

Tornado F4 & F5

Contact Web Cleaning

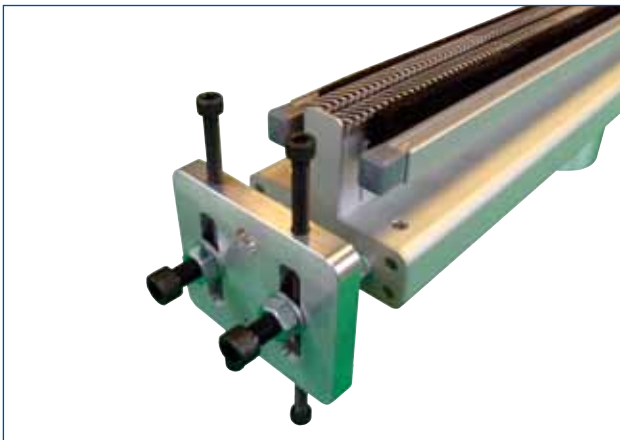
Tornado F4 & F5

Contact Web Cleaning

The Meech Tornado contact web cleaning range includes the F4 and F5 systems. Both systems incorporate Meech's proven contact web cleaning manifold combined with either a compact extraction unit or vacuum fan unit.

The Tornado manifold includes highly polished stainless steel faceplates which create turbulence to break the boundary layer, twin ionising bars to neutralise static charges on the web on entry and exit to the manifold and brushes to aid break up of the boundary layer.

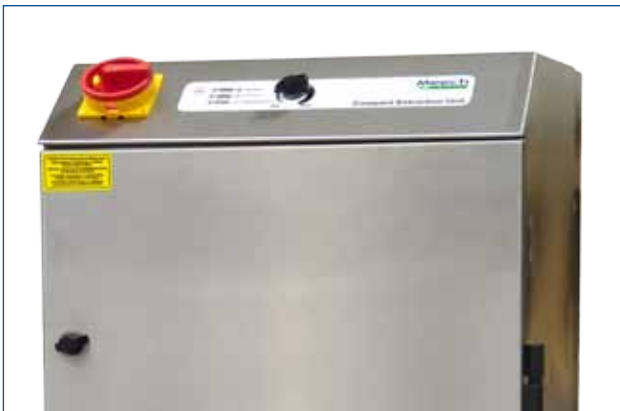
The Tornado manifold is available in two designs; either a 'T' or 'I' profile, which can be selected depending on available installation space.



Tornado 'T' Profile manifold showing faceplates and ionising bars.

With hundreds of Tornado contact web cleaning system installed globally, existing users include:

- | | |
|---------------------------|-------------------------|
| ■ Agfa Dotrix | ■ Komori Chambon |
| ■ Amcor | ■ Ko-Pack International |
| ■ Autoliv (Airbags Int'l) | ■ LEC Refrigeration |
| ■ Colgate | ■ Mark Andy |
| ■ Edale | ■ Gascogne Paper |
| ■ Essel Propack | ■ Saueressig |
| ■ Gallus / Arsoma | ■ SIG Combibloc |
| ■ Hansol Paper Company | ■ Smurfit Kappa |



Compact Extraction Unit variable vacuum control and filter condition status. Supplied with F4 System.



Vacuum Fan Unit outlet silencer and collection bag supplied with F5 System.

Applications

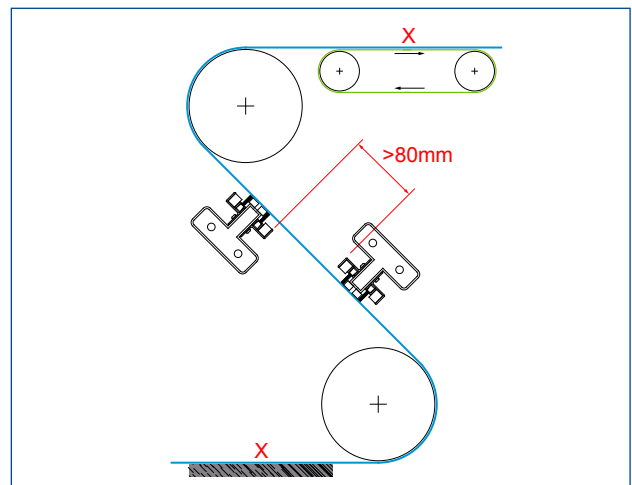
Tornado can be used in a wide variety of applications where contact cleaning is required.

Typical applications include:

- Printing
- Labelling
- Laminating
- Coating
- Slitting & winding
- Corrugating
- Food and medical packaging
- Paper making and converting
- Wood/furniture and flooring
- Automotive

Installation

The Tornado manifold/s can be installed on a web travelling at any angle without jeopardising cleaning performance. The manifold/s should be installed between rollers (typically no closer than 100mm/4") in an area where the web remains under tension. If the system is double sided, the manifolds should be spaced by a minimum of 80mm/3". The web must be in free air, i.e. away from rollers, conveyors or the machine bed.



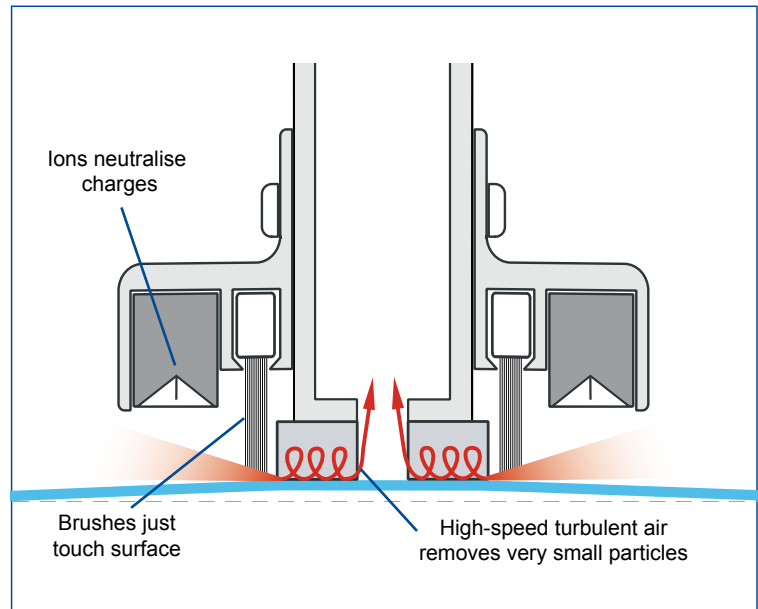
Unique Design Benefits

The Tornado web cleaner head is constructed from extruded aluminium and stainless steel, providing a highly rigid and compact system that can be easily installed in most applications. Based on our unrivalled experience, we have included several unique features:

- Two vacuum control faceplates that give complete coverage of the web, create highly turbulent airflows and concentrate the vacuum to remove contaminants with a very high degree of efficiency.

- Face plates are machined from stainless steel with rounded edges and are highly polished to prevent scratching or damage to the web.

- Ionisation – The cleaning head incorporates two Meech anti-static bars. The first bar neutralises the web as it enters the web cleaner to release any dust held by an electrostatic charge. The second bar neutralises the web as it exits so that dust is not re-attracted to the web.



- Brushes – The boundary layer associated with a moving web isolates small particles on the surface from external air flows. The brushes on the Tornado destroy this layer to enable effective removal of the smallest particles.

F4 & F5 Specifications

The Tornado manifold is constructed from anodised extruded aluminium making it highly rigid and suitable for single manifolds to span web widths up to 3,900mm/153”.

The following table shows the size differences between the F4 and F5 systems.

System	Extraction Model	Single or Double Sided	Min Web Width	Max Web Width
F4	Compact Extractor	Single	150mm/6”	2,100mm/82”
F4	Compact Extractor	Double	150mm/6”	1,050mm/41”
F5	Vacuum Fan	Single	2,110mm/83”	3,900mm/153”
F5	Vacuum Fan	Double	1,060mm/42”	3,900mm/153”

Filtration

Excellent filtration is paramount in any web cleaning system. The Tornado range has the following filtration levels as standard:

- Tornado F4 - F8 media efficient to 90-95% at 0.4micron, washable filter.
- Tornado F5 - 5 micron as standard (can be upgraded to 1micron), re-useable filter.

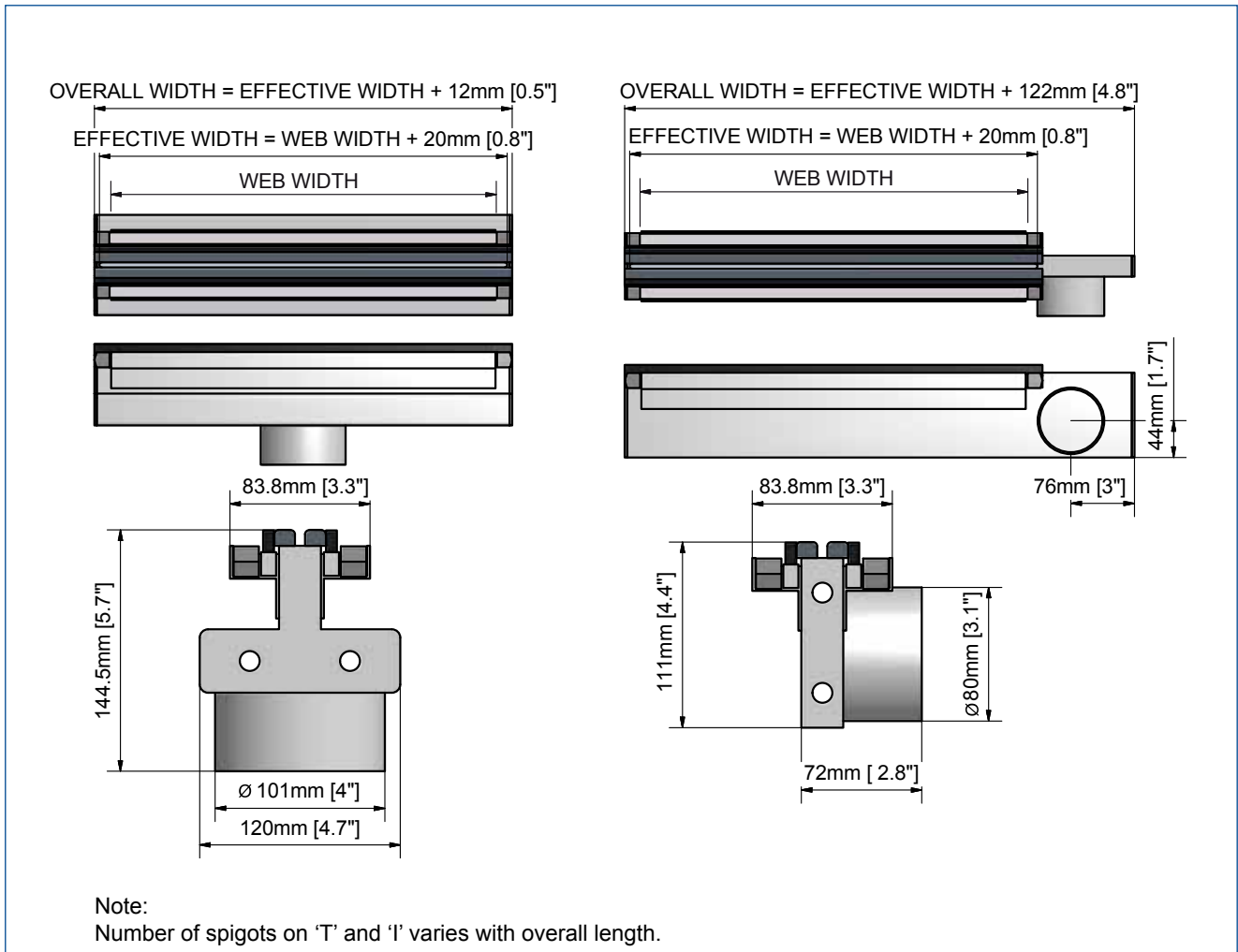
Options

Tornado systems can be manufactured to include a range of options including:

- Vacuum fan pre filters to allow fan discharge air to be exhausted to atmosphere.
- Cyclonic dust collection unit.
- Acoustic enclosures to provide very low vacuum fan noise levels.

Tornado Sizing and General Assembly

The Tornado manifold is available in 'T' and 'I' profiles shown in the drawing below.



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