiral separators operate on gravity only – product is loaded in the hopper, or direct feed tube on a single spiral.

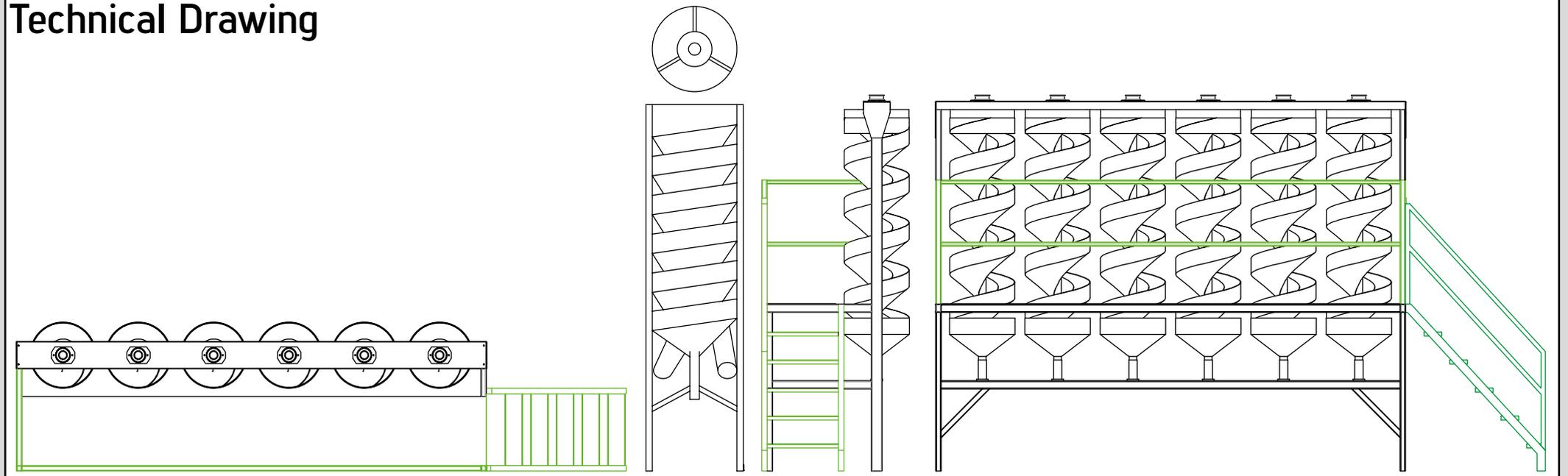
The material flows over an adjustable cone and divides the material evenly onto the inner flights.

With increasing speed, the round material will separate and roll off the inner flights onto a larger outer flight and then exits a side discharge chute at the bottom.

The non-round material on the inner flights will exit a center discharge chute at the bottom.



### Technical Drawing





## DE-STONER PRESURE TYPE T.MAC-009

Akyurek Technology De-stoners are known for their remarkably fast and thorough separation of heavy foreign material removal. Right now they are working throughout the world on spices, chemicals, coffee, peanuts, cereals, beans, wheat, minerals and numerous other products.

The De-stoner operates on the basic principle of flowing dry granular material over a vibrating screen covered deck that is inclined. The Akyurek Technology De-stoners have the same basic function as a gravity separator with the only difference being the De-stoner has two fractions - light & heavy, and the gravity separator has multiple fractions.

### Application

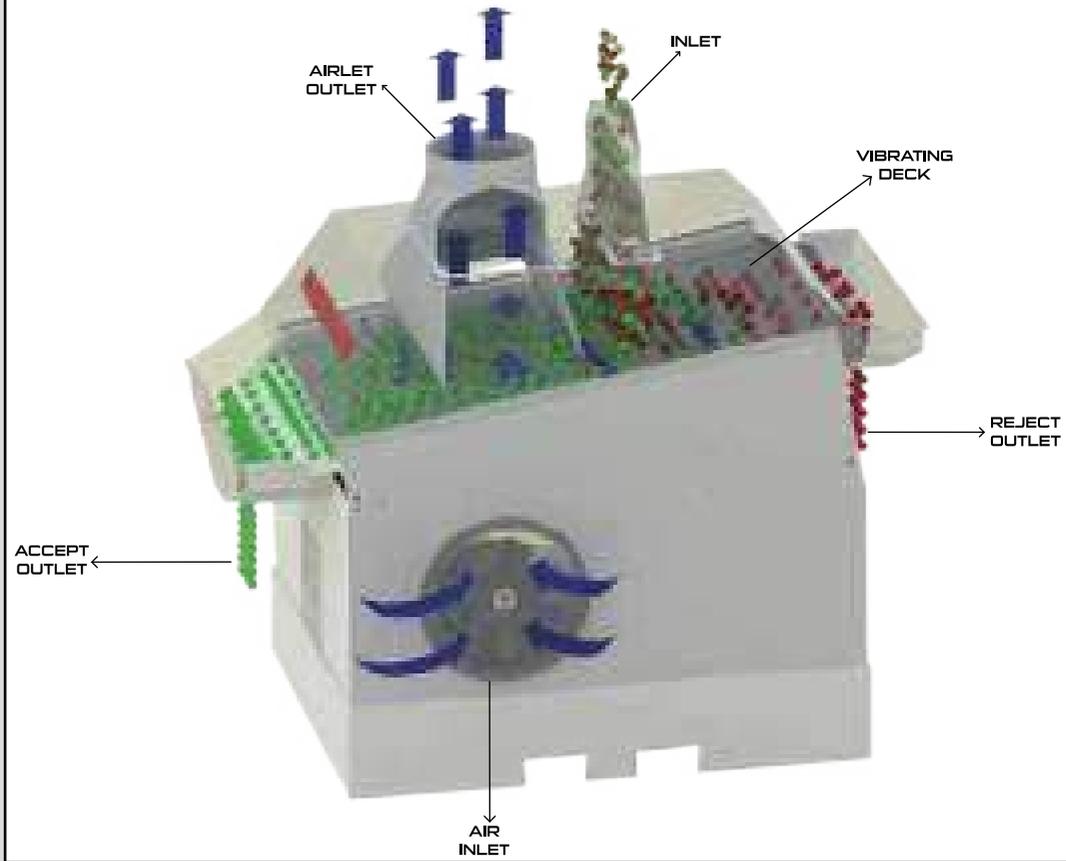
De-stoners are placed in many different locations in a cleaning system, both before and after cleaners and gravity separators. De-stoning is not only used as a means of eliminating contaminants to improve the purity of the product, but is also essential to remove stones to eliminate excessive wear on all types of grinding mills, flaking machines, etc.

### Operation Mode

The basic principle involves flowing dry material over an inclined, vibrating, screen covered deck. The steady air flow holds the material in stratified flotation. The lighter material stays in the upper strata as it flows down the inclined vibrating deck with screens. The heavier material, such as stones, coarse sand, glass, metal, etc. travels up the inclined vibrating deck.

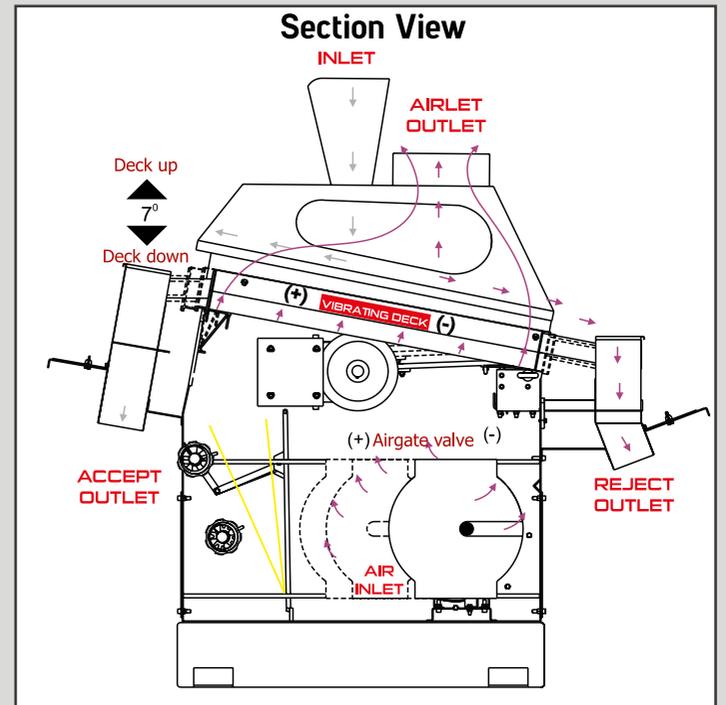
MOTORS	ADJUSTABLE PARAMETERS	TYPES		
		Mechanic TYPE	Semi Auto TYPE	PLC TYPE
Linear Vibrotary Feeder	Linear Feeding on Deck	Digital Potantimeter with Freq. Cont.	Digital Potantimeter with Freq. Cont.	PLC T/S PANEL with Frequenc Controller
Eccentric for Deck	Deck Speed	Fix Speed Eccentric - On and Off*	Fix Speed Eccentric - On and Off*	PLC T/S PANEL with Frequenc Controller
Air Pressure Fan	Air Pressure	Manually Cont. Valves of Air inlet Gate*	Digital Potantimeter with Freq. Cont.	PLC T/S PANEL with Frequenc Controller
Aspirator-Suction	Exhaust Suction	Manually Cont. Shutter from Aspirator	Manually Cont. Shutter from Aspirator	Manually Controlled Shutter for Air Suction
	Deck Rise and Low	Manual Controlled Jack Lift*	Manual Controlled Jack Lift*	MOTORISED PLC T/S PANEL
* Optionally: Frequency Controller can be used. Abriviations: T/S-Touch Screen Freq. Cont. - Frequency Controller				SETTINGS MEMORY SYSTEM for Re-Call
				CLEVER PERIODIC DISCHARGE SYSTEM

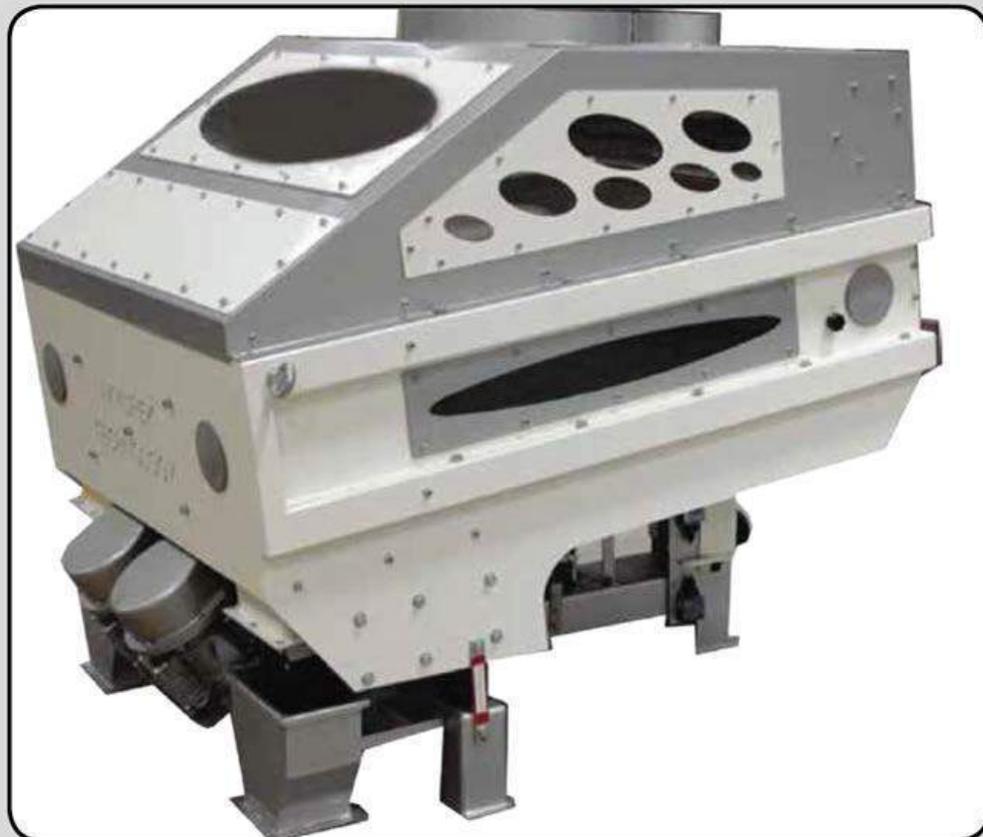
## DE-STONER - Pressure Type



CAPACITY CHART				
Product	m <sup>3</sup> /Kg	MEDIUM MODEL	LARGE MODEL	XLARGE MODEL
Soy Beans	700	3-5	5-7	7-9
Chickpeas	740	3-5	5-7	8-10
Beans	750	3-5	5-7	8-10
Kidney	760	3-5	5-7	8-10
Vetch	700	3-5	5-7	8-10
Lentil	800	3-5	5-7	8-10
Wheat	760	3-5	5-7	8-10
Rice	750	3-5	5-7	8-10
Sunflower	350	1-2	2-3	3-5
Cumin	300	1,5-2	2-3	3-5
Sesame	600	2-3	3-4	4-6
Peas	700	3-5	5-7	8-10
Bird Seed	700	3-5	5-7	8-10
Cotton Seed	400	1,5-2	2-3	3-5
Linen Seed	700	3-5	5-7	8-10

Please note that input and output that can be obtained interdependent and also depend on the input contamination. The throughput capacities shown are also dependent on the input contamination and the required quality of output. Also another capacity element is if cleaner machine working alone or integrated to a cleaning plant.





## VIBRO TYPE T.MAC-009

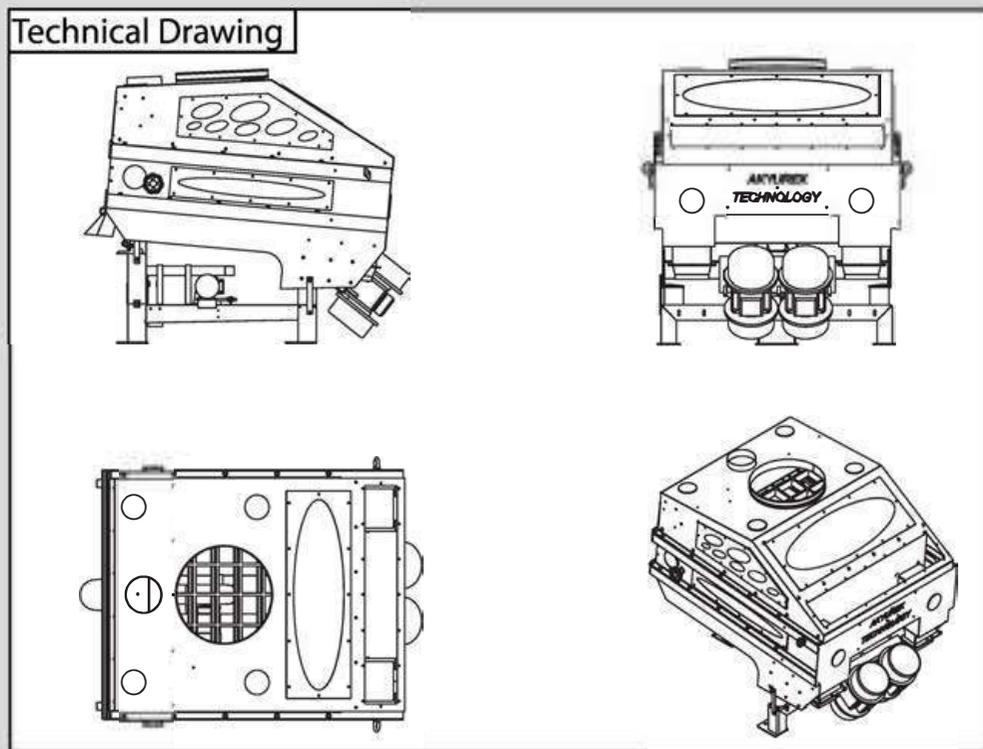
### Function

De-Stoner machine is for efficient separation of stones and metal, glass, and other high-density (heavier) admixtures from seed lot. Pre and fine screen cleaned seed as well graded seed (in sizes) would still contain same size admixtures and impurities. Admixtures that are heavier than seed lot can be separated via de-stoner machine.

### Work Principle

For uniformed separation, seed lot feed into the pre-storage hopper via conveyor. Linear feeding of seed lot onto the stone separator plays a crucial role. A fluidized air bed generated on the stone separator deck via aspiration fan for stratification, vibration system conveys stones and heavy admixtures on opposite direction to reject chute whilst acceptable seed lot leaves the machine on opposite direction from acceptable chute.

### Technical Drawing

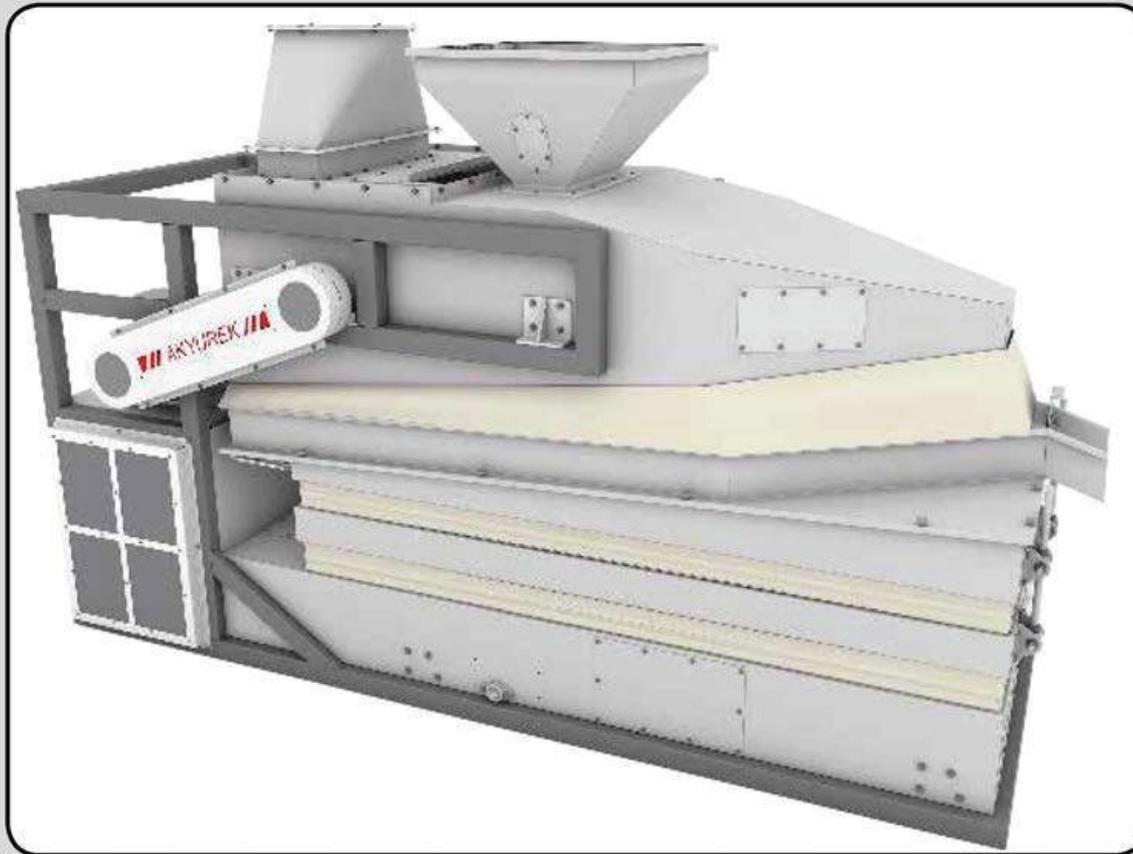


### Technical Specifications

Main Machine Weight	Kg	600		
Machine Size	xyx(mm)	4700	2740	2500
Machine Screening Area	m <sup>2</sup>	3		
The Num. Of Screens Machine		2		
Machine Screen Size	mm-xz	1210	1278	
Screen Cleaning		Rubbel Ball		
Machnine Aspirator Motor For Heavy Prodcuts	kW, RPM, Unit	11 kW	2800	1
Machnine Aspirator Motor For Light Prodcuts	kW, RPM, Unit	7 kW	2800	1
Machine Table Setting Motor	kW, RPM, Unit	0,14	14	1
Machine Vibro Motor	kW, RPM, Unit	0,32	1000	2
Seed Inlet Settings		Manual or Actuator with PLC Model		
Noise Level		72 - 82	Maximum Decibel	
Aspirator Air Volume		Empty	17000 - 1000 m <sup>3</sup>	
Machine Color		Acrylic Gray - Acrylic White		
Standard Voltage	Volt	380	Total Power	12-16 kw
Machine Manufacture Material	st 44		Birch Wood	

### Capacity Chart

Wheat (760 kg Cubic Meter)	10 ton
Sesame (600 kg Cubic Meter)	8 ton
Sunflower Seed (350 kg Cubic Meter)	5,3 ton



## PEANUT DENSITY SEPARATOR PDS-12X25

**Akyurek Technology Peanut Density Separator has a wide variety of application area**

- Stone separation from ground peanut (any admixture that is heavier than ground peanut, stones, glass, metals, dirt balls etc).
- Empty or half empty ground peanut
- Separation from prime ground peanut
- Un-hulled peanut separation from hulled peanut
- Simple operation
- Stainless steel contacts available
- Fully enclosed dust hood
- High efficiency fluidization provided by a single fan
- Counterbalanced eccentric
- Uniform feeding for optimum separation
- Unshelled & shelled peanut separator / KFSPR - 2000 - 13 - v1
- This machine provides separation of empty and half-empty products from the natural product.

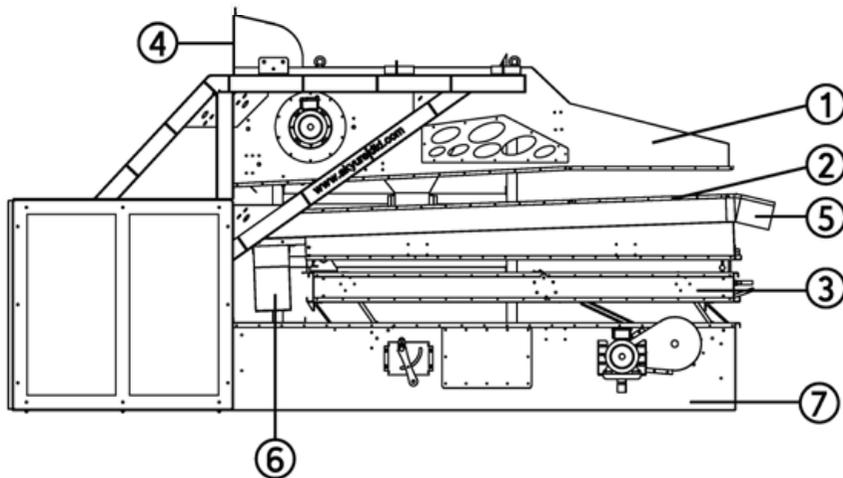
**Working Principle:** Peanut is conveyed to the hopper by an elevator which feeds the machine. Pre-storage hopper feeds seed on to the screen of the machine continuously,

Air pressure for the stratifying zone on the screen of the density separator supplied by an internal fan. Eccentric movement of the machine and provided bed of air starts the separation task of the light and heavy particles.

Light items/admixtures or impurities leaves from the side chute and heavy items/seeds/kernels leaves from the front chute.

Air exhaust is done form the top of the machine.

Technical Drawing



- ① Air Chamber
- ② Special Sieve
- ③ Vehicle Chassis
- ④ Natural Products Input
- ⑤ Accept Product Input
- ⑥ Empty-Half Empty Product Output
- ⑦ Carrier Chassis

Technical Specs		Unshelled Peanut Separator
		AKYUREK PDS - 12X25
Machine Weight	Kg	1950
Machine Size	xyz(mm)	4400x2300x1900
Screen Area	m <sup>2</sup>	2.5
Capacity of the Machine	Kg	750
Screen and Air Adjustment		Mechanic
Machine Noise Level		85 Desibel Maximum
Air Volume of the Machine Aspirator		Without load 21000 m <sup>3</sup> /h
		18,5 kw



## INDENT CYLINDER SEPARATOR ICS 1000-1600

### Function And Application

Pocket cylinder is used for separating all grain substances (wheat, oat, thin seeds lentil, beet seeds, sunflower seed) from unwanted short products and wastes depending on their lengths. These grains may be between 1,0-24 mm. Product passes through the inlet and arrives to internal rotation cylinder and then notches called as active pockets within the container. Grains are carried through after entering into pockets and fall onto the internal container notches after being carried to a certain distance (yellow arrow) They are discharged with other shell wastes. Accordingly, products are separated and graded in accordance with their length and roundness.

### Serial Production

Akyurek Kardesler performs serial production for its machines and ensures short term delivery guarantee. Machines are subjected to quality control test prior to delivery. Therefore, high quality standards and long operation life are guaranteed.

### Cylinder Wall

Cylinder wall is the most important part of the grader. Quality of separation and amount of waste materials depend on manufacturing of the cylinder. Therefore, due diligence is given to workmanship and material utilisation during manufacturing.

### Cylinder Slope

Adjustable slope assembly (0-3 degrees) or fixed slope assembly may be attached by us upon request.

### Types Of Pockets

We provide round and drop shaped pockets based on functions depending on the types of separator. This difference enables us to optimize the grain quality and minimize the waste.

### Controlling The Separation

Our separator is designed with two large control windows at exit direction. That enables the user to control correct separation instantly during process without any accident risks. It also enables the user to take samples from control ranges at any time without having any danger risks.

### Pocket Per Cm<sup>2</sup>

Akyurek Kardesler is one of the rare companies self manufacturing cylinder parts as a grain separator cylinder manufacturer. That makes us independent from external manufacturers and ensures us to fulfill special requirements of pockets that may be created per cm<sup>2</sup>. Therefore, we reach to a higher classification separation speed and a better separation quality than other manufacturer companies.

### Coating For Resistance

Additional coating may be applied for providing resistance in order to protect the machine during processing highly corrosive products.

### Adjustable Speed

Mechanic or electronic adjustable speed control devices may be supplied upon request.

### Automatic Container Setting

Adjustment engine may be added to container arrangement system upon request.

### Hardened Parts

We may produce hardened parts upon request. Their lives are longer as well as they are used for products with highly corroding products.

### Replacement Of Cylinder Parts

The machines is designed with clamps ensuring rapid fixation and removal by dividing the cylinder container into many pieces for replacing the product being processed and keeping cleaning costs at the minimum level possible.

### Container Insulation

Insulation assembly is available between tub and cylinder in all separator types. This insulation between cylinder and container prevents penetration of unwanted pieces into container and maintains more effective and specialized grain separation.

### Drivers

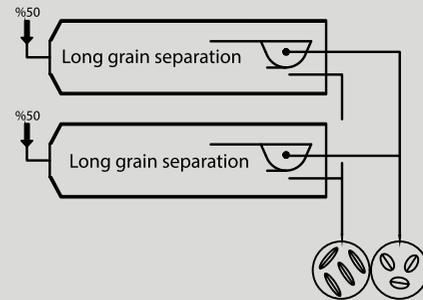
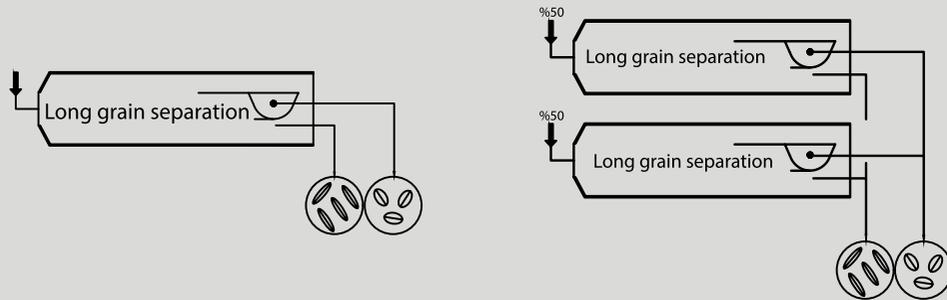
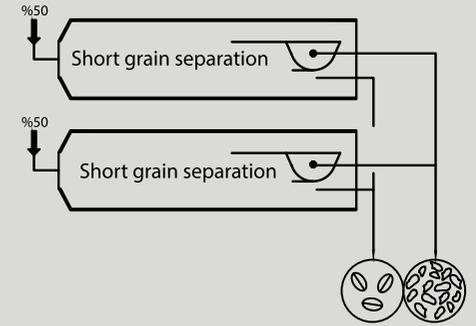
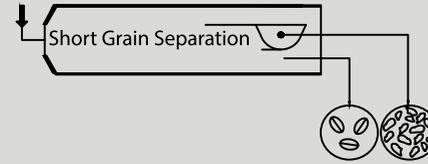
Chain, belt or gear pulley drivers are used in our separators for guaranteeing smooth and effective operation. Error and failure risks are reduced and possible operation costs and material failures are minimized. Gear engines used by us are manufactured by one of the leading gear engine manufacturers of the world with wide service network. Therefore, very rapid movement and problem solving can be possible in case of a failure regardless the place in the world.

### Design

Separators are designed as horizontal cylinder with fully enclosed tub container. This design enables functioning of cylinder parts. When the protection cap is opened, machine is automatically stopped with the safety switch.

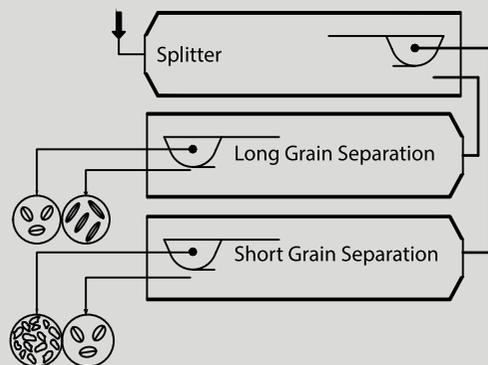
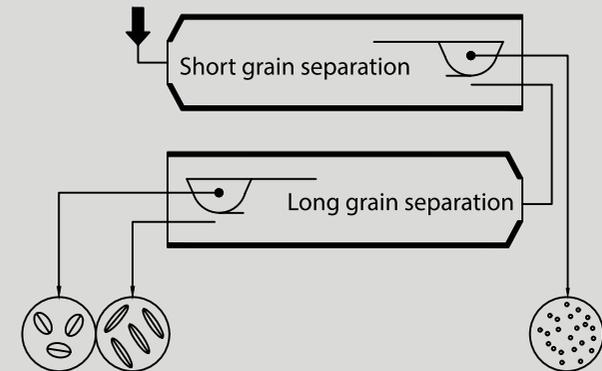
➔ Seed Separators ➔ Screen Cleaners ➔ Length Separator ➔ Mega Trieur

TECHNICAL DATA	Type IC SHORT SEPARATOR									
	ICSS1010	ICSS2010	ICSS3010	ICSS4010	ICSS5010	ICSS6010	ICSS8010	ICSS10010	ICSS12010	ICSS16010
<b>Capacity</b> t/h										
Wheat	1,0	2,0	3,0	4,0	5,0	6,0	8,0	10,0	12,0	16,0
Barley	0,8	1,6	2,4	3,2	4,0	4,8	6,4	8,0	9,6	12,8
Rice (white)	0,4	0,8	1,2	1,6	2,0	2,4	3,2	4,0	4,8	6,4
<b>Motor (standard)</b> kW	0,37	0,55	1,1	1,1	1,1	1,1	3,0	3,0	3,0	4,0
<b>Air requirement</b> m³/min	6	7	9	9	9	9	12	12	12	12
<b>Cylinder dim.</b> mm										
Ø	400	400	600	600	600	600	900	900	900	900
Length	1000	2000	1500	2000	2500	3000	2000	2500	3000	4000
<b>Dimensions</b> mm										
Length	1760	2840	2545	3045	3545	4045	3320	3820	4325	5325
Width	640	640	860	860	860	860	1202	1202	1202	1202
Height	620	620	870	870	870	870	1240	1240	1240	1240
<b>Net Weight</b> kg	270	370	510	582	620	750	990	1120	1245	1315



TECHNICAL DATA	Type IC LONG SEPARATOR									
	ICLS1010	ICLS2010	ICLS3010	ICLS4010	ICLS5010	ICLS6010	ICLS8010	ICLS10010	ICLS12010	ICLS16010
<b>Capacity</b> t/h										
Wheat	1,0	2,0	3,0	4,0	5,0	6,0	8,0	10,0	12,0	16,0
Barley	0,8	1,6	2,4	3,2	4,0	4,8	6,4	8,0	9,6	12,8
Rice (white)	0,4	0,8	1,2	1,6	2,0	2,4	3,2	4,0	4,8	6,4
<b>Motor (standard)</b> kW	0,37	0,55	1,1	1,1	1,1	1,1	3,0	3,0	3,0	4,0
<b>Air requirement</b> m³/min	6	7	9	9	9	9	12	12	12	12
<b>Cylinder dim.</b> mm										
Ø	400	400	600	600	600	600	900	900	900	900
Length	1000	2000	1500	2000	2500	3000	2000	2500	3000	4000
<b>Dimensions</b> mm										
Length	1760	2840	2545	3045	3545	4045	3320	3820	4325	5325
Width	640	640	860	860	860	860	1202	1202	1202	1202
Height	620	620	870	870	870	870	1240	1240	1240	1240
<b>Net Weight</b> kg	270	370	510	582	620	750	990	1120	1245	1315

TECHNICAL DATA	Type IC SHORT & LONG SEPARATOR									
	ICSL1020	ICSL2020	ICSL3020	ICSL4020	ICSL5020	ICSL6020	ICSL8020	ICSL10020	ICSL12020	ICSL16020
<b>Capacity</b> t/h										
Wheat	1,0	2,0	3,0	4,0	5,0	6,0	8,0	10,0	12,0	16,0
Barley	0,8	1,6	2,4	3,2	4,0	4,8	6,4	8,0	9,6	12,8
Rice (white)	0,4	0,8	1,2	1,6	2,0	2,4	3,2	4,0	4,8	6,4
<b>Motor (standard)</b> kW	2x0,37	2x0,55	2x1,1	2x1,1	2x1,1	2x1,1	2x3,0	2x3,0	2x3,0	2x4,0
<b>Air requirement</b> m³/min	6	7	9	9	9	9	12	12	12	12
<b>Cylinder dim.</b> mm										
Ø	400	400	600	600	600	600	900	900	900	900
Length	1000	2000	1500	2000	2500	3000	2000	2500	3000	4000
<b>Dimensions</b> mm										
Length	2107	3145	2905	3405	3905	4445	3765	4265	4765	5775
Width	640	640	860	860	860	860	1202	1202	1202	1205
Height	1240	1240	1740	1740	1740	1740	2480	2480	2480	2480
<b>Net Weight</b> kg	540	740	1020	1170	1240	1500	1980	2240	2490	2630



TECNICAL DATA	Type IC SPLITTER & SHORT & LONG SEPARATOR									
	1030	2030	3030	4030	5030	6030	8030	10030	12030	16030
<b>Motor (standard)</b> kW	3x0,25	3x0,55	3x1,1	3x1,1	3x1,1	3x1,1	3x3,0	3x3,0	3x3,0	3x4,0
<b>Air Requirement</b> m³/min	12	14	18	18	18	18	24	24	24	24
<b>Cylinder dim.</b> mm										
Ø	400	400	600	600	600	600	900	900	900	900
Length	1000	2000	1500	2000	2500	3000	2000	2500	3000	4000
<b>Dimensions</b> mm										
Length	2107	3145	2905	3405	3905	4405	3765	4765	4765	5775
Width	640	640	860	860	860	860	1202	1202	1202	1205
Height	1860	1860	2610	2610	2610	2610	3720	3720	3720	3715
<b>Net Weight</b> kg	810	1110	1530	1760	1860	2250	2970	3360	3735	3540



## GRAVITY SEPARATOR G.MAC-010

Akyurek Technology G.MAC-010 Gravity Separator – machines for the perfect separation of products with a different weight, grading by specific weight of product with very slight difference in size and weight, which cannot be separated by screening (width) or by indented cylinders (length).

### APPLICATIONS

- Seed processing of grain, cereals, corn, fine seed, legumes, cotton seeds, oil seeds, paddy
- Food processing separation of impurities in vegetables, lentils, peas, chick peas, beans, coffee, peanuts, hazelnuts, almonds, etc.
- Separation of metals, plastic, rubber, wood, minerals.
- Sorting of tree seeds, pulses, grasses, herbs.

### WORK PRINCIPLE

The separator works on a fluidised bed principle: air is forced through the deck causing the light fraction to float above the heavy fraction. The deck is reciprocated causing the heavy fraction to move uphill, while the light fraction floats downhill. Variations in deck speed, air volume, deck material, deck angle (lengthwise and sidewise), and take-off points allow effective separation to be achieved on almost any dry product. The re-sort conveyor belt which is located below the gravity separator's platform conveys the middling seeds to the feeder elevator so the seeds that are not certain of their quality are re-separated thus allowing the operator to control the output quality in finer results.

Technical Data	G.MAC-010 LAB	G.MAC-010 MEDIUM	G.MAC-010 LARGE	G.MAC-010 XLAR.	G.MAC-010 XXLAR.
<b>CAPACITY</b>					
CORN, WEAT, SOJABEANS	1 t/h	2 to 4 t/h	4 to 6 t/h	6 to 8 t/h	8 to 12,5 t/h
PEAS	750 kg	1,5 to 2 t/h	3,5 to 5 t/h	5 to 7,5 t/h	7,5 to 10 t/h
CLOVER, PAPE SEED	350 kg	0,8 to 1,25 t/h	1,5 to 2,50 t/h	2,5 to 3 t/h	3,5 to 4,5 t/h
COFFEE GREEN	1,3 kg	3 t/h	6,5 t/h	10 t/h	15 t/h
<b>FAN DRIVE</b>	1 unit 3KW	3 unit. 4KW	3 unit 5.5 KW	4 unit 5.5 KW	4 unit 5.5 KW
<b>ECCENTRIC DRIVE MOTOR</b>	1,5 KW	1,5 KW	1,5 KW	2,2 KW	3 KW
<b>TABLE AREA</b>	1,2 m <sup>2</sup>	1,9 m <sup>2</sup>	3,6 m <sup>2</sup>	4,6 m <sup>2</sup>	7,2 m <sup>2</sup>
<b>AIR REQUIREMENT</b> <small>m<sup>3</sup>/min</small>	35	150	250	450	600
<b>DIMENSIONS</b>					
LENGTH	1740 mm	3000 mm	3000 mm	3330 mm	3330 mm
WIDTH	1640 mm	4100 mm	4100 mm	4995 mm	4995 mm
HEIGHT	1400 mm	3900 mm	3900 mm	3390 mm	3390 mm
<b>NET WEIGHT</b>	1500 kg	1500 kg	2000 kg	2500 kg	3500 kg

# ASSEMBLY VARIATIONS

- ① Elevator
- ② Intake pre-storage hopper
- ③ Linear Feeder
- ④ Cascade
- ⑤ Gravity Separator
- ⑥ Platform
- ⑦ Re-sort Conveyor Belt
- ⑧ Partial Dust Hood
- ⑧a Full Dust Hood
- ⑨ Centrifugal Aspirator
- ⑩ Cyclone



**LABORATORY MODEL**  
1,2 m<sup>2</sup>



**MEDIUM MODEL**  
1,9 m<sup>2</sup>



**LARGE MODEL**  
3,6 m<sup>2</sup>



**XLARGE MODEL**  
5 m<sup>2</sup>



**XXLARGE MODEL**  
7,2 m<sup>2</sup>



## SORTURK COLOR SORTER – FREE FLOW TYPE

**Ultimate:** high resolution TRICHROMATIC FULL COLOR RGB sorter with integrated shape-sizing system.

**Technological:** image acquisition using HSI technology to see almost as a human eye. Additional NIR cameras available (option)

**Precise:** SORTURK 'NEW GENERATION' software can recognize up to 16 families of defects. Optical resolution 0.1mm

**Max Capacity:** highest production capacity RGB trichromatic sorter with 1 to 10 chutes models

**Flexible:** Multichannel models divisible in 4 complete independent sections (4 sorters in 1)

**Reliable:** thanks to over 40 years' experience in electronic sorting

**Unique:** with airtight, conditioned and tilting optical boxes for their easy opening

### COLOR VISUAL PERCEPTION

SORTURK represents the most innovative and flexible sorting solution based on long term technical experience and a strong concept.

SORTURK optical sorter is equipped with **high-resolution full-color RGB trichromatic cameras** that, combined with HSI software system, **allow a near human eye vision to precisely sort almost any small shade differences.**

SORTURK software setting can count on the **16 families of defects** adjustment, as well as the combination of said 16 groups.

The **SORTURK shape-sizing** function integrated into the system, allows sorting of elements according to their geometric characteristics.

**Unique with 10 feeding chutes:** SORTURK is available from 1 to 7 chutes, to fulfill every production requirement. Program settings and adjustments are performed through a user-friendly software, which allows the real image setting directly on the sorter touch-screen, to establish the defective elements to sort out.

The hardware system is organized with easily replaceable electronic boards, using the ultimate **SMD** and **FBGA** technologies. Self-control functions (auto-diagnostics and auto-calibration) ensure an excellent operational stability.

SORTURK can be divided up to **four independent sections**, to be used depending on customer's sorting needs (rejects double pass, reverse sorting, etc.).

LED lighting and back-ground systems, exclusively designed for SEA sorters, allow the most precise focusing of the beam on the inspection line.

Highest efficiency granted thanks to optical system composed of:

- 14 RGB – Full color cameras with 4096 pixel grating 0,1mm optical resolution and dimensional control of the defects
- Shape-sizing integrated into the system
- Innovative hardware
- LED lighting system and reference background

**Control:** the management software allows the use of specific functions such as the **self-setting, self-control, self-calibration** and **memorization of specific working programs.** The provision and launch of a new working program automatically occurs by choosing the desired program

Technical Data								
Machine Model	C1	C2	C3	C4	C5	C6	C7	C10
Voltage ( V / Hz)	230 / 50 - 1 Ph (L + N + PE)							
Power (kW)	1	1,4	1,8	2,2	2,6	3	4,5	5,7
Power Supply (kW)	3	3	3	3	3	3	3	6
Air Pressure (mpa)	0,6 - 0,8							
Machine Air Entry (inç)	1" (inç)							
Air Consumption (lt)	300-1000	600-1500	1000-2000	1500-2400	2000-3000	2500-3600	3000-4500	4600-5500
Weight (Kg)	550	617	748	890	1043	1170	1710	2050
NIR Camera	Optional							
Camera Type	CCD Color							
Number of Blows (Enjector)	63	126	189	252	315	378	441	630
Channel Width (mm)	120 * 30							
Exit File	2 + (Splashing Grain)							

→ Seed Separators

→ Screen Cleaners

→ Color Sorter

→ SORTURK Color Sorter - Free Flow Type



**SORTURK C-1**



**SORTURK C-2**



**SORTURK C-3**



**SORTURK C-4**



**SORTURK C-5**



**SORTURK C-6**



**SORTURK C-7**



**SORTURK C-10**

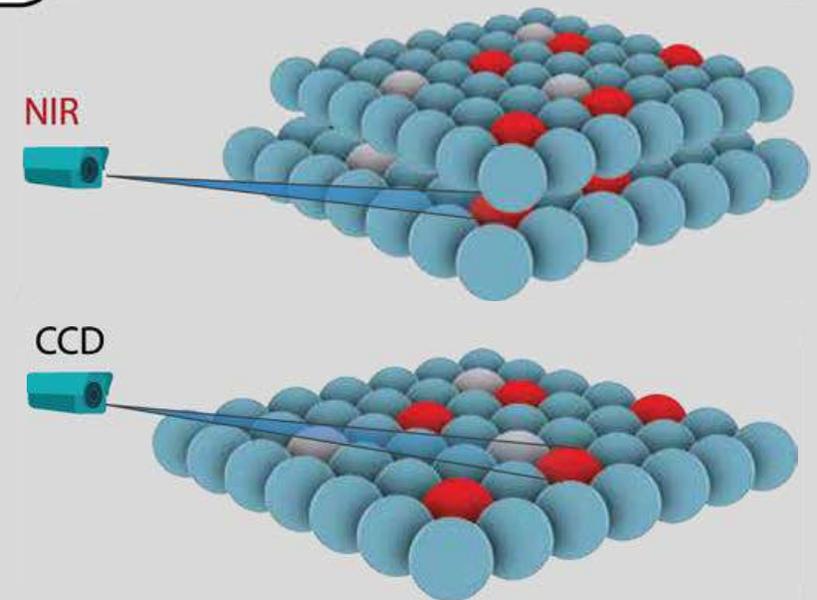


## SORTURK COLOR SORTER – BELT TYPE

SORTURK perfectly suits the needs of modern food and non-food processing systems that demand the optical sorters ability to detect and reject products having a similar color but with different shades. Some typical examples for which the highest sorting accuracy is required are the allergen removal, in particular soy beans out of wheat, or separation of elements containing gluten out of gluten-free cereals (maize, rice, buckwheat). Other evident advantages arising from SORTURK application can be found in mixed-colors pulses processing (kidney beans, lentils, peas, fava beans, etc.), for which the monochromatic, and even bi-chromatic optical sorting technologies are not able to grant the excellent performance assured by SORTURK trichromatic technology. For some special applications, SORTURK can be equipped with additional NIR cameras, to identify through infrared some defects and contaminations, that wouldn't be detectable in the visible light; therefore, the combination with RGB allows to exploit all the four frequencies. SORTURK represents nowadays, the state-of-the-art optical sorting technology which is able to match the increasingly stringent requirements of the food commodities industry, ensuring that safety and purity requirements are met.

### Some advantages:

- Near human eye vision color sorting technology, using 16 million colors, allows the best sorting performances
- SORTURK full-color camera optical system, with dimensional control of the defects, allows 0.1mm optical resolution
- SORTURK image acquisition allows the easy and accurate setting of the defects to remove. Software adjustment is completely automatic thanks to HSI technology
- Shape-sizing integrated into the system
- Most concentrated rejects, thanks to customized hi-tech ejectors
- Highest production capacities, automatically regulated by a feeder control device
- Possibility to have simultaneous product resort, even with reverse sorting
- Possibility to add sloping chutes for sorter upgrading or production increase
- Possibility to install additional cameras operating in NIR even after machine installation at working premises
- Led lighting system
- Automatic cleaning system, with adjustable frequency and duration
- Tilting optical boxes, to allow an easy internal access for maintenance operations
- Airtight optical boxes with controlled temperature
- Designed mechanics grants the highest hygiene and prevents product outflow or accumulation
- Provision with de-dusting suction systems
- 15-inches display with full-color and multilingual touch-screen
- Flexible and user-friendly
- Interactive remote control
- Reduced electric and compressed air consumptions
- CE certification
- Possibility of certification conforming with Atex normative
- Guarantee of a market leading company for 40 years!



Technical Data			
Machine Model	30 HORIZONTAL	60 HORIZONTAL	120 HORIZONTAL
Power (Kw)	1,4 kW	1,8 kW	2,4 kW
Weight (Kg)	660 kg	935 kg	1270 kg
Flow	1000 lt	600/1500 lt	1500/2400 lt



## INSPECTION CONVEYOR BELT S.BELT-011

### Work Principle

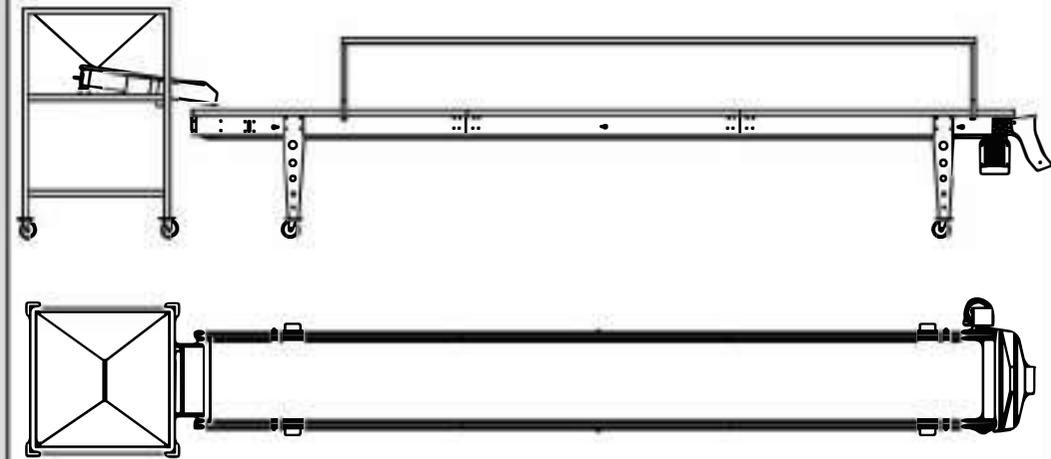
Seed is fed to the pre-storage hopper. For uniform feed, adjust the hopper gate. Seed moves on the conveyor belt and a brush located on top of the belt single layers the seed. Operators that sit on the side of the inspection belt visually detect and hand pick the rejects/impurities whilst the conveyor belt conveys seed in front of them. Visually inspected seeds are conveyed to the end of the belt and discharged from chute to next stage.

### Function

Inspection belt is used for final controls. Some of the cleaned products might still contain some discolored or impurities in them after various stages of cleaning. It is advisable for the businesses, which has no colour sorter machine to use this equipment to colour sort their commodities by operators. It can also be used for final check after colour sorted commodity cleaning.



### Technical Drawing



Technical Data	Model A	Model B	Model C	Model D
Length (m)	4 (m)	6 (m)	8 (m)	10 (m)
Standard Width (cm)	60 (cm)	60 (cm)	60 (cm)	60 (cm)
Opsiyonel Width (cm)	50-100 (cm)	50-100 (cm)	50-100 (cm)	50-100 (cm)
Belt Type	Flat	Flat	Flat	Flat
Motor (kW)	0,75 (kW)	0,75 (kW)	1,1 (kW)	1,5 (kW)
Weight (Kg)	260 (Kg)	360 (Kg)	460 (Kg)	560 (Kg)
Standard Voltage (Volt)	380 (Volt)	380 (Volt)	380 (Volt)	380 (Volt)
Opsiyonel Voltage (Volt)	220-440 (Volt)	220-440 (Volt)	220-440 (Volt)	220-440 (Volt)
Lighting	Standard	Standard	Standard	Standard
Wheel	Standard	Standard	Standard	Standard
Optional Specifications				
Speed Control Device (Invertor)	+	+	+	+
Reject Product Line	+	+	+	+
with Seat	+	+	+	+
Chrome Pre Storage Hopper	+	+	+	+



## AIR RECYCLING ASPIRATOR ARA-100

### Work Principle

The air-recycling aspirator ARA is applied for the separation of low-density particles in an aspiration channel from granular products such as soft wheat, rye, barley, oats, beans, chickpeas, sunflower seeds, sesame seeds, corn (maize).

High degree of separation thanks to excellent separating efficiency.

The air-recycling aspirator ARA is characterized by its excellent separating efficiency, which ensures a high degree of separation:

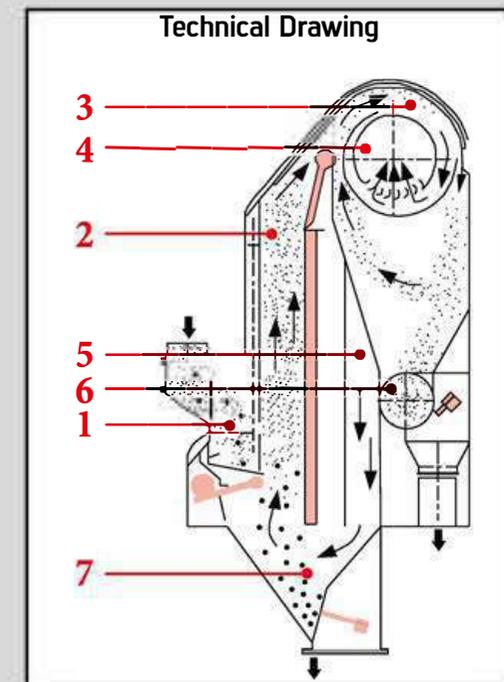
The uniform distribution of the air across the entire width of the aspiration channel and the dually adjustable wall in the vertical aspiration channel ensure stable and reliable separation. The degree of separation can be selected with high precision, preventing unnecessary product loss.

### The advantages of system

The evacuated recyclable exhauster: as the name suggests, the vacuumed air which is created with exhausters recycles within its own internal system to process compressed air. The sucked air, without discarding it, provides an endless cycle of own internal circulation. Meanwhile, all powder foreign weak grains, which are in product, are sucked and precipitated in precipitate hooper.

- \* The system will not throw air outside, so it is used without polluting the environment
- \* The system does not require the cyclone.
- \* Creates a large vacuum power with a small motor power.
- \* It creates at the same time both vacuum effect and compressed air effect.
- \* As it is a closed circuit in the factory, it provides dust-free pre-cleaning

- 1- Product feed with eccentric drive
- 2- Aspiration channel with double adjustable wall
- 3- Integrated separator for low density product
- 4- Radial fan for recycling air
- 5- Air recycling channel
- 6- Screw conveyor with discharge gate for low-density product
- 7- Outlet with finger valves for discharge of heavy product





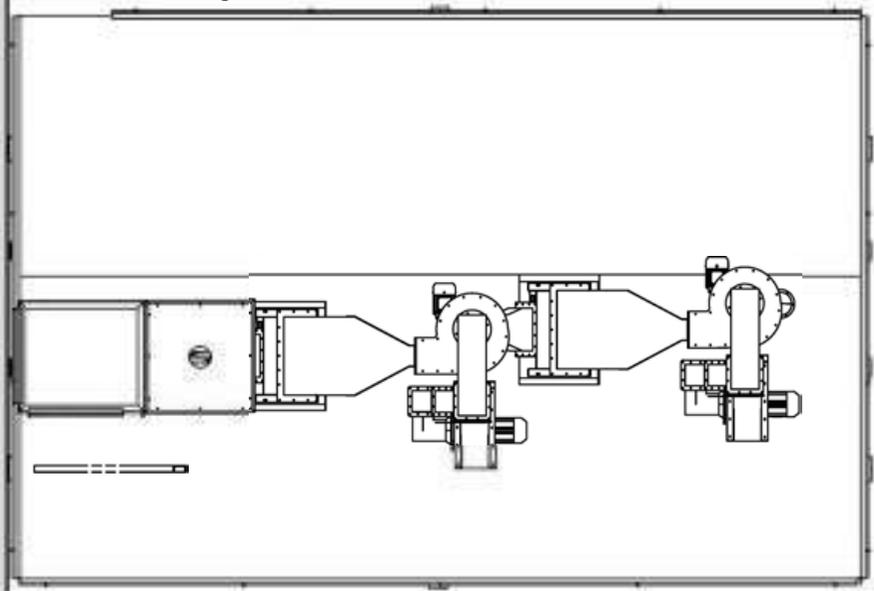
## ZIG ZAG SEPARATORS ZZAS

The feed material is conveyed onto an airproof item to the separator channel. According to the multiple crossflow separating process, light material is separated from heavy material. The air flow required for separation is blown through the separation channel from bottom to top. Light material is carried by the air flow up stream into cyclone and through rotary sack into sack on to the next conveyor. Heavy material cannot be carried by the air flow and falls through the air flow and is discharged through the separator base. The light material transported by the air flow to the cyclone gets separated there and is discharged via rotary gate valve. Zig zag air separator plants are usually operated in recirculation air mode, whereby the cleaned air is returned via blower to the separator base. In case of dusty or moist products the operation of the plant is also possible in partly air circulation or suction mode. The required air flow and pressure is generated by a radial blower.

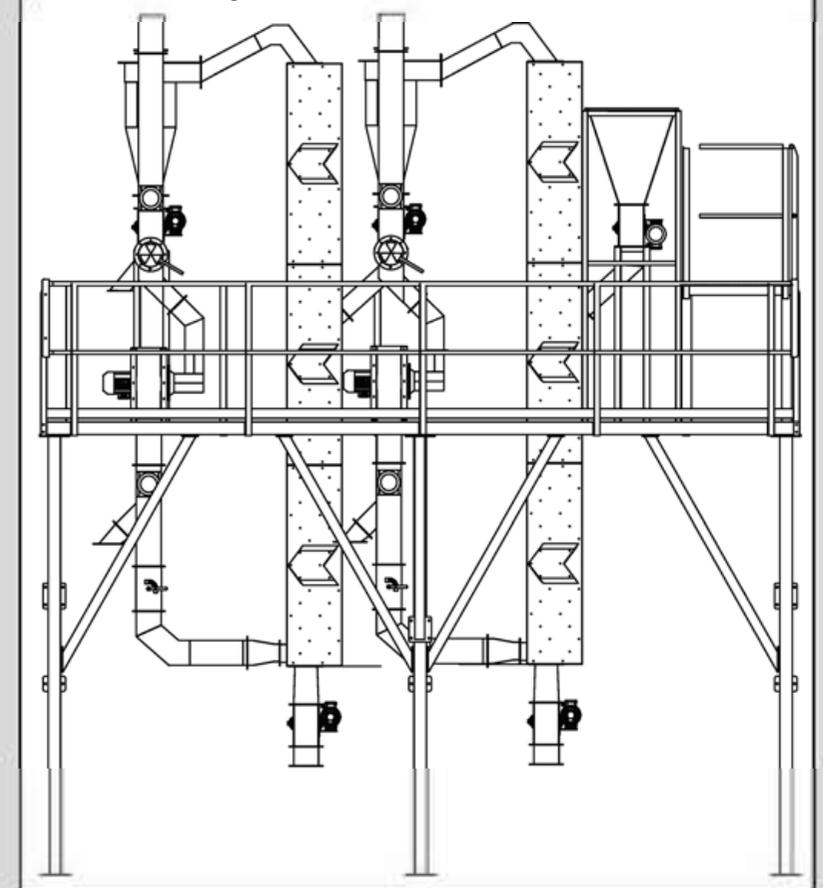
### Application of the Zig Zag air separator:

- Very precise separation due to multi-stage crossflow separation (8 to 15 separation stages).
- Based on a number of separation steps and the consequential impact of the product with product, the deagglomeration and release of product knots is ensured.
- To reach stable operating conditions, we use a special designed ventilator rotor disk.
- Constant product quality is provided via regulation of air flow and control (optional).
- Due to additional cleaning valves in the separator channel the plant can be cleaned easily.
- In the air recirculation mode exists no emission source.
- Long life span due to robust construction and no rotating parts in the separator.
- Sturdy design.

Technical Drawing



Technical Drawing





## DE-AWNER MACHINE K.KRAN

De-awner is used for pre-treatment of various grain types; the purpose of the de-awning operation is to remove awns from barley kernels, loose husks from wheat, and to clip oat kernels.

The clipper/de-awner can be used where heavy de-awning is required but also for products where only a light de-awning is needed.

- Robust and wear-resistant construction
- Adjustable processing intensity the two stage RPM settings and its infinitely adjustable bottom scraper
- Bolted housing made of sheet steel
- Agitator shaft available optionally with rounded or square pin beaters gentle to products
- Drive unit with electric motor
- Optional with exchangeable wear plates for additional friction

### Akyurek Technology De-awners Overview

De-awners were designed primarily to de-beard barley and wheat, but it has since become one the most versatile machines in the entire Akyürek line. Available with direct or variable speed drive.

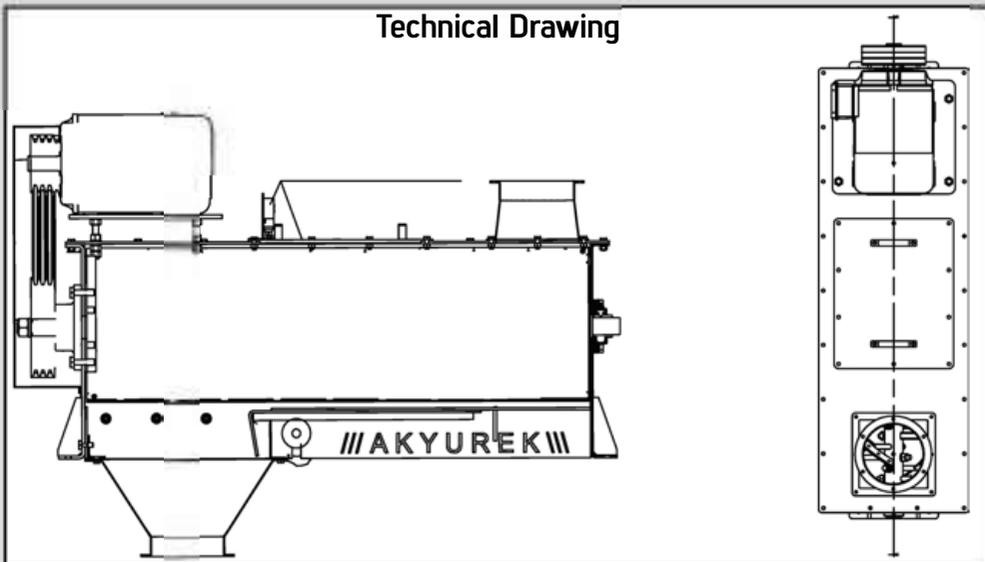
### Ease of Use

De-awner machines are adjustable during operation with little training using controls and gauges.

### Durability

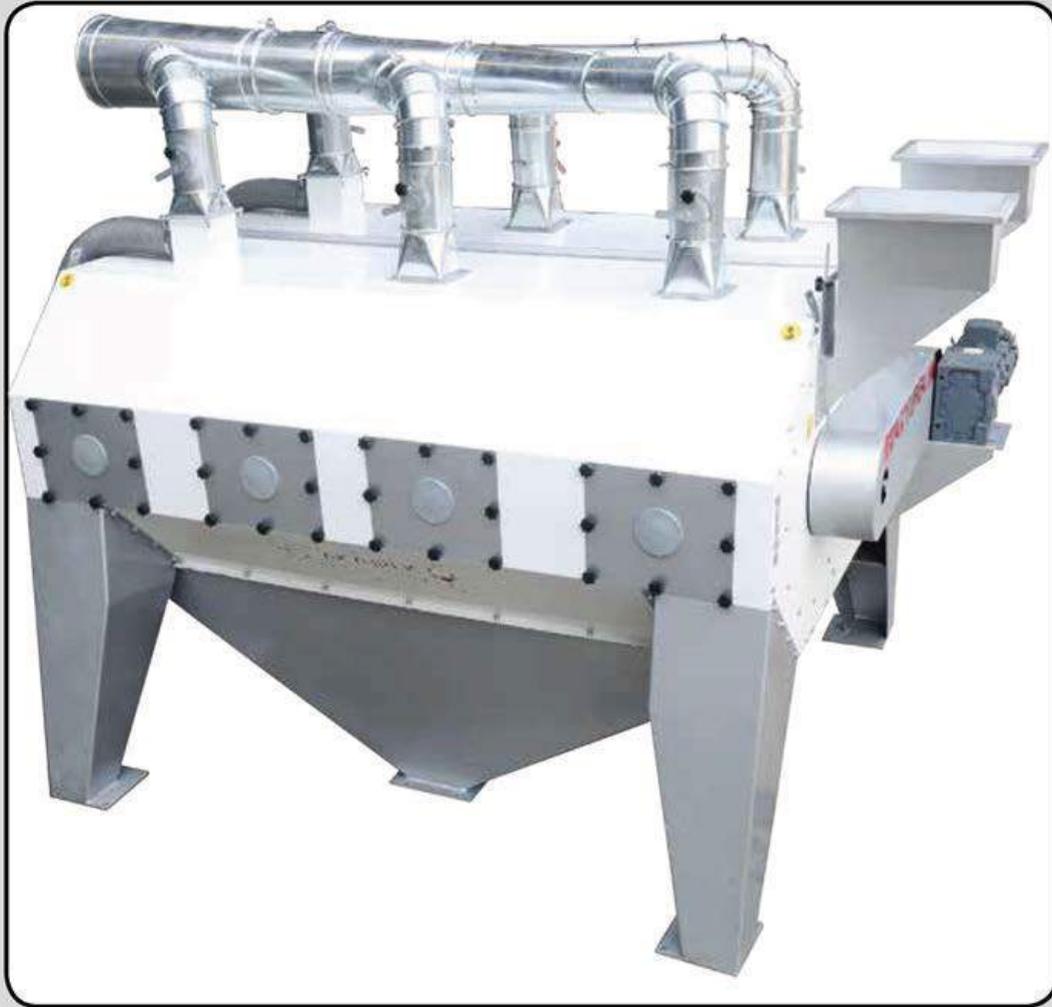
The Akyurek Technology De-awners have been reliable and versatile machines.

Technical Drawing



Technical Data

Technical Data			
FEATURES			
Model	AWN-053	AWN-054	AWN-055
Capacity (Ton)	5-10	10-15	15-20
Weight (Kg)	280	300	420
Parametric Dimensions	1400-1150-490	1600-1150-490	2100-1300-490
Engine Power	4,0	5,5	7,5
Drive System	Belt pulley system		
Energy Consumption	4,0 Kw	5,5 Kw	7,5 Kw
Frequency	50 Hz		
Security	Mechanic Switch		



## BRUSH DE-AWNER MACHINES AKYUREKEXCELL BRUSH

The Akyurek Excell Brush De-awner Machines are suitable for handling grass seeds and clovers, and separating of double grasses as well as removing dust from seed lot. It is likewise employed to remove the hairy tails from germ end of oats. The brush machines are designed in a modular system and available with up to 4 cylinders. The last digit indicates the number of cylinders which may be arranged in series or in parallel (refer to diagram below).

The type Excell 150.1 is manufactured in single execution while type 150.2 comprises two cylinders, etc.

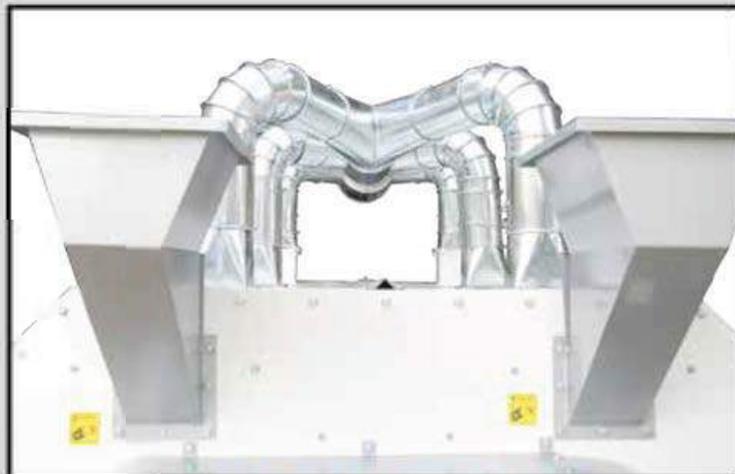
Each cylinder is equipped with four brushes which sweep the inner surface of the wire mesh basket.

Each cylinder basket consists of a two part easily interchangeable mesh and is available in various material and perforations.

All types of Excell brush machines are totally enclosed, dust proof, and provided with aspirator spout for connection to the general dust collecting system or to a separate fan and cyclone.

To obtain optimal performance all the main adjustments are achieved by means of control handles conveniently positioned outside the machine.

Technical Data				
MODELS	150.1	150.2	150.3	150.4
<b>Length</b>	2275	2275	2275	2275
<b>Width</b>	1300	1300	1300	2460
<b>Height</b>	1730	3400	4000	3400
<b>Power</b>	3 kW	2x3 kW	3x3 kW	4x3 kW





## HAND SCREEN SET LAB-001

Akyurek Technology sieve analysis for seed and grain. Commonly used for;

- Easily determine the proportion of undesirable product (coarse, fines, dust, etc).
- Quickly identify the proportion of products that can be sorted.
- Seed treatment and rehabilitation stages.
- Seed breeder use for small quantities, experimental or laboratory purposes.

### STENCIL WOOD

Wooden frames made from spruce or beech are available in either travel or office configurations.

### ANALYSIS BOARD

Wood analysis board available in spruce or beech in either travel or office configurations.

### SCREENS

Screens are made from black plate or galvanized plate and are available in either travel or office configurations.

Screen types Split-slot (oval) Plate						
Product Code	Product Name	Office Type	Quantity	Product Code	Travel Type	Quantity
		Width x Length x Wall Thickness			Width x Length x Wall Thickness	
ANE-SSE-OT 24x35	Black Plate Screen	24cm x 34.5cm x 1mm		ANE-SSE-OT 15x15	41cm x 26cm x 1mm	
ANE-GSE-OT 24x35	Galvanized Plate Screen	24cm x 34.5cm x 1mm		ANE-GSE-OT 15x15	15cm x 15cm x 1mm	



### Screen Framework Wooden

Wooden analysis screen frameworks are available in spruce and hornbeam and both types can be supplied in two different sizes as office type and travel type.



### Screen types Split-slot (oval) Plate

Product Code	Product Name	Office Type Width x Length x Wall Thickness	Quantity	Product Code	Travel Type Width x Length x Wall Thickness	Quantity
ANE-SSE-OT 24x35	Black Plate Screen	24cm x 34,5cm x 1mm		ANE-SSE-OT 15x15	41cm x 26cm x 6,5cm	
ANE-GSE-OT 24x35	Galvanized Plate Screen	24cm x 34,5cm x 1mm		ANE-GSE-OT 15x15	15cm x 15cm x 1mm	



### ANALYSIS TRAY

Wooden analysis tray is available in spruce and hornbeam and both types can be supplied in two different sizes as office type and travel type.

Analysis Table						
Product Code	Product Name	Office Type Width x Length x Wall Thickness	Quantity	Product Code	Travel Type Width x Length x Wall Thickness	Quantity
ANE-AT-LA-OT	Spruce Tree-Unvarnished	75cm x 50cm x 8cm		ANE-AT-LA-ST	41cm x 26cm x 6,5cm	
ANE-AT-GA-OT	Hornbeam Tree-Varnished	75cm x 50cm x 8cm		ANE-AT-LA-ST	15cm x 15cm x 1mm	

### SCREEN SHELF

MDF Wood – 12" and 24"

Options: Drawer, wood framed glass door

### Wooden Shelf Screen Rack

24 or 12 pieces of Analysis screens with 24 cm x 34,5 cm dimensions can be placed in the wooden screen shelf closet. It is designed to carry screens without any possibility of damaging during carriage with vehicle in case of turnover. Shelf system is an excellent way for preventing damage of screen bores and allowing for quick and easy access to a range of screens. Shelf option is available for storing tools such as brush, notebook and sensitive scale required during analysis. A wood framed glass door may also be supplied with the shelf.

Wooden Analysis Screens Closet with Shelf			
Product Code	Product Name	Width x Length x Height	Quantity
ANE-AAERD-MDF 24	MDF Shelf Closet 24"	30,7 cm x 43,5 cm x 61 cm	
ANE-AAERD-MDF 12	MDF Shelf Closet 12"	30,7 cm x 43,5 cm x 61 cm	
Opsiyonlar	Wood framed glass door		
	Drawer		





## HAMMER MILL HM-1000

Akyurek Technology is a leading manufacturer of grain food processing equipment. Akyurek hammer mills grind various products from grain and hulling mills, from breweries and also from feed mills and produce high quality fine grind for mash filtration. The Akyurek hammer mill HMAK functions as a fine grinding mill in food or feed plant production and as a course grinding mill in the formulated feed manufacturing, flour milling and biomass industries.

### Efficient and powerful size reduction via Optimized design.

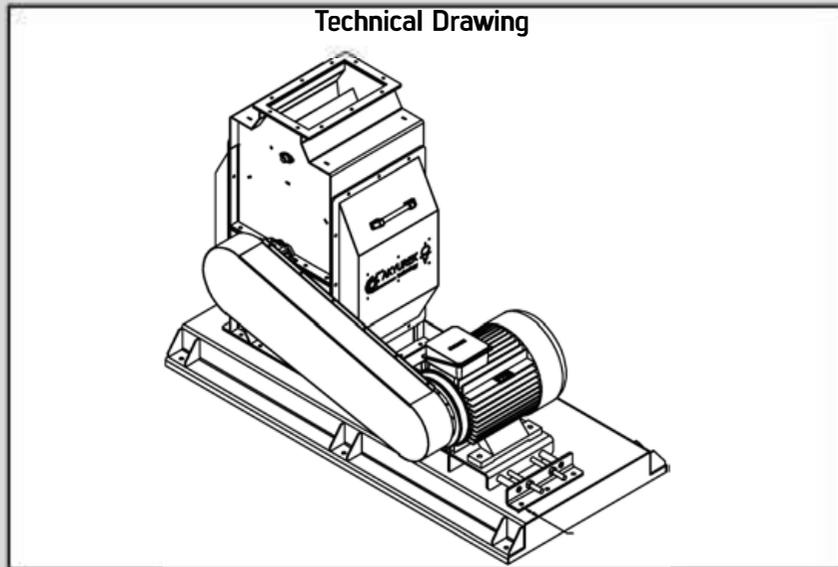
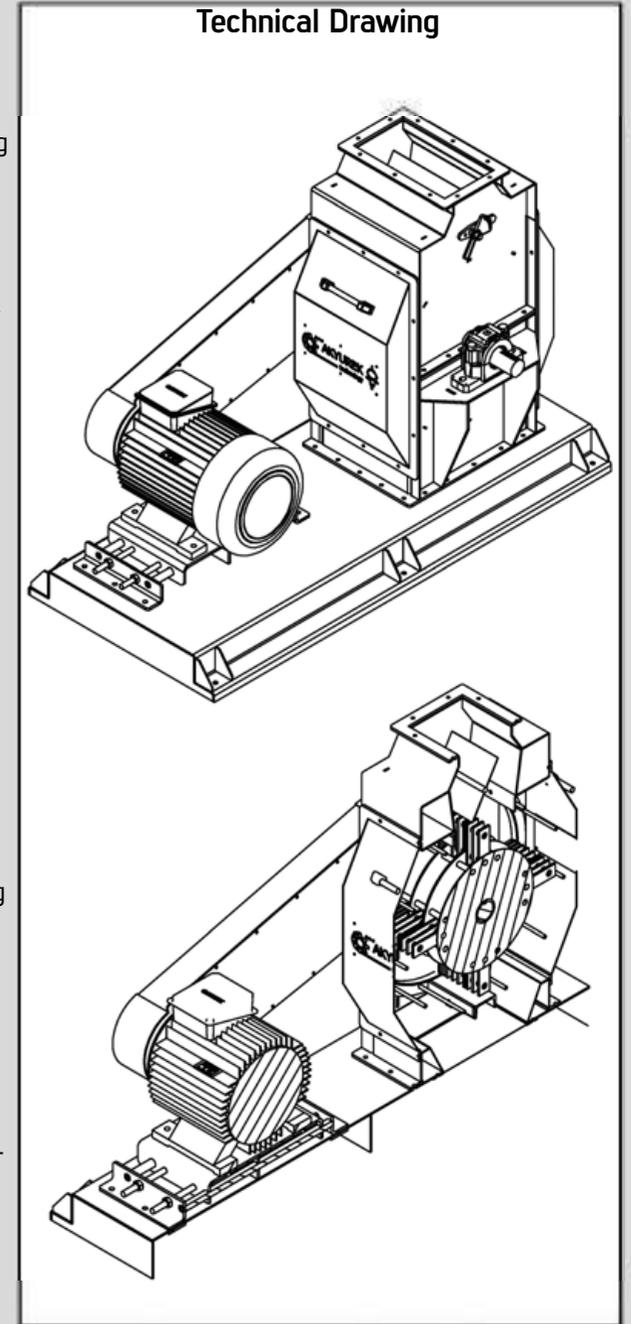
Maximum material contact for proper, efficient size reduction achieved by HMAK's optimal hammer design, placement and optimum hammer bar velocity. Optimal discharge of crushed particles achieved by sophisticated screen design thus reducing energy consumption. Top performances can be delivered by powerful motor with up to 250 kW.

### Save time with fast and easy screen and hammer changes.

Easy access to the screens via smart door design. No frame screens requires no tools when exchanging them. Fast and easy access to the hammers with the hammer bar locking mechanism.

### Ability to produce a wide range of particle sizes

Material bulk density around 200 to 800 kg/m<sup>3</sup> with moisture up to 15% for fine grinding. The HMAK hammer mill equipped with fine screens for particle sizes ranging from 0.3 to 1.5 mm. Material bulk density must be 200 to 800 kg/m<sup>3</sup>, with moisture up to 15% for course grinding. The HMAK hammer mill equipped round-hole screens for particle sizes ranging from 1.5 to 8.0 mm.



Technical Drawing

Technical Data		Ø 600x500	Ø 1200x400	Ø 1200x600	Ø 1200x700	Ø 1200x800	Ø 1400x800	Ø 1400x1000
Dimensions	Model							
	A	1000	1400	1400	1400	1600	1600	1600
	B	1500	2000	2000	2000	2000	2500	3000
	C	900	1300	1300	1300	1300	1500	1600
	Motor	37 kW	90 kW	110 kW	132 kW	160 kW	200 kW	250 kW
	Capacity	5 t/hr	10 t/hr	15 t/hr	20 t/hr	30 t/hr	35 t/hr	40 t/hr



## BATCH TYPE SEED COATING MACHINE ASBC 50

**AKYUREK BATCH type SEED COATING MACHINE** is a fully automatic seed spraying machine designed to be installed in a seed processing line. The operator adjusts all necessary parameters via the display: weight, shaft speed, dosing timing of the slurries, etc. After running the BATCH SEED COATING MACHINE, the seeds are weighed by an internal weigher using the electronic loadcell. Pre-weighed seeds are automatically filled in the mixing chamber.

The dosage settings of the different slurries are made according to the operator's setting. A PLC controls the seeding process, which is the heart of the process. Repeatable operation for this batch is guaranteed for each batch. The entire machine is ready for operation, only the main power supply connection and the compressed air supply connection are required.

There is also a mouth on the ASBC 50 for the connection of the existing ventilation system and the ventilation system must be supplied locally or an individual extractor can be used. Dosage adjustment lines for slurries should be connected to the chemical tank using flexible hoses.

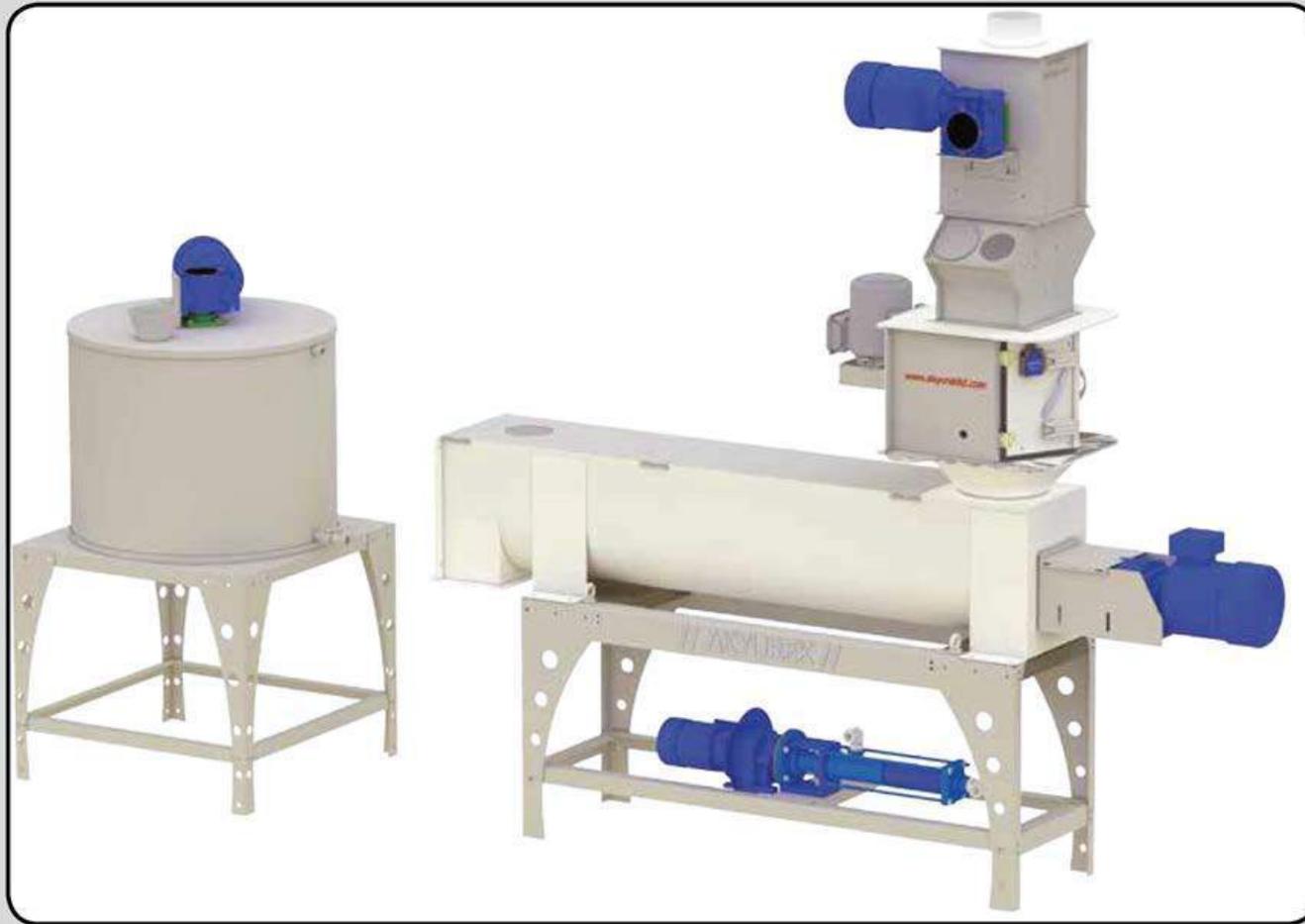
As it is known, the first basic point of plant growth is seed. As long as there are no good seeds, no matter how much the cultivation and maintenance conditions are improved, it is not possible to raise the yield and quality to the desired level. For this reason, on the one hand, as the breeding technique is being developed, it is mainly aimed at improving the varieties, increasing the yield, increasing the quality and also making efforts for the best use of the seed. One of the common methods used for this is the seed coating method.

"ASBC 50" seed coating machine covers the seed with the help of liquid and powder additives by forming a protective shell in the outer zone. In the upper part, a product weighing hopper, a powder additive feeder hopper, a liquid additive feeder transparent tube and a rotary table running at the bottom with an electric power perpendicular to the axis, are used. These operations can easily be observed and controlled by means of control panel and weighing indicators.

With the help of the fast filling system, the product which has filled the weighing bowl is discharged into the rotating table in the lower body of the machine. According to the specified material order, powder additives and liquid additives are added to the mixture and they are subjected to the swirling movement of the rotary table. When the mixing process is finished, the discharge flap is opened with the aid of the pneumatic pistons and the mixed product is discharged from the body by the acceleration generated by its own centrifugal force and travels through the discharge chamber.

Weighing : Feeding with large flow flaps (slides) using electronic loadcell (with optional hand feeder tape)  
 Fluid Dosing : Glass cylinders, pumps, flow meters and mass measurement systems are available.  
 Powder Feeders : Optional equipment

Technical Data	
<b>MODELS</b>	<b>AKYUREK ASBC 50</b>
<b>Engine</b>	5,5 kW 970 RPM
<b>Powder Feeding Unit</b>	0,37 kW 70 RPM
<b>Aspirator Motor</b>	0,37 kW 2800 RPM
<b>Pump Motor</b>	0,37 kW Speed Controlled
<b>Capacity</b>	5-7 t/h
<b>Power Supply</b>	3/N/PE, 400V, 50 Hz, min 25A
<b>Pneumatic</b>	2,0 Nm <sup>3</sup> /s. 6 Bar
<b>Ventilation</b>	300 m <sup>3</sup> /s @ p=1,5kPA
<b>Single Charging Time</b>	20-25 sc
<b>Weighing Habits</b>	0,1 m <sup>3</sup> (Fast Filling Feature)
<b>One Time Product</b>	Up to 50 Kg
<b>Material Scaling</b>	With Loadcell
<b>Scaling Liquid Additives</b>	With the help of a scaled tube
<b>Drive Motor Power</b>	5,5 kW
<b>Air Pressure Required</b>	6-7 Bar
<b>Material Rotation Speed</b>	11 m/s
<b>Mixing Room</b>	Up to 50 kg for wheat



## CONTINUOUS SEED TREATING MACHINE LIQUID 022

The AKYUREK SEED TREATMENT MACHINE STL LIQUID 022 is used for continuous, wet chemical treating of seed such as grain, corn, pulses etc. All stainless steel manufactured liquid applicators used for precision coating and pilling of crop with insecticides, fungicides, micronutrients and inoculants to the highest quality standards. Integrated modern control systems provide high process flexibility, process security and process monitoring and documentation. The fully automated operations according to pre-determined formulas, online process data communication, batch and order documentation as well as formula administration, guarantee high quality production standards when treating a wide range of products. As well application of chemical to seeds, this machine can be used for water or oil application to lentil, rice, wheat, bulgur and in other tempering processes.

### Advantages:

- Continuous, reliable operation
- Simple operation and handling
- Precise dosing of the liquid seed dressing agent and prevention of incorrect treatment due to the integrated automatic checking devices.
- Homogeneous mixing due to fine spraying of the seed dressing agent by the spraying disc and effective mixing in the secondary mixing unit.

### Construction:

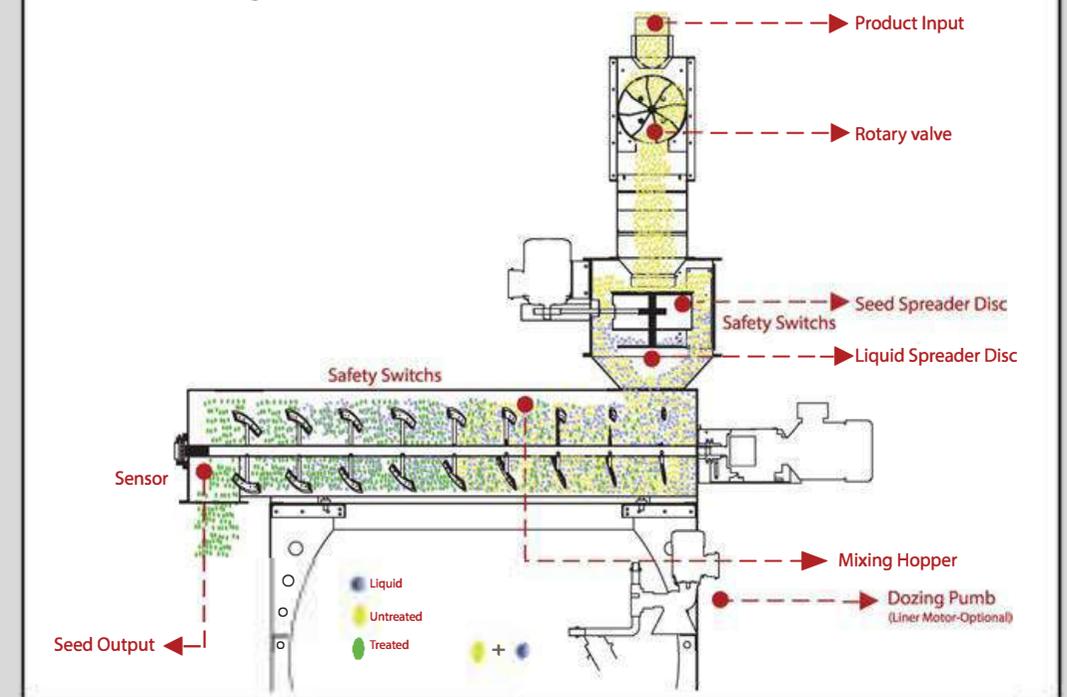
The chemical seed treater consists of the product inlet, the chemical seed treating chamber with the distributing and spraying disc, the dosing unit with a pump and the secondary mixing unit. The drive is operated with a gear motor.

The chemical seed treater is controlled by a control cabinet with a touch panel.

### Standard Equipment:

- Bolted housing made of sheet steel
- Chemical seed treating chamber with inlet
- Dosing unit with a pump
- Control cabinet with touch panel and control software
- Secondary mixing unit with a connection for the aspiration
- Drive motors sensors for monitoring and control

### Technical Drawing



→ Seed Treaters → Continuous Seed Treating Machine



**Seed Treatment Liquid 005**  
(1,0 - 2,5 tph)



**Seed Treatment Liquid 010**  
(2,50-5 tph)



**Seed Treatment Liquid 015**  
(5,0-10 tph)



**Seed Treatment Liquid 022**  
(10-15 tph)



**Seed Treatment Liquid 030**  
(15-30 tph)

TECHNICAL DATA		STL 005	STL 010	STL 015	STL 022	STL 030
Capacity / Based on Wheat	t/h	1,0 to 2,5	2,5 to 5	5,0 to 10	10 to 15	20 to 30
<b>ELECTRICAL DRIVES</b>						
Distribution Disc	kW	0,37	0,37	0,37	0,75	0,75
Secondary Mixing Unit	kW	1,1	0,75	1,1	1,5	2,2
Pump	kW	0,90	0,78	0,78	0,18	0,18
Rotary Seed Valve	kW	0,37	0,55	0,55	1,5	1,5
Dosing of Chemical Liquid	ml / 100 kg	20 - 1880	100 - 890	200 - 1880	500 - 1000	500 - 1490



## VERTICAL HULLER SPLT 340

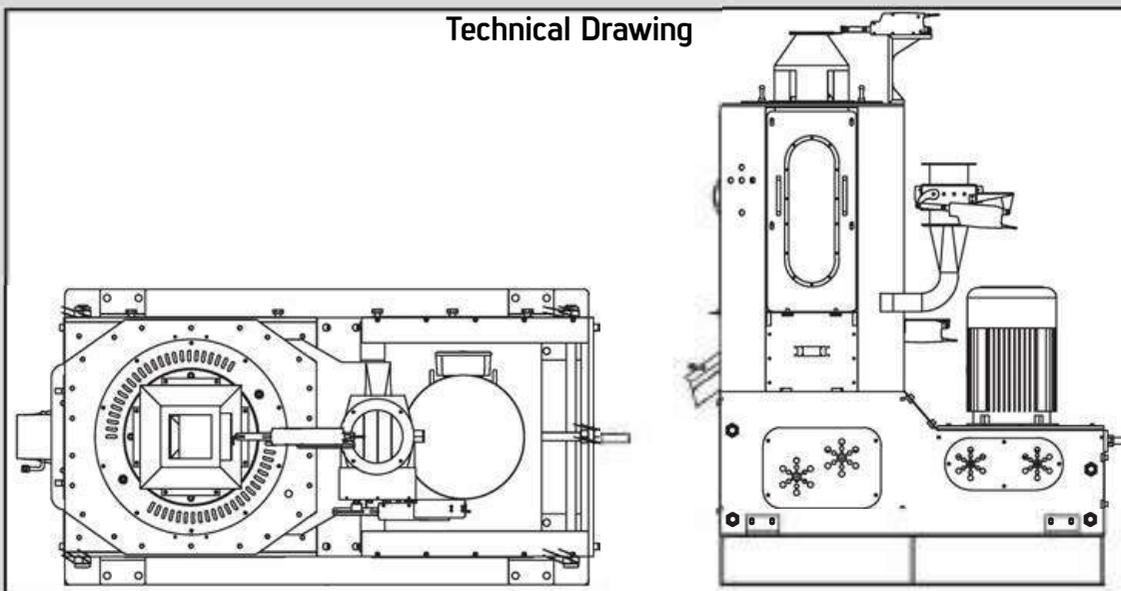
### Working Principle

This machine is used for peeling products such as wheat, barley and lentils. The system consists of emery discs mounted on a vertically running stone axle. Material is forced into the hulling chamber by a feeding screw and gradually circulates between the outer casing and emery discs until the hull has been removed. The vertical huller is equipped with an aspiration system that performs two tasks: it cools the grain thereby reducing breakage and assists in separating out the hull from the hulling chamber. Retention time is easily adjusted via the two counterweights attached to the discharge outlet.

### The Advantages of the System

- Minimum employee action with PLC program control.
- Ability to work efficiently and consistently.
- Being designed of the stones bidirectional and using more long lasting stones.
- High capacity
- It fires lower than its competitors and works more than them with energy conservation and low motor power.
- Certainly elegant design and minimum working area
- Low sound level
- Long-lived centre shaft and smart load distribution
- Digital pressure indicator

Technical Drawing



Technical Data	
Features	SPLT 340 - Vertical
Machine Weight	1000 kg
Dimension of the machine	840 x 2210 x 1650
Machine Peeling Area	0.70 m <sup>2</sup>
Machine Screen Number	2
Machine Air Pressure	80-150, 2800, 1
Machine Motor	22, 1400, 1
Machine Damper Number	2
Machine Shut off Dumber Number	5
Machine Sound Level	68 Decibel Maximum
Machine Color	Acrylic (Grey-White-Yellow)
Standard Voltage	380 Volt 22 kW
Machine Manufacturing Materia	st 44 - Ç 1040 - Cast Stone



## EMERY STONE MILL ESM-1000

The base of the system consists of two special emery moulded stones which lay on each other. The stone underneath is connected to the main axle and is driven by the motor.

The substrate stone is fixed. The product is spread between two stones in the entry and the folding and bran peeling is done. The distance between the stones can be adjusted to alter the finished product quality. Through the entry with the capacity refining bolts the necessary rates of peeling is possible. Fully enclosed drive and revolving stone system.

There are two types of Stone Mills

**Vertical Stone Mill**

**Horizontal Stone Mill**

**Horizontal Stone Mill**

**EMERY STONE MILL STANDARD MODEL 600, 700, 800 MM**

Our Emery Stone Mill models are available with artificial millstones in the sizes 600, 700 and 800 mm and are suitable for grinding e.g. grains, peas, coffee, spices and other dry products.

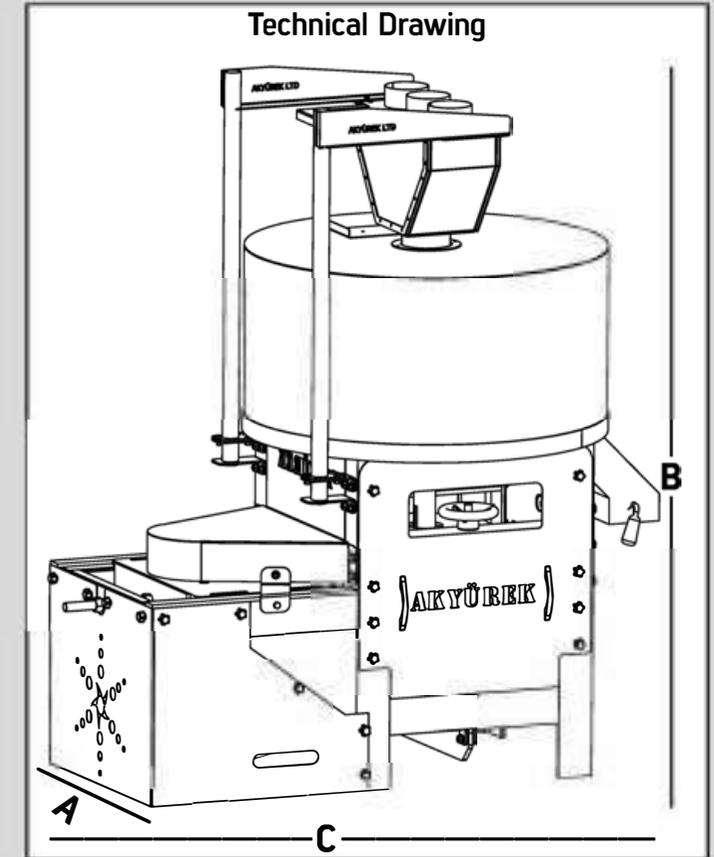
Supplied with the famous Akyurek millstones the Emery Stone Mill models guarantee a fine grind and a high output.

**Mill Stones**

The millstone is the most essential part of a mill. The quality of the millstone is decisive both for the grinding capacity of the mill and the quality of the ground. Today's special design of the Akyurek artificial millstones is a result of practical experience gained during more than 40 years of production. The stones are produced in sizes from 250 mm to 1515 mm, and composed of particularly high quality stone materials, rarely found outside Turkey. There are many imitations, but only one original, Look for the AKYUREK seal of quality, cast in the rear side of the stone. That is your guarantee for the original millstone.

Emery Stone Mills are universal grinding machine which can be used in many applications with right type of Stones.

- Wheat grinding for flour production with 260 to 600 micron output.
- Barley grinding for flour production.
- Peas grinding for flour production.
- Coffee grinding
- Spices grinding
- Wheat grinding for bulgur production.
- Lentil splitting process
- Yellow pea splitting
- Fava bean hulling and splitting



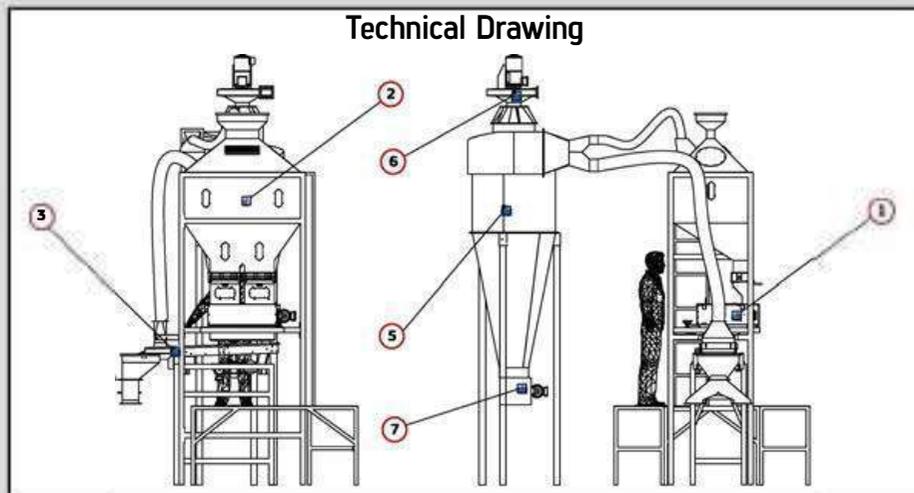
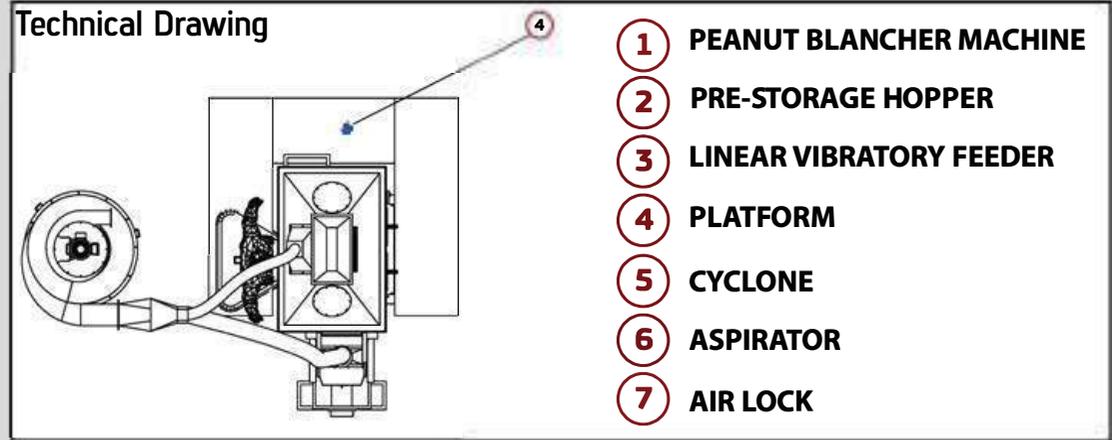
Technical Data							
MODEL	DIMENSIONS			MOTOR kW	CAPACITY t/h	WEIGHT	TRANSPORT AREA m <sup>2</sup>
	A	B	C				
<b>ESM 700</b>	1020	1790	1340	5.5	~ 1	620	3
<b>ESM 800</b>	1070	1790	1400	7.5	~1.3	705	3/3



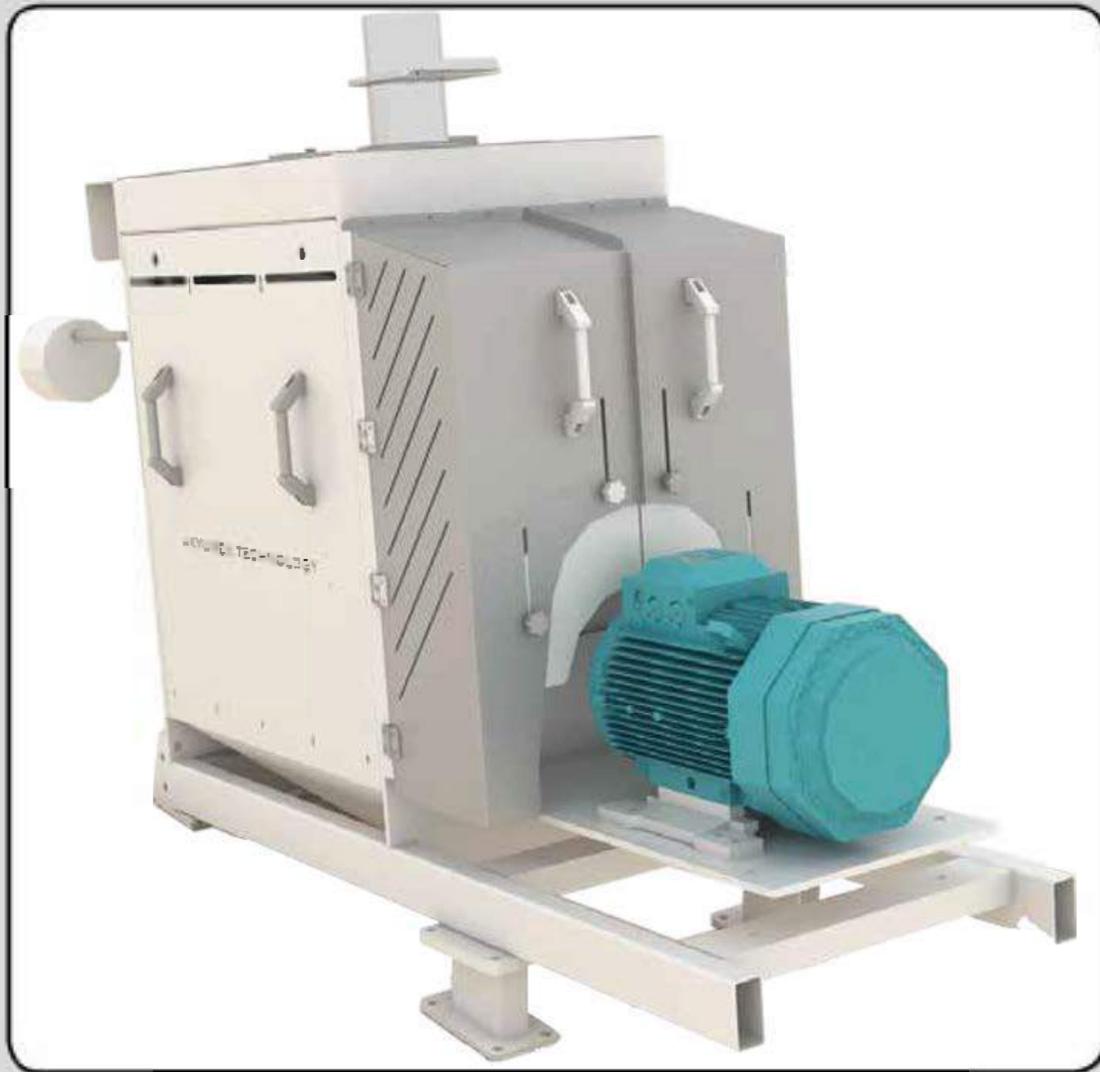
## PEANUT BLANCHER PN-75x8

Half roasted product is poured into pre-storage of elevator. Skins removed due to heat, are initially vacuumed into cyclone as product moves through into the machine. To prevent harm of any metal which comes into the machine, a magnetic grill is placed into two channels on the top of the machine. Peanut skin is removed as it moves along the rotating rollers. Peanut kernel and skin fall on linear vibratory feeders and are exposed to the air vacuum channel before leaving the machine. Aspirated skin moves in to cyclone.

### Technical Drawing



Specification	PN-75x8	PN-75x8
Machine weight	1200 kg	1200 kg
Machine size xyz(mm)	4000x5150x3000	4000x5150x3000
Number of machine balls	8	8
Amount of machine air need	8 Bar-150 Lt/min	8 Bar-150 Lt/min
Machine sicon	Super Siclon 100	Super Siclon 100
10 mm Sieve Top Domestic Osmaniye Peanut heated up on 120-130 degree	98% peel rate 2200 kg/hour	98% peel rate 2200 kg/hour
10 mm Bellow Top Domestic Osmaniye Peanut heated up on 120-130 degree	95% peel rate 1900 kg/hour	95% peel rate 1900 kg/hour
Operating Condition	Sarsak Engine with Rapid Control System and Peeling Engine Time Regulated Valves	
Valve Setting	Manual	Manual
Machine Noise Level	75-85 decibel (maximum)	75-85 decibel (maximum)
Machine Color	Acrylic Grey - Acrylic White	Acrylic Grey - Acrylic White
Ball Cleaning System	Ventilated System	Ventilated System
Standard Voltage	380 Volt Total Power 6,75 kW	380 Volt Total Power 6,75 kW
Machinery Manufacturing Materials	st 44-Ç 1040 - 304 Rustprof	st 44-Ç 1040 - 304 Rustprof



## PULS HULL & SPLIT PHS-340 & 460

Introduction to pulses, lentils and grains. Pulses are a rich source of protein which is composed of essential amino acids. In addition, the carbohydrates from pulses are mostly starch and fibre which means they have a lower glycemic index than cereals. Effectively pulses deliver better health and nutritional value. Further, pulses also contain essential minerals and can absorb nitrogen from atmosphere to soil thereby improving the quality of soil. Because of this nutritional and environmental sustainability, food manufacturers and processors have identified pulses as important ingredients for innovations. Pulses are defined as an annual leguminous crops yielding from 1 to 12 seeds within the pod, harvested for dry seeds. While pulses include dry peas and dry beans, green peas and green beans are not considered as pulses – they are, in fact, vegetables. Lentils or dal or dhal or daal are also type of pulses. Akyurek not only provides machines for cleaning, grinding, grading and optical sorting but also process control equipments for conveying, weighing, packing etc.

### NEW STANDARDS IN PULSES PROCESSING

Pulses hulling redefined. Delivering maximum efficiency.

### HIGHEST POWER SAVING

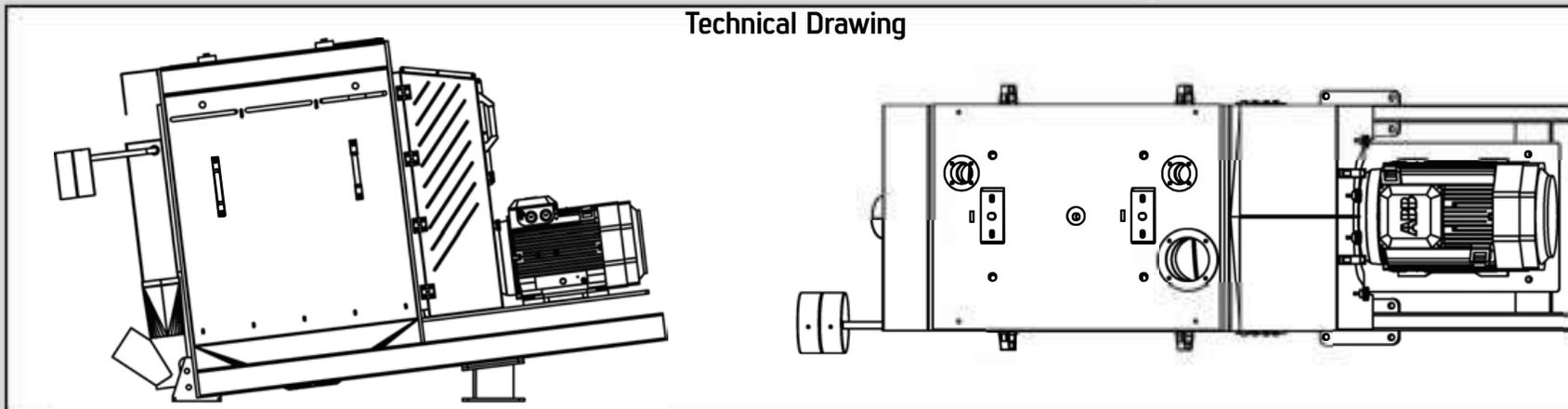
Akyurek has stringent design parameters of dynamical balancing, efficient drives & bearing and adjustable counter weight outlet controller. This leads to reduced power requirement for the process. Profitability is greatly improved due to lower power requirement combined with high throughput.

### UNIVERSAL MACHINE

The following options make the machine versatile enough to be used for different varieties and grades of pulses.

Technical Data				
Machine Code	Technical Specifications		Volume (m <sup>3</sup> )	Weight (kg)
	Capacity	Motor		
PHS-340	2500 kg	18,5 kW	2,95	1156
PHS-460	2500 kg	18,5 kW	2,95	1600

Technical Drawing





## PEANUT SHELLER PS 4X3

### Sheller cylinders

- Peanut Sheller is designed with ease of operation and low maintenance in mind.
- The shelling grates are easy to change, quick change feature allows the operator to easily vary shelling grates as the size of the peanuts change while under a load.
- Directly driven by its motor and gear reducer, the shelling cylinder has the ability to start under a load.

### Three screening boats

#### Balanced Eccentric System

- Is fitted with counter weights ensuring steady running
- Involving minimum stress on building and steel structures
- Is fitted with "heavy duty" bearings
- Ensures maximum utilisation of the cleaning effect of the sieves owing to accurately attuned stroke and RPM.

### Ball Box

- Ensures efficient cleaning of sieves by means of rubber balls
- Can maintain the cleaning effect at extremely low temperatures as the rubber balls are cast in a very suitable material
- Is cast soild so that it prevents stuck seeds etc. (self-cleaning)
- Is separately mounted in the scren shoes which ensures a quick change of sieves without removing the ball boxes.

### Hull Aspiration Vacuum Channels

- Eliminates light shells
- Through which shells, dust etc. are led with the airflow to the after suction system.

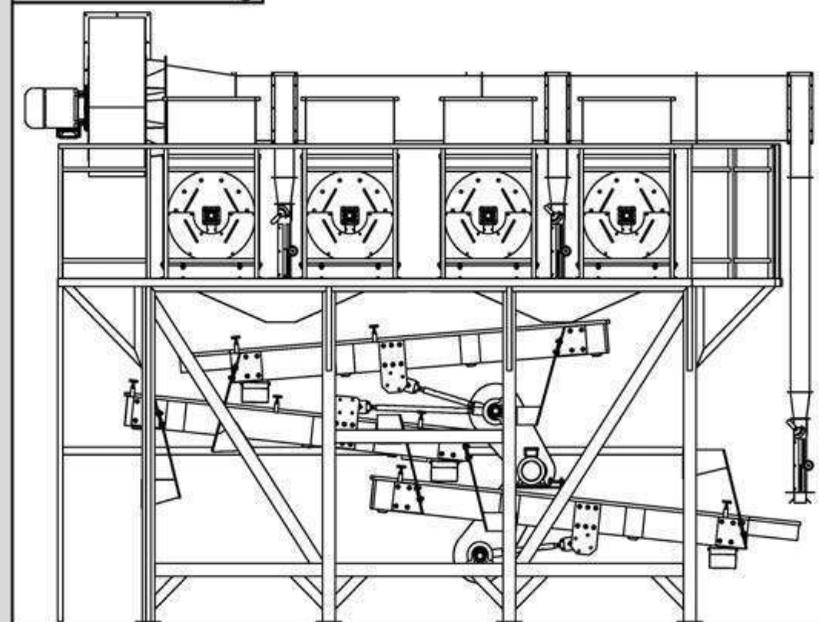
### Centrifugal Aspirator

- The impeller is self-cleaning and dynamically balanced. The spiral housing is made of welded steel plate.
- Direct coupled flange motor.

### Service Platform

- Easy access to sheller and aspiration for service and maintenance.
- Cat walk and safety bars.

Technical Drawing



PEANUT SHELLER	
<b>MODEL</b>	<b>AKYUREK PS 4x3</b>
<b>Dimensions</b>	
Weight	7000 kg
Lenght	6350 mm
Width	3610 mm
Height	4300 mm
Screen Area	11.0 m <sup>2</sup>
<b>Motors (standard)</b>	
Aspirator Motor	11 kW
Eccentric Motor	2.2 kW
Sheller Motors	11 kW
Bunker Vibrating Motors	0,18 kW
<b>Air Volume</b>	
Machine Intake Air Volume	22500 m <sup>3</sup> /h

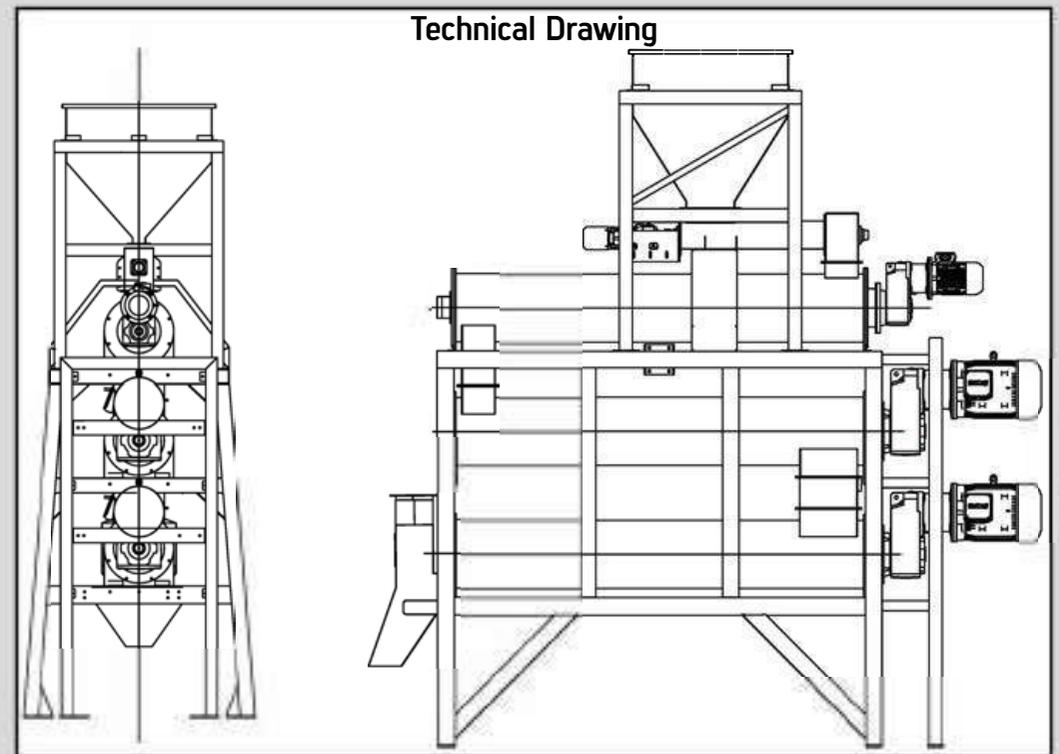


## SESAME PEELER SP-4000

Akyurek's Sesame Peeler SP-4000 is a precise and efficient friction type de-hulling units applicable for processing all kinds and types of sesame seed peeling.

- Fully enclosed hygienic operation.
- Minimised utility bills comparison to other traditional methods of peeling.
- No chemical or salt used during sesame peeling process.
- High quality product without modifying sesame seeds natural properties.
- Improved peeling systems via innovative technology.
- The peeling system is made of three cylinders.
- For optimum and high yield peeling process the first cylinder mixes the seeds with water in a continuous and homogeneous way.
- For peeling process second cylinder creates friction between the seeds.
- The third cylinder continues the friction process with the same friction technique, so an optimum and high quality result is obtained.
- Regulation of input parameters control via on board PLC panel.

<b>CAPACITY CHART</b>			
<b>MODEL</b>	<b>SP-4100</b>	<b>SP-4200</b>	<b>SP-4500</b>
	500 kg to 750 kg/h	1,0 to 1,5 tph	1,5 to 2,0 tph
<b>Technical Data</b>			
Cylinder Motors	45 kW	90 kW	135 kW
Weight	2,750 kg	5,250 kg	7,950 kg
Aspiration Air	N/A	N/A	N/A
Water Requirement	80 lt/tn	80 lt/tn	80 lt/tn



Technical Drawing



## BELT TRESHER BT-400

### Features

- Adjustable clearance between belts to regulate threshing aggressiveness
- Air column cleaning system for admixture separation (optional)
- Belt speed adjustment
- Intake hopper
- Side or front delivery seed collection chute
- Easy adjustment parameters
- Threshing belt width as per requirement
- Hinged safety cover guards
- Standard size components

Akyurek Belt Tresher applicable to thresh.

Seeds out of larger capacities of capsules, soybeans, sugar beets, edible beans, onion seeds or other similar crops.

Leaves separation from stems in herb processing steps.

### Power Type

- 380V 60HZ Electric Motor

### Machine Base Type

- Stationary stand
- Stationary stand on wheels

### Additional Options

- Aspirator adapter w/ dust cover

### Threshing Belt Type

- Upper/Lower – smooth
- Upper/Lower – chevron
- Upper/Lower – mini cleat
- Upper smooth/Lower chevron
- Upper chevron/Lower mini cleat
- Upper smooth/Lower mini cleat
- Upper mini cleat/Lower chevron
- And more for specific operation needs





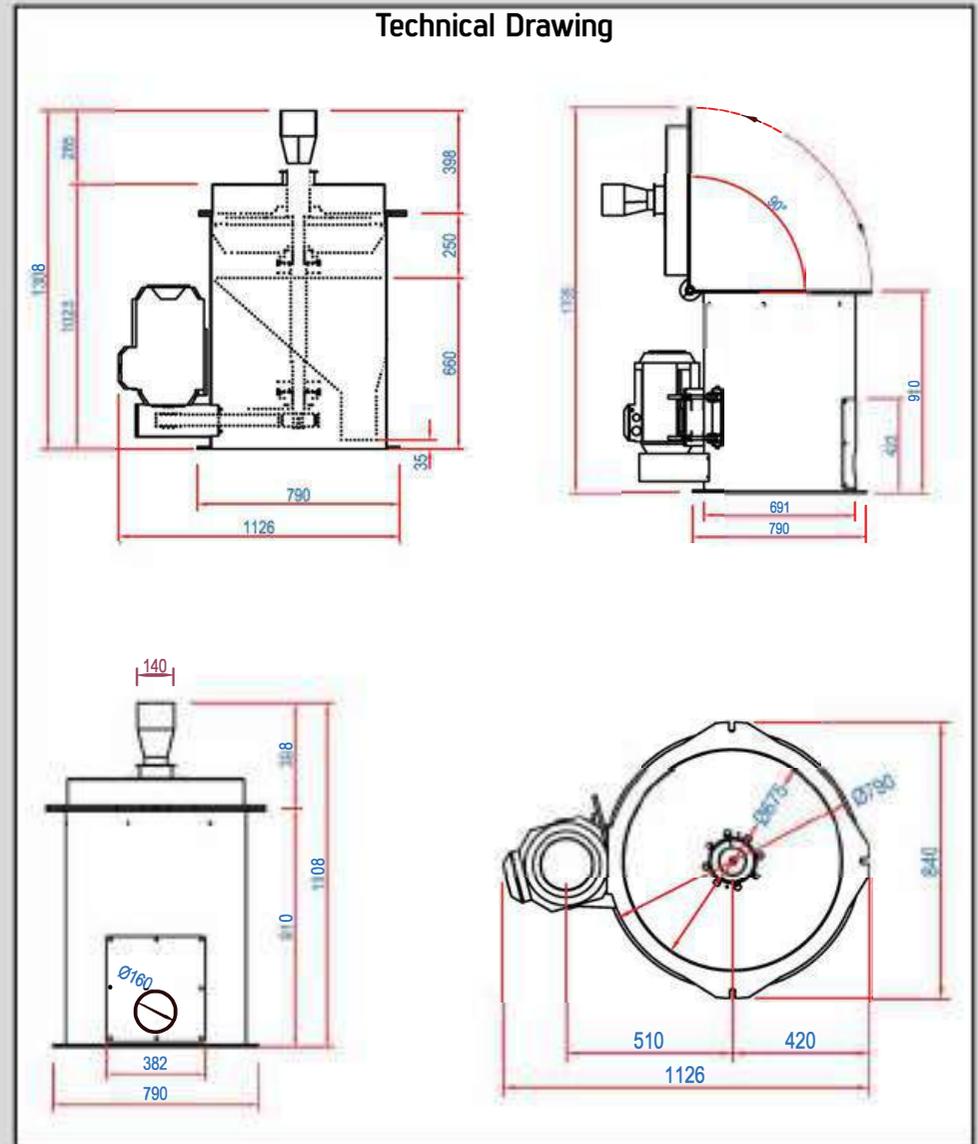
## IMPACT DE-HULLER ID-900

Akyurek's Impact Dehuller ID-900 is a precise and efficient de-hulling unit applicable for processing oats, spelt wheat, soya, buckwheat, hemp seed, sunflower seeds and many other seeds.

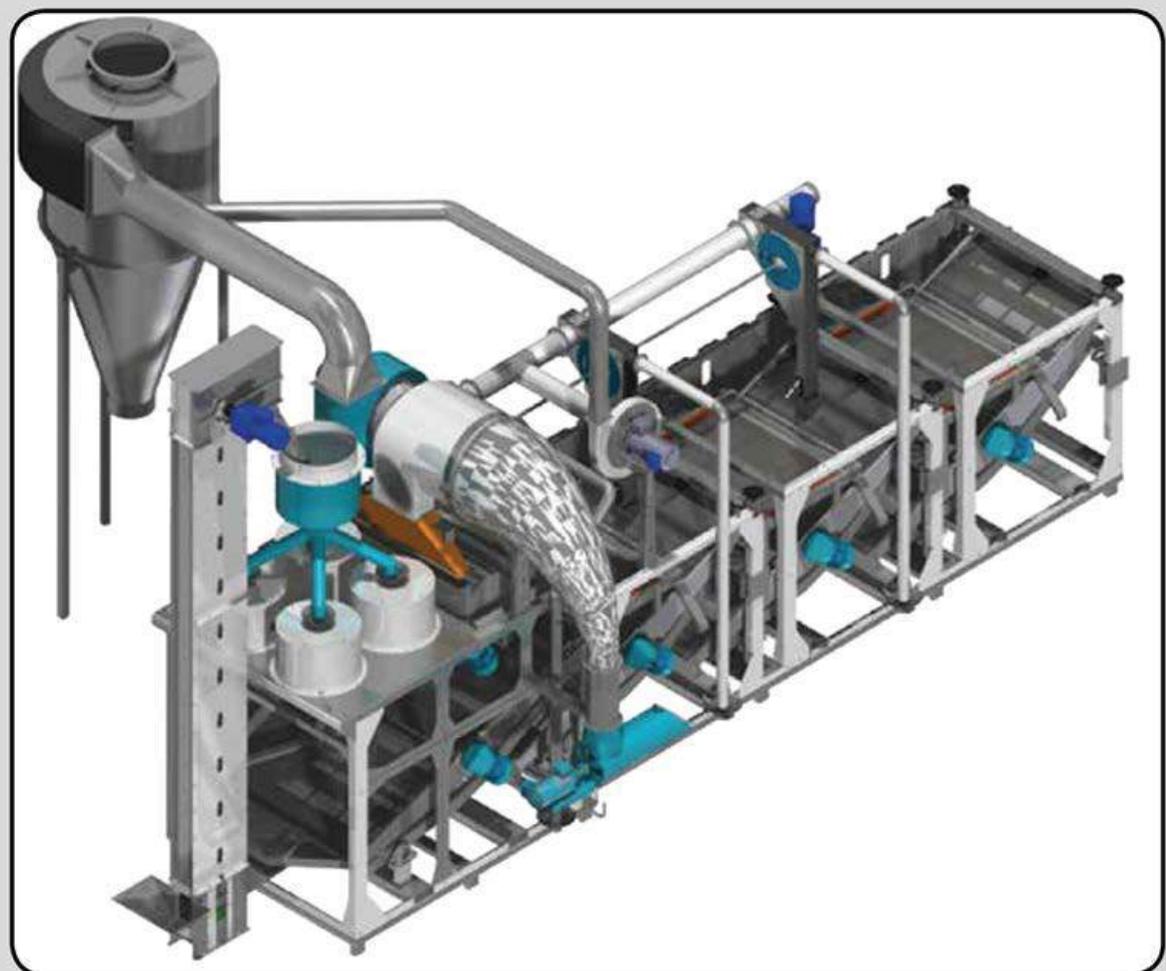
### GENERAL FEATURES

Operation: Product is fed into the inlet where it enters the impeller wheel through the feed control pipe. Accurate adjustment of the feed control handle determines the perfection of the hulling operation. The centrifugal force of the rotating impeller wheel drives the product against the hulling ring. The speed of the rotating impeller is adjusted to create the exact force of impact against the hulling ring. Hulling ring distance from rotating impeller wheel is an adjustable parameter for precise setting. Fine-tuning of the speed minimises broken seeds and maximises hulling thoroughness. From the hulling chamber the hulled product and separated hulls are discharged at the bottom outlet. An industrial duty machine with a long life-time ensured by the rugged design. Easily replaceable impeller and hulling ring fabricated from a highly durable steel for wear resistance.

Technical Drawing



CAPACITY	OATS	SPELT WHEAT	SOYA	SUNFLOWERS
	500-1000 Kg/h	500-1000 Kg/h	500-1500 Kg/h	500-1200 Kg/h
<b>TECHNICAL DATA</b>				
<b>IMPELLER MOTOR</b>	4 kW			
<b>LIFT MOTOR</b>	0.12 kW			
<b>ROTOR SPEED RANGE</b>	1000-1500 min			
<b>WEIGHT</b>	515 kg			
<b>ASPIRATION AIR</b>	10 m <sup>3</sup> /min			



## IMPACT DE-HULLER 4 MILL WITH SHELL SEPARATOR

### Function

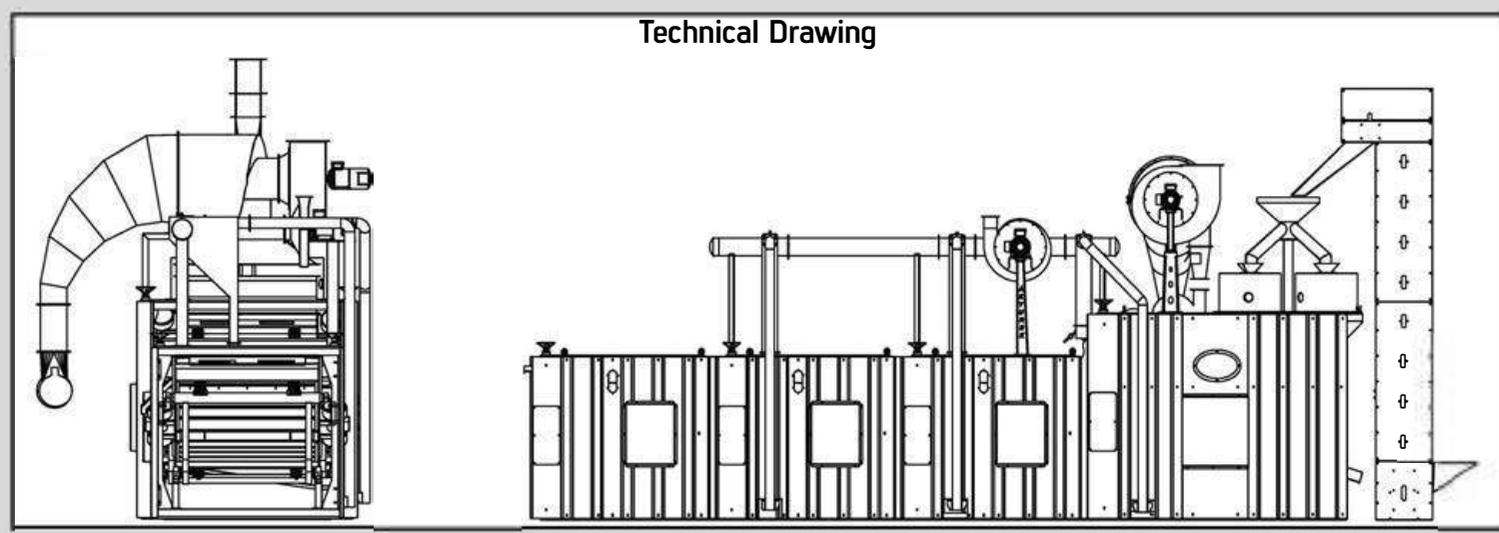
Impact Type De-hulling Machine: The impact de-huller feeds seed onto the centre of a horizontally Rotating impeller fitted with outward directing blades (4 blades). The seed is accelerated outward along the blades and collides with the static wall where the hull is cracked. The mixture consisting of kernels, husks and unshelled product is discharged through an outlet hopper. The loose hulls, partially de-hulled seed and some unshelled seed need separating from de-hulled kernels by means of aspiration. Third stage is to separate hulled kernels and unhulled seeds with four units of inclined vibrating screens one after another. The unshelled seeds will be returned to the de-huller for re-hulling system.

**Design:** Easy to maintain machinery, basic skilled operator can carry out preventative maintenance. If plant maintained according to user manuals machinery will last a life time.

### Capacity Guide Lines

De-hulling output capacity for 3,0-3,8 mm sunflower kernel seeds 300-400 kg/hr output kernel capacity with 98% purity. Input 5-6% humidity. Input seeds screen cleaned and 98% graded by size.

De-hulling output capacity for >3,8 sunflower kernel seeds 400-600 kg/hr output kernel capacity with 98% purity. Input 5-6% humidity. Input seeds screen cleaned and 98% graded by size.



TECHNICAL DATA	
Aspirator No.	1
Air Consumption m <sup>3</sup> /h	12,600 m <sup>3</sup> /h
De-Hulling Mills	4
Inclined Vibrating Screens	4
Total Power Requirement	27 kW
Standard Volt	380
Optional Volt	220-440
Weight	11000
Vibration	Vibration



### BATCH FRICTION POLISHER POLMAC-200

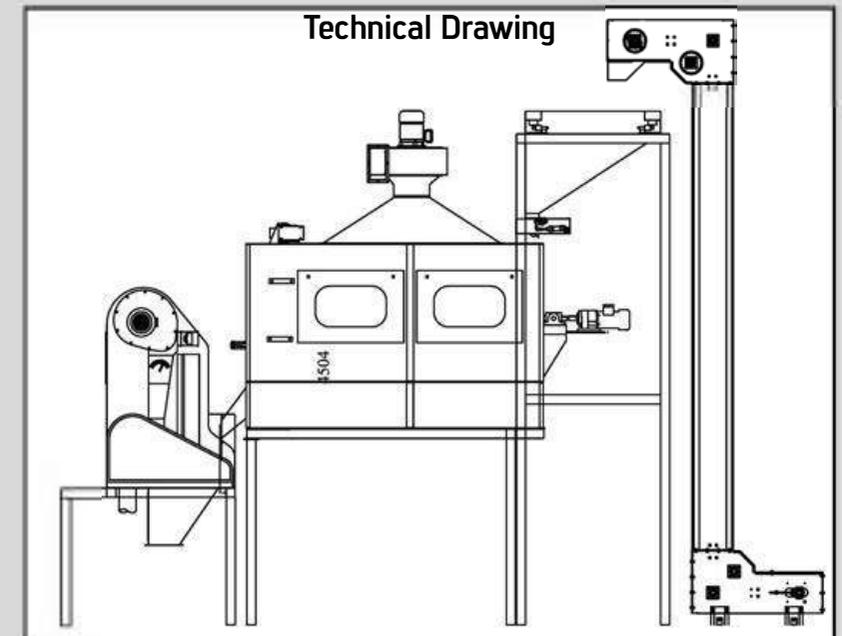
**Function:** Polisher Machine has many applications in flower, vegetable, field and grass seeds. The scarifying / polishing of seeds is in many cases the first step in the fine cleaning process. Other application is for sunflower and pumpkin seed polishing. Removing hairs, ears from seeds. Threshing seeds out of soft pods/buds. Splitting double seeds. Polishing sunflower seeds for confectionery industry.

**Working Principle:** Polishing is done in batch principle; Extraction scale weighs input amount before entry into the machine. Rotating perforated metal sheet drum in the machine has a capacity of 150 lt. Batch weighed seed load enters the machine and starts rotating cycle. Whilst seed load is in the drum, the friction caused by rotating removes the seed outer skin soft tissues, be it light skin or fur. This light skin and fur is aspirated by top aspirator whilst the drum is working. Drum rotating cycle is adjustable as per need to clockwise or anti-clockwise as well as cycle time. When required polish degree is reached the batch exits the drum from the front gate through an aspiration channel or an air-recycling aspirator for final light particle removing. During the polishing cycle, the smaller admixtures and impurities fall through the perforated drum into sacks which are located underneath the machine.

#### Equipment

Polisher machine equipped with PLC control system that can set and control all parameters easily i.e.

- Input seed amount
- Cylinder rotating cycle-clockwise
- Cycle time & anti-clockwise in-between duration cycle
- Cylinder RPM
- Aspiration RPM



#### Technical Data

Models	Z Elevator	Extraction Scale	Hopper Capacity	Drum Drive Motor	Discharge Motor	Aspirator	Air Re-Cycling	Dimensions (mm)
<b>Polmac-200</b>	1,1 kW 23 RPM	4 Unit	0,60 m3	2,2 kW 40 RPM	1,1 kW 30 RPM	4 kW 1400 RPM	80 cm	2800x1100x3600
<b>Polmac-400</b>	1,1 kW 23 RPM	4 Unit	0,60 m3	2x2,2 kW 40 RPM	2x1,1 kW 30 RPM	2x4 kW 1400 RPM	150 cm	2800x2200x3600



### CONTINUOUS FRICTION POLISHER

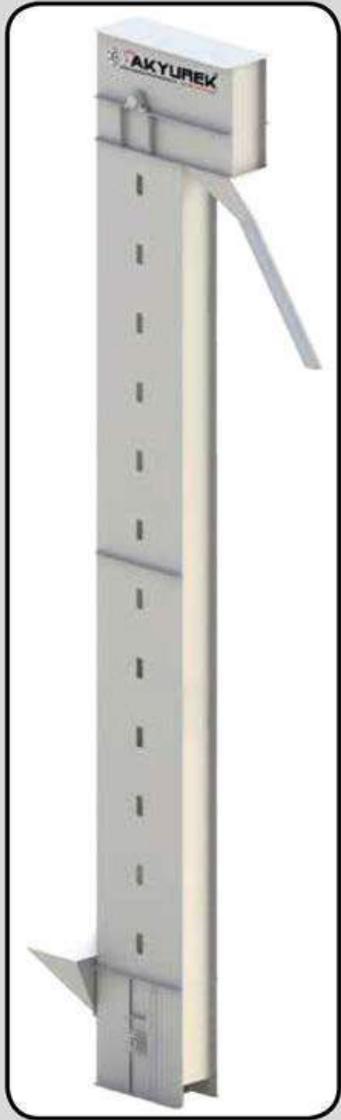
Continuous Friction Polisher is able to provide a polished look on seed lot. Process takes place in drum body of the equipment. Drum surface is a perforated screen and within drum, screw flights made of soft material conveys the seed from entrance inlet to exit outlet. During this conveying process seed friction takes place and fine dust leaves the surface of the seed through perforated drum and exits from bottom chute.

At the entrance inlet aspiration unit located on machine removes initial dust with suction.

Adding value to your commodity by a polished look, increasing the visual quality of seed.



CAPACITY	
Egypt	7-8 Tn
Green Mung Beans	5-6 Tn
Beans	6-7 Tn
Sunflower	4-5 Tn



## BUCKET ELEVATORS P.ELEV.012

The P-EL and Z-EL elevators are suited for transportation of cereals, seeds, fertilizers, minerals, wood shavings, wood chips, granular products, and similar materials; also suitable for oleaginous seeds.

In standard construction, the EL elevators are delivered with the following features:

Standard height is 4.0 m.

The elevator belt is oil resistant type 4 ply 6mm natural rubber or plastic with high number of plies upon on your plant request.

The elevator components are laser cut steel for precise manufacturing.

The elevator construction all through nut bolt and gasket connected for easy maintenance or future extension.

The elevator is all through paint: acrylic anti-static oven powder painted. Paint code: 9100

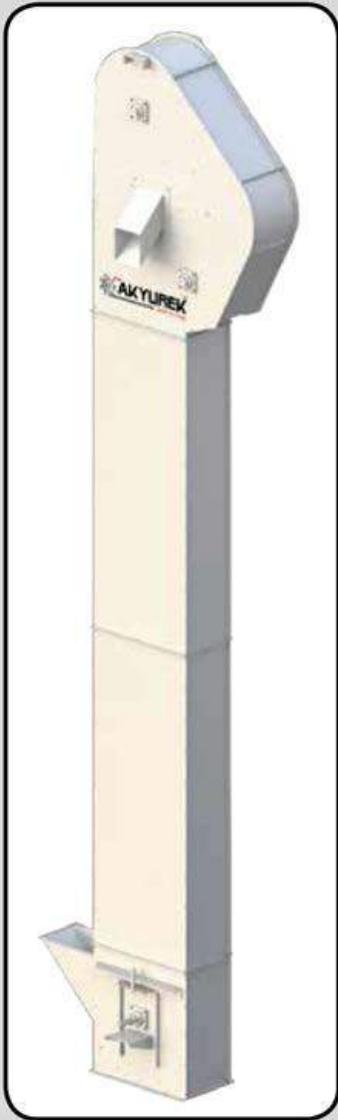
### DISTINGUISHING FEATURES:

- Heavy duty steel construction in acrylic anti-static oven powder painted finish incorporating belt rolls of hard-wearing material.
- Totally enclosed design offering maximum security during operation.
- Highly flexible construction to meet a wide range of requirements (height, belt width, belt speed, and belt quality) and to suit individual plant layouts.
- Slow speed monitor and reverse brake available as an option.
- Large selection of elevator buckets to give the best possible transportation of a vast range of products ensuring correct filling and emptying of the product in question.
- Elevator boot with adjustment device for easy belt tensioning ensuring trouble free operation at all times.
- Elevator boot with clean out door on both sides ensuring easy clean-down when changing from one product to another.
- Extractable collecting drawer below the elevator or integrated air cleaning system available as an option.
- Easy visual check-up during operation through inspection window made of PLEXIGLAS
- Manual product feed control gate.
- Elevators with product intake feed apparatus.
- Low maintenance costs and one-year parts warranty.

Every part undergoes following processes: sand blasting, spray application of primer, phosphate cleaning 180°C oven baked final paint finish. These processes are applied on a continuous production line. The final result provides optimum resistance to corrosion (>250 hours in salt atmosphere) equivalent to pre-galvanised finish, almost to automobile industry standards. Akyurek makes every effort to be environmentally friendly, controlling all emissions during this process.

### Technical Data

Model	P.ELEV-0012-10	Model	P.ELEV-0012-15	P.ELEV-0012-20	P.ELEV-0012-25	P.ELEV-0012-30
0-3 Meter	0,3 kW 88 Rpm	0-5 Meter	0,75 kW 88 Rpm	1,1 kW 88 Rpm	1,5 kW 65 Rpm	1,5 kW 65 Rpm
3-5 Meter	0,55 kW 88 Rpm	5-7 Meter	1,1 kW 88 Rpm	1,5 kW 88 Rpm	2,2 kW 65 Rp	2,2 kW 65 Rpm
5-8 Meter	0,75 kW 88 Rpm	7-10 Meter	1,5 kW 88 Rpm	2,2 kW 88 Rpm	3 kW 65 Rpm	3 kW 65 Rpm
		10-13 Meter	2,2 kW 88 Rpm	3 kW 88 Rpm	4 kW 65 Rp	4 kW 65 Rp



## EASY DUMP ELEVATOR

Akyurek has designed a new gentle-handling elevator combining its existing conveyors' performance, reliable design and effectiveness. With a high-performance Akyurek continuous to offer businesses with an economical and sturdy piece of equipment.

- Chain and bucket design
- Boot clean out doors
- Nuts and bolted legs
- Seed contact areas stainless steel available
- High capacity conveying
- Gear reducer with backstop shaft-mounted
- Service platforms and ladder available
- Valve options-manual and pneumatic
- Gentle discharge of seed

### Working principle

Seed is transferred into the buckets from intake hopper. The buckets move up the legs until they are pulled around the first set of gears. The buckets are tilted gently and seed dispenses into the discharge hopper. From this hopper the seed feeds through a pipe to your allocated point. The buckets continue in this cycle and provide a continuous, smooth flow of seed with a near zero damage.

### Features & Options of Easy Dump Elevator

#### Laser Cut and Bolted Assembly

To reduce the cost of shipment, the legs of our elevators can be shipped disassembled.

#### Instant Boot Cleaning

A draw which is located right at the bottom of the boot makes an easy operation to open the boot and pull out the remaining seed in the elevator in an instant.

#### "Duck" Series

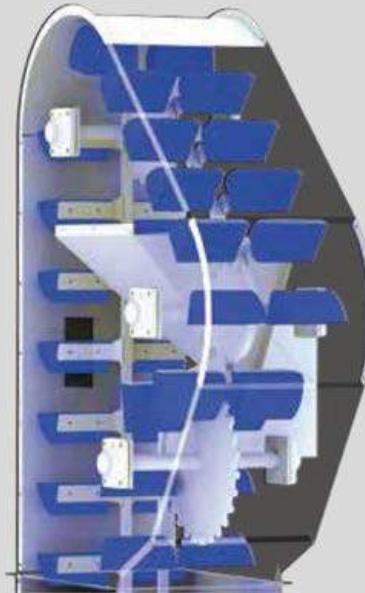
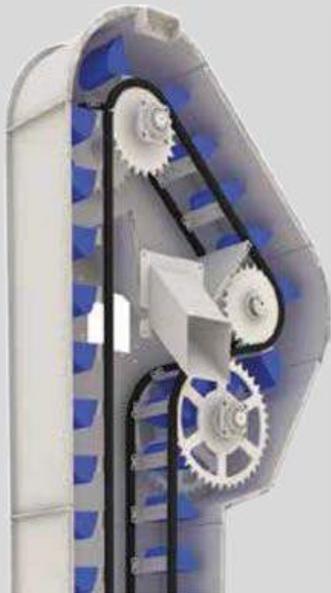
When the height restrictions and flow pipe limitations are a challenge the "Duck" Series Easy Dump Elevator can be used. Feeding and discharging on the same side allows you to achieve spouting configurations that are near impossible by regular elevators ..

#### "Double" Series

For lifting two different products in limited spaces the "Double" Series Easy Dump Elevator can be used. Without contamination you can elevate two different product types. The "Double" to act as two elevators by two separate product in-takes, bucket lanes and discharge spouts.

#### Easy Operation

Very simple, straightforward and effective work principles



Model Specifications				
Model	Bucket Size	Cubic meter / hour	Capacity tph @ 350 m <sup>3</sup>	Capacity tph @ 800 m <sup>3</sup>
EDE-S125	125	7,5	3,4	6
EDE-D125	125x2	15	6,8	12
EDE-S150	150	10	4,5	8
EDE-D150	150x	20	9	16
EDE-S180	180	12,5	5,6	10
EDE-D180	180x	25	11,3	20
EDE-S200	200	15	6,8	12
EDE-D200	200x	30	13,5	24
EDE-S250	250	18,75	8,4	15
EDE-D250	250x	37,5	16,9	30
EDE-S300	300	22,5	10,1	18
EDE-D300	300x	45	20,3	36



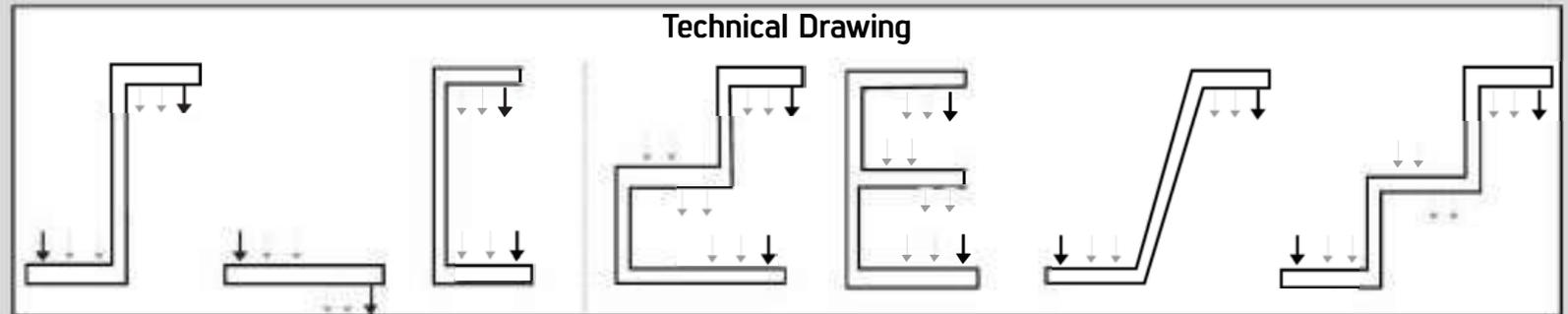
## PENDULUM ELEVATOR C.ELEV.012-500

### Application and Function

Pendulum bucket elevators are used for very gentle vertical conveying of all kinds of granular product. Especially in the seed sector, they are the most suitable conveyors. They can also manage big horizontal distances, thus being able to replace the combination of belt conveyor and normal bucket elevator.

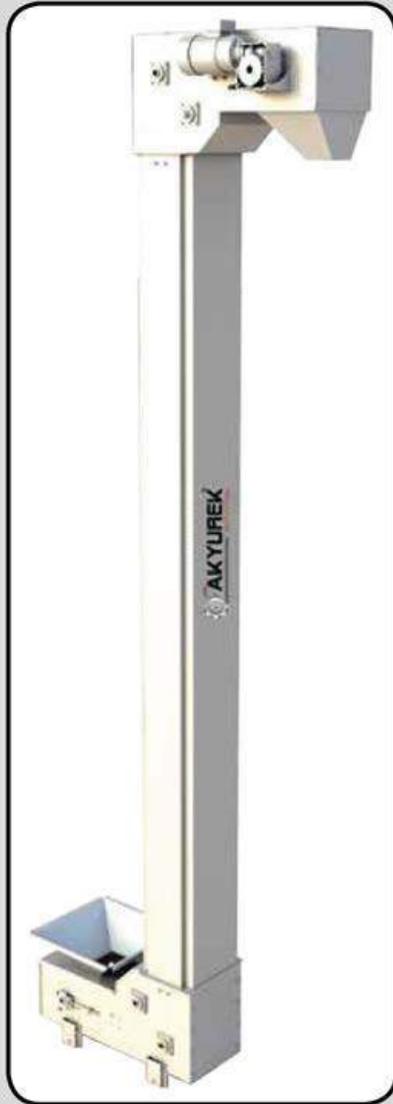
The incoming product is fed to the pendulum bucket elevator continuously and very gently by means of a vibratory feeder. The edges of the buckets overlap each other in the inlet section and therefore prevent spillage of kernels. Due to the pivoted mounting of buckets in the chain, buckets keep their horizontal position all through the way around in the conveyor until they finally reach the outlet. There, each bucket is tilted and the product falling out is gently led into the outlet hopper.

The pendulum bucket elevator can be equipped with a number of several inlets and outlets. Inlets can work at the same time, while outlets are used singular, meaning only one outlet being active momentarily.



Technical Data	Up to 7,5 Meters	Up to 12 Meters	Up to 20 Meters
Machine Aspirator Motor	2.2 kW 14 RPM	3 kW 14 RPM	4 kW 14 RPM
Machine Color	Acrylic Grey - Acrylic White		
Standard Voltage	Volt	380	
Machine Manufacturing Material	st 44	Ç 1040	





## CONTINUOUS CUP Z ELEVATORS P.ELEV.012-DZ350

Akyurek has designed a new gentle-handling elevator combining its existing conveyors' performance, reliable design and effectiveness.

With a high-performance Akyurek continuous to offer businesses with an economical and sturdy piece of equipment.

Hopper with a magnetic feeder provides even and steady loading rate without damaging the product whilst feeding the continuous cup Z elevators. All carbon steel parts are cut by a CNC laser machine, painted with acrylic oven powder paint and mounted with nut bolt and gasket.

Continuous cup Z elevators convey bulk material horizontal-vertical-horizontal from one or multiple feed points to one discharge point. Without the need of intermediate transfers they deliver smooth and continuous travel from the feed point horizontally and then via elevation to the top horizontal section to the discharge. Continuous cup elevators are designed to handle products ranging from delicate granule dry vegetables (beans, coffee, peanut, etc) and other industrial products (chemicals, pharmaceuticals, highly abrasive, sand, gravel etc.) Z elevator is necessary for both vertical and diagonal transportation of all grains, seed and pulse crops. The most important characteristic of the machine is that it doesn't give any harm or damage to the product during transportation and height/width can be as long as the operation requires. There are both fixed and portable models of the machine

### Design

Akyurek Continuous Cup Conveyors are available in the typical vertical 'Z' or inclined 'Z' configuration, designed to the customers' needs.

### Elevator Cups

Akyurek Continuous Cup Elevators are available in several cup sizes to match your material flow requirements and minimize the space needed for the conveyor. Every cup conveyor is designed to match your needs. Made from standardized sections we will match your on site requirements for each conveyor.

**Interconnected Cups** ensure spill free and gentle operation. They are made of strong injection moulded, reinforced PP nylon, with a heavy wall thickness.

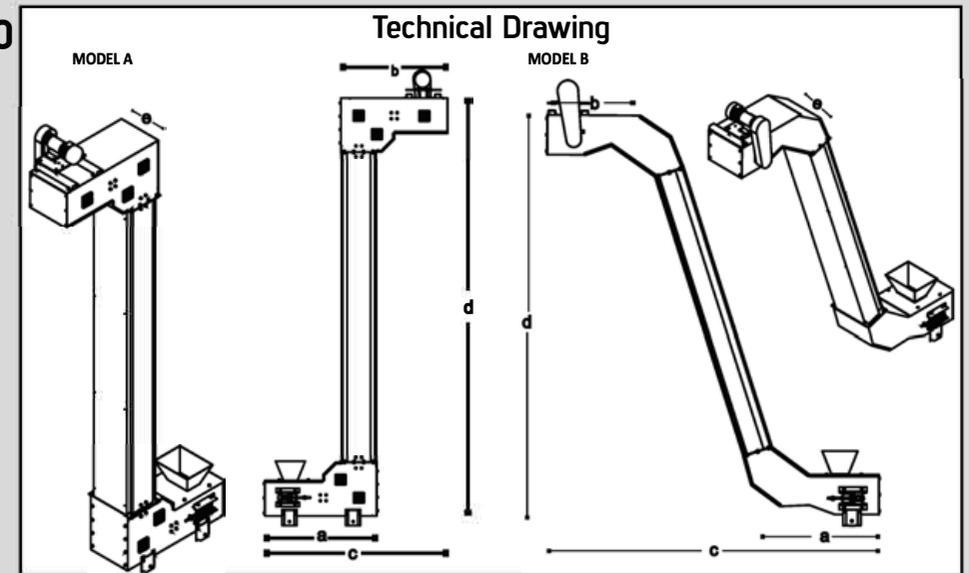
With flexible connecting flaps they form a continuous cup string without gaps between cups. Rods are locking the flaps and cups into place and connect the cup belt.

Cups can be made from other plastics such as POM (Polyoxymethylene plastic), carbon steel, aluminium or stainless steel, for high temperature applications, conductivity and other reasons.

### Elevator Chain

Akyurek custom carbon steel chains are the driving and transporting members with replaceable wear points requiring no lubrication or maintenance. Operation is silent and clean.

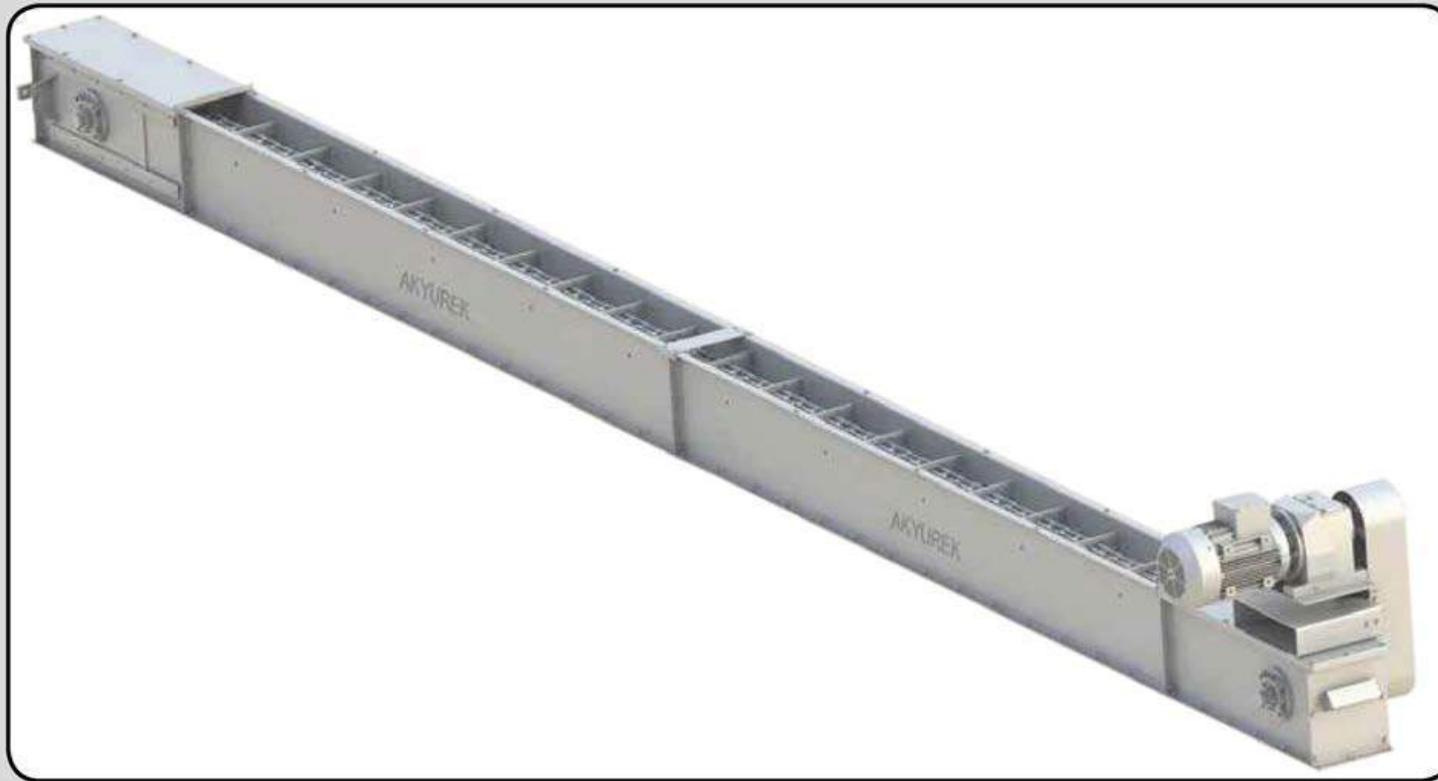
Akyurek cup elevators have lower power requirements, and less need for servicing and maintenance compared to conventional conveying systems.



### Technical Data

Model A	Type	a mm	b mm	c mm	d mm	e mm	Bucket Width	Bucket Capacity
Vertical Z Elevator	350	1160	1110	1900	4400	450	350 mm	0.02 m <sup>3</sup>
	600	1160	1110	1900	4400	700	600 mm	0.044 m <sup>3</sup>
Model B	Type	a mm	b mm	c mm	d mm	e mm	Bucket Width	Bucket Capacity
Vertical Z Elevator	350	1175	1180	2800	3410	450	350 mm	0.02 m <sup>3</sup>
	600	1175	1180	2800	3410	700	600 mm	0.044 m <sup>3</sup>

Model	Length	Machine Motor
P.ELEV-012-DZ350	2-3.5 Meter	0.75 kW 28 Rpm
	3.5-5.5 Meter	1.1 kW 28 Rpm
	5.5-7 Meter	1.5 kW 28 Rpm
	7-12 Meter	2.2 kW 28 Rpm
P.ELEV-012-YZ350	2-3.5 Meter	0.75 kW 28 Rpm
	3.5-5.5 Meter	1.1 kW 28 Rpm
	5.5-7 Meter	1.5 kW 28 Rpm
	7-12 Meter	2.2 kW 28 Rpm
P.ELEV-012-500	3-4.5 Meter	1.1 kW 28 Rpm
	4.5-6.5 Meter	1.5 kW 28 Rpm
	6.5-9 Meter	2.2 kW 28 Rpm
	9-13 Meter	3 kW 28 Rpm



## CHAIN CONVEYOR CC-400

Chain conveyor type CC400 is made up of standard elements which, when correctly combined, can easily be fitted into any conveying installation. The Akyurek Technology chain conveyor is made in galvanized material, which makes it particularly suitable for outdoor applications. The CC400 chain conveyor is designed for transportation of grain, granulates, and other bulk goods. A quality roller chain fitted with rubber carriers ensures that all material transported is conducted quietly, safely, and effectively. The chain conveyor works effectively in both a horizontal position and at an upward angle of up to 10° and has low power consumption in relation to its capacity. In regards to capacity, the conveyor is designed for transporting materials from a Akyurek chain elevator to storage or to a Akyurek belt conveyor.

Akyurek chain conveyors ensure straight and or inclined transport of the grain gently and economically for the required volume.

High quality chain.

Heat treated chain, chain pins and rollers

Maximum life span of body with plastic paddles on the support chain preventing chain to chain friction.

Economic low periodic maintenance.

Standard construction in galvanized steel, optional painted steel and stainless steel

Laser cut sheets nut and bolt assembly.

User friendly on maintenance and service.

### Standard equipment:

- Directly mounted gear motor
- Torque arm for shock absorption
- Outlet hopper 90°
- Rubber carriers
- Extension 2.5 m with inspection cover
- Elevator boot/tightening section
- Drive station with tensioner
- Inspection cover in elevator boot/tightening section
- Side inlet

### Accessories:

- Motor with v-belt pulley
- Intermediate outlet
- Cover for intermediate outlet
- Outlet hopper for intermediate outlet
- Shutter for drive station/tightening section
- Cover for geared motor
- Wire suspension
- Speed control monitor

Technical Data	From 25 to 60 tons			From 60 to 120 tons			
	CC 25	CC 40	CC 60	CC 60	CC 80	CC 100	CC 120
Capacity in tons at chain seed 0.5 m/s 0.7 t/m <sup>3</sup> Water content 18%	25	40	60	60	80	100	120
Sheet thickness bottom / side / top	3/2/1.5	3/2/1.5	3/2/1.5	3/3/2	3/3/2	4/3/2	4/3/2
Plastic carriers	+	+	+				
Bottom 10 mm nonslip				+	+	+	+
V-belt drive	+	+					
Worm gear drive	+	+	+				
Gear wheel drive				+	+	+	+
Weight per m empty / ful	24/36	30/61	3/76	52/102		57/119	
Chain 38.4R+		+	+				
Chain 40x6 125 section				+		+	
Inlet / OutletQ	16	Q	Q24 / Ø250	Q24 / Ø250		Q30 / Ø300	



## TELESCOPIC BOOM CONVEYOR BELT TELES.BELT-180

### Function:

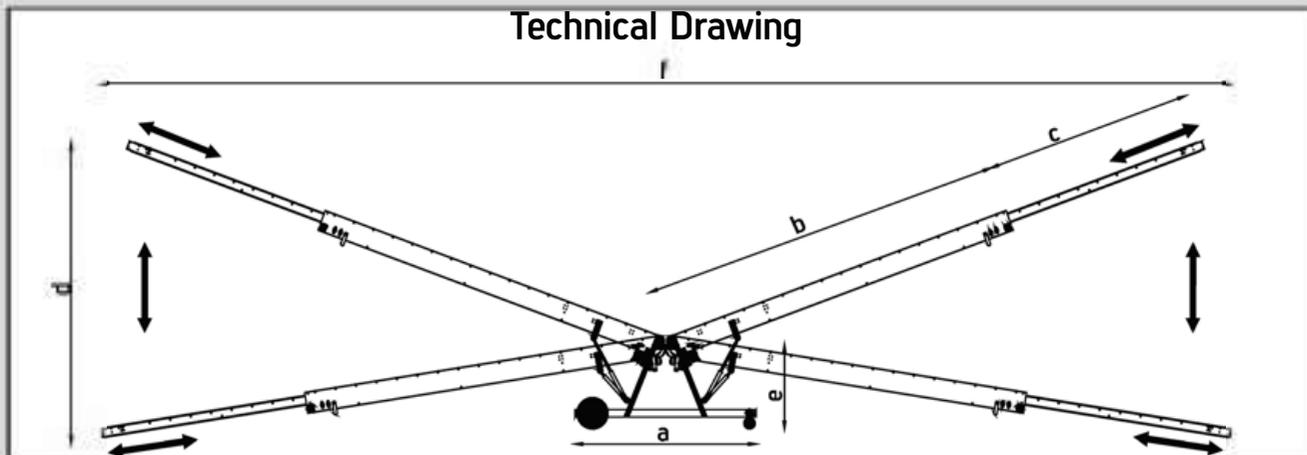
Loading & unloading of trucks, containers, trailers, warehouse storage, packaging areas, bags / cardboard storage etc.

### Working Principle:

AKYUREK Precision-Telescopic Belt Conveyors meet the increased demands of today's warehouse and distribution centers. Akyurek Teleskopic belt conveyor satisfy all criteria, providing cost effective and speedy vehicle loading and unloading of trucks, trailers, containers and vans to and from warehouse storage, packaging area, bags, cardboard storage etc. Akyurek will provide selection, design and manufacturing of telescopic belt conveyor as per the customers' requirement.

Akyurek engineering introduces a telescopic belt conveyor that will reach right to the end of the vehicle. The machine does not have to move during the loading or unloading process making it ideal for use with a conveyor system.

The telescopic boom and belt drive are controlled via simple to operate push button controls fixed at the end of the telescopic boom. The boom can be extended or retracted to where the operator requires with the remote push button station also.



Technical Data	
Telescoic Boom Belt Dimensions	
<b>a</b>	3500 mm
<b>b</b>	7000 mm
<b>c</b>	4000 mm
<b>d</b>	6500 mm
<b>e</b>	1620 mm
<b>f</b>	22000 mm



## BELT CONVEYORS T.BELT-023

Akyurek belt conveyor type T.BELT-014 is made up of standard elements which, when correctly combined, can easily be fitted into any conveying installation.

The Akyurek belt conveyor is manufactured in galvanized steel and/or painted and designed in a light and easy-to-assemble modular system.

Type T.BELT-014 is designed with guide rollers which are quiet and have low power consumption in relation to their capacity.

There is also a possibility for transport at an upward angle of up to 30° using carriers.

The belt conveyor is well-suited to safe and effective transportation of most materials.

### Standard equipment:

- Directly mounted gear motor
- Belt support rollers
- Returning rollers
- Belt tensioner
- Profile constructed body
- Suitable belt for requested task
- Painted body

### Accessories:

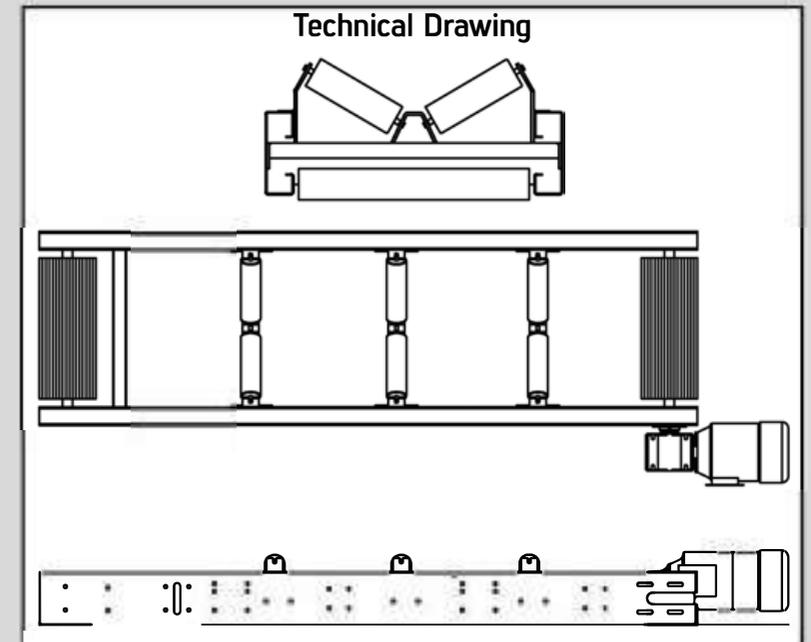
- Inlet hoppers
- Outlet skirts/outlet hoppers
- Cover for top/bottom
- Speed control monitor
- Runners for adjustable support fittings
- Belt guide rollers
- Belt scraper internal
- Belt scraper external
- Side extensions
- Oil resistant belt
- Outlet divider
- Automated tensioner
- Galvanized body

MODEL	T.BELT 023-30		
Band Length	0-3 Meter	4-6 Meter	6-10 Meter
Band Width	300 mm		
Engine	0,37 kW 70 RPM	0,55 kW 70 RPM	0,75 kW 70 RPM
Distance Between Rolls (Sheet Body)	530 mm		
Distance Between Rolls (Profile Body)	500 mm		
Capacity [m <sup>3</sup> /hour]	5 to 10 tph		

MODEL	T.BELT 023-40					
Band Length	0-3 Meter	3,5-6 Meter	6,5-9 Meter	9,5-14 Meter	14,5-25 Meter	25,5-35 Meter
Band Width	400 mm					
Engine	0,55 kW 70 RPM	0,75 kW 70 RPM	1,1 kW 70 RPM	1,5 kW 70 RPM	2,2 kW 70 RPM	3 kW 70 RPM
Distance Between Rolls (Sheet Body)	530 mm					
Distance Between Rolls (Profile Body)	500 mm					
Capacity [m <sup>3</sup> /hour]	10 to 15 tph					

MODEL	T.BELT 023-50					
Band Length	0-3 Meter	3,5-6 Meter	6,5-9 Meter	9,5-14 Meter	14,5-25 Meter	25,5-35 Meter
Band Width	500 mm					
Engine	0,75 kW 70 RPM	1,1 kW 70 RPM	1,5 kW 70 RPM	2,2 kW 70 RPM	3 kW 70 RPM	4 kW 70 RPM
Distance Between Rolls (Sheet Body)	530 mm					
Distance Between Rolls (Profile Body)	500 mm					
Capacity [m <sup>3</sup> /hour]	15 to 25 tph					

MODEL	T.BELT 023-60					
Band Length	0-4 Meter	4,5-6 Meter	6,5-8 Meter	8,5-10 Meter	10,5-14 Meter	14,5-24 Meter
Band Width	600 mm					
Engine	1,1 kW 70 RPM	1,5 kW 70 RPM	2,2 kW 70 RPM	3 kW 70 RPM	4 kW 70 RPM	5,5 kW 70 RPM
Distance Between Rolls (Sheet Body)	530 mm					
Distance Between Rolls (Profile Body)	500 mm					
Capacity [m <sup>3</sup> /hour]	25 to 35 tph					





## INCLINED CONVEYOR BELT Y.BELT-0014

### Inclined Belt Conveyor application areas are:

- Loading and unloading trucks or trailers/containers
- Sack stacking in warehouse
- Bulk product conveying and piling
- Sack conveying to high and low heights
- Cardboard conveying to high and low heights
- Plastic crates conveying to high and low heights

An infinite belt which turns on two drums on a roller bed carries product from the lower points to upper point. To prevent product tumbling back on belt conveyor, correct inclination for each type of product is taken into consideration with right type of belt. Discharge height of the inclined belt conveyor can be adjusted by manual jack lift or motorized jack lift system.

### Construction

Sturdy frame made of mild steel and anti-rust coated anti-static powder oven painted. Maintenance-free ball bearing in rollers. Extremely sturdy belt with hot pressed Z splice connection with many layers of ply. 60cm width to any required width available belt. Transportable with two large wheels & two small wheels at tail end for operational manoeuvres. On-board motor control panel with emergency button.

### Optional Items

- Stainless steel body frame
- Galvanized body frame
- Food grade belt
- Towing hook
- Intake hopper
- Side walls
- 50 meter cable and plug
- On-board generator
- Variable speed controller.

### Capacity for Bag/Sack

Belt speed 270 meters/hr / 1 meter a 50kg sack= 270 units of x 50 kg = 13,500 tn /hr  
 Belt speed 270 meters/hr / 1,2 meter a 100kg sack= 225 units of x 100 kg = 22,500 tn /hr

### Capacity for Bulk Product

Belt Width	
60 cm	80 cm
Wheat	40tph 60tph
Barley	40tph 60tph
Sunflower Seed	20tph 30tph
Sesame	30tph 45tph



Jack Lift : Inclination height adjusted with manually controlled jack lift.



Over 8 meter long Inclined belt conveyors motorized jack lift is recommended due to load weight.



Front end equipped with two large wheels for mobility as well as towing.



Tail end equipped with two small wheels for manoeuvring.



Belt tensioner and spanner provided.



Embedded motor for protection.



On-board power panel

Sturdy cleated belt and all other optional belts.





## SCREW CONVEYORS SE-016

**Tubular** Screw Conveyor Type BSC is designed for horizontal or slightly ascending transport of grain, fertilizer, flour, powder and granular bulk materials.

**Trough** Screw Conveyor Type USC is designed for horizontal or slightly ascending transport of grain, fertilizer, flour, powder and granular bulk materials.

All types of augers are designed in standard modules, which can be supplemented by customers' adjusted special parts.

### General Features

#### A-Head Unit

Complete with drive and bearings (for the conveyors supplied without geared motors or shaft mounted gear-boxes)

Option:

\*Sealed bearings or special bearings

#### B-Drive

By motor and shaft mounted geared motor (depending upon model and RPM.) Drive via pulleys and VEE belts (or geared motor with chain and pinions)

Options:

\*Different speeds

\*Drive type according to requirement

\*Shaft mounted geared motors (in line or right angle drives)

\*In line geared motors with flexible couplings and guards

\*Variable speed drives by inverter

#### D-Covers flat

Options:

\*Pitched covers

\*Profiled covers

\*Sealed covers

#### E-Flight

Accurately aligned and welded on the center tube. Bolted to the intermediate bearing shaft

Options:

\*Reduced pitch

\*Left and flight

\*Case hardened

\*Ribbon flight

\*Flight without bearings

\*Close tolerance flight

\*Increased thickness of flight

#### G-Intermediate Bearings

Twin seals and flexible mount allowing for misalignment, fitted at every 3.0 m

Options:

\*With plastic inserts

\*Bronze bearings

\*Split plain bearings

#### Intermediate Outlets

With slides

Electric

Electro-pneumatic

Manual -by hand wheel -chain operated

#### Finish

Oven baked paint finish

Options:

\*Galvanized finish

\*White food quality

\*Stainless steel 304L, 316L

#### C-Trough

Joined by welded flanges, bolted together

Options:

\*Increased thickness of trough

\*Sealed joints

\*Raised sides to the trough

\*Open bottoms

#### F-Tail Unit

Flanged or foot mounted bearings (certain models)

Option:

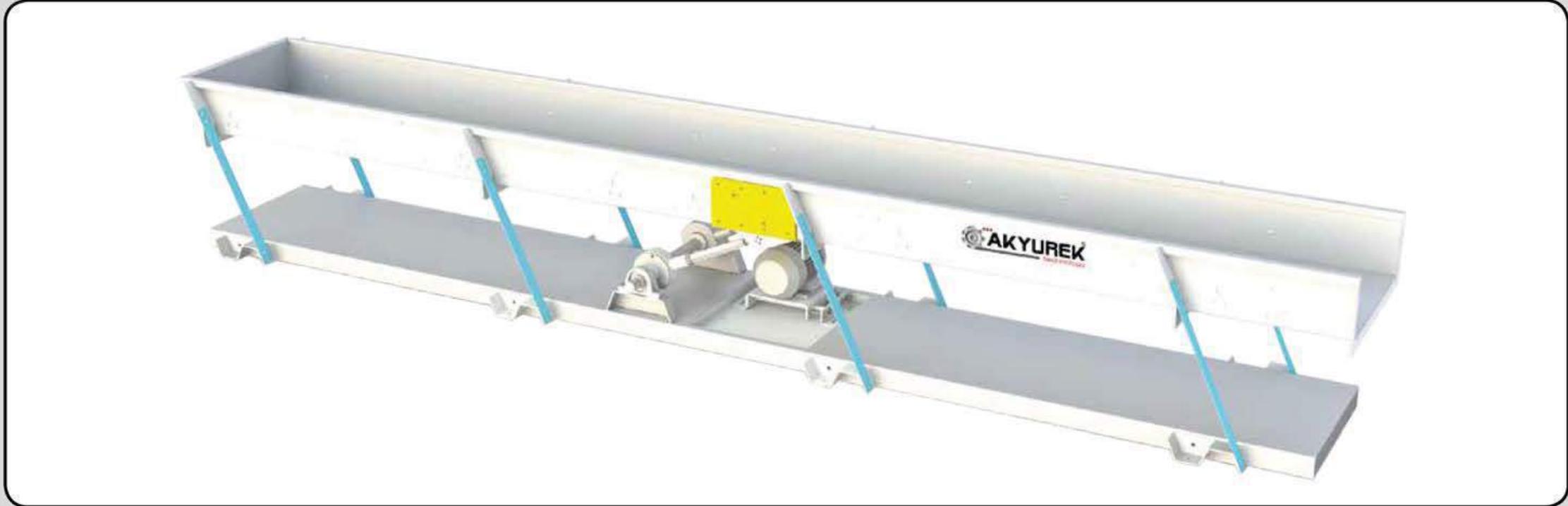
\*Sealed bearings or special bearings

#### Accessories

Adaptors, pipe work, mobility

Safety: speed detectors, choke relief flaps with micro switches, temperature sensors.

Technical Data					
SE-16	130	210	300	350	400
<b>Throughput (t/h)*</b>	10 t/h	20 t/h	40 t/h	50 t/h	75 t/h
<b>Throughput in m<sup>3</sup>/h</b>	13 m <sup>3</sup> /h	26 m <sup>3</sup> /h	53 m <sup>3</sup> /h	66 m <sup>3</sup> /h	100 m <sup>3</sup> /h
<b>RPM</b>	210	130	88	77	80
<b>Maximum power (kW)*</b>	2.2	4	11	11	15
(*) Destiny 750 kg/m <sup>3</sup> . Capacity is dependent on motor RPM, screw diameter and product density.					



## JOG CONVEYOR JC-100

Akyurek Technology is a leading manufacturer of grain conveying equipment. Akyurek Jog Conveyors are designed for horizontal and easy transportation of grain products. Could be connected and operated with the machines of cleaning, treating, sorting, etc. Jog conveyor provides an output from 10 to 35 tons of wheat per hour.

### Efficient and gentle conveying via optimized design.

High capacity conveying achieved with minimum moving parts.  
 Eccentric shaft has double flywheels and its stroke and frequency are adjusted according to the capacity.  
 Capacity is dependent on length of conveyor and product.  
 Multiple inlets and multiple outlets.  
 Totally enclosed with a bolted on cover or with a cover with spring lock.

Screening available (with or without ball tray cleaning)  
 Multiple pan flow options.  
 Bolted construction available to allow installation into smaller limited spaces.  
 Sanitary design.  
 Stainless steel contacts available.  
 Counterbalance for minimal vibration.  
 Multiple widths and lengths.

### Save time with fast and easy cleaning.

Conveyor is self-cleaning and it consists of a base plate which supports the open steel plate.

Technical Data	2 METER	4 METER
<b>Eccentric Motor</b>	1.5 kW 1000 RPM	1.5 kW 1000 RPM
<b>Eccentric RPM</b>	500 RPM	500 RPM
<b>Dimensions</b>		
<b>Width (mm)</b>	680	680
<b>Length (mm)</b>	2230	4230
<b>Height (mm)</b>	650	650
<b>Screening Area (m<sup>2</sup>)</b>	1 m <sup>2</sup>	2 m <sup>2</sup>
<b>Sieve Dimension</b>	Optional	Optional
<b>Net Weight (kg)</b>	307 kg	390 kg
<b>Noise Level</b>	50 dB	50 dB



## FLOW SCALE RDKTR-017 PLC

### Computerized Extraction Rate Scales

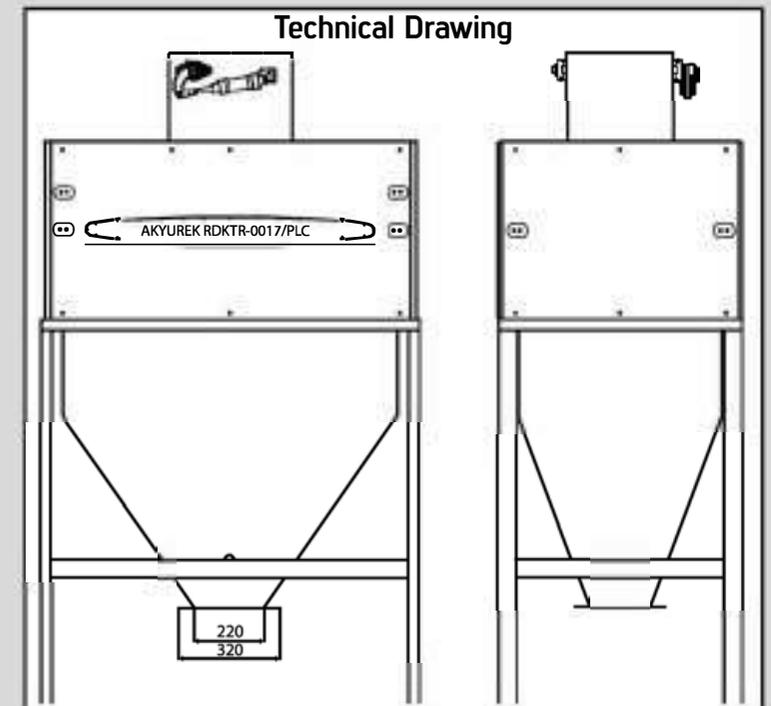
- \*Special extraction rate application programs on original SCADA program
- \*Required number of intake or extraction rate can be connected to the system
- \*Programmable expected and tolerance values of the extraction rates
- \*Display of the expected and current extraction rates
- \*Out of tolerance alarms for extraction rates
- \*Graphical extraction rate reports
- \*Monitoring loss of humidity
- \*Continuous display and calculation of extraction according to input and output and ability of independent formula application

### Extraction Rate Scales

- \*Full PLC inspection.
- \*Sensitive and quick weighing with stainless steel loadcells
- \*System panel in IP67 standard
- \*Easy calibration
- \*Various feeding system according to true weighing values
- \*Bulk flow measurement in ton / hour
- \*Bulk flow adjustment when it is required
- \*Display of total value that has been weighed
- \*Ability of individually or with network

### Extraction Rate Scales

- \*Monitor the extraction up to 5 extraction rate scales
- \*Continuous display and calculation of extraction according to input and output. Two different totalizers for each scales.
- \*Easy conversion to computerized system





## SEMI-AUTOMATED NET WEIGHER & BAGGING SCALES

Akyurek Semi-Automated Net Weigher & Bagging Scale Machines are used for pre-bagging weighing and bagging of 5 to 50 kg of bulk product.

Akyurek Semi-Automated Net Weigher & Bagging Scale machines feature electronic and micro-processing control. Feature of getting reports about sacked bags and weighing is available. It can connect to electronic devices such as PLC or computer.

Our machine can be used for all grain seeds, granule products, salt, granule chemicals, residue, cement, construction chemicals, coal and stone.

Operation starts with operator feeding the sack to sack grip, scale weighs the batch in two stages with gross weighing and net weighing and delivers the good into sacks. This process continuous in series action.

### APPLICATION INDUSTRY;

- Food
- Cement / construction
- Chemistry / petrochemistry
- Mining

### Product type and required capacity determines the:

- Conveyor type
- Pre-storage hopper size
- Feeding unit type
- Scale model
- Bag grip model
- Bag conveyor belt
- Bag closing type.

### Features;

- Fast and sensitive weighing
- Programmable number of bags to fill
- Configurable max and min limits
- Warning for out of tolerance weighing
- Level check at top tank
- Weighing memory

**Single Scale Model**



**Double Scale Model**



**Quadraple Scale Model**

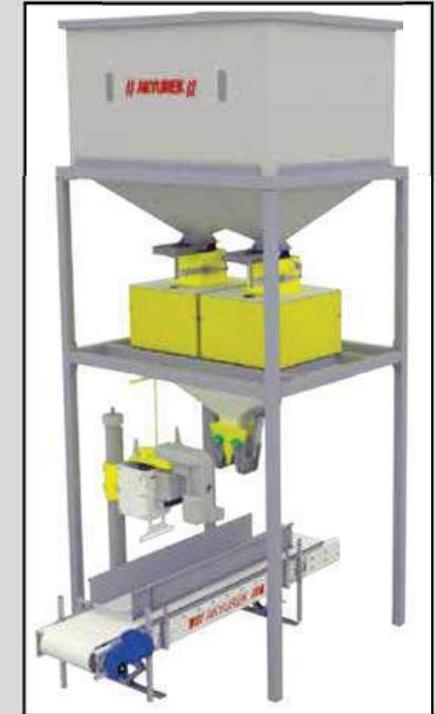


→ Weighing & Bagging → Pre-Bagging - Net Weigher Scales → Semi-Automated Net Weigher & Bagging Scales



Models	Target Weighing (kg)	Bags per Minute	Bags per Hour	Capacity tn/hr	Precision (gr) ±	Required Power	Air Requirement/ Pressure	Command and Control
<b>Single Scale Weigher Bager - TKYOK.017</b>	5	9	540	2.70	5 to 25	220 V 50 Hz AC	500 Lt min 8 Bar	Electronic Microprocessor
	10	9	540	5.40				
	25	8	480	12.00				
	50	6	360	18.00				

Models	Target Weighing (kg)	Bags per Minute	Bags per Hour	Capacity tn/hr	Precision (gr) ±	Required Power	Air Requirement/ Pressure	Command and Control
<b>Double Scale Weigher Bager - CKYOK.017</b>	5	14	840	4.20	5 to 25	220 V 50 Hz AC	700 Lt min 8 Bar	PLC and Touchscreen
	10	14	840	8.40				
	25	12	720	18.00				
	50	9	540	27.00				



Models	Target Weighing (kg)	Bags per Minute	Bags per Hour	Capacity tn/hr	Precision (gr) ±	Required Power	Air Requirement/ Pressure	Command and Control
<b>Quadruple Scale Weigher Bager - DKYOK.017</b>	5	28	1680	8.40	5 to 25	220 V 50 Hz AC	700 Lt min 8 Bar	PLC and Touchscreen
	10	28	1680	16.80				
	25	24	2040	51.00				
	50	16	1080	54.00				



## OPEN - MOUTH BAG FEEDING ROBOT OMBR-033

- Biggest possible sack size is 75 cm.
- Biggest possible sack length is 100 cm.
- Possibility of changing the product recipe up to 20.
- Feature of sacking up to 500 pieces.
- Feature of getting reports.
- Feature of entering production amount.
- PLC control system.
- Colorful touch-screen.
- Air necessity is 6 bars - 500 liter/minute.
- Sack sizes are 5-10-25-50 kg.
- Optional manual working is available.
- Processing speed is 10-13 pieces/minute.
- Fault tolerance is 0.5%
- Reset itself at bag error
- Single sack grab error in 50 to 100 cycle (depending on bag quality)
- 4 kW electricity consumption
- Schneider electric, servo automation controlled





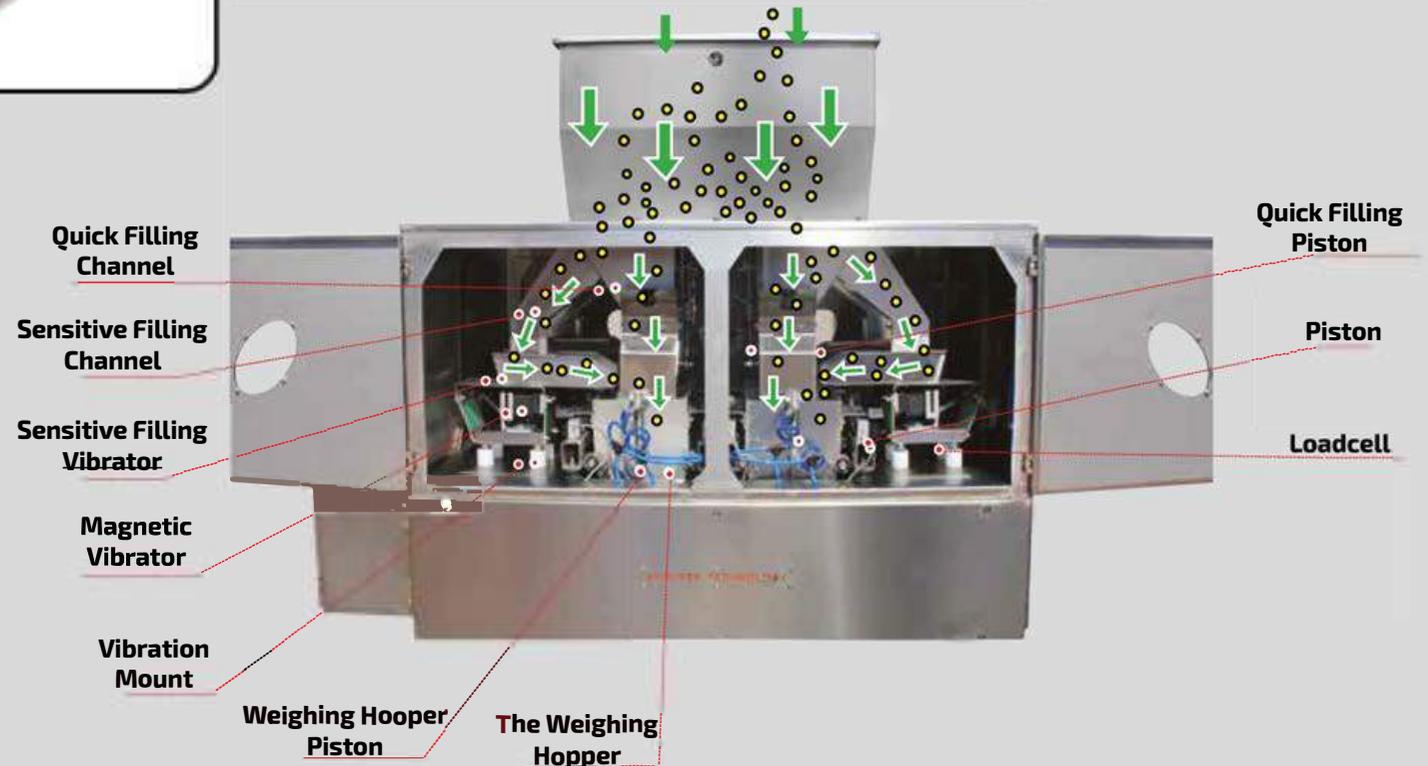
## LINEAR - SCALE - FOUR MULTI HEAD SCALE 500 g to 5 kg

### Application

Weighing all kinds of nuts, legumes, dried fruits, vegetables, snack foods, grated cheese, detergents, sugar, salt, grains, non-powdered spices, candies, teas, non-food granular materials, screws, nuts, washers, bolts, granular chemical products, seeds, pet food or any other free-flowing material.

### Indicator + PLC = Precision and Rapid Weighing

The system utilises four indicator loadcells. Weight and on-off information are provided by the indicator and for quick exchange of information and high sensitivity. The system features a PLC and touch panel for quick and easy adjustment of its settings. It provides daily reports on any faults, malfunctions, manufacturing information, weighing output, etc.





## ELECTRONIC SCALE – IN BAG – NET WEIGHER 5 to 50 Kg

Akyurek 'Electronic Scale Bag Net Weigher' machine is used for open mouth bagging of 5 to 50 kg bulk product and weighing in bags.

Akyurek 'Electronic Scale Bag Net Weigher' machine are with electronic and micro-processing control.

Feature of getting reports about sacked bags and weighing is available. It can connect to electronic devices such as PLC or computer.

Our machine can be used for all grain seeds, granule products, salt, granule chemicals, residue, cement, construction chemicals, coal and stone.

Product type and required capacity determines the

- Conveyor type
- Pre-storage hopper size
- Feeding unit type
- Scale model
- Bag grip model
- Bag closing type

Technical Data				
Sack Weight	Sack Per Minute	Sack Per Hour	Capacity	Accuracy
5 Kg	12	720	± 3,60 Tn	± 25 gr
50 Kg	6	360	± 18,00 Tn	± 25 gr



## BIG BAG SCALE – ON & ABOVE GROUND WEIGHING

BIG-BAG filling systems are used in bagging of bulk material in granule and powder form, reducing the bagging, conveying and storing costs in great amounts. Suitable for bag sizes ranging from 25–50kg to 500kg or 1–2tons, Akyurek Big-Bag filling systems are produced in a broad line starting from manual filling, going till automatic filling, dust capturing and re-using units. For very fine powder type of materials, double covered big bag sacks, special production can also be done. Varying of the customer needs, material supply or turn-key projects can be accomplished.

The system can have...

Feeding system – flow control part–helix–vibrator, belt conveyor, and double position pneumatic gate, etc.

Bag grip mechanism, bag inflation, dust collection, aspiration, weight measuring unit–indicator, load cell, control panel, main carrying mechanical construction, pneumatic pistons and valves.

The system is designed according to the type of big-bag used at operation. In various environments such as PVC, cement, raw mine, borax PP (polypropylene) PTA (pretrephtalic acid), AYPE, YYPE (polyethylene), PS (polyester) etc.

### Properties;

- Fast and accurate weighing
- Programming bag number
- Adjustable lower and upper limits
- Automatic and manual operation
- Limit of tolerance alert

Technical Data						
Models	Target Weighing (kg)	Bags per Hour	Precision (gr) ±	Required Power	Air Requirement/ Pressure	Command and Control
Big Bag Scale Above Ground Weighing BBS-AGW-017	500	10 to 15	0,01 %	220 V 50 Hz AC	500 Lt min 8 Bar	Electronic Microprocessor PLC Integrable
	1000	10 to 15				
	1500	10 to 15				
Big Bag Scale Above Ground Weighing BBS-AGW-017	500	10 to 30	0,01 %	220 V 50 Hz AC	500 Lt min 8 Bar	Electronic Microprocessor PLC Integrable
	1000	10 to 30				
	1500	10 to 30				



## MECHANIC SCALE IN-BAG GROSS WEIGHER 25 TO 50 KG

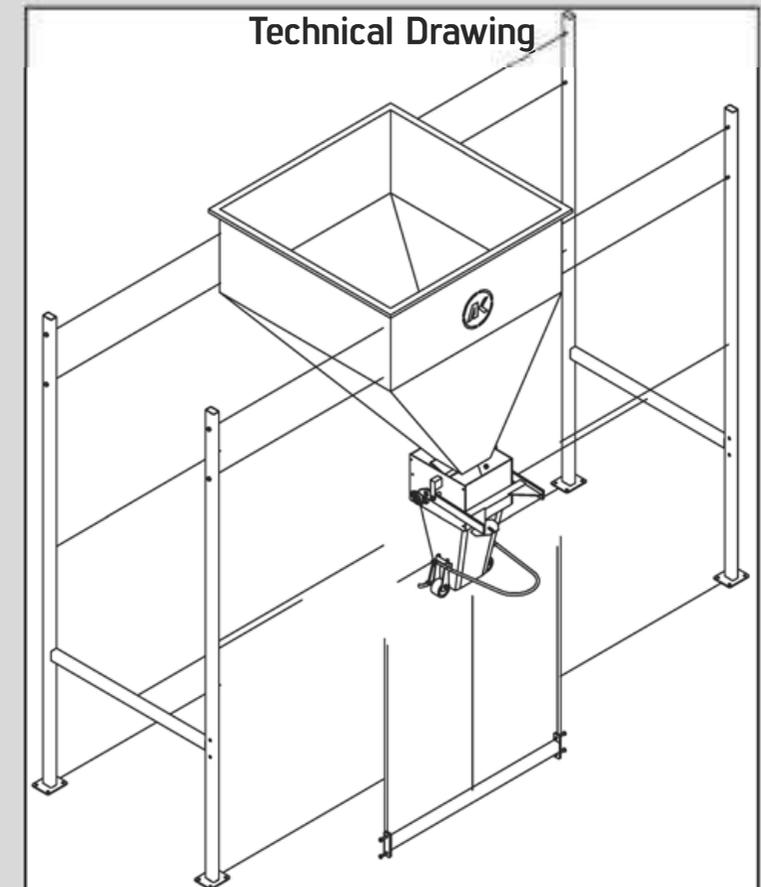
### Bagging / Sack Scale Function

Bagging scale used for packing granule crops in 25 and 50 kg bags. It works completely mechanically. It is fixed under the silo or hopper by bolts. Small, medium or large capacity hoppers are available.

### Bagging / Sack Scale Working Principle:

The sack is fitted tightly to the sack clamps. Operator activates the product flow into the sack with a lever and product weighing starts. When sack reaches the set weight, a pressure on the mechanical system stops the flow of the product. Operator removes the sack from the sack clamp.

- \* Obtainable capacity is interdependent with operator's skills.
- \* Accuracy percentage can change on each different type of product.
- \* In order to get a good accuracy, a digital platform scale can be used below the scale where the sack can be released from above on digital platform scale.
- \* Operator can do the necessary adjustment by adding or taking product to or from the sack.



Technical Data				
Sack Weight	Sack Per Minute	Sack Per Hour	Capacity	Accuracy
25 Kg	12	720	±18000 Kg	± 500 gr
50 Kg	6	360	± 9000 Kg	± 500 gr



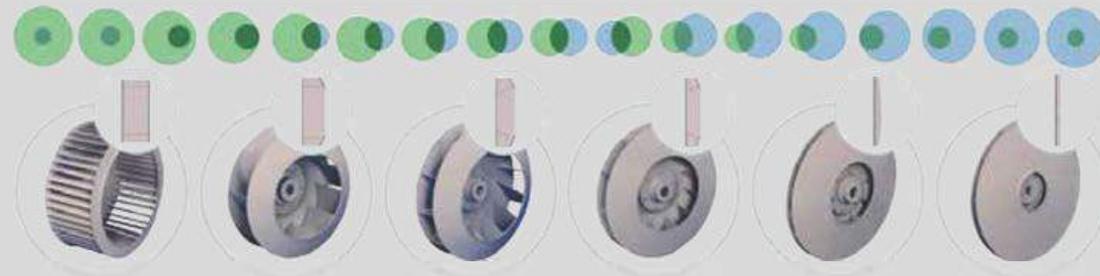
## CENTRIFUGAL FAN ACF

The Akyurek Centrifugal Fan type ACF is a medium pressure fan having backward curved steel blades manufactured in steel plate. The impeller is self-cleaning and dynamically balanced. The spiral housing is made of welded steel plate.

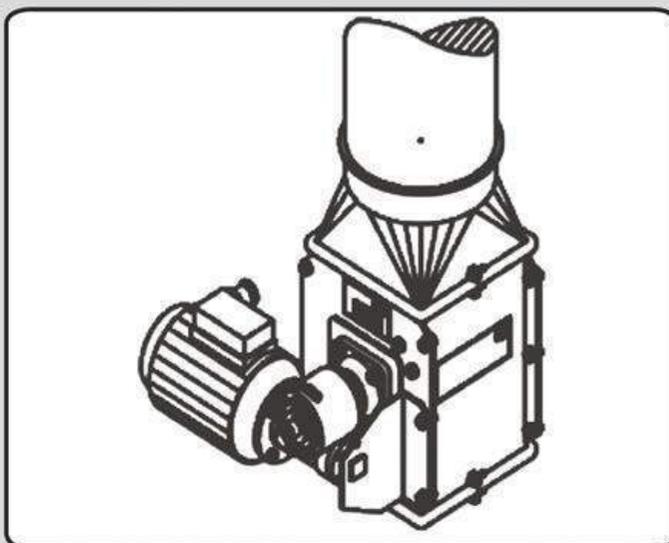
The fans are supplied with a direct coupled 1450 rpm flange motor. The larger models, ACF620, 625 and 630 are supplied with motor frame and built-in Varifan on the suction side.

The ACF fans are as standard equipped with throttle valves and can be supplied with the specially developed VARIFAN (see drawing) which is made of adjustable guide plates placed as a rosette at the intake. It regulates the air volume and reduces the energy consumption with lowered capacity.

Radial fans are designed to transportations with relatively high air resistance as well as a transportation of the plastic bottles on the production line. Motors are able to run in temperatures between 15 and +40°C and humidity of up to 95%



Technical Data						
CENTRIFUGAL FAN						
MODEL	Capacity [m³/h]	Noise [dB]	Weight [kg]	Power [kW]	Rotations [rpm]	Application
AKCF - 110	13000	93	239 kg	11 kW	1500	Clean Air, Dusty Air, Powder Materials
AKCF - 150	18000	94	300 kg	15 kW	1500	
AKCF - 185	22000	96	455 kg	18,5 kW	1500	
AKCF - 220	23500	97	460 kg	22 kW	1500	
AKCF - 300	30000	99	650 kg	30 kW	1500	
AKCF - 370	35000	100	840 kg	37 kW	1500	



## AIRLOCK VALVE ALV-52

### Application

Akyurek's Airlock Valve type ALV-52 is used for discharge of dust and other separated particles from systems working with vacuum or pressure. It is dust proof and is used as a pressure block between a cyclone and a dust collecting bag. In connection with Akyurek's dust collecting centrifugal fans the airlock valve is mounted between the bottom outlet of the cyclone and the dust bag, where it ensures a uniform and continuous discharge of dust and other particles, and at the same time minimises the air escaping through the outlet into the dust bag.

### Design

The air-lock valve is manufactured from galvanised plate and is complete with a 200 mm (8") steel roller with 6 radial rubber vanes on the shaft. The rotor is carried by ball bearings and its speed does not normally exceed 40 RPMs. The air-lock valve is lubricated for life and is designed for continuous operation.

TECHNICAL DATA	
Capacity	4 Litres per RPM 10 m³ per hour
Motor Power	0,37 kW (0,5 HK) 1.3 Amp, 400 V
Revolutions	1400/40 RPM/min.
Gear Box	BJ 01/m4-30/85 Ø20
Approx. weight with motor	30 kg
Approx. volume incl. seaworthy packing	0,1 m³
Inlet size (square)	200 mm (8") Q-20



## JET FILTERS AKJF

Pressure-shock-resistant filters are used in almost every sector and branch of industry. In light of constantly increasing environmental awareness and more stringent legal regulations, dust removal has become an absolute must in almost all companies. Jet Filters AKJF are particularly suited for use in reception and storage plants for grain and other bulk materials, the biomass industry, the feed industry, as well as the food industry.

### Effective dust removal and compact design

- \* More effective dust removal thanks to pre-separation of heavy particles via cyclone inlet.
- \* The Jet Filter AKJF boasts a low space requirement and low investment costs thanks to the compact design and the high filter surface load.

### Effective cleaning of the filter bags

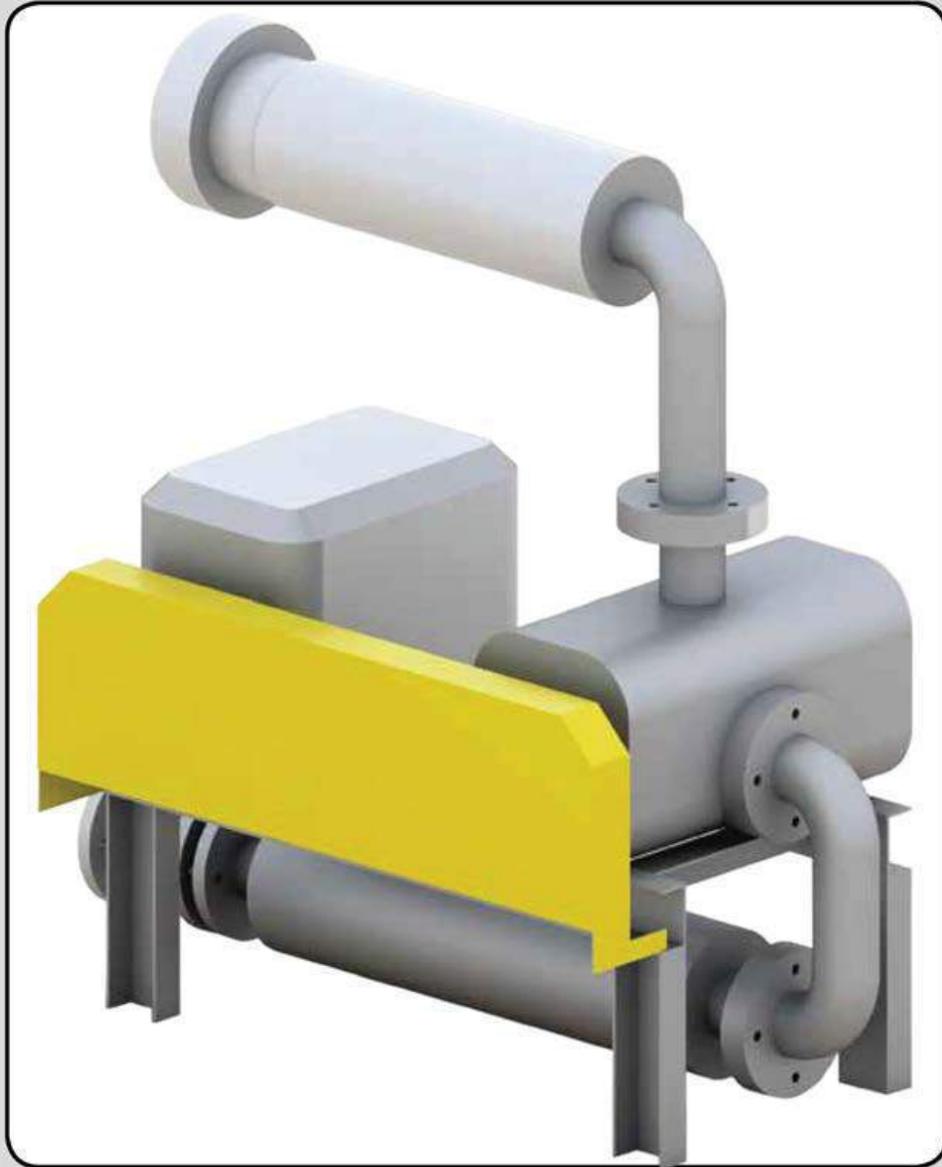
- \* Time-controlled and/or differential pressure-controlled cleaning of the filter bags results in greater flexibility for setting the cleaning operation.
- \* Flushing the filter bags ensure subsequent operational reliability.

### Pressure-shock resistant

- \* The pressure-shock-resistant design with pressure release means that the jet filters are also suitable for combustible or explosive dust.
- \* The jet filters therefore satisfy even the most stringent safety requirements.

## Technical Data

Type-Number of bags	AKJF - 18			AKJF - 26			AKJF - 39			AKJF - 52			AKJF - 78A			KJF - 104		
Filter Area m <sup>2</sup>	8	13	16	11	19	23	17	28	35	23	38	46	34	57	70	47	77	95
Volume m <sup>3</sup>	56		6.6	6.4	8	8.7	91	11	21	2	14.6	15.8	21.1	25.1	27	26.6	29.1	31.3



## BLOWER GROUP

The new type compact blower package incorporates a blower silencer, air intake filter, drive and safety valve in one single balanced unit. In designing it, particular attention was paid to noise control and to the reduction of the maintenance and cleaning requirements.

The unit is designed to receive Robuschi rotary blower. The package is driven by a standard electric motor. The inlet silencer is combined with the filter which can be easily replaced. Blower packages or V-belt driven tensioning for the drive can be easily adapted for different blower and motor sizes. Three-phase electric motors, according to sec standards, B3 mounting position and IP54 protection are used to drive the blower.

Model	Rpm d/min	100 mbar		200 mbar		300 mbar		400 mbar		500 mbar		600 mbar		700 mbar		800 mbar	
		Flow m <sup>3</sup> /m.	Power kW														
A-50	950	0.90	0.30	0.75	0.59	0.64	0.85	0.53	1.11	0.44	1.34	0.38	1.58	0.32	1.81	0.27	2.02
	1100	1.17	0.35	1.03	0.68	0.92	0.99	0.82	1.34	0.73	1.57	0.67	1.84	0.61	2.09	0.56	2.34
	1250	1.38	0.37	1.24	0.77	1.12	1.12	1.02	1.46	0.92	1.78	0.86	2.09	0.80	2.39	0.75	2.55
	1350	1.54	0.43	1.39	0.83	1.28	1.21	1.18	1.58	1.09	1.93	1.02	2.26	0.97	2.56	0.91	2.66
	1450	1.70	0.43	1.56	0.89	1.45	1.30	1.34	1.69	1.26	2.06	1.18	2.42	1.12	2.76	1.08	2.76
	1550	1.86	0.49	1.72	0.95	1.61	1.39	1.50	1.81	1.41	2.21	1.34	2.59	1.28	2.95	1.24	3.08
	1650	2.02	0.52	1.88	1.01	1.77	1.48	1.66	1.93	1.57	2.35	1.51	2.75	1.45	3.14	1.40	3.40
	1750	2.19	0.59	2.04	1.08	1.93	1.57	1.82	2.05	1.73	2.49	1.66	2.92	1.60	3.33	1.56	3.78
	1950	2.51	0.62	2.36	1.23	2.25	1.75	2.14	2.29	2.04	2.77	1.97	3.26	1.91	3.70	1.87	4.37
	2200	2.08	0.69	2.71	1.39	2.54	1.97	2.37	2.58	2.20	3.13	2.03	3.68	1.86	4.17	1.69	4.93
A-55	950	1.50	0.50	1.25	0.98	1.06	1.42	0.89	1.85	0.74	2.24	0.63	2.64	0.53	3.01	0.45	3.37
	1100	1.94	0.58	1.72	1.13	1.53	1.65	1.37	2.24	1.21	2.62	1.11	3.06	1.02	3.49	0.94	3.90
	1250	2.30	0.66	2.07	1.28	1.87	1.86	1.70	2.43	1.54	2.97	1.43	3.48	1.34	3.97	1.25	4.25
	1350	2.56	0.72	2.35	1.38	2.14	2.02	1.97	2.63	1.81	3.21	1.70	3.76	1.61	4.27	1.52	4.43
	1450	2.83	0.70	2.60	1.49	2.41	2.17	2.23	2.82	2.08	3.44	1.97	4.03	1.87	4.60	1.80	4.60
	1550	3.10	0.82	2.80	1.59	2.68	2.32	2.50	3.02	2.35	3.68	2.24	4.31	2.14	4.92	2.07	5.13
	1650	3.37	0.87	3.14	1.69	2.95	2.47	2.77	3.22	2.62	3.92	2.51	4.59	2.41	5.24	2.34	5.66
	1750	3.65	0.93	3.40	1.80	3.21	2.62	3.03	3.42	2.88	4.15	2.77	4.87	2.67	5.55	2.60	6.30
	1950	4.19	1.03	3.94	2.00	3.75	2.92	3.57	3.82	3.40	4.61	3.29	5.43	3.19	6.17	3.12	7.28
	2200	4.80	1.15	4.55	2.31	4.30	3.28	4.05	4.30	3.80	5.21	3.55	6.13	3.30	6.94	3.05	8.21
A-60	950	2.41	0.83	2.23	1.35	2.05	1.96	1.89	2.55	1.74	3.11	1.63	3.64	1.53	4.15	1.43	4.64
	1100	2.97	1.29	2.80	1.57	2.62	2.28	2.47	2.96	2.34	3.61	2.23	4.22	2.12	4.81	2.03	5.38
	1250	3.41	1.50	3.27	1.78	3.08	2.59	2.92	3.36	2.79	4.09	2.67	4.79	2.56	5.46	2.46	6.10
	1350	3.77	1.60	3.61	1.92	3.42	2.80	3.26	3.63	3.13	4.42	3.01	5.17	2.91	5.90	2.80	6.59
	1450	4.13	1.70	3.96	2.06	3.77	3.01	3.62	3.90	3.48	4.75	3.36	5.56	3.26	6.34	3.15	7.08
	1550	4.48	1.80	4.30	2.20	4.11	3.21	3.96	4.17	3.82	5.07	3.70	5.94	3.60	6.77	3.49	7.56
	1650	4.82	1.90	4.65	2.34	4.45	3.42	4.30	4.44	4.16	4.40	4.04	6.32	3.94	7.20	3.84	8.04
	1750	5.17	2.00	5.00	2.49	4.80	3.63	4.65	4.70	4.50	4.73	4.39	6.70	4.29	7.64	4.19	8.54
	1950	5.86	2.20	5.68	2.70	5.48	4.04	5.33	5.25	5.18	6.38	5.07	7.46	4.97	8.50	4.88	9.51
	2200	6.24	1.50	6.04	3.00	5.84	4.30	5.64	5.60	5.44	6.80	5.24	8.00				



**MODULAR PIPEWORK SYSTEM**

A to Z turnkey solution provider Akyurek Technology, manufactures and provides Universal Modular Pipework systems suitable for grain and seed handling. Universal Modular Pipework systems have a wide range of uses.

**CONNECTION COMPONENTS**

- Pull-rings without sealant
- U-shaped seals
- Pull-rings with sealant
- Earthing bridge

**TRANSITION PIECES**

- Cone pieces
- Connecting flanges
- Spouts
- Jet caps
- Rain caps

**FIXING COMPENENTS & ACCESORIES**

- Flanges
- Flanging tools
- Earthing wires / lugs
- Piper-clamps
- Hoses
- Compensator
- Pipe ball joints
- Plexiglass pipes
- Bagging spouts
- Bag clamps

**INSPECTION COMPONENTS**

- Inspection pipes
- Cleaning pipes
- Inspection T-pieces
- Rubber cover
- Cover locks

**REGULATORS**

**SHUT-OFF VALVES**

- Throttle/shut-off valves
- Airflow control gates
- Non-return valves
- Bulk goods slide valves

**MULTI-WAY DISTRIBUTORS**

- Turn-head distributors
- Twin-pipe turn-head distributors

**BRANCH PIECES**

- T connection
- Forks
- Conical forks
- Symmetrical forks
- Conical symmetric forks

**PIPES**

- Pipes
- Welding ends
- Push-in pipes
- Ring seals

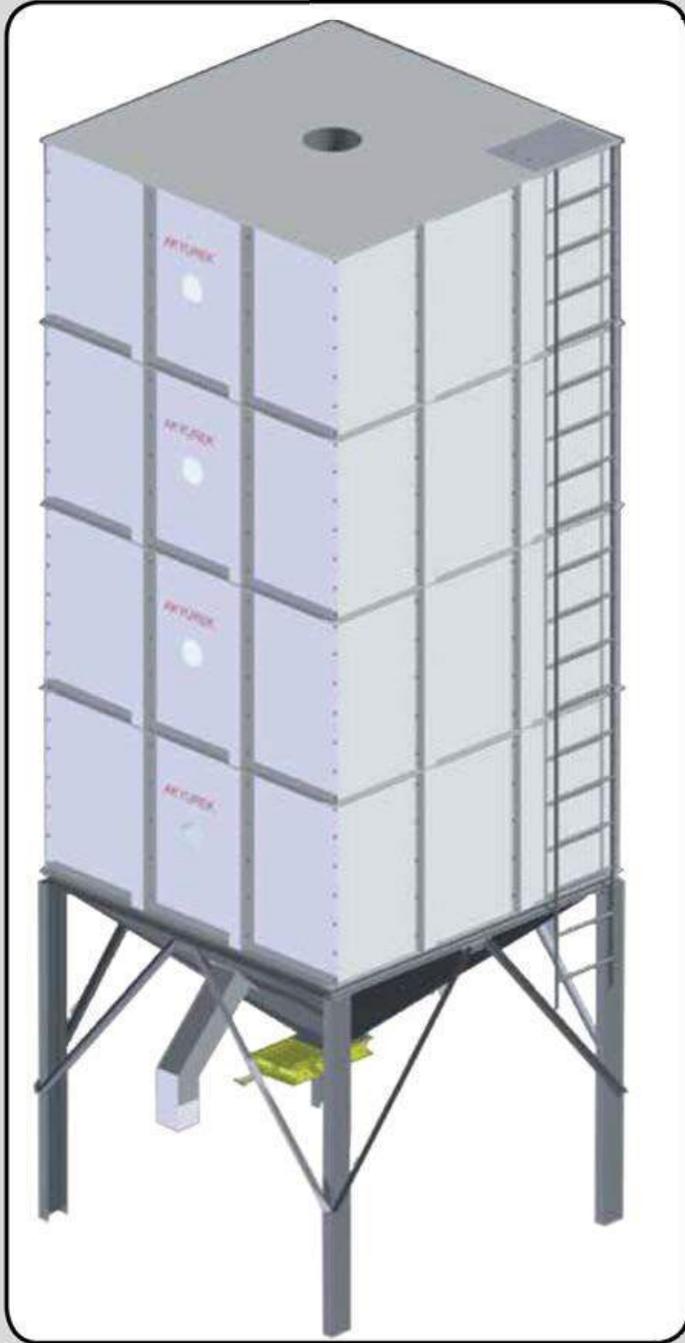
**SEGMENTS & BENDS**

- Segments
- Bends
- Wear protection

**TWO-WAY DISTRIBUTORS**

- Two-way valves with collar
- Two-way valves with seal
- Two-way distributors





**Leg Stands**

If the silo is to be fitted with outlet clearance, it is required that the lower section is elevated to the level of the outlet chute. Legs to fit under the corner-posts are available in various lengths in order to suit the outlet clearance. They are delivered either painted or galvanized.

**Second Outlet**

Easy discharge of excess product from the silo into a big bag, elevator hopper or conveyor belt.

**Lid**

Silo lid keeps stored product safe from external contamination.

**INDOOR STORAGE SILOS**

Indoor Square Silos are designed and manufactured for food processing and/or industrial plants for product storage purposes. Akyurek Technology designs, manufactures and supplies with helper equipments for square silos usage purpose i.e. product feeding elevators, product drop down slower, capacity sensors, mechanical outlet valves, pneumatic valve outlets, capacitive measurement outlets, second outlet (for big bag filling) magnetic feeders, coolers and heaters.

**Wall Sheets**

For the bins are manufactured from suitable material for customer demand hot galvanized steel sheets, stainless steel oven coated painted ST 37 carbon steel sheets which are laser cut for maximum rigidity obtained. Accurate processes on the production line ensures a tight fit and easy erection. Depending on wall element length and to what total height bins will have to be, different sheet thicknesses have to be selected.

**Corner Post**

Corner posts are available in two designs according to the illustrations. Type 1—where four walls are jointed together with nut bolt and washer joints and Type 2—square profile steel bars welded where four walls are jointed together. The posts are available as standard painted or hot dipped galvanized. Apart from standard posts above, there are a number of posts for special purposes. For instance, when hoppers are fitted.

**Hopper Vibrator**

Hopper vibrators are developed to facilitate flow from bins and hoppers on all types of materials, including large aggregates and sand, fine powders, flakes, pills, bottle caps, jars and just about any material that tends to stick or clog inside a silo.

**Sensor**

Capacity or level sensors can be designed and supplied as an option with silos.

**Inspection Window**

Acrylic window allows visual inspection of the level of stored product.

**The Rods**

By using tie rods, larger bins can be supported. This is done by installing steel pin supports cross to walls. They are delivered in corresponding lengths to the walls sheets.

**Nut, Bolt & Washer**

Bolts, washer and nuts are used for assembling the wall and to join corner posts and wall sheets. Galvanised flanged bolts M8 and nuts are used. No washers are necessary because of the flanged nuts. This simplifies the assembly process.

**Loadcells**

Weighing of stored goods in silo and using this data.

**Outlet Valves**

Silos are supplied with manual operated outlet valves as standard for product/seed discharge control system. As an option, manually operated ball bearing outlet valves or auto controlled pneumatic outlet valves are available upon request.

**Technical Data**

MODEL	1500 x 1500		2000 x 2000		2300 x 2300		3000 x 3000	
	MIDDLE DISCHARGE	FRONT DISCHARGE						
1. FLOOR (Kg)	500	530	720	810	960	1030	1220	1380
1,5. FLOOR (Kg)	610	640	920	1010	1200	1270	1630	1780
2. FLOOR (Kg)	670	700	1000	1090	1290	1360	1760	1910
2,5. FLOOR (Kg)	780	800	1200	1300	1530	1610	2170	2320
3. FLOOR (Kg)	830	860	1290	1380	1620	1690	2310	2460
3,5. FLOOR (Kg)	940	970	1490	1580	1860	1930	2720	2860
4. FLOOR (Kg)	1000	1020	1570	1660	1950	2020	2850	2990
4,5. FLOOR (Kg)	1100	1130	1770	1860	2190	2260	3250	3400
5. FLOOR (Kg)	1160	1190	1850	1940	2290	2350	3380	3530
OVER THE CONE (m)	1,7	2	1,8	2,3	1,87	2,5	2	3

DIMENSIONS	1500 x 1500	2000 x 2000	2300 x 2300	3000 x 3000
A (mm)	1500	2000	2000	3000
B (mm)	1500	2000	2000	3000



# GRAIN TECH LTD

## PROCESSING, HANDLING & STORAGE SYSTEMS

55B Druces Road, Manukau, Auckland 2104, New Zealand  
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Tel: 0064 9 263 6926 Fax: 0064 9 262 1335  
Email: admin@graintech.co.nz Website: www.graintech.co.nz

## AN ENGINEERING OFFICE THAT PUTS IDEAS INTO ACTION

### We build systems for raw material

- In all sections of the food industry
- In the chemical industry
- In the agricultural commodity industry
- In the waste treatment / disposal industry

### We have the perfect storage method

- With outdoor and indoor silos
- Homogenizing silos
- With Grain Tech's fluidised bed discharge systems
- Standard or tailored design for all additive ingredients and liquids

### We convey products gently

- Through all types of pneumatic systems
- Through Grain Tech's pressure vessels
- Through vibratory conveying systems
- Through air slides and metering screws
- Through bucket elevators, various types of belt and drag link conveyors
- Through aero-mechanical conveyors

### We sift raw materials to the highest specifications

- With orbital and gyratory sifters
- With screeners and rotary classifiers
- With vibratory and pneumatic in line sifters
- For classification control and final security sifting

### We pulverise and mill raw materials to attain exact particle sizings

- By pre-breaking, hammer milling and crushing
- By roller milling, granulating and cutting

### Our mixing achieves better quality

- Mechanically and pneumatically
- With or without liquid additions
- In batch or continuous systems

### We can weigh and meter within extremely tight tolerances

- With Grain Tech's weigh mix systems
- Incorporating totally integrated weighing and processing control systems
- Using screw and vibratory metering feeders
- We change the characteristics and shape of commodities and materials

### We effectively classify raw materials and finished product

- With gravity and air separators
- With mechanical graders and screeners

### We have drying and cooling systems to meet most product types

- By fluid bed and vibratory conveying units
- By pneumatic circuits
- By column, tower and conveyor systems

### We change the characteristics and shape of commodities and materials

- With pelletizing and agglomeration processes
- By extrusion processors

### We manufacture and supply the following machines

- Rotary valves, blower units, diverter valves, multi-way valves, cyclones and transit separators
- Pipe systems, filter collectors
- Shut off valves, slide gate valves
- Hammer mills, crushers, pulverisers, roller mills, flaking mills
- Extruders, pelletizers, agglomerators
- Silos, bins and hoppers, discharging devices
- Mixers, blenders, sifters
- Control systems and measuring / metering equipment
- Bagging, packing and handling equipment

### Special processing systems or machines

- Extrusion processing lines
- Complete cereal processing lines
- Complete animal feeds manufacturing