

Save energy – for the sake of the environment and your budget

The Greenline Concept saves on costs and respects the environment. The energy consumption of suction systems is significantly lowered, the waste heat supplies sufficient energy to heat the production area.

The Greenline Concept is based on four pillars:

► Concept and architecture of a suction system

The duct diameter of a suction system is always adjusted for the required air volume flow. Thus, for the required suction performance, a comparatively low air volume is necessary. The relation between energy consumed and suction obtained is optimised.

► Automatic switch-off assistant ASA

Basically, a suction system consumes energy at the same level, whether it is transporting material or not. For this reason, Hunkeler Systeme AG developed the automatic switch-off assistant ASA. The ASA has the effect that a suction system is only in operation when suction is required.

► Energy saving system ESS

The energy saving system ESS regulates the energy consumption of suction technology according to need. The fan will only transport air according to the requirements of production. Compared to the operation without the ESS the consumption of electrical energy is lowered by as much as 40 per cent.

► Recovery of waste heat from a suction and compacting system

A suction system brings with it a valuable resource: thermal energy. The warmed air allows you to heat the production rooms at low cost. In the cooler months of the year, a production plant can largely do without other energy sources.

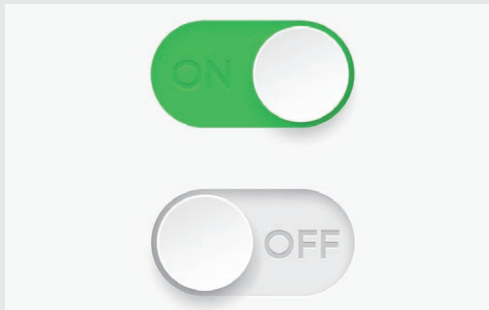


The Greenline Concept saves energy. Whether it is a new system, or existing technology is to be upgraded – the Greenline Concept appreciably reduces operating costs. The investment pays for itself within a very short period.

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How energy can be efficiently used: Hunkeler Systeme AG analyses and optimises

High performance standards, but modest energy requirements: these qualities characterise the disposal systems produced by Hunkeler Systeme AG. Disposal and control technology complement each other in the comprehensive engineering approach.



Automatic switch-off assistant ASA

Pneumatic suction systems are usually in a state of constantly high operation. In the morning, they are switched on with a lead time and in the evening need a follow-up time before being switched off. This requires an unnecessary amount of energy. Therefore, Hunkeler Systeme AG has developed the Automatic switch-off assistant ASA. It activates a suction system as soon as production starts and automatically switches the system off during breaks and at the end of the day.



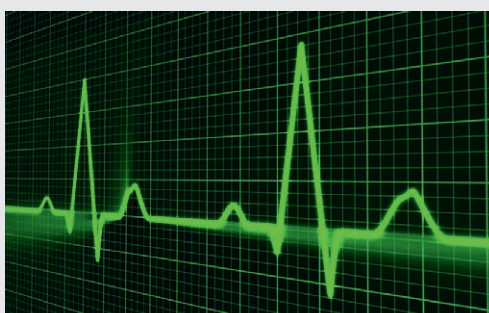
Energy Saving System ESS

The Energy Saving System regulates the performance of pneumatic suction systems according to the momentary requirements. At 80 percent air volume a fan requires only 60 percent of the electrical energy. The mechanical load on the ducts/pipes is comparably low, and so maintenance costs are avoided. The basis of the ESS is a differential pressure control system where a frequency converter dynamically controls the fan performance.



Heat Recycling

Suction systems emit a lot of thermal energy. This energy can be used to either heat or cool the production area, according to the season. Suction systems from Hunkeler Systeme AG function on the negative pressure principle. Thanks to the suction effect, dust-laden air cannot escape from the pipes during transport. Jet filters extract the dust before the air is returned, absolutely clean, to the production area.



Energy Management System

The Hunkeler Systeme AG Energy Management System shows, where and how much energy is being used in the production system. From this objective presentation, an exact usage profile can be deduced. Energy flow can be precisely managed, resources efficiently used and operating costs accordingly lowered.