

GOSAG DENSIMETRIC TABLES

Dry densimetric separation

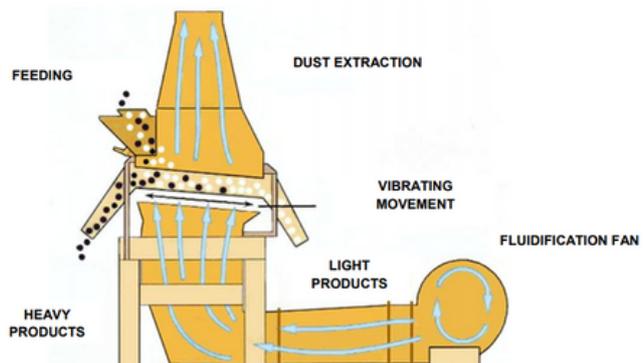




WORKING PRINCIPLE

The dry densimetric separation is obtained on a titled perforated bottom plate with a vibratory movement. An ascending flow of air through the bottom plate acts in different ways in order to treat the product:

- The lighter material floats without being in contact with the bottom and flows downstream due to the inclination of the trough.
- The heavier material, in contact with the bottom plate, is pushed upstream thanks to the vibration.
- The larger the difference in density of the products, the wider shall be the size ranges possible to treat.



CONTROL PARAMETERS

GOSAG densimetric separation tables are designed to fully control the fluidization phenomenon.

The control parameters, such as the distribution of the flow rates of air through the bottom of the trough, the level of the gates or the characteristics of the vibratory movement, are established in our trial plant, reducing future adjustments “in situ”.



M TYPE

Machines for high density products and particle sizes up to 80 mm (3.15")

An exceptionally strong machine that can successfully deal with a wide range of products such as minerals and crushed metals.

There are 3 standard types, depending on the size:

| TYPE | M 70 | M 100 | M 150 |
|--------------------------------|------|-------|-------|
| Width (m) | 0.7 | 1 | 1.5 |
| Surface area (m ²) | 0.91 | 1.3 | 1.95 |

M 70 densimetric separation table.

Process: Separation of different metals Partial recirculation of the air



FM TYPE

Machines for low density and medium size products

Built-in welded steel plate; strong and compact design. The parts exposed to wear are designed for severe conditions of use. This table shows a high efficiency also with products that are traditionally hard to deal with, such as compost, with high moisture content. There are 4 standard models of this table:

| TYPE | FM 70 | FM 100 | FM 150 | FM 240 |
|-------------------|-------|--------|--------|--------|
| Width (m) | 0.7 | 1 | 1.5 | 2.4 |
| Surface area (m2) | 0.91 | 1.3 | 1.95 | 3.12 |

FM 150 densimetric separation table for compost.



GOSAG Densimetric tables

GOSAG densimetric tables obtain very good results in dry separation of products with different specific densities.

The development of the dry densimetric separation tables had its origin in the mineral industry for the enrichment of the minerals. Later on, this technology has been transferred to other industries and activities such as quarries, recycling plants for waste, and chemical, wood, and food industries. Therefore, the products to be treated have increased, among which some are:

Mineral products: cassiterite, wolfram, zirconium, ilmenite, fluorine, manganese, barytine, sulfides (lead, copper, zinc, antimony), rutile, lime, dolomite, coke, coal, phosphate, mica, etc.

Miscellaneous: triturated bones, green and toasted chicory, coffee, cereals, green beans, green waste, compost, plastic, and rubber granulates, iron alloys, crushed electric cables, crushed cars, crushed tires, demolition materials, etc.

Many companies have verified the efficiency of separation and the capacity obtained thanks to GOSAG tables in the treatment of the products mentioned above.

Options

Both densimetric tables, **M** type, and **FM** type can be supplied with or without dust extraction system. There are different ways of installing the dust extraction system depending on the possibilities of re-using or not the obtained product.

For the **M** type, there is also a version with hood and ducts for a total or partial recirculation of the air (respectively with absence or low presence of dust).

Production

For a specific product, the capacities are practically proportional to the surface of treatment. For example, an **FM 150** table will produce 50% more than an **FM 100**.

The capacity depends on several factors such as moisture, particle size and density of the product.



Table for industrial trials

We put at your disposal a densimetric table to carry out trials in any place, which allows us to determine outputs and industrial capacities with a particular product.

Its maximum capacity is 7 t/h, depending on the density and size of the product, and can be supplied by customers' request for trials in laboratories, test plants, etc.

| PRODUCT | PRODUCTION (t/h) | PARTICLE SIZE (mm) | TYPE |
|-----------------------------------|---------------------|--------------------------|--------|
| ANTHRACITE | 15 | 3 - 40 | M 100 |
| RICE | 3 | | FM 150 |
| GREEN WASTE | 8 | 0 - 25 | FM 150 |
| CRUSHED BATTERIES | 5 | 20 - 65 | M 150 |
| CRUSHED ELECTRIC ALUMINIUM CABLES | 1 | 3 - 10 | FM 100 |
| CRUSHED ELECTRIC COPPER CABLES | 2 | 3 - 10 | FM 100 |
| LIME | 10 | 6 - 12 | M 100 |
| COFFEE | 13 | | FM 100 |
| COMPOST | 10 | 0 - 30 | FM 150 |
| COMPOST | 16 | 0 - 30 | FM 240 |
| DOLOMITE | 16 | 0.5 - 30 | M 100 |
| STAINLESS STEEL SLAG | 8 - 12 | 1 - 4 | FM 150 |
| STAINLESS STEEL SLAG | 6 - 8 | 4 - 20 | FM 100 |
| FERROMANGANESE | 5 | 20 - 60 | M 100 |
| COFFEE GRAINS | 1.5 | | FM 150 |
| POLHYELITENE GRANULATES | 2 | 2 - 5 | FM 70 |
| HUMUS | 0.2 | 0 - 10 | FM 70 |
| GREEN BEANS | 1 | | FM 150 |
| LIGNITE | 8 - 12 | 4 - 30 | M 100 |
| MAGNESITE | 6 | 8 - 16 | M 100 |
| MANGANESE | 7 | 12 - 25 | M 100 |
| DEMOLITION WASTE | 16 | 6 - 20 | FM 150 |
| CRUSHED TYRES | 0.5 | 3 - 10 | FM 70 |
| PUMICE STONE | 6 | 20 - 60 | FM 150 |
| METAL RECOVERY | 4 - 8 | 5 - 10, 10 - 20, 20 - 40 | M 70 |
| BARYTINE | 15 | 10 - 20 | M 100 |
| SAWDUST AND WOODCHIPS | 7.5 | 0 - 25 | FM 150 |

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