

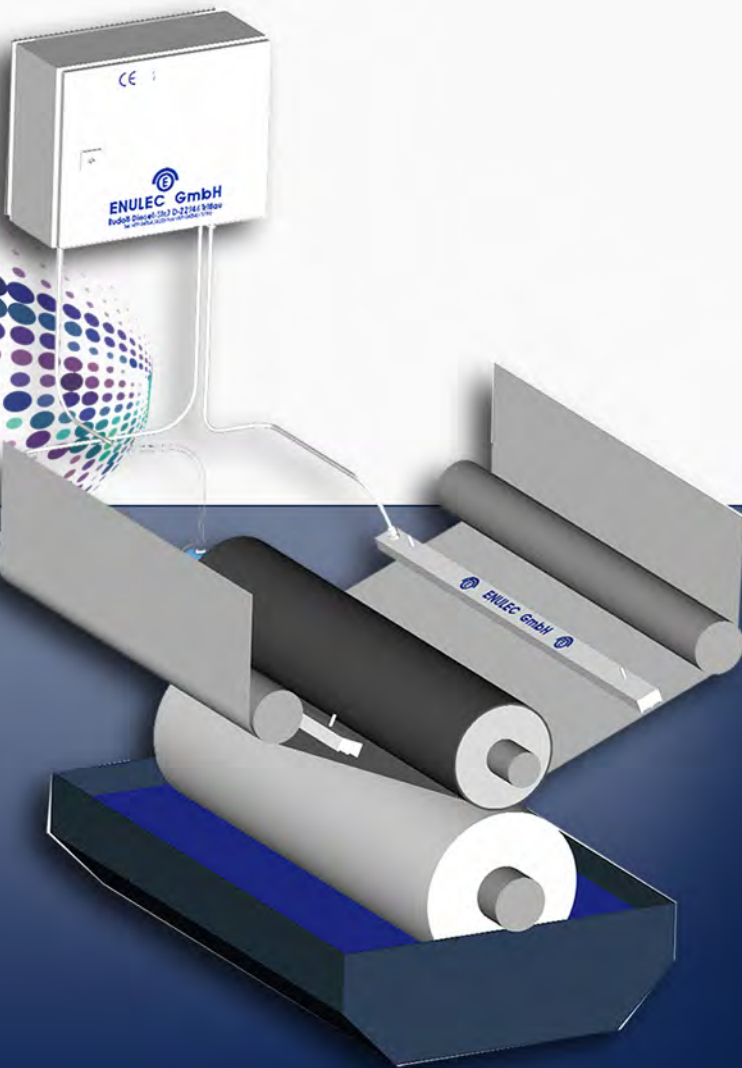


ENULEC[®]
ELECTROSTATIC

Total Gravure Print Control!

From ENULEC - the new innovative

»ESA Roto Green Systems«



Coming trade fairs:



CONVERFLEX
CONVERTING • PACKAGE PRINTING • LABELLING

Fieramilano - Rho (Milan) 7 - 11 May 2013

Halle 3 / Stand E10



14.-18.Mai 2013

**CHINA
PRINT 2013**

The Dot Skip Eliminator

Talk To ENULEC[®] - the leading supplier of ElectroStatic Printing Assist Systems



»ESA Roto Green«

The new generation in ESA and electrostatic systems

At the forthcoming exhibitions in 2013, ENULEC® will be introducing a new innovated generation of »Roto-Green ESA « control for use in conjunction with gravure printing machines.

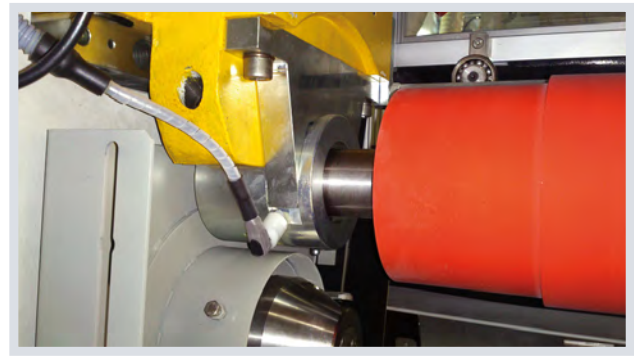
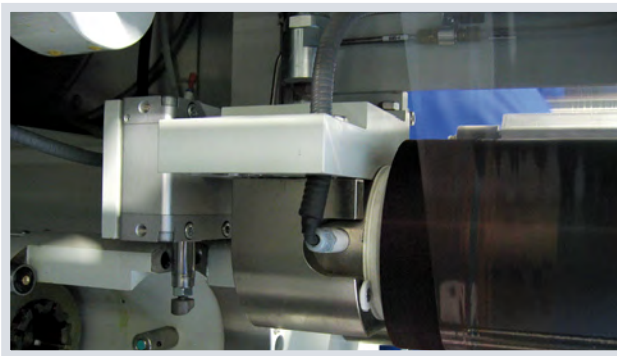
Long established and already well tried and tested systems will also be exhibited. Unique to ENULEC® is a capacitance free **ESA generator** that is a key to preventing fires. When used in conjunction with their special **Air Assisted ESA Charge Bars** these systems operate for extended periods without the need to stop the press for cleaning. A more recent development includes their maintenance free **“Fluid Coupling”** ESA contact assembly build with no brushes.

All ENULEC® systems are now integrated for advanced safety and performance of the new presses coming from Europe / Asia .





New ENULEC[®] ESA Direct Charging – Side Loading systems. The Innovation in ESA impression roller charging and gravure printing



Gravure printing is characterized particularly by its outstanding quality of print which has been further improved by the Enulec **ESA Direct Charging – Side Loading system** leading to the establishment of new standards. The maintenance free Direct Charging – Side Loading System, with its (German Gebrauchsmuster) registered design system of fluid transmission, enables best quality print results to be achieved in the gravure process whilst adhering to the highest safety standards. This technology

is integrated into the products of worldwide leading machine manufacturers, and those of Italian suppliers in particular, and is offered to gravure printers as a complete turnkey package. The distinctive feature of this fluid transmission system is the simplicity of its current transmission to the ESA style impression roller. Safe and fully controlled charging of the impression roller is ensured, even in the event of significant dirt contamination, and the system lends itself to the use of inexpensive impression rollers and sleeves.

The first choice of major rotogravure printing press manufactures!



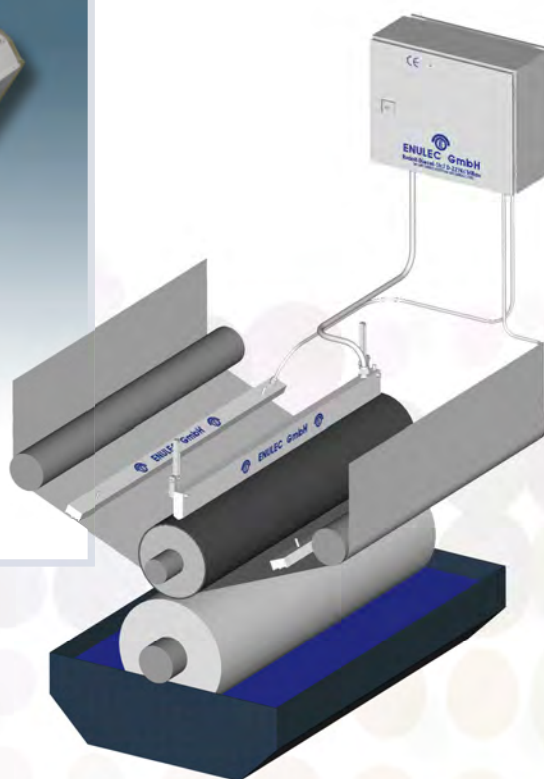
The ENULEC® Special ESA "Air Assisted Charging Bar"

Also on show is the Special Top Loading System which is supplied with a virtually maintenance free air-assisted charge bar. This innovative electrode, which is design (Gebrauchsmuster) registered, prevents flashover in the print unit (sparking due to dirty electrodes) and greatly extends charge bar cleaning intervals.

In the development of this system, which was focused on overcoming known disadvantages and safety related weaknesses in conventional top loading systems with their exposed arrays of charging pins, a particular innovation is the low maintenance air-assisted charge bar. By virtue of a special electrode design, in which the charging pins in

the electrode are completely bedded into a small tube and are pressurized with air at a low pressure of approximately 0.5 – 1.5 bar around the ionisation points, a build up of ink particle or substrate dust contamination is avoided. This prevents the need for cleaning related machine down times and losses in system performance due to the build-up of ink on the ionisation pins.

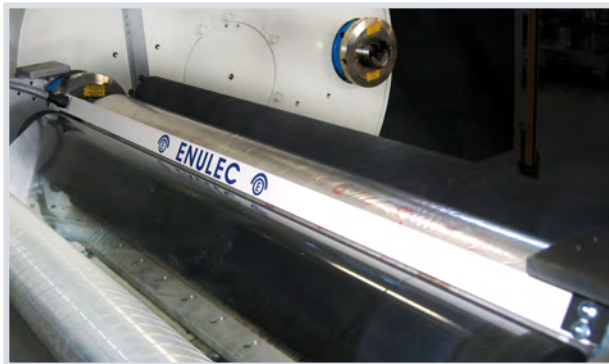
There is also an improvement in operational safety as sparking due to ink contamination of the charging pins, which can lead to fires in printing machines when they are used in conjunction with solvent based inks, no longer occurs.





Optimum discharge

Explosion proofed and high performance D.C. ENULEC® Static Elimination Systems



Enulec's highly effective EST-DC static discharge system which has been successfully established in the market for 15 years removes unwelcome electrostatic charges from printing / converting machines and also from roll slitting machines and laminating machines. In this system, free ions (positive as well as negative) are transported at great speed to the substrate being wound.

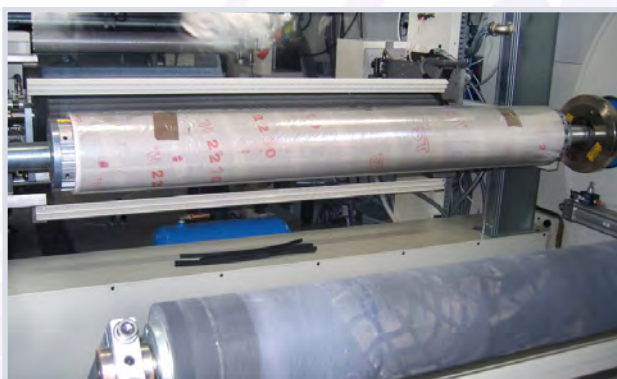
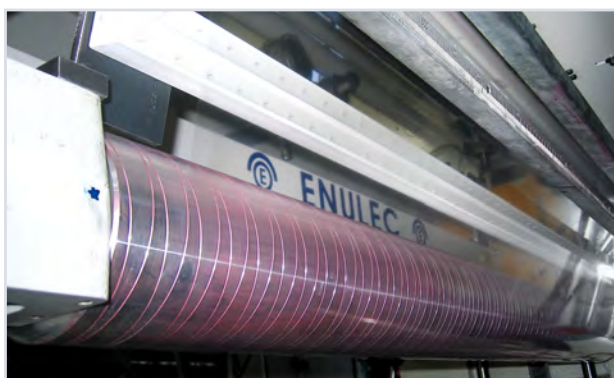
The EST-DC-LDS discharge system operates over a range of approximately 20–800 mm and does not need to be adjusted for webs having differing static charges. By virtue of its special direct current technology the system can successfully eliminate all combinations of electrostatic charges and there is no need to use additional alternating current discharge systems on the winder.



ENULEC® Static Elimination System

ENULEC Static Elimination Systems Type ESA1000-L/C (Discharge only) were developed as part of the renowned **ESA1000compact Electrostatic Printing Assist System**, designed to eliminate the build up of static charge in the hazardous environment of a gravure printing and coating machine printing with solvent based inks.

The ENULEC® discharging bar has at each high voltage pin a special »safety« resistor to ensure that no sparks can occur when the charge bar is contaminated. **The systems are fully ATEX tested** and approved for this application and non-ATEX certified versions are available for less demanding environmental applications.



Whilst electrostatic discharge systems are basically very similar, whoever the supplier, we should like to point out a number of features which are either unique to ENULEC or of which we are particularly proud:

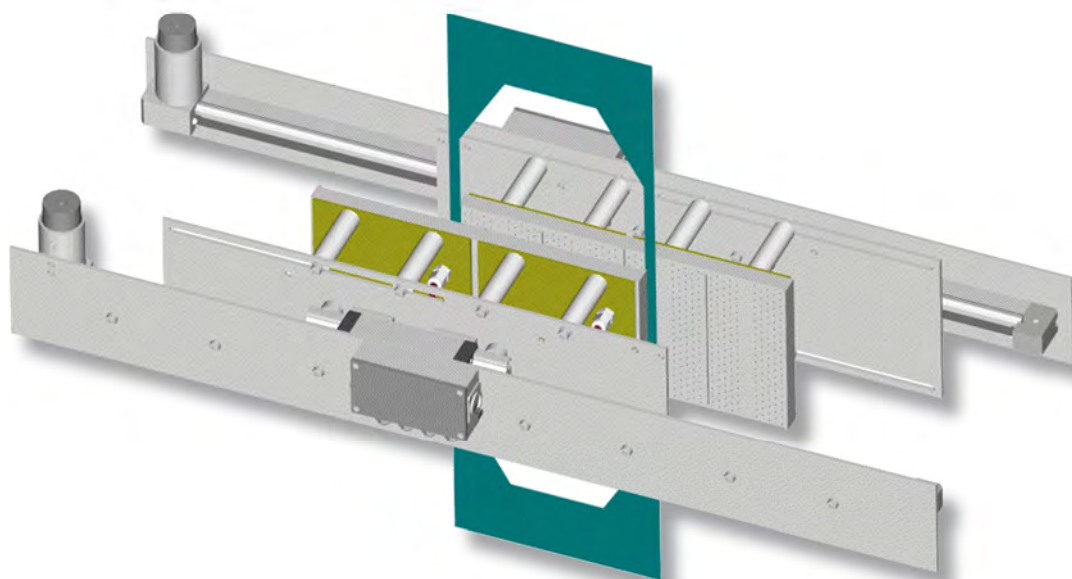
The special discharge bar system is designed to meet highest safety requirements especially in a heavy contaminated environment. With this discharge bar manufactured from heat and shock resistant special glass-fibre reinforced material the pins are addressed to the substrate through a unique pin layout to ensure that the substrate is fully discharged. This feature enables more efficient discharge of the web and discharge at higher speeds. It was developed for applications where the web has a greater than normal tendency to retain charge, but it is of interest to all users who have particular static charge issues.

Due to this special design no sparks can occur even if the discharge bar is contaminated with non conductive ink. The discharge bar is not only safer because the build-up of conductive bridges between the needles can not longer occur; it also very significantly lengthens maintenance intervals for cleaning.

Be installed at a distance of approx. 10-60mm from the substrate the transfer of voltage from the output of the power supply ESA1000-L/C (discharge only) is particularly efficient. The power supply itself is designed by ENULEC and the result is a very robust power supply with an impressively low failure rate which can deliver an output voltage of 5kV, 115V AC /230V AC.



ENULEC® Ribbon Tackers charge the ribbon direct as it enters the folder.



The STH60 is a patented, state-of-the art Ribbon Tacker, designed to meet the demands imposed by the folders associated with modern high-speed publication gravure printing machines. Its unique design ensures the maximum tacking efficiency necessary for high-speed multi

page production. This system reduces the need for operator intervention and further increases the efficiency of the system by ensuring optimum electrode positioning and reducing the incidence of short circuits due to incorrect electrode positioning.



Founded in 1981, Enulec GmbH has established itself over the years as one of the world's leading manufacturers of innovative electrostatic printing assist (ESA) systems for the gravure printing industry and assured its reputation with the high quality of its products and service. The company's product range covers highly effective ESA systems designed to improve product quality in the gravure printing industry and static elimination systems for further processing operations in print works and plastics

processing companies. Customers include companies involved in the flexible packaging, cigarette packaging, décor and print for publication gravure printing industries and well known international manufacturers of gravure printing machines. In addition to its headquarters in Trittau close to Hamburg in Germany, the company has several subsidiary companies. A worldwide sales and service network further serves to maintain Enulec's market position and ensure its closeness to its customers.

*Please find a few minutes for us at one of our exhibitions.
We promise you it will be time well spent.*

8. International Converting Exhibition



www.ice-x.de

ENULEC GmbH
Halle A6 • Stand 682

19. - 21. März 2013
Messe München



14. - 18. Mai 2013

CHINA PRINT 2013



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