

SME Deep Bed Filtration



- ü Low Pressure Drop:
 - Stabilises system pressure for production reliability
 - Energy saving
- ü Low Maintenance, Long Life (8-15 years) Elements
- ü Compact Design

**DEEP BED FILTRATION FOR YOUR COMPRESSED AIR
SYSTEM**

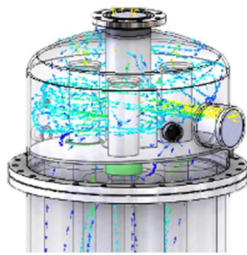
Carnot Deep Bed Compressed Air Filtration

The Carnot Separating Mist Eliminator (SME) unit is "best of breed":

- Inertial Pre-cleaner with its own drain point protects elements
- High efficiency with long life filter elements
- Low height for a deep bed filter.
=> Easy installation and maintenance
- Flexible piping orientations.

Inertial Pre-cleaner

Designed using Computer Flow and particle Modelling



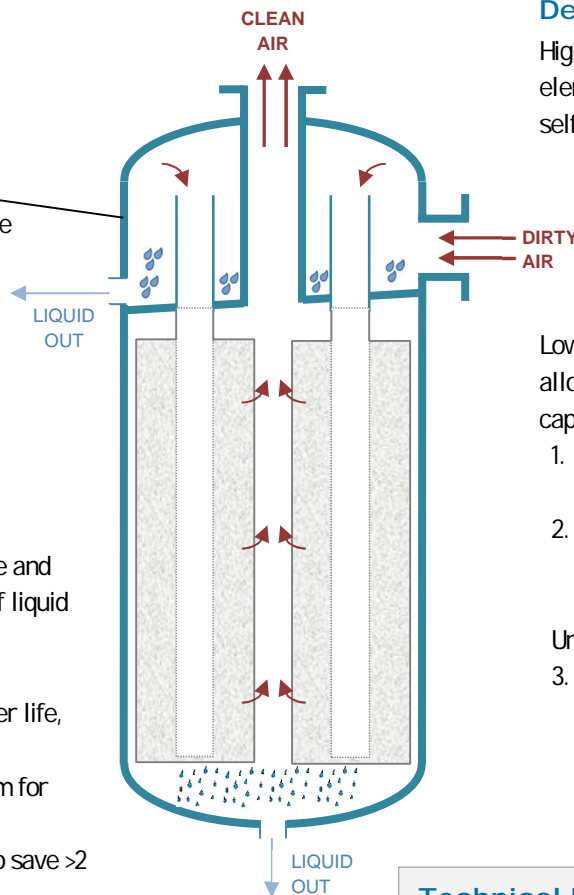
- Pre cleaner swirl extends element life and protects them from damaging slugs of liquid that can occur in an air system.
- Low pressure drop <7 kPa -20 kPa over life, 30% of other filters:
 - ü More stable pressure downstream for production reliability.
 - ü Allows lower pressure settings to save >2 %compressor power.

Applications

Suits end users who demand a reliable, energy efficient, long life and low maintenance product.

When used upstream of compressed air dryers helps to protect:

- The heat exchange surfaces of refrigerated air dryers from fouling
- The bed material of desiccant dryers from oil contamination
- The life of any other filtration used after the dryer
- Downstream compressed air using equipment and processes.



Long Life, High efficiency Deep Bed Filter Elements

High performance deep bed filter elements have a large surface area and self-clean as they drain.

8-15 year element life
Low Maintenance
No annual element replacement.

Low internal filter element velocities allows high filtration efficiency using 3 capture mechanisms:

1. Direct capture of >3 micron particles.
2. Inertial impact of 1-3 micron particles and droplets

Unique to deep bed filters

3. Brownian motion interception of sub-micron aerosol droplets

Technical Data

Designed and manufactured in Australia to AS1210

Max Operating Pressure	10.3 bar _g
Max Operating Temp	90 °C
Overall height	1 985 mm
Length	965 mm
Width	930 mm
Air Inlet/Outlet	DNI50 ANSI B16.5

Filtration Efficiency

Particle size micron	Removal %	Oil mist Loading ppmw	Oil mist Carryover ppmw
0.1	99.98	0 -100	< 0.5
1.0	99.99	100 - 600	< 1
> 3	100	> 600	1-3

Approximately Class 2. -. 3 to ISO 8573-1 2010

Maximum Flow Rate Vs Pressure

PRESSURE bar _g	4	5	6	7	8	9	10
FLOW Nm ³ /min	58	70	82	93	105	117	128



The Carnot SME34 Filter

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