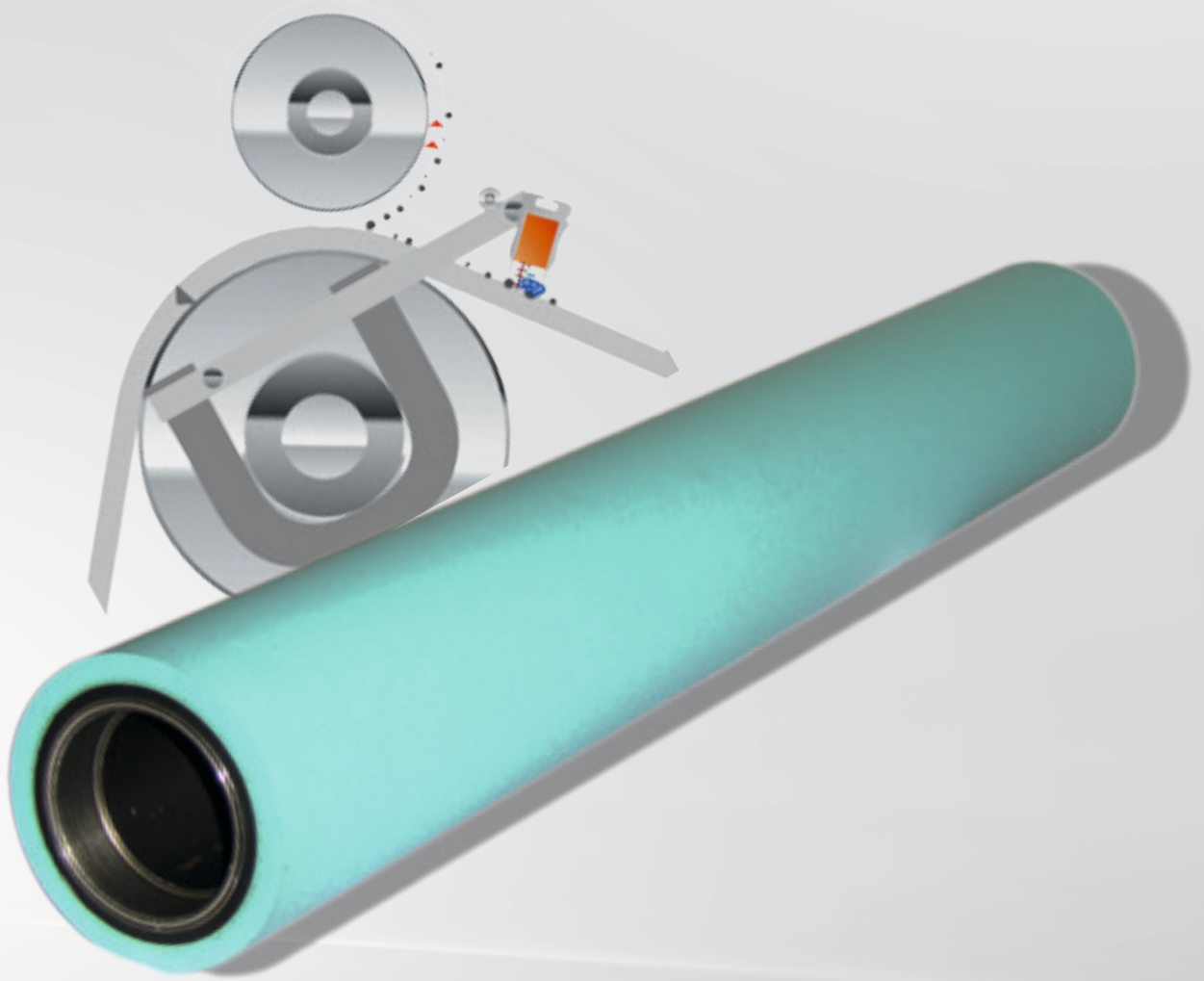


Surface Cleaning

NANOtack



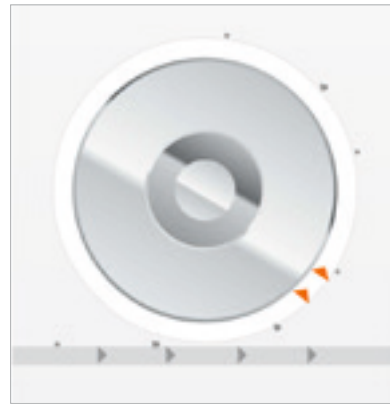
Surface Cleaning

System Description

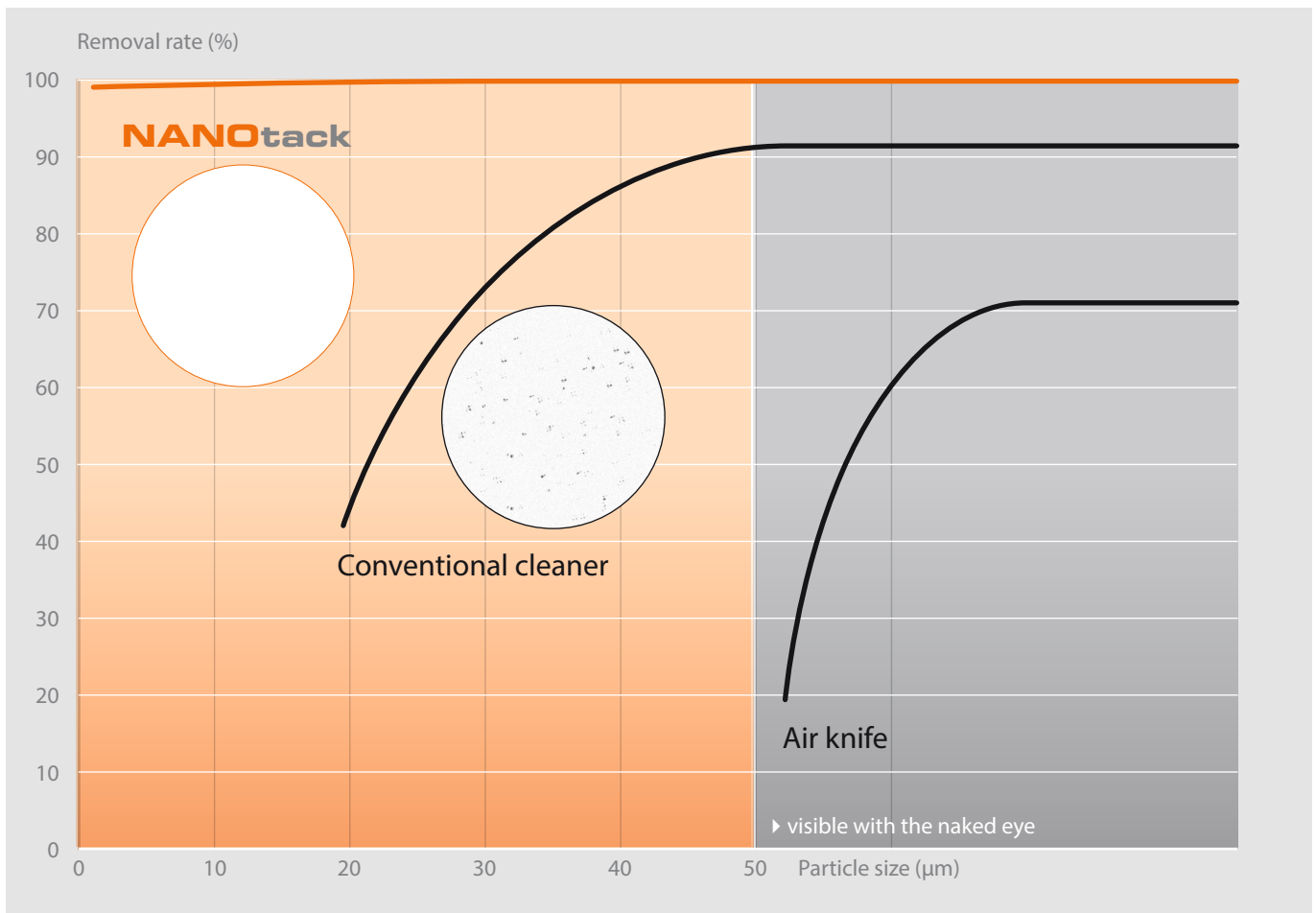
The **NANO**tack surface cleaner utilises polymer roll technology which will, by a defined stickiness of the roller surface, remove particles $>0.5 \mu\text{m}$ from the substrate by making direct contact. It is especially suitable to remove very small residual dust amounts from surfaces such as coated or laminated papers, film, foil as well as clean room, food and pharmaceutical packaging materials. The technology works up to a substrate speed of 500m/min. and can be manufactured to suit a maximum working width of 4000mm. The system can be supplied as either a single or dual side cleaning unit.

With the **NANO**tack cleaning system a perfectly cleaned substrate surface is guaranteed. The polymer roller is located in free web space, as close as possible to the problem zone, and with a minimum wrapping angle.

Our experienced application engineers can evaluate your machine and propose a solution for the implementation of the **NANO**tack cleaner into your production process.



Principle of function
high efficiency cleaning roller



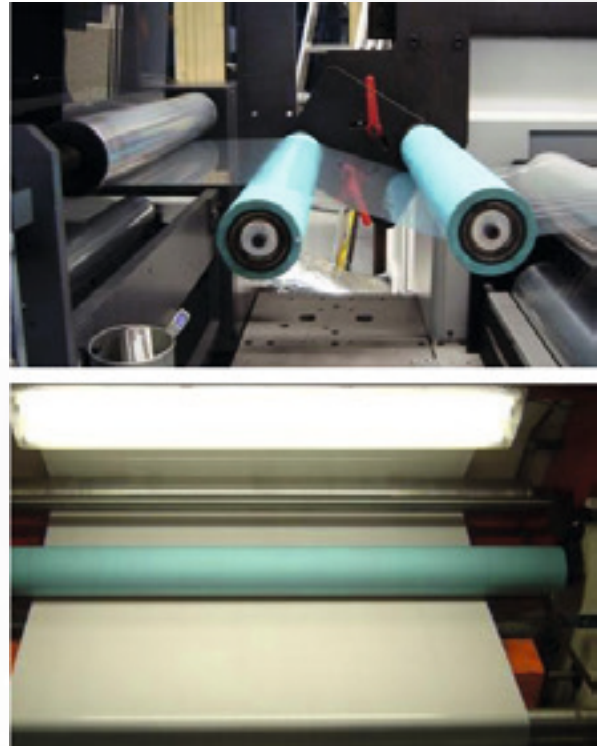
System cleaning efficiency comparison

Technology

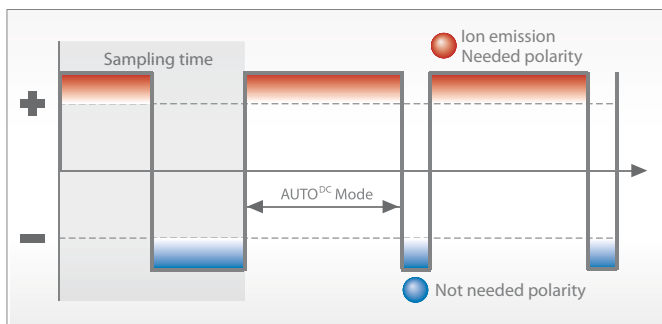
The specially developed **NANO**tack polymer roll is brought into direct contact with the substrate surface. The mechanical contact of the sticky, antistatic surface of the polymer roller ensures that all loose and slightly attached particles will be removed with 100% efficiency. The polymer roller should be cleaned regularly in order to maintain its cleaning efficiency over a long life time. Cleaning involves removal of the roller from the cleaning unit and washing the surface to remove the collected particles. The polymer material is FDA approved and can therefore be used in food packaging, medical, pharmaceutical as well as standard applications.

AUTO^{DC}® ionisation

In many cases electrostatic charge present on the substrate surface is a major factor in increasing contamination and makes particle removal more difficult. It is well known that insulating materials such as film generate static charges by friction. This electrostatic charge also increases the bond between the particles and the substrate surface. The electrostatic charge can attract additional particles which are in close proximity to the substrate surface. The smaller the distance between particle and substrate surface, the greater is the force of the electrostatic field holding the particle down. This is why our static control system is always installed prior to the cleaning process to guarantee a neutralised substrate surface and therefore facilitate easier removal of all particles by the **NANO**tack.



Mounting example



AUTO^{DC} method



Particle behaviour with ionization

NANOtack System advantages

Application:

- Highest possible cleaning efficiency
- 100% particle removal > 0.5µm
- AUTO^{DC}® ionising system
- Polymer covering for all roll dimensions
- Various degrees of stickiness available
- Anti static
- Low investment cost

Economical:

- Increased profitability
- Reduced waste and down time

Ecological:

- FDA approval
- No consumables





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Surface Dust Removal • Electrostatic Neutralising • Electrostatic Charging • Measurement Systems

