

## CORAL DUST COLLECTORS – MEC and MECMODUL UNITS

The CORAL MECMODUL filtering station is a modular system with filtering sleeves and continuous automatic unloading through a rotary air valve of wood chips, dust and sawdust.

The structure is made of heavy duty galvanized steel panels bolted together and it is divided in two portions:

- A) Upper portion contains the filtering area comprised of filtering sleeves 220 MM in diameter (8”) mounted top to bottom.
  - Cleaning devices, typically motorized shaker unit or reverse air system.
  - Unit can be fitted with one to three pre-chambers for dust separation.
- B) Lower portion with hopper, rotary air valve and unloading system, either chain or screw conveyor.

This unit has been designed to operate under pressure. The dusty air enters the pre-chamber, which facilitates separation of the larger particles from the more volatile. The air then flows upward through the sleeves which provide filtration and exits from the top. With a suitable outlet plenum, the air can be either returned to the building or blown outside through a bypass valve.

Filtering efficiency can be achieved by utilizing different types of filtering materials for the bags (for example: polyester, needlefelt, or polypropylene). There are two different types of polyester weights and three different types of polypropylene weights available. For applications where static electricity is a problem, special anti static bags and Teflon coated bags are also available.

### **Cleaning:**

The filtering sleeves may be cleaned by an electromechanical shaker or by a reverse airflow system using axial fans.

The dust that falls into the hopper is transported by a continuous chain or screw conveyor to the rotary air valve, which unloads the material either directly into a storage facility or into a transport pipe. The rotary air valve has an unloading capacity of 45 cubic meters per hour (approximately 59 cubic yards) of material.

### **Access and maintenance:**

MECMODUL units are accessible from the top hatches to check the conveying system and from the side hatches to check the proper tensioning of the filtering sleeves to the sleeve tensioning plate.



MEC 8 unit

**(Continued)**

### **MEC and MECMODUL continued**

#### **Safety:**

Optional spark detection systems can be provided by the factory on request. The units are provided standard with a set of explosion proof doors to avoid the formation of unacceptable and dangerous pressure inside the structure.

#### **Flexibility:**

Different fans can be connected to the same pre-chamber to allow different lines to enter the building. The system utilizes anti-return valves on each inlet to prevent the air taken in from flowing into other lines connected. This system is designed to give the customer the greatest degree of flexibility and to save energy costs when the plant is not running at full capacity.

**CORAL offers sixteen different models of MECMODUL units and from 1 to 3 pre-chambers.**

#### **CORAL MEC 4,6,8**

The MEC 4,6, and 8 feature a containment bin with large, industrial grade rotary air valve for continuous discharge.

#### **MECMODUL UNITS**

Larger MEC units utilize a conveyor system to transport dust to a rotary air valve.