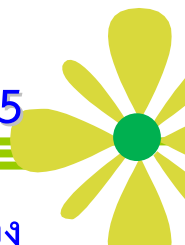


เอกสารแนบที่ 2.5

เอกสารการออกแบบระบบตัดฝุ่นแบบถุงกรอง



1.7 BAG HOUSE FILTER

The existing filter is composed by 14 compartments divided into two symmetrical sides.

Each compartment includes 324 bags with the following main data:

- Material: polyester
- Length: 5'500 mm
- Diameter: 160mm

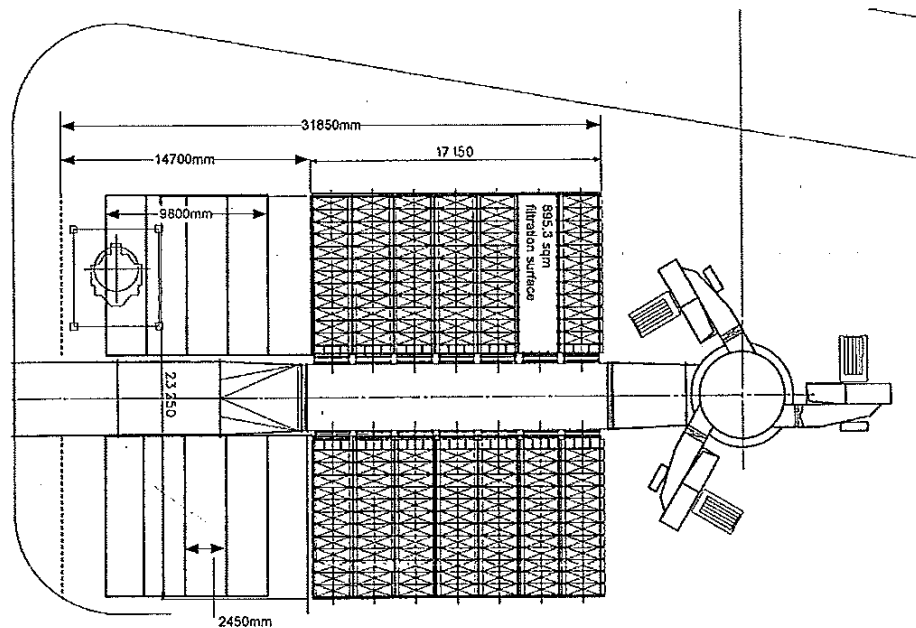
Existing total filtration surface: 12'534 m²
(Without considering off-line compartments)

The A/C ratio (filtering velocity) is a very important factor used in the design and operation of a bag house; improper ratios can contribute to inefficient operation of the bag house.

Operating at an A/C ratio that is too high may lead to a number of problems. Very high ratios can cause compaction of dust on the bag resulting in excessive pressure drops. In addition, breakdown of the dust cake could also occur, which in turn results in reduced collection efficiency.

The major problem of a bag house using a very low A/C ratio is that the bag house will be larger in size, and therefore have a higher capital cost.

- EXISTING FILTER – 14 compartments: 12'534 sqm
- FILTER EXTENSION – 8 compartments: 7'162 sqm



SMS CONCAST

SMS group

Total filtration surface of the existing filter is 12'534 m², too small in order to cope with the new requirements of the plant: in fact, with such filtration surface, the air-to-cloth ratio during charging operation is ~ 2.60 m/min.

Space available for filter enlargement in front of the bag house is approx. 15.4 m; since each compartment width is approx. 2.45 m, there is enough space to add 4 compartments on each side, for a total of 8 compartments.

New filtration surface will be 19'696 m² (without considering off-line compartments) enabling to reach an air-to-cloth ratio during charging operation of ~ 1.50 m/min, optimal value for efficient filtering operation.

Due to filter's section addition and layout constrictions, modifications/relocations shall be considered for the following items:

- Inlet/outlet ducts
- Filter header
- Filter cladding
- Filter cleaning system
- Dust handling (screw conveyor, chain conveyor, dust silos)
- Pelletizer machine

} Detail

Main data

Cleaning method	pulse-jet
Number of compartments	22
Number of bags	324 per each compartment
Max working temperature	120°C
Compressed air for cleaning	6 bar
Gas flow rate	1'800'000 Am ³ /hr

