

## **Plant Description**

### **Multi-Venturi Scrubber**

The pre-scrubber is built as a multi-venturi crossflow scrubber – with the following sections:

#### **Spraying chamber**

The exhaust gases are led from above into the scrubber. By a counter- current spraying system in this area an impact separation of coarse particles against the scrubber wall is achieved.

#### **Multi-venturi section**

The gases are passed horizontally through one or two packages of vertical venturi throats. These packages are permanently sprayed with scrubbing liquid by means of a nozzle system. The intensive contact of liquid and particles will remove them from the gas phase.

#### **Droplet separator**

The gases have to pass a droplet separator before leaving the pre-scrubber to prevent from carrying over of scrubbing liquid to the cooling scrubber.

The pre-scrubber has its own water sump and circulation system - consisting of:

- centrifugal pump
- level control
- dry-run protection
- pressure indication
- line strainer
- circulation pipe work

Because of evaporation, the washing water in the sump has to be filled up. This could be done either with fresh water or with the overflow water from the cooling scrubber. The pre-scrubber is designed for easy maintenance.

- Huge, single hand-opened service windows allow visual control of the package and spraying system.
- For automatically cleaning the packages and mist eliminators are sprayed frequently from backside with make-up water.
- Separated dust is drained by the overflow system.

The pre-scrubber is fabricated of corrosion-free FRP, thermo-resistant up to 120°C. Internals are of stainless steel or thermoplastic material.