

The decoaters In the decoater, an eddy-current is created below the coating layer. This generates heat, which vaporises a thin coating layer in direct contact with the metal. The adhesion of the coating is broken. The decoater is equipped with a power connection and an air extraction system, which serves for cooling the decoater. The following types of decoater can be used with the standard eddy-current decoating system:



Flat decoater Rectangular decoater U-Decoater

The brush unit Static or rotating brushes can then be used to remove the detached coating layer. The design and layout of the brushes is adapted to the components being cleaned. The brush unit is integrated into the work cabin, with two brushes rotating in opposite directions, one above the other. The brush speed is fully adjustable by means of a frequency converter.



Integrated brush unit with two rotating brushes

Description of work procedure

The coating holders can be removed direct from the conveyer, decoated, and replaced in the conveyor.

Operation can be carried out by suitably trained auxiliary personnel, or as part of full time, part-time or service work.

The parts to be decoated are fed to the decoater, where they are cleaned within seconds by the eddycurrent. This generates heat, which vaporises a thin coating layer in direct contact with the metal. The

adhesion of the coating is broken.

The parts are exposed to eddy-current by pressing the foot-switch or hand-switch.

Final cleaning is carried out by a powered rotating brush unit next to the decoater.

For other types of components, the decoater can be replaced by another type in approx. 1-2 minutes.

All that is needed to do this is to disconnect the power supply between the decoater and the front

panel of the system, and the air extraction hose on the decoater itself. Up to four decoaters can be

operated simultaneously.

During the actual decoating process, which only takes a few seconds, the vapours and coating particles created are extracted in the decoater itself and through the extraction hood, and filtered.

The temperature setting is governed by the eddy-current exposure time and by the power setting,

both of which are set be means of potentiometers on the extraction hood (in the working area).

Application examples



Coated pin of vehicle skid Decoated pin of vehicle skid



Brake disc before eddy-current decoating Brake disc after eddy-current decoating



Partially decoated hook with stone-chip protection Decoated fork-lift wheels

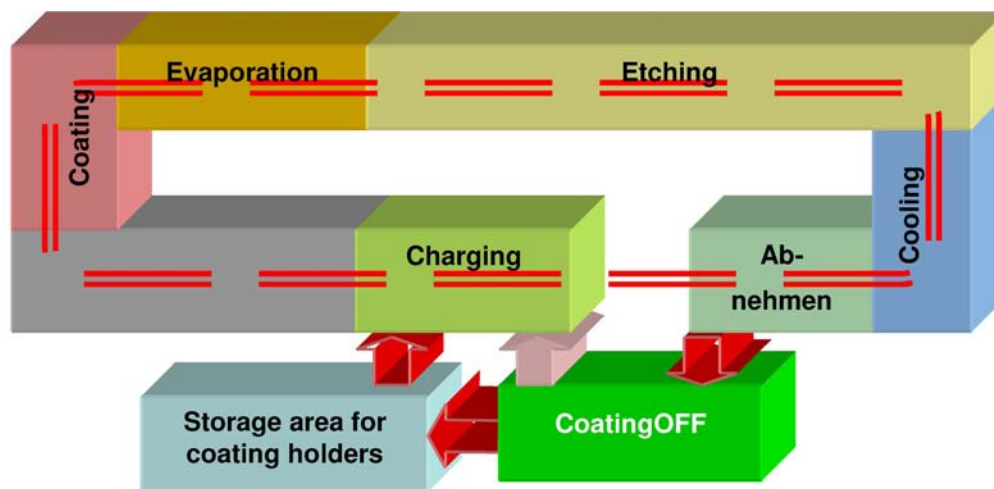


Partially decoated hanger with powder-coating Coated and decoated gas shock-absorbers

Decoating logistics with a standard eddy-current decoating system

The *CoatingOFF* system is located directly next to the coating system. In the ideal case, the following working procedure can be used:

- . • Conveyor > Decoating > Conveyor and:
- . • Conveyor > Decoating > Storage area
- . • Storage area > Decoating > Storage area
- . • Storage area > Decoating > Conveyor



The automatic eddy-current decoating system The automatic eddy-current decoating system consists of a basic unit and a process unit.

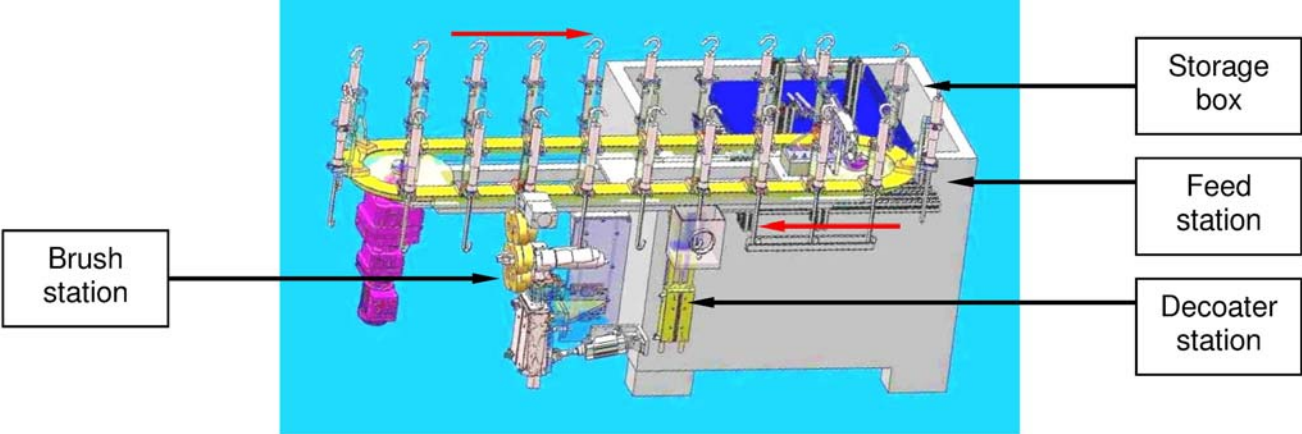
The basic unit is connected to the process unit by power supply cables.

The system stands next to the conveyor at the hanging point, and is charged and emptied by the operator.

The components The basic unit The basic unit is constructed of aluminium system profiles. It can be lifted and transported with the aid of a trolley-jack. The feet are equipped with setting screws for alignment of the system. The system is enclosed by aluminium panels. The housing is accessible through doors for the purposes of installation and maintenance work. The following assemblies are installed here:

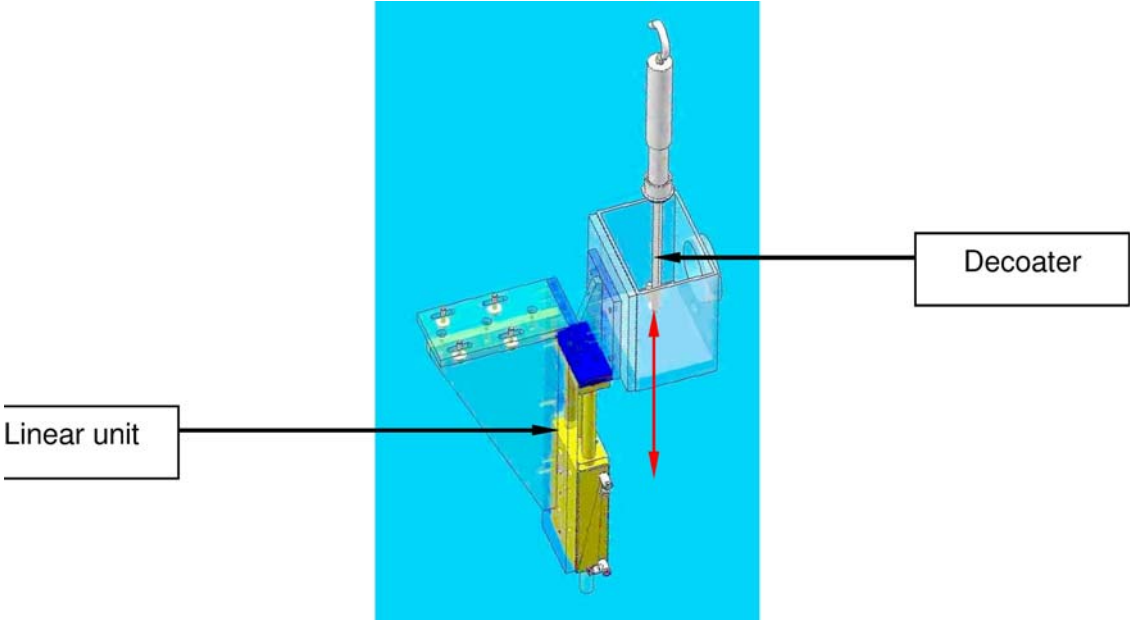
- The main electrical connections
- Controls
- Up to four eddy-current generators
- Multi-stage air filtration unit

The process unit The automatic customer-specific eddy-current decoating takes place in the process unit. The process unit accommodates the conveyor belt, the decoating station with a vertical linear unit and the decoater, a brush station with a linear unit and 2 powered rotating brushes, and a cooling area in front of the parts outlet.

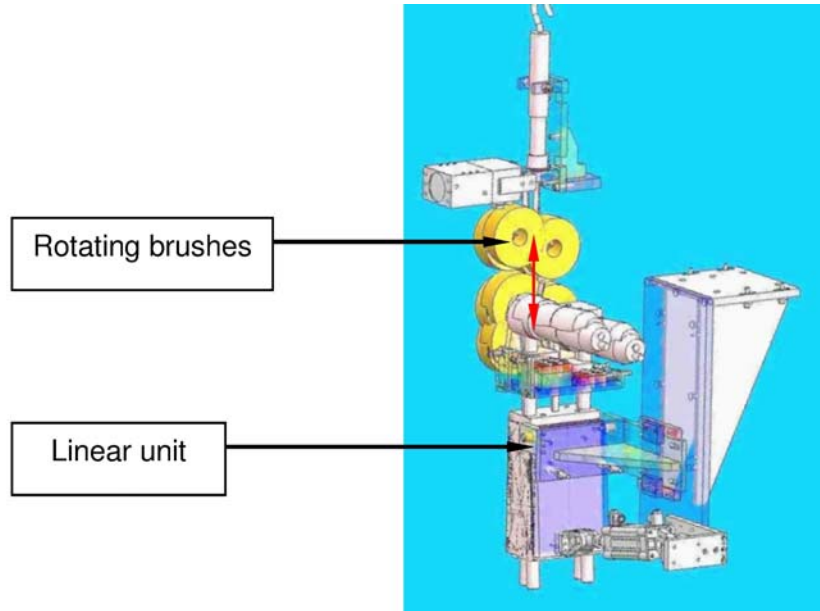


Process unit without basic frame, housing and extraction

The decoater station The decoater is located on a vertical linear unit.



- The brush station The two counter-rotating brushes are also located on a vertical linear unit.



Description of work procedure

The operator who hangs up the parts to be coated decides whether the parts holder hooks need to be decoated or not. If the holder hook does not need to be decoated, it can be hung back in the conveyor. If the holder hook needs to be decoated, it is fixed to the conveyor belt of the eddy-current decoating system, and automatic decoating begins. The operator immediately removes an already cleaned hook from the storage box on the system, and hangs this together with the next part in the conveyor. The conveyor belt transports the hook over the decoater and stops. The decoater moves vertically from bottom to top over the hook holder point. After an exposure time of approx. 20 seconds, it travels back down to its starting position. The conveyor belt transports the hook onward until it stops over the rotating brushes. The two rotating brushes move vertically from bottom to top over the hook holder point and clean the hook mechanically down to bright metal. After the rotating brushes have travelled back down to their starting position, the hook is transported through the cooling area and the parts outlet to the storage box.

The vapours created are extracted and can be circulated through the multi-stage air filtration system. An eddy-current generator has a performance of 10 kW. It can be switched in parallel with other generators to produce almost any required performance.