How to sweep large surface areas efficiently...

Low costs are the result of efficient cleaning processes, which in turn require appropriate equipment. Targeted investments in advanced technology are therefore the key to economic efficiency. It is clear to see the extent to which technical innovation is gaining ground, even in terms of auxiliary functions, when it comes to floor cleaning and care. In many cases, sweeping devices both for outdoors and indoors mean that labour-intensive, unpopular broom sweeping can be dispensed with.

Sweepers: the new trend

It's not that brooms, shovels and rubbish bags will soon be a thing of the past! These tried and tested handheld devices are unbeatable when predominantly localised dirt needs to be removed from areas in the immediate vicinity of workbenches and machines. Every workplace that is susceptible to dirt can have an appropriate arsenal of these tools at its disposal without taking a toll on the investment budget.

In general, larger connected areas such as corridors or storage and handling areas in workshops, warehouses and open-air areas are suitable for mechanical sweeping. Several factors, which go hand in hand with the general modernisation of operations, are tending to broaden the possible range of potential uses for sweepers. Building projects have a particularly lasting impact: whether the operational area is being extended or the floor plan is being improved, both cases favour mechanical floor cleaning. The same effect can be achieved with an improved fixtures and fittings layout where machinery is grouped into blocks and there is a smooth network of paths and generous corridor widths.

Also, rising personnel costs, in particular in terms of ancillary wage costs, make labour-saving technology an attractive option. And finally, the device manufacturers are not short of innovative solutions that enable customers to make bespoke purchases. The only difficult task facing users is deciding which price and performance class to choose. The fussier the user is at this stage, the faster the purchase price will be amortised as part of everyday operations.

Can a walk-behind sweeper do the job?

The decision as to what sweeper to purchase must be based on objective benefit criteria so that the expected productivity gains are actually realistic and achievable. When studying specifications and data sheets or testing a device, it is advisable to bear the following aspects in particular in mind.

- Good cleaning results, in particular also in problematic cases, such as heavily textured, grouted flooring or where the flooring is damaged (cracks, pot holes) and in areas close to edges (walls, fixtures).
- Dust-free work: the whirl-up of dust on the roller brush and the emission of dust from the waste container, via the exhaust air channel, must be ruled out.

- Ergonomics: the equipment operator is able to adopt a favourable working posture, a low level of exertion and, in particular with motorised equipment, undemanding operational procedures.
- Modest set-up requirements: effortless emptying of the waste container, easy filter cleaning, and speedy brush and filter changes.
- Robust design: the chassis and suspension and the housing should be able to cope well with knocks and collisions, and the inner working must be reliably protected.

The simplest and cheapest alternative to a street and floor broom is a walk-behind sweeper. As an example, a model is presented which can be purchased for less than 400 euros. Equipped with smooth mechanics and an ergonomically shaped push handle, the device makes work much easier compared to manual sweeping. The area coverage is impressive: at
a speed of 4 km/h and with a working width of 48 cm, it cleans approximately 2,000 m2 an hour.

The height of the roller brush can be adjusted so that it can work effectively on any floor. The bristles are therefore able to powerfully clean any indentations. Impacts with bumps in the surface or obstacles hardly cause any wear on the device: the housing, made of impact-resistant plastic, free-floats, suspended on the frame.

The equipment operator is protected from dust clouds. The airstream created by the rotation of the brushes produces vacuum so that the dust is kept in the dirt container. And the return air passes through a filter which removes any small particles from it.

Motorised sweepers

Vacuum sweepers are suitable for surface areas of 2,000 to 6,000 m2. Here is another specific example. The type concerned is available with a petrol engine and, for internal use, a battery-powered electric motor. The drive concept has practical advantages: smoothly controlled speed, forward and reverse drive and front-wheel steering making manoeuvring easy. The instruments are mainly integrated in the guide bar and the functions can be monitored on the central control panel.

The suction fan picks up the dirt particles that are moved upwards by the brush and channelled into the waste container. Two flat-fold filters then retain fine dust. They can be mechanically vibrated in order to achieve a longer service life. If damp dirt is swept up, the fan can be switched off so as not to clog up the filters. The waste container can hold 50 litres; thanks to the push handle and transport wheels, it can be easily detached from the chassis and emptied into the rubbish container.

Ride-on machines are designed to meet the highest capacity requirements. In addition to gigantic versions on an HGV chassis, there are also compact versions - large-dimensioned sweeper vacuums with a functional driver's cab.

For example, a model is offered with a working width of 70 cm (without side brushes) which can cover an area of 7,200 m2 an hour. Other capacity-related information: the waste container holds 70 litres, which is distributed into three container inserts for easy

disposal. The drive unit can be a petrol, diesel or LPG engine, or a DC motor. All functional parts are safely stored under the plastic bonnet and are easy to access for servicing. A welded steel frame acts as a robust bumper and therefore helps to extend the machine's service life.