swiss innotech

geoMILL

fast and efficient milling and homogenisation of geological samples like minerals, crystals and soils

www.swiss-innotech.com

Optimal price-perfomance-offer and easiest handling!

geoMILL for daily usage!

- Applicable to extremely strong materials nearly up to diamond hardness
- Only a few seconds for the milling process
- Sample amount - depending on the material - from 0,02 to 10 g
- Minimal abrasion of the grinding tools, due to extreme hardness
- Best quotation due to a new market concept
- Operation independent of the mains due to ion battery technology

Better analytics, delivered by extremely hardness of tools

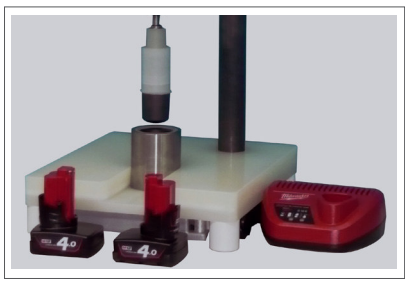
geoMILL was designed as an analytical fast-grinder for sample preparation in research and develpment as well as for routine works. The principle of percussion and rotation provides a fast and efficient milling and homogenisation.

Easy to handle, space-saving and cost-efficient!

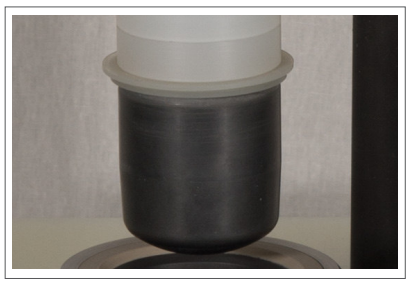
These are only a few of the advantages of the new geoMILL-technique! The choice between three different milling tools allows the usage of the most efficient material. The usage of hardest synthetic milling-tools like silicon carbide, silicon nitride and boron carbide leads to a minimal abrasion of the tools, which is ideal in ultra-trace analysis. In this way you can avoid contaminations of undesired elements like tungsten or zircon. The standard diameter (45mm) of the mortar combined with percussion and rotation of the pistil provides an optimal combination for processing materials of extremely hardness.

Even spherical material, which are known for hard processing, can be milled to finest powder within seconds. The huge variability of the milling-frequency ensures an optimal crushing of different materials. The built-in automatically sealing of the milling-tool reduces dust formation and therefore the loss of sample during the milling-process. Materials of extremly hardness like saphire can be processed to finest powder by using the geoMILL. The easy handling, low weight and the indepent operation of the mains allows the usage even directly in the field. The fast-coupling-system of the milling tool enables a quick and trouble-free change of the complete milling-set.

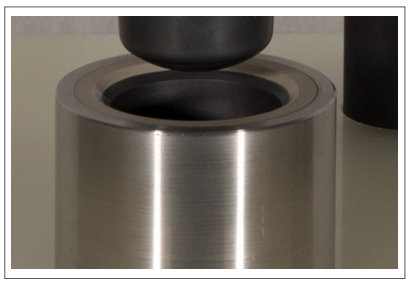
The high efficiency and quality combined with a high operation comfort results in cost-effective solution for milling and homogenisation for laboratories.



Working station including pistil, motar and accessories (2 batteries, charger)



Pistil (enclussion-rotation-head) with sealing (white)



Milling-set protected by stainless steel jacket

Functionality

The geoMILL is crushing, mixing and homogenizing the ground material due to the variable percussion- and rotation-effect. The samples in the mortar will be crushed and roughly reduced by subside of the pistil. The samples will be processed in a short time to finest powder due to starting the percussion-rotation-operation. The rotational speed and the frequency are infinitely variable during the milling-process by the control knob. There is only marginal thermal loading along the quickly milling-process which reduces element loss. After each milling-process of few seconds the sample can be easily collected and used for other processing methods.

Areas of application

geoMILL represents a variable crushing-system with a high efficient milling-process. The areas of application cover a huge range like: minerals, crystals, soils, etc.

Sets of milling-tools

By the fast exchange possibility of the milling-tools the geoMILL can be adjusted short-term to most diverse requirements or materials. The standardised fast-coupling-system of the milling tool enables a quick and trouble-free change of the complete milling-set without any other tools.

Silicon carbide-set
to process hard to medium-hard samples, avoids introduction of heavy-metals.

Silicon nitride-set
to process hard to medium-hard samples, due to its viscous-elastivity it allows to process samples in liquid nitrogen or other cryo-processes.

Boron carbide-set
to process extremely hard samples, usable up to diamond hardness, as an extremely hard material there is a challenging to fabricate and is avialable as an expensive alternative. (extreme hardness is reducing blind values).

Applications

Agricultural and forestry
Environmental sector
Biology
Chemistry
Building materials
Geology and mineralogy
Metallurgy and mining
Glass- and ceramics industry

Facts/Properties

Operating principle	Enclussion-rotation
Samples size (depends on material)	5 to 10 mm
Sample amount (depends on material)	20 to 100 mg
Milling degree (depends on milling-time)	5 -50 µm
Milling-process	dry
Enclussion-power pistil	ca. 2,5 J
Diameter motar (standard)	45 mm
Conformity	CE-sign
Warranty	12 month

Technical data

Power supply	battery, line independent operation
Engine	12 V DC brushless motor
Battery	Li-ion-battery 4 Ah
Tension / capacity	18 V / 5.0 Ah
Accessories	2 x Li-ion-battery, battery charger
Dimensions WxDxH	30 x 40 x 65 cm
Weight	13 kg

Our history

The combination of innovative technique and swiss quality!

Based on the long-termed experience of our partnerships the swiss innotech AG was founded in 2015. Therefore, we combine innovative ideas with dynamics and we are build on knowledge and tradition. It is our mission to develop and distribute high quality and user-orientated devices for laboratories. Due to the cooperation with other manufacturer our intension is to adapt the products to the clients needs and to offer optimum technology.

Our target is to gain you as a client for long-term cooperation.

You can find our assortment and perfomances at
www.swiss-innotech.com
The online-shop is constantly updated and expands continously.

swiss innotech ag
Auerstrasse 19
CH-9435 Heerbrugg
www.swiss-innotech.com

phone +41 (0)71 520 75 85
fax +41 (0)71 520 75 86
info@swiss-innotech.com