



# ESA & Static Control in gravure printing

Rolf Semmler / Global Business Development Manager

# ENULEC®

**Your Global Partner for innovation in ESA,  
discharging and measurement of static charges**



**Our Headquarter:**

**Trittau is located  
in the area of  
European  
Metropolitan Hamburg**



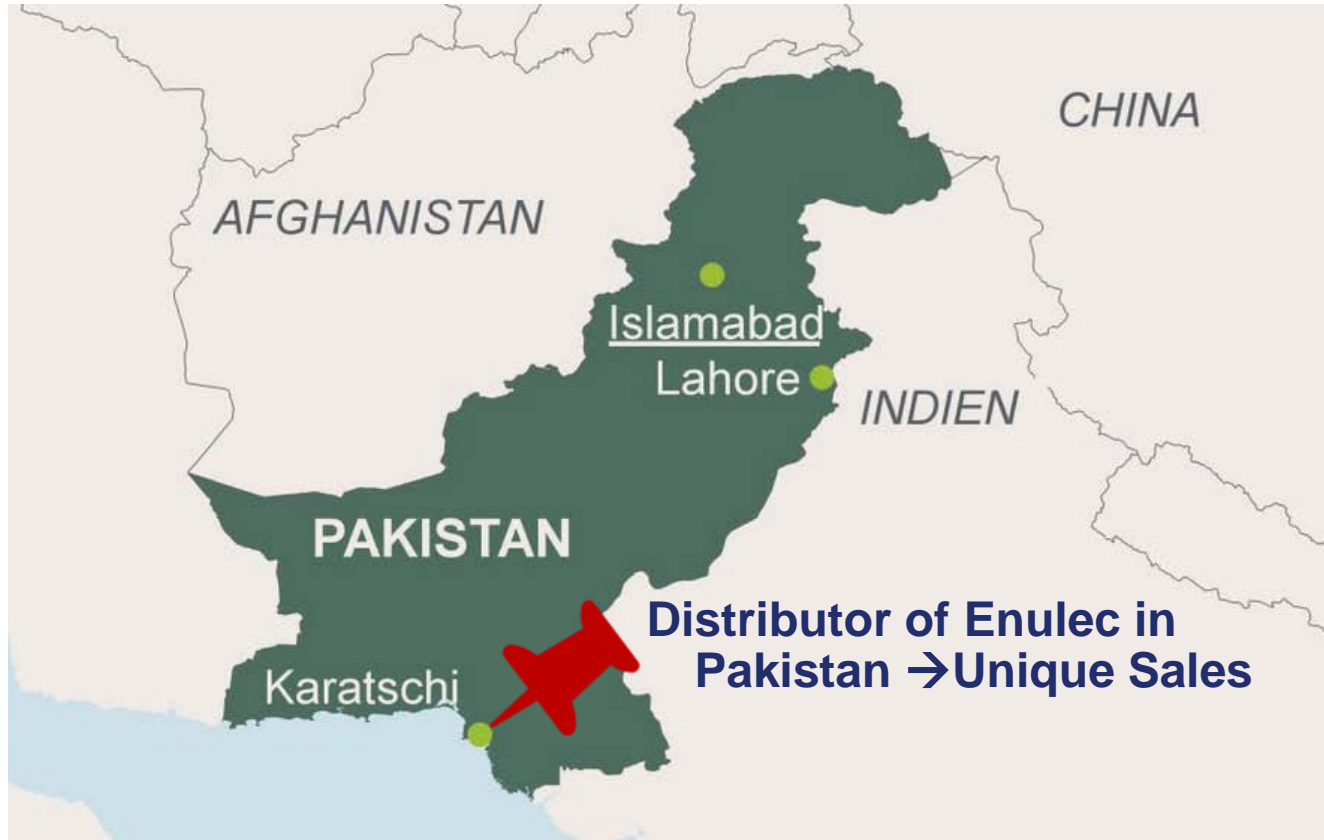
# ENULEC®

## Global Presence:



- ➔ **Headquarter Trittau, Germany**
- ➔ **Subsidiary Lugano, Switzerland**
- ➔ **Subsidiary St. Louis, USA**
- ➔ **43 Sales partner worldwide**
- ➔ **12 Service center worldwide**

# ENULEC® Local Presence:





# What are static charges?



# Static charges can damage material



# Static charges can hurt operators

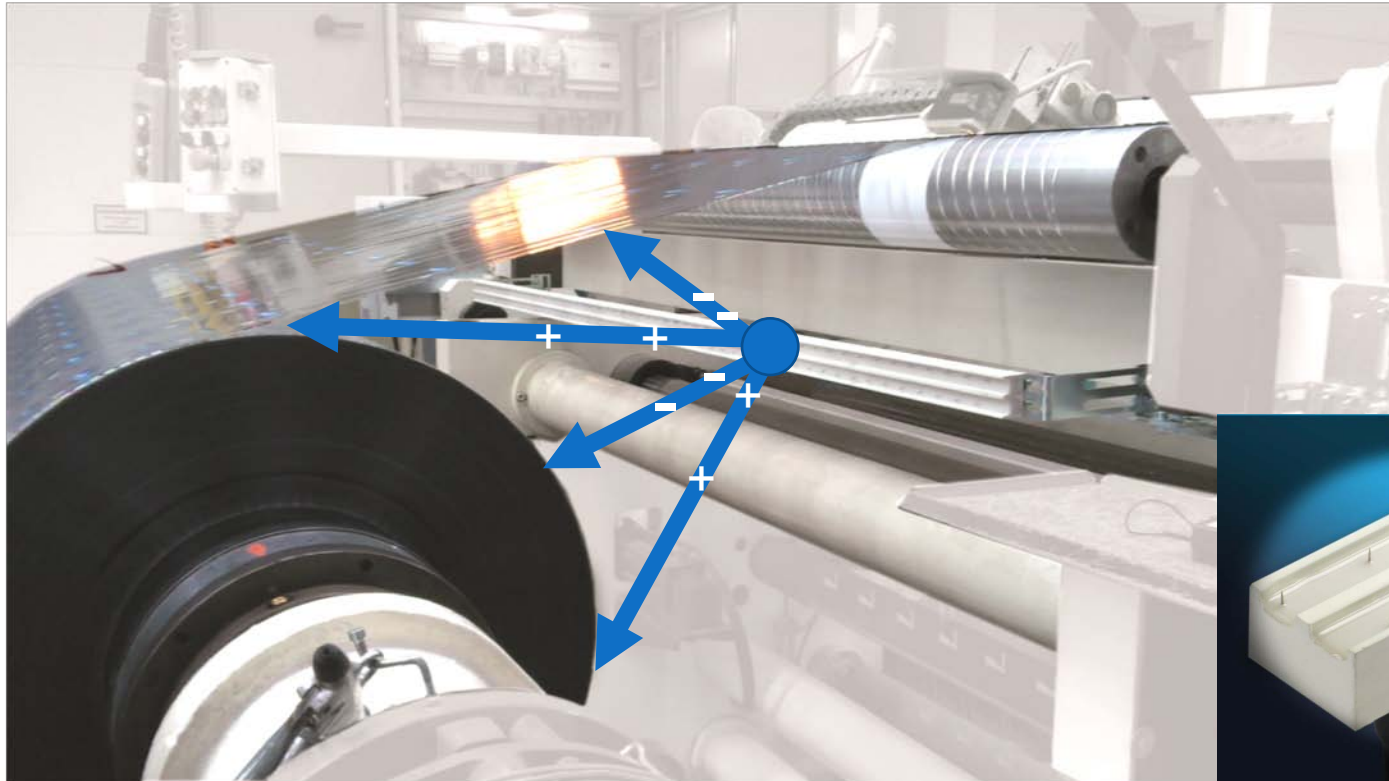


# Uncontrolled static charges are dangerous





# ENULEC avoid any risk of static charges



# Electrostatic improves print quality → ENULEC ESA



# ElectroStatic Assist

no ESA



Sample -> film PET 12 micron

## What does Enulec ESA do?

ENULEC ESA ensure always optimum ink transfer

Prevents the cell dry blocking issue

On all types of plastic film material

Eliminates “ Missing dots”

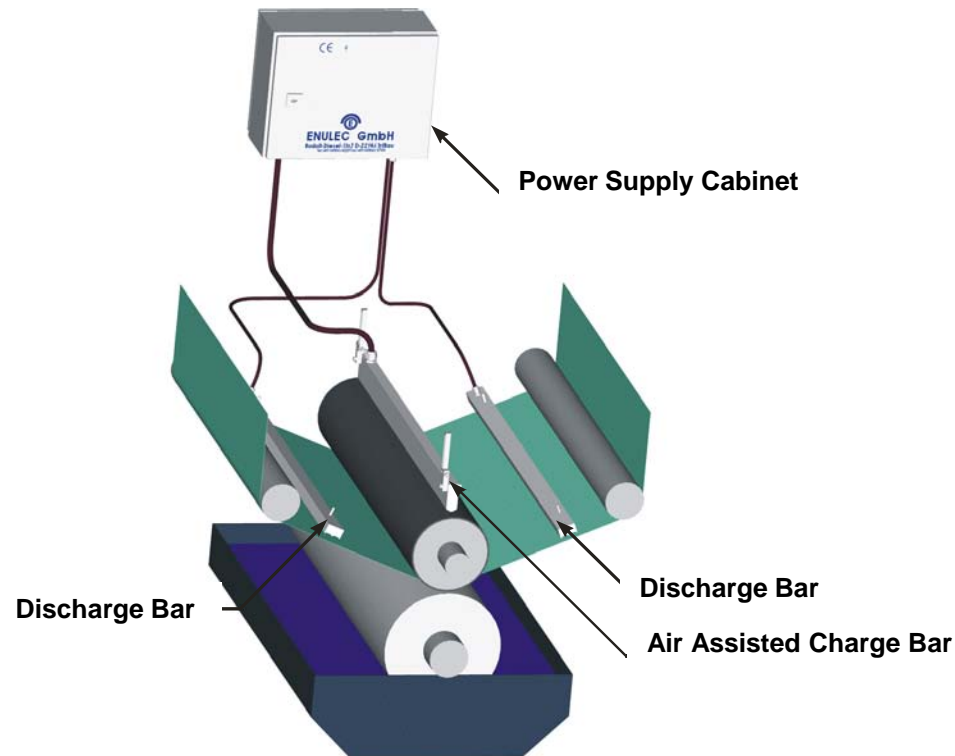
Improves ink density

Complete Gravure Cell Evacuation



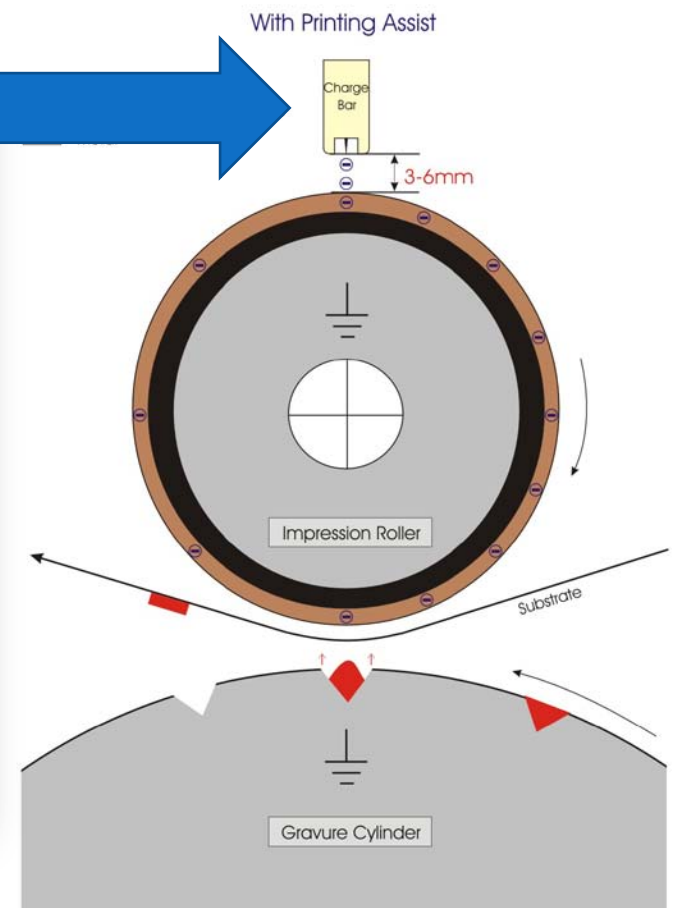
printed with ENULEC ESA

# Enulec ESA components in each printing unit

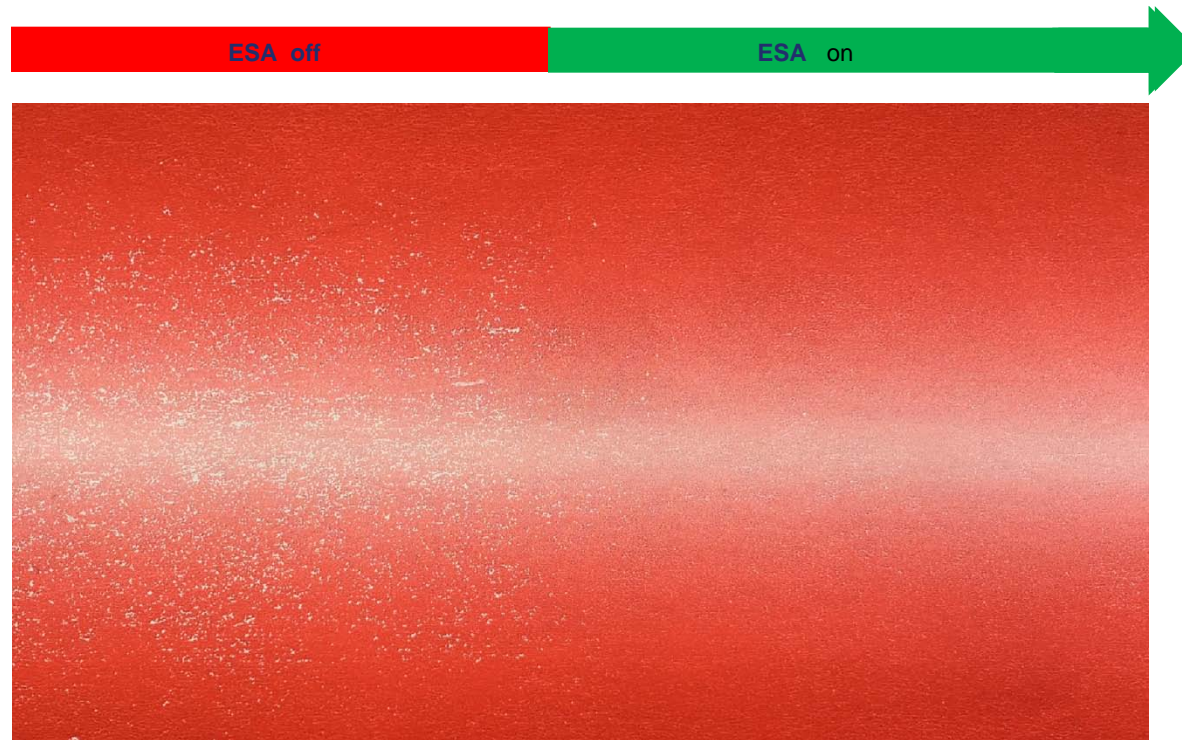




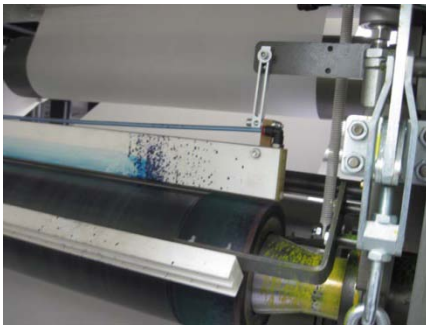
# ENULEC<sup>®</sup> ESA Principle



## Start of ENULEC ESA



# ENULEC Standard Charge Bar ESA1000-ABEx/5,0



- Life expectancy of up to 15 years !
- 5 mm needle pitch for consist ESA!
- Non-Invasive to the impression roller
- High efficiency , spark free technology!
- ATEX Certification class IIA and IIB !



# Static Control, any more required?

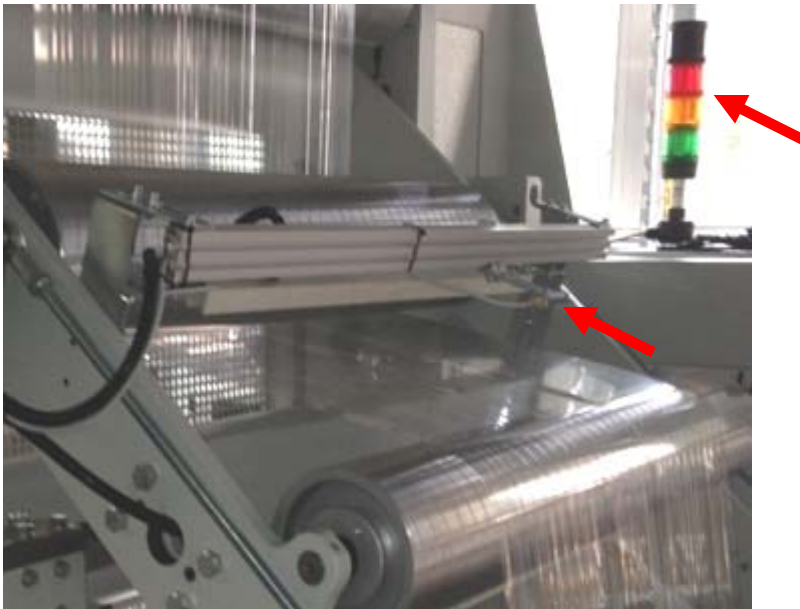




# ENULEC Static Charge Inline Control

## Electrostatic Field Measurement

- Detection of static charges on printing-, lamination-, slitting- and blown film machines.



**Thank you for joining  
the world of Enulec Electrostatic**

***Rolf Semmler***

**[rolf.semmler@enulec.com](mailto:rolf.semmler@enulec.com)**

***Enulec headoffice : +49 4154 4229***

