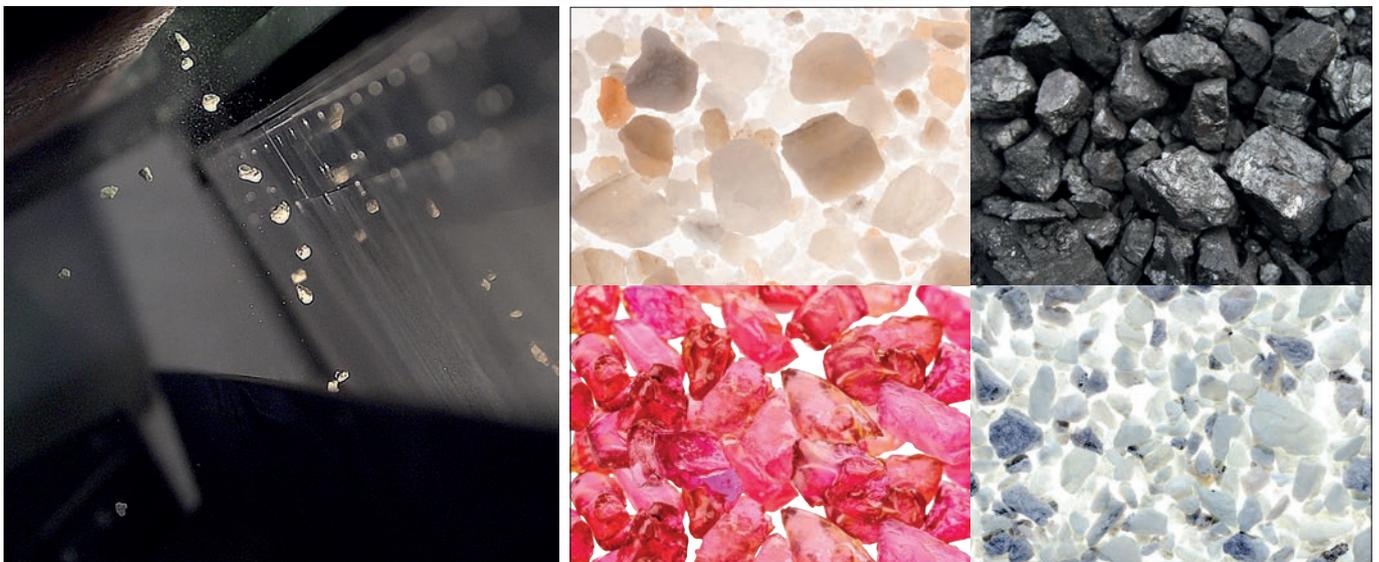


**WE
SORT
IT
ALL**

binder+co



**MINEXX
FOR THE HIGHEST
QUALITY IN THE SORTING
OF RAW MATERIALS**

WE SORT IT ALL

COMPACT AND MODULAR

MINEXX takes up very little space, so integration into existing systems is no problem at all and no expensive modification is required. The modules of the sorting machine, such as valves, lighting and sensors, can be converted to the state of the art at any time without having to replace the entire machine.

INTELLIGENT AND CUSTOMIZED

Binder+Co adapts the sensor equipment of the MINEXX sorting system to the individual tasks. The available sensors range from color and UV sensors, metal detectors, near infrared spectroscopy to X-ray transmission. The data from the sensors is linked and analyzed by means of specially developed algorithms. So-called sensor fusion allows, for example, simultaneous sorting by material type and color. If the feed material changes, MINEXX remains the ideal solution, because multiple recipes can be programmed to respond to the changes.

ALL-ROUNDER

MINEXX is a true all-rounder in its applications. For the processing of industrial materials, MINEXX is equipped with VIS sensors for sorting by color (e.g. quartz), by degrees of whiteness (e.g. limestone) or by shape and size (e.g. feed for furnace).

For precise sorting of feed material with intergrowth, MINEXX 2s provides a double-sided view of the material so that the entire surface can be scanned and analyzed.

In the production of salt, MINEXX uses, among other things, transmitted light for the separation of rock or color deviations. Induced fluorescence by means of UV sensors for instance is used for sorting gemstones.

MINEXX also recognizes different material types. NIR sensors ensure reliable sorting of materials of the same color, such as magnesite and talc or magnesite and chalcedony.



MINEXX
A UNIQUE CONCEPT FOR SORTING
VALUABLE RAW MATERIALS



ALL-ROUNDER

X-ray transmission is used when materials have to be sorted based on their atomic density; this is the only way of looking at the inside of non-transparent feed material, such as coal or ores.

A metal detection function can be installed for the reliable removal of metals.

ACCESSIBLE AND MAINTENANCE-FRIENDLY

The machine concept is designed to provide the highest degree of user-friendliness. Special attention has been paid in the design to rapid accessibility for maintenance and service interventions.

24/7 WORLDWIDE

MINEXX sorting systems can be controlled or their operation checked via data line. This allows our customers worldwide to be supported quickly by our technicians at any time.

With our service locations in Europe, the USA and China, we can be on-site with our customers within a short time.

SYSTEM EXPERTISE

Our knowledge of the interaction between the individual processing steps enables us to create excellent and customized solutions for our customers, thus ensuring that they have a decisive economical and technical advantage.

Binder+Co's sensor-based sorting technology extends from individual machines through to turnkey complete systems. But it is the ideal system concept and the optimum conditioning of the feed material that have led to the success Binder+Co has achieved worldwide in sensor-based sorting. With the development and manufacture of machines and plants for six elementary process steps – crushing, screening, wet treatment, drying, sensor-based sorting, packaging and palletizing – we offer our customers the ultimate process expertise from a single source: from material conditioning to sensor-based processing.

OPERATION

MINEXX is fed with a grain size of 0.8 - 250 mm. In the chute sorting system design, the material flow runs over a chute with an inclination adapted to the product. The feed material is separated by the acceleration.

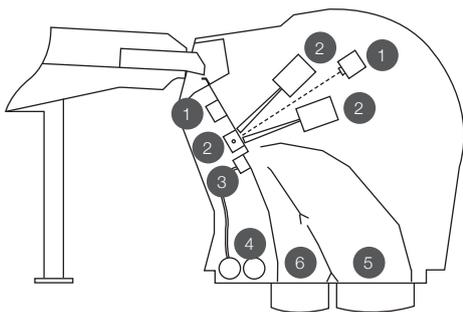
When MINEXX is designed as a belt sorter, the feed material is transported on an acceleration belt to the lighting and recognition unit.

MINEXX uses tailor-made lighting systems and high-resolution sensors to detect color, whiteness, shape, texture and the material-specific properties of the feed material.

High-performance computers classify the feed material and calculate the optimum valve control parameters. The precision valves are activated at exactly the right time. Depending on the programmed recipes, contaminants and defined material classes are ejected by compressed air into the corresponding sorting paths.

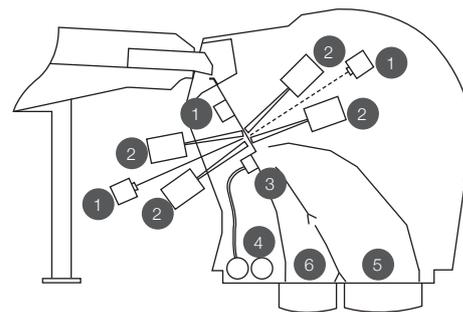
The sorting machine is equipped with the appropriate number of valves depending on the application and the granulometry of the feed material.

MINEXX chute system with one-sided view



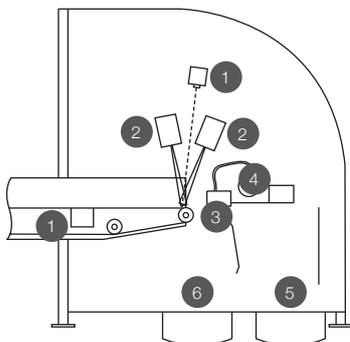
- 1 Sensor
- 2 Lighting reflection/backlight

MINEXX chute system with double-sided view



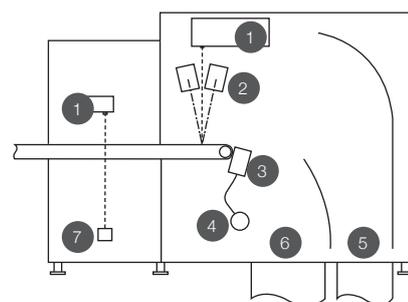
- 3 Sorting valves
- 4 Compressed air supply
- 5 Ejection way
- 6 Passing through

MINEXX belt system



- 1 Sensor
- 2 Lighting reflection/backlight
- 3 Sorting valves
- 4 Compressed air supply

MINEXX belt system with XRT/X-ray transmission



- 5 Ejection way
- 6 Passing through
- 7 X-ray source



SENSOR-BASED SORTING IN THE PROCESSING OF INDUSTRIAL MINERALS, ORES, SALTS AND COAL

In recent years sensor-based sorting has become increasingly important in raw material processing; it enables considerable economic improvements as it is a cost-effective and efficient alternative to extensive process steps or manual sorting.

The particular advantages of sensor-based sorting are due to the fact that low-quality deposit areas can be processed economically. Downstream process steps are relieved and used more efficiently through the optimal process integration, while the operating costs are reduced at the same time. Moreover sorting also creates new sales opportunities through higher-quality products or new product qualities. For this MINEXX is equipped with different sensors or sensor fusion.

Sensor-based sorting of bulk material has been a key competence of Binder+Co since the 1990s. The result is a wide range of solutions for supplying the optimum sorting machine for almost every task.

The versatility of MINEXX:

- Increased plant efficiency
- Pre-concentration
- Production of different and new product qualities
- Removal of impurities and contaminants
- Quality control



RELIABLE
CRUSHING



EFFICIENT
SCREENING



WET
PROCESSING



THERMAL
PROCESSING



SENSOR-BASED
SORTING



BAGGING
PALLETIZING

TECHNICAL DATA

MINEXX chute system				
Sorting width	700 mm	1000 mm	1400 mm	2000 mm
Max. capacity*	50 t/h	70 t/h	100 t/h	140 t/h
Granulometry	0.8 – 250 mm			
Sensors	VIS VIS 2s (sorting width 1300 mm) UV NIR Metal detection			

MINEXX belt system				
Sorting width	1000 mm	1400 mm	2000 mm	2800 mm
Max. capacity*	95 t/h	135 t/h	190 t/h	270 t/h
Granulometry	1 – 250 mm			
Sensors	VIS UV Metal detection XRT (sorting width 1000 mm)			

* depending on the respective task

MINEXX can be optimally equipped with different valve configurations for the individual tasks:					
Distance between the valves in mm	3.125	6.25	8.33	12.5	25
Option for a second row of valves		25 for alternately sorting of coarse and fine particles			25 for large and heavy material