

QCX[®] PSK101/112 HOT CLINKER SAMPLER

The PSK Hot Clinker Sampler takes samples of hot materials such as cement clinker falling from a rotary kiln. It can also be used for nickel reduction kilns or other pyro-processes. Complete with in-built damage protection, this is a robust machine that offers exceptional safety and requires low maintenance.

An external ventilator cools the sample directly on the spoon. This allows for more frequent sampling intervals, which helps control heat and reduce fuel consumption. It also minimises wear on kiln bearings and linings.

The sampler is especially beneficial when combined with an at-line analyser or an automatic sample transport system. This speeds up access to information so your operators can optimise their kiln process. Overall, the Hot Clinker Sampler provides a safe and reliable solution for representative material sampling, aiding efficient production quality control.

ADVANTAGES

- **Low maintenance:** damage prevention features allow the sampler to automatically withdraw from the process environment if there is a loss of power or compressed air. This ensures the sampler is not damaged by prolonged exposure to the hot process.
- **Fast processing:** with a sampling frequency of up to one sample every 15 minutes at 1,450°C, the Hot Clinker Sampler gives you fast feedback loops. Frequency can be increased at 900°C or lower to one sample every four minutes.
- **Automatic systems:** the Hot Clinker Sampler seamlessly integrates with your QCX system and other automatic sampling systems. Automation helps protect your operators from the hot, dangerous environment. It also gives you a future-proof solution ready for fast extensions and upgrades.

SAFE AND EFFICIENT SAMPLING FOR QUALITY CONTROL

How it works

The PSK Hot Clinker Sampler is intended to directly sample the hot material falling from a rotary kiln. The sampler consists of a sampler frame, an output chute with an output chute, and sampling spoon.

Sampling takes place by moving the sampling spoon into the flow of material and back into the cooling position. The sample is then delivered to the output chute, which is connected to a manual, semi-automatic or fully automatic system.

Possible configuration

Automated hot clinker sampler with manual sample collection - Spot (PSK101)

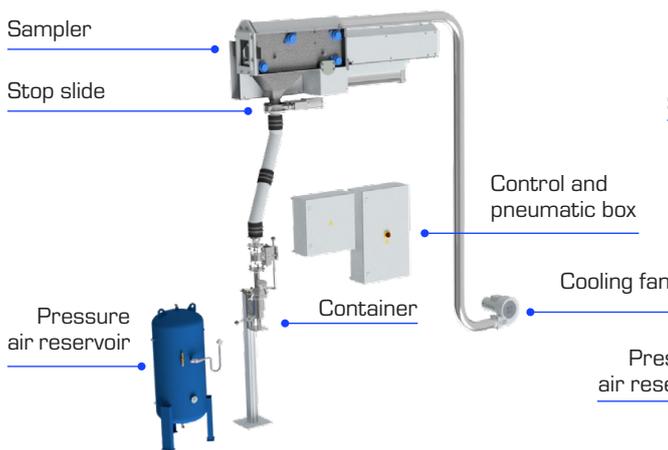
The Hot Clinker Sampler may be integrated with a designated sample collection container; further enhancing its ease of use.

Automatic Hot Clinker Sampler with preparation tower and sending station - Spot/Composite (PSK112)

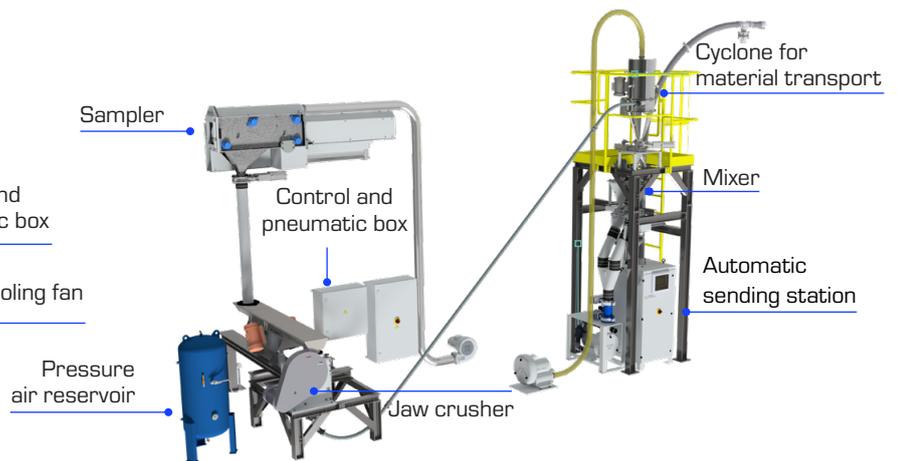
When integrated with an automatic sample transport sending station for automatic sample collection, sampled material is moved via a transport tube system to your laboratory, saving time and minimising waste. This automatic system can operate in spot configuration or in combined configuration spot/composite.

Specification

Sample material	Hot clinker and granular up to 1,450°C, top size 40 mm
Sampling location	Kiln outlet
Sampling type	Spot sample
Sample quantity	1.5 l
Sample frequency	< 4 samples / hour (1,450°C) < 12 samples / hour (900°C)
Stroke (reach of sampler into process)	1200, 1400 or 1600 mm
Power supply	3 x 380 – 500 V, 50/60 Hz
Compressed air supply	0.6 – 1.0 MPa (Quality 2.4.2 as per ISO 8573-1)
Operating conditions	Temperature: -10°C to 40°C, optional -20°C to 55°C Humidity: 0 – 100%
Weight	Approx. 630 kg
Dimensions (H x W x D)	2790 x 850 x 630 mm



PSK101



PSK112