



HYVENT
SILO VENTING FILTER UNIT

SILO VENTING FILTERS

PRODUCT INTRODUCTION

Hycontrol's **Hyvent** dust collector and filter unit is specifically designed to vent silos during the filling process without allowing valuable powdered product to escape. Product is filtered from the air during both the conveying period and the air surge at the end of the cycle. The filter is self-maintaining, returning product back into the silo via an automatic reverse-jet pulse cleaning system which utilises compressed air.

This filter unit features the latest technology in conical-shaped filter design. This patented cone shape provides outstanding cleaning efficiency while enabling maximum airflow through the unit, and has the added benefit of increased life for the cartridges. The filter has a rugged weatherproof construction and is built for safe and simple maintenance.

Hyvent has been designed to the latest guidance from the Mineral Products Association (MPA) and to meet HSE guidelines on the prevention of over-pressurisation of storage silos during deliveries. It complies fully with environmental emission standards and is capable of filtering all types of powders. **Hyvent** forms an integral component of Hycontrol's award-winning, advanced **Silo Protection System (SPS)**, providing the ultimate defence against the dangers of overfilling and over-pressurisation in powder silos.

BENEFITS AND FEATURES

- ▶ Low-maintenance reverse jet cleaning
- ▶ Conical cartridge technology for greater efficiency
- ▶ Latest spun-bonded polyester filtration media
- ▶ Reduced dust entrainment with better cleaning separation
- ▶ Safe, hinged weatherproof cover with lockable snap hook
- ▶ Robust, corrosion-resistant construction
- ▶ Simple, fast replacement of filter cartridges
- ▶ No scaffolding required for cartridge removal
- ▶ 21m² or 24½m² (226 ft² / 263 ft²) filter surface area
- ▶ Durable 304 Stainless Steel body
- ▶ Small silo-top footprint for space-restricted installations
- ▶ High filtration efficiency - better than 5mg/m³



TECHNICAL SPECIFICATIONS

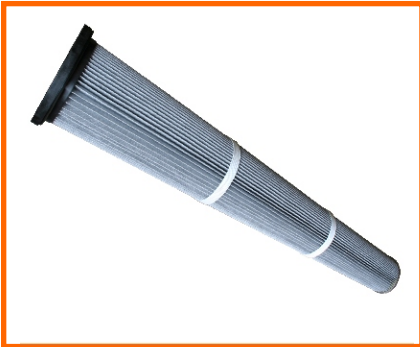
Filter Reference	Hyvent
No. filter cartridges	6 or 7
Filter area (m ²)	21.0 or 24.5
Filter media (standard version)	Polyester
Nominal duty – normal dusts (m ³ /hr)	1250
Filter velocity – at stated duty (m/min)	0.99
Electrical input options (standard AC)	230 / 110vAC – 50 or 60 Hz
Solenoid coil voltage (standard DC)	24vDC
Filter weight (incl. std packing)	102kg
Filter weight (unpacked)	92kg

*** Please note that for special applications the above data may vary.*

The Hyvent unit requires an adequate supply (approximately 11.7m³/hr) of clean, dry and oil-free compressed air. Contaminated air will cause malfunction and reduce the life-span of the filter media. Operating pressure for the air supply is 5.0 - 6.0 barg (maximum 6.5 barg).

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PRODUCT HIGHLIGHTS



Uniquely designed, conical-shaped polyester cartridges provide enhanced filter surface area in a compact space.

The design maximises the amount of product returned during air cleaning, resulting in longer filter life.



A powerful, automatically-operated reverse pulse cleaning system is built into the underside of the weatherproof lid.

The compressed air jet purges the filters, allowing free-flowing air and returning valuable product back into the silo.



The heavy-duty weatherproof lid can be locked in both closed and upright positions with a simple sliding bolt mechanism.

This provides the user with both safety and ease of access when servicing the unit or changing the filtration cartridges.

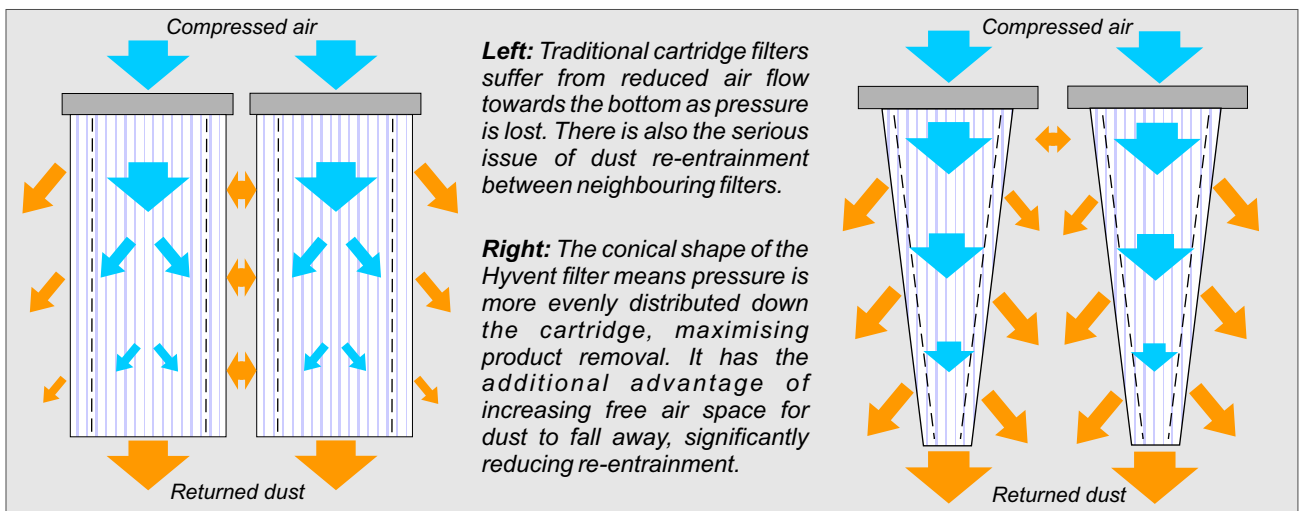
CONICAL FILTER ADVANTAGES

The conical cartridges utilised in the Hyvent unit offer many advantages over traditional cylindrical cartridge or bag filters due to their compact design, higher filtration efficiency and superior pre-separation of dusts. The tapered shape allows increasing separation from top to bottom between the filter elements inside the unit resulting in reduced up-stream air velocities, increased pre-separation and lower dust re-entrainment.

The inner core of the filter elements are also tapered, enhancing the effectiveness of the compressed air jet and giving a more even clean over the length of the cartridge.



As shown in the illustrations below, this unique design means that 82% of the area at the inlet chamber of the filter unit is free, as opposed to a typical 59% when using cylindrical elements. This results in lower upward air velocities at this point, increasing dust separation. These features mean the filters have a longer functional life and offer a higher consistency of performance.



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PRODUCT DIMENSIONS

