



■ Fact sheet

Cost-effective condensate processing

Where compressed air is produced by means of oil-lubricated compressors, there is always oil-contaminated condensate to be dealt with. Such condensate must not be disposed or through the foul drain without being treated first. Compared with having this treatment performed by an external service provider, on-site oil/water separation using suitable equipment is much more cost-effective, reducing the disposal costs to less than 10%.

In such separation systems, the oil contained in the condensate is removed by an adsorption filter. When this filter is saturated, which is about every six months, it must be replaced with a new one. This means that, over the service life of an oil/water separator, a considerable number of filters need to be disposed of.

It is therefore important that the absorbent used in the oil/water separators is not only extremely efficient, but also environmentally friendly.

Advanced technology

The OEKOSORB filters of the ÖWAMAT® 10 to 16 models are the result of many years of research and development and represent the best technical solution currently available on the market. Whilst the previous generation of filters worked with activated carbon, the new types are made from a high-performance adsorbent that causes no harm to the environment.

Environmentally friendly from production to disposal

In the production of conventional activated carbon, various materials such as timber, turf, nut shells as well as lignite and anthracite are heated to temperatures of up to 1000°C. This requires a lot of energy, and substantial amounts of carbon dioxide are released into the atmosphere.

In contrast, the energy required for the production of the OEKOSORB adsorbent, less than 20% that for activated carbon.

In addition, the specific adsorption capacity of the innovative OEKOSORB material is 200 to 400% greater than that of activated carbon. This significantly reduces the volume of the waste filter material to be disposed of.

Recommendation

Global Warming Potential is a relative measure of how much heat a greenhouse gas traps in the atmosphere.

The CO₂ equivalent of activated carbon is 0.96. This means that the contribution to global warming of one kilogram of activated carbon is five times greater than that of the OEKOSORB absorbent.

CO ₂ emissions during production	
Activated carbon	0.96 kg CO ₂ / kg _{adsorbed oil}
High-performance adsorbent of ÖWAMAT® 10 to 16	0.19 kg CO ₂ / kg _{adsorbed oil}
Environmental impact of activated carbon compared with ÖWAMAT® adsorbent	505%

The ÖWAMAT® 10 to 16 therefore makes both commercial and ecological sense.