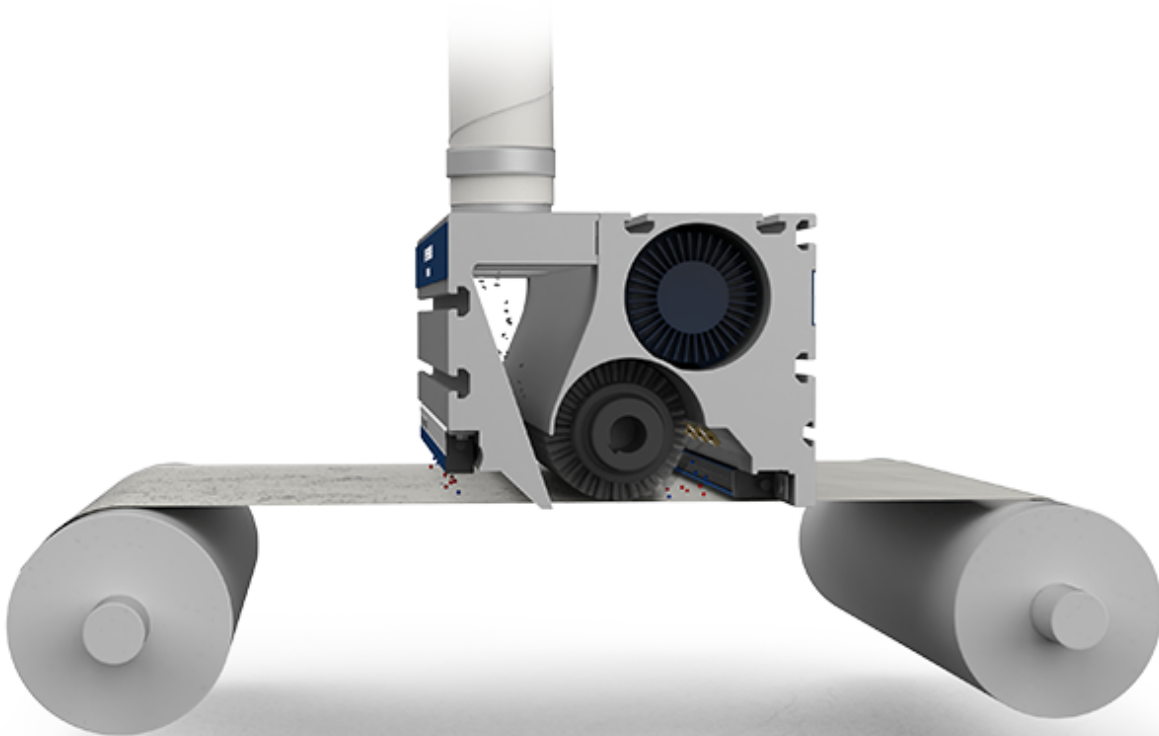


ROTORCLEAN Technology

Contacting surface cleaning with brush for flat and slightly curved surfaces



Key Facts

- ✓ Brush cleaning with ionised compressed air
- ✓ Removes even persistently clinging impurities (e.g., adhesion) using a rotating brush
- ✓ Variable brushing speed and adjustable brush pressure
- ✓ High cleaning efficiency

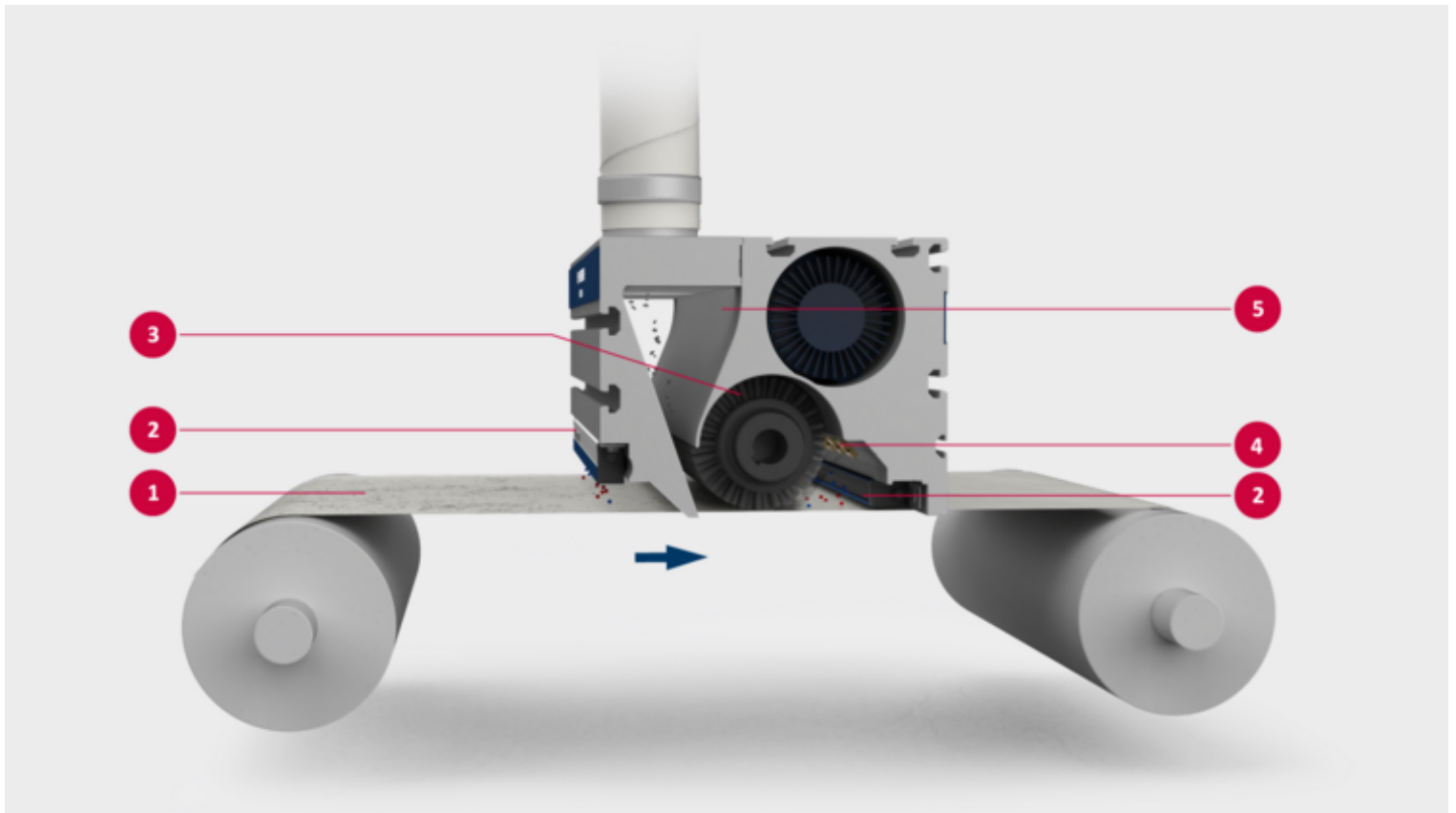
Description

The ROTORCLEAN technology works in contact with the part and offers a powerful solution for efficient cleaning of large geometries such as sheets and plates. It combines specially developed round brushes with ionised compressed air to effectively remove even stubborn dirt such as dust and material particles.

The ROTORCLEAN technology uses specially designed round brushes that, in combination with ionised compressed air, deliver a comprehensive cleaning performance. The brush pressure adjustment feature and the variable brushing speed allow precise adaptations to different degrees of contamination.

The systems operate in contact with the parts and the highest cleaning efficiency, which removes not only electrostatically adhering particles, but also particles that cling to the surface by other binding adhesion forces. A homogeneous output air stream captures the loosened contaminants and efficiently feeds them into the filter and suction system.

Operating Principle



1 Material to be cleaned

2 Ionisation

Electrostatic binding forces between material and particles are actively neutralised with focused positive and negative ions. These ions are attracted to the oppositely charged areas of the material surface respectively.

3 Bürste

The cleaning brush, driven in the opposite direction of the material transport, moves loose and adhering particles into the suction channel.

4 Compressed air

Compressed air is focused via flat jet nozzles into the contact area of the brush to prevent particle accumulation in the brush and to reliably remove even the finest particles from the material.

5 Suction

The suction channel integrated in the ROTORCLEAN safely captures the dust-laden output air and feeds it into the ESUC suction and supply unit.

System Installation



1 ROTORCLEAN

A ROTORCLEAN cleaning system with the required working width is mounted in the production line above the surface to be cleaned.

2 Suction system accessories

Suction hoses are fitted to the suction port of the cleaning system with hose clamps. Suction hoses of smaller diameters can be modified to a larger diameter with only minor loss of power by using adapters to bridge the distance between the cleaning module and the ESUC suction, filter and supply unit.

3 ESUC Suction, filter and supply unit

Dimensioning of the suction power needed depends mainly on the amount and type of particles to be removed, the working width of the cleaning system, and the length and installation of the suction hoses used. A range of devices with different suction power capacities and various options for control and monitoring are available. Your technical contact will advise you on the best system selection and configuration.

Fields of Application

- **Automotive industry:** Green foils, ceramic foils, cathodes, anodes, battery foils, functional surfaces, smart surfaces
- **Construction & industry in general:** Wallpaper, floor coverings, adhesive films, labels, adhesive tape, laminating, embossing films, smoothing, calendering, fibre composites, pressed panels
- **Food industry:** Labels, tags,
- **Medical engineering:** Medical films, labelling protection
- **Furniture industry:** Furniture foils, decorative foils, leather, laminates, edge strips
- **Sports and leisure industry:** Textile coating, functional textiles
- **Printing industry:** Securities, ID documents, banknotes, chip cards, packaging, document printing, holograms, product & trademark protection, electronic passport, digital printing, digital sheet-fed printing, offset printing, sheet-fed offset printing, newsprint printing, flexographic printing, direct corrugated board printing, web digital printing, web offset printing
- **Packaging and logistics:** Films, paper, cardboard, corrugated board
- **Plants and mechanical engineering:** Rollers, tool cleaning

Related Products



ROTORCLEAN 60 →

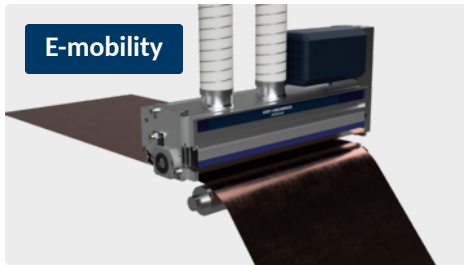
Compact brush cleaning system for flat and slightly curved surfaces



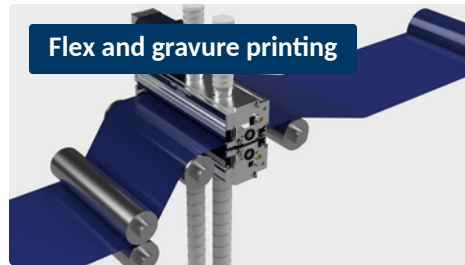
ROTORCLEAN 100 →

Brush cleaning system for flat and slightly curved surfaces

Use Cases



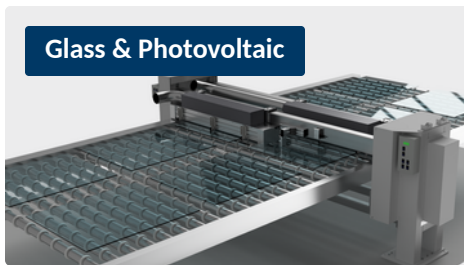
Cleaning of Battery Film



Removing Printing Powder from Foil Surfaces



Cleaning of Decorative Foil prior to Painting/Coating



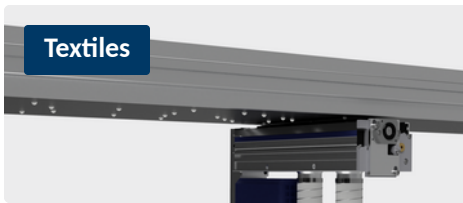
Removal of Abrasives after Edge Removal



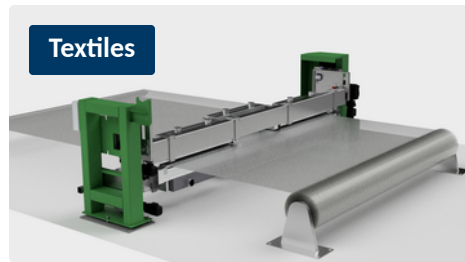
Cleaning of Material Webs during Label Printing



PCB Cleaning and Solder Bead Cleaning



Cleaning of Conveyor
Belts with Strongly
Adhering Particles



Cleaning of Glass Fibre
Fabrics and Glass Yarn