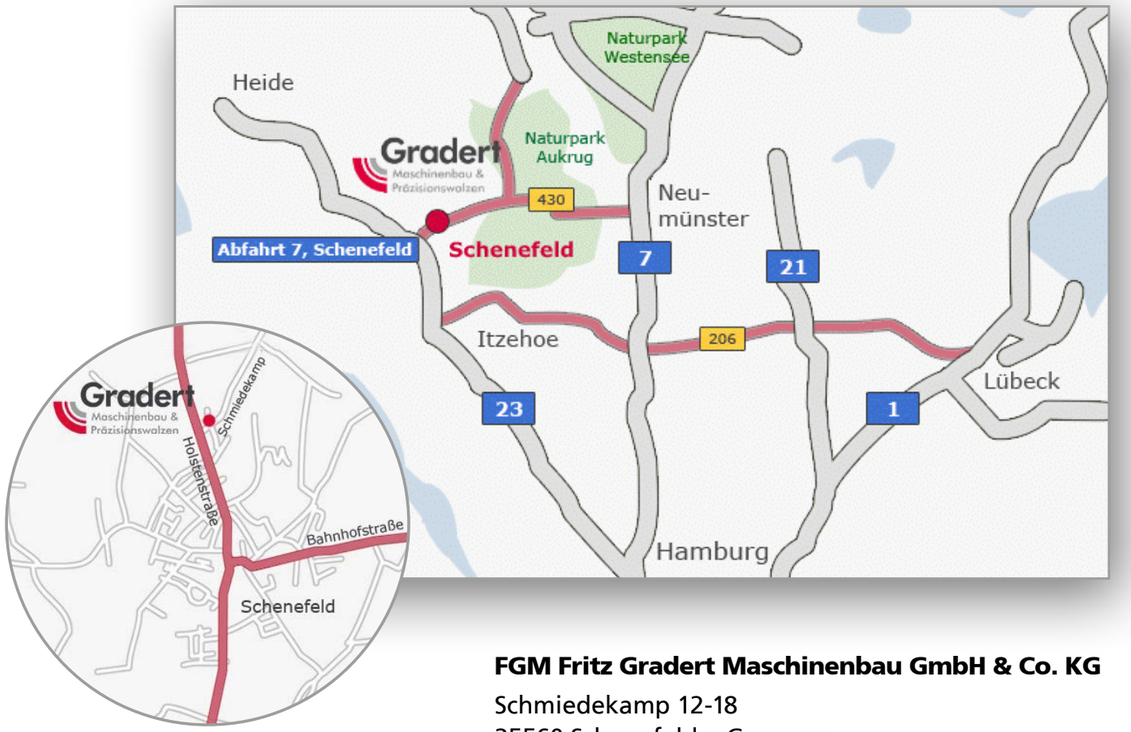
HOW TO FIND US



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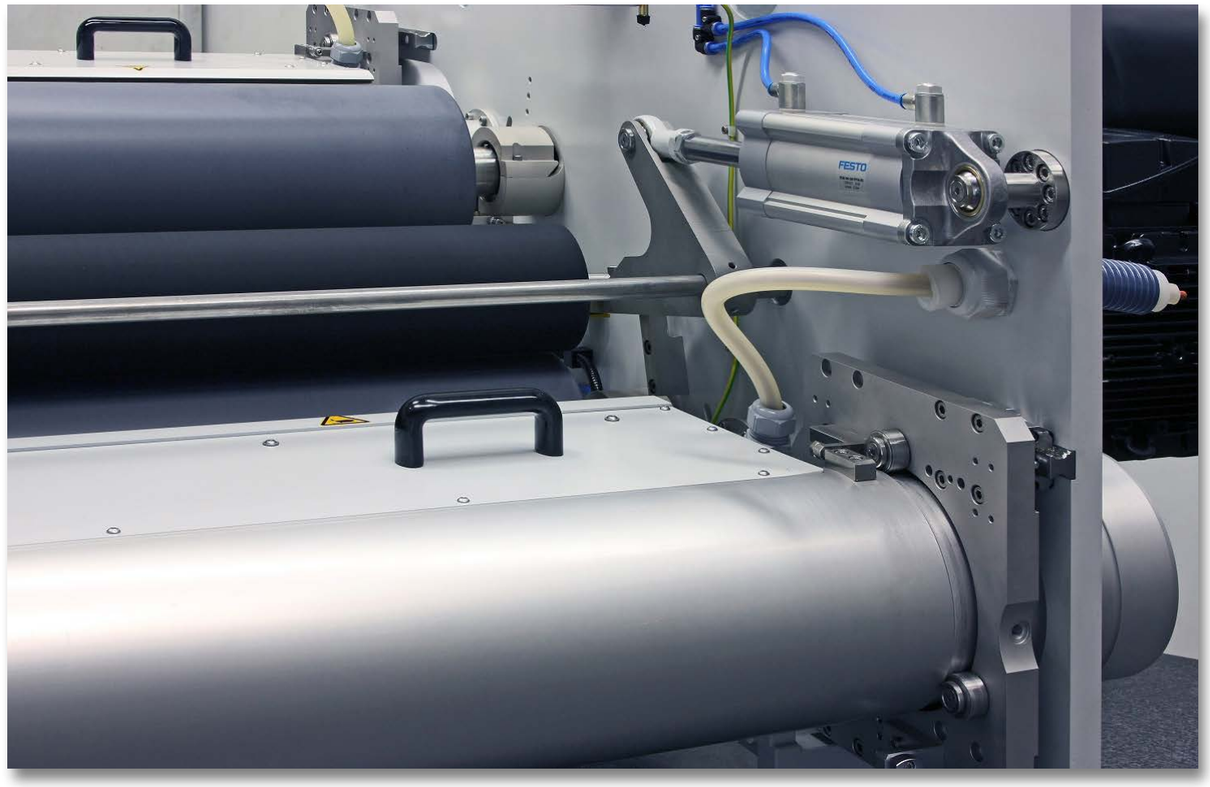
Scana Corona

"Nordic Cool"

The innovative Concept in Corona Treatment



ZUKUNFTSprogramm Wirtschaft
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New Solutions in Corona Treatment!

Why "Nordic Cool"?

a) Less overall heat is generated in the electrode cartridge.

b) The heat generated is dissipated very evenly.

The results: lower material stressing, fault-free use where there is a high level of humidity, high specific electrode power possible, less maintenance required, feeding of conditioned air possible.

Special technical features:

- fewer machine downtimes due to use of replaceable electrodes during maintenance
- customised constructive design in line with customer requirements, also with large web widths
- based on the high-quality precision mechanics from FGM Fritz Gradert Maschinenbau

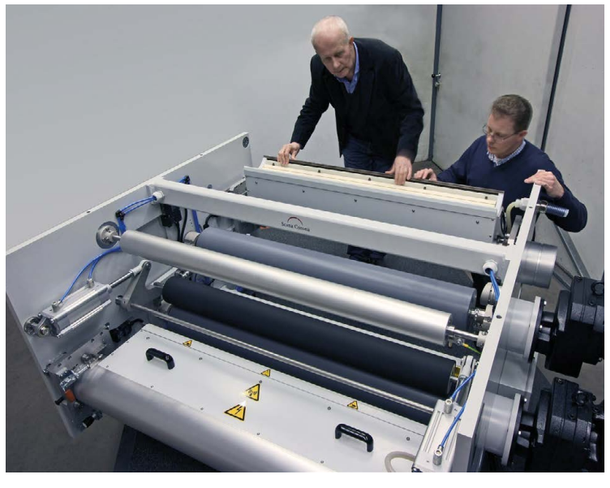
"Nordic Cool" = higher efficiency for your company

Active electrode cooling

Every discharge electrode is flushed with air by means of intelligent positive air flow guidance in the electrode housing. This ensures even heat dissipation along the length and width of the electrode package. The air flowing in the discharge gap also ensures that energy-intensive surface streamers in the corona gap do not have a chance to form. Such surface streamers can cause local fusing on the surface of plastic sheeting that leads to significant damage.

The heat of the corona discharge is also in part transmitted to the treated material web. This results in often troublesome micro-pleats and partial reverse-side treatment. The cooling air of the electrodes simultaneously cools the web, so that any rises in its temperature can be controlled and remain within the permissible range. This protects the material.

Constructive and functional measures ensure that the electrode package distributes the corona power evenly and therefore protectively over the material web, whereby the electrode does not overheat and so does not deform. The reason for this lies in the high number of discharge electrodes. So the specific power of the individual bars remains low and the operating temperature within the limits. There is a long retention time of the material under the discharge electrodes in the running direction. A high level of effective electrode power and particularly good surface effects can be achieved.



Maintenance requirements and sleeve technology

Corona electrodes become soiled during continuous operation. This is caused primarily by the oligomeric degradation products from the treated plastics and the additives used that condense on the surfaces of the corona electrodes and their housing. They form a greasy, sticky film that becomes encrusted due to oxidation. As these coatings form, they prevent the longitudinal expansion of the electrode blades when temperatures change thus causing them to deform.

In the case of the Cool Corona electrode, the soiled air is guided in such a way that it hardly comes into contact with the hot discharge electrodes. The electrodes remain much cleaner during continuous operation, with the effect that maintenance requirements are also greatly reduced.

An optional replaceable electrode is available to facilitate easier maintenance. Removing the complete electrode package is easy as it requires very little assembly work. Once removed it can be replaced with a clean or different package, e.g. ceramic electrodes.

So operation is only interrupted for a short time and can be scheduled to coincide with any scheduled service work.

Use where there is high level of humidity

A build-up of water condensation in the electrode housing often occurs in many of the corona electrodes available on the market if these are operated where there is a high level of moisture in the ambient air – e.g. in our latitudes after a summer storm. This phenomenon causes surface streamers on the surfaces of the insulators and walls of the housing, results in failures and at worst even breakdowns in operation. Conditioned air can be fed into the Cool Corona electrodes, so that moisture condensation in the electrode package is prevented and the stations therefore operate trouble-free.

Only the discharge electrodes are under medium-frequency high voltage, not the parts of the support system as this is made completely out of isolating material. Metal parts are often used here that cause surface streamers in the electrode housing wherever there is a high level of humidity. Such surface streamers are prevented in the Cool Corona electrodes.