

SUCTION BOOTH

Weighing Dyes 2C



REQUEST A CUSTOM QUOTE

Technical specifications

The suction booth can be built both in galvanized iron and in AISI 304 stainless steel. The measures may vary according to the customer's needs.

Operational specifications

Through the vacuum generated by the suction device installed upstream of the system, this depression inside the booth causes the formation of a flow of sucked air that crosses its entire front and allows it to suck up the dust of the plenum placed at the bottom to the booth and the subsequent transport in a dry filter (**AIRALT**), where air dust separation takes place. The coarser particle size powders that are not transported to the plenum are deposited in the collection tank of the booth and can be easily transported manually.



OPERATING PRINCIPLE

Dusty air enters from the attack on the hopper at the bottom and, due to the sudden decrease in speed and the crash pre-damper, particles with greater granulometry decant and end up in the appropriate collection bin. The finest or lightest particles go back to the main structure, inside which the filtering cartridges are housed; the polluted air runs through the cartridges from the outside to the inside, so that the dust settles externally, while the air goes up the cartridges and comes out purified. The progressive deposition of dust makes it necessary to periodically clean the cartridges: the compressed air jet allows cleaning for backwashing and submits the cartridge to a high frequency oscillating motion. This jet, called "shock wave", naturally favours the overflow process. The filters are cleaned by sectors, by means of membrane solenoid valves, managed by a cyclic programmer that determines the pause and work times or from a PLC. This allows the efficiency of the filter to be maintained at ever higher levels. This type of cleaning, very reliable, causes the filter, after an initial work period, to reach a practically constant pressure drop throughout its working life. The filter is equipped with a differential pressure switch for monitoring the clogging of the cartridges and the consequent pneumatic cleaning cycle. The standard polyester fibre cartridges with BIA USG classification guarantee a high separation (<0.5%) only with filtration speed lower than 0.056 m/s, with concentrations of inlet dusts of 200 mg/m³ and granulometry between 0.2 and 2 µm. Cartridges are available for special uses in anti-static, fire-retardant, water-repellent polyester, USG & C.

As for its design, the AIRALT filtering group admits a maximum outbound depression of 5,000 mmH₂O/0.5 Bar. If an air-flow circuit with a higher pressure drop or a filter conforming to the ATEX standard (filter located in zones classified as 22-21 dust/2-1 gas) should become necessary, please consult the CORAL Technical Office in advance. It is recommended to protect the artefact from the elements to guarantee a prolonged life over time.

POSSIBLE VARIANTS

Fan installed on the roof of the filter (up to 10 HP) with soundproofing box, cartridges removable from below, star valve, leg extension, filtered air expulsion from the roof. Everything in stainless steel.

EXTRAS

Fire extinguisher system, blast panel, additional ring with cyclone separator.