

Best Practice

# Zero interleaving powder Highest level of productivity



Surface Cleaning Technology



**WANDRES**  
micro-cleaning

# Perfect cleaning of glass panels

## Challenge

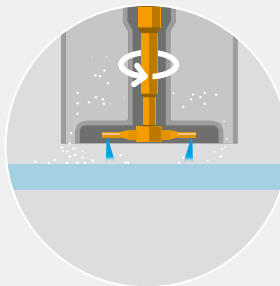
After destacking, there are large amounts of inter-leaving powder on the glass surfaces. Interleaving powder enlarges the number of micro particles within the washing water and clogs the filters. Glass washing machines need to be maintained on a regular basis which causes expensive production downtimes.

## Solution

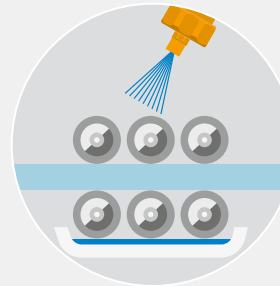
The Wandres Tornado Channel is an ideal pre-cleaning device at the infeed of washing machines. This compressed air driven, compact cleaning system removes interleaving powder effectively without touching the surface. It provides high quality cleaning results in 24/7 operations. It may be integrated easily in any plant.



Destacking



Pre-cleaning



Washing machine

# Increase productivity, reduce costs

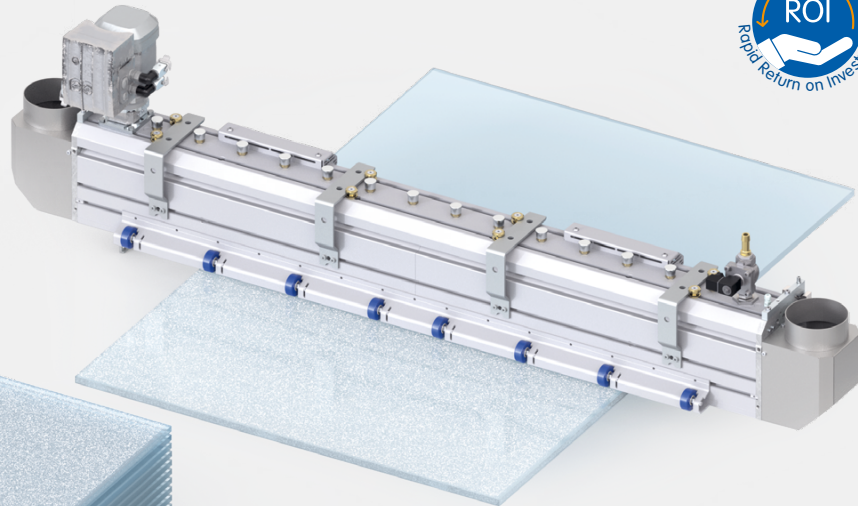
## Tornado-Channel

Within this channel, there are Tornado nozzles that detach particles from the glass surface without touching it. The machine effectively absorbs inter-leaving powder thus removing it definitely from the production environment. This pre-cleaning disburdens downstream washing machines which then need less water and maintenance for their correct functioning.

## Advantages of air-assisted pre-cleaning

- Consistent high-quality results in 24/7 operations
- Removal of microplastic particles at infeed of washing machine
- Increase of productivity, less downtimes
- Reduction in costs and water consumption
- Less filter media and maintenance required
- Increase in surface quality

TKRO 200



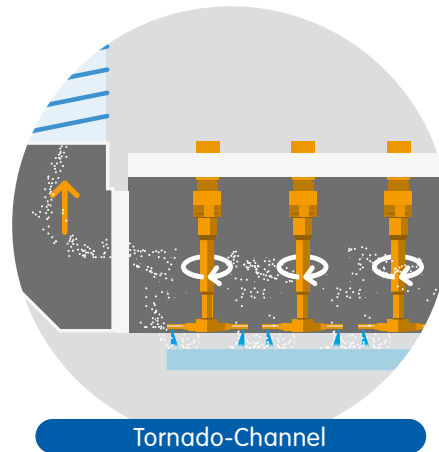
# Non-contact cleaning technology

## Innovative air technology

The Tornado nozzles rotate at high speed. They emit compressed air at several times the speed of sound. The air jet thoroughly detaches interleaving powder from the glass surfaces, where it is immediately absorbed. The nozzle arms overlap in their rotating circles so that the entire surface is covered during the cleaning process.

## Assets

- Non-contact, complete and thorough cleaning
- Compact design, easy integration
- Reliable 24/7 continuous operation
- Consistently high cleaning performance
- Low energy consumption
- Low maintenance costs



/// I am thrilled to see the cleaning results rendered by the Tornado Channel. It removes virtually 100 % of the interleaving powder. The investment has paid for itself in less than a year. It was worthwhile right from the beginning, as we had less maintenance to do at the washing machine. Line Manager VSG, Saint-Gobain



### Animation & Video

Scan to see the animation and the demo video.



# Surface Cleaning Technology

When particles and dust on surfaces cause flaws and rejects during production, we provide the best cleaning technology. Our machines deliver outstanding cleaning results in 24/7 industrial production and are in action all around the world. We collaborate with an international network of sales and service partners in 46 countries and have subsidiary companies in the USA and China.

At our production site, located close to the city of Freiburg im Breisgau, a team of over 140 employees develops, produces and markets our innovative cleaning machines. More than 80 % of the components for our machines are produced in-house using cutting-edge technology and engineering. A high level of in-house production ensures we remain independent and guarantees short lead times and high quality standards for our clients.



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