

# QCX<sup>®</sup> PSM101/102 SCREW SAMPLER WITH INTEGRATED MIXER

The QCX Screw Sampler with integrated mixer takes average samples from a material stream falling through a chute in a process system. It is suited for use with dry, non-sticky, free-flowing granular material of a small particle size up to 2 mm.

With less height requirements than other samplers in its class, and only one motor to drive both the sampling screw and mixer, it is compact in size. This means truly representative sampling can be achieved as the sampler and mixer can be installed in the perfect position in the flow for representative sampling, and not just where space allows.

Sample extraction is continuous, and the screw efficiently transports the extracted sample material into the mixing tank where mixing is precisely controlled for premium results.

It is easy for operators to use and keeps them away from the sampling location, protecting them from exposure to the harsh plant conditions.

## ADVANTAGES

- **Less space requirements:** the integrated design of the sampler and mixer and single electric motor means less built-in height is needed, giving you the freedom to choose the perfect position for sampling.
- **Representative sampling:** with the sampler perfectly positioned for sampling, representative sampling is consistently achieved.
- **QCX integration:** the Screw Sampler with integrated mixer seamlessly integrates with your automated QCX system to maximise your sampling accuracy and efficiency.

# HIGH REPRESENTATIVE SAMPLING FOR QUALITY AND PROCESS CONTROL

## How it works

A sampling screw (auger) rotates slowly (a few rpms) and continuously extracts powder material from the sample process stream in a vertical or close-to-vertical chute section. A mixing tank – on the same axis as the screw – collects the material for a composite sample.

The mixing tank has internal lifters rotating with the auger, which means the sample material in the tank is, at all times, a homogeneous mix. The variable frequency convertor of the motor can be adjusted so that the time it takes to fill the mixing tank is within 30 minutes to two hours, which is the typical sampling intervals.

## Possible configuration

### Automated chute sampler w/ integrated mixer with manual sample collection (PSM101)

The Screw Sampler with integrated mixer may be combined with a designated sample collection container, further enhancing its ease of use.

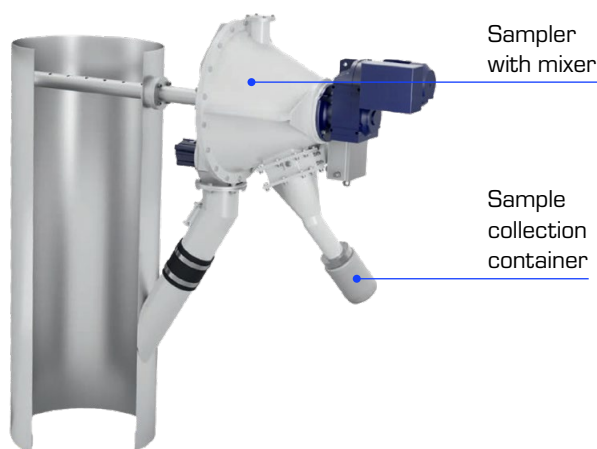
### Automated chute sampler w/ integrated mixer with sending station (PSM102 + PTS102)

When integrated with an automatic sample transport sending station for automatic sample collection, sampled material is

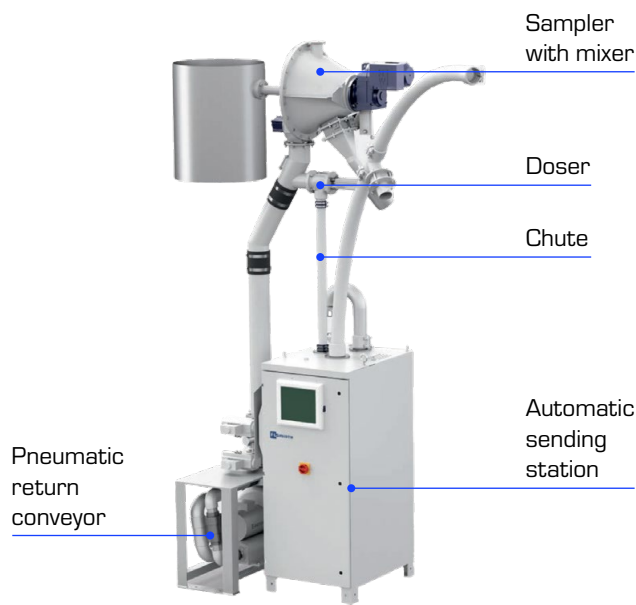
transported in a capsule via pneumatic tube transport system to laboratory, saving time and minimising waste.

## Specification

<b>Sample lengths</b>	Up to 1,500 mm, longer on the request
<b>Sample material</b>	Dry, non-sticky, up to 120°C, top size 2 mm
<b>Sampling location</b>	Vertical chute with free falling material
<b>Sample type</b>	Composite sample
<b>Sample quantity</b>	Up to 15 l
<b>Sample frequency</b>	< 2 samples / hour
<b>Power supply</b>	3 x 380 – 500 V; 50/60 Hz
<b>Compressed air supply</b>	0.6 – 1.0 MPa (Quality 2.4.2 as per ISO 8573-1)
<b>Operating conditions</b>	Temperature: -10°C to 40°C, optional -20°C to 55°C Humidity: 0 – 100 %
<b>Weight</b>	Approx. 150 kg
<b>Dimensions (W x D x H)</b>	2,290 x 580 x 1,020 mm



PSM101



PSM102 + PTS102