



Particle Sampler (PS)

What does it do?



The Particle Sampler (PS) is an automatic sampling device for collecting increments of dust or powder from pneumatic transportation pipelines.

The automatic sampling is performed over a period of time in order to record average manifestation of the material properties.

After a pre-set number of increments have been taken, the bottle below the PS containing the sample, is taken to a laboratory for analysis.

The PS is among other industries widely used in the power plants for collection of fly ash and can be placed in the ash transporting pipeline or in the related pneumatic blow unit.

What's the benefit?

- The PS performs fully automatic sampling.
- The unit can be easily operated from the man-machine interface or from a central control room.
- In the case of analysing fly-ash samples for levels of UBC (unburnt carbon), the operator may use the information from the PS to optimise the combustion process with respect to fly-ash quality.

How does it do it?

The PS has a pitot inlet opening in the central axis region, allowing it to sample a half-diameter linear transect.

Multi-incremental sampling is performed over a fixed time period in order to ensure average values of the material properties.

The PS consists of two main units: (1) the mechanical sampler and (2) the electric/pneumatic control unit. The purging air and the sample container are heated to prevent condensation in the sampling unit, which could otherwise result in blocking. The control box contains the necessary switch buttons, a PLC and a touch panel for operation. The touch panel can be used for setting sampling cycles and the number of increments per composite sample.

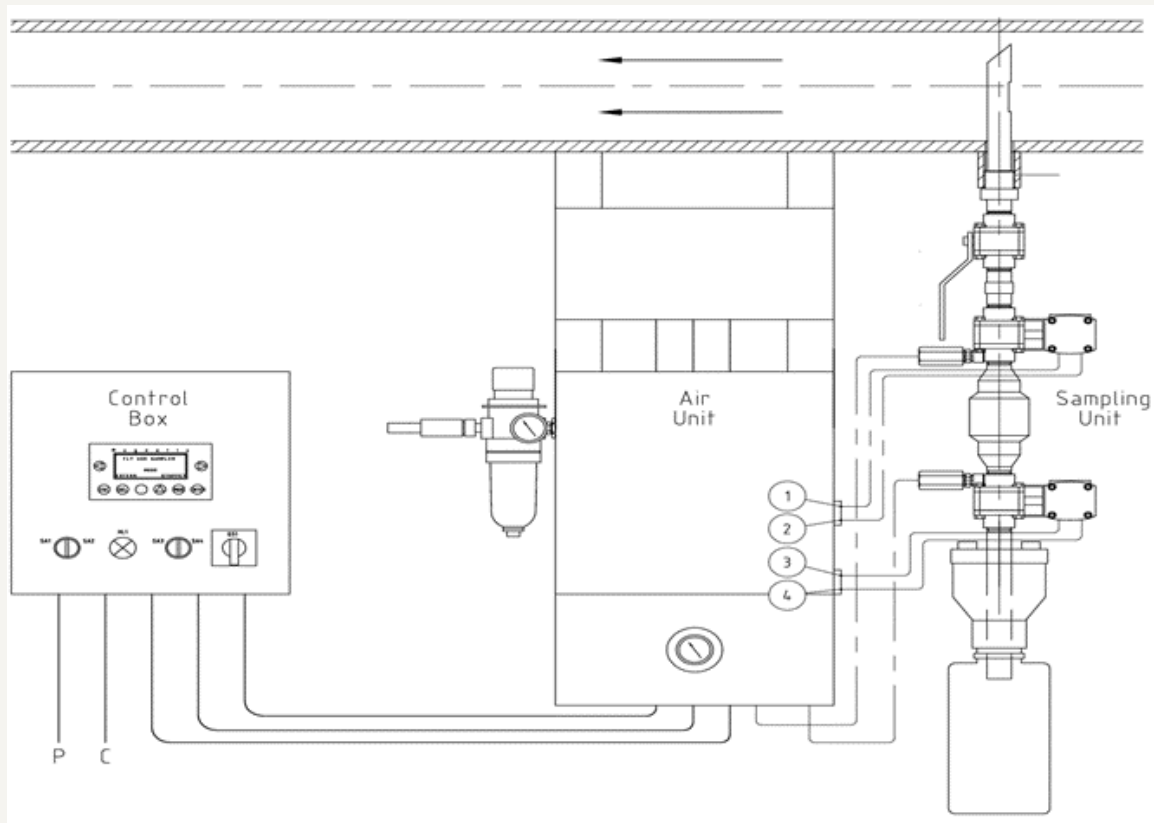
Specifications:

| | |
|--------------------------------|---------------------------|
| Application: | Sampling of particles |
| Max single sample vol.: | 200 ml |
| Single bottle vol.: | 5 l |
| Power supply: | 230V/50Hz or as required |
| Power consumption: | 400 W |
| Air supply: | Min. 6 bar clean oil-free |
| Air consumption: | 150 litres / sample |
| Enclosure: | IP54 |
| Net weight: | 45 kg |
| Ash temperature: | max. 120 °C |
| Ambient temperature: | |
| Control unit: | 0 – 60 °C |
| Humidity: | 0 – 95 % (no condensing) |

Contact us directly.

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Drawing.



What is the standard?

M&W JAWO Sampling equipment and sampling systems operate in accordance with approved international material standards such as ISO, ASME, GOST, EN as well as DS3077 (2013). All sampling equipment and solutions aim for compliance with the principles laid down in the Theory of Sampling (TOS) and gives our customers reliable knowledge of the material properties such as moisture content, particle size distribution, mineral proportions, and content grade essential for commercial, operational, and technical characterization.

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Variants/Options.

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The PS operates under the assumption that the ducted cross-section is of sufficiently uniform composition.

For fly ash, the PS can be installed directly in the transport pipeline or in the pneumatic blow unit.

About M&W.



Mark & Wedell A/S (M&W) is a global mechanical/electrical engineering and manufacturing company. M&W serves a solid and growing international customer base within the global mining-, minerals-, metals-, power generation- and big science markets.

We develop, engineer, and produce high quality mechanical and electrical machines, instruments, and solutions. Our brand JAWO and unique know-how is well recognized in our markets and among our customers due to more than 40 years of experience.

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