

Electrostatic charging system

# iONtacker FUSION

0-20/30/40kV



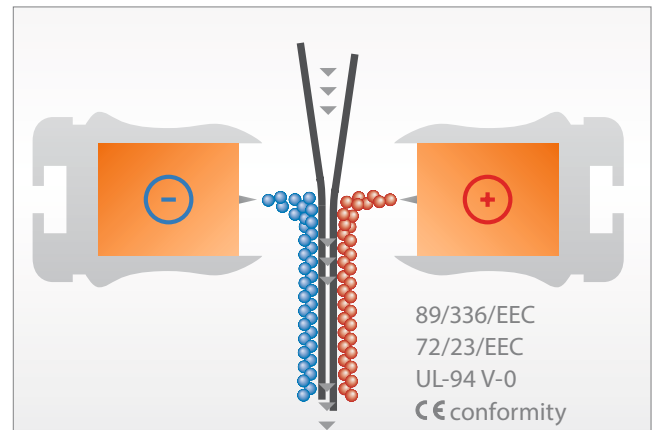
## Electrostatic charging system

### System description

iONtacker FUSION is the latest generation of electrostatic charging systems. The high voltage power supply is integrated inside the charging electrode profile. High voltage cables with their problems and disadvantages are history. A simple 24 Volt DC supply is sufficient. SET-point value and ACTUAL value are available in 0-10V at the 8 pin connector. An external reading of the kV as well as mA values is therefore possible at any time. An optional iONpower RC module allows independent control of the iONtacker FUSION system.

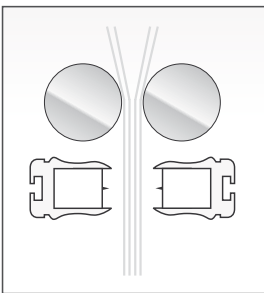
The system utilises the latest high voltage decoupling technology with resistors located in front of each high voltage emitter point. A 5mm pin pitch makes iONtacker FUSION a class leading system. Our unique Tungsten Steel "Long Life" emitter pins increase the life time of the emitter points and guarantees a constant high performance during its full life cycle. These emitter pins generate ions to produce a contactless charge on the

substrate surface and as a result generate the so called "electrostatic gluing effect".

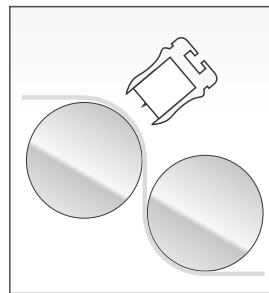


Charging system principle of operation

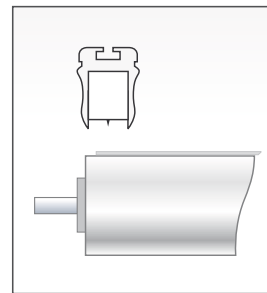
### Typical applications:



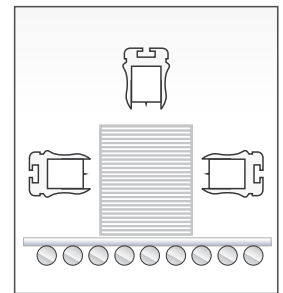
Ribbon tacking



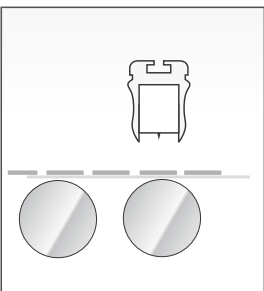
Chill-Roll tacking



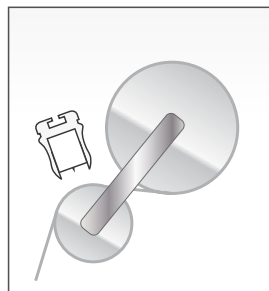
Edge pinning



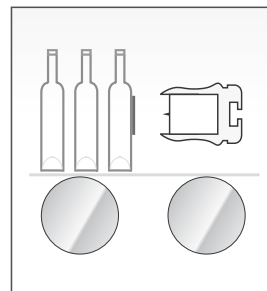
Stack tacking



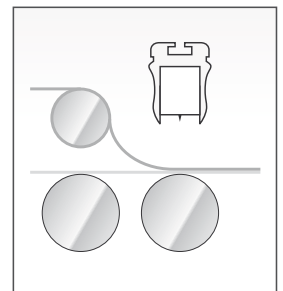
Bonding



Reel change



In mould labeling

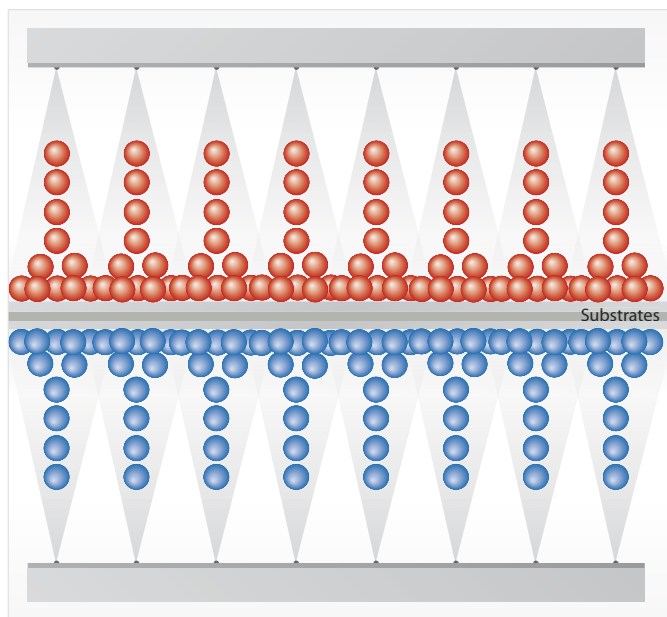


Laminating

## Technology

The **iONtacker FUSION** charging system is designed to apply electrostatic charges to an insulating substrate surface. In order to charge the substrate a suitable opposite field polarity is essential. If this opposite polarity cannot be ensured via a machine metal/ground an opposite polarity charging electrode must be installed. The charging bar itself needs to be installed at a defined distance to the substrate surface depending on its use and application. The substrate will pass in between the two electrode polarities. Due to the high voltage generated at the emitter pins, the ions generated settle on the insulating substrate surface. They try to recombine with the opposite charge ion on the other substrate side and therefore generate, due to the insulation of the substrate in between, an electrostatic bonding.

The pin material and shape are optimized to achieve the longest possible life time and the most efficient ion emission for the complete life cycle of the electrode.



Ion flow

### Options:

- 0~20kV / 0~30kV / 0~40kV
- Positive or negative output voltage
- Voltage or current regulated
- Short circuit proof electrode design

Our experienced application engineers can assess your machine and advise on how to effectively install the **iONtacker FUSION** into your production process to achieve the best possible electrostatic bonding.

## **iONtacker FUSION** System advantages

### Application:

- HV power supply integrated inside electrode profile; 24V DC supply voltage
- 5 mm pin pitch for maximum ion emission / bonding force
- Tungsten „Longlife“ pin material
- No high voltage cables

### Economical:

- Increased productivity and quality
- Extended electrode life time

### Safety:

- External Enable / Disable to control high the voltage output
- „Touch proof“ due to current limitation

### Ecological:

- Used power according application
- Lowest energy consumption in its class





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