



# MMCTECH

SEED PROCESSING MACHINE & EQUIPMENTS - AUTOMATION SOLUTIONS

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## MMCTECH Seed Conditioning & Processing Global Solution Partner



### VEGA PRE-CLEANING MACHINE

MMCTECH: Seed Machines & Equipment with Automation Solutions

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# VEGA PRE-CLEANING MACHINE

For more than 40 years, Akyurek has been something of a fixed institution in the development, design and production of cleaning and grading machines.

Throughout the decades, we have left a significant impact on the technical standard of these systems.

Especially when it comes to harvest crop intake systems as well as pre-cleaning and main cleaning systems for cereal grains, maize, oilseeds, legumes, malt, rice, coffee and soybeans a wide range of users are relying on technology made by Akyurek.

Our high-performance machines are used mainly in

- \* Harvest crop intake and receipt facilities delivery pre-cleaning operations
- \* Mills and malting plants
- \* Silos and storage warehouses
- \* Seed processing plants

These machine types, although vastly different from one another, have one important thing in common: Anyone opting for one of the VEGA series cleaning and grading machines will get thousand fold proven technology for cleaning cereal grains, oilseeds and legumes and for processing malting barley, malt and seed grains. And a tried-and-true system with air classification at the infeed end and high-intensity vertical sifting at the outfeed end.

Countless companies all over the world are putting these cleaning systems to the test every day.



Seed cleaning machines have been one of Akyurek's core products right from the outset.

In critical dialogue with our customers and partners, we have been constantly receiving and implementing requests and suggestions and responded to market demands with well-targeted developments.

The logical result: today's state-of-the-art VEGA series cleaning machines, which leave nothing to be desired, thanks to their functional details and holistic, tailor made concepts.

Quality shows in a number of features, such as e.g.:

- \* State-of-the-art technology based on decades of experience in the development of high-quality threshing-crop cleaning machines
- \* Double aspiration thanks to vertical sifters at the infeed and outfeed ends, for high-intensity, economical and environmentally-friendly cleaning through air separation of the fine particles

## Vega Pre-Cleaning Machine

# APPLICATION & CHARACTERISTICS

- \* High hourly output rates thanks to large screen surfaces, even for very contaminated or wet products
- \* Economical solution for processing one or two different product types without need of screen change
- \* Optimized system adaptability to the cleaned product thanks to air volume regulation – either by remote control or directly „hands-on“
- \* Minimum maintenance thanks to optimized design and use of high-quality components



Cleaning machines of the VEGA 22A, 222A, 333A and 2222A series are worldwide proven universal cleaning machines for single or double product sorting without need of screen exchange. They have been developed specifically for handling difficult products such as e.g. rape, and are used primarily in silo and processing plants as well as in storage warehouses and malting plants.

## Main features

- \* Economical and highly efficient cleaning system thanks to the twice-over use of the aspiration air
- \* High output rates thanks to the time-tested plan sifter system with circular vibratory movements
- \* Cleaning and grading through course- and grain screens into 4 fractions:
  - 1 st grade = Accept seed
  - 2 nd grade = Undersize Admixtures
  - Waste = Oversize Admixtures
  - Infeed and outfeed aspiration = lightweight Admixtures
- \* High operational reliability thanks to screens with perforated metal plates on rugged steel frames and time-tested rubber ball cleaning system

**Vega Pre-Cleaning Machine**

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# VEGA PRE-CLEANING FEATURES

1- Product inlet with vibrating tray: for the uniform and gentle distribution of the product across the entire machine width.

2- Inlet Aspiration: removes lightweight particles and dust from seed, which reduces the sieve load and increases the cleaning quality

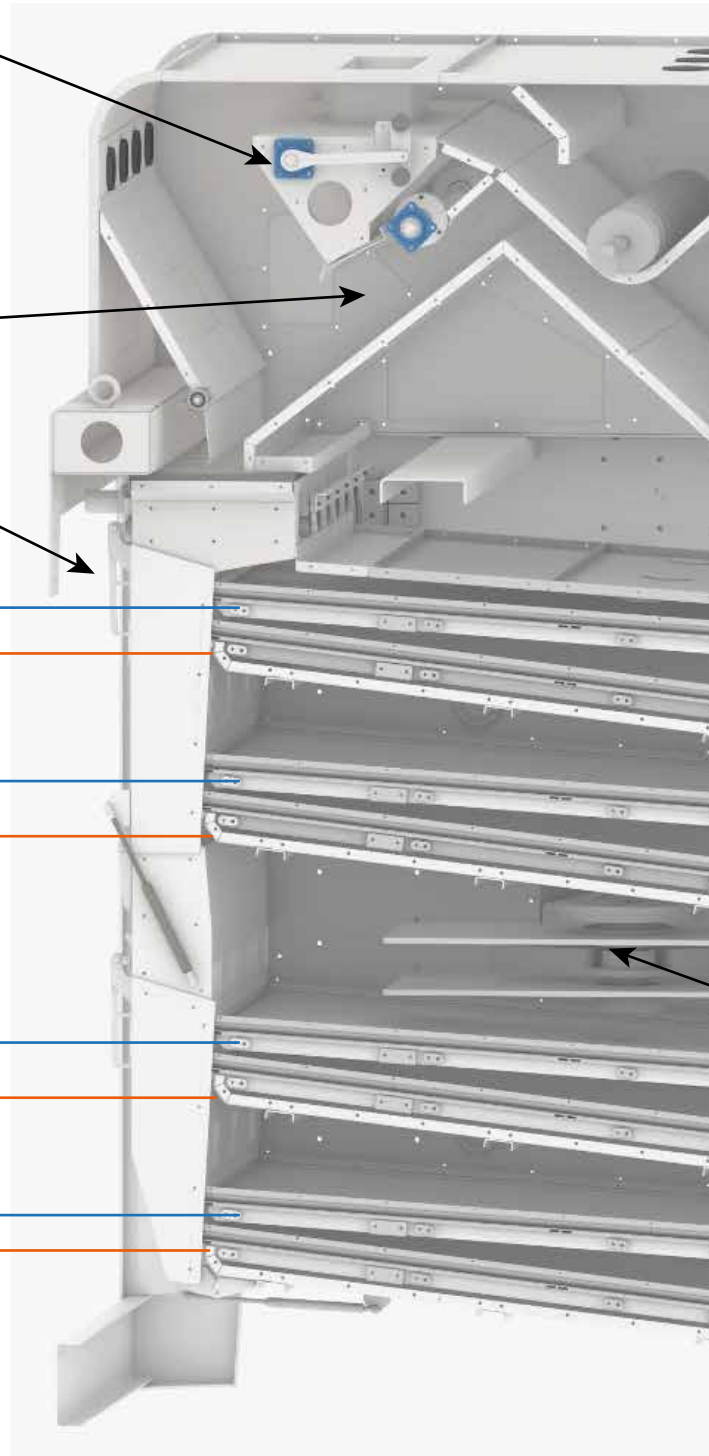
3- Screen door: easiest access to all screen layers in no time.

4- Over size Screen layers: reliable removal of coarse or bigger particles.

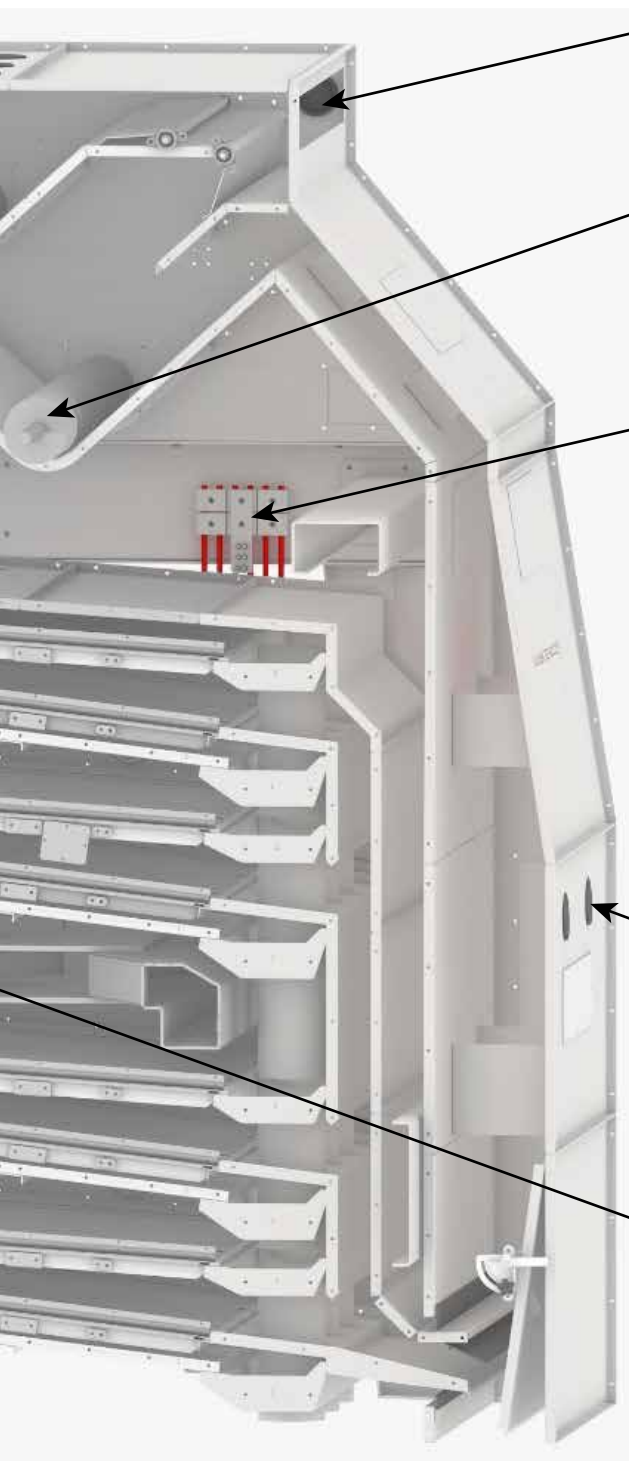
5- Under size screen layers: precise separation in;  
1st grade (accept product) and  
2nd grade (broken, sand, small grain, etc.)

6- Rubber ball screen cleaning under all screen area.

13- Dust -proof rubber cover: for quick and easy maintenance and accessibility to the interior of the machine.







9- Exhaust air connection: guides the dusty air to the connected de-dusting system to ensure clean air in the machine

10- Aspiration Chamber with discharge screws: discharge of light material from inlet and outlet aspiration to reduce the filter load and to provide a perfect checking point for aspiration settings.

11- Polyamide rods: safe suspension of the sieve box without the transmission of vibrations onto the sieve frame; with special shape for easy installation

8- Oscillation monitor: safety equipment that leads to the immediate shutdown of the sieving machine in case of irregular screen box movement and thus ensures safe operation.

12- Vertical sifter / Outlet aspiration: integrated, easy to adjust and illuminated aspiration channel with large inspection windows for optimal adjustment of the air volume to the product.

7- Flywheel and brake motor: drive designed for continuous operation which ensures the gentle circular movement of the sieve box according to the proven plan sifter principle.

# VEGA PRE-CLEANING DATA SHEET

## Intake capacity (up to 4 % of impurities)

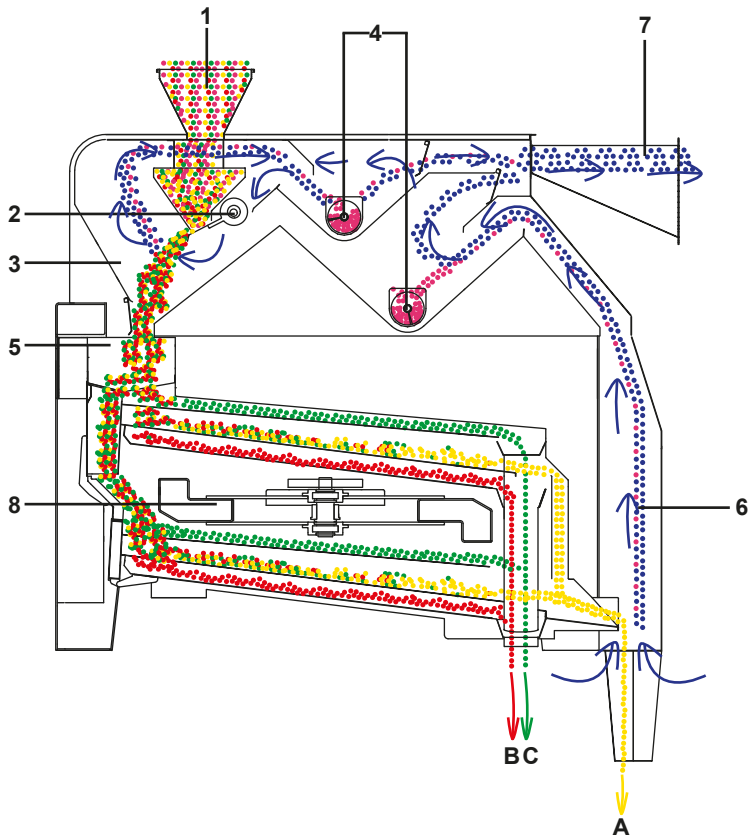
Product	Screens*	VC – 22A	VC – 2222A	VC – 333A
<b>Wheat</b> 0,75 t/m <sup>3</sup> 18% H <sub>2</sub> O	PS: D8 MS: 2,25 x 25	60 t/h	120 t/h	90 t/h
<b>Feed Barley</b> 0,65 t/m <sup>3</sup> 18% H <sub>2</sub> O	PS: D8 MS: 2,25 x 25	50 t/h	100 t/h	75 t/h
<b>Rapeseed</b> 0,6 t/m <sup>3</sup> 14% H <sub>2</sub> O	PS: D3,5 MS: 1 x 25	45 t/h	90 t/h	65 t/h
<b>Maize (corn)</b> 0,75 t/m <sup>3</sup> 15% H <sub>2</sub> O	PS: D13 MS: 2,25 x 25	60 t/h	120 t/h	90 t/h
<b>Maize (corn)</b> 0,75 t/m <sup>3</sup> 35% H <sub>2</sub> O	PS: D13 MS: ---	30 t/h	60 t/h	45 t/h
<b>Soya Beans</b> 0,75 t/m <sup>3</sup> 18% H <sub>2</sub> O	PS: D13 MS: 2,25 x 25	65 t/h	130 t/h	95 t/h
<b>Paddy</b> 0,55 t/m <sup>3</sup> 18% H <sub>2</sub> O	PS: 5,5 x 25 MS: 1,4 x 25	22 t/h	45 t/h	33 t/h
<b>White Rice</b> 0,75 t/m <sup>3</sup> 12% H <sub>2</sub> O	PS: 5,0 x 25 MS: 1,25 x 25	20 t/h	40 t/h	30 t/h

\*PS: Preliminary Screen; MS: Main Screen

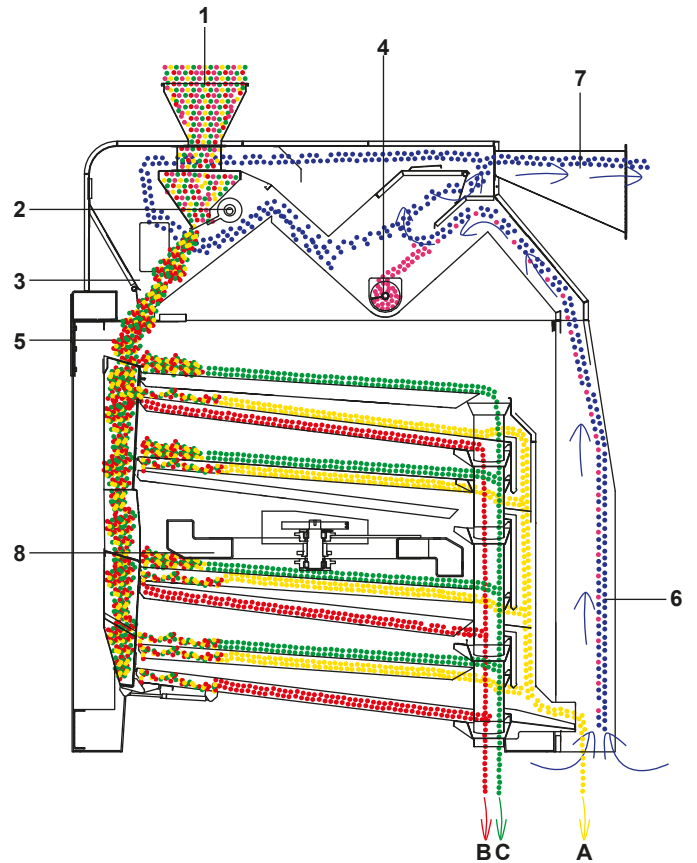
	Unit	VC – 22A	VC – 2222A	VC – 333A
<b>Working Width</b>	mm	1.500	1.500	1.500
<b>Screen Area</b>				
Total		12	24	27
Preliminary screen area	m <sup>2</sup>	6	12	9
Main screen area		6	12	9
Finishing screen area		---	---	9
<b>Connected load</b>				
Screen box	kW	2,2	3,0	3,0
Others		0,75	0,75	0,75
<b>Aspiration connection</b>				
Exhaust air (at 90mmWC)	m <sup>3</sup> /min	140	195	260
Screen box (at 30mmWC)		12	12	12
<b>Drive side</b>				
<b>Total weight</b>	Kg	ca. 4.500	ca. 6.000	ca. 7.000
<b>Dimensions</b>				
Length	mm	3.450	3.450	3.450
Width		2.590	2.590	2.590
Height		2.500	3.270	3.270
<b>Optional screen switching</b>		yes	yes	yes

The values are non-binding, technical changes reserved. In cramped mounting conditions the dimensions of the universal aspirators should be reviewed in the order again.

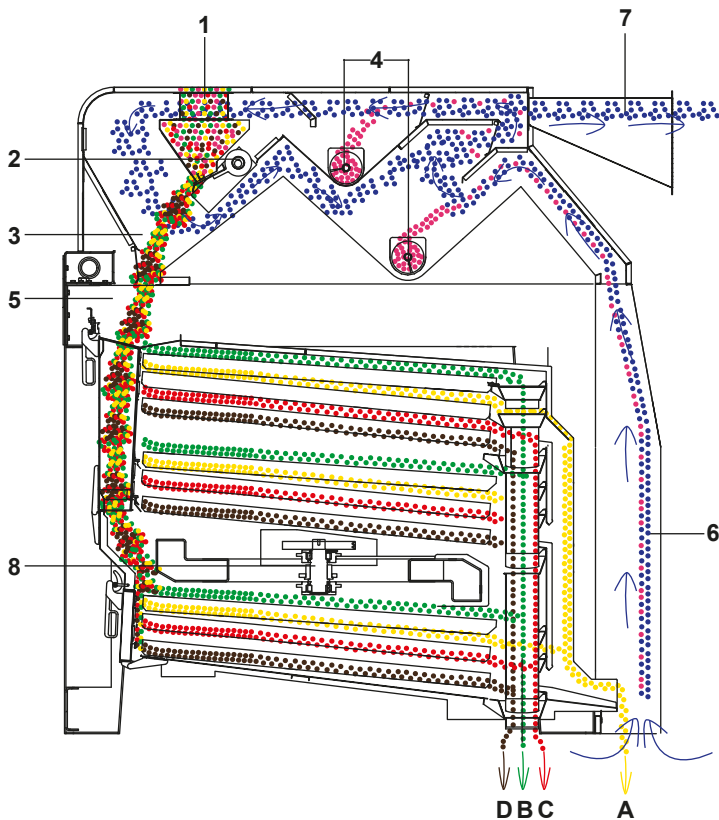
# VEGA PRE-CLEANING FUNCTION DIAGRAM



Function Diagram VC22A



Function Diagram VC2222A



Function Diagram VC333A

- 1) Product inlet
- 2) Distribution gate
- 3) Inlet aspiration
- 4) Expansion chambers with discharge screws
- 5) Product distribution onto screens
- 6) Vertical sifter
- 7) Exhaust air
- 8) Screen box drive
- A) Cleaned Seed
- B) Undersize
- C) Oversize
- D) Undersize 2

# VEGA PRE-CLEANING MACHINE



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