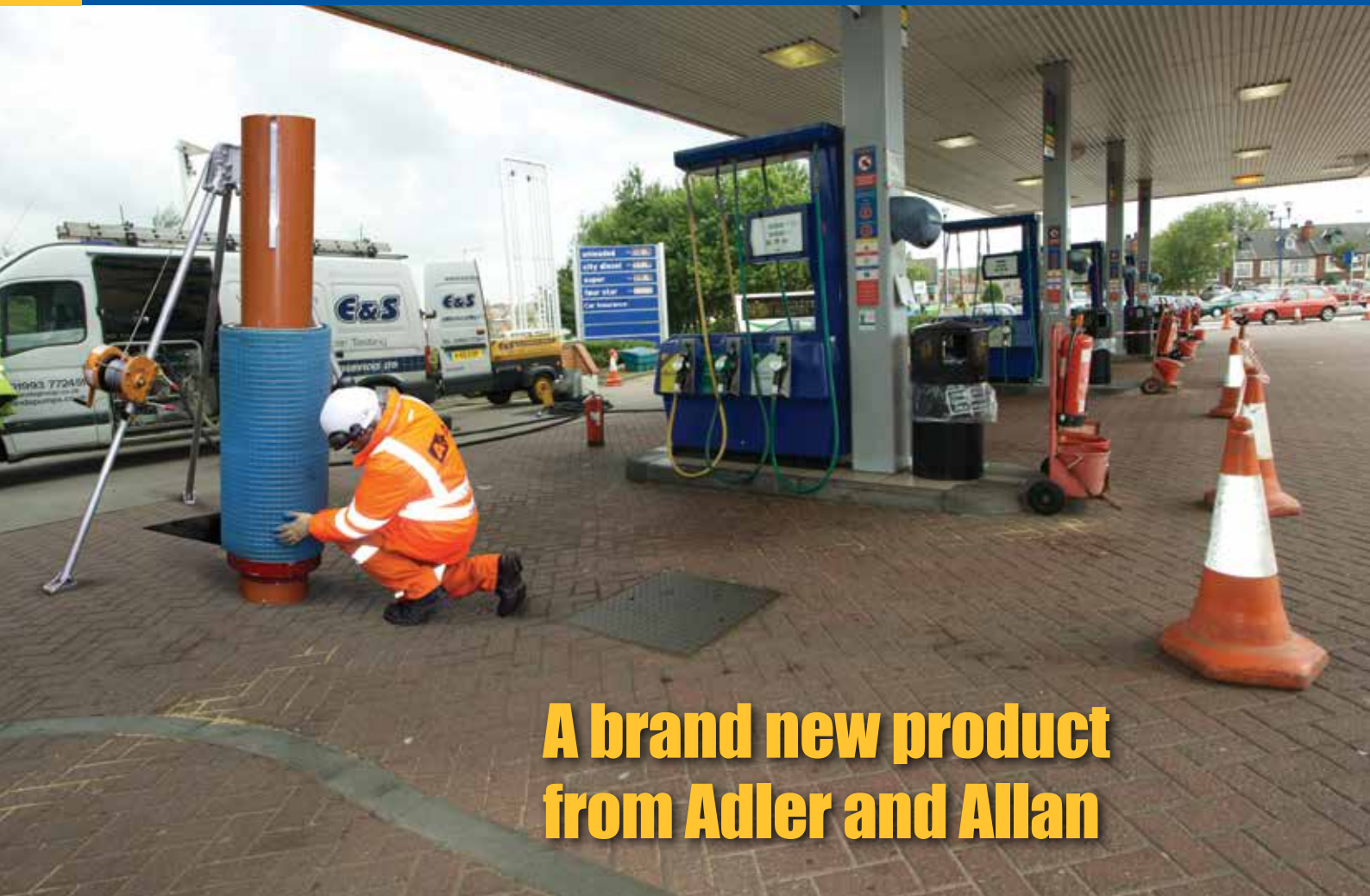




Adler and Allan  
Forecourt Services

# Ethanol Coalescing Filter

## Supply and Installation Services



**A brand new product  
from Adler and Allan**

- Designed to remove ethanol and the BTEX pollutants
- Meets EA guidelines
- Reduces the risk of pollution
- Supply and installation service available



An AdlerandAllan Company

# An innovative new filter that removes ethanol and BTEX from surface water discharged from separators.



## The Dangers of Ethanol and BTEX.

All liquid hydrocarbon fuels comprise of Aromatic and Cyclic compounds which include the BTEX elements (Benzene, Toluene, Ethylbenzene and the Xylene isomers). Any spillage from these biofuels can result in the release of the BTEX compounds into the environment through the discharge of water.

### Is Benzene Dangerous?

Benzene may cause cancer and genetic damage and is considered to be the most harmful component; it is also the most volatile and water-soluble of the BTEX compounds.

The UK Environment Agency aims to ensure that there is no appreciable risk of these effects from environmental exposures.

**Benzene is one of the eight substances for which the government has established a quality standard as part of its national Air Quality Strategy. In order to comply with environmental legislation, systems must be put in place to prevent discharge of contaminated water resulting from biofuel spillage.**



## Existing coalescing filters in separators and interceptors do not prevent BTEX from entering the environment through surface and groundwaters.

### Today's biofuel formulations.

Unlike traditional fuels the bio-elements, especially the alcohols, ethanol and methanol, are infinitely soluble in water and added to this is the problem that they pull down BTEX elements and other aromatics into the water phase, thus enhancing the contaminant concentrations in the water phase due to the co-solvency effect.

Adler and Allan's patented new Ethanol Coalescing Filter fits to your present separator without any requirement for modification or alteration. Our supply and fit service makes it easy to arrange to satisfy EA guidelines.

## Forecourt Test Results

Sampling of 10 UK forecourt sites in 2013 found the following levels of ethanol and BTEX content in separators.

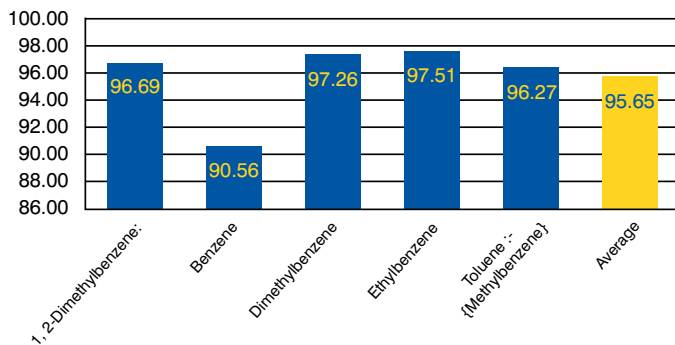
10 Sample Sites	Average All Sites	Worst
<b>Analyte</b>	<b>Units ug/l</b>	
<b>Ethanol</b>	<2000	<2000
1,2-Dimethylbenzene : {o-Xylene}	15.68	137
<b>Benzene</b>	3.29	17
Dimethylbenzene : Sum of isomers (1,3- 1,4-) : {m+p xylene}	28.90	268
Ethylbenzene	6.52	60.1
<b>Toluene :{Methylbenzene}</b>	42.33	340

## Independent Test Results

Performance tests undertaken have validated the efficiency of the Ethanol filter system for both ethanol and BTEX removal. Tests took place throughout 2013 and the results were analysed by the National Laboratories under the Environment Agency's MCERTS certification.

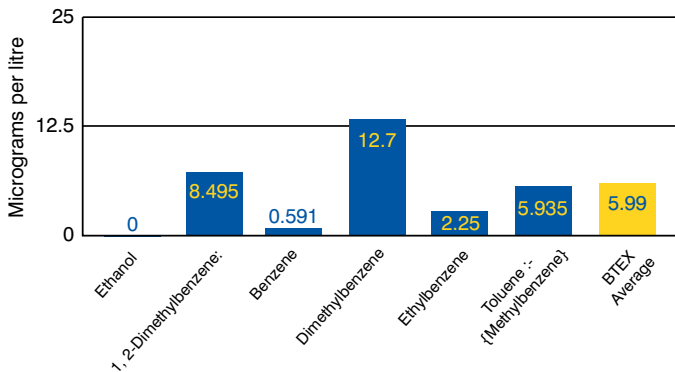


Percentage Reductions



The initial results from the live site test shows discharge levels of less than 1 microgram per litre (ug/l) for Benzene and an average for all of the BTEX elements of less than 6 ug/l.

Test Results from Live Site



## The Forecourt Solution Service Package

- Flexible contract periods - 1 or 5 year service contracts. Our programme is designed to protect you from the risks associated with Separator Systems, whilst adopting a regime where emptying is only carried out when needed so reducing the waste management costs.
- We offer a complete audit service to establish the condition of the separator, the filter the ACD, oil and silt levels.
- Supply and fit filters and ACD.
- Install remote monitoring alarms.
- Safe and compliant disposal of old filters.



## Who will use the A&A Ethanol Filter?

- Retail Forecourts
- Aviation Fuel Distributors
- Oil Distributors
- Oil Refineries
- Marine Fuel Distributors
- Truck Stops

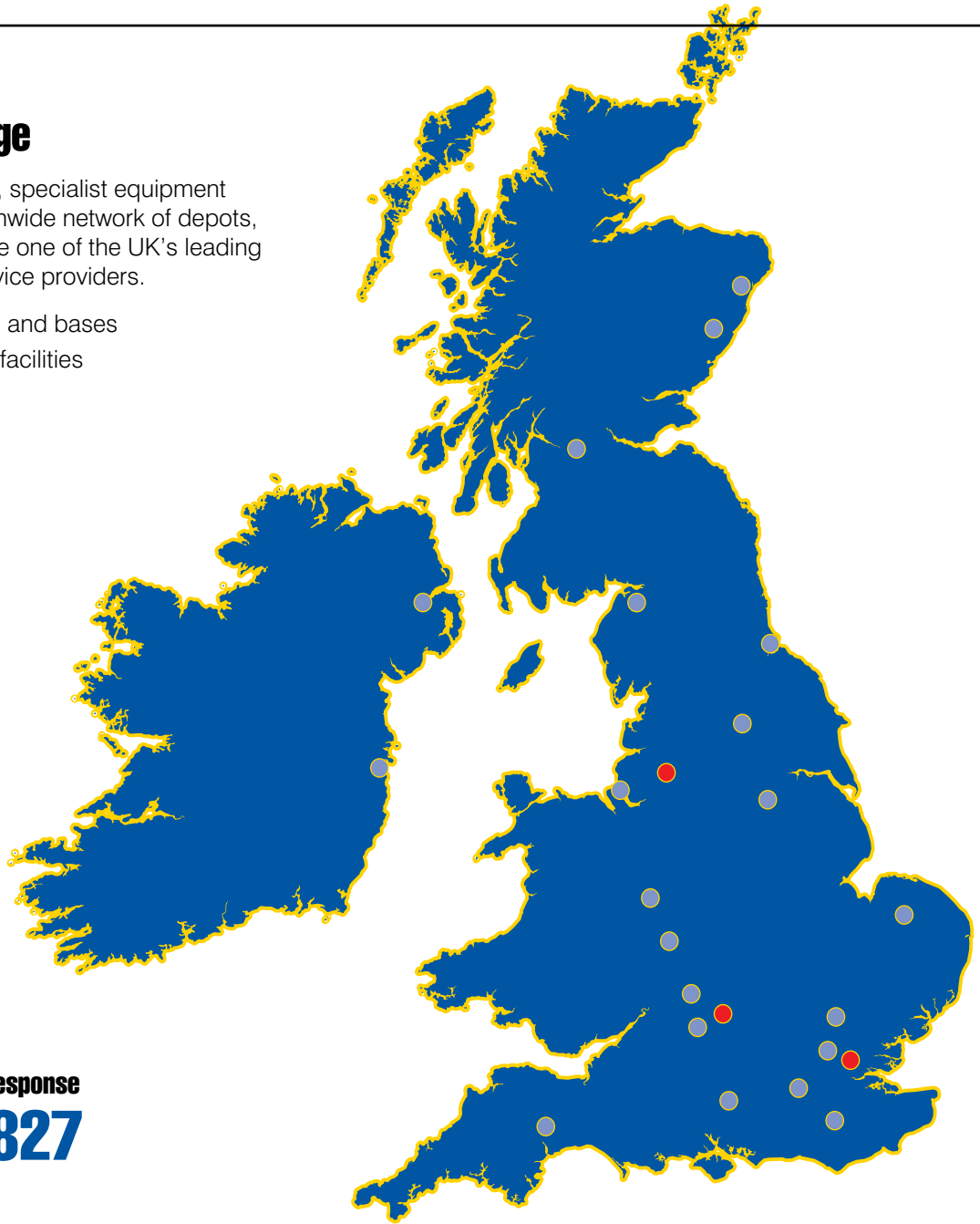
The Ethanol Coalescing Filter is an innovative filtration system which enables your forecourt to meet pollution guidelines and removes 95%\* of all BTEX.

\*On average

## National Coverage

With highly trained teams, specialist equipment and vehicles, and a nationwide network of depots, we have grown to become one of the UK's leading emergency response service providers.

- Adler and Allan offices and bases
- Adler and Allan waste facilities



## 24 Hour Environmental Response **0800 592 827**

### Environmental Services

Fast and effective oil spill response. Compliant and efficient waste management solutions.



### Specialist Fuel Services

Emergency fuel services where you need it, when you need it. Backed up with impressive fuel quality and transfer capabilities.



### Mechanical & Electrical Services

A comprehensive service to tank operators combined with professional oil pollution prevention services.



### Forecourt Services

Advanced fuel solutions and professional petroleum engineering for retail forecourts.

