

Vibration Air Separator AirVibe

The JOEST AirVibe – Vibratory Air Separator provides a coarse separation of inhomogeneous, mostly dry recycling material with a maximum particle size of 300 mm (12 inches). The material mix is separated by different densities, shapes and surface characteristics into the desired product groups. The unique combination of multistage ballistic and cross flow air separation ensures a very high degree of separation. This opens up new ways in the processing and separation in the recycling industry.

The AirVibe is vibrating with a linear stroke using 2 unbalanced motors. This motion is important for the transport, fluidization and even distribution of the infeed material. An adjustable air knife, positioned at the end of the impact area blows through the material stream. Light material particles like paper, plastic and card board are blown into the expansion room of the AirVibe and discharged at the light material fraction of the end of the AirVibe. The medium weight particles which were not separated in the first separation stage based on size and shape hit an adjustable separation plate. Especially light particles with a larger surface area and those with a higher grip will be moved over the separation plate due to the linear stroke of the machine and added to the light material fraction. Round, rolling particles and those with a smooth surface like stones and glass are sliding down the separation plate and added to the heavy material fraction.

ADVANTAGES

- ✓ Very high degree of separation
- ✓ Higher throughput capacity
- ✓ Throughput capacity at glass waste between 10 and 15 t/h, depending the material composition and purity



APPLICATIONS

- Household and Industrial Waste
- Construction Waste
- Glass
- Substitute Fuel



A second air knife under the impact area is blowing directly onto the separation plate. This way light, rolling particles like plastic bottles can be moved to the light-fraction side. The integrated chain curtain separator allows a much more compact machine design due to a smaller expansion chamber. For surface wet materials a special design with a separation drum with a scraper instead of a plate, have proven to be very effective and low maintenance. The AirVibe has many possibilities for adjustments according to the inhomogeneous and very different materials to be separated. This includes the adjustment of the separation plates and air knives, impact area as well as the vibration parameters of the machine.

The max. capacity of the AirVibe is about 15t/h.



OPTIONS

- Separation of the material into several fractions
- Vibratory feeder for infeed material
- Separation into 3 different material fractions possible
- For most products total or partial recirculation of the air possible without adding an expensive bag house
- Reducing investment and operating costs significantly
- Dual stage finger screens on the heavy material fraction side; especially for glass recycling
- Multi stage chain curtain for the separation of fines particles from recirculating air flow
- Integrated centrifugal fines separator