



QCX[®] Centaurus[®] Mk III Combined Mill and Press

The Centaurus Combined Mill and Press is an automated fine grinding mill and pelletising press. It is versatile, compact and easy to operate, and is the only all-in-one solution that can either grind or press, or combine both functions.

Centaurus produces pressed powder tablets from materials, such as raw meal, clinker, cement, ore, slag and mine exploration samples for x-ray fluorescence and x-ray diffraction analysis.

Able to store up to 99 pre-defined sample preparation programmes, Centaurus gives you great flexibility and consistency. Tedious and labour-intensive tasks can be avoided and high-quality analyses can be achieved. Exposure to harmful materials is eliminated making sample preparation safer for operators.

A compact design allows Centaurus to be placed in a variety of settings and makes maintenance easier with only two sides requiring access. It's the only mill and press with air or water cooling to ensure appropriate temperature during heat-intensive grinding. This avoids material changes.

Advantages

- **Strength:** with an emphasis placed on durability and functionality, Centaurus is the strongest, most robust and flexible mill and press on the market.
- **Versatility:** all-in-one functionality saves on space and maintenance, but you also have the option to choose either the mill or press function alone to suit your operational demands.
- **Future-proof:** the modular design makes future extensions easy, and Centaurus can also be seamlessly integrated into FLSmidth's QCX flexible robot technology.

Versatile all-in-one solution

How it works

Your operator controls the Centaurus using a simple touch-screen control panel and a manual start function.

In the fully automated process, the sample quantity is volumetrically dosed by a two-volume sample spoon according to the pre-defined sample programme selected by the operator. Grinding aid pellets are dispensed, and the sample is ground and transferred to a steel ring. The sample is pressed by a pneumo-hydraulic press unit.

Excessive dust is automatically removed from the surface and the pressed pellet is delivered to either the front or back depending on whether manual or automatic control is being used.

After analysis, the steel ring is returned for automatic cleaning.

Possible configurations

Stand-alone

The Centaurus has been designed to function as a stand-alone system.

Belt automation

The Centaurus can be integrated with the Belt automation linear system.

Robot automation

When integrated with Robot automation, the robot handles the samples outside the mill and press.

Specification

Sample material	Various minerals, ores, cementitious materials, raw materials, fine chemicals etc.
Sample ring type	51.5 x 35 x 8.6 / 40 x 32 x 14 / 40 x 35 x 14 mm
Sample quantity	30 – 50 cm ³
Sample frequency	10 / hour (depends on recipe)
Grain size	< 6 mm
Hardness	Max. 7.5 Mohs
Processing programmes	99
Grinding speed	300 – 1,400 rpm
Pressure force	10 – 200 kN
Capacity of sample / Cup/Ring magazine	20 (The in-feed Cup/Ring magazine is optional)
Capacity of pills	2,000
Dedusting	3.3 m ³ / min, -16 to -31 kPa
Power supply	3 x 380 – 500 V; 50/60 Hz; 2 kW
Compressed air supply	0.6 – 1.0 MPa (Quality 1.4.1 as per ISO 8573-1)
Operating conditions	Temperature: 5°C to 35°C Humidity: 20 – 80 %
Weight	Max. 1,080 kg
Dimensions (W x D x H)	1,040 x 1,400 x 1,760 mm 1,320 x 1,290 x 1,760 mm with Cup/Ring magazine



Stand-alone with Cup/Ring magazine



Robot automation

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