

NATO Radial Composite Filter

CBRN Filter (300 m³/hr) for use on
Military Ships, Buildings & Shelter Systems



As part of our ongoing commitment for improvement and development, Emcel have progressed our range of the latest generation NATO radial flow combination filter to perform in accordance with Edition B Version 1 AEP54 (2014). This performance standard is recognised as the latest NATO specification for Collective Protection equipment, incorporating the threat of TICs / TIMs (Toxic Industrial Chemicals / Materials), as well as traditional CWA (Chemical Warfare Agent) Threat.

Emcel have undergone extensive third party testing to ensure that we have a Radial Filter design that is AEP54 Compliant and is identical in interface, dimensions and pressure drop range to the now technically obsolete STANAG 4447 filter, which continues to be offered by Emcel as an option. Emcel are currently supplying the Radial filter to both standards across the globe subject to customer's requirement for either STANAG 4447 or AEP54 (STANAG 4634).

Options are outlined below:



STANAG 4634 (AEP54) Filter Specification

Airflow	300 m ³ /hr
Dimensions (mm)	544 OD x 259 H mm
NSN	4240-99-615-7252
Casework	Stainless Steel Casing and End Caps
Weight	No more than 30 Kg nett
Pressure Drop	Nominal 1250 pa @ Rated Flow
Performance	AEP54 Edition B Version 1 AEP54 Gas Test Compliant AEP54 Compliant for all gases at essential and desirable levels.

STANAG 4447 Filter Specification

Airflow	300 m ³ /hr
Dimensions (mm)	544 OD x 259 H mm
NSN	4240-99-155-6536
Casework	Stainless Steel Casing and End Caps
Weight	No more than 30 Kg nett
Pressure Drop	Nominal 1250 pa @ Rated Flow
Performance	STANAG 4447 Edition 1



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Emcel's CBRN Filtration Range:

- ◆ Manufactured under strictly controlled environmental conditions.
- ◆ All filters are supplied fully factory tested to recognised industry standards.
- ◆ All CBRN filter designs including the NATO Radial filter, have been independently tested to meet the gas test requirements of STANAG 4447 or AEP 54
- ◆ All packaging including retail trade packaging, suitable for long term storage with shelf life of 10 years.
- ◆ Emcel have supplied our filters globally to both standards, servicing Navies across all continents.
- ◆ Continuous development programme at Emcel, looking at novel / new materials for adsorbent and particulate CBRN filtration requirements for a number of applications
- ◆ Emcel are familiar with Export Controls and Regulations, with a history of obtaining Export licences across many destinations
- ◆ Small / Large Batch Quantities available
- ◆ Emcel can offer a range of Training or Dummy filters for system commissioning purposes (see below)
- ◆ In addition to our CBRN range, Emcel have many HVAC solutions for dust and odour / vapour control
- ◆ Please contact our Technical Sales on + 44 (0)1403 253215, to discuss any of the available options from Emcel



Dummy / Training Filters

These filters can be utilised to train ship staff for CBRN filter operation. Whilst these filters do not have any CBRN protection, the sizes exactly meet the CBRN NATO Radial and other options include:

- Weighted to CBRN filter
- Pressure Drop to replicate CBRN Filter (Citadel Overpressure)
- HEPA / Dust Filtration for Peacetime operation
- Text in multi / different languages

These options allow the system to run normally when CBRN protection is not required, potentially saving lifetime operation of CBRN filters

EMCEL have been involved in the design and development of CBRN type air filters for more than 30 years. The large majority of military filters that EMCEL manufacture are for Collective Protection of personnel against Nuclear, Biological and Chemical threats within Ships, Vehicles, Buildings and Shelters. However, in recent years CBRN specialists have identified an increased threat using TIC's (Toxic Industrial Chemicals) and TIM's (Toxic Industrial Materials) and it is with this in mind that EMCEL have embarked on a strategic programme of development in filtration to encompass this. Please contact our Technical Sales Team for any further information.



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