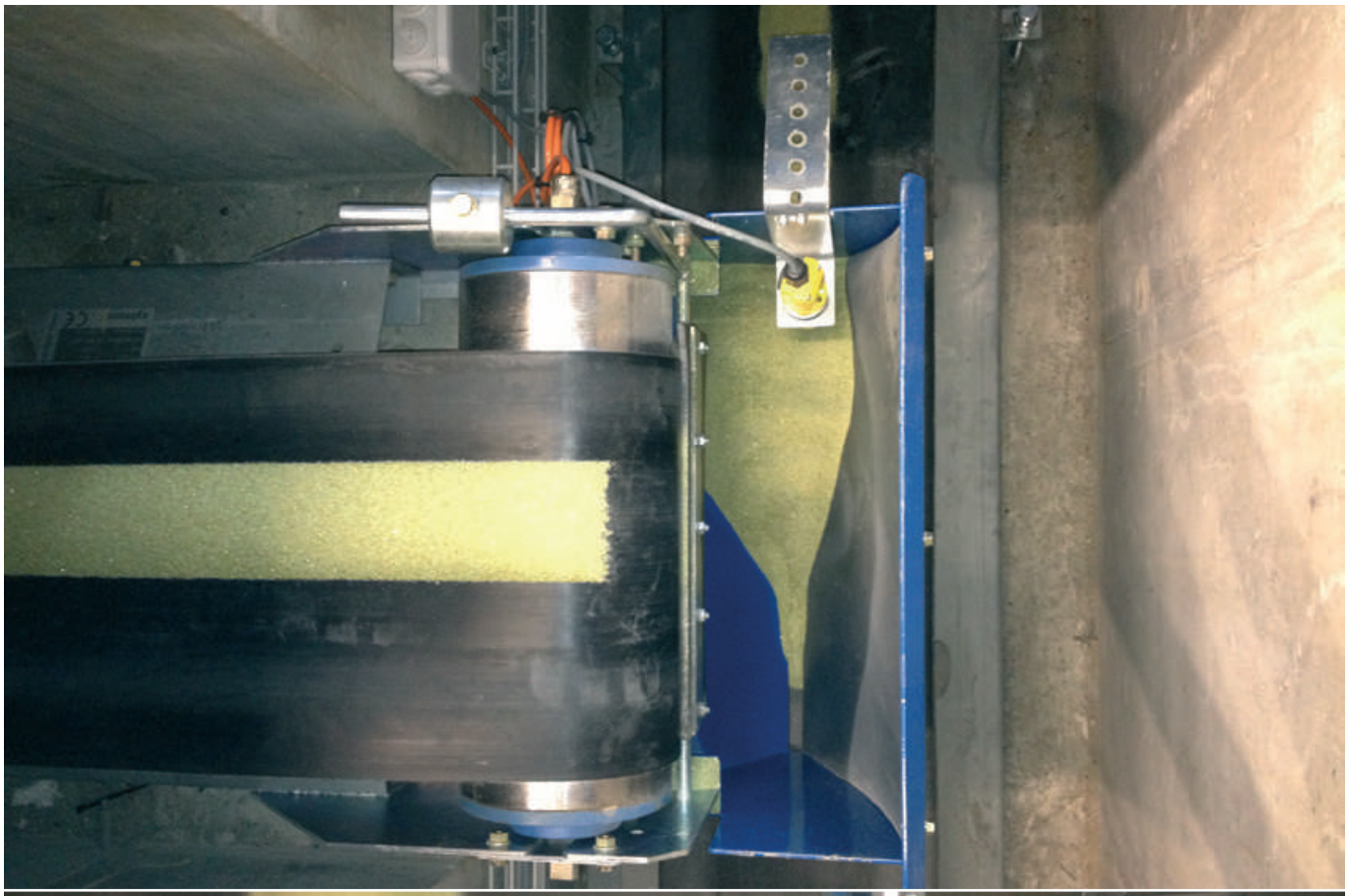
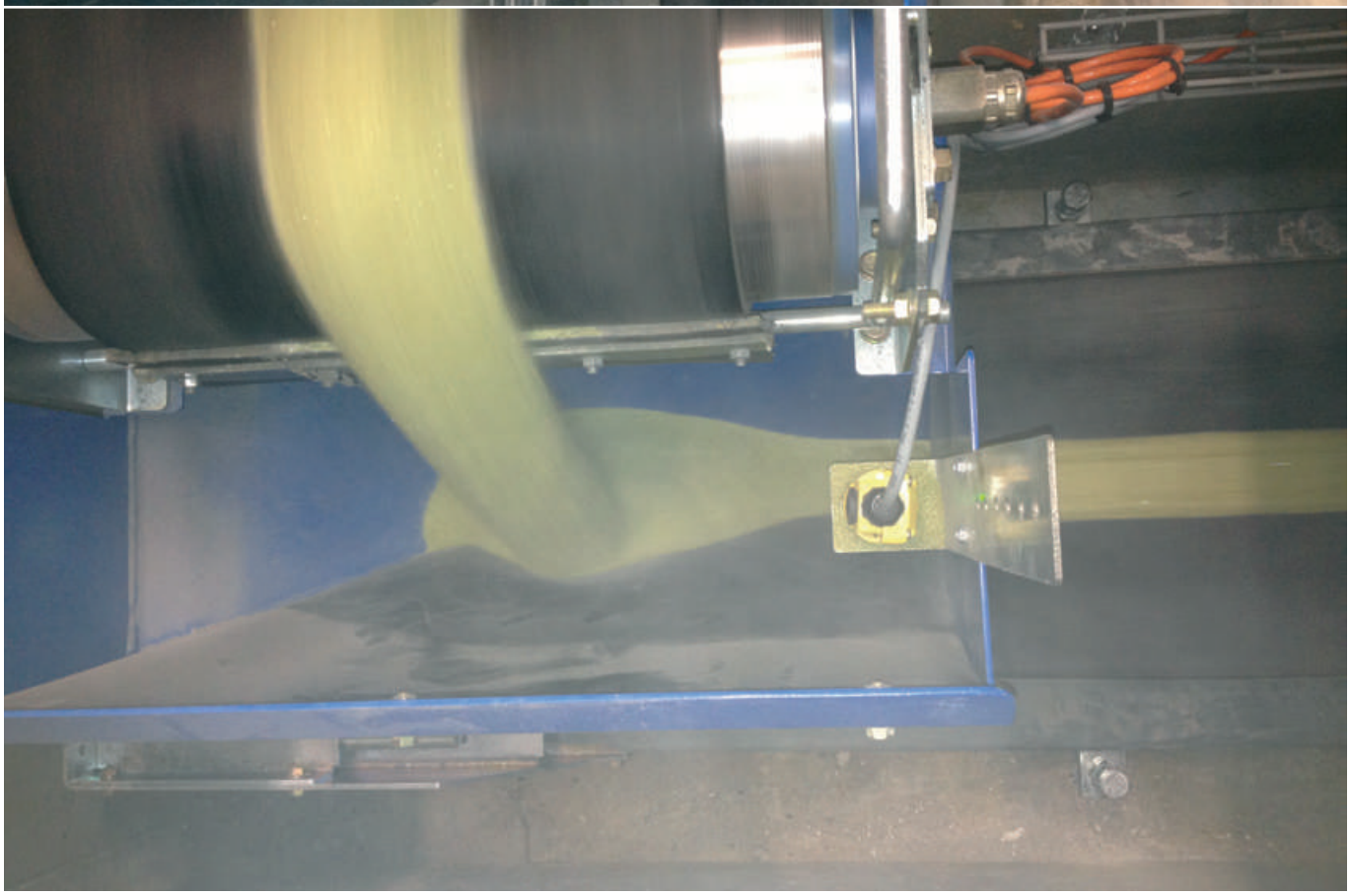
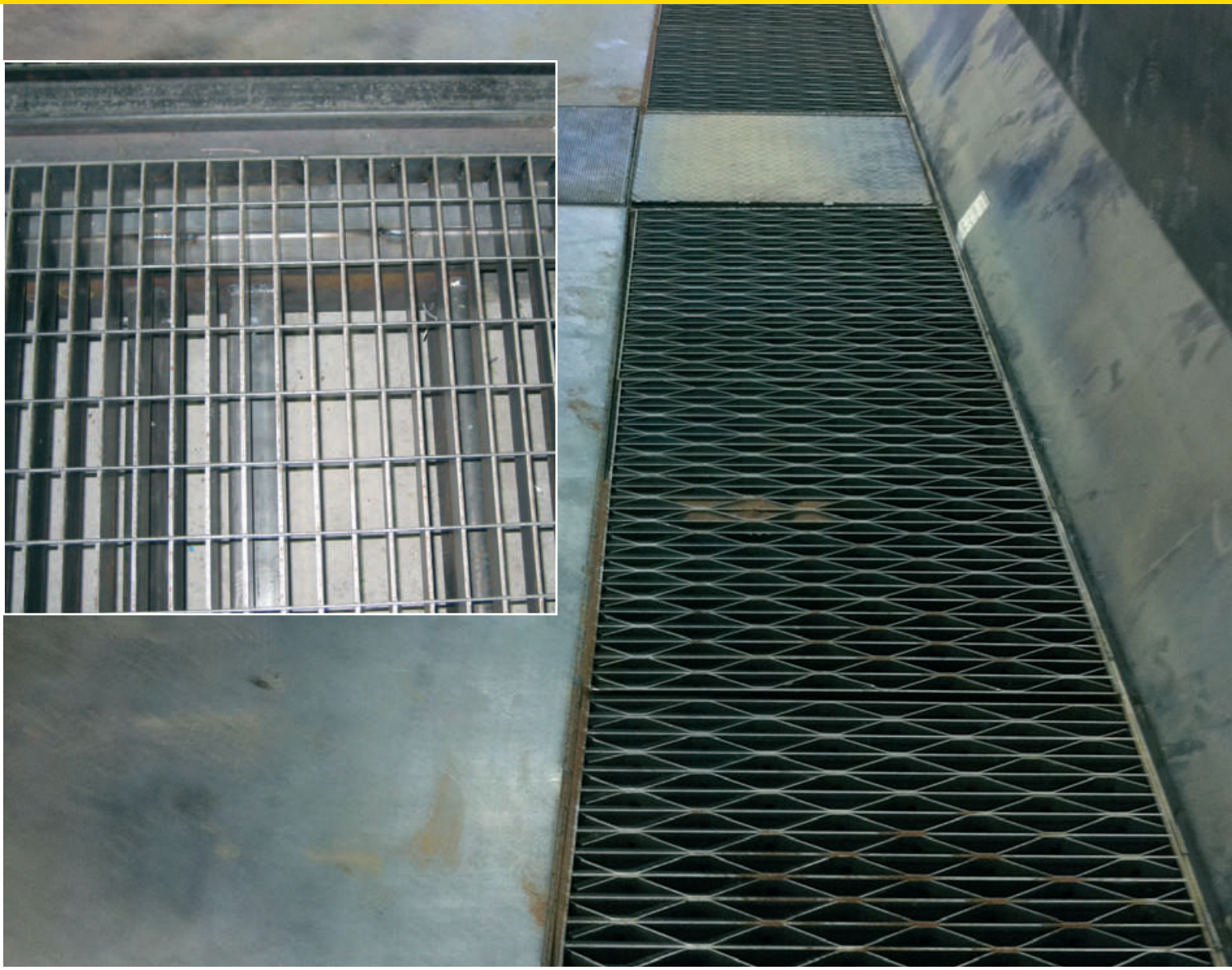
ABRASIVE RECLAIM FLOORS



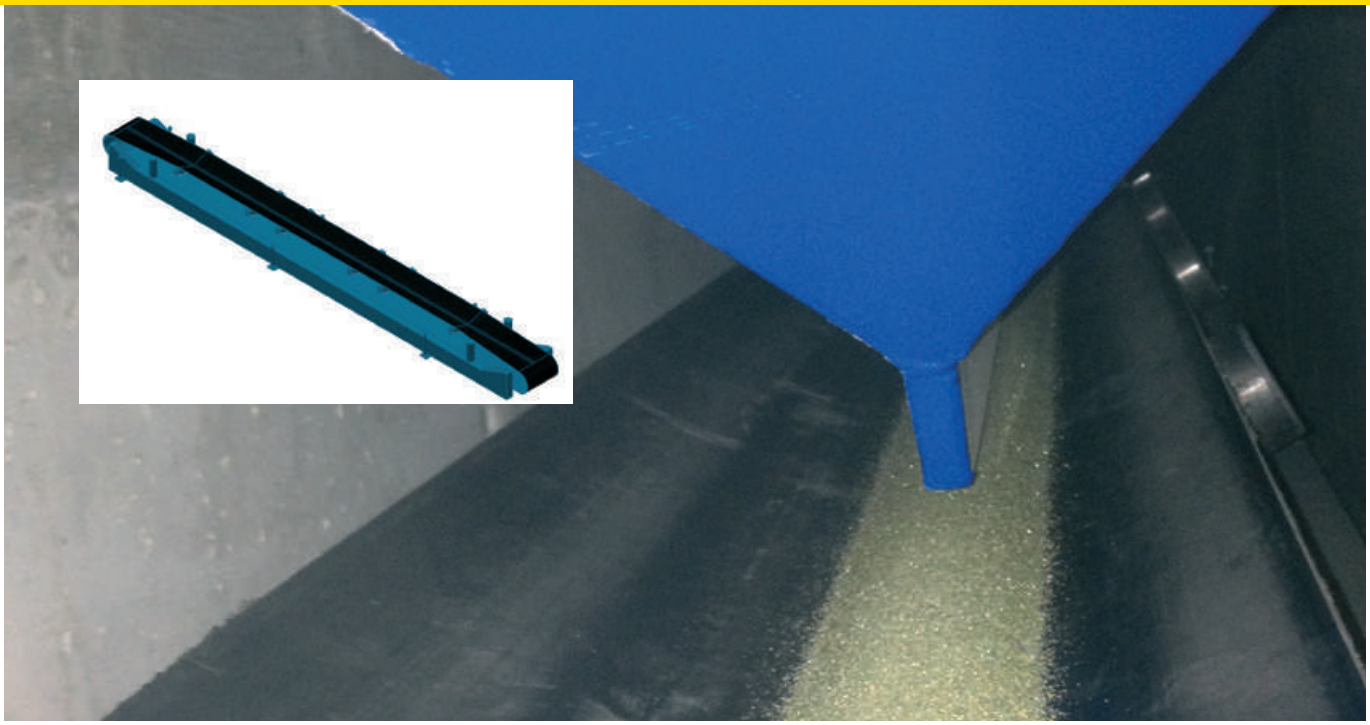


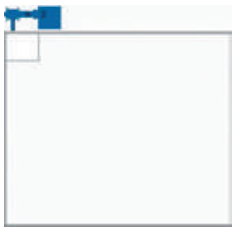


ABRASIVE RECLAIM FLOORS

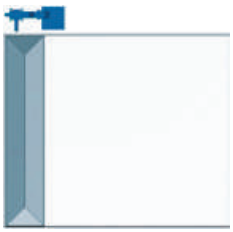
In blasting processes, the used abrasive falls on the floor of the blast room. Typically, the abrasive can be recycled and reused. The floor can be either fully or partially covered by a reclaim system to transport the abrasive back into the recycling process. Blastman Robotics offers a variety of reclaim floor designs and room configurations. We design blast room facilities uniquely tailored to meet the production needs of our customers.

ABRASIVE RECLAIM FLOORS



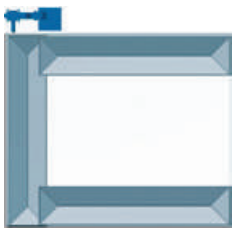


Sweep-In type floor construction is a basic and economical option. Abrasive is pushed manually into the elevator pit after blasting.

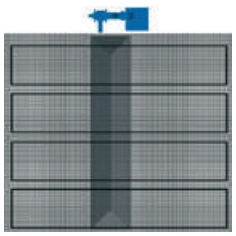


Single belt type floor construction. Abrasive is pushed manually into the belt conveyor after blasting. Belt can be placed on the end or side of the blast room.

H-type partial belt reclaim system consists of two belts on the sides and one cross belt. Most of the abrasive is recycled automatically and the rest is pushed manually into the belt conveyors.



U-type partial belt reclaim system. Most of the abrasive is recycled automatically and rest is pushed manually into the belt conveyors.



Full floor reclaim system consists of several longitudinal scrapers and a cross belt conveyor. The floor is covered with perforated plates and abrasive falls directly into conveyors. There is no need to manually move the abrasive. Workpiece movement is typically realized with rails on the floor or by an overhead conveyor.

BELT FLOOR

Blastman belt floor consists of specially engineered belt conveyors and hoppers installed under the floor. Blastman belt floor design is engineered so that all maintenance and service will be carried from above. There is no need for underground maintenance space. The belt floor can be built to cover the floor partially or completely. In some cases, most of the falling abrasive can be collected near the walls and as the abrasive hits the wall it falls to the conveyor. Especially when moving heavy loads on carriers, it makes sense to save part of the floor as moving area.

All reclaim floor types finally convey the abrasive mix to the base of the elevator.

SCRAPER FLOOR

Blastman scraper floor is a heavy-duty transport system based on movable steel plates placed under the floor level. On top of the scraper floor there is grating or perforated plate to cover the scrapers. Abrasive falls to the scrapers and the grating provides walking and driving surface for the room. Typically, the scraper floor is built to fully cover the floor of the blast room and all the abrasive is collected without any manual cleaning operations. Scraper floors typically need the lowest pit depths.

BLASTMAN ABRASIVE HANDLING

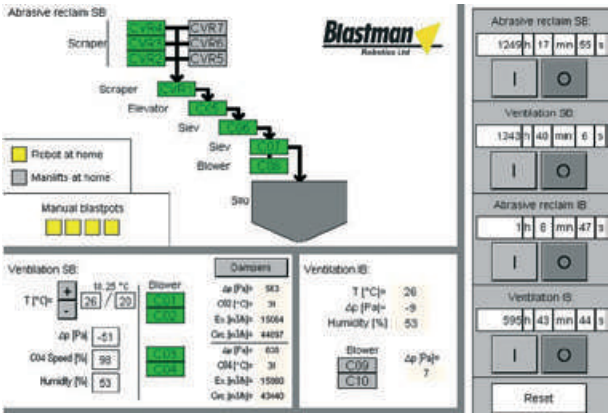
WORKING PRINCIPLE

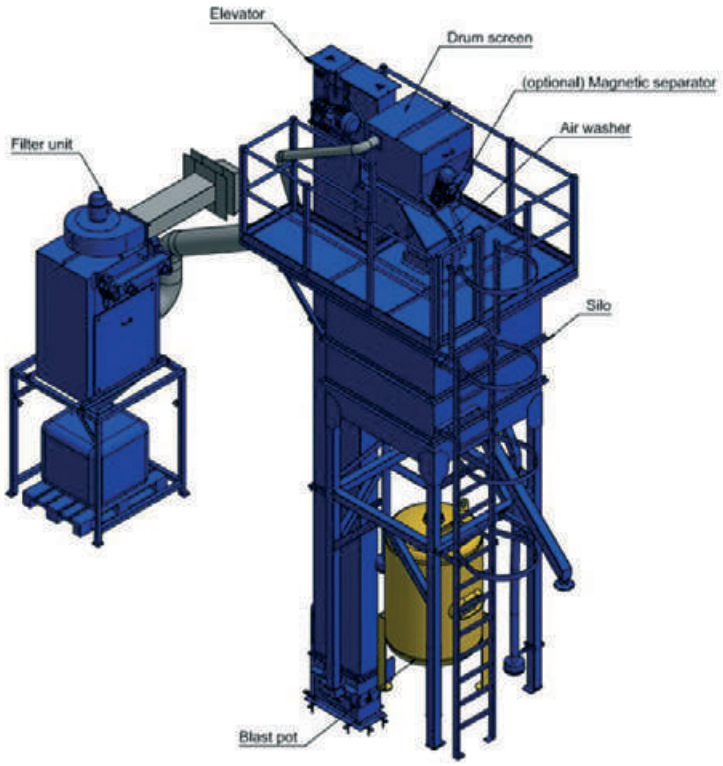
After the reclaim floor has carried the abrasive to the elevator, the abrasive is recycled back to the hopper.

The elevator is equipped with a belt and bucket system which picks up the abrasive. The abrasive is fed through an outlet at the top of elevator onto a special rotating sieve and then onto the abrasive cleaner (cascade cleaner). It can then be extracted through the main filter or a separate self-cleaning cartridge filter. The cleaned abrasive mix is collected into the storage silo and is ready for reuse.

In case of non-ferrous blasting media abrasive cleaning is also equipped with a magnetic separator
All individual devices are equipped with rotating and overload sensors

Equipment is controlled by a PLC and it can be monitored from a user interface.





BLASTMAN ABRASIVE HANDLING

It is very important to process the recycled abrasive correctly in order to achieve high blasting efficiency and quality. Correct operating mixture of abrasive particles serves the system efficiently.