



# TORnado SF91

For many years the use of Electrostatic Surface Detection Systems (as Foster + Freeman's ESDA) has been considered a standard in document examination. Along with Ozone from the Corona, produced during the development process, toner particulates are also released into the environment, especially when using the qualitatively better Cascade Developer method. Whilst this is still the optimum procedure for development of indented writing, local health and safety regulations may have changed over the years. Many larger laboratories already use exhaust cabinets. However, smaller labs and many private document examiners do not have access to such exhaust systems.

Attestor Forensics developed the Toner Particulate and Ozone Reduction System **TORnado SF91** especially for this type of user. If the front or side flap is opened, a powerful fan is automatically activated (half speed) and creates an air stream above the document bed of the ESDA. Once the user switches on the ESDA, the fan speed is automatically increased to maximum. The air is then filtered through a stainless steel mesh and a particulate filter Type F9, a combination, specific for the Cascade Developer. An activated carbon fleece, integrated into the filter cassette reduces the ozone in the air stream.

The **TORnado SF91** also performs a short filtration cycle at regular intervals when it is in stand-by mode, ensuring a safe environment for the user. For cleaning or to collect stray cascade beads, a catch tray can be pulled out without having to lift the heavy ESDA equipment.

The **TORnado SF91** features a microprocessor system which communicates with the user via a touch panel display in the lid. It features a counter for the remaining filter life time and informs the user when a filter replacement is due. If the maximum filter capacity is reached, **TORnado SF91** automatically switches off the fan as well as the power supply to the ESDA until a new filter is fitted. Unquestionably, **TORnado SF91** is an invaluable contribution to health and safety at a document examiner's workplace.

### Technical Data:

Dimensions (HxWxD; closed)	80 x 72 x 80 cm 45.3 x 28.4 x 45.3"
Required Footprint Space (closed)	77 x 77 cm 30.3 x 30.3"
Required distance to the wall	5 cm / 2" to the left side
Lifetime Activated-Carbon Fleece and F9 Particulate Filter Cassette	125 hours (or. 12 months)
<b>Electrical Data:</b>	
Voltage Requirements:	110 – 230V AC / 50-60Hz
Current Requirements: (without ESD)	approx. 0,5 A with 230V approx. 1,0 A with 115V
Power Requirements: (without ESD)	max. 120 W
Weight (without ESD)	48 kg (106 lbs.)
TORnado SF91 comes with	1 Particulate Filter Cassette with Activated Carbon Fleece

### Authorised Distributor:

**Attestor Forensics GmbH**  
Ravensburger Str. 6  
88410 Bad Wurzach  
Germany



[attestor@attestor-forensics.com](mailto:attestor@attestor-forensics.com)  
[www.attestor-forensics.com](http://www.attestor-forensics.com)



**Optional Accessory:**  
Gooseneck Illumination Module **BEL91**

Wheeled Trolley **FUG91**



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# Toner Dust & Ozone Reduction-System

for ESDA Workplaces



## Advantages at a glance:

- **Reduction of Dust Exposure**  
Removal of the fine particulate toner dust from the ambient air. No external ventilation required, no extraction from the room, therefore no humidity drop.
- **Reduction of Ozone Exposure**  
Reduces the ozone level, created by the Corona.
- **Pollution-free Storage**  
The ESDA system can be stored safely by all-around closeability and mini-cleaning cycles in stand-by mode, especially for users who don't have access to suitable fume cupboards.
- **Counter for Filter Life Time**  
The touch panel display features a counter for the remaining filter life time and gives optical and acoustic alert if a filter replacement is due. When the filter is saturated, the ESDA is powered off automatically.
- **Automatic Fan Activation**  
As soon as whether the front lid or the side flap is opened, the fan is activated at half speed. Also the optional illumination can be programmed to be switched on automatically.
- **Automatic Power Adjustment**  
Automatically on activation of the ESDA vacuum pump, the air flow is increased to maximum.
- **Catch Tray for Cascade Beads**  
Below the adjustable support rails, the system features a tray, which can be pulled out for cleaning. The base of the tray is angled towards the left front corner, where the beads can be easily recollected via a spout.

## Adjustable Support Rails

Stable, adjustable support rails allow the **TORnado SF91** to suit any standard ESDA systems available.

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## Touch Panel Control

The microcontroller of the **TORnado SF91** communicates with the user via a touch panel. Not using any push buttons or switches simplifies cleaning of the surfaces.



## Particulate and Activated Carbon Filter

**TORnado SF91** uses a three-stage filter from stainless steel mesh (for the cascade beads), activated carbon fleece (for the ozone) and a particulate filter cassette type F9 (for the toner dust).



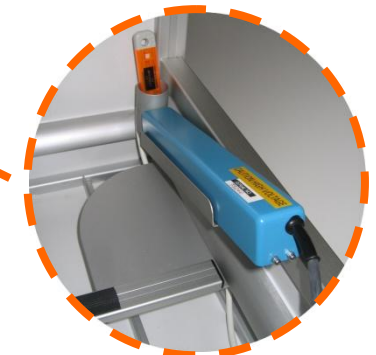
## Integrated Illumination Module (optional)

**TORnado SF91** offers an integrated LED array based illumination module. It can be controlled automatically by the process or manually operated by the user.



## Mains Supply and Tray for Corona

For powering the ESDA, **TORnado SF91** provides a mains supply inside the enclosure. The corona is safely stowed in a convenient tray.



## Shelves for Cascade Developer and TAD

Also consumables as Cascade Developer or the TADs find a suitable storage place inside the **TORnado SF91**.



## Catch Tray for Cascade Beads and Toner

For easier cleaning the catch tray of the **TORnado SF91** can be easily pulled out without lifting the ESDA.

