



Screw Sampler (SCR)

Contact us directly.

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What does it do?



The Screw Sampler (SCR) is designed for continuous or intermittent increment extraction of dry, non-sticky powdered free-falling material from a chute or in a silo. The SCR is the standard sampler in many cement plants.

What's the benefit?

- The SCR is compact in size and is therefore easy to install.
- The SCR can prepare average or spot samples automatically or manually.
- As opposed to manual grab sampling, the SCR provides an automated sample and eliminates tedious and hazardous work.
- Can be used in vertical or inclined chutes
- Can be used both in rectangular or circular chutes.
- It can be used in various positions and can be adjusted to the most optimal position increasing the SCR's ability to produce representative samples
- The control system ensures that the SCR continuously collects samples with

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How does it do it?

The SCR is driven by a geared motor coupled to a transportation screw that is placed inside a fixed tube with a opening that allows the free falling material to enter. The SCR can be mounted in chutes (rectangular or circular) with maximum inclination of 30°.

The SCR system is designed to operate in two steps. In the first step, the sample material is extracted, and the screw transports the captured material to the discharge outlet chute. In the second step, the direction of the screw is reversed thus emptying and cleaning the pipe. After a full operation cycle is completed, the system is ready for the next sample without cross-contamination effects.

Specifications:

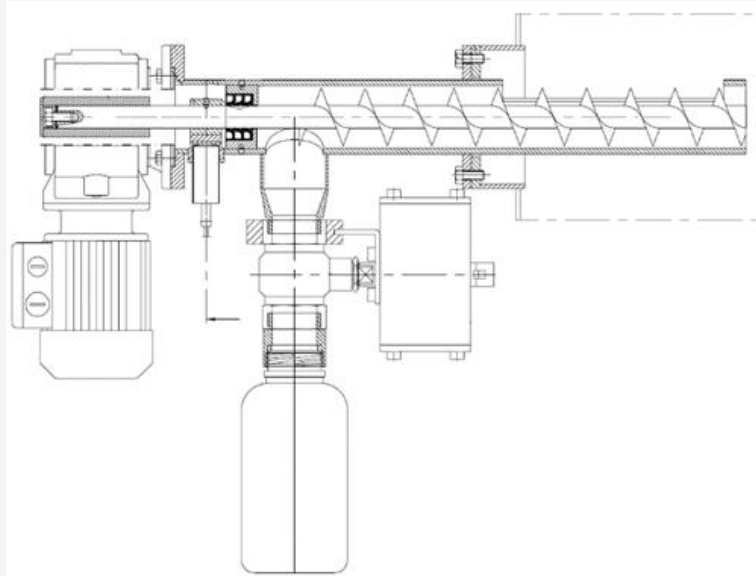
The SCR is:

- Driven by a geared motor.
- Made from mild steel and is painted according to M&W standard colour RAL 5010, topcoat Polyester Powder, brightness 30.
- Controlled from the plant's PLC system and motor control centre.
- Delivered with either a local control unit and/or is controlled by a M&W central control cabinet depending on concept and preference. The M&W central control cabinet consist of motor control center, circuit breakers, PLC-system and man/machine interface.

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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.

Option 1

The SCR can be supplied with local control cabinet.

Option 2

The SCR is also available in an ATEX version depending on requirements.

Option 3

The motor can be equipped with a frequency converter to enable adjustable speed.

Option 4

The SCR can include a secondary motor that drives a cover pipe with the purpose of allowing or avoiding material influx into the screw during periods of no sampling.

Option 5

The SCR can be delivered in a precision version to ensure extraction of very fine particles.

Nota Bene 1

The SCR operates under the assumption that the cross-section of the falling material is of uniform composition, allowing it to be sampled by a linear transect only. The degree to which a SCR can obtain a fit-for-purpose representativity status is dependent upon the specific heterogeneity characteristics of the material sampled. M&W offers customers a facility for quantitative assessment of the performance following one or several types of analysis such as variographic or replicate analyse based on the customer's material.

Nota Bene 2

With reference to option 5., the precision version can be defined as agglomeration or/and static electric coherence.

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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