Dartek
vibración

SKAKO
VIBRATION

DENSIMETRIC TABLE

www.dartek.es

DENSIMETRIC TABLE

Densimetric tables are used successfully separating a wide range of products with applications in many industrial processes, some of which are:

- Recycling: compost, glass, crushed cables, aluminum scrap, crushed cars, stainless steel slag, tires recycling, chips, sawdust or wood chips, etc..

- Mining for mineral enrichment: anthracite, lignite, coke, mica, limestone, dolomite, pumice stone, barite, lead, fluorspar, manganese, magnesite, etc..

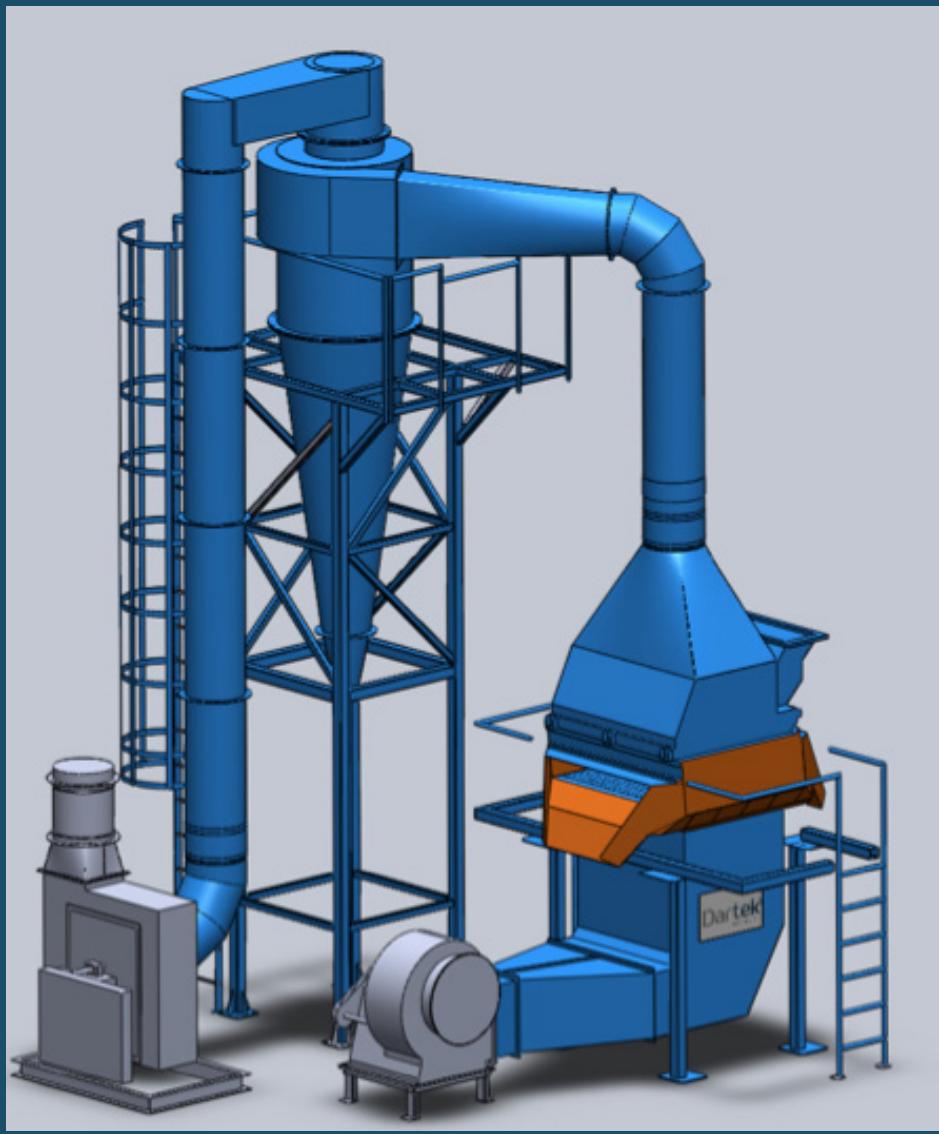
- Others: Wine or olive pulp, marc or grape´s pulp, cereal, coffee cherry, green beans, etc..
Materials with similar grain size and different real density with other features to be considered as shape, humidity, etc... allow high efficiency of separation.

The densimetric classification with air works with particles up to 80mm and normally requires that materials have to be sorted using a previous screen for different dimensions, whose size ratio is higher or lower depending on the characteristics (real density, shape, etc..) of the products to be separated

¿How does it work?

The mixture to be processed is fed over an inclined plate which is actuated with an elliptical vibrating motion while an air current is flowing through this plate. The layer of material gets fluidized and the products goes progressively and vertically separating according to their densities.

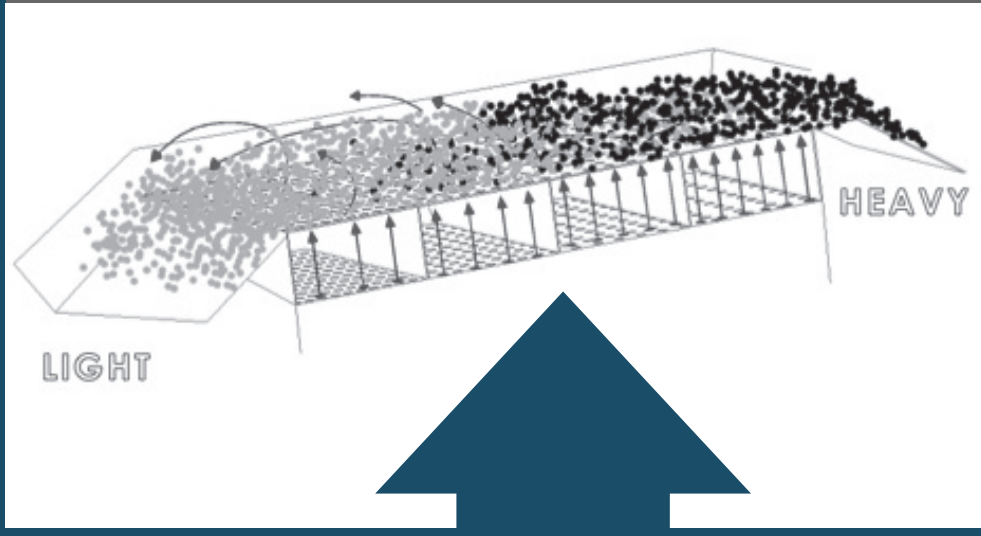
Heavy materials moves to the bottom of the fluidized bed, take contact with the tray and are conveyed with the vibrating movement, tracing the slope towards the higher output.



ENSIMETRIC SEPARATION BED

Light materials get fluidized, air suspended and slide towards the bottom of the tray, supported by the distribution of the air flow.

The vibrating movement of the tray is elliptically generated by an eccentric shaft. Such movement enhances the disintegration of the materials in the fluidizing process, increasing the efficiency of separation.



Advantages:

- Heavy duty design for heavy applications, equipped with articulated arms AG type from Rosta.

- Minimized maintenance, 24h/day working

- Reduced air and energy consumption.

- Savings in investment and operating cost compared with other systems as flotation, dense media, shock tables, etc...

- Protection against dust (optional): By capturing with cyclone or baghouse filter.

DARTEK designs the densimetric tables in order to control the accuracy and stability with the combined effects of fluidization and the vibrating conveyor. The control of the parameters and geometry of motion, amplitude, slope of the tray, fluidized bed height, air distribution, fan speed and model, sealings, etc.. have been studied, developed, tested in our test equipment, implemented and adjusted in our workshop for each application, so that the final settings are minimal in the final customer.

Models

Two ranges are available based on particle size and density of the materials to be processed.
For medium grain sizes and low densities 5 models KDM are available:

MODELS KDM	KDM 500	KDM 750	KDM 1000	KDM 1500	KDM 2500
Tray width (mm)	500	750	1000	1500	2500
Surface (m2)	0.65	0.97	1.3	1.95	3.75

For materials of any density and grain sizes up to 80 mm 3 models HDM are available:

MODELS HDM	HDM 500	HDM 1000	HDM 1500
Tray width (mm)	500	1000	1500
Surface (m2)	0.65	1.3	1.95

*Note: Special models can be developed

Fans and power are selected according to the size and density of the materials to be processed

- Frequency converter for the vibrating box and/or the fluidization fan
- Variation of slope in the vibrating box
- Electrical control unit
- System for partial or total dust collecting by cyclone or baghouse filter

Test Plant

Dartek has a testing equipment where we will test with customer´s materials ensure performances, efficiencies and capacities.
Dartek has qualified staff that will allow parameters to regulate and obtaining the expected results. Reports and evaluations of the tests will facilitate the proper functioning of your machine or system in practice.

Quality, reliability y service guarranty

Dartek technology´s success is based on a flexible and design, high quality manufacturing and a fast and reliable technical service.

Dartek has qualified Engineers and Technicians with over 15 years of experience, for the implementation and maintenance of machinery supplied to adapt to processes of production facilities.
and evaluations of the tests will facilitate the proper functioning of your machine or system in practice.

Dartek
www.dartek.es

Poligono Borda Berri, Pabellón C1 / Andoain - Guipuzcoa
Telf. +34 943 59 01 96 / Fax +34 943 59 33 35 / E-mail: dartek@dartek.es

* Delegación en Madrid: Centro Comercial “los altos del Burgo” C/ Comunidad de Andalucía, nº 33 local nº 7 / 28231 Las Rozas de Madrid / Tel y Fax +34 91 710 33 41