



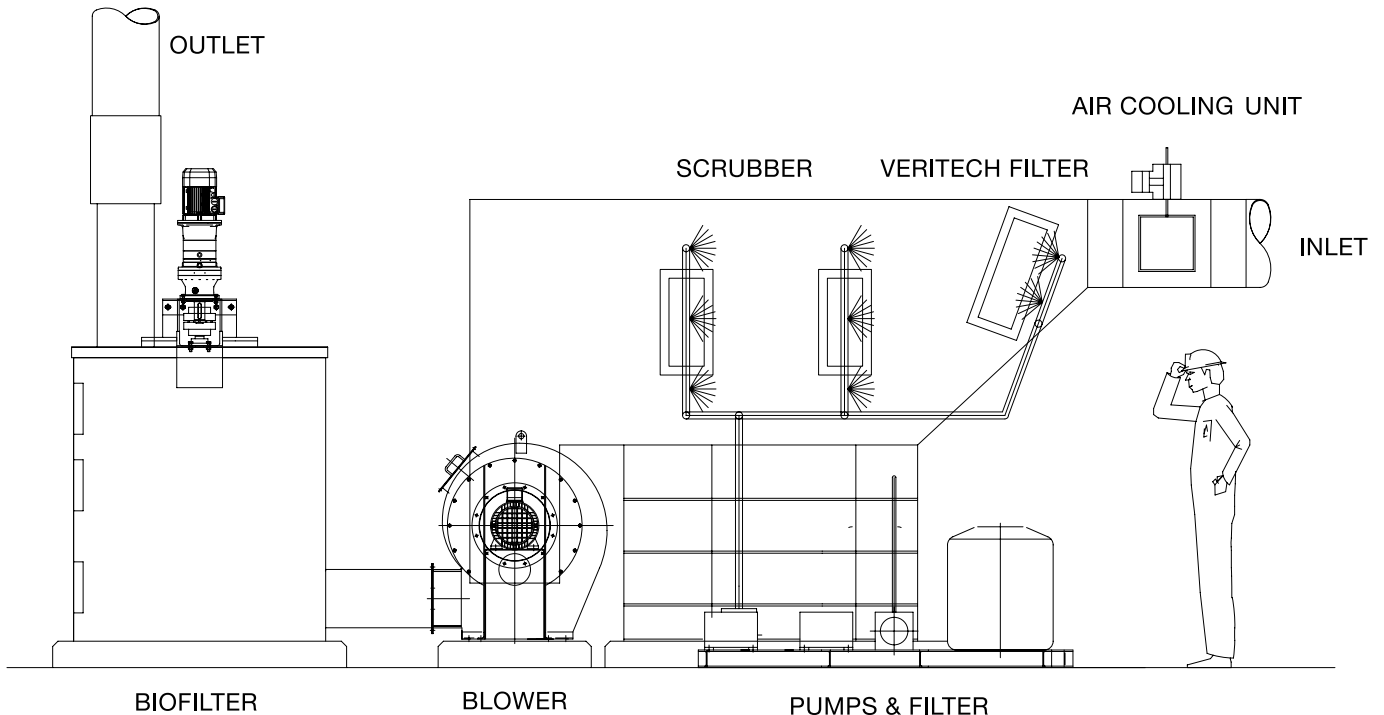
BBR Enviro Systems

Odour Control

BBR R-Series

we clean air.





Typical Section

BBR Enviro System's R-series was developed for treating odours from food waste rendering plant applications, typically comprising:

- Total Reduced Sulphur compounds (sulphides and mercaptans)
- VOC's including aldehydes, ethylamine, organic acids and PAH's
- High ammonia concentrations

Typically, these emissions must first be cleaned of fats and particulates before the cocktail of odorous compounds can be removed by a combination of wet scrubbing and biofiltration.

The R- series uses a three phase approach for the removal of these pollutants:

Phase 1 – Veritech Filter

- Fats and particulates are removed through mechanical filtration.

Phase 2 – Wet Scrubbing

- Soluble pollutants (mostly ammonia) are absorbed into the scrubber brine and oxidised to harmless by products.

Phase 3 - Biofiltration

- VOC's and TRS's are oxidised by bacteria to form a harmless bio-sludge. The bio-sludge waste falls to the bottom of the filter and is drained away from the plant on a continuous basis.
- The media's humidity is controlled to optimise phase transition of pollutants.

The R-series is the smallest and most cost effective system available for its application. This is mainly because we combine three processes into one system, thereby targeting specific pollutants more effectively:

1. Wet scrubbing is a very efficient way of removing ammonia from an air stream.



2. Our patented fluidised-bed biofilter has many times more active surface area per unit volume than the most efficient static bed biofilters.
3. Our patented Veritech filter is proven to be the most efficient fat filter available, thereby ensuring that the downstream processes are not clogged by fat.

Other advantages include:

Replacement of the Biofilter media is not necessary.

- The media consists of inert PVC pellets, which provide a growing surface for the bacteria. It does not compact or decompose.
- There is no deterioration of the active biomass over time, because waste bio-sludge is removed from the media on a continuous basis.

Operational feedback and maintenance contracts are available.

- All operational parameters can be monitored via our website.
- We offer an operation and maintenance service on all of our systems.

System Requirements:

Power Supply: 380V AC

Water Supply: 3/4" connection to potable or clear effluent supply (minimum 3 bar).

Sulphuric acid (H₂SO₄) consumption: Varies between 0.3 to 1.5 litre/10,000m³ of air treated and is dependant on the ammonia concentration.

Wastewater drain: 110mm sewer connection or similar

Spatial:

Model	Capacity	Footprint	Height
BBR3000W	3,000 m ³ /hr	6 x 2.5 m	2.5 m
BBR6000W	6,000 m ³ /hr	6 x 5.0 m	2.5 m
BBR12000W	12,000 m ³ /hr	6 x 7.5 m	2.5 m