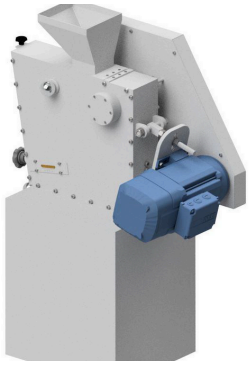
SAMPLE PREPARATION SLAG MATERIAL

SAMPLI CMPA

COMPACT AUTOMATED SLAG PREPARATION FOR REPRESENTATIVE ANALYTICAL RESULTS

SAMPLI CMPA consists of following preparation functions:

Crushing by Jaw Crusher BB-NGR1-R

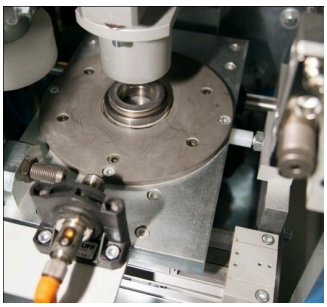


Powerful automated forced-feed crusher. The feed material passes through the no-rebound hopper and enters the crushing chamber. Size reduction takes place in the wedgeshaped area between the fixed crushing arm and one moved by an eccentric drive shaft. The continuous gap width setting with scale ensures optimum size reduction in accordance with the set gap width. BB-NGR1-R is suitable for many typical crushing tasks. It accepts feed sizes up to 30mm.

Grinding by SAMPLI CupMill100-R

Following the pulverization process, the grinding vessel is automatically emptied, making the ground material accessible at the discharge point. Automatic cleaning features facilitate effective material removal. Employing these cleaning functions minimizes cross-contamination to a low parts per million (ppm) level. Additionally, the option for spoon sampling during material input enables pre-contamination of the grinding process with the subsequent sample.

Pressing by SAMPLI PelletPress40-R



It ensures the desired uniformity and density of each individual pressed pellet, offering maximum reproducibility. SAMPLI PelletPress40-R allows for precise control of the pelletizing process through program-controlled settings. Parameters such as total pressing force, incremental increase and decrease of pressing force, and pressure holding time can be preset. In its standard configuration, the press incorporates a counter-pressure plate cleaned with a brush rotating in alternate directions. It can be customized with magazines for sample cups, steel rings, and pressed pellets.

Quality Control Systems

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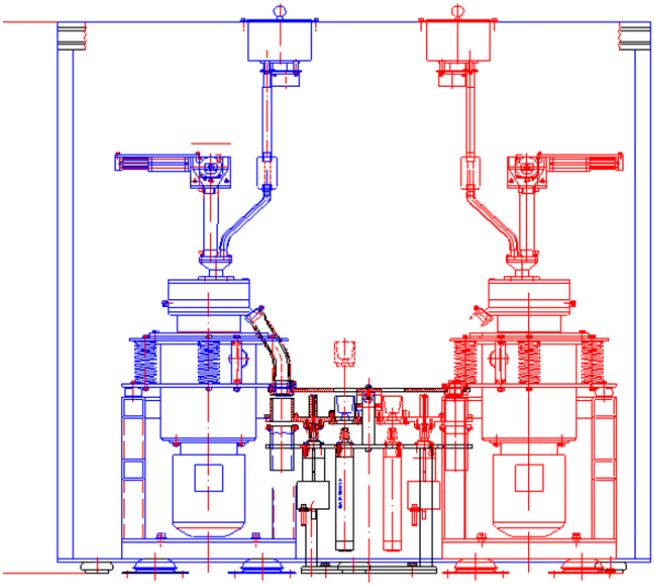
SAMPLI CMPA

OPTIMIZED PROCESSING FOR RELIABLE PREPARATION AND HIGH THROUGHPUT

1. Retrieval of samples from the input magazine and transferring them to the crusher.
2. Crushing the samples and separating magnetic particles.
3. Determining the minimum quantity of crushed sample.
4. Grinding the first sample part to prevent contamination.
5. Cleaning the grinding vessel with air.
6. Transferring the second sample part into the vessel.
7. Adding grinding additives and fine grinding the sample.
8. Cleaning the grinding vessel with air.
9. Transferring the sample to the press for dosing.
10. Dosing the appropriate quantity for the press while separating magnetic particles.
11. Discharging the dosed sample into the press tool.
12. Pelletizing the sample using a hydraulically powered press.
13. Removing the sample tablet from the press tool.
14. Cleaning the pressed sample tablet on both sides.
15. Placing the sample onto the transport belt for X-ray analysis.
16. Transporting the sample to the X-ray machine for analysis
17. Cleaning the steel ring after analysis and storing it in the magazine.

Optionally the integration of second swinging disc mill is possible to increase sample throughput significantly.

SAMPLI CMPA Inside View



Optional Integration of 2nd Swinging Disc MIll

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SAMPLI CMPA

PROCESSING OF SLAG SAMPLES AT SHORTEST TIME AND SHORTEST POSSIBLE WAY

- ☑ Highly accurate and reproducible results
- ☑ Ensures reliable turnaround times due to 24/7 robot monitoring and control, minimizing operator intervention
- ☑ Ensures that the sample material can be further processed in the fastest possible way and significantly minimizes the loss of material carryover
- ☑ Optional integration of 2 automatic mills, so that higher throughput is possible
- ☑ Robust construction of the entire machine ensures long service life of the production facility
- ☑ Reduce operating costs

SAMPLE PREPARATION SLAG MATERIAL

Technical specif. SAMPLI CMPA

Dimensions (W x D x H)	Appr. 1.204 x 1.152 x 2.243mm
Weight	Approx. 1.900kg +250kg
Voltage	3x 400V, 50 Hz
Compressed Air Supply	Min. 6 bar, max. 8 bar
Number of programs	16
Sample Temperature	Max. 100 °C
Sample Material	Various minerals, cement raw meal, clinker, cement, slag, ores, oydes, ferro-alloys powder
Input grain	Max. 6mm
HMI **Control**	PC based SamCoS Simatic S7
Process cycle duration	Depending upon the program approx. 2 min + options
Sample Cooling	By compressed air or water
Sample Cleaning	By compressed air

Configurable options

Loading magazine	8 cups
Cleaning device	By air
Operation modes	Standalone, linear automation, robot automation
Dedusting Input	Several Options

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