KIESS

General overview

Individual technology in custom work

Blasting halls

Over 70% of all blasting, descaling and rust removal work is carried out in halls, cabins or special systems.
The advantage: the abrasive can be used much more frequently. In principle, all of them are semi or fully automatic working blasting halls and cleaning houses, where the abrasiveis are reused. The abrasive is thoroughly cleaned before it is used again. KIESS abrasive return systems are made from specially wear-resistant elements such as: vibration conveyors, scrapers, bucket elevators, abrasive cleaners and magnetic separators. These are system elements that due to the modular principle, depending on the desired performance and problem solving, can be improved in a constant development process and therefore stand up to any comparison.

Special devices

We also have many years of experience with additional system elements that are required. These special devices are getting closer cooperation with the customer tailored to their needs. Examples of these special devices are as follows:

- Track wagon
- Manholes for loading products by crane
- Shot blasting robot, programmable or manually controlled
- Working lift platforms, also with transverse overhang

Coating halls

When coating the surfaces by spraying, paint mist and solvent vapors are emitted. They are harmful to health, and can also become a source of creating an explosive atmosphere. The technical equipment of such rooms is carried out under taking into account of the requirements for explosion safety. Air is extracted from such rooms either through wall-mounted exhaust cabinets or through exhaust ducts in the floor of the room. In all cases, the exhaust air passes through filters before it is vented to the atmosphere. These filters trap paint particles while passing air through them. Exhaust fans in explosion-proof design are selected in accordance with the required ventilation performance. If necessary, the air inflow into the workshop can also be additionally filtered. The application of coatings is carried out, as a rule, by airless paint sprayers of various types. The choice of devices is made on the basis of the characteristics of the applied coatings. To reduce the drying time after painting the supply air is heated in ventilation units with a built-in heating system. The heat carrier can be electricity, gas, diesel fuel, hot water or steam. The required heating temperature is set by the operator.

Mobile chambers

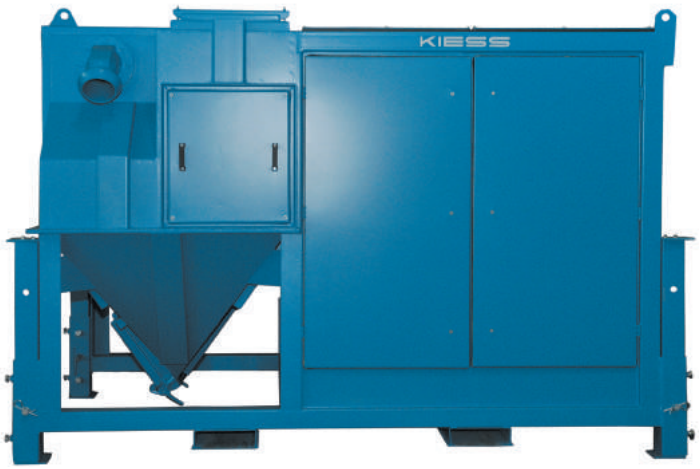
We can also offer to you the mobile solutions. Stationary equipment technology can be built into containers to equip construction sites and enable rapid assembly and dismantling. Thanks to the standard container sizes the easy transport is possible. At the same time the requirements of the workplace guidelines are of course complied with.

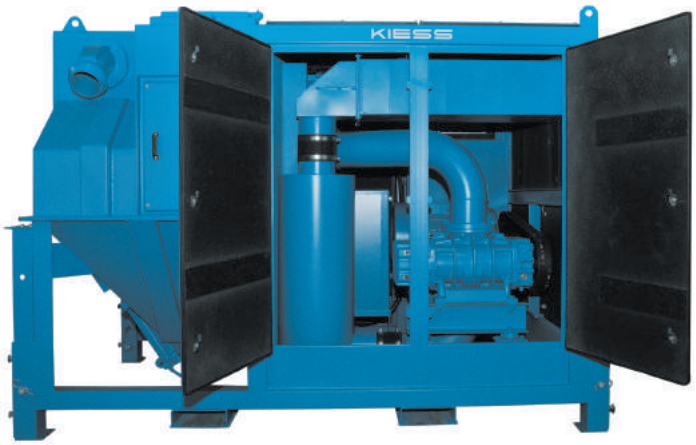
Recycling systems for abrasives

KIESS started developing mobile and stationary recycling systems since 1978 and placed great value on the cleaning systems for the reusable abrasive. After the ban on the using of quartz sand as a disposable blast media, it is now used worldwide (also as silicosis prevention) copper slag or coal slag. The disposal costs for these single-use abrasives are already many times higher than the slag purchase price. We have developed and patented systems that allows with high efficiency to remove the toxic substances from abrasive, such as, for example lead. After that, the abrasive can be reused without danger to humans and environment. The systems developed by KIESS make it even possible to add large particles of fresh abrasive to the cleaned slag for further reuse.

Suction units

The vacuum method for collecting granular material mixed with dust or moisture is associated with significant difficulties. Normal industrial vacuum cleaners are not suitable for these purposes or have low performance.
KIESS suction units are designed to collect and transport these abrasive materials. This is achieved by a constantly running vacuum pump which is protected by an upstream filter and a separation system. The self-cleaning system of these filters with compressed air operates automatically. Electric suction units are available in both stationary and mobile versions.
The additional elements such as: suction nozzles, separation system, hoses, couplings, automatic dust removal during the vacuum collection process, abrasive preparation, recirculation systems complete the product line of completeness of suction units and increase their productivity.





Blasting pot

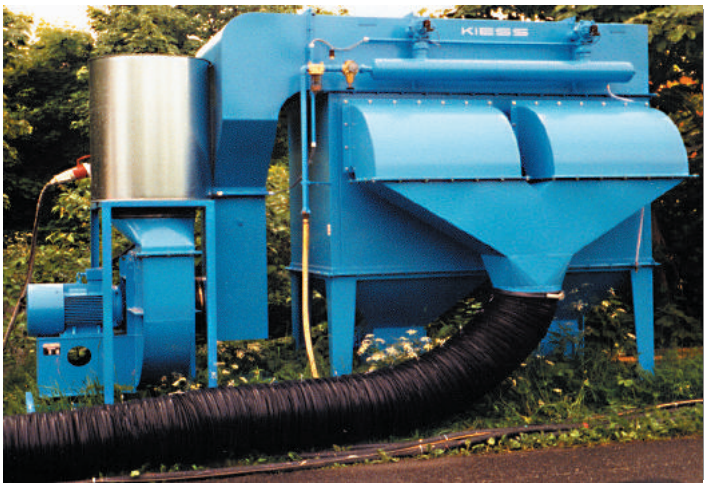
Nowadays, with ever-increasing prices for abrasive materials and their disposal, the optimal use of these materials is one of the decisive factors for cost reduction.

The KIESS blast pots have large tube cross-sections and full-flow ball valves. As a result, minimal pressure losses are achieved. Each pressure blasting pot is suitable for all commercially available types of blasting media, for dry, damp and wet suitable for blasting.

All blast pots are standard equipped with a mixing valve, self-closing quick-release cone, an inspection hatch, and large-size wheels for easy transportation. The blast pots are type tested and the standard version is approved for a maximum of 12 bar. The operating is controlled via a dead man's switch, which must be pressed continuously during the blasting process.

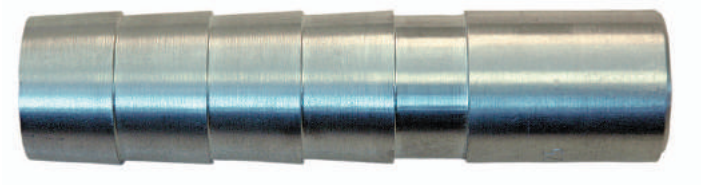
Filter systems

KIESS air-filter systems are designed to remove especially aggressive types of dust.
Structurally, the inlet of dusty air is made in such a way as to achieve a smooth deposition of dust cut off from the air in the dust bin without turbulence. This reduces wear on the filter cartridges themselves. Self-cleaning of filters with compressed air is carried out automatically and regulated by the control system. The modular principle of the filter sections allows to achieve the required performance of the installation. The applied centrifugal fans create a vacuum from 350 to 500 daPa, which even allows the recirculation of the entire volume of purified air, which is a great advantage over many competing manufacturers.
For heavily conglomerated dusts, KIESS supplies special filter inserts with a teflon coating.
The air capacity of the units lies in the range of 2.500 – 60.000 m³/h. Filtration units can be both stationary and mobile.



Abrasive blast equipment

The nozzles are marked by high stability and they are suitable for any kinds of abrasive. Material and size have to adapted to the respective abrasive or the respective case of application. The delivery program includes – among other things – short discharge nozzles in convential design or long discharge nozzles in venturi design. The nozzles are made of aluminium or shock resistant synthetic material. Respective nozzles are available for treating inner surfaces of pipes. Pipes having a higher diameter are treated with respective inside blasting devices. The nozzles fitting for jet hoses and having an inner diameter if 13 – 42 mm have a very long lifetime and you can get them in different qualities depending of the abrasive.
It is possible to add water to the mixture consisting of abrasive and compressed air in the nozzle to bind dust.



Shot blaster personnel protection

In accordance with the regulations of the personnel protection, personnel when carrying out their activities, are obliged to wear protective clothing. This requirement is especially important when carrying out abrasive blasting, as such work is associated with an increased risk to personnel.
Protective suits for shot blasters are made of breathable grey cotton, and the surfaces facing to possible ricochets are additionally powered with wear-resistant leather.
The breathing air supply to the shot blaster's helmet is provided by a compressor through an activated carbon filter.

KIESS

KIESS GMBH & CO. KG

Wiehagen 25
D-45472
Mülheim/Ruhr

Pfone: 02 08 / 49 58-0
Fax: 02 08 / 49 58-150

E-Mail: info@kiess.de

www.kiess.de