



Efficient cleaning before back-injection moulding or coating

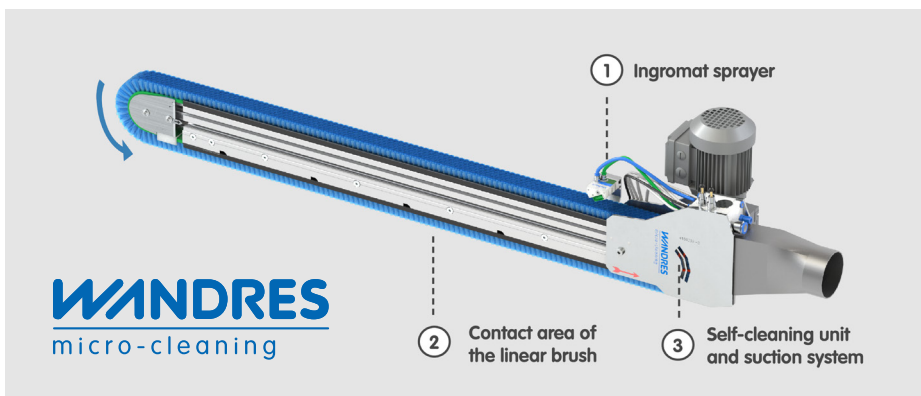
High scrap rates during the production of injection moulded parts can be reduced substantially.

During injection moulding and coating processes even minuscule particles on surfaces end up as clearly visible flaws in the finish. Cleaning with Sword Brushes guarantees the very highest quality standards and delivers considerable cost savings.



Cleaning of injection-moulded parts on a tray

are frequently unable to shift extremely adhesive fibres. To solve this issue, the parts are, in addition, loaded onto trays and transported through two Sword Brushes. The brushes are fitted with 50 mm long filaments and wipe in opposite directions. Due to this configuration, one systems supplier for the automotive industry improved the First Pass Yield to such an extent that the additional investment was already recouped after a payback period of 8 months.



Sword Brushes carry out surface cleaning in three stages: 1. Micro-moistening of the filaments, 2. Cleaning of the component, 3. Self-cleaning mechanism and vacuum extraction.

A perfect surface finish

Sword Brushes can also be deployed to optimal effect prior to coating, laminating or chrome plating to reduce the defect rate and ensure an absolutely perfect surface for plastic components. The use of tapered and end-rounded filaments made of polyamide with a “Soft Touch” feature makes the cleaning of scratch-sensitive surfaces trouble free.

Cleaning with the Ingromat® system

This automated cleaning system has already been tried and tested in multiple areas of industry. The ultra-fine filaments of the brushes are lightly moistened with Ingromat anti-static cleaning agent, enabling even the most microscopic particles to be absorbed and eliminated reliably. Surfaces remain dry during cleaning and can proceed immediately to downstream processes. Thanks to the continuous self-cleaning mechanism of the brushes, consisting of a rack and compressed air nozzles, repeatable results are guaranteed even in 24/7 operational industrial production.

in a back-injection moulding process, trapped particles can cause a range of defects that affect the look and function of a product. To prevent this happening, a robot first cleans the film or foil blank by routing it over a Sword Brush, installed as a stationary unit, before inserting it into the injection moulding machine. Top suppliers to the automotive industry and medical technology sector use this cleaning system to achieve a perfect surface finish of high quality while significantly reducing reject rates.

Back-injection moulding, IMD, IML

During the application of decoration film or functional films (e.g. touch screen displays)

Flat bed coating machines

Fibres and dust left clinging to the surface lead to the entrapment of particles during coating processes and are particularly visible on high-gloss black components. Conventional cleaning methods using ionised air and CO₂



Robot-guided cleaning using a Sword Brush installed in fixed position

Wandres GmbH micro-cleaning
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