

# UNIVERSAL SCREEN CLEANER OMEGA



The OMEGA is a flexible and efficient cleaning/grading machine which can be used for a wide variety of cereals and seeds, from light to to heavy seeds all the way from pre-cleaning to fine cleaning. The OMEGA is capable of handling up to 240 tons per hour when cleaning cereals – and up to 27 tons per hour when grading seeds.

Whatever your needs (and seeds), OMEGA can match them with only minor customization needed – in most cases with no customization whatsoever.

## Your Direct Benefits

- ✿ The OMEGA cleaner/grader combines high grading efficiency with ease of operation and significantly reduced air consumption
- ✿ Due to its optimized screen motion, OMEGA can deliver a grading efficiency up to 60 % higher than other grading machines on the market today
- ✿ Built-in easy change over between pre-cleaning and fine-cleaning in the same machine
- ✿ Independent pre-suction and after-suction

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## How it works

The OMEGA air screen cleaner grades and cleans your grain or seeds by evenly distributing the material across screens which vibrate in the special “Damas pattern”. This motion increases the efficiency of the cleaning/grading process and significantly reduce the pay-back time of the machine.

### Ideal for many different grain and seed

Omega is available in a number of different designs and sizes for different purposes and grain or seed types and can be tailored to any need you may have.

### GUARD

The OMEGA is equipped with a GUARD monitoring system that gives easily readable and accurate information of the operating state of the OMEGA.



## Unique Features

OMEGA offers much higher grading efficiency than any other comparable machine on the market today. Due to its optimized screen motion, OMEGA can deliver a grading efficiency up to 60 % higher than other grading machines on the market today.

For instance, wheat can be graded in the OMEGA at a rate of up to 1,7 t/h per m<sup>2</sup> of bottom screen – significantly higher than the industry standard of just 1,2 t/h.

### Simpler operation

The OMEGA range of machine offers independent pre-suction and after-suction systems. This means that you can adjust one air system without having to adjust the other one as well, saving you valuable operational time and allowing you to optimize the running of the machine quickly and easily.

The independent pre-suction and after-suction systems also mean that any adjustment of the pre-suction system will not influence the after-suction system.

### Air exhaust reduced up to 80 %

The OMEGA is fitted with two recycling air systems, reducing the air exhaust to a minimum. In fact, tests have shown that the OMEGA will need an air exhaust of 2\* 800 m<sup>3</sup> per hour when cleaning cereals.

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Most machines on the market today will produce a minimum of 16.000 m<sup>3</sup> of air per hour – up to 20.000 m<sup>3</sup> per hour when they have the same cleaning capacity as the OMEGA.

This has a major impact on the working environment in your plant – and it will also impact the size and bulkiness of the other installations you need. For instance, you will need much smaller (and therefore cheaper) filters in your installation, making the whole grading/cleaning line smaller, more compact and much more cost-effective.

### **Better working environment and improved daily economy**

The adjustment of the suction systems is carried out using frequency converters, reducing the turbulence in the air ducts and making it possible to optimise the running of the entire system smoothly and quickly. The feeding system is modular and can handle all types of cereals and seeds.

The sturdy construction of the OMEGA will also ensure its running with no service needed for many years – for instance, the screen boxes are made with Wisa-Form plywood which adds to the long life-span of the OMEGA. The construction of the OMEGA also means that it will run equally well for many years regardless of the climate in which it is installed. The feeding system is modular and can handle all types of cereals and seeds.

### **Practical clipping effect when cleaning barley**

In most cases, you won't need to invest in a clipper/de-awner for barley when you have the OMEGA in your production line. The built-in distributor worms in the inlet hopper and the large feed roller produce a substantial clipping effect, large enough in many cases to eliminate the need for a dedicated clipper machine.

Guiding Capacity	From	To
Guiding capacity, pre-cleaning wheat (t/h)	90	240
Guiding capacity, malting barley grading (t/h)	18	48
Guiding capacity, fine-cleaning wheat (t/h)	10	27

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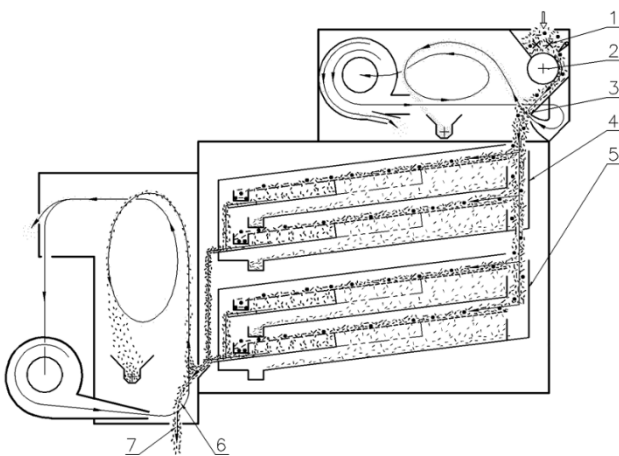


## Function

OMEGA is a true universal and modular screen machine where you select between different pre-suction / feeding modules, screen modules and after-suction / discharge modules.

The illustration shows an example of Omega with feeding arrangement and recycling pre-suction system, screen section, and recycling after-suction system. However, many other configurations exist.

### Omega 121-IRR - example



## Feed/pre-suction

OMEGA has 3 options of feeding/pre-suction arrangements:

- 🌾 Drum- or vibration feeding module type "O" is without pre-suction.
- 🌾 Module "E" with drum- or vibration feeding and open pre-suction.
- 🌾 Module "R" has 2 distributor augers over the feed roller or a vibration feeder, frequency controlled and highly effective recycling cross flow air separation system.

## Screen section

OMEGA has a variety of different screen flows with different advantages available for the specific crops to be cleaned.

## Discharge/after-suction

OMEGA has 3 options of discharge / after-suction arrangements:

- 🌾 Discharge module "O" is just a discharge hopper without any aftersuction.
- 🌾 Discharge module "E" features an open aftersuction system with aspiration compartment and auger for discharge of light waste.
- 🌾 Discharge module "R" has a frequency controlled and highly effective recycling cross flow air separation system.

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Technical Specification	9xlxx	12xlxx	15xlxx	18xlxx	24xlxx	24xlxx TWIN
<b>Screen Specification</b>						
Screen width (mm)	1250	1250	1250	1250	1250	1250
No. of screens (pcs.)	9	12	15	18	24	24
Screen area (m <sup>2</sup> ):	9	12	15	18	24	24
Screen Width (mm)	1250	1250	1250	1250	1250	1250
<b>Motors</b>						
Feed roller / Vibration feeder (R, E, O) (kW)	0,75	0,75	0,75	0,75	0,75	2 x 0,75
Pre-suction R fan, grain (standard)* (kW)	5,5	5,5	5,5	5,5	5,5	-
Pre-suction R fan, grain (special)* (kW)	3,0	3,0	3,0	3,0	3,0	-
Pre-suction R aspiration auger (kW):	0,75	0,75	0,75	0,75	0,75	-
Screen module, Parallel flow (kW):	7,5	7,5	7,5	11	11	11
Screen module, Serial flow (kW):	7,5	7,5	7,5	11	11	-
After-suction E aspiration auger (kW):	0,75	0,75	0,75	0,75	0,75	2 x 0,75
After-suction R fan, grain (standard)* (kW)	5,5	5,5	5,5	5,5	5,5	-
After-suction R fan, grain (special)* (kW)	3,0	3,0	3,0	3,0	3,0	-
After-suction R aspiration auger (kW):	0,75	0,75	0,75	0,75	0,75	-
<b>Air Amounts</b>						
Pre-suction E (m <sup>3</sup> /h)	4000	4000	4000	4000	4000	2 x 4000
Pre-suction R (m <sup>3</sup> /h)	800	800	800	800	800	-
Feeding module O (m <sup>3</sup> /h)	300	300	300	300	300	300
(Exhaust from the screen box)* (m <sup>3</sup> /h)	(300)	(300)	(300)	(300)	(300)	(300)
Aftersuction E** (m <sup>3</sup> /h)	4000	4000	4000	4000	4000	2 x 4000
Aftersuction R* (m <sup>3</sup> /h)	800	800	800	800	800	-

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Technical Specification	9xlxx	12xlxx	15xlxx	18xlxx	24xlxx	24xlxx TWIN
<b>Weights</b>						
Including modules E + O (kg)	3300	3500	3800	3900	4300	-
Including modules E + E (kg)	3900	4100	4500	4500	4900	-
Including modules R + O (kg)	3500	3700	4000	4100	5100	-
Including modules R + R (kg)	4300	4500	4800	5000	5900	-
Including modules R + E (kg)	4100	4300	4600	4800	5700	-
Including modules EE+O (kg)	-	-		-	-	4900
Including modules EE+EE (kg)	-	-	-	-	-	6100

\* including loose frequency converter, \*\* Air amount = 5000 m<sup>3</sup>/h when cleaning peas and beans