

# ERG's DryCat System for Odour Control

**ERG (Air Pollution Control)'s DryCat System matches odour treatment to odour source**

This tailor-made solution uses well-established odour control building blocks to treat odour problems. The DryCat System is technically optimised, with low capital and operating costs.

## Key benefits

- Low capital cost and low running costs
- No chemicals on site – operator friendly
- Compact design – optimised footprint
- Outlets to <50ppb H<sub>2</sub>S so stack height not an issue
- Small biofilter so easy to maintain
- CIF and biofilter bed life 3-5 years
- Impregnated carbon filter bed life >1year
- High room ventilation rates only add a small increment to capital and running costs



## Units installed and operating successfully at

- **Southern Water**  
Tunbridge Wells STW
- **South West Water**  
Dawlish STW, Sidmouth STW and Cornborough STW
- **North of Scotland Water**  
Dingwall STW
- **Yorkshire Water**  
Whitby STW
- **Anglian Water**  
Boston STW and Ingoldmells STW
- **West of Scotland Water**  
Oban STW, Rothesay STW  
Campbeltown STW and Helensburgh STW
- **Welsh Water**  
Felinfach STW

**For more details of ERG (Air Pollution Control) Ltd's DryCat System and other Odour Control Systems, contact James Scott-Bowden or David Lorberg.**

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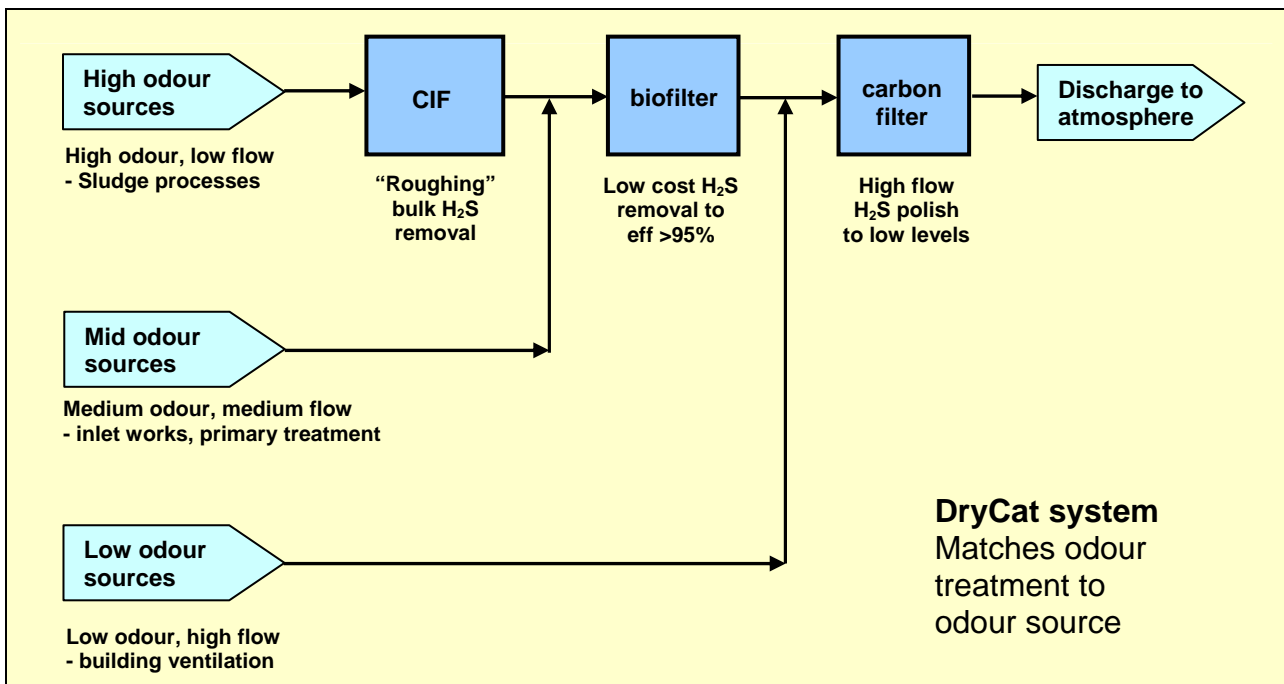
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# ERG's DryCat System for Odour Control

## Unit operations – the building blocks

The DryCat System comprises at least two of the three basic “building block” equipment items. In all cases, the equipment selection and sizing is matched to the site requirements.

- **Catalytic Iron Filter (CIF)**
  - rusting iron media removes H<sub>2</sub>S in one or two stages to efficiencies of 50-80%
  - used for bulk removal of high H<sub>2</sub>S loads (50-500ppm) in small gas flows (typically less than 3,000m<sup>3</sup>/hr)
  - ideal for treating highly odorous air flows from sludge tanks, sludge presses, imported/exported sludge pumping stations
- **Biofilter**
  - cost effective method of removing H<sub>2</sub>S to good efficiency from medium air flows
  - traditional peat and heather technology – well proven
  - cheap to install and operate
  - protected from damaging peak H<sub>2</sub>S loads by the CIF
  - assured outlet H<sub>2</sub>S concentration by carbon filter
  - ideal for treating medium-odour air from preliminary and primary treatment areas
- **Impregnated carbon filter**
  - caustic impregnated carbon to polish H<sub>2</sub>S to <50ppb and mercaptans to <100ppb
  - guaranteed boundary levels in ppb H<sub>2</sub>S or OU/m<sup>3</sup>
  - cheap to run as the majority of the H<sub>2</sub>S is removed by the upstream CIF and biofilter
  - bed life designed to suit site requirements, typically >1year
  - ideal for treating general ventilation air from process buildings



## Case study - Rothesay STW

Flowrate = 12,500m<sup>3</sup>/hr air, inlet H<sub>2</sub>S concentration = peak 135ppm, average 60ppm, guaranteed stack H<sub>2</sub>S concentration = 300ppb, design H<sub>2</sub>S removal efficiency = 99.2%  
The DryCat System was installed for approx 75% capital cost of a wet chemical scrubber.  
The DryCat System operating cost is estimated at £9k/year, compared to a wet chemical scrubber (using caustic and bleach) operating cost estimated at £23k/year, a saving of £14k/year or 60%.



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