

# Combi Cleaner & Pre Cleaner 144.1 & 144.2

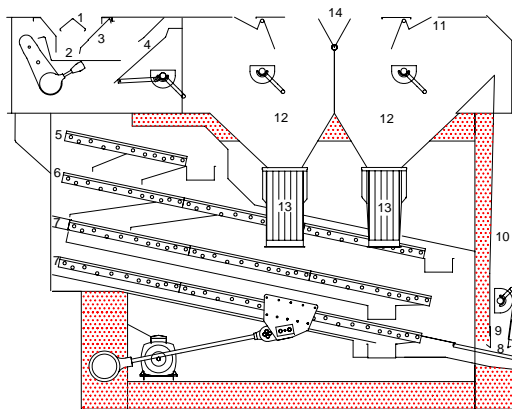


**Cimbria DELTA Cleaner type 144** is an extremely versatile screen cleaner specifically designed for many different cleaning purpose, ranging from pre cleaning of all cereals, peas, rape seed to fine cleaning of bread cereals, seed grain and malting barley, using a **10 m<sup>2</sup>** screen area in conjunction with a sophisticated aspiration system. Like all other DELTA screen cleaners the base and the frame of type 144 are built in heavy gauge pressed steel of a very rigid construction. The screen boats are manufactured of selected insect and moisture resistant marine plywood. The type 144 is available in two versions: The **144.1 Combi Cleaner** with adjustable screen inclination and the **144.2 Pre Cleaner** having same size and accessories but without adjustable screens.

1. **Pre-cleaning of wheat and barley:** Screen inclination 12° hourly capacity 50 tons.
2. **Cleaning of malting barley:** Screen inclination 8° hourly capacity 6-10 tons (depending on the quality of the pure malt).
3. **Cleaning of rape seed:** Screen inclination 7° hourly capacity 4-6 tons (cleaning efficiency approx. 98%)
4. **Cleaning and grading of cereal seeds:** Screen inclination 6° hourly capacity 4-6 tons.

**Screens and aspiration**

The screen cleaning effect of the 10 m<sup>2</sup> total screen area is increased by Cimbria's highly effective pre and after suction system, extracting light impurities from the material both at the machine inlet and outlet. The exhausted waste, dust and light weight trash is deposited in two separate expansion chambers and conveyed to the machine outlets by two discharge augers which are equipped with a multi flap air system to prevent ingress of air, i.e. air. The expansion chambers are designed for connection to a separate exhaust fan. The 1 m<sup>2</sup> scalping screen separates coarse impurities while the 3 m<sup>2</sup> pre screen separates oversize material. The two bottom sieves of 3 m<sup>2</sup> each can be utilized as grading screen or sand sieve separating undersize material. The ball boxes are designed so that it is not necessary to take out the boxes when changing the screens. The self cleaning screens with ball boxes containing rubber balls are manufactured in a standard size so that they fit all other types of DELTA screen cleaners and are available with various round or oblong perforations according to the material to be cleaned.



**1. Inlet**

Optimal feed over the width of the machine is achieved by a shaker feeder with stepless adjustment via frequency regulating.

**2. Shaker feeder**

Ensures a uniform feeding on the entire width of the machine also when cleaning difficult flowing products, i.e. grass seed, in addition the shaker feeder also prevent the product from flowing when the shaker feeder has stopped.

**3. Adjustable feed gate**

The feed gate will only be adjusted when the opening need to be bigger due to difficult flowing products, i.e. grass seed.

**4. Pre Suction System**

The pre suction system removes dust and light weight trash before screening. the aspiration opening of the pre suction channel is adjustable thus achieving a variable air velocity.

**5. Pre Screen**

The 1 m<sup>2</sup> pre screen for separation of coarse impurities.

**6. Scalping Screen:**

The 3 m<sup>2</sup> scalping screen separates oversize material (Adjustable screen inclination at 144.1 only).

**7. Grading Screens/ Sand sieves**

The two lowest rows of screens (6 m<sup>2</sup>) can be utilized as grading screen or sand sieve according to cleaning purpose.

**8. Outlet for Cleaned Product**

**9. Air Screen**

Light weight particles are "air separated" at the screen which is positioned under the suction opening of the after suction channel. Air screens are delivered with two different types of wire mesh.

**10. After Suction Channel**

The light weight product separated at the air screen is conveyed in the after suction channel to the expansion chamber.

**11. False Air Intake**

Two false air flaps for controlling the air quantity in both the pre and after suction system.

**12. Expansion Chambers**

**13. Screw Conveyors**

Two screw conveyors discharge the products separated in the expansion chamber to the sacking off points.

**14. Air Divider Shutter: (suction point)**

Distribution of the air quantity for respectively pre and after suction system.

<b>CAPACITY GUIDE</b>	
<b>Pre-cleaning (max. 20% moisture content)</b>	
<b>Type 144.1 and 144.2</b>	
Wheat and Barley	50 t/h
Maize, peas and rape seed	40 t/h
Industrial cleaning	40 t/h
<b>Fine Cleaning: (max. 15% moisture content)</b>	
<b>Type 144.1 only</b>	
Malting Barley	6-10 t/h
Seed Grain	4-6 t/h
Rape Seed (98% purity)	4-6 t/h
Maize and Peas	4-5 t/h
The capacity may vary depending on the waste quantity and the moisture content.	
<b>Overall Dimensions:</b>	
Height (without fan)	2565 mm
Length	3297 mm
width (incl. motor)	1913 mm
Screen area	10 m <sup>2</sup>
<b>Motors:</b>	
Shaker feeder	0.75 kW
Screens	2.2 kW
<b>Air volume:</b>	
Pre- and after suction	10600 m <sup>3</sup>
<b>Weight</b>	
Freight volume	2140 kg
	17 m <sup>3</sup>
<b>Dynamic load (4.8 Hz)</b>	
P <sub>H</sub> =+/-4070N	P <sub>V1</sub> =+/-3506N P <sub>V2</sub> =+/-2471N (10 N = 1 kg)
<b>Accessories</b>	
Exhaust fan type CM 84 or Cyclofan, Cyclone CS11. Inlet Hopper.	

Copyright © - The right to alterations is reserved

