Water Regenerable Carbon Filters

Odour Control in the Middle East

Technology for a sustainable future

ERG's Water Regenerable Activated Carbon Filters are specially designed for Sewage Odour Control in the Middle East.

All our systems come with a performance guarantee backed by more than 30 years of experience successfully treating municipal odours around the world.

Features

The water regenerable carbon is a high activity, non-impregnated activated carbon designed especially for specific removal of H_2S and mercaptans in sewage treatment applications.

Each water regenerable carbon filter is filled with catalytically enhanced, coal-based activated carbon pellets or granules. This water regenerable carbon is a unique product that it is made without the use of chemical impregnation to the surface of the carbon.

The water regenerable carbon removes H_2S by using catalytic activity rather than impregnated chemicals. This eliminates the potential heat build-up caused by the presence of impregnates.

H_2S removal capacity can be restored simply by washing with water in place of the hazardous chemicals used with impregnated carbon.

Typical Applications

ERG offers a competitively priced range of regenerable carbon filters for treatment of sewage odours from:

- pumping and lift stations
- inlet works and primary treatment
- filter press rooms
- sludge tanks and sludge treatment areas
- complete sewage treatment works

ERG also offers a range of air pollution control and odour control systems for industrial applications.

Contact our Middle East office for further details:

T +962 6554 3510
F +962 6554 3511
W www.ergapc.co.uk
E yousif.alshafie@ergapc-me.com
E richard.hanson@ergapc-me.com

ERG www.ergapc.co.uk

Water Regenerable Carbon Filters

Odour Control in the Middle East

Technology for a sustainable future

Key benefits of ERG's water regenerable carbon filters

- High removal efficiency of H_2S, mercaptans, and other odours
- Outlet H_2S concentrations <50-100 ppb
- Odour polish to <200-500 ou_E/m^3
- Filters to treat 200 to >100,000 m^3/hr air
- Low pressure drop <500 Pa
- Regeneration period and bed life designed to suit requirements
- Ideal for inclusion as polishing filter
- Designed for high humidity operation
- Vessels supplied in PVC/GRP or GRP
- Integrated systems with ductwork, fans and controls

Carbon Regeneration

After breakthrough of H_2S is detected, carbon media can be regenerated *in situ* by simple water washing. The water washing effectively reduces H_2S to a dilute sulphuric acid stream. The quantity of water required is typically 3 to 5 times the volume of carbon in the filter. Wash frequencies depend on the filter size and the inlet H_2S loading - typically 3 to 12 months are designed for.

Operating Cost

The carbon is suitable for 5 to 8 regeneration cycles before carbon replacement is required. This compares with a traditional caustic impregnated carbon filter which would need to be replaced after first breakthrough.

The operating costs of the system using water regenerable carbon are 75% lower than odour control system using conventional impregnated carbon.

Carbon media

Pelletised water regenerable carbon typical characteristics:

parameter	units	value
H_2S capacity	g H_2S/cm^3	0.28
surface area	m^2/g	800
butane activity	%	27
density	kg/m^3	470
moisture content - as packed	%	2
total ash content	%	6
hardness number	%	97
particle diameter	mm	4

ERG

ERG (Air Pollution Control) Limited
Enviro-centre Enterprise House
Foundry Lane Horsham
West Sussex RH13 5PX UK

T +44 (0)1403 221000
F +44 (0)1403 221001
E info@ergapc.co.uk
W www.ergapc.co.uk